





TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING BOTTINEAU, NORTH DAKOTA



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STRUCTURAL ICON ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE

MECHANICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

ELECTRICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

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DRAWING HISTORY

DATE DESCRIPTION NO. CONSTRUCTION DOCUMENTS 01/15/202

DRAWN BY: BZ

IST OF ,	ABBREVIATIONS	LIST OF ABBREVIATIONS
A /E		
AC	- ARCHITECT/ENGINEER - ALTERNATING CURRENT	HDW - HARDWARE
ACI	- AMERICAN CONCRETE INSTITUTE	HDWD - HARDWOOD
ACM		
ADA	- AMERICANS W/DISABILITIES ACT	HT - HEIGHT
AFF	- ABOVE FINISH FLOOR	IBC - INTERNATIONAL BUILDING CODE
AHU	- AIR HANDLING UNIT	JAN - JANITOR
,	CONSTRUCTION	LAM - LAMINATE
ALOM	- ALCONINOM - AMERICAN NATIONAL STANDARDS	
	INSTITUTE	MAS - MASONRY
ARCH	- ARCHITECT - AMERICAN SOCIETY OF HEATING REF, AND	MB - MARKER BOARD
, torn title	AIR CONDITIONING ENGINEERS	MDF - MEDIUM DENSITY FIBERBOARD
ASI	- ARCHITECTURAL SUPPLEMENTAL INSTRUCTION	MECH - MECHANICAL
AWI	- AMERICAN WOODWORKING INSTITUTE	MH - MANHOLE
BCS	- BABY CHANGING STATION	
BLDG	- BOARD	MTL - METAL
BLBC	- BEAM	MTL STD - METAL STUD
BO	- BY OWNER	
BOT	- BOTTOM BEARING	NIC - NOT IN CONTRACT
BRK	- BRICK	NOM - NOMINAL
BTU	- BRITISH THERMAL UNITS	
BUR	- BUILT UP ROOFING	OFCI - OWNER FURNISHED CONTRACTOR
CAB	- CATCH BASIN	
CBB	- CEMENT BACKER BOARD	OF - OVERHEAD
CG	- CORNER GUARD	OSB - ORIENTED STRAND BOARD
	- CAST IN PLACE	OTS - OPEN TO STRUCTURE
CJ	- CONTROL JOINT	OWB - OPERABLE WALL PANEL
CLG	- CEILING	PC - PRECAST
	- CLEAR - CONCRETE MASONRY UNIT	PLAM - PLASTIC LAMINATE
CMU-B	- CONCRETE MASONRY UNIT (BURNISHED)	
CMU-G	- CONCRETE MASONRY UNIT (GLAZED)	PREV - PREVIOUS
CMU-S	- CONCRETE MASONRY UNIT (STANDARD 8"x8" SCORED)	PRF - PREFINISHED
CO	- CLEAN OUT	PT - PAINT
CONC	- CONCRETE	
CONC-S	- SEALED CONCRETE	PWP - PREFINISHED WALL PANEL
CPT-AS	- CARPET -ANT-STATIC	QT - QUARRY TILE
CPT-ESD	- CARPET -ELECTROSTATIC DISCHARGE	
CPT-T	- CARPET TILE	RB - RUBBER BASE
CSMT	- CASEMENT	REINF - REINFORCEMENT
CSWK	- CASEWORK	
	- CERAMIC TILE	RH - ROBE HOOK
CUH	- CABINET UNIT HEATER	
DEMO	- DEMOLITION	RO - ROUGH OPENING RSTR - RUBBER STAIR TREADS -RISERS
	- DEPARTMENT	RTU - ROOF TOP UNIT
DIA	- DIAMETER	SC - SPECIAL COATING -SEE SPECS
DIAG	- DIAGONAL	SCD - SEAT COVER DISPENSER
	- DIMENSION	SD - SOAP DISPENSER
DOC	- DOCUMENT	SD - SMOKE DETECTOR
DR	- DOOR	SECT - STATIC DISSIPATIVE TILE
	- DETAIL - DISHWASHER	SHT - SHEET
DWG	- DRAWING	SIM - SIMILAR
EA	- EACH	SLI - SLATE SND - SANITARY NAPKIN DISPOSAL
EHD FIFS	- ELECTRIC HAND DRYER - EXTERIOR INSULATION FINISH SYSTEM	SNV - SANITARY NAPKIN VENDING MACHINE
EJ	- EXPANSION JOINT	SPEC - SPECIFICATIONS
ELEC		SQ - SQUARE SS - SOLID SURFACE
ELEV FP	- ELEVATOR/ELEVATION - EPOXY PAINT	ST - STONE
EQ	- EQUAL	
EQUP		SV - SHEET VINYL
EXIST	- ELECTRIC WATER GOULER - EXISTING	SWU - SOUND-ABSORBING WALL UNIT
EXP	- EXPOSED	TBWP - TRAFFIC BEARING WATER PROOFING
FD		TEMP - TEMPORARY/TEMPERATURF
FEC FF	- FIRE EATINGUISHER GABINET	TO - TOP OF
FFE	- FURNITURE, FIXTURE, AND EQUIPMENT	
FHC	- FIRE HOSE CABINET	TRTD - TREATED
FIN FIR	- FLOOR	TS - TRANSITION STRIP
FND	- FOUNDATION	
FRP	- FIBERGLASS REINFORCED PANEL	UL - UNDERWRITERS LABORATORIES
FRT	- FRY REGLET REVEAL TRIM	VB - VINYL BASE
FIG	- FOUTING - FABRIC WALL COVERING	VCT - VINYL COMPOSITION TILE
G	- GROUT	
GALV	- GALVANIZED	VIC - VINYL TILE FLOORING VWC - VINYL WALL COVFRING
GB GC	- GRAB BAR	W/ - WITH
GEN	- GENERAL	WD - WOOD
GL	- GLASS/ GLAZING	
GWB	- GYPSUM WALL BOARD	WR - WASTE RECEPTACLE
10		WRS - WINDOW ROLLER SHADES

GENERAL NOTES

- PROJECT GENERAL NOTES DESCRIP 1. NOTIFY ARCHITECT PROMPTLY IF ANY CONSTRUCTION DOCUMENTS
- 2. FIELD VERIFY ALL EXISTING CONDITION
- FABRICATION/CONSTRUCTION. 3. CONTRACTORS TO VERIFY ALL EXIST FAMILIARIZE THEMSELVES WITH ALL 4. DIMENSIONS AND ELEVATIONS AS SH
- FIELD VERIFIED AND COORDINATED 5. COORDINATE ALL PENETRATIONS THE TRADES. PROVIDE A SAFE MEANS OF EGRESS T BUILDING AND SITE AT ALL TIMES DUR SIDEWALKS FRONTING THE BLDG SHA
- OF MUD OR OTHER DEBRIS. CONTRA REASONABLE WORK AREA TO BE COO MANAGER/OWNERS REPRESENTATIV 7. CONTRACTOR SHALL VERIFY AND PRO CONSTRUCTION REQUIRED FOR OWNE OUT IN DRAWINGS OR SPECIFICATION
- MINIMUM SLIP RESISTANCE OF FLOOR (GENERAL): 0.5 STATIC COEFFICIENT 0.6 STATIC COEFFICIENT OF FRICTION 0.6 STATIC COEFFICIENT OF FRICTION OF FRICTION
- 9. ALL DIRECTIONAL REFERENCES IN DR NORTH.
- 10. ALL JOINTS & PENETRATIONS SHALL E REQUIRED TO COMPLY WITH APPLICA
- 11. KEYNOTES ARE USED TO ASSIST IN N INSTANCES.
- 12. SUSPENDED CEILING HEIGHTS ARE FLOOR.
- COORDINATE EXACT LOCATIONS OF LIV SPRINKLER HEADS, HVAC DUCTS, CEIL ADDITIONAL CEILING ITEMS WITH MECH CONTRACTORS AND ARCHITECT. ALL S PLACED IN THE CENTER OF CEILING TIL DECONDITION OF CEILING TIL DECONDITION OF CONFUNCTIONS CONFUNCTIONS

ENERAL NOTES	SYMBOI	_S LEGEND				MATERIAL L	EGEND		
PROJECT GENERAL NOTES DESCRIPTION	Ę	CENTER LINE	Δ	MATCHLINE					
NOTIFY ARCHITECT PROMPTLY IF ANY CONDITIONS CONFLICT WITH THE	(101B)	DOOR TAG		REFERENCE					SAND
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COORDINATE ALL PENETRATIONS THRU FOUNDATION W/APPROPRIATE	AL-1	EXTERIOR MATERIAL TAG	## A### -	View Name				$\begin{array}{c} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n}$	
PROVIDE A SAFE MEANS OF EGRESS THROUGH AND/OR AROUND THE		WALL TAG		1/8" = 1'-0"	VIEW TITLE				
BUILDING AND SITE AT ALL TIMES DURING THE CONSTRUCTION PHASE. SIDEWALKS FRONTING THE BLOG SHALL REMAIN USABLE AND CLEARED	1	WINDOW TAG		===			EARTH		SPRAY F
REASONABLE WORK AREA TO BE COORDINATED WITH BUILDING	•	SPOT ELEVATION TAG			DETAIL CALLOUT				
CONTRACTOR SHALL VERIFY AND PROVIDE ANY ROUGH-IN CONSTRUCTION REQUIRED FOR OWNER-INSTALLED EQUIPMENT CALLED	• Elevation	LEVEL HEAD					GRAVEL		STEEL
MINIMUM SLIP RESISTANCE OF FLOOR SURFACESWALKING SURFACES (GENERAL): 0.5 STATIC COEFFICIENT OF FRICTION-ACCESSIBLE ROUTES: 0.6 STATIC COEFFICIENT OF FRICTION -RAMPS: 0.8 STATIC COEFFICIENT OF FRICTION	xxx	HORIZONTAL ASSEMBLY TAG	A101		DETAIL SECTION				
ALL DIRECTIONAL REFERENCES IN DRAWINGS SHALL REFER TO PLAN NORTH.		REVISION TAG	1 A101		WALL SECTION		GYPSUM		STONE
ALL JOINTS & PENETRATIONS SHALL BE FIRE SAFED & FIRE SEALED AS REQUIRED TO COMPLY WITH APPLICABLE BUILDING CODES.	Room Name	ROOM TAG							
KEYNOTES ARE USED TO ASSIST IN NOTING AND INDICATE REPETITIVE INSTANCES. SUSPENDED CEILING HEIGHTS ARE DIMENSIONED FROM FINISHED FLOOR.	Room Name 101 150 SF	ROOM TAG w/ AREA	1 A101		BUILDING SECTION		MASONRY - BRICK		WOOD -
COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES, ACCESS PANELS, SPRINKLER HEADS, HVAC DUCTS, CEILING DIFFUSERS/GRILLES AND ANY ADDITIONAL CEILING ITEMS WITH MECHANICAL AND ELECTRICAL CONTRACTORS AND ARCHITECT. ALL SPRINKLER HEADS SHALL BE	Room Name (##) 150 SF / ##	ROOM TAG w/ AREA & OCCUPANT LOAD		FLOORING TRANSITION			MASONRY - CMU		WOOD - I
PLACED IN THE CENTER OF CEILING TILES. NOTIFY ARCHITECT PROMPTLY IF ANY LOCATIONS CONFLICT.	Room Name 101 Wall Finish Base Finish Floor Finish Ceiling Finish	ROOM TAG w/ ROOM FINISH INFO AT PLANS (NOT ALL MAY BE SHOWN)	XXX-#]	ACCENT WALL FINISH LOCATION					
			● 1'-0" PT-#	CEILING TAG W/ FINISH OR ASSEM	IBLY INFO		RIGID INSULATION / EIFS		WOOD - I
	Room Name 101 Ceiling Finish	ROOM TAG w/ CEILING FINISH INFO ONLY AT RCPs							

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						M301	First Floor Plan - Hydronic
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						M402	Mechanical Details
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						E001	Symbols Legend
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						E300	First Floor Power Plan
						E400	First Floor Systems Plan - Electrical
						E500	XXX
						E600	XXX





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General Notes / Drawing Index

G001



NOTES

ALL STRUCTURAL STEEL TO BE COATED WITH INTUMESCENT PAINT TO ACHIEVE 1-HOUR FIRE RATING. SEE ASSEMBLIES X629 AND X680.

EXIT LEGEND

2 HR FIRE BARRIER		<u> </u>	<u> </u>	<u> </u>	
1 HR FIRE BARRIER					
1 HR FIRE PARTITIO	N				
1/2 HR FIRE PARTITI	ON				_ <u></u>
EXIT PATH	100'	۹			$\left(10^{-1} \right)$
		DISTANCE T EXIT TRAVE	TO TOTAL	NUMBER OF ANTS EXITING	

CODE STUDY -2021 INTERNATIONAL BUILDING CODE Project Name UTMA OFFICE AND SHOP BUILDING

_ . . ___ _____ -----

	I BUTTINEAU, ND	
ltem	Description	Code Section
Occupancy	B Business, S-1 Storage	Chapter 3
Gross Square Footage	1st Floor 12,682 sf B Occupancy 5,005 sf <u>S-1 Occupancy</u> 7,677 sf Total 12,682 sf	See Plan
	B Occupancy 5,005 sf / 150 = 34: 17 M 17 F S-1 Occupancy 7,677 sf / 200 = 38: 19 M 19 F	
Constr. Type	Type IIB Construction	602.2
General Building Heights And Areas	Group B NS = 3 stories @ 23,000 sf Max 55 ft. in height above grade plane	Table 504.3 Table 504.4 Table 506.2
	Group S-1 NS = 2 stories @ 17,500 sf Max 55 ft. in height above grade plane	
Required Seperation of Occupancies	B to S-1 requires no seperation	Table 508.4
Mixed Occupancy Area Determination	1st Floor Actual SF of B: 5,005/23,000 = .218 Actual SF of S-1: 7,677/17,500 = .439 .218+.439 = .657 < 1 = ok	508.4.2
Fire Resistance Rating Requirement For Building Elements (In Hours)	Type IIB 0 Hour for Primary Structural Framing 0 Hour for Interior and Exterior Bearing Walls 0 Hour for Floor Construction 0 Hour for Roof Construction	Table 601
Corridors	Corridors shall be fire-resistance rated in accordance with Table 1020.2. The corridor walls required to be fire-resistance rated shall comply with 708 for fire partitions.	1020.2
Corridor Fire- Resistance Rating	B Occupancy with Occupant Load larger than 30 in a non- sprinklered condition	Table 1020.2
Fire Walls	None Required	706
Fire Barriers / Shaft Enclosures	None Required	707
Fire Partitions	Corridors - 0.5 Hr	708.3 Exception
Fire Extinguisher Requirements	Fire Extinguishers For Class A Fire Hazards: Minimum Rated Single Extinguisher = 2-A Maximum Floor Area Per Unit Of A = 3,000 SF Minimum Rated Single Extinguisher = 2-A Maximum Floor Area Per Unit Of A = 3,000 SF (3) Provided in Garage portion of building	906
Automatic Sprinkler System	Not required in an S-1 Occupancy that is less than 12,000 sf fire are does not require a sprinkler system. Garage is S-1 rather than S-2 since it is a private parking area with no commercial vehicle repair, rather than a public parking area. There are no requirements for a B Occupancy fire area size.	903.2 903.2.9
Manual Fire Alarm	Not Required in Group B or S-1 Application	907.2.2
Emergency Alarm Systems	Not Required in a Group B or S-1 Application	908
Automatic Smoke Detection System	Not Required in a Group B or S-1 Application	909
Exit Access Travel	200 Feet without NFPA 13 Sprinkler System	Table 1017.2

Distance		ľ	,	
EXIT DATA	L			
1st Floor O	ccupancy Load =	34 Office 38 Shop		
Exit No.	Occupant Load	Exit Width Per Occupant Served	Total Required Width of Exit	Actual Width
1	17	.2	3.4"	32"
2	17	.2	3.4"	32"
3	20	.2	3.8"	32"
4	20	.2	3.8"	32"
Exit Travel	Requirements			
Path No.	Travel Distance			
1	90' - 3"			
2	93' - 8"			
3	58' - 1"			
4	111' - 5"			

Table 1017.2

Plumbing Counts B Occupancy 34 Occupants 17 M 17 F

Toilets - 1:25 for first 50 and 1:50 for remainder M and F Lavs - 1:40 for first 80 and 1:80 for remainder M and F

S-1 Occupancy 38 Occupants 19 M 19 F Toilets - 1:100 M and F Lavs - 1:100 M and F Toilets Total B - 17/25 = .68 M B - 17/25 = .68 F S-1 - 19/40 = .19 M S-1 - 19/40 = .19 F 0.87 M 0.87 F (3) provided

Lavs Total B - 17/40 = .425 M B - 17/40 = .425 F S-1 - 19/80 = .2375 M S-1 - 19/80 = .2375 F .6625 M .6624 F (2) provided

(1) Utility Sink provided

Section 1110.2 Toilet and Bathing Facilities Exception 3 - Where multiple single-user toilet rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible.





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Code Study

G002

BUILDING BLOCKS

302 FLOOR SURFACES

302.2 CARPET - Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. The pile shall be 1/2" maximum in height. Exposed edges of carpet shall be fastened to the floor and shall have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 303. 302.3 OPENINGS - Openings in floor surfaces shall be of a size that does not permit the passage of a 1/2"

diameter sphere, except as allowed in Sections 407.4.3, 408.4.3, 409.4.3, 410.4, and 805.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel space.

303 CHANGE IN LEVEL

303.2 VERTICAL - Changes in level of 1/4 " maximum in height shall be permitted to be vertical. 303.3 BEVELED - Changes in level greater than 1/4" in height and not more than 1/2" maximum in height shall be beveled with a slope not steeper than 1:2. Changes in level greater than 1/2 inch (13mm) in height shall be ramped and shall comply with Section 405 and 406.

<u>304 TURNING SPACES</u> 304.2 FLOOR SURFACES - Floor surfaces of a turning space shall have a slope not steeper than 1:48 and shall comply with Section 302. 304.3 SIZE

304.3.1 CIRCULAR SPACE - The turning space shall be a circular space with a 67-inch minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with

Section 306 304.3.2 T-SHAPED SPACE - The turning space shall be a T-shaped space within a 64-68-inch minimum square, with arms and base 36 inches minimum in width. Each arm of the T shall be clear of obstructions 12 inches minimum in each direction, and the base shall be clear of obstructions 24 inches minimum. The turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm. 304.4 DOOR SWING - Unless otherwise specified, doors shall be permitted to swing into turning spaces

305 CLEAR FLOOR SPACE

305.2 FLOOR SURFACES - Floor surfaces of a turning space shall have a slope not steeper than 1:48 and shall comply with Section 302. 305.3 SIZE - The clear floor space shall be 52 inches minimum in length and 30 inches minimum in width in new buildings. The clear floor space shall be 48 inches minimum in length and 30 inches minimum in width in

existing buildings 305.5 POSITION - Unless otherwise specified, the clear floor space shall be positioned for either forward or parallel approach to an element. 305.6 APPROACH - One full, unobstructed side of the clear floor space shall adjoin or overlap an accessible route or adjoin another clear floor space.

305.7 ALCOVES - If a clear floor space is in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances complying with Sections 305.7.1 and 305.7.2 shall be provided, as

applicable. 305.7.1 PARALLEL APPROACH - Where the clear floor space is positioned for a parallel approach, the alcove shall be 60 inches minimum in width where the depth exceeds 15 inches 305.7.2 FORWARD APPROACH - Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches minimum in width where the depth exceeds 24 inches.



Fig. 305.7 Maneuvering Clearance in a Alcove In New Building

7 PROTRUDING OBJECTS

(b) Parallel Approach

307.2 PROTRUSION LIMITS - Objects with leading

naximum where more than 27 inches and not more

osts or pylons is greater than 12 inches shall have the

west edges of such object either 27 inches maximum

shall be 80 inches minimum. Rails or other barriers

hall be provided where the vertical clearance is less

hall be located 27 inches maximum above the floor.

1. Door closers and door stops shall be

307.5 REQUIRED CLEAR WIDTH - Protruding objects

hall not reduce the clear width required for accessible

Fig. 306.2

Toe Clearance

25" MAX

permitted to be 78 inches minimum above the

than 80 inches. The leading edge of rails or barrier

r 80 inches minimum above the floor

6" MIN

ches above the floor shall protrude 4 inches

ximum horizontally into the circulation path

306.2 - TOE CLEARANCE

306.2.1 GENERAL - Space beneath an element between the floor and 9 inches above the floor shall edges more than 27 inches and not more than 80 be considered toe clearance and shall comply with Section 306.2

36 MIN

(a) Forward Approach

306.2.2 MAXIMUM DEPTH - Toe clearance shall be **307.3 POST-MOUNTED OBJECTS** - Objects on posts permitted to extend to 25 inches maximum under an or pylons shall be permitted to overhand 4 inches

306.2.3 MINIMUM DEPTH - Where toe clearance is than 80 inches above the floor. Objects on multiple required at an element as part of a clear floor space posts or pylons where the clear distance between the the toe clearance shall extend 17 inches minimum beneath the element.

306.2.4 ADDITIONAL CLEARANCE - Space extending greater than 6 inches beyond the available 307.4 VERTICAL CLEARANCE - Vertical clearance knee clearance at 9 inches above the floor shall not be considered toe clearance

306.2.5 WIDTH - Toe clearance shall be 30 inches minimum in width.

306.3 KNEE CLEARANCE

306.3.1 GENERAL - Space beneath an element between 9 inches and 27 inches above the floor shall be considered knee clearance and shall comply with Section 306.3

306.3.2 MAXIMUM DEPTH - Knee clearance shall be permitted to extend 25 inches maximum under an element at 9 inches above the floor.

306.3.3 MINIMUM DEPTH - Where knee clearance is required beneath an element as part of a clear floor space the knee clearance shall be 11 inches minimum in depth at 9 inches above the floor, and 8 inches minimum in depth at 27 inches above the

306.3.4 CLEARANCE REDUCTION - Between 9 inches and 27 inches above the floor, the knee clearance shall be permitted to be reduced at a rate of 1 inch in depth for each 6 inches in height.

306.3.5 WIDTH - Knee clearance shall be 30 inches minimum in width.



308.2.1 UNOBSTRUCTED - Where a forward reach is unobstructed, the high forward reach shall be 48 inches maximum and the low forward reach shall be 15 inches minimum above the floor. 308.2.2 OBSTRUCTED HIGH REACH - Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches maximum where the reach depth is 20 inches maximum Where the reach depth exceeds 20 inches the high forward reach shall be 44 inches maximum, and the reach depth shall be 25 inches maximum

308.3 SIDE REACH

308.3 OBSTRUCTED HIGH REACH - Where a clear floor space allows a parallel approach to an object and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches maximum and the depth of the obstruction shall be 24 inches maximum. The high side reach shall be 48 inches maximum for a reach depth of 10 inches maximum. Where the reach depth exceeds 10 inches, the high side reach shall be 46 inches maximum for a reach depth of 24 inches maximum.





Fig. 308.3.2

Obstructed High Side Reach

Fig. 308.3.1 Unobstructed Side Reach

309 OPERABLE PARTS 09.2 CLEAR FLOOR SPACE - A clear floor space complying with Section 305 shall be provided.

309.3 HEIGHT - Operable parts shall be placed within one or more of the reach ranges specified in Section 308 **309.4 OPERATION** - Operable parts shall be operable with one hand and shall not require tight grasping. pinching, or twisting of the wrist. The force required to activate operable parts shall be 5.0 pounds maximum.

ACCESSIBLE ROUTES

402 ACCESSIBLE ROUTES

102.1 GENERAL - Accessible routes shall comply with section 402 402.2 COMPONENTS - Accessible routes shall consist of one or more of the following components: Walking surfaces with a slope not steeper than 1:20, doors and doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable portions of this standard.

103 WALKING SURFACES

103.1 GENERAL - Walking surfaces that are a port of an accessible route shall comply with Section 403. **403.2 FLOOR SURFACE** - Floor surfaces shall comply with Section 302. 403.3 SLOPE - The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of a walking surface shall not be steeper than 1:48.

Segment Length	Minimum Segment Widt
< 24 inches	32 inches*
> 24 inches	36 inches

403.6 HANDRAILS - Where handrails are required at the side of a corridor they shall comply with Sections 505.4 through 505.9

404 DOORS AND DOORWAYS

404.1 GENERAL - Doors and doorways that are part of an accessible route shall comply with Section 404. 404.2 MANUAL DOORS 404.2.1 DOUBLE-LEAF DOORS AND GATES - At least one of the active leaves of doorways with two leaves shall comply with Sections 404.2.2 and 404.2.3.

404.2.2 CLEAR WIDTH - Doorways shall have a clear opening width of 32 inches minimum. Openings doors and doorways without doors more than 24 inches in depth shall provide a clear opening width of 36 inches minimum.

404.2.3 MANEUVERING CLEARANCES AT DOORS - Minimum maneuvering clearances at doors shall comply with SECTION 404.2.3 and shall include the full clear opening width of the doorway. 404.2.4 THRESHOLDS AT DOORWAYS - If provided, thresholds at doorways shall be 1/2 inch maximum in height. Raised thresholds and changes in level at doorways shall comply with Sections 302

404.2.5 TWO DOORS IN SERIES - Distance between two hinged or pivoted doors in series shall be 48 inches (1220mm) minimum plus the width of any door swinging into the space. The space between the doors shall provide a turning space complying with Section 304. 404.2.6 DOOR HARDWARE - Handles, pulls, latches, locks and other operable parts on doors and gates shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching or twisting of the wrist to operate. The operational force to retract latches or disengage devices that hold the

door or gate in a closed position shall be as follows. 1. Hardware operation by a forward, pushing or pulling motion: 15 pounds (66.7 N) maximum. 2. Hardware operation by a rotational motion: 28 inch-pounds (315 N cm) maximum.

404.2.6.1 HARDWARE HEIGHT - Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220mm) maximum above the floor. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides. 404.2.7 CLOSING SPEED

404.2.7.1 DOOR CLOSERS - Door close shall be adjusted so that from an open position of 90 degrees, the time required to move the door to an open position of 12 degrees shall be 5 seconds

404.2.7.2 SPRING HINGES - Door spring hinges shall be adjusted so that from the open position of 70 degrees, the door shall move to the closed position in 1.5 seconds minimum. 404.2.8 DOOR-OPENING FORCE - Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire doors 1. Interior hinged door: 5.0 pounds maximum shall be as follows:

2. Sliding or folding door: 5.0 pounds maximum. 404.2.9 DOOR SURFACE - Door surfaces within 10 inches of the floor, measured vertically, shall be a

smooth surface on the push side extending the full width of the door. Parts creating horizontal or vertical joints in such surface shall be within 1/16 inch of the same plane as the other. Cavities created by added kick plates shall be capped 404.2.10 VISION LITES - Doors and sidelite's adjacent to doors containing one or more glazing panels

that permit viewing through the panels shall have the bottom of at least one panel on either the door or an adjacent sidelite 43 inches maximum above the floor sliding door folding door hinged door Fig. 404.2.2 Clear Width of Doorways *if both closer and latch are provided 1 db 12" MIN* Front Approach, Front Approach, Pull Side Push Side *if both closer and latch are provided *54 min if closer ** 48 min if both closer and latch provided is provided Latch Approach, Hinge Approach Push Side Pull Side Fig. 404.2.3.1





Hinge Approach,

Pull Side

Hinge Approach

Pull Side

Maneuvering Clearance at Manual Swinging Doors



with Section 405.7

Section 505 each side of ramp runs and at each side of ramp location.

106 CURB RAMPS 406.5.1 WIDTH - The clear width of curb ramp runs (excluding any flared sides) and blended transitions shall be 48 inches minimum. cross slope shall be permitted to equal the street or highway grade. transitions and landings shall be 1:20 maximum.

vehicle travel lane 406.6 DETECTABLE WARNINGS - Detectable warning surfaces shall be provided at all the following locations on pedestrian access routes and at transit stops. 1. Curb ramps and blended transitions at pedestrian street crossings, 2. Pedestrian refuge islands, Exception:

platform are not protected by screens or guards

502 PARKING SPACES

minimum in width.

3 PASSENGER LOADING ZONES in all existing buildings.



405.2 SLOPE - Ramp runs shall have a running slope greater than 1:20 and not steeper than 1:12. 405.3 CROSS SLOPE - Cross slope of ramp runs shall not be steeper than 1:48. **405.5 CLEAR WIDTH** - The clear width of a ramp run shall be 36 inches minimum.

405.7 LANDINGS - Ramps shall have landings at bottom and top of each ramp run. Landings shall comply 405.7.2 WIDTH - Clear width of landings shall be at least as wide as the widest ramp run leading to the

405.7.3 LENGTH - Landings shall have a clear length of 60 inches minimum. 405.7.4 CHANGE IN DIRECTION - Ramps that change direction between runs at landings shall have a clear landing 60 inches minimum by 60 inches minimum. 405.7.5 DOORWAYS - Where doorways are adjacent to a ramp landing, maneuvering clearances required by Sections 404.2.3 and 404.3.2 shall be permitted to overlap the landing area. Where doors that are subject to locking are adjacent to a ramp landing, landings shall be sized to provide a turning

space complying with Section 304.3. 405.8 HANDRAILS - Ramp runs with a rise greater than 6 inches shall have handrails complying with 405.9 EDGE PROTECTION - Edge protection complying with Section 405.9.1 or 405.9.2 shall be provided on

106.1 GENERAL - Curb ramps on accessible routes shall comply with Section 406.

406.5.3 CROSS SLOPE - The cross slope of curb ramps and blended transitions shall be 1:48 maximum. At pedestrian street crossings without yield or stop control and at mid-block pedestrian street crossings, the

406.5.4 COUNTER SLOPE - The counter slope of the gutter or street at the foot of curb ramp runs, blended 406.5.7 LOCATION - Curb ramps and the flared sides of curb ramps shall be located so they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.5.5 CLEAR SPACE - Beyond the bottom grade break, a clear space 48 inches minimum by 48 inches minimum shall be provided within the width of the pedestrian street crossing and wholly outside the parallel

1. Detectable warning surfaces shall not be required at pedestrian refuge islands that are cutthrough at street level and are less than 6 feet in length in the direction of pedestrian travel. 3. Pedestrian at-grade rail crossings not located within a street or highway, 4. Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding

GENERAL SITE AND BUILDING ELEMENTS

502.2 VEHICLE SPACE SIZE - Car parking spaces shall be 96 inches minimum in width. Van parking spaces shall be 132 inches



PLUMBING ELEMENTS AND FACILITIES

602 DRINKING FOUNTAINS

602.1 GENERAL - Accessible drinking fountains shall comply with Sections 602 and 307. 602.2.1 CLEAR FLOOR SPACE - A clear floor space complying with Section 305, positioned for a forward approach to the drinking fountain, shall be provided. Knee and toe space complying with Section 306 shall be provided. The clear floor space shall be centered on the drinking fountain. 602.2.2 OPERABLE PARTS - Operable parts shall comply with Section 309.

602.2.3 SPOUT OUTLET HEIGHT - Spout outlets of wheelchair accessible drinking fountains shall be 36 inches maximum above the floor. Spout outlets of drinking fountains for standing persons shall be 38 inches minimum and 43 inches maximum above the floor.

602.2.4 SPOUT LOCATION - The spout shall be located 15 inches minimum from the vertical support and 5 inches maximum from the front edge of the drinking fountain, including bumpers.

603 TOILET & BATHING ROOMS

603.2.1 CLEARANCES TURNING SPACE - A turning space complying with shall be provided within the room, not within a toilet compartment

603.2.2 CLEARANCES OVERLAP - Clear floor spaces, clearances at fixtures, and turning spaces shall be permitted to

603.2.3 DOOR SWING - Doors shall not swing into the clear floor space or clearance for any fixture. 603.3 MIRRORS - Mirrors located above lavatories, sinks or counters shall be mounted with the bottom edge of the reflecting surface 40 inches maximum above the floor. Mirrors not located above lavatories, sinks or counters shall be mounted with the bottom edge of the reflecting surface 35 inches maximum above the floor.

604 WATER CLOSETS & TOILET COMPARTMENTS

604.1 GENERAL - Accessible water closets and toilet compartments shall comply with Section 604. Compartments containing more than one plumbing fixture shall comply with Section 603. Wheelchair accessible compartments shall comply with Section 604.9. Ambulatory accessible compartments shall comply with Section 604.10. 604.2 LOCATION - The water closet shall be located with a wall or partition to the rear and to one side. 604 3 CLEARANCE



inches minimum and 19 inches maximum above the floor, measured to the top of the seat. 604.5 GRAB BARS - Grab bars for water closets shall comply with section 609 and shall be provided in accordance with Sections 604,5,1 and 604,5,2 Grab bars shall be provided on the rear wall and on the side wall closest to the

water closet 604.6 FLUSH CONTROLS - Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with Sections 309. Flush controls shall be located on the open side of the water closet.

604.7 DISPENSERS - Toilet paper dispensers shall comply with Section 309.4 and 609.3. Dispensers shall not be of a type that control delivery do not allow continuous paper flow 604.7.1 LOCATION - Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches minimum and 42 inches maximum from the rear wall. The outlet of the dispenser shall be located 18 inch minimum above the

> 1. Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5-inch diameter each shall be permitted to be located 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and

48 inches maximum above the floor. 604.9.3 DOORS - Toilet compartment doors, including door hardware, shall comply with Section 404, except if the approach is to the latch side of the compartment door clearance between the door side of the stall and any obstruction shall be 42 inches minimum. Doors shall be located in the front partition farthest from the water closet. Where located in the side see FIG 604.9.3. 604.9.5 TOE CLEARANCE - The front partition and at least one side partition shall provide a toe clearance of 12 inches minimum above the floor and extending 8 inches beyond the compartment side face of the partition, exclusive of partition support members. Toe clearance is not required in a compartment greater than 64 inches in depth with a wallhung water closet, or greater than 67 inches in depth with a

604.10 AMBULATORY - The minimum area of an ambulatory accessible toilet compartment shall be 60 inches minimum in depth and a width of 35 inches minimum and 37 inches maximum.

floor-mounted water closet.



|16" - 18"|

FIG. 604.2

Water Closet Location

OTHER FIXTURES NO

FIG. 604.3

Size of Clearance for Water Closet

54" MIN

39" - 41"

_42" MIN

FIG. 604.5.1

Side Wall Grab Bar for Water Closet

36" MIN

FIG. 604.5.2

Rear Wall Grab Bar for Water Closet

- Locate Flush

Side of WC

Controls on Oper

ALLOWED IN AREA

60" MIN

17" - 19"

-12" MAX

(b) Ambulatory

Accessible Water Closet

Closet, Adult 60" MIN ·= -60" MIN (b) Floor Mounted Water Closet, Adult Wall Hung and Floor Mounted Water Closet , Children FIG. 604.9.2 Wheelchair Accessible Toilet Compartments Partition (a) Elevation Adult (b) Elevation Children FIG. 604.9.5 Wheelchair Accessible Compartment Toe Clearance

a) Wall Hung Water

606 LAVATORIES & SINKS i06.2 CLEAR FLOOR SPACE - A clear floor space complying with Section 305.3, positioned for forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided. The dip of the overflow shall not be considered in determining knee and toe clearances. 1. A clear floor space providing a parallel approach shall be permitted at a kitchen sink in a space



606.3 HEIGHT - The front of the lavatories and sinks shall be 34 inches maximum above the floor, measured to the higher of the rim or counter surface.

