

INDEX OF DRAWINGS

GENERAL

- G1.1 COVER SHEET
- G2.1 ADA STANDARDS
- G2.2 ADA STANDARDS
- G2.3 ADA STANDARDS
- G2.4 ADA STANDARDS
- G2.5 STANDARDS ABBREVIATIONS AND SYMBOLS
- G2.6 CODE PLAN AND REVIEW

CIVIL

- C.01 BOUNDARY INFORMATION
- C.02 EXISTING CONDITIONS & CONTROL INFORMATION
- C.03 REMOVALS
- C.04 SITE PLAN
- C.05 UTILITIES PLAN
- C.06 SITE DETAILS
- C.07 TYPICAL PAVEMENT SECTIONS
- C.08 PAVING AND GRADING PLAN
- C.09 JOINTING PLAN
- C.10 EROSION CONTROL PLAN

STRUCTURAL

- S1.1 FOUNDATION & FRAMING PLAN
- S1.2 FOUNDATION DETAILS

ARCHITECTURAL

- A1.1 FLOOR PLANS
- A2.1 REFLECTED CEILING PLANS
- A3.1 ROOF PLAN
- A4.1 EXTERIOR ELEVATIONS
- A4.2 INTERIOR ELEVATIONS
- A5.1 BUILDING SECTIONS
- A6.1 WALL SECTIONS
- A6.2 STAIR SECTIONS
- A7.1 SCHEDULES
- A8.1 DETAILS
- A8.2 DETAILS
- A9.1 SPECIFICATIONS
- A9.2 SPECIFICATIONS
- A9.3 SPECIFICATIONS

MECHANICAL

- M1 MAIN FLOOR HVAC DUCTWORK PLAN
- M2 MEZZANINE FLOOR HVAC DUCTWORK PLAN
- M3 MECHANICAL DETAILS & SCHEDULES
- M4 MECHANICAL DETAILS & SCHEDULES
- M5 MECHANICAL SPECIFICATIONS

ELECTRICAL

- E1 MAIN FLOOR LIGHTING PLAN
- E2 MEZZANINE FLOOR LIGHTING PLAN
- E3 MAIN FLOOR POWER PLAN
- E4 MEZZANINE FLOOR POWER PLAN
- E5 ELECTRICAL SYMBOLS AND ABBREVIATIONS
- E6 ELECTRICAL SCHEDULES AND SPECS

PLUMBING

- P1 MAIN FLOOR WASTE & VENT PLAN
- P2 MAIN FLOOR WATER PLAN

Owner/Petitioner:

City of Ottumwa Cemetery
1302 N Court St
Ottumwa, IA 52501

Engineer:

Willett, Hofmann & Associates, Inc.
625 32nd Ave SW
Cedar Rapids, IA 52404
C/O: Mike Dryden
Phone: (319) 378-1401 ext. 7002
mdryden@willetthofmann.com

Address of Site:

401 E Park Ave

Legal Description:

Lot 1 of Mahon's 3rd Addition to the City of Ottumwa,
Wapello County, Iowa

Proposed Use:

Maintenance Facility

Zoning:

Current Zoning: R1-60
Proposed Zoning: R1-60
No change in zoning requested

Yard requirements:

Front yard = 20'
Side yard = 4'
Rear yard = 25'

Yard provided:

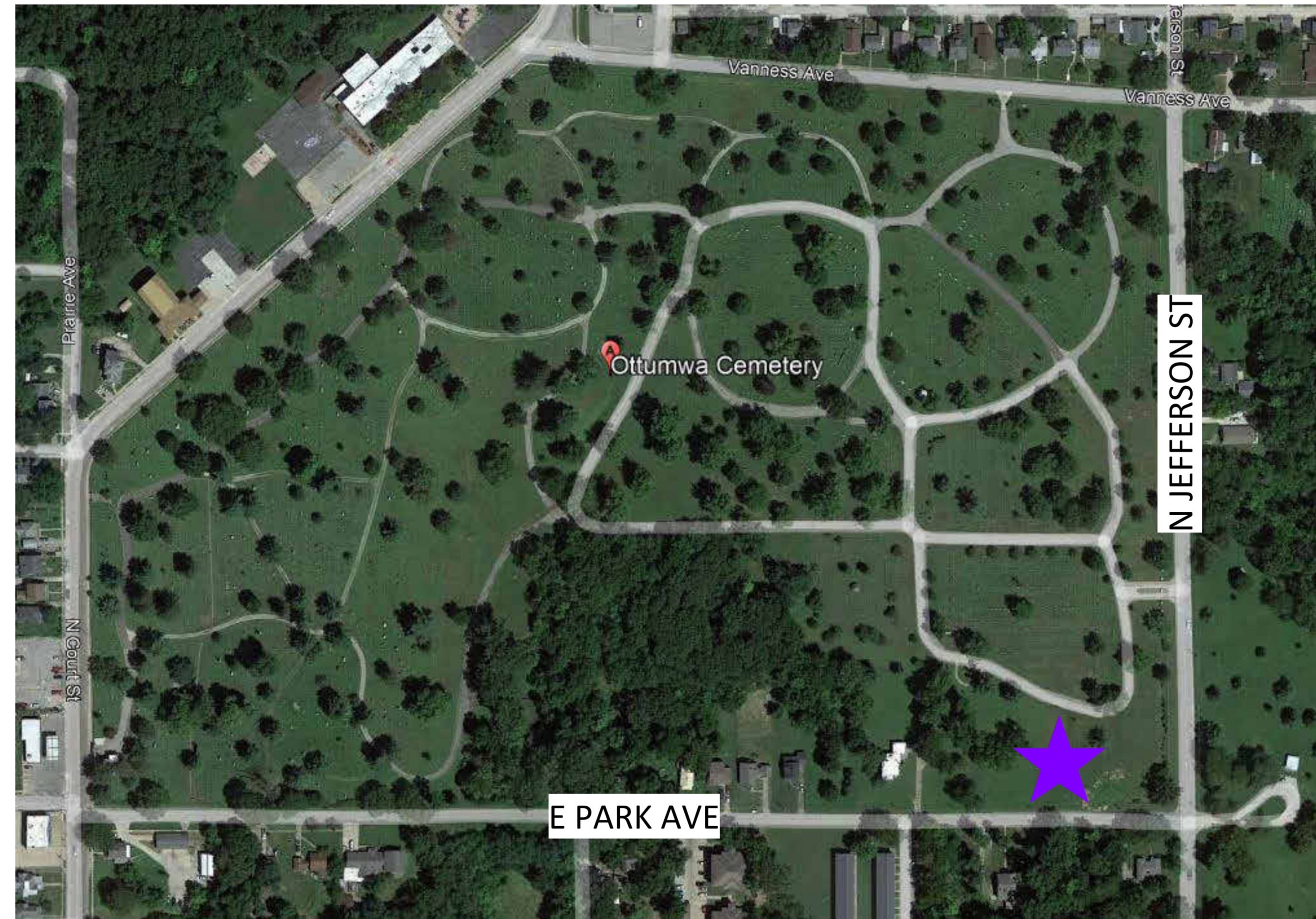
Front yard = 30'
Side yard = 96.28'
Rear yard = >100'

Parking:

Parking required = (1 stall/300SF office x 1500SF of office) +
(1 stall/1000SF x 5200SF of maintenance facility) = 11 stalls
Parking provided = 13 stalls
ADA parking required = 1 stall
ADA parking provided = 2 stalls

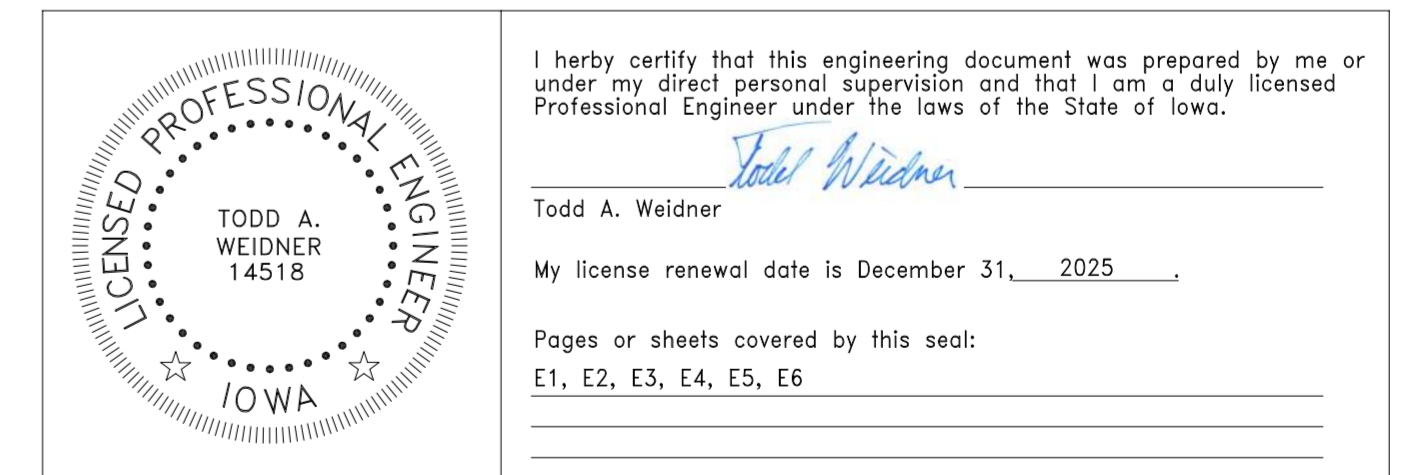
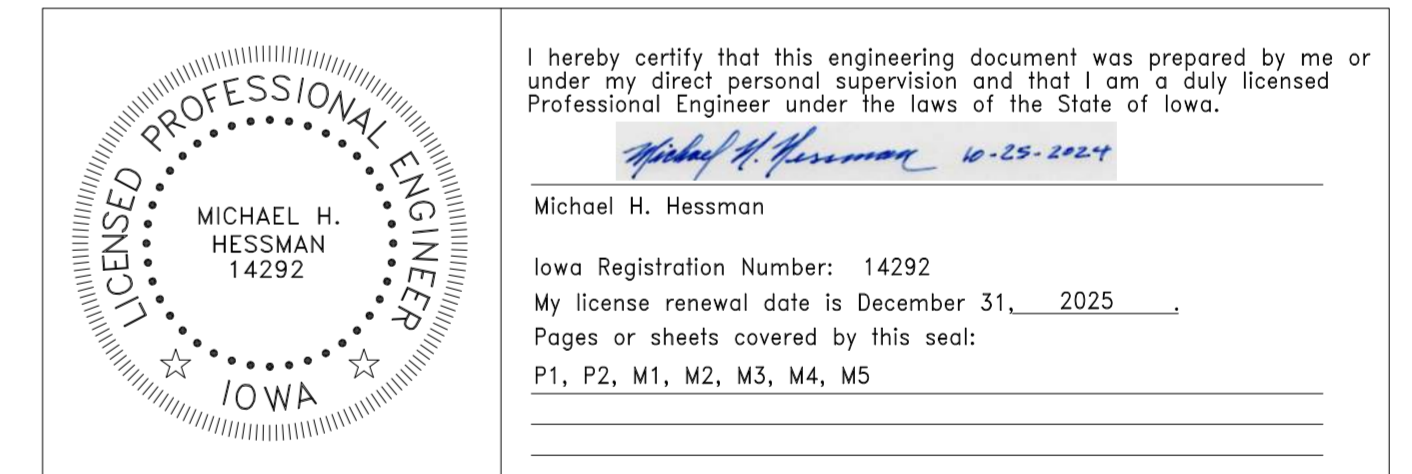
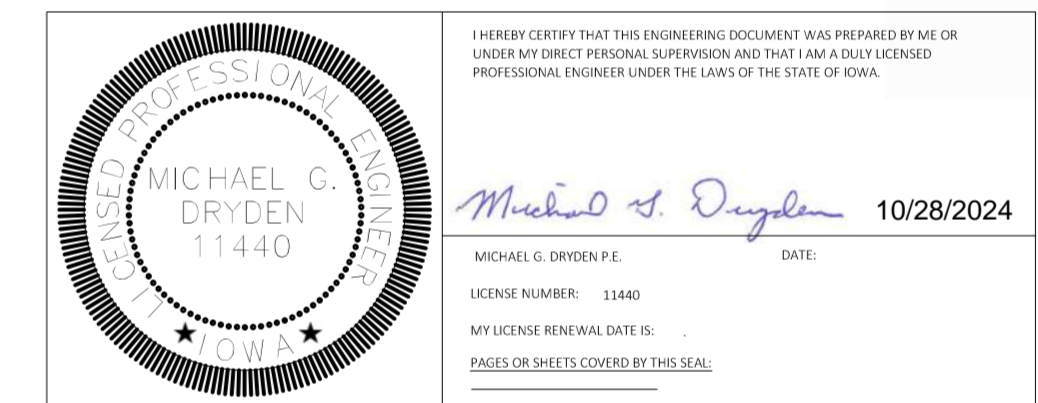
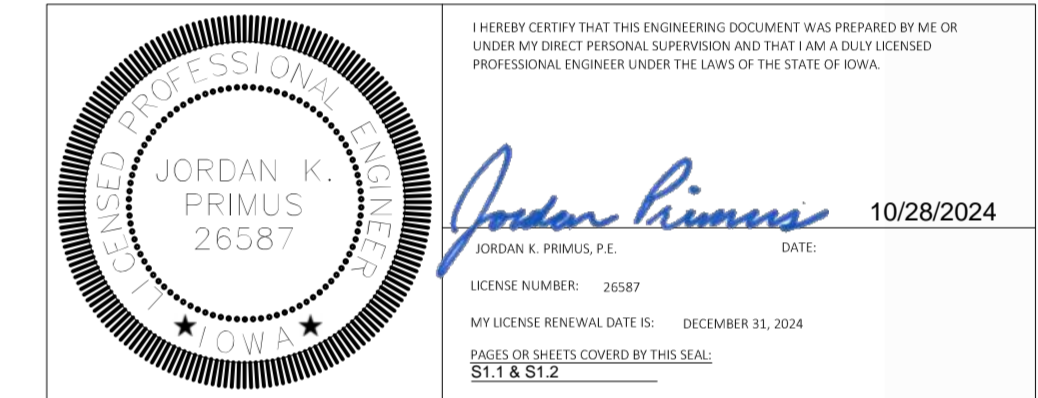
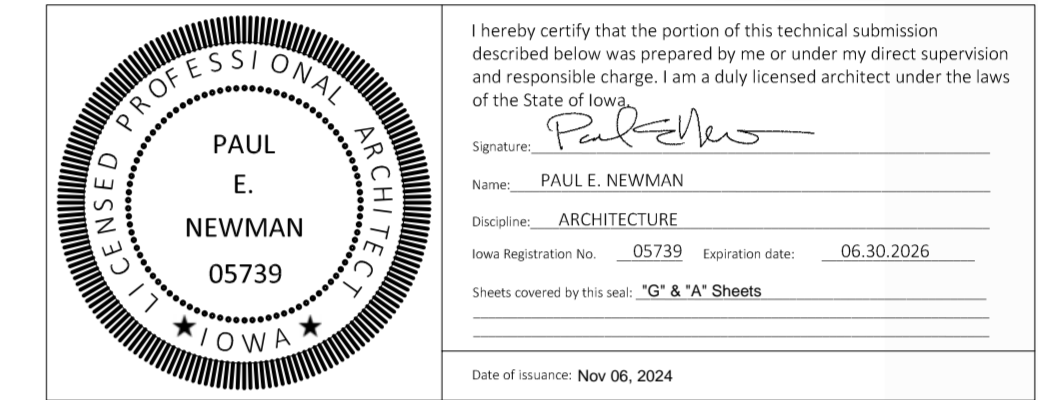
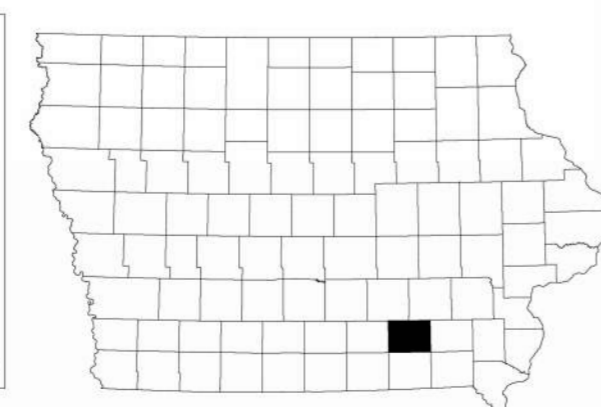
OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG

OTTUMWA, IOWA



LOCATION MAP
NO SCALE

NOTE:
THE PROPOSED IMPROVEMENTS INCLUDED IN THESE DRAWINGS
HAVE BEEN DESIGNED IN ACCORDANCE WITH THE IOWA STATEWIDE
URBAN DESIGN AND SPECIFICATIONS MANUALS (SUDAS).



| REV. | DATE | BY | REMARKS |
|----------|------|----|---------|
| DESIGNED | | | |
| DRAWN | | | |
| REVIEWED | | | |
| APPROVED | | | |

WILLETT HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
625 32ND AVE SW, CEDAR RAPIDS, IA 52404
P: 319-378-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
OTTUMWA, IOWA
COVER SHEET

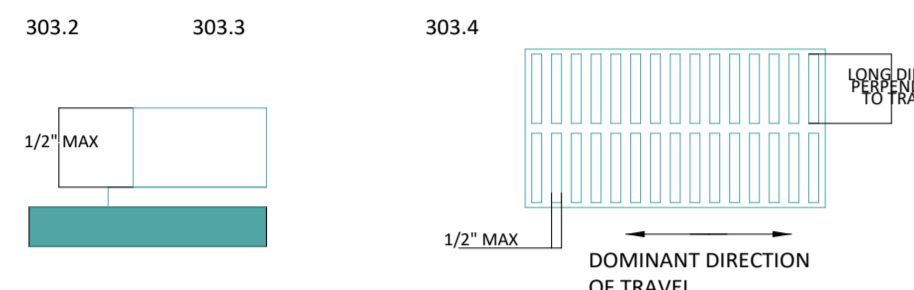
PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST
 WHA No.
1520C22
 DATE
11-05-2024
 SHEET
No.
G1.1

ADA STANDARDS INFORMATION SHEET

CHAPTER 3: BUILDING BLOCKS

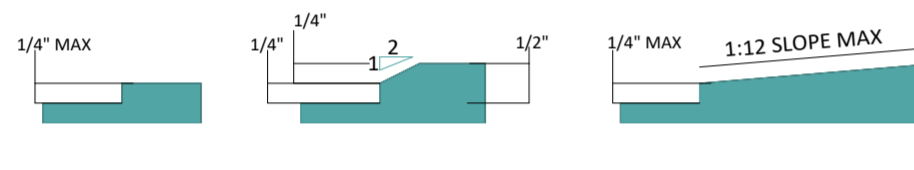
302 FLOOR OR GROUND SURFACES

302.1 GENERAL. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT AND SHALL COMPLY WITH 302. EXCEPTIONS: (1) WITHIN ANIMAL CONTAINMENT AREAS, FLOOR AND GROUND SURFACES SHALL NOT BE REQUIRED TO BE STABLE, FIRM, AND SLIP RESISTANT. (2) AREAS OF SPORT ACTIVITY SHALL NOT BE REQUIRED TO COMPLY WITH 302.



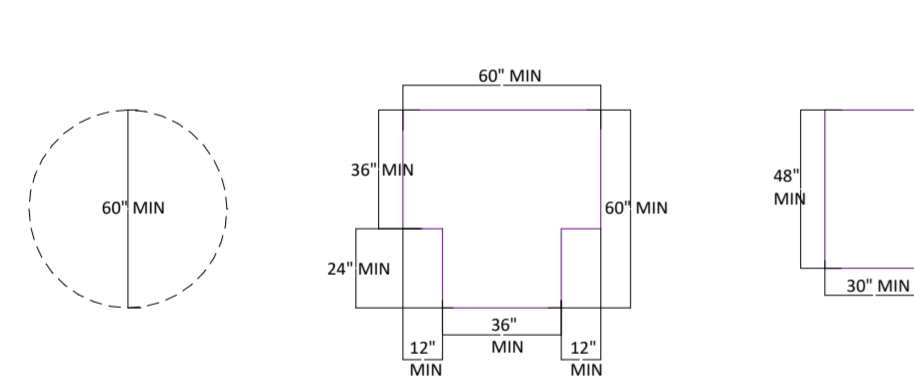
303 CHANGES IN LEVEL

303.1 GENERAL. WHERE CHANGES IN LEVEL ARE PERMITTED IN FLOOR OR GROUND SURFACES, THEY SHALL COMPLY WITH 303. EXCEPTIONS: 1) ANIMAL CONTAINMENT AREAS SHALL NOT BE REQUIRED TO COMPLY WITH 303. 2) AREAS OF SPORT ACTIVITY SHALL NOT BE REQUIRED TO COMPLY WITH 303.



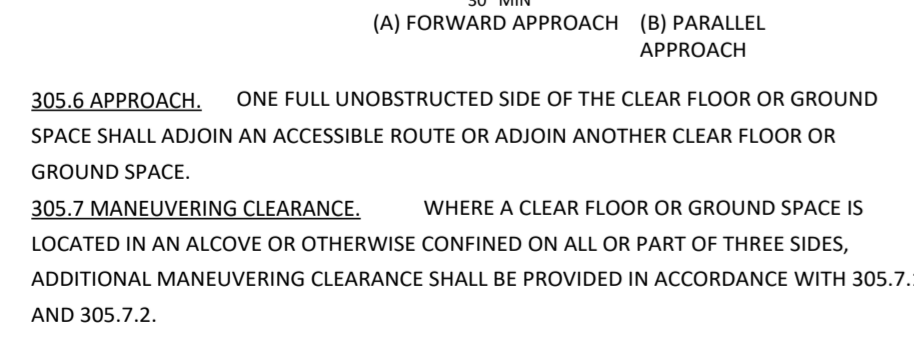
304 TURNING SPACE

304.1 GENERAL. TURNING SPACE SHALL COMPLY WITH 304. 304.2 FLOOR OR GROUND SURFACES. FLOOR OR GROUND SURFACES OF A TURNING SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.

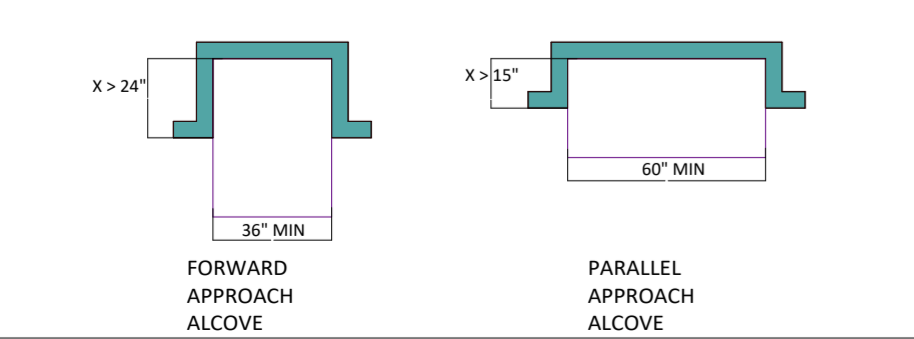


305 CLEAR FLOOR OR GROUND SPACE

305.1 GENERAL. CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 305. 305.2 FLOOR OR GROUND SURFACES. FLOOR OR GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.

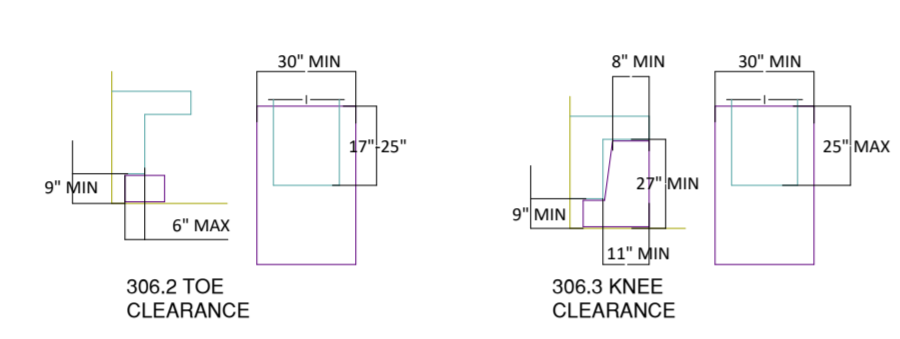


305.6 APPROACH. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.



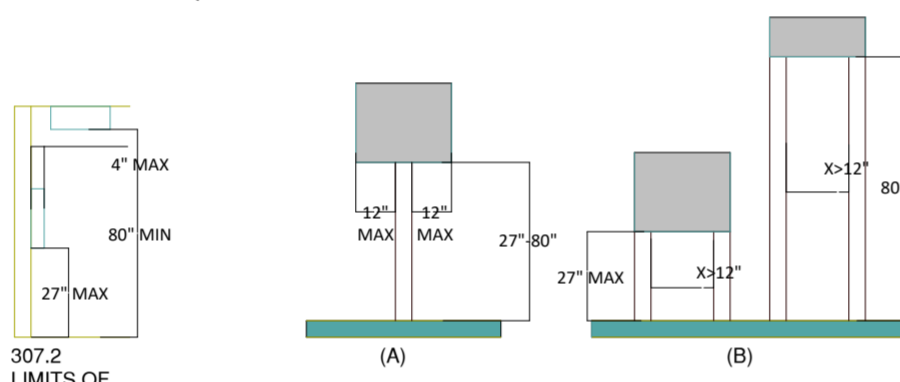
306 KNEE AND TOE CLEARANCE

306.1 GENERAL. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.



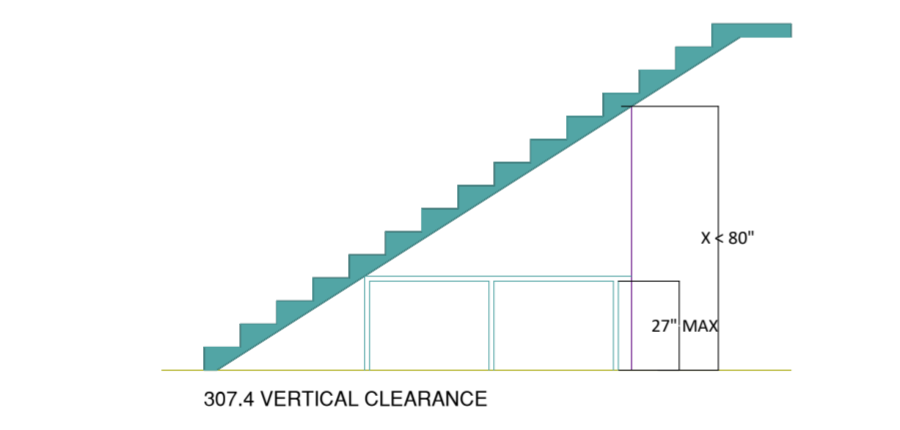
307 PROTRUDING OBJECTS

307.1 GENERAL. PROTRUDING OBJECTS SHALL COMPLY WITH 307. 307.2 PROTRUSION LIMITS. OBJECTS WITH LEADING EDGES MORE THAN 27\"/>



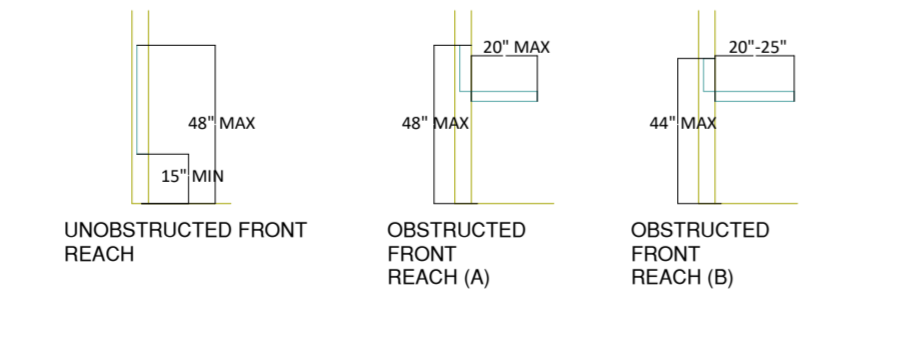
307.4 VERTICAL CLEARANCE

307.4 VERTICAL CLEARANCE. VERTICAL CLEARANCE SHALL BE 80\"/>



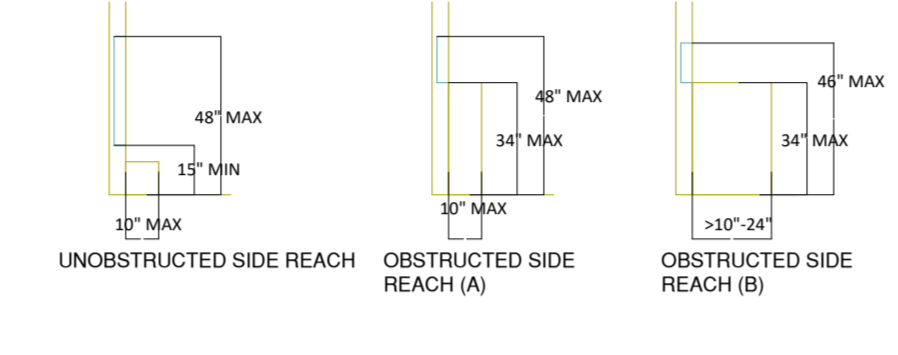
308 REACH RANGES

308.1 GENERAL. REACH RANGES SHALL COMPLY WITH 308. 308.2 FORWARD REACH. 308.2.1 UNOBSTRUCTED. WHERE A FORWARD REACH IS UNOBSTRUCTED, THE HIGH FORWARD REACH SHALL BE 48\"/>



308.3 SIDE REACH

308.3.1 UNOBSTRUCTED. WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE SIDE REACH IS UNOBSTRUCTED, THE HIGH SIDE REACH SHALL BE 48\"/>



309 OPERABLE PARTS

309.1 GENERAL. OPERABLE PARTS SHALL COMPLY WITH 309. 309.2 CLEAR FLOOR SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED.

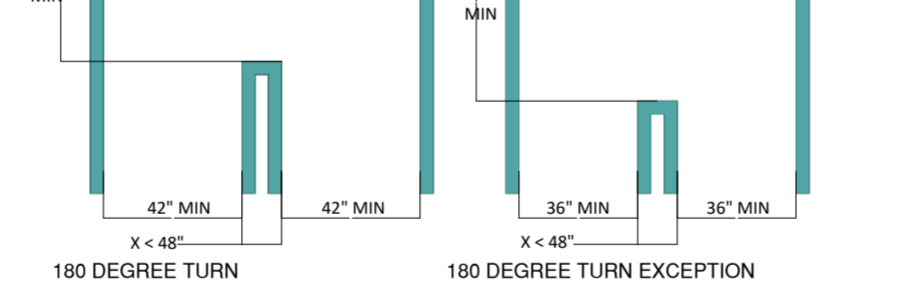
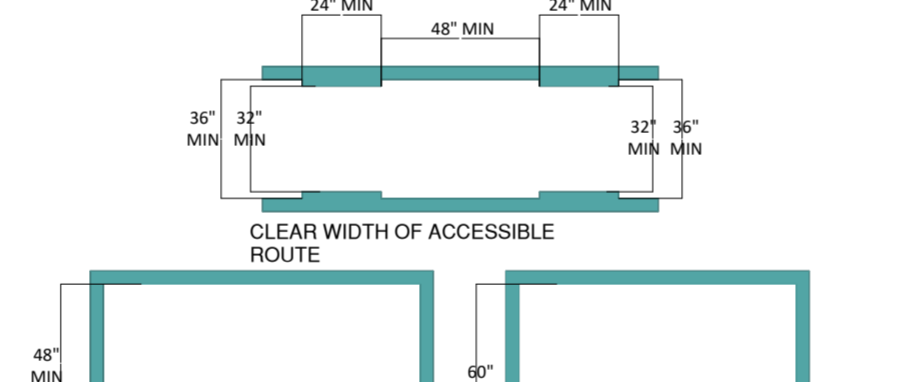
CHAPTER 4: ACCESSIBLE ROUTES

402 ACCESSIBLE ROUTES

402.1 GENERAL. ACCESSIBLE ROUTES SHALL COMPLY WITH 402. 402.2 COMPONENTS. ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOPE NOT STEEPER THAN 1:20, DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS, AND PLATFORM LIFTS.

403 WALKING SURFACES

403.1 GENERAL. WALKING SURFACES THAT ARE A PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH 403. 403.2 FLOOR OR GROUND SURFACE. FLOOR OR GROUND SURFACES SHALL COMPLY WITH 302.

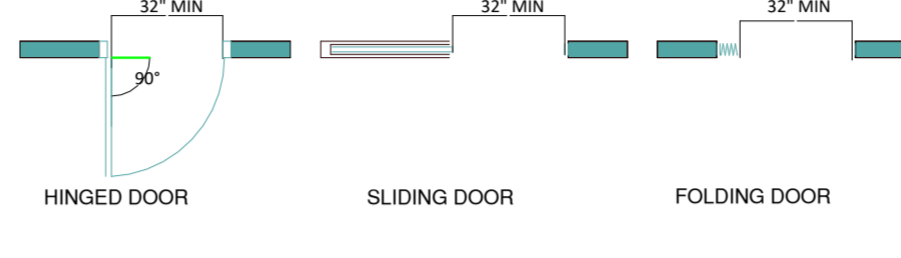


403.5.3 PASSING SPACES. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60\"/>

404 DOORS, DOORWAYS, AND GATES 404.1 GENERAL. DOORS, DOORWAYS, AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH 404. EXCEPTION: DOORS, DOORWAYS, AND GATES DESIGNED TO BE OPERATED ONLY BY SECURITY PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 404.2.7, 404.2.8, 404.2.9, 404.3.2 AND 404.3.4 THROUGH 404.3.7.

404.2.3 CLEAR WIDTH

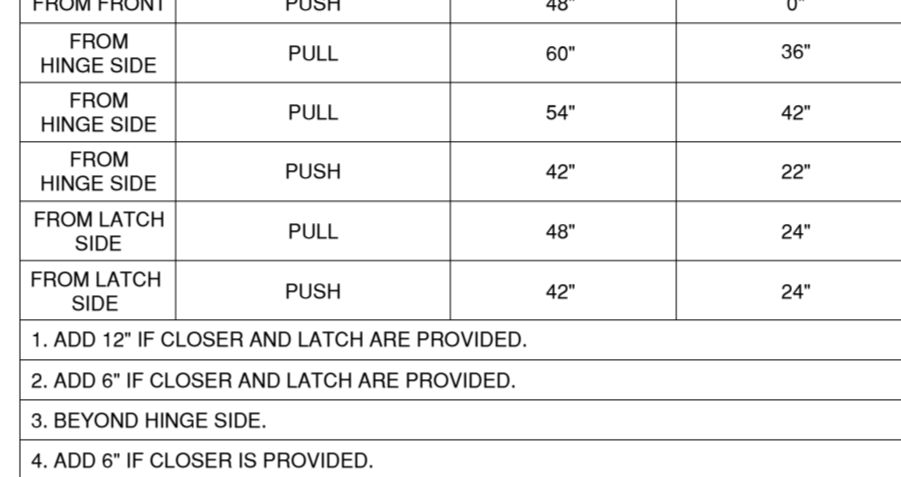
404.2.3 CLEAR WIDTH. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32\"/>



404.2.4 MANEUVERING CLEARANCES

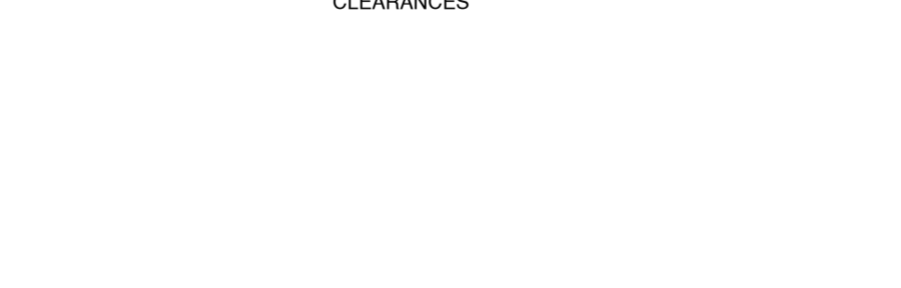
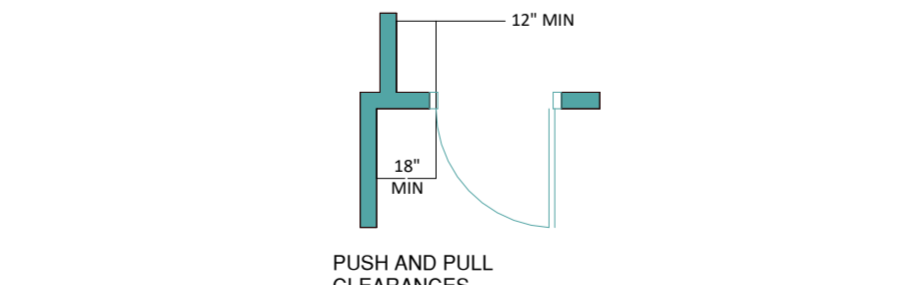
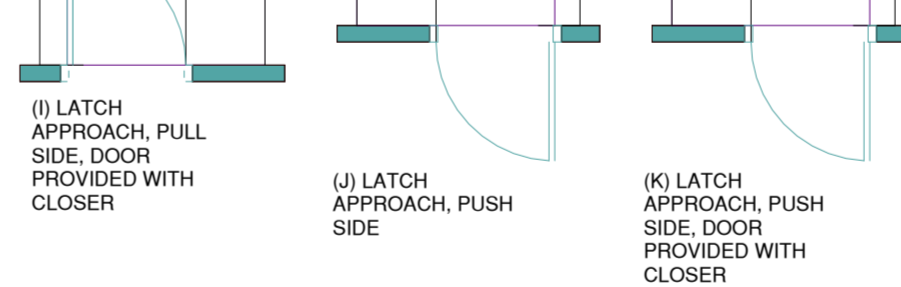
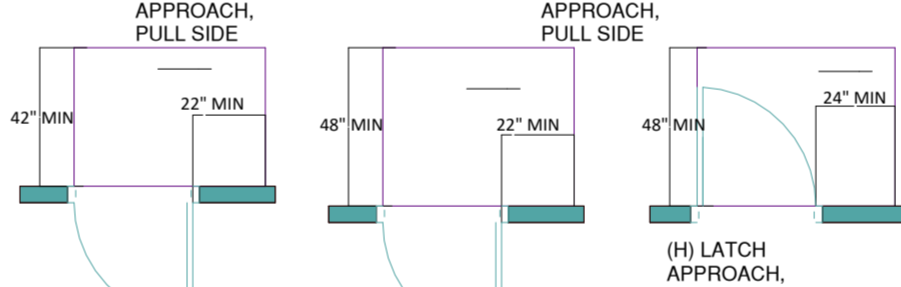
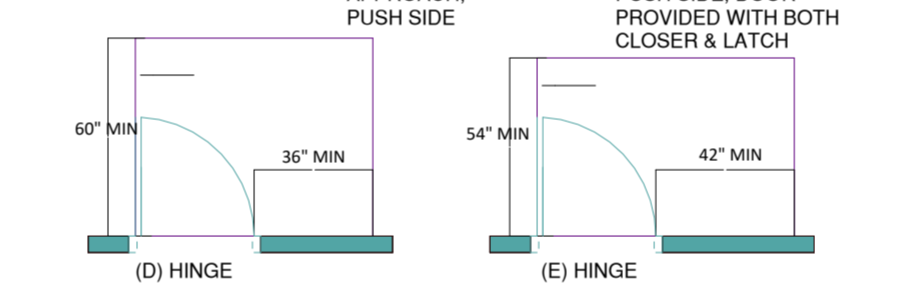
404.2.4 MANEUVERING CLEARANCES. MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES SHALL COMPLY WITH 404.2.4. MANEUVERING CLEARANCES SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE.

Table with 4 columns: TYPE OF USE, APPROACH DIRECTION, DOOR OR GATE SIDE, MINIMUM MANEUVERING CLEARANCE. Rows include FROM FRONT, FROM HINGE SIDE, FROM HINGE SIDE, FROM LATCH SIDE.



404.2.4.4 FLOOR OR GROUND SURFACE

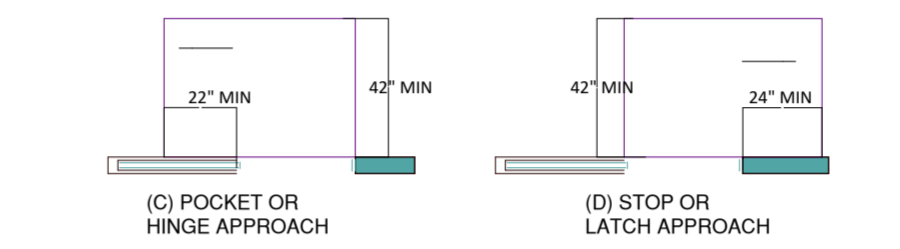
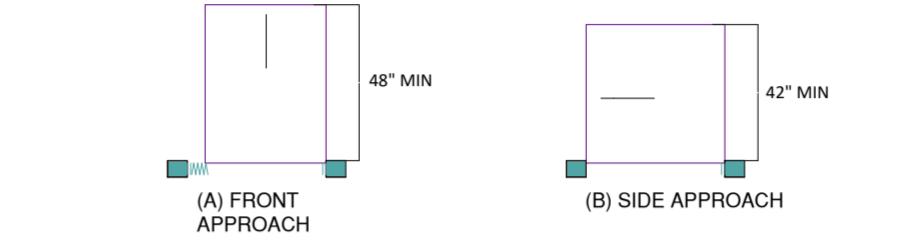
404.2.4.4 FLOOR OR GROUND SURFACE. FLOOR OR GROUND SURFACE WITHIN REQUIRED MANEUVERING CLEARANCES SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTIONS: (1) SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.



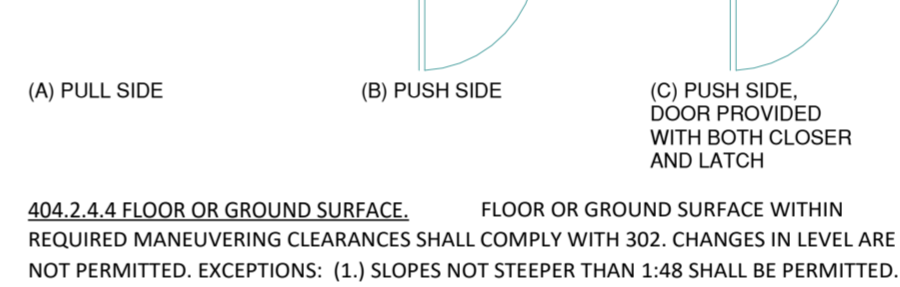
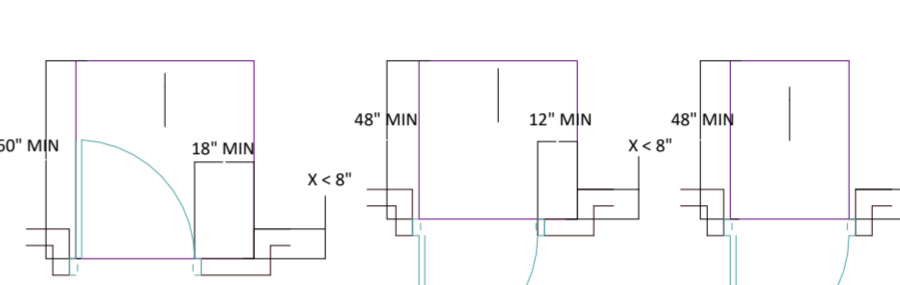
404.2.4.2 DOORWAYS WITHOUT DOORS OR GATES, SLIDING DOORS, AND FOLDING DOORS

DOORWAYS LESS THAN 36\"/>

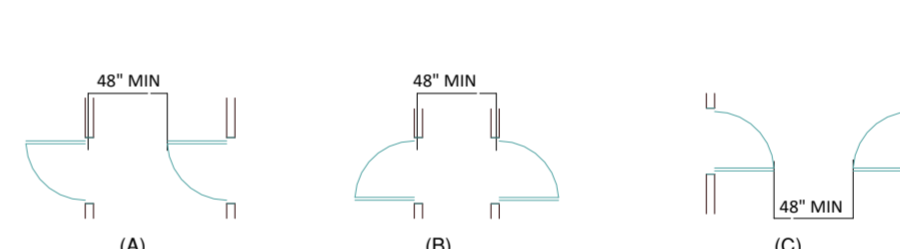
Table with 3 columns: APPROACH DIRECTION, PERPENDICULAR TO DOORWAY, MINIMUM MANEUVERING CLEARANCE. Rows include FROM FRONT, FROM SIDE, FROM POCKET/HINGE SIDE, FROM STOP/LATCH SIDE.



404.2.4.3 RECESSED DOORS AND GATES. MANEUVERING CLEARANCES FOR FORWARD APPROACH SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18\"/>



404.2.4.4 FLOOR OR GROUND SURFACE. FLOOR OR GROUND SURFACE WITHIN REQUIRED MANEUVERING CLEARANCES SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTIONS: (1) SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.



404.2.7 DOOR AND GATE HARDWARE. HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY WITH 309.4. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34\"/>

404.2.8.1 DOOR CLOSERS AND GATE CLOSERS. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.

404.2.9 DOOR AND GATE OPENING FORCE. FIRE DOORS SHALL HAVE A MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS: INTERIOR HINGED DOORS AND GATES: 5 POUNDS MAXIMUM.

404.2.10 DOOR AND GATE SURFACES. SWINGING DOOR AND GATE SURFACES WITHIN 10\"/>

404.2.11 VISION LIGHTS. DOORS, GATES, AND SIDE LIGHTS ADJACENT TO DOORS OR GATES, CONTAINING ONE OR MORE GLAZING PANELS THAT PERMIT VIEWING THROUGH THE PANELS SHALL HAVE THE BOTTOM OF AT LEAST ONE GLAZED PANEL LOCATED 43\"/>



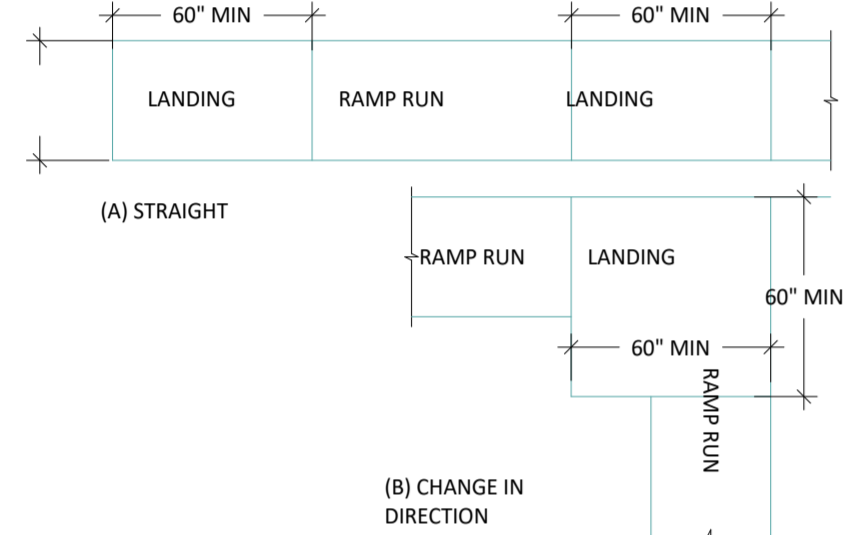
405 RAMPS. RAMPS ON ACCESSIBLE ROUTES SHALL COMPLY WITH 405. EXCEPTION: IN ASSEMBLY AREAS, AISLE RAMPS ADJACENT TO SEATING AND NOT SERVING ELEMENTS REQUIRED TO BE ON AN ACCESSIBLE ROUTE SHALL NOT BE REQUIRED TO COMPLY WITH 405.

Table 405.2 MAXIMUM RAMP SLOPE AND RISE FOR EXISTING SITES, BUILDINGS, AND FACILITIES. Columns: SLOPE (1), MAXIMUM RISE. Rows: STEEPER THAN 1:10 BUT NOT STEEPER THAN 1:8 (3 INCHES), STEEPER THAN 1:12 BUT NOT STEEPER THAN 1:10 (6 INCHES), 1. A SLOPE STEEPER THAN 1:8 IS PROHIBITED.

405.3 CROSS SLOPE. CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 1:48. 405.4 FLOOR OR GROUND SURFACES. FLOOR OR GROUND SURFACES OF RAMP RUNS SHALL COMPLY WITH 302. CHANGES IN LEVEL OTHER THAN THE RUNNING SLOPE AND CROSS SLOPE ARE NOT PERMITTED ON RAMP RUNS.

405.5 CLEAR WIDTH. THE CLEAR WIDTH OF A RAMP RUN AND, WHERE HANDRAILS ARE PROVIDED, THE CLEAR WIDTH BETWEEN HANDRAILS SHALL BE 36" MINIMUM. EXCEPTION: WITHIN EMPLOYEE WORK AREAS, THE REQUIRED CLEAR WIDTH OF RAMPS THAT ARE A PART OF COMMON USE CIRCULATION PATHS SHALL BE PERMITTED TO BE DECREASED BY WORK AREA EQUIPMENT PROVIDED THAT THE DECREASE IS ESSENTIAL TO THE FUNCTION OF THE WORK BEING PERFORMED.

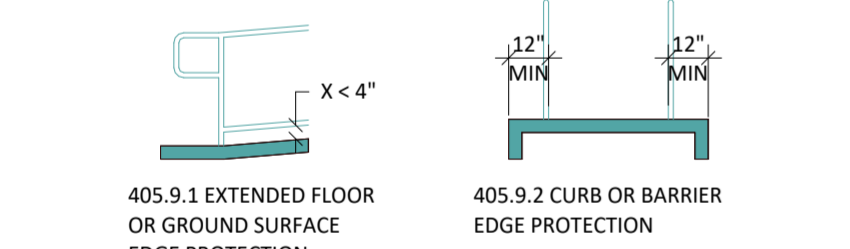
405.6 RISE. THE RISE FOR ANY RAMP RUN SHALL BE 30" MAXIMUM. 405.7 LANDINGS. RAMPS SHALL HAVE LANDINGS AT THE TOP AND THE BOTTOM OF EACH RAMP RUN. LANDINGS SHALL COMPLY WITH 405.7.1 SLOPE. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 1:48 IN ALL DIRECTIONS. 405.7.2 SLOPE. LANDINGS SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED. 405.7.3 LENGTH. THE LANDING CLEAR LENGTH SHALL BE 60" LONG MINIMUM. 405.7.4 CHANGE IN DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING MINIMUM BY 60" MINIMUM. 405.7.5 DOORWAYS. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY 404.2.4 AND 404.3.2 SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING AREA.



405.8 HANDRAILS. RAMP RUNS WITH A RISE GREATER THAN 6" SHALL HAVE HANDRAILS COMPLYING WITH 505. EXCEPTION: WITHIN EMPLOYEE WORK AREAS, HANDRAILS SHALL NOT BE REQUIRED WHERE RAMPS THAT ARE PART OF COMMON USE CIRCULATION PATHS ARE DESIGNED TO PERMIT THE INSTALLATION OF HANDRAILS COMPLYING WITH 505. RAMPS NOT SUBJECT TO THE EXCEPTION TO 405.5 SHALL BE DESIGNED TO MAINTAIN A 36" MINIMUM CLEAR WIDTH WHEN HANDRAILS ARE INSTALLED.

405.9 EDGE PROTECTION. EDGE PROTECTION COMPLYING WITH 405.9.1 OR 405.9.2 SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND AT EACH SIDE OF RAMP LANDINGS SERVING AN ADJOINING RAMP RUN OR STAIRWAY. (1) EDGE PROTECTION SHALL NOT BE REQUIRED ON RAMPS THAT ARE NOT REQUIRED TO HAVE HANDRAILS AND HAVE SIDES COMPLYING WITH 406.3. (2) EDGE PROTECTION SHALL NOT BE REQUIRED ON THE SIDES OF RAMP LANDINGS SERVING AN ADJOINING RAMP RUN OR STAIRWAY. (3) EDGE PROTECTION SHALL NOT BE REQUIRED ON THE SIDES OF RAMP LANDINGS HAVING A VERTICAL DROP-OFF OF 1/2" MAXIMUM WITHIN 10" HORIZONTALLY OF THE MINIMUM LANDING AREA SPECIFIED IN 405.7.

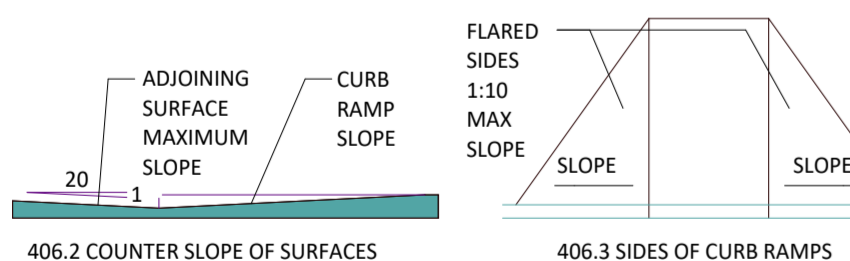
405.9.1 EXTENDED FLOOR OR GROUND SURFACE. THE FLOOR OR GROUND SURFACE OF THE RAMP RUN OR LANDING SHALL EXTEND 12" MINIMUM BEYOND THE INSIDE FACE OF A HANDRAIL COMPLYING WITH 505. 405.9.2 CURB OR BARRIER. A CURB OR BARRIER SHALL BE PROVIDED THAT PREVENTS THE PASSAGE OF A 4" DIAMETER SPHERE, WHERE ANY PORTION OF THE SPHERE IS WITHIN 4" OF THE FINISH FLOOR OR GROUND SURFACE.



405.10 WET CONDITIONS. LANDINGS SUBJECT TO WET CONDITIONS SHALL BE DESIGNED TO PREVENT THE ACCUMULATION OF WATER.

406 CURB RAMPS. 406.1 GENERAL. CURB RAMPS ON ACCESSIBLE ROUTES SHALL COMPLY WITH 406, 405.2 THROUGH 405.5, AND 405.10. 406.2 COUNTER SLOPE. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS, AND STREETS SHALL BE AT THE SAME LEVEL.

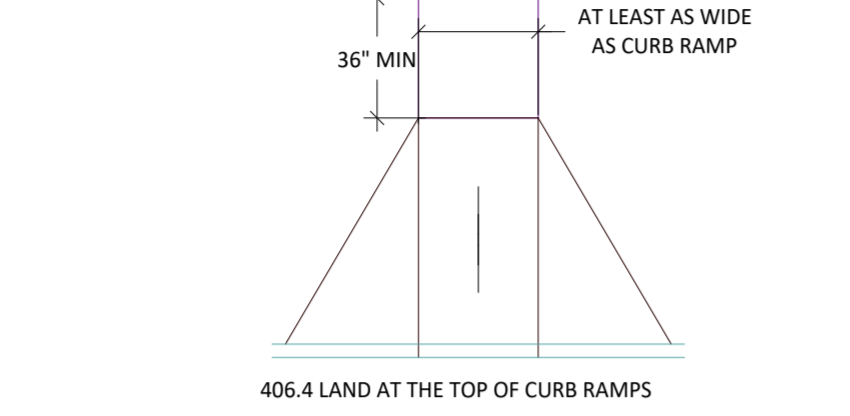
406.3 SIDES OF CURB RAMPS. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10. 406.4 FLOOR AND GROUND SURFACES. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.



406.2 COUNTER SLOPE OF SURFACES ADJACENT TO CURB RAMPS. 406.3 SIDES OF CURB RAMPS.

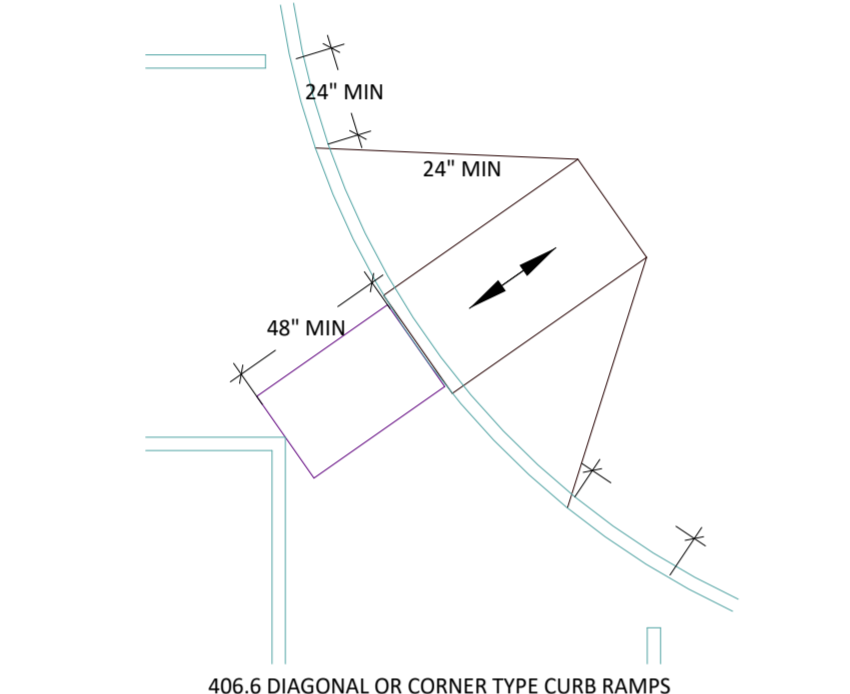
406.5 LOCATION. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES, OR PARKING ACCESS AISLES. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLOORED SIDES.

406.6 DIAGONAL CURB RAMPS. DIAGONAL OR CORNER TYPE CURB RAMPS WITH RETURNED CURBS OR OTHER WELL-DEFINED EDGES SHALL HAVE THE EDGES PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW. THE BOTTOM OF DIAGONAL CURB RAMPS SHALL HAVE A CLEAR SPACE 48" MINIMUM OUTSIDE ACTIVE TRAFFIC LANES OF THE ROADWAY. DIAGONAL CURB RAMPS PROVIDED AT MARKED CROSSINGS SHALL PROVIDE THE 48" MINIMUM CLEAR SPACE WITHIN THE MARKINGS. DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 24" LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.

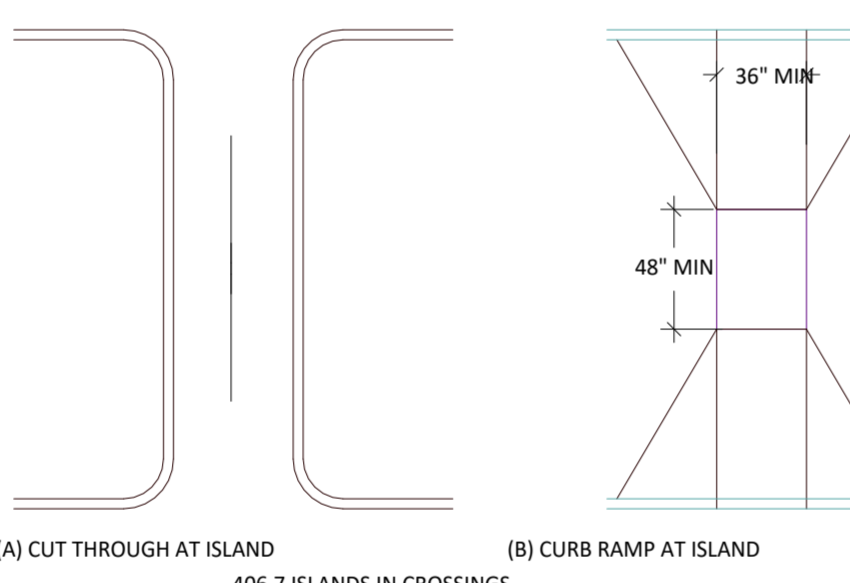


406.5 LOCATION. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES, OR PARKING ACCESS AISLES. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLOORED SIDES.

406.6 DIAGONAL CURB RAMPS. DIAGONAL OR CORNER TYPE CURB RAMPS WITH RETURNED CURBS OR OTHER WELL-DEFINED EDGES SHALL HAVE THE EDGES PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW. THE BOTTOM OF DIAGONAL CURB RAMPS SHALL HAVE A CLEAR SPACE 48" MINIMUM OUTSIDE ACTIVE TRAFFIC LANES OF THE ROADWAY. DIAGONAL CURB RAMPS PROVIDED AT MARKED CROSSINGS SHALL PROVIDE THE 48" MINIMUM CLEAR SPACE WITHIN THE MARKINGS. DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 24" LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.



406.7 ISLANDS. RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE CURB RAMPS AT BOTH SIDES. EACH CURB RAMP SHALL HAVE A LEVEL AREA 48" LONG MINIMUM BY 36" WIDE MINIMUM AT THE TOP OF THE CURB RAMP IN THE PART OF THE ISLAND INTERSECTED BY THE CROSSINGS. EACH 48" MINIMUM BY 36" MINIMUM AREA SHALL BE ORIENTED SO THAT THE 48" MINIMUM LENGTH IS IN THE DIRECTION OF THE RUNNING SLOPE OF THE CURB RAMP IT SERVES. THE 48" MINIMUM BY 36" MINIMUM AREAS AND THE ACCESSIBLE ROUTE SHALL BE PERMITTED TO OVERLAP.

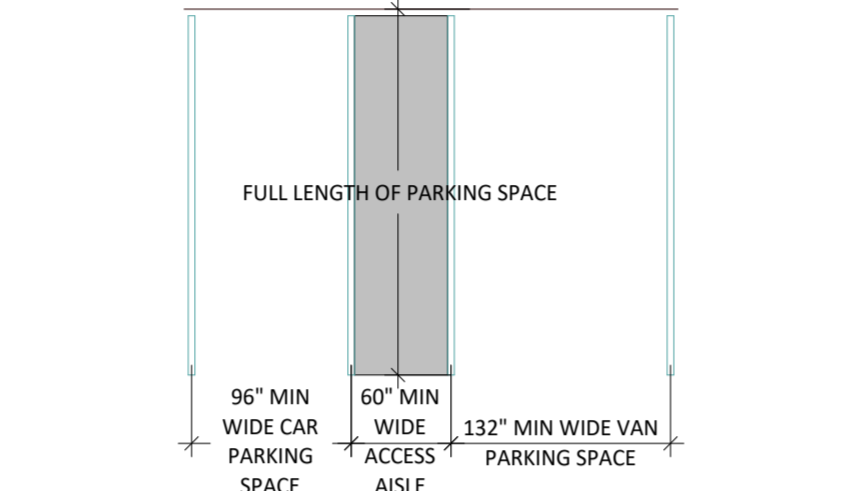


406.8 DETECTABLE WARNINGS. A CURB RAMP SHALL HAVE A DETECTABLE WARNING COMPLYING WITH 705. THE DETECTABLE WARNING SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARED SIDES) AND SHALL EXTEND EITHER THE FULL DEPTH OF THE CURB RAMP OR 24" DEEP MINIMUM MEASURED FROM THE BACK OF THE CURB ON THE RAMP SURFACE.

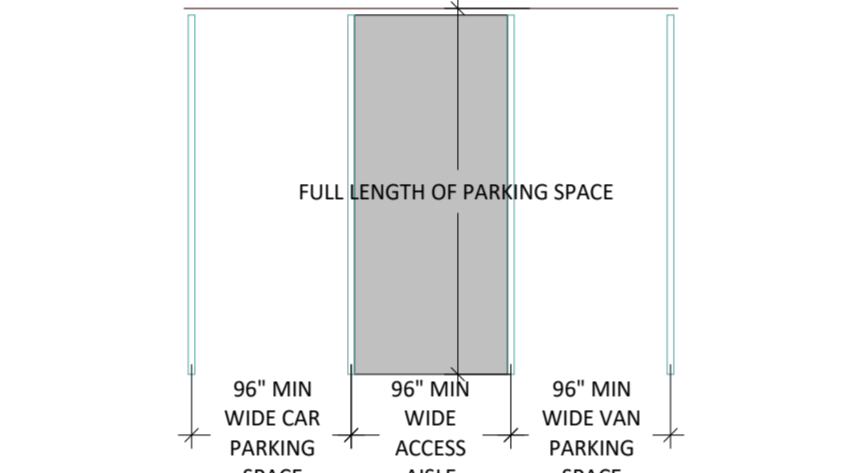
CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

502 PARKING SPACES. 502.1 GENERAL. CAR AND VAN PARKING SPACES SHALL COMPLY WITH 502, WHERE PARKING SPACES ARE MARKED WITH LINES, WIDTH MEASUREMENTS OF PARKING SPACES AND ACCESS AISLES SHALL BE MADE FROM THE CENTERLINE OF THE MARKINGS. EXCEPTION: WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLE, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.

502.2 VEHICLE SPACES. CAR PARKING SPACES SHALL BE 96" WIDE MINIMUM AND VAN PARKING SPACES SHALL BE 132" WIDE MINIMUM. SHALL BE MARKED TO DEFINE THE WIDTH, AND SHALL HAVE AN ADJACENT ACCESS AISLE COMPLYING WITH 502.3. EXCEPTION: VAN PARKING SPACES SHALL BE PERMITTED TO BE 96" WIDE MINIMUM WHERE THE ACCESS AISLE IS 96 INCHES WIDE MINIMUM.



502.3 ACCESS AISLE. ACCESS AISLES SERVING PARKING SPACES SHALL COMPLY WITH 502.3. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE. TWO PARKING SPACES SHALL BE PERMITTED TO SHARE A COMMON ACCESS AISLE. 502.3.1 WIDTH. ACCESS AISLES SERVING CAR AND VAN PARKING SPACES SHALL BE 60 INCHES (1525 MM) WIDE MINIMUM. 502.3.2 LENGTH. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACES THEY SERVE. 502.3.3 MARKING. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM. 502.3.4 LOCATION. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.



502.4 FLOOR OR GROUND SURFACES. PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.

502.5 VERTICAL CLEARANCE. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF 98" MINIMUM.

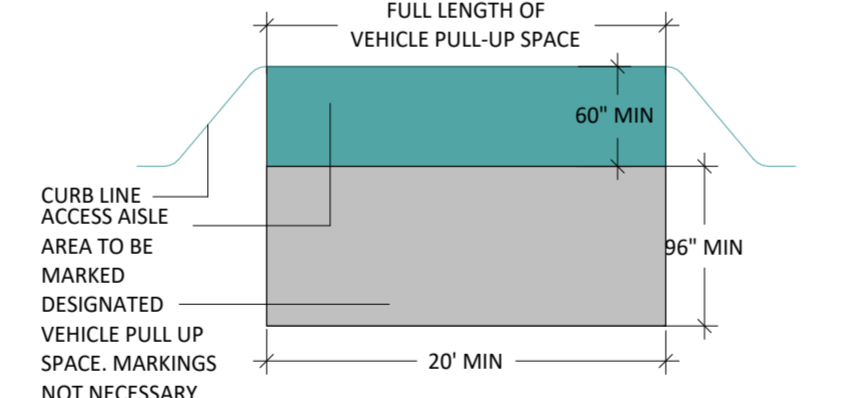
502.6 IDENTIFICATION. PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION "VAN ACCESSIBLE." SIGNS SHALL BE 60" MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.

502.7 RELATIONSHIP TO ACCESSIBLE ROUTES. PARKING SPACES AND ACCESS AISLES SHALL BE DESIGNED SO THAT CARS AND VANS, WHEN PARKED, CANNOT OBSTRUCT THE REQUIRED CLEAR WIDTH OF ADJACENT ACCESSIBLE ROUTES.

503 PASSENGER LOADING ZONES. 503.1 GENERAL. PASSENGER LOADING ZONES SHALL COMPLY WITH 503.

503.2 VEHICLE PULL-UP SPACE. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.

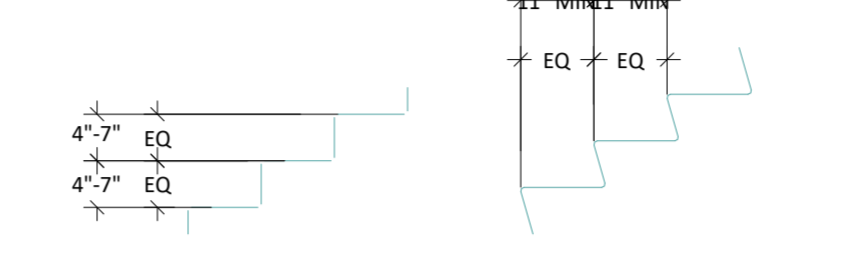
503.3 ACCESS AISLE. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL-UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY. 503.3.1 WIDTH. ACCESS AISLES SERVING VEHICLE PULL-UP SPACES SHALL BE 60" WIDE MINIMUM. 503.3.2 LENGTH. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE. 503.3.3 MARKING. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.



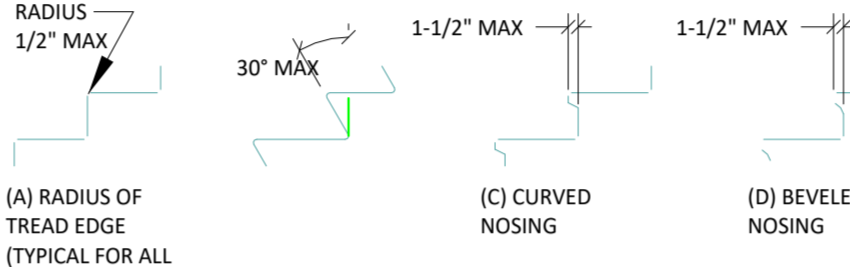
503.4 FLOOR AND GROUND SURFACES. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.

503.5 VERTICAL CLEARANCE. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 114" MINIMUM.

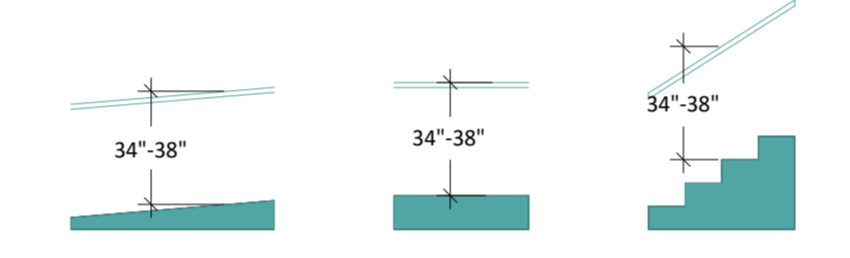
504 STAIRS. 504.1 GENERAL. STAIRS SHALL COMPLY WITH 504. 504.2 TREADS AND RISERS. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND UNIFORM TREAD DEPTHS. RISERS SHALL BE 4" HIGH MINIMUM AND 7" HIGH MAXIMUM. TREADS SHALL BE 11" DEEP MINIMUM. 504.3 OPEN RISERS. OPEN RISERS ARE NOT PERMITTED. 504.4 TREAD SURFACE. STAIR TREADS SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: TREADS SHALL BE PERMITTED TO HAVE A SLOPE NOT STEEPER THAN 1:48.



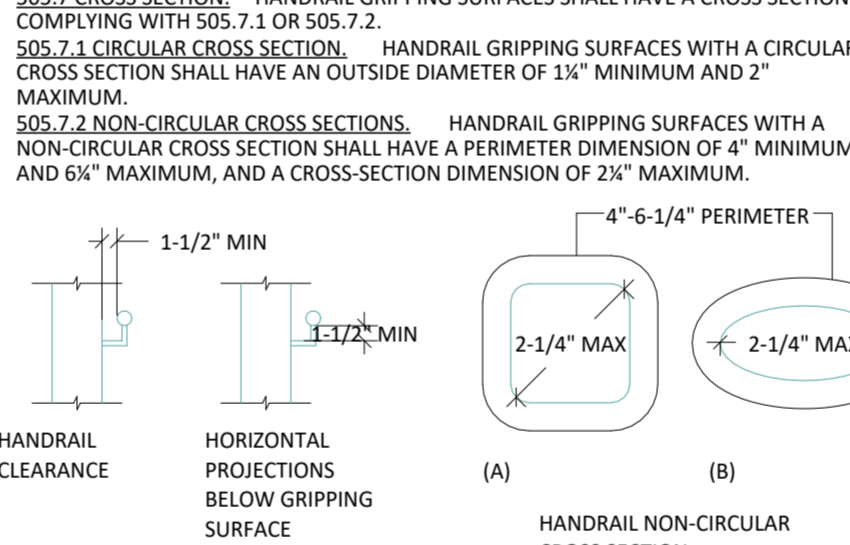
504.5 NOSINGS. THE RADIUS OF CURVATURE AT THE LEADING EDGE OF THE TREAD SHALL BE 1/2" MAXIMUM. NOSINGS THAT PROJECT BEYOND RISERS SHALL HAVE THE UNDERSIDE OF THE LEADING EDGE CURVED OR BEVELED. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW. 504.6 HANDRAILS. STAIRS SHALL HAVE HANDRAILS COMPLYING WITH 505. 504.7 WET CONDITIONS. STAIR TREADS AND LANDINGS SUBJECT TO WET CONDITIONS SHALL BE DESIGNED TO PREVENT THE ACCUMULATION OF WATER.



505 HANDRAILS. 505.1 GENERAL. HANDRAILS PROVIDED ALONG WALKING SURFACES COMPLYING WITH 403, REQUIRED AT RAMPS COMPLYING WITH 405, AND REQUIRED AT STAIRS COMPLYING WITH 504 SHALL COMPLY WITH 505. 505.2 WHERE REQUIRED. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. EXCEPTION: IN ASSEMBLY AREAS, HANDRAILS SHALL NOT BE REQUIRED ON BOTH SIDES OF AISLE RAMPS WHERE A HANDRAIL IS PROVIDED AT EITHER SIDE OR WITHIN THE AISLE WIDTH. 505.3 CONTINUITY. HANDRAILS SHALL BE CONTINUOUS WITHIN THE FULL LENGTH OF EACH STAIR FLIGHT OR RAMP RUN. INSIDE HANDRAILS ON SWITCHBACK OR DOGLEG STAIRS AND RAMPS SHALL BE CONTINUOUS BETWEEN FLIGHTS OR RUNS. EXCEPTION: IN ASSEMBLY AREAS, HANDRAILS ON RAMPS SHALL NOT BE REQUIRED TO BE CONTINUOUS IN AISLES SERVING SEATING. 505.4 HEIGHT. TOP OF GRIPPING SURFACES OF HANDRAILS SHALL BE 34" MINIMUM AND 38" MAXIMUM VERTICALLY ABOVE WALKING SURFACES, STAIR NOSINGS, AND RAMP SURFACES. HANDRAILS SHALL BE AT A CONSISTENT HEIGHT ABOVE WALKING SURFACES, STAIR NOSINGS, AND RAMP SURFACES.



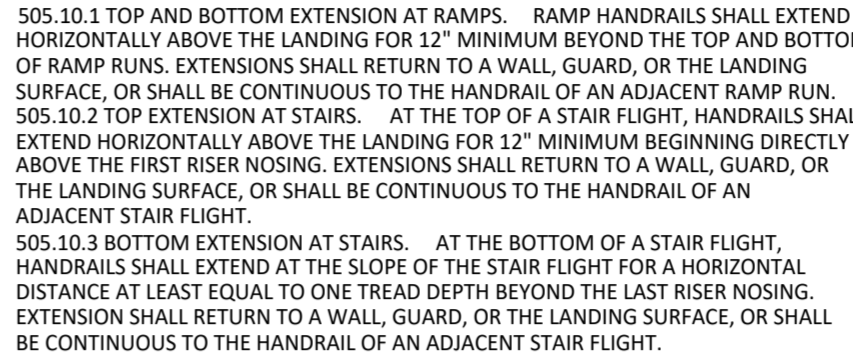
505.5 CLEARANCE. CLEARANCE BETWEEN HANDRAIL GRIPPING SURFACES AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM. 505.6 GRIPPING SURFACE. HANDRAIL GRIPPING SURFACES SHALL BE CONTINUOUS ALONG THEIR LENGTH AND SHALL NOT BE OBSTRUCTED ALONG THEIR TOPS OR SIDES. THE BOTTOMS OF HANDRAIL GRIPPING SURFACES SHALL NOT BE OBSTRUCTED FOR MORE THAN 20 PERCENT OF THEIR LENGTH. WHERE PROVIDED, HORIZONTAL PROJECTIONS SHALL OCCUR 1 1/2" MINIMUM BELOW THE BOTTOM OF THE HANDRAIL GRIPPING SURFACE. EXCEPTIONS: (1) WHERE HANDRAILS ARE PROVIDED ALONG WALKING SURFACES WITH SLOPES NOT STEEPER THAN 1:20, THE BOTTOMS OF HANDRAIL GRIPPING SURFACES SHALL BE PERMITTED TO BE OBSTRUCTED ALONG THEIR ENTIRE LENGTH WHERE THEY ARE INTEGRAL TO CRASH RAILS OR BUMPER GUARDS; (2) THE DISTANCE BETWEEN HORIZONTAL PROJECTIONS AND THE BOTTOM OF THE GRIPPING SURFACE SHALL BE PERMITTED TO BE REDUCED BY 1/8" FOR EACH 1/2" OF ADDITIONAL HANDRAIL PERIMETER DIMENSION THAT EXCEEDS 4". 505.7 CROSS SECTION. HANDRAIL GRIPPING SURFACES SHALL HAVE A CROSS SECTION COMPLYING WITH 505.7.1 OR 505.7.2. 505.7.1 CIRCULAR CROSS SECTION. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. 505.7.2 NON-CIRCULAR CROSS SECTIONS. HANDRAIL GRIPPING SURFACES WITH A NON-CIRCULAR CROSS SECTION SHALL HAVE A PERIMETER DIMENSION OF 4" MINIMUM AND 6" MAXIMUM, AND A CROSS-SECTION DIMENSION OF 2 1/4" MAXIMUM.



505.8 SURFACES. HANDRAIL GRIPPING SURFACES AND ANY SURFACES ADJACENT TO THEM SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES. 505.9 FITTINGS. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.



