STANDING ROCK SIOUX TRIBE
STANDING ROCK RURAL WATER SYSTEM

MR&I OFFICE REMODEL
CONTRACT 2-6
BID SET - DECEMBER 2024

Bartlett&West

#	DATE	DESCRIPTION	BY

PROJECT:
MR&I OFFICE REMODEL
CONTRACT 2-6

CLIENT:
RURAL WATER SYSTEM

PROJECT MANAGER:
DOUGLAS W. MUND
PE 3344

PROJECT ARCHITECT:
JOSEPH P. LARRIVEE
RA# 1268

DOUGLAS W. MUND REGISTERED PROFESSIONAL P.E. 3344 ENGINEER NORTH DAKOTA

DRAWING NO: **G-001**

SHEET NUMBER ---- of

DESIGN NUMBER 12493.700

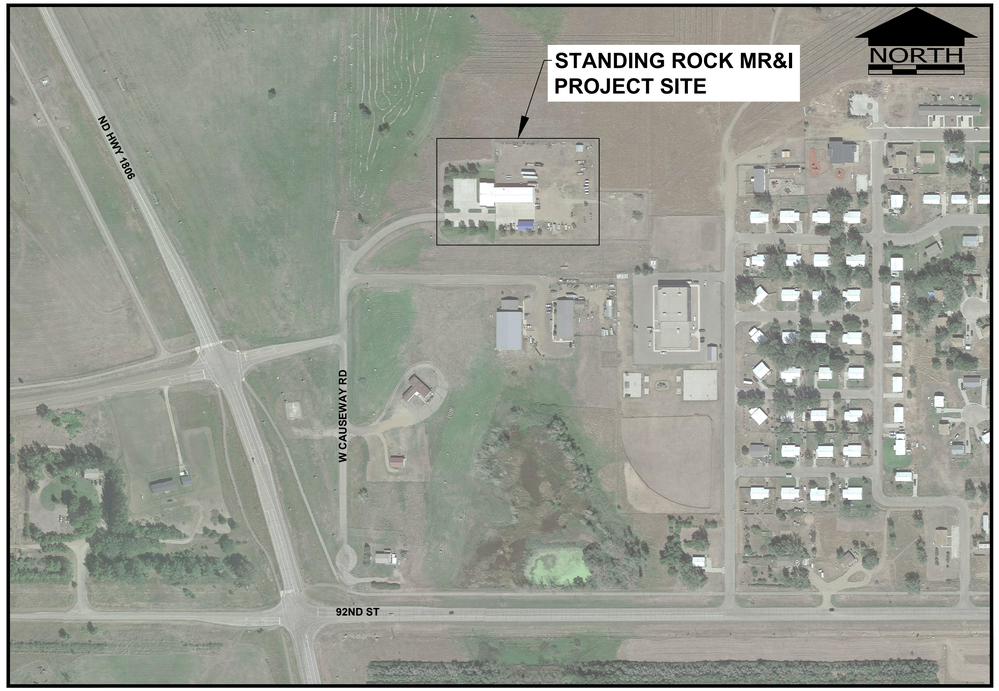
CONST. NUMBER ----

Bartlett&West
3456 E CENTURY AVENUE – BISMARCK, ND 58503
PHONE: 785-272-2252
WWW.BARTLETTWEST.COM

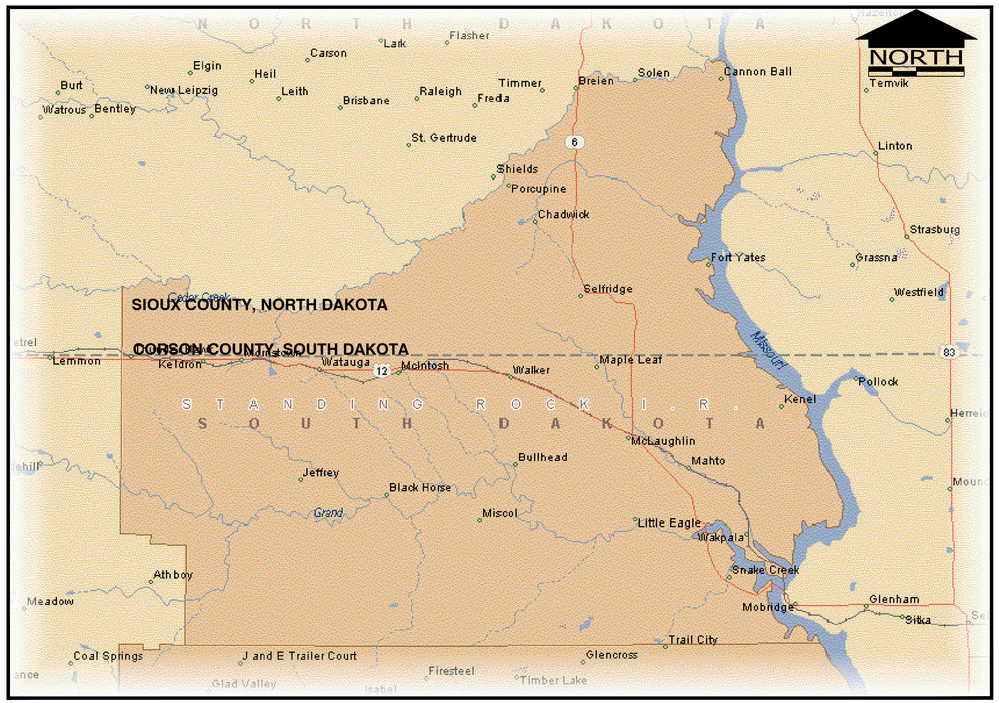
Drawing name: F:\Proj\112000\12493\12493.700\AutoCad\Plan Set\12493.700 - G000 - Cover & Location.dwg Layout name: 1 G001-COVER Plotted by: JBN01642 Plotted on: Dec 16, 2024 - 2:36pm

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

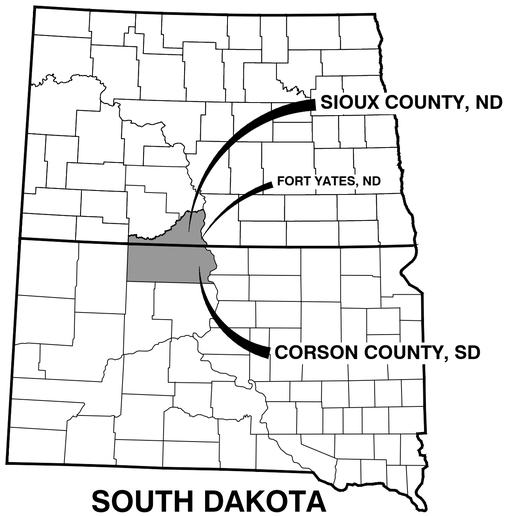
PROJECT LOCATION



STANDING ROCK RESERVATION



STANDING ROCK RESERVATION



DRAWING INDEX

#	DATE	DESCRIPTION	BY

Bartlett & West
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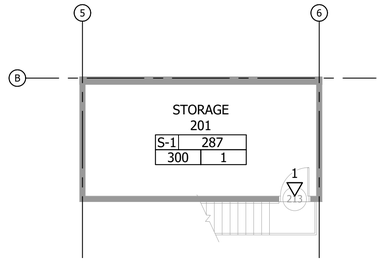
SITE LOCATION & DRAWING INDEX

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

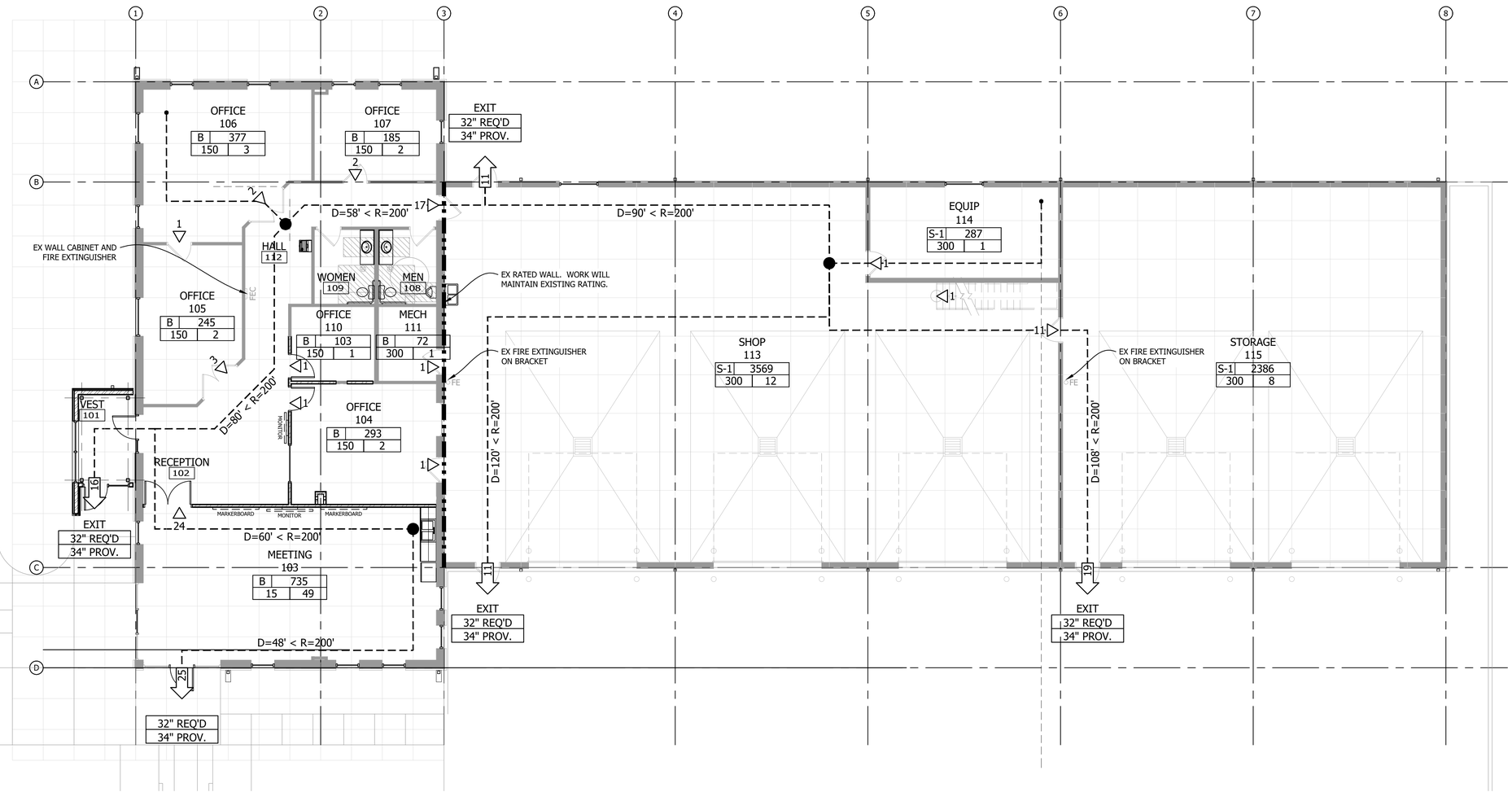
DOUGLAS W. MUNK REGISTERED PROFESSIONAL P.E. 3344 ENGINEER NORTH DAKOTA

DESIGNED BY:	----
DRAWN BY:	----
APPROVED BY:	JWB
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	G-002
SHEET NO:	

Last edit on: 10/2/2024 1:59 PM by: JBN01642 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\12493.700 - G000 - Cover & Location.dwg Layout Name: 2 G002-LOCATION Plotted By: JBN01642 Plotted on: 10/2/2024 5:11:41 PM



MEZZANINE LEVEL CODE PLAN
SCALE: 1/8"=1'-0" 1 0 8



GROUND LEVEL CODE PLAN
SCALE: 1/8"=1'-0" 1 0 8

REFERENCE NOTES:

GENERAL NOTES:

CODE PLAN LEGEND

- XX = EXITING DIRECTION AND NUMBER OF OCCUPANTS
- XX = TOTAL EXITING NUMBER AT EXIT
- EXIT (X" REQ'D / X" PROV.) = DOOR EXIT WIDTH REQUIRED (INCHES) / DOOR EXIT WIDTH PROVIDED (INCHES)
- = FIRE EXTINGUISHER MAX TRAVEL DISTANCE 75', TYPICAL
- PROCESS 100 | F-2 | 13,539 SF | 100 | 135
- ROOM NAME / Room Number | Occupancy | Area SF | Occupant Load Factor | Occupants
- D=100' < R=250' = EXIT TRAVEL DIST. D= TRAVEL DISTANCE R= REQUIRED DISTANCE
- POINT OF COMMON PATH OF EGRESS.
- = 1 HOUR RATED FIRE BARRIER (60 MIN RATED DOORWAYS)
- = 2 HOUR RATED FIRE BARRIER (90 MIN RATED DOORWAYS)
- = 3 HOUR RATED FIRE WALL (180 MIN RATED DOORWAYS)

#	DATE	DESCRIPTION	BY

Bartlett&West
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CODE PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	G-101
SHEET NO:	

Last edit on: 9/30/2024 5:21 PM by: JBN01642 Drawing Name: F:\Proj\12000s\12493\12493.700\AutoCad\Plan Set\12493.700 - G100 - CODE PLAN AND STUDY.dwg Layout Name: G-101 Plotted By: JBN01642 Plotted on: 10/2/2024 5:12:03 PM

Barlett & West
3456 E Century Avenue
Bismarck, North Dakota

Date: 10/2/24

CODE ANALYSIS (2021 International Building Code)(No found Adopted Building Code)

Project: SRRWS - MR&I Office Remodel
Address: W Cauesway Road, Fort Yates, ND 58538

Official:
Phone:

Owner: Standing Rock Sioux Tribe
Municipal, Rural, and Industrial (MR&I) Water System

Chapter 3 - Use and Occupancy

See code plans for occupancy classification and counts.

Small Assembly Spaces (303.1.2)
The following rooms and spaces shall not be classified as Assembly occupancies.
1. A room or space used for assembly purposes with an occupant load of less than 50 persons and accessory to another occupancy shall be classified as a Group b occupancy or as part of that occupancy.
2. A room or space used for assembly purposes that is less than 750 square feet in area and accessory to another occupancy shall be classified as a group B occupancy or as part of that occupancy.

Accessory Storage Spaces (311.1.1)
A room or space used for storage purposes that is accessory to another occupancy shall be classified as part of that occupancy.

Occupancy Load (1004)

Other egress components
See plan Egress Door (Inches) (Total Occupants * .15)
34 to 68 Provided Egress door width. (Inches)

Number of Exits and Exit Access Doorways (1006)

2 Minimum number of exits for occupant load (1006.3.3)
5 Number of exits provided

Accessible Mean of Egress (1009)
1 Minimum number of accessible exits required
5 Number of accessible exits provided

Exit Signs (1013.1)
Exits and exit access doors shall be marked by an approved exist sign readily visible from any direction of egress travel.

Travel Distance (1017)
200 Maximum exit access travel distance (feet) (w/o sprinkler system) B
200 Maximum exit access travel distance (feet) (w/o sprinkler system) S-1

CODE ANALYSIS (2021 International Existing Building Code)(No found Adopted Building Code)

Chapter 2 - Definitions

Work Area
That portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this code.

Chapter 5 - Prescriptive Compliance Method

503 Alterations
503.1 General.
Alterations to any building or structure shall comply with the requirements of the International Building Code for new construction. Alterations shall be such that the existing building or structure is not less complying with the provisions of the International Building Code than the existing building or structure was prior to the alteration.

Chapter 6 - Classification of Work

Section 602 - Alteration Level 1
602.1 Scope
Level 1 alterations include the removal and replacement or the covering of existing materials, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same

603.2 Application
Level 1 alterations shall comply with the provisions of Chapter 7.

Section 603 - Alteration Level 2
603.1 Scope
Level 2 alterations include the addition or elimination or any door or window, the reconfiguration or extansion of any system, or the installation of any additional equipment, and shall apply where the work area is equal to or less than 50 percent of the building area.

603.2 Application
Level 2 alterations shall comply with the provisions of Chapter 7 for Level 1 Alterations as well as provisions of Chapter 8.

Chapter 7 - Alterations Level 1

Section 701 - General
701.2 Conformance
An existing building or portion thereof shall not be altered such that the building becomes less safe than its existing conditions.

Section 702 - Building Elements and Materials
702.1 Interior Finishes.
Newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the IBC.

702.7 Materials and Methods
New work shall comply with the materials and methods requirements in the IBC, IECC, IMC, IPC, as applicable, that specify standards, details of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

Section 703 - Fire Protection
703.1 General.
Alterations shall be done in a manner that maintains the level of fire protection provided.

Section 704 - Means of Egress
704.1 General.
Alterations shall be done in a manner that maintains the level of protection provided for the means of egress.

Section 705 - Reroofing
705.1 General.
Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15 of the International Building Code.
Exception 2. Recovering or replacing an existing roof covering shall not be required to meet the requirement for secondary (emergency overflow) drains or scuppers in section 1502 of the IBC for roof that provide positive roof drainage.

705.2 Roof Replacement
Roof replacement shall include the removal of all existing layers of roof coverings down to the roof deck.

Section 708 - Energy Conservation
Level 1 alterations to existing buildings or structures do not require the entire building or structure to comply with the energy requirements of the IECC. The alterations shall conform to the energy requirements of the IECC as they relate to new construction only.

Chapter 8 - Alterations Level 2

Section 801 - General
801.2 Alteration Level 1 compliance.
In addition to the requirements of this chapter, all work shall comply with the requirements of Chapter 7.

801.4 Compliance
New construction elements, components, systems, and spaces shall comply with the requirements of the IBC
Exceptions:
1. Where windows area added they are not required to comply with the light and ventilation requirements of the IBC.

Section 802 - Building Elements and Materials
802.4 Interior finish
The interior finish and trim of walls and ceilings in exits and corridors in any work area shall comply with the requirements of the IBC.

Section 803 - Fire Protection
803.1 Scope
The requirements of this section shall be limited to the work areas in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located or otherwise beyond the work area.

803.4 Fire Alarm and detection
An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA72. Devices, combinations of devices, appliances, and equipment shall be approved. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms, where products of combustion are present during normal operations in sufficient quantity to actuate a smoke detector.

803.4.1 Occupancy Requirements
Where the building is not equipped with a fire alarm system, alarm-notification appliances within the work area shall be provided and automatically activated.

Section 804 - Means of Egress
804.1 Scope
The requirements of this section shall be limited to work areas in which level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located or otherwise beyond the work area.

804.4 Number of exits.
The number of exits shall be in accordance with Section 804.4.1 through 804.4.3

804.4.1 Minimum number.
Every story utilized for human occupancy on which there is a work area that includes exits shall be provided with the minimum number of exits based on the occupancy and occupant load in accordance with the IBC.

804.5 Egress Doorways

804.5.1.1 In any work area, all rooms and spaces having an occupancy load greater than 50 or in which the travel distance to an exit exceeds 75 feet shall have not fewer than two egress doorways.

804.5.2 Door Swing
In the work area and in the egress path from any work area to the exit discharge, all egress doors serving an occupant load greater than 50 shall swing in the direction of travel.

804.9 Exit Signs
Means of egress in all work areas shall be provided with exit signs in accordance with the requirements of the IBC

Section 806 - Electrical
806.1 New Installations
Newly installed electrical equipment and wiring relating to work done in any work area shall comply with all applicable requirements of NFPA 70.

Section 807 - Mechanical
807.1 Reconfigured or converted spaces.

Reconfigured spaces intended for occupancy and spaces converted to habitable or occupiable space in any work area shall be provided with natural or mechanical ventilation in accordance with the IMC.

807.2 Altered Existing Systems.
In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, reconfigured, or extended shall provide not less than 5 cubic feet per minute (cfm) per person of outdoor air and not less than 15 (cfm) of ventilation air per person; or not less than the amount of ventilation air determined by the Indoor Air Quality Procedure of ASHRAE 62.1.

Section 809 - Energy Conservation
Level 2 alterations to existing buildings or structures do not require the entire building or structure to comply with the energy requirements of the IECC. The alterations shall conform to the energy requirements of the IECC as they relate to new construction only.

Chapter 11 - Additions

Section 1101 - General
1101.1 Scope
An addition to a building or structural shall comply with the International Codes as adopted for new construction without requiring the existing building or structure to comply with any requiremetns of those codes or of these provisions, except as required by this chapter.

1101.3 Other work
Any repair or alteration work within an existing building to which an addition is being made shall comply with the applicable requirements for the work as classified in Chapter 6.

Section 1102 - Heights and Areas
1102.1 Height Limitations
An addition shall not increase the height of an existing building beyond that permitted under applicable provisions of Chapter 5 of the IBC for new buildings.

1102.1 Area Limitations
An addition shall not increase the area of an existing building beyond that permitted under applicable provisions of Chapter 5 of the IBC for new buildings.

Section 1104 - Energy Conservation
1104.1 Minimum Requirements
Additions to existing buildings shall conform to the energy requiremetns of the IECC or IRC as they relate to new construction.

#	DESCRIPTION	DATE	BY

Bartlett & West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
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CODE STUDY

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
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SHEET NO:	

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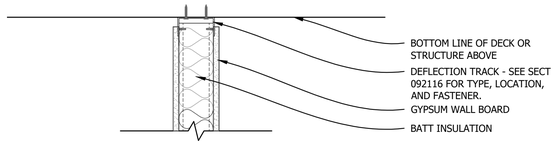
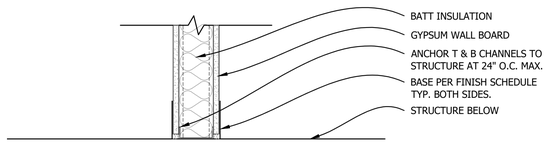


1 PARTITION TYPE A - HEAD
SCALE: 1 1/2"=1'-0"



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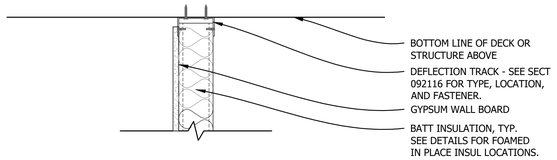

2 PARTITION TYPE F - HEAD
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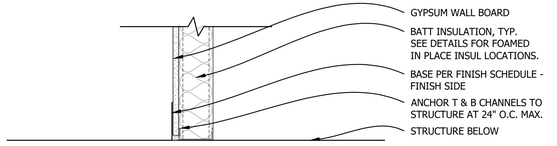
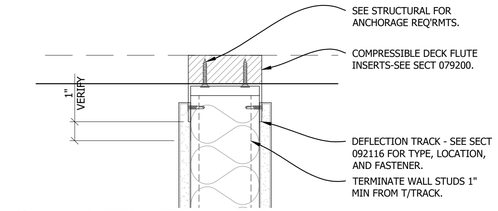


5 PARTITION TYPE F - SILL
SCALE: 1 1/2"=1'-0"

PARTITION TYPE A							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THK (EACH SIDE)	INSUL THICK	RATING	UL NO.	COMMENTS
A4	3 5/8" M.S. @ 16" O.C.	4 7/8"	5/8"	FILL CAVITY	1 HR	U404	SEE CODE PLAN FOR FIRE WALL LOCATIONS
A6	6" M.S. @ 16" O.C.	7 1/4"	5/8"	FILL CAVITY	1 HR	U419	SEE CODE PLAN FOR FIRE WALL LOCATIONS

PARTITION TYPE F							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THK (ONE SIDE)	INSUL THICK	RATING	UL NO.	COMMENTS
F2	1 5/8" M.S. @ 16" O.C.	2 1/4"	5/8"	FILL CAVITY	1 HR	U445	SEAL PENT. W/ ACOUSTICAL SEALANT
F3	2 1/2" M.S. @ 16" O.C.	3 1/8"	5/8"	FILL CAVITY	1 HR	U448	SEAL PENT. W/ ACOUSTICAL SEALANT
F4	3 5/8" M.S. @ 16" O.C.	4 1/4"	5/8"	FILL CAVITY	1 HR	U445	SEAL PENT. W/ ACOUSTICAL SEALANT
F6	6" M.S. @ 16" O.C.	6 5/8"	5/8"	FILL CAVITY	1 HR	U445	SEAL PENT. W/ ACOUSTICAL SEALANT



7 NON-RATED PARTITION HEAD
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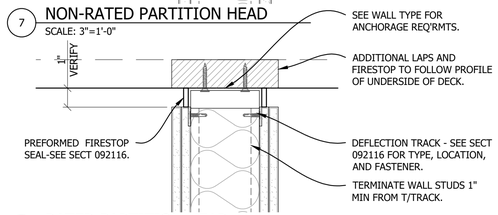
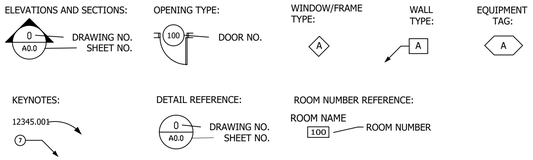


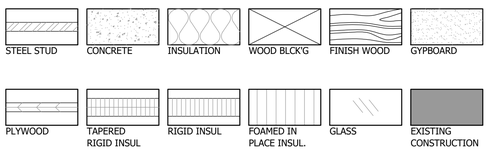
8 RATED PARTITION HEAD
SCALE: 3"=1'-0"

DRAWING SYMBOLS



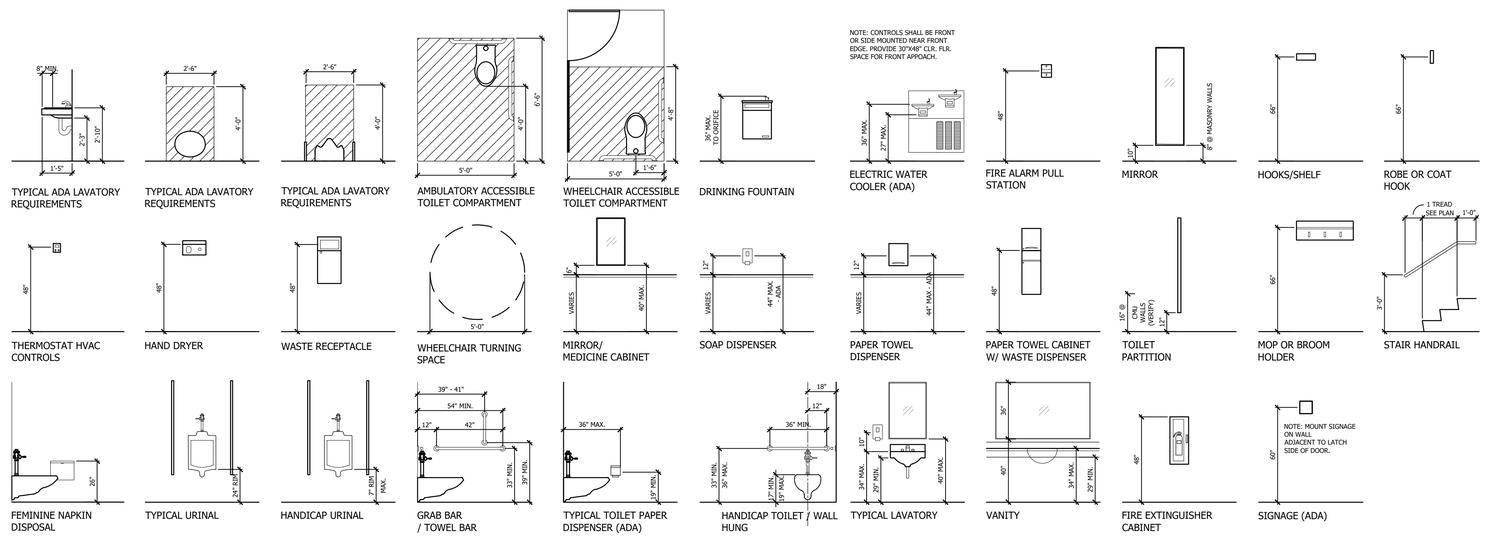
PLEASE NOTE THAT THE DIVISION OF LABOR IS ACCORDING TO THE SECTIONS IN THE PROJECT MANUAL AND NOT THE NOTATION SYSTEM ON THE DRAWINGS.

MATERIAL INDEX



STANDARD MOUNTING HEIGHTS / ADA MOUNTING HEIGHTS

(DIMENSIONS SHOWN ELSEWHERE FOR SPECIFIC MECH/ELECT ITEMS WILL SUPERSEDE THOSE REFERRED TO HERE)



#	DESCRIPTION	DATE	BY

Bartlett & West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
www.bartlettwest.com

TYPICAL ASSEMBLIES, DRAWING STANDARDS, AND MOUNTING HEIGHTS

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	G-103
SHEET NO:	

Last edit on: 9/30/2024 5:21 PM by: JBN01642 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\12493.700 - G100 - CODE PLAN AND STUDY.dwg Layout Name: G-103 Plotted By: JBN01642 Plotted on: 10/2/2024 5:12:11 PM

REQUIRED SPECIAL INSPECTIONS OF CONCRETE CONSTRUCTION

(IBC Table 1705.3)

	FREQUENCY		
	Continuous	Periodic	Comments:
1) Inspect Reinforcement			
Inspect reinforcement, including prestressing tendons, and verify placement.		♦	Verify reinforcing and placement as shown on drawings and per ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3 & IBC 1908.4
2) Reinforcing Bar Welding:			
Verify weldability of reinforcing bars other than ASTM A706:		♦	Verify bar welding per AWS D1.4 & ACI 318: 26.6.4
Inspect single-pass fillet welds, maximum 5/16th; and		♦	
Inspect all other welds.	♦		
3) Inspect anchors cast in concrete.		♦	Verify anchors are cast in concrete per structural drawings and ACI 318: 17.8.2
4) Inspect anchors post-installed in hardened concrete members b:			
Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	♦		Verify anchors are post installed in concrete per structural drawings, ACI 318: 17.8.2.4 (adhesive anchors) & 17.8.2 (mechanical anchors)
Mechanical anchors and adhesive anchors not defined in 4.a.		♦	
5) Verify use of required design mix.		♦	Verify mix designs meet strength and exposure requirements listed on approved plans; verify compliance with ACI 318: Ch. 19, 26.4.3, 26.4.4, & IBC 1904.1, 1904.2, 1908.2, 1908.3
6) Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	♦		Verify, perform, & examine tests per ASTM C172, ASTM C31, ACI 318: 26.4 & 26.12, and IBC 1908.10
7) Inspect concrete placement & application techniques.	♦		Inspect concrete & shotcrete placement for proper application per ACI 318: 26.5 & IBC 1908.6, 1908.7, & 1908.8
8) Verify curing temperature and techniques.		♦	Verify concrete curing temperature and technique is being maintained per approved plans, ACI 318: 26.5.3-26.5.5, & IBC 1908.9
9) Inspect prestressed concrete for:			
Application of prestressing forces: and	♦		Verify prestressed concrete per ACI 318: 26.10
Grouting of bonded prestressing tendons.	♦		
10) Inspect erection of precast concrete.		♦	Inspect erection per ACI 318: Ch 26.8
11) Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.		♦	Verify strength per ACI 318: 26.11.2
12) Inspect formwork for shape, location and dimensions of the concrete member being formed.		♦	Inspect formwork for shape, locations, and dimensions of concrete member being formed per approved drawings and ACI 318: 26.11.1.2(b)

For SI: 1 inch = 25.4 mm.

(a) Where applicable, see also Section 1705.12, Special inspections for seismic resistance.

(b) Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

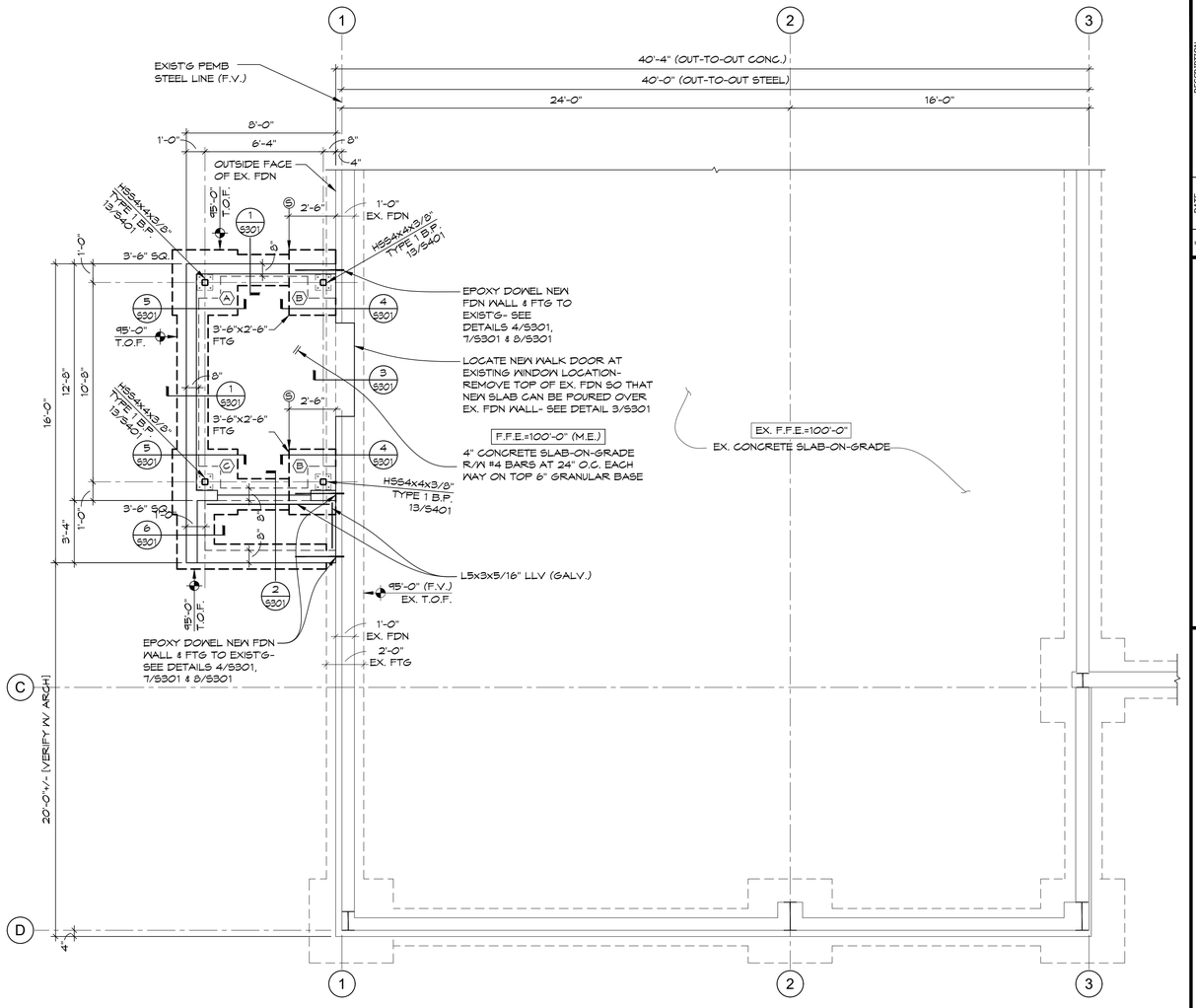
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

(IBC 2015 Section 1705.6 & Table 1705.6)

	FREQUENCY		
	Continuous	Periodic	Comments:
1) Minimum Testing:			
Verify Materials below shallow foundations are adequate to achieve the design bearing capacity.		♦	
2) Prior to Construction:			
Verify excavations are extended to proper depth and have reached proper material.		♦	
3) As Construction Begins:			
Perform classification and testing of compacted fill material.		♦	
4) During Construction:			
Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	♦		
Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		♦	

REQUIRED SPECIAL INSPECTIONS OF STRUCTURAL STEEL

	FREQUENCY		
	Continuous	Periodic	Comments:
OTHER THAN STRUCTURAL STEEL (IBC 1705.11.3)			
Steel Roof & Floor Deck: (SDI -QA/QC)			
Material verification of steel deck		♦	Identification markings per applicable ASTM standard.
Roof and Floor deck welds		♦	Verify that welds conform to AWS D1.3.
Installation of mechanical fasteners		♦	Verify that fasteners conform to SDI-C, SDI-NC, SDI RD & manufacturer's instruction as well as construction documents
STRUCTURAL STEEL CONSTRUCTION (IBC 1705.2, 1705.11, 1705.12)			
Prior to Welding (Table N5.4-1, AISC 360-16):			
Verify welding procedures	♦		
Material identification		♦	Verify type and grade of material.
Welder identification		♦	Verify there is a system in place to identify the welder who has welded a joint or member.
Fit-up groove welds		♦	Verify joint preparation, dimensions, cleanliness, tacking and backing.
Access holes		♦	Verify configuration and finish.
Fit-up fillet welds		♦	Verify alignment, gaps at root, cleanliness of steel surfaces, tack weld quality and location.
During Welding (Table N5.4-02, AISC 360-16):			
Use of qualified inspectors		♦	Verify that welders are appropriately qualified.
Control and handling of welding consumables		♦	Verify packaging and exposure control.
Cracked tack welds		♦	Verify welding is not over a cracked tack weld.
Environmental conditions		♦	Verify wind speed is within limits as well as precipitation and temperature.
WPS followed		♦	Verify items such as welding equipment settings, travel speed, welding materials, shielding gas type/flow rate, preheat applied, interpass temperature maintained, and proper position.
Welding techniques		♦	Verify interpass and final cleaning, each pass is within limitations, and quality of each pass.
Steel headed studs anchors atop beams	♦		Verify placement and installation of steel headed stud anchors. See general structural notes for additional commentary of the testing of headed stud anchors
After Welding (Table N5.4-3, AISC 360-16):			
Welds cleaned		♦	Verify that welds have been properly cleaned.
Size, length and location of welds	♦		
Welds meet visual acceptance criteria	♦		
Arc strikes	♦		
k-area	♦		
Backing & welding tabs removed	♦		
Repair activities	♦		
Document acceptance/rejection of weld	♦		
No prohibited welds have been added without the approval of the EOR		♦	
Nondestructive Testing (N5.5, AISC 360-16):			
CIP welds (Risk Cat. II)		♦	Ultrasonic testing shall be performed on 10% of CJP groove welds in butt, T-and corner joints subject to transversely applied tension loading in materials 5/16-inch thick or greater. Testing rate must be increased if > 5% of welds have unacceptable defects.
CIP welds (Risk Cat. III or IV)			Ultrasonic testing shall be performed on 100% of CJP groove welds subjected to transversely applied tension loading in butt, T-and corner joints, in materials 5/16-inch thick or greater. Testing rate must be increased if > 5% of welds have unacceptable defects.
Access holes (flange > 2")	♦		
Welded Joints subject to fatigue	♦		
Other Steel Inspections (Table N5.7, AISC 360-16; Tables J8-1 and J10-1, AISC 341-10):			
Structural steel details		♦	All fabricated steel and their connections shall be inspected to verify compliance with the details shown in the approved plans.
Anchor rods/embeds supporting structural steel		♦	Shall be on the premises during the placement of anchor rods/embedments. Verify diameter, grade, type, and length of element and the extent or depth of embedment prior to placement of concrete.
Reduced beam sections (RBS)		♦	Verify contour and finish as well as dimensional tolerances (see Table J8-1 of AISC 341).
Protected Zones		♦	Verify that no holes or unapproved attachments are made within the protected zone (see Table J8-1 of AISC 341)
OPEN-WEB STEEL JOIST AND JOIST GIRDERS (2015 IBC Section 1705.2.3 & TABLE 1705.2.3)			
Installation of Open-Web Steel Joists and Joist Girders			
End connections – welding or bolted.		♦	SJI specifications listed in Section 2207.1.
Bridging – horizontal of diagonal.			
Standard bridging.		♦	SJI specifications listed in Section 2207.1.1
Bridging that differs from the SJI specifications listed in Section 2207.1.1.		♦	



FOUNDATION PLAN

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

NORTH

PLAN NOTES:

(1) ALL PAD FOOTINGS ARE CENTERED BELOW THE COLUMN THEY SUPPORT - SEE FOUNDATION PLAN & PAD FOOTING SCHEDULE FOR SIZE & REINFORCING.

(2) ALL CONTINUOUS WALL FOOTINGS ARE 12" THICK UNREINFORCED, AND PROJECT 6" BEYOND EACH FACE OF FOUNDATION THEY SUPPORT, EXCEPT AS NOTED OTHERWISE.

(3) Ⓢ ——► INDICATES STEP IN CONTINUOUS WALL FOOTING, SPACE STEPS AT 4'-0" FROM BUILDING CORNERS AND OTHER FOOTINGS STEPS EXCEPT AS SHOWN OTHERWISE.

(4) X'-X" T.O.F. ◆► INDICATES TOP OF FOOTING ELEVATION.

(X) ⓧ INDICATES PIER DETAIL- REFER TO PIER DETAILS LOCATED ON SHEET S302 FOR PIER SIZE & REINFORCING.

(5) "EX." & "EXIST'G" INDICATES EXISTING CONSTRUCTION. EXIST'G MEMBER SIZES & DIMENSIONS ARE ASSUMED- FIELD VERIFY AS REQ'D.

(6) "F.V." INDICATES THAT DIMENSION IS TO BE FIELD VERIFIED PRIOR TO MATERIAL FABRICATION, CONCRETE CONSTRUCTION, OR STEEL FABRICATION ETC...

(7) GENERAL CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR BUILDING GROUNDING WIRE ATTACHMENT TO FOUNDATION WALL REINFORCING PRIOR TO POURING FOUNDATION WALL.