1. A lavatory in a toilet or bathing facility for a single occupant, accessed only through a private office and not for common use or public use. 606.4 FAUCETS - Faucets shall comply with Section 309. Hand-operated metering faucets shall remain open for 10 seconds minimum. 606.6 EXPOSED PIPES AND SURFACES - Water supply and drainpipes under lavatories and sinks shall be

insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

609 GRAB BARS

609.2.1 CIRCULAR CROSS SECTION - Grab bars with a circular cross section shall have an outside diameter of 1 1/4 inch minimum and 2 inches maximum 609.2.2 NONCIRCULAR CROSS SECTION - Grab bars with a noncircular cross section shall have a cross section dimension of 2 inches maximum, and a perimeter dimension of 4 inches minimum and 4.8 inches

609.3 SPACING - The space between the wall and the grab bar shall be 1 1/2 inches. The space between the grab bar and projecting objects below and at the ends of the grab bar shall be 1 1/2 inches minimum. The space between the grab bar and projecting objects above the grab bar shall be 12 inches minimum. 609.5 SURFACE HAZARDS - Grab bars, and any wall or other surfaces adjacent to grab bars, shall be free of sharp or abrasive elements. Edges shall be rounded. 609.8 STRUCTURAL STRENGTH - Allowable stresses shall not be exceeded for materials used where a vertical or horizontal force of 250 pounds is applied at any point on the grab bar, fastener mounting device or supporting structure.





CABINET

SIGNAGE









FIG 606 3 Height of Lavatories and Sinks

609.2 CROSS SECTION - Grab bars shall have a cross section complying with Section 609.2.1 and 609.2.2.

702 ALARMS 702.1 GENERAL - Accessible audible and visual alarms and notification appliances shall be installed in accordance with NFPA72 listed in Section 106.2.4, be powered by a commercial light and power source, be permanently connected to the wiring of the premises electric system and be permanently installed.

703.2.3 STYLE - Characters shall be conventional in form. Characters shall not be italic, oblique, script,

highly decorative, or of other unusual forms. 703.2.4 CHARACTER HEIGHT - The uppercase letter "I" shall be used to determine the allowable height of all characters of a font. The uppercase letter "I" of the font shall have a minimum height complying with Table 703.2.4 in North Dakota Accessibility Code 2017. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towars the sign. 703.2.4 CHARACTER WIDTH - The uppercase letter "O" shall be used to determine the allowable width of all characters of a font. The width of the uppercase letter "O" of the font shall be 55 percent minimum and 110 percent maximum of the height of the uppercase "I" of the font. See table 703.2.4 in North Dakota

- ccessibility Code 2017. 703.3.12 FINISH AND CONTRAST - Characters and their background shall have a nonglare finish. Characters shall contrast with their background with either light characters on a dark background, or dark characters on a light background 703.4 BRAILLE - See Table 703.4.3 and Figure 703.4.3 in North Dakota Accessibility Code 2017.
- 703.4.5 MOUNTING HEIGHT Braille shall be 48 inches minimum and 60 inches maximum above the floor, measured to the baseline of the braille cells. 703.5 PICTOGRAMS
- 703.5.2 PICTOGRAM FIELD Pictograms shall have a field 6 inches minimum in height. Characters or braille shall not be located in the pictogram field.





TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING BOTTINEAU, NORTH DAKOTA

STRUCTURAL

ICON ARCHITECTURAL GROUF 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE

MECHANICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

ELECTRICAL

MBN ENGINEERING, INC 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

CIVIL



UTILITY COMPANIES LIST: COMMUNICATIONS:

MIDCO PO BOX 5010 SIOUX FALLS, SD 57117 1-800-888-1300

COMMUNICATIONS: UNITED AND TURTLE MOUNTAIN COMMUNICATIONS 538 11TH ST. WEST, SUITE 2 BOTTINEAU, ND 58318 701-228-1101

SEWER AND WATER: CITY OF BOTTINEAU - PUBLIC WORKS BUILDING 9851 COUNTY ROAD 47 BOTTINEAU, ND 58318 701-228-3620

ELECTRIC: NORTH CENTRAL ELECTRIC COOPERATIVE 538 11TH STREET WEST, SUITE 1 BOTTINEAU, ND 58318 800-247-1197

ELECTRIC: OTTERTAIL POWER COMPANY CUSTOMER SERVICE 215 SOUTH CASCADE STREET FERGUS FALLS, MN 56537

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- EXPENSE.
- CONSTRUCTION.

ADDRESS:

LEGAL DESCR

LOT SIZE: ZONING: SETBACKS:

EXISTING IM EXISTING PE

PROPOSED IM

DISTURBED AREA:



SYMBOL LEGEND:

	EXISTING PROPERTY LINE
	EXISTING EASEMENT LINE
>	EXISTING STORM SEWER CULVERT
	EXISTING SANITARY SEWER LINE
	EXISTING WATER LINE
	EXISTING ELECTRICAL LINE
	EXISTING COMMUNICATIONS LINE
	EXISTING FLARED END SECTION
	EXISTING SANITARY SEWER MANHOLE
	EXISTING HYDRANT
	EXISTING WATER GATE VALVE
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING ELECTRICAL PEDESTAL
	EXISTING COMMUNICATIONS PEDESTAL
	EXISTING CONTOUR LINE
	REMOVE/RELOCATE EXISTING ELECTRICAL LINE
	REMOVE EXISTING GRAVEL

PLAN NOTES:

1. ALL WORK SHALL COMPLY WITH THE MOST RECENT CITY OF BOTTINEAU STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES.

2. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES FOR UNDERGROUND LOCATIONS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. NORTH DAKOTA ONE CALL PHONE NUMBER: 1-800-795-0555

3. CONTRACTOR SHALL PROTECT ALL PROPERTY PINS. PROPERTY PINS DESTROYED OR DISTURBED SHALL BE REPLACED AT CONTRACTORS

4. CONTRACTOR SHALL MAINTAIN TEMPORARY EROSION CONTROL UNTIL PERMANENT EROSION CONTROL IS ESTABLISHED.

5. CONTRACTOR SHALL ACQUIRE AN EROSION SEDIMENT CONTROL (ESC) PERMIT FROM THE CITY OF BOTTINEAU PRIOR TO START OF

6. IF THE LAND BOUNDARY DENOTED ON THE PLANS ENCOMPASSES ONE (1) ACRE OR MORE, A GENERAL PERMIT FOR THE AUTHORIZATION TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PERMIT SHALL BE ACQUIRED BY THE CONTRACTOR AND OWNER FROM THE NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY A MINIMUM OF SEVEN (7) DAYS PRIOR TO CONSTRUCTION.

7. ALL PAVEMENT MARKED FOR DEMOLITION SHALL BE FULL DEPTH SAW CUT PRIOR TO REMOVAL.

8. ALL GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE TOPSOILED (6" DEPTH), GRADED, SEEDED, AND HYDRO-MULCHED.

9. EXCAVATION OR OTHER WORK IN THE RIGHT-OF-WAY SHALL REQUIRE A TRAFFIC CONTROL PLAN THAT MEETS ALL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS. THIS PLAN IS REQUIRED BEFORE ANY PERMITS TO WORK IN THE RIGHT-OF-WAY WILL BE ISSUED.

SITE INFORMATION: 1109 11TH STREET E, BOTTINEAU, ND

IPTION:	PARCEL A OF LOT 1 OF BLOCK 1 OF Cobblestone addition to the city of Bottineau
	2.14 ACRE (93,404 SF)
	B-2 (CENTRAL BUSINESS)
	NONE (SECTION 6, 6.0409.4)
IPERVIOUS:	7,636 SF
RVIOUS:	85,768 SF
IPERVIOUS:	64,224 SF
REA:	90,404 SF

222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE WWW.ICONARCHITECTS.COM



UNITED AND TURTLE MOUNTAIN COMMUNICATIONS BOTTINEAU, NORTH DAKOTA

STRUCTURAL

ICON ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE

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ELECTRICAL

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CIVIL







PLAN NOTES:

- EXPENSE.
- CONSTRUCTION.

ADDRESS:

LEGAL DESCR

- LOT SIZE: ZONING: SETBACKS: EXISTING IM EXISTING PE
- PROPOSED IN
- DISTURBED AREA:



SYMBOL LEGEND:

	EXISTING PROPERTY LINE
	EXISTING EASEMENT LINE
	EXISTING FLARED END SECTION
	EXISTING SANITARY SEWER MANHOLE
	EXISTING HYDRANT
	EXISTING WATER GATE VALVE
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING ELECTRICAL PEDESTAL
	EXISTING COMMUNICATIONS PEDESTAL
	NEW SIGN
	NEW FLARED END SECTION
	NEW SANITARY MANHOLE
	NEW SANITARY CLEANOUT
	NEW FIRE HYDRANT
	NEW GATE VALVE
	NEW CURB STOP
	NEW FENCE LINE
	NEW BIO ROLL
_	NEW SILT FENCE
•	NEW SEEDING/HYDRO-MULCH AREA
	NEW RUCK-MULCH AREA
444	NEW RIPRAP (NDDOT CLASS II)
-	



1. ALL WORK SHALL COMPLY WITH THE MOST RECENT CITY OF BOTTINEAU STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES.

PROPOSED 20' UTILITY EASEMENT

2. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES FOR UNDERGROUND LOCATIONS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. NORTH DAKOTA ONE CALL PHONE NUMBER: 1-800-795-0555

3. CONTRACTOR SHALL PROTECT ALL PROPERTY PINS. PROPERTY PINS DESTROYED OR DISTURBED SHALL BE REPLACED AT CONTRACTORS

4. CONTRACTOR SHALL MAINTAIN TEMPORARY EROSION CONTROL UNTIL PERMANENT EROSION CONTROL IS ESTABLISHED.

5. CONTRACTOR SHALL ACQUIRE AN EROSION SEDIMENT CONTROL (ESC) PERMIT FROM THE CITY OF BOTTINEAU PRIOR TO START OF

6. IF THE LAND BOUNDARY DENOTED ON THE PLANS ENCOMPASSES ONE (1) ACRE OR MORE, A GENERAL PERMIT FOR THE AUTHORIZATION TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PERMIT SHALL BE ACQUIRED BY THE CONTRACTOR AND OWNER FROM THE NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY A MINIMUM OF SEVEN (7) DAYS PRIOR TO CONSTRUCTION.

7. ALL PAVEMENT MARKED FOR DEMOLITION SHALL BE FULL DEPTH SAW CUT PRIOR TO REMOVAL.

8. ALL GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE TOPSOILED (6" DEPTH), GRADED, SEEDED, AND HYDRO-MULCHED.

9. EXCAVATION OR OTHER WORK IN THE RIGHT-OF-WAY SHALL REQUIRE A TRAFFIC CONTROL PLAN THAT MEETS ALL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS. THIS PLAN IS REQUIRED BEFORE ANY PERMITS TO WORK IN THE RIGHT-OF-WAY WILL BE ISSUED.

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UNITED AND TURTLE MOUNTAIN COMMUNICATIONS BOTTINEAU, NORTH DAKOTA

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MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE



EROSION CONTROL PLAN





9851 COUNTY ROAD 47

BOTTINEAU, ND 58318

701-228-3620



PLAN NOTES:

- EXPENSE.
- CONSTRUCTION.

ADDRESS:

LEGAL DESCR

LOT SIZE: ZONING: SETBACKS:

EXISTING IM EXISTING PE

PROPOSED IN

DISTURBED AREA:



SYMBOL LEGEND:

	EXISTING PROPERTY LINE
	EXISTING EASEMENT LINE
>	EXISTING STORM SEWER CULVERT
	EXISTING SANITARY SEWER LINE
	EXISTING WATER LINE
	EXISTING ELECTRICAL LINE
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	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING ELECTRICAL PEDESTAL
	EXISTING COMMUNICATIONS PEDESTAL
	NEW SIGN
	NEW FLARED END SECTION
	NEW SANITARY MANHOLE
	NEW SANITARY CLEANOUT
	NEW FIRE HYDRANT
	NEW GATE VALVE
	NEW CURB STOP
	NEW FENCE LINE
	NEW STORM SEWER LINE
	NEW SANITARY SEWER LINE
	NEW WATERMAIN LINE
	PROPOSED UTILITY EASEMENT

1. ALL WORK SHALL COMPLY WITH THE MOST RECENT CITY OF BOTTINEAU STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES.

2. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES FOR UNDERGROUND LOCATIONS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. NORTH DAKOTA ONE CALL PHONE NUMBER: 1-800-795-0555

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6. IF THE LAND BOUNDARY DENOTED ON THE PLANS ENCOMPASSES ONE (1) ACRE OR MORE, A GENERAL PERMIT FOR THE AUTHORIZATION TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PERMIT SHALL BE ACQUIRED BY THE CONTRACTOR AND OWNER FROM THE NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY A MINIMUM OF SEVEN (7) DAYS PRIOR TO CONSTRUCTION.

7. ALL PAVEMENT MARKED FOR DEMOLITION SHALL BE FULL DEPTH SAW CUT PRIOR TO REMOVAL.

8. ALL GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE TOPSOILED (6" DEPTH), GRADED, SEEDED, AND HYDRO-MULCHED.

9. EXCAVATION OR OTHER WORK IN THE RIGHT-OF-WAY SHALL REQUIRE A TRAFFIC CONTROL PLAN THAT MEETS ALL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS. THIS PLAN IS REQUIRED BEFORE ANY PERMITS TO WORK IN THE RIGHT-OF-WAY WILL BE ISSUED.

SITE INFORMATION: 1109 11TH STREET E, BOTTINEAU, ND

RIPTION:	PARCEL A OF LOT 1 OF BLOCK 1 OF Cobblestone addition to the city of Bottineau
	2.14 ACRE (93,404 SF)
	B-2 (CENTRAL BUSINESS)
	NONE (SECTION 6, 6.0409.4)
MPERVIOUS:	7,636 SF
ERVIOUS:	85,768 SF
MPERVIOUS:	64,224 SF
REA:	90,404 SF

222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE WWW.ICONARCHITECTS.COM



UNITED AND TURTLE MOUNTAIN COMMUNICATIONS BOTTINEAU, NORTH DAKOTA

STRUCTURAL

ICON ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE

MECHANICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

ELECTRICAL

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CIVIL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE



UTILITY PLAN





	EVISTING DRODEDTY I THE
	EXISTING EASEMENT LINE
\triangleleft	EXISTING FLARED END SECTION
S	EXISTING SANITARY SEWER MANHOLE
+	EXISTING HYDRANT
Ŵ	EXISTING WATER GATE VALVE
¢	EXISTING LIGHT POLE
-0-	EXISTING POWER POLE
Ε	EXISTING ELECTRICAL PEDESTAL
C	EXISTING COMMUNICATIONS PEDESTAL
1640	EXISTING CONTOUR LINE
- u -	NEW SIGN
◀	NEW FLARED END SECTION
S	NEW SANITARY MANHOLE
S	NEW SANITARY CLEANOUT
-@-	NEW FIRE HYDRANT
-@-	NEW GATE VALVE
0	NEW CURB STOP
x	NEW FENCE LINE
1640.50RIM	NEW RIM ELEVATION
1640.50INV	NEW INVERT ELEVATION
1640.50TP	NEW TOP OF PAVMENT ELEVATION
1640.50G	NEW GUTTER ELEVATION
1640.50FG	NEW FINISHED GRADE ELEVATION
1640.50ME	MATCH EXISTING ELEVATION
1.00%	NEW SLOPE & DIRECTION OF FLOW
<u> </u>	NEW CONTOUR LINE
	PROPOSED UTILITY EASEMENT

PLAN NOTES:

- CONSTRUCTION.

ADDRESS:

LEGAL DESCR

- LOT SIZE: ZONING: SETBACKS: EXISTING IM EXISTING PE
- PROPOSED IM
- DISTURBED AREA:



SYMBOL LEGEND:

1. ALL WORK SHALL COMPLY WITH THE MOST RECENT CITY OF BOTTINEAU STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES.

2. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES FOR UNDERGROUND LOCATIONS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. NORTH DAKOTA ONE CALL PHONE NUMBER: 1-800-795-0555

3. CONTRACTOR SHALL PROTECT ALL PROPERTY PINS. PROPERTY PINS DESTROYED OR DISTURBED SHALL BE REPLACED AT CONTRACTORS EXPENSE.

4. CONTRACTOR SHALL MAINTAIN TEMPORARY EROSION CONTROL UNTIL PERMANENT EROSION CONTROL IS ESTABLISHED.

5. CONTRACTOR SHALL ACQUIRE AN EROSION SEDIMENT CONTROL (ESC) PERMIT FROM THE CITY OF BOTTINEAU PRIOR TO START OF

6. IF THE LAND BOUNDARY DENOTED ON THE PLANS ENCOMPASSES ONE (1) ACRE OR MORE, A GENERAL PERMIT FOR THE AUTHORIZATION TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PERMIT SHALL BE ACQUIRED BY THE CONTRACTOR AND OWNER FROM THE NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY A MINIMUM OF SEVEN (7) DAYS PRIOR TO CONSTRUCTION.

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CIVIL









PLAN NOTES: EXPENSE.

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ADDRESS:

LEGAL DESCR

LOT SIZE: ZONING: SETBACKS: EXISTING IM EXISTING PE

PROPOSED IN

DISTURBED AREA:



SYMBOL LEGEND:

	EXISTING PROPERTY LINE
	EXISTING EASEMENT LINE
	EXISTING FLARED END SECTION
	EXISTING SANITARY SEWER MANHOLE
	EXISTING HYDRANT
	EXISTING WATER GATE VALVE
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING ELECTRICAL PEDESTAL
	EXISTING COMMUNICATIONS PEDESTAL
	NEW SIGN
	NEW FLARED END SECTION
	NEW SANITARY MANHOLE
	NEW SANITARY CLEANOUT
	NEW FIRE HYDRANT
	NEW GATE VALVE
	NEW CURB STOP
-	NEW FENCE LINE
	NEW THICKENED EDGE CONCRETE SIDEWALK
	NEW 4" ASPHALT PAVEMENT (BASE BID) (SEE DETAIL X/C701)
	NEW 5" ASPHALT PAVEMENT (BASE BID) (SEE DETAIL X/C701)
 	NEW 12" GRAVEL AREA
	NEW VALLEY GUTTER
	PROPOSED UTILITY EASEMENT

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CIVIL





PLAN NOTES: PUBLIC UTILITIES.

- EXPENSE.
- CONSTRUCTION.

ADDRESS:

LEGAL DESCR

- LOT SIZE: ZONING: SETBACKS: EXISTING IM EXISTING PE
- PROPOSED IN
- DISTURBED AREA:

SYMBOL LEGEND:

	EXISTING PROPERTY LINE
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	EXISTING HYDRANT
	EXISTING WATER GATE VALVE
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING ELECTRICAL PEDESTAL
	EXISTING COMMUNICATIONS PEDESTAL
	NEW SIGN
	NEW FLARED END SECTION
	NEW SANITARY MANHOLE
	NEW SANITARY CLEANOUT
	NEW FIRE HYDRANT
	NEW GATE VALVE
	NEW CURB STOP
	NEW FENCE LINE
	NEW 5" REINFORCED CONCRETE PAVEMENT (ALTERNATE) (SEE DETAIL X/C701)
۲. ۲. ۲	NEW 6" REINFORCED CONCRETE PAVEMENT (ALTERNATE) (SEE DETAIL X/C701)
	NEW TIED CONSTRUCTION JOINT
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	NEW ISOLATION JOINT
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CIVIL

1 SANITARY SEWER CLEANOUT STANDARD DETAIL C700 NOT-TO-SCALE

12 SANITARY MANHOLE COVER CASTING DETAIL C700 NOT-TO-SCALE

BRANCH OUTLET AND ASSUME A MINIMUM 10 FT. SECTION OF Pipe Attached to each side of the Run. Restraint devices ARE ALSO REQUIRED ON BOTH RUN JOINTS OF THE TEE ITSELF.

	SIZE	45° VERT. OFFSET* (L)	22 1/2° VERT. OFFSET* (L)	
	6"	15'/8'	7'/4'	
	8"	19'/11'	9'/5'	
	10"	23'/13'	11'/6'	
	12"	27'/15'	13'/8'	
	16"	35'/20'	17'/10'	
* FIRST NUMBER IS THE RECOMMENDED RESTRAINED LENGTH ON				
EACH SIDE OF THE DOWN BEND, THE SECOND NUMBER IS THE				
LENGTH FOR EACH SIDE OF THE UP BEND.				

2 RESTRAINT DEVICE FOR PVC PIPE BELL JOINTS DETAIL C700 NOT-TO-SCALE

7 SANITARY SEWER MANHOLE (INTERIOR DROP CONNECTION) DETAIL C700 NOT-TO-SCALE

8 PIPE SLEEVE DETAIL C700 NOT-TO-SCALE

NOTE: TEE & PLUG BLOCKING SHOWN,

ALL FITTINGS TO BE WRAPPED

IN POLYETHYLENE (8 MIL MIN.)

TAPPING SLEEVE BLOCKING SIMILIAR

THRUST Block

PLUG —

NOTE:

NEW WATER-

MAIN

THIS BEARING AREA

BASED ON PIPE DIA.

OPPOSITE

PLYWOOD

CUT TO

SIZE OF

BEARING

SURFACE

-DRAINAGE

1/2"

PLYWOOD

BEARING Suface

CONCRETE —— Block

OR APPROVED EQUAL

 \bigcirc

- WATEROUS FIRE HYDRANT OR APPROVED EQUAL

6" GATE

VALVE

- HYDRAN

LEAD PIPE

NOTE:

—6" TEE

RESIST DETERIORATION FROM HYDROGEN SULFIDE OR OTHER CHEMICALS AND GASES ENCOUNTERED IN MANHOLE APPLICATION. ALSO, STEP SHALL HAVE A VERTICAL

WEDG-LOC STEP BY DELTA PIPE PRODUCTS OR APPROVED EQUAL.

9 MANHOLE STEP DETAIL C700 NOT-TO-SCALE

RESISTANCE OF 400 LBS., AND A PULLOUT RESISTANCE OF 1000 LBS. SUCH AS: THE

UNITED AND TURTLE MOUNTAIN COMMUNICATIONS BOTTINEAU, NORTH DAKOTA

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— ENGINEERING GRADE Reflective sheeting

W/WHITE BACKGROUND

BACK TO BACK)

(MINIMUM)

ta a

@(

6

5 HYDRANT MARKER DETAIL C700 NOT-TO-SCALE

18" MIN.

-TWO SIGNS (MOUNTED

-2 LB./FT. "U" CHANNEL

(4"X7"X 0.063" ALUMINUM) -RED HYDRANT SYMBOL

DETAILS

DATE

01/15/25

JN: 24-054

DRAWING HISTORY

NO. DESCRIPTION

DRAWN BY: BRC

1 DESIGN DOCUMENTS

SHEET C700

18 6' HIGH CHAINLINK FENCE W/ 15' WIDE DOUBLE ROLLER GATE W/ PRIVACY SCREEN DETAIL C701 NOT-TO-SCALE

-EXISTING PAVED

ROAD

AGGREGATE CUSHION

AGGREGATE CUSHION

TEMPORARY ROCK Construction Entrance

8 RIP RAP DETAIL C700 NOT-TO-SCALE

- 12" CRUSHED CONCRETE - 12" SCARIFY & RECOMPACT Subgrade to 95% STANDARD PROCTOR

7 BIOROLL DETAIL C700 NOT-TO-SCALE

14 CONCRETE VALLEY GUTTER DETAIL C701 NOT-TO-SCALE

15 TRENCH DRAIN DETAIL C701 NOT-TO-SCALE

19 THICKENED EDGE CONCRETE DETAIL C701 NOT-TO-SCALE

MATERIAL AS WELL AS ANY MATERIAL DEEMED UNSUITABLE BY PROJECT GEOTECHNICAL ENGINEER (FIELD VERIFY). 2. SEE SPECIFICATION SECTION 31 2323 - FILL AND BACKFILL FOR FILL REQUIREMENTS.

16 PAVEMENT ABUTTING BUILDING DETAIL C701 NOT-TO-SCALE

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10 CONCRETE WASHOUT DETAIL C700 NOT-TO-SCALE

11 SILT FENCE DETAIL C700 NOT-TO-SCALE

FACE OF BUILDING 1" NON-EXTRUDING PRE-MOLDED

COMPRESSIBLE MATERIAL

- FOUNDATION WALL

TYPE 'C' TIED CONSTRUCTION JOINT DETAIL (701) NOT-TO-SCALE

21 TYPE 'H' CONSTRUCTION JOINT DETAIL C701 NOT-TO-SCALE

22 TYPE 'I' ISOLATION JOINT DETAIL C701 NOT-TO-SCALE

DETAILS

SHEET C701

2 ACCESSIBLITY SIGN DETAIL C702 NOT-TO-SCALE

R7-8(MODIFIED) 12"x18" R7-8AP PLAQUE 12"X6" (INCLUDE 'VAN ACCESSIBLE' PLAQUE WHEN ADJACENT TO 8 FT OR WIDER STRIPED ACCESS AISLE.) R7-8NDP PLAQUE 12"X12"

FINISH GROUND LINE

<u>NOTES:</u> 1. Sheeting shall be engineer grade. 2. SIGN PLATE SHALL BE 80 GAUGE ALUMINUM. 3. SIGNS SHALL BE IN ACCORDANCE WITH THE Manual on Uniform Traffic Control Devices.

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	PROFESSION REPERSENT	No contraction of the second s
DRAV	VING HISTORY	
NO. 1	DESCRIPTION DESIGN DOCUMENTS	DATE 01/15/25
RAWN	N BY: BRC	JN: 24-054
	DETAILS	;

SHEET **C702**

— BLUE HIGHWAY PAINT Background - 2 Coats (typical)

APPROVAL / SHOP DRAWING NOTES:

APPROVAL BY THE STRUCTURAL ENGINEER INCLUDE:

GENERAL CONSTRUCTION NOTES:

- 1. WORK SHALL COMPLY WITH THE 2021 INTERNATIONAL BUILDING CODE, AS APPROVED BY THE STATE OF NORTH DAKOTA / CITY OF BOTTINEAU.
- 2. REFERENCE STANDARDS, UNLESS OTHERWISE NOTED, SHALL BE CURRENT EDITION WITH LATEST ADDENDA, IF APPLICABLE.
- 3. THE CONTRACTOR SHALL VERIFY ALL CONTRACT DOCUMENTS, SITE ELEVATIONS, DIMENSIONS AND CONDITIONS PRIOR TO STARTING WORK AND SHALL NOTIFY THE ARCHITECT / ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES.
- 4. SPECIFIC NOTES AND DETAILS SHALL TAKE A PRECEDENCE OVER GENERAL NOTES.
- 5. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE. THEY DO NOT INDICATE THE MEANS AND/ OR METHODS OF CONSTRUCTION. RESPONSIBILITY FOR THE PROTECTION OF THE STRUCTURE DURING ALL PHASES OF DEMOLITION, CONSTRUCTION, AND INSTALLATION FALLS SOLELY ON THE RESPECTIVE CONTRACTORS.
- 6. TEMPORARY BRACING AND SHORING AGAINST WIND AND/ OR ERECTION CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. BRACING MUST REMAIN IN PLACE UNTIL PERMANENT STRUCTURAL SUPPORTS INCLUDING ROOF AND FLOOR DIAPHRAGMS, ARE INSTALLED AND HAVE REACHED THEIR FULL DESIGN STRENGTH.
- 7. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT OVERALL CONSTRUCTION CONFORMS TO THE LATEST OSHA SAFETY REQUIREMENTS. ANY REVISIONS THAT ARE REQUIRED TO THE DRAWINGS DUE TO OSHA SAFETY REQUIREMENTS ARE TO BE COORDINATED WITH THE ARCHITECT/ ENGINEER.
- 8. NO AREA OF THE STRUCTURE SHALL BE LOADED WITH CONSTRUCTION MATERIALS OR EQUIPMENT THAT EXCEEDS THE FINAL DESIGN CRITERIA.
- 9. SEE MECHANICAL ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR ALL OPENINGS AND INSERTS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- 10 VERIEV LOCATIONS OF BOX CUTS 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 THE WORK.
- 11. IF MECHANICAL AND ELECTRICAL EQUIPMENT SIZES, WEIGHTS OR LOCATIONS DO NOT COINCIDE WITH EQUIPMENT SHOWN ON PLANS COORDINATE ADJUSTMENTS WITH THE STRUCTURAL ENGINEER.
- 12 HOLES PIPES SLEEVES ETC NOT SHOWN ON THE DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE PLACEMENT THROUGH STRUCTURAL MEMBERS
- 13. THE COST OF ADDITIONAL STRUCTURAL DESIGN WORK NECESSITATED BY THE SELECTION OF AN OPTION OR DUE TO ERRORS OR OMISSION IN CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

14. DESIGN LOADS: (U.O.N. ON PLAN)

	DESIGN ROOF LOADS: FLAT ROOF	<u>SNOW</u> 35 psf	<u>DEAD (OFFICE)</u> 25 psf
	SNOW LOADS: FLAT ROOF GROUND RISK CATEGORY IMPORTANCE FACTOR EXPOSURE FACTOR THERMAL FACTOR - TYPICAL - CANOPIES	P _f = 35 psf (+ P _g = 50 psf "II" I _s = 1.0 C _e = 1.0 C _t = 1.0 C _t = 1.2	DRIFT AS SHOWN)
	WIND LOAD: ULTIMATE WIND SPEED (3 SEC. GUST) WIND EXPOSURE RISK CATEGORY IMPORTANCE FACTOR INTERNAL PRESSURE COEFF COMPONENTS CLADDING	110 mph "C" "II" I _w = 1.0 GCp = ±0.18 qh = 24.9 psf	
	SEISMIC LOAD: SEISMIC DESIGN CATEGORY RISK CATEGORY IMPORTANCE FACTOR. MAPPED SPECTRAL RESPONSE ACCELERATIONS SITE CLASS SPECTRAL RESPONSE COEFFICIENTS	"A" "II" I _e = 1.0 Ss = 4.50%g S ₁ = 1.80%g "D" S _{DS} = 0.048 S _{DI} = 0.029	
	*NO SEISMIC LOAD REQUIRED FOR DESIGN CATEG USE NOTIONAL LOADS = 0.01 X DEAD LOAD PER AS	ORY A SCE 7-16, SEC	CTION 1.4
	BASIC SEISMIC FORCE RESISTING SYSTEMS	ORDINARY N BRACED FR	MOMENT/ AMES
16.	THE FOLLOWING STANDARD DETAILS SHALL APPLY: STEPPED WALL FOOTING 1/S301		

FOOTING CORNER ____ 2 /S301 WALL CORNER REINFORCING _____3 /S301 WALL CONSTRUCTION JOINT 4 /\$301

WALL INTERSECTION	5 /S30
FLOOR CONSTRUCTION JOINT (CCJ)	6 /S30 ²
FLOOR CONTROL JOINT (CJ)	7 /S30
ISOLATION KEY JOINT	8 /S30
COLUMN ISOLATION JOINT	9 /S30
RE-ENTRANT CORNER	10 /S30

EXCAVATION AND BACKFILL NOTES:

- 1. EXCAVATION, BACKFILLING, AND COMPACTION PROCEDURES SHALL BE EXECUTED IN ACCORDANCE WITH INDUSTRY STANDARDS, INCLUDING OSHA
- 2. EXCAVATIONS, FILL MATERIAL, & SOIL COMPACTION SHALL BE INSPECTED, TESTED, AND CERTIFIED BY A LICENSED GEOTECHNICAL ENGINEER. REPORTS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER PRIOR TO PLACEMENT OF FOOTING FORM WORK.
- 3. FOUNDATION EXCAVATIONS SHALL BE EXCAVATED TO PROPER LINE AND LEVEL TO INSURE MINIMUM CONCRETE COVER OF FOOTING REINFORCEMENT FOR FOOTING
- 4. BACKFILL SHALL BE PLACED IN ALTERNATING LIFTS ON EACH SIDE OF THE FOUNDATION WALLS TO MAINTAIN STABILITY OF THE FOUNDATION WALLS.
- ENGINEER. WATER INFILTRATION SHALL NOT BE ALLOWED.
- 6. BACKFILL SHALL NOT BE PLACED AGAINST BASEMENT FOUNDATION WALLS UNLESS WALLS ARE ADEQUATELY BRACED TOP & BOTTOM. FINAL WALL BRACING IS BASEMENT SLAB & 1ST FLOOR STRUCTURE. IF THESE ELEMENTS WILL NOT BE IN PLACE AT TIME OF BACKFILLING OPERATIONS, CONTRACTOR SHALL PROVIDE AN ENGINEERED, TEMPORARY BRACING SYSTEM. THE PROPOSED BRACING SYSTEM SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO BACKFILLING.
- 7. FILL MATERIAL SHALL BE COMPACTED AND PERIODICALLY INSPECTED/TESTED PER SECTION 1705.6 OF THE IBC 2018 TO MEET THE FOLLOWING REQUIREMENTS, UNLESS OTHERWISE NOTED IN THE PROJECT GEOTECHNICAL REPORT:

BELOW INTERIOR/EXTERIOR SLABS - 95% OF THE MAXIMUM DENSITY INTERIOR FOUNDATION BACKFILL - 95% OF THE MAXIMUM DENSITY

1. CONTRACTOR TO FURNISH COMPLETE & DETAILED APPROVAL DRAWINGS FOR REVIEW

APPRO

- CONCR CONCRE STRUCT ANCHOR STEEL JC
- COLD FC PRE-ENG METAL P

 - DOCUMENTS.

FOUNDATION NOTES:

- 5. BACKFILL SHALL BE PLACED AND COMPACTED BY MECHANICAL MEANS, UTILIZING ACCEPTABLE COMPACTION EQUIPMENT, WITH APPROVAL BY A LICENSED GEOTECHNICAL

ASTM D698 STANDARD PROCTOR BELOW FOOTINGS - 98% OF THE MAXIMUM DENSITY EXTERIOR FOUNDATION BACKFILL - 90% OF THE MAXIMUM DENSITY

BY THE STRUCTURAL ENGINEER. APPROVAL DRAWING & SUBMITTALS REQUIRED ON THIS PROJECT FOR REVIEW &

REQUIRED APPROVAL DRAWINGS

VAL DRAWING TYPE	NOTES/COMMENTS
ETE MIX DESIGN	BY 3RD PARTY AGENCY
TE REINFORCEMENT	-
URAL STEEL	-
RODS	-
OISTS & DECK	-
ORMED METAL FRAMING	DELEGATED DESIGN
GINEERED METAL BUILDING	DELEGATED DESIGN
PANEL SIDING ATTACHMENT	DELEGATED DESIGN

APPROVAL DRAWINGS PREPARED BY SUPPLIER, SUBCONTRACTORS, ETC. SHALL BE DIMENSIONED, REVIEWED, COORDINATED AND SIGNED/STAMPED BY THE GENERAL CONTRACTOR, ALL APPROVAL DRAWINGS MUST BEAR THE REVIEW STAMP OF THE GC BEFORE THEY ARE REVIEWED BY THE STRUCTURAL ENGINEER.

