

**COALFIELDS DEVELOPMENT CORPORATION
CABELL COUNTY, WEST VIRGINIA
JUST TRANSITION CENTER
ADDENDUM # 2
February 10, 2026
THRASHER PROJECT # T60-11108**

TO WHOM IT MAY CONCERN:

A Pre-Bid Conference was held on Tuesday, February 3, 2026, on the above-referenced project, a copy of the sign in sheet is included in this Addendum. The following are clarifications and responses to questions posed by contractors for the above-referenced project.

A. GENERAL

- THE BID OPENING HAS BEEN EXTENDED UNTIL TUESDAY, MARCH 3, 2026, AT COALFIELD DEVELOPMENT CORPORATION LOCATED AT 2923 PARK AVENUE, HUNTINGTON, WV 25704.**
- Davis Bacon Wage Rates **DO** apply to this project and are included as part of the Project Manual. At time of award, contractor will be required to certify the use of Davis Bacon Wage Rates.

B. SPECIFICATIONS

Index has been updated.
Added Section 074293 – Soffit Panels
Added Section 087100 – Door Hardware

C. DRAWINGS

C1.01, C2.01. and C2.02
A6.03
M3.05, M3.06, M3.07, M3.08, M3.09, M5.01, M5.02

D. QUESTIONS AND RESPONSES

1. QUESTION

M3.05 Note 2 and Elevator Hoist Beam and HSS Column/Support penetrate the 2hr rated wall A5.02 at the entire rated shaft from Lower Level to Roof. Provide Fire Rated penetration details for each floor level.

RESPONSE

Added note to reference refrigerant pipe penetration detail on drawings M3.06, M3.07, M3.08, and M3.09. Also added refrigerant pipe penetration detail on drawing M5.02.

2. QUESTION

Does the Note “Sister all roof joist w/2x10 SPF NO.1/NO.2” pointing to the area below the “Heat Pumps” imply all roof joists or just the roof joist below the heat pumps in the hatched area.

RESPONSE

Only the joists in the area below the heat pumps and the new RTU require that the roof joists be sistered.

3. QUESTION

Sister Beam from nearest column to nearest column below the RTU in each span. There is only one sistered reinforced timber. Is this correct?

RESPONSE

No, there should be a total of 6 beams. Column line C from columns lines 2 to 4, Column line C from column lines 5 to 7 and column line D from column lines 5 to 7.

4. QUESTION

Details 4, 5, 6, and 9/A6.03 show an angle “lintel”. This lintel is noted “shown on structural drawings.” This needs to be shown, specific details such as fastening, steel finish, details for dissimilar metals, and a purpose for this detail. It certainly does not appear structural.

RESPONSE

Details 4, 5, 6 and 9/A6.03 revised in this addendum.

5. QUESTION

HSS4x4x5/16 appears supported on the Lower Level slab on grade. Is this correct?

RESPONSE

Yes, that is correct.

6. QUESTION

Note 4 under the Heading Shoring and Column Repairs indicates repairs to other column concrete foundations once the initial 3 columns are repaired. We do not see the repairs described. Please verify the repairs.

RESPONSE

The same details as the 3 that are called out for immediate repairs.

7. QUESTION

Has the HSS4x4x5/16 been designed for Elevator reactions? Please provide reactions and base plate, base plate elevation, and anchor bolts for this condition. Note the Elevator will need to penetrate the Refrigerant Piping Vault Note #2 Sheet M3.05.

RESPONSE

The maximum reaction is 5000 lbs. Use a base plate 12x3/4x12 with 4-3/4" dia epoxy bolts. Bottom of base plate elevation is at basement floor slab. The refrigerant pipes enter the side wall of the chase above the roof. The refrigerant piping vault has been removed and refrigerant pipe penetration detail has been added.

8. QUESTION

On the cover sheet, Drawings C1.01, C2.01, and C2.02 are shown. These drawings are missing from our set. Please provide.

RESPONSE

Sheets added in this addendum.

9. QUESTION

On the cover sheet, S-200 is not shown, but it is included in our set. Please add to the cover sheet.

RESPONSE

Will be added to the cover sheet.

10. QUESTION

On the cover sheet, E-206 is shown, but it is not included in our set. Please provide this drawing.

RESPONSE

E2.06 will be removed from the cover.

11. QUESTION

On Sheet S002 and S003 call out for a Geotechnical Report. There isn't a Geotechnical Report in the Specification Manual. Please provide the Geotechnical Report or address this concern.

RESPONSE

There is no geotechnical report and reference to one shall be ignored. Use an allowable soil bearing value of 2000 psf.

12. QUESTION

On Sheet S002 and S003 both CAS and Arrow are called out as Structural Engineer. We believe CAS is the correct EOR. Please review all drawings and specifications to correct our understanding.

RESPONSE

CAS Structural Engineering is the Structural EOR on this project.

13. QUESTION

Note the rated chase between column 5 and the Elevator shaft will require several penetrations to its 2-hour rating. Please provide rating details with materials necessary to achieve this design. This would include structural steel, refrigerant piping and a horizontal duct with fire dampers.

RESPONSE

Fire damper and refrigerant pipe penetration details have been added to drawings M5.01 and M5.02.

14. QUESTION

Should this be quoted as floor-mounted, overhead-braced or floor-to-ceiling pilasters. The specification notes floor-to-ceiling pilasters, while the elevations appear to show floor-mounted, overhead-braced. Could you please clarify which condition we should follow?



**FLOOR ANCHORED/
OVERHEAD BRACED**



**FLOOR TO CEILING
ANCHORED**

RESPONSE

Floor-to-ceiling pilaster.

15. QUESTION

Sheets C1.01, C2.01 and C2.02 are missing from the Plan Sheets.

RESPONSE

Sheets added in this addendum.

16. QUESTION

Referring to PART 3 – EXECUTION 3.1 PREPARATION

The Plans & Specifications does not mention to install any underlayment's on the roughcut subfloor where LVT is scheduled to be installed.

Should a laminate be installed, if so, could species, thickness, etc. be specified?

(See below)

A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.

B. Concrete Substrates: Prepare according to ASTM F 710.

1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.

2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.

3. Alkalinity and Adhesion Testing: Perform tests recommended by floor tile manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 pH.
4. Moisture Testing: Perform tests so that each test area does not exceed 200 sq. ft., and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.
 - a. Anhydrous Calcium Chloride Test: ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Relative Humidity Test: Using in-situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.
- C. Access Flooring Panels: Remove protective film of oil or other coating using method recommended by access flooring manufacturer.
- D. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- E. Do not install floor tiles until materials are the same temperature as space where they are to be installed.
 1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.
- F. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

RESPONSE

Provide ¼ inch plywood over existing wood subfloor and prepare to receive new LVT flooring. Replace damaged subfloor as required with ¾" exterior-grade plywood, properly fastened.

17. QUESTION

Referring to Sheet FP3.0; Indicates the main fire suppression system being installed in the basement/crawlspace. There appears to be no HVAC design for the basement/crawlspace. Is this a concern?

RESPONSE

No, the basement piping is to be heat traced.

18. QUESTION

Additional site visits will be required to analyze the structural integrity and structural scope of work.
Could additional site visits be conducted and a contact name and number be provided for the additional site visits?

RESPONSE

Contact Brian Chenoweth 304-400-6988

19. QUESTION

Could an Asbestos Report be provided?

RESPONSE

Yes, the Asbestos Report is included with this Addendum

20. QUESTION

Has the Plans been submitted to the West Virginia State Fire Marshall's Office and could the Plan Review Letter be provided?

RESPONSE

Yes, West Virginia State Fire Marshal Plan Review was conducted.

21. QUESTION

Referring to Sheets A2.01 & A2.02, details 1/A2.01 & 2/A201, Note 6, & Sheet A4.03, details 13/A4.03, 14/A4.03, & 15/A4.03, & Sheet A4.05, details 1/A4.05, 3/A4.05, 4/A4.05, 5/A4.05, 6/A4.05, 7/A4.05, 8/A4.05, 9/A4.05, 10/A4.05, 11/A4.05 & 12/A4.05 all reflect -10 elevation for all the proposed exterior ramps.

Was it intended for the Contractor to provide selective demolition of the existing substrates along with new concrete and/or masonry foundations/slabs to be installed? Or was the intent of the Design to anchor into existing substrates?

RESPONSE

Yes, the intent is to demo existing substrates and provide new concrete ramp in according with contract documents.

22. QUESTION

Referring to Sheet A6.03; Exterior Cladding System call out.
Will Exterior Cladding System Specification be provided?

RESPONSE

Yes, soffit panel specification is provided in this addendum.

23. QUESTION

Referring to Sheet A5.02; details 3/A5.02 & 4/A5.02 Canopy Section.
Will a Metal Roofing Specification be provided?

RESPONSE

Basis of Design: Concealed fastener standing seam metal roof system, 16" coverage X 1-1/2" rib, .26 GA galvalume steel.

24. QUESTION

Referring to Sheet A1.08; New Construction RCP Note 01, Note 01. Appears the area within Corridor Room 210 was partially hatched to receive Spray Applied Fireproofing. The Finish Schedule does not indicate to provide Spray Applied Fireproofing in Room 210. Was Note 01 inadvertently missed on Sheet A1.08 & Sheet A7.01 for Corridor Room 210?

RESPONSE

Corridor Room 210 is not to receive Spray Applied Fireproofing.

25. QUESTION

Will a Door Hardware Specifications be provided?

RESPONSE

Yes, door hardware specification is provided in this addendum.

26. QUESTION

Referring to openings 115.1, 215, 313, & 406; Doors are scheduled to be Aluminum Framed Storefront Entrances.

Confirm the door is to receive Door Type F.

RESPONSE

Yes, 115.1, 215, 313, & 406 is to receive Door Type F and are scheduled to be Hollow Metal Framed.

27. QUESTION

Referring to Sheet A1.01 between Storage Room 101 & Storage Room 104 there is a wall tagged B3.

Confirm the wall is intended to be tagged.

RESPONSE

Correct, wall between Storage Room 101 & Storage Room 104 is identified as B3.

28. QUESTION

Referring to Sheet A1.00 the wall in front of the Elevator is tagged A1. Should the tag be identified as A3?

RESPONSE

Correct, the front wall is identified as A3.

29. QUESTION

Referring to Floor Plan Sheets A1.00, A1.01, A1.02, A1.03, A1.04 & Sheet A4.03, details 11/A4.03 & 12/A4.03 do not indicate the elevator wall types next to the shaft rooms, nor does the shaft room wall tagged. Rooms 001, 002, 111, 116, 203, 218, 304, 315, 402 & 403. Could these walls be tagged for bidding?

RESPONSE

Revised drawings in this addendum.

30. QUESTION

Referring to Sheet A1.02 in Rooms 205 & 207 Lockers are indicated to be provided. Confirm the Lockers is being provided by Coalfield Development and confirm no lockers bases will be required by Contractor.

RESPONSE

Correct, lockers and base are not in contract.

31. QUESTION

Referring to Sheet A7.01 Finish Schedule, Room 217 indicates to provide New Acoustical Baffles.

Will a Specification be provided for the New Acoustical Baffles?

RESPONSE

Basic-of-design: Armstrong World Industries, Inc., SoundScapes Blades Wave and use Prelude XL 15/16" exposed tee.

32. QUESTION

Referring to Sheet A7.01 Finish Schedule identifies the following rooms as EXP. Rooms 102, 103, 104, 105, 106, 107, 111, 112, 113, 114, 115, 116, 200, 201, 203, 205, 206, 207, 208, 210, 211, 215, 216, 217, 218, 300, 301, 302, 304, 306, 307, 309, 310, 311, 312, 314, 315, 402, 403, 405 & 406. However, the General Finish Notes indicate to paint all ceilings. Confirm rooms mentioned require the ceiling to be painted.

RESPONSE

Unless otherwise noted, all exposed faces of structure and underside of all floors to receive paint. All gyp. ceilings to receive paint. Paint all ceilings except ACT system.

33. QUESTION

Referring to Sheet A7.01 Finish Schedule identifies Rooms 212, 213 & 214 to receive Acoustical Cloud Ceilings as an Alternate.

Will the ceilings in these rooms be required to be painted if the Alternate is or not accepted?

RESPONSE

Yes, paint all exposed faces of structure and underside of all floors whether the Alternate is accepted or not accepted.

34. QUESTION

Should the Design intent be to paint all the ceilings in Rooms 102, 103, 104, 105, 106, 107, 111, 112, 113, 114, 115, 116, 200, 201, 203, 205, 206, 207, 208, 210, 211, 215, 216, 217, 218, 300, 301, 302, 304, 306, 307, 309, 310, 311, 312, 314, 315, 402, 403, 405 & 406.

Will the overhead MEP's, including Fire Suppression piping be required to be painted

RESPONSE

Yes

35. QUESTION

The existing steel brackets on the ceiling used to anchor beams, joists, etc. have been painted and now are rusty.

Will the steel brackets be required to be striped and repainted?

RESPONSE

Remove existing paint and clean all rust using a wire brush. After paint and rust are fully removed, repaint the surface.

36. QUESTION

Referring to Sheet A1.05 Roof Plan

Were there any cores taken of the existing makeup of roofing materials, if so, could the report be provided so we know how many layers of roofing is present and the thicknesses of the existing insulation?

RESPONSE

No, the roof was inaccessible of any inspection.

37. QUESTION

Referring to Sheet A1.05 Roof Plan

Was the roofing materials inspected for Asbestos containing materials?

RESPONSE

The roof was inaccessible. Approximately 7,000 sq. ft. of assumed asbestos roofing. At time of inspection, the building was still occupied.

38. QUESTION

Referring to question submitted; Referring to Sheet A1.05 Room Plan Note 10 Provide new crickets.

Can the crickets to be constructed from tapered insulation?

Tapered Insulation: Provide factory-tapered insulation boards.

Material: Match roof insulation.

Minimum Thickness: 1/4 inch.

Slope:

Roof Field: 1/4 inch per foot unless otherwise indicated on Drawings.

RESPONSE

Yes, crickets can be constructed of tapered insulation at 1/2 inch per foot unless otherwise indicated on drawings.

39. QUESTION

Was it the intent to remove existing windows and provide new window types A, B, E, F, G, H, J, K, L, M, N, P, Q, R & S inside existing rough openings, masonry to masonry?

RESPONSE

Yes

40. QUESTION

Referring to Sheet A1.05 Room Plan Note 10 Provide new crickets.
Can the crickets to be constructed from tapered insulation?

RESPONSE

Yes

41. QUESTION

Referring to Sheet A1.06, details 5/A1.06 & 6/A1.06.
The details call out for "densglass on top of 3/4" plywood sheathing. The call out doesn't specify existing or new. Could this be clarified?

RESPONSE

New 3/4" plywood sheathing.

42. QUESTION

Referring to Sheets A4.01 & A4.02 Restroom Accessories Schedule
Confirm hand dryers are not required

RESPONSE

Yes

43. QUESTION

Referring to Sheets A4.03 & A4.04
Does the new interior metal pan concrete stairs and railings receive a painted finish?

RESPONSE

Yes

44. QUESTION

Referring to Sheets A4.05
Does the exterior staircase finish remain galvanized?

RESPONSE

Yes

45. QUESTION

Referring to Sheets A4.05 & A4.06 & Specification Section 057300 – Decorative Metal Railings
Confirm the ramp locations in front of doors 108.4, 115.2 and exit from the new covered exterior stairway is the limits of the Decorative Aluminum Metal Railings.
Confirm the railings on the new covered exterior stairways is not Decorative Aluminum Metal Railing.

RESPONSE

Yes, Exterior ramp at 108.4, 115.2, 117.2, exterior covered stairway, and ramp is the decorative aluminum metal railing.

46. QUESTION

Referring to Sheet A4.02, detail 13/A4.02
Confirm the 62' solid surface counter receives backsplash/end splashes.
Confirm the width on the 62' long solid surface counter.

RESPONSE

Yes

47. QUESTION

Referring to Sheets A1.01 Room 107 Kitchenette, A1.02 Room 213 Conference Room, Sheet A103 Room 311 Conference Room, Sheet A4.02, detail 21/A4.01.
Confirm Conference Rooms 213 & 311 is to receive the new plastic laminate casework, solid surface countertops, and refrigerator/freezer.
Confirm Kitchen 107 is not to the new plastic laminate casework, solid surface countertops, and refrigerator/freezer.

RESPONSE

Existing plastic laminate casework, countertop, and appliances to remain in Room 107 Kitchenette.

48. QUESTION

Referring to Sheet AD1.01 & AD1.02 Demolition Note 11; Demolish existing wall finish to existing brick.
Upon observation at the prebid meeting the existing wall finish appeared to be plaster. Has the plaster been tested for asbestos?
What shall the final finish of the exposed brick be?

RESPONSE

Refer to asbestos report herewith. Unless otherwise noted, all existing brick masonry walls to remain shall be patched/restored if necessary and left exposed. Only paint and plaster existing masonry walls that have previously received paint or plaster, leave unpainted masonry unpainted.

49. QUESTION

Referring to the elevator shaft.
Confirm the intent for the Design of the new elevator is to utilize existing walls and no decreasing/increasing of the shaft walls are required for the Basis of Design elevator.

RESPONSE

Yes

50. QUESTION

Is the sprinkler contractor to protect the cavity between the above finished floor and the lower drywall ceilings (between each floor)? So you need pendent heads spraying the room below, as well as uprights in the concealed area of the floor joists? If not, disregard the remainder of this question. If so, is there any room between the sheetrock and the joists?

RESPONSE

Yes, areas are to be protected between the above finished floor and the lower drywall ceilings. (per NFPA 13).

51. QUESTION

The fire pump rep is recommending a Firetrol controller (with soft start) for the specified pump. Is this an acceptable replacement for the specified Cutler Hammer controller? We will plan to price as an alternate either way.

RESPONSE

The Firetrol controller is acceptable if equal to specified.

52. QUESTION

Why is there a specification for heat tracing of fire protection? Are there areas the wet system will be exposed to temps below 40 degrees F? Are we as the sprinkler contractor being requested to supply heat tracing?

RESPONSE

Sprinkler piping in basement shall be heat traced. See electrical basement plan.

53. QUESTION

Will a roof demolition plan be provided?

RESPONSE

No

54. QUESTION

Referring to Sheet AD1-01 & AD1.02 Demolition Note 17; Remove all ceiling and associated lighting, diffusers, etc. in this area.

Upon observation at the prebid meeting there appears to be a second gypsum board ceiling above the acoustical ceiling.

Shall this second ceiling be removed as well?

Shall the framing for the gypsum board ceiling be removed?

RESPONSE

Yes

55. QUESTION

Sheets AD1.01, AD1.02, AD1.03, & AD1.04; Demolition Note 03; Remove portion of existing wall for new door opening. See new floor plans.

Sheet A6.03, detail 6/A6.03 Door Details-Exterior Openings indicates to repair and patch opening.

Shall we tooth the masonry back to create the opening or can square cuts be provided and then finish with wrapping the openings with a treated nailer, then wrapping the openings with the same color materials as the storefront door frames and doors?

RESPONSE

6/A6.03 to use existing masonry opening.

56. QUESTION

Referring to Sheets A1.01 First Floor Plan & A6.03, detail 3/A6.03 Door Detail – Interior Coiling – Wood Stud Framing
Door 102.3, 113.3, & 115.3 all seems to be in existing masonry walls, and the floor plan does not call out for the wall to be framed. Where does detail 6/A6.03 apply?

Was the coiling doors designed to fit inside the existing masonry rough opening?

RESPONSE

Fit into existing masonry rough opening.

57. QUESTION

Referring to Sheets A5.01 & A6.03, detail 2/A6.03 – Interior Acoustical – Wood Stud Framing There is a call out for resilient channel, 16” O.C., Sheet A.501 does not identify this wall type. Where are the locations for this detail?

RESPONSE

2/A6.03 not used.

58. QUESTION

Referring to Sheet A5.01 Wall Partition Types
Where are the locations for Wall Type B2?

RESPONSE

B2 is not used

59. QUESTION

Referring to Sheet A5.01 Wall Partition Types
Appears all partition type run to deck and either receive sealant and/or fire caulking. Assuming we need to allow room for movement during loads, how tight are we to install the gypsum board when cutting in and around the ceiling/floor joist?
Will the sealants and/or fire caulking be the product for allowing contraction and expansion of the gypsum board and ceiling/floor joist, & decking?

RESPONSE

Provide 1/4 to 1/2 inch wide.

60. QUESTION

A specification for the Alternate Clouds is in Acoustical Ceilings. Please provide a specification for the acoustical baffles.

RESPONSE

Basic-of-design: Armstrong World Industries, Inc., SoundScapes Blades Wave and use Prelude XL 15/16” exposed tee.

61. QUESTION

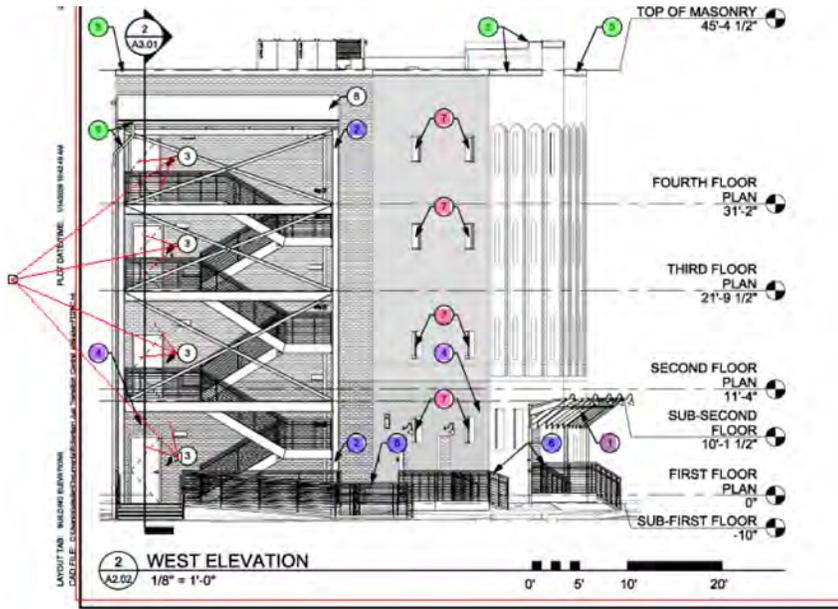
Please provide details on Roof Plan A1.05, Note 3 (or core cut information) of the existing roof system.

RESPONSE

No, the roof was inaccessible of any inspection.

62. QUESTION

Referring to Sheet A2.02 West Elevation, detail 2/A2.02 West Elevation and New Elevation Note 3 New Exterior Signage
Are we to provide the exterior signage on all floors as well?



RESPONSE

Yes

63. QUESTION

Referring to Sheet A6.03, details 7/A6.03 & 8/A6.03
Detail 7 indicates new floor finish A, See A7 Series. Could this be clarified?
Detail 8 indicates new floor finish B, See A7 Series. Could this be clarified?

RESPONSE

Refer to A7.01-A7.05

64. QUESTION

Could you confirm the prevailing rates in the project specifications are the correct rates to be used in the bid?

RESPONSE

Yes, these wage rates are the correct rates at time of bidding.

65. QUESTION

Referring to Sheets A4.01 & A4.02 Restroom Accessory Schedule & Specification Section 102800 – Toilet, Bath, & Laundry Accessories.

The Restroom Accessory Schedule does not identify the following in bold. Could the locations be provided or could a quantity be provided for each item?

B. Waste Receptacle:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. AJW Architectural Products.
 - b. American Specialties, Inc.
 - c. Bobrick Washroom Equipment, Inc.
 - d. Bradley Corporation.
2. Mounting: Surface mounted.
3. Minimum Capacity: 12.75 gal..
4. Material and Finish: Stainless steel, No. 4 finish (satin).
5. Liner: Reusable vinyl liner.
6. Lockset: Tumbler type for waste receptacle.

2.6 CUSTODIAL ACCESSORIES

A. Utility Shelf (one for each Custodial Closet):

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. AJW Architectural Products.
 - b. American Specialties, Inc.
 - c. Bobrick Washroom Equipment, Inc.
 - d. Bradley Corporation.
2. Description: With exposed edges turned down not less than 1/2 inch and supported by two triangular brackets welded to shelf underside.
3. Size: 24inches long by 6 inches deep.
4. Material and Finish: Not less than nominal 0.05-inch-thick stainless steel, No. 4 finish (satin).

B. Mop and Broom Holder (one for each Custodial Mop Sink):

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. AJW Architectural Products.
 - b. American Specialties, Inc.
 - c. Bobrick Washroom Equipment, Inc.
 - d. Bradley Corporation.
2. Description: Unit with shelf, hooks, holders, and rod suspended beneath shelf.
3. Length: 36 inches.
4. Hooks: Four.
5. Mop/Broom Holders: Three, spring-loaded, rubber hat, cam type.
6. Material and Finish: Stainless steel, No. 4 finish (satin).
 - a. Shelf: Not less than nominal 0.05-inch-thick stainless steel.
 - b. Rod: Approximately 1/4-inch-diameter stainless steel.

C. Liquid-Soap Dispenser (one for each mop sink):

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. AJW Architectural Products.
 - b. American Specialties, Inc.
 - c. Bobrick Washroom Equipment, Inc.
 - d. Bradley Corporation.
2. Description: Designed for dispensing soap in liquid or lotion form.
3. Mounting: Horizontally oriented, surface mounted.
4. Capacity: 20 oz..
5. Materials: Stainless steel.
6. Lockset: Tumbler type.
7. Refill Indicator: Window type.

RESPONSE

Provide one Utility Shelf, mop and broom holder, liquid-soap dispenser per Storage 109, Storage 204, and Storage 305 near mop sink. Mop sink added in this addendum. Provide one per restroom, refer to revised A4.01 and A4.02 in this addendum for waste receptacle location.

66. QUESTION

Is there a door hardware schedule for this project for bidding purposes or are we to hold an allowance for this?

RESPONSE

Door hardware specifications provided in this addendum.

E. CLARIFICATIONS

1. **QUESTIONS THAT HAVE NOT BEEN ADDRESSED IN THIS ADDENDUM AND RECEIVED BY THE 4:00 P.M. DEADLINE OF FEBRUARY 10TH WILL BE ANSWERED IN ADDITIONAL ADDENDUMS.**

If you have any questions or comments, please feel free to contact me at your earliest convenience. As a reminder, bids will be received until **3:30 p.m. on Tuesday, March 3, 2026**, at **Coalfields Development Corporation** located at **2923 Park Avenue, Huntington, WV 25704**. Good luck to everyone and thank you for your interest in the project.

Sincerely,

THE THRASHER GROUP, INC.



AMANADA CHEVRONT, AIA NCARB

Project Manager



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Asbestos Inspection

**Coalfield Development
2923 Park Avenue
Huntington, WV 25704**

Inspection Location
Robertson Building
300 Cole Street
Logan, WV 25601

Prepared by:
The Thrasher Group
1000 Corporate Landing
Charleston, WV 25311

October 31, 2023
T60-11108

Table Of Contents

1	Introduction.....	4
1.1	Purpose and Scope of Work.....	4
1.2	Site Locations and Descriptions	4
2	ACM Survey.....	4
2.1	Sampling Locations and Methods.....	4
2.2	Analytical Test Results	5
3	Conclusions and Recommendations.....	5
3.1	ACM.....	5
3.2	Preparation for Construction	5
4	Limitations.....	5

Figures

- Figure 1 Site Location
- Figure 2 Sample Location Maps

Appendices

- Appendix A Site Photos
- Appendix B Analytical Results
- Appendix C Certification and License

EXECUTIVE SUMMARY

Building name: Robertson Building, 4-Story Structure with Basement

Building address: 300 Cole Street
Logan, WV 25601

Current Building owner: Coalfield Development

Contact name: Mr. Nick Guertin, Senior Director

Building description: Approximately 29,436 square feet

Construction date: Unknown

Inspection date: October 12, 2023

Inspector: Mr. Robert Smith
WV License #AI010913, expires 1/31/2024

Asbestos Containing Materials (ACM)

LOCATION	Sample #'s	MATERIALS	ASBESTOS %	QUANTITY	Friable/ Non-Friable
Roof	N/A	Assumed Roofing Materials	<1 %	Assumed 7,000 Sq. Ft.	Non-Friable

1 INTRODUCTION

1.1 Purpose and Scope of Work

The Thrasher Group, Inc. (Thrasher), conducted an asbestos containing material (ACM) inspection located at 300 Cole Street, Logan, WV 25601 (Robertson Building) for the Coalfield Development. The inspection was conducted on October 12, 2023, by Robert C. Smith, WV licensed number AI010913, expires 1/31/2024.

The goal of this inspection is to locate and quantify any asbestos containing materials located in or on this structure. Samples were taken from areas based upon both selective and random sampling strategies depending upon the nature of the suspect material and its condition, size, and type.

Non-destructive sampling is taking small samples of material, in areas that are hidden (behind doors, electric switch plates etc.). These locations are not marked at the sampling point unless requested by the client.

In general, non-destructive sampling will be utilized, unless the inspector suspected asbestos containing material to be located in an inaccessible area, such as pipe insulation in a wall or if this project is scheduled for demolition. The inspector, if possible, may have removed a portion of the interfering material to gain sampling access. However, demolition and renovation contractors should be alert that non-sampled asbestos containing materials might be present in such inaccessible areas. The areas sampled at this location are areas where damaged building materials already existed.

Each sample was assigned a unique sample identification number composed of a four (4) or five (5) -digit identification code.

1.2 Site Locations and Descriptions

The inspection took place at 300 Cole Street, Logan, WV 25601, physically located at the Global Positioning System coordinates +37.848347°, -81.992602°. The age of the structure was not provided/unknown. The structure is approximately 29,436 square feet. Site location maps are attached as **Figure 1**.

2 ACM SURVEY

2.1 Sampling Locations and Methods

Sample methodology was conducted in general accordance with United States Environmental Protection Agency and Occupational Safety and Health Administration (OSHA) regulations. Samples were submitted to Pinnacle Consultants, LLC (Pinnacle). Pinnacle is a WV-licensed asbestos analytical laboratory that performs analysis of bulk asbestos samples by polarized light microscopy (PLM) to identify the presence and type of asbestos, as described in 40 CFR 763: Asbestos Hazard Emergency Response Act and 40 CFR 63, Subpart M: National Emission Standards for Hazardous Air Pollutants (NESHAP). The homogeneous materials sheet identifies and provides descriptions of homogeneous areas, type of material, and analysis results.

The Coalfield Development plans to renovate/revitalize the structure. Samples taken from specific locations were representative of the homogenous materials found within the identified areas.

Photographic documentation is provided in **Appendix A**. Representative bulk samples of suspect ACM were collected within each homogeneous area, which are areas with the same color, texture, and system. The collected bulk samples were stored in labeled and sealed zip-top bags and delivered to Pinnacle. Professional judgment was used in the selection of the number of bulk samples collected for laboratory testing and was in general accordance with OSHA and NESHAP requirements for asbestos sampling.

2.2 Analytical Test Results

ACM is defined as any material containing greater than one percent (>1%) asbestos, as determined using PLM. ACM was not found in the vacant structure, however, at the time of the inspection, the roof was inaccessible and is assumed to be asbestos containing materials until tested and proven otherwise. Full analytical results for all sampled areas are included in **Appendix B and the Executive Summary**.

3 CONCLUSIONS AND RECOMMENDATIONS

3.1 ACM

According to the analytical results, the suspected ACM samples taken on October 12, 2023, were confirmed to contain no asbestos, however, at the time of the inspection, the roof was inaccessible and is assumed to be asbestos containing materials until tested and proven otherwise. Please see the **executive summary page** and the analytical results in **Appendix B**. If any suspect materials are found during the renovation process, it is recommended to contact The Thrasher Group (Mr. Robert C. Smith) and/or a West Virginia Licensed Asbestos Inspector to retrieve sample(s) to conduct PLM analysis.

3.2 Preparation for Construction

Any materials found hidden in such inaccessible areas during the renovation project and not listed in this report, must be sampled by a West Virginia Licensed Asbestos Inspector.

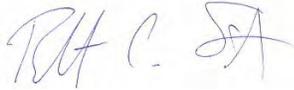
4 LIMITATIONS

This report and the associated work have been provided in accordance with the principles and practices generally employed by the local environmental consulting profession. This is in lieu of all warranties, expressed or implied.

The conclusions presented in this report are professional opinions based solely upon indicated data described in this report. Thrasher does not assume any liability for information that has been misrepresented to Thrasher by others or for items not visible, accessible, or present on the subject property during the time of this investigation. The conclusions and recommendations are intended exclusively for the purpose outlined herein and for the site location and project indicated. This asbestos inspection has been prepared for The Coalfield Development. This report shall not be relied upon by or transferred to any additional parties or used for any other purpose without the expressed written authorization of Thrasher.

Opinions and recommendations presented herein apply to the site conditions existing at the time of Thrasher's investigation and cannot necessarily apply to site changes of which Thrasher is not aware of and has not had the opportunity to evaluate. Changes in the conditions of this property may occur with time due to natural processes or anthropogenic activities on the subject site or adjacent properties. Changes in applicable standards may also occur as a result of legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond Thrasher's control. Opinions and judgments expressed herein are based on Thrasher's understanding and interpretation of current regulatory standards and should not be construed as legal opinions. Inspector credentials are included in **Appendix C**.

The Thrasher Group, Inc.

A handwritten signature in blue ink, appearing to read "R.C. Smith".

Robert C. Smith

Asbestos Inspector

License Number – AI010913 expires 1/31/2024

FIGURES

Coalfield Development

Robertson Building
300 Cole Street
Logan, WV 25601

Legend

 300 Cole St



Landau Ln

Nighbert Memorial Methodist Church

Department of Health...

