

EXTERIOR RENOVATION FOR PROJECT PEERLESS

603 E. MILWAUKEE ST. DETROIT, MI. 48202

DETROIT HISTORIC DISTRICT COMMISSION



NARRATIVE

This project is a former factory building. It is an existing 2-story vacant building with brick exterior. The building is constructed with large divided light metal windows, a flat roof and the interior is steel and wood floor framing construction. There is a CMU block structure on 609 E. Milwaukee that does not fit the time of the building and will be removed and demolished off the east side of the original building.



TABLE OF CONTENTS

Request 1 Window Replacement (Historic Windows)

Replace existing windows Add windows on east side Infill 2nd Floor window

Infill 2 overhead doors on 1st Floor

Request 2 Roof Replacement (Historic Roofing Material)

Roof Replacement New metal coping

Request 3 Paint

Door paint

Request 4 Light Fixtures

South side East side West side

Request 5 New Construction / Additions

North stairway

Request 6 New / Replacement Doors

Replace south door Add 5 doors on east side

Request 7 Sign Installation / Replacement

New building sign on south side

Apartment unit numbers on east side

1 awning on south side 5 awnings on east side

Request 8 Mechanical Vents

New mechanical vents on east / west sides

Request 9 Demolition

Remove existing CMU building on east side

Request 10 Fence and Gate

New fence and gates



PROJECT PEERLESS

REQUEST 1 - WINDOW REPLACEMENT (HISTORIC WINDOWS)



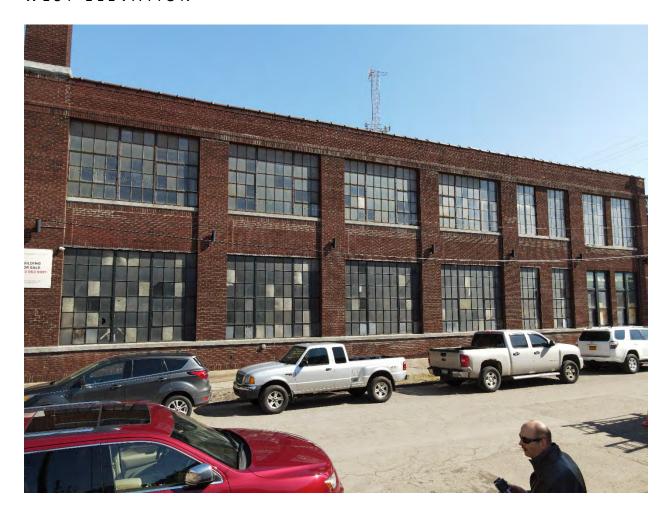
EXISTING EXTERIOR ELEVATIONS

SOUTH ELEVATION





WEST ELEVATION





NORTH ELEVATION





EAST ELEVATION 1





EAST ELEVATION 2





EXISTING WINDOWS (INTERIOR)

FIRST FLOOR













SECOND FLOOR







EXTERIOR WINDOWS (ENLARGED)







WINDOW INFORMATION

METAL WINDOWS

On Tuesday September 28, 2021, D.S. Architects conducted an onsite exterior observation of first and second floor windows. A majority these windows have metal frames, many that are rusting and deteriorating. The windows have a black painted finish. We observed some of the frames to have holes that expose the inside to the outside weather conditions. Some of these holes have been temporarily filled with foam insulation. The glass panes are made of different materials; fiberglass, frosted, clear and textured glass panes. A few of the windows have broken glass panes and are temporarily sealed with plywood.

- 1. These windows are not thermally broken and not energy efficient.
- 2. These windows will not accept new energy efficient double pane glass.
- 3. In our proposed configuration, we do not want operable windows on the street level for safety and security.
- 4. On the second floor the current operable mechanism on the window is out of the ADA reach range.

WOOD WINDOWS

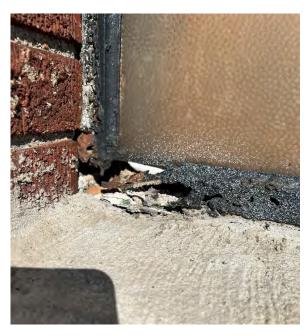
The two south windows on the St. Antoine side and first floor windows on the E. Milwaukee Ave. side are wood framed double hung windows with a black painted finish. We observed some broken and rotting wood. The caulk around the edges have peeled away and there is no seal provided between the window and the brick walls compromising the wood stiles. All the windows are single pane and not energy efficient. Windows appear to be inoperable.

- 1. These windows are not thermally broken and not energy efficient.
- 2. These windows will not accept new energy efficient double pane glass.
- 3. In our proposed configuration, we do not want operable windows on the street level for safety and security.
- 4. Replacing the rotted wood members would be a challenge because it would require custom profile tools to be manufactured.



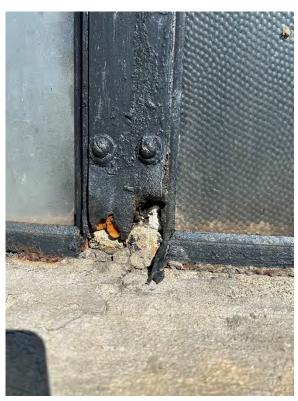
EXISTING WINDOWS

METAL WINDOWS



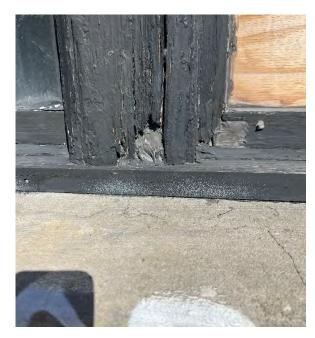








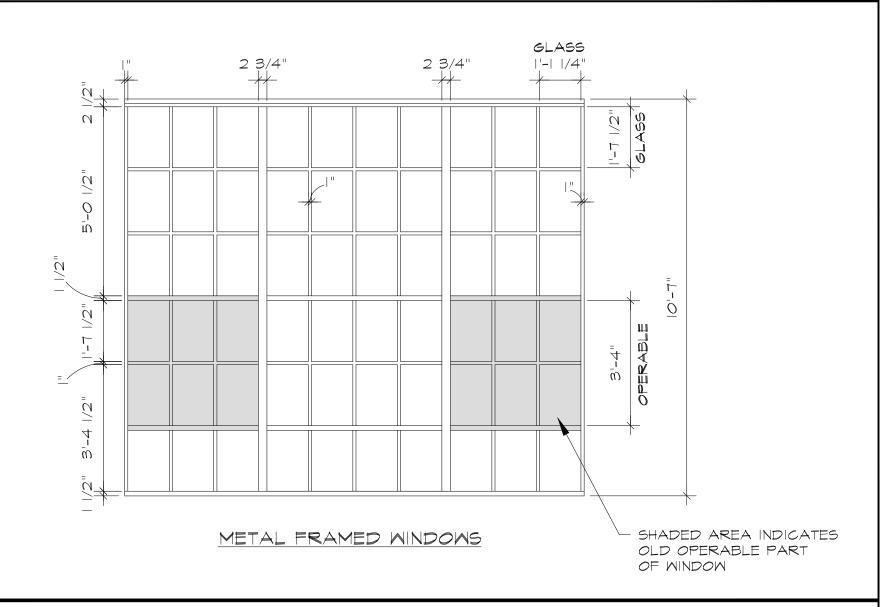
WOOD WINDOWS







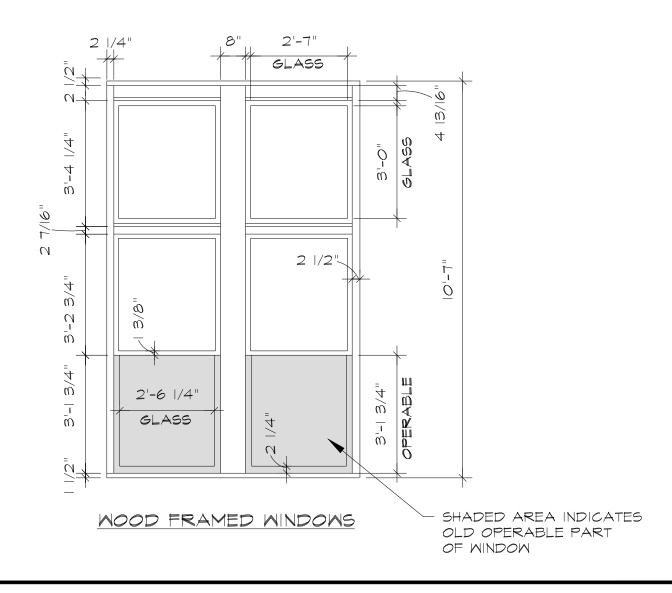




360 E. MILMAUKEE AVE.

PEERLESS BUILDING DETROIT, MI 48202 3/8" = 1'-0" 10-18-21



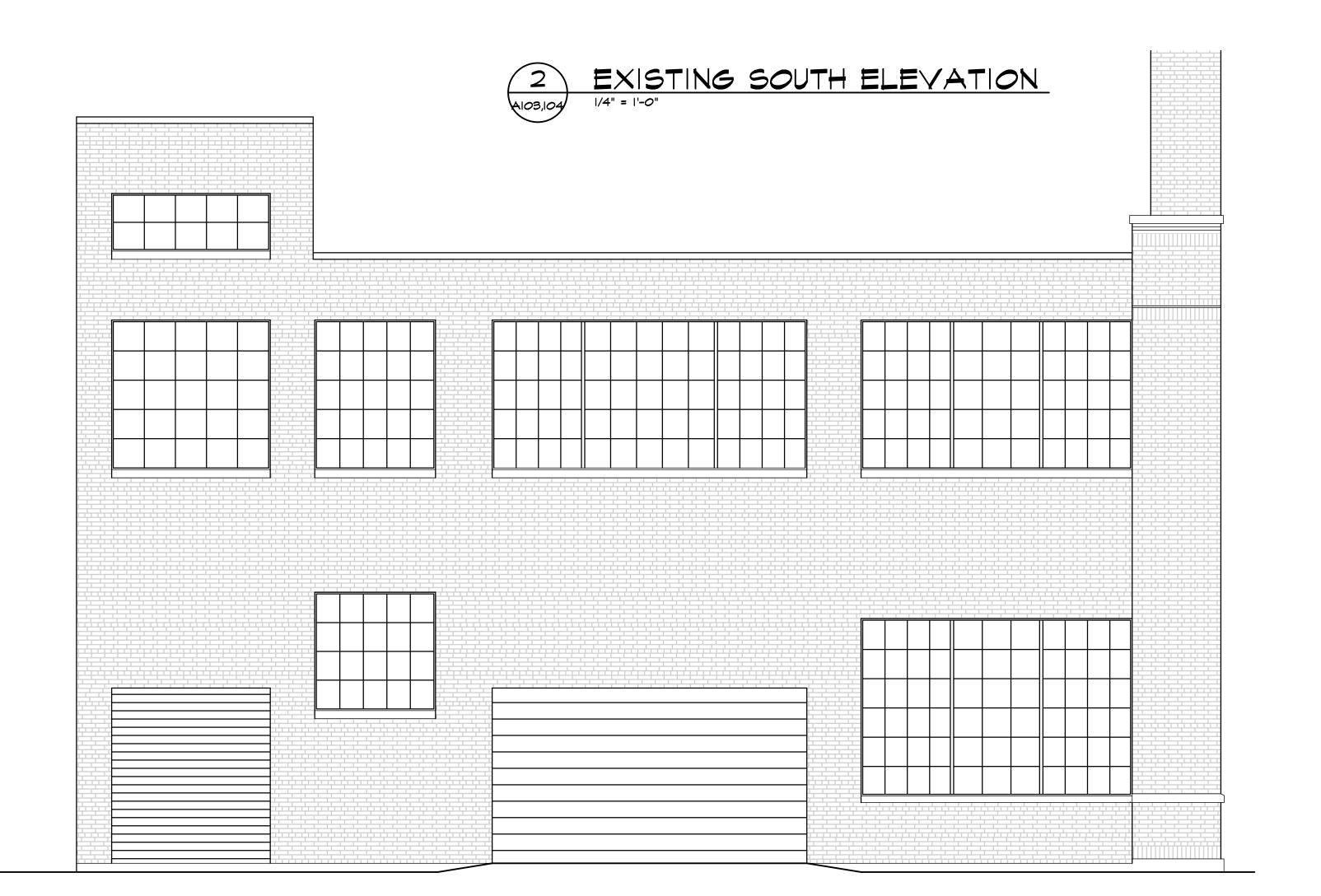


360 E. MILMAUKEE AVE.

PEERLESS BUILDING DETROIT, MI 48202 3/8" = 1'-0" 10-18-21











7300 DIXIE HWY. #600 CLARKSTON, MI 48346 PHONE 248.605.2030 FAX 248.605.2030 WEB DSARCHITECTS.COM



PROJECT PEERLESS

Drawing Title

EXTERIOR ELEVATIONS

Project Number 20-40-159

Checked DJS

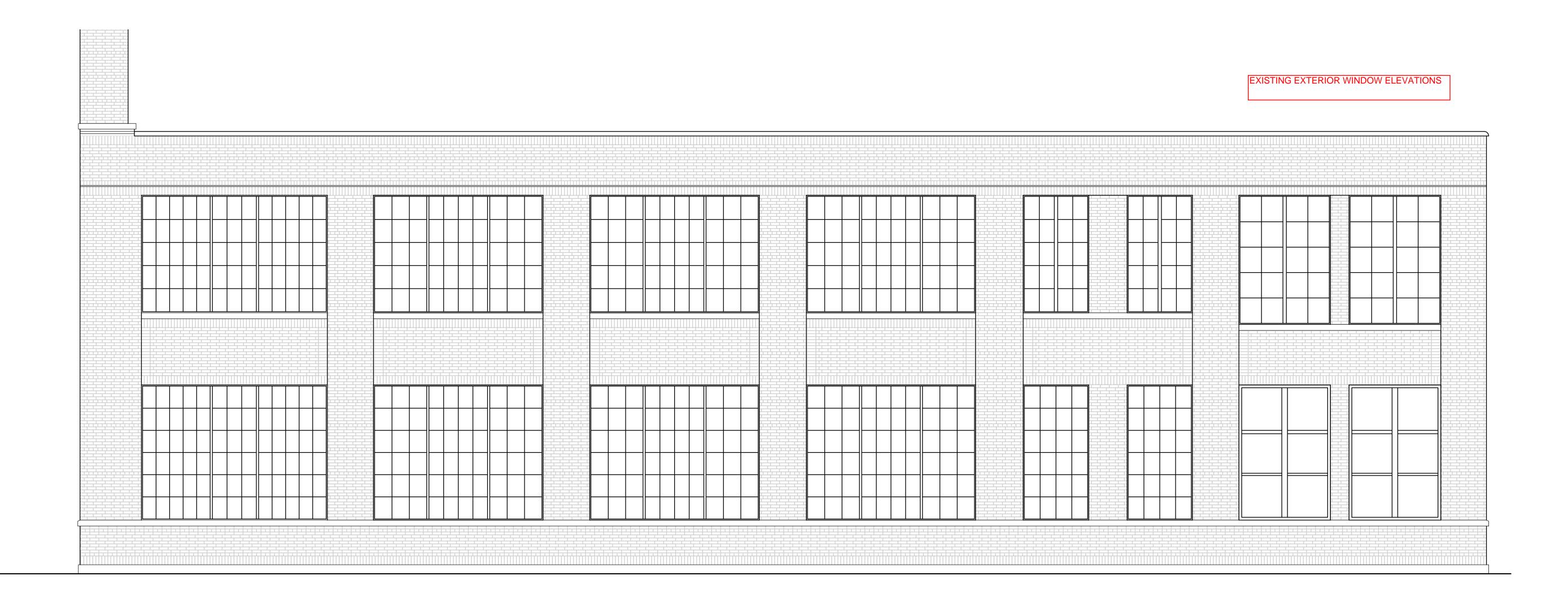
1/4"=1'-0"

Dwg. PEERLESS - CDS

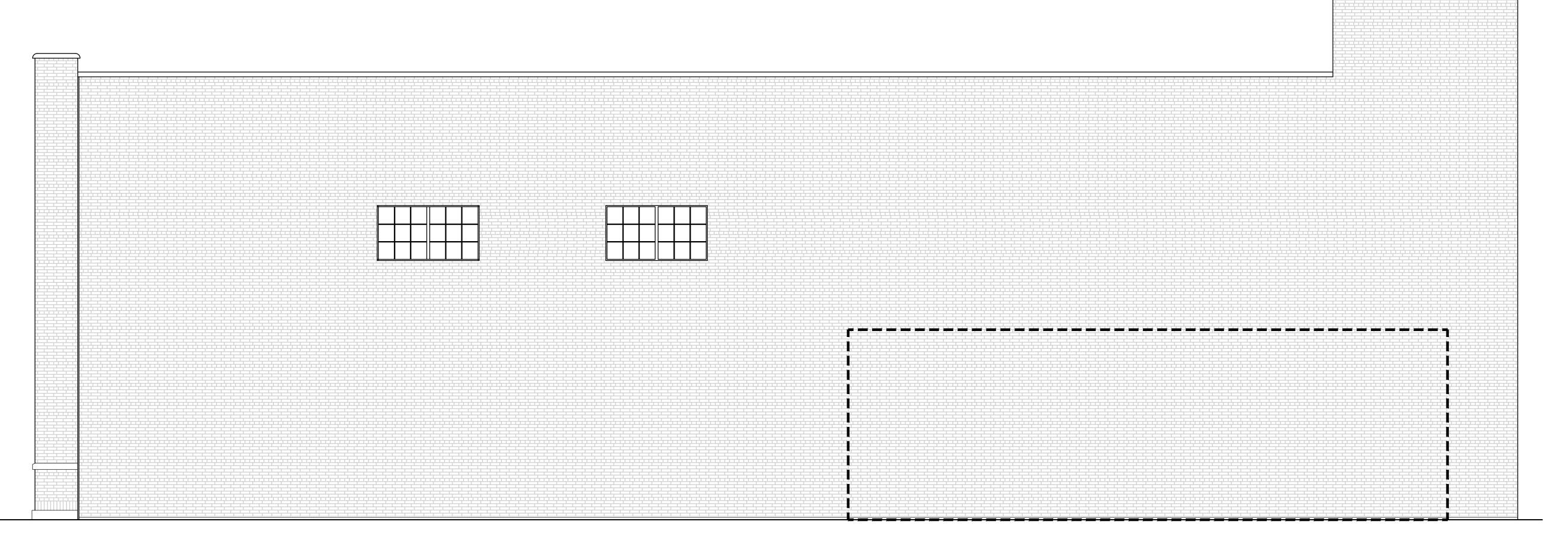
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OWNER REVIEW 8-20-21 DJS
PERMIT 10-13-21 DJS

Sheet Number

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PEERLESS - CDS

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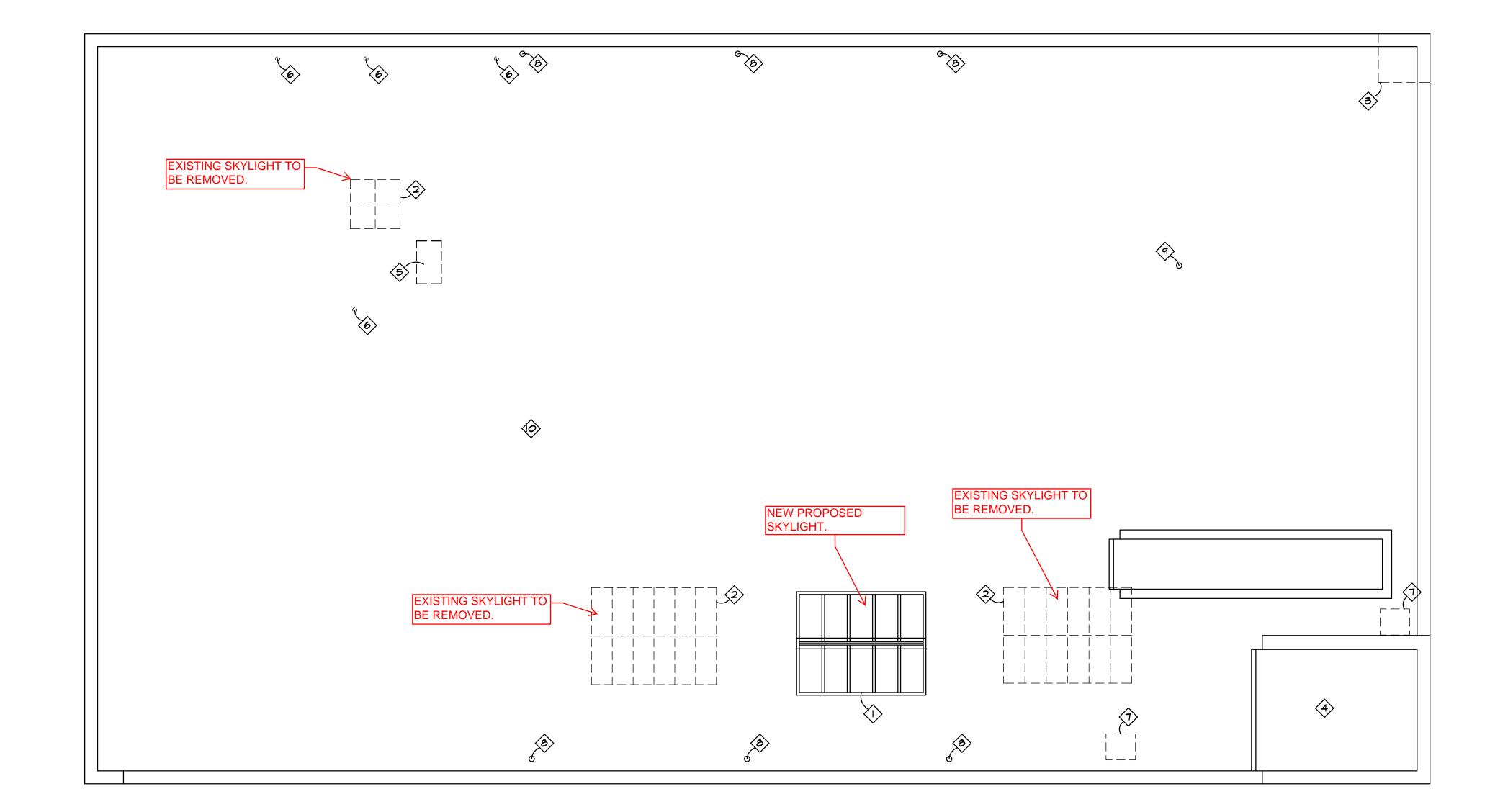
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EXISTING EAST ELEVATION



SECOND FLOOR SKYLIGHT





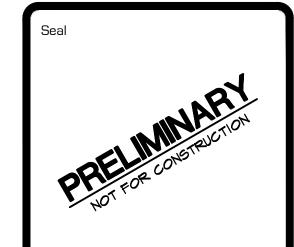


ROOF NOTES

- PROVIDE NEW 8' X IO' PREMANUFACTURED ALUMINUM SKYLIGHT
 ASSEMBLY WITH INSULATED GLASS BY 'WASCO/VELUX MODEL C3DG
 350 SERIES LT DOUBLE PITCH WITH GLASS ALONG SILL. PROVIDE
 NEW ROOF CURB PER MANUFACTURERS INSTRUCTIONS. PROVIDE
 AND INSTALL BEAM (SIZE, STYLE AND TYPE TO BE DETERMINED
 BY DESIGNER), RUNNING NORTH AND SOUTH, ALONG AT BASE OF
 SKYLIGHTS TO SUPPORT TWO (2) HANGING LIGHT FIXTURES.
- 2 REMOVE AND DISPOSE OF EXISTING SKYLIGHTS.
- REMOVE AND DISPOSE OF EXISTING BRICK MASONRY CHIMNEY. PROVIDE NEW ROOF DECKING TO MATCH EXISTING, INSULATION ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH EXISTING.
- 4 EXISTING ROOFTOP ELEVATOR MACHINE ROOM.
- 5 REMOVE AND DISPOSE OF INDICATED ROOFTOP CONDENSING
- (6) REMOVE AND DISPOSE OF EXISTING ROOFTOP PLUMBING STACK.
- REMOVE AND DISPOSE OF EXISTING ROOFTOP ACCESS LADDER HATCH. PROVIDE NEW ROOF DECKING TO MATCH EXISTING, INSULATION ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH EXISTING
- 8 REMOVE EXISTING ROOF DRAIN AND PROVIDE NEW 4" ROOF DRAIN AS REQUIRED.
- APPROXIMATE LOCATION OF EXISTING FURNACE FLUE TO BE REMOVED AND DISPOSED OF. PROVIDE NEW ROOF DECKING TO MATCH EXISTING, INSULATION ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH EXISTING.
- PROVIDE NEW 2" LAYER OF POLYISO OVER ENTIRE EXISTING TO REMAIN ROOFTOP MEMBRANE AND PROVIDE NEW THERMOPLASTIC POLYOLEFIN (TPO), COLOR GRAY. PROVIDE NEW METAL COPING WITH KYNAR FINISH, COLOR T.B.D., AS REQUIRED.



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PROJECT PEERLESS

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ROOF PLAN

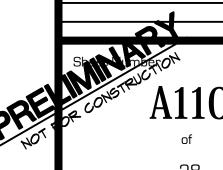
Project Number 20-40-159

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Checked DJS

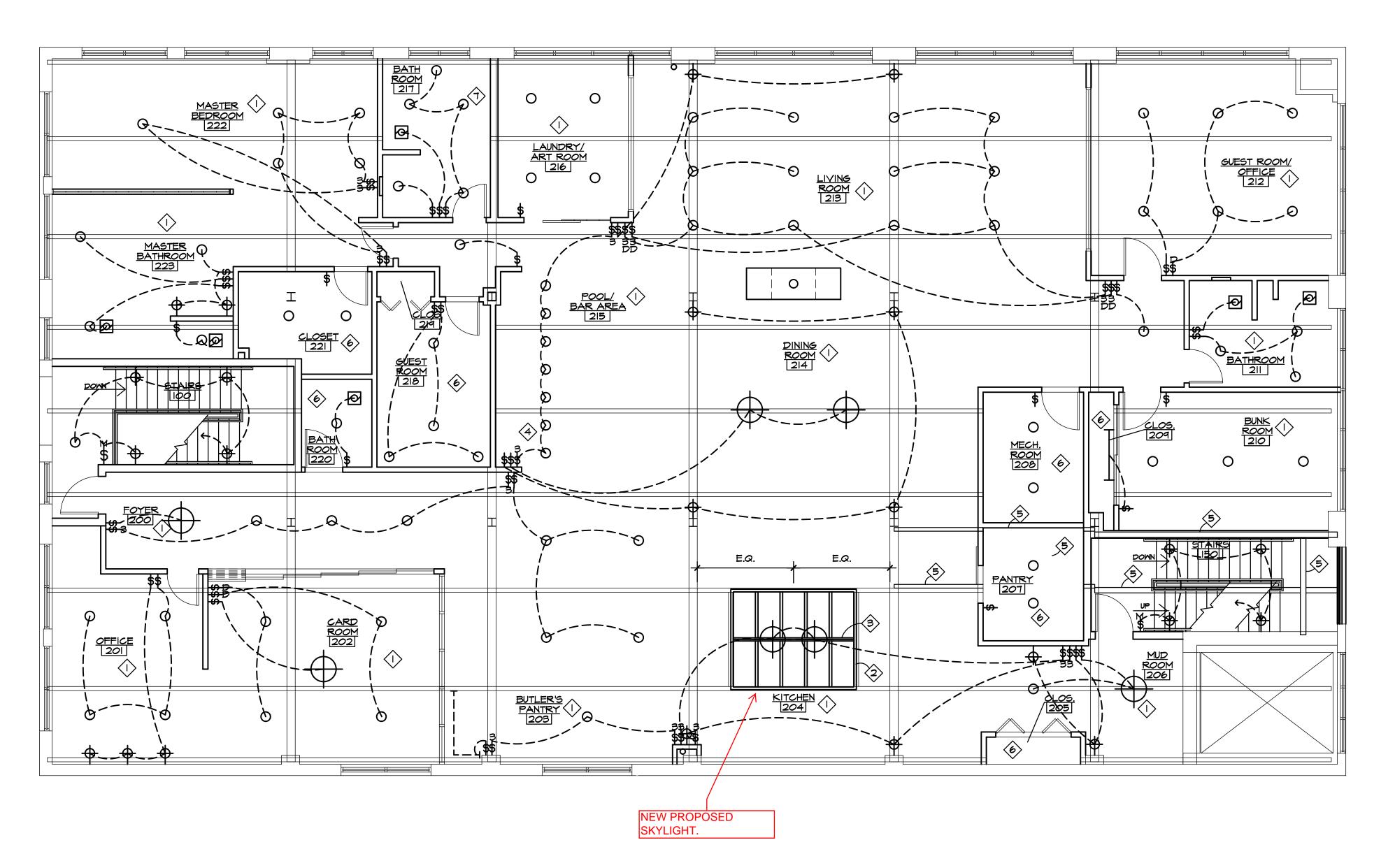
Scale 3/16"=1'-0"

vg. PEERLESS - CDS

Date By
DESIGN DEVELOPMT. 5-28-21 DJS
OWNER REVIEW 8-20-21 DJS



2ND FLOOR REFLECTED CEILING PLAN FOR SKYLIGHT LOCAITONS.