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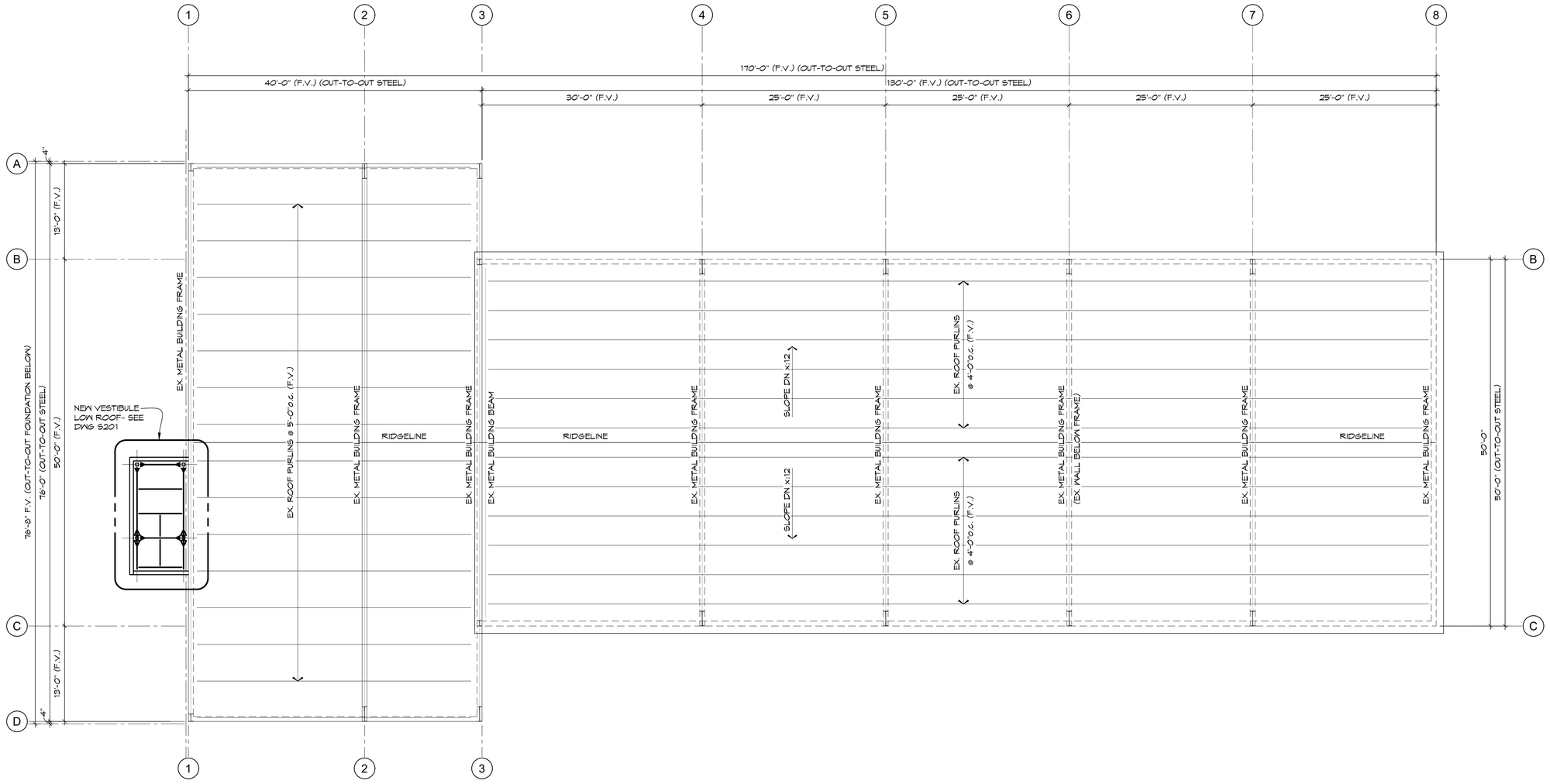
FOUNDATION PLAN & SPECIAL INSPECTION TABLES

MR&I OFFICE REMODEL
W CAUSEWAY RD, FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
DEREK J. KOST
PE 5638
DATE 10/1/24
NORTH DAKOTA

DESIGNED BY:	DJK
DRAWN BY:	RWB / DJK
APPROVED BY:	DJK
DESIGN PROJ:	12493.700
CWS PROJ:	C2379A
SCALE:	AS NOTED
DATE:	OCT. 2024
DRAWING NO:	S101
SHEET NO:	of

Last edit on: 10/7/2024 2:07 PM by: ######## Drawing Name: Z:\CWStructural\CW-Projects-23\C79 - Bartlett & West\C2379A-MR&I Office Remodel\Structural\Drawings\WorkingDrawings\C2379A-StandingRockBurnWaterOM-BldgRoofEval.dwg Layout Name: S101 22x34 Plotted By: ######## Plotted on: 10/7/2024 2:13:48 PM



ROOF FRAMING PLAN

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

NORTH

PLAN NOTES:
(X) D.B.E. INDICATES STEEL DECK BEARING ELEVATION.

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ROOF FRAMING PLAN

MR&I OFFICE REMODEL
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REGISTERED PROFESSIONAL ENGINEER
DEREK J. KOST
PE 5638
DATE 10/1/24
NORTH DAKOTA

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DESIGN PROJ:	12493.700
CWS PROJ:	C2379A
SCALE:	AS NOTED
DATE:	OCT. 2024
DRAWING NO:	S201
SHEET NO:	of

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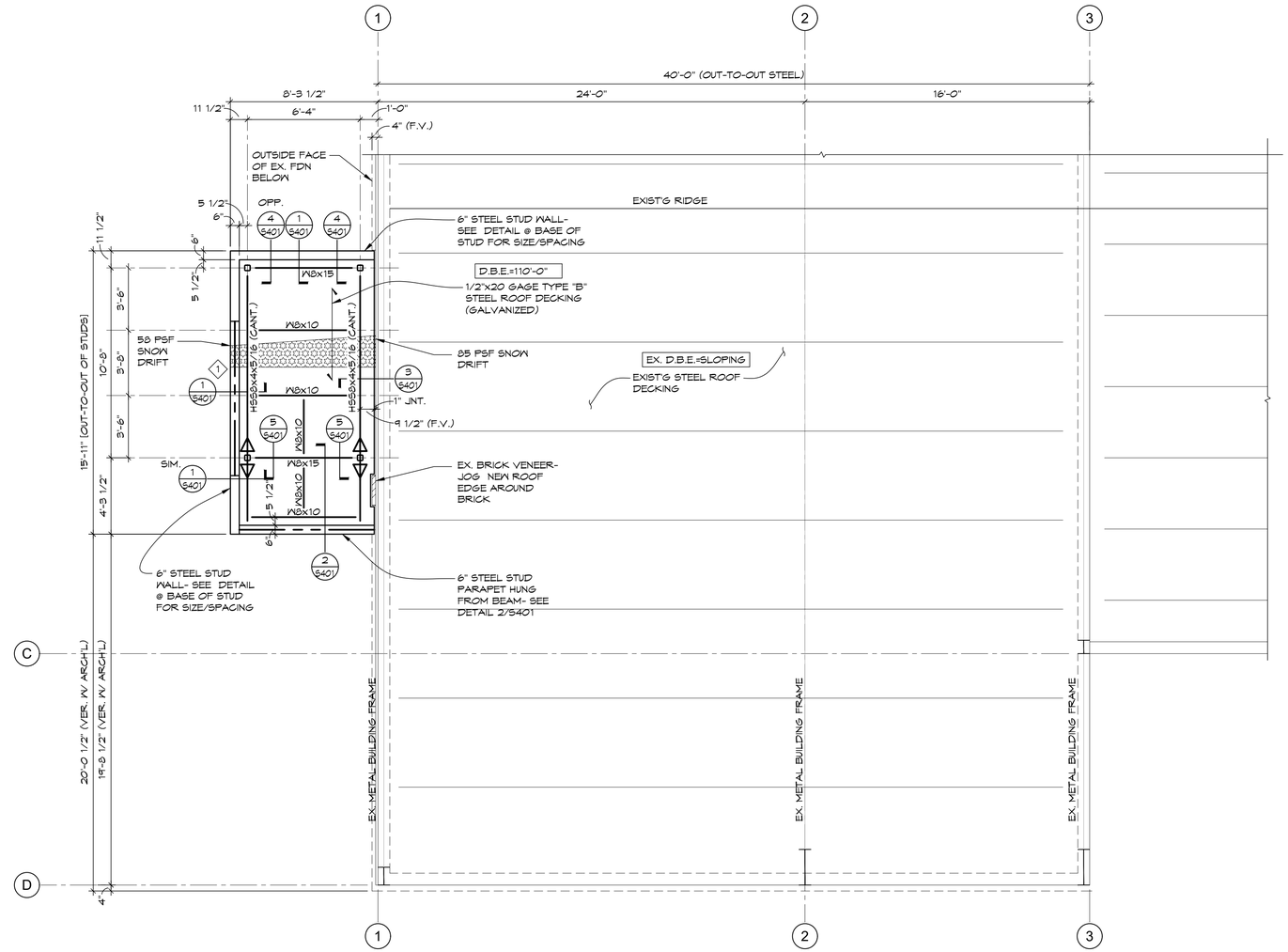

COLD-FORMED HEADER SCHEDULE						
MARK	HEADER		JAMB		SILL	
	SIZE	CONN.	SIZE	CONN.	SIZE	CONN.
	600QFH300-54	10/S401	600QFJ300-54	9/S401 12/S601	600T200-54	11/S401

STEEL STUD HEADER NOTES:
(1) ALL HEADERS AND JAMB STUDS ARE TO BE MARINOVVARE QUICKFRAME MEMBERS (OR APPROVED EQUAL).

VESTIBULE ROOF FRAMING PLAN

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

PLAN NOTES:
(1) D.B.E. INDICATES STEEL DECK BEARING ELEVATION. ALL NEW ENTRY STEEL BEAMS SHOWN ARE AT T.O.S. = D.B.E. UNLESS OTHERWISE NOTED.

(2) ◇X INDICATES COLD FORMED HEADER- SEE PLAN & COLD FORMED HEADER SCHEDULE FOR HEADER SIZE & JAMB STUDS REQUIRED AT WALL OPENING.

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VESTIBULE ROOF FRAMING PLAN

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REGISTERED PROFESSIONAL ENGINEER
DEREK J. KOST
PE 5638
DATE 10/1/24
NORTH DAKOTA

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CWS PROJ:	C2379A
SCALE:	AS NOTED
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DRAWING NO:	S202
SHEET NO:	of

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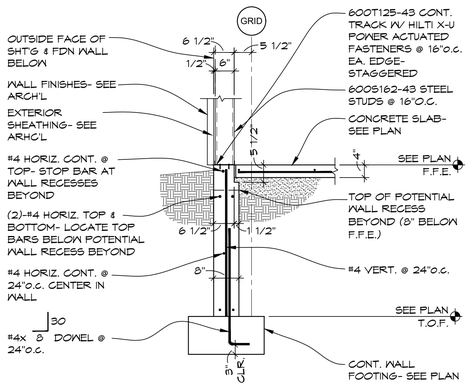
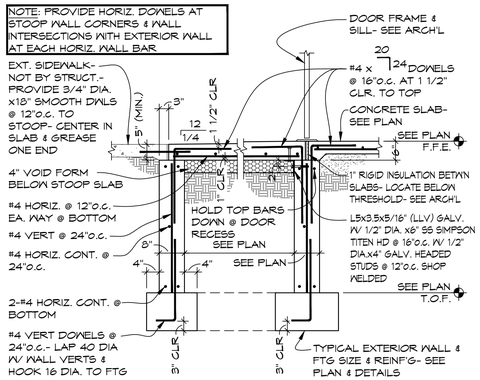
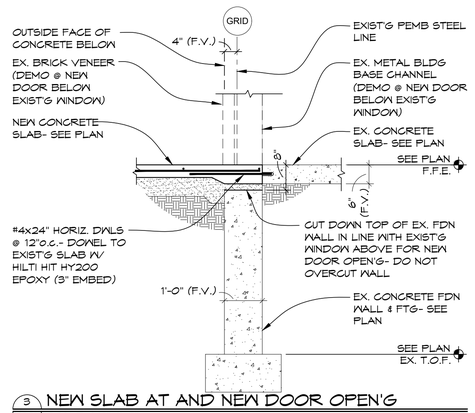


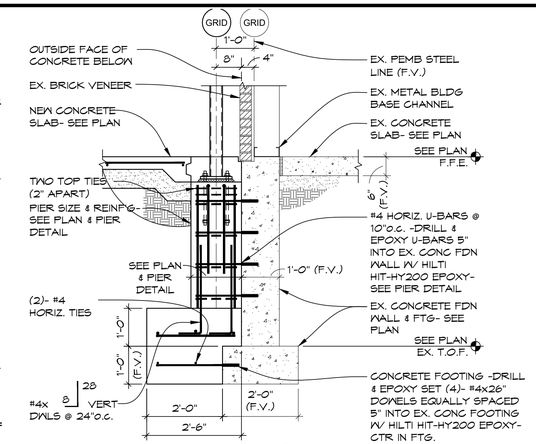
1 EXT. COLD FORMED STUDS ON FDN WALL
S301 SCALE: 1/2"=1'-0"



2 TYP. ENTRY STOOP FOUNDATION REINF'G
S301 SCALE: 1/2"=1'-0"



3 NEW SLAB AT AND NEW DOOR OPEN'G
S301 SCALE: 1/2"=1'-0"



4 FOUNDATION WALL SECTION
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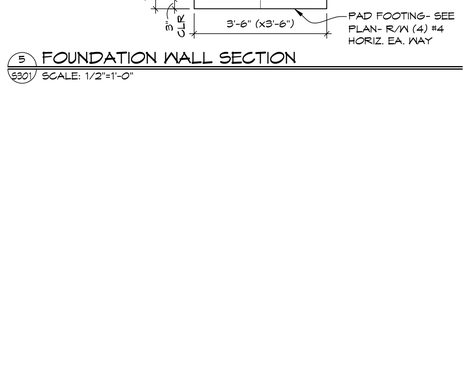
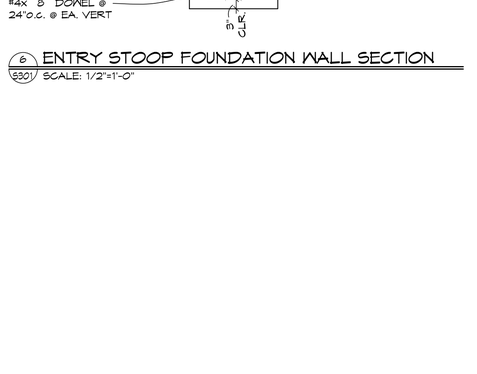
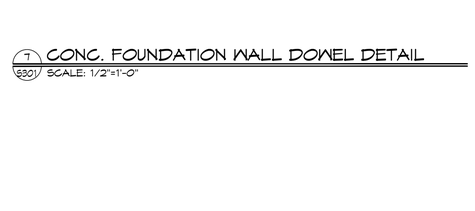


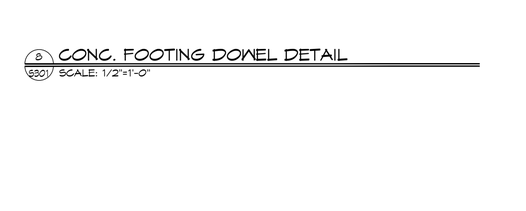
5 FOUNDATION WALL SECTION
S301 SCALE: 1/2"=1'-0"



6 ENTRY STOOP FOUNDATION WALL SECTION
S301 SCALE: 1/2"=1'-0"



7 CONC. FOUNDATION WALL DOWEL DETAIL
S301 SCALE: 1/2"=1'-0"



8 CONC. FOOTING DOWEL DETAIL
S301 SCALE: 1/2"=1'-0"

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FOUNDATION DETAILS

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REGISTERED PROFESSIONAL ENGINEER
DEREK J. KOST
PE 5638
DATE 10/1/24
NORTH DAKOTA

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DRAWN BY:	RWB / DJK
APPROVED BY:	DJK
DESIGN PROJ:	12493.700
CWS PROJ:	C2379A
SCALE:	AS NOTED
DATE:	OCT. 2024
DRAWING NO:	S301
SHEET NO:	of

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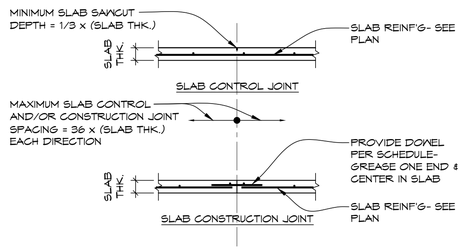
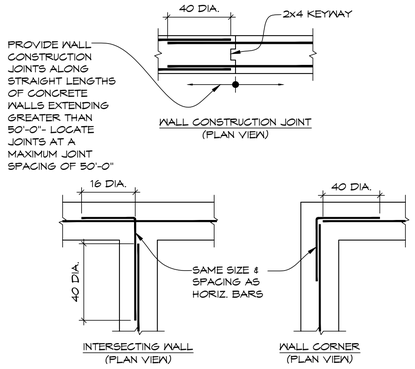
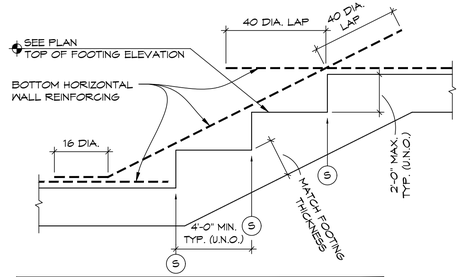


SLAB DOWEL SCHEDULE			
SLAB THICKNESS	SMOOTH DOWEL		
	DIAMETER	LENGTH	SPACING
4"	1/2"	16"	18"

1 TYPICAL SLAB-ON-GRADE JOINTING DETAIL
S302 SCALE: NO SCALE



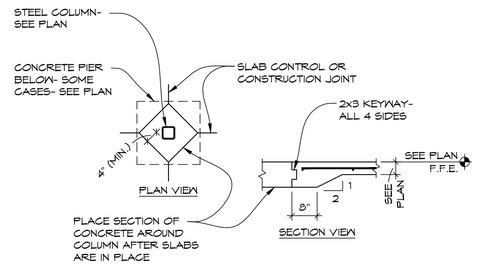
2 TYP. CONCRETE WALL REINFORCING DETS
S302 SCALE: NO SCALE



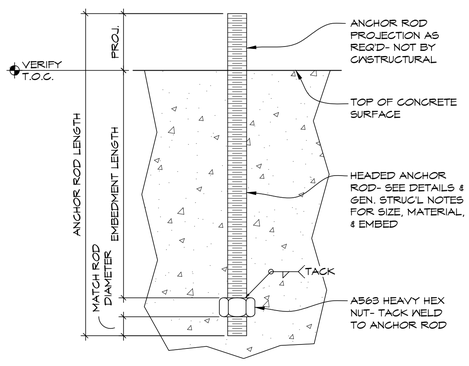
CONTRACTOR NOTE:

- "S" INDICATES A STEP IN THE TOP OF CONCRETE FOOTING ELEVATION- REFER TO THE FOUNDATION PLAN & NOTES FOR FOOTING STEP LOCATIONS & SPACINGS

3 TYPICAL FOOTING STEP DETAIL
S302 SCALE: NO SCALE



4 TYPICAL COLUMN ISOLATION JOINT DETAIL
S302 SCALE: NO SCALE



5 TYPICAL HEADED ANCHOR ROD DETAIL
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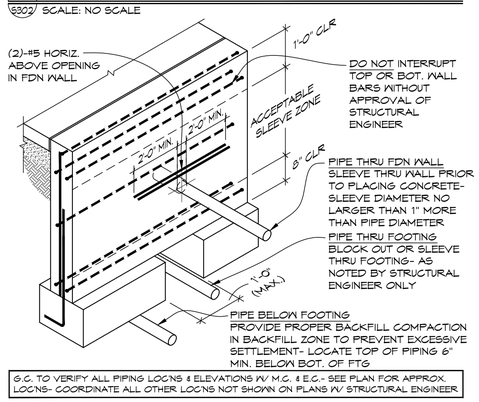
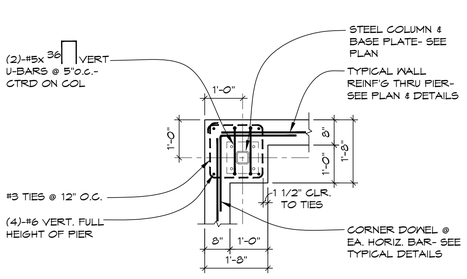
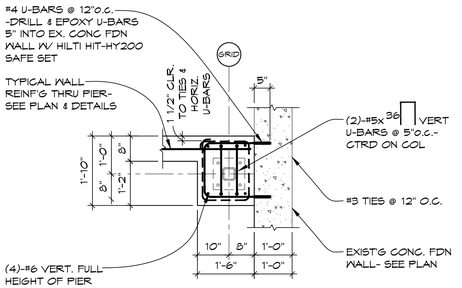


G.C. TO VERIFY ALL PIPING LOCNS & ELEVATIONS W/ M.C. & E.C.- SEE PLAN FOR APPROX. LOCNS- COORDINATE ALL OTHER LOCNS NOT SHOWN ON PLANS W/ STRUCTURAL ENGINEER

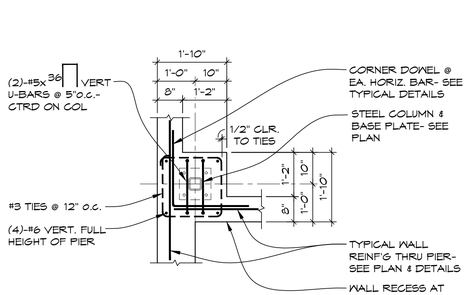
6 TYP. PIPING REQUIREMENTS CROSSING FDNS
S302 SCALE: 1/2"=1'-0"



A PIER REINFORCING DETAIL
SCALE: 1/2"=1'-0"



B PIER REINFORCING DETAIL
SCALE: 1/2"=1'-0"



C PIER REINFORCING DETAIL
SCALE: 1/2"=1'-0"

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TYP. FOUNDATION DETAILS & PIER DETAILS

MR&I OFFICE REMODEL
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REGISTERED PROFESSIONAL ENGINEER
DEREK J. KOST
PE 5638
DATE 10/1/24
NORTH DAKOTA

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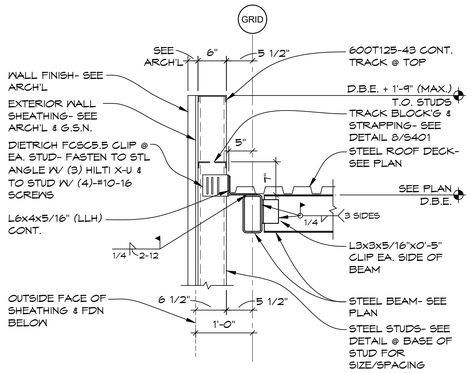
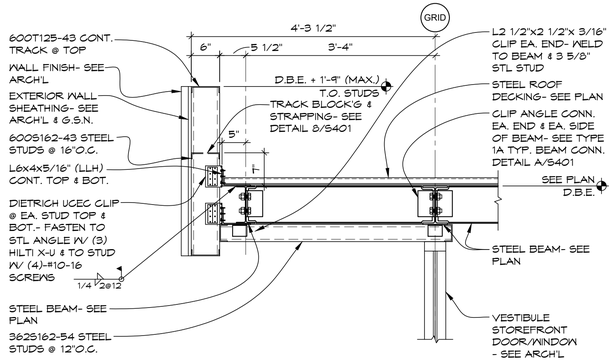
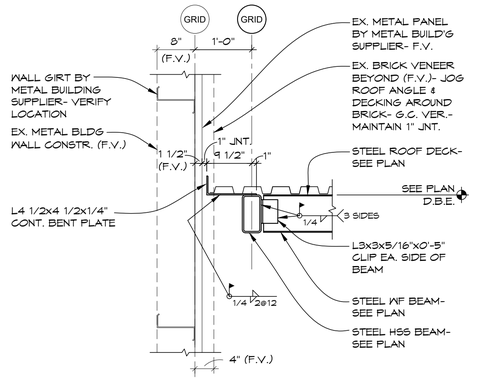


1 ROOF DECK STEEL STUD WALL
S401 SCALE: 3/4"=1'-0"

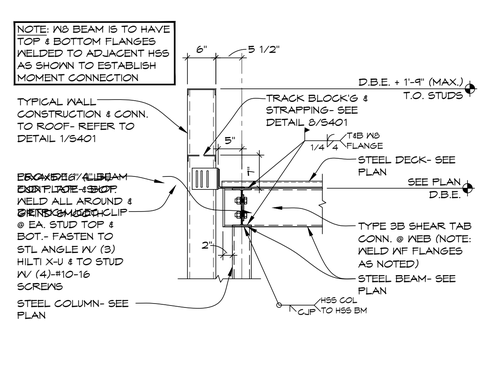


2 ROOF DECK AT CANTILEVER
S401 SCALE: 3/4"=1'-0"



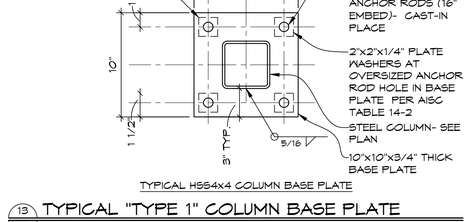
3 ROOF DECK AT EXIST'G METAL BUILDING
S401 SCALE: 3/4"=1'-0"

NOTE: W8 BEAM IS TO HAVE TOP & BOTTOM FLANGES WELDED TO ADJACENT HSS AS SHOWN TO ESTABLISH MOMENT CONNECTION



4 HSS FRAME BEAM END BRG ATOP HSS COLUMN
S401 SCALE: 3/4"=1'-0"

NOTE: W8 BEAM IS TO HAVE TOP & BOTTOM FLANGES WELDED TO ADJACENT HSS AS SHOWN TO ESTABLISH MOMENT CONNECTION



5 HSS FRAME BEAM BRG ATOP HSS COLUMN
S401 SCALE: 3/4"=1'-0"

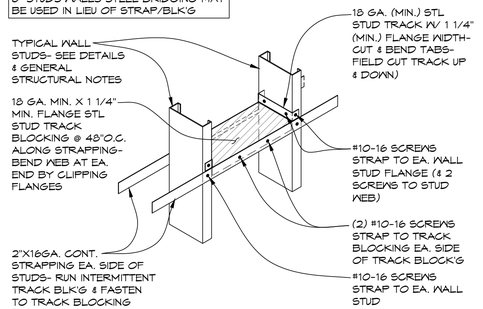
TYPE 1A BEAM CONNECTION TABLE			
BEAM SIZE	NUMBER OF BOLT ROWS	BEAM SIZE	NUMBER OF BOLT ROWS
W8 & W10	2 ROWS	W18	4 ROWS
W12	3 ROWS	W21	5 ROWS
W14	3 ROWS	W24	6 ROWS
W16	4 ROWS	W27	7 ROWS

6 TYPICAL TYPE 1A BEAM CONNECTION
S401 SCALE: 3/4"=1'-0"

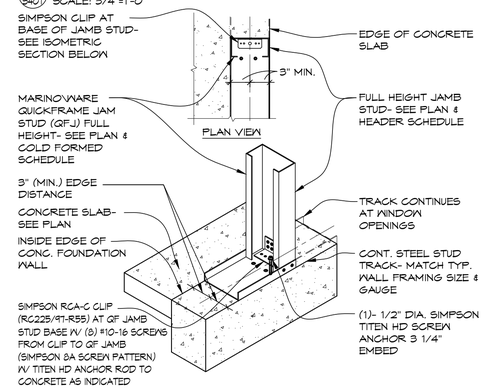
TYPE 3B BEAM CONNECTION TABLE			
BEAM SIZE	NUMBER OF BOLT ROWS	BEAM SIZE	NUMBER OF BOLT ROWS
W8 & W10	2 ROWS	W18	4 ROWS
W12	3 ROWS	W21	5 ROWS
W14	3 ROWS	W24	6 ROWS
W16	4 ROWS	W27	7 ROWS

7 TYP. TYPE 3B STD SINGLE-PLATE BEAM CONN.
SX SCALE: 3/4"=1'-0"

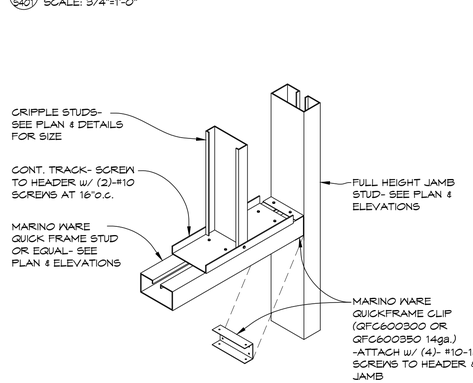
STEEL STRAPPING/BLOCKING SHOWN HERE MUST BE PRESENT AT 4'-0"O.C. FULL HEIGHT OF ALL STUD WALLS- IN 6" STUDS WALLS STEEL BRIDGING MAY BE USED IN LIEU OF STRAP/BLK'G



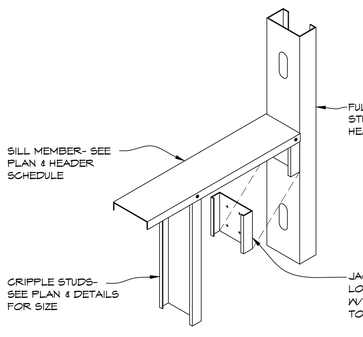
8 TYP. STEEL STUD STRAPPING DETAIL
S401 SCALE: 3/4"=1'-0"



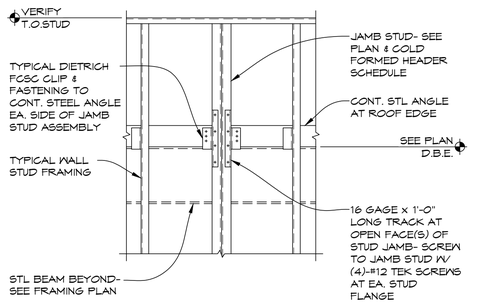
9 COLD FORMED TRACK SILL TO JAMB CONN.
S401 SCALE: NO SCALE



10 NON-LOAD BRG HDS HEADER TO JAMB CONN.
S401 SCALE: NO SCALE



11 COLD FORMED TRACK SILL TO JAMB CONN.
S401 SCALE: NO SCALE



12 STEEL STUD JAMB BYPASS CONNECTIONS
S401 SCALE: NO SCALE

TYPICAL HSS4x4 COLUMN BASE PLATE

13 TYPICAL "TYPE 1" COLUMN BASE PLATE
S401 SCALE: 3/4"=1'-0"

#	DESCRIPTION	DATE	BY

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 701-272-2252
www.bartlettwest.com

FRAMING DETAILS

MR&I OFFICE REMODEL
W CAUSEWAY RD, FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
DEREK J. KOST
PE 5638
DATE 10/1/24
NORTH DAKOTA

DESIGNED BY:	DJK
DRAWN BY:	RWB / DJK
APPROVED BY:	DJK
DESIGN PROJ:	12493.700
CWS PROJ:	C2379A
SCALE:	AS NOTED
DATE:	OCT. 2024
DRAWING NO:	S401
SHEET NO:	of

CWSTRUCTURAL ENGINEERS
1000 E. CALGARY AVE, SUITE 2
BISMARCK, NORTH DAKOTA 58503
701.221.3286
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Last edit on: 10/7/2024 2:07 PM by: ######## Drawing Name: Z:\CWStructural\CW-Projects-23\C79 - Bartlett & West\C2379A-MR&I Office Remodel\Structural\Drawings\WorkingDrawings\C2379A-StandingRockBIA-StandingRockRuralWaterOM-BldgRoofEval.dwg Layout Name: S401 Plotted By: ######## Plotted on: 10/7/2024 2:14:11 PM

GENERAL STRUCTURAL NOTES

GENERAL DESIGN AND CONSTRUCTION:

(1) All work shall comply with the 2021 International Building Code (IBC 2021).

(2) Design Loads:

Project Location: Fort Yates, ND

Wind loads: Per ASCE 7, Exposure Category "C", Iw = 1.0
Basic wind speed (Mapped 3-second gust) = 112 mph (Risk Category II)

Snow Load: Per ASCE 7 [Also see plan for potential additional snow drifting]
Calculated Roof Snow, Pf = 35 psf
Ground Snow (Mapped), Pg = 50 psf, Is = 1.0, Ce = 1.0, Ct = 1.0

Seismic loads per ASCE 7 (Fort Yates, ND)
Site class = D (Assumed), Ss = 0.06, S1 = 0.024, Ie=1.0
Site coefficient, Fa = 1.6, Site coefficient, Fv = 2.4
Seismic Design Category A

Roof Dead Load:
Roof Structure (Framing & Decking) Self Weight = 10 psf
Roof Collateral Dead Load = 10 psf

(3) Specific notes and details shall take precedence over General Structural Notes.

(4) The contract structural drawings and specifications represent the finished structure. Unless otherwise indicated, they do not indicate the means or method of construction. The contractor is solely responsible for the protection of the structure during all phases of demolition, construction and installation. Provide all measures necessary to protect the structure, workers or other persons by means of shoring, bracing and job site safety measures.

(5) Means-and-methods including temporary bracing and shoring against wind and erection is the responsibility of the contractor.

(6) No area of the structure shall be loaded with construction material or equipment that exceeds final design loading indicated.

(7) Verify location of box-outs and openings with mechanical and electrical contractors. Opening sizes and locations shown for pipes, ducts, etc. are for general information only and shall be verified with the mechanical and electrical contractors before commencing with work.

(8) Holes, pipes, sleeves, etc. through structural framing and foundations that are not shown on the drawings are not acceptable.

(9) Structural engineer's seal on the plan does not provide for construction inspection.

(10) The cost for additional structural engineering services necessitated by contractor requests for an option or due to errors or omissions in construction shall be the contractor's responsibility.

(11) Shop drawings prepared by suppliers, subcontractors, etc. shall be dimensioned, reviewed, coordinated, and signed/stamped by the general contractor prior to submitting to the structural engineer. Manufactured components such as steel stairs, trusses or precast concrete shall be engineered and stamped by a licensed Professional Engineer in the state the project is being built prior to submission.

(12) Verify all dimensions and conditions of existing construction to be as shown on the drawings. Advise the Architect and Structural Engineer of variances prior to continuing with construction.

(13) Protect existing construction from damage due to construction of new additions. Make no cuts or alterations to existing construction other than those shown on the drawings without the approval of the Architect and Structural Engineer.

(14) All necessary egress exit/entry doors must be constructed and maintained to operate freely at all times providing egress from the building as well as satisfying and maintaining any and all ADA requirements. Design and construction of exterior concrete sidewalks, stoops, paving, door sills, etc., to provide and maintain egress in a frost-free manner via stoop foundations, non-frost susceptible fill, flowable fill, shallow insulated frost-protected foundation or other means is not the responsibility of CWSTRUCTURAL Engineers.

(15) CWSTRUCTURAL may provide periodic observations to assure conformance with design intent of the construction documents. However, these observations are not meant to fulfill the requirements of the IBC required special inspections. CWSTRUCTURAL is not considered a qualified "Special Inspector" as it relates to required building code. Refer to the Special Inspections.

STATEMENT OF SPECIAL INSPECTIONS:

(1) Special inspections and structural testing shall be provided by an independent agency employed by the Owner, unless specified differently in project specifications, for the items identified in this section and in other areas of the approved construction plans and specifications, unless waived by the Building Official (see IBC Chapter 17).

Or

(2) The names and credentials of the Special Inspectors to be used shall be submitted to the Building Official for approval.

(3) Duties of the Special Inspector:
a. The Special Inspector shall review all work listed below for conformance with the approved construction plans and specifications and the IBC.
b. The Special Inspector shall furnish special inspection reports to the EOR, Contractor, Owner and Building Official on a weekly basis, or more frequently as required by the Building Official. All items not in compliance shall be brought to the immediate attention of the Contractor for correction, and if uncorrected, to the EOR and the Building Official.
c. Once corrections have been made by the Contractor, the Special Inspector shall submit a final signed report to the Building Official stating that the work requiring special inspection was, to the best of the Special Inspector's knowledge, in conformance with the approved construction plans and specifications as well as the applicable workmanship provisions of the IBC.

(1) Duties and responsibilities of the Contractor:
a. The Contractor shall submit a written statement of responsibility to the Owner and the Building Official prior to the commencement of work. In accordance with IBC 1704.4, the statement of responsibility shall contain acknowledgement of the special inspection requirements contained within the "Statement of Special Inspections".
b. The Contractor shall notify the responsible Special Inspector that work is ready for inspection at least one work day (24 hours minimum) before such inspection is required.
c. All work requiring special inspection shall remain accessible and exposed until it has been observed by the Special Inspector.

(1) **REQUIRED SPECIAL INSPECTIONS (Per IBC 2021)**:

CONCRETE (IBC Section 1705.3): Special inspections to be performed per "Required Special Inspection of Concrete Construction" table located within these construction documents and also called out in the IBC table 1705.3. (Exception: Special inspections are not required for concrete in the following cases:

1) Isolated spread concrete footings of buildings three stories of less above grade plane that are fully supported on earth or rock.
2) Continuous concrete footings supporting walls of buildings three stories or less above grade plane that are fully supported on earth of rock where:
1.1) The footings supporting walls of light-framed construction
1.2) The footings are designed in accordance with Table 1809.7 of the IBC.
1.3) The structural design of the footing is based on a specified compressive strength, f'c, not more than 2,500psi, regardless of the compressive strength specified in the approved construction documents or used in the footing construction.
3) Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi.
4) Concrete foundation walls constructed in accordance with Table 1807.1.6.2.
5) Concrete patios, driveways and sidewalks, on grade.)

WIND-RESISTING COMPONENTS (IBC Section 1705.11.3): *Periodic* special inspection is required for fastening of the following systems and components:
1.) Roof coverings, roof deck, and roof framing connections.
2.) Exterior wall covering, and wall connections to roof and floor diaphragms and framing.(i.e. Wood Studs, Steel Studs, CMU walls, etc.)

SOIL (IBC Section 1705.6): Special inspections to be performed per Table 1705.6 located both in the IBC and within these construction documents.

STRUCTURAL STEEL & STEEL JOISTS (IBC Section 1705.2, 1705.11, & 1705.12, and AISC 360): Special inspections to be performed per "Required Special Inspection of Structural Steel" table located within these construction documents and also called out in the IBC & AISC.

(6) Please see the "Special Inspection Schedules/Tables" for the types, extents and frequency of specific items requiring special inspections and structural tests as part of this project. Inspections and testing indicated in the special inspection tables are guidelines to the required inspection and testing required by the building code for the particular building. The IBC and referenced testing/inspection standards shall be reviewed and followed by the inspecting agency to ensure that all required testing/inspection and procedure for testing/inspection is achieved.

FOUNDATIONS:

(1) Assumed Geotechnical Design Values - All concrete foundation designs are based on assumed geotechnical design values to be confirmed by a geotechnical engineer. All foundation excavations must be observed and all assumed design values stated below shall be verified in writing by a licensed geotechnical engineer following on-site observation prior to fabricating steel and placing concrete any concrete. All assumed geotechnical design values are as follows:

A. Minimum Soil Bearing Capacity = 1500 psf
B. Backfill Soil Unit Weight (γ) = 110 pcf (dry)

(1) All footings shall bear on natural, undisturbed soil. All natural bearing material shall be approved in writing by a licensed Geotechnical Engineer prior to placing footing concrete.

(2) All seepage shall be continuously pumped from excavations until the Geotechnical Engineer of Record determines such seepage no longer impacts the bearing soils or Engineered Fill or construction of footings and floor slabs.

(3) Positive drainage shall be obtained away from the structures and care required for backfilling and drainage of utility trenches during construction shall be provided per the Geotechnical Report and the Civil drawings.

(4) Excavations shall be performed in accordance with all governing safety regulations including OSHA. There shall be no surcharge load from vehicles, equipment, materials, soil piles etc. near the crest of the excavation slopes per the Geotechnical Report. The responsibility for excavation safety and temporary construction slopes lies solely with the Contractor.

(5) A 6" thick aggregate base course acting as a capillary break and a vapor barrier shall be placed below all interior slabs-on-grade per the Geotechnical Report and the project specifications. A minimum 15 mil vapor barrier shall be placed on top of the aggregate base and directly below the slab with all seams overlapped a minimum of 6" and taped. The slab shall be properly cured as indicated in these General Structural Notes and the project specifications as well as per the recommendations of the ACI to avoid curling.

(6) Clean footing excavations of snow, water, mud, loose soil and debris prior to placing footing concrete.

(7) Footings may not be earth formed.

(8) All footings are centered under the steel columns or walls they support, except as noted otherwise.

(9) Excavations and backfill shall be executed and tested in accordance with the project specifications and soils report.

(10) Footing excavations shall be to proper line and level to insure minimum concrete cover of footing reinforcement for footing depth.

(11) Backfill shall be compacted by mechanical means.

(12) Place all backfill according to the project specifications. General contractor is required to temporarily brace all walls as required prior to and during the placing of backfill and until permanent support for the top and base of the walls are completely constructed.

(13) Protect all foundations from the action of water and freezing.