300 Cole St

Cole St

Google Earth

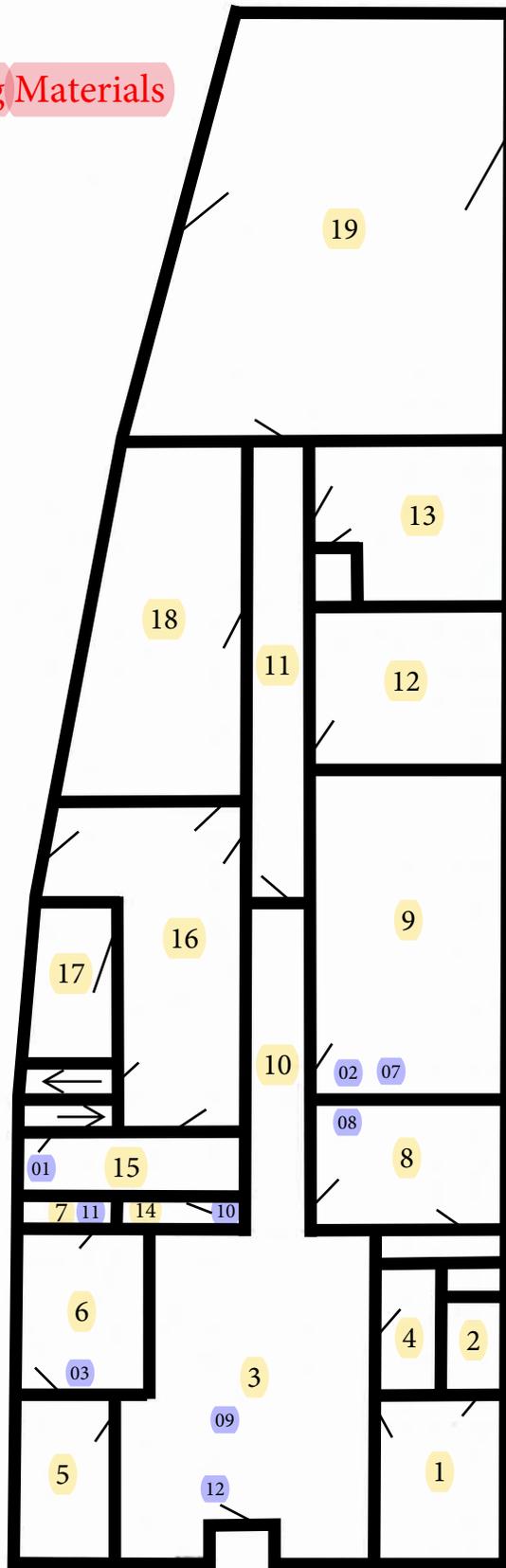
100 ft



Asbestos Containing Materials

Room Number

Sample Location

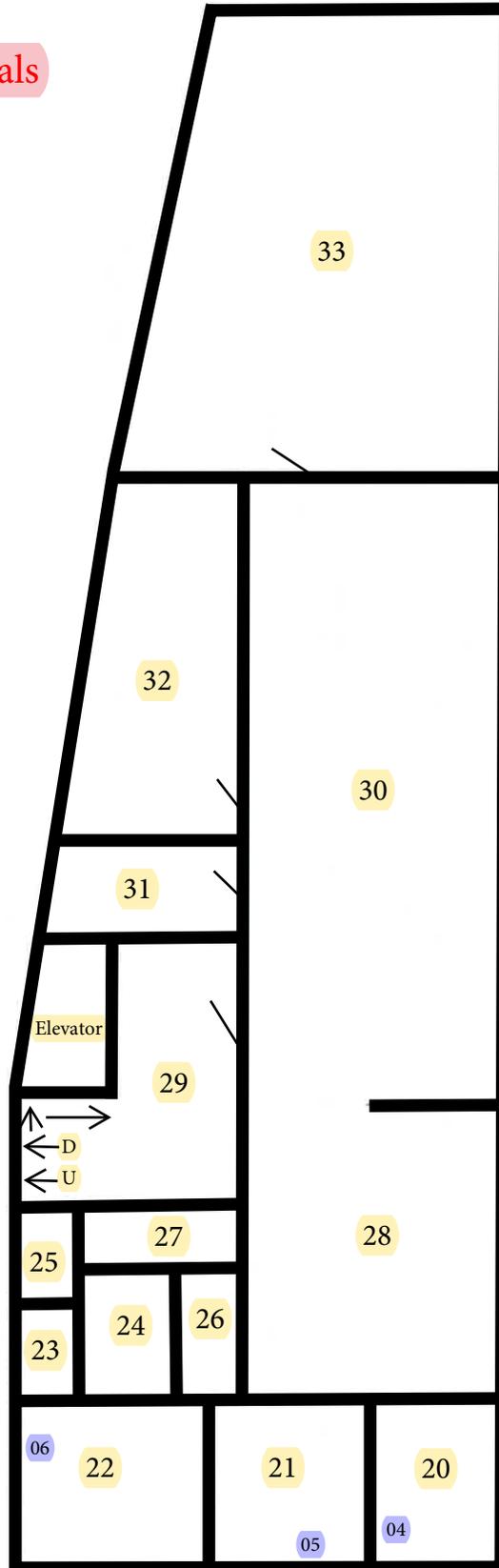


← Cole Street →

Asbestos Containing Materials

Room Number

Sample Location

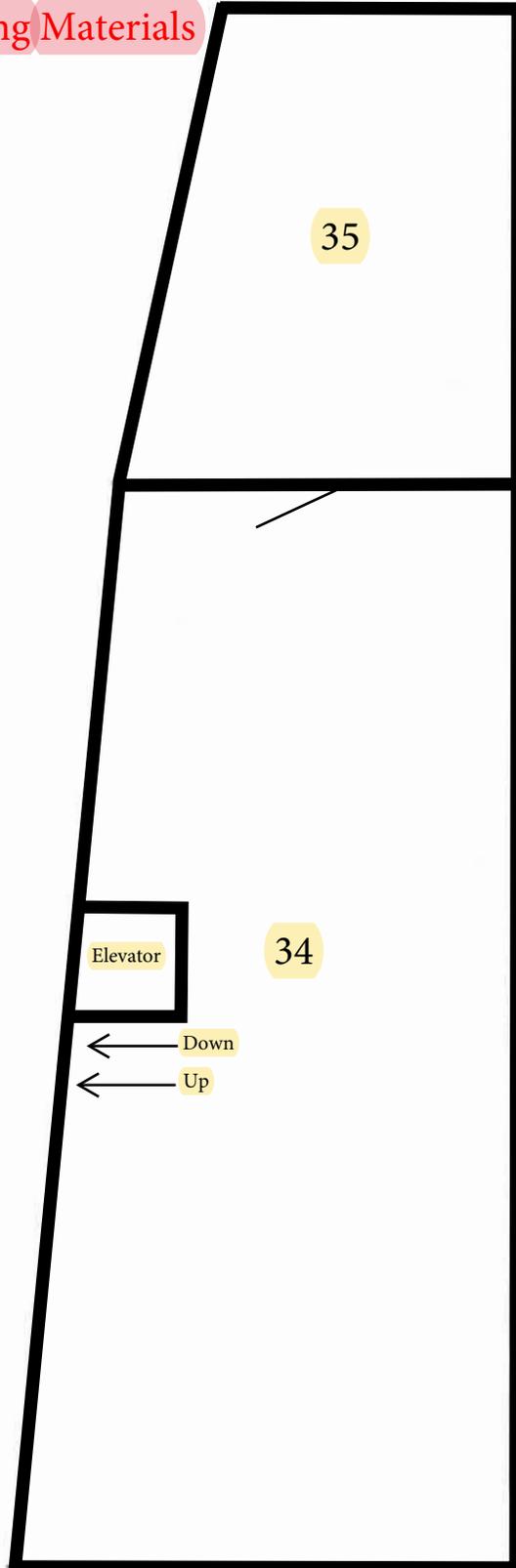


← Cole Street →

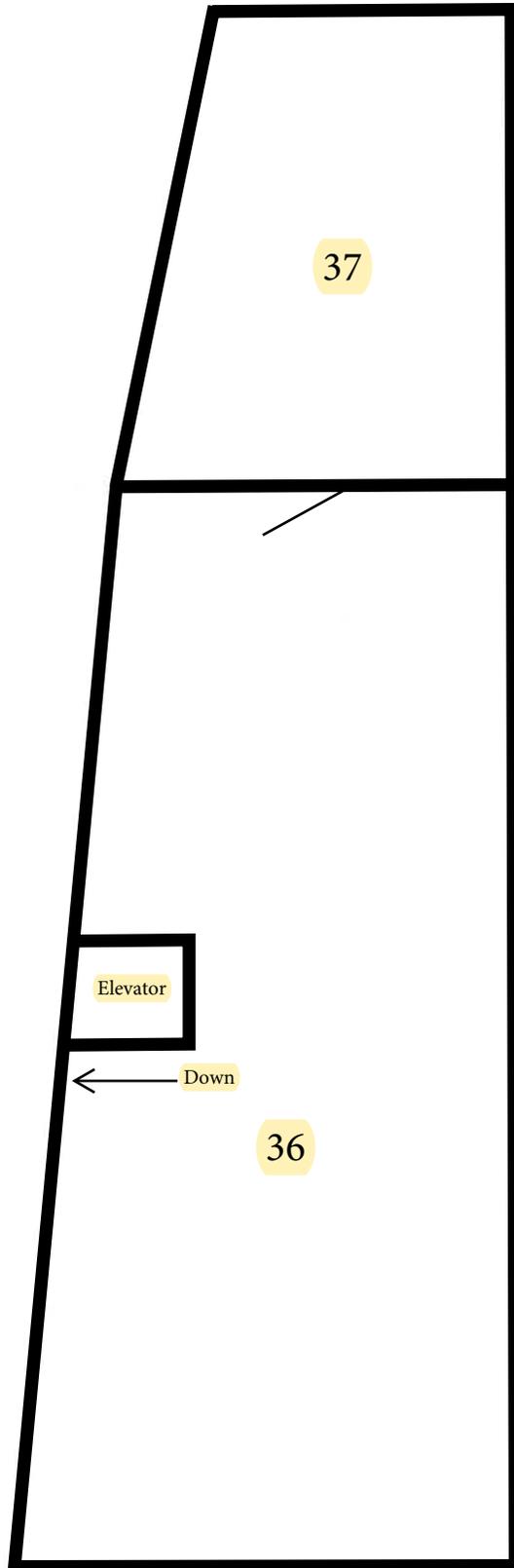
Asbestos Containing Materials

Room Number

Sample Location



← Cole Street →



Asbestos Containing Materials

Room Number

Sample Location

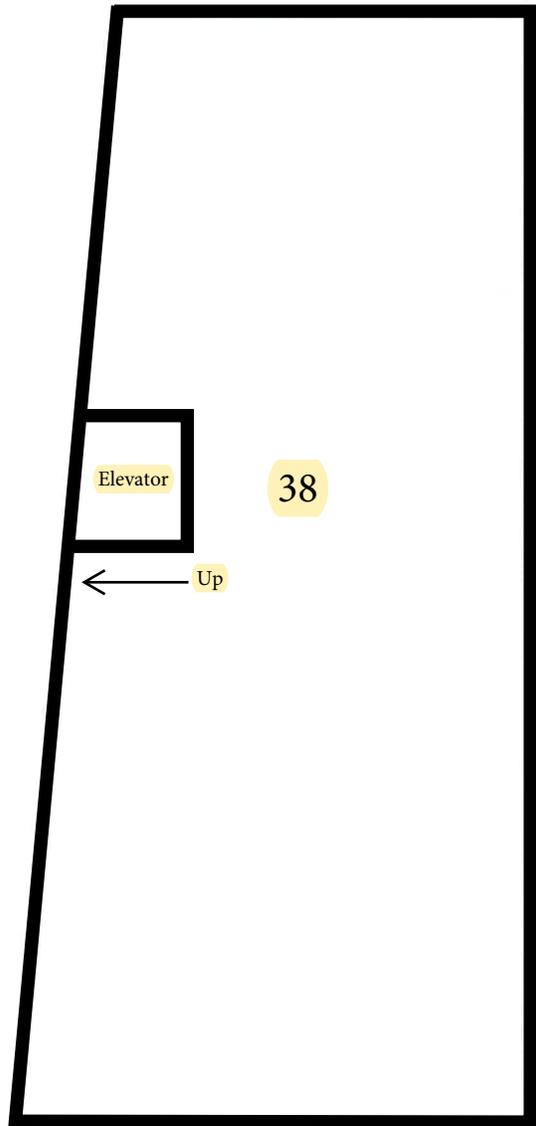
Note: The roof was inaccessible. Approximately 7,000 sq. ft. of assumed asbestos roofing. At time of inspection, the building was still occupied.

← Cole Street →

Asbestos Containing Materials

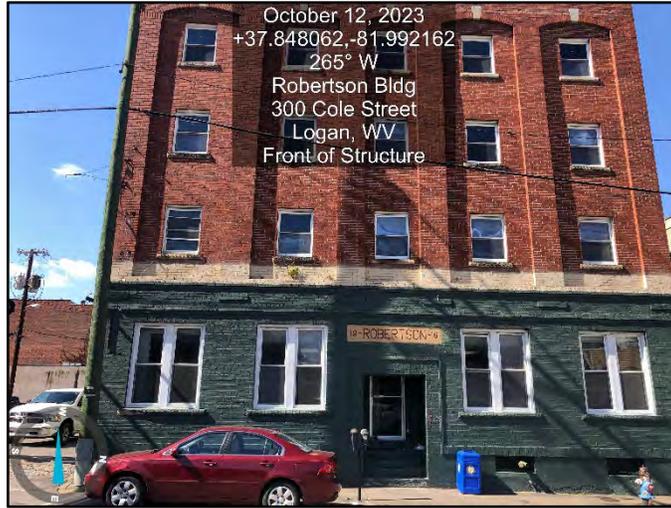
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Sample Location

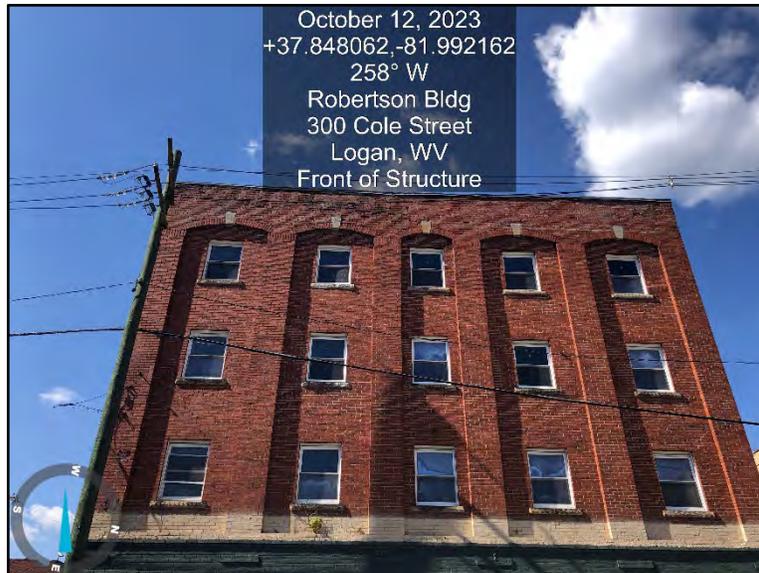


← Cole Street →

APPENDIX A – Site Photos



Photograph # 1
Exterior Front of Structure



Photograph # 2
Exterior – Front of Structure

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 1 of 69

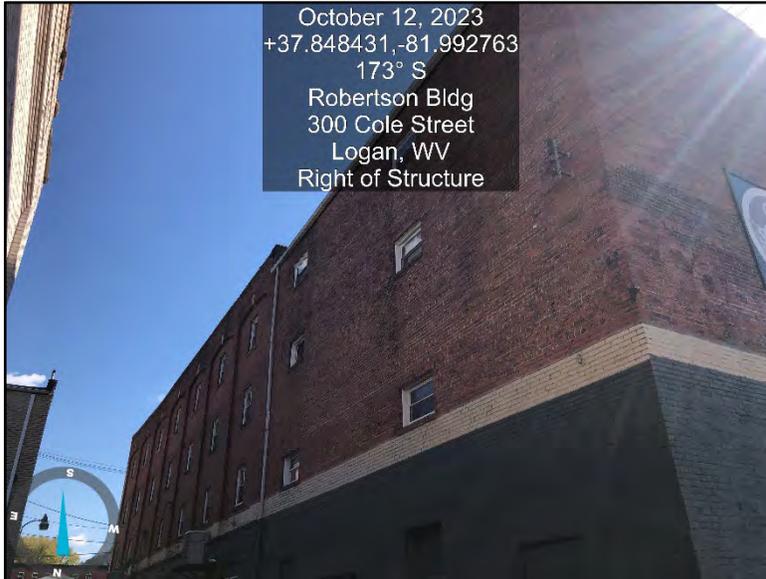


Photograph # 3
 Exterior Right Side of Structure

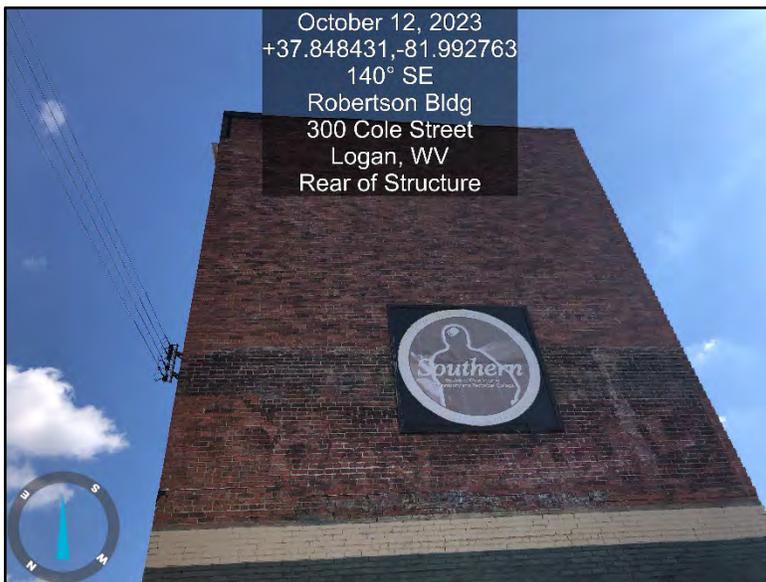


Photograph # 4
 Exterior - Right Side of Structure

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 2 of 69



Photograph # 5
 Exterior – Upper Portion of Right Side of Structure

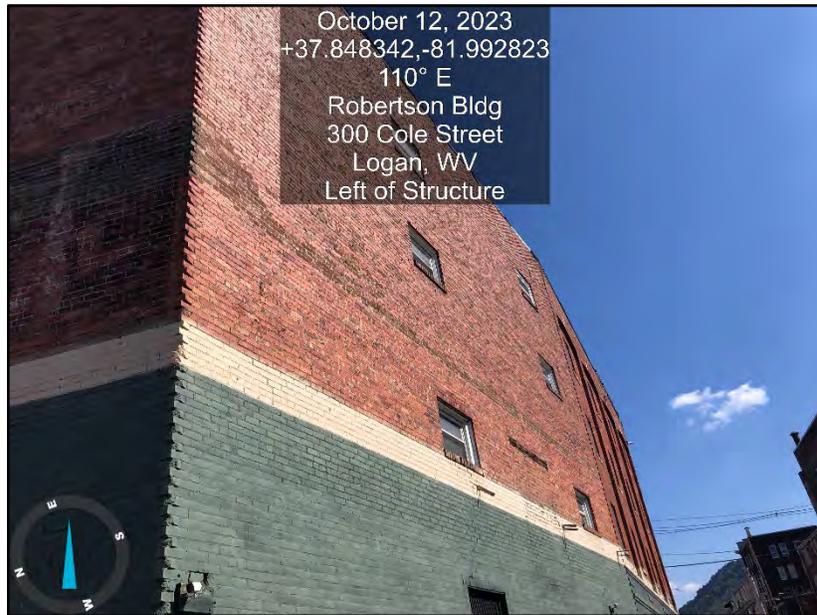


Photograph # 6
 Exterior - Rear of Structure

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 3 of 69



Photograph # 7
Exterior – Foundation Area, Rear of Structure



Photograph # 8
Exterior – Left of Structure

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 4 of 69

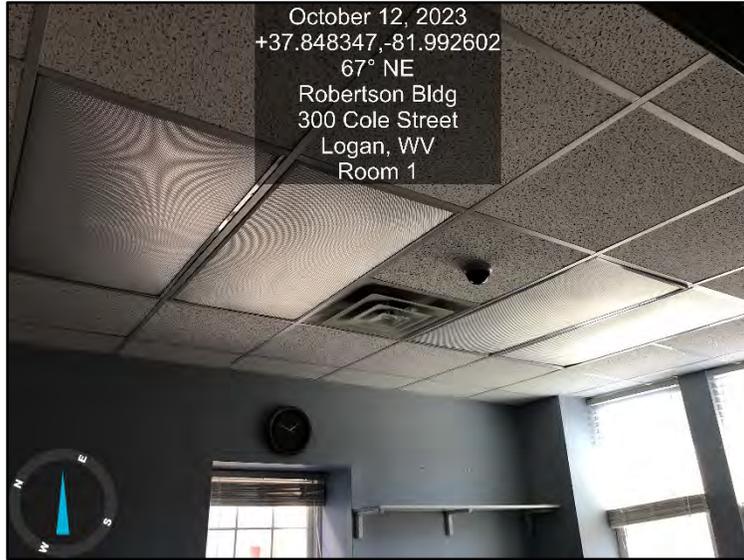


Photograph # 9
 Exterior – Left of Structure



Photograph # 10
 Room 1

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 5 of 69



Photograph # 11
Room 1 - Ceiling



Photograph # 12
Room 1 - Floor

DATE: October 30, 2023

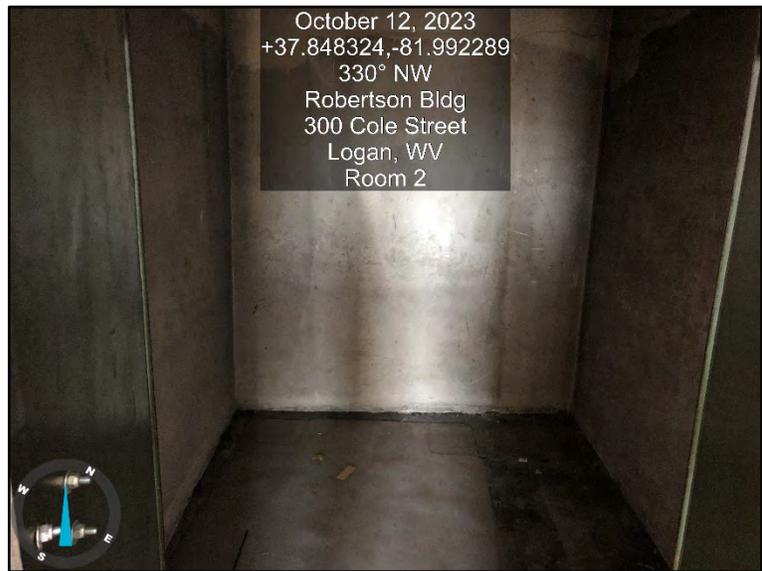
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 6 of 69



Photograph # 13
Room 2 – Old Safe



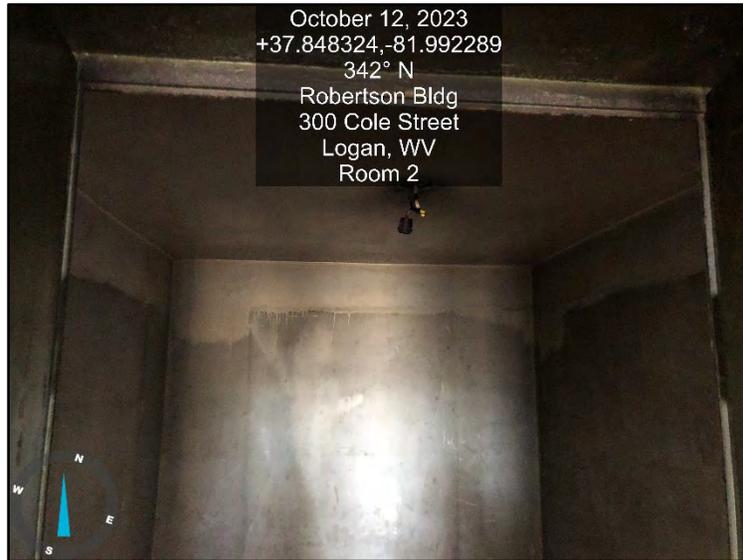
Photograph # 14
Room 2

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 7 of 69



Photograph # 15
Room 2



Photograph # 16
Room 3

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 8 of 69



Photograph # 17
Room 3



Photograph # 18
Room 3 Ceiling

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 9 of 69



Photograph # 19
Room 3 Floor



Photograph # 20
Room 4

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 10 of 69



Photograph # 21
Room 4 Floor



Photograph # 22
Room 5

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 11 of 69



Photograph # 23
Room 5 - Ceiling



Photograph # 24
Room 1 – Floor

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 12 of 69



Photograph # 25
Room 6



Photograph # 26
Room 6

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 13 of 69



Photograph # 27
Room 6



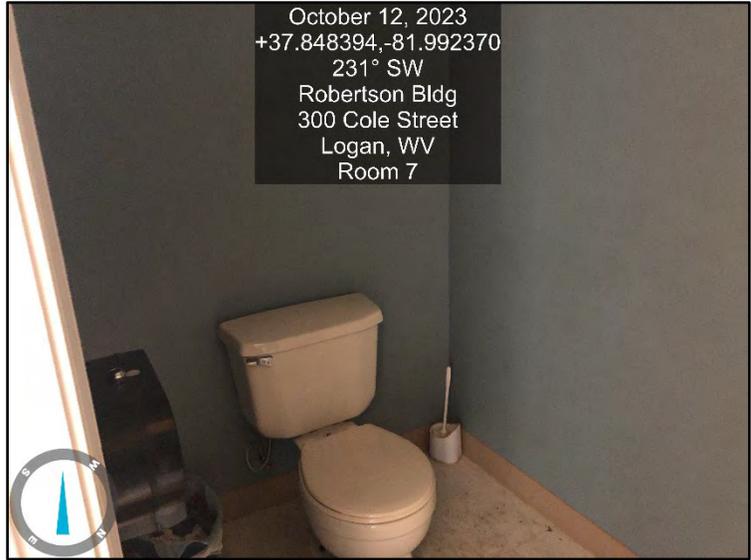
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Room 7

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 14 of 69



Photograph # 29
Room 7

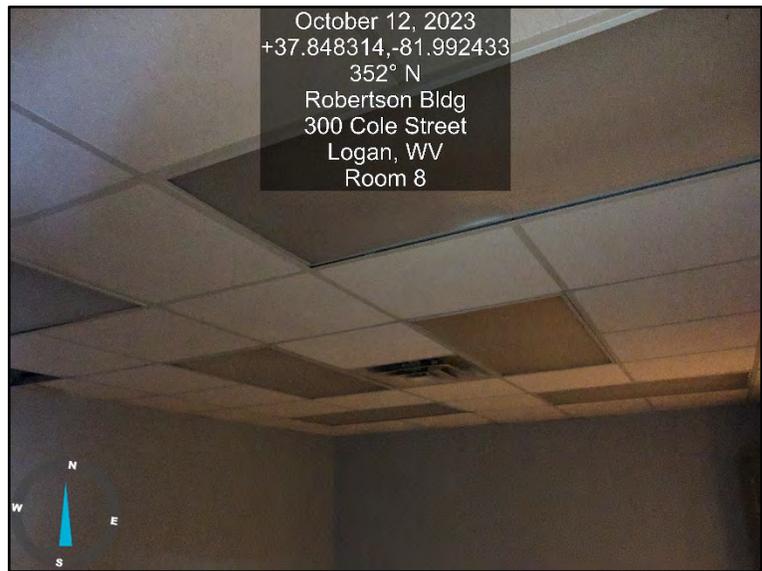


Photograph # 30
Room 7

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 15 of 69



Photograph # 31
Room 7 – 12”x12” Floor Tile



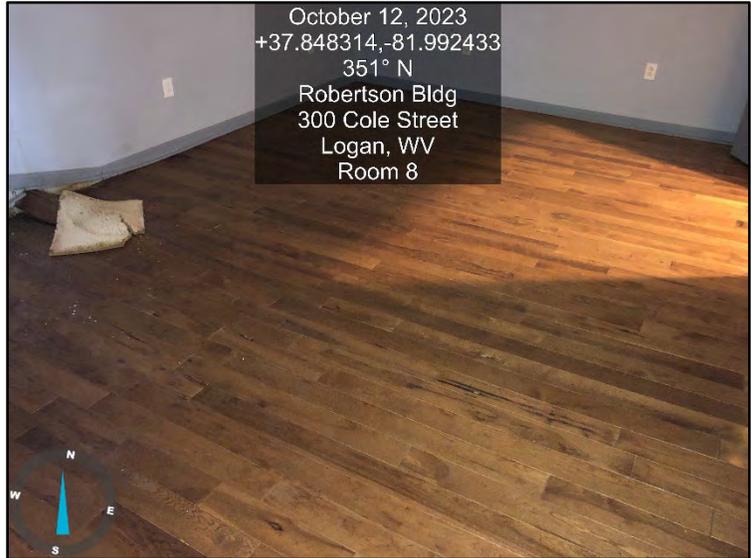
Photograph # 32
Room 8

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 16 of 69



Photograph # 33
Room 8



Photograph # 34
Room 9

DATE: October 30, 2023

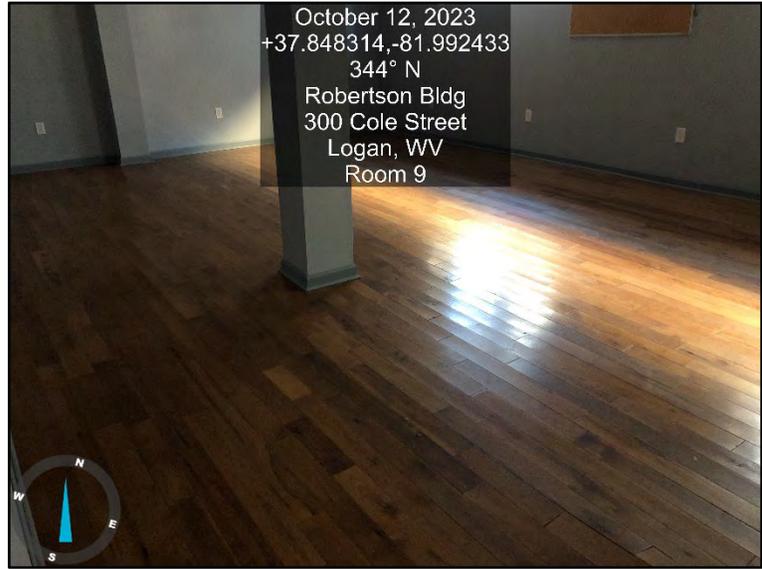
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 17 of 69

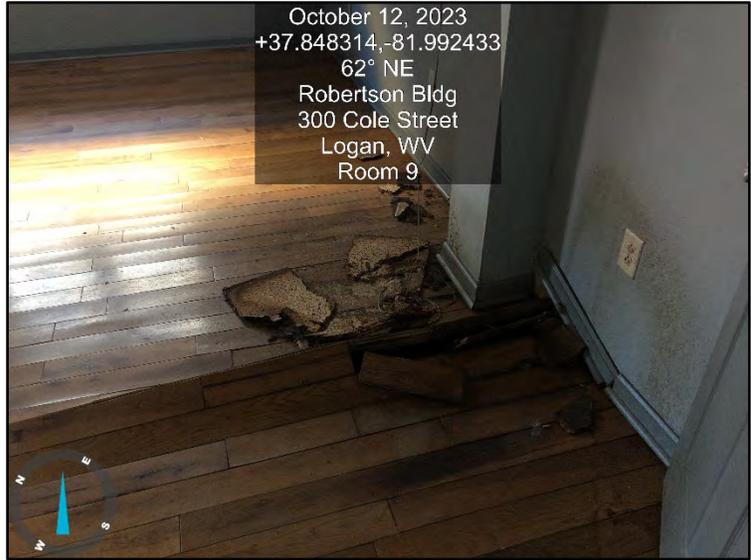


Photograph # 35
Room 9



Photograph # 36
Room 9

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 18 of 69



Photograph # 37
Room 9



Photograph # 38
Room 9

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 19 of 69



Photograph # 39
Room 9



Photograph # 40
Room 10

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 20 of 69



Photograph # 41
Room 10

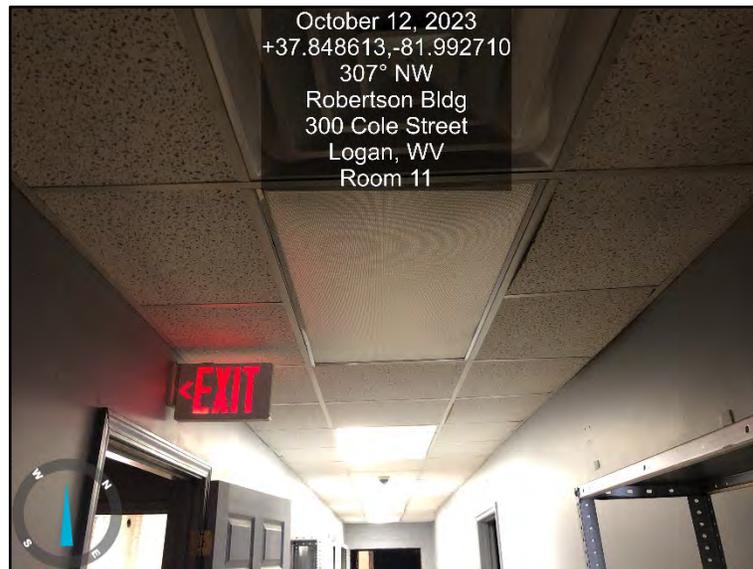


Photograph # 42
Room 10

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 21 of 69



Photograph # 43
Room 11



Photograph # 44
Room 11

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 22 of 69



Photograph # 45
Room 11



Photograph # 46
Room 12

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 23 of 69



Photograph # 47
Room 12



Photograph # 48
Room 12

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 24 of 69



Photograph # 49
Room 13



Photograph # 50
Room 13

DATE: October 30, 2023

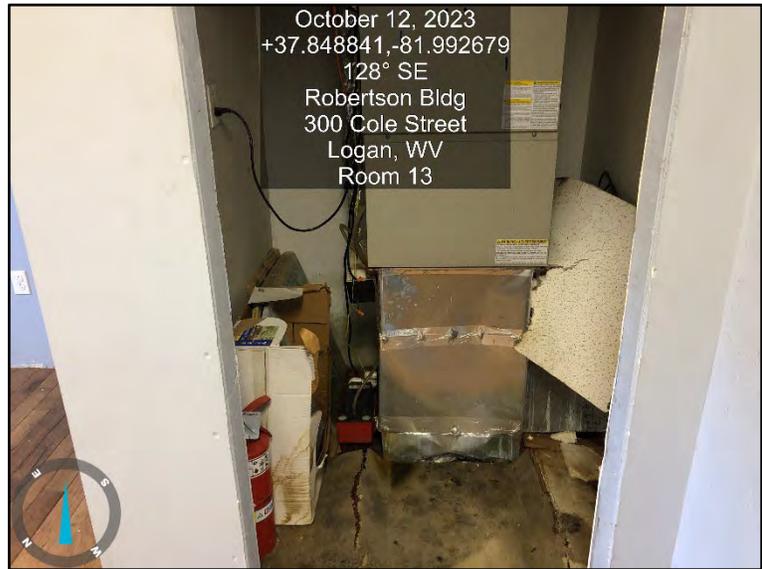
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 25 of 69



Photograph # 51
Room 13



Photograph # 52
Room 13

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 26 of 69



Photograph # 53
Room 13



Photograph # 54
Room 14

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 27 of 69

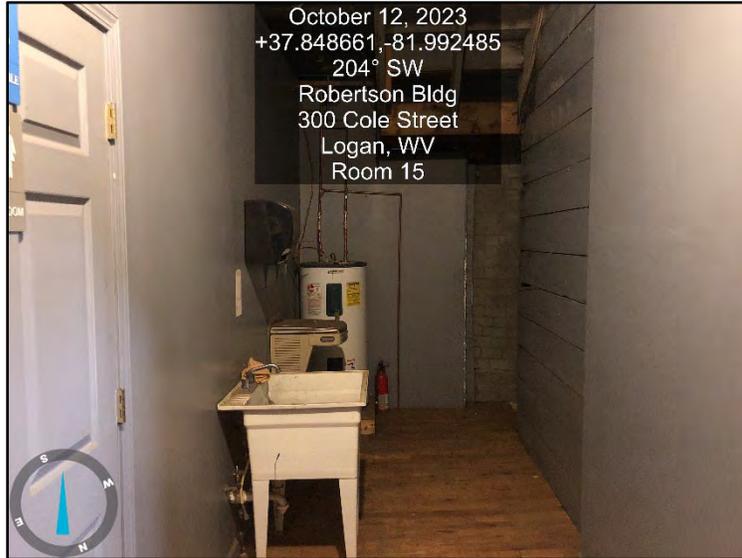


Photograph # 55
Room 14



Photograph # 56
Room 14

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 28 of 69



Photograph # 57
Room 15



Photograph # 58
Room 15

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 29 of 69



Photograph # 59
Room 15



Photograph # 60
Room 16

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 30 of 69



Photograph # 61
Room 16



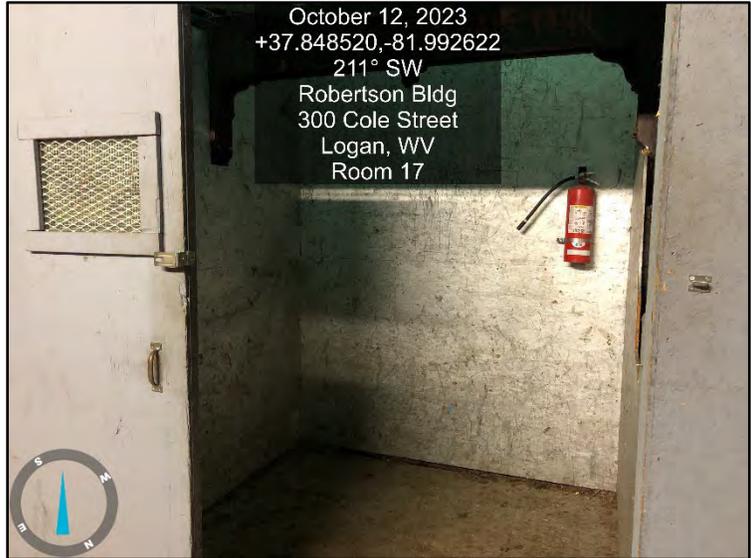
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Room 16

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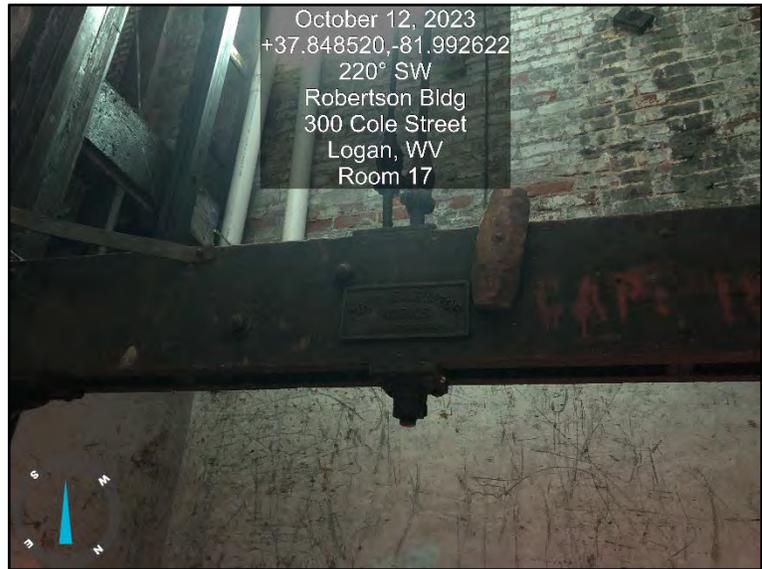
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 31 of 69



Photograph # 63
Room 17 – Cargo Elevator



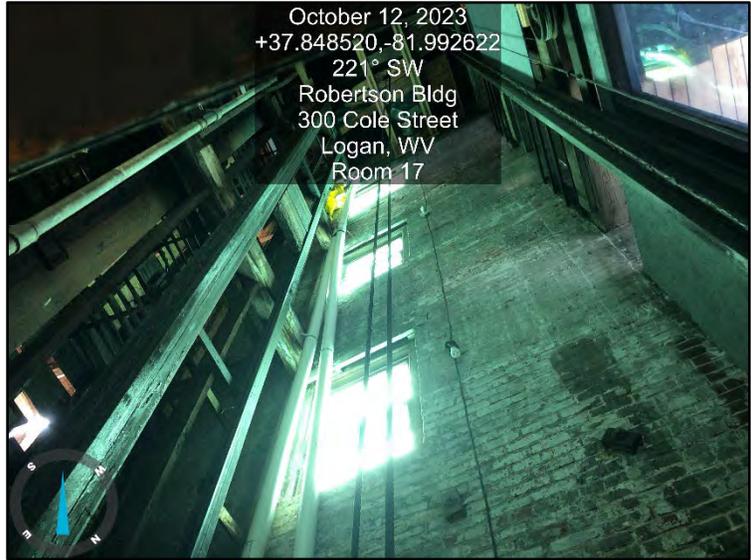
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Room 17 – Cargo elevator