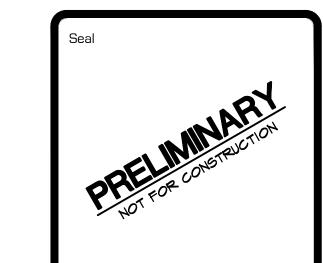


CEILING NOTES

- INDICATED ROOM TO HAVE OPEN AND EXPOSED EXISTING DECK AT 15'-7 7/8"+/- A.F.F.
- 2 NEW SKYLIGHTS. SEE ROOF PLAN ON SHEET AllO, NOTE NO. I.
- PROVIDE NEW WOOD BEAM TO MATCH EXISTING WOOD BEAMS.
 PROVIDE NEW METAL BEAM HANGING BY 'SIMPSON STRONG-TIE' OR
 EQUAL. EXACT BEAM LOCATION SHALL BE DETERMINED BY SKYLIGHT
 MANUFACTURER'S SHOP DRAWINGS.
- EXACT LIGHT PLACEMENT FOR SEVEN (7) BAR LIGHT FIXTURES TO BE DETERMINED UPON OVERALL SIZE OF OWNER PROVIDED BAR MILLWORK.
- NEW FRAMING MEMBERS. SEE DETAIL NO. 10 ON SHEET ASOI.
- (6) INDICATED ENTIRE ROOM TO HAVE GYPSUM BOARD CEILING AT 9'-0" A.F.F.
- INDICATED ENTIRE ROOM TO HAVE GYPSUM BOARD CEILING AT 13'-O" A.F.F.



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PROJECT PEERLESS

Drawing Title

SECOND FLOOR

REFLECTED CEILING PLAN

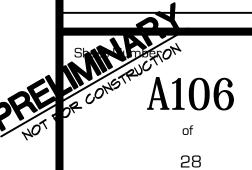
Project Number 20-40-159

Checked DJS

Scale 3/16"=1'-0"

PEERLESS - CDS

Design Developmt. 5-28-21 DJS
OWNER REVIEW 8-20-21 DJS
OWNER REVIEW 9-X-21 DJS



PROPOSAL

ABBOTT K. SCHLAIN COMPANY

734-414-0451 P.O. Box 6029 PLYMOUTH, MI. 48170

FAX 734-414-0453

TO: Kermit Ball

DATE: 4/22/2021 (4/28/2021 corrected price)

PROJECT: 603 Milwaukee Detroit

ARCHITECT:

We propose to furnish and install:

TWO (2) WASCO/VELUX MODEL C3DG 350 SERIES LT DOUBLE PITCH W/GLASS

LENGTH ALONG SILL: 10'-0"

WIDTH: 8'-0" BAYS UPSLOPE: 1

PITCH: 7:12

BAYS ALONG LENGTH: 3

ENDS: VERTICAL

GLAZING: 1-1/16" I.G. 1/4" CLEAR TEMP W/SOLARBAN 60 (2) OVER 5/16" CLEAR H.S. LAMI

FINISH: ST'D 2-COAT KYNAR 500 (BLACK)

APPROX. WEIGHT - TOTAL SYSTEM INCLUDING IGU: 1020 LBS. ASSEMBLY METHOD: SHIPS KNOCKED DOWN/UNGLAZED GLAZING METHOD: GLAZING SHIPS DIRECT TO AKS

ABBOTT K. SCHLAIN COMPANY Randy W. Sitzler Randy@ak-schlain.com

NOTES, INCLUSIONS, EXCLUSIONS

INCLUDES THE FOLLOWING:

- * ALUMINUM FLASHING ASSOCIATED WITH THE SKYLIGHT, WASCO STANDARD ALLOY, TEMPER AND GAUGE.
- * MANUFACTURERS 5 YEAR WARRANTY (U.N.O.)
- * FOB DESTINATION

EXCLUDES THE FOLLOWING:

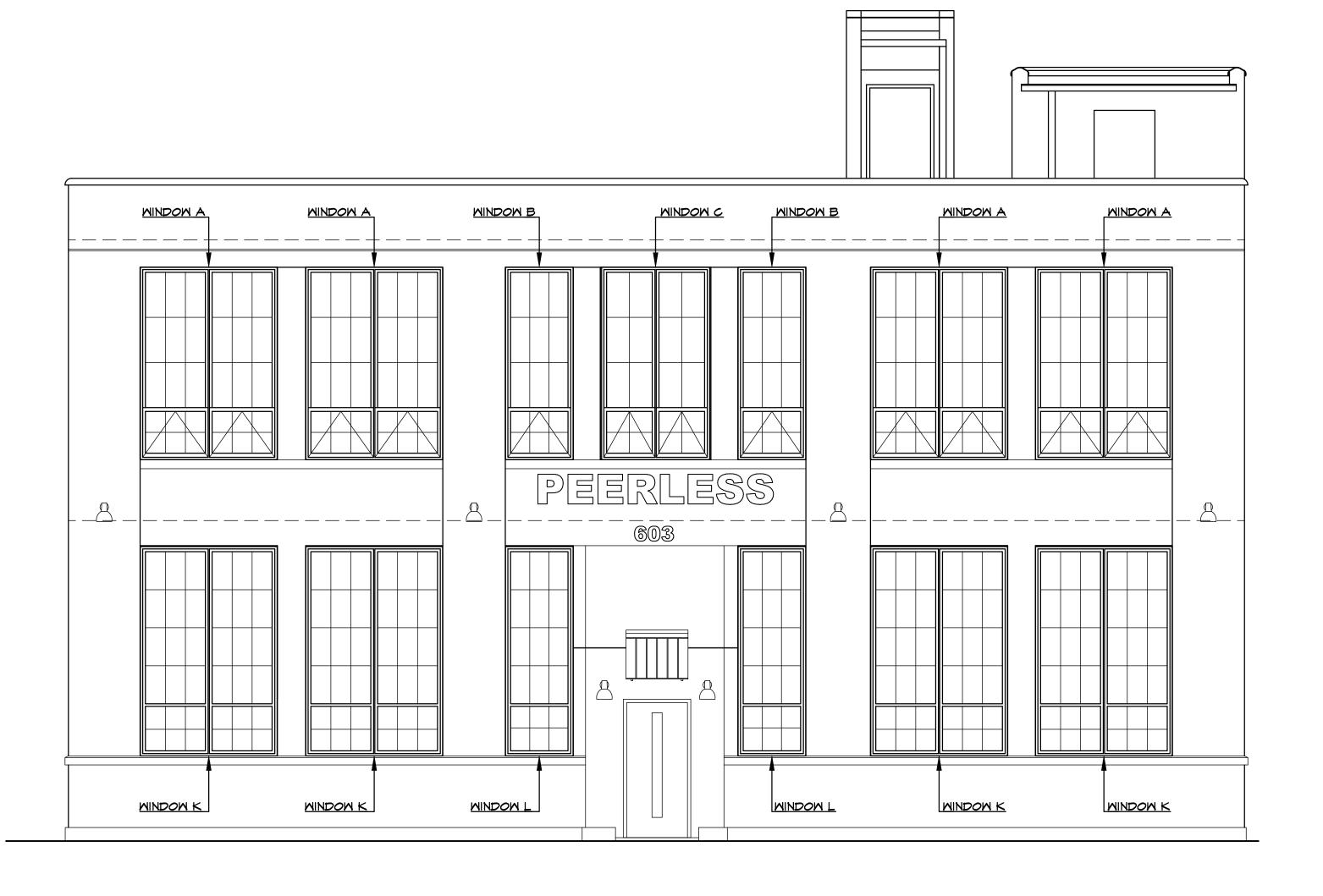
- * STRUCTURAL CURBS (INSTALLED CURBS MUST RESIST FORCES GENERATED BY THE SKYLIGHT)
- * DEMO OF EXISTING UNITS, SUBSTRUCTURE, STEEL ANGLES, CLIPS, STANDOFFS (U.N.O.)
- * COUNTER FLASHING
- * ADDITIONAL TESTING (OTHER THAN WHAT IS AVAILABLE)
- *ATTIC MAINTENANCE STOCK, CURB INSULATION, FIELD MEASUREMENTS, FIELD TESTING
- * MOCK-UPS, SHIMS BLOCKING AND FINAL CLEANING
- * GUTTERS AND/OR DOWNSPOUTS
- * ITEMS NOT SPECIFICALLY INCLUDED

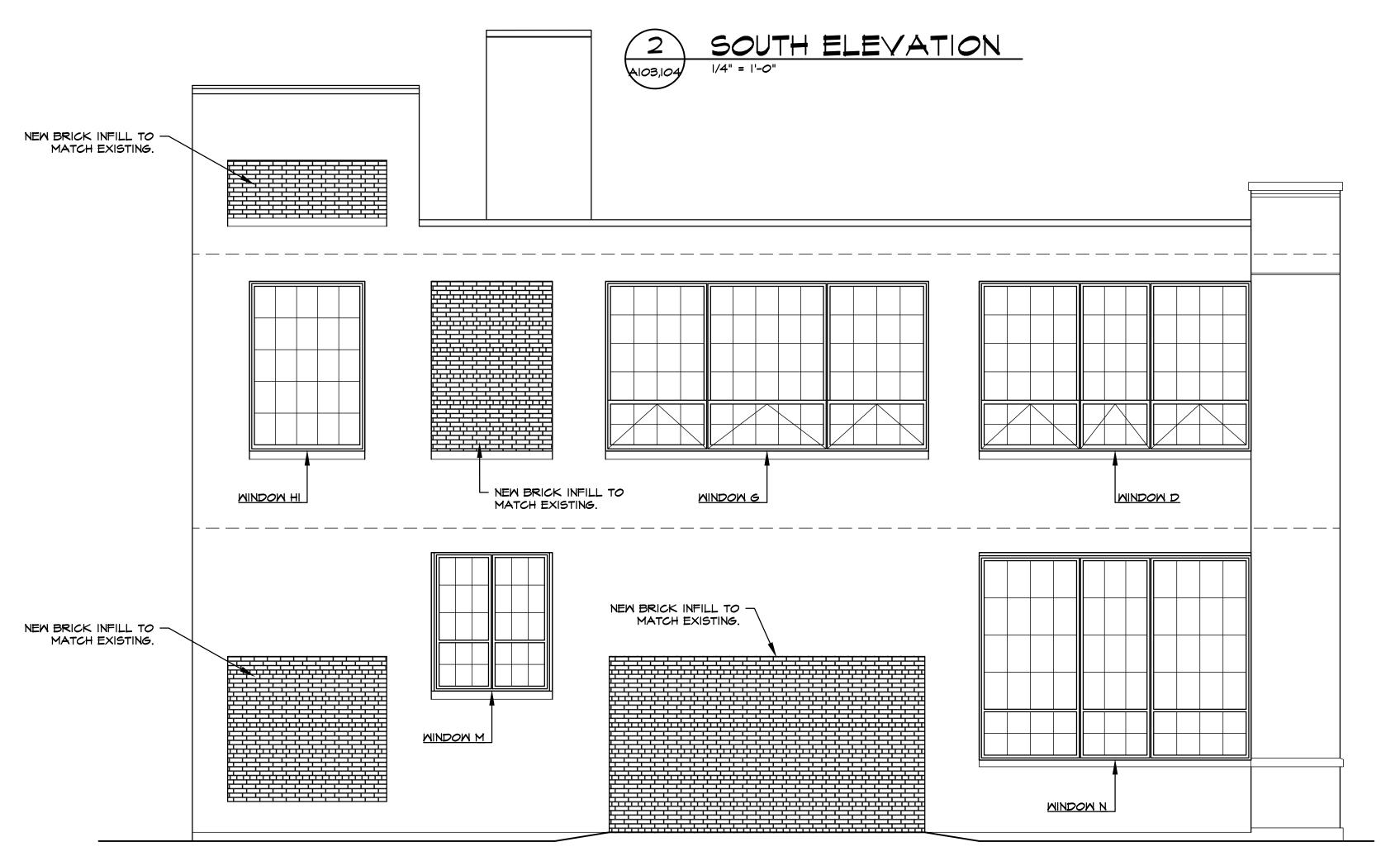
GENERAL COMMENTS

- * UNITS ARE DESIGNED TO MEET 40psf POSITIVE AND NEGATIVE LOADS (U.N.O.)
- * QUOTES ARE BASED SOLEY ON WASCO STANDARD DETAILS AND FABRICATIONS
- * SKYLIGHT SYSTEMS ARE NOT ZERO THRUST SYSTEMS (U.N.O.)
- * UPON SUBMISSION OF FINAL APPROVALS, ANY CHANGES AFFECTING COST SHALL REQUIRE A NEW PRICE TO THE BUYER
- * QUOTE IS VALID FOR 60 DAYS
- * CANCELLATION CHARGE AFTER SHOP DRAWINGS, PRIOR TO RELEASE: \$750.00, CANCELLATION CHARGE AFTER RELEASE, CONTACT PM. CANCELLATION CHARGE AFTER STAMPED DRAWINGS/CALCULATIONS: \$2,500.00
- *CLASSIC, LOW PROFILE, BARREL VAULTS & TANDEMS INCLUDE APPROVAL SHEETS ONLY, ADD \$750.00 FOR BASIC SHOP DRAWINGS.
- * STANDARD SUBMITTAL PACKAGE ON CUSTOM PRODUCTS INCLUDES BASIC SHOP DRAWINGS.
- * IF STAMPED DRAWINGS AND CALCULATIONS ARE REQUIRED ADD \$2,500.00

BUYER SIGNATURE	TITLE	DATE











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PROJECT PEERLESS

EXTERIOR ELEVATIONS

Project Number
20-40-159

Drawn
ALM
Checked
DJS

1/4"=1'-0"

Design Developmt. 5-28-21 DJS

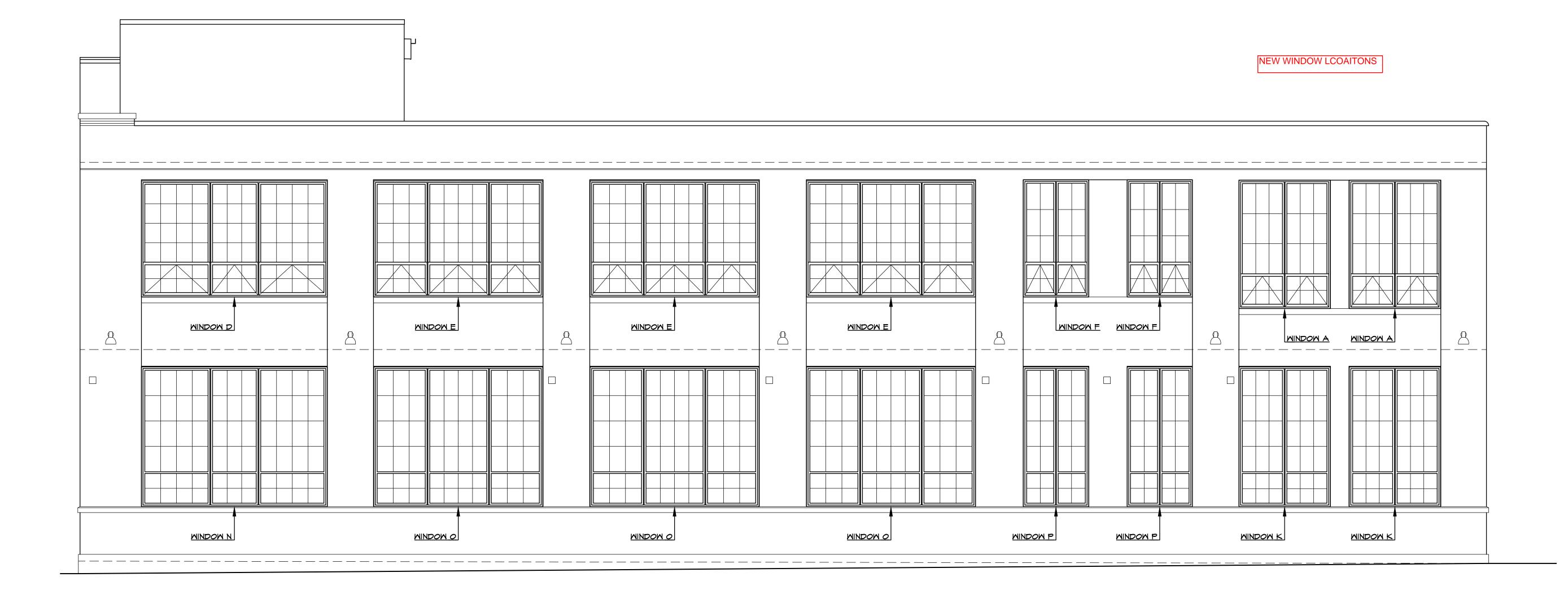
OWNER REVIEW 8-20-21 DJS

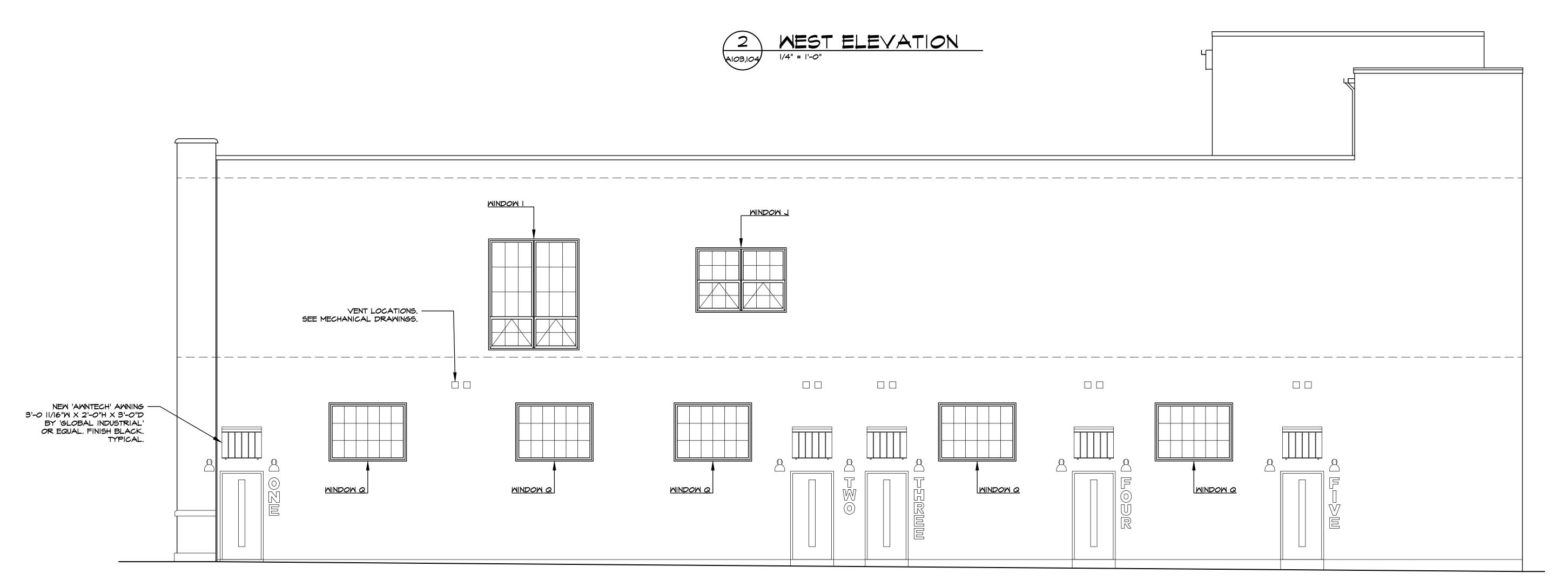
PERMIT 10-13-21 DJS

PEERLESS - CDS

Sheet Number

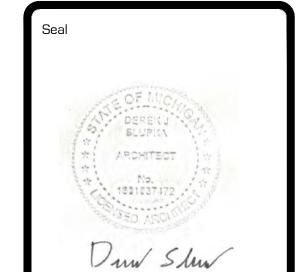
A201







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PROJECT PEERLESS

Drawing Title

EXTERIOR ELEVATIONS

Project Number 20-40-159

Checked DJS

Scale 1/4"=1'-0"

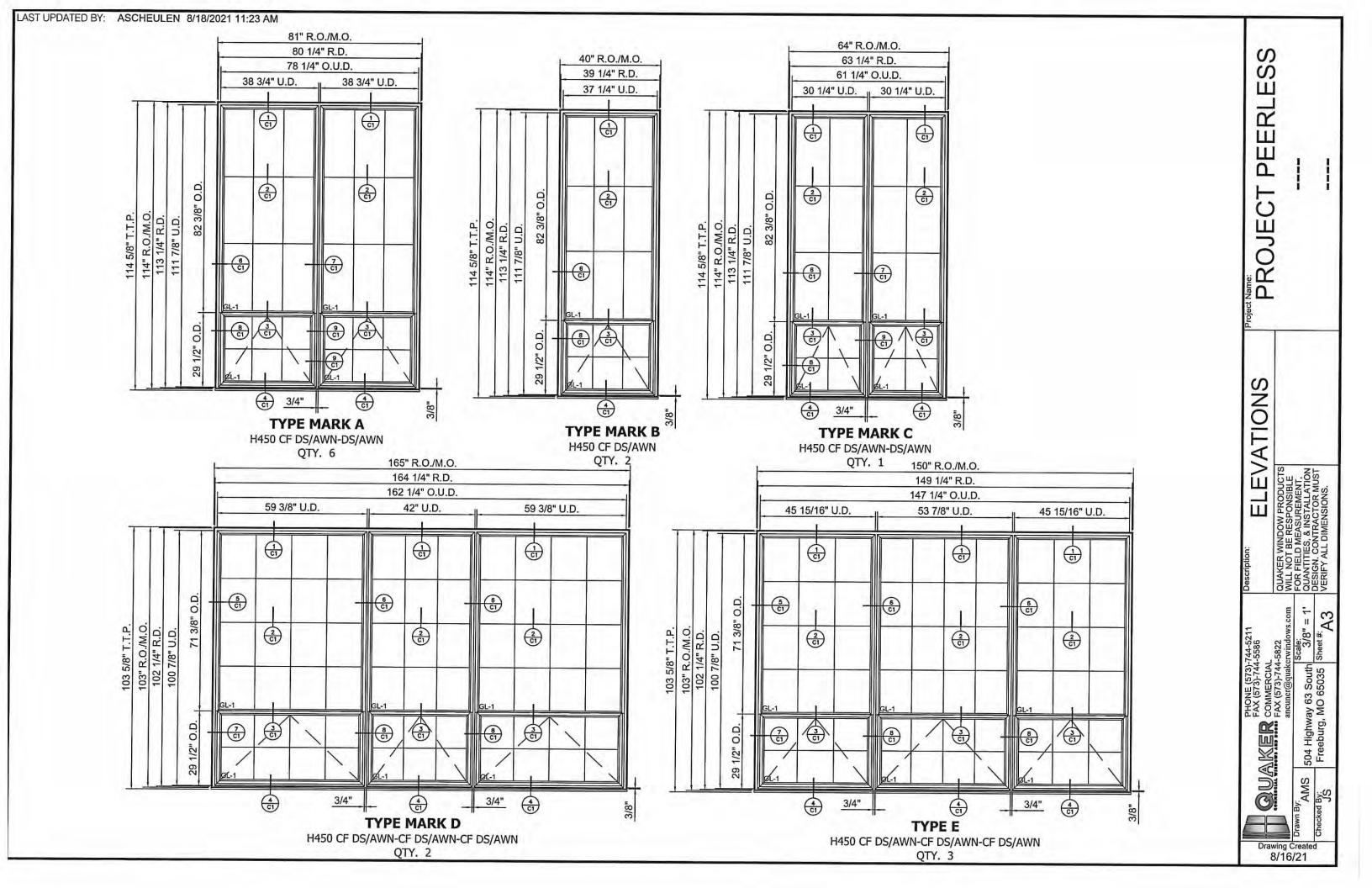
Date By
DESIGN DEVELOPMT. 5-28-21 DJS
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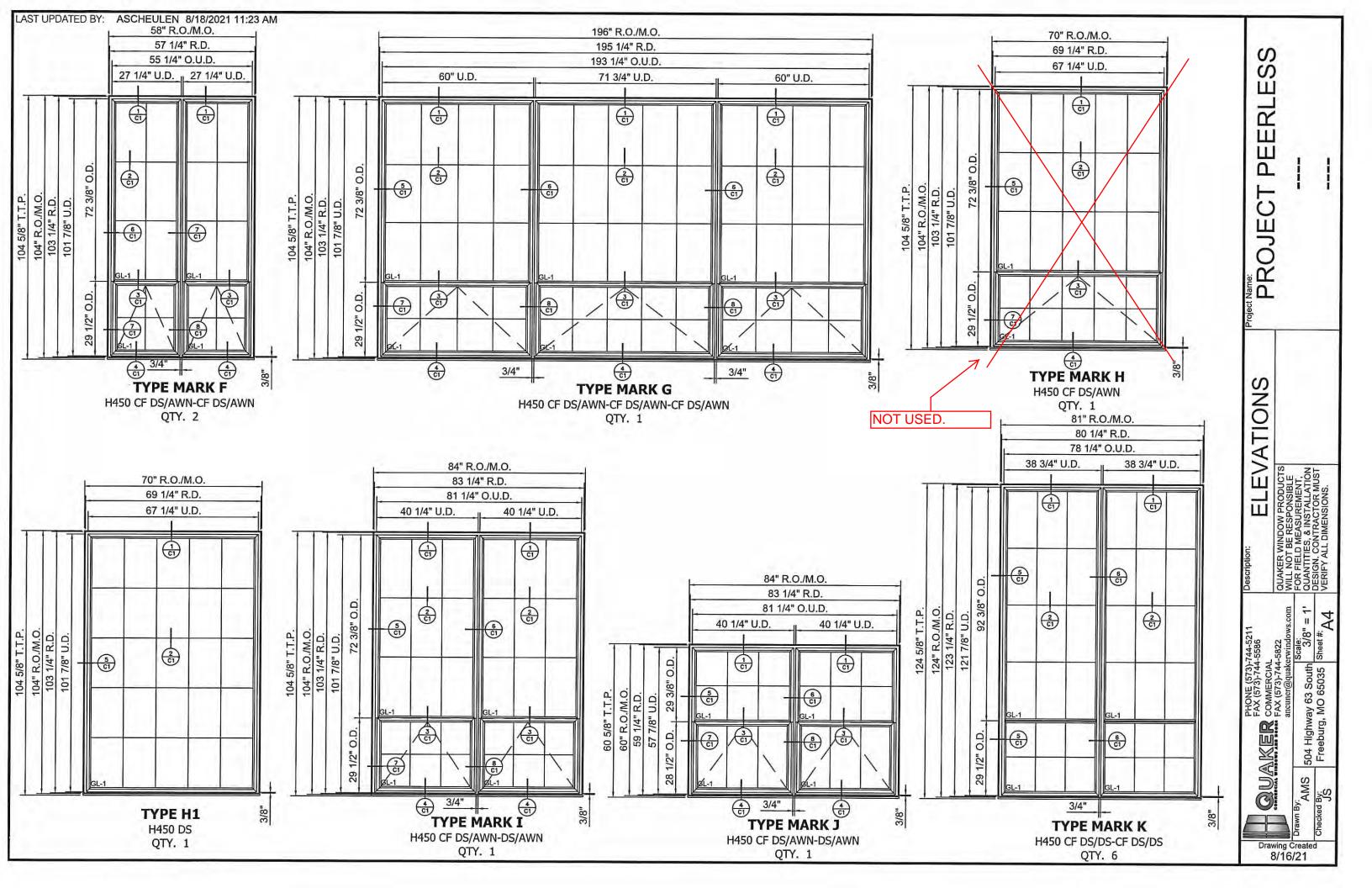
PEERLESS - CDS