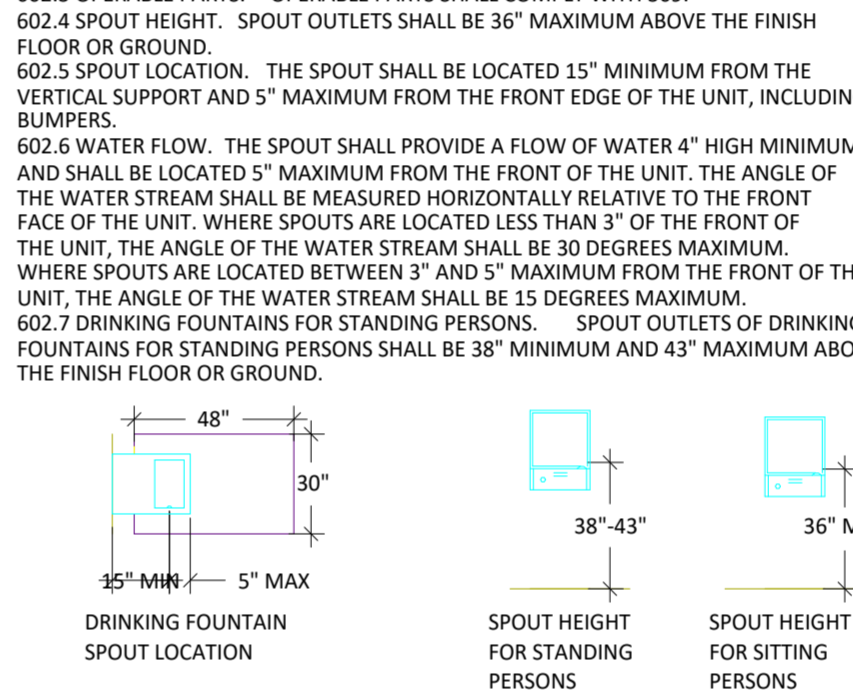
505.10 HANDRAIL EXTENSIONS. HANDRAIL GRIPPING SURFACES SHALL EXTEND BEYOND AND IN THE SAME DIRECTION OF THE STAIR FLIGHTS AND RAMP RUNS IN ACCORDANCE WITH 505.10. EXCEPTIONS: (1) EXTENSIONS SHALL NOT BE REQUIRED FOR CONTINUOUS HANDRAILS AT THE INSIDE TURN OF SWITCHBACK OR DOGLEG STAIRS AND RAMPS; (2) IN ASSEMBLY AREAS, EXTENSIONS SHALL NOT BE REQUIRED FOR RAMP HANDRAILS IN AISLES SERVING SEATING WHERE THE HANDRAILS ARE DISCONTINUOUS TO PROVIDE ACCESS TO SEATING AND TO PERMIT CROSSOVERS WITHIN AISLES; (3) IN ALTERATIONS, FULL EXTENSIONS OF HANDRAILS SHALL NOT BE REQUIRED WHERE SUCH EXTENSIONS WOULD BE HAZARDOUS DUE TO PLAN CONFIGURATION. 505.10.1 TOP AND BOTTOM EXTENSION AT RAMPS. RAMP HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING FOR 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP RUN. 505.10.2 TOP EXTENSION AT STAIRS. AT THE TOP OF A STAIR FLIGHT, HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING FOR 12" MINIMUM BEGINNING DIRECTLY ABOVE THE FIRST RISER NOSING. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT. 505.10.3 BOTTOM EXTENSION AT STAIRS. AT THE BOTTOM OF A STAIR FLIGHT, HANDRAILS SHALL EXTEND AT THE SLOPE OF THE STAIR FLIGHT FOR A HORIZONTAL DISTANCE AT LEAST EQUAL TO ONE TREAD DEPTH BEYOND THE LAST RISER NOSING. EXTENSION SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT.



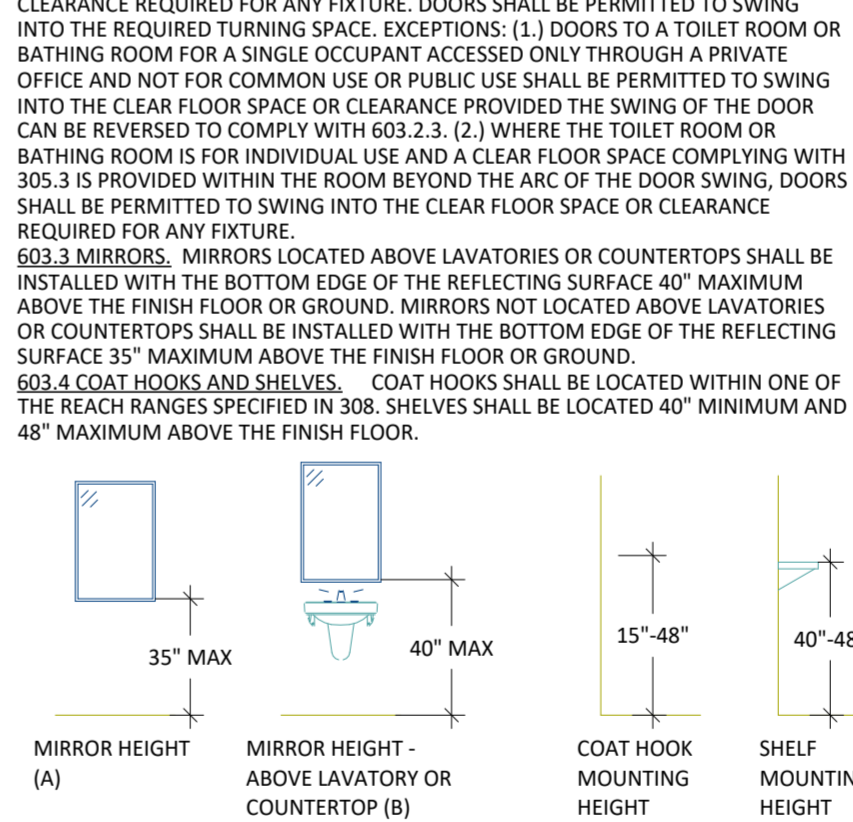
TOP AND BOTTOM HANDRAIL EXTENSION AT RAMPS. TOP HANDRAIL EXTENSION AT STAIRS. BOTTOM HANDRAIL EXTENSION AT STAIRS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

602 DRINKING FOUNTAINS. 602.1 GENERAL. DRINKING FOUNTAINS SHALL COMPLY WITH 307 AND 602. 602.2 CLEAR FLOOR SPACE. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCE COMPLYING WITH 305 SHALL BE PROVIDED. EXCEPTION: A PARALLEL APPROACH COMPLYING WITH 305 SHALL BE PERMITTED AT UNITS FOR CHILDREN'S USE WHERE THE SPOUT IS 30" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND AND IS 3 1/2" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPER. 602.3 OPERABLE PARTS. OPERABLE PARTS SHALL COMPLY WITH 309. 602.4 SPOUT HEIGHT. SPOUT OUTLETS SHALL BE 36" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. 602.5 SPOUT LOCATION. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPER. 602.6 WATER FLOW. THE SPOUT SHALL PROVIDE A FLOW OF WATER 4" HIGH MINIMUM AND SHALL BE LOCATED 5" MAXIMUM FROM THE FRONT OF THE UNIT. THE ANGLE OF THE WATER STREAM SHALL BE MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE UNIT. WHERE SPOUTS ARE LOCATED LESS THAN 3" OF THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE SPOUTS ARE LOCATED BETWEEN 3" AND 5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM. 602.7 DRINKING FOUNTAINS FOR STANDING PERSONS. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.



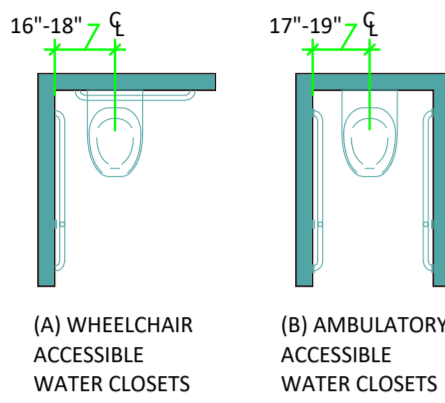
603 TOILET AND BATHING ROOMS. 603.1 GENERAL. TOILET AND BATHING ROOMS SHALL COMPLY WITH 603. 603.2 CLEARANCES. CLEARANCES SHALL COMPLY WITH 603.2. 603.2.1 TURNING SPACE. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. 603.2.2 OVERLAP. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP. 603.2.3 DOOR SWING. DOORS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS SHALL BE PERMITTED TO SWING INTO THE REQUIRED TURNING SPACE. EXCEPTIONS: (1) DOORS TO A TOILET ROOM OR BATHING ROOM FOR A SINGLE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON USE OR PUBLIC USE SHALL BE PERMITTED TO SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE PROVIDED THE SWING OF THE DOOR CAN BE REVERSED TO COMPLY WITH 603.2.3. (2) WHERE THE TOILET ROOM OR BATHING ROOM IS FOR INDIVIDUAL USE AND A CLEAR FLOOR SPACE COMPLYING WITH 305.3 IS PROVIDED WITHIN THE ROOM BEYOND THE ARC OF THE DOOR SWING, DOORS SHALL BE PERMITTED TO SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. 603.3 MIRRORS. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. 603.4 COAT HOOKS AND SHELVES. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR.



604 WATER CLOSETS AND TOILET COMPARTMENTS

604.1 GENERAL WATER CLOSETS AND TOILET COMPARTMENTS SHALL COMPLY WITH 604.2 THROUGH 604.8. EXCEPTION: WATER CLOSETS AND TOILET COMPARTMENTS FOR CHILDREN'S USE SHALL BE PERMITTED TO COMPLY WITH 604.3.

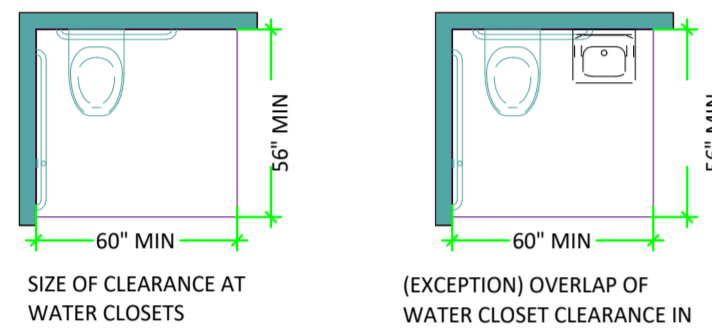
604.2 LOCATION THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM TO 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT THAT THE WATER CLOSET SHALL BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION IN THE AMBULATORY ACCESSIBLE TOILET COMPARTMENT SPECIFIED IN 604.8.2. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH.



604.3 CLEARANCE CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH 604.3.1 AND 604.3.2.

604.3.1 SIZE CLEARANCE AROUND A WATER CLOSET SHALL BE 60" MINIMUM MEASURED PERPENDICULAR FROM THE SIDE WALL AND 56" MINIMUM MEASURED PERPENDICULAR FROM THE REAR WALL.

604.3.2 OVERLAP THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE. EXCEPTION: IN RESIDENTIAL DWELLING UNITS, A LAVATORY COMPLIING WITH 606 SHALL BE PERMITTED ON THE REAR WALL 18" MINIMUM FROM THE WATER CLOSET CENTERLINE WHERE THE CLEARANCE AT THE WATER CLOSET IS 66" MINIMUM MEASURED PERPENDICULAR FROM THE REAR WALL.



604.4 SEATS THE SEAT HEIGHT OF A WATER CLOSET ABOVE THE FINISH FLOOR SHALL BE 17" MINIMUM AND 19" MAXIMUM MEASURED TO THE TOP OF THE SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION. EXCEPTIONS: (1) A WATER CLOSET IN A TOILET ROOM FOR A SINGLE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON USE OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN PROVIDED TO RETURN TO A LIFTED POSITION. (2) IN RESIDENTIAL DWELLING UNITS, THE HEIGHT OF WATER CLOSETS SHALL BE PERMITTED TO BE 15" MINIMUM AND 19" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE SEAT.

604.5 GRAB BARS GRAB BARS FOR WATER CLOSETS SHALL COMPLY WITH 609. GRAB BARS SHALL BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL. EXCEPTIONS: (1) GRAB BARS SHALL NOT BE REQUIRED TO BE INSTALLED IN A TOILET ROOM FOR A SINGLE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON USE OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN PROVIDED TO RETURN TO A LIFTED POSITION. (2) IN RESIDENTIAL DWELLING UNITS, GRAB BARS SHALL NOT BE REQUIRED TO BE INSTALLED IN TOILET OR BATHROOMS PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS COMPLIING WITH 604.5. (3) IN DETENTION OR CORRECTION FACILITIES, GRAB BARS SHALL NOT BE REQUIRED TO BE INSTALLED IN HOUSING OR HOLDING CELLS THAT ARE SPECIALLY DESIGNED WITHOUT PROTRUSIONS FOR PURPOSES OF SUICIDE PREVENTION.

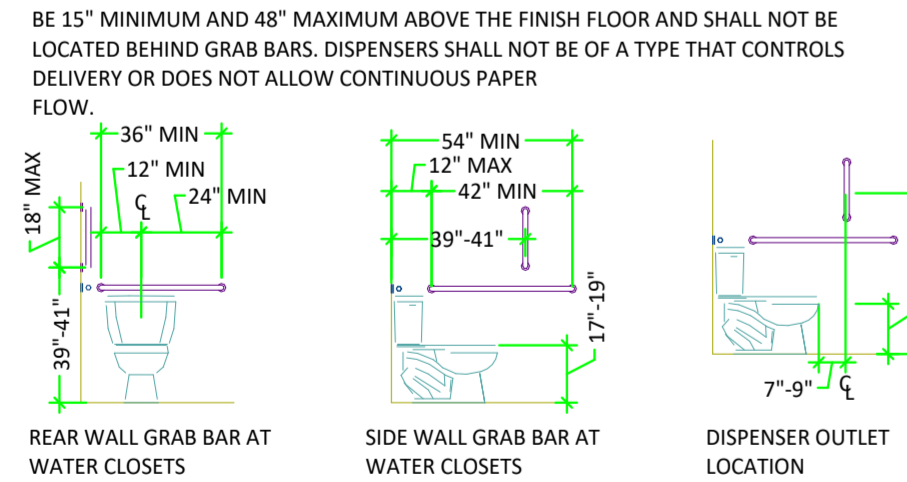
604.5.1 FIXED SIDE WALL GRAB BARS THE SIDE WALL GRAB BAR SHALL BE 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL. GRAB BAR SHALL BE MOUNTED SUCH THAT THE TOP OF THE GRAB BAR IS 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. IN ADDITION, A VERTICAL GRAB BAR 18" MINIMUM IN LENGTH SHALL BE MOUNTED WITH THE BOTTOM OF THE BAR LOCATED 39" MINIMUM AND 41" MAXIMUM ABOVE THE FLOOR, AND WITH THE CENTER LINE OF THE BAR LOCATED 39" MINIMUM AND 41" MAXIMUM FROM REAR WALL.

604.5.2 REAR WALL THE REAR WALL GRAB BAR SHALL BE 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM TO ONE SIDE AND 24" MAXIMUM ON THE OTHER SIDE.

*ANSI REQUIREMENT: VERTICAL GRAB BAR SHALL BE 18" LONG MINIMUM AND SHALL BE MOUNTED SUCH THAT THE CENTER OF THE BOTTOM EXTENSION OF THE GRAB BAR IS 39" MINIMUM AND 41" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

604.6 FLUSH CONTROLS FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

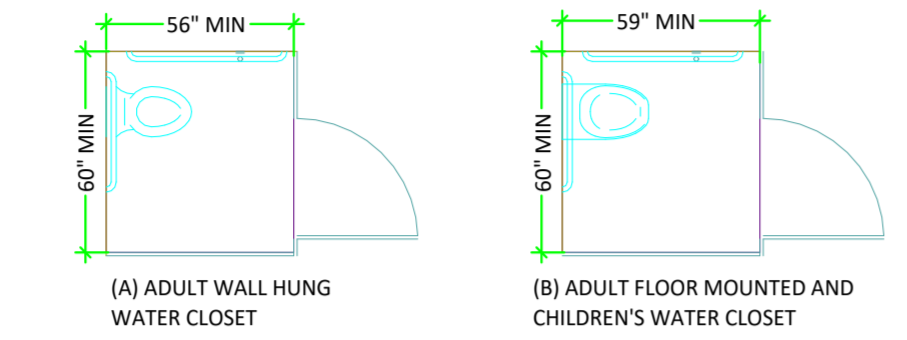
604.7 DISPENSERS TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE FRONT EDGE OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROLS DELIVERY OR DOES NOT ALLOW CONTINUOUS PAPER FLOW.



604.8 TOILET COMPARTMENTS WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.

604.8.1 WHEELCHAIR ACCESSIBLE COMPARTMENTS WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.

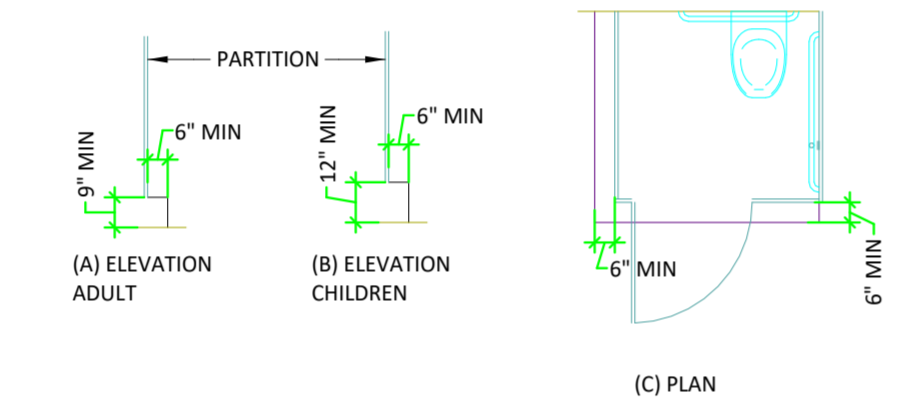
604.8.1.1 SIZE WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56" DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56" DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.



604.8.1.2 DOORS TOILET COMPARTMENT DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR AND THE PARTITION AND ANY OBSTRUCTION SHALL BE 42" MINIMUM.

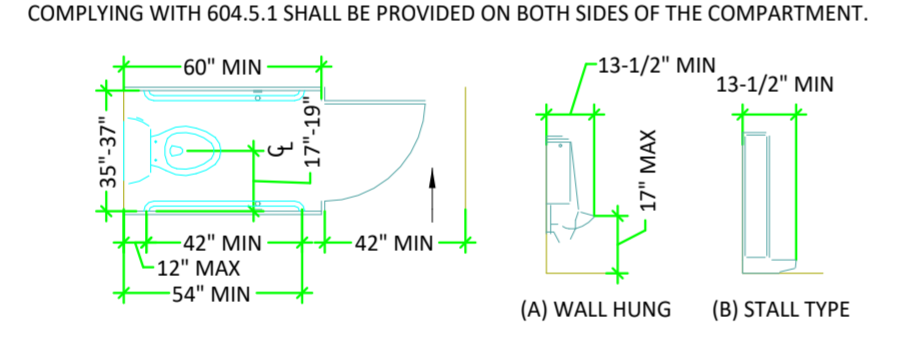
604.8.1.3 APPROACH COMPARTMENTS SHALL BE ARRANGED FOR LEFT HAND OR RIGHT HAND APPROACH TO THE WATER CLOSET. THE DOOR PARTITION, THAT DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.

604.8.1.4 TOE CLEARANCE THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE THE FINISH FLOOR AND 6" DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDREN'S USE SHALL PROVIDE A TOE CLEARANCE OF 12" MINIMUM ABOVE THE FINISH FLOOR.



604.8.1.5 GRAB BARS GRAB BARS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR COMPLYING WITH 604.5.1 SHALL BE PROVIDED AND SHALL BE LOCATED ON THE WALL CLOSEST TO THE WATER CLOSET. IN ADDITION, A REAR-WALL GRAB BAR COMPLIING WITH 604.5.2 SHALL BE PROVIDED.

604.8.2 AMBULATORY ACCESSIBLE COMPARTMENTS AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2. 604.8.2.1 SIZE AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35" MINIMUM AND 37" MAXIMUM. 604.8.2.2 GRAB BARS GRAB BARS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR COMPLIING WITH 604.5.1 SHALL BE PROVIDED ON BOTH SIDES OF THE COMPARTMENT.



604.8.3 COAT HOOKS AND SHELVES COAT HOOKS SHALL BE LOCATED WITH ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR.

605 URINALS

605.1 GENERAL URINALS SHALL COMPLY WITH 605. 605.2 HEIGHT AND DEPTH URINALS SHALL BE THE STALL-TYPE OR THE WALL-HUNG TYPE WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13-1/2" MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK OF THE FIXTURE.

605.3 CLEAR FLOOR SPACE A CLEAR FLOOR OR GROUND SPACE COMPLIING WITH 305 POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

605.4 FLUSH CONTROLS FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309.

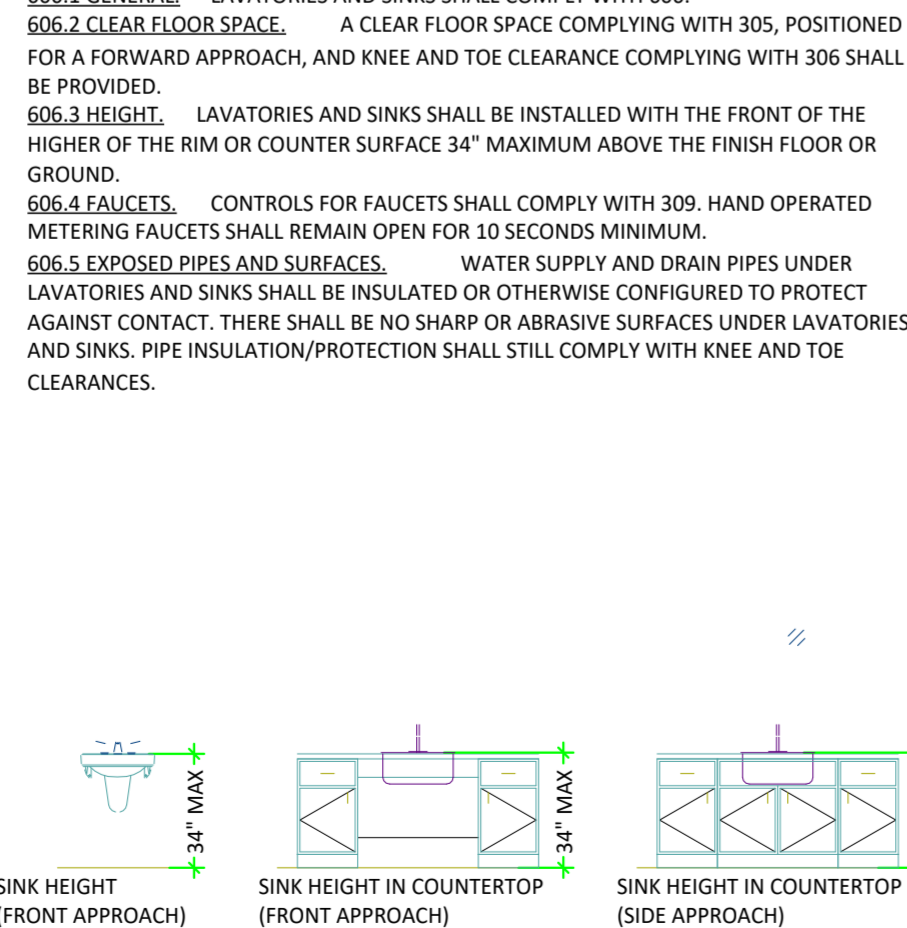
606 LAVATORIES AND SINKS

606.1 GENERAL LAVATORIES AND SINKS SHALL COMPLY WITH 606. 606.2 CLEAR FLOOR SPACE A CLEAR FLOOR SPACE COMPLIING WITH 305, POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCE COMPLIING WITH 306 SHALL BE PROVIDED.

606.3 HEIGHT LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

606.4 FAUCETS CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND OPERATED METERING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MINIMUM.

606.5 EXPOSED PIPES AND SURFACES WATER SUPPLY AND DRAIN PIPES 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. PIPE INSULATION/PROTECTION SHALL STILL COMPLY WITH KNEE AND TOE CLEARANCES.



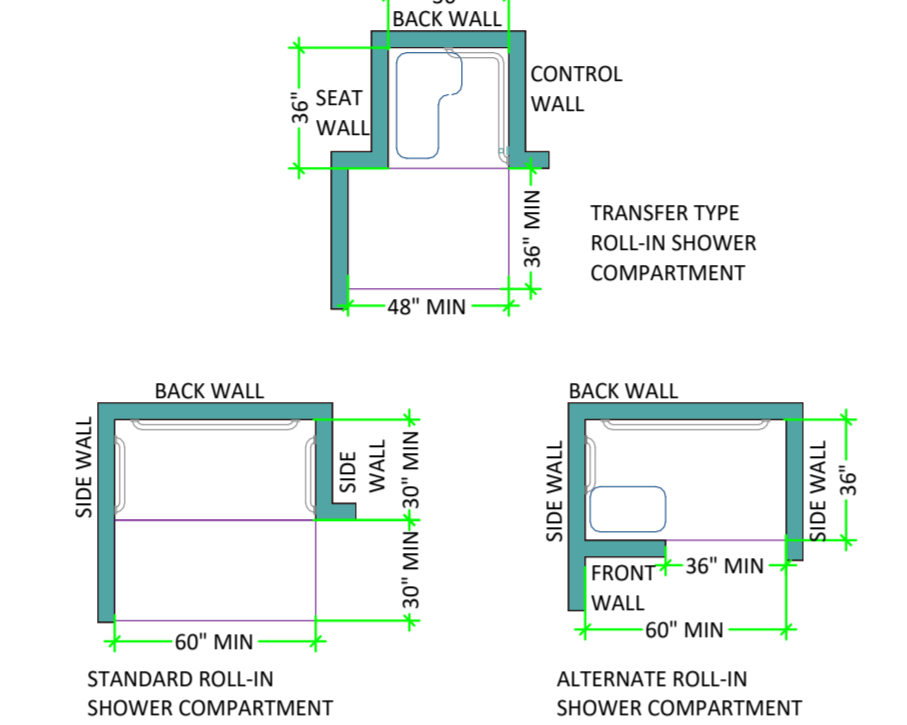
608 SHOWER COMPARTMENTS

608.1 GENERAL SHOWER COMPARTMENTS SHALL COMPLY WITH 608. 608.2 SIZE SIZE AND CLEARANCES FOR SHOWER COMPARTMENTS, SHOWER COMPARTMENTS SHALL HAVE SIZES AND CLEARANCES COMPLYING WITH 608.2. 608.2.1 TRANSFER TYPE SHOWER COMPARTMENTS TRANSFER TYPE SHOWER COMPARTMENTS SHALL BE 36" BY 36" CLEAR INSIDE DIMENSIONS MEASURED AT THE CENTER POINTS OF OPPOSING SIDES AND SHALL HAVE 36" WIDE MINIMUM ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. CLEARANCE OF 36" WIDE MINIMUM BY 48" LONG MINIMUM MEASURED FROM THE CONTROL WALL SHALL BE PROVIDED.

608.2.2 STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" WIDE MINIMUM BY 60" DEEP MINIMUM CLEAR INSIDE DIMENSIONS MEASURED AT CENTER POINTS OF OPPOSING SIDES AND SHALL HAVE 60" WIDE MINIMUM ENTRY ON THE FACE OF THE SHOWER COMPARTMENT.

608.2.2.1 CLEARANCE A 30" WIDE MINIMUM BY 60" LONG MINIMUM CLEARANCE SHALL BE PROVIDED ADJACENT TO THE OPEN FACE OF THE SHOWER COMPARTMENT.

608.2.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 36" WIDE AND 60" DEEP MINIMUM CLEAR INSIDE DIMENSIONS MEASURED AT THE CENTER POINTS OF OPPOSING SIDES. A 36" WIDE MINIMUM ENTRY SHALL BE PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.



608.3 GRAB BARS GRAB BARS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH 608.3. WHERE MULTIPLE GRAB BARS ARE USED, REQUIRED HORIZONTAL GRAB BARS SHALL BE INSTALLED AT THE SAME HEIGHT ABOVE THE FINISH FLOOR.

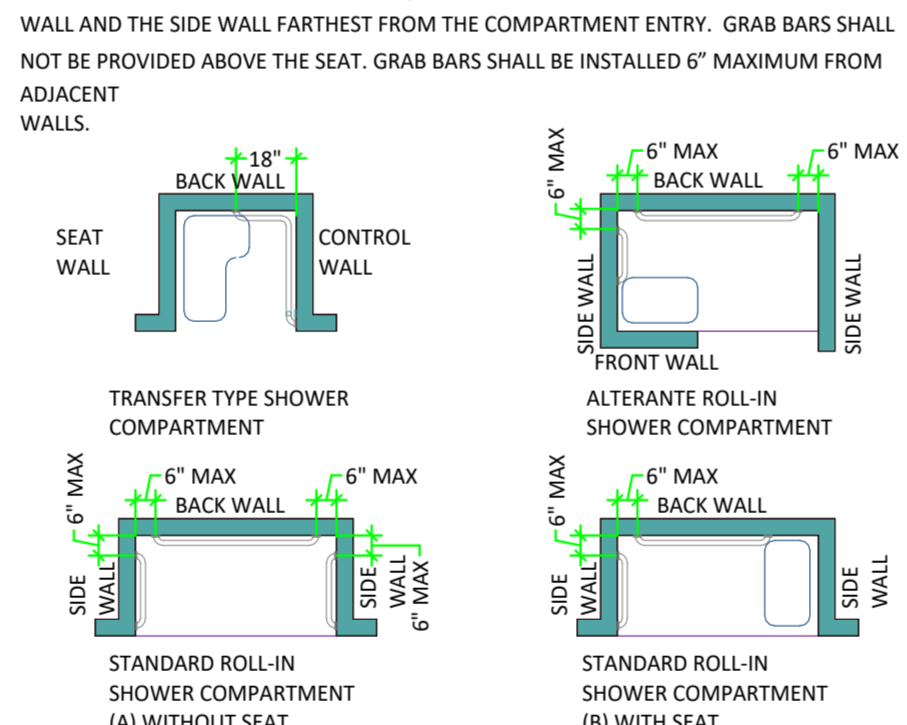
608.3.1 TRANSFER TYPE SHOWER COMPARTMENTS IN TRANSFER TYPE SHOWER COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.

608.3.1.1 HORIZONTAL GRAB BARS HORIZONTAL GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND ON THE BACK WALL TO A POINT 18" FROM THE CONTROL WALL.

608.3.1.2 VERTICAL GRAB BAR A VERTICAL GRAB BAR 18" MINIMUM IN LENGTH SHALL BE PROVIDED ON THE CONTROL END WALL 3" MINIMUM AND 6" MAXIMUM ABOVE THE HORIZONTAL GRAB BAR. 4" MAXIMUM INWARD FROM THE FRONT EDGE OF THE SHOWER.

608.3.2 STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS WHERE A SEAT IS PROVIDED IN STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ON THE BACK WALL AND THE SIDE WALL OPPOSITE THE SEAT. GRAB BARS SHALL NOT BE PROVIDED ABOVE THE SEAT. WHERE A SEAT IS NOT PROVIDED IN STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ON THREE WALLS. GRAB BARS SHALL BE INSTALLED 6" MAXIMUM FROM ADJACENT WALLS.

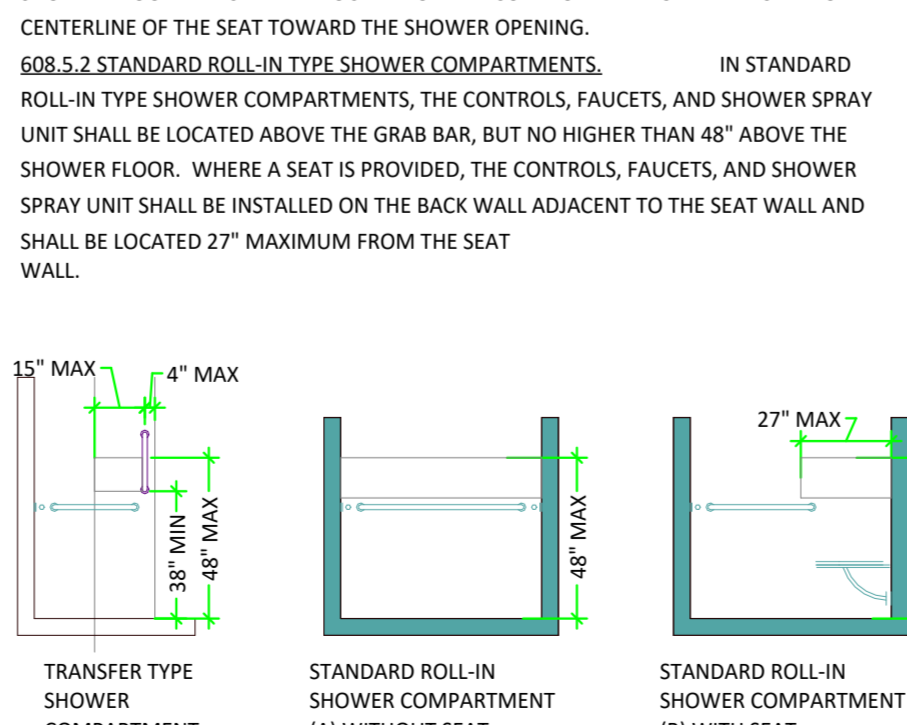
608.3.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS IN ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ON THE BACK WALL AND THE SIDE WALL FARTHEST FROM THE COMPARTMENT ENTRY. GRAB BARS SHALL NOT BE PROVIDED ABOVE THE SEAT. GRAB BARS SHALL BE INSTALLED 6" MAXIMUM FROM ADJACENT WALLS.



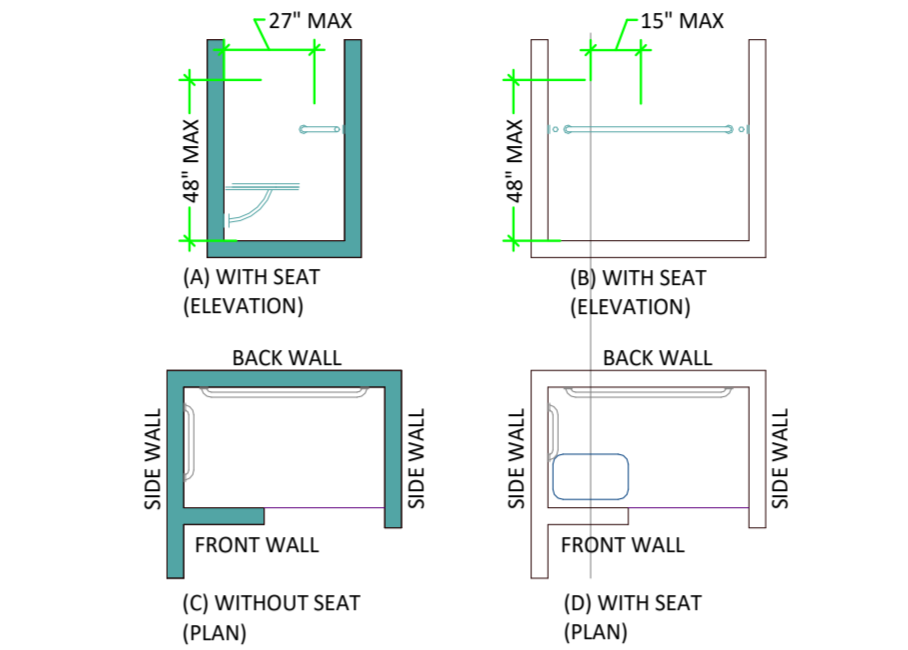
608.4 SEATS A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS. A FOLDING SEAT SHALL BE PROVIDED IN ROLL-IN TYPE SHOWERS REQUIRED IN TRANSIENT LODGING GUEST ROOMS WITH MOBILITY FEATURES COMPLIING WITH 806.2. SEATS SHALL COMPLY WITH 610.

608.5 CONTROLS CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4. 608.5.1 TRANSFER TYPE SHOWER COMPARTMENTS IN TRANSFER TYPE SHOWER COMPARTMENTS, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE INSTALLED ON THE SIDE WALL OPPOSITE THE SEAT 38" MINIMUM AND 48" MAXIMUM ABOVE THE SHOWER FLOOR AND SHALL BE LOCATED ON THE CONTROL WALL 15" MAXIMUM FROM THE CENTERLINE OF THE SEAT TOWARD THE SHOWER OPENING.

608.5.2 STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS IN STANDARD ROLL-IN TYPE SHOWER COMPARTMENTS, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE LOCATED ABOVE THE GRAB BAR, BUT NO HIGHER THAN 48" ABOVE THE SHOWER FLOOR. WHERE A SEAT IS PROVIDED, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE INSTALLED ON THE BACK WALL ADJACENT TO THE SEAT WALL AND SHALL BE LOCATED 27" MAXIMUM FROM THE SEAT.



608.5.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS IN ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE LOCATED ABOVE THE GRAB BAR, BUT NO HIGHER THAN 48" ABOVE THE SHOWER FLOOR. WHERE A SEAT IS PROVIDED, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE LOCATED ON THE SIDE WALL ADJACENT TO THE SEAT 27" MAXIMUM FROM THE SIDE WALL BEHIND THE SEAT OR SHALL BE LOCATED ON THE BACK WALL OPPOSITE THE SEAT 15" MAXIMUM, LEFT OR RIGHT, OF THE CENTERLINE OF THE SEAT. WHERE A SEAT IS NOT PROVIDED, THE CONTROLS, FAUCETS, AND SHOWER SPRAY UNIT SHALL BE INSTALLED ON THE SIDE WALL FARTHEST FROM THE COMPARTMENT ENTRY.



608.6 SHOWER SPRAY UNIT AND WATER A SHOWER SPRAY UNIT WITH A HOSE 59" LONG MINIMUM THAT CAN BE USED BOTH AS A FIXED-POSITION SHOWER HEAD AND AS A HAND-HELD SHOWER SHALL BE PROVIDED. THE SHOWER SPRAY UNIT SHALL HAVE AN ON/OFF CONTROL WITH A NON-POSITIVE SHUT-OFF. IF AN ADJUSTABLE-HEIGHT SHOWER HEAD ON A VERTICAL BAR IS USED, THE BAR SHALL BE INSTALLED SO AS NOT TO OBSTRUCT THE USE OF GRAB BARS. SHOWER SPRAY UNITS SHALL DELIVER WATER THAT IS 120°F MAXIMUM.

608.7 THRESHOLDS THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 303. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH MAXIMUM SHALL BE BEVELED, ROUNDED, OR VERTICAL.

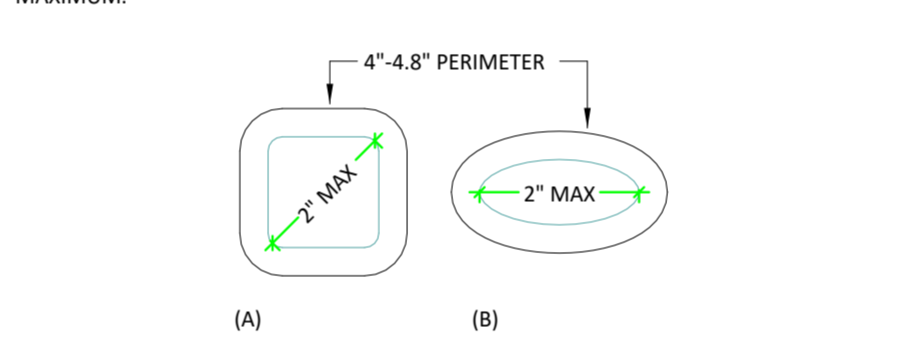
608.8 SHOWER ENCLOSURES ENCLOSURES FOR SHOWER COMPARTMENTS SHALL NOT OBSTRUCT CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS OR OBSTRUCT TRANSFER FROM WHEELCHAIRS ONTO SHOWER SEATS.

609 GRAB BARS

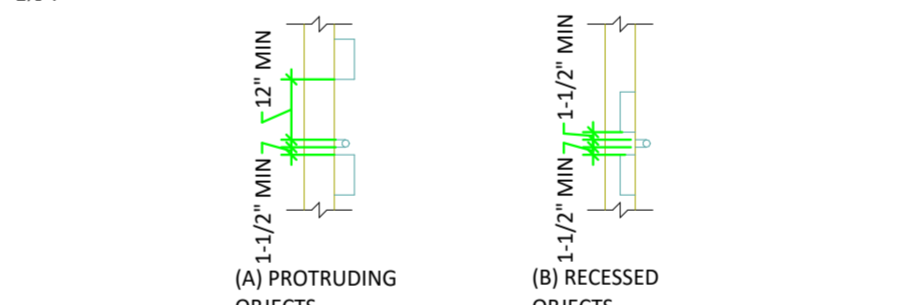
609.1 GENERAL GRAB BARS IN TOILET FACILITIES AND BATHING FACILITIES SHALL COMPLY WITH 609. 609.2 CROSS SECTION GRAB BARS SHALL HAVE A CROSS SECTION COMPLYING WITH 609.2.1 OR 609.2.2.

609.2.1 CIRCULAR CROSS SECTION GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM.

609.2.2 NON-CIRCULAR CROSS SECTION GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.



609.3 SPACING THE SPACE BETWEEN THE WALL AND THE GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW AND AT THE ENDS SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM. EXCEPTION: THE SPACE BETWEEN THE GRAB BARS AND SHOWER CONTROLS, SHOWER FITTINGS, AND OTHER GRAB BARS ABOVE SHALL BE PERMITTED TO BE 1 1/2".



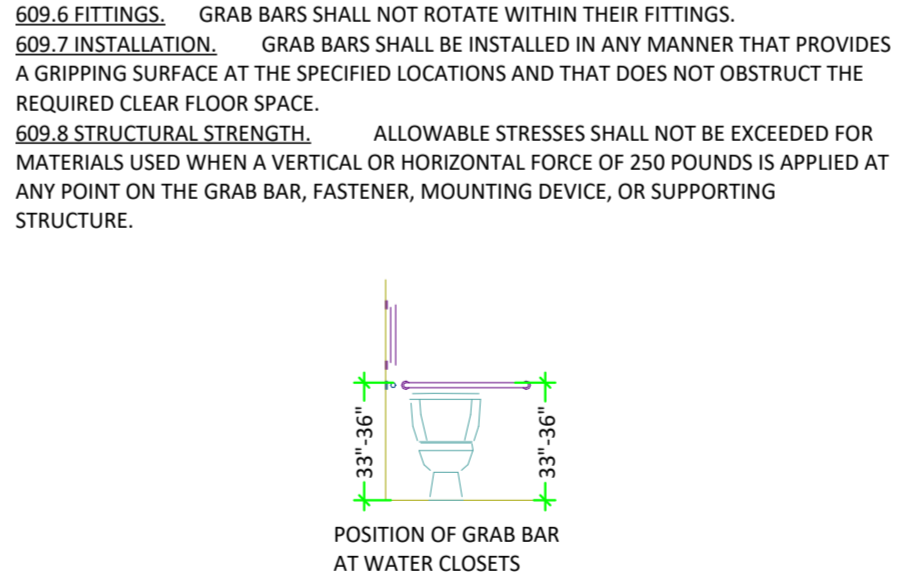
609.4 POSITION OF GRAB BARS GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE, EXCEPT THAT AT WATER CLOSETS FOR CHILDREN'S USE COMPLIING WITH 604.9, GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION 18" MINIMUM AND 27" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. THE HEIGHT OF THE LOWER GRAB BAR ON THE BACK WALL OF A BATHUB SHALL COMPLY WITH 607.4.1.1 OR 607.4.2.1.

609.5 SURFACE HAZARDS GRAB BARS AND ANY WALL OR OTHER SURFACES ADJACENT TO GRAB BARS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES.

609.6 FITTINGS GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

609.7 INSTALLATION GRAB BARS SHALL BE INSTALLED IN ANY MANNER THAT PROVIDES A GRIPPING SURFACE AT THE SPECIFIED LOCATIONS AND THAT DOES NOT OBSTRUCT THE REQUIRED CLEAR FLOOR SPACE.

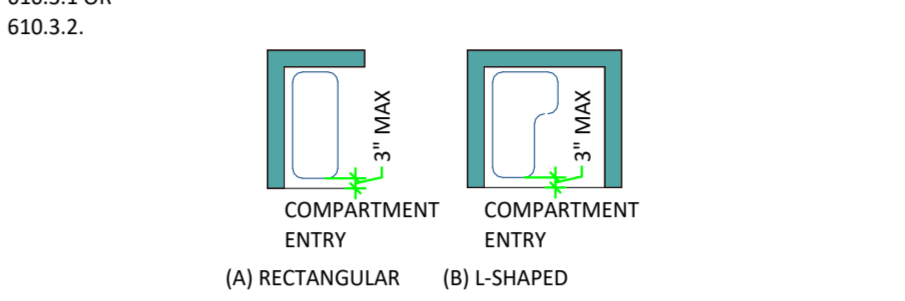
609.8 STRUCTURAL STRENGTH ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.



610 SEATS

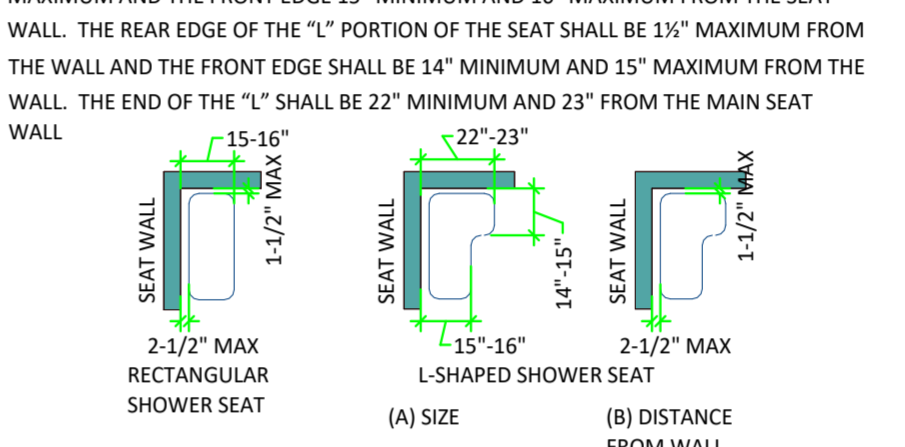
610.1 GENERAL SEATS IN BATHTUBS AND SHOWER COMPARTMENTS SHALL COMPLY WITH 610.

610.3 SHOWER COMPARTMENT SEATS WHERE A SEAT IS PROVIDED IN A STANDARD ROLL-IN SHOWER COMPARTMENT, IT SHALL BE A FOLDING TYPE, SHALL BE INSTALLED ON THE SIDE WALL ADJACENT TO THE CONTROLS, AND SHALL EXTEND FROM THE BACK WALL TO A POINT WITHIN 3" OF THE COMPARTMENT ENTRY. WHERE A SEAT IS PROVIDED IN AN ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENT, IT SHALL BE A FOLDING TYPE, SHALL BE INSTALLED ON THE FRONT WALL OPPOSITE THE BACK WALL, AND SHALL EXTEND FROM THE ADJACENT SIDE WALL TO A POINT WITHIN 3" OF THE COMPARTMENT ENTRY. IN TRANSFER-TYPE SHOWERS, THE SEAT SHALL EXTEND FROM THE BACK WALL TO A POINT WITHIN 3" OF THE COMPARTMENT ENTRY. THE TOP OF THE SEAT SHALL BE 17" MINIMUM AND 19" MAXIMUM ABOVE THE BATHROOM FINISH FLOOR. SEATS SHALL COMPLY WITH 610.3.1 OR 610.3.2.



610.3.1 RECTANGULAR SEATS THE REAR EDGE OF A RECTANGULAR SEAT SHALL BE 2 1/2" MAXIMUM AND THE FRONT EDGE 15" MINIMUM AND 16" MAXIMUM FROM THE SEAT WALL. THE SIDE EDGE OF THE SEAT SHALL BE 1 1/2" MAXIMUM FROM THE ADJACENT WALL.

610.3.2 L-SHAPED SEATS THE REAR EDGE OF AN L-SHAPED SEAT SHALL BE 2 1/2" MAXIMUM AND THE FRONT EDGE 15" MINIMUM AND 16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION OF THE SEAT SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 1 1/2" MINIMUM AND 15" MAXIMUM FROM THE WALL. THE END OF THE "L" SHALL BE 22" MINIMUM AND 23" FROM THE MAIN SEAT WALL.



610.4 STRUCTURAL STRENGTH ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT ON THE SEAT, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

701 GENERAL

701.1 SCOPE THE PROVISIONS OF CHAPTER 7 SHALL APPLY WHERE REQUIRED BY CHAPTER 2 OR WHERE REFERENCED BY A REQUIREMENT IN THIS DOCUMENT.

702 FIRE ALARM SYSTEMS

702.1 GENERAL FIRE ALARM SYSTEMS SHALL HAVE PERMANENTLY INSTALLED AUDIBLE AND VISIBLE ALARMS COMPLYING WITH NFPA 72 (1999 OR 2002 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1), EXCEPT THAT THE MAXIMUM ALLOWABLE SOUND LEVEL OF AUDIBLE NOTIFICATION APPLIANCES COMPLIING WITH SECTION 4-3.2.1 OF NFPA 72 (1999 EDITION) SHALL HAVE A SOUND LEVEL NO MORE THAN 110 DB AT THE MINIMUM HEARING DISTANCE FROM THE AUDIBLE APPLIANCE. IN ADDITION, ALARMS IN GUEST ROOMS REQUIRED TO PROVIDE COMMUNICATION FEATURES SHALL COMPLY WITH SECTIONS 4-3 AND 4-4 OF NFPA 72 (1999 EDITION) OR SECTIONS 7.4 AND 7.5 OF NFPA 72 (2002 EDITION). EXCEPTION: FIRE ALARM SYSTEMS IN MEDICAL CARE FACILITIES SHALL BE PERMITTED TO BE PROVIDED IN ACCORDANCE WITH INDUSTRY PRACTICE.

703 SIGNS

703.1 GENERAL SIGNS SHALL COMPLY WITH 703. WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED, EITHER ONE SIGN WITH BOTH VISUAL AND TACTILE CHARACTERS, OR TWO SEPARATE SIGNS, ONE WITH VISUAL, AND ONE WITH TACTILE CHARACTERS, SHALL BE PROVIDED.

703.2 RAISED CHARACTERS RAISED CHARACTERS SHALL COMPLY WITH 703.2 AND SHALL BE DUPLICATED IN BRaille COMPLIING WITH 703.3. RAISED CHARACTERS SHALL BE INSTALLED IN ACCORDANCE WITH 703.4.

703.2.1 DEPTH RAISED CHARACTERS SHALL BE 1/32 INCH (0.8 MM) MINIMUM ABOVE THEIR BACKGROUND.

703.2.2 CASE CHARACTERS SHALL BE UPPERCASE.

703.2.3 STYLE CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.

703.2.4 CHARACTER PROPORTIONS CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".

703.2.5 CHARACTER HEIGHT CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8" MINIMUM AND 2" MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I". EXCEPTION: WHERE SEPARATE RAISED AND VISUAL CHARACTERS WITH THE SAME INFORMATION ARE PROVIDED, RAISED CHARACTER HEIGHT SHALL BE PERMITTED TO BE 1/2" MINIMUM.

703.2.6 STROKE THICKNESS STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.

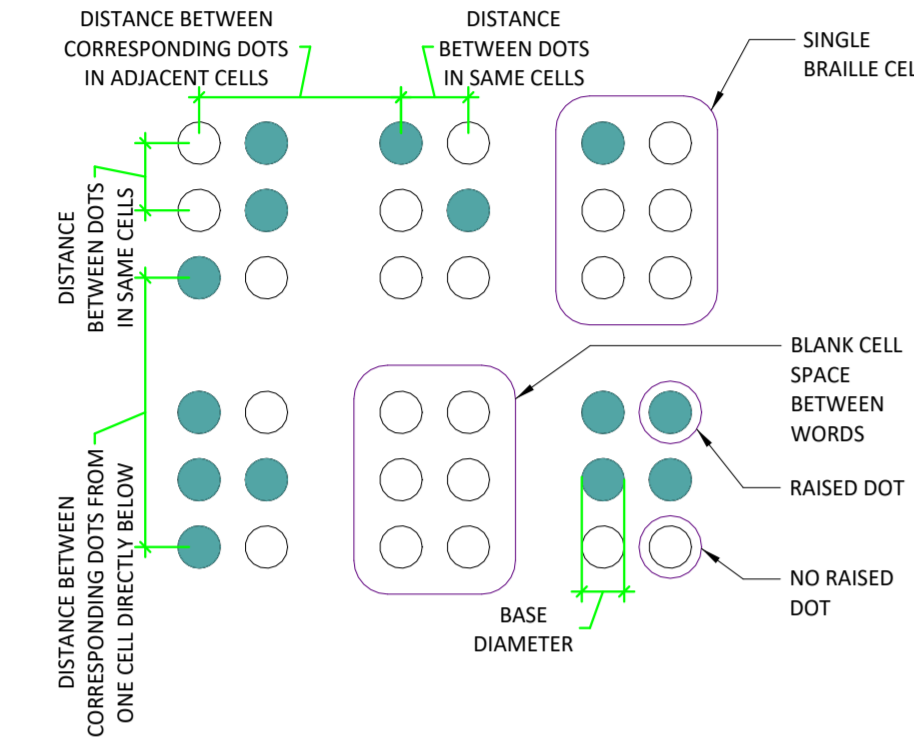
703.2.7 CHARACTER SPACING CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT RAISED CHARACTERS WITHIN A MESSAGE, EXCLUDING WORD SPACES. WHERE CHARACTERS HAVE RECTANGULAR CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/8" MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM. WHERE CHARACTERS HAVE OTHER CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/16" MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE BASE OF THE CROSS SECTIONS, AND 1/8" MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE TOP OF THE CROSS SECTIONS. CHARACTERS SHALL BE SEPARATED FROM RAISED BORDERS AND DECORATIVE ELEMENTS 3/8" MINIMUM.

703.2.8 LINE SPACING SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135% MINIMUM AND 175% MAXIMUM OF THE RAISED CHARACTER HEIGHT.

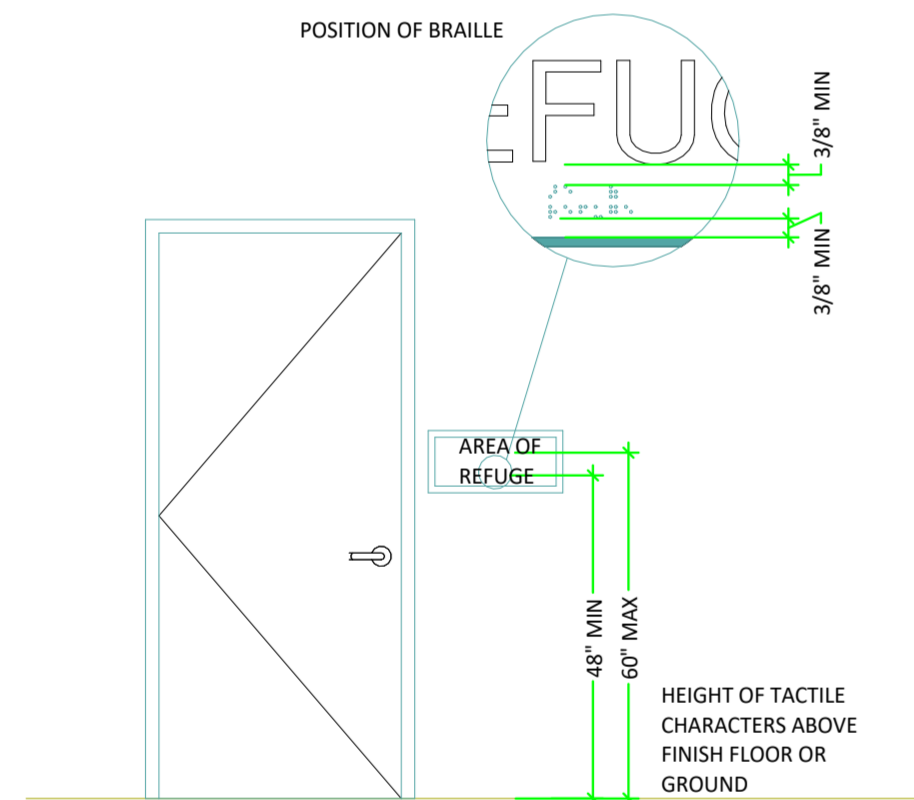


703.3 BRAILLE. BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH 703.3 AND 703.4.
703.3.1 DIMENSIONS AND CAPITALIZATION. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH TABLE 703.3.1. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS, AND ACRONYMS.

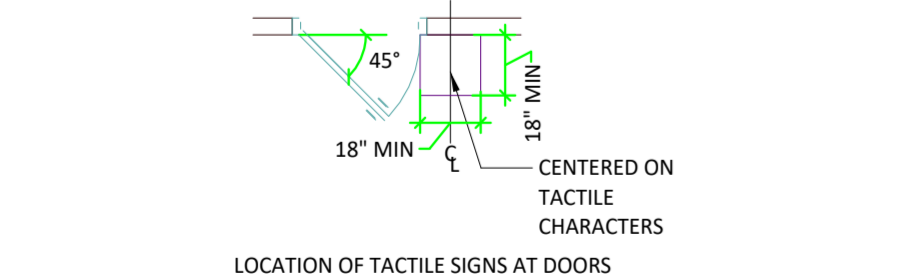
| MEASUREMENT RANGE | MINIMUM IN INCHES | MAXIMUM IN INCHES |
|--|-------------------|-------------------|
| DOT BASE DIAMETER | 0.059 TO 0.063 | |
| DISTANCE BETWEEN TWO DOTS IN THE SAME CELL | 0.090 TO 0.100 | |
| DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS | 0.241 TO 0.300 | |
| DOT HEIGHT | 0.025 TO 0.037 | |
| DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW | 0.395 TO 0.400 | |
| 1. MEASURED CENTER TO CENTER | | |



703.3.2 POSITION. BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8" MINIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8" MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS. EXCEPTION: BRAILLE PROVIDED ON ELEVATOR CAR CONTROLS SHALL BE SEPARATED 3/16" MINIMUM AND SHALL BE LOCATED EITHER DIRECTLY BELOW OR ADJACENT TO THE CORRESPONDING RAISED CHARACTERS OR SYMBOLS.
703.4 INSTALLATION HEIGHT AND LOCATION. SIGNS WITH TACTILE CHARACTERS SHALL COMPLY WITH 703.4.
703.4.1 HEIGHT ABOVE FINISH FLOOR OR GROUND. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48" MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER. EXCEPTION: TACTILE CHARACTERS FOR ELEVATOR CAR CONTROLS SHALL NOT BE REQUIRED TO COMPLY WITH 703.4.1.



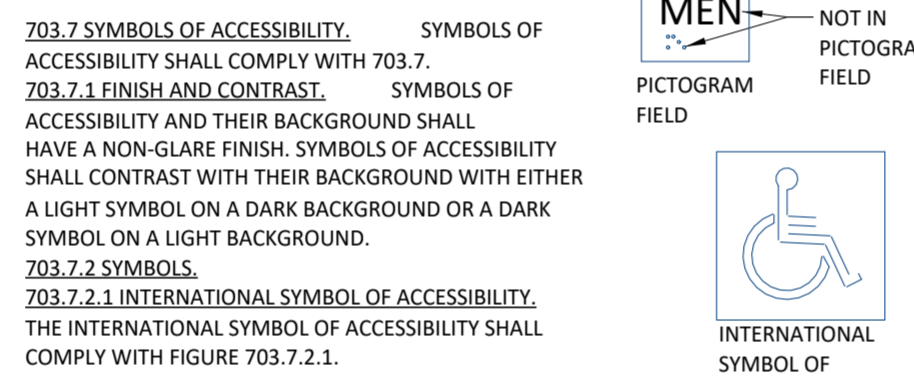
703.4.2 LOCATION. WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18" MINIMUM BY 18" MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION. EXCEPTION: SIGNS WITH TACTILE CHARACTERS SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD-OPEN DEVICES



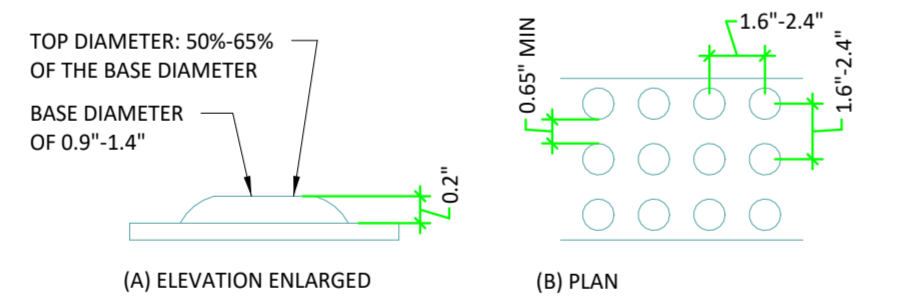
703.5 VISUAL CHARACTERS. VISUAL CHARACTERS SHALL COMPLY WITH 703.5. EXCEPTION: WHERE VISUAL CHARACTERS COMPLY WITH 703.2 AND ARE ACCOMPANIED BY BRAILLE COMPLYING WITH 703.3, THEY SHALL NOT BE REQUIRED TO COMPLY WITH 703.5.2 THROUGH 703.5.9.
703.5.1 FINISH AND CONTRAST. CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.
703.5.2 CASE. CHARACTERS SHALL BE UPPERCASE OR LOWERCASE OR A COMBINATION OF BOTH.
703.5.3 STYLE. CHARACTERS SHALL BE CONVENTIONAL IN FORM. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.
703.5.4 CHARACTER PROPORTIONS. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".
703.5.5 CHARACTER HEIGHT. MINIMUM CHARACTER HEIGHT SHALL COMPLY WITH TABLE 703.5.5. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPROACH TOWARDS THE SIGN. CHARACTER HEIGHT SHALL BE BASED ON THE UPPERCASE LETTER "I".

| HEIGHT TO FINISH FLOOR OR GROUND FROM BASELINE OF CHARACTER | HORIZONTAL VIEWING DISTANCE | MINIMUM CHARACTER HEIGHT |
|---|-----------------------------|--|
| 40" TO LESS THAN OR EQUAL TO 70" | LESS THAN 72" | 5/8" |
| 72" AND GREATER | 72" AND GREATER | 5/8", PLUS 1/8" PER FOOT OF VIEWING DISTANCE ABOVE 72" |
| GREATER THAN 70" TO LESS THAN OR EQUAL TO 120" | LESS THAN 180" | 2" |
| 180" AND GREATER | 180" AND GREATER | 2", PLUS 1/8" PER FOOT OF VIEWING DISTANCE ABOVE 180" |
| GREATER THAN 120" | LESS THAN 21' | 3" |
| | 21' AND GREATER | 3", PLUS 1/8" PER FOOT OF VIEWING DISTANCE ABOVE 21' |

703.5.6 HEIGHT FROM FINISH FLOOR OR GROUND. VISUAL CHARACTERS SHALL BE 40" MINIMUM ABOVE THE FINISH FLOOR OR GROUND. EXCEPTION: VISUAL CHARACTERS INDICATING ELEVATOR CAR CONTROLS SHALL NOT BE REQUIRED TO COMPLY WITH 703.5.6.
703.5.7 STROKE THICKNESS. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10% MINIMUM AND 30% MAXIMUM OF THE HEIGHT OF THE CHARACTER.
703.5.8 CHARACTER SPACING. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT CHARACTERS, EXCLUDING WORD SPACES. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10% MINIMUM AND 35% MAXIMUM OF CHARACTER HEIGHT.
703.5.9 LINE SPACING. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF CHARACTERS WITHIN A MESSAGE SHALL BE 135% MINIMUM AND 170% MAXIMUM OF THE CHARACTER HEIGHT.
703.6 PICTOGRAMS. PICTOGRAMS SHALL COMPLY WITH 703.6.
703.6.1 PICTOGRAM FIELD. PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6" MINIMUM. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.
703.6.2 FINISH AND CONTRAST. PICTOGRAMS AND THEIR FIELD SHALL HAVE A NON-GLARE FINISH. PICTOGRAMS SHALL CONTRAST WITH THEIR FIELD WITH EITHER A LIGHT PICTOGRAM ON A DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD.
703.6.3 TEXT DESCRIPTORS. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD. TEXT DESCRIPTORS SHALL COMPLY WITH 703.2, 703.3 AND 703.4.

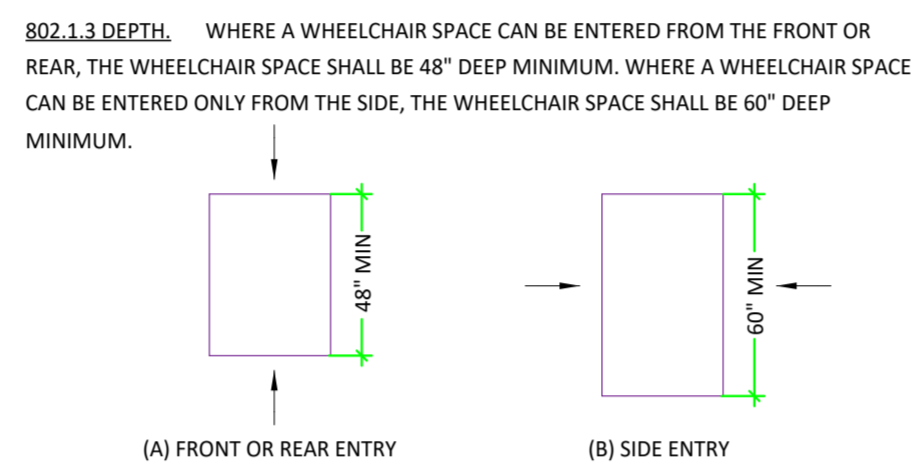


705 DETECTABLE WARNINGS
705.1 GENERAL. DETECTABLE WARNINGS SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES AND SHALL COMPLY WITH 705.
705.1.1 DOME SIZE. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A BASE DIAMETER OF 0.9" MINIMUM AND 1.4" (36 MM) MAXIMUM, A TOP DIAMETER OF 50% OF THE BASE DIAMETER MINIMUM TO 65% OF THE BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2".
705.1.2 DOME SPACING. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6" MINIMUM AND 2.4" MAXIMUM, AND A BASE-TO-BASE SPACING OF 0.65" MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.
705.1.3 CONTRAST. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.
705.2 PLATFORM EDGES. DETECTABLE WARNING SURFACES AT PLATFORM BOARDING EDGES SHALL BE 24" WIDE AND SHALL EXTEND THE FULL LENGTH OF THE PUBLIC USE AREAS OF THE PLATFORM.



CHAPTER 8: SPECIAL ROOMS, SPACES, AND ELEMENTS

801 GENERAL
801.1 SCOPE. THE PROVISIONS OF CHAPTER 8 SHALL APPLY WHERE REQUIRED BY CHAPTER 2 OR WHERE REFERENCED BY A REQUIREMENT IN THIS DOCUMENT.
802 WHEELCHAIR SPACES. COMPANION SEATS, AND DESIGNATED AISLE SEATS
802.1 WHEELCHAIR SPACES. WHEELCHAIR SPACES SHALL COMPLY WITH 802.1.
802.1.1 FLOOR OR GROUND SURFACE. THE FLOOR OR GROUND SURFACE OF WHEELCHAIR SPACES SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.
802.1.2 WIDTH. A SINGLE WHEELCHAIR SPACE SHALL BE 36" WIDE MINIMUM WHERE TWO ADJACENT WHEELCHAIR SPACES ARE PROVIDED, EACH WHEELCHAIR SPACE SHALL BE 33" WIDE MINIMUM.

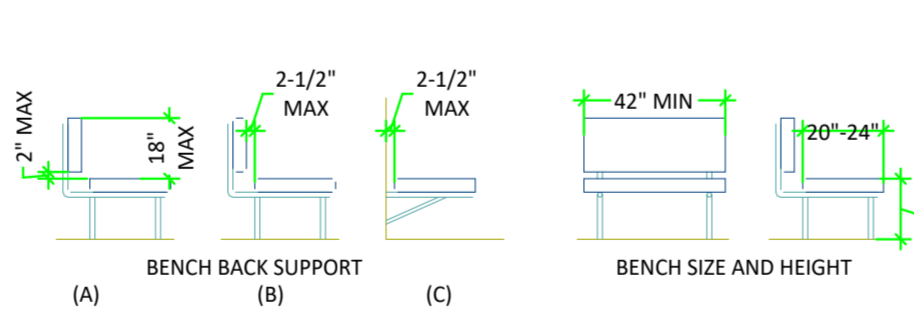


802.1.3 DEPTH. WHERE A WHEELCHAIR SPACE CAN BE ENTERED FROM THE FRONT OR REAR, THE WHEELCHAIR SPACE SHALL BE 48" DEEP MINIMUM. WHERE A WHEELCHAIR SPACE CAN BE ENTERED ONLY FROM THE SIDE, THE WHEELCHAIR SPACE SHALL BE 60" DEEP MINIMUM.
802.1.4 APPROACH. WHEELCHAIR SPACES SHALL ADJOIN ACCESSIBLE ROUTES. ACCESSIBLE ROUTES SHALL NOT OVERLAP WHEELCHAIR SPACES.
802.1.5 OVERLAP. WHEELCHAIR SPACES SHALL NOT OVERLAP CIRCULATION PATHS.

CHAPTER 9: BUILT-IN ELEMENTS

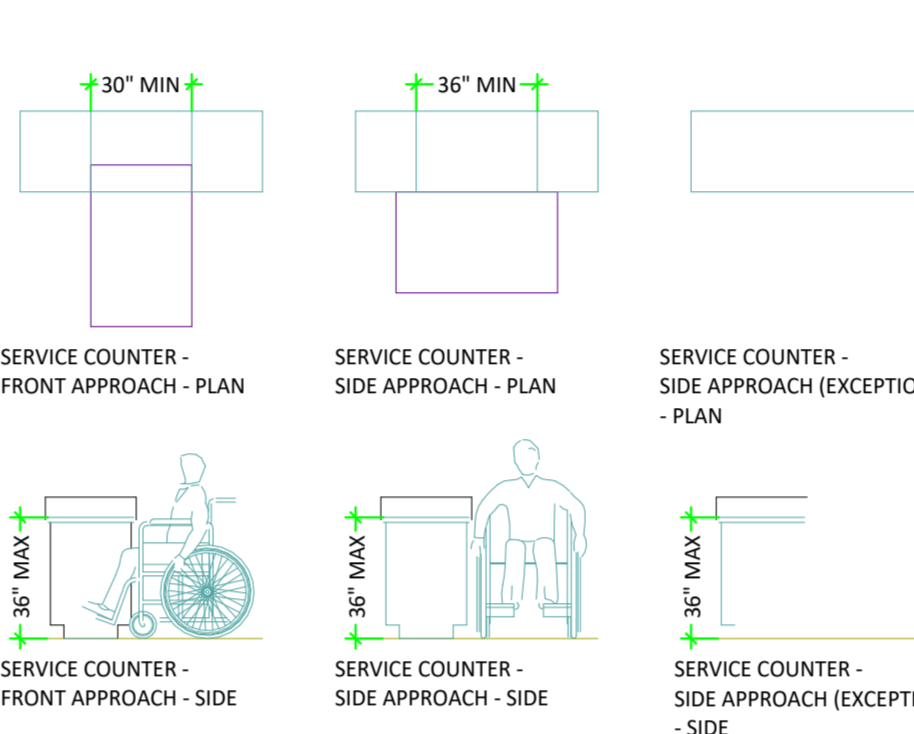
902 DINING SURFACES AND WORK SURFACES
902.1 GENERAL. DINING SURFACES AND WORK SURFACES SHALL COMPLY WITH 902.2 AND 902.3.
902.2 CLEAR FLOOR OR GROUND SPACE. A CLEAR FLOOR SPACE COMPLYING WITH 305 POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED. KNEE AND TOE CLEARANCE COMPLYING WITH 306 SHALL BE PROVIDED.
902.3 HEIGHT. THE TOPS OF DINING SURFACES AND WORK SURFACES SHALL BE 28" MINIMUM AND 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
902.4 DINING SURFACES AND WORK SURFACES FOR CHILDREN'S USE. ACCESSIBLE DINING SURFACES AND WORK SURFACES FOR CHILDREN'S USE SHALL COMPLY WITH 902.4. EXCEPTION: DINING SURFACES AND WORK SURFACES THAT ARE USED PRIMARILY BY CHILDREN 5 YEARS AND YOUNGER SHALL NOT BE REQUIRED TO COMPLY WITH 902.4 WHERE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A PARALLEL APPROACH IS PROVIDED.
902.4.1 CLEAR FLOOR OR GROUND SPACE. A CLEAR FLOOR SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH SHALL BE PROVIDED. KNEE AND TOE CLEARANCE COMPLYING WITH 306 SHALL BE PROVIDED, EXCEPT THAT KNEE CLEARANCE 24" MINIMUM ABOVE THE FINISH FLOOR OR GROUND SHALL BE PERMITTED.
902.4.2 HEIGHT. THE TOPS OF TABLES AND COUNTERS SHALL BE 26" MINIMUM AND 30" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

903 BENCHES
903.1 GENERAL. BENCHES SHALL COMPLY WITH 903.
903.2 CLEAR FLOOR OR GROUND SPACE. CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED AND SHALL BE POSITIONED AT THE END OF THE BENCH SEAT AND PARALLEL TO THE SHORT AXIS OF THE BENCH.
903.3 SIZE. BENCHES SHALL HAVE SEATS THAT ARE 42" LONG MINIMUM AND 20" DEEP MINIMUM AND 24" DEEP MAXIMUM.
903.4 BACK SUPPORT. THE BENCH SHALL PROVIDE FOR BACK SUPPORT OR SHALL BE AFFIXED TO A WALL. BACK SUPPORT SHALL BE 42" LONG MINIMUM AND SHALL EXTEND FROM A POINT 2" MAXIMUM ABOVE THE SEAT SURFACE TO A POINT 18" MINIMUM ABOVE THE SEAT SURFACE. BACK SUPPORT SHALL BE 2 1/2" MAXIMUM FROM THE REAR EDGE OF THE SEAT MEASURED HORIZONTALLY.
903.5 HEIGHT. THE TOP OF THE BENCH SEAT SURFACE SHALL BE 17" MINIMUM AND 19" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.



903.6 STRUCTURAL STRENGTH. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT ON THE SEAT, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.
903.7 WET LOCATIONS. WHERE INSTALLED IN WET LOCATIONS, THE SURFACE OF THE SEAT SHALL BE SLIP RESISTANT AND SHALL NOT ACCUMULATE WATER.

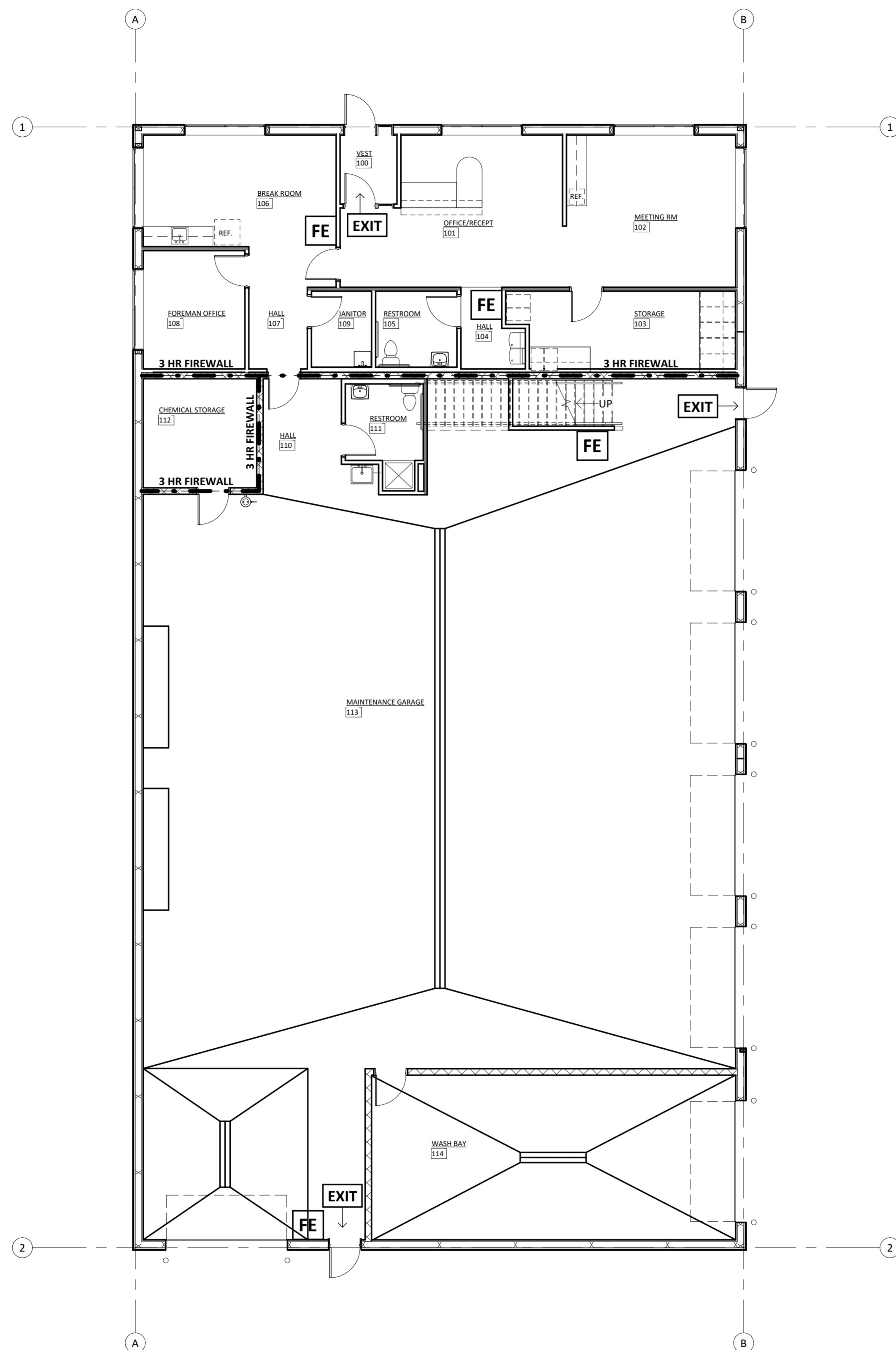
904 CHECK-OUT AISLES AND SALES AND SERVICE COUNTERS
904.1 GENERAL. CHECK-OUT AISLES AND SALES AND SERVICE COUNTERS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF 904.
904.4 SALES AND SERVICE COUNTERS. SALES COUNTERS AND SERVICE COUNTERS SHALL COMPLY WITH 904.4.1 OR 904.4.2. THE ACCESSIBLE PORTION OF THE COUNTER TOP SHALL EXTEND THE SAME DEPTH AS THE SALES OR SERVICE COUNTER TOP. EXCEPTION: IN ALTERATIONS, WHEN THE PROVISION OF A COUNTER COMPLYING WITH 904.4 WOULD RESULT IN A REDUCTION OF THE NUMBER OF EXISTING COUNTERS AT WORK STATIONS OR A REDUCTION OF THE NUMBER OF EXISTING MAIL BOXES, THE COUNTER SHALL BE PERMITTED TO HAVE A PORTION WHICH IS 24" LONG MINIMUM COMPLYING WITH 904.4.1 PROVIDED THAT THE REQUIRED CLEAR FLOOR OR GROUND SPACE IS CENTERED ON THE ACCESSIBLE LENGTH OF THE COUNTER.
904.4.1 PARALLEL APPROACH. A PORTION OF THE COUNTER SURFACE THAT IS 36" LONG MINIMUM AND 36" HIGH MAXIMUM ABOVE THE FINISH FLOOR SHALL BE PROVIDED. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE POSITIONED FOR A PARALLEL APPROACH ADJACENT TO THE 36" MINIMUM LENGTH OF COUNTER. EXCEPTION: WHERE THE PROVIDED COUNTER SURFACE IS LESS THAN 36" LONG, THE ENTIRE COUNTER SURFACE SHALL BE 36" HIGH MAXIMUM ABOVE THE FINISH FLOOR.
904.4.2 FORWARD APPROACH. A PORTION OF THE COUNTER SURFACE THAT IS 30" LONG MINIMUM AND 36" HIGH MAXIMUM SHALL BE PROVIDED. KNEE AND TOE SPACE COMPLYING WITH 306 SHALL BE PROVIDED UNDER THE COUNTER. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE POSITIONED FOR A FORWARD APPROACH TO THE COUNTER.