- 4. ALL APPROVAL DRAWINGS WILL BE REVIEWED FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. REVIEW OF SUCH SUBMITTALS IS NOT CONDUCTED FOR THE PURPOSE OF DETERMINING THE ACCURACY AND COMPLETENESS OF DETAILS SUCH AS DIMENSIONS AND QUANTITIES AS REQUIRED BY THE CONTRACT DOCUMENTS.
- REVIEW OF SUBMITTALS AND APPROVAL DRAWINGS BY THE ARCHITECT AND STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW & CHECK ALL SUBMITTALS & APPROVAL DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR THE ERRORS & OMISSIONS ASSOCIATED WITH THE PREPARATION OF APPROVAL DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS & DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
- 6. CONTRACT DRAWINGS SHALL NOT BE REPRODUCED FOR USE AS APPROVAL DRAWINGS. APPROVAL DRAWINGS SHALL CLEARLY NOTE CHANGES MADE IN THE DRAWINGS WHICH DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.
- 8. APPROVAL DRAWINGS SHALL SHOW ALL FIELD DETAILS AND ADDITIONAL INFORMATION NEEDED FOR THE CONTRACTOR TO CONSTRUCT THE BUILDING PER THE CONTRACT
- 9. APPROVAL DRAWINGS FOR MANUFACTURED COMPONENTS SUCH AS STAIRS, TRUSSES OR PRECAST CONCRETE DESIGNATED AS A DELEGATED DESIGN. "DESIGNED BY OTHERS" OR "PRE-ENGINEERED" SHALL BE STAMPED & SIGNED BY THE COMPONENT DESIGN ENGINEER PRIOR TO SUBMITTAL FOR APPROVAL TO THE STRUCTURAL ENGINEER. INCLUDE A STAMPED & SIGNED CALCULATION PACKAGE AS REQUIRED IN THE PROJECT SPECIFICATIONS
- 10. APPROVAL DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE DURING TIMES OF INSPECTION AND SHALL BE CLEARLY INDICATED THEY HAVE BEEN REVIEWED & APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.

- 1. FOOTING ELEVATIONS ARE TO TOP OF FOOTING (T.O.F.) UNLESS OTHERWISE NOTED. FOOTINGS ARE DESIGNED FOR A MAXIMUM NET ALLOWABLE SOIL BEARING PRESSURE OF 2000 psf FOR STRIP AND PAD FOOTINGS. STRUCTURAL DESIGN COMPLIES W/ GEOTECHNICAL EXPLORATION REPORT DATED: 10/24/2024 BY MTS, INC. PROJECT
- FOOTINGS SHALL BEAR ON NATURAL UNDISTURBED SOIL OR ENGINEERED FILL. BEARING SOIL SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF FOOTING CONCRETE, IF INADEQUATE OR DISTURBED SOILS ARE ENCOUNTERED AT FOOTING BEARING LEVEL, ARCHITECT/ENGINEER SHALL BE NOTIFIED & WORK SHALI CEASE UNTIL DIRECTED TO PROCEED W/ CORRECTIVE MEASURES.
- PROTECT FOUNDATIONS AND BOTTOM OF EXCAVATIONS FROM THE ACTION OF WATER OR FREEZING. DO NOT PLACE FOOTINGS OR BACKFILL ON FROZEN SOILS. PRIOR TO PLACEMENT OF FOOTING CONCRETE, CLEAN FOOTING EXCAVATIONS OF
- SNOW, WATER, MUD, DIRT AND DEBRIS. CONTRACTOR IS RESPONSIBLE FOR DEWATERING EXCAVATIONS DURING CONSTRUCTION.
- 6. FOOTINGS SHALL BE CENTERED UNDER WALLS, PIERS, PILASTERS AND COLUMNS ABOVE - UNLESS OTHERWISE NOTED.
- 7. FOOTINGS SHALL NOT BE EARTH FORMED.

CONCRETE NOTES:

- 1. CONCRETE CONSTRUCTION SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE (ACI) CODES AND SPECIFICATIONS, LATEST EDITION.
 - ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" ACI 305R "GUIDE TO HOT WEATHER CONCRETING"
 - ACI 306R "GUIDE TO COLD WEATHER CONCRETING" "DETAILS & DETAILING OF CONCRETE REINFORCEMENT" ACI 315
- "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318 2. CAST-IN-PLACE CONCRETE SHALL HAVE 28 DAY COMPRESSIVE STRENGTHS (f'c) AS
- FOLLOWS: 3000 psi - FOOTINGS
 - 4000 psi PIERS 4000 psi - FOUNDATION & RETAINING WALLS 4000 psi - INTERIOR SLABS ON GRADE 4000 psi - EXTERIOR SLABS ON GRADE - AIR ENTRAINED 4000 psi - EXTERIOR SLABS ON DECK - AIR ENTRAINED
- 3. CONCRETE MIX DESIGN SHALL BE BY AN INDEPENDENT TESTING LABORATORY. MATERIALS SHALL MEET THE FOLLOWING REQUIREMENTS: - PORTLAND CEMENT SHALL MEET ASTM C150 AND SHALL BE LOW ALKALI - CONCRETE AGGREGATE SHALL MEET ASTM C33 W/ MAXIMUM SHALE OR DELETERIOUS MATERIAL CONTENT OF 1% - FLY ASH OF "TYPE C MEETING CLASS F" MAY BE SUBSTITUTED FOR CEMENT
 - UP TO MAXIMUM LIMITS INDICATED IN EACH MIX DESIGN - AIR ENTRAINING AGENTS SHALL MEET ASTM C260 - MID-RANGE PLASTICIZER MEETING ASTM C494 TYPE D IS ACCEPTABLE IF INDICATED IN EACH MIX DESIGN
- 4. CAST-IN-PLACE CONCRETE SHALL BE SUBJECT TO TESTING BY AN INDEPENDENT TESTING LABORATORY AS FOLLOWS, UNLESS OTHERWISE NOTED IN THE PROJECT SPECIFICATIONS -(3) TEST CYLINDERS PER EVERY 50 YARDS OR EACH DAY'S POUR, IF LESS.
- 5. CONCRETE SHALL BE PLACED PER ACI 304R & THOROUGHLY CONSOLIDATED BY MECHANICAL MEANS (I.E. VIBRATOR), ESPECIALLY AROUND REINFORCEMENT STEEL AND CORNERS OF FORMWORK.
- 6. CONCRETE SHALL BE PROTECTED FROM FREEZIND DURING CONSTRUCTION. CONCRETE
- SHALL NOT BE PLACED ON SATURATED OR FROZEN SOILS. 7. NON-WELDED REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, DEFORMED BILLET-
- 8. WELDED REINFORCING STEEL SHALL BE ASTM A706, GRADE 60, LOW-ALLOY, DEFORMED
- STEEL. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.4. 9. WELDED WIRE FABRIC (WWF) SHALL BE ASTM A185, GRADE 60, PLAIN STEEL.
- 10. REINFORCING STEEL SHALL BE DETAILED PER THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) MANUAL OF STANDARD PRACTICE; IT SHALL BE BENT, SPLICED, AND PLACED IN ACCORDANCE WITH THE ACI 301 - LATEST EDITION, WITHIN POSITION TOLERANCES AS DEFINED BY ACI 117.
- 11. REINFORCEMENT IN CAST-IN-PLACE CONCRETE SHALL HAVE THE FOLLOWING MINIMUM CLEAR COVERAGES

CAST AGAINST & PERMANENTLY EXPOSED TO EARTH	3"
FORMED AND EXPOSED TO EARTH OR WEATHER: #6 THROUGH # 18 #5 AND SMALLER	2" 1 1/2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, JOISTS: #14 & #18	
#11 AND SMALLER BEAMS AND COLUMNS: TIES, STIRRUPS, SPIRALS, AND PRIMARY REINFORCING	
SLABS ON GRADE	MID-HEIGHT

- 12. PROVIDE ADEQUATE SUPPORT BARS, CHAIRS AND ACCESSORIES TO HOLD REINFORCING BARS AND OTHER EMBEDDED ITEMS FIRMLY IN PLACE TO SPECIFIED COVERAGES. NO OTHER METHODS OR MATERIALS WILL BE ACCEPTABLE. PROVIDE PLASTIC CHAIRS AND SUPPORTS IN ALL AREAS OF EXPOSED CONCRETE.
- 13. REINFORCING STEEL SHALL BE FREE OF LOOSE RUST AND MILL SCALE, EARTH, ICE, AND OTHER FOREIGN MATERIALS THAT WOULD REDUCE BOND TO CONCRETE. 14. CAST DOWELS, W/ STD 90° HOOK, IN FOOTINGS FOR CONCRETE PIERS AND WALLS
- ABOVE. DOWELS SHALL BE THE SAME SIZE AND SPACING AS THE VERTICAL REINFORCING. UNI ESS OTHERWISE NOTED.
- 15. REBAR SUPPLIER SHALL PROVIDE 50 FEET OF #5 REBAR FOR MISC. PLACEMENT AS DIRECTED BY THE ARCHITECT/ ENGINEER. CONTRACTOR SHALL INCLUDE ALLOWANCE FOR PROJECTED LABOR COSTS INVOLVED WITH INSTALLATION OF REINFORCEMENT.
- 16. PROVIDE ADDITIONAL REINFORCEMENT AROUND ALL OPENINGS GREATER THAN 12" SQUARE OR 12" IN DIAMETER IN CONCRETE WALLS AND SLABS. REINFORCEMENT SHALL BE PROVIDED AT EACH LAYER OF REINFORCING. SEE DETAIL 10 /S301 17 LAP SPLICE REINFORCING STEEL AS INDICATED IN THE FOLLOWING SCHEDULE:

		01101110	
REINFORCING ST	FEL SPLIC		THS

	STANDARD NON-COATED BARS								
CONCRETE TYPE #1 SPLICE STRENGTH CLASS A SPLICE			TYPE #2 SPLICE CLASS B SPLICE		TYPE #3 SPLICE CLASS B SPLICE		TYPE #4 SPLICE COMPRESSION SPLICE		
F'c	F'c #6 AND #7 AND SMALLER LARGER		#6 AND SMALLER	#7 AND LARGER	#6 AND SMALLER	#7 AND LARGER	#4 AND LARGER		
3000	psi	44 Bd	55 Bd	57 Bd	71 Bd	85 Bd	107 Bd	30 Bd	
4000	psi	38 Bd	47 Bd	49 Bd	62 Bd	74 Bd	92 Bd	30 Bd	
Bd - BAR DIAMETER									

NOTES:

- 1. MIN. LAP: 18" FOR TYPE #1 THRU TYPE #3 & 12" FOR TYPE #4 SPLICES.
- 2. REQ'D. SPLICE LENGTH = LISTED SPLICE LENGTH x ADJUSTMENT FACTORS ADJUSTMENT FACTORS = 1.0 IF NONE BELOW APPLY
 - A. FOR HORIZ. REINFORCING W/ MORE THAN 12" OF FRESH CONCRETE PLACED BELOW BAR - ADJUSTMENT FACTOR = 1.3
 - B. FOR Fy OTHER THAN 60 ksi ADJUSTMENT FACTOR = Fy (USED)/ 60
 - C. FOR LIGHT WEIGHT CONCRETE ADJUSTMENT FACTOR = 1.3
 - D. TYPICAL EPOXY COATED REINFORCING ADJUSTMENT FACTOR = 1.2
 - E. EPOXY COATED REINFORCING W/ COVER LESS THE Bd OR CLEAR
- SPACING LESS THAN 6 Bd ADJUSTMENT FACTOR = 1.5

ALL ADJUSTMENT FACTORS THAT APPLY SHALL BE USED TO CALCULATE REQ'D SPLICE LENGTH.

18. UNLESS OTHERWISE NOTED ON PLAN OR DETAILS, LAP THE FOLLOWING BARS AS DEFINED IN LAP SPLICE TABLE ABOVE.

- A. VERTICAL HOOKED OR STRAIGHT BARS EXTENDING FROM FOOTINGS:
- TYPE #4 SPLICE. B. HORIZONTAL BARS IN GRADE BEAMS, FOOTINGS, & FOUNDATION WALLS:
- TYPE #2 SPLICE. C. VERTICAL BARS IN COLUMNS & PIERS:
- TYPE #4 SPLICE. D. VERTICAL BARS IN BASEMENT & RETAINING WALLS:
- TYPE #2 SPLICE.
- 19. UNLESS OTHERWISE NOTED ON PLAN OR DETAILS, LAP THE SLAB BARS WITH A LAP LENGTH OF 48 BAR DIAMETERS.
- 20. A CONTINUOUS BOND BREAK, SUCH AS AN ASPHALTIC FIBER BOARD EXPANSION JOINT, SHALL BE PLACED BETWEEN THE CONCRETE SLAB AND THE FOUNDATION WALLS.
- 21. SLAB CONSTRUCTION AND CONTRACTION JOINTS ARE TO BE CONSTRUCTED AS SHOWN ON DETAILS, CONTROL SAWCUT JOINTS ARE TO BE CUT AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM DISLODGING BY SAW AND PRIOR TO SHRINKAGE STRESS CRACKING. SEE PLAN FOR JOINT LOCATIONS AND SPACING REQUIREMENTS.

STRUCTURAL STEEL NOTES:

CONSTRUCTION (AISC) SPECIFICATIONS, CURRENT EDITION. 2. STEEL MATERIAL SHALL BE AS FOLLOWS:

ASTM A572	M AND S SHAPES
ASTM A992	W,C, AND MC SHAPES
ASTM A53	GRADE B - STANDARD PIPES
ASTM A500	GRADE C - HSS PIPES
ASTM A500	GRADE C - HSS TUBES
ASTM A36	PLATES, BARS AND RODS
ASTM F1554 GR 36	ANCHOR RODS
ASTM A325 & F1852	CONNECTION BOLTS
ASTM A563	CONNECTION NUTS
ASTM F436	WASHERS
ETO)()(

ADE C - HSS PIPES ADE C - HSS TUBES ATES, BARS AND RODS CHOR RODS NNECTION BOI TS NNECTION NUTS SHERS ELECTRODES

- 3. WELDED CONNECTIONS SHALL BE MADE IN ACCORDANCE W/ THE LATEST RECOMMENDATIONS OF: AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION AWS - AMERICAN WELDING SOCIETY
- 4. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS WITH EXPERIENCE IN TYPE OF WELDS SHOWN, IN ACCORDANCE WITH AWS D1.1, USING PROPER ELECTRODES AND
- 5. NO FIELD WELDS ARE TO BE MADE UNTIL THE MEMBERS ARE PROPERLY ALIGNED.
- DRAWINGS, IS NOT ALLOWED WITHOUT PRIOR APPROVAL FROM THE EOR.
- 7. BOTTOM PLATE OF STEEL LINTELS SHALL BE WELDED TO THE BEAM WITH 3/16" FILLET
- ROOF/SLAB PERIMETER STEEL ELEMENTS SUCH AS ANGLES OR BENT PL'S, NOTED TO BE CONTINUOUS, SHALL BE FIELD SPLICED WITH A FULL LENGTH, FULL PENETRATION SQUARE GROOVE WELD UTILIZING A MINIMUM 3/16" ROOT OPENING.
- 9. WELDS NOT SPECIFIED SHALL BE A FILLET WELD, CONTINUOUS AND/ OR ALL AROUND VITH MINIMUM THROAT DIMENSION AS REQUIRED FOR MATERIAL THICKNESS PER AWS.
- 10. STRUCTURAL FABRICATORS SHALL SHOW ALL FIELD WELDING REQUIREMENTS ON SHOP DRAWINGS SUBMITTED TO THE ENGINEER
- 11. PRIME PAINT PER AISC SECTION 6.5 U.O.N. DO NOT PAINT STEEL TO BE FIELD WELDED, CAST IN CONCRETE, OR FIREPROOFED.
- 12. BEFORE ENCASING STEEL COLUMNS IN CONCRETE OR MASONRY, COAT COLUMN BASES AND TOPS OF ANCHOR BOLTS WITH ASPHALTIC ROOF CEMENT.
- 13. STEEL SHALL BE ERECTED IN ACCORDANCE TO THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS & BRIDGES, LATEST EDITION. BEAMS AND COLUMNS SHALL BE ERECTED TRUE AND PLUMB. PROVIDE TEMPORARY BRACING AS REQUIRED.
- 14. FIELD NOTCHING OR COPING OF STRUCTURAL STEEL MEMBERS IS NOT ALLOWED WITHOUT PRIOR APPROVAL FROM THE EOR.
- 15. BEARING PLATES FOR STEEL COLUMNS AND BEAMS SHALL BE DRY PACKED WITH A SHRINKAGE RESISTANT, NON-METALLIC GROUT AS SPECIFIED - f'c = 6000 psi, COMFORMING TO ASTM C1107.
- 16. CONTRACTOR SHALL INCLUDE AN ALLOWANCE FOR MATERIAL AND INSTALLATION OF 0.5 ADDITIONAL TONS OF STEEL AS DIRECTED BY ARCHITECT / ENGINEER.

17. PROVIDE FRAMED BEAM CONNECTIONS PER TABLES 10-1, 10-2, OR 10-3 OF THE AISC MANUAL OF STEEL CONSTRUCTION (14TH EDITION)

- A. CONNECTIONS SHALL BE SELECTED TO SUPPORT BEAM END REACTIONS INDICATED ON THE CONTRACT DRAWINGS. B. IF BEAM END REACTIONS ARE NOT INDICATED, CONNECTIONS MUST BE SELECTED TO SUPPORT 1/2 THE TOTAL UNIFORM LOAD CAPACITY GIVEN IN THE MAX. TOTAL
- UNIFORM LOAD TABLES 3-6, 7, 8, & 9 (14TH ED. STEEL MANUAL) FOR THE SPECIFIED BEAM SIZE, SPAN, AND STEEL GRADE (U.O.N.) CONNECTIONS SHALL HAVE MINIMUM ROWS OF BOLTS FOR BEAM DEPTHS AS
- INDICATED IN TABLE 10-1, 2, OR 10. SEE DETAIL 1/S501 DELEGATED CONNECTION DESIGN:
- IS TO ENGAGE A REGISTERED PROFESSIONAL ENGINEER QUALIFIED TO PERFORM THE NECESSARY DESIGNS AS DICTATED BY THE DESIGN FORCES AND CONNECTION GEOMETRY, UTILIZING THE CONCEPTUAL DETAILS PROVIDED TO THE GREATEST EXTENT POSSIBLE. SHOP DRAWINGS AND CONNECTION DESIGN CALCULATIONS SHALL BE SUBMITTED FOR APPROVAL BEARING THE SEAL OF AN ENGINEER REGISTERED IN THE STATE OF NORTH DAKOTA.
- a. BEAM SHEAR CONNECTIONS SHALL BE BOLTED SINGLE PLATE/DOUBLE ANGLE TYPE AS SHOWN CONCEPTUALLY ON THE DETAILS AND AS DICTATED BY PART 10 OF THE AISC STEEL CONSTRUCTION MANUAL (14TH ED.). DESIGN SHALL BE BASED ON "SNUG-TIGHT (ST)" BEARING TYPE BOLTED CONNECTIONS FOR THE LOADS SHOWN ON THE DRAWINGS. IF LOADS ARE NOT SHOWN. CONNECTIONS SHALL BE DESIGNED TO SUPPORT 1/2 THE TOTAL UNIFORM LOAD CAPACITY GIVEN IN THE MAX TOTAL UNIFORM LOAD TABLES 3-6, 7, 8, AND 9 (14TH ED. STEEL MANUAL) FOR THE SPECIFIED BEAM SIZE, SPAN, AND MATERIAL STRENGTH. (U.O.N.) CONNECTIONS SHALL HAVE MINIMUM ROWS OF BOLTS FOR BEAM DEPTHS AS INDICATED IN TABLE 10-1, 2, OR 10 (14TH ED. STEEL MANUAL) -SEE DETAIL 2/S501
- b. BEAM MOMENT CONNECTIONS SHALL BE FULLY RESTRAINED (FR) BOLTED TYPE OR (DIRECT WELDED UPON PRIOR APPROVAL) AS SHOWN CONCEPTUALLY ON THE DETAILS AND AS DICTATED BY PART 12 OF THE AISC STEEL CONSTRUCTION MANUAL (14TH ED.). DESIGN SHALL BE BASED ON "PRE-TENSIONED (PT)" BEARING TYPE BOLTS, UTILIZING DIRECT TENSION INDICATOR WASHERS OR "TWIST-OFF" BOLTS, FOR THE LOADS SHOWN ON THE DRAWINGS UON.
- c. BRACING CONNECTIONS SHALL BE BOLTED/WELDED GUSSET PLATE TYPE AS SHOWN CONCEPTUALLY ON THE DETAILS AND AS DICTATED BY PART 13 OF THE AISC STEEL CONSTRUCTION MANUAL (14TH ED.). DESIGN SHALL BE BASED ON "PRE-TENSIONED (PT)" BEARING TYPE BOI TS. UTILIZING DIRECT TENSION INDICATOR WASHERS OR "TWIST-OFF" BOLTS, FOR THE LOADS SHOWN ON THE DRAWINGS UON.
- d. BEAM ON COLUMN CAP PLATE CONNECTIONS AT CANTILEVERED BEAMS SHALL BE BOLTED TYPE CONNECTIONS AT BEAM BOTTOM FLANGE TO COLUMN CAP AS SHOWN CONCEPTUALLY ON THE DETAILS. DESIGN LOADS SHOWN ON THE PLANS ARE REACTIONS FROM THE BEAM AT THE LEVEL OF CONNECTION. NOT THAT WHEN A COLUMN STACKS ABOVE. DIRECTLY ON TOP OF LOWER COLUMN. DESIGN LOAD SHALL ADD COLUMN LOAD FROM REACTIONS AT LEVELS ABOVE CONNECTION LOCATION. PROVIDE BEAM STIFFENERS (1) EACH SIDE MINIMUM AND CAP PLATE THICKNESS AS REQUIRED BY DESIGN.
- 18. FRAMED STEEL BEAM CONNECTIONS SHALL BE "BEARING TYPE", (U.O.N.). 10 STEEL REAM KEY

9.	STEEL DEAM RET.
	(NUMBER OF STUDS) — (CAMBER)
	(BEAM SIZE) <u>W16x40 (10) C=1"</u>
	20 [10] (P=10) (🕂 X'-X") (P=10) [10] 20(ASD BEAM END REACTION - KIPS)
	(T.O. STEEL A A A (ASD BEAM END MOMENT - FT-KIPS
	ELEVATION) (ASD BEAM END AXIAL - KIPS)
0.	LINTELS SHALL HAVE A BEARING OF 1" PER FOOT OF SPAN AT EACH END, 8" MIN. COORDINATE PAINT REQUIREMENTS WITH ARCH. LINTEL ANGLES WHICH HAVE NOT BEEN SHOWN OTHERWISE, SHALL BE AS FOLLOWS FOR EACH 4" OF WALL THICKNESS
	SPANS TO 4'-0" - L 3 1/2x3 1/2x1/4" 4'-0" TO 6'-0" - L 4x3 1/2x1/4" (LLV) 6'-0" TO 8'-0" - L 5x3 1/2x5/16" (LLV) 8'-0" AND GREATER - CONTACT STRUCTURAL ENGINEER.

1. STRUCTURAL STEEL WORK SHALL BE PER AMERICAN INSTITUTE OF STEEL

Fy	=	50	ks
Fy	=	50	ks
Fy	=	35	ks
Fy	=	50	ks
Fy	=	50	ks
Fy	=	36	ks
Fy	=	36	ksi

Ft = 44 ksi

AMPERAGE. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE.

ADDITIONAL WELDING, OUTSIDE OF WHAT IS SHOWN ON SPECIFIC DETAILS OR

6. COLUMN BASE AND CAP PLATES SHALL BE WELDED AROUND ALL SIDES.

WELD (BOTH SIDES) 3" LONG @ 12" O.C. - UNLESS OTHERWISE NOTED.

CONNECTIONS SHALL BE DESIGNED BY THE CONTRACTOR/STEEL FABRICATOR, WHO

BEAM END REACTION - KIPS) BEAM END MOMENT - FT-KIPS) BEAM END AXIAL - KIPS) AN AT EACH END, 8" MIN. L ANGLES WHICH HAVE NOT

STEEL JOIST NOTES:

- 1. STEEL JOISTS SHALL BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS.
- 2. STEEL JOISTS INDICATED WITH A STANDARD DESIGNATION INDICATE THAT ALL GRAVITY LOADS INDICATED ON THE DRAWINGS HAVE BEEN ACCOUNTED FOR. INCLUDING SNOW DRIFTS, EQUIPMENT LOADS, ETC. SPECIAL JOISTS SHALL BE DESIGNED FOR THE LOADS INDICATED ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL STEEL JOISTS ARE TO BE DESIGNED FOR A 10psf MINIMUM NET UPLIFT WIND LOAD.
- 3. ALL JOISTS SHALL BE CAMBERED PER SJI SPECIFICATIONS UON. PROVIDE 1/2 STANDARD CAMBER ON JOISTS PARALLEL TO & WITHIN 4'-0" OF BEARING WALLS.
- 4. STEEL JOISTS 40'-0" OR GREATER IN LENGTH SHALL BE SUPPLIED WITH SLOTTED HOLES AND THE SUPPORTING BEAMS SHALL BE SUPPLIED WITH STANDARD GAGE HOLES AND BOLTS TO MEET OSHA ERECTION REQUIREMENTS. ERECT BOLTED JOISTS FIRST AND WELD WHEN OTHER JOISTS ARE INSTALLED, PER FINAL DETAIL REQUIREMENTS.
- 5. STEEL JOISTS FRAMING INTO OR ON TOP OF COLUMNS SHALL BE FIELD BOLTED TO THE COLUMNS. EXTEND THE BOTTOM CHORDS TO SHOP INSTALLED STABILIZER PLATES ON THE COLUMNS PER MANUFACTURER'S / OSHA REQUIREMENTS. DO NOT WELD BOTTOM CHORD TO STABILIZER PLATES UNLESS OTHERWISE NOTED. IF JOIST IS NOT LOCATED AT COLUMN CENTERLINE, PROVIDE OSHA BOLTED CONNECTION AT FIRST JOIST EACH SIDE OF COLUMN.
- EXTEND BOTTOM CHORDS AT ALL JOISTS TO WITHIN 1" OF WALL OR BEAM LINES WHERE REQUIRED FOR CEILING INSTALLATIONS - COORDINATE WITH ARCHITECTURAL.
- WHERE JOISTS BEAR ON A BEAM ON ONE SIDE ONLY, BEARING LENGTH SHALL BE EQUAL TO THE BEAM FLANGE WIDTH. WHERE JOISTS BEAR ON A BEAM ON BOTH SIDES. PROVIDE A 1/2" MAX GAP. BUT MAINTAINING THE REQUIRED MINIMUM JOIST BEARING LENGTH. PROVIDE EXTENDED ENDS WHERE REQUIRED OR SHOWN ON PLANS.
- 8. STEEL JOISTS ARE TO BE SHOP PRIMED WITH STANDARD GREY PRIMER UON ON PLANS. HORIZONTAL/CROSS BRIDGING SHALL BE SUPPLIED AND DESIGNED BY THE STEEL JOIST SUPPLIER PER SJI STANDARDS, FOR THE PROJECT DESIGN LOADS. STEEL JOIST SUPPLIER TO PROVIDE CONNECTIONS TO ANCHOR BRIDGING TO MASONRY, METAL STUD. AND/OR PRECAST WALLS. SEE DETAIL 7 /S501 COORDINATE LOCATIONS W/ MECHANICAL & ELECTRICAL CONTRACTORS TO AVOID OTHER TRADE INTERFERENCE.

STEEL DECK NOTES:

- 1. STEEL DECK SHALL BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH STEEL DECK INSTITUTE (SDI) SPECIFICATIONS.
- STEEL DECK SHALL CONFORM TO ASTM A653 OR A1008 AND HAVE A MINIMUM YIELD STRENGTH OF 33,000 PSI. DECK SIZE, TYPE AND GAUGE TO BE AS INDICATED ON PLANS.
- STEEL ROOF DECK TO BE SHOP PRIMED W/ STANDARD GREY PRIMER & STEEL FLOOR DECK TO BE GALVANIZED, UNLESS OTHERWISE NOTED.
- 4. SPAN DECK SECTION A MINIMUM OF (3) CONTINUOUS SPANS, UNLESS OTHERWISE NOTED. 5. FASTEN STEEL DECK TO ALL INTERIOR & PERIMETER STEEL SUPPORTS AS SHOWN ON
- PLANS & DETAILS. 6 DECK ACCESSORIES SUCH AS RIDGE AND VALLEY PLATES, FLAT PLATES AT DECK SPAN
- DIRECTION CHANGES, GIRDER FILLERS AND POUR STOPS & DECK CLOSURES ALONG FLOOR EDGES SHALL BE PROVIDED BY THE DECK SUPPLIER.
- VERIFY DECK OPENINGS WITH MECHANICAL & ELECTRICAL CONTRACTORS. PROVIDE PLATE REINFORCEMENT OR FRAME WITH L 4x4x3/8" ON FOUR SIDES. (U.O.N.) SEE DETAIL 8 /S501

ABBREVIATIONS AND SYMBOLS:

ΔB	ANCHOR BOLT
	ADDITIONAL
	ALUMINUM
ANCH	ANCHOR
AR	ANCHOR ROD
ARCH	ARCHITECTURAL / ARCHITECT
ASTM	AMERICAN SOCIETY OF
	TESTING MATERIALS
BB, B BM	BOND BEAM
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
B.O	BOTTOM OF
BOT	BOT
BP, B 🖻 🔜	BASE PLATE
BRG	BEARING
BRK	BRICK
BTWN	BETWEEN
С	CHANNEL
CANT	CANTILEVER
	CAST IN PLACE
CJ	CONTROL JOINT
CCJ	CONSTR CONTROL JOINT
CLR	CLEAR
	CONCRETE MASONRY UNIT
COL	COLUMN
	CONCRETE
	CONNECTION
COORD	COORDINATE
	COLD ROLLED CHANNEL
	DECK BEARING ELEVATION
	DEFLECTION
	EACH
EC	
FF	EACH END
FF	FACH FACE
E.I	EXPANSION JOINT
FI	FI EVATION
ELEV	ELEVATOR
EQ	EQUAL
E/W	EACH WAY
(EX)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
FDN	FOUNDATION
FFE	FINISHED FLOOR ELEVATION
FIN	FINISH
FTG	FOOTING
(FV)	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZE
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GLU-LAM	GLUE LAMINATED WOOD
GT	GIRDER TRUSS
HC	HOLLOW CORE
	HOOK
HSA	HEADED STUD ANCHOR
поо шуло	
ח	
ט	
IT	
JST	JOIST
.IBF	IOIST BEARING ELEVATION
K	
	KIPS PER LINEAR FOOT
KSI	KIPS PER SOUARF INCH
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LL	LIVE LOAD
LB	LEDGER BEAM
LBS	POUNDS (WEIGHT)
	LONG LEG HORIZONTAL
MAS	MASONRY
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MFG	MANUFACTURER
MIN	
MTL	METAL
MO	MASONRY OPENING
NS	NON-SHRINK
NIS	NOT TO SCALE
	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
	OVERHEAD
PAF	POWDER ACTUATED
FASTENER	
P/C	PRECAST CONCRETE
	POUNDS PER LINEAR FOOT
	POUNDS PER SOLIARE INCH
PW	PLYWOOD
QTY	QUANTITY
R, RAD	RADIUS
	REINFORCE WITH
SCHED	SCHEDULE
SD	SEE DETAIL
SER	STRUCTURAL ENGINEER
פוחו	
SHT	SHEET
SIM	SIMILAR
SILL	SUPERIMPOSED LIVE LOAD
SOG	SLAB ON GRADE
SPA	SPACING / SPACES
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
SYM	
T&G	TONGUE & GROOVE
TBE	TRUSS BEARING ELEVATION
TEMP	TEMPORARY
THK	THICK / THICKENED
TOB	TOP OF BEAM
TOF	TOP OF FOOTING
TOJ	TOP OF JOIST
10W	
TRANS	TRANSVERSE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
(V), (VER)	
	WITH
WD	WOOD
W/O	WITHOUT
WP	WORK POINT
₩₩ 8	
α	
4	
<u>س</u>	AT (* TU * OFAUING) CENTEDI NE
Ψ, UL	
Ø, DIA	DIAMETER
•	ELEVATION
ė	PLATE
±	PLUS OR MINUS
#	
ці, SQ	SQUARE

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TURTLE MOUNTAIN COMMUNICATIONS **NEW BUILDING**

BOTTINEAU. NORTH DAKOTA

STRUCTURAL

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MECHANICAL

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	PROFESSIONAL 3986 <i>ENGINEER</i> <i>VORTH DAKOTH</i> 01/15/2025)
RA۱	WING HISTORY	
10.	DESCRIPTION CONSTRUCTION DOCUMENTS	DATE 01/15/2025
AW	N BY: TO/AF	JN: 24-05

Structural Notes

COLD FORMED METAL FRAMING NOTES:

- 1. COLD FORMED STEEL CONSTRUCTION SHALL CONFORM TO THE FOLLOWING STANDARDS:
- SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER. DRAWINGS
- SUBJECT TO PRIOR APPROVAL BY THE ARCHITECT.
- 7. DESIGN CRITERIA: MATERIALS:
 - ASTM STANDARDS:

- LOCATIONS ON JOISTS.