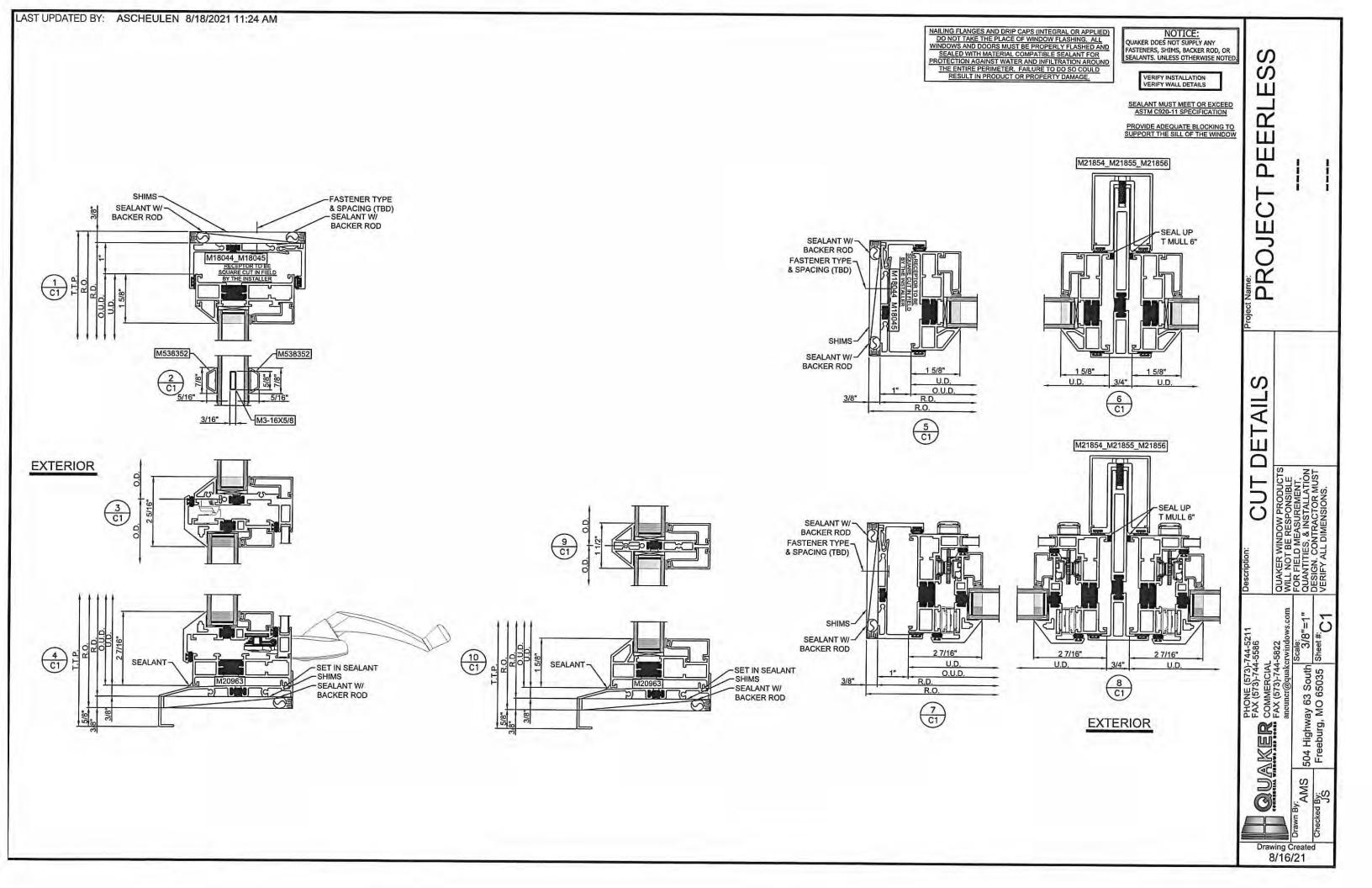
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A202

EAST ELEVATION











Corporate Office: 6477 West KL Avenue • Kalamazoo, MI 49009 • 269.353.8844 • 800.732.9400 • fax.269.353.8843

8/23/2021

K Custom LLC Attn: Kermit Ball 1509 Sunset Blvd. Royal Oak, MI

PH: 248-688-7194

Email: kermitball@icloud.com

Job Name: Project Peerless Job Location: Detroit, MI

COMMERCIAL SALES PROPOSAL: Revised 8.23.2021

I. BlackBerry is providing pricing for the supply and installation of new historic thermally broken replacement windows; Quaker H450 Series. There are (42) Openings, per the submitted shop drawings dated 8/16/2021. No window details, specifications, scope of work, or bid documents were provided. The base pricing allows for all windows, receptor, subsill, mullions, 3 Part Simulated Divided Lite muntins, wood sill blocking, jamb insulation, and exterior perimeter caulking. Pricing includes all material, tax on material, labor (non-union), employment costs, sky lift, staging, shop drawings, and supervision. Note: Includes spandrel film applied on the interior of 1st floor windows bottom light; windows on this level are all Fixed.

Note: the following has not been included:

- 1. Interior perimeter caulking.
- 2. No interior jamb, casework, or wall finish is included.
- 3. On site storage of material is assumed inside the building. No trailers are included.
- 4. No street or sidewalk permits are included, nor fencing.
- 5. <u>Abatement has not been included in the Alternate for Demo and Disposal, Environmental Report must be provided showing ACM or Lead material presence.</u>

Total Price \$253,565.00

Pricing is good until 9/4/2021

Lead Times:

3 -4 weeks for shop drawings.

Architectural - Historical - Commercial Window and Door Systems

12 to 14 weeks from date of approved shop drawings.

Alternates:

1. Add for Demo and Disposal of existing windows. Add To be provided once Environmental Report is provided and reviewed.

BlackBerry Systems proposes hereby to furnish product and services in accordance with the description for the sum of: <u>See above Pricing. Terms are net 45 days from the date of delivery.</u> <u>Late payment 1.5% finance charge per month after 30 days.</u> This contract may be withdrawn if not accepted within 12 days.

ACCEPTANCE OF PROPOSAL: By signing, you hereby accept the above prices, quantities, specifications, and conditions as satisfactory and authorize BlackBerry Systems, Inc. to provide as specified. You accept responsibility for checking and approving all quantities and specifications; and will provide full payment as outlined. Work will not proceed, nor will material be ordered without a signed contract and down payment, if required.

MKS	8/23/2021
Michael K. Shields	Date
President	
BlackBerry Systems, Inc.	
Accepted By	Date



ADJACENT BUILDING EXAMPLES





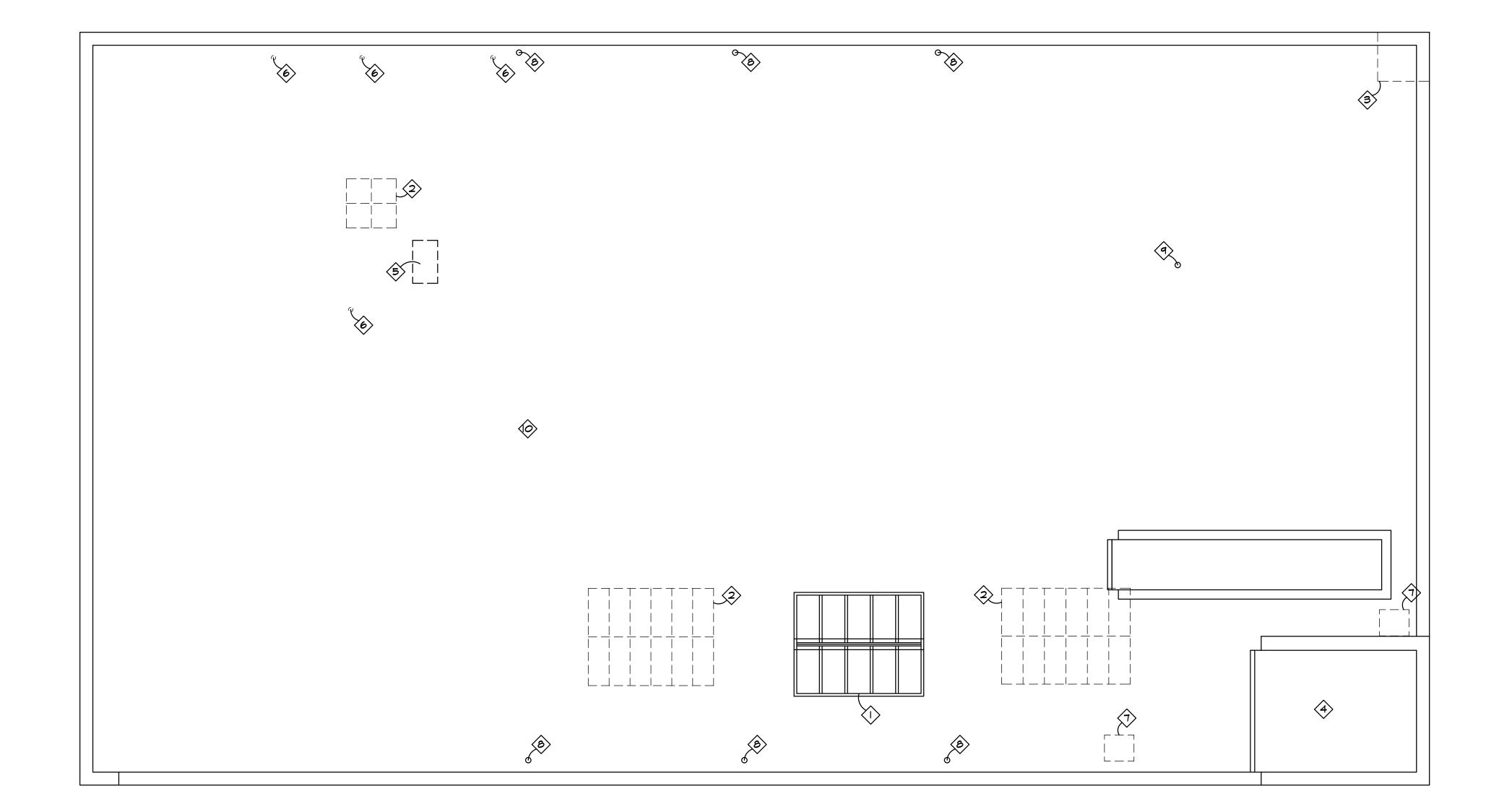


Windows supplied by 'Blackberry', the same supplier for Peerless Building, and 40 Hague lofts and other buildings in Detroit Historical Areas.



PROJECT PEERLESS

REQUEST 2 - ROOF REPLACEMENT (HISTORIC ROOFING MATERIAL)



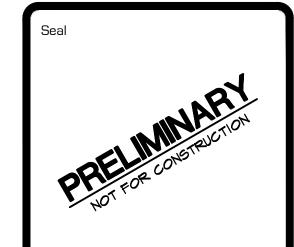


ROOF NOTES

- PROVIDE NEW 8' X 10' PREMANUFACTURED ALUMINUM SKYLIGHT ASSEMBLY WITH INSULATED GLASS BY WASCO/VELUX MODEL C3DG 350 SERIES LT DOUBLE PITCH WITH GLASS ALONG SILL. PROVIDE NEW ROOF CURB PER MANUFACTURERS INSTRUCTIONS. PROVIDE AND INSTALL BEAM (SIZE, STYLE AND TYPE TO BE DETERMINED BY DESIGNER), RUNNING NORTH AND SOUTH, ALONG AT BASE OF SKYLIGHTS TO SUPPORT TWO (2) HANGING LIGHT FIXTURES.
- REMOVE AND DISPOSE OF EXISTING SKYLIGHTS.
- REMOVE AND DISPOSE OF EXISTING BRICK MASONRY CHIMNEY. PROVIDE NEW ROOF DECKING TO MATCH EXISTING, INSULATION ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH EXISTING.
- 4 EXISTING ROOFTOP ELEVATOR MACHINE ROOM.
- 5 REMOVE AND DISPOSE OF INDICATED ROOFTOP CONDENSING
- (6) REMOVE AND DISPOSE OF EXISTING ROOFTOP PLUMBING STACK.
- REMOVE AND DISPOSE OF EXISTING ROOFTOP ACCESS LADDER HATCH. PROVIDE NEW ROOF DECKING TO MATCH EXISTING, IN-SULATION ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH
- REMOVE EXISTING ROOF DRAIN AND PROVIDE NEW 4" ROOF DRAIN AS REQUIRED.
- APPROXIMATE LOCATION OF EXISTING FURNACE FLUE TO BE REMOVED AND DISPOSED OF. PROVIDE NEW ROOF DECKING TO MATCH EXISTING, INSULATION ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH EXISTING.
- PROVIDE NEW 2" LAYER OF POLYISO OVER ENTIRE EXISTING TO REMAIN ROOFTOP MEMBRANE AND PROVIDE NEW THERMOPLASTIC POLYOLEFIN (TPO), COLOR GRAY. PROVIDE NEW METAL COPING WITH KYNAR FINISH, COLOR T.B.D., AS REQUIRED.



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EERLESS PROJECT P

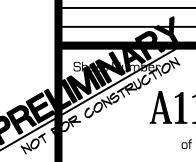
Drawing Title **ROOF PLAN**

Project Number 20-40-159

3/16"=1'-0"

PEERLESS - CDS

DESIGN DEVELOPMT. 5-28-21 DJS OWNER REVIEW 8-20-21 DJS





EXISTING ROOF COPING

BIRDS EYE VIEW



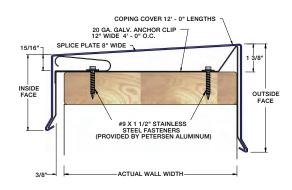
STREET VIEW



PAC-TITE COPING

TAPERED VERSION





PRODUCT FEATURES

- Superior, efficient design for ease of installation
- ▶ Accommodates wall widths up to 34"
- Extensively tested for reliable long-term performance
- ▶ Snap-on design eliminates field-crimping
- Concealed splice plates provide watertight installation
- Pre-fabricated miters and accessories for proper system fit
- Custom fabrication available for job-specific details
- ► Stainless steel springs factory attached to 12" wide, pre-punched anchor clips
- Wide variety of colors, finishes and gauges
- ▶ Convenient 12' lengths
- ▶ Recyclable material
- ▶ Custom and radius capabilities available
- All fasteners, splice plates and anchor clips are included

MATERIALS

- ▶ 15 Stocked PAC-CLAD Finishes (22 gauge steel)
- 43 Stocked PAC-CLAD Finishes (24 gauge steel)
- 22 Stocked PAC-CLAD Finishes (.040 aluminum)
- ▶ 29 Stocked PAC-CLAD Finishes (.050 aluminum)
- ▶ 6 Stocked PAC-CLAD Finishes (.063 aluminum)
- ► Mill Finish Aluminum (.040, .050 & .063 aluminum)
- ► Clear and Colored Anodized (.040, .050 & .063 aluminum)

ACCESSORIES

- Miters (90 Degrees and Non-90 Degrees, Welded or Quicklocked)
- ▶ Transitions
- ▶ Endcaps
- ▶ Endwall Flashing

TESTING

- ► ANSI/SPRI/FM ES-1 Standard to comply with the International Building Code
- Factory Mutual approved
- Miami-Dade Approved to comply with the High Velocity Hurricane Zone of the Florida Building Code.

WARRANTY

A 20-Year, 120 mph Wind Warranty is available on orders to meet a project's specification. It provides a maximum of 20 years, 120 mph coverage for the repair or replacement of any portion of the roof edge system that has failed due to a defect in the supplied materials.



Contract / Specifications

10821 CAPITAL • OAK PARK, MI 48237 (248) 543-3040 • fax (248) 543-5810

Roofing That Works!

be made as outlined above. This page becomes part of Signature

and in conformance with the attached specifications.

Page 1 of 4

Date

PROPOSAL SUBMITTED TO	PHONE	DATE
K Custom LLC	248-688-7194	June 30, 2021
STREET	JOB NAME	·
603 E. Milwaukee	Same	
CITY, STATE, ZIP	JOB ADDRESS	
Detroit, MI 48202	Same	

FIRESTONE® EPDM ROOF SYSTEM – 15 Year Warranty Roofs A & B – Approx. 6,200 S.F.

(See Attached Roof Plan)

As requested, please find a proposal that outlines the installation of a new Firestone® EPDM roof system for Roofs A & B at the above referenced building. A Roof Plan is attached for your reference.

Our proposal includes the installation of 2 layers of 2.6" polyisocyanurate insulation board followed by a new Firestone® 60 mil (.060") EPDM roof membrane that will be fully adhered into place. This will exceed current energy code requirements.

We have included replacing the clay tile coping with new wood blocking, EPDM membrane, and metal edging. This will completely encapsulate the walls and be covered under the new roof warranty. Also included is replacing the existing drains with all new J/R Smith 4" cast iron drains and removing one existing skylight and installing new wood decking at the one skylight noted on the attached roof plan.

The existing chimney is to be removed by others before the roofing work is to begin. The cost is not included in the price noted below.

We will fulfills it islaterial and Labor in accordance	with the attached Specifications for the sum of:
Eighty-Four Thousand Nine Hundred Ninety-	-Seven Dollars \$84,997.00
Payment to be made as follows:	
Terms – 1/3 Initial payment – Balance net 10 days	
All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or	Darren Kania Signature
deviation from attached specifications involving extra costs will be executed upon Owners' approval and will become an extra charge over and above the contract amount. All agreements contingent upon strikes, accidents or	
delays beyond our control. Owner to carry fire, tornado, and other	Note: This contract may be withdrawn by us if not accepted withindays.

Specifications

10821 CAPITAL • OAK PARK, MI 48237 (248) 543-3040 • fax (248) 543-5810 Roofing That Works!

Page 2 of 4

JOB NAME:
K Custom LLC
June 30, 2021

ROOF TYPE: Firestone® Fully Adhered EPDM with 15-year warranty

PREPARATION:

Conduct a pre-construction meeting will all parties present to verify staging locations and work sequencing. Load materials using a truck-mounted crane and/or scissor lift truck. We will need access in the parking lot. We will most likely stage our equipment and dumpsters here. On a daily basis, notify building management what areas we will be working and the sequence of our work. Please note: Despite our considerable efforts, there will be some noise, dust, and inconvenience while the work is in progress. Owner/occupants will need to protect any vulnerable equipment below.

CLAY TILE COPING REMOVAL:

Remove and dispose of the existing clay tile coping followed by the installation of new wood blocking.

DRAINS:

Remove and replace the existing drains with new J/R Smith 4" cast irons drain with strainers at all the existing locations.

INSULATION:

Furnish and install 2 layers of 2.6" (5.2" total) isocyanurate roof insulation boards. The insulation will be secured to the existing wood deck using 3" wind uplift plates and screws, per the manufacturer's requirements.

FIRESTONE EPDM ROOF MEMBRANE:

The new roof membrane will be a **fully adhered** .060" (60 mil) EPDM Firestone® roof system, which will be fully adhered over the new underlayment according to the manufacturer's specifications. RPFS strips will be installed at the base of all walls and the EPDM terminated there as required.

BASE FLASHINGS:

We will install EPDM base flashings. Termination bars will be fastened to the tops of the flashings at walls where required.

PENETRATION FLASHINGS:

New penetration pockets will be installed at all necessary penetrations, filled with pourable sealant for a low maintenance finish. The existing stacks will be flashed with prefabricated boots or double wrapped with FormFlash™ per manufacturers' requirements.

EDGING METAL:

Fabricate and install new 24-gauge prefinished steel edging metal around the outside perimeter. This will be then sealed to the new membrane per manufactures requirements. Color of the metal to be chosen by owner from the standard color options.

CLEAN-UP:

All debris from our work will be cleaned up on a daily basis and hauled to a legal landfill.

WARRANTY:

15-year manufacturer's Red Shield® labor and materials warranty and Bruttell Roofing, Inc. contractors 2-year warranty are included.

ACCEPTANCE: Specifications and conditions are satisfactory and are hereby accepted.	Signature	Date
You are authorized to do the work as specified. This page becomes part of and in conformance with		
the attached Contract.	Signature	Date

Specifications

10821 CAPITAL • OAK PARK, MI 48237 (248) 543-3040 • fax (248) 543-5810 Roofing That Works!

Page 3 of 4

JOB NAME:	DATE
K Custom LLC	June 30, 2021

ROOF INSPECTIONS AND MAINTENANCE:

Roof maintenance and twice-yearly inspections are critical to the long-term performance of your roof. The roofing system manufacturer and NRCA recommend twice yearly maintenance inspections to make sure that drains are clear, remove vegetation and debris, check for problems caused by building movement, and to inspect for inadvertent damage done to the roof by mechanics or others—in short, to make sure that your roof can perform for the long term in the way it was designed. Bruttell Roofing will make the required spring and fall roof inspections. Bruttell Roofing, Inc. believes so strongly in the institution of a preventive maintenance program that there is no charge for the first inspection after installation. Subsequent inspections through year five will be \$525.00 each. For this fee we will inspect for damage, clear debris from around the drains, check and repair the sealant at all terminations and penetrations and provide a report to the owner documenting the inspection of the roof. The inspections and maintenance are part of this contract. The fees for the inspections and maintenance are in addition to the contract amount and will be billed at time of service.

Over thirty (30) years of field experience has proven to us without any doubt that roofs that are maintained last longer thus providing a much higher pay back to the owner for the dollars invested in a new roof. There are many small problems that can eventually cause big headaches. Bruttell Roofing will help you eliminate the unpleasant surprises that are avoidable.

_____ I ACCEPT the Roof Inspection & Maintenance Agreement

_____ I DO NOT accept the Roof Inspection & Maintenance Agreement

ACCEPTAN	CE:	Specificat	tions and
conditions are satisfa	ctory and a	are hereby	accepted
You are authorized	to do the	work as	specified
This page becomes p	art of and i	n conform	ance with
the attached Contract	t.		

Signature	Date
Signatura	Data

Specifications

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Page 4 of 4

JOB NAME:
K Custom LLC
June 30, 2021

NOTES and UNIT PRICES

- 1. All carpentry is by others except as noted.
- 2. Cost to clean up small debris and dirt as well as Interior protection of the building contents are not included in the costs above.
- 3. The cost of a building permit is not included in the contract price. If a permit is requested or required, the cost will be added to the contract.
- 4. Work to improve drainage is not included in the contract price except as specified.
- 5. Deteriorated deck or structure, if encountered, should be repaired or replaced. This work if necessary will be performed at an additional cost based on Time and materials or at a negotiated unit price.
- 6. Plumbing work on drains is not included in the contract price.
- 7. **Moving or disconnecting the rooftop HVAC equipment** is not included in the contract price unless specifically stated. We will make every effort to carefully work around the HVAC equipment, gas piping, controls and conduit. However, if the equipment has to be lifted up and/or moved in order to do the specified work, this work is extra. Please note that roofing is heavy work involving cumbersome machinery and bulky materials. Our work requires that we get over and under existing gas piping and electrical conduit. Consequently, piping—especially old pipe or conduit—may not hold together when we move it or go over it. You can trust that we will do our work in a responsible manner, but there may still be some damage to the piping, wiring or conduit. Repairs, if required, will be at additional cost.
- 8. Hidden wiring or conduit, such as low voltage wiring or line voltage conduit which is buried under the roofing or hidden under the deck, cannot be seen and therefore it is very difficult to avoid coming in contact with it and damaging it. If the owner is aware of such wiring or conduit, it is imperative that the owner provides a scale schematic drawing so that we can locate this wiring prior to starting work. The cost of repairs to damaged conduit, piping or wiring which was hidden, will be extra. All wiring should be in rigid conduit and mechanically protected to minimize the danger to our workers and the potential for damaging it.
- 9. Consequential Damages: Bruttell Roofing, Inc. does not warrant any water damage to the building or interior that may occur while the work specified in this contract is in progress. Considerable effort will be made to avoid conditions that might cause a roof leak, however, our work may require us to tie into or do staging on an old, deteriorated roof. A deteriorated roof is easily damaged by traffic and heavy equipment. It is very difficult to make a watertight temporary seal because this seal depends on the integrity of the old roofing in order to work. Also, at certain times of the year, weather can be extremely unpredictable and weather prediction at best is not as dependable as may be desired. Bruttell Roofing, Inc. will make a good faith attempt to provide adequate temporary seals as required and will schedule the work to be done when the weather and predicted weather is conducive to the proper execution of the work in order to minimize any risk. Bruttell Roofing, Inc. expressly limits its liability for consequential damage to a) repairs to the roof in order to make it watertight; b) replacement of any water-damaged new roofing; and c) mitigation of any further damage to the building or contents. A written warranty will cover the completed work.
- 10. For roof work in general and especially if a tear-off of existing roofing is required, please note the following: roof work and roof tear-offs disturb the deck. At a minimum dust or dirt attached to the underside of the deck will be dislodged. In addition, where fasteners are removed and around other penetrations, dirt will be able to filter into the building. Where the building has no intermediary ceiling, dust from the roof may cause a concern for the occupants below. No clean up of the interior is included unless specified in writing.
- 11. Insulation availability and costs are volatile. World chemical shortages have caused materials to be in short supply and prices to change without notice. This fact may result in delays to the project and or price increases to this contract. If either or both of these conditions should occur we will notify the owner. The additional cost of the insulation will be passed on to the owner as an increase to the contract amount.
- 12. Winter Work: This contract does not include extra work to remove ice and snow. Consequently, work done between November 15th and April 15th can be problematic if normal climatic conditions for late Fall and Winter prevail. If it is necessary to do the specified work when snow and ice are present, we will remove the ice and snow on a labor plus materials basis. (Labor rate will be \$45.00/hr.)
- 13. Ventilation, Condensation, Water Vapor & Mold: Bruttell Roofing, Inc does not represent itself as an expert in mechanical ventilation vapor transmission. Problems such as excessive heat loss or vapor transmission that may cause the formation of condensation within or on the structure or the roofing system as well as mold formation and related concerns are not addressed in this contract. The owner may wish to contact a ventilation or insulation expert to verify that adequate insulation or ventilation is in place.