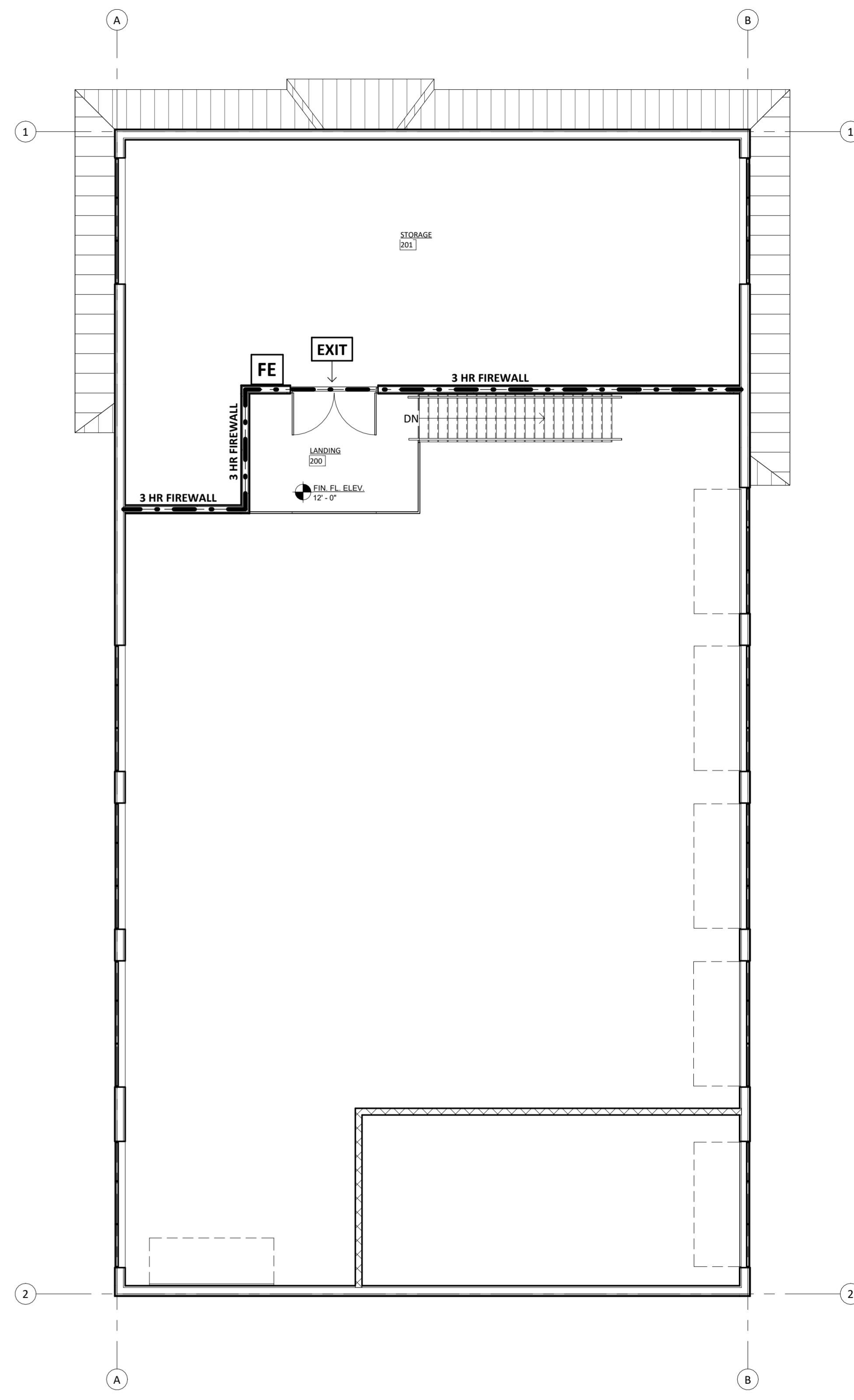
OTTUMWA CEMETERY BUILDING – CODE REVIEW 2015 IBC

1. AREA
 - a. (B) OFFICE – 1,485 SF
 - b. (S1) CHEMICAL STORAGE – 166 SF
 - c. (S1) MAINTENANCE GARAGE – 4,980 SF
 - d. (S1) MEZZANINE – 1,651 SF
2. SECTION 602 CONSTRUCTION TYPES
 - a. CONSTRUCTION TYPE – VB NON-SPRINKLERED
3. TABLE 504.3 - BUILDING HT
 - a. ALLOWABLE – 40'
 - b. ACTUAL – 31'-7"
4. TABLE 504.4 – ALLOWABLE NO OF STORIES ABOVE GRADE PLANE
 - a. ALLOWED – 1
 - b. ACTUAL – 1
5. SECTION 505.2 – MEZZANINES
 - a. 505.2.1 – AREA LIMITATION
 1. 1/3 OF THE ROOM LOCATED
 1. 1,651/4,980 = .332
6. TABLE 506.2 – ALLOWABLE AREA
 - a. (B) ALLOWED – 9,000 SF
 - b. (B) ACTUAL – 1,485 SF
 - c. (S1) ALLOWED – 9,000 SF
 - d. (S1) ACTUAL – 5,146 SF
7. SECTION 903 AUTOMATIC SPRINKLER SYSTEM
 - a. SECTION 903.2.9.1.4 REPAIR GARAGES
 1. S1 FIRE AREA EXCEEDING 5,000 SF REQUIRES SPRINKLER SYSTEM. S1 FIRE AREA = 4,980 SF, THUS NO SPRINKLER SYSTEM IS REQUIRED.
8. SECTION 706 – FIRE WALLS
 - a. SECTION 706.4 FIRE RESISTANCE RATING – B & S1 = 3 HR
9. SECTION 1004 – OCCUPANT LOAD
 - a. OFFICE AREA – $1,485/100 = 14.85$
 - b. MAINTENANCE/STORAGE - $5,146/200 = 25.73$
 - c. MEZZANINE - $1,651/500 = 3.3$

TOTAL 43.88
10. PLUMBING FIXTURES – STATE PLUMBING CODE
 - a. MEN (22)
 1. TOILETS – (R): 1 (P): 1
 2. URINALS – (R): 0 (P): 0
 3. LAVS – (R): 1 (P): 1
 - b. WOMEN (22)
 1. TOILETS – (R): 1 (P): 1
 2. LAVS – (R): 1 (P): 1



1
 G2.6
 MAIN LEVEL CODE PLAN
 SCALE: 1/8" = 1'-0"
 0' 4'-0" 8'-0" 12'-0"



2
 G2.6
 MEZZANINE CODE PLAN
 SCALE: 1/8" = 1'-0"
 0' 4'-0" 8'-0" 12'-0"

| | | | |
|---------|----------|----|------|
| REMARKS | DESIGNED | BY | DATE |
| | DRAWN | | |
| | REVIEWED | | |
| | APPROVED | | |

WILLET HOFMANN & ASSOCIATES, INC.
 ARCHITECTURE, ENGINEERING, AND SURVEYING
 625 32ND AVE. SW, CEDAR RAPIDS, IA 52404
 P: 319-376-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
 OTTUMWA, IOWA
 CODE PLAN AND REVIEW

PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

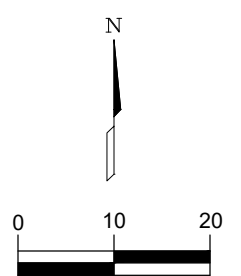
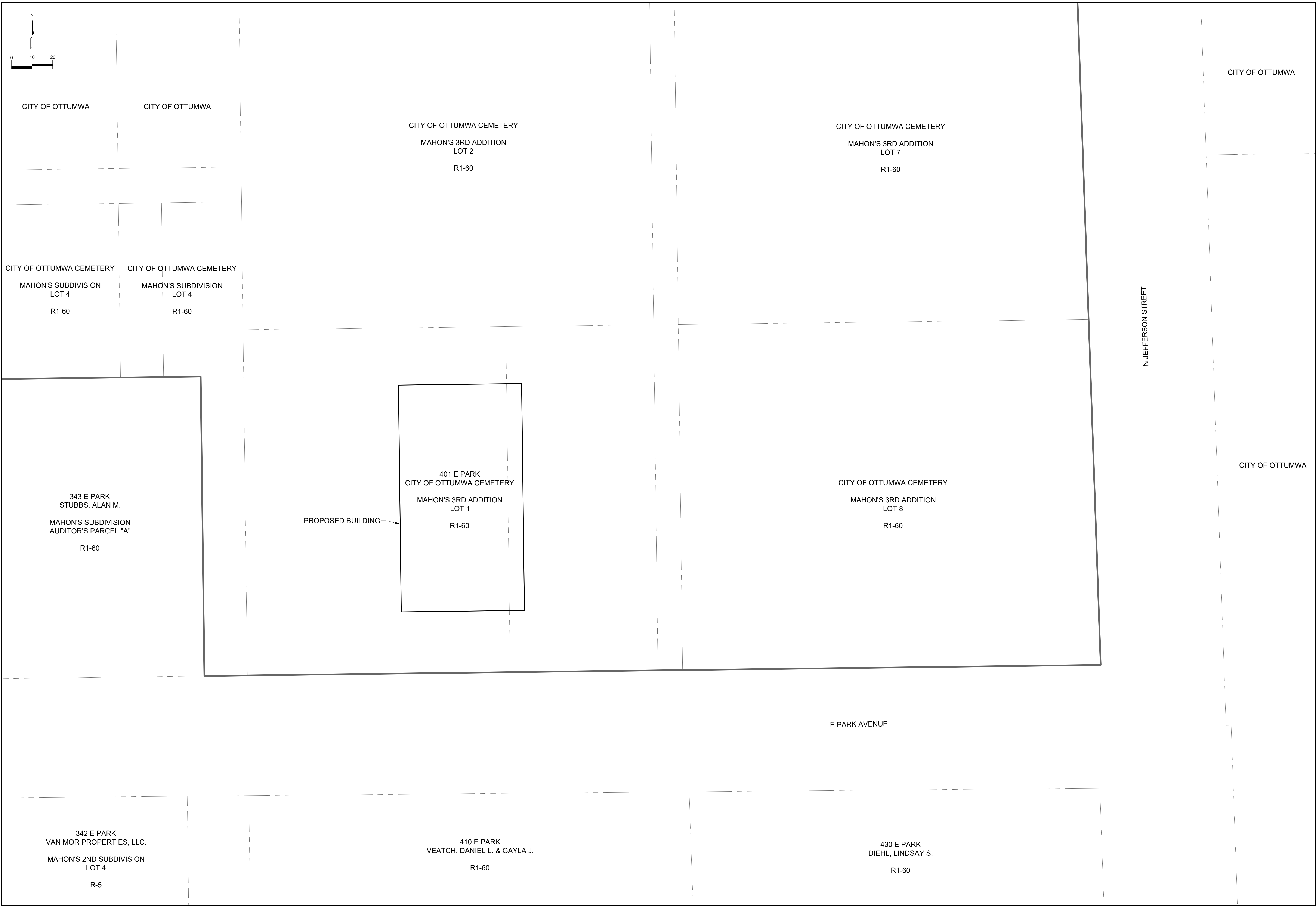
WHA No.
 1520C22

DATE
 11-05-2024

SHEET No.
G2.6

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.

FILE = \$FILE\$.S
 \$PLTDRYS\$.S
 \$DATE\$.S
 \$TIME\$.S = PLOTTED



| | | | | | |
|----------|-----|------|------|----|---------|
| DESIGNED | JMT | REV. | DATE | BY | REMARKS |
| DRAWN | JMT | | | | |
| REVIEWED | MCD | | | | |
| APPROVED | MCD | | | | |

WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 OTTUMWA, IOWA

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
 BOUNDARY INFORMATION

PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

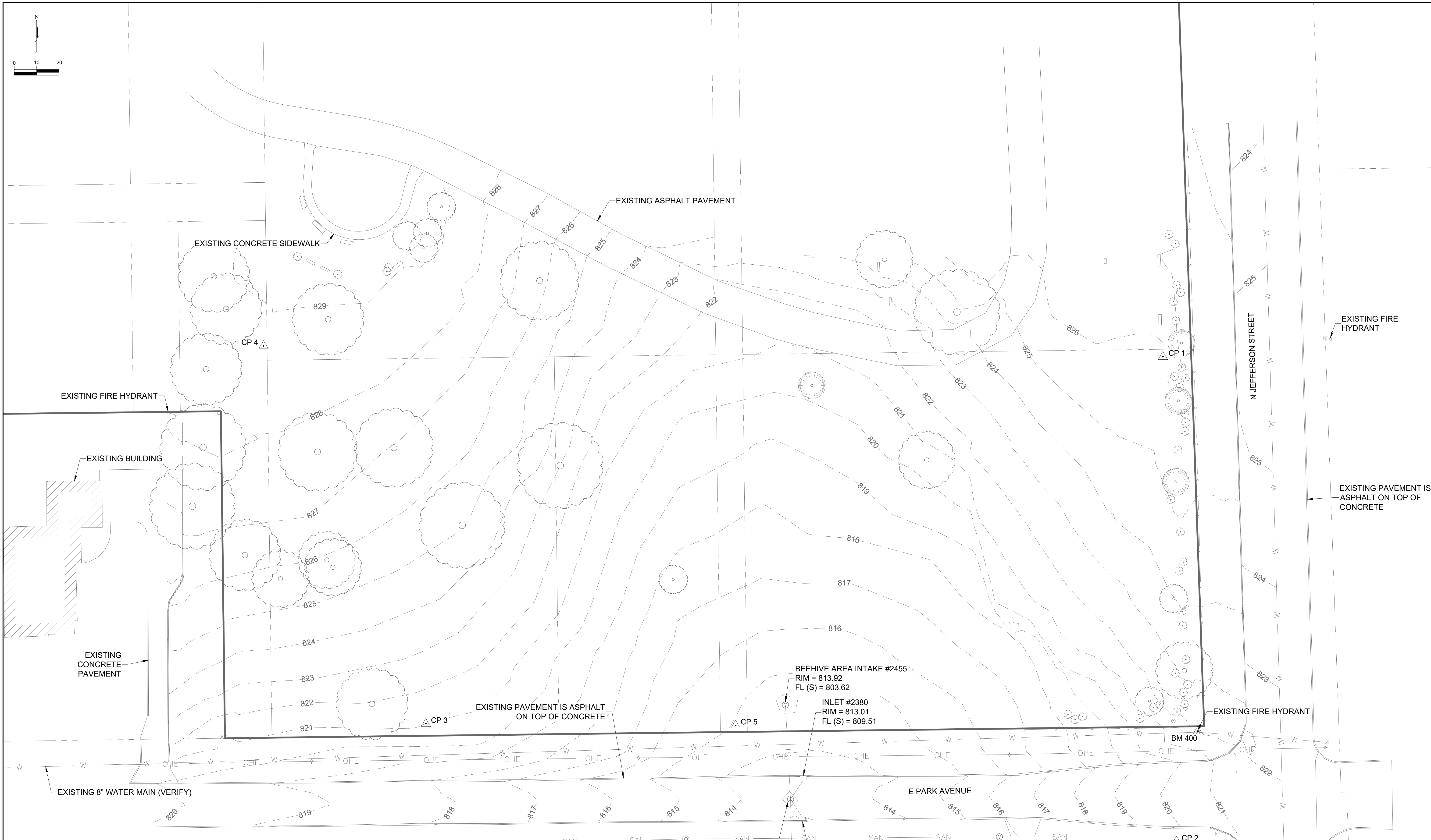
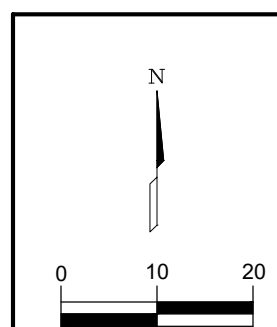
WHA No.
 1520C22

DATE
 10/25/2024

SHEET No.
C.01

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2024 Willett, Hofmann & Associates, Inc.

\$PLTDRVS\$ \$DATE\$ \$TIME\$ = PLOTTED



CONTROL INFORMATION

| POINT NO. | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|-----------|-----------|------------|-----------|---------------------------|
| CP 1 | 378395.40 | 1943406.18 | 826.14 | 5/8" REBAR WITH CAP |
| CP 2 | 378179.07 | 1943412.25 | 820.50 | 5/8" REBAR WITH CAP |
| CP 3 | 378231.63 | 1943077.55 | 821.02 | 5/8" REBAR WITH CAP |
| CP 4 | 378400.21 | 1943005.19 | 829.11 | 5/8" REBAR WITH CAP |
| CP 5 | 378230.88 | 1943215.64 | 814.21 | 5/8" REBAR WITH CAP |
| BM 400 | 378228.28 | 1943421.73 | 824.72 | MARK ON FIRE HYDRANT BOLT |

SAN MH #2488
RIM = 817.40
FL (E) = 809.90
FL (W) = 809.85

SAN MH #2425
RIM = 814.66
FL (E) = 810.26
FL (W) = 810.16

STORM MH #2392
RIM = 813.30
FL (NE) = 809.30
FL (SE) 809.30
FL (N) = 802.30
FL (S) = 802.00

INLET #2408
RIM = 812.85
FL (N) = 809.05

SAN MH #2357
RIM = 816.10
INVERT = 811.50

BEEHIVE AREA INTAKE #2455
RIM = 813.92
FL (S) = 803.62

INLET #2380
RIM = 813.01
FL (S) = 809.51

REMARKS

| | | | |
|----------|-----|------|----|
| DESIGNED | JMT | DATE | BY |
| DRAWN | JMT | | |
| REVIEWED | MJD | | |
| APPROVED | MJD | | |

WILLETT HOFMANN & ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
OTTUMWA, IOWA

EXISTING CONDITIONS & CONTROL INFORMATION

PHASE

- PRELIM
- PERMIT
- FINAL
- BID
- CONST

WHA No. 1520C22

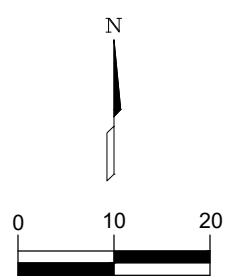
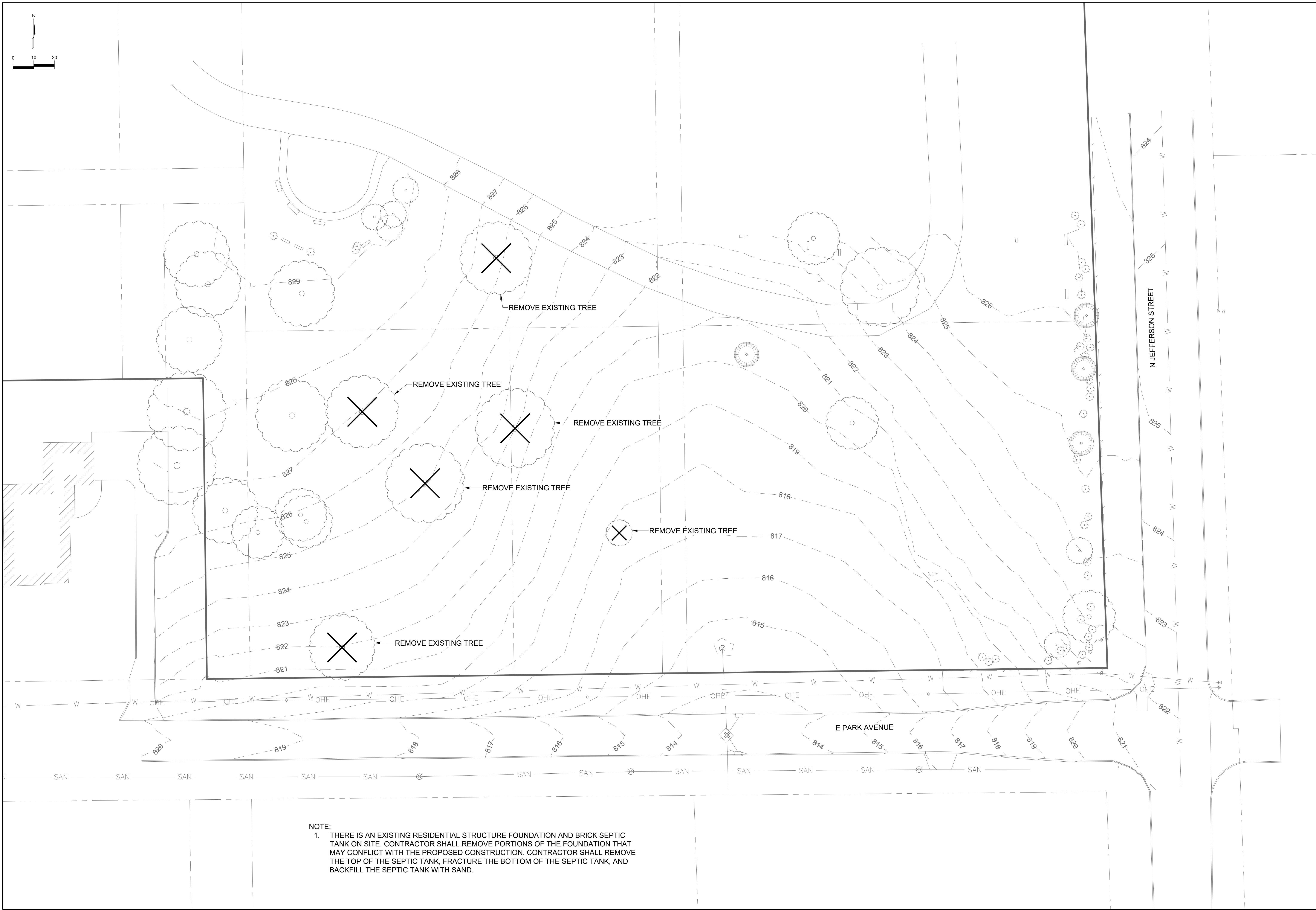
DATE 10/25/2024

SHEET No. C.02


This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2024 Willett, Hofmann & Associates, Inc.

\$PLTDRVS\$ \$DATE\$ \$TIME\$ = PLOTTED

FILE = \$FILE\$.S

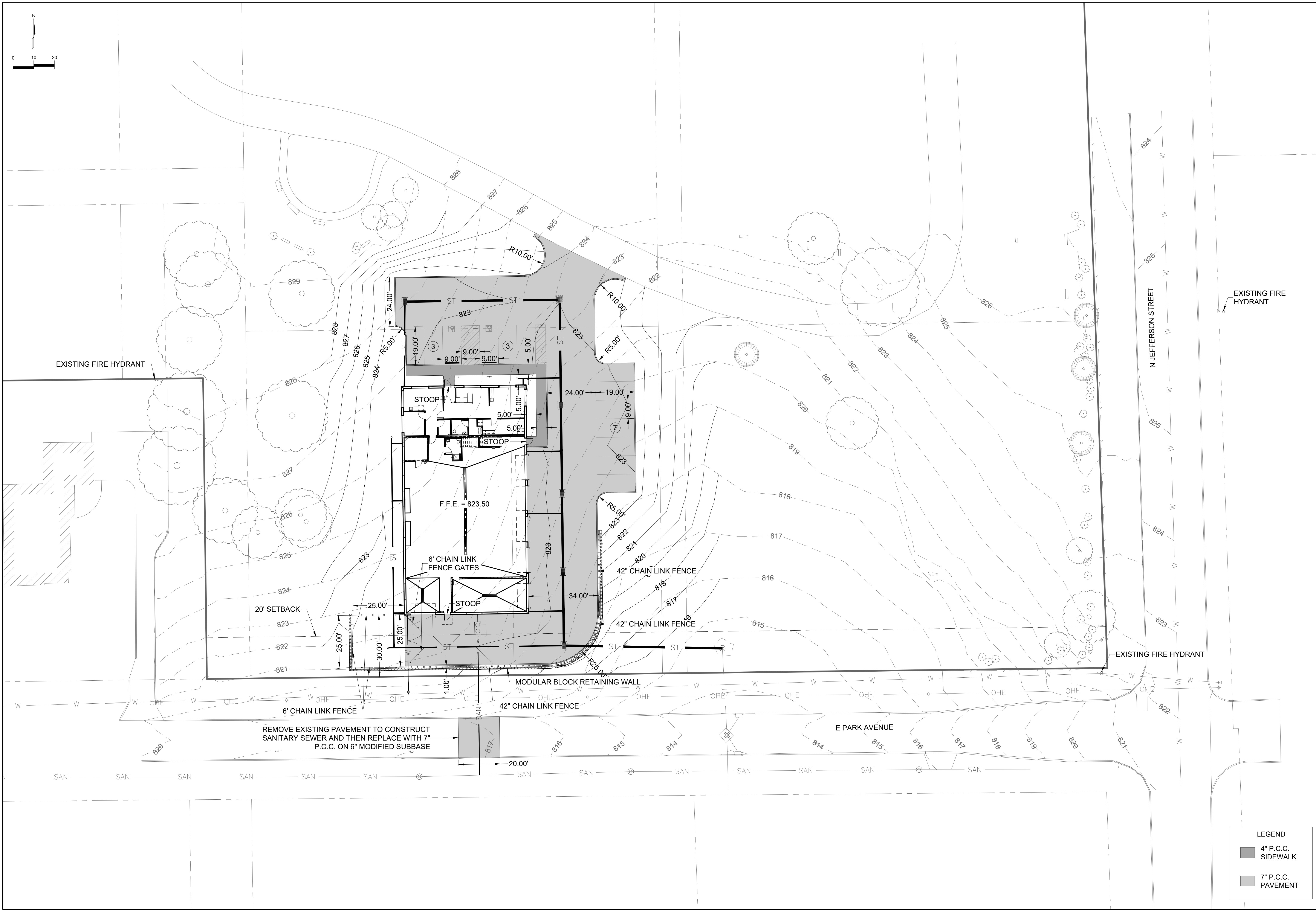


NOTE:
 1. THERE IS AN EXISTING RESIDENTIAL STRUCTURE FOUNDATION AND BRICK SEPTIC TANK ON SITE. CONTRACTOR SHALL REMOVE PORTIONS OF THE FOUNDATION THAT MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. CONTRACTOR SHALL REMOVE THE TOP OF THE SEPTIC TANK, FRACTURE THE BOTTOM OF THE SEPTIC TANK, AND BACKFILL THE SEPTIC TANK WITH SAND.

| | | | | | |
|--|--|------|------|----|---------|
| DESIGNED | | REV. | DATE | BY | REMARKS |
| DRAWN | | JMT | | | |
| REVIEWED | | MJD | | | |
| APPROVED | | MJD | | | |
| WILLET HOFMANN & ASSOCIATES INC ENGINEERING ARCHITECTURE LAND SURVEYING  | | | | | |
| OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG OTTUMWA, IOWA REMOVALS | | | | | |
| PHASE <input type="checkbox"/> PRELIM <input type="checkbox"/> PERMIT <input type="checkbox"/> FINAL <input checked="" type="checkbox"/> BID <input type="checkbox"/> CONST | | | | | |
| WHA No. 1520C22 | | | | | |
| DATE 10/25/2024 | | | | | |
| SHEET No. C.03 | | | | | |
| This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2024 Willett, Hofmann & Associates, Inc. | | | | | |

\$PLTDRVS\$ \$DATE\$ \$TIME\$ = PLOTTED

FILE = \$FILE\$. \$



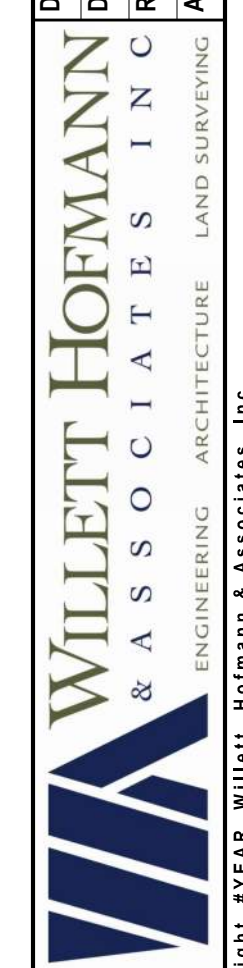
Plot Date: October 25, 9:13am
File: S:\PROJECTS\2021\1520C22_Ottumwa\DESIGN\TRANS\1520C22 - Civil Base.dwg

| | | | | | |
|----------|-----|------|------|----|---------|
| DESIGNED | JMT | REV. | DATE | BY | REMARKS |
| DRAWN | JMT | | | | |
| REVIEWED | MJD | | | | |
| APPROVED | MJD | | | | |

| | |
|---|--|
| OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG | |
| OTTUMWA, IOWA | |
| SITE PLAN | |

| |
|---|
| PHASE |
| <input type="checkbox"/> PRELIM |
| <input type="checkbox"/> PERMIT |
| <input type="checkbox"/> FINAL |
| <input checked="" type="checkbox"/> BID |
| <input type="checkbox"/> CONST |

| | |
|------------------|------------|
| WHA No. | 1520C22 |
| DATE | 10/25/2024 |
| SHEET No. | C.04 |



This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 1974 Willett, Hofmann & Associates, Inc.

FILE = \$FILE\$.SPLDVS\$ \$DATE\$ \$TIME\$ = PLOTTED

NOTES:
 1. 4" BOARD INSULATION, WITH AN R-VALUE OF 20, REQUIRED AROUND SANITARY SERVICE.

SAN MH #2488
 RIM = 817.40
 FL (E) = 809.90
 FL (W) = 809.85

SERVICE TAP,
 FL = 809.97 (VERIFY)

SAN MH #2425
 RIM = 814.66
 FL (E) = 810.26
 FL (W) = 810.16

STORM MH #2392
 RIM = 813.30
 FL (NE) = 809.30
 FL (SE) = 809.30
 FL (N) = 802.30
 FL (S) = 802.00

INLET #2408
 RIM = 812.85
 FL (N) = 809.05

INLET #2380
 RIM = 813.01
 FL (S) = 809.51

BEEHIVE AREA INTAKE #2455
 RIM = 813.92
 FL (W) = 811.44
 FL (S) = 803.62

SW-511 STORM INTAKE
 RIM = 822.57
 FL (N) = 816.96
 FL (E) = 812.96

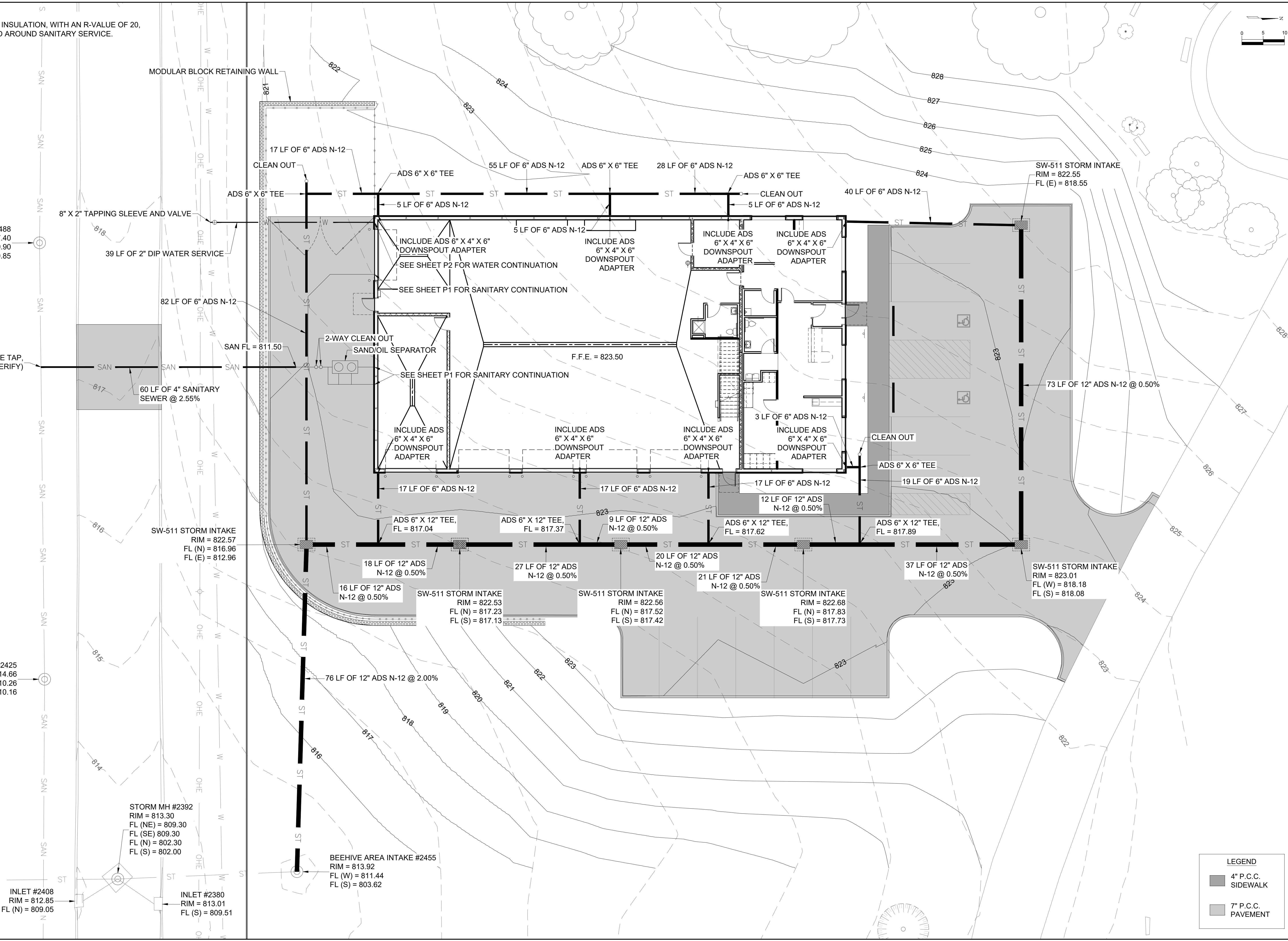
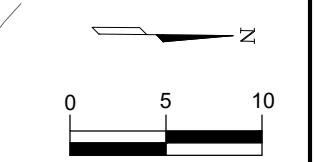
SW-511 STORM INTAKE
 RIM = 822.53
 FL (N) = 817.23
 FL (S) = 817.13

SW-511 STORM INTAKE
 RIM = 822.56
 FL (N) = 817.52
 FL (S) = 817.42

SW-511 STORM INTAKE
 RIM = 822.68
 FL (N) = 817.83
 FL (S) = 817.73

SW-511 STORM INTAKE
 RIM = 823.01
 FL (W) = 818.18
 FL (S) = 818.08

SW-511 STORM INTAKE
 RIM = 822.55
 FL (E) = 818.55



LEGEND

| | |
|--|--------------------|
| | 4" P.C.C. SIDEWALK |
| | 7" P.C.C. PAVEMENT |

| | | | | | |
|----------|-----|------|------|----|---------|
| DESIGNED | JMT | REV. | DATE | BY | REMARKS |
| DRAWN | JMT | | | | |
| REVIEWED | MCD | | | | |
| APPROVED | MCD | | | | |

WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 OTTUMWA, IOWA
 UTILITIES PLAN

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
 UTILITIES PLAN

PHASE

- PRELIM
- PERMIT
- FINAL
- BID
- CONST

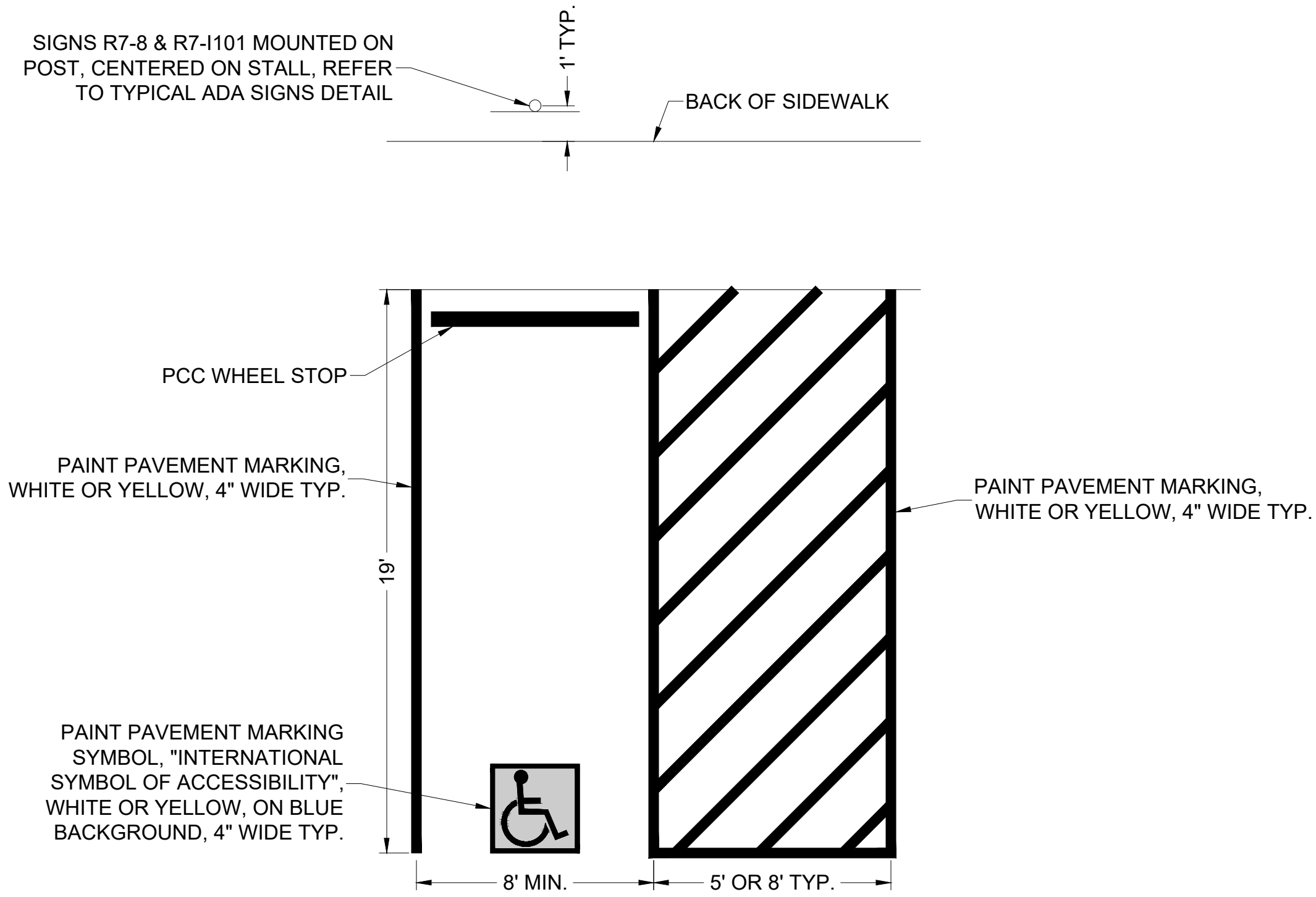
WHA No. 1520C22

DATE 10/25/2024

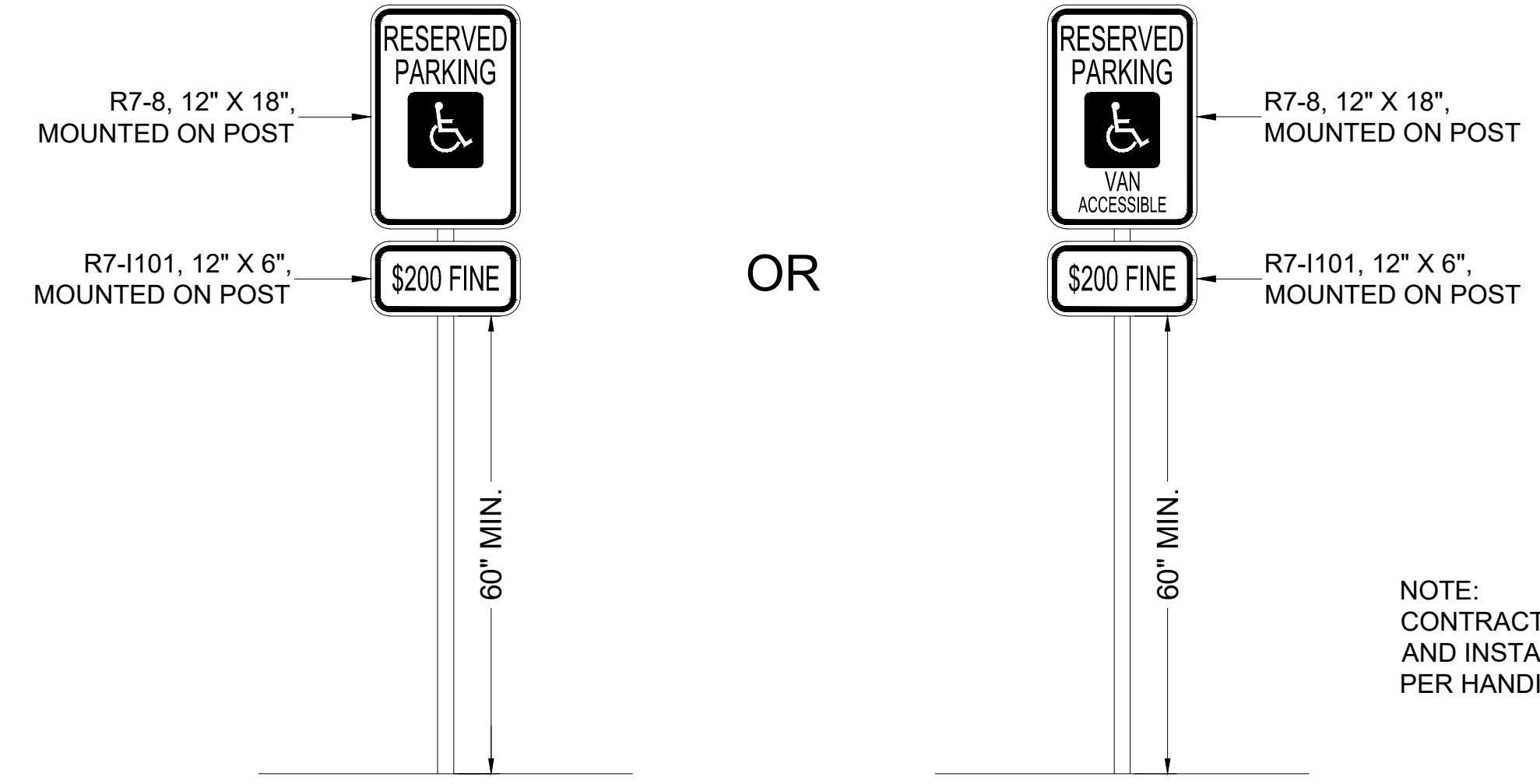
SHEET No. C.05

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2024 Willett, Hofmann & Associates, Inc.

Plot Date: October 25, 9:13am
 File: S:\PROJECTS\2024\1520C22_Ottumwa\DESIGN\TRANS\1520C22 - Civil Base.dwg



1 TYPICAL ACCESSIBLE PARKING
SCALE: NTS



2 TYPICAL ADA SIGNS
SCALE: NTS

REMARKS

BY

DATE

REV.

DESIGNED

JMT

DRAWN

JMT

REVIEWED

MCD

APPROVED

JMGD

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
OTTUMWA, IOWA
SITE DETAILS

PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

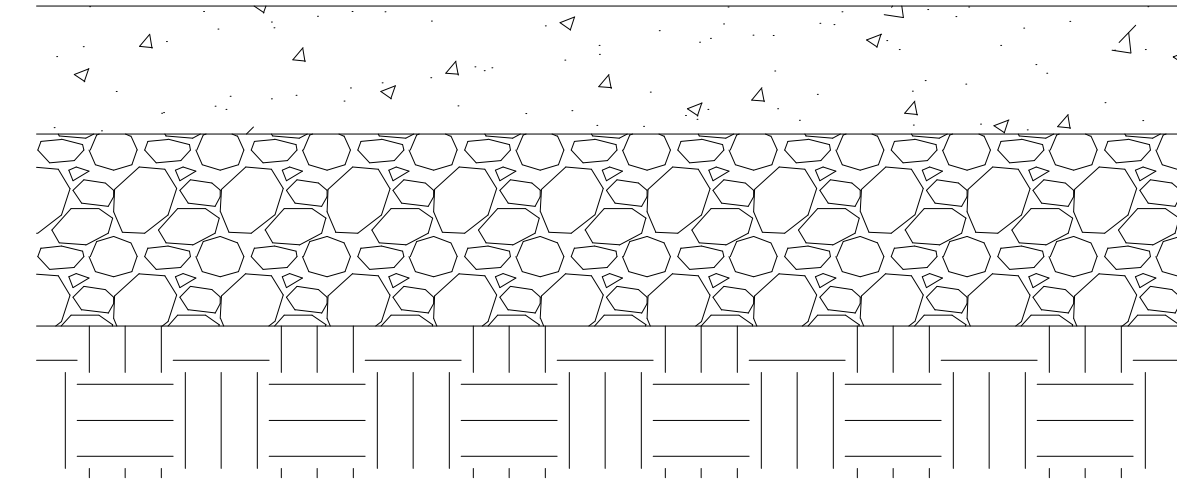
WHA No.
1520C22

DATE
10/25/2024

SHEET No.
C.06

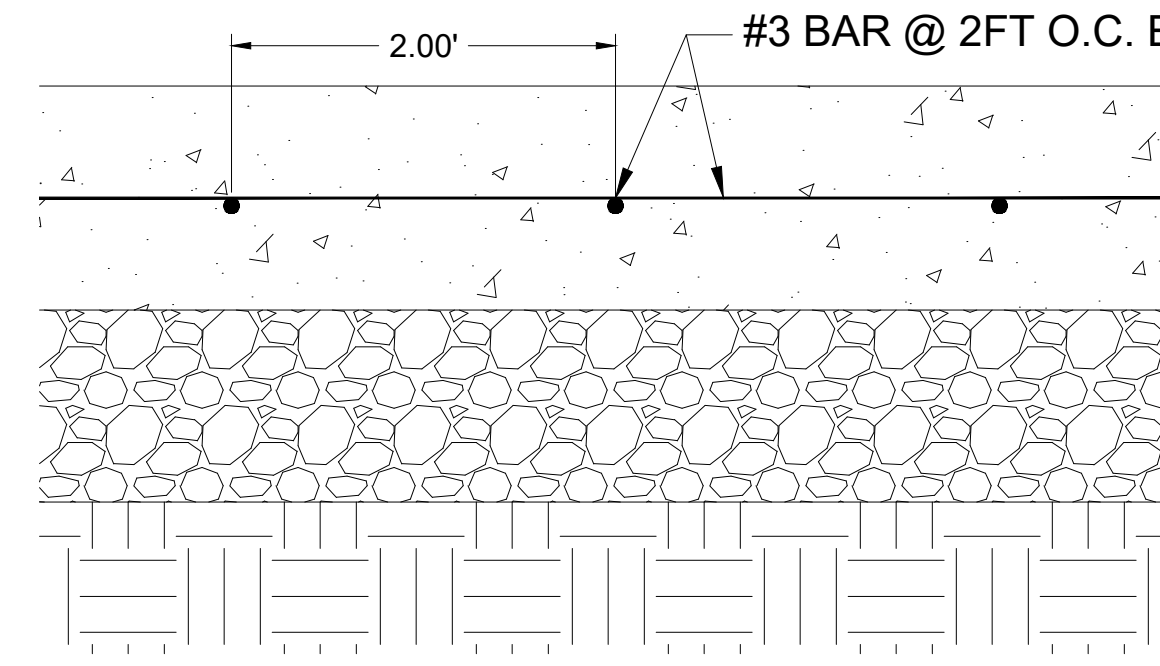
WILLET HOFMANN & ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
© Copyright © YEAR Willett, Hofmann & Associates, Inc.

FILE = \$FILEL\$ \$DATE\$ \$TIME\$ = PLOTTED \$PLTDVSS\$ \$DATE\$ \$TIME\$ = PLOTTED



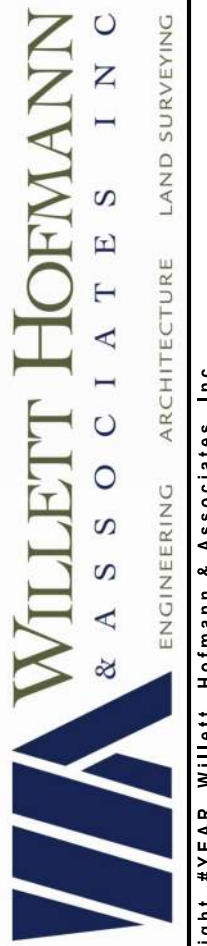
4" P.C.C. SIDEWALK
6" COARSE AGGREGATE

1 4" P.C.C. SIDEWALK SECTION
SCALE: NTS



7" P.C.C. PAVEMENT
6" COARSE AGGREGATE

2 7" P.C.C. PAVEMENT SECTION
SCALE: NTS
JOINT SPACING:
MINIMUM JOINT SPACING = 2 FEET
TYPICAL JOINT SPACING = 10 FEET
MAXIMUM JOINT SPACING = 15 FEET



WILLET HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
OTTUMWA, IOWA
TYPICAL PAVEMENT SECTIONS

PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
1520C22

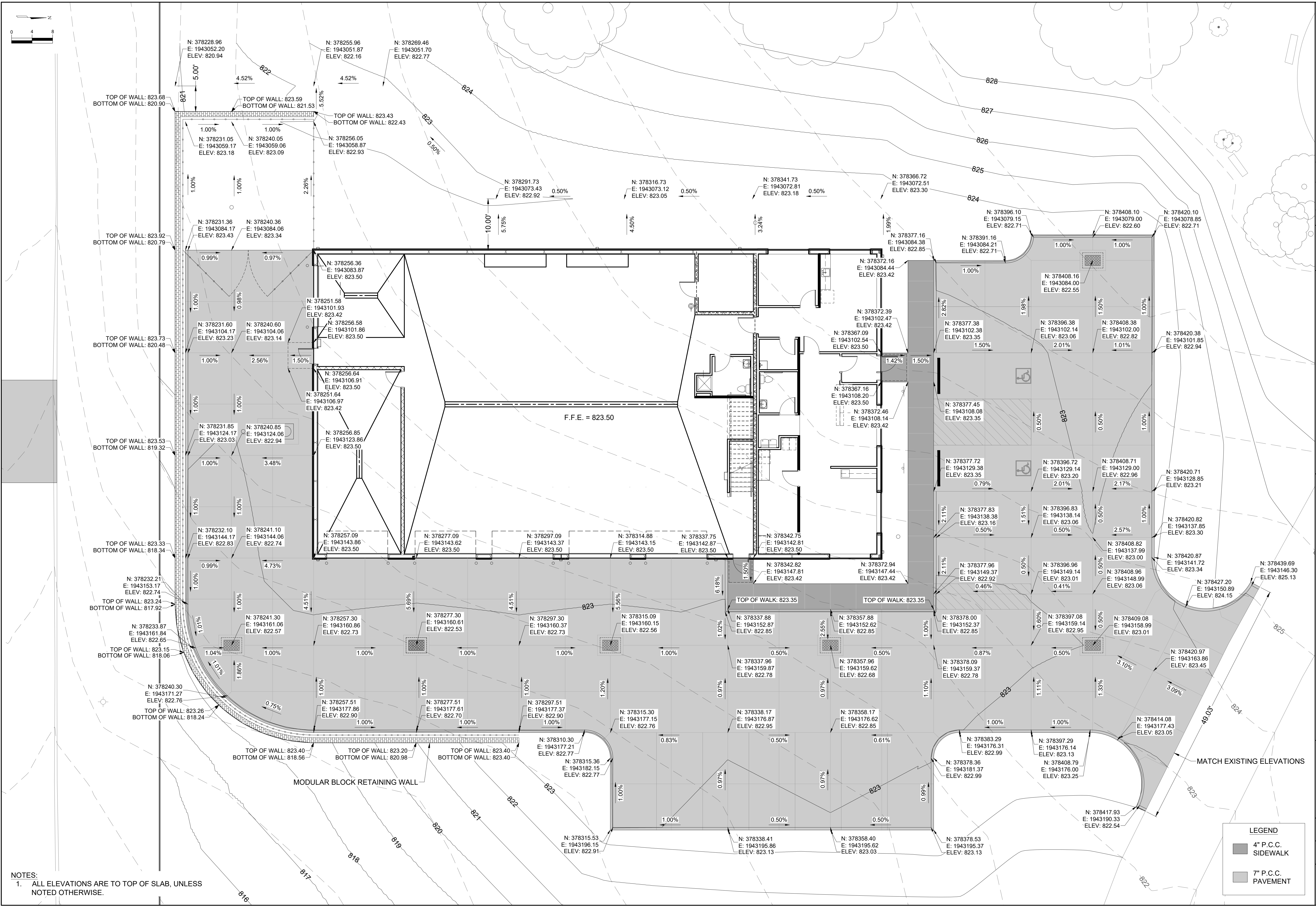
DATE
10/25/2024

SHEET No.
C.07

| DESIGNED | DRAWN | REVIEWED | APPROVED | JMT | JMT | JMT | JMT | REV. | DATE | BY | REMARKS |
|----------|-------|----------|----------|-----|-----|-----|-----|------|------|----|---------|
| | | | | | | | | | | | |

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2024 Willett, Hofmann & Associates, Inc.

FILE = \$FILEL\$. \$DATE\$ \$TIME\$ = PLOTTED



NOTES:
 1. ALL ELEVATIONS ARE TO TOP OF SLAB, UNLESS NOTED OTHERWISE.

LEGEND

| | |
|--|--------------------|
| | 4" P.C.C. SIDEWALK |
| | 7" P.C.C. PAVEMENT |

| | |
|------------------|---|
| PHASE | <input type="checkbox"/> PRELIM |
| | <input type="checkbox"/> PERMIT |
| | <input type="checkbox"/> FINAL |
| | <input checked="" type="checkbox"/> BID |
| | <input type="checkbox"/> CONST |
| WHA No. | 1520C22 |
| DATE | 10/25/2024 |
| SHEET No. | C.08 |

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
 PAVING & GRADING PLAN

WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING

© Copyright © Year Willett, Hofmann & Associates, Inc. and may not be copied or used by any person without written permission.

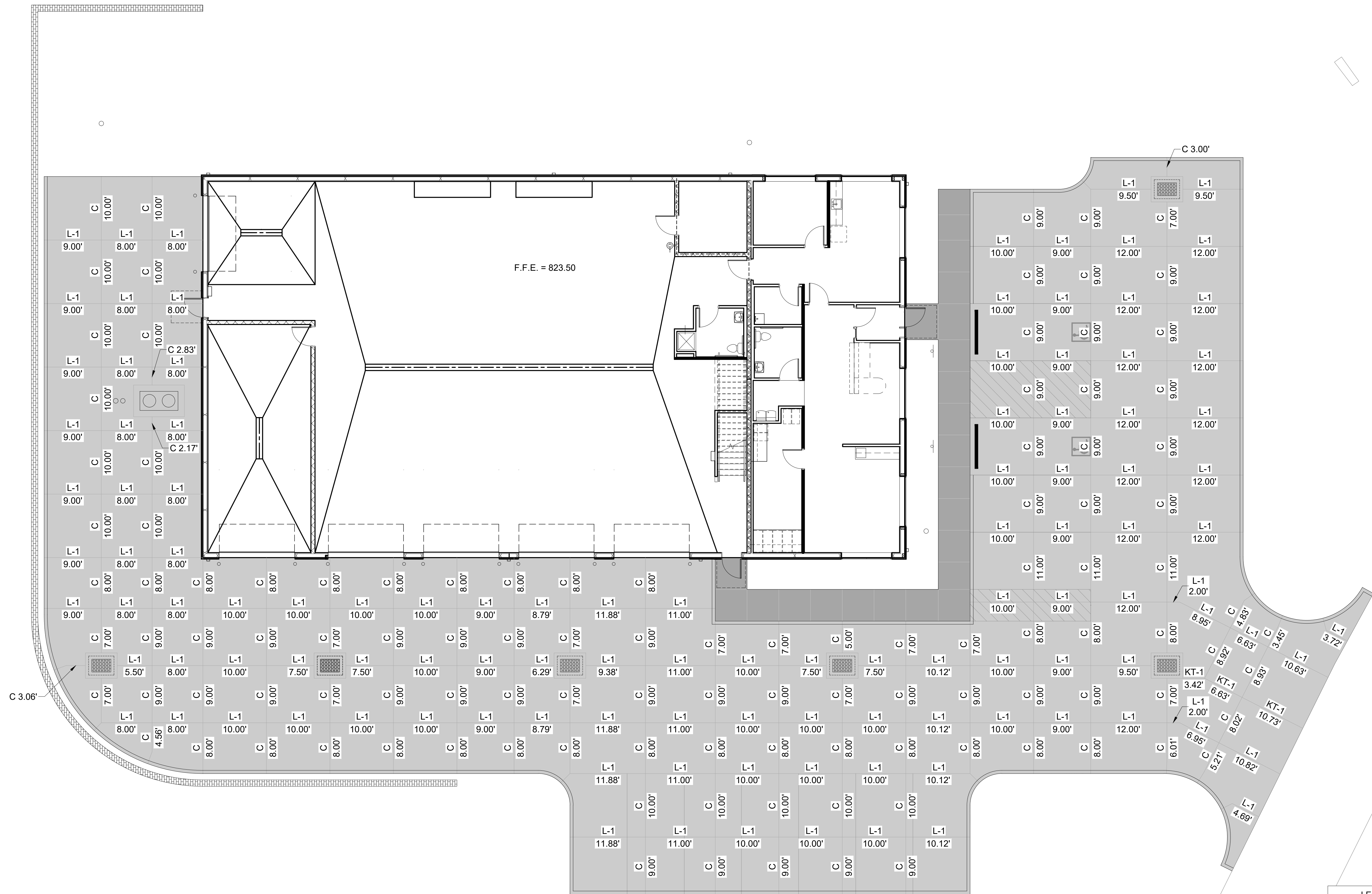
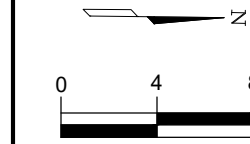
\$PLTDRVSS\$ \$DATE\$ \$TIME\$ = PLOTTED

FILE = \$FILE\$.S

NOTES:

- 1. ALL ELEVATIONS ARE TO TOP OF SLAB, UNLESS NOTED OTHERWISE.

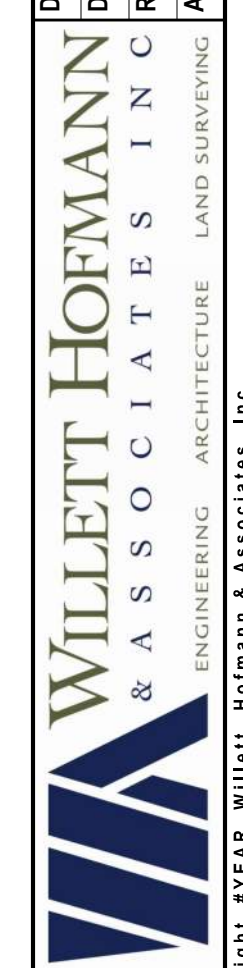
Plot Date: October 25, 9:14am
File: S:\PROJECTS\2021\1520C22 - Ottumwa\DESIGN\TRANS\1520C22 - Civil Base.dwg



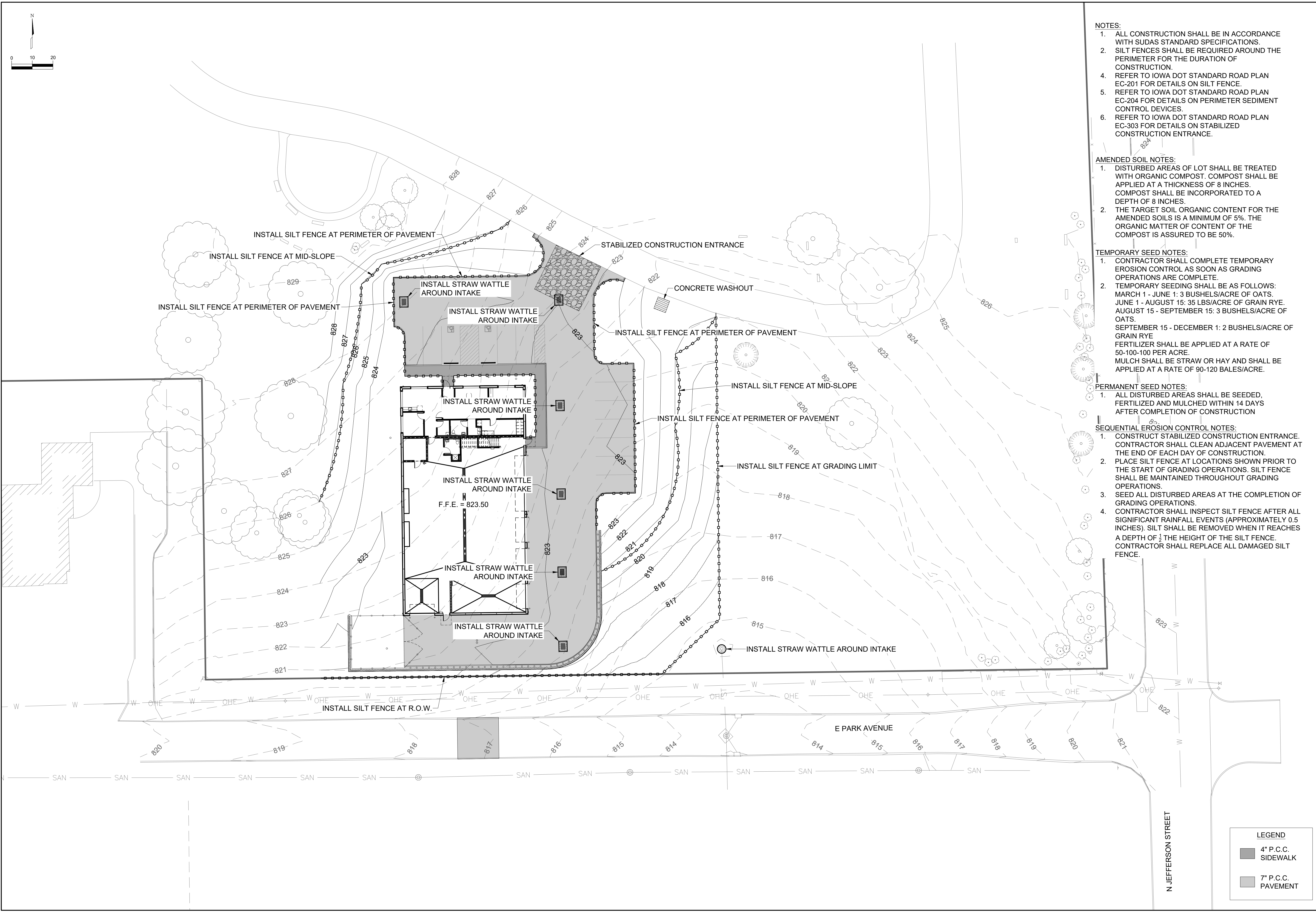
LEGEND

| | |
|--|--------------------|
| | 4" P.C.C. SIDEWALK |
| | 7" P.C.C. PAVEMENT |

| | | | |
|--|----------------------------|---|----------------------------------|
| <p>OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG OTTUMWA, IOWA</p> | | <p>DESIGNED JMT DRAWN JMT REVIEWED MGD APPROVED MGD</p> | <p>REMARKS</p> |
| <p>PHASE</p> <ul style="list-style-type: none"> <input type="checkbox"/> PRELIM <input type="checkbox"/> PERMIT <input type="checkbox"/> FINAL <input checked="" type="checkbox"/> BID <input type="checkbox"/> CONST | <p>WHA No. 1520C22</p> | <p>DATE 10/25/2024</p> | <p>SHEET No. C.09</p> |
| <p>Copyright © 2024 Willett, Hofmann & Associates, Inc. All rights reserved. This document is the copyrighted property of Willett, Hofmann & Associates, Inc. and may not be copied or used by any person without written permission.</p> | | | |



FILE = \$FILEL\$.S
 \$PLTDVRS\$ \$DATE\$ \$TIME\$ = PLOTTED



- NOTES:**
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SUDAS STANDARD SPECIFICATIONS.
 2. SILT FENCES SHALL BE REQUIRED AROUND THE PERIMETER FOR THE DURATION OF CONSTRUCTION.
 4. REFER TO IOWA DOT STANDARD ROAD PLAN EC-201 FOR DETAILS ON SILT FENCE.
 5. REFER TO IOWA DOT STANDARD ROAD PLAN EC-204 FOR DETAILS ON PERIMETER SEDIMENT CONTROL DEVICES.
 6. REFER TO IOWA DOT STANDARD ROAD PLAN EC-303 FOR DETAILS ON STABILIZED CONSTRUCTION ENTRANCE.

- AMENDED SOIL NOTES:**
1. DISTURBED AREAS OF LOT SHALL BE TREATED WITH ORGANIC COMPOST. COMPOST SHALL BE APPLIED AT A THICKNESS OF 8 INCHES. COMPOST SHALL BE INCORPORATED TO A DEPTH OF 8 INCHES.
 2. THE TARGET SOIL ORGANIC CONTENT FOR THE AMENDED SOILS IS A MINIMUM OF 5%. THE ORGANIC MATTER OF CONTENT OF THE COMPOST IS ASSURED TO BE 50%.

- TEMPORARY SEED NOTES:**
1. CONTRACTOR SHALL COMPLETE TEMPORARY EROSION CONTROL AS SOON AS GRADING OPERATIONS ARE COMPLETE.
 2. TEMPORARY SEEDING SHALL BE AS FOLLOWS:
 MARCH 1 - JUNE 1: 3 BUSHELS/ACRE OF OATS.
 JUNE 1 - AUGUST 15: 35 LBS/ACRE OF GRAIN RYE.
 AUGUST 15 - SEPTEMBER 15: 3 BUSHELS/ACRE OF OATS.
 SEPTEMBER 15 - DECEMBER 1: 2 BUSHELS/ACRE OF GRAIN RYE
 FERTILIZER SHALL BE APPLIED AT A RATE OF 50-100-100 PER ACRE.
 MULCH SHALL BE STRAW OR HAY AND SHALL BE APPLIED AT A RATE OF 90-120 BALES/ACRE.

- PERMANENT SEED NOTES:**
1. ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED WITHIN 14 DAYS AFTER COMPLETION OF CONSTRUCTION

- SEQUENTIAL EROSION CONTROL NOTES:**
1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE. CONTRACTOR SHALL CLEAN ADJACENT PAVEMENT AT THE END OF EACH DAY OF CONSTRUCTION.
 2. PLACE SILT FENCE AT LOCATIONS SHOWN PRIOR TO THE START OF GRADING OPERATIONS. SILT FENCE SHALL BE MAINTAINED THROUGHOUT GRADING OPERATIONS.
 3. SEED ALL DISTURBED AREAS AT THE COMPLETION OF GRADING OPERATIONS.
 4. CONTRACTOR SHALL INSPECT SILT FENCE AFTER ALL SIGNIFICANT RAINFALL EVENTS (APPROXIMATELY 0.5 INCHES). SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 1/2 THE HEIGHT OF THE SILT FENCE. CONTRACTOR SHALL REPLACE ALL DAMAGED SILT FENCE.

| | | | |
|----------|-----|---------|--|
| DESIGNED | JMT | DATE | |
| DRAWN | JMT | BY | |
| REVIEWED | MCD | REMARKS | |
| APPROVED | MJD | | |

WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 OTTUMWA, IOWA

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
 EROSION CONTROL PLAN

PHASE

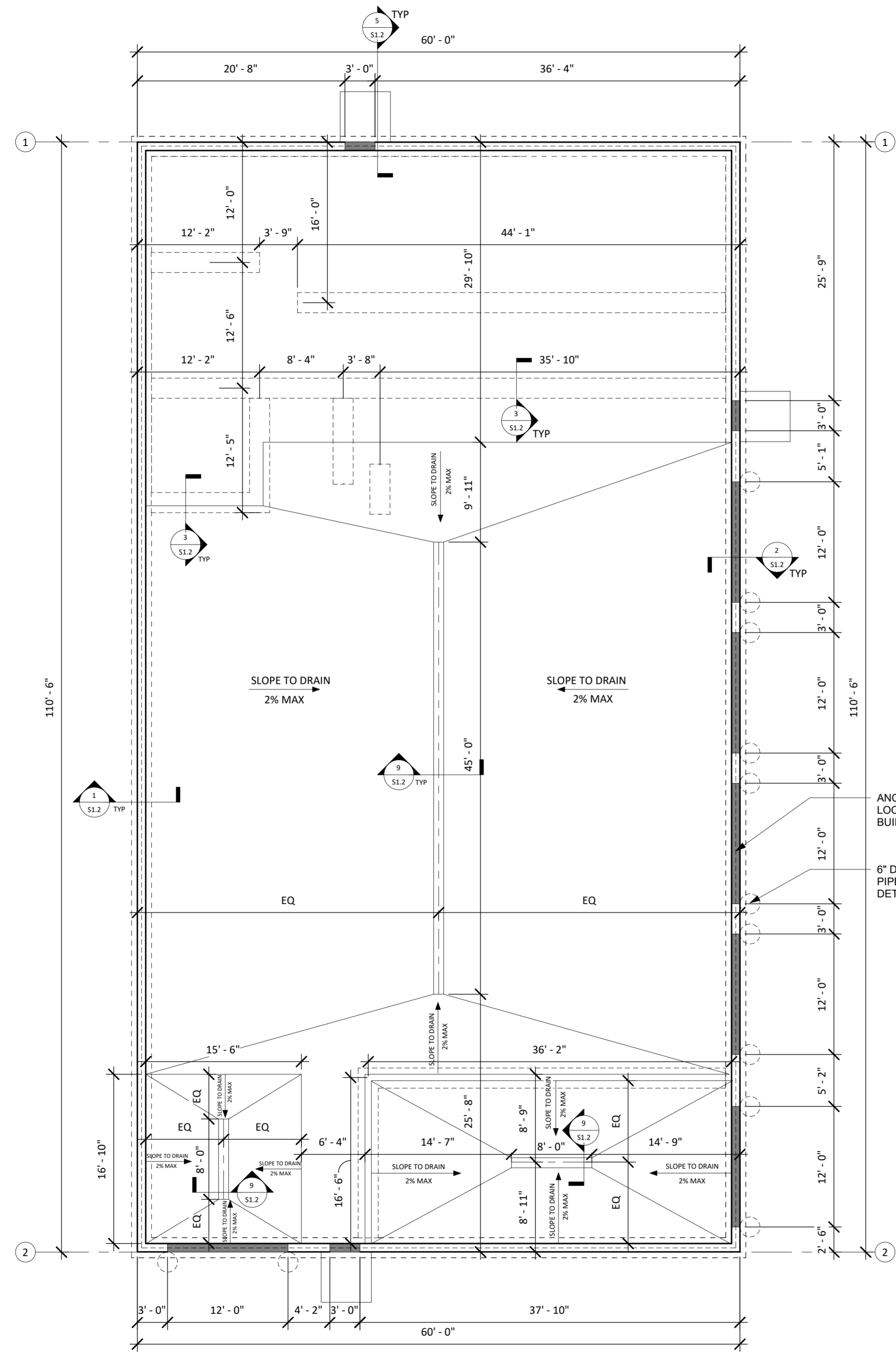
- PRELIM
- PERMIT
- FINAL
- BID
- CONST

WHA No.
1520C22

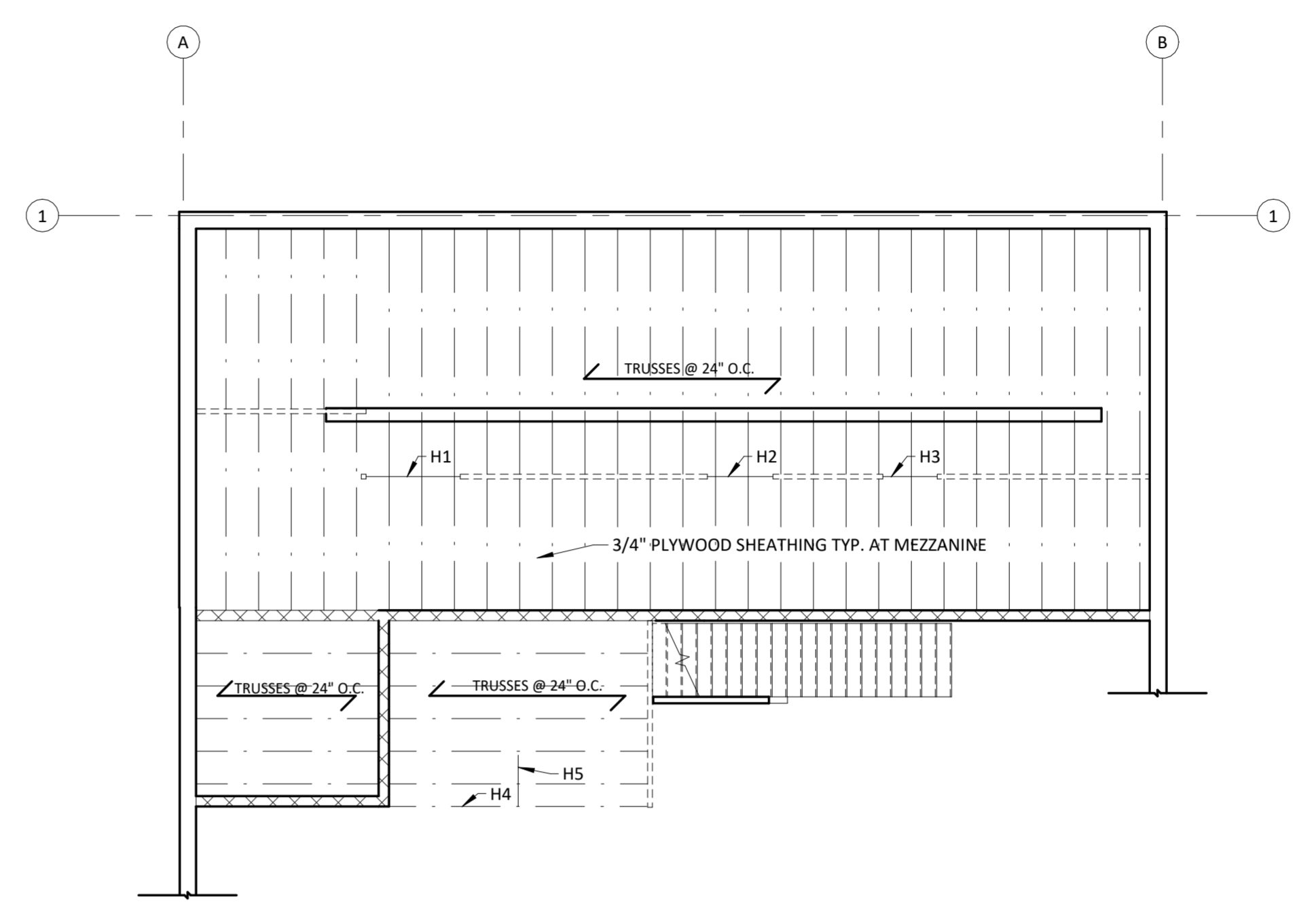
DATE
10/25/2024

SHEET No.
C.10

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2024 Willett, Hofmann & Associates, Inc.