DATE: October 30, 2023

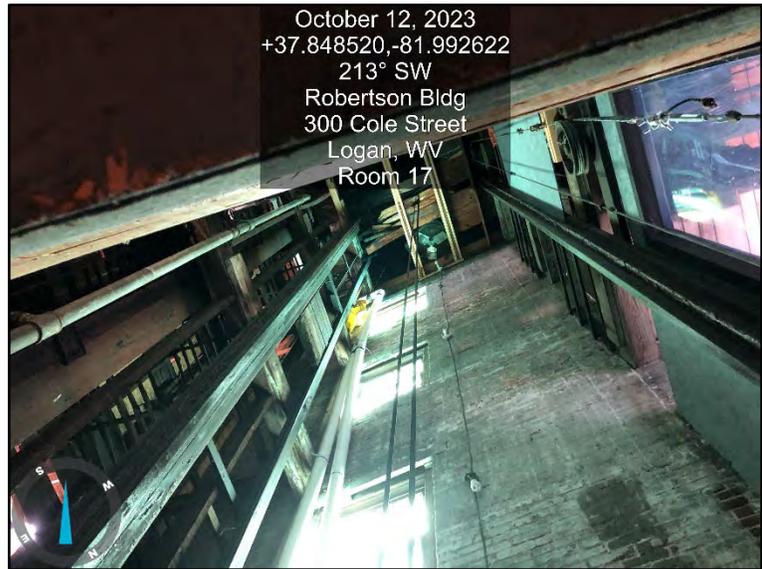
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 32 of 69



Photograph # 65
Room 17 - Cargo Elevator Shaft



Photograph # 66
Room 17 - Cargo Elevator Shaft

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 33 of 69



Photograph # 67
Room 18

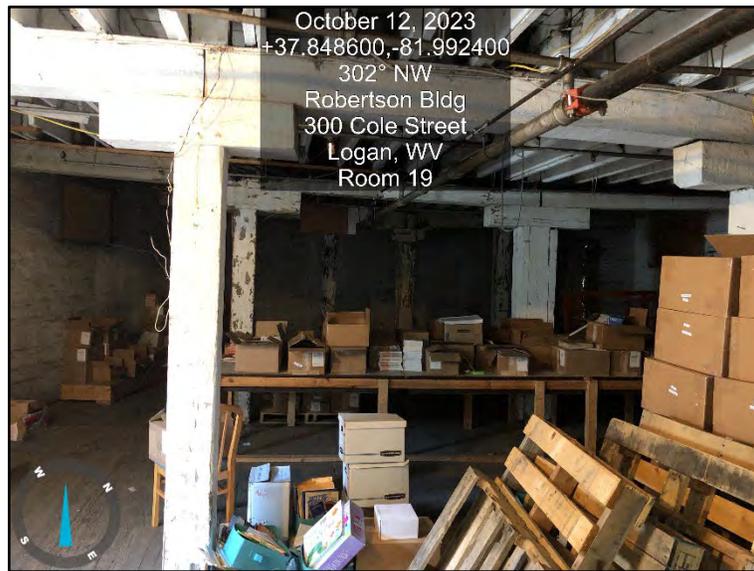


Photograph # 68
Room 18

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 34 of 69



Photograph # 69
Room 18



Photograph # 70
Room 19

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 35 of 69



Photograph # 71
Room 19



Photograph # 72
Room 19

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 36 of 69



October 12, 2023
+37.848600,-81.992400
0° N
Robertson Bldg
300 Cole Street
Logan, WV
Room 19

Photograph # 73
Room 19



October 12, 2023
+37.848600,-81.992400
328° NW
Robertson Bldg
300 Cole Street
Logan, WV
Room 19

Photograph # 74
Room 19

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 37 of 69



Photograph # 75
Room 19 – Vinyl Window



Photograph # 76
Room 20

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 38 of 69



Photograph # 77
Room 20



Photograph # 78
Room 20

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 39 of 69



Photograph # 79
Room 20



Photograph # 80
Room 21

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 40 of 69



Photograph # 81
Room 21



Photograph # 82
Room 21

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 41 of 69



October 12, 2023
+37.848743,-81.992595
285° W
Robertson Bldg
300 Cole Street
Logan, WV
Room 23

Photograph # 83
Room 23



October 12, 2023
+37.848743,-81.992595
283° W
Robertson Bldg
300 Cole Street
Logan, WV
Room 23

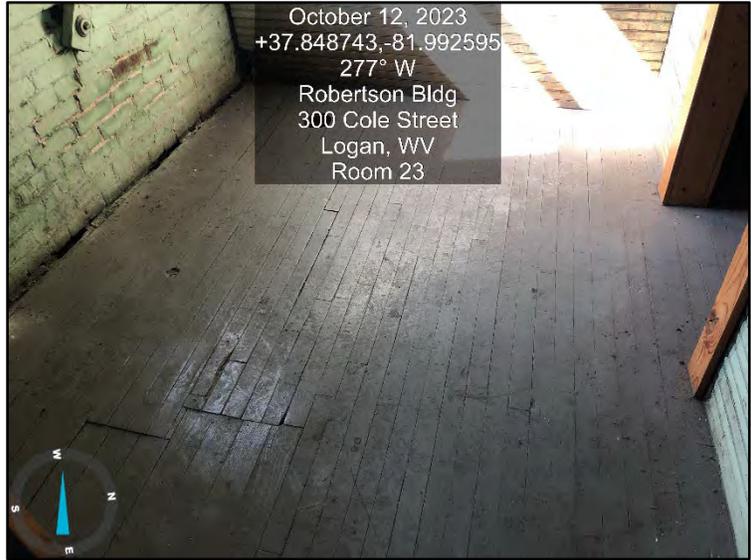
Photograph # 84
Room 23

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 42 of 69



Photograph # 85
Room 23



Photograph # 86
Room 24

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 43 of 69



Photograph # 87
Room 24



Photograph # 88
Room 24

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 44 of 69



Photograph # 89
Room 25



Photograph # 90
Room 25

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 45 of 69



Photograph # 91
Room 25

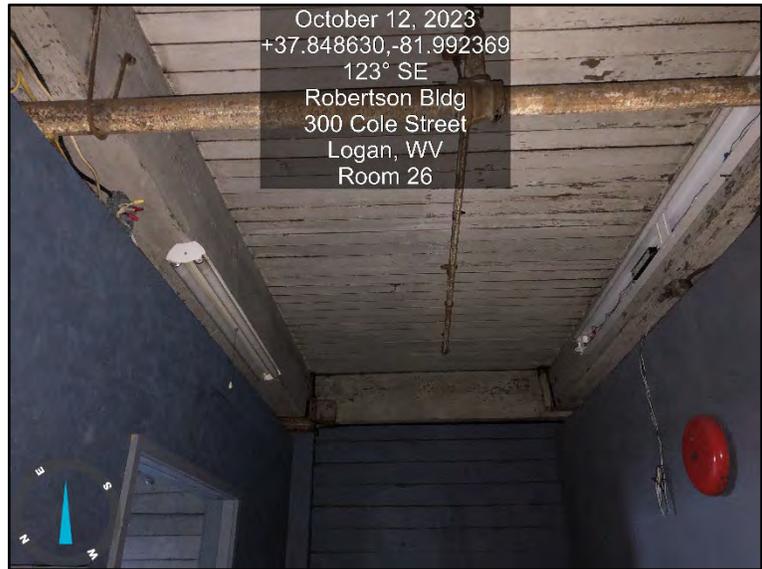


Photograph # 92
Room 25

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 46 of 69



Photograph # 93
Room 26



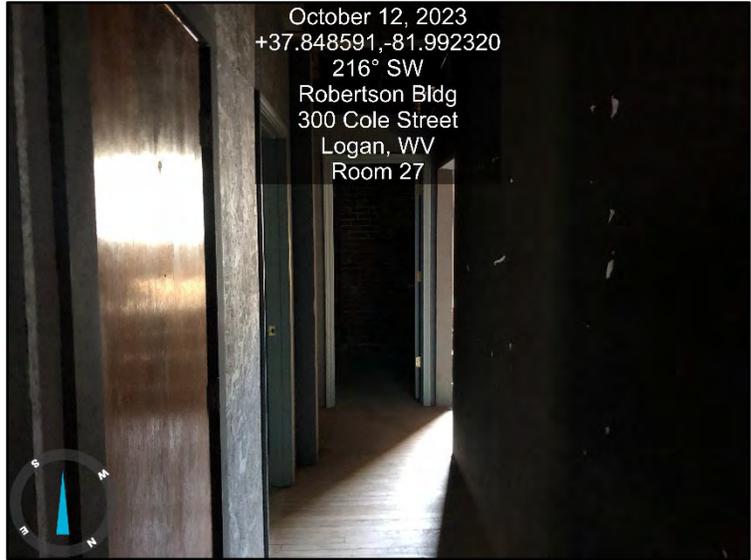
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Room 26

DATE: October 30, 2023

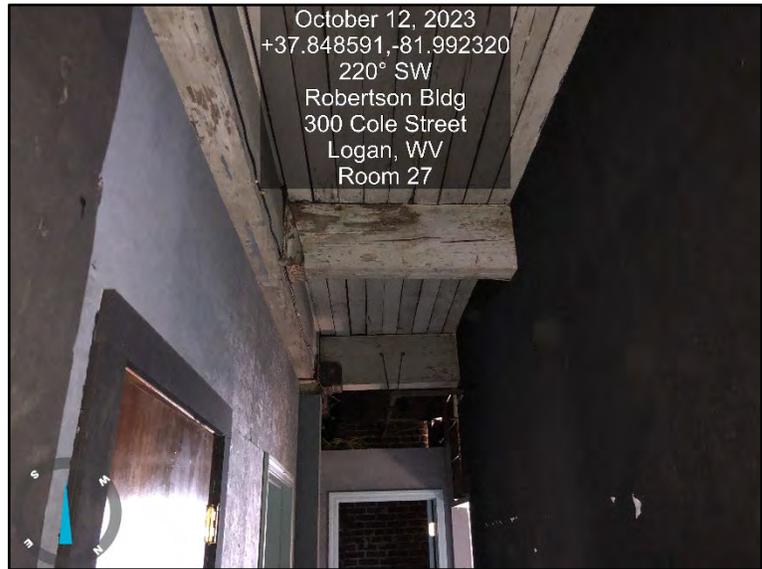
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 47 of 69

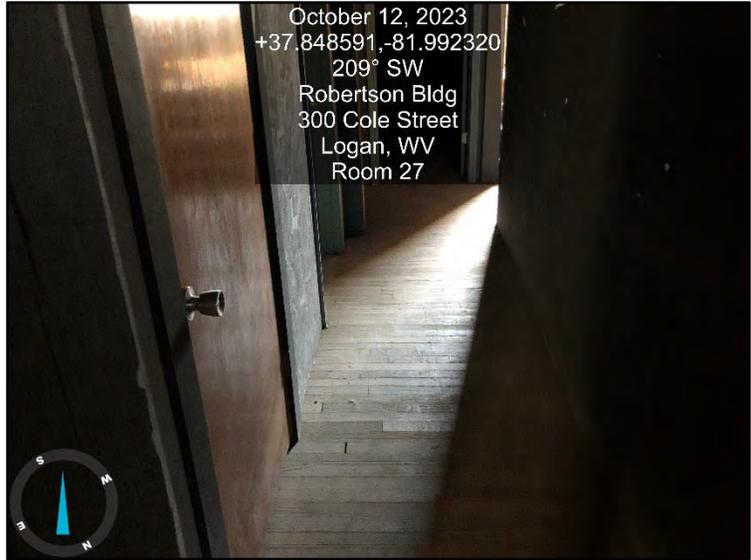


Photograph # 95
Room 27



Photograph # 96
Room 27

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 48 of 69

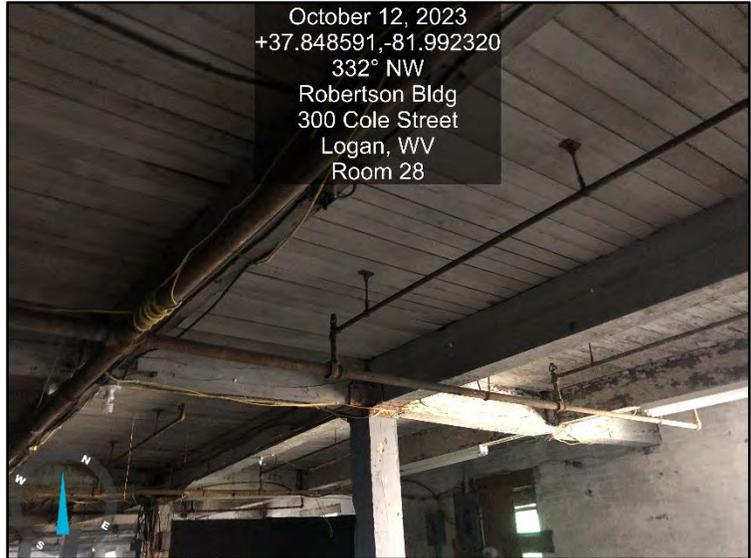


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Room 27



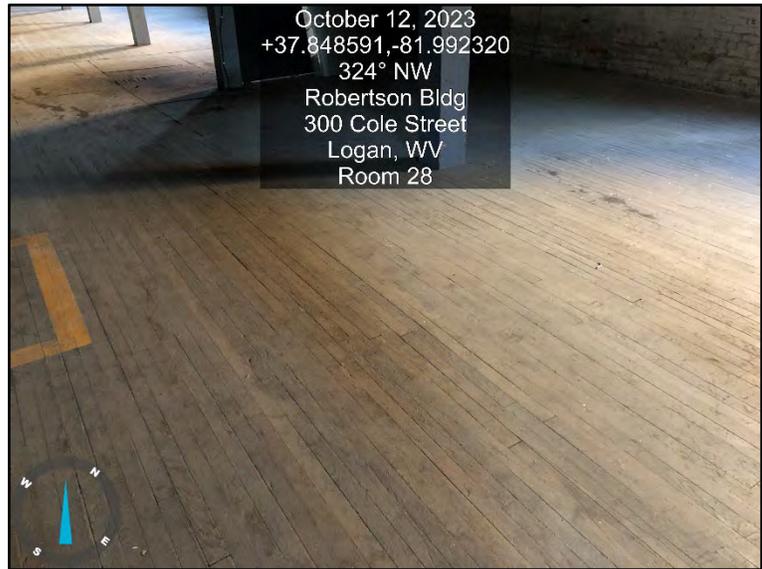
Photograph # 98
Room 28

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 49 of 69



October 12, 2023
+37.848591,-81.992320
332° NW
Robertson Bldg
300 Cole Street
Logan, WV
Room 28

Photograph # 99
Room 28



October 12, 2023
+37.848591,-81.992320
324° NW
Robertson Bldg
300 Cole Street
Logan, WV
Room 28

Photograph # 100
Room 28

DATE: October 30, 2023

PROJECT NO. T60-11108

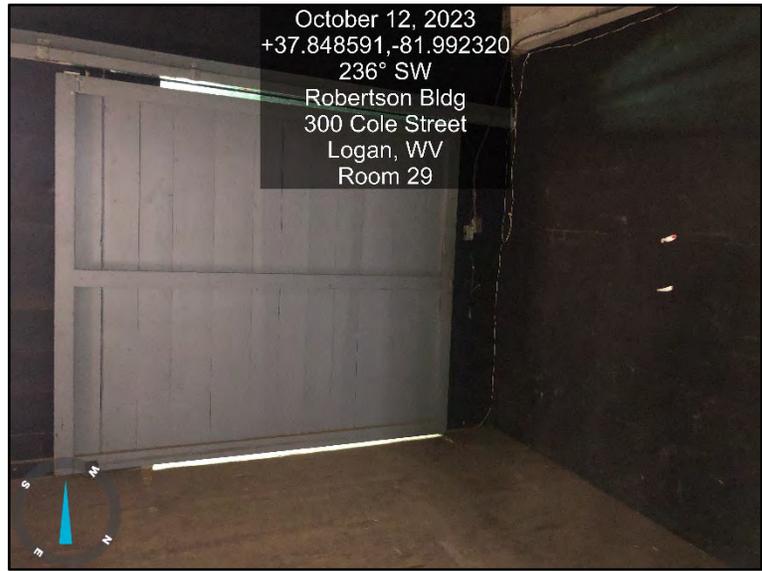
PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 50 of 69



October 12, 2023
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158° S
Robertson Bldg
300 Cole Street
Logan, WV
Room 29

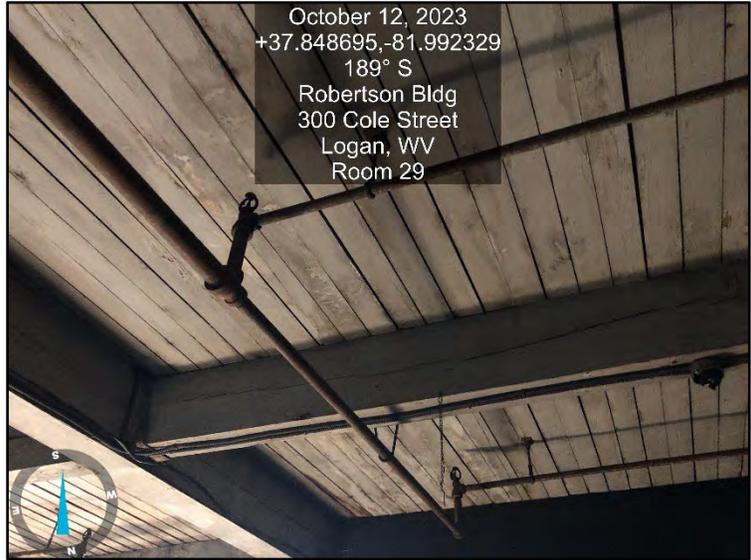
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Room 29



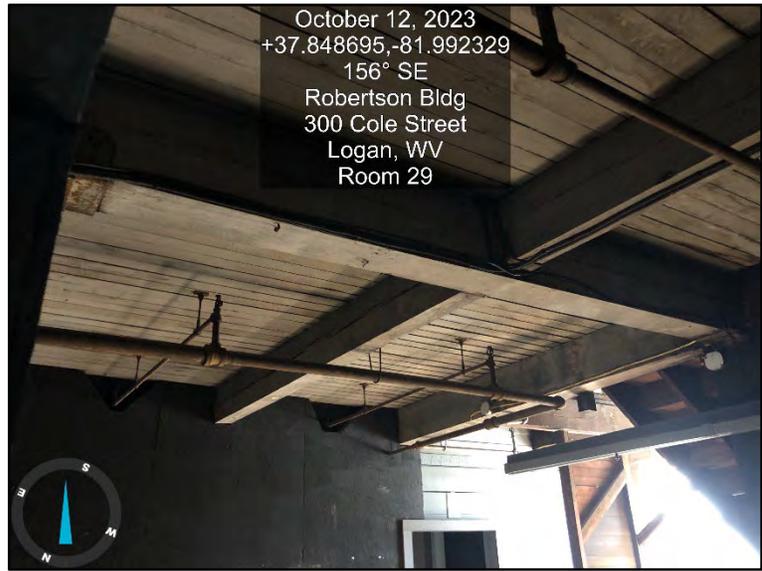
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236° SW
Robertson Bldg
300 Cole Street
Logan, WV
Room 29

Photograph # 102
Room 29

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 51 of 69



Photograph # 103
Room 29



Photograph # 104
Room 29

DATE: October 30, 2023

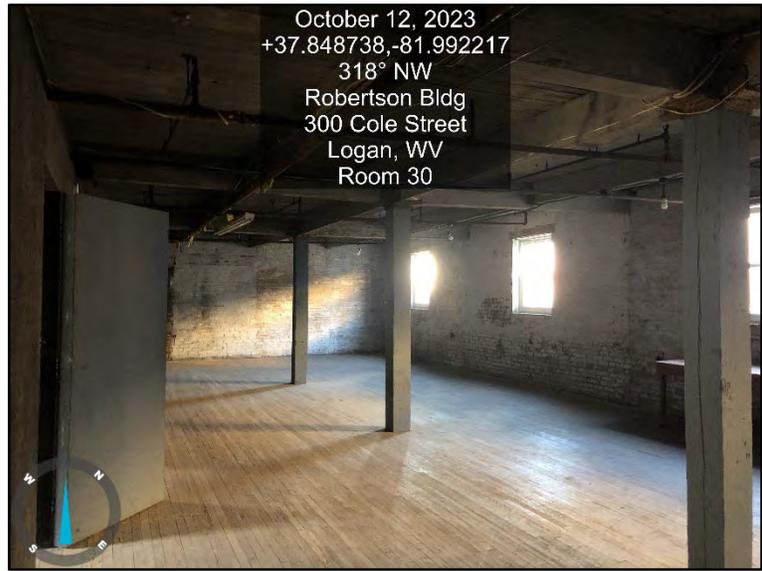
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 52 of 69



Photograph # 105
Room 29



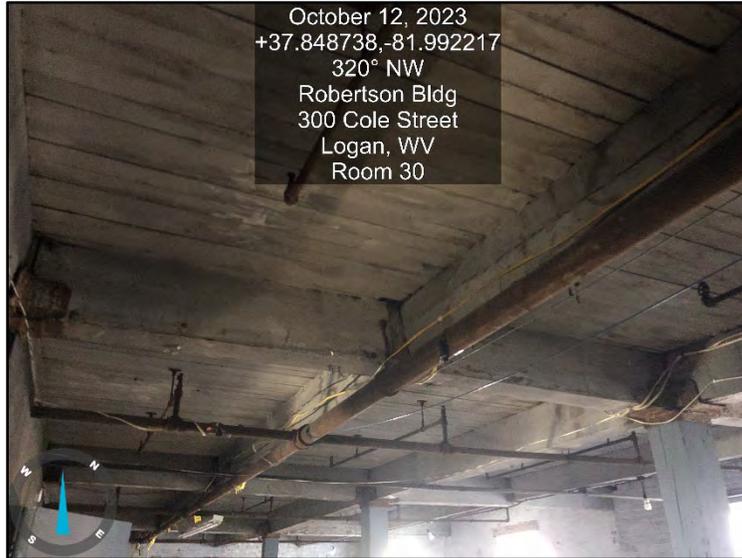
Photograph # 106
Room 30

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 53 of 69



October 12, 2023
+37.848738,-81.992217
320° NW
Robertson Bldg
300 Cole Street
Logan, WV
Room 30

Photograph # 107
Room 30



October 12, 2023
+37.848738,-81.992217
318° NW
Robertson Bldg
300 Cole Street
Logan, WV
Room 30

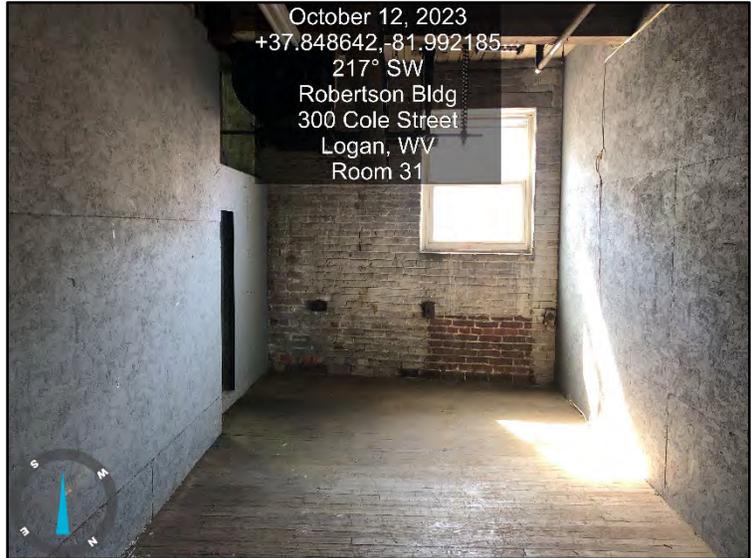
Photograph # 108
Room 30

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 54 of 69



Photograph # 109
Room 31



Photograph # 110
Room 31

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 55 of 69



Photograph # 111
Room 31



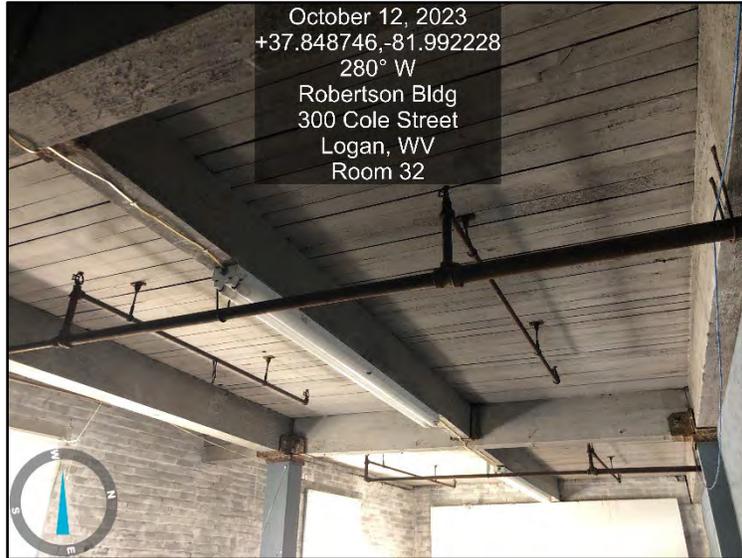
Photograph # 112
Room 32

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 56 of 69



Photograph # 113
Room 32



Photograph # 114
Room 32

DATE: October 30, 2023

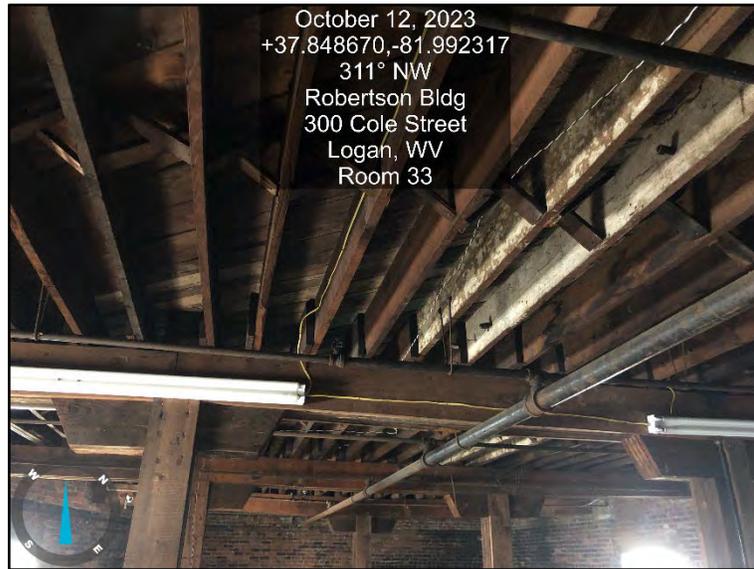
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 57 of 69



Photograph # 115
Room 33



Photograph # 116
Room 33

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 58 of 69



Photograph # 117
Room 33



Photograph # 118
Room 34

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 59 of 69



Photograph # 119
Room 34



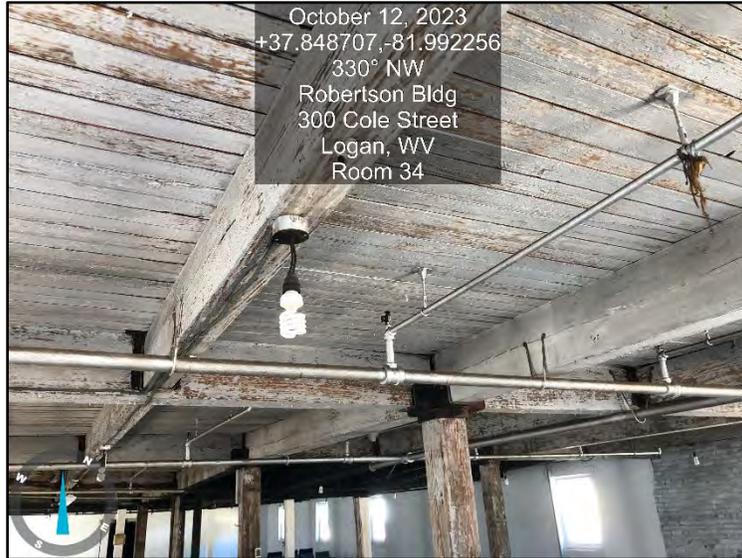
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Room 34

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 60 of 69



Photograph # 121
Room 34



Photograph # 122
Room 34

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 61 of 69



October 12, 2023
+37.848707,-81.992256
265° W
Robertson Bldg
300 Cole Street
Logan, WV
Room 34

Photograph # 123
Room 34



October 12, 2023
+37.848771,-81.992368
317° NW
Robertson Bldg
300 Cole Street
Logan, WV
Room 35

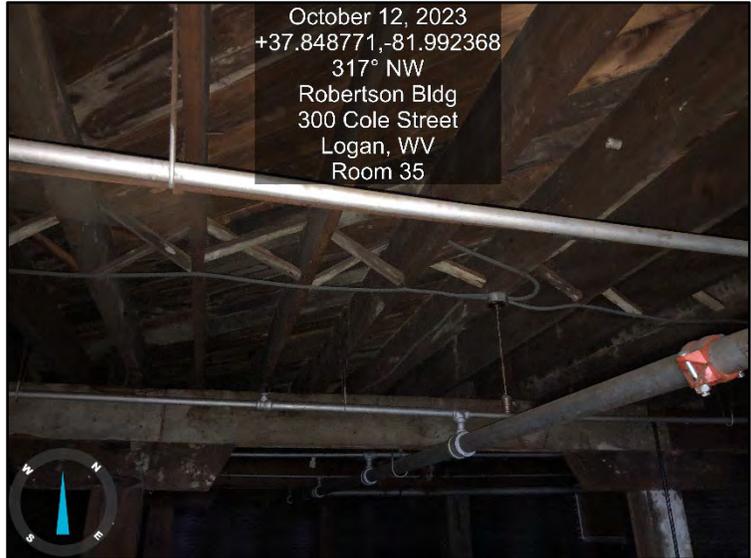
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Room 35

DATE: October 30, 2023

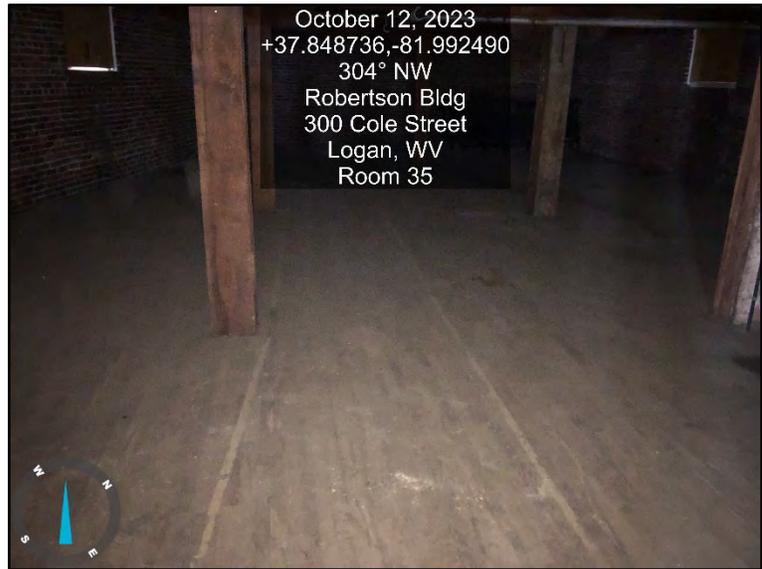
PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 62 of 69



Photograph # 125
Room 35



Photograph # 126
Room 35

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 63 of 69



Photograph # 127
Room 36



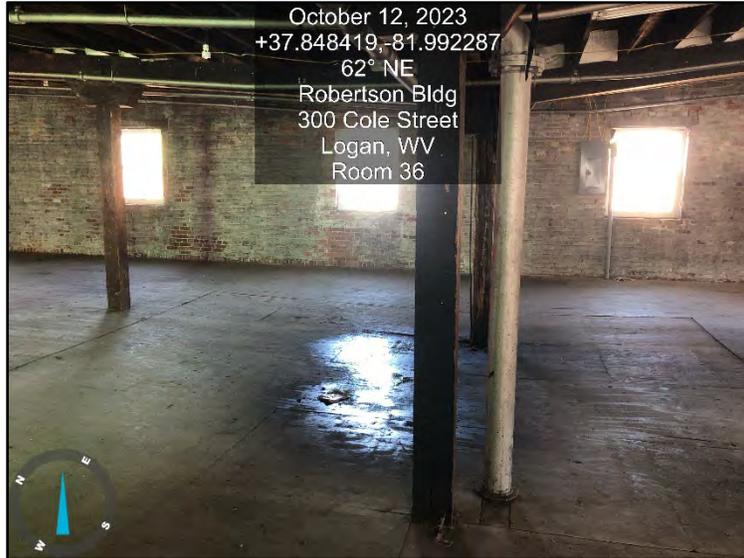
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Room 36

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 64 of 69



Photograph # 129
Room 36



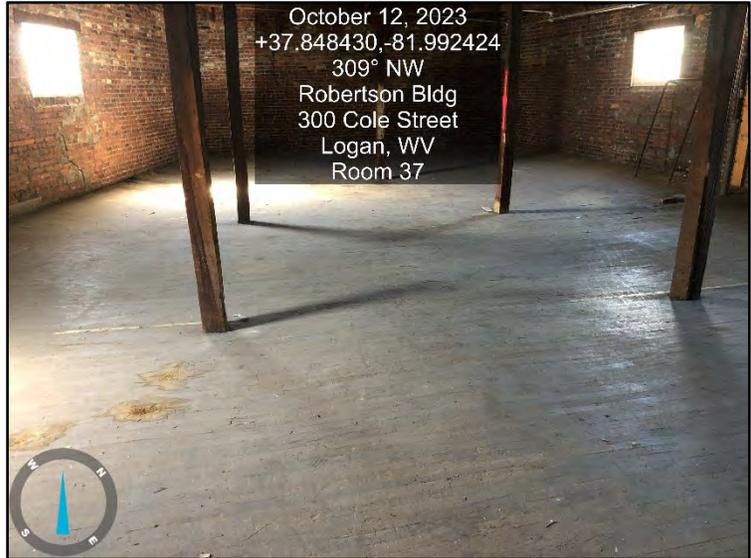
Photograph # 130
Room 37

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 65 of 69



Photograph # 131
Room 37



Photograph # 132
Basement

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 66 of 69



Photograph # 133
Basement



Photograph # 134
Basement

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 67 of 69



Photograph # 135
Basement



Photograph # 136
Basement

DATE: October 30, 2023

PROJECT NO. T60-11108

PROJECT NAME:
Robertson Building
300 Cole Street
Logan, WV 25601

Page 68 of 69



Photograph # 137
Basement



Photograph # 138
Basement

DATE: October 30, 2023
PROJECT NO. T60-11108
PROJECT NAME: Robertson Building 300 Cole Street Logan, WV 25601
Page 69 of 69

APPENDIX B – Analytical Results



10 INDEPENDENT AVENUE
 NITRO, WV 25143
 PHONE 304.757.5204
 FAX 304.440.3465
 www.pinnaclecorp.net

ASBESTOS IDENTIFICATION BY POLARIZED LIGHT MICROSCOPY ANALYSIS

Attn: Chad Smith
 Thrasher Group
 1000 Corporate Landing
 Charleston, WV 25311

Client Project/PO#: T60-11108
 PC Project #:
 Received Date: 10/13/2023
 Analysis Date: 10/18/2023

RE: 300 Cole Street - Robertson Bldg., Logan, WV

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-01	23B-34820	Room 15 Wall	White
Texture/Description: Solid/Drywall			
TOTAL ASBESTOS: 0 %			
Cellulose: 15 % Fiber Glass: 0% Others: 0% Filler/Binder: 85 %			

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-02	23B-34821	Room 9 Wall	White
Texture/Description: Solid/Drywall			
TOTAL ASBESTOS: 0 %			
Cellulose: 10 % Fiber Glass: 0% Others: 0% Filler/Binder: 90 %			

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-03	23B-34822	Room 6 Wall	White
Texture/Description: Solid/Drywall			
TOTAL ASBESTOS: 0 %			
Cellulose: 12 % Fiber Glass: 0% Others: 0% Filler/Binder: 88 %			

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-04	23B-34823	Room 20 Wall	Brown
Texture/Description: Solid/Plaster			
TOTAL ASBESTOS: 0 %			
Cellulose: 0 % Fiber Glass: 0% Others: 3% Filler/Binder: 97 %			

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-05	23B-34824	Room 21 Wall	Brown
Texture/Description: Solid/Plaster			
TOTAL ASBESTOS: 0 %			
Cellulose: 0 % Fiber Glass: 0% Others: 5% Filler/Binder: 95 %			