ACCEPTANCE: Specifications and	
conditions are satisfactory and are hereby accepted.	Signature
You are authorized to do the work as specified.	
This page becomes part of and in conformance with	
the attached Contract.	Signature

ignature	Date
ignature	Date



August 2, 2021

603 E Milwaukee Detroit, MI

ROOF AREA:

6,500 sq ft

PROPOSED ROOF:

Mechanically Attached 60 mil reinforced TPO Roof System

SPECIFICATION:

- 1. Roof prep:
 - a. Remove loose wall flashings
 - b. Remove perimeter terra cotta coping
 - a. Install new wall nailer
 - c. Install new tapered saddles between drains.
 - d. Lay 4 mil reinforced visqueen
- 2. Mechanically attach 60 mil reinforced TPO 10' on center
 - a. Seams overlapped 6" and heat welded
 - b. All cut edges will be sealed per manufacture specs
 - c. Install T-Joint covers at all seam junctions and vertical laps.
- 3. Install prefabricated boots and / or uncured TPO onto small stack and large stack.
- 4. Curbs and walls
 - a. Mechanically attach field membrane at base of wall
 - b. Fully adhere new wall membrane, overlap base attachment and weld
 - c. Wrap up over wall
 - d. Install new meatl coping or metal edge/cover strip
- 5. Drains Install new inserts with flange
- 6. Penthouse Install new nailer, gutter, cover strip, downspout

OPTION: Add 800 sq ft $\frac{1}{2}$ " x 4' x 8' dens deck gypsum to new roof system to protect roof layers from weight of any new patio/pavers



OPTION: 20' x 40' Pedestal / Paver System

- a. Install sacrificial membrane sheet under jacks.
- b. Install and adjust 400 Jackscrew jacks
- c. Install 100 shims
- d. Install couplers as needed
- e. Install 200 2' x 2' Westile pavers
- f. NOT included Furnish /Install outer perimeter aluminum railing
- g. Included Extra membrane available for rail installer to lay on top of our metal edge
- h. NOT included prefabricated boots or pockets or flashing of rail posts tie into into roof

STANDARD OPERATING PROCEDURES:

- All Work shall be performed in a safe, professional manner in compliance with all industries, recognized regulations.
- There is a possibility of dust and dirt filtering down from work being done on roof. Customer responsible for covering up objects or cleaning interior.
- MQ shall not be responsible to determine structural soundness and shall have no liability whatsoever to the owner or others for failure of supporting structure.

Clean Up

 All work premises will be cleaned daily during the construction process and at the completion of the project. All debris will be removed from job site and properly disposed of.

Job Acceptance and Punch List

• There will be a full time working foreman at all times on the job site while roofing work is in progress.

WARRANTY:

• 10 Year Warranty.

PRICING, Labor and Material

60 mil reinforced TPO, fastened 4 mil visqueen	\$ 37,160.00
Accepted by	Date
Add 800 sq ft dens deck on top of insulation layer fo	r future patio/paver system) \$ 3,260.00
Accepted by	



	Accepted by	Date
		etroleum related products, the price quoted in this proposal is valid only for orders there is an increase in the price to the materials, the amount of the proposal shall
•	ONAL: Permit cost added to Final Invoice Any other details mandated by Cit Fence system by qualified licensed Fence tie into roof. Roofer can wo	/insured trade
	: 50% down 50% upon completion	
-	you for this opportunity! If you hav)4-5990	e any questions or concerns, please feel free to call me at
Respec	tfully Submitted,	
Pat Nor	val, Project Manager	



Product Data Sheet

TPO-c MEMBRANE (Standard, FR and CLEAN Film)

PRODUCT DESCRIPTION

Revision Date: Oct 2020

Mule-Hide TPO-c Membrane is a polyester reinforced, .045" or .060 thick, polyolefin based, thermoplastic, heat-weldable membrane. High breaking strength, tearing strength, and puncture resistance is achieved by encapsulating a strong polyester fabric between the top and bottom plies. Mule-Hide TPO-c FR membrane is formulated with additional flame retardant (compared to Standard) for higher slope fire code approvals. The TPO-c membrane is also available in a 0.80" thickness (see Product Data Sheet for TPO-c EXTRA). The membrane is environmentally friendly and safe to install. All Mule-Hide TPO membranes include MHP Weathering Package, an industry leading, state of the art weather package that enables Mule-Hide TPO membranes to withstand the extreme weatherability testing which simulates exposure to severe climates.



BASIC USES

The TPO-c membrane is used in mechanically attached and fully adhered roofing systems in new construction, reroofing and recover (retrofit) applications. It may also be used as flexible membrane flashings for walls, curbs, etc, when installing TPO-c membrane roofing systems. The system must be installed over acceptable roof insulation or other suitable substrate. See the Mule-Hide TPO Specifications Manual for complete specifications and details.

Optional CLEAN Film

The TPO-c membrane is available with an optional CLEAN Film (Standard colors only), a temporary protective film factory applied to the top surface of the membrane. By protecting the membrane surface from scuffs and dirt accumulation during installation, this protective film can save labor and time by helping to eliminate the need for roof cleaning upon project completion. CLEAN Film can be left in place for up to 90 days. Durable and easy to remove, CLEAN Film helps to improve the aesthetics and long-term reflectivity and is ideal for use on re-roofing, re-cover and new construction projects. CLEAN Film is available on TPO-c 60 mil membranes supplied in 6' x100' and 10' x 100' rolls.

BENEFITS & SUPPLEMENTAL STATEMENTS

- · Wide window of weldability
- · Outstanding puncture resistance
- · Chlorine-free with no halogenated flame retardants
- UL 2218 Class 4 hail rating available on select systems
- · Excellent low temperature impact resistance
- · Excellent chemical resistance to acids, bases, restaurant oils and greases
- · Plasticizer-free, does not contain liquid or polymeric plasticizer
- Exceptional resistance to solar UV, ozone and oxidation
- · Low water vapor permeance and water absorption
- · Hot melt extrusion processed for complete scrim encapsulation
- · Non woven reinforcement fabric for smooth surface and greater thickness-over-scrim
- · Polyester reinforcing fabric which is resistant to degradation by bacteria, mildew and fungi
- TPO-c is 100% recyclable
- Meets and exceeds requirements of ASTM D6878 Standard Specification for Thermal Plastic Polyolefin Based Sheet Roofing
- CLEAN Film guards the TPO membrane surface from scuffs and dirt accumulation during installation, helping to improve the roof systems appearance and maintain long-term reflectivity.
- · CLEAN Film can be left in place for up to 90 days due to its excellent heat and UV resistance.
- Mule-Hide's tan and white TPO membranes are ENERGY STAR®* qualified and California Title 24 compliant and can contribute toward LEED® (Leadership in Energy and Environmental Design) credits.

TPO-c Membrane (Standard, FR & CLEAN Film)

SPECIFICATIONS

Standard Colors: White, Gray and Tan

Colorway Colors: Medium Bronze, Patina Green, Rock Brown, Slate Gray & Terra Cotta.

Material: .045-inch (Standard Colors only) and .060-inch (nominal) thick polyester reinforced thermoplastic

Sizes: Standard Colors as 4', 6', 8', 10' and 12' sheet widths by 100'

Colorway Colors as 5' and 10' sheet widths by 100'

Weights: 45 Mil - 0.23 lb/ft² (1.1 kg/m²) typical, 60 Mil - 0.29 lb/ft² (1.4 kg/m²) typical

Physical Properties*	Test Method	Requirement	45-mil	60-mil
Thickness Tolerance on nominal, %	ASTM D-751	+15, -10	±10	±10
Thickness over scrim, in. (mm) (avg. of 3 areas)	ASTM D-6878 Optical Method	0.015 min. (0.380)	0.018 typical (0.457)	0.024 typical (0.610)
Breaking Strength, lbf (kN)	ASTM D-751 (Grab Method)	220 (976 N) minimum	. , === (,	
Elongation at break of fabric, %	ASTM D-751 (Grab Method)	15 minimum	15 minimum 25 typical	15 minimum 25 typical
Tear Strength, lbf (N) 8 by 8 in. specimen	ASTM D-751 (B Tongue Tear)	55 (245) minimum	55 (245) min. 130 (578) typical	55 (245) min. 130 (578) typical
Brittleness point, °F (°C)	ASTM D-2137	-40 (-40) maximum	, , , , , , , , , , , , , , , , , , , ,	
Linear Dimensional Change (shrinkage) % change	ASTM D-1204 6 hours @ 158° F (70° C)	±1 maximum	±1 maximum +/-1 max - 0.2 typical	
Ozone resistance, 100 pphm, 168 hrs.	ASTM D-1149	PASS	PASS	PASS
Factory seam strength, lbf/in (kN/m)	ASTM D-751	66 (290) min	66 (290) minimum	66 (290) minimum
Field seam strength, lbf/in. (kN/m) Seams tested in peel	ASTM D-1876	No requirement	25 (4.4) min. 50 (8.8) typical	25 (4.4) min. 60 (10.5) typical
Water vapor permeance, Perms	ASTM E-96 proc. B	No requirement 0.10 max. 0.05 typical		0.10 max. 0.05 typical
Water Absorption Resistance, mass % Top surface only	ASTM D-471 @ 158°F, 166 hours	No requirement	3.0 max. 0.90 typical	3.0 max. 0.90 typical
Puncture resistance, lbf (N)	FTM 101C Method 2031	No requirement 250 (1.1) min. 325 (1.4) typical		300 (1.3) min. 350 (1.6) typical
Properties after heat aging - ASTM D573, 32 weeks at 240°F or 8 weeks at 275 °F No cracking when bent around 3" dia. mandrel Weight change, %	PASS No Cracking ±1.5 max	PASS No Cracking ±1.0 max	PASS No Cracking ±1.0 max	PASS No Cracking ±1.0 max

^{*}Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

INSTALLATION INSTRUCTIONS

- 1) Approved insulation shall be attached to the roof deck with an approved insulation adhesive or approved fasteners and plates. Install insulation with its largest dimension perpendicular to the direction of the membrane seams where possible.
- 2) Mechanically Attached Roofing System
 - a) Perimeter sheets to be installed in an approved pattern along all exterior roof edges.
 - b) Mechanical fasteners and plates are installed in the seams of both the perimeter sheets and field sheets and into the roof deck. Use approved fasteners and maintain proper penetration for specific roof decks.
- 3) Fully Adhered Roofing System
 - a) Perimeter sheets are not required.
 - b) The membrane is required to be mechanically attached at the base of all vertical surfaces, roof edges, and angle changes.
 - c) The field of the roof is fully adhered to the substrate with Mule-Hide TPO Bonding Adhesive.
- 4) Remove CLEAN Film from areas that are to be heat-welded together. In areas not requiring heat-welding, CLEAN Film can be lift in place for up to 90 days. Upon completion of the TPO roofing system, remove the CLEAN film and discard.
- 4) All seams are hot air welded and checked by probing.
- 5) All details will be done in accordance with Mule-Hide details.
- 6) On projects where a Mule-Hide System Warranty is requested, an authorized Mule-Hide representative shall inspect all completed work. This is only a brief summary and not the complete specification. The Mule-Hide Specifications, Details, Technical Bulletins, and associated documents should be thoroughly reviewed prior to starting any project. Contact the Mule-Hide Technical Department for additional information.

TPO-c Membrane (Standard, FR & CLEAN Film)

PRECAUTIONS

- Maximum sustained temperature not to exceed 160°F (71°C) for TPO membrane.
- Use proper stacking procedures to ensure roll stability. Avoid creasing the membrane.
- · Surfaces may be slippery when wet, or due to frost and ice build-up. Exercise caution to prevent falls.
- Mule-Hide TPO membranes are highly reflective to sunlight. Workers should dress appropriately, wear sunscreen, and wear sunglasses that filter out UV light.
- Exercise care when working near roof edge as edges may not be visible when surrounding area is covered with snow.
- Store Mule-Hide membrane in original wrappings in a cool, shaded area. Cover with light-colored, breathable, waterproof tarpaulins. Mule-Hide membrane that has been exposed to the weather must be prepared with Weathered Membrane Cleaner prior to hot air welding.
- Use proper stacking procedures to ensure sufficient stability of the rolls.
- Take care not to stand or place heavy objects on the edge of folded-over membrane, as this could cause a hard crease in the membrane.
- Do not use razor blades or other sharp tools to cut the CLEAN Film while it is still adhered to the TPO membrane as damage to the underlying membrane may occur. Pull the protective film away from the membrane prior to cutting.
- Remove CLEAN Film by pulling towards the center of the roof. Do not remove the film by pulling towards the roof edge.
- A static electricity charge may develop when removing the CLEAN Film from the surface of the membrane sheet. To
 avoid the possibility of ignition, lids must be closed on any flammable products and fire extinguishers should be readily
 available.
- Color membranes will 'fade' over time mainly due to the ultraviolet portion of sunlight. Since most roof surfaces are exposed to variable sunlight, some areas will be more susceptible to color changes caused by UV fading. Warranties for color membranes do not cover fading of colors.

EXTREME TESTING FOR SEVERE CLIMATES

ASTM Standard D6878 is the material specification for Thermoplastic Polyolefin-Based Sheet Roofing. It covers material property requirements for TPO roof sheeting and includes initial and aged properties after heat and xenon-arc exposure. As stated in the standard, "the tests and property limits used to characterize the sheet are values intended to ensure minimum quality for the intended purpose." Mule-Hide's goal is to provide TPO that delivers maximum performance for the intended purpose of roofing membranes. Maximum performance requires the membrane to far exceed the requirements of ASTM Standard D6878.

Heat Aging accelerates the oxidation rate the roughly doubles for each 18°F (10°C) increase in roof membrane temperature. Oxidation (reaction with oxygen) is one of the primary chemical degradation mechanisms of roofing materials.

HEAT AGING					
Test Method ASTM Requirement Typical Results					
ASTM Test - 240° F (116° C), No Visible Cracks	32 Weeks**	>128 Weeks			
**Heat exposure comparable to 3,120 weeks (60 years) at 185°F for 8 hours per day.					
Test specimen is 2" by 6" piece of 45-mil membrane un-backed, placed in circulating hot-air oven					
Criterion-no visible cracks after bending aged test sample around 3" diameter mandrel.					
Heat Aging accelerates the oxidation rate that roughly doubles for each 10° C (18° F) increase in roof membrane temperature.					
Oxidation (reaction with oxygen) is one of the primary chemical degradation mechanisms of roofing materials.					

Q-Trac testing combines accelerated weathering with real-world conditions using an array of ten mirrors to reflect and concentrate full spectrum sunlight onto membrane test specimens. The Q-Trac device automatically tracks the sun's path from morning to night. Also, it adjusts to compensate for seasonal changes in the sun's altitude. Eight years in Q-Trac testing is equal to 40 years of real-world exposure. Mule-Hide requires its TPO membranes to pass the equivalent of 40 year exposure in the Q-Trac.

Q-Trac Testing					
Test Method ASTM Requirement Mule-Hide Requirement					
ASTM Test N/A Equivalent of 40 years exposure					
Environmental Cycling subjects the membrane to repeated cycles of heat aging, hot-water					
immersion and xenon-arc exposure.					

Test specimen is 2.75" by 5.5" piece of membrane with edges sealed.

- 10 days heat aging at 240° F (116° C) followed by
- 5 days water immersion at 158° F (70° C) followed by
- 5,040 kJ/m² (2000 hours at 0.70 W/m² irradiance) xenon-arc exposure

Criterion – after 3 completed cycles, test specimens shall remain flexible and not have any cracking under 10x magnifications while wrapped around a 3" diameter mandrel.

TPO-c Membrane (Standard, FR & CLEAN Film)

SUPPLEMENTAL APPROVALS, STATEMENTS AND CHARACTERISTICS

- TPO-c meets and exceeds the requirements of ASTM D6878 Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing.
- 2) Radiative Properties for ENERGY STAR, Cool Roof Rating Council (CRRC) and LEED.
- Mule-Hide TPO-c membranes conform to requirements of the U.S.E.P.A. Toxic Leachate Test (40 CFR part 136) performed by an independent analytical laboratory.
- 4) TPO-c was tested for dynamic puncture resistance per ASTM D5635-04 using the most recently modified impact head. 45-mil was watertight after an impact energy of 12.5 J (9.2 ft-lbf) and 60-mil was watertight after an impact energy of 22.5 J (16.6 ft-lbf)
- 5) NSF-P151 Certification for rainwater catchment systems components. (Plant 91/White Only)

RADIATIVE PROPERTIES for ENERGY STAR*, CRRC and LEED						
DESCRIPTION	TEST METHOD	WHITE TPO-c	TAN TPO-c	GRAY TPO-c		
ENERGY STAR® initial solar reflectance		0.79	0.71	N/A		
ENERGY STAR ® initial solar reflectance after 3 years (un-cleaned)	Solar Spectrum Reflectometer	0.70	0.64	N/A		
CRRC initial solar reflectance	ASTM C1549	0.79	0.71	0.46		
CRRC solar reflectance after 3 years	ASTM C1549 (un-cleaned)	0.70	0.64	0.43		
CRRC initial thermal emittance	ASTM C1371	0.90	0.86	0.89		
CRRC thermal emittance after 3 years	ASTM C1371 (un-cleaned)	0.86	0.87	0.88		
CRRC SRI (Solar Reflectance Index)	ASTM E1980	99	86	53		
CRRC SRI (Solar Reflectance Index after 3 yrs)	ASTM E1980	85	77	48		

RADIATIVE PROPERTIES (Initial) FOR COLORWAY COLORS					
Color	Reflectance	Emittance	SRI		
Medium Bronze	0.28	0.86	29		
Rock Brown	0.25	0.87	26		
Slate Gray	0.38	0.87	42		
Terra Cotta	0.25	0.86	25		
Patina Green	0.25	0.88	25		

Solar Reflectance Index (SRI) is calculated per ASTM E 1980. The SRI is a measure of the roof's ability to reject solar heat, as shown by a small temperature rise. It is defined so that a standard black (reflectance 0.05, emittance 0.90) is 0 and a standard white (reflectance 0.80, emittance 0.90) is 100. Materials with the highest SRI values are the coolest choices for roofing. Due to the way SRI is defined, particularly hot materials can even take slightly negative values, and particularly cool materials can even exceed 100.

*ENERGY STAR® recommends that using the Roof Savings Calculator (rsn.ornl.gov), which factors in both heating and cooling costs, to determine whether a cool roof will be an energy efficient choice for your geographical climate and building type.

LEED Information				
Pre-consumer Recycled Content	10%			
Post-consumer Recycled Content	0%			
Manufacturing Location	Senatobia, MS			
	Tooele, UT			
	Carlisle, PA			
Solar Reflectance Index (SRI)	99 (white) 86 (tan)			

PROTECTION & SAFETY

Mule-Hide maintains Safety Data Sheets on all of its non-exempt products. Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees and customers. Mule-Hide's Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Mule-Hide products in your facilities.

Product Data Sheet

TPO-c Membrane (Standard, FR & CLEAN Film)

ADDITIONAL INFORMATION

The information given on this PDS is subject to change without notice. Always check the Mule-Hide website at www.mulehide.com for the latest information, changes and updates or contact Mule-Hide Products Company at 800-786-1492.

DISCLAIMER

The statements provided concerning the material shown are intended as a guide for material usage and are believed to be true and accurate at the time of printing. No statement made by anyone may supersede this information, except when done in writing by Mule-Hide Products Co., Inc. Since the manner of use is beyond our control, Mule-Hide does not authorize anyone to make any warranty of merchantability or fitness for any particular purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material. This product may be eligible for a Mule-Hide warranty, please check the Mule-Hide website at www.mulehide.com or contact Mule-Hide directly at 800-786-1492 for details. Buyer and user accept the product under these conditions and assume the risk of any failure, any injury person or property (including that of the user), loss or liability resulting from the handling, storage or use of the product whether or not it is handled, stored or used in accordance with the directions or specifications. Mule-Hide must be notified in writing of any claims and be given the opportunity to inspect the alleged failure before repairs are made.



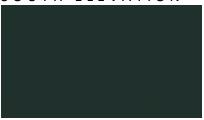
PROJECT PEERLESS

REQUEST 3 - PAINT



PAINT SPECIFICATIONS

SOUTH ELEVATION



A:8 Blackish Green MS: 2.5BG2/2

EAST ELEVATION



B:12 Grayish Green MS: 10G 4/2



E:3 Grayish Reddish Orange MS: 2.5YR 5/6



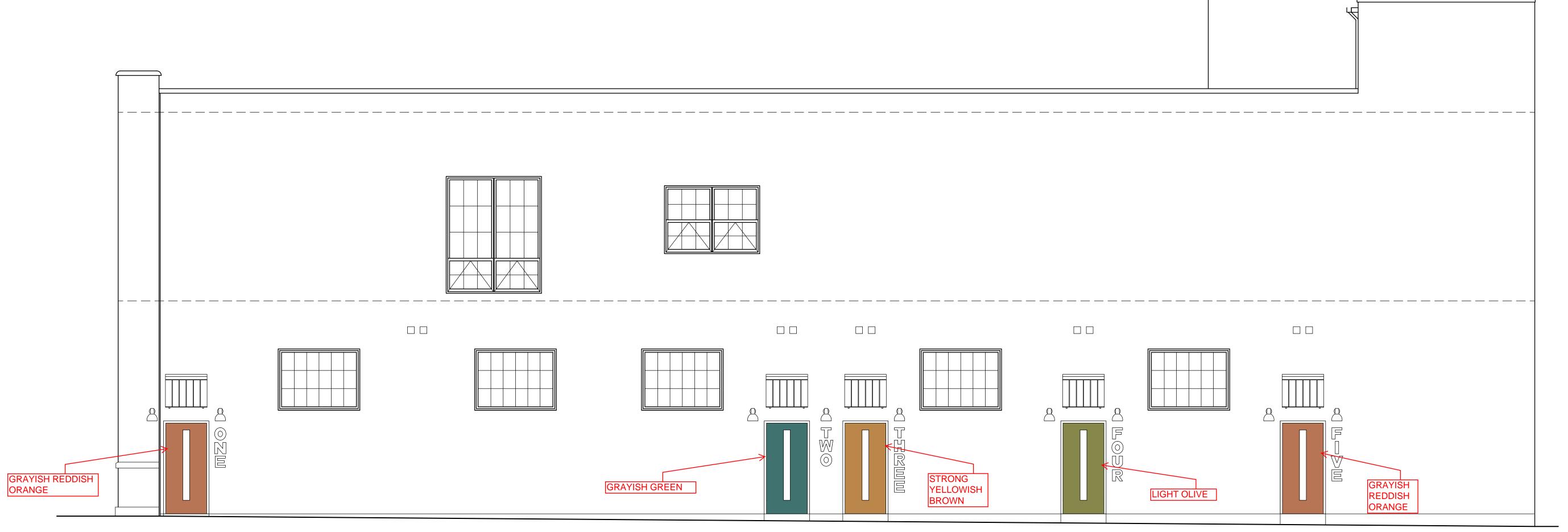
B:17 Light Olive MS: 10Y 5/4



E:2 Strong Yellowish Brown MS: 7.5YR 6/8

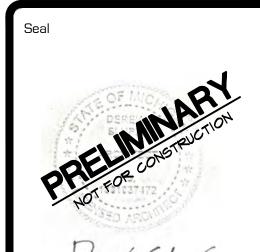


SOUTH ELEVATION





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Drawing Title

EXTERIOR ELEVATIONS

Project Number 20-40-159

Checked DJS

1/4"=1'-0"

Dwg. PEERLESS - CDS

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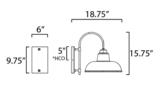
REQUEST 4 - LIGHT FIXTURES

EXTERIOR LIGHT FIXTURES



PRODUCT DESCRIPTION

A powder coat aluminum frame support a durable polycarbonate shade in classic RLM styles. This an excellent choice for extreme environments like coastal areas. The combination Black frame and White shade create a dramatic look.





height from center of outlet to the top of the fixture

MEASUREMENTS

DIMENSION : 13.75" W x 15.75" H x 18.75" Ext **BACK PLATE** : 6" W x 9.75" H x 5" HCO

HANGING WEIGHT : 2.87 lb

LAMPING

INPUT VOLTAGE : 120V

: 1 x 60W Incandescent E26 Medium, 60W Total BULB

BULB INCLUDED : (Not Included)

DIMMABLE : Yes LIGHTING_DIRECTION: Down

FINISHES OPTION



White / Black

MATERIAL

Polycarbonate, Aluminum

RATINGS

cETLus Wet Location





ADDITIONAL

INSTALL UP/DOWN: Down **OPERATING TEMPERATURE:** -20°C (-4°F), 40°C (104°F)

Always consult a qualified electrician before installing any lighting product.