(14) See mechanical, electrical and architectural drawings for all openings and inserts not shown on the structural drawings. All openings and inserts shall be placed prior to casting concrete.

CONCRETE:

(1) Concrete mix design(s) shall be by an independent testing laboratory and shall be submitted to the Architect and Structural Engineer for approval at the responsibility of the General Contractor.

(2) Concrete Mix Designs:

Footings are to have a concrete mix design consisting of Portland Type I/II cement (5 sack min.) and a 28-day compressive strength of 4500 psi, 25% max fly ash allowed, 3/4" max aggregate size, 4" max slump, 0.50 max water-to-cement ratio, no air entrainment, water reducing admixture ok.

Foundation Walls are to have a concrete mix design consisting of Portland Type I/II cement (6 sack min.) and a 28-day compressive strength of 4500 psi, 25% max fly ash allowed, 3/4" max aggregate size, 4" max slump, 0.45 max water-to-cement ratio, 5% to 7% air entrainment, water reducing admixture ok, mid range plasticizer ok, super plasticizer requires prior approval.

Interior Slabs-on-Grade are to have a concrete mix design consisting of Portland Type I/II cement (5 sack min.) and a 28-day compressive strength of 4500 psi, 25% max fly ash (Note: fly ash will retard initial set time), 3/4" max aggregate size, 4" max slump, 0.48 max water-to-cement ratio, no air entrainment, water reducing admixture ok, mid range and super plasticizer requires prior approval.

Exterior exposed elevated slabs (Stoop slabs) are to have a concrete mix design consisting of Portland Type I/II cement (6 sack min.) and a 28-day compressive strength of 4,500 psi, 30% max fly ash (Note: fly ash will retard initial set time), 3/4" max aggregate size, 3" max slump, 0.41 max water-to-cement ratio, 5% to 7% air entrainment, water reducing admixture ok, mid range ok, super plasticizer requires prior approval.

Grout for steel base plates and bearing plates is to be of the non-shrink non-metallic type meeting ASTM C1107 with a maximum slump of 3" and a minimum 28-day compressive strength of 5000 psi. Follow manufacturer's directions for use.

(3) Concrete aggregate shall meet ASTM C33 with a maximum shale or deleterious material content of 1%.

(4) Portland cement shall meet ASTM C150 and shall be low Alkali.

(5) Fly Ash of "Type C meeting Class F" may be substituted by weight for cement up to maximum limits indicated in each concrete mix design.

(6) Mid-Range Plasticizer meeting ASTM C494 Type D is acceptable if noted in mix design. Mix is to have a maximum slump as indicated above for the particular mix design prior to adding the Mid-Range. Adjust air content as required by the supplier due to the use of the Mid-Range and its projected effect on the air content. Test for air after Mid-Range addition to achieve range specified. Slump is to be tested to meet that specified above for particular mix design prior to adding Mid-Range Plasticizer and no additional water may be added after slump test.

(7) Air Entraining agents shall meet ASTM C260.

(8) Concrete construction shall conform to the ACI building code requirements for reinforced concrete, ACI 318.

(9) Hot Weather Concreting per ACI 305R and Cold Weather Placement per ACI 306R shall be followed where weather conditions warrant.

(10) Slabs shall be cured with a curing compound as indicated in the specifications and per the recommendations of the ACI code relative to exposure to sunlight, wind, temperature, etc.
(11) Forms shall be left on all walls for a minimum of 2 days or longer as required at the discretion of the contractor.

(12) A continuous bond break, such as 3/8" asphaltic fiber board expansion joint material, shall be placed between the concrete slab and the perimeter foundation walls.

(13) All concrete pours shall be tested for strength (per ASTM C31 and C39), slump and air content. Test one cylinder at 7 days, one at 14 days, two at 28 days and hold one cylinder.

(14) All concrete reinforcing shall meet ASTM specification A615, Grade 60.

(15) Reinforcing steel shall be bent and placed in accordance with the ACI code. All tension splices shall be class 'B', 48 bar diameters, minimum. All compression splices shall be 40 bar diameters (minimum), unless noted otherwise. Lap all corner bars.

(16) Provide adequate support bars and accessories to hold all rebar firmly in place.

(17) All slabs are to be reinforced with bars located as called out on structural drawings. G.C. must use rebar support chairs to hold all slab bars firmly in their required location during pouring. Chairs are to be placed frequently enough to ensure no more than 1/4" of sag is present in any reinforcing bars.

(18) Concrete cover for reinforcing shall be per ACI 318.

(19) Slabs-on-grade are to be reinforced as shown on plans and details. Place slabs with construction and contraction joints per details.

(20) Openings in concrete shall be reinforced with (2)- #5 bars each side, extending 30" past the face of the opening unless otherwise noted.

(21) Interior concrete slabs-on-grade must not be allowed to freeze after pouring. Subgrade soil temperature beneath interior slabs-on-grade must be maintained above freezing at all times after pouring. Concrete shall not be poured on frozen soils.

(22) All reinforcing specified for interior slabs-on-grade and elevated slabs shall be supported adequately and firmly on chairs to maintain the clear distances specified.

(23) All vertical wall and pier bars must be extended to within 2" of the top of foundation walls unless shown otherwise on the drawings. All horizontal foundation wall bars must be placed within 4" of the top and bottom of the wall unless shown otherwise.

(24) All epoxy-set rebar doweling to concrete shall be HILTI HIT-HY 200 Safe Set System with HILTI Hollow Drill Bit System, except as noted otherwise. Install per manufacturer's recommendations.

STRUCTURAL STEEL:

(1) Structural steel work is to be per AISC specifications. Steel grade shall be ASTM A992 (Fy=50 ksi) for wide flange shapes, ASTM A500, Grade B (Fy=46 ksi) for cold-formed steel tubes and ASTM A36 (Fy=36ksi) for other shapes except as noted otherwise on the drawings.

(2) Beams and columns shall be erected true and plumb. Provide temporary bracing.

(3) Bearing plates for steel beams and columns shall be dry packed with dry grout as specified.

(4) All bolts in structural steel connections shall be ASTM F3125, Group A, standard heavy hex head or twist-off tension control (TC) High-Strength bolts, except as noted otherwise.

(5) All anchor rods for structural steel columns shall be ASTM F1554, Grade 36 (Fy=36ksi) threaded rod with a nut on the embedded end as indicated on the drawings.

(6) All screw anchors shall be carbon steel HILTI KWIK HUS-EZ, except as noted otherwise. Install bolts per manufacturer's recommendations with bolt embedment depth into concrete as indicated on structural drawings.

(7) All epoxy-set threaded rod anchorage to concrete shall be HILTI HIT-HY 200 Safe Set System with carbon-steel anchors (Anchors are to consist of 'HAS-B-105' (Fy=105 ksi) threaded rod material meeting ASTM 193, Grade B7 placed in holes cleaned with the Hilti Hollow Drill Bit System, except as noted otherwise). Install per manufacturer's recommendations with bolt embedment depth into concrete as indicated on structural drawings. Contractor is to provide heat as required to maintain minimum required concrete base material temperature per supplier recommendations during epoxy curing.

(8) No field welds are to be made until the members are properly aligned. Field welds are to be made by competent certified welders using proper electrodes and amperage.

(9) Shop welds for 50% of the beam moment splices shown on the details shall be shop inspected and tested by Magnetic Particle Inspection (MT). This testing shall be done on randomly selected connections by an independent testing laboratory with results forwarded to the Architect and Structural Engineer. Joints shall be reworked and tested as necessary. Costs of all testing and retesting shall be borne by the contractor.

STEEL DECKING:

(1) Metal deck is to be manufactured and erected in accordance with the Steel Deck Institute (SDI) specification.

(2) 1 1/2" steel roof decking is to have a minimum design yield strength of Fy=33 ksi and shall be fastened with support fasteners of #12 Tek screws in an SDI 36/7 fastener pattern at end members & interior supports. Also provide (1) #10 TEK screw sidelap fasteners at each span, except at the deck lap edge along the roof perimeter where standard support fasteners are to be provided to the perimeter steel supports.

(3) Steel deck panel ends (other than butted VLI composite decking) must overlap a minimum of 2". End lap and corner lap conditions must be snug and tight to one another and the supporting steel frame prior to frame fastener attachment.

(4) Powder-actuated deck fasteners may be substituted for indicated Tek screws at supports with approval of structural engineer of record. Powder actuated fasteners are to consist of Hilti X-ENP-19 L15 pins for steel thicker than 1/4" and Hilti X-HSN 24 pins for steel between 1/8" and 3/8" thick. Substitutions require approval from the structural engineer. Sidelap fasteners are to be provided as originally indicated at deck sidelaps and at perimeter deck edges.

(5) 5/8" diameter puddle welds may be substituted for indicated Tek screws at supports decking supports (welding washers are required for decking less than 0.028" thick). Stitch welds per the deck manufacturer's recommendations can be substituted for sidelap screw fasteners, though stitch welds are not to be used for deck less than 0.028" thick. All fastenings shall be made per the steel deck and mechanical fastener manufacturer's recommendations and specifications.

COLD-FORMED METAL FRAMING (GENERAL):

(1) Cold-formed framing members are to be provided as indicated on the structural drawings per standard nomenclature established by the American Iron and Steel Institute (AISI) identifying size, type and thickness of each member (studs, tracks, etc.)

(2) Prior to ordering, fabrication, and installation of cold-formed framing, the contractor shall submit manufacturer's product data of the cold-formed members and clips to the Architect and Structural Engineer for approval.

(3) Structural framing members shall be properly spaced, plumbed, leveled, squared, fit properly against abutting members and held securely in place until permanently fastened. Wire tying of structural framing members is not permitted.

(4) Factory punch-outs are to be located along the centerline of the member web with a minimum center-to-center spacing of 24"o.c. Punch-outs are to have a maximum width equal to the lesser of half the member depth or 2 1/2", and a maximum length of 4 ½".

(5) Fastening of framing components shall be by screws, powder actuated fasteners, welding or a combination of methods. The type, size, and spacing of fasteners shall be per manufacturer's recommendations, except as noted otherwise on the contract documents.

(6) All welded connections shall be made with the latest recommendations of AISI (American Iron and Steel Institute) and the AWS (American Welding Society).

(7) Structural framing members having protective coating removed by welding or other fastening method shall have the coating repaired by painting with a zinc-rich primer.

(8) Structural framing tracks shall have web in contact with a uniform and level bearing surface and be securely anchored as specified in the contract documents or approved connection details.

(9) Temporary bracing of wall framing shall be provided by the contractor and removed only after permanent bracing is installed.

(10) WOOD PANEL SHEATHING - All exterior wood panel sheathing shall be Exposure 1 rated plywood or OSB sheathing conforming to DOC PS 1 or PS 2 with a 24/16 APA Span Rating. All panels shall be identified with a grade mark of certificate of inspection issued by an APA approved agency. Fasteners are to be installed through the sheathing to the blocking. Sheathing is to be applied perpendicular to framing with sheathing fastened to framing with a minimum No. 8 countersunk tapping screws with a minimum head diameter of 0.285 inch or No. 10, countersunk tapping screws with a minimum head diameter of 0.333 inches. Screws used to attach sheathing are to conform to ASTM C1513 and are to be spaced at 6" o.c. at panel edges (edge spacing) and at 12"o.c. at intermediate framing members (field spacing). Screws are to be located not less than 3/8" from edges of panels & framing.

METAL BUILDINGS:

(1) The existing metal building roof panel to be replaced across the entire building is to have its steel thickness (gage) and configuration (profile) verified, along with the existing fastener configuration. All replacement metal building roof panel is to meet or exceed the existing roof panel thickness and configuration for strength and fasteners are to be replaced at the same spacing to ensure existing supporting framing is braced as intended by the original metal building design to support the roof snow loads indicated. Contractor is to coordinate with metal building supplier providing the metal building roof panel.

CWSTRUCTURAL ENGINEERS
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BISMARCK, NORTH DAKOTA 58503
701.221.3286
WWW.CWSTRUCTURAL.NET

#	DATE	DESCRIPTION	BY

Bartlett&West
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PHONE: 701-272-2252
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GENERAL STRUCTURAL NOTES

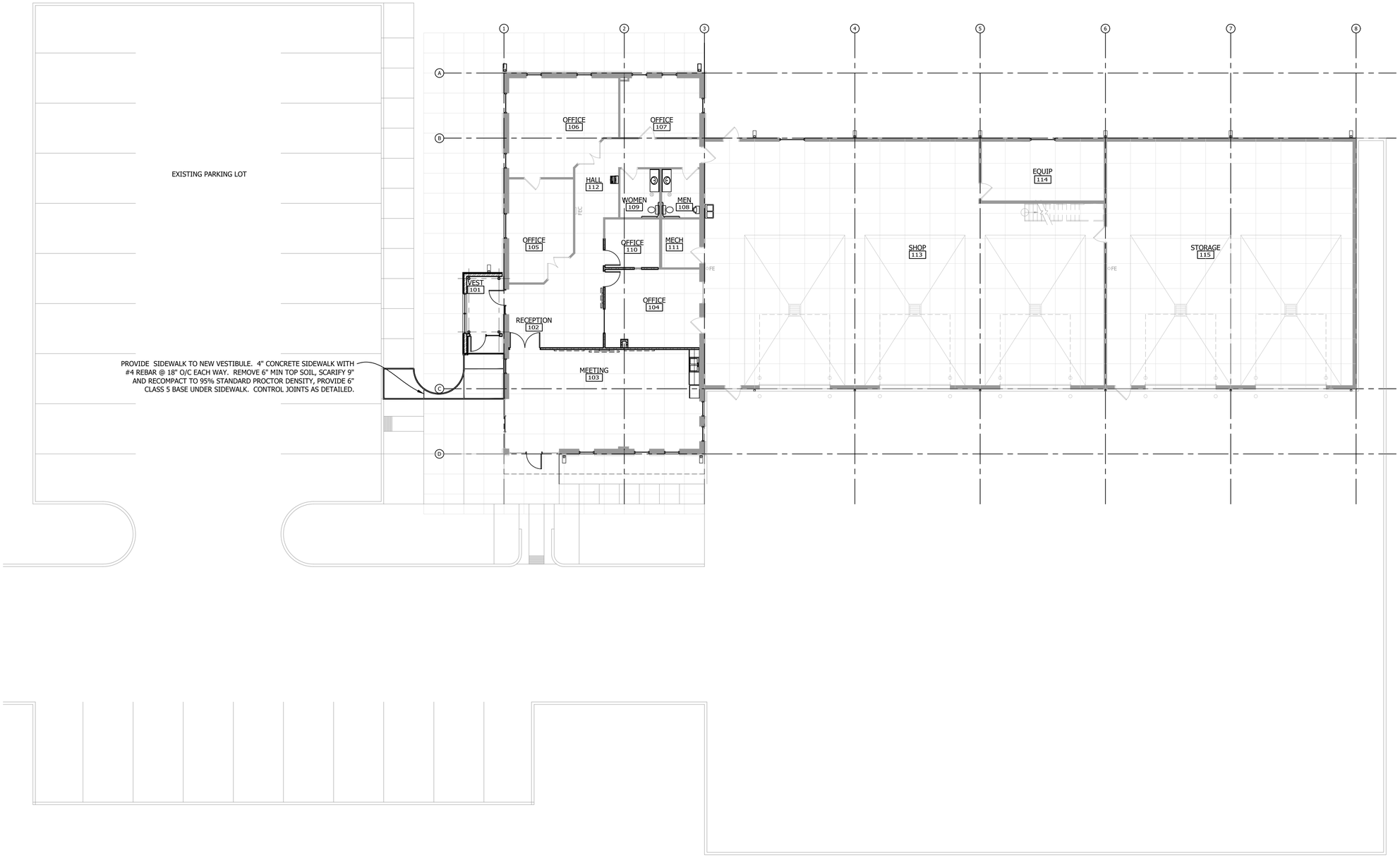
MR&I OFFICE REMODEL
W CAUSEWAY RD, FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
DEREK J. KOST
PE 5638
DATE 10/1/24
NORTH DAKOTA

DESIGNED BY:	DJK
DRAWN BY:	RWB / DJK
APPROVED BY:	DJK
DESIGN PROJ:	12493.700
CWS PROJ:	C2379A
SCALE:	AS NOTED
DATE:	OCT. 2024
DRAWING NO:	S501
SHEET NO:	of

Last edit on: 10/7/2024 2:07 PM by: ######## Drawing Name: Z:\CWStructural\CW-Projects- 23\C79 - Bartlett & West\C2379A-MR&I Office Remodel\Structural\Drawings\WorkingDrawings\C2379A-StandingRockRuralWaterOM-BldgRoofEval.dwg Layout Name: S501 Plotted By: ######## Plotted on: 10/7/2024 2:14:16 PM

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.



SITE PLAN
SCALE: 3/32"=1'-0" 1 0 1 2

REFERENCE NOTES:

GENERAL NOTES:

1. CONTRACTOR/S TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION AND/OR CONSTRUCTION.
2. THE DIVISION OF LABOR SHALL BE AS PER THE PROJECT SPECIFICATION MANUAL AND NOT THE NOTATION SYSTEM ON THE DRAWINGS.
3. EXTERIOR DIMENSIONS ARE TO THE FACE OF WALL AND TO GRID LINE UNLESS OTHERWISE NOTED.
4. TOPSOIL SHALL BE STRIPPED TO A MINIMUM DEPTH OF 6" AT ALL CONCRETE PAVEMENT AREAS.
5. REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS WIRE MESH IS NOT ALLOWED.
6. CONCRETE SHALL BE MINIMUM 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.

#	DATE	DESCRIPTION	BY

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
www.bartlettwest.com

SITE PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

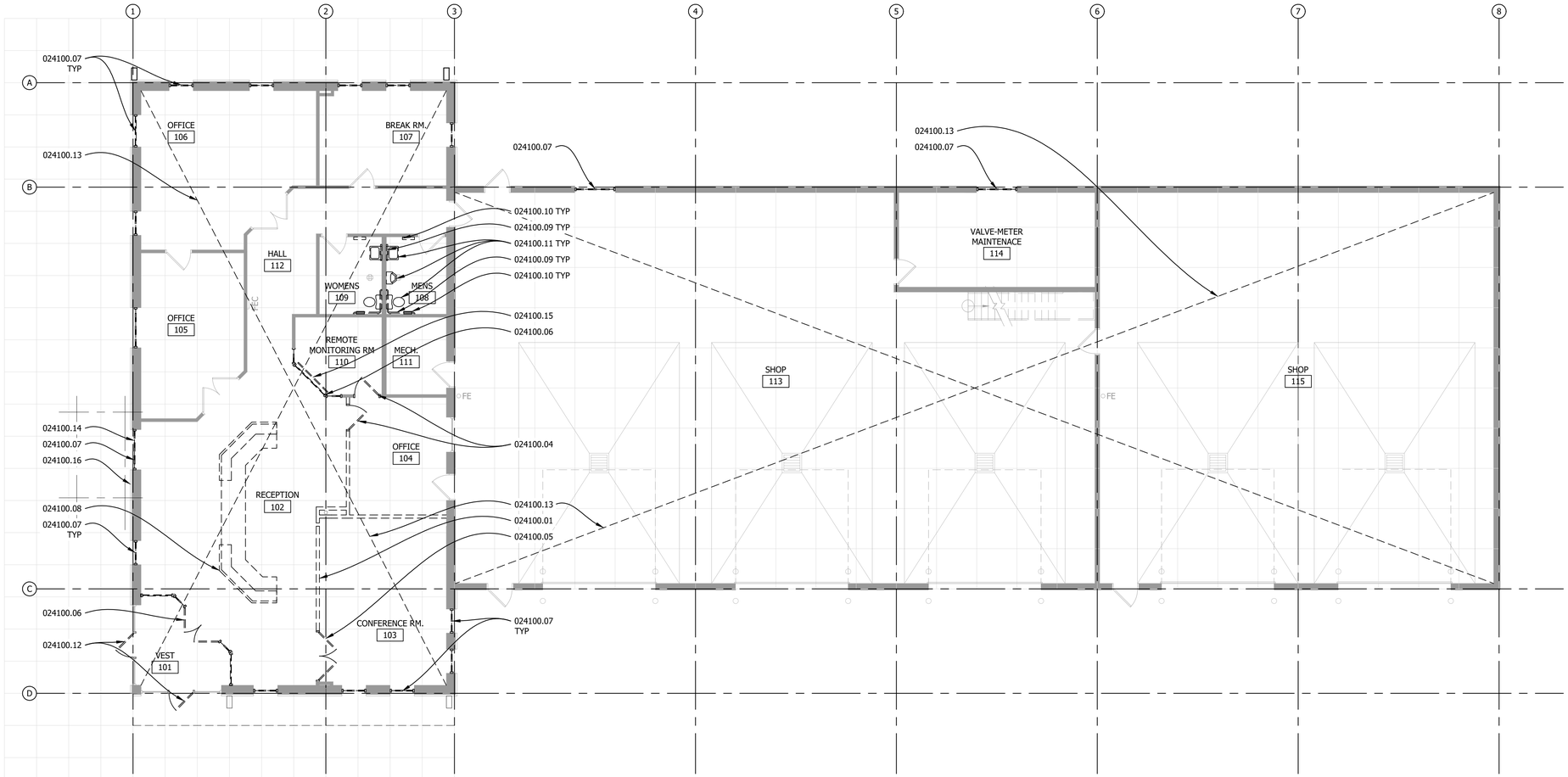
JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**A-011**
SHEET NO:	

Last edit on: 10/2/2024 5:11 PM by: JBN01642 Drawing Name: F:\Proj\120001\249312493.700\AutoCad\Plan Set\12493.700 - A100 - PLANS.dwg Layout Name: A-011 Plotted By: JBN01642 Plotted on: 10/2/2024 5:16:12 PM

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

REMOVAL SCHEDULE					
ROOM NO	AREA (SF)	DEMO FLOOR		DEMO CEILING	
		MATL	BASE	MATL	HEIGHT
101	109	VCT	RCB	ACT	9'-0"
102	678	CPT	RCB	ACT	9'-0"
103	328	CPT	RCB	ACT	9'-0"
104	176	CPT	RCB	ACT	9'-0"
105	245	CPT	RCB	ACT	9'-0"
106	377	CPT	RCB	ACT	9'-0"
107	185	VCT	RCB	ACT	9'-0"
108	72	--	RCB	GWB CLG	9'-0"
109	75	--	RCB	GWB CLG	9'-0"
110	103	CPT	RCB	ACT	9'-0"
111	72	--	--	--	--
112	302	CPT	RCB	ACT	9'-0"
113	3569	--	--	--	--
114	287	--	--	--	--
115	2386	--	--	--	--
201	287	--	--	--	--



GROUND LEVEL DEMOLITION PLAN
SCALE: 1/8"=1'-0" 1 0 8

REFERENCE NOTES:

024100.01	REMOVE AND DISPOSE OF WALL/S AS INDICATED. PREP AND CLEAN FLOOR FOR NEW FINISHES.
024100.04	REMOVE AND DISPOSE OF DOOR AND FRAME ASSEMBLIES AS INDICATED. SALVAGE AND STORE DOOR WINDOW BLINDS.
024100.05	REMOVE AND SALVAGE DOOR, FRAME, HARDWARE AND BLINDS AS INDICATED.
024100.06	REMOVE AND DISPOSE STOREFRONT/GLAZING ASSEMBLIES AND RELATED FINISHES. PREP AND CLEAN SURFACES FOR NEW FINISHES.
024100.07	REMOVE AND DISPOSE OF WINDOW SYSTEM AND BLINDS AS INDICATED. PREP OPENING FOR NEW WINDOW.
024100.08	REMOVE AND DISPOSE OF CASEWORK / WORKSURFACE / FURNISHING AS INDICATED.
024100.09	REMOVE AND DISPOSE OF TOILET ACCESSORIES, MIRRORS, AND RELATED ITEMS. PREP AND CLEAN SURFACES FOR NEW FINISHES.
024100.10	REMOVE AND DISPOSE OF RECESSED TOILET PAPER HOLDER AND PAPER TOWEL DISPENSOR. PATCH GYPSUM WALL BOARD AND PREPARE FOR NEW WALL FINISHES.
024100.11	REMOVE AND DISPOSE OF PLUMBING FIXTURE/EQUIPMENT. SEE PLUMBING.
024100.12	REMOVE AND DISPOSE OF THE STOREFRONT DOOR AND PREPARE FOR NEW DOOR/GLAZING AS INDICATED ON THE PLAN.
024100.13	REMOVE AND DISPOSE OF METAL ROOFING, INSULATION, AND RELATED FLASHINGS, GUTTERS, DOWNSPOUTS, AND METAL SOFFIT. PREPARE FOR NEW ROOFING AND SOFFIT INSTALLATION. REPORT ANY WATER DAMAGE TO ARCHITECT/ENGINEER BEFORE COVERING.
024100.14	REMOVE AND DISPOSE OF WALL BELOW EXISTING WINDOW FOR NEW DOOR OPENING. REMOVE BRICK WAINSCOAT AND TOOTH IN AT NEW OPENING. PREP AND CLEAN FOR NEW FINISHES.
024100.15	REMOVE AND TURN OVER TO OWNER SCADA MONITOR, STAND, AND COMPUTER. SEE ELECTRICAL.
024100.16	REMOVE AND DISPOSE OF METAL WALL PANELING AS NEEDED TO FACILITATE VESTIBULE INSTALLATION.

GENERAL NOTES:

1. OWNER WILL OCCUPY PORTIONS OF THE BUILDING IMMEDIATELY ADJACENT TO AREAS OF WORK. CONDUCT WORK IN A MANNER THAT WILL MINIMIZE NEED FOR DISRUPTION OF OWNERS OPERATIONS.
2. PROVIDE TEMPORARY BARRIERS TO PROTECT OWNERS PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO CONSTRUCTION WORK. TEMPORARY BARRIERS SHOULD KEEP OUT DUST AND CONSTRUCTION DEBRIS FROM OWNER OCCUPIED SPACES.
3. PROTECT FROM DAMAGE EXISTING FINISHES THAT ARE TO REMAIN IN PLACE.
4. CONTRACTOR SHALL VERIFY ALL EXISTING BUILDING DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE START OF WORK.
5. CONTRACTORS TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION AND/OR CONSTRUCTION.
6. SEE DEMO SCHEDULE FOR FLOOR AND CEILING DEMOLITION. PREP AND CLEAN ALL SURFACES TO RECEIVE NEW FINISHES.
7. INSPECT ROOFING INSULATION FOR MOLD AND WATER DAMAGE DURING DEMOLITION AND REPORT ANY FOUND DAMAGE TO ARCHITECT BEFORE COVERING.

DEMO SCHEDULE ABBREVIATIONS

ACT - REMOVE AND DISPOSE OF EXISTING ACOUSTICAL CEILING TILE AND GRID
GWB CLG - GYPSUM WALL BOARD CEILING
CPT - CARPET
PT - PORCELAIN TILE
RCB - RUBBER COVE BASE
VCT - VINYL COMPOSITE TILE

#	DATE	DESCRIPTION	BY

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DEMOLITION PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
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DRAWING NO:	A-101
SHEET NO:	

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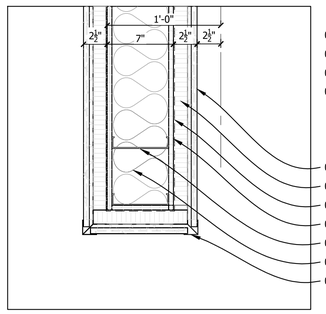
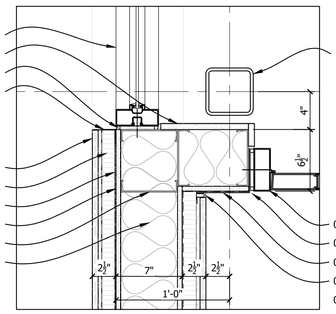
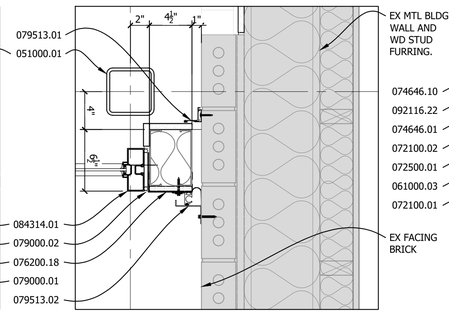


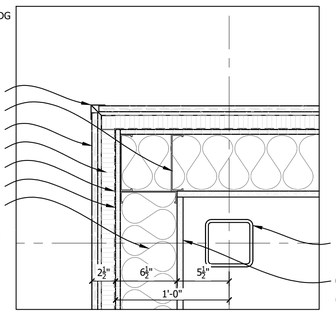
1 WALL DETAIL
SCALE: 1 1/2"=1'-0"



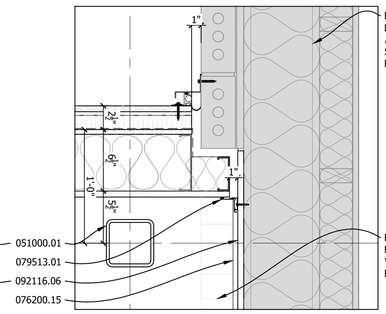
2 WALL DETAIL
SCALE: 1 1/2"=1'-0"



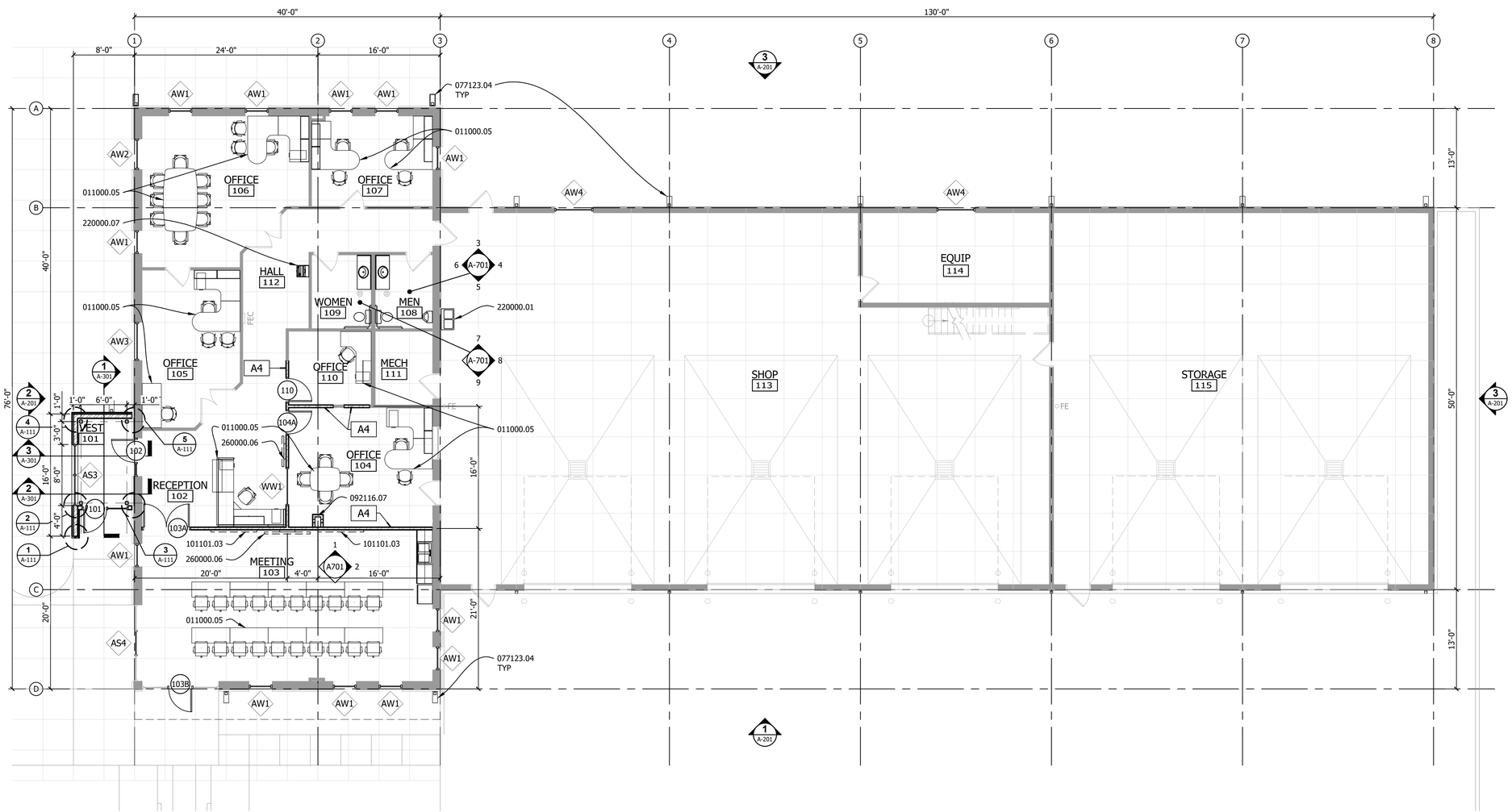
3 WALL DETAIL
SCALE: 1 1/2"=1'-0"



4 WALL DETAIL
SCALE: 1 1/2"=1'-0"



5 WALL DETAIL
SCALE: 1 1/2"=1'-0"



GROUND LEVEL FLOOR PLAN
SCALE: 1/8"=1'-0" 1 0 8

REFERENCE NOTES:

011000.05	OFFICE FURNISHINGS BY ALLOWANCE. GC TO PROVIDE DELIVERY AND INSTALLATION OF FURNISHINGS.
051000.01	STEEL COLUMN/BEAM.
061000.03	PLYWOOD SHEATHING.
072100.01	BATT INSULATION SYSTEM.
072100.02	1 1/2" RIGID WALL INSULATION SYSTEM.
072500.01	WEATHER BARRIER
074646.01	CEMENT FIBER BOARD PANEL SYSTEM. FASTEN SYSTEM TO WALL STUDS BEYOND.
074646.10	CORNER KEY TRIM.
076200.15	BRAKE METAL FLASHING.
076200.18	PROVIDE BRAKE METAL FLASHING AT DOOR BLOCKING TO MATCH ADJACENT STOREFRONT SYSTEM.
077123.04	PRECAST CONCRETE SPLASH PADS.
079000.01	SEALANT.
079000.02	SEALANT AND BACKER ROD.
079513.01	1" INTERIOR WALL AND CEILING EXPANSION JOINT COVER.
079513.02	1" EXTERIOR WALL JOINT AND COVER.
084314.01	ALUMINUM-FRAMED STOREFRONT SYSTEM.
092116.06	5/8" GYPSUM BOARD.
092116.07	FIELD VERIFY EXISTING COLUMN LOCATION AND PROVIDE FURRING WALL.
092116.22	6" METAL STUDS 16" O.C.
101101.03	MARKERBOARD
220000.01	PLUMBING FIXTURE/EQUIPMENT. SEE PLUMBING.
220000.07	ELECTRIC WATER COOLER, SEE PLUMBING.
260000.06	MONITOR AND BRACKET. GC TO PROVIDE BLOCKING.

GENERAL NOTES:

1. THIS IS A REMODEL TO AN EXISTING BUILDING. CONTRACTOR/S TO PROTECT ALL EXISTING ON-SITE CONDITIONS FROM ON GOING WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING BUILDING DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE START OF WORK.
3. CONTRACTOR/S TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION AND/OR CONSTRUCTION.
4. THE DIVISION OF LABOR SHALL BE AS PER THE PROJECT SPECIFICATION MANUAL AND NOT THE NOTATION SYSTEM ON THE DRAWINGS.
5. EXTERIOR DIMENSIONS ARE TO THE FACE OF BLOCK WALL, METAL STRUCTURE, OR GRID LINE UNLESS OTHERWISE NOTED.
6. ALL PARTITIONS TO EXTEND TO DECK/STRUCTURE ABOVE UNLESS OTHERWISE INDICATED. ALL PARTITION GWB JOINTS TO BE TAPED FROM FLOOR TO DECK UNLESS OTHERWISE NOTED.
7. PROVIDE GYP BOARD CONTROL JOINT FROM A CORNER OF ALL INTERIOR DOOR FRAMES AND BORROWED LITES.
8. ALL TRADES ARE RESPONSIBLE FOR SEALING THEIR RESPECTIVE PENETRATIONS INCLUDING FIRE SEPARATIONS. SEE CODE PLANS.
9. SEE SHEET G-103 FOR PARTITION TYPES.

#	DATE	DESCRIPTION	BY

Bartlett&West
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FLOOR PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARKIN REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	A-111
SHEET NO:	

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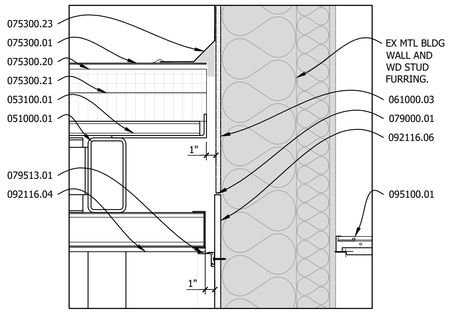
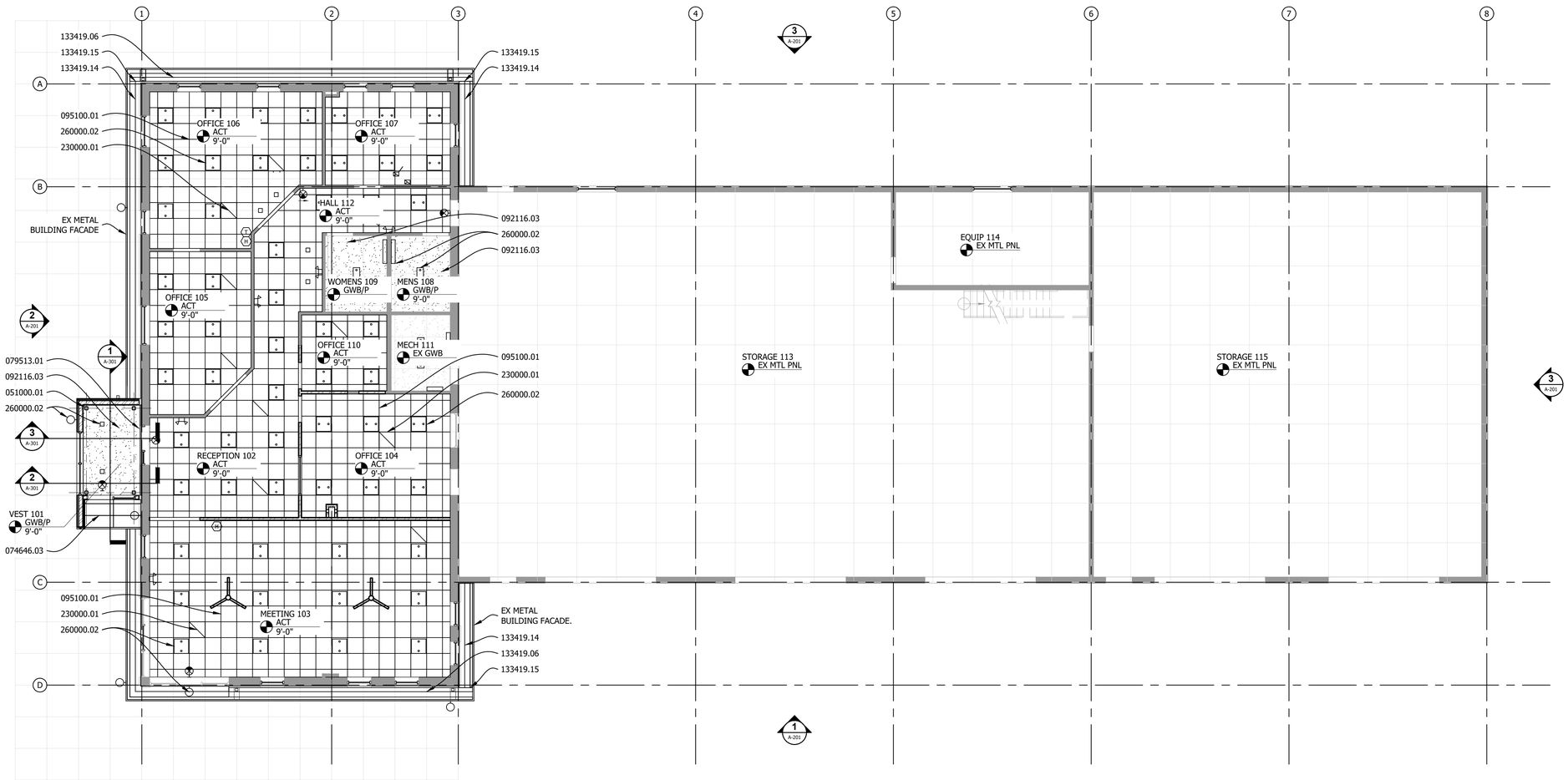


1 WALL DETAIL
SCALE: 1 1/2"=1'-0"



GROUND LEVEL REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0" 1 0 8

REFERENCE NOTES:

051000.01	STEEL COLUMN/BEAM.
053100.01	STEEL DECK. SEE STRUCTURAL
061000.03	PLYWOOD SHEATHING.
074646.03	CEMENT FIBER BOARD NON VENTED SOFFIT PANEL. FASTEN SYSTEM TO WALL STUD BEYOND.
075300.01	EPDM ROOFING SYSTEM. FULLY ADHERED.
075300.20	COVER BOARD.
075300.21	BASE AND TAPERED INSULATION.
075300.23	ROOF EXPANSION JOINT PER MANUFACTURES STANDARD DETAIL.
079000.01	SEALANT.
079513.01	1" INTERIOR WALL AND CEILING EXPANSION JOINT COVER.
092116.03	GYPSUM BOARD CEILING, PAINTED.
092116.04	1/2" GYPSUM BOARD CEILING OVER 3 5/8" METAL STUD.
092116.06	5/8" GYPSUM BOARD.
095100.01	ACOUSTICAL CEILING TILE AND SUSPENSION GRID SYSTEM. COORDINATE WITH INSTALLATION OF MECHANICAL AND ELECTRICAL DEVICES.
133419.06	GUTTER AND DOWNSPOUT SYSTEM.
133419.14	METAL SOFFIT SYSTEM AND FLASHINGS AT EXISTING CONDITIONS.
133419.15	METAL SOFFIT CLOSURE PANEL, MATCH EXISTING.
230000.01	HVAC FIXTURE/EQUIPMENT. SEE MECHANICAL
260000.02	LIGHTING FIXTURE. SEE ELECTRICAL.