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-06	23B-34825	Room 22 Wall	Brown
Texture/Description: Solid/Plaster			
TOTAL ASBESTOS: 0 %			
Cellulose: 0 % Fiber Glass: 0% Others: 2% Filler/Binder: 98 %			

RE: 300 Cole Street - Robertson Bldg., Logan, WV

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-07	23B-34826	Room 9	White
Texture/Description:	Solid/2'x2' Ceiling	Chrysotile: 0 %	Tremolite: 0% Anthophyllite: 0%
TOTAL ASBESTOS:	0 %	Amosite: 0%	Actinolite: 0% Crocidolite: 0%
Cellulose: 75 %	Fiber Glass: 0%	Others: 0%	Filler/Binder: 25 %

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-08	23B-34827	Room 8	White
Texture/Description:	Solid/2'x2' Ceiling	Chrysotile: 0 %	Tremolite: 0% Anthophyllite: 0%
TOTAL ASBESTOS:	0 %	Amosite: 0%	Actinolite: 0% Crocidolite: 0%
Cellulose: 67 %	Fiber Glass: 0%	Others: 0%	Filler/Binder: 33 %

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-09	23B-34828	Room 3	White
Texture/Description:	Solid/2'x2' Ceiling	Chrysotile: 0 %	Tremolite: 0% Anthophyllite: 0%
TOTAL ASBESTOS:	0 %	Amosite: 0%	Actinolite: 0% Crocidolite: 0%
Cellulose: 70 %	Fiber Glass: 0%	Others: 0%	Filler/Binder: 30 %

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-10	23B-34829	Room 14	White
Texture/Description:	Solid/12x12 Floor Tile	Chrysotile: 0 %	Tremolite: 0% Anthophyllite: 0%
TOTAL ASBESTOS:	0 %	Amosite: 0%	Actinolite: 0% Crocidolite: 0%
Cellulose: 0 %	Fiber Glass: 0%	Others: 0%	Filler/Binder: 100%

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-11	23B-34830	Room 7	White
Texture/Description:	Solid/12x12 Floor Tile	Chrysotile: 0 %	Tremolite: 0% Anthophyllite: 0%
TOTAL ASBESTOS:	0 %	Amosite: 0%	Actinolite: 0% Crocidolite: 0%
Cellulose: 0 %	Fiber Glass: 0%	Others: 0%	Filler/Binder: 100%

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-12	23B-34831	Room 3	White
Texture/Description:	Solid/12x12 Floor Tile	Chrysotile: 0 %	Tremolite: 0% Anthophyllite: 0%
TOTAL ASBESTOS:	0 %	Amosite: 0%	Actinolite: 0% Crocidolite: 0%
Cellulose: 0 %	Fiber Glass: 0%	Others: 0%	Filler/Binder: 100%

CLIENT ID #:	LAB ID #:	LOCATION:	COLOR:
300-13	23B-34832	Exterior Wood Window	White
Texture/Description:	Solid/Window Glazing	Chrysotile: 0 %	Tremolite: 0% Anthophyllite: 0%
TOTAL ASBESTOS:	0 %	Amosite: 0%	Actinolite: 0% Crocidolite: 0%
Cellulose: 0 %	Fiber Glass: 0%	Others: 0%	Filler/Binder: 100%

Analytical Method: Polarized light microscopy using dispersion staining (App. E to Sub. E of 40 CFR Part 763 and EPA/600/R-93/116). PLM should not be used to demonstrate the absence of asbestos in floor tiles. All samples will be held for thirty (30) days unless otherwise requested. This report relates only to items tested and makes no statement as to the contents of surrounding materials and apply to the sample as received. Multi-layered material which have distinct and separable layers shall be reported separately. This report shall not be reproduced, except in full, without written permission. The results of this report should not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Analyzed by:



Casey Brown



10 Independent Drive
 Nitro, West Virginia 25143
 Tel: 304-757-5204
 Fax: 304-440-3465
 Web: www.pinnaclecorp.net

Company Name: <u>The Thrasher Group</u>	TURNAROUND TIME REQUESTED	
Contact: <u>Chad Smith</u>	Emergency Rush <input type="checkbox"/>	2-Day <input type="checkbox"/>
Address: <u>1000 Corporate Landing</u>	Same Day (4 hours) <input type="checkbox"/>	3-5 Day <input checked="" type="checkbox"/>
City State Zip: <u>Charleston, WV 25311</u>	Next Day (24 Hours) <input type="checkbox"/>	
Email: <u>crsmith@thethrashergroup.com</u>	Phone: _____	

TYPE OF ANALYSIS REQUESTED

ASBESTOS	FUNGAL SPORE	LEAD
PCM (Air Samples) <input type="checkbox"/>	Spore Trap (Air) <input type="checkbox"/>	XRF <input type="checkbox"/>
TEM Analysis <input type="checkbox"/>	Direct Exam (Tape) <input type="checkbox"/>	Wipe <input type="checkbox"/>
PLM (Bulk Samples) <input checked="" type="checkbox"/>		Soil <input type="checkbox"/>
Point Count (If Applicable) <input type="checkbox"/>		Chips <input type="checkbox"/>
Analyze to Positive <input type="checkbox"/>		

Bill To If Different:	Comments/Instructions:
Address: <u>1000 Corporate Landing</u>	
City State Zip: <u>Alt. Charleston, WV 25311</u>	
Email: _____	

PAID BY: Cash Card Check

Project ID: T60-11108 PO Number: _____

Sampling Date/Time: 10/12/2023 Sampled By: Chad Smith

Project Description/Location: 300 Cole Street - Robertson Bldg. Logan, WV

Sample ID	Description	Comments	Lab ID	
300-01	Wall - Drywall	Room 15	23B-34820	
-02		Room 9	↑ ↓	
-03		Room 6		
-04	Wall - Plaster	Room 20		
-05		Room 21		
-06		Room 22		
-07	2' X 2' Ceiling Tile	Room 9		
-08		Room 8		
-09		Room 3		
-10	12 X 12 Floor Tile	Room 14		
-11		Room 7		
-12		Room 3		
-13	Window Glazing	Exterior Wood Window		23B-34832

Relinquished By: [Signature] Date: 10/13/23 Laboratory Use: _____

Received By: _____ Date: _____

Relinquished By: _____ Date: _____

Received By: Miranda Heady Date: 10/13/23

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200718-0

Pinnacle Consultants, LLC
Nitro, WV

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2023-07-01 through 2024-06-30

Effective Dates



A handwritten signature in blue ink, reading 'Dana S. Haman'.

For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

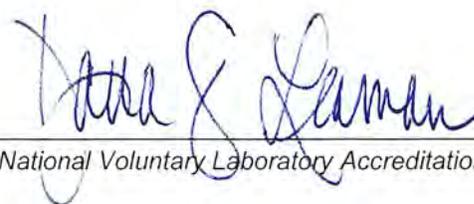
Pinnacle Consultants, LLC
10 Independent Avenue
Nitro, WV 25143
Ms. Miranda Reedy
Phone: 304-757-5204 Fax: 304-757-5205
Email: miranda.reedy@pinnaclecorp.net
<http://www.pinnaclecorp.net>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200718-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials



For the National Voluntary Laboratory Accreditation Program

State of West Virginia

Bureau for Public Health
Office of Environmental Health Services
Radiation, Toxics and Indoor Air Division

This is to certify that

PINNACLE CONSULTANTS, LLC
10 INDEPENDENT AVENUE
NITRO, WV 25143

Has complied with Chapter 16, Article 32, of the Asbestos Abatement Licensing Rules and Regulations and is hereby licensed as an Asbestos Air & Bulk Sample Analytical Laboratory.

Asbestos Air & Bulk Sample Analytical Laboratory Number:

LT000612

Issued: 02/22/2023

Expires: 02/29/2024



Lee Orr, Interim Director
Office of Environmental Health Services

APPENDIX C – Certification and License



TRAINING SERVICES INTERNATIONAL

Asbestos Building Inspector Initial

Certificate

This is to certify

Chad Smith

XXX-XX-3093



as attended and successfully completed the Asbestos Hazard Emergency Response Act mandatory course for the Asbestos Building Inspector Initial and has passed an examination in that course with a minimum score of 70% or better. Training was in accordance with 40 CFR Part 763 (AHERA). The above student received the requisite training for asbestos accreditation under Title II of the Toxic Substances Control Act and State of Indiana requirements under 326 IAC 18-2 and Chapter 3745-22 Ohio Administrative Code.

Training Manager

1/11/24

Expiration Date

1/9/23 - 1/11/23

Date(s) of Course

1/11/2023

Examination Date

Columbus, OH

Course Location

33150 Lakeland Blvd.
Cleveland, OH 44095
www.TSItraining.com

Course Certificate No. **23 TSI 418855 ii**



WEST VIRGINIA

Asbestos Program

Robert C. Smith

IS LICENSED AS AN
ASBESTOS INSPECTOR

License # AI010913

Issued: 1/23/2023

Expires: 1/31/2024

Lee Ann

Interim Director
WV OEHS

**COALFIELD DEVELOPMENT
CABELL COUNTY, WEST VIRGINIA
FOR THE
JUST TRANSITION CENTER
THRASHER #T60-11108**

**INDEX
VOLUME I**

BIDDING DOCUMENTS

Advertisement for Bid	AFB
Instructions to Bidders	A701 - 1997
Bid Opening Requirements	BOR
Bid	BID

CONDITIONS OF WORK

Standard Form of Agreement between Owner and Contractor	A101 - 2017
Performance Bond	A312 - 2010
Payment Bond	A312 - 2010
Change Order Directive	G714 - 2017
Change Order	G701 - 2017
Application and Certificate for Payment	G702 - 1992
Continuation Sheet	G703 - 1992
Certificate of Substantial Completion	G704 - 2017
Consent of Surety to Final Payment	G707 - 1994
Consent of Surety to Reduction in or Partial Release of Retainage	G707A - 1994

GENERAL CONDITIONS

General Conditions of the Contract for Construction	A201 - 2017
---	-------------

Supplementary General Conditions SGC

American Iron and Steel Requirement Info to Bidders AIS

Davis Bacon Contract Requirements DB

Wage Rates

EDA Contracting Provisions for Construction Projects

TECHNICAL SPECIFICATIONS

Summary 011000

Allowances 012100

Unit Prices 012200

Alternates 012300

Substitution Procedures 012500

Contract Modification Procedures 012600

Payment Procedures 012900

Project Management and Coordination 013100

Photographic Documentation 013233

Submittal Procedures 013300

Quality Requirements 014000

References 014200

Temporary Facilities and Controls 015000

Product Requirements 016000

Execution 017300

Construction Waste Management and Disposal 017419

Closeout Procedures 017700

Coalfield Development
Just Transition Center

REVISED: Addendum 2
February 10, 2026

Operation And Maintenance Data

017823

Project Record Documents

017839

Demonstration And Training

017900

**COALFIELD DEVELOPMENT
CABELL COUNTY, WEST VIRGINIA
FOR THE
JUST TRANSITION CENTER
THRASHER #T60-11108**

**INDEX
VOLUME II**

TECHNICAL SPECIFICATIONS

Selective Demolition	024119
Cast-in-place Concrete	033000
Structural Steel Framing	051200
Steel Decking	053100
Metal Fabrications	055000
Fixed Metal Ladders	055100
Metal Pan Stairs	055113
Metal Grating Stairs	055119
Pipe and Tube Railings	055213
Decorative Metal Railings	057300
Rough Carpentry	061000
Miscellaneous Rough Carpentry	061053
Sheathing	061600
Thermal Insulation	072100
Soffit Panels	074293
Weather Barriers	072500
Ethylene-Propylene Diene Monomer (EPDM) Roofing	075323

Roof Specialties	077100
Roof Accessories	077200
Applied Fire Protection	078100
Intumescent Fireproofing	078123
Penetration Firestopping	078413
Joint Firestopping	078443
Joint Sealants	079200
Acoustical Joint Sealants	079219
Hollow Metal Doors and Frames	081113
Flush Wood Doors	081416
Access Doors And Frames	083113
Overhead Coiling Doors	083323
Aluminum-framed Entrances and Storefronts	084113
Door Hardware	087100
Door Index	
Glazing	088000
Gypsum Board	092900
Acoustical Panel Ceilings	095113
Resilient Base and Accessories	096513
Luxury Vinyl Tile Flooring	096519.10
Exterior Painting	099113
Interior Painting	099123
Staining And Transparent Finishing	099300

Panel Signage	101423
High Density Polymer Toilet Compartments	102113
Toilet, Bath, And Laundry Accessories	102800
Residential Appliances	113100
Manufactured Plastic Laminate Clad Casework	123216
Solid Surfacing Countertops	123661.16
Hydraulic Elevators	142400
Fire Extinguisher Cabinets	104413
Fire Extinguishers	104416
Common Motor Requirements for Fire Suppression Equipment	210513
Escutcheons for Fire-Suppression Piping	210518
General -Duty Valves for Water-Based Fire Suppression Piping	210523
Hangers and Supports for Fire Suppression Piping and Equipment	210529
Heat Tracing for Fire Suppression Piping	210533
Identification for Fire Suppression Piping and Equipment	210553
Fire Department Connections	211119
Fire Suppression Standpipes	211200
Wet Pipe Sprinkler Systems	211313
Dry Pipe Sprinkler Systems	211316
Electric Drive, Vertical Turbine Fire Pumps	213213
Sleeves and Sleeve Seals for Plumbing Piping	220517
Ball Valves for Plumbing Piping	220523.12
Check Valves for Plumbing Piping	220523.14

Gate Valves for Plumbing Piping	220523.15
Hangers and Supports for Plumbing Piping and Equipment	220529
Identification for Plumbing Piping and Equipment	220553
Plumbing Piping Insulation	220719
Facility Water Distribution Piping	221113
Domestic Water Piping	221116
Sanitary Waste and Vent Piping	221316
Sanitary Waste Piping Specialties	221319
Common Motor Requirements for HVAC Equipment	230513
Identification for HVAC Piping and Equipment	230553
Testing, Adjusting, and Balancing for HVAC	230593
Duct Insulation	230713
Metal Ducts	233113
Air Duct Accessories	233300
Flexible Ducts	233346
HVAC Power Ventilators	233423
Air Diffusers	233713.13
Registers And Grilles	233713.23
Factory Fabricated Packaged, 100% Outdoor, Heating & Cooling Makeup Air Units	237433
Split System Air Conditioners	238126
Variable Refrigerant Flow HVAC Systems	238129
Basic Electrical Materials and Methods	260500
Conductors and Cables	260523

Grounding and Bonding for Electrical Systems	260526
Hangers and Supports for Electrical Systems	260529
Raceways and Boxes	260533
Identification for Electrical Systems	260553
Arc-Flash Hazard Analysis	260573.19
Lighting Control Devices	260923
Panelboards	262416
Wiring Devices	262726
Diesel Engine Generators	263213.14
Transfer Switches	263600
Surge Protective Devices for Low Voltage Electrical Power Circuits	264313
Fire Alarm System	283111

SECTION 074293 - SOFFIT PANELS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes metal soffit panels.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
- C. Samples: For each type of metal panel indicated.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site

1.4 INFORMATIONAL SUBMITTALS

- A. Product test reports.
- B. Warranties: Samples of special warranties.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance data.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.
- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E 1592:
 1. Wind Loads: As indicated on Drawings.
 2. Deflection Limits: For wind loads, no greater than 1/180 of the span.
- B. Air Infiltration: Air leakage of not more than 0.06 cfm/sq. ft. when tested according to ASTM E 283 at the following test-pressure difference:
 1. Test-Pressure Difference: 1.57 lbf/sq. ft..
- C. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E 331 at the following test-pressure difference:
 1. Test-Pressure Difference: 2.86 lbf/sq. ft..
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

2.2 METAL SOFFIT PANELS

- A. General: Provide metal soffit panels designed to be installed by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners in side laps. Include accessories required for weathertight installation.
- B. Metal Soffit Panels: Match profile and material of metal wall panels.
 1. Finish: As selected by the Architect from the manufacturer's full range of standard colors.
- C. Flush-Profile Metal Soffit Panels: Solid panels formed with vertical panel edges and a flat joint between panel edges; with flush joint between panels.
 1. Basis of Design Product:
 - a. Petersen Aluminum Corporation
 - 1) Flush Solid Soffit
 2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. ATAS International, Inc.
 - b. Dimensional Metals, Inc.
 - c. Imetco.
 - d. Petersen Aluminum Corporation.
3. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
- a. Nominal Thickness: 0.028 inch.
 - b. Exterior Finish: Two-coat fluoropolymer.
 - c. Color: As selected by Architect from manufacturer's full range.
4. Aluminum Sheet: Coil-coated sheet, ASTM B 209, alloy as standard with manufacturer, with temper as required to suit forming operations and structural performance required.
- a. Thickness: 0.032 inch.
 - b. Surface: Smooth, flat finish.
 - c. Exterior Finish: Two-coat fluoropolymer.
 - d. Color: As selected by Architect from manufacturer's full range.
5. Panel Coverage: 12 inches.
6. Panel Height: 1.0 inch.

2.3 MISCELLANEOUS MATERIALS

- A. Miscellaneous Metal Subframing and Furring: ASTM C 645, cold-formed, metallic-coated steel sheet, ASTM A 653/A 653M, G90 coating designation or ASTM A 792/A 792M, Class AZ50 aluminum-zinc-alloy coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.
- B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.
 1. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch-thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.
- C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Finish flashing and trim with same finish system as adjacent metal panels.
- D. Panel Fasteners: Self-tapping screws designed to withstand design loads. Provide exposed fasteners with heads matching color of metal panels by means of plastic caps or factory-applied coating. Provide EPDM or PVC sealing washers for exposed fasteners.

- E. Panel Sealants: Provide sealant types recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.
 - 1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing; 1/8 inch thick.
 - 2. Joint Sealant: ASTM C 920; as recommended in writing by metal panel manufacturer.
 - 3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C 1311.

2.4 FABRICATION

- A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.
- C. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.
- D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

2.5 FINISHES

- A. Panels and Accessories:
 - 1. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 2. Concealed Finish: White or light-colored acrylic or polyester backer finish.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal panel manufacturer's written recommendations.
 - 1. Soffit Framing: Wire tie or clip furring channels to supports, as required to comply with requirements for assemblies indicated.

3.2 METAL PANEL INSTALLATION

- A. Metal Soffit Panels: Fasten metal panels to supports with fasteners at each lapped joint at location and spacing recommended by manufacturer.
 - 1. Apply panels and associated items true to line for neat and weathertight enclosure.
 - 2. Provide metal-backed washers under heads of exposed fasteners bearing on weather side of metal panels.
 - 3. Locate and space exposed fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
 - 4. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.

- B. Watertight Installation:
 - 1. Apply a continuous ribbon of sealant or tape to seal lapped joints of metal panels, using sealant or tape as recommend by manufacturer on side laps of nesting-type panels and elsewhere as needed to make panels watertight.
 - 2. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
 - 3. At panel splices, nest panels with minimum 6-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.

- C. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.

- D. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that are permanently watertight.

3.3 CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

END OF SECTION 074293

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SECTION 087100 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware for:
 - a. Swinging doors.
 - b. Sliding doors.
 - c. Gates.
2. Electronic access control system components, including:
 - a. Biometric access control reader.
 - b. Electronic access control devices.
3. Field verification, preparation and modification of existing doors and frames to receive new door hardware.
4. Lead-lining door hardware items required for radiation protection at door openings.
5. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

B. Exclusions: Unless specifically listed in hardware sets, hardware is not specified in this section for:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 Section "Alternates" for alternates affecting this section.
2. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.

3. Division 09 sections for touchup, finishing or refinishing of existing openings modified by this section.
4. Division 13 Section “Radiation Protection” for requirements for lead-lining for door hardware at openings indicated to receive radiation protection.
5. Division 26 sections for connections to electrical power system and for low-voltage wiring.
6. Division 28 sections for coordination with other components of electronic access control system.

1.3 REFERENCES

A. UL - Underwriters Laboratories

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Key Systems and Nomenclature

C. ANSI - American National Standards Institute

1. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties

1.4 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 requirements.
2. Highlight, encircle, or otherwise specifically identify on submittals deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.
3. Prior to forwarding submittal, comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, “EXAMINATION” article, herein.

B. Action Submittals:

1. Product Data: Product data including manufacturers’ technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:

- 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample or sample installations of each type of exposed hardware unit in finish indicated, and tagged with full description for coordination with schedule.
 - a. Samples will be returned to supplier in like-new condition. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
 4. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:
 - a. Door Index; include door number, heading number, and Architects hardware set number.
 - b. Opening Lock Function Spreadsheet: List locking device and function for each opening.
 - c. Type, style, function, size, and finish of each hardware item.
 - d. Name and manufacturer of each item.
 - e. Fastenings and other pertinent information.
 - f. Location of each hardware set cross-referenced to indications on Drawings.
 - g. Explanation of all abbreviations, symbols, and codes contained in schedule.
 - h. Mounting locations for hardware.
 - i. Door and frame sizes and materials.
 - j. Name and phone number for local manufacturer's representative for each product.
 - k. Operational Description of openings with any electrified hardware (locks, exits, electromagnetic locks, electric strikes, automatic operators, door position switches, magnetic holders or closer/holder units, and access control components). Operational description should include how door will operate on egress, ingress, and fire and smoke alarm connection.
 - 1) Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work that is critical in Project construction schedule.
 5. Key Schedule:
 - a. After Keying Conference, provide keying schedule listing levels of keying as well as explanation of key system's function, key symbols used and door numbers controlled.
 - b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
 - c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.

- d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
 - e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion.
 - 1) Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
 - f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.
6. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory prepared for door hardware installation.
- C. Informational Submittals:
1. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
 2. Product Certificates for electrified door hardware, signed by manufacturer:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 3. Certificates of Compliance:
 - a. Certificates of compliance for fire-rated hardware and installation instructions if requested by Architect or Authority Having Jurisdiction.
 - b. Installer Training Meeting Certification: Letter of compliance, signed by Contractor, attesting to completion of installer training meeting specified in "QUALITY ASSURANCE" article, herein.
 - c. Electrified Hardware Coordination Conference Certification: Letter of compliance, signed by Contractor, attesting to completion of electrified hardware coordination conference, specified in "QUALITY ASSURANCE" article, herein.
 4. Product Test Reports: For compliance with accessibility requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by qualified testing agency, for door hardware on doors located in accessible routes.
 5. Warranty: Special warranty specified in this Section.
- D. Fire Door Assembly Inspection and Testing:
1. Submit a written report of the results of functional testing and inspection for fire door assemblies, in compliance with NFPA 80-2007 requirements. Written report shall be provided to the Owner to be made available to the Authority Having Jurisdiction (AHJ). Report shall include the door number for each fire door assembly, door location, door and frame material, fire rating, and summary of deficiencies.
- E. Closeout Submittals:
1. Operations and Maintenance Data : Provide in accordance with Division 01 and include:
 - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Name, address, and phone number of local representative for each manufacturer.

- d. Parts list for each product.
- e. Final approved hardware schedule, edited to reflect conditions as-installed.
- f. Final keying schedule
- g. Copies of floor plans with keying nomenclature
- h. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
- i. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

1.5 QUALITY ASSURANCE

- A. Product Substitutions: Comply with product requirements stated in Division 01 and as specified herein.
 1. Where specific manufacturer's product is named and accompanied by "No Substitute," including make or model number or other designation, provide product specified. (Note: Certain products have been selected for their unique characteristics and particular project suitability.)
 - a. Where no additional products or manufacturers are listed in product category, requirements for "No Substitute" govern product selection.
 2. Where products indicate "acceptable manufacturers" or "acceptable manufacturers and products", provide product from specified manufacturers, subject to compliance with specified requirements and "Single Source Responsibility" requirements stated herein.
- B. Supplier Qualifications and Responsibilities: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
 1. Warehousing Facilities: In Project's vicinity.
 2. Scheduling Responsibility: Preparation of door hardware and keying schedules.
 3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
 4. Coordination Responsibility: Coordinate installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.
 - a. Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.
- C. Installer Qualifications: Qualified tradesmen, skilled in application of commercial grade hardware with record of successful in-service performance for installing door hardware similar in quantity, type, and quality to that indicated for this Project.
- D. Architectural Hardware Consultant Qualifications: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:

1. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC).
 2. Can provide installation and technical data to Architect and other related subcontractors.
 3. Can inspect and verify components are in working order upon completion of installation.
 4. Capable of producing wiring diagrams.
 5. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.
- E. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
1. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.
 2. Manufacturers that perform electrical modifications and that are listed by testing and inspecting agency acceptable to authorities having jurisdiction are acceptable.
- F. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and are identical to products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
- G. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
- H. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
- I. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release latch. Locks do not require use of key, tool, or special knowledge for operation.
- J. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in "REFERENCES" article, herein.
1. Provide operating devices that do not require tight grasping, pinching, or twisting of wrist and that operate with force of not more than 5 lbf (22.2 N).
 2. Maximum opening-force requirements:
 - a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.
 - b. Sliding or Folding Doors: 5 lbf (22.2 N) applied parallel to door at latch.
 - c. Fire Doors: Minimum opening force allowable by authorities having jurisdiction.
 3. Bevel raised thresholds with slope of not more than 1:2. Provide thresholds not more than 1/2 inch (13 mm) high.
 4. Adjust door closer sweep periods so that, from open position of 70 degrees, door will take at least 3 seconds to move to 3 inches (75 mm) from latch, measured to leading edge of door.

- K. Keying Conference: Conduct conference at Project site to comply with requirements in Division 01.
1. Attendees: Owner, Contractor, Architect, Installer and Supplier's Architectural Hardware Consultant.
 2. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - a. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - b. Preliminary key system schematic diagram.
 - c. Requirements for key control system.
 - d. Requirements for access control.
 - e. Address for delivery of keys.

L. Coordination Conferences:

1. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.
 - a. Attendees: Door hardware supplier, door hardware installer, Contractor.
 - b. After meeting, provide letter of compliance to Architect, indicating when meeting was held and who was in attendance.
2. Electrified Hardware Coordination Conference: Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.
 - a. Attendees: electrified door hardware supplier, doors and frames supplier, electrified door hardware installer, electrical subcontractor, Owner, Architect and Contractor.
 - b. After meeting, provide letter of compliance to Architect, indicating when coordination conference was held and who was in attendance.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.
1. Deliver each article of hardware in manufacturer's original packaging.
- C. Project Conditions:
1. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
 2. Provide secure lock-up for door hardware delivered to Project, but not yet installed. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

D. Protection and Damage:

1. Promptly replace products damaged during shipping.
2. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.
3. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

E. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

F. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

1.7 COORDINATION

A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Division 03.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

E. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

F. Direct shipments not permitted, unless approved by Contractor.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Years from date of Substantial Completion, for durations indicated.

a. Closers:

1) Mechanical: 10 years. Electrified: 2 years.

b. Automatic Operators: 1 year.

c. Exit Devices:

1) Mechanical: 3 years.

2) Electrified: 1 year.

- d. Locksets:
 - 1) Mechanical: 3 years.
 - 2) Electrified: 1 year.
 - e. Continuous Hinges: Lifetime warranty
2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

1.9 MAINTENANCE

A. Maintenance Tools:

- 1. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and particular project suitability to insure continuity of existing and future performance and maintenance standards. After investigating available product offerings Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."
 - 1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.
- B. Approval of manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.
- C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- D. Hand of Door: Drawings show direction of slide, swing, or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.
- E. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.2 MATERIALS

A. Fasteners

1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
 2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
 3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru-bolts are required.
 4. Install hardware with fasteners provided by hardware manufacturer.
- B. Modification and Preparation of Existing Doors: Where existing door hardware is indicated to be removed and reinstalled.
1. Provide necessary fillers, Dutchmen, reinforcements, and fasteners, compatible with existing materials, as required for mounting new opening hardware and to cover existing door and frame preparations.
 2. Use materials which match materials of adjacent modified areas.
 3. When modifying existing fire-rated openings, provide materials permitted by NFPA 80 as required to maintain fire-rating.
- C. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

2.3 HINGES

- A. Provide five-knuckle, ball bearing hinges.
1. Manufacturers and Products:
 - a. Scheduled Manufacturer and Product: Ives 5BB series
 - b. Acceptable Manufacturers and Products: Hager BB series, McKinney TA/T4A series, Stanley FBB Series
- B. Requirements:
1. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
 - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
 - b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
 2. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
 - a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
 3. 2 inches or thicker doors:

- a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
4. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
 5. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.
 6. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
 - a. Steel Hinges: Steel pins
 - b. Non-Ferrous Hinges: Stainless steel pins
 - c. Out-Swinging Exterior Doors: Non-removable pins
 - d. Out-Swinging Interior Lockable Doors: Non-removable pins
 - e. Interior Non-lockable Doors: Non-rising pins
 7. Width of hinges: 4-1/2 inches (114 mm) at 1-3/4 inch (44 mm) thick doors, and 5 inches (127 mm) at 2 inches (51 mm) or thicker doors. Adjust hinge width as required for door, frame, and wall conditions to allow proper degree of opening.
 8. Doors 36 inches (914 mm) wide or less furnish hinges 4-1/2 inches (114 mm) high; doors greater than 36 inches (914 mm) wide furnish hinges 5 inches (127 mm) high, heavy weight or standard weight as specified.
 9. Provide hinges with electrified options as scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component.
 10. Provide mortar guard for each electrified hinge specified, unless specified in hollow metal frame specification.
 11. Provide spring hinges where specified. Provide two spring hinges and one bearing hinge per door leaf for doors 90 inches (2286 mm) or less in height. Provide one additional bearing hinge for each 30 inches (762 mm) of additional door height.

2.4 CONTINUOUS HINGES

A. Aluminum Geared

1. Manufacturers:
 - a. Scheduled Manufacturer: Ives.
 - b. Acceptable Manufacturers: Markar, Stanley.
2. Requirements:
 - a. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.25, Grade 2.
 - b. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum, with 0.25-inch (6 mm) diameter Teflon coated stainless steel hinge pin.
 - c. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
 - d. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.

- e. On fire-rated doors, provide aluminum geared continuous hinges that are classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
- f. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware.
- g. Install hinges with fasteners supplied by manufacturer.
- h. Provide hinges with symmetrical hole pattern.

2.5 ELECTRIC POWER TRANSFER

A. Manufacturers:

- a. Scheduled Manufacturer: Von Duprin
- b. Acceptable Manufacturers: Falcon, ABH

B. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires sufficient to accommodate electric function of specified hardware.

C. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.6 FLUSH BOLTS

A. Manufacturers:

- 1. Scheduled Manufacturer: Ives
- 2. Acceptable Manufacturers: Burns, Rockwood

B. Requirements:

- 1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.7 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product: Schlage ND Series
- 2. Acceptable Manufacturers and Products: Sargent 11 Series, Corbin Russwin CL3100 Series.

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1. Cylinders: Refer to “KEYING” article, herein.
2. Provide cylindrical locks with classroom security function with an inside indicator that provides clear direction for users to safely and quickly secure the room.
3. Provide locksets able to withstand 3100 inch pounds of torque applied to locked outside lever without gaining access per ANSI/BHMA A156.2 Abusive Locked Lever Torque Test and cycle tested to 3 million cycles per ANSI/BHMA A156.2 Cycle Test.
4. Provide levers with vandal resistant technology for use at heavy traffic or abusive applications. Levers feature internal lock components that prevent damage caused by excessive force from persons kicking, hitting or standing on lever to gain access.
5. Provide solid steel rotational stops to control excessive rotation of lever.
6. Provide completely refunctionable lockset that allows lock function to be changed to over twenty other common functions by swapping easily accessible parts.
7. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2 inch latch throw. Provide proper latch throw for UL listing at pairs.
8. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
9. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
10. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
11. Provide electrified options as scheduled in the hardware sets.
12. Lever Trim: Solid cast levers without plastic inserts, and wrought roses on both sides.
 - a. Lever Design: Schlage Sparta.
 - b. Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.

2.8 MORTISE LOCKS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage L9000 series
2. Acceptable Manufacturers and Products: Corbin-Russwin ML2000 series, Best 35H series (3-piece latchbolt)

B. Requirements:

1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1 Operational, Grade 1 Security, and manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to “KEYING” article, herein.
2. Indicators: Where specified, provide indicator window measuring a minimum 2 inch x 1/2 inch with 180 degree visibility. Provide messages color-coded with full text and/or symbols, as scheduled, for easy visibility.
3. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction 3-piece latchbolt. Provide deadbolt with full 1 inch (25 mm) throw, constructed of stainless steel.
4. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
5. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide a request to exit (RX) switch that is actuated with rotation of inside lever.

6. Provide motor based electrified locksets with electrified options as scheduled in the hardware sets and comply with the following requirements:
 - a. Universal input voltage – single chassis accepts 12 or 24V DC to allow for changes in the field without changing lock chassis.
 - b. Fail Safe/Fail Secure – changing mode between electrically locked (fail safe) and electrically unlocked (fail secure) is field selectable without opening the lock case
 - c. Low maximum current draw – maximum 0.4 amps to allow for multiple locks on a single power supply.
 - d. Low holding current – maximum 0.01 amps to produce minimal heat, eliminate “hot levers” in electrically locked applications, and to provide reliable operation in wood doors that provide minimal ventilation and air flow.
 - e. Request to Exit Switch (RX) –
 - 1) Modular Design – provide electrified locks capable of using, adding, or changing a modular RX switch without opening the lock case.
 - 2) Monitoring – where scheduled, provide a request to exit (RX) switch that detects rotation of the inside lever.
 - f. Connections – provide quick-connect Molex system standard.
 - g. UL Listed – 3 hour fire door
7. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
 - a. Lever Design: Schlage 17A.
 - b. Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.

2.9 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Von Duprin 99/33 series
2. Acceptable Manufacturers and Products: Detex Advantex series, Precision Apex series

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1, and UL listed for Panic Exit or Fire Exit Hardware. Cylinders: Refer to “KEYING” article, herein.
2. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
3. Touchpad: Extend minimum of one half of door width. Match exit device finish, stainless steel for US26, US26D, US28, US32, and US32D finishes; and for all other finishes, provide compatible finish to exit device. Provide compression springs in devices, latches, and outside trims or controls; tension springs also acceptable.
4. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
5. Provide exit devices with manufacturer’s approved strikes.

6. Provide exit devices cut to door width and height. Locate exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
7. Mount mechanism case flush on face of doors, or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
8. Provide cylinder dogging at non-fire-rated exit devices, unless specified less dogging.
9. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion that is removed by use of a keyed cylinder, which is self-locking when re-installed.
10. Where lever handles are specified as outside trim for exit devices, provide heavy-duty lever trims with forged or cast escutcheon plates. Provide vandal-resistant levers that will travel to 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.
 - a. Lever Style: Match lever style of locksets.
 - b. Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.
11. Concealed Vertical Cable Exit Devices: provide cable-actuated concealed vertical latch system in two-point for non-rated or fire rated wood doors up to a 90 minute rating and less bottom latch (LBL) configuration for non-rated or fire rated wood doors up to 20 minute rating. Vertical rods not permitted.
 - a. Cable: Stainless steel with abrasive resistant coating. Conduit and core wire ends snap into latch and center slides without use of tools.
 - b. Wood Door Prep: Maximum 1 inch x 1.1875 inch x 3.875 inches top latch pocket and 1 inch x 1.1875 inch x 5 inches bottom latch pocket which does not require the use of a metal wrap or edge for non-rated or fire rated wood doors up to a 45 minute rating.
 - c. Latchbolts and Blocking Cams: Manufactured from sintered metal low carbon copper- infiltrated steel, with molybdenum disulfide low friction coating.
 - d. Top Latchbolt: Minimum 0.38 inch (10 mm) and greater than 90 degree engagement with strike to prevent door and frame separation under high static load.
 - e. Bottom Latchbolt: Minimum of 0.44 inch (11 mm) engagement with strike.
 - f. Product Cycle Life: 1,000,000 cycles.
 - g. Latch Operation: Top and bottom latch operate independently of each other. Top latch fully engages top strike even when bottom latch is compromised. Separate trigger mechanisms not permitted.
 - h. Latch release does not require separate trigger mechanism.
 - i. Cable and latching system characteristics:
 - 1) Installed independently of exit device installation, and capable of functioning on door prior to device and trim installation.
 - 2) Connected to exit device at single point in steel and aluminum doors, and two points for top and bottom latches in wood doors.
 - 3) Bottom latch height adjusted, from single point for steel and aluminum doors and two points for wood doors, after system is installed and connected to exit device, while door is hanging
 - 4) Bottom latch position altered up and down minimum of 2 inches (51 mm) in steel and aluminum doors without additional adjustment. Bottom latch deadlocks in every adjustment position in wood doors.

- 5) Top and bottom latches in steel and aluminum doors and top latch in wood doors may be removed while door is hanging.
 - 6) Top latch mounting: double or single tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
12. Provide UL labeled fire exit hardware for fire rated openings.
 13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
 14. Provide electrified options as scheduled.

2.10 ELECTRIC STRIKES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Von Duprin 6000 series
2. Acceptable Manufacturers and Products: Folger Adam 300 series, HES 1006 series

B. Requirements:

1. Provide electric strikes designed for use with type of locks shown at each opening.
2. Provide electric strikes UL Listed as burglary-resistant.
3. Where required, provide electric strikes UL Listed for fire doors and frames.
4. Provide fail-secure type electric strikes, unless specified otherwise.
5. Coordinate voltage and provide transformers and rectifiers for each strike as required.