AMERICAN IRON & STEEL INSTITUTE (AISI) - "SPECIFICATION FOR THE DESIGN OF

- COLD FORMED STRUCTURAL MEMBERS" ASTM C-955 - "STANDARD SPECIFICATION FOR LOAD BEARING STEEL STUDS, TRACKS, & BRIDGING." ASTM C-1007 - "STANDARD SPECIFICATION FOR INSTALLATION OF LOAD BEARING STEEL STUDS & RELATED ACCESSORIES"
- 2. COLD FORMED METAL FRAMING SHALL BE DESIGNED TO SUPPORT THE SUPERIMPOSED LOADS AS INDICATED ON THE CONTRACT DOCUMENTS FOR THE SPAN CONDITIONS INDICATED. DESIGNS SHALL BE IN ACCORDANCE WITH THE AISI, UNDER THE
- 3. COLD FORMED METAL FRAMING SUPPLIER SHALL DESIGN AND SUPPLY ALL CONNECTIONS BETWEEN COLD FORMED METAL FRAMING AND OTHER COLD FORMED METAL FRAMING MEMBERS, BUILDING FOUNDATIONS, SHEAR WALLS AND OTHER STRUCTURAL MEMBERS DESIGNED BY THE SEOR, UON. COLD FORMED METAL FRAMING SUPPLIER TO SHOW FIELD ANCHORAGE REQUIREMENTS ON SUBMITTED SHOP
- 4. COLD FORMED METAL FRAMING MEMBERS HAVE BEEN INDICATED ON THE DRAWINGS BY GENERAL SIZE AND DEPTH. THE STRUCTURAL ANALYSIS AND DESIGN OF THESE ITEMS SHALL BE PERFORMED BY THE COLD FORMED METAL FRAMING SUPPLIER.
- A. DESIGN DEVIATIONS MUST BE SUBMITTED TO THE ARCHITECT / SEOR FOR REVIEW PRIOR TO THE SUBMISSION OF STAMPED APPROVAL DRAWINGS & CALCULATIONS. B. DESIGN DEVIATIONS MUST PRODUCE AN INSTALLATION EQUIVALENT TO THE BASIC INTENT WITHOUT INCURRING ADDITIONAL COSTS TO THE OWNER C. ALL REQUIRED MATERIALS SHALL BE SUITABLE FOR THE PURPOSE INTENDED AND
- 5. STRUCTURAL FRAMING MEMBERS SHALL CONFORM TO ASTM C955 & HAVE ENGINEERING PROPERTIES CALCULATED IN CONFORMANCE WITH AISI "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS".
- 6. HEADERS AT OPENINGS THROUGH JOISTS, RAFTERS & WALLS SHALL BE DESIGNED AND SUPPLIED BY THE COLD FORMED METAL SUPPLIER. MEMBERS ADJACENT TO THE OPENINGS SHALL BE DESIGNED FOR THE ADDITIONAL LOAD AT EACH LOCATION.
 - EXTERIOR BEARING / CURTAIN WALLS:
 - DESIGN LOADS: SEE "DESIGN LOADS" UNDER GENERAL CONSTRUCTION NOTES. DEFLECTION: L/360 W/O BRICK
 - YIELD STRENGTH (Fy): 33 ksi - ALL DESIGN THICKNESSES UON 50 ksi - 16GA AND HEAVIER (AS REQUIRED BY DESIGN)
 - PROTECTION COATING: G-60 GALVANIZED FINISH MINIMUM
 - A653, A875, A792 OR A463
- 9. WELDED CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE LATEST RECOMMENDATION OF:
 - AISI AMERICAN IRON AND STEEL INSTITUTE AWS - AMERICAN WELDING SOCIETY
- 10. TOUCH UP ALL WELDS WITH ZINC-RICH PAINT (ASTM A780). APPLY TO BOTH SIDES OF
- 11. TRACKS SHALL BE INSTALLED AT THE TOPS AND BOTTOMS OF ALL VERTICAL STUDS AND SHALL BE THE SAME GAUGE AS THE WALL STUDS UON. SEE DETAIL 2 /S502 FOR SPLICE AND 1 /S502 FOR STUD CONNECTIONS.
- 12. WALL STUDS SHALL BE BRACED WITH A COLD ROLLED CHANNEL (CRC) RUN HORIZONTALLY THROUGH THE STUD PUNCH OUTS AND ATTACHED AT EACH STUD. AT SPLICES, OVERLAP THE CHANNEL BY 6". VERTICAL SPACING OF CHANNELS SHALL NOT EXCEED 4'-0" O.C., SEE DETAIL 5 /S502
- 13. NO NOTCHING OF STUDS, JOISTS, BEAMS OR TRUSS MEMBERS IS PERMITTED WITHOUT THE ENGINEERS APPROVAL. NO SPLICES IN STUDS, JOISTS, HEADERS, OR OTHER LOAD CARRYING MEMBERS MAY BE MADE WITHOUT THE ENGINEERS APPROVAL.
- 14. WEB PUNCH OUTS ON TYP STUDS AND JAMB ASSEMBLIES MUST BE LOCATED A MINIMUM OF 1'-0" FROM ATTACHMENT TO BOTTOM TRACK OR ATTACHMENT AT ROOF OR FLOOR LEVELS. WEB PUNCH OUTS MUST BE LOCATED A MINIMUM 1'-0" CLEAR FROM BEARING
- 15. COLD FORMED FRAMING KEY:

VERTICAL STRUCTURAL PANEL SHEATHING NOTES (COLD FORMED METAL FRAMING):

GENERAL:

- 1. FASTENERS SHALL NOT BE LOCATED LESS THAN 3/8" IN FROM THE EDGE OF THE PANEL.
- 2. FASTENERS SHALL BE DRIVEN FLUSH WITH SURFACE OF SHEATHING. 3. SCREWS SHALL BE OF SUFFICIENT LENGTH TO ENSURE PENETRATION INTO THE COLD
- FORMED METAL FRAMING MEMBER BY AT LEAST THREE EXPOSED THREADS.
- 4. STUDS SHALL BE A MINIMUM 1 5/8" x 3 1/2" WITH A 3/8" RETURN LIP. TRACK SHALL BE A MINIMUM 1 1/4" x 3 1/2".
- 5. FRAMING MEMBERS SHALL BE A MINIMUM UNCOATED BASE METAL THICKNESS OF 0.033 INCH (20 GAUGE) AND SHALL BE ASTM A 653, 792, OR 875 SS GRADE 33 (U.O.N.).
- 6. FRAMING FASTENERS SHALL BE A MINIMUM #8 x 5/8" WAFER HEAD SELF DRILLING IN ACCORDANCE WITH ASTM C1513 7. NO PANEL LESS THAN 1'-0" WIDE SHALL BE USED.
- 8. ALL PANEL EDGES SHALL BE FULLY BLOCKED. WHERE HORIZONTAL STRAP BLOCKING IS USED, IT SHALL BE A MINIMUM 1 1/2" WIDE & OF THE SAME MATERIAL & THICKNESS AS THE TRACK & STUDS.
- 9. PANEL EDGES SHALL BUTT ALONG THE CENTERLINE OF FRAMING MEMBERS.
- 10. FRAMING SHALL BE MAXIMUM 2'-0" O.C. UNLESS SPECIFIC NOTES AND / OR DETAILS ARE MORE STRICT. 11. FASTENING REQUIREMENTS SHOWN ON PLAN & SCHEDULE SHALL APPLY TO ALL STUDS,
- TOP & BOTTOM TRACKS, & BLOCKING (WHEN REQUIRED). 12. CONTRACTORS TO PROVIDE DIAGONAL BRACING AT STUD WALLS TO PREVENT RACKING DURING CONSTRUCTION.
- **GYPSUM BOARD/FIBERGLASS MAT GYPSUM SHEATHING:**
- 1. GYPSUM BOARD SHALL CONFORM TO ASTM C1396 AND SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C840. FIBERGLASS MAT GYPSUM SHEATHING SHALL CONFORM TO ASTM C1177 AND SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C1280 - INTERIOR SHEATHING SHALL BE 5/8" GYPSUM BOARD UON. - EXTERIOR SHEATHING SHALL BE 5/8" GLASS-MAT GYPSUM SHEATHING UON.
- 2. <u>UNLESS OTHERWISE NOTED ON THE PLAN AND/OR SHEAR WALL SCHEDULE:</u> SPACE - SPACE FASTENERS @ 7" O.C. AT SUPPORTED PANEL EDGES AND FIELD OF PANEL.
- 3. FASTENERS SHALL BE #6 (MINIMUM) DRYWALL SCREWS IN ACCORDANCE WITH ASTM C954 OR ASTM C1002
- 4. SOLID STUD BLOCKING REQUIRED BEHIND THE HORIZONTAL JOINT BETWEEN THE FIRST TWO END STUDS.
- 5. END JOINTS OF ADJACENT COURSES OF GYPSUM BOARD SHEETS SHALL NOT OCCUR OVER THE SAME STUD.
- <u>GYPSUM BOARD SHEATHING</u> - PANELS MUST BE APPLIED PERPENDICULAR TO STUDS. GLASS-MAT GYPSUM SHEATHING: - PANELS MUST BE APPLIED VERTICALLY

POST-INSTALLED ANCHOR NOTES:

- 1. POST-INSTALLED ANCHORS NOTED ON PLANS AND / OR DETAILS SHALL BE AS FOLLOWS (U.O.N.). IF ALTERNATIVE ANCHORS ARE DESIRED, CONTRACTOR MUST SUBMIT PRODUCT DATA FOR APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING OF MATERIALS.
- A. <u>SCREW ANCHORS:</u> HILTI KWIK HUS-EZ.
- B. EXPANSION ANCHORS: HILTI KWIK BOLT-TZ.
- C. <u>ADHESIVE ANCHORS (CONCRETE)</u>: HILTI HIT-HY 200 ADHESIVE (OR HILTI HIT-ICE ADHESIVE FOR COLD WEATHER APPLICATION). THREADED RODS TO BE ASTM 193, GRADE B7 WITH EMBEDDED END CUT AT 45°.
- D. ADHESIVE ANCHORS (MASONRY): HILTI HIT-HY 70 MASONRY ADHESIVE. THREADED RODS TO BE ASTM 193, GRADE B7 WITH EMBEDDED END CUT AT 45°. PROVIDE APPROPRIATE SIZE/LENGTH SCREEN TUBE FOR PROPER ANCHORAGE IN HOLLOW MASONRY
- 2. ANCHORS USED TO TRANSFER STRUCTURAL LOADS SHALL BE APPROVED BY METHODS OF ACI 318 APPENDIX D (MECHANICAL ANCHORS) OR ICC-ES AC308 (ADHESIVE AND TORQUE-CONTROLLED ANCHORS).
- 3. ADHESIVE USED IN COLD WEATHER MUST MEET ALL WEATHER AND CODE REQUIREMENTS. CONTRACTOR IS TO PROVIDE HEAT AS REQUIRED TO MAINTAIN MINIMUM REQUIRED CONCRETE BASE MATERIAL TEMPERATURE PER MANUFACTURER'S RECOMMENDATIONS DURING ADHESIVE CURING.
- 4. ALL ANCHORS (AND ADHESIVE, WHERE SPECIFIED) SHALL BE INSTALLED IN STRUCTURAL CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS. ANCHOR HOLE SIZE AND DEPTH SHALL BE DRILLED AND CLEANED PER MANUFACTURER'S SPECIFICATIONS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING STEEL.
- 5. EMBEDMENT DEPTH OF ANCHORS SHALL BE AS INDICATED ON DRAWINGS AND MUST MEET MINIMUM EMBEDMENT REQUIREMENTS OF MANUFACTURER.
- 6. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACE CAST-IN-PLACE ANCHORS.

METAL BUILDING NOTES

- 1. METAL BUILDING CONSTRUCTION & DESIGN SHALL CONFORM TO THE FOLLOWING: MBMA - LOW RISE BUILDING SYSTEMS MANUAL, LATEST EDITION. AISI - SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, LATEST EDITION. AISC - MANUAL OF STEEL CONSTRUCTION, LATEST ADDITION W/ LATEST AMENDMENTS.
- 2. WELDED CONNECTIONS SHALL BE MADE IN ACCORDANCE W/ THE LATEST RECOMMENDATIONS OF:
 - AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION AWS - AMERICAN WELDING SOCIETY
- 3. BEAMS AND COLUMNS SHALL BE ERECTED TRUE AND PLUMB WITHIN AISC TOLERANCE. PROVIDE TEMPORARY BRACING AS REQUIRED.
- 4. THE BUILDING SHALL INCLUDE ALL PRIMARY AND SECONDARY STRUCTURAL FRAMING MEMBERS, CONNECTION BOLTS, AND OTHER MISCELLANEOUS ITEMS AS SHOWN OR CALLED FOR ON THE DRAWINGS.
- A. PRIMARY FRAMING SHALL CONSIST OF TRANSVERSE RIGID FRAMES OF RAFTERS AND COLUMNS WITH SOLID WEBS. THE RIGID FRAME SHALL BE FABRICATED OF SHOP-WELDED STEEL PLATE AND DESIGNED FOR ERECTION BY FIELD BOLTING. FRAMES SHALL BE:
- a. CLEAR SPAN b. GABLED / MONOSLOPED c. WITH TAPERED DEPTH EXTERIOR COLUMNS.
- B. SECONDARY FRAMING SHALL CONSIST OF PURLINS, GIRTS, EAVE STRUTS, FLANGE BRACES AND SAG ANGLES AS REQUIRED BY DESIGN. C. HORIZONTAL LOADS NOT RESISTED BY MAIN FRAME ACTION SHALL BE RESISTED BY PANEL DIAPHRAGM, STANDARD CABLE OR ROD X-BRACING, RIGID PORTAL FRAMES, OR SHEAR WALL BY OTHERS IN THE ENDWALLS.
- 5. DESIGN PRIMARY AND SECONDARY STRUCTURAL MEMBERS FOR APPLICABLE LOAD PRESCRIBED IN THE GENERAL STRUCTURAL NOTES ON SHEET S001 AND COMBINATIONS OF LOADS IN ACCORDANCE WITH THE BUILDING CODE REQUESTED. DESIGN LOADS SHALL BE COMBINED TO PRODUCE MAXIMUM STRESSES WITHIN THE STRUCTURE IN ACCORDANCE WITH AISC AND/OR AISI AS THEY APPLY
- 6. THE BUILDING COMPONENTS SHALL BE DESIGNED TO THE MINIMUM DEFLECTION REQUIREMENTS, INDICATED IN THE PROJECT SPECIFICATIONS, UNLESS A SPECIFIC DEFLECTION IS REQUIRED BY THE BUILDING CODE.
- 7. ERECTION DRAWINGS SHALL INCLUDE THE FOLLOWING:
 - ANCHOR BOLT SETTING PLAN, BASE PLATE DETAILS AND COLUMN REACTIONS . ROOF FRAMING PLAN WALL FRAMING ELEVATIONS
 - TRANSVERSE CROSS SECTIONS PANEL LAYOUT
 - EXACT LOCATION OF FACTORY LOCATED OPENINGS G. APPROXIMATE LOCATION OF FIELD LOCATED OPENINGS
 - H. FRAMING DETAILS L FLASHING DETAILS J. ACCESSORY DETAILS
- 8. DESIGN CALCULATIONS, STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE BUILDING WILL BE ERECTED, SHALL INCLUDE THE FOLLOWING: A. STRESS ANALYSIS
- B. DEFLECTION ANALYSIS . FOUNDATION LOADS FOR EACH LOADING CASE
- 9. A LETTER OF CERTIFICATION, PREPARED AND SIGNED BY A PROFESSIONAL ENGINEER, VERIFYING THAT BUILDING DESIGN MEETS INDICATED LOADING REQUIREMENTS AND BUILDING CODE AS REQUESTED, SHALL BE PROVIDED.
- 10. THE COMPANY MANUFACTURING THE PRODUCTS SPECIFIED IN THIS SECTION SHALL: A. BE A MEMBER OF MBMA
- B. BE IAS AC472 CERTIFIED
- 11. FIELD CONNECTIONS SHALL BE BOLTED WITH HIGH STRENGTH BOLTS AND NUTS. 12. PRIMARY STRUCTURAL MEMBERS SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. THE PRIMARY STRUCTURAL MEMBERS SHALL BE RIGID FRAMING MANUFACTURED OF SOLID WEB MEMBERS HAVING TAPERED OR UNIFORM DEPTH RAFTERS RIGIDLY CONNECTED TO TAPERED OR UNIFORM DEPTH COLUMNS.
- B STEEL USED TO FABRICATE BUILT UP FRAMING MEMBERS SHALL BE 55 000 PSI MINIMUM YIELD POINT MATERIAL AND SHALL CONFORM TO THE PHYSICAL CHARACTERISTICS OF ASTM A607, ASTM A570, ASTM A572 OR ASTM A529, GRADE 55. C. STEEL USED FOR INTERIOR PIPE COLUMNS, IF REQUIRED, SHALL BE 35,000 PSI
- MINIMUM YIELD POINT MATERIAL. 13. SECONDARY STRUCTURAL MEMBERS SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. SECONDARY STRUCTURAL FRAMING SHALL DISTRIBUTE THE LOADS TO THE PRIMARY STRUCTURAL SYSTEM AND SHALL INCLUDE ENDWALL COLUMNS AND RAFTERS, PURLINS, GIRTS, EAVE STRUTS, BASE SUPPORT, HEADERS, JAMBS, FLANGE BRACING, CLIPS, AND OTHER MISCELLANEOUS STRUCTURAL FRAMING. B. STEEL USED FOR COLD FORMED MEMBERS SHALL BE 55,000 PSI MINIMUM YIELD POINT MATERIAL AND SHALL CONFORM TO THE PHYSICAL CHARACTERISTICS OF
- ASTM A570 OR ASTM A607 GRADE 55. C. COLD-FORMED SECTIONS SHALL BE MANUFACTURED BY PRECISION ROLL OR BRAKE FORMING. ALL DIMENSIONS SHALL BE TRUE, AND THE FORMED MEMBER SHALL BE
- FREE OF FLUTING. BUCKLING OR WAVINESS. D. ENDWALL RAFTERS SHALL BE MANUFACTURED FROM BUILT-UP SECTIONS OF
- ADEQUATE SIZE AND THICKNESS AS DETERMINED BY THE DESIGN CRITERIA. E. ENDWALL COLUMNS SHALL CONSIST OF BUILT-UP SECTIONS OR COLD FORMED "C" SECTIONS OF ADEQUATE SIZE AND THICKNESS AS DETERMINED BY THE DESIGN
- CRITERIA F. PURLINS AND GIRTS SHALL BE PRECISION ROLL-FORMED "Z" SECTIONS OF ADEQUATE SIZE AND THICKNESS AS DETERMINED BY THE DESIGN CRITERIA, MINIMUM 16 GAUGE. PURLINS AND GIRTS SHALL BE EITHER SIMPLE SPAN OR CONTINUOUS SPAN MEMBERS.
- G. EAVE STRUTS SHALL BE PRECISION ROLL-FORMED AND/OR PRESS BROKE "C" SECTIONS, MINIMUM 14 GAUGE. THE UPPER FLANGE SHALL SLOPE WITH THE NORMAL ROOF SLOPE, AND THE WEB SHALL BE VERTICAL AND FREE TO RECEIVE THE SIDEWALL COVERING.
- H. BASE SUPPORT SHALL CONSIST OF A CONTINUOUS BASE ANGLE, BASE "C", OR PANEL EDGE TO WHICH THE BASE OF THE WALL COVERING SHALL BE ATTACHED. THE BASE SUPPORT SHALL BE SECURELY FASTENED INTO THE CONCRETE BY THE ERECTOR.
- HEADERS AND JAMBS SHALL BE PRECISION ROLL-FORMED "C" SECTIONS OF THE SAME DEPTH AS THE GIRTS. J. FLANGE BRACING SHALL CONSIST OF ANGLE OR TUBE MEMBERS CONNECTED TO
- THE WEB OF THE PURLIN OR GIRT AND TO THE COMPRESSION FLANGE OF THE PRIMARY STRUCTURAL MEMBER.
- K. CLIPS SHALL BE FABRICATED FROM 55,000 PSI MINIMUM YIELD POINT MATERIAL AND BE FACTORY PUNCHED FOR FIELD BOLTED CONNECTIONS.
- 14. BRACING SHALL MEET THE FOLLOWING REQUIREMENTS: A. HORIZONTAL LOAD RESISTING BRACING SHALL BE ACCOMPLISHED BY DIAGONAL
- CABLE BRACING, ROD BRACING, PORTAL FRAMES, AND/OR DIAPHRAGM ACTION OF THE ROOF AND WALL COVERING. B. ALL CABLES FOR DIAGONAL BRACING SHALL BE FABRICATED FROM EXTRA HIGH
- STRENGTH GRADE-7 WIRE CLASS A COATING. LEFT HAND LAY. GALVANIZED STEEL STRAND, CONFORMING TO THE PROVISIONS OF ASTM A475. ADJUSTMENT SHALL BE PROVIDED BY AN EYEBOLT ASSEMBLY.
- C. ROD BRACING SHALL BE FABRICATED FROM MINIMUM 1/2"Ø STEEL ROD CONFORMING TO THE PROVISIONS OF ASTM A36.
- D. PORTAL FRAMES SHALL BE FABRICATED OF BUILT-UP SECTIONS AND CONFORM TO THE SAME SPECIFICATIONS AS PRIMARY FRAMING

15. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE METAL BUILDING MANUFACTURER AND/OR THE PROJECT ENGINEER OF RECORD.

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DRAWING HISTORY NO. DESCRIPTION CONSTRUCTION DOCUMENTS

DATE 01/15/2025

JN: 24-054

DRAWN BY: TO/AF

Structural Notes

COLUMN SCHEDULE

MADK		BAS			DETAIL
IVIARA	COLUMIN SIZE	THICKNESS	DETAIL	ANCHOR BOLIS	DETAIL
C1	HSS 4 x 4 x 1/4"	3/4"	1/S302	(4) 3/4" DIA	1/S302
C2	HSS 5 x 5 x 1/4"	3/4"	1/S302	(4) 3/4" DIA	1/S302

PIER SCHEDULE

MARK	SIZE	REINFORCING	DETAIL
P1	18" x 24"	(8) #6 W/ #3 TIES @ 1' - 0" O.C.	2/S302
P2	20" x 24"	(8) #6 W/ #3 TIES @ 1' - 0" O.C.	2/S302
P3	16" x 24"	(6) #6 W/ #3 TIES @ 1' - 0" O.C.	3/S302
P4	18" x 18"	(8) #6 W/ #3 TIES @ 1' - 0" O.C.	4/S302
P5	16" x 16"	(6) #6 W/ #3 TIES @ 1' - 0" O.C.	5/S302
P6	16" x 16"	(4) #7 W/ #3 TIES @ 1' - 0" O.C.	5/S302
P7	16" x 16"	(6) #6 W/ #3 TIES @ 1' - 0" O.C.	5/S302
P8	16" x 16"	(6) #6 W/ #3 TIES @ 1' - 0" O.C.	5/S302
P9	16" x 16"	(4) #7 W/ #3 TIES @ 1' - 0" O.C.	5/S302
P10	16" x 16"	(4) #7 W/ #3 TIES @ 1' - 0" O.C.	5/S302
P11	16" x 16"	(6) #6 W/ #3 TIES @ 1' - 0" O.C.	6/S302
P12	16" x 16"	(6) #6 W/ #3 TIES @ 1' - 0" O.C.	6/S302

COLUMN / PAD FOOTING SCHEDULE

			CIZE	DEDTU	BOT REIN	FORCING	TOP REIN	FORCING	
MARK	SIZE	DEPTH	TRANS	LONG	TRANS	LONG	REIMARNS		
F3-6	3' - 6" SQ	1' - 0"	(4) #4	(4) #4	-	-			
F4	4' - 0" SQ	1' - 0"	(4) #5	(4) #5	-	-			
F4-6	4' - 6" SQ	1' - 0"	(4) #5	(4) #5	-	-			
F5	5' - 0" SQ	1' - 0"	(5) #5	(5) #5	-	-			
F6	6' - 0" SQ	1' - 2"	(6) #5	(6) #5	-	-			
F7	7' - 0" SQ	1' - 4"	(7) #6	(7) #6	-	-			

WALL / STRIP FOOTING SCHEDULE

MADK	OIZE	DEDTU	BOT REIN	FORCING	TOP REIN	IFORCING	DEMARKS
WIARN	SIZE	DEFIN	TRANS	LONG	TRANS	LONG	REWARNS
CF1-8	1' - 8"	1' - 0"	-	(2) #5	-	-	@ STOOPS
CF2	2' - 0"	1' - 0"	#4 @ 6' - 0"	(2) #5	-	-	
CF2-6	2' - 6"	1' - 0"	#4 @ 6' - 0"	(3) #5	-	-	

METAL DECKING SCHEDULE

MARK DECK THICKNESS TYPE DECK GAUGE DECK SPAN MINIMUM WELD SIZE FASTENING PATTERN SIDE LAP FASTENING DETAIL MD1 1.1/2" B 22 3 5/8" DIA 36/4 (2) #10 9/5501		DECK		DECK			ATTACHMENT		
MD1 11/2" B 22 3 5/8" DIA 36/4 (2) #10 9/S501	MARK	THICKNESS	TYPE	PE GAUGE	MINIMUM	WELD SIZE	FASTENING PATTERN	SIDE LAP FASTENING	DETAIL
	MD1	1 1/2"	В	22	3	5/8" DIA	36/4	(2) #10	9/S501

ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE WWW.ICONARCHITECTS.COM

TURTLE MOUNTAIN COMMUNICATIONS **NEW BUILDING**

BOTTINEAU, NORTH DAKOTA

STRUCTURAL

ICON ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE

MECHANICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

ELECTRICAL

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CIVIL

PROFESSIONAL 3986 ENGINEER 10RTH DAKOT 01/15/2025	-
DRAWING HISTORY	
NO. DESCRIPTION	DATE
CONSTRUCTION DOCUMENTS	01/15/2025
RAWN BY: TO/AF	JN: 24-054
Schedule Sheet	

SPECIAL INSPECTIONS AND TESTING:

THIS PROJECT REQUIRES SPECIAL INSPECTION AND TESTING IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE, 2018 EDITION. THESE NOTES AND THE STATEMENT OF SPECIAL INSPECTIONS PREPARED FOR THE PROJECT OWNER ARE INTENDED TO INFORM THE CONTRACTOR OF THE QUALITY ASSURANCE PROGRAM AND THE EXTENT OF THE CONTRACTOR'S RESPONSIBILITIES. CONTRACTOR SHALL REFERENCE PROJECT MANUAL FOR ADDITIONAL INFORMATION. THE TESTING AND INSPECTION SERVICES SECTION WILL CLARIFY WHO SHALL EMPLOY AND PAY FOR SERVICES OF AN INDEPENDENT TESTING AGENCY TO PERFORM ALL INSPECTIONS, SPECIAL INSPECTIONS, AND TESTING FOR PROJECT.

GENERAL NOTES:

- 1. THE SPECIAL INSPECTION AND TESTING PROGRAM IS A QUALITY ASSURANCE PROGRAM INTENDED TO ENSURE THAT THE WORK IS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 2. THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITY TO COMPLY WITH THE OFFICIAL CONTRACT DOCUMENTS. THE CONTRACTOR HAS THE SOLE RESPONSIBILITY FOR ANY DEVIATIONS FROM THE OFFICIAL CONTRACT DRAWINGS. THE SPECIAL INSPECTOR DOES NOT REPLACE THE DUTIES OF THE BUILDING OFFICIAL NOR THE QUALITY CONTROL RESPONSIBILITIES AND PERSONNEL OF THE CONTRACTOR. JOB SITE SAFETY AND MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN THE IBC SECTION 110 AND SPECIFIC STRUCTURAL OBSERVATION AS MAY BE REQUIRED BY THE CODE. PERIODIC STRUCTURAL OBSERVATION BY THE SEOR IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. A LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE, CONTINUOUS, OR MEETING THE SPECIAL INSPECTIONS OBLIGATIONS.
- 4. THOUGH NOT REQUIRED BY CODE, SPECIAL INSPECTORS AND/OR INSPECTION AGENCIES CAN DOCUMENT ACCEPTANCE OF THEIR RESPONSIBILITIES AND SCOPE OF WORK FOR A PROJECT BY SIGNING AN AGREEMENT THAT INCLUDES A DETAILED SCHEDULE OF SERVICES, COMMONLY KNOWN AS THE SPECIAL INSPECTION AND TESTING AGREEMENT AND THE SPECIAL INSPECTION AND TESTING SCHEDULE. THIS DOCUMENT MAY REFERENCE THIS SHEET AS THE "STATEMENT OF SPECIAL INSPECTIONS," (SSI).
- 5. THE STRUCTURAL DESIGN METHODS AND/OR ASSUMPTIONS UTILIZED ARE BASED UPON THE SPECIAL INSPECTIONS REQUIRED WITHIN THE CONTRACT DOCUMENTS.

CONTRACTOR RESPONSIBILITIES AND DUTIES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PROVIDING ADEQUATE NOTICE TO THE SPECIAL INSPECTORS FOR ALL INSPECTIONS. THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE REQUIRED ITEMS PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF WORK.
- 2. THE CONTRACTOR SHALL PROVIDE THE SPECIAL INSPECTOR ACCESS TO THE APPROVED CONTRACT DOCUMENTS. THESE DOCUMENTS INCLUDE SEALED DRAWINGS AND SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SHOP DRAWINGS, ISSUED SKETCHES AND REVISION DRAWINGS, AND ALL DIRECTIVES ISSUED BY THE ARCHITECT/ENGINEER. THIS CURRENT SET OF DOCUMENTS SHALL BE AVAILABLE AT THE JOB SITE.
- 3. THE CONTRACTOR IS TO CORRECT DISCREPANCIES AND DEVIATIONS AS DETERMINED BY SPECIAL INSPECTOR. ALL DISCREPANCIES AND DEVIATIONS OBSERVED SHALL BE RE-INSPECTED UNTIL THE SPECIAL INSPECTOR DEEMS CONSTRUCTION TO BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 4. THE CONTRACTOR IS TO RETAIN SPECIAL INSPECTION RECORDS COMPLETED BY THE SPECIAL INSPECTORS AT THE JOB SITE.
- SPECIAL INSPECTOR QUALIFICATIONS AND RESPONSIBILITIES: 1. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- 2. SPECIAL INSPECTORS SHALL NOTIFY CONTRACTOR PERSONNEL OF THEIR PRESENCE AND RESPONSIBILITIES AT THE JOBSITE.
- 3. THE SPECIAL INSPECTOR/TESTING AGENCY SHALL BE INDEPENDENT OF THE CONTRACTOR TO AVOID CONFLICT OF INTEREST.
- 4. THE SPECIAL INSPECTOR IS OBLIGATED TO BOTH THE OWNER AND THE BUILDING OFFICIAL FOR OBSERVING THAT THE WORK IS EXECUTED IN ACCORDANCE WITH THE OFFICIAL CONTRACT DOCUMENTS. THESE DOCUMENTS INCLUDE SEALED DRAWINGS AND SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SHOP DRAWINGS, ISSUED SKETCHES AND REVISION DRAWINGS, AND ALL DIRECTIVES ISSUED BY THE ARCHITECT/ENGINEER.
- 5. SPECIAL INSPECTORS SHALL KEEP ORGANIZED RECORDS OF INSPECTIONS AND SUBMIT INSPECTION REPORTS WITH A MINIMUM WEEKLY FREQUENCY TO THE CONTRACTOR, BUILDING OFFICIAL, ENGINEERS, AND ARCHITECTS INDIVIDUALLY. REPORTS SHOULD INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION TO THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THEY SHOULD BE REPORTED TO THE BUILDING OFFICIAL AND TO THE ENGINEER OF RECORD.
- 6. A FINAL SIGNED REPORT IS TO BE SUBMITTED AT THE END OF THE PROJECT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES. THIS REPORT SHOULD STATE THAT ALL ITEMS REQUIRING SPECIAL INSPECTION AND TESTING WERE FULFILLED AND REPORTED TO THE BEST OF THEIR KNOWLEDGE IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS, AND THE APPLICABLE PROVISIONS OF THE IBC. ITEMS NOT IN CONFORMANCE, UNRESOLVED ITEMS, OR ANY DISCREPANCIES IN INSPECTION COVERAGE SHOULD BE SPECIFICALLY ITEMIZED.
- 7. THE FOLLOWING ARE THE QUALIFICATIONS FOR FOR INDIVIDUALS PERFORMING SPECIFIC INSPECTIONS OR TESTS INCLUDING IN THIS PROJECT'S SSI.
- A. AMERICAN CONCRETE INSTITUTE (ACI) CERTIFICATION: CONCRETE CONSTRUCTION SPECIAL INSPECTOR - ACI-CCSI FIELD TESTING TECHNICIAN - GRADE 1 - ACI-FTT LABORATORY TESTING TECHNICIAN - LEVEL 1 OR 2 - ACI-I TT STRENGTH TESTING TECHNICIAN - ACI-STT
- B. AMERICAN WELDING SOCIETY (AWS) CERTIFICATION: - AWS-CWI CERTIFIED WELDING INSPECTOR
- AWS/AISC-SSI CERTIFIED STRUCTURAL STEEL INSPECTION
- C. AMERICAN SOCIETY OF NON-DESTRUCTIVE TESTING (ASNT) CERTIFICATION: - ASNT NON-DESTRUCTIVE TESTING TECHNICIAN - LEVEL II OR III

INTERNATIONAL	CODE COUNCIL (ICC) CERTIFICATION:
- ICC-CBI	COMMERCIAL BUILDING INSPECTOR
- ICC-SMSI	STRUCTURAL MASONRY SPECIAL INSPECTOR
- ICC-SSSI	STRUCTURAL STEEL AND BOLTING SPECIAL INSPECTOR
- ICC-SWI	STRUCTURAL WELDING SPECIAL INSPECTOR

- 100-3001	STRUCTURAL WELDING SPECIAL INSPECTOR
- ICC-PCSI	PRESTRESSED CONCRETE SPECIAL INSPECTOR
- ICC-RCSI	REINFORCED CONCRETE SPECIAL INSPECTOR
- ICC-SSI	SOILS SPECIAL INSPECTOR

- E. PROFESSIONAL STATE LICENSING:
- PE-STRUCT STRUCTURAL ENGINEER: LICENSED PE OR SE SPECIALIZING IN THE DESIGN OF BUILDINGS AND STRUCTURES - PE-GEOTECH GEOTECHNICAL ENGINEER: LICENSED PE SPECIALIZING IN SOIL MECHANICS AND FOUNDATIONS ENGINEER-IN-TRAINING: GRADUATE ENGINEER WHO HAS PASSED - EIT
- THE FUNDAMENTALS OF ENGINEERING EXAMINATION
- STATEMENT OF SPECIAL INSPECTIONS (SSI):

1. THE FOLLOWING TABLES INDICATE THE MINIMUM SPECIFIC SPECIAL INSPECTION AND TESTING TO BE PERFORMED ON THIS PROJECT AND THE QUALIFICATIONS OF THE INDIVIDUAL INSPECTORS AND TESTING TECHNICIANS.

DEFINITIONS:

- 1. <u>CONTINUOUS SPECIAL INSPECTION</u>: THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. 100% OF THE WORK MUST BE INSPECTED AND IT MUST BE INSPECTED AS THE WORK IS BEING PERFORMED.
- 2. <u>PERIODIC SPECIAL INSPECTION</u>: THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN, OR IS BEING, PERFORMED AND AT
- THE COMPLETION OF WORK.
- <u>YES</u>: THIS INSPECTION AND/OR TESTING IS REQUIRED BY THE BUILDING CODE AND MUST BE PERFORMED.
- 4. <u>NO:</u> THIS INSPECTION AND/OR TESTING IS NOT APPLICABLE TO THE PROJECT, AND NEED NOT BE PERFORMED.
- 5. <u>SUGGESTED</u>: THIS INSPECTION AND/OR TESTING IS NOT REQUIRED BY THE BUILDING CODE. HOWEVER, THE ENGINEER OF RECORD RECOMMENDS IMPLEMENTING THEM FOR QUALITY ASSURANCE. A POTENTIAL EXISTS FOR THESE MEASURES TO BE A VALUE ADDED SERVICE FOR THE OWNER TO ENSURE PROPER PROJECT COMPLETION.

SOILS (REF IBC SECTION 1705.6, 1803)								
		INSPECTION						
	AGENCY	REFERENCE	FREQ	UENCY	COMMENTS	REQD		
	QUALIFICATION	STANDARD	CONT PERIODIC					
Shallow Foundations	ICC-SSI PE-GEOTECH.		•	•	Verify materials below shallow foundations are adequate to achieve the design bearing capacity. Verify excavations are extended to proper depth and have reached proper material.	YES		
Controlled Structural Fill	ICC-SSI	Applicable ASTM			Classification and testing of			
a. Perform classification and testing of compacted fill materials.	PE-GEOTECH.	Standards	•	•	compacted fill materials should include applicable sieve tests and modified Proctor tests. Verify	YES		
 Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill. 			•		extent and slope of fill placement.	YES		

C	ONCRETE CO	NSTRUCTION (REFIBC	SECTION	1705.3)			STEEL CONS	STRUCTION (RE	F IBC SE	CTION 1	705.2)	
AREA REQUIRING SPECIAL TESTING &			EDEO		COMMENTO	BEOD	AREA REQUIRING SPECIAL TESTING &			EDEA		COMMENTO	PEOD
INSPECTION	AGENCY QUALIFICATION	REFERENCE	CONT	PERIODIC	COMMENIS	REQU	INSPECTION	AGENCY QUALIFICATION	REFERENCE STANDARD	CONT	PERIODIC	COMMENTS	REQD
1. Material Certification	SEOR	Applicable ASTM & ACI Specs			Prior to start of concrete construction: Verify that concrete supplier's concrete components meet requirements set forth by applicable ASTM standards	YES	 Fabricator certification / quality control procedures 		AISC			Review shop fabrication and quality control procedures. Fabricator to be AISC certified or receive prior approval from Structural Engineer of Record	YES
2. Inspect reinforcement, including	ACI-CCI	Applicable ACI Specs		•	Prior to each casting:	YES	2. Material certification & verification:	SEOR	Applicable ASTM, AWS & AISC Specs			Prior to start of steel fabrication & construction	YES
prestressing tendons, and verify placement.	ICC-RCSI	IBC 1908.4		•	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters	120	 a. High-strength bolts, nuts and washers b. Structural steel c. Weld filler materials d. Cold formed steel deck and accessories 3. Inspection of high-strength bolting: 	AWS/AISC-SSI	Applicable ASTM &			Review certificate of compliance, identification marking on shapes, high strength bolts, nuts and welding electrodes.	
							a. Snug-tight joints	100-0001			•	splines have separated from	YES
 Reinforcing bar welding: Verify weldability of reinforcing bars other than ASTM A706 Inspect single-pass fillet welds, maximum 5/16" 	AWS-CWI	Applicable ASTM, ACI & AWS Specs	•	•	Inspect preheating of steel when required	NO NO	 b. Pretensioned and sup-critical joints using turn-of-nut with matchmarking, twist-off bolt or direct tension indicator methods of installation c. Pretensioned and slip-critical 		AISC 360 Tables C-N5.6-1, C-N5.6-2, and C-N5.6-3		•	tension-controlled dolts.	NO
c. Inspect all other welds	401.001		٠		Drive to an all an atting of	NO	joints using turn-of-nut without matchmarking or calibrated			•			
 Inspect anchors cast in concrete. 	ICC-RCSI	Applicable AISC & ACI Specs		•	Prior to each casting: Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors	YES	 wrench methods of installation 4. Inspection of structural steel welding: a. Complete and partial joint penetration groove welds 	AWS-CWI ASNT	AWS D1.1 AISC 360	•		Visually inspect welds. Verify size and length of fillet welds. Ultrasonic testing of all complete	NO
 Inspect anchors post-installed in hardened concrete members. 	ACI-CCI ICC-RCSI	ACI & Supplier's specifications			Inspect installation for type of anchor, embedment, edge		b. Multipass fillet welds	100-5551	C-N5.4-2, and	٠		Inspect pre-heat, post-heat and	YES
 Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. 			•		distances and adhesive requirements.	YES	c. Single-pass fillet welds > 5/16" d. Plug and slot welds e. Single-pass fillet		U-1NJ.4-3	•		all multipass welds.	YES YES YES
 Mechanical anchors and adhesive anchors not defined in 5a. 				•		YES	welds ≤ 5/16" 5. Inspection of steel frame joint details for compliance:	AWS/AISC-SSI ICC-SSSI	Applicable AISC Specs			Inspect steel frame for compliance with structural drawings, including bracing, member configurations	
 Verify use of required design mix. 	ACI-CCI ICC-RCS	ACI 318 IBC 1904.1, 1904.2, 1908.2, 1908.3		•	Mix designs to be reviewed prior to start of concrete construction on project. Review concrete batch tickets and	YES	 a. Details such as bracing and stiffening b. Member locations c. Application of joint details at each connection 				•	and connection details	YES YES YES
					mix design. Verify that water added on site does not exceed that allowed by the mix design.		 6. Inspection of open-web steel joists and joist girders a. End connections - welding or bolting 	ICC-SSSI	SJI		•	Inspect installation, field welding, bearing length and bridging of joists	YES
 During concrete placement, fabricate specimens for strength test, perform slump and air content tests, and determine the temperature of the concrete. 	ACI-CFTT ACI-LTT ACI-STT	Applicable ACI & ASTM Specs IBC 1908.10	•		Not less than once a day, nor less than once for every 150 yd3, nor less than once for every 5,000 ft2 of surface area for slabs or walls	YES	 b. Bridging - horizontal or diagonal 7. Inspection of cold formed steel deck installation 	AWS/AISC-SSI ICC-SSSI	SDI & AWS D1.3		•	Verify decks comply with construction documents.	YES
 Inspect concrete and shotcrete placement for proper application techniques. 	ACI-CCI ICC-RCSI	Applicable ACI Specs IBC 1908.6, 1908.7, 1908.8	•		Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.	YES	 a. Deck profiles, material properties and base metal thickness b. Size, location and spacing of 				•	Verify deck attachments including support, sidelap and perimeter fastening. Visually inspect welds. Verify that mechanical fasteners are installed in accordance with	YES
9. Verify maintenance of specified curing	ACI-CCI	Applicable ACI Specs		•	Inspect curing, cold weather	YES	deck attachment				•	manufacturer's instructions.	
temperature and techniques.		IBC 1908.9			protection and not weather proection procedures after each casting.		 Inspection of shear connectors (headed stud anchors) 	AWS/AISC-SSI ICC-SSSI	Applicable AWS, ASTM & AISC Specs		•	Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree	NO
a. Application of prestressing forces.	100-2051	ACI 318	•			NO						connectors w/ 3 lb hammer. Bend test all questionable studs to 15 degrees	
 Grouting of bonded prestressing tendons 			•			NO							
11. Inspect erection of precast concrete	ACI-CCI	ACI 318		•		NO							
 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. 	ICC-PCSI	ACI 318		•		YES							
13. Inspect formwork for shape, location and dimensions of the concrete member being formed.	ACI-CCI ICC-RCSI	ACI 318		•		YES							
Exceptions per IBC 1705.3: Special Inspec	tions are not required	for the following unless o	therwise requi	red by the Build	ding Official or SEOR.								
 Nonstructural concrete stabs supp Concrete patios. drivewavs and si 	dewalks, on grade.	nouna.											
	,, g.add.												

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JN: 24-054

Special Inspections & Testing

FOUNDATION PLAN NOTES

- 1. ALL WALL FOOTINGS ARE TO BE CENTERED ON WALLS, UON. WALL FOOTINGS ARE TO BE 12" THICK REINFORCED W/ (2) #5 CONT LONGITUDINAL BARS AND PROJECT 6" BEYOND EACH FACE OF FOUNDATION WALL THEY SUPPORT, UON. ALL PAD FOOTINGS ARE TO BE CENTERED ON COLUMNS / PIERS, UON.
- 2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
- 3. SEE SHEET S001.1 FOR GENERAL CONCRETE & FOUNDATION NOTES.
- SEE ARCH FOR DIMENSIONING OF FOUNDATION WALL HOLDOUTS, LOCATION OF STOOPS, SLAB RECESSES & SLOPED SLAB AREAS.
- 5. SEE DETAIL 6 /S301FOR SLAB CONSTRUCTION JOINTS (CCJ). SEE DETAIL 7 /S301 FOR SLAB CONTROL JOINTS (CJ). CONTRACTOR SHALL SUBMIT A PROPOSED JOINT LAYOUT TO ARCH/ENG. FOR APPROVAL PRIOR TO SLAB PLACEMENT. CONTROL JOINTS SHALL BE ON COLUMN LINES AND AT RE-ENTRANT CORNERS TO THE
- GREATEST EXTENT POSSIBLE W/ SPACING LESS THAN 12'-0" O.C. BETWEEN. CONSTRUCTION JOINTS SHALL BE LOCATED SO AS NOT TO ALLOW A SINGLE SLAB POUR TO EXCEED 4000sf UNLESS ALTERNATIVE MEASURES ARE TAKEN TO CONTROL SLAB CURLING & SHRINKAGE.
- PROVIDE CJ OR CCJ JOINTS SO AS NOT TO EXCEED A SLAB UNIT ASPECT RATIO OF 1.5:1.
- SEE DETAIL 10 /S301

- 10. "F# / CF#" INDICATES COLUMN PAD / WALL STRIP FOOTINGS SEE SCHEDULES ON

KEYNOTES

- (1) FLOOR DRAIN VERIFY NUMBER, LOCATION(S), SIZE, SLOPE & ELEVATION WITH ARCHITECTURAL / MECHANICAL PLANS. PROVIDE ADDITIONAL REINFORCEMENT AROUND OPENING PER DETAIL
- 2 HOUSEKEEPING PADS BY GC VERIFY NUMBER, LOCATION(S) & SIZE WITH ARCHITECTURAL, MECHANICAL & ELECTRICAL PLANS. PADS TO BE 4" THICK CONCRETE, REINFORCED W/ #4 REBAR @ 1' - 0" O.C., EACH WAY
- (3) ELECTRICAL FLOOR BOX VERIFY NUMBER, LOCATION(S), & SIZE WITH ARCHITECTURAL AND ELECTRICAL PLANS. PROVIDE ADDITIONAL REINFORCEMENT AROUND OPENING PER DETAIL
- $\langle 4 \rangle$ SAND / OIL SEPARATOR VERIFY SIZE & LOCATION WITH ARCHITECTURAL & MECHANICAL DRAWINGS.
- $\langle 5 \rangle$ CONTINUOUS GALVANIZED STEEL ANGLE FOR STOOP SLAB SUPPORT SEE DETAIL 11 /S301 SIM
- $\langle 6 \rangle$ PIPE BOLLARD (2) LOCATIONS @ EACH OVERHEAD DOOR. VERIFY NUMBER, LOCATION(S) & SIZE WITH ARCHITECTURAL / SITE PLANS & ANCHORAGE DETAILS.
- (7) (2) #6 HAIRPINS W/ 15'-0" LEG LENGTH
- 8 COORDINATE UTILITY LOCATIONS AND DEPTHS WITH CIVIL AND MECHANICAL DRAWINGS. ADJUST FOUNDATION ELEVATIONS AS REQUIRED.
- (9) 10" CONC SLAB ON GRADE W/ #4 EACHWAY @ 12" O.C. T.O. SLAB EL. 100' 4"

SITE PREPARATION AND OVER **EXCAVATION NOTES**

- 1. AS A BASE BID. GC IS TO ASSUME THAT THE ENTIRE BUILDING FOOTPRINT IS TO BE OVER-EXCAVATED TO 1' - 6" BELOW PROPOSED BUILDING F.F.E. PER THE PROJECT GEOTECHNICAL REPORT. GC IS TO PROVIDE A UNIT PRICE FOR EACH ADDITION OR REDUCTION OF A CUBIC YARD OF FILL REMOVED FROM THE SITE. SEE SPECIFICATION SECTION 01 2200.
- 2. EXCAVATIONS SHALL BE TO THE MINIMUM OVER EXCAVATION DEPTHS INDICATED OR UNTIL COMPETENT SOILS ARE REACHED. BEARING SOIL SHALL BE INSPECTED & APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF FOOTING CONCRETE.

PRE ENGINEERED METAL BUILDING (PEMB) **NOTE:**

FOOTINGS, PIERS AND ASSOCIATED PEMB FOUNDATION ELEMENTS SHOWN HAVE BEEN DESIGNED BASED ON ANTICIPATED PEMB BASE REACTIONS. THE SELECTED CONTRACTOR AND PEMB SUPPLIER SHALL PROVIDE FINAL ANCHOR ROD PLANS AND MAXIMUM FOUNDATION REACTIONS TO THE SEOR SO THAT THE FINAL FOUNDATION DESIGN CAN BE VERIFIED PRIOR TO THE START OF EXCAVATION AND REINFORCING SHOP DRAWINGS.

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Foundation Plan

- 6. ADD (2) #5 x 3'-0" REBAR @ 3" O.C. FOR CRACK CONTROL AT RE-ENTRANT CORNERS 7. (S) - INDICATES STEPPED WALL FOOTING LOCATION - SEE DETAIL 1/S301 8. "C#" - INDICATES A STEEL COLUMN - SEE SCHEDULE ON SHEET S001.3.
- 9. "P#" INDICATES A CONCRETE PIER SEE SCHEDULE ON SHEET S001.3.
- SHEET S001.3.

FRAMING PLAN SHEET NOTES

- NUMBER IN PARENTHESES WITH "+ /-" ADJACENT TO STEEL BEAM SIZE INDICATES ELEVATION OF TOP OF STEEL BEAM IN INCHES FROM REFERENCE ELEVATION EQUAL TO DECK BEARING ELEVATION (DBE) - NO NUMBER ADJACENT TO BEAM SIZE INDICATES TOP OF BEAM AT DBE.
- CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
- 3. SEE SHEET S001.1 FOR GENERAL FRAMING / COLD FORMED NOTES AND MINIMUM COLD FORMED DESIGN VALUES.
- 4. EXTERIOR COLD FORMED STUDS SHALL BE 600S###### STEEL STUDS. WIDTH, GAUGE AND SPACING TO BE DETERMINED BY COLD FORMED STUD SUPPLIER.
- 5. USE DEEP LEG TRACK FOR ATTACHMENT OF INTERIOR NON-BEARING PARTITION LIGHT GAUGE STUD WALLS TO TRUSS / JOISTS. ALLOW FOR 1" VERTICAL ROOF DEFLECTION. DO NOT FIT PARTITION WALLS TIGHT TO UNDERSIDE OF TRUSSES / JOISTS.
- SHEATH EXTERIOR WALLS W/ 5/8" (19/32" MIN) EXTERIOR GYP SHEATHING, ONE FACE, UON. FASTEN ALL PANEL EDGES AND PANEL FIELD PER VERTICAL STRUCTURAL SHEATHING NOTES ON SHEET S001.2, UON.
- TRUSS / JOIST SUPPLIER SHALL COORDINATE LAYOUT W/ MECH PIPING, VENTING, ETC, PRIOR TO SUBMITTING SHOP DRAWINGS. TRUSS / JOIST SUPPLIER TO PROVIDE ADDITIONAL TRUSSES / JOISTS PER CONTRACTOR.
- VERIFY SIZE, QUANTITY & LOCATIONS FOR ALL ROOF PENETRATIONS W/ ARCHITECTURAL & MECHANICAL DRAWINGS. SEE DETAIL 8 /S501 FOR FRAMING AT ALL ROOF PENETRATIONS.
- 9. MD# DENOTES METAL DECK SEE SCHEDULE ON SHEET S001.3
 10. DENOTES STEEL BEAM CANTILEVERED OVER STEEL COLUMN CONNECTION.
- 12. "★" INDICATES A L 2 x 2 x 3/16" BOTTOM FLANGE BRACE SEE DETAILS FOR ATTACHMENT.

KEYNOTES

- (1) MECHANICAL OPENING THRU ROOF VERIFY SIZE, QUANTITY AND LOCATIONS WITH ARCHITECTURAL & MECHANICAL PLANS. FOR REINFORCEMENT/FRAMING AROUND DECK OPENING SEE DETAIL 8 /S501
- 2 HORIZONTAL/CROSS BRIDGING QUANTITY, SIZES & ANCHORAGE AS REQUIRED BY THE STEEL JOIST SUPPLIER PER SJI STANDARDS. SEE DETAIL 7 /S501
- (3) MECHANICAL UNIT ATOP ROOF VERIFY SIZE, QUANTITY AND LOCATION WITH ARCHITECTURAL & MECHANICAL PLANS. WEIGHT NOT TO EXCEED THAT SHOWN -IF WEIGHT NOT SHOWN, ASSUME MAX UNIT WEIGHT OF 200 LBS. JOIST SUPPLIER TO DESIGN JOISTS FOR ADDTIONAL WEIGHT AS REQUIRED. FOR SUPPORT OF MECH UNIT ON ROOF SEE DETAIL 5 /S501

KEYNOTES - SNOW DRIFT

ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE WWW.ICONARCHITECTS.COM

TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING

BOTTINEAU, NORTH DAKOTA

STRUCTURAL

ICON ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE

MECHANICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

ELECTRICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

CIVIL

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BOTTINEAU, NORTH DAKOTA

6 S302 1/2" = 1'-0"

3" CLR TYP

(701) 751.0430 OFFICE WWW.ICONARCHITECTS.COM **TURTLE MOUNTAIN** COMMUNICATIONS **NEW BUILDING** BOTTINEAU, NORTH DAKOTA STRUCTURAL ICON ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE MECHANICAL MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE ELECTRICAL MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE CIVIL MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE **DRAWING HISTORY** DATE NO. DESCRIPTION CONSTRUCTION DOCUMENTS 01/15/2025

DRAWN BY: TO/AF

Foundation Plan

SHEET

S302

JN: 24-054

CON

222 EAST MAIN STREET, SUITE B

MANDAN, ND 58554

ARCHITECTURAL GROUP

9 S501 NO SCALE

NO SCALE

3 S501

S501

FULL LENGTH TRACK AS REQUIRED -

9 S502 NO SCALE

Cold Formed Stud Bridging

5 S502

NO SCALE

NO SCALE

NO SCALE

ARCHITECTURAL GROUP

CIVIL

3986

SHEET

DATE

01/15/2025

JN: 24-054

SITE PLAN NOTES

- 1. ALL WORK PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE CITY OF BOTTINEAU, ND STANDARD CONSTRUCTION SPECIFICATIONS. PRIOR TO DOING AS WORK IN THE CITY RIGHT-OF-WAY THE CONTRACTOR SHALL CALL THE ENGINEERING DEPARTMENT AT (701) 228-3232.
- 2. ALL SIGNS TO BE APPROVED BY THE BOTTINEAU, ND INSPECTIONS DEPARTMENT (CONVENTIONAL ZONING) OR PLANNING DEPARTMENT (PLANNED UNIT DEVELOPMENT).

PROPERTY INFORMATION

UTMA OFFICE AND SHOP BUILDING BOTTINEAU, ND

PARCEL A OF LOT 1 OF BLOCK 1 OF COBBLESTONE ADDITION TO THE CITY OF BOTTINEAU

B-2 (CENTRAL BUSINESS) UNITED AND TURTLE MOUNTAIN COMMUNICATIONS

PARKING REQUIREMENTS

PER BOTTINEAU CITY CODE: SECTION 6.0409 TOTAL REQUIRED = 21 SPOTS TOTAL PARKING PROVIDED = 21 SPOTS

PARKING REQUIREMENTS

21 SPACES PROVIDED IN LOT 12 SPACES PROVIDED IN GARAGE 1 ACCESSIBLE SPACE PROVIDED IN LOT

PARKING REQUIREMENTS

B-2 (CENTRAL BUSINESS) USES PERMITTED - OFFICE BUILDINGS SETBACKS - NONE

SECTION 6, 6.0409.1 SECTION 6, 6.0409.4

KEYNOTES - SITE PLAN

- T FENCE AROUND PERIMETER OF GRAVEL AREA SEE CIVIL
- 2 PROPANE TANK LOCATION (BY OWNER)
- 3 CONCRETE APRON SEE CIVIL
- 4 BOLLARD LOCATION SEE 2/A001
- 5 FENCE AROUND PERIMETER OF GRAVEL AREA SEE CIVIL
- 6 ALTERNATE GENERATOR PAD (16'x6') SEE CIVIL
- (7)
 DUMPSTER ENCLOSURE (BY OWNER)
- 8 GRAVEL COVERED LOT SEE CIVIL
- 9 NEW VALLEY GUTTER SEE CIVIL
- (10) DROP CURB SECTION SEE CIVIL
- (11) ACCESSIBLE PARKING STALL SEE CIVIL
- (12) NEW RIP RAP WALL SEE CIVIL
- (13) NEW SEEDING SEE CIVIL
- (14) ROLLER GATE
- (15) KNOX BOX LOCATION
- (16) PAYMENT AND EQUIPMENT DROP BOX
- (17) MAIL BOX LOCATION

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BOTTINEAU, NORTH DAKOTA

STRUCTURAL

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A001

s STEEL STUD W/ GYPSUM - STANDARD				SH STEE	SH STEEL STUD HAT CHANNEL FURRING W/ GYPSUM			SF STEEL STUD FURRING W/ GYPSUM			
LIGHT GAUGE FRAMING (SEE PARTITION NOTES) 5/8" GYPSUM BOARD (COORDINATE TYPE WITH PLAN LOCATIONS AND SPECIFICATIONS) BATT INSULATION (FILL STUD CAVITY, TYPICAL UNO) 5/8" GYPSUM BOARD (COORDINATE TYPE WITH PLANS AND SPECIFICATIONS) ASSEMBLY MODIFIER / STRUCTURAL SHEAR PANEL (SEE PARTITION MODIFIER / STRUCTURAL SHEAR PANEL (SEE STRUCTURAL) UL #404, #419, #423 - 1 HOUR RATING (ASSEMBLY DESIGN RECOD WHEN RATING IS PRESENT) (FY: UL DESIGN COVERS VARIATIONS WITHOUT INSULATION, AND WITH WOOD PANELS AND/OR DESIL/TON, AND WITH WOOD PANELS AND/OR				LIGHT GAUGE FRAM BACK-UP SUBSTRA (FURRED WALLS 5/8" GYPSUM BOA (SEE P	IING/ HAT-CHANNEL FURRING - TE (NOT PART OF ASSEMBLY) - EXCLUDE INSULATION, UNO) - RD (COORDINATE TYPE WITH - PLANS AND SPECIFICATIONS) WALL ASSEMBLY MODIFIER - ARTITION MODIFIER LEGEND)	SEE TAG (OND. IAL)		LIGHT GAUGE FRAMIN BACK-UP SUBSTRATE (FURRED WALLS E 5/8" GYPSUM BOARE PL (SEE PAR	IG (SEE PARTITION NOT (NOT PART OF ASSEME XCLUDE INSULATION, U) (COORDINATE TYPE W ANS AND SPECIFICATIC VALL ASSEMBLY MODIF TITION MODIFIER LEGE	TES) SLY) NO) (TH) SND) (ND)	
WALL TAG	STUD WIDTH	ASSEMBLY WIDTH	NOTES	WALL TAG	STUD WIDTH	ASSEMBLY WIDTH	NOTES	WALL TAG	STUD WIDTH	ASSEMBLY WIDTH	NOTES
S6	6"	7 1/4" + MODIFIER		SH1	7/8"	1 1/2" + MODIFIER		SF3	3 5/8"	4 1/4" + MODIFIER	

GENERAL NOTES

INTERIOR WALL TYPE TAG DESCRIPTION LEGEND

X = ADDITIONAL MODIFIERS MAY BE ADDED BY ARCHITECT - VARIES PER PROJECT. MODIFIERS TO BE SIMPLE AND CLEAR, OTHERWISE CREATE A NEW WALL TYPE.

GENERAL NOTES - FRAMED PARTITIONS

- 1. ALL LOAD BEARING WALLS TO BE CONSTRUCTED PER STRUCTURAL ENGINEERS DESIGN REQUIREMENTS. SEE STRUCTURAL SHEETS FOR INFORMATION.
- 2. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES TO BE FIRE SAFE BY THE TRADE/ CONTRACTOR THAT CREATED THE PENETRATION.
- 3. ALL STEEL STUD AND WOOD STUD PARTITIONS TO HAVE BATT INSULATION U.N.O. ON PLANS 4. ALL UL ASSEMBLIES SHOWN ARE REPRINTED FROM THE ONLINE CERTIFICATIONS DIRECTORY WITH PERMISSION FROM UNDERWRITERS LABORATORIES INC. COPYRIGHT 2015 UNDERWRITERS LABORATORIES, INC. CONTRACTORS MAY REFER TO WWW.UL.COM FOR ONLINE ACCESS TO ALL ASSEMBLIES AND MODIFICATIONS.
- 5. PARTITION HEIGHT IS ASSUMED TO EXTEND TO BOTTOM OF ROOF/ FLOOR DECK ABOVE U.N.O. FRAMING AND GYPSUM BOARD TO JOG AROUND JOIST AND BEAMS. WHERE NECESSARY FIRE SAFE GAP WHERE FIRE RATING IS REQUIRED.
- 6. PARTITIONS WITHIN WET AREAS INCLUDING BUT NOT LIMITED TO RESTROOMS AND KITCHENS SHALL HAVE WATER RESISTANT GYPSUM BOARD WHEN GYPSUM BOARD IS CALLED OUT AS THE FINISH IN THE WALL
- ASSEMBLY. 7. CONTRACTOR IS RESPONSIBLE FOR BLOCKING NEEDED FOR ANY WALL MOUNTED ACCESSORY. 8. STEEL STUD PARTITIONS ARE TO HAVE DEFLECTION TRACK U.N.O.
- 9. DEFLECTION TRACK TO BE INSTALLED AT TOP OF METAL STUD PARTITIONS WHERE METAL STUD PARTITIONS ARE INSTALLED TO HORIZONTAL HOLLOW CORE PLANK. 10. SEE STRUCTURAL DRAWINGS FOR SHEAR WALL LOCATIONS AND SCHEDULES. THE NOTED WALL ASSEMBLY

GENERAL NOTES - UL WALL ASSEMBLIES

WIDTHS MAY NOT ACCOUNT FOR STRUCTURAL SHEAR PANELS.

1. WHEN HOURLY RATING IS SHOWN ON A WALL TAG, OR ON THE CODE STUDY PLAN, THE WALL IS TO BE CONSTRUCTED PER THE UL ASSEMBLY REQUIREMENTS.

NOTE: UNDERWRITERS LABORATORIES ALLOWS FOR MODIFICATIONS TO INDIVIDUAL DESIGNS. SOME MODIFICATIONS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: SCREWS MAY BE SUBSTITUTED FOR NAILS. ONE FOR ONE WHEN THE HEAD DIAMETER, LENGTH, AND SPACING EQUALS OR EXCEEDS THE REQUIREMENTS FOR THE SPECIFIED NAILS.

GYPSUM BOARD THICKNESS SPECIFIED IN SPECIFIC DESIGNS ARE MINIMUMS. GREATER THICKNESS OF GYPSUM BOARD ARE PERMITTED AS LONG AS THE FASTENER LENGTH IS INCREASED PROPORTIONALLY, ADDITIONAL LAYERS OF GYPSUM BOARD ARE PERMITTED TO BE ADDED TO ANY DESIGN. THE SIZE OF THE STUDS ARE MINIMUMS UNLESS OTHERWISE STATED IN THE DESIGN.

THE GENERIC WALL MAKE-UP SHOWN UNDER EACH WALL TYPE DESIGNATION SHOWS THE DESIGN INTENT FOR THAT SPECIFIC PARTITION, ALTHOUGH IT MAY NOT EXACTLY MATCH THE UL ASSEMBLY. IT HAS BEEN DESIGNED USING THE ALLOWED MODIFICATIONS. THE CONTRACTOR IS TO CONSTRUCT THE WALL BASED ON THE GENERIC MAKE-UP FOLLOWING THE UL DESIGN STANDARD WHEN THE WALL IS RATED. IF THE CONTRACTOR WISHES TO MODIFY COMPONENTS AND REQUIREMENTS OUTLINED IN THE UL ASSEMBLY, APPROVAL FOR A SUBSTITUTION MUST BE PROVIDED BY ARCHITECT PRIOR TO IMPLEMENTING.

TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING BOTTINEAU, NORTH DAKOTA

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Interior Wall Assemblies

NG8 PEMB EXTERIOR WALL ASSEMBLY	NS METAL PANEL/ STEEL STUD ASSEMBLIES	SL STEEL STUD W/ GYPSUM CEMENT BOARD PANEL	NG8.1 PEMB EXTERIOR WALL ASSEMBLY
INTERIOR 8" EXTERIOR LINER PANEL, BY PEMB SUPPLIER BATT INSULATION W/ VAPOR BARRIER (FILL STUD CAVITY), SUPPORT WITH INSULATION HANGERS. 8" 'Z' GIRTS BY PEMB SUPPLIER THERMAL BREAK TAPE METAL SIDING BY PEMB SUPPLIER (SEE ELEVATIONS/ SPECIFICATIONS)	SEE TAG 5/8" GYPSUM BOARD (COORDINATE PRODUCT TYPE WITH PLANS AND SPECIFICATIONS REQUIREMENTS) SPRAY FOAM INSULATION LIGHT GAUGE FRAMING, SEE STRUCTURAL 5/8" EXTERIOR GYPSUM WALL BOARD SHEATHING FLUID APPLIED WEATHER BARRIER (INSTALLED ON EXTERIOR FACE OF SHEATHING, SEAL TO MEMBRANE FLASHING AT ALL OPENINGS) 2" CONTINUOUS RIGID INSULATION '2' STUD, 24" O.C., HORIZONTAL ORIENTATION (NOT VISIBLE) METAL PANEL (SEE ELEVATIONS/ SPECIFICATIONS)	SEE TAG 5/8" GYPSUM BOARD (COORDINATE PRODUCT TYPE WITH PLANS AND SPECIFICATIONS REQUIREMENTS) LIGHT GAUGE FRAMING, SEE STRUCTURAL SPRAY FOAM INSULATION 5/8" EXTERIOR GYPSUM BOARD SHEATHING 2" CONTINUOUS RIGID INSULATION FLUID APPLIED WEATHER BARRIER (INSTALLED ON EXTERIOR FACE OF SHEATHING, SEAL TO MEMBRANE FLASHIING AT ALL OPENINGS) EXTERIOR CEMENT BOARD PANELS	OFFICE 8" GARAGE BATT INSULATION W/ VAPOR BARRIER (FILL STUD CAVITY), SUPPORT WITH INSULATION HANGERS. 8" 'Z' GIRTS BY PEMB SUPPLIER THERMAL BREAK TAPE LINER PANEL, BY PEMB SUPPLIER
NOTE: MUST MEET IECC 2021 REQUIREMENTS. R-26 MIN. WALL ASSEMBLY		UL	NOTE: MUST MEET IECC 2021 REQUIREMENTS. R-26 MIN. WALL ASSEMBLY
WALL TAG STUD WIDTH ASSEMBLY WIDTH NOTES	WALL TAG STUD WIDTH ASSEMBLY NOTES	WALL TAG STUD WIDTH ASSEMBLY NOTES	WALL TAG STUD WIDTH ASSEMBLY NOTES
NG8 8" (+ MTL & LINER PANEL)	NS6 6" +/- 9 1/4" (+ MTL PANEL)	SL6 6" +/- 9 7/8"	NG8.1 8" (+ MTL PANEL)
INSULATED POURED-IN-PLACE CONCRETE ASSEMBLIES (BASEMENT)			
WALL TAG WIDTH ASSEMBLY NOTES WIDTH			
IC8 8" -			
IC10 10" -			
IC12 12" -			

OTHERWISE STATED IN THE DESIGN. THE GENERIC ASSEMBLY MAKE-UP SHOWN UNDER EACH TYPE DESIGNATION SHOWS THE DESIGN INTENT FOR THAT SPECIFIC HORIZONTAL ASSEMBLY, ALTHOUGH IT MAY NOT EXACTLY MATCH THE UL ASSEMBLY. IT HAS BEEN DESIGNED USING THE ALLOWED MODIFICATIONS. THE CONTRACTOR IS TO CONSTRUCT THE WALL BASED ON THE GENERIC MAKE-UP FOLLOWING THE UL DESIGN STANDARD WHEN THE WALL IS RATED. IF THE CONTRACTOR WISHES TO MODIFY COMPONENTS AND REQUIREMENTS OUTLINED IN THE UL ASSEMBLY, APPROVAL FOR A SUBSTITUTION

MUST BE PROVIDED BY ARCHITECT PRIOR TO IMPLEMENTING.

Exterior Wall & Horizontal Assemblies SHEET

JN: 24-054

DRAWN BY: Author

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GENERAL NOTES - FLOOR PLAN

- 1. COORDINATE WALL TYPES AND RATINGS, AND HORIZONTAL ASSEMBLY RATINGS & TAGS, WITH CODE STUDY DRAWINGS AND ASSEMBLY TYPE DRAWINGS.
- 2. ALL INTERIOR WALLS TO BE TYPE S6, UNLESS NOTED OTHERWISE. ALL INTERIOR FURRING WALLS TO BE TYPE SF3, UNLESS NOTED OTHERWISE.
- 3. EXTERIOR DIMENSIONS ARE TO FACE OF STUD OR NOMINAL FACE OF METAL PANEL AT FRAMED WALLS. (VERIFY ACTUAL THICKNESS OF WALL ASSEMBLY)
- 4. INTERIOR DIMENSIONS ARE TO CENTER OF STUD OR FACE OF STUD AT FURRING WALLS (WHERE A 'CLR' NOTE IS PROVIDED BELOW THE DIMENSION STRING, THE DISTANCE PROVIDED IS A MINIMUM BETWEEN FINISHED SURFACES.) DIMENSIONS INDICATED AS "CLEAR" SHALL BE MAINTAINED IN CASE OF DISCREPANCY.
- 5. DIMENSIONS ARE SHOWN TO NOMINAL / WHOLE NUMBER. OPENING SIZES ARE TO ACCOUNT FOR WOOD BUCKING. COORDINATE WITH DETAILS. COORDINATE ALL ROUGH OPENINGS WITH THE ACTUAL WINDOW UNIT, DOOR FRAME, CURTAIN WALL/STOREFRONT, OR LOUVER SIZES AND REQUIREMENTS.
- 6. ALL WINDOW OPENINGS IN BRICK ARE MASONRY OPENINGS. DIMENSIONS ARE SHOWN TO NOMINAL / WHOLE NUMBER. OPENING SIZES ARE TO ACCOUNT FOR WOOD BUCKING, COORDINATE WITH DETAILS, (WINDOW JAMBS ARE TO ALIGN ON EACH FLOOR.)
- 7. WORK FROM GIVEN DIMENSIONS. IN GENERAL, LARGE-SCALE DETAILS TAKE PRECEDENCE OVER SMALLER SCALE PLANS, ELEVATIONS AND BUILDING SECTIONS. NOTIFY THE ARCHITECT OF ANY DIMENSIONAL DISCREPANCIES PRIOR TO COMMENCING THE WORK, AND DO NOT BEGIN WORK UNTIL SUCH DISCREPANCIES ARE RESOLVED BY THE ARCHITECT.
- 8. DO NOT SCALE THE DRAWINGS.
- 9. UNLESS NOTED OTHERWISE, THE LOCATION OF DOOR FRAMES SHALL BE 4" FROM THE ADJACENT WALL STUDS TO THE HINGE SIDE OF THE ROUGH OPENING.
- 10. GC TO PROVIDE BLOCKING AS REQUIRED FOR INSTALLATION OF CASEWORK, EQUIPMENT, AND ACCESSORIES.
- 11. ITEMS BY BY OWNER OR NIC SHOWN DASHED GRAY.
- 12. TYPICAL DETAIL NOTES: THE FOLLOWING NOTES ARE TYPICAL THROUGHOUT THIS PROJECT AND APPLY IN ALL CASES UNLESS SPECIFICALLY NOTED OTHERWISE. THESE NOTES AND ASSOCIATED DETAILS MAY NOT BE DIRECTLY REFERENCED ON THE DRAWINGS:
 - ALL FREESTANDING INTERIOR COLUMNS SHALL BE ENCLOSED WITH GWB ON METAL LGMF.
 - ALL ROOF LEADERS, HEAT PIPING, SPRINKLER RISERS, PLUMBING VENTS, SANITARY PLUMBING OR MISCELLANEOUS PIPING SHALL BE ENCLOSED
 - WITHIN THE WALL CONSTRUCTION. ALL DUCT PENETRATIONS THROUGH FLOORS SHALL BE ENCLOSED IN A

KEYNOTES - FLOOR PLAN

CHASE

- 1 PLACE STUD FRAMING IN A MANNER TO ALLOW FOR DRYWALL TO PASS BY
- TIGHT TO FACE OF COLUMN ON THE SIDE DEPICTED.
- (2) CENTER STUD FRAMING ON COLUMN OR STEEL FRAME. GWB TO PASS BY ON EACH SIDE OF STEEL WITHOUT INTERRUPTION.
- (3) HANDICAP DOOR ACTUATOR PUSH BUTTON ON STOREFRONT MULLION. COORDINATE WITH ELECTRICAL AND HARDWARE SPECIFICATIONS.
- 4 STEEL STUD FRAMING LOCATED INSIDE STRUCTURAL STEEL DIAGONAL BRACED FRAME. GWB TO PASS BY ON EACH SIDE OF STEEL WITHOUT
- INTERRUPTION. TYPICAL WHERE TAGGED WITH KEYNOTE, COORDINATE WITH STRUCTURAL.
- $\langle 5 \rangle$ NOT USED.

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- $\langle 6 \rangle$ CABINET UNIT HEATER. COORDINATE WITH MECHANICAL AND ELECTRICAL. $\langle 7 \rangle$ NOT USED.
- 8 SOLID SURFACE WINDOW SILL TYPICAL THROUGHOUT AT ALL WINDOWS NOT EXTENDING TO FLOOR LINE.
- $\langle 9 \rangle$ FLOOR DRAIN. COORDINATE WITH MECHANICAL.
- $\langle 10 \rangle$ FIRE EXTINGUISHER CABINET RECESSED.
- $\langle 11 \rangle$ FIRE EXTINGUISHER ON WALL BRACKET.
- (12) BOLLARD

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GENERAL NOTES - ROOF PLAN

- COORDINATE FULL EXTENT OF ROOF PENETRATIONS AND EQUIPMENT CURBS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
- 2. ROOF MEMBRANE TO RUN UP VERTICAL PARAPET FACE AND OVER TOP OF WALL,
- TYPICAL THROUGHOUT. COORDINATE WITH DETAILS.3. CONTRACTOR IS RESPONSIBLE FOR MAKING A WATER-TIGHT ROOF SYSTEM.
- 4. SEE SPECIFICATIONS FOR ROOF SYSTEM WARRANTY REQUIREMENTS.
- PROTECT ALL OPENINGS CUT IN THE ROOF. PROVIDE TEMPORARY ROOFING IF WORK IS TO BE UNFINISHED DURING ADVERSE WEATHER CONDITIONS THROUGHOUT THE CONSTRUCTION PHASE.
- ROOF DRAINAGE SHALL BE SIZED TOO MEET PLUMBING REQUIREMENTS AND VERIFIED WITH ARCHITECT.
- 7. PROVIDE FLASHING AT ALL ROOF PENETRATIONS. PENETRATIONS MAY NOT BE INDICATED ON THE ROOF PLAN. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS FOR NUMBER, LOCATION, AND SIZE OF PENETRATIONS. COORDINATE ALL LOCATIONS AND PENETRATIONS WITH PLUMBING, ELECTRICAL, AND HVAC CONTRACTOR.
- 8. TAPERED INSULATION SHALL BE SLOPED 1/4" PER FOOT MINIMUM.
- 9. 2" MIN. ROOF INSULATION AT ROOF DRAINS
- 10. PROTECT ROOFING MATERIALS FROM CONSTRUCTION OPERATIONS.
- 11. PROVIDE CURBS AND PRESSURE TREATED WOOD BLOCKING AS REQUIRED FOR ALL ROOF MOUNTED EQUIPMENT, UNLESS NOTES OTHERWISE.
- 12. CONTRACTOR TO COORDINATE LOCATIONS AND SIZES OF ALL NEW ROOF TOP UNITS. LOADS SHALL BE VERIFIED W/ STRUCTURAL ENGINEER.
- 13. PROVIDE A 2 FEET WIDE WALKWAY WITH PROTECTION STRIPS ENTIRELY AROUND ALL ROOF TOP MECHANICAL UNITS AND CREATE A PROTECTION STRIP PATHWAY, 2 FEET WIDE, FROM THE ROOF ACCESS LOCATION(S) TO EACH MECHANICAL UNIT.

KEYNOTES - ROOF PLAN

- SLOPED ROOF TRUSS W/ 5" MINIMUM ROOF INSULATION ABOVE STRUCTURE
- DECK. (2) CRICKET. (SLOPED INSULATION TO PROVIDE
- 3 ROOF DRAINS. (PAIRED PRIMARY AND SECONDARY DRAIN BASIN. CONNECT PRIMARY DRAIN TO STORM SEWER IN BASEMENT. SECONDARY DRAIN TO DISCHARGE ABOVE GRADE. SEE ELEVATIONS. COORDINATE WITH
- MECHANICAL) (4) TAPERED INSULATION ABOVE LEVEL DECK. 1/4" / 1' - 0" MINIMUM SLOPE. (___" MINIMUM INSULATION DEPTH AROUND DRAIN).
- 5 NOT USED
- 6 METAL COPING, TYPICAL AT ALL ROOF PARAPETS (COORDINATE WITH
- ELEVATIONS AND DETAILS)
- 8 ROOF TOP EQUIPMENT. SEE MECHANICAL.
- 9 NOT USED
- (10) NOT USED
- (11) STANDING SEAM METAL ROOFING.

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TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING

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GENERAL NOTES - EXTERIOR ELEVATIONS

- 1. REVIEW EXTERIOR WALL TYPES AND DETAILS FOR ALL EXTERIOR WALL COMPONENTS.
- 2. REVIEW SPECIFICATIONS FOR PRODUCT AND INSTALLATION REQUIREMENTS,
- AND FOR POTENTIAL ASSEMBLY MOCK-UPS. 3. SEE WINDOW TYPES AND OPENING DETAILS ON THE A600 DRAWINGS.
- 4. ARCHITECTURAL / STRUCTURAL ELEVATION 100' 0" EQUALS ELEVATION _____

KEYNOTES - EXTERIOR ELEVATIONS

- (1) METAL ROOF FASCIA, BY PEMB SUPPLIER. COLOR TBD.
- (2) GUTTERS/DOWNSPOUTS, COLOR TBD.
- 3 VENT, SEE MECHANICAL.

ON CIVIL DRAWINGS.

- 4 METAL ROOF COPING. TYPICAL AT ALL PARAPETS COLOR TBD.
- 5 RAIN LEADER DISCHARGE PIPING, 16" ABOVE GRADE. COORDINATE WITH
- MECHANICAL. (6) LOUVER, SEE MECHANICAL.
- $\langle 7 \rangle$ BUILDING MOUNTED LIGHTING. SEE ELECTRICAL.
- 8 NOT USED.
- $\langle 9 \rangle$ BOLLARDS, SEE DETAILS.
- (1) BACKLIT BUILDING SIGNAGE. PROVIDE BLOCKING AS NEEDED. SEE SPEC &
- DETAILS.
- (12) WALL HYDRANT, SEE MECHANICAL.
- (13) EQUIPMENT, SEE MECHANICAL.
- 14 NOT USED
- (15) 2" EXPANSION JOINT BETWEEN PEMB SHOP PORTION AND REMAINDER OF BUILDING. SEE DETAIL 24/A540.

EXTERIOR MATERIAL LEGEND

- AL-1
 ALUMINUM FRAMES ON STOREFRONT: CLEAR ANODIZED

 MP-1
 BASIS OF DESIGN, AVP PANEL BY STAR BUILDING SYSTEM
- MP-1 BASIS OF DESIGN, AVP PANEL BY STAR BUILDING SYSTEMS, VERTICAL INSTALLATION COLOR "TUNDRA"
- FC-1 BASIS OF DESIGN, ILLUMINATION FIBER CEMENT PANELS BY NICHIHA, STAGGERED HORIZONTAL INSTALLATION 9'-0" X 1'-6" COLOR SELECTION OF (3) DIFFERENT PAINT COLORS
- MP-2 METAL ROOFING PANEL. COLOR: TBD PVDF PAINT FINISH. PROFILE: CRF DOUBLELOCK STANDING SEAM ROOF SYSTEM; MECHANICALLY SEAMED 360. PANEL WIDTH: 24". GAUGE: 24 GA.

TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING

BOTTINEAU, NORTH DAKOTA

STRUCTURAL

ICON ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE

MECHANICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

ELECTRICAL

MBN ENGINEERING, INC. 503 7TH STREET NORTH, SUITE 200 FARGO, ND 58102 (701) 478.6336 OFFICE

CIVIL

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T.<u>O.</u> PARAPET HIGH 116' - 0" ROOF BEARING(PEMB) 115' - 0"

OFFICE MAIN FLOOR 100' - 4"(V)

> GARAGE MAIN FLOOR 100' - 0"(V)

___T.<u>O.</u> PARAPET HIGH 116' - 0" ___T.<u>O.</u> PARAPET LOW 113' - 10"

OFFICE MAIN FLOOR 100' - 4"(V) GARAGE MAIN FLOOR 100' - 0"(V) DRAWN BY: Author
Date 01/ 15-25
Date 01/ 15-25
DATE 01/ 15-25
DATE 01/15/2025

Exterior Elevations

0.1

4.

 Building Section 1

 1
 A301

 1/8" = 1'-0"

A302

0.9 1

OFFICE 105

(105)

(1.2)

(1.2)

. 4 . 4 . 4

0.7

OFFICE 104

1

(1.2)

2 (A302)

(106)

2 A302

2 A302

(2) (A302

1

OFFICE106

TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING BOTTINEAU, NORTH DAKOTA

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NO. DESCRIPTION 1 CONSTRUCTION DOCUMENTS

DATE 01/15/2025

DRAWN BY: Author JN: 24-054

Building Sections

STRUCTURAL

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Building Sections

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Wall Sections

SHEET

A311

STRUCTURAL

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DRAWING HISTORY

NO. DESCRIPTION
DATE

1
CONSTRUCTION DOCUMENTS

01/15/2025

DRAWN BY: Author
JN: 24-054
SHEET

Room 117-North

1/4" = 1'-0"

5 A401

14 A401

PT-2 -

T-2

Customer Service Window

Room 118-South 10 A401 /4" = 1'-0"

Room 117-South 7 A401 1/4" = 1'-0"

Room 118-West 11 A401

Room 116-South 15 A401 1/4" = 1'-0"

Room 119-West 8 A401 1/4'' = 1'-0''

10	A 404	Room 118-North
	A401	1/4" = 1'-0"

GENERAL NOTES - INTERIOR ELEVATIONS

- 1. REFER TO FINISH FLOOR PLAN FOR WALL, BASE AND FLOOR FINISHES.
- 2. REFER TO REFLECTED CEILING PLAN FOR CEILING HEIGHT & FINISHES.
- 3. REFER TO G003 FOR STANDARD MOUNTING HEIGHTS.
- 4. HALFTONE FURNITURE, EQUIPMENT AND ACCESSORIES FOR REFERENCE ONLY -BY OWNER.
- 5. ALL TVS AND WALL BRACKETS BY OWNER; PROVIDE POWER, DATA AND BLOCKING AS REQUIRED.
- 6. HP-1 TO BE USED ON ALL CABINETS UNO.
- 7. FINISHED CABINET END IDENTIFIED BY :

KEYNOTES - INTERIOR ELEVATIONS

- (1) MTLP-1 AT TOP OF WALL TILE AND OUTSIDE CORNERS.
- $\langle 2 \rangle$ MTLP-2 AT BASE OF WALL TILE, COVE TRANSITION TO FLOOR TILE.
- $\langle 3 \rangle$ DOUBLE PULL OUT TRASH/RECYCLING.
- (4) SSF-1 COUNTER W/ 6" H APRON; INSTALL CONCEALED WALL BRACKETS AS REQUIRED.
- 5 24x36 MIR.
- 6 INSTALL CONCEALED WALL BRACKETS AS REQUIRED.

TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING

BOTTINEAU, NORTH DAKOTA

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CIVIL

FINISH SCHEDULE

DIVISION	TYPE	MARK	MANUFACTURER	STYLE	COLOR	SIZE	INSTALLATION	FINISH	LOCATION COMMENTS
ARCHITECTURAL	VOOD CASEW	/ORK					1		
06 41 00	PLAM	1	WILSONART	HPL	RIVER CHERRY 7937-38	-	-	38 FINE VELVET TEXTURE	-
WOOD DOORS	1		1				1		
08 14 16	WD	1	VT INDUSTRIES	NATURAL BIRCH	TOFFEE TF24	-	-	SATIN	-
TILING							I		
09 30 00	Т	1	MILE STONE	AREA 51	STEEL	12"x24"	1/2 OFFSET	-	BATHROOM & STORAGE FLOORS
09 30 00	Т	2	MILE STONE	AREA 51	WHITE	12"x24"	1/2 OFFSET	-	BATHROOM WALLS
09 30 00	Т	3	CAESAR CERAMICS USA	WAVES	PACIFIC	12"x24", 6"x24"	SEE 2/A701 FOR PATTERN DETAIL	-	BREAKROOM & CUSTOMER SERVICE FLOORS
TILING - GROUT							1		
09 30 00	G	1	LATICRETE	SEE SPEC	45 RAVEN	MFR RECOMMENDATION	SEE SPEC	-	T-1 LOCATIONS
09 30 00	G	2	LATICRETE	SEE SPEC	89 SMOKE GREY	MFR RECOMMENDATION	SEE SPEC	-	T-2 LOCATIONS
09 30 00	G	3	LATICRETE	SEE SPEC	42 PLATIUM	MFR RECOMMENDATION	SEE SPEC	-	T-3 LOCATIONS
TILING - METAL PROFILES									
09 30 00	MTLP	1	SCHLUTER	JOLLY	ANODIZED ALUMINUM	-	-	-	TOP/OUTSIDE CORNERS OF WALL TILE
09 30 00	MTLP	2	SCHLUTER	DILEX-AHK	ANODIZED ALUMINUM	-	-	-	COVE OF FLOOR/WALL TILE
09 30 00	MTLP	3	SCHLUTER	RENO-TK	ANODIZED ALUMINUM	-	-	-	CARPET TO TILE FLOOR TRANSITION
09 30 00	MTLP	4	SCHLUTER	RENO-U	ANODIZED ALUMINUM	-	-	-	TILE TO CONCRETE FLOOR TRANSITION
ACOUSTICAL TILE									
09 51 00	ACT	1	USG	MARS	WHITE	24"x24"	15/16" GRID	LIGHTLY TEXTURED SQUARE	-
SUSPENDED WOO	D CEILINGS								
09 54 26	WDC	1	9WOOD	9100-D HYBRID PANEL	MAHOGANY STAIN ON WESTERN HEMLOC	K 12"W x LENGTH VARIES	15/16" GRID (HEAVY DUTY)	-	-
RESILIENT FLOOR	ING - BASE &	ACCESS	SORIES						
09 65 00	RB	1	TARKETT	TRADITIONAL BASE 1/8" (TP)	08 ICICLE W	4" HIGH	COVED	-	TYPICAL
09 65 00	RR	1	TARKETT	SLT-71-J	71 STORM CLOUD CG	CARPET TO CONC. REDUCER	-	-	SEE FINISH FLOOR PLANS
TILE CARPETING		-							
09 68 13	WOM	1	TARKETT	ABRASIVE ACTION II (02578)	WINTER GRAY (19103)	12"x24"	MONOLITHIC	-	-
09 68 13	CPT	1	TARKETT	MENTOR (11686)	BE KIND (20506)	24"x24"	VERTICAL ASHLAR	-	-
INTERIOR PAINTIN	G								
09 91 23	PT	1	SHERWIN WILLIAMS	-	ESSENTIAL GRAY SW6002	-	-	EG-SHEL	TYPICAL
09 91 23	PT	2	SHERWIN WILLIAMS	-	POOLHOUSE SW7603	-	-	SEMI-GLOSS	RESTROOMS ABOVE TILE
09 91 23	PT	3	SHERWIN WILLIAMS	-	SMOKY BLUE SW7604	-	-	EG-SHEL	ACCENT
09 91 23	PT	4	SHERWIN WILLIAMS	-	ESSENTIAL GRAY SW6002	-	-	SEMI-GLOSS	HM DOORS & FRAMES
09 91 23	PT	5	SHERWIN WILLIAMS	-	CEILING BRIGHT WHITE SW7007	-	-	FLAT	OPEN CEILINGS
WALL AND DOOR F	PROTECTION							1	
10 26 00	CG	1	INPRO ARCHITECTURAL PRODUCTS	HIGH IMPACT 160	PEBBLE GRAY 0387	2X2X4	BLUNOSE RETAINER	-	-
WINDOW SHADES		-							
12 24 00	RWS	1	MECHO	MECHO/5 MANUAL SHADE SYSTEM	SOHO 1615 SMOKE	SEE WINDOW TYPES	MANUAL	3% OPACITY	WINDOWS - SEE FINISH FLOOR PLANS
COUNTERTOPS-PI	ASTIC LAMIN	ATE							
12 36 00	PLAM	2	WILSONART	HPL	WHITE CASCADE 5003-38	-	-	38 FINE VELVET TEXTURE	-
COUNTERTOPS-SO		=	1	1			1		
12 36 00	SSF	1	WILSONART	-	CHILLED EARTH 9228SS	1/2" THICK	-	-	WINDOW SILLS AND VANITY TOPS

1 A610

Transition Details

Vanity Top

1" = 1'-0"

9 A610

1. ALL FINISHES TO BE INSTALLED PER MANUFACTURER RECOMMENDATIONS UNO

ABBREVIATIONS

ACT:	ACOUSTICAL CEILING TILE
BRK:	BRICK
CG:	CORNER GUARD
CMU [.]	CONCRETE MASONRY UNIT
CMULG	CONCRETE MASONRY UNIT (GLAZED)
CMU D:	
CIVIU-S:	
	(STANDARD 8"X8" SCORED)
CONC:	CONCRETE
CONC-S:	SEALED CONCRETE
CPT:	CARPET
CPT-AS:	CARPET -ANTI-STATIC
CPT-FSD	CARPET -ELECTROSTATIC DISCHARGE
CS:	
	EXPOSED
FRI:	
EVVP:	FABRIC-WRAPPED ACOUSTICAL PANEL
G:	GROUT
GB:	GLASS BOARD
GWB:	GYPSUM WALL BOARD
GL:	GLASS
INTB:	INTEGRAL BASE
I VT·	
MB.	
MID.	MIRROR
MILP:	
N:	
PLAM:	
PLAS:	PLASTER - STANDARD
PT:	PAINT
PT-E:	PAINT - EPOXY
PRF:	PREFINISHED
PWP:	PREFINISHED WALL PANEL
OWP:	OPERABLE WALL PANEL
QT:	QUARRY TILE
OTB:	QUARRY THE BASE
RAF	RESILIENT ATHLETIC FLOORING
RB.	RESILIENT BASE
DN:	
RWS:	ROLLER WINDOW SHADES
SC:	SPECIAL COATING - SEE SPECS
SDT:	STATIC DISSIPATIVE TILE
SLT:	SLATE
SLT-T:	SLATE TILE
SS:	STAINLESS STEEL
SSF:	SOLID SURFACE
ST:	STONE
STN:	STAIN
SV:	SHEET VINYL
SWU	SOUND-ABSORBING WALL UNIT
T.	
TB-	
TRWD.	
VI:	
VWC:	
WD:	WOOD
WDC:	WOOD CEILING
WOM:	WALK-OFF MAT
WT:	WINDOW TREATMENT

TURTLE MOUNTAIN COMMUNICATIONS NEW BUILDING BOTTINEAU, NORTH DAKOTA

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NORTH

GENERAL NOTES - FINISH PLANS

- CORNER GUARDS ON ALL EXPOSED GYP CORNERS. ALL CORNER GUARDS (CG) TO BE CG-1 U.N.O.
- SEE ENLARGED PLANS AND INTERIOR ELEVATIONS FOR WALL TILE LOCATIONS, HEIGHTS AND INSTALLATION PATTERNS.
- 3. SEE REFLECTED CEILING PLAN FOR CEILING HEIGHT AND FINISH AND FINISH
- SCHEDULE FOR FINISH.
- 4. TV AND BRACKET BY OWNER PROVIDE POWER, DATA AND BLOCKING.
- 5. FLOOR FINISH PATTERNS REPRESENTATIONAL FOR INSTALL PATTERN AND DIRECTION ONLY. REFER TO FINISH SCHEDULE FOR EXACT SIZE.
- 6. REFER TO DOOR SCHEDULE FOR DOOR AND FRAME FINISHES.

KEYNOTES - FINISH PLANS

- 1 MTLP-3 AT FLOOR TILE TO CPT TRANSITION.
- (2) MTLP-4 AT FLOOR TILE TO CONC. TRANSITION.
- $\overline{3}$ RR-1 AT CPT TO CONC. TRANSITION.
- 4 PROVIDE 60"H WALL TILE ON ALL WALLS; USE MTLP-1 AT TOP WITH PT-2 ABOVE & MTLP-2 AT COVE BASE TO FLOOR TILE.
- 5 RWS-1 (MANUAL) W/ SSF-1 SILL.

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FINISH LEGEND:

2 4701		T-3 Pattern Detail
Ζ	ATUT	1/2" = 1'-0"

1 First Floor - Furniture Plan

1 A801

NOTES - FURNITURE

1. FURNITURE FOR REFERENCE ONLY, NOT IN CONTRACT.

KEYNOTES - INTERIOR SIGNAGE

- A TYPE A RESTROOM.
- B TYPE B HCP RESTROOM.
- C TYPE C ROOM NUMBER/NAME PLATE.
- D TYPE D ROOM NAME/ROOM NUMBER.
- E TYPE E WORKSTATION NAME PLATE.
- F TYPE F OCCUPANT LOAD.

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DATE 01/15/2025

JN: 24-054

DRAWN BY: SRR

First Floor Furniture & Signage Plan

		PLUMBIN	NG SYMBOLS &	ABBREVIA	TIONS LEGEND				
PLUMBING /	ABBREVIATIONS	PIPING SYSTEMS	PIPING SYSTEMS			PIPING SYMBOLS	PIPING SYMBOLS CONTINUED		
		SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION		
ATC BAS	AUTOMATIC TEMPERATURE CONTROLS	AV	ACID VENT	—-ķī	ANGLE RELIEF VALVE	<u>الم</u>	PRESSURE SWITCH		
CONT.	CONTINUATION	AW	ACID WASTE	ċ	AUTOMATIC FLOW CONTROL VALVE	PT t	PRESSURE TRANSMITTER		
CU	COLD WATER	CRV	CHEMICAL RESISTANT VENT		BACK FLOW PREVENTER		PUMP		
D EC	DRAIN ELECTRICAL CONTRACTOR			δ	BALL VALVE		SENSOR WELL		
HW	HOT WATER	CRW	CHEMICAL RESISTANT WASTE	و <u></u>	BALL VALVE VENTURI	§	SOLENOID VALVE		
MC	MECHANICAL CONTRACTOR	A	COMPRESSED AIR	E	CAPPED PIPE				
MER	MECHANICAL EQUIPMENT ROOM	D	CONDENSATE DRAIN		CHECK VALVE, FLOW DIRECTION	<u> </u>	STRAINER		
RHW	RECIRCULATING HOT WATER	•	DOMESTIC COLD WATER	p	CONCENTRIC REDUCER	;†,	TEMPERATURE-PRESSURE TEST FITTING		
TMV V	TEMPERATURE MIXING VALVE				ECCENTRIC REDUCER EMERGENCY GAS SHUT-OFF	Ţ	TEMPERATURE TRANSMITTER		
VTR W	VENT THROUGH ROOF		DOWESTIC HOT WATER		FLEXIBLE PIPE CONNECTION	Q	THERMOMETER		
wco	WALL CLEAN OUT	• • • •	DOMESTIC RECIRCULATING HOT WATER	FS		 	UNION		
WMT	WASHING MACHINE TRIM	SW	DOMESTIC SOFT WATER	ឝ		_ 🖸	CONNECT NEW TO EXISTING		
251	EXISTING				GAS PRESSURE REGULATOR				
EQUIPMENT	TAGS	T	DOMESTIC TEMPERED WATER		GATE VALVE		KEY NOTE		
DF - 1	DRINKING FOUNTAIN	N	NITROGEN		GLOBE VALVE		DEMOLITION NOTE		
EW-1 EWC-1	ELECTRIC WATER COOLER	NO			HOSE BIBB OR WALL HYDRANT		DEVISION NOTE		
FD-1	FLOOR DRAIN				PIPE CONNECTION - BOTTOM		REVISION NOTE		
HB-1	HOSE BIBB	OSW	OIL/SAND WASTE		PIPE CONNECTION - TOP				
LT-1	LAUNDRY TUB			G	PIPE DOWN	-			
MV - 1	MIXING VALVE	0X	OXYGEN		PIPE GUIDE				
MB - 1	MOP BASIN	SAN	SANITARY WASTE	o	PIPE UP				
P - 1	PUMP				PRESSURE GAUGE				
RCP - 1	RE-CIRCULATOR PUMP	ST	STORM DRAIN	II		_			
S-1 SH-1	SINK			<u> ₩ </u>	PRESSURE REDUCING VALVE	_			
TS-1	TUB / SHOWER		VENT						
U-1	URINAL			1					
WC - 1	WATER CLOSET								
WH - 1	WATER HEATER								
WHY - 1	WALL HYDRANT								

	HVAC SYMBOLS & ABBREVIATIONS LEGEND								
HVAC /	ABBREVIATIONS	PIPING SYSTEMS		PIPING SYMBOLS		DUCTWORK SYSTEM	S/SYMBOLS		
AFF	ABOVE FINISHED FLOOR	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION		
AD ATC	ACCESS DOOR AUTOMATIC TEMPERATURE CONTROLS	— — — — CHWR — — —	CHILLED WATER RETURN		ANGLE RELIEF VALVE		POSITIVE PRESSURE DUCT		
BAS CFM	BUILDING AUTOMATION SYSTEM CUBIC FEET PER MINUTE	CHWS	CHILLED WATER SUPPLY		ARROW INDICATES DIRECTION OF FLOW		NEGATIVE PRESSURE DUCT		
CONT.	CONTINUATION	CWR	CONDENSER WATER RETURN		AUTOMATIC 2-WAY CONTROL VALVE	POS. NEG.	DUCT UP THROUGH ROOF OR FLOOR ABOVE		
Db	DRY BULB TEMPERATURE	Cws	CONDENSER WATER SUPPLY	₽ — — [®] — — —	AUTOMATIC 3-WAY CONTROL VALVE	1 8×10	RECTANGULAR DUCT, ACOUSTICALLY LINED		
Dp	DEWPOINT TEMPERATURE		CONDENSATE DRAIN	₿	AUTOMATIC FLOW CONTROL VALVE	18x10	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHO		
DN EA	DOWN EXHAUST AIR	FC			BACK FLOW PREVENTER				
EAT EC	ENTERING AIR TEMPERATURE ELECTRICAL CONTRACTOR			<u> </u>	BALL VALVE BALL VALVE VENTURI		NOND DOT, DIANETER SHOWN		
ECG FG	EGG CRATE GRILLE	FOR	FUEL OIL RETURN		BUTTERFLY VALVE		ROUND DUCT DOWN		
EWT	ENTERING WATER TEMPERATURE	F0S	FUEL OIL SUPPLY	. ∖	CHECK VALVE, FLOW DIRECTION		ROUND DUCT UP		
EXIST. GPM	EXISTING GALLONS PER MINUTE	FoV	FUEL OIL VENT	D	CONCENTRIC REDUCER		SIDEWALL AIR INLET OR OUTLET		
HC HP	HEATING COIL HORSEPOWER	GCWR	GLYCOL CHILLED WATER RETURN		ECCENTRIC REDUCER FLEXIBLE PIPE CONNECTION	」 「 「 「 」			
HW	HOT WATER	GCWS	GLYCOL CHILLED WATER SUPPLY		FLOW MEASURING DEVICE		RADIUSED ELBOW		
LAT	LEAVING AIR TEMPERATURE		GLYCOL HOT WATER RETURN		FLOW SWITCH	T ¹ T			
LWT MC	LEAVING WATER TEMPERATURE MECHANICAL CONTRACTOR	CHWS		ð	GAS PRESSURE REGULATOR		MITERED ELBOW		
MER MAT	MECHANICAL EQUIPMENT ROOM			<u> </u>	GATE VALVE GLOBE VALVE				
NOM.			HEAT PUMP RETURN	÷	HOSE BIBB OR WALL HYDRANT		MITERED ELBOW WITH TURNING VANES		
NO	NORMALLY CLOSED	HPS	HEAT PUMP SUPPLY	- H	HUMIDISTAT	<u> </u>			
NTS PD	NOT TO SCALE PRESSURE DROP	HGB	HOT GAS BYPASS	×	PIPE ANCHOR		DUCT ACCESS DOOR		
PG OA	PROPYLENE GLYCOL OUTSIDE AIR	HWR	HOT WATER RETURN	:ວເ	PIPE CONNECTION - BOTTOM PIPE CONNECTION - TOP	Z COP CRISE Z	SLOPING RISE OR DROP IN DUCTWORK		
OBD PRV	OPPOSED BLADE DAMPER		HOT WATER SUPPLY		PIPE DOWN		FLEXIBLE DUCT CONNECTION		
PSI	POUNDS PER SQUARE INCH	IG	INTERRUPTIBLE NATURAL GAS		PIPE GUIDE		BACKDRAFT DAMPER		
RA	RETURN AIR	LFR	LOOP FIELD RETURN	 P	PIPE UP PRESSURE GAUGE		COMBINATION FIRE/SMOKE DAMPER		
REG RD	REGISTER ROOF DRAIN			[†]	PRESSURE REDUCING VALVE				
SA SP	SUPPLY AIR STATIC PRESSURE				PRESSURE TRANSMITTER		FIRE DAWFER		
TYP			STEAM CONDENSATE				MOTOR OPERATED DAMPER		
V	VENT PIPE	STM	STEAM	 	SENSOR WELL		SMOKE DAMPER		
Wb XST	WET BULB EXISTING	G	NATURAL GAS	S	SOLENOID VALVE		MANUAL VOLUME DAMPER		
EQUIP	IENT TAGS	LP	PROPANE	│ <u>────</u> ⊗───── │ ──── \ ! ────	STEAM TRAP STRAINER		AIRFLOW MEASURING STATION		
AFM-1	AIRFLOW MEASURING STATION			\rightarrow	SUPPLY AIR OUTLET				
AHU-1 B-1	AIR HANDLING UNIT			<u>.</u>	TEMPERATURE-PRESSURE TEST FITTING	↓ ↓ ↓ ↓	RADIATION DAMPER		
CC-1	COOLING COIL	RL	REFRIGERANT LIQUID	□ <u> </u>	TEMPERATURE TRANSMITTER		SOULADE NECK CETLING DIFFUSED W/ HIGH		
CH-1 CU-1	CHILLER CONDENSING UNIT		REFRIGERANT SUCTION	u u u	THERMOMETER		EFFICIENCY TAKE OFF AND FLEXIBLE DUCT FROM MAIN WITH SIZE INDICATED		
CUH-1 EF-1	CABINET UNIT HEATER EXHAUST FAN			Ū	THERMOSTAT				
ET-1	EXPANSION TANK	-		I			ROUND NECK CEILING DIFFUSER w/ HIGH EFFICIENCY TAKE OFF AND FLEXIBLE DUCT		
FT-1	FIN TUBE RADIATION	_		<u>S-1</u>	WITH TYPE AND AIRFLOW SHOWN (TYPE S-1; 150 CFM). REFER TO		FROM MAIN WITH SIZE INDICATED		
FSD HC-1	FIRE SMOKE DAMPER	-		150	SCHEDULE. (E=EXHAUST, R=RETURN, S=SUPPLY, T=TRANSFER, XST=EXISTING)		RETURN AIR GRILLE w/ HIGH EFFICIENCY		
HP-1		-			CONNECT NEW TO EXISTING		TAKE OFF AND FLEXIBLE DUCT FROM MAIN WITH SIZE INDICATED		
LVR-1	LOUVER				KEY NOTE				
MAU - 1 MOD - 1	MAKEUP-AIR UNIT MOTOR OPERATED DAMPER	-				8x8	HETURN AIR GRILLE W/ HIGH EFFICIENCY TAKE OFF AND RIGID DUCT FROM MAIN WITH SIZE INDICATED		
P-1 BAF-1	PUMP RETURN AIR FAN	-			DEMOLITION NOTE				
RTU-1	ROOFTOP UNIT				REVISION NOTE		DUCT MOUNTED HEATING COIL		
SAF-1	SUPPLY AIR FAN	-							
UH-1	UNIT HEATER					└」			
V - 1 -	VARIABLE AIR VOLUME TERMINAL UNIT								

	WA	TER		HEATER	TANK	RECO	VERY														
	HEA	TER	FUEL	SIZE	CAPACITY	90° F	RISE	VOLTAG	GE/	MANU	ACTURE	R&									
	10		SOURCE	(KW)	(GAL)	(GF	PH)	PHAS	E	N	IODEL		NOT	ES							
	WH	1-1	ELECTRIC	4.5	50	2	1	208/1	1	A.O. SN	AITH PN	-50	1,2	2							
		1) D 2) P	DISCONNECT PROVIDE REL	BY DIVISION 2 IEF VALVE ON	26. THE WATER H	IEATER.															
Γ					LOUV	ER SC	HEDU	LE													
F								FR	EE												
	LOUVER	WIDT	H HEIGH	IT DEPTH	FRAME			AR	REA	MAN	UFACTU	RER &									
	ID	(INCH	I) (INCH	I) (INCH)	TYPE		СҒМ	(SQ	, FT)		MODEL		NOT	ES							_
	LVR-1	72	40	4	CHANNE	il 🗌	5575	10).8	GREE	NHECK E	SJ-401	1,	2							
	1) 2)	design Archit	MAX AIR SII ECT SHALL S	de Pressure i Elect Louver	Drop to 0.05 R Color From	INCH. M STAND	ARD COL	OR CHA	IRT.						ACI	UNIT ID AC-1	W	ALL MO	TYPE DUNTED	DUCTLESS	
				U	NIT HEAT	ER SC	HEDU	LE								1)	PROVI	DE WIT	HLOW	VOLTAGE, H	IA
				HEA	r heat											2)	PROVI	DE ALL	CONTRO	DL WIRING I	BI
UNI	т			INPU	T OUTPU	г	· ·	VOLTAG	SE/	MANU	ACTURE	R&				3)	PROVI	DE A SV	VITCH IN	N THE DRAII	N
ATE	RID FUE	EL TYPE	CFM	I (MBł	I) (MBH)	H	IP	PHAS	E	Ν	IODEL		NOT	ES		4)	PROVI	DE LUG	S THAT A	ARE RATED	F
UH-1	1	LP	3840) 300	249	1	/2	120/1	1	REZN	IOR UDX	с	1			5)	DISCO	NNECT	BY DIVIS	5ION 26.	
UH-2	2	LP	3840) 300	249	1	/2	120/1	1	REZN	IOR UDX	c 🔤	1			6)	PROVI	DE WIT	H SINGL	e point po	N
UH-3	3	LP	2560) 200	166	1	/4	120/1	1	REZN	IOR UDX	c 🔤	1			7)	PROVI	de Uni	T CAPAB	ILE OF LOW	ŀ
	1) PROV	ide Unit	I MOUNTED	DISCONNECT	SWITCH.											8) 9)	Provi Provi	de Uni De Wit	t capab H integ	BLE OF LOW	4 31
		Г																P/		GED RO	0
							SUPPIN	(FAN SI	ECTION					HEATING	;						-
		1	ROOFTOP	DISCHARG	E OA	CEM	ESP			504			ви			STACES	FAT	1.47	AMB	EAT	1
					00 UTM	1150		1 2					DI	501PU1 M		20110	62	100	۲ ۵۵	(UB/WB) 74/63	+
		\vdash	RTIL-2	VERTICAL	00	1320	0.5	12				70		56.7	+	2	67.8	103	90 95	74/63	+
			RTU-3	VERTICAL	125	1270	0.5	12		+ '		70		56.7	+	2	60.2	101	95	74/63	-
			RTU-4	VERTICAL	160	1250	0.5	1.2	D	Τÿ	LP	70		56.7	+	2	57.2	99.2	95	75/64	1
										. ·			!			-					1

1) PROVIDE WITH INTEGRAL DDC CONTROLLER WITH FIELD INSTALLED 7-DAY THERMOSTAT.

2) PROVIDE UNIT MOUNTED DISCONNECT SWITCH, SINGLE POWER POINT CONNECTION FOR UNIT.

WATER HEATER SCHEDULE

3) PROVIDE ECONOMIZER WITH POWER RELIEF FAN. 4) CONTRACTOR TO PROVIDE BACKDRAFT DAMPER WITH LINKED DAMPER BLADES. FIELD MOUNTED IF REQUIRED.

5) DESIGN MAX FACE VELOCITY AT 500 FPM AND MAX OUTLET VELOCITY AT 2000 FPM.

6) PROVIDE LUGS THAT ARE RATED FOR BOTH COPPER AND ALUMINUM CONDUCTORS. 7) PROVIDE 24 INCH TALL, INSULATED ROOF CURB. PROVIDE WITH MINIMUM R10 INSULATION.

8) PROVIDE HOT GAS REHEAT WITH LAT OF 70°F.

9) PROVIDE A SWITCH IN THE DRAIN PAN TO STOP THE UNIT AND PREVENT OVERFLOW.

10) PROVIDE WITH REFRIGERANT DETECTION SYSTEM AND INTEGRAL CONTROLS TO DILUTE AND DISPERSE REFRIGERANT UPON LEAK DETECTION.

11) PROVIDE WITH HAIL GUARDS FOR CONDENSER FANS.

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CIVIL

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SHEET M00⁻

LEGEND & SYMBOLS AND

MECHANICAL SCHEDULES

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NO. DESCRIPTION

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DATE

01/15/25

JN: 24-054

- THERMOSTATIC

WC 🗸

RECIRC VALVE

1/2"

GENERAL NOTES:

- 1. MECHANICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL MECHANICAL EQUIPMENT WITH ALL OTHER TRADES. CONTRACTOR TO VERIFY AND MAINTAIN ALL EQUIPMENT CLEARANCE AS REQUIRED BY CODE AND MANUFACTURERS RECOMMENDATIONS.
- 2. ALL WATER SUPPLIES, STOPS, TRAPS, TAILPIECES, AND FINAL CONNECTIONS SHALL BE PROVIDED BY PLUMBING CONTRACTOR.
- 3. PLUMBING CONTRACTOR SHALL PROVIDE CLEAN OUTS AT THE BASE OF ALL SANITARY AND STORM STACKS.
- 4. PLUMBING CONTRACTOR TO SLEEVE PIPING WHERE REQUIRED. COORDINATE WITH GENERAL CONTRACTOR.
- 5. PROVIDE FIRE CAULK AROUND ALL DUCTWORK AND PIPING AT ALL RATED WALLS AND FLOOR PENETRATIONS. REFER TO THE ARCHITECTS DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.
- 6. PROVIDE FIRESTOPPING AT PENETRATIONS OF RATED WALLS AND FLOORS. REFER TO THE ARCHITECTS DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.
- 7. CONTRACTOR TO CONFIRM AND COORDINATE MECHANICAL PENETRATIONS AT EXTERIOR WALLS AND ROOF WITH ARCHITECT AND MECHANICAL ENGINEER PRIOR TO INSTALL.
- 8. ALL DOMESTIC WATER, SANITARY, AND STORM PIPING SHALL BE ROUTED IN A MANNER TO PREVENT PIPE FREEZING. IF CONTRACTOR HAS CONCERNS OR QUESTIONS, CONTACT DESIGN TEAM PRIOR TO INSTALLATION.

	PLUMB Connec	ING ROU Tion Sc	GH-IN Hedule	
FIXTURE	WASTE	VENT	CW	HW
FD	2"	1-1/2"	-	-
L	2"	1-1/2"	1/2"	1/2"
LT	3"	1-1/2"	1/2"	1/2"
S	2"	1-1/2"	1/2"	1/2"
WC	4"	2"	1"	-

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IAN D BLAIR PE-40748 DATE: 01-15-25	
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FINAL CONNECTION BY PLUMBING CONTRACTOR (TYP)

4" SANITARY SERVICE

WORK OTHE CIVI

1 M101 FIRST FLOOR PLAN - PLUMBING

GENERAL NOTES:

- 1. MECHANICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL MECHANICAL EQUIPMENT WITH ALL OTHER TRADES. CONTRACTOR TO VERIFY AND MAINTAIN ALL EQUIPMENT CLEARANCE AS REQUIRED BY CODE AND MANUFACTURERS RECOMMENDATIONS.
- 2. ALL WATER SUPPLIES, STOPS, TRAPS, TAILPIECES, AND FINAL CONNECTIONS SHALL BE PROVIDED BY PLUMBING CONTRACTOR.
- 3. PLUMBING CONTRACTOR SHALL PROVIDE CLEAN OUTS AT THE BASE OF ALL SANITARY AND STORM STACKS.
- 4. PLUMBING CONTRACTOR TO SLEEVE PIPING WHERE REQUIRED. COORDINATE WITH GENERAL CONTRACTOR.
- 5. PROVIDE FIRE CAULK AROUND ALL DUCTWORK AND PIPING AT ALL RATED WALLS AND FLOOR PENETRATIONS. REFER TO THE ARCHITECTS DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.
- 6. PROVIDE FIRESTOPPING AT PENETRATIONS OF RATED WALLS AND FLOORS. REFER TO THE ARCHITECTS DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.
- 7. CONTRACTOR TO CONFIRM AND COORDINATE MECHANICAL PENETRATIONS AT EXTERIOR WALLS AND ROOF WITH ARCHITECT AND MECHANICAL ENGINEER PRIOR TO INSTALL.
- 8. ALL DOMESTIC WATER, SANITARY, AND STORM PIPING SHALL BE ROUTED IN A MANNER TO PREVENT PIPE FREEZING. IF CONTRACTOR HAS CONCERNS OR QUESTIONS, CONTACT DESIGN TEAM PRIOR TO INSTALLATION.

	PLUMB Connec	ING ROU Tion Sc	GH-IN Hedule	
FIXTURE	WASTE	VENT	CW	HW
FD	2"	1-1/2"	-	-
L	2"	1-1/2"	1/2"	1/2"
MB	3"	1-1/2"	1/2"	1/2"
S	2"	1-1/2"	1/2"	1/2"
WC	4"	2"	1"	-

PLAN NOTES:

- $\langle 1 \rangle$ route 1/2" LP from regulator to rtu and PROVIDE SHUTOFF VALVE, DIRT LEG, AND UNIONS. 2 PSIG TO 7" W.C. REGULÁTOR AT EQÚIPMENT.
- $\langle 2 \rangle$ ROUTE 3/4" LP FROM REGULATOR TO UNIT HEATER AND PROVIDE SHUTOFF VALVE, DIRT LEG, AND UNIONS. 2 PSIG TO 7" W.C. REGULATOR AT EQUIPMENT.
- $\langle 3 \rangle$ ROUTE 1/2" LP FROM REGULATOR TO BOILER AND PROVIDE SHUTOFF VALVE, DIRT LEG, AND UNIONS. 2 PSIG TO 7" W.C. REGULATOR AT EQUIPMENT.
- $\langle 4 \rangle$ COORDINATE CONDENSATE ROUTING WITH ELECTRICAL EQUIPMENT.

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FIRST FLOOR PLAN -PLUMBING

JN: 24-054

1 M200 FIRST FLOOR PLAN - VENTILATION

GENERAL NOTES:

- 1. COORDINATE DUCTWORK ROUTING WITH OTHER TRADES TO ALLOW FOR SUFFICIENT SPACE TO ROUTE DUCTWORK.
- 2. MECHANICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL MECHANICAL EQUIPMENT WITH ALL OTHER TRADES. CONTRACTOR TO VERIFY AND MAINTAIN ALL EQUIPMENT CLEARANCES AS REQUIRED BY CODE AND MANUFACTURERS RECOMMENDATIONS.
- 3. INTAKE AIR MUST BE ROUTED A MINIMUM OF 10'-0" AWAY FROM ANY EXHAUST DUCT OUTLETS. INTAKE WALL CAPS SHALL HAVE INSECT/BIRDSCREEN BARRIER AND CAULK AROUND PERIMETER OF CAP (TYPICAL).
- 4. PROVIDE FIRE CAULK AROUND ALL DUCTWORK AND PIPING AT ALL RATED WALLS AND FLOOR PENETRATIONS.

PLAN NOTES:

- $\langle 1 \rangle$ COMBUSTION AIR AND VENT PIPING. SIZE AND TERMINATE PER MANUFACTURER'S REQUIREMENTS.
- $\langle 2 \rangle$ 18x12 SA/RA UP TO ROOFTOP UNIT.
- $\langle 3 \rangle$ COORDINATE WITH GENERAL CONTRACTOR FOR OPENING SIZES AND LOCATIONS FOR DIFFUSER INSTALLATION IN WOOD PLANK CEILING. CEILING OPENINGS WILL BE CUT BY GENERAL CONTRACTOR.
- $\langle 4 \rangle$ ELECTRIC HEAT BY DIVISION 26.

TEMPERATURE CONTROLS NOTES:

- 1. PROVIDE ALL CONTROL WIRING BETWEEN ROOFTOP UNIT AND ASSOCIATED THERMOSTAT.
- 2. PROVIDE ALL CONTROL WIRING BETWEEN ALL UNIT HEATERS AND ASSOCIATED THERMOSTATS.
- 3. PROVIDE ALL CONTROL WIRING BETWEEN OUTSIDE AIR MOTORIZED DAMPER, EXHAUST FANS, AND CO/NO2 SENSOR.
- 4. PROVIDE ALL CONTROL WIRING BETWEEN AIR CONDITIONER AND ASSOCIATED THERMOSTAT.
- 5. PROVIDE ALL CONTROL WIRING BETWEEN TEKMAR THERMOSTATS, CIRCULATING PUMPS, AND BOILERS.
- 6. EF-3: PROVIDE WITH TIMECLOCK TO OPERATE DURING OCCUPIED HOURS.

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- EXHAUST FAN TO RUN CONTINUOUSLY TO MAINTAIN NEGATIVE PRESSURE IN GARAGE

COMBUSTION AIR AND VENT PIPING. SIZE PER MANUFACTURERS RECOMMENDATIONS

✓ WALL TERMINATION KIT (TYP)

	IAN D BLAIR PE-40748 DATE: 01-15-25	. vr
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FIRST FLOOR PLAN -VENTILATION

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GENERAL NOTES:

- 1. MECHANICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL MECHANICAL EQUIPMENT IN THE MECHANICAL ROOM WITH ALL OTHER TRADES. CONTRACTOR TO VERIFY AND MAINTAIN ALL EQUIPMENT CLEARANCES AS REQUIRED BY CODE AND MANUFACTURERS RECOMMENDATIONS.
- 2. CONTRACTOR SHALL COORDINATE MECHANICAL PENETRATIONS AND CORE DRILLED FLOOR PENETRATIONS WITH ARCHITECT AND OTHER DISCIPLINES PRIOR TO INSTALL.
- 3. PROVIDE FIRE CAULK AROUND ALL PIPING AT ALL RATED WALLS AND FLOOR PENETRATIONS.

PLAN NOTES:

- (1) INSTALL RADIANT FLOOR HEATING RFH-1, 9 LOOPS TOTAL, 420' AVERAGE LENGTH, 5/8"Ø TUBING AT 12" O.C., 9.9 GPM TOTAL. TUBING INSULATION INSTALLED BY MECHANICAL CONTRACTOR.
- INSTALL RADIANT FLOOR HEATING RFH-2, 9 LOOPS TOTAL, 425' AVERAGE LENGTH, 5/8"Ø TUBING AT 12" O.C., 10.1 GPM TOTAL. TUBING INSULATION INSTALLED BY MECHANICAL CONTRACTOR.
- $\langle 3 \rangle$ TEKMAR THERMOSTAT BY MECHANICAL CONTRACTOR.

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FOUNDATION PLAN UNDERGROUND HYDRO	- DNIC
SHEET M300	

1 M301 FIRST FLOOR PLAN - HYDRONIC

GENERAL NOTES:

- 1. MECHANICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL MECHANICAL EQUIPMENT IN THE MECHANICAL ROOM WITH ALL OTHER TRADES. CONTRACTOR TO VERIFY AND MAINTAIN ALL EQUIPMENT CLEARANCES AS REQUIRED BY CODE AND MANUFACTURERS RECOMMENDATIONS.
- 2. CONTRACTOR SHALL COORDINATE MECHANICAL PENETRATIONS AND CORE DRILLED FLOOR PENETRATIONS WITH ARCHITECT AND OTHER DISCIPLINES PRIOR TO INSTALL.
- 3. PROVIDE FIRE CAULK AROUND ALL PIPING AT ALL RATED WALLS AND FLOOR PENETRATIONS.

PLAN NOTES:

1 REFRIGERANT PIPING. SIZE PER MANUFACTURER'S REQUIREMENTS.

TEMPERATURE CONTROLS NOTES:

1. PROVIDE ALL CONTROL WIRING BETWEEN TEKMAR THERMOSTATS, CIRCULATING PUMPS, AND BOILERS.

UNITED AND TURTLE MOUNTAIN COMMUNICATIONS BOTTINEAU, NORTH DAKOTA

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DATE

01/15/25

JN: 24-054

ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE WWW.ICONARCHITECTS.COM

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INFLOOR HEAT MANIFOLD DETAIL SCALE: NOT-TO-SCALE

MODULAR BOILER FLOW DIAGRAM

SCALE: NOT-TO-SCALE

SHEET M402

MECHANICAL DETAILS

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JN: 24-054

₩ DATE: 01-15-25

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DRAWING HISTORY

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1 DESIGN DOCUMENTS

	ELECTRICAL SYMBOLS LEGEND									
	LIGHTING			POWER			SYSTEMS		MISC	CELLANEOUS/ABBREVIATIONS
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT	SYMBOLS	DESCRIPTION	MOUNTING HEIGHT	SYMBOLS	DESCRIPTION	MOUNTING HEIGHT	SYMBOLS	DESCRIPTION
^A O _a	CEILING SURFACE MOUNTED LIGHT FIXTURE, CAPITAL LETTER INDICATES FIXTURE TYPE, SMALL LETTER INDICATES SWITCHING.		Ð	DUPLEX RECEPTACLE ("C" INDICATES EMERGENCY CRITICAL BRANCH POWER)	18 INCHES	S	CEILING MOUNTED RECESSED SPEAKER		J	CEILING-MOUNTED JUNCTION BOX
Ø	RECESSED CEILING MOUNTED LIGHT FIXTURE		₽	DOUBLE DUPLEX RECEPTACLE ("C" INDICATES EMERGENCY CRITICAL BRANCH POWER)	18 INCHES	S	CEILING SURFACE MOUNTED SPEAKER		нJ	WALL JUNCTION BOX
Ю	WALL MOUNTED LIGHT FIXTURE, SURFACE OR, RECESSED MOUNTED		$\stackrel{\wedge}{\ominus}$	TYPE 14-30 RECEPTACLE	18 INCHES	нS	WALL MOUNTED SPEAKER	90 INCHES	C	DASHED LINES INDICATE EXISTING FIXTURES, DEVICES, OR EQUIPMENT
ē	CEILING EXIT SIGN, SHADED SIDE INDICATES LIGHTED FACE, ARROWS INSTALLED AS SHOWN		₽	TYPE 14-50 RECEPTACLE	6 INCHES	ю	CLOCK	90 INCHES TO BOTTOM	'////	HASH MARKS INDICATE ITEM NOTED TO BE REMOVED
н⊗	WALL EXIT SIGN	6 INCHES ABOVE DOOR FRAME TO BOTTOM	ф	GFCI TYPE RECEPTACLE	18 INCHES	ÇŞ	CLOCK/SPEAKER UNIT	90 INCHES TO BOTTOM	\square	CONDUIT CONCEALED IN WALL OR CEILING, QUANTITY OF CONDUCTORS
• •	SUSPENDED LIGHT FIXTURE		<u> </u>	MULTI-OUTLET ASSEMBLY - M.O.A., PROVIDE DEVICES AS	18 INCHES	₩	MICROPHONE OUTLET	18 INCHES		CONDUIT CONCEALED IN FLOOR
0	SURFACE LIGHT FIXTURE		•	DUPLEX RECEPTACLE, HALF SWITCHED	18 INCHES	Ŵϝ	MICROPHONE FLOOR OUTLET		UGE	UNDERGROUND CONDUIT AT 24 INCHES MINIMUM
	RECESSED LIGHT FIXTURE		⊚ _R	FLOOR OUTLET, 'R' INDICATES RECESSED, 'F' INDICATES		₩	VOLUME CONTROL	48 INCHES	L1-2.4.6	HOME RUN TO PANELBOARD, QUANTITY OF CONDUCTORS REQUIRED NOT
	FIXTURE TO BE ON ALL TIME AND CONNECTED TO UNSWITCHED LEG OF CIRCUIT WHEN SHADED.		HTS	TIME SWITCH		AMP	AMPLIFIER CABINET		#10	INDICATED, PROVIDE QUANTITY AS REQUIRED FOR CIRCUIT NUMBERS SHOWN, SWITCHING ARRANGEMENT, OR NUMBER OF HOME RUNS SHOWN. '#10' INDICATES WIRE SIZE, NO NUMBERS INDICATES #12, 3/4 INCH CONDUIT
4_►	EMERGENCY BATTERY LIGHT	7 FOOT 6 INCHES	Т	DRY TYPE TRANSFORMER		ĸ	AUXILIARY INPUT OUTLET	18 INCHES		MINIMUM. SURFACE CONDUIT OR SURFACE RACEWAY
V	EMERGENCY REMOTE LAMP	7 FOOT 6 INCHES	НРВ	PUSH BUTTON		<12	DATA OUTLET ROUGH-IN (NUMBER INDICATES QUANTITY OF CABLES, NO NUMBER INDICATES ONE) ROUGH IN OF CONDUIT AND BOX WITH	18 INCHES		NOTE IDENTIFICATION
HPC	PHOTO CELL	9 F00T	HE	POWER DOOR HANDICAP PUSH PAD	42 INCHES		CAT 6 CABLES. CAT 6 CABLES BY OWNER, INSTALLATION BY EC. DATA OUTLET BY OWNER.			WIRE BASKET TYPE CABLE TRAY
M	CEILING MOUNTED MOTION SENSOR SWITCH		нB	EMERGENCY BOILER SHUTDOWN PUSH BUTTON	48 INCHES	\triangleleft^2_2	COMBINATION COMPUTER/TELEPHONE OUTLET IN SINGLE GANG OPENING	18 INCHES		COMMUNICATIONS CABLE SUPPORT HANGER
ΗМ	WALL MOUNTED MOTION SENSOR SWITCH	48 INCHES	нŢЕ	THERMOSTAT - PROVIDE BY DIVISION 16	48 INCHES		INDICATES ONE)		А	AMPERE
MPP	MOTION SENSOR SWITCH POWER PACK		Ю	THERMOSTAT - FURNISHED BY DIVISION 15, INSTALLED BY DIVISION 16	48 INCHES	▲ w	TELEPHONE OUTLET ("W" INDICATES WALL MOUNTED AT 48 INCHES)	18 INCHES	AC	ABOVE COUNTER
C ²	CONTACTOR (NUMBER INDICATES NUMBER OF POLES)		d[;	UNIT HEATER		Image: Second	COMPUTER/TELEPHONE OUTLET, PROVIDE ROUGH-IN AND CONDUIT ONLY	18 INCHES	AFF	ABOVE FINISHED FLOOR
\$	SINGLE POLE (HORSEPOWER RATED WHEN USED AS MOTOR DISCONNECT)	48 INCHES	\$ _M	THERMAL SWITCH (MOTOR OVERLOAD TYPE)	48 INCHES	۲	FLOOR MOUNTED COMMUNICATIONS OUTLET		AHU	AIR HANDLING UNIT
\$ ₂	DOUBLE POLE	48 INCHES		POWER POLE		Ø	COMMUNICATIONS FLOOR OUTLET WITH FURNITURE WHIP		вс	BELOW COUNTER
\$ ₃	3-WAY	48 INCHES	(1)	MOTOR (NUMBER REFERS TO MOTOR AND EQUIPMENT SCHEDULE SEE SCHEDULE FOR WIRING AND CONTROLLER REQUIREMENTS)		ਮਾ⊻	TELEVISION OUTLET	18 INCHES	с	CONDUIT
\$₄	4 - WAY	48 INCHES		LIGHTING AND APPLIANCE PANELBOARD		R	REQUEST TO EXIT DEVICE	3 INCHES ABOVE DOOR FRAME	СЛН	CABINET UNIT HEATER
\$ _M	OCCUPANCY SENSOR SWITCH	48 INCHES		RECESSED LIGHTING AND APPLIANCE PANELBOARD		K₽R	DOOR POSITION SWITCH, RECESSED		EF	EXHAUST FAN
\$ĸ	KEY OPERATED	48 INCHES		SWITCHBOARD OR MOTOR CONTROL CENTER AS NOTED		K₽S	DOOR POSITION SWITCH, SURFACE MOUNT		EWC	ELECTRIC WATER COOLER
\$ _P	WITH PILOT LIGHT (CAN BE USED WITH OTHER SWITCH TYPES)	48 INCHES		SPECIAL EQUIPMENT CABINET AS NOTED		₩	DOOR POSITION SWITCH		FA	FIRE ALARM
\$ _{мс}	MOMENTARY CONTACT	48 INCHES	ч С в	ENCLOSED MOLDED CASE CIRCUIT BREAKER		HCR	CARD READER	48 INCHES	GFCI	GROUND FAULT CIRCUIT INTERRUPTER
ф	DIMMER (600 WATT UNLESS OTHERWISE NOTED)	48 INCHES	Å	VARIABLE FREQUENCY CONTROLLER WITH CONTROLLER		E	ELECTRIC LATCH BY DIV 08, CONNECTIONS BY DIV 26		GR	GROUND
\$	LIGHTING INTENSITY SELECTOR PANEL	48 INCHES		NON-FUSED DISCONNECT		ES	ELECTRIC STRIKE BY DIV 08, CONNECTIONS BY DIV 26		РН	PHASE
\$ _{LV}	LOW VOLTAGE SWITCH	48 INCHES	<u>ا</u>	FUSED DISCONNECT			SURVEILLANCE CAMERA		τv	TELEVISION
			\boxtimes	MAGNETIC STARTER		HAR	AREA OF REFUGE STATION	48 INCHES	W	WIRE
			-12	COMBINATION STARTER-DISCONNECT					WP	WEATHERPROOF
NOTES: 1. THIS	IS A COMPREHENSIVE SYMBOL SCHEDULE. NOT ALL SYMBOLS ARE APPL	ICABLE TO THESE [DRAWINGS.	3. FOR DEVICES SHOWN AS 48 INCHES MOUNTING HEIGHT, WHI	• EN INSTALLED	IN MASON	RY BLOCK WALLS, MOUNTING AT 48 INCHES TO THE TOP OF THE OUTLET BO	X IS ACCEPTABLE.		
2. MOUN	TING HEIGHT IS TO THE CENTER OF DEVICE UNLESS OTHERWISE INDICA	ATED.								

	LUMINAIRE SCHEDULE									
TYPE	MANUFACTURERS	CATALOG INFORMATION	FIXTURE DESCRIPTION	LED DATA	DRIVER DATA	VOLTAGE	INPUT WATTS	MOUNTING	REMARKS	
A1	LITHONIA OR EQUAL	CPX SERIES	2 FOOT X 4 FOOT LAY-IN LED PANEL, ALUMINUM DOOR FRAME WITH MITERED CORNERS, ACRYLIC FROSTED SMOOTH LENS, BACKLIT PANEL.	6000 LUMENS 3500K	0-10V DIMMING LED DRIVER	120	42	RECESSED		
A2	METALUX OR EQUAL	CPX SERIES	2 FOOT X 4 FOOT LAY-IN LED, ALUMINUM DOOR FRAME WITH MITERED CORNERS, ACRYLIC FROSTED SMOOTH LENS, BACKLIT PANEL.	7200 LUMENS 3500K	0-10V DIMMING LED DRIVER	120	57	RECESSED		
A3	METALUX OR EQUAL	CPX SERIES	2 FOOT X 4 FOOT LAY-IN LED, ALUMINUM DOOR FRAME WITH MITERED CORNERS, ACRYLIC FROSTED SMOOTH LENS, BACKLIT PANEL.	8,500 LUMENS 3500K	0-10V DIMMING LED DRIVER	120	70.9	RECESSED		
A4	METALUX OR EQUAL	CPX SERIES	2 FOOT X 4 FOOT LAY-IN LED, ALUMINUM DOOR FRAME WITH MITERED CORNERS, ACRYLIC FROSTED SMOOTH LENS, BACKLIT PANEL.	10,000 LUMENS 3500K	0-10V DIMMING LED DRIVER	120	87.6	RECESSED		
C1	LITHONIA OR EQUAL	WF6 SERIES	6" ROUND WAFER SWITCHABLE WHITE COLOR TEMP, WITH WAFER MODULE, WET LOCATION LISTED.	1200 LUMENS 80 CRI 3500K	0-10V DIMMING	120	15W	RECESSED	PAINT TRIM WITH ARCHITECT PREFERRED COLOR.	
E1	SURE-LITES OR EQUAL	APX SERIES	SINGLE FACE EXIT LIGHT, NICKEL CADMIUM BATTERY, WHITE THERMOPLASTIC HOUSING, GREEN LETTERS.	LED		120	1	UNIVERSAL		
E2	SURE-LITES OR EQUAL	APX SERIES	DOUBLE FACE EXIT LIGHT, NICKEL CADMIUM BATTERY, WHITE THERMOPLASTIC HOUSING, GREEN LETTERS.	LED		120	1	UNIVERSAL		
E3	SURE-LITES OR EQUAL	LPXC SERIES	EXIT LIGHT WITH 2 ADJUSTABLE EMERGENCY LIGHTING HEADS, NICKEL CADMIUM BATTERY, WHITE THERMOPLASTIC HOUSING, GREEN LETTERS.	LED		120	1.5	UNIVERSAL	PROVIDE WITH EXTERIOR OCR 3W LED REMOTE HEADS WHERE INDICATED ON PLANS.	
EM	DUAL LITE OR EQUAL	LZ SERIES	WALL MOUNTED EMERGENCY BATTERY, (2) ADJUSTABLE LED HEADS, LEAD-CALCIUM BATTERY,	LED		120	3.5	SURFACE	PROVIDE WITH EXTERIOR OCR 3W LED REMOTE HEADS WHERE INDICATED ON PLANS.	
EM1	ISOLITE	SEL50 SERIES	EMERGENCY BATTERY FIXTURE, WHITE POLYCARBONATE HOUSING, ROUND ADJUSTABLE LAMP HEADS, NICKEL CADMIUM BATTERY	220 LUMENS PER HEAD	INTEGRAL	120	3	SURFACE	IN PARKING GARAGES. EQUAL FIXTURES MUST MEET OR EXCEED 50 FEET SPACING OF THIS FIXTURE.	
	*ALL LIGHTING FIXTURES	FINISH AND MOUNTING HE	IGHT TO BE VERIFIED WITH ARCHITECT/OWNER PRIOR TO PURCHASE.		<u> </u>				1	

*EC TO VERIFY FIRE RATING FOR RECESSED CEILING. PROVIDE FIRE CAP FOR RECESSED FIXTURE WHERE REQUIRED PER FIRE-RATED CEILING.

			LUMINAIRE SCH	IEDULE
TYPE	MANUFACTURERS	CATALOG INFORMATION	FIXTURE DESCRIPTION	LED DAT
F1	COOPER OR EQUAL	SNLED SERIES	4-FOOT LED SEMI-FROSTED LENSED STRIP LIGHT. PROVIDE CHAIN MOUNTING KIT.	5200 LUMENS
N1	LITHONIA OR EQUAL	WF6 SERIES	6' ROUND WAFER SWITCHABLE WHITE COLOR TEMP, WITH WAFER MODULE, WET LOCATION LISTED.	1100 LUMENS CRI 40
M1	EXTANT-TM OR EQUAL	HUNTINGTON 3 HTG-3R-LP SERIES	6-FOOTER, 1.5 INCH APERTURE, RECESSED LED, INTEGRAL DRIVER, EXTRUDED ALUMINUM HOUSING, HIGH TRANSMITTANCE EXTRUDED POLYCARBONATE LENS, HIGH LUMEN OUTPUT. TRIM FLANGE TO BE VERIFIED WITH ARCHITECT.	6500 LUMENS
W1	LITHONIA OR EQUAL	WDGE 2 SERIES	SURFACE EXTERIOR WALL FIXTURE, DIE-CAST ALUMINUM HOUSING, VISUAL COMFORT FORWARD THROW OPTIC TFTM, P2 DISTRIBUTION, BRONZE FINISH. VERIFY FINISH WITH ARCHITECT. ABOVE EXTERIOR MAN DOORS.	4000K LED Lumens
W2	LITHONIA OR EQUAL	WDGE 3 SERIES	SURFACE EXTERIOR WALL FIXTURE, DIE-CAST ALUMINUM HOUSING, VISUAL COMFORT FORWARD THROW OPTIC TFTM, P4 DISTRIBUTION, BRONZE FINISH. VERIFY FINISH WITH ARCHITECT.	4000K LED LUMENS
P1	EMER LIGHTING OR EQUAL	CPLED SERIES	14" x 14" LED GARAGE FIXTURE, VANDAL RESISTANT FROSTED POLYCARBONATE LENS, IP 66 RATED, DIE CAST ALUMINUM HOUSING, BRONZE FINISH. WITH IN BUILT OCCUPANCY SENSOR. WHEN ONE SENSOR TURNS ON ALL LIGHTS IN THE FGARAGE TURN ON.	LED Lumens 40
	*ALL LIGHTING FIXTURES	' FINISH AND MOUNTING HEIGH	T TO BE VERIFIED WITH ARCHITECT/OWNER PRIOR TO PURCHASE.	

MOUNTING HEIGHT

18 INCHES

UNITED AND TURTLE MOUNTAIN COMMUNICATIONS BOTTINEAU, NORTH DAKOTA

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DRAWING HISTORY NO. DESCRIPTION DATE 01/15/25 1 DESIGN DOCUMENTS DRAWN BY: PK JN: 24-054 SYMBOLS LEGEND

GENERAL NOTES:

- 1. VERIFY ALL REQUIREMENTS OF UTILITY TRANSFORMER WITH UTILITY COMPANY NORTH CENTRAL ELECTRIC COOP (NCECI).
- 2. COORDINATE LOCATION AND ROUTING OF SITE CONDUITS WITH OTHER SITE UTILITIES.
- 3. ALL SITE CONDUITS SHALL BE AT LEAST 24 INCHES BELOW GRADE.
- 4. SEE DETAIL 3/E100 FOR EXTERIOR LIGHTING CONTROLS.
- 5. ELECTRICAL CONTRACTOR TO COORDINATE AND VERIFY WITH UTILITY COMPANY FOR TELECOM EASEMENT REQUIREMENTS PRIOR TO ROUGH-IN.
- 6. SEE TRANSFORMER PAD DETAIL ON THIS SHEET.

NO SCALE

- (1) SEE RISER DIAGRAM ON SHEET E500 FOR FEEDER SCHEDULE.
- PROVIDE (2) 3 INCH CONDUITS FROM DATA ROOM TO PROPERTY LINE AND EXTEND CONDUITS AS NEEDED FOR TELECOMMUNICATIONS SERVICE ENTRANCE. VERIFY SERVICE POINT WITH TELECOM PROVIDER.
- ③ FUSED DISCONNECT FOR ELECTRICAL PANEL L1A LOCATED IN ELECTRICAL ROOM #115. SEE SHEET E300 FOR DETAILS.
- 4 320A METER SOCKET PER UTILITY COMPANY REQUIREMENTS. SEE RISER DIAGRAM ON SHEET E500.
- 5 COORDINATE WITH THE UTILITY COMPANY FOR RELOCATING THE UNDER GROUND ELECTRICAL UTILITY SERVICE PRIOR TO FOUNDATION WORK. EC RESPONSIBLE TO INCLUDE UTILITY COMPANY FEES IN THE BIDS FOR RELOCATING THE SERVICE. ANY DISCREPANCIES NEED TO BE BROUGHT TO ENGINEER'S ATTENTION PRIOR TO BIDDING.
- 6 PROVIDE 208V, THREE PHASE CONNECTION TO ELECTRIC VAPORIZER SUPPLIED BY MECHANICAL CONTRACTOR. VERIFY EXACT LOCATION AND REQUIREMENTS WITH MC. PROVIDE 30A DISCONNECT FUSED AT 30A. THE DISCONNECT IS TO BE RATED FOR CLASS 1, DIVISION 2 LOCATION. PROVIDE SEAL OFF AT THE BUILDING PRIOR TO ENTERING THE GROUND. CONNECT TO ELECTRICAL PANEL L1B CIRCUIT NUMBERS 19,21,23. SEE MOTOR AND EQUIPMENT SCHEDULE ON SHEET E500.