GENERAL NOTES:

1. SEE MECHANICAL AND ELECTRICAL PLANS FOR DETAILED HVAC AND LIGHTING INFORMATION.
2. COORDINATE CEILING PENETRATIONS WITH THE PLUMBING, MECHANICAL AND ELECTRICAL TRADES.
3. COORDINATE CEILING SUSPENSION SYSTEMS WITH OTHER CEILING SPACE EQUIPMENT SUPPORTING DEVICES.

REFLECTED CEILING PLAN ABBREVIATIONS

ACT - PROVIDE ACOUSTICAL CEILING TILE AND GRID
EXIST - EXISTING CEILING SYSTEM TO REMAIN.
GWB CLG - GYPSUM WALL BOARD CEILING

RCP SYMBOL KEY

ROOM NAME AND NUMBER
CEILING FINISH
CEILING HEIGHT

SUSPENDED LIGHT FIXTURE

RECESSED DOWNLIGHT FIXTURE

RECESSED LIGHT FIXTURE

EXIT SIGN

2'-0" x 2'-0" ACOUSTIC TILE CEILING SEE SECTION 095100

GYPSUM BOARD CEILING SEE SECTION 092116

EXPOSED STRUCTURE SEE ROOM FINISH SCHEDULE FOR FINISH

SUPPLY AIR BY DIVISION 23

RETURN AIR BY DIVISION 23

#	DATE	DESCRIPTION	BY

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
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REFLECTED CEILING PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
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DATE:	OCTOBER 2024
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SHEET NO:	

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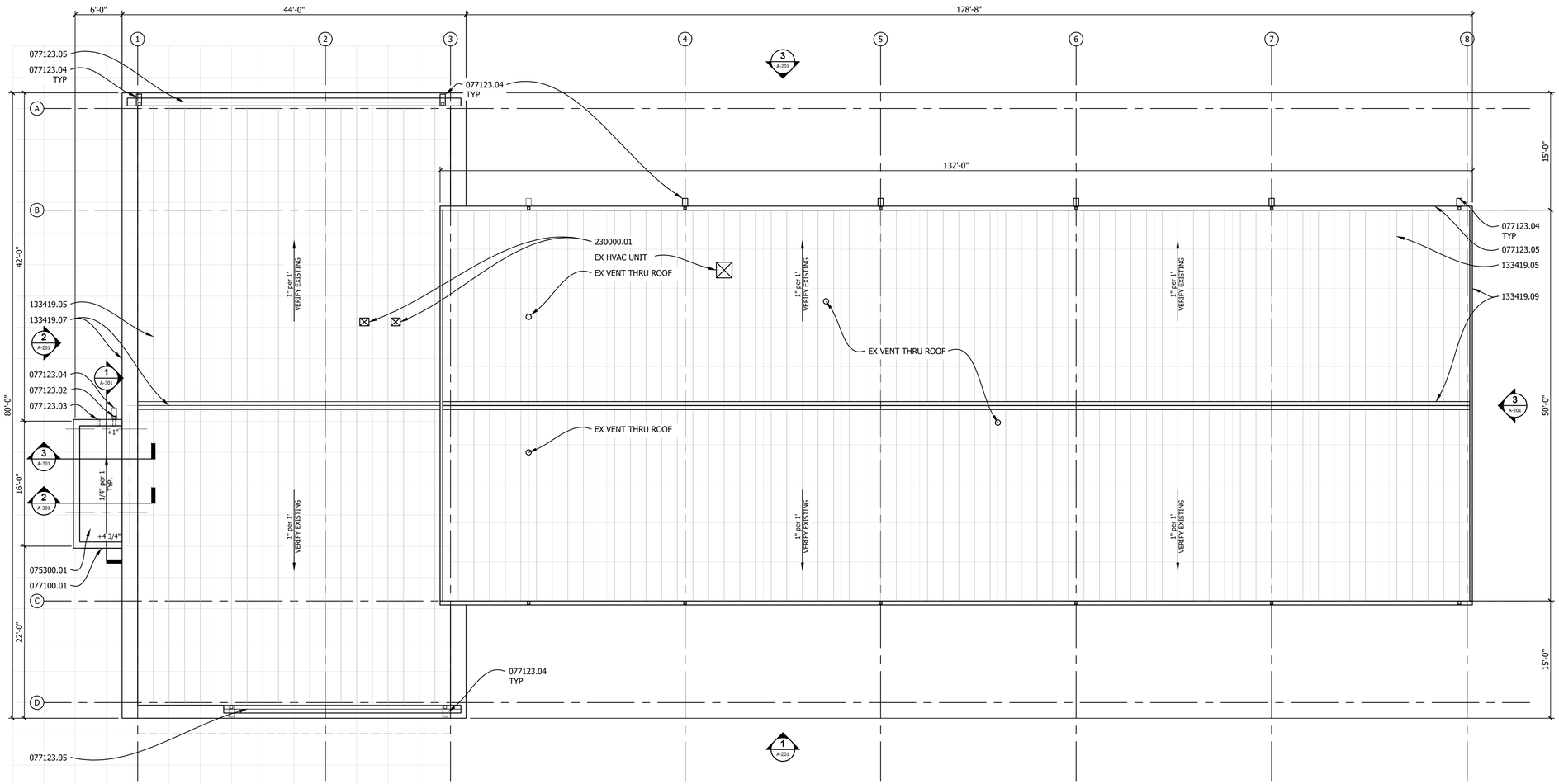

ROOF PLAN
SCALE: 1/8"=1'-0" 1 0 8

REFERENCE NOTES:

075300.01	EPDM ROOFING SYSTEM. FULLY ADHERED.
077100.01	PREFINISHED METAL COPING/FASCIA AND FLASHING SYSTEM (2 PART) W/ KEEPER. EXTEND ROOF MEMBRANE OVER WALL AND DOWN EXTERIOR FACE A MINIMUM OF 6".
077123.02	THRU-WALL SCUPPER AND DOWNSPOUT.
077123.03	OVERFLOW THRU-WALL SCUPPER AND DRIP EDGE. MOUNT 2" ABOVE FINISHED ROOF MEMBRANE.
077123.04	PRECAST CONCRETE SPLASH PADS.
077123.05	GUTTER AND DOWNSPOUT SYSTEM.
133419.05	STANDING SEAM METAL ROOF AND INSULATION SYSTEM.
133419.07	METAL ROOF TRIM.
133419.09	REPLACE METAL FACADE COPING. SLOPE TO DRAIN, MATCH EXISTING.
230000.01	HVAC FIXTURE/EQUIPMENT. SEE MECHANICAL

GENERAL NOTES:

1. SLOPED ROOFS WILL BE STANDING SEAM METAL ROOFS SEE SPEC SECTION FOR DETAILED INFORMATION.
2. LOW SLOPE ROOFING TYPE IS FULLY ADHERED EPDM. SEE SPECIFICATION SECTION 'ELASTOMERIC MEMBRANE ROOFING' FOR DESCRIPTION AND LOCATIONS. COORDINATE INSTALLATION OF VAPOR RETARDED SYSTEM ON METAL AND/OR PRECAST CONCRETE DECKS. VAPOR RETARDED SYSTEM SHALL BE SUITABLE FOR COLD WEATHER APPLICATION.
3. 0" INDICATES TOP OF UNIFORM THICKNESS BOARD INSULATION. UNIFORM THICKNESS BOARD INSULATION TO BE 4" THICK PROVIDED IN TWO LIFTS MINIMUM.
4. POSITIVE ELEVATIONS INDICATE TOP OF TAPERED BOARD INSULATION. TAPERED BOARD INSULATION SHALL SLOPE AT $\frac{1}{4}$" PER FOOT. TAPERED BOARD SHALL MEET THE ROOF SUMP WITH A MINIMUM THICKNESS OF 1".
5. THE G.C. SHALL PROVIDE MINIMUM 2X ROOF EDGE BLOCKING CONTINUOUS AT ENTIRE ROOF PERIMETER. G.C. TO PROVIDE BLOCKING THAT MEETS ROOFING MANUFACTURES UPLIFT REQUIREMENTS.
6. ALL WOOD BLOCKING MATERIALS SHALL BE TREATED AND COMPATIBLE WITH OTHER ROOFING SYSTEMS AND MATERIALS.
7. ROOF CONTRACTOR SHALL REVIEW ARCHITECTURAL, MEP, AND STRUCTURAL DRAWINGS TO DETERMINE EXACT CONDITIONS AS THEY RELATE TO THE WORK. CONTRACTORS SHALL REVIEW THESE DRAWINGS AND COORDINATE WITH OTHER TRADES AS NECESSARY.
8. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ACCEPTED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND NRCA STANDARDS.
9. EXISTING ROOF PENETRATIONS SHALL BE FIELD LOCATED BY THE G.C.
10. INSPECT ROOFING INSULATION FOR MOLD AND WATER DAMAGE DURING DEMOLITION AND REPORT ANY FOUND DAMAGE TO ARCHITECT BEFORE COVERING.

#	DATE	DESCRIPTION	BY

Bartlett & West
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ROOF PLAN

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JOSEPH P LARRIVEE
REGISTERED
PROFESSIONAL
1268
ARCHITECT
NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
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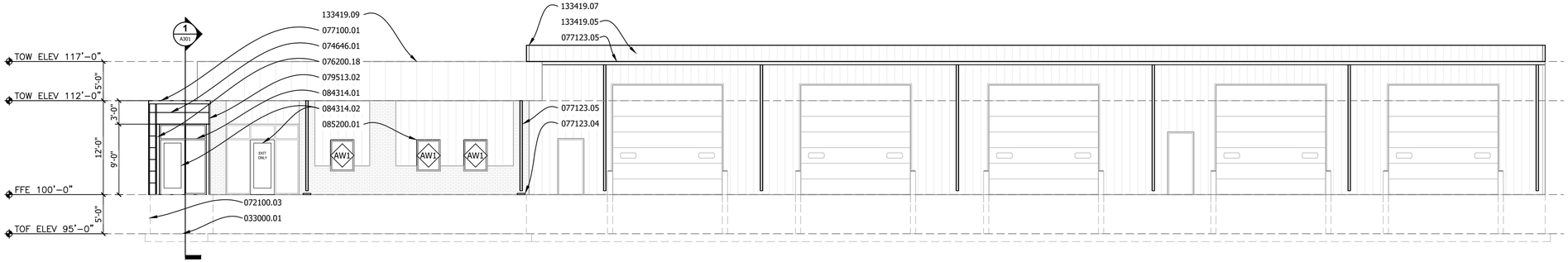

1 SOUTH BUILDING ELEVATION
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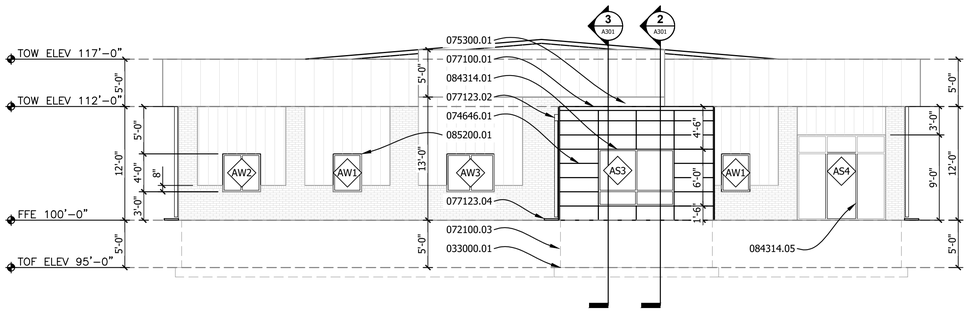

2 WEST BUILDING ELEVATION
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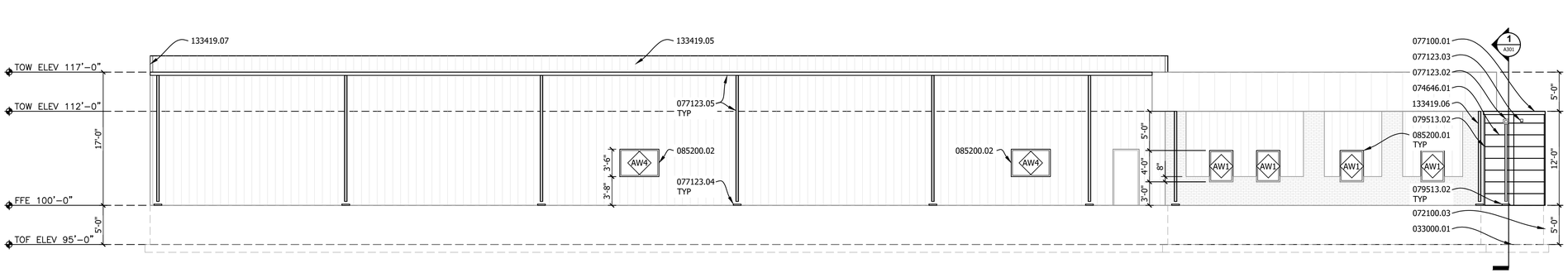

3 NORTH BUILDING ELEVATION
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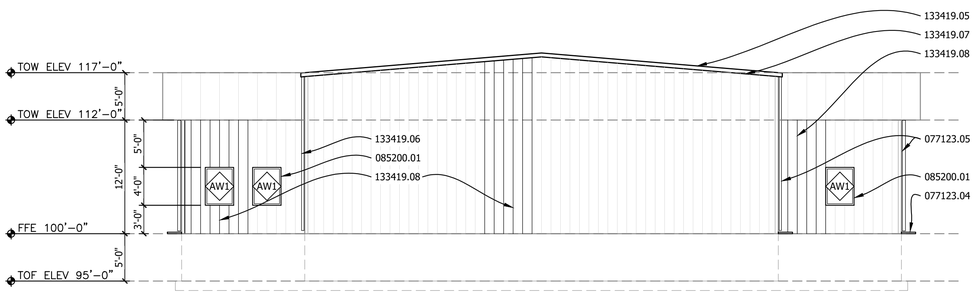

4 EAST BUILDING ELEVATION
SCALE: 1/8"=1'-0"

REFERENCE NOTES:

033000.01	CAST-IN-PLACE CONCRETE FOOTING/FOUNDATION WALL SYSTEM. SEE STRUCTURAL.
072100.03	2" RIGID, FOUNDATION WALL INSULATION SYSTEM.
074646.01	CEMENT FIBER BOARD PANEL SYSTEM. FASTEN SYSTEM TO WALL STUDS BEYOND.
075300.01	EPDM ROOFING SYSTEM. FULLY ADHERED.
076200.18	PROVIDE BRAKE METAL FLASHING AT DOOR BLOCKING TO MATCH ADJACENT STOREFRONT SYSTEM.
077100.01	PREFINISHED METAL COPING/FASCIA AND FLASHING SYSTEM (2 PART) W/ KEEPER. EXTEND ROOF MEMBRANE OVER WALL AND DOWN EXTERIOR FACE A MINIMUM OF 6".
077123.02	THRU-WALL SCUPPER AND DOWNSPOUT.
077123.03	OVERFLOW THRU-WALL SCUPPER AND DRIP EDGE. MOUNT 2" ABOVE FINISHED ROOF MEMBRANE.
077123.04	PRECAST CONCRETE SPLASH PADS.
077123.05	GUTTER AND DOWNSPOUT SYSTEM.
079513.02	1" EXTERIOR WALL JOINT AND COVER.
084314.01	ALUMINUM-FRAMED STOREFRONT SYSTEM.
084314.02	PREFINISHED ALUMINUM DOOR.
084314.05	REPLACE EXISTING ALUMINUM DOOR STOREFRONT FRAMING WITH NEW FRAMING FOR GLAZING PANEL.
085200.01	FIXED ALUMINUM CLAD WOOD WINDOW.
085200.02	SLIDING ALUMINUM CLAD WOOD WINDOW.
133419.05	STANDING SEAM METAL ROOF AND INSULATION SYSTEM.
133419.06	GUTTER AND DOWNSPOUT SYSTEM.
133419.07	METAL ROOF TRIM.
133419.08	REPLACE DAMAGED MECHANICALLY FASTENED STEEL SIDING, MATCH PROFILE AND COLOR.
133419.09	REPLACE METAL FACADE COPING. SLOPE TO DRAIN, MATCH EXISTING.

GENERAL NOTES:

1. THIS IS A REMODEL TO AN EXISTING BUILDING. CONTRACTOR/S TO PROTECT ALL EXISTING ON-SITE CONDITIONS FROM ON GOING WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING BUILDING DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE START OF WORK.
3. CONTRACTOR/S TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION AND/OR CONSTRUCTION.
4. THE DIVISION OF LABOR SHALL BE AS PER THE PROJECT SPECIFICATION MANUAL AND NOT THE NOTATION SYSTEM ON THE DRAWINGS.
5. EXTERIOR DIMENSIONS ARE TO THE FACE OF BLOCK WALL, METAL STRUCTURE, OR GRID LINE UNLESS OTHERWISE NOTED.
6. ALL PARTITIONS TO EXTEND TO DECK/STRUCTURE ABOVE UNLESS OTHERWISE INDICATED. ALL PARTITION GWB JOINTS TO BE TAPED FROM FLOOR TO DECK UNLESS OTHERWISE NOTED.
7. PROVIDE GYP BOARD CONTROL JOINT FROM A CORNER OF ALL INTERIOR DOOR FRAMES AND BORROWED LITES.
8. ALL TRADES ARE RESPONSIBLE FOR SEALING THEIR RESPECTIVE PENETRATIONS INCLUDING FIRE SEPARATIONS. SEE CODE PLANS.
9. SEE SHEET G-103 FOR PARTITION TYPES.

#	DATE	DESCRIPTION	BY

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
www.bartlettwest.com

ELEVATIONS

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	A-201
SHEET NO:	

Last edit on: 10/3/2024 4:31 PM by: JBN01642 Drawing Name: F:\Proj\12000\12493\12493.700\AutoCad\Plan Set\12493.700 - A200 - ELEVATIONS.dwg Layout Name: A-201 Plotted by: JBN01642 Plotted on: 10/3/2024 4:33:50 PM

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

REFERENCE NOTES:

033000.01	CAST-IN-PLACE CONCRETE FOOTING/FOUNDATION WALL SYSTEM. SEE STRUCTURAL.
033000.02	CAST-IN-PLACE CONCRETE SLAB-ON-GRADE SYSTEM WITH VAPOR BARRIER AND PREPARED SUBBASE. SEE STRUCTURAL.
033000.06	CAST-IN-PLACE CONCRETE STOOP SYSTEM. SEE STRUCTURAL.
033000.07	CAST-IN-PLACE CONCRETE SIDEWALK, SEE SITE PLAN.
051000.01	STEEL COLUMN/BEAM.
053100.01	STEEL DECK. SEE STRUCTURAL
061000.03	PLYWOOD SHEATHING.
072100.03	2" RIGID, FOUNDATION WALL INSULATION SYSTEM.
072100.04	1" RIGID INSULATION BETWEEN SLABS LOCATE BELOW THRESHOLD.
074646.01	CEMENT FIBER BOARD PANEL SYSTEM. FASTEN SYSTEM TO WALL STUDS BEYOND.
074646.03	CEMENT FIBER BOARD NON VENTED SOFFIT PANEL. FASTEN SYSTEM TO WALL STUD BEYOND.
074646.04	CEMENT FIBER BOARD SILL FLASHING.
074646.09	CEMENT FIBER BOARD OVERHANG FLASHING.
075300.01	EPDM ROOFING SYSTEM. FULLY ADHERED.
075300.21	BASE AND TAPERED INSULATION.
075300.23	ROOF EXPANSION JOINT PER MANUFACTURES STANDARD DETAIL.
076200.15	BRAKE METAL FLASHING.
077100.01	PREFINISHED METAL COPING/FASCIA AND FLASHING SYSTEM (2 PART) W/ KEEPER. EXTEND ROOF MEMBRANE OVER WALL AND DOWN EXTERIOR FACE A MINIMUM OF 6".
077123.02	THRU-WALL SCUPPER AND DOWNSPOUT.
077123.03	OVERFLOW THRU-WALL SCUPPER AND DRIP EDGE. MOUNT 2" ABOVE FINISHED ROOF MEMBRANE.
079000.01	SEALANT.
079000.02	SEALANT AND BACKER ROD.
079000.05	1/2" EXPANSION JOINT MATERIAL AND SEALANT. SEE STRUCTURAL/CIVIL.
079513.01	1" INTERIOR WALL AND CEILING EXPANSION JOINT COVER.
084314.01	ALUMINUM-FRAMED STOREFRONT SYSTEM.
084314.02	PREFINISHED ALUMINUM DOOR.
087111.02	DOOR THRESHOLD. PLACE IN BED OF SEALANT.
092116.04	1/2" GYPSUM BOARD CEILING OVER 3 5/8" METAL STUD.
092116.06	5/8" GYPSUM BOARD.
092116.09	3 5/8" MTL STUDS 12" O.C. W/EXTERIOR PLYWOOD SHEATHING, BATT INSULATION AND WEATHER BARRIER.
092116.10	6" MTL STUDS 16" O.C. W/ G.W.B., BATT INSUALTION, EXTERIOR PLYWOOD SHEATHING, WEATHER BARRIER, AND 1 1/2" RIGID INSULATION.
092116.11	HEADER. SEE STRUCTURAL.
095100.01	ACOUSTICAL CEILING TILE AND SUSPENSION GRID SYSTEM. COORDINATE WITH INSTALLATION OF MECHANICAL AND ELECTRICAL DEVICES.
096500.01	RESILEINT WALL BASE SYSTEM.
133419.05	STANDING SEAM METAL ROOF AND INSULATION SYSTEM.
133419.07	METAL ROOF TRIM.
133419.09	REPLACE METAL FACADE COPING. SLOPE TO DRAIN, MATCH EXISTING.
133419.14	METAL SOFFIT SYSTEM AND FLASHINGS AT EXISTING CONDITIONS.

GENERAL NOTES:

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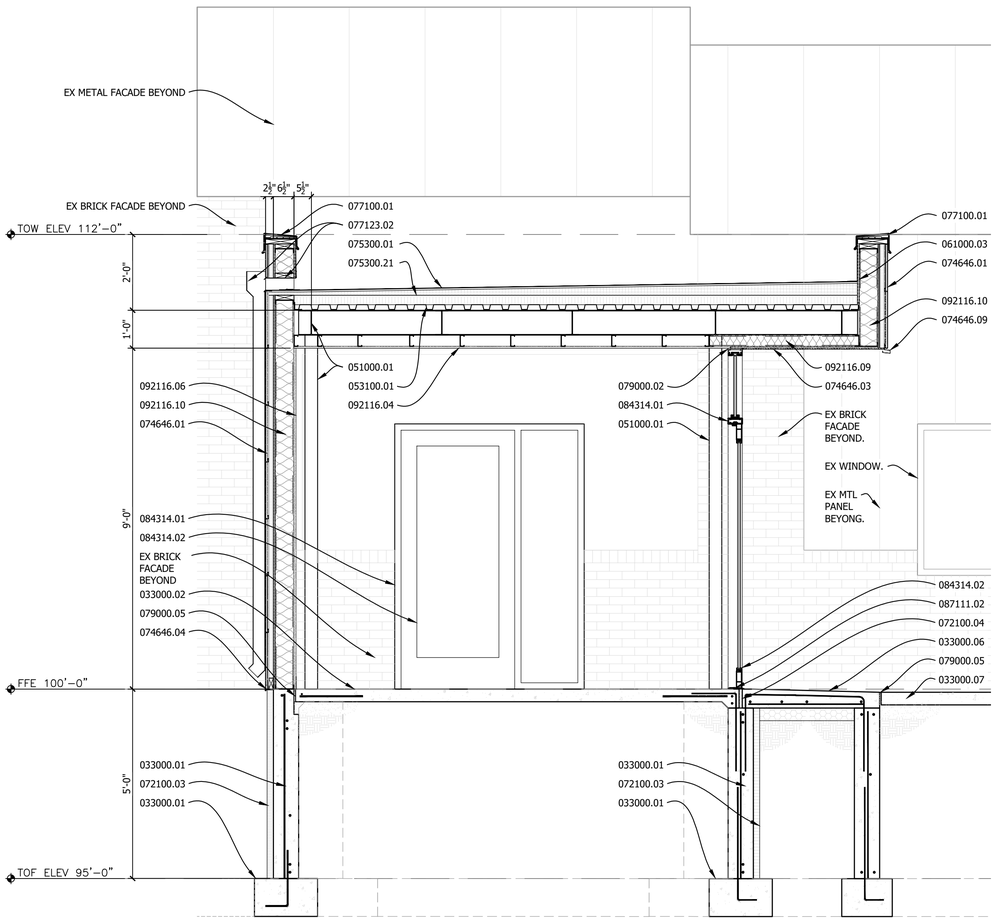
5. EXTERIOR DIMENSIONS ARE TO THE FACE OF BLOCK WALL, METAL STRUCTURE, OR GRID LINE UNLESS OTHERWISE NOTED.
6. PROVIDE TEMPORARY BARRIERS TO PROTECT OWNERS PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO CONSTRUCTION WORK. TEMPORARY BARRIERS SHOULD KEEP OUT DUST AND CONSTRUCTION DEBRIS FROM OWNER OCCUPIED SPACES.
7. ALL PARTITIONS TO EXTEND TO DECK/STRUCTURE ABOVE UNLESS OTHERWISE INDICATED. ALL PARTITION GWB JOINTS TO BE TAPED FROM FLOOR TO DECK UNLESS OTHERWISE NOTED.
8. ALL TRADES ARE RESPONSIBLE FOR SEALING THEIR RESPECTIVE PENETRATIONS INCLUDING FIRE SEPARATIONS. SEE CODE PLANS.
9. SEE SHEET G-103 FOR PARTITION TYPES.



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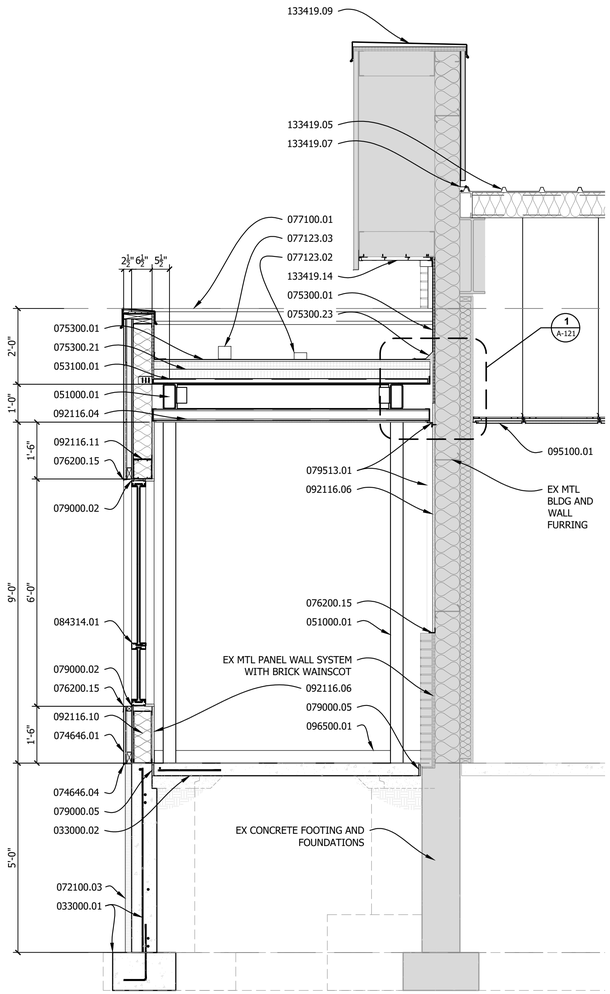

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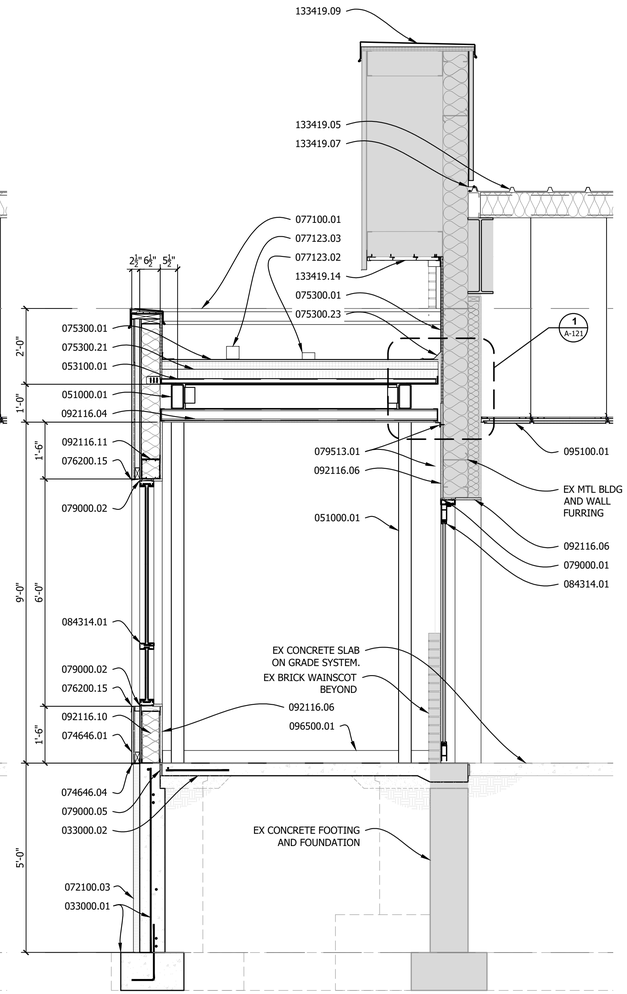

3 BUILDING SECTION
SCALE: 1/2"=1'-0"

#	DATE	DESCRIPTION	BY

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
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SECTIONS

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARKIN REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**A-301**
SHEET NO:	

Last edit on: 10/2/2024 2:42 PM by: JBN01642 Drawing Name: F:\Proj\12000\12493\12493.700\AutoCad\Plan Set\12493.700 - A300 - SECTIONS.dwg Layout Name: A-301 Plotted By: JBN01642 Plotted on: 10/2/2024 5:16:51 PM

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

ROOM FINISH SCHEDULE

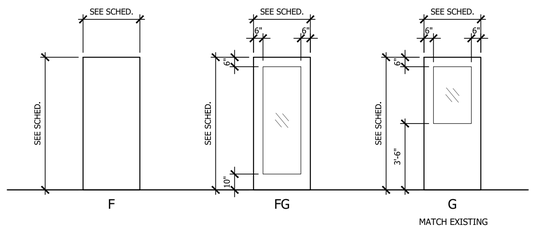
ROOM NO	RM NAME	FLOOR	BASE	WALLS				CEILING		REMARKS
				N	E	S	W	MATL	HEIGHT	
101	VEST	LVT	RCB	GWB/P	GWB/P	GWB/P	GWB/P	GWB CLG/P	9'-0"	PAINT STEEL COLUMNS. DO NOT PAINT EXISTING BRICK.
102	RECEPTION	LVT	RCB	EX GWB/P	GWB/P	GWB/P	EX GWB/P	ACT	9'-0"	--
103	MEETING	LVT	RCB	GWB/P	EX GWB/P	EX GWB/P	EX GWB/P	ACT	9'-0"	-
104	OFFICE	LVT	RCB	EX GWB & GWB/P	EX GWB/P	GWB/P	GWB/P	ACT	9'-0"	--
105	OFFICE	LVT	RCB	EX GWB/P	EX GWB/P	EX GWB/P	EX GWB/P	ACT	9'-0"	--
106	OFFICE	LVT	RCB	EX GWB/P	EX GWB/P	EX GWB/P	EX GWB/P	ACT	9'-0"	--
107	OFFICE	LVT	RCB	EX GWB/P	EX GWB/P	EX GWB/P	EX GWB/P	ACT	9'-0"	--
108	MEN	LVT	RCB	EX GWB/P	GWB/P	EX GWB/P	EX GWB/P	GWB CLG/P	9'-0"	PATCH GWB AS NEEDED TO ACCOMODATE THE WORK, TAPE AND PREPARE FOR FINISHES. COORDINATE WITH M/C.
109	WOMEN	LVT	RCB	EX GWB/P	EX GWB/P	EX GWB/P	EX GWB/P	GWB CLG/P	9'-0"	PATCH GWB AS NEEDED TO ACCOMODATE THE WORK, TAPE AND PREPARE FOR FINISHES. COORDINATE WITH M/C.
110	OFFICE	LVT	RCB	EX GWB/P	GWB/P	GWB/P	EX GWB/P	ACT	9'-0"	--
111	MECH	EX CONC	EX RCB	EX GWB	EX GWB	EX GWB	EX GWB	EX GWB CLG	9'-0"	PATCH AND PAINT WALL/CEILING TO SUPPORT MEP WORK.
112	HALL	LVT	RCB	EX GWB/P	EX GWB/P	EX GWB/P	EX GWB/P	ACT	9'-0"	--
113	SHOP	EX CONC	-	EX MTL PNL	EX MTL PNL	EX MTL PNL	EX MTL PNL	EX MTL PNL	--	SEE PLUMBING FOR CONCRETE FLOOR REMOVALS AND PATCHING.
114	EQUIP	EX CONC	--	EX MTL PNL	EX MTL PNL	EX MTL PNL	EX MTL PNL	EX MTL PNL	--	--
115	STORAGE	EX CONC	--	EX MTL PNL	EX MTL PNL	EX MTL PNL	EX MTL PNL	EX MTL PNL	--	--

DOOR AND FRAME SCHEDULE

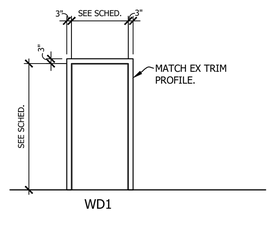
MARK	DOOR						FRAME								RATING	HW SET	REMARKS
	SIZE			EL	MATL	GLAZING	SIZE			EL	MATL	DETAIL					
	WD	HGT	THK				WD	HGT	THK			HEAD	JAMB	SILL			
101	3'-0"	7'-0"	1 3/4"	FG	ALUM	1" INSUL	6'-0"	9'-0"	4 1/2"	AS1	ALUM	1/A-301	--	1/A-301	--	1	--
102	3'-0"	7'-0"	1 3/4"	FG	ALUM	1/4" TEMPERED	5'-0"	7'-0"	4 1/2"	AS2	ALUM	3/A-301	--	3/A-301	--	3	--
103A	6'-0"	6'-8"	1 3/4"	FG	WD	EXIST	6'-4"	6'-10"	5 3/4"	WD1	WD	--	--	--	--	--	INSTALL SALVAGED DOOR, FRAME, HARDWARE, AND BLINDS.
103B	3'-0"	7'-0"	1 3/4"	FG	ALUM	1" INSUL	9'-4"	9'-0"	4 1/2"	AS5	ALUM	--	--	--	--	2	INSTALL NEW DOOR IN EXIST FRAME
104A	3'-0"	6'-8"	1 3/4"	G	WD	1/4" SAFETY	3'-4"	6'-10"	5 3/4"	WD1	WD	--	--	--	--	4	INSTALL SALVAGED WINDOW BLINDS
110	3'-0"	6'-8"	1 3/4"	G	WD	1/4" SAFETY	3'-4"	6'-10"	5 3/4"	WD1	WD	--	--	--	--	4	INSTALL SALVAGED WINDOW BLINDS

DOOR HARDWARE SCHEDULE

HARDWARE SET	HINGES			LATCH	EXIT DEVICE	CLOSER	GASKET	SWEEP	THRESHOLD	STOPS	REMARKS
	QTY	SIZE	DESIGN BASIS	DESIGN BASIS	DESIGN BASIS	DESIGN BASIS	DESIGN BASIS	DESIGN BASIS	DESIGN BASIS	DESIGN BASIS	
1	AS REQR	4 1/2" X 4 1/2"	BB1191 NRP US32D	--	CD - 99 - NLOP - 626 20-079 626	4040XP - CUSH - AL	S88GR	964C	S205A	--	PROVIDE IVES 8103 10" PULL, 626.
2	AS REQR	4 1/2" X 4 1/2"	BB1191 NRP US32D	--	CD - 99 - EO - 626 20-079 626	4040XP - CUSH - AL	S88GR	964C	S205A	--	--
3	AS REQR	4 1/2" X 4 1/2"	BB1279 US26D	--	--	4040XP - CUSH - AL	--	--	--	--	PROVIDE IVES 9103 10" PULL/PUSH BAR COMBO, 626.
4	AS REQR	4 1/2" X 4 1/2"	BB1279 US26D	ND53PD - RHO - 626	--	--	--	--	--	3211T-32D	PROVIDE DOOR SILENCERS.



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



2 FRAME ELEVATIONS
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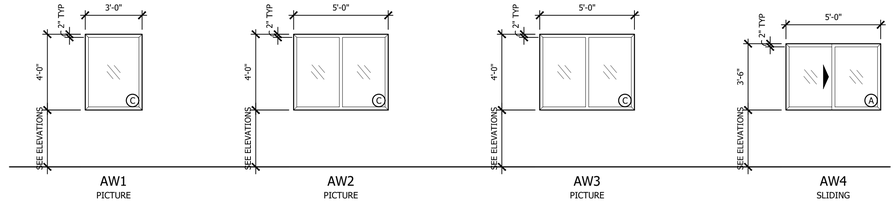
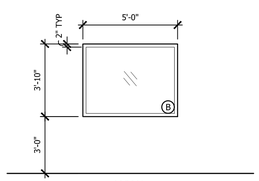


3 ALUMINUM CLAD WOOD WINDOW ELEVATIONS
SCALE: 1/4"=1'-0"



4 WOOD WINDOW ELEVATIONS
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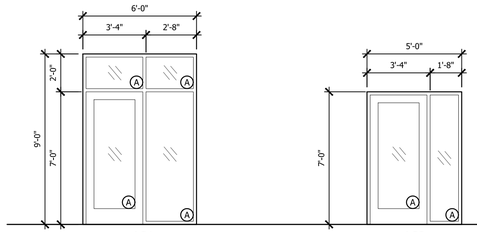
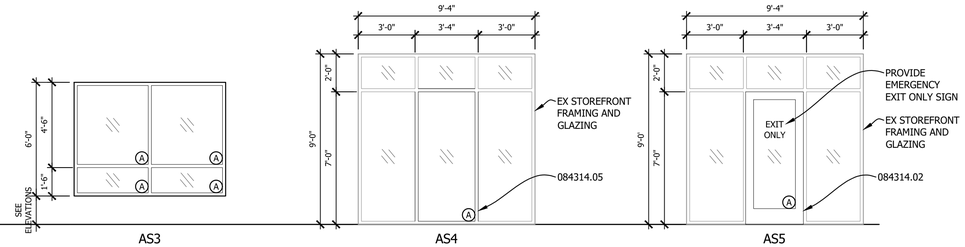


5 ALUMINUM STOREFRONT ELEVATIONS
SCALE: 1/4"=1'-0"



REFERENCE NOTES:

084314.02	PREFINISHED ALUMINUM DOOR.
084314.05	REPLACE EXISTING ALUMINUM DOOR STOREFRONT FRAMING WITH NEW FRAMING FOR GLAZING PANEL.

GENERAL NOTES:

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6. ALL PARTITIONS TO EXTEND TO DECK/STRUCTURE ABOVE UNLESS OTHERWISE INDICATED. ALL PARTITION GWB JOINTS TO BE TAPED FROM FLOOR TO DECK UNLESS OTHERWISE NOTED.
7. PROVIDE GYP BOARD CONTROL JOINT FROM A CORNER OF ALL INTERIOR DOOR FRAMES AND BORROWED LITES.
8. ALL TRADES ARE RESPONSIBLE FOR SEALING THEIR RESPECTIVE PENETRATIONS INCLUDING FIRE SEPARATIONS. SEE CODE PLANS.
9. SEE SHEET G-103 FOR PARTITION TYPES.

