Department of Veterans Affairs
Medical Center
Wilkes-Barre, Pennsylvania 18711

POLICY 18S-15-346
October 9, 2015

SAFETY AND HEALTH DURING CONSTRUCTION ACTIVITIES

1. SCOPE/EFFECT: This Medical Center Policy (MCP) affects all employees, patients and visitors.

2. PURPOSE:

a. To establish policy and procedures to ensure that construction projects will be planned, coordinated and regularly inspected to ensure compliance with applicable fire, infection control, environmental, security, safety and occupational health regulations and policies.

b. Construction activities shall be defined to include delegated minor, non-recurring maintenance projects and major projects, performed by contractors or purchase and hire personnel, as well as station-level projects performed by contractors, purchase and hire personnel or station Maintenance and Operations (M&O) personnel.

3. POLICY:

a. In order to protect patients, staff, visitors and contractors from safety and health hazards associated with construction activities, this policy is established for the VAMC, Wilkes-Barre and for all property where construction is undertaken. This policy requires that strategies be established to control the hazards inherent in conducting construction or maintenance operations in areas that are occupied by patients, visitors or healthcare staff. These strategies include the assignment of appropriate responsibility at all levels of the organization, establishing and maintaining the necessary expertise to manage an effective construction health and safety program, applying technical guidance and best practices to assist in managing the program and providing a construction safety multi-disciplinary team to oversee and enforce the application of this policy.

b. In addition, it is the intention of this construction safety program to reduce the potential for injury and illness to VA patients, employees and visitors that might result from unsafe construction activities; to increase the level of construction safety expertise of VA employees; to decrease the potential for serious Occupational Safety and Health Administration (OSHA) violations; to provide a guideline for addressing safety-related construction issues; and to reduce the potential for property and liability exposures due to construction-related activities.

c. Proper application of this program will reduce the potential for liability, which could result from construction accidents, life safety deficiencies or infection control failures.

4. PROCEDURE:

a. The medical center has established a multi-disciplinary Construction Safety Committee with representatives from the following areas:

- ☐ Infection Prevention & Control
- ☐ Patient Safety
- ☐ Occupational Safety and Health
- ☐ Police
- ☐ Engineering
- ☐ Local Union Safety Representatives (from affected bargaining units)
- ☐ Contracting
- ☐ Green Environmental Management Systems (GEMS)

b. This multi-disciplinary committee performs the following functions:

(1) Protect patients, visitors, and employees from traumatic injury, as well as occupational and facility-associated infections.

(2) Oversee compliance with OSHA and State construction safety regulations.

(3) Oversee compliance with Environmental Protection Agency (EPA) and state environmental regulations.

(4) Respond to, investigate and report violations of these policies to upper management.

(5) Meets monthly and files reports to the VAMC Safety/Environment of Care Committee quarterly.

(6) Determines the scope and depth of safety, infection control, environmental and security procedures appropriate for all construction work.

(7) Develops threshold criteria for each level of intervention. For example, after review, some projects may require only VA Competent Person surveillance to ensure employee safety and OSHA compliance, while other projects will require all disciplines to be involved.

(8) Ensures submittals for contract construction or renovation work include the names, qualifications, and training dates for the contractors' Competent Person designated to administer the site-specific safety program, as well as the Competent Person for other activities as required by OSHA regulations (such as scaffolds, cranes, excavations, etc.).

(9) Conducts Infection Control Risk Assessments (ICRA). Using the current American Institute for Architects Guidelines, the staff must conduct and document ICRA for all construction projects during the design or planning stage of the work. ICRAs must be documented in writing and focus on eliminating, or minimizing, the risk of infection during construction and renovation activities. The complexity of the ICRA report is determined by the complexity of the threats posed by the construction project.

Assigned VA staff, including resident engineers or project managers for major construction, must maintain compliance during the construction phase of the work.

(10) Identifies Interim Life Safety Measures (ILSMs). Facility Safety and Engineering staff must ensure that ILSMs are implemented on all construction work in accordance with The Joint Commission Environment of Care standards. ILSMs are required when construction activities pose significant temporary Life Safety Code deficiencies or hazards. Each medical facility must have a local policy addressing ILSMs in accordance with The Joint Commission requirements. Implementing ILSMs is the responsibility of the local medical facility and construction contractors in accordance with VA Master Specification 01010, General Requirements.

(11) Participates in all phases of construction work from planning through completion. This includes review and approval the construction plans, contract specifications, and contract submittals related to construction safety and health and any other documents that may assist in the implementation of an effective construction safety program. The Construction Safety Committee must be involved early in the process and continue oversight on a regular basis to avoid costly and disruptive delays.

(12) Ensures the construction safety program includes periodic construction site hazard surveillance activities with appropriate membership, scope, and frequency for each project as determined by the Competent Person, the ILSMs and ICRA reports, Hazard Surveillance deficiencies, type of corrective action, and time and date of correction. Ensures corrective actions are tracked to completion.

(13) Implements procedures to ensure general contractors exercise their responsibility for ensuring subcontractors comply with this safety and health policy, and all other related contract requirements.

(14) Ensures all contractors entering VA property comply with the security management program. At a minimum, contractors must notify and obtain permission of the VA Police, be identified by project and employer, and be restricted from unauthorized access.

(15) Requires the contractors' Competent Person to implement and maintain effective safety programs that identify and control hazards that may cause injury or illness to VA patients, staff, visitors, and contractor employees.

(16) Evaluates the effectiveness of the construction safety program in an annual report to the facility Safety and Environment of Care Committee, or equivalent committee.

c. General and Subcontractors Training Requirements: All on-site general and subcontracting construction workers are required to complete the OSHA 10-hour construction worker course and/or the 30-hour construction course. The determination for training is based on the project hazards and complexity, State and Federal regulations and VA requirements.

d. VA staff training requirements

(1) All appointed Competent Persons, Contracting Officer Representative (COR) and facility Safety Program Managers are required to complete OSHA's 30-hour construction safety training and maintain 10-hours of construction safety-related training every two years.

(2) Engineering Supervisors and foreman who oversee construction work complete OSHA 10-hour and 30-hours construction safety course and maintain 10-hours of construction safety-related training every two years.

(3) The construction safety training has to be documented in each person's training record.

5. RESPONSIBILITY:

a. Director, Wilkes-Barre VA Medical Center

(1) Establish and monitor an effective facility construction safety program.

(2) Insure funding is available for appropriate staff to receive training in construction safety.

(3) Develop a written facility policy addressing the responsibilities of the Construction Safety Committee.

b. Associate Director, Wilkes-Barre VA Medical Center receives delegated responsibility from the Director, Wilkes-Barre VA Medical Center, as appropriate, for oversight of these policies.

c. Chief, Facilities Management Service

(1) Receives delegated responsibility form the Associate Director, Wilkes-Barre VA Medical Center, as appropriate, for oversight of these policies.

(2) Insures policies are addressed by all sections of engineering having oversight of construction.

(3) Participates in VHA or OSHA's 30-hour Construction Safety Training and refresher courses.

(4) Nominates individual to be appointed as Construction Safety Officer (CSO) for each project.

d. Supervisory Project Engineer

(1) Chairs the Construction Safety Committee, which will meet monthly.

(2) Works through safety and health staff, CORs, maintenance staff, contractors and the Construction Safety Committee to plan, coordinate and monitor the construction safety program for all projects at the facility.

(3) Participates in VHA or OSHA's 30-hour construction safety training and refresher courses.

(4) Supports the competent person, Safety Officer, Infection Control Practitioner, Contracting Officer and engineering staff in implementation of the construction safety program.

(5) Works with contracting staff to insure competent staff are assigned as CORs to oversee work.

(6) Participates in periodic inspections of construction sites to ensure compliance with safety elements of the construction contract and performance of the program.

(7) Works with competent person, Safety Officer, Infection Control Practitioner to identify and complete the attached Pre-Construction Risk Assessment (PCRA) for each project. (Attachment B)

e. Maintenance and Operations Foreman

(1) Participates in VHA or OSHA's 30-hour construction safety training and refresher courses.

(2) Participates in periodic inspections of in-house construction sites to ensure compliance with safety elements of the construction contract and performance of the program.

(3) Insures in-house work forces have necessary training and competency for tasks being performed.

f. Supervisory Biomedical Engineer

(1) Insures all construction accomplished in support of major equipment installations (as a part of the equipment purchase) are in compliance with this policy and these procedures.

(2) Participates in VHA or OSHA's 30-hour construction safety training program and refresher courses.

g. Contracting Officer

(1) Participates in OSHA's 30-hour construction safety training and refresher courses.

(2) Ensures safety elements of this policy are included in each construction contract.

(3) Evaluates past safety records of prospective contractors and considers this information in the contract award process.

(a) At a minimum, ensures that all solicitation and contracts specify that contractors must not have more than three serious, one repeat, or one willful OSHA violations(s) in the past (3) years.

(b) Ensures that all Solicitations and contracts specify that Contractors have an Experienced Modifications Rate (EMR) of equal to or less than 1.0.

(4) Serves on the facility Construction Safety Committee/subcommittee to ensure contracts meet the committee's requirements.

(5) Supports the competent person, Safety Officer, Resident Engineer, and appropriate staff in implementing the construction safety program.

(6) Works with the Supervisory Project Engineer to assign necessary competent COR.

(7) Ensure that construction contracts awarded after July 31, 2005, specify that on-site general and sub-contractor's construction workers have completed the OSHA 10-hour construction worker course, the 30-hour construction course, or other relevant competency training, as determined by the VA CP with input from the Construction Safety Committee. The determination for training is based on the project hazards and complexity, State and Federal regulations and VA requirements.

(8) Appoints individual to be appointed as Construction Safety Officer (CSO) for each project.

h. Contracting Officer's Representative (COR)

(1) Participates in VHA or OSHA's 30-hour construction safety training program and refresher courses.

(2) Is trained and designated as a competent person for the purposes of this policy.

(3) As the team member most familiar with the technical aspects of his/her designated project, inspects his/her projects on a daily basis to identify and document deficiencies in the work including safety and infection control. Acts to correct deficiencies on-the-spot whenever possible.

(4) Participates in the VHA facility multi-disciplinary team established for construction.

(5) Consults with other members of the team, as appropriate, to assure that all deficiencies are handled properly.

(6) Consults with member of the team, during design or planning to establish the risks to be addressed and the degree of protection appropriate to the situation.

(7) Monitors compliance with relevant safety and health requirements by the contractor in the field. Completes Construction Rounds Log on a daily basis to document contractor compliance for Safety, ILSM, and Infection Control Issues. (Attachment E)

(8) Ensures that the specific safety requirements for construction operations are implemented and continuously observed during the course of all projects subject to this policy.

i. Safety and Occupational Health Manager

(1) Participates in VHA or OSHA's 30-hour construction safety training and refresher courses.

(2) Ensuring that VHA policy for the construction safety program is implemented within the Medical Center.

(3) Ensures necessary and relevant ILSMs (Interim Life Safety Measures) are established and implemented using the attached the Interim Life Safety Measures form. (Attachment C) - Conducts required additional training for compliance with identified ILSMs.

(4) Renders technical advice and assistance as required in connection with life safety and fire protection issues during construction and project design and development.

(5) Oversees compliance with OSHA and other relevant construction safety regulations.

(6) Ensures VAMC staff receives training required by this memorandum.

(7) Conducts weekly inspections of construction sites to ensure compliance with safety elements of the construction contract using the attached Job Safety Check Sheet. (Attachment A)

(8) Stops unsafe work or activities not complying with the contract or OSHA, and notifies the Contracting Officer immediately.

(9) Approves corrective actions.

(10) Ensures the construction safety program includes appropriate periodic construction site hazard surveillance.

j. Infection Prevention Nurse

(1) Advises and/or provides recommendations on exposure mitigation and the prevention of facility associated infections in patients, staff, and visitors.

(2) Coordinates with the manager of each construction project (in-house and contract) to conduct an Infection Control Risk Assessment (ICRA) during the planning and/or design stage of the work. ICRAs must be documented in writing and focus on eliminating, or minimizing, the risk of infection during construction and renovation activities using the attached Infection Control Risk Assessment form. (Attachment D)

(3) Monitors infection control during construction activities as indicated in ICRA for that project.

(4) Participates in VHA or OSHA 10 Hour Construction Safety Training and refresher courses.

k. GEMS Coordinator

(1) Provides guidance on environmental issues during design stage.

(2) Monitors contractor conformance to contract specifications, including environmental compliance and pollution prevention.

(3) Participates in VHA or OSHA 10 Hour Construction Safety Training and refresher courses.

l. Police and Security

(1) Ensures all contractors entering VAMC property comply with the security management program. At a minimum, contractors must notify and obtain permission of the VAMC Police, be identified by project and employer, and restricted from unauthorized access.

(2) Conducts periodic surveillance of site security and the integrity of barriers for trenches and other hazards.

(3) Participates in VHA or OSHA 10 Hour Construction Safety Training and refresher courses.

6. CUSTOMER SATISFACTION: Employee and patient customer satisfaction were considered in the development of this policy.

7. RESCISSION: Medical Center Policy 18S-12-346 dated September 11, 2012, same subject.

8. REFERENCES:

VHA Emerging Pathogens Guidebook, 1998, Center for Engineering and Occupational Safety and Health available electronically at: http://vaww.ceosh.med.va.gov

National Fire Protection Association (NFPA) Standards

APIC Infection Control Tool Kit Series: Construction and Renovation available from the Association of Professional Infection Control Practitioners and Epidemiologists (APIC).

Guidelines for Design and Construction of Hospital and Health Care Facilities, American Institute of Architects, Washington DC 2014.

Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health, Bureau of Environmental and Occupational Disease Epidemiology, at: http://www.lchd.org/environhealth/aq/pdfs/NYC DOH Guidelines.pdf

Infection Control during Construction. A Guide to Prevention and JCAHO Compliance, Wayne Hansen, Editor, Opus Communications, 2002.

OSHA Regulations for Construction Safety, 29 CFR 1926, Available at: http://www.osha.gov

Current JCAHO Standards from the Joint Commission on the Accreditation of Healthcare Organizations.

VHA Directive 7701, Occupational Safety and Health.

VHA Handbook 7701.1, Occupational Safety and Health Program Procedures.

VA Directive 7700, Occupational Safety and Health.

Construction Safety Council, at: http://www.buildsafe.org

VHA Directive 2011-036, Safety and Health during Construction Activities.

9. DISTRIBUTION: Electronic Access to All Employees.

10. ATTACHMENTS: A, B, C, D, E

Attachment A - Job Safety Check Sheet
Attachment B - Pre-Construction Risk Assessment
Attachment C - Interim Life Safety Measures
Attachment D - Infection Control Risk Assessment
Attachment E - Construction Daily Rounds Log – Safety/ILSM/Infection Control Issues

12/7/2015

X Michael D. Adelman, MD.

Signed by: Adelman, Michael

POLICY 18S-15-346 ATTACHMENT A

JOB SAFETY CHECK SHEET

Company: _____Division:_____Date:_____

Time: _____

Job Name/Location: _____Job Number: _____

Crew Size: _____

Type of Work:
_____Weather:_____Temperature:_____

Inspected By: _____
Title: _____

Inspected By: _____
Title: _____

	No.	Grade 1 to 5 *(5 is Best)*	N/A	COMMENTS – Note Improvements Needed:
A. Personal Protective Equipment:				
1. Hard hats in use by all personnel.	**A1**	**1 2 3 4 5**		
2. Eye protection in use by all personnel.	**A2**	**1 2 3 4 5**		
3. Hearing protection (engineering controls, double protection for high noise areas, rotation of employees).	**A3**	**1 2 3 4 5**		
4. Proper footgear and protective clothing.	**A4**	**1 2 3 4 5**		
5. Fall protection in use.	**A5**	**1 2 3 4 5**		
6. Respirators/face masks in good condition and used as required (medical evaluation and fit test).	**A6**	**1 2 3 4 5**		
B. Tools and Equipment:				
1. Tools and equipment in good condition.	**B1**	**1 2 3 4 5**		
2. All equipment properly guarded.	**B2**	**1 2 3 4 5**		
3. Electrical equipment connected properly, grounded and in good condition; GFCI; automatic magnetic cut-off for woodworking tools.	**B3**	**1 2 3 4 5**		

4. Air/sandblast hoses in good condition and properly wired.	**B4**	**1 2 3 4 5**
5. Compressors equipped with automatic shut-off.	**B5**	**1 2 3 4 5**
6. Ladders in good condition; tied back; extended 3 ft. beyond landing.	**B6**	**1 2 3 4 5**

C. Scaffolding: ☐ Suspended ☐ Tubular ☐
Other (***Rope Falls Not Permitted)***

1. Scaffold in good repair; guardrails; toe boards and wire mesh in place.	**C1**	**1 2 3 4 5**
2. Counterweights marked with weight and in proper ratio.	**C2**	**1 2 3 4 5**
3. Scaffold tied back and tied in.	**C3**	**1 2 3 4 5**
4. Passageways under scaffold blocked.	**C4**	**1 2 3 4 5**

D. Hazardous Chemicals/Air Contaminants:

1. Hazard Communication Right-To-Know poster / written program on job.	**D1**	**1 2 3 4 5**
2. List of hazardous materials on job.	**D2**	**1 2 3 4 5**
3. Material Safety Data Sheets.	**D3**	**1 2 3 4 5**
4. Employees are familiar with program.	**D4**	**1 2 3 4 5**
5. Proper containers in use with correct labels.	**D5**	**1 2 3 4 5**

E. General:

1. Safe access to work area.	**E1**	**1 2 3 4 5**
2. Good housekeeping and material storage.	**E2**	**1 2 3 4 5**
3. Barricades/debris protection/warning signs in place.	**E3**	**1 2 3 4 5**
4. Floor and wall openings properly protected.	**E4**	**1 2 3 4 5**
5. Shoring properly installed; engineer's stamped drawings on job.	**E5**	**1 2 3 4 5**
6. Eye wash available.	**E6**	**1 2 3 4 5**
7. Fire extinguisher: Good condition; current	**E7**	**1 2 3 4 5**

inspection tag; within 50 ft.		
8. First aid: Kit and certified employees.	**E8**	**1 2 3 4 5**
9. Trucks: Safe/good condition; D.O.T. regulation compliance.	**E9**	**1 2 3 4 5**

F. Paperwork and Other Postings:

1. OSHA poster/log.	**F1**	**1 2 3 4 5**
2. Emergency phone number card.	**F2**	**1 2 3 4 5**
3. Drug-Free Workplace Policy Summary and poster (if applicable).	**F3**	**1 2 3 4 5**
4. Job logs and Job Safety Check Sheets.	**F4**	**1 2 3 4 5**
5. Site-Specific Safety Plan (if applicable).	**F5**	**1 2 3 4 5**

Pre-Construction Risk Assessment

Infection Control and Safety Construction Permit

Location of Construction:	**Project Start Date:**
Project Coordinator:	**Estimated Duration:**
Contractor Performing Work:	**Permit Expiration Date:**
Supervisor:	**Telephone:**
Description of Project:	
Construction Activities:	

The following projects **/**activities do not require completion of the Pre-Construction Risk Assessment form:

1. Paint and wallpaper in business offices and non-patient areas.
2. Paint in patient room if closed for painting and less than 3 sq. ft. of wall needs patched. Filter for room unit changed after painting.
3. Installation of soap dispenser/needle box/paper towel holder in patient room.
4. Repair of window blind.
5. Ceiling tile replacement for areas less than 50% of the total square footage of the room in Risk Group I areas.
6. Ceiling tile replacement for area less than (5) 2 X 2 tiles in a patient area if patient is out of the immediate area and clean up can be accomplished before patient returns.
7. Minimum repair of nurse call system/TV/Bed/Telephone.
8. Check or replace electric outlet.
9. Replace light bulb.
10. Unstop sink/commode with no water on floor.
11. Unstop commode when water on floor requires maintenance to have Housekeeping clean area immediately.
12. Repair medical gas outlet. (Front Body)
13. Air balance readings.
14. Check air-conditioning.

UTILITY SHUTDOWNS

Yes	No	
		Will temporary shutdown of any utilities or systems be required?
		(All shutdowns must be scheduled not less than 10 days in advance through FES. Confirmation is required by all departments: FES, Safety, Fire Chief, and others if identified.)
		• Fire alarm – ***(If out for more than 4 hours, Interim Life Safety Measures must be implemented.)***
		• Sprinkler – ***(If out for more than 4 hours, Interim Life Safety Measures must be implemented.)***
		• Electrical
		• Domestic water
		• Oxygen
		• Sewage
		• HVAC
		• Other (Specify)
		Is this an emergency shutdown for repairs?

SAFETY / ENVIRONMENTAL		
Yes	No	
		Are Emergency Procedures in place and posted on each job for accidental events that could greatly impact Patient Care or Life Safety to the facility? Included in these procedures are such things as:
		• Emergency telephone numbers of emergency responders and key departments.
		• A plan that indicates the locations of main valves, switches and controls for the area in case of an emergency.
		• A contingency plan for unexpected utility outages.
		Will any work require implementation of the Interim Life Safety Measures (ILSM) during this project per JCAHO requirements? Actions for which ILSM's must be implemented include but are not limited to:
		• Any construction that impacts an egress path from an area, an EXIT or stairs
		• Any construction that breaches fire or smoke-rated walls or enclosures
		• Taking the main fire protection system out of service (sprinkler)
		• Taking the main fire alarm system out of service
		• Taking any "area" fire-detection or fire alarm system out of service for more than 4 hours within a 24-hour period
		Implementation of the ILSM requires a fire watch and the ILSM forms to be completed (forms are to be obtained from the Safety Office)
		Will the project affect *pedestrian or vehicular* traffic patterns in area? *Attach a proposed plan showing how traffic flow will be maintained during each phase of construction. Include locations and types of temporary traffic, directional, information and egress signage as required. Include signage in Contract for construction projects.*
		Prior to any construction activities, the following must be completed:
		• Separation wall must be constructed. (Applies to any required separation – fire/safety, environmental or infection control)
		• Fire protection systems must remain functional.
		• Provide fire extinguishers in all work areas in accordance with OSHA and NFPA requirements.
		• Maintain exit signs and lights in all work areas.
		• Provide new exit signs and emergency egress lighting for all areas outside of the construction area where means of egress, exit path or signage have been modified or obscured by construction separations in accordance with Code requirements.
		• Attach signs reading, "Construction Area – Do Not Enter", to the outsides of doors at all construction area entrances.
		• Adhere to all Infection Control requirements indicated below.
		Maintain a clean and orderly work area.
		Will any of the following environmental hazards be present?
		• Hazardous chemicals – Identify how fumes and odors will be controlled. ***MSDS Sheets are required.***
		• Asbestos / abatement – ***Notify Safety and FES prior to any work activities.***
		• Silica – ***If concrete block will be cut, review requirements with Safety and the COTR.***
		Will there be hot work done on this project?
		• If so, then a current Hot Work Permit must be posted on the job site and daily inspection logs maintained.
		• All hot work must have a fire watch assigned to each area while the hot work is being performed ***and until 30 minutes after completion (or 2-hours after completion for torch-applied roofing)***.
		Will noise or vibration be generated that will impact a department adjacent to, above, or below the construction area?
		• If so, Safety and FES must be notified and the work must be scheduled in coordination with the affected Departments.

		• How will the noise / vibration be reduced to an acceptable level?
		Will a Confined Space Entry be required on this project? If so, the Medical Center's confined space entry program must be followed.

INFECTION CONTROL

The minimum required Infection Control (IC) prevention measures are listed for each of four classifications. An IC prevention measure classification must be assigned for each construction/work area. This assigned classification is based upon two factors: (1) Construction Activity Type and (2) the Risk Group of the surrounding occupancies. The Construction Activity Types are defined by the anticipated amounts of dust generated. The Risk Groups categorize departments/functions based on their risk for infection or contamination due to the airborne particles and micro-organisms. Contact the Safety Office and the Infection Control Coordinator if any activity is questionable under these guidelines.

Construction Activity Type *(complete the following itemized list)*

Yes	No	
		Type A – Inspections and Non-Invasive Activities
		• Removal of ceiling tiles for visual inspection (limited to <***10***% of total area)
		• Painting (limited sanding to <10% of area)
		• Wall covering—Describe work to be done:
		• Electrical trim work. Describe:
		• Minor plumbing. Describe:
		Type B – Small scale, short duration activities that create minimal dust
		• Installation of telephone and computer cabling
		• Access to chase spaces through access doors/panels
		• Sanding of walls for painting or wall covering (minor repairs only – not sanding for drywall finishing)
		Type C – Activities that generate moderate to high dust levels / Removal of fixed building components or assemblies
		• Sanding of walls (>50% of surface area) – including drywall finishing
		• Removal of ❑floor coverings ❑ceiling tiles ❑casework (>50% of surface area) Describe:
		• Cutting of walls or ceiling. Describe: ***(Note that concrete/concrete block cutting requires special attention due to Silica dust exposure.)***
		• New wall construction
		• Minor ductwork or electrical work above ceilings
		• Major cabling activities
		• Activity cannot be completed within a single work shift
		Type D – Major demolition and construction activities
		• Consecutive work shifts
		• Heavy demolition or removal of a complete ceiling system
		• New construction

Permit Request By (please print)	Safety Office Approval	Infection Control Coordinator Approval
Date:	Date:	Date:

INTERIM LIFE SAFETY MEASURES (ILSM) EVALUATION SHEET
For Deficiencies or Conditions as a Result of Construction

Project No. _____ Date: _____

Project Title: _____

The following ILSM will be evaluated individually and initiated as needed to compensate for deficiencies or conditions as a result of construction. ILSM implementation will be documented on Attachment C.

1. Ensuring free and unobstructed exits. Buildings or areas under construction must maintain escape routes at all times for all occupants including construction workers. Affected personnel will be trained on any designated alternate exits. (Attachment B, Column A.) Exits in construction areas will be inspected daily.

Will any exits be obstructed or compromised? Yes No N/A

If **yes** then:

a. Did the COR coordinate and document that affected personnel received training on alternate routes and exits? Yes No N/A

b. Does the construction area(s) have designated and marked exit? Yes No N/A

c. Are construction areas inspected daily to ensure exits are clear? Yes No N/A

2. Ensuring free and unobstructed access to emergency services such as fire department, police etc. Every building and area will remain accessible and roadways will be maintained unobstructed within 20 feet of all buildings. (Attachment B, Column B.)

a. Were the construction plans reviewed to maintain access for emergency services? Yes No N/A

b. Were the construction areas inspected daily and results recorded? Yes No N/A

c. If necessary, were outside emergency services notified about the construction? (Attachment B, Column C.) Yes No N/A

d. Were VA Police notified? Yes No N/A

Ensuring that fire alarm, detection and suppression systems are in good working order. A temporary, equivalent system will be provided when any fire system is impaired. Temporary systems will be inspected and tested monthly and results recorded. (Attachment B, Column D.)

Note: The Life Safety Code, NFPA 101, requires that the municipal fire department be notified and a fire watch be provided whenever an approved fire alarm system is out of service for more than four (4) hours in a 24-hour period in an occupied building, or automatic sprinkler system is out of service for more than twelve (12) hours in a 24-hour period in an occupied building.

Will any fire systems be impaired? Yes No N/A

If yes then:

a. Are temporary systems inspected and tested monthly & results recorded?

Yes No N/A

3. Ensuring that temporary construction partitions are smoke tight and built of noncombustible or limited combustible materials that will not contribute to the development or spread of fire. (Attachment B, Column E.)

a. Was the contractor briefed at pre-construction conference? Yes No N/A

b. Are areas inspected daily and deficiencies recorded? Yes No N/A

4. Providing additional fire-fighting equipment and training staff in its use. Evaluate the impact to emergency response teams and provide notification, if necessary. (Attachment B, Column F & G.)

Will additional fire-fighting equipment be needed? Yes No N/A

If yes then:

a. Was additional training conducted and documented? Yes No N/A

b. Were code teams notified? Yes No N/A

c. Was the fire department notified? Yes No N/A

d. Was the contractor briefed at the pre-construction conference of the need to provide adequate fire-fighting equipment and to train the construction workers?

Yes No N/A

5. Prohibiting smoking throughout the medical center buildings and in and near the construction areas. Smoking is only allowed in designated areas. The contractor will be briefed on the medical center's smoking policy at the pre-construction meeting. (Attachment B, Column H.)

Was the contractor briefed on the medical center's smoking policy?

Yes No N/A

6. Developing and enforcing storage, housekeeping, and debris removal practices that reduce the flammable and combustible fire load of the building to the lowest feasible level. (Attachment B, Column I)

a. Was the contractor briefed at the pre-construction conference of the storage and housekeeping requirements?

Yes No N/A

b. Are areas inspected daily and results recorded? Yes No N/A

7. Conducting a minimum of two fire drills per shift per quarter. The COR will inform the Safety Manager of the need to conduct more fire drills. The Safety Manager will assume responsibility for completing the drills. (Attachment B, Column J)

a. Are fire drills being conducted as necessary? Yes No N/A

b. Are any additional drills required? Yes No N/A

8. Increasing hazard surveillance of buildings, grounds, and equipment with special attention to excavations, construction areas, construction storage, and field offices. (Attachment B, Column K.)

a. Are areas inspected daily and results recorded in a daily log?

Yes No N/A

- Means of egress are clear in construction areas.
- Access for the fire department and emergency services is clear.
- Note the status of fire detectors and sprinkler systems.
- Construction partitions are being maintained.

- Good housekeeping practices are being used in construction areas.
- Flammable and combustible fire loads are being kept to a minimum.
- Buildings, grounds, and equipment are being maintained in a safe manner.
- Smoking regulations are being enforced.

9. Training staff to compensate for impaired structural or compartmentalization features of fire safety. (Attachment B, Column L.)

a. Was all the required staff training completed? Yes No N/A

10. Conducting organization-wide safety education programs to promote awareness of any life safety building deficiencies, construction hazards, and ILSM. (Attachment B, Column M.)

a. Was all the necessary information provided? Yes No N/A

		A	B	C	D	E	F	G	H	I	J	K	L	M
	Deficiencies or Conditions as a Result of Construction	**Ensuring Egress**	**Emergency forces access**	**Emergency forces notification**	**Ensuring operational life safety systems (Provide fire watch if necessary)**	**Temporary construction barriers**	**Additional fire fighting equipment**	**Conducting additional training of incident response team**	**Prohibiting Smoking**	**Controlling combustible loading**	**Conducting 2 fire drills per shift in all areas**	**Increased hazard surveilliance**	**Compartmentation training of personnel**	**Conducting organizational training on life safety**
1	Door locked against egress			X	X				X	X		X	X	
2	Lacking a code complying smoke barrier							X	X				X	
3	Fire exit stairs discharge improperly			X				X	X		X		X	X
4	Excessive travel distance to an approved exit								X	X		X	X	
5	Lack of two remote exits							X	X	X		X	X	
6	Nonconforming building construction type						X		X	X	X	X		X
7	Improperly protected vertical openings								X	X			X	
8	Large penetrations in fire/smoke barriers							X	X	X		X		
9	Corridor walls do not extend to the structure								X	X		X	X	
10	Hazardous areas not properly protected								X	X				
11	Blocking off an approved exit	X		X	X			X	X	X		X	X	
12	Rerouting of traffic to Emergency Room		X	X					X					
13	Major renovation of an occupied floor	X			X	X	X		X	X		X	X	
14	Replacing fire alarm system (out-of-service)			X	X			X	X	X		X		
15	Installing sprinkler system (out-of-service)			X	X		X		X	X		X		X
16	Significantly modifying smoke/fire barrier walls					X			X	X		X	X	
17	Adding an addition to an existing structure	X	X	X	X	X		X	X					X
18	Taking a fire alarm system out-of-service			X	X			X	X					
19	Taking a sprinkler system out-of-service			X	X			X	X					
20	Disconnecting alarm devices			X	X				X					

Description of Interim Life Safety Measures Used

Based on the responses to the evaluation questions, provide a description of the Interim Life Safety Measures that will be implemented during the project to compensate for the deficiency or condition. Attach additional sheets if necessary.

Signatures required as indicated below. Completed form will be maintained in the Project file.

Project COR: _____ Date: _____

Reviewers:

1. Safety Manager: _____ Date: _____

2. Chief Engineer: _____ Date: _____

Infection Prevention Risk Assessment
Matrix of Precautions for Construction & Renovation

Step One:
Using the following table, identify the Type of Construction Project Activity (Type A-D)

TYPE A	**Inspection and Non-Invasive Activities**. Includes, but is not limited to: ▪ removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet ▪ painting (but not sanding) ▪ wallcovering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
TYPE B	**Small scale, short duration activities which create minimal dust** Includes, but is not limited to: ▪ installation of telephone and computer cabling ▪ opening of no more than 1 tile per 10 square feet ▪ access to chase spaces ▪ cutting of walls or ceiling where dust migration can be controlled. ▪ minor renovation of existing space ▪ wet sanding of walls ▪ floor covering removal (**without** sanding or grinding)
TYPE C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies** Includes, but is not limited to: ▪ dry sanding of walls for painting or wall covering ▪ removal of floor coverings (with sanding), ceiling tiles and casework ▪ cutting of walls, removal of drywall or building finishes where work is limited to one room or suite ▪ new wall construction ▪ minor duct work, plumbing work, or electrical work above ceilings (not including system demolition or installation) ▪ moderate renovation of existing space ▪ major cabling activities ▪ any activity which cannot be completed within a single work shift.
TYPE D	**Major demolition and construction projects** Includes, but is not limited to: ▪ activities which require the closure of a unit/wing or relocation of an entire area ▪ activities which require consecutive work shifts ▪ demolition, removal, or installation of a complete cabling, HVAC, plumbing, medical gas, or electrical system ▪ demolition of major fixed building components, assemblies, fit-out elements, or structural elements ▪ new construction located in close proximity (as determined by the ICRA team) of the hospital building ▪ outdoor construction of new structures located in close proximity to existing patient care facility ▪ excavation activities within close proximity of hospital building. ▪ new construction.

Step Two:

Using the following table, ***identify*** **the Patient Risk Groups** that will be affected.
If more than one risk group will be affected, select the higher risk group:

Low Risk	Medium Risk	High Risk	Highest Risk
▪ Office areas ▪ Mechanical spaces	▪ Cardiology ▪ Echocardiography ▪ Endoscopy ▪ Nuclear Medicine ▪ Physical Therapy ▪ Radiology/MRI/ CT/PET ▪ Respiratory Therapy ▪ Primary care spaces ▪ Community Based outpatient clinics	▪ Emergency Room ▪ Laboratories (specimen) ▪ Outpatient Surgery ▪ Pediatrics ▪ Pharmacy ▪ Post Anesthesia Care Unit ▪ Surgical Units ▪ Central Sterile supply storage ▪ Canteen/Kitchen	▪ Any area caring for immunocompromised patients ▪ Cardiac Cath Lab ▪ Sterile Processing ▪ Intensive Care Units ▪ Medical Units ▪ Negative pressure isolation rooms ▪ Oncology ▪ Operating rooms ▪ PACU ▪ Community Living Center

Step 2_____

Step Three: Match the

Patient Risk Group (***Low, Medium, High, Highest***) with the planned **…**
Construction Project Type (***A, B, C, D***) on the following matrix, to find the **…**
Class of Precautions (***I, II, III or IV***) or level of infection control activities required.

Class I-IV or Color-Coded Precautions are delineated on the following page.

IC Matrix - Class of Precautions: Construction Project by Patient Risk

Patient Risk Group	Construction Project Type			
	TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group	**I**	**II**	**II**	**III/IV**
MEDIUM Risk Group	**I**	**II**	**III**	**IV**
HIGH Risk Group	**I**	**II**	**III/IV**	**IV**
HIGHEST Risk Group	**II**	**III/IV**	**III/IV**	**IV**

Note: Infection Prevention approval will be required when the Construction Activity and Risk Level indicate that **Class III** or **Class IV** control procedures are necessary.

Step 3_____

Description of Required Infection Prevention Precautions by Class

	During Construction Project	Upon Completion of Project
CLASS I	1. **Execute** work to minimize the rise of dust from construction operation. 2. Immediately **replace** any ceiling tile displaced for inspection.	1. Clean work area upon completion of task.
CLASS II	1. **Provides** active means to prevent air-borne dust from dispersing into atmosphere (surrounding environment.) 2. **Water mist** work surface to control dust while cutting 3. **Seal** unused doors with duct tape. 4. **Block** off and **seal** duct vents. 5. **Wipe** surfaces with disinfectant. 6. **Contain** construction waste before transport in tightly covered containers. 7. Wet **mop** and/or **vacuum** with HEPA filtered vacuum before leaving work area. 8. **Place** dust mat at entrance and exit of work area. 9. **Remove** or **isolate** HVAC system in area where work is being performed.	1. Wipe work surfaces with disinfectant. 2. Contain construction waste before transport in tightly covered containers. 3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 4. Remove isolation of HVAC system in areas where work is being performed.
CLASS III	1. **Obtain** infection control permit before construction begins. 2. **Isolate** HVAC system in area where work is being done to prevent contamination of the duct system. 3. **Complete** all critical barriers or implement control cube method before construction begins. 4. **Maintain** negative air pressure within work site utilizing HEPA equipped air filtration units. 5. **Remove** or **isolate** HVAC systems in area where work is being performed. 6. **Do not remove** barriers from work site until complete and project is thoroughly cleaned by EMS. 7. **Vacuum** work with HEPA filtered vacuum. 8. **Wet** mop with disinfectant. 9. **Remove** barrier material **carefully** to minimize spreading of dust and debris associated with construction. 10. **Contain** construction waste before transport in tightly covered containers. 11. **Cover** transport receptacles or cart and tape covering in place.	1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention Coordinator and thoroughly cleaned by (EMS) Environmental Management Services. 2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 3. Vacuum work area with HEPA filtered vacuums. 4. Wet mop area with disinfectant. 5. Remove isolation of HVAC system in areas where work is being performed.
CLASS IV	**Same as Class III plus the following:.** 1. **Seal** holes, pipes, conduits and penetrations appropriately. 2. **Construct** anteroom & **require** all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving worksite or they can wear cloth or paper coveralls that are removed each time they leave the work site. 3. **Wear** shoe covers when within entering work site.	**Same as above plus:** 1. Contain construction waste before transport in tightly covered containers. 2. Cover transport receptacles or carts. Tape covering unless solid lid 3. Vacuum work area with HEPA filtered vacuums. 4. Wet mop area with disinfectant.

Step 4. **Identify the areas surrounding the project area, assessing potential impact**

Unit Below	Unit Above	Lateral	Lateral	Behind	Front
Risk Group	Risk Group	Risk Group	Risk Group	Risk Group	Risk Group

Step 5. **Identify specific site of activity e.g., patient rooms, medication room, etc.**

_____

Step 6. **Identify issues related to: ventilation, plumbing, electrical in terms of the occurrence of probable outages**. _____

Step 7. **Identify containment measures, using prior assessment. What types of barriers? (E.g., solids wall barriers); Will HEPA filtration be required?**

_____

(Note: Renovation/construction area shall be isolated from the occupied areas during construction and shall be negative with respect to surrounding areas)

Step 8. **Consider potential risk of water damage. Is there a risk due to compromising structural integrity? (e.g., wall, ceiling, roof)**

Step 9. **Work hours: Can or will the work be done during non-patient care hours?**

Step 10. **Do plans allow for adequate number of isolation/negative airflow rooms?**

Step 11. **Do the plans allow for the required number & type of handwashing sinks?**

Step 12. **Does the infection control staff agree with the minimum number of sinks for this project?** (Verify against AIA Guidelines for types and area)

Step 13. **Does the infection control staff agree with the plans relative to clean and soiled utility rooms?**

Step 14. **Plan to discuss the following containment issues with the project team. E.g., traffic flow, housekeeping, debris removal (how and when),**

_____

_____

_____

Appendix: Identify and communicate the responsibility for project monitoring that includes infection control concerns and risks. The ICRA may be modified throughout the project. Revisions must be communicated to the Project Manager

Infection Prevention Construction Permit

Construction Class:	**Type:**	**Risk Group:**
I, II, III, IV	A, B, C, D	Low, Medium, High, Highest

Project Name and Number: **Permit #:**

Location of Construction: **Project start date:**

Contractor Performing Work: **Estimate completion date:**

FMSS Project Engineer: **Telephone:**

Type A: Inspection and non-invasive activities, minimal dust levels
Type B: Small scale, short duration moderate dust level
Type C: Generates moderate to high levels of dust
Type D: Major duration and construction activities requiring consecutive work shift

CLASS I	1. Work performed is limited to inspections and minor installations. 2. Execute work by methods to minimize raising dust from inspection operations. 3. Immediately replace ceiling tiles displaced for visual inspection. Only 3-5tiles may be removed at one time 4. Permit does not need to be posted for this classification.
CLASS II	1. Obtain and post infection control permit at work location before work begins. 2. Provide active means to prevent air borne dust from dispersing into atmosphere. 6 mil/fire resistant poly (plastic) barrier at entrance for short term work. Water mist work surfaces to control dust while cutting or use vacuum device. 3. Place dust mat at entrances and exits of work sites. Seal unused doors with tape. 4. Isolate HVAC and seal/cover air vents. 5. Contain construction waste before transport in tightly covered containers using assigned exit route. 6. Wipe surfaces with disinfectant. Wet mop and/or vacuum with HEPA filtered vacuum before leaving.
CLASS III	1. Obtain and post infection control permit at work location before work begins. 2. Follow all requirements listed for Class II in addition to requirements listed below. 3. Isolate HVAC supply and return ductwork to prevent contamination of system. 4. Complete all critical dust barriers (hard wall) as well as the creation of an anti-room where required for inspection by ICRA Inspection Team (Safety Officer, IC Nurse, Project Engineer) before work begins. 5. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. Change filters 6. Vacuum work area with HEPA filtered vacuums. Wet mop with disinfectant. 7. Obtain ICRA Inspection Team approval before construction and prior to removal of any dust partitions 8. Contain construction waste before transport in tightly closed containers using the assigned exit route.
CLASS IV	1. Obtain and post infection control permit at work location before work begins 2. Follow all requirements listed for Class II & III in addition to requirements listed below 3. Isolate HVAC supply and return ductwork to prevent contamination of system. 4 Complete all critical dust barriers (hard wall barrier) as well as the creation of an anti-room where required. All personnel entering and leaving work site must be vacuumed using a HEPA filtered vacuum cleaner or wear cloth or paper coveralls and shoe covers that are removed each time they leave the work site. 5. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. Change filters regularly. Seal holes, pipes, conduits and punctures appropriately. 6. Wet mop with disinfectant. Vacuum work area with HEPA filtered vacuums. 7. Contain construction waste before transport in tightly closed containers using the assigned exit route.

Additional Requirements:

Infection Prevention Coordinator:	**Date:**
Safety Officer:	**Date:**
FMS Project Engineer:	**Date:**

INFECTION PREVENTION CONSTRUCTION CHECKLIST

Location: _____Date: _____

Project COTR: _____

Safety Representative: _____

Infection Prevention Coordinator: _____

Contractor Performing Work: _____

CONSTRUCTION ACTIVITY:	**YES**	**NO**
Type A: Inspection and non-invasive activities, minimal dust levels	☐	☐
Type B: Small scale, short duration moderate dust levels	☐	☐
Type C: Generates moderate to high levels of dust	☐	☐
Type D: Major duration and construction activities requiring consecutive work shift	☐	☐

INFECTION PREVENTION RISK GROUPS:

Low Risk: _____

Medium Risk: _____

High Risk: _____

Highest Risk: _____

Scope of work:_____

Date: _____ Location: _____ Class of Precautions: _____

BARRIERS:	**YES**	**NO**
Construction signs posted for the area		
- Construction site- DO NOT ENTER	☐	☐
- Emergency contact information	☐	☐
- Infection Control Instructions	☐	☐
Door properly closed and sealed	☐	☐
Floor mats/dust tacks mats at entrance and changed	☐	☐
Floor area clean, no dust tracked	☐	☐
Barrier intact	☐	☐
Door sweep	☐	☐
Door closure device	☐	☐
Door/tools locked when no one in area	☐	☐
AIR HANDLING		
All windows closed behind barrier	☐	☐
Negative air at barrier entrance	☐	☐
Negative air machine running	☐	☐
Hepa filter below 2 (above 2 filter change)	☐	☐
PROJECT AREA:		
Debris removed in covered container daily	☐	☐
Debris removed via designated exit route	☐	☐
Trash in appropriate container	☐	☐
Routine clearing done on job site	☐	☐
If chute used, it is not adjacent to open windows or HVAC air intakes	☐	☐
HVAC systems isolated, return ducts covered	☐	☐
TRAFFIC CONTROL:		
Restricted to construction workers and necessary staff only	☐	☐
All doors and exits free of debris	☐	☐
ID badges worn and visible by construction workers	☐	☐

Comments:

Signatures:

Project COTR: _____

Safety Representative: _____

Infection Prevention: _____

Construction Daily Rounds Log - Safety / ILSM / Infection Control

Signature of Construction Superintendent _____

Signature of Project Manager (COR) _____

Signature of Person doing Rounds _____

Project Title		Name of Contractor	
Station		Contract Number	
Area		Project Number	
Project COTR			

Check only if no problems are noted. If issues are found annotate on this form.

Safety / ILSM / IC Issue	M	T	W	Th	F	Coments
Subcontractors are trained in safety/environmental issues.						
Means of egress is clear in construction and adjacent areas.						
Construction exits designated during construction?						
Doors are closed to construction site and proper signage is in place						
Access for the fire department and emergency services is clear						
Fire suppression and/or fire alarm system are active, or are temporary systems/measures are in place						
Fire extinguishers are readily available in construction area						
Area is secured from public and at the end at end of day						
Are smoking regulations being followed						
Exterior balconies, corridors and stairways are clear of storage						
Flammables and combustibles kept to a minimum and in proper containers. SDS are maintained on site and all product are labeled						
Gas cylinders properly stored						
Lock out/tag out policy in place and being followed						
Building, grounds and equipment and maintained in a safe manner						
Hard hats are used per protocols						
Extension cords protected/disconnected at end of day.						
Exterior storm drain flushed and cleaned of debris.						
Floor Penetrations properly marked and protected						
Construction storage area maintained and secured						
Dust barriers are maintained, secured and tested. Barriers are monitored consistently for integrity and NPV airflow (Clean to Dirty)						
Negative air ventilation in work area is maintained utilizing HEPA equipped air filtration						
Pressure gages checked and show neg. air pressure in construction						
Compliance with traffic patterns for both construction workers and debris movement						
Windows and doors are properly closed and sealed to prevent circulation of dust, debris and inclement weather.						
Walk off mats are provided and changed when needed by the						
All adjacnet areas are cleaned daily and more often as needed by contractor of EMS						
There are no signs of water leakage						
There are no signs of pest						
All construction debris is transported in tightly covered containers						
Emergency numbers are posted.						

VHA Infection Control Risk Assessment
for Construction, Renovation and Maintenance

Introductory Information and Instructions

Use this template as a baseline for performing facility Infection Control Risk Assessments (ICRAs) for construction, renovation, and maintenance work (referred to as the "activity" in this document). The template provides minimum requirements for categorizing activity types and patient risk to determine the level of precautions needed to prevent infection risks. Facilities may customize this template to incorporate site-specific information and/or to add more stringent criteria.

NOTE: *This VHA ICRA template pertains specifically to infection prevention. It must be used in conjunction with the required Pre-Construction Risk Assessment (PCRA) for the activity which addresses other activity-related safety concerns (e.g., vibration, noise) outside the scope of the ICRA.*

To complete the template:

1. Use **Table 1** to identify the category of the construction, renovation and/or maintenance activity.
2. Use **Table 2** to identify the areas affected by the activity.
3. Use **Table 3** to identify the overall patient risk category that will be affected by the activity.
4. Use **Table 4** to determine the level of infection prevention and control precautions needed for the activity.

Once all 4 steps above are completed: Refer to **Table 5** for the minimum required control measures for the level of infection prevention and control precautions needed for the activity. Refer to **Table 6** for the minimum infection prevention and control measures required on completion of the activity.

PERMIT: See the last page of this document for a fillable permit form to be used for posting at the activity site as needed.

Table 1 - Construction, Renovation, and/or Maintenance Activity Category

NOTE: *If any of the bulleted criteria in a higher activity category pertains to the work that will be done (even if the other criteria are in a lower category), use the higher activity category for the VHA ICRA.*

Activity Category determined from Table 1 (*A, B, C, or D*): ☐

Category A	**Inspection and/or facility upkeep generally defined as follows**: • Work can be completed in a single shift, not to exceed 10 hours. • Patients and/or employees may be in the area depending on the activity. • Work that does not create dust or debris. • Removal of ceiling tile or access to mechanical or electrical chase for visual inspection limited to 1 tile per 50 square feet with limited exposure time (not to exceed an hour for each tile) within the shift. • Minor interior updates (e.g., replacing floor or ceiling tiles, carpentry work to include hanging signage, and painting without sanding) that do not create dust or debris. • Limited building system maintenance such as plumbing on potable systems limited to faucet replacement etc. and electrical work such as replacement of bulbs, receptacles, or switches.
Category B	**General maintenance and repair work generally defined as follows:** • Prolonged inspection and work that may take longer than a single shift but not exceeding a week. • Patients and employees are not to be in the area until activity is completed. • Work that creates minimal dust and debris.

	• Interior finish or surface repairs, updates, or modifications such as repair of firewalls and barriers, and new flooring that produces minimal dust and debris. Controlled sanding activities (e.g., wet or dry sanding) that produce minimal dust and debris. • Plumbing work such as installation or replacement of a single fixture or piping for a single fixture. Any work on sanitary plumbing including snaking of drains. • Electrical work such as installation of cabling/wiring/conduit for a single device, installation of new device such as a light fixture that produces minimal dust and debris. • Air Handler and/or fan shutdown/startup and HVAC work such as replacement of a single diffuser, single terminal unit or a single device that produces minimal dust and debris.
Category C	**Small-scale construction, renovation, or maintenance generally defined as follows**: • Work requiring longer than a single week to complete but not exceeding 6 months. • Patients and employees are not to be in the area until activity is completed. • Demolition/removal of preexisting floor covering, casework, lay-in ceiling, or other architectural elements. • Demolition/removal of more than 32 ft^2 of drywall/framing, hard ceilings, and doors/framing and minimal infrastructure such as electrical circuits and branch piping. • Installation of new walls, ceilings and doors including framing, drywall/plaster and associated work. • Plumbing work such as the installation of new sinks, showers and toilets and associated plumbing. • Shut down of sections of potable water systems. • Electrical work such as installation of conduit and wire for lighting, receptacles and switches for an area, the installation of conduit and wire for new devices such as terminal units, fans etc. • Modification of existing fire alarm and suppression systems. • Mechanical work such as the installation of ductwork, diffusers, and terminal units for an area.

Category D	**Large-scale construction, renovation, or maintenance generally defined as follows**:
	• Work exceeding 6 months in duration.
	• Patients and employees are not to be in the area until activity is completed.
	• Large-scale demolition of building components and infrastructure including removal of multiple doors, walls, framing, ceilings, flooring, piping, electrical and HVAC.
	• The installation building components such as new walls, ceilings and doors including framing, drywall and associated plaster work.
	• Plumbing work such as the installation of:
	  ○ new medical gas systems,
	  ○ steam/heating hot water, condensate systems,
	  ○ multiple sinks, showers and toilets including associated plumbing.
	• Shutdown of potable water, steam/heating hot water, condensate, and medical gas systems.
	• Electrical work such as installation of electrical feeders, distribution panels, conduit and wire for lighting, receptacles and switches for an area, the installation of conduit and wire for new devices such as terminal units, fans etc.
	• Installation of fire alarm and suppression systems.
	• Electrical shutdown of multiple panels.
	• Mechanical work such as the installation of air handling equipment, associated ductwork, diffusers, heat exchangers, terminal units and controls.

Table 2 - Affected Area Assessment

Identify the areas and associated patients that will be affected by the construction/renovation/maintenance activity (see the Figure for a visual representation of adjacent affected areas).

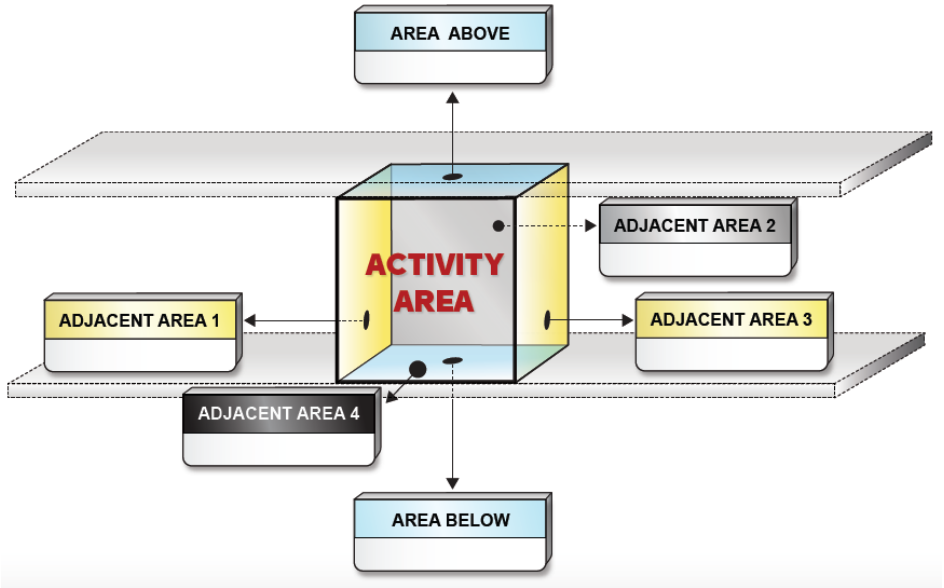

Figure: Isometric drawing of affected area assessment

Area	Service(s)/Type(s) of Area(s) *(e.g., OR, Unit/Ward, Sterile Processing, Administrative, etc.)**	Point of Contact (POC)	POC Contact Information
Activity Area**			
Area Above			
Area Below			
Adjacent Area 1			
Adjacent Area 2			
Adjacent Area 3			
Adjacent Area 4			

* There may be more than one Service/type of area for each row. List all.

** List the area(s) in which the construction/renovation/maintenance activity will occur. ***NOTE: When the Activity Category is B, C, or D, the control measures are determined by the Patient Risk in the adjacent affected areas.***

VHA Infection Control Risk Assessment
for Construction, Renovation and Maintenance

Table 3 - Patient Risk Category

Using Table 3, identify the patient risk category for each area listed in Table 2. Of the patient risk categories identified, select the one with the greatest risk as the overall Patient Risk Category for the activity.

Overall Patient Risk Category determined from Table 3 (*Low, Medium, High, or Highest*): ____

Low Risk	Medium Risk	High Risk	Highest Risk
Non-patient care areas such as:	Patient care support areas such as:	Patient care areas such as:	Procedural, invasive, sterile support and highly compromised patient care areas such as:
• Public hallways and gathering areas not in clinical areas • Office areas not in clinical areas • Breakrooms not in clinical areas • Bathrooms or locker rooms not in clinical areas • Mechanical/electrical rooms not in clinical areas	• Waiting areas • Clinical engineering (biomedical) • Materials management • Sterile processing department – dirty side • Kitchen, cafeteria, gift shop, coffee shop, and food kiosks	• Patient care rooms and areas, including spinal cord injury units • All acute care units, including mental health • All outpatient units and clinics • Emergency department • Community Living Centers, domiciliaries, and transitional residences • Employee health • Pharmacy – general work zone • Medication rooms and clean utility rooms • Imaging suites – diagnostic imaging • Laboratory	• All transplant units • All intensive care units • All oncology units and chemotherapy/infusion centers • OR theaters and restricted areas • Hemodialysis units • Procedural rooms* • Pharmacy compounding area • Sterile processing department – clean side • Transfusion services • Imaging suites – interventional imaging • Dedicated isolation wards/units for infectious diseases

***** Procedural Rooms are designated for the performance of patient care activities that may require high-level disinfected or sterile instruments and some environmental controls but is not required to be performed with the environmental controls of an operating room (OR). The room is intended for procedures that are performed in an aseptic surgical field and penetrates the protective surfaces of a patient's body (e.g., subcutaneous tissue, mucous membranes, cornea) or entry into or opening of a sterile body cavity. Examples of these spaces include Cardiac Catheterization Suites, Electrophysiology Suites, Endovascular/GI Suites, Angio Suites and other spaces which may have high risk patient populations.

Table 4 - Level of Infection Prevention and Control Precautions

Match the Overall Patient Risk Category (*Low, Medium, High, Highest*) determined from Table 3 with the planned Construction/Renovation/Maintenance Activity Category (*A, B, C, D*) from Table 1 to determine the minimum Level of Infection Prevention and Control Precautions (*I, II, III, or IV*) using Table 4 below.

Level of Precautions determined from Table 4 (*I, II, III, or IV*): ☐

Patient Risk Category	**Activity Category**			
	A	**B**	**C**	**D**
Low Risk	I	II	II	III
Medium Risk	I	II	III	IV
High Risk	I	II	IV	IV
Highest Risk	II	III	IV	IV

An infection prevention and control permit is required for Level III and Level IV. Consult with Infection Prevention and Control for Level I and Level II.

Table 5 - Required Infection Prevention and Control Measures, by Level of Precautions

Controls defined below for the Level of Precautions identified for the activity must be in place before the activity begins and maintained until work is completed and the area is activated. Control measures for each Precaution Level must also include the control measures in the preceding Level(s).

As the activity progresses, a full re-evaluation of remaining activity type and patient risk is required prior to downgrading the Level of Precautions.