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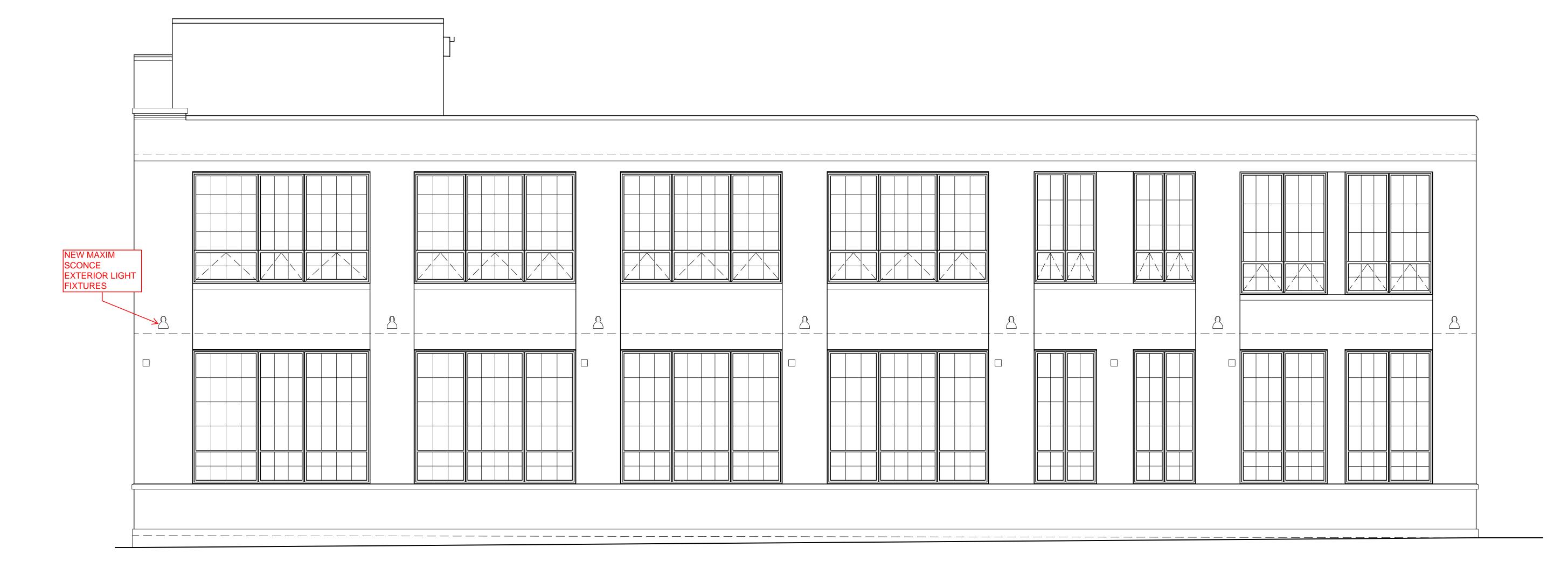
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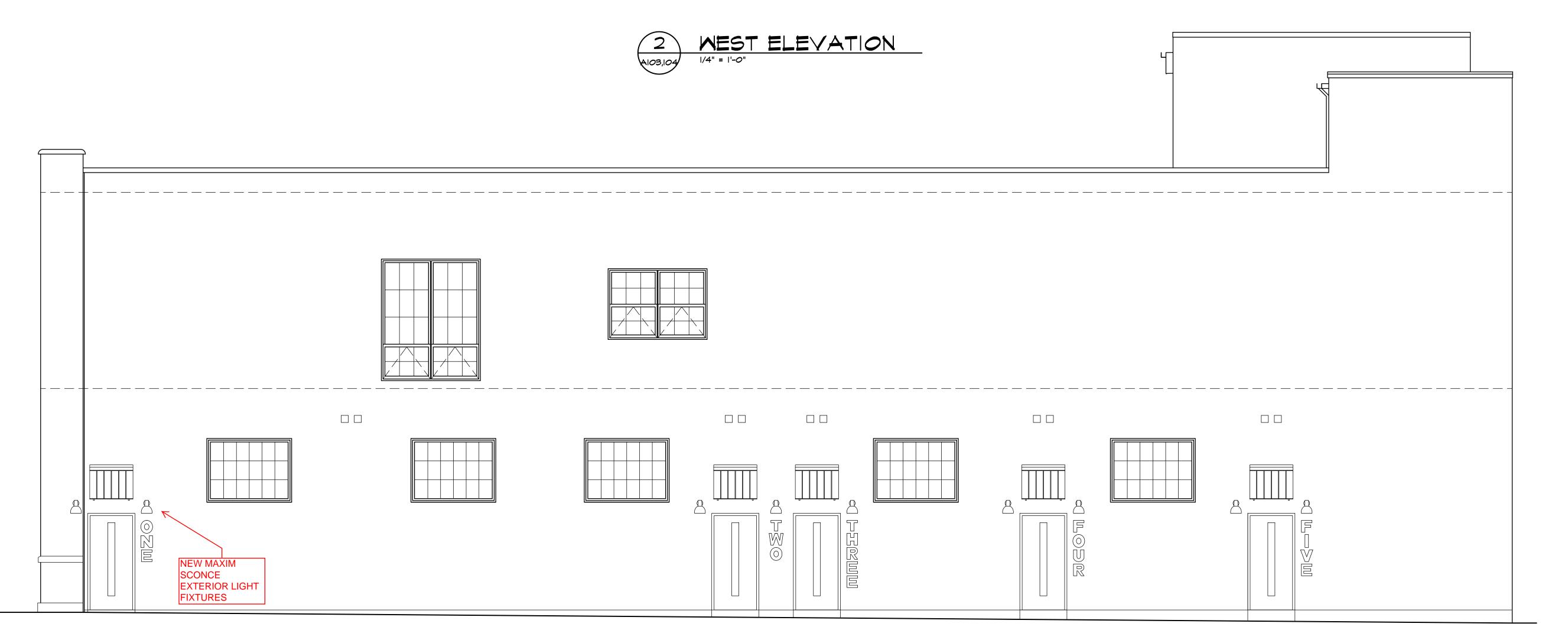
Dwg. PEERLESS - CDS

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PERMIT 10-13-21 DJS

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EXTERIOR ELEVATIONS

Project Number 20-40-159

Drawn ALM
Checked DJS

Scale 1/4"=1'-0"

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Sheet Number

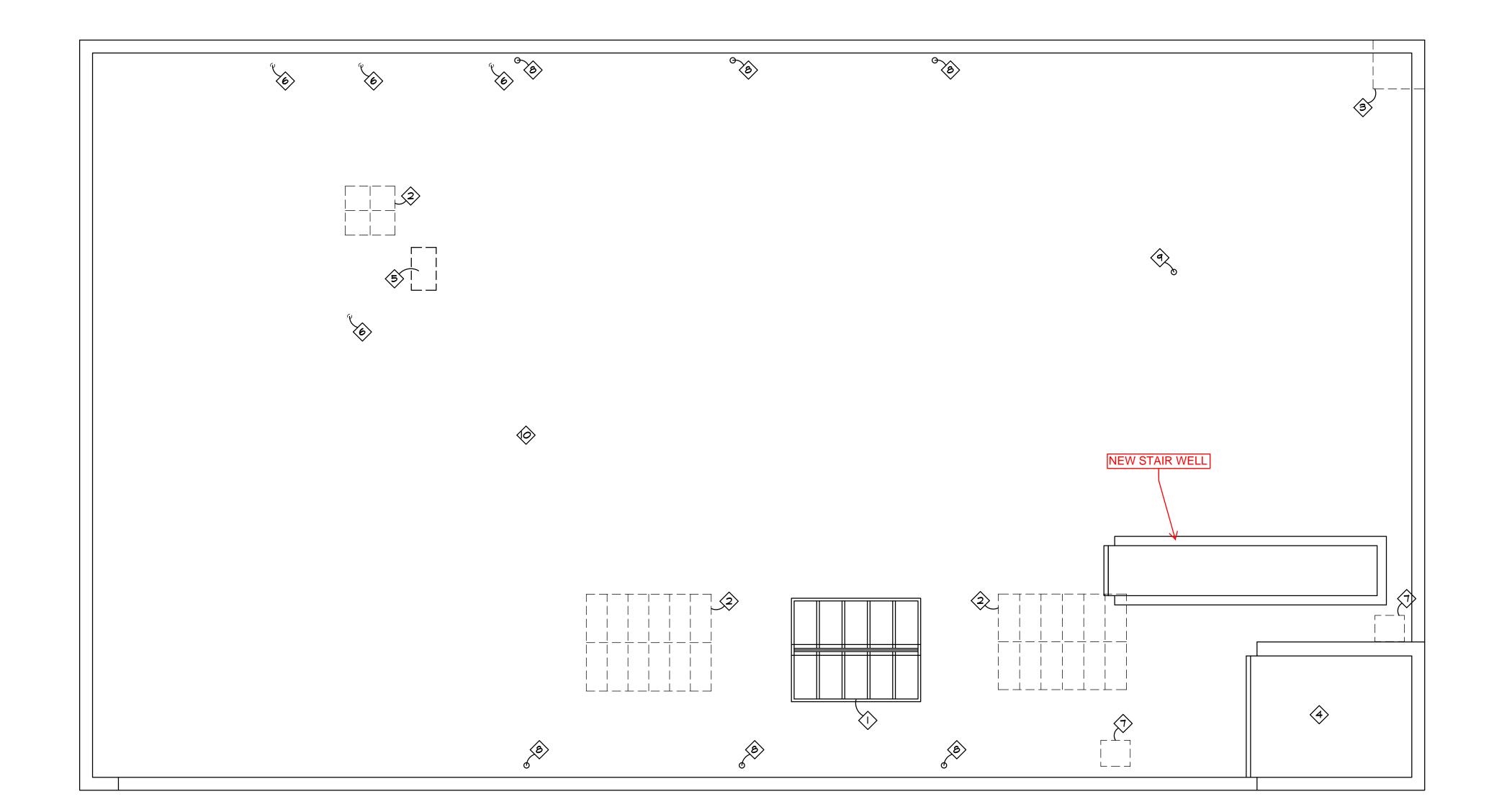
A202

EAST ELEVATION



PROJECT PEERLESS

REQUEST 5 - NEW CONSTRUCTION / ADDITIONS



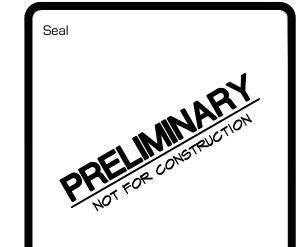


ROOF NOTES

- PROVIDE NEW 8' X IO' PREMANUFACTURED ALUMINUM SKYLIGHT
 ASSEMBLY WITH INSULATED GLASS BY 'WASCO/VELUX MODEL C3DG
 350 SERIES LT DOUBLE PITCH WITH GLASS ALONG SILL. PROVIDE
 NEW ROOF CURB PER MANUFACTURERS INSTRUCTIONS. PROVIDE
 AND INSTALL BEAM (SIZE, STYLE AND TYPE TO BE DETERMINED
 BY DESIGNER), RUNNING NORTH AND SOUTH, ALONG AT BASE OF
 SKYLIGHTS TO SUPPORT TWO (2) HANGING LIGHT FIXTURES.
- REMOVE AND DISPOSE OF EXISTING SKYLIGHTS.
- REMOVE AND DISPOSE OF EXISTING BRICK MASONRY CHIMNEY.
 PROVIDE NEW ROOF DECKING TO MATCH EXISTING, INSULATION
 ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH
 EXISTING.
- 4 EXISTING ROOFTOP ELEVATOR MACHINE ROOM.
- REMOVE AND DISPOSE OF INDICATED ROOFTOP CONDENSING
- (6) REMOVE AND DISPOSE OF EXISTING ROOFTOP PLUMBING STACK.
- REMOVE AND DISPOSE OF EXISTING ROOFTOP ACCESS LADDER HATCH. PROVIDE NEW ROOF DECKING TO MATCH EXISTING, INSULATION ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH EXISTING.
- REMOVE EXISTING ROOF DRAIN AND PROVIDE NEW 4" ROOF DRAIN AS REQUIRED.
- APPROXIMATE LOCATION OF EXISTING FURNACE FLUE TO BE REMOVED AND DISPOSED OF. PROVIDE NEW ROOF DECKING TO MATCH EXISTING, INSULATION ON ROOFING AND NEW ROOFING MEMBRANE TO MATCH EXISTING.
- PROVIDE NEW 2" LAYER OF POLYISO OVER ENTIRE EXISTING TO REMAIN ROOFTOP MEMBRANE AND PROVIDE NEW THERMOPLASTIC POLYOLEFIN (TPO), COLOR GRAY. PROVIDE NEW METAL COPING WITH KYNAR FINISH, COLOR T.B.D., AS REQUIRED.



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ROOF PLAN

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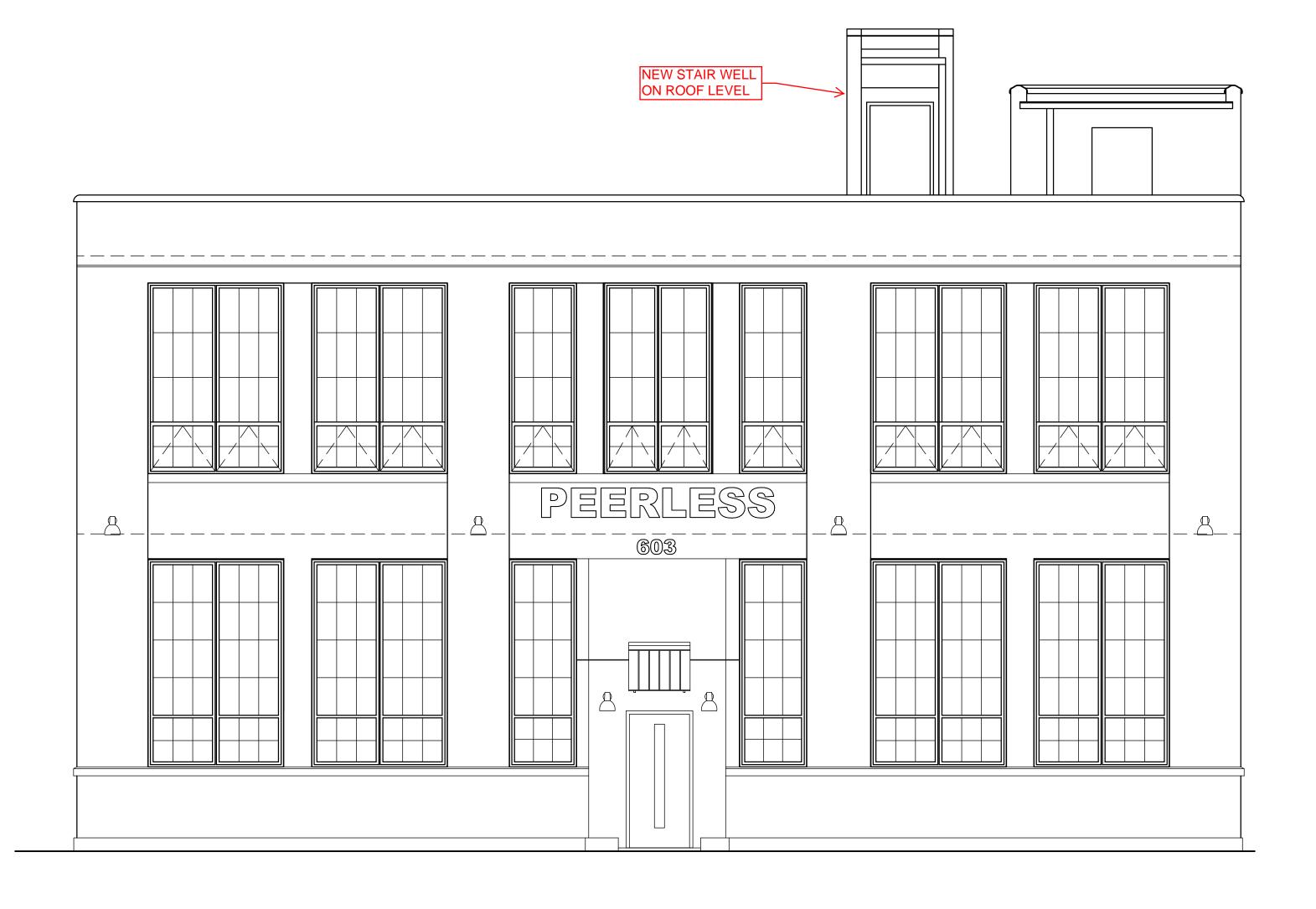
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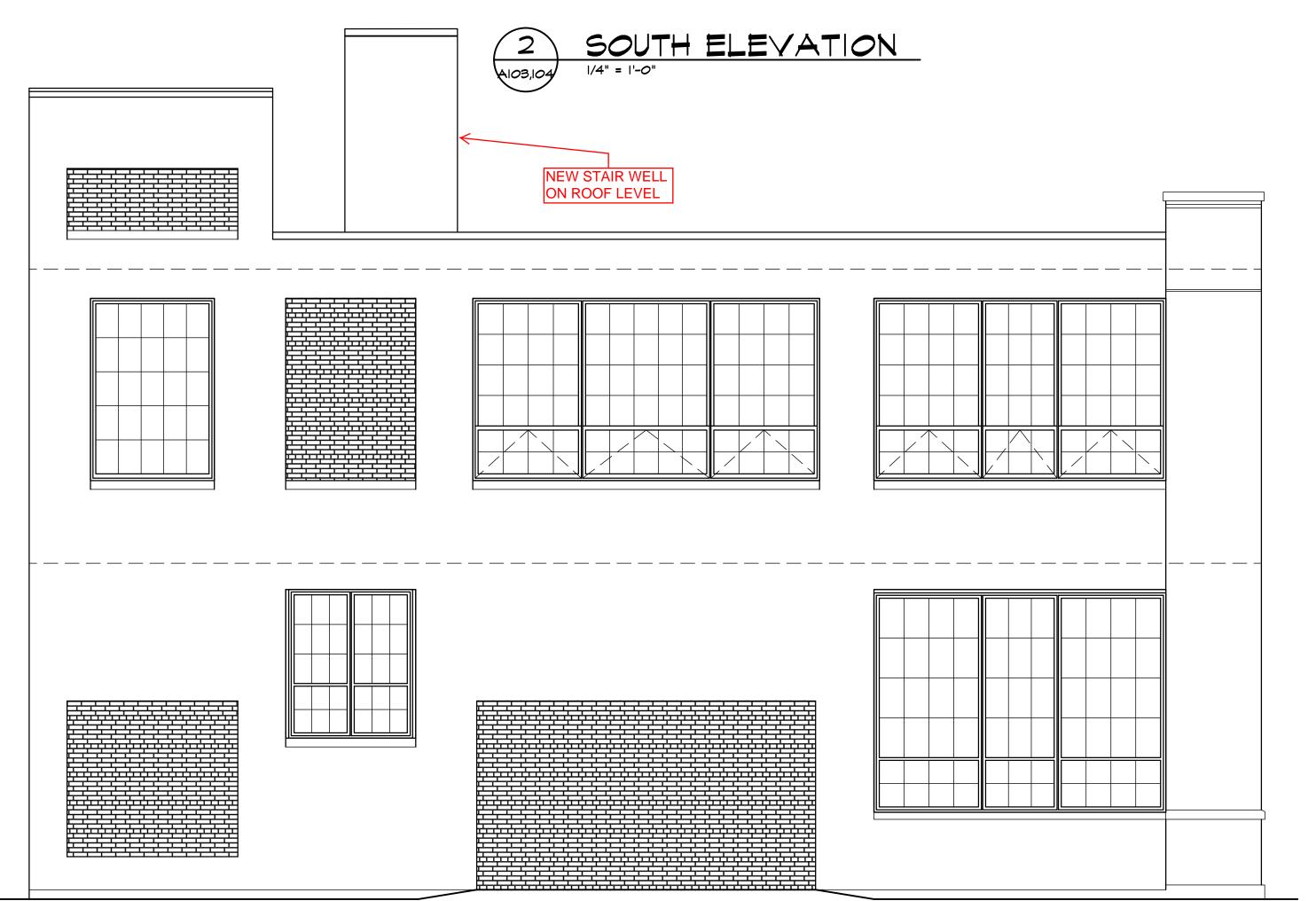
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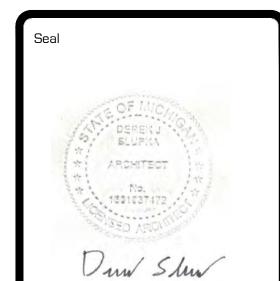








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Scale 1/4"=1'-0"

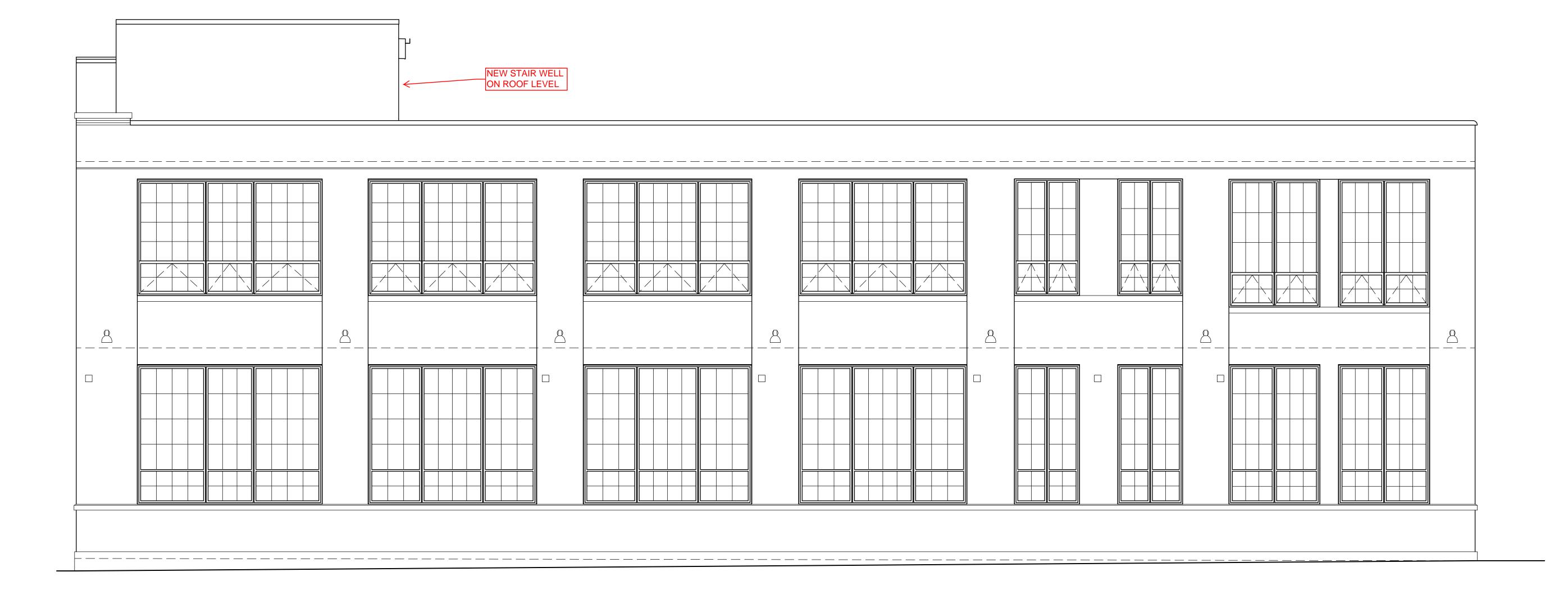
Dwg. PEERLESS - CDS

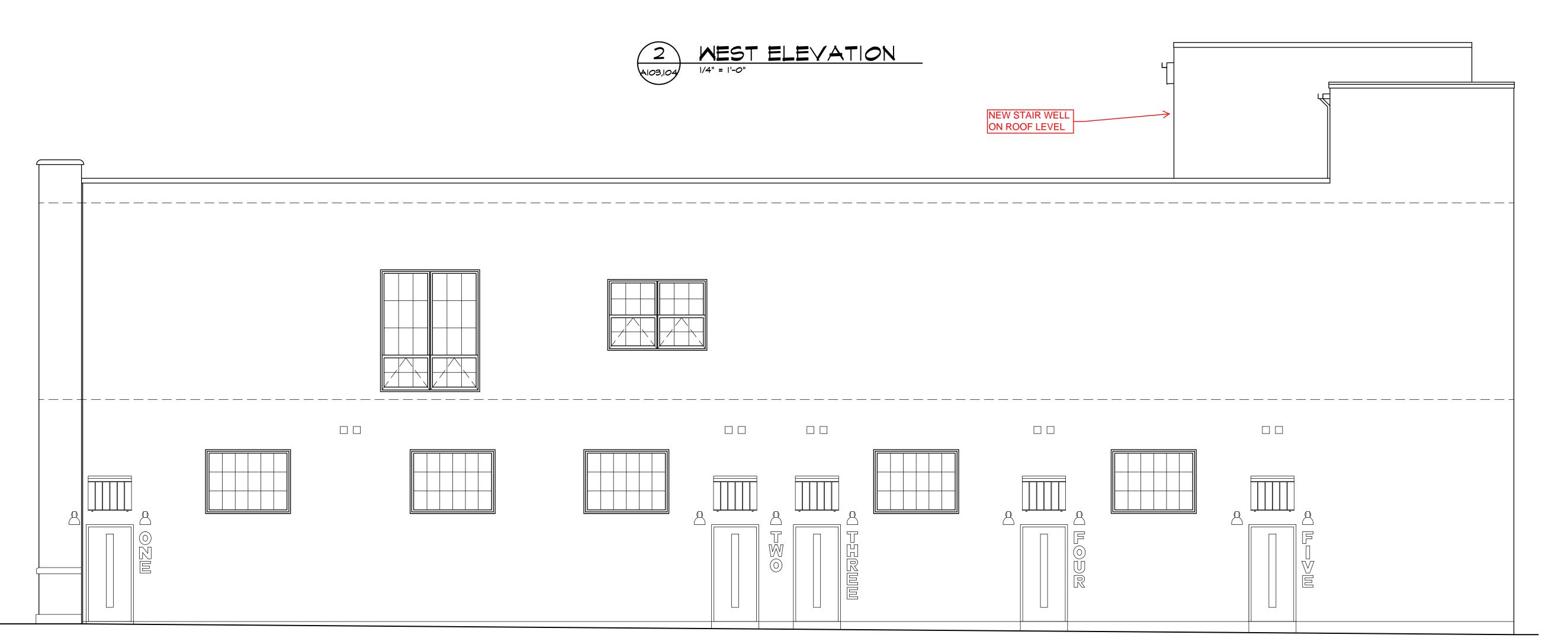
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EXTERIOR ELEVATIONS

Project Number 20-40-159

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Scale 1/4"=1'-0"

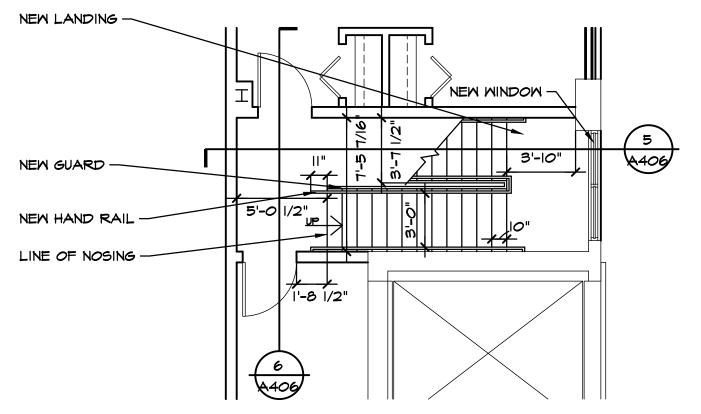
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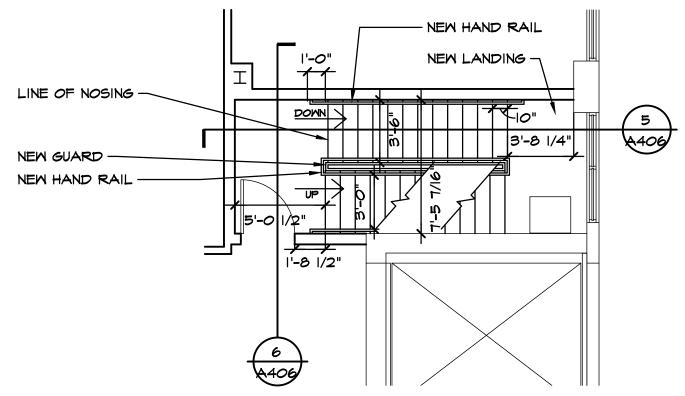
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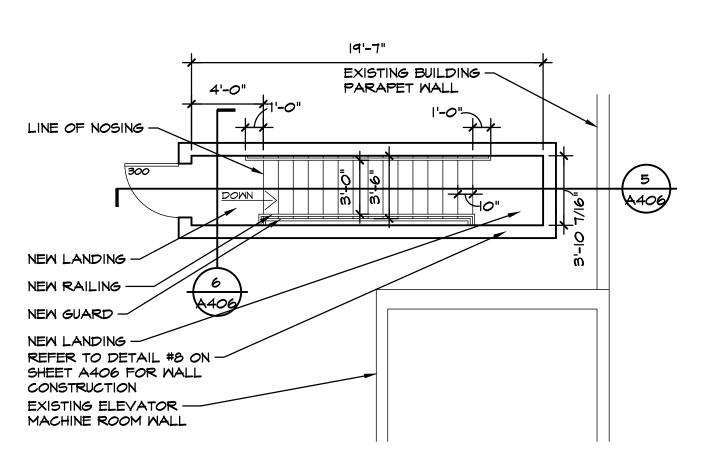
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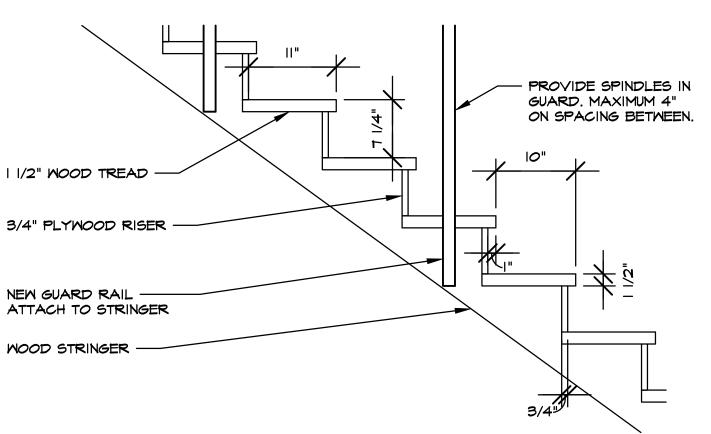
A202

EAST ELEVATION

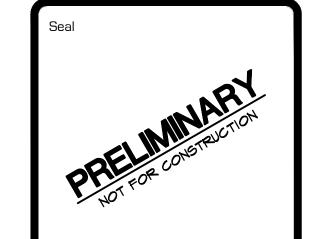








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EERLES, **PROJECT**

Drawing Title STAIR SECTIONS / STAIR PLANS

Project Number 20-40-159

Drawn

ALM Checked DJS Scale

AS NOTED

PEERLESS - CDS

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STAIRS #150 PLAN IST FLOOR

2 STAIRS #150 PLAN 2ND FLOOR

3 STAIRS #150 PLAN ROOF LEVEL AlO4 / 3/16" = 1'-0"

4 TREAD DETAIL-STAIRS #150 IST FLIGHT

NEW METAL COPING

LINE OF NEW ROOFING

MITH WAFER HEAD

NEW NON-CORROSIVE TYPE FASTENER -

NEW 5.2" POLYISO ROOFING INSULATION, -

NEW 5/8" EXTERIOR SHEATHING -

NEW 5/8" EXTERIOR SHEATHING -

NEW 2XI2 WOOD JOIST AT 12" O.C. -

NEW 2X6 WOOD STUDS AT 16" O.C. -

NEW 5/8" EXTERIOR SHEATHING

NEW EZ WALL SUPPORT PANEL -

NEW WATER-RESISTIVE BARRIER

NEW EZ BRICK VENEER

LINE OF TOP OF LANDING,

LINE OF EXISTING PARAPET

(2) NEW LAYERS OF 3/4"

NEW I" RIGID INSULATION, R-5 MIN. -

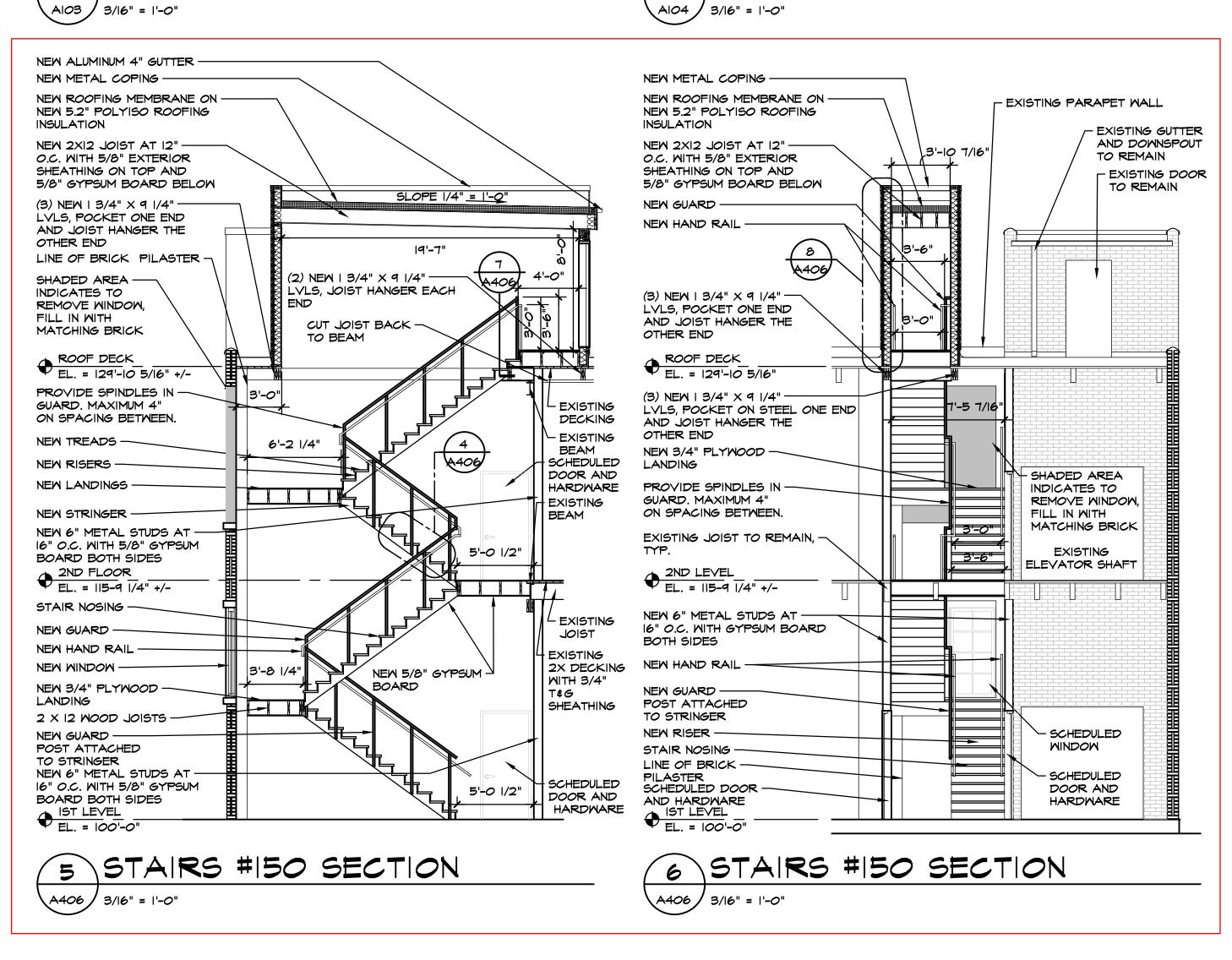
NEW 5/8" INTERIOR GYPSUM BOARD

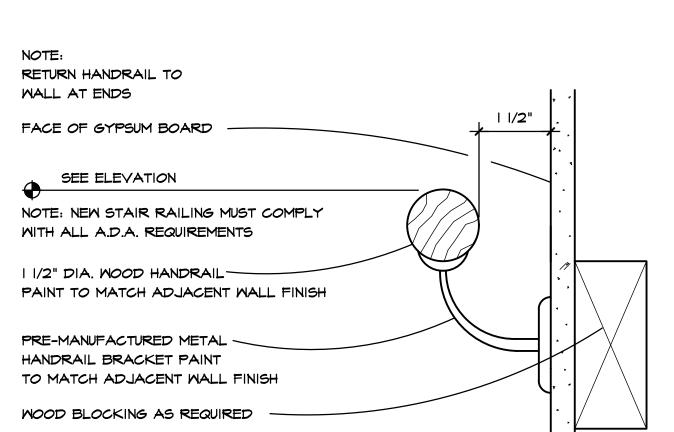
WITH 5 1/2" BATT. INSULATION, R-19 MIN.

MEMBRANE

R-30 MIN.

CEILING





HANDRAIL SECTION A406 6" = 1'-0"

LINE OF NEW ROOFING -NEW 2" POLYISO ROOFING -INSULATION EXISTING ROOFING INSULATION ----LINE OF EXISTING 2X WOOD DECKING S ENLARGED PENTHOUSE A406 | 1/2" = 1'-0" WALL SECTION



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REQUEST 6 - NEW / REPLACEMENT DOORS





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Drawing Title

EXTERIOR ELEVATIONS

Project Number 20-40-159

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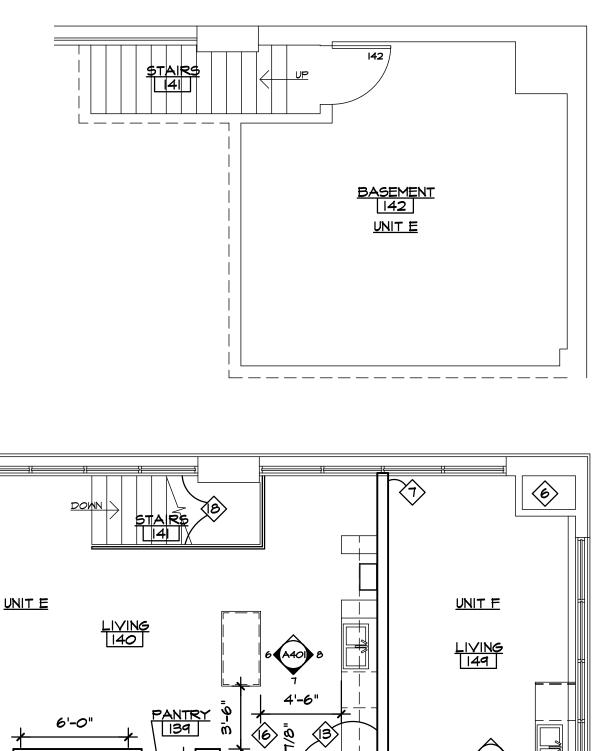
1/4"=1'-0"

PEERLESS - CDS

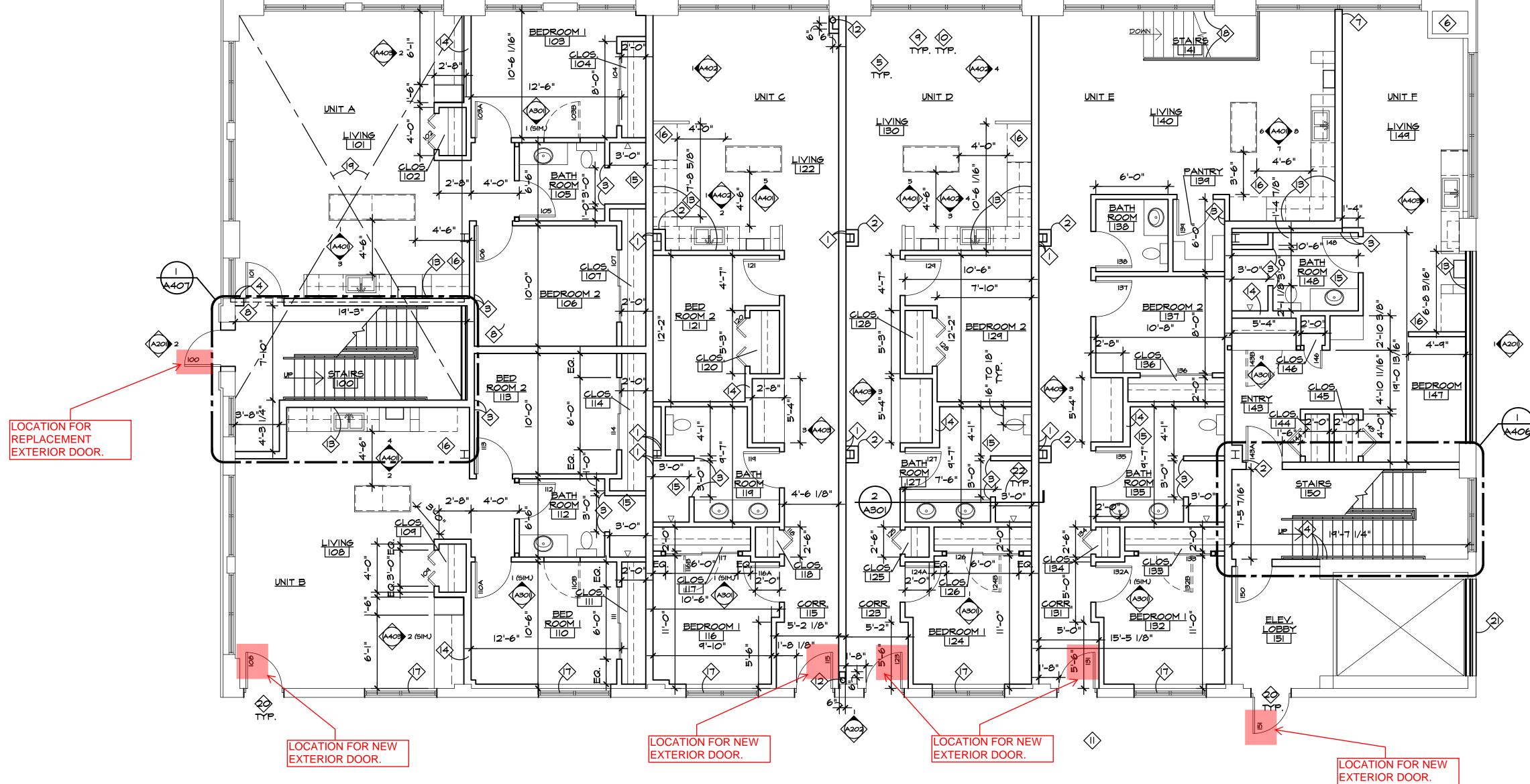
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A201

EAST ELEVATION



RED BOXES INDICATE LOCATIONS FOR NEW / REPLACES DOORS.



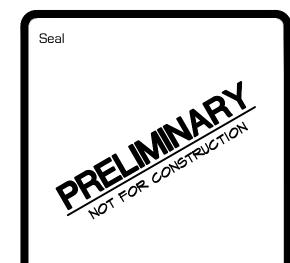


CONSTRUCTION NOTES

- INDICATED NEW WALL TO ALIGN WITH INDICATED COLUMN AS SHOWN.
- PROVIDE ONE (I) LAYER 5/8" TH. GYPSUM BOARD OVER NEW 3 5/8" METAL STUDS AROUND STRUCTURAL COLUMN TO RUN FROM FLOOR TO DECK ABOVE.
- 3 ALIGN SURFACES OF BOTH NEW INDICATED FINISHES.
- 4 ALIGN SURFACE OF NEW FINISH WITH SURFACE OF EXISTING INDICATED FINISH.
- 5 PREPARE ALL NEW WALLS FOR NEW FINISH (TYPICAL THROUGHOUT).
- 6 EXISTING TO REMAIN CHIMNEY.
- CENTERLINE OF WALL TO ALIGN WITH CENTERLINE OF MULLION. SEE DETAIL NO. 4 ON SHEET A501.
- B WARPED/NOTCHED STRUCTURAL MOOD BEAM WAS REMOVED AND DISPOSED OF. PROVIDE NEW TO MATCH EXISTING AS REQUIRED.
- YERIFY LOCATION OF ALL FIRE EXTINGUISHERS WITH OWNER PRIOR TO INSTALLATION TO AVOID FURNITURE CONFLICTS (TYPICAL THROUGHOUT).
- ALL MILLWORK THROUGHOUT WILL BE PROVIDED BY G.C.'S MILLWORKER. REFER TO MILLWORKER'S DRAWINGS FOR DETAILS. ALL MILLWORK IS SHOWN FOR REFERENCE ONLY AND IS NOT EXACT.
- (I) FILL EXISTING PIT AS REQUIRED. SEE CIVIL DRAWINGS.
- NEW ROOF DRAIN. REFER TO PLUMBING DRAWINGS.
- PROVIDE WOOD BLOCKING IN WALL AS REQUIRED FOR UPPER CABINET INSTALLATION.
- INDICATED (THICKER) WALL TO ACCEPT CLOTHES DRYER MECHANICAL VENT. SEE MECHANICAL DRAWINGS.
- PROVIDE WOOD BLOCKING IN WALL AS REQUIRED IN PREPARATION FOR POSSIBLE FUTURE TOILET GRAB BARS AND/OR SHOWER BENCH AND GRAB BARS INSTALLATION.
- PROVIDE 1/4" WATER LINE WITH BACKFLOW PREVENTER FOR REFRIGERATOR. SEE ELEVATION.
- NEW CASEMENT FIXED WINDOW 6'-O" X 3'-II 1/8" TO BE INSTALLED AT 12'-O" TO TOP OF WINDOW.
- PROVIDE I 1/2" DIAMETER METAL HAND RAIL ON EACH SIDE OF STEPS. PAINT FINISH.
- INDICATED 'X' AREA TO RECEIVE APPROXIMATELY 2 1/4" OF CONCRETE INFILL TO LEVEL CONCRETE FLOOR WITH ADJACENT CONCRETE FLOOR.
- PROVIDE NEW STEEL LINTELS OVER NEW EXTERIOR DOORS AS REQUIRED. TYPICAL.
- FILL WALL TO MATCH EXISTING BRICK. SEE WALL CONSTRUCTION LEGEND ON SHEET AIO4.1.
- INDICATED SHOWER DIMENSION SHALL BE 36" HOLD FROM FACE OF TILE TO FACE OF TILE. TYPICAL THROUGHOUT.



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Drawing Title
FIRST FLOOR
FLOOR PLAN

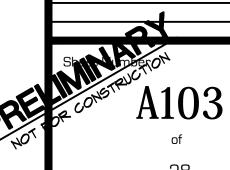
Project Number 20-40-159

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Scale 3/16"=1'-0"

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RED BOXES
INDICATES NEW /
REPLACEMENT
EXTERIOR DOOR.

	DOOR :									
D00R N0.	OPEN. SIZE	DOOR TYPE / FINISH	FRAME TYPE / FINISH	DOOR	FRAME	LATCH	HINGES	CLOSER	DOOR STOP	NOTES
100	3'-0" X 7'-0" (VERIFY IN FIELD)	METAL	METAL	DI	FI	LI	HI	CI	-	N:
101	3'-0" × 7'-0"	METAL	METAL	D5	F3	LI	HI	CI	SI	N:
102	(2) 18" BIFOLD	MOOD	MOOD	D2	-	L2	H2	-	-	<u> </u>
103A	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	-
103B 104	3'-0" X 3'-0" (2) 3' 0" X 7' 0" (6) IDING)	METAL	METAL	D6	F4	L5	H5	-	-	N
105	(2) 3'-0" × 7'-0" (SLIDING) 3'-0" × 7'-0"	MOOD	MOOD	D4 D3	- F2	L4 L3	H4 H3	- -	- SI	-
106	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	<u>-</u>	51	<u>-</u>
107	(2) 3'-0" × 7'-0" (SLIDING)	MOOD	MOOD	D4	-	L4	H4	_	_	
108	3'-0" × 7'-0"	METAL	METAL	ום	FI	LI	HI	CI	SI	N
109	(2) 18" BIFOLD	MOOD	MOOD	D2	-	L2	H2	-	-	_
110	3'-0" × 7'-0"	MOOD	WOOD	DЗ	F2	L3	НЗ	<u>-</u>	SI	_
IIOB	3'-0" × 3'-0"	METAL	METAL	D6	F4	L5	H5	-	-	N
	(2) 3'-0" X 7'-0" (SLIDING)	MOOD	MOOD	D4	-	L4	H4	-	-	<u> </u>
112	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	<u> </u>
II3	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	-
114	(2) 3'-0" × 7'-0" (SLIDING) 3'-0" × 7'-0"	MOOD	MOOD	D4	-	L4	H4	-	-	_
115	2 1 - 11 - 12 - 11	METAL	METAL	DI	FI	LI L3	Н	CI	SI	N
6 6B	3'-0"	METAL	METAL	D3 D6	F2 F4	L5 L5	H3 H5	- -	51	- N
117	(2) 3'-0" X 7'-0" (SLIDING)	METAL	METAL	D6 D4	-	L5 L4	H4	<u>-</u>	-	IN
<u> </u>	(1) 24" BIFOLD	MOOD	MOOD	D2	-	L2	H2	- -	-	<u> </u>
110 119	3'-0" X 7'-0"	MOOD	MOOD	D3	- F2	L3	H3	<u>-</u>	- 51	-
120	(2) 24" BIFOLD	MOOD	MOOD	D2	-	L2	H2	-	-	
121	3'-0" × 7'-0"	MOOD	MOOD	DЗ	F2	L3	НЗ	-	SI	
123	3'-0" × 7'-0"	METAL	METAL	DI	FI	LI	HI	CI	SI	N
124A	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	_
124B	3'-0" X 3'-0"	METAL	METAL	D6	F4	L5	H5	-	-	N
125	(I) 24" BIFOLD	MOOD	MOOD	D2	-	L2	H2	-	_	
126	(2) 3'-0" × 7'-0" (SLIDING)	MOOD	MOOD	D4	-	L4	H4	-	_	
127	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	
128	(2) 24" BIFOLD	MOOD	MOOD	D2	-	L2	H2	-	-	<u> </u>
129	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	-
131	3'-0" × 7'-0"	METAL	METAL	DI	FI	LI	HI	CI	SI	N
1204	21 011 × 71 011	MOOD	MOOD	52		1.0	-10			
132A	3'-0" × 7'-0" 3'-0" × 3'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	<u>-</u>
132B 133	(2) 3'-0" X 7'-0" (SLIDING)	METAL MOOD	METAL	D6	F4	L5 L4	H5 H4	-	-	N
134	(1) 24" BIFOLD	MOOD	MOOD	D4 D2	-	L2	H2	-	-	<u> </u>
135	3'-0" X 7'-0"	MOOD	MOOD	D3	F2	L3	H3	•	SI	<u> </u>
136	(2) 3'-0" × 7'-0" (SLIDING)	MOOD	MOOD	D4	-	L4	H4	-	<u>-</u>	<u> </u>
137	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	<u> </u>
138	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3		SI	_
139	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	_	SI	_
142	3'-0" X 7'-0" (VERIFY IN FIELD)	MOOD	MOOD	D3	F2		H3	_	SI	_
143A	3'-0" × 7'-0"	METAL	METAL	D5	F3		<u> </u>	U C I	SI	N
143B	3'-0" × 3'-0"	METAL	METAL	D6	F4	L5	H5	-	-	N.
144	(I) 36" BIFOLD	MOOD	MOOD	D3	F2	L3	H3	-	SI	<u> </u>
145	(I) 36" BIFOLD	MOOD	MOOD	D3	F2	LD :	: E	-	SI	<u> </u>
146 148	3'-0" X 7'-0"	MOOD	MOOD	D3	F2	L3	E E	<u>-</u>	SI	-
148 150	3'-0" × 7'-0" 3'-0" × 7'-0"	METAL	METAL	D3	F2 F3	L3 LI	_ =	- C.I	SI SI	<u> </u>
150	3'-0" X 7'-0" 3'-0" X 7'-0"	METAL	METAL	D5 DI	FI	LI	 	\overline{Q}	51	N
					1 1	-1	- 11			18
200	3'-0" × 7'-0"	METAL	METAL	D5	F3	LI	HI	CI	SI	N
201	3'-0" × 7'-0"	MOOD	MOOD	DЗ	F2	L3	H3	-	SI	_
202	GLASS SLIDING DOOR SYSTEM	MOOD	MOOD	דס	דס	דס	דס	-	דס	_
205	(2) 36" BIFOLD	MOOD	MOOD	D2	ı	L2	H2	1	_	_
206	3'-0" × 7'-0"	METAL	METAL	D5	F3	LI	HI	CI	SI	N
207	3'-0" X 7'-0" SLIDING BARN DOOR	MOOD	MOOD	D3	-	L2	H4	CI	SI	N
208	3'-0" × 7'-0"	MOOD	MOOD	DЗ	F2	L3	Ħ	•	SI	
209	(2) 4'-0" X 7'-0" (SLIDING)	MOOD	MOOD	D4	•	L4	H4	•	-	
210	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	⊕ 9	•	SI	_
211	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	-	SI	<u> </u>
2 2	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H	•	SI	<u> </u>
	3'-0" X 7'-0" (SLIDING)	GLASS	-	D8	-	L7		-	_	_
	3'-0" × 7'-0"	MOOD	MOOD	D3	F2	L3	H3	•	SI	_
217			MOOD	D3	F2	L3	Ð	-	SI	<u> </u>
217	3'-0" × 7'-0"	MOOD							•	
217 218 219	(2) 24" BIFOLD	MOOD	MOOD	D2	-	L2	H2	-	-	_
216 217 218 219 220	(2) 24" BIFOLD 3'-0" X 7'-0"	MOOD MOOD	MOOD MOOD	DЗ	- F2	L3	H3	-	- SI	-
217 218 219 220 221	(2) 24" BIFOLD 3'-0" X 7'-0" 3'-0" X 7'-0"	MOOD MOOD	MOOD MOOD MOOD	D3	F2	L3 L3	# # #		SI	- - -
217 218 219 220	(2) 24" BIFOLD 3'-0" X 7'-0"	MOOD MOOD	MOOD MOOD	DЗ		L3	H3	-		- - -

DOOR LEGEND

SENERAL NOTE

- GI. ALL DOOR SIZE DIMENSIONS GIVEN ARE APPROXIMATE. DOOR SUPPLIER SHALL FIELD VERIFY EXACT REQUIREMENTS.
- EXISTING

 EI. EXISTING TO REMAIN.

DOORS

- DI. NEW INSULATED STEEL DOOR WITH 6" X 62" FROSTED LITE WITH INSULATED GLASS BY 'STEELCRAFT' OR EQUAL.
- D2. NEW SOLID CORE WOOD BI-FOLD DOOR. PAINT P-I.
- D3. NEW SOLID CORE, I 3/4" WOOD DOOR. PAINT P-I.
- D4. NEW SOLID CORE WOOD SLIDING DOOR, PAINT P-I.
- D5. NEW FLUSH STEEL DOOR BY 'STEELCRAFT' OR EQUAL. WITH PRIME FINISH AND I-HOUR RATING. FINISH T.B.D.
- D6. NEW 3'-O" X 3'-O" LOCKABLE METAL ACCESS DOOR IN GYPSUM BOARD ABOVE TO ACCESS MECHANICAL EQUIPMENT ABOVE BATHROOM AS REQUIRED. PAINT TO MATCH ADJACENT WALL FINISH. REFER TO ELEVATION. FINISH T.B.D.
- D7. NEW 'MARVIN' ULTIMATE MULTI SLIDE DOOR SYSTEM CONTAINING SIX (6) CUSTOM SIZED 1/4" CLEAR TEMPERED GLASS FRAMED DOORS, COLOR T.B.D. WITH PULLS AND NO LOCK.
- D8. NEW WOOD SLIDING GLASS DOOR WITH FULL LITE IN DOOR. FINISH

FRAMES

- FI. HOLLOW METAL FRAME WITH 2" FACE EDGE GROUTED SOLID WITH PRIME FINISH.
- F2. NEW WOOD FRAME AND WOOD CASING. PAINT P-2.
- F3. NEW HOLLOW METAL FRAME. PRIME FINISH. PROVIDE I-HOUR RATING.
- F4. NEW 3'-0" X 3'-0" LOCKABLE METAL ACCESS DOOR IN GYPSUM BOARD ABOVE TO ACCESS MECHANICAL EQUIPMENT ABOVE BATHROOM AS REQUIRED. PAINT TO MATCH ADJACENT WALL FINISH. REFER TO ELEVATION.

LATCHSET/LOCKSET

- LI. NEW MORTISE LOCKSET WITH LEVER HANDLE, AND INTERCHANGEABLE CORE.
- L2. NEW 4" WIRE PULL. FINISH T.B.D.
- L3. NEW LEVER PRIVACY LOCK SET.
- L4. NEW METAL RECESSED FINGER DOOR PULL. FINISH T.B.D.
- L5. NEW 3'-0" X 3'-0" LOCKABLE METAL ACCESS DOOR IN GYPSUM BOARD ABOVE TO ACCESS MECHANICAL EQUIPMENT ABOVE BATHROOM AS REQUIRED. PAINT TO MATCH ADJACENT WALL FINISH. REFER TO
- L6. NEW PASSAGE LEVER SET.

ELEVATION.

LT. NEW DOOR PULL TO BE SELECTED BY OWNER.

<u>HINGES</u>

- HI. NEW I 1/2 PAIR OF BALL BEARING HINGES WITH NON-REMOVABLE PINS.
- H2. MANUFACTURER'S RECOMMENDED HEAVY DUTY BI-FOLD HARDWARE.
- H3. NEW | 1/2 PAIR BALL BEARING HINGES. FINISH T.B.D.
- H4. NEW MANUFACTURER'S RECOMMENDED HEAVY DUTY SLIDING DOOR HARDWARE.
- H5. NEW 3'-O" X 3'-O" LOCKABLE METAL ACCESS DOOR IN GYPSUM BOARD ABOVE TO ACCESS MECHANICAL EQUIPMENT ABOVE BATHROOM AS REQUIRED. PAINT TO MATCH ADJACENT WALL FINISH. REFER TO ELEVATION.

<u>CLOSERS</u>

CI. NEW CLOSER BY 'LCN' OR EQUAL. FINISH T.B.D.

DOOR STOP

- SI. NEW WALL STOP BY 'ROCKWOOD' OR EQUAL. FINISH T.B.D.
- 52. NEW FLOOR STOP BY 'ROCKWOOD' OR EQUAL. FINISH T.B.D.

<u>NOTES</u>

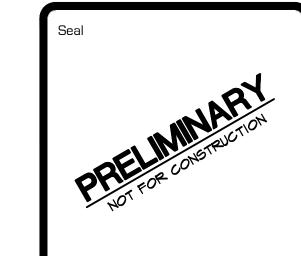
- NI. PAINT DOOR AND FRAME P-3 ON TENANT SIDE ONLY. STAIRWAY SIDE TO REMAIN.
- N2. NEW 3'-0" X 3'-0" LOCKABLE METAL ACCESS DOOR TO ACCESS MECHANICAL EQUIPMENT ABOVE BATHROOM AS REQUIRED. PAINT TO MATCH ADJACENT WALL FINISH. REFER TO ELEVATION.
- N3. NEW 1/2" CLEAR TEMPERED BUTT GLASS SYSTEM IN 1" CHANNEL AT THE FLOOR AND HEAD. FINISH US26D.
- N4. PAINT DOOR AND FRAME ON BOTH SIDES P-3.

N5. NEW DOOR PEEP AT 54" A.F.F. FINISH T.B.D.

- N6. NEW THRESHOLD AND WEATHER STRIPPING.
- NT. PAINT DOOR CHALKBOARD PAINT.



7300 DIXIE HWY. #600 CLARKSTON, MI 48346 PHONE 248.605.2030 FAX 248.605.2030 WEB DSARCHITECTS.COM



PROJECT PEERLES

Drawing Title

DOOR SCHEDULE

Project Number
20-40-159

Drawn
ALM
Checked
DJS

Scale
N/A

Dwg.
PEERLESS - CDS

Issued for Date By
DESIGN DEVELOPMT. 5-28-21 DJS
OWNER REVIEW 8-20-21 DJS

Shirt Took FROM A60



PROJECT PEERLESS

REQUEST 7 - SIGN INSTALLATION / REPLACEMENT



SIGNAGE

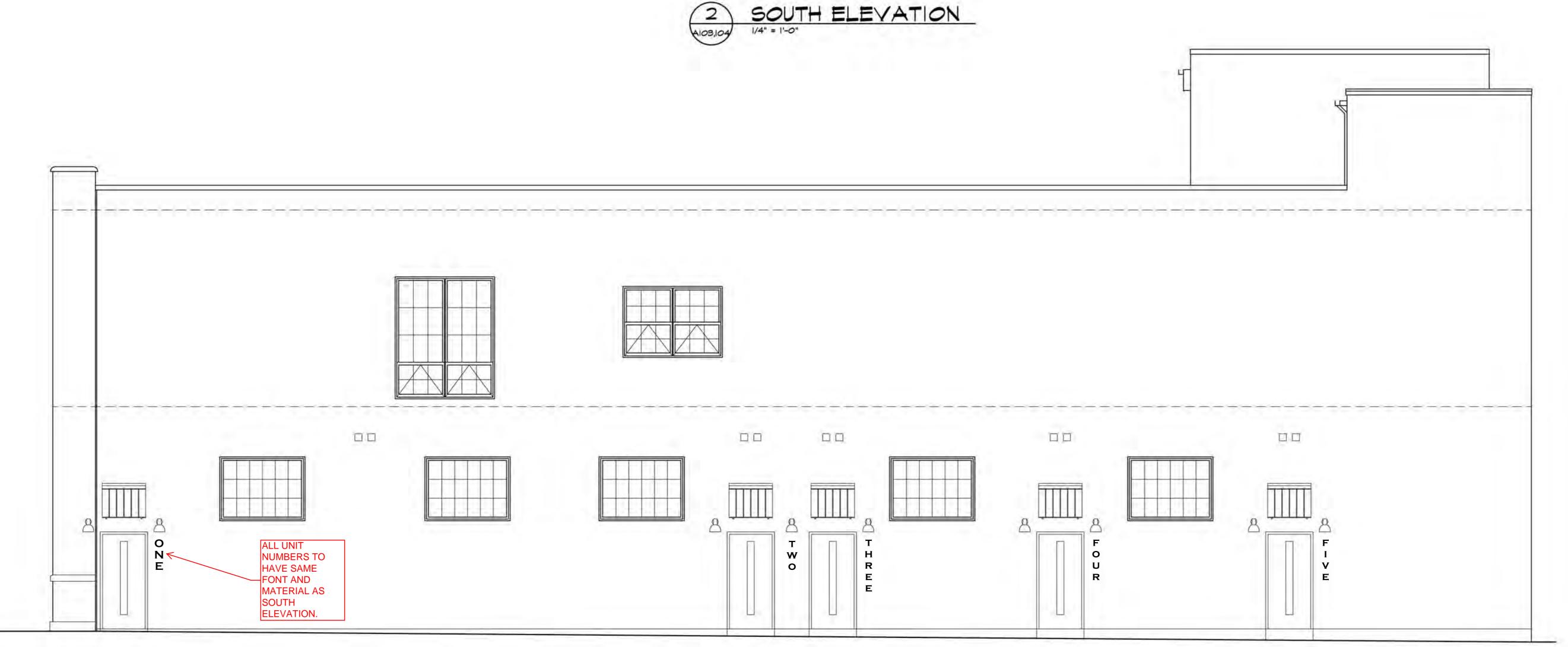
FONT TO MATCH EXISTING 'PEERLESS WEIGHING MACHINE COMPANY' FONT





PEERLESS SCALE







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PROJECT PEERLESS

Drawing Title

EXTERIOR ELEVATIONS

Project Number **20-40-159**

Drawn ALM
Checked DJS

Scale 1/4"=1'-0"

Sheet Number
A201

EAST ELEVATION



AWNING SPECIFICATION



Awntech H23-3K, Standing Seam 3-11/16'W x 2'H x 3'D Awning Black

Item #: T9FB1983793 Not Yet Rated

Enter zip code for delivery date estimate





Product Information

Photo/Video Gallery Customer Review Product Q&A Accessories

Awntech H23-3K, Standing Seam 3-11/16'W x 2'H x 3'D Awning Black

The Houstonain metal standing seam awning is a Beauty-Mark Brand by Awntech. It is one of our most popular awnings. It adds loads of curb appeal. Although easy to assemble and install, the Houstonain has been engineered and lested to withstand serious wind and snow loads. Testing included extreme wind tunnel up/down draft, obstacle and weight positioning. All Beauty-Mark fixed awnings are easy to install. The frame is manufactured with powder coated structural aluminum and stainless steel hardware. Awnings have the ability to transform a drab exterior on any building. You will surely enjoy years of reliable service and energy savings from the Houstonain.

- Features:

 Heavy duty modular metal standing seam awning

 Commercial application

 Steal and aluminum, powder coated, easy to assemble and install

 Rust, fade and mildew resistant

 5 Year limited warranty

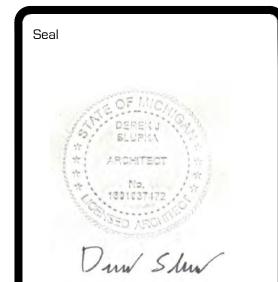
Must, I	due dil	u millue
5 Year	limited	warran

COLOR	Black	
FRAME COLOR	Black	
BRAND	Awntech	
CONSTRUCTION	A/uminum/Steel	
LIMITED WARRANTY	1-Year Limited	
MANUFACTURERS PART NUMBER	H23-3K	
SERIES	Houstonian	
ТҮРЕ	Window/Entry Fixed Metal Awning	
WEIGHT LBS	50	
ASSEMBLED WIDTH INCHES	44	
ASSEMBLED HEIGHT INCHES	24	
ASSEMBLED DEPTH INCHES	36	
MINIMIM MOUNTING HEIGHT INCHES	84	
MOUNTING SPACE REQUIRED INCHES	10	
PROJECTION FROM WALL INCHES	38	





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PROJECT PEERLESS

Drawing Title

EXTERIOR ELEVATIONS

Project Number 20-40-159

Checked DJS

1/4"=1'-0"

Issued for Date By
DESIGN DEVELOPMT. 5-28-21 DJS
OWNER REVIEW 8-20-21 DJS

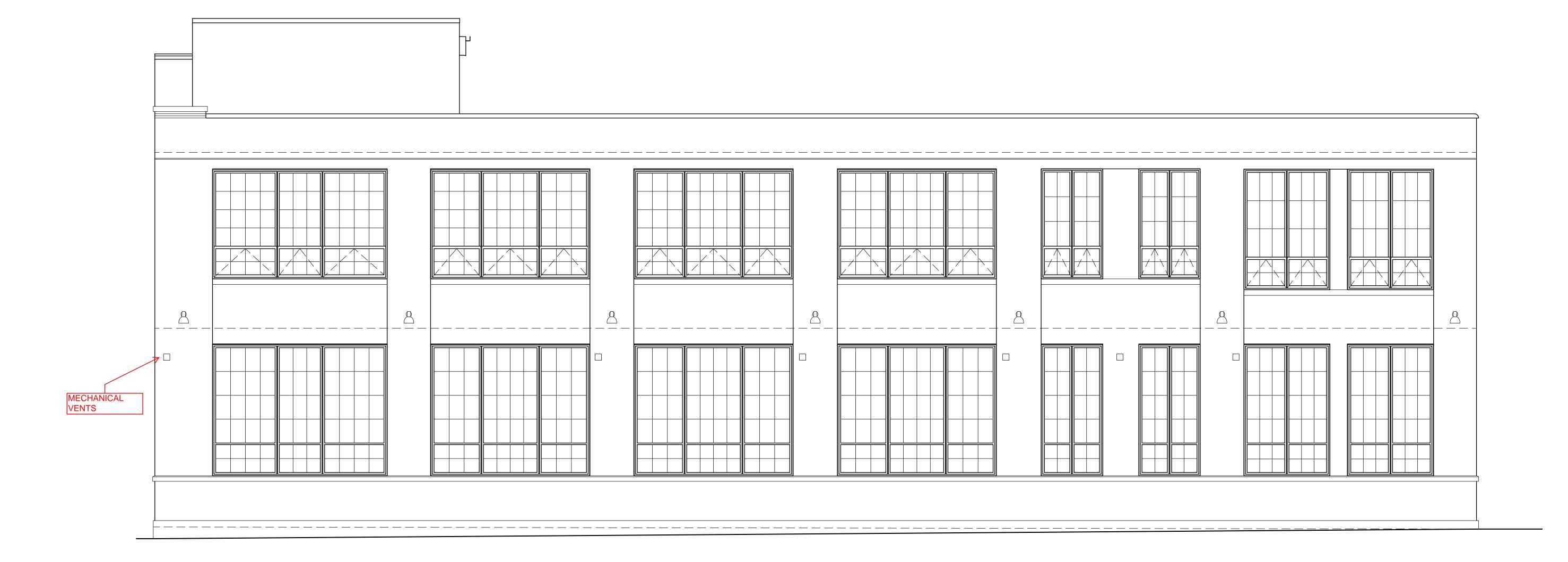
PEERLESS - CDS

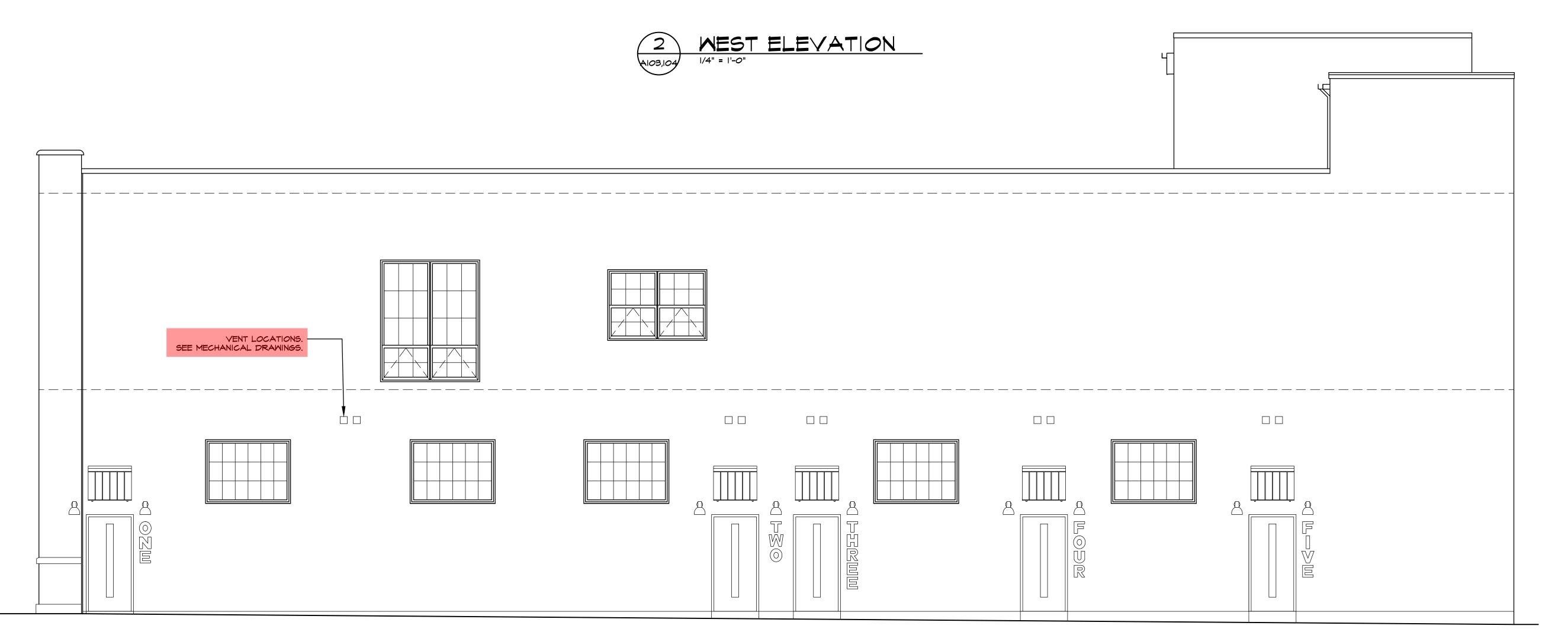
A201



PROJECT PEERLESS

REQUEST 8 - MECHANICAL VENTS







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PROJECT PEERLESS

Drawing Title

EXTERIOR ELEVATIONS

Project Number 20-40-159

Checked DJS

Scale 1/4"=1'-0"

Issued for Date By
DESIGN DEVELOPMT. 5-28-21 DJS
OWNER REVIEW 8-20-21 DJS
PERMIT 10-13-21 DJS

PEERLESS - CDS

Sheet Number A202of

EAST ELEVATION

A103,104

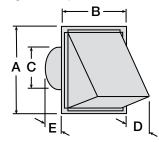
1/4" = 1'-0"

Discharge Accessories



Model WC - Hooded Wall Cap (Round Connection)

- Aluminum construction aluminum finish
- For outside wall applications
- Built-in birdscreen (not available on WC-4) and damper
- Powder coating color options selectable

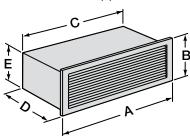


Model	Recommended Sizes	Α	В	С	D	Е
WC-4	C50, L50, L80	6½ (165)	6 (152)	4 (101)	4 (101)	5 (127)
WC-6	B50-B200, 80, 80L A50-A190, 110, 100L	8 (203)	8 (203)	6 (152)	4½ (105)	5 (127)
WC-8	A200-A510	11 (279)	11 <i>(</i> 279)	8 (203)	5½ (130)	3½ (89)

All dimensions shown in inches (millimeters).

Model WL - Wall Louvered Discharge

- Anodized aluminum grille
- Built-in damper
- Not recommended for exterior applications exposed to severe weather conditions. An external wall louver is recommended for such applications.



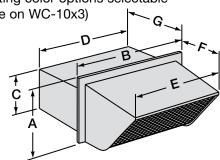
Model	Recommended Sizes	Α	В	С	D	E
WL-10x3	50-290	12 <i>(</i> 305)	5½ (133)	10 (254)	7¾ (197)	3½ (89)
WL-18x6	390-1550	19¾ (502)	8 (203)	18 <i>(457)</i>	9 (229)	6 (152)

All dimensions shown in inches (millimeters).

Model WC - Hooded Wall Cap (Square or Rectangular Connections)

- Steel construction with black enamel finish
- For outside wall applications
- Built-in birdscreen and damper

 Powder coating color options selectable (not available on WC-10x3)

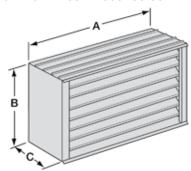


Model	Recommended Sizes	Α	В	С	D	E	F	G
WC-10x3	50-290	5½ (140)	12¾ (324)	3½ (89)	10½ (260)	11½ (283)	4½ (108)	5 (127)
WC-8x8	200-510	10¼ (260)	10½ (260)	8½ (210)	8½ (210)	8½ (210)	6¾ (171)	5 (127)
WC-18x8	700-1550	10½ (260)	20½ (514)	8½ (210)	18½ (464)	18½ (464)	6¾ (171)	5 (127)

All dimensions shown in inches (millimeters).

Model BVE - Brick Vent

- · Designed for installation in masonry walls
- Anodized aluminum construction
- Built-in aluminum mesh insect screen



Model	Recommended Sizes	Α	В	С
BVE808	50-290	81/ ₈ (206)	7¾ (197)	4 (102)
BVE128	390-510	12 (305)	7¾ (197)	4 (102)
BVE157	700-1050	15¾ <i>(</i> 397)	7¾ (197)	4 (102)

All dimensions shown in inches (millimeters).



CONCENTRIC VENT TERMINAL KIT



CONCENTRIC VENT TERMINATION KITS

KGAVT0701CVT KGAVT0801CVT

Installation Instructions



NOTE: Read the entire instruction manual before starting the installation. Keep these instructions with the furnace.

SPECIAL VENTING REQUIREMENTS FOR INSTALLATIONS IN CANADA

Installation in Canada must conform to the requirements of CSA B149 code. Vent systems **must** be composed of pipe, fittings, cements, and primers listed to ULC S636. The special vent fittings and accessory concentric vent termination kits and accessory external drain trap have been certified to ULC S636 for use with those Royal Pipe and IPEX PVC vent components which have been certified to this standard. In Canada, the primer and cement must be of the same manufacturer as the vent system - GVS-65 Primer (Purple) for Royal Pipe or IPEX System 636, PVC/CPVC Primer, Purple Violet for Flue Gas Venting and GVS-65 PVC Solvent Cement for Royal Pipe or IPEX System 636(1)t, PVC Cement for Flue Gas Venting, rated Class IIA, 65 deg C. must be used with this venting system - do not mix primers and cements from one manufacturer with a vent system from a different manufacturer. Follow the manufacturer's instructions in the use of primer and cement and never use primer or cement beyond its expiration date.

The safe operation, as defined by ULC S636, of the vent system is based on following these installation instructions, the vent system manufacturer's installation instructions, and proper use of primer and cement. All fire stop and roof flashing used with this system must be UL listed material. Acceptability under Canadian standard CSA B149 is dependent upon full compliance with all installation instructions. Under this standard, it is recommended that the vent system be checked once a year by qualified service personnel.

The authority having jurisdiction (gas inspection authority, municipal building department, fire department, etc) should be consulted before installation to determine the need to obtain a permit.

*IPEX System 636™ is a trademark of IPEX Inc.

CONSIGNES SPÉCIALES POUR L'IN-STALLATION DE VENTILLATION AU CANADA

L'installation faite au Canada doit se conformer aux exigences du code CSA B149. Ce systême de ventillation doit se composer de tuyaux, raccords, ciments et apprêts conformes au ULC S636. La tuyauterie de ventillation des gaz, ses accessoires, le terminal concentrique mural ainsi que l'ensemble du drain de condensat extérieur ont été certifiés ULCS 636 pour l'application des composantes Royal Pipe, IPEX PVC qui sont certifiées à ce standard. Au Canada, l'apprêt et le ciment doivent être du même fabricant que le système d'évacuation. L'apprêt GVS-65 (Purple) et le ciment-solvant GVS-65 doivent être utilisé avec les Royal Pipe. Système IPEX 636, apprêt PVC/CPVC, Purple pour évacuation des gaz de combustion et système IPEX 636(1)t, ciment PVC pour évacuation des gaz de combustion, coté classe IIA, 65 deg C. doivent être utilisés avec le système d'évacuation IPEX 636 - Ne pas combiner l'apprêt et le ciment d'un manufacturier avec un système d'évacuation d'un manufacturier différent.

Bien suivre les indications du manufacturier lors de l'utilisation de l'apprêt et du ciment et ne pas utiliser ceux-ci si la date d'expiration est atteinte.

L'opération sécuritaire, tel que définit par ULC S636, du système de ventilation est basé sur les instructions d'installation suivantes, ainsi que l'usage approprié de l'apprêt et ciment. Tout arrêt feu et solin de toit utilisés avec ce système doivent être des matériaux listés UL. L'acceptation du standard Canadien CSA B419 est directement relié à l'installation conforme aux instructions cihaut mentionnées. Le standard Canadien recommande l'inspection par un personel qualifié et ce, une fois par année.

Les autoritées ayant juridiction (inspecteurs de gas, inspecteurs en bâtiments, département des incendies, etc) devraient être consultées avant l'installation afin de déterminer si un permis est requis.

SAFETY CONSIDERATIONS

Installing and servicing heating equipment can be hazardous due to gas and electrical components. Only trained and qualified personnel should install, repair, or service heating equipment.

Untrained personnel can perform basic maintenance functions such as cleaning and replacing air filters. All other operations must be performed by trained service personnel. When working on heating equipment, observe precautions in the literature, on tags, and on labels attached to or shipped with the unit, and other safety precautions that may apply.

Follow all safety codes. In the United States, follow all safety codes including the National Fuel Gas Code (NFGC) NFPA 54/ANSI Z223.1-2006. In Canada, refer to the National Standard of Canada, Natural Gas and Propane Installation Codes (NSCNGPIC), CAN/CGA-B149.1 and .2.

Wear safety glasses and work gloves. Have a fire extinguisher available during start-up, adjustment procedures, and service calls.

Recognize safety information. This is the safety-alert symbol \(\Delta \). When you see this symbol on the furnace and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION, and NOTE. The words DANGER, WARNING, and CAUTION are used with the safety-alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies hazards which could result in personal injury or death. CAUTION is used to identify unsafe practices which would result in minor personal injury, or product and property damage. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

A WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before beginning any installation, be sure the main electrical disconnect switch is in the OFF position and a lockout tag is installed.

INTRODUCTION

This instruction covers installation of the concentric vent termination kits Part No. KGAVT0701CVT (2 in. / 51 mm) and KGAVT0801CVT (3 in. / 76 mm) on all gas-fired condensing furnaces. Use vent and termination kit combinations as stated in the furnace Installation and Start-Up Literature.

NOTE: If these instructions differ from those packaged with the furnace, follow these instructions.

DESCRIPTION AND USAGE

Two concentric combustion-air and vent pipe termination kits are available. The 2-in. (51 mm) kit Part No. KGAVT0701CVT can be used for 1-, 1-1/2, 2-, or 2-1/2 in. (25-, 38-, 51-, or 64 mm) diameter pipe systems. The 3-in. (76 mm) kit Part No. KGAVT0801CVT is for 2-1/2 or 3-in. (64 or 76 mm) diameter pipe systems. (See Fig. 3 and 6 for different applications.) Both combustion-air and vent pipes must attach to the termination kit. The termination kit must terminate outside the structure and must be installed as in one of the installations shown in Fig. 3, 6, 8, or 9. Roof termination is preferred since it is less susceptible to damage, reduces the chance of intaking contaminants, and has less visible vent vapors.

A WARNING

UNIT DAMAGE AND PROPERTY DAMAGE HAZARD

Failure to follow this warning could result in unit damage, property damage, personal injury or death.

These kits are to be used only for terminating condensing Category IV vent furnaces. DO NOT use kits to terminate Category I, II, or III vent furnaces.

Field-supplied pipe and fittings are required to complete the installation.

In the USA, combustion-air and vent pipe fittings must conform to American National Standards Institute (ANSI) and American Society for Testing and Materials (ASTM) standards D1785 (schedule-40 PVC), D2665 (PVC-DWV), D2441 (SDR-21 and SDR-26 PVC), D2661 (ABS-DWV), or F628 (schedule-40 ABS). Pipe cement and primer must conform to ASTM standards D2564 (PVC) or D2235 (ABS). See section for Special Venting Requirements for Installations in Canada for pipe, fittings, cement, and primer material requirements for Canadian installations.

INSTALLATION

Step 1 — ROOF TERMINATION

- Determine pipe diameter from tables in furnace Installation and Start-Up Instructions.
- 2. Determine appropriate concentric vent termination kit for pipe diameter selected. See Description and Usage section.
- 3. Determine best location for termination kit.

NOTE: Roof termination is preferred since it is less susceptible to damage, reduces the chance of intaking contaminants, and has less visible vent vapors.

- Cut 1 hole (4-in. / 102 mm dia.) for KGAVT0701CVT (2-in. / 51 mm) kit, or 1 hole (5-in. / 127 mm dia.) for KGAVT0801CVT (3-in. / 76 mm) kit.
 - a. Plastic venting systems shall not pass through rated fire separations.
- Partially assemble concentric vent termination kit. Clean and cement using procedures found in furnace Installation and Start-Up Instructions.
 - b. Cement Y concentric fitting to larger diameter kit pipe. (See Fig. 1.)
 - c. Cement rain cap to smaller diameter kit pipe. (See Fig.

NOTE: Instead of cementing the smaller pipe to the rain cap, a field-supplied stainless steel screw may be used to secure the 2 components together when field disassembly is desired for cleaning. (See Fig. 4.)

A WARNING

CARBON MONOXIDE POISONING HAZARD

Failure to follow this warning could result in personal injury or death.

When using alternate screw assembly method, drill clearance hole in rain cap and pilot hole in vent pipe for screw size being used. Failure to drill adequate holes may cause cracking of PVC components, allowing combustion products to be recirculated.

A WARNING

CARBON MONOXIDE POISONING HAZARD

Failure to follow this warning could result in personal injury or death.

Do not operate the furnace with rain cap removed or recirculation of combustion products may occur. Water may also collect inside larger combustion-air pipe and flow to the burner enclosure.

6. Install Y concentric fitting pipe assembly through structure's hole and field-supplied roof boot/flashing.

Do not allow insulation or other materials to accumulate inside pipe assembly when installing through hole.

Secure assembly to roof structure as shown in Fig. 5 using field-supplied metal strapping or equivalent support material.

NOTE: Ensure termination height is above the roof surface or anticipated snow level (1 ft. (0.3 M) in USA. or 1-1/2 ft. (0.32 M) in Canada) as shown in Fig. 3.

NOTE: In the USA, if assembly is too short to meet height requirement, the 2 pipes supplied in the kit may be replaced by using same diameter, field-supplied SDR-26 PVC (D2241) pipe. Do not extend dimension D more than 60 in. (1524 mm)(See Fig. 2.)

A CAUTION

UNIT MAY NOT OPERATE HAZARD

Failure to follow this caution may result in intermittent unit operation.

DO NOT use field-supplied couplings to extend pipes. Airflow restriction will occur and the furnace pressure switch may cause intermittent operation.

 Install rain cap and small diameter pipe assembly in roof penetration assembly. Ensure small diameter pipe is cemented and bottomed in Y concentric fitting.

- Cement furnace combustion-air and vent pipes to concentric vent termination assembly. See Fig. 5 for proper pipe attachment.
- Operate furnace through 1 heat cycle to ensure combustion-air and vent pipes are properly connected to concentric vent termination connections.

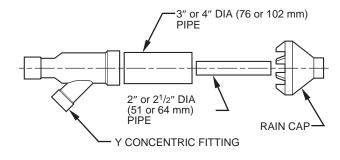
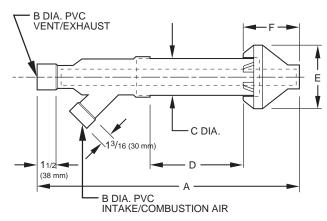


Fig. 1 - Kit Components

A08481



A08482A

Fig. 2 - Concentric Vent Dimensional Drawing

Table 1 - Kit Contents

DESCRIPTION	KIT PART NO. AND QUANTITY				
DESCRIPTION	KGAVT0701CVT	KGAVT0801CVT			
2-In. (51 mm) Rain Cap	1	_			
3-In. (76 mm) Rain Cap	_	1			
2-In. (51 mm) Dia. Pipe 31-5/8 in. (16 mm) long	1	_			
3-In. (51 mm) Dia. Pipe 19-1/2 in. (495 mm) long	1	_			
2-1/2 In. (64 mm) Dia. Pipe 37-1/8 in. (943 mm) long	_	1			
4-In. (102 mm) Dia. Pipe 24 in. (610 mm) long	_	1			
2-In. (51 mm) Y Concentric Fitting	1	_			
3-In. (76 mm) Y Concentric Fitting	-	1			
Installation Instructions	1	1			

Table 2 – Dimensions - In. (mm)

KIT PART NO.	A*	В	С	D	Е	F
KGAVT0701CVT	33-3/8 (848)	2 (51)	3-1/2 (89)	16-5/8 (422)	6-1/4 (159)	5-3/4 (146)
KGAVT0801CVT	38-7/8 (987)	3 (76)	4-1/2 (114)	21-1/8 (537)	7-3/8 (187)	6-1/2 (165)

^{*}Dimension A will change accordingly as dimension D is lengthened or shortened.

In the USA, Dimension D may be lengthened to 60 in. (1524 mm) maximum. Dimension D may also be shortened by cutting the pipes provided in the kit to 12 in. (305 mm) minimum.

Step 2 — SIDE WALL TERMINATION

Alberta, Canada Provincial Requirements

The Province of Alberta requires a minimum unobstructed distance of 4 ft. (1.2 M) from the foundation to the property line of the adjacent lot for vent termination of any appliance with an input over 35,000 btuh. This means, if there is less than 4 ft. (1.2 M) of unobstructed distance to the property line of the adjacent lot, no type of vent termination is permitted for appliances with inputs greater than 35,000 btuh.

The Province of Alberta does not interpret any restrictions on unobstructed distances greater than 8 ft. (2.4 M). This means that all single, two-pipe and concentric vents may be used, providing all other Code and manufacturer's requirements are adhered to.

The requirement is to re-direct the flue gas plume when the unobstructed distance from the foundation to the property line of the adjacent lot is no less than 4 ft. (1.2 M) and no greater than 8 ft. (2.4 M).

In venting situations where the unobstructed distance from the foundation to the property line of the adjacent lot is between 4 ft. (1.2 M) and 8 ft. (2.4 M), the concentric vent kit cannot be used. The concentric vent kit cannot be modified to attach a tee or elbow to the vent portion of the rain cap. A tee or elbow attached to the rain cap could potentially direct the flue gas plume toward the intake air stream and contaminate the incoming combustion air for the furnace.

In a venting situation where the unobstructed distance from the foundation to the property line of the adjacent lot is between 4 ft. (1.2 M) and 8 ft. (2.4 M), a 2-pipe termination (or single pipe when permitted) must be used.

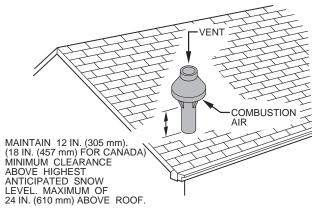
Sidewall Vent Installation

- Determine pipe diameter from tables in furnace Installation and Start-Up Instructions.
- Determine appropriate concentric vent termination kit for pipe diameter selected. See Description and Usage section.
- 3. Determine best location for termination kit. (See Fig. 6.)

NOTE: Considerations for the following should be used when determining an appropriate location for the termination kit:

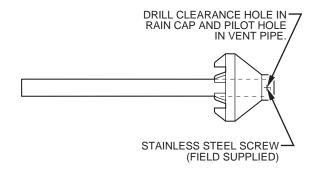
- a. Termination kit positioned where the vent vapors will not damage plants/shrubs or air conditioning equipment.
- Termination kit positioned so it will not be affected by wind eddy that may allow recirculation of combustion products, or airborne leaves, or light snow.
- Termination kit positioned where it will not get damaged or be subjected to foreign objects, such as stones, balls, etc.
- d. Termination kit positioned where the vent vapors will not be objectionable.
- Cut 1 hole (4-in. / 102 mm dia.) for KGAVT0701CVT (2-in. / 51mm) kit, or 1 hole (5-in. / 127 mm diameter) for KGAVT0801CVT (3-in. / 76 mm) kit.
 - a. Plastic venting systems shall not pass through rated fire separations.
- Partially assemble concentric vent termination kit. Clean and cement using procedures found in furnace Installation and Start-Up Instructions.
 - a. Cement Y concentric fitting to larger kit pipe.

b. Cement rain cap to smaller diameter kit pipe.



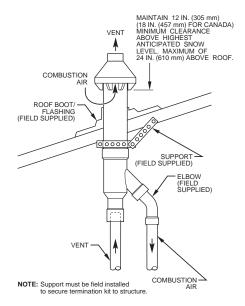
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Fig. 3 - Concentric Vent and Combustion-Air Termination, Roof Termination (Preferred)



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Fig. 4 - Rain Cap to Vent Pipe Alternate Assembly



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Fig. 5 - Concentric Vent Roof Installation

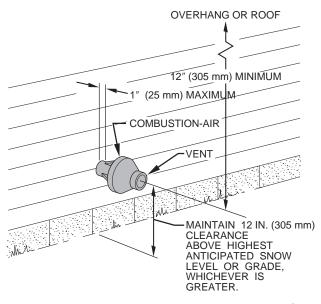


Fig. 6 - Concentric Vent and Combustion-Air Side Wall

Termination

(FIELD SUPPLIED)

COMBUSTION

AIR

VENT

VENT

VENT

T'' (25 mm)

MAXIMUM

(FIELD

SUPPLIED)

NOTE: Securing strap must be field installed to prevent movement of termination kit in side wall.

A93392

Fig. 7 - Concentric Vent Side Wall Attachment

NOTE: Instead of cementing smaller pipe to the rain cap, a field-supplied stainless steel screw may be used to secure the 2 components together when field disassembly is desired for cleaning. (See Fig. 4.)

A WARNING

CARBON MONOXIDE POISONING HAZARD

Failure to follow this warning could result in personal injury or death.

Failure to drill adequate holes may cause cracking of PVC components, allowing combustion products to be recirculated. When using alternate screw assembly method, drill clearance hole in rain cap and pilot hole in vent pipe for screw size being used.

A WARNING

CARBON MONOXIDE POISONING HAZARD

Failure to follow this warning could result in unit damage, personal injury or death.

Do not operate furnace with rain cap removed or recirculation of combustion products may occur. water may also collect inside larger combustion-air pipe and flow to the burner enclosure.

6. Install Y concentric fitting and pipe assembly through structure's hole.

NOTE: Do not allow insulation or other materials to accumulate inside pipe assembly when installing through hole.

- Install rain cap and small diameter pipe assembly in Y
 concentric fitting and large paper assembly. Ensure small
 diameter pipe is bottomed and cemented in Y concentric
 fitting.
- Secure assembly to structure as shown in Fig. 7 using field-supplied metal strapping or equivalent support material.

NOTE: Ensure termination location clearance dimensions are as shown in Fig. 6.

NOTE: In USA, if assembly needs to be extended to allow side wall thickness requirement, the 2 pipes supplied in the kit may be replaced by using same diameter, field-supplied SDR-26 PVC (D2241) pipe. Do not extend dimension D more than 60 in. (1524 mm) (See Fig. 2.)

A CAUTION

UNIT MAY NOT OPERATE HAZARD

Failure to follow this caution may result in intermittent unit operation.

DO NOT use field-supplied couplings to extend pipes. Airflow restriction will occur and the furnace pressure switch may cause intermittent operation.

- Cement furnace combustion-air and vent pipes to concentric vent termination assembly. See Fig. 7 for proper pipe attachment.
- Operate furnace through 1 heat cycle to ensure combustion-air and vent pipes are properly connected to concentric vent termination connections.

Step 3 — MULTI-VENTING TERMINATIONS

When 2 or more direct vent furnaces are vented near each other, each furnace must be individually vented. (See Fig. 8 and 9.) NEVER common vent or breach vent this furnace. When 2 or more direct vent furnaces are vented near each other, 2 vent terminations may be installed as shown in Fig. 8 and 9, but next to vent termination must be at least 36 in. (914 mm) away from first 2 termination. It is important that vent terminations be made as shown to avoid recirculation of flue gases. Dimension A in Fig. 8 and 9 represents distance between pipes or rain shields, as touching or 2-in. (51 mm) maximum separation.

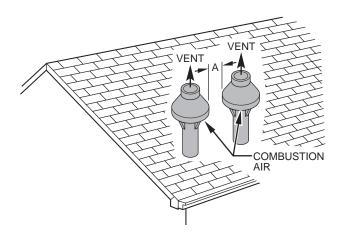


Fig. 8 - Concentric Vent and Combustion-Air Roof Termination (Dimension A as Touching or 2-in. (51 mm) Maximum Separation)

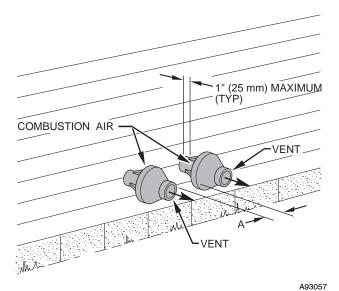


Fig. 9 - Concentric Vent and Combustion-Air Roof Termination (Dimension A as Touching or 2-in. (51 mm) Maximum Separation)



DRYER VENT CAP





PROJECT PEERLESS

REQUEST 9 - DEMOLITION

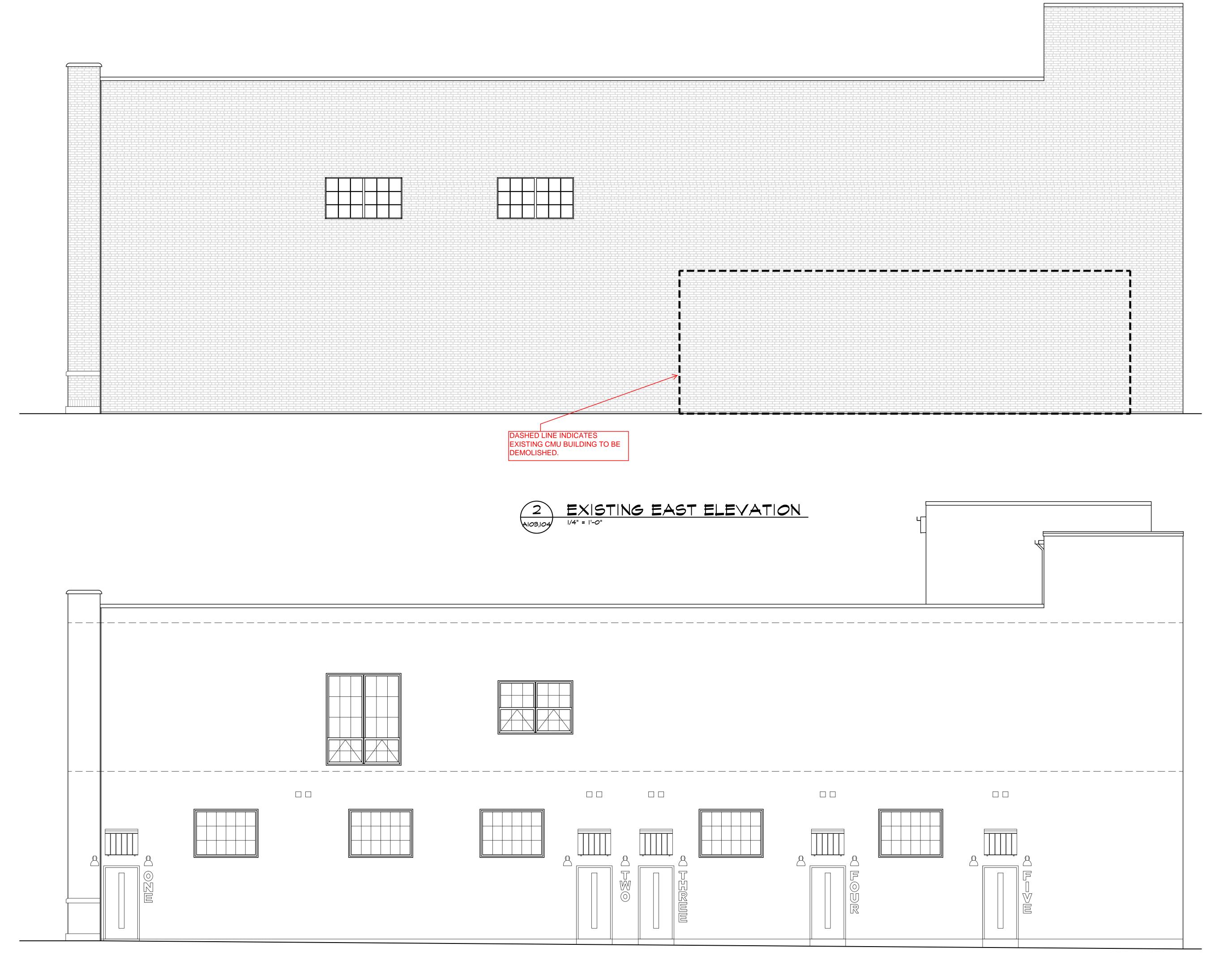


EXISTING CMU BUILDING - EXTERIOR



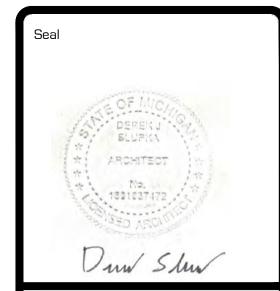








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PROJECT PEERLESS

Drawing Title

EXTERIOR ELEVATIONS

Project Number 20-40-159

Checked DJS

1/4"=1'-0"

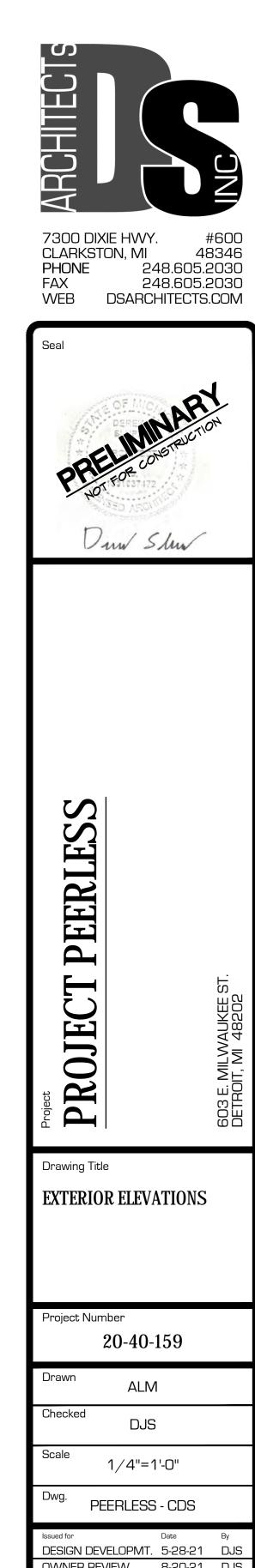
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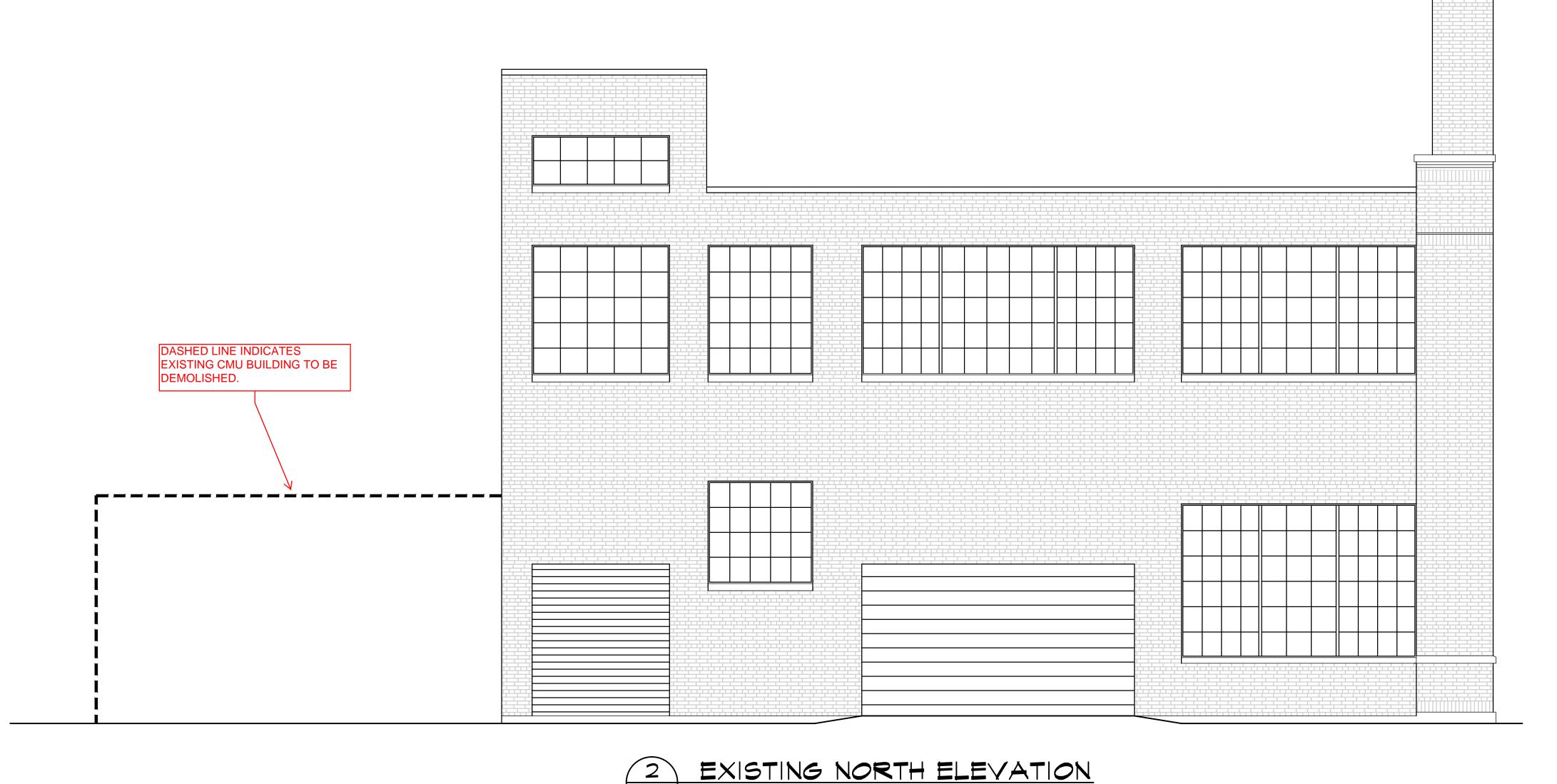
NEW PROPOSED EAST ELEVATION

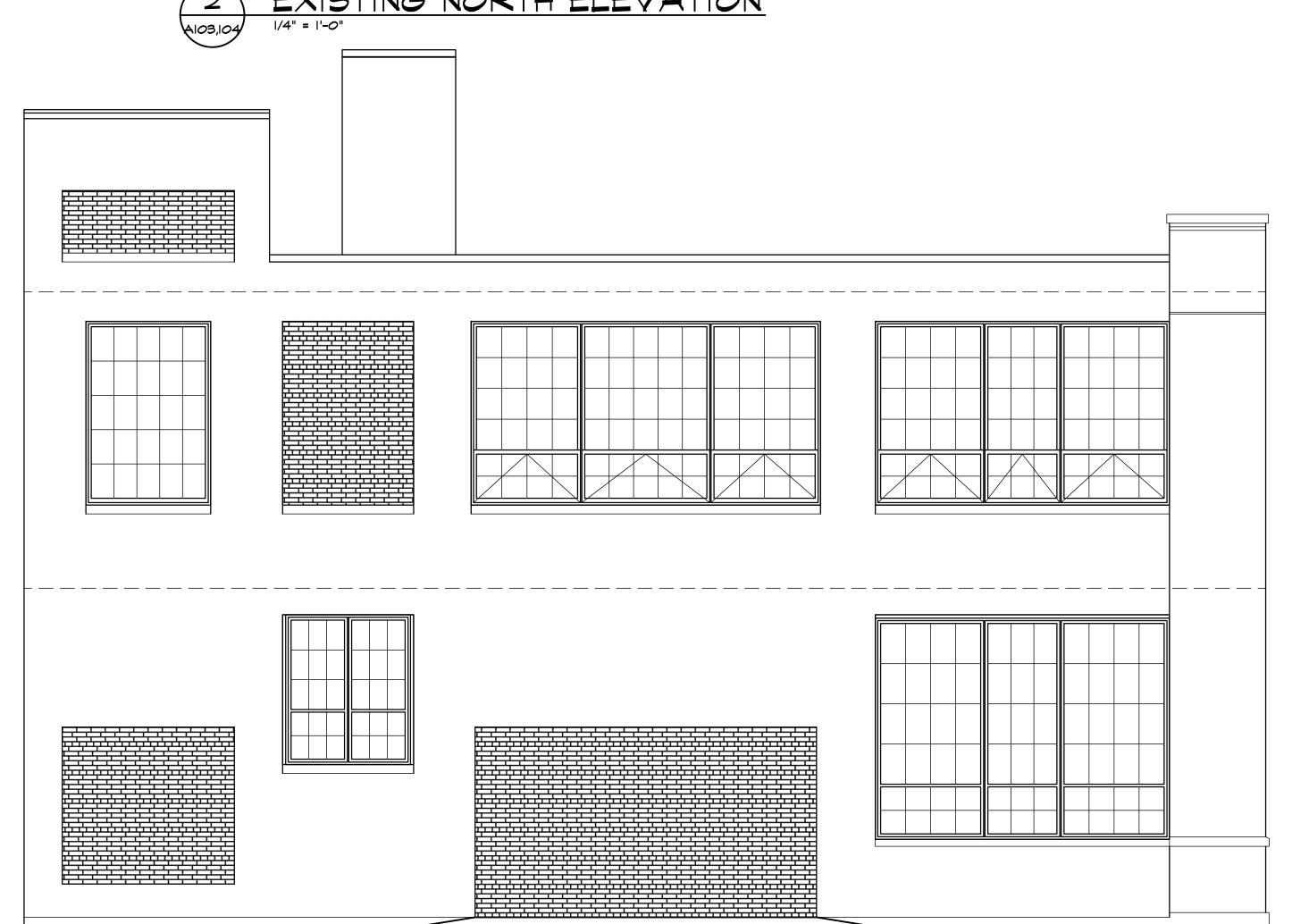


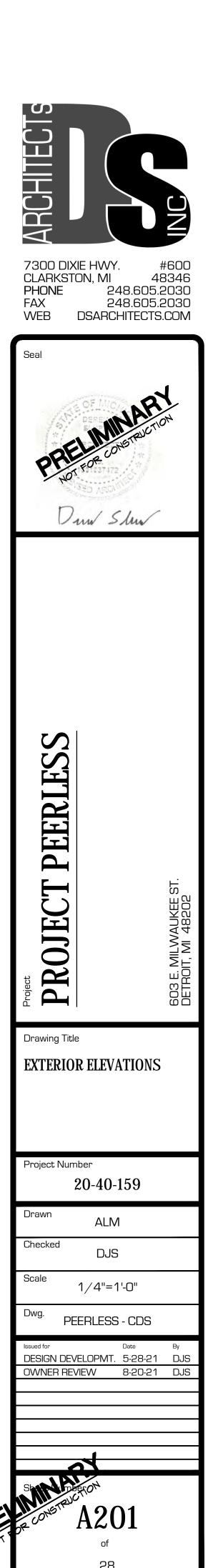




OWNER REVIEW 8-20-21 DJS









PROJECT PEERLESS

REQUEST 9 - FENCE AND GATE



EXISTING METAL CHAIN LINK FENCE





The existing fence is a chain link security fence and gate. We wanted to replace it with a more suitable fence for the Historic District.

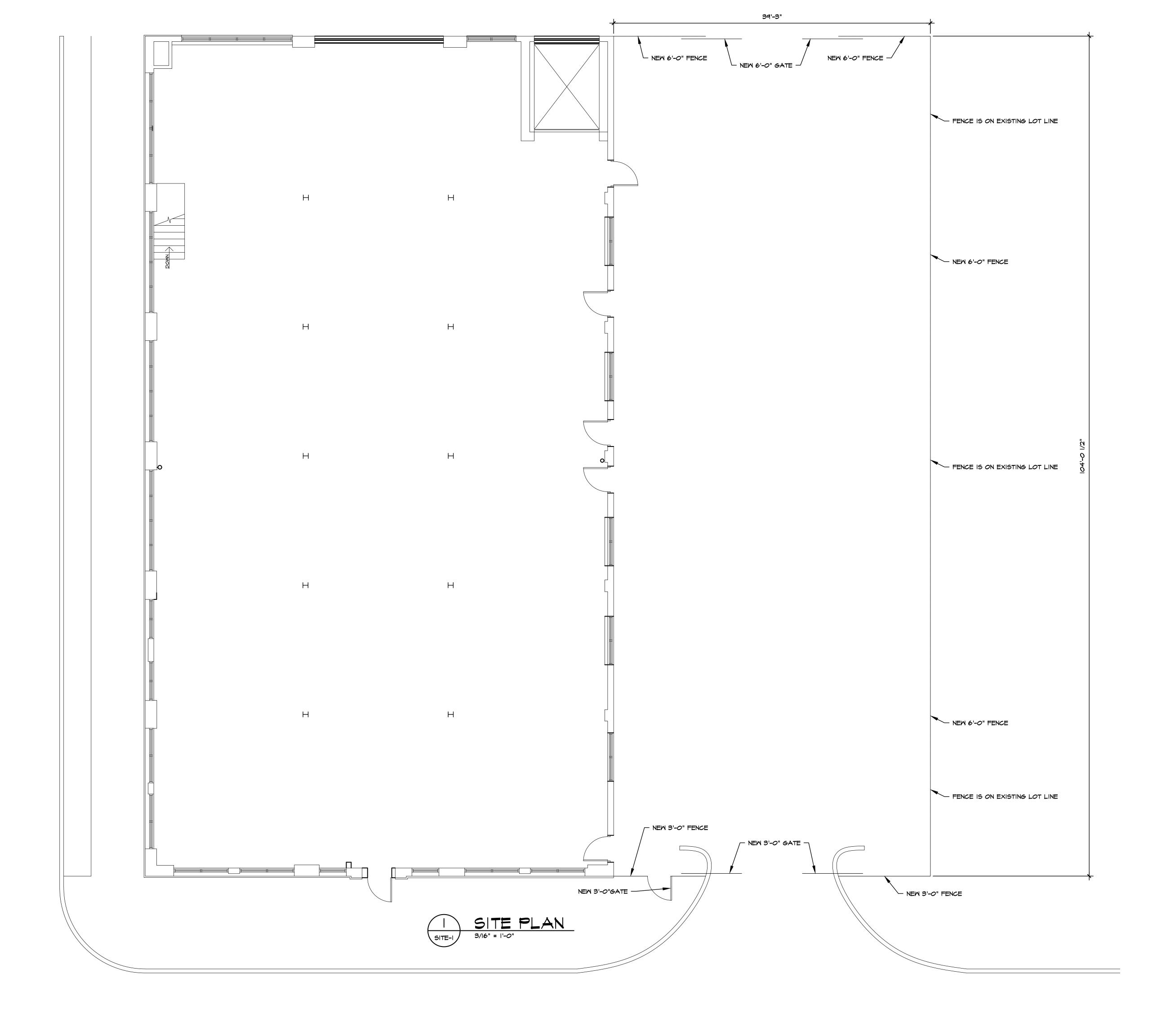


NEW PROPOSED FENCE/ GATE











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