2.11 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage or Von Duprin PS900 series
2. Acceptable Manufacturers and Products No Substitutions

B. Requirements:

1. Provide power supplies, recommended and approved by manufacturer of electrified locking component, for operation of electrified locks, electrified exit devices, magnetic locks, electric strikes, and other components requiring power supply.
2. Provide appropriate quantity and size of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide appropriate option boards for power supplies necessary for proper operation of the electrified locking components as recommended by the manufacturer of the electrified locking components with consideration for each electrified component used in the system.
4. Provide regulated and filtered 24 VDC power supply and UL class 2 listed.
5. Options:

- a. Provide power supply, where specified, with internal capability of charging sealed backup batteries 24 VDC, in addition to operating DC load.
 - b. Provide sealed batteries for battery back-up at each power supply where specified.
 - c. Provide keyed power supply cabinet.
6. Provide power supply in an enclosure, complete, and requiring 120VAC to fused input.
 7. Provide power supply with emergency release terminals, where specified, that allow release of all devices upon activation of fire alarm system complete with fire alarm input for initiating “no delay” exiting mode.

2.12 CYLINDERS

A. Manufacturers:

1. Scheduled Manufacturer: Schlage
2. Acceptable Manufacturers: Best, Medeco

B. Requirements:

1. Provide cylinders/cores, from the same manufacturer of locksets, compliant with ANSI/BHMA A156.5; latest revision, Section 12, Grade 1; permanent cylinders; cylinder face finished to match lockset, manufacturer’s series as indicated. Refer to “KEYING” article, herein.
2. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.
 - a. Conventional cylinder with **interchangeable** core with open keyway.
3. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent-protected.
4. Security Cylinders: Where indicated, provide cylinders/cores with “dual-locking mechanism” with interlocking finger pin(s) to check for patented features on keys.
5. Nickel silver bottom pins.
6. Temporary Construction Cylinder Keying.
 - a. Owner or Owner’s Representative will void operation of temporary construction keys.
7. Replaceable Construction Cores..
 - a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - 1) 12 construction change (day) keys.

2.13 KEYING

- ### A. Provide a factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.
- ### B. Requirements:

1. Key per the following:
 - a. All Locks keyed into a new Master Key System as directed by owner
2. Provide keys with the following features.
 - a. Material: Solid nickel plated
3. Identification:
 - a. Mark permanent cylinders/cores and keys with applicable blind code per DHI publication "Keying Systems and Nomenclature" for identification. Blind code marks shall not include actual key cuts.
 - b. Identification stamping provisions must be approved by the Architect and Owner.
 - c. Failure to comply with stamping requirements shall be cause for replacement of keys involved at no additional cost to Owner.
 - d. Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
4. Quantity: Furnish in the following quantities.
 - a. Change (Day) Keys: 3 per cylinder/core.
 - b. Permanent Control Keys: 3.
 - c. Master Keys: 6.
 - d. Unused balance of key blanks shall be furnished to Owner with the cut keys.
 - e. Extra Keys:
 - 1) 6 Construction Keys

2.14 KEY CONTROL SYSTEM

A. Manufacturers:

1. Scheduled Manufacturer: Telkee
2. Acceptable Manufacturers: HPC, Lund

B. Requirements:

1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.
 - a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.
 - b. Provide hinged-panel type cabinet for wall mounting.

2.15 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN 4040XP series.
2. Acceptable Manufacturers and Products: Sargent 281 series, Corbin Russwin DC8200 series

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2 inch (38 mm) diameter with 3/4 inch (19 mm) diameter double heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.16 ELECTRO-HYDRAULIC AUTOMATIC OPERATORS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN 4600 series.
2. Acceptable Manufacturers and Products: Norton 6000 series, Detex A019 series.

B. Requirements:

1. Provide low energy automatic operator units with hydraulic closer complying with ANSI/BHMA A156.19.
2. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
3. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check, and opening and closing speed adjustment valves to control door
4. Provide units with on/off switch for manual operation, motor start up delay, vestibule interface delay, electric lock delay, and door hold open delay.
5. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check valve, sweep valve, latch valve to control door.
6. Provide drop plates, brackets, or adapters for arms as required for details.

7. Provide hard-wired actuator switches for operation as specified.
8. Provide weather-resistant actuators at exterior applications.
9. Provide key switches with LED's, recommended and approved by manufacturer of automatic operator as required for function described in operation description of hardware group below. Cylinders: Refer to "KEYING" article, herein.
10. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.
11. Provide units with vestibule inputs that allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

2.17 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

B. Requirements:

1. Provide push plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick and beveled 4 edges. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
2. Provide push bars of solid bar stock, diameter and length as scheduled. Provide push bars of sufficient length to span from center to center of each stile. Where required, mount back to back with pull.
3. Provide offset pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
4. Provide flush pulls as scheduled. Where required, provide back-to-back mounted model.
5. Provide pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
6. Provide pull plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick, beveled 4 edges, and prepped for pull. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
7. Provide wire pulls of solid bar stock, diameter and length as scheduled.
8. Provide decorative pulls as scheduled. Where required, mount back to back with pull.

2.18 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

B. Requirements:

1. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes of plates:
 - a. Kick Plates: 10 inches (254 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
 - b. Mop Plates: 4 inches (102 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
 - c. Armor Plates: 36 inches (914 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs

2.19 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers: Glynn-Johnson
2. Acceptable Manufacturers: Rixson, Sargent

B. Requirements:

1. Provide heavy duty concealed mounted overhead stop or holder as specified for exterior and interior vestibule single acting doors.
2. Provide heavy duty concealed mounted overhead stop or holder as specified for double acting doors.
3. Provide heavy or medium duty and concealed or surface mounted overhead stop or holder for interior doors as specified. Provide medium duty surface mounted overhead stop for interior doors and at any door that swings more than 140 degrees before striking wall, open against equipment, casework, sidelights, and where conditions do not allow wall stop or floor stop presents tripping hazard.
4. Where overhead holders are specified provide friction type at doors without closer and positive type at doors with closer.

2.20 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide convex type where mortise type locks are used and concave type where cylindrical type locks are used.
2. Where a wall stop cannot be used, provide universal floor stops for low or high rise options.
3. Where wall or floor stop cannot be used, provide medium duty surface mounted overhead stop.

2.21 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer: Zero International
2. Acceptable Manufacturers: Pemko, Reese

B. Requirements:

1. Provide thresholds, weatherstripping (including door sweeps, seals, astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
2. Size of thresholds:
 - a. Saddle Thresholds: 1/2 inch (13 mm) high by jamb width by door width
 - b. Bumper Seal Thresholds: 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width
3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.

2.22 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

B. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

2.23 MAGNETIC HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer: LCN
2. Acceptable Manufacturers: Rixson, Sargent

B. Requirements:

1. Provide wall or floor mounted electromagnetic door release as specified with minimum of 25 pounds of holding force. Coordination projection of holder and armature with other hardware and wall conditions to ensure that door sits parallel to wall when fully open. Wire magnetic holders on fire-rated doors into the fire control panel for fail-safe operation.

2.24 FINSHES

- A. Finish: BHMA 626/652 (US26D); except:
 - 1. Hinges at Exterior Doors: BHMA 630 (US32D)
 - 2. Continuous Hinges: BHMA 628 (US28)
 - 3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
 - 4. Protection Plates: BHMA 630 (US32D)
 - 5. Overhead Stops and Holders: BHMA 630 (US32D)
 - 6. Door Closers: Powder Coat to Match
 - 7. Wall Stops: BHMA 630 (US32D)
 - 8. Latch Protectors: BHMA 630 (US32D)
 - 9. Weatherstripping: Clear Anodized Aluminum
 - 10. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Existing Door and Frame Compatibility: Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.
- C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Where on-site modification of doors and frames is required:
 - 1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
 - 2. Field modify and prepare existing door and frame for new hardware being installed.
 - 3. When modifications are exposed to view, use concealed fasteners, when possible.
 - 4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:
 - a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
 - b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
 - c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

3.3 INSTALLATION

- A. Mounting Heights: Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- B. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.
- H. Intermediate Offset Pivots: Where offset pivots are indicated, provide intermediate offset pivots in quantities indicated in door hardware schedule but not fewer than one intermediate offset pivot per door and one additional intermediate offset pivot for every 30 inches (750 mm) of door height greater than 90 inches (2286 mm).
- I. Lock Cylinders: Install construction cores to secure building and areas during construction period.
 - 1. Replace construction cores with permanent cores as indicated in keying section.
- J. Wiring: Coordinate with Division 26, ELECTRICAL sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Testing and labeling wires with Architect's opening number.
- K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

- L. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Closers shall not be visible in corridors, lobbies and other public spaces unless approved by Architect.
- M. Closer/holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
 - 1. Configuration: Provide least number of power supplies required to adequately serve doors with electrified door hardware.
- O. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- Q. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- S. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

3.4 FIELD QUALITY CONTROL

- A. Architectural Hardware Consultant: Engage qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.
 - 1. Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.5 FIELD INSPECTIONS:

- A. Fire Door Assembly Inspection and Testing: Provide functional testing and inspection of fire door assemblies in accordance with NFPA 80-2007/2010. Inspections shall be performed by individuals certified by Intertek as a Fire Door Assembly Inspector, using reporting forms provided by the Door and Hardware Institute (DHI). Alternatively, inspections may be performed by individuals acceptable to the Architect, who have knowledge and understanding of the operating components of the applicable door type, and who have experience in preparing written reports of testing and inspection results.
 - 1. Schedule fire door assembly inspection within 90 days of Substantial Completion of the Project.
 - 2. Submit a signed, written final report as specified in Paragraph 1.4: Submittals.
 - 3. Contractor shall correct all deficiencies and schedule a reinspection of fire door assemblies which were noted as deficient on the inspection report.

4. Inspector shall reinspect fire door assemblies after repairs are made.
5. Additional reinspections which are required due to incomplete repairs will be performed by the inspector at the expense of the Contractor.

3.6 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.
 1. Spring Hinges: Adjust to achieve positive latching when door is allowed to close freely from an open position of 30 degrees.
 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
 3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three months after date of Substantial Completion, Installer's Architectural Hardware Consultant shall examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors, door hardware, and electrified door hardware.

3.7 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.8 DEMONSTRATION

- A. Provide training for Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes. Refer to Division 01 Section "Demonstration and Training."

3.9 DOOR HARDWARE SCHEDULE

- A. Locksets, exit devices, and other hardware items are referenced in the following hardware sets for series, type and function. Refer to the above-specifications for special features, options, cylinders/keying, and other requirements.

Hardware Sets: 109519 OPT0366756 Version 2

HARDWARE GROUP NO. 01

FOR USE ON DOOR #(S):

105 106 306 307

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u> <u>Y</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u> <u>H</u>	<u>MFR</u>
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	PRIVACY LOCK	L9040 17A L583-363 L283-722	626	SCH
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 02

FOR USE ON DOOR #(S):

102.3 113.3 115.3

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u> <u>Y</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u> <u>H</u>	<u>MFR</u>
1			HARDWARE BY DOOR MANUFACTURER		

HARDWARE GROUP NO. 03

FOR USE ON DOOR #(S):

401

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	STOREROOM LOCK	ND80TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 04

FOR USE ON DOOR #(S):

108.2 108.3 109 204 305 310

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	STOREROOM LOCK	ND80TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 05

FOR USE ON DOOR #(S):

404

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
4	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	EU STOREROOM LOCK	ND80TDEU SPA CON 12V/24V DC	626	SCH
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	FSIC CORE	23-030	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER
1	EA	POWER SUPPLY	PS902 BBK 900-2RS 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF DIVISION 28		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		

OPERATION: WHEN DOOR IS CLOSED AND LOCKED. VALID CREDENTIAL OR REMOTE SWITCH UNLOCKS ELECTRIC LOCK ALLOWING ENTRY. FREE EGRESS AT ALL TIMES. IN-CASE OF POWER OUTAGE OR FIRE EVENT DOOR REMAINS SECURE.

HARDWARE GROUP NO. 06

FOR USE ON DOOR #(S):

113.2 117.1

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
4	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	EU STOREROOM LOCK	ND80TDEU SPA CON 12V/24V DC	626	SCH
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER
1	EA	POWER SUPPLY	PS902 BBK 900-2RS 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF DIVISION 28		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		

OPERATION: WHEN DOOR IS CLOSED AND LOCKED. VALID CREDENTIAL OR REMOTE SWITCH UNLOCKS ELECTRIC LOCK ALLOWING ENTRY. FREE EGRESS AT ALL TIMES. IN-CASE OF POWER OUTAGE OR FIRE EVENT DOOR REMAINS SECURE.

HARDWARE GROUP NO. 07

FOR USE ON DOOR #(S):

213 216 311.1

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	CLASSROOM LOCK	ND70TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 08

FOR USE ON DOOR #(S):

212 214 301 302 311.2 312

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	CLASSROOM LOCK	ND70TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 09

FOR USE ON DOOR #(S):

207

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	630	IVE
1	EA	PASSAGE SET	ND10S SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 10

FOR USE ON DOOR #(S):

205

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	630	IVE
1	EA	PASSAGE SET	ND10S SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 11

FOR USE ON DOOR #(S):

107

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	CLASSROOM LOCK	ND70TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 12

FOR USE ON DOOR #(S):

112.1

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	ENTRANCE/OFFICE LOCK	ND50TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 13

FOR USE ON DOOR #(S):

112.2 114 201 211

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	ENTRANCE/OFFICE LOCK	ND50TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 14

FOR USE ON DOOR #(S):

117.2

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	EU MORTISE LOCK	L9092TEU 17A RX	630	SCH
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	FSIC CORE	23-030	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP EDA SRI	689	LCN
1	EA	PA MOUNTING PLATE	4040XP-18PA SRI	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 SRI	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI	689	LCN
1	EA	DOOR SWEEP	8198AA	AA	ZER
1	EA	THRESHOLD	65A-223	A	ZER
1	EA	DOOR CONTACT	7764	628	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-2RS 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF DIVISION 28		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		
1		NOTE	SEALS BY DOOR MFR		

OPERATION: WHEN DOOR IS CLOSED AND LOCKED. VALID CREDENTIAL UNLOCKS ELECTRIC LOCK ALLOWING ENTRY. FREE EGRESS AT ALL TIMES. IN-CASE OF POWER OUTAGE OR FIRE EVENT DOOR REMAINS SECURE.

HARDWARE GROUP NO. 15

FOR USE ON DOOR #(S):

200 300.1 400.1 400.2

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	FIRE EXIT HARDWARE	99-L-BE-F-17	626	VON
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 16

FOR USE ON DOOR #(S):

215 313 406

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC PANIC HARDWARE	LD-RX-99-L-M996-17-FS	626	VON
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	FSIC CONST. CORE	23-030-ICX		SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP EDA SRI	689	LCN
1	EA	PA MOUNTING PLATE	4040XP-18PA SRI	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 SRI	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI	689	LCN
1	EA	DOOR SWEEP	8198AA	AA	ZER
1	EA	THRESHOLD	65A-223	A	ZER
1	EA	DOOR CONTACT	7764	628	SCE
1	EA	POWER SUPPLY	PS902 900-2RS FA900 120/240	LGR	SCE
			VAC		
1			CARD READER - WORK OF		
			DIVISION 28		
1			PROVIDE FACTORY POINT TO		
			POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		
1		NOTE	SEALS BY DOOR MFR		

OPERATION: WHEN DOOR IS CLOSED AND LOCKED. VALID CREDENTIAL OR REMOTE SWITCH UNLOCKS ELECTRIC TRIM ALLOWING ENTRY. FREE EGRESS AT ALL TIMES. IN-CASE OF POWER OUTAGE OR FIRE EVENT DOOR REMAINS UNSECURE.

HARDWARE GROUP NO. 17

FOR USE ON DOOR #(S):

102.2

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
6	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	AUTO FLUSH BOLT	F31P/FB41P AS REQ'D	630	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	STOREROOM LOCK	ND80JD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	COORDINATOR	COR X FL X MBF AS REQUIRED	628	IVE
2	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	626	IVE
2	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER
1	EA	ASTRAGAL	115NA (2 PC SET)	ALM	NGP

HARDWARE GROUP NO. 18

FOR USE ON DOOR #(S):

314.1

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	CLASSROOM LOCK	ND70TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 19

FOR USE ON DOOR #(S):

217

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	CLASSROOM LOCK	ND70TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

HARDWARE GROUP NO. 20

FOR USE ON DOOR #(S):

202 303

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC FIRE EXIT HARDWARE	RX-99-L-F-M996-17-FS	626	VON
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	FSIC CONST. CORE	23-030-ICX		SCH
1	EA	SURFACE CLOSER	4040XP EDA	689	LCN
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER
1	EA	DOOR CONTACT	679-05WD/HM AS REQUIRED	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS FA900 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF DIVISION 28		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		

OPERATION: WHEN DOOR IS CLOSED AND LOCKED. VALID CREDENTIAL OR REMOTE SWITCH UNLOCKS ELECTRIC TRIM ALLOWING ENTRY. FREE EGRESS AT ALL TIMES. IN-CASE OF POWER OUTAGE OR FIRE EVENT DOOR REMAINS UNSECURE.

HARDWARE GROUP NO. 21

FOR USE ON DOOR #(S):

115.1 115.2

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
1	EA	CONT. HINGE	112XY EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-99-NL-OP-110MD 24 VDC	626	VON
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	MORTISE CYLINDER	20-060 CAM AND COLLAR AS REQUIRED	626	SCH
1	EA	RIM HOUSING	20-079	626	SCH
2	EA	FSIC CORE	23-030	626	SCH
2	EA	FSIC CONST. CORE	23-030-ICX		SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 12" O	630-316	IVE
1	EA	OH STOP	100S	630	GLY
1	EA	SURF. AUTO OPERATOR	4642	689	LCN
1	EA	ACTUATOR PKG WALL MT	8310-3857TW	630	LCN
1	EA	DOOR SWEEP	8198AA	AA	ZER
1	EA	THRESHOLD	65A-MSLA-10	A	ZER
1	EA	DOOR CONTACT	7764	628	SCE
1	EA	POWER SUPPLY	PS902 900-2RS	LGR	VON
1			CARD READER - WORK OF DIVISION 28		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		
1		NOTE	SEALS BY DOOR MFR		

OPERATION : DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL TO READER MOMENTARILY RETRACTS PANIC DEVICE LATCH AND MOMENTARILY ENABLES EXTERIOR ACTUATOR BUTTON. PUSHING ENABLED EXTERIOR ACTUATOR BUTTON SIGNALS AUTOMATIC OPERATOR TO MOMENTARILY OPEN DOOR. INTERIOR ACTUATOR ENABLED AT ALL TIMES. PUSHING THE INTERIOR ACTUATOR BUTTON MOMENTARILY RETRACTS PANIC DEVICE LATCH AND SIGNALS AUTOMATIC OPERATOR TO MOMENTARILY OPEN DOOR. PANIC DEVICE LATCHES ALSO CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN (I.E. PUSH/PULL MODE) AS DESIGNATED BY ACCESS CONTROL SYSTEM SCHEDULE. EXIT DEVICES LATCH AND LOCK WITH ACTIVATION OF SECURITY SYSTEM. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 22

FOR USE ON DOOR #(S):

108.4

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
2	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-9949-EO 24 VDC	626	VON
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-9949-NL-OP-110MD 24 VDC	626	VON
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
2	EA	MORTISE CYLINDER	20-060 CAM AND COLLAR AS REQUIRED	626	SCH
1	EA	RIM HOUSING	20-079	626	SCH
3	EA	FSIC CORE	23-030	626	SCH
3	EA	FSIC CONST. CORE	23-030-ICX		SCH
2	EA	90 DEG OFFSET PULL	8190EZHD 12" O	630-316	IVE
2	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP EDA SRI	689	LCN
1	EA	SURF. AUTO OPERATOR	4642	689	LCN
1	EA	PA MOUNTING PLATE	4040XP-18PA SRI	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 SRI	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI	689	LCN
2	EA	ACTUATOR PKG WALL MT	8310-3857TW	630	LCN
2	EA	DOOR SWEEP	8198AA	AA	ZER
1	EA	THRESHOLD	65A-223	A	ZER
2	EA	DOOR CONTACT	7764	628	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-4RL 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF DIVISION 28		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		
1		NOTE	SEALS BY DOOR MFR		

OPERATION : DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL TO READER MOMENTARILY RETRACTS PANIC DEVICE LATCH AND MOMENTARILY ENABLES EXTERIOR ACTUATOR BUTTON. PUSHING ENABLED EXTERIOR ACTUATOR BUTTON SIGNALS AUTOMATIC OPERATOR TO MOMENTARILY OPEN DOOR. INTERIOR ACTUATOR ENABLED AT ALL TIMES. PUSHING THE INTERIOR ACTUATOR BUTTON MOMENTARILY RETRACTS PANIC DEVICE LATCH AND SIGNALS AUTOMATIC OPERATOR TO MOMENTARILY OPEN DOOR. PANIC DEVICE LATCHES ALSO CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN (I.E. PUSH/PULL MODE) AS DESIGNATED BY ACCESS CONTROL SYSTEM SCHEDULE. EXIT DEVICES LATCH AND LOCK WITH ACTIVATION OF SECURITY SYSTEM. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 23

FOR USE ON DOOR #(S):

300.2

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC PANIC HARDWARE	LD-RX-99-L-M996-17-FSE	626	VON
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	FSIC CONST. CORE	23-030-ICX		SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP EDA	689	LCN
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER
1	EA	DOOR CONTACT	679-05WD/HM AS REQUIRED	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS FA900 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF DIVISION 28		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		

OPERATION: WHEN DOOR IS CLOSED AND LOCKED. VALID CREDENTIAL OR REMOTE SWITCH UNLOCKS ELECTRIC TRIM ALLOWING ENTRY. FREE EGRESS AT ALL TIMES. IN-CASE OF POWER OUTAGE OR FIRE EVENT DOOR REMAINS SECURE.

HARDWARE GROUP NO. 24

FOR USE ON DOOR #(S):

113.1

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC FIRE EXIT HARDWARE	RX-QEL-99-NL-OP-F-110MD 24 VDC	626	VON
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	FSIC CONST. CORE	23-030-ICX		SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 12" O	630-316	IVE
1	EA	SURF. AUTO OPERATOR	4642	689	LCN
1	EA	ACTUATOR PKG WALL MT	8310-3857TW	630	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER
1	EA	DOOR CONTACT	679-05WD/HM AS REQUIRED	BLK	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-4RL 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF DIVISION 28		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		

OPERATION : DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL TO READER MOMENTARILY RETRACTS PANIC DEVICE LATCH AND MOMENTARILY ENABLES EXTERIOR ACTUATOR BUTTON. PUSHING ENABLED EXTERIOR ACTUATOR BUTTON SIGNALS AUTOMATIC OPERATOR TO MOMENTARILY OPEN DOOR. INTERIOR ACTUATOR ENABLED AT ALL TIMES. PUSHING THE INTERIOR ACTUATOR BUTTON MOMENTARILY RETRACTS PANIC DEVICE LATCH AND SIGNALS AUTOMATIC OPERATOR TO MOMENTARILY OPEN DOOR. PANIC DEVICE LATCHES ALSO CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN (I.E. PUSH/PULL MODE) AS DESIGNATED BY ACCESS CONTROL SYSTEM SCHEDULE. EXIT DEVICES LATCH AND LOCK WITH ACTIVATION OF SECURITY SYSTEM. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 25

FOR USE ON DOOR #(S):

108.1

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQUIRED)	652	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC FIRE EXIT HARDWARE	RX-QEL-99-L-BE-F-17 24 VDC	626	VON
1	EA	INTERFACE BOX	JB7 AS REQUIRED		VON
1	EA	SURF. AUTO OPERATOR	4642	689	LCN
1	EA	ACTUATOR PKG WALL MT	8310-3857TW	630	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER
1	EA	DOOR CONTACT	679-05WD/HM AS REQUIRED	BLK	SCE
1	EA	POWER SUPPLY	PS902 BBK 900-4RL 120/240 VAC	LGR	SCE
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			PROVIDE RISER DIAGRAMS		

OPERATION : DOOR NORMALLY CLOSED AND LATCHED. PUSHING ACTUATOR BUTTON EITHER SIDE RETRACTS PANIC DEVICE LATCH AND SIGNALS AUTOMATIC OPERATOR TO MOMENTARILY OPEN DOOR. PANIC DEVICE LATCHES ALSO CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN (I.E. PUSH/PULL MODE) AS DESIGNATED BY ACCESS CONTROL SYSTEM SCHEDULE. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 26

FOR USE ON DOOR #(S):

314.2

PROVIDE EACH OPENING WITH THE FOLLOWING:

<u>QT</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINIS</u>	<u>MFR</u>
<u>Y</u>				<u>H</u>	
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	CLASSROOM LOCK	ND70TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	PA MOUNTING PLATE	4040XP-18PA	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61	689	LCN
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	GASKETING	488S H & J (USE SR64 SILENCERS @ NON RATED OPENINGS)	BK	ZER

End of Section

USER: 56F

PLOT DATE/TIME: 2/10/2026 3:01:00 PM



CONSTRUCTION DOCUMENTS FOR JUST TRANSITION CENTER

LOGAN, WV

1/13/2026



SHEET INDEX	
G1.00	COVER SHEET
G1.01	GENERAL INFORMATION
G1.02	ACCESSIBILITY REQUIREMENTS
A0.00	LOWER LEVEL FLOOR PLAN - LIFE SAFETY
A0.01	FIRST FLOOR PLAN - LIFE SAFETY
A0.02	SECOND FLOOR PLAN - LIFE SAFETY
A0.03	THIRD FLOOR PLAN - LIFE SAFETY
A0.04	FOURTH FLOOR PLAN - LIFE SAFETY
C1.01	PROPOSED UTILITY SITE PLAN
C2.01	DETAILS
C2.02	DETAILS
S-001	GENERAL NOTES
S-002	GENERAL NOTES
S-003	SPECIAL INSPECTIONS
S-100	FOUNDATION PLAN
S-101	FIRST FLOOR FRAMING PLAN
S-102	SECOND FLOOR FRAMING PLAN
S-103	THIRD FLOOR FRAMING PLAN
S-104	FOURTH FLOOR FRAMING PLAN
S-105	ROOF FRAMING PLAN
S-200	EXTERIOR STAIR ELEVATIONS
S-300	COLUMN SCHEDULE
S-500	STRUCTURAL DETAILS
S-600	PHOTOS
S-601	PHOTOS
AD1.00	LOWER LEVEL FLOOR PLAN - DEMOLITION
AD1.01	FIRST FLOOR PLAN - DEMOLITION
AD1.02	SECOND FLOOR PLAN - DEMOLITION
AD1.03	THIRD FLOOR PLAN - DEMOLITION
AD1.04	FOURTH FLOOR PLAN - DEMOLITION
A1.00	LOWER LEVEL FLOOR PLAN - PROPOSED
A1.01	FIRST FLOOR PLAN - PROPOSED
A1.02	SECOND FLOOR PLAN - PROPOSED
A1.03	THIRD FLOOR PLAN - PROPOSED
A1.04	FOURTH FLOOR PLAN - PROPOSED

SHEET INDEX	
A1.05	ROOF PLAN - PROPOSED
A1.06	ROOF DETAILS
A1.07	FIRST FLOOR REFLECTED CEILING PLAN - PROPOSED
A1.08	SECOND FLOOR REFLECTED CEILING PLAN - PROPOSED
A1.09	THIRD FLOOR REFLECTED CEILING PLAN - PROPOSED
A1.10	FOURTH FLOOR REFLECTED CEILING PLAN - PROPOSED
A2.01	BUILDING ELEVATIONS
A2.02	BUILDING ELEVATIONS
A3.01	BUILDING SECTIONS
A4.01	ENLARGED PLAN VIEWS & INT. ELEVATIONS
A4.02	ENLARGED PLAN VIEWS & INT. ELEVATIONS
A4.03	ENLARGED STAIR, RAMP AND ELEVATOR PLANS
A4.04	ENLARGED STAIR, RAMP AND ELEVATOR SECTIONS
A4.05	ENLARGED STAIR, RAMP AND ELEVATOR SECTIONS
A4.06	STAIR, RAMP AND ELEVATOR DETAILS
A5.01	PARTITION TYPES
A5.02	MISCELLANEOUS DETAILS
A6.01	DOOR AND WINDOW SCHEDULES
A6.02	WINDOW ELEVATIONS
A6.03	DOOR DETAILS
A7.01	FINISH SCHEDULE
A7.02	FIRST FLOOR PLAN - FINISH
A7.03	SECOND FLOOR PLAN - FINISH
A7.04	THIRD FLOOR PLAN - FINISH
A7.05	FOURTH FLOOR PLAN - FINISH
A7.06	INTERIOR SIGNAGE SCHEDULE
A7.07	INTERIOR SIGNAGE DETAILS
P1.01	LEGENDS & GENERAL NOTES - PLUMBING
P1.02	SCHEDULES - PLUMBING
P1.03	SCHEDULES - PLUMBING
P3.01	BASEMENT & FIRST FLOOR PLANS - PLUMBING
P3.02	SECOND & THIRD FLOOR PLANS - PLUMBING
P3.03	FOURTH FLOOR & ROOF PLANS - PLUMBING
P4.01	ENLARGED PLANS - PLUMBING
P4.02	ENLARGED PLANS - PLUMBING
P5.01	DETAILS - PLUMBING
P5.02	DETAILS - PLUMBING
FP1.01	LEGENDS & GENERAL NOTES - FIRE PROTECTION

SHEET INDEX	
FP3.01	BASEMENT & FIRST FLOOR PLANS - FIRE PROTECTION
FP3.02	SECOND & THIRD FLOOR PLANS - FIRE PROTECTION
FP3.03	FOURTH FLOOR & ROOF PLANS - FIRE PROTECTION
FP5.01	DETAILS - FIRE PROTECTION
FP5.02	DETAILS - FIRE PROTECTION
FP5.03	DETAILS - FIRE PROTECTION
M1.01	LEGEND & SCHEDULES
M1.02	SCHEDULES
M3.01	FIRST FLOOR NEW WORK DUCTWORK PLAN - MECHANICAL
M3.02	SECOND FLOOR NEW WORK DUCTWORK PLAN - MECHANICAL
M3.03	THIRD FLOOR NEW WORK DUCTWORK PLAN - MECHANICAL
M3.04	FOURTH FLOOR NEW WORK DUCTWORK PLAN - MECHANICAL
M3.05	ROOF NEW WORK PLAN - MECHANICAL
M3.06	FIRST FLOOR NEW WORK PIPING PLAN - MECHANICAL
M3.07	SECOND FLOOR NEW WORK PIPING PLAN - MECHANICAL
M3.08	THIRD FLOOR NEW WORK PIPING PLAN - MECHANICAL
M3.09	FOURTH FLOOR NEW WORK PIPING PLAN - MECHANICAL
M5.01	DETAILS
M5.02	DETAILS
M5.03	REFRIGERANT PIPING DIAGRAM
E1.01	LEGEND AND FIXTURE SCHEDULE - ELECTRICAL
E2.00	BASEMENT & FIRST FLOOR POWER PLANS
E2.01	SECOND & THIRD FLOOR POWER PLANS
E2.02	FOURTH FLOOR POWER PLAN
E2.04	FIRST & SECOND FLOOR HVAC POWER PLANS
E2.05	THIRD & FOURTH FLOOR HVAC POWER PLANS
E3.00	BASEMENT & FIRST FLOOR LIGHTING PLANS
E3.01	SECOND & THIRD FLOOR LIGHTING PLANS
E3.02	FOURTH FLOOR LIGHTING PLAN
E4.00	BASEMENT & FIRST FLOOR SYSTEMS PLANS
E4.01	SECOND & THIRD FLOOR SYSTEMS PLANS
E4.02	FOURTH FLOOR SYSTEMS PLAN
E6.00	PANEL SCHEDULES
E6.01	PANEL SCHEDULES
E6.02	PANEL SCHEDULES
E6.03	PANEL SCHEDULES
E6.04	PANEL AND FIXTURE SCHEDULES
E7.00	ELECTRICAL RISER

PROJECT INFORMATION

EDA# 01-79-15291

PROJECT NUMBER: T60-11108

VICINITY MAP



PROJECT DATA

DESCRIPTION
 IBC CONSTRUCTION TYPE: TYPE III-B
 IBC OCCUPANCY TYPE: B
 NFPA CONSTRUCTION TYPE: III (200)
 NFPA OCCUPANCY GROUP: BUSINESS
 FULLY SPRINKLED: YES

TOTAL OCCUPANCY AREA: ~22,690 SF

GENERAL CODE COMPLIANCES

- 2018 INTERNATIONAL BUILDING CODE
- 2018 INTERNATIONAL PLUMBING CODE
- 2018 INTERNATIONAL MECHANICAL CODE
- 2021 NFPA 1 - FIRE CODE
- 2021 NFPA 101 - LIFE SAFETY CODE
- 2020 NFPA 70 - NATIONAL ELECTRIC CODE
- 2021 NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE
- 2017 ICC A117.1 STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
- ASHRAE 90.1-2013 ENERGY STANDARD FOR BUILDINGS
- WV STATE FIRE CODE - ADOPTED MAY 1, 2024
- WV STATE BUILDING CODE - ADOPTED AUG 1, 2022

OWNER INFORMATION



CLIENT: COALFIELD DEVELOPMENT
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 HUNTINGTON, WV 25704
 CONTACT: NICK GUERTIN
 EMAIL: NGUERTIN@COALFIELD-DEVELOPMENT.ORG N.A.
 PHONE: 304.501.4755

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 304.343.7601



- FOR AGENCY REVIEW DATE: _____ BY: _____
- FOR BIDDING DATE: _____ BY: _____
- FOR CONSTRUCTION DATE: _____ BY: _____



TIE BOTH PROPOSED 2" AND 6" WATERLINE INTO EXISTING WATER LINE

POST INDICATOR VALVE

PROPOSED 2" POLYETHYLENE SERVICE TUBING

PROPOSED 4" PVC SDR 35 SANITARY CLEANOUT

PROPOSED 4" PVC SDR 35 SANITARY SEWER LINE

PROPOSED SANITARY SEWER MANHOLE. CONTRACTOR TO LOCATE EXISTING SANITARY EXITING THE BUILDING AND TIE IT INTO THE PROPOSED MANHOLE

6" FIRE FLOW WATERLINE STUB OUT FROM BUILDING

2" WATER LINE STUB OUT FROM BUILDING

4" SANITARY SEWER LINE STUB OUT FROM BUILDING

6" STORM DRAIN STUB OUT FROM BUILDING

PROPOSED 6" HDPE STORM DRAIN

TIE PROPOSED 6" STORM DRAIN LINE INTO EXISTING DI

DI
RIM=674.34
8"CLAY=672.48

LEGEND

- W = PROPOSED WATERLINE
- SAN = PROPOSED SANITARY SEWER
- ST = PROPOSED STORMWATER LINE
- W = EXISTING WATERLINE
- SAN = EXISTING SANITARY SEWER
- ST = EXISTING STORMWATER LINE
- UT = EX UNDERGROUND TELEPHONE
- UE = EX UNDERGROUND ELECTRIC LINE
- O/E = EX OVERHEAD ELECTRIC LINE
- GAS = EXISTING GAS LINE

NOTES

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION

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THE THRASHER GROUP, INC.
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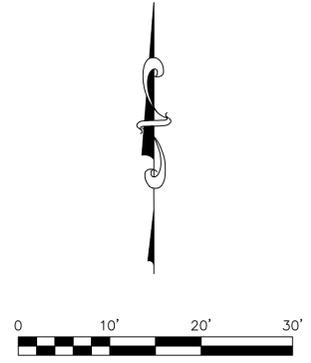
NO.	BY	DATE	DESCRIPTION
2	BD	2-10-26	CIVIL PLANS INCLUDED

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
01/13/2026
CONSTRUCTION DOCUMENTS

DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:
PROJECT No. T60-11108

PROPOSED UTILITY SITE PLAN

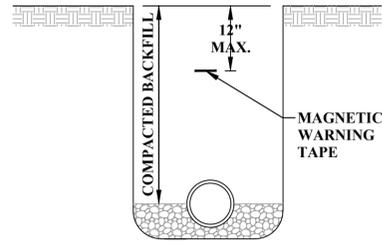
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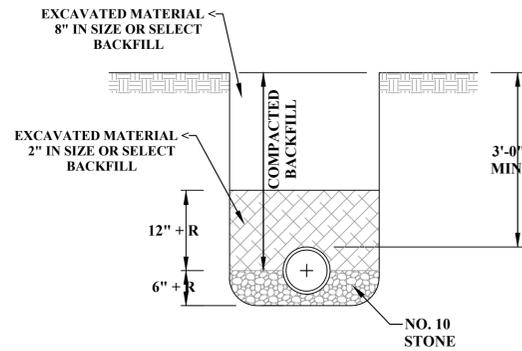
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RED	ELECTRIC
YELLOW	GAS - OIL
ORANGE	TELEPHONE
BLUE	WATER
GREEN	SEWER

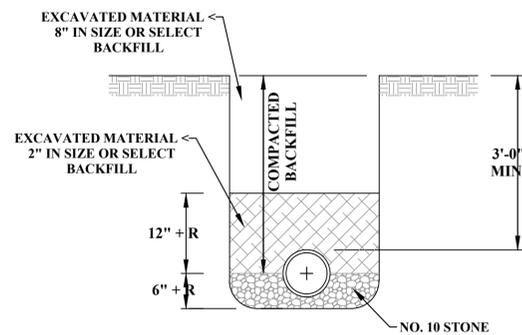
COLOR CODES FOR UTILITY LOCATING MAGNETIC WARNING TAPE



UTILITY MAGNETIC WARNING TAPE

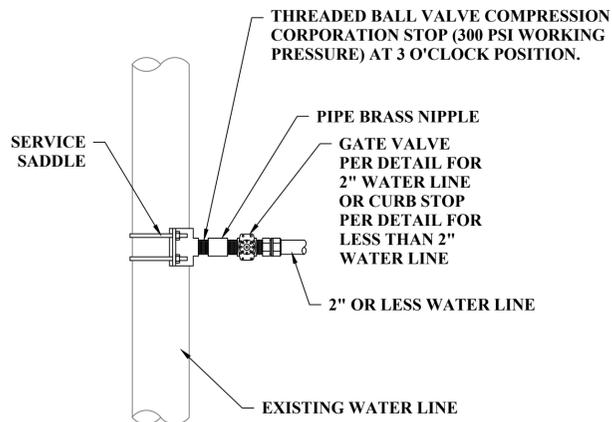


BEDDING FOR SEWER PIPE

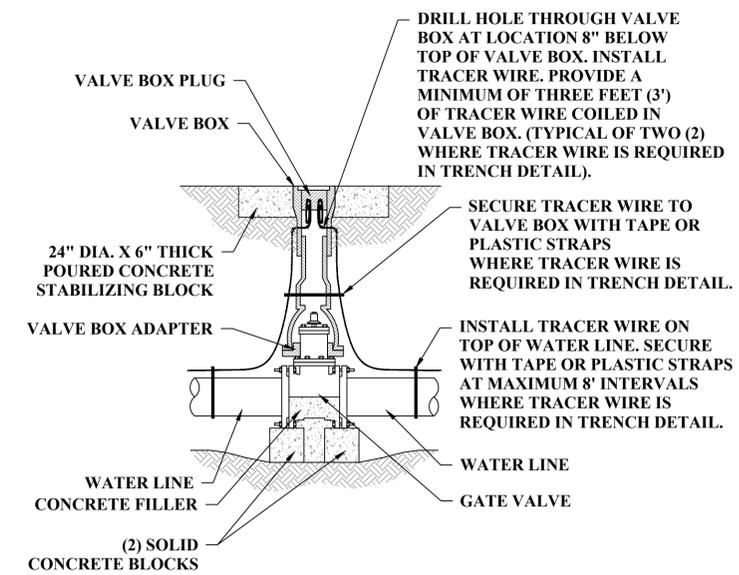


BEDDING FOR WATER PIPE

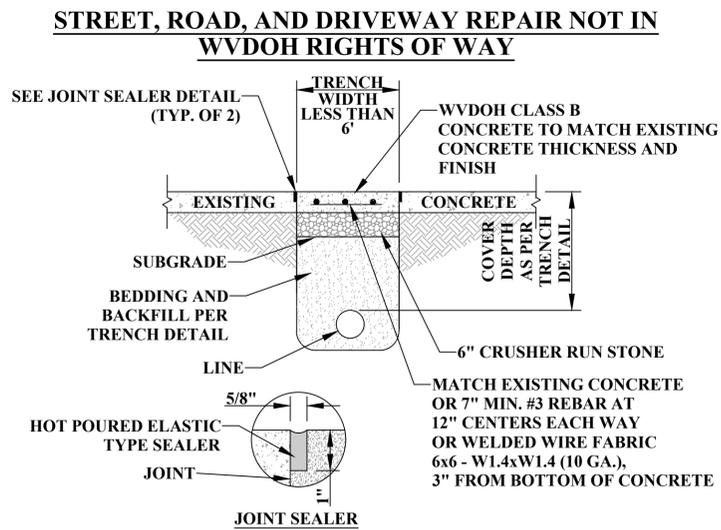
TYPICAL CROSS SECTION OF TRENCHES
NOT TO SCALE



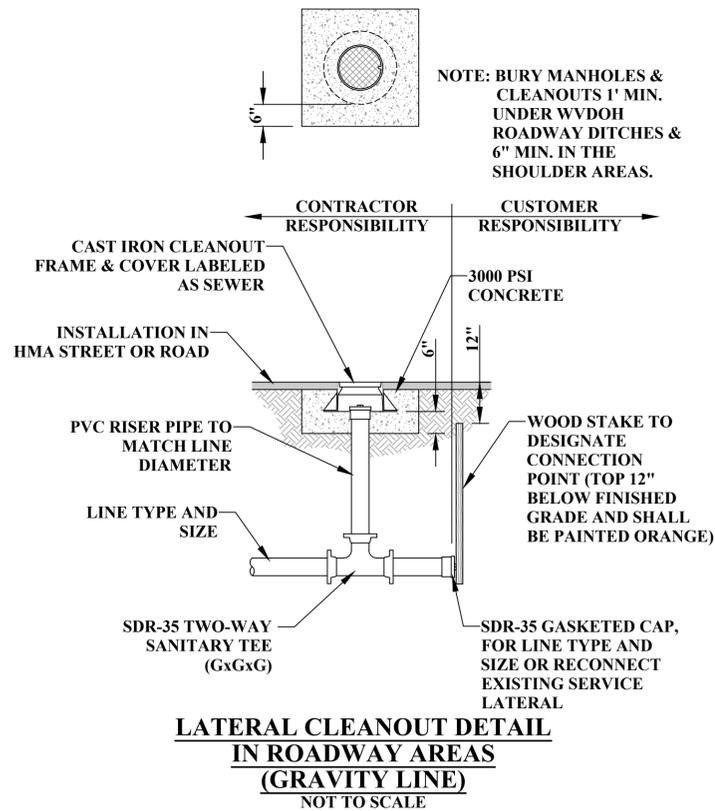
TYPICAL 2" OR LESS CONNECTION TO EXISTING WATER MAIN LINE
NOT TO SCALE



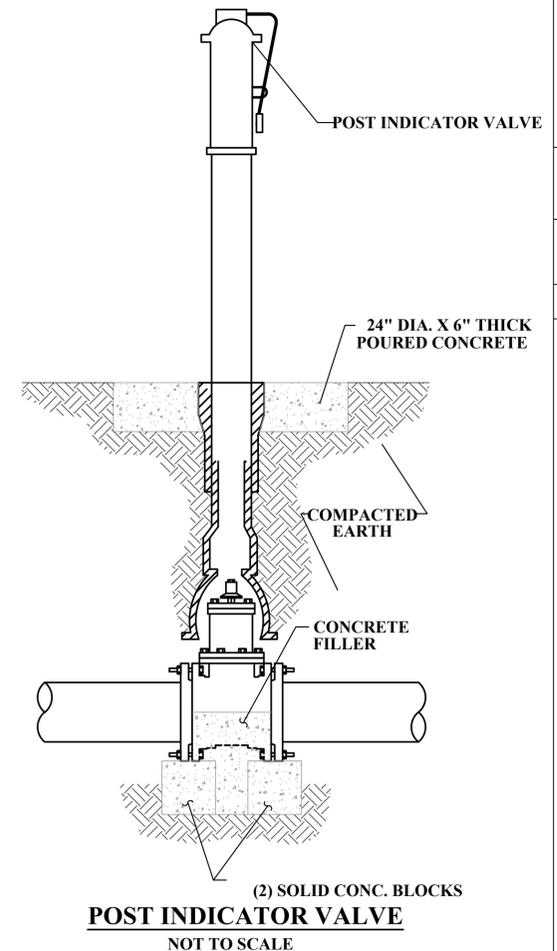
GATE VALVE
NOT TO SCALE



CONCRETE PAVEMENT REPAIR
NOT TO SCALE



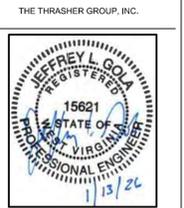
LATERAL CLEANOUT DETAIL IN ROADWAY AREAS (GRAVITY LINE)
NOT TO SCALE



POST INDICATOR VALVE
NOT TO SCALE

THRASHER
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NO.	BY	DATE	DESCRIPTION
2	JG	2-10-26	CIVIL PLAN INCLUDED

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
01/13/2026
CONSTRUCTION DOCUMENTS

DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:

PROJECT No. T60-11108

DETAILS

SHEET No.

C2.01

THRUST BLOCKING

1. THE THRUST BLOCKING SHALL BE FORMED AGAINST A SOLID TRENCH WALL. THE FITTING AREAS SHALL BE EXCAVATED BY HAND BECAUSE MECHANICAL EQUIPMENT WILL DAMAGE THE BEARING SURFACE OF THE TRENCH WALL.
2. THE SIZE AND TYPE OF THRUST BLOCK DEPENDS ON THE PIPE SIZE, LINE PRESSURE, TYPE OF FITTING, DEGREE OF BEND AND TYPE OF SOIL. IN MOST CASES, THE SIZE AND TYPE OF THRUST BLOCK WILL BE DETERMINED BY THE ENGINEER. THRUST BLOCK SIZE MAY BE CALCULATED BY THE PROCEDURES SHOWN AT RIGHT.

THRUSTS IN SOFT UNSTABLE SOILS

1. IN SOFT, UNSTABLE SOILS SUCH AS MUCK OR PEAT, THRUSTS ARE RESISTED BY RUNNING CORROSION-RESISTANT TIE-RODS TO SOLID FOUNDATIONS OR BY REMOVING THE SOFT MATERIAL AND REPLACING IT WITH BALLAST OF SUFFICIENT SIZE AND WEIGHT TO RESIST THRUSTS DEVELOPED.

UPWARD THRUSTS AT FITTINGS

1. WHERE A FITTING IS USED TO MAKE A VERTICAL BEND, ANCHOR THE FITTING TO A THRUST BLOCK BRACED AGAINST THE UNDISTURBED SOIL. THE THRUST BLOCK SHALL HAVE ENOUGH RESISTANCE TO WITHSTAND UPWARD AND OUTWARD THRUSTS AT THE FITTING.

SIDE THRUST ON CURVES

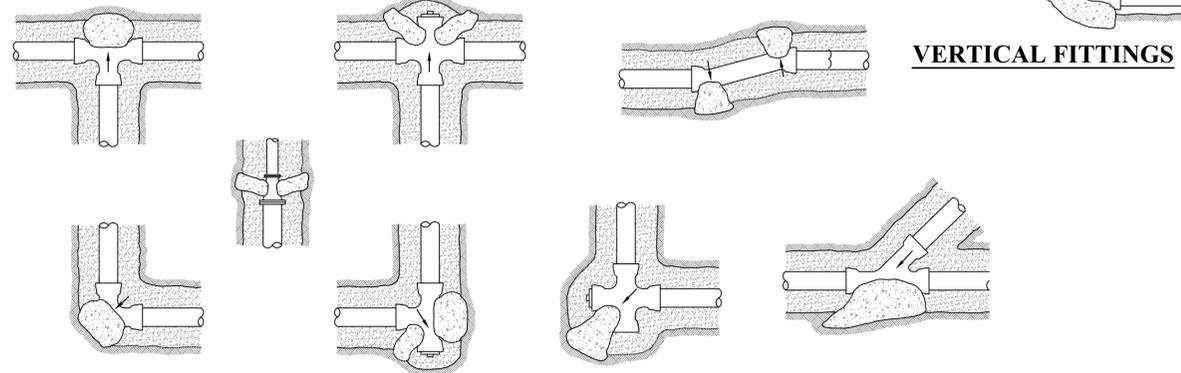
1. AN OUTWARD PRESSURE EXISTS ON ALL DEFLECTIONS FROM A STRAIGHT LINE. GOOD SOIL, PROPERLY TAMPED, IS SUFFICIENT TO HOLD SIDE THRUST UNLESS SOIL CONDITIONS ARE UNSTABLE. IN THAT CASE, TO ANCHOR AGAINST THIS SIDE THRUST, THE BLOCKING SHOULD BE PLACED AGAINST THE PIPE ON EACH SIDE OF THE COUPLING. DO NOT THRUST BLOCK THE COUPLING ITSELF.

SIDE THRUST

PIPE SIZE INCHES	SIDE THRUST POUNDS PER DEGREE
1 1/2"	5.1
2"	7.9
2 1/2"	11.6
3"	17.1
3 1/2"	22.4
4"	28.3
5"	43.1
6"	60.8
8"	103.0
10"	160.0
12"	225.0

BASED ON SIDE THRUST PER 100 POUNDS PER SQUARE INCH (PSI) PRESSURE PER DEGREE OF DEFLECTION

MULTIPLY SIDE THRUST POUNDS BY DEGREE OF DEFLECTION TIMES POUNDS OF PRESSURE DIVIDED BY 100 TO OBTAIN TOTAL SIDE THRUST IN POUNDS.



**HORIZONTAL FITTINGS
CONCRETE THRUST BLOCK DETAILS
NOT TO SCALE**

STEP No. 1: MULTIPLY THE PRESSURE LEVEL DESIRED FOR TESTING BY THE APPROPRIATE VALUE SHOWN IN THE FOLLOWING TABLE:

PIPE SIZE	DEAD END OR TEE	90° ELBOW	45° ELBOW	22 1/2° ELBOW
1.5"	2.94	4.16	2.25	1.15
2"	4.56	6.45	3.50	1.78
2.5"	6.65	9.40	5.10	2.60
3"	9.80	13.9	7.51	3.82
3.5"	12.8	18.1	9.81	4.99
4"	16.2	23.0	12.4	6.31
5"	24.7	35.0	18.9	9.63
6"	34.8	49.2	26.7	13.6
8"	59.0	83.5	45.2	23.0
10"	91.5	130.0	70.0	35.8
12"	129.0	180.0	98.5	50.3

BASED ON POUNDS THRUST PER PSI WORKING PRESSURE

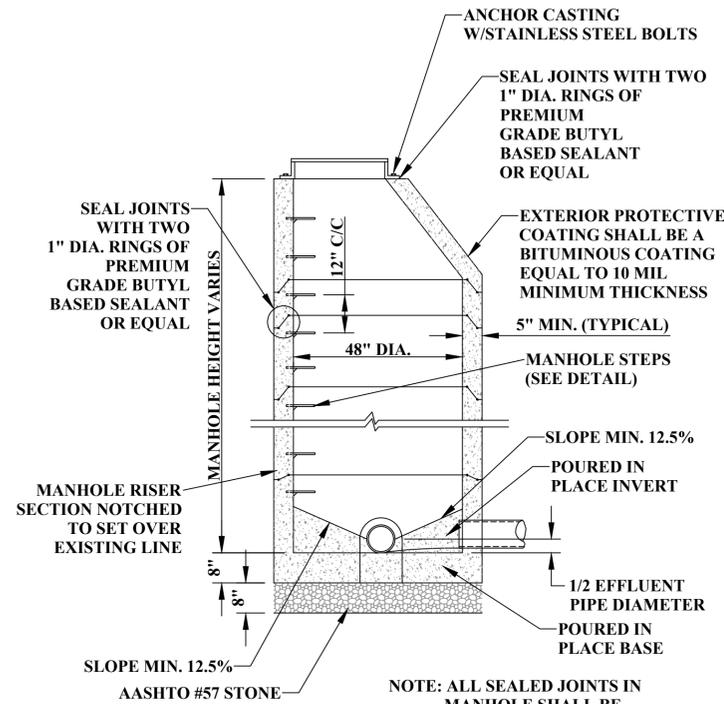
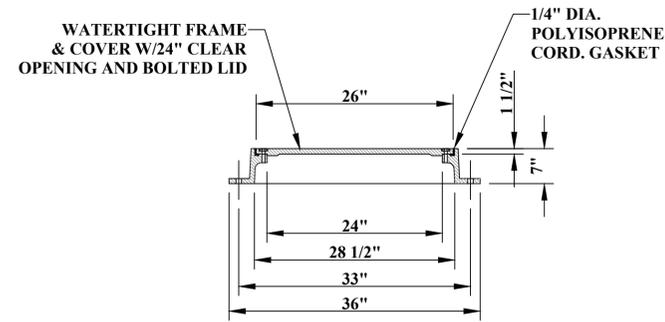
STEP No. 2: DETERMINE THE BEARING STRENGTH OF THE SOIL FROM THE TABLE BELOW:

SOILS AND SAFE BEARING LOADS LBS SQ. FT.	
SOUND SOILS	10,000
CEMENTED GRAVEL AND SAND DIFFICULT TO PICK	4,000
COURSE AND FINE COMPACT SAND	3,000
MEDIUM CLAY THAT CAN BE SPADED	2,000
SOFT CLAY	1,000
MUCK	0

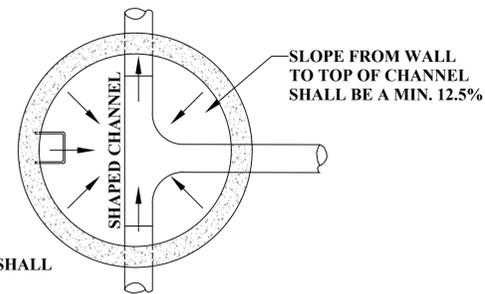
STEP No. 3: DIVIDE THE TOTAL THRUST OBTAINED IN STEP 1 BY THE BEARING STRENGTH OF SOIL THIS GIVES THE SQUARE FEET OF THE AREA NEEDED.

THRUST BLOCK GENERAL NOTES:

1. ALL CONCRETE THRUST BLOCKING SHALL MEET 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. ALL FITTINGS SHALL BE WRAPPED WITH 4 MIL PLASTIC PRIOR TO PLACING CONCRETE THRUST BLOCK.

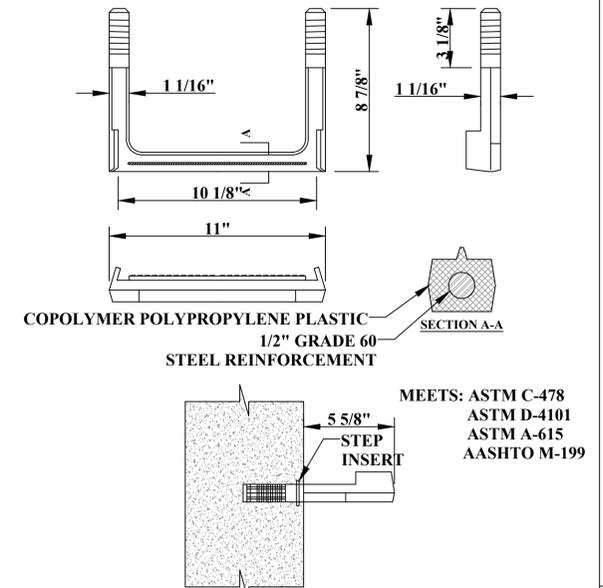


NOTE: BURY MANHOLES & CLEANOUTS 1' MIN. UNDER WVDOT ROADWAY DITCHES & 6" MIN. IN THE SHOULDER AREAS.



NOTE: ALL MANHOLES SHALL BE PRECAST CONSTRUCTION, AND SHALL INCLUDE CAST IN PLACE FLEXIBLE PIPE TO MANHOLE CONNECTORS AT ALL PIPE PENETRATIONS.

**STRADDLE MANHOLE DETAIL
NOT TO SCALE**

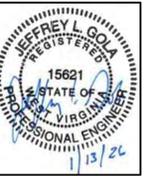


- NOTES: 1) MANHOLE STEPS SHALL BE IMPACT RESISTANT CO-POLYMER POLYPROPYLENE PLASTIC MOLDED AROUND 1/2" DIAMETER GRADE 60 REINFORCED STEEL. STEPS SHALL BE STANDARD BLACK IN COLOR AND SHALL HAVE NON-SLIP TREAD ON BOTH SIDES.
2) TOP STEP SHALL NOT BE GREATER THAN 2'-0" FROM TOP OF MANHOLE.
3) LANDING TO BOTTOM STEP SHALL NOT BE GREATER THAN 2'-0".

MANHOLE STEP DETAIL

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NO.	DATE	BY	DESCRIPTION
2	2-10-26	JG	CIVIL PLANS INCLUDED

JUST TRANSITION CENTER

COALFIELD DEVELOPMENT
LOGAN, WV
01/13/2026
CONSTRUCTION DOCUMENTS

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PROJECT No. T60-11108

DETAILS

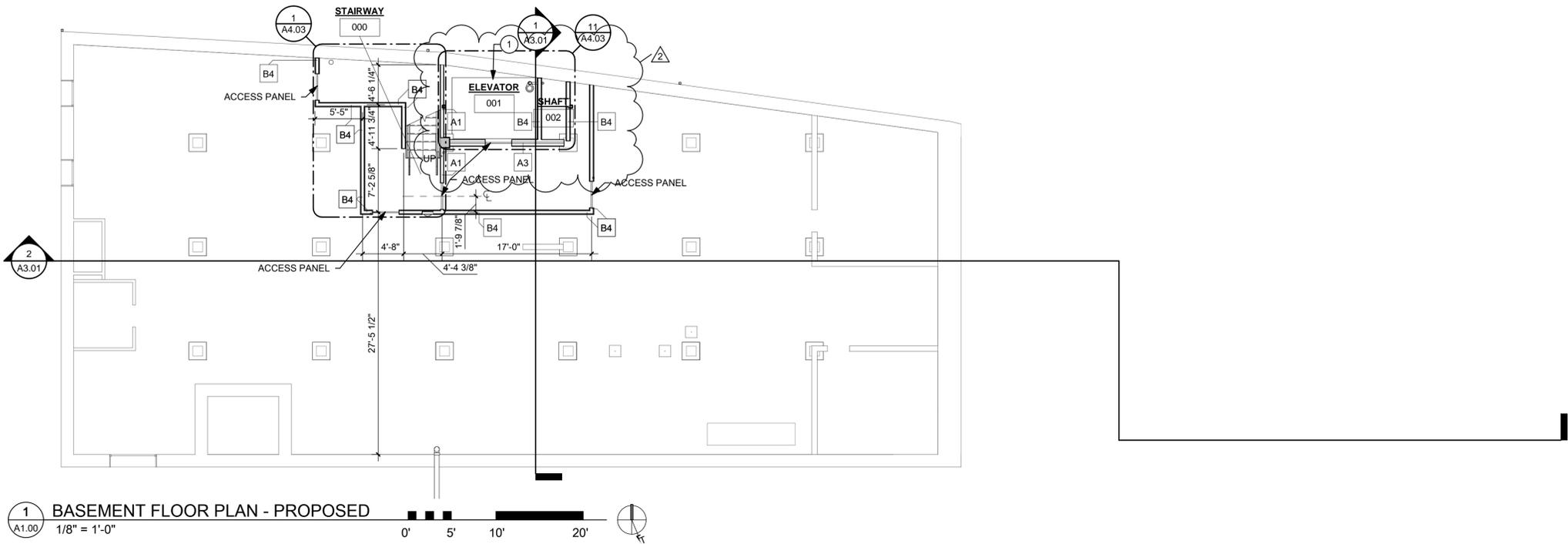
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C2.02

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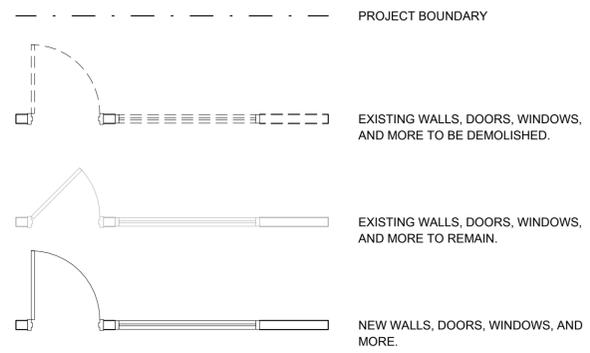
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LAYOUT TAB - LOWER LEVEL FLOOR PLAN - PROPOSED
CAD FILE: C:\Users\alabaker\Documents\Rebelen_Jad_Tranisko_Central_Abaker\F2026.rvt



1 BASEMENT FLOOR PLAN - PROPOSED
A1.00 1/8" = 1'-0"

PHASING LEGEND



NEW CONSTRUCTION PLAN NOTES

NOTE #	DESCRIPTION
1	INSTALL NEW ELEVATOR WITH NEW ELEVATOR EQUIPMENT. SEE SPECIFICATIONS AND ELECTRICAL DRAWINGS.
2-1	NOT USED.
2-2	NEW INTERIOR SIGNAGE TYPE 2: RESTROOMS AND BATHROOMS.
2-3	NEW INTERIOR SIGNAGE TYPE 3: ROOM LABEL.
2-A	NEW INTERIOR SIGNAGE TYPE A: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
2-B	NEW INTERIOR SIGNAGE TYPE B: STAIR WITH FLOOR SCHEDULE, OUTSIDE STAIRWAY.
2-C	NEW INTERIOR SIGNAGE TYPE C: ELEVATOR WITH FLOOR SCHEDULE.
2-D	NEW EXTERIOR SIGNAGE TYPE D: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
3	INSTALL NEW COVERED EXTERIOR STAIRWAY.
5	NEW DISPLAY SHELVING.
6	INSTALL NEW WINDOW IN EXISTING OPENING. SEE A6 SERIES FOR WINDOW ELEVATIONS.
7	INFILL WALL WHERE DOOR HAS BEEN REMOVED.

GENERAL NOTES

- INTERIOR DIMENSIONS ARE FROM FINISH FACE OF CMU MASONRY WALL AND CENTER OF METAL STUD PARTITIONS.
- THE HINGE SIDE OF DOOR FRAMES ARE LOCATED 2" FROM FACE OF ADJACENT WALL FOR METAL STUD PARTITIONS AND 4" FROM MASONRY WALLS UNLESS OTHERWISE NOTED.
- INSTALL WOOD BLOCKING IN NEW WALLS TO RECEIVE WALL-MOUNTED ITEMS. WOOD BLOCKING SHALL BE FIRE RETARDANT TREATED.
- PREPARE ALL NEW AND EXISTING WALL SURFACES TO RECEIVE SCHEDULED FINISH.
- FINISH FLOOR MATERIAL TRANSITIONS SHALL OCCUR AT CENTERLINE OF DOOR.
- FOR EXTENT OF SLAB CUTTING, PATCHING AND REPAIRING REGARDING PLUMBING ITEMS TO BE DEMOLISHED. CONTRACTOR TO COORDINATE WITH PLUMBING DRAWINGS.
- FURNITURE SHOWN IS FOR REFERENCE ONLY.
- REFER TO DRAWING A5.01 FOR PARTITION TYPES.

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2	ALB	02/10/2026	ADDENDUM 2

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

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PROJECT No. T60-11108

LOWER LEVEL FLOOR PLAN - PROPOSED

SHEET No. **A1.00**



NEW CONSTRUCTION PLAN NOTES	
NOTE #	DESCRIPTION
1	INSTALL NEW ELEVATOR WITH NEW ELEVATOR EQUIPMENT. SEE SPECIFICATIONS AND ELECTRICAL DRAWINGS.
2-1	NOT USED.
2-2	NEW INTERIOR SIGNAGE TYPE 2: RESTROOMS AND BATHROOMS.
2-3	NEW INTERIOR SIGNAGE TYPE 3: ROOM LABEL.
2-A	NEW INTERIOR SIGNAGE TYPE A: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
2-B	NEW INTERIOR SIGNAGE TYPE B: STAIR WITH FLOOR SCHEDULE, OUTSIDE STAIRWAY.
2-C	NEW INTERIOR SIGNAGE TYPE C: ELEVATOR WITH FLOOR SCHEDULE.
2-D	NEW EXTERIOR SIGNAGE TYPE D: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
3	INSTALL NEW COVERED EXTERIOR STAIRWAY.
5	NEW DISPLAY SHELVING.
6	INSTALL NEW WINDOW IN EXISTING OPENING. SEE A6 SERIES FOR WINDOW ELEVATIONS.
7	INFILL WALL WHERE DOOR HAS BEEN REMOVED.

- GENERAL NOTES**
- INTERIOR DIMENSIONS ARE FROM FINISH FACE OF CMU MASONRY WALL AND CENTER OF METAL STUD PARTITIONS.
 - THE HINGE SIDE OF DOOR FRAMES ARE LOCATED 2" FROM FACE OF ADJACENT WALL FOR METAL STUD PARTITIONS AND 4" FROM MASONRY WALLS UNLESS OTHERWISE NOTED.
 - INSTALL WOOD BLOCKING IN NEW WALLS TO RECEIVE WALL-MOUNTED ITEMS. WOOD BLOCKING SHALL BE FIRE RETARDANT TREATED.
 - PREPARE ALL NEW AND EXISTING WALL SURFACES TO RECEIVE SCHEDULED FINISH.
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 - FOR EXTENT OF SLAB CUTTING, PATCHING AND REPAIRING REGARDING PLUMBING ITEMS TO BE DEMOLISHED. CONTRACTOR TO COORDINATE WITH PLUMBING DRAWINGS.
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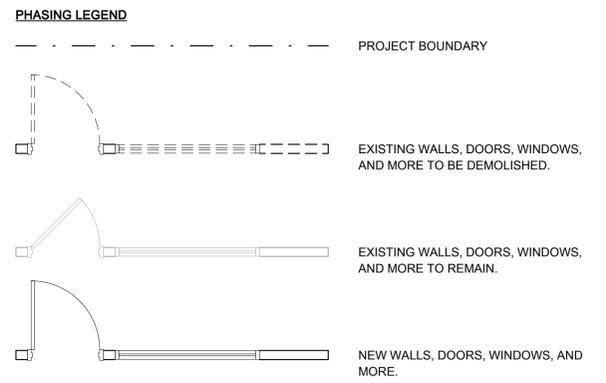
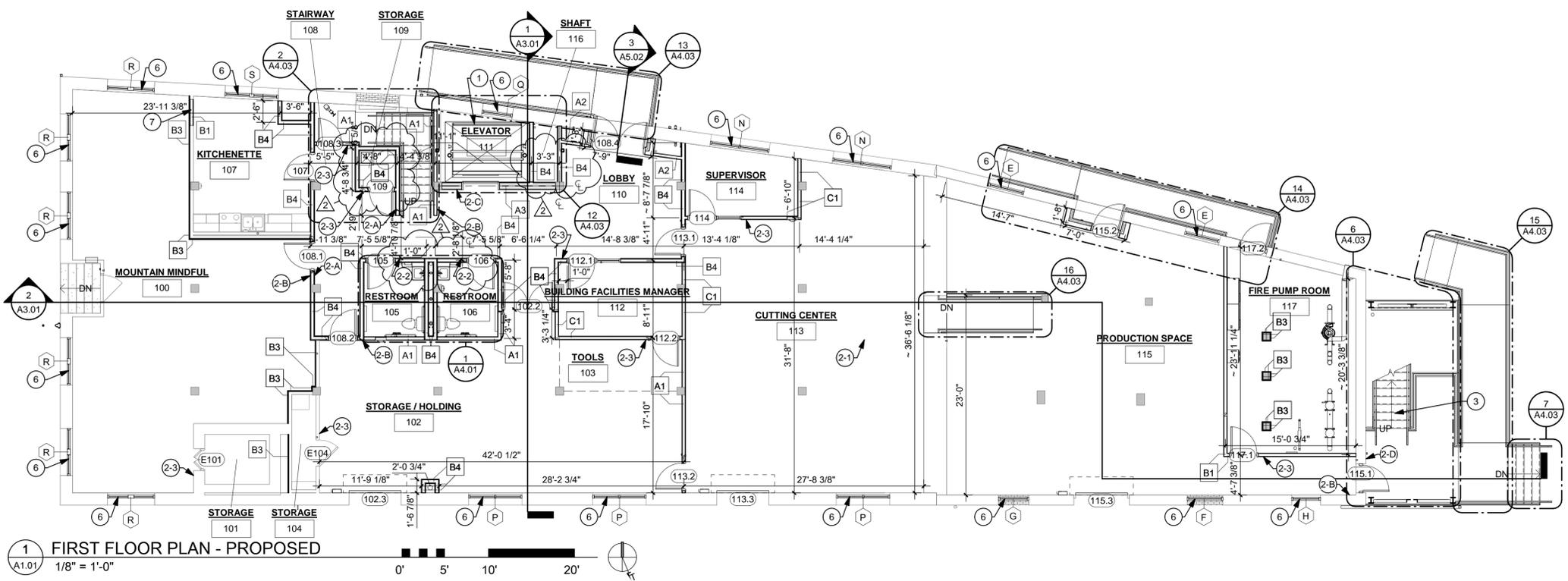
NO.	BY	DATE	DESCRIPTION
2	ALB	02/10/2026	ADDENDUM 2

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

DRAWN: ALB DATE: 01/13/26
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PROJECT No. T60-11108
FIRST FLOOR PLAN - PROPOSED

SHEET No. **A1.01**



1 FIRST FLOOR PLAN - PROPOSED
A1.01 1/8" = 1'-0"
0' 5' 10' 20'

LAYOUT TAB: FIRST FLOOR PLAN - PROPOSED
CAD FILE: C:\Users\alabaker\Documents\Just Transition_Central_Abbasheer\F2062.rvt
PLOT DATE/TIME: 2/10/2026 2:59:58 PM
USER: ALB



NEW CONSTRUCTION PLAN NOTES	
NOTE #	DESCRIPTION
1	INSTALL NEW ELEVATOR WITH NEW ELEVATOR EQUIPMENT. SEE SPECIFICATIONS AND ELECTRICAL DRAWINGS.
2-1	NOT USED.
2-2	NEW INTERIOR SIGNAGE TYPE 2: RESTROOMS AND BATHROOMS.
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2-A	NEW INTERIOR SIGNAGE TYPE A: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
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2-C	NEW INTERIOR SIGNAGE TYPE C: ELEVATOR WITH FLOOR SCHEDULE.
2-D	NEW EXTERIOR SIGNAGE TYPE D: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
3	INSTALL NEW COVERED EXTERIOR STAIRWAY.
5	NEW DISPLAY SHELVING.
6	INSTALL NEW WINDOW IN EXISTING OPENING. SEE A6 SERIES FOR WINDOW ELEVATIONS.
7	INFILL WALL WHERE DOOR HAS BEEN REMOVED.

- GENERAL NOTES**
- INTERIOR DIMENSIONS ARE FROM FINISH FACE OF CMU MASONRY WALL AND CENTER OF METAL STUD PARTITIONS.
 - THE HINGE SIDE OF DOOR FRAMES ARE LOCATED 2" FROM FACE OF ADJACENT WALL FOR METAL STUD PARTITIONS AND 4" FROM MASONRY WALLS UNLESS OTHERWISE NOTED.
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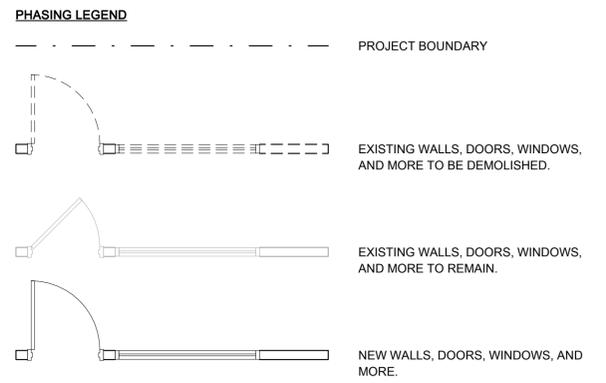
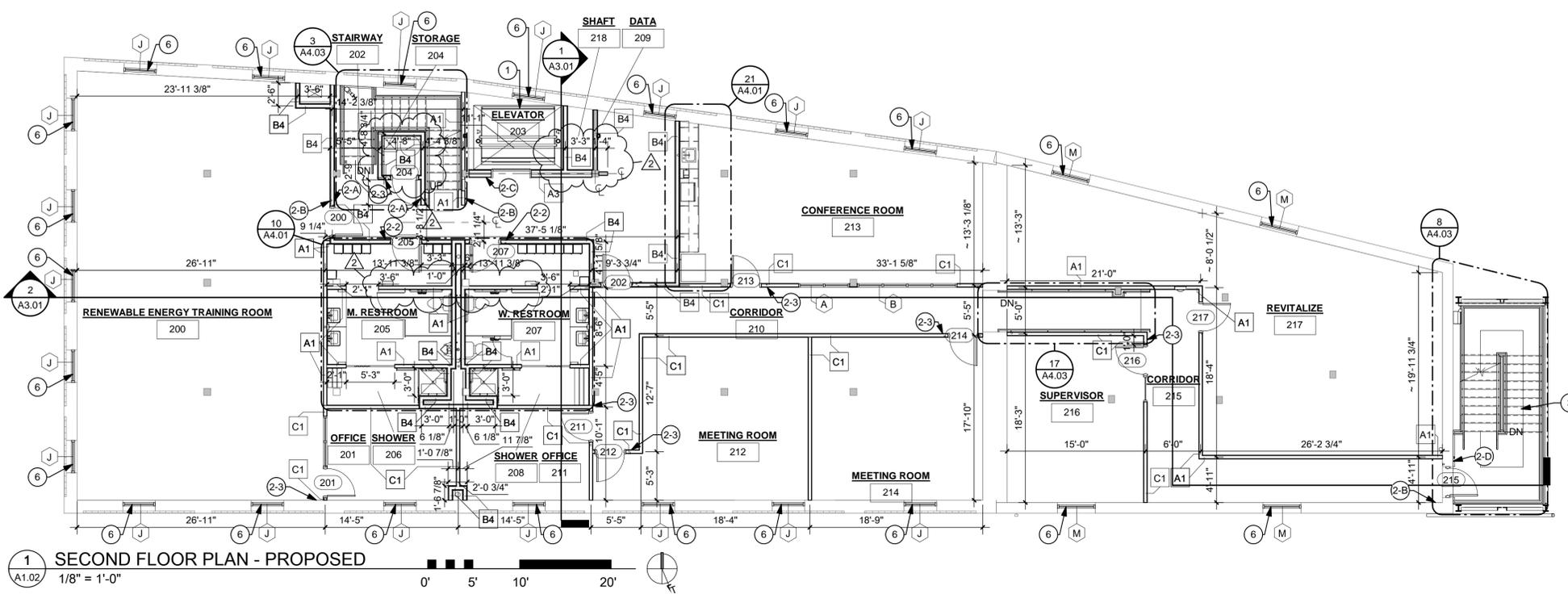
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2	ALB	02/10/2026	ADDENDUM 2

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

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CHECKED: AJC DATE: 01/13/26
APPROVED: AJC DATE: 01/13/26

PROJECT No. T60-11108
SECOND FLOOR PLAN - PROPOSED

SHEET No. **A1.02**



1 SECOND FLOOR PLAN - PROPOSED
A1.02 1/8" = 1'-0"



LAYOUT TAB: SECOND FLOOR PLAN - PROPOSED
CAD FILE: C:\Users\alabier\Documents\Rebillion_Just Transition_Central_Abbasider\F2062.rvt
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NEW CONSTRUCTION PLAN NOTES	
NOTE #	DESCRIPTION
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2-2	NEW INTERIOR SIGNAGE TYPE 2: RESTROOMS AND BATHROOMS.
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2-A	NEW INTERIOR SIGNAGE TYPE A: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
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2-C	NEW INTERIOR SIGNAGE TYPE C: ELEVATOR WITH FLOOR SCHEDULE.
2-D	NEW EXTERIOR SIGNAGE TYPE D: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
3	INSTALL NEW COVERED EXTERIOR STAIRWAY.
5	NEW DISPLAY SHELVING.
6	INSTALL NEW WINDOW IN EXISTING OPENING. SEE A6 SERIES FOR WINDOW ELEVATIONS.
7	INFILL WALL WHERE DOOR HAS BEEN REMOVED.

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 - FINISH FLOOR MATERIAL TRANSITIONS SHALL OCCUR AT CENTERLINE OF DOOR.
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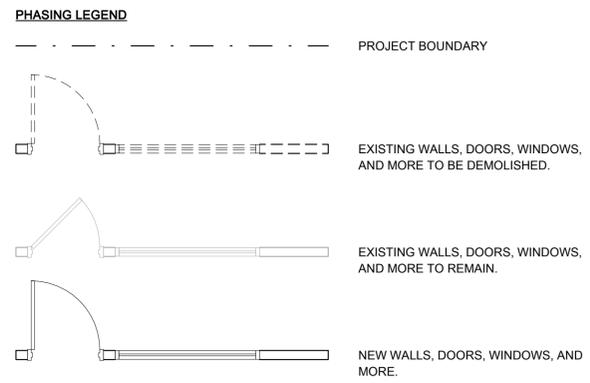
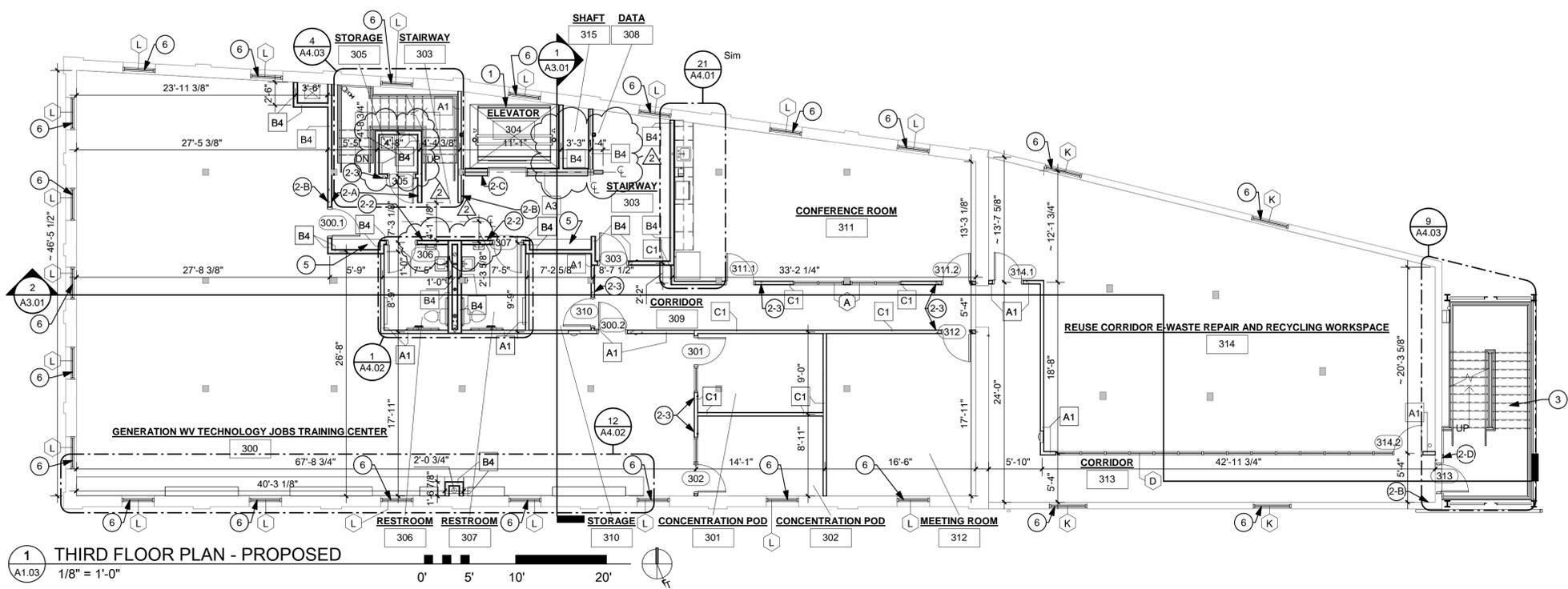
NO.	BY	DATE	DESCRIPTION
2	ALB	02/10/2026	ADDENDUM 2

JUST TRANSITION CENTER
 COALFIELD DEVELOPMENT
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 1/13/2026
 CONSTRUCTION DOCUMENTS

DRAWN: ALB DATE: 01/13/26
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 APPROVED: AJC DATE: 01/13/26

PROJECT No. T60-11108
 THIRD FLOOR PLAN - PROPOSED

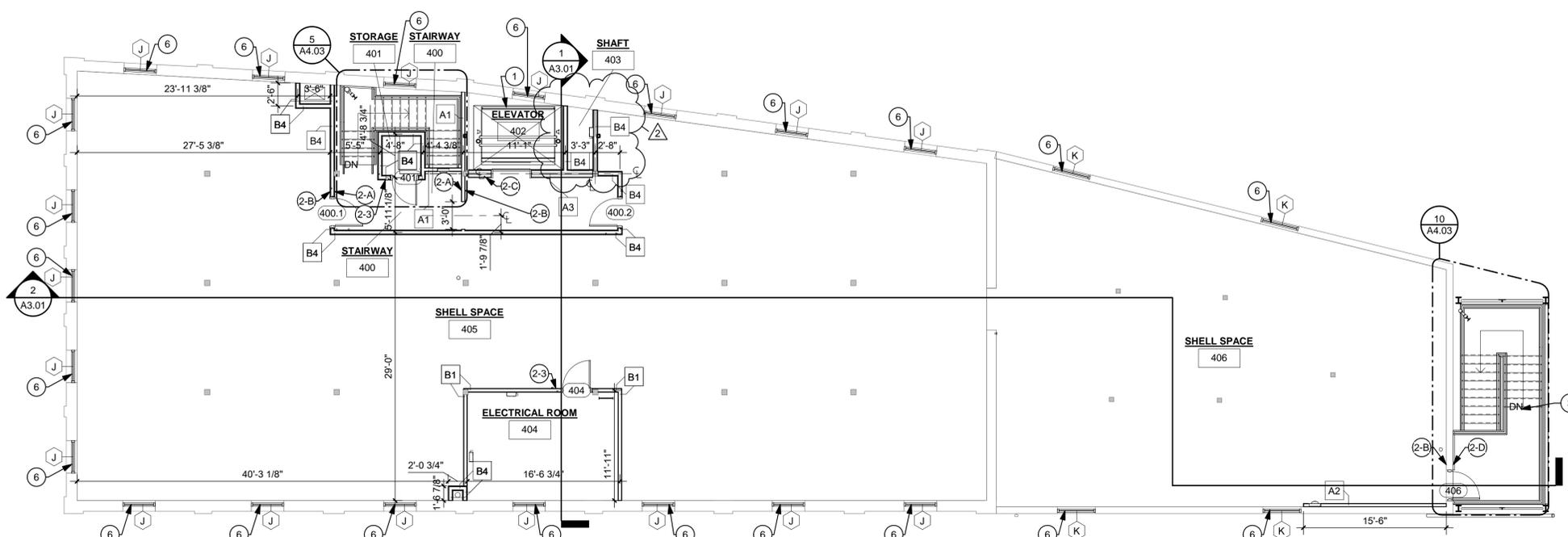
SHEET No. **A1.03**



1 THIRD FLOOR PLAN - PROPOSED
 A1.03 1/8" = 1'-0"

LAYOUT TAB: THIRD FLOOR PLAN - PROPOSED
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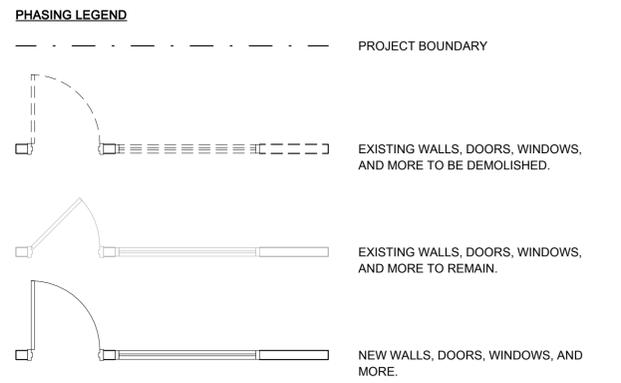
LAYOUT TAB: FOURTH FLOOR PLAN - PROPOSED
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 PLOT DATE/TIME: 2/10/2026 3:00:09 PM
 USER: ALB



1 FOURTH FLOOR PLAN - PROPOSED
 A1.04 1/8" = 1'-0"

NEW CONSTRUCTION PLAN NOTES	
NOTE #	DESCRIPTION
1	INSTALL NEW ELEVATOR WITH NEW ELEVATOR EQUIPMENT. SEE SPECIFICATIONS AND ELECTRICAL DRAWINGS.
2-1	NOT USED.
2-2	NEW INTERIOR SIGNAGE TYPE 2: RESTROOMS AND BATHROOMS.
2-3	NEW INTERIOR SIGNAGE TYPE 3: ROOM LABEL.
2-A	NEW INTERIOR SIGNAGE TYPE A: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
2-B	NEW INTERIOR SIGNAGE TYPE B: STAIR WITH FLOOR SCHEDULE, OUTSIDE STAIRWAY.
2-C	NEW INTERIOR SIGNAGE TYPE C: ELEVATOR WITH FLOOR SCHEDULE.
2-D	NEW EXTERIOR SIGNAGE TYPE D: STAIR WITH FLOOR SCHEDULE, INSIDE STAIRWAY.
3	INSTALL NEW COVERED EXTERIOR STAIRWAY.
5	NEW DISPLAY SHELVING.
6	INSTALL NEW WINDOW IN EXISTING OPENING. SEE A6 SERIES FOR WINDOW ELEVATIONS.
7	INFILL WALL WHERE DOOR HAS BEEN REMOVED.

- GENERAL NOTES**
- INTERIOR DIMENSIONS ARE FROM FINISH FACE OF CMU MASONRY WALL AND CENTER OF METAL STUD PARTITIONS.
 - THE HINGE SIDE OF DOOR FRAMES ARE LOCATED 2" FROM FACE OF ADJACENT WALL FOR METAL STUD PARTITIONS AND 4" FROM MASONRY WALLS UNLESS OTHERWISE NOTED.
 - INSTALL WOOD BLOCKING IN NEW WALLS TO RECEIVE WALL-MOUNTED ITEMS. WOOD BLOCKING SHALL BE FIRE RETARDANT TREATED.
 - PREPARE ALL NEW AND EXISTING WALL SURFACES TO RECEIVE SCHEDULED FINISH.
 - FINISH FLOOR MATERIAL TRANSITIONS SHALL OCCUR AT CENTERLINE OF DOOR.
 - FOR EXTENT OF SLAB CUTTING, PATCHING AND REPAIRING REGARDING PLUMBING ITEMS TO BE DEMOLISHED. CONTRACTOR TO COORDINATE WITH PLUMBING DRAWINGS.
 - FURNITURE SHOWN IS FOR REFERENCE ONLY.
 - REFER TO DRAWING A5.01 FOR PARTITION TYPES.



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NO.	BY	DATE	DESCRIPTION
2	ALB	02/10/2026	ADDENDUM 2

JUST TRANSITION CENTER
 COALFIELD DEVELOPMENT
 LOGAN, WV
 1/13/2026
 CONSTRUCTION DOCUMENTS

DRAWN: ALB DATE: 01/13/26
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 APPROVED: AJC DATE: 01/13/26
 PROJECT No. T60-11108
FOURTH FLOOR PLAN - PROPOSED
 SHEET No. **A1.04**

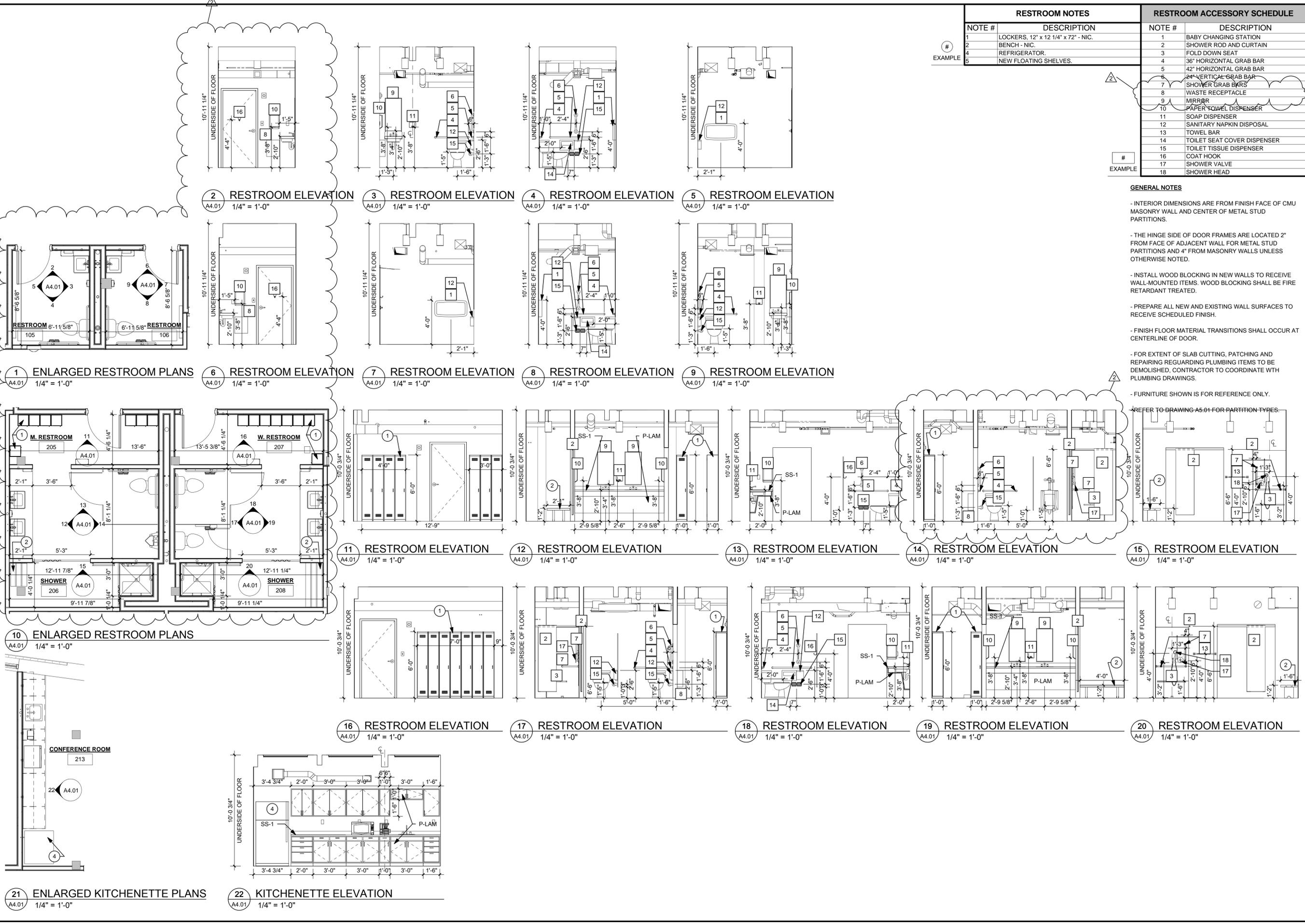
RESTROOM NOTES	
NOTE #	DESCRIPTION
1	LOCKERS, 12" x 12 1/4" x 72" - NIC.
2	BENCH - NIC.
4	REFRIGERATOR
5	NEW FLOATING SHELVES.

RESTROOM ACCESSORY SCHEDULE	
NOTE #	DESCRIPTION
1	BABY CHANGING STATION
2	SHOWER ROD AND CURTAIN
3	FOLD DOWN SEAT
4	36" HORIZONTAL GRAB BAR
5	42" HORIZONTAL GRAB BAR
6	24" VERTICAL GRAB BAR
7	SHOWER GRAB BARS
8	WASTE RECEPTACLE
9	MIRROR
10	PAPER TOWEL DISPENSER
11	SOAP DISPENSER
12	SANITARY NAPKIN DISPOSAL
13	TOWEL BAR
14	TOILET SEAT COVER DISPENSER
15	TOILET TISSUE DISPENSER
16	COAT HOOK
17	SHOWER VALVE
18	SHOWER HEAD

GENERAL NOTES

- INTERIOR DIMENSIONS ARE FROM FINISH FACE OF CMU MASONRY WALL AND CENTER OF METAL STUD PARTITIONS.
- THE HINGE SIDE OF DOOR FRAMES ARE LOCATED 2" FROM FACE OF ADJACENT WALL FOR METAL STUD PARTITIONS AND 4" FROM MASONRY WALLS UNLESS OTHERWISE NOTED.
- INSTALL WOOD BLOCKING IN NEW WALLS TO RECEIVE WALL-MOUNTED ITEMS. WOOD BLOCKING SHALL BE FIRE RETARDANT TREATED.
- PREPARE ALL NEW AND EXISTING WALL SURFACES TO RECEIVE SCHEDULED FINISH.
- FINISH FLOOR MATERIAL TRANSITIONS SHALL OCCUR AT CENTERLINE OF DOOR.
- FOR EXTENT OF SLAB CUTTING, PATCHING AND REPAIRING REGARDING PLUMBING ITEMS TO BE DEMOLISHED, CONTRACTOR TO COORDINATE WITH PLUMBING DRAWINGS.
- FURNITURE SHOWN IS FOR REFERENCE ONLY.

REFER TO DRAWING A5.01 FOR PARTITION TYPES.



NO.	BY	DATE	DESCRIPTION
2	ALB	02/10/2026	ADDENDUM 2

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

DRAWN: ALB DATE: 01/13/26
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APPROVED: AJC DATE: 01/13/26

PROJECT No. T60-11108

SHEET No.

ENLARGED PLAN VIEWS & INT. ELEVATIONS

A4.01

LAYOUT TAB: ENLARGED PLAN VIEWS & INT. ELEVATIONS
 CAD FILE: C:\Users\alabaker\Documents\Rebentzen_Just Transition_Central_Alabaster\2026.rvt
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 USER: ALB

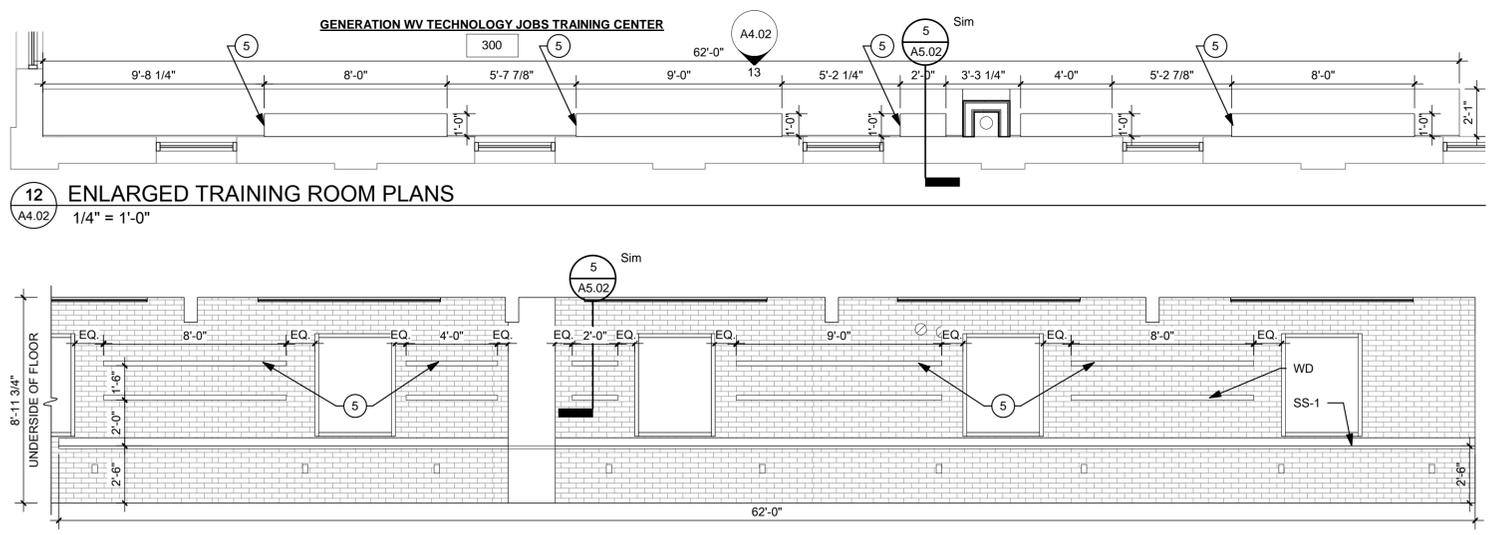
RESTROOM NOTES		RESTROOM ACCESSORY SCHEDULE	
NOTE #	DESCRIPTION	NOTE #	DESCRIPTION
1	LOCKERS, 12" x 12 1/4" x 72" - NIC.	1	24" VERTICAL GRAB BAR
2	BENCH - NIC.	2	SHOWER ROD AND CURTAIN
4	REFRIGERATOR	3	FOLD DOWN SEAT
5	NEW FLOATING SHELVES.	4	36" HORIZONTAL GRAB BAR
EXAMPLE		5	42" HORIZONTAL GRAB BAR
		6	24" VERTICAL GRAB BAR
		7	SHOWER GRAB BARS
		8	WASTE RECEPTACLE
		9	MIRROR
		10	PAPER TOWEL DISPENSER
		11	SOAP DISPENSER
		12	SANITARY NAPKIN DISPOSAL
		13	TOWEL BAR
		14	TOILET SEAT COVER DISPENSER
		15	TOILET TISSUE DISPENSER
		16	COAT HOOK
		17	SHOWER VALVE
		18	SHOWER HEAD

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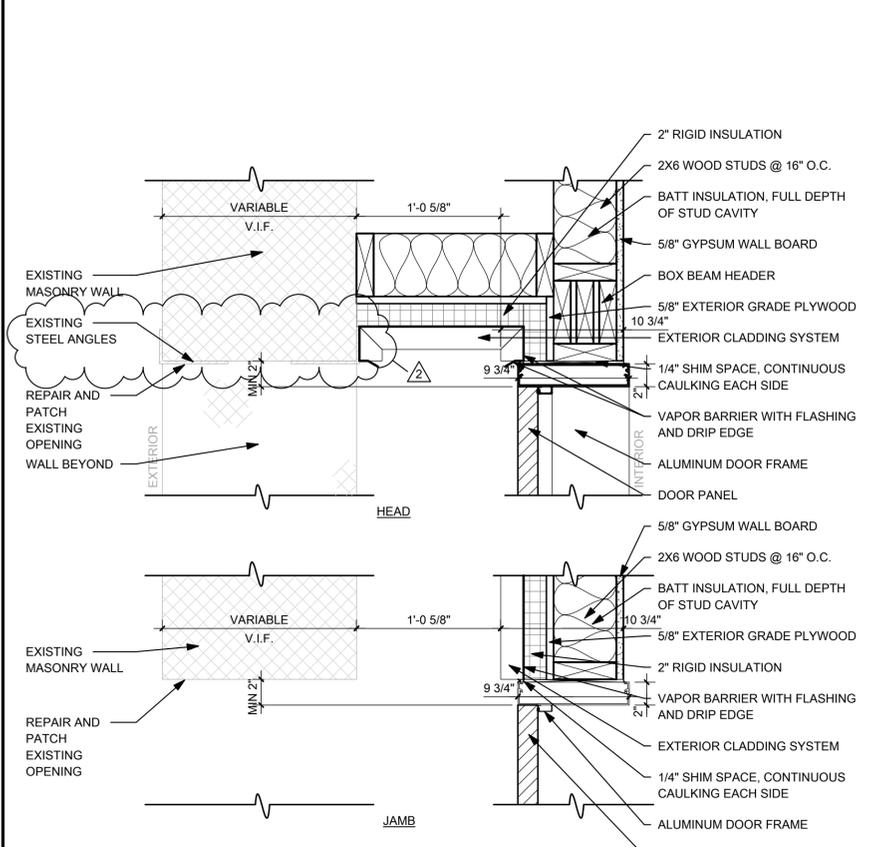
- GENERAL NOTES**
- INTERIOR DIMENSIONS ARE FROM FINISH FACE OF CMU MASONRY WALL AND CENTER OF METAL STUD PARTITIONS.
 - THE HINGE SIDE OF DOOR FRAMES ARE LOCATED 2" FROM FACE OF ADJACENT WALL FOR METAL STUD PARTITIONS AND 4" FROM MASONRY WALLS UNLESS OTHERWISE NOTED.
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 - REFER TO DRAWING A5.01 FOR PARTITION TYPES.



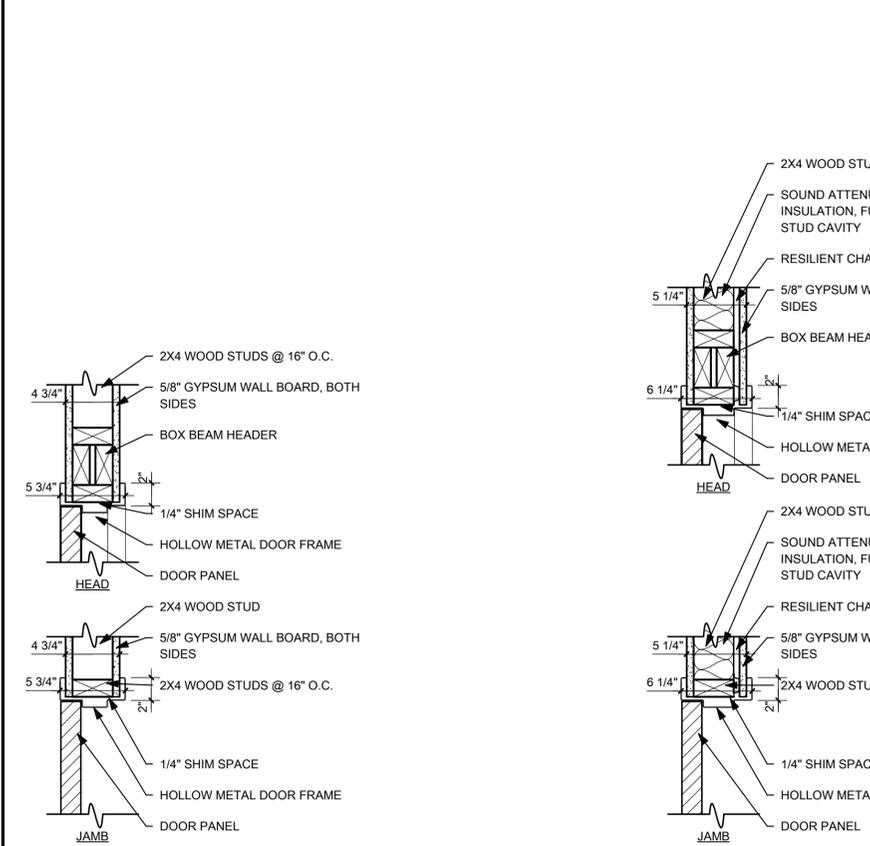
NO.	BY	DATE	DESCRIPTION
2	ALB	02/10/2026	ADDENDUM 2

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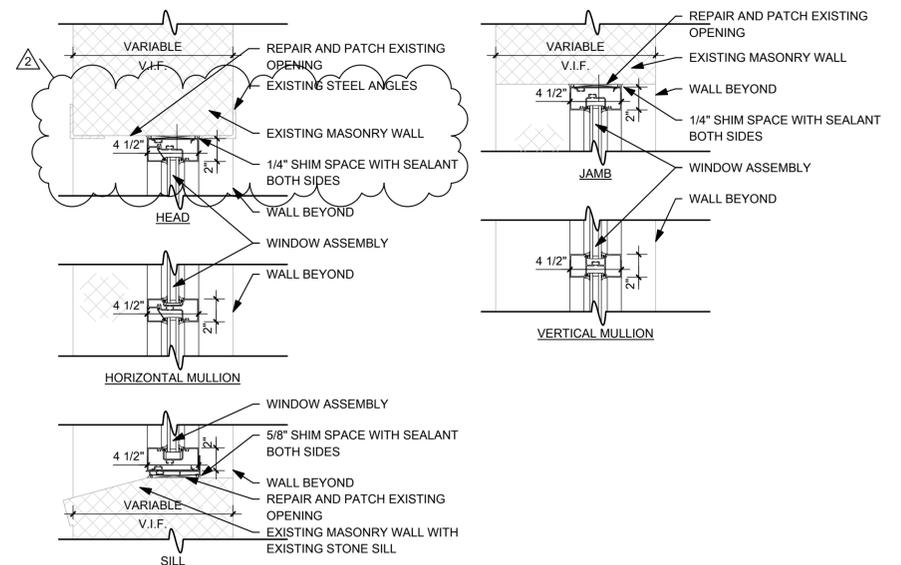
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 CHECKED: AJC DATE: 01/13/26
 APPROVED: AJC DATE: 01/13/26
 PROJECT No. T60-11108
 ENLARGED PLAN VIEWS & INT. ELEVATIONS
 SHEET No. **A4.02**



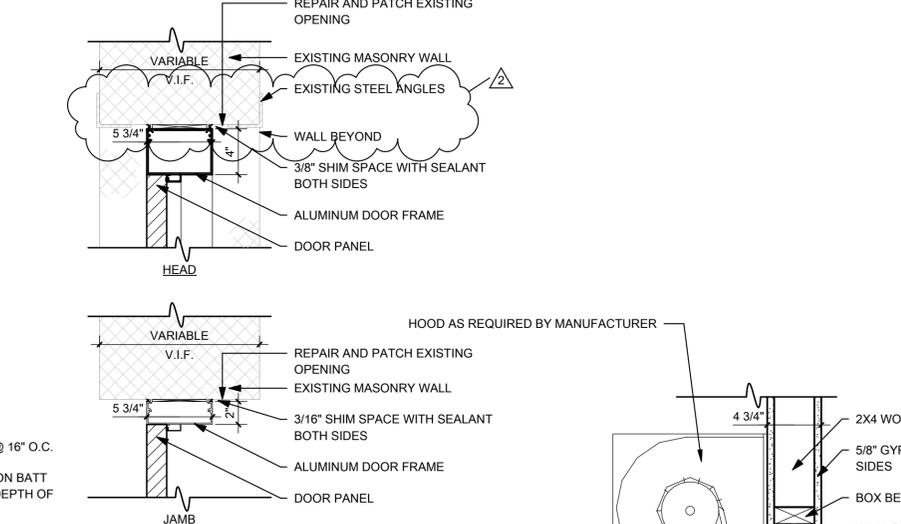
5 DOOR DETAILS - EXTERIOR - WOOD STUD FRAMING
A6.03 1 1/2" = 1'-0"



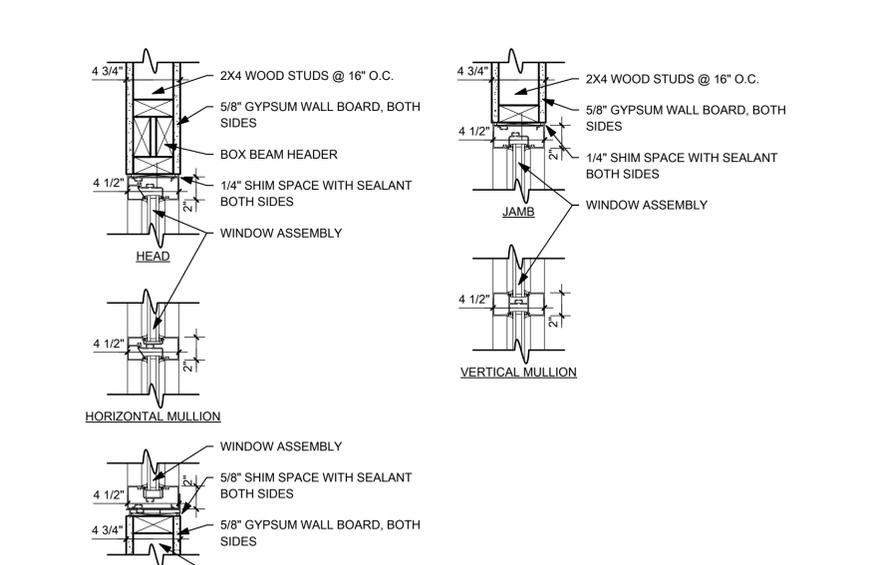
8 DOOR DETAILS - INTERIOR ACoustical - WOOD STUD FRAMING
A6.03 1 1/2" = 1'-0"



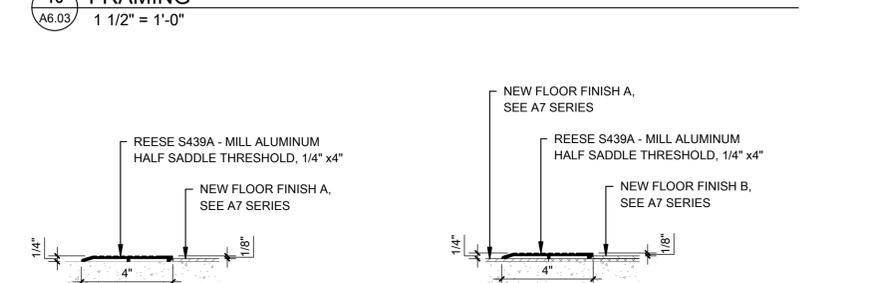
9 WINDOW DETAILS - EXTERIOR STOREFRONT - MASONRY
A6.03 1 1/2" = 1'-0"



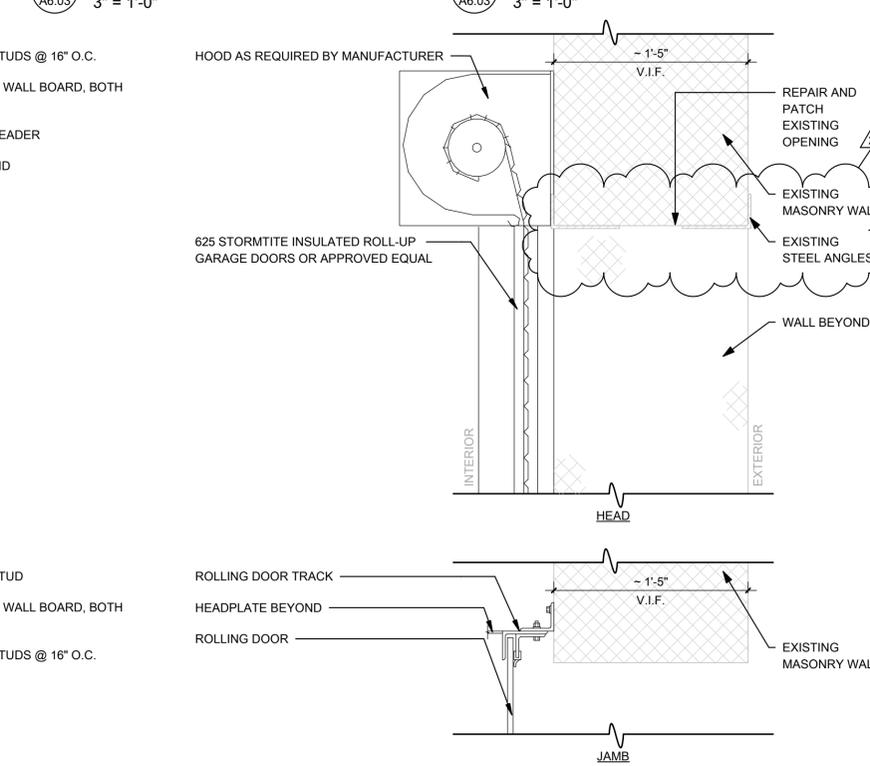
12 DOOR DETAILS - EXTERIOR - MASONRY
A6.03 1 1/2" = 1'-0"



14 WINDOW DETAILS - INTERIOR STOREFRONT - WOOD STUD FRAMING
A6.03 1 1/2" = 1'-0"



16 THRESHOLD DETAIL - EXTERIOR
A6.03 3" = 1'-0"



18 DOOR DETAILS - EXTERIOR COILING - MASONRY
A6.03 1 1/2" = 1'-0"

LAYOUT TAB: DOOR DETAILS
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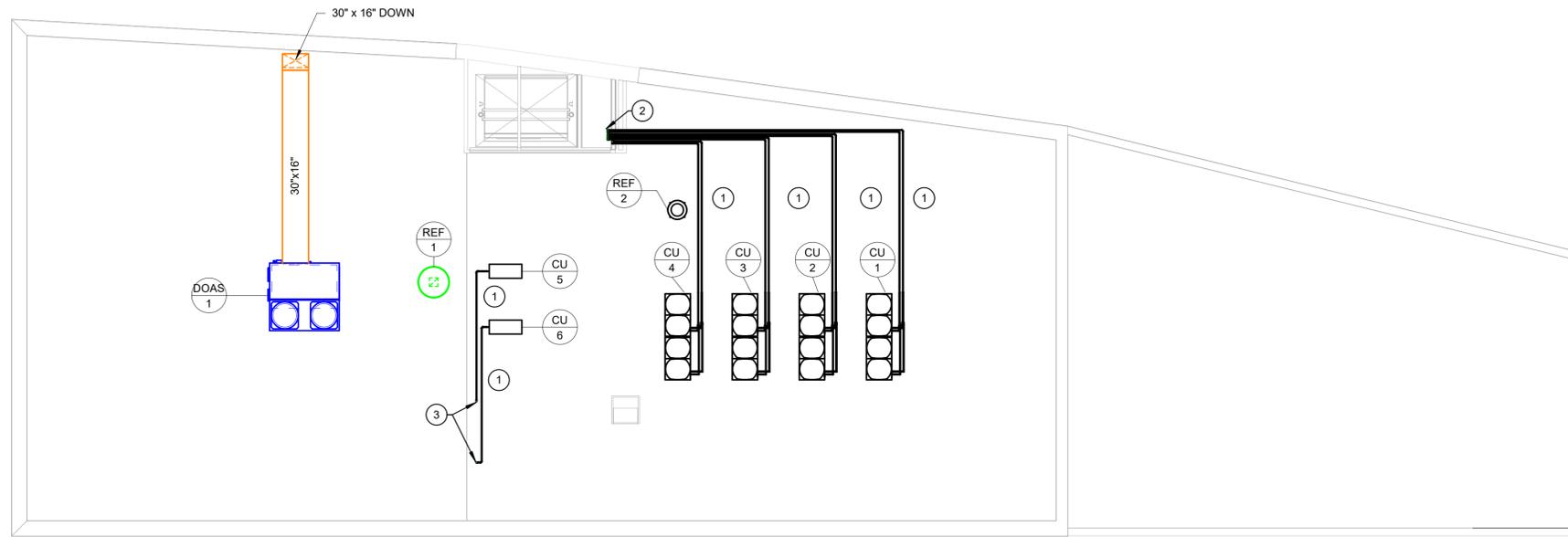
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CHECKED: AJC DATE: 01/13/26
APPROVED: AJC DATE: 01/13/26

PROJECT No. T90-11108

DOOR DETAILS

SHEET No.