ROOM SCHEDULE KEY

FLOORING:
- EX CONC - EXIST CONCRETE FLOORING
- CONC/S - SEALED CONCRETE
- CONC/H - HARDENED CONCRETE
- CPT - CARPET
- WO CPT - WALK OFF CARPET
- EX PT - EXISTING PORCELAIN TILE OVER CONC.
- LVT - LUXURY VINYL TILE
- VCT - VINYL COMPOSITION TILE

BASE:
- RCB - RUBBER COVE BASE
- ECB - EPOXY COVE BASE

WALL:
- EX GWB - EXISTING GYPSUM WALL BOARD PARTITION
- EX GWB/P - EXISTING GYPSUM WALL BOARD PARTITION, PAINT
- GWB/P - GYPSUM WALL BOARD PARTITION, PAINT
- EX MTL PNL - EXISTING METAL LINER PANEL

CEILING:
- EX MTL PNL - EXISTING METAL LINER PANEL
- EX GWB CLG - EXISTING GYPSUM WALL BOARD CEILING
- GWB CLG/P - GYPSUM WALL BOARD CEILING, PAINTED
- ACT - LAY IN ACOUSTICAL CEILING TILE AND GRID

GLAZING SCHEDULE KEY

- (A) IG-1 INSULATED GLASS UNITS:
- (B) MONOLITHIC SAFETY GLASS
- (C) IG-2 INSULATED GLASS UNITS WITH BETWEEN GLASS BLINDS.

SUPPLIER TO REVIEW GLAZING FOR COMPLIANCE WITH APPLICABLE CODES AND STANDARDS.

#	DATE	DESCRIPTION	BY

Bartlett & West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
www.bartlettwest.com

SCHEDULES

MR&I OFFICE REMODEL
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JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

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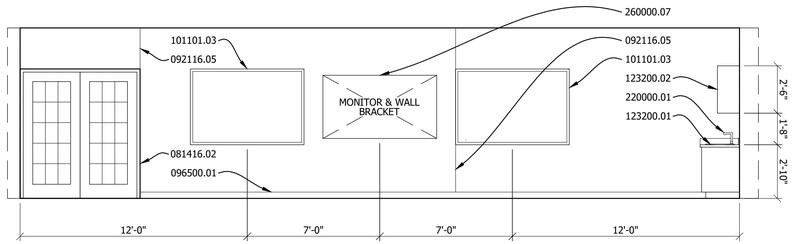
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	A-601
SHEET NO:	

Last edit on: 10/2/2024 5:11 PM by JBN01642 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\12493.700 - A100 - PLANS.dwg Layout Name: A-601 Plotted By: JBN01642 Plotted on: 10/2/2024 5:17:04 PM



1 MEETING 103 - NORTH
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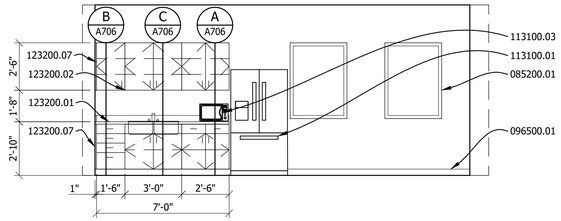
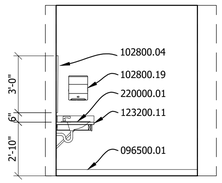


2 MEETING 103 - EAST
SCALE: 1/4"=1'-0"



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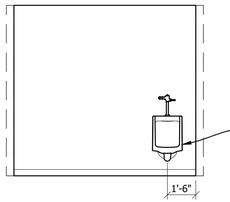

4 MEN 108 - EAST
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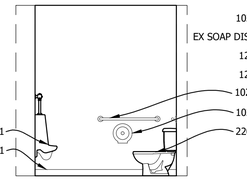

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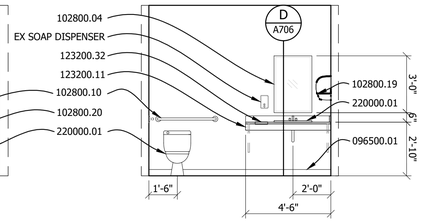
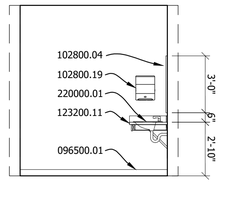
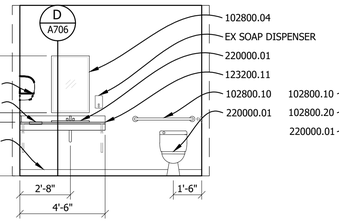
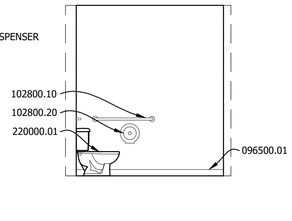


6 MEN 108 - WEST
SCALE: 1/4"=1'-0"



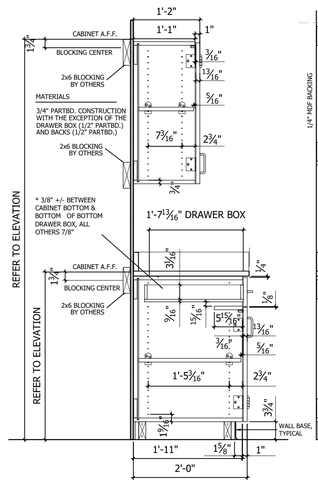




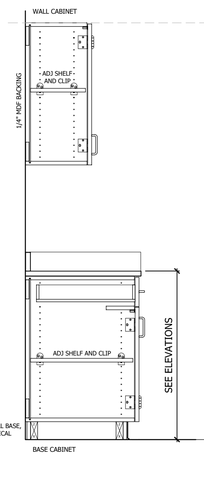
7 WOMEN 109 - NORTH
SCALE: 1/4"=1'-0"

8 WOMEN 109 - EAST
SCALE: 1/4"=1'-0"

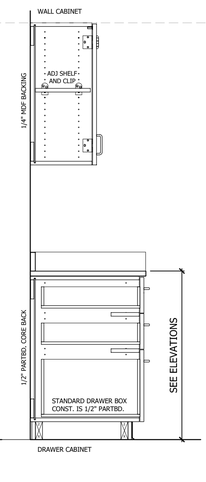
9 WOMEN 109 - SOUTH
SCALE: 1/4"=1'-0"



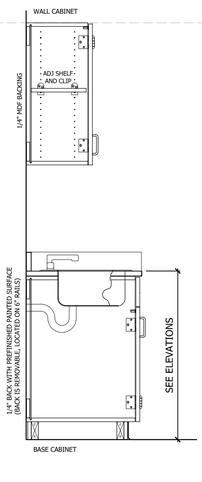
-- CASEWORK TYPICAL DIMENSIONS
3/4" = 1'-0"



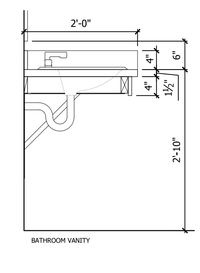
A CASEWORK SECTION
3/4" = 1'-0"



B CASEWORK SECTION
3/4" = 1'-0"



C CASEWORK SECTION
3/4" = 1'-0"



D VANITY/SHELF SECT
3/4" = 1'-0"

REFERENCE NOTES:

081416.02	INSTALL SALVAGED WOOD DOOR, FRAME, AND HARDWARE. SEE DOOR AND HARDWARE SCHEDULES.
085200.01	FIXED ALUMINUM CLAD WOOD WINDOW.
092116.05	GYPSUM BOARD CONTROL JOINT.
096500.01	RESILEINT WALL BASE SYSTEM.
101101.03	MARKERBOARD
102800.04	MIRROR.
102800.10	ADA COMPLIANT GRAB BAR. SEE COVER FOR REQUIREMENTS.
102800.19	PAPER TOWEL DISPENSER.
102800.20	TOILET PAPER DISPENSER.
113100.01	REFRIGERATOR, FRENCH DOOR (36" CLEAR)
113100.03	MICROWAVE
123200.01	PLASTIC LAMINATE BASE CABINET WITH SOLID SURFACE COUNTERTOP WITH BACK AND SIDE SPLASHES.
123200.02	PLASTIC LAMINATE WALL CABINET.
123200.07	PLASTIC LAMINATE FILLER PANEL.
123200.11	SOLID SURFACE COUNTERTOP WITH BACK AND SIDE SPLASHES ON HEAVY DUTY METAL WALL BRACKETS.
123200.32	STAINLESS STEEL COUNTERTOP TRASH CHUTE.
220000.01	PLUMBING FIXTURE/EQUIPMENT. SEE PLUMBING.
260000.07	MONITOR AND WALL BRACKET. SEE ELECTRICAL.

GENERAL NOTES:

1. THIS IS A REMODEL TO AN EXISTING BUILDING. CONTRACTOR/S TO PROTECT ALL EXISTING ON-SITE CONDITIONS FROM ON GOING WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING BUILDING DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE START OF WORK.
3. CONTRACTOR/S TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION AND/OR CONSTRUCTION.
4. THE DIVISION OF LABOR SHALL BE AS PER THE PROJECT SPECIFICATION MANUAL AND NOT THE NOTATION SYSTEM ON THE DRAWINGS.
5. EXTERIOR DIMENSIONS ARE TO THE FACE OF BLOCK WALL, METAL STRUCTURE, OR GRID LINE UNLESS OTHERWISE NOTED.
6. ALL PARTITIONS TO EXTEND TO DECK/STRUCTURE ABOVE UNLESS OTHERWISE INDICATED. ALL PARTITION GWB JOINTS TO BE TAPED FROM FLOOR TO DECK UNLESS OTHERWISE NOTED.
7. PROVIDE GYP BOARD CONTROL JOINT FROM A CORNER OF ALL INTERIOR DOOR FRAMES AND BORROWED LITES.
8. ALL TRADES ARE RESPONSIBLE FOR SEALING THEIR RESPECTIVE PENETRATIONS INCLUDING FIRE SEPARATIONS. SEE CODE PLANS.
9. SEE SHEET G-103 FOR PARTITION TYPES.

#	DATE	DESCRIPTION	BY

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
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ROOM ELEVATIONS

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

JOSEPH P LARRIVEE REGISTERED PROFESSIONAL 1268 ARCHITECT NORTH DAKOTA

DESIGNED BY:	JPL
DRAWN BY:	JBN
APPROVED BY:	JPL
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**A-701**
SHEET NO:	

Last edit on: 10/2/2024 11:59 AM by: JBN01642 Drawing Name: F:\Proj\12000\12493\12493.700\AutoCad\Plan Set\12493.700 - A700 - ROOM ELEVATIONS.dwg Layout Name: A-701 Plotted By: JBN01642 Plotted on: 10/2/2024 5:17:19 PM

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

MECHANICAL / HVAC

- #" — THIS SYMBOL REFERS TO THE SIZE OF PIPE
- #" LPG — LIQUEFIED PETROLEUM GAS
- #" G — NATURAL GAS
- #" V — VENT PIPING
- #" W — WASTE PIPING
- #" A — COMPRESSED AIR
- HIGH PRESSURE STEAM SUPPLY
- HIGH PRESSURE STEAM RETURN
- MEDIUM PRESSURE STEAM SUPPLY
- MEDIUM PRESSURE STEAM RETURN
- #" LP — LOW PRESSURE STEAM SUPPLY
- #" LP — LOW PRESSURE STEAM RETURN
- CONDENSATE PUMP DISCHARGE
- FEEDWATER PUMP DISCHARGE
- #" ST — STORM SEWER
- #" RD — ROOF DRAIN
- #" D — DRAIN
- #" CHWS — CHILLED WATER SUPPLY
- #" CHWR — CHILLED WATER RETURN
- #" CHS — CHILLED/HOT WATER SUPPLY
- #" CHR — CHILLED/HOT WATER RETURN
- #" CWS — CONDENSER WATER SUPPLY
- #" CWR — CONDENSER WATER RETURN
- #" HHWS — HEATING HOT WATER SUPPLY
- #" HHWR — HEATING HOT WATER RETURN
- #" HPS — HEAT PUMP SUPPLY
- #" HPR — HEAT PUMP RETURN
- #" RL — REFRIGERANT LIQUID
- #" RS — REFRIGERANT SUCTION
- #" RLS — REFRIGERANT LIQUID / SUCTION SET
- MANUAL VOLUME DAMPER
- LINEAR SLOT DIFFUSER
- INSULATED FLEXIBLE DUCT (MAX. 5'-0" LONG)
- BRANCH DUCT WITH 45° RECTANGLE-ROUND BRANCH FITTING AND MANUAL VOLUME DAMPER
- ELBOW WITH TURNING VANES
- EXHAUST AIR DUCT UP
- EXHAUST AIR DUCT DOWN
- RETURN OR FRESH AIR DUCT UP
- RETURN OR FRESH AIR DUCT DOWN
- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- EXHAUST AIR GRILLE
- RETURN AIR GRILLE
- SUPPLY AIR DIFFUSER
- "A"-12x12 250 — REGISTER, TYPE, NECK SIZE & CFM
- "A"-12x12 250 — REGISTER, TYPE, NECK SIZE & CFM
- "A"-12x12 250 — REGISTER, TYPE, NECK SIZE & CFM
- FD — FIRE DAMPER
- FS — FIRE/SMOKE DAMPER
- SD — SMOKE DAMPER
- MD — MOTORIZED DAMPER
- CD — CONTROL DAMPER
- BD — BACKDRAFT DAMPER
- T — TEMPERATURE SENSOR
- DW — DEWPOINT SENSOR
- DP — DEFERENTIAL PRESSURE
- P — PRESSURE SENSOR
- CO2 — C02 SENSOR
- AIR FLOW
- T — THERMOSTAT

PLUMBING / PIPE

- FLOOR MOUNTED FLUSH VALVE WATER CLOSET
- WALL MOUNTED FLUSH VALVE WATER CLOSET
- TANK TYPE WATER CLOSET
- URINAL
- WALL MOUNTED LAVATORY
- COUNTER TOP LAVATORY
- JANITORS BASIN
- DOUBLE COMPARTMENT SINK
- SINGLE COMPARTMENT SINK
- SHOWER
- BI-LEVEL DRINKING FOUNTAIN
- SINGLE DRINKING FOUNTAIN
- BATH TUB
- EMERGANCY SHOWER
- FLOOR DRAIN
- SHOWER HEADS
- SHOWER ENCLOSURE
- FFCO — FLUSH FLOOR CLEANOUT
- FGCO — FLUSH GRADE CLEANOUT
- WC1 — PLUMBING FIXTURE ID TAG
- #" CW — DOMESTIC COLD WATER
- #" HW — DOMESTIC HOT WATER
- #" HC — DOMESTIC HOT WATER CIRCULATING
- #" T — TEMPERED WATER
- #" SD — STORM DRAIN
- #" OSD — OVERFLOW STORM DRAIN
- SHUT-OFF VALVE
- MODULATIING CONTROL VALVE
- CHECK VALVE
- THREE WAY VALVE
- BALANCING VALVE W/ PRESSURE PORTS
- TRIPLE DUTY VALVE W/ PRESSURE PORTS
- STRAINER
- R — RELIEF VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE
- REDUCER
- PIPE ANCHOR
- SLIDING EXPANSION JOINT
- PRESSURE GUAGE
- F & T TRAP
- BUCKET TRAP
- THERMOSTATIC TRAP
- F — FLOAT TRAP
- BP — BACKFLOW PREVENTER
- THERMOMETER
- UNION
- WALL HYDRANT
- HOSE BIBB
- CLEANOUT
- CAP
- ELBOW UP W/OUT SHUT-OFF VALVE
- ELBOW DOWN W/OUT SHUT-OFF VALVE
- ELBOW
- TEE DOWN
- TEE
- TEE UP
- ELBOW UP WITH SHUT-OFF VALVE
- ELBOW DOWN WITH SHUT-OFF VALVE
- TEE UP WITH SHUT-OFF VALVE
- TEE DOWN WITH SHUT-OFF VALVE
- SANITARY TEE
- 45 ELBOW
- P-TYPE TRAP
- PIPE GUIDE

LIGHTING / ELECTRICAL

- "A" — POLE MOUNTED LIGHTING FIXTURE
- "A" — CEILING MOUNTED LIGHTING FIXTURE 1x4 AND ID TAG
- "A" — CEILING MOUNTED LIGHTING FIXTURE 2x2 AND ID TAG
- "A" — CEILING MOUNTED LIGHTING FIXTURE 2x4 AND ID TAG
- "A" — EMERGENCY LIGHTING FIXTURE
- "A" — CEILING MOUNTED DAYLIGHT CONTROLLED
- "A" — CEILING MOUNTED WITH EMERGENCY BALLAST
- "A" "NL" — CEILING MOUNTED LIGHT FIXTURE WITH NIGHT LIGHT
- PADDLE CEILING FAN
- CEILING MOUNTED EXIT LIGHT
- EXIT LIGHT (WALL MOUNTED)
- CEILING MOUNT
- WALL MOUNT
- "D" "E" "F" — LIGHT TRACK WITH LIGHT TYPES AS INDICATED
- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE
- FOURPLEX RECEPTACLE
- RECESSED FLOOR MOUNTED JUNCTION BOX
- SURFACE MOUNTED JUNCTION BOX
- CEILING MOUNTED JUNCTION BOX
- PC — PHOTOCELL
- J — JUNCTION BOX
- TYPE 1 JUNCTION BOX
- TYPE 2 JUNCTION BOX
- PLUGMOLD - OUTLETS AT 12" O.C. UNLESS OTHERWISE NOTED
- T — TIME SWITCH
- L — LIGHTING CONTACTOR
- $OT — SPRING WOUND TIMER
- $HOA — HAND-OFF-AUTO SELECTOR SWITCH
- $TO — MANUAL STARTER WITH THERMAL OVERLOADS
- LIGHTING PANEL
- DISTRIBUTION PANEL
- TELEPHONE TERMINAL PANEL
- T — THERMOSTAT
- H — HUMIDISTAT
- (1) RJ-45 COMMUNICATION/DATA OUTLET
- 2 — (2) RJ-45 COMMUNICATION/DATA OUTLET
- 4 — (4) RJ-45 COMMUNICATION/DATA OUTLET
- CEILING MOUNTED COMMUNICATION/DATA OUTLET
- FLOOR MOUNTED COMMUNICATION/DATA OUTLET
- TV — TELEVISION OUTLET
- WALL SPEAKER
- CEILING SPEAKER
- COLUMN SPEAKER
- HORN SPEAKER
- C — CALL-IN STATION
- M — MOTION DETECTOR
- C — CLOSED CIRCUIT TELEVISION OUTLET
- PB — PUSHBUTTON STATION
- RC — RELAY CABINET
- C — CLOCK SPEAKER
- CR — CARD READER
- M — MAGNETIC LOCK
- A — ALARM CONTACTS
- SECURITY CAMERA
- $ — SINGLE POLE SWITCH
- $2 — DOUBLE POLE SWITCH
- $3 — 3-WAY SWITCH
- $4 — 4-WAY SWITCH
- $P — SINGLE POLE SWITCH WITH PILOT LAMP
- $M — MOMENTARY CONTACT
- $K — SINGLE POLE SWITCH, KEY OPERATED
- $D — DIMMER SWITCH
- $LV — LOW VOLTAGE SWITCH
- $VA — VACANCY SENSOR SWITCH
- OC — OCCUPANCY SENSOR
- PP — POWER PACK

- BRANCH CIRCUIT IN CONDUIT CONCEALED IN CEILING OR WALL
- BRANCH CIRCUIT BELOW GRADE OR SLAB
- BRANCH CIRCUIT IN EXPOSED CONDUIT
- BRANCH CIRCUIT HOMERUN TO PANEL
- DIAGONAL LINES INDICATE NUMBER OF CONDUCTORS
- GROUND WIRE - INCLUDED IN ALL BRANCH CIRCUITS UNLESS OTHERWISE NOTED
- #18 WIRE
- #16 WIRE
- #14 WIRE
- #12 WIRE
- 1 — BRANCH CIRCUIT OR FEEDER - SEE SCHEDULE FOR CONDUCTOR & CONDUIT QUANTITY & SIZE
- FLEXIBLE CONDUIT
- TWISTED PAIR
- LIGHTING CONTROL WIRING
- MOTOR CONTROLLER
- MANUAL MOTOR CONTROLLER
- COMBINATION MOTOR CONTROLLER
- DISCONNECT SWITCH
- EQUIPMENT MOTOR
- UTILITY METER

FIRE ALARM / PROTECTION

- FACP — FIRE ALARM CONTROL PANEL
- FSCS — FIREMAN'S SMOKE CONTROL SYSTEM
- FFTP — FIREFIGHTER'S TELEPHONE PANEL
- EVAC — VOICE EVACUATION CONTROL UNIT
- AMP — AMPLIFIER PANEL
- FAA — FIRE ALARM ANNUNCIATOR PANEL
- RPS — REMOTE POWER SUPPLY
- RL — REMOTE INDICATING LIGHT
- RT — REMOTE TEST STATION
- FR — FAN SHUTDOWN RELAY
- DH — DOOR HOLD-OPEN DEVICE
- R — ADDRESSABLE CONTROL RELAY
- K — KNOX BOX
- F — FIRE ALARM PULL STATION
- SMOKE DETECTOR
- S — SMOKE DETECTOR WITH SOUNDER BASE
- HEAT DETECTOR
- FLAME DETECTOR
- DUCT SMOKE DETECTOR
- WALL MOUNTED FIRE ALARM HORN
- WALL MOUNTED FIRE ALARM BELL
- WALL MOUNTED FIRE ALARM HORN/STROBE COMBINATION
- CEILING MOUNTED FIRE ALARM STROBE LIGHT
- CEILING MOUNTED FIRE ALARM SPEAKER/STROBE.
- CEILING MOUNTED FIRE ALARM STROBE LIGHT
- WALL MOUNTED FIRE ALARM WALL STROBE LIGHT
- WALL MOUNTED FIRE ALARM SPEAKER
- WALL MOUNTED FIRE ALARM SPEAKER/STROBE
- BR — BEAM DETECTOR - RECEIVER
- BT — BEAM DETECTOR - TRANSMITTER
- T — COMBINATION SMOKE AND FIXED TEMPERATURE THERMAL DETECTOR
- GAS DETECTOR
- FIREMANS PHONE JACK, MASTER PHONE STATION
- PIV — POST INDICATING VALVE
- TS — TAMPER SWITCH
- FS — FLOW SWITCH
- AIR SAMPLING SMOKE DETECTOR
- $K — SINGLE POLE SWITCH, KEY OPERATED
- ##W — THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES WATTAGE
- ##cd — THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES CANDELA RATING

GENERAL SYMBOLS

- INDICATES DIRECTION OF PLAN NORTH
- 1 / M100 — DETAIL REFERENCE - UPPER NUMBER INDICATES DETAIL NUMBER, LOWER NUMBER INDICATES SHEET NUMBER
- 1 — PLAN NOTE REFERENCE
- 1 — REVISION DELTA
- 100 — ROOM NUMBER REFERENCE
- 1 / M100 — SECTION CUT REFERENCE - UPPER NUMBER INDICATES DETAIL NUMBER, LOWER NUMBER INDICATES SHEET NUMBER
- CONTINUATION
- INDICATES CONNECTION TO EXISTING SYSTEM
- BREAK LINE
- MATCHLINE

ABBREVIATIONS

GENERAL:

AFF	ABOVE FINISHED FLOOR	G/C	GENERAL CONTRACTOR
AFG	ABOVE FINISHED GRADE	M/C	MECHANICAL CONTRACTOR
CL	CENTERLINE ELEVATION	E/C	ELECTRICAL CONTRACTOR
DN	DOWN	P/C	PLUMBING CONTRACTOR
EX	EXISTING		

PLUMBING:

CA	COMPRESSED AIR	VTR	VENT THRU ROOF
CW	DOMESTIC COLD WATER	W	WASTE
FD	FLOOR DRAIN		
FS	FIRE SERVICE		
HW	DOMESTIC HOT WATER		
HWC	HOT WATER CIRCULATING		
KW	KITCHEN WASTE		
T	TEMPERED WATER		
V	VENT		

MECHANICAL:

AHU	AIR HANDLING UNIT	UH	UNIT HEATER
BOD	BOTTOM OF DUCT	UV	UNIT VENTILATOR
CU	CONDENSING UNIT	VAV	VARIABLE AIR VOLUME
CUH	CABINET UNIT HEATER		
CWR	CHILLED WATER RETURN		
CWS	CHILLED WATER SUPPLY		
EA	EXHAUST AIR		
EF	EXHAUST FAN		
FCU	FAN COIL UNIT		
FTU	FAN TERMINAL UNIT		
G	GAS		
HWR	HOT WATER RETURN		
HWS	HOT WATER SUPPLY		
LV	LOUVER		
MA	MIXED AIR		
MUA	MAKE UP AIR		
OA	OUTSIDE AIR		
RA	RETURN AIR		
RPZ	REDUCED PRESSURE ZONE		
SA	SUPPLY AIR		

ELECTRICAL:

AC	ALTERNATING CURRENT
BKR	BREAKER
CTCB	CONTROL TRANSFORMER CIRCUIT BREAKER
DISC	DISCONNECT SWITCH
DR	DUPLEX RECEPTACLE, GFI
DCB	DISCONNECT CIRCUIT BREAKER
GFCB	GROUND FAULT CIRCUIT BREAKER
HBCB	HOT BOX CIRCUIT BREAKER
LCB	LIGHT CIRCUIT BREAKER
MCB	MAIN CIRCUIT BREAKER
MD	MOTORIZED DAMPER
MPCB	MOTOR POWER CIRCUIT BREAKER
PCB	PUMP CIRCUIT BREAKER
PHCB	PANEL HEATER CIRCUIT BREAKER
RCB	RECEPTACLE CIRCUIT BREAKER
SCB	SPARE CIRCUIT BREAKER
TR	TRANSFORMER
TCB	TRANSFORMER CIRCUIT BREAKER
TR	TELEMETRY RADIO
VCCB	VALVE CONTROLS CIRCUIT BREAKER
VFD	VARIABLE FREQUENCY DRIVE

" "	QUOTATION AROUND TEXT INDICATES A SCHEDULED ITEM
*	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES DEVICE BOTTOM TO BE MOUNTED 4" ABOVE COUNTER TOP BACKSPLASH
GFCI	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES GROUND FAULT INTERRUPTER
IG	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES ISOLATED GROUND SERVICE
TL	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES LOCKING OR TWIST-LOCK TYPE DEVICE
WP	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES WEATHER-PROOF ENCLOSURE
XP	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES EXPLOSION-PROOF ENCLOSURE
##"	THESE NUMBERS ADJACENT TO ANY SYMBOL INDICATES THE MOUNTING HEIGHT AFF TO TOP OF OF DEVICE
TP	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES TAMPER PROOF

#	DATE	DESCRIPTION	BY
	10/01/2024	BID SET	DWM

Bartlett & West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
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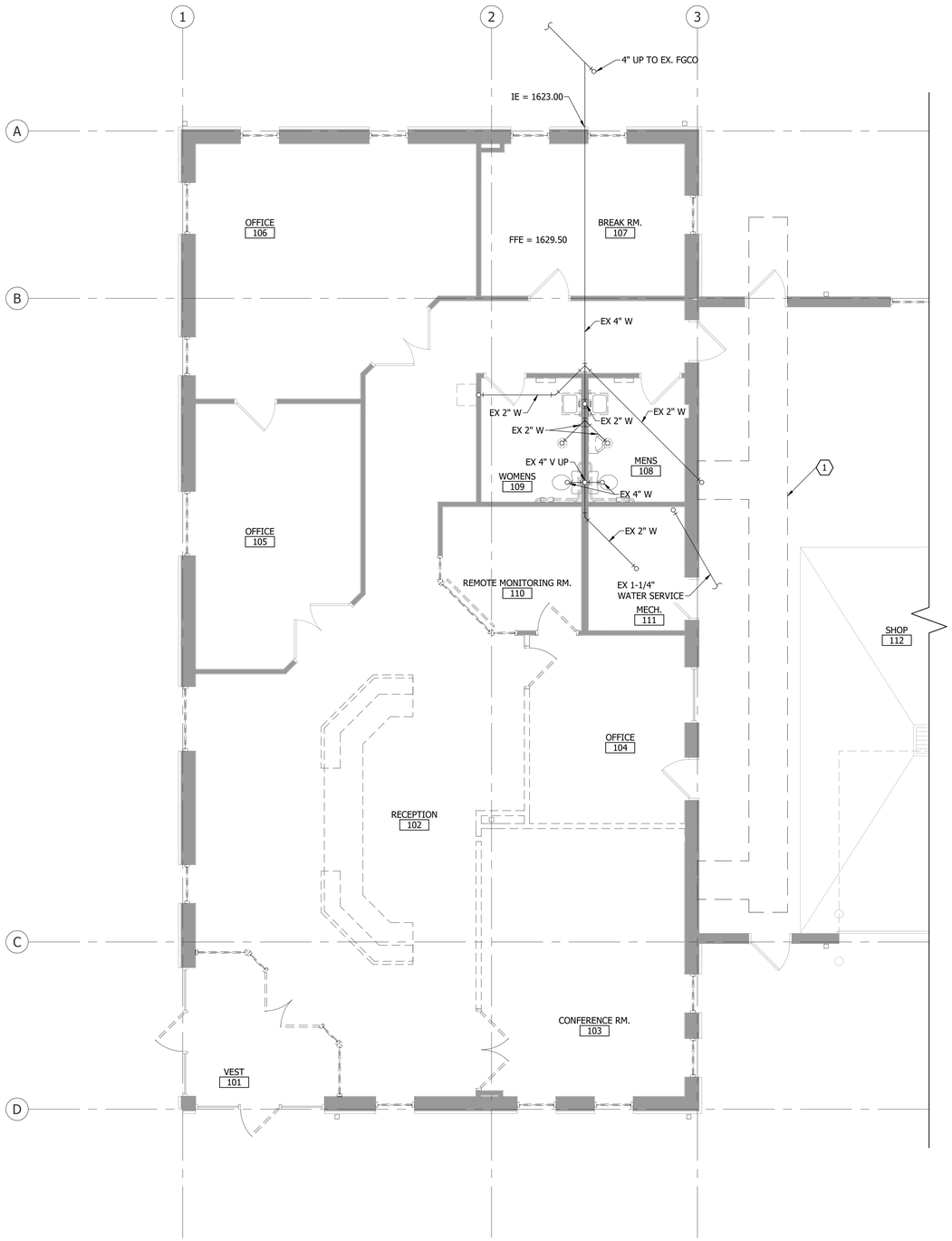
MEP SYMBOLS & ABBREVIATIONS

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8331
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	MEP000
SHEET NO:	

Last edit on: 10/1/2024 4:21 PM by SDM01521 Drawing Name: F:\Proj\12000\12493\12493.700\AutoCad\Plan Set\MEP\12493.700MEP - MEP SYMBOLS & ABBREVIATIONS.dwg Layout Name: MEP SYMBOLS Plotted By: SDM01521 Plotted on: 10/1/2024 5:16:17 PM



PLUMBING UNDERFLOOR DEMOLITION PLAN
SCALE: 3/16"=1'-0"

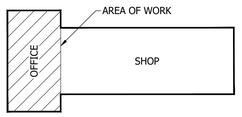
REFERENCE NOTES:

1. P/C TO BE RESPONSIBLE FOR CONCRETE AND TRENCHING COSTS AND INCLUDE IN THE P/C BID PACKAGE LINE ITEM TO GAIN ACCESS FOR PLUMBING UNDERFLOOR IMPROVEMENTS. P/C TO FIELD COORDINATE ALL REQUIREMENTS AND DIRECTLY SUB-CONTRACT WITH G/C TO PROVIDE ALL CONCRETE REMOVAL REQUIRED IN AREA INDICATED.

GENERAL NOTES:

1. P/C TO COORDINATE WORK WITH ALL OTHER TRADES.
2. ALL EX UNDERFLOOR PIPING TO REMAIN UNLESS NOTED OTHERWISE.
3. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.

KEY PLAN:



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	10/01/2024	BID SET	DWM

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PHONE: 785-272-2252
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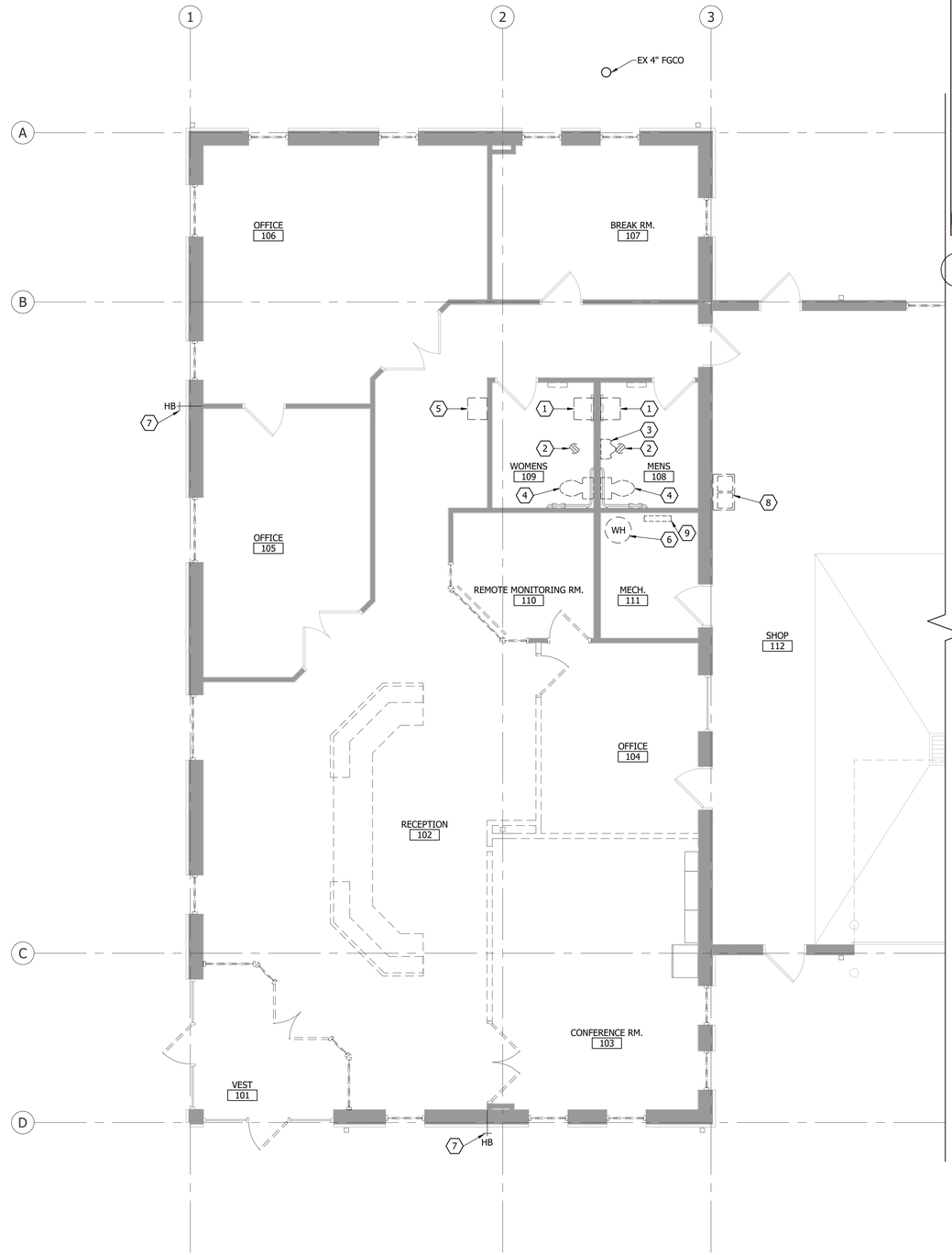
PLUMBING UNDERFLOOR DEMOLITION PLAN

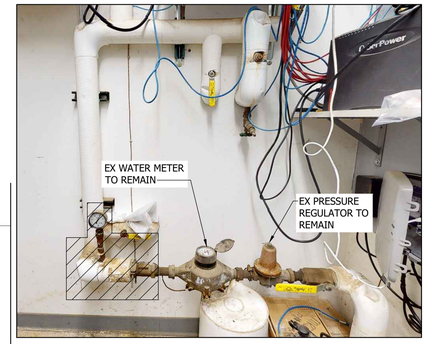
MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8351
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	P-101
SHEET NO:	



PLUMBING DEMOLITION PLAN
SCALE: 3/16"=1'-0"



1 WATER SERVICE ENTRANCE
NOT TO SCALE

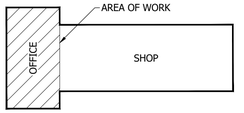
REFERENCE NOTES:

1. REMOVE EXISTING WALL MOUNTED LAVATORY, FAUCET, P-TRAP FITTINGS, P-TRAP ADA COVER, SUPPLY WATER SHUT-OFF VALVES, AND PREPARE FOR CONNECTION OF NEW LAVATORY.
2. REMOVE DRAIN COVER, PREPARE EXISTING DRAIN BODY FOR NEW DRAIN COVER.
3. REMOVE EXISTING WALL MOUNTED URINAL, DOMESTIC WATER AND WASTE CONNECTIONS, AND FLUSH VALVE. EX CW, W, & V PIPING SERVING EX URINAL TO BE CAPPED AND ABANDONED IN WALL.
4. REMOVE EXISTING FLOOR MOUNTED FLUSH-TANK WATER CLOSET, SUPPLY, AND SHUT-OFF VALVE. PREPARE EXISTING PLUMBING CONNECTIONS FOR NEW FLOOR MOUNTED FLUSH-TANK WATER CLOSET.
5. REMOVE EXISTING ELECTRIC WATER COOLER. PREPARE EXISTING PLUMBING CONNECTIONS FOR NEW WATER COOLER.
6. REMOVE EX WATER HEATER AND REPLACE WITH NEW. PREPARE EXISTING PIPING FOR CONNECTION TO NEW WATER HEATER.
7. EX HOSE BIB AND ASSOCIATED PIPING TO REMAIN.
8. REMOVE EX TWO COMPARTMENT UTILITY SINK. PREPARE EXISTING PIPING FOR INSTALLATION OF NEW UTILITY SINK "S-2".
9. WATER SERVICE INLET DEMOLITION. SEE PHOTO 1/ P102

GENERAL NOTES:

1. P/C TO COORDINATE WORK WITH ALL OTHER TRADES.
2. ALL EX CW, HW, W, AND V PIPING TO REMAIN UNLESS NOTED OTHERWISE.
3. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.

KEY PLAN:



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	BID SET	10/01/2024	DWM

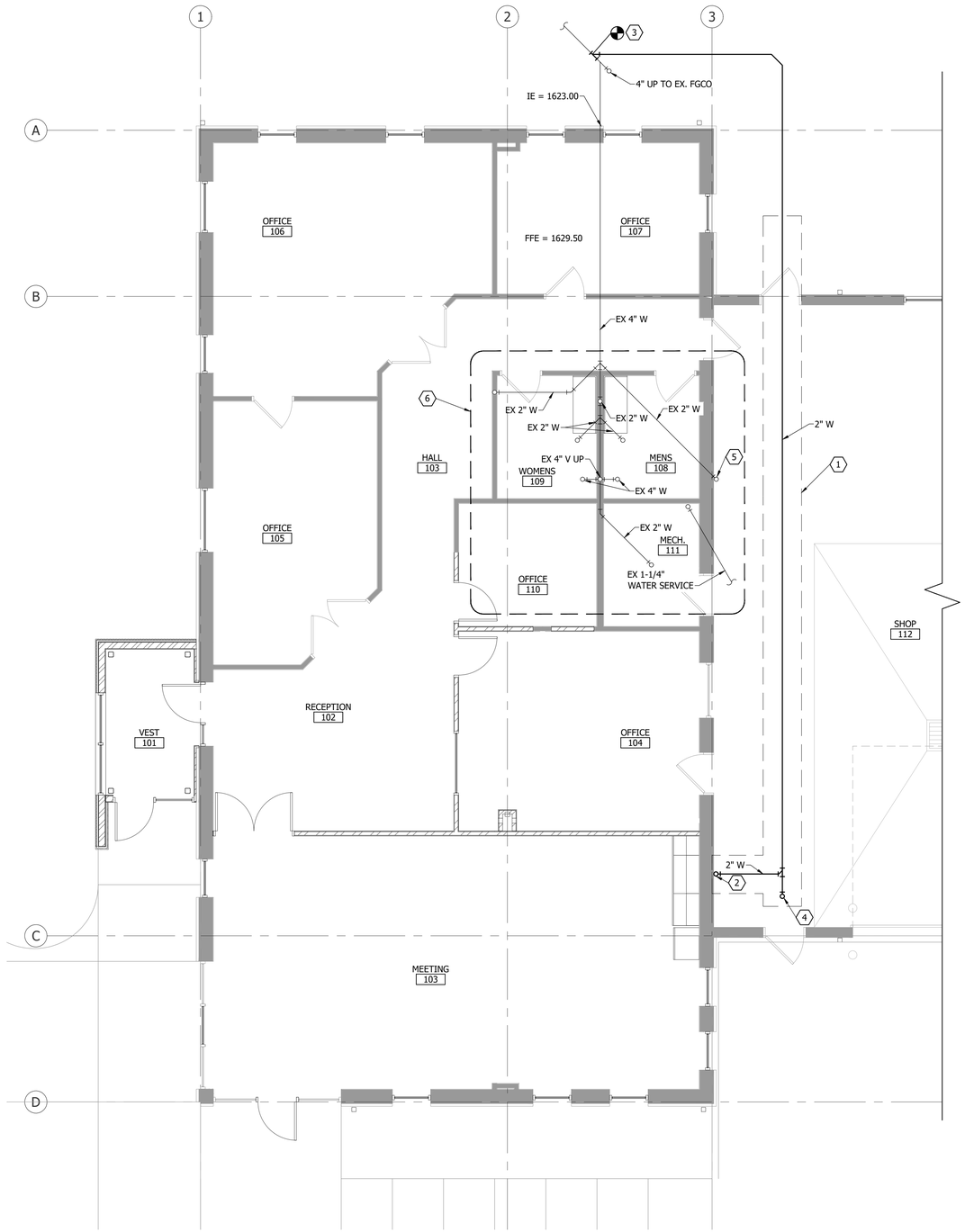
Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
www.bartlettwest.com

PLUMBING DEMOLITION PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8351
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	P-102
SHEET NO:	



PLUMBING UNDERFLOOR IMPROVEMENT PLAN
SCALE: 3/16"=1'-0"

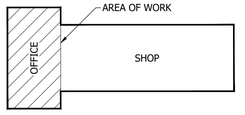
REFERENCE NOTES:

1. P/C RESPONSIBLE FOR ALL TRENCHING BACKFILL AND CONCRETE INFILL AND INCLUDE ALL ASSOCIATED COSTS IN THE P/C'S BID PACKAGE LINE ITEM. P/C TO FIELD COORDINATE AND SUB-CONTRACT DIRECTLY WITH G/C TO PROVIDE ALL CONCRETE INFILL REQUIREMENTS IN AREA INDICATED.
2. 2" W UP TO "S-1".
3. P/C TO CONNECT 2" W TO EX 4" WASTE PIPING. FIELD VERIFY EXACT CONNECTION REQUIREMENTS.
4. 2" W UP TO "FGCO".
5. 2" W UP TO "UR-1" & "S-2". TIE NEW 2" W INTO EX 2" W.
6. REFER TO DTL 5/P-501.