Level of Precautions	**Control Measures**
Level I	1. Perform work activity in a manner that does not create dust. 2. Immediately replace any ceiling tile, close access panels, etc., upon completion of work. 3. Any materials and equipment being brought into the facility must be free of contaminants and loose material.
Level II	**All control measures in Level I and the following:** 1. Provide active means to control airborne dust from dispersing into occupied areas and/or water mist surface to control dust (e.g., Mobile Dust Containment Cart or some other system). 2. Ensure worker clothing is clean and free of visible dust before leaving the work area. 3. Remove or isolate air diffusers (supply and return) to protect the HVAC system from dust and reduce air turbulence. Rebalance system to address diffuser isolation.

	4. When the work involves or impacts potable water systems including stagnation due to reduced usage, the piping shall be flushed twice a week or isolated from the main system. 5. Seal doors to prevent dust migration. 6. Contain all trash and debris in the work area. Perform daily cleaning and disposal of trash (covered) from work area using an identified exit route. 7. Any equipment, tools, or materials removed from the work area must be in sealed containers and/or cleaned of dust and debris prior to removal from the area. 8. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 9. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 10. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces at least daily.
Level III	**<u>All control measures in Levels I and II</u> and the following:** 1. Ensure availability of equipment for cleaning hands. 2. Construct and complete critical barriers meeting NFPA 241 requirements. Barriers must extend to the ceiling or if ceiling tile is removed, to the deck above. 3. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to floor and ceiling (or floor/roof deck above) and secure from movement or damage. 4. Seal all penetrations in containment barriers, including floors and ceiling, using approved materials (UL schedule firestop if applicable for barrier type). 5. Maintain .01 inches /water gauge negative pressurization of the entire workspace by use of HEPA exhaust air systems directed outdoors (unless a work specific waiver is approved by VHA's Office of Healthcare Engineering); this must be maintained continuously 24/7 for the duration of the project. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows is not required to be HEPA-filtered. Exhausting discharged air into shared or recirculating HVAC systems, or other shared exhaust systems (e.g., bathroom exhaust) is <u>prohibited</u>. 6. Install a differential pressure sensing device (e.g., magnehelic, manometer, or digital monitoring) on exterior of work containment to continually monitor and document negative pressurization. The "ball in the wall" or similar apparatus are <u>not acceptable</u>.
Level IV	**<u>All control measures in Levels I, II and III</u> and the following:** 1. Barriers must be hard barriers unless temporary to install final barrier. 2. Containment must include an anteroom to ensure pressure control. Anteroom must be large enough for equipment staging, cart cleaning, workers' PPE and cleaning. 3. Worker clothing and/or PPE must be removed or clean and free of visible dust before leaving the work area anteroom. HEPA vacuuming of clothing or use of cover suits is acceptable. 4. Workers must wear shoe covers or have a method to clean shoes in anteroom. Shoe covers must be removed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be changed immediately.

Table 6 - Minimum Infection Prevention and Control Measures Required Upon Completion of the Activity

Controls defined below shall be completed upon completion of the activity and inspected prior to terminating measures defined in Table 5.

Level of Precautions	Measures
Levels I - II	**Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. **HVAC Systems:** 1. Remove isolation of HVAC system in areas where work is being performed. Verify that HVAC systems are clean and operational. 2. Verify the HVAC systems meet original airflow and air exchange design specifications. **Water systems:** 1. Until the potable water system is activated and in use, flushing shall continue at least twice per week in accordance with VHA Directive 1061.
Levels III - IV	Construction areas must be inspected by an infection preventionist and engineering representative (and others as determined by the facility) for final activity/project close out and removal of infection prevention and control measures. **Work Area Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. **Removal of Critical Barriers:** 1. Critical barriers must remain in place during all work involving drywall removal, creation of dust and activities beyond simple touch-up work. The barrier may NOT be removed until a work area cleaning has been performed. Additional cleaning may be needed after removal of barrier. 2. All (plastic or hard) barrier removal activities must be completed in a manner that prevents dust release. Use the following precautions when removing hard barriers: i. Carefully remove screws and painter tape. ii. If dust will be generated during screw removal, use hand-held HEPA vacuum. iii. Drywall cutting is prohibited during removal process. iv. Clean all stud tracks with HEPA vacuum before removing outer hard barrier. v. Use a plastic barrier to enclose area if dust could be generated. **Negative Air Requirements:** 1. The use of negative air must be designed to remove contaminants from the work area. 2. Negative air devices (fans, filters, monitoring and documentation equipment) must remain operational at all times and in place for a period after completion of dust creating activities to remove contaminants from the work area and before removal of critical barriers. **HVAC systems:** 1. Upon removal of critical barriers, remove isolation of HVAC system in areas where work is being performed. 2. Verify that HVAC systems are clean and operational. 3. Verify and document through a TAB the HVAC systems meets original airflow and air exchange design specifications. **Water systems:** 1. Until the potable water system is activated and in use, flushing shall continue at least twice per week in accordance with VHA Directive 1061.

Infection Prevention and Control Construction/Renovation/Maintenance Permit

This page must be posted at the entrance to the project area for Level III and Level IV activities.

Unique permit number:			
Location of construction/renovation/maintenance			
Project manager		Project start date	
Contact phone number		Completion date	
Contractor		Permit expiration date	

Activity Category (*A, B, C, or D*)		Overall Patient Risk Category (*Low, Medium, High, or Highest*)		Level of Infection Prevention and Control Precautions (*I, II, III, or IV*)	

Level of Precautions	**Control measures to be in place for the duration of the activity** *(Check the box for the activity's Level of Precautions to indicate the Control Measures)*
Level I ☐	1. Perform work activity in a manner that does not create dust. 2. Immediately replace any ceiling tile, close access panels, etc., upon completion of work. 3. Any materials and equipment being brought into the facility must be free of contaminants and loose material.
Level II ☐	**All control measures in Level I and the following:** 1. Provide active means to control airborne dust from dispersing into occupied areas and/or water mist surface to control dust (e.g., Mobile Dust Containment Cart or some other system). 2. Ensure worker clothing is clean and free of visible dust before leaving the work area. 3. Remove or isolate air diffusers (supply and return) to protect the HVAC system from dust and reduce air turbulence. Rebalance system to address diffuser isolation. 4. When the work involves or impacts potable water systems including stagnation due to reduced usage, the piping shall be flushed twice a week or isolated from the main system 5. Seal doors, to prevent dust migration. 6. Contain all trash and debris in the work area. Perform daily cleaning and disposal of trash (covered) from work area using an identified exit route. 7. Any equipment, tools, or materials removed from the work area must be in sealed containers and/or cleaned of dust and debris prior to removal from the area. 8. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 9. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 10. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces at least daily.
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Additional requirements:			
Project Manager signature		Date	
Infection Preventionist signature		Date	

Department of Veterans Affairs
Veterans Health Administration
Washington, DC 20420

AMENDED
September 5, 2023

VHA DIRECTIVE 7715(1)
Transmittal Sheet
June 22, 2023

SAFETY AND HEALTH DURING CONSTRUCTION

1. SUMMARY OF MAJOR CHANGES: Major changes are as follows:

a. Amendment dated September 5, 2023: Updates the Training paragraph to remove the general mention of "staff that have responsibilities related to construction" from the roles requiring training.

b. Paragraph 2: Delineates responsibilities for the Contracting Officer and the Department of Veterans Affairs (VA) medical facility Construction Safety Officer (CSO) who serves as a Contracting Officer's Representative for enforcement of construction contract safety requirements; establishes responsibility for the VA medical facility CSO to identify and assess high-hazard risks and provides a link to information on applicable high-hazard risks on construction sites.

c. Paragraph 2.e.(5): Provides for the development and administration of a Construction Safety Management Tool for tracking Veterans Health Administration (VHA) contractors' deficiencies in implementing contract safety requirements.

d. Paragraph 2.k.: Removes the requirement to create a local policy for the VA medical facility Construction Safety Committee (CSC), reduces the number of required members of the VA medical facility CSC and further delineates that the VA medical facility CSC must be chaired by a member of the VA medical facility Executive Leadership Team and co-chaired by the VA medical facility's Safety Manager.

e. Paragraph 2.l. and paragraph 3: Establishes requirements for use of the VHA-Pre-Construction Risk Assessment (PCRA) and the VHA-Infection Control Risk Assessment (ICRA) forms for assessing construction-associated hazards throughout the construction project lifecycle; provides links for the VHA-PCRA and VHA-ICRA forms.

f. Paragraph 2.l.(7): Reduces daily inspection requirements by VHA in its oversight role of construction activities capable of causing fatalities or permanently disabling injuries or illnesses as that responsibility resides with the construction contractors.

g. Paragraph 4: Removes the requirement to complete the Occupational Safety and Health Administration or VHA 10-hour Construction Safety training for the Green Environmental Management System, Patient Safety and Contracting staff; local union representatives and VA Police.

2. RELATED ISSUES: VA Directive 7700, Occupational Safety and Health, dated February 11, 2009; VHA Directive 7701, Comprehensive Occupational Safety and Health Program, dated December 12, 2022; VHA Directive 7712, Fire Protection Code Reviews of Delegated Construction Projects, dated May 19, 2022.

3. POLICY OWNER: The Assistant Under Secretary for Health for Support (19) is responsible for the content of this directive. Questions may be referred to the Director, Occupational Safety and Health Office, Office of Healthcare Environment and Facilities Programs (19HEF) at VHAOccSafetyandHealthAction@va.gov.

4. RESCISSIONS: VHA Directive 7715, Safety and Health During Construction, dated April 6, 2017, is rescinded.

5. RECERTIFICATION: This VHA directive is scheduled for recertification on or before the last working day of June 2028. This VHA directive will continue to serve as national VHA policy until it is recertified or rescinded.

6. IMPLEMENTATION SCHEDULE: This directive is effective 3 months from publication.

BY DIRECTION OF THE OFFICE OF THE UNDER SECRETARY FOR HEALTH:

/s/ Alfred A. Montoya Jr., MHA, FACHE
Acting Assistant Under Secretary for Health for Support

NOTE: *All references herein to VA and VHA documents incorporate by reference subsequent VA and VHA documents on the same or similar subject matter.*

DISTRIBUTION: Emailed to the VHA Publications Distribution List on July 5, 2023.

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SAFETY AND HEALTH DURING CONSTRUCTION

SAFETY AND HEALTH DURING CONSTRUCTION

1. POLICY

It is Veterans Health Administration (VHA) policy to maintain a safe and healthful environment and ensure compliance with occupational safety and health (OSH) requirements during construction to reduce risk to patients, staff, residents, volunteers, visitors, contractors and the general public at Department of Veterans Affairs (VA) medical facilities, and to reduce risk of disruption of patient care, treatment and mission-essential services. This directive applies to all construction activities as defined by the Occupational Safety and Health Administration (OSHA) that are performed on VHA-owned or VHA-leased properties managed by VHA or where VHA has an oversight role of contractors. **AUTHORITY:** 38 U.S.C. § 7301(b); 29 C.F.R. §§ 1960.6, 1960.8.

2. RESPONSIBILITIES

a. **Under Secretary for Health.** The Under Secretary for Health is responsible for ensuring overall VHA compliance with this directive.

b. **Assistant Under Secretary for Health for Support.** The Assistant Under Secretary for Health for Support is responsible for establishing policy and providing guidance and oversight as necessary to ensure the timely and successful implementation of this directive.

c. **Assistant Under Secretary for Health for Operations.** The Assistant Under Secretary for Health for Operations is responsible for:

(1) Communicating the contents of this directive to each of the Veterans Integrated Services Networks (VISNs).

(2) Assisting VISN Directors to resolve implementation and compliance challenges in all VA medical facilities within that VISN.

(3) Providing oversight of VISNs to ensure compliance with this directive and its effectiveness.

d. **Executive Director, VHA Healthcare Environment and Facilities Program.** The Executive Director, Healthcare Environment and Facilities Program is responsible for:

(1) Overseeing the VHA OSH program.

(2) Providing advisory support to h the Assistant Under Secretary for Health for Operations, VISN Directors and VA medical facility Directors for the establishment and sustainment of their construction safety and health programs performance in a manner that meets the requirements of applicable Federal, State and local statutes and regulations; Executive Orders; and VA and VHA directives.

e. **Director, Occupational Safety and Health Office.** The Director, OSH is responsible for:

(1) Ensuring that guidance is provided in the recognition, evaluation and control of construction hazards, to comply with OSHA and other applicable regulations, health care accreditation standards, VA standards and this directive. For further information, see the Construction Safety Guidebook available at: http://vaww.hefp.va.gov/guidebooks/construction-safety-guidebook. ***NOTE:*** *This is an internal VA website that is not available to the public.*

(2) Ensuring that guidance is provided on the effective implementation of a construction safety and health program to comply with OSHA regulations, health care accreditation standards and this directive.

(3) Ensuring that consultation occurs with the Director, Office of Healthcare Engineering (OHE) on the development and implementation of this directive.

(4) Ensuring the development of metrics to identify trends in construction safety and health risks and providing guidance to reduce construction-related injuries and illnesses.

(5) Ensuring the development and maintenance of a Construction Safety Management Tool for the documentation and tracking of abatement of contractor safety deficiencies.

(6) Assisting with development and maintenance of VHA-Preconstruction Risk Assessment (PCRA) and VHA-Infection Control Risk Assessment (ICRA) forms along with instructions for use. For details, see paragraph 3.

(7) Assisting the Institute for Learning, Education and Development with the development and delivery of construction safety training materials for VHA staff.

(8) Conducting incident-related site investigations when warranted.

f. **Director, Office of Healthcare Engineering.** The Director, OHE is responsible for:

(1) Providing advisory support to the Director, OSH on the development and implementation of this directive.

(2) Communicating hazard alerts to VHA healthcare engineers at VA-owned and VA-leased properties.

(3) Assisting with incident-related site investigations at the request of the Director, OSH.

g. **Director, National Infectious Disease Service.** The Director, National Infectious Disease Service is responsible for advising on exposure mitigation and protective practices to be employed during construction that reduce the risk of infection and

providing information and advice on infectious diseases associated with construction.

h. **Veterans Integrated Service Network Director.** The VISN Director is responsible for:

(1) Ensuring that VA medical facilities within the VISN are provided adequate staffing, funding, training, support and resources for implementing their construction safety and health programs.

(2) Ensuring that all VA medical facilities within the VISN comply with this directive and informing the Assistant Under Secretary for Health for Operations when barriers to compliance are identified.

(3) Establishing construction safety and health program performance standards for VA medical facility Directors and incorporating them in the overall OSH performance standards.

(4) Ensuring that the VISN Safety and Occupational Health (SOH) Manager audits VA medical facility construction safety and health programs as part of the Annual Workplace Evaluations (AWE) and that the audit's findings are included in the AWE report. ***NOTE:*** *AWEs are required by VHA Directive 7701, Comprehensive Occupational Safety and Health Program, dated December 12, 2022.*

(5) Facilitating communication between VHA Central Office and VA medical facility staff regarding construction safety actions, policies, guidance and incidents.

i. **Veterans Integrated Service Network Safety and Occupational Health Manager.** The VISN SOH Manager (sometimes referred to as the VISN OSH Manager) is responsible for:

(1) Being knowledgeable of VHA policies and guidance concerning construction safety.

(2) Ensuring completion of AWEs that include identification of deficiencies in the implementation of each VA medical facility's construction safety and health program and drafting a report of those findings to be reviewed and approved by the VISN Director.

(3) Tracking identified deficiencies (from AWEs, employee complaints, OSHA inspections and other means) to abatement within specified timeframes.

(4) Collecting, analyzing and validating data associated with nationally established construction safety metrics and consulting with VA medical facilities to improve performance.

(5) Coordinating communication between VHA Central Office, VISN and VA medical facility staff regarding construction safety actions, policies, guidance and incidents.

(6) Completing and documenting training in accordance with paragraph 4.

j. **Contracting Officer.** The Contracting Officer (CO) is responsible for:

(1) Ensuring the appropriate Federal Acquisition Regulation (FAR), Veterans Affairs Acquisition Regulation (VAAR) and Veterans Affairs Acquisition Manual clauses have been included in the solicitation for construction contracts when appropriate and taking contracting actions, including "stop work" orders, to remedy contracting situations when necessary.

(2) Ensuring the delegation of Contracting Officer Representatives (CORs) as requested by VA medical facility Directors.

k. **VA Medical Facility Director.** The VA medical facility Director is responsible for:

(1) Ensuring the establishment, resourcing and monitoring of the VA medical facility's construction safety and health program using a Construction Safety Committee (CSC) and appointing a member of the VA medical facility Executive Leadership Team (ELT) as the chair and the VA medical facility Safety Manager as co-chair. ***NOTE:*** *The VA medical facility CSC must be a multi-disciplinary team composed of representatives from the following program areas: Infection Prevention and Control, Patient Safety, SOH, Healthcare Engineering as well as Construction Safety Officers (CSOs). Contracting, Green Environmental Management System, VA Police, Emergency Planning, Safe Patient Handling and Mobility, Pharmacy, Sterile Processing, Employee Occupational Health; other program areas that may be affected by a construction project may be asked to participate on an ad hoc basis as deemed appropriate by the VA medical facility CSC chair. Local unions are notified of meetings and may choose to attend.*

(2) Ensuring that the VA medical facility CSC complies with this directive.

(3) Submitting a formal nomination to the CO for a COR to serve as the CSO based on recommendations from the VA medical facility CSC.

(4) Ensuring that VA medical facility personnel complete and document construction safety training in accordance with paragraph 4.

(5) Ensuring that other VHA personnel who need limited access to the construction area(s) complete a local safety orientation on the hazards and safety measures that may be encountered on the construction jobsite.

l. **VA Medical Facility Construction Safety Committee Chair.** ***NOTE:*** *The VA medical facility CSC chair is a member of the ELT and appointed by the VA medical facility Director.* The VA medical facility CSC chair is responsible for:

(1) Determining the scope and depth of safety, industrial hygiene, infection prevention and control, emergency management and security responsibilities as appropriate for all construction activities.

(2) Recommending a CSO to the VA medical facility Director for nomination as a COR to the CO. ***NOTE:*** *The nomination recommendation must give due consideration to OSH qualifications, experience on the project and the identified or potential hazards. The nomination recommendation must be documented within the VA medical facility CSC minutes with the COR nomination memorandum kept on file by the CO.*

(3) Ensuring that a VHA-PCRA is completed and documented in accordance with this directive (see paragraph 3) and VA-recognized health care accreditation standards. ***NOTE:*** *The VA medical facility CSC chair designates who will complete the VHA-PCRA (e.g., the CSO).*

(4) Coordinating with the VA medical facility CSO to ensure any VA or VHA programs and initiatives for preventing the spread of infectious diseases (e.g., tuberculosis screening or testing, influenza immunization, COVID-19 immunization) are considered in those circumstances where contracted construction personnel meet the definition of persons covered by each respective policy. ***NOTE:*** *Questions about covered persons can be directed to VHA OSH Office.*

(5) Ensuring that the CSC members participate in all phases of construction projects from planning through completion. ***NOTE:*** *This includes reviewing and making recommendations regarding construction plans, contract specifications, contract submittals related to construction safety and health and any other documents that may assist in the implementation of an effective construction safety and health program. The full membership of the VA medical facility CSC must be involved early in the process and continue to actively participate on a regular basis.*

(6) Ensuring that an Interim Life Safety Measures assessment is conducted and implementing life safety measures as necessary.

(7) Ensuring that the construction safety and health program includes periodic work site hazard surveillance activities with appropriate membership (minimally the CSO), scope and frequency (minimum weekly) for each construction project as determined by the CSO and the VHA-PCRA. Hazard surveillance activities must be documented and tracked to completion in the designated OSH reporting system. ***NOTE:*** *Documentation must include date, time and members of the inspection team, as well as deficiencies, type of corrective action, time and date of correction and monthly tabulation of the contractors' OSHA recordables and hours worked.*

(8) Ensuring that each construction area or site has a security plan in place to restrict access to unauthorized persons and that the plan is fully implemented.

(9) Ensuring that the VA medical facility CSC meets at least once per month; signing CSC minutes.

(10) Documenting and communicating VA medical facility-specific construction safety requirements and standards to appropriate VA medical facility personnel.

(11) Ensuring participation of SMEs in a final walk-through inspection and approval

of the site prior to opening of the area for use, patient care or provision of services as appropriate.

m. **VA Medical Facility Safety Manager.** The VA medical facility Safety Manager is responsible for providing construction safety consultations and serving as the co-chair of the VA medical facility CSC.

n. **VA Medical Facility Chief Healthcare Engineer.** The VA medical facility Chief Healthcare Engineer is responsible for:

(1) Ensuring that the Healthcare Engineering Program complies with the applicable requirements of this directive.

(2) Ensuring each VHA construction work crew performing non-contracted (in-house) construction work/activities managed by Healthcare Engineering has a leader (VHA Construction Lead Person (CLP)) with authority to take corrective measures if hazards are observed during their work operations.

(3) Ensuring the VHA CLP is designated as the OSHA-defined Competent Person (CP) in accordance with 29 C.F.R. § 1926.20(b)(2). Documentation of CP designation(s) is provided to the VA medical facility CSC.

(4) Ensuring VHA CLPs and VHA shop staff performing construction work receive training in the recognition and avoidance of unsafe conditions and the regulations applicable to their work environment to control or eliminate any hazards or other exposure to illness or injury.

(5) Completing and documenting training in accordance with paragraph 4.

(6) Serving on the VA medical facility CSC, provide counsel on construction and engineering questions and issues.

o. **VA Medical Facility Construction Safety Officer.** The VA medical facility CSO is responsible for:

(1) Serving on the VA medical facility CSC.

(2) Advising the CO, in accordance with FAR Clause 36.513, Accident Prevention, subparagraph (b), to include FAR Clause 52.236-13, Accident Prevention, in all solicitations and construction contracts as special precautions are appropriate due to the hazardous nature of construction work and potential to disrupt VA medical facility operations and cause harm.

(3) Advising the CO as to whether subparagraph (f) of the Clause 52.236-13 which requires development of a written Accident Prevention Plan (APP) and Activity Hazard Analyses (AHAs), must be included in a solicitation and construction contract. ***NOTE:*** *Typically, all construction work is considered work of long(er) duration, hazardous nature or involves hazardous materials or operations that might endanger the safety of*

the public and government personnel or property. Only short duration, smaller scale and lower complexity construction projects should be considered for not including subparagraph (f).

(4) Editing the VA Master Construction Specifications, Division 1 - General Requirements, Section 01 35 26, to make it specific for the associated construction project and provide to the CO for inclusion in each construction solicitation and contract.

(5) Reviewing project safety-related submittals for all assigned construction projects, specifically including the contractor project APP and AHAs.

(6) Providing oversight of construction safety. The CSO must be knowledgeable in the general inspection of typical worksites during construction activities performed by contract staff and in the review of contractor construction safety and health program submittals. ***NOTE:*** *CSOs do not take the place of the contractor's CP or act on their behalf.*

(7) Conducting hazard surveillance activities weekly at a minimum to identify deficiencies in the construction contractor's implementation of contract safety requirements and tracking the abatement of those deficiencies to completion.

(8) Ensuring that high-hazard risks on construction sites have a focused attention during hazard surveillance activities for compliance contract safety requirements. The list of high-hazard risks can be found at http://vaww.hefp.va.gov/occupational-safety-health/high-hazards-items-construction-sites. ***NOTE:*** *This is an internal VA website that is not available to the public.*

(9) Collecting information related to contractor injury, illness and hours worked on a monthly basis and review the data for trends identifying non-compliance with contract safety requirements.

(10) Reporting risks, deficiencies, trends and improvements for each construction project to the VA medical facility CSC during at least monthly meetings.

(11) Communicating to the contractor, COR for overall construction contract administration and CO any identified non-compliance with OSHA regulations, VA contract safety specifications or any condition which poses a serious or imminent danger with a verbal warning and a request for immediate corrective action and following up with written confirmation (email or letter of concern) provided to the contractor of the deficiencies identified. ***NOTE:*** *Corrective action includes stopping or removal of personnel from exposure to the hazardous activity but continuing work operations with abatement of the hazardous activity. A formal "stop work" order can only be provided by the CO. No one else has the authority to make any commitments or changes that affect price, quality, quantity, delivery or other terms and conditions of the contract nor in any way to direct the contractor or its subcontractors to operate in conflict with the contract terms and conditions.*

(12) Advising the CO of repeated offenses of the same or substantially similar hazards and instances in which the contractor has failed to take the necessary corrective action to abate the safety non-compliance and requesting that either all or part of the work be stopped.

(13) Ensuring compliance, via documentation of certification from the contractor, with VA or VHA programs or initiatives for preventing the spread of infectious diseases (e.g., tuberculosis screening/testing, influenza immunization, COVID-19 immunization) in those circumstances where contracted construction personnel meet the definition of persons covered by each respective VHA policy. ***NOTE:*** *Questions about covered persons can be directed to the VHA OSH Office.*

p. **VHA Construction Lead Person.**. The VHA CLP is assigned to manage construction safety on non-contracted (in-house) construction work activities managed by the VA medical facility Healthcare Engineering Program and is responsible for:

(1) Acting as the VA medical facility OSHA-defined CP on assigned healthcare engineering in-house projects.

(2) Being knowledgeable of the hazards that may be encountered during their construction work operations and completing relevant formal training (e.g., scaffold safety training if using scaffolds).

(3) Conducting daily safety inspections on all active construction worksites, when construction-related work is being performed, to identify existing and predictable hazards in the surroundings and working conditions which are unsanitary, hazardous or dangerous to VHA construction staff and taking prompt corrective measures to eliminate identified hazards.

3. PRE-CONSTRUCTION RISK ASSESSMENTS

a. The VHA-PCRA form must be used to assess and document all construction-associated hazards that affect VA medical facilities, their occupants, services and mission-essential functions and capabilities. VHA-PCRAs are intended to eliminate or minimize construction-associated risks.

(1) At least one VHA-PCRA must be completed for each construction project or activity. Project or construction activity scope and complexity determine the need for multiple VHA-PCRAs. Determinants include, but are not limited to duration, number and size of areas or locations, work phases, types and number of individuals (e.g., patients, residents, staff, public), changes in means and methods and changes in mitigation strategies.

(2) Initial VHA-PCRAs must be completed and included in construction contract solicitations to assure bidder awareness of VA assessed risks and required mitigation(s) that may impact contractor work activities (e.g. means and methods, labor, scheduling, safety precautions, safety training of workers, pricing).

(3) VHA-PCRAs must be re-validated and updated as needed based on but not limited to changes from original designs, affected individuals, area(s)/location(s), scope, contractor means and methods, safety requirements, phasing, contractor competencies and capabilities.

(4) The VHA-PCRA form, use instructions and other guidance are available at: http://vaww.hefp.va.gov/resources/vha-pre-construction-risk-assessment-pcra. ***NOTE:*** *This is an internal VA website that is not available to the public.*

(5) VHA-PCRA includes an initial general assessment of potential risks of transmission of infectious disease(s) related to all construction activity in addition to the primary review of construction safety and associated impacts.

(a) This initial assessment of transmission risks of airborne, surface contact and waterborne or water-related infectious diseases conducted within the VHA-PCRA must be performed with input from a member of the VA medical facility Infection Prevention and Control staff and with the VA medical facility Water Safety Committee, as needed. See VHA Directive 1061(1), Prevention of Health Care-Associated Legionella Disease and Scald Injury from Water Systems, dated February 16, 2021.

1. The assessment is to determine if any infection control measures may be required in addition to those already implemented in the VHA-PCRA to prevent or reduce exposure to infectious agents to VA medical facility occupants.

2. An assessment of the risks of the construction or renovation activity on exposure to infectious diseases must not be limited to the exposure potential during the activity but also include assessment of exposure potential and necessary mitigations after completion or substantial completion prior to occupancy or use.

(b) For those construction activities where the initial infection control review within the VHA-PCRA identifies potential risks of infectious disease transmission affecting the care, treatment or services of patients or residents, a detailed analysis must be conducted using the VHA-ICRA form to document an in-depth infection risk assessment(s) and identification of mitigation actions/activities. The VHA-ICRA form, use instructions and other guidance are available at: http://vaww.hefp.va.gov/resources/vha-infection-control-risk-assessment-icra. ***NOTE:*** *This is an internal VA website that is not available to the public.*

1. VHA-ICRAs that have been completed must be included with VHA-PCRAs in construction contract solicitations to assure bidder awareness of VA-assessed risks and required mitigation(s) that may impact contractor work activities such as means and methods, labor, scheduling, safety precautions, special training of workers and pricing.

2. VHA-ICRAs must be re-validated and updated as needed based on changes in original designs, affected individuals, area(s) or location(s), scope, contractor means and methods, infection prevention and control requirements, differing site conditions, phasing, contractor competencies and capabilities, disease outbreaks.

3. Additional infection prevention and control guidance and resources related to construction safety can be found at: http://vaww.va.gov/InfectiousDiseases/IPC.asp. ***NOTE:*** *This is an internal VA website that is not available to the public.*

4. TRAINING

a. The following training is ***required*** for VA medical facility Chief Healthcare Engineers, VHA CLPs, all VISN SOH Managers that have responsibilities related to construction, CSOs, Project Engineers and VA medical facility Safety Program Managers:

(1) Talent Management System (TMS) VHA-PROG-150 or the OSHA 30-hour Construction Safety training course. ***NOTE:*** *The VA TMS PCRA training (VA # 42431) is added if the OSHA 30-hour course is used.*

(2) Minimum of 10 hours of construction safety-related training every 2 years.

b. The following training is ***required*** for VHA Infection Prevention and Control staff: VA TMS PCRA training (VA # 42431).

c. VHA CLPs and VHA shop staff performing construction work must complete training in the recognition and avoidance of unsafe conditions and the regulations applicable to their work environment to control or eliminate any hazards or other exposure to illness or injury in accordance with 29 C.F.R. § 1926.21(b)(2). This training is not standardized, varies based upon potential hazards in their work environment and can be found through such sources as: VA TMS, OSHA Training Education Centers, private sector trainers and locally by trainers with the requisite construction occupational safety and health knowledge.

5. RECORDS MANAGEMENT

All records regardless of format (e.g., paper, electronic, electronic systems) created by this directive must be managed as required by the National Archives and Records Administration (NARA) approved records schedules found in VHA Records Control Schedule 10-1. Questions regarding any aspect of records management should be addressed to the appropriate Records Officer.

6. BACKGROUND

a. OSHA amended 29 C.F.R. part 1960 to implement its Multi-Employer Worksite Policy (OSHA Directive CPL 2-0.124) in the Federal sector. As a result, controlling employers such as VHA are required to provide “reasonable care,” which OSHA explains as having the following components:

(1) Periodic inspections of appropriate frequency;

(2) Implementation of an effective system for promptly correcting hazards; and

(3) Enforcement of the other employer's compliance with safety and health requirements, with an effective, graduated system of enforcement and follow-up inspections.

b. FAR, 48 C.F.R. §§ 9.104-1(f) and 52.236-13; VAAR, 48 C.F.R. § 852.223-71(a) and (b)(1); OSHA, 29 C.F.R. part 1926; The Joint Commission accreditation standards; National Fire Protection Association standards; and VA Fire Protection Design Manual identify requirements for safe construction practices.

c. The implementation of a proactive and comprehensive construction safety and health program reduces the potential for injury and illness from unsafe and unhealthy construction activities and liability.

7. DEFINITIONS

a. **Competent Person.** For purposes of this directive, a CP is an individual who is capable of identifying existing and predictable hazards in the surroundings and working conditions which are unsanitary, hazardous or dangerous to employees and who has the authorization to take prompt corrective measures to eliminate them (see 29 C.F.R. § 1926.32(f)).

b. **Construction Work.** For purposes of this directive, construction work is the process of building, altering, repairing, remodeling, improving or demolishing an infrastructure facility, including any structure, building or other improvements of any kind to real property. It does not include the routine operation, routine repair or routine maintenance of an existing infrastructure facility, including structures, buildings or real property.

c. **VHA-Infection Control Risk Assessment.** A VHA-ICRA is a systematic process, conducted as part of the VHA-PCRA, that determines the level of potential infection risks to patients or residents due to the physical environment throughout the construction and commissioning process and defines controls to reduce these infection-related risks.

d. **VHA-Pre-Construction Risk Assessment.** A VHA-PCRA is a formal assessment protocol required to identify potential safety risks in the health care facility environment and create mitigation strategies to prevent, reduce or eliminate them prior to the initiation of any construction-related activities. The assessment includes an assessment of potential risks to occupants for air quality, infection prevention and control, utility requirements, noise, vibration and any other hazards applicable to the work. The VHA-PCRA may also include a detailed VHA-ICRA to assess infection-related risks to patients and residents.

8. REFERENCES

a. 29 C.F.R. §§ 1910.12, 1926.20, 1926.21 and 1926.32.

b. FAR, 48 C.F.R. subparts 9.1, 36 and 52.

c. VAAR, 48 C.F.R. part 852.

d. VHA Directive 1061(1), Prevention of Health Care-Associated Legionella Disease and Scald Injury from Water Systems, dated February 16, 2021.

e. VHA Directive 7701, Comprehensive Occupational Safety and Health Program, dated December 12, 2022.

f. VHA Construction Safety Guidebook. http://vaww.hefp.va.gov/guidebooks/construction-safety-guidebook. ***NOTE:*** *This is an internal VA website that is not available to the public.*

g. VHA-PCRA Guidance. http://vaww.hefp.va.gov/resources/vha-pre-construction-risk-assessment-pcra. ***NOTE:*** *This is an internal VA website that is not available to the public.*

h. VHA-ICRA Guidance. http://vaww.hefp.va.gov/resources/vha-infection-control-risk-assessment-icra. ***NOTE:*** *This is an internal VA website that is not available to the public.*

i. Infection Prevention and Control Resources. http://vaww.va.gov/InfectiousDiseases/IPC.asp. ***NOTE:*** *This is an internal VA website that is not available to the public.*

j. VHA High Hazard Items on Construction Sites. http://vaww.hefp.va.gov/occupational-safety-health/high-hazards-items-construction-sites. ***NOTE:*** *This is an internal VA website that is not available to the public.*

k. VA Master Construction Specifications, Division 1, General Requirements, Section 01 35 26 - Safety Requirements. https://www.cfm.va.gov/til/spec.asp#01.

l. OSHA Directive CPL 2-0.124, Multi-Employer Citation Policy. https://www.osha.gov/enforcement/directives/cpl-02-00-124.

m. The Joint Commission Comprehensive Accreditation and Certification Manual. http://vaww.hefp.va.gov/resources/joint-commission-tjc. ***NOTE:*** *This is an internal VA website that is not available to the public.*

DEPARTMENT OF VETERANS AFFAIRS
Justification and Approval for
Other Than Full and Open Competition

1. **Contracting Activity:**
   Department of Veterans Affairs, Network Contracting Office 4 (NCO4)
   The proposed procurement has specific, brand-name material for portions of the 9th Floor Mental Health Unit Project #693-19-106 at the Wilkes-Barre Veterans Affairs Medical Center (WBVAMC).

2. **Nature and/or Description of the Action Being Approved:**
   This justification is to support the WBVAMC 9th Floor Mental Health Unit Project that will be awarded as a firm-fixed price contract. This justification is for other than full and open competition for the procurement of certain construction materials and installation. The use of brand name descriptions for a portion of the acquisition is essential to the Government's requirements, thereby precluding consideration of a product manufactured by another company. The use of a particular brand name for the items listed below accommodates standardization of these items throughout the facility.

   a. Building Automation and HVAC Control System: Johnson Controls Metasys Building Automation and HVAC Control System
   b. Fire Alarm System: Johnson Controls Notifier IFC-3030 Intelligent Addressable Fire Alarm System and compatible peripherals
   c. Door Hardware: Yale GG-Keyway mortise lockset with 6-pin interchangeable cores
   d. Access Control: Johnson Controls PIV
   e. Video Surveillance: Avigilon Video Surveillance
   f. Nurse Call system: Jeron 790 Nurse Call system

3. **Description of Supplies/Services Required to Meet the Agency's Needs:**
   This procurement is to Expand Mental Health Clinic at the Wilkes-Barre VAMC. The scope includes everything necessary to construct a functional space that meets the requirements of the Department of Veterans Affairs. There are six (6) brand name systems listed for which the VA is not able to accept equal or alternate items. The value of VAAR Construction magnitude for the entire project is between $10,000,000.00 and $20,000,000.00. The estimated value of all brand name requirements is: $194,688.00.

   a. Building Automation and HVAC Control System
      i. Johnson Controls Metasys Building Automation and HVAC Control System
      ii. Value: $80,200
      iii. Unique Qualifications: This product, the Johnson Controls Metasys Building Automation and HVAC Control System, is the only product that allows for a single HVAC control system for the WBVAMC facility and is required for system integration. Introducing another brand for this HVAC system would not be cost effective, nor efficient for operations for the entire WBVAMC facility. Johnson Controls Metasys control system is the specified campus-wide building and HVAC control System under VA specification 23 09 23 1.1 F.

b. Fire Alarm System
    i. Johnson Controls Simplex 4100 ES series Intelligent Addressable Fire Alarm System and associated peripherals.
    ii. Value: $19,700
    iii. Unique Qualifications: This product, Johnson Controls Simplex 4100 ES Fire Alarm System, is the only product that allows for a single fire alarm system to be used throughout the WBVAMC facility. This brand is used throughout the WBVAMC facility to meet VA specification 28 31 00 1.1 a. WBVAMC currently has the Johnson Controls Simplex 4100 ES Fire Alarm System as the campus-wide fire alarm system. Introducing another brand would require a facility wide changeout that is not cost effective nor efficient to WBVAMC operations. The existing Simplex 4100 ES alarm panel has excess capacity for the connection of fire alarm equipment to be installed and monitored as part of the Expand Mental Health project. This fire alarm system will activate alarms within the building to alert occupants that assistance may be required.
c. Door Hardware
    i. Yale GG keyway mortise lockset with 6-pin interchangeable cores
    ii. Value: $39,038
    iii. Unique Qualifications: The medical center requires all new construction projects to specifically incorporate the Yale GG keyway keying system. This ensures the Yale locks are uniform throughout the facility wide access control requirements of VA specification 08 06 71 4.5.
d. Access Control
    i. Johnson Controls PIV
    ii. Value: $18,850
    iii. Unique Qualifications: All access control equipment within the WBVAMC facility is provided by Johnson Controls. To maintain uniform access control throughout, all new construction projects shall utilize Johnson Control systems. No other brand is interchangeable with these systems to allow for substitution. Using the Johnson Control systems ensures that the new access control products installed in the project integrate seamlessly with existing systems. Johnson Controls are used to meet VA specification 28 05 00 1.1a.
e. Video Surveillance
    i. Avigilon Video Surveillance cameras
    ii. Value: $24,400
    iii. Unique Qualifications: All video surveillance equipment within the hospital is a product of by Avigilon System, installed and maintained by Avigilon certified installers. To maintain consistency throughout the medical center, all construction projects shall utilize the Avigilon Video surveillance cameras, installed by Avigilon certified installers. This ensures spares are uniform and readily integrate into existing surveillance systems as new requirements arise. All surveillance equipment shall integrate seamlessly into the existing Avigilon Video system as specified in VA specification 28 23 00 1.1a.
f. Nurse Call System
    i. Jeron 790 system
    ii. Value: $12,500
    iii. Unique Qualifications: All Jeron Nurse Call equipment within the WBVAMC is a product of by Jeron and installed and maintained by Jeron certified installers. To maintain consistence

throughout the medical center, all construction projects shall utilize the Jeron 790 nurse call system and be installed by Jeron certified installer for any camera installations. No other brand is available to integrate with the nurse call system and new construction projects require seamless integration with existing WBVAMC nurse call systems as specified in VA specification 27 52 23 2.1a.

4. **Statutory Authority Permitting Other than Full and Open Competition:**
Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements, per FAR 6.302-1(c) Application for brand-name descriptions.

5. **Demonstration that the contractor's unique qualifications or nature of the acquisition requires the use of the authority cited above (applicability of authority):**
These items have been standardized throughout the Wilkes-Barre VAMC. The use of brand name descriptions for a portion of the acquisition is essential to the Government's requirements, thereby precluding consideration of a product manufactured by another company. Installing a different manufacturers' system will create significant duplication in cost for the facility, and in most cases the equipment will not function properly. The specific impact for not using the brand name items is listed below:

a. Building Automation and HVAC Control System
   i. Johnson Controls Metasys Building Automation and HVAC Control System
   ii. Impact: An incompatible system may require installation of new "front-end" and remote workstations as well as new software and programming. Additionally, installation of components that match the existing building automation system minimizes maintenance costs and bench stock requirements. It is necessary to match the existing system to ensure there are no interface problems, impacts to patient safety and familiarity of the product to the staff and maintenance personnel per VA specification 23 09 23 1.1 F. This is the only way to ensure complete compatibility and that the campus will not have two HVAC control systems on the WBVAMC campus.

b. Fire Alarm System
   i. Johnson Controls Simplex 4100 ES Fire Alarm System
   ii. Impact: Installation of a system that interfaces properly with the existing system will ensure patient safety is maintained at the highest level. Additionally, installation of components that match the existing fire alarm system minimizes maintenance costs and bench stock requirements. No other system will integrate with our existing fire protection system. It is necessary to match the existing system to ensure there are no interface problems and that system operation and maintenance is maintained to ensure patient and worker safety as required under VA specification 28 31 00 1.1a.

c. Door Hardware
   i. Yale GG keyway mortise lockset with 6-pin interchangeable cores
   ii. Impact: The Yale system is the current mechanical access control system, and it is required to maintain a facility wide keying system per VA specification 08 06 71 4.5 "Hardware Sets"
   Mortise locksets – Yale Brand of Locks and 6-pin cores
   It is also important to note that maintaining bench stock for the parts and keying components of an entirely different locking system and hardware sets would be expensive and time-consuming. Use of another brand would require duplicating

efforts in training and double the stock on hand for replacement parts. These items are competitively priced and are widely available.

d. Access Control
   i. Johnson controls PIV
   ii. Impact: Installation of a system that interfaces properly with the existing system will ensure appropriate security access is maintained at the highest level. Additionally, installation of components that match the existing access control system minimizes maintenance costs and bench stock requirements. No other system will integrate with our existing access control system. It is necessary to match the existing system to ensure there are no interface problems and that system operation and maintenance is maintained to ensure safety as required by VA specification 28 25 00 1.1a

e. Video Surveillance
   i. Avigilon Video Surveillance cameras
   ii. Impact: Installation of a system that interfaces properly with the existing system will ensure our Video Surveillance system and coverage is maintained at the highest level across the medical center. Additionally, installation of components that match the existing access control system minimizes maintenance costs and bench stock requirements. No other system will integrate with our existing public address system. It is necessary to match the existing system to ensure there are no interface problems, that system operation and maintenance is maintained to ensure safety, and that the existing warranty is not voided. The Avigilon Video brand meets VA specification 28 23 00 1.1a.

f. Nurse Call System
   i. Jeron 790 System
   ii. Value: $12,500
   iii. Unique Qualifications: All the Jeron Nurse Call equipment within the hospital is a product of by Jeron and installed and maintained by Jeron certified installer. To maintain consistence throughout the medical center, all construction projects shall utilize the Jeron 790 nurse call system and be installed by Jeron certified installer for any camera installations. Additionally, this helps the medical center mitigate having to stock a mixture of nurse call products from various vendors on station and ensures that the new nurse call system installed in the project integrates seamlessly with existing facility systems as required by VA specification 27 52 23 2.1a.

6. **Description of efforts made to ensure that offers are solicited from as many potential sources as deemed practicable:**

In accordance with the Competition in Contracting Act (CICA), the components listed above are identified as brand name; however, the overall procurement will be competed as a Service-Disabled Veteran-Owned Small-Business (SDVOSB) Set-Aside. This Justification for Other Than Full and Open Competition will be posted to Federal Business Opportunities with the solicitation.

7. **Determination by the Contracting Officer that the Anticipated Cost to the Government will be Fair and Reasonable:**
The anticipated price to the Government for the items requested to be brand name is approximately $194,688.00.

The items for which brand name approval is being requested are subsequent components to the overall construction project. This procurement will be competed and based on competition; the Contracting Officer will make a determination of fair and reasonable pricing prior to award.

8. **Description of the Market Research Conducted and the Results, or a Statement of the Reasons Market Research Was Not Conducted:**
Approval of the items as brand name only is critical for the overall efficiency of the completed project and the WBVAMC facility as a whole.

9. **Any Other Facts Supporting the Use of Other than Full and Open Competition:**
New components must be able to tie into an existing and operational system including the use of software. At this time, there are no competing vendors whose products are fully compatible with the existing systems being used at the Wilkes-Barre VAMC. Converting one building of the entire campus to another manufacturer's system would be extremely disruptive to medical center operations and prohibitively expensive.

10. **Listing of Sources that Expressed, in Writing, an Interest in the Acquisition:**
Not applicable. It is the responsibility of the Offerors and the general contractor awarded the project to locate suppliers and obtain pricing for all materials and components, including the items listed in this justification.

11. **A Statement of the Actions, if any, the Agency May Take to Remove or Overcome any Barriers to Competition before Making subsequent acquisitions for the supplies or services required**:
There will be competition for the overall procurement. It will be the responsibility of the offerors to obtain pricing from the suppliers of the items and to submit a competitive proposal for the project.

12. **Requirements Certification:**
I certify that the requirement outlined in this justification is a Bona Fide Need of the Department of Veterans Affairs and that the supporting data under my cognizance, which are included in the justification, are accurate and complete to the best of my knowledge and belief.

Michael Somoga
Project Manager/COR
Wilkes-Barre VA Medical Center

13. Approval in accordance with FAR 6.304 & VHAPM Part 806.3

Contracting Officer's Certification (required): I certify that the foregoing justification is accurate and complete to the best of my knowledge and belief.

Scot Plank
Contracting Officer, NCO4
Specialized – WB Construction Team

"General Decision Number: PA20240095 11/01/2024

Superseded General Decision Number: PA20230095

State: Pennsylvania

Construction Type: Building

County: Luzerne County in Pennsylvania.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2024
1	01/12/2024

2	02/23/2024
3	04/05/2024
4	05/31/2024
5	06/07/2024
6	06/28/2024
7	10/25/2024
8	11/01/2024

* ASBE0038-006 07/01/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (MECHANICAL- Duct, Pipe & Mechanical System Insulation)	$ 38.33	23.67

BOIL0013-008 01/01/2024

	Rates	Fringes
BOILERMAKER	$ 52.10	35.38

BRPA0005-072 05/01/2022

	Rates	Fringes
TILE FINISHER	$ 32.62	15.62
TILE SETTER	$ 35.13	16.52

BRPA0005-078 05/01/2022

	Rates	Fringes
BRICKLAYER (Including Pointing, Caulking, and Cleaning)	$ 37.07	18.82
MASON - STONE	$ 37.07	18.82

CARP0445-001 05/01/2023

	Rates	Fringes
CARPENTER (Including Acoustical Ceiling Installation; Drywall Hanging; Floor Laying-Carpet and Vinyl; Form Work)	$ 33.27	19.06

ELEC0163-007 06/01/2024

	Rates	Fringes
ELECTRICIAN (Includes Installation of Sound and Communication Systems, HVAC/Temperature Controls Installation, and Low Voltage Wiring)	$ 42.51	24.78

ELEV0084-005 01/01/2024

	Rates	Fringes
ELEVATOR MECHANIC	$ 58.88	37.885+a+b

FOOTNOTES:

A. VACATION CREDIT: Employer contributes 8% basic hourly rate for 5 years or more of service as vacation pay credit, and 6% for 6 months to 5 years of service.

B. Eight Paid Holidays (provided employee has worked 5 consecutive days before and the working day after the holiday): New Years's Day; Memorial Day; Independence Day; Labor Day; Veteran's Day; Thanksgiving Day and the Friday after Thanksgiving Day, and Christmas Day.

ENGI0066-039 06/12/2017

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Pump	$ 29.58	20.15

ENGI0542-038 05/01/2018

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Backhoe/ Excavator/ Trackhoe, Bulldozer, Hoist (With Two Towers), Mechanic, Loader	$ 35.73	24.71
Bobcat/ Skid Steer/ Skid Loader, Roller	$ 35.73	24.71
Concrete Pump	$ 38.26	25.46
Crane	$ 38.26	25.46
Forklift (20 ft and over, excludes masonry work)	$ 35.73	24.71
Forklift (Lull or similar, excludes masonry work)	$ 33.01	23.90
Hoist (Single Drum), Forklift (under 20 ft)	$ 33.01	23.90
Oiler	$ 30.54	23.18

IRON0404-028 07/01/2024

	Rates	Fringes
IRONWORKER (Ornamental, Structural, & Reinforcing)	$ 37.26	32.63

LABO0130-011 05/01/2017

	Rates	Fringes
LABORER		
Asbestos Abatement: Removal from Floors, Walls, Ceilings and Mechanical Systems	$ 22.80	16.88
Common or General; Concrete Worker	$ 20.80	16.88
Forklift (Masonry Work Only)	$ 24.82	16.88
Mason Tender-Brick	$ 23.32	16.88
Mason Tender-Stone	$ 23.32	16.88
Scaffold Builder (Brick		

and Masonry only).....$ 23.32 16.88

PAIN0041-002 05/01/2014

	Rates	Fringes
PAINTER (Brush, Roller, Spray, and Drywall Finishing/Taping).....	$ 27.95	16.12

PLAS0592-038 06/01/2023

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	$ 37.13	14.30

PLUM0524-011 12/01/2023

	Rates	Fringes
PLUMBER.....	$ 49.39	23.07

PLUM0524-012 12/01/2023

	Rates	Fringes
PIPEFITTER (Includes HVAC Pipe Installation).....	$ 49.39	23.07

ROOF0030-004 05/01/2024

	Rates	Fringes
ROOFER (Excludes Metal Roof Installation and Waterproofing).....	$ 34.25	21.89

SFPA0669-004 04/01/2024

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	$ 46.45	28.37

SHEE0044-010 05/01/2024

	Rates	Fringes
SHEET METAL WORKER (Includes HVAC Duct and Metal Roof Installation).....	$ 36.13	30.32

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* UAVG-PA-0020 01/01/2023

	Rates	Fringes
LABORER: Mason Tender - Cement/Concrete.....	$ 27.89	19.81

SUPA2011-053 08/20/2014

	Rates	Fringes
OPERATOR: Drill.....	$ 28.55	15.78

OPERATOR: Gradall.....$ 32.70 18.43

OPERATOR: Grader/Blade.....$ 32.51 17.98

OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....$ 33.01 18.37

ROOFER: Waterproofing Only.....$ 28.60 18.02

TRUCK DRIVER: Dump Truck.....$ 23.36 7.60

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number,

005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R §1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can

be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

SECTION 22 11 00
FACILITY WATER DISTRIBUTION

PART 1 - GENERAL

1.1 DESCRIPTION

A. Domestic water systems, including piping, equipment and all necessary accessories as designated in this section.

B. A complete listing of all acronyms and abbreviations are included in Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.

1.2 RELATED WORK

A. Section 01 00 00, GENERAL REQUIREMENTS.

B. Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

C. Section 01 81 13, SUSTAINABLE CONSTRUCTION REQUIREMENTS.

D. Section 07 84 00, FIRESTOPPING.

E. Section 07 92 00, JOINT SEALANTS.

F. Section 09 91 00, PAINTING.

G. Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.

H. Section 22 07 11, PLUMBING INSULATION.

1.3 1.3 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.

B. American Society of Mechanical Engineers (ASME):

A13.1-2020.....Scheme for Identification of Piping Systems

B16.3-2016.....Malleable Iron Threaded Fittings: Classes 150 and 300

B16.9-2018.....Factory-Made Wrought Buttwelding Fittings

B16.11-2016(2017e).....Forged Fittings, Socket-Welding and Threaded

B16.12-2019.....Cast Iron Threaded Drainage Fittings

B16.15-2018 .....Cast Copper Alloy Threaded Fittings: Classes 125 and 250

B16.18-2018.....Cast Copper Alloy Solder Joint Pressure Fittings

B16.22-2018.....Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings

B16.24-2016.....Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1500, and 2500

ASME Boiler and Pressure Vessel Code -
BPVC Section IX-2021....Welding, Brazing, and Fusing Qualifications

C. American Society of Sanitary Engineers (ASSE):
1010-2004.....Performance Requirements for Water Hammer Arresters

D. American Society for Testing and Materials (ASTM):
A47/A47M-1999 (R2018)e1.Standard Specification for Ferritic Malleable Iron Castings
A53/A53M-2020.....Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
A183-2014(R2020).....Standard Specification for Carbon Steel Track Bolts and Nuts
A269/A269M-2015A(R2019).Standard Specification for Seamless and Welded Austenitic Stainless-Steel Tubing for General Service
A312/A312M-2019.....Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless-Steel Pipes
A403/A403M-2020.....Standard Specification for Wrought Austenitic Stainless Steel Piping Fittings
A536-1984 (R2019)e1.....Standard Specification for Ductile Iron Castings
A733-2016.....Standard Specification for Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples
B32-2020.....Standard Specification for Solder Metal
B43-2020.....Standard Specification for Seamless Red Brass Pipe, Standard Sizes
B61-2015.....Standard Specification for Steam or Valve Bronze Castings
B62-2017.....Standard Specification for Composition Bronze or Ounce Metal Castings
B75/B75M-2020.....Standard Specification for Seamless Copper Tube
B88-2020.....Standard Specification for Seamless Copper Water Tube

B584-2014.....Standard Specification for Copper Alloy Sand Castings for General Applications

B687-1999 (R2016).....Standard Specification for Brass, Copper, and Chromium-Plated Pipe Nipples

C919-2019.....Standard Practice for Use of Sealants in Acoustical Applications

D1785-2015e1.....Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120

D2000-2018.....Standard Classification System for Rubber Products in Automotive Applications

D2564-2020.....Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems

D2657-2007(R2015).....Standard Practice for Heat Fusion Joining of Polyolefin Pipe and Fittings

D2855-2020.....Standard Practice for Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings

D4101-2017e1.....Standard Specification and Basis for Specification for Polypropylene Injection and Extrusion Materials

E1120-2016.....Standard Specification for Liquid Chlorine

E1229-2016.....Standard Specification for Calcium Hypochlorite

F2389-2019.....Standard Specification for Pressure-rated Polypropylene (PP) Piping Systems

F2620-2020.....Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings

F2769-2018.....Standard Specification for Polyethylene of Raised Temperature (PE-RT) Plastic Hot and Cold-Water Tubing and Distribution Systems

E. American Water Works Association (AWWA):

C110-2012.....Ductile-Iron and Gray-Iron Fittings

C151-2017(2018e).....Ductile Iron Pipe, Centrifugally Cast

C153-2019.....Ductile-Iron Compact Fittings

C203-2020.....Coal-Tar Protective Coatings and Linings for Steel Water Pipelines - Enamel and Tape - Hot Applied

C213-2015.....Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines

C651-2014(2020).....Disinfecting Water Mains

F. American Welding Society (AWS):

A5.8M/A5.8-2019.....Specification for Filler Metals for Brazing and Braze Welding

G. International Code Council (ICC):

IPC-2021.....International Plumbing Code

H. Manufacturers Specification Society (MSS):

SP-58-2018-AMD1.....Pipe Hangers and Supports - Materials, Design, Manufacture, Selection, Application, and Installation

SP-72-2010a.....Ball Valves with Flanged or Butt-Welding Ends for General Service

SP-110-2010(ETRA 2010)..Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends

I. NSF International (NSF):

14-2020.....Plastics Piping System Components and Related Materials

61-2020.....Drinking Water System Components – Health Effects

372-2020.....Drinking Water System Components – Lead Content

J. Plumbing and Drainage Institute (PDI):

PDI-WH 201-2010.....Water Hammer Arrestors

K. Department of Veterans Affairs:

H-18-8-2019(R2020).....Seismic Design Handbook

H-18-10-2021.....Plumbing Design Manual

1.4 SUBMITTALS

A. Submittals, including number of required copies, shall be submitted in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Information and material submitted under this section shall be marked "SUBMITTED UNDER SECTION 22 11 00, FACILITY WATER DISTRIBUTIONS", with applicable paragraph identification.

C. Manufacturer's Literature and Data including Full item description and optional features and accessories. Include dimensions, weights, materials, applications, standard compliance, model numbers, size, and capacity.
   1. 1. All items listed in Part 2 - Products.
D. Complete operating and maintenance manuals including wiring diagrams, technical data sheets and information for ordering replacement parts:
   1. Include complete list indicating all components of the systems.
   2. Include complete diagrams of the internal wiring for each item of equipment.
   3. Diagrams shall have their terminals identified to facilitate installation, operation and maintenance.

1.5 QUALITY ASSURANCE

A. A certificate shall be submitted prior to welding of steel piping showing the Welder’s certification. The certificate shall be current and no more than one year old. Welder’s qualifications shall be in accordance with ASME BPVC Section IX.
B. All pipe, couplings, fittings, and specialties shall bear the identification of the manufacturer and any markings required by the applicable referenced standards.
C. Bio-Based Materials: For products designated by the USDA’s Bio-Preferred Program, provide products that meet or exceed USDA recommendations for bio-based content, so long as products meet all performance requirements in this specifications section. For more information regarding the product categories covered by the Bio-Preferred Program, visit http://www.biopreferred.gov.

1.6 SPARE PARTS

1.7 AS-BUILT DOCUMENTATION

A. Submit manufacturer’s literature and data updated to include submittal review comments and any equipment substitutions.
B. Submit operation and maintenance data updated to include submittal review comments, substitutions and construction revisions shall be in electronic version on compact disc or DVD and paper copy inserted into a three-ring binder. All aspects of system operation and maintenance procedures, including piping isometrics, wiring diagrams of all circuits, a written description of system design, control logic, and sequence of operation shall be included in the operation and

maintenance manual. The operations and maintenance manual shall include troubleshooting techniques and procedures for emergency situations. Notes on all special systems or devices shall be included. A list of recommended spare parts (manufacturer, model number, and quantity) shall be furnished. Information explaining any special knowledge or tools the owner will be required to employ shall be inserted into the As-Built documentation.