A6.03



ROOF NEW WORK PLAN - MECHANICAL
 1/8" = 1'-0"

ROOF NEW WORK MECHANICAL PLAN KEYNOTES	
NOTE #	DESCRIPTION
1	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATIONS.
2	SEE REFRIGERANT PIPE PENETRATION DETAIL ON M5.02
3	REFRIGERANT PIPING PORTAL- SEE DETAIL ON M5.01

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 CHECKED: TTG DATE: 01/13/2026
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PROJECT No.
 T60-11108

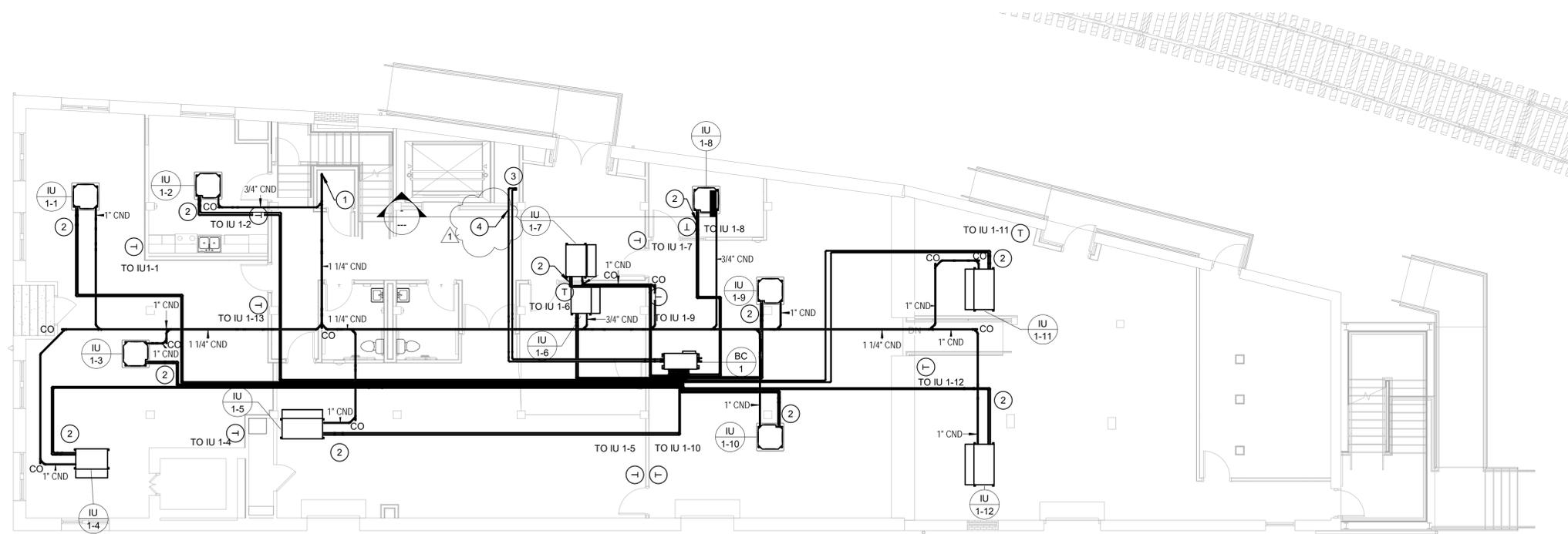
ROOF NEW WORK PLAN
 - MECHANICAL

SHEET No.

M3.05



FIRST FLOOR NEW WORK PIPING PLAN KEYNOTES	
NOTE #	DESCRIPTION
1	ROUTE 1 1/4" CONDENSATE LINE DOWN TO FLOOR DRAIN. TERMINATE WITH AN AIR GAP.
2	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION.
3	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION, UP TO ROOF TO CU-1.
4	SEE REFRIGERANT PIPE PENETRATION DETAIL ON M5.02



FIRST FLOOR NEW WORK PIPING PLAN - MECHANICAL
1/8" = 1'-0"

NO.	BY	DATE	DESCRIPTION
1		2/10/2026	ADDENDUM #2

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LOGAN, WV
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CONSTRUCTION DOCUMENTS

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APPROVED: KES DATE: 01/13/2026

PROJECT No. T60-11108

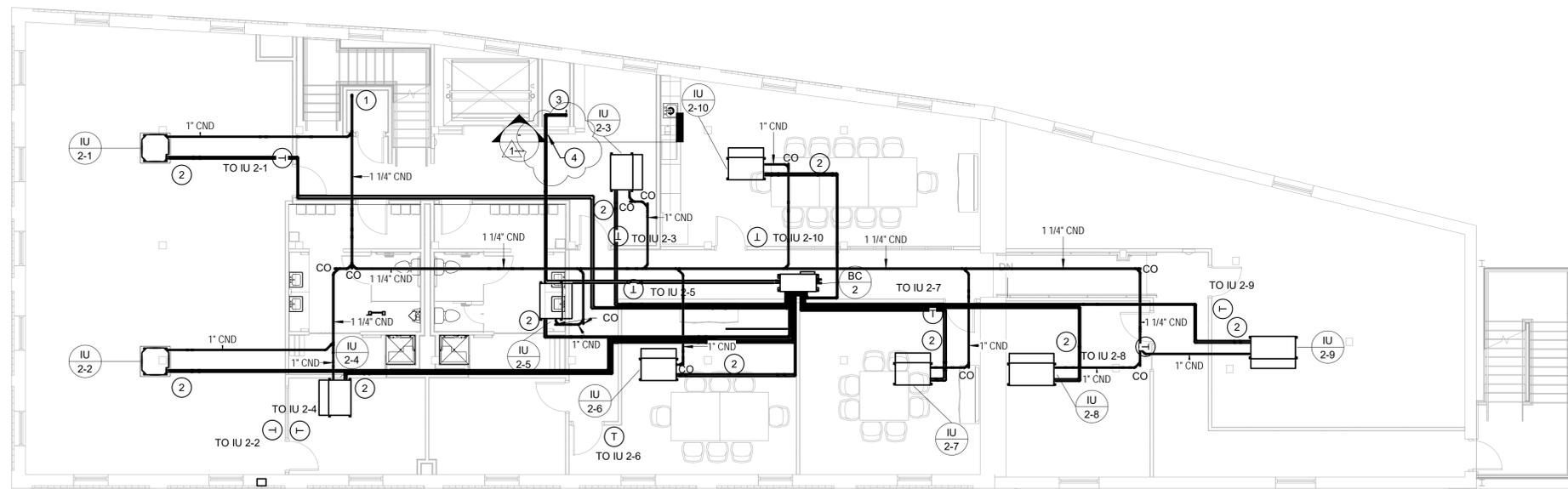
FIRST FLOOR NEW WORK PIPING PLAN - MECHANICAL
SHEET No.

M3.06



SECOND FLOOR NEW WORK PIPING PLAN KEYNOTES	
NOTE #	DESCRIPTION

1	ROUTE 1 1/4" CONDENSATE LINE DOWN TO FLOOR DRAIN. TERMINATE WITH AN AIR GAP.
2	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION.
3	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION, UP TO ROOF TO CU-2.
4	SEE REFRIGERANT PIPE PENETRATION DETAIL ON M5.02



SECOND FLOOR NEW WORK PIPING
PLAN - MECHANICAL
1/8" = 1'-0"

NO.	BY	DATE	DESCRIPTION
1		2/10/2026	ADDENDUM #2

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COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

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CHECKED: Checker DATE: 01/13/2026
APPROVED: Approver DATE: 01/13/2026

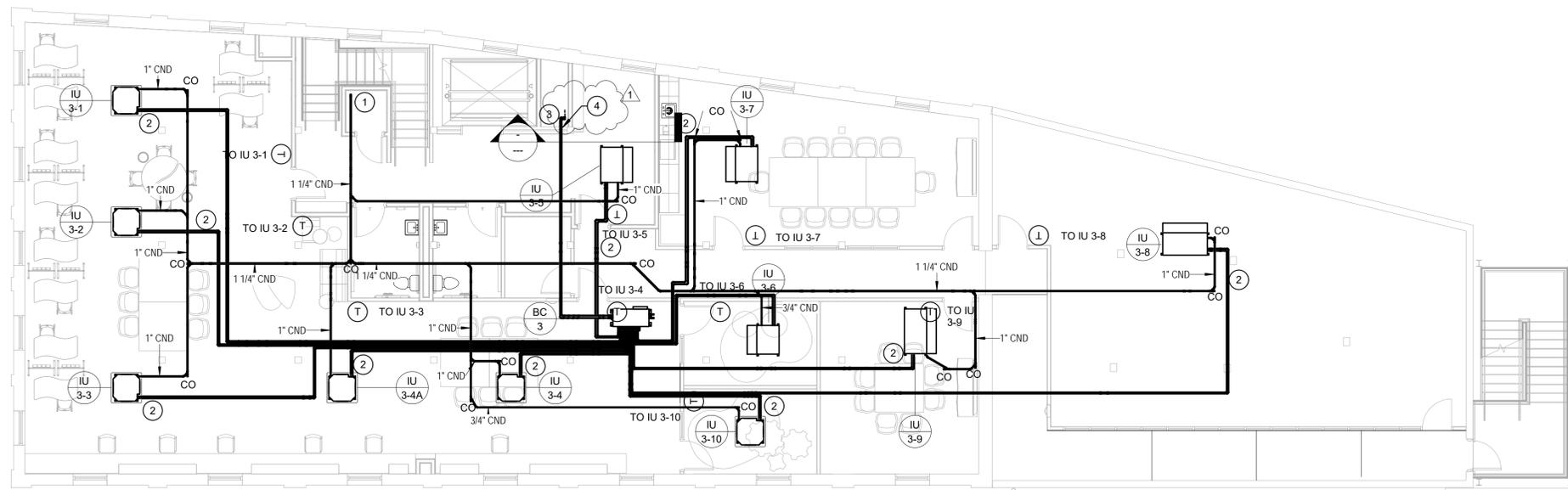
PROJECT No.
T60-11108

SECOND FLOOR NEW
WORK PIPING PLAN -
MECHANICAL
SHEET No.

M3.07



THIRD FLOOR NEW WORK PIPING PLAN KEYNOTES	
NOTE #	DESCRIPTION
1	ROUTE 1 1/4" CONDENSATE LINE DOWN TO FLOOR DRAIN. TERMINATE WITH AN AIR GAP.
2	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION.
3	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION, UP TO ROOF TO CU-3.
4	SEE REFRIGERANT PIPE PENETRATION DETAIL ON M5.02



THIRD FLOOR NEW WORK PIPING PLAN
- MECHANICAL
1/8" = 1'-0"

NO.	BY	DATE	DESCRIPTION
1		2/10/2026	ADDENDUM #2

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

DRAWN: Author DATE: 01/13/2026
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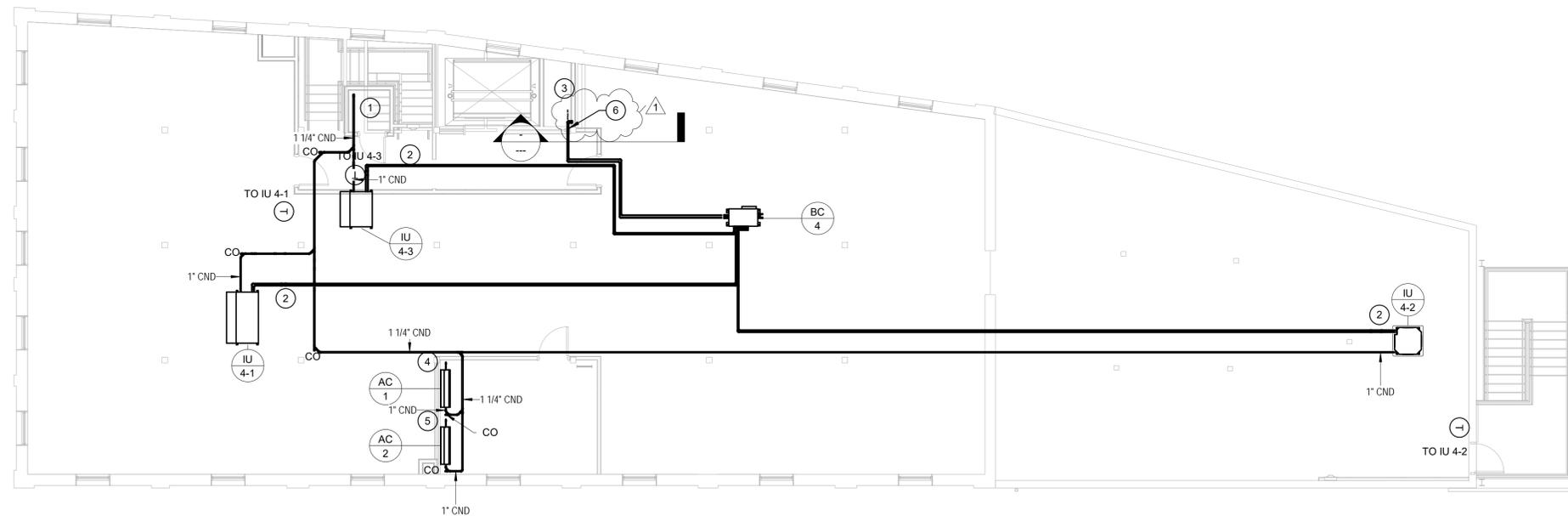
PROJECT No.
T60-11108

THIRD FLOOR NEW WORK PIPING PLAN - MECHANICAL
SHEET No.

M3.08



FOURTH FLOOR NEW WORK PIPING PLAN KEYNOTES	
NOTE #	DESCRIPTION
1	ROUTE 1 1/4" CONDENSATE LINE DOWN TO FLOOR DRAIN. TERMINATE WITH AN AIR GAP.
2	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION.
3	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION, UP TO ROOF TO CU-4.
4	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION, UP TO ROOF TO CU-5.
5	REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATION, UP TO ROOF TO CU-6.
6	SEE REFRIGERANT PIPE PENETRATION DETAIL ON M5.02



FOURTH FLOOR NEW WORK PIPING
PLAN - MECHANICAL
1/8" = 1'-0"

ADDENDUM #2	DATE	BY	DESCRIPTION
1	2/10/2026		

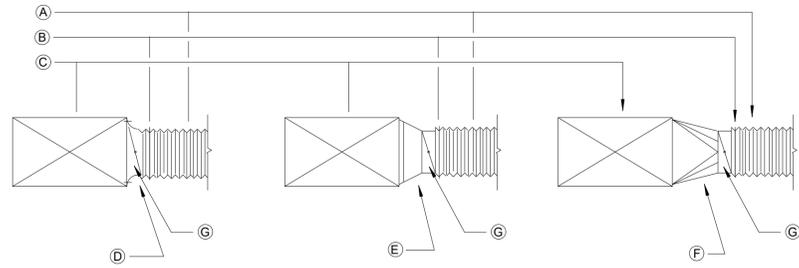
JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

DRAWN: Author DATE: 01/13/2026
CHECKED: Checker DATE: 01/13/2026
APPROVED: Approver DATE: 01/13/2026

PROJECT No.
T60-11108

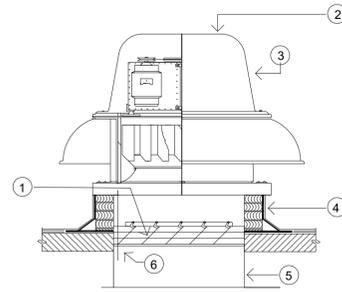
FOURTH FLOOR NEW WORK PIPING PLAN - MECHANICAL
SHEET No.

M3.09



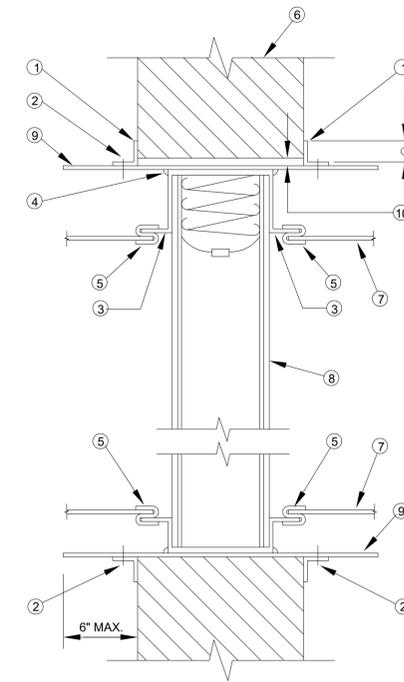
- A FLEX DUCT
- B PLASTIC TIE BAND
- C DUCT MAIN
- D BELLMOUTH TAKE-OFF BUCKLEY AIR PRODUCTS TYPE BM-D OR EQUAL WITH DAMPER
- E CONICAL SPIN-IN FITTING WITH DAMPER-GENFLEX MODEL SM-2D OR EQUAL
- F FABRICATED SQUARE TO ROUND TAP WITH DAMPER- AREA OF TAP TO BE 1.5xAREA OF BRANCH
- G VOLUME DAMPER

ALTERNATE METHODS OF FLEX DUCT CONNECTIONS
NOT TO SCALE



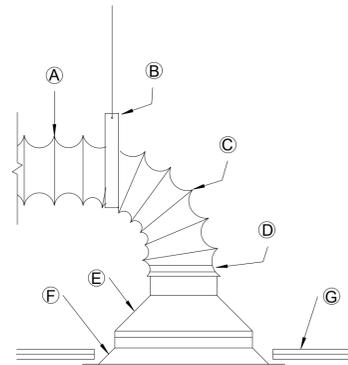
- 1 BACKDRAFT DAMPER GRAVITY OR MOTOR OPERATED AS SPEC'D
- 2 DIRECT OR BELT DRIVEN AS SPEC'D
- 3 SPUN ALUMINUM ROOF EXHAUSTER
- 4 PREFABRICATED CURB
- 5 DUCT
- 6 CONDUIT HOLE

DETAIL OF DOWN BLAST ROOF EXHAUST FAN
NOT TO SCALE



- 1 MOUNTING ANGLE ON ALL SIDES:
A. 1 1/2" X 1 1/2" X 14 GAUGE (UP TO 48"W. OR H.)
B. 2" X 2" X 14 GAUGE (OVER 48"W. OR H.)
C. DO NOT SECURE ANGLE TO WALL OR FLOOR
- 2 SECURE ANGLE TO SLEEVE 8" O.C. WITH:
A. 1/4" DIAMETER BOLTS AND NUTS, OR
B. 1/2" LONG WELDS, OR
C. NO. 10 CADMIUM-PLATED STEEL SCREWS, OR
D. 3/16" STEEL RIVETS
- 3 DAMPER COLLAR EXTENSION
- 4 TACK WELD FIRE DAMPER TO SLEEVE 8" O.C. ON ALL SIDES. SEAL JUNCTION OF FIRE DAMPER AND SLEEVE ON ALL SIDES
- 5 SLIP JOINT
- 6 WALL OR FLOOR
- 7 DUCT
- 8 FIRE DAMPER
- 9 SLEEVE ALL SIDES; SLEEVE THICKNESS IS TO SUIT DUCT JOINT SELECTED
- 10 1/4" TO 1/2" CLEARANCE BETWEEN FIRE DAMPER AND WALL ON TOP AND SIDES FOR VERTICAL INSTALLATION; 1/4" TO 1/2" CLEARANCE ON ALL SIDES FOR HORIZONTAL INSTALLATION

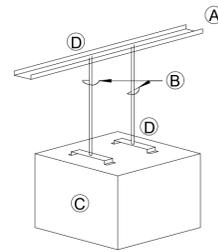
ROUND OR FLAT OVAL DUCT (PRESSURE CLASSES 1/2" TO 2")
ROUND DUCT FIRE DAMPER DETAIL
Copy 1
NOT TO SCALE



- A INSULATED FLEXIBLE DUCT (8'-0" MAX. LENGTH)
- B HANGER BANDS IN ACCORDANCE WITH FLEX MANUFACTURERS INSTRUCTIONS
- C ALL BENDS TO BE LONG RADIUS
- D PLASTIC OR STAINLESS STEEL TIE BAND
- E SQUARE TO ROUND ADAPTER OR ROUND TRANSITION (WHERE REQ'D.)
- F CEILING DIFFUSER OR GRILLE
- G CEILING

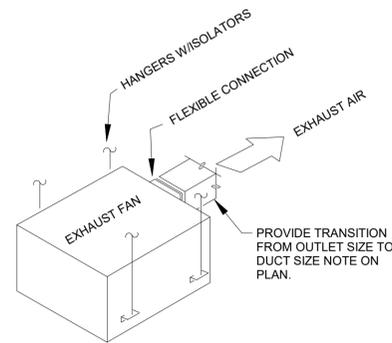
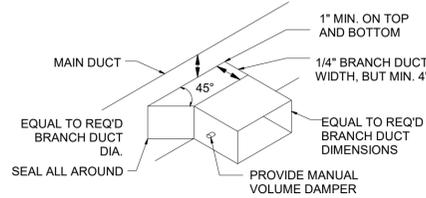
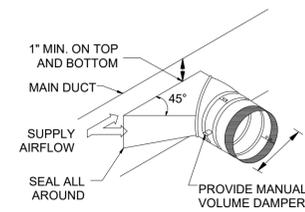
ELEVATION

INSTALLATION DETAILS FOR FLEXIBLE DUCTS
NOT TO SCALE



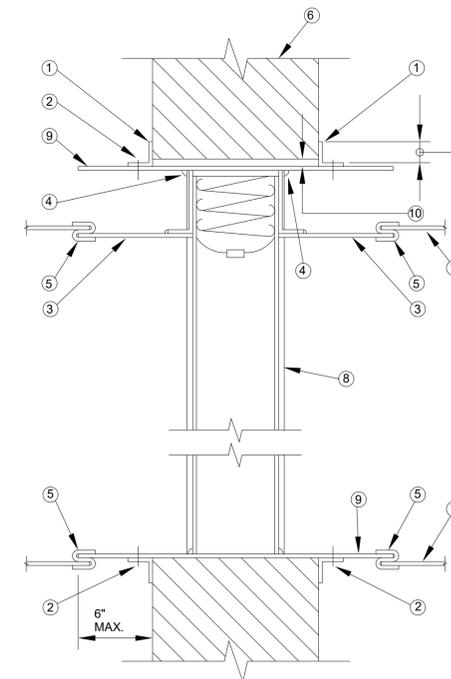
- A PROVIDE STEEL SUPPORTS BETWEEN JOISTS AS REQUIRED.
- B 3/8" HANGER ROD, ONE AT EACH CORNER (MIN). MINIMIZE LENGTH OF ROD AND PROVIDE SWAY BRACING AS REQUIRED.
- C SUSPENDED EQUIPMENT
- D ATTACH THREADED ROD TO STEEL SUPPORT AND EQUIPMENT SUPPORT WITH NUTS AND LOCK WASHERS

DETAIL OF SUSPENDED EQUIPMENT
NOT TO SCALE



TYPICAL BRANCH TAKEOFF DETAIL
NOT TO SCALE

CEILING CABINET EXHAUST FAN DETAIL
NOT TO SCALE



- 1 MOUNTING ANGLE ON ALL SIDES:
A. 1 1/2" X 1 1/2" X 14 GAUGE (UP TO 48"W. OR H.)
B. 2" X 2" X 14 GAUGE (OVER 48"W. OR H.)
C. DO NOT SECURE ANGLE TO WALL OR FLOOR
- 2 SECURE ANGLE TO SLEEVE 8" O.C. WITH:
A. 1/4" DIAMETER BOLTS AND NUTS, OR
B. 1/2" LONG WELDS, OR
C. NO. 10 CADMIUM-PLATED STEEL SCREWS, OR
D. 3/16" STEEL RIVETS
- 3 DAMPER COLLAR EXTENSION
- 4 TACK WELD FIRE DAMPER TO SLEEVE 8" O.C. ON ALL SIDES. SEAL JUNCTION OF FIRE DAMPER AND SLEEVE ON ALL SIDES
- 5 SLIP JOINT
- 6 WALL OR FLOOR
- 7 DUCT
- 8 FIRE DAMPER
- 9 SLEEVE ALL SIDES; SLEEVE THICKNESS IS TO SUIT DUCT JOINT SELECTED
- 10 1/4" TO 1/2" CLEARANCE BETWEEN FIRE DAMPER AND WALL ON TOP AND SIDES FOR VERTICAL INSTALLATION; 1/4" TO 1/2" CLEARANCE ON ALL SIDES FOR HORIZONTAL INSTALLATION

RECTANGULAR OR SQUARE DUCT (PRESSURE CLASSES 1/2" TO 2")
RECTANGULAR DUCT FIRE DAMPER
DETAIL
NOT TO SCALE



NO.	BY	DATE	DESCRIPTION
1			

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

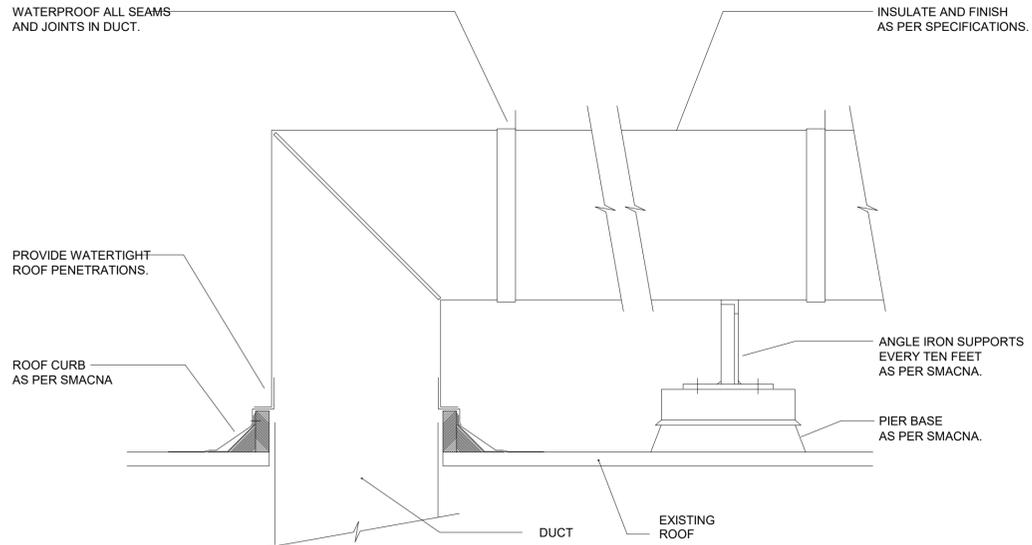
DRAWN: TTG DATE: 01/13/2026
CHECKED: TTG DATE: 01/13/2026
APPROVED: KES DATE: 01/13/2026
PROJECT No. 160-11108

DETAILS

SHEET No.

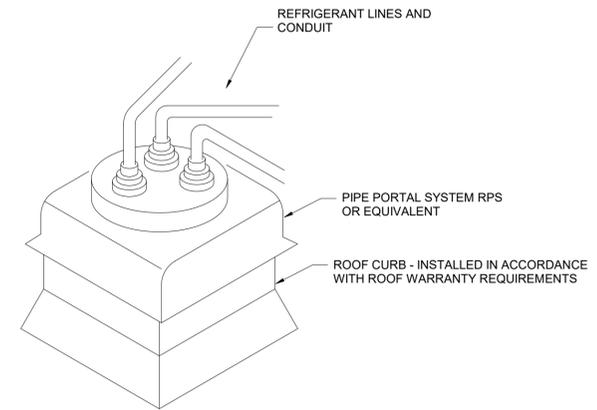
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LAYOUT TAB: DETAILS CAD FILE: C:\Users\kenneth.smith\Documents\UTC_MEP_RP1_LB.dwg, Date: 1/13/2026 1:07:48 PM USER: TTG PLOT DATE/TIME: 2/3/2026 1:07:48 PM

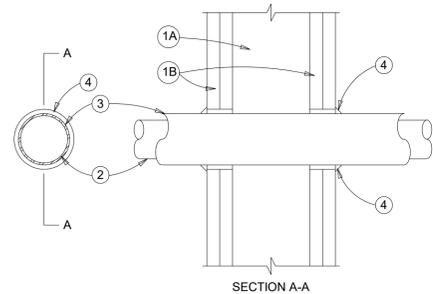


NOTE: ALL PENETRATIONS SHALL BE MADE IN ACCORDANCE WITH SMACNA MANUAL OR AS APPROVED BY THE ARCHITECT.

DUCT ROOF PENETRATION AND SUPPORT DETAIL
NOT TO SCALE



DETAIL OF REFRIGERATE PIPING THROUGH ROOF PORTAL
NOT TO SCALE



SYSTEM NO. WL5039
F RATINGS - 1, AND 2 HR. (SEE ITEM 4) T
RATINGS - 1, AND 1-1/2 HR. (SEE ITEM 4)

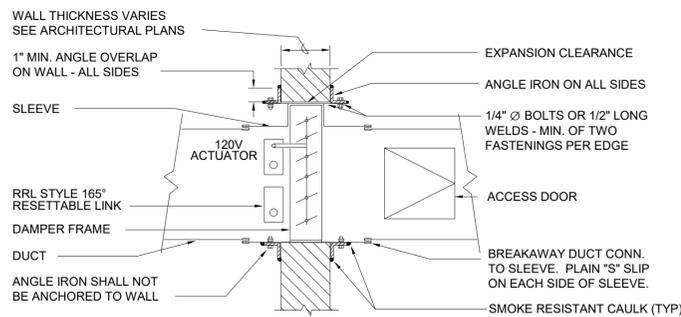
- WALL ASSEMBLY - THE 1, OR 2 HR. FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. OC.
 - WALLBOARD, GYPSUM* - NOM 1/2 OR 5/8 IN. THICK, 4FT. WIDE WITH SQUARE OR TAPERED EDGES; THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX. DIAM OF OPENING IN WALLBOARD LAYERS IS 8-1/2 IN.
- METAL PIPE - NOM. 4 IN. DIAMETER (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE OR TYPE L (OR HEAVIER) COPPER TUBE. ONE PIPE TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE TO BE RIGIDLY SUPPORTED ON THE BOTH SIDES OF WALL ASSEMBLY.
- PIPE COVERING* NOM. 1-1/2 IN. THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEAMING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT STRIP TAPE SUPPLIED WITH PRODUCT. THE ANNULAR SPACE BETWEEN THE INSULATED PIPE AND THE EDGE OF THE THROUGH OPENING SHALL BE A MIN. 0 TO MAX. 1-1/4 IN.

SEE PIPE AND EQUIPMENT COVERING-MATERIALS*(BRGU) CATEGORY IN BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.
- FILL, VOID OR CAVITY MATERIAL* -CAULK- INSTALLED TO FILL ANNULAR SPACE THROUGHOUT THICKNESS OF GYPSUM WALLBOARD LAYERS, FLUSH WITH EACH SURFACE OF WALL. A MIN. 1/2 IN. DIAM BEAD OF CAULK SHALL BE APPLIED TO THE PIPE INSULATION/WALLBOARD INTERFACE AT THE POINT CONTACT LOCATION ON BOTH SIDES OF WALL. THE HOURLY F AND T RATINGS OF THE FIRESTOP SYSTEM ARE 1 HR WHEN INSTALLED IN A 1 HR FIRE RATED WALL. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS 2 HR WHEN INSTALLED IN A 2 HR FIRE RATED WALL. WHEN INSTALLED IN A 2 HR. FIRE RATED WALL, T RATING IS 1 HR WHEN COPPER TUBE IS USED AND 1-1/2 HR WHEN STEEL PIPE IS USED.

MINNESOTA MINING & MFG. CO. - TYPE MPS-2+
• BEARING THE UL CLASSIFICATION MARKING.

INSULATED COPPER PIPING THRU GYPSUM WALLBOARD

REFRIGERANT PIPE PENETRATION DETAIL
NOT TO SCALE



WALL SLEEVE	
DUCT DIMENSION (IN DIA. OR EITHER RECT. DIM)	MINIMUM GAUGE
0 - 12"	26
13 - 30"	24
31 - 54"	22
55 - 84"	20
85" - UP	18

ANGLE IRON & FASTENER DIMENSIONS		
LENGTH	MIN. ANGLE SIZE	FASTENER LOCATION
0 - 48"	1-1/2" x 1-1/2" x 1/8"	8" ON CENTER
49 - 96"	2" x 2" x 1/8"	6" ON CENTER
OVER 96"	2-1/2" x 2-1/2" x 3/16"	6" ON CENTER

NOTES:
1. COMBINATION FIRE / SMOKE DAMPERS SHALL BE ACTUATED THROUGH THE USE OF THE DUCT MOUNTED SMOKE DETECTOR (BY FIRE ALARM CONTRACTOR) OR FUSIBLE LINK AT DAMPER. REFER TO ELECTRICAL FIRE ALARM DRAWINGS FOR SMOKE DETECTION SYSTEM DETAILS. COORDINATE THE INSTALLATION OF ALL DAMPERS AND CONTROL REQUIREMENTS WITH THE FIRE ALARM AND ELECTRICAL CONTRACTOR.

2. DAMPER ASSEMBLY SHALL BE ACCESSIBLE THROUGH A SEPARATE ACCESS PANEL IF INSTALLED ABOVE A HARD CEILING OR WHERE ACCESS IS RESTRICTED. COORDINATE THE MOUNTING OF ANY REQUIRED ACCESS PANELS WITH THE PROJECT ARCHITECT PRIOR TO INSTALLATION. ALL DAMPER LOCATIONS SHALL BE INDICATED WITH A PERMANENT LABEL IN ACCORDANCE WITH CODE AND SHALL BE UL 555/555S LISTED.

COMBINATION FIRE/SMOKE DAMPER DETAIL
NOT TO SCALE

ADDENDUM #2

2/10/2026

NO.

BY

DATE

DESCRIPTION

JUST TRANSITION CENTER
COALFIELD DEVELOPMENT
LOGAN, WV
1/13/2026
CONSTRUCTION DOCUMENTS

DRAWN: TTG DATE: 01/13/2026
CHECKED: TTG DATE: 01/13/2026
APPROVED: KES DATE: 01/13/2026

PROJECT No.
T60-11108

DETAILS

SHEET No.

M5.02