1 FOUNDATION
S1.1
SCALE: 1/8" = 1'-0"

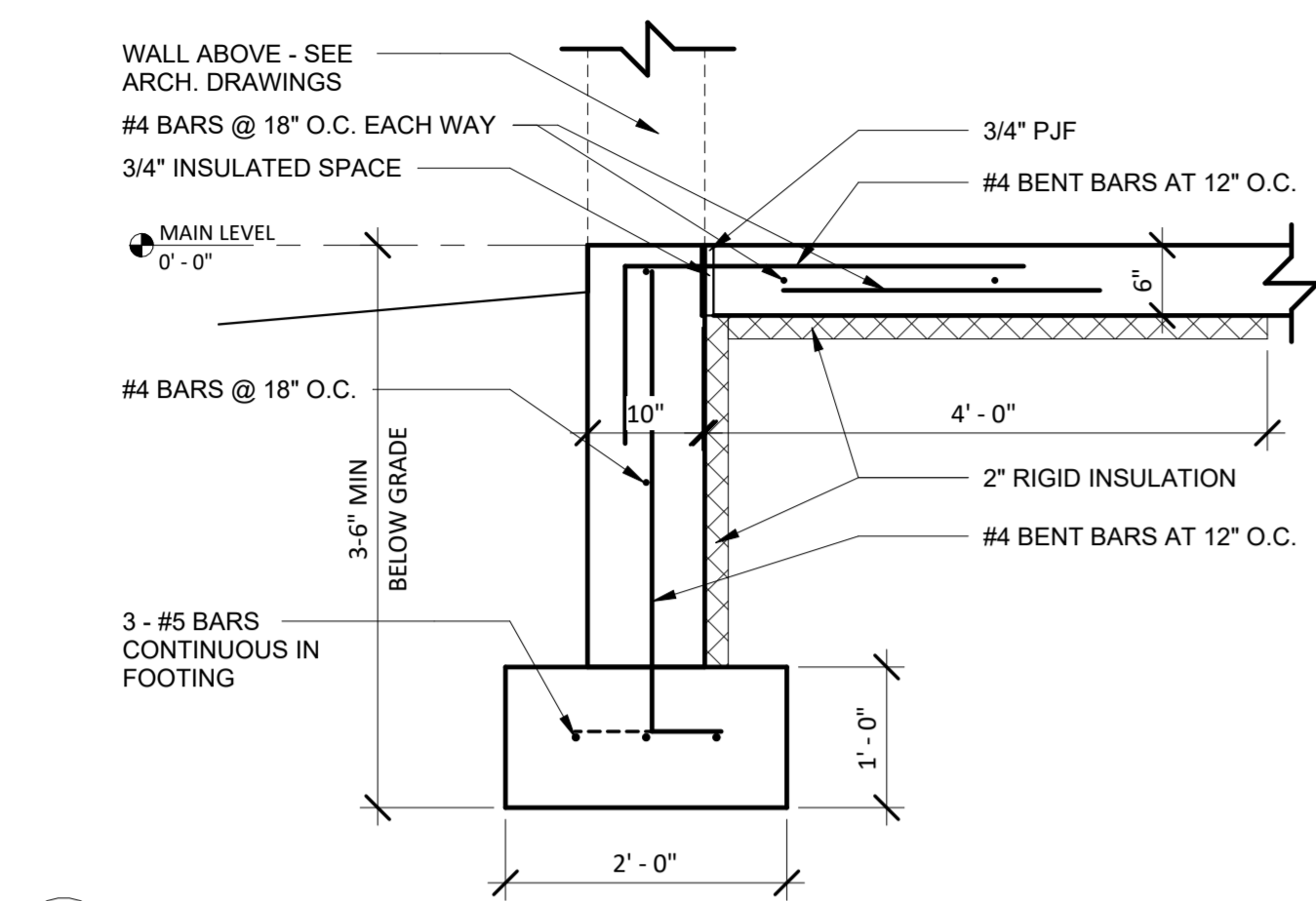


2 MEZZANINE FRAMING PLAN
S1.1
SCALE: 1/8" = 1'-0"

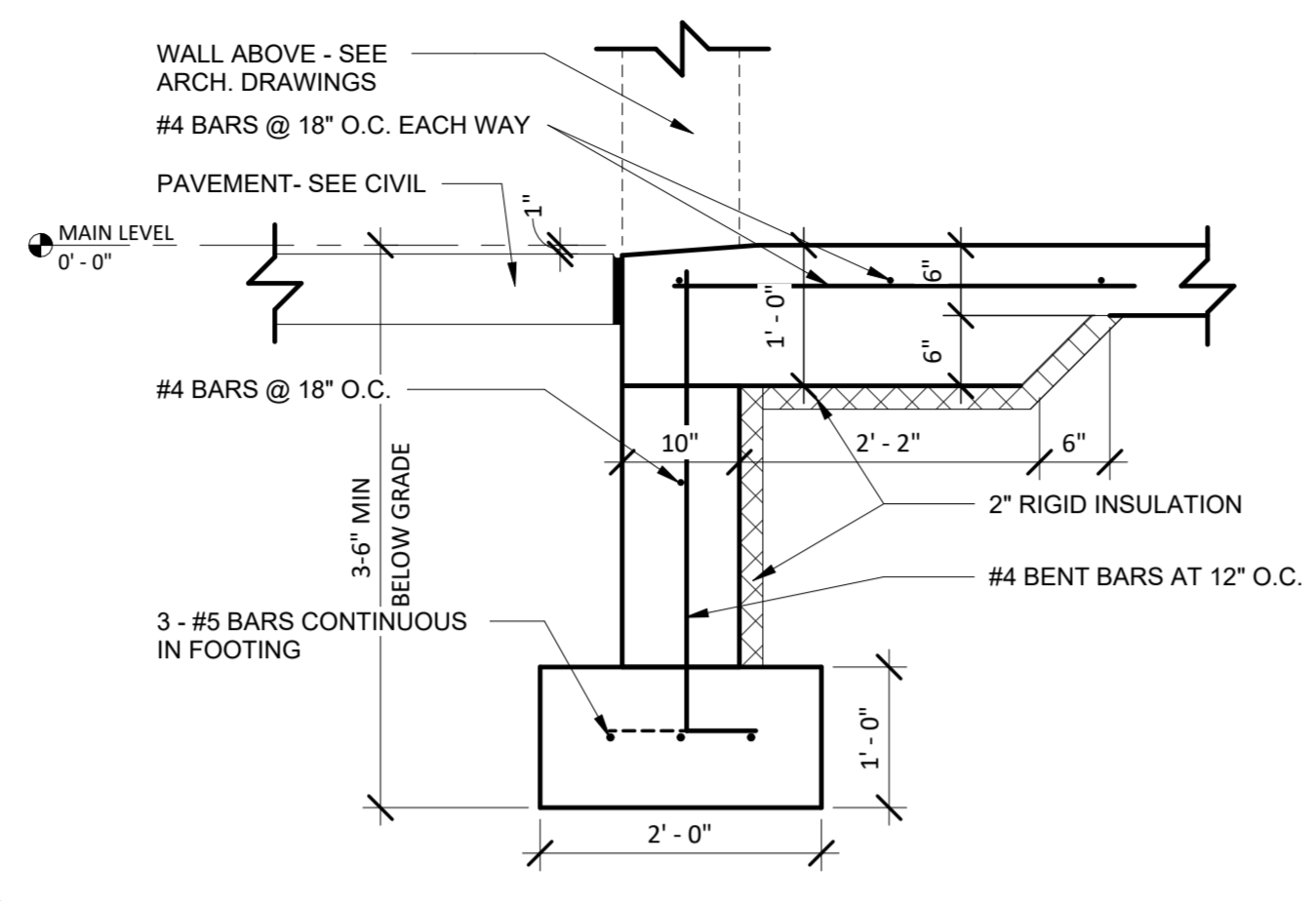
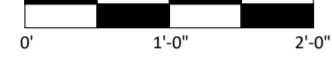
ANCHOR BOLTS - LOCATION AND SIZE BY BUILDING SUPPLIER
6" DIA CONCRETE FILLED PIPE BOLLARD - SEE DETAIL 4/S1.2 - TYP

| HEADER SCHEDULE | | |
|-----------------|------------------------|----------|
| MARK | SIZE | REACTION |
| H1 | (2) 1.75" X 11.25" LVL | 5.3 KIP |
| H2 | (2) 2 X 12 DF SELECT | 3.6 KIP |
| H3 | (2) 2 X 12 DF SELECT | 3.6 KIP |
| H4 | (2) 2 X 12 DF SELECT | 3.6 KIP |
| H5 | (2) 2 X 12 DF SELECT | 3.6 KIP |

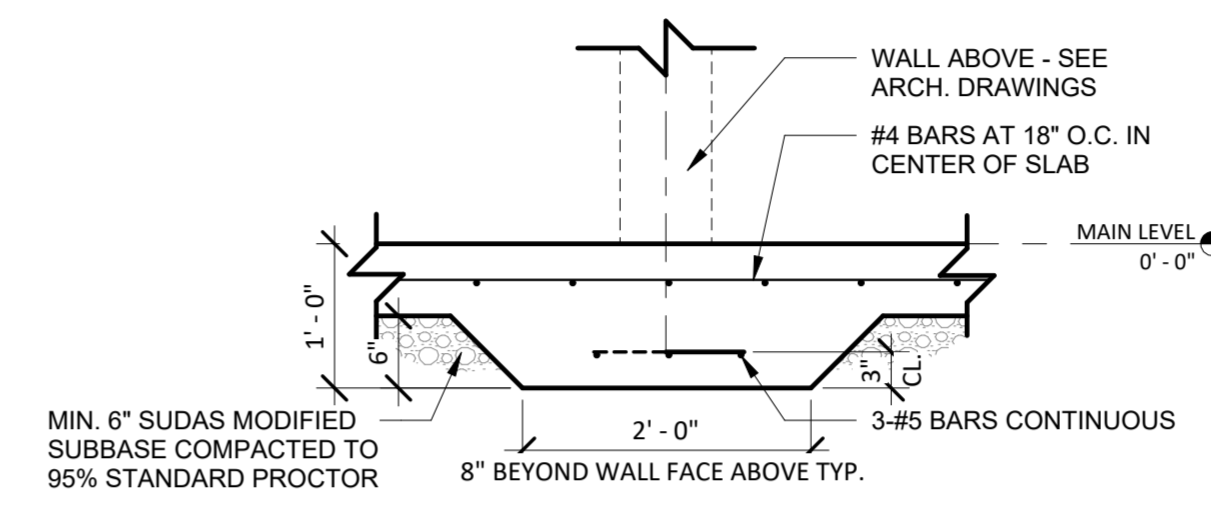
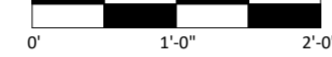
NOTES:
HANGERS BY OTHERS.



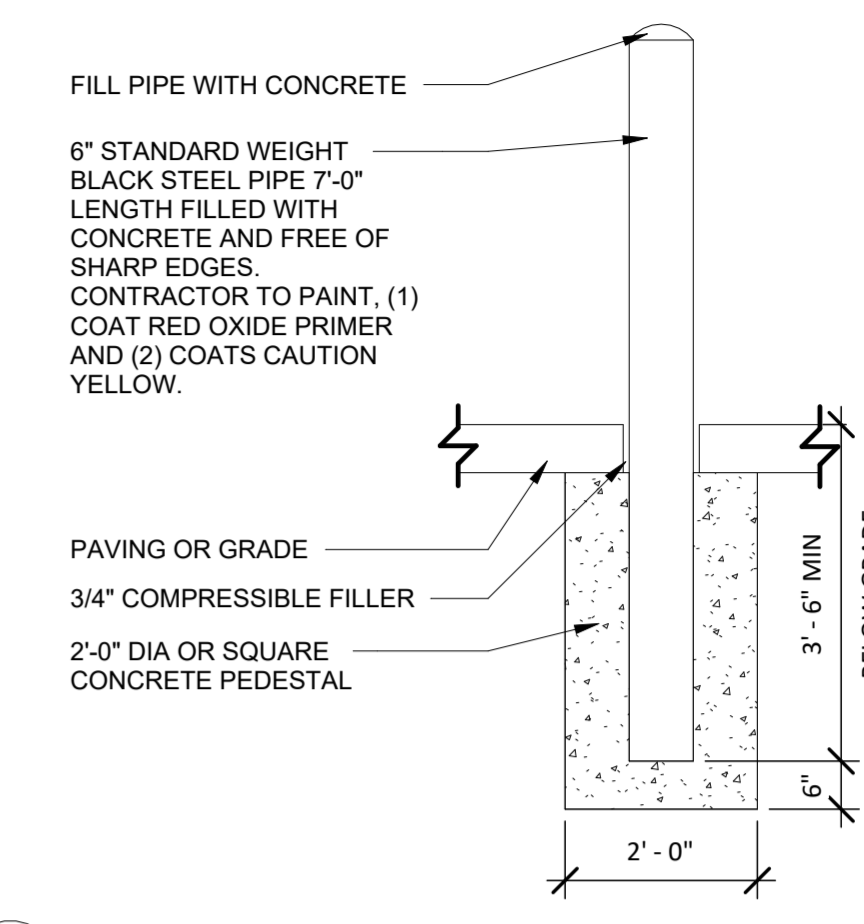
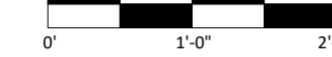
1 FOUNDATION SECTION
 SCALE S1.2



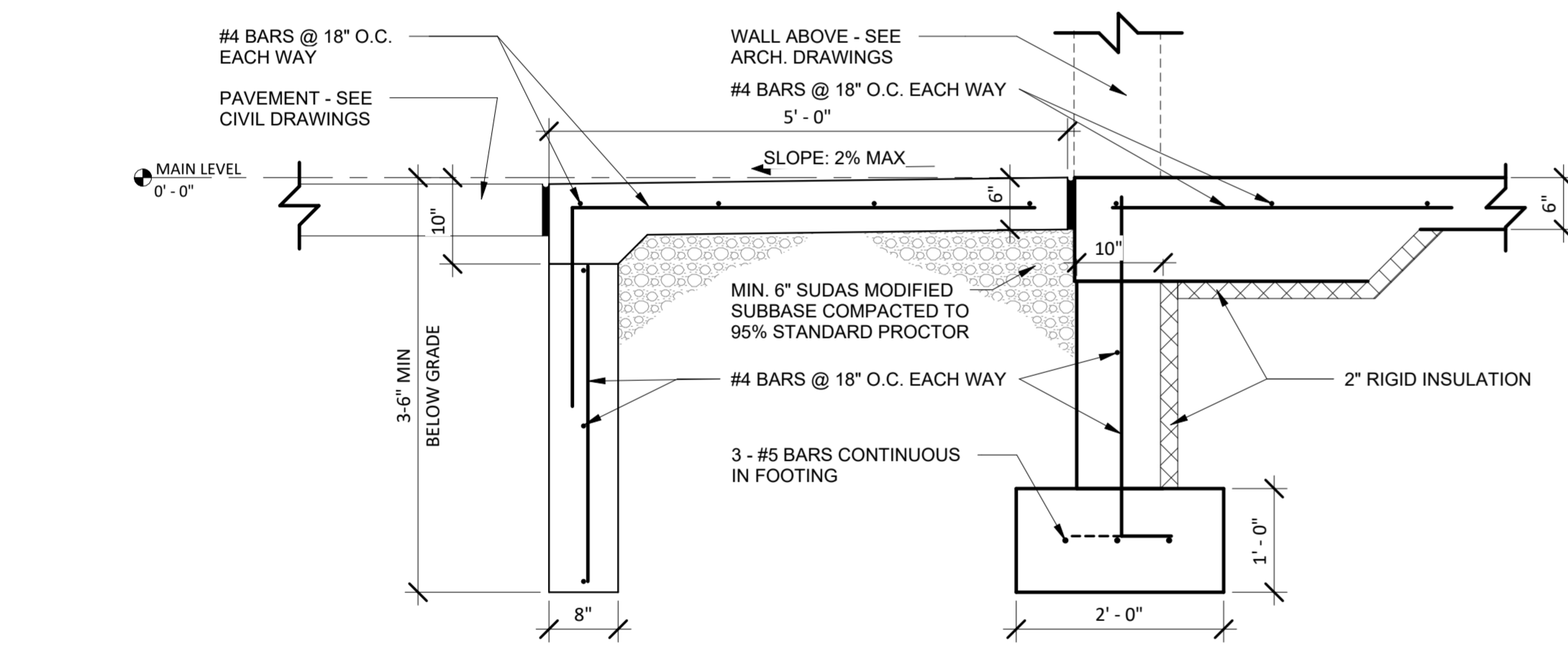
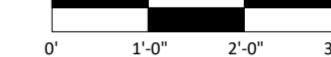
2 FOUNDATION SECTION @ OH DR
 SCALE S1.2



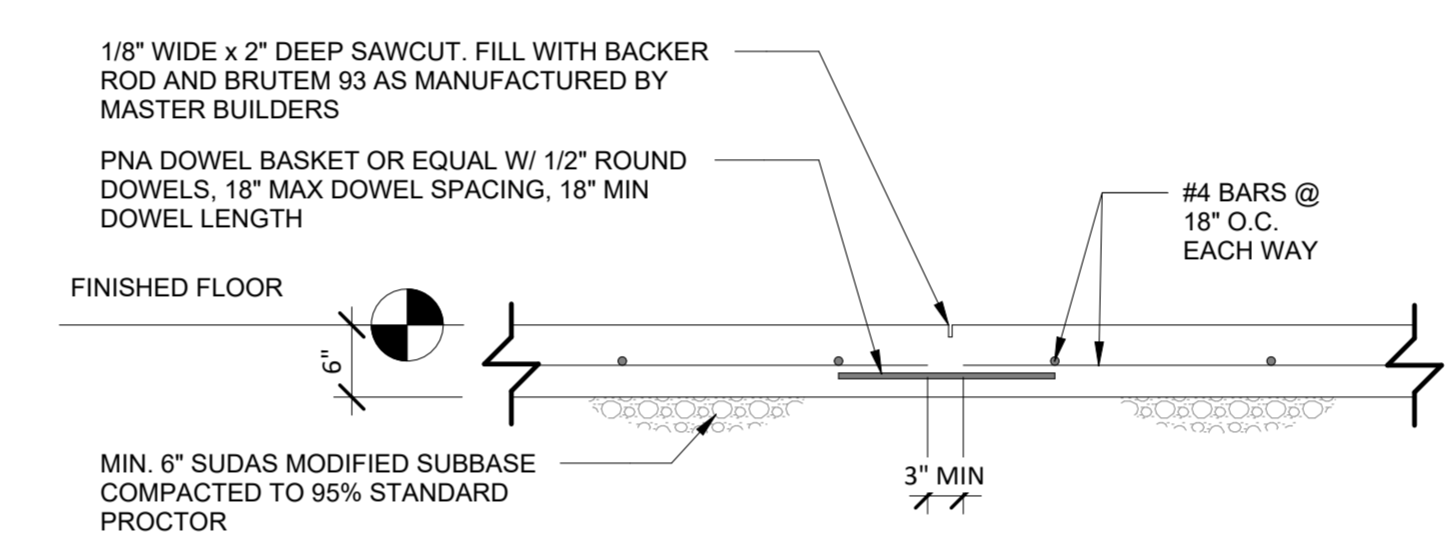
3 THICKENED SLAB DETAIL
 SCALE S1.2



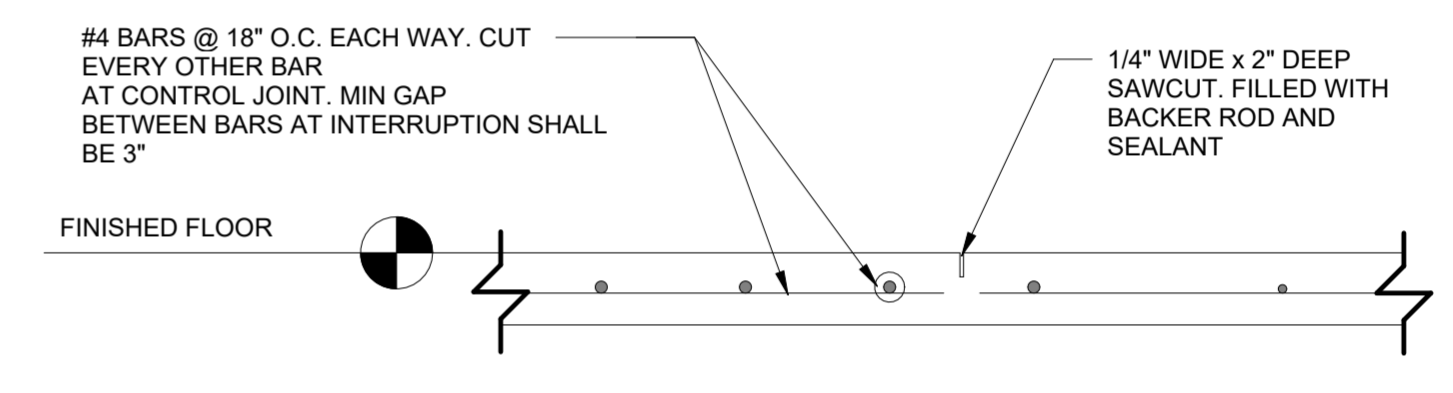
4 BOLLARD DETAIL
 SCALE S1.2



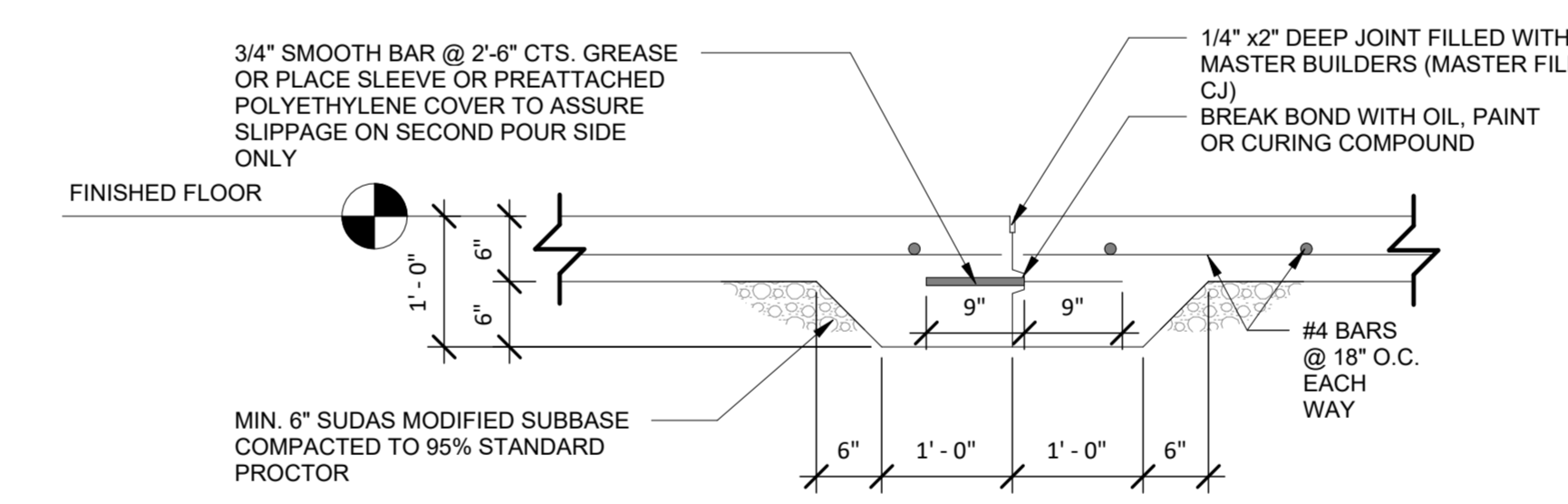
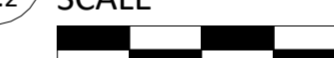
5 FOUNDATION SECTION @ PERSONNEL DR
 SCALE S1.2



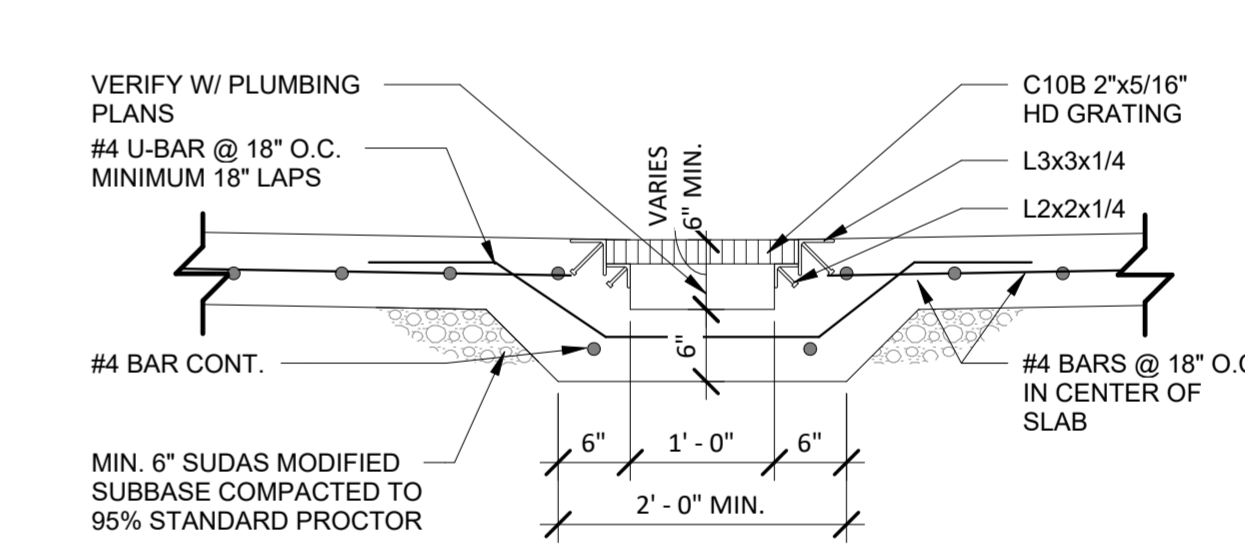
6 TYP SLAB CONTROL JOINT DETAIL
 SCALE S1.2



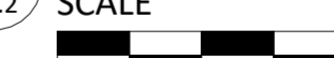
8 ALTERNATE SLAB CONTROL JOINT DETAIL
 SCALE S1.2



7 TYP SLAB CONSTRUCTION JOINT DETAIL
 SCALE S1.2



9 SLAB @ TRENCH DRAIN DETAIL
 SCALE S1.2



STRUCTURAL NOTES

- MAXIMUM BEARING PRESSURE = 1,500 PSF.
- CONTRACTOR SHALL VERIFY SUITABILITY OF SUB-GRADE MATERIAL FOR CARRYING MAXIMUM PRESSURES.
- FOOTING AND FOUNDATION WALL SIZES ARE BASED ON PRELIMINARY REACTIONS PROVIDED BY THE BUILDING MANUFACTURER. FINAL REACTIONS SHALL BE SUBMITTED TO AND CHECKED BY THE ENGINEER PRIOR TO CONSTRUCTING THE BUILDING.
- BUILDING AND ANCHORAGE DESIGN BY OTHERS.
- MINIMUM CONCRETE COMPRESSIVE STRENGTH FOR FOOTINGS AND FOUNDATION WALLS SHALL BE 3,000 PSI.
- MINIMUM CONCRETE COMPRESSIVE STRENGTH FOR SLAB SHALL BE 3,500 PSI.
- MINIMUM YIELD STRENGTH OF REINFORCEMENT BARS SHALL BE 60,000 PSI.
- MEZZANINE FRAMING BY OTHERS.

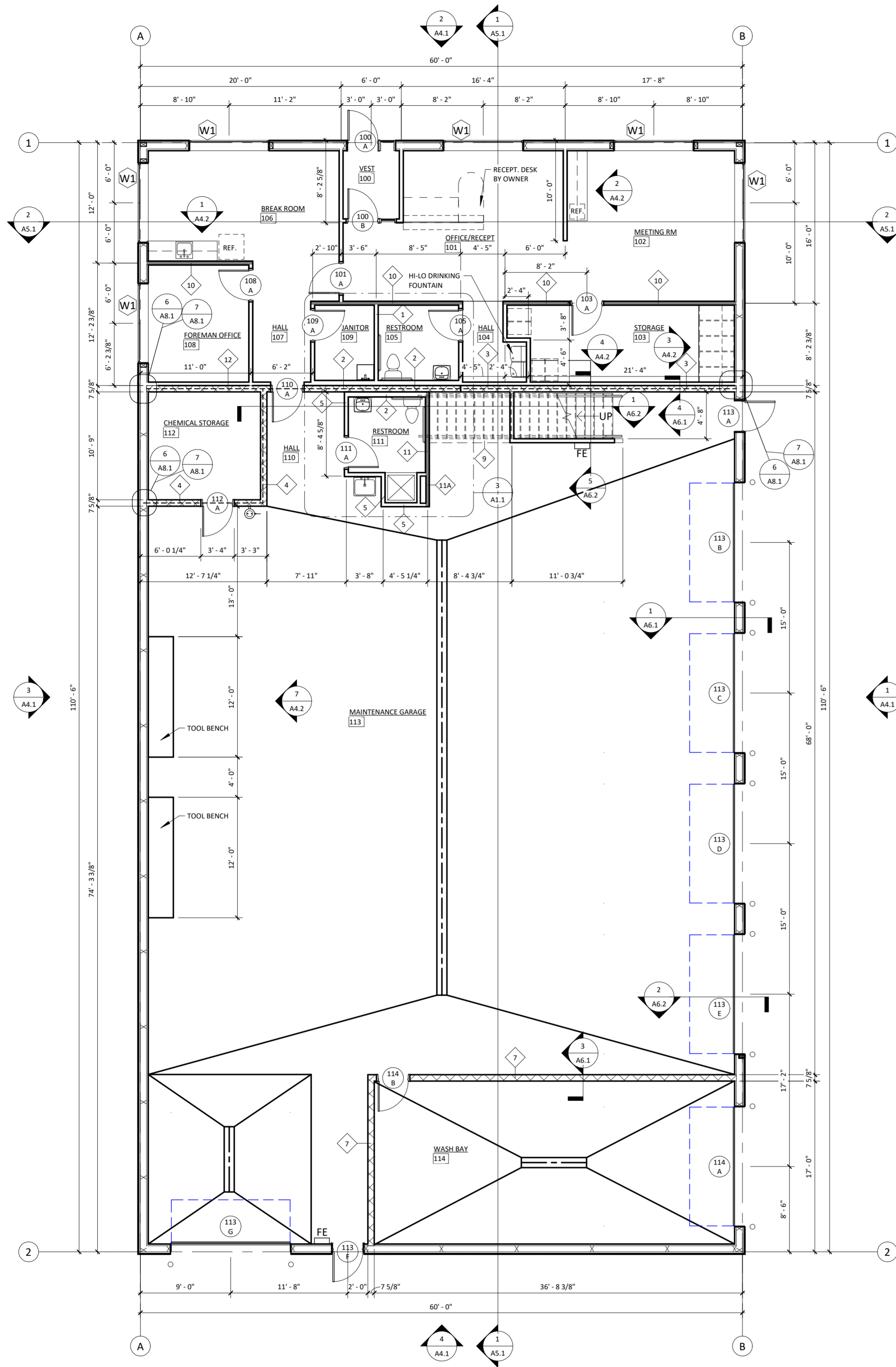
MINIMUM LAP LENGTHS

- #4 - 2'-4"
- #5 - 2'-10"
- #6 - 3'-5"

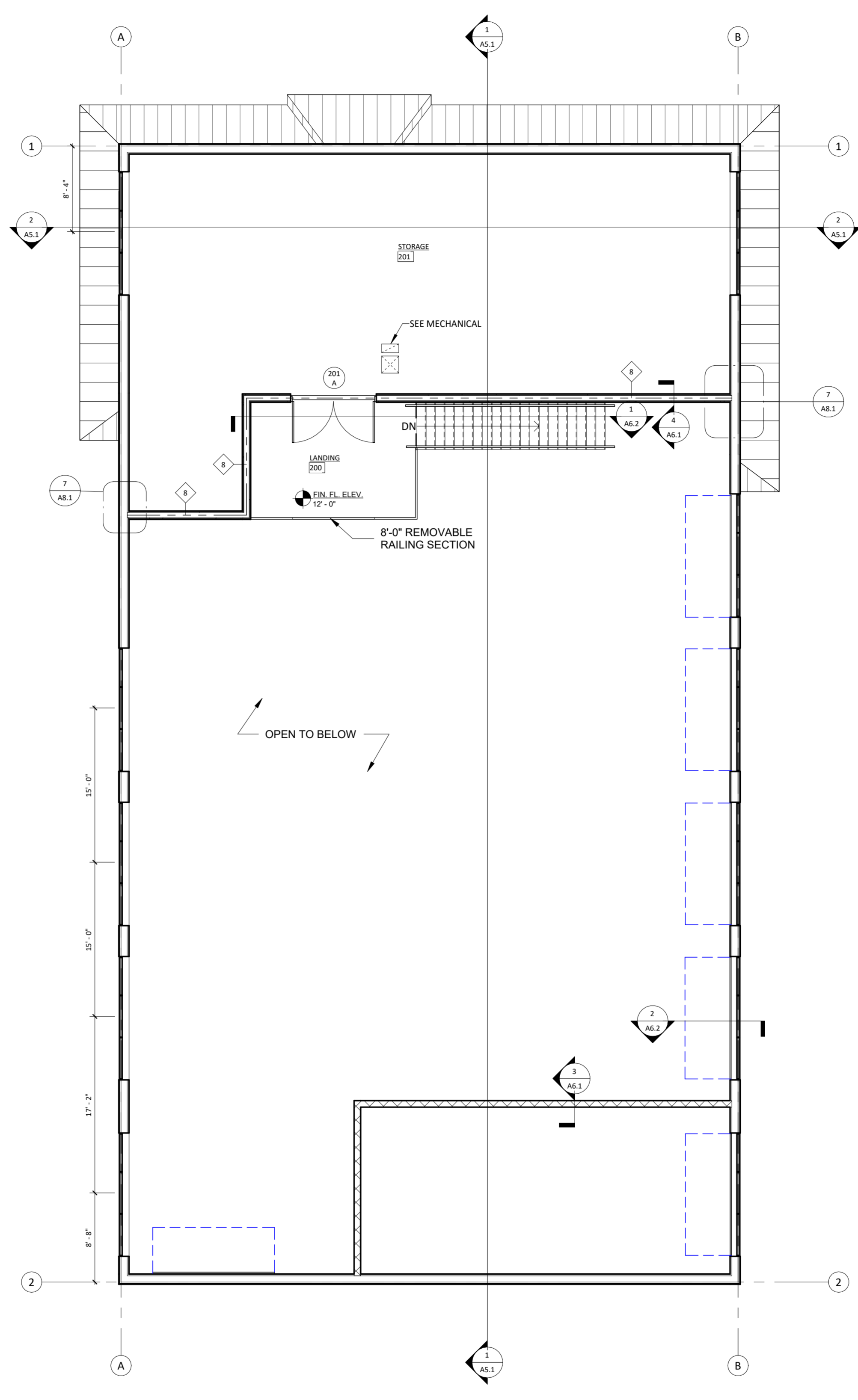
| DESIGNED | JRP | REV. | DATE | BY | REMARKS |
|----------|-----|------|------|----|---------|
| DRAWN | RJR | | | | |
| REVIEWED | JRP | | | | |
| APPROVED | JRP | | | | |

| | |
|--|--------------------|
| WILLET HOFMANN & ASSOCIATES, INC. ARCHITECTURE, ENGINEERING, AND SURVEYING 625 32ND AVE. SW, CEDAR RAPIDS, IA 52404 P: 319-376-1401 | |
| | |
| OTTUMWA CEMETERY OFFICE & MAINT. BLDG OTTUMWA, IOWA FOUNDATION DETAILS | |
| PHASE <input type="checkbox"/> PRELIM <input type="checkbox"/> PERMIT <input type="checkbox"/> FINAL <input checked="" type="checkbox"/> BID <input type="checkbox"/> CONST | |
| WHA No. 1520C22 | DATE 11-05-2024 |
| SHEET No. S1.2 | |

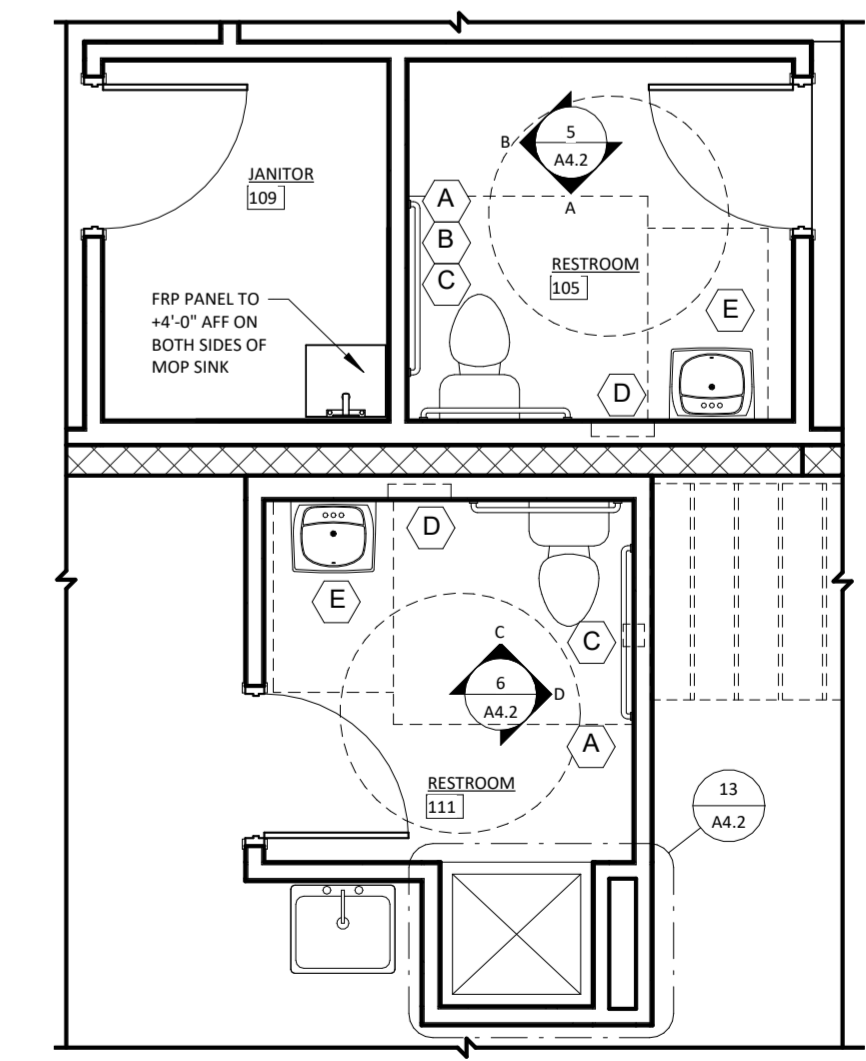
This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.



1 MAIN LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"
0' 4'-0" 8'-0" 12'-0"



2 MEZZANINE FLOOR PLAN
SCALE: 1/8" = 1'-0"
0' 4'-0" 8'-0" 12'-0"



3 ENLARGED RESTROOM PLAN
SCALE: 1/4" = 1'-0"
0' 2'-0" 4'-0" 6'-0"

GENERAL NOTES

- INTERIOR PARTITIONS ARE DIMENSIONED TO THE CENTERLINE UNLESS NOTED OTHERWISE. DIMENSIONS TO/ FROM EXTERIOR WALLS ARE TO/ FROM FINISHED FACE OF WALL/ FOUNDATION. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ENTIRE SCOPE AND LOCATION OF WORK. IF DISCREPANCIES EXIST BETWEEN ARCHITECTURAL AND OTHER TRADES' DRAWINGS, NOTIFY WILLETT HOFMANN & ASSOCIATES PRIOR TO PROCEEDING.
- PORTABLE FIRE EXTINGUISHERS TO BE PROVIDED PER I.F.C. 906 AND THE LOCAL MARSHALL. EXTINGUISHERS TO BE MAINTAINED BY THE OWNER.

ACCESSORIES

- (A) SATIN STAINLESS STEEL FINISH
- (A) TOILET TISSUE DISPENSER (RECESSED) BRADLEY #5412 (OR EQUAL)
- (B) NAPKIN DISPOSAL (RECESSED) BRADLEY #4731-15000 (OR EQUAL)
- (C) GRAB BARS. BRADLEY 812 SERIES (OR EQUAL) 42" GRAB BAR (SIDE). VERTICAL 18" GRAB BAR (SIDE). 36" GRAB BAR (BACK).
- (D) TOWEL DISPENSER/WASTE COMBO SEMI-RECESSED BRADLEY #235-10 (OR EQUAL)
- (E) MIRROR - POLISHED EDGES, HIDDEN CLIPS - VERIFY SIZE. BOTTOM OF MIRROR AT 40" A.F.F.

PARTITIONS

- NOTE: ALL PARTITIONS ARE NO. 1 EXCEPT WHERE NOTED DIFFERENTLY
- 3-5/8" STEEL STUDS @ 16" O.C. TO BOTTOM OF STRUCTURE (PROVIDE LONG-LEG SLIP TRACK).
 - 3-HR FIRE WALL 6" STEEL STUDS @ 16" OC TO BOTTOM OF MEZZANINE STRUCTURE (PROVIDE LONG-LEG SLIP TRACK) OVER 3-HR RATED 8" CMU 5/8" TYPE "X" GYP-BD ON ONE SIDE. 8" CMU TO EXTEND TO 12'-0" THEN UL U419 TO BOTTOM OF ROOF SHEATHING. U419 - (3) LAYERS 5/8" TYPE "X" GYP-BD & LINER PANEL OVER 7/8" METAL HAT CHANNELS @ 4'-0" OC EACH SIDE OF 6" STEEL STUDS @ 16" OC.
 - 3-5/8" STEEL STUDS @ 16" OC TO GYP-BD ON BOTTOM OF STRUCTURE (PROVIDE LONG-LEG SLIP TRACK) OVER 3-HR RATED 8" CMU 5/8" TYPE "X" GYP-BD ON ONE SIDE THEN UL U419 TO BOTTOM OF ROOF SHEATHING. U419 - (3) LAYERS 5/8" TYPE "X" GYP-BD & LINER PANEL OVER 7/8" METAL HAT CHANNELS @ 4'-0" OC EACH SIDE OF 6" STEEL STUDS @ 16" OC.
 - 3-HR FIRE WALL 8" 3-HR RATED CMU TO +12'-0" AFF THEN UL U419 TO BOTTOM OF ROOF SHEATHING. U419 - (3) LAYERS 5/8" TYPE "X" GYP-BD EACH SIDE OF 6" STEEL STUDS @ 16" OC.
 - 3-5/8" STEEL STUDS @ 16" OC TO BOTTOM OF STRUCTURE (PROVIDE LONG-LEG SLIP TRACK). LINER PANEL OVER 7/8" METAL HAT CHANNELS @ 4'-0" OC ON GARAGE SIDE. 5/8" TYP "X" GYP-BD ON OTHER SIDE.
 - 6" STEEL STUDS @ 16" OC TO BOTTOM OF STRUCTURE (PROVIDE LONG-LEG SLIP TRACK). LINER PANEL OVER 5/8" TYPE "X" GYP-BD ON GARAGE SIDE.
 - 8" CMU TO BOTTOM OF TRUSSES
 - 3-HR RATED WALL - UL U419 TO BOTTOM OF ROOF SHEATHING. U419 - (3) LAYERS 5/8" TYPE "X" GYP-BD & LINER PANEL EACH SIDE OF 6" STEEL STUDS @ 16" OC.
 - 2X4 WOOD STUDS @ 16" OC W/ TREATED SILL PLATE - CONT TO BOTTOM OF STAIR. LINER PANEL (1) SIDE OVER TREATED WOOD FURRING STRIPS
 - LOAD BEARING WALL 2X6 WOOD STUDS @ 16" OC - CONTINUE TO MEZZANINE STRUCTURE. COORDINATE WITH BEARING REQUIREMENTS OF MEZZANINE STRUCTURE. (1) LAYER 5/8" TYPE "X" GYP BD EACH SIDE. FILL CAVITY WITH SOUND BATT INSULATION.
 - LOAD BEARING WALL 2X6 STUDS @ 16" OC - CONTINUE TO MEZZANINE STRUCTURE COORDINATE WITH BEARING REQUIREMENTS OF MEZZANINE STRUCTURE. LINER PANEL OVER WOOD BLOCKING ON GARAGE SIDE. 5/8" TYPE "X" GYP BD ON OTHER SIDE. FILL CAVITY WITH SOUND BATT INSULATION.
 - LOAD BEARING WALL 2X6 WOOD STUDS @ 16" OC - CONTINUE TO MEZZANINE STRUCTURE COORDINATE WITH BEARING REQUIREMENTS OF MEZZANINE STRUCTURE. LINER PANEL OVER 7/8" METAL HAT CHANNELS @ 4'-0" OC. FILL CAVITY WITH SOUND BATT INSULATION.
 - (3)HR RATED 8" CMU TO BOTTOM OF MEZZANINE W/ 5/8" GYP-BD OVER 3-5/8" METAL STUDS ON ONE SIDE

| | | | |
|----------|------|----|---------|
| DESIGNED | DATE | BY | REMARKS |
| DRAWN | | | |
| REVIEWED | | | |
| APPROVED | | | |

WILLETT HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
625 2ND AVE. SW. CEDAR RAPIDS, IA 52404
P: 319-376-1401
F: 319-376-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
OTTUMWA, IOWA
FLOOR PLANS

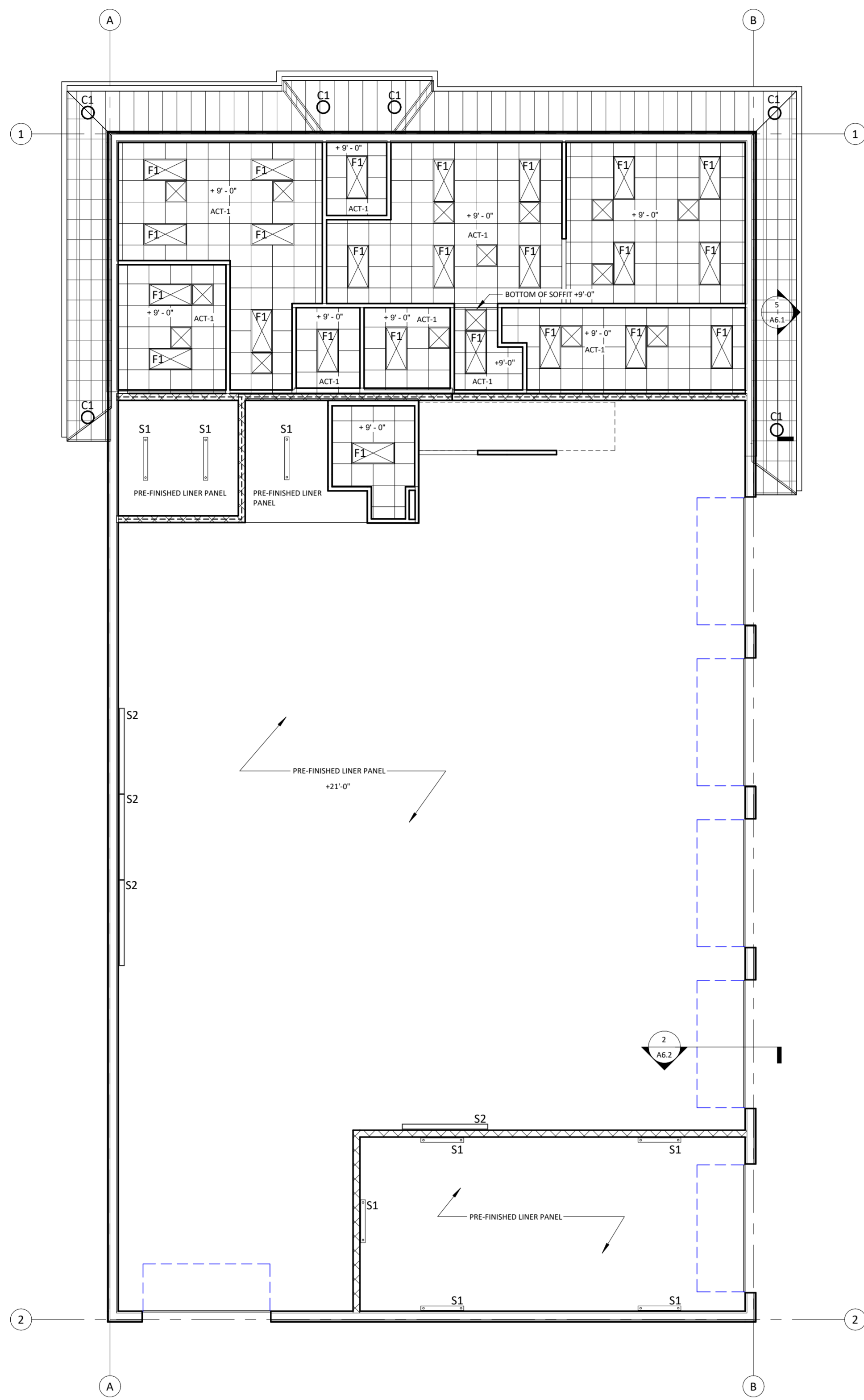
PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
1520C22

DATE
11-05-2024

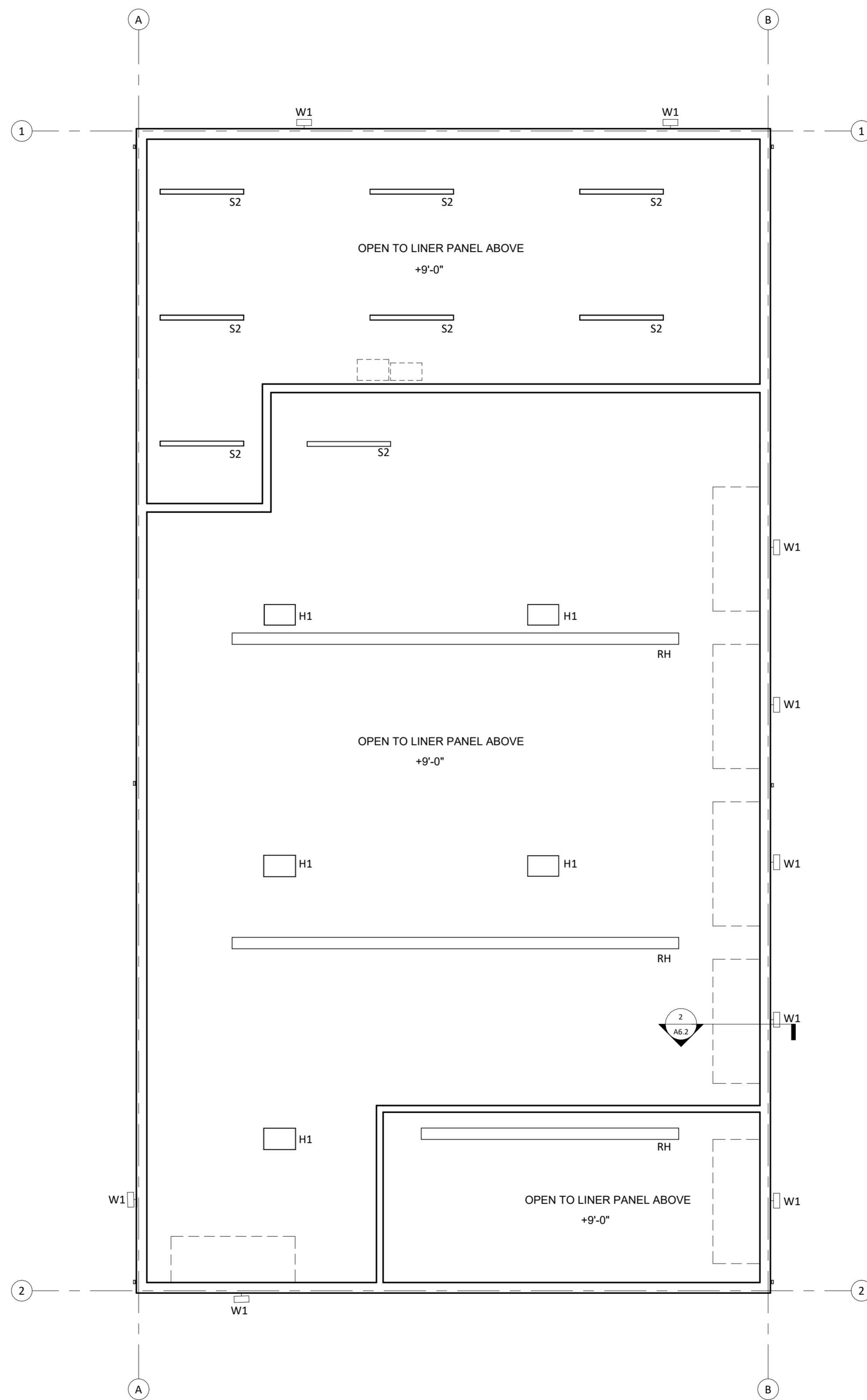
SHEET No.
A1.1

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.



1 MAIN LEVEL REFLECTED CEILING PLAN

A2.1 SCALE: 1/8" = 1'-0"
0' 4'-0" 8'-0" 12'-0"



2 MEZZANINE REFLECTED CEILING PLAN

A2.1 SCALE: 1/8" = 1'-0"
0' 4'-0" 8'-0" 12'-0"

FIXTURE KEY

- F1 2'X4' - LED TROFFER
- C1 4" ROUND DOWNLIGHT - LED, WET LOCATION
- H1 2' X 1' HIGH BAY LED SUSPENDED W/ AIRCRAFT CABLE
- S1 8' LED STRIP FIXTURE
- S2 8' LED STRIP FIXTURE, VAPOR TIGHT
- W1 WALL PACK, LED, WET LOCATION
- SUPPLY GRILLE
- RETURN GRILLE
- RH RADIANT HEATER

ACOUSTIC TILE KEY

ACT-1: ARMSTRONG DUNE 24X24
REGULAR - WHITE, 15/16"
PRELUDE GRID - WHITE

| DESIGNED | BY | DATE | REV. | DATE | REMARKS |
|----------|----|------|------|------|---------|
| DRAWN | | | | | |
| REVIEWED | | | | | |
| APPROVED | | | | | |

WILLET HOFMANN & ASSOCIATES INC.
ARCHITECTURE ENGINEERING LAND SURVEYING
625 32ND AVE. SW CEDAR RAPIDS, IA 52404
P: 319-376-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
OTTUMWA, IOWA
REFLECTED CEILING PLANS

PHASE

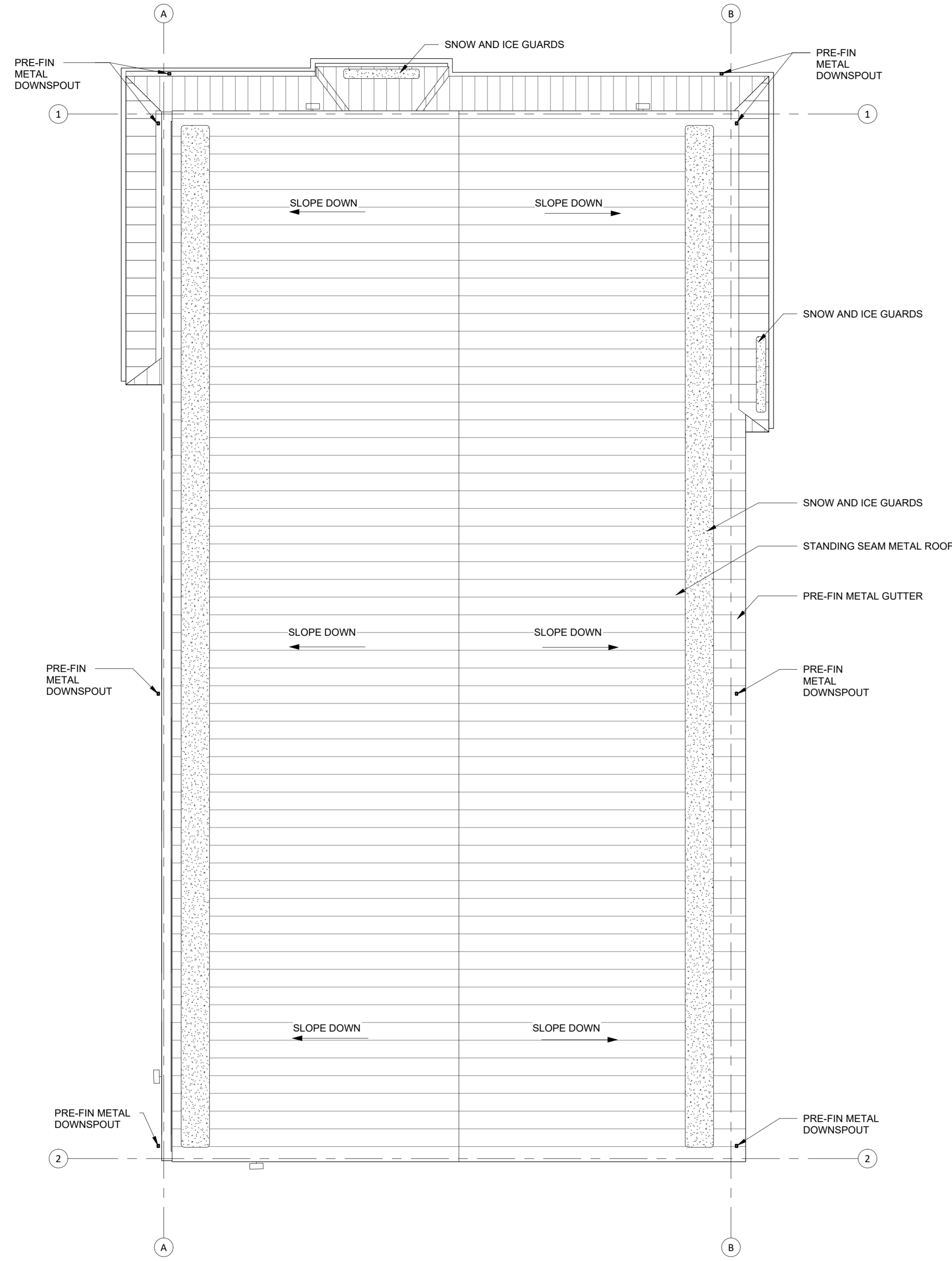
- PRELIM
- PERMIT
- FINAL
- BID
- CONST

WHA No.
1520C22

DATE
11-05-2024

SHEET No.
A2.1

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.



1
A3.1
ROOF PLAN
SCALE: 1/8" = 1'-0"
0' 4'-0" 8'-0" 12'-0"
N

| | | |
|----------|------|---------|
| DESIGNED | BY | REMARKS |
| DRAWN | DATE | |
| REVIEWED | | |
| APPROVED | | |

WILLET HOFMANN & ASSOCIATES, INC.
 ARCHITECTURE, ENGINEERING, LAND SURVEYING
 625 32ND AVE. SW, CEDAR RAPIDS, IA 52404
 P: 319-378-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
 OTTUMWA, IOWA
ROOF PLAN

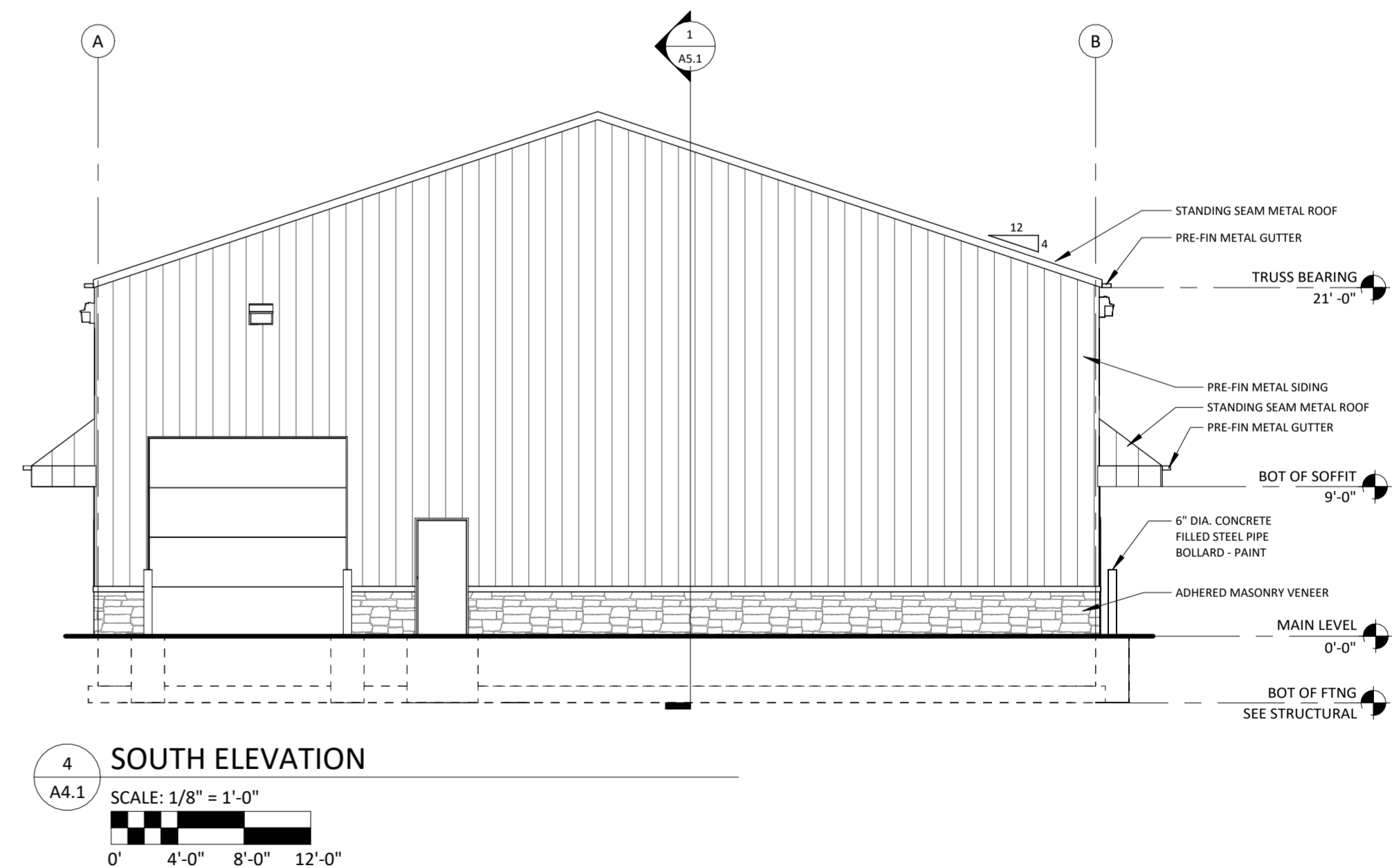
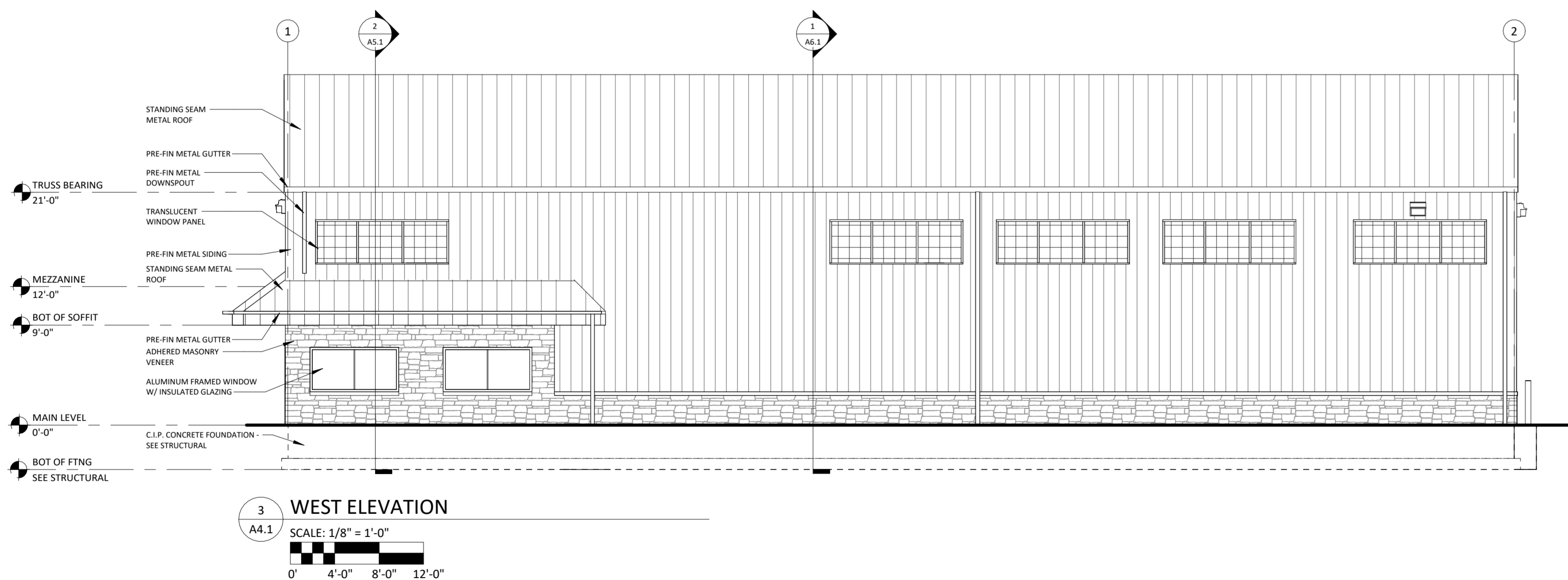
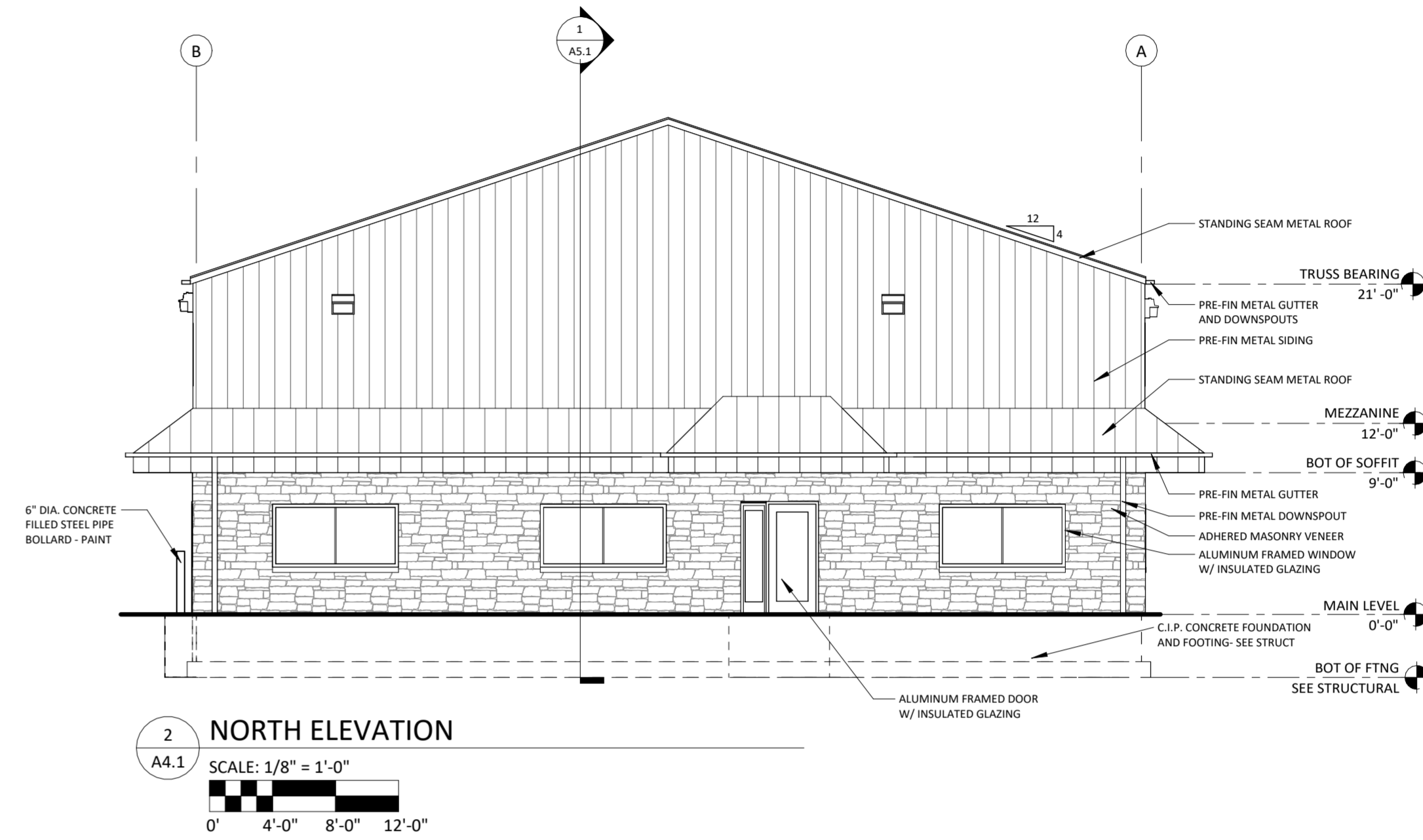
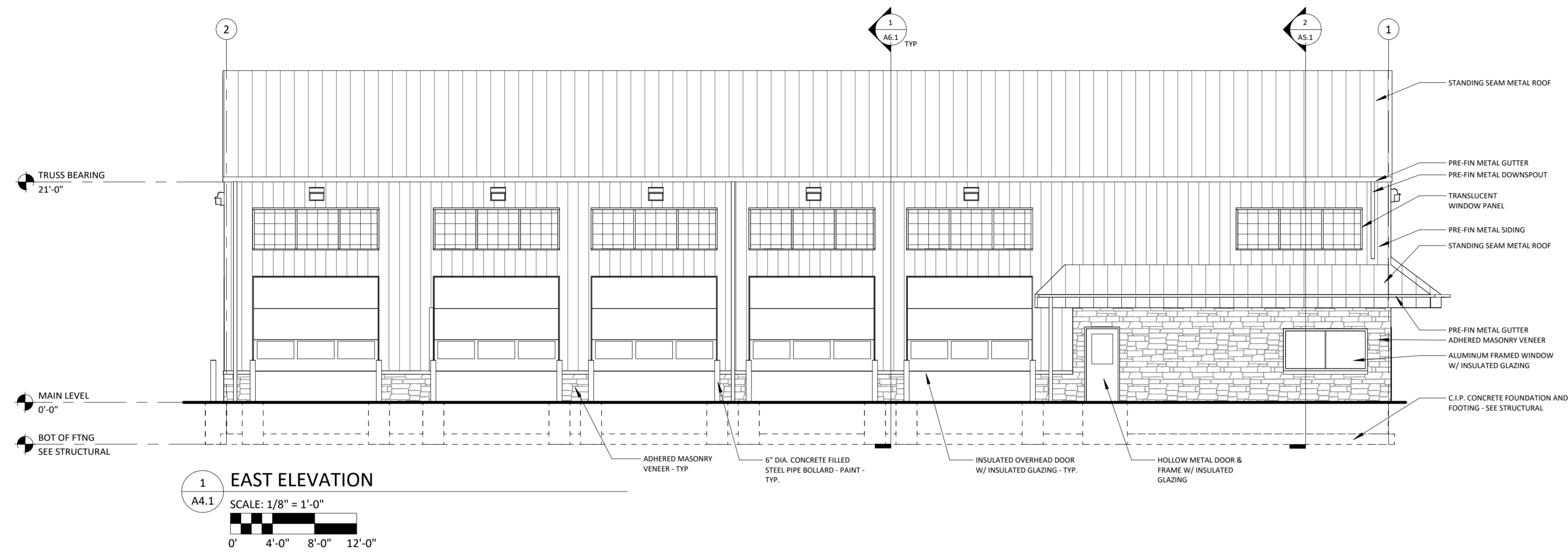
PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
 1520C22

DATE
 11-05-2024

SHEET No.
A3.1

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.



| REV. | DATE | BY | REMARKS |
|------|------|----|---------|
| | | | |
| | | | |
| | | | |

DESIGNED: **WILLET HOFMANN & ASSOCIATES, INC.**
DRAWN: **WILLET HOFMANN & ASSOCIATES, INC.**
REVIEWED: **WILLET HOFMANN & ASSOCIATES, INC.**
APPROVED: **WILLET HOFMANN & ASSOCIATES, INC.**

625 32ND AVE. SW. CEDAR RAPIDS, IA 52404
P: 319-376-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
OTTUMWA, IOWA
EXTERIOR ELEVATIONS

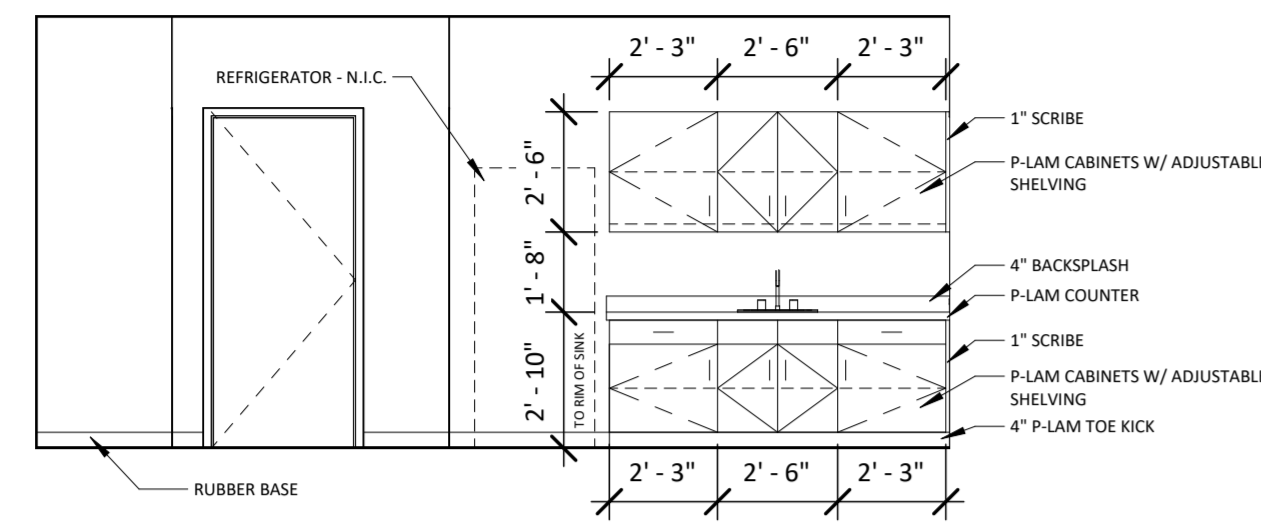
PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
1520C22

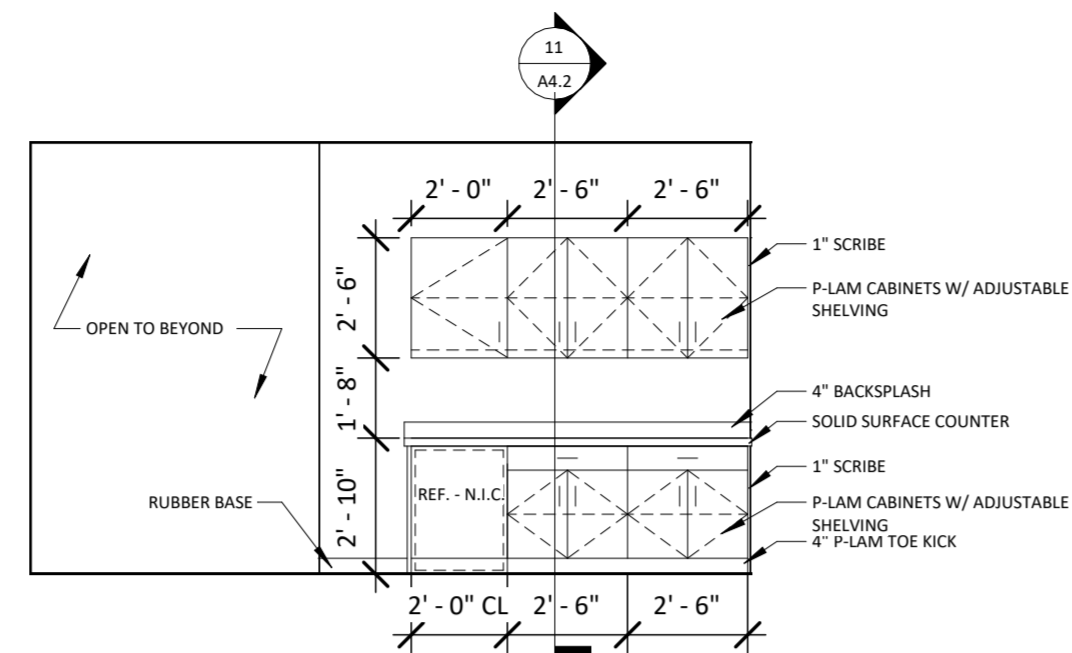
DATE
11-05-2024

SHEET No.
A4.1

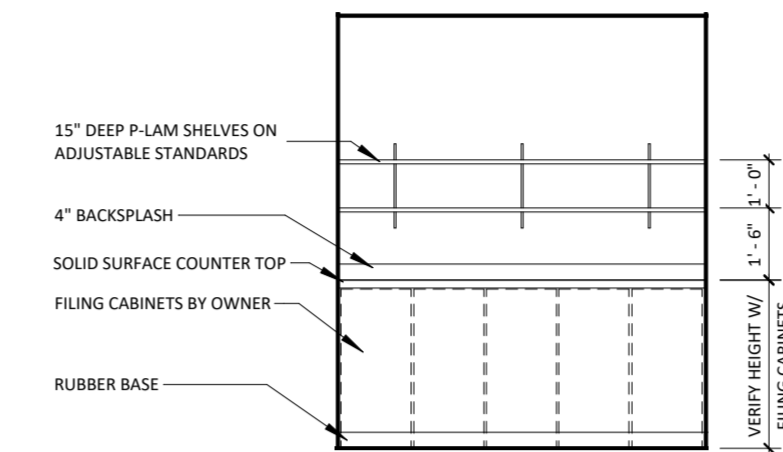
This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.