GENERAL NOTES:

1. P/C TO COORDINATE WORK WITH ALL OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.

KEY PLAN:



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PLUMBING UNDERFLOOR IMPROVEMENT PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8361
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	P-111
SHEET NO:	

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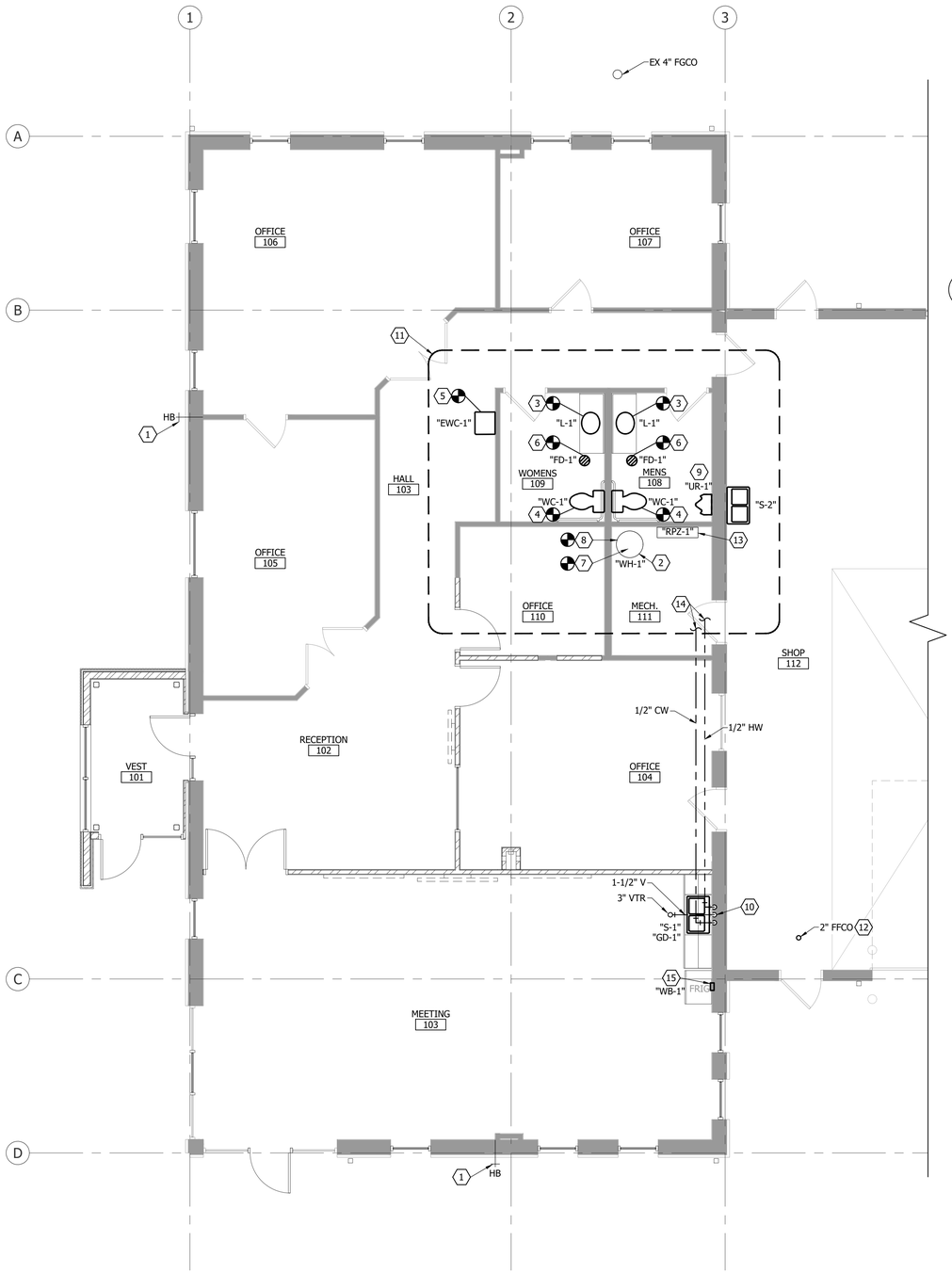
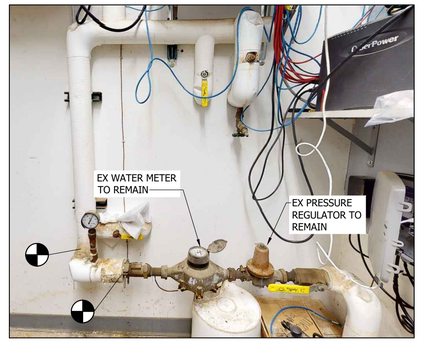


PLUMBING IMPROVEMENT PLAN
SCALE: 3/16"=1'-0"



1 WATER SERVICE ENTRANCE-MODIFIED
NOT TO SCALE

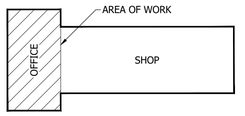
REFERENCE NOTES:

1. EX HOSE BIB AND ASSOCIATED PIPING TO REMAIN.
2. NEW WATER HEATER "WH-1". CONNECT TO EXISTING DOMESTIC COLD WATER SUPPLY AND HOT WATER SUPPLY. REFER TO DETAIL 3/P501.
3. P/C TO CONNECT NEW 1/2" CW, 1/2" HW, 2" W, TO EX PIPING STUB-OUTS. PROVIDE NEW SHUTOFF VALVE AND WATER SUPPLY LINE.
4. P/C TO CONNECT NEW 1/2" CW, & 4" W TO EX PIPING STUB-OUTS. PROVIDE NEW SHUTOFF VALVE AND WATER SUPPLY LINE.
5. P/C TO CONNECT NEW 1/2" CW, & 1-1/2" W TO EX PIPING STUB-OUTS.
6. P/C TO PROVIDE NEW 4 INCH DIAMETER FLOOR DRAIN COVER OVER EX FLOOR DRAIN.
7. CONNECT HW TO OUTLET OF NEW WATER HEATER AND PROVIDE SHUT OFF VALVE AND UNION.
8. CONNECT CW TO NEW DOMESTIC COLD WATER SERVICE DOWN STREAM FROM WATER METER AND PRV.
9. CONNECT NEW 1-1/2" V AND 2" W SERVING "UR-1" INTO EX 1-1/2" V AND EX 2" W SERVING NEW "S-2". CONNECT NEW 3/4" CW INTO "UR-1".
10. CONNECT NEW 1/2" CW, 1/2" HW, 1-1/2" V DOWN TO "S-1".
11. REFER TO DTL 5/P-501.
12. REFER TO DTL 2/P-501.
13. P/C TO PROVIDE NEW RPZ TO EX WATER SERVICE PIPING REFER TO DTL 1/P-501.
14. P/C TO CONNECT 1/2" CW, HW PIPING TO EX PIPING IN MECH RM 111. FIELD VERIFY EXACT CONNECTION REQUIREMENTS.
15. PROVIDE "WB-1" OATEY I2K ICE MAKER BOX OR PREAPPROVED EQUAL. MOUNT AT 2 FEET AFF BEHIND REFRIGERATOR. REFER TO DTL 5/501.

GENERAL NOTES:

1. P/C TO COORDINATE WORK WITH ALL OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.

KEY PLAN:



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	10/01/2024	BID SET	DWM

Bartlett&West
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PHONE: 785-272-2252
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PLUMBING IMPROVEMENT PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8361
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	P-112
SHEET NO:	

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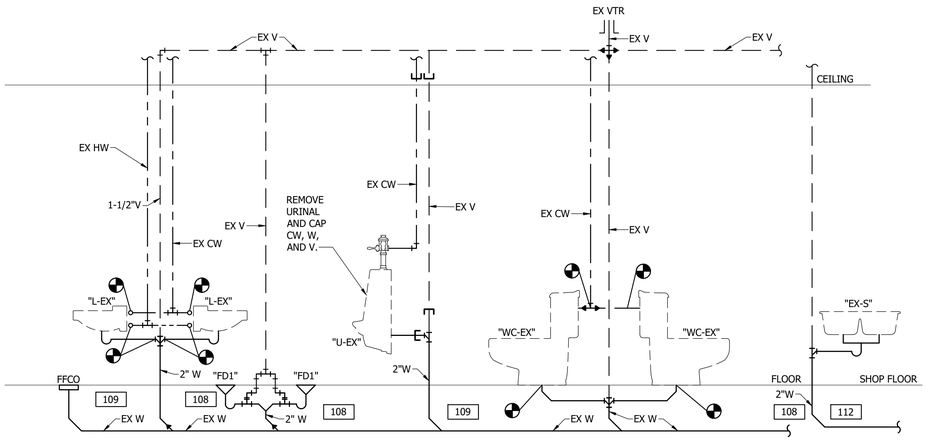
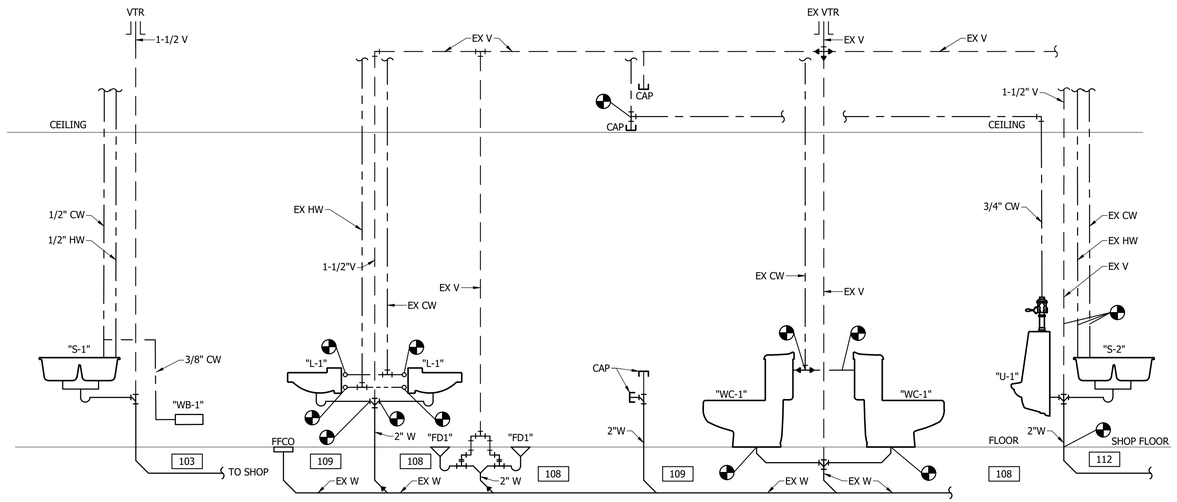
PLUMBING FIXTURE SCHEDULE

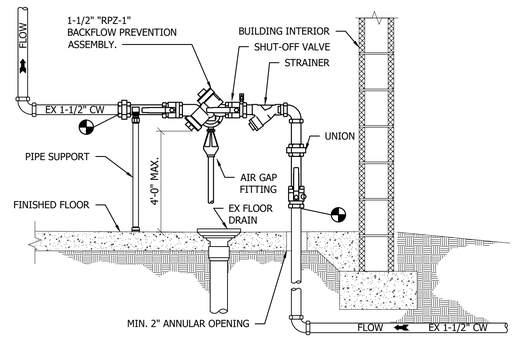
MARK	FIXTURE	MFGR	MODEL	MOUNTING	ROUGH-IN SIZES (INCHES) CW	HW	WASTE	VENT	DESCRIPTION	ACCESSORIES
"WC-1"	WATER CLOSET (ADA)	AMERICAN STANDARD	270AB.101 CADET	FLOOR	1/2	-	4	2	VITREOUS CHINA, FLOOR OUTLET, 1.28 GPF.	SEAT: AMERICAN STANDARD 5321.110
"UR-1"	URINAL (ADA)	AMERICAN STANDARD	6590.001 WASHBROOK	WALL	3/4	-	2	2	FLUSH VALVE, ELONGATED RIM,VITREOUS CHINA, 0.75 INCH TOP SPUD, 0.125 GPF WASHOUT FLUSH ACTION	FLUSH VALVE: AMERICAN STANDARD #605.013.002 (TOP SPUD) MANUAL MOUNT AT ADA HEIGHT
"L-1"	LAVATORY (ADA)	AMERICAN STANDARD	427.444EC CADET	COUNTERTOP	1/2	1/2	2	1-1/2	SELF-RIMMING, STAINLESS STEEL, 4-INCH CENTER FAUCET HOLES, FRONT OVERFLOW AND CHROME PLATED DRAIN TAIL PIECE	WASTE & SUPPLY PIPING COVER: TRUEBRO MODEL #102 E-Z FAUCET: AMERICAN STANDARD 2385.003 RELIANT+ (GRID DRAIN) INSULATION KIT: TRUEBRO LAV-GUARD 2 E-Z
"S-1"	SINK (ADA)	ELKAY	LRADQ331950	COUNTERTOP	1/2	1/2	2	1-1/2	DUAL COMPARTMENT, SELF-RIMMING, 5-INCH BOWL DEPTH, TYPE 304(18-8) STAINLESS STEEL SINK WITH HOLES IN DECK TO MATCH FAUCET	WASTE & SUPPLY PIPING COVER: TRUEBRO MODEL #102 E-Z DRAIN: ELKAY LK-35 FAUCET: AMERICAN STANDARD LKD2423BHC (LESS HANDSPRAY) BOTTLE FILLER: BRITA USS-323 2 STAGE FILTRATION SYSTEM FOOD DISPOSAL: INSINKERATOR BADGER 5 WITH POWER CORD
"S-2"	SINK	MUSTEE	27F	FLOOR	1/2	1/2	2	1-1/2	DUAL COMPARTMENT, FREE-STANDING, ONE-PIECE MOLDED CONSTRUCTION, TWIN DRAIN WASTE COUPLING, HEAVY GAUGE STEEL LEGS WITH LEVELING BUILD IN, P-TRAP, MOLD AND MILDEW RESISTANT	WASTE & SUPPLY PIPING COVER: TRUEBRO MODEL #102 E-Z FAUCET: MUSTEE MODEL 93.600
"EWC-1"	ELECTRIC WATER COOLER	HALSEY TAYLOR	HTHB-HAC8SS-W	WALL	3/4	-	1-1/2	1-1/2	ELECTRIC WATER COOLER, BUBBLER MECHANICAL PUSHBAR ACTIVATION, BOTTLE FILLER SENDOR ACTIVATED, 8.0 GPH CHILLING CAPACITY, STAINLESS STEEL ENCLOSURE.	REFRIGERANT: R-134A
"WH-1"	ELECTRIC WATER HEATER	RELIANCE	6 50 EORS	FLOOR	3/4	-	-	-	ELECTRIC WATER HEATER, 240 V/ 1 PHASE, 4500 W DUAL HEATING ELEMENT, GLASS LINED TANK, 50 GALLON CAPACITY.	PROVIDE WITH FACTORY TEMPERATURE AND PRESSURE RELIEF VALVE. PROVIDE THERM-X-TROL #ST-5-DD EXPANSION TANK 2.0 GALLON VOLUME.
"RPZ-1"	REDUCED PRESSURE BACKFLOW PREVENTER	WATTS	919QT-S	WALL	1	-	-	-	REDUCED PRESSURE BACKFLOW PREVENTER WITH STRAINER AND SHUT OFF VALVES.	-



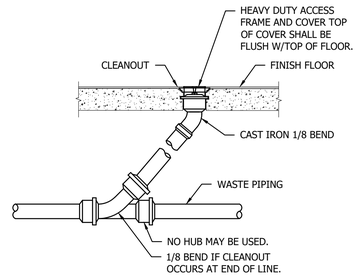
4 DEMO PLUMBING RISER DIAGRAM
NOT TO SCALE



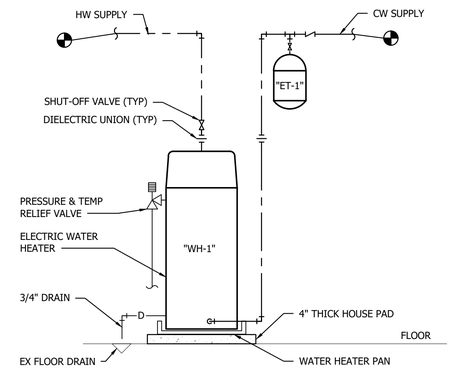
5 NEW PLUMBING RISER DIAGRAM
NOT TO SCALE



1 RPZ ASSEMBLY WITH STRAINER DETAIL
NOT TO SCALE



2 FINISHED FLOOR CLEANOUT DETAIL
NOT TO SCALE



3 ELECTRIC WATER HEATER DETAIL
NOT TO SCALE

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PLUMBING DETAILS SCHEDULES & RISERS

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8361
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	P-501
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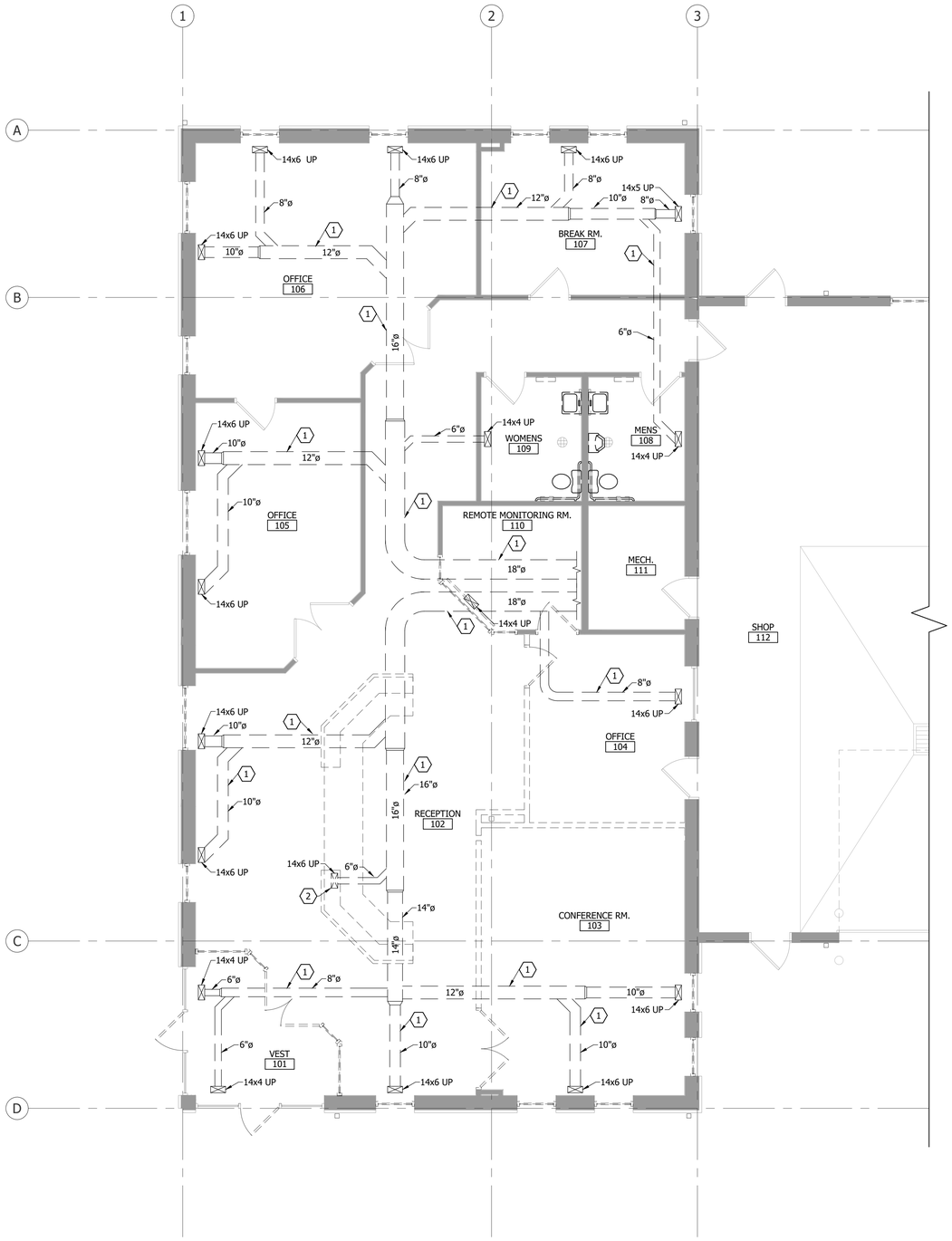


MECHANICAL UNDERFLOOR DEMOLITION PLAN
SCALE: 3/16"=1'-0"

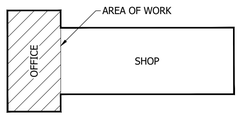
REFERENCE NOTES:

1. ALL UNDERSLAB DUCTWORK TO REMAIN.
2. REMOVE DIFFUSER AND CAP. INFILL DIFFUSER OPENING WITH CONCRETE TO PROVIDE APPROPRIATE SUPPORT FOR FOOT TRAFFIC.

GENERAL NOTES:

1. M/C TO COORDINATE WORK WITH OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.
3. M/C TO PROVIDE DUCT CLEANING FOR ALL UNDER FLOOR DUCTS WITH HEPA-FILTERED VACUUM AND COMPRESSED AIR TO REMOVE ALL DIRT, DUST, AND DEBRIS.

KEY PLAN:



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MECHANICAL UNDERFLOOR DEMOLITION PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8351
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
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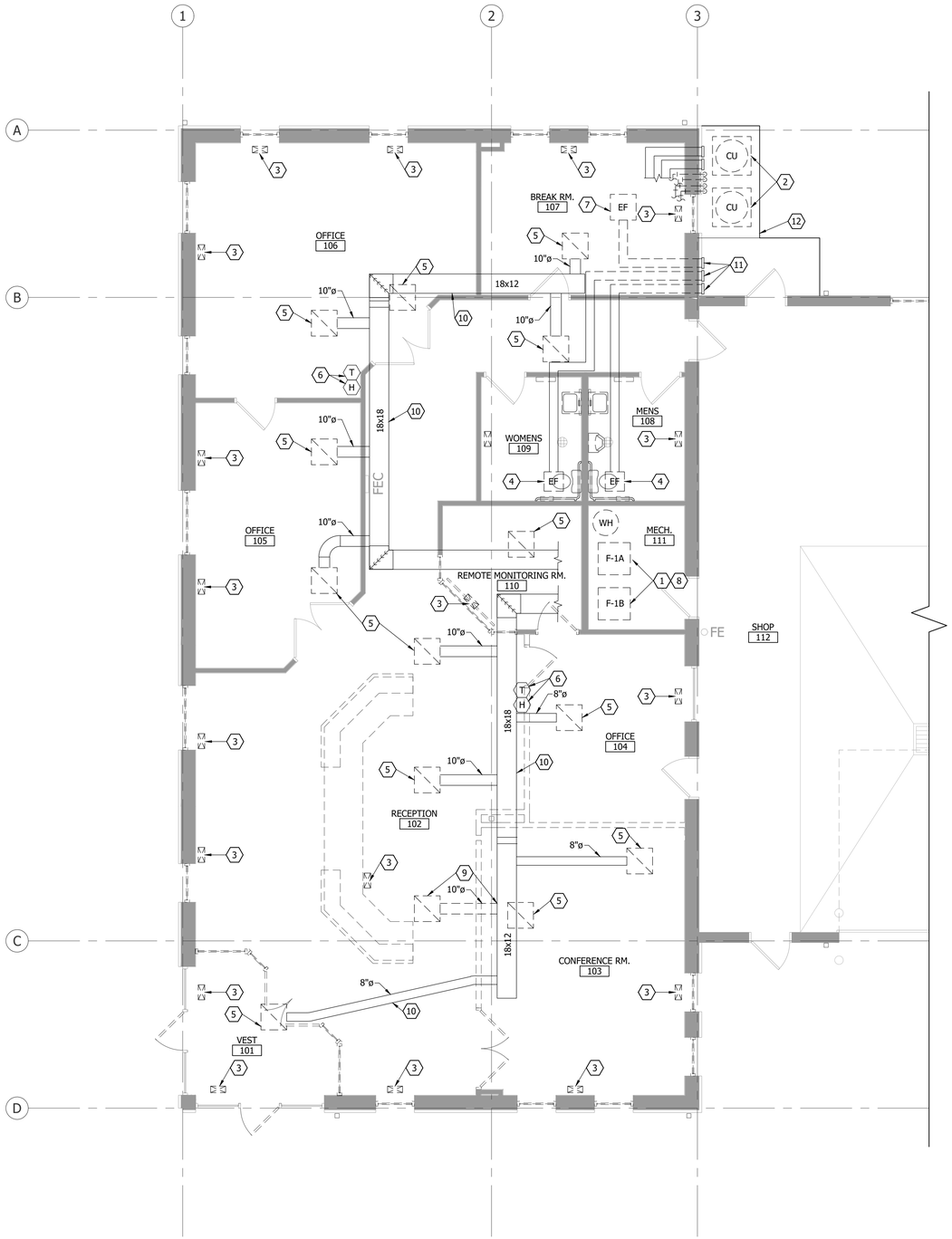


MECHANICAL DEMOLITION PLAN
SCALE: 3/16"=1'-0"

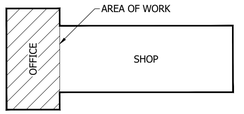
REFERENCE NOTES:

1. REMOVE EXISTING PROPANE FIRED DOWNFLOW FURNACES, A-COILS, DUCTWORK CONNECTIONS, AND CONTROL WIRE. PREPARE EXISTING DUCT FOR CONNECTION TO NEW DOWNFLOW FURNACE. (TYP).
2. REMOVE EXISTING CONDENSING UNITS, REFRIGERANT PIPING, AND ALL ASSOCIATED APPURTENANCES, AND CONTROL WIRE (TYP). EVACUATE REFRIGERANT LINES, STORE REFRIGERANT IN SAFE AND LEGAL CONTAINER. TURN REFRIGERANT OVER TO OWNER.
3. REMOVE ALL EXISTING FLOOR SUPPLY AIR GRILLES (TYP).
4. REMOVE EXISTING BATHROOM EXHAUST FANS. PREPARE EXISTING DUCTWORK FOR CONNECTION TO NEW CEILING EXHAUST FANS.
5. REMOVE EX CEILING RETURN GRILLES (TYP). PREPARE DUCTWORK FOR CONNECTION TO NEW RETURN AIR GRILLES (TYP).
6. REMOVE EX THERMOSTAT AND HUMIDISTAT AND ALL CONTROL WIRE AND CONDUIT. (TYP).
7. REMOVE EX CEILING EXHAUST FAN, ASSOCIATED EXHAUST DUCTWORK AND APPURTENANCES.
8. REMOVE EX DUCT MOUNTED HUMIDIFIERS AND PREPARE FOR CONNECTION OF NEW HUMIDIFIERS. (TYP).
9. REMOVE EX REMOVE EX CEILING RETURN GRILLE AND DUCTWORK TO MAIN. CAP DUCTWORK AT MAIN.
10. EX RA DUCT TO REMAIN.
11. REMOVE EXHAUST LOUVERS. PROVIDE INSULATION IN THE INTERSTITIAL SPACE AND PROVIDE WEATHERPROOF MATCHING METAL SIDING FOR COVER. (TYP).
12. REMOVE ANY EXISTING CONCRETE PAD SERVING EX "CU" CONDENSING UNITS.

GENERAL NOTES:

1. M/C TO COORDINATE WORK WITH OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.
3. M/C TO PROVIDE DUCT CLEANING FOR ALL UNDER FLOOR DUCTS WITH HEPA-FILTERED VACUUM AND COMPRESSED AIR TO REMOVE ALL DIRT, DUST, AND DEBRIS.

KEY PLAN:



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MECHANICAL DEMOLITION PLAN

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REGISTERED PROFESSIONAL ENGINEER
NATHAN J GAFFREY
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DRAWING NO:	**M-102**
SHEET NO:	

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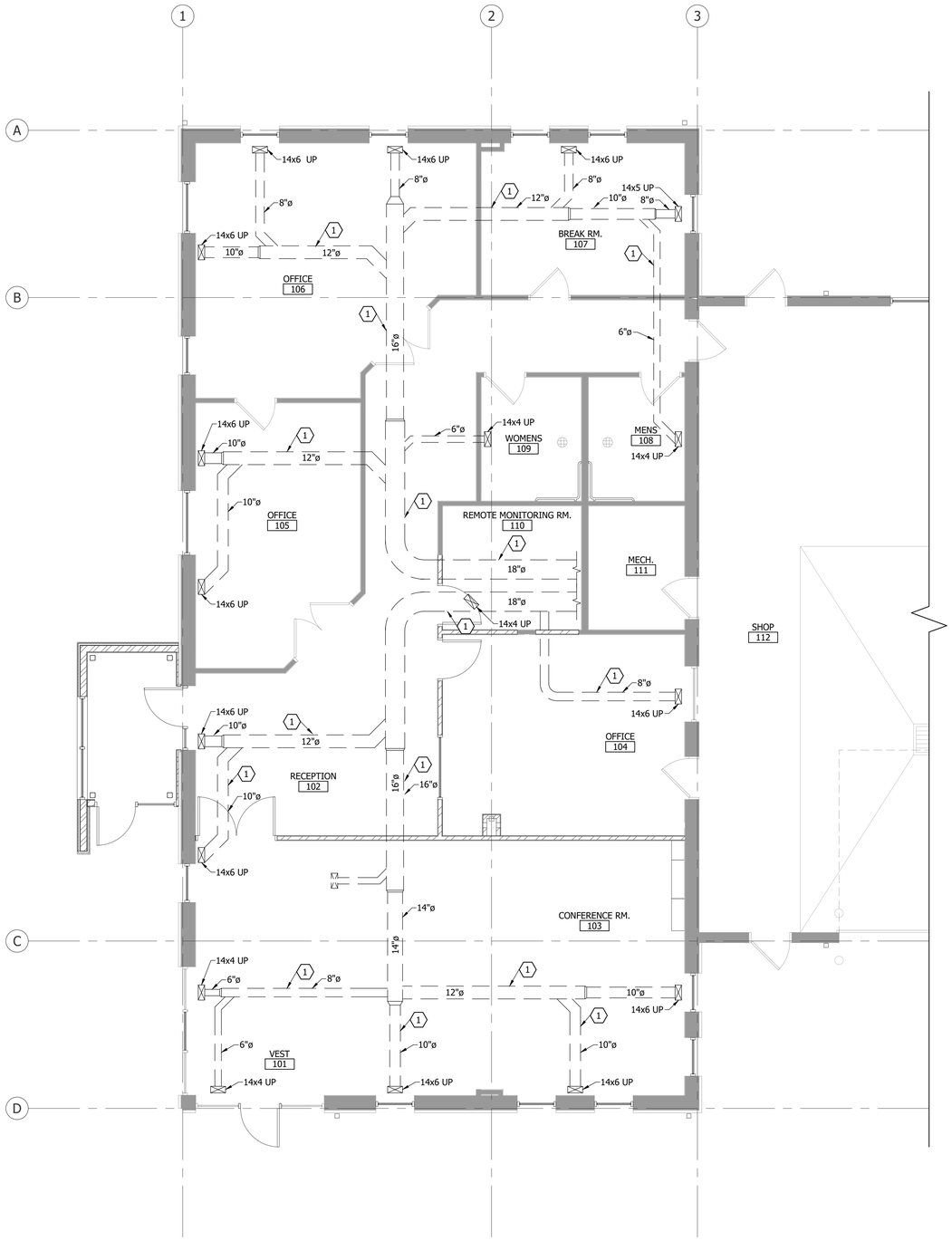


MECHANICAL UNDERFLOOR IMPROVEMENT PLAN
SCALE: 3/16"=1'-0"

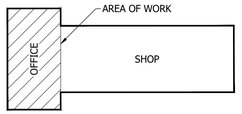
REFERENCE NOTES:

1. ALL UNDERSLAB DUCTWORK TO BE PROFESSIONALLY CLEANED (TYP).

GENERAL NOTES:

1. M/C TO COORDINATE WORK WITH OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.
3. M/C TO PROVIDE DUCT CLEANING FOR ALL UNDER FLOOR DUCTS WITH HEPA-FILTERED VACUUM AND COMPRESSED AIR TO REMOVE ALL DIRT, DUST, AND DEBRIS.
4. M/C TO PREPARE UNDERFLOOR DUCT SA RISERS FOR NEW SA FLOOR REGISTERS. FIELD VERIFY EXACT REQUIREMENTS.

KEY PLAN:



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	10/01/2024	BID SET	DWM

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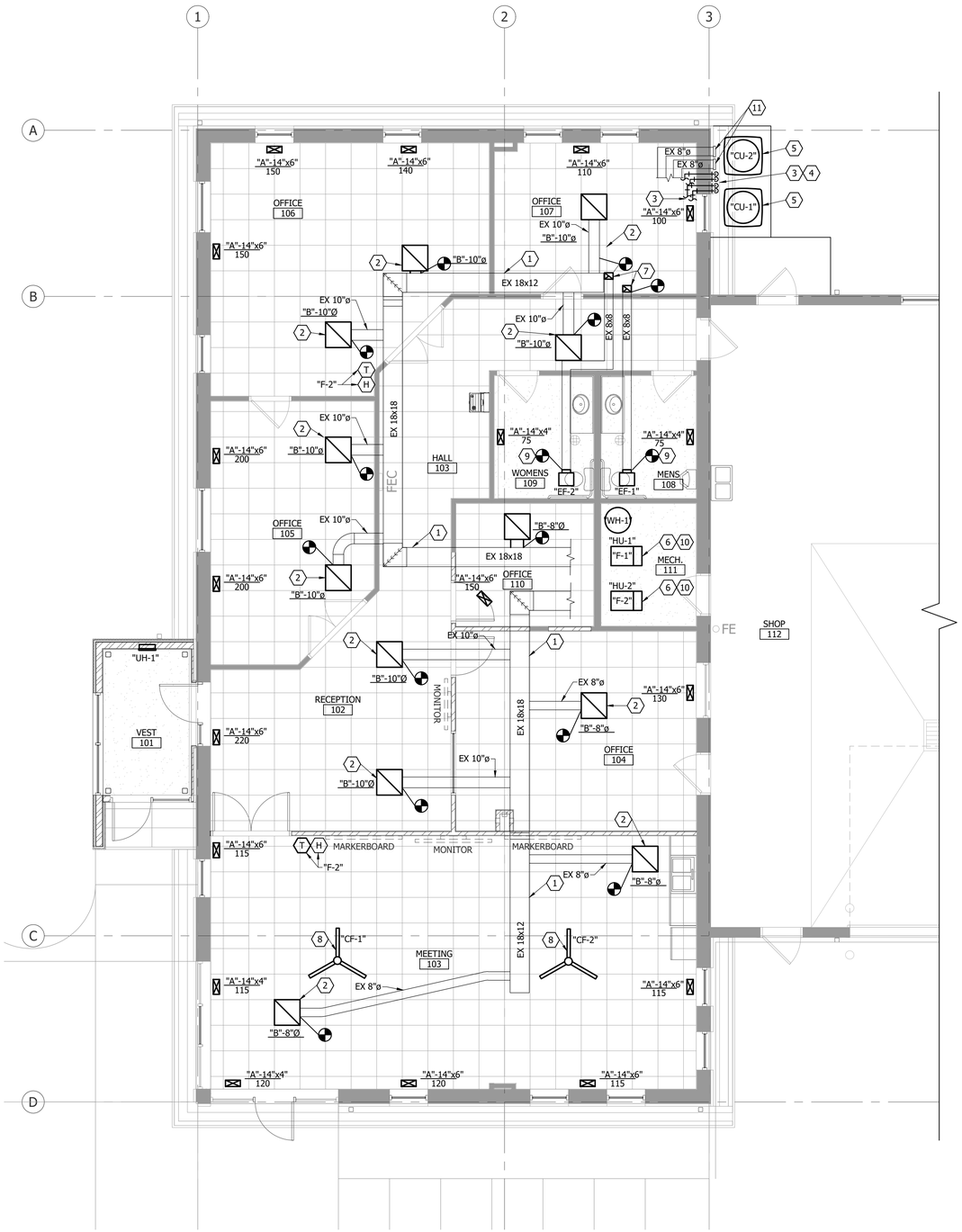
PHONE: 785-272-2252
www.bartlettwest.com

MECHANICAL UNDERFLOOR IMPROVEMENT PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8351
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**M-111**
SHEET NO:	



MECHANICAL IMPROVEMENT PLAN
SCALE: 3/16"=1'-0"

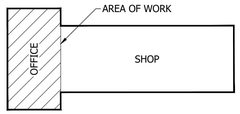
REFERENCE NOTES:

1. CLEAN INTERIOR OF ALL EX RETURN AIR DUCT MAINS AND BRANCHES.
2. PROVIDE NEW RA DIFFUSERS (TYP). CONNECT EXISTING RETURN AIR DUCTWORK TO NEW RA DIFFUSER (TYP). MODIFY EXISTING RETURN AIR DUCTWORK TO PROVIDE PROPER CONNECTION TO NEW RA DIFFUSERS (TYP).
3. ROUTE RL & RS REFRIGERANT PIPING FROM "CU-1" AND "CU-2" ABOVE CEILING TO NEW "F-1" AND "F-2" LOCATED IN MECHANICAL ROOM. EQUIPMENT MANUFACTURER SHALL BE RESPONSIBLE FOR SIZING RL & RS REFRIGERANT PIPING.
4. M/C TO PROVIDE EXTERIOR RL & RS REFRIGERANT PIPING INSULATION WITH ALUMINUM JACKET (TYP).
5. M/C TO PROVIDE A 4" AFG CONCRETE HOUSEKEEPING PAD FOR CONDENSING UNIT "CU-1" AND "CU-2". PAD SIZE SHALL BE 6" LARGER THAN THE FOOTPRINT OF UNIT (TYP).
6. CONNECT NEW HUMIDIFIERS "HU-1" AND "HU-2" TO "F-1" AND "F-2", ROUTE HUMIDIFIER DRAIN TO EX FLOOR DRAIN IN MECH RM 111. INSTALL PER MANUFACTURER REQUIREMENTS.
7. PROVIDE NEW GOOSENECK DUCT UP THRU ROOF. NEW DUCT TO MATCH EXISTING DUCT SIZE. REFER TO DETAIL 4/M501.
8. M/C TO REFER TO MANUFACTURER'S RECOMMENDATION ON MOUNTING REQUIREMENTS. M/C TO MOUNT FAN TO BOTTOM OF STRUCTURE WITH 4-1/2" DOWNROD.
9. REFER TO DETAIL 5/M501 FOR FAN MOUNTING REQUIREMENTS.
10. REFER TO DETAIL 1/M501 FOR FURNACE INSTALLATION DETAIL.
11. EXISTING OUTSIDE AIR LOUVERS TO REMAIN.

GENERAL NOTES:

1. M/C TO COORDINATE WORK WITH OTHER TRADES.
2. ALL RL & RS REFRIGERANT SIZING TO BE PER MANUFACTURERS RECOMMENDATIONS.
3. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.
4. M/C TO PROVIDE DUCT CLEANING WITH HEPA-FILTERED VACUUM AND COMPRESSED AIR FLUSH TO REMOVE ALL DIRT, DUST & DEBRIS. DUCT SYSTEMS TO BE CLEANED INCLUDE UNDER FLOOR SA, OSA, AND RA.