TRANSFORMER PAD DETAIL NO SCALE

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GROUND ROD

	MI Person	CHAEL A FE GER E GER E 44.38 E 01-15-24 TH DAK	NAT EN LINEE	
DRAV	ING HISTO	RY		
NO. 1	DESCRIPTION	ON MENTS		DATE 01/15/25

DRAWN BY: PK

ELECTRICAL SITE PLAN

JN: 24-054

OCCUPANCY SENSOR SCHEDULE											
TYPE/SYMBOL	MANUFACTURER	MODEL #	DESCRIPTION								
MA	WATTSTOPPER	CI-355	LINE VOLTAGE PASSIVE INFRARED CEILING SENSOR								
MB	WATTSTOPPER	LMDC - 100	LOW VOLTAGE DIGITAL DUAL TECH CEILING SENSOR								
RC	WATTSTOPPER	LMRC-212	2-ZONE 0-10V DIMMING ROOM CONTROLLER. SEE PLAN NOTES.								
\$ _{MV}	WATTSTOPPER	CS-50	PASSIVE INFRARED WALL VACANCY SWITCH.								
\$ _{LV}	WATTSTOPPER	LMSW-105	4 BUTTON LOW VOLTAGE CONTROL SWITCH WITH DIMMING								
\$ _{DM}	WATTSTOPPER	DW-311	DUAL TECH WALL VACANCY SWITCH WITH DIMMING.								
\$ _{DV}	WATTSTOPPER	LMDM-101	DIGITAL DIMMING WALL SWITCH, 1PADDLE, W I.R								
\$			TOGGLE SWITCH								

GENERAL NOTES:

- LOW VOLTAGE WIRING CONNECTIONS. 2. COORDINATE WITH MECHANICAL DUCT WORK AND PIPING PRIOR TO INSTALLATION OF ANY
- LIGHTING FIXTURES. 3. OCCUPANCY SENSOR LOCATION TO BE ADJUSTED
- ACCORDING TO MANUFACTURER RECOMMENDATION. 4.MARKED WITH "NL" AND SHADED FIXTURE TO REMAIN ON UNSWITCHED CIRCUIT. FIXTURE TO BE
- ON AT ALL TIMES. 5.GARAGE CEILING IS SLOPED CEILING. PROVIDE MOUNTING ACCESSORIES FOR FIXTURE TYPE P1 AS NEEDED TO SURFACE MOUNT FIXTURES.
- 6.ALL EXTERIOR BUILDING MOUNTED FIXTURE MOUNTING HEIGHT TO BE VERIFIED WITH ARCHITECT PRIOR TO ROUGH-IN.
- 7.FIXTURE P1 IN GARAGE TO HAVE IN-BUILT MOTION SENSOR EXCEPT FIXTURES WHICH ARE SHADES AND NOTED WITH "NL"ON AT ALL TIMES.

1 E200 FIRST FLOOR LIGHTING PLAN - ELECTRICAL

- 1.ELECTRICAL CONTRACTOR RESPONSIBLE FOR ALL
- PACK. BATTERY PACK TO POWER FIXTURE UPON LOSS OF POWER FOR 90 MINS. MOUNT ABOVE DOOR INSIDE THE FRONT OFFICE LAY IN CEILING.

LIGHTING PLAN NOTES:

ON SHEET 3/E100.

└ OR EQUAL.

 $\langle 2 \rangle$ CONNECT TO ROOM CONTROLLER.

CONTROLS. SEE DETAIL 3/E100.

5 MECHANICAL ROOM: COORDINATE FIXTURE

/ MOUNTING WITH MECHANICAL EQUIPMENT.

TO MOUNT FIXTURE UNDER DUCT WORK.

6 PROVIDE 1-ZONE ROOM CONTROLLER LMRC-211 OR EQUAL.

7 PROVIDE REMOTE EMERGENCY BATTERY PACK

CEILING FOR EXTERIOR FIXTURE. PROVIDE

SURE-LITES (OR EQUAL) EBPLED14W BATTERY

✓ INSIDE THE BUILDING ABOVE LAY IN

PIPING AND DUCTWORK PRIOR TO ROUGH-IN.

PROVIDE MOUNTING ACCESSORIES AS NEEDED

PROVIDE LIGHTING CONTACTOR C1 TO CONTROL EXTERIOR LIGHTING. SEE DETAIL

3 PROVIDE 2-ZONE ROOM CONTROLLER LMRC-212

 $\langle 4 \rangle$ PROVIDE PHOTOCELL FOR EXTERIOR LIGHTING

- $\langle 8 \rangle$ MOUNT FIXTURE 18 INCHES ABOVE DOOR. VERIFY MOUNTING HEIGHT WITH ARCHITECT/ARCHITECTURAL ELEVATIONS.
- 9 LIGHTING CONTROL SWITCH FOR CUSTOMER SERVICE AREA.
- ROOM CONTROLLER FOR CUSTOMER SERVICE

NOT TO SCALE

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3. ROOM CONTROLLER TO BE 1-ZONE OR 2-ZONE CONTROLLER WITH 0-10V DIMMING.

4. LIGHTS SHALL BE CONFIGURED FOR MANUAL ON AND

TYPICAL OFFICE/TRAINING/WORKSTATION ROOM LIGHTING CONTROL DETAIL

DATE

DRAWING HISTORY

1 DESIGN DOCUMENTS

01/15/25

JN: 24-054

DRAWN BY: PK

NO. DESCRIPTION

FIRST FLOOR LIGHTING PLAN

SHEET

E200

GENERAL NOTES: (POWER)

- 1. ALL RECEPTACLES TO BE TAMPERPROOF AS PER NEC 406.12.
- CIRCUIT # AND PANEL NAME.
- DEVICES.
- INSTALLER.
- INSTALLER.
- PROTECTED PER NEC.

- 12. "M" MEANS MULLION MOUNT.

NORTH

2. LABEL ALL RECEPTACLE COVER PLATES WITH

3. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHTS AND LOCATIONS OF WALL MOUNTED DEVICES. CLOSE COORDINATION WITH THE MECHANICAL CONTRACTOR IS REQUIRED TO INSTALL MANY OF THE REQUIRED

4. VERIFY ALL EQUIPMENT EXACT LOCATIONS PRIOR TO INSTALLATION.

5. COORDINATE AND VERIFY EXACT LOCATIONS OF FLOOR BOXES WITH ARCHITECT AND FURNITURE

6. VERIFY MOTOR EQUIPMENT LOCATIONS WITH MECHANICAL CONTRACTOR.

7. VERIFY DEVICE LOCATIONS WITH FURNITURE

8. ALL BREAKROOM RECEPTACLES TO BE GFCI

- 9. GARAGE AREA RECEPTACLE MOUNTING HEIGHT TO BE VERIFIED WITH ARCHITECT/OWNER.
- 10. VERIFY POWER REQUIREMENTS FOR OWNER PROVIDED DATA RACK WITH OWNER/ARCHITECT. VERIFY DATA RACK LOCATION AND MOUNTING HEIGHT FOR RECEPTACLE.
- 11. ALL GARAGE RECEPTACLE TO BE GFCI RATED.

POWER & SYSTEMS PLAN NOTES:

- (1) PROVIDE 120V CONNECTION TO COPIER/PRINTER SUPPLIED BY OWNER. COORDINATE AND VERIFY CONNECTION TYPE, LOCATION AND MOUNTING HEIGHT WITH COPIER SUPPLIER.
- 2 PROVIDE RECEPTACLE AT 60" IN MILLWORK FOR OWNER SUPPLIED MICROWAVE. COORDINATE AND VERIFY EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECT AND MILLWORK SUPPLIER PRIOR TO ROUGH-IN.
- 3 PROVIDE 1.5KW FAN FORCED HEATER EQUAL TO QMARK AWH3150F, 120V, SINGLE PHASE WITH INTEGRAL THERMOSTAT AND DISCONNECT. CONNECT TO 20A/1P BREAKER IN PANEL L1A. VERIFY EXACT LOCATION WITH ARCHITECT. PROVIDE SEMI RECESSED KIT. VERIFY WALL RATING AND LOCATION WITH ARCHITECT.
- 4 PROVIDE RECEPTACLE FOR NEW DATA RACK. DATA RACK BY OWNER. VERIFY LOCATION AND MOUNTING HEIGHT WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.
- 5 PROVIDE RECEPTACLE AT 30 INCHES FOR REFRIGERATOR PROVIDED BY OTHERS.
- 6 PROVIDE 3-GANG RECESSED WALL BOX EQUAL TO ARLINGTON TVBS507 SERIES, 1-GANG FOR POWER AND 2-GANGS FOR LOW VOLTAGE CABLING. VERIFY MOUNTING HEIGHT OF DEVICES AND BOX WITH ARCHITECTURAL DETAILS.
- 7 PROVIDE 120V CONNECTION TO DOOR HARDWARE POWER SUPPLY.
- 8 PROVIDE FLOOR BOX WITH COVER PLATE EQUAL TO EVOLUTION RFB SERIES. FLOOR BOX TO HAVE (2) DUPLEX RECEPTACLE MOUNTING PLATE, (2) COMMUNICATION MOUNTING PLATE AND PROVIDE FURNITURE FEED IN OPEN WORKSTATION AREA(ROOM #112). FLOOR BOX TO BE CAST METAL, FULLY ADJUSTABLE WITH A FLANGED DIE-CAST ALUMINUM ASSEMBLY WITH BRUSHED ALUMINUM FINISH. LID TO BE FLUSH WITH FINISHED FLOOR, NO CUTOUTS. EC TO VERIFY FLOOR TYPE WITH ARCHITECT PRIOR TO PURCHASE.
- 9 PROVIDE 120V/20A WHIP FOR FURNITURE CONNECTION. COORDINATE WITH FURNITURE INSTALLER. VERIFY EXACT REQUIREMENTS AND MOUNTING HEIGHT WITH FURNITURE SUPPLIER.
- 10 PROVIDE 120 VOLT CONNECTION TO OVERHEAD DOOR OPENER. PROVIDE CONNECTION TO ALL CONTROLS AND SAFETY DEVICES.
- (1) PROVIDE 120V CONNECTION WITH 20A DISCONNECT TO OWNER PROVIDED SIGNAGE. VERIFY EXACT MOUNTING HEIGHT AND LOCATION WITH OWNER/ARCHITECT.
- (12) PROVIDE 120 VOLT CONNECTION TO POWER DOOR OPERATOR. PROVIDE CONNECTION TO ASSOCIATED PUSH PLATES.
- (13) UNDERGROUND CONDUITS STUBBED UP AND CAPPED FOR FUTURE AUTO TRANSFER SWITCHES AND GENERATOR CONNECTIONS. SEE RISER DIAGRAM ON SHEET E500. VERIFY LOCATION WITH OWNER/ARCHITECT.
- (14) PROVIDE 4.8KW FAN FORCED HEATER EQUAL TO QMARK AWH4508F, 208V, SINGLE PHASE WITH INTEGRAL THERMOSTAT AND DISCONNECT. CONNECT TO 30A/2P BREAKER IN PANEL L1A. VERIFY EXACT LOCATION WITH ARCHITECT. PROVIDE SEMI RECESSED KIT. VERIFY WALL RATING AND LOCATION WITH ARCHITECT.
- (15) PROVIDE 120V CONNECTION IN CABINET BELOW FOR DISHWASHER. CONNECT TO GFCI RATED CIRCUIT BREAKER.
- (16) PROVIDE RECEPTACLE FOR NEW ACCESS CONTROL PANEL. ACCESS CONTROL PANEL BY OWNER. VERIFY LOCATION AND MOUNTING HEIGHT WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.
- (17) RECEPTACLE LOCATION AND MOUNTING HEIGHT TO BE VERIFIED WITH ARCHITECT PRIOR TO ROUGH-IN.

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DRAWING HISTORY

NO. DESCRIPTION

1 DESIGN DOCUMENTS

DATE

01/15/25

JN: 24-054

DRAWN BY: PK

FIRST FLOOR POWER PLAN

SHEET E300

GENERAL NOTES:

- 1. PROVIDE CAT6 CABLE FROM EACH SECURITY CAMERA LOCATION BACK TO OWNER PROVIDED DATA RACK LOCATION IN ELECTRICAL ROOM #115.
- 2.ALL SECURITY CAMERA LOCATIONS TO BE COORDINATED WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.
- 3.SEE CARD ACCESS ROUGH-IN DETAILS ON SHEET E5/E600.
- 4. VIDEO SURVEILLANCE SYSTEM INCLUDING ALL CAMERAS BY OWNER. DATA ROUGH-IN AND INSTALLATION OF CAT 6 CABLES BY EC. CAT 6 CABLES BY OWNER. TESTING AND TERMINATION AT BOTH ENDS BY OWNER. CAT 6 CABLES WILL BE ROUTED FROM DATA ROUGH-IN LOCATION TO OWNER PROVIDED DATA RACK LOCATION IN ROOM 115.
- 5. ALL CAT 6 CABLES, DATA RACK AND SUPPORTING STRUCTURE, DEVICES BY OWNER. INSTALLATION OF ALL CAT 6 CABLES THROUGHOUT BY EC. TERMINATIONS AND TESTING BY OWNER.
- 6.DATA ROUGH-IN LOCATION IN EACH OFFICE AND WORKSTATION AREA TO BE VERIFIED WITH OWNER/ARCHITECT.
- 7. ALL CONDUIT RUNS INTENDED FOR VOICE/DATA CABLING WIRING SHALL BE A MINIMUM OF 3/4" EMT, RUN IN THE MOST DIRECT PATH WITH A MINIMUM AMOUNT OF BENDS TO FUTURE DATA RACK LOCATION IN ROOM #115. TELECOM CONDUITS SHALL BE ORANGE, FACTORY TINTED CONDUITS.
- 8.FLOORBOXES ON SYSTEM SHEET ARE SAME AS ON THE POWER SHEET.
- 9.VERIFY EXACT REQUIREMENTS AND LOCATION FOR DATA CABLING IN WORKSTATION AREA WITH OWNER PRIOR TO ROUGH-IN.
- 10.EC TO PROVIDE AND USE J-HOOKS AND SUPPORTING STRUCTURE AS NEEDED FOR ROUTING CAT 6 CABLES.

PLAN NOTES:

- 1 PROVIDE SINGLE GANG WALL MOUNTED JUNCTION BOX FLUSH MOUNTED WITH 3/4 INCH CONDUIT AND CAT 6 CABLE STUBBED TO ACCESSIBLE CEILING SPACE BACK TO DATA RACK LOCATION IN ROOM #115 FOR OWNER PROVIDED SECURITY CAMERA, MOUNT AT 12'ABOVE GRADE. VERIFY MOUNTING HEIGHT WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN. CAT 6 CABLES PROVIDED BY OWNER AND INSTALLED BY EC. COORDINATE WITH EXTERIOR ELEVATIONS PRIOR TO ROUGH-IN.
- 2 PROVIDE SINGLE GANG WALL/CEILING MOUNTED JUNCTION BOX WITH 3/4 INCH CONDUIT AND CAT 6 CABLE STUBBED TO ACCESSIBLE CEILING SPACE ROUTED TO ELECTRICAL ROOM #115 FOR OWNER PROVIDED SECURITY CAMERA. VERIFY MOUNTING HEIGHT WITH ARCHITECT/OWNER. IN AREAS OF LAY-IN CEILING CAT6 CABLE CAN BE ROUTED FREE AIR. USE J-HOOKS TO SUPPORT CABLES.
- (3) PROVIDE ROUGH-IN FOR FUTURE CARD ACCESS, SEE DETAIL 3/E600.
- PROVIDE BOILER EMERGENCY SHUT DOWN PUSH BUTTON. SEE SPECIFICATIONS.
- 5 PROVIDE (2) 1 1/4 INCH CONDUITS WITH CAT6 CABLES FROM FLOORBOX (ROOM #110 & #112)STUBBED TO ACCESSIBLE CEILING SPACE TO ELECTRICAL ROOM #115 DATA RACK LOCATION FOR DATA CABLING. COORDINATE AND VERIFY EXACT LOCATION AND REQUIREMENTS WITH FURNITURE INSTALLER. PROVIDE FURNITURE WHIP FOR DATA JACKS IN SYSTEMS FURNITURE IN ROOM #112 ONLY. IN ROOM #110, ONE CONDUIT WILL ROUTE TO EAST SIDE TV LOCATION AND THE OTHER IN WEST SIDE TV LOCATION. CAT 6 CABLES PROVIDED BY OWNER AND INSTALLED BY EC.
- \bigcirc wall mounted data rack by owner.
- PROVIDE GRAY PAINTED, FIRE RATED, 3/4 INCH PLYWOOD FROM FLOOR TO 8' AFF FOR FUTURE TELECOM EQUIPMENT MOUNTING.
- PROVIDE CAT6 CABLE BACK TO ELECTRICAL ROOM #115. MOUNT TO 4 INCH SQUARE WALL BOX. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- (9) PROVIDE EMPTY (2) 3" CONDUIT UNDERGROUND FOR TELECOMMUNICATION SERVICE ENTRANCE. VERIFY EXACT ROUTING AND LOCATION WITH PROVIDER.
- PROVIDE TELECOMMUNICATION GROUNDING BAR. SEE DETAIL ON SHEET 2/E600.
- PROVIDE FURNITURE WHIP FOR DATA JACKS IN SYSTEMS FURNITURE. COORDINATE AND VERIFY EXACT LOCATION AND REQUIREMENTS WITH FURNITURE INSTALLER. SIZE CONDUIT AS PER NUMBER OF CABLES, 1 INCH MINIMUM. DATA ROUGH-IN BY EC, INSTALLATION OF CAT 6 CABLE FROM DATA OUTLET ROUGH-IN TO DATA RACK LOCATION BY EC. DATA OUTLETS AND CAT 6 CABLES BY OWNER.

UNITED AND TURTLE MOUNTAIN COMMUNICATIONS BOTTINEAU, NORTH DAKOTA

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RAV	VING HISTO	RY		
NO. 1	DESCRIPTION	ON MENTS		DATE 01/15/2

FIRST FLOOR SYSTEMS PLAN	

JN: 24-054

DRAWN BY: PK

PANELBOARD LOAD SCHEDULE

	BREAKER	CIRCUIT		PAN	NEL:	L1B) MP	_	MAIN: VOLTS: AIC RATING:	MCB 208Y/120	200A , 3 PH., 4W. 0,000	_	ENCLOSURE:	NEMA	1 CF		LOCATION:	GARAG	GE		PANE	EL:	L1A 225 AMP		AIC	MAIN: MC VOLTS: 2 RATING:	B 2 208Y/120, 3 PH 10,000	200A I., 4W.	ENCLOSU	RE: NEI NG: SUR	EMA 1	LOC	ATION: ELE	ECT ROOM		
BONDED NEUTRAL BUS D CONNECT ND GROUND ROUNDING ELECTRODE ONDUCTOR B/4"CX10'-0" COPPERCLAD ORIVEN GROUND ROD HOTE : ROVIDE OTHER GROUND CONNECTIONS AS PECIFIED IN N.E.C. ARTICLE 250-52	NDING DE	BONDING JUMPER MAIN WATER WATER PIPE LOCATED ON MAIN VALVE FLOOR OR #6 CU 3/4 TELEPHONE TEN BONDING JU TO CONCRETE I REBAR (MIN. 2 OF REBAR)	SERVICE GROUNDING HOUSE SIDE OF GRADE "C. TO MAIN RMINAL BOARD UMPERS ENCASED 20' LENGTH	PAN RAT CKT # 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41	NEL: TING: TRIP AMPS 20 1 20 1		3 ILO 3 RECPT 4 800 800 800	AD IN VOLT-AI MOTORS 200 200 200 200 200 1968 1968 1968 1968 1968 1968 200 200 200 200 200 200 200 200 200 20	MAIN: VOLTS: AIC RATING: IPERES KITCHEN	: MCB : 208Y/120 : 11 HEAT/AC HEAT/AC	200A , 3 PH., 4W. 0,000 LOAD DESCRIPTION SHOP LIGHTING SHOP RCPT SHOP RCPT EXT RCPT OVERHEAD DR 1 OVERHEAD DR 2 OVERHEAD DR 3 SPARE	PH DE3 A DE3 A DE3 A DE3 A DE3 A DE3 B DE3 C DE3 A DE3 D DE3 NOTES 1.	ENCLOSURE: MOUNTING: LOAD SCRIPTION EF-1 SPARE EF-2 UH-1 UH-2 UH-3 SPARE	NEMA SURFA HEAT/AC	1 CE LOAD 1 KITCHEN	IN VOLT-AMPE MOTORS 200 790 200 200 200 200 200 200	LOCATION: FED FROM: U RECPT	GARAG	CORMER TRIP AMPS POLE 20 1	CKT # 2 4 6 8 10 12 14 16 18 20 22 24 26 28 300 32 34 36 38 40 42	PANE RATII CKT # 1 3 5 7 9 11 13 15 17 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47	TRIP AMPS POLE 20 1 20<	L1A 225 AMP	LO→L IN RECPT MTR3 200 MTR3 720 MTR3 1200 MTR3 600 MTR3 400 MTR3 400 MTR3 400 MTR3 <td>AIC VOLT-AMPERES S&EQUIP K</td> <td>MAIN: MC VOLTS: 2 RATING:</td> <td>B 22 208Y/120, 3 PH 10,000 /AC /AC</td> <td>200A I., 4W. ESCRIPTION F HDR 101 ICE 103 ICE 103 ICE 103 ICE 103 ICE 103 ICE 103 ICE 104 ICE 105 ICE 106 ICE 107 ICE 108 ICE 109 STAT 110 STAT 110 STAT 110 STAT 110 STAT 110 STAT 110 WORKSTSH WORKSTSH WORKSTSH WORKSTSH PLY 113</td> <td>ENCLOSU MOUNTI PH LOAD DESCRIPTI A LIGHTING C LIGHTING C LIGHTING A EXT LIGHTING B ELECTRICAL 11 C DATA RACK A SPARE B VIDEO SURV F C RESTROOMS A SPARE B HALLWAY 120 C PRINTER A SPARE B HALLWAY 120 C PRINTER A RTU-1 B C A RTU-2 B C A RTU-3 B C A RTU-3 B C A RTU-4 B C A RTU-4</td> <td>RE: NEI NG: SUR NG: SUR NG: HEAT/AC</td> <td>Image: 1 RFACE LOAD II KITCHEN I I I <</td> <td></td> <td>ATION: ELL FROM: FUS RECPT LIGHT: 1580 1100 01000 1100 400 840 400 840 200 600 600 600 500 2088 2088 2088</td> <td>ICT ROOM ICT ROOM</td> <td>POLE CKT 1 2 1 4 1 6 1 8 1 10 1 12 1 14 1 16 1 18 1 20 1 22 1 24 26 28 3 30 32 34 3 36 34 3 3 36 34 3 3 36 34 3 3 36 3 36 3 36 3 44 44 46 3 44</td> <td></td>	AIC VOLT-AMPERES S&EQUIP K	MAIN: MC VOLTS: 2 RATING:	B 22 208Y/120, 3 PH 10,000 /AC /AC	200A I., 4W. ESCRIPTION F HDR 101 ICE 103 ICE 103 ICE 103 ICE 103 ICE 103 ICE 103 ICE 104 ICE 105 ICE 106 ICE 107 ICE 108 ICE 109 STAT 110 STAT 110 STAT 110 STAT 110 STAT 110 STAT 110 WORKSTSH WORKSTSH WORKSTSH WORKSTSH PLY 113	ENCLOSU MOUNTI PH LOAD DESCRIPTI A LIGHTING C LIGHTING C LIGHTING A EXT LIGHTING B ELECTRICAL 11 C DATA RACK A SPARE B VIDEO SURV F C RESTROOMS A SPARE B HALLWAY 120 C PRINTER A SPARE B HALLWAY 120 C PRINTER A RTU-1 B C A RTU-2 B C A RTU-3 B C A RTU-3 B C A RTU-4 B C A RTU-4	RE: NEI NG: SUR NG: SUR NG: HEAT/AC	Image: 1 RFACE LOAD II KITCHEN I I I <		ATION: ELL FROM: FUS RECPT LIGHT: 1580 1100 01000 1100 400 840 400 840 200 600 600 600 500 2088 2088 2088	ICT ROOM ICT ROOM	POLE CKT 1 2 1 4 1 6 1 8 1 10 1 12 1 14 1 16 1 18 1 20 1 22 1 24 26 28 3 30 32 34 3 36 34 3 3 36 34 3 3 36 34 3 3 36 3 36 3 36 3 44 44 46 3 44	
		LOAD AMPS		I BR ITW H	LIGHTING ECEPTACLES FORS & EQUIP TCHEN EQUIP. HEAT / AC TOTA	600 800 3358 0 LARGEST M L AMPS: MOTOR AN	0 800 2368 0 0 0 MOTOR	0 800 3158 0 0 27 27 MENT SCH	600 2400 8884 0 0 TOTA	1.00 0.50 0.90 0.65 0.90 0.25 AL VA:	600 1200 7996 0 0 0 9,796 LER]	ISCONNECT		CON	TROL OR AUX	KILIARY DEV	VICE (SEE NOTE	res)	49 51 53 55 57 59 61 63 65 67 69 71 73 75 77	20 1 20 1 30 2 20 2 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1			396 2250 2250 400 200 800 200	150	INCL BOIL INCL INCL INCL INCL INCL INCL INCL IN	JH 114 LER B-1 WH-1 FH-1 FH-1 FF-3 . RCPT TACTOR PARE PARE PARE PARE PARE PARE PARE PARE PARE	A EF-3 B DOOR HARDWARI C AC-1 A P-1 C P-1 A P-2 B BP-1 C SIGNAGE A AUTO ACCESS D B SPARE C SPARE B SPARE C SPARE C SPARE	E 1976 1976 R		200 500 500 200 200 600	400	20 20 25 20 20 20 20 20 20 20 20 20 20 20 20 20	1 50 1 52 54 2 56 1 58 1 60 1 62 1 64 1 66 1 68 1 70 1 72 1 74 1 76 1 75 1 75	
DESCRIPTION OF MOTOR OR EQUIPMENT DESCRIPTION OF MOTOR OR EQUIPMENT NOF TOP UNIT RTU-1 ROOF TOP UNIT RTU-2 ROOF TOP UNIT RTU-2 ROOF TOP UNIT RTU-3	(ON NOOL) NOILYCOOL ROOF ROOF ROOF	L TITUL OR FULL (FLA) OR FULL (FLA) OR FULL (FLA) OR FULL 12.4 MCV 12.4 MCV 12.4 MCV 12.4 MCV 12.4 MCV	208, 3 208, 3 208, 3	VIII VIII VIIIIII	CONDUCTOR SIZE AND QUANTI 3 #10 3 #10 3 #10	CONDUCTOR SIZE GROUND CONDUCTOR SIZE #10 #10 #10	CONDUIT SIZE	FAULT CURRENT RATING (AMP	VARIABLE FREQUENCY DRIVE	THERMOSTAT MOTION SWITCH	0000PANCY SENSOR 000PANCY SENSOR 000PANCY SENSOR 000PANCY SENSOR 000PANCY SENSOR 000PANCY SENSOR 000PANCY SENSOR 00PANCY	UNIT UNIT UNIT	DISCONNECT SIZE DISCONNECT SIZE FUSIBLE / NON FUSIBLE DISCONNECT SIZE	NEMA RATING NEWA RATING NEWA RATING NEWA RATING	DISCONNECT BY (DIV. NO.) 26 26 26	VFD FUSE TYPE FOR FUSED DISC.	MOTION SWITCH THERMOSTAT	AQUASTAT FLOAT SWITCH	FIRE ALARM CONTROL RELAY FIRE ALARM DUCT DETECTORS (RETURN)	INTERLOCK WITH 9 9 LABELS	79 81 83 L0. L1 REC MOTOF KITCH	20 1 20 1 *20 1 *20 1 AD TYPE IGHTING EPTACLES RS & EQUIP HEN EQUIP. AT / AC TOTAL	A 3420 14252 4150 0 2476 LARGEST MOTOR	LOAD CALO VA / PHASE B 1100 15472 1 796 3 0 2700 3	CULATIONS CULATIONS C C 1100 4652 3750 0 3976	DTAL VA DEM/ FACT 5620 1.0 44376 0.5 8696 0.6 9152 0.5 0.12 0.2 TOTAL VA	ND DIVERSI 00 55 100 77 155 100 8 155 45	PARE PARE FARE FARE FARE FARE FARE FARE FARE F	A SPARE B SPARE C SPARE <u>NOTES:</u> 1. BREAKERS NO 2. PANEL CAN I	TED WITH * TO DE SERIES RATED) BE GFCI ED WITH UPSTREAM	OCP DEVICE.		*20 *20 *20	1 80 1 82 1 84	
4 ROOF TOP UNIT RTU-4 5 SPLIT SYSTEM AC-1 (OUTDOOR/INDR) 6 EXHAUST FAN EF-1 7 EXHAUST FAN EF-2 8 EXHAUST FAN EF-3 9 WH-1 0 BOILER B-1 1 UNIT HEATER UH-1 2 UNIT HEATER UH-2 3 UNIT HEATER UH-3 4 RECIRC PUMP RCP-1 5 PUMP P-1 6 PUMP P-2 7 BP-1	ROOF ROOF GARAGE GARAGE ROOF #114 #114 #114 GARAGE GARAGE GARAGE GARAGE H114 #114 #114 #114 #114 #114 #114 #114 #114 #114 #114	17.4 MCA 19A FRAC 2 HP FRAC 4.5 KW 3.3A 1/2 HP 1/2 HP 1/2 HP 1/4 HP FRAC FRAC FRAC FRAC	208, 3 208, 1 120, 1 208, 1 120, 1 208, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1 120, 1	L1A-44,48,48 L1A-54,56 L1B-1 L1B-6,8 L1A-63 L1A-51 L1B-10 L1B-10 L1B-12 L1B-14 L1A-58 L1A-58 L1A-60 L1A-62 L1A-64	3 #10 2 #12 2 #12 2 #12 2 #12 2 #12 2 #10 2 #12 2 #12 2 #12 2 #12 2 #12 2 #12 2 #12 2 #12 2 #12 2 #12	#10 #10 #12 #12 #12 #12 #12 #12 #12 #12 #12 #12	1" 3/4" 1/2" 1/2" 3/4" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2"				23 ON	UNIT UNIT UNIT UNIT UNIT UNIT UNIT UNIT	30A F 30 30A F 30 20A NF 20A NF 20A F 20 30A F 20 30A NF 20A NF	3R 3R 1 1 3R 1	26 26 26 26 26 26 26 26 26 26 26 26 26 2					6 5									PLAI PROV PROV PROV PANE PROV PHAS PROV PHAS PROV PHAS PROV PHAS	N NOTES: IDE GROUND ICE GROUND IDE NEW SE L L1B, 200, IDE NEW EL E WITH 84 (IDE 320A M	DING PER NEC DING DETAIL ERVICE ENTRA DA, 208V/3 F LECTRICAL PA CIRCUITS. METER SOCKET	C. SEE THIS NCE RATED HASE WITH NEL L1A, 2 PER UTIL]	S SHEET FOR ELECTRICAL 30 CIRCUIT 200A, 208V/	S. 3		
8 EV-1 NOTES FOR AUXILIARY CONTROL DEV 1. ELECTRICAL CONTRACTOR TO FU 2. ELECTRICAL CONTRACTOR TO SE 3. ELECTRICAL CONTRACTOR TO WI 4. MC TO PROVIDE DUCT DETECTOR	OUTSIDE EVICE EURNISH, SET, AND WIRE SET, AND WIRE AUXILIAN MIRE AUXILIARY CONTRON OR IN SUPPLY AND RETUR	5.9 KW E AUXILIARY CON RY CONTROL DEVI L DEVICE FURNIS RN DUCTS. (NO FA	208, 3 TROL DEVICE CE FURNISHED BY (HED AND SET BY O ACP IN THE BUILD:	L1B-19,21,23 DTHERS [HERS [NG]	3 #10	#10	1"		5. INDO	OR UNIT IS P IDE FAULT CU	23 ON	UNIT	30A F 30) 3R INTERCONNE CIFICATION	26 CTION BETWI SECTION 26	EEN THE UNI	ITS								NEW WALL				5 PROV DISC FROM 6 PROV FUTU FROM STUB VERI	IDE WALL M ONNECT FUS THIS FUSE IDE CONDUI RE GENERATOR GENERATOR UP AND CA FY LOCATIO	MOUNTED 200A SED AT 200A ED DISCONNEC ITS AS NOTEL FOR CONNECTI A LOCATION T APP CONDUITS ON WITH ARCH	A SERVICE E PANEL L14 T. O TO GARAGE ONS. ROUTE O BUIDLING FOR FUTUF HITECT PRIC	ENTRANCE RA A WILL BE F E #120 FOR E UNDERGROU A ENTRANCE. RE CONNECTI DR TO ROUGH	TED ED ND ONS.		
								FEEDER NUMBER 200S 200N 400S	AMPERE RATING 200A 200A 400A	PHASE CONDUC CONDU QUANTITY 3 3 3 3	FE STORS PER IT SIZE 3/0 AWG 3/0 AWG 3/0 AWG	EDER SC NEUTRAL C QUANTITY 1 1 1 1 NE SE	CHEDULE CONDUCTOR SI 3/0 AM 3/0 AM 3/0 AM 3/0 AM	COPPER COPPER G G G G COND SI G G COND SI SI SI SI SI SI SI SI SI SI		TORS CONDUIT SIZE P 2" 2" 2" NEW PAD M TRANSFORME 120/208V, AFC 5,	NUMBER OF PARALLEL SET 1 2 MOUNTED R 75KVA, 3-PHASE , 783A	TS	REMARKS		DUITS FOR FUTU NERATOR		·(2)2" C.(6)		NEW WALL- METER SOC MET	MOUNTED KET WITH ER				GARAGE -		200A FUSED DISC. 5		[200N]	ELECTRIO	
																						4005	ELEC	CTRICA	L RIS	SER DI		M (BA	SE BID)	-						

PANELBOARD LOAD SCHEDULE

DRAWING HISTORY NO.DESCRIPTION1DESIGN DOCUMENTS DATE 01/15/25 DRAWN BY: PK JN: 24-054 ELECTRICAL SCHEDULES & RISER DIAGRAM

UNITED AND TURTLE MOUNTAIN COMMUNICATIONS BOTTINEAU, NORTH DAKOTA

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CIVIL

TYPICAL CARD ACCESS ROUGH IN DETAIL 5 E500 NOT TO SCALE

4. DIVISION 26 TO FURNISH ROUGH IN OF CONDUIT, BOXES, AND SHALL PROVIDE 120V CONNECTIONS TO DOOR HARDWARE POWER SUPPLIES AT EACH DOOR. WIRING AND FINAL CONNECTIONS TO CARD READER EQUIPMENT AND ELECTRIFIED DOOR LOCKS BY OWNER'S SECURITY INSTALLER. CARD READERS SUPPLIED AND INSTALLED BY OWNER.

3. VERIFY EXIT HARDWARE ROUGH-IN WITH DOOR HARDWARE SUPPLIER.

2. THESE DETAILS SHOW A TYPICAL INSTALLATION, VERIFY EXACT WIRING REQUIREMENTS AND LOCKING MECHANISMS WITH DIVISION 08 AND THE OWNER'S CARD ACCESS SYSTEM MANUFACTURER PRIOR TO ROUGH IN.

1. ALL CONDUIT AT DOORS SHALL BE CONCEALED UNLESS NOTED OTHERWISE.

E500	TYPICAL DATA JACK ROUGH IN DETAIL			
E300	NOT TO SCALE	2	E500	NOT TO SCA

1

NOT TO SCALE

ELECTRICAL EQUIPMENT NAMEPLATE DETAIL NOT TO SCALE

ARCHITECTURAL GROUP 222 EAST MAIN STREET, SUITE B MANDAN, ND 58554 (701) 751.0430 OFFICE WWW.ICONARCHITECTS.COM

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TYPICAL INTEROR WALL/CEILING MOUNTED CAMERA DETAIL NOT TO SCALE

DRAWING HISTORY NO. DESCRIPTION

1 DESIGN DOCUMENTS

DATE 01/15/25

DRAWN BY: PK JN: 24-054

ELECTRICAL DETAILS