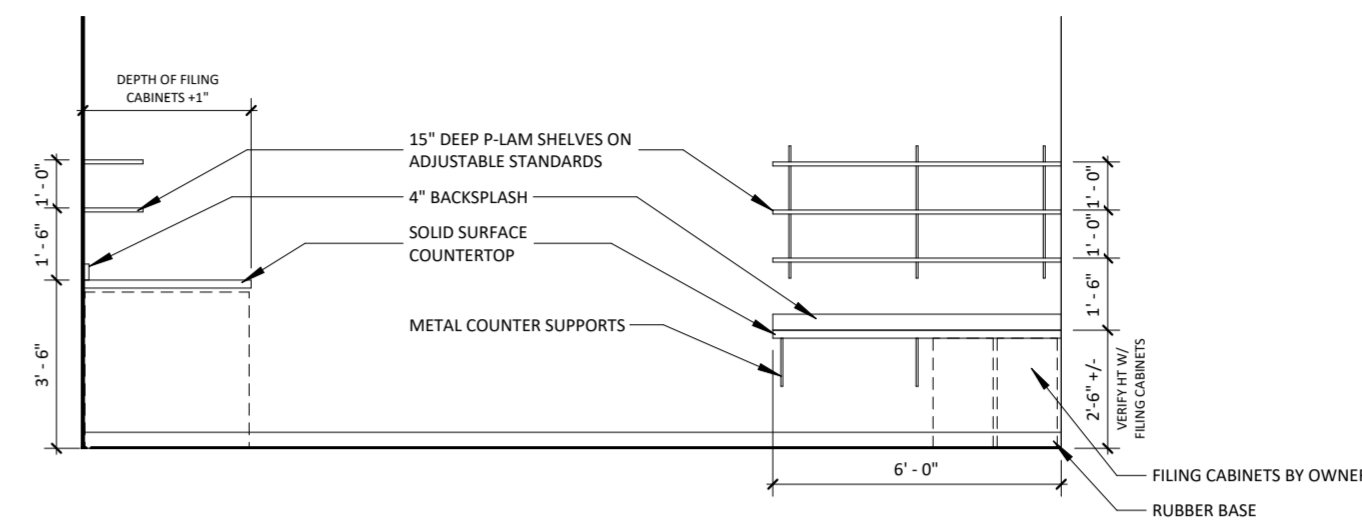
1 BREAK ROOM 106 - SOUTH
1/4" = 1'-0"



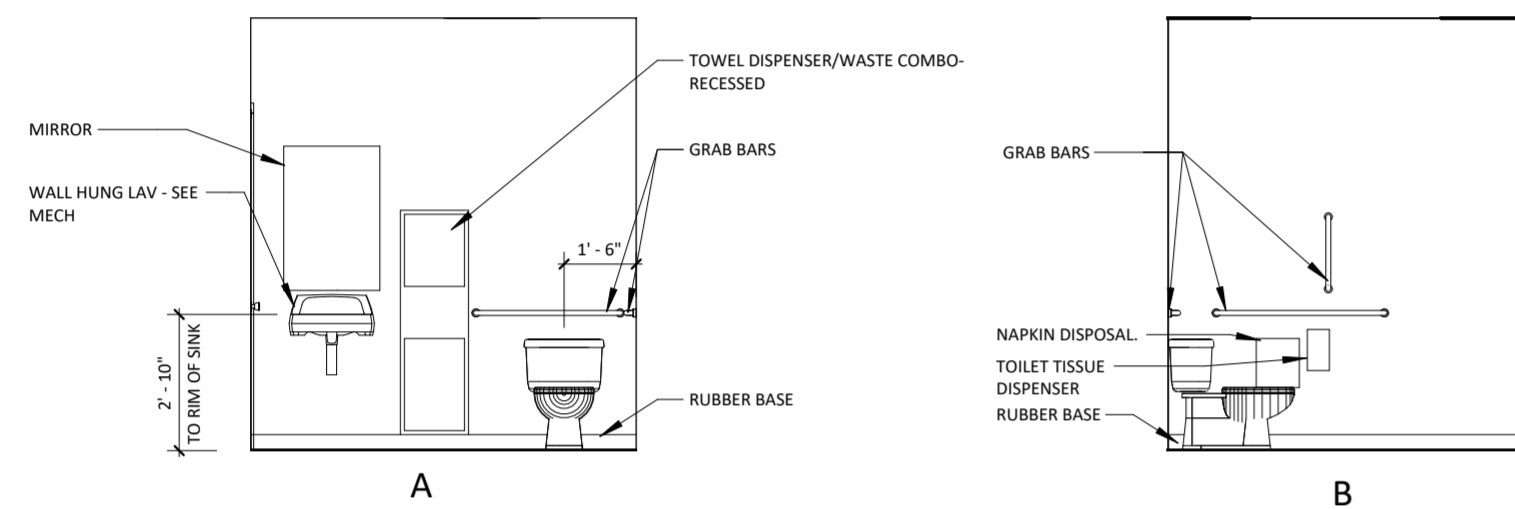
2 MEETING AREA 102 - WEST
1/4" = 1'-0"



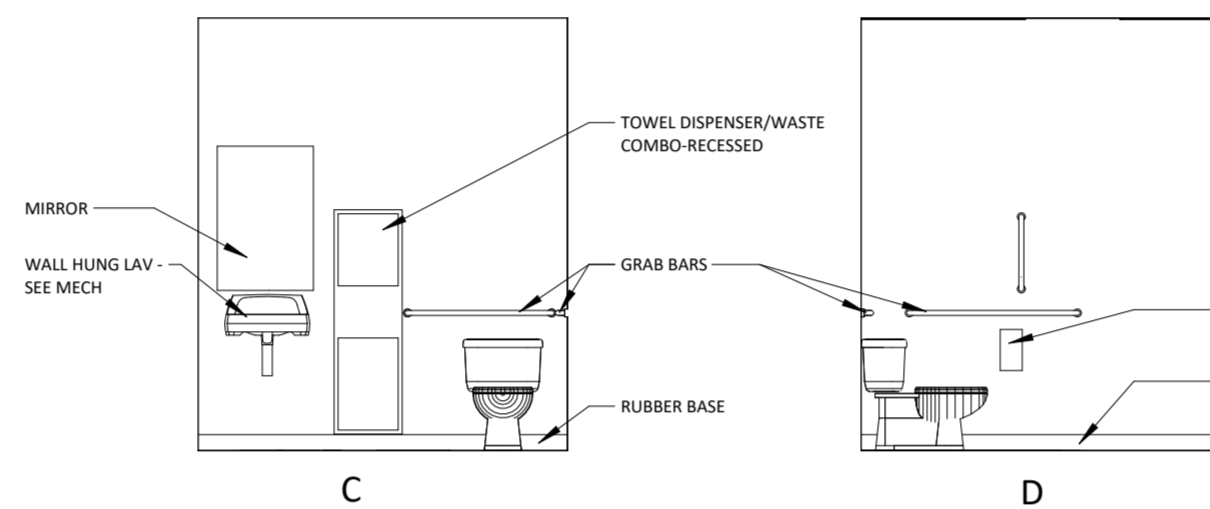
3 STORAGE 103 - EAST
1/4" = 1'-0"



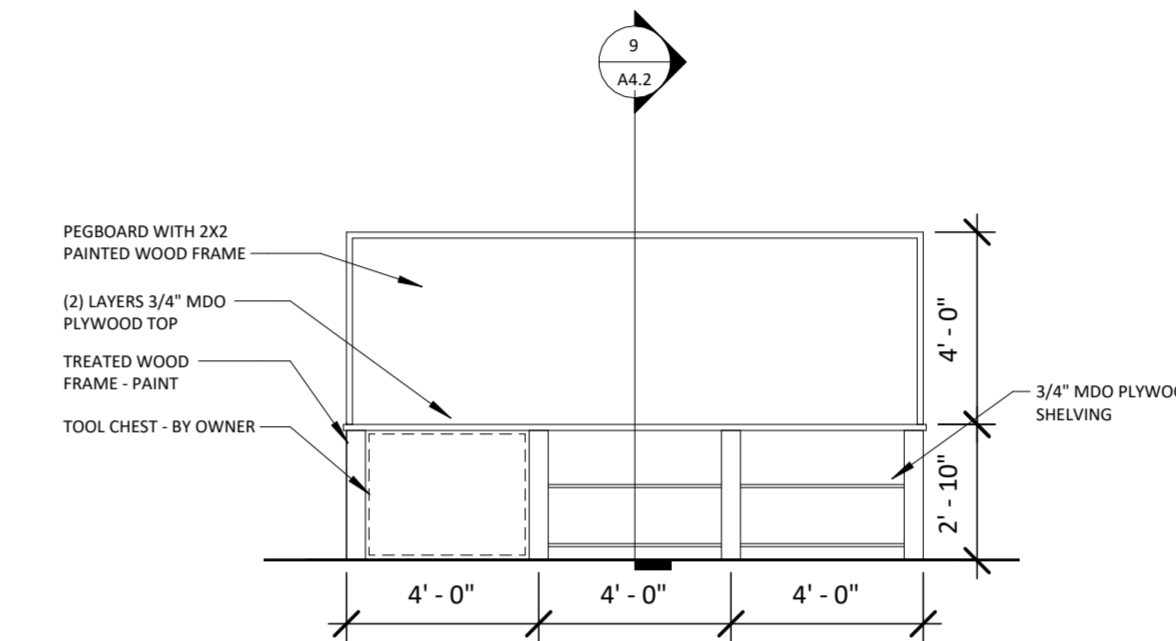
4 STORAGE 103 - SOUTH
1/4" = 1'-0"



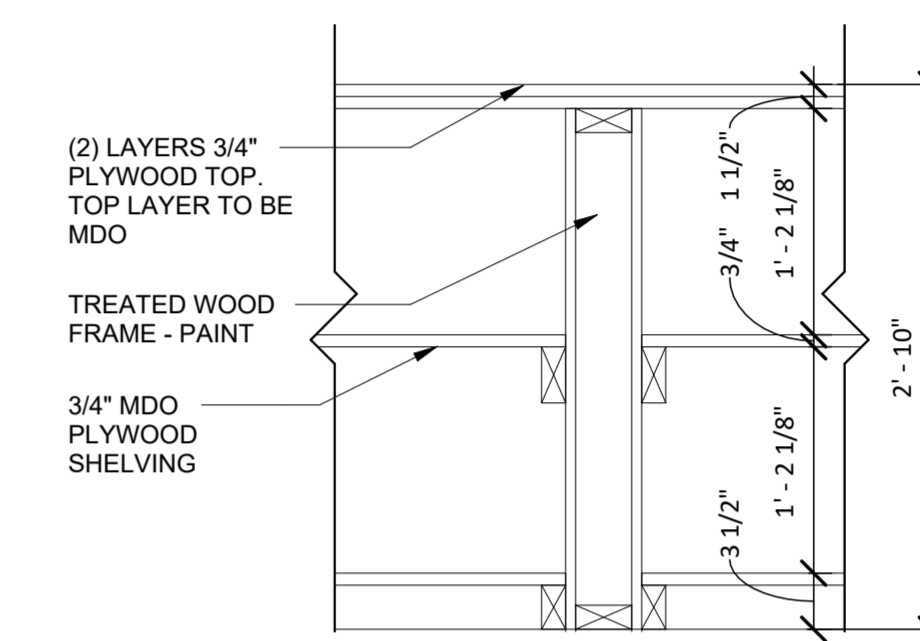
5 RESTROOM 105
1/4" = 1'-0"



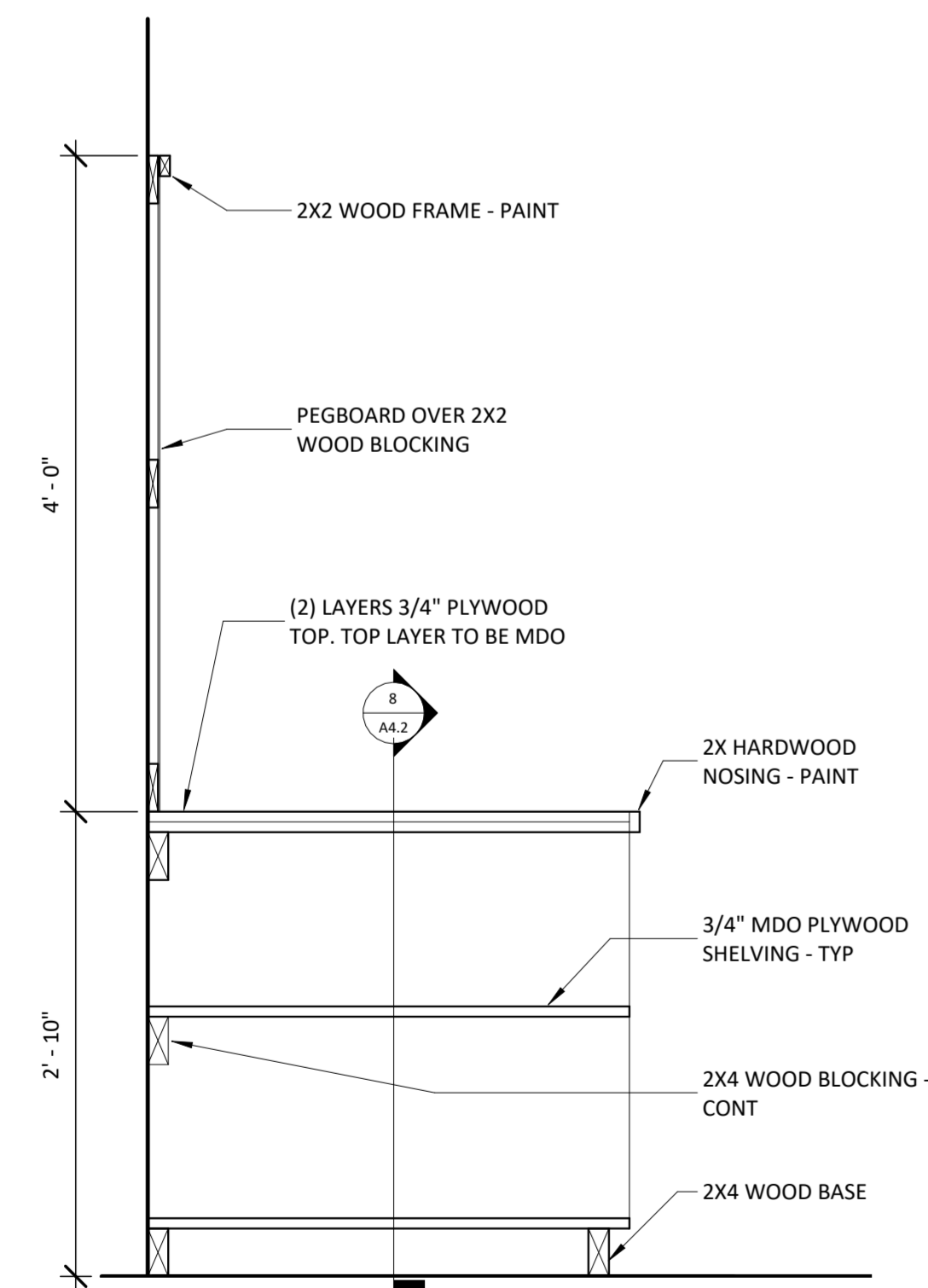
6 RESTROOM 111
1/4" = 1'-0"



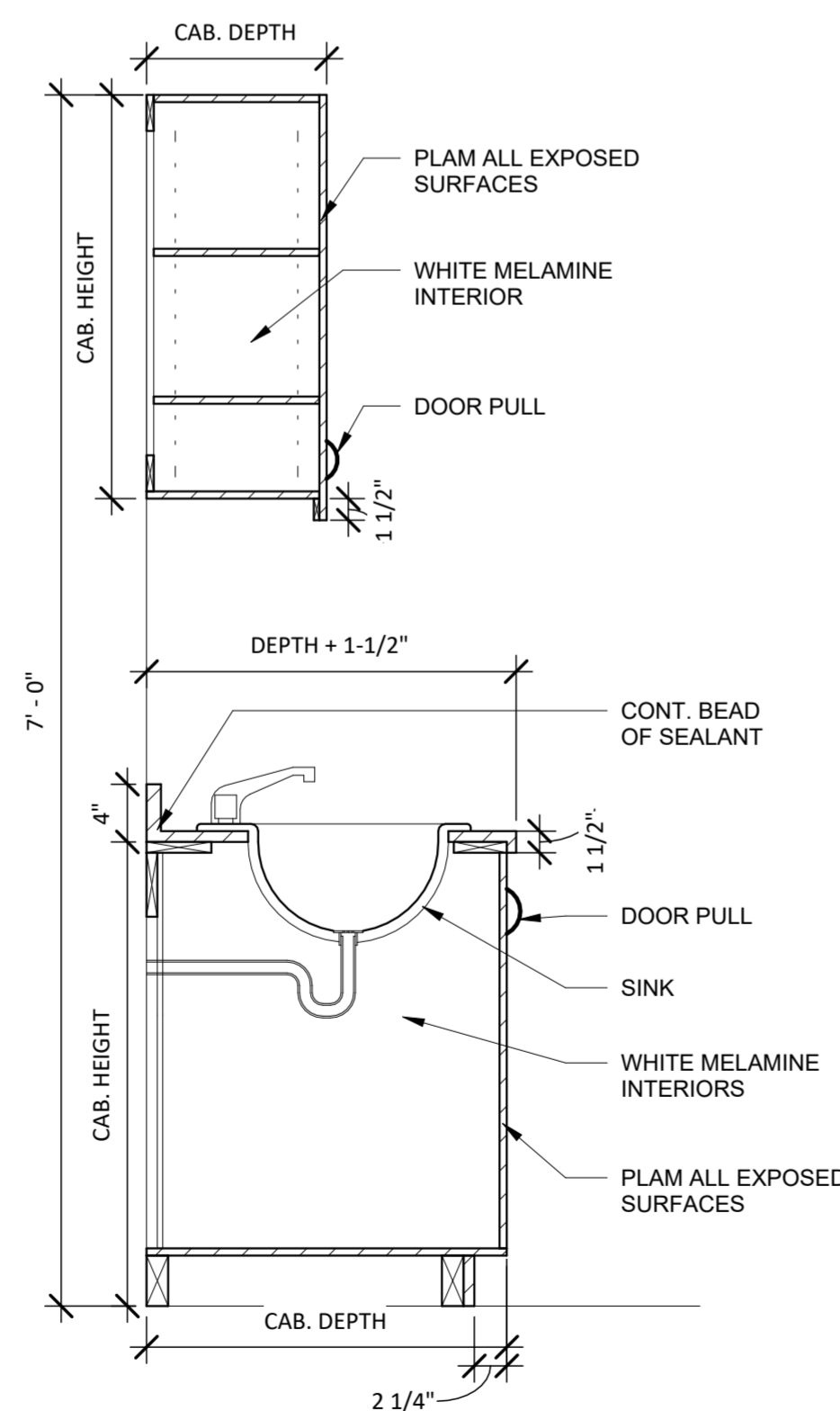
7 TOOL BENCH ELEVATION
1/4" = 1'-0"



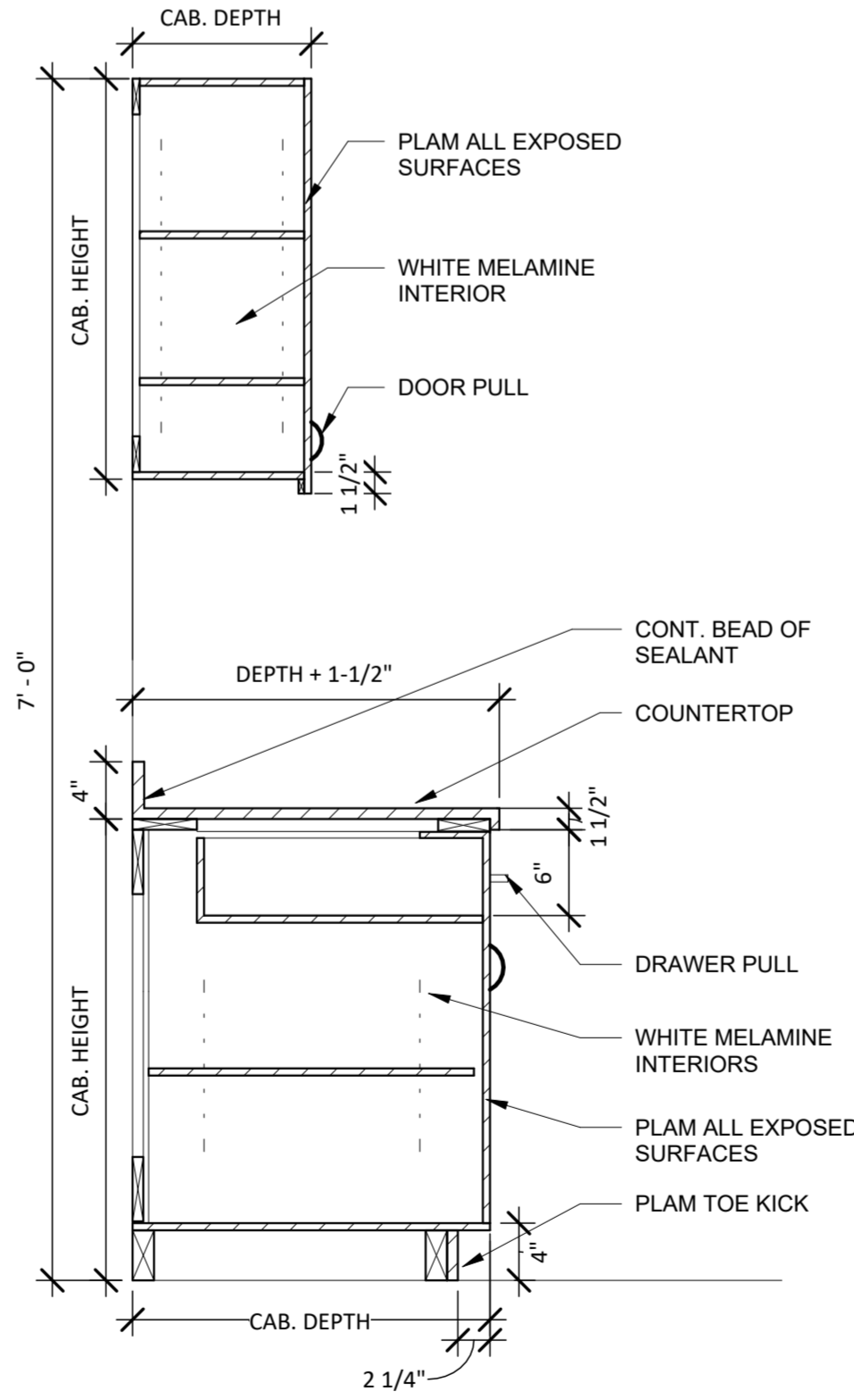
8 SECTION @ TOOL BENCH (1)
1" = 1'-0"



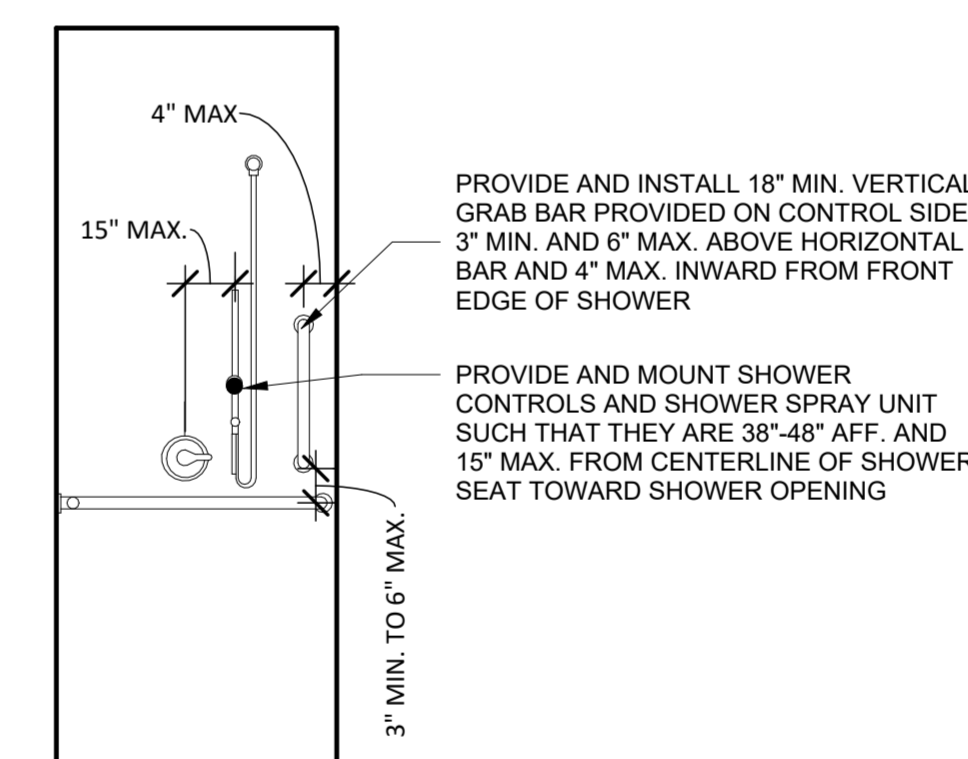
9 SECTION @ TOOL BENCH (2)
1" = 1'-0"



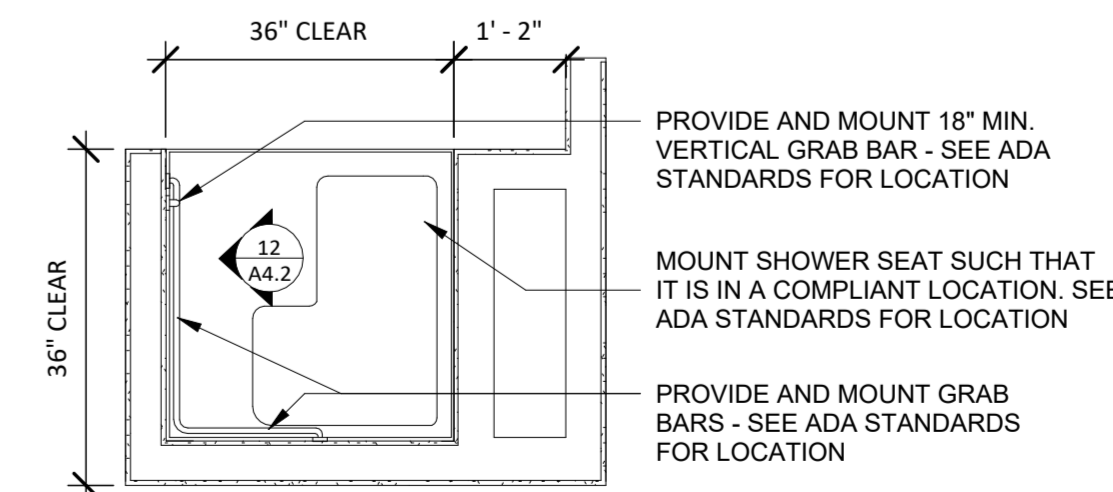
10 SINK BASE
1" = 1'-0"



11 TYPICAL CASEWORK
1" = 1'-0"



12 ADA SHOWER STALL
1/2" = 1'-0"



13 ADA SHOWER
1/2" = 1'-0"

| REV. | DATE | BY | REMARKS |
|----------|------|----|---------|
| DESIGNED | | | |
| DRAWN | | | |
| REVIEWED | | | |
| APPROVED | | | |

WILLETT HOFMANN & ASSOCIATES, INC.
 ARCHITECTURE, INTERIOR DESIGN, LANDSCAPE ARCHITECTURE
 625 32ND AVE. SW, CEDAR RAPIDS, IA 52404
 P: 319-376-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
 OTTUMWA, IOWA
 INTERIOR ELEVATIONS

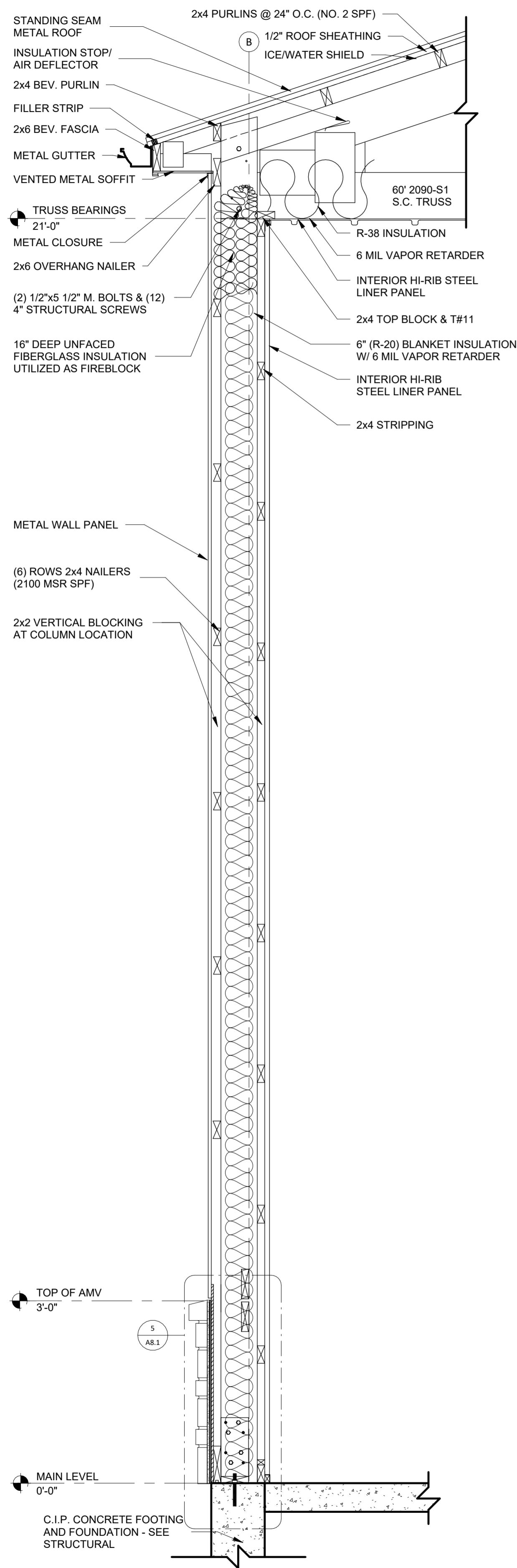
PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
 1520C22

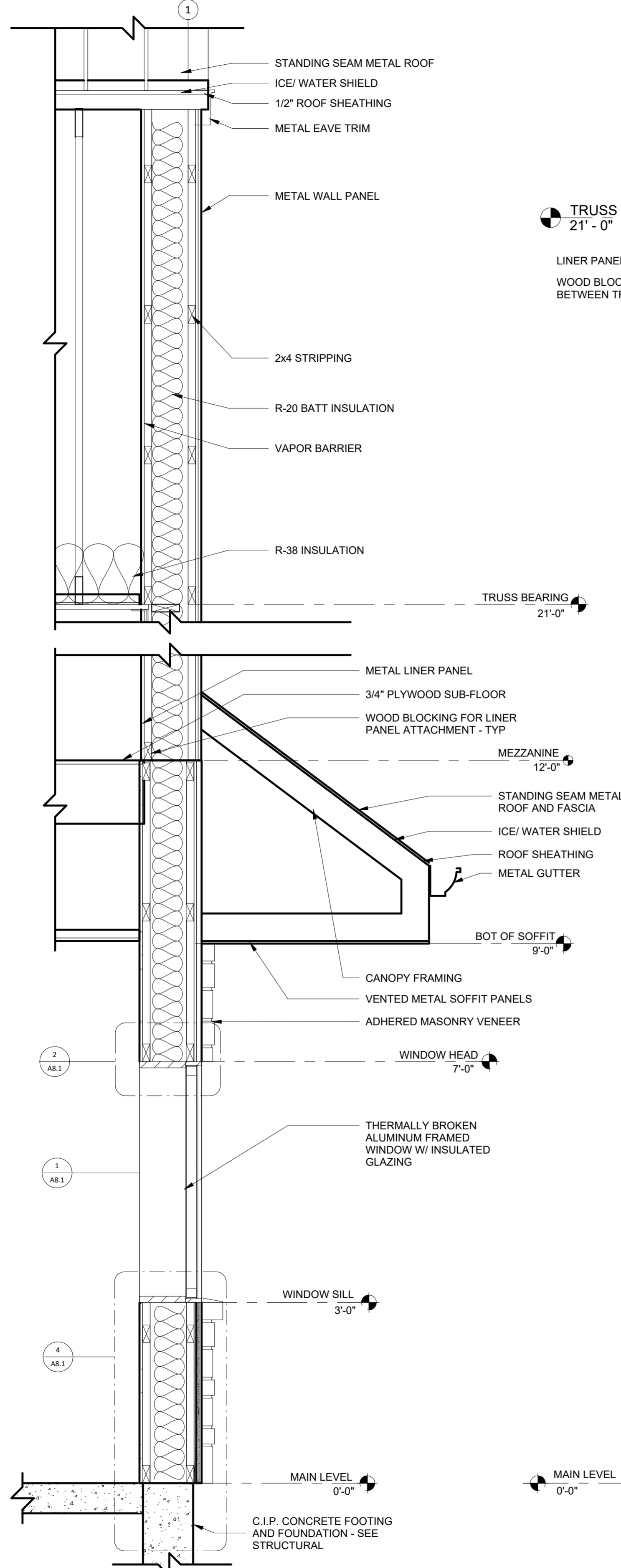
DATE
 11-05-2024

SHEET No.
A4.2

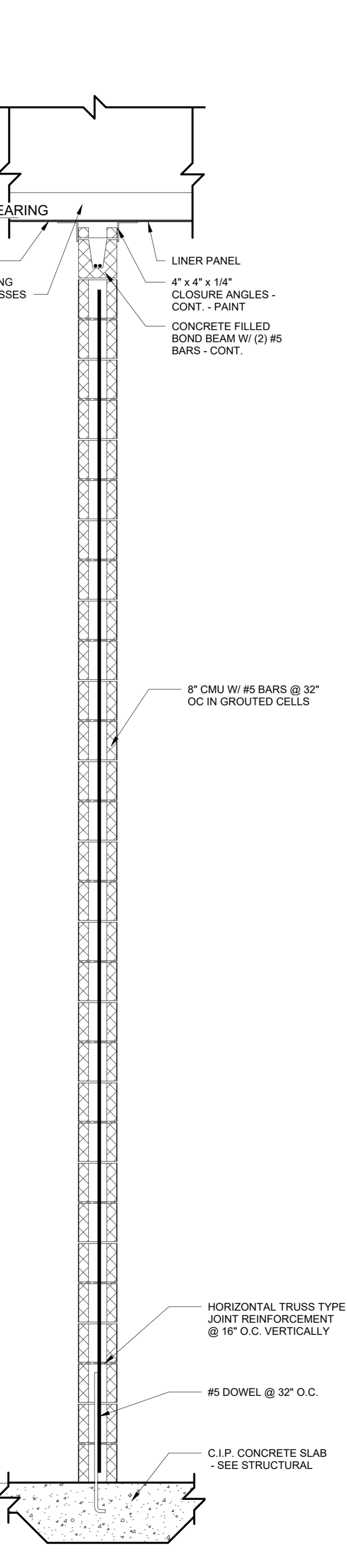
This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.



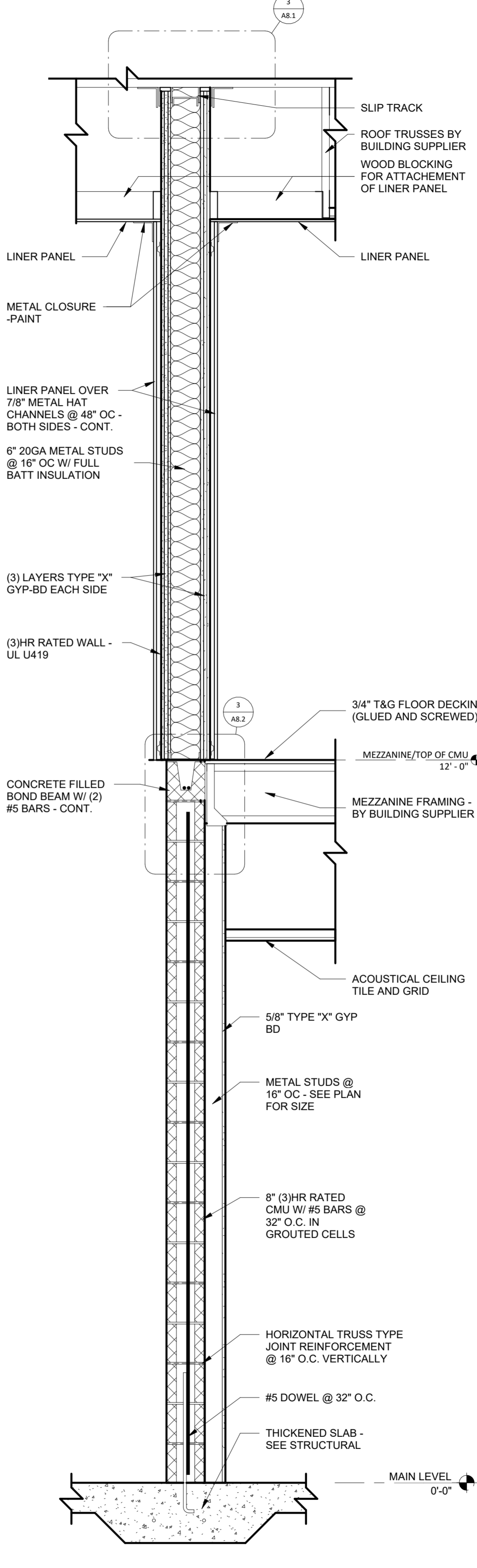
1 WALL SECTION @ SIDE WALL
3/4" = 1'-0"



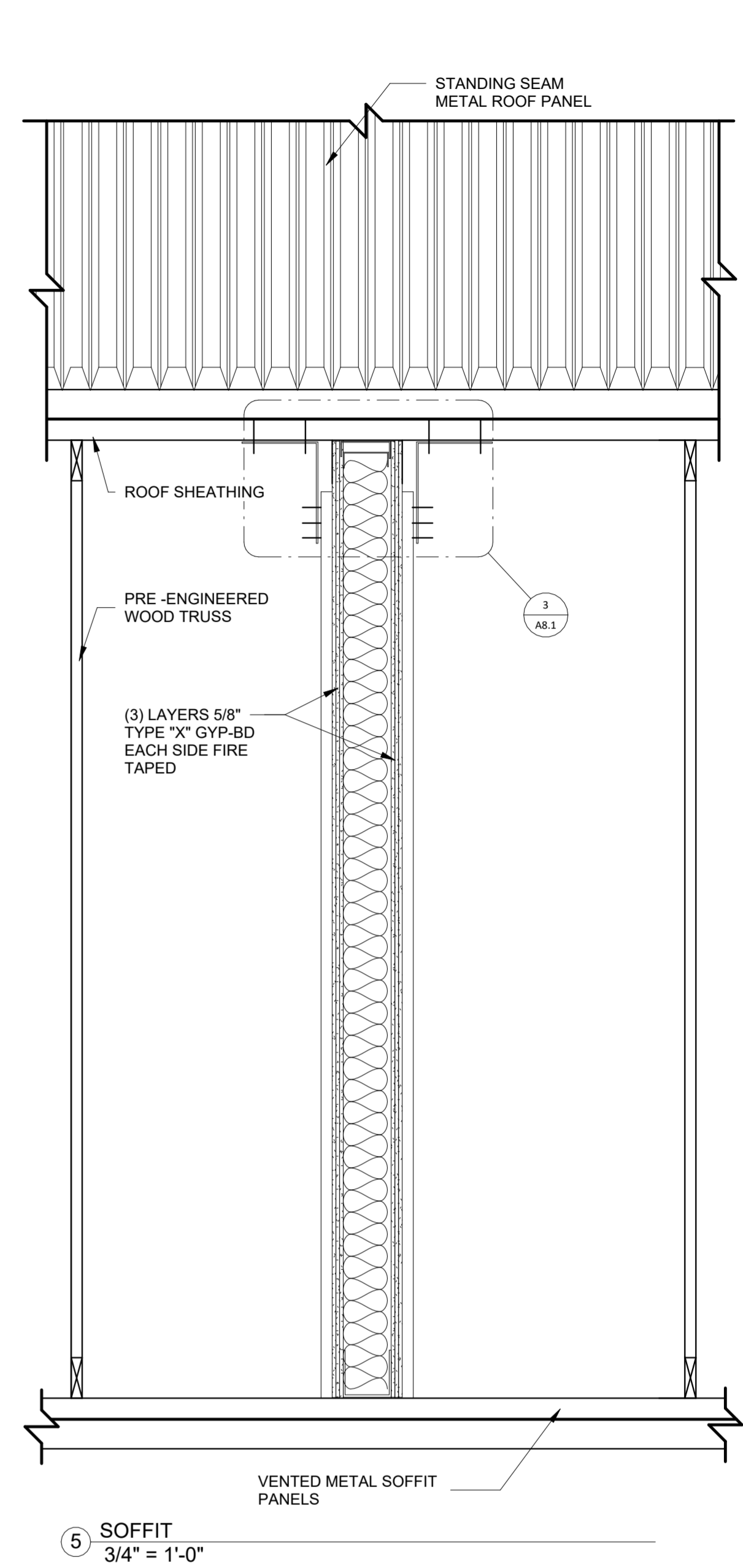
2 WALL SECTION @ OFFICE ENDWALL
3/4" = 1'-0"



3 WALL SECTION @ WASH BAY WALL
3/4" = 1'-0"



4 WALL SECTION @ FIRE WALL
3/4" = 1'-0"



5 SOFFIT
3/4" = 1'-0"

| | | |
|----------|------|---------|
| DESIGNED | DATE | REMARKS |
| DRAWN | BY | |
| REVIEWED | DATE | |
| APPROVED | DATE | |

WILLET HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
625 32ND AVE. SW. CEDAR RAPIDS, IA 52404
P: 319-376-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
OTTUMWA, IOWA
WALL SECTIONS

PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
1520C22

DATE
11-05-2024

SHEET No.
A6.1

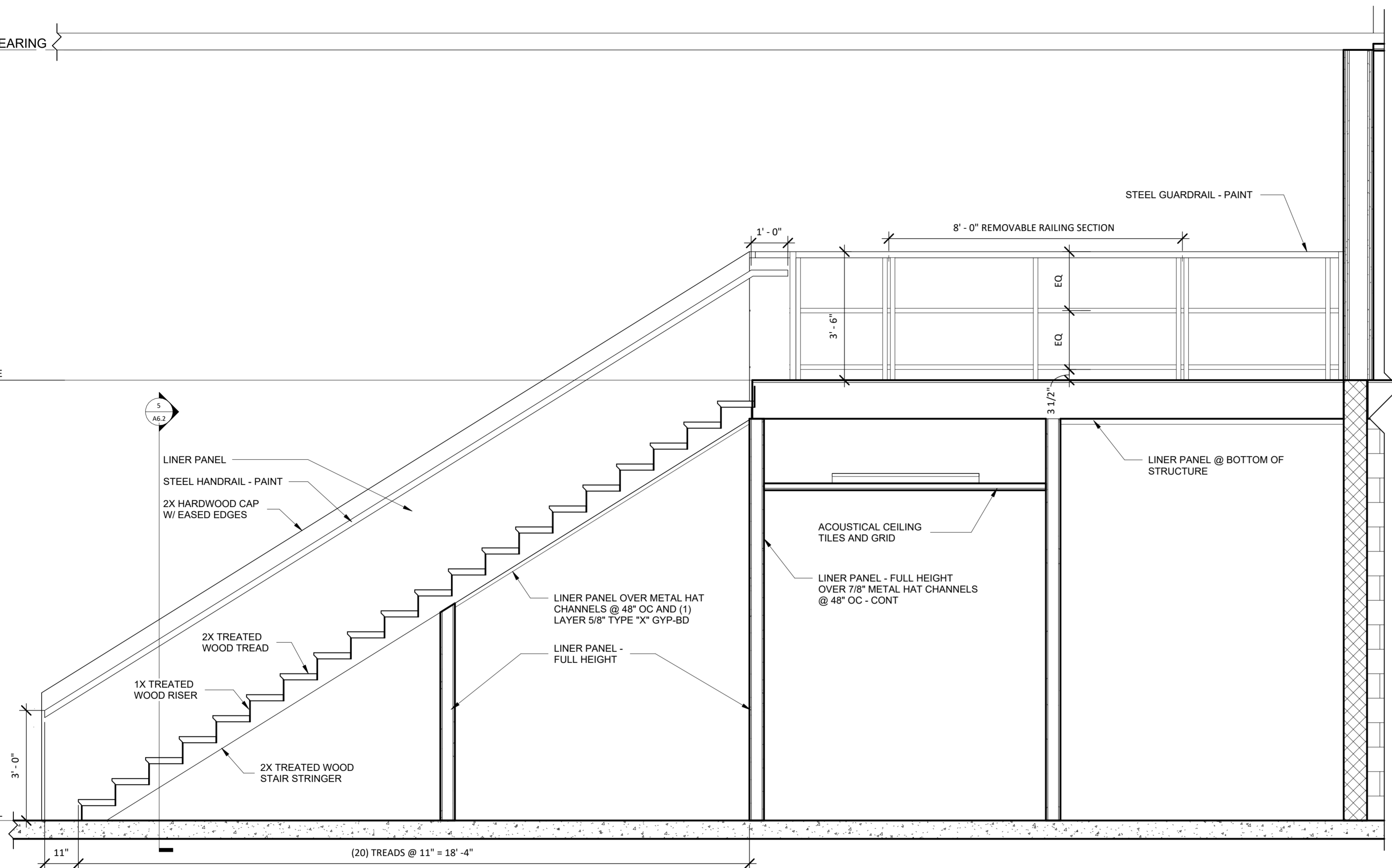
This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.

TRUSS BEARING
21'-0"

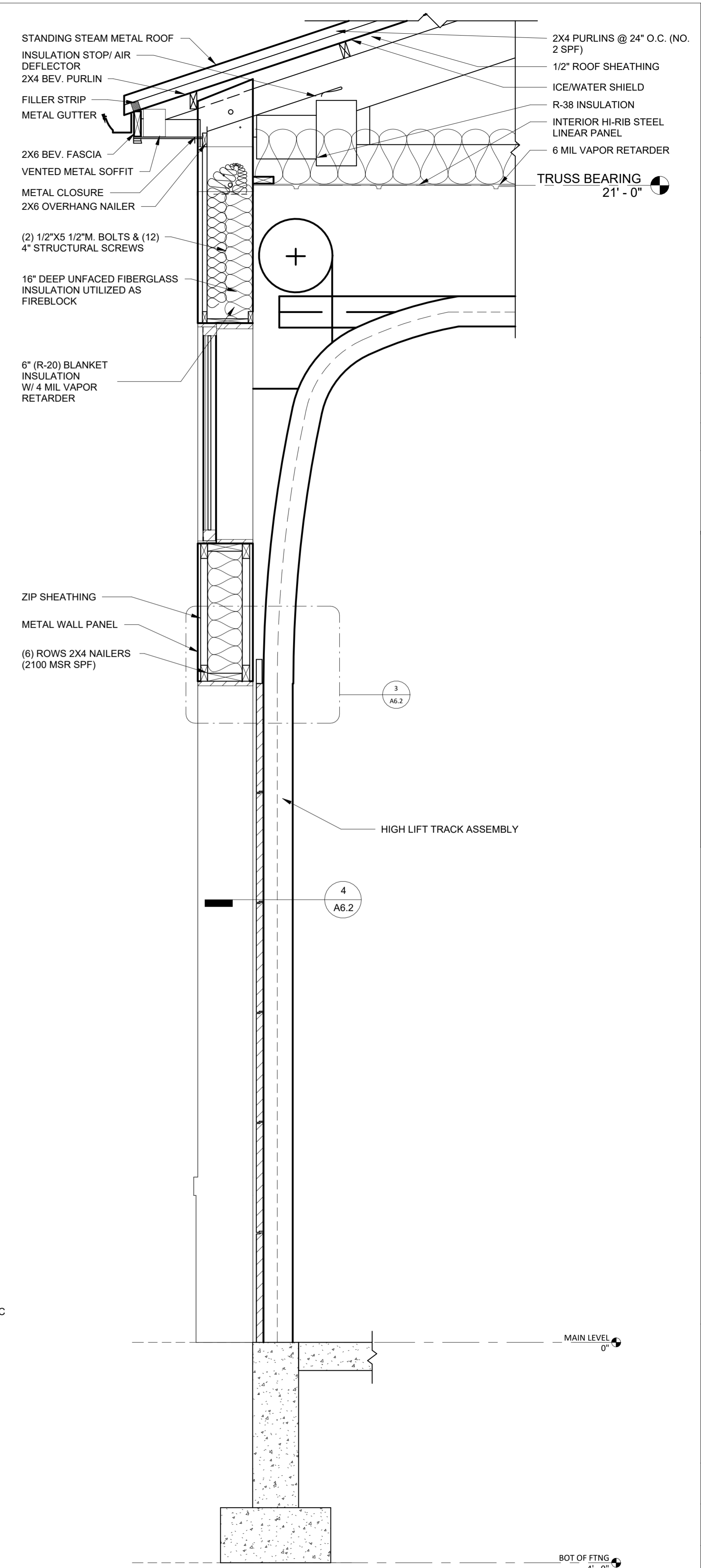
MEZZANINE
12'-0"

MAIN LEVEL
0'-0"

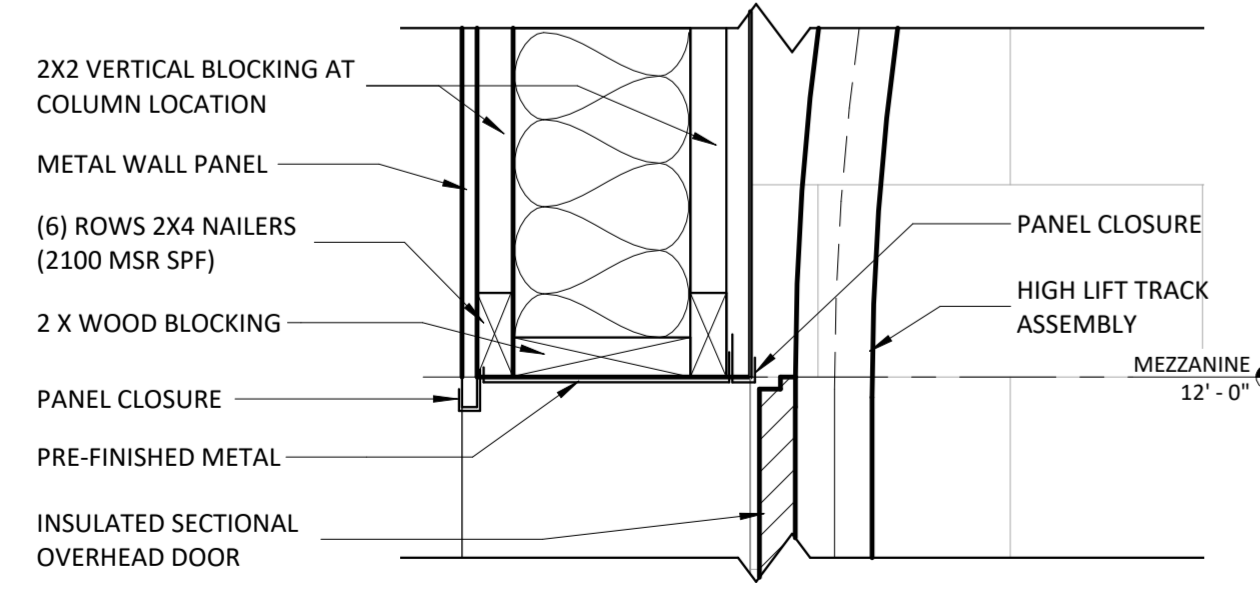
(21) RISERS @ 6 3/4" = 12'-0"



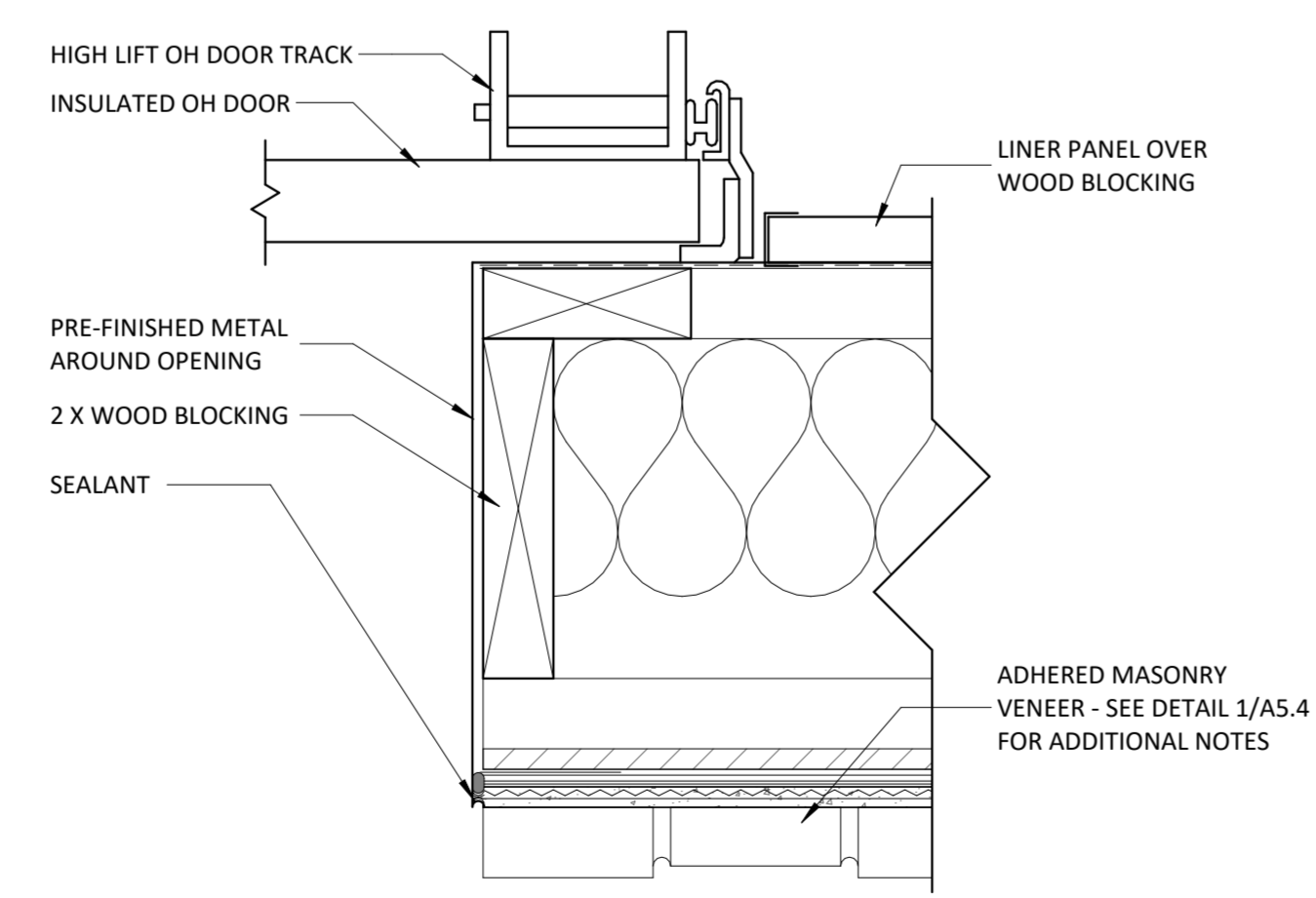
1 STAIR SECTION
1/2" = 1'-0"



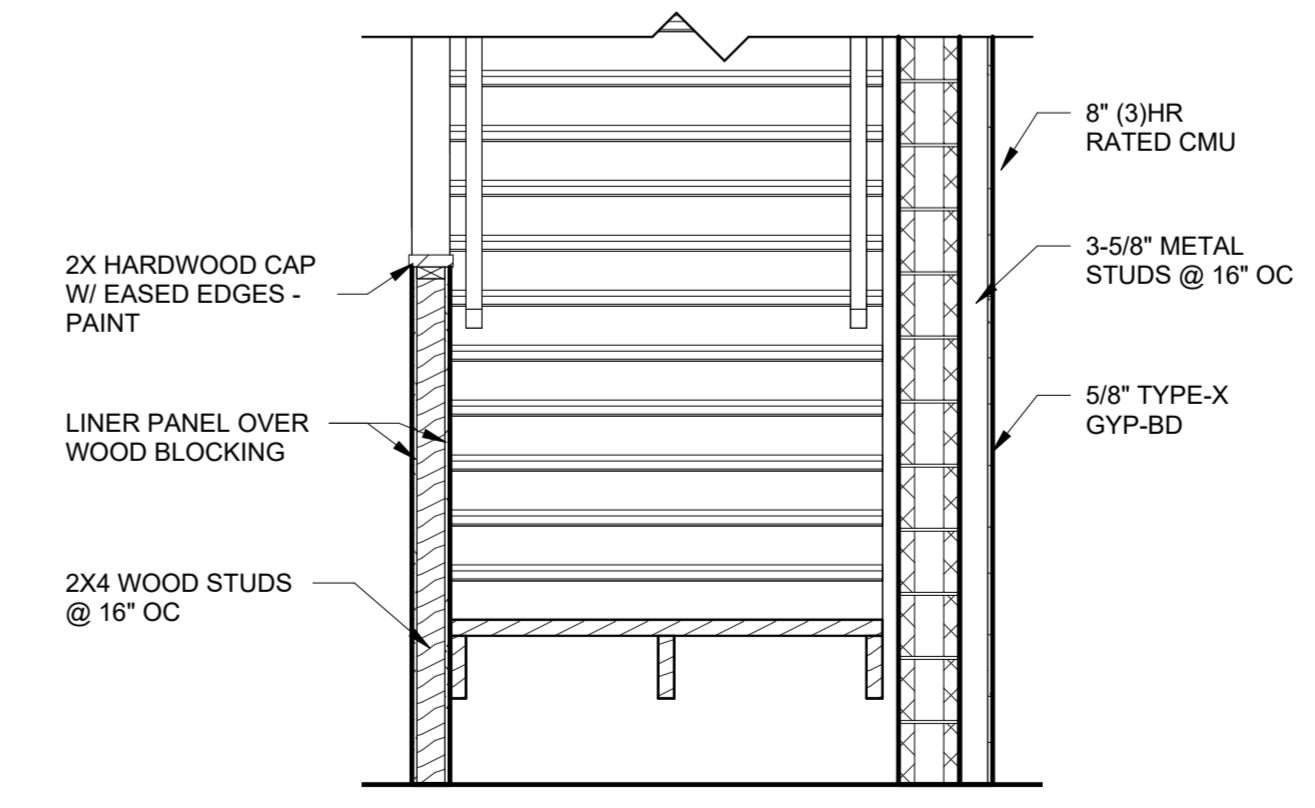
2 HIGH-LIFT DOOR
3/4" = 1'-0"



3 HEAD DETAIL @ OH SECTIONAL DOOR
1 1/2" = 1'-0"



4 OVERHEAD DOOR JAMB DETAIL
3" = 1'-0"



5 STAIR SECTION 2
1/2" = 1'-0"

| REV. | DATE | BY | REMARKS |
|----------|------|----|---------|
| DESIGNED | | | |
| DRAWN | | | |
| REVIEWED | | | |
| APPROVED | | | |

WILLET HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
625 32ND AVE. SW CEDAR RAPIDS, IA 52404
P: 319-376-1401

OTTUMWA CEMETERY OFFICE & MAINT. BLDG
OTTUMWA, IOWA
STAIR SECTIONS

PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
1520C22

DATE
11-05-2024

SHEET No.
A6.2

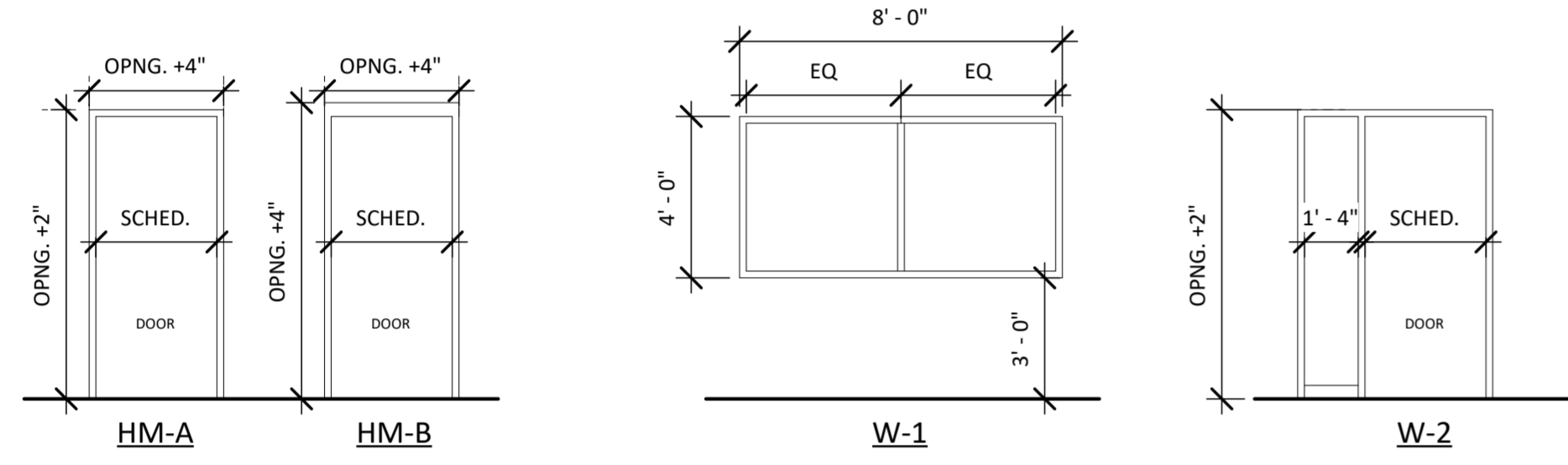
This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.

| OPENING SCHEDULE | | | | | | | | | | |
|------------------|----------------------------|------|------|--------|------------|------|--------|------------|---------|------------|
| DOOR NO. | SIZE | TYPE | MATL | FINISH | FRAME TYPE | MATL | FINISH | FIRE LABEL | REMARKS | HDWR GROUP |
| 100 A | 3'-0" x 7'-0" x 1 3/4" | B | ALUM | ANOD | W-2 | ALUM | ANOD | - | | SET 1 |
| 100 B | 3'-0" x 7'-0" x 1 3/4" | B | ALUM | ANOD | W-2 | ALUM | ANOD | - | | SET 2 |
| 101 A | 3'-0" x 7'-0" x 1 3/4" | C | SCWD | ST | HM-A | HM | PT | - | | SET 10 |
| 103 A | 3'-0" x 7'-0" x 1 3/4" | C | SCWD | ST | HM-A | HM | PT | - | | SET 7 |
| 105 A | 3'-0" x 7'-0" x 1 3/4" | A | SCWD | ST | HM-A | HM | PT | - | | SET 12 |
| 108 A | 3'-0" x 7'-0" x 1 3/4" | C | SCWD | ST | HM-A | HM | PT | - | | SET 8 |
| 109 A | 3'-0" x 7'-0" x 1 3/4" | A | SCWD | ST | HM-A | HM | PT | - | | SET 9 |
| 110 A | 3'-0" x 7'-0" x 1 3/4" | A | HM | PT | HM-B | HM | PT | 3 HR | | SET 6 |
| 111 A | 3'-0" x 7'-0" x 1 3/4" | A | HM | PT | HM-A | HM | PT | - | | SET 13 |
| 112 A | 3'-0" x 7'-0" x 1 3/4" | A | HM | PT | HM-B | HM | PT | 3 HR | | 6 |
| 113 A | 3'-0" x 7'-0" x 1 3/4" | D | HM | PT | HM-A | HM | PT | - | | SET 3 |
| 113 B | 12'-0" x 12'-0" | E | STL | - | - | - | - | - | | - |
| 113 C | 12'-0" x 12'-0" | E | STL | - | - | - | - | - | | - |
| 113 D | 12'-0" x 12'-0" | E | STL | - | - | - | - | - | | - |
| 113 E | 12'-0" x 12'-0" | E | STL | - | - | - | - | - | | - |
| 113 F | 3'-0" x 7'-0" x 1 3/4" | A | HM | PT | HM-A | HM | PT | - | | SET 3 |
| 113 G | 12'-0" x 12'-0" | F | STL | - | - | - | - | - | | - |
| 114 A | 12'-0" x 12'-0" | E | STL | - | - | - | - | - | | - |
| 114 B | 3'-0" x 7'-0" x 1 3/4" | A | HM | PT | HM-B | HM | PT | - | | SET 11 |
| 201 A | (2) 4'-0" x 7'-0" x 1 3/4" | A | HM | PT | HM-A | HM | PT | 3 HR | | SET 4 |

HARDWARE GROUPS:

DOOR HARDWARE TO BE US-26D OR US 32D FINISH.
SEE SPECIFICATION DIVISION 08 - OPENINGS FOR HARDWARE GROUPS ON SHEET A9.1

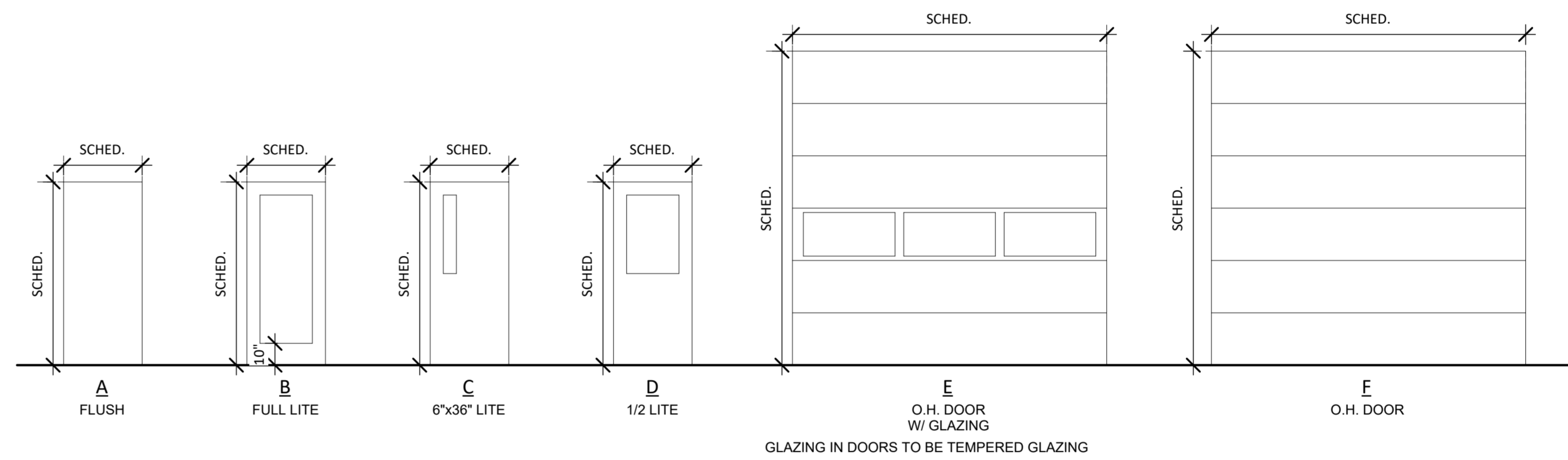
| ROOM FINISH SCHEDULE | | | | | | | | | | | | | |
|----------------------|-----|-------|--------|------------|--------|-----------|--------|------------|--------|-----------|-----|---------|-----|
| ROOM NAME | NO. | FLOOR | | NORTH WALL | | EAST WALL | | SOUTH WALL | | WEST WALL | | CEILING | |
| | | MAT | FIN | BASE | MAT | FIN | MAT | FIN | MAT | FIN | MAT | FIN | MAT |
| VEST | 100 | CONC. | LVT | RB | GB | PT | GB | PT | GB | PT | GB | PT | ACT |
| OFFICE/RECEPT | 101 | CONC. | CPT | RB | GB | PT | GB | PT | GB | PT | GB | PT | ACT |
| MEETING RM | 102 | CONC. | CPT | RB | GB | PT | GB | PT | GB | PT | GB | PT | ACT |
| STORAGE | 103 | CONC. | CPT | RB | GB | PT | GB | PT | GB | PT | GB | PT | ACT |
| HALL | 104 | CONC. | LVT | RB | GB | PT | GB | PT | GB | PT | GB | PT | ACT |
| RESTROOM | 105 | CONC. | LVT | RB | GB | EPT | GB | EPT | GB | EPT | GB | EPT | ACT |
| BREAK ROOM | 106 | CONC. | LVT | RB | GB | PT | GB | PT | GB | PT | GB | PT | ACT |
| HALL | 107 | CONC. | LVT | RB | GB | PT | GB | PT | GB | PT | GB | PT | ACT |
| FOREMAN OFFICE | 108 | CONC. | CPT | RB | GB | PT | GB | PT | GB | PT | GB | PT | ACT |
| JANITOR | 109 | CONC. | SEALER | RB | GB | EPT | GB | EPT | GB | EPT | GB | EPT | ACT |
| HALL | 110 | CONC. | SEALER | - | CMU | EPT | LP | - | - | - | CMU | EPT | LP |
| RESTROOM | 111 | CONC. | SEALER | RB | GB | EPT | GB | EPT | GB | EPT | GB | EPT | ACT |
| CHEMICAL STORAGE | 112 | CONC. | SEALER | - | CMU | EPT | CMU | EPT | CMU | EPT | LP | - | LP |
| MAINTENANCE GARAGE | 113 | CONC. | SEALER | - | CMU/LP | EPT/- | CMU/LP | EPT/- | CMU/LP | EPT/- | LP | - | LP |
| WASH BAY | 114 | CONC. | SEALER | - | CMU | EPT | CMU | EPT | CMU | EPT | CMU | EPT | LP |
| LANDING | 200 | WD | - | - | LP | - | - | - | - | - | LP | - | LP |
| STORAGE | 201 | WD | - | - | LP | - | LP | - | LP | - | LP | - | LP |



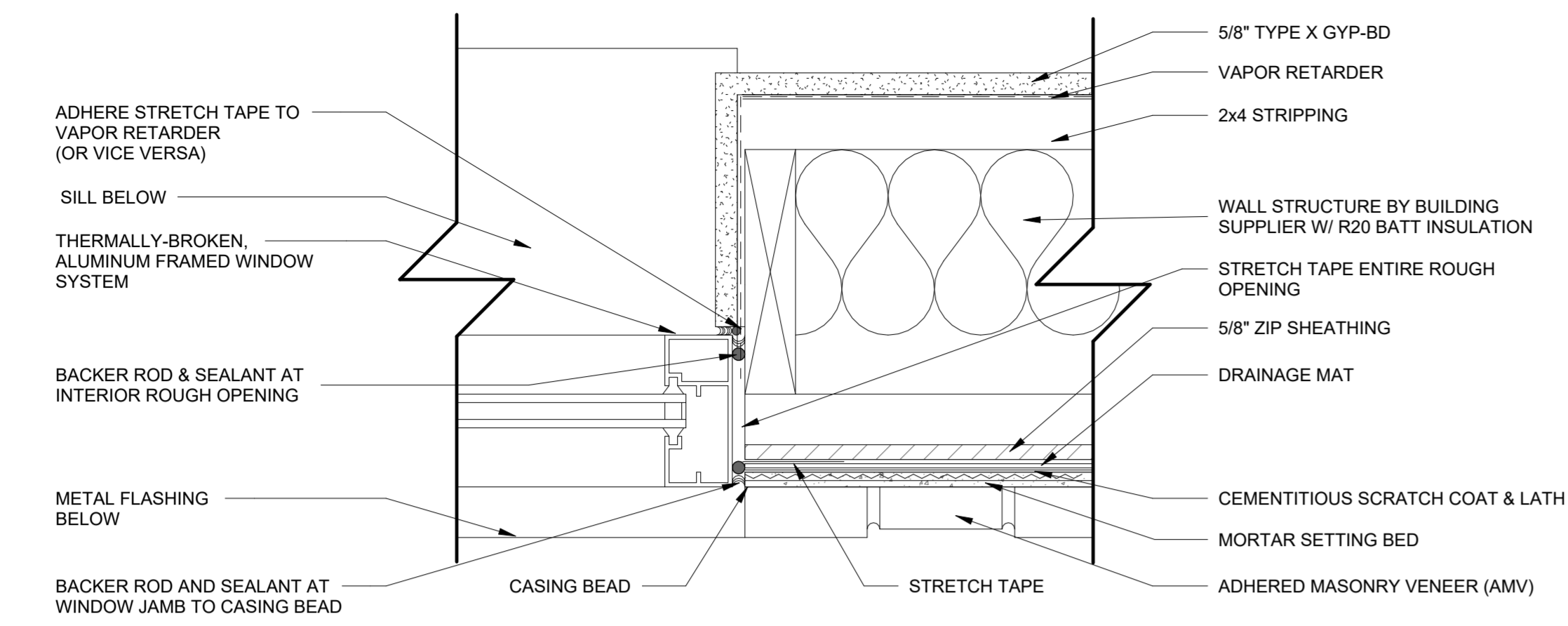
① H.M. FRAME TYPES
1/4" = 1'-0"

② ALUM FRAME TYPES
1/4" = 1'-0"

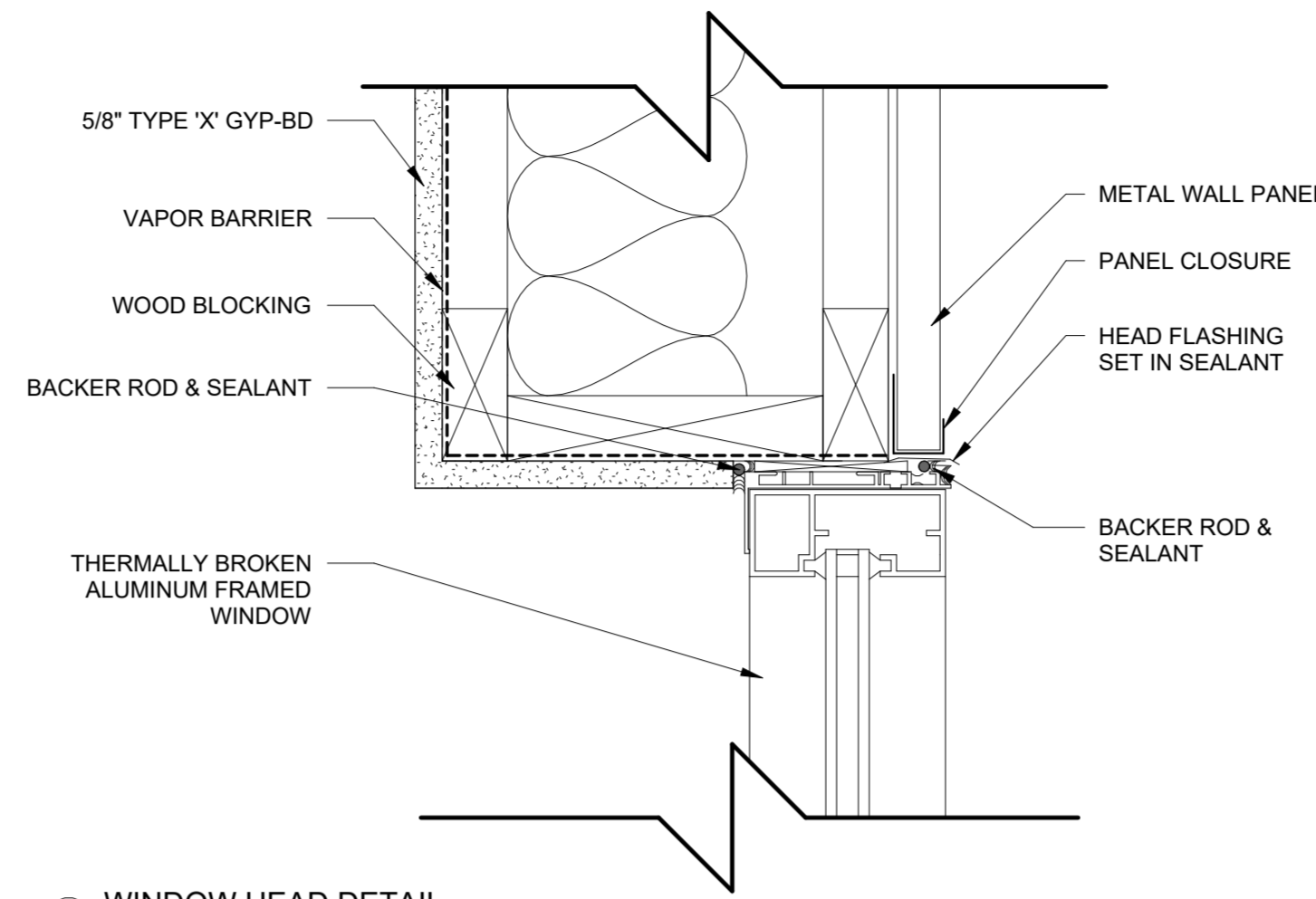
③ DOOR TYPES
1/4" = 1'-0"



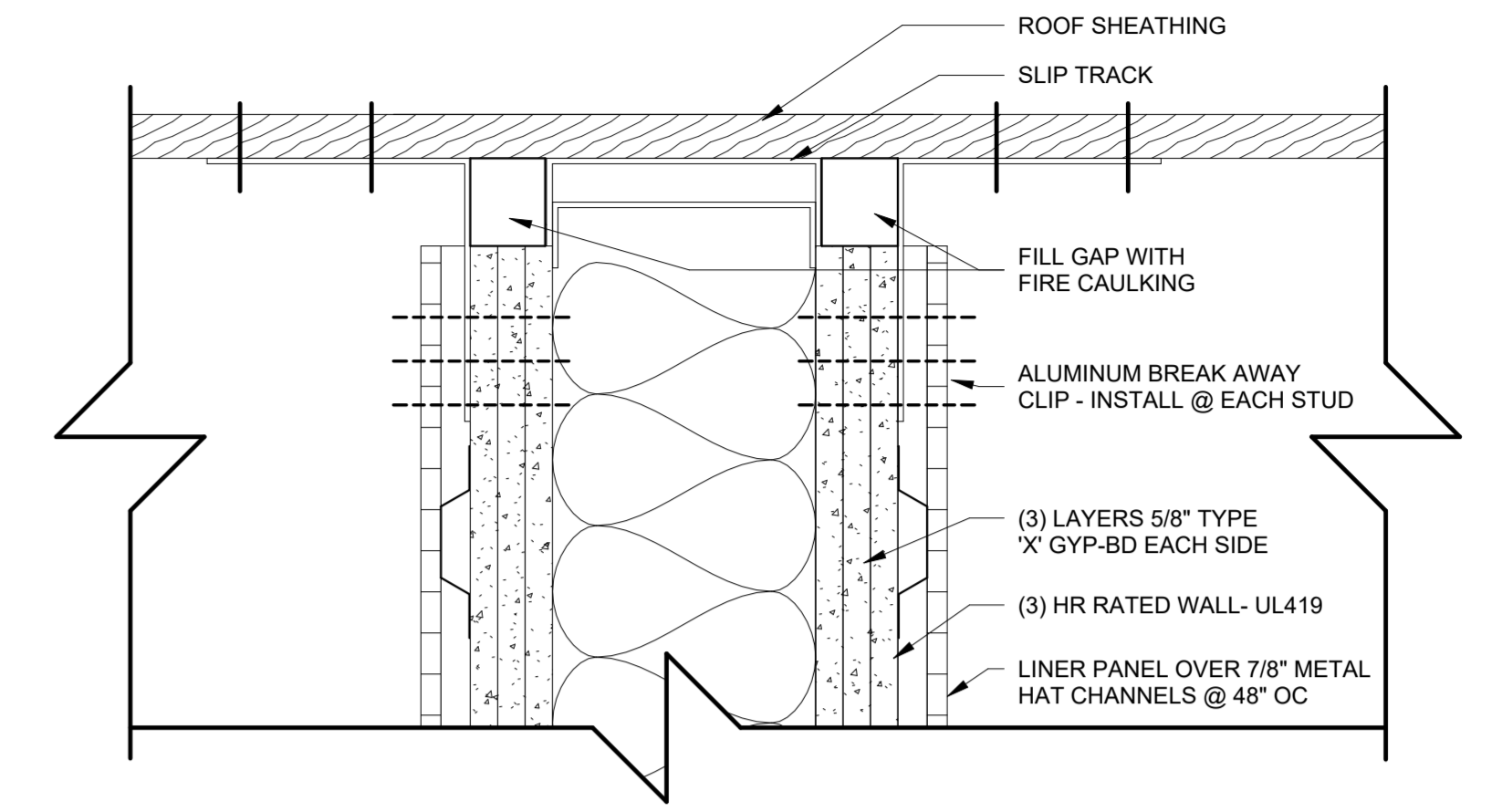
| | | | | |
|---|----------|------|----|---------|
| DESIGNED | REVIEWED | DATE | BY | REMARKS |
| DRAWN | APPROVED | | | |
| <p>Willet HOFMANN & ASSOCIATES INC. ENGINEERING ARCHITECTURE LAND SURVEYING 625 32ND AVE. SW CEDAR RAPIDS, IA 52404 T: 319-376-1401</p> | | | | |
| <p>OTTUMWA CEMETERY OFFICE & MAINT. BLDG OTTUMWA, IOWA</p> | | | | |
| <p>SCHEDULES</p> | | | | |
| <p>PHASE</p> <p><input type="checkbox"/> PRELIM</p> <p><input type="checkbox"/> PERMIT</p> <p><input type="checkbox"/> FINAL</p> <p><input checked="" type="checkbox"/> BID</p> <p><input type="checkbox"/> CONST</p> | | | | |
| <p>WHA No. 1520C22</p> | | | | |
| <p>DATE 11-05-2024</p> | | | | |
| <p>SHEET No. A7.1</p> | | | | |
| <p><small>This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc.</small></p> | | | | |