C. The installing contractor shall maintain as-built drawings of each completed phase for verification; and shall provide the complete set at the time of final systems certification testing. As-built drawings are to be provided, and a copy of them in Auto-CAD version 2019 provided on compact disk or DVD. Should the installing contractor engage the testing company to provide as-built or any portion thereof, it shall not be deemed a conflict of interest or breach of the 'third party testing company' requirement.

D. Certification documentation shall be provided to COR 10 working days prior to submitting the request for final inspection. The documentation shall include all test results, the names of individuals performing work for the testing agency on this project, detailed procedures followed for all tests, and certificate if applicable that all results of tests were within limits specified. If a certificate is not available, all documentation shall be on the Certifier's letterhead.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Material or equipment containing a weighted average of greater than 0.25 percent lead are prohibited in any potable water system intended for human consumption and shall be certified in accordance with NSF 61 or NSF 372. Endpoint devices used to dispense water for drinking shall meet the requirements of NSF 61, Section 9.

B. Plastic pipe, fittings, and solvent cement shall meet NSF 14 and shall be NSF listed for the service intended.

2.2 ABOVE GROUND (INTERIOR) WATER PIPING

A. Pipe: Copper tube, ASTM B88, Type K or L, drawn.

B. Fittings for Copper Tube:

1. Wrought copper or bronze castings conforming to ASME B16.18 and B16.22. Unions shall be bronze, MSS SP-72, MSS SP-110, solder or

braze joints as described below. Use 95/5 tin and antimony for all soldered joints.

2. Mechanical press-connect fittings are not permitted.
3. Grooved fitting are not permitted
4. Mechanically formed tee connection are not permitted.
5. Hot Taps are not permitted.
6. Press-type fitting are not permitted.
7. Flanged fittings, bronze, class 150, solder-joint ends conforming to ASME B16.24.
8. No other fitting types shell be used without written approval of the COR.

C. Adapters: Provide adapters for joining pipe or tubing with dissimilar end connections.

D. Solder: ASTM B32 alloy type Sb5, HA or HB. Provide non-corrosive flux. Joints and fittings on copper piping 2" and smaller shall be soldered.

E. Brazing alloy: AWS A5.8M/A5.8, brazing filler metals shall be BCuP series for copper-to-copper joints and BAg series for copper to steel joints. Joints and fittings on copper piping 2-1/2" and larger shall be brazed. Do not solder fittings 2-1/2" and larger.

2.3 EXPOSED WATER PIPING

A. Finished Room: Use full iron pipe size chrome plated brass piping for exposed water piping connecting fixtures, casework, cabinets, equipment, and reagent racks when not concealed by apron including those furnished by the Government or specified in other sections.

1. Pipe: ASTM B43, standard weight.
2. Fittings: ASME B16.15 cast bronze threaded fittings with chrome finish.
3. Nipples: ASTM B687, Chromium-plated.
4. Unions: MSS SP-72, MSS SP-110, brass or bronze with chrome finish. Unions 65 mm (2-1/2 inches) and larger shall be flange type with approved gaskets.

B. Unfinished Rooms, Mechanical Rooms and Kitchens: Chrome-plated brass piping is not required. Paint piping systems as specified in Section 09 91 00, PAINTING.

2.4 TRAP PRIMER WATER PIPING

A. Pipe: Copper tube, ASTM B88, type K, hard drawn.

B. Fittings: Bronze castings conforming to ASME B16.18 Solder joints.

C. Solder: ASTM B32 alloy type Sb5. Provide non-corrosive flux.

2.5 STRAINERS

A. Provide on high pressure side of pressure reducing valves, on suction side of pumps, on inlet side of indicating and control instruments and equipment subject to sediment damage and where shown on drawings. Strainer element shall be removable without disconnection of piping.

B. Water: Basket or "Y" type with easily removable cover and brass strainer basket.

C. Body: Less than 75 mm (3 inches), brass or bronze; 75 mm (3 inches) and greater, cast iron or semi-steel.

2.6 DIELECTRIC FITTINGS

A. Provide dielectric couplings or unions between pipe of dissimilar metals.

2.7 STERILIZATION CHEMICALS

A. Hypochlorite: ASTM E1229.

B. Liquid Chlorine: ASTM E1120.

2.8 WATER HAMMER ARRESTER

A. Closed copper tube chamber with permanently sealed 413 kPa (60 psig) air charge above a Double O-ring piston. Two high heat Buna-N 0-rings pressure packed and lubricated with FDA approved silicone compound. All units shall be designed in accordance with ASSE 1010. Access shall be provided where devices are concealed within partitions or above ceilings. Size and install in accordance with PDI-WH 201 requirements. Provide water hammer arrestors at:

1. All solenoid valves.
2. All groups of two or more flush valves.
3. All quick opening or closing valves.
4. All medical washing equipment.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Comply with the International Plumbing Code and the following:

1. Install branch piping for water from the piping system and connect to all fixtures, valves, cocks, outlets, casework, cabinets and equipment, including those furnished by the Government or specified in other sections.

2. Pipe shall be round and straight. Cutting shall be done with proper tools. Pipe, except for plastic and glass, shall be reamed to remove burrs and a clean smooth finish restored to full pipe inside diameter.
3. All pipe runs shall be laid out to avoid interference with other work/trades.
4. Install union and shut-off valve on pressure piping at connections to equipment.
5. Pipe Hangers, Supports and Accessories:
   a. All piping shall be supported per the IPC, H-18-8 Seismic Design Handbook, MSS SP-58, and SMACNA as required.
   b. Shop Painting and Plating: Hangers, supports, rods, inserts and accessories used for pipe supports shall be shop coated with zinc chromate primer paint. Electroplated copper hanger rods, hangers and accessories may be used with copper tubing.
   c. Floor, Wall and Ceiling Plates, Supports, Hangers:
      1) Solid or split un-plated cast iron.
      2) All plates shall be provided with set screws.
      3) Pipe Hangers: Height adjustable clevis type.
      4) Adjustable Floor Rests and Base Flanges: Steel.
      5) Concrete Inserts: "Universal" or continuous slotted type.
      6) Hanger Rods: Mild, low carbon steel, fully threaded or threaded at each end with two removable nuts at each end for positioning rod and hanger and locking each in place.
      7) Pipe Hangers and Riser Clamps: Malleable iron or carbon steel. Pipe Hangers and riser clamps shall have a copper finish when supporting bare copper pipe or tubing.
      8) Rollers: Cast iron.
      9) Self-drilling type expansion shields shall be "Phillips" type, with case hardened steel expander plugs.
      10) Hangers and supports utilized with insulated pipe and tubing shall have 180-degree (minimum) metal protection shield centered on and welded to the hanger and support. The shield thickness and length shall be engineered and sized for distribution of loads to preclude crushing of insulation without breaking the vapor barrier. The shield shall be sized for the insulation and have flared edges to protect

vapor-retardant jacket facing. To prevent the shield from sliding out of the clevis hanger during pipe movement, center-ribbed shields shall be used.

11) Miscellaneous Materials: As specified, required, directed or as noted on the drawings for proper installation of hangers, supports and accessories. If the vertical distance exceeds 6.1 m (20 feet) for cast iron pipe additional support shall be provided in the center of that span. Provide all necessary auxiliary steel to provide that support.

12) With the installation of each flexible expansion joint, provide piping restraints for the upstream and downstream section of the piping at the flexible expansion joint. Provide calculations supporting the restraint length design and type of selected restraints. Restraint calculations shall be based on the criteria from the manufacturer regarding their restraint design.

6. Install chrome plated cast brass escutcheon with set screw at each wall, floor and ceiling penetration in exposed finished locations and within cabinets and millwork.
7. Penetrations:
   a. Firestopping: Where pipes pass through fire partitions, fire walls, smoke partitions, or floors, install a fire stop that provides an effective barrier against the spread of fire, smoke, and gases as specified in Section 07 84 00, FIRESTOPPING. Completely fill and seal clearances between raceways and openings with the firestopping materials.
   b. Waterproofing: At floor penetrations, completely seal clearances around the pipe and make watertight with sealant as specified in Section 07 92 00, JOINT SEALANTS. Bio-based materials shall be utilized when possible.
   c. Acoustical sealant: Where pipes pass through sound rated walls, seal around the pipe penetration with an acoustical sealant that is compliant with ASTM C919.

B. Domestic Water piping shall conform to the following:
1. Grade all lines to facilitate drainage. Provide drain valves at bottom of risers and all low points in system. Design domestic hot and cold-water circulating lines with no traps.

2. Connect branch lines at bottom of main serving fixtures below and pitch down so that main may be drained through fixture. Connect branch lines to top of main serving only fixtures located on floor above.

3.2 TESTS

A. General: Inspect all joints and connections for leaks and workmanship and make corrections as necessary to the satisfaction of the COR. Test system either in its entirety or in sections. Submit testing plan to COR 10 working days prior to test date. Testing shall be done by a 3rd party. All testing must be completed, and COR must approve testing, prior to piping being insulated, ceilings being installed, and (in the case of underslab/underground piping, prior to floor slabs being poured.

B. Potable Water System: Test after installation of piping and domestic water heaters, but before piping is concealed, before covering is applied, and before plumbing fixtures are connected. Fill systems with water and maintain hydrostatic pressure of 1035 kPa (150 psig) gage for two hours. No decrease in pressure is allowed. Provide a pressure gage with a shutoff and bleeder valve at the highest point of the piping being tested. Pressure gauge shall have 1 psig increments.

C. Re-agent Grade Water Systems: Fill system with water and maintain hydrostatic pressure of 1380 kPa (200 psig) gage for two hours during inspection and prove tight. No decrease in pressure is allowed. Provide a pressure gage with a shutoff and bleeder valve at the highest point of the piping being tested. Pressure gauge shall have 1 psig increments.

D. All Other Piping Tests: Test new installed piping under 1-1/2 times actual operating conditions and prove tight.

E. The test pressure shall hold for the minimum time duration required by the applicable plumbing code or authority having jurisdiction.

F. Pressure test shall be documented, and certificates submitted for approval. Pressure tests and piping shall be inspected by both the COR and VAMC facilities personnel.

3.3 STERILIZATION

A. After tests have been successfully completed, a 3rd party shall thoroughly flush and sterilize the interior domestic water distribution system in accordance with AWWA C651.

B. Use liquid chlorine or hypochlorite for sterilization.

3.4 DEMONSTRATION AND TRAINING

A. Provide services of manufacturer's technical representative for four (4) hours to instruct VA Personnel in operation and maintenance of the system.

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SECTION 22 05 23
GENERAL-DUTY VALVES FOR PLUMBING PIPING

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section describes the requirements for general-duty valves for domestic water and sewer systems.

B. A complete listing of common acronyms and abbreviations are included in Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.

1.2 RELATED WORK

A. Section 01 00 00, GENERAL REQUIREMENTS.

B. Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.

C. Section 01 81 13, SUSTAINABLE CONSTRUCTION REQUIREMENTS.

D. Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.

1.3 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only. Where conflicts occur these specifications and the VHA standard will govern.

B. American Society of Mechanical Engineers (ASME):
A112.14.1-2003(R2017)...Backwater Valves

C. American Society of Sanitary Engineering (ASSE):
1001-2017.....Performance Requirements for Atmospheric Type Vacuum Breakers
1003-2020.....Performance Requirements for Water Pressure Reducing Valves for Domestic Water Distribution Systems
1011-2017.....Performance Requirements for Hose Connection Vacuum Breakers
1013-2011.....Performance Requirements for Reduced Pressure Principle Backflow Preventers and Reduced Pressure Principle Fire Protection Backflow Preventers
1015-2011.....Performance Requirements for Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies

1017-2009.....Performance Requirements for Temperature Actuated Mixing Valves for Hot Water Distribution Systems

1020-2020.....Performance Requirements for Pressure Vacuum Breaker Assembly

1035-2020.....Performance Requirements for Laboratory Faucet Backflow Preventers

1069-2020.....Performance Requirements for Automatic Temperature Control Mixing Valves

1070-2015.....Performance Requirements for Water Temperature Limiting Devices

1071-2012.....Performance Requirements for Temperature Actuated Mixing Valves for Plumbed Emergency Equipment

D. American Society for Testing and Materials (ASTM):

A126-2004(R2019).....Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings

A276/A276M-2017.....Standard Specification for Stainless Steel Bars and Shapes

A536-1984(R2019e).....Standard Specification for Ductile Iron Castings

B62-2017.....Standard Specification for Composition Bronze or Ounce Metal Castings

B584-2014.....Standard Specification for Copper Alloy Sand Castings for General Applications

E. International Code Council (ICC):

IPC-2021.....International Plumbing Code

F. Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. (MSS):

SP-25-2018.....Standard Marking Systems for Valves, Fittings, Flanges and Unions

SP-70-2011.....Gray Iron Gate Valves, Flanged and Threaded Ends

SP-71-2018.....Gray Iron Swing Check Valves, Flanged and Threaded Ends

SP-80-2019.....Bronze Gate, Globe, Angle, and Check Valves

SP-85-2011.....Gray Iron Globe & Angle Valves, Flanged and Threaded Ends

SP-110-2010(2010e).....Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends

G. National Environmental Balancing Bureau (NEBB):

9th Edition 2019 Procedural Standards for Testing, Adjusting, Balancing of Environmental Systems

H. NSF International (NSF):

61-2020.....Drinking Water System Components – Health Effects

372-2020.....Drinking Water System Components – Lead Content

I. University of Southern California Foundation for Cross Connection Control and Hydraulic Research (USC FCCCHR):

10th Edition.....Manual of Cross-Connection Control

1.4 SUBMITTALS

A. Submittals, including number of required copies, shall be submitted in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, and SAMPLES.

B. Information and material submitted under this section shall be marked "SUBMITTED UNDER SECTION 22 05 23, GENERAL-DUTY VALVES FOR PLUMBING PIPING", with applicable paragraph identification.

C. Manufacturer's Literature and Data including: Full item description and optional features and accessories. Include dimensions, weights, materials, applications, standard compliance, model numbers, size, and capacity.

1. Ball Valves.
2. Balancing Valves.
3. Check Valves.
4. Globe Valves.
5. Water Pressure Reducing Valves and Connections.
6. Chainwheels.
7. Thermostatic Mixing Valves.

D. Test and Balance reports for balancing valves.

E. Complete operating and maintenance manuals including wiring diagrams, technical data sheets, information for ordering replaceable parts and troubleshooting guide:

1. Include complete list indicating all components of the systems.

2. Include complete diagrams of the internal wiring for each item of equipment.
3. Diagrams shall have their terminals identified to facilitate installation, operation and maintenance.
4. Piping diagrams of thermostatic mixing valves to be installed.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Valves shall be prepared for shipping as follows:
1. Protect internal parts against rust and corrosion.
2. Protect threads, flange faces, grooves, and weld ends.
3. Set angle, gate, and globe valves closed to prevent rattling.
4. Set ball and plug valves open to minimize exposure of functional surfaces.
5. Block check valves in either closed or open position.

B. Valves shall be prepared for storage as follows:
1. Maintain valve end protection.
2. Store valves indoors and maintain at higher than ambient dew point temperature.

C. A sling shall be used for large valves. The sling shall be rigged to avoid damage to exposed parts. Hand wheels or stems shall not be used as lifting or rigging points.

1.6 AS BUILT DOCUMENTATION

A. Comply with requirements in Paragraph “AS-BUILT DOCUMENTATION” of Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.

PART 2 - PRODUCTS

2.1 VALVES, GENERAL

A. Asbestos packing and gaskets are prohibited.

B. Bronze valves shall be made with dezincification resistant materials. Bronze valves made with copper alloy (brass) containing greater than 15 percent zinc shall not be permitted.

C. Valves in insulated piping shall have 50 mm or DN50 (2 inch) stem extensions and extended handles of non-thermal conductive material that allows operating the valve without breaking the vapor seal or disturbing the insulation. Memory stops shall be fully adjustable after insulation is applied.

D. Exposed Valves over 65 mm or DN65 (2-1/2 inches) installed at an elevation over 3.6 m (12 feet) shall have a chain-wheel attachment to valve hand-wheel, stem, or other actuator.

E. All valves used to supply potable water shall meet the requirements of NSF 61 and NSF 372.

F. Bio-Based Materials: For products designated by the USDA's bio-based Bio-Preferred Program, provide products that meet or exceed USDA recommendations for bio-based content, so long as products meet all performance requirements in this specifications section. For more information regarding the product categories covered by the Bio-Preferred Program, visit http://www.biopreferred.gov.

G. Refer to Section 01 81 13, SUSTAINABLE CONSTRUCTION REQUIREMENTS for additional sustainable design requirements.

2.2 SHUT-OFF VALVES

A. Cold, Hot and Re-circulating Hot Water:

1. 4 inches and smaller: Ball, MSS SP-110, Ball valve shall be full port three piece or two piece with a union design with adjustable stem package. Threaded stem designs are not allowed. The ball valve shall have a SWP rating of 150 psig (1035 kPa) and a CWP rating of 600 psig (4138 kPa). The body material shall be Bronze ASTM B584, lead-free Alloy C89836. The ends shall be non-lead solder for sizes 2" and smaller and non-lead braze for sizes 2-1/2" through 4". Ball valves for by-pass loops shall have a lockable lever handle.
2. 5 inches and larger: Ball, MSS SP-72. Ball valve shall be full port with a flange design with adjustable stem package. Ball valve shall have an SWP rating of 125 psig and a CWP rating of 200 psig. Body material shall be ASTM A126 Class B cast iron body with FDA food-grade epoxy powder coat. Ball and stem shall be stainless steel.

2.3 MANUAL BALANCING VALVES

A. Hot Water Re-circulating, 75 mm or DN75 (3 inches) and smaller manual balancing valve shall be of bronze body, brass ball construction with glass and carbon filled TFE seat rings and designed for positive shutoff. The manual balancing valve shall have differential pressure read-out ports across the valve seat area. The read out ports shall be fitted with internal EPT inserts and check valves. The valve body shall have 8 mm or DN8 NPT (1/4 inch NPT) tapped drain and purge port. The valves shall have memory stops that allow the valve to close for

service and then reopened to set point without disturbing the balance position. All valves shall have calibrated nameplates to assure specific valve settings.

B. Greater than 75 mm or DN75 (3 inches): Manual balancing valves shall be of heavy duty cast iron flanged construction with 861 kPa (125 psig) flange connections. The flanged manual balancing valves shall have either a brass ball with glass and carbon filled TFE seal rings or fitted with a bronze seat, replaceable bronze disc with EPDM seal insert and stainless-steel stem. The design pressure shall be 1200 kPa (175 psig) at 121 degrees C (250 degrees F).

2.4 THERMOSTATIC BALANCING VALVES

A. Thermostatic recirculation balancing valves for domestic hot water and domestic cold-water application. Thermostatically controlled, spring actuated automatic balancing valve to very recirculation flow to maintain constant return temperatures. Stainless steel body, spring and brass or stainless-steel thermal actuator and actuator carrier. Provide with threaded inlet, integral outlet union and stainless-steel check valve. Direct acting to maintain return hot water temperature at 126 degrees F. Reverse acting to maintain return cold water temperature at 68 degrees F). PTFE seat seal ring and EPDM body seal.

2.5 CHECK VALVES

A. 75 mm or DN75 (3 inches) and smaller shall be Class 125, bronze swing check valves with non-metallic disc suitable for type of service. The check valve shall meet MSS SP-80 Type 4 standard. The check valve shall have a CWP rating of 1380 kPa (200 psig). The check valve shall have a Y pattern horizontal body design with bronze body material conforming to ASTM B62, solder joints, and PTFE or TFE disc.

B. 100 mm or DN100 (4 inches) and greater:

1. Check valves shall be Class 125, iron swing check valve with lever and weight closure control. The check valve shall meet MSS SP-71 Type I standard. The check valve shall have a CWP rating of 1380 kPa (200 psig). The check valve shall have a clear or full waterway body design with gray iron body material conforming to ASTM A126, bolted bonnet, flanged ends, bronze trim.

2.6 GLOBE VALVES

A. 75 mm or DN75 (3 inches) or smaller: Class 150, bronze globe valve with non-metallic disc. The globe valve shall meet MSS SP-80, Type 2

standard. The globe valve shall have a CWP rating of 2070 kPa (300 psig). The valve material shall be bronze with integral seal and union ring bonnet conforming to ASTM B62 with solder ends, copper-silicon bronze stem, PTFE or TFE disc, and malleable iron hand wheel.

B. Greater than 75 mm or DN75 (3 inches): Similar to above, except with cast iron body and bronze trim, Class 125, iron globe valve. The globe valve shall meet MSS SP-85, Type 1 standard. The globe valve shall have a CWP rating of 1380 kPa (200 psig). The valve material shall be gray iron with bolted bonnet conforming to ASTM A126 with flanged ends, bronze trim, and malleable iron handwheel.

2.7 WATER PRESSURE REDUCING VALVE AND CONNECTIONS

A. 75 mm or DN75 (3 inches) or smaller: The pressure reducing valve shall consist of a bronze body and bell housing, a separate access cover for the plunger, and a bolt to adjust the downstream pressure. The pressure reducing valve shall meet ASSE 1003. The bronze bell housing and access cap shall be threaded to the body and shall not require the use of ferrous screws. The assembly shall be of the balanced piston design and shall reduce pressure in both flow and no flow conditions. The assembly shall be accessible for maintenance without having to remove the body from the line.

B. The regulator shall have a tap for pressure gauge.

C. The regulator shall have a temperature rating of 100 degrees C (212 degrees F) for hot water or hot water return service. Pressure regulators shall have accurate pressure regulation to 6.9 kPa (+/- 1 psig).

D. Setting: Entering water pressure, discharge pressure, capacity, size, and related measurements shall be as shown on the drawings.

E. Connections Valves and Strainers: Shut off valves shall be installed on each side of reducing valve and a bypass line equal in size to the regulator inlet pipe shall be installed with a normally closed globe valve. A strainer shall be installed on inlet side of, and same size as pressure reducing valve. A pressure gauge shall be installed on the inlet and outlet of the valve.

2.8 BACKFLOW PREVENTERS

A. A backflow prevention assembly shall be installed at any point in the plumbing system where the potable water supply comes in contact with a potential source of contamination. The backflow prevention assembly

shall be approved by the University of Southern California Foundation for Cross Connection Control and Hydraulic Research (USCFCCC).

B. The pipe applied or integral atmospheric vacuum breaker shall be ASSE listed 1001. The main body shall be cast bronze. The seat disc shall be the elastomer type suited for water service. The device shall be accessible for maintenance without removing the device from the service line. The installation shall not be in a concealed or inaccessible location or where the venting of water from the device during normal operation is deemed objectionable. Atmospheric vacuum breakers shall be installed in the following applications.
   1. Hose bibs and sinks with threaded outlets.
   2. Disposers.
   3. Showers (telephone/handheld type).
   4. Service sinks (integral with faucet only).

C. The hose connection vacuum breaker shall be ASSE listed 1011. The main body shall be cast brass with stainless steel working parts. The diaphragm and disc shall be the elastomer type suited for water service. The device shall permit the attachment of portable hoses to hose thread outlets. Hose connection vacuum breakers shall be installed in the following locations requiring non-continuous pressure:
   1. Hose bibbs and wall hydrants.

2.9 CHAINWHEELS

A. Valve chain wheel assembly with sprocket rim brackets and chain shall be constructed according to the following:
   1. Brackets: Type, number, size, and fasteners required to mount actuator on valve.
   2. Attachment: For connection to ball and butterfly valve stem.
   3. Sprocket rim with chain guides: Ductile or cast iron of type and size required for valve with zinc coating.
   4. Chain: Hot dipped galvanized steel of size required to fit sprocket rim.

2.10 THERMOSTATIC MIXING VALVES

A. Thermostatic Mixing Valves shall comply with the following general performance requirements:
   1. Shall meet ASSE requirements for water temperature control.

2. The body shall be cast bronze or brass with corrosion resistant internal parts preventing scale and biofilm build-up. Provide chrome-plated finish in exposed areas.
3. No special tool shall be required for temperature adjustment, maintenance, replacing parts and disinfecting operations.
4. Valve shall be able to be placed in various positions without making temperature adjustment or reading difficult.
5. Valve finish shall be chrome plated in exposed areas.
6. Valve shall allow easy temperature adjustments to allow hot water circulation. Internal parts shall be able to withstand disinfecting operations of chemical and thermal treatment of water temperatures up to 82°C (180°F) for 30 minutes or 50 mg/L (50 ppm) chlorine residual concentration for 24 hours.
7. Parts shall be easily removed or replaced without dismantling the valves, for easy scale removal and disinfecting of parts.
8. Valve shall have a manual adjustable temperature control with locking mechanism to prevent tampering by end user. Outlet temperature shall be visible to ensure outlet temperature does not exceed specified limits, particularly after thermal eradication procedures.
9. Provide mixing valves with integral check valves with screens and stop valves.

B. Automatic Water Temperature Control Mixing Valves:
1. Application: Gang plumbing fixtures point-of-use when no other mixing at fixtures occurs.
2. Standard: ASSE 1069.
3. Pressure Rating: 861 kPa (125 psig).
4. Type: Thermostatically controlled water mixing valve set at 43 degrees C (110 degrees F).
5. Connections: Threaded union or soldered inlets and outlet.
6. Thermometers shall be provided to indicate mixed water temperature.
7. Upon cold water supply failure, the hot water flow shall automatically be reduced to 0.5 gpm maximum.
8. Provide a high temperature alarm device to detect mixing valve failure.

C. Water Temperature Limiting Devices:
   1. Application: Single plumbing fixture point-of-use such as sinks or lavatories.
   2. Standard: ASSE 1070.
   3. Pressure Rating: 861 kPa (125 psig).
   4. Type: Thermostatically controlled water mixing valve set at 43 degrees C (110 degrees F).
   5. Connections: Threaded union, compression or soldered inlets and outlet.
   6. Upon cold water supply failure, the hot water flow shall automatically be reduced to 0.2 gpm maximum.

D. Temperature Activated Mixing Valves:
   1. Application: Emergency eye/face/drench shower equipment.
   2. Standard: ASSE 1071.
   3. Pressure Rating: 861 kPa (125 psig).
   4. Type: Thermostatically controlled water mixing valve set at 24-30 degrees C (75-85 degrees F).
   5. Connections: Soldered or threaded union inlets and outlet.
   6. Cabinet: Factory-fabricated, stainless steel, for recessed or surface mounting and with hinged, stainless-steel door.
   7. Thermometers shall be provided to indicate mixed water temperature.
   8. Upon cold water supply failure, the hot water flow shall automatically be reduced to 0.5 gpm maximum.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Valve interior shall be examined for cleanliness, freedom from foreign matter, and corrosion. Special packing materials shall be removed, such as blocks, used to prevent disc movement during shipping and handling.

B. Valves shall be operated in positions from fully open to fully closed. Guides and seats shall be examined and made accessible by such operations.

C. Threads on valve and mating pipe shall be examined for form and cleanliness.

D. Mating flange faces shall be examined for conditions that might cause leakage. Bolting shall be checked for proper size, length, and material. Gaskets shall be verified for proper size and that its

material composition is suitable for service and free from defects and damage.

E. Do not attempt to repair defective valves; replace with new valves.

3.2 INSTALLATION

A. Install valves with unions or flanges at each piece of equipment arranged to allow service, maintenance, and equipment removal without system shutdown.

B. Valves shall be located for easy access and shall be provide with separate support. Valves shall be accessible with access doors when installed inside partitions or above hard ceilings.

C. Valves shall be installed in horizontal piping with stem at or above center of pipe.

D. Valves shall be installed in a position to allow full stem movement.

E. Install chain wheels on operators for valves NPS 100 mm or DN100 (4 inches) and greater and installed greater than 3.0 m (10 feet) above floor. Chains shall be extended to 1524 mm (60 inches) above finished floor.

F. Check valves shall be installed for proper direction of flow and as follows:

1. Swing Check Valves: In horizontal position with hinge pin level and on top of valve.

G. Install backflow preventers in each water supply to mechanical equipment and systems and to other equipment and water systems that shall be sources of contamination. Comply with authorities having jurisdiction. Locate backflow preventers in same room as connected equipment or system.

1. Install drain for backflow preventers with atmospheric-vent drain connection with air-gap fitting, fixed air-gap fitting, or equivalent positive pipe separation of at least two pipe diameters in drain piping and pipe to floor drain. Locate air-gap device attached to or under backflow preventer. Simple air breaks are prohibited for this application.

H. Install pressure gauges on outlet of backflow preventers.

I. Do not install bypass piping around backflow preventers.

J. Install temperature-actuated water mixing valves with check stops or shutoff valves on inlets.

1. Install thermometers if specified.

2. Install cabinet-type units recessed in or surface mounted on wall as specified.

K. If an installation is unsatisfactory to the COR, the Contractor shall correct the installation at no additional cost or time to the Government.

L. Install thermostatic balancing valves with inlet strainer and inlet and outlet isolation valves.

3.3 LABELING AND IDENTIFYING

A. Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplate or sign on or near each of the following:
1. Calibrated balancing valves.
2. Master, thermostatic, water mixing valves.
3. Manifold, thermostatic, water-mixing-valve assemblies.

B. Distinguish among multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations, in addition to identifying unit.

3.4 ADJUSTING

A. Valve packing shall be adjusted or replaced after piping systems have been tested and put into service but before final adjusting and balancing. Valves shall be replaced if persistent leaking occurs.

B. Set field-adjustable flow set points of balancing valves and record data. Ensure recorded data represents actual measured or observed conditions. Permanently mark settings of valves and other adjustment devices allowing settings to be restored. Set and lock memory stops. After adjustment, take measurements to verify balance has not been disrupted or that such disruption has been rectified.

C. Set field-adjustable temperature set points of temperature-actuated water mixing valves.

D. Testing and adjusting of balancing valves shall be performed by an independent NEBB Accredited Test and Balance Contractor. A final settings and flow report shall be submitted to the VA Contracting Officer’s Representative (COR).

3.5 STARTUP AND TESTING

A. Perform tests as recommended by product manufacturer and listed standards and under actual or simulated operating conditions and prove full compliance with design and specified requirements. Tests of the

various items of equipment shall be performed simultaneously with the system of which each item is an integral part.

B. When any defects are detected, correct defects and repeat test at no additional cost or time to the Government.

C. The COR will observe startup and contractor testing of selected equipment. Coordinate the startup and contractor testing schedules with the COR. Provide a minimum notice of 10 working days prior to startup and testing.

3.6 DEMONSTRATION AND TRAINING

A. Provide services of manufacturer's technical representative for 4 hours to instruct each VA personnel responsible in operation and maintenance of the system.

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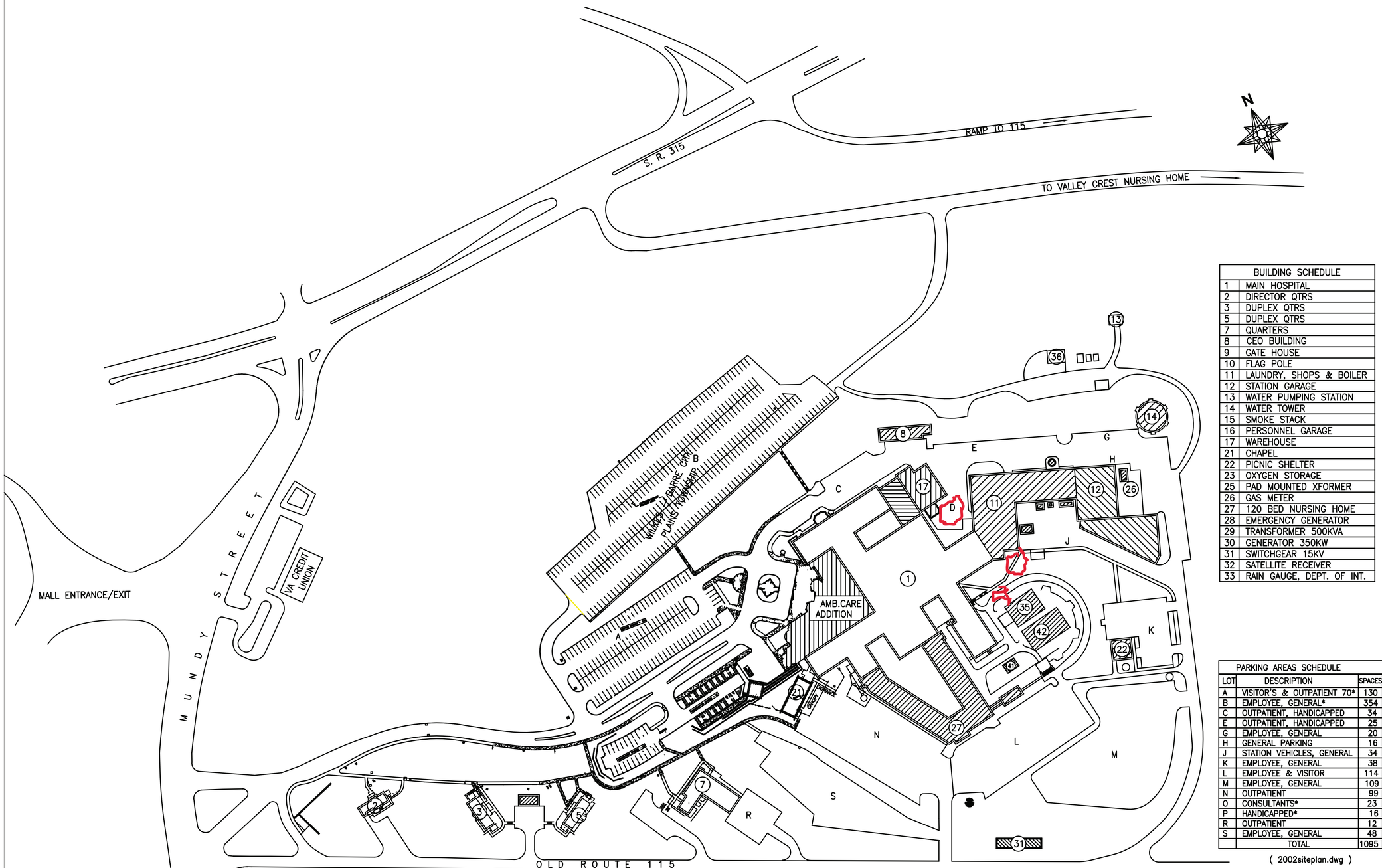

BUILDING SCHEDULE	
1	MAIN HOSPITAL
2	DIRECTOR QTRS
3	DUPLEX QTRS
5	DUPLEX QTRS
7	QUARTERS
8	CEO BUILDING
9	GATE HOUSE
10	FLAG POLE
11	LAUNDRY, SHOPS & BOILER
12	STATION GARAGE
13	WATER PUMPING STATION
14	WATER TOWER
15	SMOKE STACK
16	PERSONNEL GARAGE
17	WAREHOUSE
21	CHAPEL
22	PICNIC SHELTER
23	OXYGEN STORAGE
25	PAD MOUNTED XFORMER
26	GAS METER
27	120 BED NURSING HOME
28	EMERGENCY GENERATOR
29	TRANSFORMER 500KVA
30	GENERATOR 350KW
31	SWITCHGEAR 15KV
32	SATELLITE RECEIVER
33	RAIN GAUGE, DEPT. OF INT.

PARKING AREAS SCHEDULE			
LOT	DESCRIPTION	SPACES	SF
A	VISITOR'S & OUTPATIENT 70*	130	38,883
B	EMPLOYEE, GENERAL*	354	106,550
C	OUTPATIENT, HANDICAPPED	34	7,100
E	OUTPATIENT, HANDICAPPED	25	7,000
G	EMPLOYEE, GENERAL	20	4,600
H	GENERAL PARKING	16	4,325
J	STATION VEHICLES, GENERAL	34	9,496
K	EMPLOYEE, GENERAL	38	12,900
L	EMPLOYEE & VISITOR	114	32,447
M	EMPLOYEE, GENERAL	109	49,320
N	OUTPATIENT	99	23,425
O	CONSULTANTS*	23	6,942
P	HANDICAPPED*	16	7,636
R	OUTPATIENT	12	6,545
S	EMPLOYEE, GENERAL	48	28,634
	TOTAL	1095	345,803

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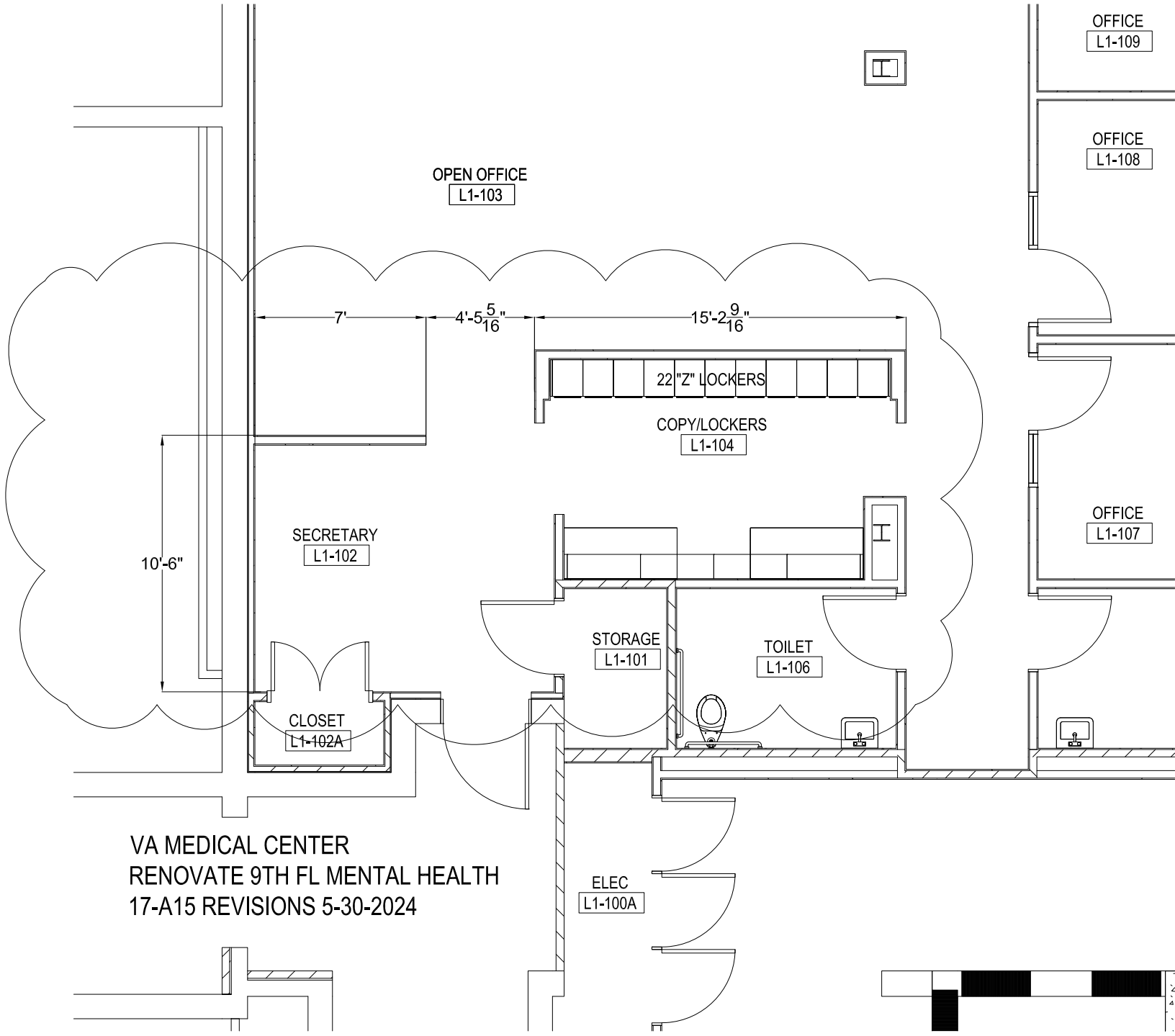
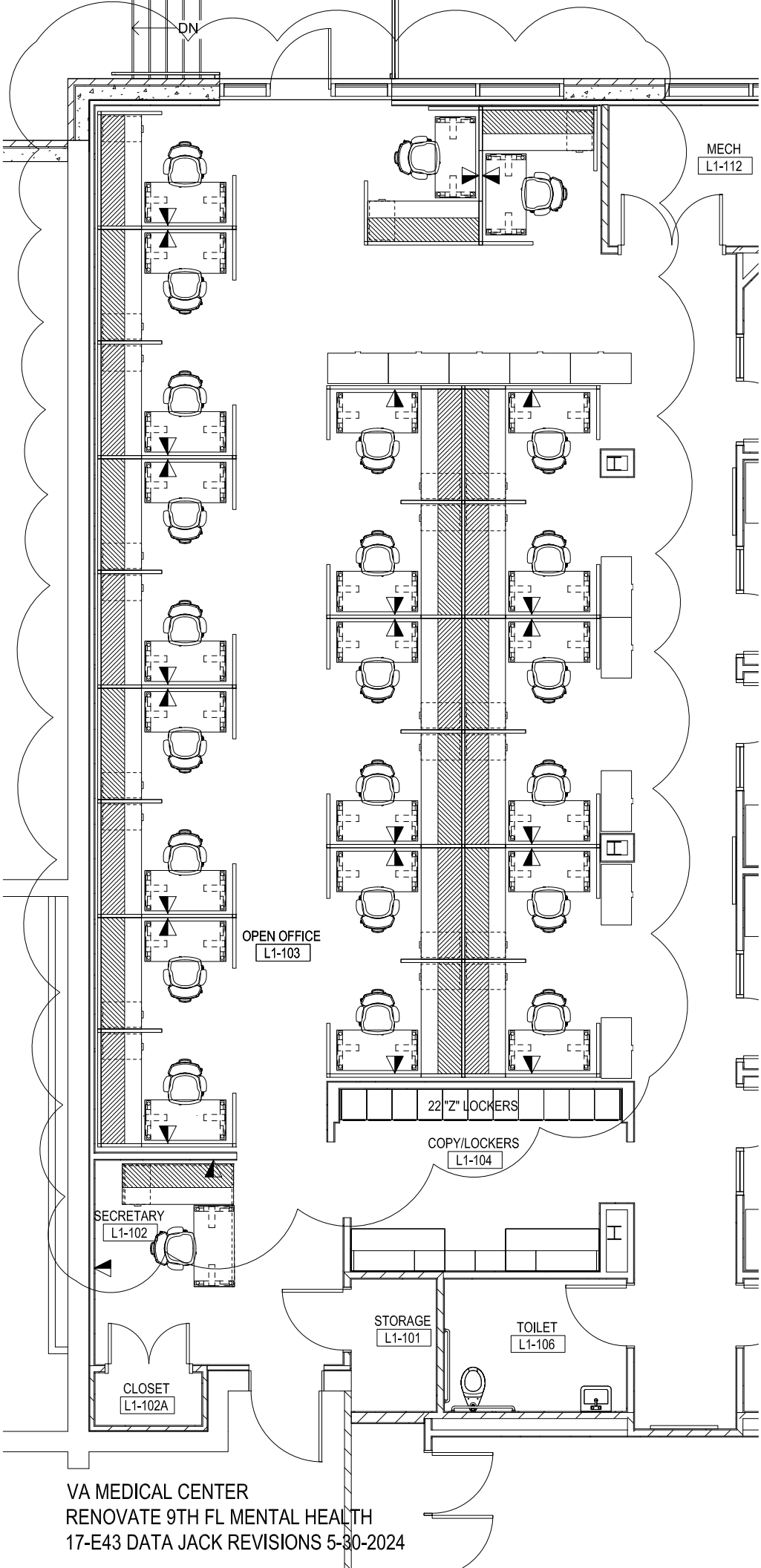
WILKES-BARRE VAMC
SITE PLAN



VA MEDICAL CENTER
RENOVATE 9TH FL MENTAL HEALTH
17-A15 REVISIONS 5-30-2024



VA MEDICAL CENTER
RENOVATE 9TH FL MENTAL HEALTH
17-E43 DATA JACK REVISIONS 5-30-2024

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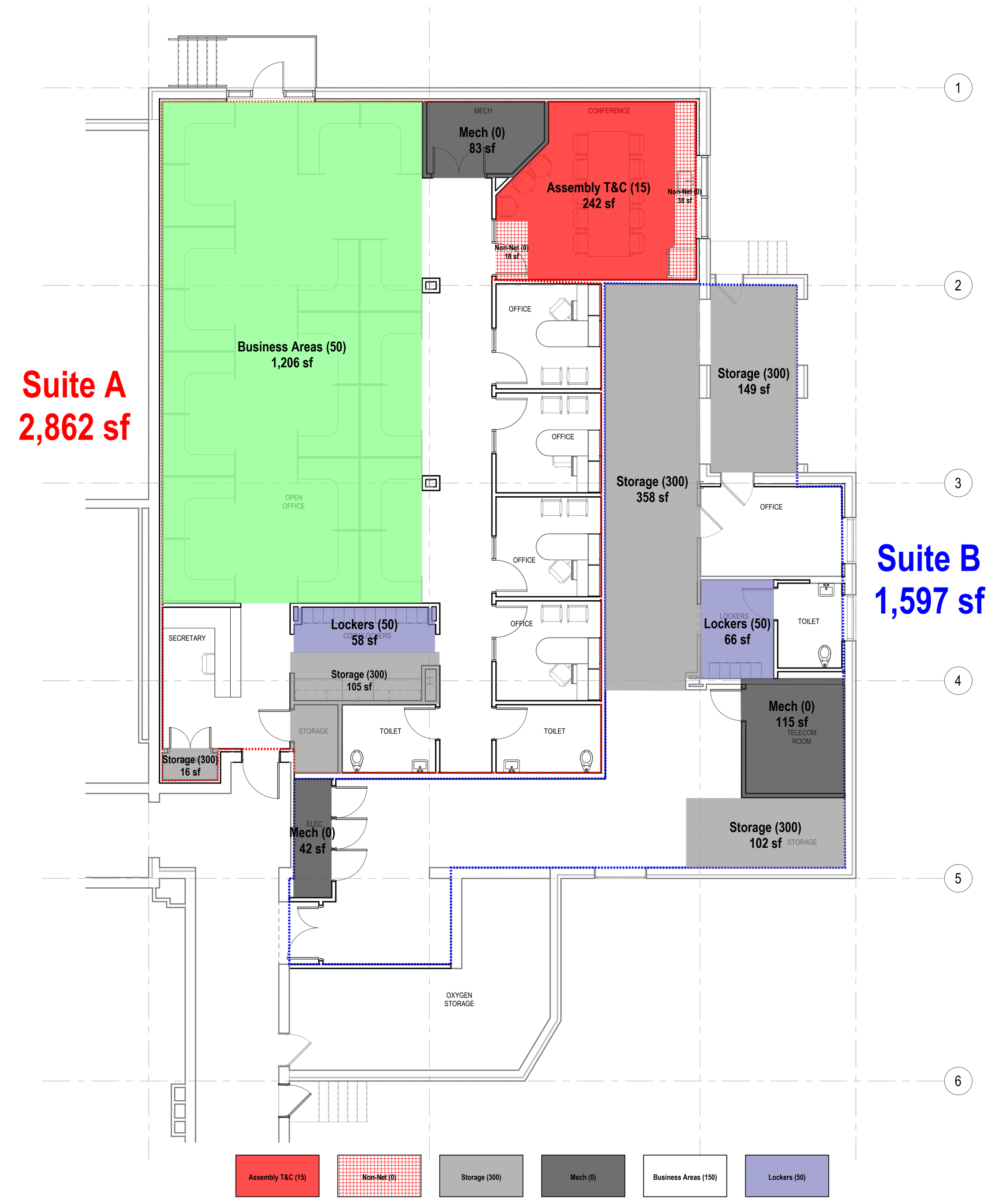


C2 OCCUPANT LOAD (OL) - LEVEL 01
NO SCALE

Wilkes-Barre VA (19.25) - Renovate 9th Floor Mental Health

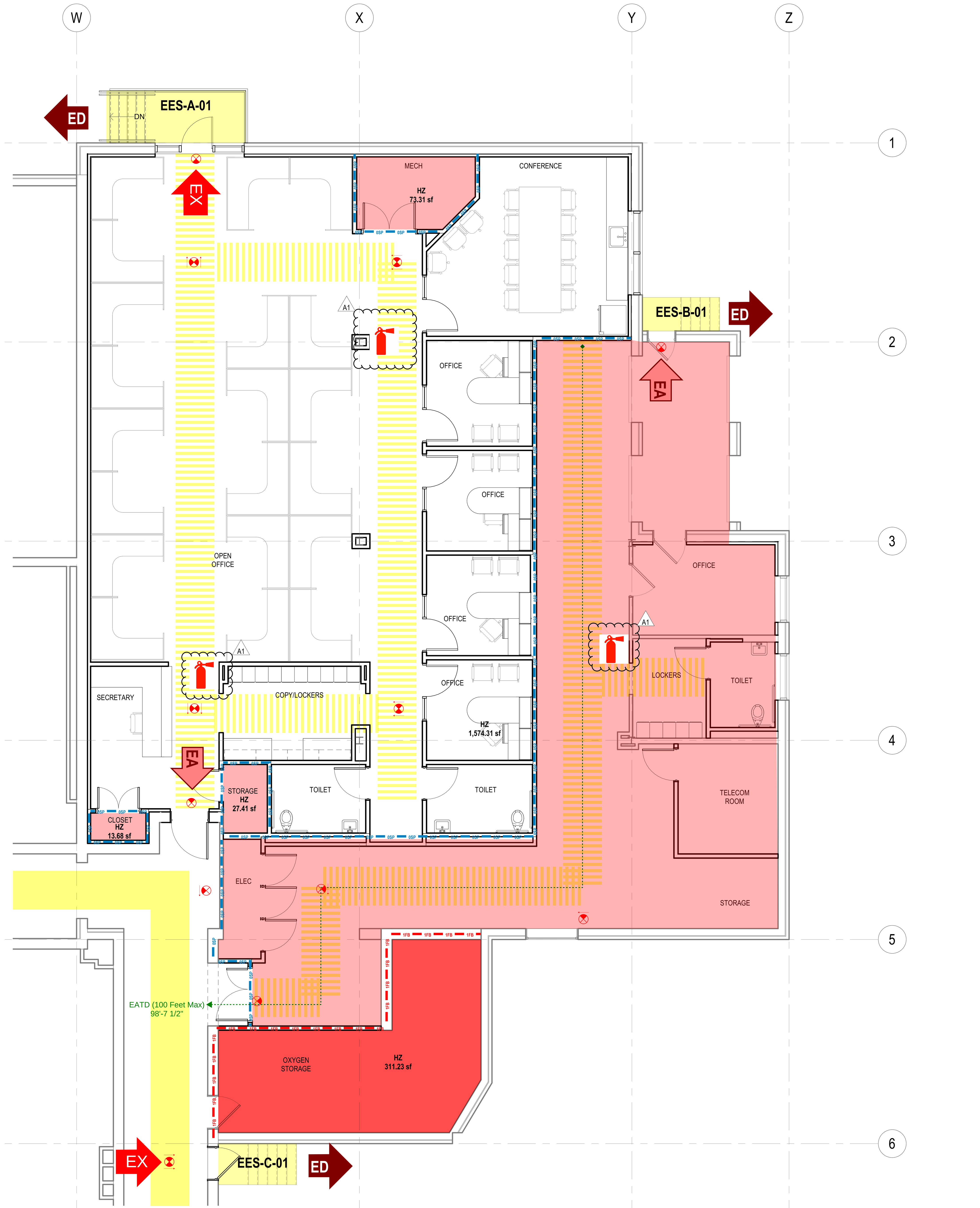
2021 NFPA 101 LSC Table 7.3.1.2

FUNCTION OF SPACE	Area/Occ (A)	Gross	Net	Classification	STORY 01 - Bldg 17 SUITE A Area (B0)	SUITE A OL (C0)	SUITE B Area (B1)	SUITE B OL (C1)	TOTALS Total Occupant Load (MOE) Total Area (BT)	BT%	Total OL (CT)	CT%	Total OL (PF) (DT)
ACCESSORY													
MECHANICAL	500 sf	•		F-1/2	83 sf	1	157 sf	1	240 sf	5.4%	2	3.0%	0
STORAGE	300 sf	•		S-1/2	121 sf	1	609 sf	3	730 sf	16.4%	4	6.1%	0
ASSEMBLY W/O FIXED SEATS													
ASSEMBLY - UNCONCENTRATED (CHAIRS & TABLES)													
AUDITORIUMS	15 sf		•	A-3a	242 sf	17	0 sf	0	242 sf	5.4%	17	25.8%	17
BUSINESS AREAS	150 sf	•		B	1,096 sf	8	765 sf	6	1,861 sf	41.7%	14	21.2%	14
BUSINESS AREAS - CONCENTRATED	50 sf	•		B	1,206 sf	25	0 sf	0	1,206 sf	27.0%	25	37.9%	25
LOCKER ROOMS	50 sf	•		B	58 sf	2	66 sf	2	124 sf	2.8%	4	6.1%	4
NON-NET FLOOR AREA					56 sf		0 sf		56 sf	1.3%			
TOTALS : Areas & Occupant Loads					2,862 sf	54	1,597 sf	12	4,459 sf	100%	66	100%	60
AVERAGE OL FACTOR						53		133			68		

Wilkes-Barre VA (19.25) - Renovate 9th Floor Mental Health

Plumbing Fixtures (IBC Table 2902.1) — STORY 01 - Bldg 17

Classification (Description)		TOTAL OL	OL (M)(F)	Lav (M)	Lav (F)	DF
Assembly (Auditoriums, Lecture Halls & Libraries)	A-3a	17	9	0.05	0.05	0.03
Business	B	43	22	0.55	0.55	0.43
TOTALS : Areas, Occupant Loads & Egress Widths		60	31			
TOTALS : WCs + LAVs + DFs				0.60	0.60	0.46
TOTALS (Required) : WCs + LAVs + DFs				1	1	1
TOTALS (Provided) : WCs + LAVs + DFs				3	3	0
TOTALS (Provided) : UNISEX				1		



F4 WAREHOUSE FLOOR PLAN - LIFE SAFETY
3/16" = 1'-0"

LEGEND - LIFE SAFETY PLANS

Exits & Exit Discharge
- Exit (EX)
- Exit Discharge (ED)

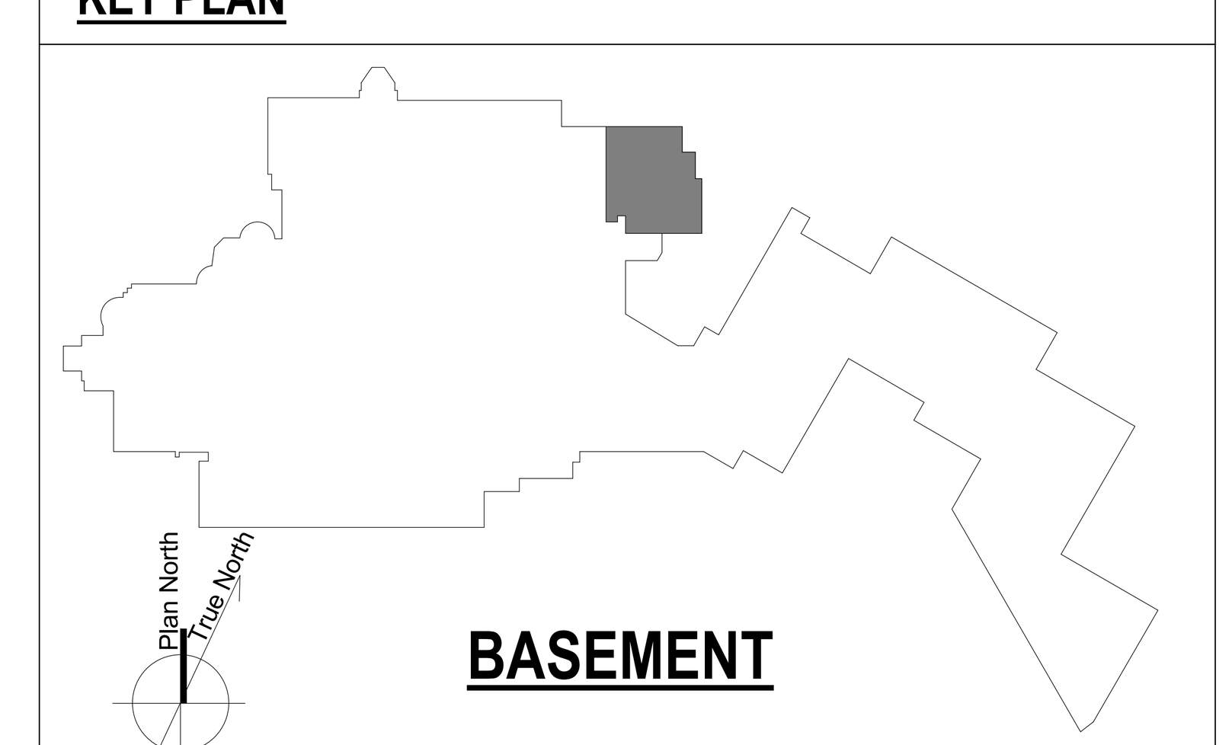
Stairways
- Interior Exit Stairway (IES)

Exit Access (EA)
- Smoke Compartment (SC)
- Exit Access (EA)
- Exit Access Corridor (EAC) - Patient
- Exit Access Corridor (EAC) - Staff
- Spaces open to the EAC
- HEALTH CARE SUITES
  PCS : Patient Care Sleeping Suites
  PCNS : Patient Care Nonsleeping Suites
  NPC : Non-Patient Care Suites

Travel Distances (Maximum) : New Health Care
- Exit Access Travel Distance (EATD)
  300 Feet (New Business / Existing Business)
- Common Path of Egress Travel (CPOETD)
  100 Feet (New Business / Existing Business)
  Boiler, Incinerator, Furnace Rooms [Mech Equip Room] : 50'
- Dead End Corridors (DEC)
  50 Feet (New Business / Existing Business)

Fire-Resistance Rated (FRR) Assemblies
- Fire Barriers
  2-Hour : 2FB
  1-Hour : 1FB
- Smoke Barriers
  1-Hour : 1SB
- Smoke Partitions
  0-Hour : 0SP
- Corridor Partitions
  Health Care Corridors & Suites (HCS)
  (Resists the Passage of Smoke ... Non-rated)
- Shaft Enclosures
  2-Hour : 2SE
- FB+SB Combination
  1-Hour : 1FSB
- VERTICAL OPENING (VO) - SHAFTS, HOISTWAYS
- HAZARDOUS AREA PROTECTION (HAZ)
- FIRE EXTINGUISHER CABINET (FEC)
- EXIT SIGNS

KEY PLAN



Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: LIFE SAFETY PLAN - WAREHOUSE
Approved: Project Director
Phase: 100% CONSTRUCTION DOCUMENTS
Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH
Project Number: 693-19-106
Building Number: 17
Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711
Drawing Number: 17-I11
Issue Date: 04/18/2023
Checked: DR
Drawn: ZAM
DWG 10 of 10

FINAL DRAWINGS SUBMITTAL

VA FORM 08 - 6231

7/1/2024 10:30:54 AM

GENERAL NOTES

A. REFER TO 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

B. REFER TO LARGE SCALE PLANS FOR ADDITIONAL INFORMATION AND DIMENSIONS.

C. ALIGN NEW PARTITIONS WITH ADJACENT EXISTING PARTITIONS WHERE NEW PARTITION EXTENDS IN THE SAME DIRECTION.

D. ALIGN CENTER OR FINISH FACE OF PARTITION WITH CENTER OF WINDOW MULLION, UNLESS NOTED OTHERWISE.

E. PARTITIONS TO BE TYPE S3A, UNLESS NOTED OTHERWISE. FURRING ALONG EXTERIOR WALLS TO BE S2B.1, UNLESS NOTED OTHERWISE. REFER TO AE610 FOR PARTITION TYPE INFORMATION

F. REFER TO 01-A47 FOR WINDOW TYPES.

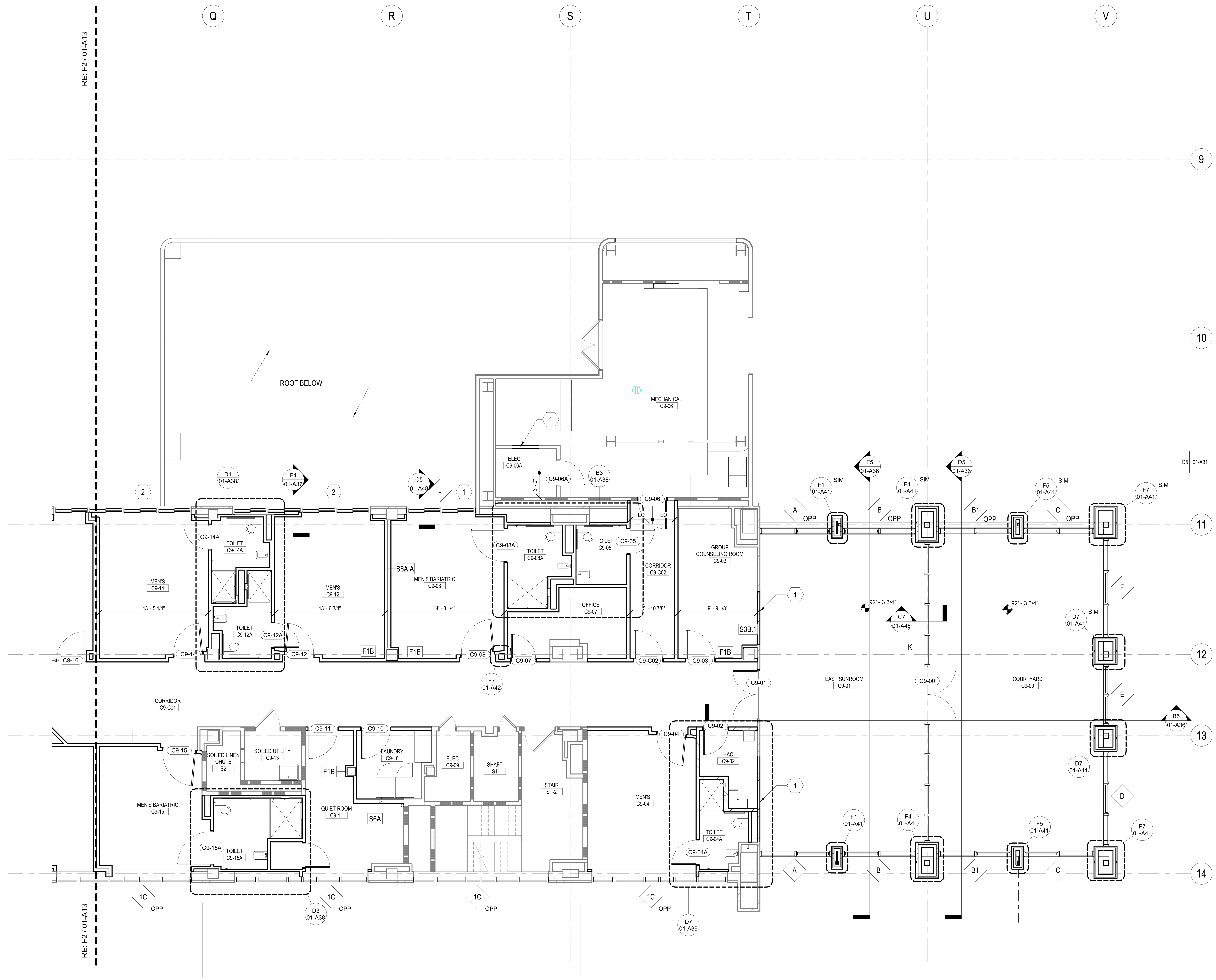
G. REFER TO 01-A40 FOR MILLWORK DETAILS.

H. REFER TO 01-A46 FOR DOOR SCHEDULE, DOOR & FRAME TYPES, AND FRAME DETAILS.

KEYNOTES

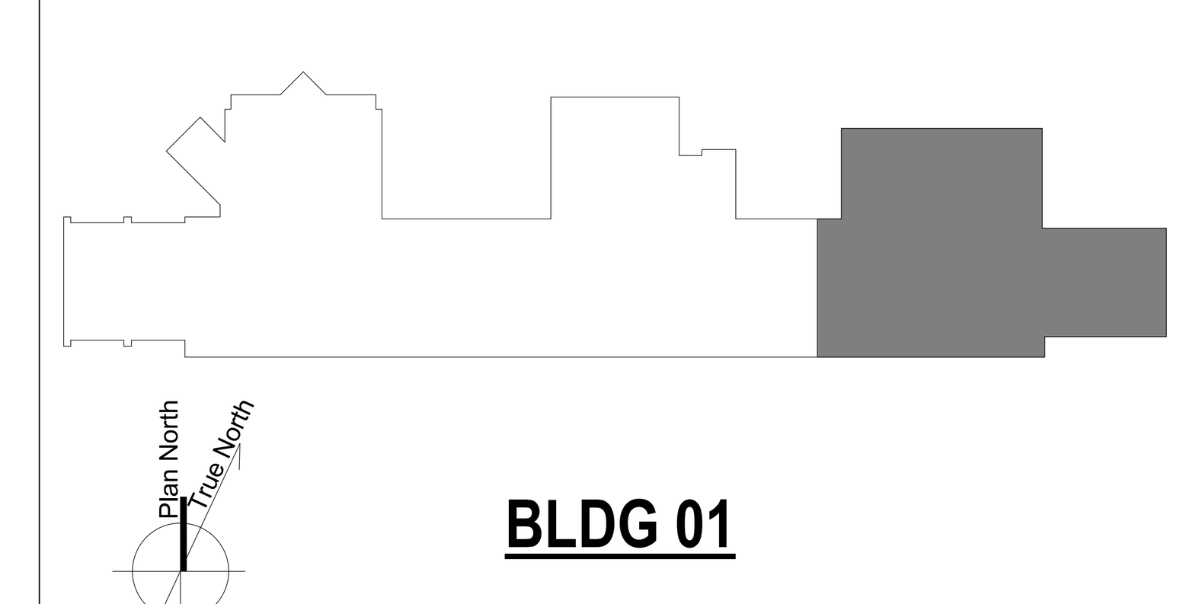
1 INFILL OPENING TO MATCH ADJACENT CONSTRUCTION

2 NEW GLAZING IN EXISTING FRAME. MATCH LAYOUT TO EXISTING WINDOWS.



F1 9TH FLOOR PLAN - EAST
3/16" = 1'-0"

KEY PLAN



BLDG 01

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

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STAMP:

U.S. Department of Veterans Affairs

Drawing Title: FLOOR PLAN - 9TH FLOOR - EAST

Approved: Project Director

Phase: 100% CONSTRUCTION DOCUMENTS

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Project Number: 693-19-106

Building Number: 01

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Issue Date: 04/18/2023
Checked: DR
Drawn: ZAM

Drawing Number: 01-A14
DWG 14 of 53

FINAL DRAWINGS SUBMITTAL

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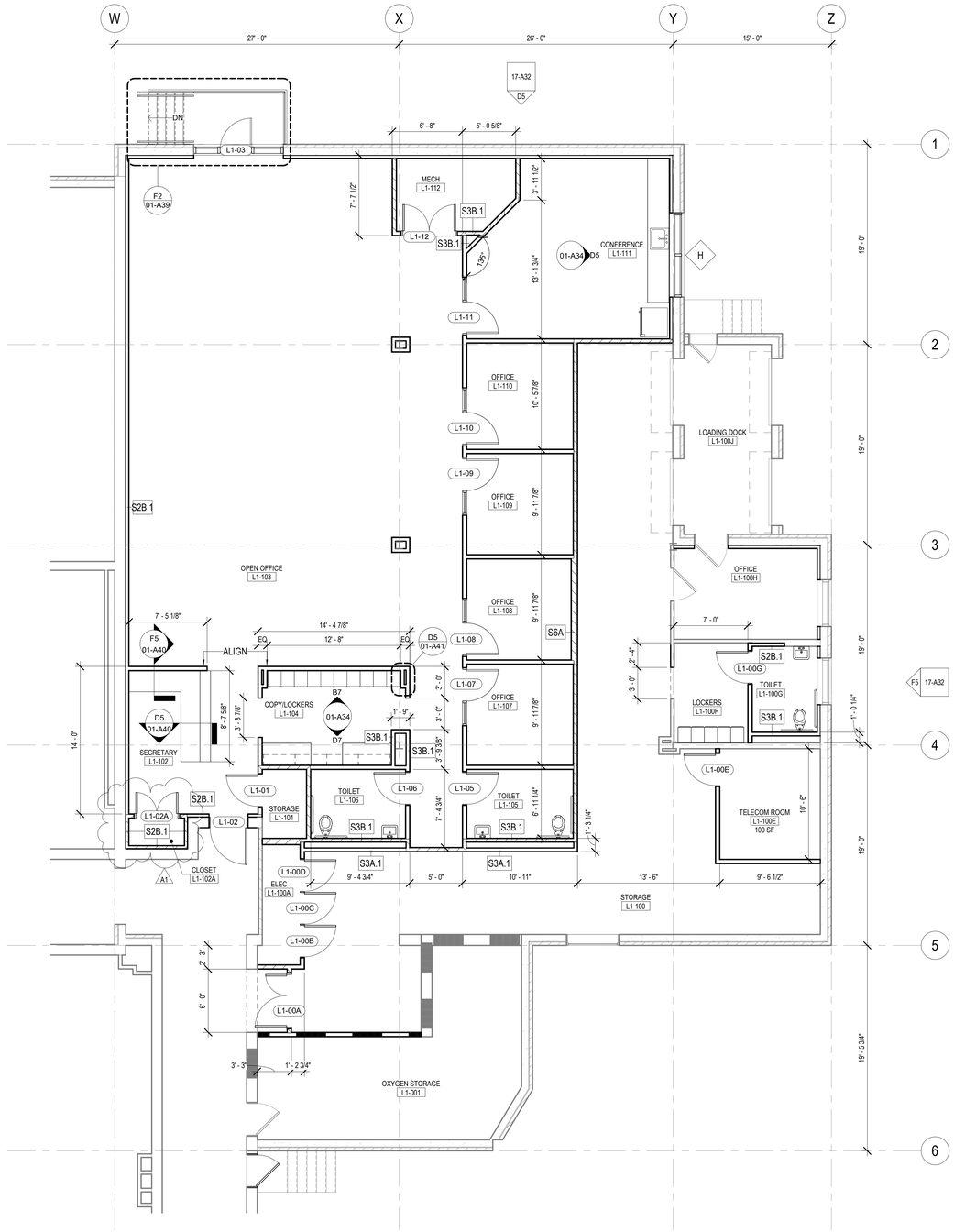


F4 WAREHOUSE FLOOR PLAN
3/16" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

B. REFER TO ENLARGED FLOOR PLANS FOR ADDITIONAL INFORMATION AND DIMENSIONS.

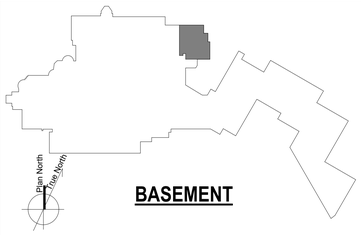
C. ALIGN NEW PARTITIONS WITH ADJACENT EXISTING PARTITIONS WHERE NEW PARTITION EXTENDS IN THE SAME DIRECTION.

D. ALIGN CENTER OR FINISH FACE OF PARTITION WITH CENTER OF WINDOW MULLION, UNLESS NOTED OTHERWISE.

E. PARTITIONS TO BE TYPE S3B, UNLESS NOTED OTHERWISE. FURRING ALONG EXTERIOR WALLS TO BE S2B.1, UNLESS NOTED OTHERWISE.

F. REFER TO WINDOW TYPES FOR DIMENSIONS AND ADDITIONAL INFORMATION.

KEY PLAN



BASEMENT

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: FLOOR PLAN - WAREHOUSE

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Project Number: 693-19-106

Building Number: 17

Drawing Number: 17-A15

DWG 15 of 53

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

FINAL DRAWINGS SUBMITTAL

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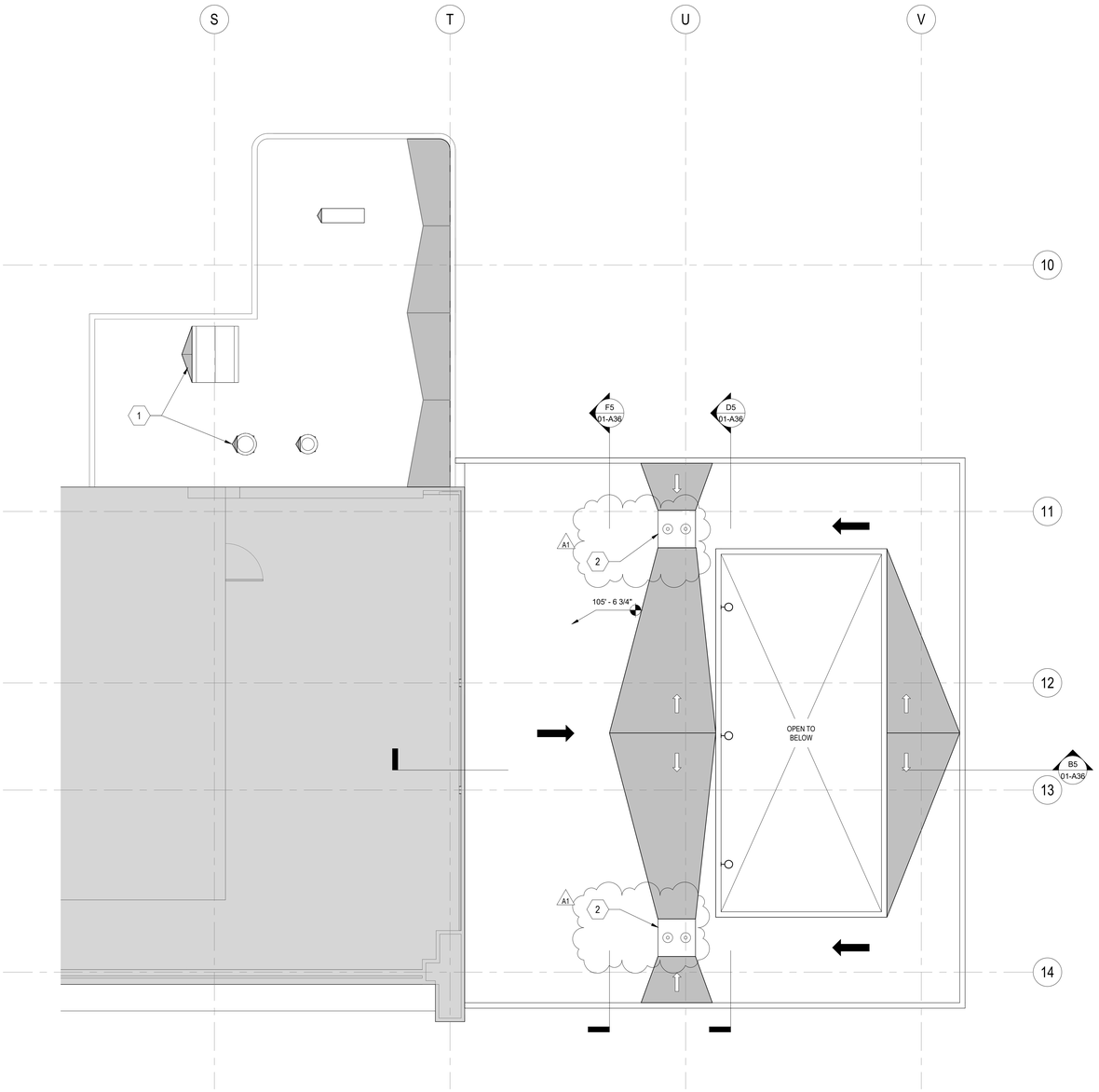

F4 9TH FLOOR ROOF PLAN
3/16" = 1'-0"

GENERAL NOTES

A. REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

B. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

C. PROVIDE 1/2"/FT. TAPERED INSULATION AT ROOF CURBS AND AT EQUIPMENT WHICH EXCEEDS 18 INCHES IN WIDTH.

KEYNOTES

00

1 PROVIDE ROOF CRICKET FOR NEW ROOFTOP MECHANICAL EQUIPMENT, TYP

2 ROOF DRAIN TO TIE INTO EXISTING SYSTEM PER MECHANICAL

ROOF LEGEND

TPO ROOF OVER SLOPED INSUALTION (1/8" PER FOOT MIN)

TPO ROOF OVER SLOPED INSUALTION (1/4" PER FOOT MIN)

KEY PLAN

BLDG 01

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: ROOF PLAN - 9TH FLOOR

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Project Number: 693-19-106

Building Number: 01

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Drawing Number: 01-A22

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

DWG 22 of 53

FINAL DRAWINGS SUBMITTAL

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F1 9TH FLOOR FINISH PLAN - EAST
3/16" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

B. REFER TO FINISH SCHEDULE FOR MORE INFORMATION.

C. ALIGN ALL WALL TILE JOINTS WITH FLOOR TILE JOINTS, UNLESS NOTED OTHERWISE

D. FLOOR FINISH MATERIAL AND/OR PATTERN SHALL BE INSTALLED UNDER TOE KICKS OF CASEWORK/MILLWORK, UNDER OPEN COUNTERTOPS, AND UNDER EQUIPMENT.

E. FLOOR MATERIAL/COLOR TRANSITIONS TO ALIGN WITH ROOM SIDE OF DOOR STOP, UNLESS NOTED OR SHOWN OTHERWISE.

F. INSTALL TRANSITION STRIPS AT ALL FLOOR FINISH MATERIAL CHANGES, UNLESS NOTED OTHERWISE.

G. END CAP GUARDS ARE TO ALL BE ECG-1, UNLESS NOTED OTHERWISE.

FINISH LEGEND

- WSF-1 (DARK)
- WSF-2 (LIGHT)
- HSF-1
- LVT-1
- RES-6A
- PT-1
- PT-2
- PVR-1
- TRF-1

KEY PLAN

BLDG 01

0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024
Number:	Revisions:	Date:

CONSULTANTS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: FINISH PLAN - 9TH FLOOR - EAST

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Project Number: 693-19-106

Building Number: 01

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

Drawing Number: 01-A27
DWG 27 of 53

FINAL DRAWINGS SUBMITTAL

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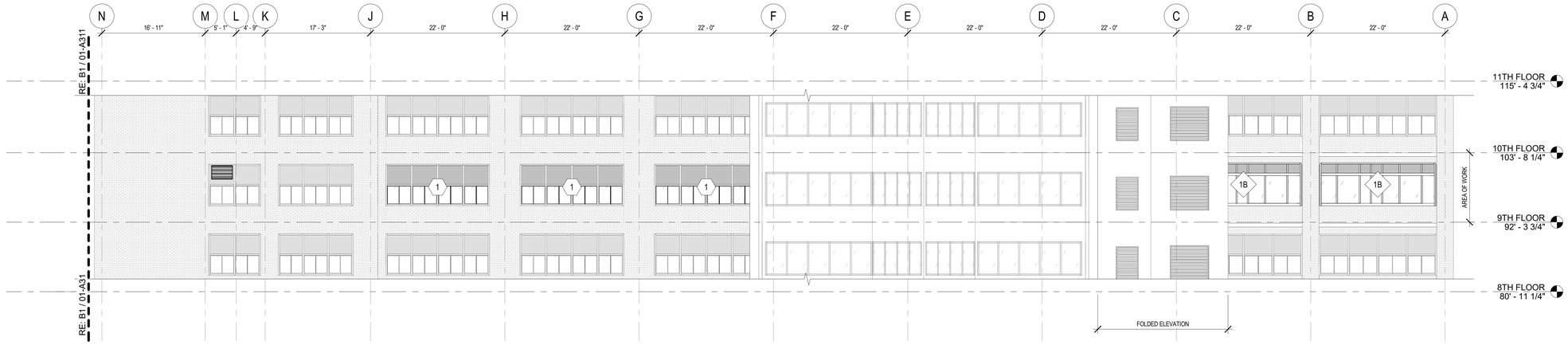
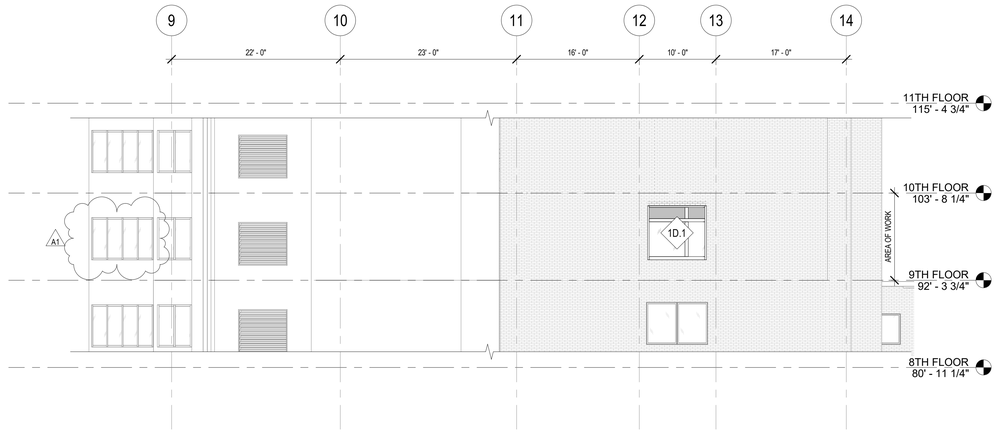


B1 NORTH ELEVATION - WEST
1/8" = 1'-0"



D5 WEST ELEVATION
1/8" = 1'-0"

F1 SOUTH ELEVATION - WEST
1/8" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET 01-I3 AND 01-A1 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

B. EXTERIOR WINDOW PROFILES FOR SOUTH AND WEST ELEVATIONS ARE REPRESENTATIVE OF INFORMATION FROM DRAWINGS PROVIDED TO VALHALLA FROM VHA COR ON 02/10/2020 FROM VHA PROJECT #693-13-111. WINDOW SIZES HAVE BEEN MODIFIED TO MATCH EXISTING OPENINGS AS UNDERSTOOD BY VALHALLA AND ARE TO BE VERIFIED IN FIELD.

C. REFER TO WINDOW TYPES FOR DIMENSIONS AND ADDITIONAL INFORMATION.

KEYNOTES

00

1 INSTALL NEW LAMINATED GLAZING AND SPANDREL PANELS IN EXISTING WINDOW FRAME TO MATCH EXISTING LAYOUT. WINDOWS TO HAVE INTEGRAL BLINDS BETWEEN LAYERS OF GLAZING.

EXTERIOR ELEVATION LEGEND

NEW LINE TYPE

EXISTING LINE TYPE

0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024
Number:	Revisions:	Date:

CONSULTANTS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: EXTERIOR ELEVATIONS

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

Project Number: 693-19-106

Building Number: 01

Drawing Number: 01-A30

DWG 30 of 53

FINAL DRAWINGS SUBMITTAL

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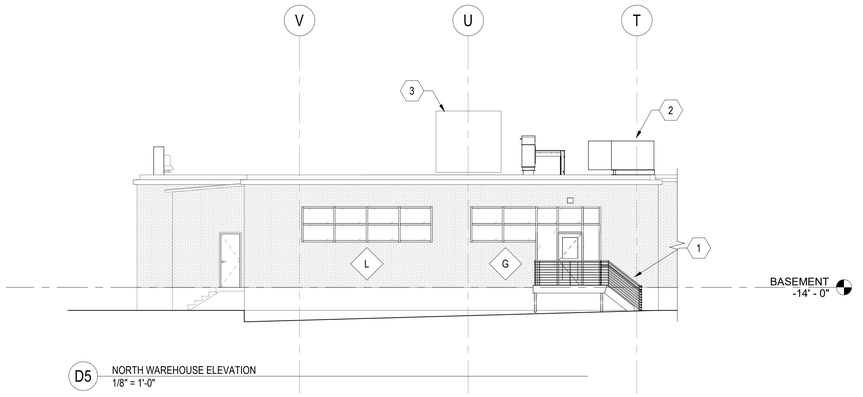
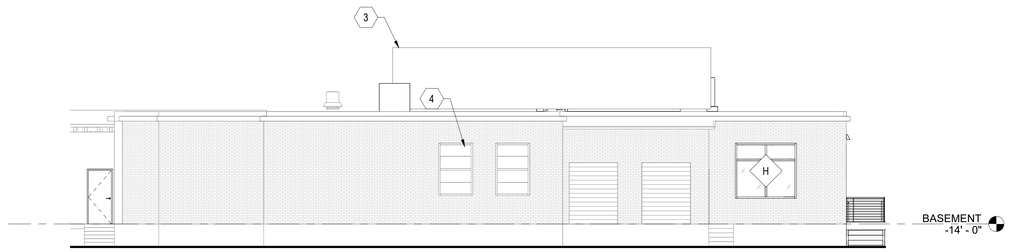


D5 NORTH WAREHOUSE ELEVATION
1/8" = 1'-0"



F5 EAST WAREHOUSE ELEVATION
1/8" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

B. REFER TO WINDOW TYPES FOR DIMENSIONS AND ADDITIONAL INFORMATION.

KEYNOTES (00)

1 STEEL STAIR, GUARD AND HANDRAIL

2 NEW AIR HANDLING UNIT; RE MECHANICAL

3 EXISTING AIR HANDLING UNIT

4 INSTALL WINDOW PANE IN DEMOLISHED EXHAUST FAN OPENING. MATCH EXISTING WINDOW DESIGN AND GLAZING TYPE

EXTERIOR ELEVATION LEGEND

NEW LINE TYPE

EXISTING LINE TYPE

Number:	Revisions:	Date:
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U.S. Department of Veterans Affairs

Drawing Title: EXTERIOR ELEVATIONS
Approved: Project Director
Phase: 100% CONSTRUCTION DOCUMENTS
Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH
Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711
Issue Date: 04/18/2023
Checked: DR
Drawn: ZAM
Project Number: 693-19-106
Building Number: 17
Drawing Number: 17-A32
DWG 32 of 53

FINAL DRAWINGS SUBMITTAL

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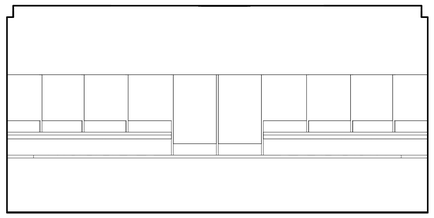
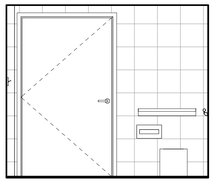
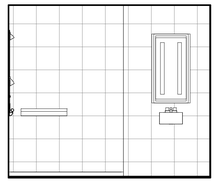


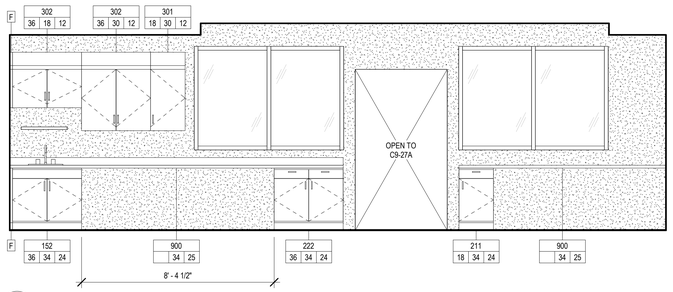
B2 C9-27 - NORTH ELEVATION
3/8" = 1'-0"



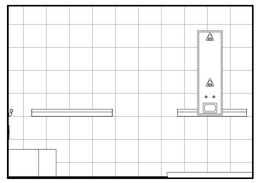
B5 C9-15A - WEST ELEVATION
3/8" = 1'-0"



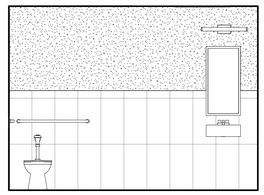
B7 C9-15A - EAST ELEVATION
3/8" = 1'-0"



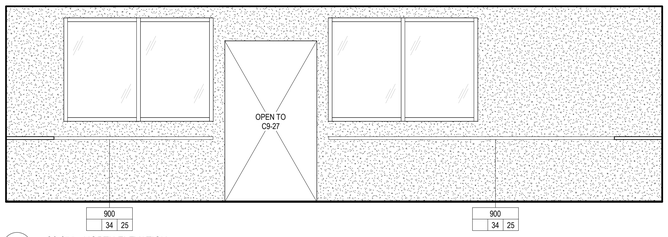
C2 C9-27 - SOUTH ELEVATION
3/8" = 1'-0"



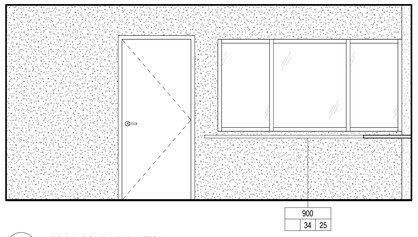
C5 C9-15A - NORTH ELEVATION
3/8" = 1'-0"



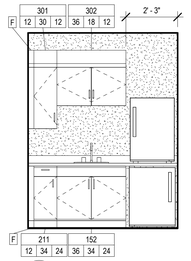
C7 C9-33 - WEST ELEVATION
3/8" = 1'-0"



E2 C9-27A - NORTH ELEVATION
3/8" = 1'-0"

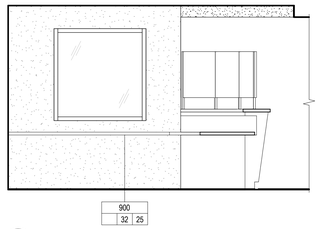


E5 C9-64 - SOUTH ELEVATION
3/8" = 1'-0"

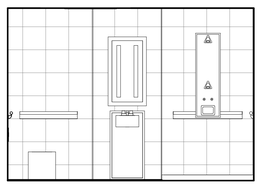


E7 C9-65 - WEST ELEVATION
3/8" = 1'-0"

F2 C9-42 - SOUTH ELEVATION
3/8" = 1'-0"



F5 C9-64 - EAST ELEVATION
3/8" = 1'-0"



F7 C9-68A - EAST ELEVATION
3/8" = 1'-0"

GENERAL NOTES

A. REFER TO 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

B. REFER TO 01-I4 ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHTS OF FIXTURES AND ACCESSORIES

C. REFER TO 01-A40 FOR MILLWORK DETAILS

D. REFER TO 01-A46 FOR DOOR SCHEDULE, DOOR & FRAME TYPES, AND FRAME DETAILS

E. REFER TO 01-A47 FOR WINDOW TYPES

F. REFER TO 01-A50 FOR FINISH SCHEDULE AND LEGEND.

KEYNOTES

00

FINISH LEGEND

SCHEDULED PNT	PT-2/PT-3 PER DETAIL ON 01-A49
SCHEDULED RWC	WP-1

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

ARCHITECT/ENGINEERS:

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STAMP:

U.S. Department of Veterans Affairs

Drawing Title: INTERIOR ELEVATIONS

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

Project Number: 693-19-106

Building Number: 01

Drawing Number: 01-A33

DWG 33 of 53

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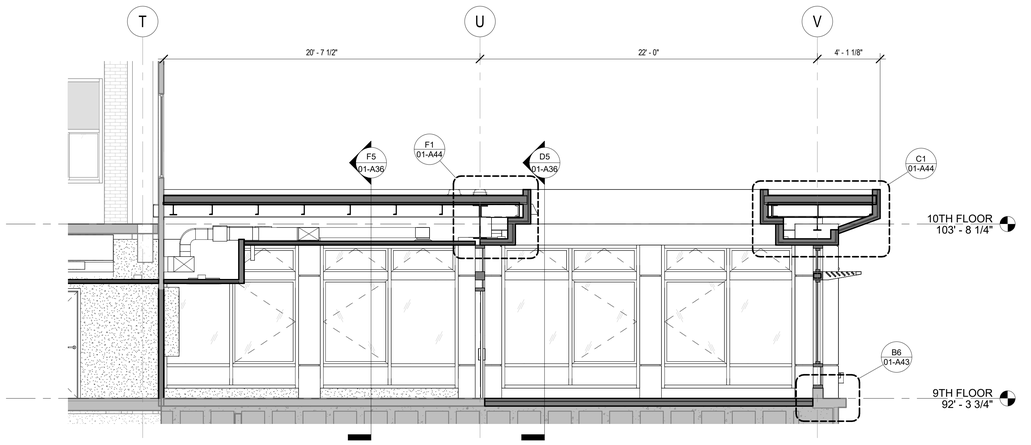
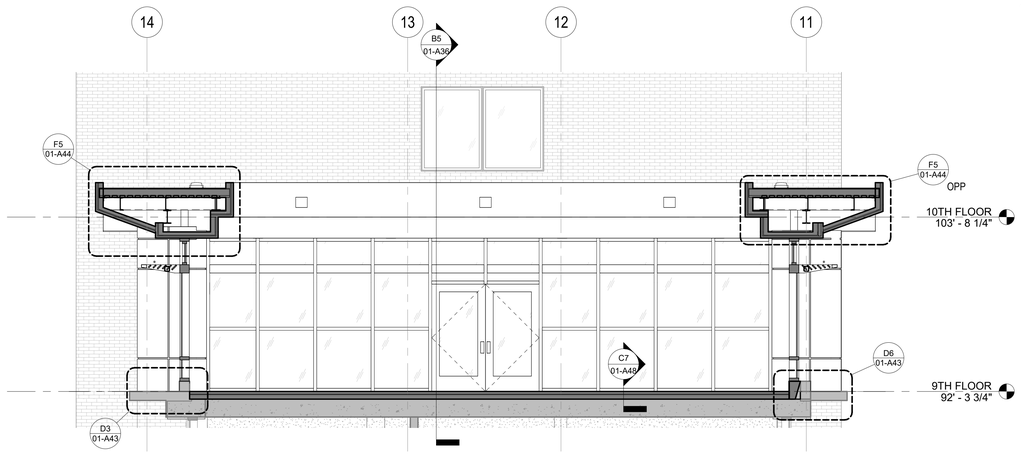
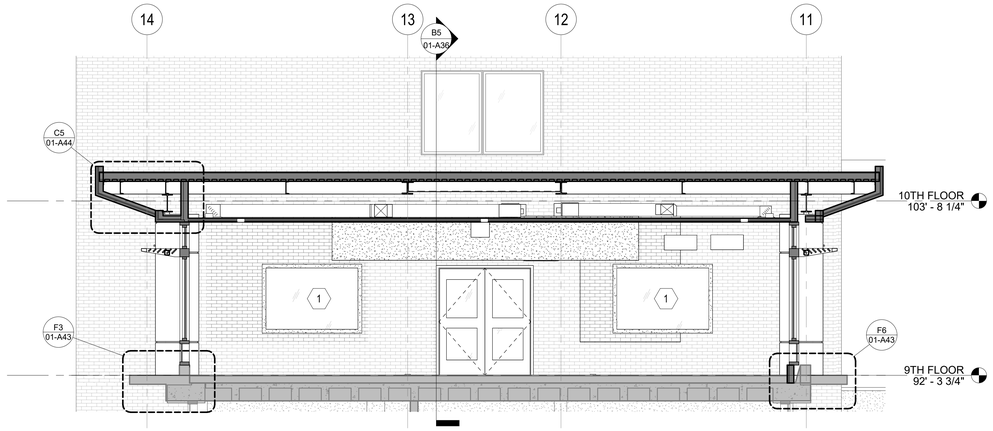


B5 BUILDING SECTION 1 @ EAST SUNROOM
1/4" = 1'-0"



D5 BUILDING SECTION 2 @ COURTYARD
1/4" = 1'-0"



F5 BUILDING SECTION 2 @ EAST SUNROOM
1/4" = 1'-0"

GENERAL NOTES

A. REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

B. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

C. REFER TO WALL TYPES SCHEDULE SHEET FOR MORE INFORMATION REGARDING INTERIOR WALL CONSTRUCTION.

A1

KEYNOTES 00

1 WALL MOUNTED, LIGATURE RESISTANT TELEVISION ENCLOSURE

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

ARCHITECT/ENGINEERS:

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ENGLEWOOD, CO 80110
(720) 550-5307
WWW.VALHALLAENGINEERING.COM

VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: BUILDING SECTIONS

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Project Number: 693-19-106

Building Number: 01

Drawing Number: 01-A36 DWG 36 of 53

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

FINAL DRAWINGS SUBMITTAL

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VA FORM 08 - 6231

GENERAL NOTES

A. REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

B. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

C. REFER TO WALL TYPES SCHEDULE SHEET FOR MORE INFORMATION REGARDING INTERIOR WALL CONSTRUCTION.

KEYNOTES

A1 — 00

1 NEW WINDOW SYSTEM. WINDOWS TO HAVE INTEGRAL BLINDS BETWEEN LAYERS OF GLAZING AND INTERIOR LAYER SHALL BE LAMINATED GLASS

2 NEW LAMINATED GLAZING IN EXISTING WINDOW FRAME. WINDOWS TO HAVE INTEGRAL BLINDS BETWEEN LAYERS OF GLAZING.

3 SCHEDULED CEILING, RE: REFLECTED CEILING PLAN

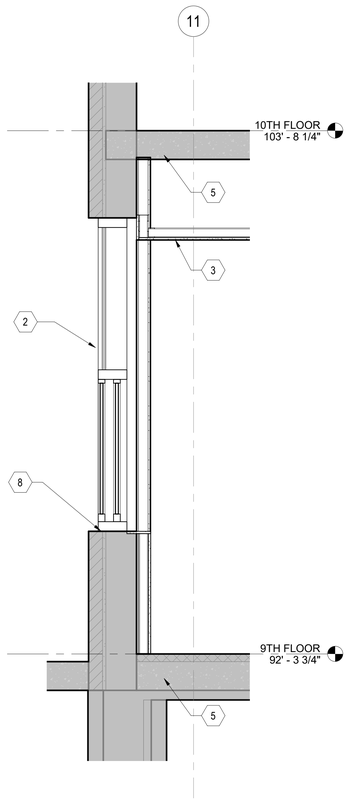
4 EXISTING EXTERIOR CONCRETE WALL (R-VALUE = 1)

5 EXISTING CONCRETE FLOOR STRUCTURE

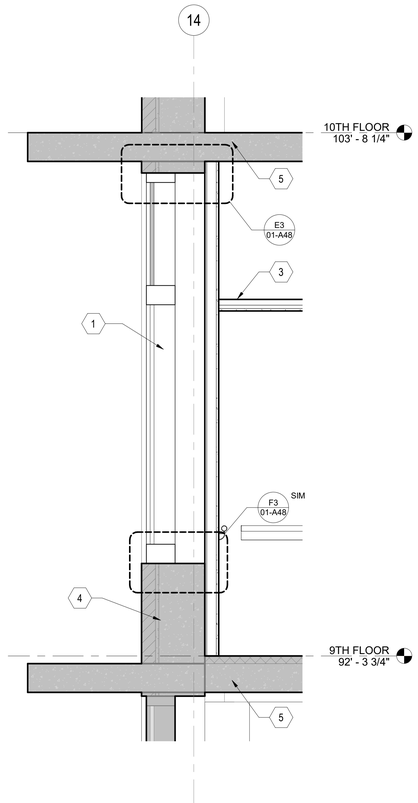
6 NEW STOREFRONT SYSTEM AND DOOR TO ALIGN WITH EXISTING WINDOWS AND MULLIONS

7 STEEL GUARD

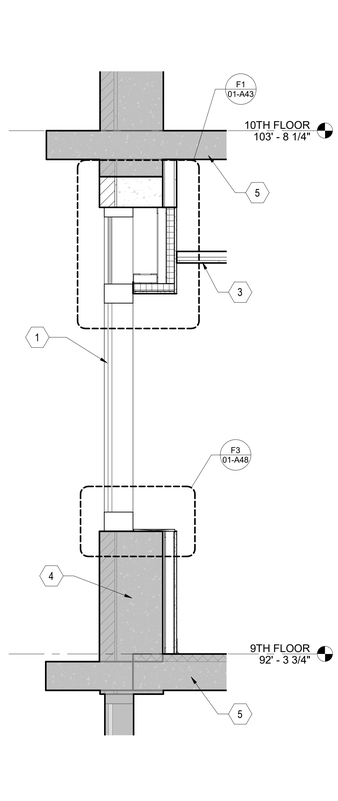
8 EXISTING EXTERIOR MASONRY WALL (R-VALUE = 2.38)



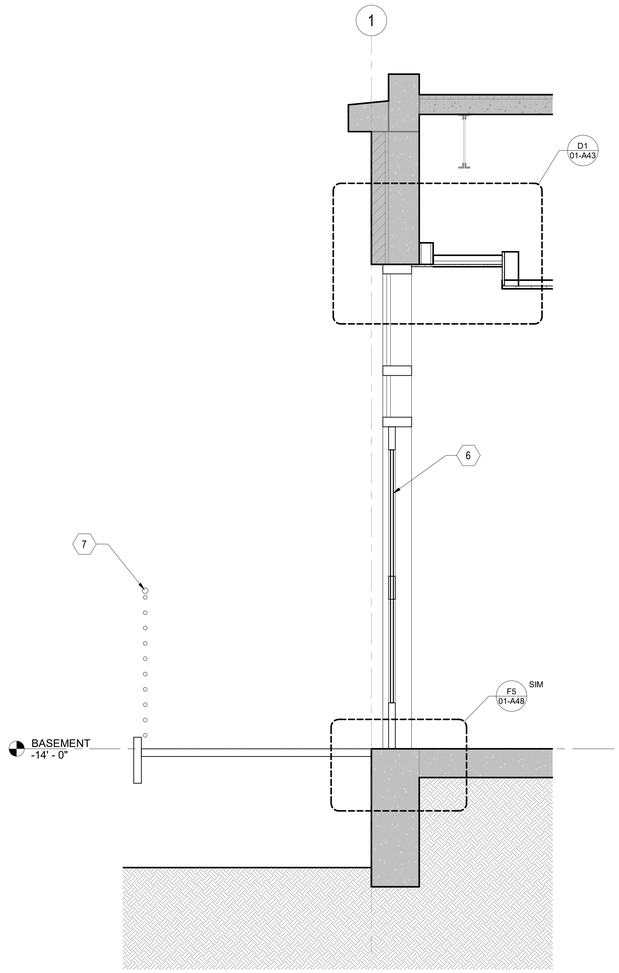
F1 SECTION AT MEN'S PATIENT ROOM C9-13 - NORTH WALL
3/4" = 1'-0"



F3 SECTION AT PATIENT TOILET ROOM C9-23A - SOUTH WALL
3/4" = 1'-0"



F4 SECTION AT DAY/TV - SOUTH WALL
3/4" = 1'-0"



F6 SECTION AT NEW WAREHOUSE STOREFRONT ENTRY
3/4" = 1'-0"

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

ARCHITECT/ENGINEERS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title	WALL SECTIONS
Phase	100% CONSTRUCTION DOCUMENTS
Approved: Project Director	
Project Title	RENOVATE 9TH FLOOR MENTAL HEALTH
Location	1111 EAST END BLVD, WILKES-BARRE, PA 18711
Issue Date	04/18/2023
Checked	DR
Drawn	ZAM
Project Number	693-19-106
Building Number	01 & 17
Drawing Number	01-A37
	DWG 37 of 53

FINAL DRAWINGS SUBMITTAL

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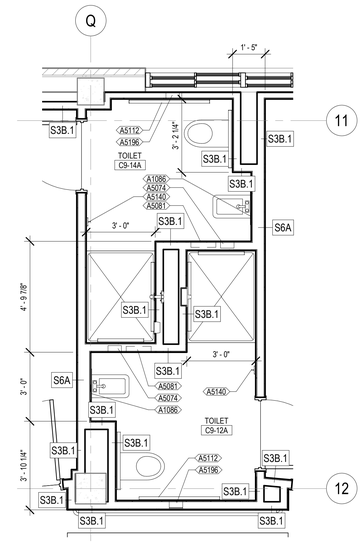
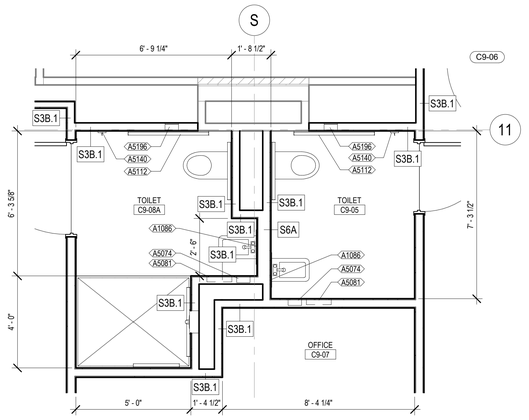
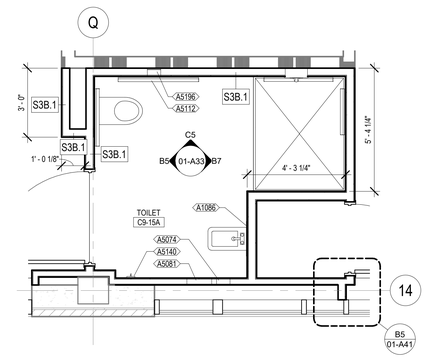
VA FORM 08 - 6231



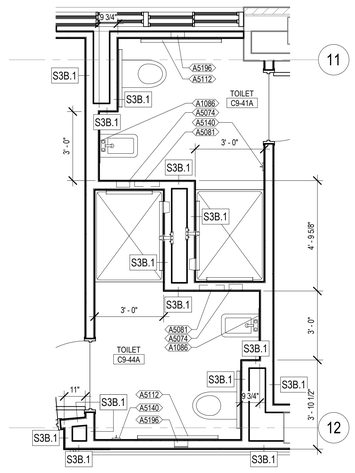
D1 ENLARGED RESTROOM PLAN - C9-12A AND C9-14A
3/8" = 1'-0"



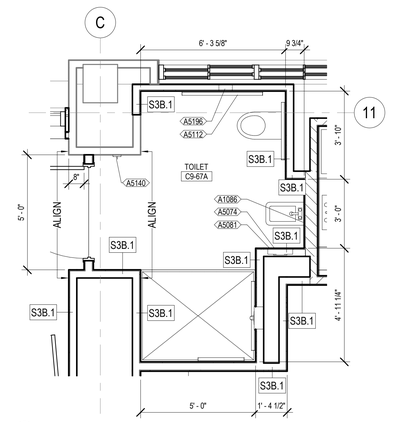
B3 ENLARGED RESTROOM PLAN - C9-05 AND C9-08A
3/8" = 1'-0"



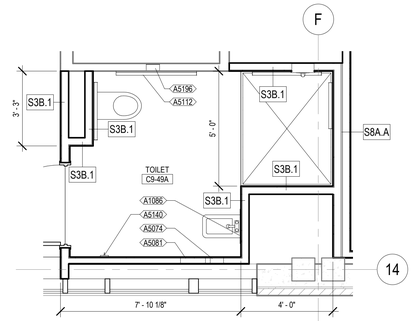
D3 ENLARGED RESTROOM PLAN - C9-15A
3/8" = 1'-0"



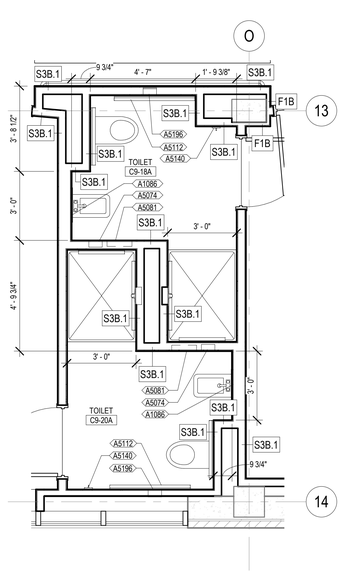
D5 ENLARGED RESTROOM PLAN - C9-41A AND C9-44A
3/8" = 1'-0"



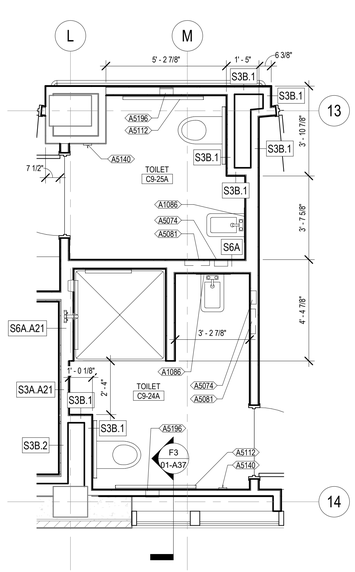
B7 ENLARGED RESTROOM PLAN - C9-67A
3/8" = 1'-0"



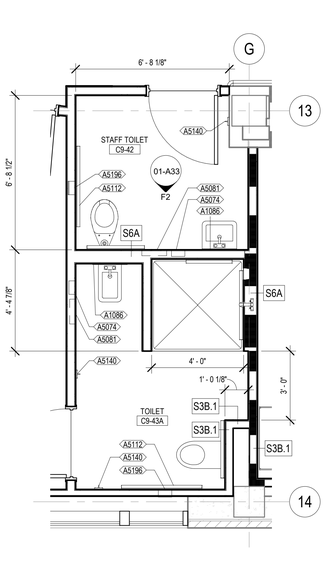
D7 ENLARGED RESTROOM PLAN - C9-49A
3/8" = 1'-0"



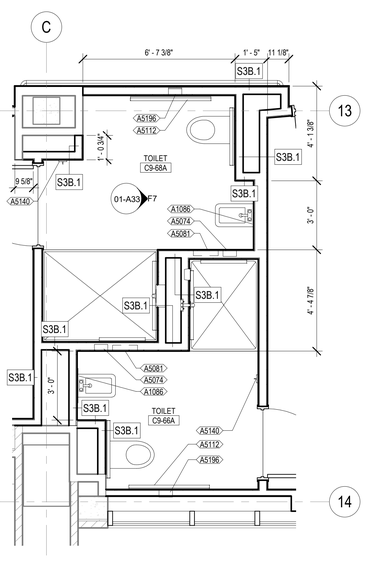
F1 ENLARGED RESTROOM PLAN - C9-18A AND C9-20A
3/8" = 1'-0"



F3 ENLARGED RESTROOM PLAN - C9-24A AND C9-25A
3/8" = 1'-0"



F5 ENLARGED RESTROOM PLAN - C9-42 AND C9-43A
3/8" = 1'-0"



F7 ENLARGED RESTROOM PLAN - C9-66A AND C9-68A
3/8" = 1'-0"

GENERAL NOTES

A. REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

B. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

C. REFER TO SHEET 01-I4 ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHTS OF FIXTURES AND ACCESSORIES.

D. ALIGN NEW WALLS WITH ADJACENT EXISTING WALLS WHERE NEW WALL EXTENDS IN THE SAME DIRECTION.

E. ALIGN CENTER OF DEMISING WALLS OR FINISH FACE OF CHASE WALLS WITH CENTER OF WINDOW MULLION, UNLESS NOTED OTHERWISE.

F. PARTITIONS TO BE TYPE S3A, UNLESS NOTED OTHERWISE. FURRING ALONG EXTERIOR WALLS TO BE S2B.1, UNLESS NOTED OTHERWISE.

G. REFER TO WINDOW TYPES FOR DIMENSIONS AND ADDITIONAL INFORMATION.

A1

TOILET ROOM ACCESSORY SCHEDULE

JSN	DESCRIPTION	REMARKS
A5196	DISPENSER, TOILET TISSUE, PSYCHIATRIC	
A1086	MIRROR, SAFETY, PSYCHIATRIC	
A5081	DISPENSER, PAPER TOWEL, PSYCHIATRIC	
A5074	SOAP DISH, RECESSED, SS, PSYCHIATRIC	
A5109	GRAB BAR, 1-1/4" DIA, SS, 2 WALL, W/C ACCESSIBLE	
A5140	HOOK, GARMENT, SECURITY	

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

ARCHITECT/ENGINEERS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: ENLARGED FLOOR PLANS

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Project Number: 693-19-106

Building Number: 01

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Drawing Number: 01-A38

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

DWG 38 of 53

FINAL DRAWINGS SUBMITTAL

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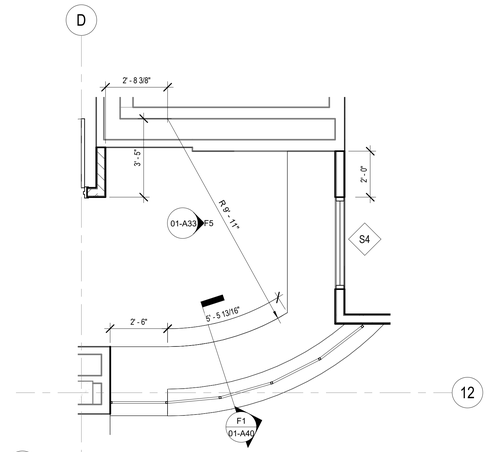
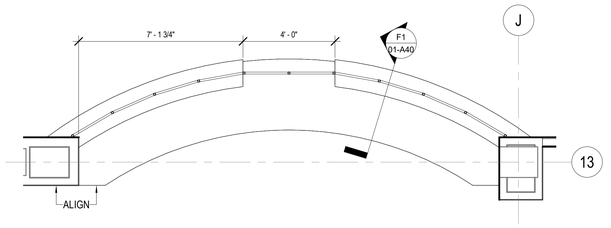
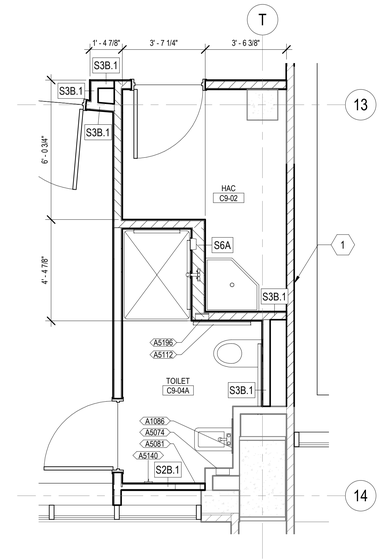


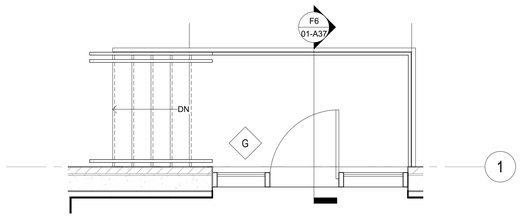
B4 ENLARGED PLAN - C9-64 DESK
3/8" = 1'-0"



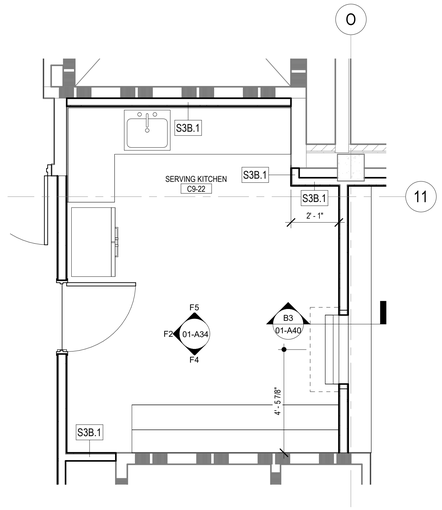
D4 ENLARGED PLAN - C9-27 DESK
3/8" = 1'-0"