KEY PLAN:



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	BID SET	10/01/2024	DWM

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MECHANICAL IMPROVEMENT PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8361
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**M-112**
SHEET NO:	

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

FURNACE/EVAPORATOR COIL/CONDENSING UNIT SCHEDULE

FURNACE						HEATING				EVAPORATOR COIL		COOLING					CONDENSER							NOTES
MARK	MFGR	MODEL	SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	ESP (IN WC)	INPUT (MBH)	MIN. OUTPUT (MBH)	MOTOR (HP)	VOLTS/ PHASE	MFGR	MODEL	AIRFLOW (CFM)	EAT DB/WB (°F)	LAT DB/WB (°F)	SENSIBLE CAPACITY (MBH)	TOTAL CAPACITY (MBH)	MARK	MFGR	MODEL	AMB TEMP (°F)	VOLTS/ PHASE	MCA (AMPS)	MOCP (AMPS)	
F-1	DAIKIN	DC96VE0603BN	1200	225	0.5	60	57.6	0.5	120/1	DAIKIN	CAPFA3626C6	1200	79/63	55/53	31.6	35.6	CU-1	DAIKIN	DC3SEN3610	95	240/1	17.5	30	1-11
F-2	DAIKIN	DC96VE0603BN	1200	225	0.5	60	57.6	0.5	120/1	DAIKIN	CAPFA3626B3	1200	79/63	55/53	31.6	35.6	CU-2	DAIKIN	DC3SEN3610	95	240/1	17.5	30	1-11

NOTES:
1. PROVIDE WITH STAINLESS-STEEL HEAT EXCHANGER.
2. TWO-STAGE PROPANE GAS VALVE.
3. INSULATED HEAT EXCHANGER AND BLOWER SECTION.
4. PROPANE GAS PRESSURE REGULATOR. FIELD VERIFY PROPANE GAS INLET PRESSURE.
5. THERMOSTAT-WALL-MOUNTED, 7-DAY PROGRAMABLE.
6. R-32 REFRIGERANT.
7. SINGLE STAGE SCROLL COMPRESSOR.
8. PROVIDE APRILAIRE MODEL 700 HUMIDIFIERS WITH REMOTE DIGITAL DISPLAY HUMIDIFIER CONTROL OR PREAPPROVED EQUAL.
9. PROVIDE REFRIGERANT LEAK DETECTION SENSORS IN SUPPLY DUCT WORK OF EACH FURNACE UNIT. REFRIGERANT LEAK DETECTION SHALL BE IN COMPLIANCE WITH ASHRAE STANDARD 15.
10. PROVIDE VISUAL AND AUDIBLE ALARM FOR REFRIGERANT LEAK DETECTION.
11. PROVIDE F-1 AND F-2 WITH MERV-8 AIR FILTERS.

FAN SCHEDULE

MARK	MFGR	MODEL	AIRFLOW (CFM)	E.S.P. (IN. WC.)	MOTOR HP	MOTOR FLA	MOTOR VOLTS	MOTOR PHASE	NOTES
EF-1	GREENHECK	SP-A200	140	0.30	0.01	0.46	120	1	1,2
EF-2	GREENHECK	SP-B110ES	70	0.30	0.02	0.27	120	1	1,2
CF-1	MONTE CARLO	5HV52RZW	4400	--	FRAC	--	120	1	3,4,5
CF-2	MONTE CARLO	5HV52RZW	4400	--	FRAC	--	120	1	3,4

NOTES:
1. INTEGRAL DISCONNECT SWITCH.
2. GRAVITY BACKDRAFT DAMPER.
3. PROVIDE WITH A SINGLE LEVITON DSF01-10Z SOLID STATE SPEED CONTROL OR PREAPPPROVED EQUAL TO CONTROL BOTH "CF-1" AND "CF-2" SIMULTANOUSLY.
4. PROVIDE WITH 4-1/2 INCH DOWNROD AND T-BAR CEILING MOUNTING HARDWARE.
5. FAN AND SOLID STATE SPEED CONTROL TO BE WHITE IN COLOR.

ELECTRIC UNIT HEATER SCHEDULE

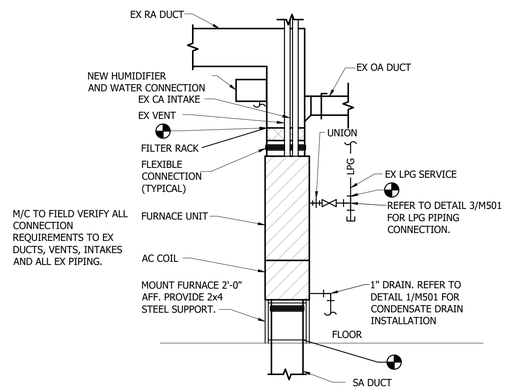
MARK	MFGR	MODEL	FAN AIRFLOW (CFM)	HEATING CAPACITY ELECTRIC (KW)	HEATING CAPACITY MIN. OUTPUT (MBH)	ELECTRICAL VOLTS/ PHASE	ELECTRICAL MCA (AMPS)	NOTES
EUH-1	QMARK	AWH3150F	100	1.5	5110	120/1	12.5	1-6

NOTES:
1. INTEGRAL THERMOSTAT
2. INTEGRAL DISCONNECT SWITCH
3. SINGLE POINT ELECTRICAL CONNECTION
4. THERMAL CUTOUT.
5. WALL RECESSED MOUNTED.
6. COLOR SHALL BE WHITE.

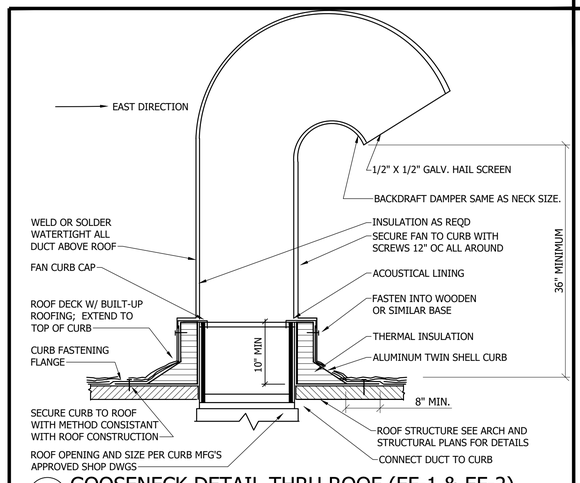
GRILLES, REGISTERS, & DIFFUSERS SCHEDULE

MARK	MFGR	MODEL	SERVICE	FACE SIZE	FRAME TYPE	FINISH	VOLUME CONTROL
A	TITUS	CT-PP-0	SA	REFER TO PLANS	TF	WHITE	YES
B	TITUS	50F	RA	24x24	T, S	WHITE	YES

ABBREVIATIONS:
T - LAY-IN CEILING MOUNT
TF - LAY-IN FLOOR MOUNT
S - SURFACE MOUNT
E - EXPOSED DUCT MOUNT



1 DOWN FLOW FURNACE DETAIL (F-1 & F-2)
NOT TO SCALE



4 GOOSENECK DETAIL THRU ROOF (EF-1 & EF-2)
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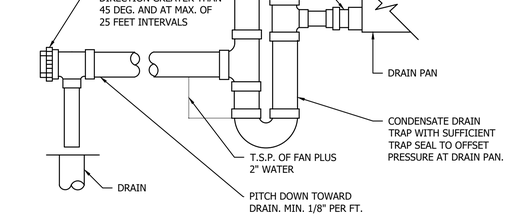

2 CONDENSATE DRAIN TRAP DETAIL (F-1 & F-2)
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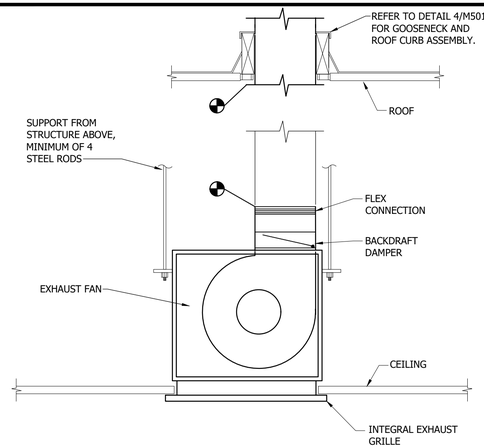
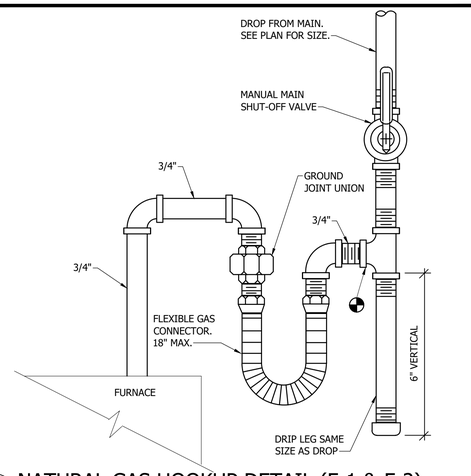


5 EXHAUST FAN DETAIL (EF-1 & EF-2)
NOT TO SCALE



3 NATURAL GAS HOOKUP DETAIL (F-1 & F-2)
NOT TO SCALE

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	10/01/2024	BID SET	DWM

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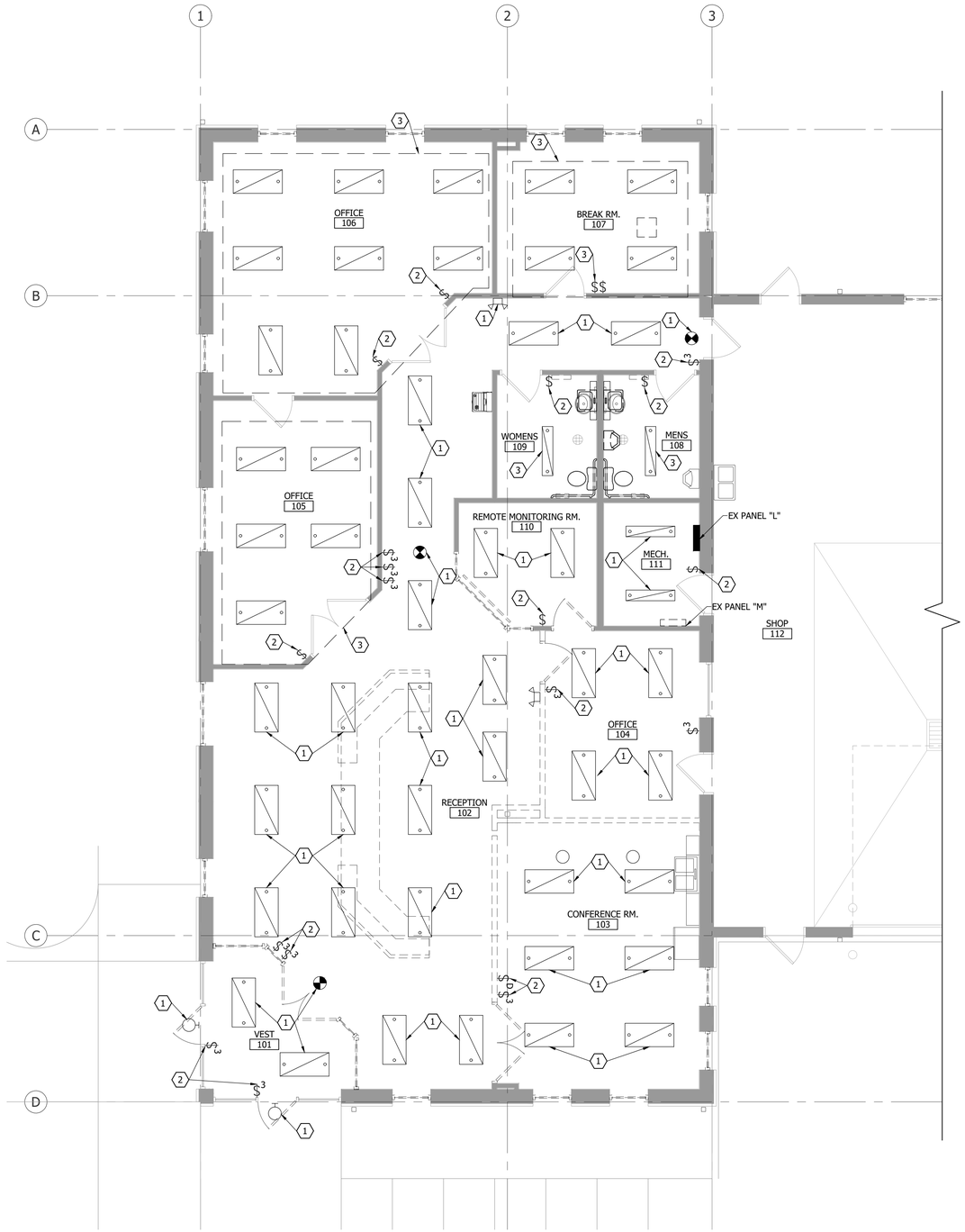
MECHANICAL DETAILS & SCHEDULES

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
NATHAN J. GAFFREY
PE-8351
DATE 10/1/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	M-501
SHEET NO:	

Last edit on: 10/1/2024 4:45 PM by: SDM01521 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\MEP\12493.700M - MECHANICAL DETAILS & SCHEDULES.dwg Layout Name: MECHANICAL DETAILS & SCHEDULES Plotted By: SDM01521 Plotted on: 10/1/2024 5:16:52 PM



LIGHTING DEMOLITION PLAN
SCALE: 3/16"=1'-0"

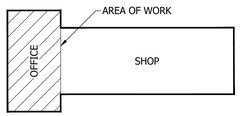
REFERENCE NOTES:

1. E/C TO REMOVE LIGHTING FIXTURE AND ALL WIRE AND CONDUIT BACK TO ASSOCIATED PANELBOARD.
2. E/C TO REMOVE EX LIGHTING SWITCH AND ALL ASSOCIATED WIRED AND CONDUIT.
3. E/C TO REMOVE LIGHTING FIXTURES AND FIXTURE WHIPS IN THIS AREA BACK TO NEAREST JUNCTION BOX. EXISTING HOMERUN TO PANEL TO REMAIN.

GENERAL NOTES:

1. E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.

KEY PLAN:



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	10/01/2024	BID SET	DWM

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LIGHTING DEMOLITION PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	E-101
SHEET NO:	---- of

POWER DEMOLITION PLAN
SCALE: 3/16"=1'-0"

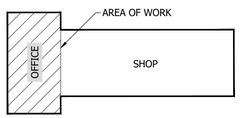
REFERENCE NOTES:

1. EX EXTERIOR RECEPTACLE, ALL ASSOCIATED WIRE AND CONDUIT TO REMAIN.
2. EX RECEPTACLE, COVER PLATE, AND POWER CONNECTION TO BE REMOVED. EX WIRE AND CONDUIT TO REMAIN AND BE RECONNECTED TO NEW RECEPTACLE. REFER TO POWER IMPROVEMENT PLAN.
3. EX EXHAUST FAN SWITCH, COVER PLATE, ALL ASSOCIATED WIRE AND CONDUIT TO BE REMOVED.
4. EX EXHAUST FAN POWER CONNECTION AND ALL ALL ASSOCIATED WIRE AND CONDUIT BACK TO PANEL TO BE REMOVED.
5. EX EXHAUST FAN SWITCH, COVER PLATE, AND POWER CONNECTION TO BE REMOVED. EX WIRE AND CONDUIT TO REMAIN AND BE RECONNECTED TO NEW EXHAUST FAN SWITCH. REFER TO POWER IMPROVEMENT PLAN.
6. EX EXHAUST FAN POWER CONNECTION TO BE REMOVED. EX WIRE AND CONDUIT TO REMAIN AND BE RECONNECTED TO NEW EXHAUST FAN. REFER TO POWER IMPROVEMENT PLAN.
7. EX DISCONNECT SWITCH, POWER CONNECTION, AND ALL ASSOCIATED CONDUIT AND WIRE BACK TO PANEL BE REMOVED.
8. EX CONDENSING UNIT POWER CONNECTION AND ALL ASSOCIATED WIRE AND CONDUIT TO BE REMOVED.
9. EX FURNACE POWER CONNECTION, TOGGLE SAFETY SWITCH, AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO PANEL BOARD TO BE REMOVED.
10. EX WATER HEATER TO BE REMOVED. POWER CONNECTION, ALL ASSOCIATED WIRE AND CONDUIT TO BE DISCONNECTED AND REMOVED BACK TO EXISTING PANEL. REFER TO IMPROVEMENT PLAN FOR RECONNECTION.
11. EX RECEPTACLE, COVER PLATE, POWER CONNECTION, AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO PANEL BOARD TO BE REMOVED.
12. EX FLOOR RECEPTACLE, FLOOR BOX, COVER PLATE, POWER CONNECTION, AND ALL ASSOCIATED WIRE AND CONDUIT TO BE REMOVED. EX FLOOR BOX OPENING TO BE FILLED IN WITH GROUTE LEVEL WITH SLAB ON GRADE.
13. EX POWER PANEL TO BE REMOVED AND REPLACED. REFER TO ELECTRICAL DEMOLITION RISER DIAGRAM.
14. EX CEILING RECEPTACLE, COVER PLATE, POWER CONNECTION, AND ALL ASSOCIATED WIRE AND CONDUIT TO BE REMOVED.

GENERAL NOTES:

1. E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON A CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.
3. ALL EX ELECTRICAL EQUIPMENT TO REMAIN UNLESS NOTED OTHERWISE.

KEY PLAN:



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	BID SET	10/01/2024	DWM

Bartlett & West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
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POWER DEMOLITION PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**E-102**
SHEET NO:	---- of

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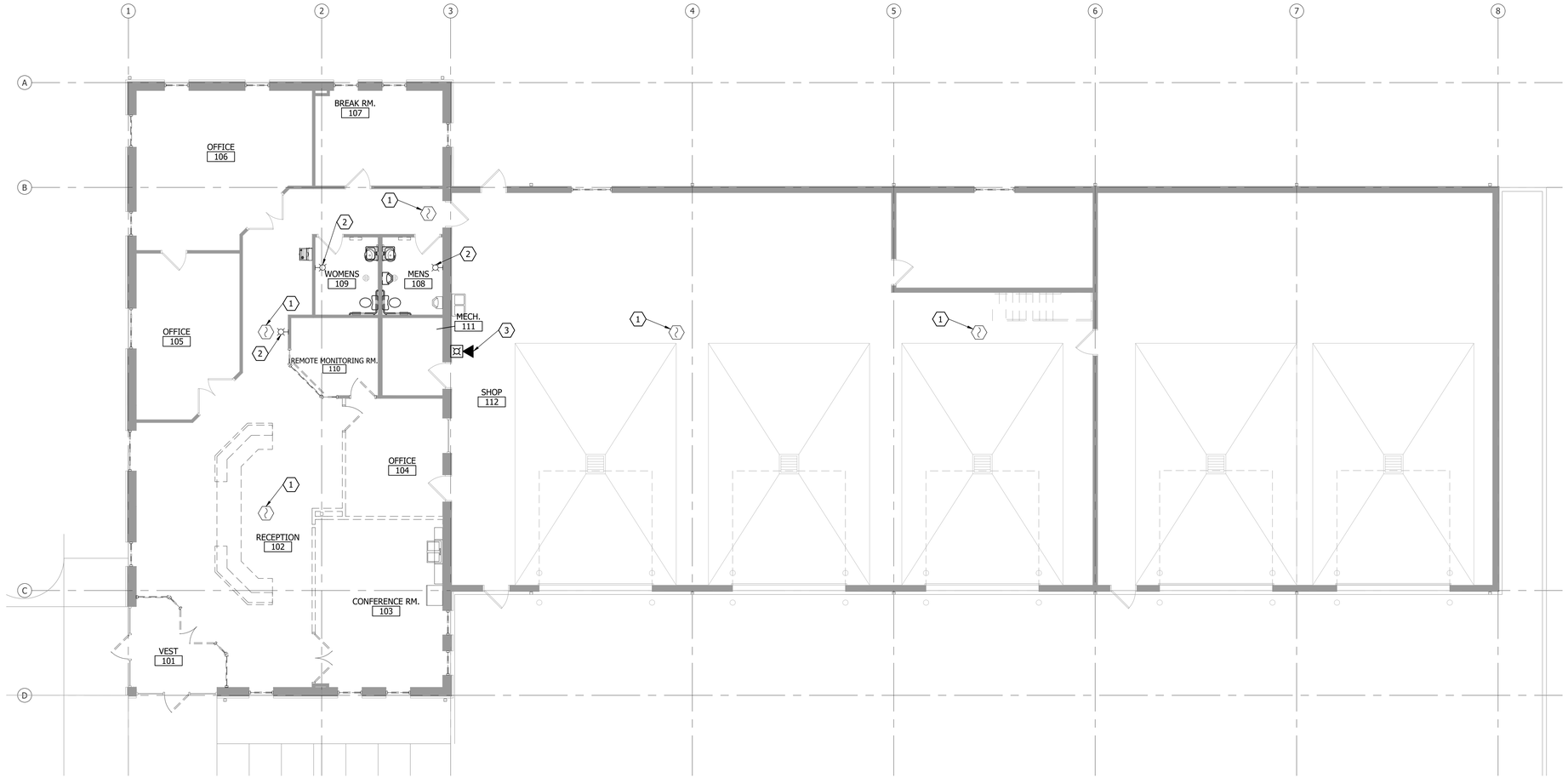
BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.



FIRE ALARM DEMOLITION PLAN
SCALE: 1/8"=1'-0"

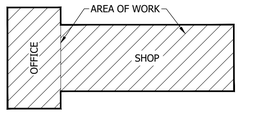
REFERENCE NOTES:

1. EX SMOKE DETECTOR, ALL ASSOCIATED WIRE AND CONDUIT BACK TO EX FIRE ALARM CONTROL PANEL TO BE REMOVED.
2. EX STROBE DEVICE, ALL ASSOCIATED WIRE AND CONDUIT BACK TO EX FIRE ALARM CONTROL PANEL TO BE REMOVED.
3. EX HORN/STROBE DEVICE, ALL ASSOCIATED WIRE AND CONDUIT BACK TO FIRE ALARM CONTROL PANEL TO BE REMOVED.

GENERAL NOTES:

1. E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON A CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.
3. ALL EX FIRE ALARM EQUIPMENT, DEVICES, AND WIRING TO BE REMOVED.
4. FIELD VERIFY EX FIRE ALARM CONTROL PANEL LOCATION.

KEY PLAN:



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	10/01/2024	BID SET	DWM

Bartlett & West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
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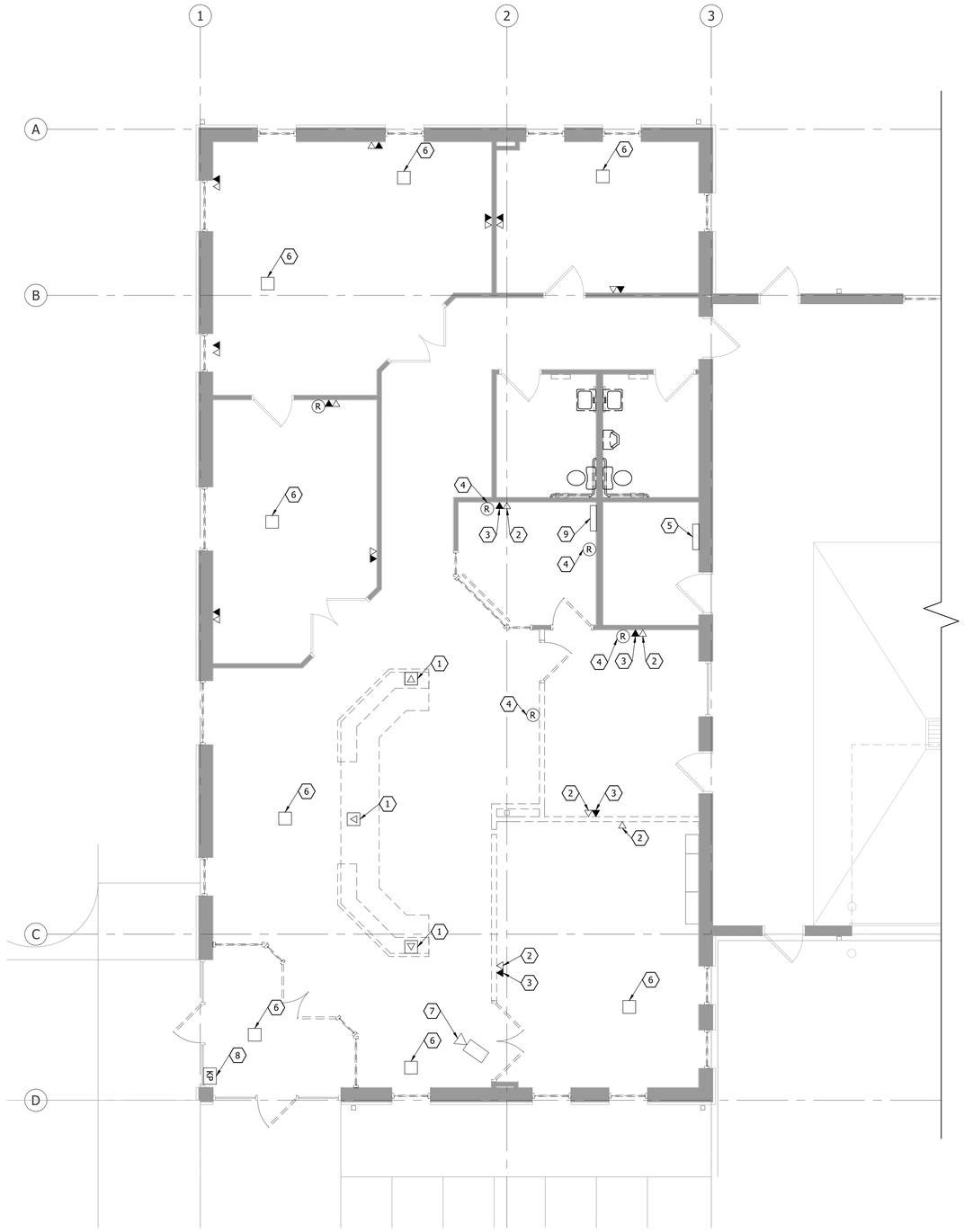
FIRE ALARM DEMOLITION PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	E-103
SHEET NO:	---- of

Last edit on: 10/1/2024 4:28 PM by: SDM01521 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\MEP\12493.700E - FIRE ALARM DEMOLITION PLAN.dwg Layout Name: FIRE ALARM DEMOLITION PLAN Plotted By: SDM01521 Plotted on: 10/1/2024 5:18:14 PM



SPECIAL SYSTEMS DEMOLITION PLAN
SCALE: 3/16"=1'-0"

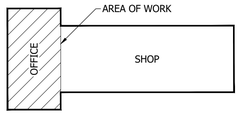
REFERENCE NOTES:

1. EX RECESSED FLOOR MOUNTED DATA BOX, COVER PLATE, AND ALL ASSOCIATED WIRE AND CONDUIT TO BE REMOVED. EX FLOOR OPENING TO BE FILLED IN WITH GROUTE LEVEL WITH SLAB ON GRADE.
2. EX PHONE OUTLET TO BE REMOVED. E/C TO DISCONNECT AND REMOVE ALL ASSOCIATED WIRE AND CONDUIT BACK TO TELECOMMUNICATIONS BACKBOARD.
3. EX RJ-45 COMMUNICATION/DATA OUTLET TO BE REMOVED. E/C TO DISCONNECT AND REMOVE ALL ASSOCIATED WIRE AND CONDUIT BACK TO TELECOMMUNICATIONS BACKBOARD.
4. EX SINGLE GANG RADIO ROUGH TO BE REMOVED. E/C TO DISCONNECT AND REMOVE ALL ASSOCIATED WIRE AND CONDUIT BACK TO TELECOMMUNICATIONS PANEL BACKBOARD.
5. EX TELECOMMUNICATIONS BACKBOARD TO REMAIN.
6. EX GLASS BREAK SECURITY DEVICE TO BE TEMPORARILY REMOVED AND REINSTALLED. REFER TO SPECIAL SYSTEMS IMPROVEMENT PLAN.
7. EX SECURITY CAMERA TO BE TEMPORARILY REMOVED AND REINSTALLED. REFER TO SPECIAL SYSTEMS IMPROVEMENT PLAN.
8. EX SECURITY KEYPAD TO BE TEMPORARILY REMOVED AND REINSTALLED. REFER TO SPECIAL SYSTEMS IMPROVEMENT PLAN.
9. EX SECURITY PANEL BOX TO REMAIN.

GENERAL NOTES:

1. ALL SPECIAL SYSTEMS DEVICES TO REMAIN UNLESS OTHERWISE NOTED.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON A CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.
3. ALL EX SHOP SECURITY DEVICES TO REMAIN UNLESS NOTED OTHERWISE.
4. E/C TO FIELD COORDINATE WITH OWNER AND THEIR ASSOCIATED SECURITY PROVIDER FOR EXACT REQUIREMENTS.

KEY PLAN:



#	DESCRIPTION	DATE	BY
	BID SET	10/01/2024	DWM

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
www.bartlettwest.com

SPECIAL SYSTEMS DEMOLITION PLAN

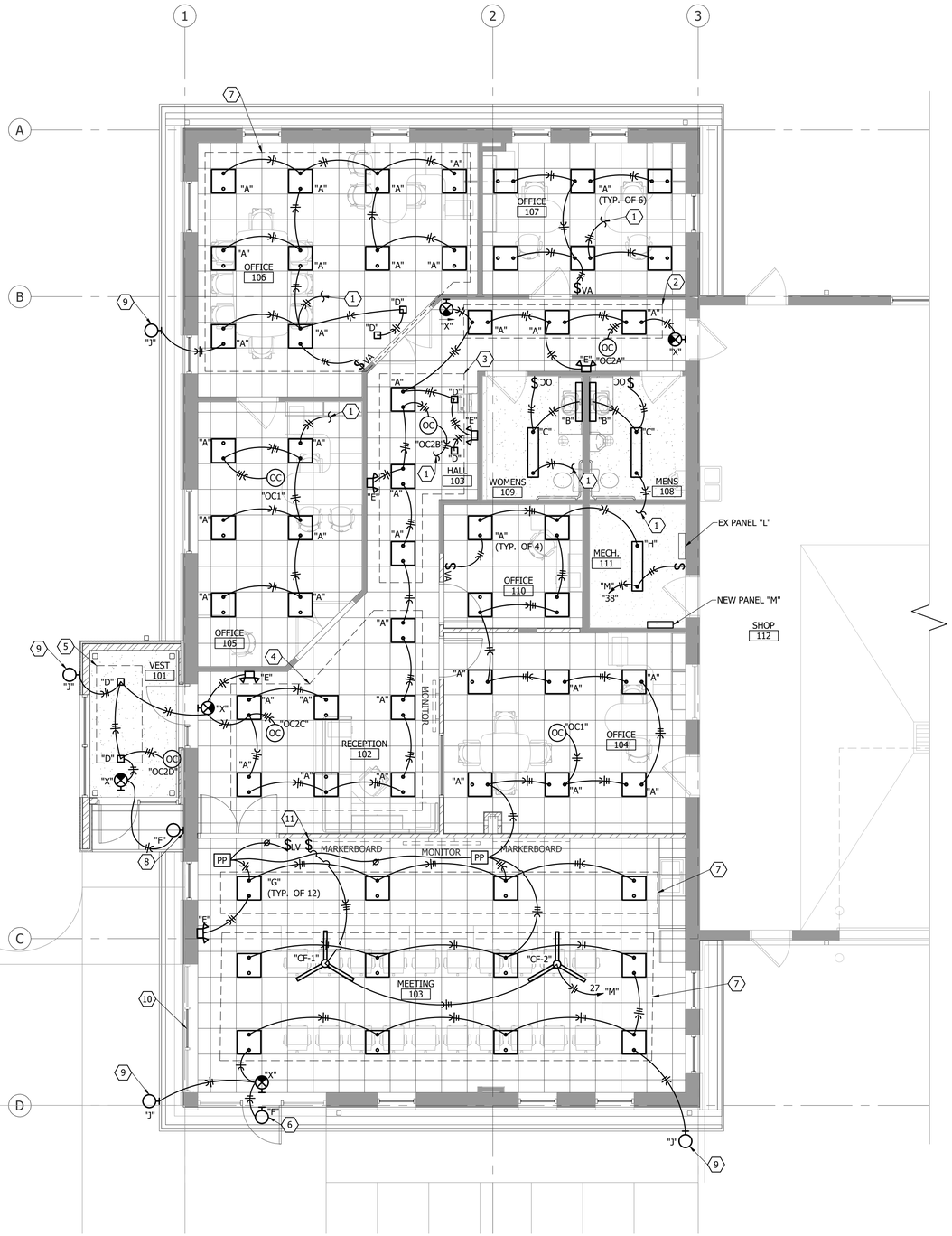
MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	E-104
SHEET NO:	---- of

Last edit on: 10/1/2024 4:52 PM by: SDM01521 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\MEP\12493.700E - SPECIAL SYSTEMS DEMOLITION PLAN.dwg Layout Name: SPECIAL SYSTEMS DEMOLITION PLAN Plotted By: SDM01521 Plotted on: 10/1/2024 5:18:22 PM

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.



LIGHTING IMPROVEMENT PLAN
SCALE: 3/16"=1'-0"

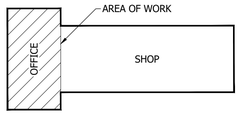
REFERENCE NOTES:

1. EXTEND AND CONNECT TO EXISTING LIGHTING CIRCUIT RETAINED UNDER DEMOLITION WORK.
2. OCCUPANCY SENSOR "OC2A" TO CONTROL LIGHTING IN THIS AREA.
3. OCCUPANCY SENSOR "OC2B" TO CONTROL LIGHTS IN THIS AREA.
4. OCCUPANCY SENSOR "OC2C" TO CONTROL LIGHTS IN THIS AREA.
5. OCCUPANCY SENSOR "OC2D" TO CONTROL LIGHTS IN THIS AREA.
6. E/C TO PROVIDE NEW LIGHTING FIXTURE IN THE SAME LOCATION AND HEIGHT AS THE EX REMOVED FIXTURE. FIELD VERIFY EXACT REQUIREMENTS.
7. CONTROL LIGHTING FIXTURES IN AREA INDICATED TOGETHER
8. MOUNT LIGHTING FIXTURE HEIGHT TO MATCH EX FIXTURE WALL MOUNT HEIGHT. REFER TO REFERENCE NOTE 6.
9. E/C TO MOUNT TOP OF FIXTURE 0'-6" BELOW TOP OF PARAPET. E/C TO FIELD VERIFY EXACT MOUNTING REQUIREMENTS.
10. E/C TO PATCH AND PAINT EX FIXTURE COVER OPENING. E/C TO FIELD COORDINATE WITH G/C. E/C TO PAINT TO MATCH EX CONDITIONS.
11. E/C TO INSTALL FAN CONTROLLER FURNISHED BY E/C. E/C TO PROVIDE ALL WIRE AND CONDUIT.

GENERAL NOTES:

1. E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON A CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.
3. E/C TO PROVIDE FACTORY TRAINED TECHNICIAN START UP AND COMMISSIONING FOR 103 MEE.

KEY PLAN:



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	10/01/2024	BID SET	DWM

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
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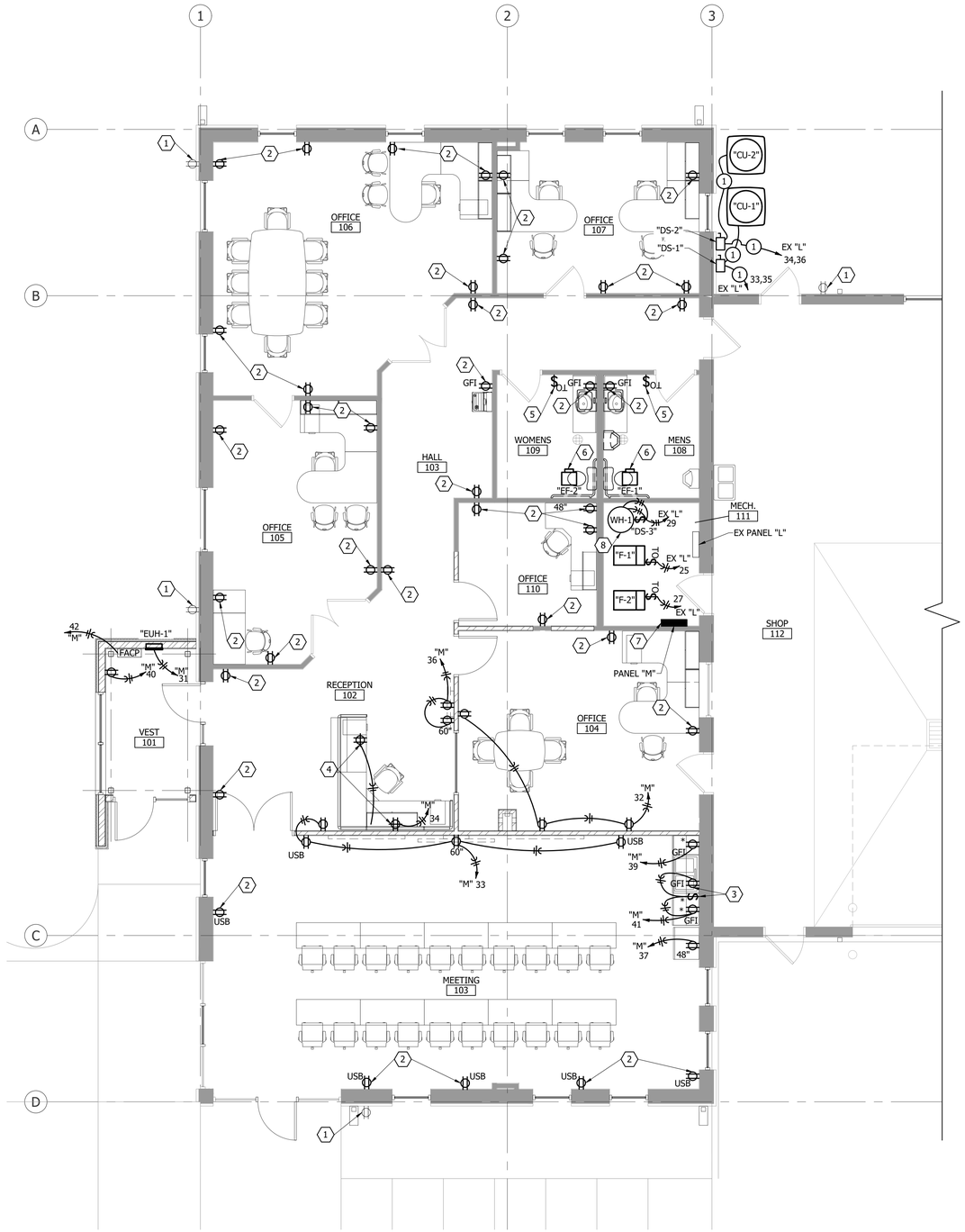
LIGHTING IMPROVEMENT PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**E-111**
SHEET NO:	---- of

Last edit on: 10/1/2024 5:04 PM by: SDM01521 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\MEP\12493.700E - LIGHTING IMPROVEMENT PLAN.dwg Layout Name: LIGHTING IMPROVEMENT PLAN Plotted by: SDM01521 Plotted on: 10/1/2024 5:18:05 PM



POWER IMPROVEMENT PLAN
SCALE: 3/16"=1'-0"

REFERENCE NOTES:

1. EX EXTERIOR RECEPTACLE, ALL ASSOCIATED WIRE AND CONDUIT TO REMAIN.
2. E/C TO PROVIDE NEW RECEPTACLE, COVER PLATE, AND POWER CONNECTION TO EX WIRE AND CONDUIT CIRCUIT.
3. MOUNT RECEPTACLE UNDER SINK FOR GARBAGE DISPOSAL. PROVIDE SWITCHING AS SHOWN.
4. MOUNT RECEPTACLE UNDER FRONT DESK. FIELD COORDINATE EXACT INSTALLATION REQUIREMENTS.
5. E/C TO PROVIDE NEW EXHAUST FAN SWITCH, COVER PLATE, AND POWER CONNECTION TO EX WIRE AND CONDUIT CIRCUIT.
6. E/C TO PROVIDE EXHAUST FAN POWER CONNECTION TO EX WIRE AND CONDUIT CIRCUIT.
7. E/C TO REPLACE EX PANEL WITH NEW PANEL "M". VERIFY ALL EX CIRCUITS. PROVIDE NEW PANEL SCHEDULE. MAKE ALL FINAL CONNECTIONS.
8. NEW WATER HEATER TO BE RECONNECTED TO "EX L" PANELBOARD. E/C TO REPLACE EX 30A/2P CIRCUIT BREAKER WITH NEW 40A/2P CIRCUIT BREAKER IN "EX L" PANELBOARD. E/C TO PROVIDE NEW POWER CONNECTION, ALL ASSOCIATED WIRE AND CONDUIT.

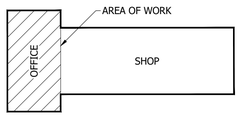
GENERAL NOTES:

1. E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
2. THE EX CONDITIONS HAVE BEEN SHOWN ON CAUSAL ON-SITE INVESTIGATION WITH NO GUARANTEE OF THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.

FEEDER SCHEDULE:

1. 2-10 & 1-10G IN 3/4" C.

KEY PLAN:



#	DESCRIPTION	DATE	BY
	BID SET	10/01/2024	DWM

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PHONE: 785-272-2252
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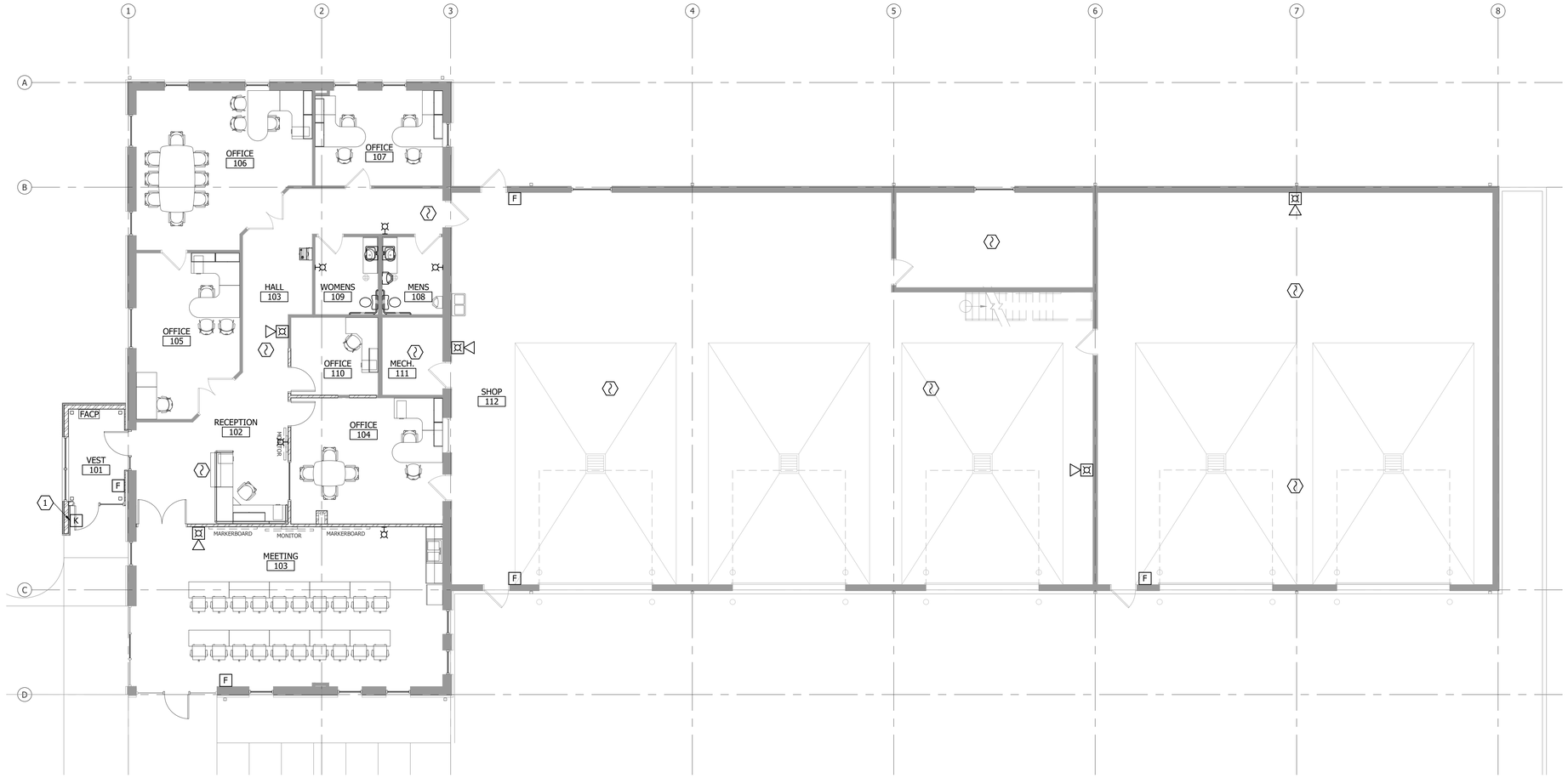
POWER IMPROVEMENT PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**E-112**
SHEET NO:	---- of

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

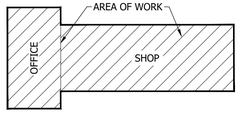


FIRE ALARM IMPROVEMENT PLAN
SCALE: 1/8"=1'-0"

REFERENCE NOTES:

1 E/C TO PROVIDE KNOX BOX. E/C TO FIELD COORDINATE EXACT INSTALLATION REQUIREMENTS WITH G/C.

KEY PLAN:



#	DATE	DESCRIPTION	BY
	10/01/2024	BID SET	DWM

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3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
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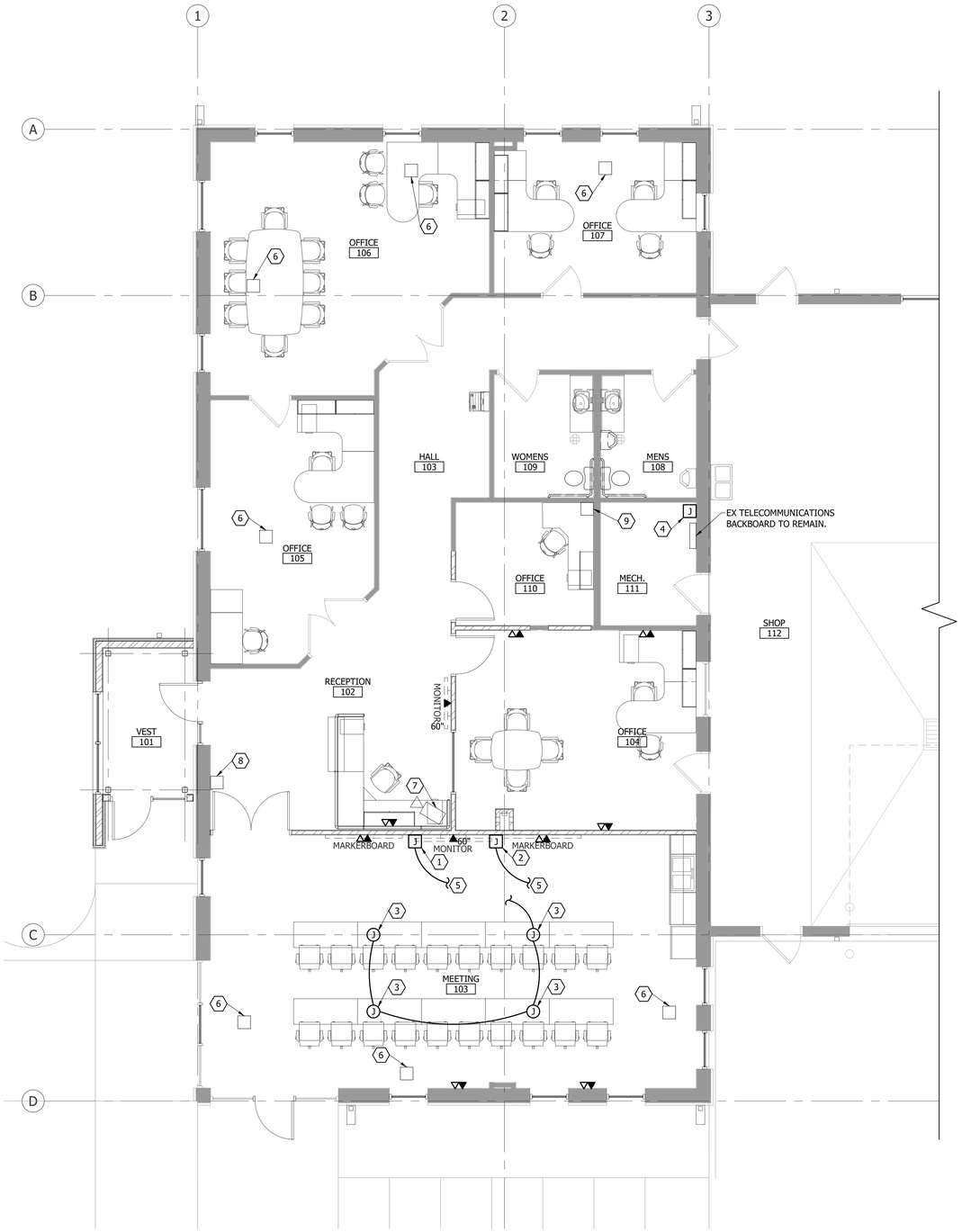
FIRE ALARM IMPROVEMENT PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	E-113
SHEET NO:	---- of

Last edit on: 10/1/2024 4:41 PM by SDM01521 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\MEP\12493.700E - FIRE ALARM IMPROVEMENT PLAN.dwg Layout Name: FIRE ALARM IMPROVEMENT PLAN Plotted By: SDM01521 Plotted on: 10/1/2024 5:18:14 PM



SPECIAL SYSTEMS IMPROVEMENT PLAN
SCALE: 3/16"=1'-0"

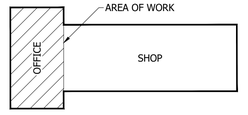
REFERENCE NOTES:

1. E/C TO PROVIDE LOGITECH RALLY BAR ALL-IN-ONE VIDEO BAR FOR MEDIUM TO LARGE ROOMS-GRAPHITE. MOUNT DIRECTLY ABOVE MONITOR.
2. E/C TO PROVIDE LOGITECH RALLY CAMERA PREMIUM PTZ CAMERA WITH ULTRA-HD IMAGING SYSTEM AND AUTOMATIC CAMERA CONTROL-DARK GREY. MOUNT DIRECTLY UNDER MONITOR.
3. E/C TO PROVIDE PENDANT MOUNT RALLY MIC POD MICROPHONES WITH RIGHTSOUND FOR RALLY BAR. MOUNT PENDANT TO CEILING. DAISY-CHAIN MICROPHONE CABLE AS SHOWN AND ROUTE TO RALLY BAR. MOUNT BOTTOM OF MICROPHONE AT 6'-6" AFF.
4. E/C TO PROVIDE LOGITECH ROOMMATE AND INTERCONNECT WITH CONFERENCE ROOM AUDIO/VISUAL DEVICES.
5. E/C TO ROUTE COMMUNICATION WIRE BACK TO LOGITECH ROOMMATE CONTROLLER IN ROOM 111 MECH. E/C TO FIELD VERIFY EXACT CONNECTION REQUIREMENTS WITH MANUFACTURER, REFER TO DETAIL 6/E-501.
6. EX CEILING MOUNT GLASS BREAK SECURITY DEVICE TO BE REINSTALLED IN CEILING. EXTENT AND MATCH EX WIRE AS REQUIRED.
7. EX SECURITY CAMERA DEVICE TO BE REINSTALLED IN CEILING. EXTENT AND MATCH EX WIRE AS REQUIRED.
8. EX SECURITY PAD DEVICE TO BE REINSTALLED IN WALL. EXTENT AND MATCH EX WIRE AS REQUIRED.
9. EX SECURITY PANEL BOX TO REMAIN.

GENERAL NOTES:

1. E/C TO PROVIDE LOGITECH STRONG USB EXTENDED-LENGTH SUPERSPEED USB 1- GBPS CABLE-DARK GREY 45 METER.
2. E/C TO PROVIDE LOGITECH RALLY MIC EXTENSION CABLE 10 METER (32.8 FT) EXTENSION CABLE-WHITE.
3. E/C TO PROVIDE LOGITECH WALL MOUNT FOR VIDEO BARS VESA-COMPATIBLE MOUNTING KIT FOR RALLY BAR AND RALLY BAR MINI-GRAPHITE.
4. E/C TO PROVIDE LOGITECH TV MOUNT FOR VIDEO BARS ATTACH RALLY BAR, RALLY BAR MINI, OR RALLY CAMERA TO ALMOST ANY DISPLAY WITH VESA MOUNTING POINTS-GRAPHITE.
5. ALL NEW DATA/PHONE J-BOXES TO BE PROVIDED WITH 3/4" CONDUIT UP WALL CAVITY TO ACCESSIBLE PLENUM SPACE AND PROVIDE PULL BUSHING AT CONDUIT END.
6. E/C TO PROVIDE LG-86" CLASS UQ75 SERIES LED 4K UHD SMART WEBOS OR PRE-APPROVED EQUAL FOR USE AS MONITOR IN MEETING ROOM 103. BOTTOM OF MONITOR TO BE MOUNTED 60" AFF. E/C TO PROVIDE SANUS PREFERRED 37"-90" FULL MOTION TV MOUNT OF PRE-APPROVED EQUAL.
7. E/C TO PROVIDE WIRELESS LOGITECH SIGNATURE K650 KEYBOARD
8. E/C TO PROVIDE LOGITECH M510 WIRELESS MOUSE.
9. E/C TO PROVIDE ADDITIONAL 15', 4K, HIGH SPEED HDMI CABLE FOR TV MONITOR INTERFACING.
10. ALL NEW A/V J-BOXES TO BE PROVIDED WITH 1" CONDUIT UP WALL CAVITY TO ACCESSIBLE PLENUM SPACE AND PROVIDE PULL BUSHING AT CONDUIT END.
11. ALL NEW PHONE/DATA JACKS TO BE PROVIDED BY E/C. E/C TO ROUTE NEW DATA/PHONE WIRE BACK TO 111 MECH ROOM AND TERMINATE AT EX SWITCH.
12. E/C TO PROVIDE LG-50" CLASS UQ75 SERIES LED 4K UHD SMART WEBOS OR PRE-APPROVED EQUAL FOR USE AS MONITOR IN MEETING ROOM 102. BOTTOM OF MONITOR TO BE MOUNTED 54" AFF. E/C TO PROVIDE SANUS PREFERRED 37"-90" FULL MOTION TV MOUNT OF PRE-APPROVED EQUAL.

KEY PLAN:



#	DATE	DESCRIPTION	BY
	10/01/2024	BID SET	DWM

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
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SPECIAL SYSTEMS IMPROVEMENT PLAN

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	E-114
SHEET NO:	---- of

Last edit on: 10/4/2024 5:33 PM by: NPB01926 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\MEP\12493.700E - SPECIAL SYSTEMS IMPROVEMENT PLAN.dwg Layout Name: SPECIAL SYSTEMS IMPROVEMENT PLAN Plotted By: NPB01926 Plotted on: 10/4/2024 5:40:40 PM

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

FIRE ALARM OPERATING SEQUENCE MATRIX

SYSTEM INPUTS		SYSTEM OUTPUTS: A DISPLAY MESSAGE ON THE MAIN CONTROL PANEL LCD	B	C RECORD THE EVENT ON THE PRINTER AND IN THE HISTORY LOG	D ACTIVATE ALL AUDIBLE AND VISUAL NOTIFICATION APPLIANCES IN THE BUILDING	E INTERRUPT POWER TO ALL ELECTRIC HOLD OPEN DEVICES	F UNLOCK ALL SECURED DOORS IN EGRESS PATHS AND STAIR DOORS	G ACTIVATE AUDIBLE AND VISUAL NOTIFICATION APPLIANCE IN AFFECTED ROOM	H INTERRUPT POWER TO ASSOCIATED ELECTRIC HOLD OPEN DEVICES	I	J ACTIVATE EXTERIOR WATERFLOW ALARM BELL (FUTURE)	K INITIATE ELEVATOR RECALL	L INTERRUPT POWER TO ELEVATOR EQUIPMENT	M STOP AFFECTED AHU	N	O TRANSMIT ALARM SIGNAL TO KSU POLICE DEPT.	P	Q TRANSMIT SUPERVISORY SIGNAL TO KSU PD	R	S TRANSMIT TROUBLE SIGNAL TO KSU PD	T	U TRANSMIT WATERFLOW SIGNAL TO KSU PD (FUTURE)	V BYPASS HVAC SHUTDOWN SEQUENCE	W BYPASS ELEVATOR RECALL SEQUENCE	X OVER-RIDE AUTOMATIC SPEAKER CIRCUIT COMMANDS FOR LIVE MESSAGE	Y STOP ALL AUDIBLE AND VISUAL NOTIFICATION APPLIANCES IN THE BUILDING	Z TURN OFF ALL NOTIFICATION APPLIANCES AND RESET TO NORMAL
MANUAL PULL STATION	1	●		●	●	●										●												
MASTER BUILDING WATERFLOW SWITCH	2	●		●	●	●	●				●					●								●				
SPRINKLER WATERFLOW SWITCH ON FLOOR	3	●		●	●	●	●				●					●								●				
AREA SMOKE DETECTOR	4	●		●	●	●	●									●												
DUCT SMOKE DETECTOR	5	●		●	●	●	●							●				●										
AREA SMOKE DETECTOR (DESIGNATED FOR DOOR HOLD OPEN)	6	●		●	●	●	●		●							●												
	7																											
HEAT DETECTOR	8	●		●	●	●	●									●												
AREA SMOKE DETECTOR FOR ELEVATOR RECALL	9	●		●	●	●	●					●				●												
HEAT DETECTOR IN ELEVATOR MACHINE ROOM	10	●		●	●	●	●					●	●			●												
VALVE TAMPER SWITCH	11	●		●														●										
HEAT DETECTOR IN ELEVATOR SHAFT	12	●		●	●	●	●					●	●			●												
STANDPIPE SYSTEM MONITOR	13	●		●	●	●	●				●					●								●				
	14																											
	15																											
	16																											
HVAC SHUTDOWN BYPASS SWITCH	17	●		●																				●				
ELEVATOR RECALL BYPASS SWITCH	18	●		●																					●			
MANUAL MICROPHONE SWITCH	19	●		●																						●		
EVACUATION ALARM SILENCE SWITCH	20	●		●																							●	
DOOR UNLOCK SWITCH	21	●		●			●																					
FIRE ALARM CONTROL PANEL TROUBLE	22	●		●																		●						
FIRE ALARM CONTROL PANEL RESET	23	●		●																								●
	24																											
	25																											

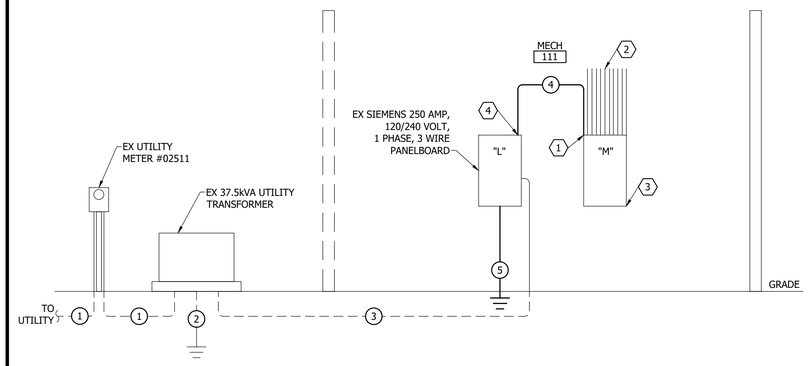
AUDIBLE DEVICES WITHIN THE ELEVATOR CABS SHALL BE ACTIVATED WITH MANUAL SWITCHES ONLY, NO AUTOMATIC OPERATION.

ELEVATOR RECALL SHALL BE INITIATED ONLY BY SMOKE DETECTORS WITHIN ELEVATOR LOBBIES OR THE MACHINE ROOM. NO OTHER INITIATING DEVICE SHALL INITIATE ELEVATOR RECALL.

A SMOKE DETECTOR IN THE LOBBY ON THE PRIMARY DISCHARGE FLOOR SHALL CAUSE THE ELEVATOR TO RECALL TO THE ALTERNATE FLOOR. SMOKE DETECTORS IN ELEVATOR LOBBIES ON ALL OTHER FLOORS, OR IN THE MACHINE ROOM SHALL RECALL THE ELEVATOR TO THE PRIMARY FLOOR.

OPERATION OF THE SMOKE DETECTOR IN THE ELEVATOR MACHINE ROOM SHALL CAUSE THE FIREMAN'S WARNING LIGHT IN THE CAB TO BLINK.

5 FIRE ALARM SYSTEM SEQUENCE OF OPERATIONS
NOT TO SCALE



1 DEMOLITION RISER DIAGRAM
NOT TO SCALE

REFERENCE NOTE:

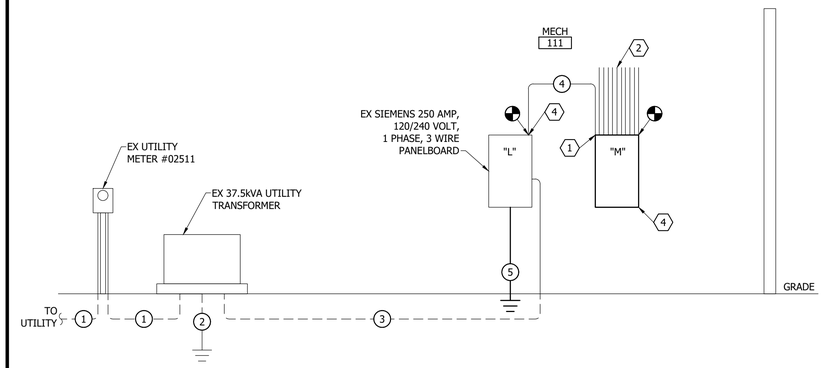
1. E/C TO TEMPORARILY DISCONNECT EX POWER CONNECTION AND REMOVE EX "M". REFER TO IMPROVEMENT RISER DIAGRAM.
2. EX BRANCH CIRCUITS TO BE TEMPORARILY DISCONNECTED FROM EX PANELBOARD "M".
3. E/C TO REMOVE EX PANEL AND FEED THROUGH POWER CONNECTION. EX BRANCH CIRCUITS TO BE TEMPORARILY DISCONNECTED AND RECONNECTED TO NEW PANEL.
4. E/C TO REMOVE FEED THROUGH LUG POWER CONNECTION.

GENERAL NOTES:

1. ALL EX ELECTRICAL EQUIPMENT TO REMAIN, UNLESS NOTED OTHERWISE.
2. E/C TO FIELD COORDINATE AND VERIFY ALL EX CIRCUITS IN PANELBOARD "L" AND "M" AND PROVIDE NEW PANELBOARD SCHEDULES.

FEEDER SCHEDULE:

1. EX UTILITY PRIMARY FEEDER TO REMAIN.
2. EX UTILITY PRIMARY GROUND TO REMAIN.
3. EX MAIN FEEDER TO REMAIN.
4. EX MAIN FEEDER TO BE DISCONNECTED AND REMOVED AT EX PANEL "M".
5. EX SERVICE GROUND FEEDER AND GROUND TO REMAIN.



2 IMPROVEMENT RISER DIAGRAM
NOT TO SCALE

REFERENCE NOTE:

1. E/C TO PROVIDE NEW ELECTRICAL PANEL AND CONNECT EX BRANCH CIRCUITS TO NEW PANEL CIRCUIT BREAKERS. E/C TO EXTEND AND CONNECT NEW POWER CONNECTION TO NEW "M" AS REQUIRED.
2. E/C TO EXTEND AND CONNECT EX BRANCH CIRCUITS TO NEW "M" AS REQUIRED.
3. E/C TO PROVIDE NEW PANEL "M". REFER TO PANEL SCHEDULE. MAKE ALL FINAL CONNECTIONS.
4. E/C TO PROVIDE NEW FEED THROUGH LUG POWER CONNECTION TO EX PANEL "" LUGS. FIELD VERIFY EXACT CONNECTION REQUIREMENTS.

GENERAL NOTES:

1. ALL EX ELECTRICAL EQUIPMENT TO REMAIN, UNLESS NOTED OTHERWISE.
2. E/C TO FIELD COORDINATE AND VERIFY ALL EX CIRCUITS IN PANELBOARD "L" AND "M" AND PROVIDE NEW PANELBOARD SCHEDULES.

FEEDER SCHEDULE:

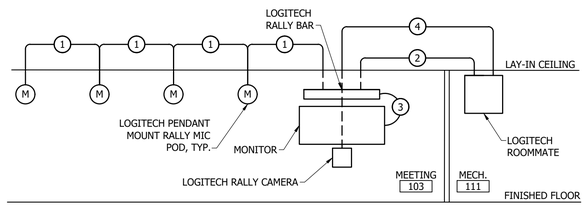
1. EX UTILITY PRIMARY FEEDER TO REMAIN.
2. EX UTILITY PRIMARY GROUND TO REMAIN.
3. EX MAIN FEEDER TO REMAIN.
4. 3-250 KCMIL & 1-4G IN 2 1/2"C.
5. EX SERVICE GROUND FEEDER AND GROUND TO REMAIN.

GENERAL NOTES:

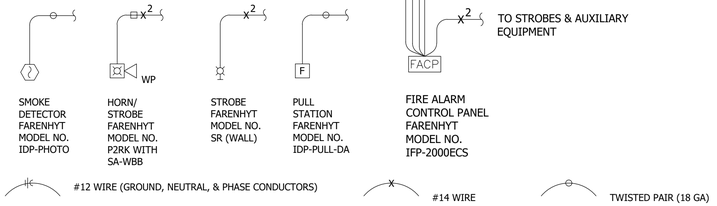
1. E/C TO FIELD VERIFY ALL CABLING LENGTHS PRIOR TO ORDERING A/V CABLE.
2. E/C TO FIELD COORDINATE FIELD CONNECTION REQUIREMENTS WITH LOGITECH MANUFACTURER.
3. E/C TO PROVIDE FIELD COMMISSIONING AND START UP FOR A/V SYSTEM.

FEEDER SCHEDULE:

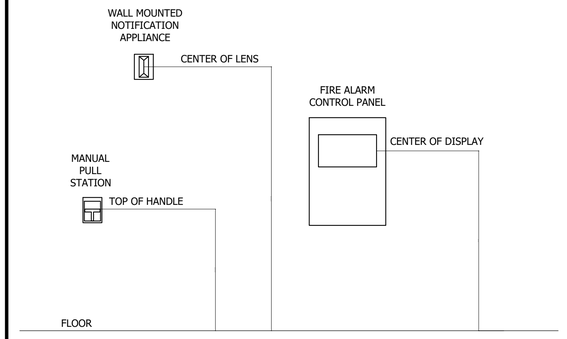
1. LOGITECH RALLY MIC POD EXTENSION CABLE PROVDED BY E/C.
2. USB-A TO USB-C 3.0 PLENUM RATED CABLE PROVIDED BY E/C.
3. HDMI CABLE FURNISHED WITH LOGITECH RALLY BAR. INSTALLED BY E/C.
4. USB TYPE-C TO USB TYPE-C PLENUM RATED CABLE PROVIDED BY E/C.



6 LOGITECH EQUIPMENT WIRING SCHEMATIC
NOT TO SCALE



4 FIRE ALARM DEVICE WIRING DETAILS
NOT TO SCALE



3 WALL MOUNTED FIRE ALARM EQUIPMENT DETAIL
NOT TO SCALE

#	DATE	DESCRIPTION	BY
	10/01/2024	BID SET	DWM

Bartlett & West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE: 785-272-2252
www.bartlettwest.com

ELECTRICAL DETAILS

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER — MICHAEL VAN DUYNE — PE-10124 — DATE: 10/01/2024 — NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	E-501
SHEET NO:	of

Last edit on: 10/1/2024 4:36 PM by: SDM01521 Drawing Name: F:\Proj\12600\12493\12493.700\AutoCad\Plan Set\MEP\12493.700E - ELECTRICAL DETAILS.dwg Layout Name: ELECTRICAL DETAILS Plotted By: SDM01521 Plotted on: 10/1/2024 5:18:30 PM

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	MOUNTING			FINISH	LAMP		EQUIVALENT MANUFACTURERS	NOTES
			REC	SURF	WALL		TYPE	WATTS		
"A"	H.E. WILLIAMS	LPT-22-L45/935-S-AF12095-UNV	X			WHT	LED	34		
"B"	H.E. WILLIAMS	MX4WUD-4'00-L15/935U/L15/935D-F/F-UNV			X	WHT	LED	28		
"C"	H.E. WILLIAMS	HES-14-L38/935-A-UNV		X		WHT	LED	31		
"D"	H.E. WILLIAMS	4DS-L30/935-UNV-LM-OF-CS-N-F1	X			WHT	LED	36		
"E"	H.E. WILLIAMS	EMERLED-WHT-D			X	WHT	LED	2		
"F"	COOPER	XTOR1B-W-BK-PC1			X	BLK	LED	12		
"G"	H.E. WILLIAMS	AP-22-L30/835-DIM-UNV	X			WHT	LED	26		
"H"	H.E. WILLIAMS	HES-24-L40/935-A-UNV		X		WHT	LED	33		
"J"	COOPER	XTOR12BRL-W-BK-PC1-WG-XTORMX			X	BLK	LED	102		
"X"	H.E. WILLIAMS	EXIT-R-EM-WHT-D			X	WHT	LED	3		

NOTES:

PEAK DEMAND (FROM UTILITY)	96 A
ADDITIONAL LOAD	83 A
TOTAL	**179 A**

LIGHTING CONTROL DEVICE SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	DISCRIPTION	NOTES
$VA	LEGRAND	CS-50-W	PIR WALL SWITCH VACANCY SENSOR	1
$LV	NLIGHT	nPODM GFX	WALL MOUNT 3.5" FULL-COLOR TOUCHSCREEN CONTROLLER; 16 SCENE	1
$OC	LEGRAND	PW-100-W	PASSIVE INFRARED WALL SWITCH OCCUPANCY SENSOR	1
OC "OC1"	LEGRAND	DT-355	CEILING MOUNT DUAL TECHNOLOGY LINE VOLTAGE CEILING SENSOR	1
OC "OC2A"	LEGRAND	DT-355	CEILING MOUNT DUAL TECHNOLOGY LINE VOLTAGE CEILING SENSOR	1
OC "OC2B"	LEGRAND	DT-355	CEILING MOUNT DUAL TECHNOLOGY LINE VOLTAGE CEILING SENSOR	1
OC "OC2C"	LEGRAND	DT-355	CEILING MOUNT DUAL TECHNOLOGY LINE VOLTAGE CEILING SENSOR	1
OC "OC2D"	LEGRAND	DT-355	CEILING MOUNT DUAL TECHNOLOGY LINE VOLTAGE CEILING SENSOR	1
PP	NLIGHT	nPP16 D	POWER/RELAY PACK; 0-10V DIMMING OUTPUT	1

NOTES:
1. EQUIVALENT MANUFACTURERES: ENCELIUM BY OSRAM; NX BY HUBBELL; WATTSTOPPER BY LEGRAND

DISCONNECT SWITCH SCHEDULE

MARK	EQUIPMENT SERVED	SWITCH			FUSE		ENCLOSURE NEMA TYPE	NOTES
		VOLTAGE	AMP	POLE	AMP	TYPE		
"DS-1"	CONDENSING UNIT	240	30	2	-	-		
"DS-2"	CONDENSING UNIT	240	30	2	-	-		
"DS-3"	WATER HEATER	240	60	1	-	-		

NOTES:

NEW PANEL "L" LOADS

LOAD CLASSIFICATION	CONNECTED LOAD	NEC DEMAND FACTOR	DEMAND LOAD	DEMAND AMPS
F-1	1176 VA	100%	1176 VA	5 A
F-2	1176 VA	100%	1176 VA	5 A
WH-1	4500 VA	100%	4500 VA	40 A
CU-1	2364 VA	125%	2364 VA	12.5 A
CU-2	2364 VA	100%	2364 VA	10 A
TOTAL:	**11,580 VA**		**11,580 VA**	**72.5 A**

NEW PANEL "M" LOADS

LOAD CLASSIFICATION	CONNECTED LOAD	NEC DEMAND FACTOR	DEMAND LOAD	DEMAND AMPS
EF-1	250 VA	100%	250 VA	1 A
EF-2	250 VA	100%	250 VA	1 A
EUH-1	1500 VA	100%	1500 VA	7 A
OFFICE 104 RECEPTACLE	540 VA	100%	540 VA	3 A
MEETING W 103 RECEPTACLE	540 VA	100%	540 VA	3 A
RECEPTION W 102 RECEPTACLE	800 VA	100%	800 VA	4 A
MEETING E 103 RECEPTACLE	540 VA	100%	540 VA	3 A
RECEPTION E 102 RECEPTACLE	800 VA	100%	800 VA	4 A
REFRIGERATOR RECEPTACLE	700 VA	100%	700 VA	3 A
ROOM 110, 111, 104, 103 LIGHTS	800 VA	100%	800 VA	4 A
MICROWAVE RECEPTACLE	700 VA	100%	700 VA	3 A
VESTIBULE RECEPTACLE	180 VA	100%	180 VA	1 A
COUNTER/DISPOSAL RECEPTACLE	1400 VA	100%	1400 VA	6 A
TOTAL	**9000 VA**		**9000 VA**	**43 A**

CIRCUIT BREAKER PANELBOARD SCHEDULE

MARK: EX "L" | MOUNTING: SURFACE | 10K AIC RATING (MINIMUM)
VOLTAGE: 120/240 | PHASE: 1 | WIRE: 3 | POLES: 42 | MAIN BUSS: 400 AMP | MAIN C/B: 250 AMP

CIRC. NO.	LOAD DESCRIPTION	CIRC. BRKR	LOAD (VA)	PHASE LOAD IN VA A	PHASE LOAD IN VA B	LOAD (VA)	CIRC. BRKR.	LOAD DESCRIPTION	CIRC. NO.
1	EXIT WALL LIGHTS	20A1P		0			20A1P	OFFICE LIGHTS	2
3	ENTRY & RECEPT. LIGHTS	20A1P			0		20A1P	OFFICE & HALL LIGHTS	4
5	RECEPT. LIGHTS	20A1P		0			20A1P	REST., MECH., & MON. LIGHTS	6
7	OFFICE & CONF. LIGHTS	20A1P			0		20A1P	VALVE & METER LIGHTS	8
9	W. EXIT OFFICE RECEPT.	20A1P		0			20A1P	EXIT & EMERG. LIGHTS	10
11	N.W. EXIT OFFICE RECEPT.	20A1P			0		20A1P	S. EXT. OFFICE, CON. & REC RECEPT.	12
13	RECP. & OFFICE RECEPT.	20A1P		0			20A1P	CONF. RECEPT.	14
15	OFFICE RECEPT.	20A1P			0		20A1P	OFFICE RECEPT.	16
17	RECEPTION RECEPT.	20A1P		0			20A1P	OFFFICE RECEPT. EF-2	18
19	REMOTE MON. RECEPT	20A1P			0		20A1P	REST. RECEPT, EF-1, EWC RECEPT.	20
21	SHOP RECEPT.	20A1P		0			20A1P	SHOP RECEPT.	22
23	SHOP RECEPT.	20A1P			0		20A1P	SHOP RECEPT.	24
25	****F-1**	**20A1P**	1176	1176			20A1P	PF-1A & 1B	26
27	****F-2**	**20A1P**	1176		1176		20A1P	TELEPHONE RECEPT.	28
29	**WH-1**	**40A2P**	4500	4500			20A2P	POLE YARD LIGHTS	30
31	-	-	4500		4500		-	-	32
33	****CU-1**	**30A2P**	2364	4728		2364	**30A2P**	****CU-2**	34
35	-	**-**	2364		4728	2364	**-**	-	36
37	SHOP LIGHTS	20A2P		0			20A2P	SHOP LIGHTS	38
39	-	-			0		-	-	40
41	RH-1A & 1B	20A1P		0			20A1P	SCADA - SECURITY	42
TOTALS:				10404	10404				

MAX. PHASE VA: 10404 | MAX. PHASE AMPS: 87 | MAX. PHASE DIVERSIFIED VA: 10404 | MAX. PHASE DIVERSIFIED AMPS: 87

ITEMS IN BOLD: E/C TO PROVIDE NEW CIRCUIT BREAKER FOR NEW EQUIPMENT.
****ITEMS IN BOLD: E/C TO PROVIDE NEW LABEL FOR NEW EQUIPMENT.**

CIRCUIT BREAKER PANELBOARD SCHEDULE

MARK: "M" | MOUNTING: SURFACE | 12K AIC RATING (MINIMUM)
VOLTAGE: 120/240 | PHASE: 1 | WIRE: 3 | POLES: 42 | MAIN BUSS: 400 AMP | MAIN C/B: 250 AMP

CIRC. NO.	LOAD DESCRIPTION	CIRC. BRKR	LOAD (VA)	PHASE LOAD IN VA A	PHASE LOAD IN VA B	LOAD (VA)	CIRC. BRKR.	LOAD DESCRIPTION	CIRC. NO.
1		20A1P		0			20A1P	VALVE METER 113 & 213 RECEPT.	2
3		20A1P			0		20A1P	VALVE METER 113 & 213 RECEPT.	4
5	STORAGE 114 RECEPT.	20A1P		0			20A1P	D0-ID & 1E	6
7	STORAGE 114 RECEPT.	20A1P			0		20A1P	D0-1A-1B & 1C	8
9	STORAGE 114 LIGHTS	20A2P		0			20A2P	STORAGE 114 LIGHTS	10
11	STORAGE 114 LIGHTS	-			0		-	STORAGE 114 LIGHTS	12
13	EUH-1	20A2P		0			50A2P	WELDER RECEPT.	14
15	-	-			0		-	WELDER RECEPT.	16
17	AIR COMPRESSOR	50A2P		0			50A2P	WELDER RECEPT.	18
19	-	-			0		-	WELDER RECEPT.	20
21	****EF-1**	20A1P	250	250			20A1P	OUTSIDE GFCI RECEPT.	22
23	****EF-2**	20A1P	250		250		20A1P	OUTSIDE GFCI RECEPT.	24
25	MD-1	20A1P		0			20A1P	SPARE	26
27	"CF-1" & "CF-2"	20A1P	250		250		20A1P	SPARE	28
29	SPARE	20A1P		0			20A1P	SPARE	30
31	****EUH-1"**	20A1P	1500		2040	540	20A1P	****OFFICE 104 RECEPT.**	32
33	****MEETING W 103 RECEPT.**	20A1P	540	1340		800	20A1P	****RECEPTION W 102 RECEPT.**	34
35	****MEETING E 103 RECEPT.**	20A1P	540		1340	800	20A1P	****RECEPTION E 102 RECEPT.**	36
37	****REFRIGERATOR RECEPT.**	20A1P	700	1500		800	20A1P	****ROOM 110, 111, 104, 103 LIGHTS**	38
39	****MICROWAVE RECEPT.**	20A1P	1000		1180	180	**20A1P**	****VESTIBULE RECEPT.**	40
41	****COUNTER/DISPOSAL RECEPT.**	20A1P	1400	2400		1000	20A1P	****FACP**	42
TOTALS:				5490	5060				

MAX. PHASE VA: 5490 | MAX. PHASE AMPS: 46 | MAX. PHASE DIVERSIFIED VA: 5490 | MAX. PHASE DIVERSIFIED AMPS: 46

ITEMS IN BOLD: E/C TO PROVIDE NEW CIRCUIT BREAKER FOR NEW EQUIPMENT.
****ITEMS IN BOLD: E/C TO PROVIDE NEW LABEL FOR NEW EQUIPMENT.**
E/C TO PROVIDE NEW CIRCUIT BREAKERS FOR ALL EX CIRCUITS TO BE RECONNECTED.
E/C TO PROVIDE NEW CIRCUIT BREAKERS FOR CIRCUITS LABELED AS SPARE.

LOGTITECH EQUIPMENT

EQUIPMENT	PART NUMBER	DESCRIPTION
MIC POD PENDANT MOUNT	952-000123	CEILING PENDANT MOUNT FOR RALLY MIC POD MICROPHONES
RALLY MIC POD EXTENTION CABLE	952-000047	ADD 10 METERS OF ADDITIONAL REACH TO THE CABLING OF RALLY MIC POD OR RALLY MIC POD HUB
TV MOUNT FOR VIDEDO BARS	952-000041	FLOAT RALLY BAR MINI OR RALLY BAR ABOVE OR BELOW A TV OR MONITOR FOR A SLEEK INSTALLATION AND MINIMAL FOOTPRINT
RALLY BAR	960-001308	ALL-IN-ONE VIDEO BAR FOR MEDIUM TO LARGE ROOMS
LOGITECH ROOMMATE	950-000081	TURN ANY SPACE INTO AN APPLIANCE-BASED VIDEO CONFERENCING ROOM WITH ROOMMATE, AN APPLIANCE PURPOSE-BUILT FOR VIDEO COLLABORATION
LOGITECH M510 WIRELESS MOUSE	910-001822	FULL-SIZE MOUSE WITH EXTRA CONTROLS
LOGITECH SIGNATURE K650 WIRELESS KEYBOARD	920-010908	WIRELESS KEYBOARD, EQUIPPED FOR EVERDAY WORK AND COMFORT
NOTE:	ALL A/V EQUIPMENT, WIRING, AND TESTING BY E/C	

#	DATE	DESCRIPTION	BY
	10/01/2024	BID SET	DWM

Bartlett&West
3456 E CENTURY AVENUE - BISMARCK, ND 58503
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ELECTRICAL SCHEDULES

MR&I OFFICE REMODEL
9410 11TH AVE. SLAUGHTER HOUSE BAY RD., FORT YATES, ND 58538

REGISTERED PROFESSIONAL ENGINEER
MICHAEL VAN DUYNE
PE-10124
DATE: 10/01/2024
NORTH DAKOTA

DESIGNED BY:	NJG
DRAWN BY:	SDM/NJG
APPROVED BY:	MSV
DESIGN PROJ:	12493.700
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	OCTOBER 2024
DRAWING NO:	**E-601**
SHEET NO:	---- of

Last edit on: 10/1/2024 5:14 PM by: SDM01521 Drawing Name: F:\Proj\12000\12493\12493.700\AutoCad\Plan Set\MEP\12493.700E - ELECTRICAL SCHEDULES.dwg Layout Name: ELECTRICAL SCHEDULES Plotted By: SDM01521 Plotted on: 10/1/2024 5:18:31 PM