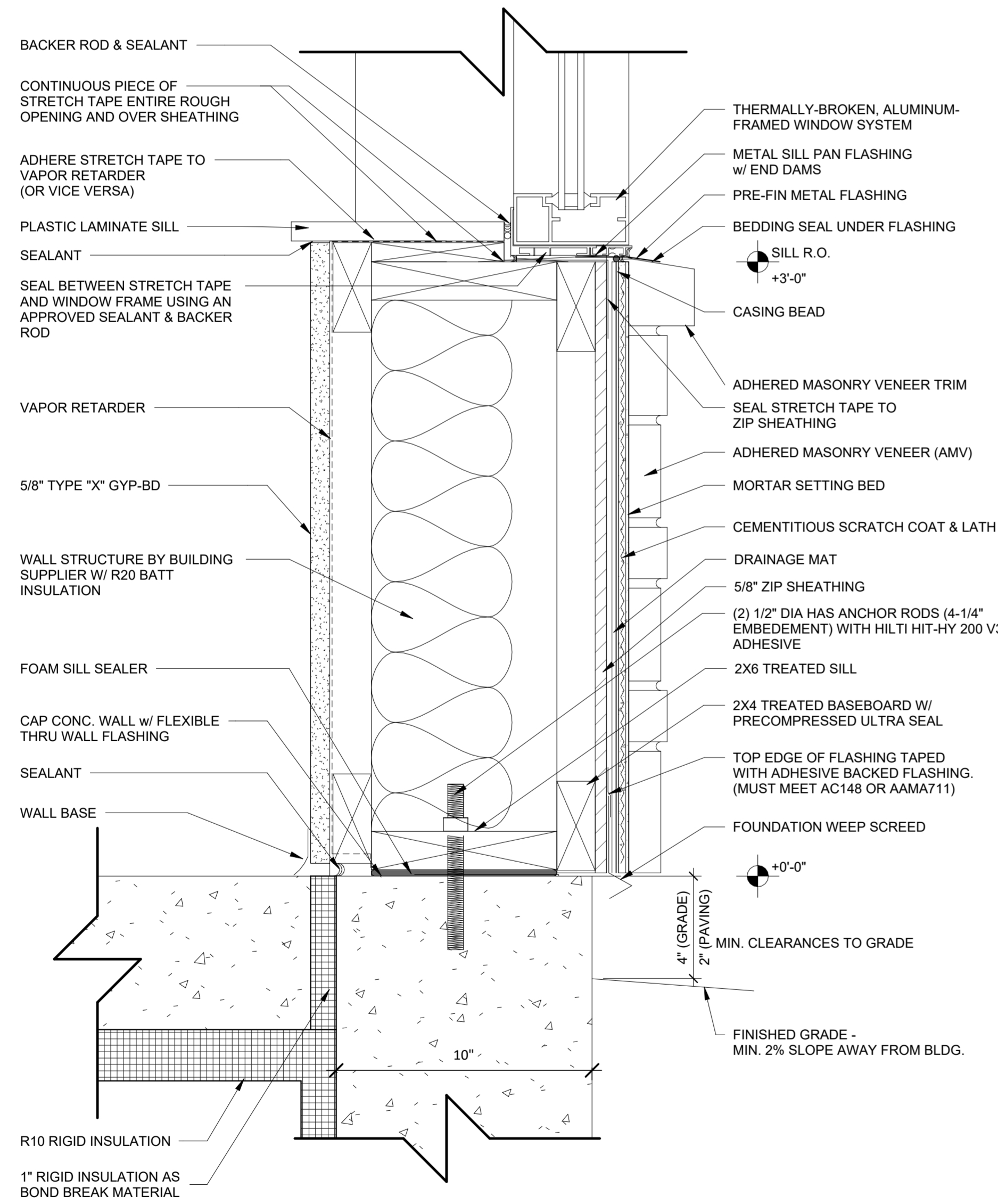
1 WINDOW/DOOR JAMB
3" = 1'-0"



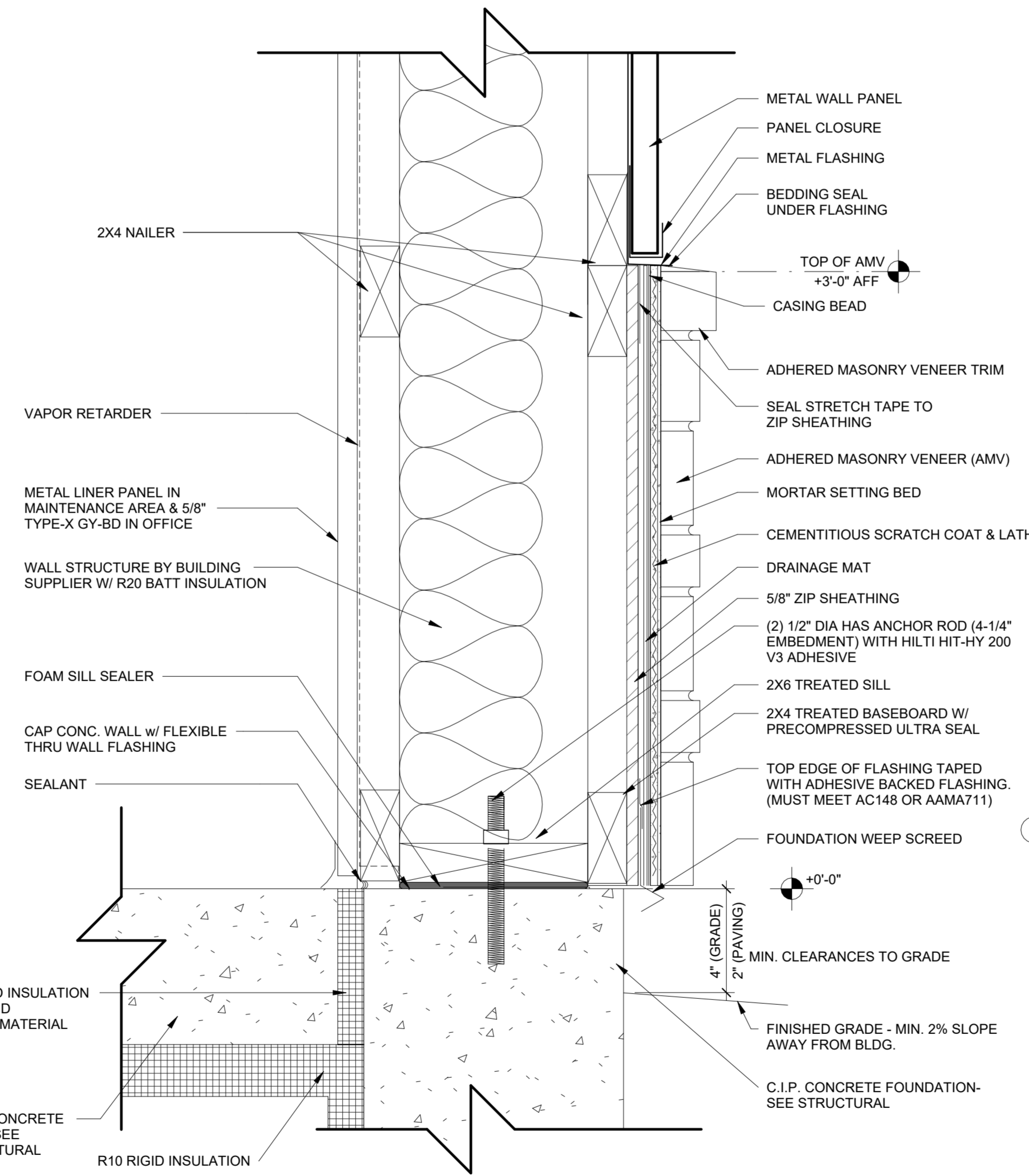
2 WINDOW HEAD DETAIL
3" = 1'-0"



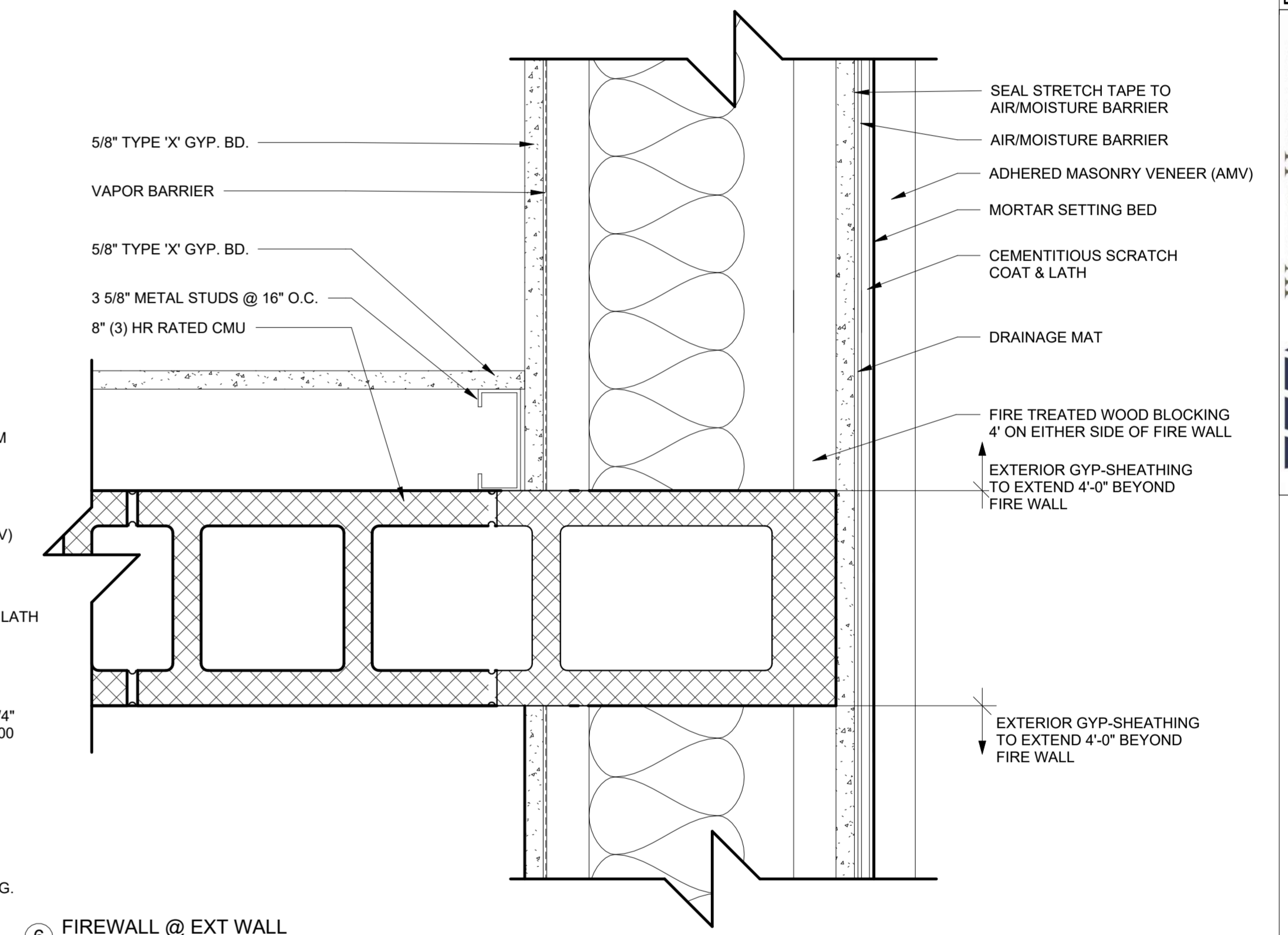
3 FIRE WALL @ ROOF
3" = 1'-0"



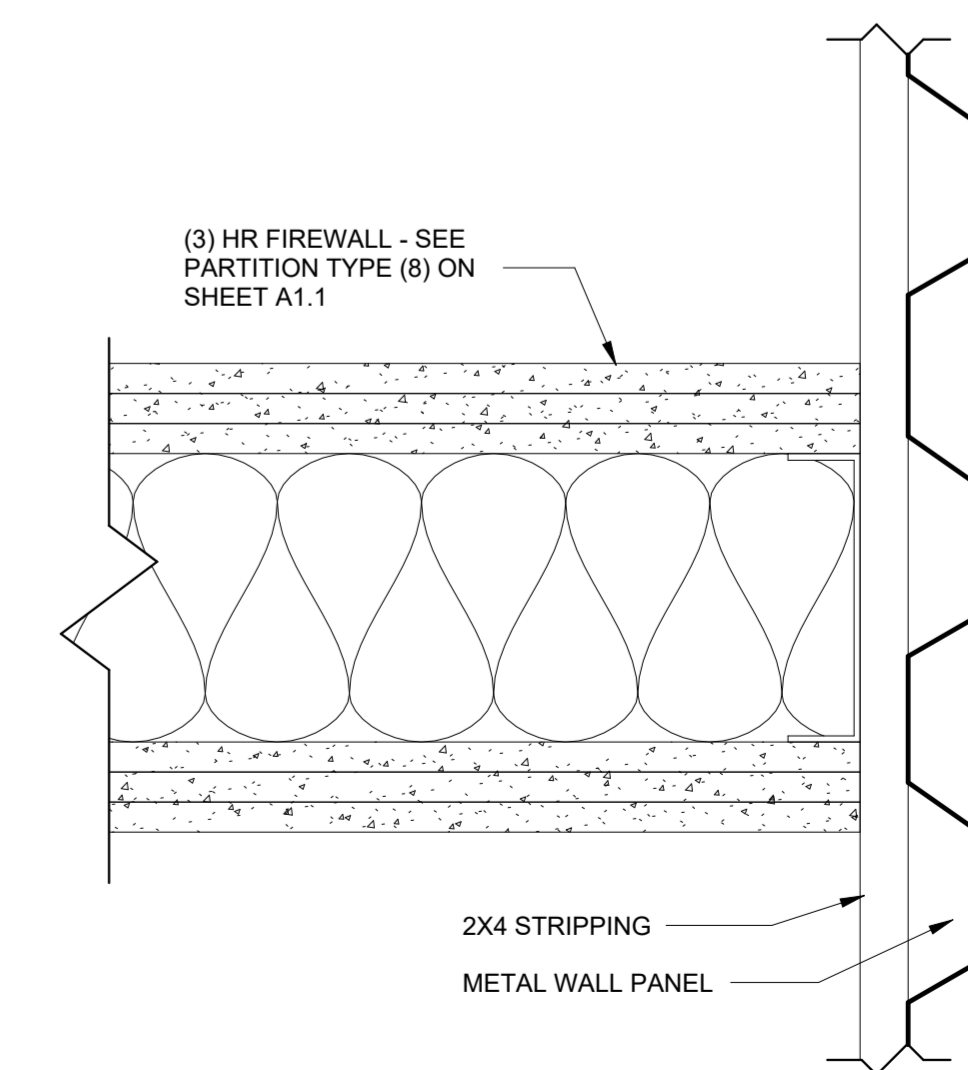
4 ADHERED MASONRY VENEER & WINDOW SILL
3" = 1'-0"



5 ADHERED MASONRY VENEER & METAL WALL PANEL
3" = 1'-0"



6 FIREWALL @ EXT WALL
3" = 1'-0"



7 FIREWALL @ METAL PANEL
3" = 1'-0"

| REV. | DATE | BY | REMARKS |
|----------|------|----|---------|
| DESIGNED | | | |
| DRAWN | | | |
| REVIEWED | | | |
| APPROVED | | | |

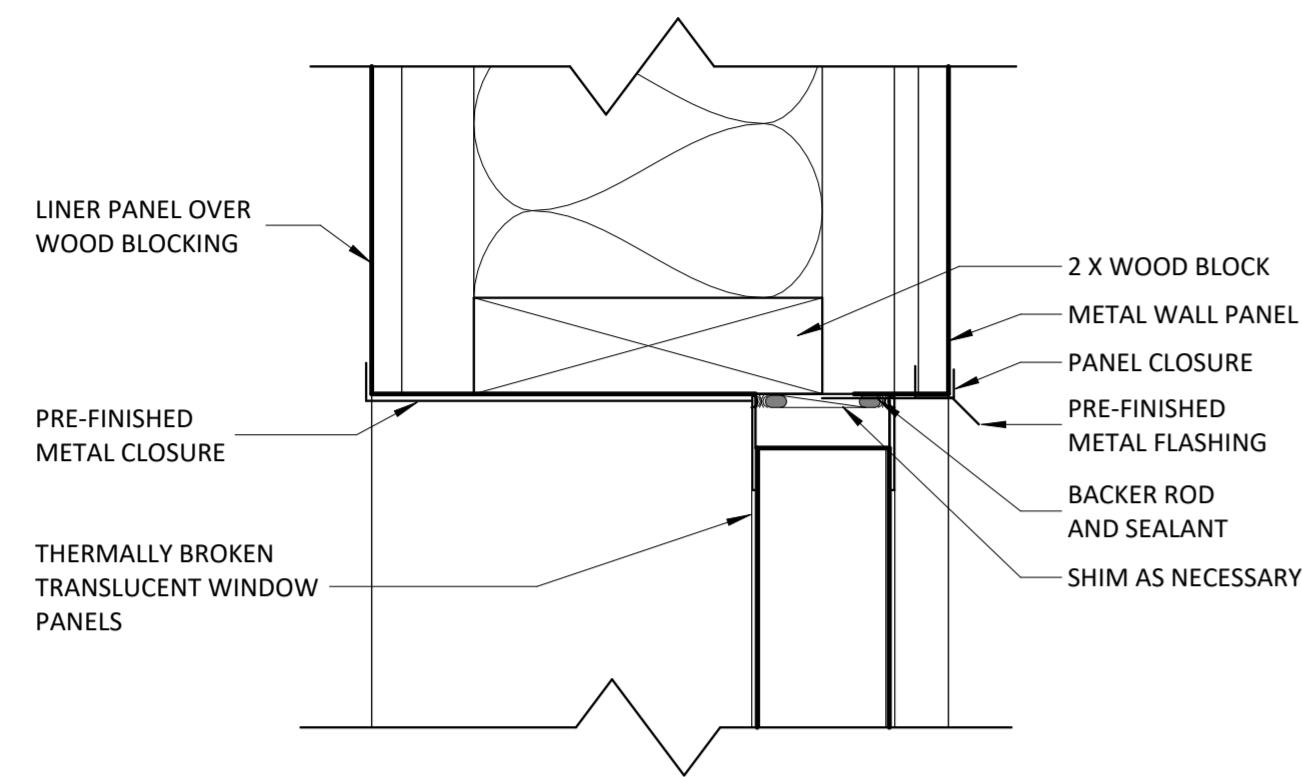
WILLETT HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
625 32ND AVE. SW, CEDAR RAPIDS, IA 52404
P: 319-376-1401



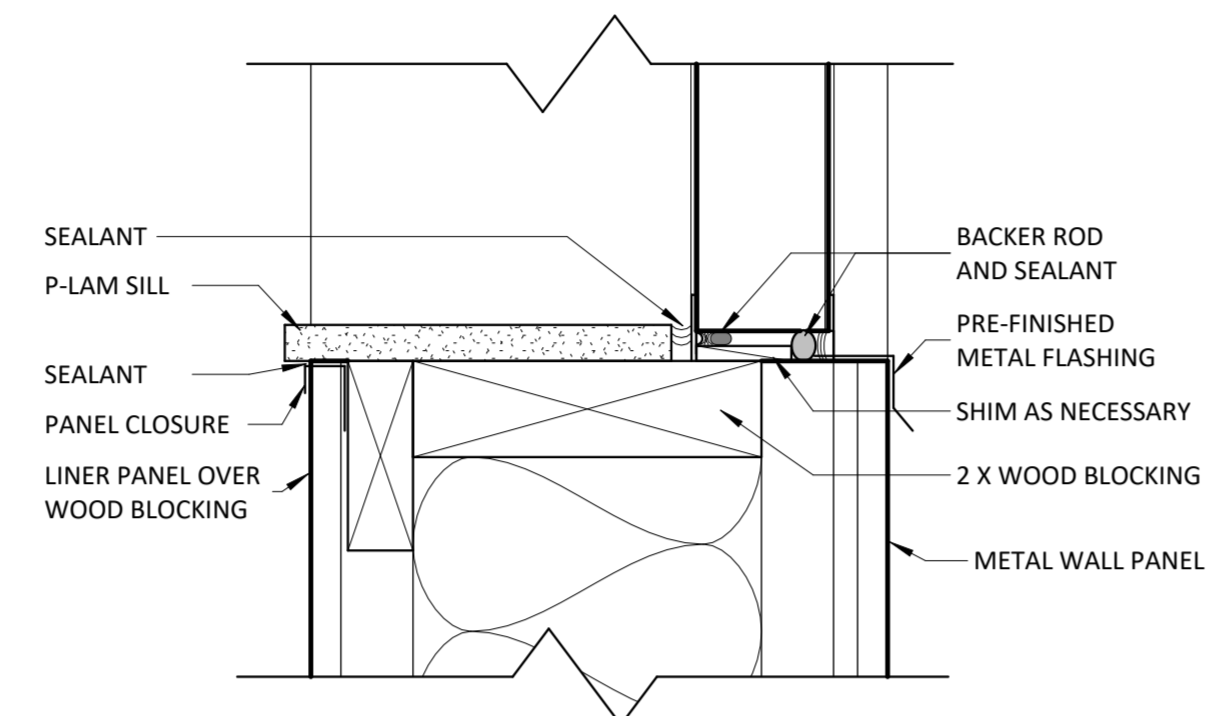
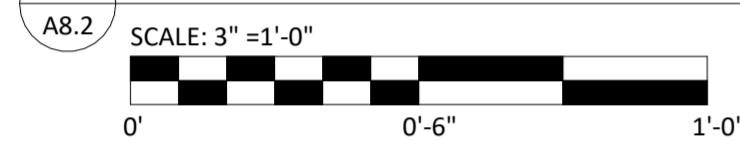
OTTUMWA CEMETERY OFFICE & MAINT. BLDG
OTTUMWA, IOWA
DETAILS

| PHASE |
|---|
| <input type="checkbox"/> PRELIM |
| <input type="checkbox"/> PERMIT |
| <input type="checkbox"/> FINAL |
| <input checked="" type="checkbox"/> BID |
| <input type="checkbox"/> CONST |

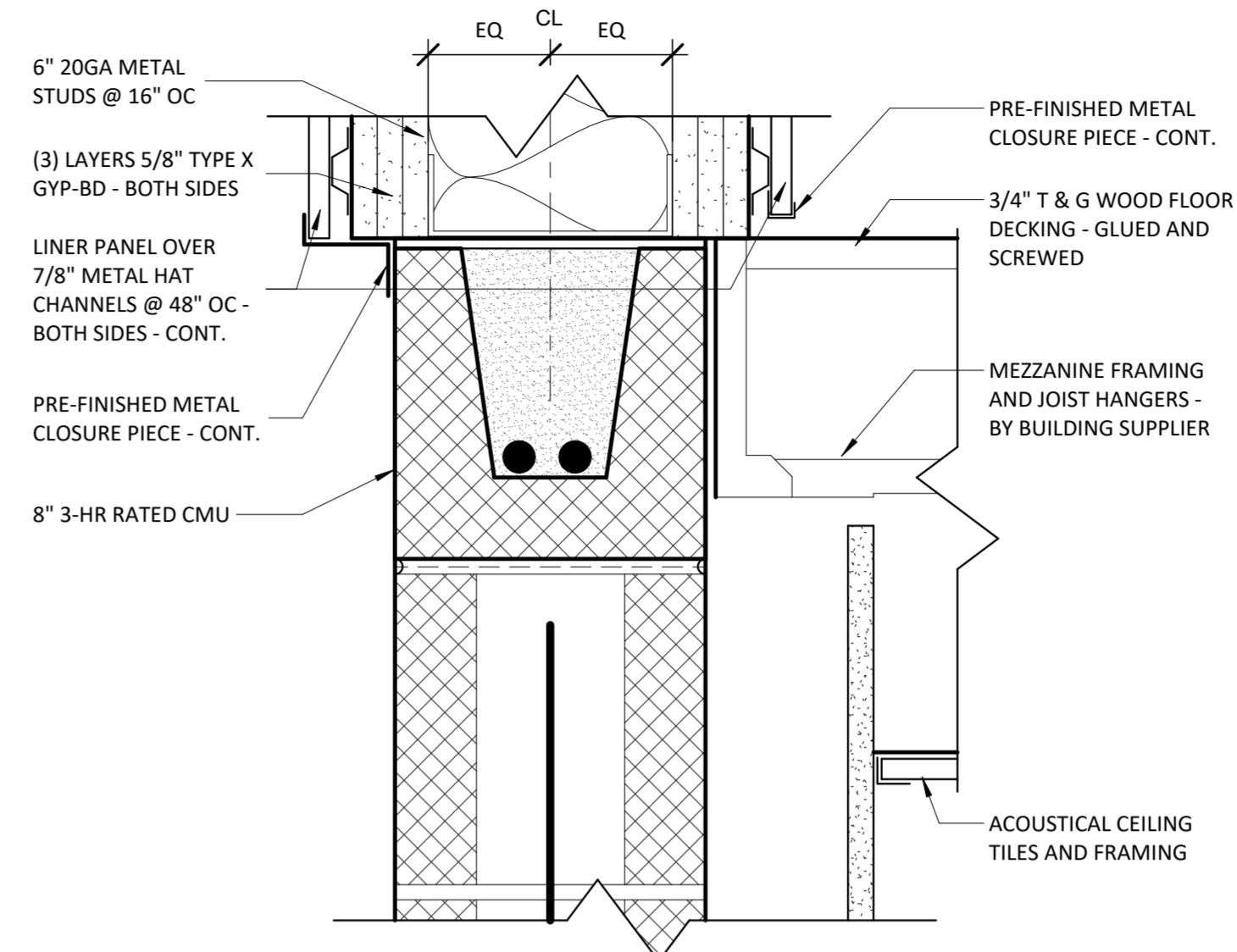
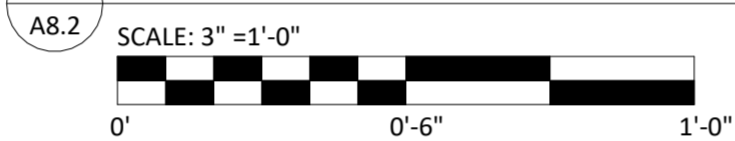
WHA No.
1520C22
DATE
11-05-2024
SHEET
No.
A8.1



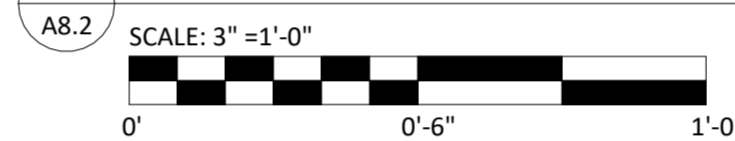
1 HEAD DETAIL @ TRANSLUCENT WINDOWS



2 SILL DETAIL @ TRANSLUCENT WINDOWS



3 FIREWALL DETAIL



| REV. | DATE | BY | REMARKS |
|------|------|----|---------|
| | | | |
| | | | |
| | | | |
| | | | |

| | |
|----------|--|
| DESIGNED | |
| DRAWN | |
| REVIEWED | |
| APPROVED | |

| |
|---|
| WILLET HOFMANN & ASSOCIATES, INC. ARCHITECTURE, ENGINEERING, AND SURVEYING 625 32ND AVE. SW, CEDAR RAPIDS, IA 52404 P: 319-378-1401 |
|---|

| |
|--|
| OTTUMWA CEMETERY OFFICE & MAINT. BLDG OTTUMWA, IOWA DETAILS |
|--|

| |
|--|
| PHASE <input type="checkbox"/> PRELIM <input type="checkbox"/> PERMIT <input type="checkbox"/> FINAL <input checked="" type="checkbox"/> BID <input type="checkbox"/> CONST |
|--|

| |
|--------------------|
| WHA No. 1520C22 |
|--------------------|

| |
|--------------------|
| DATE 11-05-2024 |
|--------------------|

| |
|--------------------------|
| SHEET No. A8.2 |
|--------------------------|

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright Willett, Hofmann & Associates, Inc. #YEAR

PROJECT OUTLINE SPECIFICATIONS

IF ITEMS IN THE PROJECT SPECIFICATIONS AND PROJECT DRAWINGS CONTRADICT EACH OTHER, NOTIFY WILLETT HOFMANN & ASSOCIATES FOR CLARIFICATION PRIOR TO SUBMITTING A BID.

DIVISION 01 - GENERAL REQUIREMENTS

CERTIFICATION AND PERMITS:

- AFFECTED TRADES TO PROVIDE COMCHECK ENERGY SPECIFICATIONS FOR THIS PROJECT IF REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION. COORDINATE SUBMITTAL WITH WILLETT HOFMANN & ASSOCIATES.

OPERATION AND MAINTENANCE DATA:

- UPON PROJECT CLOSEOUT, ALL CONTRACTORS SHALL SUBMIT TO WILLETT HOFMANN & ASSOCIATES ALL EMERGENCY, OPERATION, AND MAINTENANCE MANUALS FOR PRODUCTS AND EQUIPMENT.

PROJECT RECORD DOCUMENTS:

- UPON PROJECT CLOSEOUT, PRIMARY SUBCONTRACTORS SHALL SUBMIT TO WILLETT HOFMANN & ASSOCIATES RECORD DRAWINGS, SPECIFICATIONS, AND/OR PRODUCT DATA

DIVISION 03 - CONCRETE

CAST-IN-PLACE CONCRETE:

- PROVIDE FOOTINGS, FOUNDATIONS AND SLABS ON GRADE AS INDICATED ON THE DRAWINGS. REFER TO STRUCTURAL DRAWINGS.
- STEEL-REINFORCED CONCRETE SLAB-ON-GRADE ON 15 MIL STEGO-WRAP VAPOR BARRIER ON COMPACTED GRANULAR FILL. REFER TO STRUCTURAL DRAWINGS.
- SEE DIVISION 7 FOR FOUNDATION WALL RIGID INSULATION.
- SEE DIVISION 7 FOR WATERPROOFING.
- PROVIDE MINIMUM 5 FOOT BY 5 FOOT FROST PROTECTED STOOPS AT ALL EXTERIOR DOORS AND/OR AS INDICATED ON THE DRAWINGS. REFER TO STRUCTURAL AND CIVIL DRAWINGS. PROVIDE A CONCRETE PAD AT TRANSFORMERS, AIR CONDITIONER UNITS, AND OTHER EXTERIOR EQUIPMENT AS REQUIRED.
- PROVIDE CONCRETE SPLASH PADS AT ALL DOWNSPOUT LOCATIONS IF NOT CONNECTED TO UNDERGROUND STORM LINE.
- PROVIDE EXTERIOR DRIVE, PARKING AND SIDEWALK CONCRETE PAVING AS INDICATED ON THE DRAWINGS. REFER TO CIVIL DRAWINGS.

DIVISION 04- MASONRY

ADHERED MASONRY VENEER (AMV):

- ADHERED MASONRY VENEER INSTALLED PER ASTM C11780.
- FLASHING AND FLASHING ACCESSORIES TO BE CORROSION RESISTANT AND INTEGRATED WITH THE WEATHER BARRIER MATERIAL FLASHING TO BE INSTALLED AT ALL THROUGH WALL PENETRATIONS AND AT TERMINATIONS OF AMV INSTALLATIONS.
- WEEP SCREEDS AND CASING BEADS TO BE CORROSION RESISTANT, WITH WEEP SCREEDS HAVING A MINIMUM VERTICAL ATTACHMENT FLANGE OR 3.5 INCHES THAT TERMINATES BEHIND THE WEATHER BARRIER MATERIAL METAL WEEP SCREEDS AND CASING BEADS TO BE MINIMUM 26 GAUGE. PLASTIC WEEP SCREEDS AND CASING BEADS TO BE MINIMUM .05 INCH THICK.
- ALL LATH AND LATH ACCESSORIES TO BE CORROSION RESISTANT ALL LATH MATERIAL MUST BE SELF-FURRED OR USE SELF-FURRING FASTENERS.
 - ACCEPTABLE LATH MATERIALS INCLUDE:
 - 2.5 LB/SQ. YD. (OR HEAVIER) SELF-FURRING METAL LATH MEETING ASTM C847
 - 3/8 INCH RIB (HIGH RIB), 3.4 LB/SQ. YD. (OR HEAVIER), SELF-FURRING METAL LATH MEETING ASTM C847
 - WELDED WIRE LATH COMPLYING WITH ASTM C933
 - 18 GAUGE (OR HEAVIER) WOVEN WIRE MESH MEETING ASTM C1032
 - METAL LATH TO BE APPLIED HORIZONTALLY AND TO OVERLAP A MINIMUM OF 1 INCH AT THE HORIZONTAL AND VERTICAL SEAMS. THE ENDS OF ADJOINING LATH PLACES TO BE STAGGERED. LATH "CUPS" (KEYS) TO BE INSTALLED FACING UP. LATH TO BE WRAPPED AROUND INSIDE AND OUTSIDE CORNERS A MINIMUM OF 12 INCHES. LATH TO BE FASTENED EVERY 6 INCHES VERTICALLY ON EACH STUD OR SIMILAR SPACING ON CONCRETE OR MASONRY WALL SURFACES. DO NOT END LATH AT CORNER FRAMING.

2. SEE DRAINAGE MAT SECTION FOR DRAINAGE MAT MATERIAL.

- FASTENERS FOR FLASHING AND LATH TO BE CORROSION RESISTANT STAPLES, SCREWS OR NAILS ARE ALL ACCEPTABLE FASTENERS PROVIDED THE HEADS OR WASHERS OF THESE FASTENERS ARE LARGE ENOUGH TO NOT PULL THROUGH THE LATH AND THE FASTENER IS OF SUFFICIENT LENGTH TO PENETRATE INTO THE SUPPORTING MATERIAL REFER TO ASTM C1063.

- WOOD FRAMING: STAPLES, ROOFING NAILS OR SCREWS WITH WASHERS OF SUFFICIENT LENGTH TO PENETRATE A MINIMUM OF 3/4 INCH INTO FRAMING MEMBERS.

- METAL FRAMING OR PANELS: SELF-TAPPING SCREWS WITH SUFFICIENT LENGTH TO PENETRATE 3/8 INCH THROUGH METAL STUDS OR PANELS.

- MASONRY OR CONCRETE WALLS/PANELS: CONCRETE SCREWS OR POWDER ACTUATED FASTENERS (OR CAP FASTENER).

6. SCRATCH COAT MORTARS

- SITE MIXED: MEETING REQUIREMENTS OF ASTM C270 TYPE NOR TYPE S.
- PREBLEND: MEETING REQUIREMENTS OF ASTM C1714/C1714M TYPE NOR TYPE S.

7. SETTING BED MORTARS

- SITE MIXED: MEETING REQUIREMENTS OF ASTM C270 TYPE NOR TYPE S. 8.2. PREPACKAGED/PREBLEND: MEETING REQUIREMENTS OF ASTM C1714/C1714M TYPE NOR TYPE S, ANSI A 118.1, ANSI A118.4, OR ANSI A118.15. POINTING

8. MORTARS (GROUTING MORTARS)

- SITE MIXED: MEETING REQUIREMENTS OF ASTM C270 TYPE NOR TYPE S.
- PTYPEMPE SIX, ED: MEETING REQUIREMENTS OF ASTM C1734 / C1714M TYPE NOR

DIVISION 05 - METALS

PIPE AND TUBE RAILINGS:

- TYPICAL RAILINGS TO BE:
 - 1-1/4" OUTSIDE DIAMETER STEEL PIPE TOP AND BOTTOM RAILS.
 - 1-1/4" OUTSIDE DIAMETER STEEL PIPE POSTS AND INTERMEDIATES.
 - 1-1/4" OUTSIDE DIAMETER STEEL PIPE HAND RAILS.
 - 1/2" STEEL ROD PICKETS.
- ALL WELDS SHALL BE GROUND SMOOTH AND ASSEMBLY SHALL BE PAINT-READY.
- MAXIMUM HANDRAIL DIAMETER IS 1-1/2".
- SEE DIVISION 9 FOR PAINT FINISH.

DIVISION 06 - WOOD, PLASTICS AND COMPOSITES

ROUGH CARPENTRY:

- PROTECT STORED ON-SITE AND INSTALLED ABSORPTIVE MATERIALS FROM MOISTURE DAMAGE.
- ROUGH CARPENTRY MATERIALS TO INCLUDE "SPF" OR EQUAL FRAMING, BLOCKING AND FURRING. SIZE AND LOCATION PER PLANS.
- PROVIDE BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS AS NEEDED.

SHEATHING:

- PROTECT STORED ON-SITE AND INSTALLED ABSORPTIVE MATERIALS FROM MOISTURE DAMAGE.
- EXTERIOR FIRE-RETARDANT-TREATED WOOD WALL SHEATHING TO BE 5/8" FIRE-RETARDANT-TREATED PLYWOOD SHEATHING (EXTERIOR RATED), OR AS INDICATED ON THE STRUCTURAL DRAWINGS.
- WOOD ROOF SHEATHING TO BE 3/4" OSB SHEATHING (EXTERIOR RATED), OR AS INDICATED ON THE STRUCTURAL DRAWINGS.
- ZIP SYSTEM SHEATHING TO BE ZIP SYSTEM WALL SHEATHING AS MANUFACTURED BY HUBER ENGINEERED WOODS LLC, CHARLOTE, NC, WEBSITE: www.huberwood.com
 - WEATHER BARRIER FACER: MEDIUM-DENSITY, PHENOLIC-IMPREGNATED SHEET MATERIAL QUALIFYING AS A GRADE D WEATHER-RESISTIVE BARRIER IN ACCORDANCE WITH ICC-ES AC308.
 - FASTENERS TO BE CORROSION RESISTANT AND OF SIZE AND TYPE COMPLYING WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR PROJECT CONDITIONS AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

4.5. SHEATHING JOINT AND PENETRATION TREATMENT MATERIAL TO BE HUBER ENGINEERED WOODS ZIP SYSTEM TAPE.

- SELF-ADHERING FLEXIBLE FLASHING TAPE TO BE HUBER ENGINEERED WOODS ZIP SYSTEM STRETCH TAPE.

- INSTALL SHEATHING PANELS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, REQUIREMENTS OF APPLICABLE EVALUATION REPORTS, AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- COORDINATE SHEATHING INSTALLATION WITH FLASHING AND JOINT SEALANT INSTALLATION AND WITH ADJACENT BUILDING AIR AND MOISTURE BARRIER COMPONENTS TO PROVIDE COMPLETE, CONTINUOUS AIR AND MOISTURE BARRIER

- DO NOT BRIDGE EXPANSION JOINTS; ALLOW JOINT SPACING EQUAL TO SPACING OF STRUCTURAL SUPPORTS.

- INSTALL PANELS WITH LAMINATED FACER TO EXTERIOR. STAGGER END JOINTS OF ADJACENT PANEL RUNS. SECURELY LATH PANEL EDGES.

- ATTACH SHEATHING PANELS SUPPORT TO SUBSTRATE WITH MANUFACTURER-APPROVED FASTENERS IN COMPLIANCE WITH ICC-ES ESR-1539 OR ICC-NEI NER-272 FOR POWER-DRIVEN FASTENERS AND IBC TABLE 2304.9.1 FASTENING SCHEDULE.

- APPLY SEAM TAPE AT ALL PANEL SEAMS, PENETRATIONS, AND FACER DEFECTS OR CRACKS TO FORM CONTINUOUS WEATHERTIGHT SURFACE. APPLY TAPE ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND REQUIREMENTS OF ICC-ES APPLICABLE TO TAPE APPLICATION.

- APPLY ZIP SYSTEM STRETCH TAPE AROUND WINDOW FRAMES, DOOR FRAMES, RADIUS PENETRATIONS AND WALL PENETRATIONS TO FORM A CONTINUOUS WEATHERTIGHT SURFACE. APPLY TAPE ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND REQUIREMENTS OF IAPMO ER365 APPLICABLE TO TAPE APPLICATION.

4.6. DOOR FASTENERS TO BE CORROSION RESISTANT STAPLES, SCREWS OR NAILS ARE ALL ACCEPTABLE FASTENERS PROVIDED THE HEADS OR WASHERS OF THESE FASTENERS ARE LARGE ENOUGH TO NOT PULL THROUGH THE LATH AND THE FASTENER IS OF SUFFICIENT LENGTH TO PENETRATE INTO THE SUPPORTING MATERIAL REFER TO ASTM C1063.

- WOOD FRAMING: STAPLES, ROOFING NAILS OR SCREWS WITH WASHERS OF SUFFICIENT LENGTH TO PENETRATE A MINIMUM OF 3/4 INCH INTO FRAMING MEMBERS.

- METAL FRAMING OR PANELS: SELF-TAPPING SCREWS WITH SUFFICIENT LENGTH TO PENETRATE 3/8 INCH THROUGH METAL STUDS OR PANELS.

- MASONRY OR CONCRETE WALLS/PANELS: CONCRETE SCREWS OR POWDER ACTUATED FASTENERS (OR CAP FASTENER).

6. SCRATCH COAT MORTARS

- SITE MIXED: MEETING REQUIREMENTS OF ASTM C270 TYPE NOR TYPE S.
- PREBLEND: MEETING REQUIREMENTS OF ASTM C1714/C1714M TYPE NOR TYPE S.

- WOOD FRAMING: STAPLES, ROOFING NAILS OR SCREWS WITH WASHERS OF SUFFICIENT LENGTH TO PENETRATE A MINIMUM OF 3/4 INCH INTO FRAMING MEMBERS.

- METAL FRAMING OR PANELS: SELF-TAPPING SCREWS WITH SUFFICIENT LENGTH TO PENETRATE 3/8 INCH THROUGH METAL STUDS OR PANELS.

- MASONRY OR CONCRETE WALLS/PANELS: CONCRETE SCREWS OR POWDER ACTUATED FASTENERS (OR CAP FASTENER).

6. SCRATCH COAT MORTARS

- SITE MIXED: MEETING REQUIREMENTS OF ASTM C270 TYPE NOR TYPE S.
- PREBLEND: MEETING REQUIREMENTS OF ASTM C1714/C1714M TYPE NOR TYPE S.

- WOOD FRAMING: STAPLES, ROOFING NAILS OR SCREWS WITH WASHERS OF SUFFICIENT LENGTH TO PENETRATE A MINIMUM OF 3/4 INCH INTO FRAMING MEMBERS.

- METAL FRAMING OR PANELS: SELF-TAPPING SCREWS WITH SUFFICIENT LENGTH TO PENETRATE 3/8 INCH THROUGH METAL STUDS OR PANELS.

- MASONRY OR CONCRETE WALLS/PANELS: CONCRETE SCREWS OR POWDER ACTUATED FASTENERS (OR CAP FASTENER).

6. SCRATCH COAT MORTARS

- SITE MIXED: MEETING REQUIREMENTS OF ASTM C270 TYPE NOR TYPE S.
- PREBLEND: MEETING REQUIREMENTS OF ASTM C1714/C1714M TYPE NOR TYPE S.

8. MORTARS (GROUTING MORTARS)

- SITE MIXED: MEETING REQUIREMENTS OF ASTM C270 TYPE NOR TYPE S.
- PTYPEMPE SIX, ED: MEETING REQUIREMENTS OF ASTM C1734 / C1714M TYPE NOR

- UNDERMOUNT TRASH GROMMET WITH MINIMUM 2 INCH DEPTH. 4.5.
- FAUCETS PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR, FULL-OVERLAY

- DOORS/DRAWERS, FRAMELESS BOXES.
- DOOR/DRAWER PULLS AS INDICATED ON DRAWINGS.

- CABINETS AS SHOWN ON DRAWINGS.
- CABINET DOOR HINGES TO BE BLUM, INSERT A SOFT-CLOSE HINGE.

- ALL DRAWERS TO HAVE BLUM BLUMOTION SELF-CLOSING DRAWER SLIDE SYSTEM WITH WHITE MELAMINE BOTTOM AND BACK. REFER TO DRAWINGS.

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

WATERPROOFING:

- FLEXIBLE THRU-WALL FLASHING TO BE W.R. GRACE PERM-A-BARRIER WALL FLASHING OR EQUAL WITH STAINLESS STEEL DRIP EDGE. PROVIDE END DAMS AT THE TOP AND BOTTOM OF ALL OPENINGS.

THERMAL INSULATION:

- PROTECT STORED ON-SITE AND INSTALLED ABSORPTIVE MATERIALS FROM MOISTURE DAMAGE. WALL INSULATION TO BE FRICTION FIT FIBERGLASS BATT INSULATION TO FILL STUD CAVITY. R-20 MINIMUM. GREENGUARD CERTIFIED. PROVIDED BY PRE-ENGINEERED BUILDING SUPPLIER - SEE DIV 13.
- VAPOR RETARDER TO BE CERTAINTED MEMBRAN SMART VAPOR RETARDER OR EQUAL. PROVIDED BY PRE-ENGINEERED BUILDING SUPPLIER - SEE DIV 13.
- RIGID FOUNDATION INSULATION TO BE HIGH-DENSITY EXTRUDED POLYSTYRENE (XPS) BOARD INSULATION. OWENS CORNING FOAMULAR 250 OR DOW STYROFOAM.

DRAINAGE MAT:

- FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS TO ACHIEVE A MINIMUM 1/8" CONTINUOUS DRAINAGE GAP TO FLASHING AND WEEPS.
- ACCEPTABLE DRAINAGE MAT MATERIALS INCLUDE:
 - DRIWALL RAINSCREEN 013-1 BY KEENE
 - STUCCO-FLEX WATERWAY 3 MM RAINSCREEN DRAINAGE MAT
 - SURE CAVITY OR GRAVITY CAVITY BY MASONRY TECHNOLOGY INCORPORATED (MTI).
 - SUCKER RAINSCREEN BY BENJAMIN OBDYKE.
 - MORTAIRVENT RAINSCREEN BY ADVANCED BUILDING PRODUCTS, INC.
- CONTRACTOR OPTION: IT IS ALSO ACCEPTABLE TO USE LATHNET BY MORTAR NET SOLUTIONS WHICH FUNCTIONS AS BOTH THE DRAINAGE MAT AND METAL LATH.

ROOF SPECIALTIES:

- PROVIDE FLASHING AND SHEET METAL ACCESSORIES PER ROOFING MATERIAL MANUFACTURER STANDARDS TO PROVIDE A COMPLETE, WEATHER-TIGHT ROOF SYSTEM. PROVIDED BY PRE-ENGINEERED BUILDING SUPPLIER - SEE DIV 13. WALL TRIMS AND FASCIA COVERS TO BE PRE-FINISHED, 24-GAUGE GALVANIZED STEEL. PROVIDED BY PRE-ENGINEERED BUILDING SUPPLIER -
- SEE DIV 13. SOFFIT PANELS AND BRACE METAL TRIM - SEE DRAWINGS FOR SELECTIONS. PROVIDED BY PRE-ENGINEERED BUILDING SUPPLIER - SEE DIV 13.

DIVISION 08 - OPENINGS

HOLLOW METAL FRAMES:

- HOLLOW METAL FRAMES TO BE WELDED CONSTRUCTION.
 - 16 GA. COLD-ROLLED STEEL AT INTERIOR
 - 14 GA. GALVANEALD STEEL AT EXTERIOR
 - 2" FACE AT HEAD AND JAMB UNLESS NOTED OTHERWISE
- SILENCERS ARE TO BE FURNISHED AND INSTALLED BY THE HOLLOW METAL FRAME SUPPLIER.
- REFER TO DRAWINGS FOR FIRE-RATED DOOR LOCATIONS.

HOLLOW METAL DOORS:

- INTERIOR DOORS TO BE 18 GA. COLD-ROLLED STEEL WITH POLYSTYRENE CORES. FLUSH STYLE WITH SEAM ON EDGE.
- EXTERIOR DOORS TO BE 18 GA. GALVANEALD STEEL WITH POLYSTYRENE CORE. FLUSH STYLE WITH SEAM ON EDGE.
- REFER TO DRAWINGS FOR FIRE-RATED DOOR LOCATIONS. FIRE-RATED DOORS ARE TO MEET UL 10C, POSITIVE PRESSURE FIRE TESTING AND ARE TO BE CATEGORY "A" DOORS WITH CONCEALED INTUMESCEENCE FURNISHED BY THE DOOR MANUFACTURER.

FLUSH WOOD DOORS:

- 1-3/4" SOLID CORE, PREMIUM GRADE, FLUSH STYLE, FIELD-FINISHED HARDWOOD VENEER DOORS, WOOD VENEER TO BE SELECTED BY ARCHITECT FROM MANUFACTURERS STANDARD COLORS.
- HARDWOOD VENEER TO BE A-GRADE, PLAIN-SLICED, BOOK & RUNNING MATCH, MATCHING STILES. PAIR MATCH DOUBLE DOORS.
- ENGINEERED CORE AT "LITE" DOORS.
- WINDOW KITS TO BE WOOD FLUSH.
- STANDARD UNDERCUTS: 5/8" AT BOTTOM, 1/8" AT LOCK, HINGE AND TOP.
- CYLINDRICAL LOCK PREP FOR 2-1/8". FULL LIP STRIKE PREP.
- 2-3/4" BACKSET WITH SCREW-APPLIED LATCHBOLT SET.
- 2-3/8" BACKSET AT FULL-LITE DOORS.
- REFER TO DRAWINGS FOR FIRE-RATED DOOR LOCATIONS. FIRE-RATED DOORS TO MEET UL10C, POSITIVE PRESSURE FIRE TESTING AND ARE TO BE CATEGORY "A" DOORS WITH CONCEALED INTUMESCEENCE FURNISHED BY THE DOOR MANUFACTURER.

DOOR HARDWARE:

- MOUNTING HEIGHTS OF HARDWARE TO BE PER DHI RECOMMENDED LOCATIONS AND ACCESSIBILITY REQUIREMENTS.
- INSTALL HARDWARE ON FIRE-RATED DOORS AND FRAMES IN ACCORDANCE WITH APPLICABLE CODES AND NFPA 80.
- REFER TO DRAWINGS FOR DOOR HARDWARE FINISH (US-26D OR US-32D UNLESS NOTED OTHERWISE).
 - GRADE 1 HEAVY DUTY FOR INTERIOR DOORS
 - GRADE 2 MEDIUM-DUTY FOR INTERIOR DOORS CYLINDRICAL LOCK
 - PREP FOR 2-1/8"
 - 2-3/4" BACKSET WITH SCREW-APPLIED LATCHBOLT T SET 2-3/8"
 - BACKSET AT FULL-LITE DOORS
 - 1 1/2" ANSI STANDARD, CURVED FULL LIP STRIKE

- BUTT HINGES
 - HINGES: ANS/BHMA A156.1 BUTT HINGES WITH NUMBER OF HINGE KNUCKLES AND OTHER OPTIONS AS SPECIFIED IN THE DOOR HARDWARE SETS.
- CONTINUOUS HINGES
 - CONTINUOUS GEARED HINGES: ANS/BHMA A156.26 GRADE 1-600 CONTINUOUS GEARED HINGE, WITH MINIMUM 0.120 INCH THICK EXTRUDED 6063-T6 ALUMINUM ALLOY HINGE LEAVES AND A MINIMUM OVERALL WIDTH OF 4 INCHES. HINGES ARE NON-HANDED, REVERSIBLE AND FABRICATED TO TEMPLATE SCREW LOCATIONS. FACTORY TRIM HINGES TO SUIT DOOR HEIGHT AND PREPARE FOR ELECTRICAL CUT-OUTS.

- DOOR OPERATING TRIM
 - FLUSH BOLTS AND SURFACE BOLTS: PROVIDE PRODUCTS CONFORMING TO ANS/BHMA A156.3 AND A156.16, GRADE 1.
 - COORDINATORS: ANS/BHMA A156.3 DOOR COORDINATORS CONSISTING OF ACTIVE-LEAF, HOLD-OPEN LEVER AND INACTIVE-LEAF RELEASE TRIGGER. MODEL AS INDICATED IN HARDWARE SETS.
 - DOOR PUSH PLATES AND PULLS: ANS/BHMA A156.6 DOOR PUSHES AND PULL UNITS OF TYPE AND DESIGN SPECIFIED IN THE HARDWARE SETS. COORDINATE AND PROVIDE PROPER WIDTH AND HEIGHT AS REQUIRED WHERE CONFLICTING HARDWARE DICTATES.

- CYLINDERS AND KEYING
 - GENERAL: CYLINDER MANUFACTURER TO HAVE MINIMUM (10) YEARS EXPERIENCE DESIGNING SECURED MASTER KEY SYSTEMS AND HAVE ON RECORD A PUBLISHED SECURITY KEYING SYSTEM POLICY.
 - KEYING SYSTEM: EACH TYPE OF LOCK AND CYLINDERS TO BE FACTORY KEYED.
 - KEYING QUANTITY: PROVIDE THE FOLLOWING MINIMUM NUMBER OF KEYS: CHANGE KEYS PER CYLINDER: TWO (2) MASTER KEYS (PER MASTER KEY LEVEL/GROUP); FIVE (5) CONSTRUCTION KEYS (WHERE REQUIRED); TEN (10)

- MORTISE LOCKS AND LATCHING DEVICES
 - MORTISE LOCKSETS, GRADE 1 (HEAVY DUTY): PROVIDE ANS/BHMA A156.13, SERIES 1000, OPERATIONAL GRADE 1 CERTIFIED PRODUCTS DIRECTORY (CPD) LISTED MORTISE LOCKSETS. LISTED MANUFACTURERS SHALL MEET ALL FUNCTIONS AND FEATURES AS SPECIFIED HEREIN.

- CYLINDRICAL LOCKS AND LATCHING DEVICES
 - CYLINDRICAL LOCKSETS, GRADE 1 (HEAVY DUTY): ANS/BHMA A156.2, SERIES 4000, OPERATIONAL GRADE 1 CERTIFIED PRODUCTS DIRECTORY (CPD) LISTED CYLINDRICAL LOCKSETS. LISTED MANUFACTURERS SHALL MEET ALL FUNCTIONS AND FEATURES AS SPECIFIED HEREIN.

- LOCK AND LATCH STRIKES
 - STRIKES: PROVIDE MANUFACTURER'S STANDARD STRIKE WITH STRIKE BOX FOR EACH LATCH OR LOCK BOLT, WITH CURVED LIP EXTENDED TO PROTECT FRAME, FINISHED TO MATCH DOOR HARDWARE SET, UNLESS OTHERWISE INDICATED.

- CONVENTIONAL EXIT DEVICES
 - CONVENTIONAL PUSH RAIL EXIT DEVICES (HEAVY DUTY): ANS/BHMA A156.3, GRADE 1 CERTIFIED PRODUCTS DIRECTORY (CPD) LISTED EXIT DEVICES. LISTED MANUFACTURERS SHALL MEET ALL FUNCTIONS AND FEATURES AS SPECIFIED HEREIN.

- SURFACE DOOR CLOSERS
 - DOOR CLOSERS, SURFACE MOUNTED (LARGE BODY CAST IRON): ANS/BHMA A156.4, GRADE 1 CERTIFIED PRODUCTS DIRECTORY (CPD) LISTED SURFACE MOUNTED, HEAVY DUTY DOOR CLOSERS WITH COMPLETE SPRING POWER ADJUSTMENT, SIZES 1 THRU 6, AND FULLY OPERATIONAL ADJUSTABLE ACCORDING TO DOOR SIZE, FREQUENCY OF USE, AND OPENING FORCE. CLOSERS TO BE RACK AND PINION TYPE, ONE PIECE CAST IRON BODY CONSTRUCTION, WITH ADJUSTABLE BACKCHECK AND SEPARATE NON-CRITICAL VALVES FOR CLOSING SWEEP AND LATCH SPEED CONTROL.

- DOOR STOPS AND BUMPERS
 - DOOR STOPS AND BUMPERS: ANS/BHMA A156.16, GRADE 1 DOOR STOPS AND WALL BUMPERS. PROVIDE WALL BUMPERS, EITHER CONVEX OR CONCAVE TYPES WITH ANCHORAGE AS INDICATED, UNLESS FLOOR OR OTHER TYPES OF DOOR STOPS ARE SPECIFIED IN HARDWARE SETS. DO NOT MOUNT FLOOR STOPS WHERE THEY WILL IMPED E TRAFFIC. WHERE FLOOR OR WALL BUMPERS ARE NOT APPROPRIATE, PROVIDE OVERHEAD TYPE STOPS AND HOLDERS.

- DOOR HARDWARE SETS
 - THE HARDWARE SETS REPRESENT THE DESIGN INTENT AND DIRECTION OF THE OWNER AND ARCHITECT. THEY ARE A GUIDELINE ONLY AND SHOULD NOT BE CONSIDERED A DETAILED HARDWARE SCHEDULE. DISCREPANCIES, CONFLICTING HARDWARE AND MISSING ITEMS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT WITH CORRECTIONS MADE PRIOR TO THE BIDDING PROCESS. OMITTED ITEMS NOT INCLUDED IN A HARDWARE SET SHOULD BE SCHEDULED WITH THE APPROPRIATE ADDITIONAL HARDWARE REQUIRED FOR PROPER APPLICATION AND FUNCTIONALITY.

- QUANTITIES LISTED ARE FOR EACH PAIR OF DOORS, OR FOR EACH SINGLE DOOR.
- THE SUPPLIER IS RESPONSIBLE FOR HANDING AND SIZING ALL PRODUCTS.
- WHERE MULTIPLE OPTIONS FOR A PIECE OF HARDWARE ARE GIVEN IN A SINGLE LINE ITEM, THE SUPPLIER SHALL PROVIDE THE APPROPRIATE APPLICATION FOR THE OPENING.
- AT EXISTING OPENINGS WITH NEW HARDWARE THE SUPPLIER SHALL FIELD INSPECT EXISTING CONDITIONS PRIOR TO THE SUBMITTAL STAGE TO VERIFY THE SPECIFIED HARDWARE WILL WORK AS REQUIRED. PROVIDE ALTERNATE SOLUTIONS AND PROPOSALS AS NEEDED.

- MANUFACTURER'S ABBREVIATIONS
 - MK - MCKINNEY PE - PEMKO SU - SECURITRON RO - ROCKWOOD SA - SARGENT RF - RIXSON OT - OTHER

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

- DOOR HARDWARE
 - DOOR HARDWARE

| DOORS | 201A | | | | |
|-------------------------------|----------------------------|-------|----|--|--|
| 6 Hinge, Full Mortise, Hvy Wt | T4A3786 5" x 4-1/2" | US26D | MK | | |
| 1 Auto Flush Bolt | 2842 | US26D | RO | | |
| 1 Dust Proof Strike | 570 | US26D | RO | | |
| 1 Entry/Office Lock | 10XG05 LL | US26D | SA | | |
| 1 Coordinator | 2696 | | RO | | |
| 2 Mounting Bracket | 2601AB / C | Black | RO | | |
| 2 Door Closer | 281 CPS | EN | SA | | |
| 2 Kick Plate | K1050 10" x 1" LDW CSK BEV | US32D | RO | | |
| 2 Astragal | 18041CNB TKSP8 | | PE | | |
| 1 Gasketing | S88BL | </ | | | |

PROJECT OUTLINE SPECIFICATIONS

IF ITEMS IN THE PROJECT SPECIFICATIONS AND PROJECT DRAWINGS CONTRADICT EACH OTHER, NOTIFY WILLETT HOFMANN & ASSOCIATES FOR CLARIFICATION PRIOR TO SUBMITTING A BID

ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS:

- EXTERIOR ALUMINUM STOREFRONT FRAMING TO BE KAWNEER 451T OR EQUAL.
 - ARCHITECTURAL CLASS II ANODIC COATING FINISH. REFER TO DRAWINGS FOR FINISH SELECTION.
- PROVIDE THERMALLY-BROKEN ALUMINUM PAN SILL SET IN A BED OF SEALANT AT WINDOW SILLS. ALUMINUM ENTRANCE DOORS TO BE KAWNEER 350 SERIES OR EQUAL.
- WELDED CONSTRUCTION
 - FINISH TO MATCH ALUMINUM FRAMING
 - OFFSET PIVOTS
 - CO-12 / CP-11 PUSH/ PULL SETS OR AS INDICATED ON DRAWINGS.
 - LCN 1-461 CLOSER OR EQUAL
 - RESE WEATHERSTRIPPING
 - ADA-COMPLIANT THRESHOLD MANUFACTURER'S
 - STANDARD DOOR SWEEP
 - MANUFACTURER'S STANDARD PANIC DEVICES AS REQUIRED
 - RIM LATCH AT SINGLE DOORS AND CONCEALED ROD AT DOUBLE DOORS.
- EXTERIOR ALUMINUM STOREFRONT FRAMING TO BE KAWNEER 450 OR EQUAL. REFER TO DRAWINGS FOR FINISH SELECTION.

GLAZING:

- EXTERIOR VISION GLAZING TO BE 1" INSULATING GLASS UNITS BY PPG GLASS OR EQUAL. SOLARBAN 70 (2) SOLARBONZE + CLEAR.
- INTERIOR GLAZING TO BE 1/4" CLEAR GLASS.
- PROVIDE TEMPERED GLASS AT LOCATIONS REQUIRED BY CODE.
- REFER TO DRAWINGS FOR LOCATIONS AND TYPES OF OBSCURE OR PATTERN GLASS. PROVIDE SAMPLES FOR APPROVAL.

MIRRORS:

- PROVIDE MIRRORS AS INDICATED ON PLANS.
- MIRRORS TO BE 1/4" MATERIAL WITH ALL EDGES POLISHED WITHOUT BEVEL. SIZE AS INDICATED ON PLANS.
- MOUNT TO WALL WITH BRUSHED ALUMINUM J-CHANNEL TOP AND BOTTOM.

TRANSLUCENT WALL ASSEMBLIES:

- PERFORMANCE AND DESIGN CRITERIA
 - DESIGN LOADS:
 - WIND AND SIZE COMPONENTS TO WITHSTAND LOADS CAUSED BY POSITIVE AND NEGATIVE WIND LOADS ACTING NORMAL TO PLANE OF WALL, INCLUDING BUILDING CORNERS.
 - COMPLY WITH APPLICABLE CODE, AS TESTED ACCORDING TO ASTM E330/E330M.
 - SEISMIC LOADS: DESIGN AND SIZE COMPONENTS TO WITHSTAND SEISMIC LOADS AND SWAY DISPLACEMENT, AS CALCULATED ACCORDING TO APPLICABLE CODE.
 - DEFLECTION: LIMIT TO 3/4 INCH, WITH FULL RECOVERY OF GLAZING MATERIALS.
 - ACCOMMODATE FOLLOWING SYSTEM ASSEMBLY CRITERIA WITHOUT DAMAGE TO SYSTEM, COMPONENTS, OR DETERIORATION OF SEALS:
 - MOVEMENT WITHIN SYSTEM.
 - MOVEMENT BETWEEN SYSTEM AND PERIMETER FRAMING COMPONENTS.
 - DYNAMIC LOADING AND RELEASE OF LOADS.
 - DEFLECTION OF STRUCTURAL SUPPORT FRAMING.
 - TOLERANCE OF SUPPORTING COMPONENTS.
 - LIGHT TRANSMISSION: MIN - 30% PERCENT.
 - SOLAR HEAT GAIN COEFFICIENT (SHGC): MAX - 0.40
 - THERMAL RESISTANCE OF ASSEMBLY: MAXIMUM U-VALUE OF 0.38 SQ. FT. X H X DEG. F/BTU, WHEN MEASURED ACCORDING TO NFRC 100.
 - SOUND ATTENUATION THROUGH WALL SYSTEM, EXTERIOR TO INTERIOR: SOUND TRANSMISSION CLASS 50, MEASURED ACCORDING TO ASTM E1332.
 - AIR INFILTRATION:
 - MAXIMUM LIMIT THROUGH ASSEMBLY: 0.06 CFM/SQ. FT. OF WALL AREA.
 - MEASUREMENT BASIS: DIFFERENTIAL PRESSURE ACROSS ASSEMBLY OF 1.57 PSF, MEASURED ACCORDING TO ASTM E283.
 - VAPOR SEAL: INTERIOR ATMOSPHERIC STATIC PRESSURE OF 1 INCH AT 72 DEG. F AND 40 PERCENT RELATIVE HUMIDITY WITHOUT SEAL FAILURE.
 - WATER LEAKAGE: NONE. MEASURED ACCORDING TO AAMA 501 WITH TEST PRESSURE DIFFERENCE OF 20 PERCENT OF DESIGN PRESSURE, AND WITH MINIMUM DIFFERENTIAL OF 2.86 LBF/SQ. FT. AND MAXIMUM DIFFERENTIAL OF 12.00 LBF/SQ. FT.
 - EXPANSION AND CONTRACTION: PROVIDE FOR EXPANSION AND CONTRACTION WITHIN SYSTEM COMPONENTS CAUSED BY CYCLING TEMPERATURE RANGE OF 170 DEG. F OVER 12-HOUR PERIOD WITHOUT CAUSING DETRIMENTAL EFFECT TO SYSTEM COMPONENTS.
 - SYSTEM INTERNAL DRAINAGE: DRAIN WATER ENTERING JOINTS, CONDENSATION OCCURRING IN FRAMING SYSTEM, OR MIGRATING MOISTURE OCCURRING WITHIN SYSTEM TO EXTERIOR VIA WEEP DRAINAGE NETWORK.
 - AIR AND VAPOR SEAL:
 - MAINTAIN CONTINUOUS AIR BARRIER AND VAPOR RETARDER THROUGHOUT ASSEMBLY, PRIMARILY IN LINE WITH INSIDE FACE OF GLAZING PANEL AND HEEL BEAD OF GLAZING COMPOUND.
 - NOT PERMITTED: VIBRATION HARMONICS, WIND WHISTLES, NOISES CAUSED BY THERMAL MOVEMENT, THERMAL MOVEMENT TRANSMITTED TO OTHER BUILDING ELEMENTS, AND LOOSENING, WEAKENING, OR FRACTURING OF ATTACHMENTS OR SYSTEM COMPONENTS.

1.2 TRANSLUCENT WALL AND ROOF ASSEMBLIES:

- MANUFACTURERS:
 - KALWALL HIGH PERFORMANCE TRANSLUCENT BUILDING SYSTEMS
 - SUBSTITUTIONS: AS SPECIFIED IN SECTION 01 60 00 - PRODUCT REQUIREMENTS.
- DESCRIPTION:
 - FACTORY-ASSEMBLED PANELS OF TRANSLUCENT SKINS BONDED TO ALUMINUM GRID CORE.
 - FACTORY PREFINISHED, INCLUDING PERIMETER FLASHINGS.
 - FRAMING GRID: SELF-SUPPORTING.
- DEFLECTION: LIMIT TO 3/4 INCH, WITH FULL RECOVERY OF GLAZING MATERIALS.
 - DESCRIPTION: SKINS BONDED TO BOTH SIDES OF STRUCTURAL EXTRUDED ALUMINUM GRID OF RECTANGULAR GRID PATTERN.
 - EXPOSED SURFACES OF EXTERIOR SHEET: CHEMICALLY AND PERMANENTLY TREATED TO PROTECT AGAINST SURFACE EROSION AND EXTREME WEATHER CONDITIONS.
 - EXPOSED SURFACES OF INTERIOR SHEETS: FIRE RETARDANT TO A FLAME-SPREAD/SMOKE-DEVELOPED RATING OF 25/450 AND COATED WITH POLYVINYL FLUORIDE FILM.
 - PANEL THICKNESS: 2-3/4 INCHES.
 - EXTERIOR FACING SHEETS:
 - AS SELECTED BY ARCHITECT
 - INTERIOR FACING SHEETS:
 - AS SELECTED BY ARCHITECT
- GLAZING ACCESSORIES: MANUFACTURER'S RECOMMENDED TYPE TO SUIT APPLICATION TO ACHIEVE WEATHER, MOISTURE, AND AIR INFILTRATION REQUIREMENTS.
- MULLIONS:
 - MATERIAL: ALUMINUM.
 - THERMALLY BROKEN, WITH INTERIOR SECTION INSULATED FROM EXTERIOR ATTACHMENTS.
 - GLAZING STOPS:
 - TEMPORARY.
 - SIZE AND STRENGTH: SUFFICIENT TO PROVIDE BITE ON PANELS PRIOR TO AND DURING GLAZING.
 - WEEP DRAINAGE SYSTEM: FURNISH DRAINAGE HOLES, DEFLECTOR PLATES, AND INTERNAL FLASHINGS.
 - INTERNAL BARRIERS: ELIMINATE STACK-EFFECT AIR MOVEMENT WITHIN INTERNAL SPACES.
 - REINFORCED MULLION:
 - CLADDING: EXTRUDED ALUMINUM
 - INTERNAL REINFORCEMENT: SHAPED STEEL STRUCTURAL SECTION.
- BATTENS, COVER STRIPS, COVER PLATES, AND INTEGRAL FLASHINGS:
 - MATERIAL: EXTRUDED ALUMINUM.
 - SIZE: TO RIGIDLY RETAIN PANELS IN PLACE.
- GLAZING MATERIALS:
 - OPERATING SASH:
 - EXTERIOR: EXPANDED EPDM CLOSED CELL SPONGE GASKET.
 - INTERIOR: DRIVEN EPDM WEDGE GASKET.
 - FIXED: EXPANDED EPDM SYSTEM WITH SNAP-IN GLAZING BEAD.

H. SEALANT AND BACKING MATERIALS:

- PERIMETER SEALANT:
 - MATERIAL: SILICONE
 - TYPE: HIGH PERFORMANCE, GENERAL PURPOSE, EXTERIOR, NONTRAFFIC.
- SEALANT USED WITHIN SYSTEM AND NOT USED FOR GLAZING:
 - METAL-TO-METAL JOINTS: EXTERIOR METAL LAP-JOINT TYPE.
 - OTHER LOCATIONS: AS RECOMMENDED BY MANUFACTURER.

I. FLASHINGS:

- SECUREMENT: CONCEALED FASTENING METHOD.
- ALUMINUM:
 - MINIMUM THICKNESS: 0.032 INCH
 - FINISH: MATCH ADJACENT ALUMINUM

DIVISION 09 - FINISHES

GENERAL:

- OWNER TO RETAIN ALL OVERAGES OF CARPET, CERAMIC TILE, ACOUSTICAL CEILING TILE, PAINT, WALLCOVERINGS, ETC.
- ALL FINISH MATERIALS TO BE INSTALLED ACCORDING TO PRODUCT MANUFACTURER'S MOST CURRENT RECOMMENDATIONS. SUBCONTRACTORS ARE RESPONSIBLE FOR VERIFYING THESE REQUIREMENTS WITH PRODUCT MANUFACTURERS.
- ALL SUBCONTRACTORS TO PROVIDE PRIMUS COMPANIES WITH THE MOST CURRENT MANUFACTURER RECOMMENDATIONS FOR CARE AND MAINTENANCE FOR EACH FINISH MATERIAL INSTALLED UPON PROJECT COMPLETION.

GYPSUM BOARD ASSEMBLIES:

- REFER TO ARCHITECTURAL DRAWINGS FOR BEARING WALL LOCATIONS AND REQUIREMENTS.
- LIGHT GAUGE INTERIOR METAL STUD FRAMING WITH CONTINUOUS TOP AND BOTTOM TRACK TO BE CORROSION-RESISTANT GALVANIZED. 16" O.C. STUD SPACING WITH SIZE AND GAUGE TO ACHIEVE 1/240 ALLOWABLE DEFLECTION. PROVIDE LONG-LEG SLIP TRACK AT TOP TO ACCOMMODATE DEFLECTION OF ROOF STRUCTURE.
- 5/8" TYPE "X" GYPSUM BOARD TYPICAL AT ALL FRAMED WALLS, SOFFITS AND CEILINGS.
- GYPSUM BOARD TO BE INSTALLED HORIZONTALLY TO MINIMIZE TAPE JOINTS.
- METAL CORNER BEADS ONLY.
- LIGHT ORANGE PEEI FINISH TYPICAL AT ALL GYPSUM BOARD SURFACES UNLESS NOTED OTHERWISE. PROVIDE A SPRAY TEXTURE FINISH SAMPLE FOR OWNER REVIEW AND APPROVAL.
- GYPSUM BOARD IN TOILET ROOMS, SHOWER ROOMS AND AT SERVICE SINKS TO BE NATIONAL GYPSUM "XF" MOISTURE, MOLD AND MILDEW RESISTANT GYPSUM BOARD OR EQUAL.
- WALL SURFACES AT SHOWER UNITS TO RECEIVE CEMENTITIOUS BACKER BOARD.
- SOUND BATT INSULATION TO BE SOUND ATTENUATION FIBERGLASS BATTS BY OWENS CORNING OR EQUAL IN THICKNESS TO FILL CAVITY. GREENGUARD CERTIFIED.
- PROVIDE CONTROL JOINTS IN WALLS AS INDICATED ON PLANS AND/OR WHERE A PARTITION OR FURRING LENGTH EXCEEDS 30 FEET. COORDINATE LOCATIONS WITH ARCHITECT/DESIGNER.
- PROVIDE CONTROL JOINTS AT CEILINGS AS INDICATED ON PLANS AND/OR WHERE A CEILING DIMENSION EXCEEDS 30 FEET IN EITHER DIRECTION. COORDINATE LOCATIONS WITH ARCHITECT/DESIGNER.

TILING:

- REFER TO DRAWINGS FOR FLOOR AND/OR WALL TILE SELECTIONS.
- PROVIDE GROUT SEALANT.
- TRANSITIONS BETWEEN FLOOR TILE AND CONCRETE, RESILIENT SHEET OR TILE FLOORING TO BE SCHLUTER RENOLIT SATIN NICKEL ANODIZED ALUMINUM FINISH OR EQUAL.
- TRANSITIONS BETWEEN FLOOR TILE AND CARPET TO BE SCHLUTER SCH I ENE, SATIN NICKEL ANODIZED ALUMINUM FINISH OR EQUAL.
- WALL TILE WAJNSCOT TO BE CAPPED WITH SCHLUTER RON DEC TILE TRIM. SATIN NICKEL ANODIZED ALUMINUM FINISH OR EQUAL.

ACOUSTIC PANEL CEILINGS:

- REFER TO DRAWINGS FOR ACOUSTIC PANEL CEILING SELECTIONS.

RESILIENT BASE AND ACCESSORIES:

- REFER TO DRAWINGS FOR RESILIENT WALL BASE SELECTIONS AND LOCATIONS.
- PROVIDE RUBBER ROLL GOODS WITH COVERED BASE UNLESS NOTED OTHERWISE.
- ADHESIVES SHALL NOT EXCEED VOC CONTENT LIMITS PER SCAQMD RULE 1168 (50 g/L).

RESILIENT SHEET AND/OR TILE FLOORING:

- REFER TO DRAWINGS FOR RESILIENT FLOORING SELECTIONS.
- FLOORING TRANSITIONS TO BE JOHNSONITE SLIM LINE SERIES ADAPTORS OR EQUAL.
- CARPET AND PAD ADHESIVES SHALL NOT EXCEED VOC CONTENT LIMITS PER SCAQMD RULE 1168 (50 g/L).

CARPET:

- REFER TO DRAWINGS FOR CARPET SELECTIONS.
- FLOORING TRANSITIONS TO BE JOHNSONITE SLIM LINE SERIES ADAPTORS OR EQUAL.
- CARPET AND PAD ADHESIVES SHALL NOT EXCEED VOC CONTENT LIMITS PER SCAQMD RULE 1168 (50 g/L).
- AT CARPET TILE PROJECTS, PROVIDE A MINIMUM 2 FULL BOXES OF CARPET TILE FOR ATTIC STOCK.

INTERIOR PAINTING:

- ALL SURFACES WITH A PAINT FINISH TO RECEIVE ONE (1) COAT OF PRIMER/SEALER TINTED TO MATCH FINISH COAT AND TWO (2) COATS OF FINISH PAINT (MINIMUM). SOME ACCENT / DARKER PAINTS MAY REQUIRE ADDITIONAL COATS IN ORDER TO ACHIEVE PROPER COVERAGE. PAINTER IS TO PROVIDE AS MANY COATS AS NEEDED TO ACHIEVE PROPER AND APPROPRIATE COVERAGE.
- ALL PAINTS, COATINGS AND PRIMERS APPLIED TO INTERIOR WALLS AND CEILINGS SHALL NOT EXCEED VOC CONTENT LIMITS PER GREEN SEAL STANDARD GS-11.
FLAT PAINTS= 50 g/L MAX. NON-FLAT PAINTS = 150 g/L MAX.
- ALL SURFACES TO RECEIVE WALLCOVERING TO RECEIVE ONE (1) COAT OF PRIMER/SEALER TINTED TO MATCH WALLCOVERING BACKGROUND COLOR.
- SATIN/EGGSHELL FINISH PAINT TYPICAL AT ALL GYPSUM BOARD WALLS, SOFFITS AND BULKHEADS, UNLESS NOTED OTHERWISE.
- FLAT FINISH PAINT AT ALL GYPSUM BOARD CEILINGS.
- WALL SURFACES AT "WET WALLS" AT URINALS, WATER CLOSETS, SHOWERS AND SERVICE SINKS THAT ARE A PAINTED FINISH TO BE AN EPOXY PAINT TO PROVIDE A SMOOTH, HARD, NON-ABSORBANT FINISH PER CODE.
- SEMI-GLOSS FINISH PAINT AT INTERIOR WOOD MULDINGS, TRIM, BASE, DOORS AND TRIM THAT RECEIVE A PAINT FINISH.
- SEMI-GLOSS FINISH SPRAY PAINT AT HOLLOW METAL FRAMES, HOLLOW METAL DOORS, AND STEEL STAIRS AND RAILINGS, WHERE PRESENT.

STAINING AND TRANSPARENT FINISHING:

- INTERIOR WOOD MULDINGS, TRIM, BASE AND DOORS THAT RECEIVE A STAINED FINISH TO HAVE AN APPLIED STAIN AND CLEAR VARNISH FINISH.
- ALL CLEAR WOOD FINISHES AND STAINS SHALL NOT EXCEED VOC CONTENT LIMITS PER SCAQMD RULE 113.
 - STAINS= 250 g/L MAX.
 - CLEAR VARNISH= 350 g/L MAX.
- REFER TO DRAWINGS FOR STAIN COLOR SELECTION.

DIVISION 10 - SPECIALTIES

SIGNAGE:

- INTERIOR SIGNAGE FOR RESTROOMS.
- EXTERIOR SIGNAGE FOR ADA COMPLIANT PARKING SPACES.
- CODE COMPLIANT ADDRESS NUMERALS AT THE MAIN ENTRANCE.

TOILET, BATH, SHOWER AND LAUNDRY ACCESSORIES:

- REFER TO DRAWINGS FOR ACCESSORY SELECTIONS AND LOCATIONS.
- REFER TO DIVISION 8 FOR MIRRORS.

FIRE EXTINGUISHER CABINETS:

- REFER TO DRAWINGS FOR FIRE EXTINGUISHER CABINET SELECTION.

FIRE EXTINGUISHERS:

- PORTABLE FIRE EXTINGUISHERS TO BE PROVIDED BY GENERAL CONTRACTOR.
- FIRE EXTINGUISHER SHALL BE 5 LB. 2A, 10B-C OR AS REQUIRED BY THE INTERNATIONAL FIRE CODE AND THE LOCAL FIRE DEPARTMENT.
- PORTABLE FIRE EXTINGUISHERS SHALL BE MOUNTED IN CLEAR VIEW AND REACH. THE MAXIMUM TRAVEL DISTANCE TO ANY PORTABLE FIRE EXTINGUISHER SHALL NOT EXCEED 75 FEET. ONE PORTABLE FIRE EXTINGUISHER IS REQUIRED EVERY 150 FEET.
- THE MAXIMUM TRAVEL DISTANCE TO ANY PORTABLE FIRE EXTINGUISHER SHALL NOT EXCEED 30 FEET WHERE COOKING IS PERFORMED.