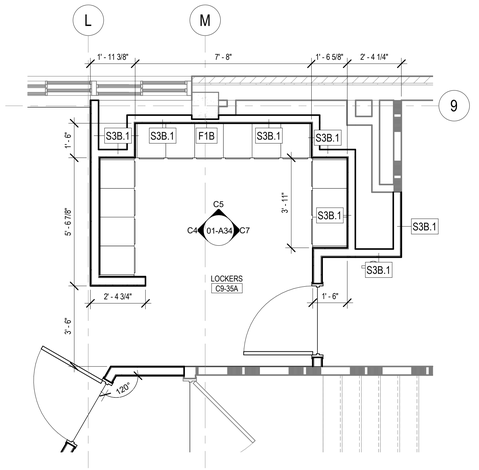
D7 ENLARGED FLOOR PLAN - C9-02 AND C9-03
3/8" = 1'-0"



F2 ENLARGED WAREHOUSE STAIR PLAN
3/8" = 1'-0"



F4 ENLARGED FLOOR PLAN - C9-22
3/8" = 1'-0"



F7 ENLARGED FLOOR PLAN - C9-35A
3/8" = 1'-0"

A1

TOILET ROOM ACCESSORY SCHEDULE

JSN	DESCRIPTION	REMARKS
A5196	DISPENSER, TOILET TISSUE, PSYCHIATRIC	
A1086	MIRROR, SAFETY, PSYCHIATRIC	
A5081	DISPENSER, PAPER TOWEL, PSYCHIATRIC	
A5074	SOAP DISH, RECESSED, SS, PSYCHIATRIC	
A5109	GRAB BAR, 1-1/4" DIA, SS, 2 WALL, W/C ACCESSIBLE	
A5140	HOOK, GARMENT, SECURITY	

GENERAL NOTES

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B. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

C. REFER TO SHEET 01-I4 ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHTS OF FIXTURES AND ACCESSORIES.

D. ALIGN NEW WALLS WITH ADJACENT EXISTING WALLS WHERE NEW WALL EXTENDS IN THE SAME DIRECTION.

E. ALIGN CENTER OF DEMISING WALLS OR FINISH FACE OF CHASE WALLS WITH CENTER OF WINDOW MULLION, UNLESS NOTED OTHERWISE.

F. PARTITIONS TO BE TYPE S3A, UNLESS NOTED OTHERWISE. FURRING ALONG EXTERIOR WALLS TO BE S2B.1, UNLESS NOTED OTHERWISE.

G. REFER TO WINDOW TYPES FOR DIMENSIONS AND ADDITIONAL INFORMATION.

KEYNOTES

00

1 INFILL EXISTING WINDOW OPENING WITH WALL TO MATCH ADJACENT

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

ARCHITECT/ENGINEERS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title ENLARGED FLOOR PLANS	**Phase** 100% CONSTRUCTION DOCUMENTS	**Project Title** RENOVATE 9TH FLOOR MENTAL HEALTH	**Project Number** 693-19-106
Approved: Project Director		**Location** 1111 EAST END BLVD, WILKES-BARRE, PA 18711	**Building Number** 01
		Issue Date 04/18/2023 / **Checked** DR / **Drawn** ZAM	**Drawing Number** 01-A39 DWG 39 of 53

FINAL DRAWINGS SUBMITTAL

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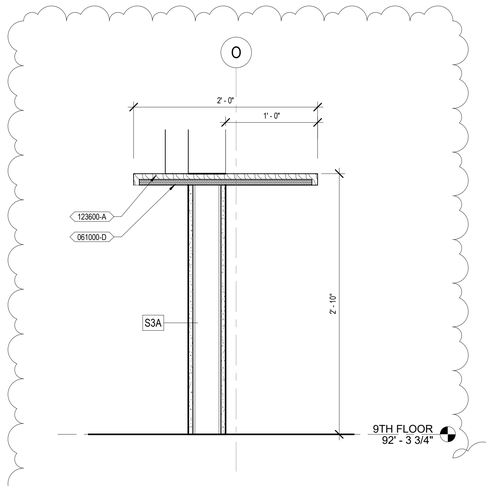
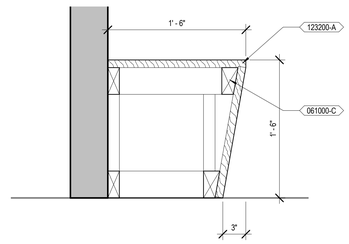
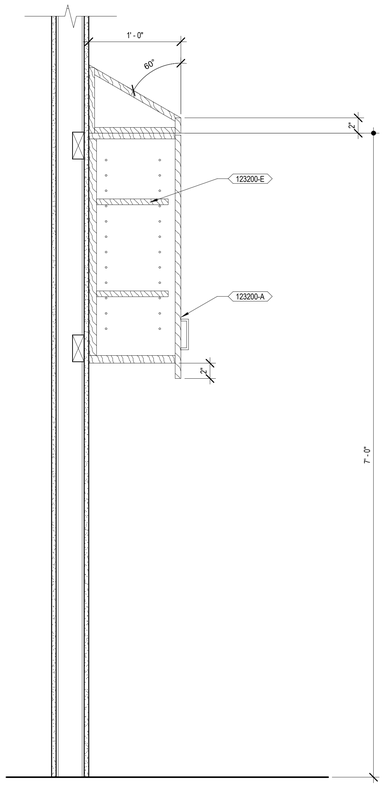
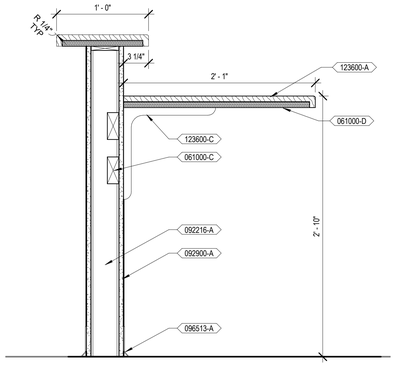


B3 DETAIL @ COILING DOOR COUNTER
1 1/2" = 1'-0"

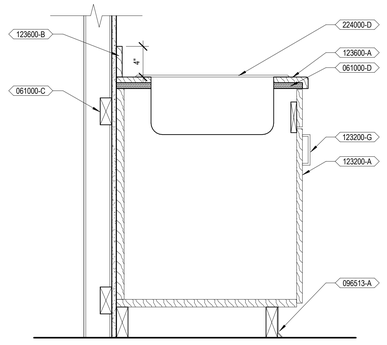


B7 CORRIDOR BENCH DETAIL
1 1/2" = 1'-0"

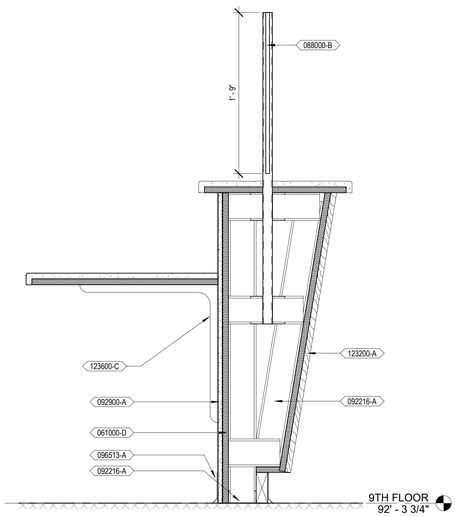




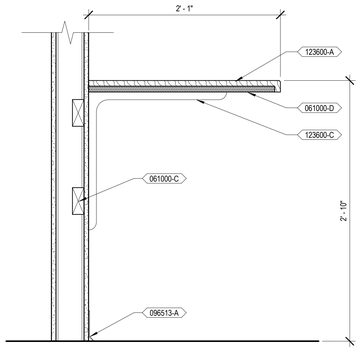
D5 WAREHOUSE RECEPTION COUNTER
1 1/2" = 1'-0"



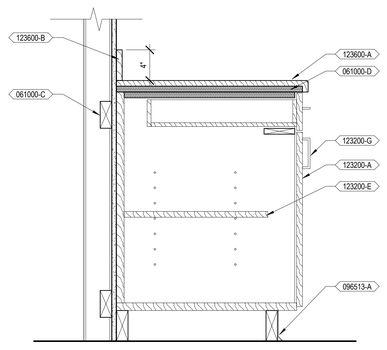
D7 CASEWORK SECTION - CDS 152
1 1/2" = 1'-0"



F1 CASEWORK SECTION - NURSE STATION
1 1/2" = 1'-0"



F5 CASEWORK SECTION - CDS 900
1 1/2" = 1'-0"



F7 CASEWORK SECTION - CDS 211 & 222
1 1/2" = 1'-0"

F3 CASEWORK SECTION - CDS 301 & 302
1 1/2" = 1'-0"

GENERAL NOTES

A. REFER TO FINISH LEGEND AND FINISH SCHEDULE FOR SPECIFIC FINISH INFORMATION.

B. ALL MILLWORK/ CASEWORK CONSTRUCTION SHALL MEET AWI PREMIUM STANDARDS, UNLESS NOTED OR SPECIFIED OTHERWISE.

C. ALL EXPOSED MILLWORK/ CASEWORK SURFACES SHALL BE FINISHED W/ PLASTIC LAMINATE TO MATCH ADJACENT PLASTIC LAMINATE SURFACES, UNLESS NOTED OTHERWISE.

D. ALL CASEWORK INTERIORS SHALL BE WHITE MELAMINE, UNLESS NOTED OTHERWISE.

E. ALL FILLER PANELS SHALL BE 1-1/2 INCH WIDE MINIMUM, FINISHED TO MATCH ADJACENT FINISH SURFACES, AND SCRIBED TO FIT ADJACENT WALL, UNLESS NOTED OTHERWISE.

F. ALL BACKSPLASH FINISHES SHALL MATCH COUNTERTOP MATERIAL AND FINISH, UNLESS NOTED OTHERWISE. PLASTIC LAMINATE SIDE/BACKSPLASHES TO HAVE SELF EDGE LAMINATE, UNLESS NOTED OTHERWISE.

G. CONTRACTOR SHALL APPLY CLEAR MILDEW RESISTANT SILICONE SEALANT WHERE BACKSPLASH MEETS WALL AND COUNTERTOP.

H. THE UNDERSIDE OF COUNTERTOPS WITH KNEE OPENINGS, MUST HAVE A WHITE MELAMINE FINISH, UNLESS NOTED OTHERWISE.

I. WATER AND SUPPLY DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OF ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

KEYNOTES (00)

061000-C	WOOD BLOCKING
061000-D	PLYWOOD SHEATHING
088000-B	SECURITY GLAZING
092216-A	METAL STUDS, RE WALL TYPE
092900-A	GYPSUM BOARD
096513-A	RESILIENT BASE, RE FINISH SCHEDULE
123200-A	PLASTIC LAMINATE CASEWORK
123200-E	ADJUSTABLE SHELF
123200-G	WIRE PULL
123600-A	PLASTIC LAMINATE COUNTERTOP
123600-B	PLASTIC LAMINATE BACKSPLASH
123600-C	COUNTER BRACKET
224000-D	HAND SINK, RE PLUMBING

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

ARCHITECT/ENGINEERS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: MILLWORK SECTIONS

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Project Number: 693-19-106

Building Number: 01 & 17

Drawing Number: 01-A40

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

DWG 40 of 53

FINAL DRAWINGS SUBMITTAL

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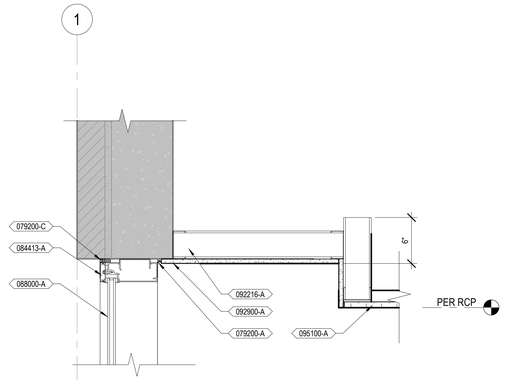
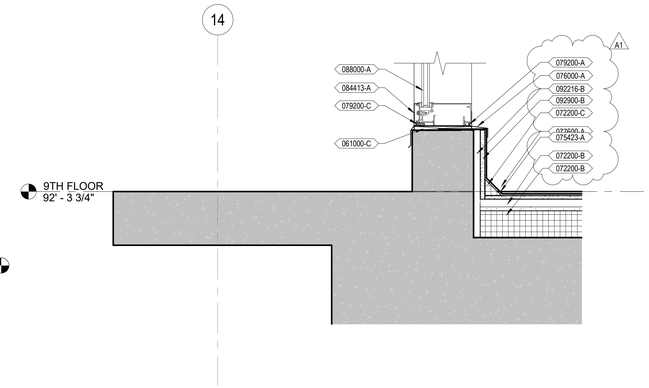
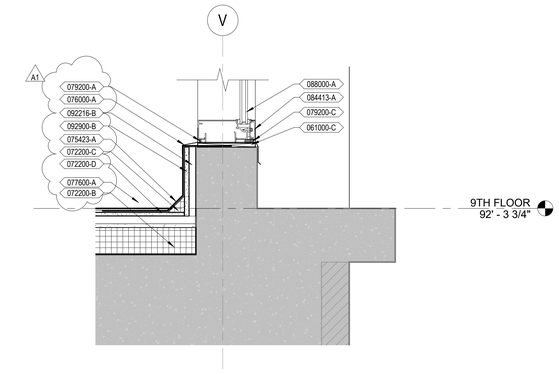


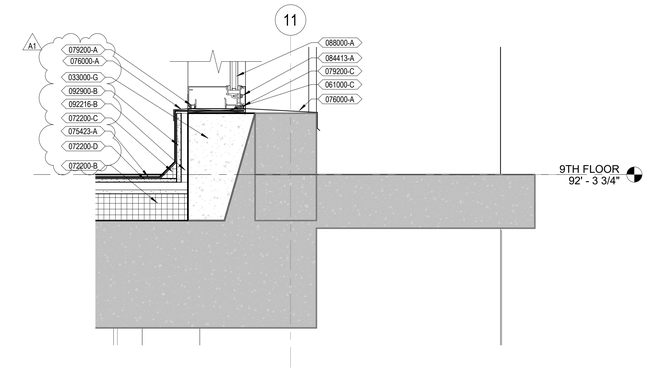
D1 CEILING DETAIL AT WAREHOUSE STOREFRONT
1 1/2" = 1'-0"



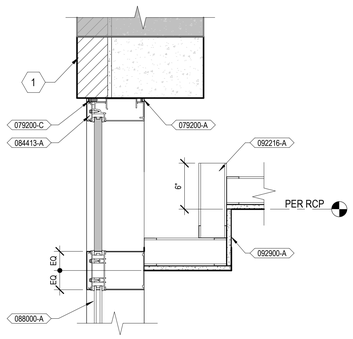
D3 DETAIL @ COURTYARD SOUTH STOREFRONT SILL
1 1/2" = 1'-0"



B6 DETAIL @ COURTYARD EAST SUNROOM SILL
1 1/2" = 1'-0"



D6 DETAIL @ COURTYARD NORTH STOREFRONT SILL
1 1/2" = 1'-0"



F1 SECTION DETAIL - CEILING TO MULLION
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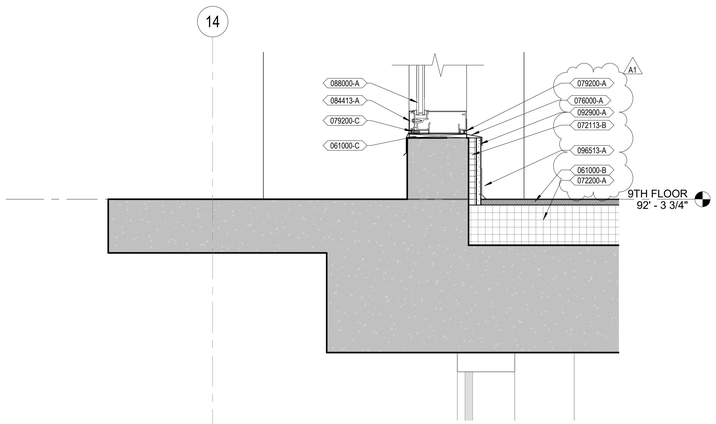
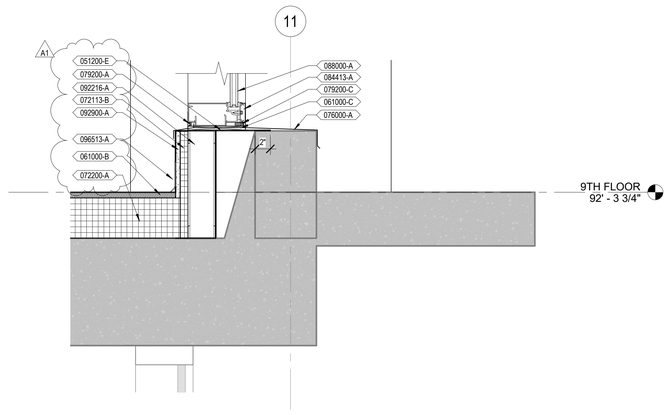


F3 DETAIL @ SUNROOM SOUTH STOREFRONT SILL
1 1/2" = 1'-0"



F6 DETAIL @ SUNROOM NORTH STOREFRONT SILL
1 1/2" = 1'-0"

GENERAL NOTES

A. REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

B. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

C. REFER TO WALL TYPES SCHEDULE SHEET FOR MORE INFORMATION REGARDING INTERIOR WALL CONSTRUCTION.

KEYNOTES (00)

1 INFILL EXISTING WINDOW OPENING WITH WALL TO MATCH ADJACENT

KEYNOTES (######-A)

033000-G	CONCRETE WALL
051200-E	STEEL PLATE, RE STRUCTURAL
061000-B	FIRE-RETARDANT-TREATED PLYWOOD SHEATHING
061000-C	WOOD BLOCKING
072113-B	EXTRUDED-POLYSTYRENE BOARD INSULATION WITH TAPED AND SEALED SEAMS
072200-A	RIGID ROOF INSULATION
072200-B	TAPERED ROOF INSULATION
072200-C	ROOF CANT STRIP
072200-D	GLASS MAT, WATER-RESISTANT GYPSUM ROOF BOARD
075423-A	THERMOPLASTIC POLYOLEFIN (TPO) ROOFING SYSTEM
076000-A	PREFINISHED SHEET METAL FLASHING
077600-A	ROOFTOP TURF PAVER SYSTEM
079200-A	JOINT SEALANT
079200-C	BACKER ROD AND SEALANT
084413-A	GLAZED ALUMINUM CURTAIN WALL
088000-A	GLAZING PER GLAZING SCHEDULE
092216-A	METAL STUDS, RE WALL TYPE
092216-B	METAL HAT CHANNEL, RE WALL TYPE
092900-A	GYPSUM BOARD
092900-B	GLASS MAT GYPSUM BOARD
095100-A	ACOUSTICAL PANEL CEILING, RE FINISH SCHEDULE
096513-A	RESILIENT BASE, RE FINISH SCHEDULE

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: SECTION DETAILS
Approved: Project Director
Phase: 100% CONSTRUCTION DOCUMENTS
Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH
Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711
Issue Date: 04/18/2023
Checked: DR
Drawn: ZAM
Project Number: 693-19-106
Building Number: 01 & 17
Drawing Number: 01-A43
DWG 43 of 53

FINAL DRAWINGS SUBMITTAL

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GENERAL NOTES

A. REFER TO SHEET 01-I3 AND 01-A1 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

B. EXTERIOR WINDOW PROFILES FOR SOUTH AND WEST ELEVATIONS ARE REPRESENTATIVE OF INFORMATION FROM DRAWINGS PROVIDED TO VALHALLA FROM VHA COR ON 02/10/2020 FROM VHA PROJECT #693-13-111. WINDOW SIZES HAVE BEEN MODIFIED TO MATCH EXISTING OPENINGS AS UNDERSTOOD BY VALHALLA AND ARE TO BE VERIFIED IN FIELD.

GLAZING TYPE SCHEDULE

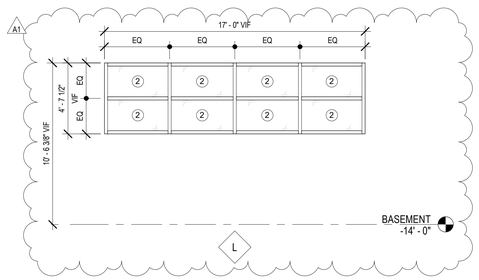
TYPE	IMAGE	DESCRIPTION
1		3/8" POLYCARBONATE, CLEAR
2		DOUBLE PANED, LOW-E, ARGON FILLED GLAZING, CLEAR
3		7/16" LAMINATED SPANDREL PANEL
4		DOUBLE PANED, LOW-E, ARGON FILLED GLAZING WITH 3/8" POLYCARBONATE ON INTERIOR, CLEAR
5		INSULATED SPANDREL GLAZING UNIT, DOUBLE PANED, ARGON FILLED
6		DOUBLE PANED, LOW-E, ARGON FILLED GLAZING WITH 3/8" POLYCARBONATE BOTH PANES, CLEAR
7		3/8" POLYCARBONATE, BOD: LUMICOR LUMIFORM NATURAL - COASTAL
8		OPERABLE PANE, GLAZING TYPE TO MATCH REST OF SYSTEM, BOD: KAWNEER GLASSVENT WINDOWS FOR CURTAIN WALL

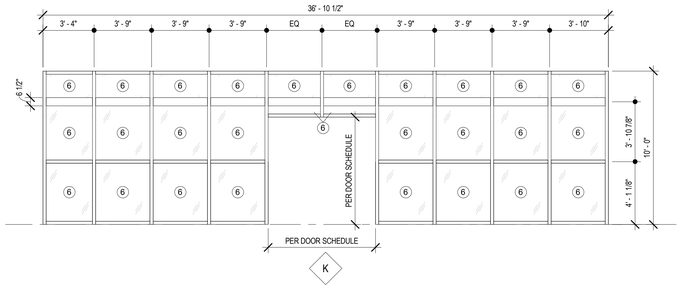
STOREFRONT/CURTAIN WALL SCHEDULE

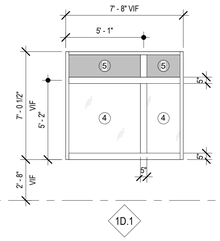
TYPE	FRAME TYPE	HEAD DETAIL	JAMB DETAIL	SILL DETAIL
1B	2	E3/01-A48	E3/01-A48 SIM	F3/01-A48
1B.1	2	E3/01-A48	E3/01-A48 SIM	F3/01-A48
1C	2	E3/01-A48	E3/01-A48 SIM	F3/01-A48
1D.1	2	E3/01-A48	E3/01-A48 SIM	F3/01-A48
A	1	C5/01-A44	RE: 01-A41	RE: 01-A43
B	1	C5/01-A44	RE: 01-A41	RE: 01-A43
B1	1	F5/01-A44	RE: 01-A41	RE: 01-A43
C	1	F5/01-A44	RE: 01-A41	RE: 01-A43
D	1	C1/01-A44	RE: 01-A41	RE: 01-A43
E	1	C1/01-A44	RE: 01-A41	RE: 01-A43
F	1	C1/01-A44	RE: 01-A41	RE: 01-A43
G	1	E7/01-A48	E5/01-A48	F5 & F7/01-A48
H	1	E7/01-A48	E5/01-A48	F7/01-A48
J	4	C5/01-A48	C5/01-A48 SIM	C5/01-A48
K	1	F1/01-A44	RE: 01-A41	C7/01-A48
L	1	E7/01-A48	E5/01-A48	F7/01-A48
S1	3	E1/01-A48	D7 & C7/01-A42	F1/01-A48
S2	3	E1/01-A48	C1/01-A48	F1/01-A48
S2.1	3	E1/01-A48	C1/01-A48	F1/01-A48
S3	3	C1/01-A48	C1/01-A48	C1/01-A48
S4	3	C1/01-A48	C1/01-A48	C1/01-A48
S5	3	C1/01-A48	C1/01-A48	C1/01-A48

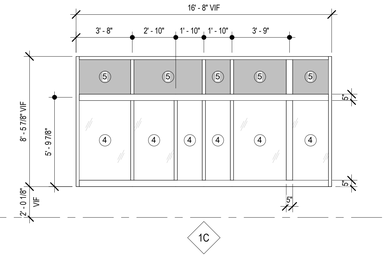
STOREFRONT/CURTAIN WALL FRAME SCHEDULE

FRAME TYPE	DESCRIPTION
1	BOD: KAWNEER 1600 WALL SYSTEM 1, 7 1/2 D x 2 1/2" W. ANODIZED
2	MATCH MANUFACTURER, PRODUCT LINE, AND FINISH OF PROJECT NO 693-13-111 - REPLACE EXTERIOR WINDOWS.
3	BOD: KAWNEER TRIFAB 400, 4" D x 1 3/4" W. ANODIZED
4	BOD: MATCH EXISTING NORTH WINDOW FRAMES

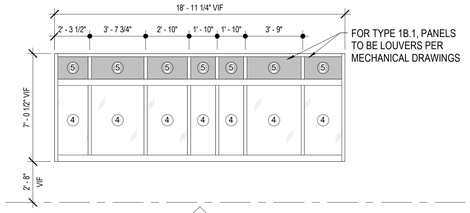


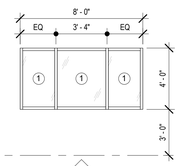


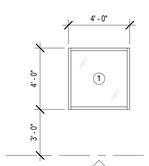


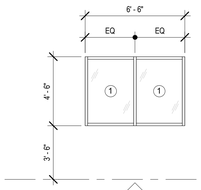


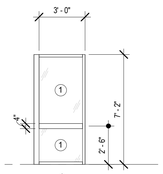
9TH FLOOR
92' - 3 3/4"

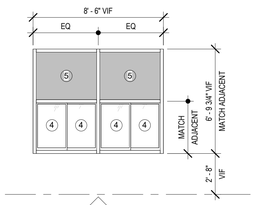




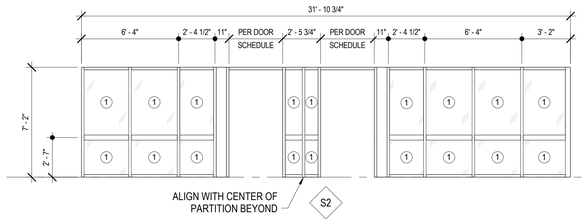


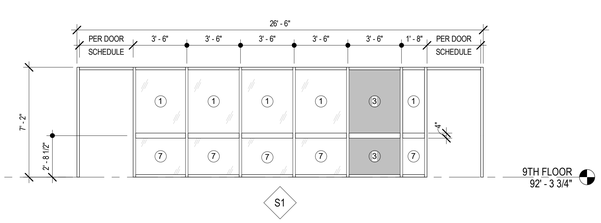




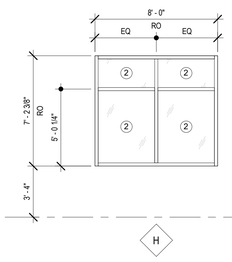


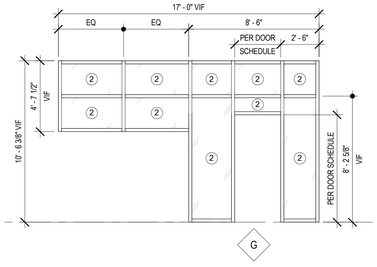
9TH FLOOR
92' - 3 3/4"





9TH FLOOR
92' - 3 3/4"





BASEMENT
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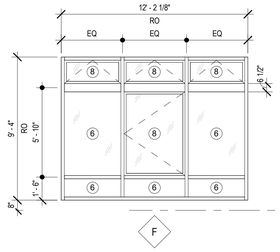

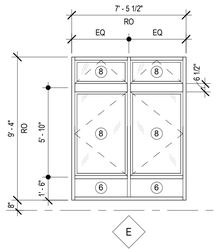

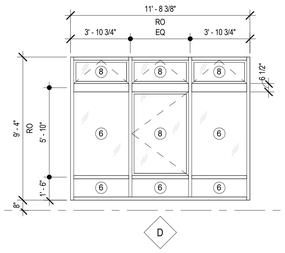

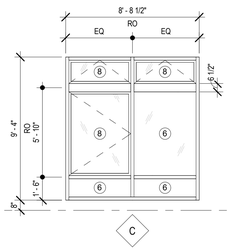

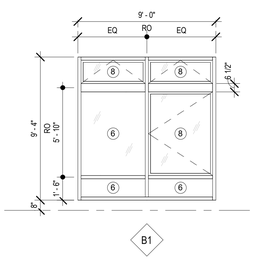

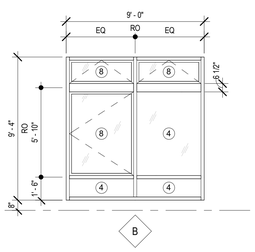

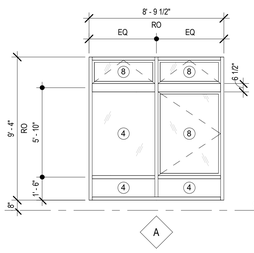

9TH FLOOR
92' - 3 3/4"

0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024
Number:	Revisions:	Date:

CONSULTANTS:

ARCHITECT/ENGINEERS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: WINDOW FRAME TYPES

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Project Number: 693-19-106

Building Number: 01 & 17

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Drawing Number: 01-A47

DWG 46 of 53

Issue Date	Checked	Drawn
04/18/2023	DR	ZAM

FINAL DRAWINGS SUBMITTAL

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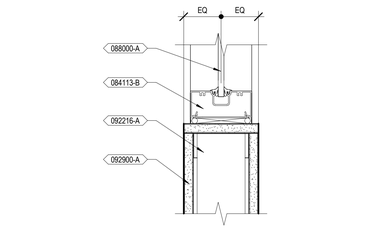
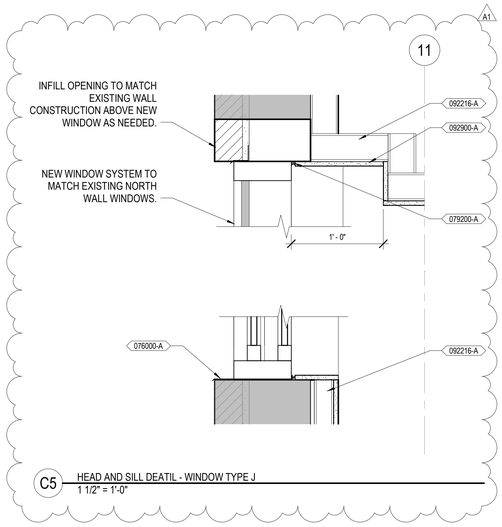
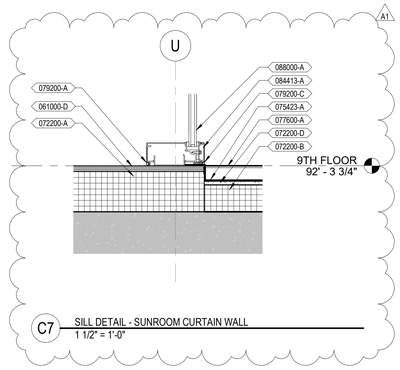


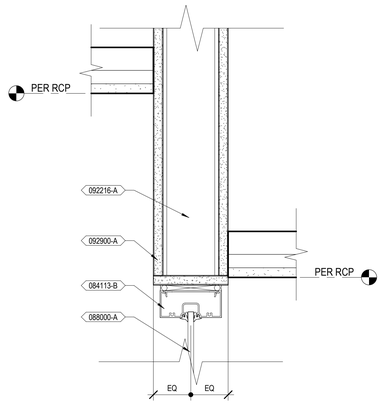
C1 HEAD/SILL/JAMB DETAIL - INTERIOR STOREFRONT
3" = 1'-0"



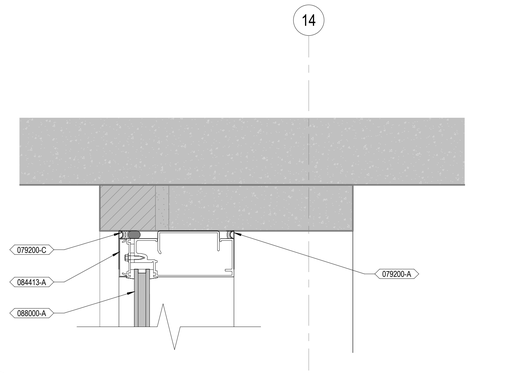
C5 HEAD AND SILL DEATIL - WINDOW TYPE J
1 1/2" = 1'-0"



C7 SILL DETAIL - SUNROOM CURTAIN WALL
1 1/2" = 1'-0"



E1 HEAD DETAIL - TYP INTERIOR STOREFRONT
3" = 1'-0"



E3 HEAD DETAIL - SOUTH WINDOWS
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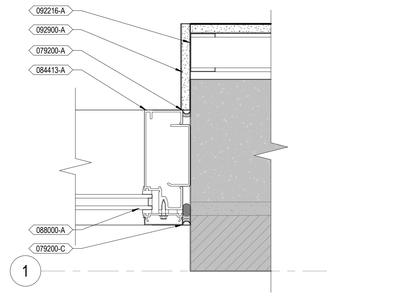

E5 JAMB DETAIL - WAREHOUSE STOREFRONT
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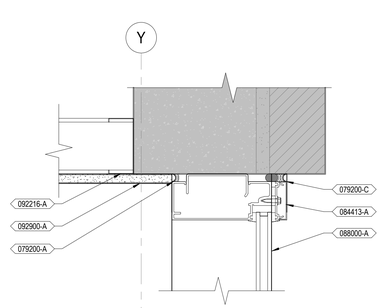

E7 HEAD DETAIL - WAREHOUSE WINDOW
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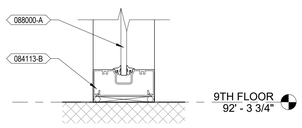
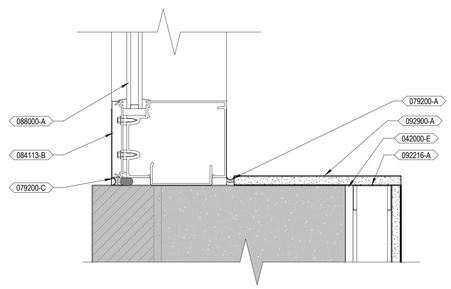
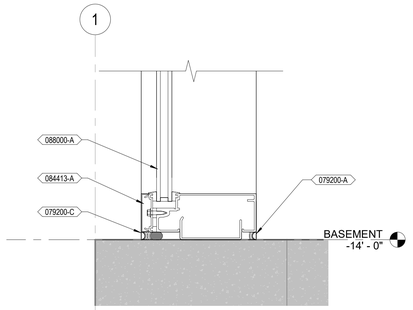


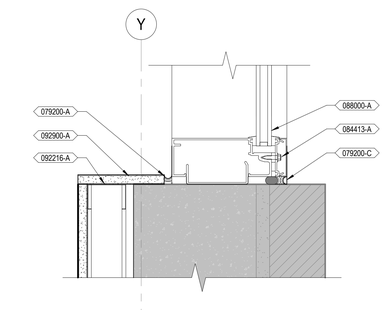
F1 SILL DETAIL - TYP INTERIOR STOREFRONT
3" = 1'-0"



F3 SILL DETIAL - SOUTH WINDOWS
3" = 1'-0"



F5 SILL DETAIL - WAREHOUSE STOREFRONT
3" = 1'-0"



F7 SILL DETAIL - WAREHOUSE WINDOW
3" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET 01-I3 AND 01-A1 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

B. EXTERIOR WINDOW PROFILES FOR SOUTH AND WEST ELEVATIONS ARE REPRESENTATIVE OF INFORMATION FROM DRAWINGS PROVIDED TO VALHALLA FROM VHA COR ON 02/10/2020 FROM VHA PROJECT #693-13-111. WINDOW SIZES HAVE BEEN MODIFIED TO MATCH EXISTING OPENINGS AS UNDERSTOOD BY VALHALLA AND ARE TO BE VERIFIED IN FIELD.

KEYNOTES

<######-A>

042000-E	AIR GAP
061000-D	PLYWOOD SHEATHING
072200-A	RIGID ROOF INSULATION
072200-B	TAPERED ROOF INSULATION
072200-D	GLASS MAT, WATER-RESISTANT GYPSUM ROOF BOARD
075423-A	THERMOPLASTIC POLYOLEFIN (TPO) ROOFING SYSTEM
076000-A	PREFINISHED SHEET METAL FLASHING
077600-A	ROOFTOP TURF PAVER SYSTEM
079200-A	JOINT SEALANT
079200-C	BACKER ROD AND SEALANT
084113-B	ALUMINUM-FRAMED STOREFRONT SYSTEM
084413-A	GLAZED ALUMINUM CURTAIN WALL
088000-A	GLAZING PER GLAZING SCHEDULE
092216-A	METAL STUDS, RE WALL TYPE
092900-A	GYPSUM BOARD

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024

CONSULTANTS:

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VEG 19.25

STAMP:

U.S. Department of Veterans Affairs

Drawing Title: WINDOW DETAILS

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Project Number: 693-19-106

Building Number: 01 & 17

Drawing Number: 01-A48

DWG 47 of 53

Issue Date: 04/18/2023 | Checked: DR | Drawn: ZAM

FINAL DRAWINGS SUBMITTAL

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VA FORM 08 - 6231

FINISH SCHEDULE - 9TH FLOOR

ROOM NUMBER	ROOM NAME	FLOORS		WALLS				CEILING	WALL PROTECTION
		FLOOR	BASE	NORTH	EAST	SOUTH	WEST		
C9-00	COURTYARD	PVR-1/TRF-1	-	-	-	-	-	OPEN	
C9-01	EAST SUNROOM	WSF-1/WSF-2	RB-1	-	-	-	EXIST	PNT-C1	
C9-02	HAC	RES-6A	RCB-1	PNT-SC1	PNT-SC1	PNT-SC1	PNT-SC1	ACT-SP	RWC-1
C9-03	GROUP COUNSELING ROOM	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	
C9-04	MEN'S	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-04A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-05	TOILET	PT-2	PT-2	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PNT-C1	
C9-06	MECHANICAL	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-06A	ELEC	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-07	OFFICE	WSF-2	RB-1	PNT-2	PNT-3	PNT-2	PNT-2	ACT-1	
C9-08	MEN'S BARIATRIC	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-08A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-09	ELEC	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-10	LAUNDRY	RES-6A	RCB-1	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	RWC-1
C9-11	QUIET ROOM	HSF-1	HSF-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	
C9-12	MEN'S	WSF-2	WSF-2	PNT-2	PNT-3	PNT-2	PNT-2	PNT-C1	
C9-12A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-13	SOILED UTILITY	RES-6A	RCB-1	PNT-SC1	PNT-SC1	PNT-SC1	PNT-SC1	ACT-SP	RWC-1
C9-14	MEN'S	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-14A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-15	MEN'S BARIATRIC	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-15A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-16	DINING/ ACTIVITIES	WSF-2	RB-1	PNT-1/ PNT-4	PNT-1/ PNT-4	PNT-1/ PNT-4	RWC-5	PNT-C1	RWC-2, CG-2
C9-17	GROUP THERAPY	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	
C9-18	MEN'S	WSF-2	WSF-2	PNT-2	PNT-3	PNT-2	PNT-2	PNT-C1	
C9-18A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-19	ELEC	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-20	MEN'S	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-20A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-21	SALLY PORT	RES-6A	RCB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	CG-1, RWC-1
C9-22	SERVING KITCHEN	RES-6A	RCB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	RWC-1
C9-23	ELEVATOR LOBBY	RES-6A	RCB-1	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	CG-1, RWC-1
C9-24	MEN'S	WSF-2	WSF-2	PNT-2	PNT-3	PNT-2	PNT-2	PNT-C1	
C9-24A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-25	ANTE ROOM	WSF-2	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	
C9-25A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-25B	SECLUSION ROOM	HSF-1	HSF-1	RES-W1	RES-W1	RES-W1	RES-W1	PNT-C1	
C9-26	LOBBY	WSF-1/WSF-2	RB-1	PNT-5	PNT-5	PNT-5	PNT-5	PNT-C2/ PNT-C3	RWC-2, CG-2
C9-27	NURSE'S STATION	WSF-1	RB-2	PNT-1	PNT-5	PNT-5	PNT-5	ACT-1 & PNT-C2	
C9-27A	NURSE'S WORKROOM	WSF-1	RB-2	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	
C9-28	SALLY PORT	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C2	RWC-1
C9-29	INTERVIEW	WSF-2	RB-1	PNT-2	PNT-2	PNT-2	PNT-1	PNT-C1	
C9-30	ELEVATOR LOBBY	WSF-1/WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1 & PNT-C2	CG-1, RWC-1
C9-31	TELECOM ROOM	N/A	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	OPEN	
C9-32	MECHANICAL	N/A	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	OPEN	
C9-33	STAFF TOILET	PT-2	PT-2	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PNT-SC2	
C9-34	ELEC	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-34A	ELEC	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-35	NURSE'S LOUNGE	LVT-1	RB-2	PNT-1	PNT-1	PNT-1	PNT-3	ACT-1 & PNT-C1	
C9-35A	LOCKERS	LVT-1	RB-2	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	
C9-35B	CLOSET	LVT-1	RB-2	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	
C9-36	MECH	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-37	TEAMING/ COUNSELING	WSF-2	RB-1	PNT-1	PNT-1	PNT-5	-	PNT-C1	
C9-38	EXAM/ INTAKE	WSF-2	WSF-2	PNT-1	PNT-1	PNT-5	-	PNT-C1	
C9-39	HEAD NURSE OFFICE	WSF-1	RB-2	PNT-3	PNT-2	PNT-2	PNT-2	ACT-1	
C9-40	MED	WSF-2	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
C9-41	WOMEN'S	WSF-2	WSF-2	PNT-2	PNT-3	PNT-2	PNT-2	PNT-C1	
C9-41A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-42	STAFF TOILET	PT-2	PT-2	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PNT-SC2	
C9-43	WOMEN'S	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-43A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-44	WOMEN'S	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-44A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-45	PATIENT STORAGE	RES-6A	RCB-1	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	
C9-46	LINEN	RES-6A	RCB-1	PNT-SC1	PNT-SC1	PNT-SC1	PNT-SC1	PNT-SC2	
C9-47	OFFICE/ GROUP ROOM	WSF-2	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	
C9-47A	STORAGE	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	
C9-48	LAUNDRY	RES-6A	RCB-1	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	RWC-1
C9-49	WOMEN'S BARIATRIC	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-49A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-50	MEETING	WSF-2	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	
C9-51	HAC	RES-6A	RCB-1	PNT-SC1	PNT-SC1	PT-2/PNT-2	PNT-SC1	ACT-SP	RWC-1
C9-52	SALLY PORT	WSF-1	RB-2	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	RWC-1
C9-53	ELEC	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-54	ELEVATOR LOBBY	WSF-1/WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1 & PNT-C2	CG-1, RWC-1
C9-55	MECHANICAL	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-56	CLEAN STORAGE	RES-6A	RCB-1	PNT-SC1	PNT-SC1	PNT-SC1	PNT-SC1	ACT-SP	
C9-57	HAC	RES-6A	RCB-1	PNT-SC1	PNT-SC1	PNT-SC1	PNT-SC1	ACT-SP	RWC-1
C9-58	ELECTRICAL	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-59	PREFUNCTION/ COLLABORATION	LVT-1	RB-2	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1 & PNT-C1	
C9-60	CONFERENCE	LVT-1	RB-2	PNT-1	PNT-1	PNT-1	PNT-4	ACT-1	
C9-61	WORKSTATIONS	LVT-1	RB-2	PNT-1	PNT-4	PNT-1	PNT-1	ACT-1	
C9-62	ELEC	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-63	ELEC	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
C9-64	NURSE'S STATION	WSF-1	RB-2	PNT-1	RWC-2	PNT-1	PNT-1	ACT-1 & PNT-C2	
C9-65	MED	WSF-1	RB-2	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
C9-66	GERIATRIC	WSF-2	WSF-2	PNT-2	PNT-3	PNT-2	PNT-2	PNT-C1	
C9-66A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-67	BARIATRIC GERIATRIC	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-67A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-68	BARIATRIC GERIATRIC	WSF-2	WSF-2	PNT-2	PNT-2	PNT-2	PNT-3	PNT-C1	
C9-68A	TOILET	PT-1	PT-1	WP-1	WP-1	WP-1	WP-1	PNT-SC2	
C9-69	OFFICE	WSF-2	RB-1	PNT-2	PNT-3	PNT-2	PNT-2	PNT-C1	
C9-70	CLEAN UTILITY	RES-6A	RCB-1	PNT-SC1	PNT-SC1	PNT-SC1	PNT-SC1	PNT-SC2	
C9-71	GROUP THERAPY	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	
C9-72	DAY/TV	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	

FINISH SCHEDULE - 9TH FLOOR

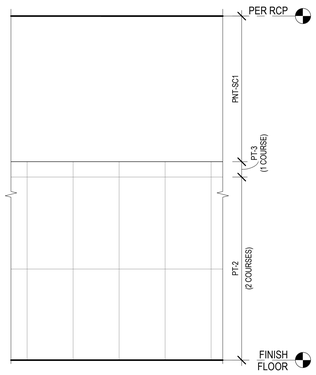
ROOM NUMBER	ROOM NAME	FLOORS		WALLS				CEILING	WALL PROTECTION
		FLOOR	BASE	NORTH	EAST	SOUTH	WEST		
C9-72A	GERIATRIC DINING	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	
C9-C01	CORRIDOR	WSF-1/WSF-2	RB-1	RE ELEVATIONS	PNT-1/ RWC-3	RE ELEVATIONS	PNT-1	PNT-C1/ PNT-C2	HR-1, CG-1, ECG-1, RE ELEVATIONS
C9-C02	CORRIDOR	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C1	RWC-1
C9-C03	CORRIDOR	WSF-1/WSF-2	RB-1	RE ELEVATIONS	PNT-1	RE ELEVATIONS	RWC-3	PNT-C1/ PNT-C2/ PNT-C3	HR-1, CG-1, ECG-1, RE ELEVATIONS
C9-C04	CORRIDOR	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C2	CG-1, RWC-1
C9-C05	CORRIDOR	WSF-1	RB-2	PNT-1	PNT-1	PNT-5	PNT-1	ACT-1	
C9-C06	CORRIDOR	WSF-1/WSF-2	RB-1	RE ELEVATIONS	PNT-1/RWC-3	RE ELEVATIONS	PNT-1	PNT-C1/ PNT-C2/ PNT-C3	HR-1, CG-1, ECG-1, RE ELEVATIONS
C9-C07	CORRIDOR	WSF-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-C2	RWC-1
C9-C08	CORRIDOR	WSF-1/WSF-2	RB-1	RE ELEVATIONS	RWC-3	RE ELEVATIONS	PNT-1	PNT-C2/ PNT-C3	HR-1, CG-1, ECG-1, RE ELEVATIONS
C9-C09	CORRIDOR	WSF-1/WSF-2	RB-1	RE ELEVATIONS	PNT-1	RE ELEVATIONS	PNT-1/ RWC-3	PNT-C1	HR-1, CG-1, ECG-1, RE ELEVATIONS

FINISH SCHEDULE - WAREHOUSE

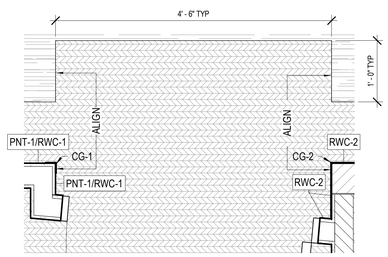
ROOM NUMBER	ROOM NAME	FLOORS		WALLS				CEILING	WALL PROTECTION
		FLOOR	BASE	NORTH	EAST	SOUTH	WEST		
L1-001	OXYGEN STORAGE	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
L1-100	STORAGE	EXIST	RB-3	PNT-2	PNT-2	PNT-2	PNT-2	OPEN	
L1-100A	ELEC	EXIST	RB-3	PNT-2	PNT-2	PNT-2	PNT-2	OPEN	
L1-100E	TELECOM ROOM	EXIST	RB-3	PNT-2	PNT-2	PNT-2	PNT-2	OPEN	
L1-100F	LOCKERS	LVT-1	RB-3	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	
L1-100G	TOILET	PT-2	PT-2	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	
L1-100H	OFFICE	LVT-1	RB-3	PNT-3	PNT-2	PNT-2	PNT-2	ACT-1	
L1-100J	LOADING DOCK	EXIST	RB-3	PNT-2	PNT-2	PNT-2	PNT-2	EXIST	
L1-101	STORAGE	CPT-1	EXIST	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
L1-102	SECRETARY	CPT-3	RB-3	PNT-2	PNT-2	PNT-2	PNT-3	ACT-1	
L1-102A	CLOSET	CPT-3	RB-3	PNT-2	PNT-2	PNT-2	PNT-2	PNT-C1	
L1-103	OPEN OFFICE	CPT-1/CPT-2	RB-3	PNT-3	PNT-2	PNT-2	PNT-2	ACT-1 & PNT-C1	
L1-104	COPY/LOCKERS	CPT-1	RB-3	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1 & PNT-C1	
L1-105	TOILET	PT-2	PT-2	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ SC1	PT-2/ PT-3/ SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	
L1-106	TOILET	PT-2	PT-2	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	PT-2/ PT-3/ PNT-SC1	
L1-107	OFFICE	CPT-1	RB-3	PNT-2	PNT-2	PNT-3	PNT-2	ACT-1	
L1-108	OFFICE	CPT-1	RB-3	PNT-3	PNT-2	PNT-2	PNT-2	ACT-1	
L1-109	OFFICE	CPT-1	RB-3	PNT-2	PNT-2	PNT-3	PNT-2	ACT-1	
L1-110	OFFICE	CPT-1	RB-3	PNT-3	PNT-2	PNT-2	PNT-2	ACT-1	
L1-111	CONFERENCE	CPT-2	RB-3	PNT-3	PNT-2	PNT-2	PNT-2	ACT-1 & PNT-C1	
L1-112	MECH	EXIST	RB-3	PNT-2	PNT-2	PNT-2	PNT-2	OPEN	

FINISH LEGEND

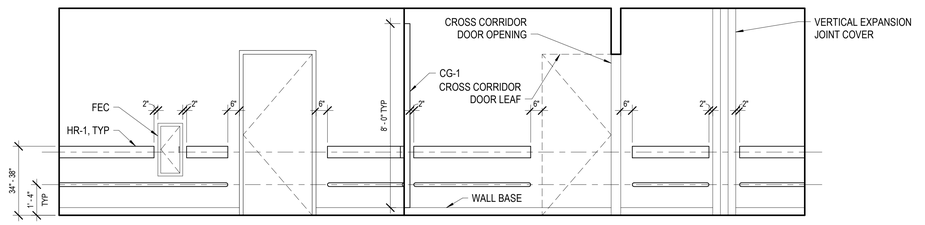
SYMBOL	MATERIAL	MANUFACTURER	TYPE	COLOR	COMMENTS
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	ULTIMA 24 X 24" SQUARE LAY-IN	WHITE	PRELUDE XL 15/16" EXPOSED TEE GRID, WHITE
ACT-SP	ACOUSTIC CEILING TILE - SPECIAL FACED	ARMSTRONG	CALLA HEALTH ZONE 24" X 24" SQUARE LAY-IN	WHITE	
CG-1	CORNER GUARD	ACROVYN	FS-10N	PARCHMENT - #253	PROVIDE AT OUTSIDE CORNERS IN SCHEDULED ROOMS
CG-2	CORNER GUARD	ACROVYN	FS-10N	CUCUMBER - #1595	PROVIDE AT OUTSIDE CORNERS IN SCHEDULED ROOMS AND WHERE INDICATED ON AE640
CG-3	CORNER GUARD	ACROVYN	FS-10N	SMOKEY BLUE - #1576	PROVIDE WHERE INDICATED ON FINISH PLANS
CPT-1	CARPET TILE	MANNINGTON	EXCHANGE 2 - TRANSMIT	CHAT 35648	
CPT-2	CARPET TILE	MANNINGTON	EXCHANGE 2 - TRANSMIT	HAPTICS 13143	
CPT-3	CARPET TILE	MANNINGTON	EXCHANGE 2 - TRANSMIT	HOTSPOT 15149	
CT-1	CERAMIC TILE	CROSSVILLE	SIMPATICO 12	FELLOWSHIP - SKU# LWT02.11224S	
ECG-1	END CAP GUARD	ACROVYN	FSC-25	SMOKEY BLUE - #1576	RE DETAIL B7/01-A42
ECG-2	END CAP GUARD	ACROVYN	FSC-25	PARCHMENT - #253	PROVIDE WHERE INDICATED ON FINISH PLANS
HR-1	HAND RAIL	ACROVYN	HRB-10CCM	BRUSHED SILVER - #410	PROVIDE IN SCHEDULED ROOMS PER DETAIL F7
HSF-1	HOMOGENEOUS SHEET FLOORING WITH FOAM BACKING	TARKETT	IQ GRANIT ACOUSTIC	LIGHT SAND 0323 - REF # 21155323	INSTALL WITH INTEGRAL COVE BASE
LVT-1	LUXURY VINYL TILE	MANNINGTON	SPACIA WOOD 6" x 36"	MADISON MAPLE PEPPER BARK - SS5W12237	
PLM-1	PLASTIC LAMINATE			WHITE	FOR CASEWORK IN NURSE AREAS
PNT-1	PAINT	SHERWIN WILLIAMS	LATEX PAINT - SATIN	AGED WHITE - SW9180	
PNT-2	PAINT	SHERWIN WILLIAMS	LATEX PAINT - SATIN	IVORY LACE - SW7013	
PNT-3	PAINT	SHERWIN WILLIAMS	LATEX PAINT - SATIN	SLEEPY HOLLOW - SW9145	
PNT-4	PAINT	SHERWIN WILLIAMS	LATEX PAINT - SATIN	RECYCLED GLASS - SW7747	INCLUDING COLUMNS OF SCHEDULED ROOM
PNT-5	PAINT	SHERWIN WILLIAMS	LATEX PAINT - SATIN	FRIENDLY YELLOW - SW6680	
PNT-C1	PAINTED GYP BOARD	SHERWIN WILLIAMS	LATEX PAINT - SATIN	HIGH REFLECTIVE WHITE - SW7757	
PNT-C2	PAINTED GYP BOARD	SHERWIN WILLIAMS	LATEX PAINT - SATIN	COTTON WHITE - SW7104	APPLY TO CEILINGS >7'-6"
PNT-C3	PAINTED GYP BOARD	SHERWIN WILLIAMS	LATEX PAINT - SATIN	SPORTY BLUE - SW6522	APPLY TO CEILINGS BY DOORS WITH RWC-3 ON WALLS
PNT-SC1	PAINT - SPECIAL COATED	SHERWIN WILLIAMS	SUPREME HIGH BUILD LATEX - SEMI GLOSS	IVORY LACE - SW7013	
PNT-SC2	PAINT - SPECIAL COATED	SHERWIN WILLIAMS	SUPREME HIGH BUILD LATEX - SEMI GLOSS	HIGH REFLECTIVE WHITE - SW7757	
PT-1	PORCELAIN TILE	CROSSVILLE	ALASKA 2 x 2" MOSAIC	BONE - SKU# ASK02.10202MOS	
PT-2	PORCELAIN TILE	CROSSVILLE	MOONSTRUCK 12 x 24" FIELD TILE	LUNA - SKU# AV302.11224UPS	
PT-3	PORCELAIN TILE	CROSSVILLE	MOONSTRUCK 4 x 24" TRIM	LUNA - SKU# AV302.10424BNS	
PVR-1	ROOFTOP PAVERS	TILE TECH	PORCELAIN PAVERS	QUARTZITE CLOUD	USE WITH HEX-TRAY SYSTEM ON ADJUSTABLE PEDESTALS
RB-1	RESILIENT BASE (RUBBER OR VINYL)	ROPPE	NO TOE OC - 4" X 120' x 0.080"	NUTMEG - 623	
RB-2	RESILIENT BASE (RUBBER OR VINYL)	ROPPE	NO TOE OC - 4" X 120' x 0.080"	CHAMELEON - 624	
RB-3	RESILIENT BASE (RUBBER OR VINYL)	ROPPE	NO TOE OC - 4" X 120' x 1/8"	BLACK????	
RCB-1	RESINOUS FLOOR COVE BASE	DUR-A-FLEX	POLYCRETE-WR	DARK GREY	
RES-6A	RESINOUS URETHANE FLOORING	DUR-A-FLEX	POLY-CRETE MDB	DARK GREY	
RES-W1	EPOXY WALL COATING	SHERWIN WILLIAMS	EPOXY PAINT	IVORY LACE - SW7013	
RWC-1	RIGID WALL COVERING	ACROVYN	WALL COVERING	SOLID COLORS - PARCHMENT - #253	APPLY TO 4' AFF WHERE SCHEDULED
RWC-2	RIGID WALL COVERING	ACROVYN	SOLID COLORS	SOLID COLORS - CUCUMBER - #1595	APPLY IN SCHEDULED ROOMS TO 4' AFF, APPLY FULL HEIGHT WHERE SHOWN
RWC-3	RIGID WALL COVERING	ACROVYN	SOLID COLORS	SOLID COLORS - SMOKEY BLUE - #1576	FULL HEIGHT WALL COVERING, ALIGN WITH FINISH FLOOR PATTERN UNO
RWC-4	RIGID WALL COVERING	LUMICOR	WALL PROTECTION - LUMIFORM 3/64"	NATURAL LEAVES	WITH "OLIVE" AND "CLOVER" SPECTRUM COLORING
RWC-5	RIGID WALL COVERING	ACROVYN BY DESIGN	WALL COVERING	PATTERNS - PEBBLES - STORM	
RWP-1	RESIN WALL PANEL	LUMICOR	WALL PROTECTION DECOR	COASTAL GRASS + CAMEO	FOR CLADDING OF NURSE STATION DESKS
SS-1	SOLID SURFACE COUNTERTOP	CORIAN	SOLID SURFACE	COCOA PRIMA	COUNTERTOPS IN NURSE STATIONS AND WORK AREAS
SS-2	SOLID SURFACE COUNTERTOP	CORIAN	SOLID SURFACE	NIMBUS PRIMA	COUNTERTOP IN DINING ROOM
TRF-1	SYNTHETIC TURF	TILE TECH	SYNTHETIC TURF AND TURF TRAYS	PET TURF	USE WITH ADJUSTABLE PEDESTALS TO CREATE A FLAT SYSTEM
WP-1	WALL PANEL INSTALLATION	ONYX COLLECTION	SHOWER WALL PANEL	TIRAMISU	
WSF-1	WELDED SEAM SHEET FLOORING	MANNINGTON	REALITIES II HETEROGENEOUS SHEET	ANTIQUE OAK II - DATE - 5606R	
WSF-2	WELDED SEAM SHEET FLOORING	MANNINGTON	REALITIES II HETEROGENEOUS SHEET	WILD CHERRY - SHAKER - 5645R	APPLY WITH "FLASH COVING" WHERE SCHEDULED AS WALL BASE



E4 TYPICAL WALL TILE COURSING IN TOILET ROOMS
3/4" = 1'-0"



F4 TYPICAL FINISHES AT PATIENT ROOM ENTRY
1" = 1'-0"



F7 TYPICAL WALL PROTECTION ELEVATION
3/8" = 1'-0"

0	100% CONSTRUCTION DOCUMENTS	04/18/2023
A1	ADDENDUM 1	06/28/2024
Number:	Revisions:	Date:

CONSULTANTS:

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STAMP:

U.S. Department of Veterans Affairs

Drawing Title: FINISH SCHEDULE
Phase: 100% CONSTRUCTION DOCUMENTS
Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH
Project Number: 693-19-106
Building Number: 01 & 17
Approved: Project Director
Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711
Drawing Number: 01-A49
Issue Date: 04/18/2023
Checked: DR
Drawn: ZAM
DWG 49 of 53
A1

FINAL DRAWINGS SUBMITTAL

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12-01-21

SECTION 06 61 16
SOLID SURFACING FABRICATIONS

PART 1 - GENERAL

1.1 DESCRIPTION

A. This guide specification covers the requirements for solid polymer fabrication.

1.2 SYSTEM DESCRIPTION

A. Work under this section includes Shower pans, shower surrounds, countertops, window sills, shelves, and other items utilizing solid surfacing material fabrications as indicated on the drawings an as described in this specification. Do not change the source of supply for materials after work has started, if the appearance of finished work would be affected.

B. In most instances, installation of solid surfacing material fabricate components and assemblies requires strong correctly located structural support provided by other trades. To provide a stable, sound, secure installation, close coordination is required between the solid surfacing material fabricator/installer and other trades to ensure that necessary structural wall support, cabinet counter top structural support, proper clearances, and other supporting components are provided for the installation of wall panels, counter tops, shelving, and all other solid surfacing material fabrications to the degree and extent recommended by the solid surfacing material manufacturer.

C. Provide appropriate staging areas for solid surfacing material fabrications. Allow variation in component size and location of openings of plus or minus 3 mm 1/8 inch.

1.3 SUBMITTALS

A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. SD-02 Shop Drawings

1. Detail Fabrication Drawings
2. Installation

C. SD-03 Product Data

1. Solid Polymer
2. Indoor air quality for solid surface seam and sealant products

D. SD-04 Samples

1. Material
2. Counter Tops

E. SD-06 Test Reports
1. Test Report Results

F. SD-07 Certificates
1. Qualifications
2. Indoor Air Quality for solid surface fabrication products

G. SD-10 Operation and Maintenance Data
1. Solid Polymer, Data Package 1

H. Manufacturer warranty.

1.4 QUALITY ASSURANCE

A. Qualifications: To ensure warranty coverage, provide manufacturer certified solid surfacing fabricators to fabricate the solid surfacing material being utilized. Mark all fabrications with the fabricator's certification label affixed in an inconspicuous location. Minimum of 5 years of experience working with solid surfacing materials is required of fabricators. Submit solid surfacing material manufacturer's certification attesting to fabricator qualification approval

B. Mock-Ups
1. Submit Detail Fabrication Drawings indicating locations, dimensions, component sizes, fabrication and joint details, attachment provisions, installation details, and coordination requirements with adjacent work.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver materials to project site until areas are ready for installation. Deliver components and materials to the site undamaged, in containers clearly marked and labeled with manufacturer's name. Store materials indoors and take adequate precautions to prevent damage to finished surfaces. Provide protective coverings to prevent physical damage or staining following installation, for duration of project.

1.6 WARRANTY

A. Construction Warranty: Comply with FAR clause 52.246-21 “Warranty of Construction”.

B. Provide manufacturer's warranty to repair or replace defective materials, excluding damages caused by physical or chemical abuse or excessive heat,

and workmanship for a period of 10 years from date of final acceptance of the work.

1.7 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by basic designation only.

B. ASTM International (ASTM):

ASTM C920 .....(2018) Standard Specification for Elastomeric Joint Sealants

ASTM D570 .....(1998; E 2010; R 2010) Standard Test Method for Water Absorption of Plastics

ASTM D638 .....(2014) Standard Test Method for Tensile Properties of Plastics

ASTM D696 .....(2016) Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30 degrees C and 30 degrees C With a Vitreous Silica Dilatometer

ASTM D790 .....(2017) Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials

ASTM D2583 .....(2013a) Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor

ASTM E84 .....(2020) Standard Test Method for Surface Burning Characteristics of Building Materials

ASTM G21 .....(2015; R 2021; E 2021) Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi

C. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH)

CDPH SECTION 01350 .....(2010; Version 1.1) Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers

D. CSA GROUP (CSA)

CSA B45.5-17/IAPMO Z124 (2017; Errata 2017; Errata 2018) Plastic Plumbing Fixtures

E. INTERNATIONAL CAST POLYMER ASSOCIATION (ICPA)

ICPA SS-1 .....(2001) Performance Standard for Solid Surface Materials

F. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

ANSI/NEMA LD 3 .....(2005) Standard for High-Pressure Decorative Laminates

G. NSF INTERNATIONAL (NSF)

NSF/ANSI 51 .....(2021) Food Equipment Materials

PART 2 - PRODUCTS

2.1 MATERIALS

A. Submit detail fabrication drawings and installation drawings of each solid surfacing fabrication indicated. Include elevations, dimensions, clearances, details of construction and anchorage, and details of joints and connections.

1. Submit manufacturers' descriptive product data for [each type of] solid polymer fabrication [and quartz agglomerate fabrication] indicated. Include manufacturers' literature, finishes, profiles and thicknesses of materials.
2. Submit manufacturers' operations and maintenance data for [each type of] solid polymer fabrication [and quartz agglomerate material fabrication] in accordance with Section 01 78 23 OPERATIONS AND MAINTENANCE DATA.

B. Solid Surfacing Material

1. Provide solid polymer that is a homogeneous filled solid polymer; not coated, laminated or of a composite construction, complying with ICPA SS-1[and ICPA SS-1 for quartz agglomerate, except for composition]. Provide material that meets or exceeds the minimum physical and performance properties specified.
2. Superficial damage to a depth of 0.25 mm 0.01 inch must be repairable by sanding or polishing. Material thickness is as indicated below; required minimum thickness is 6 mm 1/4 inch.
3. Submit a minimum 102 by 102 mm 4 inch by 4 inch sample of each color and pattern for approval; include full range of color and pattern variation. Retain approved samples as a standard for this work. Submit test report results from an independent testing laboratory attesting that the submitted solid surfacing materials meet or exceed each of the specified performance requirements

a. Horizontal Surfaces: 3/4 inch thick material

b. Provide materials that meet the emissions requirements of CDPH SECTION 01350 (limit requirements for either office or classroom spaces regardless of space type). Provide certification or validation of indoor air quality for solid surface fabrication products.

C. Cast, 100 Percent Acrylic Polymer Solid Surfacing Material.

D. Material Patterns and Colors.

Provide pattern and color for all solid surfacing material components and fabrications as scheduled in Drawings; colors listed are not intended to limit the selection of equal colors from other manufacturers. Provide products with consistent patterned color throughout thickness of the product.

E. Surface Finish

1. Provide a uniform appearance on exposed finished surfaces and edges. Exposed surface finish is matte; gloss rating of 5-20

2.2 ACCESSORY PRODUCTS

Provide accessory products, as specified below, as manufactured by the solid surfacing material manufacturer or as approved by the solid surfacing material manufacturer for use with the solid surfacing materials being specified.

A. Adhesives

1. Provide a two-part seam adhesive kit to create permanent, inconspicuous, non-porous, hard seams and joints by chemical bond between solid surfacing materials and components to create a monolithic appearance of the fabrication. Provide adhesive approved by the solid surfacing material manufacturer. Color-match adhesive to the surfaces being bonded where solid-colored, solid surfacing materials are being bonded together.

2. Provide clear or color matched seam adhesive where particulate patterned, solid surfacing materials are being bonded together.

B. Seam and Sealant Emissions

1. Provide seam and other accessory materials that meet the emissions

2. requirements of CDPH SECTION 01350 (limit requirements for either office or classroom spaces regardless of space type). Provide

validation of indoor air quality for solid surface seam and sealant products.

C. Silicone Sealant

1. Provide silicone sealant, mildew-resistant, single-component, nonsag, plus 25 percent and minus 25 percent movement capability, acid-curing; ASTM C920, Type S, Grade NS, Class 25, Use NT; clear formulation; approved for use by the solid surfacing material manufacturer.

D. Conductive Tape

1. Provide manufacturer's standard conductive foil tape, 0.1 mm 4 mils thick, applied around the edges of cut outs containing hot or cold appliances.

E. Insulating Tape

1. Provide manufacturer's standard insulating tape for use with drop-in food wells used in commercial food service applications to insulate solid surfacing material from hot or cold appliances.

F. Heat Reflective Tape

1. Provide heat reflective tape as recommended by the solid surfacing material manufacturer for use with cutouts for heat sources.

G. Mounting Hardware

1. Provide mounting hardware, including sink/bowl clips, inserts and fasteners for attachment of undermount sinks and lavatories.

2.3 FABRICATIONS

Provide factory or shop fabricate components to sizes and shapes indicated, to the greatest extent practical, in accordance with approved Shop Drawings and manufacturer's requirements. Provide factory cutouts for sinks, lavatories, and plumbing fixtures where indicated on the drawings. Contours and radii must be routed to template, with edges smooth. Defective and inaccurate work will be rejected. Submit product data indicating product description, fabrication information, and compliance with specified performance requirements for solid surfacing material, joint adhesive, sealants, and heat reflective tape.

A. Joints and Seams

1. Form joints and seams between solid surfacing material components using manufacturer's approved seam adhesive. Provide inconspicuous joints in appearance without voids to create a monolithic appearance.

B. Edge Finishing

1. Rout and finish component edges to a smooth, uniform appearance and finish. Provide edge shapes and treatments, including any inserts, as detailed on the drawings. Rout all cutouts, then sand all edges smooth. Repair or reject defective or inaccurate work.

C. Counter Top Splashes

1. Fabricate backsplashes and end splashes from 13 mm 1/2 inch thick solid surfacing material to be 102 mm 4 inches high in conformance with dimensions and shapes as indicated. Provide backsplashes and end splashes at locations indicated. Shop fabricate backsplashes and provide loose, to be field attached.
   a. End Splashes: Provide end splashes loose for installation at the jobsite after horizontal surfaces to which they are to be attached have been installed.

D. Counter Tops: Fabricate all solid surfacing material, counter top components from 19 mm 3/4 inch thick material. Indicate details, dimensions, locations, and quantities on the drawings. Provide counter tops with 102 mm 4 inch high loose as indicated. Attach 51 mm 2 inch wide reinforcing strip of solid surfacing material under each horizontal counter top seam. Submit a minimum 305 mm 1 foot wide by 152 mm 6 inch deep, full size sample for each type of counter top shown on the project drawings; include the edge profile and backsplash as detailed on the drawings and at least one seam. Retain approved sample as standard for this work. Provide bullnose edge profile.
   a. Counter Tops with Sinks
      1) Provide stainless steel or vitreous china sink; include cutouts to template for counter tops with sinks as furnished by the sink manufacturer. Provide manufacturer's standard sink mounting hardware for stainless steel rimless installation. Seal between sink and counter top with specified silicone sealant. Provide sink, faucet, and plumbing requirements in accordance with Section 22 00 00 PLUMBING.

E. Shower base and Wall Panel System: Provide shower wall enclosures with a system of solid surfacing material components to include: panels, corner trim, soap dish, shampoo shelf, panel edge trim; dimensions of all components are as indicated. Form wall panels from manufacturer's standard 6 mm 1/4 inch and base from 13 mm 1/2 inch thick sheet product.

Provide panels full width and height with seams occurring only at the inside corners of the enclosure. Provide soap dish and shampoo shelf of configuration, shape, and location as indicated as standard with the manufacturer's system.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Components: Install all components and fabricated units plumb, level, and rigid. Make field joints between solid surfacing material components using solid surfacing material manufacturer's approved seam adhesives, to provide a monolithic appearance with joints inconspicuous in the finished work. Attach metal or vitreous china sinks and lavatory bowls to counter tops using solid surfacing material manufacturer's recommended clear silicone sealant and mounting hardware. Install solid polymer sinks and bowls using a color-matched seam adhesive.

1. Loose Counter Top Splashes: Mount loose splashes in the locations noted on the drawings. Adhere loose splashes to the counter top with a color matched silicone sealant when the solid surfacing material components are solid colors. Use a clear silicone sealant to provide adhesion of particulate patterned solid surfacing material splashes to counter tops.
2. Wall Panels & Panel Systems: Installation of wall panels and system components to substrates must include the use of a specified panel adhesive. Use specified seam adhesive to adhere all solid surfacing material components to each other with the exception of expansion joints and inside corners. All inside corners and expansion joints between solid surfacing material components must be joined with specified silicone sealant. All joints between solid surfacing material components and non-solid polymer surfaces must be sealed with specified silicone sealant.

B. Silicone Sealant: Use specified silicone sealant to seal all expansion joints between solid surfacing material components and all joints between solid surfacing material components and other adjacent surfaces such as walls, floors, ceiling, and plumbing fixtures. Provide sealant bead smooth and uniform in appearance and minimum size necessary to bridge any gaps between the solid surfacing material and the adjacent surface.

Provide continuous bead and run the entire length of the joint being sealed.

C. Plumbing: Make plumbing connections to sinks and lavatories in accordance with Section 22 00 00 PLUMBING.

3.2 CLEAN-UP

A. Components must be cleaned after installation and covered to protect against damage during completion of the remaining project items. Damaged components must be repaired or replaced at the Contractor's sole expense.

- - - E N D - - -

A1

SECTION 087100 - DOOR HARDWARE

01-20

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Sliding doors.
3. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Automatic operators.
4. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.
2. Division 08 Section “Flush Wood Doors”.
3. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.

7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
8. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:
   a. Type, style, function, size, label, hand, and finish of each door hardware item.
   b. Manufacturer of each item.
   c. Fastenings and other pertinent information.
   d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
   e. Explanation of abbreviations, symbols, and codes contained in schedule.
   f. Mounting locations for door hardware.
   g. Door and frame sizes and materials.
   h. Warranty information for each product.
4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:
1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
   a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.

b. Complete (risers, point-to-point) access control system block wiring diagrams.

c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Automatic Operator Supplier Qualifications: Power operator products and accessories are required to be supplied and installed through the Norton Preferred Installer (NPI) program. Suppliers are to be factory trained, certified, and a direct purchaser of the specified power operators and be responsible for the installation and maintenance of the units and accessories indicated for the Project.

F. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.

2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

G. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

H. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

I. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.

4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

J. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each

type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:
   a. Two Hinges: For doors with heights up to 60 inches.
   b. Three Hinges: For doors with heights 61 to 90 inches.
   c. Four Hinges: For doors with heights 91 to 120 inches.
   d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
   a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
   b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
   a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
   b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following:
   a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
5. Manufacturers:
   a. Hager Companies (HA) - BB Series, 5 knuckle.
   b. McKinney (MK) - TA/T4A Series, 5 knuckle.
   c. dormakaba Best (ST) - F/FBB Series, 5 knuckle.

B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
1. Manufacturers:.
   a. Pemko (PE).

C. Pin and Barrel Continuous Hinges: ANSI/BHMA A156.26 Grade 1-600 pin and barrel continuous hinges with minimum 14 gauge Type 304 stainless steel hinge leaves, concealed stainless pin, and twin self-lubricated nylon bearings at each knuckle separation. Factory trim hinges to suit door height and prepare for electrical cut-outs.
1. Manufacturers:

a. Markar Products; ASSA ABLOY Architectural Door Accessories (MR).

b. Pemko (PE).

D. Sliding and Folding Door Hardware: Hardware is to be of type and design as specified and should conform with ANSI/BHMA A156.14.

1. Sliding Bi-Passing Pocket Door Hardware: Provide complete sets consisting of track, hangers, stops, bumpers, floor channel, guides, and accessories indicated.

2. Bi-folding Door Hardware: Rated for door panels weighing up to 125 lb.

3. Pocket Sliding Door Hardware: Rated for doors weighing up to 200 lb.

4. Manufacturers:

a. Hafele Manufacturing (HF).

b. Pemko (PE).

2.3 POWER TRANSFER DEVICES

A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

a. Pemko (PE) - EL-CEPT Series.

b. Securitron (SU) - EL-CEPT Series.

c. Von Duprin (VD) - EPT-10 Series.

B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking

devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:
   a. McKinney (MK) - Electrical Connecting Kit: QC-R001.
   b. McKinney (MK) - Connector Hand Tool: QC-R003.
2. Manufacturers:
   a. McKinney (MK) - QC-C Series.

2.4 DOOR OPERATING TRIM

A. Flush Bolts and Surface Bolts: Provide products conforming to ANSI/BHMA A156.3 and A156.16, Grade 1.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8” in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
5. Manufacturers:
   a. Door Controls International (DC).
   b. Rockwood (RO).
   c. Trimco (TC).

B. Coordinators: ANSI/BHMA A156.3 door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.

1. Manufacturers:
   a. Door Controls International (DC).
   b. Rockwood (RO).
   c. Trimco (TC).

C. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10” clearance from the finished floor on the push side to accommodate wheelchair accessibility.
5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
6. Manufacturers:
   a. Hiawatha, Inc. (HI).
   b. Rockwood (RO).
   c. Trimco (TC).

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

1. Manufacturers:
   a. Match Existing, Field Verify.

B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:

1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Manufacturer’s Standard.

C. Small Format Interchangeable Cores: Provide small format interchangeable cores (SFIC) as specified, core insert, removable by use of a special key; usable with other manufacturers' cylinders.

D. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System: Field verify and key cylinders to match Owner's existing system.

E. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).

F. Construction Keying: Provide construction master keyed cylinders.

G. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 KEY CONTROL

A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:
   a. Lund Equipment (LU).
   b. MMF Industries (MM).
   c. Telkee (TK).

2.7 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Manufacturers:
   a. Corbin Russwin Hardware (RU) - ML2000 Series.
   b. dormakaba Best (BE) - 45H Series.
   c. Sargent Manufacturing (SA) - 8200 Series.
   d. Yale Commercial (YA) - 8800FL Series.

2.8 ELECTROMECHANICAL LOCKING DEVICES

A. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed, subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below and in the hardware sets.

1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.
2. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
3. Manufacturers:
   a. Corbin Russwin Hardware (RU) - ML20900 Series.
   b. dormakaba Best (BE) - 45HW EL/EU Series.
   c. Sargent Manufacturing (SA) - 8200 Series.
   d. Yale Commercial (YA) - 8800FL Series.

2.9 AUXILIARY LOCKS

A. Push-Pull Latches, Paddle Type, Mortise: ANSI/BHMA A156.13, Series 1000, Operational and Security Grade 1 Certified Products Directory (CPD) listed mortise type push-pull locks and latches with ligature-resistant paddle trim capable of being mounted in vertical (up or down) and horizontal (sideways) positions. Locksets to be manufactured with a corrosion resistant, formed steel case and be non-handed, field-reversible for re-handing without disassembly of the lock body. Paddles and covers are manufactured from cast stainless steel or brass material.

Provide optional lead-lining (lock body) and Torx® fasteners as specified in Hardware Sets.

1. Manufacturers:
   a. Corbin Russwin Hardware (RU) - ML2000 HPSK Series.
   b. Sargent Manufacturing (SA) - 8200 ALP Series.

B. Behavioral Health, Mortise: ANSI/BHMA A156.13, Series 1000, Operational and Security Grade 1 Certified Products Directory (CPD) listed mortise type manufactured to Office of Mental Health (OMH) requirements with behavioral health lever and escutcheon trim. Locksets to be manufactured with a corrosion resistant, formed steel case. Levers and escutcheons are manufactured from stainless steel material. Provide optional lead-lining (lock body), Torx® fasteners, and Antimicrobial coating as specified in Hardware Sets.

1. Manufacturers:
   a. Corbin Russwin (RU) - ML2000 BHSS Series.
   b. Sargent Manufacturing (SA) - 8200 BHW Series.
   c. No Substitution.

2.10 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.11 ELECTRIC STRIKES

A. Surface Mounted Rim Electric Strikes: Surface mounted rim exit device electric strikes conforming to ANSI/BHMA A156.31, Grade 1, and UL Listed for both Burglary Resistance and for use on fire rated door assemblies. Construction includes internally mounted solenoid with two heavy-duty, stainless steel locking mechanisms operating independently to provide tamper resistance. Strikes tested for a minimum of 500,000 operating cycles. Provide strikes with 12 or 24 VDC capability supplied standard as fail-secure unless otherwise specified. Option available for latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike. Strike requires no cutting to the jamb prior to installation.

1. Manufacturers:
   a. HES (HS) - 9400/9500/9600/9700/9800 Series.

B. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.12 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. Exit devices shall have a five-year warranty.
2. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
3. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling

indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.

4. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
5. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
   a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
   b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.
9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.

10. Rail Sizing: Provide exit device rails factory sized for proper door width application.

11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

1. Manufacturers:

a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.

b. Detex (DE) - Advantex.

c. Sargent Manufacturing (SA) - 80 Series.

d. Von Duprin (VD) - 35A/98 XP Series.

e. Yale (YA) - 7000 Series.

2.13 ELECTROMECHANICAL EXIT DEVICES

A. Electromechanical Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices subject to same compliance standards and requirements as mechanical exit devices. Electrified exit devices to be of type and design as specified below and in the hardware sets.

1. Energy Efficient Design: Provide devices which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.

2. Where conventional power supplies are not sufficient, include any specific controllers required to provide the proper inrush current.

3. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.

4. Manufacturers:
   a. Corbin Russwin Hardware (RU) - ED5000 Series.
   b. Sargent Manufacturing (SA) - 80 Series.
   c. Von Duprin (VD) - 35A/98 XP Series.
   d. Yale (YA) - 7000 Series.

2.14 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, institutional grade door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck, closing sweep, and latch speed control valves. Provide non-handed units standard.

1. Manufacturers:
   a. Corbin Russwin Hardware (RU) - DC6000 Series.
   b. Norton Rixson (NO) - 8500 Series.
   c. Sargent Manufacturing (SA) - 1431 Series.
   d. Yale Commercial (YA) - 3500 Series.

C. Door Closers, Overhead Concealed (Heavy Duty): ANSI/BHMA 156.4 Grade 1 Certified Products Directory (CPD) listed heavy duty door closers with closers with spring power adjustment. Closers to have fully concealed body in the frame head and track assembly in the door, rack and pinion type construction, either offset or center hung applications, with separate and independent valves for closing speed, latch speed, and backcheck adjustments. Overhead concealed closers require a minimum 4-inch frame head for mounting.

1. Manufacturers:
   a. Norton Rixson (NO) - 7900 Series.
   b. Sargent Manufacturing (SA) - 268/269/278 Series.

D. Door Closers, Overhead Concealed (Narrow Profile): ANSI/BHMA 156.4 Grade 1 Certified Products Directory (CPD) listed door closers designed for narrow profile frames and doors. Closers to have fully concealed body in the frame head for offset hung applications, with separate and independent valves for closing speed and backcheck adjustments and a decorative cover plate.

1. Manufacturers:

a. Norton Rixson (RF) - 91DCP Series.

2.15 ELECTROHYDRAULIC DOOR OPERATORS

A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges, and activation devices.

1. Fire-Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA 80 for fire-rated door components and are listed and labeled by a qualified testing agency.

B. Standard: Conforming to ANSI/BHMA A156.19.

C. Performance Requirements:

1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.

2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.

D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.

E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19. When not in automatic mode, door operator to function as manual door closer with fully adjustable opening and closing forces, with or without electrical power.

F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.

G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes,

magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.

H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.

I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Norton Rixson (NO) - 6000 Series.

2.16 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:
   a. Stainless Steel: 300 grade, 050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:
   a. Hiawatha, Inc. (HI).
   b. Rockwood (RO).

c. Trimco (TC).

2.17 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:
   a. Hiawatha, Inc. (HI).
   b. Rockwood (RO).
   c. Trimco (TC).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:
   a. Norton Rixson (RF).
   b. Rockwood (RO).
   c. Sargent Manufacturing (SA).

2.18 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. National Guard Products (NG).
2. Pemko (PE).
3. Reese Enterprises, Inc. (RE).

2.19 ELECTRONIC ACCESSORIES

A. Linear Power Supplies: Provide Nationally Recognized Testing Laboratory Listed 12VDC or 24VDC (field selectable) filtered and regulated power supplies. Include battery backup option with integral battery charging capability in addition to operating the DC load in event of line voltage failure. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw plus 50% for the specified electrified hardware and access control equipment.

1. Manufacturers:

a. Von Duprin (VD) - PS.

B. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multi-voltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.

1. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.

2. Manufacturers:

a. Securitron (SU) - AQL Series.

2.20 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.21 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less

than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."

2. DHI TDH-007-20: Installation Guide for Doors and Hardware.

3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Division 01 Sections “Closeout Procedures”. Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.

3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.

Hardware Sets

Set: 1.0

Doors: C9-00

2	Continuous Hinge (A31031G)	CFM (height) HD1		PE
2	Concealed Vert Rod Exit, Exit Only	7165 EO B (SFIC)	630	YA
1	Storeroom (12)	603F B	630	YA
3	Interchangeable Core (E09241)	33600006N	26	MC
1	Pull	RM3410-12 (Mounting as required)	US32-316	RO
2	Concealed Closer (C02021-Spg Stop)	CPS8501	689	NO
1	Threshold (outswing door)	273x224AFGT		PE
1	Gasketing	S773BL		PE
2	Sweep (R0Y416)	18061CNB		PE

1	Rain Guard	346C		PE	
1	Astragal (ROY834)	18041CNB		PE	
1	Coordinator (Type 21A)	2600 Series	Black	RO	

Notes: DPS BY SECURITY VENDOR.
TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 2.0

Doors: L1-03

1	Continuous Hinge (A31031G)	CFM (height) HD1		PE	
1	Exit Device (Type 1, 08/09)	6100 AU626F	630	YA	
1	Interchangeable Core (E09241)	33600006N	26	MC	
1	Rim Cylinder (E09261)	K680	626	YA	
1	SMART Pac Bridge Rectifier	2005M3		HS	⚡
1	Electric Strike	9600-LBM	630	HS	⚡
1	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA	
1	Threshold (outswing door)	273x224AFGT		PE	
1	Gasketing	By Door Manufacturer		00	
1	Rain Guard (R0Y976)	346C		PE	
1	Sweep (R0Y416)	18061CNB		PE	
1	Wiring Diagram	WD-SYSPK (Elevations and Point to Point)			
1	Card Reader	BY SECURITY INTEGRATOR			

1	Power Supply and Distribution Board	AQL4-R8E1		SU	

Notes: CARD READER BY SECURITY VENDOR. PRESENTING AUTHORIZED CREDENTIAL TO CARD READER WILL UNLOCK ELECTRIC STRIKE ALLOWING ACCESS. FREE EGRESS BY EXIT DEVICE.
DPS BY SECURITY VENDOR.
TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 3.0

Doors: C9-01

1	Continuous Hinge (A51031B)	FM300 HT	630	MR	
1	Continuous Hinge	FM300 HT CTP	630	MR	
1	Concealed Vert Rod Exit, Exit Only	7165 EO B (SFIC)	630	YA	
1	Concealed Vert Rod Exit, Exit Only	7165 MELR EO B (SFIC)	630	YA	
1	Storeroom (12)	603F B	630	YA	
2	Interchangeable Core (E09241)	33600006N	26	MC	
2	Flush Pull	RM790-12	US32D	RO	
2	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA	
1	Gasketing	By Door Manufacturer		00	
1	Frame Harness	QC-C1500P		MK	
1	Door Harness	QC-C___		MK	

1	Wiring Diagram	WD-SYSPK (Elevations and Point to Point)			
1	Card Reader	BY SECURITY INTEGRATOR			
1	Power Supply and Distribution Board	AQL4-R8E1		SU	
1	Electric Power Transfer	EL-CEPT	630	SU	
1	Astragal (ROY834)	10841CNB		PE	

Notes: CARD READER BY SECURITY VENDOR. PRESENTING AUTHORIZED CREDENTIAL TO CARD READER OR INTERCOM BUZZER WILL UNLOCK EXIT DEVICE ALLOWING ACCESS. EGRESS IS BY EXIT DEVICE. EMERGENCY ACCESS BY KEY. TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 4.0

Doors: C9-C03, C9-C09

2	Continuous Hinge (A51031B)	FM300 HT	630	MR
2	Push Plate (J304)	73F	US32D	RO
2	Flush Pull	RM790-12	US32D	RO
2	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA
1	Gasketing	By Door Manufacturer		00
1	Astragal (ROY834)	10841CNB		PE

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 5.0

Doors: L1-02

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP)	US26D	MK	
1	Rim Exit Device, Nightlatch (Type 1, 09)	7100 B MELR AU627F Temp Core	630	YA	⚡
1	Interchangeable Core (E09241)	33600006N	26	MC	
1	Surface Closer (C02021-Spg Stop)	CPS8501	689	NO	
1	Kick Plate (J102)	K1050 10" BEV CSK	US32D	RO	
1	Adhesive Gasketing (R0Y154)	S88BL		PE	

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 6.0

Doors: C9-C01, C9-C06, C9-C08

2	Continuous Hinge (A51031B)	FM300 HT	630	MR	
2	Fire Rated Conc Vert Rod, Exit Only	7160F LBR EO	630	YA	
2	Concealed Closer	91NDCP 90N TORX	689	RF	
2	Electromagnetic Holder	998M TORX	689	RF	⚡
1	Gasketing	By Door Manufacturer		00	
2	Astragal (ROY834)	10841CNB		PE	

Notes: MAGNETIC HOLD OPEN RELEASED WHEN FIRE ALARM IS ACTIVATED. TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 7.0

Doors: L1-00B, L1-00C, L1-00D

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP)	US26D	MK
1	Exit Device (Type 1, 08/09)	6100 AU626F	630	YA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surface Closer (C02021-Spg Stop)	CPS8501	689	NO
1	Kick Plate (J102)	K1050 10" BEV CSK	US32D	RO
3	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 8.0

Doors: C9-22, C9-31, C9-35, C9-40, C9-56, C9-57, C9-59

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP)	US26D	MK
1	Fail Secure Lock	AUR 8891FL Temp Core REX	626	YA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO

1	Kick Plate (J102)	K1050 10" BEV CSK	US32D	RO	
1	Adhesive Gasketing (R0Y154)	S88BL		PE	
1	Frame Harness	QC-C1500P		MK	⚡
1	Door Harness	QC-C___		MK	⚡
1	Wiring Diagram	WD-SYSPK (Elevations and Point to Point)			
1	Card Reader	BY SECURITY INTEGRATOR			
1	Power Supply and Distribution Board	AQL4-R8E1		SU	⚡
1	Electric Power Transfer	EL-CEPT	630	SU	⚡

Notes: CARD READER BY SECURITY VENDOR. PRESENTING AUTHORIZED CREDENTIAL TO CARD READER WILL UNLOCK EXTERIOR TRIM ALLOWING ACCESS. EGRESS IS BY INSIDE LEVER WHICH HAS RX SWITCH. EMERGENCY ACCESS BY KEY.
TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 9.0

Doors: L1-02A

6	Hinge (A8112)	TA2714	US26D	MK
2	Flush Bolt (L04251 / L04261)	555 / 557	US26D	RO
1	Dust Proof Strike (L04021)	570	US26D	RO
1	Storeroom Lock (F07)	AUR 8805FL Temp Core	626	YA
1	Interchangeable Core (E09241)	33600006N	26	MC

2	Surf Overhead Hold Open (C02511)	9ADJ-X26	630	RF
2	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 10.0

Doors: L1-00A, L1-12

6	Hinge (A8112)	TA2714	US26D	MK
2	Flush Bolt (L04251 / L04261)	555 / 557	US26D	RO
1	Dust Proof Strike (L04021)	570	US26D	RO
1	Storeroom Lock (F07)	AUR 8805FL Temp Core	626	YA
1	Interchangeable Core (E09241)	33600006N	26	MC
2	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO
2	Kick Plate (J102)	K1050 10" BEV CSK	US32D	RO
2	Wall Stop (L02101)	401 TORX	US26D	RO
2	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 11.0

Doors: C9-46, C9-47A, C9-45

3	Hinge (A8112)	TA2714	US26D	MK

1	Storeroom Lock (F07)	AUR 8805FL Temp Core	626	YA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Wall Stop (L02101)	401 TORX	US26D	RO
3	Silencer (L03011)	608		RO
1	Adhesive Gasketing (R0Y154)	S88BL		PE
1	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 12.0

Doors: C9-35B

3	Hinge (A8112)	TA2714	US26D	MK
1	Storeroom Lock (F07)	AUR 8805FL Temp Core	626	YA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surf Overhead Hold Open (C02511)	9ADJ-X26	630	RF
3	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 13.0

Doors: C9-06A, L1-00E, L1-01, C9-36

3	Hinge (A8112)	TA2714	US26D	MK

1	Storeroom Lock (F07)	AUR 8805FL Temp Core	626	YA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO
1	Kick Plate (J102)	K1050 10" BEV CSK	US32D	RO
1	Wall Stop (L02101)	401 TORX	US26D	RO
3	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 13.1

Doors: C9-06, C9-32, C9-55

3	Hinge (A8112)	TA2714	US26D	MK
1	Storeroom Lock (F07)	AUR 8805FL Temp Core	626	YA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO
1	Kick Plate (J102)	K1050 10" BEV CSK	US32D	RO
1	Wall Stop (L02101)	401 TORX	US26D	RO
3	Adhesive Gasketing (R0Y154)	S88BL		PE

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 14.0

Doors: C9-33

3	Hinge (A8112)	TA2714	US26D	MK
1	Privacy Lock (F19)	AUR 8802FL IND	626	YA
1	Surface Closer (C02021-Spg Stop)	CPS8501	689	NO
1	Kick Plate (J102)	K1050 10" BEV CSK	US32D	RO
1	Adhesive Gasketing (R0Y154)	S88BL		PE

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 15.0

Doors: L1-07, L1-08, L1-09, L1-10

3	Hinge (A8112)	TA2714	US26D	MK
1	Office Lock (F04)	AUR 8807FL Temp Core	626	YA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Wall Stop (L02101)	401 TORX	US26D	RO
3	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 16.0

Doors: C9-60, L1-11

3	Hinge (A8112)	TA2714	US26D	MK
1	Passage Set (F01)	AUR 8801FL	626	YA
1	Wall Stop (L02101)	401 TORX	US26D	RO

1	Adhesive Gasketing (R0Y154)	S88BL		PE	

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 18.0

Doors: L1-00G, L1-05, L1-06

3	Hinge (A8112)	TA2714	US26D	MK	
1	Privacy Lock (F19)	AUR 8802FL IND	626	YA	
1	Wall Stop (L02101)	401 TORX	US26D	RO	
1	Adhesive Gasketing (R0Y154)	S88BL		PE	

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 19.0

Doors: C9-21, C9-23

1	Continuous Hinge (A51031B)	FM300 HT	630	MR	
1	Continuous Hinge	FM300 HT CTP	630	MR	
2	Flush Bolt (L04251 / L04261)	555 / 557	US26D	RO	
2	Dust Proof Strike (L04021)	570	US26D	RO	
1	Fail Secure Lock (F30)	70 8273-24V BHW	US32D	SA	⚡
2	Interchangeable Core (E09241)	33600006N	26	MC	

2	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA	
1	Frame Harness	QC-C1500P		MK	⚡
1	Door Harness	QC-C___		MK	⚡
2	Card Reader	BY SECURITY INTEGRATOR			
1	Power Supply and Distribution Board	AQL4-R8E1		SU	⚡
1	Electric Power Transfer	EL-CEPT	630	SU	⚡
1	Adhesive Gasketing (R0Y154)	S88BL		PE	
2	Floor Stop (L02121)	470	US26D	RO	

Notes: CONTROL BOOTH UNLOCKS BOTH TRIMS ALLOWING ACCESS OR EGRESS. CLOSER IS MONITORED FOR TAMPERING.
CARD READERS BY SECURITY VENDOR. PRESENTING AUTHORIZED CREDENTIAL TO CARD READERS WILL UNLOCK BOTH TRIMS ALLOWING ACCESS. EMERGENCY ACCESS BY KEY.
TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 20.0

Doors: C9-28, C9-30, C9-52, C9-54

1	Continuous Hinge	FM300 HT CTP	630	MR	
1	Fail Secure Lock (F30)	70 8273-24V BHW	US32D	SA	⚡
1	Interchangeable Core (E09241)	33600006N	26	MC	
1	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA	
3	Silencer (L03011)	608		RO	

01-20

1	Frame Harness	QC-C1500P		MK	⚡
1	Door Harness	QC-C___		MK	⚡
2	Card Reader	BY SECURITY INTEGRATOR			
1	Power Supply and Distribution Board	AQL4-R8E1		SU	⚡
1	Electric Power Transfer	EL-CEPT	630	SU	⚡

Notes: CONTROL BOOTH UNLOCKS BOTH TRIMS ALLOWING ACCESS OR EGRESS. CLOSER IS MONITORED FOR TAMPERING.
CARD READERS BY SECURITY VENDOR. PRESENTING AUTHORIZED CREDENTIAL TO CARD READERS WILL UNLOCK BOTH TRIMS ALLOWING ACCESS. EMERGENCY ACCESS BY KEY.
TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 21.0

Doors: C9-03, C9-10, C9-11, C9-16, C9-16A, C9-17, C9-27, C9-29, C9-37, C9-38, C9-39, C9-50, C9-64, C9-65, C9-69, C9-71, C9-C02, C9-C04, C9-C05, C9-C07

1	Continuous Hinge	FM300 HT CTP	630	MR	
1	Fail Secure Lock	RX 70 8271-24V BHW	US32D	SA	⚡
1	Interchangeable Core (E09241)	33600006N	26	MC	
1	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA	
2	Silencer (L03011)	608		RO	
1	Frame Harness	QC-C1500P		MK	⚡
1	Door Harness	QC-C___		MK	⚡

1	Wiring Diagram	WD-SYSPK (Elevations and Point to Point)			
1	Card Reader	BY SECURITY INTEGRATOR			
1	Power Supply and Distribution Board	AQL4-R8E1		SU	
1	Electric Power Transfer	EL-CEPT	630	SU	

Notes: CARD READER BY SECURITY VENDOR. PRESENTING AUTHORIZED CREDENTIAL TO CARD READER WILL UNLOCK EXTERIOR TRIM ALLOWING ACCESS. EGRESS IS BY INSIDE LEVER WHICH HAS RX SWITCH. EMERGENCY ACCESS BY KEY.
TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 22.0

Doors: C9-11A

1	Continuous Hinge (A51031B)	FM300 HT	630	MR
1	Storeroom Lock (F07)	(70) 8204 BHW	US32D	SA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Wall Stop (L02101)	401 TORX	US26D	RO
3	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 23.0

Doors: C9-02, C9-70

1	Continuous Hinge (A51031B)	FM300 HT	630	MR
1	Storeroom Lock (F07)	(70) 8204 BHW	US32D	SA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO
1	Wall Stop (L02101)	401 TORX	US26D	RO
3	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 24.0

Doors: C9-51

1	Continuous Hinge (A51031B)	FM300 HT	630	MR
1	Storeroom Lock (F07)	(70) 8204 BHW	US32D	SA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surface Closer (C02021-Spg Stop)	CPS8501	689	NO
3	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 25.0

Doors: C9-47

1	Continuous Hinge (A51031B)	FM300 HT	630	MR
1	Office Lock (F04)	70 8205 BHW	US32D	SA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO
1	Wall Stop (L02101)	401 TORX	US26D	RO
3	Silencer (L03011)	608		RO

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set 25.1

Doors: C9-07

1	Continuous Hinge (A51031B)	FM300 HT	630	MR
1	Office Lock (F04)	70 8205 BHW	US32D	SA
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO
1	Wall Stop (L02101)	401 TORX	US26D	RO
1	Adhesive Gasketing (R0Y154)	S88BL		PE

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 26.0

Doors: C9-04, C9-08, C9-12, C9-14, C9-15, C9-18, C9-20, C9-24, C9-41, C9-43, C9-44, C9-49, C9-66, C9-67, C9-68

1	Continuous Hinge (A51031B)	FM300 HT	630	MR
1	Passage Latch (F01)	8215 BHW	US32D	SA
1	Wall Stop (L12111)	412 TORX	US26D	RO
1	Adhesive Gasketing (R0Y154)	S88BL		PE
1	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 27.0

Doors: C9-42

1	Continuous Hinge (A51031B)	FM300 HT	630	MR
1	Hotel Guest Lock Lock	50 8250 ALP	US32D	SA
1	Surface Closer (C02011 / C02021)	R 8501 M / PR 8501 M	626	NO
1	Kick Plate (J102)	K1050 10" BEV CSK	US32D	RO
1	Adhesive Gasketing (R0Y154)	S88BL		PE

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 28.0

Doors: C9-04A, C9-08A, C9-12A, C9-14A, C9-15A, C9-18A, C9-20A, C9-24A, C9-25A, C9-41A, C9-43A, C9-44A, C9-49A, C9-66A, C9-67A, C9-68A

1	Continuous Hinge (A51031B)	FM300 HT	630	MR	
1	Privacy Lock (F19)	8265 BHW	US32D	SA	
1	Wall Stop (L12111)	412 TORX	US26D	RO	
3	Silencer (L03011)	608		RO	

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 29.0

Doors: C9-05

1	Continuous Hinge (A51031B)	FM300 HT	630	MR	
1	Privacy Lock (F19)	8265 BHW	US32D	SA	
1	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA	
1	Wall Stop (L12111)	412 TORX	US26D	RO	
3	Silencer (L03011)	608		RO	

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 30.0

Doors: C9-25

1	Continuous Hinge (A51031B)	FM300 HT	630	MR	
1	Storeroom Lock (F07)	(70) 8204 BHW	US32D	SA	
1	Cylinder	EA-100108	26	MC	⚡

1	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA
1	Wall Stop (L12111)	412 TORX	US26D	RO
1	Adhesive Gasketing (R0Y154)	S88BL		PE

Notes: TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 31.0

Doors: C9-25B

1	Continuous Hinge (A51031B)	FM300 HT	630	MR
1	Interchangeable Core (E09241)	33600006N	26	MC
1	Cylinder	EA-100108	26	MC
1	Motorized Deadlock Latch	Brinks 3620-600 lock		OT
1	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA
1	Wall Stop (L12111)	412 TORX	US26D	RO
1	Wiring Diagram	WD-SYSPK (Elevations and Point to Point)		
1	Card Reader	BY SECURITY INTEGRATOR		

Notes: CARD READER BY SECURITY VENDOR. PRESENTING AUTHORIZED CREDENTIAL TO CARD READER WILL RETRACT LATCH. KEY RETRACTS LATCH. NO EGRESS FROM INSIDE OF ROOM.
TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 32.0

Doors: C9-72

1	Continuous Hinge (A51031B)	FM300 HT	630	MR	
1	Continuous Hinge	FM300 HT CTP	630	MR	
2	Flush Bolt (L04251 / L04261)	555 / 557	US26D	RO	
2	Dust Proof Strike (L04021)	570	US26D	RO	
1	Fail Secure Lock	RX 70 8271-24V BHW	US32D	SA	⚡
1	Interchangeable Core (E09241)	33600006N	26	MC	
2	Concealed Closer (CO5031)	268 CSPD (security pak w/ double switch)	EN	SA	
1	Adhesive Gasketing (R0Y154)	S88BL		PE	
1	Frame Harness	QC-C1500P		MK	⚡
1	Door Harness	QC-C___		MK	⚡
1	Wiring Diagram	WD-SYSPK (Elevations and Point to Point)			
1	Power Supply and Distribution Board	AQL4-R8E1		SU	⚡
1	Electric Power Transfer	EL-CEPT	630	SU	⚡

Notes: CARD READER BY SECURITY VENDOR. PRESENTING AUTHORIZED CREDENTIAL TO CARD READER WILL UNLOCK EXTERIOR TRIM ALLOWING ACCESS. EGRESS IS BY INSIDE LEVER WHICH HAS RX SWITCH. EMERGENCY ACCESS BY

KEY.

TORX FASTENERS ON ALL ACCESSIBLE FASTENERS.

Set: 33.0

Doors: C9-16B

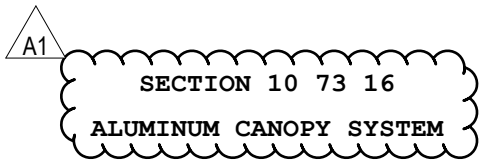
1	All Hardware	BY DOOR SUPPLIER	

Set: 34.0

Doors: MISC

1	Repair Kit	QC-R001	MK
1	Crimp Tool	QC-R003	MK
1	Key Cabinet	1205	LU

END OF SECTION 087100



PART 1 GENERAL

1.1 SECTION INCLUDES

A. Building cantilevered metal sunshades including framing, enclosure, and attachment hardware.

1.2 RELATED SECTIONS

A. Section 05 40 00 - Cold-Formed Metal Framing.

B. Section 06 10 00 - Rough Carpentry.

C. Division 07 - Sheet Metal Flashing and Trim. Gutters and Downspouts

D. Division 07 - Joint Sealants.

E. Division 08 – Windows, Storefront and Curtain Wall.

1.3 REFERENCES

A. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.

B. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

C. ASTM B 429 - Standard Specification for Aluminum-Alloy Extruded Pipe and Tube.

D. Aluminum Association AA DAF 45 - Designation System for Aluminum Finishes.

E. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Architectural Extrusions and Panels.

F. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels.

1.4 DESIGN REQUIREMENTS

A. Pre-Engineered, site assembled system: Design members to withstand dead, live, wind and other applicable loads in accordance with ASCE-7 and all Codes applicable to the Project as listed in the Drawings.

B. Projection capability: Up to 5 ft cantilever or up to 10 ft Hanger rod braced.

C. Deflection rating: L/180

D. Provide data as requested authority having jurisdiction.

1.5 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used,

including:

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

B. Shop Drawings: Indicate system components, dimensions, attachments, and accessories

C. Calculations: Sealed by an Engineer registered in the state of jurisdiction.

D. LEED Submittals: Provide documentation of how the requirements of Credit will be met:

1. Product Data for Credit MR 4.1 and MR 4.2: For products having recycled content, documentation including percentages by weight of post-consumer and pre-consumer recycled content.
    a. Include statement indicating costs for each product having recycled content.
2. Product Data for Credit MR 5.1 and Credit MR 5.2: Submit data, including location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for main raw material.
    a. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.

E. Verification Samples: For each finish product specified, two samples, minimum size 3 inches (76 mm) square, representing actual product, color, and patterns.

F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

G. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking and adjustment of cable tension and periodic cleaning and maintenance of all railing and infill components.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.

B. Installer Qualifications: Company specializing in performing Work of

this section with minimum five years documented experience and approved by manufacturer.

C. Design structural components, develop shop drawings, and perform shop and site work under direct supervision of Professional Engineer experienced in design of this Work and licensed at Project location.

D. Welder Qualifications: All welders must be AWS certified welders.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products with labels intact, in manufacturer's unopened packaging until ready for installation.

B. Protect materials, coatings, and finishes during transportation and installation to prevent damage or staining.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design Manufacturers:

1. MASA Architectural Canopies:

a. https://www.architecturalcanopies.com/

2.2 POST SUPPORTED ALUMINUM CANOPY SYSTEM (NOT USED)

2.3 CANTILEVERED ALUMINUM CANOPY (NOT USED)

2.4 CANTILEVERED ALUMINUM LOUVERED SUNSHADE

A. Basis of Design extruded canopies:

1. MASA Architectural Canopies: Ecoshade.

2. Approved Equal

B. Cantilevered Metal Louvered Sunshades: Building bracket cantilever supported pre-engineered metal sunshades.

1. Support: Bracket supports configured as indicated on Drawings and conforming to manufacturer’s standard attachment details.

2. Framing: 6 to 12 inch depth extruded aluminum as indicated on Drawings, conforming to manufacturer’s standard sizes.

3. Accessories:

a. Anchors and Fasteners: Stainless steel or hot dip galvanized and corrosion resistant.

4. Finish:

a. Anodized.

2.5 HANGER ROD BRACED ALUMINUM CANOPY (NOT USED)

2.6 HANGER ROD BRACED ALUMINUM LOUVERED SUNSHADE (NOT USED)

2.7 MATERIALS

A. Aluminum Extrusions: ASTM B 221 and ASTM B 429 6061-T6 alloy and temper.

B. Fasteners: Stainless steel or hot dip galvanized for corrosion resistance.

2.8 FINISHES

A. Clear Anodized: AA M12C22A31, Class I anodized to 0.0007 inch minimum thickness, clear.

B. Baked Enamel. Color as selected by the Architect from manufacturer's standard range.

C. Custom Fluoropolymer Finish: AAMA 2605, fluoropolymer coating containing minimum 70 percent PVDF resins. Color as selected by the Architect from manufacturer's standard range.

2.9 FABRlCATlON

A. Fabricate system in accordance with approved Shop Drawings.

B. All connections shall be mechanically assembled utilizing 3/16” fasteners with a minimum shear stress of 350 lb. Pre-welded or factory-welded connections are not acceptable.

C. Support columns and gutter beams shall be designed such that the columns will be notched to create a “saddle” that will receive and secure the gutter beams.

D. Post and beams shall be mechanically assembled utilizing 3/16” fasteners with a minimum shear stress of 350 lb. Pre-welded or factory-welded connections are not acceptable.

E. Decking shall be designed with interlocking extruded aluminum members with mechanical fasteners field applied to provide structural integrity for the completed assembly.

F. Concealed drainage. Water shall drain from covered surfaces into integral gutter beam and be directed to ground level discharge via one or more designated support post.

PART 3 EXECUTION

3.1 EXAMINATION

A. Confirm that surrounding area is ready for the canopy installation.

B. Installer shall confirm dimensions and elevations to be as shown on drawings provided by Mapes Industries.

C. Erection shall be performed by an approved installer and scheduled after all concrete, masonry and roofing in the area is complete.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install components plumb and level, in proper plane, free from warp and twist.

C. Anchor system to building components; provide adequate clearance for movement caused by thermal expansion and contraction and wind loads.

3.4 CLEANING

A. Clean all surfaces and restore any marred or abraded surfaces to original conditions as approved by the Architect.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

- - - E N D - - -

Notes for Table 47: Selection Guide for Vibration Isolation

These notes are keyed to the column titled *Reference Notes* in Table 47 and to other reference numbers throughout the table. Although the guide is conservative, cases may arise where vibration transmission to the building is still excessive. If the problem persists after all short circuits have been eliminated, it can almost always be corrected by altering the support path (e.g., from ceiling to floor), increasing isolator deflection, using low-frequency air springs, changing operating speed, improving rotating component balancing, or, as a last resort, changing floor frequency by stiffening or adding more mass. Assistance from a qualified vibration consultant can be very useful in resolving these problems.

Note 1. Isolator deflections shown are based on a reasonably expected floor stiffness according to floor span and class of equipment. Certain spaces may dictate higher levels of isolation. For example, bar joist roofs may require a static deflection of 1.5 in. over factories, but 2.5 in. over commercial office buildings.

Note 2. For large equipment capable of generating substantial vibratory forces and structureborne noise, increase isolator deflection, if necessary, so isolator stiffness is less than one-tenth the stiffness of the supporting structure, as defined by the deflection due to load at the equipment support.

Note 3. For noisy equipment adjoining or near noise-sensitive areas, see the section on Mechanical Equipment Room Sound Isolation.

Note 4. Certain designs cannot be installed directly on individual isolators (type A), and the equipment manufacturer or a vibration specialist should be consulted on the need for supplemental support (base type).

Note 5. Wind load conditions must be considered. Restraint can be achieved with restrained spring isolators (type 4), supplemental bracing, snubbers, or limit stops. Also see Chapter 55.

Note 6. Certain types of equipment require a curb-mounted base (type D). Airborne noise must be considered.

Note 7. See section on Resilient Pipe Hangers and Supports for hanger locations adjoining equipment and in equipment rooms.

Note 8. To avoid isolator resonance problems, select isolator deflection so that resonance frequency is 40% or less of the lowest normal operating speed of equipment (see Chapter 8 in the 2009 *ASHRAE Handbook—Fundamentals*). Some equipment, such as variable-frequency drives, and high-speed equipment, such as screw chillers and vaneaxial fans, contain very-high-frequency vibration. This equipment creates new technical challenges in the isolation of high-frequency noise and vibration from a building's structure. Structural resonances both internal and external to the isolators can significantly degrade their performance at high frequencies. Unfortunately, at present no test standard exists for measuring the high-frequency dynamic properties of isolators, and commercially available products are not tested to determine their effectiveness for high frequencies. To reduce the chance of high-frequency vibration transmission, add a 1 in. thick pad (type 1, Note 20) to the base plate of spring isolators (type 3, Note 22, 23, 24). For some sensitive locations, air springs (Note 25) may be required. If equipment is located near extremely noise-sensitive areas, follow the recommendations of an acoustical consultant.

Note 9. To limit undesirable movement, thrust restraints (type 5) are required for all ceiling-suspended and floor-mounted units operating at 2 in. of water or more total static pressure.

Note 10. Pumps over 75 hp may need extra mass and restraints.

Note 11. See text for full discussion.

Isolation for Specific Equipment

Note 12. Refrigeration Machines: Large centrifugal, screw, and reciprocating refrigeration machines may generate very high noise levels; special attention is required when such equipment is installed in upper-story locations or near noise-sensitive areas. If equipment is located near extremely noise-sensitive areas, follow the recommendations of an acoustical consultant.

Note 13. Compressors: The two basic reciprocating compressors are (1) single- and double-cylinder vertical, horizontal or L-head, which are usually air compressors; and (2) Y, W, and multihead or multicylinder air and refrigeration compressors. Single- and double-cylinder compressors generate high vibratory forces requiring large inertia bases (type C) and are generally not suitable for upper-story locations. If this equipment must be installed in an upper-story location or at-grade location near noise-sensitive areas, the expected maximum unbalanced force data must be obtained from the equipment manufacturer and a vibration specialist consulted for design of the isolation system.

Note 14. Compressors: When using Y, W, and multihead and multicylinder compressors, obtain the magnitude of unbalanced forces from the equipment manufacturer so the need for an inertia base can be evaluated.

Note 15. Compressors: Base-mounted compressors through 5 hp and horizontal tank-type air compressors through 10 hp can be installed directly on spring isolators (type 3) with structural bases (type B) if required, and compressors 15 to 100 hp on spring isolators (type 3) with inertia bases (type C) weighing 1 to 2 times the compressor weight.

Note 16. Pumps: Concrete inertia bases (type C) are preferred for all flexible-coupled pumps and are desirable for most

close-coupled pumps, although steel bases (type B) can be used. Close-coupled pumps should not be installed directly on individual isolators (type A) because the impeller usually overhangs the motor support base, causing the rear mounting to be in tension. The primary requirements for type C bases are strength and shape to accommodate base elbow supports. Mass is not usually a factor, except for pumps over 75 hp, where extra mass helps limit excess movement due to starting torque and forces. Concrete bases (type C) should be designed for a thickness of one-tenth the longest dimension with minimum thickness as follows: (1) for up to 30 hp, 6 in.; (2) for 40 to 75 hp, 8 in.; and (3) for 100 hp and up, 12 in.

Pumps over 75 hp and multistage pumps may exhibit excessive motion at start-up ("heaving"); supplemental restraining devices can be installed if necessary. Pumps over 125 hp may generate high starting forces; a vibration specialist should be consulted.

Note 17. Packaged Rooftop Air-Conditioning Equipment: This equipment is usually installed on lightweightstructures that are susceptible to sound and vibration transmission problems. The noise problems are compounded further by curb-mounted equipment, which requires large roof openings for supply and return air.

The table shows type D vibration isolator selections for all spans up to 20 ft, but extreme care must be taken for equipment located on spans of over 20 ft, especially if construction is open web joists or thin, lightweight slabs. The recommended procedure is to determine the additional deflection caused by equipment in the roof. If additional roof deflection is 0.25 in. or less, the isolator should be selected for 10 times the additional roof deflection. If additional roof deflection is over 0.25 in., supplemental roof stiffening should be installed to bring the roof deflection down below 0.25 in., or the unit should be relocated to a stiffer roof position.

For mechanical units capable of generating high noise levels, mount the unit on a platform above the roof deck to provide an air gap (buffer zone) and locate the unit away from the associated roof penetration to allow acoustical treatment of ducts before they enter the building.

Some rooftop equipment has compressors, fans, and other equipment isolated internally. This isolation is not always reliable because of internal short-circuiting, inadequate static deflection, or panel resonances. It is recommended that rooftop equipment over 300 lb be isolated externally, as if internal isolation was not used.

Note 18. Cooling Towers: These are normally isolated with restrained spring isolators (type 4) directly under the tower or tower dunnage. High-deflection isolators proposed for use directly under the motor-fan assembly must be used with extreme caution to ensure stability and safety under all weather conditions. See Note 5.

Note 19. Fans and Air-Handling Equipment: Consider the following in selecting isolation systems for fans and air-handling equipment:

1. Fans with wheel diameters of 22 in. and less and all fans operating at speeds up to 300 rpm do not generate large vibratory forces. For fans operating under 300 rpm, select isolator deflection so the isolator natural frequency is 40% or less than the fan speed. For example, for a fan operating at 275 rpm, 0.4 × 275 = 110 rpm. Therefore, an isolator natural frequency of 110 rpm or lower is required. This can be accomplished with a 3 in. deflection isolator (type 3).

2. Flexible duct connectors should be installed at the intake and discharge of all fans and air-handling equipment to reduce vibration transmission to air duct structures.

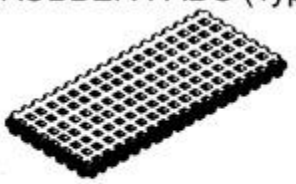
3. Inertia bases (type C) are recommended for all class 2 and 3 fans and air-handling equipment because extra mass allows the use of stiffer springs, which limit heaving movements.

4. Thrust restraints (type 5) that incorporate the same deflection as isolators should be used for all fan heads, all suspended fans, and all base-mounted and suspended air-handling equipment operating at 2 in. or more total static pressure. Restraint movement adjustment must be made under normal operational static pressures.

Vibration Isolators: Materials, Types, and Configurations

Notes 20 through 32 include figures to assist in evaluating commercially available isolators for HVAC equipment. The isolator selected for a particular application depends on the required deflection, life, cost, and compatibility with associated structures.

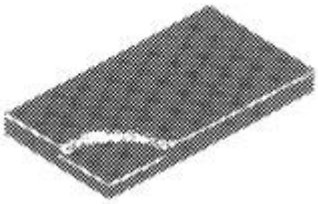
RUBBER PADS (Type 1)



RUBBER MOUNTS (Type 2)

Note 20. Rubber isolators are available in pad (type 1) and molded (type 2) configurations. Pads are used in single or multiple layers. Molded isolators come in a range of 30 to 70 durometer (a measure of stiffness). Material in excess of 70 durometer is usually ineffective as an isolator. Isolators are designed for up to 0.5 in.deflection, but are used where 0.3 in. or less deflection is required. Solid rubber and composite fabric and rubber pads are also available. They provide high load capacities with small deflection and are used as noise barriers under columns and for pipe supports. These pad types work well only when they are properly loaded and the weightload is evenly distributed over the entire pad surface. Metal loading plates can be used for this purpose.

GLASS FIBER PADS (Type 1)



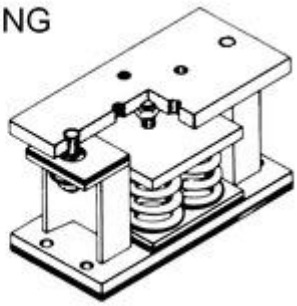
Note 21. Glass fiber with elastic coating (type 1). This type of isolation pad is precompressed molded fiberglass pads individually coated with a flexible, moisture-impervious elastomeric membrane. Natural frequency of fiberglass vibration isolators should be essentially constant for the operating load range of the supported equipment. Weight load is evenly distributed over the entire pad surface. Metal loading plates can be used for this purpose.

SPRING ISOLATOR (Type 3)

Note 22. Steel springs are the most popular and versatile isolators for HVAC applications because they are available for almost any deflection and have a virtually unlimited life. Spring isolators may have a rubber acoustical barrier to reduce transmission of high-frequency vibration and noise that can migrate down the steel spring coil. They should be corrosion-protected if installed outdoors or in a corrosive environment. The basic types include the following:

Note 23. *Open spring isolators* (type 3) consist of top and bottom load plates with adjustment bolts for leveling equipment. Springs should be designed with a horizontal stiffness of at least 80% of the vertical stiffness (k_x/k_y) to ensure stability. Similarly, the springs should have a minimum ratio of 0.8 for the diameter divided by the deflected spring height.

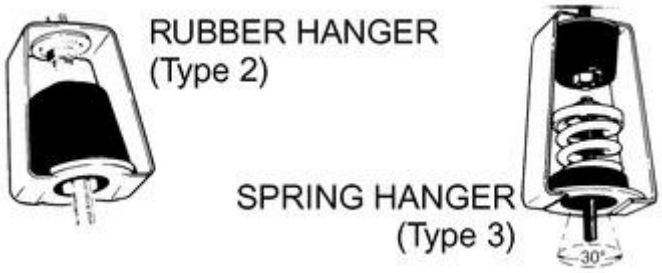
RESTRAINED SPRING ISOLATOR (Type 4)



Note 24. *Restrained spring isolators* (type 4) have hold-down bolts to limit vertical as well as horizontal movement. They are used with (a) equipment with large variations in mass (e.g., boilers, chillers, cooling towers) to restrict movement and prevent strain on piping when water is removed, and (b) outdoor equipment, such as condensing units and cooling towers, to prevent excessive movement due to wind loads. Spring criteria should be the same as open spring isolators, and restraints should have adequate clearance so that they are activated only when a temporary restraint is needed.

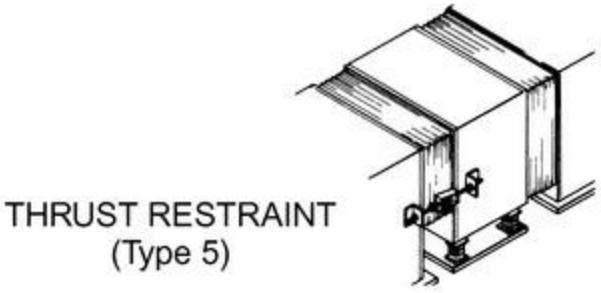
Closed mounts or *housed spring isolators* consist of two telescoping housings separated by a resilient material. These provide lateral snubbing and some vertical damping of equipment movement, but do not limit the vertical movement. Care should be taken in selection and installation to minimize binding and short-circuiting.

Note 25. Air springs can be designed for any frequency, but are economical only in applications with natural frequencies of 1.33 Hz or less (6 in. or greater deflection). They do not transmit high-frequency noise and are often used to replace high-deflection springs on problem jobs (e.g., large transformers on upper-floor installations). A constant air supply (an air compressor with an air dryer) and leveling valves are typically required.



Note 26. Isolation hangers (types 2 and 3) are used for suspended pipe and equipment and have rubber, springs, or a combination of spring and rubber elements. Criteria should be similar to open spring isolators, though lateral stability is less important. Where support rod angular misalignment is a concern, use hangers that have sufficient clearance and/or incorporate rubber bushings to prevent the rod from touching the housing. Swivel or traveler arrangements may be necessary for connections to piping systems subject to large thermal movements.

Precompressed spring hangers incorporate some means of precompression or preloading of the isolator spring to minimize movement of the isolated equipment or system. These are typically used on piping systems that can change weight substantially between installation and operation.

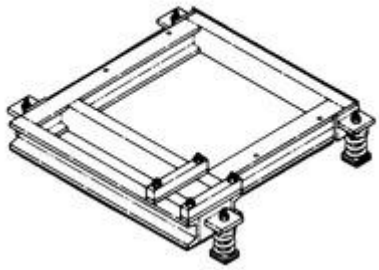


Note 27. Thrust restraints (type 5) are similar to spring hangers or isolators and are installed in pairs to resist the thrust caused by air pressure. These are typically sized to limit lateral movement to 0.25 in. or less.

DIRECT ISOLATION (Type A)

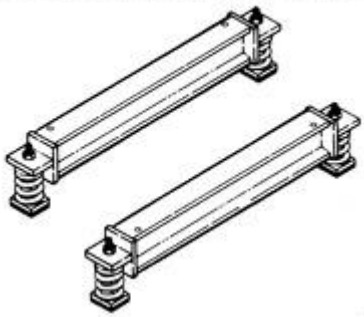
Note 28. Direct isolation (type A) is used when equipment is unitary and rigid and does not require additional support. Direct isolation can be used with large chillers, some fans, packaged air-handling units, and air-cooled condensers. If there is any doubt that the equipment can be supported directly on isolators, use structural bases (type B) or inertia bases (type C), or consult the equipment manufacturer.

STRUCTURAL BASES (Type B)



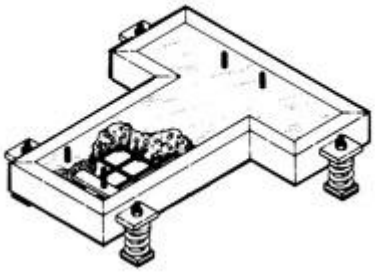
Note 29. Structural bases (type B) are used where equipment cannot be supported at individual locations and/or where some means is necessary to maintain alignment of component parts in equipment. These bases can be used with spring or rubber isolators (types 2 and 3) and should have enough rigidity to resist all starting and operating forces without supplemental hold-down devices. Bases are made in rectangular configurations using structural members with a depth equal to one-tenth the longest span between isolators. Typical base depth is between 4 and 12 in., except where structural or alignment considerations dictate otherwise.

STRUCTURAL RAILS (Type B)



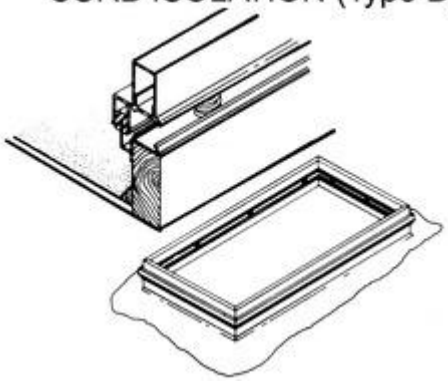
Note 30. Structural rails (type B) are used to support equipment that does not require a unitary base or where the isolators are outside the equipment and the rails act as a cradle. Structural rails can be used with spring or rubber isolators and should be rigid enough to support the equipment without flexing. Usual practice is to use structural members with a depth one-tenth of the longest span between isolators, typically between 4 and 12 in., except where structural considerations dictate otherwise.

CONCRETE BASES (Type C)

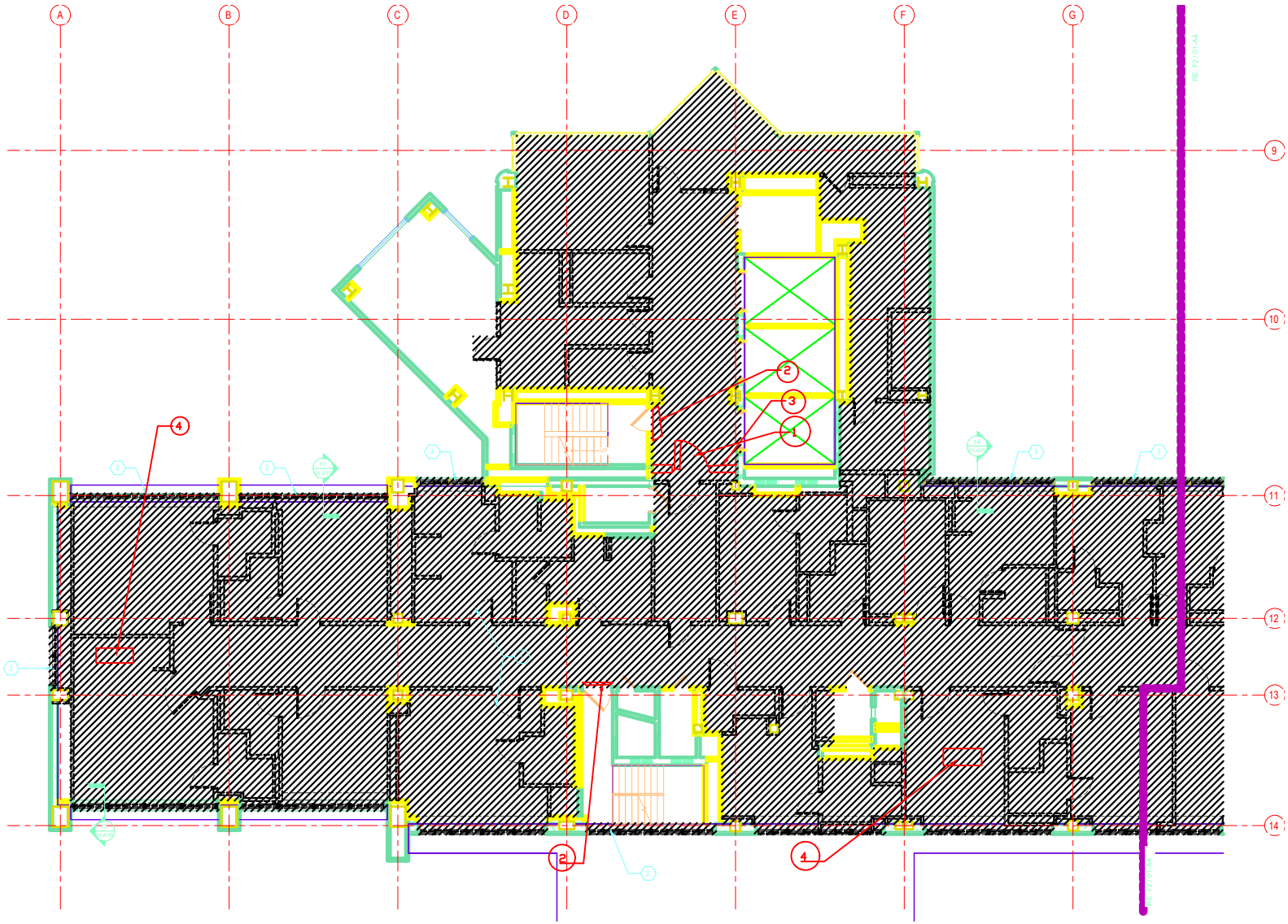


Note 31. Concrete bases (type C) are used where the supported equipment requires a rigid support (e.g., flexible-coupled pumps) or excess heaving motion may occur with spring isolators. They consist of a steel pouring form usually with welded-in reinforcing bars, provision for equipment hold-down, and isolator brackets. Like structural bases, concrete bases should be sized to support piping elbow supports, rectangular or T-shaped, and for rigidity, have a depth equal to one-tenth the longest span between isolators. Base depth is typically between 6 and 12 in. unless additional depth is specifically required for mass, rigidity, or component alignment.

CURB ISOLATION (Type D)



Note 32. Curb isolation systems (type D) are specifically designed for curb-supported rooftop equipment and have spring isolation with a watertight, and sometimes airtight, assembly. *Rooftop rails* consist of upper and lower frames separated by nonadjustable springs and rest on top of architectural roof curbs. *Isolation curbs* incorporate the roof curb into their design as well. Both kinds are designed with springs that have static deflections in the 1 to 3 in. range to meet the design criteria described in type 3. Flexible elastomeric seals are typically most effective for weatherproofing between the upper and lower frames. A continuous sponge gasket around the perimeter of the top frame is typically applied to further weatherproof the installation.



F1 9TH FLOOR DEMOLITION PLAN - WEST
3/16" = 1'-0"

GENERAL NOTES

A. REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR MORE DEMOLITION INFORMATION.

B. REFER TO SHEET 01-I3 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.

C. REMOVE ALL FLOOR FINISHES AND CEILINGS IN AREA OF DEMOLITION

KEYNOTES

1 Install ICRA wall from floor to ceiling 2x4, ½ drywall each side, taped and painted. 36" steel door and jambs. with gasket around jamb with door sweep,door closer, Yale lock 522 core, walk off sticky mat in front of the door

2 6 mil plastic at exit doors with Zipper

3 Electronic negative air monitor mounted outside the door

4 HEPA Negative air unit shall be vented out the window.

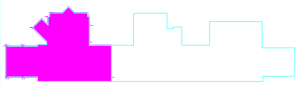
DEMO LEGEND

EXISTING LINE TYPE

DEMOLISHED LINE TYPE

DEMOLISHED AREA

KEY PLAN



BLDG 01

0	100% CONSTRUCTION DOCUMENTS	04/18/2023
Number:	Revisions:	Date:

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VEG 19.25

STAMP:

Drawing Title: DEMOLITION PLAN - 9TH FLOOR - WEST

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Project Number: 693-19-106

Building Number: 01

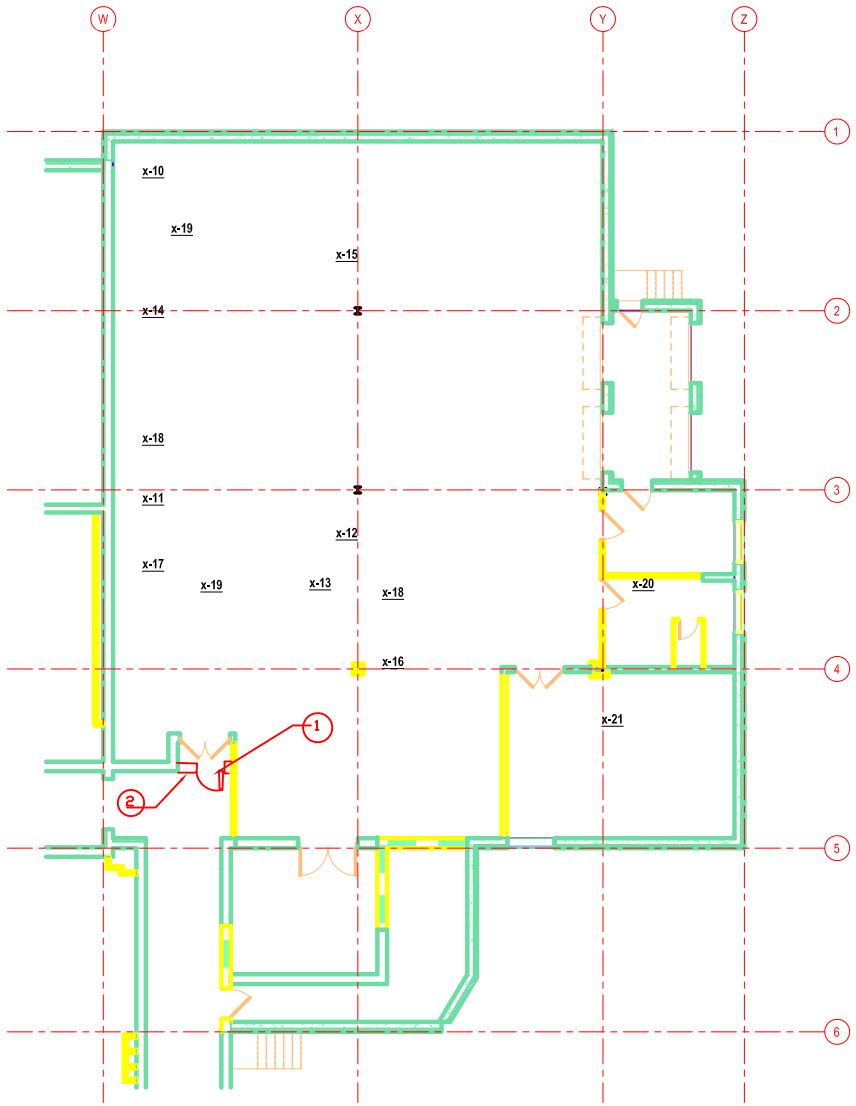
Drawing Number: 01-A3

DWG 03 of 53

Issue Date	Checked	Drawn
04/18/2023	DR	ZAM

FINAL DRAWINGS SUBMITTAL

VA FORM 08 - 6231



F4 WAREHOUSE ACM FLOOR PLAN
3/16" = 1'-0"

GENERAL NOTES

KEYNOTES

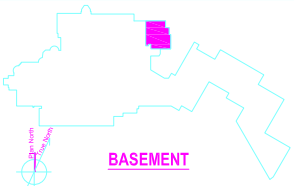
1 Install ICRA wall 2x4 wall from floor to ceiling (GWB) drywall on both side , taped and painted. Walls shall be sealed top, bottom and side air tight. 36" steel door and jambs, Yale lock , 522 core, self closer, gaskets around jamb, door sweep and walk off sticky mat in front of door.

2 Electronic negative air monitor mounted outside the door.

ACM LEGEND

- TRANSITE PANELS (SEVERAL ARE ENCLOSED WITHIN GWB), ASSUMED ACM.
- PIPE INSULATION (ASSUMED TO BE PRESENT / EXTENDS INTO DECKING.
- PIPE INSULATION AND FITTINGS - 8" CHRYSOTILE.
- x-## SAMPLE LOCATIONS

KEY PLAN



Number:	Revisions:	Date
0	100% CONSTRUCTION DOCUMENTS	04/18/2023

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VEG 19,25

STAMP:

Drawing Title: ACM PLAN - WAREHOUSE

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Issue Date: 04/18/2023 | Checked: PE | Drawn: JT

Project Number: 693-19-106

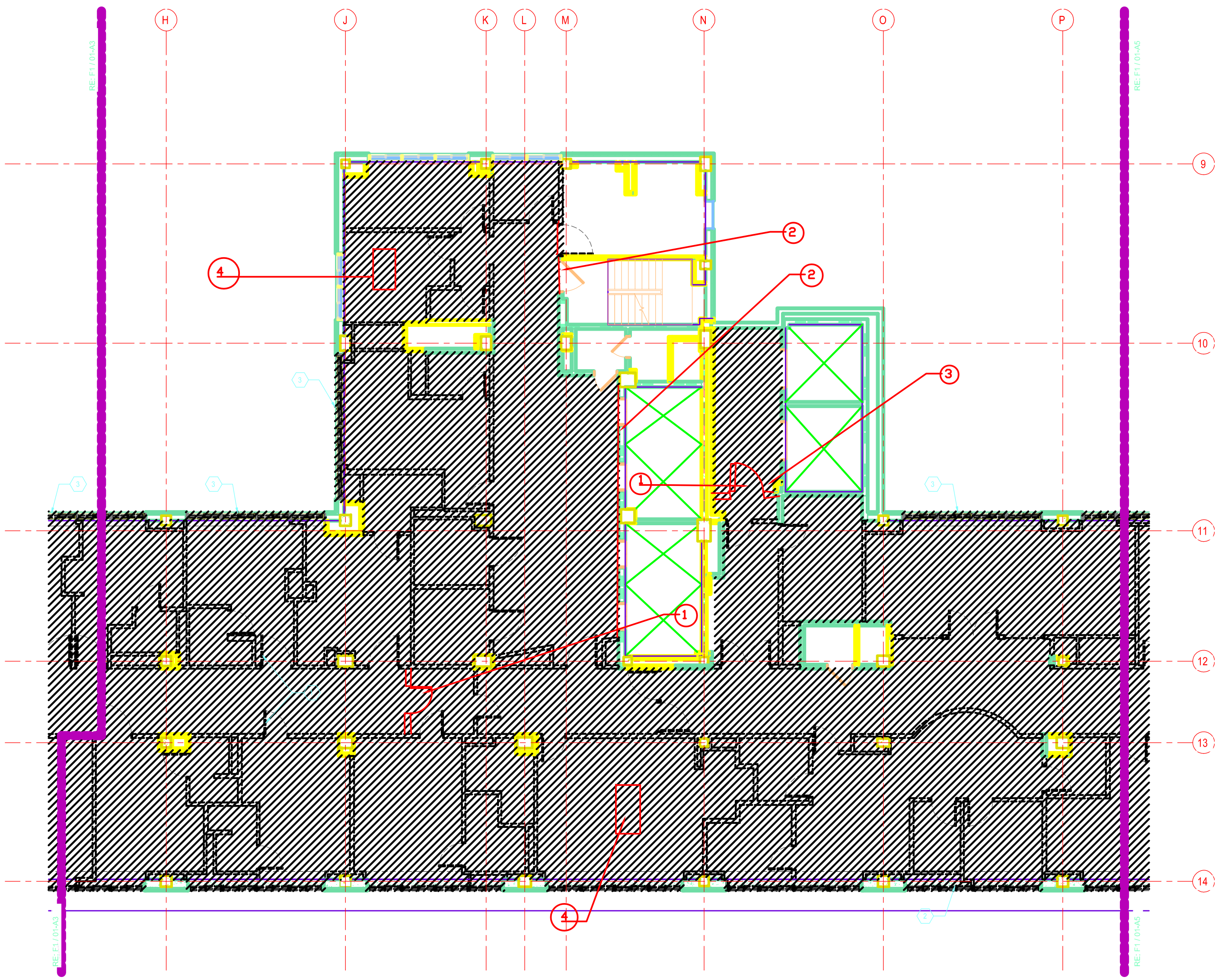
Building Number: 17

Drawing Number: 17-H4

DWG 04 of 04

FINAL DRAWINGS SUBMITTAL

VA FORM 08 - 6231



F2 9TH FLOOR DEMOLITION PLAN - CENTER
3/16" = 1'-0"

GENERAL NOTES

KEYNOTES

00

1 Install ICRA wall 2x4 from floor to ceiling, $\frac{5}{8}$ drywall both sides, taped and painted. wall shall be sealed top, bottom and side air tight. 36" steel door with jambs, Yale lock 522 core, self closer, gaskets around jamb, door sweep. walk off sticky mat in front of door.

2 6 Mil plastic covering exit door with zipper and plastic covering elevator doors.

3 electronic negative air monitor mounted outside the door

4 HEPA Negative air unit. shall be vented out the window

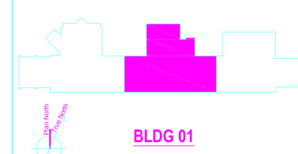
DEMO LEGEND

EXISTING LINE TYPE

DEMOLISHED LINE TYPE

DEMOLISHED AREA

KEY PLAN



BLDG 01

Number:	Revisions:	Date:
0	100% CONSTRUCTION DOCUMENTS	04/18/2023

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VEG 19.25

STAMP:

Drawing Title: DEMOLITION PLAN - 9TH FLOOR - CENTER

Approved: Project Director

Phase: 100% CONSTRUCTION DOCUMENTS

Project Title: RENOVATE 9TH FLOOR MENTAL HEALTH

Location: 1111 EAST END BLVD, WILKES-BARRE, PA 18711

Issue Date: 04/18/2023

Checked: DR

Drawn: ZAM

Project Number: 693-19-106

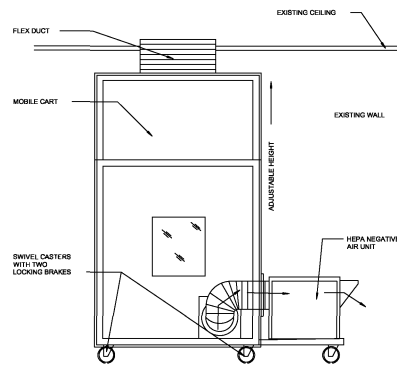
Building Number: 01

Drawing Number: 01-A4

DWG 04 of 53

FINAL DRAWINGS SUBMITTAL

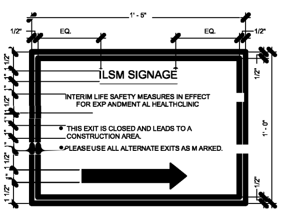
VA FORM 08 - 6231



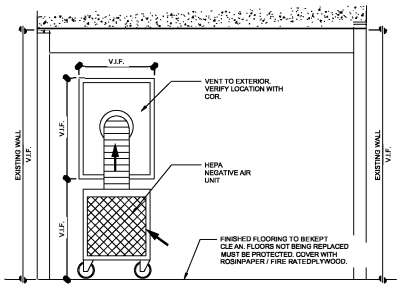
(1) **ICRA MOBILE CONTAINMENT CART**
Scale: 1/2" = 1'-0"

ISLM TEMPORARY BARRIER TAG

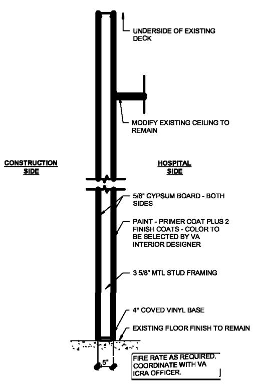
PROJECT:	
PRIME CONTRACTOR:	
SUB CONTRACTOR:	
EMERGENCY CONTACT NO.:	
BARRIER INSTALLATION DATE:	
BARRIER EXPIRATION DATE:	



(3) **ILSM CONSTRUCTION EGRESS SIGNAGE**
Scale: 3" = 1'-0"



(2) **CROSS SECTION "A"**
Scale: 1/2" = 1'-0"

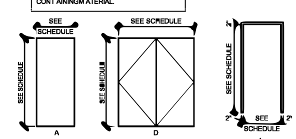


(4) **ICRA BARRIER WALL TYPE**
Scale: 3/4" = 1'-0"

ICRA DOOR SCHEDULE

DOOR NO.	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR ELEV	DOOR FRAME MAT'L	DOOR FRAME ELEV	FIRE RATING	HDWR SET	REMARKS
TD000	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	DEDUCT ALT #1
TD001	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	DEDUCT ALT #1
TD002	6' - 0"	7' - 0"	1 3/4"	D	HM	1		2.0	PAIR
TD003	6' - 0"	7' - 0"	1 3/4"	D	HM	1		2.0	PAIR
TD004	3' - 0"	6' - 8"	1 3/4"	A	HM	1		1.0	
TD005	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	
TD006	3' - 0"	7' - 0"	1 3/4"	A	HM	1	90 MIN.	1.0	
TD007	3' - 0"	7' - 0"	1 3/4"	A	HM	1	90 MIN.	1.0	
TD008	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	
TD009	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	
TD010	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	
TD011	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	
TD012	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	
TD013	3' - 0"	5' - 0"	1 3/4"	A	HM	1		1.0	
TD014	3' - 0"	5' - 0"	1 3/4"	A	HM	1		1.0	
TD015	3' - 0"	6' - 8"	1 3/4"	A	HM	1		1.0	DEDUCT ALT #1
TD016	3' - 0"	7' - 0"	1 3/4"	A	HM	1		1.0	

NOTE: ALL EXISTINGRENOVATION AREAS TO BE PRESUMED AS HAVING AS BESTOS CONT AININGM ATERIAL.



ICRA NOTES

DUST CONTROL PLAN NOTES

1. THEV AMCINFECTION CONTROL GROUPH AS CONFIRMED THEDESIGNATIONFOR THIS PROJECT IS LEVEL IVFORTHECLASS OF PRECAUTIONSOR LEVEL OF INFECTION CONTROL ACTIVITIES.H ARD SURF ACE B ARRIERSS HALL BEUSED EXCEPT INTHE AREAINDICATEDON THEPHASING PLAN WITH PLASTIC BARRIERS (MINIMUM 4MIL)TO SE AL ARE A FROM NON-WORK AREAAS LONG AS THESPRINKLER SYSTEM IS INT ACT AND ACTIVE.
2. THIS PROJECT NEEDS AN ENTRY VESTIBULE FOR CLOTHING CHANGES (PROVIDE AND LOCATE A STAGING AREA FOR HAZMAT SUITS NEAR THE PLASTIC BARRIER ENTRANCE SPACES - CONSTRUCTION ANTEROOM. THEY SHALL BE USED WHEN GOING INTO CONSTRUCTION AREA AND LEAVING THE CONSTRUCTION AREA) AND TOOL STORAGE AND TIGHT SEALS SHALL BE MAINTAINED AT THE FULL PERIMETER OF WALLS AND WALL PENETRATIONS. ANY DUST SHALL BE IMMEDIATELY CLEANED IF TRACKED OUTSIDE OF THE CONSTRUCTION BARRIER. UPON COMPLETION OF THE CONSTRUCTION PHASE, DUST BARRIERS SHALL BE REMOVED CAREFULLY TO MINIMIZE SPREADING OF DUST AND THE CONTRACTOR SHALL HAVE TEMPORARY DUST PROTECTION IN PLACE BEFORE REMOVAL OF A PERMANENT BARRIER. [AFTER EACH PHASE, PERFORM TASKS STATED IN CONTAMINATION OF PATIENT ROOMS, SUPPLIES, EQUIPMENT AND RELATED AREAS NOTE 2.
3. PROVIDES TICKY MATS AND BLANKET AT THE PLASTIC BARRIER ENTRANCESPACES (CONSTRUCTION ANTEROOM) ANDCHANGE DAILY ORMORE OFTENAS NEEDEDTO PREVENT THE SPREAD OF DUST ANDDEBRIS INTO ADJACENTCLEAN SPACE.

INTERNAL DEMOLITION AND CONSTRUCTION ACTIVITIES DUST AND DE BRIS CONTROL

1. USE CORRIDORS AS PRIMARY CONSTRUCTION ACCESS.
2. TRAFFIC CONTROL: DESIGN ATED ENTRY AND EXIT PROCEDURESSH ALL BEDEFINED.EGRESS PATHSSHALL BEFREEOFDEBRIS; DESIGNATEDELEV ATORSSH ALL BE USED DURING SCHEDULED TIMES; AND ONLY AUTHORIZED PERSONNEL SHALL BE ALLOWED TO ENTER THE CONSTRUC TION ZONE. SIGNAGESHALLDIRECTPEDESTRIAN TRAFFIC AWAY FROMTHE CONSTRUCTION ARE A ANDMATERIALS.
3. CONTRACTOR SHALLUSE TWOCARTSTO TRANSFER CONSTRUCTIONMATERIALIN ANDOUT OFTHE PROJECT - ACLEANCART SH ALL BEUSED; THE NOT-SO-CLEAN CART SHALL BEUSED BETWEEN THEMAIN ENTRY AND THE CONSTRUCTIONSTAGING/PREP AREA.
4. DEMOLITION DE BRIS: DE BRIS SHALL BEREMOVEDIN CARTS WITH TIGHTLY FITTED COVERS, USINGDESIGNATED TRAFFICROUTES.EFFORTSSHALL BEMADETO MINIMIZE USEOF ELEVATORS WITH ANEMPHASISON TRANSPORT DURINGTHE LOWEST PERIODOF ACTIVITY. DEBRISSHALL BEREMOVED DAILY AND AT TIMES SPECIFIED BY THEV AMC.IFCHUTESARE USEDTO DIR ECTDE BRISOUTSIDE, HIGH EFFICIENCY PARTICULATE AIR (HEPA) FILTERED NEG ATIVE AIRMACHINESSHALL BEUSED, ANDTHE CHUTE OPENINGSHALL BE SEALED WHEN NOTIN USE.FILTERS SH ALL BE BAGGED ANDSE ALED BEFORE BEINGTRANSPORTED OUT OF THE CONSTRUCTION AREA.THE CONTRACTOR SHALLNOT HAULDE BRISTHROUGHP ATIENT CARE AREAS WITHOUTPRIOR APPROVALOFTHE COR.
5. EXTERIOR WINDOWS: WINDO WSSH ALL BESEALED TOMINIMIZEINFILTRATIONFROMANY ADJACENTEXCAVATION DE BRIS.
6. ALLEQUIPMENTTOREMAIN IN ASSOCIATEDROOMSSHALL BE COVEREDAND PROTECTED PRIORSTARTING EACH CONSTRUCTION PHASE.

VENTILATION AND ENVIRONMENTAL CONTROLS

1. AIR SYSTEM FLO W: THE CORVERIFY AND ACKNOWLEDGE CONTRACTOR WHETHERTHE CONSTRUCTION AREA USESFRESH/OUTSIDEOR RE-CIRCULATED AIR; FILTERSSHALL BE ADDEDOR RETURN VENTS COVERED AS NEEDED WITHFILTER MATERIAL OR PLASTIC. AIR MUST FLOWFROM CLEANTO DIRTY AREAS.
2. NEG ATIVE AIR PRESSURE: THE AIR WITHIN THE CONSTRUCTION AREA SHALL BE NEGATIVE WITH RESPECT TOSURROUNDING ARE AS AND WITH NO DISRUPTIONOF AIR SYSTEMSOF ADJACENT AREAS. USEOF THE NEGATIVE AIR PRESSURE SYSTEM WITHIN THEENCLOSURE TOREMOVEDUST SHALL PASS AIR THROUGH AN INDUSTRIAL GRADE, PORTABLE HEP AFILTER CAPA BLE OFFILTRATION R ATES OF 300-800 CU BICFEET PER MINUTE (FT3/MIN), OR EXHAUST AIR DIRECTLY TO THE OUTSIDE IF APPROVED BY VAMC. IF EXHAUST SH ALL BE TIED INTO A RE-CIRCULATED AIR SYSTEM, A PRE-FILTER AND HEPA FILTER SHALL BE USED BEFORE EXHAUST TO PREVENT CONTAMIN ATIONOF THE DUCTS.
3. FOR EXHAUST DUCT ROUTING THRUCORRIDOR: INSTALL HARD DUCT WITHNON-FLANGE HANGERHUNGFROMCEILING ABOVE, BOTTOM OFDUCT SH ALL BE AMINIMUM OF 7'-2" A.F.F.
4. ADJACENT AREAS: THESTATUSOF SEALEDPENETRATIONSAND INTACT CEILING SHALL BE VERIFIED DAILY.
5. AIR EXCHANGER ATES AND PRESSURE RELATIONSHIPS: VAMC AND CONTRACTOR SHALL VERIFY ANDMAINT AIN PROPER RATESIN CRITICAL AREAS NEAR CONSTRUCTION ACTIVITY ANDENSURE AIR IS NOT BEINGRE-CIRCULATED WITHOUTFILTRATIONFROMTHE CONSTRUCTION AREA ELSE WHERE.PROVIDE AIR PRESSURE TESTING THROUGHOUT THE PROJECTIN THE FREQUENCY AS IDEN TIFIED BY THE COR.

CONTAMINATION OF PATIENT ROOMS, SUPPLIES, EQUIPMENT AND RELATED AREAS

1. WORKSITE CLOTHING: CONTRACTOR PERSONNEL CLOTHING SHALL BE FREE OF LOOSE SOIL AND DEBRIS BEFORE LEAVING THE CONSTRUCTION AREA. IF PROTECTIVE APPAREL IS NOT WORN (E.G., COVERALLS, FOOTGEAR AND HEADGEAR) A HEPA-FILTERED VACUUM SHALL BE USED TO REMOVE DUST FROM CLOTHING BEFORE LEAVING THE BARRICADE. IF PROTECTIVE APPAREL IS UTILIZED, THE CONTRACTOR SHALL CONSTRUCT A SPACE OR ANTEROOM FOR CHANGING CLOTHING AND STORING EQUIPMENT (DESIGNATED AREA. ALL EQUIPMENT, TOOLS, TOOL CARTS, AND MATERIALS TRANSPORTED THROUGH OCCUPIED AREAS SHALL BE MADE FREE FROM DUST AND MOISTURE BY VACUUMING AND WET WIPING BEFORE THEIR REMOVAL FROM THE CONSTRUCTION ZONE OR WORK AREA.
2. POST CONSTRUCTION: DO NOT REMOVE BARRIERS AND KEEP ALL HVAC ISOLATION UNTIL CONTRACTOR HAS CLEANED CONSTRUCTION SITE, VA EMS STAFF HAS DONE A TERMINAL CLEANING, AND VA INFECTIOUS DISEASE CONTROL HAS INSPECTED AND APPROVED THE CLEANING.

HARDWARE SET 1.0

3	HINGES	TA2714	630	MK
1	DUST PROOF STRIKE PLATE	570	32D	RO
1	LATCH SET	V ASPECF01	26D	
1	DOOR CLOSER	DC6210XA11	689	CO
2	KICK PLATES	K1050F	32D	RO
1	GASKETING	S888 X HEAD & JAMBS		PE

HARDWARE SET 2.0

6	HINGES	TA2714	630	MK
1	FLUSH BOLTS	2845	32D	RO
1	DUST PROOF STRIKE	570	32D	RO
2	PASSAGE SET	ML2010	26D	CO
2	COORDINATOR	2600 SERIES	32D	RO
1	ASTRAGAL	BY DOOR MANUF.		
2	DOOR CLOSER	DC6210XA11	689	CO
4	KICK PLATES	K1050F	32D	RO
2	GASKETING	S888 X HEAD & JAMBS		PE

MANUFACTURER'S

CORBIN RUSS WIN	CO
MCKINNEY	MK
PEMKO	PE
ROCKWOOD	RO

NOTES:

HARDWARE MANUFACTURER'SLISTED AS BASISOF DESIGN. ALTERNATE MANUF ACTURERS ACCEPTA BLE, SUBJECT TOREVIE W BY ARCHITECT ANDC.O.R. FOR EQU AL QUALITY COMPLIANCE.

LATCHSETTO SUPPORT TH AT WHICH AREUSED AT THIS F ACILITY, COORDINATE WITH C.O.R.

INFECTION CONTROL RISK MITIGATION RECOMMENDATIONS MATRIX OF PRECAUTIONS FOR CONSTRUCTION AND RENOVATION

Type of Construction / Project Activity Table

TYPE A	**Inspection and Non-Invasive Activities** Includes, but is not limited to: • Removal of ceiling tile for visual inspection-limited to 1 tile per 50 square feet with limited exposure time. • Limited building system maintenance (e.g., pneumatic tube station, HVAC system, fire suppression system, electrical and carpentry work to include painting without sanding) that does not create dust or debris. • Clean plumbing activity limited in nature.
TYPE B	**Small scale, short duration activities which create minimal dust** Includes, but is not limited to: • Work conducted above the ceiling (e.g., prolonged inspection or repair of firewalls and barriers, installation of conduit and/or cabling, and access to mechanical and/or electrical chase spaces). • Fan shutdown/startup. • Installation of electrical devices or new flooring that produces minimal dust and debris. • The removal of drywall where minimal dust and debris is created. • Controlled sanding activities (e.g., wet or dry sanding) that produce minimal dust and debris.
TYPE C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies** Includes, but is not limited to: • Removal of preexisting floor covering, walls, casework or other building components. • New drywall placement. • Renovation work in a single room. • Nonexisting cable pathway or invasive electrical work above ceilings. • The removal of drywall where a moderate amount of dust and debris is created. • Dry sanding where a moderate amount of dust and debris is created. • Work creating significant vibration and/or noise. • Any activity that cannot be completed in a single work shift.
TYPE D	**Major demolition and construction projects** Includes, but is not limited to: • Removal or replacement of building system component(s). • Removal/installation of drywall partitions. • Invasive large-scale new building construction. • Renovation work in two or more rooms.

Patient Risk Group Table

Group 1 Low Risk	Group 2 Medium Risk	Group 3 High Risk	Group 4 Highest Risk
• Office areas (non-clinical) • FES/EMS areas	• Physical Therapy • Radiology departments • All patient waiting rooms • All outpatient clinics • Research Areas • Respiratory Therapy	• Emergency Room • Clinical Laboratories (specimen) • Same Day Surgery • Pharmacy • Nutrition and Food Service/Canteen • Procedural Areas (GI) • Inpatient Mental Health	• Any area caring for immunocompromised patients • Cardiac Cath Lab/IR • Central Sterile Supply • Sterile Processing Service • Intensive Care Units • Medical/Surgical Units • Negative pressure isolation rooms • Outpatient Chemotherapy Areas • Operating rooms • Post Anesthesia Care Unit • Dialysis • Dental

Infection Control Matrix - Class of Precautions: Construction Project by Patient Risk

Patient Risk Group	Construction Project Type: TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group 1	I	II	II	III
MEDIUM Risk Group 2	I	II	III	IV
HIGH Risk Group 3	I	III	IV	V
HIGHEST Risk Group 4	III	IV	V	V

Note: Infection Control approval will be required when the Construction Activity and Risk Level indicate that Class III or Class IV control procedures are necessary.

CONSTRUCTION ACTIVITIES SHALL BE CLASSIFIED AS FOLLOWS UNLESS NOTED OTHERWISE:
1. INSTALLATION OF CABLE TRAY IN CORRIDOR CEILINGS SHALL BE CONSIDERED CONSTRUCITON ACTIVITY TYPE B.
2. ALL CONDUIT SPECIFIED TO BE INSTALLED IN WALL SHALL BE CONSIDERED CONSTRUCTION ACTIVITY TYPE C.
3. CONSTRUCTION OF NEW ROOMS SHALL BE CONSIDERED CONSTRUCTION ACTIVITY TYPE D.
4. INSTALLATION OF NEW DOORS TO OR FROM EXISTING SPACES SHALL BE CONSIDERED CONSTRUCTION ACTIVITY TYPE C.

It is the Contractor's Responsibility to provide the following Infection Control Precautions depending upon the Area Class Designation

	During Construction Project	Upon Completion of Project
CLASS I	1. Execute work by methods to minimize raising dust from construction operations. 2. Perform noninvasive work activity as to not block or interrupt patient care. 3. Perform noninvasive work activities in areas that are not directly occupied with patients. 4. Perform noninvasive work activity in a manner that does not create dust. 5. Immediately replace any displaced ceiling tile before leaving the area and/or at and of noninvasive work activity.	Cleaning: 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. HVAC Systems: 1. Remove isolation of HVAC system in areas where work is being performed. Verify that HVAC systems are clean and operational. 2. Verify the HVAC systems meet original airflow and air exchange design specifications.
CLASS II	1. Includes all activities required by Class I 2. Perform only limited dust work and/or activities designed for basic facilities and engineering work. 3. Perform limited dust and invasive work following standing precautions procedures approved by the organization. 4. This Class of Precautions must never be used for construction or renovation activities. 5. Provide active means to prevent airborne dust from dispersing into atmosphere. 6. Water mist work surfaces to control dust while cutting. 7. Seal unused doors with duct tape. 8. Block off and seal air vents. 9. Replace adhesive walk-off mats at entrance and exit of work area. Replace used mats in accordance with manufacturer's recommendations. 10. Remove or isolate HVAC system in area where work is being done to prevent contamination of duct system.	Cleaning: 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. HVAC Systems: 1. Remove isolation of HVAC system in areas where work is being performed. Verify that HVAC systems are clean and operational. 2. Verify the HVAC systems meet original airflow and air exchange design specifications.

INFECTION CONTROL RISK MITIGATION RECOMMENDATIONS MATRIX OF PRECAUTIONS FOR CONSTRUCTION AND RENOVATION

It is the Contractor's Responsibility to provide the following Infection Control Precautions depending upon the Area Class Designation

	During Construction Project	Upon Completion of Project
CLASS III	1. Includes all activities required by Class II 2. Obtain Infection Control Permit from Hospital Safety Officer or Facilities Management Maintenance and Engineering department before construction begins. 3. Provide active means to prevent airborne dust dispersion into the occupied areas. 4. Means for controlling minimal dust dispersion may include hand-held HEPA vacuum devices, polyethylene plastic containment, or isolation of work area by closing room door. 5. Remove or isolate return air diffusers to avoid dust from entering the HVAC system. 6. Remove or isolate the supply air diffusers to avoid positive pressurization of the space. 7. If work area is contained, then it must be neutrally to negatively pressurized at all times. 8. Seal all doors with tape that will not leave residue. 9. Contain all trash and debris in the work area. 10. Nonporous/smooth and cleanable containers (with a hard lid) must be used to ... and debris from the c... areas. These c... must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 11. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 12. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces. 13. Clean construction area at the end of each shift by damp mopping or HEPA Vacuum.	For Type C activities, follow procedures for Class IV. Cleaning: 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. HVAC Systems: 1. Remove isolation of HVAC system in areas where work is being performed. Verify that HVAC systems are clean and operational. 2. Verify the HVAC systems meet original airflow and air exchange design specifications.
CLASS IV	1. Includes all activities required by Class III 2. Obtain Infection Control Permit from Hospital Safety Officer or Facilities Management Maintenance and Engineering department before construction begins. 3. Construct and complete critical barriers meeting NFPA 241 requirements. Barriers must extend to the ceiling or if ceiling tile is removed, to the deck above. 4. All (plastic or hard) barrier construction activities must be completed in a manner that ... d and ceiling ... residue to seal gaps between barriers, ceiling or floor. 5. Seal all penetrations in containment barriers, including floors and ceiling, using approved materials (UL schedule firestop if applicable for barrier type). 6. Containment units or environmental containment units (ECUs) approved for Class IV precautions in small areas totally contained by the unit and that has HEPA-filtered exhaust air. 7. Remove or isolate return air diffusers to avoid dust entering the HVAC system. 8. Remove or isolate the supply air diffusers to avoid positive pressurization of the space. 9. Negative airflow pattern must be maintained from the entry point to the anteroom and into the construction area. The airflow must cascade from outside to inside the construction area. The entire construction area must remain negatively pressurized. 10. Maintain negative pressurization of the entire workspace by use of HEPA exhaust air systems directed outdoors. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows does not require HEPA-filtered air. 11. If exhaust is directed indoors, then the system must be HEPA filtered. Prior to start of work, HEPA filtration must be verified by particulate measurement as no less than 99.97% efficiency and must not alter or change airflow/pressure relationships in other areas. 12. Exhaust into shared or recirculating HVAC systems, or other shared exhaust systems (e.g., bathroom exhaust) is not acceptable. 13. Install device (e.g., magnehelic, manometer, or digital monitoring) on exterior of work containment to continually monitor negative pressurization. The "ball in the wall" or similar apparatus are not acceptable. 14. Contain all trash and debris in the work area. 15. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 16. Worker clothing must be clean and free of visible dust before leaving the work area. HEPA vacuuming of clothing or use of cover suites is acceptable. 17. Workers must wear shoe covers prior to entry into the work area. Shoe covers must be changed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be immediately changed. 18. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 19. Consider collection of particulate data during work to monitor and ensure that contaminates do not enter the occupied spaces. Routine collection of particulate samples may be used to verify HEPA filtration efficiencies.	Construction areas must be inspected by an infection preventionist or designee and engineering representative for discontinuation or downgrading of ICRA precautions. Work Area Cleaning: 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. Removal of Critical Barriers: 1. Critical barriers must remain in place during all work involving drywall removal, creation of dust and activities beyond simple touch-up work. The barrier may NOT be removed until a work area cleaning has been performed. 2. All (plastic or hard) barrier removal activities must be completed in a manner that prevents dust release. Use the following precautions when removing hard barriers: 1. Carefully remove screws and painter tape. 2. If dust will be generated during screw removal, use hand-held HEPA vacuum. 3. Drywall cutting is prohibited during removal process. 4. Clean all stud tracks with HEPA vacuum before removing outer hard barrier. 5. Use a plastic barrier to enclose area if dust could be generated. Negative Air Requirements: 1. The use of negative air must be designed to remove contaminates from the work area. 2. Negative air devices must remain operational at all times and in place for a period after completion of dust creating activities to remove contaminants from the work area and before removal of critical barriers. HVAC systems: 1. Upon removal of critical barriers, remove isolation of HVAC system in areas where work is being performed. 2. Verify that HVAC systems are clean and operational. 3. Verify the HVAC systems meets original airflow and air exchange design specifications.
CLASS V	1. Includes all activities required by Class IV 2. Obtain Infection Control Permit from Hospital Safety Officer or Facilities Management Maintenance and Engineering department before construction begins. 3. Construct and complete critical barriers meeting NFPA 241 requirements. Barriers must extend to the ceiling or if ceiling tile is removed, to the deck above. 4. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to ground and ceiling and secure from movement or damage. Apply tape that will not leave a residue to seal gaps between barriers, ceiling or floor. 5. Seal all penetrations in containment barriers, anteroom barriers, including floors and ceiling using approved materials (UL schedule firestop if applicable for barrier type). 6. Construct anteroom large enough for equipment staging, cart cleaning, workers. The anteroom must be constructed adjacent to entrance of construction work area. 7. Personnel will be required to wear coveralls at all times during Class V work activities. Coveralls must be removed before leaving the anteroom. 8. Remove or isolate return air diffusers to avoid dust entering the HVAC system. 9. Remove or isolate the supply air diffusers to avoid positive pressurization of the space. 10. Negative airflow pattern must be maintained from the entry point to the anteroom and into the construction area. The airflow must cascade from outside to inside the construction area. The entire construction area must remain negatively pressurized. 11. Maintain negative pressurization of the entire workspace using HEPA exhaust air systems directed outdoors. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows does not require HEPA-filtered air. 12. If exhaust is directed indoors, then the system must be HEPA filtered. Prior to start of work, HEPA filtration must be verified by particulate measurement as no less than 99.97% efficiency and must not alter or change airflow/pressure relationships in other areas. 13. Exhaust into shared or recirculating HVAC systems, or other shared exhaust systems (bathroom exhaust) is not acceptable. 14. Install device (e.g., magnehelic, manometer, or digital monitoring) on exterior of work containment to continually monitor negative pressurization. The "ball in the wall" or similar apparatus are not acceptable. 15. Contain all trash and debris in the work area. 16. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 17. Worker clothing must be clean and free of visible dust before leaving the work area anteroom. 18. Workers must wear shoe covers prior to entry into the work area. Shoe covers must be changed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be immediately changed. 19. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 20. Consider collection of particulate data during work to monitor and ensure that contaminates do not enter the occupied spaces. Routine collection of particulate samples may be used to verify HEPA filtration efficiencies.	Construction areas must be inspected by an infection preventionist or designee and engineering representative for discontinuation or downgrading of ICRA precautions. Work Area Cleaning: 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. Removal of Critical Barriers: 1. Critical barriers must remain in place during all work involving drywall removal, creation of dust and activities beyond simple touch-up work. The barrier may NOT be removed until a work area cleaning has been performed. 2. All (plastic or hard) barrier removal activities must be completed in a manner that prevents dust release. Use the following precautions when removing hard barriers: 1. Carefully remove screws and painter tape. 2. If dust will be generated during screw removal, use hand-held HEPA vacuum. 3. Drywall cutting is prohibited during removal process. 4. Clean all stud tracks with HEPA vacuum before removing outer hard barrier. 5. Use a plastic barrier to enclose area if dust could be generated. Negative Air Requirements: 1. The use of negative air must be designed to remove contaminates from the work area. 2. Negative air devices must remain operational at all times and in place for a period after completion of dust creating activities to remove contaminants from the work area and before removal of critical barriers. HVAC systems: 1. Upon removal of critical barriers, remove isolation of HVAC system in areas where work is being performed. 2. Verify that HVAC systems are clean and operational. 3. Verify the HVAC systems meets original airflow and air exchange design specifications.

FULLY SPRINKLERED

100% CONSTRUCTION DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

PROJECT MANAGER
Headquarters:
ACG Project Number 20-083
919-8

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA INFORMATION AND DETAILS

Project Title: 9th floor Mental health CLINIC

VA PROJECT NUMBER 693-19-106

Building Number # 1

Location: WILKES-BARRE VA MEDICAL CENTER 1111 EAST END BLVD WILKES-BARRE, PA 18711

Approved:

Date: DECEMBER 15, 2023 | Checked: WVS | Drawn: GTS

Drawing Number: G-009

Dwg 9 of 12

C:\Users\gscott\Documents\A_20-083-Wilkes Barre Mental Health_gscott@acg-pa.com.rvt
12/14/2023 7:58:07 PM
VA FORM 08-6231

DEPARTMENT OF VETERANS AFFAIRS
Medical Center
1111 East End Boulevard
Wilkes-Barre, PA 18711

July 9, 2024
SUBJECT: 9th Floor Mental Health Project - ICRA

ICRA drawings and permit

- Drawings. 3 drawings are of different locations: 9 west, 9 east and warehouse. All marked areas are in red on the drawing.
    1. ICRA barrier wall. Wall from floor to underdeck. 2x4 metal stud, 5/8 drywall both sides, taped and painted with base. Top, bottom and side shall be airtight. 36" steel door and jamb, Yale door lock 522 core, self-closer, gasket around door jamb, door sweep. Sticky pad outside the door.
    2. 6 mil plastic shall be installed on all stairwells exit with a zipper. And the elevator door shall be plastic over.
    3. Electric negative air monitor shall be mounted outside the door. The monitor shall be recorded every hour during working hours.
    4. HEPA Negative air unit shall be vented to the outside through a window. The number of units that will be needed depends on how many it will take to get the work area negative.
- Working on the 8th floor will need ICRA for each areas/ room. All furniture and supplies in the room are moved, will need to be covered when working, and removed when work is completed for the night. The room shall be clean, and all furniture and supplies are returned to their original location. The COR can make change to what needs to be done to accommodate a clean and safe environment.
- An ICRA permit is needed for this project. The VA has the right to make changes to the permit for patient safety.

Sincerely,

Michael Somoga
Project Engineer, COR

VHA Infection Control Risk Assessment
for Construction, Renovation and Maintenance

Introductory Information and Instructions

Use this template as a baseline for performing facility Infection Control Risk Assessments (ICRAs) for construction, renovation, and maintenance work (referred to as the "activity" in this document). The template provides minimum requirements for categorizing activity types and patient risk to determine the level of precautions needed to prevent infection risks. Facilities may customize this template to incorporate site-specific information and/or to add more stringent criteria.

NOTE: *This VHA ICRA template pertains specifically to infection prevention. It must be used in conjunction with the required Pre-Construction Risk Assessment (PCRA) for the activity which addresses other activity-related safety concerns (e.g., vibration, noise) outside the scope of the ICRA.*

To complete the template:

1. Use **Table 1** to identify the category of the construction, renovation and/or maintenance activity.
2. Use **Table 2** to identify the areas affected by the activity.
3. Use **Table 3** to identify the overall patient risk category that will be affected by the activity.
4. Use **Table 4** to determine the level of infection prevention and control precautions needed for the activity.

Once all 4 steps above are completed: Refer to **Table 5** for the minimum required control measures for the level of infection prevention and control precautions needed for the activity. Refer to **Table 6** for the minimum infection prevention and control measures required on completion of the activity.

PERMIT: See the last page of this document for a fillable permit form to be used for posting at the activity site as needed.

Table 1 - Construction, Renovation, and/or Maintenance Activity Category

NOTE: *If any of the bulleted criteria in a higher activity category pertains to the work that will be done (even if the other criteria are in a lower category), use the higher activity category for the VHA ICRA.*

Activity Category determined from Table 1 (*A, B, C, or D*): D

Category A	**Inspection and/or facility upkeep generally defined as follows**: • Work can be completed in a single shift, not to exceed 10 hours. • Patients and/or employees may be in the area depending on the activity. • Work that does not create dust or debris. • Removal of ceiling tile or access to mechanical or electrical chase for visual inspection limited to 1 tile per 50 square feet with limited exposure time (not to exceed an hour for each tile) within the shift. • Minor interior updates (e.g., replacing floor or ceiling tiles, carpentry work to include hanging signage, and painting without sanding) that do not create dust or debris. • Limited building system maintenance such as plumbing on potable systems limited to faucet replacement etc. and electrical work such as replacement of bulbs, receptacles, or switches.
Category B	**General maintenance and repair work generally defined as follows:** • Prolonged inspection and work that may take longer than a single shift but not exceeding a week. • Patients and employees are not to be in the area until activity is completed. • Work that creates minimal dust and debris.

	• Interior finish or surface repairs, updates, or modifications such as repair of firewalls and barriers, and new flooring that produces minimal dust and debris. Controlled sanding activities (e.g., wet or dry sanding) that produce minimal dust and debris. • Plumbing work such as installation or replacement of a single fixture or piping for a single fixture. Any work on sanitary plumbing including snaking of drains. • Electrical work such as installation of cabling/wiring/conduit for a single device, installation of new device such as a light fixture that produces minimal dust and debris. • Air Handler and/or fan shutdown/startup and HVAC work such as replacement of a single diffuser, single terminal unit or a single device that produces minimal dust and debris.
Category C	**Small-scale construction, renovation, or maintenance generally defined as follows**: • Work requiring longer than a single week to complete but not exceeding 6 months. • Patients and employees are not to be in the area until activity is completed. • Demolition/removal of preexisting floor covering, casework, lay-in ceiling, or other architectural elements. • Demolition/removal of more than 32 ft^2 of drywall/framing, hard ceilings, and doors/framing and minimal infrastructure such as electrical circuits and branch piping. • Installation of new walls, ceilings and doors including framing, drywall/plaster and associated work. • Plumbing work such as the installation of new sinks, showers and toilets and associated plumbing. • Shut down of sections of potable water systems. • Electrical work such as installation of conduit and wire for lighting, receptacles and switches for an area, the installation of conduit and wire for new devices such as terminal units, fans etc. • Modification of existing fire alarm and suppression systems. • Mechanical work such as the installation of ductwork, diffusers, and terminal units for an area.

Category D	**Large-scale construction, renovation, or maintenance generally defined as follows**:
	• Work exceeding 6 months in duration.
	• Patients and employees are not to be in the area until activity is completed.
	• Large-scale demolition of building components and infrastructure including removal of multiple doors, walls, framing, ceilings, flooring, piping, electrical and HVAC.
	• The installation building components such as new walls, ceilings and doors including framing, drywall and associated plaster work.
	• Plumbing work such as the installation of:
	  ○ new medical gas systems,
	  ○ steam/heating hot water, condensate systems,
	  ○ multiple sinks, showers and toilets including associated plumbing.
	• Shutdown of potable water, steam/heating hot water, condensate, and medical gas systems.
	• Electrical work such as installation of electrical feeders, distribution panels, conduit and wire for lighting, receptacles and switches for an area, the installation of conduit and wire for new devices such as terminal units, fans etc.
	• Installation of fire alarm and suppression systems.
	• Electrical shutdown of multiple panels.
	• Mechanical work such as the installation of air handling equipment, associated ductwork, diffusers, heat exchangers, terminal units and controls.

Table 2 - Affected Area Assessment

Identify the areas and associated patients that will be affected by the construction/renovation/maintenance activity (see the Figure for a visual representation of adjacent affected areas).

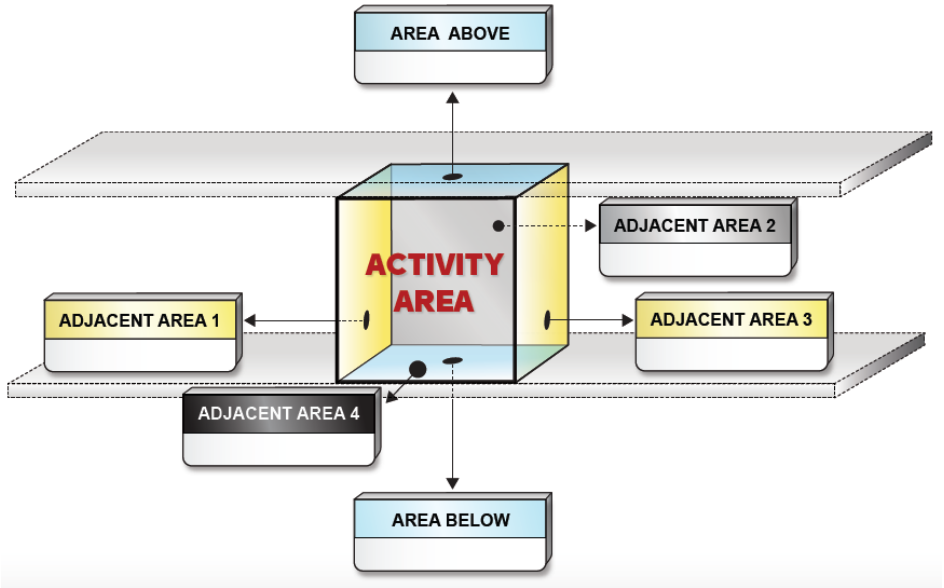


Figure: Isometric drawing of affected area assessment

Area	Service(s)/Type(s) of Area(s) *(e.g., OR, Unit/Ward, Sterile Processing, Administrative, etc.)**	Point of Contact (POC)	POC Contact Information
Activity Area**	9th floor		
Area Above	8th floor		
Area Below	7th floor		
Adjacent Area 1			
Adjacent Area 2			
Adjacent Area 3			
Adjacent Area 4			

* There may be more than one Service/type of area for each row. List all.

** List the area(s) in which the construction/renovation/maintenance activity will occur. ***NOTE: When the Activity Category is B, C, or D, the control measures are determined by the Patient Risk in the adjacent affected areas.***

VHA Infection Control Risk Assessment
for Construction, Renovation and Maintenance

Table 3 - Patient Risk Category

Using Table 3, identify the patient risk category for each area listed in Table 2. Of the patient risk categories identified, select the one with the greatest risk as the overall Patient Risk Category for the activity.

Overall Patient Risk Category determined from Table 3 (*Low, Medium, High, or Highest*): High

Low Risk	Medium Risk	High Risk	Highest Risk
Non-patient care areas such as:	Patient care support areas such as:	Patient care areas such as:	Procedural, invasive, sterile support and highly compromised patient care areas such as:
• Public hallways and gathering areas not in clinical areas • Office areas not in clinical areas • Breakrooms not in clinical areas • Bathrooms or locker rooms not in clinical areas • Mechanical/electrical rooms not in clinical areas	• Waiting areas • Clinical engineering (biomedical) • Materials management • Sterile processing department – dirty side • Kitchen, cafeteria, gift shop, coffee shop, and food kiosks	• Patient care rooms and areas, including spinal cord injury units • All acute care units, including mental health • All outpatient units and clinics • Emergency department • Community Living Centers, domiciliaries, and transitional residences • Employee health • Pharmacy – general work zone • Medication rooms and clean utility rooms • Imaging suites – diagnostic imaging • Laboratory	• All transplant units • All intensive care units • All oncology units and chemotherapy/infusion centers • OR theaters and restricted areas • Hemodialysis units • Procedural rooms* • Pharmacy compounding area • Sterile processing department – clean side • Transfusion services • Imaging suites – interventional imaging • Dedicated isolation wards/units for infectious diseases

***** Procedural Rooms are designated for the performance of patient care activities that may require high-level disinfected or sterile instruments and some environmental controls but is not required to be performed with the environmental controls of an operating room (OR). The room is intended for procedures that are performed in an aseptic surgical field and penetrates the protective surfaces of a patient's body (e.g., subcutaneous tissue, mucous membranes, cornea) or entry into or opening of a sterile body cavity. Examples of these spaces include Cardiac Catheterization Suites, Electrophysiology Suites, Endovascular/GI Suites, Angio Suites and other spaces which may have high risk patient populations.

Table 4 - Level of Infection Prevention and Control Precautions

Match the Overall Patient Risk Category (*Low, Medium, High, Highest*) determined from Table 3 with the planned Construction/Renovation/Maintenance Activity Category (*A, B, C, D*) from Table 1 to determine the minimum Level of Infection Prevention and Control Precautions (*I, II, III, or IV*) using Table 4 below.

Level of Precautions determined from Table 4 (*I, II, III, or IV*): IV

Patient Risk Category	Activity Category			
	A	**B**	**C**	**D**
Low Risk	I	II	II	III
Medium Risk	I	II	III	IV
High Risk	I	II	IV	IV
Highest Risk	II	III	IV	IV

An infection prevention and control permit is required for Level III and Level IV. Consult with Infection Prevention and Control for Level I and Level II.

Table 5 - Required Infection Prevention and Control Measures, by Level of Precautions

Controls defined below for the Level of Precautions identified for the activity must be in place before the activity begins and maintained until work is completed and the area is activated. Control measures for each Precaution Level must also include the control measures in the preceding Level(s).

As the activity progresses, a full re-evaluation of remaining activity type and patient risk is required prior to downgrading the Level of Precautions.

Level of Precautions	Control Measures
Level I	1. Perform work activity in a manner that does not create dust. 2. Immediately replace any ceiling tile, close access panels, etc., upon completion of work. 3. Any materials and equipment being brought into the facility must be free of contaminants and loose material.
Level II	**All control measures in Level I and the following:** 1. Provide active means to control airborne dust from dispersing into occupied areas and/or water mist surface to control dust (e.g., Mobile Dust Containment Cart or some other system). 2. Ensure worker clothing is clean and free of visible dust before leaving the work area. 3. Remove or isolate air diffusers (supply and return) to protect the HVAC system from dust and reduce air turbulence. Rebalance system to address diffuser isolation.

	4. When the work involves or impacts potable water systems including stagnation due to reduced usage, the piping shall be flushed twice a week or isolated from the main system. 5. Seal doors to prevent dust migration. 6. Contain all trash and debris in the work area. Perform daily cleaning and disposal of trash (covered) from work area using an identified exit route. 7. Any equipment, tools, or materials removed from the work area must be in sealed containers and/or cleaned of dust and debris prior to removal from the area. 8. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 9. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 10. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces at least daily.
Level III	**All control measures in Levels I and II and the following:** 1. Ensure availability of equipment for cleaning hands. 2. Construct and complete critical barriers meeting NFPA 241 requirements. Barriers must extend to the ceiling or if ceiling tile is removed, to the deck above. 3. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to floor and ceiling (or floor/roof deck above) and secure from movement or damage. 4. Seal all penetrations in containment barriers, including floors and ceiling, using approved materials (UL schedule firestop if applicable for barrier type). 5. Maintain .01 inches /water gauge negative pressurization of the entire workspace by use of HEPA exhaust air systems directed outdoors (unless a work specific waiver is approved by VHA's Office of Healthcare Engineering); this must be maintained continuously 24/7 for the duration of the project. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows is not required to be HEPA-filtered. Exhausting discharged air into shared or recirculating HVAC systems, or other shared exhaust systems (e.g., bathroom exhaust) is prohibited. 6. Install a differential pressure sensing device (e.g., magnehelic, manometer, or digital monitoring) on exterior of work containment to continually monitor and document negative pressurization. The "ball in the wall" or similar apparatus are not acceptable.
Level IV	**All control measures in Levels I, II and III and the following:** 1. Barriers must be hard barriers unless temporary to install final barrier. 2. Containment must include an anteroom to ensure pressure control. Anteroom must be large enough for equipment staging, cart cleaning, workers' PPE and cleaning. 3. Worker clothing and/or PPE must be removed or clean and free of visible dust before leaving the work area anteroom. HEPA vacuuming of clothing or use of cover suits is acceptable. 4. Workers must wear shoe covers or have a method to clean shoes in anteroom. Shoe covers must be removed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be changed immediately.

Table 6 - Minimum Infection Prevention and Control Measures Required Upon Completion of the Activity

Controls defined below shall be completed upon completion of the activity and inspected prior to terminating measures defined in Table 5.

Level of Precautions	Measures
Levels I - II	**Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. **HVAC Systems:** 1. Remove isolation of HVAC system in areas where work is being performed. Verify that HVAC systems are clean and operational. 2. Verify the HVAC systems meet original airflow and air exchange design specifications. **Water systems:** 1. Until the potable water system is activated and in use, flushing shall continue at least twice per week in accordance with VHA Directive 1061.
Levels III - IV	Construction areas must be inspected by an infection preventionist and engineering representative (and others as determined by the facility) for final activity/project close out and removal of infection prevention and control measures. **Work Area Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. **Removal of Critical Barriers:** 1. Critical barriers must remain in place during all work involving drywall removal, creation of dust and activities beyond simple touch-up work. The barrier may NOT be removed until a work area cleaning has been performed. Additional cleaning may be needed after removal of barrier. 2. All (plastic or hard) barrier removal activities must be completed in a manner that prevents dust release. Use the following precautions when removing hard barriers: i. Carefully remove screws and painter tape. ii. If dust will be generated during screw removal, use hand-held HEPA vacuum. iii. Drywall cutting is prohibited during removal process. iv. Clean all stud tracks with HEPA vacuum before removing outer hard barrier. v. Use a plastic barrier to enclose area if dust could be generated. **Negative Air Requirements:** 1. The use of negative air must be designed to remove contaminants from the work area. 2. Negative air devices (fans, filters, monitoring and documentation equipment) must remain operational at all times and in place for a period after completion of dust creating activities to remove contaminants from the work area and before removal of critical barriers. **HVAC systems:** 1. Upon removal of critical barriers, remove isolation of HVAC system in areas where work is being performed. 2. Verify that HVAC systems are clean and operational. 3. Verify and document through a TAB the HVAC systems meets original airflow and air exchange design specifications. **Water systems:** 1. Until the potable water system is activated and in use, flushing shall continue at least twice per week in accordance with VHA Directive 1061.

Infection Prevention and Control Construction/Renovation/Maintenance Permit

This page must be posted at the entrance to the project area for Level III and Level IV activities.

Unique permit number:			
Location of construction/renovation/maintenance			
Project manager		Project start date	
Contact phone number		Completion date	
Contractor		Permit expiration date	

Activity Category (*A, B, C, or D*)		Overall Patient Risk Category (*Low, Medium, High, or Highest*)		Level of Infection Prevention and Control Precautions (*I, II, III, or IV*)	

Level of Precautions	**Control measures to be in place for the duration of the activity** *(Check the box for the activity's Level of Precautions to indicate the Control Measures)*
Level I ☐	1. Perform work activity in a manner that does not create dust. 2. Immediately replace any ceiling tile, close access panels, etc., upon completion of work. 3. Any materials and equipment being brought into the facility must be free of contaminants and loose material.
Level II ☐	**All control measures in Level I and the following:** 1. Provide active means to control airborne dust from dispersing into occupied areas and/or water mist surface to control dust (e.g., Mobile Dust Containment Cart or some other system). 2. Ensure worker clothing is clean and free of visible dust before leaving the work area. 3. Remove or isolate air diffusers (supply and return) to protect the HVAC system from dust and reduce air turbulence. Rebalance system to address diffuser isolation. 4. When the work involves or impacts potable water systems including stagnation due to reduced usage, the piping shall be flushed twice a week or isolated from the main system 5. Seal doors, to prevent dust migration. 6. Contain all trash and debris in the work area. Perform daily cleaning and disposal of trash (covered) from work area using an identified exit route. 7. Any equipment, tools, or materials removed from the work area must be in sealed containers and/or cleaned of dust and debris prior to removal from the area. 8. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 9. Install a sticky (dust collection) mat at entrance of contained work area based on facility policy. Sticky mats must be changed routinely and when visibly soiled. 10. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces at least daily.
Level III ☐	**All control measures in Levels I and II and the following:** 1. Ensure availability of equipment for cleaning hands. 2. Construct and complete critical barriers meeting NFPA 241 requirements. Barriers must extend to the ceiling or if ceiling tile is removed, to the deck above. 3. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to floor and ceiling (or floor/roof deck above) and secure from movement or damage. 4. Seal all penetrations in containment barriers, including floors and ceiling, using approved materials (UL schedule firestop if applicable for barrier type). 5. Maintain .01 inches /water gauge negative pressurization of the entire workspace by use of HEPA exhaust air systems directed outdoors (unless a work specific waiver is approved by VHA's Office of Healthcare Engineering); this must be maintained continuously 24/7 for the duration of the project. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows is not required to be HEPA-filtered. Exhausting discharged air into shared or recirculating HVAC systems, or other shared exhaust systems (e.g., bathroom exhaust) is prohibited. 6. Install a differential pressure sensing device (e.g., magnehelic, manometer, or digital monitoring) on exterior of work containment to continually monitor and document negative pressurization. The "ball in the wall" or similar apparatus are not acceptable.
Level IV ☐	**All control measures in Levels I, II and III and the following:** 1. Barriers must be hard barriers unless temporary to install final barrier. 2. Containment must include an anteroom to ensure pressure control, Anteroom must be large enough for equipment staging, cart cleaning, workers' PPE and cleaning. 3. Worker clothing and/or PPE must be removed or clean and free of visible dust before leaving the work area anteroom. HEPA vacuuming of clothing or use of cover suits is acceptable. 4. Workers must wear shoe covers or have a method to clean shoes in anteroom Shoe covers must be removed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be changed immediately.

Additional requirements:			
Project Manager signature		Date	
Infection Preventionist signature		Date	

#	Request for Information	Response
1	Demolition, Abatement and window demolition is well defined on the plans. Selective demolition is not well defined. This demolition is mainly defined by a hatched symbol on the plans. Can demolition plans be provided for the architectural and MEP work so the work is not over figured in terms of dollars?	Demolition plans are provided in the drawing set
2	Can plans be provided showing the food service equipment?7	Food service equipment plans are to be provided by the VA. Utilities have been designed to accommodate the desired equipment.
3	Specifications were provided on applied fireproofing. Can plans be provided defining the scope of work?	Fireproofing should be installed on new structural members to meet the rating requirement provided on 01-I9.
4	Specialties, Can plans be provided showing ECG-2 (End Cap Guards), RWC-5 (Rigid Wall Coverings) and RWP-1 (Resin Wall Panels)? We have not been able to locate these items on the current set of plans.	ECG-2 is shown on 01-A26, RWC-5 is called out in the Finish Schedule, RWP-1 has location called out in Finish Legend
5	Roof, Can a detail be provided showing the sill height elevation between the floor and the roof. This is needed to select the proper pedestals for the roof pavers and turf units. Our concern is providing the proper transitions to the floor.	The roof deck is believed to be 6" below the finished floor. This will need to be verified in the field once demolition of the roofing system is complete.
6	Windows, The window drawings: 1. Sheet 01-A43 (and others) show 7 ½" curtain wall (CW) details in all cases, which is incorrect. In a revised set, show the correct details for each of the chosen systems. These details reference storefront spec callouts, <084113-B> which is also in correct. In a revised set, shot the correct spec number call outs. 3. The "storefront Curtain Wall Schedule" on 01-A47 has errors & omissions.	All exterior Curtain Wall systems are to be 7-1/2" depth. Specification reference will be updated to 08 44 13. Storefront Curtain Wall Schedule will be updated.
7	Per Specification 01 35 26, Paragraph 1.7.A "Site Safety and Health Officer" (SSHO) and "Competent Person" (CP): "The Prime Contractor shall designate a minimum of one SSHO at each project site that will be identified as the SSHO to administer the Contractor's safety program and government-accepted Accident Prevention Plan. Each subcontractor shall designate a minimum of one CP in compliance with 29 CFR 1926.20 (b)(2) that will be identified as a CP to administer their individual safety programs." Per Specification 01 35 26, paragraph 1.7.C, "These Competent Persons can have collateral duties as the subcontractor's superintendent and/or work crew lead persons as well as fill more than one specialized CP role…" Is it permissible for the same individual to satisfy both roles simultaneously?	The CQC Manager shall be a member of the general contractor's on-site work organization and shall have authority to act in all CQC manners for the general contractor. The Safety & Health Manager shall meet the requirements of 01 35 26. No where in the section does it state the SHSO must be always on site.
8	Per Specification 01 35 26, paragraph 3.4.B, "The CQC system Manager is required to be a graduate engineer, graduate architect, or a graduate of construction management, with a minimum of 5 years construction experience on construction similar to the scope of this Contract."; however, the Experience Matrix that follows states: "or construction professional with 5 years of related experience" for each of the referenced areas. Therefore, is related experience considered an acceptable alternative to the stated credentialing?	Yes
9	Specification 230800, item 1.1.B states that the commissioning agent is appointed by the general contractor. Specification section 019100, item 1.8.C.1 states that the commissioning agent is appointed by the VA. Please clarify who will be hiring the commissioning agent.	The contractor shall hire a 3rd party commissioning agent.
10	Drawing 01-A29: There is an equipment take R7250 that is not listed on the Warehouse Equipment Schedule. Please provide a description of this item. Please provide responsibilities for acquisition and installation.	R7250 is a refrigerator that will be acquired and installed by the VA
11	Details B5, B7, C5, & F7 on drawing 01-A33 indicate wall tile. Finish schedule on 01-A49 does not indicate wall tile. Please clarify what is required.	Details show WP-1, not wall tile. Finish legend will be added to 01-A33 for clarification.
12	Specification 09 05 16 item 2.2 Cementitious self-leveling underlayment - is this required under all flooring types and materials including porcelain tile and epoxy?	Yes
13	Are ceilings that are open to structure to be painted?	Yes
14	Regarding specification section 09 05 16, Section 1.1 calls for moisture remedial floor coatings under all resinous flooring, and section 2.1 calls for it under all flooring. Please confirm if moisture remediation is required only at all areas receiving resinous flooring. For bidding purposes, can a square foot quantity and/or an allowance be provided for moisture remediation? It cannot be determined which floors will require moisture remediation prior to bidding.	Moisture remediation is required only at areas receiving resinus flooring. An allowance can be provided.
15	The areas of 8th floor ceiling demolition shown on drawing 01-A7 do not match the areas to receive new ACT shown on drawing 01A16. Some ceilings are removed on the demo drawing, but new ceilings are not shown for that room. New ceilings are shown in areas where demolition is not noted. Please confirm which drawing is correct.	8th floor ceiling demolition needs to be coordinated with the plumbing worked being performed. All ceilings that are removed are to be replaced in kind. For bidding purposes, refer to sheet with the most extensive work.
16	General note C on 01-A16 states that all ceiling fixtures/equipment are to be replaced in the same location as existing in 8th floor ceilings. Are we to replace fire protection, HVAC or electrical fixtures/equipment/devices located in the ceiling? If so, please provide types, specifications, and locations of new fixtures/equipment/devices, as there are no drawings showing new fire protection, HVAC or electrical work on the 8th floor.	Fixtures only need to be replaced if they are damaged. If undamaged, reinstall the existing fixtures in their existing location.
17	Please provide ceiling type for the 8th floor as none is provided on the finish schedule.	New ceilings on the 8th floor are to match the existing ceiling.

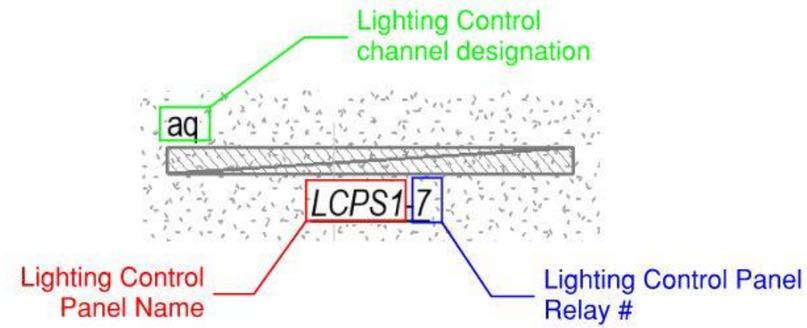
18	Refer to drawing 01-A14: Please confirm unidentified equipment/casework shown in Laundry C9-10 will be furnished and installed by the owner.	Equipment shown are Washers/Dryers provided by the VA
19	Please provide details of the reception desk at Secretary L1-102 shown on drawing 17-A15.	Refer to 01-A40 for detail.
20	Refer to drawing 01-A36: Please provide a specification for the sunshades on exterior windows.	Refer to specification section 10 73 16.
21	In the courtyard under the turf and pedestal, what type of roof system is to be installed?	Install TPO roofing system to match Sunroom roof
22	The door schedule on the drawings and the hardware sets in the spec both dated April 2023. The hardware sets in the specs references door numbers that are not on the door schedule and the door schedule references door numbers that are not found in the hardware sets. Kindly advise.	Specification 08 71 00 has been updated.
23	Please clarify floor material for patient showers, valves are shown on plumbing schedule, however a specification was not provided for a shower pan.	Refer to specification section 06 61 16.
24	Please confirm door sill height entering out to the courtyard, as this determines the size of the pedestals that we need for the pavers and the turf. The door appears to be drawn 6" above the deck which is the thickness of the approximate thickness of the roof.	Roof deck is believed to be 6" below finished floor. This will need to be verified in field once demolition of the roofing system is complete.
25	Specification Section 010000, Item 1.3 references bid items and alternates. Kindly confirm that bid item III - Mechanical Construction - includes all sprinkler, plumbing and HVAC work.	Confirmed
26	The vibration isolation schedule references Notes but none are given. Please provide notes.	See provided notes for table 47 under cover "230521 Noise and Vibration Control - Table 47 Notes". The notes can also be found in 2023 ASHRAE Handbook - HVAC Applications Chapter 49.
27	Do the steam unit heaters get vibration isolation, and if so how?	Steam unit heaters shall receive the same vibration isolation as the listed "Heat Pumps, FanCoils, Computer Room Units".
28	Do the clean steam generators get vibration isolation?	No, the clean steam generators do not require vibration isolation.
29	Exhibit B – Subcontractor Information and Consent Form indicates: “Offerors shall have major subcontractors identify on the Exhibit A (Calculation of Self-Perform Work) two references, owners (if they were the Prime) or other Prime contractors they have worked for. References for subcontractors from the proposing offeror are not acceptable. Should this reference be to Exhibit C Past Performance Relevancy Information Format”?	Subcontractors/teaming partners will complete Exhibit B while Prime contractors will complete Exhibit C. Exhibit C is necessary to identify relevant projects for the Prime Contractor. Exhibit B asks for past performance information from subcontractors to support their capability.
30	Please provide Glazing Type for Window Keynote 2 at room C9-67A indicated on Drawing 01-A12.	Refer to window Type "J" on 01-A47 for glazing types for Keynote 2.
31	Please provide Floor Plan location and information pertaining to the Keynote 1 Window Opening indicated in the West Elevation D5 on Drawing 01.A30.	Keynote 1 should be removed from Elevation D5. Please disregard.
32	Please provide reference for Keynote 1 indicated in Detail F1/01-A43. Refer to Section F4/01-A37 also.	Keynote reference has been added to sheet
33	Please provide reference for Keynote 8 indicated in Detail F1/01-A37 and Keynote 12 indicated in Detail F3/01-A37.	Keynotes for 01-A37 have been updated.
34	Please confirm that Keynote 1 on Drawings 01-A30 and 01-A31 (as it relates to Integral Blinds) is limited to the Six (6) Window locations so tagged.	Keynote 1 only applies to the windows it is placed on. Window types 1B, 1C and 1D.1 are to receive integral blinds as well.
35	The Windows in rooms C9-12 and C9-14 are shown on Drawing 01-A14 with Keynote 1: “Infill Opening to Match Adjacent Construction”, please advise. Further, Keynote 1 on Drawing 01-A31 indicates Keynote 1: “New Polycarbonate Glazing in Existing Window Frame. Windows to have Integral Blinds between Layers of Glazing” at the same 2 locations, please advise.	Keynotes have been updated.
36	Please provide New Exterior Window Type and Details for the opening indicated at the North Elevation of the Warehouse along Column 1, between U and V (D5/17-A32).	01-A47 has been updated to include Type "L"
37	Please confirm that there are no glazed vision openings currently scheduled within Hollow Metal or Wood Door Leaves. Please confirm that the following Aluminum Doors that are scheduled on Drawing 01-A46 are to receive Hollow Metal Frames: C9-01, C9-28, C9-30, C9-52, C9-54, C9-72, C9-C01, C9-C03, C9-C04, C9-C06, C9-C08, and C9-C09.	Refer to Door schedule

38	Frame Type 2 is indicated on the Storefront/Curtain Wall Frame Schedule on Drawing 01-A47 as: “Match Manufacturer, Product Line, and Finish of Project No. 693-13-111 – Replace Exterior Windows.” Please provide required data including Specifications.	The VA is not providing specifications from another project.
39	For the Window Openings tagged as Keynote 1 on Drawings 01-A30 and 01-A31, please provide further glazing data, including thicknesses.	Refer to window Type "J" on 01-A47 for glazing types for Keynote 1.
40	Please provide Hardware Set Types for the following Aluminum Doors: C9-00, C9-72, C9-C01, C9-C03, C9-C04, C9-C06, C9-C08, and C9C09.	Specification 08 71 00 has been updated.
41	Please confirm which Door Openings are to receive Automatic Door Operators.	Refer to Door Hardware specification
42	The Panelized Security Screen assembly detailed on Drawing 01-S13 does not appear in Details B5/01-A36 and D5/01-A36, or on Drawing 01-A20 or 01-A22. Is this work perhaps part of an Alternate Price? Please advise.	Work is part of the base bid.
43	Please provide material specification for the Landing and Tread surfaces of the New Steel Stair at the Warehouse. Reference: 17-A15, 01-A32, 01-A37, 01-A39, and Specification 05 51 00.	Treads and landing to be grated per specifications
44	Specific Toilet, Bath, and Laundry Accessories do not appear to be scheduled, indicated, or tagged in the Specifications or on the Drawings. Please advise.	01-A38 and 01-A39 have been updated to include Toilet Accessories
45	Please refer to F7 – Typical Wall Protection Elevation on Drawing 01-A49. Please confirm that the Wall Protection Rail shown “1’-4” Typ” above finish floor is not applicable to this project.	Confirmed
46	Please refer to Specification Section 08 33 13 Coiling Counter Doors, item 2.5 Finishes. Please confirm that the applicable finish is “MTL PNT” as scheduled on Drawing 01-A46 for Opening C9-16B.	Confirmed
47	Please confirm the intent of Elevation C1 on Drawing 01-A35 as it relates to Plan F1 on Drawing 01-A12 at the area adjacent to Door Opening C9-67.	C1/01-A35 is not called out on 01-A12. All elevations on 01-A35 are intended to clarify wall finishes within the corridors.
48	Please confirm the intent of Elevation D1 on Drawing 01-A35 as it relates to Plan F1 on Drawing 01-A12 at the area between Door Openings C9-66 and C9-68.	D1/01-A35 is not called out on 01-A12. All elevations on 01-A35 are intended to clarify wall finishes within the corridors.
49	Please refer to Drawing 01-A35. Is there a Finish Elevation for Lobby C9-26 – North? Is there Wall Protection (RWC) North of Column Line 12, between -H and +J?	C9-26 North is covered by Storefront Type S2, refer to 01-A47
50	Are Rigid Wall Covering (RWC) and Corner Guards (CG) required at Column 12.E? Reference Drawings 01-A12 and 01-A25.	Updated Finish Schedule provided to show all rooms.
51	Are Rigid Wall Covering (RWC) and Corner Guards (CG) required at Columns 12.H and 12.J? Reference Drawings 01-A13 and 01-A26	Refer to Finish Schedule and Legend
52	The Finish Schedule on Drawing 01-A49 does not include the following Rooms: C9-C03, C9-C04,C9-C05, C9-C06, C9-C07, C9-C08, and C9C09. Please advise.	Updated Finish Schedule provided to show all rooms.
53	The Finish Plans: 01-A25, 01-A26, and 01-A27 do not seem to depict the full scope of Corner Guards (CG) depicted on other Contract Documents. Please advise.	Refer to Finish Schedule and Legend for locations of Corner Guards
54	The Finish Schedule on Drawing 01-A49 indicates Room C9-16 to receive CG-2 as Wall Protection. Is this extent to include all 9 outside corners of this room?	Refer to Finish Legend
55	Are we correct when we think that Type 4 Glazing is where they would like psychiatric human-impact rated windows at the interior?	Refer to glazing type
56	Are there human impact requirements in the Sunroom area? (Window Types A and B) a. Is there a requirement for human-impact windows on the interior of all glazing? b. If so, are the operable units for cleaning/custodial use only?	a. Refer to glazing types. b. Yes, operable panes are for cleaning/servicing only.
57	Specification Section 11 41 00 – Food Storage Equipment, seems to be applicable to the unit indicated in Elevation F2/01-A34 for Room C9-22, Serving Kitchen (Plan 01-A13 and F4/01-A34). Please advise.	The refrigerator will be aquired and installed by the VA
58	Please provide direction for the responsibility for providing the following Food Storage Equipment / Appliances: 1. Unit at Room C9-35, Nurse’s Lounge – Plan 01-A13, Elevation D2/01-A34. Unit at Room L1-111, Conference – Plan 17-A15, Elevation D5/01-A34. 3. Unit(s) at Room C9-65, Med – Plan 01-A12, Elevation E7/01-A33.	All food service equipment will be acquired and installed by the VA
59	Please confirm that Specification Section 05 50 00, item 2.7 Guards on page 10 is NOT USED.	Confirmed

60	Please confirm that the top of existing structural slab elevation (“Topping Slab”, Keynote 6) at the existing roof area between Column 11 and 14, T to V, shown on Drawing 01-45 is 91’-9 ¾” as shown in Detail A-A on Drawing 01-S4.	Elevation provided is from existing drawings. Actual elevation to be verified in field by contractor.
61	Based on the elevation(s) pertaining to question 17 above, and the existing elevation West of Column T, how are the proposed Finish Floor Elevations achieved for the new East Sunroom, C9-01 (WSF-1 Finished Floor) and Courtyard, C9-00 (PVR-1 and TRF-1 Finished Floor)?	Refer to details on 01-A43.
62	Detail F5/01-A36 seems to indicate 2 Window Openings (Between Columns 11 & 12, Columns 13 & 14) however Drawings 01-A14 and 01-A27 do not. Please advise.	Keynote added to 01-A36 to clarify.
63	Detail F5/01-A36 (other than for the Window Openings referenced above) shows Brick Infill at the two (2) Windows shown to be removed on Drawings 01-A5 and D5/01-A8. Detail does not seem to indicate toothing. Please confirm.	Toothing to install only full bricks is the design intent
64	The Finish Schedule on Drawing 01-A49 indicates PNT-C1/PNT-C2/PNT-C3 for the Ceiling Finish at Room C9-21, C9-28, and C9-52. Please confirm.	Confirmed, refer to Finish Legend for finish locations
65	The Finish Schedule on Drawing 01-A49 indicates PNT-C1 for the Ceiling Finish at Room C9-35A however the Reflected Ceiling Plan on Drawing 01-A19 indicates an ACT Ceiling Finish. Please advise.	Updated Finish Schedule provided.
66	The Finish Schedule on Drawing 01-A49 indicates PNT-C1 for the Ceiling Finish at Room C9-64 however the Reflected Ceiling Plan on Drawing 01-A18 indicates an ACT Ceiling Finish as well as a Drywall Ceiling Finish. Please advise.	Updated Finish Schedule provided.
67	The Finish Schedule on Drawing 01-A49 indicates PNT-C1 for the Ceiling Finish at Room C9-61 and C9-65 however the Reflected Ceiling Plan on Drawing 01-A18 indicates an ACT Ceiling Finish. Please advise.	Updated Finish Schedule provided.
68	Please confirm that there are no Finishes required for the Existing Stair Areas: ST-1, ST-2, ST-3, and ST-5.	Confirmed
69	Please confirm that there are no Finishes required for Rooms: SHAFT S1 and SOILED LINEN CHUTE S2.	Confirmed
70	The Finish Schedule on Drawing 01-A49 indicates ACT-1 for the Ceiling Finish at Room L1-100F however the Reflected Ceiling Plan on Drawing 17-A21 indicates a Drywall Ceiling Finish. Please advise.	Confirmed
71	The Finish Schedule on Drawing 01-A49 indicates EXIST for the Ceiling Finish at Room L1-101 however the Reflected Ceiling Plan on Drawing 17-A21 indicates an ACT Ceiling Finish. Please advise.	Updated Finish Schedule provided
72	We have been advised by the Certified Installer of the Pedestal Artificial Turf Tray System (Specification Section 07 76 11 - PVR-1 and TRF-1 – Reference Drawings 01-A27 and 01-A49) that the current layout shown on Drawing 01-A27 is highly impractical from a cost, schedule, and quality standpoint due to the radius involved. It is recommended that the layout consider a Square or Rectangular configuration, preferably with a 2’ modular dimension considered. Please advise.	Layout has been updated to improve constructability
73	The Finish Legend on Drawing 01-A49 does not indicate the Ceiling Grid Type for Ceiling Finish ACT-SP. Please advise.	Use same grid as ACT-1
74	Please provide locations for Fire Extinguisher Cabinets. In addition, please confirm that Fire Extinguishers shall be provided (Furnished and Installed) by the VA.	FECs are shown on 01-A10 and have been added to 17-A11
75	Will relevant areas on the 8th Floor be accessible during regular construction hours to perform sanitary tie-ins?	No, all of this work shall be after hours or weekend.
76	Please provide design standoff distance of vehicle-borne blast threat, charge weight W2, for confirmation of compliance with testing requirements on operable windows. The upper limit, GP2, appears excessive for this location.	PSRDM requirements for blast do not apply to this project due to the location on the 9th floor
77	The following Door Openings are identified on the Door Schedule on Drawing 01-A46 but arenot identified within the Sets Scheduled in Specification Section 08 71 13: C9-00, C9-04A, C9-06A,C9-08A, C9-14A, C9-16B, C9-20A, C9-22, C9-24A, C9-25A, C9-25B, C9-35B, C941A,C9-44A, C9-47A, C9-66A, C9-68A, C9-69, C9-71, C9-72, C9-C01, C9-C02, C9-C03, C9-C04,C9-C05, C9-C06, C9-C07, C9-C08, C9-C09.	Specification 08 71 00 has been updated.
78	Please advise whether existing Door Openings (Doors and Frames) that are not Scheduled on Drawing 01-A46 are to be painted.	Existing to remain doors and frames should be kept in original condition throughout the project.
79	Lockers are not Specified but are shown on Drawings 01-A13, 01-A34, and 01-A39 for RoomC9-35A at the 9th Floor and shown on Drawings 17-A15 and 01-A34 for Room L1-104 at theWarehouse. Additionally, Room L1-100F at the Warehouse indicates lockers on Drawing 17-A15,however Elevations and or Details are not referenced to indicate Type. Please advise.	Lockers are to be provided by the VA
80	Are Locker Bases / Grounds /platform required, if so, who is responsibility? Please advise.	Lockers are to be provided by the VA, requirements for locker base will be determined by the product selected.

81	Locker Benches are not indicated at the Locker Room Areas. Please confirm.	Confirmed
82	Closet L1-102A shown on Drawing 17-A15 at the Warehouse, seems to indicate Shelving. Please advise.	There is no shelving shown in L1-102A
83	“RWP-1”, Resin Wall Panel is scheduled in the Finish Legend on Drawing 01-A49 and is notedas “For Cladding of Nurse’s Station Desks”. Please clarify as this relates to Detail F1/01-A40 andKeynote 123200-A.	RWP-1 is to be applied to the face of the Plastic Laminate identified by 123200-A
84	Please identify the Item / Equipment / Appliance, as well as responsibility for providing, for that shown in Room C9-40, Med, on Drawing 01-A12.	Equipment shown is medication cabinet acquired and installed by the VA
85	Please identify the Item / Equipment / Appliance, as well as responsibility for providing, for that shown in Room C9-35, Nurse’s Lounge, on Drawing D2/01-34.	Refrigerator and Dishwasher shown are to be acquired and installed by the VA
86	Please identify the Item / Equipment / Appliance, as well as responsibility for providing, for that shown in Room C9-10, Laundry, on Drawing 01-A14.	Equipment shown are Washers/Dryers provided by the VA
87	Please confirm that all Furniture and Equipment is provided by the Government (Furnished and Installed), including that identified on Drawing 01-A29, 01-A50, 01-A51, 01-A52, and 01-A53.	All equipment not identified as Furnished by Contractor is to be Furnished by Government
88	There seems to be a Countertop along the West Wall of Room C9-16, Dining/Activities (refDrawing 01-A13, F4/01/A-39, and F1/01A53), however an Elevation or Detail does not appear to be referenced.	Detail has been added to 01-A40
89	There appears to be a Counter Surface at the Coiling Counter Door – Opening C9-16B, reference F4/01-A34. Please advise.	Detail has been added to 01-A40
90	The Patient Bathroom Rendering on Drawing 01-A52, as well as the Interior Elevations B5, B7, C5, and F7 on Drawing 01-A33, indicate a Handrail Assembly that appears different than that Scheduled, Specified, and shown for Corridor locations (reference Drawing 01-A35 and Rendering Drawings 01-A50 and 01-A51). In addition, the Patient Bathroom Rendering (Drawing 01-A52) does not seem to indicate End Caps / End Closure Caps. Please advise.	There are no handrails shown in bathrooms. It is believed that the grab bars are what are being referenced in this statement. Grab bar locations and sizes are diagramed on 01-I4.
91	Is the existing structural slab (reference Detail A-A on Drawing 01-S4) at the existing roof area between Column 11 and 14, T to V, shown on Drawing 01-A5 sloped to achieve current drainage to roof drains, or is the existing roof system to be removed sloped / tapered? Please advise.	Existing slab is assumed to be flat. Roofing system to be removed is assumed to be sloped. Contractor to verify in field
92	Please indicate and detail the new roof and deck drain locations at the new roof and deck areas of the East area of the 9th Floor new Roof and Courtyard areas (Drawings 01-A14 and 01-A22).	Drawings will be updated to show drain locations on new roof. Drains under Courtyard are to be in existing drawin lcoations.
93	Please advise if we are to remove all finishes (plaster, drywall, paneling, etc.) on the interior surfaces of the perimeter exterior walls of the 9th floor, except at Stair ST-1, Stair ST-2, Stair ST-3, Mechanical C9-55, Elevator E-5 & E-6, Electrical C9-06A, Mechanical C9-06, and at existing wall surfaces shown to remain. In addition, please advise if new furred partitions (reference Drawing 01-A37) are to be provided at same.	Interior finishes need to be removed to the extent necessary to remove all Asbestos Containing Material throughout the project area of work.
94	Please confirm that the VA will remove all contents (furniture, equipment, appliances, boxes, and stored items, etc.) from the Warehouse space prior to Contractor’s mobilization for construction.	Confirmed, the VA shall have everything removed that’s not bolted down.
95	Please provide information pertaining to the existing finish and or application(s) to the concrete floor at the Warehouse.	Information not available. Contractor will need to investigate
96	Please confirm that Transite Panel Removal is required at Dining/Activities Room, Room C9-16. Please refer to Drawings 01-H2 and 01M7.	If transite panel is present within area in question, it will need to be removed.
97	The ACM Legend on Drawings 01-H1, 01-H2, and 01-H3 indicates “Pipe Insulation (Assumed to be Present / Extends into Decking).” and “Pipe Insulation and Fittings – 8” Chrysotile.”. Do the areas noted correspond to the Room Numbers identified in Specification Section 02 82 11 – Traditional Asbestos Abatement? Please advise.	The rooms are believed to correspond. Contractor to verify the extent of the pipe insulation in question.
98	Please confirm that all Countertops are to be Plastic Laminate except for that noted as “SS-1” and “SS-2” (Solid Surface) on the Finish Legend, Drawing 01-A49. Refer to Specification Sections 12 32 00 and 12 36 00, as well as Drawing 01-A40.	Confirmed
99	Please confirm extent of “Nurse Stations and Work Areas” and “Dining Room” to be Rooms: C9-27 Nurse’s Station, C9-27A Nurse’s Workroom, C9-64 Nurse’s Station, and C9-16 Dining/Activities to require Solid Surface.	Confirmed
100	Please also confirm Countertop material for Rooms: C9-22 Serving Kitchen, C9-25 Ante Room, C9-35 Nurse’s Lounge, C9-38 Exam/Intake, C9-40 Med, C9-65 Med, L1-102 Secretary, L1-104 Copy/Lockers, and L1-111 Conference.	PLM-1
101	Please confirm that the Specification for the Security Glazing at the Nurse’s Stations C9-27 and C9-64 identified by Keynote 088000-B on Drawing F1/01-A40, is that in Section 2.5 of Specification Section 08 80 00.	Confirmed
102	Chalkboards, Tackboards, & Markerboards are referenced but are not specified or shown. Refer to General Note S on Drawing 01-I4. Please advise.	Not all items listed apply to this project.

103	Room Signage is referenced but is not specified or shown. Refer to General Note BB on Drawing 01-I4. Please advise.	Not all General Notes apply to this project
104	Please provide an Interior Finish Elevation for Lobby C9-26 – North. Refer to Elevation B4 on Drawing 01-A35, Finish Elevation – Lobby C9-26 – South.	C9-26 North is covered by Storefront Type S2, refer to 01-A47
105	Please refer to Elevation F5 on Drawing 01-A33. Does any portion of the wall surface receive RWC-2 as a continuation of Elevation C4 on Drawing 01-A35?	East wall of Nurse Station to receive RWC-2 per Finish Schedule
106	Please confirm the Wall Protection designation of “CG-1, RWC-1” for Room C9-C02 shown on the Finish Schedule, Drawing 01-A49.	Refer to finish legend for typical installation instructions
107	“Fire Extinguisher Cabinet (FEC)” locations are indicated on Drawing 01-I11 for the 9th Floor however, locations are not shown on Drawing 17-I11 for the Warehouse. Please advise.	17-I11 has been updated to show FECs
108	Please provide clarification regarding the use of elevators. Refer to Specification Section 01 00 00, item 1.19.	Service Elevator #5
109	Please provide clarification regarding the use of existing toilet facilities. Refer to Specification item 01 00 00, Section 1.21.	There is no specific restroom to use at this time
110	Please provide clarification regarding the use of existing utilities. Please provide cost information, regarding Contractor’s responsibility, if any, for the consumption of any utilities, including electricity. Refer to Specification Section 01 00 00, item 1.22.	There is no cost for using utilities
111	Please confirm that the current Contract Documents do not indicate Government-furnished property to be installed by the Contractor. Refer to Specification Section 01 00 00, item 1.26.	There is no government property to install
112	Please refer to Drawing 17-A6, Keynote 4. Is there a Structural modification and Lintel required for this new Opening? Please advise.	Wall construction will need to be identified by contractor.
113	Please refer to Details B6, D3, and D6 on Drawing 01-A43. Is Waterproofing required at the area of the Courtyard, Room C9-00? Please advise.	Details have been revised
114	Please confirm the new floor substrate construction at the East Sunroom, Room C9-01 (ie. Concrete Fill, Metal Framing, Plywood (Keynote 06100-B), etc. Refer to Details F3 and F6 on Drawing 01-A43. The existing structural slab appears to be at elevation 91’-9 ¾” (appx) once the existing roofing system and associated material is removed.	Detail on 01-A43 have been revised
115	The Wall Types detailed on Drawing 01-A45 indicate Abuse Resistant Gypsum Wall Board at all “Patient Rooms”. Please confirm the extent to be the following: Women’s (C9-41, C9-43, C9-44), Women’s Bariatric (C9-49), Men’s (C9-04, C9-12, C9-14, C9-18, C9-20, C9-24), Men’s Bariatric (C9-08, C9-15), Bariatric Geriatric (C9-67, C9-68), Geriatric (C9-66). In addition, does the extent include the following additional rooms: Day/TV (C9-72), Group Therapy (C9-17, C9-71), Seclusion Room (C9-25B), Dining/Activities (C9-16), Interview (C9-29), Exam/Intake (C9-38), Group Counseling (C9-03), Quiet Room (C9-11). Also, are there other Rooms requiring same, such as the Toilets associated with the Patient Rooms and Sallyports? Please confirm extent.	Patient Rooms to include ALL Patient bedrooms and toilet rooms. Other rooms that should receive Abuse Resistant Gyp include: All Sally Ports, Ante Room (C9-25), Toilet (C9-25A), Seclusion Room (C9-25B), and Quiet Room (C9-11).
116	Please clarify if the door hardware standards and guidelines must comply with ASSA ABLOY Virtual Design Guide Studio Software.	Hardware does not need to comply with studio software.
117	Based on the 4-18-23 drawings the numbering on the door schedule in the drawings, in the specifications and the doors shown on the floor plans do not match in some cases. Can the proper information be provided to avoid confusion.	Specification 08 71 00 has been updated.
118	Some doors appear to consist of aluminum door leafs and hollow metal frames. Is this correct or should a different door leaf be specified.	All doors in HM frames should be wood panels.
119	On the lighting schedule (drawing 01-E19), fixtures B-11, B-12, B-21 and B-22 are not listed types on the schedule but are referenced in the drawings. Fixtures N-11, N-12, N-21 and N-22 are listed on the schedule but not on the drawings. Would you please clarify if this was a typo and the labeled B fixtures are supposed to be N.	Yes, B fixtures are supposed to be N fixtures

#	Request for Information	Response
120	Can the product specification for the breakers required in switchboard A&B (make & type) feeding panels WHP-2, IT-17-1 and IT-17-2 as shown on drawing 01-E39 be provided.	Please refer to specifications package for electrical specification requirements related to breaker requirements. Refer to drawings for breaker amperage sizes. Current breakers on SWBD AB are Westinghouse make.
121	The following light fixture types are not on the project schedule: B11, B12, B21 & B22.	Change the light fixture types in the Light Fixture Schedule as follows: Change N11 to B11; N12 to B12; N21 to B21; and N22 to B22.
122	REF DWG. 01-E20: There are none of the following lighting control power pack symbols on any drawing. Please locate for takeoff LCD-E | a LCD | a LC | a	All the lighting control devices (relays) are located in lighting control panels. (Reference example below) 
123	REF DWG 01-E35: Note 1 on drawing 01-E35 shows a feeder from existing ATS, in BOLD, with a note: "FOR CONT. SEE DWG 01-E22" Apparently this is not the correct reference. 1- Please indicate the correct drawing reference. (Is the correct reference 01-E36?) Plan reference for each of the indicated ATS's would be helpful as well. 2- Is there an actual new feeder from ATS 1 to the existing 400amp bus duct NODE 220 end tap box? Feeder Size? Relocation of ATS, where? 3- Same questions for ATS 3 & ATS 7 4- Is transformer T7 (DWG Ref 01-E36) new or existing? Size? Location? 5- Are there 3 breakers in the MDP (450A, 400A & 600A) existing or new.	There is no intent to change any of the ATSs. The drawings are for reference only in regard to the ATSs. The For Cont can be ignored as it was part of an existing VA set of drawings and showed normal feed to ATSs. Since there will be no work required this can be ignored.
124	REF DWG 01-E37: 1- Existing panels EECR9A & EELS9 are shown in BOLD being fed from 2 separate existing bus ducts from apparently new bus duct tap switches along with new feeders, is this correct? 1- Is the transformer fed from EECR9A relocated? Re-fed? 2- Is panel EECR9B relocated? Re-fed? 3- Please indicate bus duct manufacturer, model # and year of installation. 4- DWG 01-E36: Are the bus end tap boxes for NODEs 80 & 100 existing to be re-used and are the bus tap switches feeding panels SPP9, SPP9B, SLP (& ELP9 existing or new) 5- DWG 01-E35: Are the bus tap switches feeding panels SELS9, EECR9A, EELS9 & SECR9A existing or new?	The bus duct, bus duct tap switches, and panels EECR9A and EELS9 are all existing equipment. the transformer fed from EECR9A is NOT relocated. Panel EECR9B is NOT relocated. The electrical design for lighting and power utilizes the existing panels for distribution. There is no work associated with existing panels except as provided by specific key notes. An additional panel will be required on the 9th floor in the west electrical room to accommodate new circuit needs. Two new panels are required for the IT room. An additional panel will also be required in the warehouse to accommodate new circuit needs. Two new panels will be needed in the new IT room in the warehouse. The Warehouse electrical design will involve relocation of an existing branch circuit panelboard and new distribution to the receptacles and HVAC units in the remodeled area.
125	REF DWG 01-E37: There are 2 panel SLP9s shown, one on DWG 01-E37 & one on DWG 01-E36. Is this an error? Please advise.	One sheet is the SLD & one is the Riser Diagram. This is not an error. Use either drawing to locate relevant panels to their floors. The drawings are reference drawings that were provided by the VA. For this panel the contractor can use the panel schedule shown as an existing panel to be reused.

#	Request for Information	Response
126	Exhibit C – Past Performance Relevancy Information Format, page 4, part 2, item A indicates, “As a minimum, provide the name(s) of subcontractors to be utilized in the following areas:” Please provide a listing of Trades.	As a minimum, provide the name(s) of subcontractors to be utilized in the following areas: general contracting, electrical, and mechanical.
127	Solicitation page 14 of 63, Volume I – Past Performance, Submission Requirements indicates, “The document should be written to show the teams’ construction experience with respect to the major functional categories listed. See Exhibit C – Past Performance Relevancy Information.” Please provide a listing of major functional categories.	The major functional categories include general contracting, electrical, and mechanical. The North American Industry Classification System (NAICS) Code is 236220 - Commercial and Institutional Building Construction.
128	Does the 25 page limit indicated on Solicitation page 13 of 63 apply to the entire Volume I (Technical Capability and Past Performance)?	The 25 page limit applies to Technical Capability
129	Please clarify the numerical reference to Proposal Submission Volumes: I or 1, II or 2.	The numerical references to proposal submission is Volumes 1 and 2.
130	Please confirm which Volume the following information should be placed: Safety or Environmental Violations and Experience Modification Rate (page 9 of 63). 2.1 52.209-7 Information Regarding Responsibility Matters (page 15 of 63). 2.2 52.209-13 Violation of Arms Control Treaties or Agreements – Certification (page 17 of 63). 3.1 52.204-8 Annual Representations and Certifications (page 24 of 63). Please confirm which Volume the following information should be placed: Safety or Environmental Violations, 2.1, 2.2, 3.1	The outlined information should be included with the price proposal.
131	We were unable to access the 8th Floor space during the previous Prebid Meeting and Site Visit. Can arrangements be made to schedule a second site visit and walk-through? Please advise.	With the current response deadline, the VA is not planning to schedule a second site visit.
132	Please confirm that the phasing will remain as shown on plan 01-18 Phasing Plan.	As of right now, there are no plans on changing the phasing of the project.
133	What elevators can the Contractor use?	During Phases 2 and 2A, the Contractor shall use the service elevators. During Phase 3, the Contractor shall use the service elevator to a floor later designated by the VA.
134	Please confirm the courtyard and the service elevators on the 9th floor may be utilized for the duration of the project.	The service elevators shall be shared use with the medical center. There shall be 3 locations that a crane can temporarily set up do lifts, depending on accessibility of those locations (see drawings for location).
135	May the two lower roofs on the south side of the building be utilized for equipment, material and tool access to the 9th floor for the duration of the project?	No
136	Will there be staging, laydown, and temporary facilities areas available on site?	There is a map of location for dumpster and storage trailers.
137	May the two lower roofs on the south side of the building be utilized for equipment, material and tool access to the 9th floor for the duration of the project?	No
138	Specification Section 09.05.16, Moisture Remediation System, how would the Contractor know to include unless there has been a moisture test taken for the Warehouse? I assume the 9th Floor should not need it given it’s not on grade. Please advise if the Contractor should include for the Warehouse.	It is the Contractor responsibility for testing after the project is awarded and shall follow the Spec section 09-05-16.
139	There was limited access to the 9th floor for the site visit. Are there valves in place at the branches coming off of the risers to isolate the 9th floor from the other floors?	No, the VA would need to have a shutdown.
140	Also are the branches at the risers sufficient in size or must new branch connections be installed?	All contractors will need to install per drawings.

PRICING SHEET FOR TOTAL PROJECT

9th Floor Mental Health Unit
Project 693-19-106

CLIN	BID ITEMS		PRICE (in even dollars)
CLIN 001	**GENERAL CONSTRUCTION** Work includes general construction on the 9th Floor and in the existing Warehouse including necessary removal of existing structures.		
CLIN 002	**ELECTRICAL WORK** Work includes all labor, material, equipment, and supervision to perform the required electrical construction work on this project.		
CLIN 003	**MECHANICAL WORK** Work includes all labor, materials, equipment, and supervision to perform the required Mechanical construction work on this project.		
		TOTAL PRICE:	
ALT NO. 1 DEDUCT	Delete the construction of the Sunroom (C9-01). Space will remain as an open roofed area.	**ALTERNATE NO. 1 PRICE:**	
		TOTAL PRICE AFTER ALTERNATE NO. 1:	
ALT NO. 2 DEDUCT	Delete installation of replacement windows in Patient Rooms and Treatment areas.	**ALTERNATE NO. 2 PRICE:**	
		TOTAL PRICE AFTER ALTERNATE NO. 2:	
		TOTAL PRICE AFTER REDUCTIONS 1 AND 2:	

This pricing sheet must be completed and submitted for Volume 2 – Price Proposal.
Bid items are described in Section 01 00 00 General Requirements.