DIVISION 13 - SPECIAL CONSTRUCTION

SECTION 13 3418 - POST FRAME BUILDING SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- Pre-Engineered factory and field fabricated Timber Column Structure and Mezzanine
- Prefinished metal roofing and siding panels
- Prefinished metal trim items
- Prefinished soffits
- Prefinished gutters and downspouts
- Interior liner package

1.02 PRODUCTS NOT FURNISHED UNDER THIS SECTION

- None

1.03 RELATED SECTIONS

- None

1.04 REFERENCE STANDARDS

- Building Design Standards
 - 2015 International Building Code
- American Society of Civil Engineers; ASCE-7-22 Minimum Design Loads and Associated Criteria for Buildings and Other Structures
- American Wood Council (AWC)
 - National Design Specification (2018 NDS) for Wood Construction
- Preservative Treated Lumber
 - American Wood Protection Association (AWPA)
 - 2023 AWPA Book of Standards
 - Use Category System U1, User Specification for Treated Wood
 - UCA4, Important Structural - Ground Contact
- International Code Council - Evaluation Service Report 2240
 - Microzined Copper Azole preservative-treated lumber
- Concrete Foundation and Flatwork
 - American Concrete Institute (ACI)
 - ACI 318-19(22) Building Code Requirements for Structural Concrete

D. Framing Lumber

- National Design Specification for Wood Construction (2018 NDS)
- Southern Pine Inspection Bureau (SPIB)
 - 2021 Standard Grading Rules for Southern Pine Lumber

3. National Lumber Grades Authority (NLGA)

- 2022 National Lumber Grades Authority Standard Grading Rules for Canadian Lumber

E. Wood Trusses

- Truss Plate Institute (ANSI) / TP-1 - 2014 National Design Standard for Metal Plate Connected Wood Truss Construction
 - design, engineering, and quality control requirements for manufactured wood trusses

1.05 SYSTEM DESCRIPTION

- Post-Frame Construction
 - Clear span
 - Primary Framing
 - Columns
 - Trusses
 - Lateral bracing
 - Mezzanine Framing
 - Joists
 - Secondary Framing
 - Perimeter baseboards / preservative-treated
 - Wall girts (nailers)
 - Purlins
 - Overhang rafters and fascia
 - Ancillary blocking or furring as required

- Roof Covering
 - Prefinished ribbed metal panels
 - Other roof coverings as required
- Wall Covering
 - Prefinished ribbed metal panels
 - Other wall coverings as required
- Insulation and Liner Package
 - Wall insulation
 - Ceiling insulation
 - Air deflectors
 - Vapor retarder
 - Wall stripping
 - Prefinished ribbed metal panels

1.06 DESIGN REQUIREMENTS

- Building shall be designed in accordance with standards identified in Section 1.04
 - Roof Design Loads
 - Top and Bottom Truss Chords: See building plans for specific loads required
 - Top Chord Live Load
 - Top Chord Dead Load
 - Bottom Chord Dead Load
 - Bottom Chord Point Load
 - Unbalanced Snow Loads: In accordance with ASCE-7-22
 - Wind Speed: See building plans for specific wind speed requirements
 - Seismic Loads: See building plans for specific seismic load requirements
 - System Requirements
 - Roof and wall system shall be able to withstand the imposed loads with maximum allowable deflection in accordance with 2015 IBC.
 - Assembly shall permit movement of components without buckling, failure of joint seals, undue stress on fasteners or other detrimental effects.
 - Size and fabrication of roof and wall systems to be free of distortion or defects that would be detrimental to appearance or performance

1.07 SUBMITTALS

- Submit under provisions of Division 01.
- Provide 03 sets of the following bearing the seal of a Professional Engineer, registered in the state where the project is located.
 - Complete and detailed shop and erection drawings showing size and location of each part and component, certifying that the building design meets specified roof and wind loading requirements
 - Truss engineering analysis and design data, including the following
 - Axial forces and bending moments for each member
 - Basic plate design value
 - Design analysis of each joint showing that proper plates have been applied
 - Manufacturer's metal panel standard color chart

1.08 PROJECT RECORD DOCUMENTS

- Submit under provisions of Division 01

1.09 QUALITY ASSURANCE

- Truss Assembly Facility
 - Manufacturer shall provide evidence of compliance with quality control requirements of TPI-1 - 2014
 - Trusses shall be stamped to indicate quality assurance auditing by an independent agency
- Prefinished Ribbed Metal Panels
 - Manufacturer shall provide evidence of compliance with UL2218 and UL790 (Hail impact and external fire resistance, respectively) for roofing panels
 - Prefinished Ribbed Metal Panels to be applied as roofing shall be delivered with a certificate to indicate compliance with UL2218 Class 4 and UL790 Class A
 - Other Manufacturer Certifications and Approvals as Required

1.10 QUALIFICATIONS

- Contractor shall have a minimum of forty years documented experience in the manufacture and erection of this type of structure.
- Contractor shall present evidence of written procedures to describe how components are to be assembled during erection of the structure.
- Design of structural components shall be performed under the direct supervision of a Professional Engineer experienced in design of this type of structure and licensed in the state where the project is located.
- The Contractor shall employ adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper and safe performance of the work.
- Contractor shall be responsible for proper storage of all materials, including subcontractors' materials

1.11 REGULATORY REQUIREMENTS

- Contractor shall be responsible for compliance with all applicable building codes and ordinances covering the work.
- Contractor shall cooperate with regulatory agencies or authorities to provide data as requested.

1.12 PRE-CONSTRUCTION MEETING

- The contractor shall convene a meeting no later than one week prior to commencing work under provisions of Division 01.
- The meeting shall include owner(s), contractors, and subcontractors.
- The meeting's agenda shall include a review of the project, responsibilities, timing, and coordination required of contractor and subcontractors, safety plans and other information pertinent to the project.

1.13 FIELD MEASUREMENTS

- Field measurements shall be taken to verify that components match shop drawings.

1.14 DELIVERY, STORAGE AND HANDLING

- The contractor shall deliver and store prefabricated components (trusses, columns, steel panels and other materials) to ensure that they will not be damaged or deformed.
- The contractor shall be responsible to stack materials on platforms, pallets or other structures covered with tarps or other suitable weather-tight ventilated covering. The contractor shall additionally handle and store structural parts in a manner that will avoid deforming members or subjecting parts to excessive stresses.
- The contractor shall store roofing, siding, and interior panels to allow water to drain freely.
- The contractor shall not store panels in contact with other materials that could cause corrosion, discoloration, or staining.

1.15 PROJECT CONDITIONS

- Contractor shall coordinate the work with other trades.
- Contractor shall fit carpentry work to other work. Scribe and cope as required for accurate fitting.
- Contractor shall be responsible to correlate location of furring, interior stripping, blocking and supports to allow for attachment of other work.

1.16 CERTIFICATIONS

- The bidder's proposal must include evidence that the material specifications will be met.
 - Provide written certification letter that materials will meet all requirements of Sections 2.02, 2.03 and 2.04.
- The bidder's proposal must include a sample warranty identical to the warranty to be issued at completion of the project.
 - The sample warranty shall verify that the warranty specification described in Section 1.17 will be met.

1.17 WARRANTY

- The building manufacturer shall supply a warranty to the Owner which will meet the following requirements...

| Period of Coverage | Material | Claim Conditions |
|--------------------|--|---|
| 50 Years | Preservative Treated Lumber | Failure due to decay or insect attack |
| 50 Years | Building Frameworks Including Roofing and/or Siding Panels | Direct damage by snow loads |
| 35 Years | Roofing and Siding Panels | Paint separation from panels |
| 35 Years | Roofing and Siding Panels | Chalk rating less than rating of 8 (ASTM D4212) under normal weathering |
| 35 Years | Roofing and Siding Panels | Color change greater than 5 units (ASTM D2244) under normal weathering |
| 10 Years | Roofing and Siding Panels | Red rust corrosion greater than 1/2 inch from a sheared edge, visible in casual observation under normal weathering |
| 5 Years | Building Frameworks Including Roofing and/or Siding Panels | Direct damage by wind loads unless damage is caused by flying or falling objects |
| 5 Years | Roof Leaks | Leaks due to material or workmanship defects |
| 1 Year | Any building part | Proven defect in material or workmanship |

PART 2 PRODUCTS

2.01 MANUFACTURERS - BUILDING SYSTEM

- Morton Buildings, Inc., Morton, Illinois
- Other manufacturers offering similar systems
 - As approved by project architect
 - See certification requirements Section 1.16.
- Substitutions to or deviations from these specifications
 - None

2.02 MATERIALS - FRAMING

- Concrete Foundation
 - See Structural sheets for concrete specifications
- Column Socket
 - Design and fabricate column sockets to meet design requirements.
 - Column sockets shall be fabricated from ASTM A1018 HSLAS hot-rolled steel with specified minimum thickness and material properties to meet design requirements.
 - Column sockets shall be factory painted to enhance corrosion resistance.
- Wood Column
 - Factory fabricated from minimum 3-ply No. 1 (or better) southern yellow pine lumber
 - Attach column to column socket with appropriate number and size of mechanically driven fasteners & bolts.
 - Provide factory or field installed blocking on outside face of column between nailers

- Wood Trusses
 - Top Chord: southern yellow pine of size and grade to meet design requirements
 - Bottom Chord: southern yellow pine of size and grade to meet design requirements
- Trusses shall be constructed of surfaced lumber (S4S) and compliant with SP18 visual and structural grade requirements
- Plates: Connector plates shall meet design requirements and shall be compliant with applicable ICC-ES Report specifications
- Design and fabricate trusses and connections to withstand snow, wind, dead, and all other loads indicated.
- Fabricate trusses in plant, using mechanical or hydraulic fixtures as required to bring members into contact. Install plates

PROJECT OUTLINE SPECIFICATIONS

IF ITEMS IN THE PROJECT SPECIFICATIONS AND PROJECT DRAWINGS CONTRADICT EACH OTHER, NOTIFY WILLETT HOFMANN & ASSOCIATES FOR CLARIFICATION PRIOR TO SUBMITTING A BID

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify site conditions under provisions of Division 01

3.02 ERECTION - FRAMING - GENERAL

- A. Erect framing in accordance with manufacturer's established construction procedures
- B. Make all components and building plumb, square, straight, and true to lines in accordance with National Frame Building Association's Accepted Practices and tolerances identified in Section 3.05
- C. Provide adequate temporary bracing to assure structure remains plumb and square until permanent bracing is installed
- D. Altering of structural members is not permitted

3.03 ERECTION - FRAMING

- A. Column Socket
 - 1. Align and locate sockets by type and install according to building plans.
 - 2. Column sockets shall be anchored to concrete with adhesive anchors or with cast-in-place anchors of dimensions shown in building plans.
 - a. Adhesive anchoring shall be performed according to procedures specified in adhesive manufacturer's certified report.
 - b. Cast-in-place anchoring shall be performed according to 2015 International Building Code and ACI 318 (19)22 standards.
- B. Wood Column
 - 1. Set wood column to interlock with column socket connection bracket.
 - 2. Install manufacturer's recommended quantity and size of mechanically driven fasteners and bolts
- C. Baseboards
 - 1. Install 2"x8" treated planks at grade using builder's recommended fasteners and brackets to attach to columns according to building plans
- D. Wall girts (nailers)
 - 1. Install nailers as required on building plans according to manufacturer's established construction procedures.
- E. Trusses
 - 1. Set trusses in plane with the center member of the wood column using lifting methods as approved by the manufacturer.
 - 2. When properly positioned, install two 1/2" diameter machine bolts and manufacturer-recommended 4" structural screws through two of the wood column laminates and the truss heel.
 - 3. Brace trusses as recommended by the manufacturer.
- F. Purlins
 - 1. Install 2"x4" purlins by attaching them to trusses according to manufacturer's established construction procedures.
- G. Lateral Bracing
 - 1. Install 2"x6" angled bracing at locations recommended by the manufacturer according to the manufacturer's established construction procedures.
- H. Incidental Framing
 - 1. Install 2"x4" or 2"x6" blocking as required according to building manufacturer's recommendations.
- I. Interior Framing (Stripping)
 - 1. Install 2"x4" baseboard at 4 inch above grade and case in metal trims
 - 2. Install 2"x4" horizontal stripping at 36" (maximum) on-center spacing in wall areas to support ribbed steel panels
 - 3. Install 2"x4" horizontal stripping at 16" (maximum) on-center spacing in wall areas to support gypsum board

3.04 ERECTION - INSULATION

- A. Wall Insulation
 - 1. Install fiberglass batt insulation blankets to fill wall cavity between columns.
 - 2. Install vapor retarder between insulation blankets and interior stripping.
- B. Ceiling Insulation
 - 1. Install vapor retarder between lower truss chorda and ceiling panels
 - 2. Install blown-in fiberglass in attic space

3.05 ERECTION - PREFINISHED METALS - GENERAL

- A. Roofing Panels
 - 1. Install panels perpendicular to purlins, aligned straight with end fascia.
 - 2. Fasten panels to purlins with screw fasteners.
- B. Siding and Wainscot Panels
 - 1. Install panels perpendicular to nailers, aligned level and plumb (see Section 3.06).
 - 2. Fasten panels to nailers with screw fasteners.
- C. Interior Panels
 - 1. Install panels perpendicular to supports, aligned level and plumb
 - 2. Fasten wall panels to wall stripping with 1" painted screws.
 - 3. Fasten ceiling panels to truss lower chords with 1" painted screws.
- D. Trim Items
 - 1. Install trim items at the base, at wainscot / siding panel transition, corners, top of steel siding, fascia, gables, and ridge using appropriate fasteners
- E. Ridge Treatments
 - 1. Install over ridge trim using screw fasteners
- F. Soffit
 - 1. Install soffit to interlock with trim items at top of steel siding and at fascia.
 - 2. Use solid soffit at each end overhang per building plans
 - 3. Use combination of solid and vented soffit to provide balanced ventilation at side overhangs per building plans.
- G. Gutter and Downspouts
 - 1. Install gutters with supporting hangers spaced 24" on-center
 - 2. Silicone sealant and silicone rubber gaskets shall be used at laps to maintain leak prevention and to relieve stress due to thermal movements.
 - 3. Install drop outlets and downspouts to allow drainage from gutter at locations specified on building plans.
 - 4. Secure downspout to vertical wall panels or trims with conductor bands and screws.
- H. Filler Strips
 - 1. Provide filler strips at the top and bottom of roofing panels.

3.06 TOLERANCES

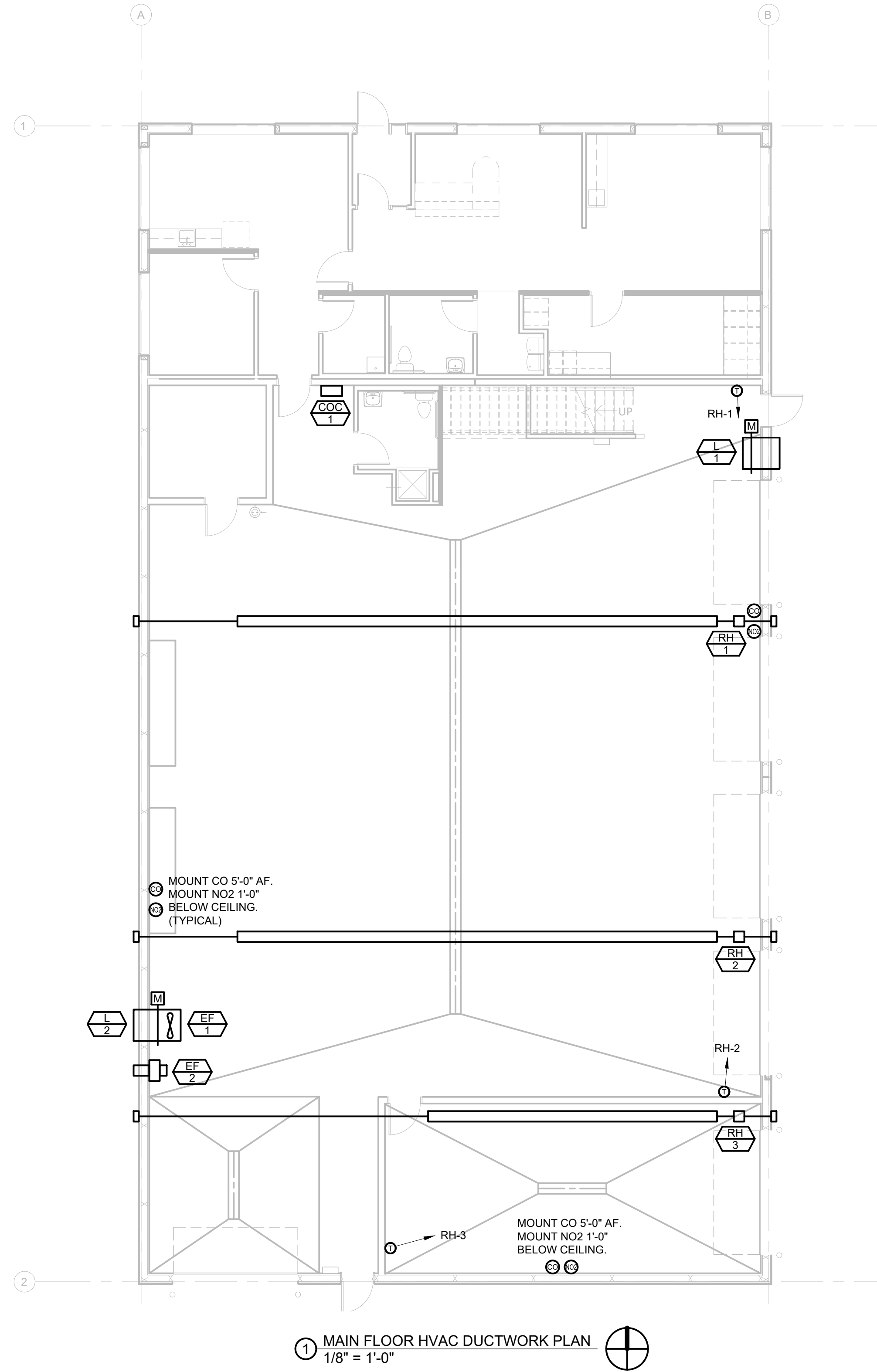
- A. Framing Members
 - 1. 1/4" from level
 - 2. 1/8" from plumb
- B. Siding and Roofing Panels
 - 1. 1/8" from true position

| | | | | |
|------------|---|----------|------|---------|
| PHASE | <input type="checkbox"/> PRELIM | DESIGNED | BY | REMARKS |
| | <input type="checkbox"/> PERMIT | | | |
| WHA No. | <input type="checkbox"/> FINAL | DRAWN | DATE | |
| | <input checked="" type="checkbox"/> BID | REVIEWED | | |
| DATE | <input type="checkbox"/> CONST | APPROVED | | |
| 11-05-2024 | | | | |
| SHEET No. | | | | |
| A9.3 | | | | |

WILLETT HOFMANN & ASSOCIATES, INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 625 32ND AVE SW CEDAR RAPIDS, IA 52404
 P: 319-379-1401



OTTUMWA CEMETERY OFFICE & MAINT. BLDG
 OTTUMWA, IOWA
 SPECIFICATIONS



- A. ALL WORK SHALL BE IN ACCORDANCE WITH THE BUILDING CODES ADOPTED BY OTTUMWA, IA.
- B. INSTALL ALL EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATIONS.
- C. NOT ALL DUCT TRANSITIONS INCLUDING RISES, DROPS AND NECK DOWNS ARE SHOWN ON PLANS. ASSUME SOME ARE REQUIRED TO OFFSET AROUND ARCHITECTURAL AND MEP ITEMS. COORDINATE WITH OTHER TRADES.
- D. COORDINATE LOCATION OF EXHAUST GRILLES WITH CMU BLOCK COURSING.
- E. COORDINATE LOCATION OF ROOF VENT CAP TERMINATIONS WITH ROOF STRUCTURE. TERMINATIONS SHALL BE AWAY FROM ROOF PEAK.

| | | | |
|----------|----|------|-----|
| REMARKS | BY | DATE | REV |
| DESIGNED | BY | DATE | REV |
| DRAWN | BY | DATE | REV |
| REVIEWED | BY | DATE | REV |
| APPROVED | BY | DATE | REV |

WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 Copyright © YEAR Willett, Hofmann & Associates, Inc.

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
MAIN FLOOR HVAC DUCTWORK PLAN

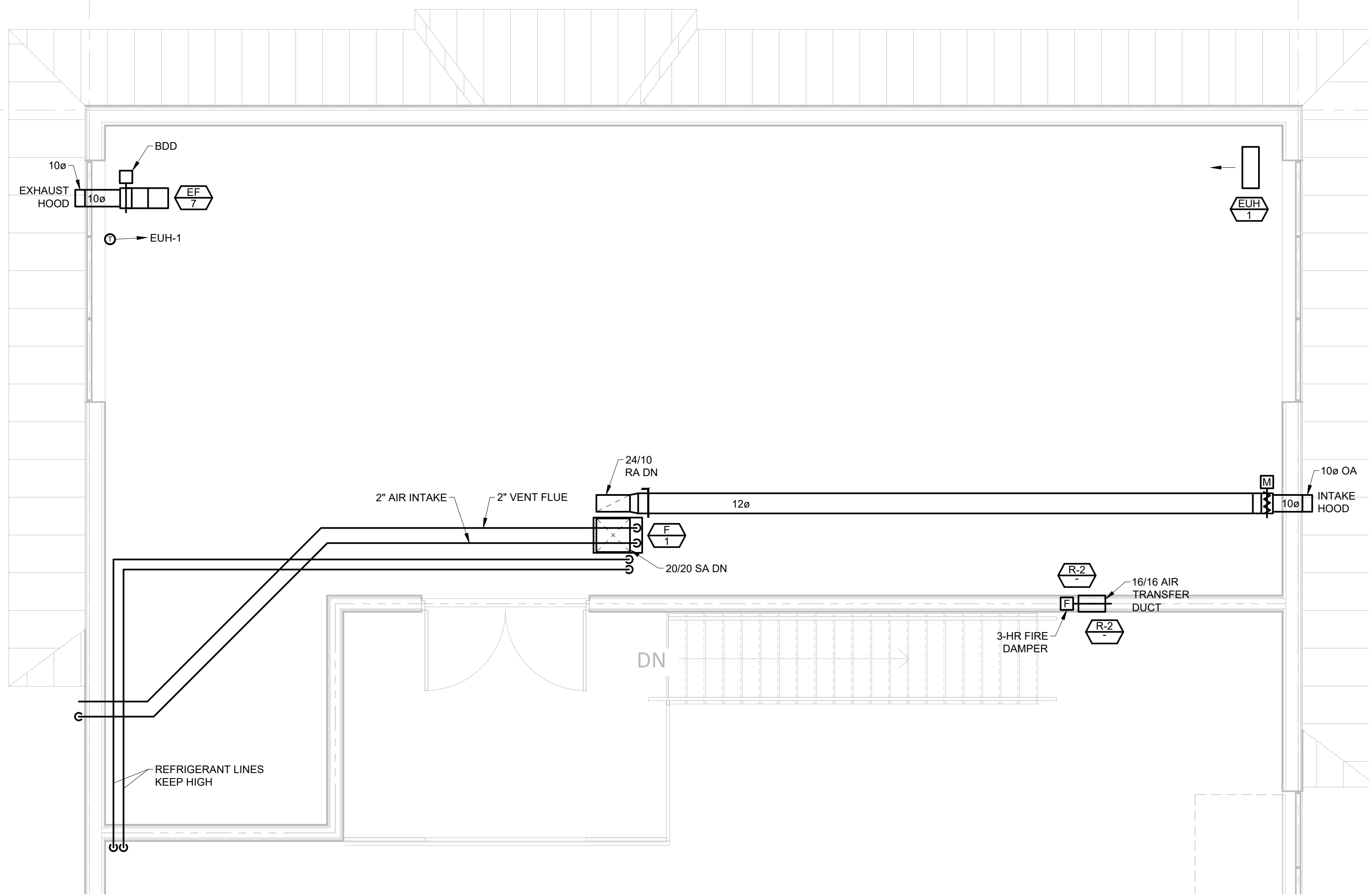
| |
|---|
| PHASE |
| <input type="checkbox"/> PRELIM |
| <input type="checkbox"/> PERMIT |
| <input type="checkbox"/> FINAL |
| <input checked="" type="checkbox"/> BID |
| <input type="checkbox"/> CONST |

WHA No.
1520C22

DATE
10-25-2024

SHEET No.
M1

WPE WEST PLAINS ENGINEERING, INC.
 215 2ND AVENUE SE, SUITE 200 • CEDAR RAPIDS, IA 52401
 PHONE: (319) 365-0030 • FAX: (319) 365-4122
 WWW.WESTPLAINSENGINEERING.COM
 RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA



① MEZZANINE HVAC DUCTWORK PLAN
 1/4" = 1'-0"

REMARKS

REV. DATE BY

| | |
|----------|--|
| DESIGNED | |
| DRAWN | |
| REVIEWED | |
| APPROVED | |

WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING



OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
 MEZZANINE HVAC DUCTWORK PLAN

PHASE

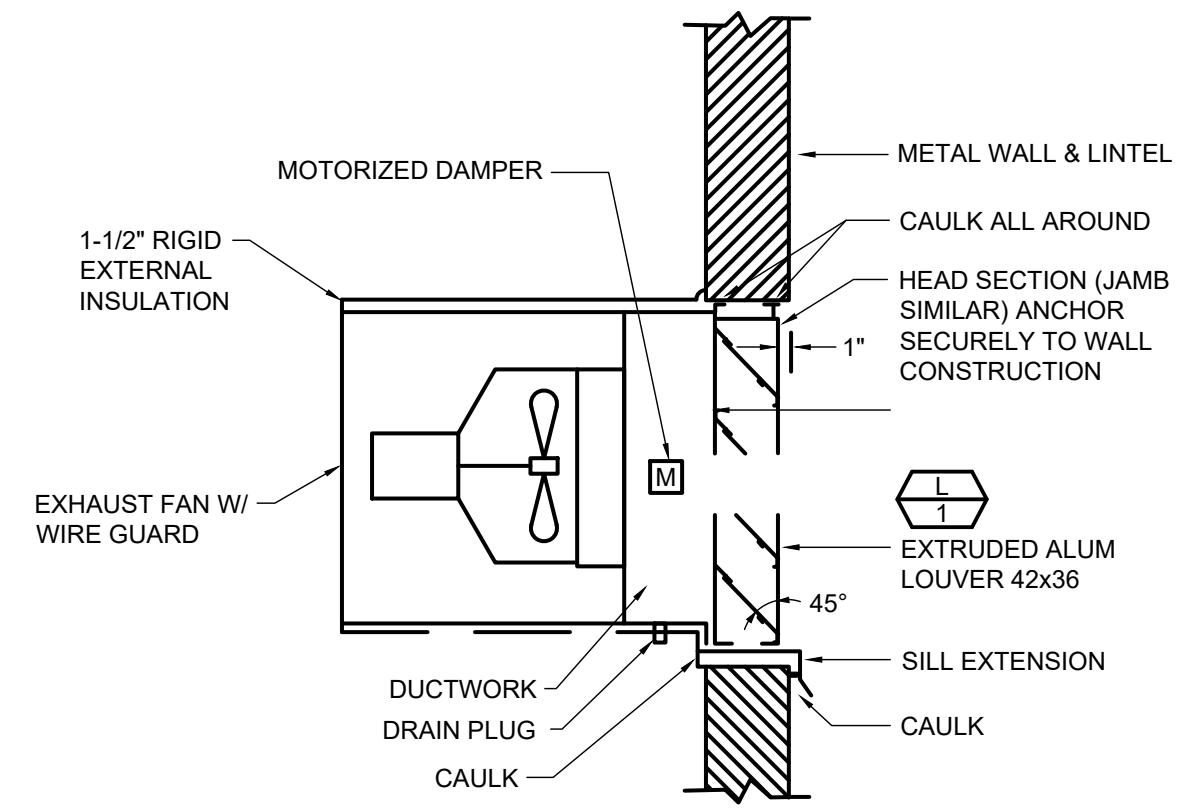
- PRELIM
- PERMIT
- FINAL
- BID
- CONST

WHA No. 1520C22

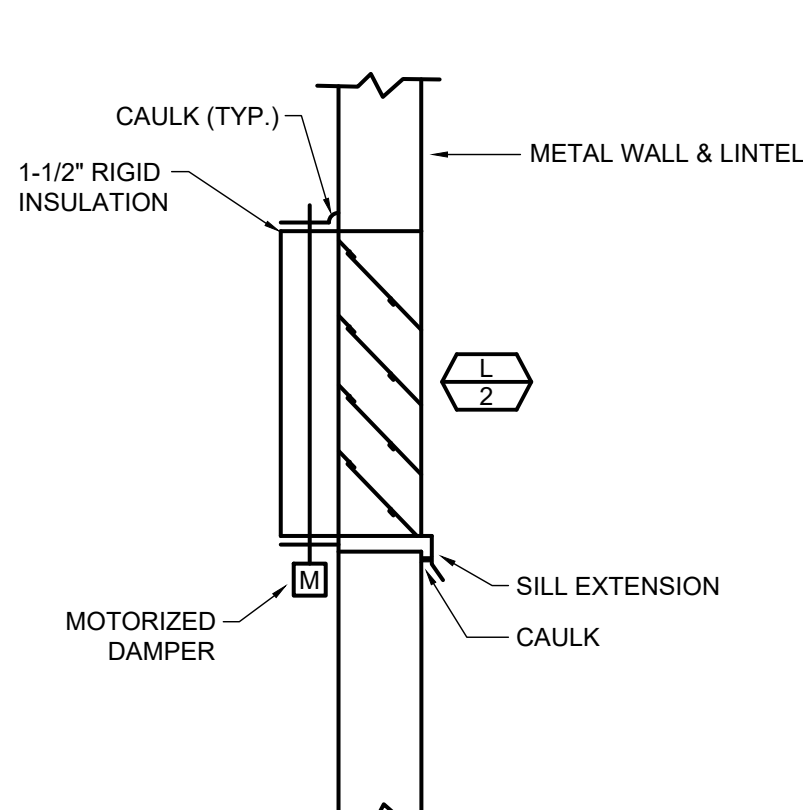
DATE 10-25-2024

SHEET No. M2

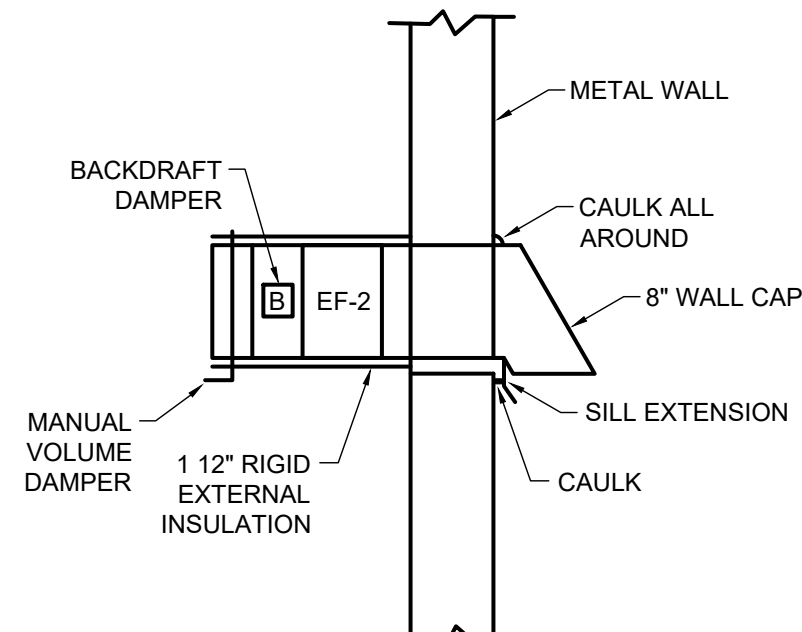
WPE WEST PLAINS ENGINEERING, INC.
 215 2ND AVENUE SE, SUITE 200 • CEDAR RAPIDS, IA 52401
 PHONE: (319) 365-0030 • FAX: (319) 365-4122
 WWW.WESTPLAINSENGINEERING.COM
 RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA



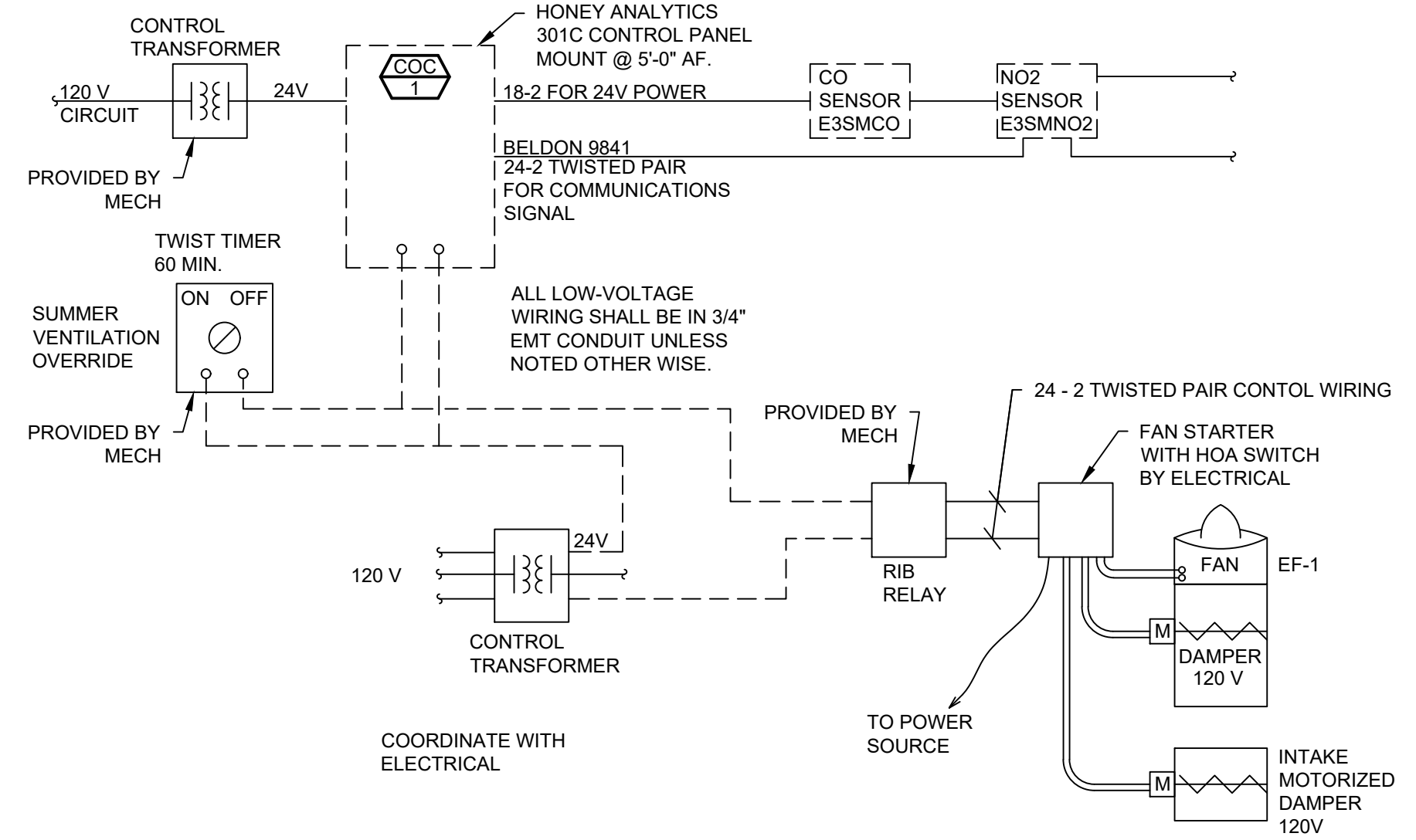
① EXHAUST FAN EF-1 DETAIL
NO SCALE



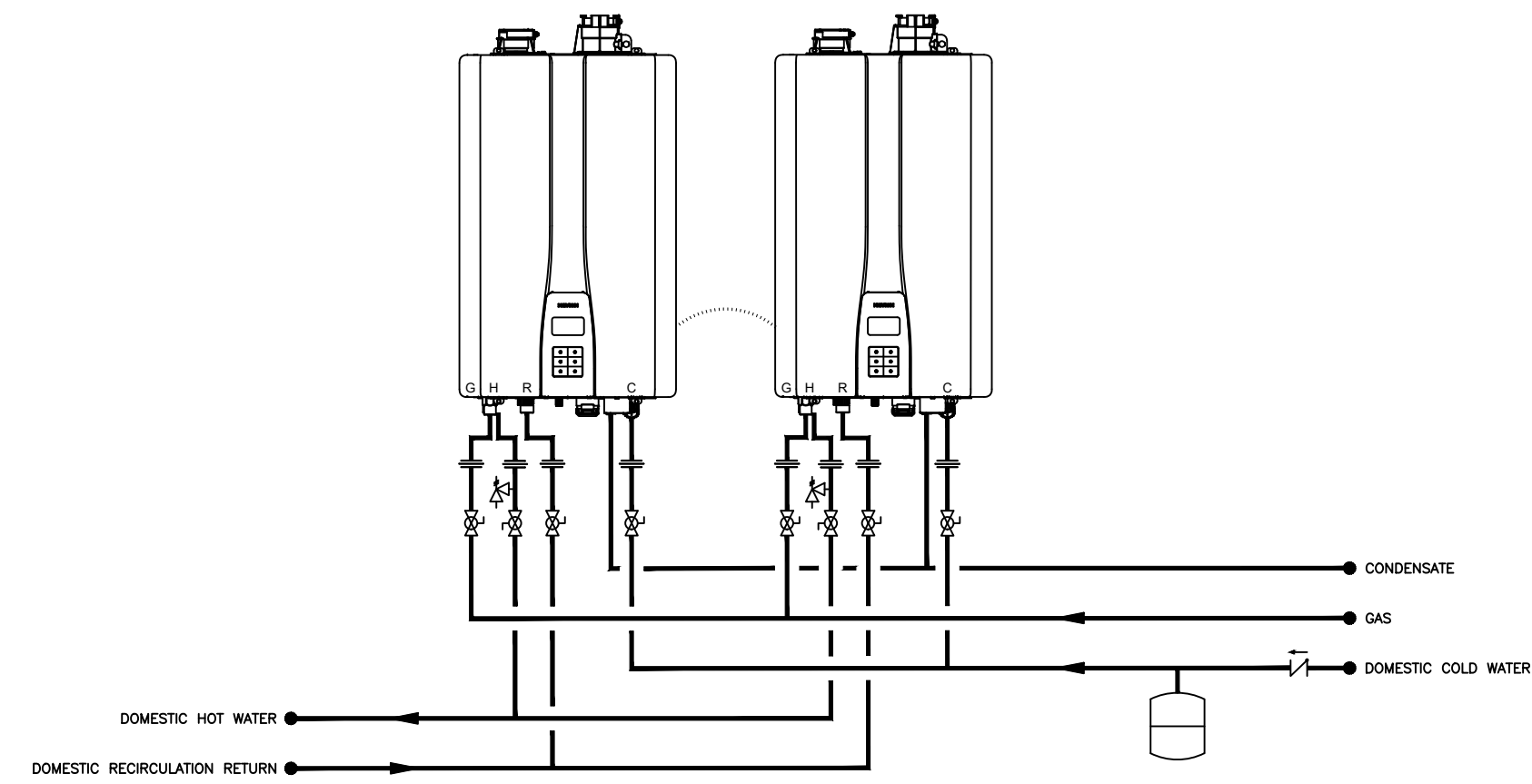
② AIR INTAKE DETAIL
NO SCALE



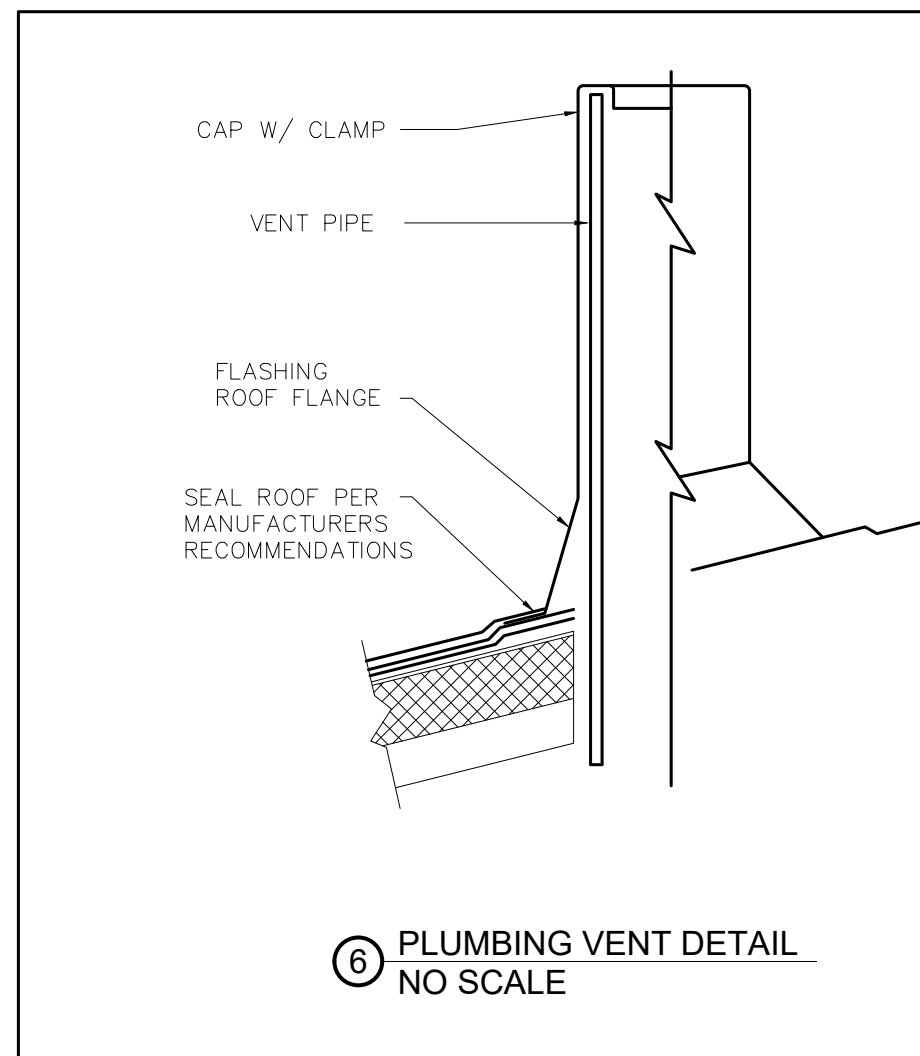
③ EXHAUST FAN EF-2 DETAIL
NO SCALE



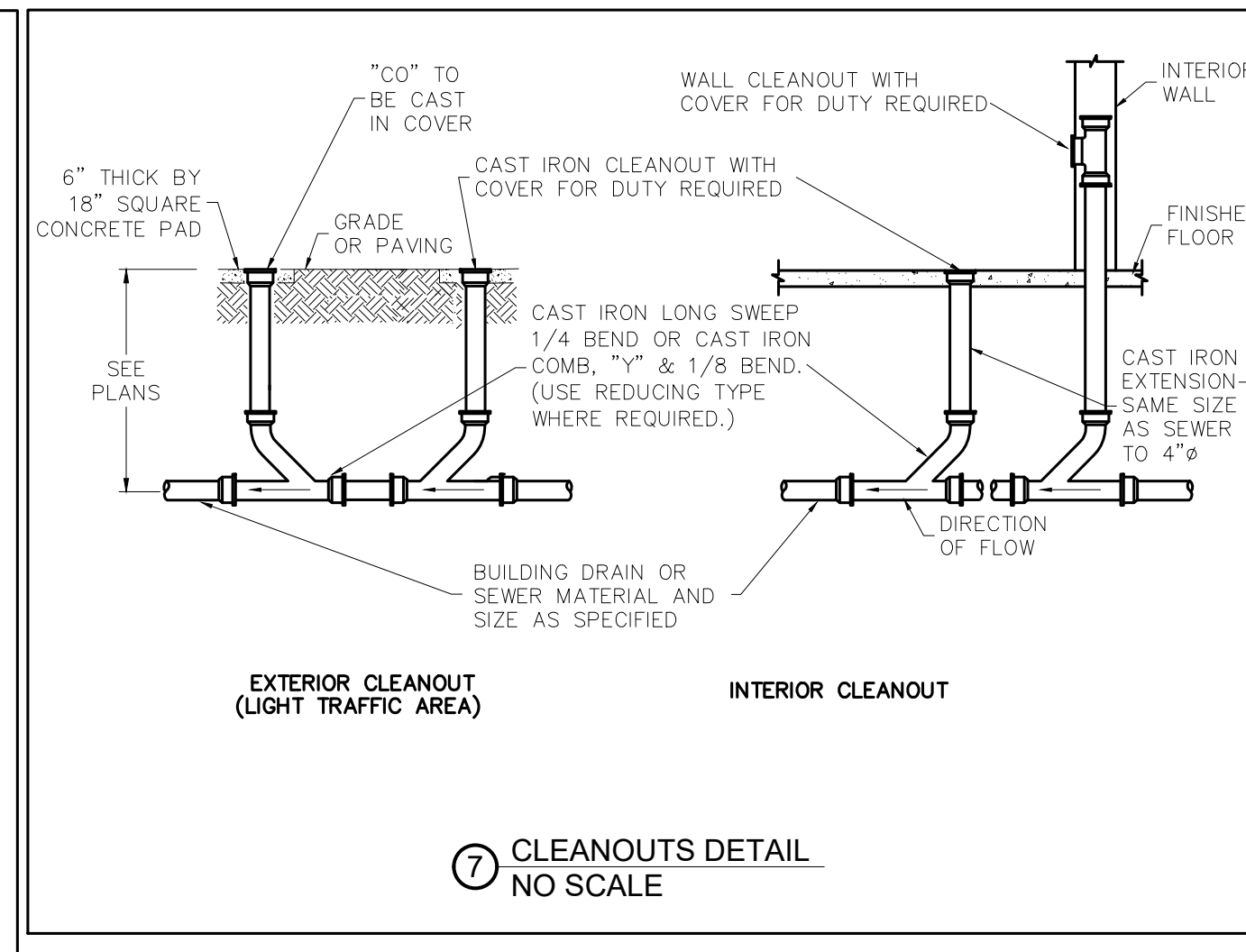
④ CO/NO2 WIRING SCHEMATIC
NO SCALE



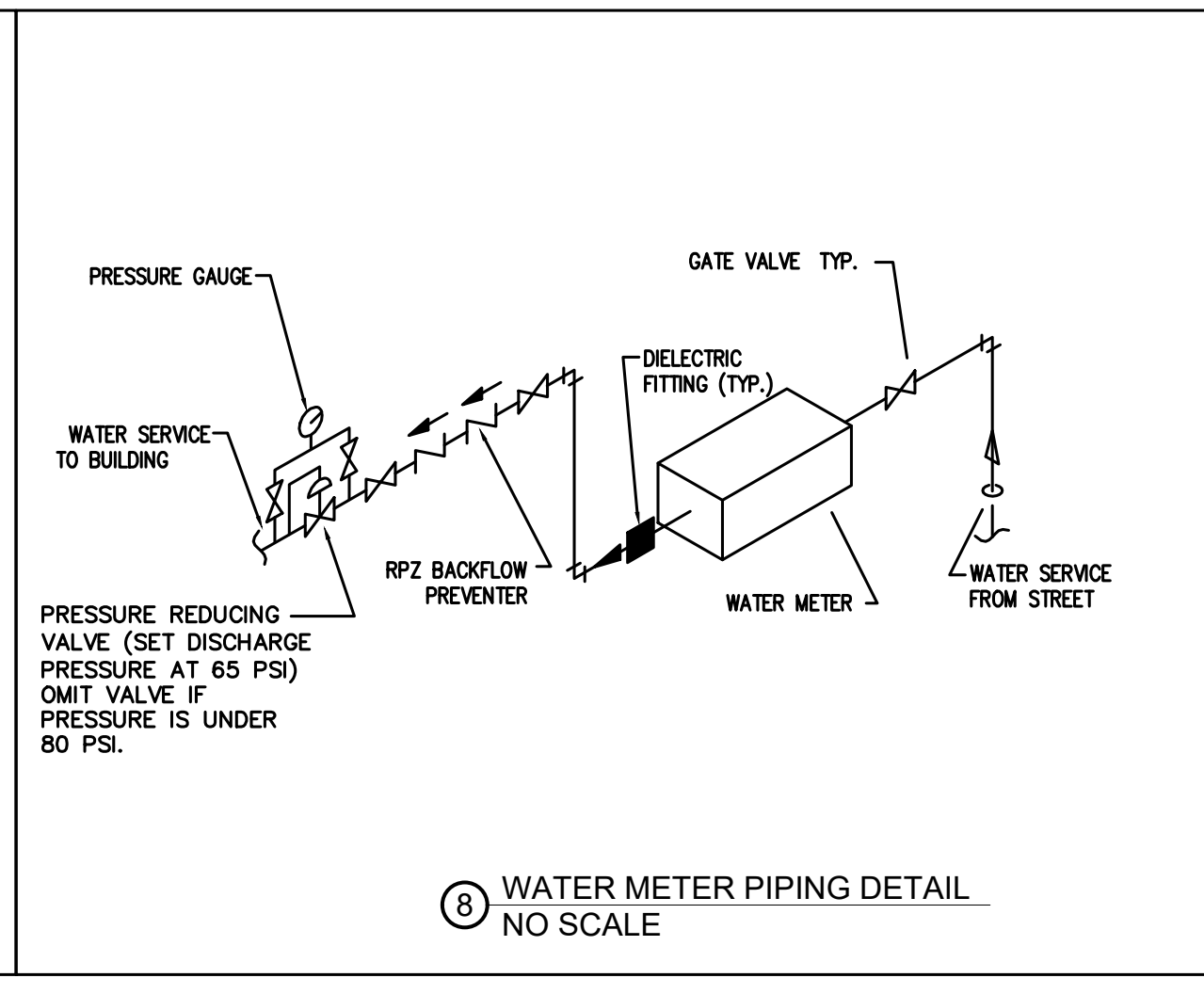
⑤ DUAL WATER HEATER DETAIL
NO SCALE



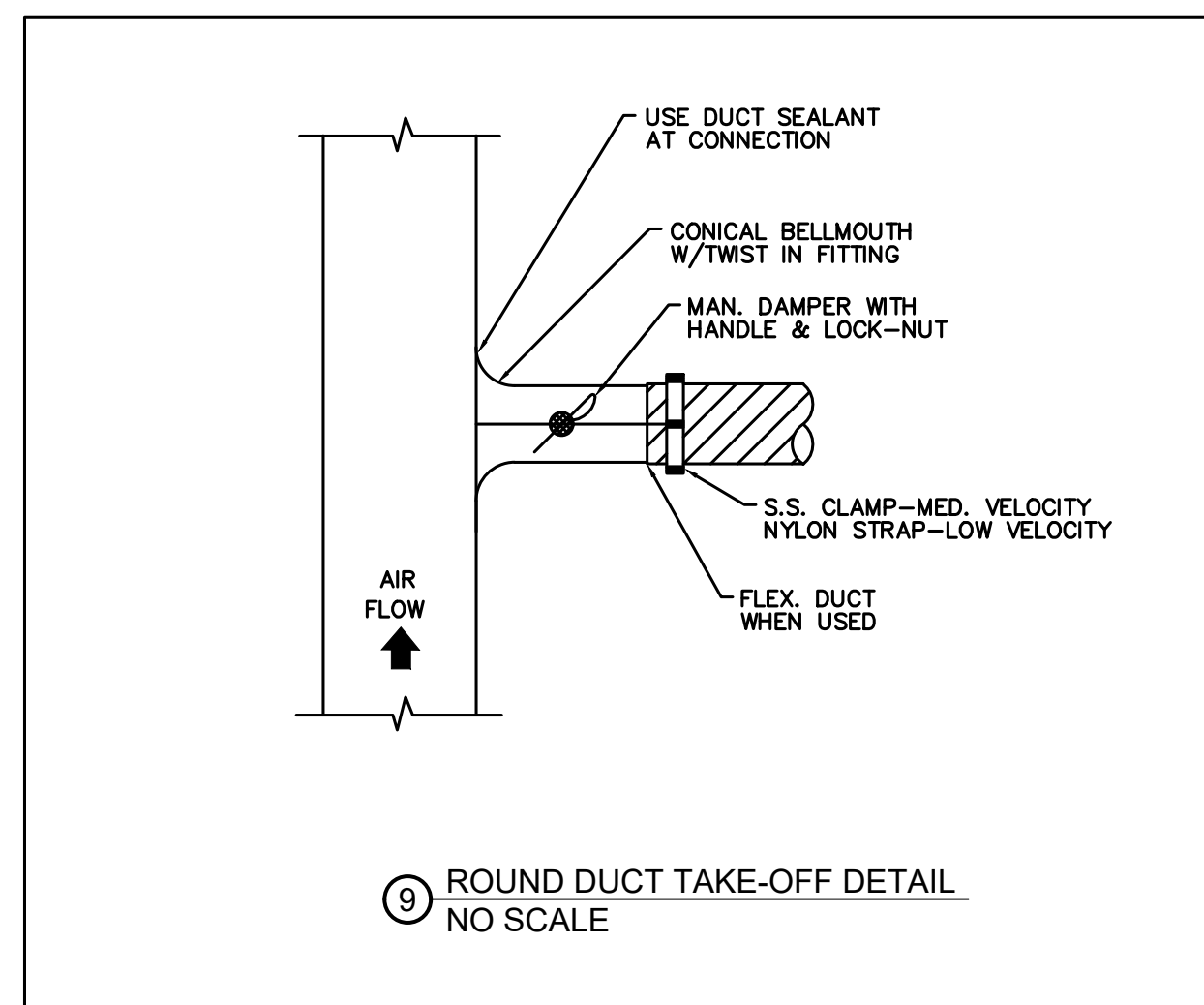
⑥ PLUMBING VENT DETAIL
NO SCALE



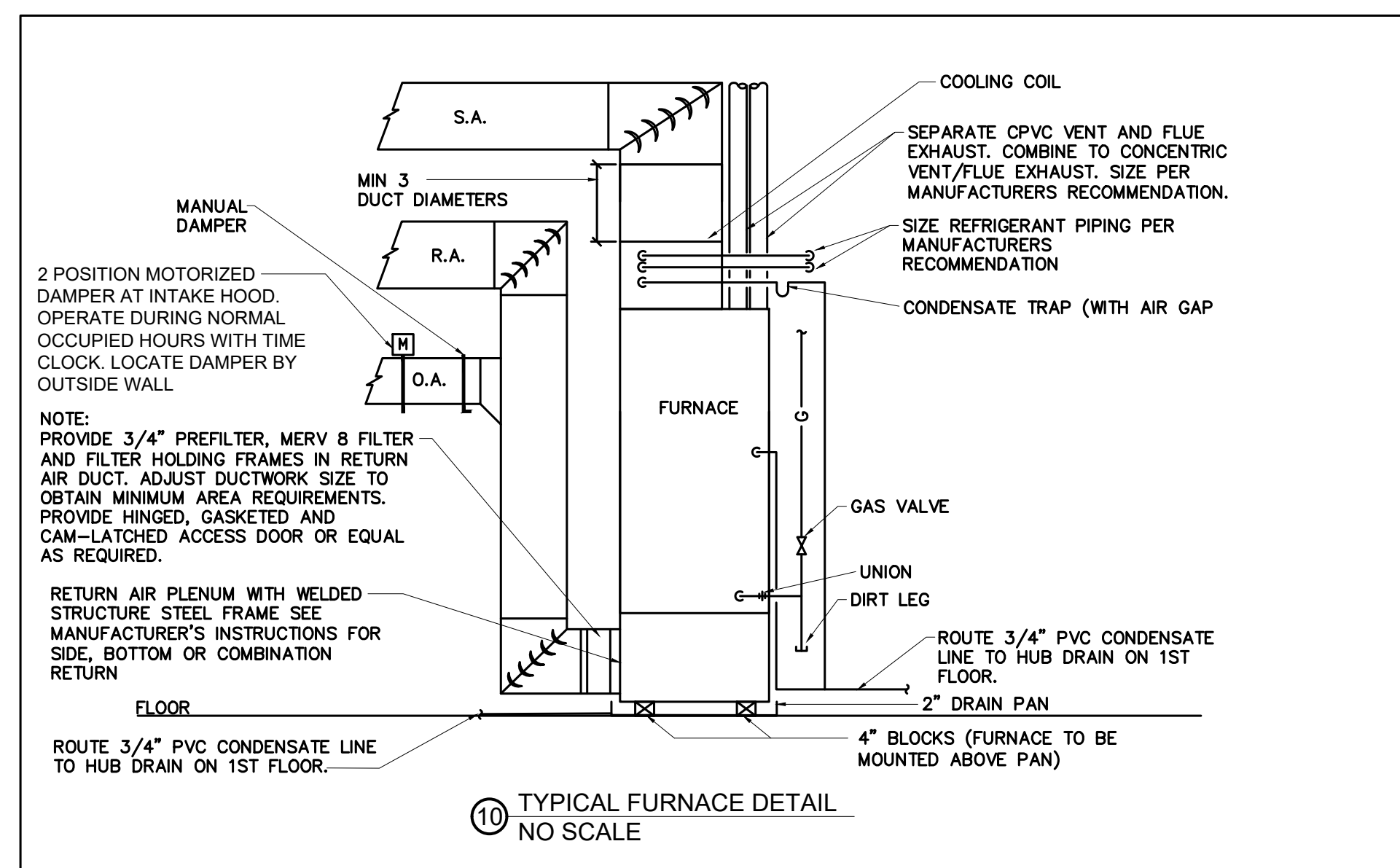
⑦ CLEANOUTS DETAIL
NO SCALE



⑧ WATER METER PIPING DETAIL
NO SCALE



⑨ ROUND DUCT TAKE-OFF DETAIL
NO SCALE



⑩ TYPICAL FURNACE DETAIL
NO SCALE

| REV. | DATE | BY | REMARKS |
|------|------|----|---------|
| | | | |

DESIGNED
DRAWN
REVIEWED
APPROVED

WILLET HOFMANN & ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
OTTUMWA, IOWA
MECHANICAL DETAILS

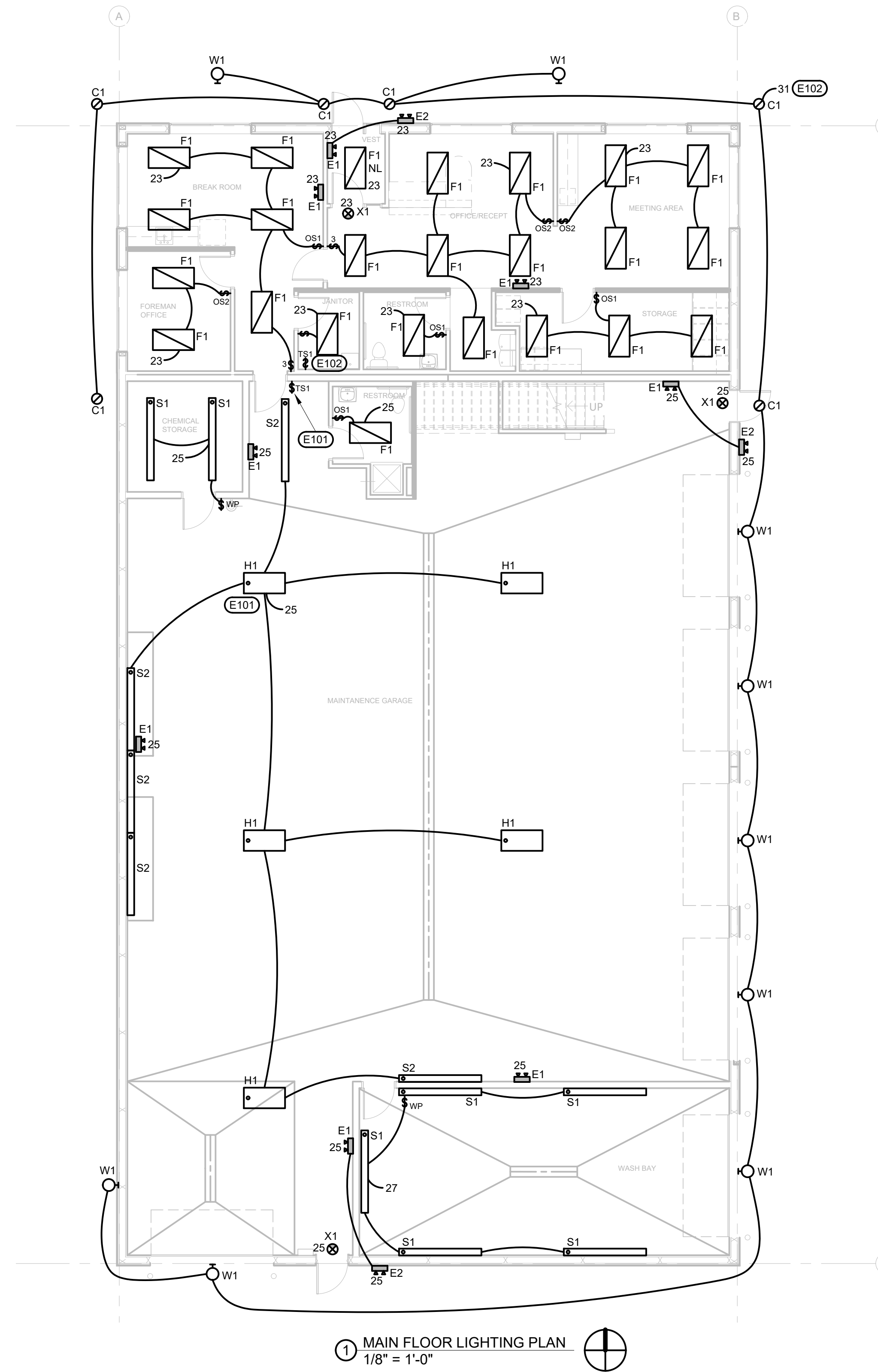
PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
1520C22

DATE
10-25-2024

SHEET No.
M3

WPE WEST PLAINS ENGINEERING, INC.
215 2ND AVENUE SE, SUITE 200 • CEDAR RAPIDS, IA 52401
PHONE: (319) 365-0030 • FAX: (319) 365-4122
WWW.WESTPLAINSENGINEERING.COM
RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA



1 MAIN FLOOR LIGHTING PLAN
1/8" = 1'-0"

GENERAL ELECTRICAL NOTES:

- A. COORDINATE DEVICE LOCATIONS/HEIGHTS WITH ARCHITECTURAL ELEVATIONS/DETAILS PRIOR TO ROUGH-IN.
- B. COORDINATE WORK WITH THE HVAC CONTRACTOR, AND ANY OTHER ASSOCIATED CONTRACTORS. VERIFY ALL EQUIPMENT LOADS PRIOR TO INSTALLATION OF WIRING AND DEVICES.
- C. ALL COMMUNICATION CABLING AND DEVICES ARE BY OTHERS, THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR RACEWAY AND ROUGH-IN BOXES ONLY.
- D. BELOW IS A LIST OF SOME COMMON REQUIREMENTS OUTLINED IN THE SPECIFICATION. REFER TO THE SPECIFICATION FOR MORE DETAILED INFORMATION FOR THESE AND ALL OTHER ITEMS.
 - 1. CONDUIT PENETRATIONS THROUGH WALLS SHALL BE SEALED.
 - 2. EMT FITTINGS SHALL BE SET SCREW TYPE. MINIMUM CONDUIT SIZE SHALL BE 1/2".
 - 3. BOXES FLUSH IN COMMON WALL SHALL NOT BE BACK-TO-BACK OR THROUGH-WALL TYPE.
 - 4. RECEPTACLES AND SWITCHES SHALL BE 20 AMP COMMERCIAL GRADE.
 - 5. CONDUITS, JUNCTION BOXES, WIRING, AND EQUIPMENT SHALL BE LABELED PER NEC.
 - 6. PROVIDE A GREEN GROUND CONDUCTOR THROUGHOUT ALL NEW ELECTRICAL WORK.
 - 7. PROVIDE SEPARATE NEUTRAL FOR EACH ELECTRICAL PHASE.
- E. EXIT SIGNS AND EMERGENCY FIXTURES SHALL BE CONNECTED TO UNSWITCHED PORTION OF LIGHTING CIRCUIT.

LIGHTING PLAN NOTES:

- E101. ASTRONOMICAL TIME SWITCH "TS1" SHALL CONTROL LIGHTING IN GARAGE. SEE DETAIL.
- E102. ASTRONOMICAL TIME SWITCH "TS1" SHALL CONTROL EXTERIOR LIGHTING. SEE DETAIL.

| LIGHTING/SWITCHING KEY | |
|------------------------|--|
| X# | = LIGHT FIXTURE TYPE PER LIGHT FIXTURE SCHEDULE |
| EM | = EMERGENCY LIGHT FIXTURE |
| NL | = NIGHT LIGHT FIXTURE |
| # | = PANEL CIRCUIT NUMBER |
| ## | = HEIGHT TO CENTER OF FIXTURE OR SWITCH ABOVE FINISHED FLOOR (48" FOR SWITCHES IF NOT SHOWN) |
| x | = SWITCHING SCHEME |

WPE WEST PLAINS ENGINEERING, INC.
 215 2ND AVENUE SE, SUITE 200 • CEDAR RAPIDS, IA 52401
 PHONE: (319) 365-0030 • FAX: (319) 365-4122
 www.westplainsengineering.com
 RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA

| | | | |
|----------|----|------|-----------|
| DESIGNED | BY | DATE | REVISIONS |
| DRAWN | | | |
| REVIEWED | | | |
| APPROVED | | | |

WILLETT HOFMANN & ASSOCIATES, INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 © Copyright 2024 Willett, Hofmann & Associates, Inc.

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
 MAIN FLOOR LIGHTING PLAN

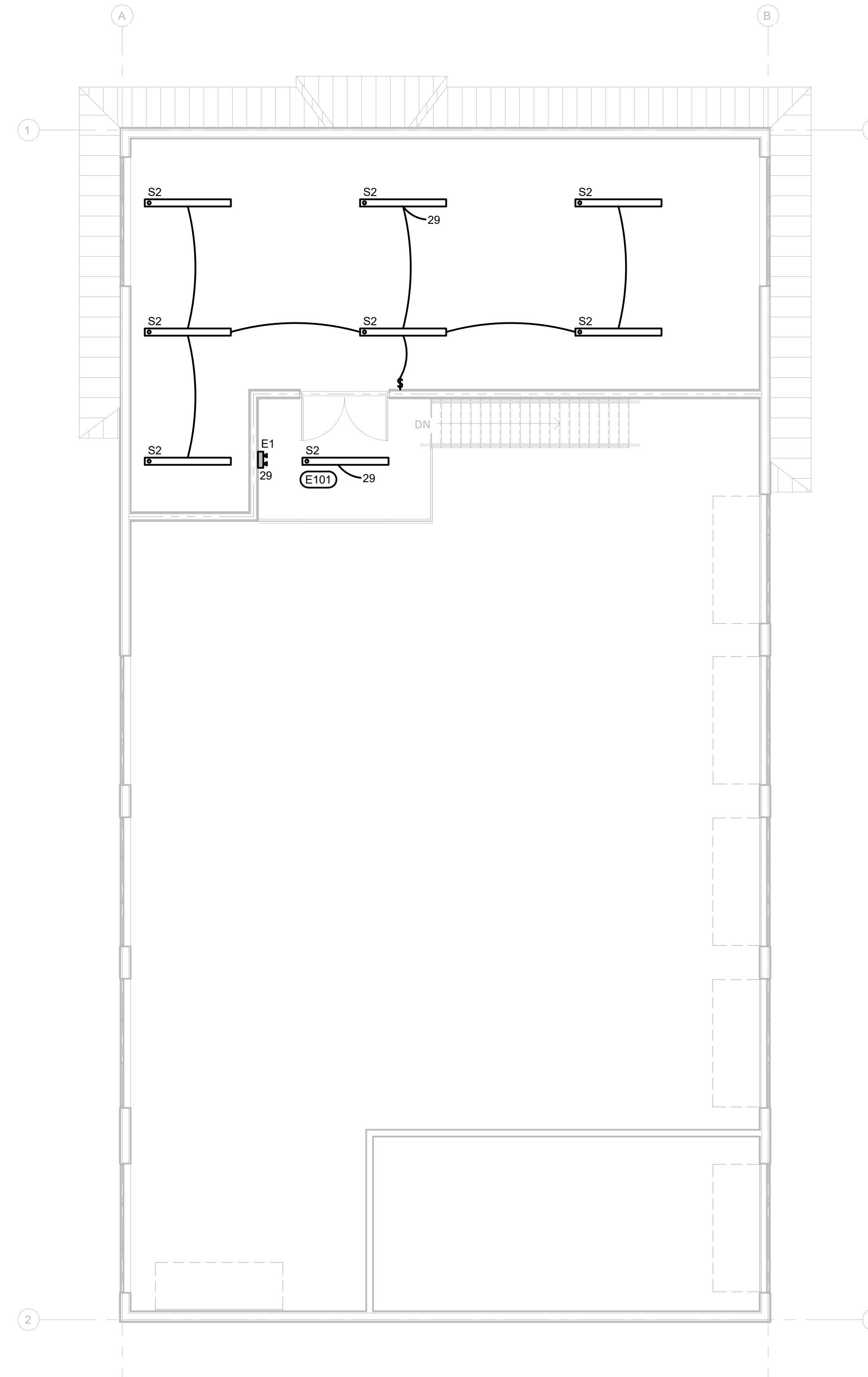
PHASE

- PRELIM
- PERMIT
- FINAL
- BID
- CONST

WHA No.
1520C22

DATE
10-25-2024

SHEET No.
E1



1 MEZZANINE FLOOR LIGHTING PLAN
1/8" = 1'-0"

GENERAL ELECTRICAL NOTES:

- A. COORDINATE DEVICE LOCATIONS/HEIGHTS WITH ARCHITECTURAL ELEVATIONS/DETAILS PRIOR TO ROUGH-IN.
- B. COORDINATE WORK WITH THE HVAC CONTRACTOR, AND ANY OTHER ASSOCIATED CONTRACTORS. VERIFY ALL EQUIPMENT LOADS PRIOR TO INSTALLATION OF WIRING AND DEVICES.
- C. ALL COMMUNICATION CABLING AND DEVICES ARE BY OTHERS, THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR RACEWAY AND ROUGH-IN BOXES ONLY.
- D. BELOW IS A LIST OF SOME COMMON REQUIREMENTS OUTLINED IN THE SPECIFICATION. REFER TO THE SPECIFICATION FOR MORE DETAILED INFORMATION FOR THESE AND ALL OTHER ITEMS.
 - 1. CONDUIT PENETRATIONS THROUGH WALLS SHALL BE SEALED.
 - 2. EMT FITTINGS SHALL BE SET SCREW TYPE. MINIMUM CONDUIT SIZE SHALL BE 1/2".
 - 3. BOXES FLUSH IN COMMON WALL SHALL NOT BE BACK-TO-BACK OR THROUGH-WALL TYPE.
 - 4. RECEPTACLES AND SWITCHES SHALL BE 20 AMP COMMERCIAL GRADE.
 - 5. CONDUITS, JUNCTION BOXES, WIRING, AND EQUIPMENT SHALL BE LABELED PER NEC.
 - 6. PROVIDE A GREEN GROUND CONDUCTOR THROUGHOUT ALL NEW ELECTRICAL WORK.
 - 7. PROVIDE SEPARATE NEUTRAL FOR EACH ELECTRICAL PHASE.
- E. EXIT SIGNS AND EMERGENCY FIXTURES SHALL BE CONNECTED TO UNSWITCHED PORTION OF LIGHTING CIRCUIT.

LIGHTING PLAN NOTES:

- E101. ASTRONOMICAL TIME SWITCH "TS1" SHALL CONTROL LIGHTING IN GARAGE. SEE DETAIL.
- E102. ASTRONOMICAL TIME SWITCH "TS1" SHALL CONTROL EXTERIOR LIGHTING. SEE DETAIL.

| LIGHTING/SWITCHING KEY | |
|------------------------|--|
| X# | = LIGHT FIXTURE TYPE PER LIGHT FIXTURE SCHEDULE |
| EM | = EMERGENCY LIGHT FIXTURE |
| NL | = NIGHT LIGHT FIXTURE |
| # | = PANEL CIRCUIT NUMBER |
| #" | = HEIGHT TO CENTER OF FIXTURE OR SWITCH ABOVE FINISHED FLOOR (48" FOR SWITCHES IF NOT SHOWN) |
| x | = SWITCHING SCHEME |

WPE WEST PLAINS ENGINEERING, INC.
 215 2ND AVENUE SE, SUITE 200 • CEDAR RAPIDS, IA 52401
 PHONE: (319) 365-0030 • FAX: (319) 365-4122
 WWW.WESTPLAINSENGINEERING.COM
 RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA

| | | | |
|----------|----|------|---------|
| DESIGNED | BY | DATE | REMARKS |
| DRAWN | | | |
| REVIEWED | | | |
| APPROVED | | | |

WILLETT HOFMANN & ASSOCIATES, INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 © Copyright 2024 Willett, Hofmann & Associates, Inc.

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
 MEZZANINE FLOOR LIGHTING PLAN

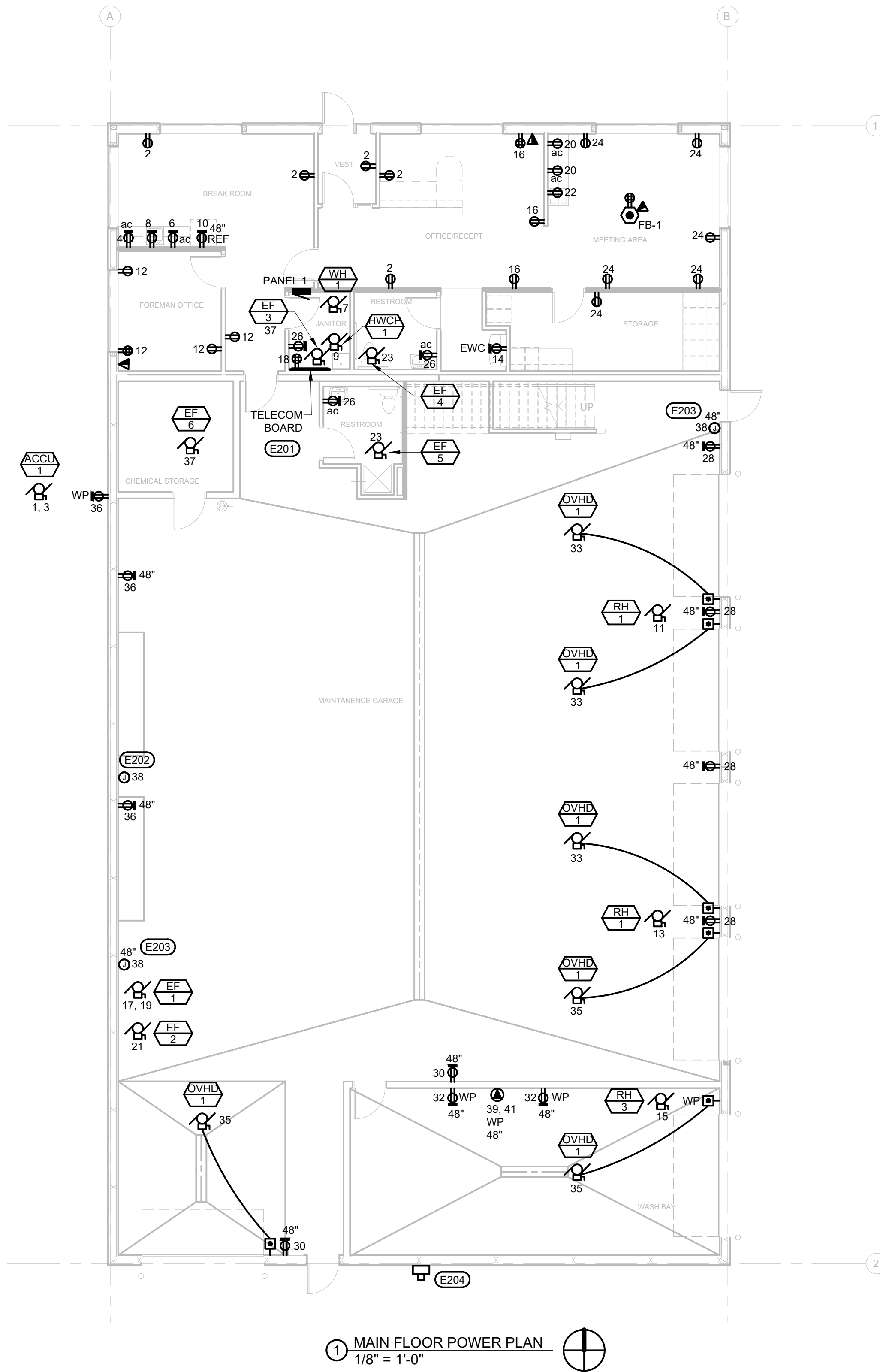
PHASE

- PRELIM
- PERMIT
- FINAL
- BID
- CONST

WHA No.
1520C22

DATE
10-25-2024

SHEET No.
E2



1 MAIN FLOOR POWER PLAN
1/8" = 1'-0"

GENERAL ELECTRICAL NOTES:

- A. COORDINATE DEVICE LOCATIONS/HEIGHTS WITH ARCHITECTURAL ELEVATIONS/DETAILS PRIOR TO ROUGH-IN.
- B. COORDINATE WORK WITH THE HVAC CONTRACTOR, AND ANY OTHER ASSOCIATED CONTRACTORS. VERIFY ALL EQUIPMENT LOADS PRIOR TO INSTALLATION OF WIRING AND DEVICES.
- C. ALL COMMUNICATION CABLING AND DEVICES ARE BY OTHERS, THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR RACEWAY AND ROUGH-IN BOXES ONLY.
- D. BELOW IS A LIST OF SOME COMMON REQUIREMENTS OUTLINED IN THE SPECIFICATION. REFER TO THE SPECIFICATION FOR MORE DETAILED INFORMATION FOR THESE AND ALL OTHER ITEMS.
 - 1. CONDUIT PENETRATIONS THROUGH WALLS SHALL BE SEALED.
 - 2. EMT FITTINGS SHALL BE SET SCREW TYPE. MINIMUM CONDUIT SIZE SHALL BE 1/2".
 - 3. BOXES FLUSH IN COMMON WALL SHALL NOT BE BACK-TO-BACK OR THROUGH-WALL TYPE.
 - 4. RECEPTACLES AND SWITCHES SHALL BE 20 AMP COMMERCIAL GRADE.
 - 5. CONDUITS, JUNCTION BOXES, WIRING, AND EQUIPMENT SHALL BE LABELED PER NEC.
 - 6. PROVIDE A GREEN GROUND CONDUCTOR THROUGHOUT ALL NEW ELECTRICAL WORK.
 - 7. PROVIDE SEPARATE NEUTRAL FOR EACH ELECTRICAL PHASE.
- E. EXIT SIGNS AND EMERGENCY FIXTURES SHALL BE CONNECTED TO UNSWITCHED PORTION OF LIGHTING CIRCUIT.

POWER AND COMMUNICATION PLAN NOTES:

- E201. PROVIDE AND INSTALL A 3/4" x 4' x 4' PLYWOOD BOARD FOR TELECOM. PROVIDE TWO 2" CONDUITS TO BETWEEN SOUTH PARKING LOT AND EAST PARK AVENUE. COORDINATE WITH UTILITY.
- E202. GAS DETECTION LOOP CONTROLLER.
- E203. CARBON MONOXIDE DETECTOR, INTERLOCK DAMPER WITH ASSOCIATED MOTOR, PROVIDE NECESSARY CONTROL WIRING AND CONDUIT. PROVIDE 120V CIRCUIT SHOWN FOR MOTORIZED DAMPER. SEE MECHANICAL DETAIL.
- E204. ELECTRICAL UTILITY METER. SEE ELECTRICAL SCHEMATIC RISER DIAGRAM.

RECEPTACLE/OUTLET KEY

= PANEL CIRCUIT NUMBER
 ##" = HEIGHT TO CENTER OF RECEPTACLE OR OTHER OUTLET ABOVE FINISHED FLOOR (18" IF NOT SHOWN)
 ac = RECEPTACLE OR OTHER OUTLET MOUNTED 6" ABOVE COUNTER OR 4" ABOVE BACKSPLASH

COMMUNICATIONS KEY

RV #D COMMUNICATIONS OUTLET
 RV = QUANTITY OF VOICE JACKS/CABLES (ZERO IF NOT SHOWN)
 #D = QUANTITY OF DATA JACKS/CABLES (ZERO IF NOT SHOWN)
 RI = ROUGH-IN ONLY (NO CABLES/JACKS)
 ##" = HEIGHT TO CENTER OF OUTLET (18" UNLESS NOTED OTHERWISE)
 TV TELEVISION OUTLET WITH (NO CABLES/JACKS)

WPE WEST PLAINS ENGINEERING, INC.
 215 2ND AVENUE SE, SUITE 200 • CEDAR RAPIDS, IA 52401
 PHONE: (319) 365-0030 • FAX: (319) 365-4122
 WWW.WESTPLAINSENGINEERING.COM
 RAPID CITY, SD • SIOUX FALLS, SD • COOPER, WY • CEDAR RAPIDS, IA

| | | | |
|----------|----|------|---------|
| DESIGNED | BY | DATE | REMARKS |
| DRAWN | | | |
| REVIEWED | | | |
| APPROVED | | | |

WILLET HOFMANN & ASSOCIATES, INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 © Copyright 1998 Willett, Hofmann & Associates, Inc.

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA
 MAIN FLOOR POWER PLAN

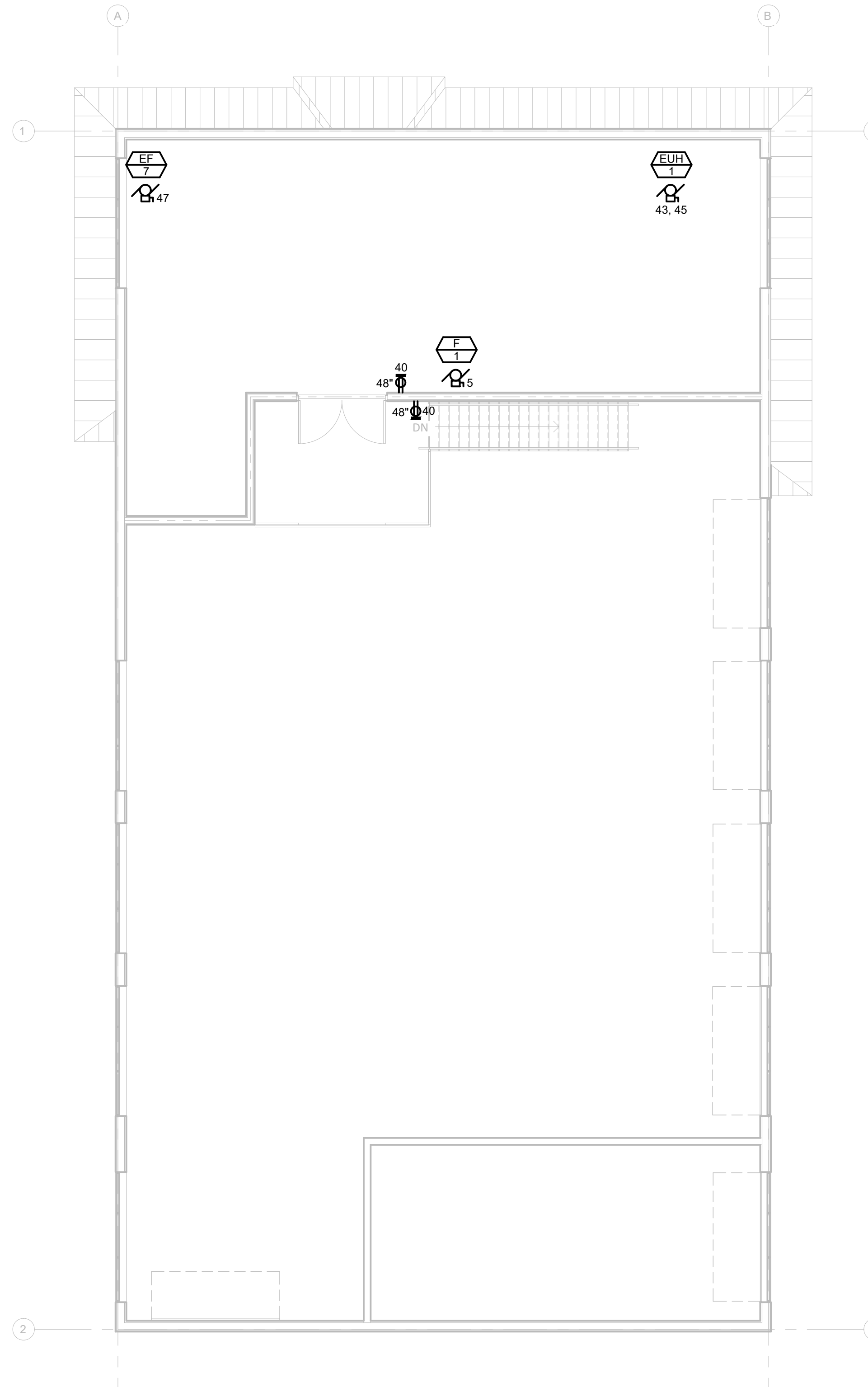
PHASE

PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
1520C22

DATE
10-25-2024

SHEET No.
E3



1 MEZZANINE FLOOR POWER PLAN
1/8" = 1'-0"

GENERAL ELECTRICAL NOTES:

- A. COORDINATE DEVICE LOCATIONS/HEIGHTS WITH ARCHITECTURAL ELEVATIONS/DETAILS PRIOR TO ROUGH-IN.
- B. COORDINATE WORK WITH THE HVAC CONTRACTOR, AND ANY OTHER ASSOCIATED CONTRACTORS. VERIFY ALL EQUIPMENT LOADS PRIOR TO INSTALLATION OF WIRING AND DEVICES.
- C. ALL COMMUNICATION CABLEING AND DEVICES ARE BY OTHERS, THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR RACEWAY AND ROUGH-IN BOXES ONLY.
- D. BELOW IS A LIST OF SOME COMMON REQUIREMENTS OUTLINED IN THE SPECIFICATION. REFER TO THE SPECIFICATION FOR MORE DETAILED INFORMATION FOR THESE AND ALL OTHER ITEMS.
 - 1. CONDUIT PENETRATIONS THROUGH WALLS SHALL BE SEALED.
 - 2. EMT FITTINGS SHALL BE SET SCREW TYPE. MINIMUM CONDUIT SIZE SHALL BE 1/2".
 - 3. BOXES FLUSH IN COMMON WALL SHALL NOT BE BACK-TO-BACK OR THROUGH-WALL TYPE.
 - 4. RECEPTACLES AND SWITCHES SHALL BE 20 AMP COMMERCIAL GRADE.
 - 5. CONDUITS, JUNCTION BOXES, WIRING, AND EQUIPMENT SHALL BE LABELED PER NEC.
 - 6. PROVIDE A GREEN GROUND CONDUCTOR THROUGHOUT ALL NEW ELECTRICAL WORK.
 - 7. PROVIDE SEPARATE NEUTRAL FOR EACH ELECTRICAL PHASE.
- E. EXIT SIGNS AND EMERGENCY FIXTURES SHALL BE CONNECTED TO UNSWITCHED PORTION OF LIGHTING CIRCUIT.

| COMMUNICATIONS KEY | |
|--------------------|--|
| ∇ #/ | #/ COMMUNICATIONS OUTLET |
| ∇ #/ | #/ QUANTITY OF VOICE JACKS/CABLES (ZERO IF NOT SHOWN) |
| ∇ #/ | #/ QUANTITY OF DATA JACKS/CABLES (ZERO IF NOT SHOWN) |
| R# | R# = ROUGH-IN ONLY (NO CABLES/JACKS) |
| H# | H# = HEIGHT TO CENTER OF OUTLET (18" UNLESS NOTED OTHERWISE) |
| ∇ TV | TELEVISION OUTLET WITH (NO CABLES/JACKS) |

| RECEPTACLE/OUTLET KEY | |
|-----------------------|---|
| # | # = PANEL CIRCUIT NUMBER |
| H# | H# = HEIGHT TO CENTER OF RECEPTACLE OR OTHER OUTLET ABOVE FINISHED FLOOR (18" IF NOT SHOWN) |
| ac | ac = RECEPTACLE OR OTHER OUTLET MOUNTED 8" ABOVE COUNTER OR 4" ABOVE BACKSPASH |

WPE WEST PLAINS ENGINEERING, INC.
 215 2ND AVENUE SE, SUITE 200 • CEDAR RAPIDS, IA 52401
 PHONE: (319) 365-0030 • FAX: (319) 365-4122
 WWW.WESTPLAINSENGINEERING.COM
 RAPID CITY, SD • SIOUX FALLS, SD • CUSTER, WY • CEDAR RAPIDS, IA

| | | |
|----------|------|---------|
| DESIGNED | BY | REMARKS |
| DRAWN | DATE | |
| REVIEWED | | |
| APPROVED | | |

WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 OTTUMWA, IOWA
MEZZANINE FLOOR POWER PLAN

OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG
 OTTUMWA, IOWA

PHASE
 PRELIM
 PERMIT
 FINAL
 BID
 CONST

WHA No.
1520C22

DATE
10-25-2024

SHEET No.
E4

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2024 Willett, Hofmann & Associates, Inc.

ELECTRICAL SYMBOLS

THESE SYMBOLS COMPRISE A STANDARD LIST; NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT.
ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR. MOUNTING HEIGHTS INDICATED ON ARCH WALL ELEVATIONS GRAS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED BELOW.

| LIGHTING | | |
|----------|--|--|
| | CEILING SURFACE MOUNT FIXTURE (Capital letter indicates fixture type. Small letter indicates wiring.) Typical for all fixture types. | EMERGENCY RECESSED FIXTURE |
| | EMERGENCY CEILING SURFACE MOUNT FIXTURE | RECESSED FIXTURE |
| | WALL FIXTURE | WALL FIXTURE |
| | EMERGENCY WALL FIXTURE | FLOOD LIGHT |
| | RECESSED FIXTURE | TRACK LIGHT |
| | EMERGENCY RECESSED FIXTURE | PHOTO ELECTRIC CELL |
| | EXTERIOR POLE LIGHT | LIGHTING CONTACTOR (S47M.H.) |
| | BOLLARD LIGHT | TIME CLOCK (60" M.H.) |
| | SURFACE MOUNT FIXTURE | EMERGENCY LIGHTING BATTERY PACK |
| | EMERGENCY SURFACE MOUNT FIXTURE | CEILING EXIT LIGHT (FACE(S) SHADED, ARROW INDICATES CHEVRON) |
| | | WALL EXIT LIGHT (FACE(S) SHADED, ARROW INDICATES CHEVRON) |

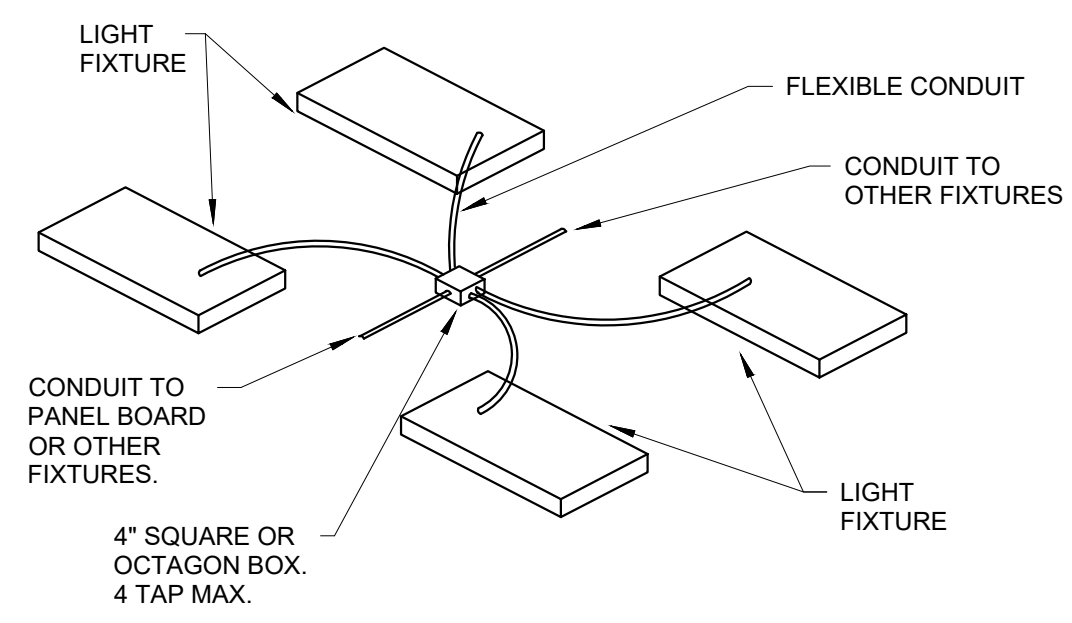
| POWER | | |
|-------|---|---|
| | PUSH BUTTON STATION (62" M.H.) | BLANK OUTLET |
| | DOUBLE PUSH BUTTON STATION | JUNCTION BOX |
| | EMERGENCY SHUTDOWN PUSHBUTTON | PULL BOX |
| | ISOLATED GROUND RECEPTACLE (18" M.H.) | MOTOR |
| | DUPLEX CONVENIENCE RECEPTACLE (18" M.H.) | DISCONNECT SWITCH |
| | SINGLE RECEPTACLE (18" M.H.) | GENERATOR ANNUNCIATOR PANEL |
| | DOUBLE DUPLEX CONVENIENCE RECEPTACLE (18" M.H.) | AUTOMATIC TRANSFER SWITCH |
| | DOUBLE DUPLEX CONVENIENCE RECEPTACLE (18" M.H.) | VARIABLE FREQUENCY DRIVE |
| | SPLIT WIRED DUPLEX RECEPTACLE (18" M.H.) | COMBINATION VARIABLE FREQUENCY DRIVE DISCONNECT |
| | SAFETY CONVENIENCE RECEPTACLE | MAGNETIC STARTER |
| | POWER RECEPTACLE | COMBINATION STARTER/DISCONNECT |
| | EMERGENCY DUPLEX RECEPTACLE | MOTOR THERMAL SWITCH |
| | TWIST LOCK RECEPTACLE | TRANSFORMER |
| | GFI DUPLEX CONVENIENCE RECEPTACLE | ELECTRIC METER |
| | GFI DUPLEX CONVENIENCE RECEPTACLE | SWITCHBOARD/DISTRIBUTION PANEL SECTION |
| | SPECIAL PURPOSE OUTLET OR CONNECTION | PANELBOARD OR LOAD CENTER CENTER (EXISTING TO REMAIN) |
| | CORDPLUG | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| | CORD REEL | CIRCUIT BREAKER |
| | CEILING DUPLEX RECEPTACLE | FUSE |
| | FLUSH FLOOR DUPLEX RECEPTACLE | TRAVELER |
| | FLUSH FLOOR DUPLEX RECEPTACLE | HOT |
| | FLUSH FLOOR DUPLEX RECEPTACLE | HUMIDISTAT |
| | FLUSH FLOOR MULTI-SERVICE OUTLET (WITH DEVICES INDICATED) | THERMOSTAT |
| | MULTI-SERVICE POLE (WITH DEVICES INDICATED) | |

| SOUND AND SECURITY | | |
|--------------------|---|---|
| | FLUSH SPEAKER | SURVEILLANCE VIDEO CAMERA - PAN/TILT/ZOOM |
| | SURFACE SPEAKER | SURVEILLANCE VIDEO MONITOR |
| | PAGING HORN | SURVEILLANCE VIDEO RECORDER |
| | VOLUME CONTROL (46" M.H.) | SURVEILLANCE VIDEO SWITCHER |
| | MICROPHONE OUTLET (18" M.H.) | ALARM CONTROL PANEL |
| | AUXILIARY OUTLET | BURGLAR ALARM ANNUNCIATOR |
| | AMPLIFIER | ANTENNA (AS NOTED) |
| | SURVEILLANCE VIDEO CAMERA | ALARM PANIC SWITCH |
| | CEILING MOUNTED SURVEILLANCE VIDEO CAMERA | |
| | ALARM DOOR SWITCH | |
| | DOOR RELEASE MECHANISM | |
| | ALARM MOTION DETECTOR | |
| | ALARM SHUNT PAD | |
| | ALARM KEYPAD | |
| | CARD ACCESS | |
| | SECURITY INTERCOM (64" M.H.) | |
| | REQUEST EXIT PUSH BUTTON | |

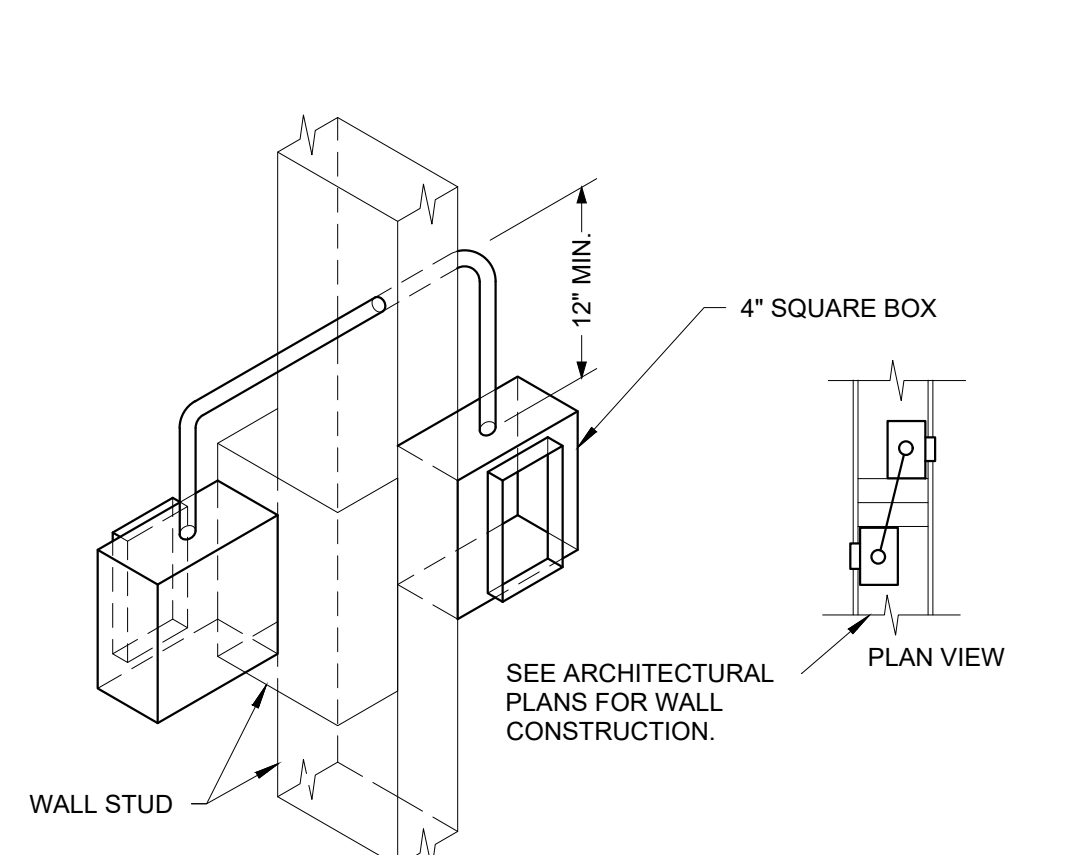
ELECTRICAL ABBREVIATIONS

A STANDARD LIST; NOT ALL WORDS APPEAR IN THESE DRAWINGS.

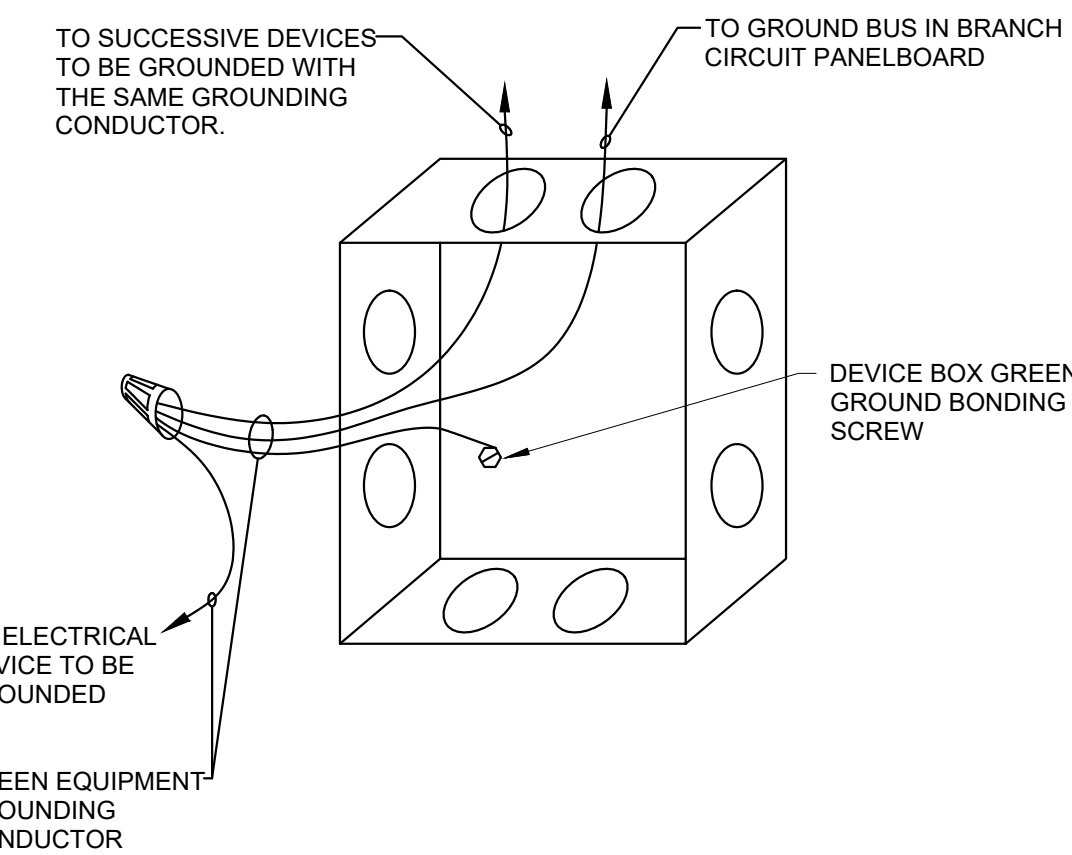
| SEE SPECIFICATION SECTION "EQUIPMENT WIRING" FOR ADDITIONAL INFORMATION AND REQUIREMENTS | | | |
|--|---|-----------------|---|
| A or AMP | AMPERE | LA | LIGHTNING ARRESTOR |
| AC | AIR CONDITIONING | LT | LIGHT |
| AE or AE | ARCHITECT & ENGINEER | LTG | LIGHTING |
| ac | ABOVE COUNTER | LTS | LIGHTS |
| AC | ALTERNATING CURRENT | MC | MECHANICAL CONTRACTOR |
| ADA | AMERICANS WITH DISABILITIES ACT | MCB | MAIN CIRCUIT BREAKER |
| AFF | ABOVE FINISH FLOOR | MCC | MOTOR CONTROL CENTER |
| AFG | ABOVE FINISH GRADE | MCM | THOUSAND CIRCULAR MILS |
| AFI or AFCI | ARC FAULT CIRCUIT INTERRUPTER | MDP | MAIN DISTRIBUTION PANEL |
| AHJ | AUTHORITY HAVING JURISDICTION | MECH | MECHANICAL |
| AHU | AIR HANDLING UNIT | MFS | MAIN FUSEIBLE SWITCH |
| AIC | ARRESTING INTERRUPTING CURRENT | MH | METAL HALIDE |
| AL | ALUMINUM | MLO | MAIN LUG ONLY |
| ANN | ANNUNCIATOR | MSB | MAIN SWITCHBOARD |
| AS | AUTOMATIC SENSORS | MTD | MOUNTED |
| AWG | AMERICAN WIRE GAUGE | MTS | MOTOR THERMAL SWITCH |
| bc | BELOW COUNTER | MV | MERCURY VAPOR |
| BC | BELOW COUNTER | MW | MICROWAVE |
| BH | BASKETBALL HOOP OPER | NA or N/A | NOT APPLICABLE |
| BL | BLEACHER ELECTRIC OPERATOR | NC | NORMALLY CLOSED |
| BRD or BD | BOARD | NEC | NATIONAL ELECTRICAL CODE |
| BUH | BLAST UNIT HEATER | NEMA | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION |
| C or COND | CONDUIT | NEU, NEUT or N | NEUTRAL |
| CB or CB | CIRCUIT BREAKER | NF | NON-FIRED |
| CAT | CATEGORY | NL | NIGHT LIGHT |
| CCT or CKT | CIRCUIT | NO | NORMALLY OPEN |
| CM | CARBON MONOXIDE SENSOR | OFF, OF, or OFC | OFFICE |
| CO | CARBON MONOXIDE | OH | OVERHEAD |
| COMB | COMBINATION | OOD | OVERHEAD DOOR |
| CONF | CONFERENCE | PA | POLE |
| CP | CEILING PROJECTOR | PA | PUBLIC ADDRESS |
| CTC | CABLE TERMINATION CABINET | PB | PUSH BUTTON |
| Cu or CU | COPPER | PH | PHASE |
| CJ | CONDENSING UNIT | PLB | PLUMBING |
| CUH | CABINET UNIT HEATER | PNL | PANEL |
| DC | DIRECT CURRENT | PR or pr | PAIR |
| DC | DISTRIBUTION CABINET | PTZ | POWER ROOF VENTILATOR |
| DF | DISTRIBUTION PANEL | PS | PULL SWITCH |
| DISC | DISCONNECT | PS | PROJECTION SCREEN |
| DISP | DISPOSAL | PAN TL ZOOM | PAN TILT ZOOM |
| DL | DOCK LEVELER | PVC | POLYVINYL CHLORIDE |
| DN or DWN | DOWN | PWR | POWER |
| DR | DOOR | RCP | REFLECTED CEILING PLAN |
| DW | DISHWASHER | REC or RECEPT | RECEPTACLE |
| DWG | DRAWING | REF or REFRIG | REFRIGERATOR |
| EC | ELECTRICAL CONTRACTOR | RH | RADIANT HEAT |
| EC | ELECTRICAL CABINET | RH | RANGE HOOD |
| EF | EXHAUST FAN | RLY | RELAY |
| EH | ELECTRICAL HEAT | RM | ROOM |
| ELEC | ELECTRIC OR ELECTRICAL | RMS | ROOT MEAN SQUARE |
| EHD | ELECTRIC HAND DRYER | SCC | SHORT CIRCUIT CURRENT |
| EM or EMERG | EMERGENCY | SD | SMOKE DETECTOR |
| EMT | ELECTRICAL METALLIC TUBING | SFR | SAFETY RECEPTACLE |
| ENT | ELECTRICAL NON-METALLIC TUBING | SFTY | SAFETY |
| EUIH | ELECTRIC UNIT HEATER | SHLD | SHIELD OR SHIELDED |
| EW | ELECTRIC WATER COOLER | SIG | SIGNAL |
| EX | EXISTING | SMR | SURFACE MOUNT RACEWAY |
| EXP | EXPLOSION PROOF | SN | SOLID NEUTRAL |
| F or FUS | FUSE OR FUSIBLE | SP | SUMP PUMP |
| FA | FIRE ALARM | SPECS | SPECIFICATIONS |
| FAAP | FIRE ALARM ANNUNCIATOR PANEL | SPR | SPEAKER |
| FACP | FIRE ALARM CONTROL PANEL | SPR | SPLIT WIRE RECEPTACLE |
| FBO | FURNISHED BY OTHERS | SW | SWITCH |
| FL, FLU or FLUOR | FLOORING | SWB | SWITCH BOARD |
| FLA | FULL LOAD AMPERES | | |
| FVNR | FULL VOLTAGE, NON-REVERSING | | |
| FVR | FULL VOLTAGE, REVERSING | | |
| GC | GENERAL CONTRACTOR | TC | TEMPERATURE CONTROL |
| GD | GARbage DISPOSAL | TC | TEMPERATURE CONTROL CONTRACTOR |
| GEN | GENERATOR | TEL | TELEPHONE |
| GFI or GFCI | GROUND FAULT CIRCUIT INTERRUPTER | TL | TWIST LOCK |
| GR | GALVANIZED RIGID CONDUIT | TR | TRANSFORMER |
| GND or GRND | GROUND | TTB | TELEPHONE TERMINATION BOARD |
| H & AC | HEATING & AIR CONDITIONING | TV | TELEVISION |
| H & V | HEATING & VENTILATING | TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSION |
| HA | HANDICAP ACCESS DOOR | TYP | TYPICAL |
| HD | HAND DRYER | UG | UNDERGROUND |
| HP | HIGH INTENSITY DISCHARGE | UH | UNIT HEATER |
| HP | HORSE POWER | UV | UNIT VENTILATOR |
| HPS | HIGH PRESSURE SODIUM | V | VOLT |
| HTG | HEATING | VFD | VARIABLE FREQUENCY DRIVE |
| HTR | HEATER | W | WATT |
| HVAC | HEATING, VENTILATION & AIR CONDITIONING | W | WITH |
| HZ | HERTZ (CYCLES/SEC) | WO | WITHOUT |
| IC | INTERRUPTING CURRENT | WP | WEATHERPROOF |
| IGR | ISOLATED GROUND RECEPTACLE | WTR or H2O | WATER |
| IMC | INTERMEDIATE METAL CONDUIT | WS | WINDOW SHADE |
| INC | INCANDESCENT | | |
| ISO | ISOLATED OR ISOLATION | | |
| J, JB or J-BOX | JUNCTION BOX | XPMR | TRANSFORMER |
| KOML | THOUSAND CIRCULAR MILS | Y | WYE CONNECTION |
| KV | KILOVOLT | Ø | PHASE |
| KVA | KILOVOLT - AMPERE | Δ | DELTA |
| KVAR | KILOVOLT - AMPERE REACTIVE | | |
| KW | KILOWATT | | |
| KWH | KILOWATT - HOUR | | |



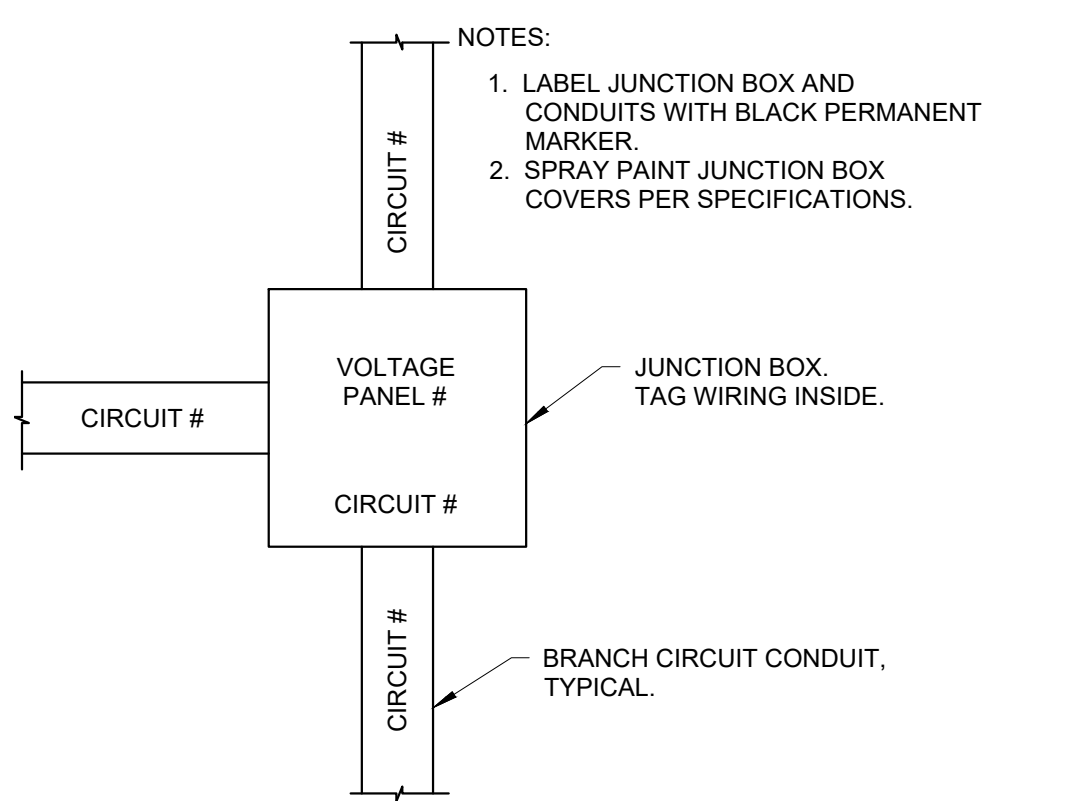
1 LIGHTING FIXTURES IN ACCESSIBLE CEILINGS WIRING TAP DETAIL NO SCALE



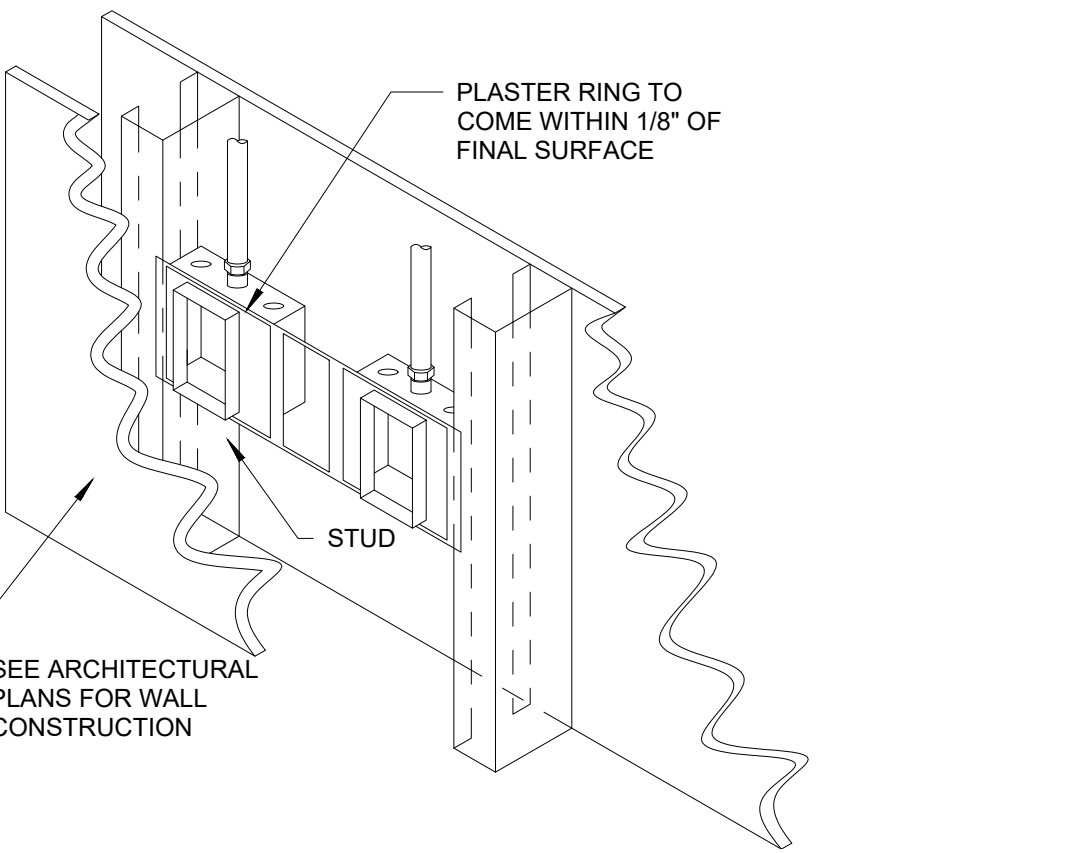
4 ELECTRIC OUTLET IN WALL NO SCALE



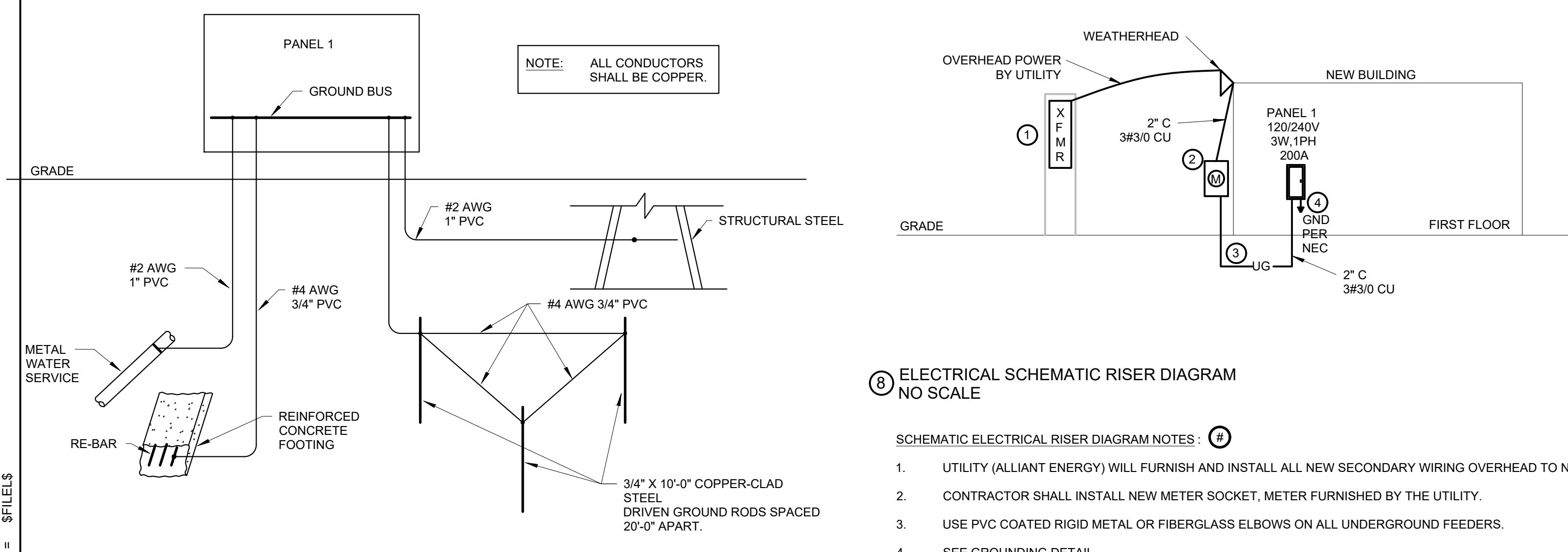
5 GROUNDING CONDUCTOR CONNECTION IN DEVICE BOX NO SCALE



6 RACEWAY / WIRING IDENTIFICATION NO SCALE

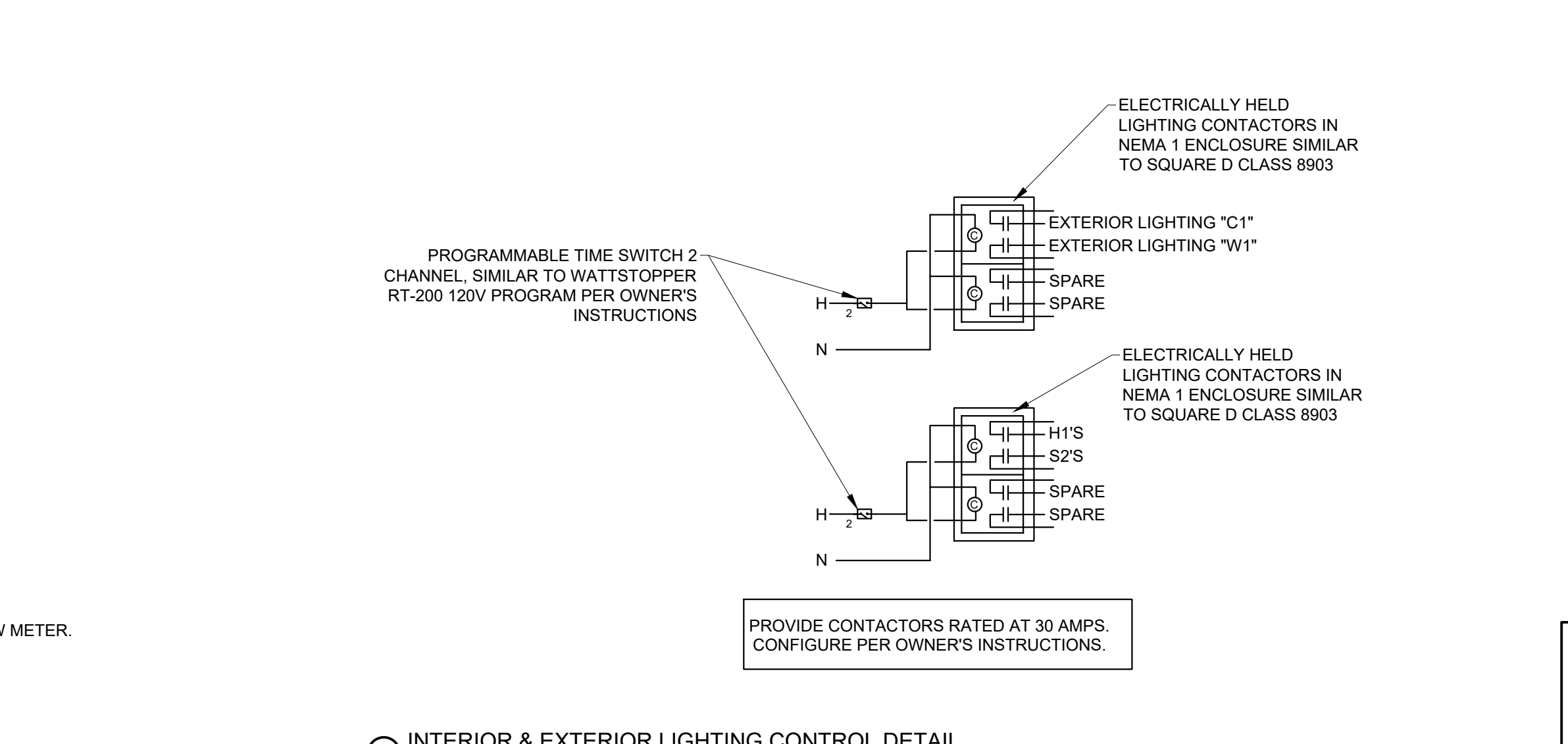


7 BACKBOX MOUNTING DETAIL NO SCALE



8 ELECTRICAL SCHEMATIC RISER DIAGRAM NO SCALE

- SCHEMATIC ELECTRICAL RISER DIAGRAM NOTES
- UTILITY (ALLIANT ENERGY) WILL FURNISH AND INSTALL ALL NEW SECONDARY WIRING OVERHEAD TO NEW METER.
 - CONTRACTOR SHALL INSTALL NEW METER SOCKET, METER FURNISHED BY THE UTILITY.
 - USE PVC COATED RIGID METAL OR FIBERGLASS ELBOWS ON ALL UNDERGROUND FEEDERS.
 - SEE GROUNDING DETAIL.



9 INTERIOR & EXTERIOR LIGHTING CONTROL DETAIL NO SCALE

ELECTRICAL SPECIFICATIONS

DRAWINGS AND MEASUREMENTS: THE DRAWINGS ARE NOT INTENDED TO BE SCALED FOR ROUGHING-IN MEASUREMENTS NOR TO SERVE AS SHOP DRAWINGS.

COORDINATION OF WORK: COORDINATE LOCATION OF UTILITY TRANSFORMER WITH PRIMUS CONSTRUCTION.

ORDINANCES AND CODES: ALL WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE CITY ELECTRICAL ORDINANCES, OSHA, STATE ELECTRICAL CODE, ENERGY CODE (IECC), AND NATIONAL ELECTRICAL CODE (NEC).

WORKMANSHIP: THE INSTALLATION WORK INCLUDED IN THIS SPECIFICATION SHALL BE PERFORMED IN A NEAT WORKMANLIKE MANNER BY PERSONNEL EXPERIENCED AND SKILLED IN THE ELECTRICAL TRADE.

GUARANTEE: THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DEFECTS WHICH MAY DEVELOP IN ANY PART OF HIS WORK CAUSED BY FAULTY WORKMANSHIP, MATERIAL OR EQUIPMENT.

QUALITY ASSURANCE: ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF BEST QUALITY, OF THE TYPE BEST SUITED FOR THE PURPOSE INTENDED.

COMPLETED WORK: PRIOR TO ACCEPTANCE OF THE ELECTRICAL INSTALLATION, THE ELECTRICAL CONTRACTOR SHALL DEMONSTRATE TO THE OWNER ALL FUNCTIONS OF THE SYSTEMS.

EQUIPMENT: SUBMIT SHOP DRAWINGS FOR MAJOR EQUIPMENT FOR REVIEW. INCLUDE THE STAMP OF THE ELECTRICAL CONTRACTOR SHOWING THAT HE HAS REVIEWED AND APPROVED THEM.

EQUIPMENT IDENTIFICATION AND CLEANUP: ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH IDENTIFICATION INDICATING ITS USE OR FUNCTION.

CUTTING AND PATCHING: IN EXISTING CONSTRUCTION THIS CONTRACTOR SHALL PERFORM ALL CUTTING REQUIRED AND ALL NECESSARY PATCHING AFTER COMPLETION TO RESTORE THE SURFACE TO ITS ORIGINAL CONDITION.

RACEWAY: ALL WIRING SHALL BE INSTALLED IN RACEWAY, RIGID METAL CONDUIT, ELECTRICAL METALLIC TUBING, FLEXIBLE METAL CONDUIT, OR PVC HEAVY WALL, GALVANIZED STEEL, OR INTERMEDIATE STEEL CONDUIT SHALL BE USED IN ALL RACEWAYS.

RACEWAY FITTINGS: ON ALL CONDUIT SYSTEMS THE CONNECTOR FITTING SHALL BE OF THE INSULATED THROAT TYPE, WHERE RIGID CONDUIT IS CONNECTED TO A THREADLESS BOX.

RACEWAY INSTALLATIONS: CONDUITS SHALL BE SIZED AS NOTED OR AS REQUIRED BY NEC FOR NUMBER AND SIZE OF CONDUCTORS INSTALLED EXCEPT THAT 3/4 INCH SHALL BE MINIMUM SIZE FOR BRANCH CIRCUIT HOMERUNS.

WIRE AND CABLE: ALL WIRE AND CABLE FOR FEEDER AND BRANCH CIRCUITS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE NEC AND SHALL MEET ALL RELEVANT ASTM SPECIFICATIONS.

CONNECTIONS TO SPECIAL EQUIPMENT: SPECIAL EQUIPMENT IS HEREBY DEFINED AS ALL EQUIPMENT THAT IS NOT SPECIFIED UNDER THIS CONTRACT, BUT REQUIRES CONNECTIONS BY THIS CONTRACTOR.

PULL BOXES AND JUNCTION BOXES: PULL BOXES AND JUNCTION BOXES ARE GENERALLY NOT INDICATED ON DRAWINGS EXCEPT FOR SPECIAL REQUIREMENTS.

OUTLET BOXES: OUTLET BOXES SHALL BE METAL AT LEAST 1-1/2 INCHES DEEP, OR GANG STYLE TYPE OF SIZE TO ACCOMMODATE DEVICES NOTED.

PANELBOARDS: SHALL BE RATED FOR 120/240 VOLTS, SINGLE PHASE, DEAD FRONT CONSTRUCTION. CIRCUIT BREAKERS SHALL BE BOLT ON THERMAL MAGNETIC TYPE, QUICK-MAKE, QUICK-BREAK, A.C. RATED WITH A TRIP INDICATION DIFFERENT FROM THE ON OR OFF POSITION.

SAFETY SWITCHES: SHALL BE GENERAL DUTY 250 VOLT, QUICK-MAKE, QUICK-BREAK OPERATION, HORSEPOWER RATED, NEMA 1 ENCLOSURE NON-FUSED UNLESS NOTED FUSED.

FUSES: ALL MOTORS SHALL BE PROTECTED BY DUAL-ELEMENT FUSES ABLE TO CARRY 500% OF RATING FOR A MINIMUM OF 10 SECONDS.

WIRING DEVICES: SWITCH OUTLET - 20A, 120V, HUBBELL DECORATOR SERIES. RECEPTACLE OUTLET - 20A, 120V, 3 WIRE GROUNDING, TAMPER RESISTANT - HUBBELL DECORATOR SERIES.

MOTOR AND EQUIPMENT WIRING: THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL MOTOR STARTERS EXCEPT IN PACKAGE OR PRE-WIRED UNITS AS SHOWN ON DRAWINGS.

LIGHTING FIXTURES: PROVIDE LIGHTING FIXTURES AS SCHEDULED ON THE DRAWINGS. PROVIDE CUTSHEETS OF ALL FIXTURES FOR OWNER APPROVAL PRIOR TO ORDERING.

TELEPHONE AND DATA CONDUIT AND OUTLET SYSTEM: THE CONTRACTOR SHALL PROVIDE ROUGH-IN ONLY OF CONDUIT AND BOXES AT LOCATIONS SHOWN ON PLANS.

GROUNDING: ALL SERVICE EQUIPMENT, PANELBOARDS, DEVICES, AND OTHER PERMANENTLY INSTALLED ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE NEC TO FORM A CONTINUOUS GROUNDING SYSTEM.

Table with columns: OCC, NO, ITEM FED, WATTS, WIRE SIZE, AMPERS, POLES, FRAME, NEUTRAL, CIRCUIT BREAKER, WIRE SIZE, LOAD, WATTS, ITEM FED, OCC. Includes details for various electrical loads and their connections.

LIGHTING CONTROL SCHEDULE

Table with columns: MARK, DESCRIPTION, MANUFACTURER SERIES, SIZE, NOTES. Lists lighting fixtures like dual technology occupancy sensors and astronomical time switches.

GENERAL NOTES: A. SET AND PROGRAM ALL SENSORS AS FOLLOWS: a. SET SENSITIVITY TO MATCH ROOM SIZE AND SHAPE. b. SET TIME DELAY TO MAXIMUM. c. PROGRAM AND FINE TUNE EACH SENSOR AND INSTRUCT OWNER ON ADJUSTMENTS.

EQUIPMENT CONNECTION SCHEDULE

Table with columns: EQUIP NO, EQUIPMENT DESCRIPTION, VOLTS/PHASE, HP OR WATTS, FLA, MCA, OCPD SIZE, EQUIPMENT FEEDER, DISCONNECT AT EQUIP., NOTES. Lists various electrical equipment and their connection details.

COMBO. MOTOR STARTER SCHEDULE

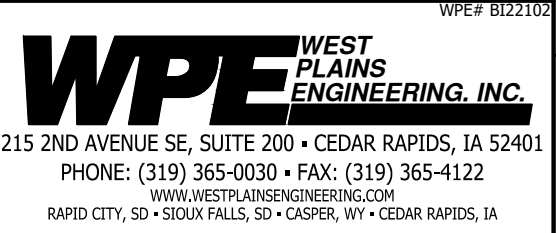
Table with columns: UNIT NO, MOTOR HP, VOLT PHASE, STARTER TYPE, NEMA SIZE, ENCLOSURE TYPE, KEY FEATURES, SWITCH SIZE, FUSE SIZE. Lists motor starter specifications.

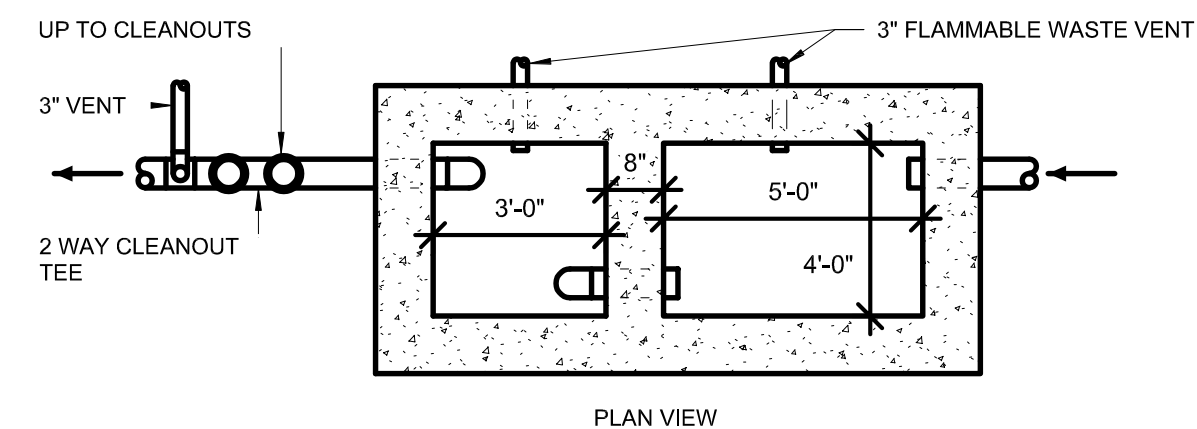
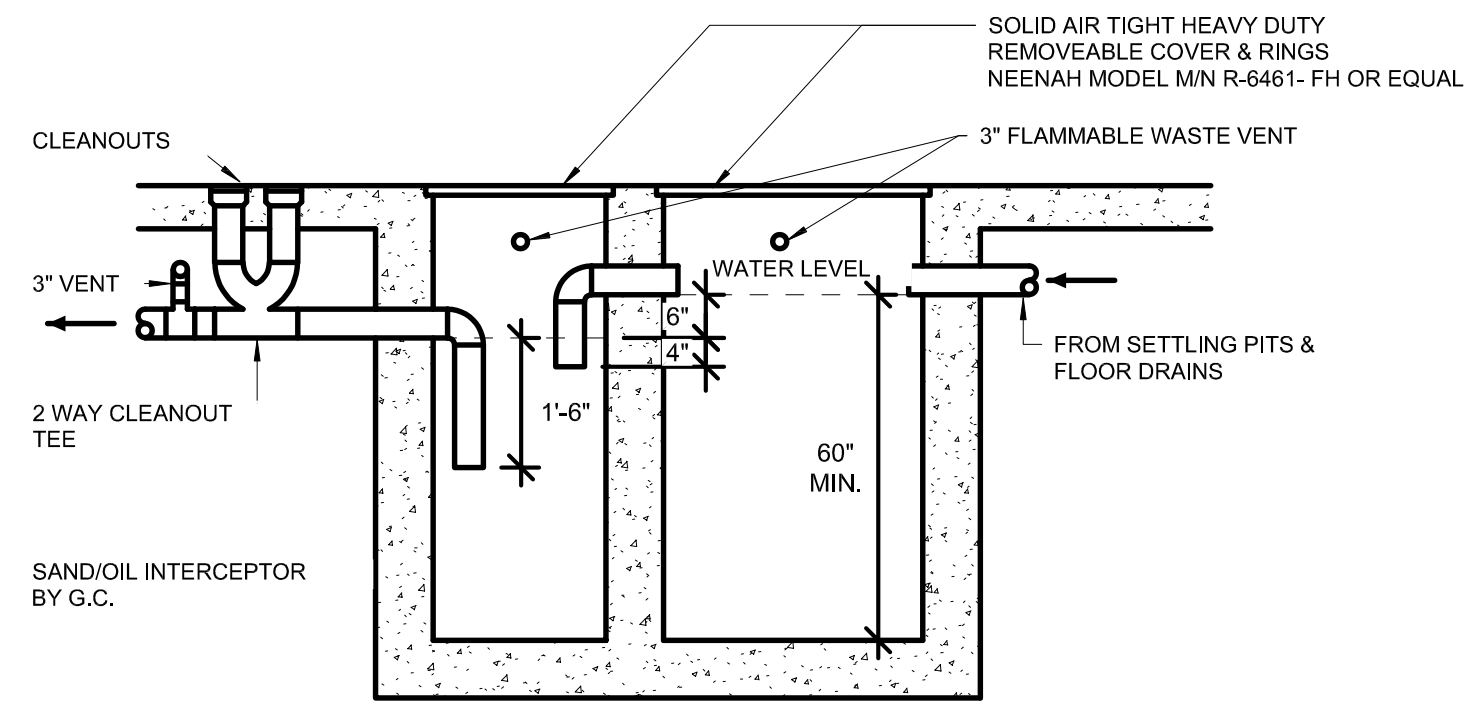
LIGHTING FIXTURE SCHEDULE

Table with columns: MARK, DESCRIPTION, MANUFACTURER AND SERIES, QTY., LAMPING TYPE, MOUNTING, VOLT., WATT., NOTES. Lists lighting fixtures like downlights, emergency lights, and troffers.

FLOOR BOX SCHEDULE

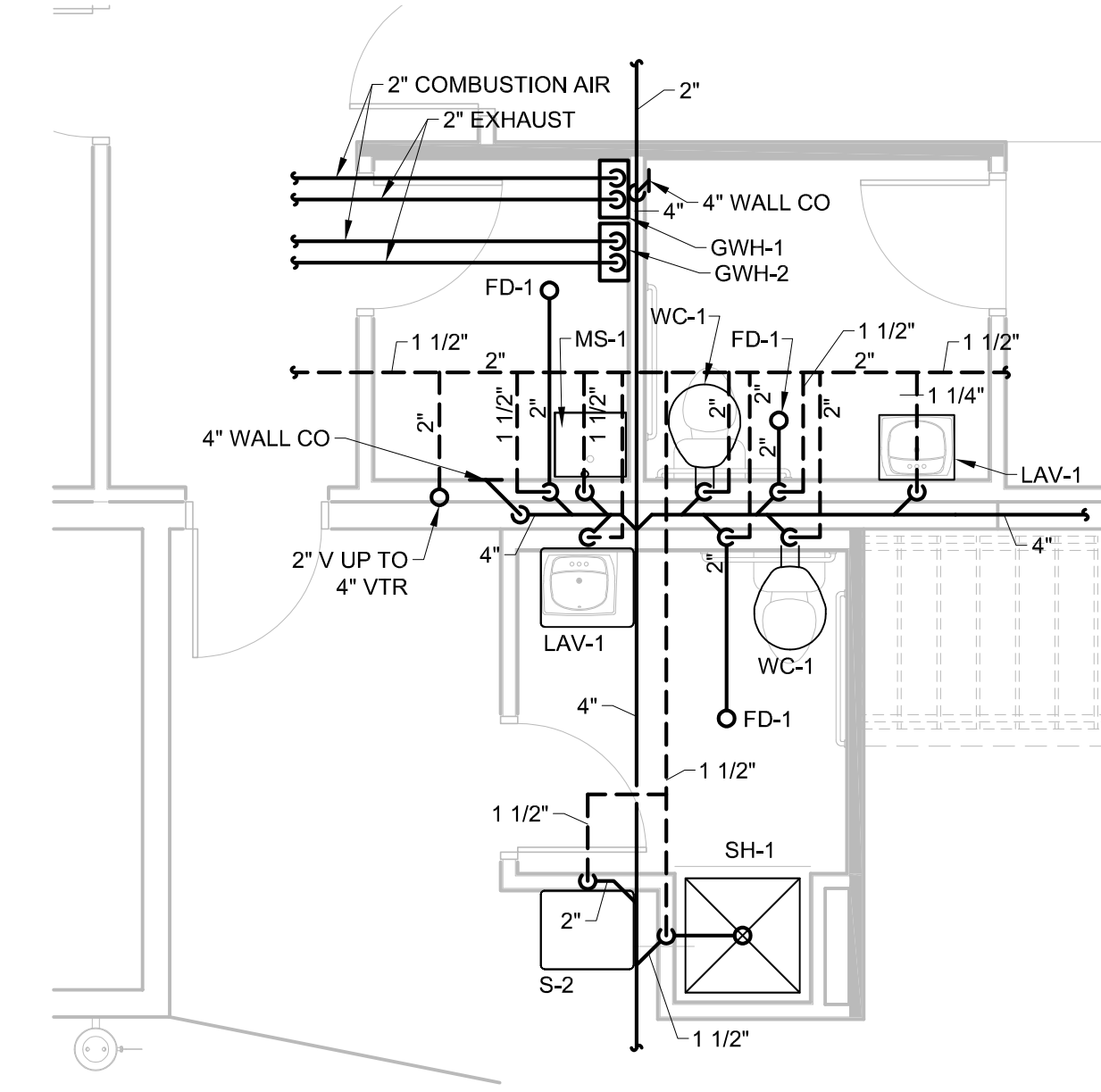
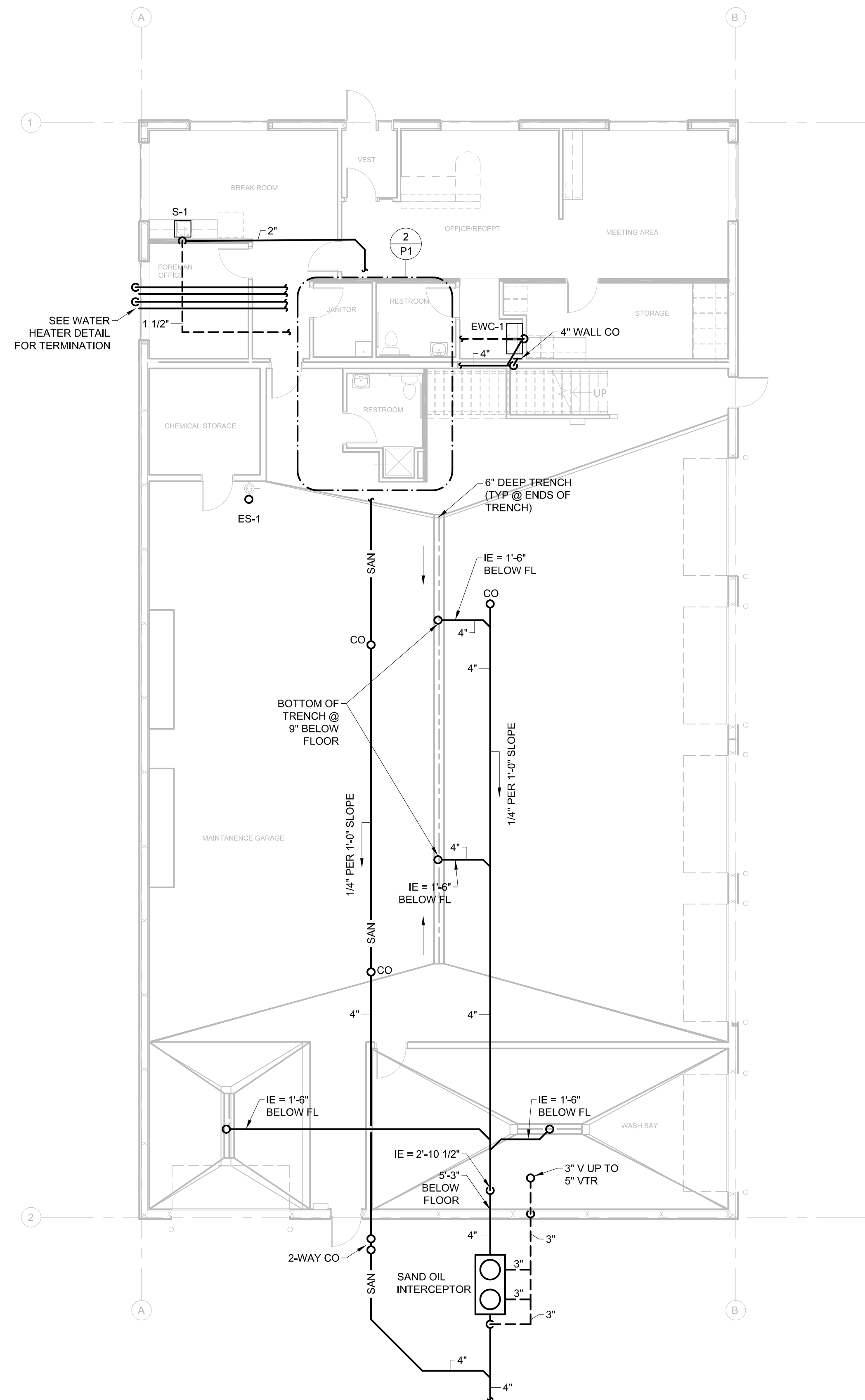
Table with columns: UNIT NO, DESCRIPTION, MANUFACTURER AND SERIES, CONDUIT QUANTITY - SIZE, COVER ASSEMBLY, NOTES. Lists floor box specifications for various rooms.





NOTE: DETAIL IS SHOWN SCHEMATICALLY FOR CLARITY. PIPING INLET AND OUTLETS MAY DIFFER FROM THAT SHOWN.
MINIMUM INTERCEPTOR LIQUID VOLUME TOTAL 145 CF. CONTRACTOR SHALL FABRICATE INTERCEPTOR OR PROVIDE COMMERCIALY SIMILAR UNIT.

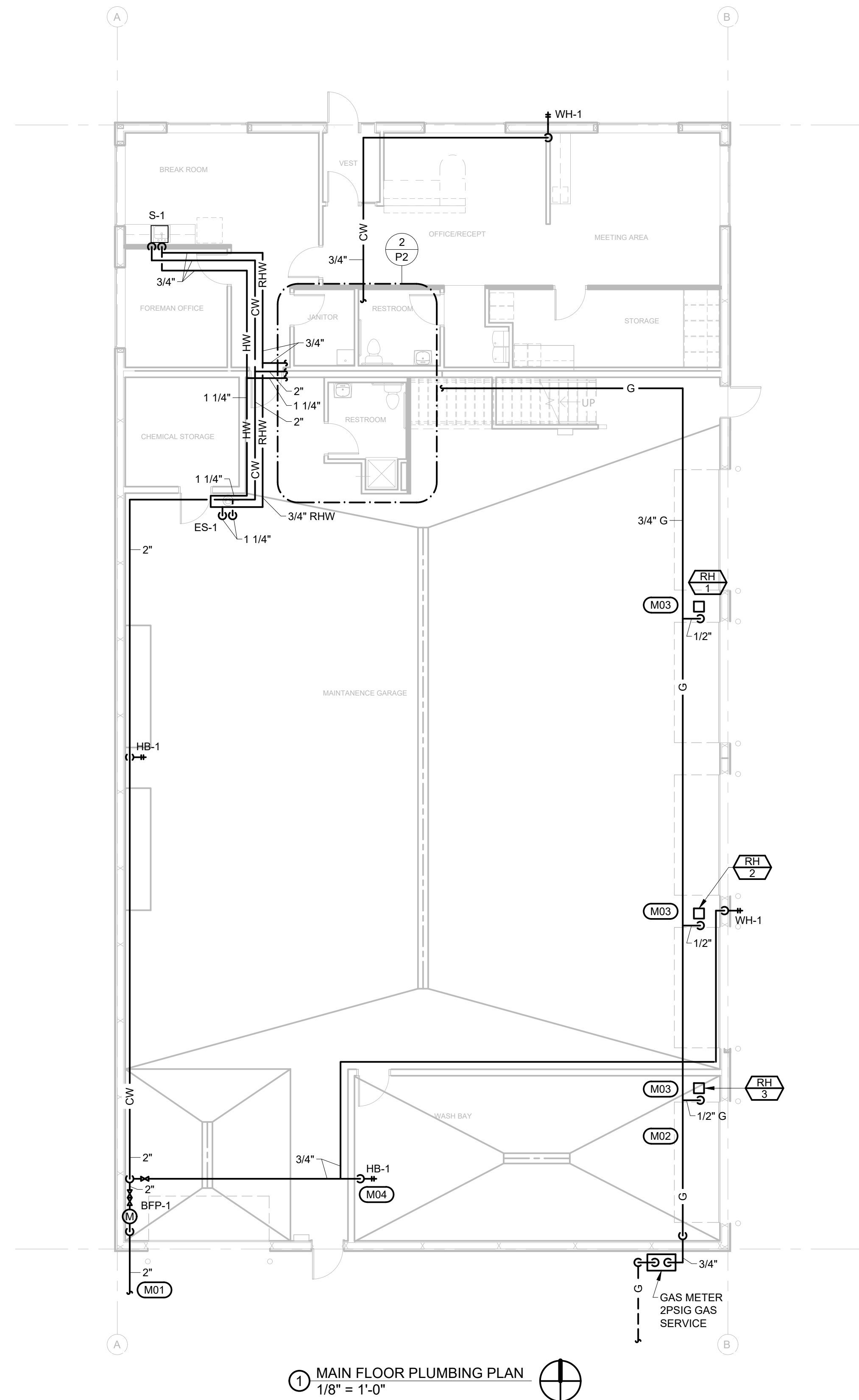
③ SAND/OIL INTERCEPTOR DETAIL
NO SCALE



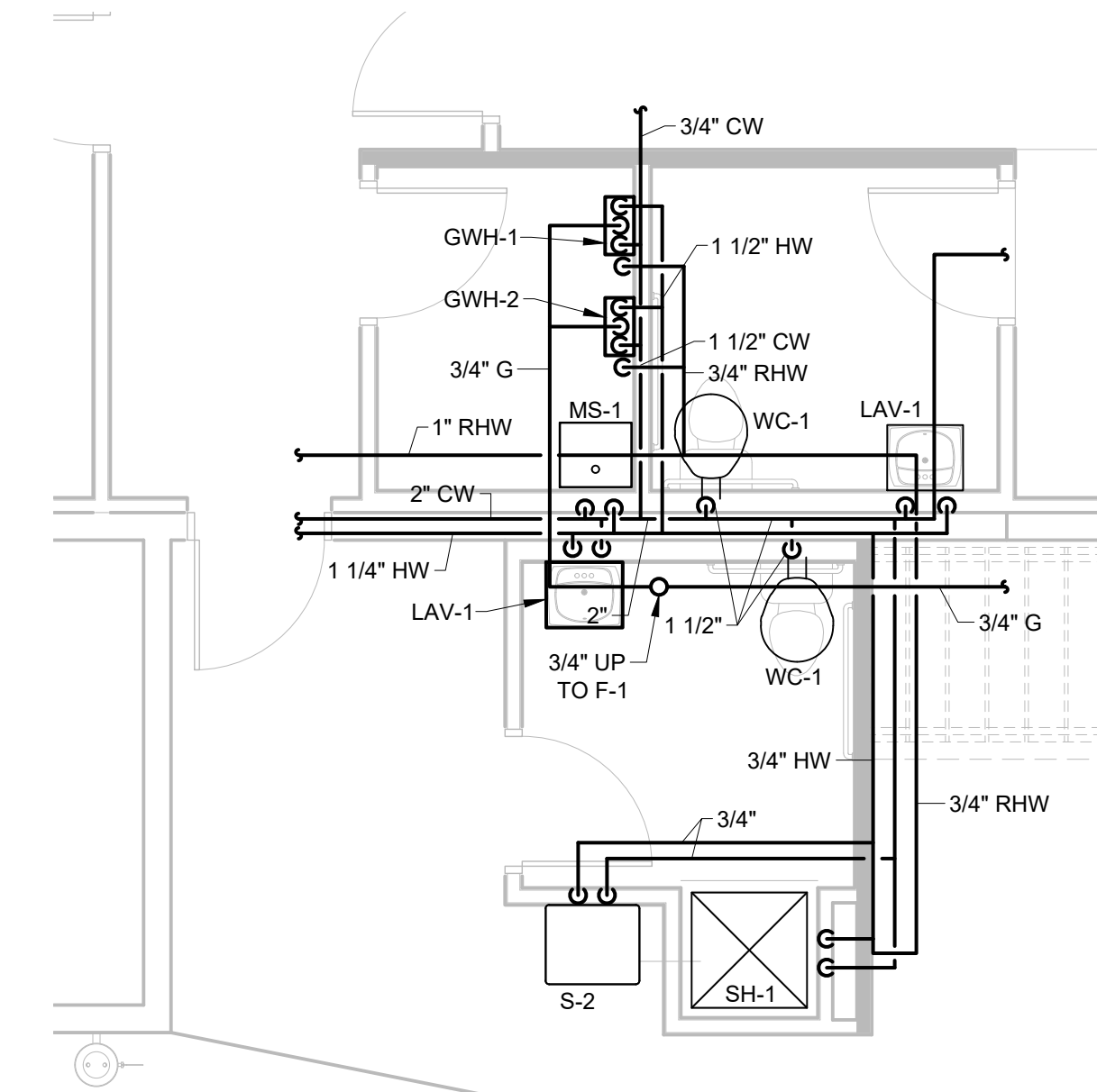
GENERAL PLUMBING NOTES:

- ALL WORK SHALL BE IN ACCORDANCE WITH THE BUILDING CODES ADOPTED BY OTTUMWA, IOWA.
- COORDINATE TRENCHING AND BACKFILLING WITH FOUNDATIONS. BED ALL UNDERFLOOR PIPING IS SUITABLE MATERIAL. IF SOIL IS POOR, IMPORT BEDDING MATERIAL AS NEEDED.
- COORDINATE LOCATION OF SANITARY AND WATER SERVICES WITH UTILITY CONTRACTOR.
- INSTALL WATER BACKFLOW PREVENTOR OFF FLOOR ON UNISTRUT. ENSURE PROPER SERVICE CLEARANCE FOR INSPECTION, MAINTENANCE, AND REMOVAL.
- INSTALL ALL EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATIONS.
- COORDINATE THE ABOVE GRADE PLUMBING WITH THE WORK OF ALL OTHER TRADES.
- ALL PLUMBING EQUIPMENT SHALL BE INSTALLED WITH UNIONS TO ALLOW REMOVAL AND/OR DRAINING FOR WINTERIZING.

| | |
|---|------------|
| DESIGNED | REVISIONS |
| DRAWN | DATE |
| REVIEWED | BY |
| APPROVED | |
| WILLETT HOFMANN & ASSOCIATES, INC. ENGINEERING ARCHITECTURE LAND SURVEYING WILLETT, HOFMANN & ASSOCIATES, INC. © Copyright 2024 | |
| OTTUMWA CEMETERY OFFICE & MAINTENANCE BLD OTTUMWA, IOWA MAIN FLOOR WASTE & VENT PLAN | |
| PHASE | |
| <input type="checkbox"/> PRELIM | |
| <input type="checkbox"/> PERMIT | |
| <input type="checkbox"/> FINAL | |
| <input checked="" type="checkbox"/> BID | |
| <input type="checkbox"/> CONST | |
| WHA No. | 1520C22 |
| DATE | 10-25-2024 |
| SHEET No. | P1 |



① MAIN FLOOR PLUMBING PLAN
1/8" = 1'-0"



② MAIN FLOOR ENLARGED PLUMBING PLAN
1/4" = 1'-0"

GENERAL NOTES:

- A. ALL WORK SHALL BE IN ACCORDANCE WITH THE BUILDING CODES ADOPTED BY THE STATE OF IOWA AND CITY OF OTTUMWA, IA. INSTALL ALL EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATIONS.
- B. COORDINATE NEW DUCTWORK, EQUIPMENT, PIPING WITH ALL OTHER TRADES.
- C. CONTRACTOR SHALL PROVIDE REQUIRED TRANSITIONS TO EQUIPMENT AND THROUGH BUILDING WALLS OF ROOF STRUCTURE. ASSUME MECHANICAL MAY HAVE TO OFFSET AROUND ARCHITECTURAL AND STRUCTURAL ITEMS. COORDINATE WITH OTHER TRADES. PROVIDE OFFSET AS NECESSARY.
- D. EQUIPMENT TO BE INSTALLED IN UNIFORM OR PERPENDICULAR LINES.

SPECIFIC MECHANICAL NOTES: (M##)

- M01. EXTEND 2" WATER INTO GARAGE. INSTALL CITY REQUIRED WATER METER WITH ISOLATION VALVES.
- M02. ROUTE 3/4" GAS ABOVE GARAGE DOORS. COORDINATE WITH DOOR TRACKS & OPENER.
- M03. 1/2" GAS TO RADIANT HEATER BURNERS. COORDINATE WITH RADIANT HEATERS GAS PRESSURE REQUIRED. PROVIDE GAS PRESSURE REGULATOR AND RELIEF LINE TO THE OUTSIDE.
- M04. 3/4" WATER DOWN TO OWNER'S POWER WASHER. PROVIDE ISOLATION BALL VALVE.

| | | | | |
|---|------|------|----|---------|
| DESIGNED | REV. | DATE | BY | REMARKS |
| DRAWN | | | | |
| REVIEWED | | | | |
| APPROVED | | | | |
| WILLETT HOFMANN & ASSOCIATES INC. ENGINEERING ARCHITECTURE LAND SURVEYING OTTUMWA, IOWA © Copyright © YEAR Willett, Hofmann & Associates, Inc. | | | | |
| OTTUMWA CEMETERY OFFICE & MAINTENANCE BLDG OTTUMWA, IOWA MAIN FLOOR WATER & GAS PLAN | | | | |
| PHASE <input type="checkbox"/> PRELIM <input type="checkbox"/> PERMIT <input type="checkbox"/> FINAL <input checked="" type="checkbox"/> BID <input type="checkbox"/> CONST | | | | |
| WHA No. 1520C22 | | | | |
| DATE 10-25-2024 | | | | |
| SHEET No. P2 | | | | |

WPE WEST PLAINS ENGINEERING, INC.
 215 2ND AVENUE SE, SUITE 200 • CEDAR RAPIDS, IA 52401
 PHONE: (319) 365-0030 • FAX: (319) 365-4122
 WWW.WESTPLAINSENGINEERING.COM
 RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA