VCPS - New School

210 12th Street NE, Valley City, ND 58072
Project #: 24-028
Addendum 02
03/24/2026

THIS ADDENDUM MODIFIES, AMENDS, AND SUPPLEMENTS PARTS OF THE CONTRACT DOCUMENTS AND SHALL BECOME A PART OF THE PLANS AND SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONSTRUCTION MANAGER TO NOTIFY ALL SUBCONTRACTORS AND SUPPLIERS FOR THE VARIOUS PARTS OF THE WORK OF ANY CHANGES OR MODIFICATIONS CONTAINED IN THIS ADDENDUM. RECEIPT OF THIS ADDENDUM SHALL BE NOTED ON THE PROJECT BID FORM.

General Items

- Bid Date: April 2nd, 2026 at 2pm
- Standard, non fire-retardant treated lumber is acceptable for concealed backing applications per IBC 603.1.14.
- Reference the tags for markerboards, as visual appearances might be incorrect. Markerboards shown on 2/A410 and 4/A410 should be 4x6 MBDs as noted.
- Provide expansion thresholds as noted on drawings and contract categories at gymnasium.

Prior Approvals

This product has been approved as acceptable contingent upon compliance with the specifications and drawings, and acceptable installation. Contractors may consider quotation from same in preparing their bid proposals:

ARCHITECTURAL

ITEM	MANUFACTURER	APPROVED	NOT APPROVED
10 5113 Lockers	Scranton Products, Duralife Lockers	X	
10 5113 Lockers	Scranton Products, Tufftec Lockers	X	
10 5113 Lockers	Scranton Products, Tufftec Benches	X	
07 4213 Metal Panels	Lux metal panels	X	
07 4213 Metal Panels	TitanTeK metal panels	X	
12 6613 Bleachers	Hussey Maxam Tip and Roll	X	
09 3000 Tiling	Milestone Net Zero		X
09 3000 Tiling	American Olean Color Story: Ice and Crimson	X	
09 3000 Tiling	American Olean Color Story: Sea		X
08 4500 Translucent Wall Panels	Kingspan Light + Air Unigrid	X	
09 5423 Linear Metal Ceilings	CertainTeed Box Linear Ceilings	X	

Specifications

00 0110 – Table of Contents

1. Reissued this addendum.

00 3100 – Available Project Information

1. Reissued this addendum to add Geotechnical Report at Hanna Field.

00 4126 – Bid Form

1. Reissued this addendum to update alternate numbers.

01 1101 – Contract Categories

1. Reissued this addendum.

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01 3500 – Proposed Construction Schedule

1. Reissued this addendum.

03 4500 – Precast Architectural Concrete

1. Reissued this addendum to add PC-4.

05 5000 – Metal Fabrications

1. Reissued this addendum to add aluminum z-girt at entry canopy trellis.

06 4100 – Architectural Wood Casework

1. Reissued this addendum to add book return metal insert.

08 8000 – Glazing

1. Reissued this addendum to remove glazing type GL-2 from the project.

09 2116 – Gypsum Board Assemblies

1. Reissued this addendum

10 1213 – Glass Display Shelving

1. Issued this addendum.

10 2800 – Toilet and miscellaneous accessories

1. Reissued this addendum to clarify items to be OFOI.

10 7113.43 – Fixed Sun Screens

1. Removed this addendum, content added to 05 5000.

10 7316.13 – Metal Canopies

1. Reissued this addendum.

11 4000 – Foodservice Equipment

1. Reissued this addendum.

12 6613 – Bleachers

1. Reissued this addendum to confirm end filler type and tip and roll quantities.

27 5113 – Integrated Electronic Communications Network

1. Issued this addendum

27 5123 – Sound System (Commons Area)

1. Issued this addendum

32 1813 – Synthetic Grass Surfacing

1. Issued this addendum

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Drawings

G001 – GENERAL NOTES / DRAWING INDEX

1. Reissued to track reissued sheets.

CIVIL

Sheet C601 – Grading Plan - Field

1. Removed irrelevant notes and added fabric note.

STRUCTURAL

S101B – FOUNDATION PLAN – AREA B

1. Update Wall / Strip Footing Schedule as shown
2. Update column callout at Grids D-8 & F-3

S101C – FOUNDATION PLAN – AREA C

1. Update Wall / Strip Footing Schedule as shown
2. Update column callout at Grids cB-c5

S101D – FOUNDATION PLAN – AREA D

1. Update Wall / Strip Footing Schedule as shown
2. Add view 2/S101D for precast monument sign foundation
3. Update foundation to be cast in place for precast wall between Grids 10 & 11

S102A – FOUNDATION PLAN – AREA A

1. Update Wall / Strip Footing Schedule as shown
2. Update top of footing elevations as shown.
3. Update column callout at Grids aC-a5

S102C – FRAMING PLAN – LEVEL 01 – AREA C

1. Add Keynote 11 on plan & to schedule for canopy.

S102D – ROOF FRAMING PLAN – LOW ROOF – AREA D

1. Add Keynote 11 on plan & to schedule for canopy.
2. Add precast wall / remove joist & add detail callout 19/S504 between Grids 10 & 11
3. Update joist designations supporting mechanical units.

S103A – FRAMING PLAN – LEVEL 02 – AREA A

1. Add Keynote 11 on plan & to schedule for canopy.

S103B – ROOF FRAMING PLAN – LOW ROOF – AREA B

1. Add Keynote 5 on plan & to schedule for roof opening for hatch.
2. Add Keynote 11 on plan & to schedule for canopy.
3. Update front entry canopy framing
4. Update beam and joist designations as shown.

S103C – ROOF FRAMING PLAN – HIGH ROOF – AREA C

1. Update beam and joist designations as shown.

S104A – ROOF FRAMING PLAN – HIGH ROOF – AREA A

1. Update beam and joist designations as shown.

S106 – STRUCTURAL PLANS – AREA D – ALT #13

1. Remove linework for mechanical unit.

S111 – SNOW DRIFT LOADING PLAN

1. Add Drifts D5-D8 for snow drifts at mechanical units.

S303 – FOUNDATION DETAILS

1. Update Detail 3/S303 for monument sign foundation.

S501 – FRAMING DETAILS

1. Detail 15/S501 – Update angle sizing for further joist spacing.

S505 – ROOF FRAMING DETAILS

1. Detail 5/S505 – Add joist reaction
2. Detail 25/S505 – Update detail with correct members and notes.

ARCHITECTURAL

A001 – ARCHITECTURAL SITE PLAN

1. Added references to new sheet A002 and precast mockup structural foundation.

A002 – SITE PLAN – FOOTBALL TURF

1. Added this addendum.

A100D – LOWER LEVEL 00 -AREA D

1. Updated Keynotes
2. Added detail callout 9/A424.
3. Updated MBD size in choir room

A101B – MAIN LEVEL 01 – AREA B

1. Added missing dimensions at grid lines.
2. Updated some keynotes.

A102AB – UPPER LEVEL 02 – AREA A & AREA B

1. Corrected location of interior elevation 12/A413 in room A204.

A104 – ALT. #12 + 13 - AREA C REDUCTION / WEIGHT ROOM

1. Adjusted tags for exterior light locations.
2. Changed brick basis of design and added PC-4 to Legend.
3. Fixed graphic overlap on detail 8/A104.

A105 – ROOF PLAN

1. Adjusted annotations on enlarged canopy plan.

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A202 – EXTERIOR ELEVATIONS

1. Adjusted tags for exterior light locations.
2. Changed brick basis of design and added PC-4 to Legend.

A203 – EXTERIOR ELEVATIONS

1. Adjusted tags for exterior light locations.
2. Changed brick basis of design and added PC-4 to Legend.

A204 – EXTERIOR ELEVATIONS

1. Adjusted tags for exterior light locations.
2. Changed brick basis of design and added PC-4 to Legend.

A317 – WALL SECTIONS

1. Adding missing wall tag on 1/A317

A404 – ENLARGED PLANS & ELEVATIONS – MEDIA CENTER & LOCKER ROOMS

1. Shifted book slot location at circulation desk.

A413 – INTERIOR ELEVATIONS – COMMONS & LOWER LEVEL

1. Adjusted tags to be the correct details on 1 & 2/413.

A416 – INTERIOR ELEVATIONS – AREA D

1. Removed one acoustic panel.
2. Updated MBD sizes in Music room and added callout to TBD-2.

A420 – DETAILS – CASEWORK SECTIONS

1. Adjusted annotation.

A421 – LOCKER & CUSTOM CASEWORK SECTIONS

1. Clarified PLAM type at built-in bench and wall type at display case.

A423 – DETAILS – INTERIOR OPENINGS

1. Adjusted HM frames fill.

A505 – DETAILS – WALL & ROOF DETAILS

1. Added insulation to top of parapet on detail 4/A505.

A506 – DETAILS – ROOF DETAILS

1. Structural beam shifted on 2/A506.
2. Updated detail 3/A506 to reflect prefabricated metal canopy as noted in the spec.

A508 – DETAILS – SITE

1. Updated to monument sign details.

A601 – DOOR SCHEDULE

1. Removed GL-2.
2. Noted doors to be by Alternate as noted on plans.

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A603 – EXTERIOR STOREFRONT AND CURTAINWALL ELEVATIONS

1. Removed GL-2

A604 – INTERIOR STOREFRONT ELEVATIONS

1. Removed GL-2 and corrected one storefront to be GL-3.

A610 – FINISH SCHEDULE

1. Renamed Section 09 5423 to be Linear Metal Ceiling
2. Removed integral base as noted.

MECHANICAL

P20FB – FOUNDATION SEGMENT B - PLUMBING

1. 3” waste line move plan West to adjust new location of FS

P203 – LARGE SCALE KITCHEN PLAN - PLUMBING

1. KITCHEN B007 - FS serving item 41 has been moved to accommodate new kitchen layout
2. KITCHEN B007 - Vent, Hot water and Cold water lines have been adjusted to accommodate new kitchen layout.
3. DISH RETURN B010 - Domestic water piping adjusted to accommodate new kitchen layout

M300D – LOWER LEVEL SEGMENT D – HVAC

1. MUSIC D003 - Ductwork being served by V5-1 have been adjusted to accommodate sound attenuation.
2. Keynote H16 was added to sheet

M301B – MAIN LEVEL SEGMENT B – HVAC

1. MEDIA CENTER B105 - Ductwork being served by V2-8 have been adjusted to accommodate sound attenuation.
2. MEDIA CENTER B105 - Keynote H16 was added to sheet

M301C – MAIN LEVEL SEGMENT C – HVAC

1. SCI LAB C102 - Ductwork being served by V6-1 has been adjusted to accommodate sound attenuation.
2. HEALTH C101 - Ductwork being served by V6-2 has been adjusted to accommodate sound attenuation.
3. Keynote H16 was added to sheet

M302A – UPPER LEVEL SEGMENT A – HVAC

1. 6TH A204 – Ductwork being served by V1-3 has been adjusted to accommodate sound attenuation.

ELECTRICAL

General Note: All references to “AG” have been removed and replaced with “AFF”.

E002 – SITE PLAN – ELECTRICAL

1. Added one (1) type AA2w fixture.

E101E – MAIN LEVEL SEGMENT E – ELECTRICAL DEMOLITION

1. Relocated existing Jefferson Elementary equipment.

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E101F – MAIN LEVEL SEGMENT F – ELECTRICAL DEMOLITION

1. Relocated existing Jefferson Elementary equipment.

E200B – LOWER LEVEL SEGMENT B – LIGHTING

1. Changed light fixture type and adjusted height.
2. Added sheet note L6.

E200C – LOWER LEVEL SEGMENT C – LIGHTING

1. Adjusted fixture layouts.
2. Types and quantities have changed.

E200D – LOWER LEVEL SEGMENT D – LIGHTING

1. Removed one (1) fixture.
2. Fixture height changed do to change in reference.
3. Adjusted location of fixtures in room “Gymnasium D010”.

E201 – MAIN LEVEL OVERALL PLAN – LIGHTING

1. Removed duplicate light fixtures.

E201A – MAIN LEVEL SEGMENT A – LIGHTING

1. Adjusted fixture layout and circuiting.
2. Quantities have changed.

E201B – MAIN LEVEL SEGMENT B – LIGHTING

1. Removed duplicate light fixtures.

E201C – MAIN LEVEL SEGMENT C – LIGHTING

1. Removed duplicate light fixtures.

E202 – UPPER LEVEL OVERALL PLAN – LIGHTING

1. Removed duplicate light fixtures.

E202A – UPPER LEVEL SEGMENT A – LIGHTING

1. Removed duplicate light fixtures.

E300C – LOWER LEVEL SEGMENT C – POWER

1. Remove unused junction box.

E301A – MAIN LEVEL SEGMENT A – POWER

1. Added connection and controls for motorized changing station.
2. Added sheet note W19.

E304 – LARGE SCALE KITCHEN PLAN – POWER

1. Added two (2) receptacle locations.

E403 – LARGE SCALE KITCHEN PLAN – TELECOMMUNICATIONS

1. Added two (2) data locations.

E500A – LOWER LEVEL SEGMENT A – ELECTRONIC SAFETY & SECURITY

1. Added two-way communication and keyed recall switch.

E501A – MAIN LEVEL SEGMENT A – ELECTRONIC SAFETY & SECURITY

1. Added two-way communication.

E501E – MAIN LEVEL SEGMENT E – ELECTRONIC SAFETY & SECURITY

1. Relabeled existing FACP.
2. Corrected sheet note S1.
3. Added sheet note S6.

E501F – MAIN LEVEL SEGMENT F – ELECTRONIC SAFETY & SECURITY

1. Corrected sheet note S1.

E502A – UPPER LEVEL SEGMENT A – ELECTRONIC SAFETY & SECURITY

1. Added two-way communication and keyed recall switch.

E730 –POWER DETAILS

1. Updated Riser Diagram.
2. Adjusted routing for Jefferson Elementary back feed.
3. Updated copper feeder schedule.
4. Updated Existing Riser Diagram to show removal of underground line.

E731 – POWER DETAILS

1. Removed design note from Elevator detail

E820 – LIGHTING SCHEDULES

1. Updated details for fixtures L98, L99, Q11, and Z11.

E830 –POWER SCHEDULES

1. Updates to panel schedules HLB, HLD, and HMA.

E831 –POWER SCHEDULES

1. Updates to panel schedules LLB, LLK and LMA.

FOODSERVICE

QF101 - FOODSERVICE EQUIPMENT PLAN

1. Item #11 Name & installed by revised to correct information.
2. Item #24, 25, 26, & 28 Installed By revised to state DIV.23.
3. Item #27 Installed By revised to state DIV.26.
4. Item #24 Name revised to state correct width.
5. Item #28 Name revised.
6. Item #107 Installed By revised to state DIV. 23.
7. Item #20 QTY. revised to state 8 (Two more added in dishroom).
8. Item #40 revised to 100” wide from 106” (Changed in schedule as well).

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QF201 - FOODSERVICE EQUIPMENT ELEVATIONS

1. Axon View #2 revised position.
2. Elevation A Revised for Prep Table.
3. Elevation D Revised.

QF202 - FOODSERVICE EQUIPMENT ELEVATIONS

1. Elevation F & G Revised.

QF203 - FOODSERVICE EQUIPMENT ELEVATIONS

1. Elevation C & H Revised.

QF204 - FOODSERVICE EQUIPMENT ELEVATIONS

1. Axon View #1 Revised.
2. Elevation E & F Revised.

QF301 - FOODSERVICE PLUMBING ROUGH-IN PLAN

1. Item #41 & 43 Plumbing repositioned.
2. Item #106 Water Softener moved plan east under clean dish table along with plumbing fixtures.
3. Hot Water connection added next to Detergent Dispenser plan east of dish machine.
4. Item #114 Hose Reel revised.

QF601 - FOODSERVICE EQUIPMENT DETAILS

1. Detail removed.

QF602 - FOODSERVICE EQUIPMENT DETAILS

1. Detail removed. Detail FD-14 repositioned.

QF701 - FOODSERVICE EQUIPMENT ITEM DETAILS

1. Detail FD-04 Crossbrace Height revised.
2. Detail FD-06 Information revised.

QF801 - FOODSERVICE WALK-IN DETAILS

1. Walk-plan Revised to showing coils and condenser locations.
2. Elevation A Revised to correct information.

END OF ADDENDUM 02

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Legend:

Architect	ICON Architectural Group
Architectural Hardware Consultant	Allegion
Civil Engineer	Lowry Engineering
Foodservice Consultant	Foodservice Concept Design
Geotechnical Engineer	American Engineering Testing, Inc.
Structural Engineers	ICON Architectural Group
MEPT Engineers	CMTA

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26 05 33.13	Conduit For Electrical Systems	CMTA
26 05 33.16	Boxes For Electrical Systems	CMTA
26 05 53	Identification For Electrical Systems	CMTA
26 05 73	Power System Studies	CMTA
26 08 13	Testing Of Electrical Systems	CMTA
26 09 23	Lighting Controls	CMTA
26 21 00	Low-Voltage Electrical Service Entrance	CMTA
26 22 00	Low-Voltage Transformers	CMTA
26 24 13	Switchboards	CMTA
26 24 16	Panelboards	CMTA
26 27 26	Wiring Devices	CMTA
26 28 16.16	Enclosed Switches	CMTA
26 51 00	Interior Lighting	CMTA
26 56 00	Exterior Lighting	CMTA

DIVISION 27 – COMMUNICATIONS

27 00 00	Structured Cabling General Requirements	CMTA
27 05 00	Common Work Results For Structured Cabling	CMTA
27 05 28	Pathways For Communication Systems	CMTA
27 08 13	Testing Of Structured Cabling Systems	CMTA
27 10 00	Structured Cabling	CMTA
27 51 13	Integrated Electronic Communications Network	CMTA
27 51 20	Gym Sound System	CMTA
27 51 23	Sound System (Commons Area)	CMTA

DIVISION 28 -- ELECTRONIC SAFETY AND SECURITY

28 00 00	Electronic Safety And Security General Requirements	CMTA
28 05 00	Common Work Results For Electronic Safety And Security Systems	CMTA
28 31 13	Fire Alarm And Detection Systems	CMTA

DIVISION 31 -- EARTHWORK

DIVISION 32 -- EXTERIOR IMPROVEMENTS

32 18 13	Synthetic Grass Surfacing	ICON
32 31 19	Decorative Metal Fences	ICON

DIVISION 33 – UTILITIES

33 4100	Subdrainage	ICON

Legend:

ICON Architectural Group	ICON
CMTA	CMTA

END OF SECTION

SECTION 00 3100
AVAILABLE PROJECT INFORMATION

PART 1 GENERAL

1.01 EXISTING CONDITIONS

A. Certain information relating to existing surface and subsurface conditions and structures is available to bidders but will not be part of Contract Documents, as follows:

B. Geotechnical Report: Dated November 21, 2025.
   1. Copy immediately following this section.
   2. This report identifies properties of below grade conditions and offers recommendations for the design of foundations, prepared primarily for the use of Architect.
   3. The recommendations described shall not be construed as a requirement of this Contract, unless specifically referenced in Contract Documents.
   4. This report, by its nature, cannot reveal all conditions that exist on the site. Should subsurface conditions be found to vary substantially from this report, changes in the design and construction of foundations will be made, with resulting credits or expenditures to the Contract Price accruing to Owner.

C. Geotechnical Report for Hanna Field: Dated November 1, 2016.
   1. Copy immediately following this section.

D. Asbestos Management Plan, Jefferson Elementary
   1. Copy immediately following this section.

E. Existing Drawings: Jefferson - Valley City Elementary School, dated August 1964.
   1. Copy immediately following this section.

F. Existing Drawings: Jefferson School Addition, dated September 18, 2009.
   1. Copy immediately following this section.

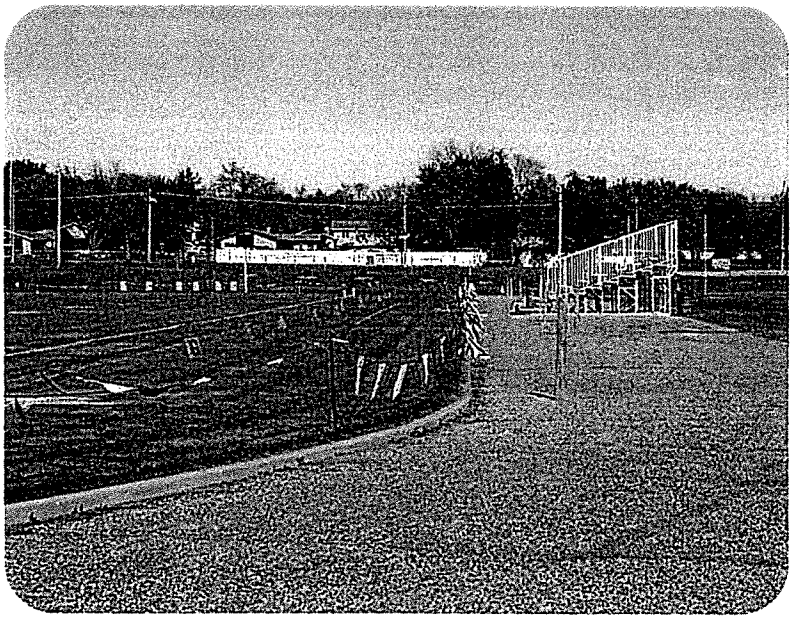
PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 00 3100

Geotechnical Engineering Report

Proposed Running Track Improvements
Hanna Field
Valley City, North Dakota
November 1, 2016
Terracon Project No. M1165117



Prepared for:
Valley City Public Schools
Valley City, North Dakota

Prepared by:
Terracon Consultants, Inc.
West Fargo, North Dakota

terracon.com

Terracon

Environmental ■ Facilities ■ Geotechnical ■ Materials

Terracon

November 1, 2016

Valley City Public Schools
460 Central Avenue North
Valley City, ND 58072
c/o
I&S Group
7900 International Drive, Suite 550
Minneapolis, MN 55425

Attn: Mr. Josh Johnson
P: [701] 845-0483
F: [701] 845-4109

Re: Geotechnical Engineering Report
Proposed Running Track Improvements
Hanna Field
Valley City, North Dakota
Terracon Project Number: M1165117

Dear Mr. Johnson:

Terracon Consultants, Inc. (Terracon) has completed the geotechnical engineering services for the project referenced above. This study was performed in general accordance with our Proposal Number PM1165117, dated October 10, 2016. This report presents the findings of the subsurface exploration and provides geotechnical recommendations conceming earthwork for the design and construction of the running track.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

STEVEN S. SMITH
REGISTERED
PROFESSIONAL
PE 2863
ENGINEER
NORTH DAKOTA

Corey D. Lindeman, EI
Staff Engineer

Steven S. Smith, PE
Authorized Project Reviewer

cc: 1 – Client (pdf)

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EXECUTIVE SUMMARY

Geotechnical engineering services have been completed for the Hanna Field running track improvements located in Valley City, North Dakota. Four (4) soil test borings were advanced to a depth of approximately 12 to 15 feet below the existing ground surface to characterize the soil conditions across the site. Based on the information obtained from our subsurface exploration, the following geotechnical considerations were identified:

Approximately 2 inches of asphalt cement concrete, some of which was highly aged/damaged, was observed in our boring areas. Underlying the track surface, our borings encountered uncontrolled fill extending to depths ranging from 2 to 9 ½ feet below existing grade. The deeper fill were located in the south and southeast areas of the track. The fill typically consists of silts and sands, which contain various amounts of gravel. Boring B-1 encountered sandy lean clays within the fill. The majority of the fill encountered also contained various concentrations of organic material. The uncontrolled fill was underlain by natural, inorganic sand and silt deposits extending to the termination depths of our borings.

The natural soils beneath the running track are susceptible to frost heaving and will experience a significant strength loss during spring thaw. Therefore, movement and cracking of the asphalt cement concrete pavement should be expected.

Although the sandy fill contains organic material, based on subgrade test results these soils should be feasible for use for supporting the aggregate base course underlying the track. Due to the organic material present, these soils will be more prone to water retention than other granular soils, which can result in more movement due to frost heaving than similar inorganic soils.

We recommend excavating the track area to a minimum uniform depth of approximately 2 feet below the final grade. The soils removed should be replaced with an inorganic, granular fill. Some movement should still be expected due to seasonal movement. To minimize movement due to frost action, the subgrade soils below the track would have to be removed to frost depth (6 to 8 feet) and replaced with a free-draining granular fill. This is often cost prohibitive.

Close monitoring of the construction operations discussed herein will be critical in achieving the design subgrade support. We therefore recommend that Terracon be retained to monitor this portion of the work.

It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **GENERAL COMMENTS** should be read for an understanding of the report limitations.

GEOTECHNICAL ENGINEERING REPORT
PROPOSED RUNNING TRACK IMPROVEMENTS
HANNA FIELD
VALLEY CITY, NORTH DAKOTA

Terracon Project No. M1165117
November 1, 2016

1.0 INTRODUCTION

Geotechnical engineering services have been completed for the Hanna Field running track improvements located in Valley City, North Dakota. Four (4) soil test borings were advanced to depths of approximately 12 to 15 feet below the existing ground surface. Logs of the borings, along with a Site Location Map and Exploration Plan are included in Appendix A.

The purpose of these services is to provide information relative to:

- subsurface soil conditions
- groundwater conditions
- earthwork
- subgrade preparation

2.0 PROJECT INFORMATION

2.1 Project Description

Item	Description
Site layout	See Appendix A, Exhibit A-2: Exploration Plan
Running track	The project will consist of replacing the Hanna Field running track pavement. We are not aware of any subgrade settlement or unacceptable movement issues associated with the existing running track pavement.
Finished track elevation	This information was not available at the time of this report; however, we anticipate that the new running track pavement will be constructed at or near the elevation of the existing track surface with little, if any, grade change.
Track traffic	We understand the track will be exposed only to foot traffic with no vehicle traffic, except occasional light lawn tractors.

2.2 Site Location and Description

Item	Description
Location	See Appendix A, Exhibit A-1: Site Location Map. The running track is located northeast of the intersection of Central Avenue North and 9th Street Northeast.
Existing improvements	An existing asphalt cement concrete (ACC) running track with a grassed interior area (football field). The site also includes bleachers and a press box located on the west side, and other buildings and baseball/softball diamonds adjacent to the site.
Current ground cover	Aggregate surface, asphalt pavement, grasses/shrubs, and trees
Existing topography	Relatively level with a gradual downward slope to the inside edge of the track. The football field within the track area is slightly crowned (assumed).

3.0 SUBSURFACE CONDITIONS

3.1 Typical Profile

Based on the results of the borings, subsurface conditions on the project site can be generalized as follows:

Stratum	Approximate Depth to Bottom of Stratum (feet)	Material Description	Consistency/Density
1	0.1	Asphalt cement pavement	N/A
2	2 to 9 ½	Uncontrolled fill consisting of sandy lean clays, silts, and sands	N/A
3	Undetermined [1]	Inorganic sands containing various amounts of silt, clay, and gravel	Loose to dense

1. Our borings terminated within this stratum.

Conditions encountered at each boring location are indicated on the individual boring logs. Stratification boundaries on the boring logs represent the approximate location of changes in soil types; in situ, the transition between materials may be gradual. Details for each of the borings can be found on the boring logs in Appendix A.

3.2 Groundwater

The boreholes were observed while drilling and after completion for the presence and level of groundwater. Groundwater was not measureable during or immediately after completion of the soil borings.

Due to the low permeability of the soils encountered in our borings, a relatively long period of time may be necessary for a groundwater level to develop and stabilize in a borehole in these materials. Long term observations in piezometers or observations wells sealed from the influence of surface water are often required to define groundwater levels in materials of this type. Based on past experience in the area, we estimate a groundwater level on the order of 5 to 8 feet below the existing ground surface at the time of our field activities.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction, or at other times in the life of the running track, may be higher or lower than the levels indicated on the boring logs.

4.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

4.1 Geotechnical Considerations

Generally, organic soils should have been removed during the original construction. However, we understand the track has performed in a satisfactory manner, and based on our testing results, the existing subgrade soils should be suitable to support the new track pavement. Some subgrade preparation should be performed to obtain uniform moisture and soil density conditions directly beneath the track prior to paving.

The following recommendations are based upon the acceptance of some movement and cracking of the proposed track pavement due to frost heaving and extreme temperature variations. The clay soils beneath the track are susceptible to frost heaving over winter months (causing uplift) and will experience a significant loss of strength during spring thaw. Cracks in the pavement should be expected due to frost heaving and thermal expansion/shrinkage during extreme temperature ranges. The potential for frost heaving of the track surface could be reduced by removing the soils susceptible to frost heaving and replacing them with a clean, coarse, non-frost susceptible sand fill extending to frost depth (6 to 8 feet) and maintained in a drained condition. In most cases, this method of site preparation is cost prohibitive.

Based on the results of the subsurface exploration, laboratory testing, and our analyses, it is our opinion that the subgrade soils beneath the track area should be suitable for support of the running track pavement. We recommend scarifying and moisture conditioning of the clay

subgrade be performed, as discussed below. The recommended level of compaction and stability in the subgrade clays should be obtained prior to the placement of any aggregate base or granular subbase material. Due to the potential for cool, wet fall weather, which is not favorable for drying, subgrade preparation should be scheduled during summer months, if possible.

Past outdoor track problems in areas with significant frost penetration (over 6 feet) are often associated with differential frost heaving caused by variable amounts of sand fill beneath the track, particularly with abrupt changes in the amount of granular fill (such as trench areas). Therefore, uniformity in the subgrade soils will be an important consideration in track performance. Sand or gravel filled trenches should be avoided below the track pavement. If deeper drain tile is placed to remove water from below the track, it should not be located below the track pavement and should be at least one foot beyond the outer/inner edge of the pavement for each one foot of depth.

4.2 Earthwork

4.2.1 Site Preparation

After removal of the existing pavement, we recommend the track subgrade be thoroughly scarified and recompacted to a uniform level of compaction and moisture content.

After scarification and compaction of the subgrade soils, we recommend the track area be proofrolled with a loaded tandem-axle truck with a minimum gross weight of 30,000 pounds. Any areas where soft or loose subgrade soils are encountered should be repaired and retested prior to placement of engineered fill.

We recommend Terracon be retained to test and observe the subgrade soils prior to the placement of aggregate base material.

4.2.2 Material Requirements

Compacted structural fill should meet the following material property requirements:

Fill Type [1]	USCS Classification	Acceptable Location for Placement
Aggregate base	NDDOT Class 5	Support of ACC pavements
Granular subbase	SP, SP-SM, SP-SC, SW, SW-SM, SW-SC (P200<15%)	Support of aggregate base section (if needed to maintain planned elevation)
Existing track subgrade	SM	Support of aggregate base materials

1. Controlled, compacted fill should consist of approved materials that are free of organic matter, debris, particles larger than about 3 inches, or other deleterious substance. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the geotechnical engineer for evaluation.

Refer to Section **4.3 Running Track** for further information regarding subgrade preparation in the track area.

4.2.3 Compaction Requirements

Item	Description
Fill lift thickness	9 inches or less in loose thickness when heavy, self-propelled compaction equipment is used 4 to 6 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used
Minimum Compaction requirements [1]	98% for existing subgrade beneath pavement areas 98% for exported backfill beneath pavement areas 95% for utility trench backfill 90% for exterior backfill below grassed areas
Moisture content – cohesive soil	-1% to +3% from optimum moisture
Moisture content – granular material	Workable moisture levels [2]

1. We recommend that engineered fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specific moisture and compaction requirements are achieved. Compaction levels are relative to the maximum density as determined by ASTM D698.
2. Specifically, moisture levels should be maintained low enough to allow for satisfactory compaction to be achieved without the cohesionless fill material pumping when proof rolled.

4.2.4 Utility Trench Backfill

Utility trench backfill should be avoided below the track to minimize variability in the track subgrade. If needed, soils similar to the native soils should be used to backfill the utility trenches based on the compaction levels as recommended in **Section 4.2.3 Compaction Requirements**. Moisture conditioning of the backfill soils would likely be needed to obtain a moisture content suitable for compaction. Excavations must be performed in accordance with governing safety regulations. All vehicles and soil piles should be kept back from the crest of excavation slopes. The stability of excavation slopes should be reviewed continuously by qualified personnel. The responsibility for excavation safety and temporary construction slopes lies solely with the contractor. Trenches that remain open for an extended period of time should be protected from changes in moisture by covering with plastic sheeting or another suitable method.

4.2.5 Grading and Drainage

The track subgrade should be sloped to prevent any accumulation of water within the aggregate base material beneath the track. If possible, the aggregate base course should be designed to drain into catch basins. As another option, drain tile could be placed inside the track to prevent water accumulation in the aggregate base.

4.2.6 Earthwork Construction Considerations

The natural soils are susceptible to disturbance during construction, especially when wet or saturated. Therefore, we recommend excavating be performed by a backhoe with a smooth cutting surface. Natural soils which become disturbed beneath track areas should be excavated to an undisturbed level and replaced with a well-compacted engineered fill.

Upon completion of filling and grading, care should be taken to maintain the subgrade moisture content prior to construction of the running track. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted prior to pavement construction. Fill should not be placed on frozen subgrades.

Temporary excavations will be required during grading operations. The grading contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required, to maintain stability of both the excavation sides and bottom. All excavations should comply with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

Terracon should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation; proof rolling; placement and compaction of compacted structural fill; backfilling of excavations into the completed subgrade, and just prior to construction of the running track.

4.3 Running Track

The following recommendations are based upon accepting the risk of track movement from frost action. Upward movement of an outdoor track surface should be expected over winter months as frost penetrates the ground surface. Extreme temperature variations from summer to winter will also result in cracking of the pavement. As previously discussed, removing the frost susceptible soils to frost depth and replacement with non-frost susceptible sand fill would be one method of reducing this type of undesirable movement. If more information regarding this option is desired, please contact us.

4.3.1 Subgrade Preparation

We recommend the exposed subgrade be thoroughly scarified and compacted to a uniform level of compaction in accordance with Section **4.2 Earthwork**.

4.3.2 Design Considerations

An increased thickness of granular soils below the track should reduce the amount of potential frost heave and improve performance. The sand fill should be drained from beneath the track to

prevent an accumulation of water above the subgrade which could aggravate frost heaving. Pavement performance is affected by its surroundings, such as site drainage. In addition to providing preventive maintenance, the owner/designer should consider the following recommendations in the design and layout of pavements:

Final grades adjacent to paved areas should slope down from the edges at a minimum 2 percent;
The subgrade and pavement surface should have a minimum 2 percent slope to promote proper surface drainage;
Install below-pavement drainage systems surrounding areas anticipated for frequent wetting conditions;
Install joint sealant and seal cracks immediately;
Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.

4.3.3 Pavement Drainage

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration. In addition, the pavement subgrade should be graded to provide positive drainage within the granular base section. Appropriate sub-drainage should be provided to remove water from the granular base/subbase.

4.3.4 Pavement Maintenance

Periodic maintenance should be anticipated to achieve the desired life expectancy of the track pavement. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g. crack and joint sealing and patching) and global maintenance (e.g. surface sealing). Preventive maintenance is usually the first priority when implementing a pavement maintenance program. Even with periodic maintenance, movement and related pavement cracking would still be expected due to frost heaving and extreme temperature variations.

5.0 GENERAL COMMENTS

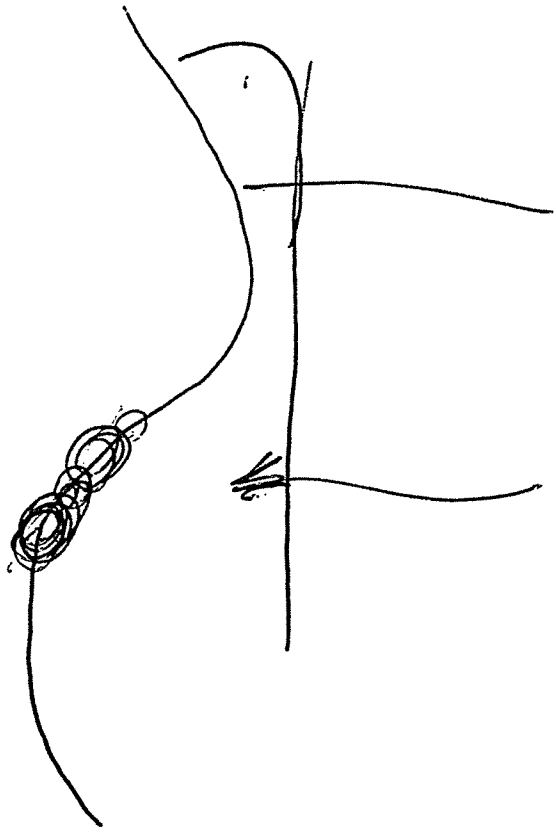
Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide observation and testing services during grading, excavation, track pavement construction and other earth-related construction phases of the project.

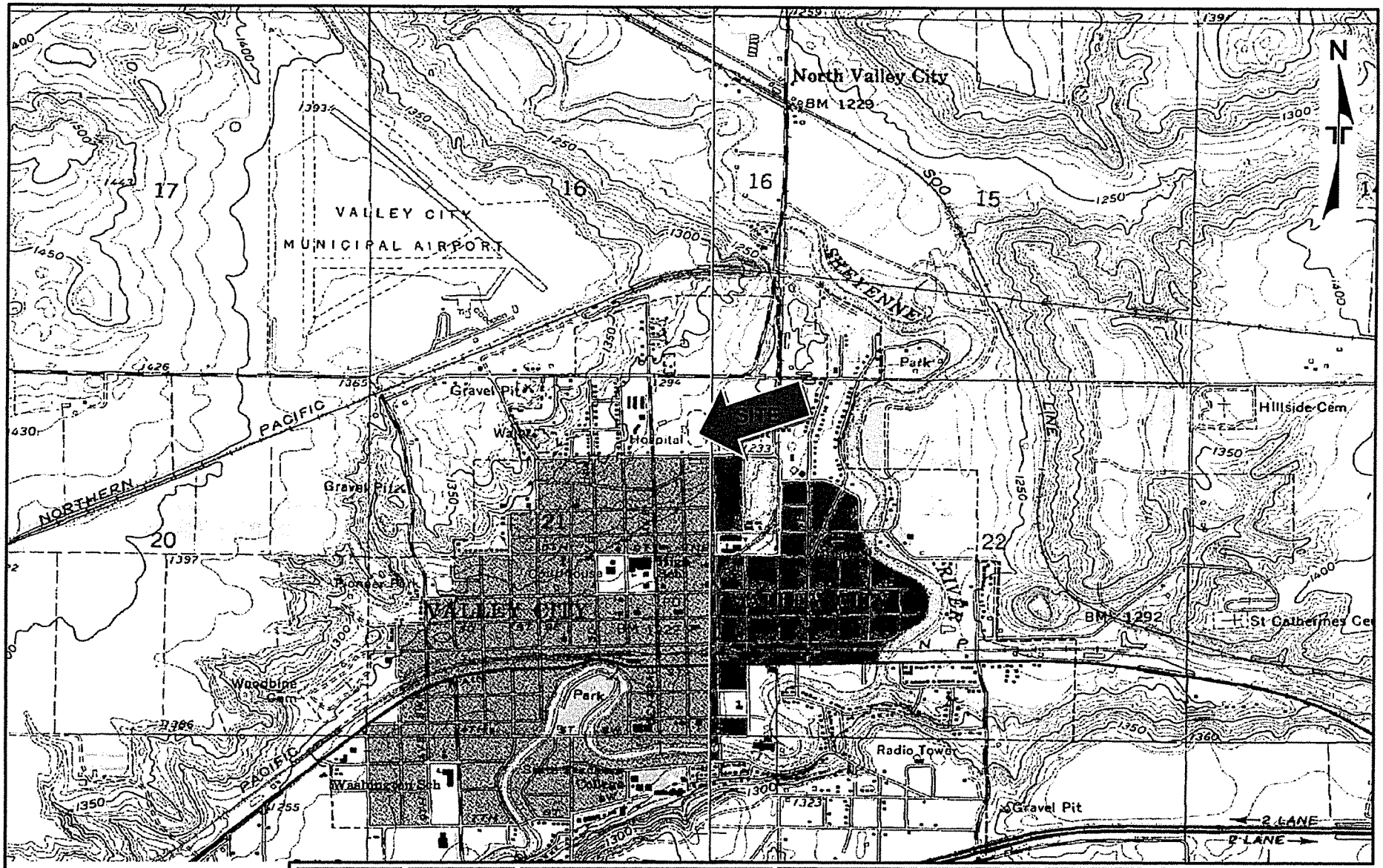
The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

APPENDIX A
FIELD EXPLORATION





TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY QUADRANGLES INCLUDE: VALLEY CITY WEST, ND (1/1/1961) and VALLEY CITY EAST, ND (1/1/1961).

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	cdl
Drawn by:	cdl
Checked by:	sss
Approved by:	sss

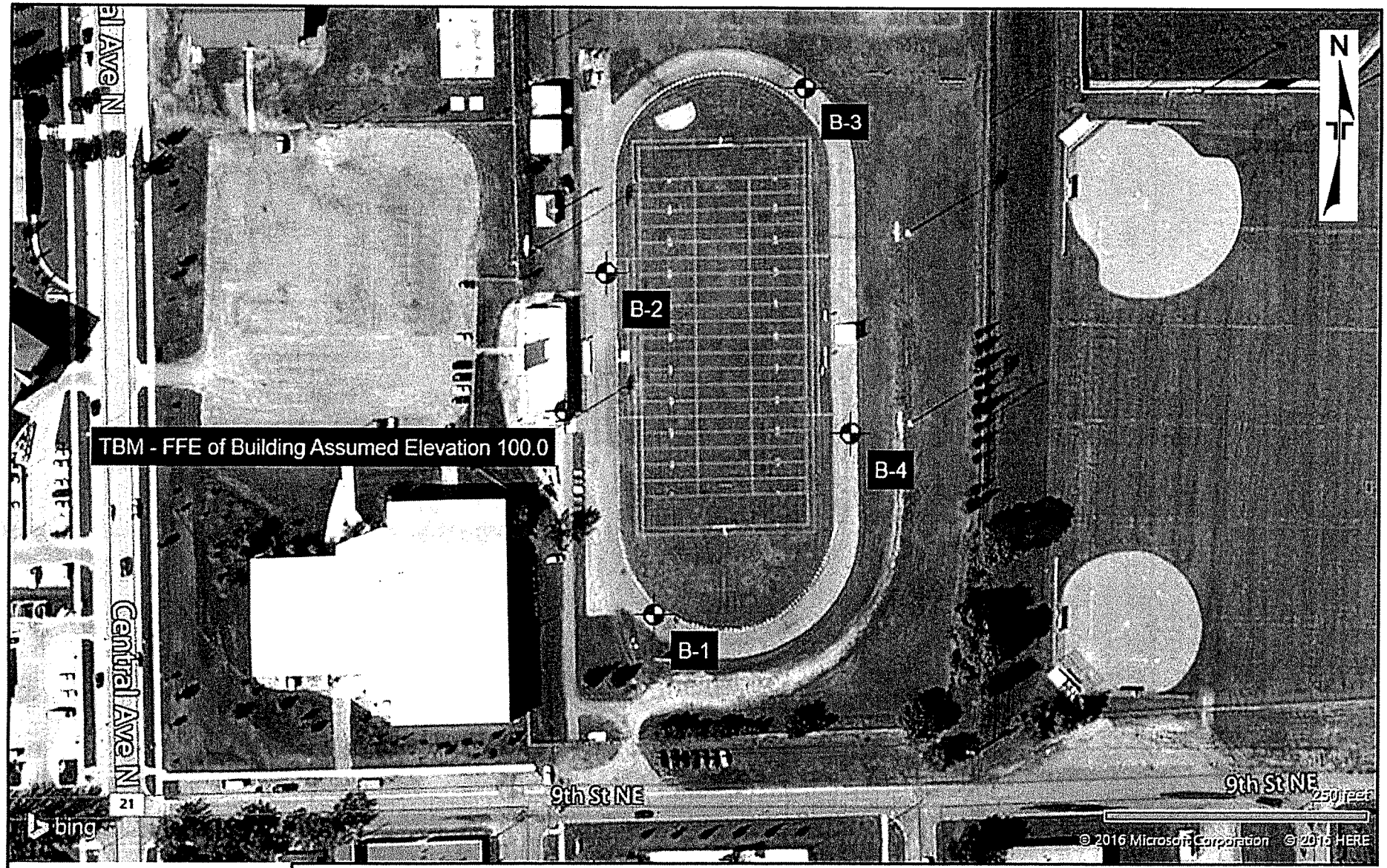
Project No.	M1165117
Scale:	1"=2,000'
File Name:	
Date:	10/11/2016

Terracon
860 9th St. NE, Unit K
West Fargo, ND 58078

SITE LOCATION MAP

Proposed Running Track Improvements
Hanna Field
Valley City, North Dakota

Exhibit
A-1



AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager: cdl	Project No. M1165117
Drawn by: cdl	Scale: AS SHOWN
Checked by: sss	File Name:
Approved by: sss	Date: 10/11/2016

Terracon
860 9th St. NE, Unit K
West Fargo, ND 58078

EXPLORATION PLAN

Proposed Running Track Improvements
Hanna Field
Valley City, North Dakota

Exhibit
A-2

Field Exploration Description

Four (4) soil test borings were completed for the project on October 13, 2016. The borings were advanced at the approximate locations indicated on Exhibit A-2. The boring locations were laid out in the field during our field activities using hand-held GPS equipment, which is typically accurate within 20 feet. Ground surface elevations indicated on the boring logs were measured in the field using a surveyor's level and grade rod. The elevations are referenced to the finished floor slab of the existing building, as indicated on Exhibit A-2, and rounded to the nearest one-half foot. The building floor slab was assigned an arbitrary elevation of 100.0. The locations and elevations of the borings should be considered accurate only to the degree implied by the means and methods used to define them.

The borings were drilled with a truck-mounted rotary drill rig using 3 ¼-inch hollow-stem auger to advance the boreholes. Soil samples were obtained using split-barrel and grab/auger cuttings sampling procedures. In the split-barrel sampling procedure, the number of blows required to advance a standard 2-inch O.D., 1-3/8-inch I.D. split-barrel sampler from 6 to 18 inches of penetration by means of a 140-pound hammer with a free fall of 30 inches is used to obtain the Standard Penetration Test (SPT) or N-value. The SPT is used to estimate the in-situ relative density of cohesionless soils and the consistency of cohesive soils.

An automatic SPT hammer was used to advance the split-barrel sampler in the borings performed at this site. A greater efficiency is typically achieved with the automatic hammer compared to the conventional safety hammer operated with a cathead and rope. Published correlations between the SPT values and soil properties are based on the lower efficiency cathead and rope method. This higher efficiency affects the standard penetration resistance blow count (N) value by increasing the penetration per hammer blow over what would be obtained using the cathead and rope method. The effect of the automatic hammer's efficiency has been considered in the interpretation and analysis of the subsurface information for this report.

The samples were tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification. Information provided on the boring logs attached to this report includes soil descriptions, consistency evaluations, boring depths, sampling intervals, and groundwater conditions.

A field log of each boring was prepared by the drill crew. These logs included visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. Final boring logs included with this report represent the engineer's interpretation of the field logs and include modifications based on laboratory observation and tests of the samples.

BORING LOG NO. B-1

PROJECT: Proposed Running Track Improvements

CLIENT: Valley City Public Schools
Valley City, North Dakota

SITE: Hanna Field
Valley City, North Dakota

LOCATION See Exhibit A-2

Latitude: 46.93225° Longitude: -98.00138°

Approximate Surface Elev: 99.5 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.1	99.5+/-	2" ASPHALT PAVEMENT
		FILL - ORGANIC SILTY SAND, black to very dark gray
4.0	95.5+/-	
		FILL - SANDY LEAN CLAY, very dark gray
7.0	92.5+/-	
		FILL - SANDY LEAN CLAY, with silt lenses, grayish brown
9.5	90+/-	
		ORGANIC SILT (OL), black
10.5	89+/-	
		SILTY SAND (SM), trace gravel, fine to coarse grained, grayish brown, medium dense
16.0	83.5+/-	
		Boring Terminated at 16 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
		4	4-6-8 N=14	24.1	30	
		3	2-3-4 N=7		19	
5		6	9-3-5 N=8		28	
		6	1-2-2 N=4		22	
10		10	2-3-4 N=7		30	
		12	5-6-8 N=14		10	
15		13	7-9-10 N=19		11	

WATER LEVEL OBSERVATIONS

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3 1/4" Hollow-stem auger

Abandonment Method:
Borings backfilled with soil cuttings upon completion and capped with esphalt cement concrete.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and ebbreviations.

Notes:

WATER LEVEL OBSERVATIONS
No free water observed

Terracon
860 9th St. NE Unit K
West Fargo, ND

Boring Started: 10/13/2016 | Boring Completed: 10/13/2018
Drill Rig: D-50 Truck | Driller: MR
Project No.: M1165117 | Exhibit: A-4

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL M1165117.GPJ TERRACON2015.GDT 11/1/16

BORING LOG NO. B-2

PROJECT: Proposed Running Track Improvements

CLIENT: Valley City Public Schools
Valley City, North Dakota

SITE: Hanna Field
Valley City, North Dakota

LOCATION See Exhibit A-2

Latitude: 46.93314° Longitude: -98.00157°

Approximate Surface Elev: 99.5 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.1	99.5+/-	2" ASPHALT PAVEMENT
		FILL - ORGANIC SILT WITH SAND, black
2.0	97.5+/-	
		POORLY GRADED SAND WITH SILT (SP-SM), trace gravel, fine to coarse grained, grayish brown, loose to medium dense, possible fill
9.5	90+/-	
		CLAYEY SAND WITH GRAVEL (SC), iron staining, fine to coarse grained, dark grayish brown, dense
12.0	87.5+/-	
		Auger/sampler refusal at 12 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
	X	12	3-4-9 N=13	14.8	25	
	X	12	6-7-7 N=14		12	
5	X	12	6-6-7 N=13		12	
	X	10	5-4-3 N=7		13	
10	X	8	41-28-6 N=34		17	

WATER LEVEL OBSERVATIONS: *No free water observed*

Stratification lines are approximate. In-situ, the transition may ba gradual.

Hammer Type: Automatic

Advancement Method:
3 1/4" Hollow-stam auger

Abandonment Method:
Borings backfillad with soil cuttings upon completion and capped with asphalt cement concrete.

See Exhibit A-3 for description of field procedures.
Sea Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.

Notes:

Terracon
860 9th St. NE Unit K
West Fargo, ND

Boring Started: 10/13/2016 | Boring Completed: 10/13/2016
Drill Rig: D-50 Truck | Driller: MR
Project No.: M1165117 | Exhibit: A-5

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL M1165117.GPJ TERRACON2015.GDT 11/1/16

BORING LOG NO. B-3

PROJECT: Proposed Running Track Improvements

CLIENT: Valley City Public Schools
Valley City, North Dakota

SITE: Hanna Field
Valley City, North Dakota

LOCATION See Exhibit A-2

Latitude: 46.93364° Longitude: -98.00081°

Approximate Surface Elev: 99.5 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
0.1	99.5+/-	2" ASPHALT PAVEMENT								
		ORGANIC SILT (OL), trace gravel, black, possible fill			X	8	4-5-9 N=14		46	
2.0	97.5+/-									
		SILTY SAND WITH GRAVEL (SM), fine to coarse grained, brownish gray, medium dense, possible fill			X	14	6-6-6 N=12		10	
4.5	95+/-									
		POORLY GRADED SAND (SP), trace silt, fine grained, light grayish brown, medium dense	5		X	14	6-5-4 N=9		10	
					X	14	4-5-5 N=10		6	6
			10		X	16	4-5-6 N=11		7	
					X	16	4-5-5 N=10		14	
14.5	85+/-									
		SILT WITH SAND (ML), brown, medium dense	15		X	16	4-3-8 N=11		26	58
16.0	83.5+/-									
		Boring Terminated at 16 Feet								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3 1/4" Hollow-stem auger

Abandonment Method:
Borings backfilled with soil cuttings upon completion and capped with asphalt cement concrete.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
880 9th St. NE Unit K
West Fargo, ND

Boring Started: 10/13/2016 | Boring Completed: 10/13/2016

Drill Rig: D-50 Truck | Driller: MR

Project No.: M1165117 | Exhibit: A-6

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL M1165117.GPJ TERRACON2015.GDT 11/1/16

BORING LOG NO. B-4

PROJECT: Proposed Running Track Improvements

CLIENT: Valley City Public Schools
Valley City, North Dakota

SITE: Hanna Field
Valley City, North Dakota

LOCATION See Exhibit A-2

Latitude: 48.93275° Longitude: -98.00063°

Approximate Surface Elev: 100 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Material Description	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
0.1	100+/-	2" ASPHALT PAVEMENT							
		FILL - ORGANIC SILTY SAND, black		X	10	3-4-7 N=11		46	
				X	10	2-3-3 N=6	6.9	36	
4.5	95.5+/-								
		CLAYEY SAND WITH GRAVEL (SC), fine to coarse grained, brownish gray, medium dense, possible fill	5	X	12	7-9-14 N=23		10	
				X	12	8-15-11 N=26		11	
9.5	90.5+/-								
		WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), fine to coarse grained, grayish brown, medium dense	10	X	14	20-12-11 N=23		6	7
12.0	88+/-								
		SILTY SAND (SM), fine grained, light grayish brown, medium dense		X	14	5-5-5 N=10		7	
14.5	85.5+/-								
		SILT WITH SAND (ML), brown, medium dense	15	X	12	4-6-4 N=10		31	
16.0	84+/-								
		Boring Terminated at 16 Feet							

Stratification lines ere approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3 1/4" Hollow-stem auger

Abandonment Method:
Borings backfilled with soil cuttings upon completion and capped with asphalt cement concrete.

See Exhibit A-3 for description of field procedures.

See Appendix B for description of laboratory procedures end additional data (if any).

See Appendix C for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
860 9th St. NE Unit K
West Fargo, ND

Boring Started: 10/13/2016 | Boring Completed: 10/13/2016

Drill Rig: D-50 Truck | Driller: MR

Project No.: M1165117 | Exhibit: A-7

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL M1165117.GPJ TERRACON2015.GDT 11/1/16

APPENDIX B
LABORATORY TESTING

Laboratory Description

Samples retrieved during the field exploration were returned to the laboratory for observation by the project geotechnical engineer, and were classified in general accordance with the Unified Soil Classification System described in Appendix C. All classification was by visual-manual procedures.

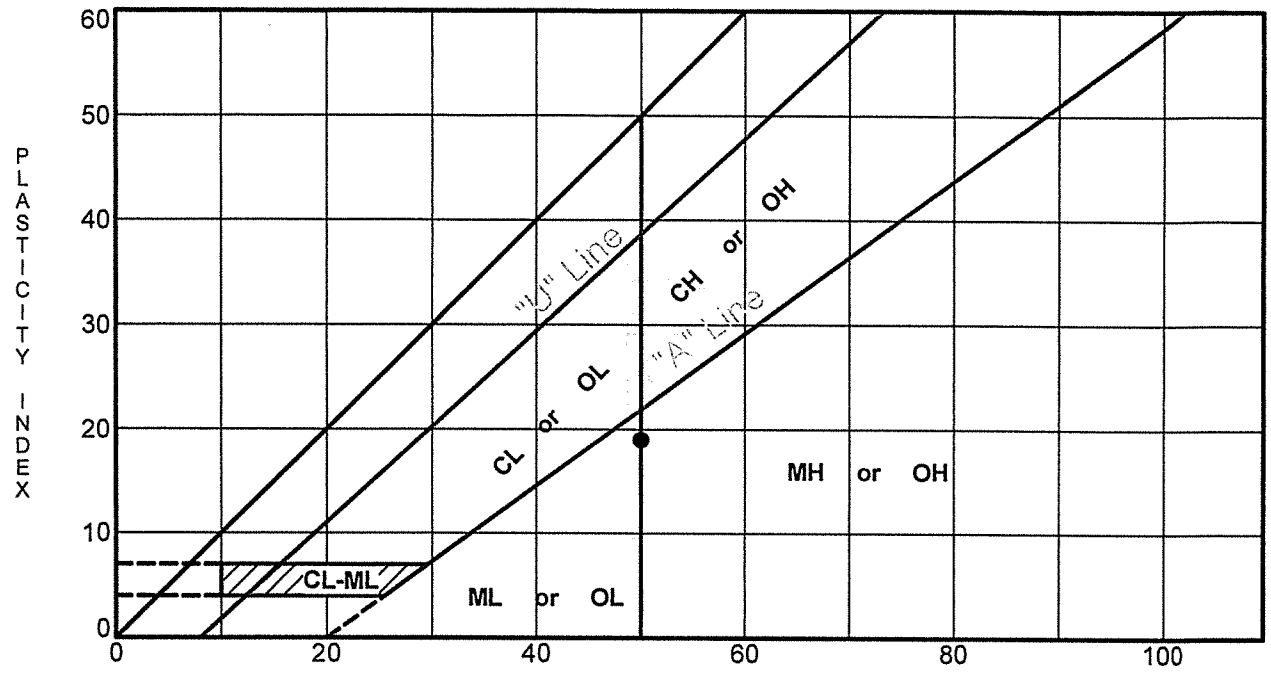
Representative samples were selected for laboratory analysis. Selected soil samples were tested for the following engineering properties:

Water content (ASTM D2216)
Atterberg limits (ASTM D4318)
Grain size distribution (ASTM D422)
Material finer than #200 sieve (ASTM D1140)
Moisture-density relationship (ASTM D698)
California bearing ratio (CBR) (ASTM D1883)
Hand penetrometer

Laboratory data can be found on the boring logs and/or the following laboratory data sheets. Procedural standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

ATTERBERG LIMITS RESULTS

ASTM D4318



Boring ID	Depth	LL	PL	PI	Fines	USCS	Description
● Bag-1	0.5 - 4.5	50	31	19	28	SM	ORGANIC SILTY SAND

PROJECT: Proposed Running Track Improvements

SITE: Hanna Field
Valley City, North Dakota

Terracon
860 9th St. NE Unit K
West Fargo, ND

PROJECT NUMBER: M1165117

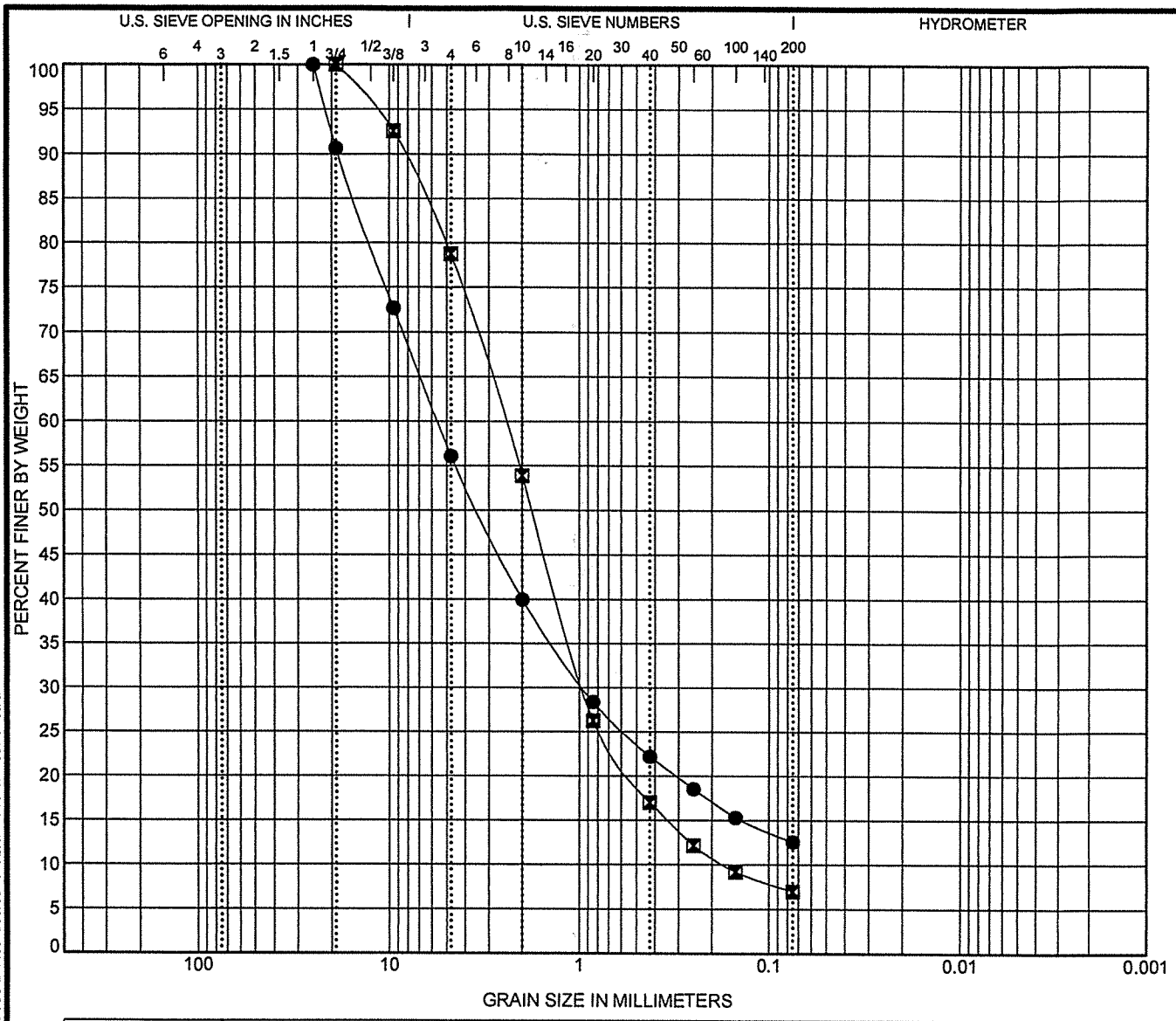
CLIENT: Valley City Public Schools
Valley City, North Dakota

EXHIBIT: B-2

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ATTERBERG LIMITS M1165117.GPJ TERRACON2015.GDT 11/1/16

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
●	Bag-2	0.5 - 4.5	SILTY GRAVEL with SAND GM						
⊠	B-4	9.5 - 11	WELL GRADED SAND with SILT and GRAVEL SW-SM					2.14	14.40

	Boring ID	Depth	D_{100}	D_{60}	D_{30}	D_{10}	%Gravel	%Sand	%Silt	%Fines	%Clay
●	Bag-2	0.5 - 4.5	25	5.59	0.957		43.9	43.5	12.6		
⊠	B-4	9.5 - 11	19	2.473	0.954	0.172	21.2	71.8	7.0		

PROJECT: Proposed Running Track Improvements

SITE: Hanna Field
Valley City, North Dakota

Terracon
860 9th St. NE Unit K
West Fargo, ND

PROJECT NUMBER: M1165117

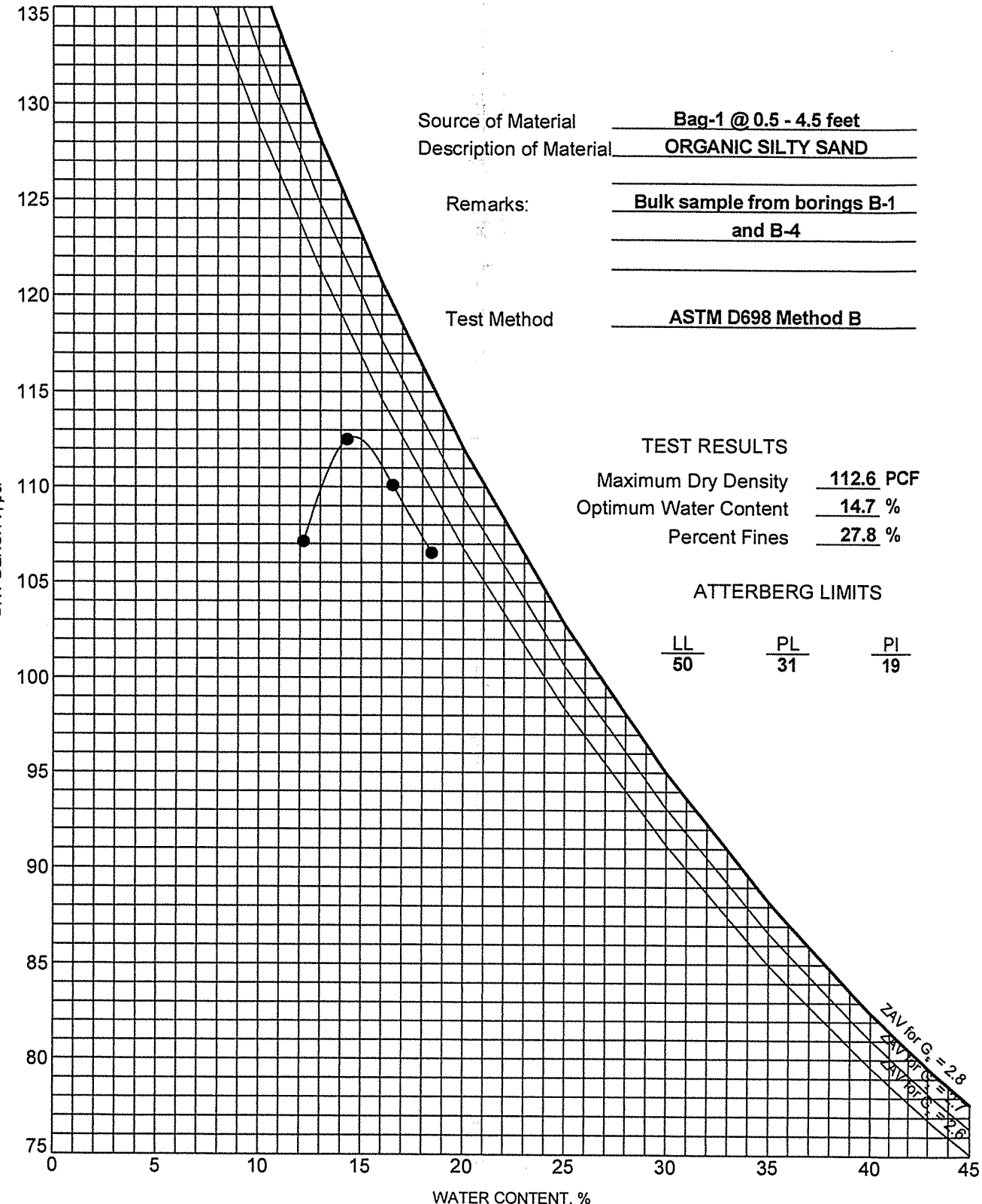
CLIENT: Valley City Public Schools
Valley City, North Dakota

EXHIBIT: B-3

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 M1165117.GPJ TERRACON2015.GDT 11/1/16

MOISTURE-DENSITY RELATIONSHIP

ASTM D698/D1557



Source of Material: Bag-1 @ 0.5 - 4.5 feet

Description of Material: ORGANIC SILTY SAND

Remarks: Bulk sample from borings B-1 and B-4

Test Method: ASTM D698 Method B

TEST RESULTS

Maximum Dry Density	112.6 PCF
Optimum Water Content	14.7 %
Percent Fines	27.8 %

ATTERBERG LIMITS

LL	PL	PI
50	31	19

PROJECT: Proposed Running Track Improvements

SITE: Hanna Field
Valley City, North Dakota

Terracon
860 9th St. NE Unit K
West Fargo, ND

PROJECT NUMBER: M1165117

CLIENT: Valley City Public Schools
Valley City, North Dakota

EXHIBIT: B-4

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. COMPACTION - V2 M1165117.GPJ TERRACON2012.GDT 11/1/16

California Bearing Ratio of Laboratory-Compacted Soils

Report Number: M1165117
Service Date: 10/20/16
Report Date: 10/27/16
Task:

Terracon

Client
Valley City Public Schools
Valley City, North Dakota

Project
Proposed Running Track Improvements
Hanna Field
Valley City, North Dakota

Project No. M1165117

SAMPLE INFORMATION

Sample Number:	Bag-1	Proctor Method:	ASTM D698 - Method B
Boring Number:	B-1 and B-4	Maximum Dry Density (pcf):	112.6
Sample Location:	n/a	Optimum Moisture:	14.7
Depth:	4 -8 feet	Liquid Limit:	50
Material Description:	ORGANIC SILTY SAND (SM)	Plasticity Index:	19

CBR TEST DATA

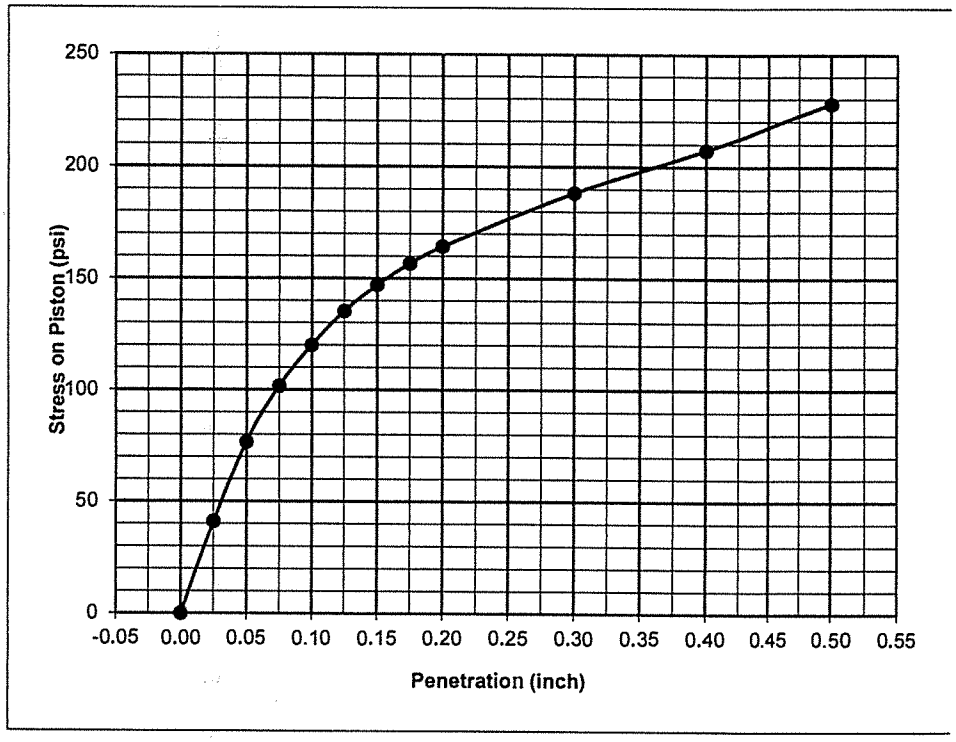
CBR Value at 0.100 inch	**12.0**
CBR Value at 0.200 inch	**11.0**
Surcharge Weight (lbs)	10
Soaking Condition	Soaked
Length of Soaking (hours)	96
Swell (%)	0.2

DENSITY DATA

Dry Density Before Soaking (pcf)	105.7
Compaction of Proctor (%)	93.9

MOISTURE DATA

Before Compaction (%)	15.3
After Compaction (%)	18.4
Top 1" After Soaking (%)	17.0
Average After Soaking (%)	16.3



Comments:
Test Methods: ASTM D1883

APPENDIX C
SUPPORTING DOCUMENTS

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

SAMPLING


Grab Sample


Split Spoon

WATER LEVEL


Water Initially Encountered


Water Level After a Specified Period of Time


Water Level After a Specified Period of Time

Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

FIELD TESTS

N	Standard Penetration Test Resistance (Blows/Ft.)
(HP)	Hand Penetrometer
(T)	Torvane
(DCP)	Dynamic Cone Penetrometer
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength Qu, (psf)	Standard Penetration or N-Value Blows/Ft.
Very Loose	0 - 3	Very Soft	less than 500	0 - 1
Loose	4 - 9	Soft	500 to 1,000	2 - 4
Medium Dense	10 - 29	Medium Stiff	1,000 to 2,000	4 - 8
Dense	30 - 50	Stiff	2,000 to 4,000	8 - 15
Very Dense	> 50	Very Stiff	4,000 to 8,000	15 - 30
		Hard	> 8,000	> 30

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300 mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1 - 10
Medium	11 - 30
High	> 30

Terracon

Exhibit: C-1

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse Grained Soils: More than 50% retained on No. 4 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]		GW	Well-graded gravel [F]
			$Cu < 4$ and/or $1 > Cc > 3$ [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F,G,H]
			Fines classify as CL or CH		GC	Clayey gravel [F,G,H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]		SW	Well-graded sand [I]
			$Cu < 6$ and/or $1 > Cc > 3$ [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G,H,I]
			Fines classify as CL or CH		SC	Clayey sand [G,H,I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A" line [J]		CL	Lean clay [K,L,M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K,L,M]
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay [K,L,M,N]
			Liquid limit - not dried			Organic silt [K,L,M,O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K,L,M]
			PI plots below "A" line		MH	Elastic Silt [K,L,M]
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay [K,L,M,P]
			Liquid limit - not dried			Organic silt [K,L,M,Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

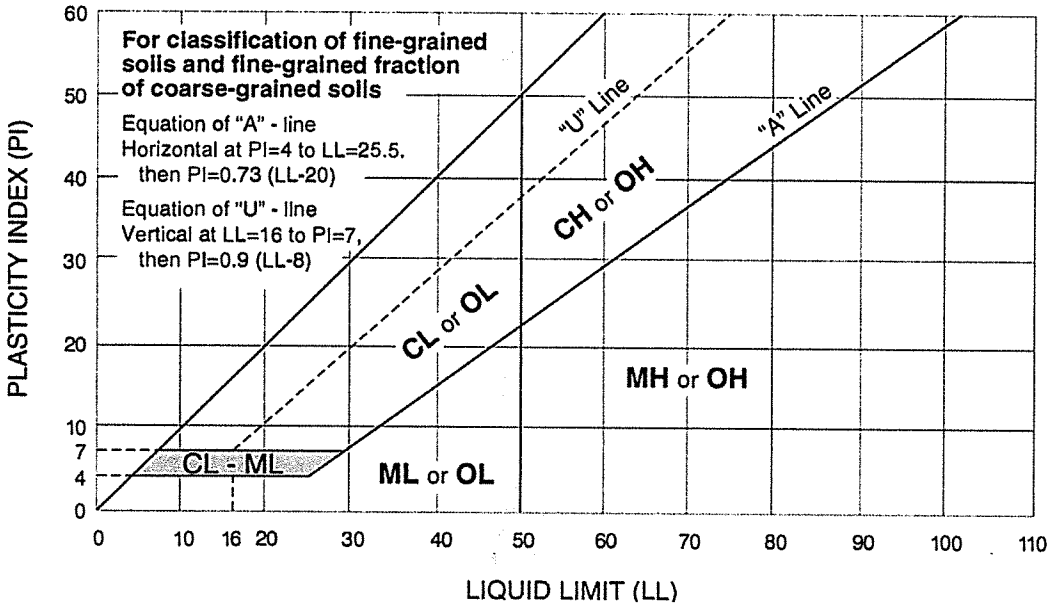
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[O] PI plots below "A" line.



Terracon

Exhibit C-2

SUBCONTRACTOR BID FORM

Project: **Valley City Public Schools**
New School
210 12th Street NE, Valley City, ND

Submitted By:
Company:_____
Address:_____
Bidding Contact:_____
Email Address: _____
Phone:_____ Fax:_____

Submitted To:
Lance Monson
Construction Engineers Inc.
200 North 69th Street
Grand Forks, ND 58203
email to:LanceM@ConstructionEngineers.com
Fax: 701-772-1808

OFFER:

Having examined the place of work and all matters referred to in the Contract Documents prepared by ICON Architectural Group, for the above referenced project, we, the undersigned, hereby offer to enter into a Contract for furnish all labor, materials, equipment and services required to perform the work associated with the following:

BASE BID (Including sales/use tax):

Contract Category _____ Lump Sum **$**_____

Contract Category _____ Lump Sum **$**_____

Contract Category _____ Lump Sum **$**_____

Combined Bid for Multiple Contract Categories (Including sales/use tax):

Contract Category _____ & _____ Lump Sum **$**_____

Sales Tax – List the amount of ND sales/use tax **INCLUDED** in your base bid above **$**_____

For material bids only – attach additional information to this bid form as needed. Amount will need to be included as an item in schedule of values for successful bidders.

Additional Cost to provide a Performance & Payment Bond **$**_____

Attach additional breakdowns of sales tax and bond costs if bidding multiple categories and alternates

ALTERNATES: *See spec section 01 2300 for detailed descriptions of alternates.*

Alternate 1 – Jefferson Admin Office + Restroom (ADD/DEDUCT) $_____

Alternate 2 – STEAM Classroom (ADD/DEDUCT) $_____

Alternate 3 – Parking Lot (ADD/DEDUCT) $_____

Alternate 4 – Wenger Cabinets (ADD/DEDUCT) $_____

Alternate 5 – Acoustical Ceiling Panels (ADD/DEDUCT) $_____

SUBCONTRACTOR BID FORM (continued)

Alternate 6A – Concrete Patio South of the Commons (ADD/DEDUCT) $_____

Alternate 6B – Extended Concrete Patio South of the Commons (ADD/DEDUCT) $_____

Alternate 7 – Exterior Rope Lighting (ADD/DEDUCT) $_____

Alternate 8 – Monument on South Side (ADD/DEDUCT) $_____

Alternate 9A – A La Carte Food Service Equipment (ADD/DEDUCT) $_____

Alternate 9B – A La Carte Food Service Counters (ADD/DEDUCT) $_____

Alternate 10 – Gym Wrestling Mat Lifts (ADD/DEDUCT) $_____

Alternate 11 – Exterior Precast Wall Finish (ADD/DEDUCT) $_____

Alternate 12 – Area C Classrooms (ADD/DEDUCT) $_____

Alternate 13 – Weight Room (ADD/DEDUCT) $_____

Alternate 14 – VC Exterior Signage at Music (ADD/DEDUCT) $_____

Voluntary Alternate (ADD/DEDUCT) $_____

Description _____

_____

UNIT PRICES: *See spec section 00 4322 for detailed descriptions of unit prices.*

Unit Price #1 - Remove/Recompact Uncontrolled Fill $_____/CY

Unit Price #2 - Removal of Unusable Fill/Import Replacement $_____/CY

BID CLARIFICATIONS:

_____

_____

_____

ADDENDA:

The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the above pricing.

Addendum #_____ Dated _____ Addendum #_____ Dated _____

Addendum #_____ Dated _____ Addendum #_____ Dated _____

ACKNOWLEDGEMENTS: *For labor & material bids only -- does not apply to material only bids.*

Initial to acknowledge the Contract Documents noted below have been reviewed:

Subcontract Agreements _____ Initials Attachment A – Project Safety Requirements___ Initials

BY SIGNING THIS DOCUMENT I CERTIFY THAT I AM AN OWNER OR OFFICER OF THE COMPANY, AND I SWEAR THAT MY COMPANY MEETS ALL THE CRITERIA LISTED ABOVE.

IN SUBMITTING THIS BID, IT IS UNDERSTOOD THAT THE CONSTRUCTION MANAGER AND THE OWNER RESERVE THE RIGHT TO HOLD ALL BIDS FOR A PERIOD OF 45 DAYS AFTER BID DATE AND TO REJECT ANY AND ALL BIDS AND WAIVE ANY FORMALITIES OR IRREGULARITIES.

Dated this _____day of_____2026.

Company: _____

Signature of Authorized Officer: _____

Printed Name: _____

Title: _____

CONTRACT CATEGORY SCOPE CLARIFICATIONS
VALLEY CITY PUBLIC SCHOOLS – NEW SCHOOL

Addendum #1 - Items indicated in Red
Addendum #2 - Items indicated in Green

TABLE OF CONTENTS

CC #00A – GENERAL REQUIREMENTS PERTAINING TO ALL CONTRACT CATEGORIES
CC #01A – GENERAL CONSTRUCTION (performed by Construction Manager)
CC #01B – SURVEYING
CC #01C – TESTING AND INSPECTIONS
CC #01D – TEMPORARY & PERMANENT FENCING
CC #03A – BUILDING CONCRETE
CC #03B – PRECAST CONCRETE
CC #04A – MASONRY
CC #05A – STRUCTURAL STEEL AND METAL FABRICATION (SUPPLY)
CC #05B – STRUCTURAL STEEL AND METAL FABRICATION (INSTALL)
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CC #09F – WOOD ATHLETIC FLOORING
CC #09G – PAINTING, COATING, AND WALL COVERING
CC #09H – CONCRETE POLISHING
CC #10A – OPERABLE PARTITIONS
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CC #11B – GYMNASIUM EQUIPMENT
CC #12A – WINDOW TREATMENTS
CC #12B – BLEACHER SEATING
CC #14A – ELEVATOR
CC #21A – FIRE SUPPRESSION
CC #22A/23A – PLUMBING AND HVAC
CC #26A – ELECTRICAL AND LOW VOLTAGE
CC #31A – EARTHWORK
CC #32A – ASPHALT PAVING
CC #32B – SITE CONCRETE
CC #32C – LANDSCAPING
CC #32D – SYNTHETIC TURF
CC #33A – UTILITIES

CONTRACT CATEGORY DESCRIPTION(S)

CC #00A - <u>GENERAL REQUIREMENTS PERTAINING TO ALL CONTRACT CATEGORIES</u>

a. All Contractors and Suppliers are responsible for reviewing all plan documents in addition to all categories in this Scope Clarification prior to submitting their proposal.
b. Definitions
    i. Furnish or Supply – to source or otherwise make available a material or service.
    ii. Install or Erect – to place or fix in place ready for use.
    iii. Provide – to furnish or supply a material or service and install or erect.
c. It is the intent of each Contract Category scope of work and responsibility for the Contractor bidding to provide a complete operational assembly/system, unless specifically indicated otherwise.
d. Unless noted otherwise, all labor and material for each specification section is to be included for each Contract Category.
e. Each Contractor is required to coordinate their work with other Contractors, as directed by the Construction Manager, without additional compensation.
f. Each Contractor is required to manage their suppliers and subcontractors. The bidding contractor should be the single source contact for the CM for all work included in that Contract Category.
g. All Contract Categories are tied to Specification Divisions.
    i. 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS and
    ii. 01 - GENERAL REQUIREMENTS
h. All Contract Categories are tied to and shall comply with the General (G) Drawing Sheets and associated UL Assembly requirements.
i. All Contractors are responsible for coordination and review of shop drawings (as applicable to their work) and obtaining field verifications.
j. Field verify and inspect existing conditions and substrates to receive work prior to installation, field verify dimensions that will affect the layout or performance of your work, and confirm preparatory work is complete and acceptable to receive work under your contract category.
k. Contractors requiring embeds or provisions for anchors cast into work by others, are responsible to provide embeds and detailed layout drawings.
l. Each Contractor is responsible for clean-up of debris, rubbish and other similar items resulting from their operations on a daily basis.
m. Each Contractor is responsible for their own working platforms, scaffolding, and equipment necessary to access work. The Contractor is responsible for the repair of all Contractor caused damage incurred by their crew(s) and/or subcontractor(s).
n. The site will be set up for minimal parking by the construction trades. All contractors are responsible for any costs associated with offsite parking.
o. All bids to be submitted on the bid form included in the specifications.
p. It is the responsibility of the contractor doing the excavation work to call for utility locates for their scope of work.
q. Construction Manager will provide dumpster(s) for typical construction debris accumulated under the work of this contract unless noted otherwise. Materials requiring special disposal requirements to be removed by Contractor.
r. Construction Manager will provide temporary portable toilets.

s. **Conflicts and Duplication in Work:** In the case of a duplication of scope responsibility either on Drawings, Specification, or Contract Category Descriptions, the Contractor is responsible to bid the work as called out regardless of potential oversight duplications.
    i. In the case of duplication, the Construction Manager will make the final decision as to which Contract Category will complete the work and the appropriate cost adjustment will be made.

t. **Special Coordination and Scheduling Required:** Contractor acknowledges that the performance of their Contract Category must be closely interfaced with the performance of others and that multiple mobilizations may be required.
    i. Maintain punctuality and compliance with agreed upon deliveries.
    ii. Comply with Project Schedule.
    iii. Maintain communication with Construction Manager to ensure work sequences are followed to allow all contract categories to continue work.
    iv. Provide required "after-hours" shift work to maintain Project Schedule where indicated or required to maintain Project Schedule or to accommodate Owner's on-going operations.
    v. Provide any costs needed to perform work in accordance with the project schedule. No additional charges will be allowed for work being completed within the timeframe shown on the preliminary project schedule.

u. **Document Management and Control Procedures:** Ensure on-site contractor's personnel have current contract documents, including, but is not limited to, Special Requirements, Specifications, Drawings and clarifications (RFI's and ASI's) and other modifications (CCD's and field orders) affecting the Work.
    i. Ensure field personnel are familiar with requirements of Contract Documents.
    ii. Contractors shall have an established document control procedure to ensure compliance.

v. **Coordinate Layout and Clearances:** Coordinate space requirements and installation for items that are indicated diagrammatically on Documents.
    i. Follow routing indicated for pipes, ducts and wiring, place runs parallel with line of building. In finished areas, unless expressly indicated otherwise, conceal pipes, ducts and wiring within construction. Coordinate locations of plumbing and electrical fixtures and electrical outlets with finish elements.
    ii. Use space efficiently to maximize accessibility for other installations, maintenance and repairs.
    iii. Installing entities shall modify their installations, if needed, to eliminate conflicts and achieve effective coordination of systems and work.
    iv. Contractor's failure to exercise coordination responsibilities constitutes a waiver of claims for an increase in Contract Sum if design modifications are required to resolve conflicts that might have been avoided by complying with requirements of this obligation.

w. **Delivery and Receiving of Materials:** Provide labor and equipment necessary to receive materials, unload, inspect, sort, and distribute materials to individual work areas. Store materials and equipment in an organized manner as not to obstruct other trades and the normal day-to-day operation of this project.
    i. All Contractors are responsible for, and costs associated with unloading, staging, and appropriate storage of their material, to include material they will be installing but supplied by others.
    ii. Coordinate storage as allowed on site with the Construction Manager.
    iii. Schedule deliveries to minimize on-site storage and coordinate with Construction Manager Site Supervision.

iv. Provide flagmen for operation in contact with public traffic for deliveries.
v. Construction Manager reserves the right to remove or relocate Contractor materials and/or equipment stored on site by request to the Contractor or at the expense of the Contractor if necessary.

x. **Acceptance of Substrates and Existing Conditions:** Starting work constitutes acceptance of existing conditions, preparatory work and substrates that may affect the performance of your work.
y. **Finish protection:** Each Contractor shall provide necessary protection of immediate and adjacent surfaces during the progression of their work.
   i. Interior scaffolding and karts utilized on finished floors must use rubber, locking wheels.
   ii. Contractors may not utilize finished substrates such as countertops or sills to set tools, materials, or containers of any form.
z. Work Restrictions:
   i. Contractor's Field Offices: As directed by Construction Manager.
   ii. Construction Staging Area: As directed by Construction Manager.
      1. Site will have limited space for laydown and staging. All deliveries and on-site storage to be made in coordination with Construction Engineers
   iii. Egress and Access Routes: Do not obstruct existing access and egress from adjacent Site areas or portions of existing facilities which are to be operational during Construction.
   iv. Limit activities to Construction Limits**:** Notify Construction Manager if work activities are required outside of construction limits.
   v. Hot Work Permits: Work activities using and causing sparks and open flame must be coordinated with Construction Manager Site Supervision and special procedures shall be complied with as directed by Construction Manager.
   vi. Work in Occupied Areas: Work in occupied areas of the facility must be coordinated with Construction Manager Site Supervision who will coordinate with Owner's Representative.
   vii. Working Hours: Conduct Work during normal working hours unless expressly agreed to by Construction Manager and the Owner.
      1. Standard five-day work week (Monday through Friday) is required. A four-day ten-hour schedule is not acceptable unless approved by the Construction Manager.
   viii. Tobacco Free Site: Project Site is a "tobacco free" zone; there is absolutely no smoking, or use of tobacco products of any kind are prohibited on the Owner's Property.
   ix. Noise Restrictions: Do not use audio equipment such as radio's, tape players, compact disc or MP-3 players on Site.
      1. Radio headphones shall not be permitted.
      2. Maintain a level of conduct and decorum consistent with the environment in which the Work is being performed.
   x. Warranty: Contractor or supplier warrants that irrespective of the specification of the materials and equipment in the Plans and Specifications, the materials and equipment furnished by the applicable contractor or material supplier are appropriate for the purposes specified and are safe for the applications implicit in the Plans and Specifications.
   xi. Additional Work: No additional compensation for claimed additional work will be authorized without advanced written authorization from the Construction Manager.

CC #01A - <u>GENERAL CONSTRUCTION (performed by Construction Manager)</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all General Construction work, including but not limited to the following:
b. Include an allowance of **TWO THOUSAND (2,000) skilled carpentry man hours** to be utilized by Construction Manager. Man hours are to include all wages, payroll taxes, fringe benefits, small tools, Contractor's overhead, and profit.
c. Provide an allowance of **ONE THOUSAND (1,000) general labor man hours** to be utilized by Construction Manager. Man hours are to include all wages, payroll taxes, fringe benefits, small tools, Contractor's overhead, and profit.
d. Demolish/remove the following items:
    i. All items that are built into or attached to the building.
    ii. Flooring - where scheduled and not noted to be removed by the asbestos contractor.
    iii. Mastic and base in locations where flooring is removed by this contract.
    iv. Ceiling tiles and grid for the walls to be demolished.
    v. Ceiling tiles and grid for the installation of new walls.
    vi. Doors, glass, and storefront components noted.
    vii. Existing veneer at exterior of building for installation of new construction.
    viii. All items indicated as save for salvage.
e. Provide any shoring required to complete the work of the contract.
f. Provide all saw cutting, and wall or slab removals where noted.
g. Provide dumpsters for the lawful disposal of all demo items.
h. Ceiling tiles in areas scheduled to remain shall be removed and re-installed by the Contract Category installing their building system (i.e. fire protection, mechanical, electrical).
i. Mechanical, plumbing, and electrical items will be removed by others.
j. Provide and install the following items:
    i. In-wall blocking and backing for items installed by this Category.
        1. Include backing for TV wall brackets installed by Owner.
        2. Include backing for foodservice equipment (reference QF501)
        3. Include backing for miscellaneous metals (e.g. Handrails, roof ladders, etc.)
    ii. Wood roof and window blocking.
    iii. Interior joint sealants as applicable to work scope.
    iv. Expansion joints and covers.
        1. Expansion joint at cooler.
    v. FRP as scheduled.
    vi. Visual display surfaces.
    vii. Signage – Building and Site.
    viii. Toilet compartments.
    ix. Toilet, bath and laundry accessories.
    x. Wall and door protection.
    xi. Corner guards.
    xii. Fire extinguishers and cabinets.
    xiii. Metal lockers.
    xiv. Wood base support for lockers.
    xv. Flag poles
    xvi. Standards and shelving
    xvii. Site Benches and Bike Racks
    xviii. Concrete splash blocks

k. Install the following items, supplied by others:
    i. All Owner furnished contractor installed (OFCI) items as indicated.
    ii. Relocate playground equipment and playground border as specified.
    iii. Relocation of existing kiln as noted.
    iv. Remove existing netting at discus area
    v. Grout sills at elevator opening.
    vi. Core and install volleyball inserts, supplied by CC #11B.
l. Provide all fasteners required to complete all carpentry work installations.
m. Provide field measurements for items installed by this Contract Category.
n. Provide and maintain floor protection utilizing overlapped Ram Board with taped seams (or equivalent floor protection material). Remove and dispose of floor protection after utilization.
o. Provide temporary shelters for winter conditions.
p. Provide access panels to be installed by CC #09A.
q. Include allowance for additional access panels not indicated of $7,500.
r. Progressive and final cleanup of the General Construction work.
s. Generally covered by specification sections as follows:
    i. Division 02 – Existing Conditions
    ii. 06 1000 – Rough Carpentry
    iii. 06 8316 – Fiberglass Reinforced Paneling
    iv. 07 9200 – Joint Sealants (As Applicable)
    v. 07 9513.16 – Exterior Expansion Joint Cover Assemblies
    vi. Division 10 – Specialties
    vii. 10 7316.13 – Metal Canopies

CC #01B - <u>SURVEYING</u>

a. Establish benchmark for the building construction.
b. Provide survey stakes for actual building corners with a 10’ offset.
c. Provide survey stakes for building grid lines.
d. Provide stakes for all utility lines with 15’ offsets every 25’.
e. Provide final grading elevation stakes on a 25’ grid.
f. Provide survey stakes for all new site paving.
g. Provide survey stakes for all new site lighting.
h. Provide survey stakes for curb & gutter.
i. Provide control points on site for contractor layout coordination
j. Verify foundation and anchor bolt placement following completion of concrete foundations. Assume three mobilizations.
k. Generally covered by specification sections as follows:
    i. 01 4000 – Quality Requirements

CC #01C – <u>TESTING & INSPECTIONS</u>

a. Soil compaction testing, proctor tests, excavation observations.
b. Concrete cylinders, rebar inspection.
c. Masonry grout and mortar testing, rebar inspections.
d. Structural steel welding observations.
e. Reference Sheet ~~S004~~ S003 – Special Inspections & Testing

f. Floor Flatness/Levelness at Gym Floor, Polished Concrete, and RSF areas.
g. Generally covered by specification sections as follows:
    i. 01 4000 – Quality Requirements

CC #01D – <u>TEMPORARY & PERMANENT FENCING</u>

a. Provide temporary fencing as indicated on the drawings and specifications.
b. Provide gate(s) as indicated. Each gate is to be a minimum of 16'-0" wide.
c. Temporary posts spacing to be a maximum of 15'-0" on center.
d. Provide diagonal post bracing at all corners.
e. Removal of all temporary fencing and gates at the completion of the project.
f. Temporarily remove existing fence at track area and reinstall after completion of new turf. (Figure 50' of removal and reinstall)
g. Include additional mobilization to remove portion of pounded fence at playground and replace with ballasted fence panels per site logistics plan.
h. Progressive and final cleanup of the Contractor's work.
i. Generally covered by specification sections as follows:
    i. 01 5000 – Temporary Facilities and Controls
    ii. 32 3119 – Decorative Metal Fences

CC #03A - <u>BUILDING CONCRETE</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Building Concrete work, including but not limited to the following:
b. All cast-in-place concrete work including shop drawings, formwork, reinforcement (rebar and wire mesh) and accessories.
c. All concrete associated expansion joint materials, membranes, vapor barriers, waterproofing, and caulking/sealants.
d. Provide and install the following items:
    i. Foundation insulation as indicated.
    ii. Rigid insulation below the slab as indicated.
    iii. Waterproofing on the new and existing foundation walls as indicated.
    iv. Vapor barrier under slab (All seams to and penetrations to be sealed with tape).
e. Subgrade will be prepared, by others, within ± 2 inches, include all work from subgrade to finish floor.
f. Finish grading of the concrete subgrade by this Contractor. Include placement of finish sand fill to meet plan subgrade elevations. Materials provided by others.
g. Protect and maintain foundation bearing soils in suitable condition after excavation by others.
h. Set and install all embedded steel, anchor bolts and sleeves provided by others. Coordinate installation of sleeves with respective MEP Contractors.
i. Set steel decking on stoops as indicated to include setting any angles that may be required. Decking and angles to be provided by the Steel Contract Category.
j. Contractor to include all work associated with tie-ins to existing footings and foundations.
k. Isolation at steel columns, if any.
l. Concrete work for all pad and strip footings.
m. Cure and seal all concrete slabs.
n. Pan fill concrete stairs.

o. Provide concrete topping slab on hollow core precast.
p. Install bollards, bollard material provided by others.
q. Assist in the installation of trench drains provided by Mechanical Contractor.
r. Include concrete retaining wall at gridline A.
s. Site concrete is by others.
t. Install embed plates provided by Precast Supplier.
u. Mechanical and electrical slabs and housekeeping pads by others.
v. Heated concrete charges and winter condition costs for all cold weather concrete placements.
w. Provide frost/freezing protection for all concrete placements.
x. Provide alternate pricing to provide porosity inhibiting admixture (i.e. BarrierOne PIA) which shall include an adhesion warranty letter at Gymnasium floors.
y. S001 Concrete Note 15 - Provide Allowance for additional rebar.
z. Coordinate walk-in cooler floor slab with food service contractor.
aa. Waterproof and install insulation at foundations upon completion of foundations so backfilling can take place. Include added mobilizations necessary to complete extending waterproofing and insulation up past base of precast as detailed after precast installation.
bb. Coordinate placement and requirements of slabs to be polished concrete with CC#09H – Concrete Polishing
cc. Meet concrete tolerance requirements at wood gym floor per specification section 09 6466 (+/- 1/8" in radius of 10').
dd. Provide on-going dewatering of excavations.
ee. Install blockouts and sleeves for mechanical and electrical penetrations. Blockout and sleeve material, along with layout for these materials, are to be provided by others.
ff. Provide necessary puddling and vibrating of slabs in rooms scheduled for Polished Concrete to ensure a uniform look when polished.
gg. Coordinate recessed cooler slab and floor slab with CC #11A – Food Service Equipment.
~~hh. Provide shovel guard precast and associated rigid insulation as indicated in 2/A502 and 16/a212~~
    ~~i. Include exterior column box benches as indicated in 1 and 2/a508~~ (Moved to 04A)
ii. Provide welding of rebar to steel where required in the field (ref. 8/S502, etc.)
jj. Provide concrete bases for flag poles. Include excavation, reinforcing, concrete, and installation of embedded flag pole sleeve. (Flag pole sleeve provided by others.)
kk. Where plans show the option of strip footing or thickened slab at masonry walls, such as detail 16/S301, thickened slab should be included.
ll. Provide cast in lumber sleepers at stair treads as indicated (ref. 9, 10, 11/A326)
mm. Include drilling/excavation for install. Include hydrovac as required at transformer pad and other underground conflicts.
nn. Provide shop drawing showing proposed layout of construction joints and sawcut control joints in concrete slabs for review and approval by construction manager and architect.
oo. Provide concrete bases for goal posts. Include excavation, reinforcing, concrete, installation of embedded ground sleeve, and setting of vertical posts. (Goal post sleeves and vertical posts provided by others.)
pp. Concrete Testing is by the Construction Manager. Provide assistance, if required, to the testing company.
qq. Progressive and final cleanup of the Contractor's work.
rr. Generally covered by specification sections as follows:
    i. 03 0516 – Underslab Vapor Barrier
    ii. 03 1000 – Concrete Forming and Accessories

iii. 03 2000 – Concrete Reinforcing
iv. 03 3000 – Cast-in-Place Concrete
v. 07 1300 – Sheet Waterproofing
vi. 07 2100 – Thermal Insulation (as applicable)
vii. 07 2600 – Vapor Retarder
viii. 07 9200 – Joint Sealants (as applicable)

CC #03B – PRECAST CONCRETE

a. Provide supervision, layout, shop drawings, labor, material, equipment, and other incidental costs to complete all Architectural Precast Concrete work, including but not limited to the following:
b. Engineering and shop drawings.
c. Hollow core where indicated.
d. Trucking and transportation and permitting.
e. Provide and install all grouting and embedment plates.
f. Provide embed weld plates for installation in foundations by cast in place concrete scope.
g. Provide all caulking of wall panels on both interior and exterior sides.
h. Provide and install weld plates, bearing pockets, and anchorage to structure.
i. Provide installation of conduit, electrical boxes, and any other embedded items as indicated.
j. Provide and install helical piers or other means of bracing as needed for temporary support of precast concrete. Coordinate locations of piers with U/G MEP work. Verify with CM prior to placement.
k. Include multiple mobilizations (2 minimum).
l. Provide mock-up wall panel as specified.
m. Hold out precast panels as necessary in coordination with structural steel erection.
n. Provide DEDUCT alternate for hollow core erection by others.
o. Provide price for Alternate #11 (Exterior precast wall finish).
p. Provide final clean of precast wall panels at project completion
q. Achieve fire rating indicated in documents (utilize Metacaulk joint strip or similar firestop strip as necessary in panel joints)
r. Progressive and final cleanup of the Contractor's work.
s. Generally covered by specification sections as follows:
   ~~i. 03 4100 – Precast Structural Concrete~~
   ii. 03 4113 – Precast Hollow Core Planks
   iii. 03 4500 – Precast Architectural Concrete
   iv. 07 9200 – Joint Sealants (as applicable)

CC #04A - MASONRY

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Masonry work, including but not limited to the following:
b. Concrete Unit Masonry (Concrete Block, CMU) and all accessories.
c. CMU reinforcement including wall reinforcement and reinforcing steel (rebar).
d. Temporary top of wall bracing as required.
e. Concrete grout at CMU – all required filled cells and reinforcing.
f. Installation of items embedded in masonry, including steel lintels and shelf angles.
g. Thru-wall flashing, weeps, and damp proofing.

h. Openings for all devices installed in masonry.
i. Fire stopping of all masonry walls that key to the deck.
j. Masonry beam pockets.
k. Toothing of masonry to tie into existing conditions.
l. Include setting lintels and bearing plates for new openings in existing walls.
m. Receive, unload, install, and grout hollow metal frames built into masonry.
n. All CMU to be cleaned, rubbed, pointed, and ready to receive finishes.
o. Masonry cleaning.
p. Heating charges and winter condition costs for all cold weather masonry placements.
q. Provide frost/freezing protection for all masonry placements.
r. Include ADD alternate for heat and shelter costs for the installation of all brick and stone veneer if needed.
s. Drill and epoxy dowels as detailed per 16/S301.
t. Include bases for lockers per 4 and 5/A421. Provide embedded 2x4 wood sleepers as indicated.
u. Provide shovel guard precast (PC-4) and all associated rigid insulation, flashing, etc. as indicated in 2/A502 and 16/A212.
    i. Include exterior column box benches as indicated in 1 and 2/A508.
    ii. Coordinate finish with Precast Wall Supplier to match (PC-3) finish.
v. Provide acoustical insulation and acoustical sealant at top of wall (ref. 12/A422)
w. Progressive and final cleanup of the Contractor's work. All interior areas broom cleaned.
x. Generally covered by specification sections as follows:
    i. 03 4500 – Precast Architectural Concrete (As applicable)
    ii. Division 04 - Masonry.
    iii. 07 2100 – Thermal Insulation (as applicable)
    iv. 07 2700 – Air Barriers (As applicable)
    v. 07 9200 – Joint Sealants (as applicable)

CC #05A - <u>STRUCTURAL STEEL AND METAL FABRICATION (*SUPPLY)*</u>

a. Engineer, fabricate, and deliver all structural steel framing, embedded plates, steel beam bearing plates, roof opening frames, mechanical equipment support frames and other items defined as structural steel.
b. Engineer, fabricate, and deliver:
    i. All shear stud connectors, deformed bar anchors, anchor rods, expansion bolts, and other incidental items of structural steel required to be built into concrete or masonry and attached to the structural frame.
    ii. All miscellaneous and ornamental steel, steel stairs, handrails, guardrails, catwalks, catwalk rails, roof ladders, pipe bollards, supports, anchorage, and accessories for miscellaneous metal and ornamental metal work.
    iii. All steel roof deck, steel floor deck, and related accessories.
c. Provide shop drawings and erection drawings.
d. Provide setting diagrams, templates, instructions, and directions for installation of anchorages, which are to be embedded in concrete or masonry.
e. Provide engineering of all delegated connection designs indicated.
f. Supply the following items:
    i. All decking and angles for stoops as indicated.
    ii. All entrance canopy materials.

iii. Insulation for flutes in acoustical decking.
iv. Bent plate and anchors at all non-bearing CMU wall locations (per detail 19/S501)
v. Structural steel supports for curtain wall assemblies

g. Shop priming of all structural steel and ferrous metal fabrications.
h. Anchor bolt shop drawings to be submitted within **ten (10) days** of contract award.
i. Include anticipated timeline for remaining shop drawings.
j. Include anticipated timeline for anchor bolts delivery following return of approved shop drawings.
k. Include anticipated timeline for embedded metal fabrications following return of approved shop drawings.
l. Include anticipated timeline for structural and all other items following return of approved shop drawings.
m. Coordinate sequence and deliveries with CM and CC #05B.
n. Expedite shop drawing and delivery of Stairs 2 & 3 for construction access.
o. Provide drilled bolt holes in structure for equipment such as operable partitions, wrestling mat lifts, divider curtains, etc.
p. S001 Structural Steel Note 16 - Provide Allowance for additional 1 ton of material.
q. No time extensions will be allowed for re-submittals of shop drawings.
r. Include extra nut at each anchor bolt for column levelling.
s. Generally covered by specification sections as follows:
    i. 05 1200 – Structural Steel Framing
    ii. 05 2100 – Steel Joist Framing
    iii. 05 3100 – Steel Decking
    iv. 05 5000 – Metal Fabrications
    v. 05 5100 – Metal Stairs
    vi. 05 5133 – Metal Ladders
    vii. 05 5213 – Pipe & Tube Railings
    viii. ~~05 5700~~ 05 7300 – Decorative Metal Railings
    ~~ix. 10 7316.13 – Metal Canopies~~

CC #05B - <u>STRUCTURAL STEEL AND METAL FABRICATION (INSTALL)</u>

a. Provide supervision, skilled labor, and equipment necessary to install/erect all Structural Steel Framing, Steel Decking, and Metal Fabrications. Installation of items embedded in concrete or masonry are NOT included in this Contract Category.
b. Welding must be performed by a skilled welder with a current certification for the work being performed.
c. Owner/CM will engage a qualified independent testing agency to inspect field welds and high-strength bolted connections in accordance with the specifications.
d. Provide field verification measurements for all miscellaneous metals and other materials installed by this contract category.
e. Provide all grouting below steel bearing and base plates.
f. Install the following items:
    i. All hand rails and guard rails.
    ii. Roof ladders.
    iii. Miscellaneous roof deck accessories, according to deck manufacturer's written instructions, to provide a complete deck installation.
    iv. Entrance canopies and stairs.

v. Roof sump pans, sump plates, and reinforcing channels or zees in ribs to span between supports and weld.

g. Touchup painting of abraded areas, welds, and rust spots on prime painted and galvanized metals.
h. Provide temporary shoring before placing metal deck panels, if required, to meet deflection limitations and prevent overloading due to construction loads.
i. Provide and maintain temporary railing at all roofs, mezzanines, and raised floors. Remove railing only once directed by construction manager.
j. Include unloading of all steel deliveries.
k. Adequately clean steel of dirt & debris as necessary prior to install.
l. Provide ADD alternate to install Precast Hollow Core Planks.
m. Provide early install of Stairs 2 & 3 for construction access.
n. Install bent plate and anchors at all non bearing CMU wall locations (per detail ~~19~~ 18/S501)
o. Provide all temporary power supply for welders and any other equipment to the extent required for this trade's scope of work.
p. Installation of all closures at openings and edges in decking.
q. Fall protection required 100% of the time when working above 6' - per Construction Engineers project safety requirements.
r. Provide core drilling in concrete as required for installation of handrails and other metals.
s. Progressive and final cleanup of the Contractor's work. All interior areas broom cleaned.
t. Generally covered by specification sections as follows:
    i. 05 1200 – Structural Steel Framing
    ii. 05 2100 – Steel Joist Framing
    iii. 05 3100 – Steel Decking
    iv. 05 5000 – Metal Fabrications
    v. 05 5100 – Metal Stairs
    vi. 05 5133 – Metal Ladders
    vii. ~~05 5700~~ 05 7300 – Decorative Metal Railings
    viii. 10 7316.13 – Metal Canopies

CC #06A - CARPENTRY

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Carpentry work, including but not limited to the following:
b. Provide and install the following items:
    i. In-wall blocking and backing for items installed by this CC#.
c. Install the following items, supplied by others:
    i. Casework and woodwork.
    ii. Solid surface window sills.
    iii. Wood trim.
    iv. Doors and hardware.
    v. Plastic laminate/wood wall panels
    vi. Brackets.
    vii. Music Education Storage Casework (Alt. 4)
d. Install all brackets supporting products installed, including in-wall (Concealed) brackets. Coordinate to install concealed brackets prior to drywall.
e. Include install of wood trim WDT-1 at lockers.
f. Include install of SLAT-1 Wall.

g. Provide all fasteners required to complete all carpentry work installations.
h. Provide, document, and communicate all field measurements for items installed by this Contract Category.
i. Hollow metal door frames installed by (09A) metal framing contractor in metal stud framed walls. This work scope responsible to ensure they are plumb and level when installed, and after drywall installation. All other hollow metal frames are to be installed by this subcontractor (I.e. precast and masonry openings).
j. Fill HM door frames installed with low expansion spray foam insulation as indicated in architectural details.
k. Include readjustment of doors and hardware following building air balancing and immediately prior to building turnover.
l. Receive, offload, inventory, sort, and store all materials provided by Others and installed by this Contract Category.
m. Include install of wood caps and wood treads at stairs as indicated.
n. Include install of metal trim associated with millwork (i.e. MTLP-8, 9, 10).
o. Provide anti-slip tape at wood stair treads.
p. Install plastic laminate wall paneling as indicated (PLAM-4 & PLAM-5)
q. Install countertop and PLAM-1 at glass display cases and glass display shelving as indicated (e.g. 11/A410, 7/A415, 8/A421, 9/A421, etc.). Glass windows and glass shelving by Others.
r. Install bench tops throughout - wood or solid surface (e.g. 10/A322, 1/A502) along with backing required.
s. Progressive and final cleanup of the Contractor's work.
t. Generally covered by specification sections as follows:
    i. 06 1000 – Rough Carpentry (As Applicable)
    ii. 06 2000 – Finish Carpentry
    iii. 06 4100 – Architectural Wood Casework
    iv. 07 9200 – Joint Sealants (As Applicable)
    v. 08 1113 – Hollow Metal Doors and Frames
    vi. 08 1416 – Flush wood Doors
    vii. 08 7100 – Door Hardware
    viii. 12 3600 – Countertops
    ix. 12 3551 – Music Education Storage Casework (Alt. 4)

CC #06B - <u>ARCHITECTURAL CASEWORK (SUPPLY)</u>

a. Provide all casework.
b. Provide all countertops and vanity tops to include all build-up materials and brackets for countertops.
c. Provide early coordination and delivery of in-wall concealed brackets.
d. Provide all simulated stone countertops.
e. Provide solid surface window sills as noted.
f. Provide wall paneling, chair rail, wainscot, and wood trim as noted.
    i. Include supply of wood trim (WDT-1) at lockers.
    ii. Include supply of Slat-1 Wall materials.
g. Provide complete system to include wall framing, sheathing, and surfacing at reception desk.
h. Provide templating for complex geometry situations. Basic field measurements shall be provided by others.

i. Provide full shop drawings for all components to be provided.
j. All woodwork provided shall be pre-finished.
k. Provide pricing to Alternate #4.
l. All materials are to include tax and freight costs for delivery to the job site.
m. Include supply of wood caps and wood treads at stairs as indicated.
n. Include supply of metal trim associated with millwork (e.g. MTLP-8, 9, 10).
o. Furnish plastic laminate wall paneling as indicated (PLAM-4 & PLAM-5)
p. Furnish all elements (including countertop & PLAM-1) at display cases except glazing and glass shelving (e.g. 11/A410, 7/A415, 8/A421, 9/A421, etc.). Glazing and glass at display cases by CC #08C.
q. Furnish bench tops throughout - wood or solid surface (e.g. 10/A322, 1/A502).
r. Generally covered by specification sections as follows:
    i. 06 4100 – Architectural Wood Casework
    ii. 12 3600 – Countertops
    iii. 12 3551 – Music Education Storage Casework (Alt. 4)

CC #07A – <u>MEMBRANE ROOFING</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Roofing work, including but not limited to the following:
b. Provide and install the following:
    i. EPDM Roofing.
    ii. Tapered roof insulation.
    iii. Protection board.
    iv. Manufactured roof cants.
    v. Pre-finished metal flashing.
    vi. Counter flashing.
    vii. Overflow scuppers.
    viii. Roof expansion joint assemblies.
    ix. Roof hatches, rails (if any), and walk path materials.
c. Provide manufacturer's warranty.
d. Coordinate with MEP trades on the install of roof curbs and boots for penetrations.
e. Install acoustical insulation provided by others in flutes at acoustical decking prior to install of roofing.
f. Provide sawcutting for reglets as indicated or required.
g. Special attention is called to the Mechanical, Electrical, and Structural drawings. Note penetrations that may not be on the Architectural Roof Drawings.
h. Provide and maintain OSHA approved temporary guardrails and fall protection as required.
i. Provide snow removal on roof and cold weather application as necessary to maintain schedule.
j. Progressive and final cleanup of the Contractor's work.
k. Generally covered by specification sections as follows:
    i. 07 5300 – Elastomeric Membrane Roofing
    ii. 07 6200 – Sheet Metal Flashing and Trim
    iii. 07 7100 – Roof Specialties
    iv. 07 7200 – Roof Accessories
    v. 07 9513.16 – Exterior Expansion Joint Cover Assemblies

CC #07B - JOINT SEALANTS / FIRESTOPPING

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Caulking and Firestopping work, including but not limited to the following:
b. Masonry control joints.
c. Hollow core precast and topping slab to columns.
d. Casework, countertops, and window sills.
e. Metal stair stringers adjacent to walls.
f. Provide mineral wool and sealant at top of wall at smoke partitions as indicated in detail 5/A422.
g. Firestopping at rated wall assemblies. Mechanical, electrical, and plumbing penetrations to be rated by installing trades. This scope responsible for top, bottom, and edge of wall as necessary.
h. Hollow metal frames to wall assemblies – both sides and tops.
i. Progressive and final cleanup of the Contractor's work.
j. Generally covered by specification sections as follows:
    i. 07 8400 – Firestopping
    ii. 07 9200 – Joint Sealants

CC #07C - METAL WALL PANELS

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Metal Panel work, including but not limited to the following:
b. Provide full shop drawings of systems and samples for approval.
c. Provide field measurements.
d. Roof blocking is by others.
e. Provide and install the following items:
    i. Concealed caulking and counter flashing of all installed components.
    ii. Caulking required at metal panels, including to dissimilar materials.
    iii. Zee furring and insulation at metal panels.
    iv. Weather/Air barriers behind metal panels.
    v. Soffit and fascia.
    vi. Visible sealants for all installed components where indicated.
    vii. Aluminum z-girts and channels at front entry trellis.
    viii. Provide all sheet metal trims and flashings (excluding window sills).
f. Provide weather/Air barrier product that is capable of being applied at the average temperature when the work will be required. Include cold weather application as necessary.
g. Provide all clips and fasteners required to install panels.
h. Coordinate install with MEP items installed within Metal Panels.
i. Provide and install gutters, conductor heads, and downspouts throughout.
j. Provide flashing at precast opening heads as indicated. Notch 2x nailer as necessary. (ref. 3/A504).
k. Progressive and final cleanup of the Contractor's work.
l. Generally covered by specification sections as follows:
    i. 05 4000 – Cold Formed Metal Framing (Zee furring)
    ii. 07 2100 – Thermal Insulation (As applicable)
    iii. 07 2700 – Air Barriers (As applicable)
    iv. 07 4213 – Metal Wall and Soffit Panels
    v. 07 4213.23 – Metal Composite Material Wall Panels
    vi. 07 6200 – Sheet Metal Flashing and Trim
    vii. 07 9200 – Joint Sealants

CC #07D – SPRAY FOAM INSULATION

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Spray Foam Insulation work, including but not limited to the following:
b. Insulate all wall and ceiling assemblies as noted in the plans and specifications.
c. Provide and install the following:
    i. Spray foam insulation.
    ii. Any insulation that is not concealed with gypsum board must be coated with intumescent paint by this contractor.
d. Progressive and final cleanup of the Contractor's work.
e. Generally covered by specification sections as follows:
    i. 07 2119 – Foamed-In-Place Insulation

CC #08A - DOORS AND HARDWARE (SUPPLY)

a. Furnish all hollow metal frames, hollow metal doors, wood doors, and finish hardware.
b. Provide complete shop drawing for all frames, doors, and hardware provided.
c. All doors and frames to be factory machined, ready for installation, including trim kits and cutouts for openings.
d. Provide a keying schedule that incorporates the Owner's existing keying schedule.
e. Supply cylinders for aluminum entrance doors.
f. Provide (12) temporary cores and keys for use during construction
g. All wood doors shall be supplied pre-finished.
h. Hollow metal frames to include two spreader bars.
i. Verify with the Architect the stop locations for glass thickness.
j. Furnish a commercial key box(es) per note 21 on a100b and a101f
k. Furnish silencers at all door frames.
l. Furnish all fasteners for the glazing stops in sidelights, transom lights, borrowed lights, and door glazing kits.
m. Supply power supplies for electrified hardware as needed for a functioning system. Include relays as necessary for integration with systems such as fire alarm, security, door operator control, etc.
n. All hardware should be packaged together based on door it will be installed on. Provide labeling on all hardware with corresponding door number.
o. All materials are to include tax and freight costs for delivery to job site.
p. Furnish wide thresholds at all doors supplied by this contract category at Gymnasium D010 (ref. 9/A424).
q. Generally covered by specification sections as follows:
    i. 08 1113 – HM Doors & Frames
    ii. 08 1416 – Wood Doors
    iii. 08 7100 – Hardware

CC #08B - OVERHEAD, COILING, AND SECTIONAL DOORS

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Overhead, Coiling, and Sectional Doors, including but not limited to the following:
b. Provide field measurements.
c. Provide full shop drawings for all components to be provided.

d. Coordinate with Electrical Contractor for any power requirements.
e. Provide support steel as required for doors provided by this contract category (ref. 20 & 21/A423).
f. Progressive and final cleanup of the Contractor's work.
g. Generally covered by specification sections as follows:
    i. 08 3323 – Overhead Coiling Doors
    ii. 08 3326 – Overhead Coiling Grilles
    iii. 08 3613 – Sectional Doors

CC #08C - <u>ALUMINUM STOREFRONT, CURTAIN WALL, GLASS AND GLAZING</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Aluminum Storefront, Curtain Wall, Glass, and Glazing work, including but not limited to the following:
b. Provide all interior aluminum windows and glazing.
c. Provide door hardware for openings provided under this Contract Category. Cylinders to be provided and installed by others.
d. Provide and install the following items:
    i. Sill flashing.
    ii. Glazing kits in doors.
    iii. Glass and glazing in hollow metal frames.
    iv. Power assist door operators.
    v. Interior and exterior caulking of all assemblies.
e. Provide semi-rigid and/or spray foam insulation at curtain wall and/or storefront assemblies for a complete system as per manufacturer recommendations.
f. Include aluminum closures with insulation between vertical mullions and abutting walls as indicated (reference 15/A424).
g. Temporarily install plywood in lieu of glass at 8 exterior windows for CM to vent temporary heaters. Return at completion of project to remove plywood and install glazing. These glass panels are to be stored off site during construction.
h. Coordinate install of aluminum doors to be installed late in the project to minimize damage. Include mobilization accordingly.
i. Field measure all openings.
j. Provide glass at display cases and glass display shelving as indicated (e.g. 11/A410, 7/A415, 8/A421, 9/A421, 5/A411, 1/A413, etc.). Include all components for these to operate as a complete system (cables, brackets, shelves, sliding doors, hardware, etc.). TAC-1 panels, PLAM-1 panels, and countertop by Others.
k. Provide wide thresholds at all doors by this contract category at Gymnasium D010 (ref. 9/A424)
l. Progressive and final cleanup of the Contractor's work.
m. Generally covered by specification sections as follows:
    i. 07 9200 – Joint Sealants
    ii. 08 4313 – Aluminum Framed Storefronts
    iii. 08 4413 – Glazed Aluminum Curtain Walls
    iv. 08 4500 – Translucent Wall and Roof Assemblies
    v. 08 7100 – Door Hardware (as applicable)
    vi. 08 8000 – Glazing
    vii. 08 8813 – Fire Rated Glazing
    viii. 08 8853 – Security Glazing

ix. 10 1213 – Glass Display Shelves

CC #09A - <u>GYPSUM BOARD ASSEMBLIES</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Structural Metal Stud Framing and Gypsum Board Assemblies work, including but not limited to the following:
b. Engineering of all structural framed metal stud walls. Provide design calculations to Construction Manager for review.
c. Provide any welding of studs if required by Metal Stud Engineer.
d. Installation of all hollow metal frames in metal stud walls, frames provided by others.
e. Fill all HM door frames with low expansion spray foam insulation per architectural details.
f. Provide and install all the following items:
    i. Structural and non-structural metal stud framing.
    ii. All hat channel, sealants, ceiling suspension system assemblies, and/or metal furring required.
    iii. Soffit framing as indicated on drawings.
    iv. All building insulation and acoustical insulation at metal stud assemblies.
    v. Acoustical sealants per wall assembly details.
    vi. All interior, exterior, abuse resistant, and moisture resistant sheetrock as scheduled.
    vii. Cement board (Durock) at walls to receive tile.
    viii. Install access panels indicated (Provided by CC #01A)
    ix. All exterior gypsum sheathing.
    x. All taping and fire taping.
    xi. Joint sealants as applicable to work scope.
    xii. All fasteners required for the installation of work in this Contract Category.
g. Return drywall to windows in gypsum assemblies.
h. Provide control joints.
i. Finish walls to level required by plans and specifications.
j. Patch existing walls prior to paint.
k. Insulate all wall and ceiling assemblies as noted in the plans and specifications.
l. Provide and install the following:
    i. Acoustic insulation.
    ii. Sealed vapor barriers at exterior walls and ceiling.
m. Submit coordination drawing showing proposed locations of control joints for review and approval by construction manager and architect.
n. Include unloading and staging of hollow metal door frames (supplied by others).
o. Provide steel bracing at all partial height steel stud walls every 5'-0" OC unless otherwise indicated (ClarkDietrich PWxx or approved equal).
p. Include additional (40) labor hours of drywall repair as directed by Construction Engineers and tracked with T&M tickets.
q. Coordinate with paint contractor to spot touchup following application of prime coat.
r. Provide for offloading and stocking of all materials provided under this Contract Category.
s. Provide labeling of rated walls as specified.
t. Progressive and final cleanup of Contractor's work.
u. Generally covered by specification sections as follows:
    i. 05 4000 – Cold Formed Metal Framing

ii. 06 1600 – Sheathing
iii. 07 0553 – Fire and Smoke Assembly Identification
iv. 07 2100 – Thermal Insulation
v. 07 2600 – Vapor Retarders
vi. 07 9200 – Joint Sealants
vii. 08 3100 – Access Doors and Panels
viii. 09 2116 – Gypsum Board Assemblies

CC #09B - TILE

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Tile work, including but not limited to the following:
b. Provide floor preparation as necessary.
c. Grouting of tile – use epoxy grout where scheduled.
d. Provide crack isolation and/or waterproofing membranes, if required.
e. Provide all accessories, including thresholds and transition strips.
f. Provide special detailing around floor drains to ensure desired results.
g. All sealants associated with tile work and sealants from tile to dissimilar materials.
h. Provide extra materials as noted.
i. Minor floor prep shall be provided as needed.
j. Provide slope mortar bed as indicated at showers
k. Progressive and final cleanup of Contractor's work.
l. Generally covered by specification sections as follows:
    i. 09 0561 – Common Work Results for Flooring Preparation
    ii. 09 3~~1~~000 – Tiling

CC #09C - ACOUSTIC CEILINGS

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Acoustic Ceiling work, including but not limited to the following:
b. Provide ACT, grid assemblies, and suspension material as required for installation of acoustic ceilings.
c. Special attention is called to the Mechanical and Electrical drawings. Note ceiling devices that may not be on the reflected ceiling plans.
d. Provide washable and moisture resistant tiles if noted.
e. Provide rated ceiling where indicated, including enclosures at penetrations to maintain rating.
f. Provide insulation above ceiling tiles where shown or specified.
g. Provide joint sealants as applicable to work scope.
h. Provide extra materials as noted.
i. Drill tapcon fasteners or similar to hollow core plank when fastening to hollow core. Shooting in fasteners to hollow core is not permitted.
j. Install hold down clips on all acoustical ceiling panels within 20' of exterior doors and per documents.
k. Provide acoustical decorative panels (SCU, SWU) as indicated in documents.
l. Include additional (20) labor hours for ceiling tile repairs as directed by Construction Engineers and tracked with T&M tickets.
m. Provide price for alternate #5 (Acoustic ceiling panels).

n. Progressive and final cleanup of Contractor's work.
o. Generally covered by specification sections as follows:
    i. 07 9200 – Joint Sealants
    ii. 09 5100 – Acoustical Ceilings
    iii. 09 5423 – Linear Metal Ceilings
    iv. 09 5426 – Suspended Wood Ceilings
    v. 09 8400 – Acoustical Decorative Panels

CC #09D - <u>RESILIENT FLOORING AND CARPET</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Resilient Flooring, Carpet, and Resilient Base work, including but not limited to the following:
b. Provide all materials required to install flooring and base items as indicated in the room finish schedule.
c. For existing areas, immediately upon award, communicate any requirements from flooring suppliers regarding the use of chemical mastic removal, cures, and/or any other floor preparation that may negatively affect the product and/or ability to provide warranty of the material.
d. Existing carpet and VCT to be removed by others.
e. Include all transitions between dissimilar flooring materials.
f. Minor floor prep shall be provided.
g. Include heat welding as specified.
h. Provide extra materials as noted.
i. Testing of new and existing floors to ensure compatibility with adhesives and proper moisture content.
j. Progressive and final cleanup of Contractor's work.
k. Generally covered by specification sections as follows:
    i. 09 0561 – Common Work Results for Flooring Preparation
    ii. 09 6500 – Resilient Base and Accessories
    iii. 09 6566 – Resilient Athletic Flooring
    iv. 09 6813 – Tile Carpeting

CC #09E - <u>RESINOUS FLOORING</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Resinous Flooring work, including but not limited to the following:
b. Floor prep shall be provided.
c. Receive and offload all materials provided and installed by this Contract Category.
d. Progressive and final cleanup of Contractor's work.
e. Generally covered by specification sections as follows:
    i. 09 0561 – Common Work Results for Flooring Preparation
    ii. 09 6700 – Fluid-Applied Flooring

CC #09F - <u>WOOD ATHLETIC FLOORING</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Wood Athletic Flooring work, including but not limited to the following:

b. Provide concrete floor preparation as necessary.
c. Install anchor plane assemblies for floor mounted sports equipment supplied by others.
d. Provide vapor proofing for concrete slab-on-grade.
e. Check moisture content, with approved meter, of concrete slab-on-grade and flooring materials to verify conformance with the specifications and manufacturer's requirements.
f. Provide all sleepers/nailers, subflooring, underlayment, felt, finished flooring, and any accessories requires to provide for a complete wood gymnasium floor system.
g. Provide floor base associated with the wood flooring.
h. Provide all sanding and finishing of the wood flooring.
i. Layout and provide all game lines and patterns as indicated on the drawings.
j. Provide and maintain floor protection during all phases of work and upon floor drying. Remove floor protection when directed by the Construction Manager.
k. Progressive and final cleanup of Contractor's work.
l. Generally covered by specification sections as follows:
    i. 09 0561 – Common Work Results for Flooring Preparation
    ii. 09 6466– Wood Athletic Flooring
    ~~iii. 09 9300 – Staining and Transparent Finishing~~

CC #09G - <u>PAINTING, COATING, AND WALL COVERING</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Painting, Coating, and Wall Covering work, including but not limited to the following:
b. Paint all interior & exterior exposed steel structures, lintels, and railings as noted on the drawings. Clean and prep prior to painting.
c. Clean and prepare all existing walls prior to painting to include filling and patching dings and deficiencies at walls and ceilings.
d. Paint walls, soffits, and ceilings as indicated on the Room Finish Schedule.
e. Wood doors to be factory finished by others.
f. Paint existing walls that have been patched due to renovation from corner of wall to corner of wall.
g. Provide sealing of concrete in rooms scheduled for sealed concrete finish. Include vacuum and wet mop of substrate prior to application.
h. Application of finish paint to any surface will indicate this Contractor's acceptance of the surface as being properly prepared for finish paint. Exceptions will be made for damage caused by other trades after final paint coat has been applied.
i. Prior to painting, provide protection to adjacent surfaces of dissimilar finishes.
j. Assure proper protection of items not to receive paint (sprinkler heads, data cables, etc.). Remove protection after completion of painting.
k. Provide extra VWC materials as noted.
l. Coordinate with (CC #09A) gypsum assemblies contractor to allow for spot touchups following application of prime coat.
m. Include additional (100) labor hours of paint touchups as directed by Construction Engineers and tracked with T&M tickets
n. Provide attic stock product as indicated - Provide new, unopened containers only. Dispose of extra product appropriately.
o. Progressive and final cleanup of the Contractor's work.
p. Generally covered by specification sections as follows:

i. 03 3511 – Concrete Floor Finishes
ii. 09 7200 – Wall Coverings
iii. 09 9123 – Interior Painting (MPI Standards)
~~iv. 09 9300 – Staining and Transparent Finishing~~
v. 09 9600 – High-Performance Coating (MPI Standards)

CC #09H - <u>CONCRETE POLISHING</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Concrete Polishing work, including but not limited to the following:
b. Floor prep shall be provided.
c. Floor polishing and finishing.
d. Receive and offload all materials provided and installed by this Contract Category.
e. Application of finish product to any surface will indicate this Contractor's acceptance of the surface as being properly prepared.
f. Coordinate placement and requirements of slabs to be polished concrete with CC#03A – Building Concrete
g. Provide mock-ups as specified.
h. Progressive and final cleanup of Contractor's work.
i. Generally covered by specification sections as follows:
    i. 03 3536 – Polished Concrete Floor Finishing

CC #10A – <u>OPERABLE PARTITIONS</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Operable Partition work, including but not limited to the following:
b. Provide field measurements.
c. Provide all components necessary to provide a complete functional system.
d. Progressive and final cleanup of the Contractor's work.
e. Generally covered by specification sections as follows:
    i. 10 2239 – Operable Partitions

CC #11A - <u>FOOD SERVICE EQUIPMENT</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Food Service Equipment work, including but not limited to the following:
b. Provide new equipment.
c. Start-up all new equipment to ensure proper function.
d. Provide Owner training in use of new equipment.
e. Provide install of Owner provided existing equipment as specified.
f. Provide complete roofing system at walk-in cooler. (Expansion Joint by Others)
g. Cut reglet as required to connect roof structure to building.
h. Leave doors off of walk-in cooler and freezer until epoxy flooring installation is complete. Store doors off site in interim.
i. Roof rails or curbs for cooler/freezer condensing units to be provided by this contract category.
j. Provide above ceiling support structure as needed for kitchen exhaust hood
k. Progressive and final cleanup of the Contractor's work.

l. Generally covered by specification sections as follows:
    i. 11 4000 – Food Service Equipment

CC #11B - GYMNASIUM EQUIPMENT

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Gymnasium Equipment work, including but not limited to the following:
b. Provide Section 116623 – Gymnasium Equipment – complete.
c. Provide Gymnasium Dividers – complete.
d. Provide and install new goal posts as indicated at turf field.
    i. Concrete bases and setting of vertical posts by CC #03A
e. Provide volleyball post inserts for install by CC #01A.
f. Include install of scoreboards noted as OFCI. Coordinate hook-ups with Electrical Contractor.
g. Provide pricing for wrestling mat lift under Alternate #10.
h. Provide wall padding throughout (notice wall padding is indicated in rooms outside of the gymnasium as well, e.g. keynote 13 on A700C and A701C)
i. Progressive and final cleanup of Contractor's work.
j. Generally covered by specification sections as follows:
    i. 11 6623 – Gymnasium Equipment

CC #12A - WINDOW TREATMENTS

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Window Treatment work, including but not limited to the following:
b. Provide field measurements.
c. Multiple mobilizations to job site.
d. Provide all components necessary to provide a complete functional system.
e. Assure that shade breaks line up with window mullions as best as possible. Shade breaks at glazing shall not be permitted unless approved in advance.
f. Progressive and final cleanup of the Contractor's work.
g. Generally covered by specification sections as follows:
    i. 12 2400 – Window Shades

CC #12B - BLEACHER SEATING

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Auditorium Seating work, including but not limited to the following:
b. Provide field measurements.
c. Provide full shop drawings for all components to be provided.
d. Multiple mobilizations to job site.
e. Progressive and final cleanup of the Contractor's work.
f. Generally covered by specification sections as follows:
    i. 12 6613 – Bleachers

CC #14A - ELEVATOR

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Elevator work, including but not limited to the following:
b. Provide all required permits to complete the work of this Contract Category.
c. Engineer, fabricate and deliver all elevator components.
d. Coordinate with all other contractors for complete functional systems.
e. Provide all core drilling required for the work of this Contract Category.
f. Provide miscellaneous metal components not shown on the architectural drawings, but required by code or required for the installation of your work.
g. Provide Owner training in use of new equipment.
h. The sample contract included in the specifications will be the contract executed with the selected elevator contractor.
i. Include an allowance of 20 hours of Elevator Operator time for other trades to utilize the elevator or work within the shaft.
j. Elevator contractor shall be responsible for all hoisting and unloading of their own equipment /materials.
k. Participate in fire alarm testing at project completion. Coordinate with fire alarm contractor for pre-testing and have representative on site for final fire alarm testing with AHJ.
l. Provide all inserts for the elevator shaft.
m. Progressive and final cleanup of the Contractor's work.
n. Generally covered by specification sections as follows:
    i. 14 2100 – Electric Traction Elevators

CC #21A - FIRE SUPPRESSION

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Fire Suppression work, including but not limited to the following:
b. Coordinate all fire protection installation with General, Plumbing, Ventilation, and Electrical contractors. Install all fire protection piping as high as possible. Provide all offsets to keep fire protection tight to the structure of ductwork above. Offset fire protection piping to avoid beams and installations by other trades.
c. Provide fire caulking/firestopping of all penetrations through fire rated assemblies.
d. Provide joint sealants as applicable to scope of work.
e. Provide all required permits to complete the work of this Contract Category.
f. Engineer, fabricate, and deliver all fire suppression components.
g. Coordinate with Mechanical and Electrical Contractors for complete functional systems.
h. Provide all core drilling required for the work of this Contract Category.
i. All exposed piping shall be provided ready to receive paint.
j. Remove and re-install ceiling tiles as required to complete installation work included in this Contract Category. Any ceiling tile or grid damaged during construction shall be replaced with new by this contractor.
k. Contractor to make penetrations to existing walls and/or ceilings for installation of new fire protection piping, sprinkler heads, equipment, etc.. Provide escutcheons at wall/ceiling penetrations. Patch walls and/or ceilings to match existing.
l. Provide dry system for unheated spaces, as necessary.
m. Provide Owner training in use of new equipment.
n. Provide ADD alternate for the supply and installation of a fire pump, if necessary.

o. Coordinate system disturbances/outages with Construction Manager and Owner.
p. Verify available water pressure and notify CM if inadequate.
q. Provide all access doors and panels required for access to equipment & valves related to this Contract Category.
r. Include labelling of all firestopped penetrations through rated assemblies.
s. Progressive and final cleanup of the Contractor's work.
t. Generally covered by specification sections as follows:
    i. 07 8413 – Penetration Firestopping
    ii. 07 9200 – Joint Sealants
    iii. 08 3100 – Access Doors and Panels
    iv. Division 21

CC #22A/23A - <u>PLUMBING AND HVAC</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Mechanical and Plumbing work, including but not limited to the following:
b. Provide fire caulking/firestopping of all penetrations through fire rated assemblies.
c. Provide joint sealants as applicable to scope of work.
d. Include acoustical sealants at penetrations where required by wall assembly
e. Provide all required permits to complete the work of this Contract Category.
f. Provide required testing, such as pressure and disinfection testing of newly installed water services.
g. Demolition of existing mechanical and plumbing items as noted.
h. Remove and re-install ceiling tiles to complete installation work included in this Contract Category. Any ceiling tile or grid damaged during construction shall be replaced with new by this contractor.
i. Provide piping from interior of building to utility connections 5 feet outside of building.
j. Provide flange at water service for fire suppression system connection.
k. Provide all core drilling required for the work of this Contract Category.
l. Provide $20,000 allowance for set up and take down of temporary heating equipment, including any required permits.
m. Provide all controls and control wiring for mechanical equipment.
n. Provide all mechanical louvers, factory finished.
o. Provide all piping and duct insulation.
p. Provide all hoisting equipment needed to set all rooftop equipment after erection of all steel, precast, and installation of roofing.
q. Provide all mechanical pads required for equipment in this Contract Category.
r. Provide all mechanical pads and enclosures for ground mounted air handling units.
s. Provide and install all mechanical curbs and boots required.
t. Provide Owner training in use of new equipment.
u. Provide all gas piping from the meter inside the building.
v. Ductwork in room(s) with exposed, painted ceilings shall be provided ready to receive paint.
w. Provide rain leaders as construction progresses to limit water within incomplete building.
x. Provide all access doors and panels required for access to equipment & valves related to this Contract Category.
y. Provide all water/glycol for the mechanical system.
z. Provide finish sealants at all fixtures.

aa. Assure conformance with specified ceiling heights and allow room for access to equipment requiring access for maintenance. Coordinate in advance if any conflicts exist or if any deviations are required.
bb. Coordinate and provide start-up, testing & balancing, and adjustment of system to meet manufacturer and specified requirements prior to completion.
cc. Provide temporary accommodations to run air handlers during construction for finishes or provide temporary climate control with utilization of temporary equipment.
dd. Where penetrations are made at hollow core – coordinate with supplier to avoid cable strands. Coordinate in advance for large penetrations.
ee. Provide roof/floor opening sizes and layouts dimensioned from gridline.
ff. Provide and install Sump pit. Tie into drain tile installed by Others. Coordinate install of Sump Pit with CC #03A Building Concrete.
gg. Provide blockout/sleeve materials and layout for penetrations through foundation walls. Install of blockouts/sleeves by (CC #03A) concrete contractor.
hh. Include head and sill flashing as indicated (16. & 26/A504)
ii. Include VFD's as necessary for equipment provided under this category.
jj. Provide fume hood(s) as indicated.
kk. Include labelling of all firestopped penetrations through rated assemblies.
ll. Coordinate system disturbances/outages with Construction Manager and Owner.
mm. Include installation of equipment provided by others in food service area (reference schedule on QF101)
nn. Provide cutting of openings in roof and floor decking as required for work of this contract category
oo. Progressive and final cleanup of the Contractor's work.
pp. Generally covered by specification sections as follows:
    i. 07 8413 – Penetration Firestopping
    ii. 07 9200 – Joint Sealants
    iii. 08 3100 – Access Doors and Panels
    iv. 11 5313 – Laboratory Fume Hoods
    v. Division 22
    vi. Division 23

CC #26A - <u>ELECTRICAL AND LOW VOLTAGE</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Electrical work, including but not limited to the following:
b. Provide fire caulking/firestopping of all penetrations through fire rated assemblies.
c. Provide joint sealants as applicable to scope of work.
d. Include acoustical sealants at penetrations where required by wall assembly
e. Provide all required permits to complete the work of this Contract Category.
f. Provide sufficient temporary lighting.
g. Provide all trenching for site lights.
h. Provide all electrical pads required for equipment in this Contract Category.
i. Provide generator and transformer pads. Assure coordination & compliance with utility company requirements.
j. Demolition of existing electrical, fire alarm, and communication items indicated on the Electrical Demolition Plan.
k. Provide safe and legal disposal of all removed fixtures.

l. Coordinate installation of new electrical service with local utility company. Any costs associated with getting new service into the building but not directly billed to the Owner shall be provided by this Contract Category.
m. Provide all core drilling required for the work of this Contract Category.
n. Remove and re-install ceiling tiles as required to complete installation work included in this Contract Category. Any ceiling tile or grid damaged during construction shall be replaced with new by this contractor.
o. Provide all data wiring and terminations.
p. Provide all fire alarm components noted.
q. Provide all clock system and public address system components, including adjustments to existing systems.
r. Provide materials and services required as noted in lighting plan.
s. Provide all concrete curbs required.
t. All controls and control wiring for mechanical equipment are by others.
u. Provide Owner training in use of new equipment.
v. Provide alternate for the wiring associated with a fire pump, if necessary.
w. Assist in set up and take down of temporary heating equipment.
x. Provide all access doors and panels required for access to equipment & valves related to this Contract Category.
y. Provide all related digging, forming, proper locating, and placement of exterior light fixtures and poles, including concrete bases.
z. Provide all trenching, excavation, backfill and compaction for interior and exterior conduits required in this Contract Category.
aa. Provide core drilling for all underground electrical through foundations as necessary.
bb. TV mounts to be provided and installed by Owner. Coordinate with rough-ins as necessary.
cc. Coordinate and provide start-up, testing, and adjustment of system to meet manufacturer and specified requirements prior to completion.
dd. Furnish, install, and remove temporary electrical power at locations necessary to be used by other multiple trades to complete their scope of work.
ee. Furnish, install, and remove temporary lighting throughout the building. Light shall be adequate to allow other trades to complete their work.
ff. Provide coordination with operable window shades to assure proper rough-in locations and connections.
gg. Assure compliance to the overall schedule provided to allow required completion of activities associated with this Contract Category. Assure necessary overtime hours and manpower is provided to meet the requirement of the overall schedule. Provide dedicated crews and manpower when multiple simultaneous tasks must take place under this Contract Category.
hh. Provide labeling at all receptacles to match breakers and also indicate emergency power and/or GFCI protection.
ii. Drill tapcon fasters or similar to hollow core plank when fastening to hollow core for light fixtures. Shooting in fasteners is not permitted.
jj. Include provisions for and hook-up of scoreboards noted as OFCI.
kk. Include labelling of all firestopped penetrations through rated assemblies.
ll. Coordinate system disturbances/outages with Construction Manager and Owner.
mm. Provide wire guards at devices where indicated.
nn. Progressive and final cleanup of the Contractor's work.
oo. Generally covered by specification sections as follows:

i. 07 8413 – Penetration Firestopping
ii. 07 9200 – Joint Sealants
iii. 08 3100 – Access Doors and Panels
iv. Divisions 26, 27, & 28

CC #31A - <u>EARTHWORK</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Sitework, including but not limited to the following:
b. Erosion control, soil stabilization, slope protection and their maintenance until final stabilization and acceptance by the Construction Manager. This package includes all work required to abide by the requirements of the Storm Water Pollution Prevention Plan (SWPPP) associated with only this Project and approved by the State of North Dakota. The Construction Manager will be responsible for acquiring the SWPPP Permit. Any fines levied due to lack of erosion control and maintenance will be the responsibility of this Contractor.
c. Construction of temporary roads, parking areas, and lay down areas as indicated on the Site Logistics Plan. Maintenance of all temporary roads and hardstand areas, including grading, dust control, and snow removal. At project completion and as directed by the Construction Manager, remove all temporary hardstand surfaces and return areas to original condition.
d. Temporary grassing to all disturbed areas and its maintenance.
e. Contractor shall be responsible for coordinating with all utility companies for the location of buried and overhead utilities prior to excavation whether shown on the plans or not shown, as necessary to accommodate proposed construction.
f. Provide and arrange barricades and signage to accommodate site work and facilitate traffic control as required to perform this scope of work.
g. Contractor shall maintain vehicle and pedestrian access to private and public areas at all times.
h. Provide daily street cleaning during construction periods in which earthwork activities occur.
i. Provide and pay for all temporary utilities necessary for the scope of work within this Contract Category.
j. Contractor shall maintain the pavement section with construction methods that will maintain the integrity of the subgrade during subsequent pavement placement operations within ± 1 inch.
k. Site preparation, site clearing, site demolition, removal of existing trees and landscaping as indicated and protection of existing trees and landscaping as indicated. Contractor shall replace any trees or shrubs that are damaged and not deemed for removal with similar size and species at the expense of the Contractor.
l. Restore all areas to preconstruction conditions or better.
m. Demolish existing site items as scheduled within the site demolition plan.
n. Pavement removal – Full depth saw cut to all pavement to be removed. Sawcut at existing joints to facilitate concrete removal. Sawcut existing pavement to allow clean tie-in to adjacent surfaces or new pavement.
o. Lawful offsite disposal of all debris as a result of this Contractor's work.
p. Import approved topsoil, bedding and structural fill materials as necessary.
q. Unsuitable soils shall be removed underneath all foundation concrete and replaced with structural fill materials, over excavate as required.
r. Excavate, haul off site, and lawfully dispose of all unsuitable soils that will not be reused on the Project Site.
s. All sitework grading.

t. Structural excavation, backfill, and compaction for all building foundations, concrete slab-on-grade, and site concrete.
u. Provide excavation for retaining wall.
v. Provide and install drain tile around the new foundation and elevator pit for connection into sump pits as required. Backfill with appropriate material once installed. Coordinate connection with CC #22/23A.
w. Provide and install drain tile at the new turf field.
x. Provide and place aggregate base materials for areas scheduled for all site pavement, roadway, sidewalk and curbs.
y. Provide and stockpile sand cushion materials within building footprint to be spread out by CC #03A.
z. Provide and place all geotextile fabric and thrust blocks required under this scope of work.
aa. Provide any geotextile fabric required beneath the aggregate base.
bb. Provide geotextile fabric under parking and drive areas.
cc. Dewatering of site and excavations.
dd. Include costs to provide frost free structural fill materials for backfill if this work is to be completed in winter conditions.
ee. Provide bridging indicated at track to turf field and maintain as necessary. Assure appropriate protection to existing track. Provide removal upon completion.
ff. All stockpiled topsoil should be assumed to be trucked off site and trucked back to the site once it can be spread for the final placement.
gg. Provide curb cuts as indicated. Coordinate with CM.
hh. Multiple crews as necessary to work on building foundations and turf related earthwork concurrently.
ii. Assure provisions to complete bus loop revision summer of 2026.
jj. All work for the new school shall be in accordance with the Geotechnical Report prepared by AET dated 11/21/2025.
kk. All work at Hanna Field shall be in accordance with the Geotechnical Report prepared by Terracon dated 11/01/2016.
ll. Provide and install pressure treated 2” x 4” Wood Nailer at artificial turf field per detail (3/C902).
mm. Provide highway guardrail with embedded beams as indicated.
nn. Include provisions as per specification section 01 5000 - Temporary Facilities and Controls (site logistics plan).
oo. Provide and place all subgrade (rock, etc.) at new synthetic field turf. Coordinate with CC #09I – Synthetic Turf.
pp. Progressive and final cleanup of the Contractor’s work.
qq. Generally covered by specification sections as follows:
    i. Divisions 31, 32, and 33 (See Civil Sheets)

CC #32A - <u>ASPHALT PAVING</u>

a. Provide supervision, layout, shop drawings, labor, material, equipment, and other incidental items of cost to complete all Bituminous / Asphalt Paving work, including but not limited to the following:
b. All Site bituminous paving including parking lots and driveways.
c. Provide fine grading of base materials installed by others.
d. Provide asphalt paving in parking areas.
e. Provide pavement striping.
f. Provide sealants at paved areas.

g. Include multiple mobilizations per construction schedule.
h. Assure provisions to complete bus loop revision summer of 2026.
i. Progressive and final cleanup of the Contractor's work.
j. Generally covered by specification sections as follows:
    i. Division 32 – Bituminous Pavement (See Civil Sheets)

CC #32B - SITE CONCRETE

a. Provide supervision, layout, shop drawings, labor, material, equipment, and other incidental items of cost to complete all Site Concrete work, including but not limited to the following:
b. All site concrete work including parking areas, driveways, concrete walks, curb and gutter, walkways, ramps, pads, and steps with forming, reinforcement, and accessories.
c. Provide fine grading of base materials installed by others.
d. Provide keyways as indicated.
e. Provide all reinforcing and dowels as shown/specified.
f. Provide all detectable inserts/surfaces in concrete pavement.
g. Provide all saw cutting of concrete in patterns indicated.
h. Provide and install all expansion joint and sealants at control joints included in this Contract Category.
i. Provide any tooling patterns in concrete shown.
j. Price alternate for providing concrete pavement in lieu of asphalt pavement in parking areas. Include striping as indicated on plans.
k. Assure provisions to complete bus loop revision summer of 2026.
l. Price alternate for providing concrete pavement in lieu of asphalt pavement in parking areas. Include striping as indicated on plans.
m. Concrete testing is by the Construction Manager. Provide assistance if required, to the testing company.
n. Progressive and final cleanup of the Contractor's work.
o. Generally covered by specification sections as follows:
    i. Division 32 – Concrete Paving (See Civil Sheets)

CC #32C - LANDSCAPING

a. Provide supervision, layout, shop drawings, labor, material, equipment, and other incidental items of cost to complete all Landscaping and Irrigation work, including but not limited to the following:
b. Provide and backfill retaining wall, include supply of the fill materials to backfill the wall.
c. Excavation of the retaining wall shall be by others.
d. Provide and install rock in areas indicated.
e. Provide and install mulch in areas indicated.
f. Provide and install all plantings.
g. Repair areas damaged by construction by seeding.
    i. Include unit rate for additional seeding beyond the extents indicated.
h. Maintain seeded/sodded areas after planting for the duration indicated in specifications.
    i. Include Alternate Add price to provide on-going watering for establishment of seeding up until 2nd mowing is completed.
i. Provide segmented block retaining walls as indicated.
j. Topsoil to be placed by others. Include fine grading of top soil.

k. Provide temporary watering of landscaping and plantings as required.
l. Progressive and final cleanup of the Contractor's work.
m. Generally covered by specification sections as follows:
    i. Division 32 – Landscaping & Seeding (See Civil Sheets)

CC #32D – SYNTHETIC TURF

a. Provide supervision, layout, shop drawings, labor, material, equipment and other incidental items of cost to complete all Synthetic Turf work, including but not limited to the following:
b. Field verify existing conditions and sub grade prior to start.
c. Provide and install nailer board at perimeter of turf field.
d. Include all Sythetic Turf and installation accessoried for a complete system.
e. Coordinate elevation of turf fill in to allow final product to be level with the perimeter elevations.
f. Provide and place base materials necessary above finishing stone indicated.
g. Provide and paint striping on turf as indicated.
h. Include (1) mobilization and labor for a return trip after the first year of operation to correct and settling within the turf field area.
i. Progressive and final cleanup of the Contractor's work.
j. Generally covered by specification sections as follows:
    i. 32 1813 – Synthetic Grass Surfacing

CC #33A - UTILITIES

a. Provide supervision, layout, shop drawings, labor, material, equipment, and other incidental items of cost to complete all Utilities work, including but not limited to the following:
b. Contractor shall be responsible for coordinating with all utility companies for the location of buried utilities prior to excavation whether shown on the plans or not shown, as necessary to accommodate proposed construction.
c. Remove existing sanitary sewer lines and manholes as indicated on the drawings. Include removal/replacing inverts and core drilling holes in existing manholes.
d. Contractor to include removal or filling abandoned lines with CDF.
e. Contractor to include all exterior sanitary sewer, water main, and storm water work within 5 feet of the building and according to the Utility Plan. Include all trenching, backfill, and compaction. Contractor must coordinate elevations with Plumbing contractor.
f. Contractor to include gate valves, tapping tees and any other components required to make connections to existing piping.
g. Provide all bedding materials for utility piping.
h. Tie into existing structures as noted.
i. Contractor to include exploratory work as necessary to confirm invert elevations.
j. Provide barricades and signage, and arrange to close streets as required to complete the contracted work.
k. Pavement removal – Full depth saw cut all pavement to be removed. Sawcut at existing joints to facilitate concrete removal as required. Sawcut existing pavement, as required, to allow clean tie-in to adjacent surfaces or new pavement. Contractor to include patching of existing streets, sidewalks, bike paths, and curbs as required for any utility tie-in connections, if necessary.
l. Provide daily street cleaning during construction periods in which utility activities occur.

m. Provide and pay for all temporary utilities necessary for the scope of work within this Contract Category.
n. Provide required testing, such as pressure and disinfection testing, of newly installed water services.
o. Provide cleaning of utilities if required.
p. Includes restoration of disturbed areas, to include compaction of trenches, re-spreading of topsoil, and seeding of grass to previous condition.
q. Utility excavations to be shielded and/or shored as necessary.
r. Remove and haul off site excess spoils associated with utility work.
s. Assure multiple crews as necessary to work on Building and Field Turf related utilities concurrently to meet schedule requirements.
t. Maintain OSHA required clearances from overhead power lines.
u. Design and submit a traffic control plan for work taking place within City streets.
v. Progressive and final cleanup of the Contractor's work.
w. Generally covered by specification sections as follows:
    i. Division 31 – Earthwork (See Civil Sheets)
    ii. Division 33 – Utilities (See Civil Sheets)

CONSTRUCTION ENGINEERS

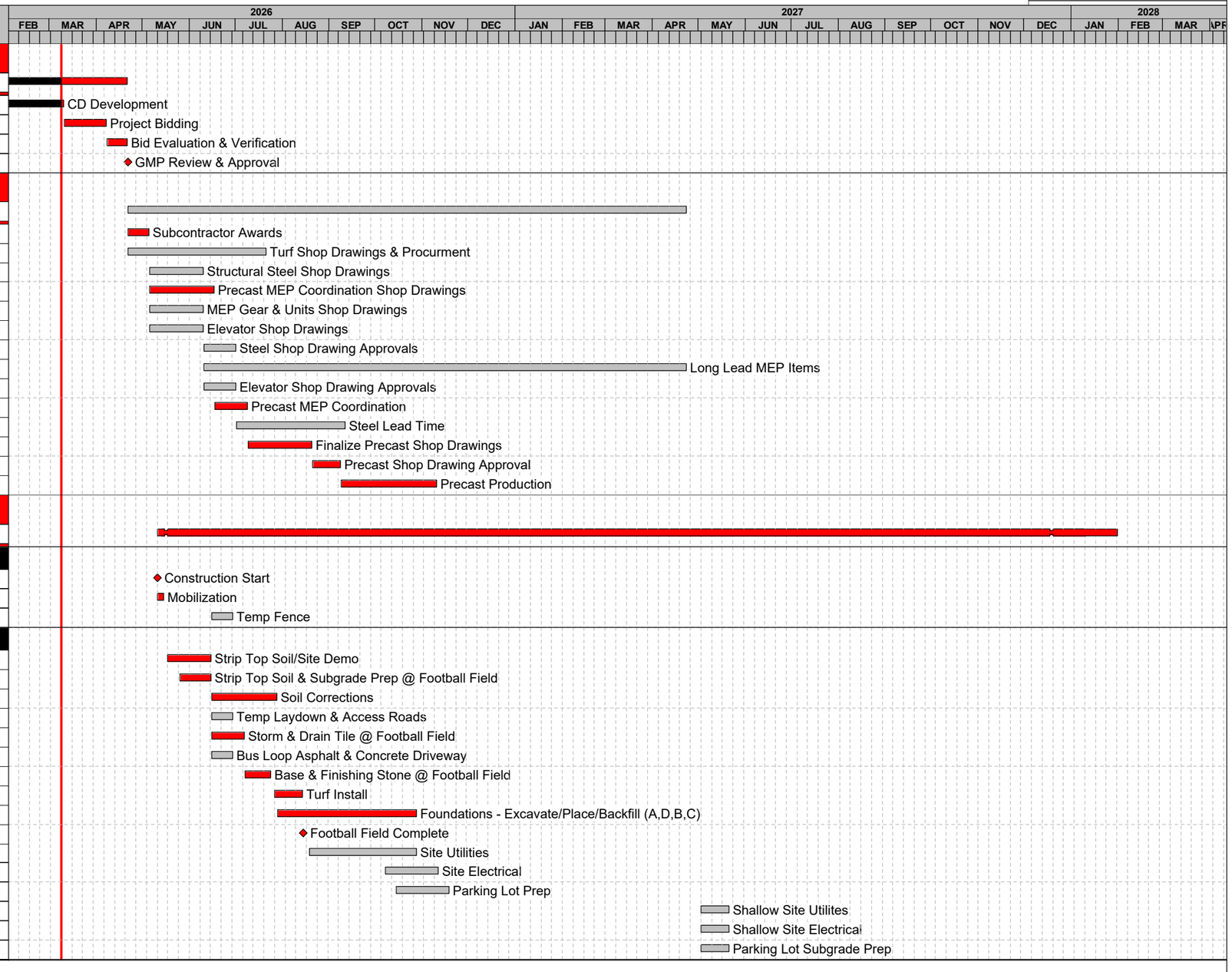
Do Something Constructive!

VCPS New School
Valley City, ND

Number/Version	Bid Schedule
Page number	1A
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Act ID	Description	Orig Dur	Early Start	Early Finish
Preconstruction/Design				
		104	25NOV25 A	21APR26
1000	CD Development	74	25NOV25 A	10MAR26
1010	Project Bidding	20	11MAR26	07APR26
1020	Bid Evaluation & Verification	10	08APR26	21APR26
1030	GMP Review & Approval	0		21APR26
Procurement				
		255	22APR26	23APR27
3000	Subcontractor Awards	10	22APR26	05MAY26
3110	Turf Shop Drawings & Procurment	63	22APR26	21JUL26
3010	Structural Steel Shop Drawings	25	06MAY26	10JUN26
3020	Precast MEP Coordination Shop Drawings	30	06MAY26	17JUN26
3030	MEP Gear & Units Shop Drawings	25	06MAY26	10JUN26
3120	Elevator Shop Drawings	25	06MAY26	10JUN26
3040	Steel Shop Drawing Approvals	15	11JUN26	01JUL26
3050	Long Lead MEP Items	220	11JUN26	23APR27
3130	Elevator Shop Drawing Approvals	15	11JUN26	01JUL26
3080	Precast MEP Coordination	15	18JUN26	09JUL26
3060	Steel Lead Time	50	02JUL26	11SEP26
3090	Finalize Precast Shop Drawings	30	10JUL26	20AUG26
3100	Precast Shop Drawing Approval	12	21AUG26	08SEP26
3070	Precast Production	45	09SEP26	10NOV26
Construction				
		437	11MAY26	31JAN28
General				
5000	Construction Start	0	11MAY26 *	
5020	Mobilization	5	11MAY26	15MAY26
5010	Temp Fence	10	16JUN26	29JUN26
Site/Foundations				
5030	Strip Top Soil/Site Demo	20	18MAY26	15JUN26
5290	Strip Top Soil & Subgrade Prep @ Football Field	15	26MAY26 *	15JUN26
5040	Soil Corrections	30	16JUN26	28JUL26
5260	Temp Laydown & Access Roads	10	16JUN26	29JUN26
5300	Storm & Drain Tile @ Football Field	15	16JUN26	07JUL26
5370	Bus Loop Asphalt & Concrete Driveway	10	16JUN26	29JUN26
5340	Base & Finishing Stone @ Football Field	13	08JUL26	24JUL26
5350	Turf Install	15	27JUL26	14AUG26
5050	Foundations - Excavate/Place/Backfill (A,D,B,C)	65	29JUL26	28OCT26
5380	Football Field Complete	0		14AUG26
5220	Site Utilities	50	19AUG26	28OCT26
5250	Site Electrical	25	08OCT26	11NOV26
5430	Parking Lot Prep	25	15OCT26	18NOV26
5320	Shallow Site Utilites	15	03MAY27 *	21MAY27
5330	Shallow Site Electrical	15	03MAY27	21MAY27
5390	Parking Lot Subgrade Prep	15	03MAY27 *	21MAY27



Early bar	Summary bar	Summary point
Progress bar	Progress point	Start milestone point
Critical bar	Critical point	Finish milestone point

Company name	Construction Engineers
Start date	05AUG25
Data date	09MAR26
Run date	23MAR26
Finish date	31JAN28

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Date	Revision	Checked	Approved
14JAN26	DD Set Update	LS	NF
09MAR26	CD Set Update	LS	NF
23MAR26	Add. #2 Update	LS	NF

CONSTRUCTION ENGINEERS

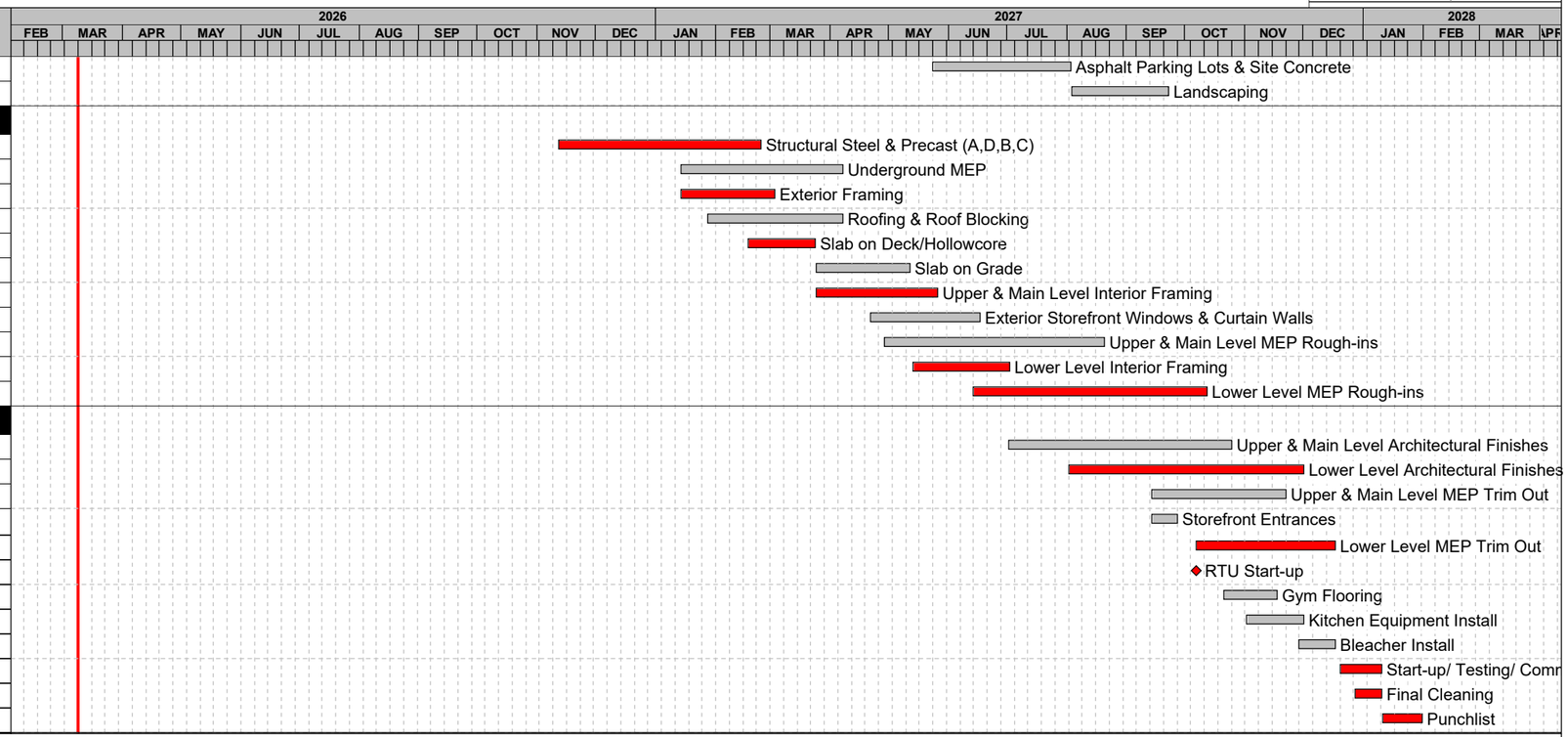
Do Something Constructive!

VCPS New School
Valley City, ND

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Act ID	Description	Orig Dur	Early Start	Early Finish
5270	Asphalt Parking Lots & Site Concrete	50	24MAY27	03AUG27
5280	Landscaping	35	04AUG27	22SEP27
Building Structure				
5060	Structural Steel & Precast (A,D,B,C)	70	12NOV26	24FEB27
5070	Underground MEP	60	14JAN27	07APR27
5440	Exterior Framing	35	14JAN27	03MAR27
5100	Roofing & Roof Blocking	50	28JAN27	07APR27
5080	Slab on Deck/Hollowcore	25	18FEB27	24MAR27
5090	Slab on Grade	35	25MAR27	12MAY27
5110	Upper & Main Level Interior Framing	45	25MAR27	26MAY27
5230	Exterior Storefront Windows & Curtain Walls	40	22APR27	17JUN27
5120	Upper & Main Level MEP Rough-ins	80	29APR27	20AUG27
5130	Lower Level Interior Framing	35	14MAY27	02JUL27
5140	Lower Level MEP Rough-ins	85	14JUN27	12OCT27
Finishes				
5150	Upper & Main Level Architectural Finishes	80	02JUL27	25OCT27
5160	Lower Level Architectural Finishes	85	02AUG27	01DEC27
5170	Upper & Main Level MEP Trim Out	50	14SEP27	22NOV27
5240	Storefront Entrances	10	14SEP27	27SEP27
5180	Lower Level MEP Trim Out	50	07OCT27	17DEC27
5400	RTU Start-up	0	07OCT27 *	
5410	Gym Flooring	20	21OCT27	17NOV27
5360	Kitchen Equipment Install	20	02NOV27	01DEC27
5420	Bleacher Install	15	29NOV27	17DEC27
5190	Start-up/ Testing/ Commisioning	15	20DEC27	10JAN28
5200	Final Cleaning	10	28DEC27	10JAN28
5210	Punchlist	15	11JAN28	31JAN28



Early bar	Summary bar	Summary point
Progress bar	Progress point	Start milestone point
Critical bar	Critical point	Finish milestone point

Company name	Construction Engineers
Start date	05AUG25
Data date	09MAR26
Run date	23MAR26
Finish date	31JAN28

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Date	Revision	Checked	Approved
14JAN26	DD Set Update	LS	NF
09MAR26	CD Set Update	LS	NF
23MAR26	Add. #2 Update	LS	NF

SECTION 03 4500
PRECAST ARCHITECTURAL CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Architectural pre-stressed concrete wall panels (PC-#):
   1. Integrally insulated
   2. Solid

B. Supports, anchors, and attachments.

C. Grouting under panels.

D. Shim space spray-foam insulation and joint sealants.

1.02 RELATED REQUIREMENTS

A. Section 03 3000 - Cast-in-Place Concrete: Admixtures.

B. Section 05 12 00 - Structural Steel Framing

C. Section 14 2100 - Electric Traction Elevators: for hoistway rail embeds to precast concrete.

1.03 REFERENCE STANDARDS

A. ACI CODE-318 - Building Code Requirements for Structural Concrete and Commentary.

B. ACI 301 - Specifications for Concrete Construction.

C. ACI 318 - Building Code Requirements for Structural Concrete.

D. ASHRAE Std 90.1 I-P - Energy Standard for Buildings Except Low-Rise Residential Buildings.

E. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.

F. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

G. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

H. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts.

I. ASTM A563M - Standard Specification for Carbon and Alloy Steel Nuts (Metric).

J. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.

K. ASTM A767/A767M - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.

L. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.

M. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete.

N. ASTM C33/C33M - Standard Specification for Concrete Aggregates.

O. ASTM C150/C150M - Standard Specification for Portland Cement.

P. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete.

Q. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.

R. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete.

S. ASTM C1088 - Standard Specification for Thin Veneer Brick Units Made from Clay or Shale.

T. AWS D1.1/D1.1M - Structural Welding Code - Steel.

U. PCI MNL-117 - Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products.

V. PCI MNL-120 - PCI Design Handbook.

W. PCI MNL-122 - Architectural Precast Concrete.

X. PCI MNL-123 - Connections Manual: Design and Typical Details of Connections for Precast and Prestressed Concrete.

Y. PCI MNL-135 - Tolerance Manual for Precast and Prestressed Concrete Construction.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene two weeks prior to commencing work of this section.
   1. Review shop drawings and installation details.
   2. Anchor and weld plate locations.
   3. Opening locations including those cut in the field.
   4. Limitations on field cutting and core drilling.
   5. Site access requirements and obstructions including but not limited:
      a. Access roads and maintenance thereof.
      b. Protection and repair of existing paving.
      c. Dewatering of footing trenches.
      d. Job site snow removal.
      e. Job site debris removal.
      f. Overhead obstructions including power lines.
   6. Cold weather grouting requirements and expectations.
   7. Cleaning responsibilities and expectations.

B. Coordinate cast-in electrical devices, conduit, mechanical and plumbing items and penetrations, openings, loose hardware such as recessed key boxes and anchorage items to be embedded in, attached to or that penetrate panels. Provide setting diagrams, templates, instructions, and directions, as required, for installation.

1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's information on accessory products, including pigments, admixtures, inserts, plates, etc.

C. Shop Drawings: Indicate layout, unit locations, configuration, unit identification marks, reinforcement, integral insulation, insulated panel system connectors, connection details, support items, location of lifting devices, dimensions, openings, and relationship to adjacent materials.
   1. Include details of mix designs.
   2. Include structural design calculations.
   3. Include locations of embedded MEPT items.

D. Samples: Submit two face samples for each type, 12 x12 inch in size, illustrating surface finish, color and texture.

E. Integrally Insulated Panel System Manufacturer's Installation Instructions: Submit manufacturer's current installation instructions for system specified. Certify that copies are available at fabrication site prior to start of precast fabrication

F. Fabricator's Qualification Statement: Provide documentation showing precast concrete fabricator is accredited under IAS AC157.

G. Integrally Insulated Panel System Design Data:
   1. Thermal Bowing and Crack Mitigation: Submit drawing details and written procedures for mitigation and repair of bowing and cracking in insulated concrete panels without full-thickness concrete sections or metallic connectors between wythes.

1.06 QUALITY ASSURANCE

A. Design Engineer Qualifications: Design precast concrete units under direct supervision of a Professional Structural Engineer experienced in design of precast concrete and licensed in the State in which the Project is located.

B. Fabricator Qualifications:
   1. Firm having at least 5 years of documented experience in production of precast concrete of the type required.
   2. Plant certified under Precast/Prestressed Concrete Institute Plant Certification Program; product group and category AC - Architectural Precast Concrete.
   3. Plant certified under Architectural Precast Association Plant Certification Program for production of architectural precast concrete.

C. Erector Qualifications: Erector needs to follow PCI certified installation requirements and procedures. Precast units shall be erected by an experienced erector who upon request of the design team shall submit evidence of successful erection of precast under similar job conditions. Erector's workman shall be properly trained to handle and erect precast units.

D. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and no more than 12 months before start of scheduled welding work.

1.07 MOCK-UPS

A. Provide one mock-ups, each 10 feet long by 10 feet wide, with lifting device, and attachment points, and finish in accordance with approved sample. See elevation on A211 for precast

B. Include mock-up panel with typical window, insulated panel, sealants, and including all finishes.

C. Locate where directed.

D. Mock-up will remain as part of the Work.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Handling: Lift and support precast units only from support points located on sides of panel.

B. Blocking and Lateral Support During Transport and Storage: Use materials that are clean, non-staining, and non-harmful to exposed surfaces. Provide temporary lateral support to prevent bowing and warping.

C. Protect units to prevent staining, chipping, or spalling of concrete.

D. Mark units with date of production in location that will be concealed after installation.

1.09 FIELD CONDITIONS

A. Prepare and maintain site free of obstructions as required by precast erector for the work of this section.

1.10 WARRANTY

A. Provide 1 year warranty against cracking, spalling or delamination of panel faces. Defects occurring during the warranty period shall be repaired per the requirements of the appropriate PCI MNL documents.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Architectural Precast Concrete:
   1. Taracon Precast: www.taraconprecast.com.
   2. Gage Brothers: www.gagebrothers.com.
   3. Molin Concrete Products: www.molin.com
   4. Wells Concrete: www.wellsconcrete.com.
   5. Any manufacturer holding a PCI Group A Plant Certification for the types of products specified; see www.pci.org/#sle.
   6. Substitutions: See Section 01 6000 - Product Requirements.

2.02 PRECAST UNITS, GENERAL

A. Precast Architectural Concrete Units: Comply with PCI MNL-120, PCI MNL-122, PCI MNL-123, PCI MNL-135, and ACI CODE-318.
   1. Concrete: Minimum 5000 psi, 28 day strength, air entrained to 5 to 7 percent; comply with ACI 301.
   2. Design Loads: Static loads, anticipated dynamic loading, including positive and negative wind loads, thermal movement loads, and erection forces as indicated on structural drawings.
   3. Calculate structural properties of units in accordance with ACI CODE-318.
   4. Limit use of fly ash and ground granulated blast-furnace slag to 20 percent of portland cement by weight; limit metakaolin and silica fume to 10 percent of portland cement by weight.
   5. Accommodate construction tolerances, deflection of building structural members, and clearances of intended openings.
   6. Provide connections that accommodate building movement and thermal movement and adjust to misalignment of structure without unit distortion or damage.
   7. Fire Resistance Ratings: As indicated on drawings.

B. Finishes - Typical: Ensure exposed-to-view finish surfaces of precast units are uniform in color and appearance.

C. Architectural Finishes:
   1. Finish: Fins and protrusions removed, ground edges and ends, flat face surfaces.
   2. Finish Type (PC-1): Thin brick veneer. Remove excess concrete from joints and faces of thin brick units. Protect adjacent surfaces. See Exterior Material Legend for brick color and pattern.
   3. Finish Type (PC-2, PC-3, PC-4): Mix of acid etch and sand blast finish. See Precast Elevations. Alternate #11 acid etch finish to be replaced with polished concrete finish.
   4. Acid Etched: Use acid and hot-water solution, equipment, application techniques, and cleaning procedures to expose aggregate and surrounding matrix surfaces to match accepted sample or mockup units. Protect hardware, connections, and insulation from acid attack.
   5. Sandblast finish: Use abrasive grit, equipment, application techniques, and cleaning procedures to exposed aggregate and surrounding matrix surfaces to match accepted sample or mockup units.
   6. Honed Finish: Use continuous mechanical abrasion with fine grit, followed by filling and rubbing procedures to match approved range of samples and full-size mockups.
      a. Up to 1000 Grit Light Brush Polish ~~800-1400 Grit Polished~~

D. Top (backside/interior) Finish:
   1. 5 pass power trowel.

2.03 REINFORCEMENT

A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
   1. Deformed billet-steel bars.
   2. Galvanized in accordance with ASTM A767/A767M, Class I.

B. Prestressing Strand: ASTM A 416/A 416M, Grade 270 (Grade 1860), uncoated, seven-wire, low-relaxation strand.

C. Steel Welded Wire Reinforcement (WWR): Plain type, ASTM A1064/A1064M.
   1. Form: Flat Sheets.
   2. Steel Welded Wire Reinforcement (WWR): Plain type, ASTM A1064/A1064M.

2.04 CONCRETE MATERIALS

A. Mix Design for PC-1: See 03 4100 Precast Structural Concrete for standard gray concrete color and mix design.

B. Mix Design for PC-2 and PC-3 and PC-4:

1. 100% Gray Cement (St. Gen)
2. 1678 lbs MM 3/4 inch Washed Chip (YM Quarry)
3. 950 lbs MM Washed Sand (YM Quarry)
4. 288 lbs Kafka Jett Black 18- (Mason Sand)
5. DCS #620 Charcoal @ 5%

C. Cement: ASTM C150/C150M, Type I - Normal Portland type.

D. Fine and Coarse Structural Aggregates: ASTM C33/C33M, except as modified by PCI MNL 117, with coarse aggregates complying with Class 5S.

E. Surface Finish Aggregate: Clean, washed natural crushed limestone; size as indicated in Mix Design, Fertile Limestone color, from single source throughout. Select aggregates for freedom from ferrous or other deleterious materials.

F. Color Additives: Pure, concentrated mineral pigments specifically intended for mixing into concrete and complying with ASTM C979/C979M.
   1. Concentration: Base dosage rates on weight of Portland cement, fly ash, silica fume, and other cementitious materials but not aggregate or sand.
   2. Color(s): See mix designs.
   3. Manufacturers:
      a. Butterfield Color: www.butterfieldcolor.com.
      b. Davis Colors: www.daviscolors.com.
      c. Lambert Corporation: www.lambertusa.com.
      d. Substitutions: See Section 01 6000 - Product Requirements.

G. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

H. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures and to not contain calcium chloride, or more than 0.15 percent chloride ions or other salts by weight of admixture.

I. Air Entrainment Admixture: ASTM C260/C260M.

J. Cement Grout: Type I (ASTM C150 / C150M), “Dry Pack”, portland cement, sand and water having a minimum of 3,000 psi compressive strength at 28 days. (Approximately 3 to 1 sand/cement ratio.) Use “Cement Grout” unless “Non-Shrink Cement Grout” is specifically indicated by precast or structural engineer.

K. Non-Shrink Cement Grout: Per ASTM C1107/C1107M, Type III (ASTM C150 / C150M), “Dry Pack”, portland cement, sand, and water having a minimum of 10,000 psi compressive strength at 28 days.

2.05 THIN BRICK

A. Thin Brick: ASTM C1088.
   1. Type: TBX.
   2. Size: Manufacturer's standard Modular.
   3. Thickness: 5/8 inch.
   4. Tolerances: 1/16 inch.
   5. Back Surface Texture: Scored, combed, wire roughened, ribbed, keybacked, or dovetailed.
   6. Color, texture, range, special shapes: As indicated on drawings in Exterior Material Legend.
   7. Protective Coating: Wax.

2.06 SUPPORT DEVICES

A. Connecting and Support Devices; Anchors and Inserts: ASTM A36/A36M steel; hot-dip galvanized in accordance with ASTM A153/A153M.
   1. Clean surfaces of rust, scale, grease, and foreign matter.
   2. Galvanize after fabrication in accordance with requirements of ASTM A123/A123M.

B. Bolts, Nuts, and Washers: ASTM F3125/F3125M heavy hex structural bolts, Type 1, zinc coated, with matching ASTM A563 (ASTM A563M) nuts, and washers as follows:

C. Embedded Plates: Supply embedded plates required for connection to cast-in-place concrete to the General Contractor. Embedded plates will be installed by the General Contractor in accordance with details and locations shown on a drawing provided by the precast supplier.

2.07 INTEGRALLY INSULATED PANEL SYSTEM (PIN CONNECTORS)

A. Integrally Insulated Panel System: Precast concrete panel formed from two layers of concrete with continuous rigid insulation and non-conducting pin connectors between layers.
   1. Panel Type: Structurally composite.
   2. Connectors: System manufacturer's standard; corrosion- and alkali-resistant, glass fiber reinforced, vinyl ester composite pultrusions with serrated profile, and thermoplastic depth-limiting and sealing collar.
   3. Continuous Insulation: Rigid extruded polystyrene (XPS) board insulation, ASTM C578, Type IV; factory fabricated with holes or slots for connectors having manufacturer-designated size and spacing.
   4. Design and construct panels to maintain overall R-value of 15, with less than one percent change due to penetrations and connections, when calculated in accordance with ASHRAE Std 90.1 I-P, isothermal planes method.
   5. Configurations: as indicated in drawings.
   6. Blocking: Treated wood 2x blocking to be installed at the insulation space at all edges of panel conditions except at structural connections and precast to precast connections. Examples of locations are window and door openings, top of panel/ parapet connections.

2.08 FABRICATION

A. Fabricate in compliance with PCI MNL-117 and PCI MNL-135.

B. Maintain plant records and quality control program during production of precast units. Make records available upon request.

C. Maintain consistent quality during manufacture.

D. Fabricate connecting devices, plates, angles, items fit to steel framing members, inserts, bolts, and accessories. Fabricate to permit initial placement and final attachment.

E. Embed reinforcing steel, anchors, inserts plates, angles, and other cast-in items.

F. Integrally Insulated Panel System: Comply with manufacturer's written installation instructions.

G. Locate hoisting/picking/handling devices to permit removal after erection. Hoisting/picking/handling devices should only be located in the top or jamb/edge of the panel. Face picks are prohibited.

H. Cure units to develop concrete quality, and to minimize appearance blemishes such as non-uniformity, staining, or surface cracking.

I. Minor patching in plant is acceptable, providing structural adequacy and appearance of units is not impaired.

J. Haunches are not preferred at panel joints above openings.

2.09 FABRICATION TOLERANCES

A. Conform to PCI MNL-117 and PCI MNL-135.

2.10 ACCESSORIES

A. Bearing Pads: The PCI Design Handbook, Second Edition, Part 5.1 through Part 5.5 shall be used for the design of bearing pads.

B. Vapor retarder tape: Dow Saran 560, apply continuous to all insulation joints (on interior face of wall).

C. Joint Insulation: Foamed-in-Place insulation for filling exterior wall crevices.

1. Shim Space Insulation: Polyurethane type, single component spray foam system, reduced expansion spray foam system; semi-rigid; closed cell.
   a. Thermal Value (R), Minimum: 5.50 per inch, when tested in accordance with ASTM C 518.
   b. Density: 1.3 lb/cu ft, when tested in accordance with ASTM D 1622.
   c. Flame Spread: 20, when tested in accordance with UL 1715 Fire Test.
   d. Smoke Development: 25, when tested in accordance with UL 1715 Fire Test.
   e. Product:
      1) Dow: Froth-Pak
      2) Substitutions: See Section 01 60 00 - Product Requirements.
2. Primer: As required by spray-foam insulation manufacturer.

D. General Purpose Exterior Sealant: Polyurethane; ASTM C 920, Grade NS, Class 25, Uses M, G, and A; two-component, gun grade.
   1. Color: Standard colors matching finished surfaces, as selected by Architect.
   2. Applications: Joints between precast panels, interior and exterior faces.
   3. Product:
      a. BASF/Master Builders Solutions: MasterSeal NP 2
      b. Tremco; Dymeric 240FC
      c. Pecora; Dynatrol II
      d. **BASIS OF DESIGN:** Sika Corporation; Sikaflex 2C NS EZ
      e. Substitutions: See Section 01 60 00 - Product Requirements.
   4. Accessories:
      a. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
      b. Joint Backing: Round foam rod compatible with sealant; ASTM D 1667, closed cell PVC; oversized 30 to 50 percent larger than joint width.
         1) Product: “Closed Cell Backer Rod” manufactured by Sonneborn; or approved equivalent.
      c. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

E. Embeded electrical boxes. Precaster to include in their bid materials and labor for 450 recessed electrical boxes and conduit stubbed out to top of panel or above ceiling space. Boxes to be located on both form and backside of panel.

F. Elevator support brackets. Precaster to install/ cast in elevator support brackets to the elevator shaft as coordinated with elevator supplier.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that building structure, anchors, devices, and openings are ready to receive work of this section.

3.02 PREPARATION

A. Provide for erection procedures and induced loads during erection. Maintain temporary bracing in place until final support is provided.

3.03 ERECTION

A. Erect units without damage to shape or finish. Replace or repair damaged panels.

B. Erect units level and plumb within allowable tolerances.

C. Align and maintain uniform horizontal and vertical joints as erection progresses.

D. When units require adjustment beyond design or tolerance criteria, discontinue affected work; advise Architect.

E. Weld units in place. Perform welding in accordance with AWS D1.1/D1.1M.

F. Touch-up field welds and scratched or damaged primed painted or galvanized surfaces.

G. Set vertical units dry, without grout, attaining joint dimension with lead or plastic spacers. Pack grout to base of unit.

H. Exposed Joint Dimension: 1/2 inch. Adjust units so that joint dimensions are within tolerances.

3.04 TOLERANCES

A. Erect members level and plumb within allowable tolerances. Conform to PCI MNL-135, except as specifically amended below.
   1. Plan Location from Building Grid Datum: Plus or minus 3/8 in.
   2. Top Elevation from Nominal Top Elevation: Plus or minus 3/8 inch.
   3. Maximum Plumb Variation Over Height of Structure or 100 ft (whichever is less): Plus or minus 1/2 inch.
   4. Exposed Joint Dimension: Plus or minus 3/16 inch.
   5. Maximum Jog in Alignment of Matching Faces or Edges: Plus or minus 3/16 inch.
   6. Differential Bowing or Camber as Erected Between Similar Adjacent Members: Plus or minus 3/16 inch.

3.05 CLEANING

A. Clean architectural finishes to remove road film, effloresces, weld marks, other markings, dirt, and stains and to even out color variations from panel to panel.
   1. Precast units shall be cleaned only after all installation procedures, including joint treatment, are completed.
   2. Perform cleaning and rinsing procedures in accordance with the precast manufacturer's recommendations.

END OF SECTION

SECTION 05 5000
METAL FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Shop fabricated steel items, including:
   1. Support for ceiling-hung MEP items
   2. Support for overhead door components
   3. Overhead door jamb plates

B. Miscellaneous angles, channels, tubes, plates, brackets and fasteners, as required to complete the project, including but not limited to:
   1. Shelf angles
   2. Jamb angles and plates
   3. Loose angle lintels
   4. Edger for depressed slabs.

C. Slotted Channel Adjustable Framing System

D. Anchor bolts, steel pipe sleeves, slotted-channel inserts, and wedge-type inserts indicated to be cast into concrete or built into unit masonry.

E. Aluminum sunshade girts and connections.

1.02 RELATED REQUIREMENTS

A. Section 03 3000 - Cast-in-Place Concrete: Placement of metal fabrications in concrete.

B. Section 03 4500 - Precast Architectural Concrete: Placement of metal fabrication in precast architectural concrete.

C. Section 04 2000 - Unit Masonry: Placement of metal fabrications in masonry.

D. Section 05 1200 - Structural Steel Framing: Structural steel column anchor bolts.

E. Section 05 2100 - Steel Joist Framing: Structural joist bearing plates, including anchorage.

F. Section 05 3100 - Steel Decking: Bearing plates for metal deck bearing, including anchorage.

G. Section 05 5100 - Metal Stairs.

H. Section 05 5213 - Pipe and Tube Railings.

I. Section 05 7300 - Decorative Metal Railings: steel railings.

J. Section 06 1000 - Rough Carpentry: concealed blocking or substrate for items specified in this section.

K. Section 09 9123 - Interior Painting: Paint finish.

L. Section 09 9600 - High-Performance Coatings: finish indicated as "HPC"

1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.

B. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.

C. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

D. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

E. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.

F. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.

G. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

H. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

I. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.

J. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination.

K. AWS D1.1/D1.1M - Structural Welding Code - Steel.

L. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer.

M. SSPC-Paint 20 - Zinc-Rich Coating (Type I - Inorganic, and Type II - Organic).

N. SSPC-SP 2 - Hand Tool Cleaning.

O. ASTM B308/B308M – Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles.

P. AWS D1.2/D1.2M – Structural Welding Code – Aluminum; 2014, with Errata (2020).

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: provide for fabricated items listed in 1.01A and 1.01E above.
   1. Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
   2. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
   3. Where installing items to existing precast concrete, concrete or masonry, propose connections not detailed for structural engineer approval.

1.05 QUALITY ASSURANCE

A. Design members and connections under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State in which the Project is located.

B. Fabricate steel items in accordance with AISC "Steel Construction Manual."

C. Fabricate aluminum items in accordance with Aluminum Association “Aluminum Construction Manual.”

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

A. Recycled Content: Provide steel products with a recycled content of not less than 25 percent.

B. Steel Sections: ASTM A36/A36M.

C. Steel Tubing: ASTM A500/A500M Grade B cold-formed structural tubing.

D. Plates: ASTM A283/A283M.

E. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.

F. Slotted Channel Framing: ASTM A653/A653M, Grade 33.

G. Slotted Channel Fittings: ASTM A1011/A1011M.

H. Bolts, Nuts, and Washers: ASTM A307, galvanized to ASTM A153/A153M where connecting galvanized components.

I. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.

J. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

K. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

L. Anchoring Devices:
   1. Anchor Rods: Anchor rods used with structural steel members shall be plain steel rods conforming to ASTM F1554 (Grade 36), complete with suitable nuts and washers, unless noted otherwise.
   2. Expansion Bolts: Expansion anchors shall consist of one-piece wedge type carbon steel anchor bolts with heavy-duty nuts and washers. All components shall be zinc plated in accordance with ASTM B633.
      a. Structural Applications
         1) Acceptable products must have a valid and current ICC report, as listed at www.icc-es.org <http://www.icc-es.org>.
      b. Non-Structural Applications
         1) Acceptable Manufacturers and products: Hilti Fastening Systems- Kwik Bolt III Anchor; ITW Red Head Mechanical Anchoring Systems - Trubolt Wedge Anchor; Powers Fastening Inc - Power-Stud Anchor; (or approved equivalent)
   3. Epoxy Adhesive Anchoring System: Epoxy anchoring shall consist of a threaded rod and the epoxy adhesive cartridge.
      a. Structural Applications
         1) Acceptable products must have a valid and current ICC report, as listed at www.icc-es.org <http://www.icc-es.org>.
      b. Non-Structural Applications
      c. Acceptable Manufacturers and products: Hilti Fastening System - HIT RE 500; ITW Red Head Adhesive Anchoring Systems - Epcon C6 Adhesive; Powers Fastening Inc. - PE1000+; (or approved equivalent.

M. Grout: Non-shrink, non-metallic aggregate type, complying with ASTM C 1107/C 1107M and capable of developing a minimum compressive strength of 5,000 psi at 28 days.

2.02 FABRICATION

A. General: Provide steel framing and supports not specified in other Sections as needed to complete the work.

B. Fabricate units from steel shapes, plates, bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes and profiles indicated and as necessary to receive adjacent construction.

C. Fit and shop assemble items in largest practical sections, for delivery to site.

D. Fabricate items with joints tightly fitted and secured.

E. Continuously seal joined members by continuous welds, where welding is indicated.

F. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

G. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.

H. Furnish components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

I. Welded Joints: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings. Weld corners and seams continuously where visible or where exposed to moisture, even if intermittent or stitch welds are structurally adequate, and to comply with the following:

1. Exterior Components: Continuously seal joined pieces by continuous welds. Drill condensate drainage holes at bottom of members at locations that will not encourage water intrusion.
2. Interior Components: Continuously seal joined pieces by continuous welds.
3. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

2.03 FABRICATED ITEMS

A. Ledge Angles, Shelf Angles, Channels, and Plates Not Attached to Structural Framing: For support of metal decking and other non-structural members; prime paint finish.
   1. Items used at the exterior to be galvanized.

B. Lintels: As detailed or as scheduled in Structural Notes; prime paint for field finish.
   1. Size loose lintels to provide bearing length at each side of opening to be 1/12 its length, but not less 8 inches, unless noted otherwise.
   2. Fabricate loose steel lintels from steel angles and shapes of size indicated for openings and recesses in masonry walls at locations indicated. Fabricate in single lengths for each opening unless otherwise indicated. Weld adjoining members together to form a single unit where indicated.

C. Door Frames for Overhead Door Openings: Steel plate and angle sections; thickness and depths as detailed; galvanized finish for High Performance Coating finish.

D. Support Framing for Overhead Door Operator: angles, unistrut or as recommended by manufacturer.

E. Support for Ceiling-hung MEP items: As detailed, prime paint finish. If not detailed, use slotted channel adjustable framing system

F. Slotted Channel Framing: Fabricate channels and fittings from structural steel complying with the referenced standards; factory-applied, rust-inhibiting thermoset acrylic enamel finish.
   1. Product: System of channel members and bolted connections fabricated to support loads without welded connections.
   2. Fittings and accessories shall be fabricated from hot rolled, pickled and oiled steel plates meeting the requirements of ASTM A 575.
   3. Nuts and screws shall be Unified and American coarse screw thread meeting the requirements of ASTM A 576 GR1015 (nut), and ASTM A 307 and SAE J429 GR2 (screw).
   4. Nuts and screws shall be electro-galvanized (EG) coated to commercial standards meeting the requirements of ASTM B 633 Type III SC1 finish.
   5. Finish: Adjustable framing shall be pre-finished with Unistrut's Perma-Green II; B-Line's Dura Green; or equal. All miscellaneous accessories, brackets, and fittings shall match framing.
   6. Manufacturer: Unistrut Corporation Unistrut; B-Line Systems, Inc. Powerstruct; or equal.

2.04 FINISHES - STEEL

A. Prime paint steel items.
   1. Exceptions: Galvanize items to be embedded in concrete, items to be imbedded in masonry, and concealed exterior items.
   2. Exceptions: Do not prime surfaces in direct contact with concrete, where field welding is required, and items to be covered with sprayed fireproofing.

B. Prepare surfaces to be primed in accordance with SSPC-SP2.

C. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.

D. Prime Painting: One coat.

E. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating.

F. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.

2.05 FABRICATION TOLERANCES

A. Squareness: 1/8 inch maximum difference in diagonal measurements.

B. Maximum Offset Between Faces: 1/16 inch.

C. Maximum Misalignment of Adjacent Members: 1/16 inch.

D. Maximum Bow: 1/8 inch in 48 inches.

E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

2.06 MATERIALS - ALUMINUM

A. Aluminum Sections: ASTM B308/B308M-95a and shall be Aluminum Association (AA) Designation 6061-T6 alloy or as otherwise specified.

B. Finish: All aluminum items shall be anodized. After forming and welding operations, and before assembly, each piece of aluminum shall be finished (anodized) in accordance with the following Aluminum Association Designations:
   1. Structural shapes and bars: AA-M10C11C21A41, with minimum 0.8 mil coating.

C. Welding Materials: AWS D1.2/D1.2M; type required for materials being welded.

D. Protection: Surfaces in contact with concrete, grout (except epoxy grout), mortar, steel (except stainless steel), or buried in the ground shall be protected with a heavy coating of Bitumastic 300M, as manufactured by Kop-Coat, Inc. or approved equal.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive work.

B. Examine substrates and site area for conditions that might prevent satisfactory installation.

C. Verify that dimensions of supporting structure are within plus/minus 1/8 inch of dimensions shown on shop drawings.

D. Verify that all adjacent painting, roofing, masonry work, and other work that might damage prefinished items has been completed prior to installation.

3.02 PREPARATION

A. Clean and strip primed steel items to bare metal where site welding is required.

B. Furnish setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

C. Remove all mill scale, rust, grease, foreign matter and surface imperfections from steel components that will be painted to ensure a smooth, even appearance of finish.

3.03 INSTALLATION

A. Install premanufactured items in accordance with manufacturer's installation instructions.

B. Install items plumb and level, accurately fitted, free from distortion or defects.

C. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.

D. Anchor units to structure as indicated on the drawings.

E. Field weld components as indicated on shop drawings.
   1. Perform field welding in accordance with AWS D1.1/D1.1M.

F. Obtain approval prior to site cutting or making adjustments not scheduled.

G. After erection, prime welds, abrasions, and surfaces not shop primed or galvanized, except surfaces to be in contact with concrete.

H. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag bolts, wood screws, and other connectors. Grout voids as required to result in secure installation.

I. Touch-up damaged finish coating using material provided by manufacturer to match original coating.

J. Where the contact of dissimilar metals may cause electrolysis or where aluminum will come in contact with concrete, mortar or plaster, the contact surface of the metals shall be separated using not less than one coat of zinc chromate primer and one heavy coat of aluminum pigmented asphalt paint on each surface; or where deemed necessary by the Engineer of Record, not less than one course of asphalt saturated cotton fabric cemented to both metals with flashing cement, shall be used. Finished works shall be cleaned and excess cement removed.

3.04 TOLERANCES

A. Maximum Variation From Plumb: 1/4 inch per story or 10 feet, non-cumulative.

B. Maximum Offset From True Alignment: 1/4 inch in 10 feet.

C. Maximum Out-of-Position: 1/4 inch in 48 inches.

3.05 CLEANING

A. Clean exterior surfaces of dust and debris; follow manufacturer's cleaning instructions for the finish used.

3.06 PROTECTION

A. Protect items after installation to prevent damage due to other work until Date of Substantial Completion

END OF SECTION

SECTION 06 4100
ARCHITECTURAL WOOD CASEWORK

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Specially fabricated cabinet units, including:
   1. Base cabinets
   2. Upper cabinets
   3. Full-height units
   4. Reception desks

B. Hardware.

C. Preparation for installing utilities.

D. Loose shelving and supports.

E. Accessories, including, but not limited to:
   1. Tackable surface (TAC-2).

1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.

B. Section 06 1000 - Rough Carpentry: Support framing, grounds, and concealed blocking.

C. Section 06 2000 - Finish Carpentry: Specially fabricated paneling, trim, etc.

D. Section 07 9200 - Joint Sealers: sealant at millwork and countertops at walls

E. Section 12 3600 - Countertops.

F. Division 22 - Plumbing: coordination of drop-in or undermount sinks, plumbing fixture trim and connections

G. Division 26 - Electrical: coordination of lighting and electrical trim and connections.

1.03 REFERENCE STANDARDS

A. ANSI/AWI 0620 - Finish Carpentry/Installation.

B. ANSI/AWI 0641 - Architectural Wood Casework.

C. AWI 100 - Submittals.

D. AWI 200 - Care & Storage.

E. AWI 300 - Materials.

F. BHMA A156.9 - Cabinet Hardware.

G. NEMA LD 3 - High-Pressure Decorative Laminates.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene a preinstallation meeting not less than one week before starting work of this section; require attendance by all affected installers.

1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Shop Drawings: Provide casework locations, large scale plans, elevations, cross sections, rough-in and anchor placement dimensions and tolerances, clearances required. Indicate materials, component profiles, configurations, assembly methods, fastening methods, jointing details, utility and service requirements and locations, accessory listings, hardware location and schedule of finishes.
   1. Scale of Drawings: 1-1/2 inch to 1 foot, minimum.
   2. Provide information as required by AWI 100.

C. Product Data:

1. Provide data for hardware accessories.
2. Provide data of compliance with Formaldehyde Emissions Evaluation.

D. Color Selection Samples:
1. PVC edge banding

E. Finish Verification Samples:
1. For each finish product specified, two each, 3 inches x 5 inches, of colors and finishes selected by architect.

F. Samples: Submit actual sample items of proposed pulls, hinges, shelf standards, and locksets, demonstrating hardware design, quality, and finish.

G. Informational Submittals:
1. Test Reports: Valid AWI "Performance Quality Test Report" indicating compliance with specified ANSI/AWI 0641 Structural Performance Duty Level.

1.06 DESIGN REQUIREMENTS

A. Reinforce frame and support counters in all areas, to safely support a load of 200 lbs (90 kg) concentrated on one square foot (0.093 sq m) in any area with no indentation showing on surface and with permanent set not exceeding 0.005 inch (0.127 mm).

1.07 QUALITY ASSURANCE

A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.

B. Perform work in accordance with AWI Architectural Woodwork Quality Standards Illustrated, grade as indicated below.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Accept casework on site. Inspect on arrival for damage.

B. Protect units from moisture, soiling, or damage during handling and installation.

C. Protect countertop surfaces throughout the construction period with corrugated cardboard covering the top and securely taped to edges.

1.09 FIELD CONDITIONS

A. Coordinate casework installation with size, location and installation of service utilities.

B. Coordinate layout and installation of blocking and reinforcement in walls for support of casework.

C. Verify dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete. Coordinate fabrication schedule with construction progress to avoid delaying the work.

D. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
1. Locate concealed framing, blocking, and reinforcements that support cabinets by field measurements before being enclosed, and indicate measurements on Shop Drawings.

E. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.

F. Do not deliver product until the following conditions are met:
1. Windows and doors are installed and the building is secure and weathertight.
2. Ceiling, overhead ductwork and lights are installed.
3. All painting is completed and floor tile is installed.

G. During and after installation of custom cabinets, maintain temperature and humidity conditions in building spaces at same levels planned for occupancy.

1.10 SCOPE OF THE CASEWORK SUPPLIER/INSTALLER

A. Casework and accessories: Furnish to building, and unpad and/or uncrate, set in place, level and fasten all specified casework and equipment.

B. Clean up: Remove debris, dirt, and rubbish accumulated as a result of delivery of this equipment and leave premises broom clean and orderly.

C. ADA (American with Disabilities Act) Requirements: As indicated in Drawings.

D. Fillers, scribes, access holes: Provide all necessary fillers and scribes for a complete job. Provide all access holes in cabinets and countertops required by mechanical, electrical, and HVAC contractors.

1.11 SCOPE NOT COVERED BY CASEWORK SUPPLIER/INSTALLER:

A. Service to and within equipment: Furnishing piping system, traps, drain lines, and conduit within equipment, in service turrets or tunnels, through, under or along backs of working surfaces and in reagent racks above countertops.

B. Setting of plumbing fixtures and accessory fixtures, and final connections of such.

C. Plumbing services: Furnishing, installation and connection of traps, drain lines, drop-in sinks, vents, steam fittings and special plumbing fixtures or piping to meet local codes, whether or not specifically called for in the contract documents.

D. Electrical services: Furnishing and installation of rigid and flexible conduit, fittings, and special electrical equipment and accessories, wire, pulling of wire, and wiring and connection to electrical boxes, receptacles, switches, lights, and flush plates. Work shall be in accordance with local codes, whether or not specifically called for in the contract documents.

E. Bracing and supports: Furnishing and installation of all framing and reinforcements of wall, floors and ceilings necessary to adequately support the equipment, and all bucks and plaster grounds required for proper installation of equipment. Casework supplier/installer to direct others as to the type of bracing required and the location needed.

F. Base molding applied to casework, furnished and installed by flooring contractor.

PART 2 PRODUCTS

2.01 CABINETS

A. Performance Requirements:
   1. Structural Performance: Duty Level 3, in accordance with ANSI/AWI 0641.
   2. Aesthetic Performance: Custom Grade in accordance with ANSI/AWI 0641.

B. Cabinets:
   1. Finish - Exposed Exterior Surfaces: Decorative laminate.
   2. Finish - Exposed Interior Surfaces (inside of units without doors, permanently exposed): Decorative laminate.
   3. Finish - Semi-Exposed Surfaces (inside of units behind operable doors/drawers): Decorative laminate (melamine).
   4. Finish - Concealed Surfaces: Manufacturer's option.
   5. Door and Drawer Front Edge Profiles: Square edge with 3 mm band of matching PVC.
   6. Casework Construction Type: Type A - Frameless.
   7. Interface Style for Cabinet and Door: Style 1 - Overlay; flush overlay.
   8. Grained Face Layout for Cabinet and Door Fronts: Flush panel.
      a. Custom Grade: Doors, drawer fronts and false fronts wood grain to run and match vertically within each cabinet unit.
   9. Cabinet Design Series: As indicated on drawings.
   10. Adjustable Shelf Loading: 40 psf.
      a. Deflection: L/144.
   11. Cabinet Style: Flush overlay.
   12. Cabinet Doors and Drawer Fronts: Flush style.

13. Drawer Side Construction: As allowed by quality standards indicated.
14. Drawer Construction Technique: As allowed by quality standards indicated.
15. Toe Kicks: 4 inches typical. See elevations for height of base.

2.02 WOOD-BASED COMPONENTS

A. Wood fabricated from old growth timber is not permitted.

2.03 PANEL CORE MATERIALS

A. Particleboard: Composite panel composed of cellulosic particles, additives, and bonding system; comply with ANSI A208.1.
   1. Grade: M-2; moisture resistance: MR10.
   2. Panel Thickness: 1/2 inch.

B. Medium Density Fiberboard (MDF): Composite panel composed of cellulosic fibers, additives, and bonding system; cured under heat and pressure; comply with ANSI A208.2.
   1. Appllication: Custom reception desks.
   2. Grade: 115; moisture resistance: MR10.
   3. Panel Thickness: 3/4 inch.

2.04 LUMBER MATERIALS

A. Softwood Lumber: NIST PS 20; Graded in accordance with AWI/AWMAC Architectural Woodwork Quality Standards Illustrated, Grade II/Custom; average moisture content of 5-10 percent; species as follows:
   1. Concealed Framing and Blocking: Species - contractors choice.

2.05 LAMINATE MATERIALS

A. Provide Basis of Design manufacturer listed in the Finish Schedule, or a standard or custom product from one of the other listed manufacturers, approved prior to bid, with equivalent performance, material properties, features, general configuration, appearance, and warranty.

B. Manufacturers:
   1. Formica Corporation: www.formica.com/#sle.
   2. **BASIS OF DESIGN:** Nevamar, Panolam Industries International, Inc: www.panolam.com.
   3. **BASIS OF DESIGN:** Pionite, Panolam Industries International, Inc: www.panolam.com.
   4. **BASIS OF DESIGN:** Wilsonart LLC; ~~Chemsurf:~~ www.wilsonart.com/#sle.
   5. Substitutions: See Section 01 6000 - Product Requirements.

C. High Pressure Decorative Laminate (PLAM#): NEMA LD 3, types as recommended for specific applications.
   1. Manufacturers/Product/Style/Color: As indicated in Finish Schedule.

D. Provide specific types as follows:
   1. Horizontal Surfaces: HGS, 0.048 inch nominal thickness, through color, colors as indicated, finish as scheduled.
   2. Vertical Surfaces: VGS, 0.028 inch nominal thickness, through color, colors as indicated, finish as scheduled.
   3. Cabinet Liner: CLS, 0.020 inch nominal thickness, through color, color as selected, satin finish.
   4. Laminate Backer: BKL, 0.020 inch nominal thickness, undecorated; for application to concealed backside of panels faced with high pressure decorative laminate.

2.06 COUNTERTOPS

A. Countertops: See Section 12 3600.

2.07 ACCESSORIES

A. Lumber for Shimming: Softwood lumber of pine species.

B. Adhesive: Type recommended by AWI/AWMAC to suit application.

C. Plastic Edge Banding: Extruded 3 mm PVC, flat shaped; smooth finish; self locking serrated tongue; of width to match component thickness.
   1. Color: As selected by Architect from manufacturer's full range.
   2. Use at all exposed plywood edges.
   3. Use at all exposed shelf edges.
   4. Use at door and drawer edges.

D. Metal Trim (MLTP-#): material, finish, style and dimensions as indicated in Finish Schedule in Drawings.
   1. Products: As indicated in Finish Schedule in Drawings.

E. Fasteners: Size and type to suit application.

F. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.

G. Concealed Joint Fasteners: Threaded steel.

H. Tackable Surface (TAC-2): Homogeneous tackable surface material made of primary natural materials consisting of linseed oil, cork, rosin binders and dry pigments mixed and calendared onto a natural jute backing.
   1. Location and Size: As indicated on drawings.
   2. Color: As indicated on Finish Schedule.
   3. Product:
      a. Claridge: Tack Walls
      b. Forbo: Bulletin Board
      c. Substitutions: See Section 01 60 00 - Product Requirements.
   4. Mount with manufacturer's recommended adhesive.
   5. Provide edge trim at exposed edges; coordinate depth to match tackable surface.

I. Termination Trim (tackable surface): J-trim; clear satin, anodized aluminum, 1/4-inch trim.
   1. Product:
      a. Koroseal JT12-00,
      b. Schluter-SCHIENE AE60.
      c. Substitutions: See Section 01 60 00 - Product Requirements.

J. Countertop Support Brackets: see Section 12 3600 - Countertops

K. Access Panels: See Section 083100.

L. Metal Insert for Book Return: 16-gauge stainless steel with stitch welded seams.

2.08 HARDWARE

A. Cabinet Hardware: Comply with BHMA A156.9 for hardware types and grades indicated below:
   1. Hardware Types: Including, but not limited to, those listed below.
   2. Product Grade: Grade 1.

B. Adjustable Shelf Supports, in casework: Standard side-mounted system using recessed metal shelf standards and coordinated self rests, satin chrome finish, for nominal 1 inch spacing adjustments.
   1. Twin pin design with anti-tip restraints, keel to retard shelf slide-off, and slot to allow mechanical attachment of shelf to clip.
   2. Static load: Each support rated for 300 pound static load, minimum.

C. Drawer and Door Pulls (Typical) (CP): as indicated on Drawings, brushed nickel finish, 4 inch centers.

D. Cabinet Locks: Keyed cylinder, two keys per lock, master keyed, steel with satin finish.
   1. Door Locks: ANSI/BHMA A156.11, E07121.
   2. Drawer Locks: ANSI/BHMA A156.11, E07041.

E. Drawer Slides:

1. Type: Full extension with overtravel.
2. Static Load Capacity: Heavy Duty grade.
    a. For drawers not more than 3 inches high and not more than 24 inches wide, provide Grade 1.
    b. For drawers more than 3 inches high, but not more than 6 inches high and not more than 24 inches wide, provide Grade 1HD-100.
    c. For drawers more than 6 inches high or more than 24 inches wide, provide Grade 1HD-200.
3. Mounting: Side mounted.
4. Stops: Integral type.
5. Features: Provide self-closing / soft-closing type.

F. Hanging File Rails: As required to support hanging file folders.

G. Hinges: European style concealed self-closing type,also soft-closing, steel with satin finish.
1. Opening: 120 degrees.
2. Manufacturers:
    a. Blum, Inc: www.blum.com/#sle.
    b. Grass America Inc; TEC 863: www.grassusa.com/#sle.
    c. Hafele; www.hafele.com
    d. Hardware Resources: www.hardwareresources.com.
    e. Substitutions: See Section 01 6000 - Product Requirements.

H. Door Swing Restrictor: for use in preventing casework doors from opening and striking adjacent walls
1. Concealed method for european hinges (Contractor to coordinate with hinge manufacturer):
    a. Dura Supreme Cabinetry: Hinge Restriction Clip
    b. Grass TEC 864 85 Degree Hinge Angle Reduction Clip
    c. Rockler: Blum Restrictor Clip
    d. Substitutions: See Section 01 6000 - Product Requirements.
2. The cabinet door swing restrictor must be incorporated into the hinge mechanism.
    a. No additional components, such as chains or external limiters, may be attached to the door.
    b. The swing restrictor must provide a smooth, controlled motion to prevent door over-extension.

I. Wall Cleats: French cleats for stud wall partitions, with lower cleat fastened to wall and upper cleat fastened to millwork.

J. Concealed Panel Clips: black plastic male-female fitting;
1. Product: Hafele Keku Push-in Fitting or approved equal; black plastic or finish to match hinges.

K. Adjustable Shelf Supports, for adjustable wall shelving: Standard back-mounted system using surface mounted metal shelf standards and coordinated cantilevered shelf brackets, satin chrome finish, for nominal 1 inch spacing adjustments.
1. Product: #80 standards with #180 brackets manufactured by Knape and Vogt.

L. Door/Drawer Bumpers: high-quality, durable material (e.g., silicone, rubber, or thermoplastic elastomer) to provide long-lasting performance and prevent wear.
1. Bumpers must feature strong adhesive backing or integrated mounting to prevent movement or detachment over time.

2.09 FABRICATION

A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.

B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.

C. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.

D. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners.
   1. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
   2. Cap exposed plastic laminate finish edges with plastic trim.

E. Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes, and fixtures and fittings. Verify locations of cutouts from on-site dimensions. Seal cut edges.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify adequacy of backing and support framing.

B. Verify location and sizes of utility rough-in associated with work of this section.

C. Verify casework and materials required for installation have been delivered, handled, ans stored in accordance with AWI 200 and requirements specified in Part 1 - Delivery, Storage and Handling.

D. Verify field conditions comply with AWI 200 and requirements specified in Part 1 - Field Conditions.

3.02 PREPARATION

A. Acclimate casework to the environment in which it will be installed for a minimum of 72 hours prior to installation. Comply with AWI 200.

3.03 INSTALLATION

A. Install work in accordance with ANSI/AWI 0620 requirements for grade indicated.

B. Set and secure custom cabinets in place, assuring that they are rigid, plumb, and level.

C. Use fixture attachments in concealed locations for wall mounted components.

D. Use concealed joint fasteners to align and secure adjoining cabinet units.

E. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.

F. Secure cabinets and counter bases to floor using appropriate angles and anchorages.

G. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.

H. Provide matching casework filler panel to occupy remaining space between casework and adjacent walls as necessary to accommodate for field dimensions.

3.04 INSTALLATION ITEMS BY TRADE CONTRACTOR

A. Install plumbing and electrical service to and within equipment.

B. Set plumbing fixtures and accessory fixtures, and make final connections of such.

C. Complete wiring and connection to electrical boxes, receptacles, switches, lights, and flush plates. Work shall be in accordance with local codes, whether or not specifically called for in the contract documents.

D. Close ends of units, splash aprons, shelves and bases with sealant.

3.05 ADJUSTING

A. Adjust installed work.

B. Adjust moving or operating parts to function smoothly and correctly.

3.06 CLEANING

A. Clean casework, counters, shelves, hardware, fittings, and fixtures.

B. Clean all materials provided under this section and all adjacent materials, which may have become soiled from this work.
   1. High Pressure Laminates (HPL): refer to NEMA publication Ld3-2005 Annex B Care and Cleaning of Laminates.

C. Wipe out millwork interiors and empty drawers of dirt and debris. Remove pencil marks and other blemishes from millwork surfaces.

D. Remove foreign matter that could affect operation or appearance of hardware.

E. Make final adjustments to drawers and doors. Doors shall swing freely. All doors shall be aligned both vertically and horizontally. Drawers shall open and close smoothly, without binding or excessive slide and play.

3.07 PROTECTION OF FINISHED WORK

A. Do not permit finished casework to be exposed to continued construction activity.

B. Cover with protective cover, taped to casework.

C. Remove temporary protective cover at date of Substantial Completion.

END OF SECTION

SECTION 08 8000
GLAZING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Insulating glass units.

B. Glazing units.

C. Glazing compounds.

1.02 RELATED REQUIREMENTS

A. Section 06 4100 - Architectural Wood Casework: Cabinets with requirements for glass shelves and glazed doors.

B. Section 07 2700 - Air Barriers.

C. Section 07 9200 - Joint Sealants: Sealants for other than glazing purposes.

D. Section 08 1113 - Hollow Metal Doors and Frames: Glazed lites in doors and borrowed lites.

E. Section 08 1416 - Flush Wood Doors: Glazed lites in doors.

F. Section 08 4313 - Aluminum-Framed Storefronts

G. Section 08 4413 - Glazed Aluminum Curtain Walls

H. Section 08 8813 - Fire-Rated Glazing.

1.03 REFERENCE STANDARDS

A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.

B. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.

C. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers.

D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.

E. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.

F. ASTM C1193 - Standard Guide for Use of Joint Sealants.

G. ASTM C1376 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass.

H. ASTM E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings.

I. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.

J. GANA (GM) - GANA Glazing Manual.

K. GANA (SM) - GANA Sealant Manual.

L. NFRC 300 - Test Method for Determining the Solar Optical Properties of Glazing Materials and Systems.

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data on Insulating Glass Unit and Glazing Unit Glazing Types: Provide structural, physical and environmental characteristics, size limitations, special handling and installation requirements.

1. On mirror glass: mastic, and edge trim (if indicated).

C. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.

D. Samples: Submit two samples 12 by 12 inch in sizeof each type of insulated glass units showing coloration and thermal spacer design.

E. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with GANA (GM) for glazing installation methods.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years of documented experience.

C. Installer Qualifications: Company specializing in performing work of the type specified and approved by manufacturer.

1.06 FIELD CONDITIONS

A. Do not install glazing when ambient temperature is less than 40 degrees F.

B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

C. Store products in manufacturer's unopened packaging until ready for installation.

1.07 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Insulating Glass Units: Provide a ten (10) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including replacement of failed units.

C. Laminated Glass: Provide a five (5) year manufacturer warranty to include coverage for delamination, including providing products to replace failed units.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Glass Fabricators:
1. Oldcastle; www.obe.com
2. Viracon, Inc: www.viracon.com.
3. Substitutions: See Section 01 6000 - Product Requirements.

B. Float Glass Manufacturers:
1. Cardinal Glass Industries: www.cardinalcorp.com/#sle.
2. Guardian Glass, LLC: www.guardianglass.com.
3. Pilkington North America Inc: www.pilkington.com/na/#sle.
4. **BASIS OF DESIGN:** PPG Industries, Inc: www.ppgideascapes.com.
5. Substitutions: See Section 01 6000 - Product Requirements.

2.02 PERFORMANCE REQUIREMENTS - EXTERIOR GLAZING ASSEMBLIES

A. Provide type and thickness of exterior glazing assemblies to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of glass.
1. Design Pressures: see Structural Notes in Drawings.
2. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
3. Provide glass edge support system sufficiently stiff to limit the lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
4. Glass thicknesses listed are minimum.

B. Weather-Resistive Barrier Seals: Provide completed assemblies that maintain continuity of building enclosure water-resistive barrier, vapor retarder, and/or air barrier.
1. In conjunction with weather barrier related materials described in other sections, as follows:
   a. Air Barriers: See Section 07 2700.

2. To utilize inner pane of multiple pane insulating glass units for continuity of vapor retarder and/or air barrier seal.
3. To maintain a continuous vapor retarder and/or air barrier throughout glazed assembly from glass pane to heel bead of glazing sealant.

C. Thermal and Optical Performance: Provide exterior glazing products with performance properties as indicated. Performance properties are in accordance with manufacturer's published data as determined with the following procedures and/or test methods:
1. Center of Glass U-Value: Comply with NFRC 100 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
2. Center of Glass Solar Heat Gain Coefficient (SHGC): Comply with NFRC 200 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
3. Solar Optical Properties: Comply with NFRC 300 test method.

2.03 GLASS MATERIALS

A. Float Glass: Provide float glass based glazing unless otherwise indicated.
1. Kind HS - Heat-Strengthened Type: Complies with ASTM C1048.
2. Kind FT - Fully Tempered Type: Complies with ASTM C1048.
3. Fully Tempered Safety Glass: Complies with ANSI Z97.1 or 16 CFR 1201 criteria for safety glazing used in hazardous locations.

2.04 INSULATING GLASS UNITS

A. Manufacturers:
1. PPG Industries, Inc: www.ppgideascapes.com.
2. Viracon, Apogee Enterprises, Inc: www.viracon.com.
3. Substitutions: See Section 01 6000 - Product Requirements.

B. Insulating Glass Units: Types as indicated.
1. Durability: Certified by an independent testing agency to comply with ASTM E2190.
2. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
3. Glass Edges: Seamed, no exceptions.
4. Warm-Edge Spacers: Low conductivity thermoplastic and stainless steel.
   a. Spacer Width: As required for specified insulating glass unit.
   b. Spacer Height: Manufacturer's standard.
   c. Products:
      1) Technoform Glass Insulation; TGI-Spacer: www.glassinsulation.us/#sle.
      2) Substitutions: See Section 01 6000 - Product Requirements.
5. Spacer Color: match framing color, no exceptions.
6. Edge Seal:
   a. Dual-Sealed System: Provide polyisobutylene sealant as primary seal applied between spacer and glass panes, and silicone, polysulfide, or polyurethane sealant as secondary seal applied around perimeter.
   b. Single-Sealed Systems prohibited
7. Color: Black.
8. Purge interpane space with dry air, hermetically sealed.

C. Type GL-1 - Insulating Glass Units: Vision glass, double glazed.
1. Applications: typical exterior.
2. Description: Solarban 60 on Solarbronze 6mm (2), 1/2" air space filled with argon, 6mm clear.
3. Space between lites filled with argon.
4. Outboard Lite: Fully tempered float glass, 1/4 inch thick, minimum.
   a. Tint: Bronze.
   b. Coating: Solarban 60 on #2 surface.

5. Inboard Lite: Fully tempered float glass, 1/4 inch thick, minimum.
   a. Tint: Clear.
6. Total Thickness: 1 inch.
7. Visible Light Transmittance (VLT): 42 percent, minimum.
8. Thermal Transmittance (U-Value), Winter Nighttime - Center of Glass: 0.29, maximum.
9. Thermal Transmittance (U-Value), Winter Daytime - Center of Glass: 0.27, maximum.
10. Shading Coefficient: 0.32, maximum.
11. Solar Heat Gain Coefficient (SHGC): 28 percent, maximum.
12. Visible Light Reflectance, Outside: 7 percent, maximum.
13. Glazing Method: Dry glazing method, gasket glazing.

D. Type GL-2 - ~~Insulating Glass Units: Vision glass, double glazed.~~ NOT USED.
1. ~~Applications: exterior common's curtainwall.~~
2. ~~Description: Solarban 60 on Solarbronze 6mm (2), 1/2" air space filled with argon, 6mm clear~~
3. ~~Space between lites filled with argon.~~
4. ~~Outboard Lite: Fully tempered float glass, 1/4 inch thick, minimum.~~
   a. ~~Tint: Bronze.~~
   b. ~~Coating: Solarban 60, on #2 surface.~~
5. ~~Inboard Lite: Fully tempered float glass, 1/4 inch thick, minimum.~~
   a. ~~Tint: Clear.~~
6. ~~Total Thickness: 1 inch.~~
7. ~~Glazing Method: Dry glazing method, gasket glazing.~~

2.05 GLAZING UNITS

A. Type GL-3 - Monolithic Interior Vision Glazing: non-fire-rated.
1. Applications: Interior glazing unless otherwise indicated.
2. Glass Type: Fully tempered float glass.
3. Tint: Clear.
4. Thickness: 1/4 inch, nominal.
   a. Provide 3/8-inch where spans exceed 6 feet
   b. Provide 1/2-inch where spans exceed 8 feet
5. Glazing Method: Dry glazing method, gasket glazing.

2.06 GLAZING COMPOUNDS

A. Butyl Sealant: Single component; ASTM C920 Grade NS, Class 12-1/2, Uses M and A, Shore A hardness of 10 to 20; black color.

B. Manufacturers:
1. Bostik Inc: www.bostik-us.com.
2. Dow Corning Corporation: www.dowcorning.com/construction.
3. Momentive Performance Materials, Inc: www.momentive.com.
4. Pecora Corporation: www.pecora.com.
5. GE Plastics: www.geplastics.com.
6. Substitutions: See Section 01 6000 - Product Requirements.

2.07 ACCESSORIES

A. Setting Blocks: Silicone, with 80 to 90 Shore A durometer hardness; ASTM C864 Option II. Length of 0.1 inch for each square foot of glazing or minimum 4 inch x width of glazing rabbet space minus 1/16 inch x height to suit glazing method and pane weight and area.

B. Glazing Gaskets: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option I; color black.

C. Glazing Clips: Manufacturer's standard type.

2.08 FABRICATION

A. Fabricate glass and other glazing products in sizes required to glaze openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with recommendations of product manufacturer and reference glazing standard as required to comply with system performance requirements.

PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS

A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.

B. Verify that the minimum required face and edge clearances are being provided.

C. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.

D. Verify that sealing between joints of glass framing members has been completed effectively.

E. Proceed with glazing system installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Clean contact surfaces with appropriate solvent and wipe dry immediately before glazing. Remove coatings that are not tightly bonded to substrates.

B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.

C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

3.03 INSTALLATION, GENERAL

A. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers, unless more stringent requirements are indicated, including those in glazing referenced standards.

B. Install glazing sealants in accordance with ASTM C1193, GANA (SM), and manufacturer's instructions.

C. Do not exceed edge pressures around perimeter of glass lites as stipulated by glass manufacturer.

D. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.

E. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.

F. Prevent glass from contact with any contaminating substances that may be the result of construction operations such as, and not limited to the following; weld splatter, fire-safing, plastering, mortar droppings, and paint.

3.04 INSTALLATION - DRY GLAZING METHOD (GASKET GLAZING)

A. Application - Exterior and/or Interior Glazed: Set glazing infills from either the exterior or the interior of the building.

B. Place setting blocks at 1/4 points with edge block no more than 6 inch from corners.

C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.

D. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.

3.05 CLEANING

A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.

B. Remove nonpermanent labels immediately after glazing installation is complete.

C. Clean glass and adjacent surfaces after sealants are fully cured.

D. Clean glass on both exposed surfaces not more than 4 days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations.

3.06 PROTECTION

A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.

B. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

END OF SECTION

SECTION 09 2116
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Performance criteria for gypsum board assemblies.

B. Metal stud wall framing.

C. Metal channel ceiling framing.

D. Acoustic insulation.

E. Tile backer board.

F. Gypsum wallboard.

G. Joint treatment and accessories.

1.02 RELATED REQUIREMENTS

A. Section 01 5000 - Construction Facilities and Temporary Controls: Temporary partition requirements

B. Section 06 1000 - Rough Carpentry: Wood blocking product and execution requirements.

C. Section 06 16 00 - Sheathing: Gypsum-based sheathing at exterior envelope.

D. Section 07 0553 - Fire and Smoke Assembly Identification: Identification markings for fire and smoke rated partitions, and fire rated walls.

E. Section 07 9200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.

1.03 REFERENCE STANDARDS

A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members.

B. AISI S201 - North American Standard for Cold-Formed Steel Framing - Product Data.

C. AISI S220 - North American Standard for Cold-Formed Steel Nonstructural Framing.

D. AISI S240 - North American Standard for Cold-Formed Steel Structural Framing.

E. ANSI A108.11 - American National Standard Specifications for Interior Installation of Cementitious Backer Units.

F. ANSI A118.9 - American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units.

G. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.

H. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

I. ASTM A1003/A1003M - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members.

J. ASTM C1007 - Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories.

K. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.

L. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members.

M. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.

N. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.

O. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board.

P. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness.

Q. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.

R. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base.

S. ASTM C1278/C1278M - Standard Specification for Fiber-Reinforced Gypsum Panel.

T. ASTM C1325 - Standard Specification for Fiber-Mat Reinforced Cementitious Backer Units.

U. ASTM C1396/C1396M - Standard Specification for Gypsum Board.

V. ASTM C1629/C1629M - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.

W. ASTM C1658/C1658M - Standard Specification for Glass Mat Gypsum Panels.

X. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.

Y. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

Z. ASTM E413 - Classification for Rating Sound Insulation.

AA. GA-216 - Application and Finishing of Gypsum Panel Products.

BB. UL (FRD) - Fire Resistance Directory.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate the installation of gypsum board assemblies with size, location, and installation of service utilities.

B. Sequencing: Install service utilities in an orderly and expeditious manner.

1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data:
   1. Provide data on metal framing, gypsum board, accessories, and joint finishing system.
   2. Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.

C. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.

D. Test Reports: For stud framing products that do not comply with AISI S220 or ASTM C754, provide independent laboratory reports showing maximum stud heights at required spacings and deflections.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Member of Steel Stud Manufacturers Association (SSMA): www.ssma.com/#sle.

B. Perform work in accordance with ASTM C840.

C. Comply with requirements of GA-600 for fire-rated assemblies.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Store gypsum products and accessories indoors and keep above freezing. Elevate boards above floor, on nonwicking supports, in accordance with manufacturer's recommendations.

B. Store metal products to prevent corrosion.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.
   1. See PART 3 for finishing requirements.

B. Interior Partitions Indicated as Sound-Rated: Provide completed assemblies with the following characteristics:
   1. Acoustic Attenuation: STC as indicated in Wall Types calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

C. Shaft Walls: Provide completed assemblies with the following characteristics:
   1. Air Pressure Within Shaft: Sustained loads of 5 lbf/sq ft with maximum mid-span deflection of L/240.
   2. Acoustic Attenuation: STC as indicated in Wall Types, calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

D. Fire-Resistance-Rated Assemblies: Provide completed assemblies with the following characteristics:
   1. Fire Rated Partitions: UL listed assembly No. as indicated in wall types.
   2. UL Assembly Numbers: Provide construction equivalent to that listed for the particular assembly in the current UL (FRD).

2.02 METAL FRAMING MATERIALS

A. Material and Product Requirements Criteria: AISI S201.

B. Steel Sheet: ASTM A1003/A1003M, subject to the ductility limitations indicated in AISI S220 or equivalent.
   1. Structural Grade: As required to meet design criteria.
   2. Corrosion Protection Coating Designation: G40, or equivalent in accordance with AISI S220.

C. Manufacturers - Metal Framing, Connectors, and Accessories:
   1. CEMCO: www.cemcosteel.com/#sle.
   2. Clarkwestern Dietrich Building Systems LLC: www.clarkdietrich.com.
   3. Custom Stud.
   4. Marino: www.marinoware.com.
   5. Phillips Manufacturing Co: www.phillipsmfg.com/#sle.
   6. SCAFCO Corporation: www.scafco.com/#sle.
   7. Substitutions: See Section 01 6000 - Product Requirements.

D. Non-structural Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf; L/360 at 5 psf for tiled walls.
   1. Contractor to confirm any gages or spacings indicated in wall types and modify as required to meet standards.
   2. Studs: C-shaped with knurled or embossed faces.
   3. Runners: U shaped, sized to match studs.
   4. Ceiling Channels: C-shaped.
   5. Furring Members: Hat-shaped sections, minimum depth of 7/8 inch.
      a. Provide 1-1/2 inch deep sections where indicated. See wall types.

E. Shaft Wall Studs and Accessories: AISI S220; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 and specified performance requirements.
   1. Products:
      a. Same manufacturer as other framing materials.
      b. Substitutions: See Section 01 6000 - Product Requirements.

F. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection and prevent rotation of studs while maintaining structural performance of partition.
   1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100.
   2. Material: ASTM A653/A653M steel sheet, SS Grade 50/340, with G60/Z180 hot-dipped galvanized coating.
   3. Provide components UL-listed for use in UL-listed fire-rated head of partition joint systems of fire rating and movement required.

G. Non-structural Framing Accessories:
   1. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
   2. Partial Height Wall Framing Support: Provides stud reinforcement and anchored connection to floor.
      a. Materials: ASTM A36/A36M formed sheet steel support member with factory-welded ASTM A1003/A1003M steel plate base.
      b. Products:
         1) ClarkDietrich; Pony Wall (PW): www.clarkdietrich.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.
   3. Framing Connectors: ASTM A653/A653M G90 galvanized steel clips; secures cold rolled channel to wall studs for lateral bracing.
      a. Products:
         1) ClarkDietrich; FastBridge Clip (FB33): www.clarkdietrich.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.
   4. Flexible Wood Backing: Fire-retardant-treated wood with sheet steel connectors.
      a. Option to blocking specified in 06 10000 - Rough Carpentry.
      b. Products:
         1) ClarkDietrich; Danback: www.clarkdietrich.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.
   5. Steel Column and Beam Drywall Clip: UL-listed slip-on clips to connect gypsum board to steel beams and columns for fireproofing.
      a. Products:
         1) Grabber Construction Products, Inc: www.grabberpro.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.
   6. Vertical Deflection Clips, Interior: Manufacturer's standard clips, capable of accomodating upward and downward vertical displacmenet of primary structure through positive mechanical attachment to stud web.
      a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
         1) ClarkDietrich.
         2) SCAFCO Steel Stud Company.
         3) Simpson Strong-Tie Co., Inc.
   7. Single Deflection Track: Manufacturer's single, deep-leg, U-shaped steel track; unpunched, with unstiffened flanges, of web depth to contain studs while allowing free vertical movement, with flanges designed to support horizontal loads and transfer them to the primary structure.
      a. Minimum Base-Metal Thickness: 0.0428 inch.

H. Grid Suspension Systems: Steel grid system of main tees and support bars connected to structure using hanging wire.
   1. Products:
      a. CertainTeed Corporation: www.certainteed.com/ceilings-and-walls/#sle.
      b. USG Corporation; Drywall Suspension System: www.usg.com/#sle.
      c. Substitutions: See Section 01 6000 - Product Requirements.

2.03 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:
   1. American Gypsum Company: www.americangypsum.com.
   2. CertainTeed Corporation: www.certainteed.com.
   3. Georgia-Pacific Gypsum: www.gpgypsum.com.
   4. National Gypsum Company: www.nationalgypsum.com.
   5. USG Corporation: www.usg.com.
   6. Substitutions: See Section 01 6000 - Product Requirements.

B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
   1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
   2. Glass mat faced gypsum panels, as defined in ASTM C1658/C1658M, suitable for paint finish, of the same core type and thickness may be substituted for paper-faced board.
   3. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
      a. Mold-resistant board is required whenever board is being installed before the building is enclosed and conditioned.
      b. Mold resistant board is required interior face of exterior walls.
   4. At Assemblies Indicated with Fire-Resistance Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
   5. Thickness:
      a. Vertical Surfaces: 5/8 inch.
      b. Ceilings: 5/8 inch.
      c. Multi-Layer Assemblies: Thicknesses as indicated on drawings.
   6. Paper-Faced Products:
      a. American Gypsum Company; LightRoc Gypsum Wallboard: www.americangypsum.com/#sle.
      b. American Gypsum Company; FireBloc Type X Gypsum Wallboard: www.americangypsum.com/#sle.
      c. American Gypsum Company; FireBloc Type C Gypsum Wallboard: www.americangypsum.com/#sle.
      d. CertainTeed Corporation; Type C Drywall: www.certainteed.com/#sle.
      e. CertainTeed Corporation; Type X Drywall: www.certainteed.com/#sle.
      f. Georgia-Pacific Gypsum; ToughRock: www.gpgypsum.com/#sle.
      g. Georgia-Pacific Gypsum; ToughRock Fireguard X: www.gpgypsum.com/#sle.
      h. Georgia-Pacific Gypsum; ToughRock Fireguard C: www.gpgypsum.com/#sle.
      i. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond Fire-Shield Gypsum Board: www.goldbondbuilding.com/#sle.
      j. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond Fire-Shield C 5/8" Gypsum Board: www.goldbondbuilding.com/#sle.
      k. USG Corporation; USG Sheetrock Brand EcoSmart Panels Firecode X: www.usg.com.
      l. USG Corporation; USG Sheetrock Brand Firecode X Panels: www.usg.com.
      m. USG Corporation; Sheetrock Brand UltraLight Panels Firecode ULIX 5/8 in. (15.9 mm): www.usg.com/#sle.
      n. Substitutions: See Section 01 6000 - Product Requirements.
   7. Mold-Resistant, Paper-Faced Products:
      a. American Gypsum Company; M-Bloc: www.americangypsum.com/#sle.
      b. American Gypsum Company; M-Bloc Type X: www.americangypsum.com/#sle.
      c. American Gypsum Company; M-Bloc Type C: www.americangypsum.com/#sle.
      d. CertainTeed Corporation; M2Tech 5/8" Type X Moisture & Mold Resistant Drywall: www.certainteed.com/#sle.
      e. Georgia-Pacific Gypsum; ToughRock Mold-Guard: www.gpgypsum.com/#sle.

f. Georgia-Pacific Gypsum; ToughRock Fireguard X Mold-Guard: www.gpgypsum.com/#sle.
g. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond XP Gypsum Board: www.goldbondbuilding.com/#sle.
h. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond XP Fire-Shield Gypsum Board: www.goldbondbuilding.com/#sle.
i. USG Corporation; USG Sheetrock Brand EcoSmart Panels Mold Tough Firecode X: www.usg.com.
j. USG Corporation; Sheetrock Brand Mold Tough Firecode SCX Panels 5/8 in. (15.9 mm): www.usg.com/#sle.
k. Substitutions: See Section 01 6000 - Product Requirements.

C. Impact Resistant Wallboard:
1. Application: ~~to 8-feet above finished floor, locations as indicated by wall types.~~ **As indicated on drawings.**
2. Surface Abrasion: Level 2, minimum, when tested in accordance with ASTM C1629/C1629M.
3. Indentation: Level 2, minimum, when tested in accordance with ASTM C1629/C1629M.
4. Soft Body Impact: Level 3, minimum, when tested in accordance with ASTM C1629/C1629M.
5. Hard Body Impact: Level 3, minimum, when tested in accordance with ASTM C1629/C1629M.
6. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
7. Unfaced Type: Interior fiber-reinforced gypsum panels, as defined in ASTM C1278/C1278M.
8. Type: Fire-resistance-rated Type X, UL or WH listed.
9. Thickness: 5/8 inch.
10. Edges: Tapered.
11. Paper-Faced Products:
a. American Gypsum Company; M-Bloc IR Type X: www.americangypsum.com/#sle.
b. CertainTeed Corporation; Extreme Impact Resistant Drywall with M2Tech: www.certainteed.com/#sle.
c. Georgia-Pacific Gypsum; DensArmor Plus Impact-Resistant.
d. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond XP Hi-Impact Gypsum Board: www.goldbondbuilding.com/#sle.
e. USG Corporation; Sheetrock Brand Mold Tough VHI Firecode X Panels 5/8 in. (15.9 mm): www.usg.com/#sle.
f. Substitutions: See Section 01 6000 - Product Requirements.

D. Tile Backer Board:
1. Application: Surfaces behind tile in wet areas including drinking fountain alcoves.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. ANSI Cement-Based Board: Non-gypsum-based; aggregated Portland cement panels with glass fiber mesh embedded in front and back surfaces complying with ANSI A118.9 or ASTM C1325.
a. Thickness: 5/8 inch.
b. Products:
1) National Gypsum Company; www.nationalgypsum.com.
2) USG Corporation; Fiberock Brand Aqua-Tough AR Interior Panels Regular 1/2 in. (12.7 mm): www.usg.com/#sle.
3) USG Corporation; Fiberock Brand Tile Backerboard FRX-G 5/8 in. (15.9 mm): www.usg.com/#sle.
4) Substitutions: See Section 01 6000 - Product Requirements.

E. Board For Non-Wet (Damp) Areas: Water-resistant gypsum backing board as defined in ASTM C1396/C1396M; sizes to minimum joints in place; ends square cut.

1. Application: toilets and janitorial areas, including their ceilings, and areas around sinks and equipment with a water supply. Locker room walls and ceilings**, and dish return or as indicated on drawings.**
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. Type: Regular.
4. Regular Board Thickness: 5/8 inch.
5. Edges: Tapered.
6. Products:
   a. American Gypsum Company; M-Bloc: www.americangypsum.com/#sle.
   b. American Gypsum Company; M-Bloc Type X: www.americangypsum.com/#sle.
   c. Georgia-Pacific Gypsum; ToughRock Mold-Guard Gypsum Board: www.gpgypsum.com/#sle.
   d. Georgia-Pacific Gypsum; DensArmor Plus: www.gpgypsum.com/#sle.
   e. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond XP Fire-Shield Gypsum Board: www.goldbondbuilding.com/#sle.
   f. Substitutions: See Section 01 6000 - Product Requirements.

F. Exterior Sheathing Board: See Section 06 1600.

G. Shaftwall and Coreboard: Type X; 1 inch thick by 24 inches wide, beveled long edges, ends square cut.
1. Paper-Faced Type: Gypsum shaftliner board or gypsum coreboard as defined ASTM C1396/C1396M; water-resistant faces.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. Paper-Faced Products:
   a. American Gypsum Company; M-Bloc Shaft Liner: www.americangypsum.com/#sle.
   b. CertainTeed Corporation; M2Tech Type X Shaftliner: www.certainteed.com/#sle.
   c. Georgia-Pacific Gypsum; ToughRock Shaftliner: www.gpgypsum.com/#sle.
   d. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond Shaftliner XP: www.goldbondbuilding.com/#sle.
   e. USG Corporation; Sheetrock Brand Gypsum Liner Panels 1 in. (25.4 mm) SLX: www.usg.com/#sle.
   f. USG Corporation; Sheetrock Brand Mold Tough Gypsum Liner Panels 1 in. (25.4 mm) SLX: www.usg.com/#sle.
   g. Substitutions: See Section 01 6000 - Product Requirements.
4. Framing: Gypsum Liner Panels attach to metal framing; CH studs. Refer to product data sheet for additional information.

2.04 GYPSUM BOARD ACCESSORIES

A. Acoustic Insulation: ASTM C665; preformed mineral-fiber, friction fit type, unfaced; thickness as required to fill stud cavity depth.

B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
1. Products: See Section 07 9200.

C. Finishing Accessories: ASTM C1047, galvanized steel, rolled zinc, or rigid plastic, unless noted otherwise.
1. Types: As detailed or required for finished appearance.
2. Special Shapes: In addition to conventional corner bead and control joints, provide U-bead at exposed panel edges.
3. Products:
   a. Same manufacturer as framing materials.

D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
1. Fiberglass Tape: 2 inch wide, coated glass fiber tape for joints and cornersat glass-faced gypsum or cement board.

2. Paper Tape: 2 inch wide, creased paper tape for joints and cornersat paper-faced gypsum.
3. Joint Compound: Drying type, vinyl-based, ready-mixed.
4. Joint Compound: Setting type, field-mixed.

E. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.
1. Products:
a. CertainTeed Corporation; Level V Wall and Ceiling Primer/Surfacer with M2Tech: www.certainteed.com/#sle.
b. USG Corporation; USG Sheetrock Brand Tuff-Hide Primer-Surfacer: www.usg.com/#sle.
c. Substitutions: See Section 01 6000 - Product Requirements.

F. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inches in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.

G. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch in Thickness: ASTM C954; steel drill screws, corrosion-resistant.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

B. Verify that rough-in utilities are in proper location.

3.02 SHAFT WALL INSTALLATION

A. Shaft Wall Framing: Install in accordance with manufacturer's installation instructions.
1. Install studs at spacing required to meet performance requirements.

B. Shaft Wall Liner: Cut panels to accurate dimensions and install sequentially between special friction studs.
1. On walls over sixteen feet high, screw-attach studs to runners top and bottom.
2. Seal perimeter of shaft wall and penetrations with acoustical sealant.

3.03 FRAMING INSTALLATION

A. Metal Framing: Install in accordance with ASTM C1007AISI S220 and manufacturer's instructions.

B. Suspended Ceilings and Soffits: Space framing and furring members as permitted by standard unless noted more restrictively on drawings.
1. Level ceiling system to a tolerance of 1/1200.
2. Laterally brace entire suspension system.

C. Studs: Space studs as permitted by standard.
1. Extend partition framing to structure where indicated and to ceiling in other locations.
2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.

D. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.

E. Standard Wall Furring: Install at concrete and masonry walls scheduled to receive gypsum board, not more than 4 inches from floor and ceiling lines and abutting walls. Secure in place on alternate channel flanges at maximum 24 inches on center.
1. Orientation: Vertical.

2. Spacing: As permitted by standard.

F. Blocking: Install wood blocking or mechanically fastened steel sheet blocking for support of:
1. Framed openings.
2. Countertop and shelf supports
3. Wall mounted cabinets.
4. Plumbing fixtures.
5. Toilet partitions.
6. Toilet accessories.
7. Wall-mounted door hardware.
8. Handrails
9. Corner guards
10. Wall hooks
11. Tack boards and marker boards.
12. Owner provided wall mounted equipment, whether owner-installed or contractor-installed.
13. Other locations as indiated in drawings.

3.04 ACOUSTIC WALL INSTALLATION

A. Minimize penetrations, such as, but not limited to, ductwork, piping, plenum grilles, etc., of walls recommended at 55 STC or greater.

B. Any wall recommended at STC 44 or higher must seal all penetrations through wall with non-hardening sealant. If the perimeter opening is greater than ½", the penetration must be filled with acoustic batt insulation prior to being sealed with non-hardening sealant.

C. Backboxes, receptacles, and other similar equipment must not share stud cavity space with adjacent room in walls recommended at STC 44 or greater, and shall be sealed with acoustic backer putty

D. The outer most layers of gypsum board must be sealed with a bead of non-hardening sealant to the soffits, ceiling structure, and to the floor structure.

E. If multiple layers of gypsum board are used, the installation must be staggered so that the seams do not line up between layers.

F. Installation must follow manufacturer's guidelines where acoustic products such as, but not limited to, resilient channels, dampening compound, mass loaded vinyl, resilient clips, resilient hangers, insulation, sealant, etc. are specified.

G. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
1. Do not compress insulation.

H. Acoustic Sealant: Install in accordance with manufacturer's instructions.
1. Place one bead continuously on substrate before installation of perimeter framing members.
2. Place continuous bead at perimeter of each layer of gypsum board.
3. Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes, except where firestopping is provided.

3.05 BOARD INSTALLATION

A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.

B. Single-Layer Nonrated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.

C. Fire-Resistance-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.

D. Cementitious Backing Board: Install over steel framing members where indicated, in accordance with ANSI A108.11 and manufacturer's instructions.

E. Installation on Metal Framing: Use screws for attachment of gypsum board.

3.06 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
   1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
   2. Use appropriate UL rated control joint construction at rated walls.

B. Corner Beads: Install at external corners, using longest practical lengths.

C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

3.07 JOINT TREATMENT

A. Glass Mat Faced Gypsum Board and Tile Backer Board: Use fiberglass joint tape, embed and finish with setting type joint compound.

B. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.

C. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 5: Substrates indicated to receive semi-gloss or gloss paint finish, continuous planes greater than 30' in any direction, and other areas specifically indicated.
      a. Include walls to receive wall coverings and custom-printed films.
      b. Include gypsum board ceilings.
   2. Level 4: Walls and ceilings to receive other paint finishes, unless otherwise indicated.
   3. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
   4. Level 1: Wall areas above finished ceilings, whether or not accessible in the completed construction.
   5. Level 0: Temporary partitions.

D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch.
   2. Taping, filling, and sanding are not required at base layer of double-layer applications.

E. Where Level 5 finish is indicated, spray-applied high build drywall surfacer will be allowed to be used over entire surface after joints have been properly treated; to achieve a flat and tool mark-free finish.

F. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.

3.08 FIRE WALL MARKING

A. See Section 07 0553 - Fire and Smoke Assembly Identification.

B. Refer to Code Analysis Plans and to Reflected Ceiling Plans for rated construction ratings and locations.

3.09 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

3.10 PROTECTION

A. Protect installed gypsum board assemblies from subsequent construction operations.

END OF SECTION

SECTION 10 1213
GLASS DISPLAY SHELVING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Glass display shelving.

B. Glass display case doors and shelving.

1.02 RELATED REQUIREMENTS

A. Section 06 1000 - Rough Carpentry: Blocking and supports.

1.03 REFERENCE STANDARDS

A. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).

B. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

C. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric).

D. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.

E. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Submit complete printed data and installation details indicating products to be provided as specified.

C. Shop Drawings: Submit complete installation details. Include dimensioned elevations.

D. Samples: Submit samples of material and trim to illustrate finish, color, and texture.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least three years of documented experience.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver materials to the Project site with manufacturer's protective crate covering and do not open until ready for use.

B. Protect materials before, during, and after installation. In case of damage, immediately provide necessary repairs and replacements.

1.07 FIELD CONDITIONS

A. Field Measurements: Verify field measurements for shelving before preparation of shop drawings and before fabrication to ensure proper installation.

1.08 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. Provide five year manufacturer warranty against defects and in materials, finish product and workmanship.

PART 2 PRODUCTS

2.01 DISPLAY SHELVING

A. Cable-Suspended Display Shelving: Factory-fabricated glass shelves and cable suspension.

1. Basis-of-Design Product: Nova Display; Cable Suspended Glass Shelving Kit KSI-012.

2. Components:

a. Glass Shelves: Tempered clear glass with polished edges.

1) Thickness: 3/8-inch-thick.

2) Size: 14 inches deep by 36 inches wide.

b. Support Cables: Manufacturer's standard cable and fittings to support shelving load.

c. Fittings: Provide top panel supports, bottom fixings, and shelf supports.

1) Finish: To be selected by Architect from manufacturer's standard range.

d. Location: As indicated on drawings.

B. Glass Display Case Doors and Shelving:

1. Glazed Sliding Doors:
   a. 3/16 inch clear tempered glass in aluminum frames.
   b. Door track: Extruded aluminum glass shoe with bottom rollers and top plastic guide.
   d. Lock: Ratchet lock.

2. Glass Shelves:
   a. 3/8 inch clear tempered glass with flat-polished edges.
   b. Shelf Depth: As indicated on drawings.
   c. Shelves per Unit: As indicated on drawings.

3. Shelf Standards and Brackets: Single-slotted channel standards for brackets adjustable in 1 inch increments along entire length of standard, drilled and countersunk for screws.
   a. Standards Mounting: Surface-mounted on back panel.
   b. Face Width: 5/8 inch.
   c. Material: 16 gauge, 0.0598 inch sheet steel.
   d. Lengths: required to support shelving indicated.
   e. Finish: To be selected by Architect from manufacturer's standard range.
   f. Brackets: Boltless with lip front; 16 gauge, 0.0598 inch sheet steel, reinforced, locking into slots; size to suit shelves; same finish as standards.

2.02 MATERIALS

A. Aluminum Extrusions for Framing and Trim: Alloy as recommended by manufacturer for construction and specified finish; nominal 1/8 inch wall thickness.

B. Aluminum Extrusions: ASTM B221 (ASTM B221M), 6063 alloy, T5 temper.
   1. Finish: Factory finished; AAMA 2603: Powder coat; color as selected by Architect.

D. Heat-Strengthened and Fully Tempered Glass: ASTM C1048, Kind FT.

PART 3 EXECUTION

3.01 PREPARATION

A. Rough openings and final finishing are by other trades.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

3.03 ADJUSTING AND CLEANING

A. Verify that all accessories are installed as detailed for each unit.

B. Remove and replace cracked, scuffed, or otherwise damaged shelves, cables, or fittings.

C. At completion of work, clean glass surfaces, back panels and trim in accordance with manufacturer's recommendations leaving units ready for use.

3.04 CLOSEOUT ACTIVITIES

A. See Section 01 7800 - Closeout Submittals, for closeout submittals.

END OF SECTION

SECTION 10 2800
TOILET AND MISCELLANEOUS ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Commercial toilet accessories, including but not limited to:
   1. Framed Mirrors (MIR)
   2. Grab Bars (GB)

B. Commercial shower and bath accessories, including but not limited to:
   1. Shower Rods
   2. Shower Curtains and Hooks
   3. Shower Seats

C. Miscellaneous accessories, including but not limited to:
   1. Single Coat/Robe Hooks
   2. Double Coat/Robe Hooks

D. Changing stations, including:
   1. Diaper changing station/table (CT).
   2. Adult changing station (ACS).

E. Utility room accessories, including:
   1. Mop and Broom Holders

F. ~~Installation of~~ Owner-provided items **(OFOI)**, including but not limited to:
   1. Toilet Paper Dispenser (TPD)
   2. Paper Towel Dispenser (PTD)
   3. Soap Dispenser (SD)
   4. Sanitary Napkin Disposal (SND)

1.02 RELATED REQUIREMENTS

A. Section 06 1000 - Rough Carpentry: Concealed supports for accessories, including blocking.

B. Section 08 8000 - Glazing: Sheet mirror glass for frameless wall application.

C. Section 09 2116 - Gypsum Board Assemblies; substrate

1.03 REFERENCE STANDARDS

A. ADA Standards - 2010 ADA Standards for Accessible Design.

B. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

C. ASTM A269/A269M - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.

D. ASTM A666/A666M - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.

E. ASTM B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.

F. ASTM C1036 - Standard Specification for Flat Glass.

G. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.

H. ASTM F2285 - Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the work with the placement of internal wall reinforcement, concealed ceiling supports, and reinforcement of toilet partitions to receive anchor attachments.

1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.

C. Maintenance Materials: Furnish the following for Owner's use in maintenance of project:
   1. See Section 01 6000 - Product Requirements, for quantities and additional provisions.

D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project:
   1. See Section 01 6000 - Product Requirements, for quantities and additional provisions.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Commercial Toilet, Shower, and Bath Accessories:
   1. AJW Architectural Products: www.ajw.com.
   2. ASI - American Specialties, Inc: www.americanspecialties.com.
   3. Bradley Corporation: www.bradleycorp.com.
   4. Bobrick Washroom Equipment, Inc.; www.bobrick.com
   5. Georgia-Pacific Professional: www.blue-connect.com.
   6. Kimberly-Clark Corporation: www.kcprofessional.com/#sle.
   7. Substitutions: Section 01 6000 - Product Requirements.

B. Provide products of each category type by single manufacturer.

C. See plans and elevations for quantities and locations.

2.02 MATERIALS

A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
   1. Grind welded joints smooth.
   2. Fabricate units made of metal sheet of seamless sheets with flat surfaces.

B. Keys: Provide four keys for each accessory to Owner; master key lockable accessories.

C. Stainless Steel Sheet: ASTM A666/A666M, Type 304.

D. Stainless Steel Tubing: ASTM A269/A269M, Grade TP304 or TP316.

E. Mirror Glass: Tempered safety glass, ASTM C1048; and ASTM C1036 Type I, Class 1, Quality Q2, with silvering as required.

F. Adhesive: Two component epoxy type, waterproof.

G. Fasteners, Screws, and Bolts: Hot dip galvanized; tamper-proof; security type.

H. Expansion Shields: Fiber, lead, or rubber as recommended by accessory manufacturer for component and substrate.

2.03 FINISHES

A. Stainless Steel: Satin finish, unless otherwise noted.

B. Chrome/Nickel Plating: ASTM B456, SC 2, polished finish, unless otherwise noted.

C. Baked Enamel: Pretreat to clean condition, apply one coat primer and minimum two coats epoxy baked enamel.

D. Galvanizing for Items Other than Sheet: Comply with ASTM A123/A123M; galvanize ferrous metal and fastening devices.

E. Back paint components where contact is made with building finishes to prevent electrolysis.

2.04 COMMERCIAL TOILET ACCESSORIES

A. Toilet Paper Dispenser: Owner-furnished, ~~Contractor-installed,~~ **Owner installed.**

B. Paper Towel Dispenser: Owner-furnished, ~~Contractor-installed,~~ **Owner installed.**

C. Soap Dispenser: Owner-furnished, ~~Contractor-installed,~~ **Owner installed.**

D. Mirrors: Stainless steel framed, 1/4 inch thick tempered safety glass; ASTM C1048.
   1. Size: As indicated on drawings.
   2. Frame: 0.05 inchchannel shapes, with mitered and welded and ground corners, and tamperproof hanging system; No.4 finish.
   3. Backing: Full-mirror sized, minimum 0.03 inch galvanized steel sheet and nonabsorptive filler material.

E. Grab Bars: Satin stainless steel, peened surface.
   1. Standard Duty Grab Bars:
      a. Push/Pull Point Load: 250 pound-force, minimum.
      b. Dimensions: 1-1/4 inch outside diameter, minimum 0.05 inch wall thickness, exposed flange mounting, 1-1/2 inch clearance between wall and inside of grab bar.
      c. Nonslip grasping surface finish and snap flange concealed fasteners.
      d. Length and Configuration: As indicated in elevations in Drawings.
      e. Products:
         1) Bobrick B-6806 Series.
         2) Substitutions: Section 01 6000 - Product Requirements.

F. Sanitary Napkin Disposal Unit: Owner-furnished, ~~Contractor-installed,~~ **Owner installed.**

2.05 COMMERCIAL SHOWER AND BATH ACCESSORIES

A. Shower Curtain Rod: Stainless steel tube, 1 inch outside diameter, 0.04 inch wall thickness, satin-finished, with 3 inch outside diameter, minimum 0.04 inch thick satin-finished stainless steel flanges, for concealed mounting.

B. Shower Curtain:
   1. Material: Opaque vinyl, 0.008 inch thick, matte finish, with antibacterial treatment, flameproof and stain-resistant.
   2. Size: 36 by 72 inches, hemmed edges.
   3. Grommets: Stainless steel; pierced through top hem on 6 inch centers.
   4. Color: to be selected by Architect from manufacturer's standard options.
   5. Shower Curtain Hooks: Stainless steel spring wire designed for snap closure.

C. Folding Shower Seat: Wall-mounted surface; welded tubular seat frame, structural support members, hinges and mechanical fasteners of Type 304 stainless steel, rectangular and L-shaped seat.
   1. Seat: Phenolic or polymeric composite one-piece seat with slats, of color as selected.
   2. Size: ADA Standards compliant.

D. Towel Pin: Stainless steel, 3 inch extension from wall; rectangular-shaped bracket and backplate for concealed attachment, satin finish.

E. Robe Hook: Heavy-duty stainless steel, single-prong, rectangular-shaped bracket and backplate for concealed attachment, satin finish.
   1. Products:
      a. Bobrick Classic Series - Surface-mounted Double Robe Hook; model B-6727.
      b. Substitutions: Section 01 6000 - Product Requirements.

2.06 CHANGING STATIONS

A. Diaper Changing Station: Wall-mounted folding diaper changing station for use in commercial toilet facilities, meeting or exceeding ASTM F2285.
   1. Style: Horizontal and Vertical, see plans for locations.
   2. Material: Stainless steel exterior, polyethylene interior.
   3. Mounting: Surface.
   4. Color: to be selected from manufacturer's standard options.
   5. Minimum Rated Load: 250 pounds.

6. Features: Pneumatic cylinder, concealed hinge, ADA cam-buckle on safety strap, bag hook, liner dispenser, 5-year warranty.
7. Products:
    a. American Specialties 9013-9.
    b. Bradley 962-11.
    c. Foundations 5410339.
    d. Koala Kare KB310-SSWM and KB311-SSWM.
    e. Substitutions: 01 6000 - Product Requirements.

B. Adult Changing Station: Wall-mounted adult changing station for use in commercial toilet facilities, height adjustable, with moveable safety rail.
1. Material: Polyethylene.
2. Mounting: Surface.
3. Frame: 2 inch powder coated steel tubing.
4. Color: to be selected from manufacturer's standard options.
5. Changing Surface: 75 ¼ inches long by 31 ½ inches wide.
6. Minimum Rated Load: 500 lb.
7. Closed Depth: 10 inches
8. Height Range: 12 to 41 inches.
9. Operation: Motorized.
    a. Unit shall have two sets of built-in electronic controls for height adjustment. One located on face of wall cover and one on the front of changing surface.
    b. Back-Up Battery: Unit shall have a built-in backup battery system that allows for continuous operation in the event of a power interruption.
    c. Emergency Stop: Unit shall include a wall-mounted emergency stop to break power to actuator.
10. Products:
    a. Foundations Worldwide, Inc: www.foundations.com/#sle.
    b. Koala Kare Products, a Division of Bobrick: Model KB3000-AHL; www.koalabear.com
    c. Substitutions: See Section 01 6000 - Product Requirements.

2.07 UTILITY ROOM ACCESSORIES

A. Combination Utility Shelf/Mop and Broom Holder: 0.05 inch thick stainless steel, Type 304, with 1/2 inch returned edges, 0.06 inch steel wall brackets.
1. Drying rod: Stainless steel, 1/4 inch diameter.
2. Hooks: 2, 0.06 inch stainless steel rag hooks at shelf front.
3. Mop/broom holders: Three spring-loaded rubber cam holders at shelf front.
4. Length: Manufacturer's standard length for number of holders/hooks.

2.08 MISCELLANEOUS ACCESSORIES

A. Single Hook: Type-304, 22-gauge stainless steel square hook on 16-gauge stainless steel square mounting bracket; concealed mounting, satin finish
1. Products:
    a. Bobrick: B-6717
    b. Substitutions: Section 01 60 00 - Product Requirements.

B. Double Hook: Heavy duty stainless steel; double-prong, vertical orientation with angular top hook and smaller angled lower hook; concealed mounting, satin finish.
1. Product:
    a. Bobrick: B-6827
    b. Substitutions: Section 01 60 00 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify exact location of accessories for installation.

C. Verify that field measurements are as indicated on drawings.

D. Verify installation of blocking, reinforcing plates, and concealed anchors in walls, and ceilings.

E. See Section 06 10 00 - Rough Carpentry for installation of blocking in walls and ceilings.

3.02 PREPARATION

A. Deliver inserts and rough-in frames to site for timely installation.

B. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.

B. Install plumb and level, securely and rigidly anchored to substrate.

C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.

1. Grab Bars:
    a. Mount top of grab bar 34 inches above finish floor, and as indicated on drawings.
    b. Where toilet paper dispenser mounting conflicts with a grab bar, mount above grab bar with bottom of dispenser 12 inches clear above grab bar, but no higher than 48 inches above finish floor.
    c. Where mounted below grab bar, dispenser should be at a minimum 1-1/2 inches below grab bar, 24 inches from rear wall and 18 inches minimum above finish floor.
2. Mirrors:
    a. When located above lavatories, sinks or counters, mount with the bottom edge of the reflecting surface 40 inches maximum above the floor.
    b. When not located above lavatories, sinks or counters, mount with the bottom edge of the reflecting surface 35 inches maximum above the floor.
3. Other Accessories: As indicated on drawings or as recommended by manufacturer to meet accessibility guidelines.

3.04 PROTECTION

A. Protect installed accessories from damage due to subsequent construction operations.

END OF SECTION

SECTION 10 7316.13
METAL CANOPIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Attached metal canopies.

1.02 RELATED REQUIREMENTS

A. Section 05 1200 - Structural Steel Framing: Coordination of support components.

1.03 REFERENCE STANDARDS

A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).

B. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

C. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.

D. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

E. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric).

F. ASTM F593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.

G. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi, 144 ksi, and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength.

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Submit product data sheets, including material descriptions and finishes, and preparation instructions and recommendations.

C. Shop Drawings: Prior to commencement of fabrication, submit detailed shop drawings, showing profiles, sections of components, finishes, and fastening details.

D. Design Data: Submit comprehensive structural analysis of design for the specified loads. Stamp and sign calculations by professional engineer.

E. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

A. Designer Qualifications: Perform design under direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.
   1. Comply with applicable code for submission of design calculations as required for acquiring permits.
   2. Cooperate with regulatory agency or authorities having jurisdiction (AHJ), and provide data as requested.

B. Manufacturer Qualifications: Company specializing in the manufacture of products similar to those required for this project.

C. Erector Qualifications: Company specializing in performing the work of this section and approved by canopy manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

A. See Section 01 7419 - Construction Waste Management and Disposal for packaging waste requirements.

B. Deliver materials to project site ready for erection.

C. Package using methods that prevent damage during shipping and storage on site.

D. Store materials under cover and elevated above grade.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Metal Canopies:
1. CityScapes Inc: www.cityscapesinc.com/#sle.
2. **BASIS OF DESIGN:** Mapes Industries; Super Lumideck Flat Soffit: https://mapes.com/#sle.
3. MASA Architectural Canopies; www.architecturalcanopies.com
4. Upside Innovations, a SixAxis company: www.upsideinnovations.com/#sle.
5. Vestis Manufacturing: www.vestismfg.com
6. Substitutions: See Section 01 6000 - Product Requirements.

2.02 METAL CANOPIES

A. Shop Fabricated Aluminum Canopy
1. Configuration: Layout and dimensions, canopy clearance, fascia profile, and support as indicated on drawings.
2. Installation: Cantilever-mounted to building structure with tension members.
3. Structural Framing System: Aluminum.
4. Covering Material: Aluminum.
5. Drainage Concept: Water collected in decking conducted into perimeter gutters and discharged through openings through the rear via downspout ~~fascia~~.

B. Performance Requirements:
1. Design and fabricate metal canopy system to resist wind, snow, and live loads without failure, damage, or permanent deflection in accordance with ASCE 7:
   a. Loads: As indicated on drawings.
2. Thermal Movement: Design canopy system to accommodate thermal movement caused by ambient temperature range of 120 degrees F and surface temperature range of 180 degrees F without buckling, failure of joint seals, undue stress on fasteners or other detrimental effects on assembly components.

2.03 COMPONENTS

A. Structural Aluminum Framing: Alloy and temper 6063-T5, 6063-T6, or 6061-T6.

B. Covering:
1. Aluminum Decking:
   a. Interlocking extruded aluminum decking modules.
      1) Extruded Decking: ASTM B221 (ASTM B221M), Alloy and temper 6005-T5, 6061-T6, or 6063-T6.
   b. Decking Orientation: As indicated on drawings.

C. Fascia: Manufacturer's standard flat profile.

2.04 SHOP FABRICATION

A. Provide a complete system ready for erection at project site.

B. Shop fabricate to the greatest extent possible; disassemble if necessary for shipping.

C. Fabricate connections for bolt, nut, and washer connectors.

2.05 FINISHES

A. Aluminum Framing, Fascia and Decking:
   1. Superior Performing Organic Coatings: AAMA 2605, multiple coats, thermally cured, polyvinylidene fluoride system.
   2. Color: As selected by Architect from manufacturer's full range including manufacturer's standard Kynar colors.

2.06 ACCESSORIES

A. Structural Bolts: ASTM F3125/F3125M, Grade A325, minimum 3/4 inch diameter.

B. Trim, Closure Pieces, and Flashings: Same material, thickness and finish as sheet metal decking; factory-fabricated to required profiles.
   1. Exposed Fasteners: Not permitted.

C. Fasteners, Non-Structural: ASTM F593 stainless steel.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates and site area for conditions that might prevent satisfactory installation.

B. Verify that anchors are in correct position.

C. Verify that bearing surfaces are ready to receive this work.

D. Do not proceed with installation until all conditions are satisfactory.

3.02 INSTALLATION - FRAMING

A. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation.

B. Do not field cut or alter structural members without approval.

3.03 INSTALLATION - CANOPY COVERING

A. Install in accordance with manufacturer's instructions.

B. Fasten metal decking to metal support members, aligned level and plumb.

C. Install fascia panels, trim, and flashing.

D. Separate dissimilar metals using concealed bituminous paint.

E. Touch-up damaged finish coating using material provided by manufacturer to match original coating.

3.04 TOLERANCES

A. Maximum Variation from Level: Plus/Minus 1/8 inch.

3.05 CLEANING

A. See Section 01 7000 - Execution and Closeout Requirements for additional requirements.

B. Clean surfaces of dust and debris; follow manufacturer's cleaning instructions for the finish used.

3.06 PROTECTION

A. Protect canopy after installation to prevent damage due to other work until Date of Substantial Completion.

END OF SECTION

SECTION 1140 00 - FOODSERVICE EQUIPMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

A. The Foodservice Equipment Contractor (FSEC) shall provide the labor, equipment, and materials specified in this Section in a timely manner consistent with the construction schedule. The FSEC shall procure, fabricate, store, deliver, unload, uncrate, assemble, set-in-place, level, and ready equipment for utility connections.

1. The work in this Section shall be under a separate sub-contract or a prime contract by a single qualified FSEC who shall report to the Prime Contractor and/or Owner's Representative and coordinate with other subcontractors for this project.
2. The FSEC shall submit written notification of any manufacturer or construction-related issues that are causing a delay in the equipment delivery and/or installation.
3. All specified equipment shall be installed according to the Manufacturer's written instructions, original design, and applicable codes. The FSEC shall remove all installation debris and protective coverings from all finished surfaces. Wash, clean and polish all equipment, glass, plastic, hardware, accessories, fixtures, and fittings prior to the inspection and acceptance of the work for this section. Remove all factory applied film and adhesive residue before start-up.
4. The FSEC shall provide a Project Manager as the primary point of contact to the Prime Contractor, Architect, and Owner's Representative for coordination and responding to questions pertaining to the foodservice equipment Scope of Work.
5. Tests, permits, and inspections required by the authorized having jurisdiction (AHJs) and directly related to the construction and installation of the specified foodservice equipment shall be secured and paid for by the FSEC unless otherwise specified in this Section.
6. The FSEC shall provide start-ups and demonstrations for all new Fabricated Equipment and serialized equipment specified in this Section.
7. The FSEC shall provide warranties for all new foodservice equipment specified in this Section.
8. The FSEC shall perform all operations in connection with the execution of the Work as represented in the plans and specifications including that which is reasonably inferred. The foodservice equipment bid drawings and specifications complement each other. Therefore, neither is complete without the other.
9. The FSEC shall request written clarification when the drawings and specifications contain conflicting requirements. The FSEC shall provide the better quality or greater quantity of work or material. Costs incurred by failure to clarify conflicting requirements are the responsibility of the FSEC.
    a. Where model numbers, quantities, sizes, or gauges of material differ on plans and specifications, it shall be understood that the FSEC shall figure the larger quantities, larger size, and/or heavier gauge unless advised otherwise in writing.
    b. Where an item, accessory, or option is required for a piece of equipment that is shown on the plans or elevations it shall be deemed to be provided by the FSEC even if it is not listed in the item specifications.
    c. Where all or part of an item, accessory, or option is referred to in the singular number, it is intended that such reference shall apply to as many such items, accessories, or options as necessary to complete the installation.

10. The Owner reserves the right to accept the manufacturer's replacement or equipment from a manufacturer specified as equal when equipment specified is no longer available. The Owner reserves the right to reject equipment when a specified manufacturer is sold, when sale is pending, when filing for Chapter 7 or 11 status, and receive equipment from a specified equal manufacturer.

B. Related Scopes of Work included in this Section:
1. The general conditions and all applicable supplementary conditions including drawings, specifications, addendums, instruction to bidders, Division 00, and Division 01 shall apply to the Foodservice Equipment Contractor in providing all items, equipment, submittals, materials, transportation, installation, operation is, along with methods listed, mentioned, referenced, or reasonably inferred to the work in this Section.
2. The FSEC shall coordinate and verify all items provided in this Section with all drawings, specifications, manufacturer's requirements, actual site conditions, building elements, and other equipment to ensure that there are no discrepancies or conflicts. This shall include but not limited to verification of quantities, dimensions, clearances, direction of operation, door swings, utilities, fabrication details, and required methods of installation for the Prime Contractor, Owner's Representative, and Subcontractors.
3. The FSEC shall coordinate mechanical and electrical rough-in services, manufactured equipment and fabricated equipment construction, ceiling heights, recessed floors, sleeves, wall openings, refrigeration lines, service access, existing building conditions that affect equipment, and all other building conditions required to accommodate the specified equipment including new, existing, Owner furnished and future equipment with other trades. Cut holes in equipment to accommodate pipes, drains, electrical conduit and outlets as required.
4. The FSEC shall coordinate temporary building openings required for equipment too large to be moved through the permanent building openings.
5. The FSEC shall coordinate existing/relocated, Owner furnished, and other Vendor furnished foodservice equipment as specified in this Section.
6. The FSEC shall provide necessary filler and trim panels and seal all vertical and horizontal edges of equipment adjacent to walls, ceilings and/or adjacent other equipment. All sealants shall be NSF and FDA approved for the application and shall not exceed a 3/8" bead width.
7. The foodservice equipment Bid Drawings shall not be used as construction documents or shop drawings. The foodservice equipment Bid Drawings and specifications complement each other. Therefore, neither is complete without the other. The bid drawings are for reference, assistance, and guidance only. The drawings indicated the preferred final location of equipment. The exact final location will be dictated by the building conditions.
8. The FSEC shall provide a licensed Refrigeration Contractor to install the specified remote refrigeration systems. Provide all refrigeration piping, valves, racks, insulation, pipe racking, refrigerants, and other required accessories (excluding curbs which shall be furnished by the Prime Contractor) to provide functional remote refrigeration system(s).
    a. The FSEC shall coordinate the sizes and locations of wall penetrations and sleeves with the Prime Contractor or Owner's Representative.
    b. FSEC shall coordinate the sizes and locations of the roof top compressor curbs, roof rails, and pitch pockets required for the roof top walk-in compressors specified in this Section with the Prime Contractor or Owner's Representative.

C. Related Scopes of Work Excluded from this Section:
1. Division 22 – Plumbing: Refer to Division 22 for applicable requirements regarding the materials, plumbing and mechanical services required to complete the foodservice equipment installation, including but not limited to:
    a. Provide all plumbing rough-ins per the Foodservice Equipment Plumbing Rough-in Plans, and notify FC Design, the Architect, and the Plumbing Engineer of any code issues you find.
    b. Provide the required devices specified in Division 22, such as pipes, fittings, valves, backflow prevention devices, p-traps, tailpieces, atmospheric vents, air-gap assemblies, shock-arrestors, floor drains, floor sinks, and clean-outs required for the installation of the foodservice equipment, unless otherwise specified in this Section.
    c. Provide softened hot and/or cold water meeting the operational requirements of the specified warewashing machine(s).
    d. Install the FSEC furnished plumbing fixtures including faucets, disposers, overhead sprayers, hose reels, lever/modular waste drains, floor troughs, water filter systems, and quick disconnects.

e. Extend the utilities from rough-in locations to final connection points on the equipment and interconnections between equipment and remote components. Provide required fittings, such as tee fittings, as needed. Purge all water supply lines prior to any foodservice equipment connections.
f. Extend indirect waste piping from the specified foodservice equipment to an appropriate indirect waste fixture as shown on the Foodservice Equipment Plumbing Rough-in plans.
g. Division 22 to provide all grease trap(s)/interceptor(s), including permits and fee(s) required for the foodservice equipment installation, unless otherwise specified in this Section.
h. Disconnect the utilities of the existing foodservice equipment that is relocated or removed.
i. Verify the utility requirements of all Owner and Other Vendor furnished foodservice equipment with the Architect and/or Owner's Representative.

2. Division 23 – Mechanical: Refer to Division 23 for the requirements regarding materials and ventilation services to complete the foodservice installation including but not limited to:
   a. FSEC provides the kitchen ventilation hood(s), including condensate hood(s), required for the foodservice equipment installation. Provide and install all stainless-steel wall panels and components located below the hoods as required per code.
   b. FSEC provides the kitchen exhaust hood fire protect system(s), including testing and certification, required for the foodservice equipment installation.
   ~~b.~~c. Division 23 shall install the exhaust hood and enclosure panels provided by the FSEC.
   ~~c.~~d. Division 23 provide the exhaust fan(s) required for the foodservice equipment installation.
   ~~d.~~e. Division 23 provide the supply fan(s) required for the foodservice equipment installation.
   ~~e.~~f. Provide the ventilation system controls, including VFDs if required.
   ~~f.~~g. Provide the start-up, testing, balancing, and certification of the systems required for the foodservice equipment installation.
   ~~g.~~h. Provide all ductwork connecting the kitchen exhaust hood(s), including the condensate hood(s), to the corresponding exhaust and supply fans. Include duct insulation as required per code.
   ~~h.~~i. Disconnect the utilities of the existing foodservice equipment that is relocated or removed.
   ~~i.~~j. Verify the utility requirements of all Owner and Other Vendor furnished foodservice equipment with the Architect and/or Owner's Representative.
3. Division 26 – Electrical: Refer to Division 26 for the requirements regarding materials and electrical services to complete the foodservice installation including but not limited to:
   a. Provide all electrical rough-ins per the Foodservice Equipment Electrical Rough-in Plans, and notify FC Design, the Architect, and the Plumbing Engineer of any code issues you find.
   b. Provide electrical service panels, conduits, rough-ins, wiring, disconnect switches, outlets, switches, remote controls required for the foodservice equipment installation.
   c. Provide interconnections and final connections for the specified foodservice equipment to the Building Management System (BMS), data systems, and alarm systems required to complete the installation of the remote refrigeration systems.
   d. Provide wiring, electrical relays and/or shunt-trip breakers to be interconnected with the fire suppression system(s) to shut-off all electrical power to the cooking equipment and electrical outlets located below the kitchen exhaust hood(s).
   e. Extend utilities from rough-in locations to final connection points on the equipment and interconnections to remote components, such as FSEC furnished control panels, and required devices specified in Division 26, such as electrical disconnects, unless otherwise specified in this Section.
   f. Disconnect the utilities of the existing foodservice equipment that is relocated or removed.
   g. Verify the utility requirements of all Owner and Other Vendor furnished foodservice equipment with the Architect and/or Owner's Representative.

4. Refer to the general construction documents, for applicable provisions regarding building works to complete the foodservice installation, including but not limited to:
   a. The coordination and installation of foodservice equipment adjacent walls, floors and roof openings, sleeves, penetrations, and openings. Walk-in cooler/ freezer sub-floors, insulated floors and/or depressed slabs, waring slabs. Provide floor leveling grout and filler grout as required for the installation of the walk-in cooler/freezer.
   b. Provide roof curbs, roof rails, and pitch pockets for the FSEC furnished remote refrigeration system compressors specified in this Section.
   c. All cast-in-place concrete floors, exterior concrete footings and pads, insulated roof curbs and/or railings related to foodservice equipment, roof-top equipment stands, supports and pitch pockets. All finished walls, floors, and ceilings along with the installation of base curb framing, in filling and concrete capping of floor base curbs, risers, piping and soda line chases and building fire separation, enclosures, and wrapping piping. The Prime Contractor shall seal all openings in accordance with all federal, state, and local fire protection building and construction codes.

1.02 DEFINITIONS

A. FSEC: Foodservice Equipment Contractor. The company, organization and person(s) specifically contracted, and responsible for the Section 11 4000 Scope of Work. References to other Contractors and Divisions will be specific.

B. Furnish: Limited to the coordination, shipping, and delivery. Includes the materials/equipment itself.

C. Install: Remove packaging, assemble, set-in-place, level, and make the equipment ready for utility connections. Final connections shall be provided by the corresponding utility contractors [Reference 1.01 Subpart C]. Reset, anchor and/or seal items and accessories to adjacent surfaces, adjust, calibrate, and test, after all the final utility connections and interconnections have been made.

D. Provide: Furnish and install complete, adjusted, and ready for intended use. A combination of Furnish and Install.

E. Equal: Comparable in size and critical dimensions, capacity, features, options & Accessories, finishes, operation and require similar utility services. If equal items are submitted the FSEC shall pay all costs required to modify the work of any trade affected.

F. Buy-Out Equipment: Provide equipment offered as a standard catalog item, that which has a specific model number. The Manufacturer's catalog specification sheet or shop drawing shall identify all standard features, options, accessories, finishes and/or slight changes or modifications available. Shop or detail drawings shall be provided as requested.

G. Fabricated Equipment: Provide equipment that is not a standard catalog item and must be built to the size and shape as required for this project. All fabricated equipment shall be constructed by a single authorized fabricator who shall provide detailed shop drawings and as-built drawings.

H. Exposed: All visible surfaces or edges including those behind closed doors or access panels when opened, including when looking up from below.

1.03 REGULATORY REQUIREMENTS

A. All items, work and materials for this section shall comply with the latest US Public Health Services, the National Board of Fire Underwriters, all federal, state, local laws, and ordinances. This includes but not limited to building codes, regulations, rules, and interpretations of the authorities having jurisdiction (AHJ).

1. The equipment and installation must meet these minimum standards for this project.

[ADA]	Americans with Disabilities Act (Equipment & Installation)
[ARI]	Air Conditioning and Refrigeration Institute (Remote Refrigeration)
[ANSI]	American National Standards Institute (Equipment & Installation)
[ASHRAE]	American Society of Heating, Refrigeration and Air Conditioning Engineers, Inc. (Equipment & Installation)
[ASME]	American Society of Mechanical Engineers (Boilers & Installation)

[ASTM] American Society for Testing and Materials (Metals, Glass, Sprayers)

[AWS] American Welding Society (Structural welding code)

[ICBO] International Conference of Building Officials

[NEC] National Electrical Code (Wiring & devices included with Food Equipment)

[NSF] National Sanitation Foundation (Equipment & Installation)

[NEMA] National Electrical Manufactures Association (Equipment & Installation)

[NFPA] National Fire Protection Association (Equipment, Installation & Fire Systems)

[OSHA] Occupational Safety and Health Agency (Equipment & Installation)

[SMACNA] Sheet Metal & Air conditioning Contractor's National Association

[UL] Underwriters Laboratories (Electrical Products, Components Assemblies)

[EISA] The Energy Independence and Security Act of 2007 (Walk-Ins, Refrigeration Systems)

[RSES] Refrigeration Services Engineers Society (Remote refrigeration systems, components, & installation)

2. Safe Drinking Water Act: Lead-free plumbing fittings, faucets and fixtures or more stringent state/local codes where applicable.
3. Laws, Codes and Regulations: Contact State and local authorities that have jurisdiction to verify any special laws, codes, regulations or permits that may be required for this project. The FSEC shall submit to local health sanitarians, engineers, building inspectors that have jurisdiction, drawings and or specifications for clarification upon request.

[UBC] Uniform Building Code (Equipment & Installation)

[BOCA] Basic Building Code (Equipment & Installation)

[SBCC] Standard Building Code (Equipment & Installation)

[IBC] International Building Code (Equipment & Installation)

4. All equipment provided for this project shall have an NSF label.
5. All electrically operated, manufactured, or fabricated equipment shall meet the current National Electrical Code standards. The equipment shall be U.L. listed and tested to agency standards or be acceptable to authorities have jurisdiction.
6. Where the drawings and specifications require a larger size or higher standard than is required by regulations, the drawings or specifications shall govern.

1.04 ALTERNATES AND SUBSTITUTIONS

A. Procedure: Submit written requests at least ten (10) days prior to the bid date and time, to the project Architect. Manufacturer or fabricator changes are not acceptable after submittal review and acceptance without written authorization from FC Design and the Owner's Representative. Each request shall include the following information:

1. Item number, description, and statement of how the proposed substitution is a betterment to the project.
2. Manufacturer's product data (specification sheets) for the specified item and the proposed substitution with annotations highlighting the performance features not meeting and/or exceeding the specification for each item. Remove information that is not being supplied or required.
3. Manufacturer's shop drawings for Fabricated Equipment that do not have standard product data (specification sheets) with annotations highlighting the performance features not meeting and/or exceeding the specification for each item.

B. Approval: The project Architect, Construction Manager, or General Contractor shall submit the request to FC Design for review. FC Design will review the proposed substitution with the Owner's Representative. The decision of FC Design and the Owner's Representative to approve or reject each request is final and binding. Determination may or may not state the reason for the decision. If approved, the project Architect will issue an addendum stating the approved alternate(s) to prime bidders of record. Verbal approval is not binding.

C. Responsibility: If a proposed alternate or substitution is accepted, the FSEC shall pay all costs required to modify the work of any trade affected to accommodate the substitution.

D. Substitutions for failure to order equipment in a timely manner are not acceptable.

E. Substitutions that to don't comply with the requirements of the bid documents are not acceptable.

1.05 SUBMITTALS

A. Procedure: Provide each of the following submittals in PDF format to the Architect and/or Owner's Representative for review and comment. The FSEC shall stamp and sign each submittal document indicating it has been reviewed by them and checked for conformance to the specifications, field dimensions, compatibility with other equipment and coordination with other trades and services prior to submittal.

1. Bid Summary: The FSEC shall provide a Bid Summary within 10 days of the contract award. The Bid Summary shall include foodservice equipment prices per item, freight, delivery to the job site, installation, and sales and use tax.

2. Schedule: The FSEC shall provide a schedule of key dates and tasks that must be completed by others to meet the equipment installation schedule within 30 days of contract award.

3. Procurement Progress: The FSEC shall provide a monthly letter to the Prime Contractor summarizing procurement progress, items stored, items delivered, items installed.

4. Product Data: The FSEC shall provide product data within 45 days of receiving a signed contract that include the following. Include a table of contents showing item number, description, and page number. Include product data (specification sheets) for every item of foodservice equipment included in this section including all new, existing, relocated, and future equipment. Annotate only relevant requirements and remove all information that is not applicable or relevant. Include a cover sheet for each item with item number and description, manufacturer, model number, quantity, optional features, special construction, installation, and utility requirements. Copies of the project specifications are not acceptable.

5. Notice of Field Verification: The FSEC shall provide a letter to the Architect and/or Owner's Representative stating that "the foodservice equipment rough-ins and special condition drawings have been field verified and fully comply with the equipment that is being provided within the contract."

6. Shop Drawings: The FSEC shall provide shop drawings at 3/4" = 1'-0" scale or larger for every Fabricated Equipment item including the following. Submit each of the following separately.

    a. Cold Storage Rooms: Show dimensions, materials, manufacturer, type of hardware, floor configuration details, weight capacities, and other pertinent data as specified and as required for construction. Indicate partial plans and elevations to illustrate the cold storage rooms and adjacent building elements. Cold storage room dimensions are subject to adjustments required by field verified dimensions. The FSEC shall measure and coordinate with finished building conditions.

    b. Kitchen Ventilation Systems: Show dimensions, materials, manufacturer, hardware, and other pertinent data as specified and as required for construction. Indicate partial plans and elevations to illustrate the kitchen ventilation systems and adjacent building elements. Include wiring diagrams, details, and installation instructions. Include fire protection details and installation instructions.

c. Stainless Steel Fabrication: Show dimensions, materials, stainless steel grade and gauge, manufacturer, hardware, and other pertinent data as specified and as required for construction. Indicate partial plans and elevations to illustrate the junction condition where fabricated equipment adjoins other equipment. Show cutout locations, field welds and joints, reinforcement, edge profiles, and installation details and methods. Fabricated Equipment dimensions are subject to adjustments required by field verified dimensions and understructure components. Field measure and coordinate with finished building conditions. Field verification shall be completed by a company approved by the approved custom fabricator.

d. Other Custom Fabrication: (Such as Serving Lines and Breath Guards.) Show dimensions, materials, colors, finishes, manufacturer, hardware, and other pertinent data as specified and as required for construction. Indicate partial plans and elevations to illustrate the custom fabricated equipment, adjacent equipment, and building elements. Show cutouts, countertop seams, field joints, field welds, reinforcement, edge profiles, and installation details and methods. Custom Fabricated Equipment dimensions are subject to adjustments required by field verified dimensions and understructure components. Field measure and coordinate with finished building conditions. Field verification shall be completed by a company approved by the manufacturer(s) of the custom fabricated equipment.

7. Coordination Drawings: The FSEC shall provide coordination drawings using the Architect's dimensioned plans and matching the sheet size of the bid documents within 45 days of receiving a signed contract. Show all foodservice equipment that is specified in Section 11 4000 including owner furnished, existing, and future equipment. Leave room for review stamps, FSEC title block, and information. It is not acceptable to copy the bid documents as this submittal. Include the following sheets:

   a. Foodservice equipment floor plan(s) at 1/4” = 1’-0” scale with equipment tags. Match the numbering of the bid documents and include equipment schedule(s) on the same sheet as corresponding the equipment plan(s).

   b. Foodservice equipment elevations at 1/2” = 1’-0” scale with equipment tags matching the numbering of the bid documents.

   c. Foodservice equipment plumbing rough-in plan(s) at 1/4” = 1’-0” scale showing exact rough-in locations with a utility symbol legend and a schedule of the utility requirements showing the equipment item number and heights. Make allowances for valves, fittings and other required components specified in Divisions 22 and 23. If utilities are already installed, field measure locations and indicate on plan, noting any objection to installed location. Dimension utility rough-ins installed in- floor from existing walls, exterior walls, or column line centers. Dimension other rough-ins from new walls.

   d. Foodservice equipment electrical rough-in plan(s) at 1/4” = 1’-0” scale showing exact rough-in locations with a utility symbol legend and a schedule of the utility requirements showing the equipment item number and heights. Make allowances for other required components specified in Division 26 and 27. If utilities are already installed, field measure locations and indicate on plan, noting any objection to installed location. Dimension utility rough-ins installed in- floor from existing walls, exterior walls, or column line centers. Dimension other rough-ins from new walls.

   e. Foodservice equipment special conditions plan(s) at 1/4” = 1’-0” scale showing the foodservice equipment layout with the finished locations of wall backing, recessed floors, curbs, special wall heights, wall openings, and equipment bases. Include a symbol legend. Dimension from new or existing walls, exterior walls, or column line centers.

B. Approval: Submittals not complying with the above outline shall be rejected and must be resubmitted until correct.

C. Coordination: The FSEC is directly responsible for the accuracy of information on their Submittals. If a change on one submittal causes a change to another, the affected submittal(s) must be revised and resubmitted as well.

1.06 CLOSEOUT DOCUMENTS

A. Operation and Maintenance Manuals

1. The FSEC shall provide: Two sets of manuals for foodservice equipment items, including (two sets of fabricated equipment as-built shop drawings. These manuals shall be ordered alphabetically by the manufacturer, separated by tabs, and include a cover sheet for each item. The cover sheet shall include the item number, description, manufacturer, model, serial number, and utility information.

    a. Provide current installation and operation manuals and parts manuals for all new foodservice equipment specified in this Section. Include the Manufacturer's name, address, and phone number. Include the local authorized service agent's (ASA) name, address, and phone number. List the FSEC if no local ASA is available. These manuals shall be delivered before the beneficial date of occupancy.

    b. Video record all training, operation, maintenance, instructions and provide digital and physical copies to the Architect and/or Owner's Representative.

B. As-Built Documents: The FSEC shall maintain one record set of as built drawings and product data with all related changes, corrections, revisions, additions, deletions as noted during the construction or installation phase. Provide these documents at the same time as the O&M data manuals.

C. Warranty Documents: [Ref: Section 11 4000, Part 3, Subpart 3.07]

1.07 SITE CONDITIONS

A. The FSEC shall field verify all on site surfaces, prepared openings, finished building dimensions and utility rough-ins to ensure that the site is ready for the equipment installation. This shall include but not limited to the verification and coordination of work by others including lighting fixtures, HVAC equipment, grease traps, building sprinkler systems, electrical services, and plumbing services.

B. The FSEC shall ensure Fabricated Equipment conforms to site dimensions and conditions and inform the Prime Contractor of any potential problems with the Fabricated Equipment, the work schedule, and delivery. Where field measurements cannot be made without delaying the work, the FSEC shall document and coordinate critical dimensions with the Prime Contractor to proceed with procurement.

C. The FSEC is responsible for changes to the equipment and/or cutting and patching of walls, partitions, ceilings, and floors necessary to receive and operate the equipment caused by failure to coordinate with the site conditions.

PART 2 PRODUCTS

2.01 FABRICATOR QUALIFICATIONS

A. Qualifications

1. Foodservice equipment fabricators must have a minimum of five years of experience in fabricating foodservice equipment like that indicated for this project and with a record of successful performance.
2. All custom fabricated equipment, excluding trim and corner guards, shall be provided by the same fabricator unless otherwise specified.
3. The custom fabricator shall field measure and verify as needed prior to fabrication.
4. The custom fabricator shall have factory-direct post-installation warranty support.
5. The fabricator shall employ a currently licensed master electrician if the items they are providing include pre-wired electrical components.

B. Approved custom stainless steel fabricators: The following companies have been approved for this project. Substitutions may be requested per the procedure specified in Part 1 of this Section.

LSV Metals Inc.
Attn: Jason Johnson
8424 Sunset Rd,
Spring Lake Park, MN 55432
(612) 868-2252

Two Rivers Enterprises
Attn: Bob Struzyk
490 River St. W, PO Box 70
Holdingford, MN 56340
(320) 746-3156

2.02 MATERIALS

A. Metals

1. Stainless Steel and Galvanized Steel Gauges Shall conform to the following thicknesses and tolerance. All gauges shall be within ±5% of the indicated thickness.

Gauge	Thickness
10	0.1406”
12	0.1094”
14	0.0781”

Gauge	Thickness
16	0.0625”
18	0.0500”
20	0.0375”

2. Standard Gauges of Fabricated Equipment elements:
   - 10 Gauge Gusset plates.
   - 12 Gauge Hat and "U" channel under bracing, hardware reinforcement.
   - 14 Gauge Worktable tops, counter tops, dish table tops, drainboards, sinks, sink inserts, sink drainboards, and brackets.
   - 16 Gauge Cabinet bases, mullions, elevated wall shelves, elevated wall cabinets, lower and intermediate shelves, legs, cross bracing, door fronts, drawer fronts, and panel skirts.
   - 18 Gauge Door enclosures, drawer enclosures, access panels, removable covers, enclosure trim panels for walk-in cold storage rooms and kitchen ventilation systems, and trim strips, exhaust hoods, wall panels, and drawer pan inserts.
3. Stainless Steel
   a. All stainless steel used in the fabrication of Fabricated Equipment shall be first-grade austenitic chromium-nickel alloys. Provide AISI Type 304 stainless steel unless otherwise specified. Ferritic and martensitic alloys are not acceptable unless otherwise specified or without approval from FC Design.
   b. AISI Grade Specifications

AISI Grade	Cr	Ni	Mo	C	Remarks
Type 304	18.0-20.0%	8.0-10.5%	-	<0.07%	Standard
Type 304L	18.0-20.0%	8.0-12.0%	-	<0.03%	Low-C 304
Type 316	16.0-18.0%	10.0-14.0%	2.0-3.0%	<0.08%	Superior corrosion resistance
Type 316L	16.0-18.0%	10.0-14.0%	2.0-3.0%	<0.03%	Low-C 316
Type 317L	18.0-20.0%	11.0-15.0%	3.0-4.0%	<0.04%	Superior corrosion resistance
Type 321	17.0-19.0%	9.0-12.0%	-	<0.08%	Ti stabilized

   c. Grind and polish surfaces producing a uniform, directional textured finish, free of cross scratches, tool, die marks and stretch lines. Polish exposed surfaces to a #4 (brushed) finish with the grain running parallel to the longer dimension for each piece. Remove any embedded foreign matter and leave surfaces chemically clean. Clean and deburr all edges and corners.
   d. Exposed surfaces shall be protected from damage using a temporary strippable or peel-off covering.
   e. ANSI Type 304, #4 mechanical finish, 180 grit, seamless or welded annealed, ground smooth, polished, heat treated and quenched to eliminate precipitation, drawn true, and polished with concentric grain.
4. Galvanized Steel: Provide Armco (or equivalent) hot-dipped, tight-coat galvanized iron. Use the largest sheets possible with as few joints as necessary. Smooth welded or damaged surface areas and cover with two coats of gray hammer-tone epoxy spray paint.
5. Gussets: Provide enclosed type with a minimum 3” top diameter. Continuously weld gussets to the underside of table top framework sink bottoms and drainboards.

B. Hardware

1. Fasteners: Bolts, screws, and nuts shall be stainless steel or the same material of the surface applied, spaced for best fastening. All exposed fastener threads shall be capped, including those located inside cabinets, with stainless steel lock washers and stainless steel cap nuts. Rivets are not an acceptable method of attachment.

2. Hinges shall be Component Hardware Model M75-5003 capable of 180°-270° opening unless otherwise approved. Use doweled cup and hinge screws for MDF installations. Provide Component Hardware Model M30-2400 magnetic and self-aligning catches when required for the hinge.
3. Drawer pulls shall be Component Hardware Model P46-1010 with brushed stainless finish unless otherwise specified.
4. Locks shall be Component Hardware P30 Series with stainless steel finish unless otherwise specified. Provide a master key that will open the locks of all foodservice equipment in each specified area.

C. Sound Deadening: All sound deadening on Fabricated Equipment shall be spray-on mastic unless otherwise specified.

2. The exposed underside of stainless steel work surfaces and sink bottoms shall have a smooth finish and coating shall be held 1" back from open edges. No coating may extend past the front sink cove corners.

3. Where sound deadening pads are specified, provide Schnee-Morehead or equal tape type sealant between all tops and under bracing and frame members.

D. Sealants: At minimum shall meet FDA's regulation #21 CFR 177.2600 and NSF C2 in foodservice area and/or ASTM C920 Type S, Grade NS in non-foodservice areas. Limit colors to aluminum, clear or white.

E. Glass: Provide a minimum 3/8" tempered, unless otherwise noted or specified.

F. Plastic Laminate: Comply with NEMA LD 3 and NSF 35 requirements. Laminates shall be NSF certified for end-use applications indicated.
1. Laminates shall be 0.050 inch thick for horizontal and vertical surfaces and 0.042 inch thick for post-formed surfaces, smooth texture, and easily cleanable unless otherwise specified.
2. Colors shall be as specified in this Section OR selected by Architect or Owner's Representative via RFI. Provide samples if requested.
3. Finishes shall be manufacturer standard options unless otherwise specified. Ensure that all instances of directionally specific laminate on the project have the same orientation.
    a) Finish-A: Postforming Laminate Product: Wilsonart Type 350 with 0.028-inch nominal thickness and shall conform with the requirements of ISO 4586 for Grade HGP. Provide Wilsonart, High Pressure Laminate (HPL), Jubilee Oak 8242-38 Fine Velvet unless otherwise specified.
    b) Finish-B: General Purpose Laminate Product: Wilsonart Type 335 with 0.028-inch nominal thickness and shall conform with the requirements of ISO 4586 for Grade HGP. Provide Wilsonart, High Pressure Laminate (HPL), Jubilee Oak 8242-38 Fine Velvet unless otherwise specified.
4. Approved Manufacturers: Formica, Nevamar, and Wilsonart. Though one finish is specified, equal finishes may be submitted with samples for consideration in accordance with the requirements listed in Part 1.

G. Adhesives
1. Joint adhesives shall fully comply with the requirements and recommendations of the manufacturer of the adjacent materials. Use Akemi North America epoxy-type joint adhesive unless otherwise directed by the adjacent material manufacturer. The joint sealant shall be tinted to match quartz surfacing. Silicone joint seaming is not acceptable for adjoining solid surface and quartz composite materials.
2. Substructure Mounting Adhesive shall fully comply with the requirements and recommendations of the manufacturer(s) of the adjacent materials. Use flexible silicone, epoxy, or polyester adhesive unless otherwise directed by the adjacent material manufacturer(s).

H. Supports and backing shall be as detailed and fully comply with the Manufacturer's recommendations.

2.03 FABRICATED EQUIPMENT QUALITY STANDARDS

A. Remove burrs from sheared edges of metalwork, ease the corners, and smooth to eliminate a cutting hazard. Bend sheets of metal at not less than the minimum radius required to avoid grain separation in the metal. Maintain flat, smooth surfaces, without damage to the finish.

B. Reinforce metal at locations of hardware, anchorages, and accessory attachments wherever metal is less than 14 gauge or requires mortised application. Conceal reinforcements to the greatest extent possible. Neatly finish the reverse side. Depressions at these points are not acceptable.

C. Where components of Fabricated Equipment shall be galvanized and involve welding or Machining of metal heavier than 16 gauge, complete the fabrication and provide hot-dip galvanizing of each component to the greatest extent possible. Comply with ASTM A123 Standard Specification for zinc (hot-dip galvanized) coatings on iron and steel products.

PART 3 EXECUTION

3.01 STORAGE AND DELIVERY

A. All equipment shall be stored in a bonded or insured company warehouse. The storage space shall be dry, well-ventilated with the equipment placed on blocking at least 6” above the floor. All precautions shall be taken to prevent any corrosion or damage to the stored equipment. The storage location shall be open for inspection at any time prior to equipment installation.

B. The equipment shall be delivered to the project site in factory assembled units with protective crating and coverings free from manufactures defects or damage due to shipping, delivery, unloading or handling. Damaged items found prior to acceptance shall be rejected and must be immediately removed and replaced without additional costs or delays.

3.02 PRELIMINARY INSPECTION

A. The FSEC shall field verify the dimensions and conditions of all spaces where foodservice equipment installed in the scope of work is located. Conform to the finished building conditions and submit written notification to the Architect and Owner’s Representative if building conditions prevent equipment from functioning properly.

B. The FSEC shall coordinate the equipment dimensions with the building openings and construct equipment in sections sized to the limitations of the openings.

C. The FSEC shall field verify that the voltages, air volumes, water temperature, water pressure, and steam pressure meet the equipment requirements and coordinate changes to ensure proper operation.

D. The FSEC shall notify the Prime Contractor, Architect, and Owner’s Representative of any deficient conditions. It is not acceptable to cover deficient work. By commencing the installation of equipment, the FSEC excepts the site conditions. The FSEC is responsible of all expense(s) of changes to equipment and/or building element modifications necessary to receive and operate the equipment caused by the FSEC’s failure to coordinate with site conditions and or notify the Prime Contractor, Architect, and Owner’s Representative of deficient conditions.

3.03 INSTALLATION

A. Foodservice Equipment Installer Qualifications:
   1. The foodservice equipment Installer shall have at least five years of experience installing foodservice equipment on consultant specified projects of similar size and complexity.
   2. If field welds are required, the foodservice equipment Installer shall provide a currently certified NSF welder who is an employee of the Installer to perform all foodservice equipment field welding and polishing.
   3. Provide references for two projects of similar size and complexity completed within the past five years to the Owner’s satisfaction if requested.

B. The FSEC shall coordinate the installation schedule with the Prime Contractor and Owner’s Representative and shall comply with the requirements of the construction schedule including correcting deficient work. Submit written notification of any manufacturer or construction-related issues that are causing a delay in the equipment delivery and/or installation. The FSEC shall not delay the project completion.

C. The installation shall fully comply with the requirements of all applicable current national, state, and local codes.

D. Install trim to enclose the equipment to the adjacent building elements that cannot be sealed with silicone as specified and as required by code, whichever is greater. All trim material shall match the adjacent equipment surface. Exposed fasteners are not acceptable. unacceptable as a substitute for accuracy and neatness.

E. The FSEC shall use all reasonable means to protect the equipment, fixtures, and materials before, during and after the installation and prior to the final acceptance of the project. The foodservice equipment shall not be used for tool or material storage, work benches, scaffolding, stepladders, work platforms or stacking areas, by either the FSEC or other trades. The FSEC shall replace or repair items that are lost or damaged prior to Owner acceptance.

3.04 EXISTING EQUIPMENT

A. Existing equipment that is being removed or relocated shall be disconnected from connected utilities by licensed contractors as stated in Part 1 of this Section.

1. The FSEC shall disassemble (if required), remove, and store until ready for installation all equipment that is to be relocated. Once the site conditions are ready for installation, the FSEC deliver and locate the equipment per plan and ready it for interconnections and final connections. It is expected that the equipment will be in the same working order as when it was removed from service.
2. The FSEC shall submit an inventory identifying each piece of equipment removed, including all attachments and accessories, that states the working order of the equipment when removed from service to the Owner's Representative and FC Design for review.
3. The Owner's Representative has the option to retain existing equipment. An authorized demolition contractor (not included in the FSEC scope of work) shall obtain written authorization from Owner's Representative to remove equipment from site. This contractor will remove and dispose of equipment that is not being relocated.

3.05 CLEANING

A. The FSEC shall remove masking and protective coverings from stainless steel and other finished surfaces.

B. Clean and polish equipment including glass, plastic, hardware, accessories, fixtures, and fittings prior to the inspection and acceptance of the Work.

C. Existing equipment shall be installed in the same state as when it was removed from service.

3.06 START-UP AND DEMONSTRATION

A. Start-up
1. All electrical and plumbing connections to the equipment shall be completed prior to beginning start-up. This includes ensuring that the utility connections have been fully tested, purged, sanitized, and adjusted. The FSEC shall obtain written confirmation for each trade that this is complete.
2. The FSEC shall provide factory-authorized representatives to perform the equipment start-up and test the full range of operation for all new foodservice equipment provided. The representatives shall make all necessary adjustments for the equipment installation and calibration.
   a. Start and run all refrigeration equipment for a minimum of 48-hours and verify that it operates as intended and holds the design temperatures within the Manufacture’s operating tolerance and without excess noise or vibration. New equipment not holding temperature shall be immediately repaired or replaced.
   b. Coordinate dishmachine testing with Detergent Vendor.
   c. Properly activate water filtration systems for the foodservice equipment per Manufacturer's recommendations.
   d. Calibrate controls, operating temperatures, pressure regulators, motor rotations, and safety switches.
3. The FSEC shall provide a letter of completion to the Architect and Owner’s Representative stating that all equipment provided and/or installed by the FSEC has been completely inspected, adjusted, calibrated by the FSEC or an authorized service agent after the FSEC has completed all final equipment testing and training demonstrations to the owner’s satisfaction.

B. Demonstration and Training
1. The FSEC shall organize, schedule, and coordinate equipment operating and maintenance training demonstration(s) with the Owner’s Representative. After coordinating availability with the Owner’s Representative and Manufacturer’s Representatives, the FSEC shall submit a training schedule to the Owner’s Representative.
2. Provide copies of all instructional, operational, maintenance manuals, charts and audio and video media at least two weeks prior to demonstration.
3. Authorized Manufacturer’s Representatives and/or service technicians shall review data manuals and provide hands-on operational, cleaning, and maintenance instructions to the Owner’s Personnel and the appropriate inspectors for each piece of serialized equipment and Fabricated Equipment.
4. The FSEC shall host the training demonstrations on site and provide a written record of the attendees and a list of unresolved questions raised from the training session to the Architect.
5. Submit a combined chart summarizing the demonstrations that includes the item number, equipment description/category, date of training, person and firm responsible for the training, and attending Owner’s Representative’s initials.

3.07 WARRANTY

A. General Foodservice Equipment Warranty: The following warranty shall not deprive the Owner of other rights they are entitled to under other provisions of the contract documents. The following warranty shall be in addition to and run concurrently with warranties under other provisions of the contract documents.
   1. The FSEC shall provide a one-year parts and labor warranty for all new foodservice equipment specified in this section beginning on the beneficial date of occupancy.
   2. The FSEC shall provide a minimum of a five-year replacement compressor warranty on all refrigeration equipment that covers the total cost of the compressor replacement. The FSEC shall provide a one-year service contract that covers repairs without charge for materials, labor, and travel on all new refrigeration systems specified in this Section. If a malfunction occurs outside of the one-year service contract period, the owner shall be responsible for labor costs unless the malfunction is caused by improper installation. The FSEC shall be responsible for all repair costs caused by improper installation.
   3. The FSEC shall respond to the Owner's request for service on refrigeration systems within 4 hours or less to reduce the loss of food product. The FSEC shall respond to the Owner's request for service on equipment without refrigeration systems within 24 hours of request.

B. The FSEC shall obtain a letter of substantial completion from the Prime Contractor stating the beneficial date of occupancy. All warranties shall start on the beneficial date of occupancy.

C. The FSEC shall provide completed copies of all warranty documents with the Closeout Documents.

3.08 ITEM SPECIFICATIONS

A. The following item specifications are based on the model numbers available at the time of preparing the construction documents. The FSEC shall notify FC Design if these models are not available at the time of bid in accordance with the requirements listed in Part 1 of this Section.

B. The FSEC shall provide the following specified foodservice equipment items or approved alternates in accordance with the requirements listed in Part 1 of this Section.

C. Consolidate equipment manufacturers to provide a single point of contact to the Owner.
   1. All walk-in cold storage room refrigeration systems shall be manufactured by a single company.
   2. All reach-in/roll-in/thru refrigeration & hot holding equipment shall be manufactured by a single company.
   3. All stainless steel Fabricated Equipment shall be manufactured by a single company.
   4. All plumbing fixtures shall be manufactured by a single company.
   5. All water filtration systems shall be manufactured by a single company.
   6. All ice machines shall be manufactured by a single company.

ITEM 1 - WALK IN COMBINATION COOLER FREEZER, BOX ONLY (1 REQ'D)
ThermalRite Combination Walk-In Cooler/Freezer

Walk-in combination cooler (+35°F)/freezer (-10°F), outdoor, with 4" recessed floor, modular panel, high-density foam rail construction, sized per plan. (Reference: QF801)
Insulation: Non-HCFC urethane foam, class-1, tongue-and-groove high-density foam rails with cam-locks, UL-listed, NSF-listed.
Wall panels: 4" thick. White 24 ga. Sanisteel with 6mm anti-microbial coating interior finish, embossed 24 ga., type-304 stainless steel with 1/8" aluminum tread brite wainscoting from T.O. cove base to 36" AFF exposed exterior finish, and embossed 26 ga. acrylume concealed exterior finish. Architect to select from manufacturers full range of Exterior colors.
Recess Exterior Panel Gaskets (0.25")
Ceiling panels: 5" thick. Sanisteel with 6mm anti-microbial coating interior finish, embossed 24 ga., type-304 stainless steel exposed exterior finish, and embossed 26 ga. acrylume concealed exterior finish.
Floor panels: 4-1/8" thick reinforced floor designed for 175 lb point load and 5,000 PSF uniform load. 0.050 smooth aluminum interior finish and embossed 26 ga. acrylume concealed exterior finish. Thermoplastic Flooring - Dark Gray.
Light(s): (6) LED, 48"L, 5,400 lumens, CRI>82, non-diming, vapor-tight, with full-length shatterproof polycarbonate lens and one-piece white polycarbonate body, class-2 fixture, IP65.
Enclosure/trim: Provide trim and enclosure panels to cover all gaps between the exterior of the insulated panels and the adjacent building walls and ceilings. Provide removable panels were noted per plans and elevations.
Membrane roof: Duro-Last PVC roofing membrane with Duro-Last Dura Blue separation slip sheet with 6" overlap at joints, roofing board, tapered foam blocks to provide continuous roof slope. Overhang the top edge of the wall panels by 2” on all exposed sides and extend at least 8” up on adjacent building walls.
Sealant: Silicone, match panel finish. Fully seal all panel joints and penetrations.
Warranty: 1-year parts and labor warranty on modular panels and accessories that covers defects in workmanship - NOT refrigeration or install.
DOOR D01 - Finished opening 48" x 78" hinged flush freezer door, 5" sill with 5/8” allowance for tile and grout.
- 1 ea. Heated Jamb (4 Sided) W/ Threshold
- ~~1 ea. Heat In Bottom of Door~~
- 1 ea. Threshold, Floored Flat Recessed Unheated
- 1 ea. Vent - 115V Hi-Flow Heated Pressure Relief Port 5" (Kason 1832)
- 1 ea. Gasket- Magnetic
- 1 ea. Kick plate: 35.125" 1281 - interior and exterior of door
- 1 ea. Kick plate: 36" 1281 - interior and exterior of jamb
- 1 ea. Latch - Kason 27C 1/4 Turn Chrome Deadbolt
- 1 ea. Door Closer - Kason 1094 Sureclose Hydraulic (Concealed Mounting)
- 3 ea. Kason 1346 Hinge
- 1 ea. 1967-2 Digital Thermometer W/ Switch

DOOR D02 - Finished opening 48" x 78" hinged flush cooler door, 5" sill with 5/8” allowance for tile and grout.
- 1 ea. Heated Jamb (4 Sided) W/ Threshold
- 1 ea. Heat In Bottom Of Door
- 1 ea. Threshold, Floored Flat Recessed Unheated
- 1 ea. Gasket- Magnetic
- 1 ea. Kick plate: 35.125" 1281 - interior and exterior of door
- 1 ea. Kick plate: 36" 1281 - interior and exterior of jamb
- 1 ea. Latch - Kason 27C 1/4 Turn Chrome Deadbolt
- 1 ea. Door Closer - Kason 1094 Sureclose Hydraulic (Concealed Mounting)
- 3 ea. Kason 1346 Hinge
- 1 ea. 1967-2 Digital Thermometer W/ Switch

ACCESSORIES –
- 12 ea. SEISMIC ANGLE - SANISTEEL WHITE - 24 GA. ANTI-MICROBIAL (6MM) (1.5 X 1.5 X 96)
- 1 ea. Model INTERNAL BEAM 179"W12x26 Internal Beam, Prime Painted - Gray - FOB Factory
- 1 ea. Model INTERNAL BEAM 187"W12x26 Internal Beam, Prime Painted - Gray - FOB Factory
- 9 ea. Model BEAM CLIPS Beam clips for interior beams - FOB Factory
- 1 ea. Model CLEAR VU BI-PARTING Clear Vu Bi-Parting .08 PVC Medium Temp swing door for 48" x 78" door: SS4878 - FOB Factory
- 1 ea. Model CLEAR VU BI-PARTING Clear Vu Bi-Parting .08 PVC Low Temp swing door for 48" x 78" door: SS4878-LT - FOB Factory
- 1 ea. Model SMARTRITE OPTIONAL

ITEM 2 - COOLER COILS (1 REQ'D)
ThermalRite Model LEL0155AY6AMAG0212

Heatcraft DOE LEL0155AY6AMAG0212 Air defrost Low Profile with Dual Speed EC Motor - A2L - intelliGen Enabled (R454A) coil. 115/1/60, Fan amps 2.7, Defrost amps N/A

ITEM 3 - COOLER CONDENSER (1 REQ'D)
ThermalRite Model LCH0020MCACYA0000

Heatcraft DOE LCH0020MCACYA0000 Med Temp Air Cooled Scroll Condensing Unit with microchannel condenser, Liquid Line Filter/Drier and Sight Glass. Refrigeration system is designed to maintain 35°F at 95°F ambient temperature around box and 95°F outdoor ambient temperature assuming products enter at 35°F with moderate traffic. 208-230/3/60, RLA 9.6, MOPD 20, MCA 15, 2hp. BTUH: 18530 Room Temp: 35°F Ambient: 95°F

1 ea. Model WARRANTY Compressor-motor warranty extended to 5-years, 1-year labor warranty
1 ea . Model REFRIGERATION SERVICE 1 Year Refrigeration Service Agreement - FOB Factory
1 ea . Model SAFTEY SHUT-OF VALVE A2L Safety Shut-off Valve (Part #29338401) - FOB Factory
1 ea . Model SAFTEY CHECK VALVE A2L Safety Check Valve (Part #29308803) - FOB Factory
1 ea . Model INTERGRATION CARD Integration Card - FOB Factory
1 ea . Model WEB CARD Web Card - FOB Factory

ITEM 4 - FREEZER COILS (1 REQ'D)
ThermalRite Model LEL0155BY6EMAG0212

Heatcraft DOE LEL0155BY6EMAG0212 Electric defrost Low Profile with Dual Speed EC Motor - A2L - intelliGen Enabled (R454A) coil. 208-230/1/60, Fan amps 1.5, Defrost amps 13.7

ITEM 5 - FREEZER CONDENSER (1 REQ'D)
ThermalRite Model LCH0055LCACYA0000

Heatcraft DOE LCH0055LCACYA0000 Condensing Unit for Holding Freezer - Refrigeration system is designed to maintain -10°F at 95°F ambient temperature around box and 95°F outdoor ambient temperature assuming products enter at -10°F with moderate traffic. Low Temp Air Cooled Scroll Condensing Unit with microchannel condenser, Liquid Line Filter/Drier and Sight Glass. 208-230/3/60, RLA 17, MOPD 50, MCA 37.5, 5.5hp BTUH: 17320 Room Temp: -10°F Ambient: 95°F

1 ea. Model WARRANTY Compressor-motor warranty extended to 5-years, 1-year labor warranty
1 ea. Model REFRIGERATION SERVICE 1 Year Refrigeration Service Agreement - FOB Factory
1 ea. Model SAFTEY SHUT-OF VALVE A2L Safety Shut-off Valve (Part #29338401) - FOB Factory
1 ea. Model SAFTEY CHECK VALVE A2L Safety Check Valve (Part #29308804) - FOB Factory
1 ea. Model INTERGRATION CARD Integration Card - FOB Factory
1 ea. Model WEB CARD Web Card - FOB Factory

ITEM 6 - SPARE NO.

ITEM 7 - 36" X 21" DUNNAGE RACK (4 REQ'D)
Cambro Model DRS360480

S-Series Dunnage Rack, slotted top, 1500 lb. load capacity, 21"D x 36"W x 12"H, polypropylene, one-piece, seamless double wall construction, includes (1) Camlink, 4" square legs, speckled gray, NSF, Made in USA

ITEM 8 - 48" X 21" DUNNAGE RACK (8 REQ'D)
Cambro Model DRS480480

S-Series Dunnage Rack, slotted top, 3000 lb. load capacity, 21"D x 48"W x 12"H, polypropylene, one-piece, seamless double wall construction, includes (1) Camlink, 4" square legs, speckled gray, NSF, Made in USA

ITEM 9 - SPARE NO.

ITEM 10 - 48" X 90" X 48" X 84"H U-SHAPED 5-TIER SHELVING UNIT (3 REQ'D)
Cambro Model SHELVING UNIT

6 ea. Model EXU244884VS5480 Starter Unit, 24"W x 48"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

3 kt. Model CBSK2442VS5580 Shelf Kit, 24"W x 42"L, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: vented and solid shelf plates for 5 shelves with antimicrobial protection, (10) traverses & (5) bags of 8 dovetails (4 each A & B), brushed graphite, NSF listed components, Made in USA

ITEM 11 - 54" X 24" X 84"H 5-TIER SHELVING UNIT (6 REQ'D)
Cambro Model EXU245484VS5480

Stationary Starter Unit, 24"W x 54"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

ITEM 12 - SPARE NO.

ITEM 13 - 48" X 24" X 84"H 5-TIER SHELVING UNIT (6 REQ'D)
Cambro Model EXU244884VS5480

Stationary Starter Unit, 24"W x 48"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

ITEM 14 - 36" X 24" X 84"H 5-TIER SHELVING UNIT (2 REQ'D)
Cambro Model EXU243684VS5480

Stationary Starter Unit, 24"W x 36"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

ITEM 15 - 48" X 18" X 84"H 5-TIER SHELVING UNIT (2 REQ'D)
Cambro Model EXU184884VS5480

Stationary Starter Unit, 18"W x 48"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), speckled gray, 800 lbs. capacity per shelf /2,400 lbs. max capacity, Made in USA, NSF

ITEM 16 - SPARE NO.

ITEM 17 - 36" X 24" X 72" CAN RACK SHELVING UNIT (3 REQ'D)
Cambro Model CPU243672C96480

Premium Ultimate #10 Can Rack Stationary Unit, 24"W x 36"L x 72"H (26"W with can rack overhang), includes: (2) assembled post kits (posts constructed of steel with polypropylene exterior), (9) traverses & molded-in dovetails, (15) can rack panels, (72) can rack brackets, 800 lbs. capacity per shelf /2,000 lbs. max capacity, speckled gray (assembly required)

ITEM 18 - 72" X 48" X 84"H L-SHAPED 5-TIER SHELVING UNIT (1 REQ'D)
Cambro Model SHELVING UNIT

1 ea. Model EXU244884VS5480 Stationary Starter Unit, 24"W x 48"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

1 ea. Model EXA244884VS5480 Stationary Add-On Unit, 24"W x 48"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (2) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), speckled gray, 800 lbs. capacity per shelf /2,400 lbs. max capacity, Made in USA, NSF

ITEM 19 - 68" X 54" X 84"H L-SHAPED 5-TIER SHELVING UNIT (2 REQ'D)
Cambro Model SHELVING UNIT

2 ea. Model EXU245484VS5480 Stationary Starter Unit, 24"W x 54"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

2 ea. Model EXA244284VS5480 Stationary Add-On Unit, 24"W x 42"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (2) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), speckled gray, 800 lbs. capacity per shelf /2,400 lbs. max capacity, Made in USA, NSF

ITEM 20 - STAINLESS STEEL CORNER GUARD (~~68~~ 68 REQ'D)
Approved Fabricator – CORNER GUARD

14 ga. Stainless Steel 90 Degree Corner Guard 36" in height

ITEM 21 - 48" X 24" X 84"H 5-TIER SHELVING UNIT (5 REQ'D)
Cambro Model EXU244884VS5480

Stationary Starter Unit, 24"W x 48"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

ITEM 22 - 42" X 24" X 84"H 5-TIER SHELVING UNIT (2 REQ'D)
Cambro Model EXU244284VS5480

Stationary Starter Unit, 24"W x 42"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

ITEM 23 - 36" X 24" X 84"H 5-TIER SHELVING UNIT (1 REQ'D)
Cambro Model EXU244284VS5480

Stationary Starter Unit, 24"W x 36"L x 84"H, 5-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented and (1) solid reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts with leveling feet installed, pre-assembled post connectors & wedges, (10) Universal Traverses &(5) bags of 4 dovetails (10 left, 10 right), 800 lbs. capacity per shelf /2,400 lbs. max capacity, speckled gray, Made in USA, NSF

ITEM 24 - 102” EXHAUST HOOD (1 REQ'D)
Accurex Model XXEW-204.00-S

Exhaust Hood, 102” L x 60" W x 24" H, with Supply Plenum, (2) 51" L x 18" W x 4", Section 1: 1,700 CFM Exhaust and 1,700 CFM Supply, Section 2: 1,900 CRM Exhaust and 1,700 CFM Supply, 430 SS Material where exposed, Included Performance Enhancing Lip (P.E.L.) for up to 31% Lower Exhaust Rates, and Sloped Grease Trough with Enclosed Grease Cups per NFPA 96 Requirements. UL 710 Listed w/ out Exhaust Fire Damper. Previsions for zero clearance to combustibles on top. Factory Mounted 3" Back Zero Clearance Airspace. Utility / Fire Cabinet Mounted on Right. Continuous Capture for Multi-Section Hoods. Exhaust Air Balancing Baffle
Accessories:

1 ea. X-Tractor (Spark Arrestor Incl.) - Stainless Steel
4 ea. Round LED Light Fixtures
2 ea. Factory Mounted Exhaust Collar: 12" W x 12" L
4 ea. Factory Mounted Supply Collars: 16" W x 30" L
1 ea. Air Curtain Supply (ASP) Front with Dampers
1 ea. Stainless Steel Backsplash Panel 80" High 216" Long
1 ea. 18 in. High Ceiling Enclosures on - Left Front Right

ITEM 25 - EXHAUST FAN (1 BY DIV. 23)
Division 23 – Mechanical

ITEM 26 - MAKE-UP AIR UNIT (1 BY DIV. 23)
Division 23 – Mechanical

ITEM 27 - HOOD CONTOL (1 REQ'D)
Accurex Model XKC-DCV-S-11-2-1-0

Constant Volume Controls for kitchen ventilation system, (1) Exhaust Fan (Provided by Mechanical), (1) Supply Fan (Provided by Mechanical), Mounting Location: Utility Cabinet on Right of Hood. Touchscreen Mounting: Ship Loose, Div. 26 to install in cabinet. UL/ULC Listed, 304 Stainless Steel Enclosure, Capture tank mounted temperature sensors. Full Color Touchscreen Control Interface. Exhaust Max During Fire, Power for Shunt Trip. The FSEC shall coordinate configuration with fans provided by Div. 23. Temperature Interlock (Automatically starts fans when cooking occurs in compliance with IMC). (1) Temperature Sensor Installed. Lights Off During Fire. Hood Light Control.

50 ft. Model TOUCHSCREEN CABLE Touchscreen Cable

ITEM 28 - FIRE SUPRESSION SYSTEM (1 REQ'D)
Accurex Model FSSC - 15 - 2

Hood Fire Suppression System. Pre-Pipe with Parts and Factory Coordinated Installation. Detection Type: Mechanical, Coverage: Appliance Specific, Mounting Location: Utility cabinet on hood, System Size: 6 Gallon, Flow Points: Maximum of 22 and 15 are utilized. Metal Blow Off Caps included.

1 ea. OEM Regulated Release Assembly
2 ea. 3 Gallon Tank Assembly
1 ea. Manual Pull Stations
1 ea. Hood Microswitch
1 ea. Alarm Initiating Switch
1 ea. FEILD HOOK-UP Labor Information: Hook-up of detection line and supply line is included. Surface mounting of the manual pull station in a pre-determined location is included. Charging and arming of the system is included. Permit included. Hood Puff Test Fee Included. Include all necessary travel and provide union labor IF REQUIRED BY THE DIV. 00 or DIV. 01 Specifications.

ITEM 29 - MICROWAVE OVEN (1 REQ'D)
ACP Model HDC12A2

Commercial Microwave Oven, countertop, stackable, 0.6 cu. ft. capacity, 1200 watts, heavy volume, (2) magnetrons, 4-stage cooking, multiple portion setting, (11) power levels, (100) memory settings, smart USB connectivity, ACP Programming compatible, multi-language operation, 60-minute max cooking time, touchpad controls with LED display, interlock safety switch, audible end of cycle signal, side hinged door with tempered glass, Grab & Go door handle, sealed ceramic interior shelf, lighted interior, stainless steel exterior & interior, 2kW, 120v/60/1-ph, 20.0 amps, cord, NEMA 5-20, cETLus, ETL-Sanitation

1 ea. 3 year full warranty, standard

ITEM 30 - TILTING SKILLET BRAISING PAN, ELECTRIC (1 REQ'D)
RATIONAL Model IVARIOPRO XL 440/480V 3PH (LMX100DE)

iVario Pro XL Multifunctional Cooking Center, (1) 40 gallon pan, integrated heating energy management system, 85° to 480°F temperature range, heating zones up to (4) individually controlled heating zones, integrated recipe intelligent cooking system, 6-point sensor core temperature probe, AutoLift (baskets and arm required for use), portioned water dispenser, retractable hand shower, Ethernet interface, WiFi enabled, includes stand with plastic feet, 440/480v/60Hz/3-ph, 44.0 kw, CE, ETL, NSF, IPX51 ea. 2 years parts and labor warranty, standard

1 ea. Model CAP Chef Assistance Program, a RATIONAL certified Chef conducts 4 hours/location specialized application training with personnel, no charge. **THE FSEC SHALL PROVIDE A VIDEO OF THIS TRAINING ON SITE WITH THE CLOSEOUT DOCUMENTS.**
1 ea. Model 9999.2221 RCI RATIONAL Certified Installation. Provide documentation with closeout documents.
2 ea. Model 9999.1009 include all necessary travel.
1 ea. Model 8730.1565US Installation Kit, includes parts for: water connection, electric hardwiring, & copper drain line, for iVario size XL (440/480v)
1 kt. Model 60.71.267 Caster Kit, (4) casters 5", 2 lockable for size L and XL. (not height adjustable)
1 ea. Model 87.00.732US Safety-Set, Equipment placement system for all casters-mounted equipment, allows precise, consistent equipment placement for drain lines to floor sinks and under the fire suppression in ventilation systems, satisfies NFPA codes 17A (5.6.4) and 96 (12.1.2.3), includes tow (2) pieces and installation pack.
1 ea. Model 60.74.696 Storage Cabinet for Base, open front, (2) compartments, for storing GN accessories, for iVario XL models
1 ea. Model 60.70.107 Mobile Cart, for transporting 20" x 25" or 12" x 20" hotel pans, height adjustable, for size L and XL
1 ea. Model 60.73.920 Cleaning Kit, includes: 2.65 gal. grill cleaner, (1) cleaning arm, (2) rough pads, (2) soft pads, & (1) cleaning scrub
3 ea. Model 60.74.983 Boiling Basket, for use with AutoLift, for size L and XL
1 st. Model 87.00.744 Accessory Package, includes: (1) spatula, (1) AutoLift arm, (3) boiling baskets, (1) strainer, (3) pan base rack, & (1) cleaning scrub, for size XL

ITEM 31X – 12" 2-BURNER RANGE, ELECTRIC (1 RELOCATED)
Vulcan Model EV12-2FP208

Expando Range, electric, 12", (2) 2.0 kW 9-1/2" French plates, round, infinite controls, enclosed base, stainless steel front, sides, 10" riser, 6" legs, 208v, NSF, cULus. 208v/50-60/3-ph, 4kW, 17.3 amps, direct wire, standard

ITEM 32X – DOUBLE STACKED CONVECTION OVEN, ELECTRIC (1 RELOCATED)
Vulcan Model VC5ED

Double Stacked Convection Oven, electric, single-deck, standard depth, solid state controls, 5-hour timer with digital display enhancement, 150° to 500°F temperature range, (5) oven racks per deck, independently operated removable doors with double pane windows, porcelain on steel interior, interior light, stainless steel front, top, sides & 23-3/4" legs, 1/2 HP blower motor, 12.5kW, cUL, UL, NSF, ENERGY STAR. 208v/60/3-ph, 35 amps, standard each.

ITEM 33 - COMBI OVEN, ELECTRIC - DOUBLE 6 FULL (1 REQ'D)
RATIONAL Model ICP 6-FULL ON 6-FULL E 480V 3 PH

Two (2) iCombi Pro 6-Full Size Combi Ovens, double stack, electric, (12) 18" x 26" sheet pan or (24) 12" x 20" steam pan or (12) 2/1 GN pan capacity, (6) stainless steel grids included, intelligent cooking system with (4) assistants; automated climate management, integrated recipe intelligent cooking system, integrated a-la-carte production process manager, & integrated equipment cleaning system, (6) operating modes, (5) cooking methods, (3) manual operating modes, 85° to 572°F temperature range, quick clean, care control, eco mode, 6-point core temperature probe, retractable hand shower, Ethernet interface, Wi-Fi enabled, 440/480v/60Hz/3-ph, 22.4 kW each, CE, IPX5, UL, cULus, NSF, ENERGY STAR

- 1 kt. Model 60.74.725 Combi-Duo Stacking Kit for iCombi 6-full size (electric or gas) on iCombi 6- or 10-full size (electric only)
- 1 ea. Model 60.31.204 Stand I for Combi-Duo, mobile, 7-3/4"H, all sides open, stainless steel construction, height adjustable casters, for iCombi 6-full size on 6-full size
- 1 ea. Model 87.00.732US Safety-Set, Equipment placement system for all casters-mounted equipment, allows precise, consistent equipment placement for drain lines to floor sinks and under the fire suppression in ventilation systems, satisfies NFPA codes 17A (5.6.4) and 96 (12.1.2.3), includes tow (2) pieces and installation pack.
- 1 ea. 2 years parts and labor, 5 years steam generator warranty
- 1 ea. Model CAP Chef Assistance Program, a RATIONAL certified Chef conducts 4 hours/location specialized application training with personnel, no charge. **THE FSEC SHALL PROVIDE A VIDEO OF THIS TRAINING ON SITE WITH THE CLOSEOUT DOCUMENTS.**
- 1 ea. Model 9999.2252 RCI RATIONAL Certified Installation. Provide documentation with closeout documents.
- 2 ea. Model 9999.1009 include all necessary travel.
- 1 ea. Model 8720.1552US Installation Kit, for electric iCombi (440/60Hz/3 & 480/60Hz/3)
- 2 ea. Model 56.01.535 Active Green Cleaner Tabs, for all iCombi Pro, 150 pieces/bucket
- 2 ea. Model 56.00.562 Care Tabs, bucket of 150 packets for all iCombi Pro models
- 1 ea. Model 60.75.768 Heat Shield, for right side panel, type 6-full size Pro, 2"W, stainless steel construction
- 6 ea. Model 60.12.156 Full Size Sheet Pan Adapter, allows for use of 18" x 24" full size sheet pans, combination of multiple adapters is possible for hinging racks only, (max. (3) for size 6-full and (5) for size 10-full)
- 6 ea. Model 6010.2101 Gastronorm Grid Shelf, 2/1 size, 25-5/8" x 20-7/8", stainless steel
- 6 ea. Model 6019.1150 CombiFry Basket, 1/1 GN, 12-3/4" x 20-7/8"
- 2 ea. Model 9999.9613 K-12 Extended Warranty: Extends the warranty for 12 months beyond the Original Equipment Warranty to 3 years parts and labor.

ITEM 34 - COMBI OVEN, ELECTRIC (1 REQ'D)
RATIONAL Model ICP 20-FULL E 480V 3 PH (LM100GE)

iCombi Pro 20-Full Size Combi Oven, electric, (20) 18" x 26" sheet pan or (40) 12" x 20" steam pan or (20) 2/1 GN pan capacity, mobile oven rack & (10) stainless steel grids included, intelligent cooking system with (4) assistants; automated climate management, integrated recipe intelligent cooking system, integrated a-la-carte production process manager, & integrated equipment cleaning system, (6) operating modes, (5) cooking methods, (3) manual operating modes, 85° to 572°F temperature range, quick clean, care control, eco mode, 6-point core temperature probe, retractable hand shower, Ethernet interface, Wi-Fi enabled, 480v/60Hz/3-ph, 81.7 amps, 67.9 kW, IPX5, UL, cULus, NSF, ENERGY STAR

- 1 ea. 2 years parts and labor, 5 years steam generator warranty
- 1 ea. Model 9999.9614 K-12 Extended Warranty: Extends the warranty for 12 months beyond the Original Equipment Warranty to 3 years parts and labor.
- 1 ea. Model CAP Chef Assistance Program, a RATIONAL certified Chef conducts 4 hours/location specialized application training with personnel, no charge. **THE FSEC SHALL PROVIDE A VIDEO OF THIS TRAINING ON SITE WITH THE CLOSEOUT DOCUMENTS.**
- 1 ea. Model 9999.2212 RCI RATIONAL Certified Installation. Provide documentation with closeout documents.
- 2 ea. Model 9999.1009 include all necessary travel.
- 1 ea. Model 8720.1561US Installation Kit, electric iCombi (480/60Hz/3ph)
- 2 ea. Model 56.01.535 Active Green Cleaner Tabs, for all iCombi Pro, 150 pieces/bucket
- 2 ea. Model 56.00.562 Care Tabs, bucket of 150 packets for all iCombi Pro models and SelfCooking Center with CareControl
- 1 ea. Model 60.22.447 Mobile Oven Rack, type 20-full size Pro/Classic, (20) 24" x 20" pan capacity, 2-1/2" spacing, reinforced HeavyDuty/Marine version
- 10 ea. Model 6010.2101 Gastronorm Grid Shelf, 2/1 size, 25-5/8" x 20-7/8", stainless steel
- 10 ea. Model 6019.1150 CombiFry Basket, 1/1 GN, 12-3/4" x 20-7/8"

ITEM 35 - COMBI OVEN WATER FILTRATION SYSTEM (~~2~~1 REQ'D)
3M Purification Model DP295-CLX

3M Water Filtration System, 108,000 gallon capacity, reduces sediment, chloramine (3.0 gpm), chlorine taste and odor (10.0 gpm), and scale

- ~~2~~1 ea. Model DP295-CLX CARTPAK 3M Water Filtration Cartridge Kit, 108,000 gallon capacity, reduces sediment, chloramine (3.0 gpm), chlorine taste and odor (10.0 gpm), and scale; kit includes (2) HF95-CLX cartridges and (1) HF8-S cartridge

ITEM 35C - COMBI OVEN WATER FILTRATION SYSTEM (1 REQ'D)
3M Purification Model DP295-CLX

3M Water Filtration System, 108,000 gallon capacity, reduces sediment, chloramine (3.0 gpm), chlorine taste and odor (10.0 gpm), and scale

- 1 ea. Model DP295-CLX CARTPAK 3M Water Filtration Cartridge Kit, 108,000 gallon capacity, reduces sediment, chloramine (3.0 gpm), chlorine taste and odor (10.0 gpm), and scale; kit includes (2) HF95-CLX cartridges and (1) HF8-S cartridge

ITEM 36 - IVARIO WATER FILTRATION SYSTEM (1 REQ'D)
3M Purification Model HF195-CLX

3M Water Filtration System, 54,000 gallon capacity, reduces sediment, chloramine (1.5 gpm), chlorine taste and odor (5.0 gpm)

- 1 ea. Model HF95-CLX 3M Water Filtration Cartridge, 54,000 gallon capacity, reduces sediment, chloramine (1.5 gpm), chlorine taste and odor (5.0 gpm), NSF certified

ITEM 37 - 72" X 8" FLOOR TROUGH (2 REQ'D)
IMC/Teddy Model FWR-72-SG

FWR Floor Water Receptacle, 72"W x 7-1/2"D, 4" deep receptacle, (1) 4" OD tailpiece, stainless steel beehive strainer, 16/304 stainless steel construction, brushed satin finish, (SG) subway grating, NSF, Made in USA

- 2 ea. Model DOD 3" OD Tube (each)

ITEM 38 – 24” X 18” ANTI-SPLASH FLOOR TROUGH (1 REQ'D)
IMC/Teddy Model ASFT-3024-SG

ASFT Anti-Spill Floor Trough, 24"W x 18"D, 6" deep receptacle, (1) 4" OD tailpiece, stainless steel beehive strainer, 14/304 stainless steel, brushed satin finish, (SG) subway grating, NSF, Made in USA

1 ea. Model DOD 3” OD Tube (each)
1 ea. Model BBS Basket Beehive Strainer

ITEM 39 - 207" X 48" ISLAND PREP TABLE (1 REQ’D)
Approved Fabricator

Worktable with dual-sided open-front cabinet base, 207”W x 48” front-to-back x 42"H, 36" work height. This counter shall be pre-wired by an electrical contractor.
Top: 14ga., Type-304 stainless steel top with Type-C Marine Edge, 1-1/2"D x 6"H Type-A backsplash, and Type-B framework with sound deadening pads between all support channels and the top. Include (6) duplex convenience outlets, Full 16 ga.
Base: 16ga., type-304 stainless steel open-front cabinet base with 2"W mullions and lower shelf with Type-B framework with sound deadening pads between all support channels and the lower shelf on 6"H legs with adjustable bullet feet. All intermediate shelves shall be adjustable. All drawers shall have soft-close, ball bearing slides and removable 18 ga., Type-304 Stainless Steel 5” deep drawer pans. To include pre-wired outlets. Refer to plans and elevations for specific sizing. Refer to fabrication details.

ITEM 39.1 – PRE-RINSE WITH ULTRARINSE ADD-ON FAUCET (2 REQ’D)
T&S Brass Model S-0133-U12-CR-BY

ULTRARINSE stainless steel, PRU with S-0107-Y & Cerama, 8” wall mount mixing faucet with stainless steel body, stainless steel add-on faucet, stainless steel 12” swing nozzle with stream regulator outlet, stainless steel 18” riser, 44” flexible stainless steel hose with heat resistant handle, stainless steel 1.5 GPM 10 7/16" multiple tip spray arm, stainless steel 1.15 GPM blue new spray valve, stainless steel ceramic cartridges with check valves, stainless steel lever handles, stainless steel 1/2" NPT female inlets, stainless steel 6” adjustable wall bracket, stainless steel spray valve holder and stainless steel overhead spring. Certified to ASME A112.18.1/CSA B125.1, NSF 61-Section 9 & NSF 372. 2019 DOE PRSV - Class II compliant.

2 kt. T&S Brass Model B-0230-K Installation Kit, (2) 1/2" NPT nipples, lock nuts & washers, (2) short "Ell" 1/2" NPT female x male

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 39.2 – MODULAR WASTE DRAIN VALVE (2 REQ’D)
T&S Brass Model B-3992-01-3X

Modular Waste Drain Valve, with pull handle, 3-1/2" sink opening, 2" NPT male / 1-1/2" female outlet, overflow tube with head assembly, 3" handle extension

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 40 – ~~106~~100" X 30" COLD PREP TABLE WITH SINK (1 REQ'D)
Approved Fabricator

Worktable with prep sink, open-front cabinet base and drawers,~~106~~100"W x 30"front-to-back x 46"H, 36" work height. Top: 14ga., type-304 stainless steel top with Type-C marine edge, 2"D x 10"H "Z"-clips" Type-A backsplash with (1) set of 8" O.C. faucet holes and (1) set of 6" O.C. vacuum breaker holes, and Type-B framework with sound deadening pads between all support channels and the top. Top Shall include a sink apron for (1) 18"W x 24" front-to-back x 12" deep with a 6" dia. Salvajor disposer outlet (fabricator installed)/ Splash mounted breaker for Salvajor MRSS-LD disposer control panel. Prevision on Type-C Marine Table Edge for table mounted manual can opener. All intermediate shelves shall be adjustable. All drawers shall have soft-close, ball bearing slides and removable 18 ga., Type-304 Stainless Steel 5" deep drawer pans. All doors shall have soft-closing hinges.
Base: 16ga. type-304 stainless steel 1-5/8" dia. legs with adjustable bullet feet and adjustable set-up. The base shall be removable from the top. Refer to plans and elevations for specific sizing. Refer to fabrication details.

~~**ITEM 40.1 - MODULAR WASTE DRAIN VALVE (1 REQ'D)**~~
~~T&S Brass Model B-3992-01-3X~~

~~Modular Waste Drain Valve, with pull handle, 3-1/2" sink opening, 2" NPT male / 1-1/2" female outlet, overflow tube with head assembly, 3" handle extension~~

~~*This item is an accessory to the item above and is not tagged or scheduled.*~~

ITEM 41 - PRE-RINSE WITH ULTRARINSE ADD-ON FAUCET (1 REQ'D)
T&S Brass Model B-0133-U12-CR-B

UltraRinse 8" wall mount mixing faucet with polished chrome plated brass body, add-on faucet with cerama cartridge and lever handle, 12" swing nozzle with stream regulator outlet, 10" 1.5 GPM multiple tip spray arm, 18" riser, 44" flexible stainless steel hose with heat resistant handle, 1.15 GPM spray valve, compression cartridges with spring checks, lever handles, 1/2" NPT female inlets, 6" adjustable wall bracket, spray valve holder and overhead spring. Certified to ASME A112.18.1/CSA B125.1, NSF 61-Section 9 & NSF 372. 2019 DOE PRSV - Class II compliant.

ITEM 42 - ELECTRIC CAN OPENER (1 REQ'D)
Edlund Model 270/115V

Can Opener, electric, for heavy volume, 2-speed motor, knife and gear assemblies that are removable for cleaning, recommended for up to 200 cans per day, cULus, CE, NSF certified, 115v/60/1-ph, 1.5 amp
1 ea. 3 year limited warranty, standard

ITEM 42.1 - MANUAL CAN OPENER (1 REQ'D)
Edlund Model 1S

Can Opener, manual, with stainless steel base (for cans up to 11" tall)
1 ea. 1 year limited warranty, standard
This item is an accessory to the item above and is not tagged or scheduled.

ITEM 43 - 2HP DISPOSER (1 REQ'D)
Salvajor Model 200-SA-6-MRSS-LD

Disposer, Sink Assembly, 6-1/2" sink collar, 2 Hp motor, start/stop push button manual reversing with safety line disconnect MRSS-LD control, includes fixed nozzle, chrome plated vacuum breaker, solenoid valve, sink stopper & flow control, heat treated aluminum alloy housing, UL, CE. 208v/60/3-ph, 6.6 amps
1 ea. Model 980104 Mounting bracket for RSS, MSS, MSS-LD, MRSS, MRSS-LD
1 ea. Model LSA8 Disposer support leg, for 3/4 HP - 2 HP disposers
1 ea. Model DP Stainless steel dejamming prong
1 ea. Model 980182 Disposer Throat Guard, drop-in, for 6-1/2" opening

ITEM 44 - 84" X 30" BAKERS WORKTABLE WITH DRAWERS (1 REQ'D)
John Boos Model BT3S03A

Baker's Table, 84"W x 30"D, 1-3/4" thick top with 4" coved riser on back & both ends, Northern Hard Rock Maple, with penetrating oil finish, open cabinet base with (3) drawers, stainless steel bracings, legs, & bullet feet, NSF, KD

ITEM 44.1 - BAKER'S SCALE (1 REQ'D)
Penn Scale Model 1401 P

Bakers Scale, 16 lb. capacity, 9" dia. steel plates, removable plastic white scoop (11-1/2" x 21-1/2"), counter-weight, polished brass 2 lb. beam in 1/4 oz. increments & 4 free weights (3 - 4 lb. & 1 - 2 lb.), solid cast iron with food grade powder coat finish, Made in USA

1 ea. White finish

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 45 - 36" X 21" DUNNAGE RACK (1 REQ'D)
Cambro Model DRS360480

S-Series Dunnage Rack, slotted top, 1500 lb. load capacity, 21"D x 36"W x 12"H, polypropylene, one-piece, seamless double wall construction, includes (1) Camlink, 4" square legs, speckled gray, NSF, Made in USA

ITEM 46 - 24" X 16" WALL SHELF WITH UTENSIL RACK (1 REQ'D)
John Boos Model MENSL24-P

Cucina Mensola Shelf, wall-mount, 18/300 stainless steel, 24"W x 12"D, polished welded joints, stainless steel utensil bar & (3) stainless steel hooks

ITEM 47 - 60 QT. MIXER (1 REQ'D)
Hobart Model HL600-2STD

380-460/50/60/3 Mixer; with bowl, beater, “D” whip, & spiral dough arm; US/EXP configuration - Legacy Planetary (Floor) Mixer, 2.7 HP, 60 quart capacity, (4) fixed speeds, gear-driven transmission, 20-Minute SmartTimer, #12 taper attachment hub, power bowl lift, stainless steel bowl, "B" beater, "D" wire whip, "ED" dough hook, stainless steel bowl guard

1 ea. Standard warranty: 1-Year parts, labor & travel time during normal working hours within the USA
1 ea. Model BBEATER-HL60 Legacy Mixer 60 qt. "B" flat beater, aluminum
1 ea. Model DWHIP-HL60 Legacy Mixer 60 quart "D" wire whip, stainless steel
1 ea. Model EDDOUGH-HL60 Legacy Mixer 60 qt. "ED" dough hook
1 ea. Model CHUTE-HL HL600/HL662 Ingredient Chute

ITEM 48 - WATER METER (1 REQ'D)
Empire Bakery Equipment Model DOX-30

Water Meter, water dosing only, 265 gallon dosing capacity, microprocessor logic with memory for last selection, keypad control, digital display, chromium-plated hydraulics, double stainless steel net filter, in-line output counter, dosing electrovalve, no-return valves, control box in 4mm thick PVC and stainless steel, 230-110v/50/60/1-ph

ITEM 48.1 – WATER FILTER (1 REQ'D)
3M Purification Model ICE120-S

3M Water Filtration Products Water Filter System, with gauge, 17"H x 4.5"D, valve-in-head, standard water, single vessel, 1/4-turn shut off valve, max pressure of 125 psi at 100°F, 0.5 micron, 1.5 gpm flow rate, 9,000 gallons capacity, for sediment, chlorine taste & odor, cyst, scale, includes: (1) integral mounting bracket and (1) o-ring seal cartridge filter, 3/8" FNPT connections, NSF certified.

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 49 - 36" X 18" WALL GRID SHELVING UNIT (2 REQ'D)
Cambro Model EWS36PREP110

Wall Shelving Prep Station Starter Kit, 18" x 36" x 30-1/4", includes: (1) 40" aluminum wall track, (2) 30" wall uprights, (2) 18" deep universal shelf brackets, (1) 18" x 36" vented shelf with antimicrobial shelf plates, (1) 18" x 36" hanging pegboard, 304 stainless steel accessories: (2) large wire baskets, (1) small shelf/lid holder, (1) cylinder and holder & (8) peg hooks, black, NSF, Made in USA

ITEM 50 - HAND SINK WITH KNEE APRON (4 REQ'D)
John Boos Model PBHS-W-1410-KV1APS~~-SS~~

Hand Sink, wall mount, 14"W x 10"D front-to-back x 5" deep bowl, 3-1/2"H splash mount gooseneck faucet, knee activated with hinged front apron~~, left & right side splashes~~, 2" drain opening with basket drain, includes: mounting bracket, stainless steel construction, NSF. Provide side splashes per plan elevations.

ITEM 51 - TRASH RECEPTACLE, INDOOR (LOT BY OWNER)
By Owner

ITEM 52 - HAND SINK WITH EYE WASH (1 REQ'D)
John Boos Model PBHS-W-1410-KV1APS-EW-SS

Hand Sink with Eye Wash, wall mount, 14"W x 10"D front-to-back x 5" deep bowl, 3-1/2" gooseneck faucet with eye wash attachment, knee activated with hinged front apron, left & right side splashes, 2" drain opening with basket drain, includes: mounting bracket, stainless steel construction, NSF

ITEM 53 - COMMERCIAL WASTE CONTAINER (LOT BY OWNER)
By Owner

ITEM 54 - ROLL-IN HEATED CABINET (1 REQ'D)
Victory Refrigeration Model HIS-1D-1-PT-XH

Heated Cabinet, Powered by V-Core, Roll-thru, one-section, 38.1 cu. ft. capacity, stainless exterior & interior, standard depth cabinet, full extra high doors, TOUCH POINT electronic temperature control/indicator, stainless steel ramp, UL, UL EPH Classified, 208-240v/60/1-ph, 6.3 amps, includes cord & plug

- 1 ea. 7 year parts & labor and 7 year compressor warranty
- 1 ea. Rear/Server side door hinging: on left on rear at factory
- 1 ea. Control/Kitchen side door hinging: standard on right
- 1 ea. Control/Kitchen side: Standard Glass door in lieu of standard solid door, one-section
- 1 ea. Rear/Server side: Standard Glass door in lieu of standard solid door, one-section

ITEM 55 - BUN PAN MOBILE RACK (4 REQ'D)
Channel Model 402S

Bun Pan Rack, All-Welded, Stainless Series, 20.5"W x 26"D x 70.25"H, Stainless Steel Construction, End Load, 4" Angle Spacing, (15) 18" x 26" or (30) 13" x 18" pans (2 per shelf), 5" Swivel Stem Casters model # CSS45PU, Made in USA, NSF, 47lbs. (ITEM WEIGHT ONLY), weight does not include 50 lbs. for pallet weight

ITEM 56 - ROLL-IN REFRIGERATOR (1 REQ'D)
Victory Refrigeration Model RIS-2D-S1-XH-HC-FLEX

Extra High Refrigerator, Roll-In, two-section, self-contained refrigeration, 77.35 cu. ft. capacity, stainless steel exterior & interior, standard depth cabinet, (2) extra high 20 gauge stainless steel doors, electronic temperature control/indicator, LED lighting, expansion valve technology, Santoprene door gaskets with 2 year warranty, stainless steel breakers, stainless steel ramp, 3/4 HP, cULus, UL-Sanitation, UL EPH Classified, 115v/60/1-ph, 8.5 amps, cord with NEMA 5-15P

- 1 ea. 7 year parts & labor and 7 year compressor warranty (excludes maintenance items)
- 1 ea. FlexTemp Control Option (28° - 38°F), capable of set points between 28° to 38°F with positive defrost cycles
- 1 ea. Door hinging: left door hinged on left, right door hinged on right standard
- 1 ea. Standard Glass door in lieu of standard solid door, two-section

ITEM 57 - ROLL-IN HEATED CABINET (1 REQ'D)
Victory Refrigeration Model HIS-1D-1-XH

Heated Cabinet, Roll-in, one-section, 33.6 cu. ft. capacity, stainless exterior & interior, standard depth cabinet, full extra high door, electronic temperature control/indicator, stainless steel ramp, UL, UL EPH Classified

1 ea. 7 year parts & labor and 7 year compressor warranty (excludes maintenance items)
1 ea. 208-240v/60/1-ph, 6.3 amps, includes cord & plug
1 ea. Door hinging: on left at factory
1 ea. Standard Glass door in lieu of standard solid door, one-section

ITEM 58 - TRAY STAND CART (2 REQ'D)
Duke Manufacturing Model TTS-32SS

Tray Stand Unit, mobile, 32"W x 31"D x 42"H, 16 gauge stainless steel top, tray surface 19" high, 16 gauge stainless steel utensil tower 28" x 10", 20 gauge stainless steel body & undershelf, 5" dia. gray poly swivel casters & brakes, NSF

2 ea. Model MOD-14-2 14ga stainless steel top, in lieu of standard
2 ea. Model P-LAM Veneer plastic laminate on body
2 ea. Model MOD-2P Veneer on customer's side
4 ea. Model MOD-P-END Veneer on end, each
2 ea. Model MOD-2S-2CU Kick Plate, customer's side, stainless steel, recessed, screw attached
4 ea. Model MOD-2S-E Kick Plate, end, stainless steel, recessed, screw attached
2 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 59 - 74" REFRIGERATED DISPLAY CASE WITH MILK CRATE HOLDER (2 REQ'D)
Structural Concepts Model MD685R

Fusion Self-Service Refrigerated Display Case, 74-1/4"W x 37-1/8"D x 85-1/2"H, open reach-in front, LED top & shelf lights, self-contained refrigeration, stainless steel rear exterior, powder coated silversan black, ETL-Sanitation

2 ea. Warranty: 1 year parts & labor warranty, standard
2 ea. Exterior Color: Laminate PLAM-1
2 ea. Model GRAIN DIRECTION Standard laminate grain directions (when applicable):
- Front Panels (Upper Header and Lower Panels): Horizontal grain direction - End Panels: Vertical grain direction - Blend & Reveal Cases Only: Horizontal grain direction on front and end panels
2 ea. Interior Color: Stainless steel
2 ea. Lower Front Panel Color: Powder coated SCC Standard Silversan Black (FDA compliant), standard
2 ea. Base Support: Casters (self-cont.), standard
2 ea. Bumper Front: 1" Boston bumper - Black, standard
2 ea. Bumper Left End: None, standard
2 ea. Bumper Right End: None, standard
2 ea. End Panel Left: Full end panel, standard
2 ea. End Panel Right: Full end panel, standard
2 ea. Flat header (*Standard flat configuration)
2 ea. Price Tag Molding: None, standard
2 ea. Rear Doors: None (solid back panel), standard
2 ea. Shelving: (5) Lighted solid shelves, standard
2 ea. Lights: LED 3500K with frost lens, standard
2 ea. Electrical Connection: 6' NEMA 6-30P, 208-240v/60/1-ph straight blade power cord, standard
2 ea. Refrigeration: Breeze self-contained refrigeration, standard
2 ea. Thermometer: Digital Fahrenheit thermometer, standard
2 ea. Vinyl Graphics: None, standard
2 ea. Night curtain, retractable, non-locking
2 ea. Stainless steel milk crate drip pans
1 ea. Rear doors: Rear Doors: Solid rear swinging door(s) with lock. Provide back doors per elevation QF202/View F

ITEM 60 - 60" 4-WELL HOT FOOD SERVING COUNTER (1 REQ'D)
Duke Manufacturing Model TWHF-60SS

Ganged Waterless Well, mobile, electric, 60"W x 32"D x 36"H, 16ga stainless steel top, (4) stainless steel heat wells, touch screen controls, stainless steel body & undershelf, dish shelf, 5" dia. swivel casters with brakes, 6' cord & plug, cULus, UL EPH Classified

- 1 ea. Model TWHF60-208 208v/60/1-ph, 2000 watts, 9.6 amps
- 1 ea. Model MOD-14-4 14ga stainless steel top, in lieu of standard
- 1 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
- 1 ea. Model P-LAM Veneer plastic laminate on body
- 1 ea. Model MOD-4P Veneer on customer's side
- 1 ea. Model MOD-P-END Veneer on end, each
- 1 ea. Model SOLID-HD-4CU Tray Slide, customer's side, 60" W x 12-1/4" D, solid stainless steel, on hinged brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high
- 1 ea. Model CORD-HOOK J-hook electric cord holder
- 1 ea. Model MOD-HT Special Height Body, per unit
- 1 ea. Model MOD-HT-34 34" Height Body
- 1 ea. Model MOD-2S-4CU Kick Plate, customer's side, stainless steel, recessed, screw attached
- 1 ea. Model E-OP2 Electric outlet, mounted in base, with galvanized junction box, duplex or single receptacle & stainless steel cover, wired to existing power source
- 1 ea. Model CUT-OP1-G Round cutout with grommet, in body panel (Ref. View B/QF203)
- 1 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 61 - 60" SNEEZE GUARD (2 REQ'D)
Premier Metal & Glass Model TM2N-A

Adjustable Dual-Service Sneeze Guard, single sided guard with top shelf, tempered glass with polished edges, adjustable end panels, table mount, 1" OD round stainless support posts, NSF & cULus Listed

- 2 ea. Specify Length: 60"
- 2 ea. 3/8" Glass, max 60" span
- 2 ea. Both end panels, standard
- 2 ea. Ultra-Slim LED display light 4000k (Std.),

ITEM 62 - 32" 2-WELL COLD FOOD SERVING COUNTER (1 REQ'D)
Duke Manufacturing Model TCM-32SS-N7

Cold Food Unit, mobile, 32"W x 32"D x 36"H, 16ga stainless steel top, NSF 7 stainless steel mechanical cold pan, 8" deep, touchscreen control, 28-1/2" x 21-3/4" liner, 1" drain line & valve, hinged stainless steel louvered grill, stainless steel body & undershelf, 5" dia. swivel casters & brakes, 120v/60/1-ph, 5.2 amps, NEMA 5-15, cULus, UL EPH Classified

- 1 ea. Model COND-EVAP Condensate evaporator
- 1 ea. Model FB-2 False Bottom for Cold Pan Unit, 1/2" deep, sectional, stainless steel, for unit with (2) full size pan openings
- 1 ea. Model MOD-14-2 14ga stainless steel top, in lieu of standard
- 1 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
- 1 ea. Model P-LAM Veneer plastic laminate on body
- 1 ea. Model MOD-2P Veneer on customer's side
- 1 ea. Model SOLID-HD-2CU Tray Slide, customer's side, 32" W x 12-1/4" D, solid stainless steel, on hinged brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high (specify any special height)
- 1 ea. Model L-SOLID "L" shape solid trayslide mitered joint
- 1 ea. Model CORD-HOOK J-hook electric cord holder
- 1 ea. Model MOD-2S-2CU Kick Plate, customer's side, stainless steel, recessed, screw attached
- 1 ea. Model CORD 6 ft. cord & plug
- 1 ea. Model E-OP2 Electric outlet, mounted in base, with galvanized junction box, duplex or single receptacle & stainless steel cover, wired to existing power source
- 2 ea. Model CUT-OP1-G Round cutout with grommet, in body panel (Ref. View B/QF203)
- 1 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 63 - 32" SNEEZE GUARD (2 REQ'D)
Premier Metal & Glass Model TM2N-A

Adjustable Dual-Service Sneeze Guard, single sided guard with top shelf, tempered glass with polished edges, adjustable end panels, table mount, 1" OD round stainless support posts, NSF & cULus Listed

2 ea. Specify Length: 32"
2 ea. 3/8" Glass, max 60" span
2 ea. Both end panels, standard
2 ea. Ultra-Slim LED display light 4000k (Std.),

ITEM 64 - 74" 5-WELL SALAD SERVING COUNTER (1 REQ'D)
Duke Manufacturing Model TFCP-74SS-N7

Flush Mount Cold Pan Unit, mobile, 74"W x 32"D x 36"H, 16ga stainless steel top, (5) pan size, digital control, self-contained refrigeration, drain for each well manifolded to one location, hinged stainless steel louvered grill, stainless steel body & undershelf, 5" dia. swivel casters with brakes, 10' cord & plug, 120v/60/1-ph, R290, NEMA 5-15, 6.8 amps, CULus, UL EPH Classified

1 ea. Model COND-EVAP Condensate evaporator
1 ea. Model FB-5 False Bottom, 1/2" deep, sectional, stainless steel, for unit with (5) full size pan opening
1 ea. Model 1127-2035 Asy Drain Manifold, 5 section
1 ea. Model MOD-14-5 14ga stainless steel top, in lieu of standard
1 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
1 ea. Model P-LAM Veneer plastic laminate on body
1 ea. Model MOD-5P Veneer on customer's side
1 ea. Model MOD-P-END Veneer on end, each
1 ea. Model SOLID-HD-5CU Tray Slide, customer's side, 74" W x 12-1/4" D, solid stainless steel, on hinged brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high (specify any special height)
1 ea. Model CORD-HOOK J-hook electric cord holder
1 ea. Model MOD-2S-5CU Kick Plate, customer's side, stainless steel, recessed, screw attached
1 ea. Model MOD-2S-E Kick Plate, end, stainless steel, recessed, screw attached, 1/2" above floor for easy rolling
1 ea. Model CORD 6 ft. cord & plug
1 ea. Model CUT-OP1-G Round cutout with grommet, in body panel (Ref. View E/QF203)
1 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 65 - 74" SNEEZE GUARD (2 REQ'D)
Premier Metal & Glass Model TM2N-A

Adjustable Dual-Service Sneeze Guard, single sided guard with top shelf, tempered glass with polished edges, adjustable end panels, table mount, 1" OD round stainless support posts, NSF & cULus Listed

2 ea. Specify Length: 74"
2 ea. 3/8" Glass, max 60" span
2 ea. Both end panels, standard
2 ea. Ultra-Slim LED display light 4000k (Std.)

ITEM 66 - 60" 4-WELL HOT FOOD SERVING COUNTER (1 REQ'D)
Duke Manufacturing Model TWHF-60SS

Ganged Waterless Well, mobile, electric, 60"W x 32"D x 36"H, 16ga stainless steel top, (4) stainless steel heat wells, touch screen controls, stainless steel body & undershelf, dish shelf, 5" dia. swivel casters with brakes, 6' cord & plug, cULus, UL EPH Classified

- 1 ea. Model TWHF60-208 208v/60/1-ph, 2000 watts, 9.6 amps
- 1 ea. Model MOD-14-4 14ga stainless steel top, in lieu of standard
- 1 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
- 1 ea. Model P-LAM Veneer plastic laminate on body
- 1 ea. Model MOD-4P Veneer on customer's side
- 1 ea. Model MOD-P-END Veneer on end, each
- 1 ea. Model SOLID-FX-4CU Tray Slide, customer's side, 60" W x 12-1/4" D, solid stainless steel, on fixed brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high
- 1 ea. Model CORD-HOOK J-hook electric cord holder
- 1 ea. Model MOD-HT Special Height Body, per unit
- 1 ea. Model MOD-HT-34 34" Height Body
- 1 ea. Model MOD-2S-4CU Kick Plate, customer's side, stainless steel, recessed, screw attached
- 1 ea. Model MOD-2S-E Kick Plate, end, stainless steel, recessed, screw attached
- 1 ea. Model CUT-OP1-G Round cutout with grommet, in body panel (Ref. View F/QF202)
- 1 ea. Model E-OP2 Electric outlet, mounted in base, with galvanized junction box, duplex or single receptacle & stainless steel cover, wired to existing power source
- 1 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 67 - 32" 2-WELL COLD FOOD SERVING COUNTER (1 REQ'D)
Duke Manufacturing Model TCM-32SS-N7

Cold Food Unit, mobile, 32"W x 32"D x 36"H, 16ga stainless steel top, NSF 7 stainless steel mechanical cold pan, 8" deep, touchscreen control (for optional mechanical control, see configuration options), 28-1/2" x 21-3/4" liner, 1" drain line & valve, hinged stainless steel louvered grill, stainless steel body & undershelf, 5" dia. swivel casters & brakes, 120v/60/1-ph, 5.2 amps, NEMA 5-15, cULus, UL EPH Classified

- 1 ea. Model COND-EVAP Condensate evaporator
- 1 ea. Model FB-2 False Bottom for Cold Pan Unit, 1/2" deep, sectional, stainless steel, for unit with (2) full size pan openings
- 1 ea. Model MOD-14-2 14ga stainless steel top, in lieu of standard
- 1 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
- 1 ea. Model P-LAM Veneer plastic laminate on body
- 1 ea. Model MOD-2P Veneer on customer's side
- 1 ea. Model SOLID-FX-4CU Tray Slide, customer's side, 60" W x 12-1/4" D, solid stainless steel, on fixed brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high
- 1 ea. Model L-SOLID "L" shape solid trayslide mitered joint
- 1 ea. Model CORD-HOOK J-hook electric cord holder
- 1 ea. Model MOD-2S-2CU Kick Plate, customer's side, stainless steel, recessed, screw attached
- 1 ea. Model CORD 6 ft. cord & plug
- 1 ea. Model E-OP2 Electric outlet, mounted in base, with galvanized junction box, duplex or single receptacle & stainless steel cover, wired to existing power source
- 2 ea. Model CUT-OP1-G Round cutout with grommet, in body panel (Ref. View F/QF202)
- 1 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 68 - 74" 5-WELL SALAD SERVING COUNTER (1 REQ'D)
Duke Manufacturing Model TFCP-74SS-N7

Flush Mount Cold Pan Unit, mobile, 74"W x 32"D x 36"H, 16ga stainless steel top, (5) pan size, digital control, self-contained refrigeration, drain for each well manifolded to one location, hinged stainless steel louvered grill, stainless steel body & undershelf, 5" dia. swivel casters with brakes, 10' cord & plug, 120v/60/1-ph, R290, NEMA 5-15, 6.8 amps, CULus, UL EPH Classified

- 1 ea. Model COND-EVAP Condensate evaporator
- 1 ea. Model FB-5 False Bottom, 1/2" deep, sectional, stainless steel, for unit with (5) full size pan opening
- 1 ea. Model 1127-2035 Asy Drain Manifold, 5 section
- 1 ea. Model MOD-14-5 14ga stainless steel top, in lieu of standard
- 1 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
- 1 ea. Model P-LAM Veneer plastic laminate on body
- 1 ea. Model MOD-5P Veneer on customer's side
- 1 ea. Model MOD-P-END Veneer on end, each
- 1 ea. Model SOLID-FX-5CU Tray Slide, customer's side, 74" W x 12-1/4" D, solid stainless steel, on fixed brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high
- 1 ea. Model CORD-HOOK J-hook electric cord holder
- 1 ea. Model MOD-2S-5CU Kick Plate, customer's side, stainless steel, recessed, screw attached
- 1 ea. Model MOD-2S-E Kick Plate, end, stainless steel, recessed, screw attached
- 1 ea. Model CORD 6 ft. cord & plug
- 1 ea. Model CUT-OP1-G Round cutout with grommet, in body panel (Ref. View B/QF202)
- 1 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 69 - MERCHANDISING DISPLAY RACK (2 REQ'D)
Cambro Model CPM244867FX1480

Premium Mobile Flex Station Unit, 24"W x 48"L x 67"H, 4-tiers: (4) open shelves with divider bars for holding food pans, includes; (2) pre-assembled 24" x 67" mobile post kits (posts constructed of steel with polypropylene exterior), (8) 48" traverses, (36) angled divider bars, (12) identification tags, and (4) swivel total locking casters, speckled gray, 900 lbs. max capacity, Made in USA

- 2 ea. Lifetime warranty against corrosion and rust
- 2 ea. Model CSFLEXMERCH2000 Flex Station Merchandiser Signs, "Pick Up & Go", includes: (2) side panels, and (1) top/header/panel, fits 24" deep units only (does not include accessories or shelving unit), Made in USA

ITEM 70-71 - SPARE NO.

ITEM 72 - CASH REGISTER STAND (2 REQ'D)
Duke Manufacturing Model TCS-30SS

Cashier Stand, mobile, 30"W, 32"D, 36"H, 16ga stainless top, 20ga stainless steel body & partial undershelf, stainless steel tube foot rest, 5" dia. gray poly swivel casters & brakes, NSF

2 ea. Model CS-DR-LK Stainless steel drawer, with lock and keys, for cashier stand
2 ea. Model MOD-14-2 14ga stainless steel top, in lieu of standard
2 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
2 ea. Model P-LAM Veneer plastic laminate on body
2 ea. Model MOD-2P-CL Veneer on cashier's left
2 ea. Model MOD-2P-CR Veneer on cashier's right
2 ea. Model MOD-2P-OC Veneer opposite the cashier
2 ea. Model SOLID-FX-32CL Tray Slide, cashier's left, 32" W x 12-1/4" D, solid stainless steel, on fixed brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high
2 ea. Model SOLID-FX-32CR Tray Slide, cashier's right, 32" W x 12-1/4" D, solid stainless steel, on fixed brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high
2 ea. Model CORD 6 ft. cord & plug
2 ea. Model CORD-HOOK J-hook electric cord holder
2 ea. Model E-OP2 Electric outlet, mounted in base, with galvanized junction box, duplex or single receptacle & stainless steel cover, wired to existing power source
2 ea. Model CUT-OP1-G Round cutout with grommet, in counter top (Ref. View F/QF204)
2 ea. Model MOD-HT Special Height Body, per unit
2 ea. Model MOD-HT-30 30" Height Body (elementary)
2 ea. Model MOD-32 For special width body…per unit 28" W
2 ea. Model MOD-2S-2CL Kick Plate, cashier's left, stainless steel, recessed, screw attached
2 ea. Model MOD-2S-2CR Kick Plate, cashier's right, stainless steel, recessed, screw attached
2 ea. Model MOD-2S-2OC Kick Plate, opposite cashier, stainless steel, recessed, screw attached
2 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 73 - POS SYSTEM (2 BY VENDOR)
Point-of-Sale System - By Vendor

ITEM 74 - 46" CONDIEMENT COUNTER (1 REQ'D)
Duke Manufacturing Model TST-46SS

Solid Top Unit, mobile utility counter, 46"W x 32"D x 36"H, 16ga stainless steel top, 20ga stainless steel body & undershelves, 5" dia. gray poly swivel casters & brakes, NSF

1 ea. Model MOD-14-3 14ga stainless steel top, in lieu of standard
1 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
1 ea. Model P-LAM Veneer plastic laminate on body
1 ea. Model MOD-3P Veneer on customer's side
2 ea. Model MOD-P-END Veneer on end, each
1 ea. Model MOD-3P-D Veneer on door
1 ea. Model SOLID-FX-3CU Tray Slide, customer's side, 46" W x 12-1/4" D, solid stainless steel, on fixed brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high
1 ea. Model SOLID-FX-3OP Tray Slide, operator's side, 46" W x 12-1/4" D, solid stainless steel, on fixed brackets, with (2) 1/8" die-formed rubbing tracks, & mounted 34" high
1 ea. Model 329-3SS Sliding doors, no lock, stainless steel, recessed stainless steel pull
1 ea. Model MOD-2S-3CU Kick Plate, customer's side, stainless steel, recessed, screw attached
1 ea. Model MOD-2S-3OP Kick Plate, operator's side, stainless steel, recessed, screw attached
1 ea. Model MOD-2S-E Kick Plate, end, stainless steel, recessed, screw attached
1 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 75 - 60" X 30" WORK CABINET WITH SLIDING DOORS (1 REQ'D)
John Boos Model 4CS4R5-2430

Work Table, cabinet base with sliding doors, 60"W x 30"D, 14/300 stainless steel top with 5" backsplash, Stallion Safety Edge front, 18/430 stainless steel body, stainless steel legs with adjustable feet, NSF

- 1 ea. Model X-0002J1 2" deep 5"H rear riser, with turndown & "Z" clips, in lieu of standard
- 1 ea. Model X-0213S Standard Marine Edge
- 5 ft. Model SD-1PD Sound Deadening Pads, placed one foot on center, 10" x 3-1/2" x 1/16" (per linear foot)
- 5 ft. Model X-0022JC Upgrade standard 18/430 cabinet lower shelf to 16/300 series stainless steel (per linear foot)
- 1 ea. Model X-0204A Mullion - Interior Portion Panel (modification)
- 8 ft. Model X-0205I Removable kick plate (per linear foot) (modification)
- 3 ea. Model DR1520SCL-S24 Drawer, for 24"D work tables, 20"W x 15" front-to-back x 5" deep, stainless steel front and drawer pan, self closing and locking, roller bearing slides, NSF, for stainless steel table tops only

ITEM 76 - 45 DEGREE CORNER MOBILE UTILITY COUNTER (2 REQ'D)
Duke Manufacturing Model TTU-45SS

Triangle Unit, 45° corner, must attach to an adjacent unit, 32" triangle, 36"H, 16ga stainless steel top, 20ga stainless steel enclosed body, 5" dia. gray poly swivel casters & brakes, NSF **Shape per plan view**

- 2 ea. Model MOD-14-2 14ga stainless steel top, in lieu of standard
- 2 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
- 2 ea. Model MOD-HT Special Height Body, per unit
- 2 ea. Model MOD-2S-2CU Kick Plate, customer's side, stainless steel, recessed, screw attached
- 2 ea. Model CUT-OP1-G Round cutout with grommet, in body panel (Ref. View B/QF202&QF203)
- 2 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 77 - SPARE NO.

ITEM 78B - 60" HEATED COUNTERTOP DISPLAY MERCHANDISER (1 REQ'D ALT 9B)
Hatco Model GR2SDH-60D

Horizontal Display Warmer, countertop, (2) shelves (24) rods, thermostat, pre-focused infrared top heat, incandescent light, hardcoat aluminum base, tempered glass end panels, designer panels & corner caps, 4" legs, 4420 watts, cULus, UL EPH Classified, Made in USA. 120/208v/60/1-ph, 4420 watts, 18.4 amps, NEMA L14-30P, standard

- 1 ea. 1 year on-site parts & labor warranty, plus one additional year parts only warranty on all Glo-Ray metal sheathed elements
- 1 ea. Model BLACK Black, designer housing color
- 1 ea. Model COPPER Antique Copper, designer inset panel color (available at time of purchase only)
- 1 ea. Model BLACK Black, designer corner cap color (available at time of purchase only)
- 1 ea. Model GR2SD60BP 5" Sneeze guard on front upper shelf for 66-1/4" models
- 1 ea. Model GR2SD60BP 5" Sneeze guard on front lower shelf for 66-1/4" models
- 6 ea. Model 2SD-DIV Additional stainless steel divider rods

ITEM 79B - SERVING COUNTER, UTILITY (1 REQ'D ALT 9B)
Duke Manufacturing Model TTU-90SS

Triangle Unit, 90° corner, mobile, 32" triangle, 36"H, 16ga stainless steel top, 20ga stainless steel enclosed body, 5" dia. gray poly swivel casters & brakes, NSF **Shape per plan view**

- 1 ea. Model MOD-14-2 14ga stainless steel top, in lieu of standard
- 1 ea. Model P-LAM Veneer plastic laminate on body
- 1 ea. Model MOD-2P Veneer on customer's side
- 1 ea. Model MOD-P-END Veneer on end, each
- 1 ea. Model MOD-HT Special Height Body, per unit
- 1 ea. Model CUT-OP1-G Round cutout with grommet, in counter top (Ref. View F/QF202)
- 1 ea. Model MOD-2S-2CU Kick Plate, customer's side, stainless steel, recessed
- 1 ea. Model MOD-2S-E Kick Plate, end, stainless steel, recessed, screw attached
- 1 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 80B -74" MOBILE UTILITY COUNTER (2 REQ'D ALT 9B)
Duke Manufacturing Model TST-74SS

Solid Top Unit, mobile utility counter, 74"W x 32"D x 36"H, 16ga stainless steel top, 20ga stainless steel body & undershelves, 5" dia. gray poly swivel casters & brakes, NSF

2 ea. Model MOD-14-5 14ga stainless steel top, in lieu of standard
2 ea. Model ILD Internal Locking Device (on both ends), stainless steel pin & latch line up device under countertop
2 ea. Model P-LAM Veneer plastic laminate on body
2 ea. Model MOD-5P Veneer on customer's side
4 ea. Model MOD-P-END Veneer on end, each
2 ea. Model MOD-2S-5CU Kick Plate, customer's side, stainless steel, recessed, screw attached
4 ea. Model CUT-OP1-G Round cutout with grommet, (2) body panel, (1) countertop, & (1) shelf
(Ref. View E&F/QF202)
2 ea. Model K12-WARR K-12 School Warranty - (2) years parts and labor

ITEM 81B -161" X 30" CAFE COUNTER WITH DUMP SINK (1 REQ'D ALT 9B)
Approved Fabricator

Café Counter closed front cabinet base, 161"W x 30" front-to-back x 42"H, 36" work height.
Top: 14ga., type-304 stainless steel top with Type-A safety edge, 1-1/2"D x 6"H "Z"-clips" Type-B backsplash, and Type-B framework with sound deadening pads between all support channels and the top. Mitered corners. Top Shall include (1) 18"W x 18" front-to-back x 12" deep with overflow hole café sink. (1) Set of deck mounted faucet holes 4" O.C. (2) Deck mounted single faucet hole.
Base: 16ga., type-304 stainless steel *open-front/hinged-door/sliding-door*cabinet base with 2"W mullions and lower shelf with Type-B framework with sound deadening pads between all support channels and the lower shelf on 6"H legs with adjustable bullet feet. All intermediate shelves shall be adjustable. All doors shall have soft-close hinges. Removeable 16 ga., Type-304 Stainless Steel Toe Kicks. Refer to plans and elevations for specific sizing. Refer to fabrication details.

ITEM 81.1B - DECK MOUNT FAUCET (1 REQ'D ALT 9B)
T&S Brass Model B-0325-CR

Mixing Faucet, deck mount, 4" adjustable centers, 5-3/4" swivel gooseneck spout with Series 1 stream regulator outlet (includes lock washer to convert to rigid), lever handles with color-coded indexes, quarter-turn ceramic cartridges with check valves, polished chrome-plated brass body & tubular spout, 1/2" NPT female inlets, low lead, cCSAus, ADA Compliant

1 kt. Model B-0425-KIT Inlet Kit with 24" supply hoses, Nipples, Washer and Locknuts that provide 1/2" NPT male outlet and 3/8" female compression inlet. Certified to ASME A112.18.1/CSA B125.1, NSF 61-Section 9 and NSF 372.

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 81.2B - GLASS FILLER (1 REQ'D ALT 9B)
T&S Brass Model B-1210

Glass Filler Faucet, 8" deck mount pedestal, 1/2" NPT male shank

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 81.3B - DECK MOUNT FAUCET (1 REQ'D ALT 9B)
T&S Brass Model B-1110-CR

Faucet Workboard, swivel, deck mount, 6" long, standard, 4" centers, lever handles, ceramic cartridges, check valves, vandal resistant, 2.2 GPM aerator, includes: lock washer (014200-45), low-lead, polished chrome, 1/2" male NPT, ADA Compliant, ANSI, NSF

1 kt. Model B-0230-KIT Inlet Kit, 1/2" NPT nipple, close elbows, 24" flex supply hoses

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 81.4B - PANTRY FAUCET (1 REQ'D ALT 9B)
T&S Brass Model B-0205-060X-CR

Single Pantry Faucet, deck mount, single hole base, 8" swivel spout with stream regulator, lever handle, ceramic cartridge, 1/2" NPSM male inlet, low lead, ADA Compliant

1 kt. Model B-0230-KIT Inlet Kit, 1/2" NPT nipple, close elbows, 24" flex supply hoses

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 81.5A - BLENDER CONTAINER RINSER PARTS (1 REQ'D ALT 9A)
AllPoints Foodservice Parts & Supplies Model VIT1442

Rinse-O-Matic

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 82A - DISPENSER WATER FILTER SYSTEM (1 REQ'D ALT 9A)
3M Purification Model BEV120-I

High Flow Series System for Cold Beverage Applications, for single high flow carbonator dispensers used in cold beverage applications, 1.67 gpm, 14000 gallons capacity, reduces particulates, chlorine taste & odor, cysts, and bacteria, Integrated Membrane Pre-Activated Carbon Technology filtration, sanitary quick change (SQC) cartridge, NSF certified

1 ea. Model HF20-I Water Filtration Products Replacement Cartridge, standard length, 0.2 micron, 1.67 gpm flow rate, 14,000 gallons capacity, reduces sediment, chlorine taste & odor, cyst, scale inhibitor for BEV120, NSF certified

ITEM 83A - COFFEE GRINDER (1 REQ'D ALT 9A)
BUNN Model 35600.0020

35600.0020 MHG, SST Multi-Hopper Grinder & Storage System, front loading dual 6 lbs. removable hopper, portion control, 3 batch sizes per hopper, racks & LCD alphanumeric display, precision burrs, locking lid (lock sold separately), stainless steel, tall model accommodates large brew funnels, 3/4 HP, 120v/60/1-ph, 11 amps, NEMA 5-15P, cord attached, UL, ETL

ITEM 84A - COFFEE TEA BREWER (1 REQ'D ALT 9A)
BUNN Model 52200.0000

52200.0000 ITCB-DV Tea/Coffee Brewer with Tray, display label overlay kit, dual voltage adaptable, Infusion Series technology: (3) brew buttons & (2) batch sizes, BrewWISE intelligence with pre-infusion & pulse brew, energy-saver mode, brew counter, includes integrated (3) position flip tray, overlay kit for customization, 29" trunk, operates at 120v, 120/208v, 120-240v; 1.7kW, 2.65kW, 3.5kW, standard, NSF, UL

2 ea. Model 44050.0200 44050.0200 Server with Mechanical Sight Gauge, with base & drip tray, 1-1/2 gallon, lever action dispensing, brew-through lid, portable, soft-grip bail handle, fast flow faucet, aluminum faucet guard, vacuum insulated, stainless steel liner, black finish, for use with twin or single Infusion Series brewers, NSF

ITEM 85A - WATER FILTRATION SYSTEM, FOR ICE MACHINES (1 REQ'D ALT 9A)
3M Purification Model ICE160-S

3M Water Filtration Products Water Filter System, with shut-off valve & gauge, 17-5/8"H x 5"D, standard water, single vessel, max pressure of 125 psi at 100°F, 0.2 micron, 3.34 gpm flow rate, 35,000 gallons capacity, for cyst, bacteria, sediment, chlorine taste and odor, scale, includes: (1) integral mounting bracket and (1) o-ring seal cartridge filter, 1/2" FNPT connections, NSF certified (for ice machines - cubers up to 1450lbs)

1 ea. Model HF60-S 3M Water Filtration Products Replacement Cartridge, large diameter, 0.2 micron, 3.34 gpm flow rate, 35,000 gallons capacity, reduces bacteria, sediment, chlorine taste & odor, cyst, scale inhibitor, NSF certified

ITEM 86A - CAFE BAR BLENDER (2 REQ'D ALT 9A)
Hamilton Beach Model HBH855

High Performance Blender, 3.5 HP motor, 48 oz. capacity, stackable polycarbonate container, built-in sensors, variable speeds and pulse, Quiet Shield, USB port, stainless steel blades, 120v/60/1-ph, cULus, NSF

- 2 ea. 3 year parts & labor warranty
- 2 ea. Lifetime blade warranty
- 2 ea. Model 6126-851 Frothing Container, 48 oz., laser-etched measurements, mess-free spout, removable filler-cap, stackable, BPA free copolyester, ergonomic handle, stainless steel frothing disc, clear
- 2 ea. Model 6126-855 Edge Blender Container, 48 oz., laser-etched measurements, with lid, stackable, BPA free copolyester, clear

ITEM 87A - UNDERCOUNTER ICE CUBER WITH BIN (1 REQ'D ALT 9A)
Scotsman Model CU3030SA-1

Undercounter Ice Maker With Bin, cube style, air-cooled, 30" width, self-contained condenser, production capacity up to 313 lb/24 hours at 70°/50° (224 lb AHRI certified at 90°/70°), 110 lb bin storage capacity, small cube size, AutoAlert indicator lights, WaterSense adaptive purge control, unit specific QR code, metallic finish, includes 6" legs, includes power cord with NEMA 5-15P plug, 115v/60/1-ph, 12.8 amps, NSF, cULus, engineered and assembled in USA

- 1 ea. 3 year parts & labor warranties
- 1 ea. 5 year parts on compressor & condenser
- 1 ea. 5 year parts & labor on evaporator
- 1 ea. Model KBC1 Bin Caster Kit, 3-1/2" dia. wheels, (2) standard wheels & (2) locking, raises bin 4-7/16" - not to be used when machines are stacked or with SB480 when using extension

ITEM 88A - ICE WATER FILTRATION SYSTEM (1 REQ'D ALT 9A)
3M Purification Model ICE140-S

3M Water Filtration Products Water Filter System, with gauge, 14-7/8"H x 5-1/16"D, valve-in-head, standard water, single vessel, 1/4-turn shut off valve, max pressure of 125 psi at 100°F, 0.2 micron, 2.5 gpm flow rate, 25,000 gallons capacity, for cyst, bacteria, sediment, chlorine taste and odor, scale, includes: (1) integral mounting bracket and (1) o-ring seal cartridge filter, 3/8" FNPT connections, NSF certified (for ice machines - cubers up to 1000lbs)

- 1 ea. Model HF40-S 3M Water Filtration Products Replacement Cartridge, large diameter, 0.2 micron, 2.5 gpm flow rate, 25,000 gallons capacity, reduces bacteria, sediment, chlorine taste & odor, cyst, scale inhibitor for ICE140-S, NSF certified

ITEM 89A - UNDERCOUNTER REFRIGERATOR, LEFT-HINGED (1 REQ'D ALT 9A)
Victory Refrigeration Model VUR27HC

Undercounter Refrigerator, one-section, 27"W, rear mounted self-contained refrigeration, 6.15 cubic feet capacity, (1) self-closing door, (2) epoxy coated wire shelves, full electronic control, 1/2" thick stainless steel top, stainless steel door, front & sides, aluminum interior, Santoprene gaskets with 2 year warranty, R290 Hydrocarbon refrigerant, 1/10 HP, UL-Sanitation, cULus, UL EPH Classified, MADE IN USA

- 1 ea. Model WARRANTY 7 year parts & labor and 7 year compressor warranty
- 1 ea. Model ELECTRICAL 115v/60/1-ph, 2.0 amps, with cord & NEMA 5-15P
- 1 ea. Model LEFT-HINGED Door hinging: on left at factory
- 1 ea. Model SS-INTERIOR Stainless steel interior in lieu of standard
- 1 ea. Model SS-BACK Stainless steel back
- 1 ea. Model CASTERS 3" Casters, in lieu of standard 6" casters

ITEM 90A - ESPRESSO CAPPUCCINO MACHINE (1 REQ'D ALT 9A)
Egro USA Model EGRO NEXT TOP MILK XP

Egro NEXT Top Milk XP, super-automatic, app-controlled user interface, 10" HD Android smart tablet for unlimited menu selections, (2) self-adjusting grinders & (2) hoppers, automatic daily cleaning, centralized hot water, Americano bypass single cup, milk is automatically steamed & frothed, includes: milk pumps (for one type of milk), up to 250 milk drinks per hour, ABS & stainless steel construction, CE, cETLus, ETL-Sanitation

- 1 ea. 2 year parts & 1 year labor warranty
- 1 ea. Machine install, start-up and calibration of equipment by Egro authorized service provider. Does not include the creation of new menu items or loading custom graphics. Please contact us prior to equipment shipment with menu needs REMOVAL OF THIS LINE ITEM WILL RESULT IN A VOIDED LABOR WARRANTY. Part Number: Install-Egro Milk
- 1 ea. 220v/60/1-ph, 30 amp, 6000 watts, NEMA L6-30P, standard
- 1 ea. Model 98-RG-WTR-SYS Rancilio Water Filter Complete System, with Sanitary Quick Change (SQC), inhibits scale, reduces chloramines, chlorine taste & odor, 0.5 micron rating, 0.5 gpm flow rate, 1204 gallons hardness capacity (based on 9gpm), includes hardness test kit, connections, & mounting bracket, for use with coffee & tea, NSF
- 1 ea. Water filtration kit required for warranty, 98-RG-WTR-SYS water filter is acceptable to most locations; Water hardness should be within 2-3 gpg
- 1 ea. Model MILK COFFEE CLEANING TABLETS (1) Egro Coffee Cleaning Tablets, (100) tabs per bottle & (2) Egro Milk Coffee Cleaning Tablets, (50) tabs per bottle
- 1 ea. Model CAFE PACKAGE (NEXT TOP MILK) Upgrade your Next Top Milk machine into the perfect café or staff operated machine. Includes iSteam intelligent steam wand for steaming non-dairy milk options or alternative milk choices. Includes an external hot water spout for fast speed of service.
- 1 ea. NEXT Fridge, 6.5 liter (1.7 gallon) capacity countertop fridge fits on the left side of the machine
- 1 ea. Multi-Milk, enables the machine to deliver two different types of milk. Special order option, may result in longer lead times.
- 1 ea. Year 1 scheduled maintenance visit, at 12 months from date of install
- 1 ea. Shipping from Woodridge, IL 60517. For shipments to Hawaii & Alaska, rural delivery, areas with high security, residential delivery or when a liftgate is needed additional fees may be applied
- 1 ea. Pricing is valid for 90 days from date of quote; FOB Woodridge, IL; Water entering machine must adhere to the Rancilio Group North America water quality statement

ITEM 91A - ESSPRESSO WATER FILTER SYSTEM (1 REQ'D ALT 9A)
3M Purification Model SGP195BN-T

3M Water Filtration Products ScaleGARD Pro Hardness Reduction System, valve-in-head, 1 gpm flow rate, 1,200 gallons @ 9 gpg, hard scale reduction, sediment, chlorine taste & odor (for espresso machines)

- 1 ea. Model P195BN 3M Water Filtration Products ScaleGARD Pro Replacement Cartridge, with chlorine reduction & 25% fixed blend, 1 gpm flow rate, 998 gallons @ 11 gpg, hard scale reduction, sediment, chlorine taste & odor

ITEM 92A - BOTTLE DISPLAY (2 REQ'D ALT 9A)
Dispense-Rite Model WR-BOTL-3

Bottle Organizer, wire rack, 3 section, 7-1/2"H x 4-1/4"W x 13-1/4"D, reinforced welded construction and durable powder coated finish, black

- 2 ea. 1 year limited warranty

ITEM 93A - DISPOSABLE CUP DISPENSER (2 REQ'D ALT 9A)
Vollrath Model CTCL-4B

4 High Countertop Lid Organizer, 5-1/4"W x 20-3/4"D x 19-1/2"H, accommodates lids & cups 2-5/8" - 4-3/4" dia., black ABS & smoked acrylic, NSF, Made in USA.

ITEM 94B - POS SYSTEM (1 BY VENDOR ALT 9B)
By Vendor Model POS SYSTEM

ITEM 100 - DUMP SINK (1 REQ'D)

John Boos Model PBHS-W-1410-SSLR-X

Pro-Bowl Hand Sink, wall mount, 14"W x 10" front-to-back x 5" deep bowl, splash mount faucet holes with 4" centers, 1-7/8" drain opening with basket drain, with left & right side splashes, includes mounting bracket, all stainless steel construction, NSF, (faucet NOT included)

ITEM 95-99 - SPARE NO.

~~**ITEM 100.1 - WALL / SPLASH MOUNT FAUCET (1 REQ'D)**~~
~~T&S Brass Model B-1146-02A-CR~~

~~Workboard Faucet, wall mount, 4" centers, 4-3/8" swivel gooseneck nozzle (includes lock washer to convert to rigid), 2.2 GPM aerator, quarter-turn Cerama cartridges with check valves, lever handles with color-coded indexes, 1/2" NPT male inlets, ADA Compliant~~

ITEM 100.1 - WALL / SPLASH MOUNT FAUCET (1 REQ'D)
T&S Brass Model EC-3105-167X

Electronic Faucet, wall mount, 4" centers, 4 1/8" rigid gooseneck, 2.2 GPM vandal resistant aerator, AC/DC control module with internal flow control, temperature control mixing valve with integral check valves, 18" flexible stainless steel supply hoses with 3/8" compression connections, chrome plated brass, low lead, cCSAus, cULus, ADA Compliant

1 ea. 3 year limited warranty, standard

This item is an accessory to the item above and is not tagged or scheduled.

ITEM 101 - 72" X 131" L-SHAPED SOILED DISHTABLE (1 REQ'D)
Approved Fabricator

Soiled Dishtable, L-shaped, 121”W x 36” front-to-back x 72”L x 44"H, 34" work height sloped toward dishmachine. Top: 14ga., type-304 stainless steel top with type-B raised rolled edge, 2"D x 10"H backsplash with (1) set of 8" O.C. faucet holes, and type-B framework with sound deadening pads between all support channels and the top. Size the RIGHT table opening for Hobart Model CL66-DWR+BUILDUP conveyer-type dishmachine. Cut-out previsions for Salvajor 300-PSM. Base: 16ga. type-304 stainless steel 1-5/8" dia. legs with adjustable bullet feet and 1-5/8" dia. cross bracing with adjustable set-up. The base shall be removable from the top. Refer to plans and elevations for specific sizing. Refer to fabrication details.

ITEM 102 - DISPOSAL SYSTEM (1 REQ'D)
Salvajor Model 300-PSM

Pot/Pan ScrapMaster, scrapping, pre-flushing & disposing system with water recirculation, large top opening to accommodate pots & pans, 3 HP disposer, salvage basin & silverware trap, stainless steel construction, with NEMA 4 HYDROLOGIC control panel with patented operator sensor, water saving mode, safety line disconnect & LCD readout, UL, CSA, CE, NSF. 460/480v/60/3-ph, 5.83 amps

1 ea. 2nd-year warranty (P/N 999185)
1 ea. Model RSS Remote start/stop switch for all controls

ITEM 103 - PRE-RINSE FAUCET ASSEMBLY, WITH ADD ON FAUCET (1 REQ'D)
T&S Brass Model B-0131-12-CRBJK

Pre-Rinse Unit, wall mount mixing faucet with 8" adjustable centers, add-on faucet, 12" swing nozzle with stream regulator outlet (062X), quarter-turn Cerama cartridges with check valves, lever handles with color coded indexes, 26" rigid riser with overhead swivel arm, 20" flexible stainless steel hose with heat-resistant gray handle & hold down ring, 1.07 GPM spray valve (B-0107-J), finger hook, 6" wall bracket, includes 1/2" NPT male elbow installation kit, polished chrome-plated brass faucet body, 1/2" NPT female inlets, cCSAus

1 kt. Model B-0230-KIT Inlet Kit, 1/2" NPT nipple, close elbows, 24" flex supply hoses

ITEM 104 - 36" X 16" TUBULAR SHELF (1 REQ'D)
John Boos Model BHS1636-T

Shelf, tubular, wall mount, 36"W x 16"D, includes end brackets, 16/300 stainless steel

ITEM 105 - 24" X 16" TUBULAR SHELF (1 REQ'D)
John Boos Model BHS1624-T

Shelf, tubular, wall mount, 24"W x 16"D, includes end brackets, 16/300 stainless steel

ITEM 106 - DISHWASHER, CONVEYOR TYPE (1 REQ'D)
Hobart Model CL66-DWR+BUILDUP

Conveyor Dishwasher, single tank with power scrapper; Drain Water Energy Recovery with factory-installed drain water tempering kit; (202) racks/hour, .45 gallon/rack, Complete Delime with Booster Guard, Touch Screen Controls with diagnostics, troubleshooting, and SmartConnect App, capless wash arms, NSF Pot & Pan mode, pumped rinse, insulated hinged doors, cULus, NSF, Factory Startup - Free for installations within 100 miles (accessible by public roadway) of a Hobart Service Office during normal business hours with appropriate notice; Installation beyond 100 miles or those not accessible by public roadway will be quoted by Service.

1 ea. Oversized units with crated shipping dimensions greater or equal to 72" in length and/or 90" in height. If delivery is to a facility without a standard height dock, additional shipping charges will apply depending on the service requested. consult Factory.
1 ea. Standard warranty - 1-Year parts, labor & travel time during normal working hours within the USA
1 ea. Model CL66DWR-HTE15K Electric tank heat 15kW
1 ea. Model CL66DWR-ELE0CD 480v/60/3-ph
Single point connection standard (field convertible to dual point)
1 ea. Model CL66DWR-HGTSTD Standard Height 19.5”H x 22”W opening, fits full-sized sheet pan, horizontal
1 ea. Model CL66DWR-ERH18K With 18 kW Booster (default)
1 ea. Model CL66DWR-DIR0RL Right to left operation
1 ea. Model CL-BDR0NO Without Blower Dryer
1 ea. Model WS80-NOINSTALL Water softening system 4,818 grains/lb capacity, 14 gallons regeneration volume, salt alarm, holds 2 bags of salt, pricing DOES NOT include installation. INSTALLATION BY AUTHORIZED HOBART SERVICE OFFICE IS RECOMMENDED
1 ea. Model CL66EN-BASFETSTD Standard feet

ITEM 107 - CONDENSATE HOOD (1 REQ'D)
Accurex Model XD1-80.00-S

Condensate Hood, 80” L x 54” L x 24” H, (1) 8” W x 12” L Factory mounted Exhaust Collar, Exhaust CFM 1,000, 430 SS Material 100% construction, Included Performance Enhancing Lip (P.E.L.) for up to 31% lower exhaust rates.
Accessories:

1 ea. 18 in. High Ceiling Enclosures on - Left Front Right
2 ea. Round LED Light Fixture (Bulbs not included)

ITEM 108 - CONDENSATE FAN (1 BY DIV. 23)
Division 23 – Mechanical

ITEM 109 - 60" X 8" FLOOR TROUGH (1 REQ'D)
IMC/Teddy Model FWR-60-SGAS

FWR Floor Water Receptacle, 60"W x 7-1/2"D, 4" deep receptacle, (1) 4" OD tailpiece, stainless steel beehive strainer, 16/304 stainless steel construction, brushed satin finish, (SGAS) anti-slip subway grating, NSF, Made in USA

1 ea. Model DOD 3-1/2” OD Tube (each)
1 ea. Basket Strainer with Pull-Out Handle & Chain

ITEM 110 - 144" X 30" ROLLER CLEAN TABLE (1 REQ'D)
Approved Fabricator

Clean Dishtable 144"W x 30"D x 44"H overall size, 34" Table Height to connect to Hobart Model CL44-DWR+BUILDUP
Top: 14ga. type-304 stainless steel construction consisting a 10"H x 2"D Type-A backsplash , and sound deadening pads. with vertical and horizontal corners coved to a 3/4" radius. Table to be equipped with turned up sides with box edge on front and 9" high X 2-1/2" wide backsplash. Table shall be connected to LEFT exit end of the dishmachine to provide a drip-proof connection. Slope table to drain, built into table as shown on plan. Table shall be designed to accept a gravity roller conveyor to carry dish racks from dish machine smoothly & designed to help the drip drying of racks. With Table Limit Switch. LEFT side opening for Hobart Model CL44-DWR+BUILDUP conveyor-type dishmachine
Base: 16ga. Type-304 stainless steel construction consisting of (4) legs, and adjustable bullet feet. Legs shall be supported on 12 ga. stainless steel leg channels. All cross rails to be fully welded to legs with all welds polished and ground smooth. Provide a pre-wired accumulation switch at end of clean table integrated with dish machine to shut machine off when a rack reaches the end of the table. (5) sections of glass rack sides in between legs.
PVC roller conveyor shall be in accordance with the following:
Rollers shall be 1.9" dia. blue PVC, fitted with polypropylene bearings with stainless steel balls. Rollers shall be spaced at approximately 5-1/2" centers. Shafts shall be 7/16" hexagon aluminum securely bolted to side rails. Side rails shall be 1/8" x 2" stainless steel resting on support pins welded to side of conveyor bed to keep rollers elevated above bottom of bed for effective draining of water from dish racks. At exit of dish machine, first two (2) rollers shall be stainless steel tubing construction. Connection: (1) 1-1/2" drain

ITEM 111 - 63" X 15" SOLID SORTING SHELF (1 REQ'D)
John Boos Model PB-SRW-63

Sorting Shelf, 63"W x 15-3/8"D X 16-1/2"H, holds (3) racks, wall mounted, solid, includes brackets, 18/300 stainless steel, NSF

ITEM 112 - THREE (3) COMPARTMENT SINK (1 REQ'D)
John Boos Model 3PB244-2D30

Pro-Bowl Sink, 3-compartment, 135-1/4"W x 29-1/2"D x 44-1/16"H overall size, (3) 24"W x 24" front-to-back x 14" deep compartments, (2) 30" left & right drainboards, 10"H boxed backsplash with 45° top and 2" return, (2) sets of splash mount faucet holes with 8" centers, 3-1/2" die-stamped drain opening, 16/300 stainless steel construction, stainless steel legs, adjustable front & side bracing, adjustable bullet feet, NSF, CSA-Sanitation, KD

11 ft.	Model SD-1PD Sound Deadening Pads, placed one foot on center, 10" x 3-1/2" x 1/16" (per linear foot)
3 ea.	Model X-0414C Over flow hole, rear centered (modification)
1 ea.	Model X-0430CA Modify tub spacing, for (3) compartment sink (modification)

ITEM 112.1 - WALL / SPLASH MOUNT FAUCET (1 REQ'D)
T&S Brass B-0231

Pantry Faucet, double, wall mount, 8" centers, 12" swing nozzle, lever handles, stream regulator tip, quarter-turn Cerama cartridge, low lead, (2) 24" flex hose, 1/2" NPT, NSF, ADA Compliant

This item is an accessory to the item above and is not tagged or scheduled.

~~**ITEM 112.2 - DRAIN, LEVER / TWIST WASTE (3 REQ'D)**~~
~~T&S Brass Model B-3992-01-3X~~

~~Modular Waste Drain Valve, with pull handle, 3-1/2" sink opening, 2" NPT male / 1-1/2" female outlet, overflow tube with head assembly, 3" handle extension~~

~~*This item is an accessory to the item above and is not tagged or scheduled.*~~

ITEM 112.2 - DRAIN, LEVER / TWIST WASTE (3 REQ'D)
T&S Brass Model B-3992-5X

Modular Waste Drain Valve, with pull handle, 3-1/2" sink opening, 2" NPT male / 1-1/2" female outlet, 5" handle extension
3 ea. Model B-3999-OF Waste Drain Overflow Kit
This item is an accessory to the item above and is not tagged or scheduled.

~~**ITEM 113 - PRE-RINSE FAUCET ASSEMBLY, WITH ADD ON FAUCET (1 REQ'D)**~~
~~T&S Brass Model B-0133-01~~

~~Pre-Rinse Unit, mixing faucet, 8" wall mount, 14" add-on 063X swing nozzle, 18" riser, overhead spring, lever handles, 56" flex hose, Eterna cartridges, spray valve (B-0107), 9" wall support (B-0109-02), 1/2" male NPT, EPAct2005 Compliant~~

ITEM 113 - PRE-RINSE FAUCET ASSEMBLY, WITH ADD ON FAUCET (1 REQ'D)
T&S Brass Model B-0133-12CRBJST

Pre-Rinse Unit, 8" wall mount, add on faucet 12" swivel nozzle, Cerama cartridges with check valves, lever handles, 18" riser, 44" flexible stainless steel hose, 1.07 GPM, accessory fitting, wall bracket, low lead, NSF (B-0230-K)

~~**ITEM 114 - HOSE REEL ASSEMBLY (1 REQ'D)**~~
~~T&S Brass Model B-7232-01~~

~~Hose Reel System, open, 3/8" x 35 ft. hose with high flow spray valve, with ratcheting system & adjustable hose bumper, epoxy coated steel~~
~~1 ea. Model 0RK1 Mixing Control Valve, wall mount, 4" centers, concealed body, removable loose key T-handles, 1/2" female NPT bottom, & 3/8" female NPT top~~
~~1 ea. Model B-0109-01 Wall Bracket, 6"~~
~~1 ea. 1 year limited warranty, standard~~
~~1 ea. Model G016652-45 Pivot Bracket, universal, epoxy coated steel, black, (mounting hardware not included)~~
~~1 ea. 1 year limited warranty for hose, standard~~
~~1 ea. 2 year limited warranty for hose reel, standard~~
~~1 ea. Model B-0107 Spray Valve, self-closing cartridge, 1.15 GPM, includes: hose washer, hold down ring & rubber bumper, 3/4"-14 male inlet~~
~~1 ea. Model B-2339-LR Hose Reel Control Cabinet, with control valve & temperature gauge & dual check valves~~

ITEM 114 - HOSE REEL ASSEMBLY (1 REQ'D)
T&S Brass Model B-7232-01

Hose Reel System, open, 3/8" x 35 ft. hose with high flow spray valve, with ratcheting system & adjustable hose bumper, epoxy coated steel
1 ea. Model G019430-45 EasyInstall Universal Hose Reel Swing Bracket, fits 1/2" & 3/8" hose reels, includes mounting hardware, stainless steel
1 ea. Model B-1433-LR Hose Reel Supply System, 8" wall mount mixing faucet, adjustable centers, quarter-turn Eterna cartridges with spring checks, lever handles with color coded indexes, EasyInstall 16" and rigid 40" risers, continuous pressure vacuum breaker, 3/8"NPT x 36" flexible water hose connector with stainless steel quick disconnect, (2) 2-3/8" wall brackets, 1/2" NPT
1 ea. 1 year limited warranty, standard
1 ea. 1 year limited warranty for hose, standard
1 ea. 2 year limited warranty for hose reel, standard

ITEM 115 - 48" X 24" X 78" MOBILE DRYING RACK (2 REQ'D)
Cambro Model EXMU244878V4480

Mobile Unit, 24"W x 48"L x 78-1/4"H, 4-tier, withstands temperature from -36°F (-38°C) to 190°F (88°C), includes: (4) vented reinforced polypropylene shelf plates with antimicrobial protection, (4) composite posts, pre-assembled post connectors & wedges, (8) Universal Traverses & (4) bags of 4 dovetails (8 left, 8 right), (4) premium swivel casters with total locking brake, 900 lbs. max capacity, speckled gray, Made in USA, NSF
2 ea. Lifetime warranty against corrosion and rust

2 cs. Model CSDR73151 Camshelving Vertical Drying & Storage Cradle, 10-1/4"W x 23-1/2"L x 3-3/4"H, 7-slot rack, allows sufficient air circulation (maximum product width of 1-5/16"), fits all 24" wide Camshelving, Camshelving Elements, Mobile or Stationary up to 24"L to 72"L shelving units, soft gray, high impact ABS, NSF (3 racks per case), Made in USA

ITEM 116-117 - SPARE NO.

ITEM 118 - MOP SINK CABINET (1 REQ'D)
John Boos Model PBJC-224884-L

Janitor Cabinet, 48"W x 22-1/2"D x 84"H overall size, enclosed cabinet with open back for plumbing, (2) lockable louvered swing doors, left side includes: 20" x 16" x 12" deep mop sink with 3-1/2" drain, (1) over head shelf, (2) side mounted mop/broom holder with locking cam and panel-less back, right side includes: (3) shelves and bottom storage area, includes (1) service faucet with vacuum breaker and 120" hose, 18/300 stainless steel, NSF

ITEM 118.1 – SERVICE FAUCET (1 REQ'D)
T&S Brass Model B-0665-BSTP

Service Sink Faucet, 8" centers, 2-3/8" clearance from wall to center of faucet, 8-7/8" from wall to center of outlet, polished chrome-plated finish, vacuum breaker nozzle with 3/4" garden hose thread & pail hook, built in screwdriver stops

This item is an accessory to the item above and is not tagged or scheduled.

END OF SECTION 11 4000

SECTION 12 6613
BLEACHERS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Bleachers, including:
   1. Telescoping bleachers, wall-attached.
   2. Tip and Roll (Angle Frame) bleachers.

B. Electric motor operators, controls, and internal wiring.

1.02 RELATED REQUIREMENTS

A. Section 26 0583 - Wiring Connections: Connection of electric motors and controls.

B. Section 26 2726 - Wiring Devices: Key-operated wall switch(es).

C. Section 09 6466 - Wood Athletic Flooring: Flooring support and levelness.

1.03 REFERENCE STANDARDS

A. ADA Standards - 2010 ADA Standards for Accessible Design.

B. AWS D1.1/D1.1M - Structural Welding Code - Steel.

C. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel.

D. NFPA 102 - Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures.

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage handling and requirements.
   3. Installation methods.

C. Shop Drawings: Complete layout with dimensions, seat heights, row spacing and rise, aisle widths and locations, points of connection to substrate, assembly dimensions, and material types and finishes.
   1. Provide drawings customized to this project.
   2. Include Professional Engineer certification.
   3. Wiring Diagrams: Show locations of motors, electrical wiring, and rough-in connections.
   4. Graphics Layout Drawings.

D. Selection Samples: For each material for which color selection is required, submit samples, 2 by 2 inches in size, illustrating colors and finishes available.

E. Operation and Maintenance Data: Manufacturer's operation and maintenance instructions, including annual inspection and maintenance and bi-annual inspection by a Professional Engineer or manufacturer factory service personnel.

F. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.

B. Installer Qualifications: Approved by manufacturer.

C. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M, AWS D1.3/D1.3M, and no more than 12 months before the start of scheduled welding work.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Store, in original packaging, under cover and elevated above grade.

1.07 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. Correct defective Work within a one year period after Date of Substantial Completion. Replace parts that fail under normal use at no extra charge to Owner.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Telescoping Bleachers:
   1. Interkal LLC: www.interkal.com/#sle.
   2. Irwin Telescopic Seating Company: www.irwintelescopicseating.com/#sle.
   3. **BASIS OF DESIGN:** Hussey Seating Company; Maxam: www.husseyseating.com/#sle.
   4. Southern Bleacher Company
   5. Substitutions: See Section 01 6000 - Product Requirements.

B. Angle Frame Bleachers:
   1. Any of those listed above.
   2. American Aluminum Seating Company
   3. Southern Bleacher Company.
   4. Substitutions: See Section 01 6000 - Product Requirements.

2.02 TELESCOPING BLEACHERS

A. Telescoping Bleachers: Factory assembled tiered benches that retract horizontally into depth approximately the same as a single row depth, with fixed seats mounted on leading edge of platforms.
   1. Provide a design certified by a licensed Professional Engineer licensed in the State in which the Project is located.
   2. Design to comply with applicable requirements of NFPA 102 and requirements of code authorities having jurisdiction; where conflicts between requirements occur, comply with whichever is more stringent.
   3. Design with solid fascia (riser) or seat fronts that conceal interior mechanisms when fully retracted, fitting tightly enough to prevent climbing up face; at front row provide key locked, hinged fascia (skirt) to cover gap between seat riser/fascia and floor.
   4. Configurations: As indicated on drawings.
   5. Wheelchair Spaces: Recoverable open spaces at locations indicated on drawings in compliance with ADA Standards.
   6. Cutouts: Fit units to irregular wall surfaces, and obstructions; take field measurements prior to fabrication.
   7. Operation: Motor operated; Friction power.

B. Design Loads: Design to withstand the following loading conditions:
   1. Live Load on Structural Supports: 100 psf, minimum, of gross horizontal projection.
   2. Live Load on Seats and Walking Surfaces: 120 pounds per linear foot.
   3. Lateral Sway Stress on Structural Supports: 24 pounds per linear foot of seat plank.
   4. Perpendicular Sway Stress on Structural Supports: 10 pounds per linear foot of seat plank.

C. Dimensions:
   1. See drawings for overall dimensions.
   2. Rows: 8.
   3. Rise Per Row: 11-5/8 inches.
   4. Row Depth: 26 inches.
   5. Width: as indicated on drawings.

D. Structural Supports: Steel or aluminum; manufacturer's standard wheeled carriages supporting each tier separately, with moving parts permanently lubricated and metal parts cushioned to prevent metal-to-metal contact during operation.
   1. Design so that each row carriage so that it will individually support the design loads and is self supporting when fully assembled without dependence on platform panels or boards, seats, or fascia.
   2. Welding: In accordance with AWS D1.1/D1.1M and AWS D1.3/D1.3M.
   3. Bolting: Use lock-washers or locknuts.
   4. Wheels: Minimum 5 inch diameter by 1-1/8 inch wide, with non-marring rubber tires; ball, roller, or oil-impregnated metal bearings; minimum of 2 wheels at each floor support.
   5. Finish: Manufacturer's standard enamel or powder coating.
   6. Row Locking: Automatically mechanically lock each carriage to adjacent carriages when fully extended.
   7. Unlocking: Automatically unlock all rows before engaging retraction mechanism.

E. Motor Operation: Traction wheels, with non-marring rubber covering, using motor adequately sized for the purpose.
   1. Provide UL listed electrical components and wiring.
   2. Controls: Start, Stop, Forward, and Reverse in a single control unit.
   3. Control Station: Key-operated wall station.
   4. Limit Switches: Automatically stop operation when unit has reached fully open or fully closed position.
   5. Provide all wiring internal to bleacher units, to junction box located where indicated; ensure that wiring is not energized except during operation.
   6. Electrical Characteristics: 208V, three phase, 60 Hz.
   7. Provide access to motor from front side of bleachers; a hinged front skirt or hinged section at least 30 inches wide is acceptable.

2.03 SEAT AND PLATFORM COMPONENTS

A. Seat/Fascia Assembly: Continuous, molded UV-stabilized high-density polyethylene plastic, seat minimum 1 inch thick, textured finish, homogeneous color throughout, color as indicated in Finish Schedule; approximately 18 inch long sections independently removable with tongue-and-groove or rabbeted interlock at end joints.
   1. Shape: Ergonomically contoured, with internal ribs spaced for natural flexibility; rear edge cantilevered to provide toe room of not less than 3 inches; no openings to trap debris.
   2. Provide end caps of same material and finish on each exposed end.
   3. Supports: Internal steel reinforcement of each seat segment bolted to platform nose member; minimum two bolts per segment.

B. Platform, Tread, and Step Structure: Plywood continuously supported on front and rear with side joints tongue-and-grooved.
   1. Plywood: PS 1, 5-ply southern pine or polyethylene-overlaid douglas fir or southern pine, Grade A-C.
   2. Plywood Thickness: 5/8 inch, minimum.
   3. Front (Nose), Rear, and Intermediate Supports: Steel channel or tube, hot-dipped galvanized.
   4. Provide end caps of same material and finish on each exposed end.
   5. Finish: Polydeck Gray.
   6. Nosings: Formed steel, minimum, G60/Z275 hot-dipped galvanized.
   7. At aisles provide permanently attached intermediate steps of same construction and finish.
   8. At bottom of aisles provide step in front of first riser, hinged to first platform to fold for storage. All edges coined, hemmed or radiused with front edge protective rubber bumpers. Abrasive-backed non-slip tread identifier on leading edge of nosing.

2.04 HANDRAILS AND RAILINGS

A. Handrails and Railings:
   1. Aisle Handrails: Manual Rotating, single pedestal mount handrails 34 inches high with terminating mid rail. Permanently attached handrail shall rotate in a permanently mounted socket for rail storage. Rail shall deploy easily, lock in the use position, and require intent and effort to unlock, and return to the stowed position. Ends of the handrail shall return to the post, and not extend away from it. Rails having openings to avoid interference with closed decks are not acceptable.
   2. End of Row Guardrails: Self-storing starting no higher than tier 2, 42 inches high above seat, end rail with tubular supports and intermediate members designed with 4 inch sphere passage requirements.

B. Design handrails and railings to withstand the following loads:
   1. Concentrated Load on Guardrails: 200 pounds in any direction along top rail.
   2. Live Load on Guardrails:
      a. Horizontal: 50 pounds per linear foot, applied at the guardrail height.
      b. Vertical: 100 pounds per linear foot, applied vertically to top of guardrail.

C. Railing Construction: Round steel or aluminum pipe or tube, with formed elbows at corners and caps at ends of straight runs.
   1. Aluminum: 1.66 inches minimum outside diameter.
   2. Steel: 1-1/2 inch minimum outside diameter, with 11 gauge, 0.12 inch minimum wall thickness; textured powder coat epoxy finish.
   3. Guardrail Infill: 9 gauge, 0.1144 inch diameter steel wire woven chain link with twisted selvages, fastened to pipe panel frame.
   4. Finish: Semi-gloss.
   5. Color: Architect to select from manufacturer's standard range.

2.05 ACCESSORIES

A. Fillers and Closures:
   1. Ends of Retracted Units: Vinyl curtains ~~Polydeck panels, color to match platforms~~.
   2. Top Row: Provide seat level rear filler panels to close openings between top row seat and wall; finish to match platforms.
   3. Sides of Extended Units: Vinyl curtains.
   4. Vinyl Curtains: 18 ounce vinyl with grommets; color as selected from manufacturer's standard palette.
      a. Location: end of bleacher units in extended position.

B. Motion Monitor: Strobe light and warning horn rated at 150 dB, both of which operate continuously during movement of any section of bleachers; mount strobe light where it is clearly visible to entire bleacher installation.

C. Flex Rows to accommodate persons requiring ADA spaces. As indicated in the drawings.

D. Access Hatchways

E. Fasteners: Provide hardware and fasteners in accordance with manufacturer's recommendations.

F. Anchorage: As indicated on drawings; provide hardware in accordance with manufacturer's recommendations.

2.06 TIP AND ROLL CLOSED DECK ANGLE FRAME BLEACHER

A. Five (5) 3 row x 12’ 0’ closed deck non-elevated. See drawings for total sets.

B. Vertical Rise per row: 6”

C. Horizontal depth per row: 24”

D. Seat Height: 17” above foot plank

E. Framework: Aluminum Angle

F. Seats: Nominal 2” x 10” anodized aluminum boards

G. Treads: Two (2) Nominal 2” x 12” for decks 1 and 2.

H. Tread: One (1) Nominal 2” x 10” for back deck.

I. Two (2) of the Five (5) units are to have vertical aisles that will provide code compliant egress for the total length of 60’.

J. Net seating shall not be less than 108.

K. Top row shall not exceed 29-1/2” above the floor.

L. Materials
   1. Framework: Galvanized steel or aluminum structural fabrication. Shop connections are welded. After fabrication, steel shall be hot-dipped galvanized to ASTM-A123 specification.
   2. Tread Planks: Extruded aluminum alloy 6063-T6, mill finish
   3. Seat Planks: Extruded aluminum alloy 6063-T6, clear anodized 204R1.
   4. Risers: Extruded aluminum alloy 6063-T6,
   5. Hardware: Steel bolts
   6. Hold-down clip assembly: Aluminum alloy 6063-T6
   7. Channel end caps: Aluminum alloy 6063-T6, clear anodized for seats, mill finish for treads.
   8. Rubber foot pads
   9. Two (2) Casters per frame.

M. Fabrication
   1. Design Load
      a. Live Load: 100 psf gross horizontal projection
      b. Lateral Sway Load: 24 plf seat plank
      c. Perpendicular Sway Load: 10 plf seat plank
      d. Live Load of Seat and Tread Plank: 120 plf
      e. Guardrail: 100 plf vertical and 50 plf horizontal.
   2. All welded connections shall be shop welded
      a. Manufactured by certified welders conforming to AWS standards.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are consistent with those on the shop drawings.

B. Verify that electrical rough-ins have been installed and are accessible.

C. Do not begin installation until substrates have been properly prepared and area has been cleared of obstructions.

D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Do not field cut or alter seats, fascia, or structural members without approval.

C. Provide manufacturer's field representative to inspect completed installation.

3.04 ADJUSTING

A. Lubricate, test, and adjust each moving assembly to ensure proper operation in compliance with manufacturer's recommendations.

3.05 CLEANING

A. Clean exposed and semi-exposed assembly surfaces.

B. Touch up finishes on damaged or soiled areas.

3.06 CLOSEOUT ACTIVITIES

A. Demonstration and Training: Provide manufacturer's field representative to demonstrate to and train Owner's operating personnel in proper operation of equipment.
   1. Location: On site using installed equipment.
   2. Time: As agreed between Owner and Contractor.

3.07 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair, or replace damaged products before Date of Substantial Completion.

END OF SECTION

SECTION 275113 - INTEGRATED ELECTRONIC COMMUNICATIONS NETWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The drawings and general provisions of the Contract Documents apply to this Section.

1.2 SUMMARY

A. This section includes a fully operational IP platform for a district-wide internal and school Critical Communications Solution, incorporating school safety notifications and general communications including but not limited to the following:

1. The platform shall provide complete internal communications and employ state of the art IP Technology including the minimum functions listed. System shall be capable of all functions below. Refer to all functions that will be required as part of this project.
   a. Two-way internal intercommunications between staff locations and classrooms.
   b. Scheduled bell events.
   c. Emergency announcements that will override any pre-programmed audio, assuring that all Emergency/Lockdown etc., are heard at each speaker location.
   d. Capability of prerecording emergency announcements that can be activated by a Soft Key on an administrative console, panic button, dial string, mobile app, or web browser.
   e. Atomic Time Synchronization with Class Change Tones utilizing multiple, programmable schedules for each zone.
   f. District-wide, Emergency, Group, All School and Zone live voice paging.
   g. District-wide, Emergency, group, All School and Zone visual messaging.
   h. District-wide, Emergency, Group, All School and Zone paging for pre-recorded audio – tones, music and voice.
   i. Single sign on web-based user interface for multi-school functionality.
2. The system shall support a minimum of 1000 level priorities which shall be user-definable, allowing each end point to place a minimum of 5 different priority calls at the same time.
3. Any authorized administrator shall be able to call from outside the school into any classroom, zone, or entire school directly via the School District supplied SIP enabled Telephone Network. This shall allow remote monitoring, call-in annunciation, and two-way conversation from outside the facility as well as paging into the system. (Compliance with NEMA Standard SB-40 for emergency communications in K-12 Schools).
4. Authorized system users shall be able to create a minimum of 100 automated sequences with voice instructions, tones, emails, program distribution, and relay activations and replay them.
5. Automated message strings shall be manually initiated from a single-button access on the console, on a SIP connected telephone, panic button, mobile

app, from the web-based user interface or via interface with third party systems.

6. Paging and two-way intercom features shall be accessible from any system console or SIP connected telephone for each campus.
7. The platform shall synchronize its system time to the network timeserver or a web-based time server.
8. Each single campus installation shall be locally survivable for intercom, paging, bells, and emergencies such as lockdown, even when the district connection is unavailable.
9. This specification establishes a minimum level of quality, features, and performance for individual components as well as the integrated system.
10. Systems that do not comply with the feature-sets highlighted in this Specification will not be considered.
11. Included in the emergency procedures is the ability to send specific messages and or instructions. These features can be added to the emergency sequences.
12. The ability to require an access code to initiate or clear an emergency from the administrative console.
13. An app that can run on either Android or Apple phones. This app will give the user the ability to initiate one of 18 emergency procedures programmed into the app. This app will also allow you to view all classrooms check in status. This process will update during the emergency to make sure all information is current.
14. The ability to allow the fire alarm system to signal an active fire alarm to TCU. This will allow supplemental visual and audio messaging from Telecenter U. Telecenter U can be programmed to change system state, dependent on the active emergency. Both fire and emergency will be displayed on the administrative console and mobile application.
15. Any system that requires more then one connection to a classroom to control an IP speaker, up to 5 call-in switches, status lights (up to 2) and message board/digital clock will not be considered equal to the specified system.

1.3 DEFINITION OF TERMS

A. Installer(s): Shall refer to the person, persons, or company who or which contracts to perform the work specified herein.

1.4 SUBMITTALS

A. Product data for each component.

B. Shop Drawings: Prior to proceeding with the work: Provide detailed equipment assemblies and indicate dimensions, weights, required clearances, method of field assembly, components, location of each field connection, and a complete schedule of all equipment and materials with associated manufacturer's cuts sheets which are to be used.

a. Wiring Diagrams: Detail wiring for power, signal, and control systems and differentiate between manufacturer-installed and field-installed wiring. Identify terminals to facilitate installation, operation, and maintenance. Include a single-line diagram showing cabling interconnection of components and levels throughout system and impedances.

b. Artwork drawings and lists indicating proposed nameplate nomenclature and arrangements for control panels and plug panels prior to fabrication reflecting equipment used.
c. Each drawing shall have a descriptive title and all sub-parts of each drawing shall be labeled. All drawings shall have the name and locations of the project, Systems Contractor's name in the title block.
d. Details and descriptions of any other aspect of the system, which must differ from the contract documents due to field conditions or equipment, furnished.

C. Field Test Reports: Indicate and interpret test results for compliance with performance requirements. Include record of final matching transformer-tap settings, and signal ground-resistance measurement certified by Installer.

D. Maintenance Data: For equipment to be included in maintenance manuals specified in Division 1.
a. Record of Owners equipment-programming option decisions.
b. All instructions necessary for proper operation and manufacturer's instructions.
c. "Proof of Performance" information.
d. Manufacturer's maintenance information.
e. Copies of non-proprietary computer programs and system set up disks documenting all programmable features of the installed system.

E. Record Drawings: Prior to final acceptance, provide three (3) complete sets of drawings indicating all cable numbers and construction details in accordance with the actual system installation. Revise all shop drawings to represent actual installation conditions. These Record Drawings will be used during "Final Acceptance Testing".

F. System Training: Submit the following information describing the training programs and system trainers as outlined in paragraph 1.6 of this specification and in accordance with Division 1 specifications.
a. Include with the submittal a preliminary staff development training program in outline form for review and approval by the owner's representative.
b. Include with the submittal a current copy of the trainer's certification from the manufacturer that certifies and identifies the trainer(s) who are eligible to provide training and support for the project.
c. Include with the submittal a current copy of trainer's needs assessment form which will be reviewed with the owner's designated representative for the system's preliminary system programming and configuration.
d. Include with the submittal copies of all documentation used to identify for the owner those participants attending and completing the training programs.

G. A copy of the manufacturer's standard statement of warranty proving all equipment provided for the school communications network is covered with the required five-year warranty shall be included with the project submittal. This statement of warranty shall be provided on the manufacturer's stationary.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An experienced Installer who is an authorized representative of equipment manufacturer for both installation and maintenance of equipment required for this Section. Provide the following within thirty (30) days after notification to proceed:
   1. Provide a list of installations that the Installer has specifically installed for verification by the Owner. Random installations from other vendors and/or Installers shall not be accepted. The Installer, not its employees, must meet these qualifications.
   2. The Installer shall be bondable.
   3. The Installer shall demonstrate to the satisfaction of the Owner or his representative that he has:
      a. Adequate plant and equipment to pursue the work properly and expeditiously.
      b. Adequate staff and technical experience to implement the work.
      c. Suitable financial status to meet the obligations of the work.
      d. Technically capable and factory trained service personnel at a local service facility to provide routine and emergency service for all products used in this project.

B. Any Contractor, who intends to bid on this work and does not meet the requirements of the "Quality Assurance" paragraph(s), shall employ the services of an "Installer" who does meet the requirements and who shall provide the equipment, make all connections and continuously supervise the installation. A subcontractor so employed as the "Installer" must be acceptable to the Architect/Engineer. The "Installer" shall be identified within thirty (30) days of notification to proceed for acceptance by the Architect/Engineer.

C. Because the life expectancy of this type of communications structure normally exceeds 10 years, the owner expects continuity from the service provider. If the installing/servicing company has not been an authorized provider of the manufacturers product for it least 10 years, the following is required:
   1. A list of (2) systems manufacturers of which they currently are authorized service providers where the relationship exceeds 10 years.
   2. A letter from the manufacturer outlining the details of changes in service providers over the last 10 years and what actions they will take to ensure continuity of service to the customer.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

E. Comply with NFPA 70

F. Comply with NEMA Standard SB-40 for Emergency Communications in K-12 schools.

G. Comply with UL 60950.

1.6 IN-SERVICE TRAINING

A. The contractor shall provide and implement a complete and comprehensive staff training program for all administrators, facility staff members, and teachers. This mandatory

training program will provide school staff a complete understanding of how to utilize and properly operate all functions.

B. The training program shall be implemented by a staff member/trainer employed by the contractor. The trainer must be factory certified to provide training on their product.

C. All staff development training is to be coordinated through the owner's designated representative. As training sessions are completed, the trainer will provide the school's administrative staff and school district's staff a document listing all the staff and faculty members who attended, received, and completed the training program.

1.7 WARRANTY

A. Provide a manufacturer's five-year warranty of the school communications network equipment against defects in material and workmanship. This warranty will cover all electronic system components. Additional warranties cover clocks, speakers, and call in switches. If any defects are found within the warranty period, the defective equipment shall be replaced at no cost (equipment only); a one-year warranty shall be provided for labor.

B. A copy of the manufacturer's standard statement of warranty proving all equipment provided for the school communications network is covered with the required five-year warranty shall be included with the project submittal. This statement of warranty shall be provided on the manufacturer's stationary. The standard five-year warranty is an important element in establishing a standard in quality. Manufacturers who circumvent the five-year warranty by offering special "extended warranties" that are not part of their normal published warranty will not be accepted.

C. Contractor shall respond, excluding weekends and holidays, within 24 hours to any warranty service calls. If equipment cannot be repaired within 24 hours of service visit, the contractor shall provide "loaner" equipment to the facility at no charge.

D. Make available a service contract offering continuing factory authorized service of the system after the initial warranty period.

PART 2 - PRODUCTS

2.1 BASIS OF DESIGN

A. This specification is written around the Rauland Telecenter System.
   1. All other manufacturers shall be approved by Engineer.

2.2 SYSTEM REQUIREMENTS

A. The platform shall utilize state of the art IP Technology for Emergency automation, Call-in Notification, School Safety Paging and Evacuation tones, Class Change Tones utilizing multiple, programmable schedules for each zone, two-way hands-free everyday internal communications and paging, visual messaging, and program distribution. The system

shall be easy to learn and operate. All standard programming shall be web-based, district-wide and user friendly to allow the system administrator the ability to easily program system features.

B. Provide complete and satisfactorily operating district/school communications and district/school safety as described herein, using materials and equipment of types, sizes, ratings, and performances as indicated. Use materials and equipment that comply with referenced standards and manufacturers' standard design and construction, in accordance with published product information. Coordinate the features of all materials and equipment so they form an integrated system, with components and interconnections matched for optimum performance of specified functions.

C. The platform shall be a single electronic system consisting of a minimum of 10 audio channels for each campus, (classroom) IP Speaker Modules and call switches, IP Zone Modules connecting corridor speakers, inside and outside horns, IP Administrative Consoles, SIP enabled PBX integration and district-wide integration for paging, emergency notifications, calendar scheduling and configuration.

D. Each Classroom shall be provided with a Speaker Module interface, each with their own annunciation path and priority.

E. Call-ins may automatically annunciate (display of priority and location) to administrative consoles, SIP enabled phones, and outside phones.

F. Call-ins shall be programmed to automatically change priority and annunciation route based on age of call-in and original priority.

G. Call-ins may have priority (and annunciation route) changed by user action from a console or SIP enabled phone.

H. Call-in annunciation route shall include playing pre-recorded audio over speakers, sending a pre-configured email, and activating relays.

I. The platform shall lend itself to expansion by simple addition of hardware modules.

J. The platform shall connect directly to an existing, standard protocol WAN/LAN network, without the need for a separate server at each school location. Configuration, including bell schedules, calendars, and emergency sequences can be remotely created, changed, stored and downloaded to the system by an authorized user from a web-based user interface.

K. The platform shall provide the ability to initiate school safety paging announcements, evacuation tones and take cover tones from any telephone or connected web browser within the facility or outside the facility to any other location within the facility or district.

L. The platform shall provide the ability to selectively communicate or monitor individual classrooms in emergency situations from any telephone within the facility or outside the facility to any other location within the facility; all communication within the classroom shall be hands-free and will not require any interaction by the classroom user.

M. The platform shall provide classroom users the ability to confirm that they have safely secured their classrooms during an emergency with a single button press. The front office administrator will receive confirmation that the classroom is safely secured via an administrative console and web-based user interface. The front office administrator can view classrooms that are not safely secured via the administrative console. The front office administrator can view classrooms that are not safely secured via the web-based user interface. The front office administrator shall be able to initiate two-way communication, without a pre-announcement tone, to the classroom during an emergency via the administrative console. Web-based user interface will still identify that a school is in an emergency, even if all classrooms are safely secured. Individual classroom check-in and school emergency status shall be viewed from the web-based user interface, both on-site and remotely.

N. IP Addressable Speaker Modules for individual rooms shall be system programmable and may be assigned any two, three, four, five- or six-digit number as well as name and description. Any extension may be reassigned at any time.

O. IP-enabled two-way voice communication shall be available from any provided telephone or administrative console through any speaker in a campus. This shall allow hands-free communication to any classroom or any individual loudspeaker unit. A programmable pre-announce tone shall sound immediately before the intercom path is opened and a supervisory tone shall continue to sound at regular intervals when speaker monitoring is active, complying fully with all privacy legislation. Pre announce tone and supervisory tones shall be disabled during designated emergencies automatically.

P. The platform shall allow users to configure multiple schedules per school, with a minimum of 500 unique events per schedule, and automatic Daylight Savings time correction. Schedules can be programmed to occur once, daily, weekly, monthly, or in any combination of the preceding recurrences. Each school may have a minimum of 20 unique bell schedules, with a minimum of 5 active schedules on any given day for each campus. User shall be able to select from 25 standard included tones as well additional user created and uploaded audio files for class change signaling and messaging. In addition, scheduled events shall include relay actions, email notifications, visual messaging, status lights and paging exclusions as system configuration changes. The platform shall allow control of the bell schedules via the district WAN/LAN without the need for a separate server at each school location. Bell schedules can be remotely created, changed, stored and assigned to calendar days for the local school by an authorized user from a single web-based user interface, without logging into multiple systems.

Q. The platform shall be able to integrate with an existing PA system or operate as a fully independent IP solution. The platform shall be able to function in combination of said configurations and allow for seamless communication within a school or district-wide, regardless of the type of configuration used. The platform shall be scalable, with the ability to easily add, install, and configure additional equipment to a system.

R. The platform allows for customization of preprogrammed sequences, used for emergencies, events, and everyday communications. Preprogrammed sequences can be activated from the push of a relay button, soft key of an administrative console, a dial string of a SIP phone, or a web browser configured to the district network. Sequences can be initiated automatically as part of a schedule or on the fly. Preprogrammed sequences can be customized to utilize any combination of audio tones, emails, relays, tone

exclusions, swings, delays, duples, SIP phone notifications, and program distribution. Audio tones can include customized audio files and voice messages, recorded in any language. Uploaded audio tones and messages can be preprogrammed to annunciate repeatedly or individually, as part of a scheduled sequence or on the fly. Each school in a district can have its own customized sequences, and can be activated individually, in groups, or district-wide.

S. The platform allows for emergencies to be initiated in a drill environment, separate from real emergencies. Drill emergencies can be initiated from panic buttons, consoles, SIP phones, or a web browser.

T. The platform shall provide status lights that will display the status of individual classrooms and school-wide status, including for emergencies, at the same time. Status lights will be customizable in color and flash rate based on event type and priority.

U. Zone page amplifier module. This component will give the schools the ability to play audio to drive groups of speakers from a single device. Depending upon configuration you can have 14 or 35 watts of output. The module can be either wall or rack mounted.

V. First Responders Notification. This feature can be initiated so the status lights do not display the rooms that checked in until the first responders are on site. This will not influence any of the other check-in notifications. The App, console and computers can still display the rooms that checked in.

W. TCU Emergency Initiation App. This app can be installed on either Android or Apple devises. The app can process up to 18 different emergencies. The app will update in real time rooms that have checked in OK. It can also display a Fire emergency is in effect during an emergency.

2.3 EQUIPMENT AND MATERIAL

A. Server Software

1. Provides district-wide paging, bell event scheduling, emergency notification and configuration for entire district.
2. Ability to configure system and initiate system features, per school and district-wide via web-based user interface.
3. The software can sync system time to the Atomic Clock Signal or to the school’s or district’s network time server.
4. The software will provide a web browser to deliver district-wide emergency paging, pre-recorded messages and tones from any authorized computer in the facility or the district. The software must be capable of automatically notifying district personnel via the WAN/LAN of an alarm condition.
5. The software can automatically broadcast emergency instructions via associated system hardware throughout an entire district when an alarm (e.g. lockdown, lockout, security, fire) is initiated via the web-based user interface. The emergency instructions are preprogrammed and require no user intervention. Bell tones can be halted during an emergency. The system provides redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.

6. The software allows for user-uploaded pre-recorded messages and tones. Software supports the upload of MP3 and WAV file types. User-uploaded pre-recorded messages and tones can be part of emergencies, sequences, and bell schedules.
7. The software can be installed in cloud, virtual or physical server environments.
8. The web-based user interface supports secure HTTP browsing.
9. The software supports encryption to ensure secure access.
10. The system shall monitor itself if devices go offline and system actions are not received. Specified users shall receive email notifications when devices go offline. The software shall be able to keep a log and report on system activity within a school or all schools district-wide for a minimum of one year. These reports can be exported to excel spreadsheets.
11. The system shall allow administrators to run reports on all system activities including emergencies, drills, paging, call-ins, check-ins and system trouble on a per school, multi-school and district-wide basis.
12. The software will support a minimum of 20 bell schedules per school, with 5 schedules assignable to a specific school day. Bell schedules can be programmed to annunciate tones, activate relays, send emails, activate program distribution, and notify SIP phones.
13. The system allows programmable end points to be automatically included or excluded for live paging, bell tones, or prerecorded audio, depending on the time or day or day of the week. These inclusions/exclusions can be applied manually or automatically depending on their schedule.
14. The software can automatically send an email, as part of a programmed sequence of events, to district administrators alerting them of an emergency within the district.
15. The software provides the ability to view schools that are in an emergency status, using any web browser on the district's network. The software shall identify the name of the school in an emergency as well the type of emergency that school is in.
16. The software provides the ability to view individual classrooms that are not checked-in during an emergency, using any web browser on the district's network. The software shall identify the name, extension, and description of the classroom that is not checked-in during the emergency.
17. The system has a minimum of 5 customizable emergencies, one of them being an All-Clear – with the ability to return the system from an emergency to normal status. Each emergency shall have a minimum of 500 unique events.
18. As a district-wide communications solution, the system shall be able to provide simultaneous communications to all schools or groups of schools within a district. The system shall allow a user to initiate district-wide communications to individual schools, all schools or groups of schools, from a web-based user interface. The system shall allow a user to initiate prerecorded audio, live paging, or programmed sequences to individual schools, all schools or groups of schools, from the web-based user interface. Programmed sequences shall be customizable per school, and the system shall be able to activate them simultaneously to individual schools, all schools or groups of schools, from the web-based user interface.
19. The communications software must allow upgrade from an individual school system to multiple schools, or an entire school district, using the same web-

based user interface. The communications software from an individual school system must be identical in typical user operation to the multiple schools or entire school district communications system software.

20. The system allows for emergencies to be initiated as drills for practice. Drills may include all or some of the associated steps as its corresponding emergency sequence. Drills are recorded in the event history report.
21. The system provides the ability to export lists of bell schedule steps, emergency sequences, staff directory, users, peripherals, and zone targets.

B. Campus Controller

1. Provides call routing for paging and intercom for a single facility.
2. System shall connect to the district provided Telephone Network via a SIP connection.
3. Support a flexible numbering plan allowing two, three, four, five, or six-digit extensions.
4. SIP interface to a district provided Telephone Network shall be capable of allowing connected phones to display classroom call-ins, answer internal intercom call-ins, make pages and change priorities of call-ins in progress.
5. Direct dialing, two-way amplified voice intercom between any provided telephone or admin console and speaker without the use of a press-to-talk or talk-listen switch.
6. Ability to upgrade priority level from individual call switch.
7. The ability to answer intercom call-ins registered at administrative consoles and pre-selected telephones.
8. The ability to automatically escalate incoming call-ins to an alternate telephone or group of telephones if they remain unanswered for a predetermined amount of time.
9. The ability to manually upgrade an intercom call-in to an alternate telephone or group of telephones.
10. The ability for classrooms to “check-in” via push button when they have successfully secured their location during emergency.
11. Administrative console shall display locations that have not checked in to confirm their secured location and provide hands-free audio monitoring and communication to unsecured locations.
12. The controller shall not need direct connection to any classroom via home run or distributed wiring. It shall communicate solely through the IP network.
13. Single button access from any console on the system to distribute emergency announcements within the facility to all or select locations equipped with speakers. Emergency announcements originating from any assigned administrative console shall have priority over all regular system functions.
14. Ability for administrative consoles and connected phones to selectively monitor audio at any two-way speaker during an emergency.
15. Stores a minimum of 48 hours’ worth of Bell Event Schedules, all emergency notification sequences as well as facility wide configuration.
16. System can sync system time to the Atomic Clock Signal or to the school’s or districts network time server.
17. System’s SIP Interface shall provide:
    a. Audio paging access from any telephone to any single intercom speaker, zone (group) of intercom/paging speakers, or all speakers/paging horns throughout the entire facility.
    b. Ability to answer a call-in directed to that SIP extension.

c. Ability to upgrade a call-in directed to that SIP extension.
d. Single button access from any telephone on the system to initiate alarm signals within the facility to all or select locations equipped with speakers. A minimum of 25 separate distinct alarm signals shall be provided. Alarm signals originating from any assigned administrative telephone shall have priority over all regular system functions.
e. Ability to initiate a school-wide emergency including lockdown and evacuate sequences.
f. SIP device shall display call-in information from call in switch. Information will include a minimum of Classroom Name, Number, and Priority Level.

18. The system will have the ability to utilize a web browser and a USB microphone connected to the PC to deliver district-wide live emergency paging, pre-recorded messages and tones from any authorized computer in the facility or the district. The system must be capable of automatically notifying district personnel via the WAN of an alarm condition.
19. The system will have the ability to utilize a desktop microphone to deliver school-wide live emergency paging and zone paging throughout the facility.
20. The system can automatically broadcast emergency instructions throughout an entire campus when an alarm (e.g. lockdown, lockout, security, fire) is tripped or manually activated. The emergency instructions are preprogrammed and require no user intervention. Bell tones can be halted during an emergency. The system provides redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.
21. The system can integrate with emergency weather radios to generate live emergency broadcasts notification throughout a facility.

C. IP Addressable Modules:
1. System shall provide multiple IP Addressable Modules for intercom, paging and relay activation.
2. IP Addressable Speaker Module
a. Shall interface to school's data network, a classroom speaker, and multiple call switches.
b. A minimum of 5 levels of call-in can be placed from an IP Speaker Module. The call-ins are routed to administrative consoles and select SIP connected telephones and can only be cleared from the system once answered. If a call-in is not answered within a preprogrammed time the call-in may reroute to other telephones, consoles, and speakers.
c. An option for Privacy call in switches is supported. When the Privacy switch is activated it prevents administrative or classroom telephones from monitoring the specific classroom/location intercom speaker.
d. The ability to belong to one or more of a minimum of 100 independent zones for zone paging, program/music distribution zones and class change tone zones; this assignment is a programmable function, changeable by time of day. Each IP Speaker Module's location shall be programmed in software to belong to any combination of software zones. IP Speaker Modules shall be designed to mount near ceiling and wall speakers and in the plenum space.
e. Intercom and paging volume adjustable from Software interface.

f. Module will support and power a status light that displays individual classroom information including call-ins placed, testing status and emergency check-in status.

3. IP Addressable Zone Paging Module
   a. Zone Paging Module shall connect multiple speakers for district all page, all page, zone paging, bells, audio events and, emergency notification.
   b. Zone Paging Modules shall be rack and wall mountable.
   c. Zone Paging Modules shall be able to belong to one or more of 100 independent zones for live paging, bells, pre-recorded audio and emergency notification.
4. IP Addressable Aux I/O Module
   a. Aux I/O Module shall have two input contacts and two output contacts.
   b. Input and output contacts are individually addressable.
   c. Aux I/O Module shall be wall and rack mountable.
   d. User can program relays to be activated manually, through an event/bell schedule, or during emergency notification.
   e. Aux I/O Module can perform school lockdown from a single press of a panic button.
5. IP Addressable Program Line Input Module
   a. Program Line Input Module shall provide line level audio program distribution into system.
   b. Program Line Input Module shall have a 3.5mm cable jack.
   c. Program Line Input Module shall be configured via web-based user interface.
   d. User can configure program distribution to be activated manually or automatically through an event/bell schedule.
   e. Program Line Input Module will have a system priority level such that emergency communications override program distribution.
6. IP Addressable Microphone Input Module
   a. The system shall support a minimum of five (5) Microphone Input Modules per school.
   b. Microphone Input Module shall support dynamic and condenser style microphones.
   c. Microphone Input Module shall support microphones with or without Push-To-Talk functionality.
   d. Microphone Input Module shall support configurable paging priorities.
   e. Microphone Input Module shall provide user feedback for paging activity.
   f. Microphone Input Module shall have adjustable microphone gain levels.
   g. Microphone Input Module shall be configurable from the web-based user interface.
   h. Live pages from the Microphone Input Module can automatically increase audio priority during an emergency.

D. IP Addressable Analog Gateway
   1. IP Addressable Gateway provides integration with existing analog wiring infrastructure – consisting of shielded two-pair classroom field wiring. The Gateway provides the ability to reuse speaker wiring, speakers, and punch blocks to integrate analog infrastructure with IP platform.
   2. Each Gateway will have 5 watts of power per port and 25 watts total per device.

3. Supports 24 classrooms that utilize 25 Volt speakers and all current Telecenter call switches for front office notification.
4. Supports minimum of 5 call switch priorities per classroom, capable of lockdown check-in functionality, while reusing existing shielded two-pair classroom field wiring.
5. Classroom intercom volume adjustable from Software interface.
6. Classroom paging volume adjustable from Software interface.
7. Configured to the school network and can be used in conjunction with IP Addressable Modules.

E. IP Addressable Administrative Console
1. A full color screen with 64 soft keys, 3 line select, volume control, push to talk, speakerphone mode and left/right and up/down scrolling.
2. Audio paging access from any Console to any single intercom speaker, zone (group) of intercom/paging speakers, or all speakers/paging horns throughout the entire school.
3. Programmable soft key access from any console on the system to initiate alarm signals within the school to all or select locations equipped with speakers. A minimum of 25 separate distinct alarm signals shall be provided. Alarm signals originating from any assigned administrative console shall have priority over all regular system functions.
4. Programmable soft key access from any console to automatically broadcast page emergency instructions throughout an entire school when an alarm (e.g. lockdown, lockout, security, fire) is tripped or manually activated. The emergency instructions are preprogrammed and require no user intervention. The system provides redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.
5. Ability to perform intercom to any single IP Addressable Speaker Module.
6. Ability to display 3 call-ins at a time on the screen while other call-ins are annunciating and the ability to scroll to view all call-ins.
7. Ability to upgrade a call-in via soft key.
8. Programmable soft key access from any console for activating relays, campus wide.
9. Ability to maintain, along with controller and other IP Modules system functions, including intercom, bells and paging for the local campus in the event of district-wide connection loss.
10. Classrooms that have not ‘checked-in’ during an emergency are listed on the Administrative Console’s screen.
11. The time duration of an emergency is shown on the screen of the administrative console. The check-in timer is shown on the screen of the administrative console.

F. Audio Paging/Program Amplifiers
1. Power amplifier(s) shall be provided to provide a minimum of 2 watts of power to all paging speakers, and 15 watts of power to all paging horns.
2. The maximum load on the paging/program amplifiers shall be 80% of the rated maximum output of the amplifiers.

G. Zone Page Amplifier Module
1. Depending on configuration the amp output is either 14 or 35 watts output.
2. Can be wall or rack mounted.

H. Equipment Racks
1. All equipment racks shall provide 44 spaces (77") minimum for mounted system equipment.
2. All equipment racks shall be multi-rack format ("gangable") style, bolted together, and open cavity.
3. All equipment racks will be provided with lockable rear doors.
4. Equipment rack(s) shall be in climate-controlled areas/rooms as shown on drawings.
5. All head-end, distribution, and source equipment, including data and power, shall be in racks configured as approved by the Engineer.
6. Rack mounted equipment shall be accessible from front and rear.
7. All unused rack spaces will be covered with appropriate blank/vent panels.

I. Interior Ceiling Speakers
1. Provide Ceiling Speaker Assembly consisting of 8 Ohm, 8" speaker mounted in a 2 foot by 2 foot, or 2 foot by 1 foot, lay-in baffle, with an integrated back box that covers the full area of the baffle.
2. The speaker shall include provisions to allow attachment of a safety cable if required.

J. Uninterruptible Power Supplies (UPS)
1. UPS equipment provided for this system will include Power Conditioning to smooth current and voltage fluctuations.
2. UPS equipment will be sized in accordance with the system manufacturer's recommendations.
3. Provide an individual UPS for EACH SYSTEM CONTROLLER (Gateway) furnished with the system.
4. Provide additional UPS(s) for protection of all other equipment furnished with the system and housed in the equipment racks.
5. All UPS equipment shall be rack mounted.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine conditions, with the Installer present, for compliance with requirements and other conditions affecting the performance of the School Communications and School Safety Network.

B. Do not proceed until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install system in accordance with NFPA 70 and other applicable codes. Install equipment in accordance with manufacturer's written instructions.

B. Furnish and install all material, devices, components and equipment for a complete operational system.

C. Impedance and Level Matching: Carefully match input and output impedance's and signal levels at signal interfaces. Provide matching networks where required.

D. Control Circuit Wiring: Install control circuits in accordance with NFPA 70 and as indicated. Provide number of conductors as recommended by system manufacturer to provide control functions indicated or specified.

E. All housings are to be located as indicated.

F. The contractor shall provide necessary transient protection on the AC power feed, all copper station lines leaving or entering the building, and all central office trunks. All protection shall be as recommended by the equipment supplier and referenced to earth ground.

G. Wiring within Enclosures: Provide adequate length of conductors. Bundle, lace, and train the conductors to terminal points with no excess. Provide and use lacing bars.

H. Provide physical isolation from speaker-microphone, telephone, line-level wiring, and power wiring. Run in separate raceways, or where exposed or in same enclosure, provide 12-inch minimum separation between conductors to speaker-microphones, telephone wiring and adjacent parallel power. Provide physical separation as recommended by equipment manufacturer for other system conductors.

I. Identification of Conductors and Cables: Use color coding of conductors and apply wire and cable marking tape to designate wires and cables so all media are identified in coordination with system wiring diagrams.

Weatherproofing: Provide weatherproof enclosures for items to be mounted outdoors or exposed to weather.

3.3 GROUNDING

A. Provide equipment grounding connections for Integrated Electronic Communications Network systems as indicated. Tighten connections to comply with tightening torques specified in UL Standard 486A to assure permanent and effective grounds.

B. Ground equipment, conductor, and cable shields to eliminate shock hazard and to minimize to the greatest extent possible, ground loops, common mode returns, noise pickup, cross talk, and other impairments. Provide 5-ohm ground at main equipment location. Measure, record, and report ground resistance.

C. Provide all necessary transient protection on the AC power feed and on all copper station lines leaving or entering the building. Note in system drawings, the type and location of these protection devices as well as all wiring information.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Provide services of a duly factory authorized service representative for this project location to supervise the field assembly and connection of components and the pre-testing, testing, and adjustment of the system.

B. Inspection: Make observations to verify that units and controls are properly labeled, and interconnecting wires and terminals are identified. Provide a list of final tap settings of paging speaker line matching transformers.

C. Testing: Rectify deficiencies indicated by tests and completely re-test work affected by such deficiencies at Contractor's expense. Verify by the system test that the total system meets the Specifications and complies with applicable standards.

3.5 FINAL ACCEPTANCE TESTING

A. The Final Acceptance Testing shall be provided to the Owner or the Owners designated representative only. Final acceptance testing to any other trade or service provider for the project will not comply with the requirements of this section.

B. The contractor will provide a Final Acceptance Test record document signed by both the contractor and the Owner or designated Owner's Representative establishing the "In Warranty" date. The warranty period will not commence until the Final Acceptance Test is completed.

C. Be prepared to verify the performance of any portion of the installation by demonstration, listening and viewing test, and instrumented measurements. Make additional adjustments within the scope of work and which are deemed necessary by the Owner because of the acceptance test.

3.6 COMMISSIONING

A. The contractor shall train the Owner's maintenance personnel in the procedures and schedules involved in operating, troubleshooting, servicing, and preventative maintenance of the system. This training will be in accordance with the training as outlined in Section 1.6 of these specifications. In addition to the Training Materials provided, the contractor will also furnish Operators Manuals and Users Guides at the time of this training.

B. Schedule training with Owner through the owner's representative, with at least seven days advance notice.

3.7 OCCUPANCY ADJUSTMENTS

A. The contractor shall provide Occupancy Adjustments in accordance with Section 1.6 of these specifications. A response scenario amenable to both the owner and the contractor will be established and followed for the first year of service.

3.8 CLEANING AND PROTECTION

A. Prior to final acceptance, the contractor shall vacuum and clean all system components and protect them from damage and deterioration. All blank spaces in equipment cabinets will be covered with blank panels. Top and side panels, and all cabinet doors will be installed. All general areas within and around all equipment rack/cabinets in the facility

will be swept, vacuumed, and cleaned up. No cabinets will be left unlocked and all cabinet keys will be turned over to the owner or designated owner's representative.

END OF SECTION

SECTION 27 51 23 - SOUND SYSTEM (COMMONS AREA)

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Materials and Labor for a complete and operational sound reinforcement system.
   1. Speakers.
   2. Amplifiers.
   3. Equipment Cabinet.
   4. Input and Control Devices.

1.2 RELATED DOCUMENTS

A. Drawings, addenda and general provisions of Contract, including General and Supplementary Conditions and Division-01 Specification Sections, apply to this and all other sections of Division 26 and 27.

B. This section is related to all other sections of Division 26 and 27.

1.3 REFERENCES

A. NPFA 70 - National Electrical Code.

1.4 SCOPE OF WORK

A. Provide a complete sound reinforcement system where shown on the drawings.

B. See drawings for system one-line and locations / quantities of equipment.

1.5 DESCRIPTION OF SYSTEM

A. A Sound Reinforcement system will be installed for the new conference room. The system is to be a distributed 25/70 volt, single zone speaker system with inputs as shown on the drawings.

1.6 QUALITY ASSURANCE

A. Equipment and components furnished shall be of manufacturer’s latest model.

B. Furnish Products listed and classified by UL as suitable for purpose specified and indicated.

1.7 WARRANTY

A. Comply with the Warranty requirements of Division 1 and Section - Electrical Requirements.

B. The contractor shall provide a one year warranty of the installed system against defects in material and workmanship. All labor and materials shall be provided at no expense to the owner during normal working hours. The warranty period shall begin on the date of acceptance by the owner/engineer.

1.8 SUBMITTALS FOR REVIEW

A. Submit according to provisions of Division 01 and Section - Electrical Requirements.

B. Provide manufacturer’s product (catalog) data for each piece of equipment specified.

C. Submit equipment dimensions, electrical characteristics, electrical connections, power requirements, and schematic diagrams.

D. Provide system flow diagrams, rack elevations, and cabling / conduit size requirements.

1.9 SUBMITTALS FOR CLOSEOUT

A. Submit according to provisions of Division 01 and Section 26 0100.

PART 2 PRODUCTS

2.1 EQUIPMENT AND COMPONENTS

A. Manufacturers:
   1. System equipment manufacturers are shown on plans for each component.
   2. Substitutions: Under provisions of Section - Electrical Requirements.
   3. Unless specifically indicated by “or equal”, any substitutions for specified equipment requires prior approval.
   4. Submit according to provisions of Division 01 and Section - Electrical Requirements.

B. Sound Equipment Cabinet (or Equal):
   1. (1) Lowell LWR-1619 wall rack with adjustable rails.

2.2 OUTLETS

A. Box for AV/auxiliary jacks: 4-inch square box, 2 1/8 inch deep with single gang ring.

2.3 ACCESSORIES

A. AV Input plate: Equal to Panelcrafters.
   1. See drawings for details.

2.4 CABLES

A. Provide cables for all components and equipment as recommended by the system manufacturer.
B. Speaker Cable: West Penn 25295 or equal.
C. Microphone/Line Cable: West Penn 25291 or equal.
D. AV cabling shall be equal to Liberty.
E. Cables shall be plenum rated.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that construction is complete in spaces to receive equipment and that rooms are clean and dry.

3.2 PREPARATION

A. Review mounting locations with Architect to avoid any conflicts with structure, lighting, mechanical systems, etc.

3.3 INSTALLATION

A. Provide all equipment necessary for a complete and operable system.
B. Install in accordance with manufacturer's instructions.
C. Provide labels with device identification matching that shown on approved Shop Drawings.

3.4 FIELD QUALITY CONTROL

A. Delivery Storage and Handling:
   1. Deliver all components to the site in the manufacturer's original packaging. Packaging shall contain manufacturer's name and address, product identification number, and other related information.
   2. Store equipment in finished building, unopened containers until ready for installation.

3.5 SYSTEM START UP

A. At completion of installation and prior to final acceptance, turn on the equipment; ensure that all equipment is operating properly, and that all clocks are functioning.

3.6 OWNER INSTRUCTION AND DEMONSTRATION

A. Provide training to Owner's representative on all aspects of operating the system including all equipment, input devices, and user interfaces.

B. The contractor shall instruct personnel designated by the Owner in the proper use, basic care, and maintenance of the equipment. Such training shall be provided as an integral component of the system.

3.7 DOCUMENTATION

A. Provide written certificate(s) and include a copy with the O&M manuals, indicating that the inspections and tests specified herein have been performed, that Owner Training and Demonstration, and that the installation is in accordance with these specifications. Certificate shall be signed and dated by Contractor.

3.8 CLEANING

A. Prior to final acceptance, clean exposed surfaces of all equipment, using cleaning methods recommended by manufacturer. Remove temporary labels.

END OF SECTION

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SECTION 32 1813
SYNTHETIC GRASS SURFACING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Synthetic grass surfacing and infill.

B. Field graphics.

1.02 REFERENCE STANDARDS

A. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.

B. ASTM F1632 - Standard Test Method for Particle Size Analysis and Sand Shape Grading of Golf Course Putting Green and Sports Field Rootzone Mixes; 2003 (Reapproved 2018).

C. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples; 2021.

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: For all manufactured surfacing products, provide manufacturer's product data showing materials of construction, compliance with specified standards, installation procedures, and safety limitations.

C. Shop Drawings, Carpet Roll: Show locations of seams and methods of seaming.

D. Samples: For each product for which color must be selected provide color chart showing full range of colors.

E. Samples: Provide following prior to ordering material:
   1. Synthetic Grass carpet: Two 12 inch by 12 inch (305 mm by 305 mm) pieces.
   2. Seamed synthetic grass carpet: Two 12 inch by 24 inch (305 mm by 610 mm) pieces seemed together for each seaming method indicated on drawings.
   3. Field graphics synthetic grass carpet: Two 12 inch by 12 inch (305 mm by 305 mm) pieces for each color indicated on drawings.

F. Manufacturer's Qualification Statement.

G. Installer's Qualification Statement.

H. Maintenance Data:
   1. For manufactured surfacing products, provide manufacturer's recommended maintenance instructions and list of repair products, with address and phone number of source of supply.
   2. For loose fill surfacing products, provide detailed re-ordering information to enable Owner to match installed material exactly.

1.04 QUALITY ASSURANCE

A. See section 01 4000 - Quality Requirements, for procedures for testing, inspection, mock-ups, reports, certificates, and use of reference standards.

B. Maintain one copy of latest edition of ASTM F1487 and CPSC Pub. No. 325 at project site.

C. Manufacturer Qualifications: Company regularly engaged in manufacturing products specified in this section, with not less than three years of documented experience.

1. Surfacing installed in minimum 10 sites and been in successful service minimum 5 years.
2. Manufacturer's Representative: Provide name, company name and address, and qualifications.

D. Installer Qualifications: Company certified by manufacturer for training and experience installing protective surfacing; provide installer's company name and address, and training and experience certificate.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver, handle, and store synthetic grass surfacing to project site in accordance with manufacturer's recommendations.

B. Store materials in dry, covered area, elevated above grade.

1.06 FIELD CONDITIONS

A. Ambient Conditions: Cease work of this section when:
1. Temperatures are below manufacturer's recommendations for installation.
2. Humidity levels are above adhesive manufacturer's requirements.
3. Rain is imminent or falling.
4. Surfaces are wet or damp.

1.07 WARRANTY

A. See Section 01 7800 - Closeout Submittals - Closeout Submittals, for additional warranty requirements.

B. Provide non-prorated 8 year minimum warranty from date of substantial completion for materials and installation covering:
1. Excessive wear.
2. Fiber tensile strength.
3. Deterioration or fading from UV light.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. AstroTurf: www.astroturf.com/.

B. Athletic Textiles: www.syntheticturf.com/#sle.

C. Ecore Athletic: www.ecoreathletic.com/.

D. Mondo Worldwide: www.mondoworldwide.com/.

E. Shaw Sports Turf: www.shawsportsturf.com/.

F. Sprinturf: www.sprinturf.com/.

G. BASIS OF DESIGN: FieldTurf by Tarkett Sports Co.; Prestige FieldTurf XT: fieldturf.com/en/.

H. Tarkett Sports Co.; Renner: www.rennersports.com/.

I. Substitutions: See Section 01 6000 - Product Requirements.

2.02 SYNTHETIC GRASS SURFACING

A. Synthetic Grass Carpet: Yarn fibers tufted through and adhered to perforated fiber backing.
1. Primary Blades:
a. Fibers: Slit-Film
b. Material: Polyethylene.

c. Pile Weight: 36 oz per sq yd, minimum
d. Height: 2-1/4 inches; comply with ASTM D5823.
e. Turf Bind: 8 lbf, minimum; comply with ASTM D1335.

2. Backing:
   a. First: Dual layer of woven polypropylene treated with UV inhibitors. 7.0 oz/sq yd minimum.
   b. Second: Coating of polyurethane. Shall permanently lock the fiber tufts in place. 16 oz/square yard minimum
3. Total Weight: 59 oz/sq yd minimum.
4. Lead Content: 100 ppm maximum; comply with ASTM F2765.
5. Roll: 15 feet wide minimum.
   a. Rolls shall be long enough to go from field sideline to sideline.
   b. The football field perimeter white line shall be tufted into the individual sideline rolls.
6. Field Graphics and Markings:
   a. Applied Marking: Permanent paint, per manufacturer's approval.

B. Synthetic Grass Infill:
1. Type: SBR rubber, free of metals, nonmetal fibers, and contaminants.
   a. Infill Weight: 3.5 lbs/sf.
2. Type: Silica, 20 - 30 mesh, free of silts, clays, and contaminants, roundness of subangular, minimum, per ASTM F1632.
   a. Infill Weight: 4 lbs/sf.

C. Thread for sewing seams of turf shall be as recommended by the synthetic turf manufacturer.

D. Glue and seaming fabric for inlaying lines and markings shall be as recommended by the synthetic turf manufacturer.

2.03 ACCESSORIES

A. Fasteners, Synthetic Grass to Edging: 1/2 inch (13 mm) stainless steel staples, in compliance with ASTM F1667.

B. Fasteners, Edging to Border: Self drilling, stainless steel screws, in compliance with ASTM F1667.

C. Fasteners, Seams:
1. Sewing Thread: Polyester.
2. Bonding:
   a. Adhesive: Two-part urethane-based glue.
   b. Backing: 12-inch (305 mm) wide woven polyester.

D. Joint Sealant: As recommended by curbing manufacturer, in compliance with ASTM C920.

2.04 SOURCE QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements, for additional requirements.

B. Supply individual components from single source.

PART 3 EXECUTION

3.01 SYNTHETIC GRASS

A. Install per manufacturer's installation instructions.

B. Carpet Rolls:

1. Repair and properly compact any disturbed areas of the aggregate base as recommended by manufacturer. Unroll all carpet in same direction in cross-field installation from sideline to sideline.
2. Prevent seams from being located over impact mats.
3. Unroll all carpet in same direction in cross-field installation from sideline to sideline.
4. Each roll shall be attached to the next roll utilizing standard state-of-the- art sewing procedures.
5. When all of the rolls of the playing surface have been installed, the sideline areas shall be installed at right angles to the playing surface.
6. Smooth seams and edges, eliminate overlaps and gaps.
7. Allow carpet to rest for at least 4 hours after unrolling and prior to seaming.

C. Seaming:
1. Seams shall be sewn. Other than extension inlays, seams secured by other means including gluing are unacceptable. Installation shall be 99% sewn.
2. Minimum gluing will only be permitted to repair problem areas, corner completions, and to cut in any logos or inlaid lines as required by the specifications.
3. Seams shall be flat, tight, and permanent with no separation or fraying.
4. In the case of all lines and logos, turf carpet must be sheared to the backing (do not cut the backing) and adhered using hot melt adhesives.

D. Securing: Staple carpet to edging 1 inch (25 mm) on center in accordance with manufacturer's standard procedures.

E. Field Graphics:
1. Applied Marking: Per manufacturer recommendations, in dimensions and color patterns indicated on drawings.

3.02 INFILL

A. Apply during dry weather without signs of moisture on synthetic grass.

B. Thoroughly brush synthetic grass prior to infill installation.

C. Apply infill uniformly in multiple lifts, brush fibers between each application.

D. Measure depth to confirm accordance with plans.

END OF SECTION 32 1813

LIST OF ABBREVIATIONS

(E) - EXISTING
(V) - VERIFY
A/E - ARCHITECT/ENGINEER
AC - ALTERNATING CURRENT
ACI - AMERICAN CONCRETE INSTITUTE
ACM - ASBESTOS CONTAINING MATERIAL
ACP - ACOUSTICAL CEILING PANEL
ACS - ADULT CHANGING STATION
ACT - ACOUSTICAL CEILING TILE
ADA - AMERICANS W/DISABILITIES ACT
AFF - ABOVE FINISH FLOOR
AHU - AIR HANDLING UNIT
AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT - ALTERNATE
ALUM - ALUMINUM
ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH - ARCHITECT
ASHRAE - AMERICAN SOCIETY OF HEATING REF. AND AIR CONDITIONING ENGINEERS
ASI - ARCHITECTURAL SUPPLEMENTAL INSTRUCTION
AWI - AMERICAN WOODWORKING INSTITUTE
AWP - ACOUSTICAL WALL PANEL
BD - BOARD
BLDG - BUILDING
BM - BEAM
BOT - BOTTOM
BRG - BEARING
BRK - BRICK
BRK - CARPET - ANTI-STATIC
BTU - BRITISH THERMAL UNITS
BUR - BUILT UP ROOFING
CAB - CABINET
CB - CATCH BASIN
CBB - CEMENT BACKER BOARD
CG - CORNER GUARD
CI - CAST IRON
CIP - CAST IN PLACE
CJ - CONTROL JOINT
CLG - CEILING
CLR - CLEAR
CMU - CONCRETE MASONRY UNIT
CMU-B - CONCRETE MASONRY UNIT (BURNISHED)
CMU-G - CONCRETE MASONRY UNIT (GLAZED)
CMU-S - CONCRETE MASONRY UNIT (SCORED)
CO - CLEAN OUT
CONC - CONCRETE
CONC-P - POLISHED CONCRETE
CONC-S - SEALED CONCRETE
CONC-ST - STAINED CONCRETE
CP - CABINET PULL
CPT - CARPET
CPT-AS - CARPET - ANTI-STATIC
CPT-ESD - CARPET - ELECTROSTATIC DISCHARGE
CS - CAST STONE
CSMT - CASEMENT
CSWK - CASEWORK
CT - CHANGING TABLE
CTR - COUNTER
CUH - CABINET UNIT HEATER
DEMO - DEMOLITION
DEPT - DEPARTMENT
DF - DRINKING FOUNTAIN
DIA - DIAMETER
DIAG - DIAGONAL
DIM - DIMENSION
DIST - DISTANCE
DOC - DOCUMENT
DR - DOOR
DTL - DETAIL
DW - DISHWASHER
DWG - DRAWING
EA - EACH
EB - EDGEBANDING
EHD - ELECTRIC HAND DRYER
EIFS - EXTERIOR INSULATION FINISH SYSTEM
EJ - EXPANSION JOINT
ELEC - ELECTRIC
ELEV - ELEVATOR/ELEVATION
EQ - EQUAL
EQUP - EQUIPMENT
EWC - ELECTRIC WATER COOLER
EXIST - EXISTING
EXP - EXPOSED
FAF - FLUID APPLIED FLOORING
FD - FLOOR DRAIN
FEC - FIRE EXTINGUISHER CABINET
FF - FINISH FLOOR
FFE - FURNITURE, FIXTURE, AND EQUIPMENT
FHC - FIRE HOSE CABINET
FIN - FINISH
FLR - FLOOR
FND - FOUNDATION
FRP - FIBERGLASS REINFORCED PANEL
FRT - FIRY REGLET REVEAL TRIM
FTG - FOOTING
FWC - FABRIC WALL COVERING
G - GROUT
GALV - GALVANIZED
GB - GRAB BAR
GC - GENERAL CONTRACTOR
GEN - GENERAL
GL - GLASS/ GLAZING
GWB - GYPSUM WALL BOARD
HB - HOSE BIB
HCP - HANDICAP
HDW - HARDWARE
HDWD - HARDWOOD
HM - HOLLOW METAL
HORZ - HORIZONTAL
HSD - HAND SANITIZER DISPENSER
HT - HEIGHT

LIST OF ABBREVIATIONS

IBC - INTERNATIONAL BUILDING CODE
INSUL - INSULATION
INTB - INTEGRAL BASE
JAN - JANITOR
LAM - LAMINATE
LAV - LAVATORY
LGMF - LIGHT GAUGE METAL FRAMING
LOCK - LOCKER
LVR - LOUVER
LVT - LUXURY VINYL TILE
MAS - MASONRY
MB - MARKER BOARD
MBH - MOP/ BROOM HOLDER
MDF - MEDIUM DENSITY FIBERBOARD
MECH - MECHANICAL
MH - MANHOLE
MIR - MIRROR
ML - MATCHLINE
MPTLP-SIN - METAL PROFILE STAIR NOSING
MTL - METAL
MTL STD - METAL STUD
MTLP - METAL PROFILE TRIM
MW - MICROWAVE
N - NONE
NC - NON COMBUSTIBLE
NIC - NOT IN CONTRACT
NOM - NOMINAL
NTS - NOT TO SCALE
OC - ON CENTER
OFCI - OWNER FURNISHED CONTRACTOR INSTALLED
OFOI - OWNER FURNISHED OWNER INSTALLED
OH - OVERHEAD
OSB - ORIENTED STRAND BOARD
OTS - OPEN TO STRUCTURE
OWP - OPERABLE WALL PANEL
PB - PARTICLE BOARD
PC - PRECAST
PLAM - PLASTIC LAMINATE
PLAST - PLASTER
PLYWD - PLYWOOD
PREV - PREVIOUS
PRF - PREFINISHED
PT - PAINT
PT-E - PAINT- EPOXY
PTD - PAPER TOWEL DISPENSER
PWP - PREFINISHED WALL PANEL
QT - QUARRY TILE
QTB - QUARRY TILE BASE
RAD - RADIUS
RAF - RESILIENT ATHLETIC FLOORING
RB - RESILIENT BASE
REINF - REINFORCEMENT
REQ'D - REQUIRED
REV - REVERSE
RH - ROBE HOOK
RM - ROOM
RN - RESILIENT NOSING
RO - ROUGH OPENING
RR - RESILIENT REDUCER
RSF - RESILIENT SHEET FLOORING
RSTR - RESILIENT STAIR TREADS
RSTR - RESILIENT STAIR TREADS-RISERS
RT - RUBBER TILE
RTU - ROOF TOP UNIT
RWS - ROLLER WINDOW SHADES
SC - SPECIAL COATING
SCD - SEAT COVER DISPENSER
SD - SOAP DISPENSER
SDT - STATIC DISSIPATIVE TILE
SECT - SECTION
SHT - SHEET
SIM - SIMILAR
SLT - SLATE
SLT-T - SLATE TILE
SMK - SMOKE
SND - SANITARY NAPKIN DISPOSAL
SNV - SANITARY NAPKIN VENDING MACHINE
SPC - SPECIALTY COUNTERTOP
SPEC - SPECIFICATIONS
SQ - SQUARE
SS - STAINLESS STEEL
SSF - SOLID SURFACE
ST - STONE
STN - STAIN
SUSP - SUSPEND
SV - SHEET VINYL
T - TILE
TAC - TACKABLE WALL COVERING
TB - TACK BOARD
TBWP - TRAFFIC BEARING WATER PROOFING
TC - THIN COAT
TEMP - TEMPORARY/TEMPERATURE
TO - TOP OF
TP - TOILET PARTITION
TPD - TOILET PAPER DISPENSER
TRTD - TREATED
TS - TRANSITION STRIP
TYP - TYPICAL
UL - UNDERWRITERS LABORATORIES
UNF - UNFINISHED
UNO - UNLESS NOTED OTHERWISE
VCT - VINYL COMPOSITION TILE
VWC - VINYL WALL COVERING
W/ - WITH
WD - WOOD
WDT - WOOD TRIM
WDW - WINDOW
WOM - WALK-OFF MAT
WR - WASTE RECEPTACLE
WT - WINDOW TREATMENT
WWC - WOOD WALL COVERING

Notice: ICON Architectural Group, along with its consultants, has made its best efforts to compile addenda and construction documents into a compiled construction set for the use of the various trades on site. However, ICON cannot guarantee that all addenda and changes are included in the compiled location or [illegible] interested parties should not rely on the information [illegible] agement items. It is [illegible] and cost management reduction [illegible] full scope of such items. Use of these documents by the contractor, the Contractor expressly agrees to hold ICON and its consultants harmless for any inconsistencies.

AFTER BIDDING COMPILED CONSTRUCTION SET NOTE

GENERAL NOTES

1. NOTIFY ARCHITECT PROMPTLY IF ANY CONDITIONS CONFLICT WITH THE CONSTRUCTION DOCUMENTS
2. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION/CONSTRUCTION.
3. CONTRACTORS TO VERIFY ALL EXISTING CONDITIONS, VISIT SITE AND FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS.
4. DIMENSIONS AND ELEVATIONS AS SHOWN ON THE DRAWINGS MUST BE FIELD VERIFIED AND COORDINATED
5. COORDINATE ALL PENETRATIONS THRU FOUNDATION W/APPROPRIATE TRADES.
6. PROVIDE A SAFE MEANS OF EGRESS THROUGH AND/OR AROUND THE BUILDING AND SITE AT ALL TIMES DURING THE CONSTRUCTION PHASE. SIDEWALKS FRONTING THE BLDG SHALL REMAIN USABLE AND CLEARED OF MUD OR OTHER DEBRIS. CONTRACTOR WILL MAINTAIN A CLEAR AND REASONABLE WORK AREA. TO BE COORDINATED WITH BUILDING MANAGER/OWNERS REPRESENTATIVE.
7. CONTRACTOR SHALL VERIFY AND PROVIDE ANY ROUGH-IN CONSTRUCTION REQUIRED FOR OWNER-INSTALLED EQUIPMENT CALLED OUT IN DRAWINGS OR SPECIFICATIONS UNLESS OTHERWISE NOTED
8. MINIMUM SLIP RESISTANCE OF FLOOR SURFACES.-WALKING SURFACES (GENERAL): 0.5 STATIC COEFFICIENT OF FRICTION-ACCESSIBLE ROUTES: 0.6 STATIC COEFFICIENT OF FRICTION -RAMPS: 0.8 STATIC COEFFICIENT OF FRICTION
9. ALL DIRECTIONAL REFERENCES IN DRAWINGS SHALL REFER TO PLAN NORTH.
10. ALL JOINTS & PENETRATIONS SHALL BE FIRE SAFED & FIRE SEALED AS REQUIRED TO COMPLY WITH APPLICABLE BUILDING CODES.
11. KEYNOTES ARE USED TO ASSIST IN NOTING AND INDICATE REPETITIVE INSTANCES
12. SUSPENDED CEILING HEIGHTS ARE DIMENSIONED FROM FINISHED FLOOR.
13. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES, ACCESS PANELS, SPRINKLER HEADS, HVAC DUCTS, CEILING DIFFUSERS/GRILLES AND ANY ADDITIONAL CEILING ITEMS WITH MECHANICAL AND ELECTRICAL CONTRACTORS AND ARCHITECT. ALL SPRINKLER HEADS SHALL BE PLACED IN THE CENTER OF CEILING TILES. NOTIFY ARCHITECT PROMPTLY IF ANY LOCATIONS CONFLICT.

SYMBOLS LEGEND

- CENTER LINE
- 101B — DOOR TAG
- GRID — GRID BUBBLE
- # — KEYNOTE TAG
- # — DEMO TAG / INTERIOR SIGNAGE
- EXTERIOR MATERIAL TAG
- WALL TAG
- 1 — WINDOW TAG
- SPOT ELEVATION TAG
- Name / Elevation — LEVEL HEAD
- XXX — HORIZONTAL ASSEMBLY TAG
- ### — REVISION TAG
- Room Name 101 — ROOM TAG
- Room Name 101 150 SF — ROOM TAG w/ AREA
- Room Name 101 150 SF / ## — ROOM TAG w/ AREA & OCCUPANT LOAD
- Room Name 101 Wall Finish Base Finish Floor Finish Ceiling Finish — ROOM TAG w/ ROOM FINISH INFO AT PLANS (NOT ALL MAY BE SHOWN)

MATCHLINE REFERENCE
AREA - A
AREA - B

TN NORTH — NORTH ARROW W/ TRUE NORTH

A### View Name
1/8" = 1'-0"
VIEW TITLE

1 / A101 — DETAIL CALLOUT
1 / A101 — DETAIL SECTION
1 / A101 — WALL SECTION
1 / A101 — BUILDING SECTION

XXX_XXX — FLOORING TRANSITION
XXX-# — ACCENT WALL FINISH LOCATION
5'-0" / A | PT-# — CEILING TAG W/ MAKE-UP TYPE AND FINISH, SEE RCP.

MATERIAL LEGEND

- ALUMINUM
- CONCRETE
- EARTH
- GRAVEL
- GYPSUM
- MASONRY - BRICK
- MASONRY - CMU
- RIGID INSULATION / EIFS
- SAND
- SAND - DENSE
- SPRAY FOAM INSULATION
- STEEL
- STONE
- WOOD - FINISHED CARPENTRY
- WOOD - ROUGH CARPENTRY
- WOOD - PLYWOOD

ARCH. MASTER LIST - KEYNOTES

Exterior Elevation
1 BUILDING SIGNAGE. PROVIDE WALL BACKING AS REQUIRED. SEE SHEET A611 FOR DETAILS
2 METAL ROOF COPING. COLOR TO BE CLEAR ANODIZED EXCEPT FOR MP-2 AND MP-3 ASSEMBLIES; MATCH PANEL COLOR
3 BUILDING MOUNTED LIGHTING. SEE ELECTRICAL.
4 RAIN LEADER DISCHARGE PIPING FOR SECONDARY OVERFLOW DRAINS, 16" ABOVE GRADE. COORDINATE WITH MECHANICAL.
5 CARD READER. SEE PLANS AND COORDINATE WITH ELEC
6 ADA DOOR PUSH BUTTON. SEE PLANS AND COORDINATE WITH ELEC
7 LOUVER, SEE MECHANICAL
8 CONCRETE SPLASH BLOCK. SEE DETAIL 9/A508
9 CONNECTION FOR CAMERA. SEE ELEC
10 DOWNSPOUT. COLOR TO MATCH MP-1
Finish Floor
1 MTLP-3 AT FLOOR TILE TO RESILIENT FLOOR TRANSITION
2 MTLP-5 AT FLOOR TILE TO CONC. TRANSITION
3 MTLP-6 AT FLOOR TILE TO CPT TRANSITION
4 RR-3 AT RESILIENT FLOOR TO RESILIENT FLOOR TRANSITION
5 RR-1 AT CPT TO CONC. TRANSITION
6 RR-3 AT CPT TO RESILIENT FLOOR TRANSITION
7 RR-2 AT RESILIENT FLOOR TO CONC. TRANSITION
8 PROVIDE 4'-0"H FRP ON WALLS ADJACENT TO MOP SINK WITH MFR STANDARD TRIM PIECES; SEE ELEVS.
9 PROVIDE FULL HEIGHT WALL TILE; SEE INTERIOR ELEVATIONS FOR TYPES AND INSTALLATION PATTERNS
10 FLOOR PATTERN IS 90% LVT-1 AND 10% LVT-2, PLACED RANDOMLY AT A 1/3RD OFFSET.
11 RWS-1 (MANUAL) W/ SSF-1 SILL AS OCCURS.
12 RWS-2 (MOTORIZED) W/ SSF-1 SILL
13 6'-8" HIGH WALL PADDING AT 0'-4" AFF, ENTIRE ROOM. BLOCKING TO BE PROVIDED PRIOR TO INSTALLATION.
14 STOP FRP AND/OR BASE HERE W/ TRIM PIECES AS REQUIRED.
15 NOTE NOT USED.
16 STAIRS TO RECEIVE RSTR-1 W/ RT-1 AT LANDINGS; ALL HANDRAILS, STRINGERS AND EXPOSED STAIR PARTS TO BE PAINTED PT-6
17 RWS-3 (MANUAL) BLACKOUT - W/ SSF-1 SILL
18 PAINT STRUCTURAL COLUMN PT-6
19 FINISH WALL W/ LEVEL 5 FINISH FOR VINYL WALL GRAPHIC INSTALLATION AS OCCURS OR FUTURE. PRECAST LOCATIONS TO HAVE SEAMS FILLED AND PREPPED FOR FLAT, SMOOTH WALL.
20 4'-0" HIGH BAND OF ACOUSTIC PANELS AT 3'-0" AFF, SEE ELEVS.
22 RR-4 AT RAF TO CONC. TRANSITION
23 KEYWAY TRANSITION FROM EPOXY FLOORING TO POLISHED CONCRETE
24 DIVIDER STRIP TRANSITION FROM EPOXY FLOORING TO URETHANE FLOORING BY FOOD SERVICE.
25 STAINLESS STEEL COVER PLATE, BY FOODSERVICE.
26 METAL THRESHOLD AT WOOD FLOOR TO CONC. TRANSITION, SEE DETAIL 9/A424
27 TRANSITION FROM CARPET TO EXISTING FLOORING, VERIFY IN FIELD.
28 EXISTING MATERIAL WILL BE USED TO PATH AREA AS NEEDED, CONFIRM WITH CONTRACTOR
29 ELEVATOR CAB TO RECEIVE LVT-1
30 STAINLESS STEEL WALL PANELS BY FOODSERVICE
31 STAIRS TO RECEIVE WD-2 TREADS AND PT-6 RISERS; ALL HANDRAILS, STRINGERS, AND EXPOSED STAIR PARTS TO BE PT-6
Floorplan
1 CARD READER, SEE ELEC
2 HANDICAP DOOR ACTUATOR PUSH BUTTON. COORDINATE WITH ELECTRICAL AND HARDWARE SPECIFICATIONS.
3 CABINET UNIT HEATER. COORDINATE WITH MECHANICAL AND ELECTRICAL.
4 FUTURE TECHNOLOGY LOCATION, NIC. COORDINATE POWER ROUGH-IN REQUIREMENTS WITH ELEC. PROVIDE PLYWOOD BLOCKING IN WALL (2'-0" X 2'-0") AND ROUGH-INS FOR A/V MOUNT. COORDINATE FINAL SIZE AND LOCATION WITH OWNER.
5 EQUIPMENT. OFCI
6 OWNER PROVIDED WASHER/DRYER. SEE MECHANICAL.
7 DRINKING FOUNTAIN. SEE MECHANICAL.
8 PATCH AND REPAIR EXISTING WALL AT NEW WALL TIE-IN OR AT REMOVED WALL.
9 FIRE EXTINGUISHER CABINET - SEMI-RECESSED AT GYP.
10 FIRE EXTINGUISHER CABINET - WALL MOUNTED AT CMU/PRECAST.
11 -
12 BOLLARD. SEE CIVIL
13 EXISTING KILN TO BE RELOCATED AND SET UP. 3'-0" DIAMETER, OFCI
14 MOP SINK, SEE MECHANICAL AND FINISH PLANS. PROVIDE CUSTODIAL MOP/BROOM HOLDER ADJACENT TO MOP SINK, MOUNT AT 48" AFF. COORDINATE WITH OWNER PRIOR TO INSTALL. SEE ELEVATIONS.
15 EMERGENCY SHOWER EYE WASH STATION. SEE MECH.
17 MIRROR, 48"W X 84"H, MOUNT 20" A.F.F.
18 EQUIPMENT BY OWNER
19 FUTURE TECHNOLOGY LOCATION, NIC. COORDINATE POWER ROUGH-IN REQUIREMENTS WITH ELEC AT 66" AFF. PROVIDE PLYWOOD BLOCKING IN WALL (2'-0" X 2'-0") AND ROUGH-INS FOR FUTURE A/V MOUNT. COORDINATE FINAL SIZE AND LOCATION WITH OWNER.
20 BOTTLE FILLER. SEE MECH.
21 EMERGENCY KEY BOX, INSTALL AT 40" AFF
22 FLOOR DRAIN. SLOPE MINIMUM 1/4"/12" COORDINATE WITH MECHANICAL OR FOODSERVICE.
23 SPLASHBLOCK - SEE DETAIL 8/A508
24 SHELVING, OFOI
25 ELECTRICAL PANEL. SEE ELEC.
26 FIN TUBE RADIATOR. COORDINATE WITH MECHANICAL AND ELECTRICAL.
27 RECESSED DISPLAY CASE. SEE INTERIOR ELEVATIONS AND DETAIL 9/A421
28 GAS SHUT OFF IN RECESSED 12" X 12" X 6" DEEP LOCKABLE BOX. MOUNT AT 40" TO F.F. ABOVE FINISH
29 FLOOR TROUGHS - SEE FOODSERVICE AND MECH.
30 COILING SECURITY DOOR OPERATORS, SEE ELEC.
31 ROOF LADDER - SEE DETAIL 13/A505
32 INFILL NEW CONCRETE SLAB ON GRADE W/ VAPOR BARRIER. INFILL IN ENTIRE SPACE INDICATED OR TO EXTENTS SHOWN. COORDINATE EXTENTS WITH DEMO PLANS, MECH & ELEC.
33 FLOOR CLEANOUT, SEE MECH
Interior Elevation
1 MTLP-1 AT TOP OF WALL TILE AND OUTSIDE CORNERS. SEE TRANSITION DETAILS ON A610.
2 MTLP-2 AT BASE OF WALL TILE, COVE TRANSITION TO FLOOR TILE. SEE TRANSITION DETAILS ON A610.
3 MTLP-7 AT BASE OF WALL TILE, COVE TRANSITION TO CONC. FLOOR. SEE TRANSITION DETAILS ON A610.
4 LOCKABLE CABINET DOORS AND/OR DRAWERS
5 DOUBLE PULL OUT TRASH/RECYCLING
6 SSF-2 COUNTER W/ 5" H APRON; INSTALL CONCEALED WALL BRACKETS AS REQUIRED
7 INSTALL SURFACE MOUNTED WALL BRACKETS AS REQUIRED
8 STANDARD FRP TRIM BASE OF FRP AND MTLP-1 AT TOP OF WALL TILE BASE. SEE TRANSITION DETAILS ON A610.
9 SSF-2 COUNTER W/ 5" H APRON; INSTALL SURFACE MOUNTED WALL BRACKETS AS REQUIRED
10 FLOOR DRAIN, COORDINATE WITH MECHANICAL
11 PROVIDE METAL FILLER PANELS AT EXPOSED ENDS OF LOCKERS
12 DIMENSIONAL SIGNAGE, SEE SHEET A611 FOR DETAILS & A800 SHEETS FOR LOCATIONS.
13 BUILT-IN BENCH, SEE SPEC
Precast
1 STRUCTURAL CONNECTION ON BACK SIDE OF PRECAST, SEE STRUCTURAL FOR LOCATIONS AND DETAILS
2 STRUCTURAL CONNECTION ON FRONT SIDE OF PRECAST, SEE STRUCTURAL FOR LOCATIONS AND DETAILS
3 OPENING FOR DUCT. COORDINATE WITH MECH

ARCH. MASTER LIST - KEYNOTES

4 FIELD CORED HOLES FOR MECH. COORDINATE RE-ENFORCEMENT FROM PRECAST SUPPLIER. MECHANICAL CONTRACTOR TO PROTECT FINISHED WALL AND CLEAN OFF CORE SLURRY FROM WALL IMMEDIATELY
RCP
1 ROOF HATCH OPENING
2 PAINT UNDERSIDE OF STAIRS, PT-6.
Roof Plan
1 NOT USED
2 CRICKET. SLOPED INSULATION TO PROVIDE 1/4" / 1'-0" MINIMUM PITCH AROUND OBSTRUCTION. TYPICAL AT ALL BUILDING JOGS, EQUIPMENT CURBS, AND WHERE REQUIRED TO PROVIDE POSITIVE SLOPE TOWARD ROOF DRAINS.
3 ROOF DRAINS. (PAIRED PRIMARY AND SECONDARY DRAIN BASIN. CONNECT PRIMARY DRAIN TO STORM SEWER. SECONDARY DRAIN TO DISCHARGE ABOVE GRADE. SEE ELEVATIONS. COORDINATE WITH MECHANICAL)
4 TAPERED INSULATION ABOVE LEVEL DECK. 1/4" / 1' - 0" MINIMUM SLOPE. (3" MINIMUM INSULATION DEPTH AROUND DRAIN).
5 OVERFLOW SCUPPER (BASE OF OPENING TO BE LOCATED 2" ABOVE PRIMARY DRAIN. COORDINATE WITH ELEVATIONS.
6 ROOF WALKWAY PADS (TYPICAL AROUND MECHANICAL EQUIPMENT)
7 ROOF TOP EQUIPMENT. SEE DETAIL AND MECHANICAL.
8 ROOF HATCH - SEE DETAIL
10 ROOF LADDER - SEE DETAIL
11 CONDUCTOR HEAD & DOWNSPOUT, EXTEND TO 16" ABOVE GRADE. SEE DETAIL -
12 PLUMBING VENT OR PIPE PENETRATION THROUGH ROOF. PROVIDE BOOT FLASHING. SEE DETAIL AND SEE MECHANICAL.
13 EXHAUST FAN PENETRATION THROUGH ROOF. SEE DETAIL AND SEE MECHANICAL.
14 PIPING WEATHER HOOD. SEE MECH
15 ROOF HYDRANT - SEE MECH

ARCH. MASTER LIST - DEMOLITION KEYNOTES

1 REMOVE WINDOW LOCATED IN WOOD STUD / EIFS WALL. PREP FOR NEW WORK.
2 REMOVE EXTERIOR WALL UP TO LAMINATED WOOD BEAM. COORDINATE EXTENT OF DEMO WITH FLOOR PLANS AND STRUCTURAL DRAWINGS. WORK TO BE SEQUENCED TO PROVIDE STRUCTURAL SUPPORT PRIOR TO REMOVAL.
3 REMOVE MARKERBOARD OR TACKBOARD AND ALL ASSOCIATED FASTENERS. SALVAGE AND TURN OVER TO OWNER. PATCH AND PREP WALL FOR NEW FINISH AS REQ. SEE FLOOR PLANS.
4 REMOVE INTERIOR STOREFRONT OR WINDOW AND ALL ASSOCIATED FRAMES, ETC.
5 REMOVE HM OR WOOD DOOR, HARDWARE, FRAME, AND SIDELIGHTS AS OCCURS. PREP AREA FOR NEW WORK. COORDINATE WITH FLOOR PLANS.
6 REMOVE MOUNTED CLOCKS, SPEAKERS, FIRE EXTINGUISHERS,PTD, SOAP, ETC. AS REQUIRED FOR NEW WORK. SALVAGE AND TURN OVER TO OWNER. COORDINATE WITH CM AND OWNER.
7 REMOVE SURFACE MOUNTED CONDUIT AS REQUIRED FOR NEW WORK. COORDINATE WITH CM AND ELEC FOR LOCATIONS AND SHUT OFFS. PROTECT EXISTING WALLS AND PREP FOR NEW WORK.
8 REMOVE PLASTIC LAMINATE CABINETS, COUNTERTOPS, OR SHELVING AS OCCURS AND ALL ASSOCIATED FASTENERS, BASE, BLOCKING, ETC. PREP FLOOR / WALL TO RECEIVE NEW FINISH AS REQUIRED.
9 REMOVE CARPET AND ASSOCIATED BASE AS REQUIRED. GRIND OFF ADHESIVE AS REQUIRED FOR NEW FLOORING IN ENTIRE ROOM OR TO EXTENTS SHOWN ON PLAN. PROTECT WALLS. ANY DAMAGE TO WALLS FROM BASE REMOVAL TO BE PATCHED AT CONTRACTOR'S EXPENSE. PREP AREA FOR NEW FLOOR FINISH. COORDINATE WITH FLOOR AND FINISH PLANS.
10 REMOVE VINYL FLOOR TILE AND ASSOCIATED BASE AS REQUIRED. GRIND OFF ADHESIVE AS REQUIRED FOR NEW FLOORING IN ENTIRE ROOM OR TO EXTENTS SHOWN ON PLAN. PROTECT EXISTING WALLS AND BASE. ANY DAMAGE TO WALLS FROM BASE REMOVAL TO BE PATCHED AT CONTRACTOR'S EXPENSE. PREP AREA FOR NEW FLOOR FINISH.
11 REMOVE GYP BD STUD WALL TO EXTENTS SHOWN OR AS REQUIRED FOR NEW OPENING. COORDINATE WITH FLOOR PLANS. PATCH AND PREP WALLS FOR NEW FINISH.
12 REMOVE LOCKERS AS REQUIRED FOR NEW WORK. SALVAGE AND TURN OVER TO OWNER. COORDINATE WITH PLANS & ELEVATIONS.
13 REMOVE AND SALVAGE FOR REINSTALLATION ACT CEILING TILE AND CEILING MOUNTED MECH AND ELEC FIXTURES, ACCESSORIES, ETC. AS REQUIRED FOR NEW WORK. PREP FOR NEW WORK. SEE MECH AND ELEC.
14 REMOVE TECHNOLOGY & TURN OVER TO OWNER. PATCH WALL AND PREP AREA FOR NEW WALL FINISH AS REQUIRED.
15 REMOVE PLUMBING FIXTURE AS OCCURS, COORDINATE WITH MECH. PATCH & PREP WALLS AND FLOOR AS REQUIRED FOR NEW WORK.
16 REMOVE PLAM SHELVING AND BRACKETS. PATCH AND PREP WALLS FOR NEW FINISH.
17 REMOVE LIGHT FIXTURES AS REQUIRED FOR NEW WORK. COORDINATE WITH ELECTRICAL AND RCPS.
18 SAWCUT AND REMOVE EXISTING CONCRETE FLOOR SLAB OF AREA INDICATED BY HATCH, TO EXTENTS SHOWN OR AS REQUIRED FOR MECHANICAL DEMOLITION, OR NEW STRUCTURE, MECH/ELEC PIPING, NEW CONDUIT, ETC. COORDINATE EXTENTS AND LOCATIONS WITH FLOOR PLANS, STRUCTURAL, MECH, AND ELEC.
19 REMOVE CORNER GUARD
20 REMOVE AND SALVAGE WALL MOUNTED SHELVING AND BRACKETS, AND COAT RACKS. TURN OVER TO OWNER.

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					G003	Code Study
					G004	ANSI 117.1 - 2017 Standards
					G005	3D
CIVIL						
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NOTES:
1. EXCESS TOPSOIL/CLAY SHALL BECOME PROPERTY OF THE CONTRACTOR AND HAULED OFFSITE PRIOR TO CLOSE OUT OF THE PROJECT.
2. FILL/IMPORT QUANTITY ASSUMES A FILL FACTOR OF 1.3.
3. QUANTITY FOR AGGREGATE BASE IS ASSUMED TO BE IN PLACE AND COMPACTED. CONTRACTOR SHALL MAKE ADJUSTMENTS FOR LOOSE VOLUME IF NECESSARY.
2. 4. GEOTEXTILE FABRIC (NDDOT TYPE S1) SHALL BE INSTALLED IN MAIN STORM PIPE TRENCHES UNDER FIELD. GEOTEXTILE FABRIC IS NOT REQUIRED ON ENTIRE FIELD.

FG	FINISH GROUND
FL	FLOWLINE
HP	HIGH POINT
INV	STRUCTURE INVERT ELEVATION
LP	LOW POINT
MC	MIDPOINT OF CURVE
ME	MATCH EXISTING GROUND
PC	POINT OF CURVATURE
RIM	STRUCTURE RIM ELEVATION
TC	TOP OF CURB/THICKENED EDGE
TOC	TOP OF CONCRETE
TW	TOP OF WALK
TOW	TOP OF WALL
BOW	BOTTOM OF WALL

1 ADDENDUM 1
- REVISED BACKGROUND

2 ADDENDUM 2
- REMOVED IRRELEVANT NOTES
- ADDED FABRIC NOTE

0 30 60

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REGISTERED PROFESSIONAL ENGINEER
TYLER TRENBEATH
PE-41570
DATE: 3/24/26
NORTH DAKOTA

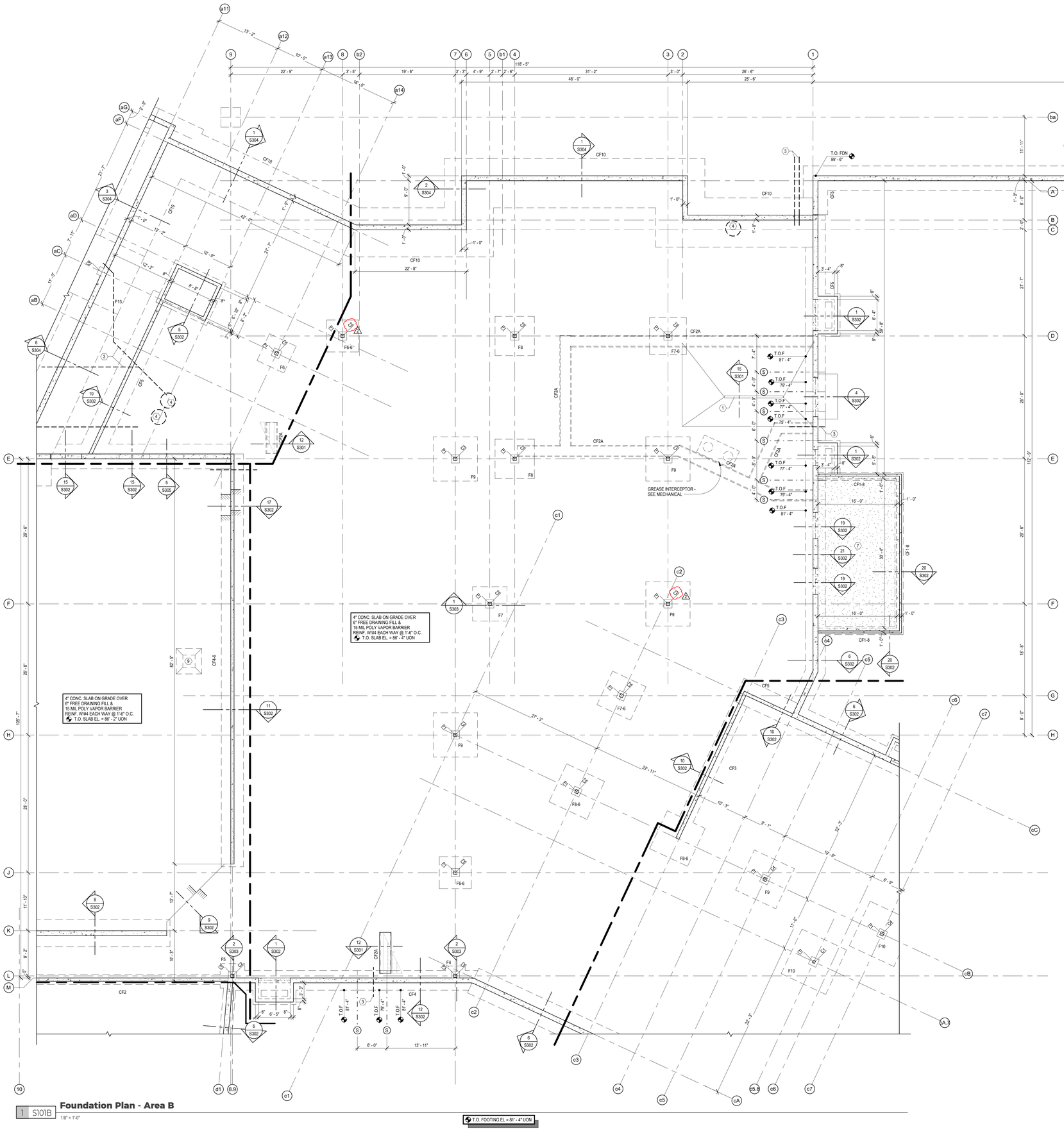
DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/2026
1	ADDENDUM 1	03/17/2026
2	ADDENDUM 2	03/24/2026

DRAWN BY: TWT JN: 25007.1

GRADING PLAN - FIELD

SHEET
C601



1 S101B **Foundation Plan - Area B**
1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL WALL FOOTINGS ARE TO BE CENTERED ON WALLS, UON. WALL FOOTINGS ARE TO BE 12" THICK REINFORCED W/ (2) #5 CONT LONGITUDINAL BARS AND PROJECT 6" BEYOND EACH FACE OF FOUNDATION WALL THEY SUPPORT, UON. ALL PAD FOOTINGS ARE TO BE CENTERED ON COLUMNS / PIERS, UON.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
3. SEE SHEET S001 FOR GENERAL CONCRETE & FOUNDATION NOTES.
4. SEE ARCH FOR DIMENSIONING OF FOUNDATION WALL HOLDOUTS, LOCATION OF STOOPS, SLAB RECESSES & SLOPED SLAB AREAS.
5. SEE DETAIL 6 /S301 FOR SLAB CONSTRUCTION JOINTS (CCJ). SEE DETAIL 7 /S301 FOR SLAB CONTROL JOINTS (CJ). CONTRACTOR SHALL SUBMIT A PROPOSED JOINT LAYOUT TO ARCHENG. FOR APPROVAL PRIOR TO SLAB PLACEMENT.

   CONTROL JOINTS SHALL BE ON COLUMN LINES AND AT RE-ENTRANT CORNERS TO THE GREATEST EXTENT POSSIBLE W/ SPACING LESS THAN 12'-0" O.C. BETWEEN.

   CONSTRUCTION JOINTS SHALL BE LOCATED SO AS NOT TO ALLOW A SINGLE SLAB POUR TO EXCEED 4000sf UNLESS ALTERNATIVE MEASURES ARE TAKEN TO CONTROL SLAB CURLING & SHRINKAGE.

   PROVIDE CJ OR CCJ JOINTS SO AS NOT TO EXCEED A SLAB UNIT ASPECT RATIO OF 1.5:1.
6. ADD (2) #5 x 3'-0" REBAR @ 3" O.C. FOR CRACK CONTROL AT RE-ENTRANT CORNERS - SEE DETAIL 9 /S301
7. (S) - INDICATES STEPPED WALL FOOTING LOCATION - SEE DETAIL 1 /S301
8. "CF" - INDICATES A STEEL COLUMN - SEE SCHEDULE ON THIS SHEET
9. "PF" - INDICATES A CONCRETE PIER - SEE PIER DETAILS ON S302
10. "FF / CF8" - INDICATES COLUMN PAD / WALL STRIP FOOTINGS - SEE SCHEDULES ON THIS SHEET
11. REINFORCE 8" CMU WALLS W/ (1) #5 VERTICAL @ 4'-0" O.C., UON. ALL MASONRY BELOW GRADE SHALL BE FULLY GROUTED.
12. SEE DETAIL 12 /S301 FOR THICKENED SLAB BELOW STAIR STRINGERS. VERIFY LOCATION WITH ARCH.
13. SEE DETAIL 16 /S301 FOR THICKENED SLABS BELOW NON-BEARING CMU WALLS. VERIFY LOCATIONS OF ALL CMU WALLS WITH ARCH.
14. - INDICATES STEP IN FLOOR SLAB ELEVATION - SEE DETAIL 14 /S301

KEYNOTES

#	
1	FLOOR DRAIN - VERIFY NUMBER, LOCATION(S), SIZE, SLOPE & ELEVATION WITH ARCHITECTURAL / MECHANICAL PLANS. PROVIDE ADDITIONAL REINFORCEMENT AROUND OPENING PER DETAIL 9/S301
3	BLOCK OUT FOUNDATION WALL / FOOTING AS REQUIRED FOR INSTALLATION OF MECHANICAL PIPING - VERIFY W/ MECHANICAL
4	SUMP PIT - VERIFY NUMBER, LOCATION(S) & SIZE WITH ARCHITECTURAL & MECHANICAL PLANS.
7	INSULATED FREEZER / COOLER SLAB - VERIFY CONSTRUCTION WITH FS EQUIPMENT SUPPLIER. PROVIDE 5'-0" MINIMUM OF NON-FROST-SUSCEPTIBLE FILL BELOW SLAB - SEE GEOTECHNICAL REPORT FOR FILL REQUIREMENTS.
9	THICKENED SLAB FOR VOLLEYBALL SLEEVE INSERTS. COORDINATE NUMBER & LOCATIONS WITH ARCH. SEE DETAIL 23/S301

COLUMN SCHEDULE

MARK	COLUMN SIZE	BASE PLATE THICKNESS	BASE PLATE DETAIL	ANCHOR BOLTS	DETAIL
C1	HSS6X6X3/16	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C2	HSS6X6X1/4	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C3	HSS8X8X5/16	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C4	HSS8X8X1/2	1 1/4"	10/S301	(4) 3/4" Ø	11/S301

COLUMN / PAD FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOT REINFORCING TRANS	BOT REINFORCING LONG	TOP REINFORCING TRANS	TOP REINFORCING LONG	REMARKS
F3	3' - 0" SQ	1' - 0"	(3) #5	(3) #5	-	-	
F4	4' - 0" SQ	1' - 0"	(4) #5	(4) #5	-	-	
F5	5' - 0" SQ	1' - 0"	(5) #5	(5) #5	-	-	
F6	6' - 0" SQ	1' - 0"	(6) #5	(6) #5	-	-	
F6-6	6' - 6" SQ	1' - 0"	(6) #5	(6) #5	-	-	
F7	7' - 0" SQ	1' - 2"	(7) #5	(7) #5	-	-	
F7-6	7' - 6" SQ	1' - 0"	(7) #5	(7) #5	-	-	
F8	8' - 0" SQ	1' - 4"	(8) #5	(8) #5	-	-	
F8-6	8' - 6" SQ	1' - 0"	(8) #5	(8) #5	-	-	
F9	9' - 0" SQ	1' - 6"	(8) #5	(8) #5	-	-	
F9-6	9' - 0" SQ	1' - 6"	(8) #5	(8) #5	-	-	
F10	10' - 0" SQ	1' - 8"	(13) #5	(13) #5	-	-	
F10-6	10' - 0" SQ	1' - 8"	(13) #5	(13) #5	-	-	
F13	13' - 0" SQ	2' - 2"	(13) #5	(13) #5	-	-	

WALL / STRIP FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOT REINFORCING TRANS	BOT REINFORCING LONG	TOP REINFORCING TRANS	TOP REINFORCING LONG	REMARKS
CF1-8	1' - 8"	1' - 0"		(2) #5			@ STOOPS
CF2	2' - 0"	1' - 0"	#4 @ 6' - 0"	(2) #5	-	-	
CF2-6	2' - 6"	1' - 0"	#4 @ 6' - 0"	(3) #5	-	-	
CF2A	2' - 0" THKD	1' - 0"	#4 @ 6' - 0"	(2) #5			
CF3	3' - 0"	1' - 0"	#4 @ 6' - 0"	(3) #5	-	-	
CF3-6	3' - 6"	1' - 0"	#5 @ 1' - 6"	(4) #5	-	-	
CF4	4' - 0"	1' - 0"	#5 @ 1' - 6"	(4) #5	-	-	
CF4-6	4' - 6"	1' - 0"	#5 @ 1' - 6"	(5) #5	-	-	
CF5	5' - 0"	1' - 2"	#5 @ 1' - 6"	(5) #5	-	-	
CF5-6	5' - 6"	1' - 2"	#5 @ 1' - 6"	(6) #5	-	-	
CF6	6' - 0"	1' - 2"	#5 @ 1' - 6"	(6) #5	-	-	
CF10	10' - 0"	1' - 6"	#8 @ 1' - 4"	(11) #6	#5 @ 1' - 4"	(6) #6	

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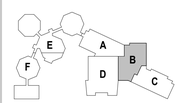
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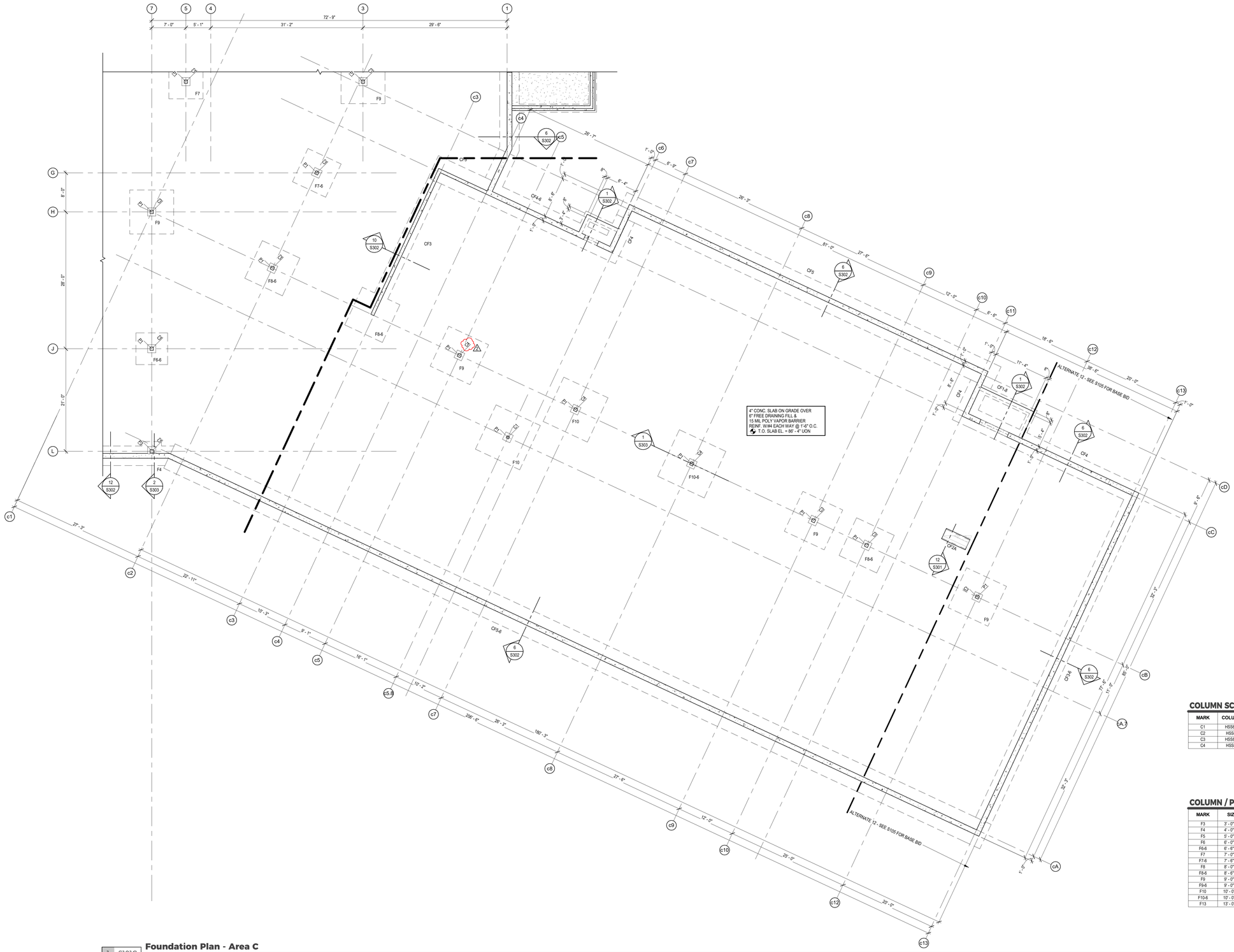
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/0/26
2	ADDENDUM #2	03/24/26

DRAWN BY: MFJ, CMM JN: 24-028

Foundation Plan - Area B

SHEET
S101B

Autodesk Docs://24-028 Valley City Public Schools High School/24-028 - VCPS New PreK-12 School - STRUCT.rvt
3/24/2026 2:31:44 PM



1 S101C **Foundation Plan - Area C**
1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL WALL FOOTINGS ARE TO BE CENTERED ON WALLS, UON. WALL FOOTINGS ARE TO BE 12" THICK REINFORCED W/ (2) #5 CONT LONGITUDINAL BARS AND PROJECT 6" BEYOND EACH FACE OF FOUNDATION WALL THEY SUPPORT, UON. ALL PAD FOOTINGS ARE TO BE CENTERED ON COLUMNS / PIERS, UON.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
3. SEE SHEET S001 FOR GENERAL CONCRETE & FOUNDATION NOTES.
4. SEE ARCH FOR DIMENSIONING OF FOUNDATION WALL HOLDOUTS, LOCATION OF STOOPS, SLAB RECESSES & SLOPED SLAB AREAS.
5. SEE DETAIL 6 /S301 FOR SLAB CONSTRUCTION JOINTS (CCJ). SEE DETAIL 7 /S301 FOR SLAB CONTROL JOINTS (CJ). CONTRACTOR SHALL SUBMIT A PROPOSED JOINT LAYOUT TO ARCHENG. FOR APPROVAL PRIOR TO SLAB PLACEMENT.

   CONTROL JOINTS SHALL BE ON COLUMN LINES AND AT RE-ENTRANT CORNERS TO THE GREATEST EXTENT POSSIBLE W/ SPACING LESS THAN 12'-0" O.C. BETWEEN.

   CONSTRUCTION JOINTS SHALL BE LOCATED SO AS NOT TO ALLOW A SINGLE SLAB POUR TO EXCEED 4,000sf UNLESS ALTERNATIVE MEASURES ARE TAKEN TO CONTROL SLAB CURLING & SHRINKAGE.

   PROVIDE CJ OR CCJ JOINTS SO AS NOT TO EXCEED A SLAB UNIT ASPECT RATIO OF 1.5:1.
6. ADD (2) #5 x 3'-0" REBAR @ 3" O.C. FOR CRACK CONTROL AT RE-ENTRANT CORNERS - SEE DETAIL 9 /S301
7. (S)— - INDICATES STEPPED WALL FOOTING LOCATION - SEE DETAIL 1 /S301
8. "C#" - INDICATES A STEEL COLUMN - SEE SCHEDULE ON THIS SHEET
9. "P#" - INDICATES A CONCRETE PIER - SEE PIER DETAILS ON S302
10. "F# / CF#" - INDICATES COLUMN PAD / WALL STRIP FOOTINGS - SEE SCHEDULES ON THIS SHEET
11. REINFORCE 8" CMU WALLS W/ (1) #5 VERTICAL @ 4'-0" O.C., UON. ALL MASONRY BELOW GRADE SHALL BE FULLY GROUTED.
12. SEE DETAIL 12 /S301 FOR THICKENED SLAB BELOW STAIR STRINGERS. VERIFY LOCATION WITH ARCH.
13. SEE DETAIL 16 /S301 FOR THICKENED SLABS BELOW NON-BEARING CMU WALLS. VERIFY LOCATIONS OF ALL CMU WALLS WITH ARCH.
14. - INDICATES STEP IN FLOOR SLAB ELEVATION - SEE DETAIL 14 /S301

KEYNOTES

(#)

COLUMN SCHEDULE

MARK	COLUMN SIZE	BASE PLATE THICKNESS	BASE PLATE DETAIL	ANCHOR BOLTS	DETAIL
C1	HSS6X6X3/16	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C2	HSS8X8X1/4	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C3	HSS8X8X5/16	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C4	HSS8X8X1/2	1 1/4"	10/S301	(4) 3/4" Ø	11/S301

COLUMN / PAD FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOT REINFORCING TRANS	BOT REINFORCING LONG	TOP REINFORCING TRANS	TOP REINFORCING LONG	REMARKS
F3	3' - 0" SQ	1' - 0"	(3) #5	(3) #5	-	-	
F4	4' - 0" SQ	1' - 0"	(4) #5	(4) #5	-	-	
F5	5' - 0" SQ	1' - 0"	(5) #5	(5) #5	-	-	
F6	6' - 0" SQ	1' - 0"	(6) #5	(6) #5	-	-	
F6-6	6' - 6" SQ	1' - 0"	(6) #5	(6) #5	-	-	
F7	7' - 0" SQ	1' - 2"	(7) #5	(7) #5	-	-	
F7-6	7' - 6" SQ	1' - 0"	(7) #5	(7) #5	-	-	
F8	8' - 0" SQ	1' - 4"	(8) #5	(8) #5	-	-	
F8-6	8' - 6" SQ	1' - 0"	(8) #5	(8) #5	-	-	
F9	9' - 0" SQ	1' - 6"	(8) #5	(8) #5	-	-	
F9-6	9' - 0" SQ	1' - 6"	(8) #5	(8) #5	-	-	
F10	10' - 0" SQ	1' - 8"	(13) #5	(13) #5	-	-	
F10-6	10' - 0" SQ	1' - 8"	(13) #5	(13) #5	-	-	
F13	13' - 0" SQ	2' - 2"	(13) #5	(13) #5	-	-	

WALL / STRIP FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOT REINFORCING TRANS	BOT REINFORCING LONG	TOP REINFORCING TRANS	TOP REINFORCING LONG	REMARKS
CF1-8	1' - 8"	1' - 0"	-	(2) #5	-	-	@ STOOPS
CF2	2' - 0"	1' - 0"	#4 @ 6' - 0"	(2) #5	-	-	
CF2-6	2' - 6"	1' - 0"	#4 @ 6' - 0"	(3) #5	-	-	
CF2A	2' - 0" THKD	1' - 0"	#4 @ 6' - 0"	(2) #5			
CF3	3' - 0"	1' - 0"	#4 @ 6' - 0"	(3) #5	-	-	
CF3-6	3' - 6"	1' - 0"	#5 @ 1' - 6"	(4) #5	-	-	
CF4	4' - 0"	1' - 0"	#5 @ 1' - 6"	(4) #5	-	-	
CF4-6	4' - 6"	1' - 0"	#5 @ 1' - 6"	(5) #5	-	-	
CF5	5' - 0"	1' - 2"	#5 @ 1' - 6"	(5) #5	-	-	
CF5-6	5' - 6"	1' - 2"	#5 @ 1' - 6"	(6) #5	-	-	
CF6	6' - 0"	1' - 2"	#5 @ 1' - 6"	(6) #5	-	-	
CF10	10' - 0"	1' - 6"	#5 @ 1' - 4"	(11) #5	#5 @ 1' - 4"	(6) #5	

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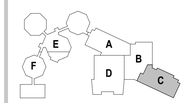
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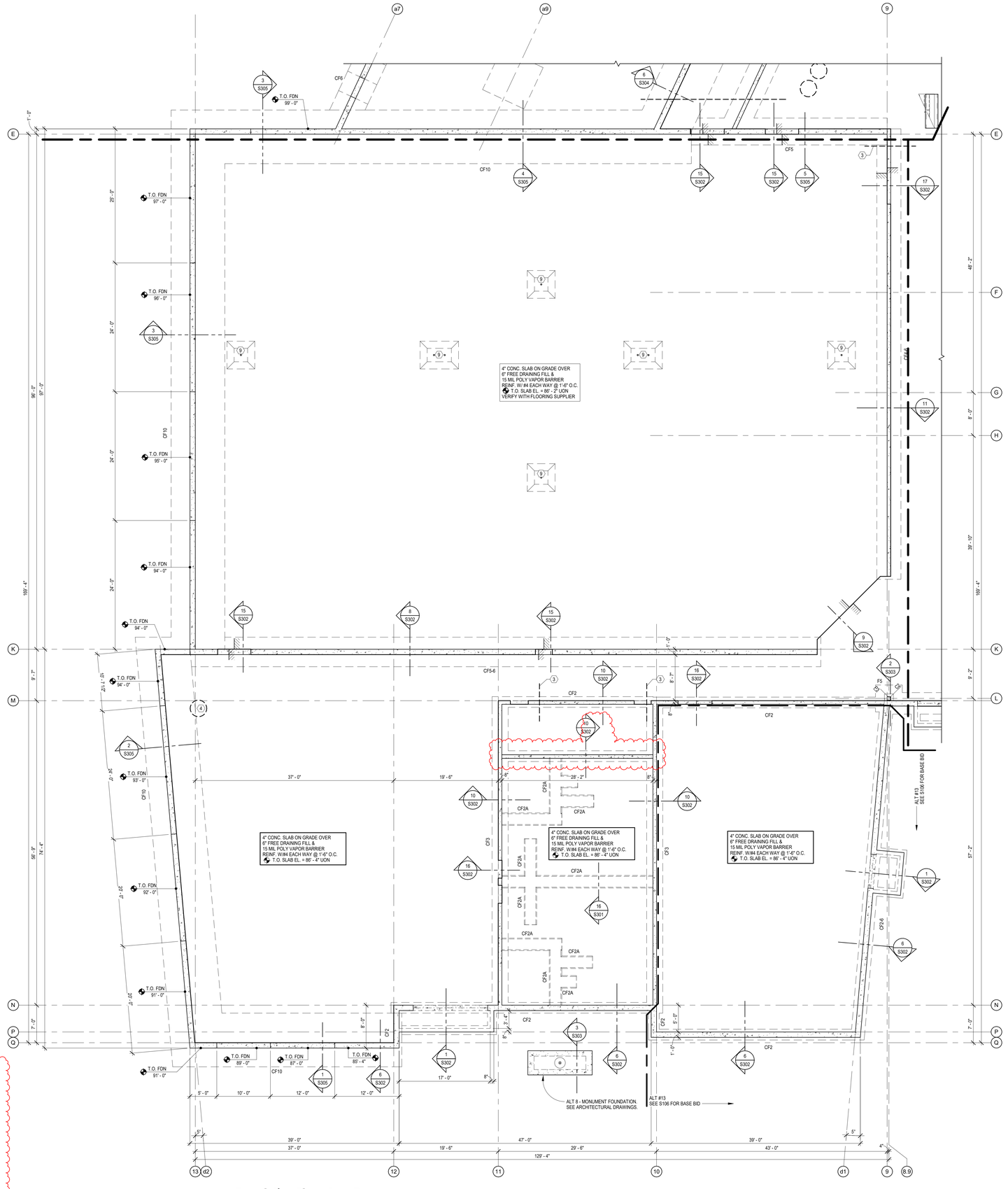
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2	ADDENDUM #2	03/24/26

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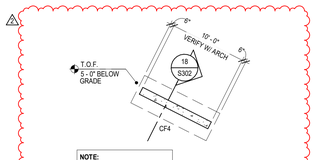
Foundation Plan - Area C

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S101C

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1 S101D **Foundation Plan - Area D**
1/8" = 1'-0"



NOTE: COORDINATE LOCATION ON SITE WITH ARCHITECTURAL - SEE SHEET A001

2 S101D **Precast Monument Sign**
1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL WALL FOOTINGS ARE TO BE CENTERED ON WALLS, UON. WALL FOOTINGS ARE TO BE 12" THICK REINFORCED W/ (2) #5 CONT LONGITUDINAL BARS AND PROJECT 6" BEYOND EACH FACE OF FOUNDATION WALL THEY SUPPORT, UON. ALL PAD FOOTINGS ARE TO BE CENTERED ON COLUMNS / PIERS, UON.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
3. SEE SHEET S001 FOR GENERAL CONCRETE & FOUNDATION NOTES.
4. SEE ARCH FOR DIMENSIONING OF FOUNDATION WALL HOLDOUTS, LOCATION OF STOOPS, SLAB RECESSES & SLOPED SLAB AREAS.
5. SEE DETAIL 6 /S301 FOR SLAB CONSTRUCTION JOINTS (CCJ). SEE DETAIL 7 /S301 FOR SLAB CONTROL JOINTS (CJ). CONTRACTOR SHALL SUBMIT A PROPOSED JOINT LAYOUT TO ARCHENG. FOR APPROVAL PRIOR TO SLAB PLACEMENT.

   CONTROL JOINTS SHALL BE ON COLUMN LINES AND AT RE-ENTRANT CORNERS TO THE GREATEST EXTENT POSSIBLE W/ SPACING LESS THAN 12'-0" O.C. BETWEEN.

   CONSTRUCTION JOINTS SHALL BE LOCATED SO AS NOT TO ALLOW A SINGLE SLAB POUR TO EXCEED 4,000sf UNLESS ALTERNATIVE MEASURES ARE TAKEN TO CONTROL SLAB CURLING & SHRINKAGE.

   PROVIDE CJ OR CCJ JOINTS SO AS NOT TO EXCEED A SLAB UNIT ASPECT RATIO OF 1.5:1.
6. ADD (2) #5 x 3'-0" REBAR @ 3" O.C. FOR CRACK CONTROL AT RE-ENTRANT CORNERS - SEE DETAIL 9 /S301
7. (S)— - INDICATES STEPPED WALL FOOTING LOCATION - SEE DETAIL 1 /S301
8. "C#" - INDICATES A STEEL COLUMN - SEE SCHEDULE ON THIS SHEET
9. "P#" - INDICATES A CONCRETE PIER - SEE PIER DETAILS ON S302
10. "F# / CF#" - INDICATES COLUMN PAD / WALL STRIP FOOTINGS - SEE SCHEDULES ON THIS SHEET
11. REINFORCE 8" CMU WALLS W/ (1) #5 VERTICAL @ 4'-0" O.C., UON. ALL MASONRY BELOW GRADE SHALL BE FULLY GROUTED.
12. SEE DETAIL 12 /S301 FOR THICKENED SLAB BELOW STAIR STRINGERS. VERIFY LOCATION WITH ARCH.
13. SEE DETAIL 16 /S301 FOR THICKENED SLABS BELOW NON-BEARING CMU WALLS. VERIFY LOCATIONS OF ALL CMU WALLS WITH ARCH.
14. ▨ - INDICATES STEP IN FLOOR SLAB ELEVATION - SEE DETAIL 14 /S301

KEYNOTES

#	
3	BLOCK OUT FOUNDATION WALL / FOOTING AS REQUIRED FOR INSTALLATION OF MECHANICAL PIPING - VERIFY W/ MECHANICAL
4	SUMP PIT - VERIFY NUMBER, LOCATION(S) & SIZE WITH ARCHITECTURAL & MECHANICAL PLANS.
9	THICKENED SLAB FOR VOLLEYBALL SLEEVE INSERTS. COORDINATE NUMBER & LOCATIONS WITH ARCH. SEE DETAIL 23/S301

COLUMN SCHEDULE

MARK	COLUMN SIZE	BASE PLATE THICKNESS	BASE PLATE DETAIL	ANCHOR BOLTS	DETAIL
C1	HSS6X6X3/16	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C2	HSS8X8X1/4	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C3	HSS8X8X5/16	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C4	HSS8X8X1/2	1 1/4"	10/S301	(4) 3/4" Ø	11/S301

COLUMN / PAD FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOT REINFORCING TRANS	BOT REINFORCING LONG	TOP REINFORCING TRANS	TOP REINFORCING LONG	REMARKS
F3	3' - 0" SQ	1' - 0"	(3) #5	(3) #5	-	-	
F4	4' - 0" SQ	1' - 0"	(4) #5	(4) #5	-	-	
F5	5' - 0" SQ	1' - 0"	(5) #5	(5) #5	-	-	
F6	6' - 0" SQ	1' - 0"	(6) #5	(6) #5	-	-	
F6-6	6' - 6" SQ	1' - 0"	(6) #5	(6) #5	-	-	
F7	7' - 0" SQ	1' - 2"	(7) #5	(7) #5	-	-	
F7-6	7' - 6" SQ	1' - 0"	(7) #5	(7) #5	-	-	
F8	8' - 0" SQ	1' - 4"	(8) #5	(8) #5	-	-	
F8-6	8' - 6" SQ	1' - 0"	(8) #5	(8) #5	-	-	
F9	9' - 0" SQ	1' - 6"	(8) #5	(8) #5	-	-	
F9-6	9' - 0" SQ	1' - 6"	(8) #5	(8) #5	-	-	
F10	10' - 0" SQ	1' - 8"	(13) #5	(13) #5	-	-	
F10-6	10' - 0" SQ	1' - 8"	(13) #5	(13) #5	-	-	
F13	13' - 0" SQ	2' - 2"	(13) #5	(13) #5	-	-	

WALL / STRIP FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOT REINFORCING TRANS	BOT REINFORCING LONG	TOP REINFORCING TRANS	TOP REINFORCING LONG	REMARKS
CF1-8	1' - 8"	1' - 0"		(2) #5	-	-	@ STOOPS
CF2	2' - 0"	1' - 0"	#4 @ 6' - 0"	(2) #5	-	-	
CF2-6	2' - 6"	1' - 0"	#4 @ 6' - 0"	(3) #5	-	-	
CF2A	2' - 0" THKD	1' - 0"	#4 @ 6' - 0"	(2) #5	#5 @ 1' - 4"		
CF3	3' - 0"	1' - 0"	#4 @ 4' - 0"	(3) #5	-	-	
CF3-6	3' - 6"	1' - 0"	#5 @ 1' - 6"	(4) #5	-	-	
CF4	4' - 0"	1' - 0"	#5 @ 1' - 6"	(4) #5	-	-	
CF4-6	4' - 6"	1' - 0"	#5 @ 1' - 6"	(5) #5	-	-	
CF5	5' - 0"	1' - 2"	#5 @ 1' - 6"	(5) #5	-	-	
CF5-6	5' - 6"	1' - 2"	#5 @ 1' - 6"	(6) #5	-	-	
CF6	6' - 0"	1' - 2"	#5 @ 1' - 6"	(6) #5	-	-	
CF10	10' - 0"	1' - 6"	#8 @ 1' - 4"	(11) #6	#5 @ 1' - 4"	(6) #6	

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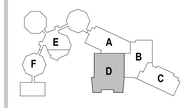
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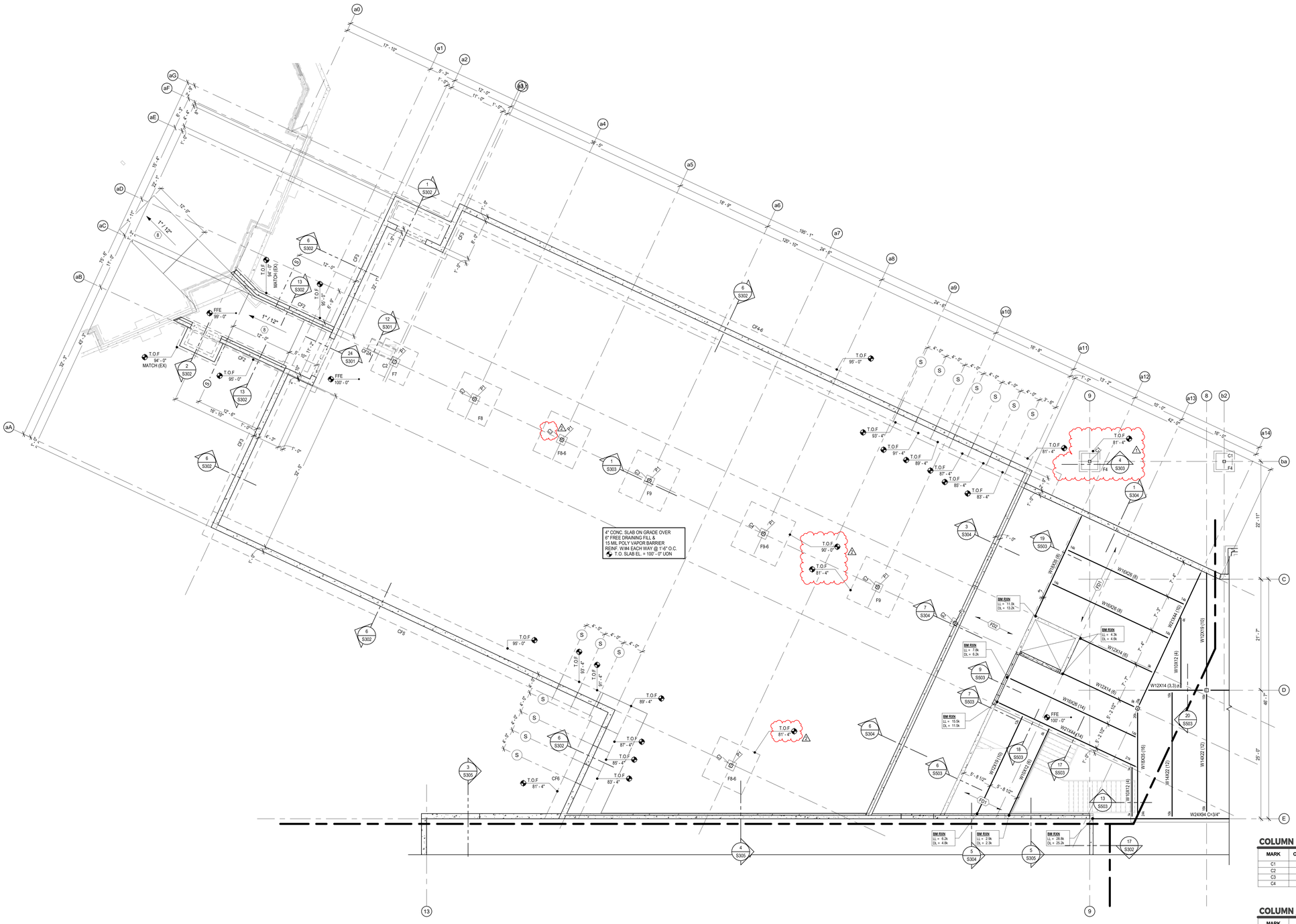
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2	ADDENDUM #2	03/24/26

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Foundation Plan - Area D

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S101D

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2 S102A **Foundation Plan - Area A**

1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL WALL FOOTINGS ARE TO BE CENTERED ON WALLS, UON. WALL FOOTINGS ARE TO BE 12" THICK REINFORCED W/ (2) #5 CONT LONGITUDINAL BARS AND PROJECT 6" BEYOND EACH FACE OF FOUNDATION WALL THEY SUPPORT, UON. ALL PAD FOOTINGS ARE TO BE CENTERED ON COLUMNS / PIERS, UON.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
3. SEE SHEET S001 FOR GENERAL CONCRETE & FOUNDATION NOTES.
4. SEE ARCH FOR DIMENSIONING OF FOUNDATION WALL HOLDOUTS, LOCATION OF STOOPS, SLAB RECESSES & SLOPED SLAB AREAS.
5. SEE DETAIL 6 /S301 FOR SLAB CONSTRUCTION JOINTS (CCJ). SEE DETAIL 7 /S301 FOR SLAB CONTROL JOINTS (CJ). CONTRACTOR SHALL SUBMIT A PROPOSED JOINT LAYOUT TO ARCHENG. FOR APPROVAL PRIOR TO SLAB PLACEMENT.

   CONTROL JOINTS SHALL BE ON COLUMN LINES AND AT RE-ENTRANT CORNERS TO THE GREATEST EXTENT POSSIBLE W/ SPACING LESS THAN 12'-0" O.C. BETWEEN.

   CONSTRUCTION JOINTS SHALL BE LOCATED SO AS NOT TO ALLOW A SINGLE SLAB POUR TO EXCEED 4,000sf UNLESS ALTERNATIVE MEASURES ARE TAKEN TO CONTROL SLAB CURLING & SHRINKAGE.

   PROVIDE CJ OR CCJ JOINTS SO AS NOT TO EXCEED A SLAB UNIT ASPECT RATIO OF 1.5:1.
6. ADD (2) #5 x 3'-0" REBAR @ 3" O.C. FOR CRACK CONTROL AT RE-ENTRANT CORNERS - SEE DETAIL 9 /S301
7. (S)— - INDICATES STEPPED WALL FOOTING LOCATION - SEE DETAIL 1 /S301
8. "C#" - INDICATES A STEEL COLUMN - SEE SCHEDULE ON THIS SHEET
9. "P#" - INDICATES A CONCRETE PIER - SEE PIER DETAILS ON S302
10. "F# / CF#" - INDICATES COLUMN PAD / WALL STRIP FOOTINGS - SEE SCHEDULES ON THIS SHEET
11. REINFORCE 8" CMU WALLS W/ (1) #5 VERTICAL @ 4'-0" O.C., UON. ALL MASONRY BELOW GRADE SHALL BE FULLY GROUTED.
12. SEE DETAIL 12 /S301 FOR THICKENED SLAB BELOW STAIR STRINGERS. VERIFY LOCATION WITH ARCH.
13. SEE DETAIL 16 /S301 FOR THICKENED SLABS BELOW NON-BEARING CMU WALLS. VERIFY LOCATIONS OF ALL CMU WALLS WITH ARCH.
14. ▨ - INDICATES STEP IN FLOOR SLAB ELEVATION - SEE DETAIL 14 /S301

KEYNOTES

#	
8	RAMP - COORDINATE WITH ARCH. SEE DETAILS 17/S301 & 18/S301 FOR RAMP TOP & BOTTOM.

COLUMN SCHEDULE

MARK	COLUMN SIZE	BASE PLATE THICKNESS	BASE PLATE DETAIL	ANCHOR BOLTS	DETAIL
C1	HSS6X6X3/16	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C2	HSS8X8X1/4	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C3	HSS8X8X5/16	1 1/4"	10/S301	(4) 3/4" Ø	11/S301
C4	HSS8X8X1/2	1 1/4"	10/S301	(4) 3/4" Ø	11/S301

COLUMN / PAD FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOT REINFORCING TRANS	BOT REINFORCING LONG	TOP REINFORCING TRANS	TOP REINFORCING LONG	REMARKS
F3	3' - 0" SQ	1' - 0"	(3) #5	(3) #5	-	-	
F4	4' - 0" SQ	1' - 0"	(4) #5	(4) #5	-	-	
F5	5' - 0" SQ	1' - 0"	(5) #5	(5) #5	-	-	
F6	6' - 0" SQ	1' - 0"	(6) #5	(6) #5	-	-	
F6-6	6' - 6" SQ	1' - 0"	(6) #5	(6) #5	-	-	
F7	7' - 0" SQ	1' - 2"	(7) #5	(7) #5	-	-	
F7-6	7' - 6" SQ	1' - 0"	(7) #5	(7) #5	-	-	
F8	8' - 0" SQ	1' - 4"	(8) #5	(8) #5	-	-	
F8-6	8' - 6" SQ	1' - 0"	(8) #5	(8) #5	-	-	
F9	9' - 0" SQ	1' - 6"	(8) #5	(8) #5	-	-	
F9-6	9' - 6" SQ	1' - 6"	(8) #5	(8) #5	-	-	
F10	10' - 0" SQ	1' - 8"	(13) #5	(13) #5	-	-	
F10-6	10' - 0" SQ	1' - 8"	(13) #5	(13) #5	-	-	
F13	13' - 0" SQ	2' - 2"	(13) #5	(13) #5	-	-	

WALL / STRIP FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOT REINFORCING TRANS	BOT REINFORCING LONG	TOP REINFORCING TRANS	TOP REINFORCING LONG	REMARKS
CF1-8	1' - 8"	1' - 0"	-	(2) #5	-	-	@ STOOPS
CF2	2' - 0"	1' - 0"	#4 @ 6' - 0"	(2) #5	-	-	
CF2-6	2' - 6"	1' - 0"	#4 @ 6' - 0"	(3) #5	-	-	
CF2A	2' - 0" THKD	1' - 0"	#4 @ 6' - 0"	(2) #5			
CF3	3' - 0"	1' - 0"	#4 @ 6' - 0"	(3) #5	-	-	
CF3-6	3' - 6"	1' - 0"	#5 @ 1' - 6"	(4) #5	-	-	
CF4	4' - 0"	1' - 0"	#5 @ 1' - 6"	(4) #5	-	-	
CF4-6	4' - 6"	1' - 0"	#5 @ 1' - 6"	(5) #5	-	-	
CF5	5' - 0"	1' - 2"	#5 @ 1' - 6"	(5) #5	-	-	
CF5-6	5' - 6"	1' - 2"	#5 @ 1' - 6"	(6) #5	-	-	
CF6	6' - 0"	1' - 2"	#5 @ 1' - 6"	(6) #5	-	-	
CF10	10' - 0"	1' - 6"	#8 @ 1' - 4"	(11) #6	#5 @ 1' - 4"	(6) #6	

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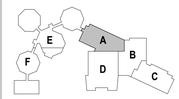
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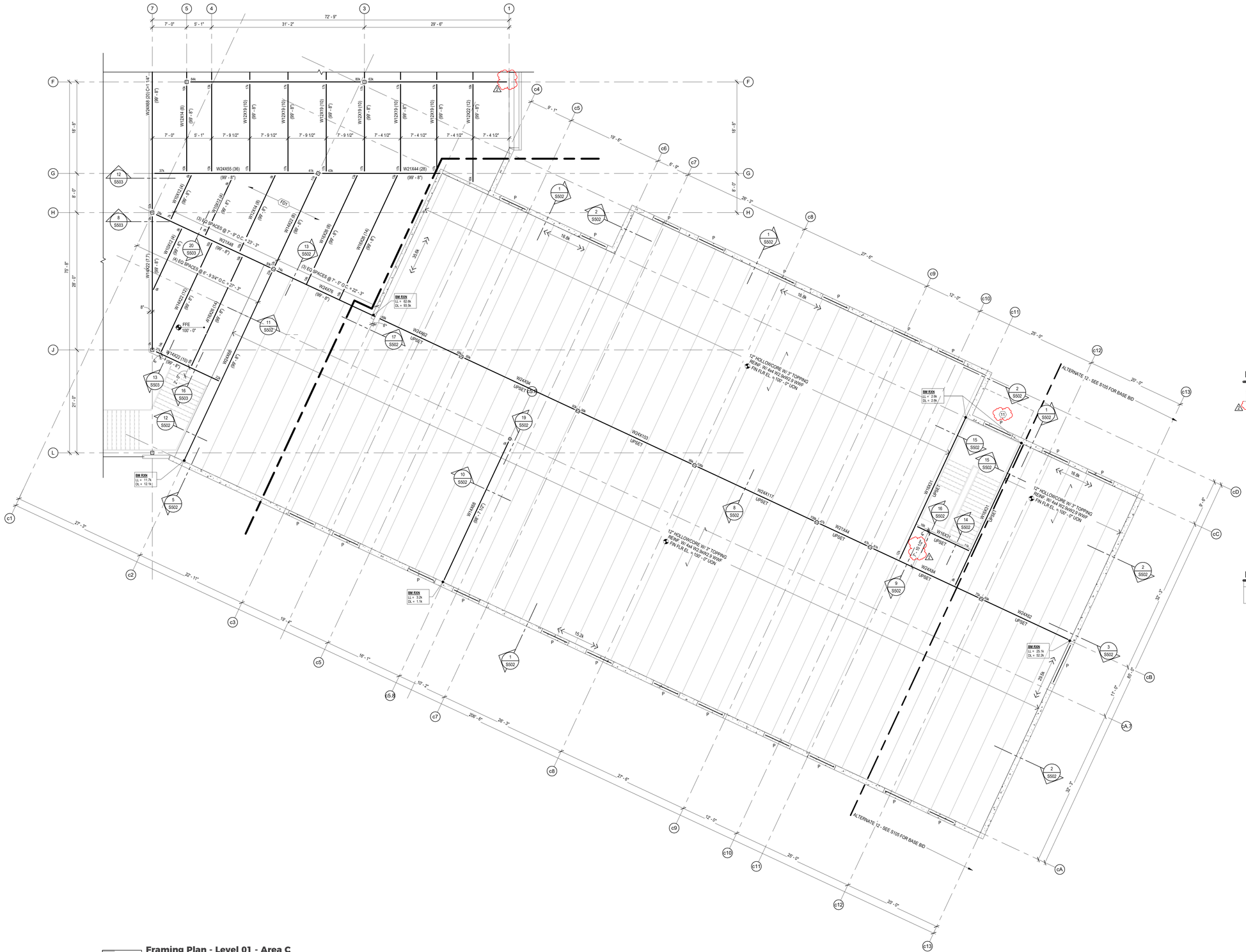
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1	ADDENDUM #1	03/17/26
2	ADDENDUM #2	03/24/26

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Foundation Plan - Area A

SHEET
S102A

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1 S102C **Framing Plan - Level 01 - Area C**

1/8" = 1'-0"

FRAMING PLAN SHEET NOTES

1. NUMBER IN PARENTHESES WITH "• / -" ADJACENT TO STEEL BEAM SIZE INDICATES ELEVATION OF TOP OF STEEL BEAM IN INCHES FROM REFERENCE ELEVATION EQUAL TO STEEL DECK BEARING ELEVATION (DBE) - NO NUMBER ADJACENT TO BEAM SIZE INDICATES TOP OF BEAM @ DBE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
3. SEE SHEET S001 FOR GENERAL FRAMING / LIGHT GAUGE NOTES AND MINIMUM LIGHT GAUGE DESIGN VALUES.
4. SEE DETAIL 18 /S501 FOR SUPPORT OF NON-BEARING CMU WALLS @ THE UNDERSIDE OF ROOF DECK.
5. VERIFY SIZE, QUANTITY & LOCATIONS FOR ALL ROOF PENETRATIONS W/ ARCHITECTURAL & MECHANICAL DRAWINGS. SEE DETAIL 15 /S501 FOR FRAMING @ ALL ROOF PENETRATIONS.
6. FD# / RD# - DENOTES METAL DECK - SEE SCHEDULE ON THIS SHEET
7. - DENOTES STEEL BEAM TO STEEL COLUMN MOMENT CONNECTION. SEE DETAIL 9 /S501
8. - DENOTES STEEL BEAM CANTILEVERED OVER STEEL COLUMN CONNECTION. SEE DETAIL 7 /S501
9. - INDICATES A STEP IN ROOF DECK BEARING ELEVATION. SEE PLAN FOR ACTUAL DBE.
10. - INDICATES A SNOW DRIFT LOAD PER IBC. SNOW DRIFTS ARE TAPERED LOADS WITH MAGNITUDES AS INDICATED ON THE PLANS. DRIFT LOADS ARE TO BE APPLIED IN ADDITION TO UNIFORM ROOF LOADS AS INDICATED IN THE GENERAL STRUCTURAL NOTES
11. SEE ROOF LOADING PLAN ON SHEET S111 FOR ADDITIONAL LOADS IMPOSED ON ROOF FRAMING AND STRUCTURAL NOTES ON SHEET S001 FOR ADDITIONAL REQUIREMENTS.
12. ### - INDICATES A STRENGTH LEVEL WIND LOAD PER IBC. PRECAST CONCRETE SUPPLIER TO DESIGN PANELS & CONNECTIONS FOR LOAD INDICATED ON PLAN. LOAD SHOWN IS TO BE DISTRIBUTED UNIFORMLY THROUGH PANELS & CONNECTIONS TO THE FOUNDATION.
13. 'P' - DENOTES PRECAST OPENING. VERIFY SIZE & LOCATIONS WITH ARCHITECTURAL AND PRECAST SUPPLIER.
14. 'HSS' - DENOTES AN HSS5x2 1/2x1/4" (SSV) FRAMING MEMBER
15. 'H' - DENOTES LIGHT GAUGE HEADER ASSEMBLY. SIZE & GAUGE OF HEADER, SILL & JAMB TO BE DETERMINED BY LIGHT GAUGE ENGINEER / SUPPLIER. SEE DETAILS ON SHEET S507.

KEYNOTES

#	
11	PREFABRICATED METAL CANOPY - BY CANOPY SUPPLIER. SEE ARCH.

FLOOR DECKING SCHEDULE

MARK	DECK SPECIFICATIONS
FD1	2 1/2" CONC SLAB OVER 1 1/2" X 19 GA (5Ksi) COMPOSITE STEEL FLOOR DECK (4" TOTAL SLAB THICKNESS) REINF. W/ #3 EA WAY @ 1'-0"o.c. SEE DETAIL 12/S501

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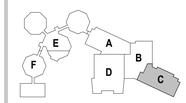
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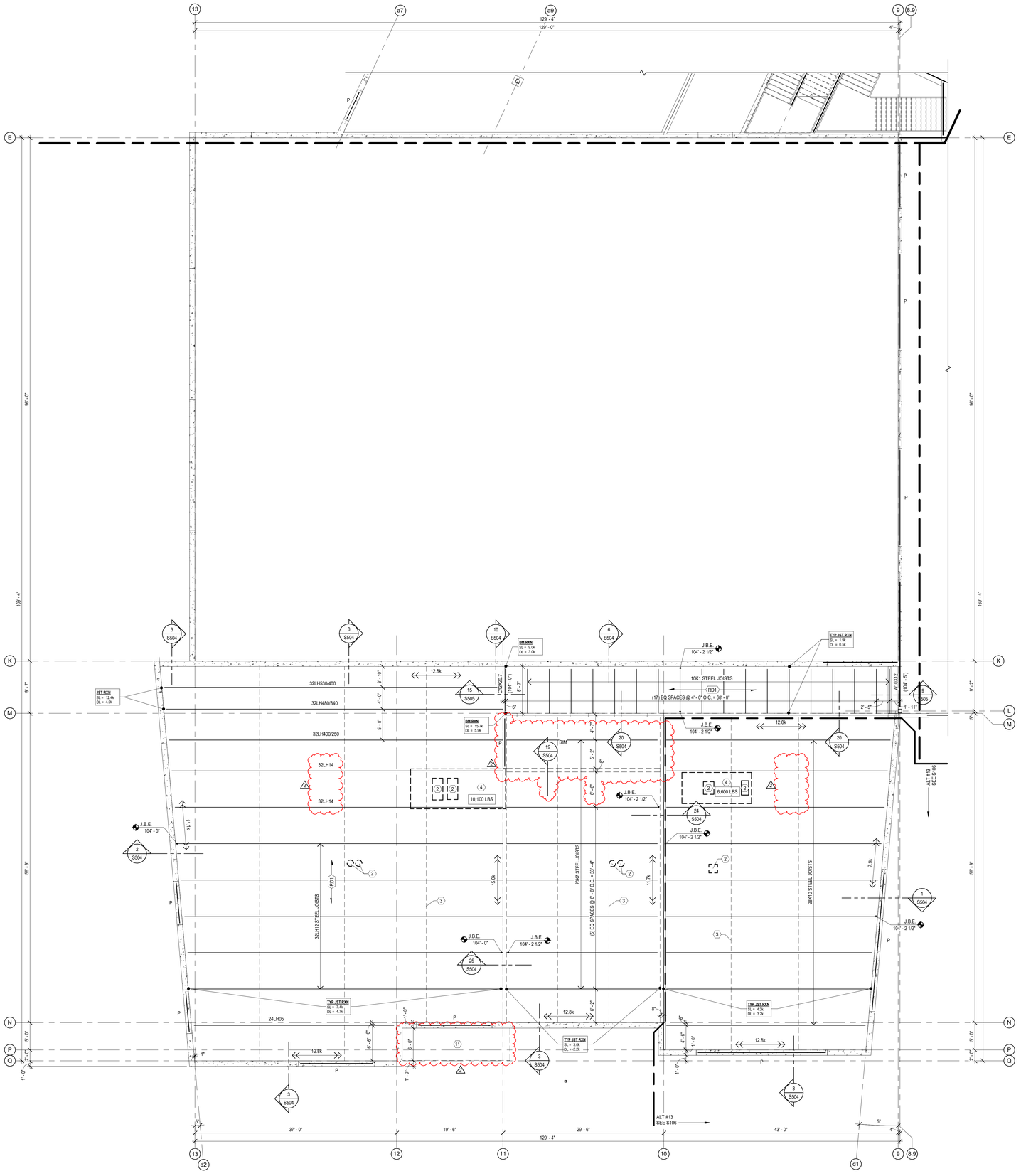
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/20/26
2	ADDENDUM #2	03/24/26

DRAWN BY: MFJ, CMM JN: 24-028

Framing Plan - Level 01 - Area C

SHEET
S102C

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2 S102D **Roof Framing Plan - Low Roof - Area D**

1/8" = 1'-0"

JOIST BEARING ELEVATION (J.B.E.) = 104' - 0" U.O.N.

FRAMING PLAN SHEET NOTES

1. NUMBER IN PARENTHESES WITH "+ -" ADJACENT TO STEEL BEAM SIZE INDICATES ELEVATION OF TOP OF STEEL BEAM IN INCHES FROM REFERENCE ELEVATION EQUAL TO STEEL DECK BEARING ELEVATION (BBE) - NO NUMBER ADJACENT TO BEAM SIZE INDICATES TOP OF BEAM @ DBE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
3. SEE SHEET S001 FOR GENERAL FRAMING / LIGHT GAUGE NOTES AND MINIMUM LIGHT GAUGE DESIGN VALUES.
4. SEE DETAIL 18 /S501 FOR SUPPORT OF NON-BEARING CMU WALLS @ THE UNDERSIDE OF ROOF DECK.
5. VERIFY SIZE, QUANTITY & LOCATIONS FOR ALL ROOF PENETRATIONS W/ ARCHITECTURAL & MECHANICAL DRAWINGS. SEE DETAIL 15 /S501 FOR FRAMING @ ALL ROOF PENETRATIONS.
6. (FD# / RD#) - DENOTES METAL DECK - SEE SCHEDULE ON THIS SHEET
7. - DENOTES STEEL BEAM TO STEEL COLUMN MOMENT CONNECTION. SEE DETAIL 9 /S501
8. - DENOTES STEEL BEAM CANTILEVERED OVER STEEL COLUMN CONNECTION. SEE DETAIL 7 /S501
9. - INDICATES A STEP IN ROOF DECK BEARING ELEVATION. SEE PLAN FOR ACTUAL DBE.
10. - INDICATES A SNOW DRIFT LOAD PER IBC. SNOW DRIFTS ARE TAPERED LOADS WITH MAGNITUDES AS INDICATED ON THE PLANS. DRIFT LOADS ARE TO BE APPLIED IN ADDITION TO UNIFORM ROOF LOADS AS INDICATED IN THE GENERAL STRUCTURAL NOTES
11. SEE ROOF LOADING PLAN ON SHEET S111 FOR ADDITIONAL LOADS IMPOSED ON ROOF FRAMING AND STRUCTURAL NOTES ON SHEET S001 FOR ADDITIONAL REQUIREMENTS.
12. ####k - INDICATES A STRENGTH LEVEL WIND LOAD PER IBC. PRECAST CONCRETE SUPPLIER TO DESIGN PANELS & CONNECTIONS FOR LOAD INDICATED ON PLAN. LOAD SHOWN IS TO BE DISTRIBUTED UNIFORMLY THROUGH PANELS & CONNECTIONS TO THE FOUNDATION.
13. 'P' - DENOTES PRECAST OPENING. VERIFY SIZE & LOCATIONS WITH ARCHITECTURAL AND PRECAST SUPPLIER.
14. 'HSS' - DENOTES AN HSS5x2 1/2x1/4" (SSV) FRAMING MEMBER
15. 'H' - DENOTES LIGHT GAUGE HEADER ASSEMBLY. SIZE & GAUGE OF HEADER, SILL & JAMB TO BE DETERMINED BY LIGHT GAUGE ENGINEER / SUPPLIER. SEE DETAILS ON SHEET S507.

KEYNOTES

#	
2	MECHANICAL OPENING THRU ROOF - VERIFY SIZE, QUANTITY AND LOCATIONS WITH ARCHITECTURAL & MECHANICAL PLANS. FOR REINFORCEMENT/FRAMING AROUND DECK OPENING SEE DETAIL 15/S501
3	HORIZONTAL/CROSS BRIDGING - QUANTITY, SIZES & ANCHORAGE AS REQUIRED BY THE STEEL JOIST SUPPLIER PER SJI STANDARDS. SEE DETAIL 13/S501
4	MECHANICAL UNIT ATOP ROOF - VERIFY SIZE, QUANTITY AND LOCATION WITH ARCHITECTURAL & MECHANICAL PLANS. WEIGHT NOT TO EXCEED THAT SHOWN - IF WEIGHT NOT SHOWN, ASSUME MAX UNIT WEIGHT OF 200 LBS. JOIST SUPPLIER TO DESIGN JOISTS FOR ADDITIONAL WEIGHT AS REQUIRED. FOR SUPPORT OF MECH UNIT ON ROOF SEE DETAIL 14/S501
11	PREFABRICATED METAL CANOPY - BY CANOPY SUPPLIER. SEE ARCH.

ROOF DECKING SCHEDULE

MARK	DECK SPECIFICATIONS
RD1	1 1/2", TYPE 'B' 20 GA. STEEL ROOF DECK, (3) SPAN MINIMUM. FASTEN W/ 5/8" Ø PUDDLE WELDS IN A 36/4 PATTERN & (1) #10 TEK SCREW SIDELAP FASTENER PER SPAN - SEE DETAIL 10/S501

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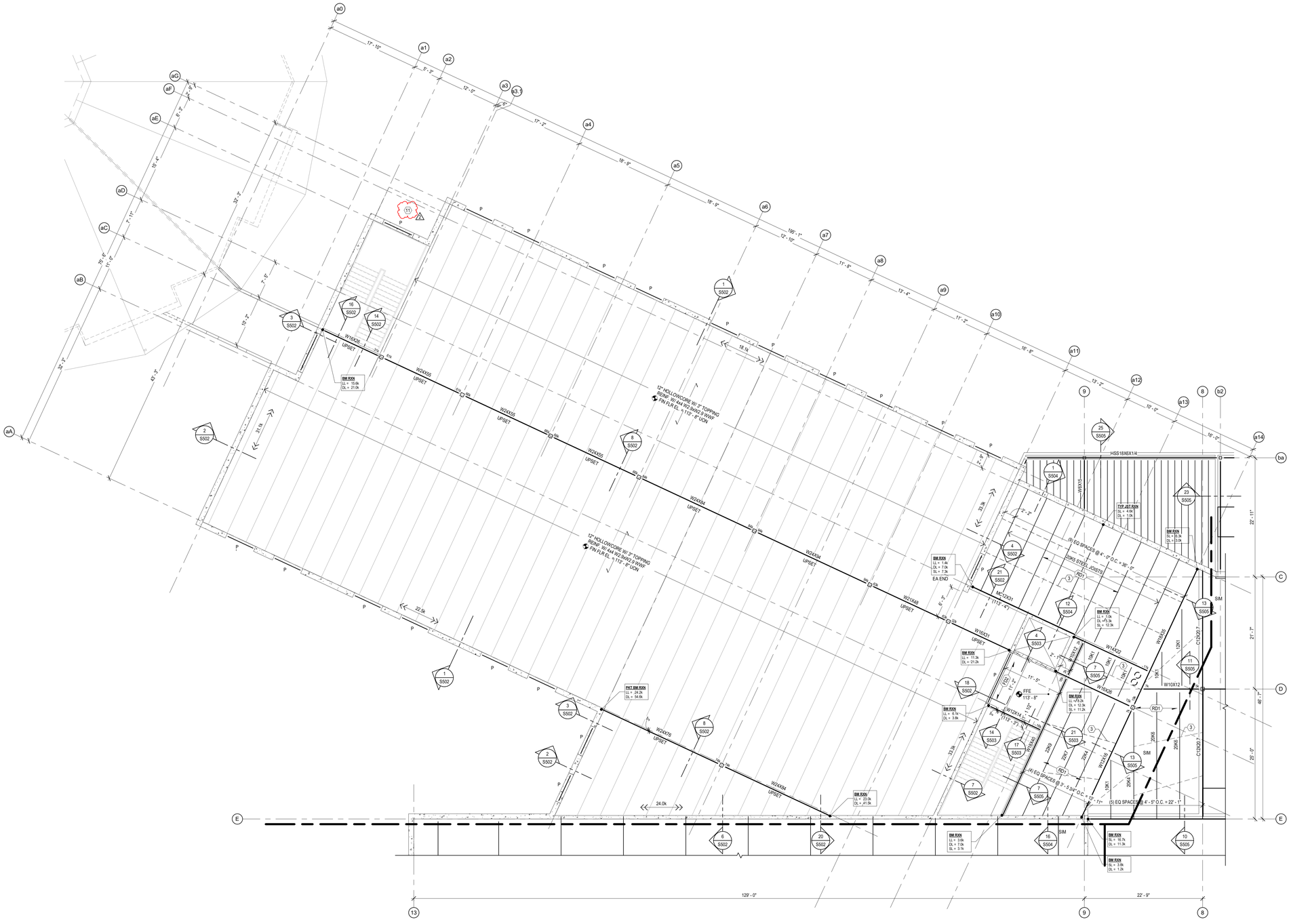
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	ADDENDUM #2	03/24/26

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Roof Framing Plan - Low Roof - Area D

SHEET
S102D

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1 S103A **Level 02 - Framing Plan - Area A**

1/8" = 1'-0"

FRAMING PLAN SHEET NOTES

1. NUMBER IN PARENTHESES WITH "+ /-" ADJACENT TO STEEL BEAM SIZE INDICATES ELEVATION OF TOP OF STEEL BEAM IN INCHES FROM REFERENCE ELEVATION EQUAL TO STEEL DECK BEARING ELEVATION (DBE) - NO NUMBER ADJACENT TO BEAM SIZE INDICATES TOP OF BEAM @ DBE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
3. SEE SHEET S001 FOR GENERAL FRAMING / LIGHT GAUGE NOTES AND MINIMUM LIGHT GAUGE DESIGN VALUES.
4. SEE DETAIL 18 /S501 FOR SUPPORT OF NON-BEARING CMU WALLS @ THE UNDERSIDE OF ROOF DECK.
5. VERIFY SIZE, QUANTITY & LOCATIONS FOR ALL ROOF PENETRATIONS W/ ARCHITECTURAL & MECHANICAL DRAWINGS. SEE DETAIL 15 /S501 FOR FRAMING @ ALL ROOF PENETRATIONS.
6. FD# / RD# - DENOTES METAL DECK - SEE SCHEDULE ON THIS SHEET
7. - DENOTES STEEL BEAM TO STEEL COLUMN MOMENT CONNECTION. SEE DETAIL 9 /S501
8. - DENOTES STEEL BEAM CANTILEVERED OVER STEEL COLUMN CONNECTION. SEE DETAIL 7 /S501
9. - INDICATES A STEP IN ROOF DECK BEARING ELEVATION. SEE PLAN FOR ACTUAL DBE.
10. - INDICATES A SNOW DRIFT LOAD PER IBC. SNOW DRIFTS ARE TAPERED LOADS WITH MAGNITUDES AS INDICATED ON THE PLANS. DRIFT LOADS ARE TO BE APPLIED IN ADDITION TO UNIFORM ROOF LOADS AS INDICATED IN THE GENERAL STRUCTURAL NOTES
11. SEE ROOF LOADING PLAN ON SHEET S111 FOR ADDITIONAL LOADS IMPOSED ON ROOF FRAMING AND STRUCTURAL NOTES ON SHEET S001 FOR ADDITIONAL REQUIREMENTS.
12. ###k - INDICATES A STRENGTH LEVEL WIND LOAD PER IBC. PRECAST CONCRETE SUPPLIER TO DESIGN PANELS & CONNECTIONS FOR LOAD INDICATED ON PLAN. LOAD SHOWN IS TO BE DISTRIBUTED UNIFORMLY THROUGH PANELS & CONNECTIONS TO THE FOUNDATION.
13. 'P' - DENOTES PRECAST OPENING. VERIFY SIZE & LOCATIONS WITH ARCHITECTURAL AND PRECAST SUPPLIER.
14. 'HSS' - DENOTES AN HSS5x2 1/2x1/4" (SSV) FRAMING MEMBER
15. 'H' - DENOTES LIGHT GAUGE HEADER ASSEMBLY. SIZE & GAUGE OF HEADER, SILL & JAMB TO BE DETERMINED BY LIGHT GAUGE ENGINEER / SUPPLIER. SEE DETAILS ON SHEET S007.

KEYNOTES

#	
3	HORIZONTAL/CROSS BRIDGING - QUANTITY, SIZES & ANCHORAGE AS REQUIRED BY THE STEEL JOIST SUPPLIER PER SJI STANDARDS. SEE DETAIL 13/S501
11	PREFABRICATED METAL CANOPY - BY CANOPY SUPPLIER. SEE ARCH.

FLOOR DECKING SCHEDULE

MARK	DECK SPECIFICATIONS
FD2	2" CONC SLAB OVER 3" X 20 GA COMPOSITE STEEL FLOOR DECK (5" TOTAL SLAB THICKNESS) REINF. W/ #3 EA WAY @ 1'-0"O.C. SEE DETAIL 12/S501

ROOF DECKING SCHEDULE

MARK	DECK SPECIFICATIONS
RD1	1 1/2", TYPE 'B' 20 GA. STEEL ROOF DECK, (3) SPAN MINIMUM. FASTEN W/ 5/8" Ø PUDDLE WELDS IN A 36/4 PATTERN & (1) #10 TEK SCREW SIDELAP FASTENER PER SPAN - SEE DETAIL 10/S501

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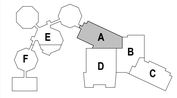
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REGISTERED PROFESSIONAL ENGINEER
MICHAEL F. JOCHIM
PE-9135
DATE
03-10-2026
NORTH DAKOTA

DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	ADDENDUM #2	03/24/26

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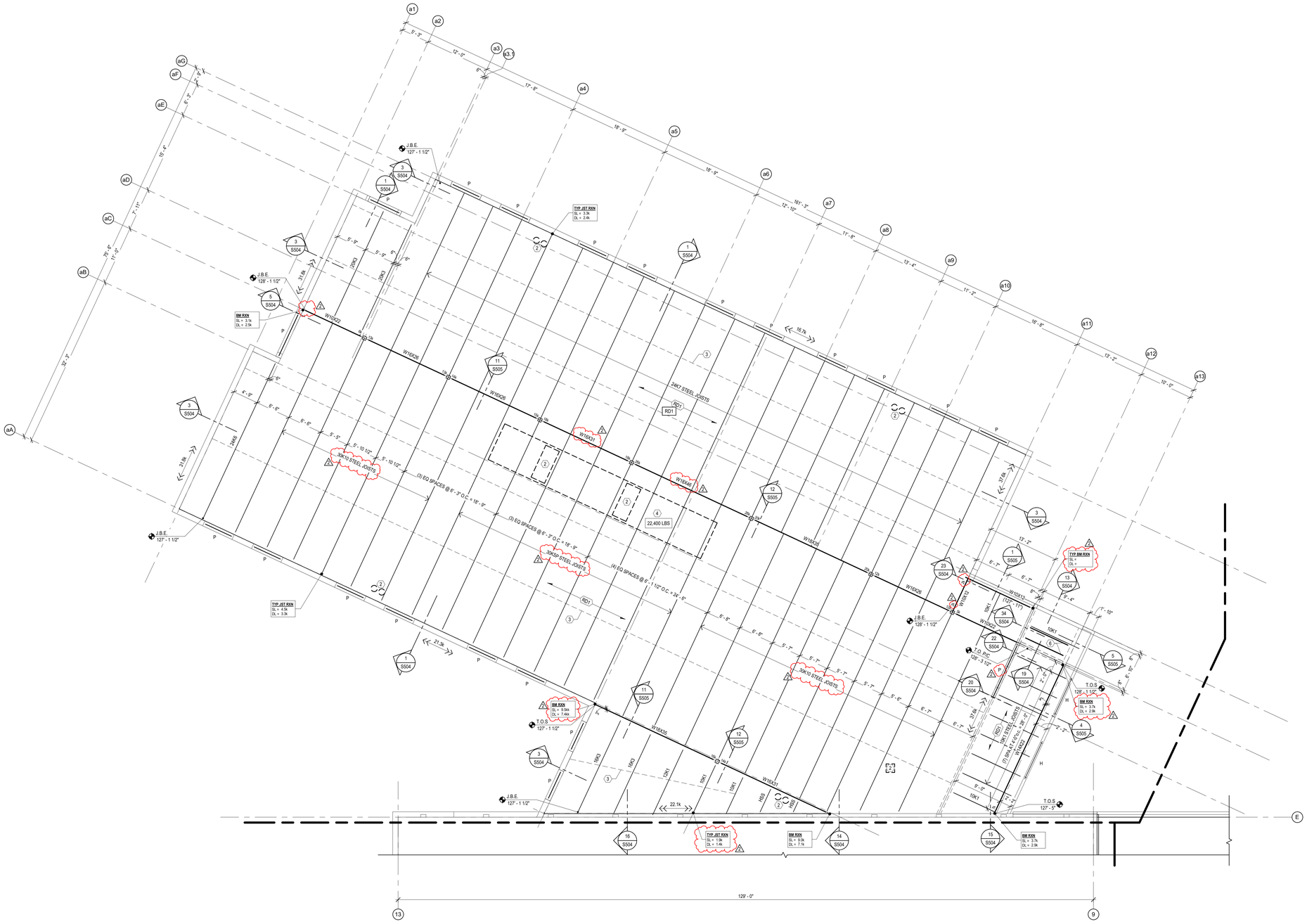
Framing Plan - Level 02 - Area A

SHEET
S103A

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HSS18X6X1/4
HSS18X6X1/4
W16X26
(5) EQ SPACES @ 4' - 10" O.C. = 24' - 3"
16K2 STEEL JOISTS
RD1
(9) EQ SPACES @ 4' - 0" O.C. = 36' - 0"
20K5 STEEL JOISTS
(7) EQ SPACES @ 5' - 0" O.C. = 35' - 0"
16K2 STEEL JOISTS
(5) EQ SPACES @ 6' - 3" O.C. = 31' - 2"
24K6 STEEL JOISTS
(5) EQ SPACES @ 5' - 11" O.C. = 29' - 6"
18K4 STEEL JOISTS
20K7 STEEL JOISTS
20K4 STEEL JOISTS
20K4 STEEL JOISTS
(6) EQ SPACES @ 5' - 3 3/4" O.C. = 32' - 11"
W27X84
W21X44
W24X55
W24X55
14,700 LBS
(5) EQ SPACES @ 6' - 3" O.C. = 31' - 2"
(5) EQ SPACES @ 5' - 11" O.C. = 29' - 6"
28LH12 STEEL JOISTS
W24X62
W18X40
W10X12
5" ENDS
W14X22
W14X22
24K8
24K7
20K7
20K6
20K4
16K4
16K4
16K2
12K3
12K1
10K1
10K1
W10X12
(4) EQ SPACES @ 6' - 6 3/4" O.C. = 27' - 3"
W16X31
30K10 STEEL JOISTS
W21X48
24,400 LBS
(4) EQ SPACES @ 5' - 0" O.C. = 20' - 0"
24K8 STEEL JOISTS
W10X12
W18X40
W10X12
W14X22
W14X22
W14X22
W14X22
W16X26
W16X31
W16X26
W16X36
W16X31
W16X26
W16X26
W16X26


72' - 9"
7' - 0"
5' - 1"
31' - 2"
29' - 6"
28LH12 STEEL JOISTS
(5) EQ SPACES @ 6' - 3" O.C. = 31' - 2"
(5) EQ SPACES @ 5' - 11" O.C. = 29' - 6"
W24X62
W18X40
W10X12
W14X22
24K8
24K7
20K7
20K6
20K4
16K4
16K2
12K3
12K1
10K1
W10X49
W16X31
W21X48
W21X44
W16X26
W10X22
W16X40
24K7 STEEL JOISTS
30K10 STEEL JOISTS
(4) EQ SPACES @ 6' - 3" O.C. = 20' - 0"
(4) EQ SPACES @ 6' - 6 3/4" O.C. = 25' - 7"
(3) EQ SPACES @ 6' - 5" O.C. = 18' - 3"
(5) EQ SPACES @ 5' - 5" O.C. = 27' - 6"
(3) EQ SPACES @ 6' - 1" O.C. = 18' - 3"
(3) EQ SPACES @ 6' - 8" O.C. = 20' - 0"
(6) EQ SPACES @ 5' - 5" O.C. = 27' - 6"
(6) EQ SPACES @ 5' - 7" O.C. = 28' - 6"
(4) EQ SPACES @ 5' - 5 3/4" O.C. = 22' - 7"
(6) EQ SPACES @ 5' - 6" O.C. = 27' - 6"
(3) EQ SPACES @ 6' - 5" O.C. = 19' - 1"
ALTERNATE 12 - SEE S105 FOR BASE BID
24,400 LBS
J.B.E. 113' - 8 1/4"
J.B.E. 113' - 5 1/2"
J.B.E. 114' - 6"
J.B.E. 113' - 5 1/2"
TYP JST RXN SL = 3.3k DL = 2.4k
TYP JST RXN SL = 4.5k DL = 3.3k
BM RXN SL = 12.7k DL = 10.5k
BM RXN (EA END) SL = 6.7k DL = 4.6k
BM RXN SL = 12.5k DL = 4.8k
BM RXN SL = 4.1k DL = 3.8k
BM RXN SL = 7.9k DL = 6.0k
5" ENDS
RD1
57' - 0"
26' - 0"
21' - 0"
8' - 0"
50' - 7"
19' - 4"
28' - 3"
29' - 6"
27' - 6"
12' - 0"
25' - 0"
20' - 0"
146' - 1"
21' - 6"
19' - 6"
6' - 9"
6' - 0"
6' - 4"
6' - 6"
6' - 10"
7' - 0"
8' - 0"
6' - 0"
6' - 9"
6' - 5"
32' - 7"
41' - 5"
6' - 4"
6' - 5"
6' - 6"
6' - 7"
6' - 8"
6' - 9"
6' - 10"
7' - 1"
7' - 2"
7' - 3"
7' - 4"
7' - 5"
7' - 6"
7' - 7"
7' - 8"
7' - 9"
7' - 10"
8' - 1"
8' - 2"
8' - 3"
8' - 4"
8' - 5"
8' - 6"
8' - 7"
8' - 8"
8' - 9"
8' - 10"
9' - 1"
9' - 2"
9' - 3"



1 S104A **Roof Framing Plan - High Roof - Area A**

1/8" = 1'-0"

JOIST BEARING ELEVATION (J.B.E.) = 127' - 1 1/2" U.O.N.

FRAMING PLAN SHEET NOTES

1. NUMBER IN PARENTHESES WITH "• /" ADJACENT TO STEEL BEAM SIZE INDICATES ELEVATION OF TOP OF STEEL BEAM IN INCHES FROM REFERENCE ELEVATION EQUAL TO STEEL DECK BEARING ELEVATION (DBE) - NO NUMBER ADJACENT TO BEAM SIZE INDICATES TOP OF BEAM @ DBE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT / ENGINEER IF DISCREPANCIES EXIST.
3. SEE SHEET S001 FOR GENERAL FRAMING / LIGHT GAUGE NOTES AND MINIMUM LIGHT GAUGE DESIGN VALUES.
4. SEE DETAIL 18 /S501 FOR SUPPORT OF NON-BEARING CMU WALLS @ THE UNDERSIDE OF ROOF DECK.
5. VERIFY SIZE, QUANTITY & LOCATIONS FOR ALL ROOF PENETRATIONS W/ ARCHITECTURAL & MECHANICAL DRAWINGS. SEE DETAIL 15 /S501 FOR FRAMING @ ALL ROOF PENETRATIONS.
6. (FD# / RD#) - DENOTES METAL DECK - SEE SCHEDULE ON THIS SHEET
7. - DENOTES STEEL BEAM TO STEEL COLUMN MOMENT CONNECTION. SEE DETAIL 9 /S501
8. - DENOTES STEEL BEAM CANTILEVERED OVER STEEL COLUMN CONNECTION. SEE DETAIL 7 /S501
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10. - INDICATES A SNOW DRIFT LOAD PER IBC. SNOW DRIFTS ARE TAPERED LOADS WITH MAGNITUDES AS INDICATED ON THE PLANS. DRIFT LOADS ARE TO BE APPLIED IN ADDITION TO UNIFORM ROOF LOADS AS INDICATED IN THE GENERAL STRUCTURAL NOTES
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14. 'HSS' - DENOTES AN HSS5x2 1/2x1/4" (SSV) FRAMING MEMBER
15. 'H' - DENOTES LIGHT GAUGE HEADER ASSEMBLY. SIZE & GAUGE OF HEADER, SILL & JAMB TO BE DETERMINED BY LIGHT GAUGE ENGINEER / SUPPLIER. SEE DETAILS ON SHEET S507.

KEYNOTES

#	
2	MECHANICAL OPENING THRU ROOF - VERIFY SIZE, QUANTITY AND LOCATIONS WITH ARCHITECTURAL & MECHANICAL PLANS. FOR REINFORCEMENT/FRAMING AROUND DECK OPENING SEE DETAIL 15/S501
3	HORIZONTAL/CROSS BRIDGING - QUANTITY, SIZES & ANCHORAGE AS REQUIRED BY THE STEEL JOIST SUPPLIER PER SJI STANDARDS. SEE DETAIL 13/S501
4	MECHANICAL UNIT ATOP ROOF - VERIFY SIZE, QUANTITY AND LOCATION WITH ARCHITECTURAL & MECHANICAL PLANS. WEIGHT NOT TO EXCEED THAT SHOWN - IF WEIGHT NOT SHOWN, ASSUME MAX UNIT WEIGHT OF 200 LBS. JOIST SUPPLIER TO DESIGN JOISTS FOR ADDITIONAL WEIGHT AS REQUIRED. FOR SUPPORT OF MECH UNIT ON ROOF SEE DETAIL 14/S501
6	W8X18 HOIST / LIFELINE BEAM - B.O. STEEL 128' - 4" (VERIFY LOCATIONS / ELEVATIONS WITH ELEVATOR SUPPLIER)

ROOF DECKING SCHEDULE

MARK	DECK SPECIFICATIONS
RD1	1 1/2", TYPE 'B' 20 GA. STEEL ROOF DECK, (3) SPAN MINIMUM. FASTEN W/ 5/8" Ø PUDDLE WELDS IN A 36/4 PATTERN & (1) #10 TEK SCREW SIDELAP FASTENER PER SPAN - SEE DETAIL 10/S501

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210 12th Street NE
Valley City, ND 58072

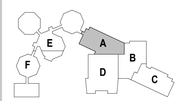
STRUCTURAL
ICON ARCHITECTURAL GROUP
222 EAST MAIN STREET, SUITE B
MANDAN, ND 58554
(701) 751.0430 OFFICE

MECHANICAL
CMTA
2201 12TH STREET NORTH, SUITE E
FARGO, NORTH DAKOTA 58108
(701) 280.0500 OFFICE

ELECTRICAL
CMTA
2201 12TH STREET NORTH, SUITE E
FARGO, NORTH DAKOTA 58102
(701) 280.0500 OFFICE

CIVIL
LOWRY ENGINEERING
1111 WESTRAC DR. STE. 108
FARGO, ND 58103
(701) 235.0199 OFFICE

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FOODSERVICE CONCEPT DESIGN
7900 INTERNATIONAL DRIVE
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BLOOMINGTON, MN 55425
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DRAWING HISTORY

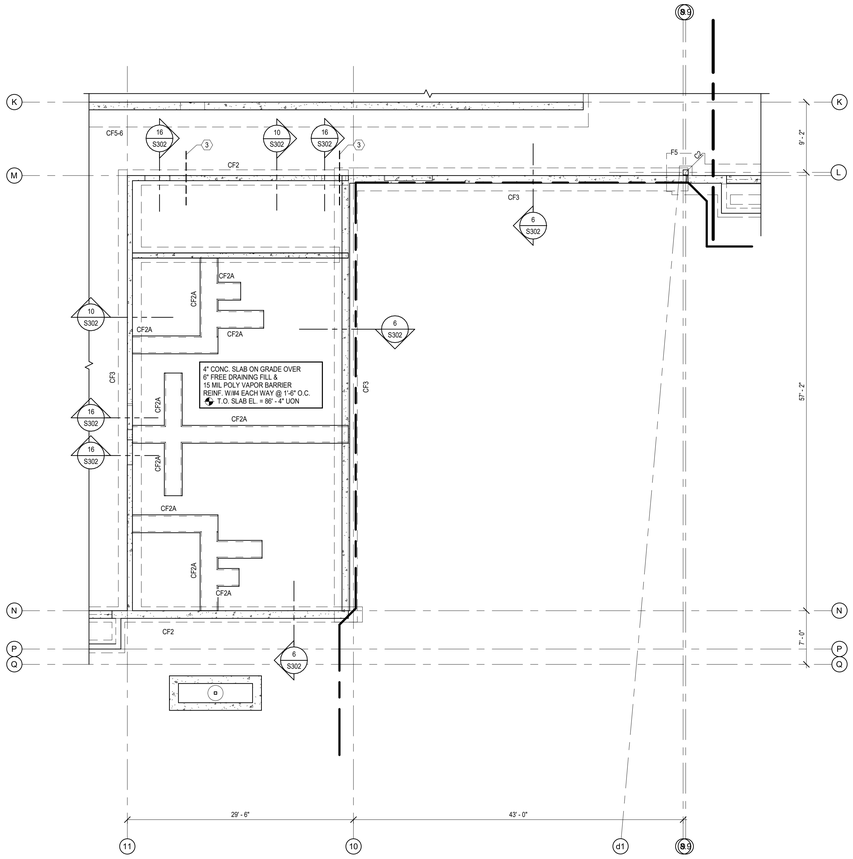
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	ADDENDUM #2	03/xx/26

DRAWN BY: MFJ, CMM JN: 24-028

Roof Framing Plan - High Roof - Area A

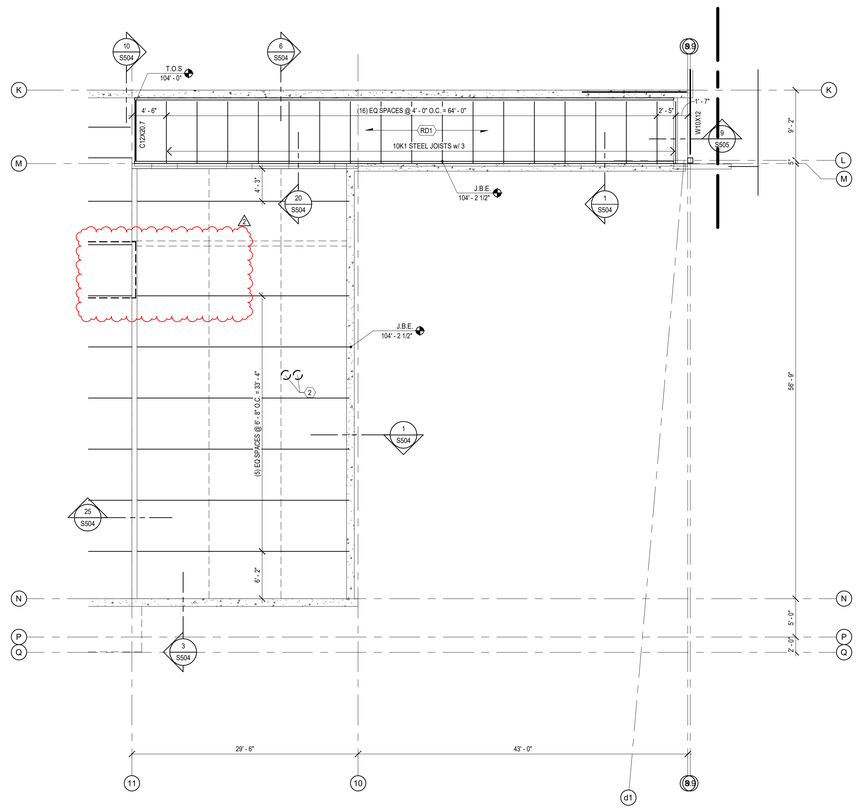
SHEET
S104A

Autodesk Docs://24-028 Valley City Public Schools High School/24-028 - VCPS New PreK-12 School - STRUCT.rvt
3/24/2026 2:31:37 PM



1 S106 **Foundation Plan - Area D - Alt #13**

1/8" = 1'-0"



2 S106 **Roof Framing Plan - Low Roof - Area D - Alt #13**

1/8" = 1'-0"

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NOTE

SEE BASE BID FOUNDATION AND FRAMING PLAN SHEETS FOR TYPICAL NOTES & KEYNOTES.

Valley City Public Schools - New School - STRUCTURAL

210 12th Street NE
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STRUCTURAL

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ELECTRICAL

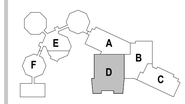
CMTA
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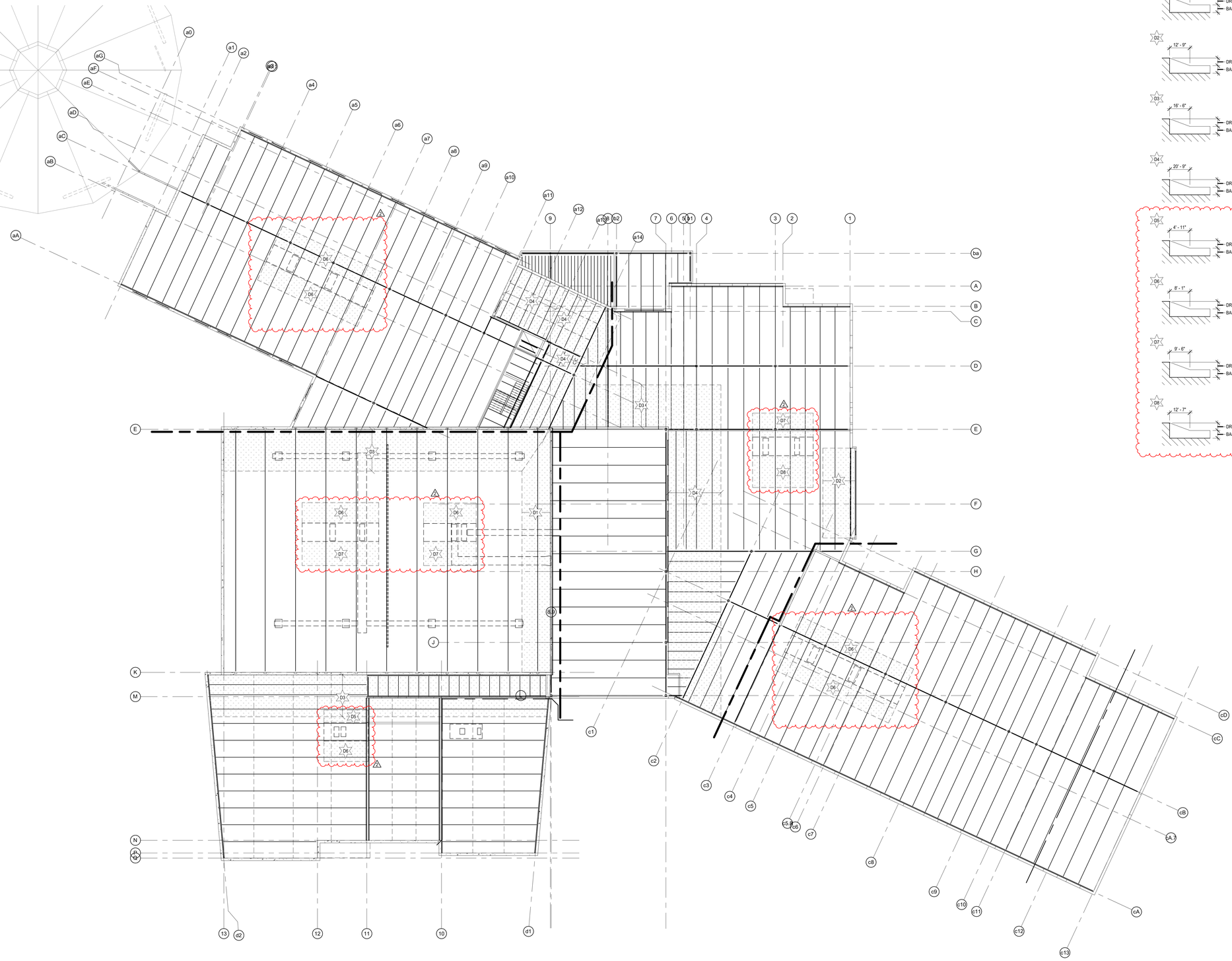
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DRAWN BY: MFJ, CMM JN: 24-028

Structural Plans - Area D - Alt #13

SHEET
S106

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1 S111 **Snow Drift Loading Plan**
1/16" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER
MICHAEL F. JOCHIM
PE-9135
DATE
03-10-2026
NORTH DAKOTA

DRAWING HISTORY

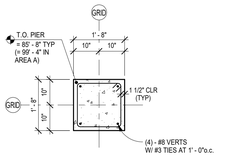
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	ADDENDUM #2	03/24/26

DRAWN BY: MFJ, CMM JN: 24-028

Snow Drift Loading Plan

SHEET
S111

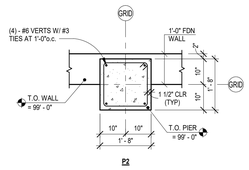
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P1

P1 S303 Pier

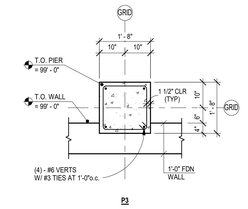
1/2" = 1'-0"



P2

P2 S303 Pier

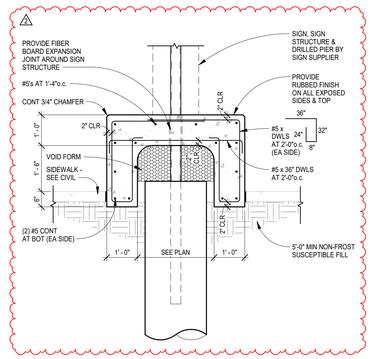
1/2" = 1'-0"



P3

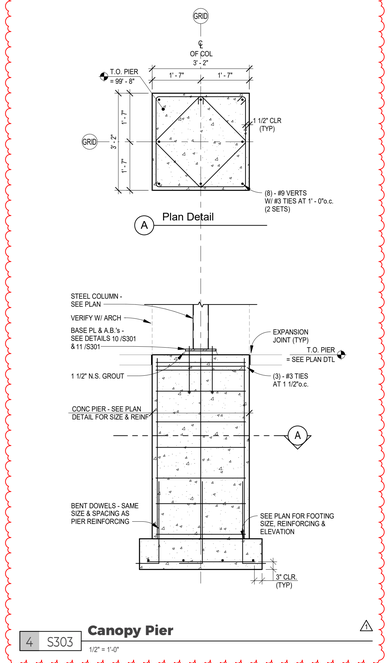
P3 S303 Pier

1/2" = 1'-0"



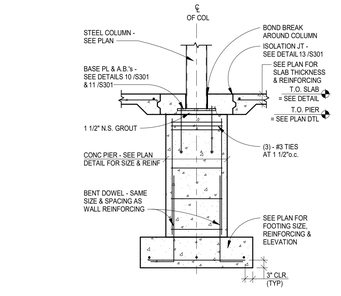
3 S303 Monument Foundation

1/2" = 1'-0"



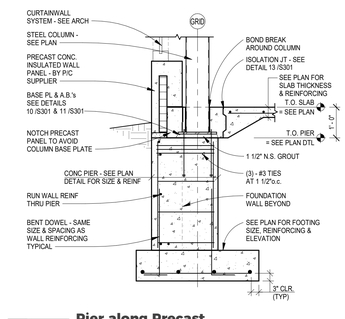
4 S303 Canopy Pier

1/2" = 1'-0"



1 S303 Pier

1/2" = 1'-0"



2 S303 Pier along Precast

1/2" = 1'-0"

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MICHAEL F. JOCHIM
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NORTH DAKOTA

DRAWING HISTORY

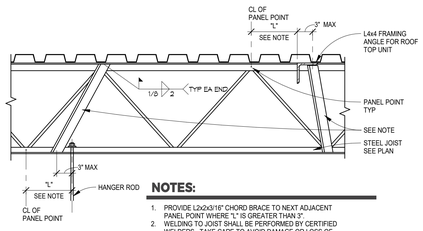
NO.	DESCRIPTION	DATE
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1	ADDENDUM #1	03/17/26
2	ADDENDUM #2	03/24/26

DRAWN BY: MFJ, CMM JN: 24-028

Foundation Details

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S303

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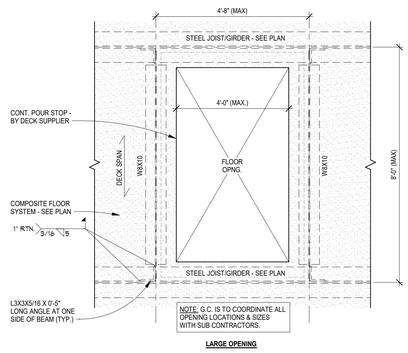


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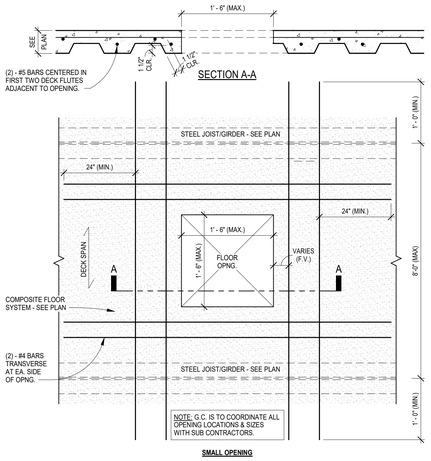
1. PROVIDE L2x2x3/16" CHORD BRACE TO NEXT ADJACENT PANEL POINT WHERE "L" IS GREATER THAN 3".
2. WELDING TO JOIST SHALL BE PERFORMED BY CERTIFIED WELDERS. TAKE CARE TO AVOID DAMAGE OR LOSS OF SECTION OF JOIST COMPONENTS BY OVER-WELDING.

16 S501 Joist Reinforcement

1" = 1'-0"



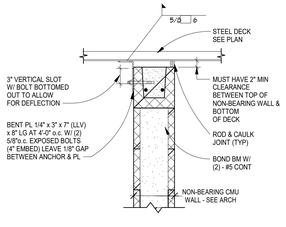
LARGE OPENING



SMALL OPENING

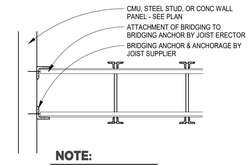
17 S501 Composite Floor Opening

1" = 1'-0"



18 S501 Deck at Non Bearing CMU

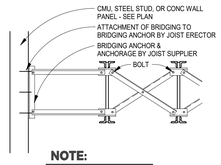
1" = 1'-0"



NOTE:

FIELD WELD ALL CONNECTIONS

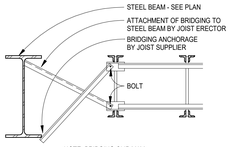
HORIZONTAL BRIDGING



NOTE:

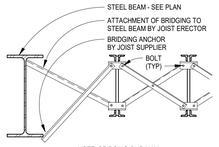
BRIDGING CLIP MAY VARY FROM THAT SHOWN

CROSS BRIDGING



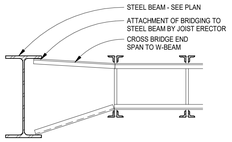
NOTE: BRIDGING CLIP MAY VARY FROM THAT SHOWN.

HORIZONTAL BRIDGING



NOTE: BRIDGING CLIP MAY VARY FROM THAT SHOWN.

CROSS BRIDGING



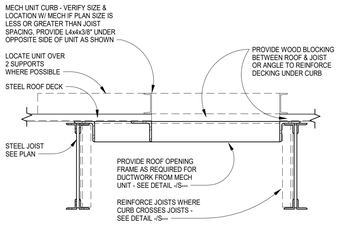
HORIZONTAL BRIDGING

NOTES:

1. ALL BRIDGING TO BE DESIGNED BY JOIST SUPPLIER AS PER SJI STANDARDS.
2. DO NOT WELD BRIDGING TO WEB MEMBERS.
3. DO NOT HANG ANYTHING FROM BRIDGING.
4. JOIST SUPPLIER IS TO PROVIDE ALL BRIDGING AND ACCESSORIES FOR PROPER INSTALLATION AS PER SJI STANDARDS.

13 S501 Typical Joist Bridging Anchorage

1" = 1'-0"

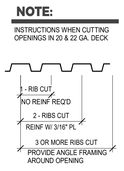


14 S501 Mechanical Support

1" = 1'-0"

NOTE:

INSTRUCTIONS WHEN CUTTING OPENINGS IN 20 & 22 GA. DECK



NOTE:

NO REINFORCING REQ'D AT OPENINGS 6" (DIAGONAL OR SQUARE) OR LESS

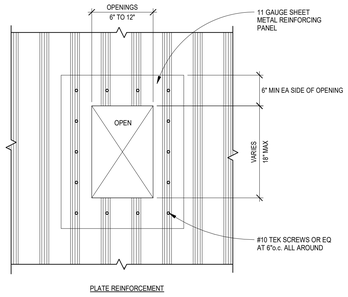
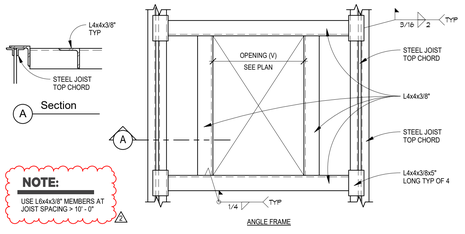


PLATE REINFORCEMENT

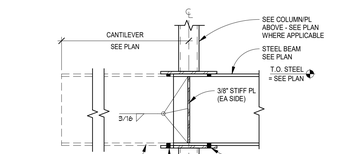


NOTE:

USE L6x4x3/8" MEMBERS AT JOIST SPACING > 10' - 0"

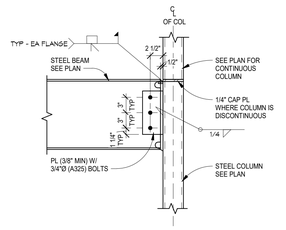
15 S501 Roof Deck Opening

1" = 1'-0"



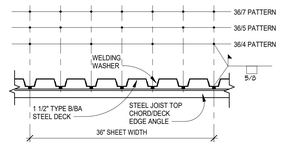
8 S501 Beam End Connection

1" = 1'-0"



9 S501 Moment Connection

1" = 1'-0"

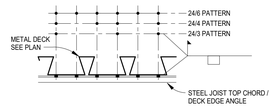


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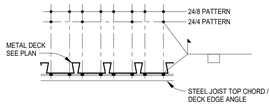
1. WHEN SPAN EXCEEDS 5'-0", SIDES LAPS SHALL BE FASTENED AT MID SPAN OR 3'-0" INTERVALS (WHICHEVER IS SMALLER) W/ #10 TEK SCREWS.
2. LAP DECK ENDS 2" MINIMUM AND WELD TO SUPPORT AT 6"o.c.
3. SEE PLAN FOR DECK FASTENING PATTERN (36/4 MIN).
4. SIDE LAP FASTENERS SHALL BE #10 TEK SCREWS - SEE PLAN FOR REQUIREMENTS.
5. WELDING WASHERS REQUIRED FOR DECK 22 GA & LIGHTER. WASHERS SHALL BE 16 GA W/ NOMINAL 1" HOLE.
6. IN LIEU OF WELDS THE CONTRACTOR MAY USE HILTI STEEL DECK FASTENING SYSTEM W/ THE SAME PATTERN. HILTI FASTENERS ARE AS FOLLOWS: BAR JOIST/STRUC STL tf ≤ 3/8", USE X-HSN 24
BAR JOIST/STRUC STL tf > 3/8", USE X-ENP-19L15
* WASHERS MAY BE OMITTED AT 22 GA DECKING IF CONTRACTOR CAN DEMONSTRATE CAPACITY TO PROPERLY WELD DECK WITHOUT WASHER. (TYPE 'B')

10 S501 Deck Fastening

1" = 1'-0"



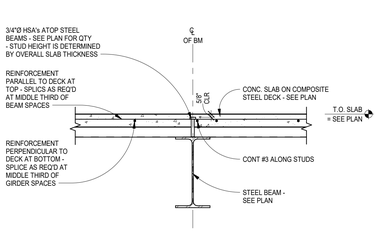
3 1/2" DOVETAIL METAL DECK 24" PANEL



2" DOVETAIL METAL DECK 24 1/2" PANEL

11 S501 Deck Fastening

1" = 1'-0"

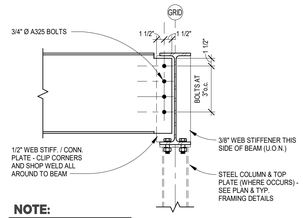


12 S501 Typical Composite Floor Slab

1" = 1'-0"

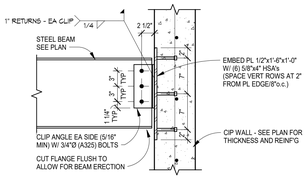
3 S501 Beam Connection At Stiffener Plate

1" = 1'-0"



NOTE:

EXTEND STIFF. / CONN. PLATE PAST EXTENT OF BEAM FLANGE AS REQUIRED TO MEET BOLT EDGE DISTANCE REQUIREMENTS.

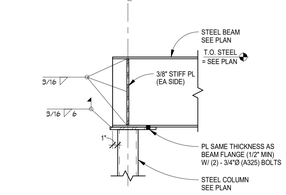


4 S501 Beam/ CIP Wall Connection

1" = 1'-0"

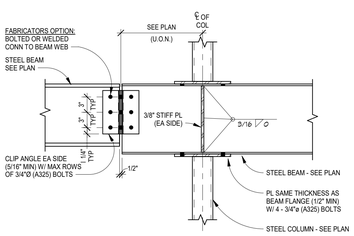
5 S501 Beam/ Precast Wall Connection

1" = 1'-0"



6 S501 Beam End Connection

1" = 1'-0"



7 S501 Beam/ Column Connection

1" = 1'-0"

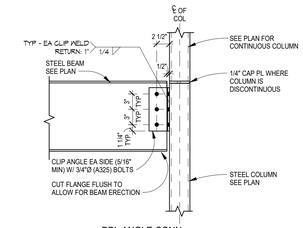
STEEL CONNECTION NOTES:

1. NOTES ARE APPLICABLE FOR ALL STEEL BEAM CONNECTIONS INCLUDING BEAM-BEAM, BEAM-COLUMN AND BEAM-EMBED PL FOR ALL SHEAR AND MOMENT CONNECTIONS.
2. USE NUMBER OF ROWS OF BOLTS REQUIRED BASED ON REACTIONS LISTED ON PLANS. USE MINIMUM ROWS AS LISTED.
3. WHERE BEAMS FRAME IN FROM BOTH SIDES OF GIRDER, ADD OSHA ERECTION BOLT TO BOTTOM OF CONN IN ADDITION TO MINS ROWS OF BOLTS.
4. SINGLE ANGLE CONN (W/ REQ'D CAPACITY) SHALL BE USED AT LOCATIONS OF LIMITED 2-SIDE ACCESS.
5. SKEWED BEAMS
   A. IF BEAM IS SKEWED ≤ 45°, USE BENT PL's (3/8" MIN) INSTEAD OF ANGLES. BENT PL's PERPENDICULAR TO GRAIN.
   B. IF BEAM IS SKEWED > 45°, USE SHEAR PL (3/8" MIN) INSTEAD OF ANGLES.

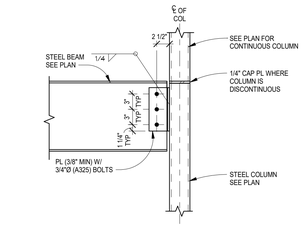
BEAM SIZE	MINIMUM ROWS OF BOLTS
W8, 10	2
W12, 14, 16	3
W18, 21	4
W24, 27	5
W30	6

1 S501 Beam/ Column Connection

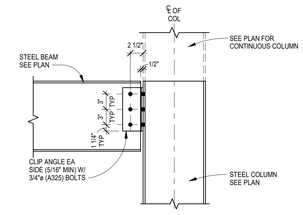
1" = 1'-0"



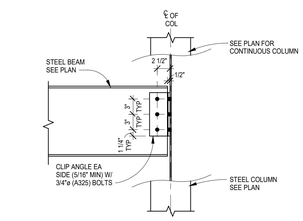
DBL ANGLE CONN



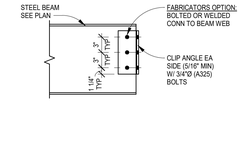
SHEAR PL CONN
AT HSS-COL



DBL ANGLE CONN
AT W-COL FLANGE



DBL ANGLE CONN
AT W-COL WEB



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DATE 03-10-2026
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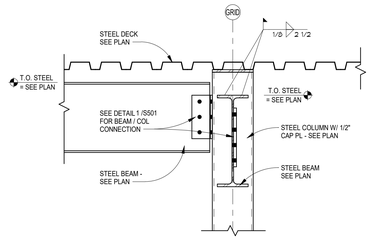
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2	ADDENDUM #2	03/24/26

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Framing Details

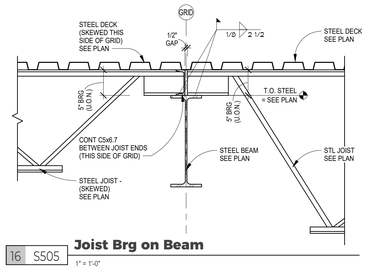
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S501

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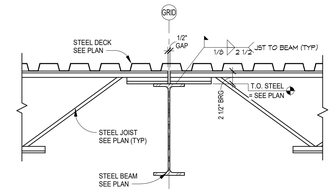
21 S505 **Beam Brg on Column**

1" = 1'-0"



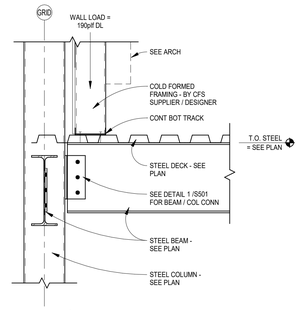
16 S505 **Joist Brg on Beam**

1" = 1'-0"



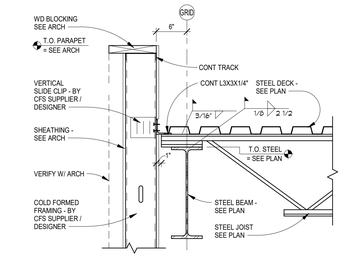
11 S505 **Joist Bearing on Beam**

1" = 1'-0"



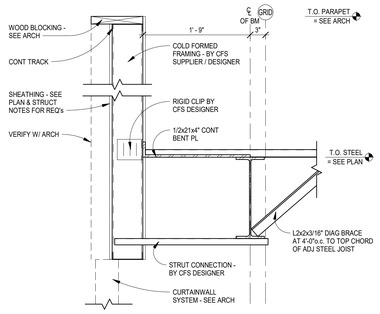
6 S505 **Detail at Clerestory Wall**

1" = 1'-0"



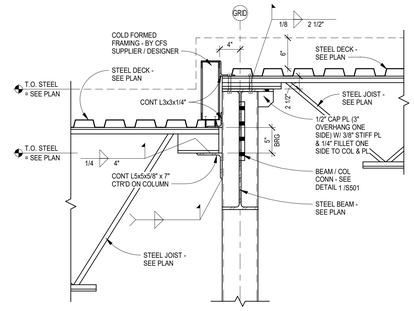
1 S505 **Joist Bearing**

1" = 1'-0"



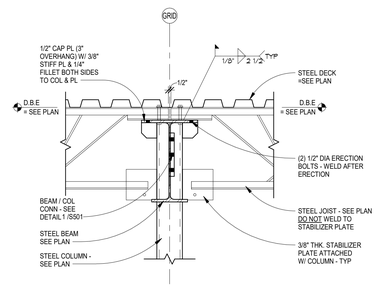
22 S505 **Deck Brg at Stud Boxout**

1" = 1'-0"



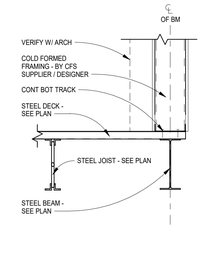
17 S505 **Joist Brg at Col / Roof Deck Step**

1" = 1'-0"



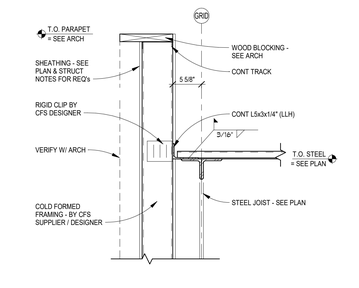
12 S505 **Joist Bearing at Column**

1" = 1'-0"



7 S505 **Steel Stud Wall / Deck Brg**

1" = 1'-0"



2 S505 **Deck Bearing**

1" = 1'-0"

23 S505 **Deck Brg at Canopy Front**

1" = 1'-0"

18 S505 **Joist Brg at Roof Deck Step**

1" = 1'-0"

13 S505 **Joist/Deck Bearing**

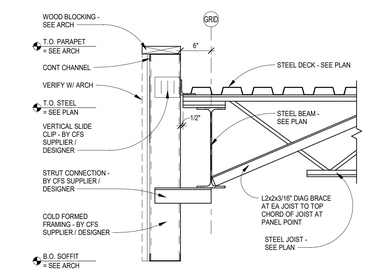
1" = 1'-0"

8 S505 **Clerestory Wall Support at Beam**

1" = 1'-0"

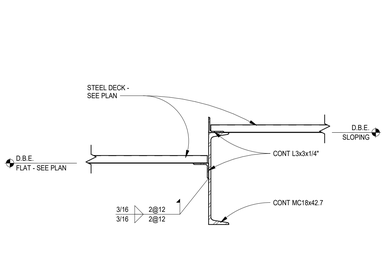
3 S505 **Beam Brg on Column**

1" = 1'-0"



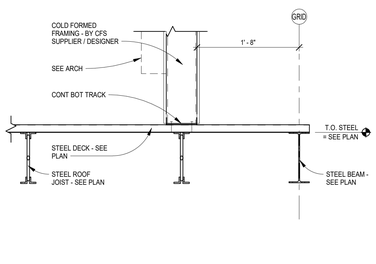
24 S505 **Detail at Front Canopy**

1" = 1'-0"



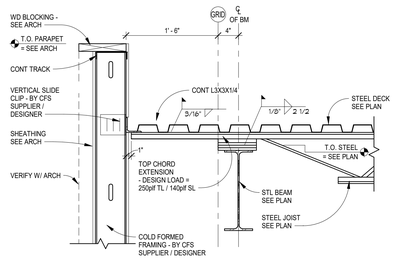
14 S505 **Joist Brg / Deck Change**

1" = 1'-0"



9 S505 **Clerestory Wall Support at Beam**

1" = 1'-0"



4 S505 **Joist Bearing**

1" = 1'-0"

25 S505 **Canopy Detail**

1" = 1'-0"

20 S505 **Roof Deck Step**

1" = 1'-0"

15 S505 **Joist / Deck Brg at C Channel**

1" = 1'-0"

10 S505 **Joist Brg at Clerestory Wall**

1" = 1'-0"

5 S505 **Joist Bearing**

1" = 1'-0"

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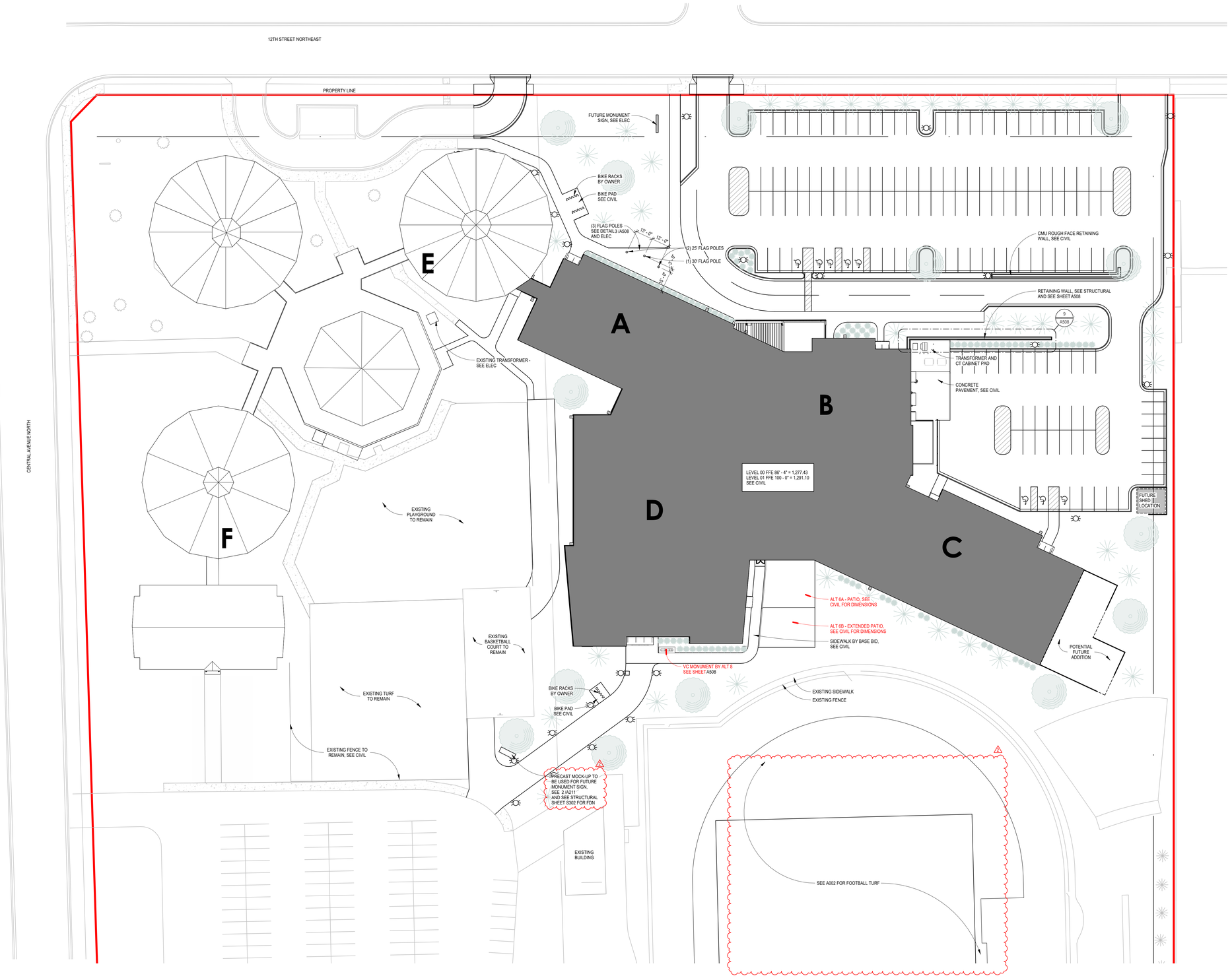
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Roof Framing Details

SHEET
S505

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1 A001 **Level 01 Plan Overall Buildings**
1" = 30'-0"

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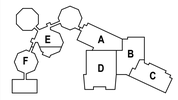
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HEIDI BRENNAN
8551
STATE OF NORTH DAKOTA
Date 03/10/26

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1	Addendum #1	03/17/26
2	Addendum #2	03/24/26

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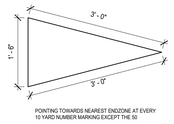
Architectural Site Plan

SHEET
A001

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1 A002 **Boundary Line Marking, Typ**
3/4" = 1'-0"

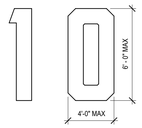


POINTING TOWARDS NEAREST ENDZONE AT EVERY 10 YARD NUMBER MARKING EXCEPT THE 50

2 A002 **Directional Arrow, Typ**
3/4" = 1'-0"



3 A002 **Yard Line Hash Marking, Typ**
3/4" = 1'-0"



YARD NUMBER MARKINGS IN PROHIBITION REGULAR FONT

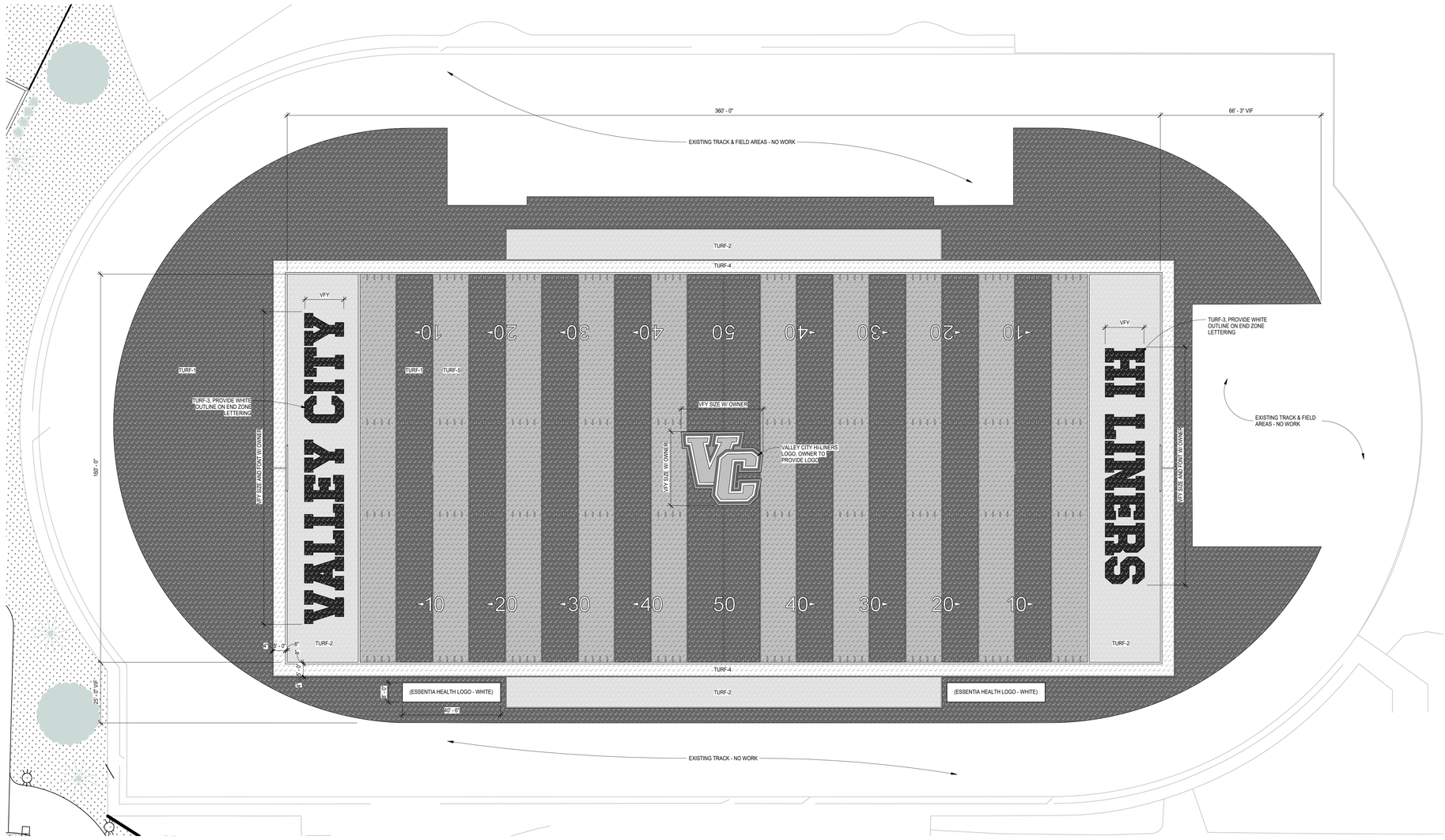
4 A002 **Yard Number Marking, Typ**
1/4" = 1'-0"



5 A002 **Media Marking, Typ**
3/4" = 1'-0"



6 A002 **Line Marking, Typ**
3/4" = 1'-0"



7 A002 **Football Field - Turf Plan**
1" = 20'-0"

GENERAL NOTES - SITE PLAN

1. NFHS REGULATIONS GOVERN ALL LAYOUT, DIMENSIONS, AND TOLERANCES RELATED TO COMPETITION AREAS.

FINISH LEGEND:

TURF-1 FIELD GREEN	
TURF-2 LAGOON BLUE PCN: 192C	
TURF-3 NAVY PCN: 282C	
TURF-4 WHITE	
TURF-5 SUMMER GREEN	
STRIPING-1 WHITE	

* COLORS LISTED ARE BASIS OF DESIGN COLORS. COORDINATE FINAL COLOR SELECTIONS WITH OWNER

TU TURF FIELD ASSEMBLY

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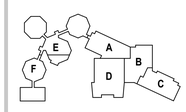
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(8599)
Date 03/10/26
STATE OF NORTH DAKOTA

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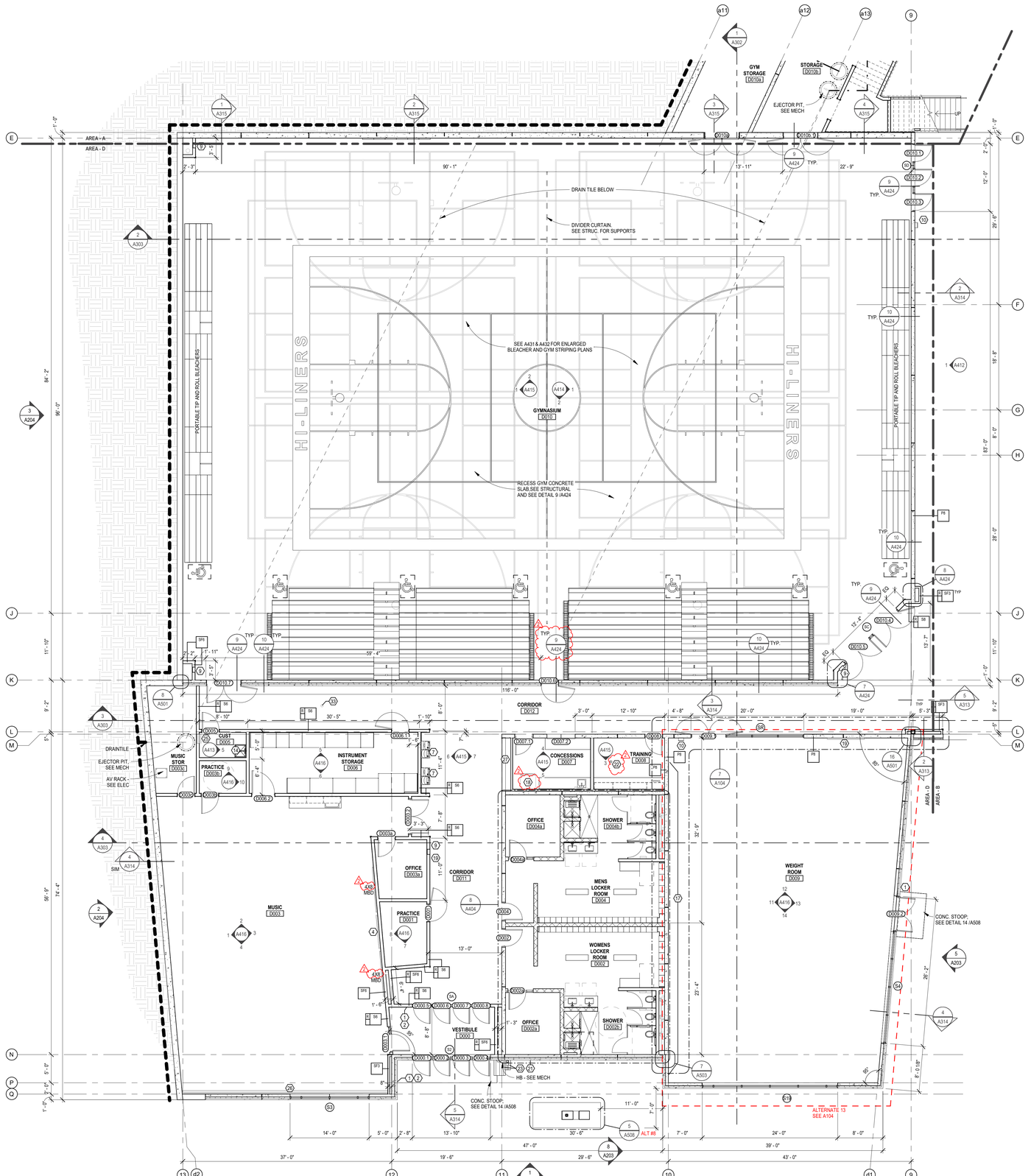
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Site Plan - Football Turf

SHEET
A002

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1 A100D **Lower Level 00 - Area D**
1/8" = 1'-0"

GENERAL NOTES - FLOOR PLAN

1. COORDINATE WALL TYPES AND RATINGS, AND HORIZONTAL ASSEMBLY RATINGS & TAGS, WITH CODE STUDY DRAWINGS AND ASSEMBLY TYPE DRAWINGS.
2. ALL INTERIOR WALLS TO BE TYPE S6, UNLESS NOTED OTHERWISE. ALL INTERIOR FURRING WALLS TO BE TYPE SF3, UNLESS NOTED OTHERWISE.
3. EXTERIOR DIMENSIONS ARE TO FACE OF STUD OR PRECAST.
4. INTERIOR DIMENSIONS ARE TO CENTER OF STUD OR FACE OF STUD AT FURRING WALLS. WHERE A 'CLR' NOTE IS PROVIDED, THE DISTANCE PROVIDED IS A MINIMUM BETWEEN FINISHED SURFACES. DIMENSIONS INDICATED AS "CLEAR" SHALL BE MAINTAINED IN CASE OF DISCREPANCY.
5. DIMENSIONS ARE SHOWN TO NOMINAL / WHOLE NUMBER. OPENING SIZES ARE TO ACCOUNT FOR WOOD BUCKING AND SEALANT JOINTS. COORDINATE ALL ROUGH OPENINGS WITH THE ACTUAL DOOR FRAME, CURTAIN WALL/STOREFRONT, OR LOUVER SIZES AND REQUIREMENTS. COORDINATE WITH DETAILS.
6. WORK FROM GIVEN DIMENSIONS. IN GENERAL, LARGE-SCALE DETAILS TAKE PRECEDENCE OVER SMALLER SCALE PLANS, ELEVATIONS, AND BUILDING SECTIONS. NOTIFY THE ARCHITECT OF ANY DIMENSIONAL DISCREPANCIES PRIOR TO COMMENCING THE WORK, AND DO NOT BEGIN WORK UNTIL SUCH DISCREPANCIES ARE RESOLVED BY THE ARCHITECT.
7. DO NOT SCALE THE DRAWINGS.
8. UNLESS NOTED OTHERWISE, THE LOCATION OF DOOR FRAMES SHALL BE 4" FROM THE ADJACENT WALL STUDS TO THE HINGE SIDE OF THE ROUGH OPENING.
9. GM TO PROVIDE BLOCKING AS REQUIRED FOR INSTALLATION OF CASEWORK, EQUIPMENT, AND ACCESSORIES.
10. ITEMS BY OWNER OR NIC SHOWN DASHED GRAY.

KEYNOTES - FLOOR PLAN

#	
1	CARD READER, SEE ELEC
2	HANDICAP DOOR ACTUATOR PUSH BUTTON, COORDINATE WITH ELECTRICAL AND HARDWARE SPECIFICATIONS.
4	FUTURE TECHNOLOGY LOCATION, NIC. COORDINATE POWER ROUGH-IN REQUIREMENTS WITH ELEC. PROVIDE PLYWOOD BLOCKING IN WALL (2'-0" X 2'-0") AND ROUGH-INS FOR A/V MOUNT. COORDINATE FINAL SIZE AND LOCATION WITH OWNER.
7	DRINKING FOUNTAIN. SEE MECHANICAL.
9	FIRE EXTINGUISHER CABINET - SEMI-RECESSED AT GYP.
10	FIRE EXTINGUISHER CABINET - WALL MOUNTED AT CMU/PRECAST.
14	MOP SINK, SEE MECHANICAL AND FINISH PLANS. PROVIDE CUSTODIAL MOP/BROOM HOLDER ADJACENT TO MOP SINK. MOUNT AT 48" AFF. COORDINATE WITH OWNER PRIOR TO INSTALL. SEE ELEVATIONS.
17	MIRROR, 48"W X 84"H, MOUNT AT 3'-6" A.F.F.
18	EQUIPMENT BY OWNER
19	FUTURE TECHNOLOGY LOCATION, NIC. COORDINATE POWER ROUGH-IN REQUIREMENTS WITH ELEC AT 66" AFF. PROVIDE PLYWOOD BLOCKING IN WALL (2'-0" X 2'-0") AND ROUGH-INS FOR FUTURE A/V MOUNT. COORDINATE FINAL SIZE AND LOCATION WITH OWNER.
21	EMERGENCY KEY BOX, INSTALL AT 40" AFF
22	FLOOR DRAIN. SLOPE MINIMUM 1/4"/12" COORDINATE WITH MECHANICAL OR FOODSERVICE.
23	SPLASHBLOCK - SEE DETAIL 8/A508
25	ELECTRICAL PANEL, SEE ELEC.
26	FIN TUBE RADIATOR. COORDINATE WITH MECHANICAL AND ELECTRICAL.
27	RECESSED DISPLAY CASE. SEE INTERIOR ELEVATIONS AND DETAIL 9/A421
33	FLOOR CLEANOUT, SEE MECH

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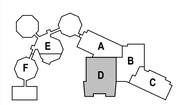
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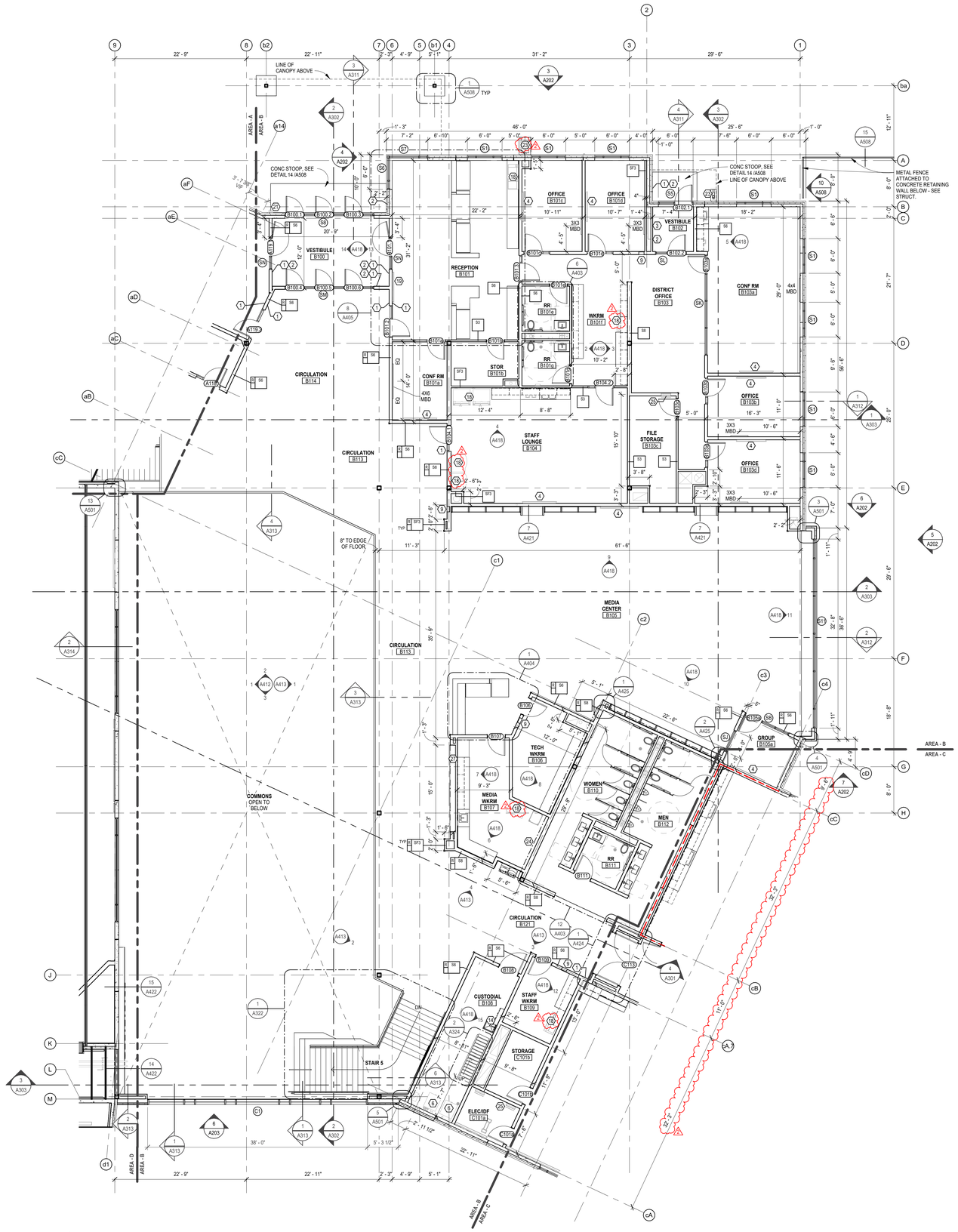
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	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

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Lower Level 00 - Area D

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A100D

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1 A101B **Main Level 01 - Area B**
1/8" = 1'-0"

GENERAL NOTES - FLOOR PLAN

1. COORDINATE WALL TYPES AND RATINGS, AND HORIZONTAL ASSEMBLY RATINGS & TAGS, WITH CODE STUDY DRAWINGS AND ASSEMBLY TYPE DRAWINGS.
2. ALL INTERIOR WALLS TO BE TYPE S6, UNLESS NOTED OTHERWISE. ALL INTERIOR FURRING WALLS TO BE TYPE SF3, UNLESS NOTED OTHERWISE.
3. EXTERIOR DIMENSIONS ARE TO FACE OF STUD OR PRECAST.
4. INTERIOR DIMENSIONS ARE TO CENTER OF STUD OR FACE OF STUD AT FURRING WALLS. WHERE A 'CLR' NOTE IS PROVIDED, THE DISTANCE PROVIDED IS A MINIMUM BETWEEN FINISHED SURFACES. DIMENSIONS INDICATED AS "CLEAR" SHALL BE MAINTAINED IN CASE OF DISCREPANCY.
5. DIMENSIONS ARE SHOWN TO NOMINAL / WHOLE NUMBER. OPENING SIZES ARE TO ACCOUNT FOR WOOD BUCKING AND SEALANT JOINTS. COORDINATE ALL ROUGH OPENINGS WITH THE ACTUAL DOOR FRAME, CURTAIN WALL/STOREFRONT, OR LOUVER SIZES AND REQUIREMENTS. COORDINATE WITH DETAILS.
6. WORK FROM GIVEN DIMENSIONS. IN GENERAL, LARGE-SCALE DETAILS TAKE PRECEDENCE OVER SMALLER SCALE PLANS, ELEVATIONS, AND BUILDING SECTIONS. NOTIFY THE ARCHITECT OF ANY DIMENSIONAL DISCREPANCIES PRIOR TO COMMENCING THE WORK, AND DO NOT BEGIN WORK UNTIL SUCH DISCREPANCIES ARE RESOLVED BY THE ARCHITECT.
7. DO NOT SCALE THE DRAWINGS.
8. UNLESS NOTED OTHERWISE, THE LOCATION OF DOOR FRAMES SHALL BE 4" FROM THE ADJACENT WALL STUDS TO THE HINGE SIDE OF THE ROUGH OPENING.
9. CM TO PROVIDE BLOCKING AS REQUIRED FOR INSTALLATION OF CASEWORK, EQUIPMENT, AND ACCESSORIES.
10. ITEMS BY OWNER OR NIC SHOWN DASHED GRAY.

KEYNOTES - FLOOR PLAN

(#)

1 CARD READER, SEE ELEC
2 HANDICAP DOOR ACTUATOR PUSH BUTTON. COORDINATE WITH ELECTRICAL AND HARDWARE SPECIFICATIONS.
3 CABINET UNIT HEATER. COORDINATE WITH MECHANICAL AND ELECTRICAL.
4 FUTURE TECHNOLOGY LOCATION, NIC. COORDINATE POWER ROUGH-IN REQUIREMENTS WITH ELEC. PROVIDE PLYWOOD BLOCKING IN WALL (2'-0" X 2'-0") AND ROUGH-INS FOR A/V MOUNT. COORDINATE FINAL SIZE AND LOCATION WITH OWNER.
6 OWNER PROVIDED WASHER/DRYER. SEE MECHANICAL.
9 FIRE EXTINGUISHER CABINET - SEMI-RECESSED AT GYP.
14 MOP SINK, SEE MECHANICAL AND FINISH PLANS. PROVIDE CUSTODIAL MOP/BROOM HOLDER ADJACENT TO MOP SINK. MOUNT AT 48" AFF. COORDINATE WITH OWNER PRIOR TO INSTALL. SEE ELEVATIONS.
18 EQUIPMENT BY OWNER.
19 FUTURE TECHNOLOGY LOCATION, NIC. COORDINATE POWER ROUGH-IN REQUIREMENTS WITH ELEC AT 66" AFF. PROVIDE PLYWOOD BLOCKING IN WALL (2'-0" X 2'-0") AND ROUGH-INS FOR FUTURE A/V MOUNT. COORDINATE FINAL SIZE AND LOCATION WITH OWNER.
21 EMERGENCY KEY BOX, INSTALL AT 40" AFF
23 SPLASHBLOCK - SEE DETAIL 8/A508
24 SHELVING, OFOI
25 ELECTRICAL PANEL, SEE ELEC.
27 RECESSED DISPLAY CASE. SEE INTERIOR ELEVATIONS AND DETAIL 9/A421

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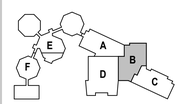
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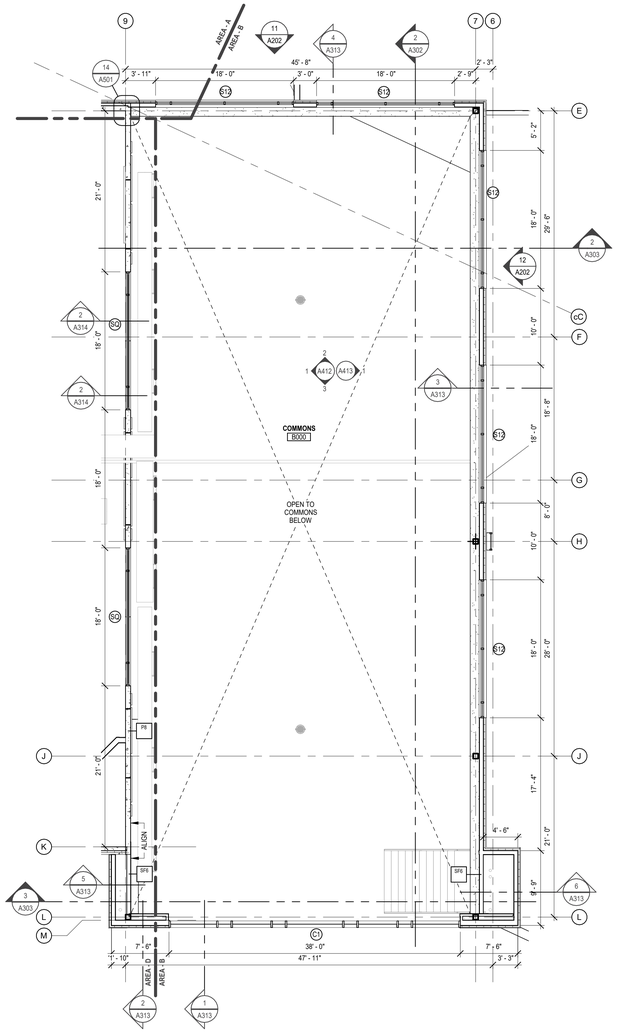
Main Level 01 - Area B

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1 A102AB **Upper Level 02 - Area A**
1/8" = 1'-0"



2 A102AB **Upper Level 02 - Area B Clerestory**
1/8" = 1'-0"

GENERAL NOTES - FLOOR PLAN

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KEYNOTES - FLOOR PLAN

(#)

1 CARD READER, SEE ELEC
4 FUTURE TECHNOLOGY LOCATION, NIC. COORDINATE POWER ROUGH-IN REQUIREMENTS WITH ELEC. PROVIDE PLYWOOD BLOCKING IN WALL (2'-0" X 2'-0") AND ROUGH-INS FOR A/V MOUNT. COORDINATE FINAL SIZE AND LOCATION WITH OWNER.
7 DRINKING FOUNTAIN, SEE MECHANICAL.
9 FIRE EXTINGUISHER CABINET - SEMI-RECESSED AT GYP.
18 EQUIPMENT BY OWNER
20 BOTTLE FILLER, SEE MECH.
25 ELECTRICAL PANEL, SEE ELEC.
26 FIN TUBE RADIATOR. COORDINATE WITH MECHANICAL AND ELECTRICAL.

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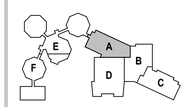
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LICENSED ARCHITECT
JACOB BRENNAN
(8459)
Date 03/10/26
STATE OF NORTH DAKOTA

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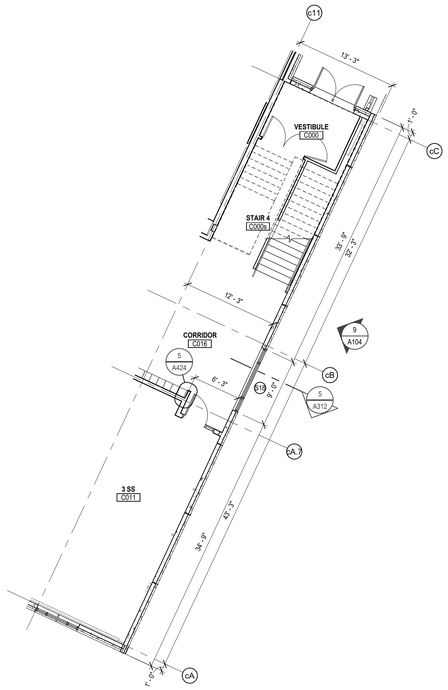
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Upper Level 02 - Area A & Area B

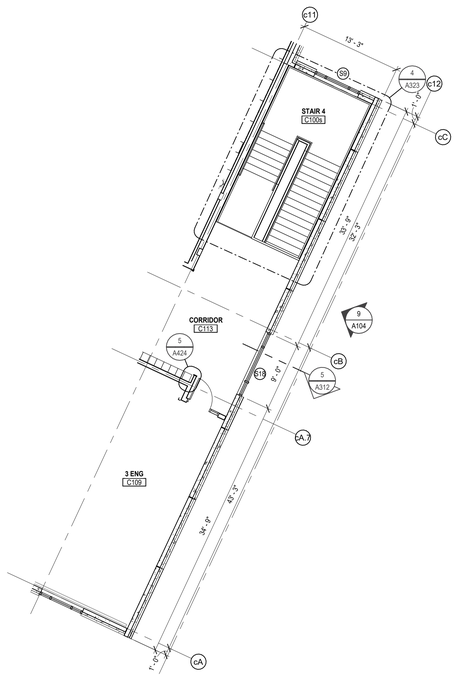
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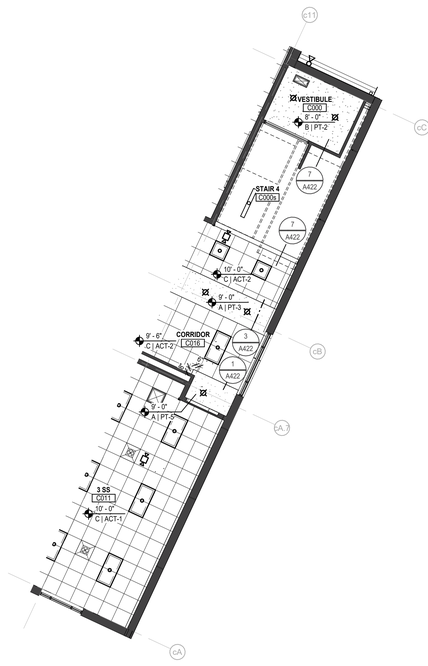
1 A104 **Lower Level 00 - Area C Floor Plan - By Alt 12**

1/8" = 1'-0"



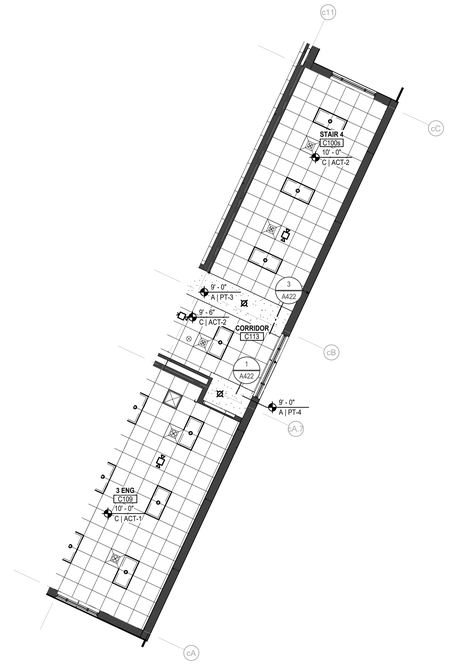
2 A104 **Main Level 01 - Area C Floor Plan - By Alt 12**

1/8" = 1'-0"



3 A104 **Lower Level 00 RCP - Area C - By Alt 12**

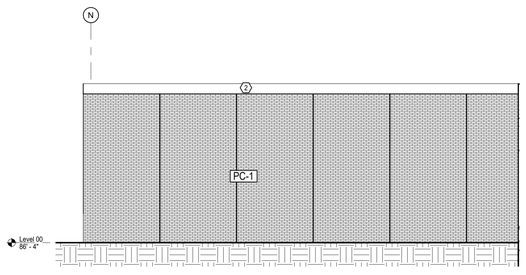
1/8" = 1'-0"



4 A104 **Main Level 01 RCP - Area C - By Alt 12**

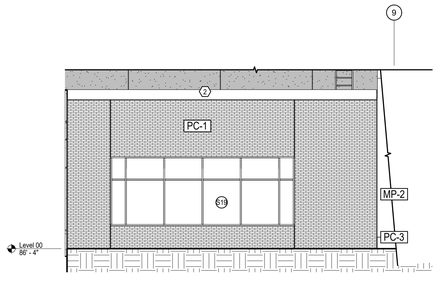
1/8" = 1'-0"

SEE A105 FOR ROOF PLAN BY ALTERNATE



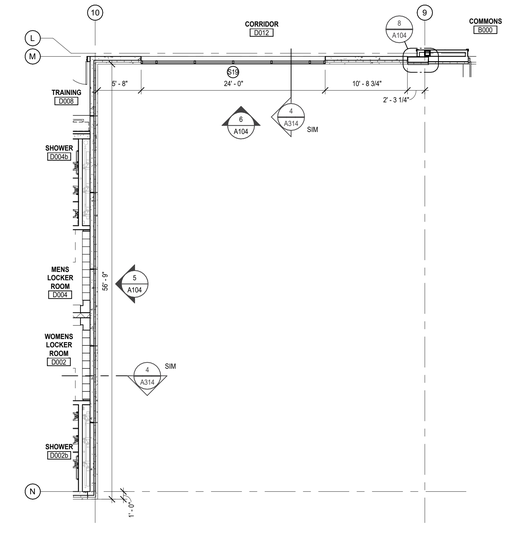
5 A104 **East Exterior Elevation - By Alternate 13**

1/8" = 1'-0"



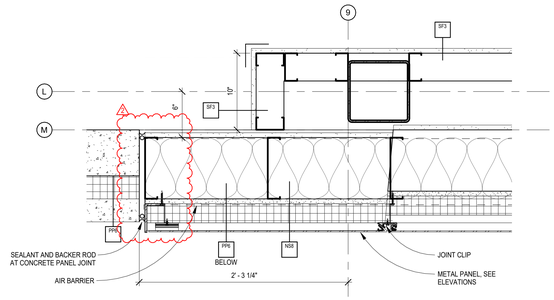
6 A104 **South Exterior Elevation - By Alternate 13**

1/8" = 1'-0"



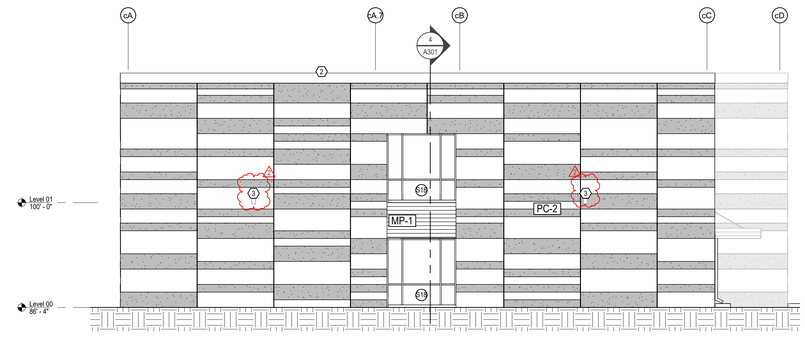
7 A104 **Lower Level 00 - Area D Floor Plan - By Alternate 13**

1/8" = 1'-0"



8 A104 **Enlarged Plan Detail - By Alternate 13**

1 1/2" = 1'-0"



9 A104 **East Exterior Elevation - By Alt 12**

1/8" = 1'-0"

GENERAL NOTES - FLOOR PLAN

1. COORDINATE WALL TYPES AND RATINGS, AND HORIZONTAL ASSEMBLY RATINGS & TAGS, WITH CODE STUDY DRAWINGS AND ASSEMBLY TYPE DRAWINGS.
2. ALL INTERIOR WALLS TO BE TYPE S6, UNLESS NOTED OTHERWISE. ALL INTERIOR FURRING WALLS TO BE TYPE SF3, UNLESS NOTED OTHERWISE.
3. EXTERIOR DIMENSIONS ARE TO FACE OF STUD OR PRECAST.
4. INTERIOR DIMENSIONS ARE TO CENTER OF STUD OR FACE OF STUD AT FURRING WALLS. WHERE A 'CLR' NOTE IS PROVIDED, THE DISTANCE PROVIDED IS A MINIMUM BETWEEN FINISHED SURFACES. DIMENSIONS INDICATED AS "CLEAR" SHALL BE MAINTAINED IN CASE OF DISCREPANCY.
5. DIMENSIONS ARE SHOWN TO NOMINAL / WHOLE NUMBER. OPENING SIZES ARE TO ACCOUNT FOR WOOD BUCKING AND SEALANT JOINTS. COORDINATE ALL ROUGH OPENINGS WITH THE ACTUAL DOOR FRAME, CURTAIN WALL/STOREFRONT, OR LOUVER SIZES AND REQUIREMENTS. COORDINATE WITH DETAILS.
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7. DO NOT SCALE THE DRAWINGS.
8. UNLESS NOTED OTHERWISE, THE LOCATION OF DOOR FRAMES SHALL BE 4" FROM THE ADJACENT WALL STUDS TO THE HINGE SIDE OF THE ROUGH OPENING.
9. CM TO PROVIDE BLOCKING AS REQUIRED FOR INSTALLATION OF CASEWORK, EQUIPMENT, AND ACCESSORIES.
10. ITEMS BY OWNER OR NIC SHOWN DASHED GRAY.

GENERAL NOTES - RCP

1. CEILING PLANS DO NOT SHOW EVERY FIXTURE OR COMPONENT. REFER TO ELECTRICAL, PLUMBING, MECHANICAL, FIRE PROTECTION, AND STRUCTURAL DRAWINGS FOR EXTENT OF ALL CEILING PENETRATIONS AND COORDINATE PRIOR TO INSTALLATION.
2. WALLS TO EXTEND TO DECK ABOVE, AS PER WALL ASSEMBLIES. CUT AROUND STEEL BEAMS AND/OR TRUSSES AS REQUIRED. UTILIZE SLIP TRACK AT HEAD AT ALL STEEL STUD PARTITIONS. (SEE CODE STUDY FOR RATED WALL LOCATIONS.)
3. ALL COMPONENTS MOUNTED IN OR BELOW A SUSPENDED ACOUSTIC CEILING SHALL BE CENTERED IN THE CEILING TILE OR IN THE 2X2 PORTION OF REGULAR CEILING TILES, UON. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, LIGHT FIXTURES, DIFFUSERS, SPEAKERS, SMOKE DETECTORS, AND SPRINKLER HEADS.
4. LIGHTS AND GRIDS ARE TYPICALLY CENTERED IN ROOMS, OR BETWEEN SELECT WALLS WITHIN A GIVEN AREA, UNO. COORDINATE EACH AREA WITH ELECTRICAL SHEETS AND FIELD VERIFICATION PRIOR TO INSTALL. LIGHT LOCATIONS GOVERN OVER OTHER MECHANICAL AND ELECTRICAL DEVICES.
5. GRID LAYOUT SHOWN FOR DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY THE FINAL LAYOUT WITH FIELD CONDITIONS AND OBTAIN ARCHITECT APPROVAL OF CHANGES PRIOR TO INSTALLATION.
6. PRIOR TO THE INSTALLATION OF CEILINGS, ALLOW FOR AN ABOVE-CEILING INSPECTION OF COMPONENTS THAT WILL NOT BE VISIBLE WHEN THE CEILINGS HAVE BEEN INSTALLED, INCLUDING INSPECTION OF FIRE, SMOKE, AND ACOUSTICAL SEPARATIONS.
7. COORDINATE EXIT LIGHT LOCATIONS. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CORRECT PLACEMENT OF ALL REQUIRED EXIT LIGHTS AND MEANS OF EGRESS LIGHTING.
8. PROVIDE HOLD DOWN CLIPS AT SUSPENDED CEILING ASSEMBLIES AT EXTERIOR DOORS AS RECOMMENDED BY CEILING MANUFACTURER
9. AT ACOUSTICAL DECK LOCATIONS, WEDGE HANGERS TO BE USED FOR ALL ROOF OR FLOOR HUNG ITEMS. (SUSPENDED CEILINGS, PIPES, DUCTS, ELECTRICAL, PLUMBING, ETC.) SEE A092 FOR ASSEMBLIES.
10. FOR CEILING FINISH ABOVE LOCKERS, SEE 2 /A421 AND 3 /A421

GENERAL NOTES - EXTERIOR ELEVATIONS

1. REVIEW EXTERIOR WALL TYPES AND DETAILS FOR ALL WALL COMPONENTS.
2. REVIEW SPECIFICATIONS FOR PRODUCT AND INSTALLATION REQUIREMENTS, AND ASSEMBLY MOCK-UPS.
3. SEE STOREFRONT TYPES AND OPENING DETAILS ON THE A600 DRAWINGS.
4. ARCHITECTURAL / STRUCTURAL ELEVATION 100' - 0" EQUALS ELEVATION 1291.10 ON CIVIL DRAWINGS.
5. COORDINATE LOCATIONS OF ALL EXTERIOR MOUNTED EQUIPMENT WITH MECH AND ELEC.

EXTERIOR MATERIAL LEGEND

MP-1	METAL PANEL 1, TYPICAL. HORIZONTAL INSTALLATION. COLOR: WOOD TONE, TEAK. BASIS OF DESIGN: MAC METAL ARCHITECTURAL HARRYWOOD PLUS
MP-1a	MATAL PANEL 1a. SOFFIT INSTALLATION. COLOR: WOOD TONE, TEAK. BASIS OF DESIGN: MAC METAL ARCHITECTURAL HARRYWOOD PLUS AND HARRYWOOD PLUS VENTED
MP-2	COMPOSITE WALL PANEL. COLOR: SPIRE BLUE II. BASIS OF DESIGN: ALUCOBOND EASY FIX.
MP-3	VERTICAL INSTALLATION. COLOR: CUSTOM COLOR TO MATCH MP-2. BASIS OF DESIGN: PAC-CLAD BOX RIB 2
MP-4	VERTICAL INSTALLATION. COLOR: MUSKET GRAY. BASIS OF DESIGN: PAC-CLAD 7/8" CORRUGATED EXPOSED FASTENER PANELS
PC-1	PRECAST FINISH 1. PANELS TO BE FINISHED WITH MODULAR THIN BRICK IN A RUNNING BOND PATTERN. BASIS OF DESIGN: ENDICOTT: MANGANESE IRONSPOT
PC-2	PRECAST FINISH 2. MIX OF ACID ETCH AND SAND BLAST FINISH. SEE PRECAST ELEVATIONS
PC-3	PRECAST FINISH 3. MIX OF ACID ETCH AND SAND BLAST FINISH. SEE PRECAST ELEVATIONS.
PC-4	PRECAST FINISH 4. SANDBLAST FINISH. SEE PRECAST ELEVATIONS.

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LICENSED ARCHITECT — HEIDI M. BERNING — 6591 — STATE OF NORTH DAKOTA
Date 03/10/26

DRAWING HISTORY

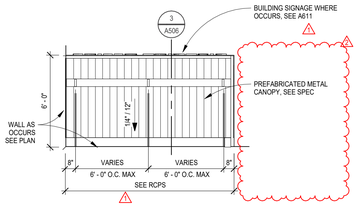
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2	Addendum #2	03/24/26

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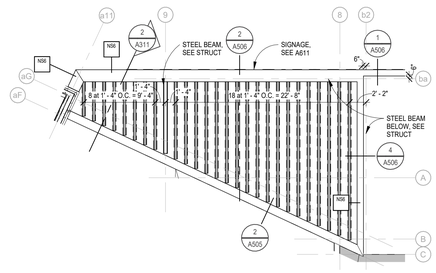
Alt. #12 + 13 - Area C Reduction / Weight Room

SHEET
A104

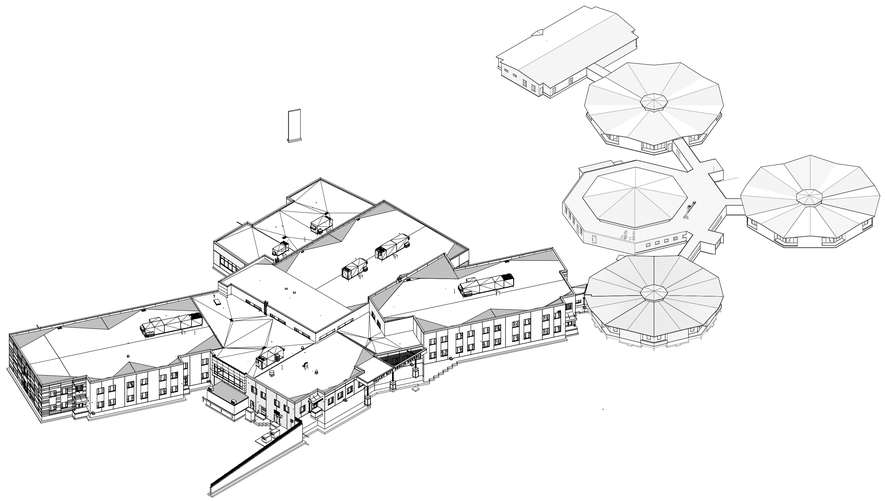
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1 A105 **Enlarged Canopy Plan, Typ**
1/4" = 1'-0"



2 A105 **Enlarged Trellis Plan**
1/8" = 1'-0"



3 A105 **Roof Axon (For Reference Only)**

GENERAL NOTES - ROOF PLAN

1. COORDINATE FULL EXTENT OF ROOF PENETRATIONS AND EQUIPMENT CURBS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
2. ROOF MEMBRANE TO RUN UP VERTICAL PARAPET FACE AND OVER TOP OF WALL, TYPICAL THROUGHOUT. COORDINATE WITH DETAILS.
3. CONTRACTOR IS RESPONSIBLE FOR MAKING A WATER-TIGHT ROOF SYSTEM.
4. SEE SPECIFICATIONS FOR ROOF SYSTEM WARRANTY REQUIREMENTS.
5. PROVIDE FLASHING AT ALL ROOF PENETRATIONS. PENETRATIONS MAY NOT BE INDICATED ON THE ROOF PLAN. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS FOR NUMBER, LOCATION, AND SIZE OF PENETRATIONS. COORDINATE ALL LOCATIONS AND PENETRATIONS WITH PLUMBING, ELECTRICAL, AND HVAC CONTRACTOR.
6. TAPERED INSULATION SHALL BE SLOPED 1/4" PER FOOT MINIMUM.
7. PROVIDE CURBS AND PRESSURE TREATED WOOD BLOCKING AS REQUIRED FOR ALL ROOF MOUNTED EQUIPMENT, UNLESS NOTES OTHERWISE.

GENERAL NOTES - ROOF PLAN

DARK GRAY HATCH INDICATES CRICKET AREAS. SEE KEYNOTE 2.

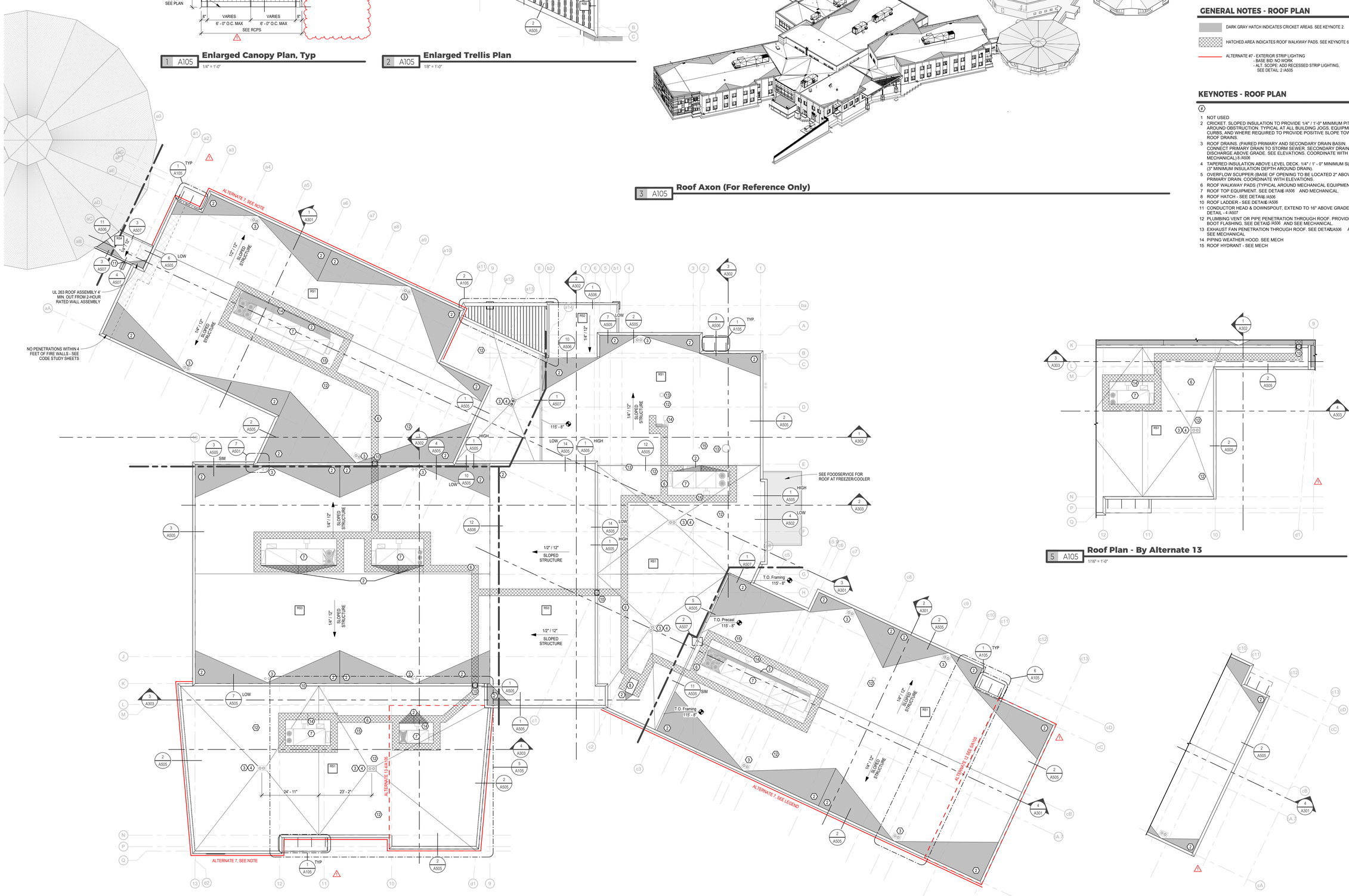
HATCHED AREA INDICATES ROOF WALKWAY PADS. SEE KEYNOTE 6.

ALTERNATE #7 - EXTERIOR STRIP LIGHTING
- BASE BID: NO WORK
- ALT. SCOPE: ADD RECESSED STRIP LIGHTING, SEE DETAIL 2 /A505

KEYNOTES - ROOF PLAN

(#)

1 NOT USED
2 CRICKET. SLOPED INSULATION TO PROVIDE 1/4" / 1'-0" MINIMUM PITCH AROUND OBSTRUCTION. TYPICAL AT ALL BUILDING JOGS, EQUIPMENT CURBS, AND WHERE REQUIRED TO PROVIDE POSITIVE SLOPE TOWARD ROOF DRAINS.
3 ROOF DRAINS. (PAIRED PRIMARY AND SECONDARY DRAIN BASIN. CONNECT PRIMARY DRAIN TO STORM SEWER. SECONDARY DRAIN TO DISCHARGE ABOVE GRADE. SEE ELEVATIONS. COORDINATE WITH MECHANICAL) 8 /A506
4 TAPERED INSULATION ABOVE LEVEL DECK. 1/4" / 1' - 0" MINIMUM SLOPE. (3" MINIMUM INSULATION DEPTH AROUND DRAIN).
5 OVERFLOW SCUPPER (BASE OF OPENING TO BE LOCATED 2" ABOVE PRIMARY DRAIN. COORDINATE WITH ELEVATIONS.
6 ROOF WALKWAY PADS (TYPICAL AROUND MECHANICAL EQUIPMENT)
7 ROOF TOP EQUIPMENT. SEE DETAIL6 /A506 AND MECHANICAL.
8 ROOF HATCH - SEE DETAIL8 /A506
10 ROOF LADDER - SEE DETAIL8 /A506
11 CONDUCTOR HEAD & DOWNSPOUT, EXTEND TO 16" ABOVE GRADE. SEE DETAIL - 4 /A507
12 PLUMBING VENT OR PIPE PENETRATION THROUGH ROOF. PROVIDE BOOT FLASHING. SEE DETAIL6 /A506 AND SEE MECHANICAL.
13 EXHAUST FAN PENETRATION THROUGH ROOF. SEE DETAIL5/A506 AND SEE MECHANICAL
14 PIPING WEATHER HOOD. SEE MECH
15 ROOF HYDRANT - SEE MECH



4 A105 **Overall Roof Plan**
1/16" = 1'-0"

5 A105 **Roof Plan - By Alternate 13**
1/16" = 1'-0"

6 A105 **Roof Plan - By Alternate 12**
1/16" = 1'-0"

NORTH

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LICENSED ARCHITECT
HEIDI BRENNAN
8459
STATE OF NORTH DAKOTA
Heidi Brennan
Date: 03/10/26

DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
1	Addendum #1	03/17/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HO/JT JN: 24-028

Roof Plan

SHEET
A105

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EXTERIOR MATERIAL LEGEND

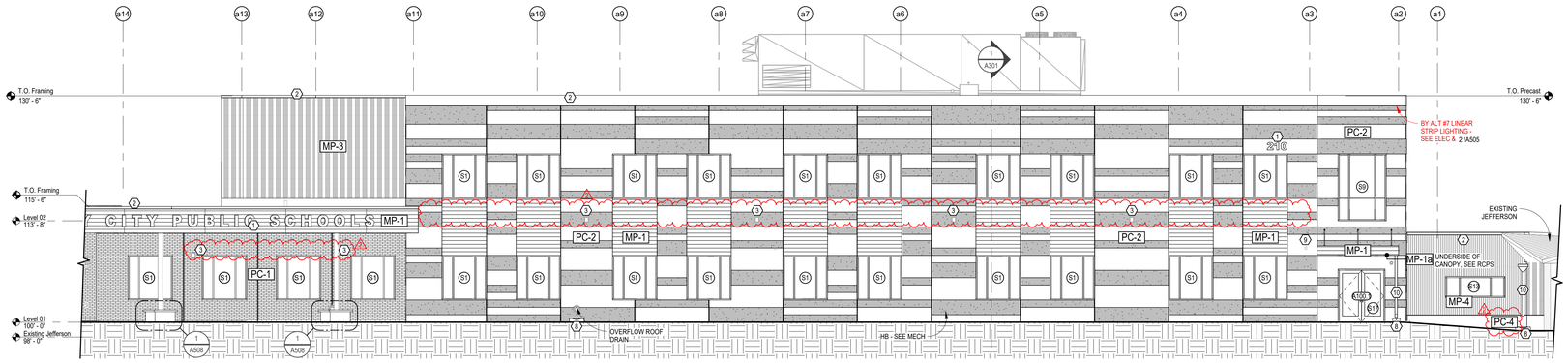
MP-1	METAL PANEL 1. TYPICAL, HORIZONTAL INSTALLATION. COLOR: WOOD TONE, TEAK. BASIS OF DESIGN: MAC METAL ARCHITECTURAL HARRYWOOD PLUS
MP-1a	MATAL PANEL 1a. SOFFIT INSTALLATION. COLOR: WOOD TONE, TEAK. BASIS OF DESIGN: MAC METAL ARCHITECTURAL HARRYWOOD PLUS AND HARRYWOOD PLUS VENTED
MP-2	COMPOSITE WALL PANEL. COLOR: SPIRE BLUE II. BASIS OF DESIGN: ALUCOBOND EASY FIX.
MP-3	VERTICAL INSTALLATION. COLOR: CUSTOM COLOR TO MATCH MP-2. BASIS OF DESIGN: PAC-CLAD BOX RIB 2
MP-4	VERTICAL INSTALLATION. COLOR: MUSKET GRAY. BASIS OF DESIGN: PAC-CLAD 7/8" CORRUGATED EXPOSED FASTENER PANELS
PC-1	PRECAST FINISH 1. PANELS TO BE FINISHED WITH MODULAR THIN BRICK IN A RUNNING BOND PATTERN. BASIS OF DESIGN: ENDICOTT: MANGANESE IRONSPOT
PC-2	PRECAST FINISH 2. MIX OF ACID ETCH AND SAND BLAST FINISH. SEE PRECAST ELEVATIONS
PC-3	PRECAST FINISH 3. MIX OF ACID ETCH AND SAND BLAST FINISH. SEE PRECAST ELEVATIONS.
PC-4	PRECAST FINISH 4. SANDBLAST FINISH. SEE PRECAST ELEVATIONS.

GENERAL NOTES - EXTERIOR ELEVATIONS

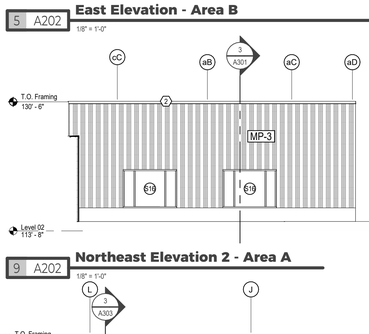
1. REVIEW EXTERIOR WALL TYPES AND DETAILS FOR ALL WALL COMPONENTS.
2. REVIEW SPECIFICATIONS FOR PRODUCT AND INSTALLATION REQUIREMENTS, AND ASSEMBLY MOCK-UPS.
3. SEE STOREFRONT TYPES AND OPENING DETAILS ON THE A600 DRAWINGS.
4. ARCHITECTURAL / STRUCTURAL ELEVATION 100' - 0" EQUALS ELEVATION 1291.10 ON CIVIL DRAWINGS.
5. COORDINATE LOCATIONS OF ALL EXTERIOR MOUNTED EQUIPMENT WITH MECH AND ELEC.

KEYNOTES - EXTERIOR ELEVATION

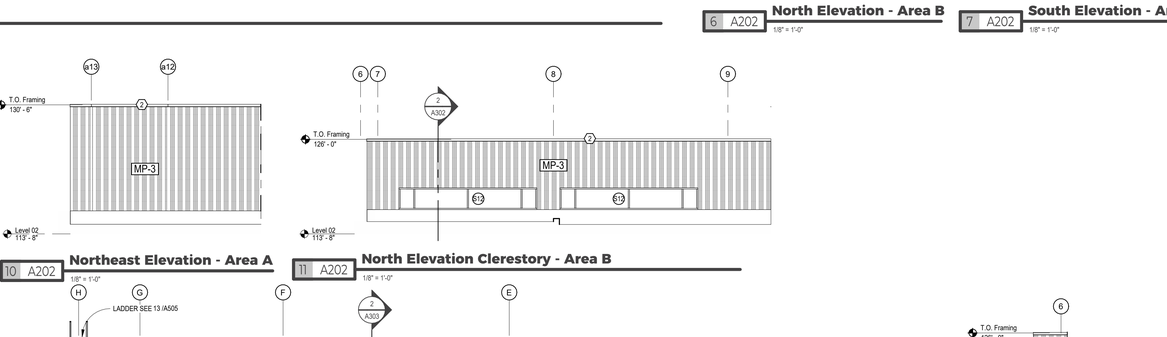
#	
1	BUILDING SIGNAGE. PROVIDE WALL BACKING AS REQUIRED. SEE SHEET A611 FOR DETAILS
2	METAL ROOF COPING. COLOR TO BE CLEAR ANODIZED EXCEPT FOR MP-2 AND MP-3 ASSEMBLIES, MATCH PANEL COLOR
3	BUILDING MOUNTED LIGHTING. SEE ELECTRICAL
5	CARD READER. SEE PLANS AND COORDINATE WITH ELEC
6	ADA DOOR PUSH BUTTON. SEE PLANS AND COORDINATE WITH ELEC
7	LOUVER. SEE MECHANICAL
8	CONCRETE SPLASH BLOCK. SEE DETAIL 9/A508
9	CONNECTION FOR CAMERA. SEE ELEC
10	DOWNSPOUT. COLOR TO MATCH MP-1



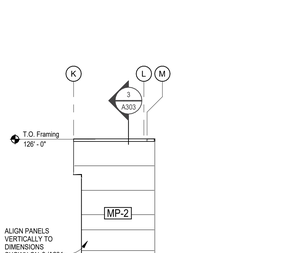
1 A202 **Northeast Elevation - Area A**
1/8" = 1'-0"



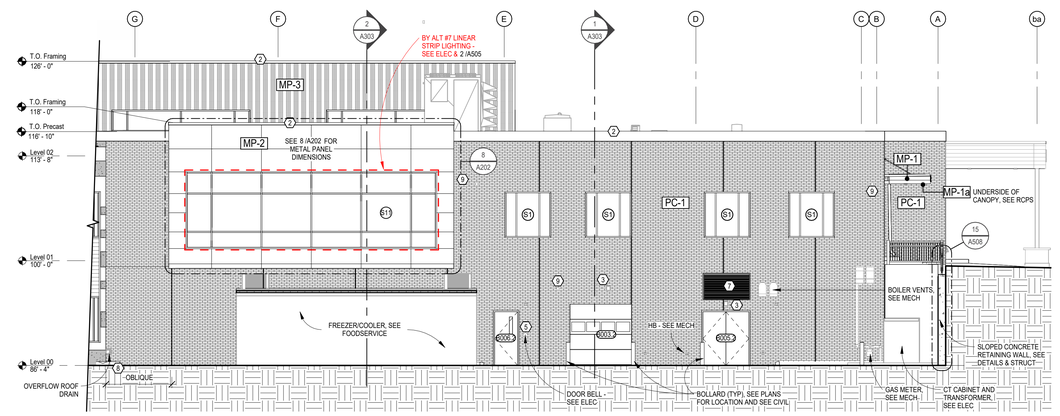
2 A202 **Southeast Elevation - Area A**
1/8" = 1'-0"



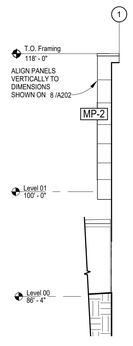
3 A202 **North Elevation - Area B**
1/8" = 1'-0"



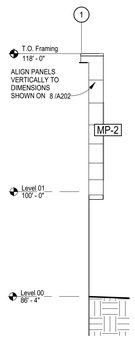
4 A202 **West Elevation - Area B**
1/8" = 1'-0"



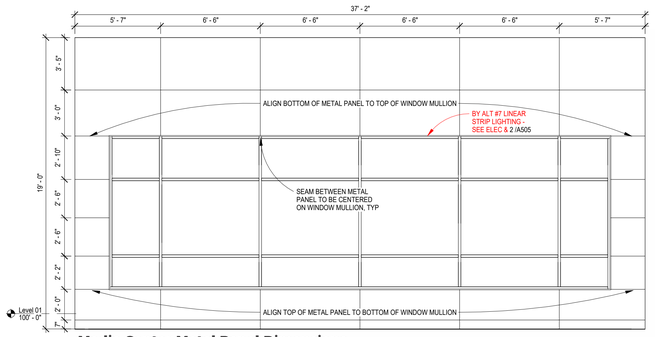
5 A202 **East Elevation - Area B**
1/8" = 1'-0"



6 A202 **North Elevation - Area B**
1/8" = 1'-0"



7 A202 **South Elevation - Area B**
1/8" = 1'-0"

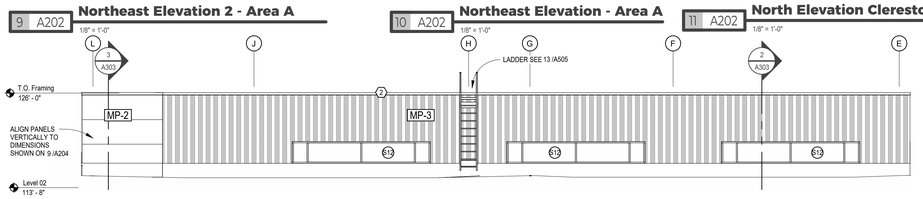


8 A202 **Media Center Metal Panel Dimensions**
1/4" = 1'-0" NOMINAL DIMENSIONS SHOWN. VERIFY IN FIELD

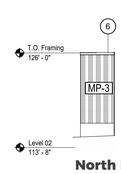
9 A202 **Northeast Elevation 2 - Area A**
1/8" = 1'-0"

10 A202 **Northeast Elevation - Area A**
1/8" = 1'-0"

11 A202 **North Elevation Clerestory - Area B**
1/8" = 1'-0"



12 A202 **East Elevation Clerestory - Area B**
1/8" = 1'-0"



13 A202 **North East Elevation Clerestory - Area B**
1/8" = 1'-0"

14 A202 **West Elevation Clerestory - Area B**
1/8" = 1'-0"

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Valley City, ND 58072

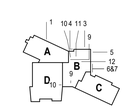
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LICENSED ARCHITECT HEIDI BRENNAN 8591 STATE OF NORTH DAKOTA Date: 03/10/26

DRAWING HISTORY

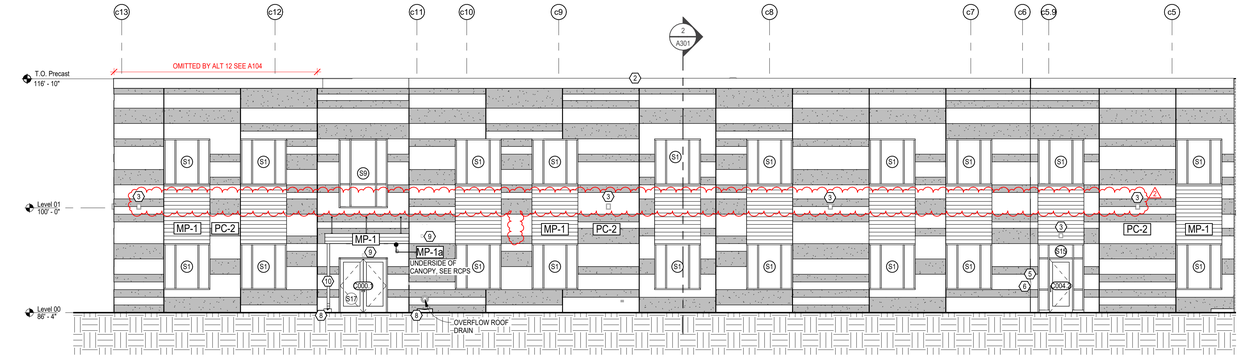
NO.	DESCRIPTION	DATE
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2	Addendum #2	03/24/26

DRAWN BY: AS/HO/TWB JN: 24-028

Exterior Elevations

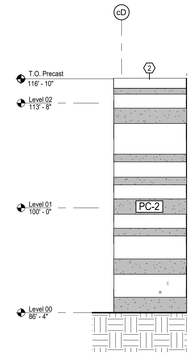
SHEET
A202

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3/24/2026 2:26:21 PM



1 A203 Northeast Elevation - Area C

1/8" = 1'-0"



2 A203 Northeast Elevation - Area C

1/8" = 1'-0"

EXTERIOR MATERIAL LEGEND

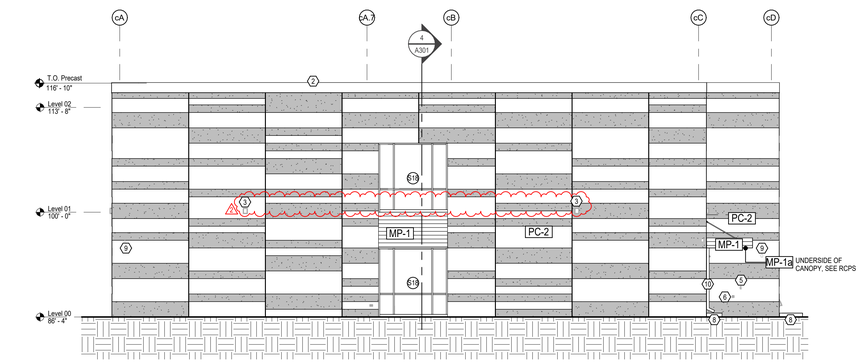
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MP-1a	MATAL PANEL 1a, SOFFIT INSTALLATION. COLOR: WOOD TONE, TEAK. BASIS OF DESIGN: MAC METAL ARCHITECTURAL HARRYWOOD PLUS AND HARRYWOOD PLUS VENTED
MP-2	COMPOSITE WALL PANEL. COLOR: SPIRE BLUE II. BASIS OF DESIGN: ALUCOBOND EASY FIX.
MP-3	VERTICAL INSTALLATION. COLOR: CUSTOM COLOR TO MATCH MP-2. BASIS OF DESIGN: PAC-CLAD BOX RIB 2
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PC-4	PRECAST FINISH 4. SANDBLAST FINISH. SEE PRECAST ELEVATIONS.

GENERAL NOTES - EXTERIOR ELEVATIONS

1. REVIEW EXTERIOR WALL TYPES AND DETAILS FOR ALL WALL COMPONENTS.
2. REVIEW SPECIFICATIONS FOR PRODUCT AND INSTALLATION REQUIREMENTS, AND ASSEMBLY MOCK-UPS.
3. SEE STOREFRONT TYPES AND OPENING DETAILS ON THE A600 DRAWINGS.
4. ARCHITECTURAL / STRUCTURAL ELEVATION 100' - 0" EQUALS ELEVATION 1291.10 ON CIVIL DRAWINGS.
5. COORDINATE LOCATIONS OF ALL EXTERIOR MOUNTED EQUIPMENT WITH MECH AND ELEC.

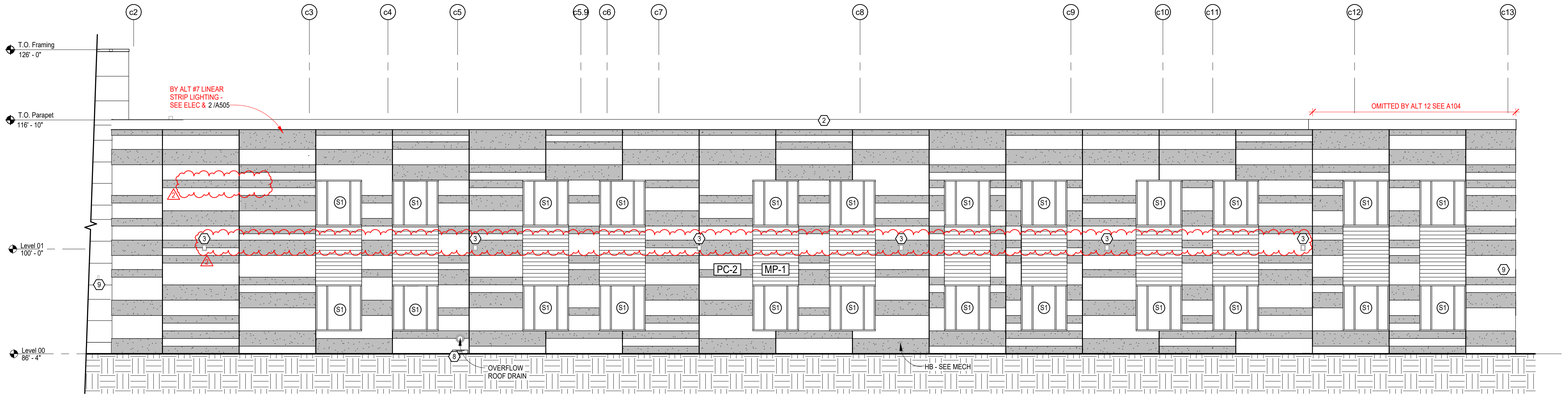
KEYNOTES - EXTERIOR ELEVATION

#	
2	METAL ROOF COPING. COLOR TO BE CLEAR ANODIZED EXCEPT FOR MP-2 AND MP-3 ASSEMBLIES; MATCH PANEL COLOR
3	BUILDING MOUNTED LIGHTING. SEE ELECTRICAL
5	CARD READER. SEE PLANS AND COORDINATE WITH ELEC
6	ADA DOOR PUSH BUTTON. SEE PLANS AND COORDINATE WITH ELEC
8	CONCRETE SPLASH BLOCK. SEE DETAIL 9/A508
9	CONNECTION FOR CAMERA. SEE ELEC
10	DOWNSPOUT. COLOR TO MATCH MP-1



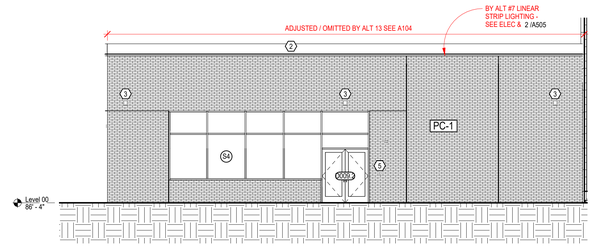
3 A203 Southeast Elevation - Area C

1/8" = 1'-0"



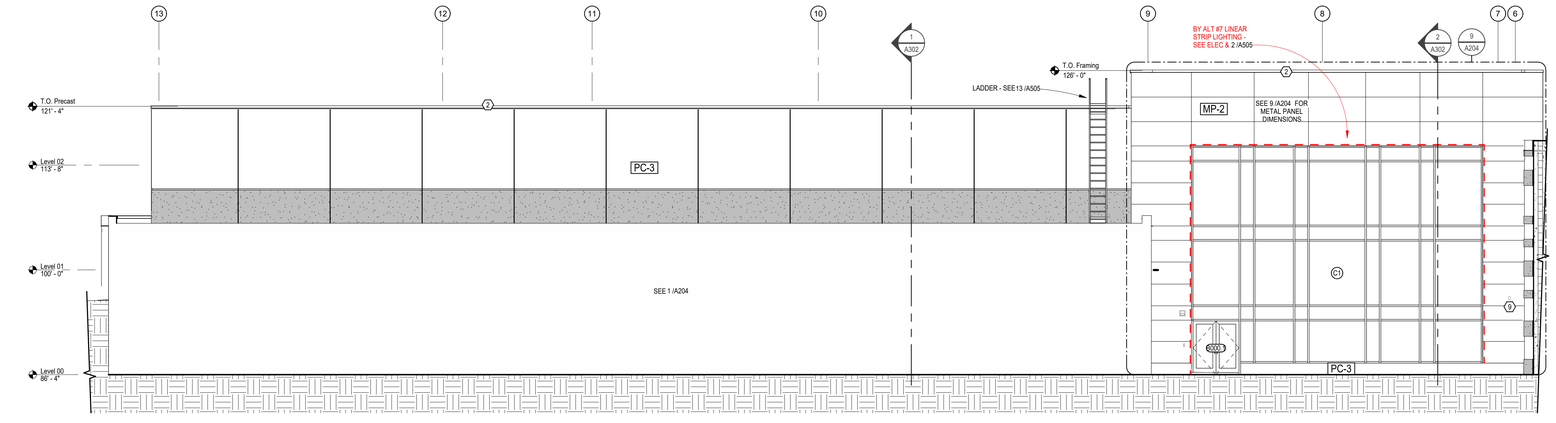
4 A203 Southwest Elevation - Area C

1/8" = 1'-0"



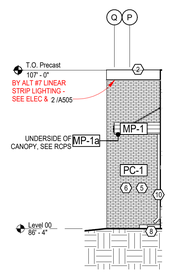
5 A203 Southeast Elevation - Area D

1/8" = 1'-0"



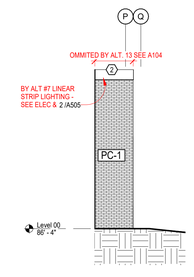
6 A203 South Elevation - Area D

1/8" = 1'-0"



7 A203 East Elevation - Area D

1/8" = 1'-0"



8 A203 West Elevation - Area D

1/8" = 1'-0"

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ELECTRICAL

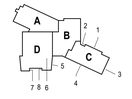
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LICENSED ARCHITECT HEIDI BRENNAN (18591) STATE OF NORTH DAKOTA
Date 03/10/26

DRAWING HISTORY

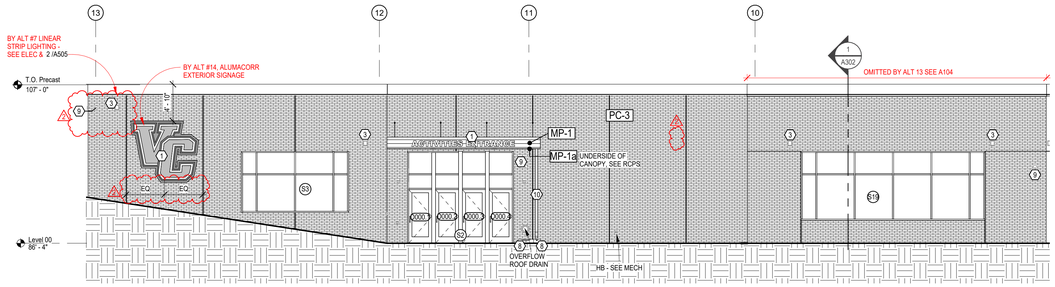
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HO/TWB JN: 24-028

Exterior Elevations

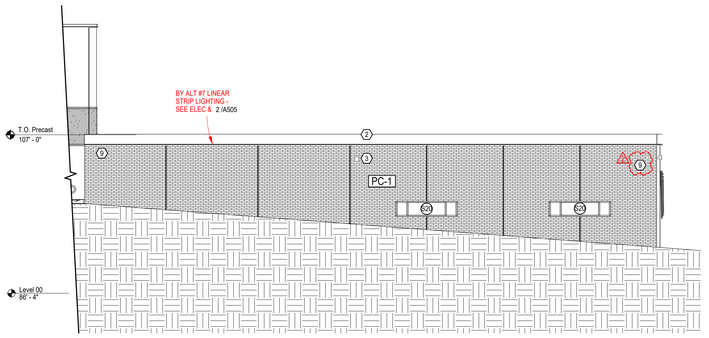
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A203

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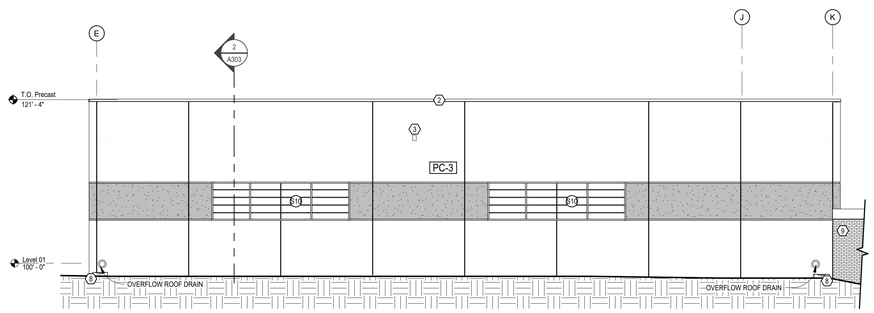
1 A204 South Elevation - Area D

1/8" = 1'-0"



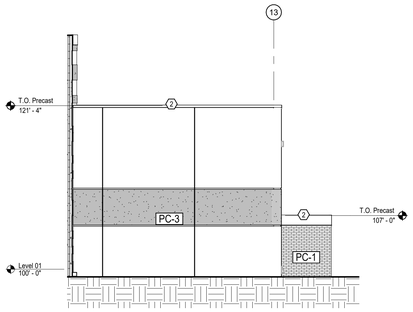
2 A204 Southwest Elevation - Area D

1/8" = 1'-0"



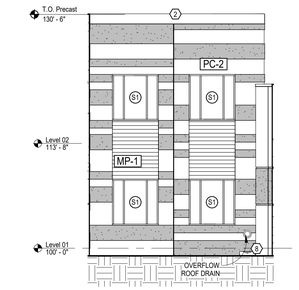
3 A204 West Elevation - Area D

1/8" = 1'-0"



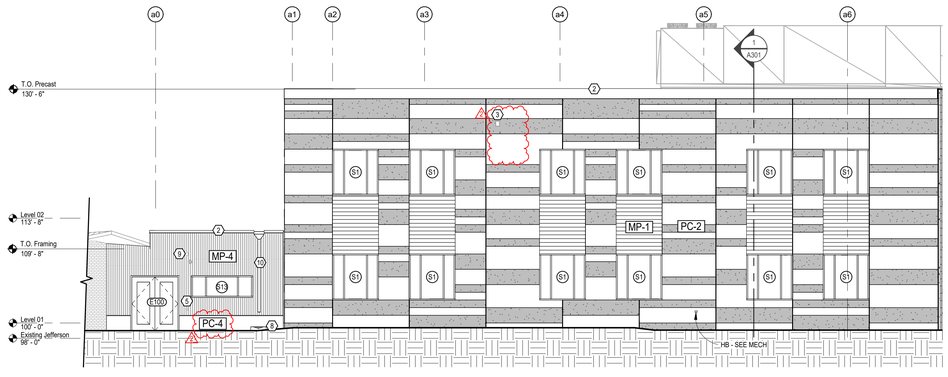
4 A204 North Elevation - Area D

1/8" = 1'-0"



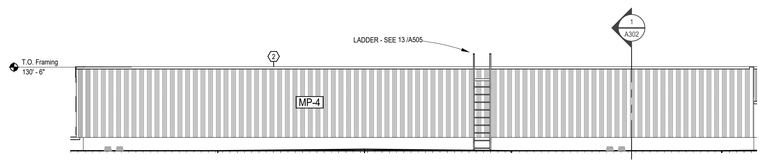
5 A204 Northwest Elevation - Area A

1/8" = 1'-0"



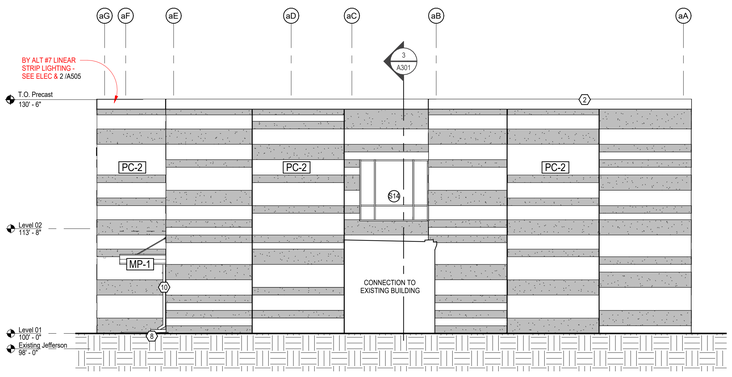
6 A204 Southwest Elevation - Area A

1/8" = 1'-0"



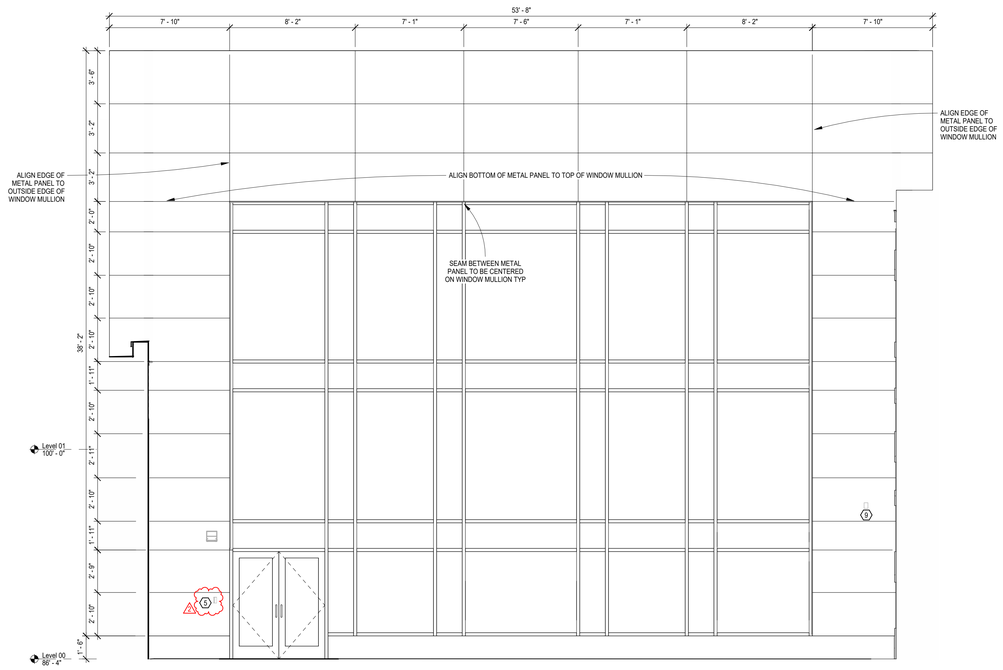
7 A204 South Elevation - Area A

1/8" = 1'-0"



8 A204 West Elevation - Area A

1/8" = 1'-0"



9 A204 Commons Metal Panel Dimensions

1/4" = 1'-0"

NOMINAL DIMENSIONS SHOWN. VERIFY IN FIELD

GENERAL NOTES - EXTERIOR ELEVATIONS

1. REVIEW EXTERIOR WALL TYPES AND DETAILS FOR ALL WALL COMPONENTS.
2. REVIEW SPECIFICATIONS FOR PRODUCT AND INSTALLATION REQUIREMENTS, AND ASSEMBLY MOCK-UPS.
3. SEE STOREFRONT TYPES AND OPENING DETAILS ON THE A600 DRAWINGS.
4. ARCHITECTURAL / STRUCTURAL ELEVATION 100' - 0" EQUALS ELEVATION 1291.10 ON CIVIL DRAWINGS.
5. COORDINATE LOCATIONS OF ALL EXTERIOR MOUNTED EQUIPMENT WITH MECH AND ELEC.

KEYNOTES - EXTERIOR ELEVATION

#	
1	BUILDING SIGNAGE. PROVIDE WALL BACKING AS REQUIRED. SEE SHEET A611 FOR DETAILS.
2	METAL ROOF COPING. COLOR TO BE CLEAR ANODIZED EXCEPT FOR MP-2 AND MP-3 ASSEMBLIES; MATCH PANEL COLOR
3	BUILDING MOUNTED LIGHTING. SEE ELECTRICAL
5	CARD READER. SEE PLANS AND COORDINATE WITH ELEC
8	CONCRETE SPLASH BLOCK. SEE DETAIL 9/A508
9	CONNECTION FOR CAMERA. SEE ELEC
10	DOWNSPOUT. COLOR TO MATCH MP-1

EXTERIOR MATERIAL LEGEND

MP-1	METAL PANEL 1. TYPICAL. HORIZONTAL INSTALLATION. COLOR: WOOD TONE, TEAK. BASIS OF DESIGN: MAC METAL ARCHITECTURAL HARRYWOOD PLUS
MP-1a	MATAL PANEL 1a. SOFFIT INSTALLATION. COLOR: WOOD TONE, TEAK. BASIS OF DESIGN: MAC METAL ARCHITECTURAL HARRYWOOD PLUS AND HARRYWOOD PLUS VENTED
MP-2	COMPOSITE WALL PANEL. COLOR: SPIRE BLUE II. BASIS OF DESIGN: ALUCOBOND EASY FIX.
MP-3	VERTICAL INSTALLATION. COLOR: CUSTOM COLOR TO MATCH MP-2. BASIS OF DESIGN: PAC-CLAD BOX RIB 2
MP-4	VERTICAL INSTALLATION. COLOR: MUSKET GRAY. BASIS OF DESIGN: PAC-CLAD 7/8" CORRUGATED EXPOSED FASTENER PANELS
PC-1	PRECAST FINISH 1. PANELS TO BE FINISHED WITH MODULAR THIN BRICK IN A RUNNING BOND PATTERN. BASIS OF DESIGN: ENDICOTT: MANGANESE IRONSPOT
PC-2	PRECAST FINISH 2. MIX OF ACID ETCH AND SAND BLAST FINISH. SEE PRECAST ELEVATIONS.
PC-3	PRECAST FINISH 3. MIX OF ACID ETCH AND SAND BLAST FINISH. SEE PRECAST ELEVATIONS.
PC-4	PRECAST FINISH 4. SANDBLAST FINISH. SEE PRECAST ELEVATIONS.

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Valley City, ND 58072

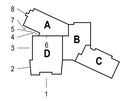
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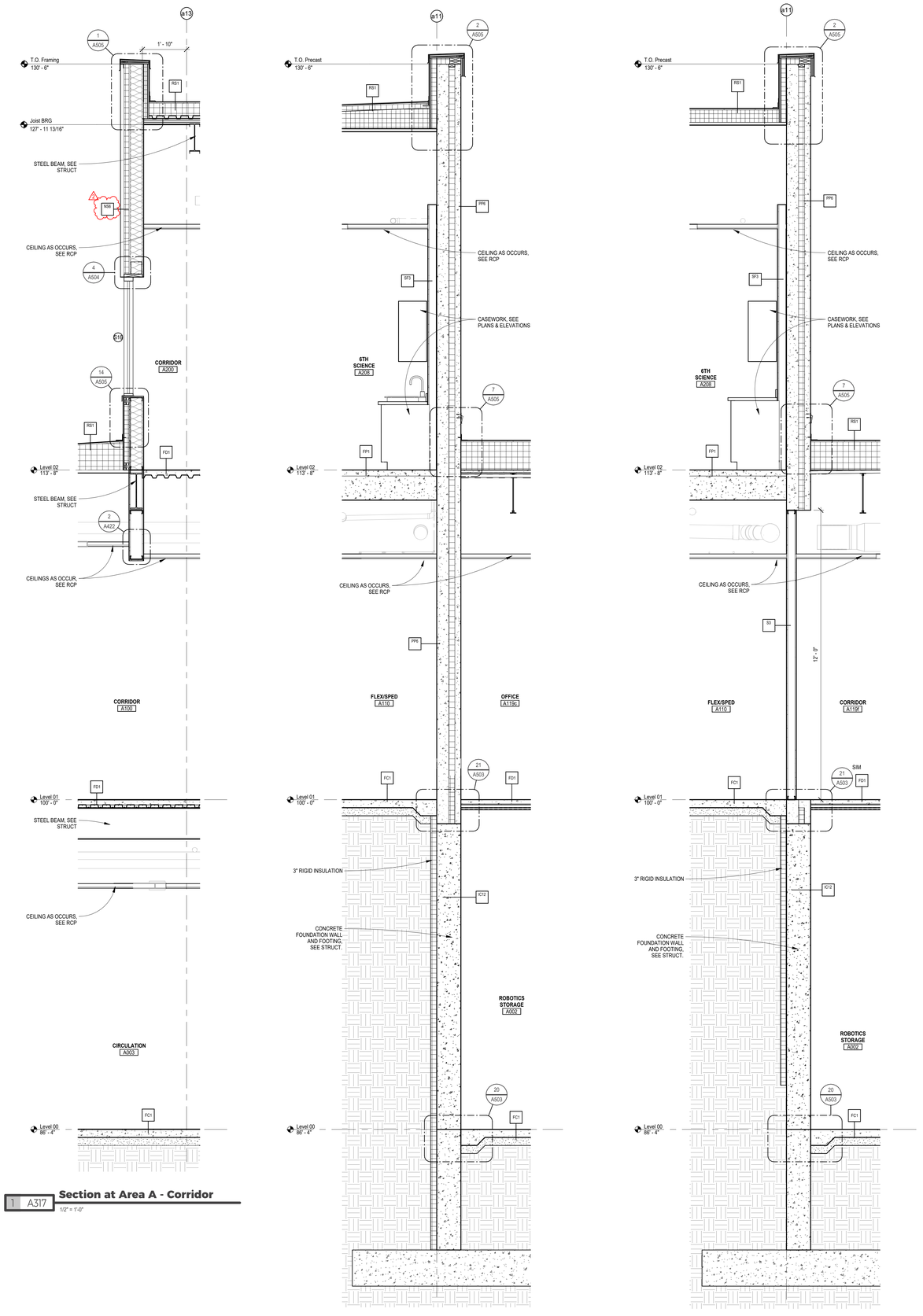
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	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HO/TWB JN: 24-028

Exterior Elevations

SHEET
A204

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1 A317 **Section at Area A - Corridor**
1/2" = 1'-0"

2 A317 **Section at Area A - Admin**
1/2" = 1'-0"

3 A317 **Section at Area A - Admin 2**
1/2" = 1'-0"

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LICENSED ARCHITECT
HEIDI BRENNAN
(8459)
STATE OF NORTH DAKOTA
Date 03/10/26

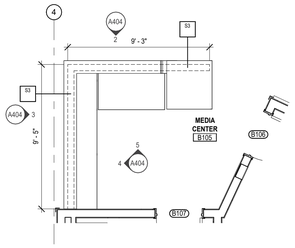
DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

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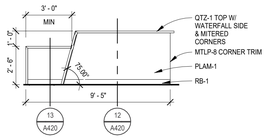
Wall Sections

SHEET
A317



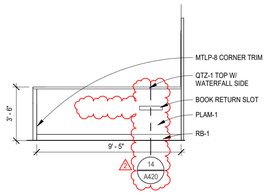
1 A404 Media Center Circ. Desk - Enlarged Plan

1/4" = 1'-0"



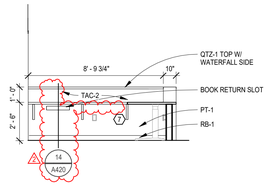
2 A404 Circulation Desk

1/4" = 1'-0"



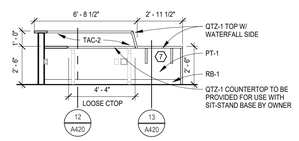
3 A404 Circulation Desk

1/4" = 1'-0"



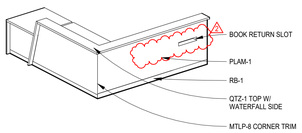
4 A404 Circulation Desk

1/4" = 1'-0"

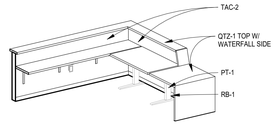


5 A404 Circulation Desk

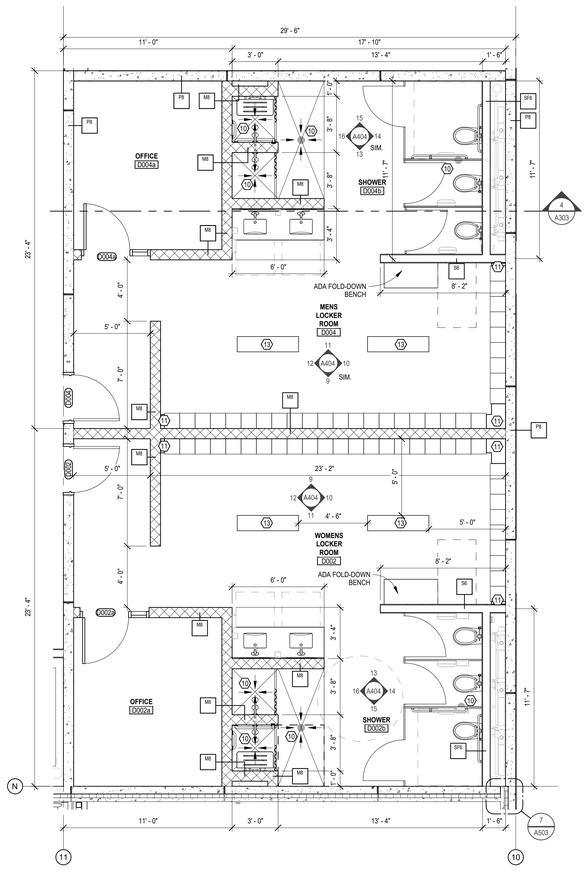
1/4" = 1'-0"



6 A404 Circulation Desk ISO - Front

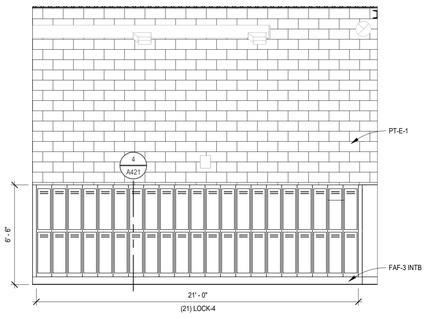


7 A404 Circulation Desk ISO - Back



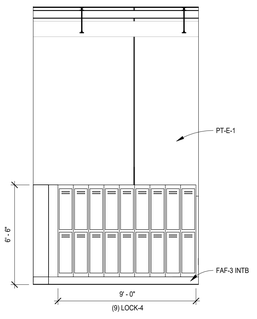
8 A404 Locker Rooms D002 & D004

1/4" = 1'-0"



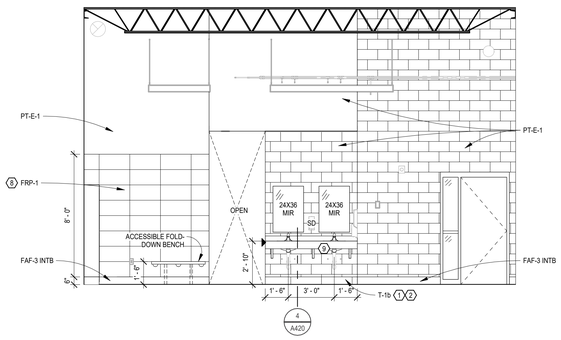
9 A404 Locker Room D002 - N, D004 Sim

1/4" = 1'-0"



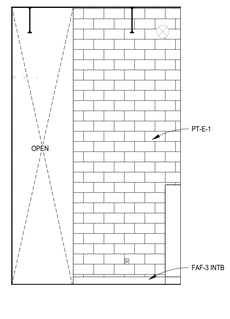
10 A404 Locker Room D002 - E, D004 Sim

1/4" = 1'-0"



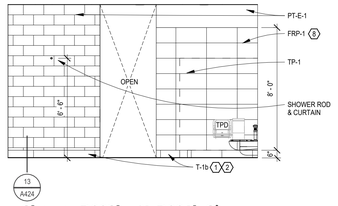
11 A404 Locker Room D002 - S, D004 Sim

1/4" = 1'-0"



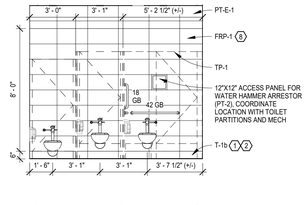
12 A404 Locker Room D002 - W, D004 Sim

1/4" = 1'-0"



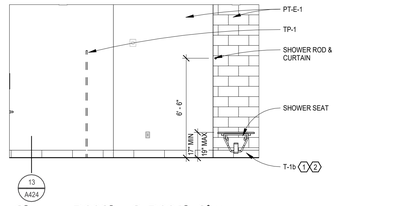
13 A404 Shower D002b - N, D004b Sim

1/4" = 1'-0"



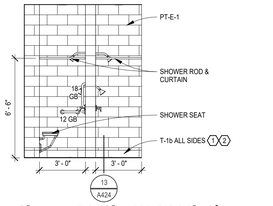
14 A404 Shower D002b - E, D004b Sim

1/4" = 1'-0"



15 A404 Shower D002b - S, D004b Sim

1/4" = 1'-0"



16 A404 Shower D002b - W, D004b Sim

1/4" = 1'-0"

GENERAL NOTES - INTERIOR ELEVATIONS

1. REFER TO FINISH PLANS FOR WALL, BASE AND FLOOR FINISHES
2. REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHT & FINISHES
3. REFER TO G005 & G006 FOR STANDARD MOUNTING HEIGHTS
4. HALFTONE FURNITURE, EQUIPMENT AND ACCESSORIES FOR REFERENCE ONLY- BY OWNER
5. ALL TVS AND WALL BRACKETS BY OWNER; PROVIDE POWER, DATA AND BLOCKING AS REQUIRED
6. CP-1 TO BE USED ON ALL CABINETS UNO
7. FINISHED CABINET END IDENTIFIED BY :

KEYNOTES - INTERIOR ELEVATION

1 MTLP-1 AT TOP OF WALL TILE AND OUTSIDE CORNERS. SEE TRANSITION DETAILS ON A610.
2 MTLP-2 AT BASE OF WALL TILE, COVE TRANSITION TO FLOOR TILE. SEE TRANSITION DETAILS ON A610.
7 INSTALL SURFACE MOUNTED WALL BRACKETS AS REQUIRED
8 STANDARD FRP TRIM BASE OF FRP AND MTLP-1 AT TOP OF WALL TILE BASE. SEE TRANSITION DETAILS ON A610.
9 SSF-2 COUNTER W/ 5" H APRON; INSTALL SURFACE MOUNTED WALL BRACKETS AS REQUIRED
10 FLOOR DRAIN, COORDINATE WITH MECHANICAL
11 PROVIDE METAL FILLER PANELS AT EXPOSED ENDS OF LOCKERS
13 BUILT-IN BENCH, SEE SPEC

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LICENSED ARCHITECT
JACOB BRENNAN
(8459)
STATE OF NORTH DAKOTA
Date 03/10/26

DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AN/JT JN: 24-028

Enlarged Plans & Elevations - Media Center & Locker Rooms

SHEET
A404

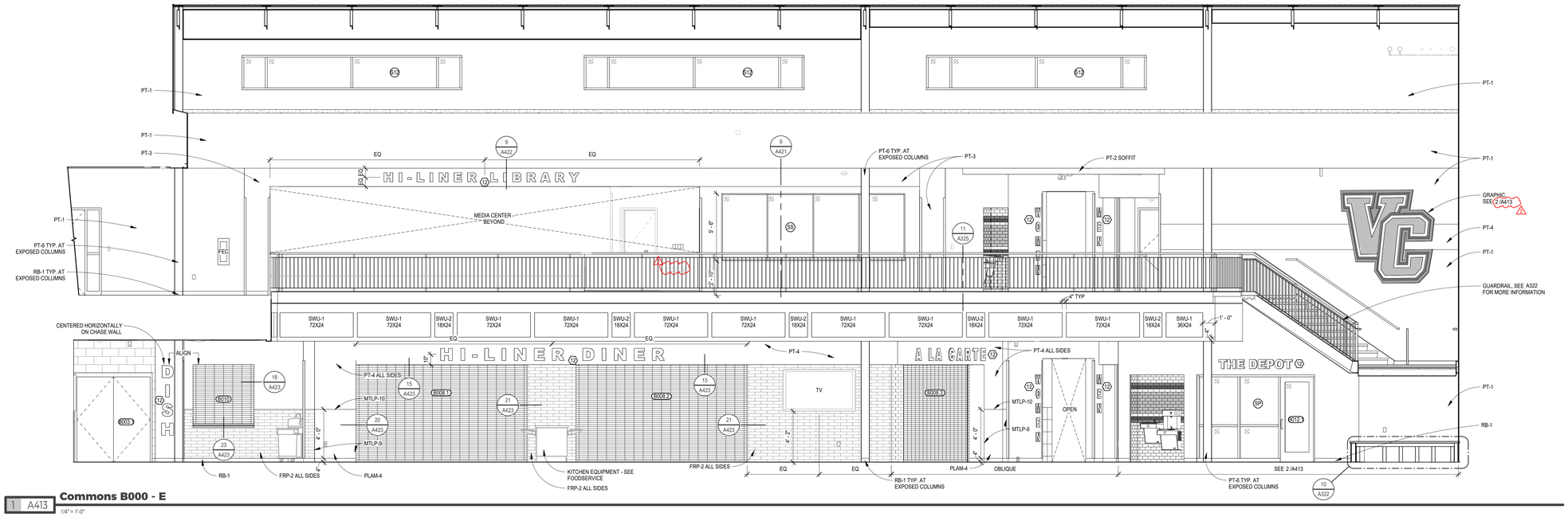
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GENERAL NOTES - INTERIOR ELEVATIONS

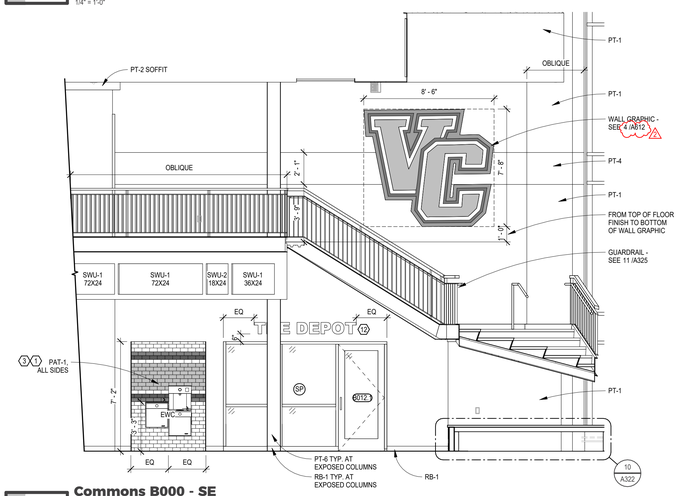
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KEYNOTES - INTERIOR ELEVATION

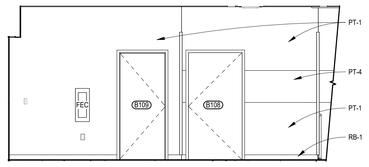
#	
1	MTLP-1 AT TOP OF WALL TILE AND OUTSIDE CORNERS. SEE TRANSITION DETAILS ON A610.
3	MTLP-7 AT BASE OF WALL TILE, COVE TRANSITION TO CONC. FLOOR. SEE TRANSITION DETAILS ON A610.
4	LOCKABLE CABINET DOORS AND/OR DRAWERS
12	DIMENSIONAL SIGNAGE, SEE SHEET A611 FOR DETAILS & A800 SHEETS FOR LOCATIONS.



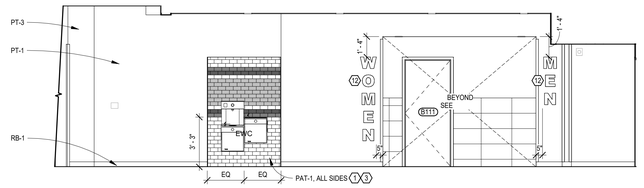
1 A413 **Commons B000 - E**
1/4" = 1'-0"



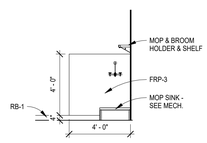
2 A413 **Commons B000 - SE**
1/4" = 1'-0"



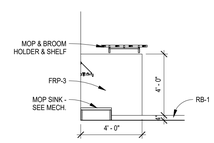
3 A413 **Circulation B121 - S**
1/4" = 1'-0"



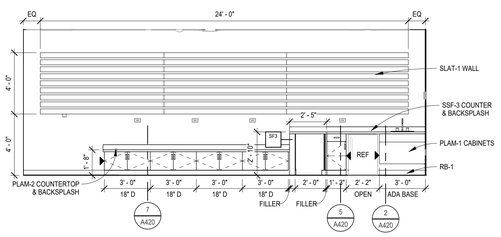
4 A413 **Circulation B121 - N**
1/4" = 1'-0"



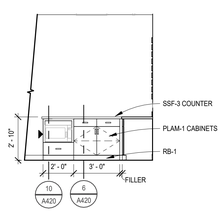
5 A413 **Custodial Wall 1, Typ**
1/4" = 1'-0"



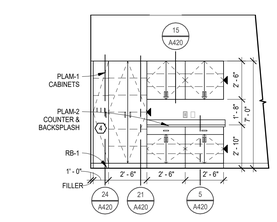
6 A413 **Custodial Wall 2, Typ**
1/4" = 1'-0"



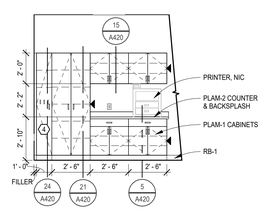
7 A413 **School Store B012 - NE**
1/4" = 1'-0"



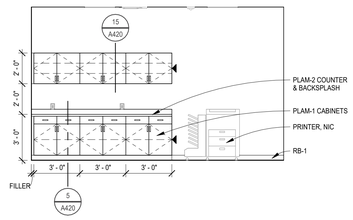
8 A413 **School Store B012 - NW**
1/4" = 1'-0"



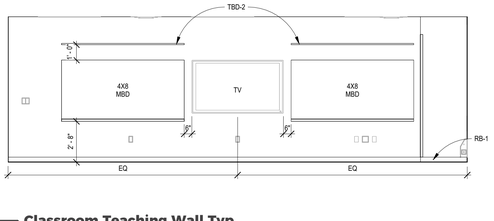
9 A413 **Classroom Casework - Area C, Typ**
1/4" = 1'-0"



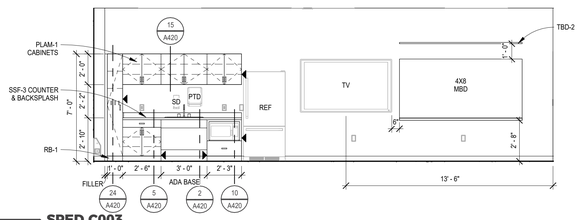
10 A413 **Business C001**
1/4" = 1'-0"



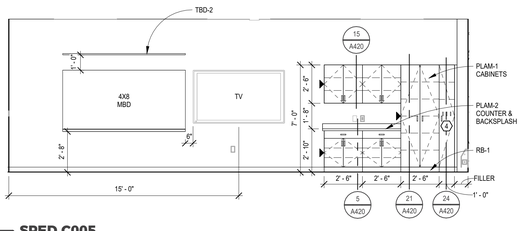
11 A413 **Staff Workroom B013 - SW**
1/4" = 1'-0"



12 A413 **Classroom Teaching Wall Typ**
1/4" = 1'-0"



13 A413 **SPED C003**
1/4" = 1'-0"



14 A413 **SPED C005**
1/4" = 1'-0"

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2201 12TH STREET NORTH, SUITE E
FARGO, NORTH DAKOTA 58102
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BLOOMINGTON, MN 55425
(612) 325.1494 OFFICE

LICENSED ARCHITECT HEIDI BRENNAN 6591 STATE OF NORTH DAKOTA
Date 03/10/26

DRAWING HISTORY

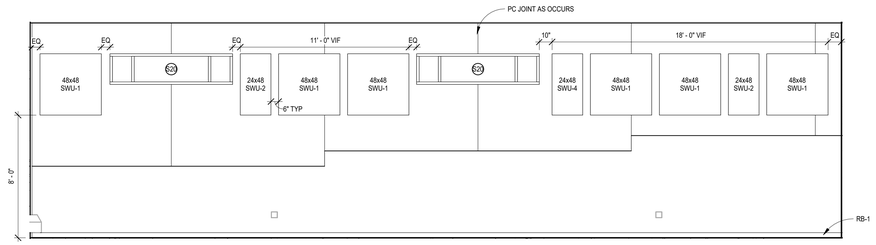
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AN/OT JN: 24-028

Interior Elevations - Commons & Lower Level

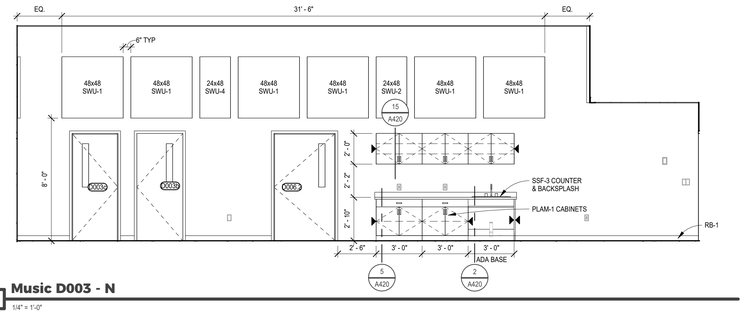
SHEET
A413

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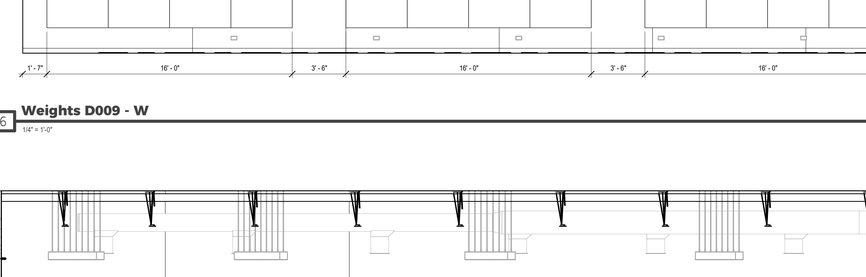
1 A416 **Music D003 - W**

1/4" = 1'-0"



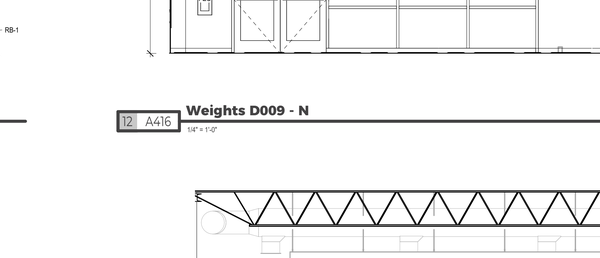
2 A416 **Music D003 - N**

1/4" = 1'-0"



3 A416 **Music D003 - E**

1/4" = 1'-0"



4 A416 **Music D003 - S**

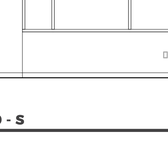
1/4" = 1'-0"

5 A416 **Instrument Storage D006 - N**

1/4" = 1'-0"

6 A416 **Instrument Storage D006 - S**

1/4" = 1'-0"



7 A416 **Practice D001 - S**

1/4" = 1'-0"



8 A416 **Practice D001 - W**

1/4" = 1'-0"



9 A416 **Practice D003b - N**

1/4" = 1'-0"

10 A416 **Practice D003b - E**

1/4" = 1'-0"

11 A416 **Weights D009 - W**

1/4" = 1'-0"

12 A416 **Weights D009 - N**

1/4" = 1'-0"

13 A416 **Weights D009 - E**

1/4" = 1'-0"

14 A416 **Weights D009 - S**

1/4" = 1'-0"

GENERAL NOTES - INTERIOR ELEVATIONS

1. REFER TO FINISH PLANS FOR WALL, BASE AND FLOOR FINISHES
2. REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHT & FINISHES
3. REFER TO G005 & G006 FOR STANDARD MOUNTING HEIGHTS
4. HALFTONE FURNITURE, EQUIPMENT AND ACCESSORIES FOR REFERENCE ONLY- BY OWNER
5. ALL TVS AND WALL BRACKETS BY OWNER; PROVIDE POWER, DATA AND BLOCKING AS REQUIRED
6. CP-1 TO BE USED ON ALL CABINETS UNO
7. FINISHED CABINET END IDENTIFIED BY :

KEYNOTES - INTERIOR ELEVATION

(#)

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LICENSED ARCHITECT
HEIDI BRENNAN
(8859)
Date 03/10/26
STATE OF NORTH DAKOTA

DRAWING HISTORY

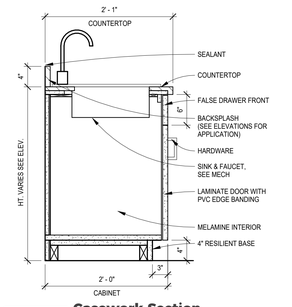
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	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AN/JT JN: 24-028

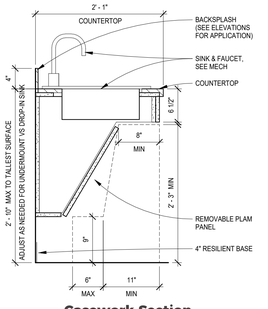
Interior Elevations - Area D

SHEET
A416

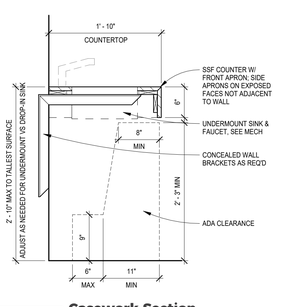
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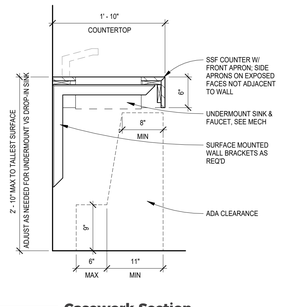
1 A420 **Casework Section**
1" = 1'-0"



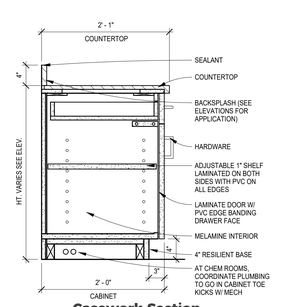
2 A420 **Casework Section**
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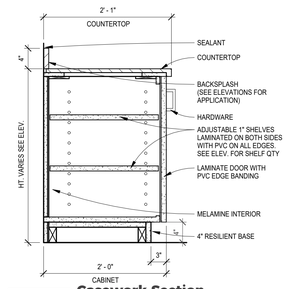
3 A420 **Casework Section**
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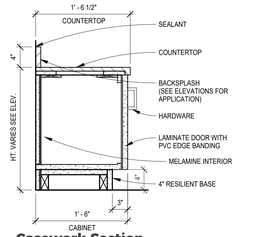
4 A420 **Casework Section**
1" = 1'-0"



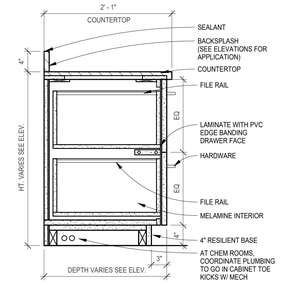
5 A420 **Casework Section**
1" = 1'-0"



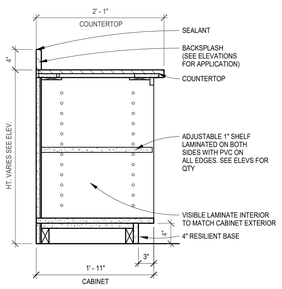
6 A420 **Casework Section**
1" = 1'-0"



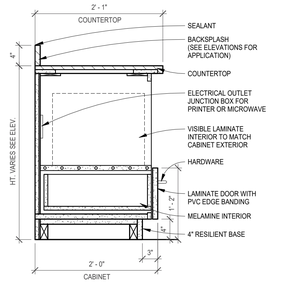
7 A420 **Casework Section**
1" = 1'-0"



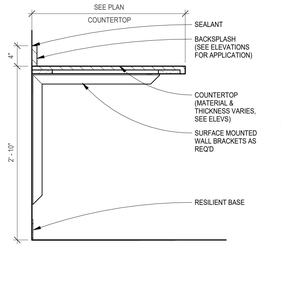
8 A420 **Casework Section**
1" = 1'-0"



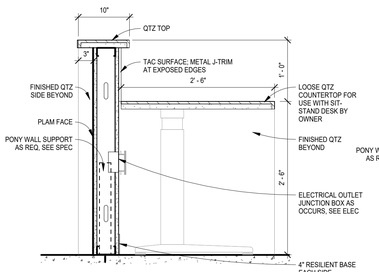
9 A420 **Casework Section**
1" = 1'-0"



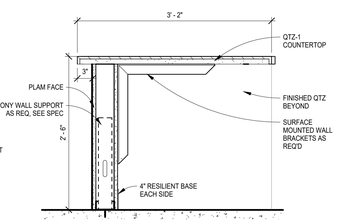
10 A420 **Casework Section**
1" = 1'-0"



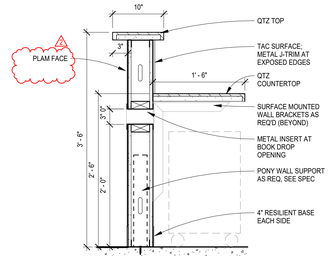
11 A420 **Casework Section**
1" = 1'-0"



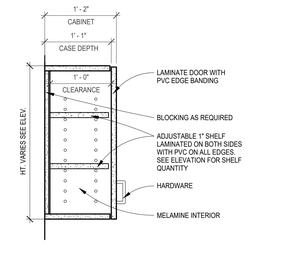
12 A420 **Reception Desk Detail**
1" = 1'-0"



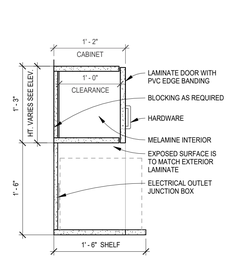
13 A420 **Reception Desk ADA Detail**
1" = 1'-0"



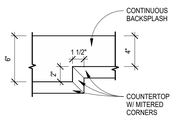
14 A420 **Media Desk Detail - W - Book Drop**
1" = 1'-0"



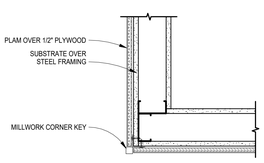
15 A420 **Casework Section**
1" = 1'-0"



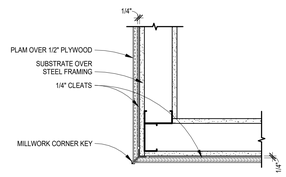
16 A420 **Casework Section**
1" = 1'-0"



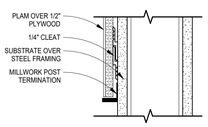
17 A420 **Transition Detail - Counter**
1 1/2" = 1'-0"



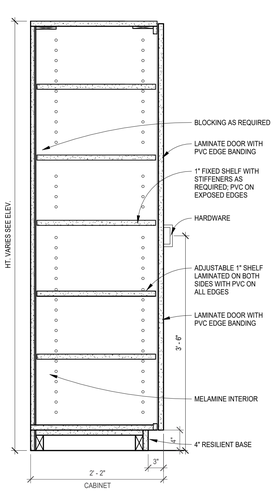
18 A420 **Corner Trim at PLAM Wainscot Detail**
1 1/2" = 1'-0"



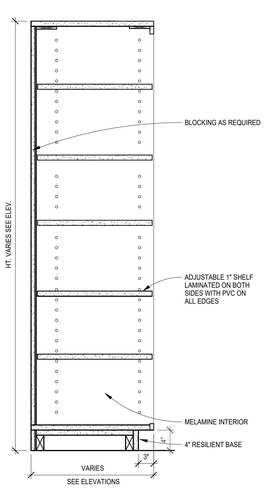
19 A420 **Corner Trim at Reception Desk Detail**
1 1/2" = 1'-0"



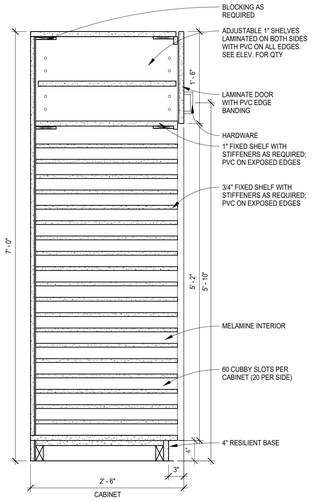
20 A420 **Edge Trim at PLAM Wainscot Detail**
3" = 1'-0"



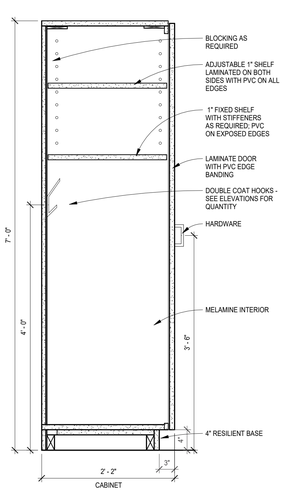
21 A420 **Casework Section**
1" = 1'-0"



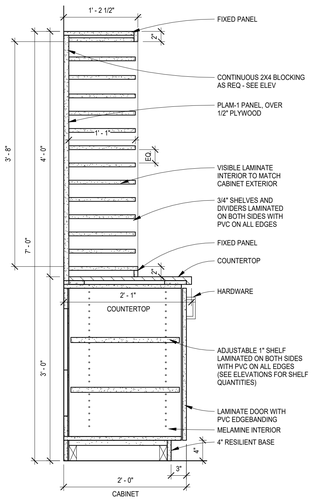
22 A420 **Casework Section at Music**
1" = 1'-0"



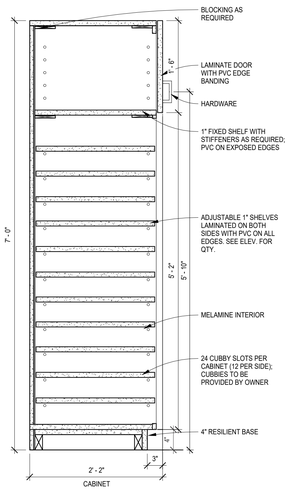
23 A420 **Casework Section**
1" = 1'-0"



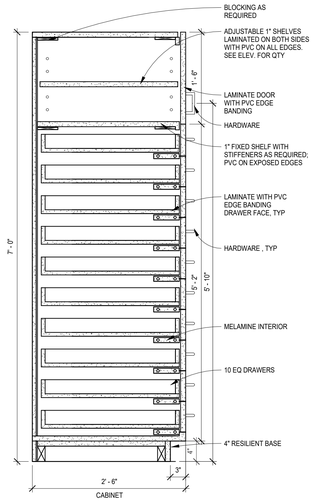
24 A420 **Casework Section**
1" = 1'-0"



25 A420 **Casework Section**
1" = 1'-0"



26 A420 **Casework Section**
1" = 1'-0"



27 A420 **Casework Section**
1" = 1'-0"

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LICENSED ARCHITECT (JESS) BRENNA STATE OF NORTH DAKOTA
Date 03/10/26

DRAWING HISTORY

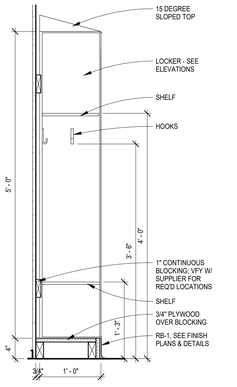
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AN/JT
JN: 24-028

Details - Casework Sections

SHEET
A420

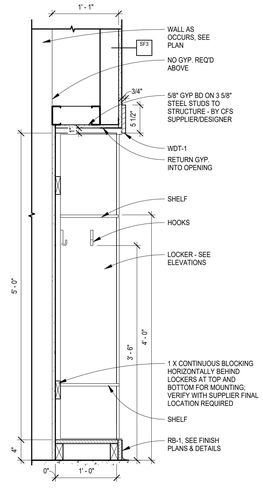
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AREA A MUDROOMS

1 A421 Locker Detail - LOCK-1

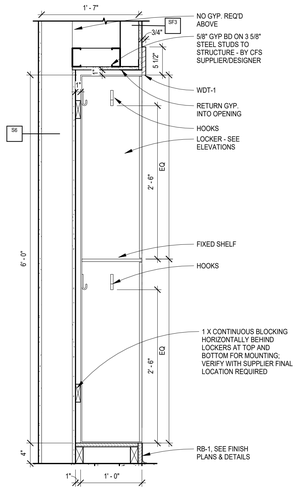
1" = 1'-0"



AREA C - SINGLE TIER

2 A421 Locker Detail - LOCK-2

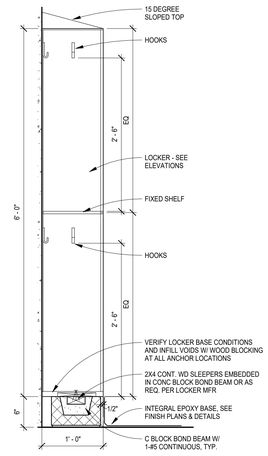
1" = 1'-0"



AREA C - DOUBLE TIER

3 A421 Locker Detail - LOCK-3

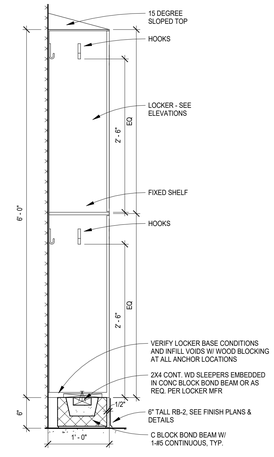
1" = 1'-0"



LOCKER ROOMS

4 A421 Locker Detail - LOCK-4

1" = 1'-0"



RECEIVING & KITCHEN

5 A421 Locker Detail - LOCK-5

1" = 1'-0"

6 A421 Section at Built-in Bookshelf

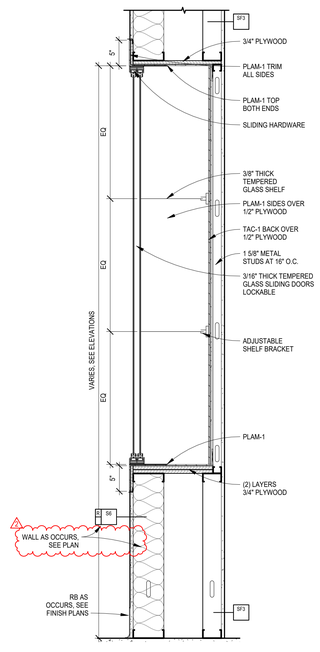
1" = 1'-0"

7 A421 Section at Built-in Bench

1" = 1'-0"

8 A421 Section at Glass Display Shelving

1" = 1'-0"



9 A421 Section at Display Case

1" = 1'-0"

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LICENSED ARCHITECT — HEIDI M. BRENNAN — STATE OF NORTH DAKOTA
Date 03/10/26

DRAWING HISTORY

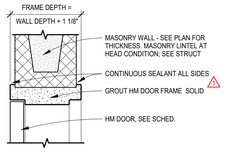
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AN/JT — JN: 24-028

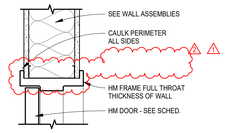
Details - Locker & Custom Casework Sections

SHEET
A421

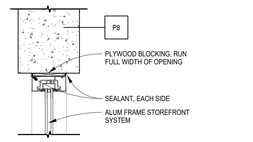
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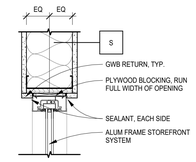
1 A423 **HM Door Head at CMU Wall**
1 1/2" = 1'-0"



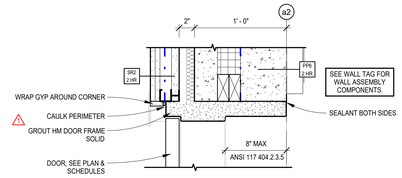
2 A423 **HM Door Head at Stud, Jamb Sim**
1 1/2" = 1'-0"



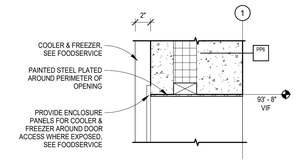
3 A423 **Storefront Head/Jamb at Interior P8**
1 1/2" = 1'-0"



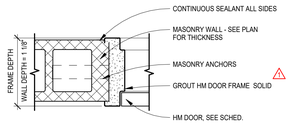
4 A423 **Storefront Head/Jamb at Interior**
1 1/2" = 1'-0"



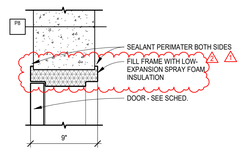
5 A423 **HM Head/Jamb at SR2 / PP6**
1 1/2" = 1'-0"



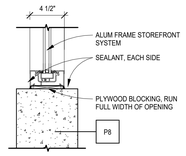
6 A423 **Head at PP6 at Cooler/Freezer**
1 1/2" = 1'-0"



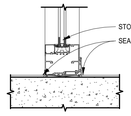
7 A423 **HM Door Jamb at CMU Wall**
1 1/2" = 1'-0"



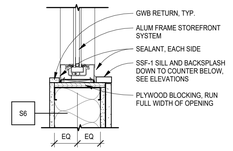
8 A423 **HM Door Head/Jamb at P8**
1 1/2" = 1'-0"



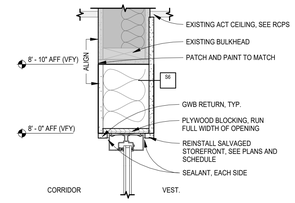
9 A423 **Storefront Sill at Interior P8**
1 1/2" = 1'-0"



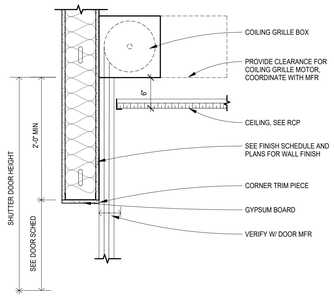
10 A423 **Storefront Sill at Interior**
1 1/2" = 1'-0"



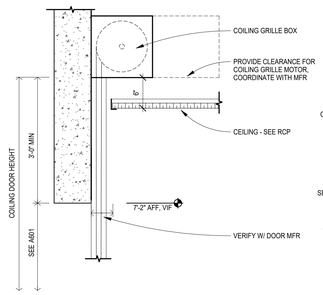
11 A423 **Storefront Sill at Interior - Art**
1 1/2" = 1'-0"



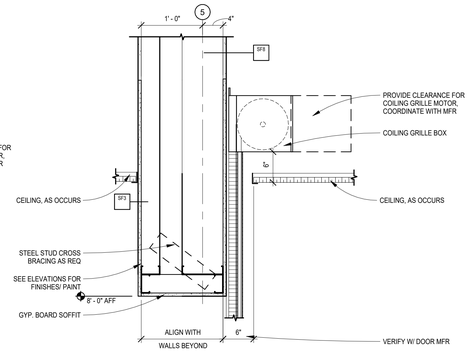
12 A423 **Head at F100**
1 1/2" = 1'-0"



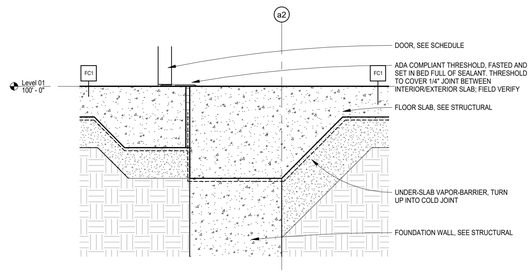
13 A423 **Coiling Door Head at Dish Return**
1" = 1'-0"



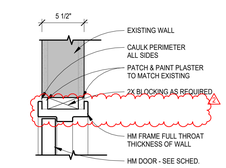
14 A423 **Coiling Door Head at Concessions**
1" = 1'-0"



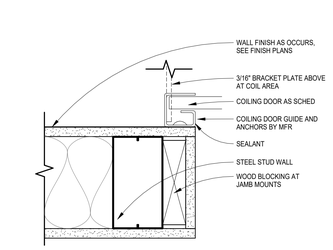
15 A423 **OH Coiling Door Head at Servery Typ.**
1" = 1'-0"



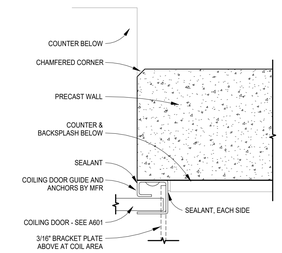
16 A423 **Base @ Firewall Connection**
1 1/2" = 1'-0"



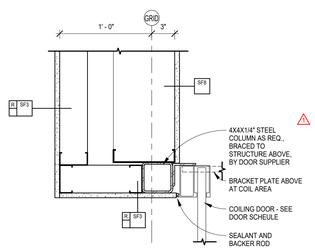
17 A423 **HM Door Head at Existing**
1 1/2" = 1'-0"



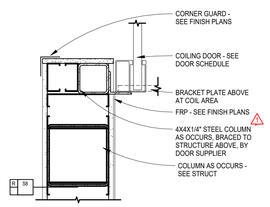
18 A423 **Coiling Door Jamb at Dish Return**
3" = 1'-0"



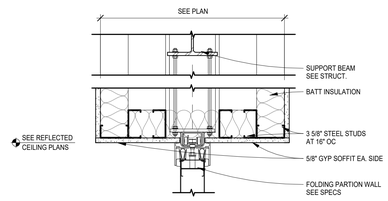
19 A423 **Coiling Door Jamb at Concessions**
3" = 1'-0"



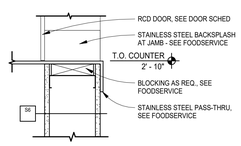
20 A423 **OH Coiling Door Jamb at Servery**
1 1/2" = 1'-0"



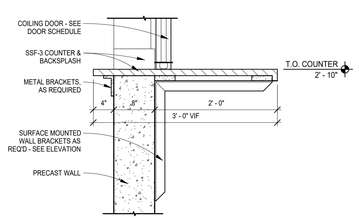
21 A423 **OH Coiling Door Jamb at Servery**
1 1/2" = 1'-0"



22 A423 **Operable Partition Track Head**
1 1/2" = 1'-0"



23 A423 **Coiling Door Sill at Dish Return**
1 1/2" = 1'-0"



24 A423 **Coiling Door Sill at Concessions**
1" = 1'-0"

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LICENSED ARCHITECT
JOSHUA BRENNAN
(18599)
STATE OF NORTH DAKOTA
Date 03/10/26

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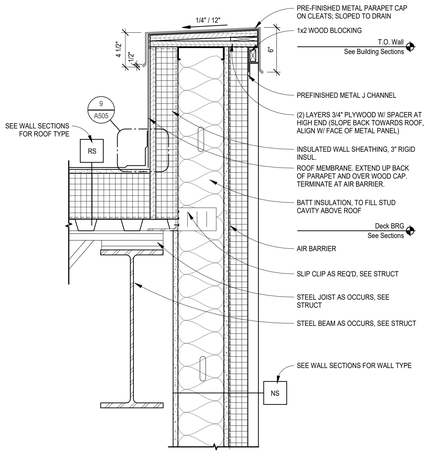
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
1	Addendum #1	03/17/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HQ/JT JN: 24-028

Details - Interior Openings

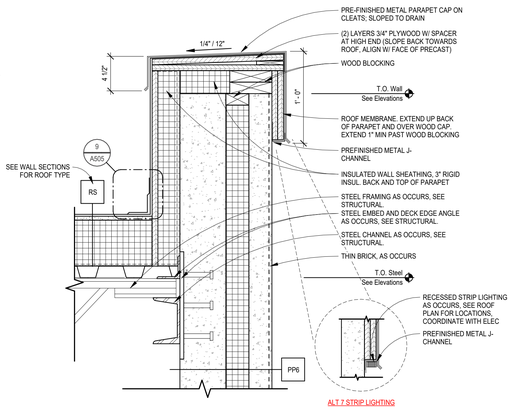
SHEET
A423

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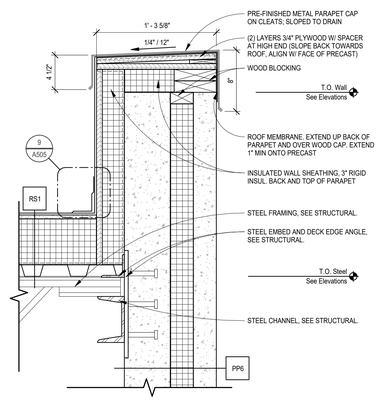
1 A505 Parapet at NS Wall, Typ

1 1/2" = 1'-0"



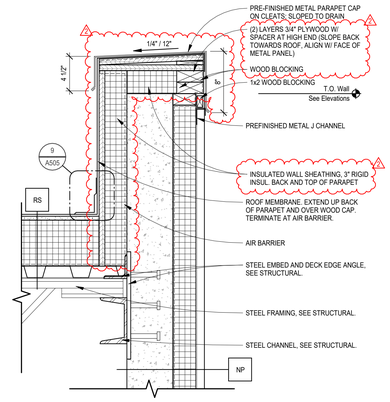
2 A505 Parapet at PP6, Typ

1 1/2" = 1'-0"



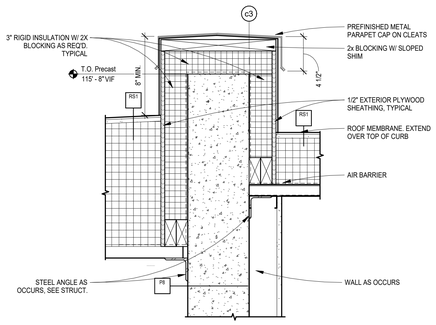
3 A505 Parapet at PP6 - Gym, Typ

1 1/2" = 1'-0"



4 A505 Parapet at NP8 / NP6

1 1/2" = 1'-0"



5 A505 Roof Transition at PC

1 1/2" = 1'-0"

6 A505 Roof Wall Transition w/ Expansion Joint

3" = 1'-0"

7 A505 Roof Wall Transition at PP6

3" = 1'-0"

8 A505 Roof to Wall Transition

1 1/2" = 1'-0"

9 A505 EPDM Wall Base Transition

6" = 1'-0"

10 A505 Roof Transition at Gym & Area A Stair 3

1 1/2" = 1'-0"

11 A505 Roof Curb Section at 8" Steel Stud

1 1/2" = 1'-0"

12 A505 Roof Detail

1 1/2" = 1'-0"

13 A505 Roof Ladder Elev/Section

3/8" = 1'-0"

14 A505 Window Sill at Clerestory

3" = 1'-0"

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CMTA
2201 12TH STREET NORTH, SUITE E
FARGO, NORTH DAKOTA 58102
(701) 280.0500 OFFICE

CIVIL

LOWRY ENGINEERING
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FARGO, ND 58104
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FOODSERVICE CONCEPT DESIGN
7900 INTERNATIONAL DRIVE
SUITE 300 -7043
BLOOMINGTON, MN 55425
(612) 325.1494 OFFICE

LICENSED ARCHITECT
HEIDI BRENNAN
LR591
Heidi Brennan
Date 03/10/26
STATE OF NORTH DAKOTA

DRAWING HISTORY

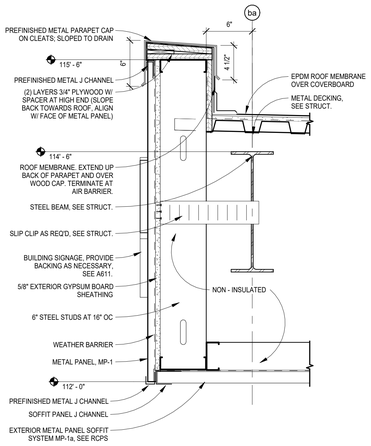
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HO/JT JN: 24-028

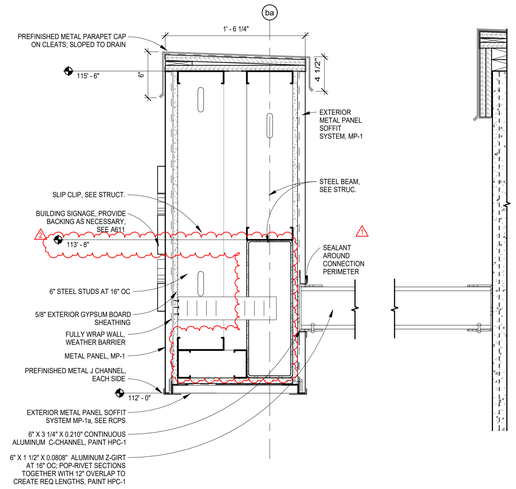
Details - Wall & Roof Details

SHEET
A505

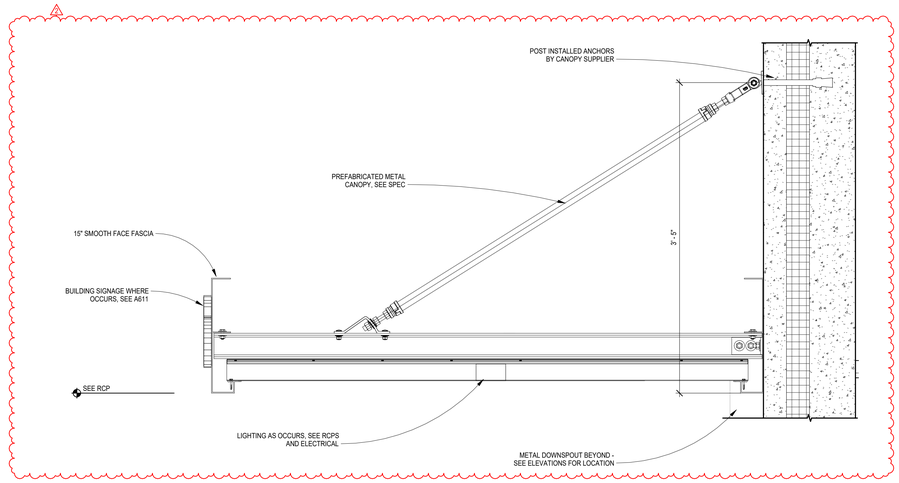
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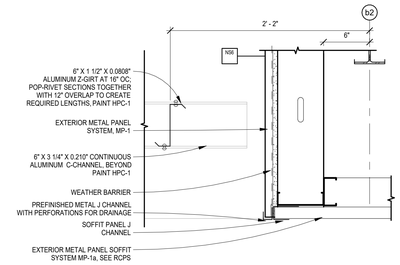
1 A506 **Canopy at Front Entrance**
1 1/2" = 1'-0"



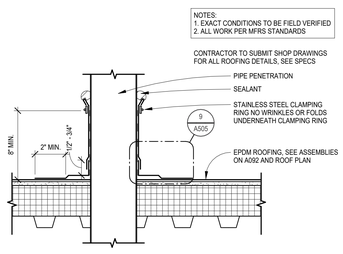
2 A506 **Canopy at Front Entrance Trellis**
1 1/2" = 1'-0"



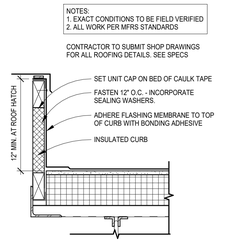
3 A506 **Canopy Section, Typ**
1 1/2" = 1'-0"



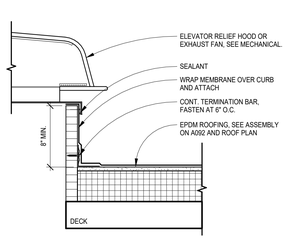
4 A506 **Section at Canopy**
1 1/2" = 1'-0"



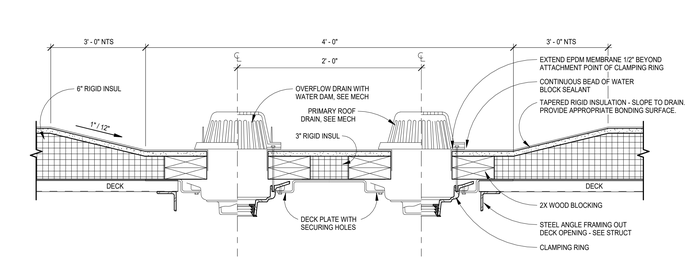
5 A506 **Pipe Flashing Detail, Typ**
1 1/2" = 1'-0"



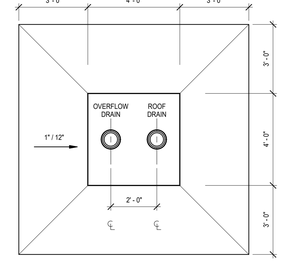
6 A506 **Curb Detail**
1 1/2" = 1'-0"



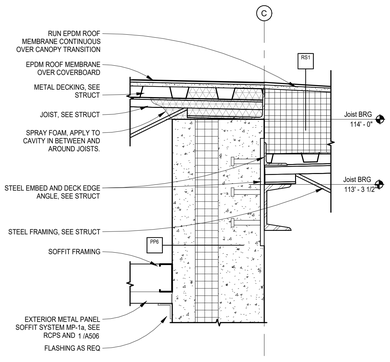
7 A506 **Pre-Fabricated Mech. Roof Curb**
1 1/2" = 1'-0"



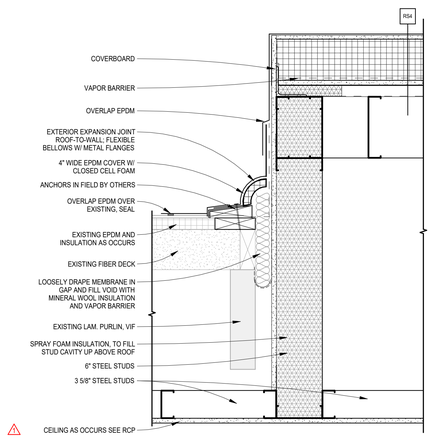
8 A506 **Roof Drain & Overflow Detail**
1 1/2" = 1'-0"



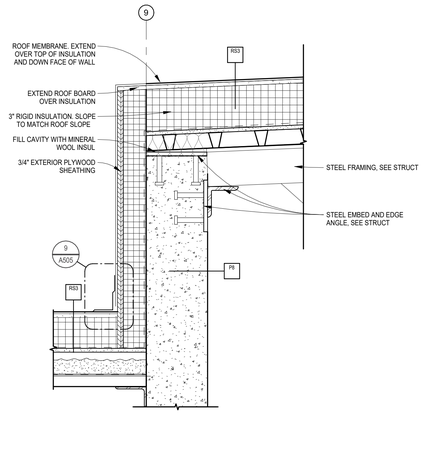
9 A506 **Roof Drain Plan Detail**
3/8" = 1'-0"



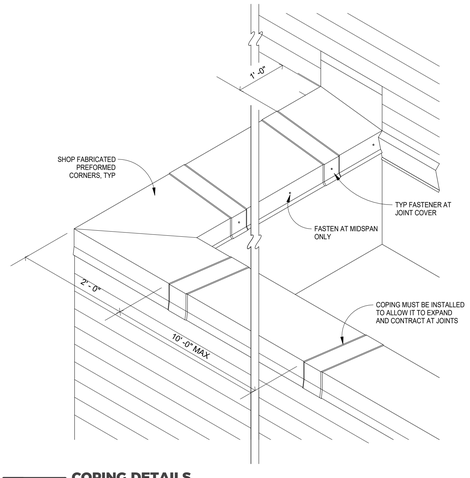
10 A506 **Entry Canopy Transition Detail**
1 1/2" = 1'-0"



11 A506 **Roof Connection at Jefferson**
1 1/2" = 1'-0"



12 A506 **Roof Edge at Gym / Commons**
1 1/2" = 1'-0"



13 A506 **COPING DETAILS**
3/4" = 1'-0"

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Valley City, ND 58072

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LICENSED ARCHITECT HEIDI M. BRENNAN 8591 STATE OF NORTH DAKOTA
Date: 03/10/26

DRAWING HISTORY

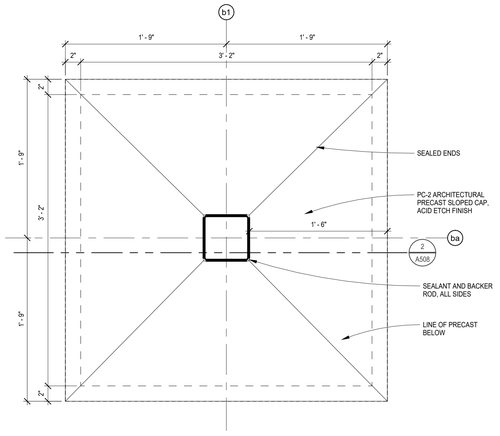
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
1	Addendum #1	03/17/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HO/JT JN: 24-028

Details - Roof Details

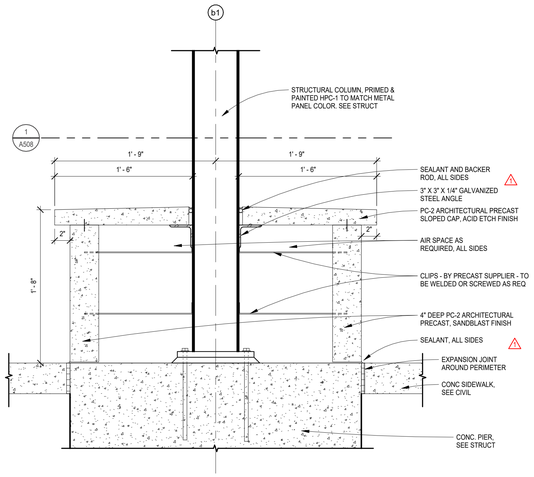
SHEET
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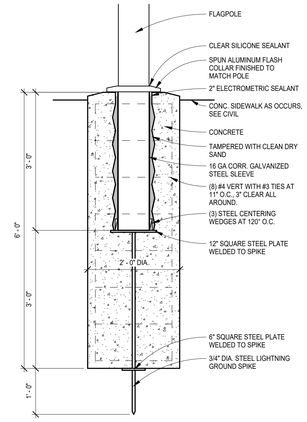
1 A508 **Plan at Exterior Column, Typ**

1 1/2" = 1'-0"



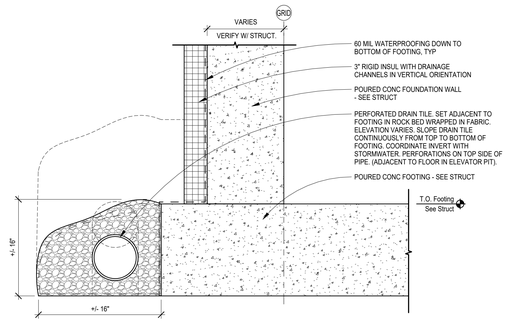
2 A508 **Section at Exterior Column, Typ**

1 1/2" = 1'-0"



3 A508 **Flag Pole Base Detail**

3/4" = 1'-0"

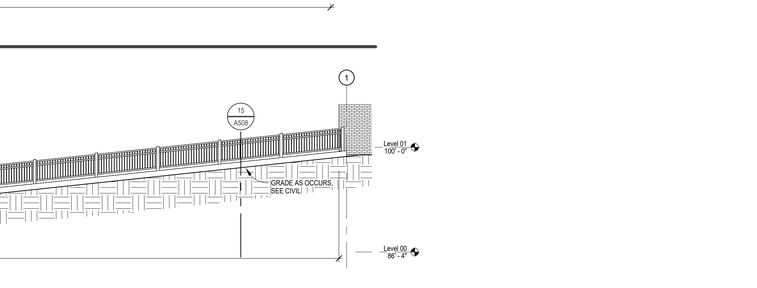


4 A508 **Drain Tile Detail, Typ**

1 1/2" = 1'-0"

5 A508 **VC Monument Sign Plan - By Alt #8**

1/2" = 1'-0"



6 A508 **VC Monument Sign Elevation - By Alt #8**

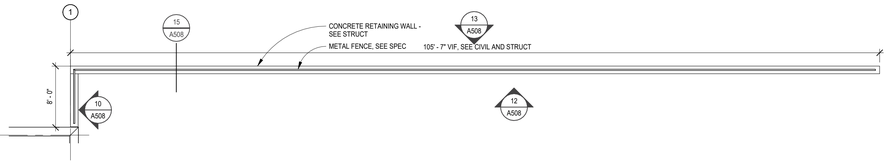
1/4" = 1'-0"

7 A508 **VC Monument Side Elev - By Alt #8**

1/4" = 1'-0"

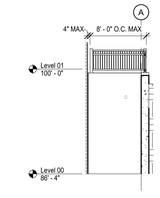
8 A508 **Concrete Splashblock**

1" = 1'-0"



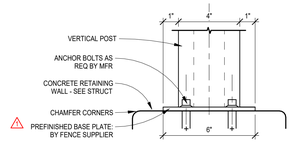
9 A508 **Enlarged Retaining Wall Plan**

1/8" = 1'-0"



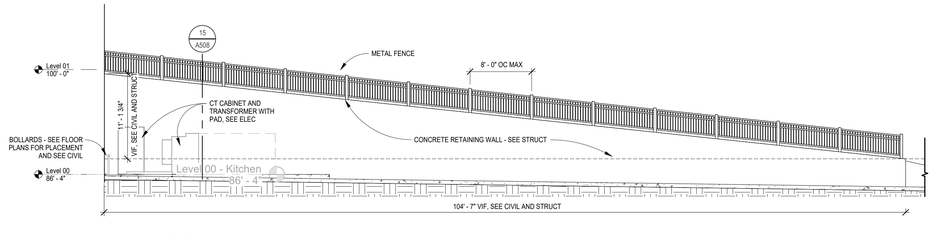
10 A508 **Retaining Wall E**

1/8" = 1'-0"



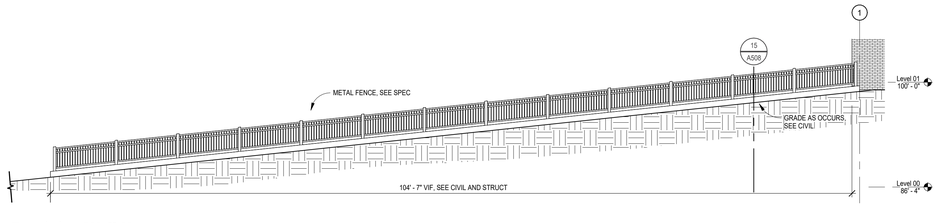
11 A508 **Typ. Fence Base Plate Detail**

3" = 1'-0"



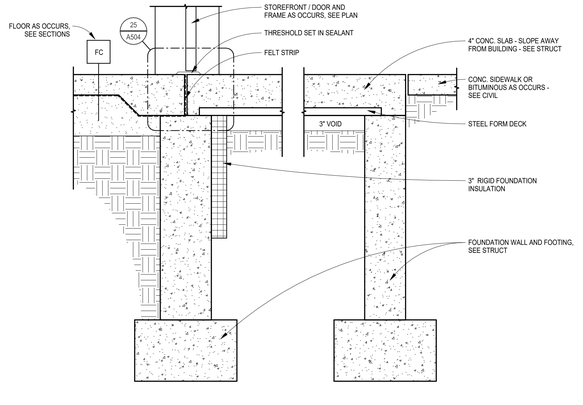
12 A508 **Retaining Wall S**

1/8" = 1'-0"



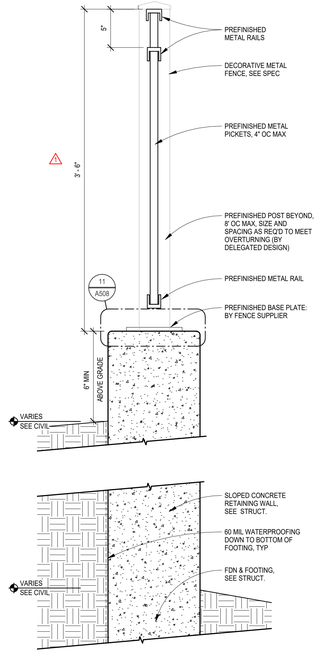
13 A508 **Retaining Wall N**

1/8" = 1'-0"



14 A508 **Section at Stoop Detail**

1" = 1'-0"



15 A508 **Section At Retaining Wall, Typ**

1 1/2" = 1'-0"

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LICENSED ARCHITECT HEIDI BRENAZ 8591 STATE OF NORTH DAKOTA
Heidi Brenaz
Date: 03/10/26

DRAWING HISTORY

NO.	DESCRIPTION	DATE
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1	Addendum #1	03/17/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HO/JT JN: 24-028

Details - Site

SHEET
A508

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DOOR SCHEDULE - LOWER LEVEL 00

Door Number	Room	Exterior Door	Door Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glazing	Door Hardware	Fire Rating	Frame Type	Frame Material	Frame Finish	Comments
Area A																
A001	TECH ED		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A002	ROBOTICS STORAGE		N	4' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		15		1	HM	PT-6	
Area B																
B000.1	COMMONS	Y	Y	6' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	36		C1	AL	-	
B001.1	ART		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		39		3	HM	PT-6	
B001.2	ART		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		40		3	HM	PT-6	
B001a	KILN		N	3' - 6"	7' - 0"	1 3/4"	F	HM	PT-6		03		1	HM	PT-6	
B001b	ART STOR		N	3' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		03		1	HM	PT-6	
B002	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
B003.1	RECEIVING		Y	6' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		45		2	HM	PT-6	
B003.2	RECEIVING	Y	-	8' - 0"	8' - 0"	2"	O.S.D.	STEEL	-		57		-	STEEL	-	
B003a	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		02		4	HM	PT-6	
B004	BLDG STORAGE		Y	6' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		20		2	HM	PT-6	
B004a	STORAGE		N	3' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		14		1	HM	PT-6	
B004b	DATA		N	3' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		15		1	HM	PT-6	
B005.1	MECHANICAL		N	3' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		46		2	HM	PT-6	
B005.2	MECHANICAL	Y	Y	6' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		50		1	HM	PT-6	
B005a	ELEC		N	3' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		47		1	HM	PT-6	
B006.1	VESTIBULE		Y	6' - 0"	7' - 0"	1 3/4"	N	HM	PT-6	GL-3	30		2	HM	PT-6	
B006.2	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	N	HM	PT-6	GL-1	34A		1	HM	PT-6	
B006.3	VESTIBULE		Y	6' - 0"	7' - 0"	1 3/4"	N	HM	PT-6	GL-3	30		2	HM	PT-6	
B008.1	SERVERY		N	14' - 0"	8' - 0"	1 1/4"	C.S.G.	ANODIZED ALUM	CLEAR		57		-	STEEL	PT-6	MOTORIZED
B008.2	SERVERY		N	14' - 0"	8' - 0"	1 1/4"	C.S.G.	ANODIZED ALUM	CLEAR		57		-	STEEL	PT-6	MOTORIZED
B008.3	SERVERY		N	14' - 0"	8' - 0"	1 1/4"	C.S.G.	ANODIZED ALUM	CLEAR		57		-	STEEL	PT-6	MOTORIZED
B009	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		5	HM	PT-6	
B010	DISH RETURN		N	4' - 8"	5' - 0"	1 1/2"	R.C.D.	ANODIZED ALUM	CLEAR		57		-	STEEL	PT-6	MOTORIZED
B011	DRY STORAGE		Y	5' - 0"	7' - 0"	1 3/4"	F	HM	PT-6		11		1	HM	PT-6	3' LEAF & 2' LEAF
B012.1	SCHOOL STORE		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	09		SP	AL	-	
B012.2	SCHOOL STORE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		09		3	HM	PT-6	
B012a	STORAGE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		14		1	HM	PT-6	
B013	STAFF WKRM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		07		1	HM	PT-6	
B014	CUST		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		17		1	HM	PT-6	
B016	RR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		12		1	HM	PT-6	
Area C																
C000.1	VESTIBULE	Y	Y	6' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	35		S17	AL	-	
C000.2	VESTIBULE		Y	6' - 0"	7' - 0"	1 3/4"	FG	HM	PT-6	GL-3	55		1	HM	PT-6	
C001	BUSINESS		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C001a	ELEC / IDF		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		15		1	HM	PT-6	
C001B	CORRIDOR		Y	8' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		28		1	HM	PT-6	
C002	ILC		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C003	SPED		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		39		3	HM	PT-6	
C004.1	ALC		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C004.2	ALC	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	33		S15	AL	-	
C005	SPED		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		39		3	HM	PT-6	
C006a	CALM		N	3' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	GL-3	01		1	HM	PT-6	
C006b	GROUP		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	01		SG	AL	-	
C007	1 SS		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C008	1 MATH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C009	2 SS		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C010	2 MATH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C011	3 SS		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C012	3 MATH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C013	4 SS		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	SEE ALTERNATE 12
C014	4 MATH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	SEE ALTERNATE 12
C015	GROUP		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	01		SH	AL	-	
Area D																
D000.1	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	33		S2	AL	-	
D000.2	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	27		S2	AL	-	
D000.3	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	27		S2	AL	-	
D000.4	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	27		S2	AL	-	
D000.5	CORRIDOR		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	32		SA	AL	-	
D000.6	CORRIDOR		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	26		SA	AL	-	
D000.7	CORRIDOR		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	26		SA	AL	-	
D000.8	CORRIDOR		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	26		SA	AL	-	
D001	PRACTICE		N	3' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	GL-3	05		1	HM	PT-6	
D002	WOMENS LOCKER ROOM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		56		1	HM	PT-6	
D002a	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	HM	PLAM-1		02		4	HM	PT-6	
D003.1	MUSIC		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		37		3	HM	PT-6	
D003.2	MUSIC		Y	6' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	GL-3	43		1	HM	PT-6	
D003a	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	GL-3	02		1	HM	PT-6	
D003b	PRACTICE		N	3' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	GL-3	06		1	HM	PT-6	
D003c	MUSIC STOR		N	3' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	GL-3	03		1	HM	PT-6	
D004	MENS LOCKER ROOM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		56		1	HM	PT-6	
D004a	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	HM	PLAM-1		02		4	HM	PT-6	
D005	CUST		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		17		1	HM	PT-6	
D006.1	INSTRUMENT STORAGE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		03		1	HM	PT-6	
D006.2	INSTRUMENT STORAGE		N	4' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	GL-3	03		1	HM	PT-6	
D007.1	CONCESSIONS		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		03		1	HM	PT-6	
D007.2	CONCESSIONS		N	5' - 0"	4' - 4"	1 1/2"	R.C.D.	STEEL	-		57		-	STEEL	-	MOTORIZED
D008	TRAINING		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		03		1	HM	PT-6	
D009.1	WEIGHT ROOM		Y	6' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	42		SR	AL	-	SEE ALTERNATE 13
D009.2	WEIGHT ROOM		Y	6' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	36		S4	AL	-	SEE ALTERNATE 13
D010.1	GYMNASIUM		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	51		SD	AL	-	
D010.2	GYMNASIUM		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	51		SD	AL	-	
D010.3	GYMNASIUM		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	51		SD	AL	-	
D010.4	GYMNASIUM		Y	6' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	52		SC	AL	-	
D010.5	GYMNASIUM		Y	6' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	52		SC	AL	-	
D010.6	GYMNASIUM		N	3' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	SLG-5	48		1	HM	PT-6	
D010.7	GYMNASIUM		Y	6' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	SLG-5	49		1	HM	PT-6	
D010a	GYM STORAGE		Y	6' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		10		1	HM	PT-6	
D010b.1	STORAGE		Y	6' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		10		1	HM	PT-6	
D010b.2	STORAGE		Y	6' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		19		1	HM	PT-6	

DOOR SCHEDULE - MAIN LEVEL 01

Door Number	Room	Exterior Door	Door Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glazing	Door Hardware	Fire Rating	Frame Type	Frame Material	Frame Finish	Comments
Area A																
A100.1	VESTIBULE	Y	Y	6' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	35		S17	AL	-	
A100.2	VESTIBULE		Y	6' - 0"	7' - 0"	1 3/4"	FG	HM	PT-6	GL-3	55		1	HM	PT-6	
A101	3RD		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A102	3RD		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A103	3RD		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A104	4TH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A105	4TH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A106	4TH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A107	SPED		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A108	FLEX/SPED		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A109a	GROUP		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	01		SG	AL	-	
A109b	CALM		N	3' - 0"	7' - 0"	1 3/4"	N	WOOD	PLAM-1	GL-3	01		1	HM	PT-6	
A109c	RR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		12		1	HM	PT-6	
A110	FLEX/SPED		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A111a	ELEC/IDF		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		16		1	HM	PT-6	
A111b	STAFF WKRM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		07		1	HM	PT-6	
A114.1	CORRIDOR		Y	8' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		28		1	HM	PT-6	
A114.2	VESTIBULE		Y	8' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		28	90 MIN.	1	HM	PT-6	
A115	STAIR 2		Y	6' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		44		1	HM	PT-6	
A117	CUST		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		17		1	HM	PT-6	
A118	SRO		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
A119.1	RECEPTION		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	31		SN	AL	-	
A119.2	RECEPTION		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		25		5	HM	PT-6	
A119a	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
A119b	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
A119c	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
A119d	NURSE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		03		1	HM	PT-6	
A119e	GROUP		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		03		3	HM	PT-6	

DOOR SCHEDULE - MAIN LEVEL 01

Door Number	Room	Exterior Door	Door Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glazing	Door Hardware	Fire Rating	Frame Type	Frame Material	Frame Finish	Comments
Area B																
B100.1	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	27		S8	AL	-	
B100.2	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	27		S8	AL	-	
B100.3	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	34		S8	AL	-	
B100.4	VESTIBULE		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	26		SM	AL	-	
B100.5	VESTIBULE		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	26		SM	AL	-	
B100.6	VESTIBULE		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	32		SM	AL	-	
B101.1	VESTIBULE		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	31		SN	AL	-	
B101.2	RECEPTION		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		25		5	HM	PT-6	
B101.3	RECEPTION		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		21		3	HM	PT-6	
B101a	CONF RM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		5	HM	PT-6	
B101b	STOR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		04		1	HM	PT-6	
B101c	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
B101d	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
B101e	RR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		12		1	HM	PT-6	
B101g	RR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		12		1	HM	PT-6	
B102.1	VESTIBULE	Y	N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-1	34		S5	AL	-	
B102.2	VESTIBULE		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	53		SL	AL	-	
B103a	CONF RM		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	02		SK	AL	-	
B103b	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
B103c	FILE STORAGE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		08		1	HM	PT-6	
B103d	OFFICE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	
B104.1	STAFF LOUNGE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		23		3	HM	PT-6	
B104.2	STAFF LOUNGE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		22		3	HM	PT-6	
B105a	MEDIA CENTER		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	01		SB	AL	-	
B106	TECH WKRM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		1	HM	PT-6	
B107	MEDIA WKRM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		1	HM	PT-6	
B108	CUSTODIAL		N	3' - 6"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		17		1	HM	PT-6	
B109	STAFF WKRM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		07		1	HM	PT-6	
B111	RR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		12		1	HM	PT-6	
Area C																
C101	HEALTH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C101a	ELEC/IDF		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		15		1	HM	PT-6	
C101b	STORAGE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		03		1	HM	PT-6	
C102.1	SCI LAB		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		41	SMOKE	1	HM	PT-6	
C102.2	SCI LAB		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		41	SMOKE	3	HM	PT-6	
C103	SCI CLASS		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		41	SMOKE	3	HM	PT-6	
C104.1	CHEM LAB		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		41	SMOKE	3	HM	PT-6	
C104.2	CHEM LAB		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		41	SMOKE	3	HM	PT-6	
C105	1 ENG		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C106	STOR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		07	SMOKE	1	HM	PT-6	
C106a	STOR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		14	SMOKE	1	HM	PT-6	
C106b	CHEM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		14	SMOKE	1	HM	PT-6	
C107	2 ENG		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C108.1	SCI LAB		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		41	SMOKE	3	HM	PT-6	
C108.2	SCI LAB		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		41	SMOKE	3	HM	PT-6	
C109	3 ENG		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
C110	GROUP		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	01		SG	AL	-	
C111	4 ENG		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	SEE ALTERNATE 12
C112	WL		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	SEE ALTERNATE 12
C113	CORRIDOR		Y	8' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		28		1	HM	PT-6	
Area E																
E100	VESTIBULE	Y	Y	6' - 0"	7' - 0"	1 3/4"	FG	HM	PT-6	GL-1	35		1	HM	PT-6	
E110	VESTIBULE		Y	6' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		28		1	HM	PT-6	
E116	CLASSROOM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
E140	RR		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		12		1	HM	PT-6	ALTERNATE 1
Area F																
F101	ADMIN		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	SLG-5	23A		SN	AL	-	ALTERNATE 1
F103	STORAGE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		03		1	HM	PT-6	ALTERNATE 1
F104	PRINCIPAL		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	ALTERNATE 1
F105	GROUP		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		3	HM	PT-6	ALTERNATE 1
F106	NURSE / QUIET		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		02		1	HM	PT-6	ALTERNATE 1

DOOR SCHEDULE - UPPER LEVEL 02

Door Number	Room	Exterior Door	Door Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glazing	Door Hardware	Fire Rating	Frame Type	Frame Material	Frame Finish	Comments
Area A																
A201	5TH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A202	6TH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A203	5TH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A204	6TH		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A205	FLEX / SPED		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A206	5TH SCIENCE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A207	SPED		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A207a	STORAGE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		04		1	HM	PT-6	
A208	6TH SCIENCE		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		13		3	HM	PT-6	
A209	GROUP		N	3' - 0"	7' - 0"	1 3/4"	FG	AL	-	GL-3	01		SG	AL	-	
A210	CUST		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		18		1	HM	PT-6	
A211a	ELEC/IDF		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		16		1	HM	PT-6	
A211b	STAFF WKRM		N	3' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		07		1	HM	PT-6	
A214	CORRIDOR		Y	8' - 0"	7' - 0"	1 3/4"	F	WOOD	PLAM-1		28		1	HM	PT-6	

GENERAL NOTES - DOORS AND FRAMES

1. ALL EXISTING DOOR AND FRAMES SHOULD BE FIELD VERIFIED WHEN AFFECTED BY NEW WORK.
2. INTERIOR HOLLOW METAL FRAMES IN CMU AND PRECAST TO BE FILLED WITH GROUT. ALL EXTERIOR HOLLOW METAL FRAMES TO BE FILLED WITH MINERAL WOOL INSULATION.
3. ALL ALUMINUM FRAMES TO BE DARK BRONZE, TYPICAL U.N.O.

GLAZING SCHEDULE

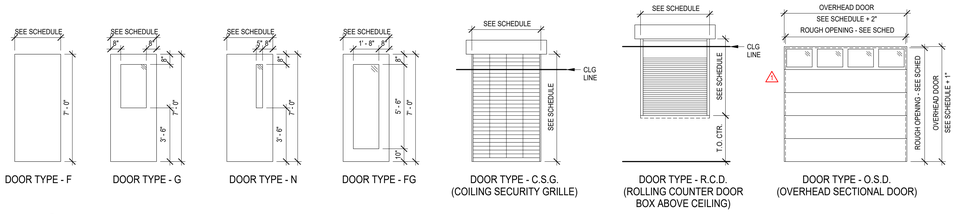
GL-1 = LOW-E, TINTED, TEMPERED, INSULATING GLASS AT EXTERIOR 1/4" GLAZING, 1/2" AIR GAP, 1/4" GLAZING

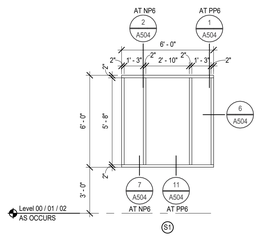
GL-2 = NOT USED

GL-3 = TEMPERED GLASS, NON-FIRE RATED AT INTERIOR 1/4" TYPICAL, 3/8" AT SPANS OVER 6', 1/2" AT SPANS OVER 8'

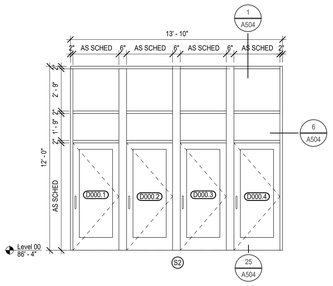
GL-4 = TRANSLUCENT INSULATED PANEL

SLG-5 = SECURITY LAMINATED GLAZING

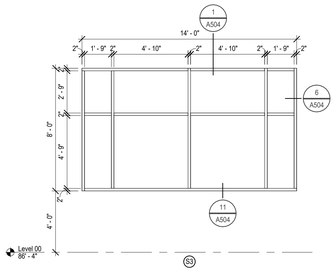

SEE SCHEDULE
7' - 0"
DOOR TYPE - F
8"
8"
3' - 8"
1' - 0"
DOOR TYPE - G
5' - 0"
3' - 8"
1' - 0"
DOOR TYPE - N
1' - 8"
5' - 6"
10"
DOOR TYPE - FG
CLG LINE
DOOR TYPE - C.S.G. (COILING SECURITY GRILLE)
1' O. CTR.
DOOR TYPE - R.C.D. (ROLLING COUNTER DOOR BOX ABOVE CEILING)
OVERHEAD



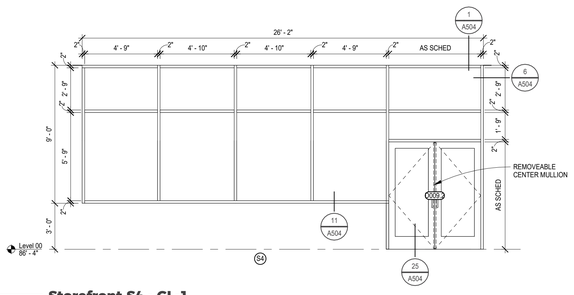
1 A603 **Storefront S1 - GL-1**
1/4" = 1'-0"



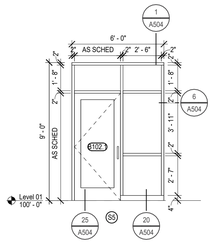
2 A603 **Storefront S2 - GL-1**
1/4" = 1'-0"



3 A603 **Storefront S3 - GL-1**
1/4" = 1'-0"



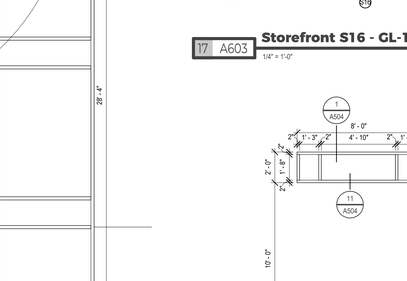
4 A603 **Storefront S4 - GL-1**
1/4" = 1'-0"



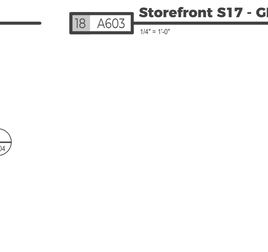
5 A603 **Storefront S5 - GL-1**
1/4" = 1'-0"

6 A603 **Storefront S6 - GL-1**
1/4" = 1'-0"

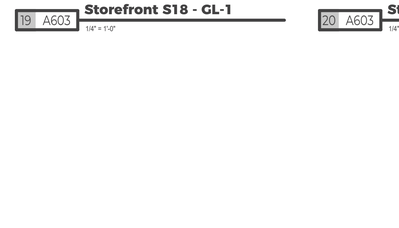
7 A603 **Storefront S7 - GL-1**
1/4" = 1'-0"



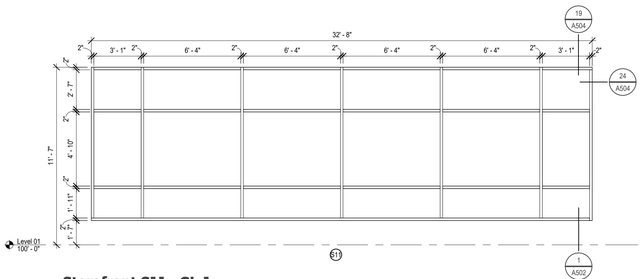
8 A603 **Storefront S8 - GL-1**
1/4" = 1'-0"



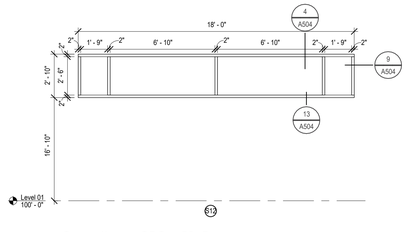
9 A603 **Storefront S9 - GL-1**
1/4" = 1'-0"



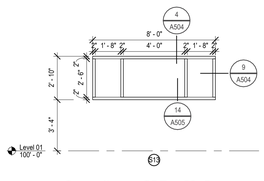
10 A603 **Storefront S10 - GL-1**
1/4" = 1'-0"



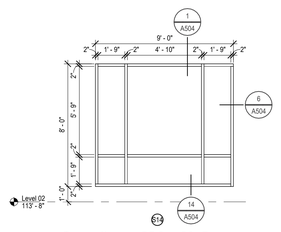
11 A603 **Storefront S11 - GL-1**
1/4" = 1'-0"



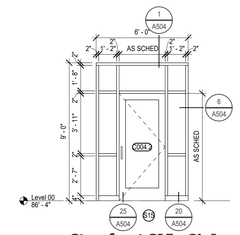
12 A603 **Storefront S12 - GL-1**
1/4" = 1'-0"



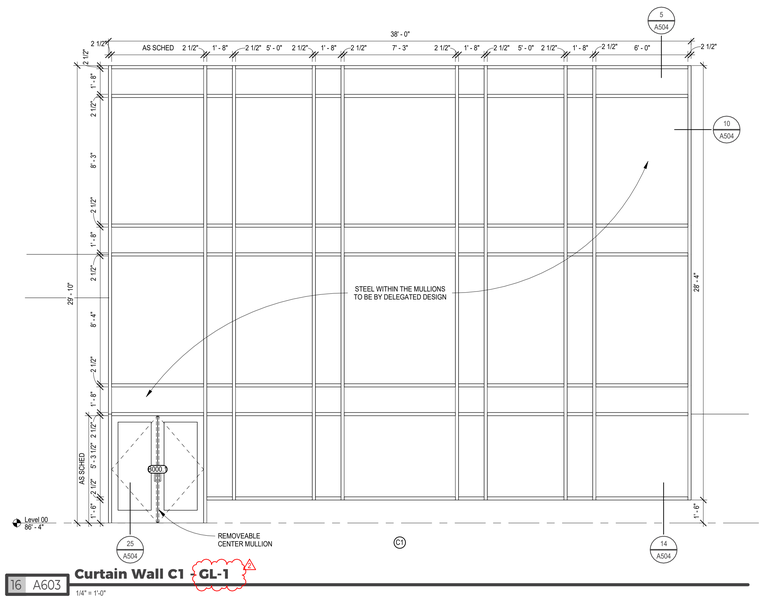
13 A603 **Storefront S13 - GL-1**
1/4" = 1'-0"



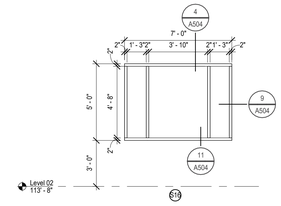
14 A603 **Storefront S14 - GL-1**
1/4" = 1'-0"



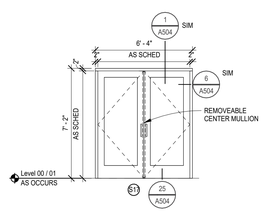
15 A603 **Storefront S15 - GL-1**
1/4" = 1'-0"



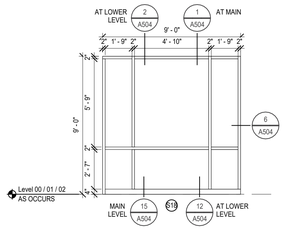
16 A603 **Curtain Wall C1 - GL-1**
1/4" = 1'-0"



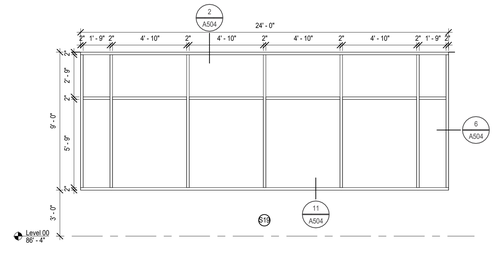
17 A603 **Storefront S16 - GL-1**
1/4" = 1'-0"



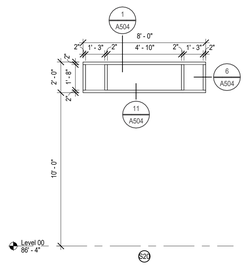
18 A603 **Storefront S17 - GL-1**
1/4" = 1'-0"



19 A603 **Storefront S18 - GL-1**
1/4" = 1'-0"



20 A603 **Storefront S19 - GL-1 - By Alt #13**
1/4" = 1'-0"



21 A603 **Storefront S20 - GL-1**
1/4" = 1'-0"

GLAZING NOTES

1. ALL EXTERIOR GLAZING GL-1 UNLESS OTHERWISE NOTED. ALL INTERIOR GLAZING GL-3 UNLESS OTHERWISE NOTED.

SYSTEM TYPES:
SEE SPEC FOR MORE INFORMATION
CURTAINWALL:
SYSTEM 1: 400T HIGH PERFORMANCE THERMAL CURTAINWALL
2-1/2" X 10 1/4", THERMAL PRESSURE PLATES, STEEL WITHIN
MULLIONS TO BE DELEGATED DESIGN, PROVIDE 1/2" SEALANT
JOINT AT SILL AND 3/4" SEALANT JOINT AT JAMBS AND HEAD

STOREFRONT:
SYSTEM 1: EXTERIOR APPLICATIONS, TU14000 SERIES
STOREFRONT 2" X 4 1/2", CENTER SET GLAZING.
SYSTEM 2: INTERIOR APPLICATIONS, INT14 SERIES STOREFRONT
2" X 4 1/2", CENTER SET GLAZING.

GLAZING SCHEDULE

GL-1 = LOW-E, TINTED, TEMPERED, INSULATING GLASS AT EXTERIOR
1/4" GLAZING, 1/2" AIR GAP, 1/4" GLAZING

GL-2 = NOT USED

GL-3 = TEMPERED GLASS, NON-FIRE RATED AT INTERIOR
1/4" TYPICAL, 3/8" AT SPANS OVER 6'; 1/2" AT SPANS OVER 8'

GL-4 = TRANSLUCENT INSULATED PANEL

SLG-5 = SECURITY LAMINATED GLAZING

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Valley City, ND 58072

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CIVIL
LOWRY ENGINEERING
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FOODSERVICE
FOODSERVICE CONCEPT DESIGN
7900 INTERNATIONAL DRIVE
SUITE 300 -7043
BLOOMINGTON, MN 55425
(612) 325.1494 OFFICE

LICENSED ARCHITECT
HEIDI L. BRUNA
(8859)
Date: 03/10/26
STATE OF NORTH DAKOTA

DRAWING HISTORY

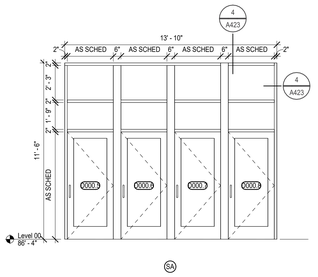
NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HO/JT JN: 24-028

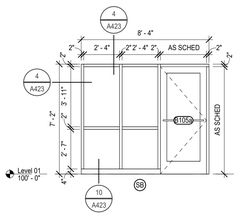
Exterior Storefront and Curtainwall Elevations

SHEET
A603

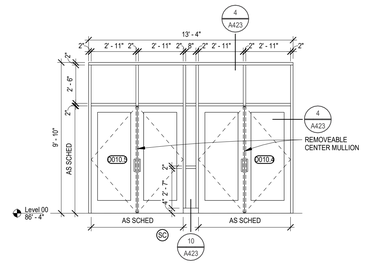
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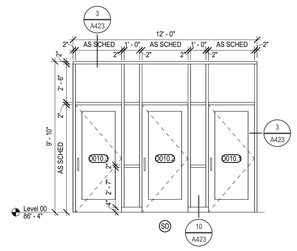
1 A604 **Int. Storefront SA - GL-3**
1/4" = 1'-0"



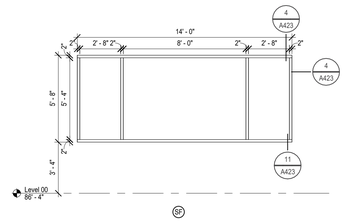
2 A604 **Int. Storefront SB - GL-3**
1/4" = 1'-0"



3 A604 **Int. Storefront SC - SLG-5**
1/4" = 1'-0"



4 A604 **Int. Storefront SD - SLG-5**
1/4" = 1'-0"



5 A604 **Int. Storefront SF - GL-3**
1/4" = 1'-0"

GLAZING NOTES

1. ALL EXTERIOR GLAZING GL-1 UNLESS OTHERWISE NOTED. ALL INTERIOR GLAZING GL-3 UNLESS OTHERWISE NOTED.

SYSTEM TYPES:
SEE SPEC FOR MORE INFORMATION
CURTAINWALL:
SYSTEM 1: 400T HIGH PERFORMANCE THERMAL CURTAINWALL 2-1/2" X 10 1/4". THERMAL PRESSURE PLATES, STEEL WITHIN MULLIONS TO BE DELEGATED DESIGN. PROVIDE 1/2" SEALANT JOINT AT SILL AND 3/4" SEALANT JOINT AT JAMBS AND HEAD

STOREFRONT:
SYSTEM 1: EXTERIOR APPLICATIONS, TU14000 SERIES STOREFRONT 2" X 4 1/2", CENTER SET GLAZING.
SYSTEM 2: INTERIOR APPLICATIONS, INT14 SERIES STOREFRONT 2" X 4 1/2", CENTER SET GLAZING.

GLAZING SCHEDULE

GL-1 = LOW-E, TINTED, TEMPERED, INSULATING GLASS AT EXTERIOR 1/4" GLAZING, 1/2" AIR GAP, 1/4" GLAZING

1 GL-2 = NOT USED

GL-3 = TEMPERED GLASS, NON-FIRE RATED AT INTERIOR 1/4" TYPICAL, 3/8" AT SPANS OVER 6', 1/2" AT SPANS OVER 8'

GL-4 = TRANSLUCENT INSULATED PANEL

SLG-5 = SECURITY LAMINATED GLAZING

6 A604 **Int. Storefront SG - GL-3** 1
1/4" = 1'-0"

7 A604 **Int. Storefront SH - GL-3**
1/4" = 1'-0"

8 A604 **Int. Storefront SJ - GL-3**
1/4" = 1'-0"

9 A604 **Int. Storefront SK - GL-3**
1/4" = 1'-0"

10 A604 **Int. Storefront SL - SLG-5**
1/4" = 1'-0"

11 A604 **Int. Storefront SM - SLG-5**
1/4" = 1'-0"

12 A604 **Int. Storefront SN - SLG-5**
1/4" = 1'-0"

13 A604 **Int. Storefront SP - GL-3**
1/4" = 1'-0"

14 A604 **Int. Storefront SQ - GL-3**
1/4" = 1'-0"

15 A604 **Int. Storefront SR - GL-3**
1/4" = 1'-0"

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BLOOMINGTON, MN 55425
(612) 325.1494 OFFICE

LICENSED ARCHITECT HEIDI BRENNAS 6551 STATE OF NORTH DAKOTA
Date: 03/10/26

DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/26
2	Addendum #2	03/24/26

DRAWN BY: AS/HO/JT JN: 24-028

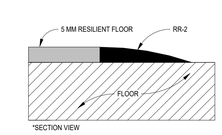
Interior Storefront Elevations

SHEET
A604

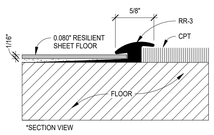
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FINISH SCHEDULE

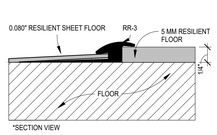
DIVISION	TYPE	MARK	MANUFACTURER	STYLE	COLOR	SIZE	INSTALLATION	GROUT / FINISH	LOCATION	COMMENTS
CONCRETE										
03 35 11	CONC-P	-	-	Polished - See Specifications	-	-	-	-	-	
03 35 11	CONC-S	-	-	Sealed - See Specifications	-	-	-	-	-	
FINISH CARPENTRY										
06 20 00	SLAT	1	Marlite	Slatwall Display	PLAM-1	4'x8' Panels, 3" OC Grooves	Mfr. Standard Trim Pieces	HPL on MDF	School Store	
06 20 00	WD	1	-	Solid Wood Handrails	Custom Stain to PLAM-1	See Spec and Detailing	Handrails	White Oak	Handrails	
06 20 00	WD	2	-	Solid Wood Butcher Block	Custom Stain to PLAM-1	See Plans and Detailing	Stair Treads, Landing, Bench	Maple	Bench & Stairs	
06 20 00	WDT	1	-	Solid Wood Trim	Custom Stain to PLAM-1	See Detailing	Trim	Red Oak	Trim around Lockers	
ARCHITECTURAL WOOD CASEWORK										
06 41 00	PLAM	1	Wilsonart	HPL I VGS	Jubilee Oak 8242	-	-	Fine Velvet - 38	Typical Cabinets	
06 41 00	PLAM	3	Wilsonart	Chemsurf	Jubilee Oak 8242	-	-	Chemical Resistant - 60	Science Room Cabinets	
06 41 00	PLAM	4	Pionite	HPL I HGS	Navy Blue SB007	-	-	Textured / Suede (SD)	Commons, Media Center	
06 41 00	PLAM	5	Nevamar	HPL I HGS	Carmen Red S-1049	-	-	Textured	Media Center	
06 41 00	TAC	2	Claridge	Tack Walls	Slate Grey	See Elevations	Adhesive	Colored Cork	Reception & Media Center Desks	
ARCHITECTURAL WOOD CASEWORK - CABINET HARDWARE										
06 41 00	CP	1	TMI	Contemporary Pull	Brushed Nickel	4" Length	-	-	Typical All Cabinets	
ARCHITECTURAL WOOD CASEWORK - TRIM										
06 41 00	MTLP	8	Fry Reglet	Corner Key	-	Verify Panel Thicknesses	Corners of Desking	Clear Anodized	See Elevations	
06 41 00	MTLP	9	Fry Reglet	Hollow Outside Corner	-	Verify Panel Thicknesses	Corners of Laminate Wainscot	Clear Anodized	See Elevations	
06 41 00	MTLP	10	Fry Reglet	1/4" Post Termination	-	Verify Panel Thicknesses	Exposed Edges of Laminate Wainscot	Clear Anodized	See Elevations	
FIBERGLASS REINFORCED PANELING										
06 68 13	FRP	1	Marlite	Symmetrix	White w/ Gray Grooves	48x96 Sheets I 12x24 Tiles	Mfr. Standard Trim Pieces; Color Matching Caulk	Smooth	Restroom Walls	
06 68 13	FRP	2	Marlite	Symmetrix	White w/ Black Grooves	48x96 Sheets I 3x12 Tiles	Mfr. Standard Trim Pieces; Color Matching Caulk	Smooth	Serving Area Walls	Class A - Indicate Where Needed
06 68 13	FRP	3	Marlite	Standard FRP	Light Gray	48x96 Sheets	Mfr. Standard Trim Pieces	Pebbled	Custodial Rooms	
06 68 13	FRP	4	Marlite	Standard FRP	White	48x96 Sheets	Mfr. Standard Trim Pieces	Pebbled	Kitchen Walls	Class A - Indicate Where Needed
06 68 13	FRP	5	Marlite	Symmetrix	Naval w/ White Grooves	48x96 Sheets I 12x24 Tiles	Mfr. Standard Trim Pieces; Color Matching Caulk	Smooth	Restroom Walls	
WOOD DOORS										
08 14 16	DR	1	See Specifications	See Specifications	PLAM-1	-	See Specifications	See Specifications	Typical PLAM Doors	
TILING										
09 30 00	T	1	Ceramiche Keope (Ceramic Tileworks)	Ublk	Greige	12" x 24"	Monolithic	G-1	Restroom Floors	
09 30 00	T	1a	Ceramiche Keope (Ceramic Tileworks)	Ublk	Greige	Mosaic	Monolithic	G-1	Showers and around drains	
09 30 00	T	1b	Ceramiche Keope (Ceramic Tileworks)	Ublk	Greige	6" x 24"	Wall Base, Cut from T-1	G-1	Restrooms	
09 30 00	T	2	VITL (Virginia Tile)	Baseline	Blue	3" x 6"	Horizontal Running	G-2	Group Sink Walls, Drinking Fountains	See Detail for PAT-1 Install
09 30 00	T	3	Daltile	Color Wheel Classic	Arctic White	3" x 6"	Horizontal Running	G-2	Group Sink Walls, Drinking Fountains	See Detail for PAT-1 Install
09 30 00	T	4	Daltile	Color Wheel Classic	Electric Blue	3" x 6"	Horizontal Running	G-2	Group Sink Walls, Drinking Fountains	See Detail for PAT-1 Install
09 30 00	T	5	Daltile	Color Wheel Classic	Currant	3" x 6"	Horizontal Running	G-2	Group Sink Walls, Drinking Fountains	See Detail for PAT-1 Install
TILING - GROUT										
09 30 00	G	1	Laticrete	See Specifications	Natural Gray	MFR. Recommendations	See Specifications	-	Restroom Floors	
09 30 00	G	2	Laticrete	See Specifications	Sterling Silver	MFR. Recommendations	See Specifications	-	Group Sink Walls, Drinking Fountains	
TILING - METAL PROFILES										
09 30 00	MTLP	1	Schluter	Jolly	-	Verify Tile Thicknesses	Exposed Edges of Tile	AT - Satin Nickel Anodized Alum..	See Finish Plans	
09 30 00	MTLP	2	Schluter	Dilex-AHK	-	Verify Tile Thicknesses	Cove Base - Tile to Tile	AT - Satin Nickel Anodized Alum.	See Finish Plans	
09 30 00	MTLP	3	Schluter	Reno-TK	-	Verify Tile Thicknesses	Floor Tile to LVT Transition	AT - Satin Nickel Anodized Alum.	See Finish Plans	
09 30 00	MTLP	4	Schluter	Dilex-AKWS	-	Verify Tile Thicknesses	Expansion and Control Joints	Classic Grey	See Specifications	
09 30 00	MTLP	5	Schluter	Reno-U	-	Verify Tile Thicknesses	Floor Tile to Concrete Transition	AT - Satin Nickel Anodized Alum.	See Finish Plans	
09 30 00	MTLP	6	Schluter	Schiene	-	Verify Tile Thicknesses	Floor Tile to Carpet Transition	AT - Satin Nickel Anodized Alum.	See Finish Plans	
09 30 00	MTLP	7	Schluter	Dilex-AHKA	-	Verify Tile Thicknesses	Cove Base - Tile to Concrete	AT - Satin Nickel Anodized Alum..	See Finish Plans	
ACOUSTICAL CEILINGS										
09 51 00	ACT	1	USG	Mars	White	24" x 24"	15/16" Grid, White	SLT Edge	Typical	
09 51 00	ACT	2	USG	Mars High NRC	White	24" x 24"	15/16" Grid, White	SLT Edge	Corridors & Stairs	0.90 NRC Requirement
09 51 00	ACT	3	USG	Kitchen Lay-In Panels	White	24" x 24"	15/16" Grid, White	SQ Edge	Kitchen	Aluminum Capped Grid
LINEAR METAL CEILINGS										
09 54 23	WDC	1	USG	Planx Universal	S16N Tan Sawn Oak	4" Modules, 3/4" Reveal	See Specifications	-	See Ceiling Plans	2" Acoustical Backer
WOOD ATHLETIC FLOORING										
09 64 66	WAF	1	Robbins	Bio Cushion 2.0 - Maple	Standard - Clear	See Specifications	See Specifications	-	Gymnasium	Vented Cove Base by Mfr (VCB-1)
RESILIENT FLOORING AND BASE										
09 65 00	LVT	1	Mohawk Group	Lineate C0089	Groove 868	9.38" x 59.38"	Herringbone	-	Corridors	
09 65 00	LVT	2	Mohawk Group	Lineate C0089	Ridged 588	9.38" x 59.38"	Herringbone	-	Corridors	
09 65 00	LVT	3	Patcraft	Linocut 1560V	Block 00750	9" x 36"	Brick	-	Admin, School Store, Music Room	
09 65 00	RB	1	Tarkett	Traditional, Cove	Gateway	4"	-	-	Typical base	
09 65 00	RB	2	Tarkett	Traditional, Cove	Gateway	6"	-	-	Receiving	
09 65 00	RR	1	Tarkett	SLT-XX-L	Gateway	1/4" to Subfloor	Slim Line Transition	-	Carpet to Concrete	
09 65 00	RR	2	Tarkett	CRS-XX-A	Gateway	1/4" to Subfloor	Reducer	-	LVT to Concrete	
09 65 00	RR	3	Tarkett	SLT-XX-C	Gateway	1/4" to 0.080" Material	Slim Line Transition	-	LVT or Carpet to Resilient Sheet Flooring	
09 65 00	RSF	1	Nora (Interface)	Noraplan Environcare	Baby Shower 7039	~49.21' x 48" Roll	Glue Down; Heat Weld	Homogeneous Rubber Sheet, Hammered	Science Rooms	
09 65 00	RSF	2	Nora (Interface)	Noraplan Environcare	Parade 7066	~49.21' x 48" Roll	Glue Down; Heat Weld	Homogeneous Rubber Sheet, Hammered	Science Room Accent	
09 65 00	RSF	3	Mannington Commercial	Entwined	Suber Lead White ETW453	9' W Roll	Glue Down	Heterogeneous Sheet	Nurse Rooms	Integral Base (INTB)
09 65 00	RSTR	1	Tarkett	Rubber Stair Tread w/ Integrated Riser	Moon Rock	Field Verify	Manufacturer's Recommendation	Hammered	All Stairs	
09 65 00	RT	1	Tarkett	Rubber Tile	Moon Rock	24" x 24"	Manufacturer's Recommendation	Hammered	Stair Landings	
RESILIENT ATHLETIC FLOORING										
09 65 66	RAF	1	Ecore	Performance Beast Plus	Blue Jays ES103	14.5 mm x 48"	Roll	Vulcanized Composition Rubber	Weight Room	
09 65 66	RR	4	Ecore	TRD-000093-A	Black	5/8" to Subfloor	Straight Line Transition	-	Weight Room	
FLUID APPLIED FLOORING										
09 67 00	FAF	1	Sherwin Williams	Hybri-Flex EC w/ 1/4" Deco Flake	Custom Mix	-	See Specifications	See Specifications	Kitchen	Integral Base (INTB)
09 67 00	FAF	2	Sherwin Williams	Poly-Crete	Custom Mix	-	See Specifications	See Specifications	Walk-In Cooler & Freezer	
09 67 00	FAF	3	Sherwin Williams	Resuflor Deco Flake BC	Custom Mix	-	See Specifications	See Specifications	Locker Rooms	Integral Base (INTB)
TILE CARPETING										
09 68 13	CPT	1	Patcraft	Pointed Twill 10712	Mohair 00575	12" x 48"	Ashlar	-	Admin	
09 68 13	CPT	2	J&J Flooring Group	Analytic Diffuse 7632	Warm Blue 3593	18" x 36"	Monolithic	-	Typical Classrooms	
09 68 13	CPT	3	J&J Flooring Group	Analytic Form 7633	Warm Blue 3593	18" x 36"	Monolithic	-	Typical Classrooms Accent	
09 68 13	CPT	4	Shaw Contract	Expression 5T674	Lapis 73486	9" x 36"	Ashlar	-	Huddle Rooms	
09 68 13	CPT	5	Shaw Contract	Symbolic 5T675	Hematite 73580	18" x 36"	Ashlar	-	Media Center	
09 68 13	WOM	1	J&J Flooring Group	Incognito 7069	Intelligence 1841	24" x 24"	Ashlar	-	Entry | See Finish Plan	
WALL COVERINGS										
09 72 00	TAC	1	Koroseal	Walltalkers Tac Wall	Deep Sea 14	48" Roll	Straight Match	Matte	Media Center	Paint Wall Prior to Install
09 72 00	VWC	1	Wolf-Gordon	Broadcloth BDC 4023	Blue Crest	52"W	MFR. Recommendations	-	See Finish Plans	
09 72 00	VWG	1	3M	U-180Cv3	Artwork Provided by Owner	See Elevations	MFR. Recommendations	5820 Matte	See Finish Plans	
09 72 00	VWG	2	Designtex	Digital Studio	Artwork Provided by Owner	50"W	MFR. Recommendations	DW13 - Suede Textured Vinyl	See Finish Plans	
ACOUSTICAL DECORATIVE PANELS										
09 84 30	SCU	1	Golterman & Sabo	Ceiling Sound Diffusers I Pyramidal	White	48" x 48"	15/16" Grid	Square Edge	Music	Alternate 5 Only
09 84 30	SWU	1	Golterman & Sabo	Acousti Panel	Maharam: Manner 466177 - Schooner 027	2" Thick | See Elevations	Z-Bar to Z-Bar	Fabric Square Edge	Commons, Music	
09 84 30	SWU	2	Golterman & Sabo	Acousti Panel	Maharam: Manner 466177 - Cruise 035	2" Thick | See Elevations	Z-Bar to Z-Bar	Fabric Square Edge	Commons, Music	
09 84 30	SWU	4	Golterman & Sabo	Acousti Panel	Maharam: Manner 466177 - Ember 011	2" Thick | See Elevations	Z-Bar to Z-Bar	Fabric Square Edge	Music	
09 84 30	SWU	5	Golterman & Sabo	Acousti-Impact Panel	Maharam: Manner 466177 - Schooner 027	2" Thick | See Elevations	Z-Bar to Z-Bar	Fabric Square Edge, Impact Resistant	Gymnasium, Practice Rooms	
09 84 30	SWU	6	Golterman & Sabo	Acousti-Impact Panel	Maharam: Manner 466177 - Cruise 035	2" Thick | See Elevations	Z-Bar to Z-Bar	Fabric Square Edge, Impact Resistant	Gymnasium	
INTERIOR PAINTING										
09 91 23	PT	1	Sherwin Williams	-	Pearly White SW 7009	-	-	See Specifications	Typical	
09 91 23	PT	2	Sherwin Williams	-	Pure White SW 7005	-	-	See Specifications	Typical Ceilings & Soffits	
09 91 23	PT	3	Benjamin Moore	-	True Blue 2066-50	-	-	See Specifications	Accent 1 (Light Blue)	Pantone 292C
09 91 23	PT	4	Benjamin Moore	-	Bold Blue 2064-10	-	-	See Specifications	Accent 2 (Navy)	Pantone 282C
09 91 23	PT	5	Benjamin Moore	-	Bonaparte CC-64	-	-	See Specifications	Accent 3 (Red)	Pantone 1807C
09 91 23	PT	6	Sherwin Williams	-	Urbane Bronze SW 7048	-	-	See Specifications	HM Frames and Doors	
09 91 23	PT	7	Sherwin Williams	-	Worldly Gray SW7043	-	-	See Specifications	Admin	
09 91 23	PT	8	Sherwin Williams	-	Custom to match existing	-	-	See Specifications	Jefferson Renovation	
09 91 23	PT-E	1	Sherwin Williams	-	Pearly White SW 7009	-	-	See Specifications	Restrooms, Kitchen, Locker Rooms	
HIGH PERFORMANCE COATINGS										
09 96 00	HPC	1	Sherwin Williams	-	Urbane Bronze SW 7048	-	-	See Specifications	Exterior Metals	
09 96 00	HPC	2	Sherwin Williams	-	Match Adjacent Metal Panel	-	-	See Specifications	Roof Ladder at Metal Panel Wall	
09 96 00	HPC	3	Sherwin Williams	-	Match Adjacent Precast	-	-	See Specifications	Roof Ladder at Precast Wall	
VISUAL DISPLAY UNITS										
10 11 00	MBD	1	Claridge	Series 1 | LCS Markerboard	No. 100 White	Varies	See Specifications	LCS Porcelain | Magnetic	Classrooms & Staff Areas	
10 11 00	TBD	1	Claridge	Edge Wrapped Tackboard	Guilford of Maine: Flannel 1685	4' x 6'	Eyelet Hangers	-	Art Room	
10 11 00	TBD	2	Claridge	Display Rail	Tan Nucork	Varies	See Specifications	Cork	Classrooms	
PLASTIC TOILET PARTITIONS										
10 21 13	TP	1	ASI	Accurate Partitions - Solid Plastic (HDPE)	Blue 9509	-	Overhead Braced	Orangepeel	Restrooms	
WALL AND DOOR PROTECTION										
10 26 00	CG	1	InPro	160 High Impact Corner Guard	White Sand 0103	2" Wing | Full Height 8'-0"	Aluminum Retainer	Rigid Vinyl	Typical Corner Guards	
10 26 00	CG	2	InPro	160 High Impact Corner Guard	Chino 0258	2" Wing | Full Height 8'-0"	Aluminum Retainer	Rigid Vinyl	Admin Corner Guards	
10 26 00	CG	3	InPro	430 Surface Mount Stainless Steel Corner Guard	-	2" Wing | Full Height 8'-0"	Adhesive	Stainless Steel	Accent Corner Guards	
METAL LOCKERS										
10 51 00	LOCK	1	Republic Storage Products	Single Tier Standard Steel Locker	True Navy 85	12x12x72	No Legs, Slope Top	Steel w/ Powder Coat Paint	Elementary Corridors	Single Tier
10 51 00	LOCK	2	Republic Storage Products	Single Tier Standard Steel Locker	Dove Gray 20	12x12x72	No Legs, Flat Top	Steel w/ Powder Coat Paint	High School Corridors	Single Tier
10 51 00	LOCK	3	Republic Storage Products	Double Tier Standard Steel Locker	Dove Gray 20	12x12x72	No Legs, Flat Top	Steel w/ Powder Coat Paint	High School Corridors	Double Tier
10 51 00	LOCK	4	Republic Storage Products	Double Tier Ventilated Locker	Dove Gray 20	12x12x72	No Legs, Flat Top	Steel w/ Powder Coat Paint	Locker Rooms	Double Tier
10 51 00	LOCK	5	Republic Storage Products	Double Tier Standard Steel Locker	Dove Gray 20	12x12x72	No Legs, Flat Top	Steel w/ Powder Coat Paint	Receiving	Double Tier
GYMNASIUM EQUIPMENT										
11 66 23	WP	1a	Porter	DuraSafe Wall Padding	See Specifications	See Elevations	See Specifications	-	Gymnasium	
11 66 23	WP	1b	Porter	DuraSafe Wall Padding	See Specifications	See Elevations	See Specifications	-	Gymnasium	
11 66 23	WP	2	Porter	DuraSafe Wall Padding	See Specifications	See Elevations	See Specifications	-	Calm Rooms	
WINDOW TREATMENTS										
12 24 00	RWS	1	Mecho Shade	Urban Shade	Soho, Light Grey	Field Verify	Manual, Inside Mount	3% Opacity	Typical	
12 24 00	RWS	2	Mecho Shade	ElectroShade Motorized Shade Systems	Soho, Light Grey	Field Verify	Motorized, Outside Mount	3% Opacity	Music Room, Weight Room	
12 24 00	RWS	3	Mecho Shade	Urban Shade	EcoGlass Blackout, Light Grey	Field Verify	Manual, Inside Mount	Blackout	Art Room	
COUNTERTOPS										
12 36 00	PLAM	2	Wilsonart	HPL	Sierra Cascade 5005	-	Countertops	Fine Velvet - 38	Typical PLAM Countertops	
12 36 00	QTZ	1	Wilsonart	Quartz Select	Clouds Rest Q4049	3cm	Countertops	-	Reception Desk	
12 36 00	SPC	1	Durcon	Solid Phenolic Compact - CR	Carbon Black	1" Thick	Countertops, Backsplashes	Chemical Resistant	Science Room Countertops	
12 36 00	SSF	1	Corian	Solid Surface	Linen	1/2"	Sills	-	Window Sills	
12 36 00	SSF	2	Corian	Solid Surface	Laguna Terrazzo	1/2"	Countertops	-	Restroom Counters	
12 36 00	SSF	3	Corian	Solid Surface	Neutral Concrete	1/2"	Countertops, Backsplashes	-	Countertops, See Plans	



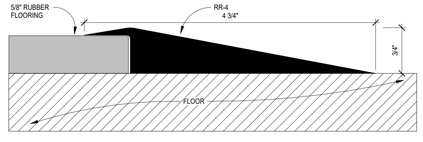
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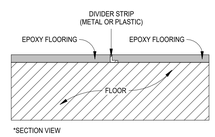


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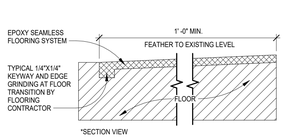


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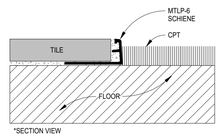




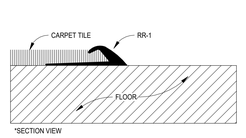
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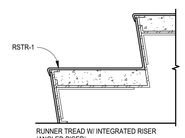
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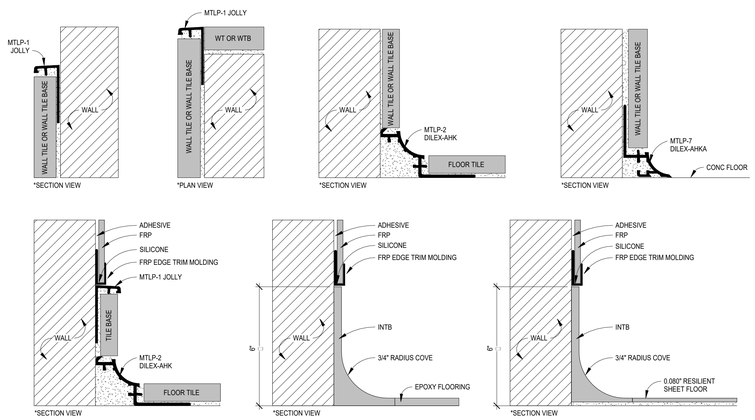
2 A610 Transition Details

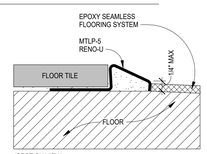
12" = 1'-0"

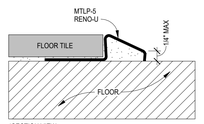


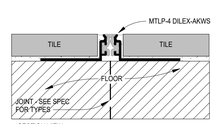
1 A610 Stair Transition Detail

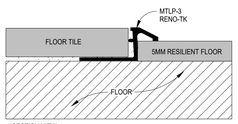
1 1/2" = 1'-0"











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GENERAL NOTES

1. ALL FINISHES TO BE INSTALLED PER MANUFACTURER RECOMMENDATIONS UNO
2. REFER TO FINISH FLOOR PLANS AND INTERIOR ELEVATIONS FOR LOCATIONS OF ALL FINISHES AND FLOORING INSTALLATION PATTERNS.
3. REFER TO REFLECTED CEILING PLANS FOR LOCATIONS OF VARIOUS CEILING TYPES AND THEIR CORRESPONDING FINISHES.

ABBREVIATIONS

ACP:	ACOUSTICAL CEILING PANEL
ACS:	ADULT CHANGING STATION
ACT:	ACOUSTICAL CEILING TILE
AWP:	ACOUSTICAL WALL PANEL
BRK:	BRICK
CG:	CORNER GUARD
CMU:	CONCRETE MASONRY UNIT
CMU-G:	CONCRETE MASONRY UNIT (GLAZED)
CMU-B:	CONCRETE MASONRY UNIT (BURNISHED)
CMU-S:	CONCRETE MASONRY UNIT (STANDARD 8"X8" SCORED)
CONC:	CONCRETE
CONC-E:	EPOXY CONCRETE
CONC-P:	POLISHED CONCRETE
CONC-S:	SEALED CONCRETE
CP:	CABINET PULL
CPT:	CARPET
CS:	CAST STONE
DR:	DOOR
EB:	EDGEBANDING
EXP:	EXPOSED
FAF:	FLUID APPLIED FLOORING
FB:	FABRIC
FRP:	FIBERGLASS REINFORCED PANEL
FRT:	FRY REGLET REVEAL TRIM
G:	GROUT
GB:	GRAB BAR
GL:	GLASS
GWB:	GYPSUM WALL BOARD
INTB:	INTEGRAL BASE
LOCK:	LOCKER
LVT:	LUXURY VINYL TILE
MBD:	MARKERBOARD
MTL:	METAL
MTLP:	METAL PROFILE TRIM
MTLP-SN:	METAL PROFILE STAIR NOSING
N:	NONE
PAT:	TILE PATTERN
PEG:	PEGBOARD
PLAM:	PLASTIC LAMINATE
PLAS:	PLASTER
PT:	PAINT
PT-E:	PAINT - EPOXY
PRF:	PREFINISHED
PWP:	PREFINISHED WALL PANEL
OWP:	OPERABLE WALL PANEL
QT:	QUARRY TILE
QTB:	QUARRY TILE BASE
QTZ:	QUARTZ
RAF:	RESILIENT ATHLETIC FLOORING
RB:	RESILIENT BASE
RN:	RESILIENT NOSING
RR:	RESILIENT REDUCER
RSF:	RESILIENT SHEET FLOORING
RST:	RESILIENT STAIR TREADS
RSTR:	RESILIENT STAIR TREADS - RISERS
RT:	RUBBER TILE
RWS:	ROLLER WINDOW SHADES
SC:	SPECIAL COATING
SCU:	SOUND-ABSORBING CEILING UNIT
SDT:	STATIC DISSIPATIVE TILE
SLAT:	SLAT WALL
SLT:	SLATE
SLT-T:	SLATE TILE
SPC:	SOLID PHENOLIC COMPACT
SS:	STAINLESS STEEL
SSF:	SOLID SURFACE
ST:	STONE
STN:	STAIN
SWU:	SOUND-ABSORBING WALL UNIT
T:	TILE
TAC:	TACKABLE WALL COVERING
TB:	TACKBOARD
TBWP:	TRAFFIC BEARING WATER PROOFING
TP:	TOILET PARTITION
VCB:	VENTED COVE BASE
VCT:	VINYL COMPOSITION TILE
VWC:	VINYL WALL COVERING
VWG:	VINYL WALL GRAPHIC
WAF:	WOOD ATHLETIC FLOORING
WD:	WOOD
WDC:	WOOD CEILING
WDT:	WOOD TRIM
WOM:	WALK-OFF MAT
WP:	WALL PADDING
WT:	WINDOW TREATMENT
WWC:	WOOD WALL COVERING

Valley City Public Schools - New School

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LICENSED ARCHITECT HEIDI BRENNA 8551 STATE OF NORTH DAKOTA
Heidi Brenna
Date: 03/10/26

DRAWING HISTORY

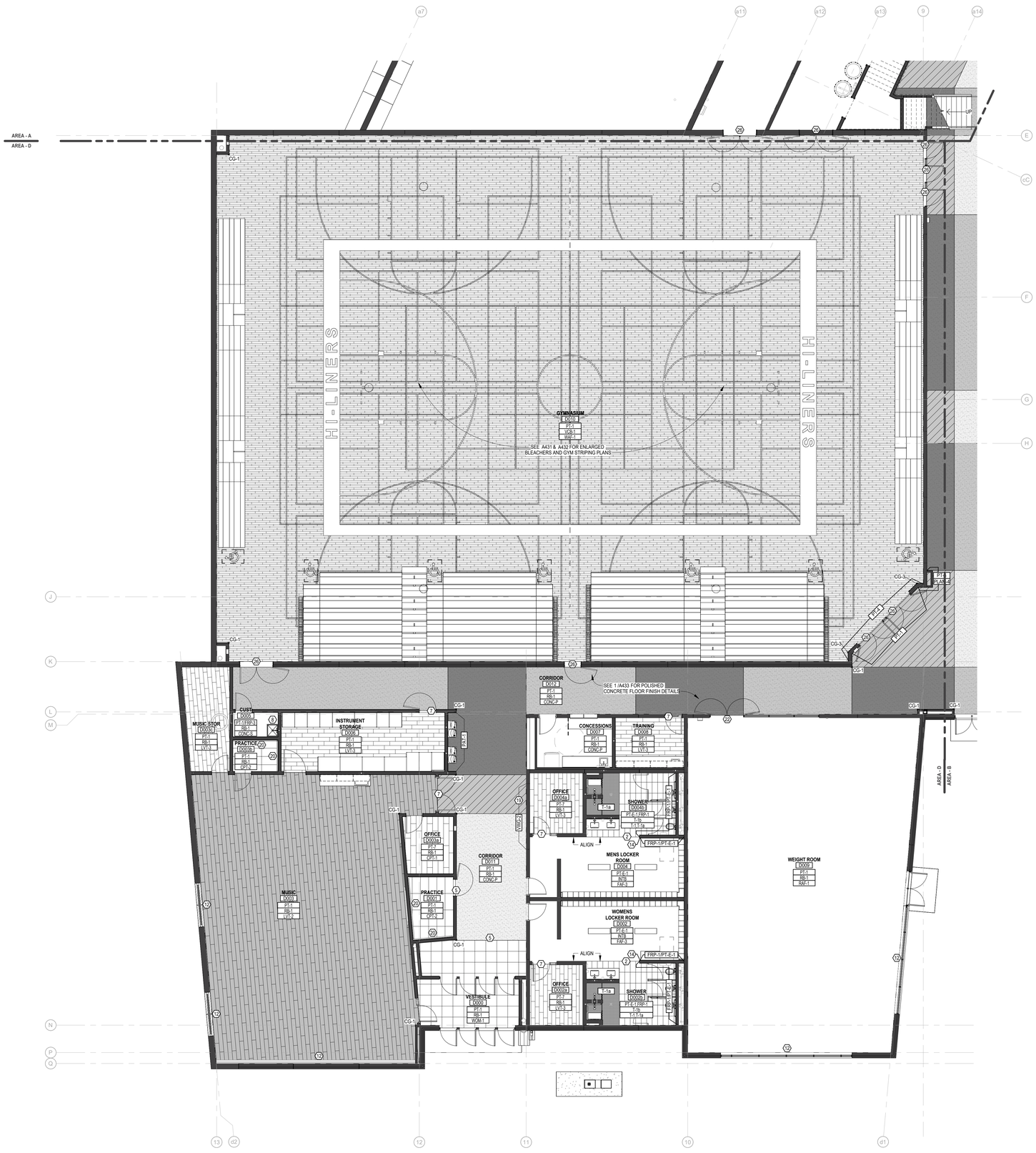
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Finish Schedule

SHEET
A610

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1 A700D **Lower Level 00 Finish Plan - Area D**
1/8" = 1'-0"

TN
NORTH

GENERAL NOTES - FINISH PLANS

1. CORNER GUARDS ON ALL EXPOSED GYP CORNERS. ALL CORNER GUARDS (CG) TO BE CG-1 U.N.O.
2. SEE ENLARGED PLANS AND INTERIOR ELEVATIONS FOR WALL TILE LOCATIONS, HEIGHTS AND INSTALLATION PATTERNS
3. SEE REFLECTED CEILING PLAN FOR CEILING HEIGHT AND FINISH SCHEDULE FOR FINISH
4. FLOOR FINISH PATTERNS REPRESENTATIONAL FOR INSTALL PATTERN AND DIRECTION ONLY. REFER TO FINISH SCHEDULE FOR EXACT SIZE.
5. REFER TO DOOR SCHEDULE FOR DOOR AND FRAME FINISHES
6. FLOORING TRANSITIONS AT THRESHOLDS TO BE AT THE CENTER OF THE DOOR U.N.O.
7. FLOORING PATTERNS WITHIN ROOMS TO BE CENTERED WITH MINIMAL SLIVERS U.N.O.

FINISH LEGEND:

Room Name D 101 Wall Finish Base Finish Floor Finish	ROOM TAG W/ ROOM FINISH INFO AT PLANS (NOT ALL MAY BE SHOWN)
WALL FINISH	ACCENT WALL FINISH LOCATION
FLOOR FINISH	ACCENT FLOOR FINISH LOCATION
WALL FINISH BASE FINISH	ACCENT OR PARTIAL WALL AND BASE FINISH LOCATIONS

KEYNOTES - FINISH PLAN

(#)

2 MTLP-5 AT FLOOR TILE TO CONC. TRANSITION
5 RR-1 AT CPT TO CONC. TRANSITION
7 RR-2 AT RESILIENT FLOOR TO CONC. TRANSITION
12 RWS-2 (MOTORIZED) W/ SSF-1 SILL
14 STOP FRP AND/OR BASE HERE W/ TRIM PIECES AS REQUIRED.
19 FINISH WALL W/ LEVEL 5 FINISH FOR VINYL WALL GRAPHIC INSTALLATION AS OCCURS OR FUTURE. PRECAST LOCATIONS TO HAVE SEAMS FILLED AND PREPPED FOR FLAT, SMOOTH WALL.
20 4'-0" HIGH BAND OF ACOUSTIC PANELS AT 3'-0" AFF, SEE ELEVS.
22 RR-4 AT RAF TO CONC. TRANSITION
26 METAL THRESHOLD AT WOOD FLOOR TO CONC. TRANSITION, SEE DETAIL WA424

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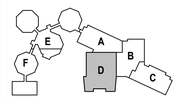
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LICENSED ARCHITECT 18591 REGISTERED STATE OF NORTH DAKOTA
Date 03/10/26

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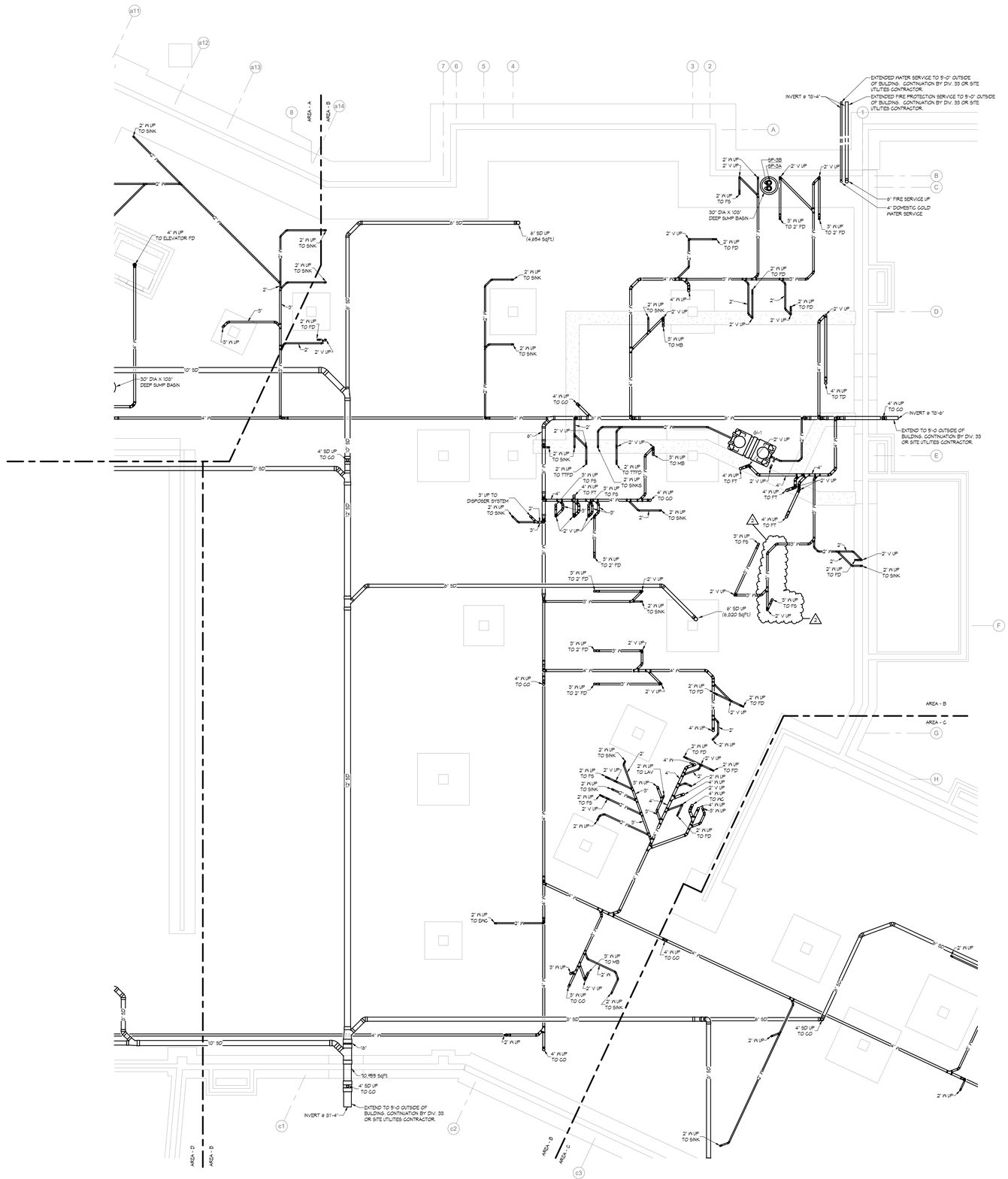
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Lower Level 00 Finish Plan - Area D

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1 BFF LOWER LEVEL SEGMENT - B - PLUMBING

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

NORTH

PLUMBING FIXTURE ROUGH-IN CONNECTION SCHEDULE				
FIXTURE	WASTE	VENT	CW	HW
WALL HYDRANT	-	-	3/4"	-
CLEANOUT	4"	-	-	-
FLOOR DRAIN	2"	2"	-	-
FLOOR SINK	2"	2"	-	-
LAVATORY	2"	2"	1/2"	1/2"
WATER CLOSET (FV)	4"	2"	1"	-
URINAL	2"	2"	3/4"	-
SHOWER	2"	2"	3/4"	3/4"
EMERG. EYE WASH/SHOWER	2"	2"	1"	1"
SINK	2"	2"	1/2"	1/2"
DVG	2"	2"	1/2"	-
MIXING VALVE	-	-	3/4"	3/4"
MOP BASIN	3"	2"	3/4"	3/4"
HOSE BIBB	-	-	3/4"	-
WASH MACHINE TRIM	2"	2"	3/4"	3/4"

NOTES:
1. SIZE SHALL BE AS SCHEDULED UNLESS OTHERWISE NOTED

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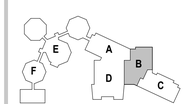
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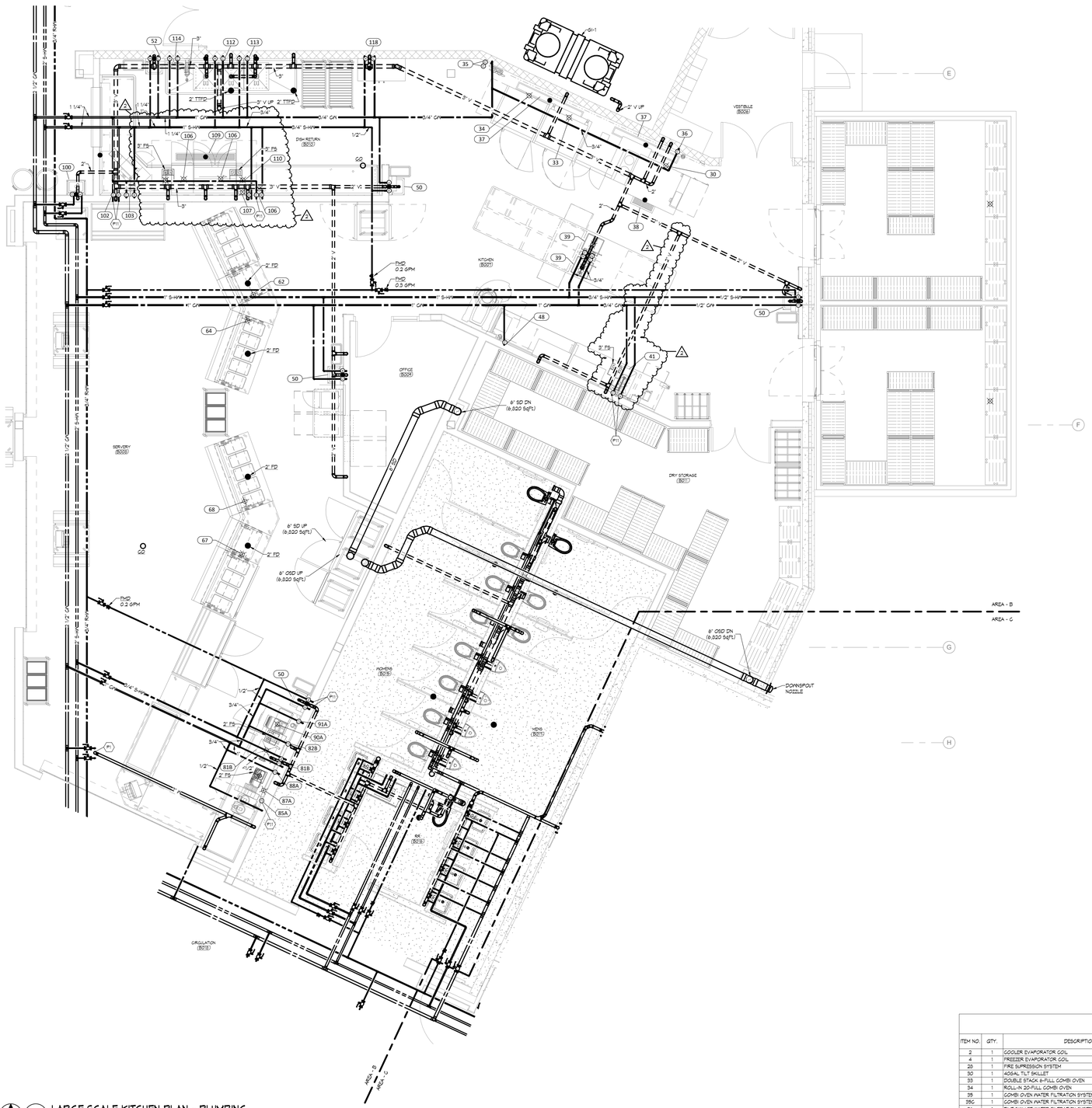
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FOUNDATION SEGMENT B - PLUMBING

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1 LARGE SCALE KITCHEN PLAN - PLUMBING
SCALE: 1/4" = 1'-0"

SHEET NOTES

P1 1/2" CW/S-HW, 2" V UP TO SINK.
P11 PROVIDE BACKFLOW PREVENTION DEVICE IN ACCORDANCE WITH PLUMBING CODE.

PLUMBING FIXTURE ROUGH-IN CONNECTION SCHEDULE

FIXTURE	WASTE	VENT	CW	HW
WALL HYDRANT	-	-	3/4"	-
CLEANOUT	4"	-	-	-
FLOOR DRAIN	2"	2"	-	-
FLOOR SINK	2"	2"	-	-
LAVATORY	2"	2"	1/2"	1/2"
WATER CLOSET (FV)	4"	2"	1"	-
URINAL	2"	2"	3/4"	-
SHOWER	2"	2"	3/4"	3/4"
EMERG. EYE WASH/SHOWER	2"	2"	1"	1"
SINK	2"	2"	1/2"	1/2"
EWC	2"	2"	1/2"	-
MIXING VALVE	-	-	3/4"	3/4"
MOP BASIN	3"	2"	3/4"	3/4"
HOSE BIBB	-	-	3/4"	-
WASH MACHINE TRIM	2"	2"	3/4"	3/4"

NOTES:
1. SIZE SHALL BE AS SCHEDULED UNLESS OTHERWISE NOTED

FOODSERVICE EQUIPMENT PLUMBING ROUGH-IN SCHEDULE1

ITEM NO.	QTY.	DESCRIPTION	COLD WATER		HOT WATER		FILTERED WATER		DIRECT WASTE		INDIRECT WASTE		PLUMBING REMARKS
			SIZE	R.I. HEIGHT	SIZE	R.I. HEIGHT	SIZE	R.I. HEIGHT	SIZE	R.I. HEIGHT	SIZE	TAG NO.	
2	1	GOOLER EVAPORATOR COIL									3/4"	FS / P-1	PLUMBING NOTE 2, 14, 20
4	1	FREEZER EVAPORATOR COIL									3/4"	FS / P-1	PLUMBING NOTE 2, 14, 20
20	1	FIRE SUPPRESSION SYSTEM											PLUMBING NOTE 21
30	1	ADAMI TILT SKILLET					3/4"				2"	#3T	PLUMBING NOTE 2, 9; FILTERED CW FROM #36
33	1	DOUBLE STACK 6-FULL COMBI OVEN					3/4"				2"	#3T	PLUMBING NOTE 2, 9; FILTERED CW FROM #35
34	1	ROLL-IN 20-FULL COMBI OVEN					3/4"				2"	#3T	PLUMBING NOTE 2, 9; FILTERED CW FROM #35
35	1	COMBI OVEN WATER FILTRATION SYSTEM	3/4"	72"									PLUMBING NOTE 4, 9, 10
35G	1	COMBI OVEN WATER FILTRATION SYSTEM	3/4"	72"									PLUMBING NOTE 4, 9, 10
36	1	TILT SKILLET WATER FILTRATION SYSTEM	3/4"	42"									PLUMBING NOTE 4, 9, 10
37	2	72" X 3' 5" FLOOR TROUGH							4"	+4"			PLUMBING NOTE 1, 7
38	1	24" X 18" ANTI-SPLASH FLOOR TROUGH							4"	+4"			PLUMBING NOTE 1
39	1	207" X 45" ISLAND PREP TABLE	1/2"	18"	1/2"	18"					1 1/2"	FS / P-2	PLUMBING NOTE 2, 4, 5, 9
41	1	PRE-RINSE WITH ULTRAWISE ADD-ON FAUCET	1/2"	18"	1/2"	18"							PLUMBING NOTE 4, 9
43	1	2 HP DISPOSER	1/2"						2"	10"			PLUMBING NOTE 1, 4, 9, 13; TEE CW FROM #41
45	1	WATER METER					1/2"	72"					PLUMBING NOTE 4, 9; CW THROUGH WATER FILTER
50	4	HANDSINK WITH KNEE APRON	1/2"	24"	1/2"	24"			1 1/2"	22"			PLUMBING NOTE 1, 6, 9
52	1	HANDSINK WITH KNEE APRON & EYE WASH STATION	1/2"	24"	1/2"	24"			1 1/2"	22"			PLUMBING NOTE 1, 6, 9
62	1	32" 2-WELL COLD FOOD SERVING COUNTER									1"	FD / P-3	PLUMBING NOTE 2
64	1	74" 5-WELL SALAD SERVING COUNTER									1"	FD / P-4	PLUMBING NOTE 2
67	1	32" 2-WELL COLD FOOD SERVING COUNTER									1"	FD / P-6	PLUMBING NOTE 2
68	1	74" 5-WELL SALAD SERVING COUNTER									1"	FD / P-5	PLUMBING NOTE 2
81B	1	BEVERAGE COUNTER WITH DUMP SINK	1/2"	18"	1/2"	18"	1/2"		1 1/2"	12"	1"	FS / P-7	PLUMBING NOTE 2, 4, 6, 9; FILTERED CW FROM #82A
82A	1	DISPENSER WATER FILTER SYSTEM	1/2"	18"									PLUMBING NOTE 4, 9, 10
84A	1	COFFEE/TEA BREWER					1/4"						PLUMBING NOTE 9, 10; FILTERED CW FROM #85A
85A	1	COFFEE WATER FILTER SYSTEM	1/2"	47"									PLUMBING NOTE 2, 4, 9, 10
87A	1	UNDERCOUNTER ICE MACHINE					3/8"				3/4"	FS / P-8	PLUMBING NOTE 2, 9, 10; FILTERED CW FROM #88A
88A	1	ICE WATER FILTER SYSTEM	3/8"	18"									PLUMBING NOTE 4, 9, 10
90A	1	ESPRESSO CAPPUCCINO MACHINE					1/2"				2"	HFS / P-7	PLUMBING NOTE 2, 9, 10; FILTERED CW FROM #91A
91A	1	ESPRESSO WATER FILTER SYSTEM	1/2"	47"									PLUMBING NOTE 4, 9, 10
100	1	PEDESTAL DUMP SINK	1/2"	24"	1/2"	24"			3 1/2"	22"			PLUMBING NOTE 1, 6, 9; MIXING VALVE
101	1	72" X 121" L-SHAPED SOILED DISHTABLE									3/4"	HFS / P-10	PLUMBING NOTE 2
102	1	DISPOSAL SYSTEM	1/2"	18"	1/2"	18"			3"	10"			PLUMBING NOTE 1, 4, 9, 13
103	1	PRE-RINSE WITH ADD-ON FAUCET	1/2"	18"	1/2"	18"							PLUMBING NOTE 4, 9
106	1	CONVEYOR TYPE DISHMACHINE	3/4"	18"	3/4"	18"					2"	HFS / P-10 & 9	PLUMBING NOTE 2, 4, 9, 13, 15, 16, 17, 18
107	1	CONDENSATE HOOD									1"	HFS / P-9	PLUMBING NOTE 2
109	1	72" X 3' FLOOR TROUGH							4"	+4"			PLUMBING NOTE 1
110	1	144" ROLLER CLEAN DISHTABLE									1/2"	HFS / P-9	PLUMBING NOTE 2
112	1	139" 3-COMPARTMENT SINK	3/4"	18"	3/4"	18"			2"	12"		TTFD / P-11	PLUMBING NOTE 1, 4, 9
113	1	PRE-RINSE FAUCET WITH ADD-ON FAUCET	1/2"	18"	1/2"	18"							PLUMBING NOTE 4, 9
114	1	HOSE REEL ASSEMBLY	3/8"	47"	3/8"	47"							PLUMBING NOTE 4, 9, 12
118	1	MOP SINK CABINET	1/2"	36"	1/2"	36"			3 1/2"	0"			PLUMBING NOTE 1, 4, 9

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LARGE SCALE KITCHEN PLAN - PLUMBING

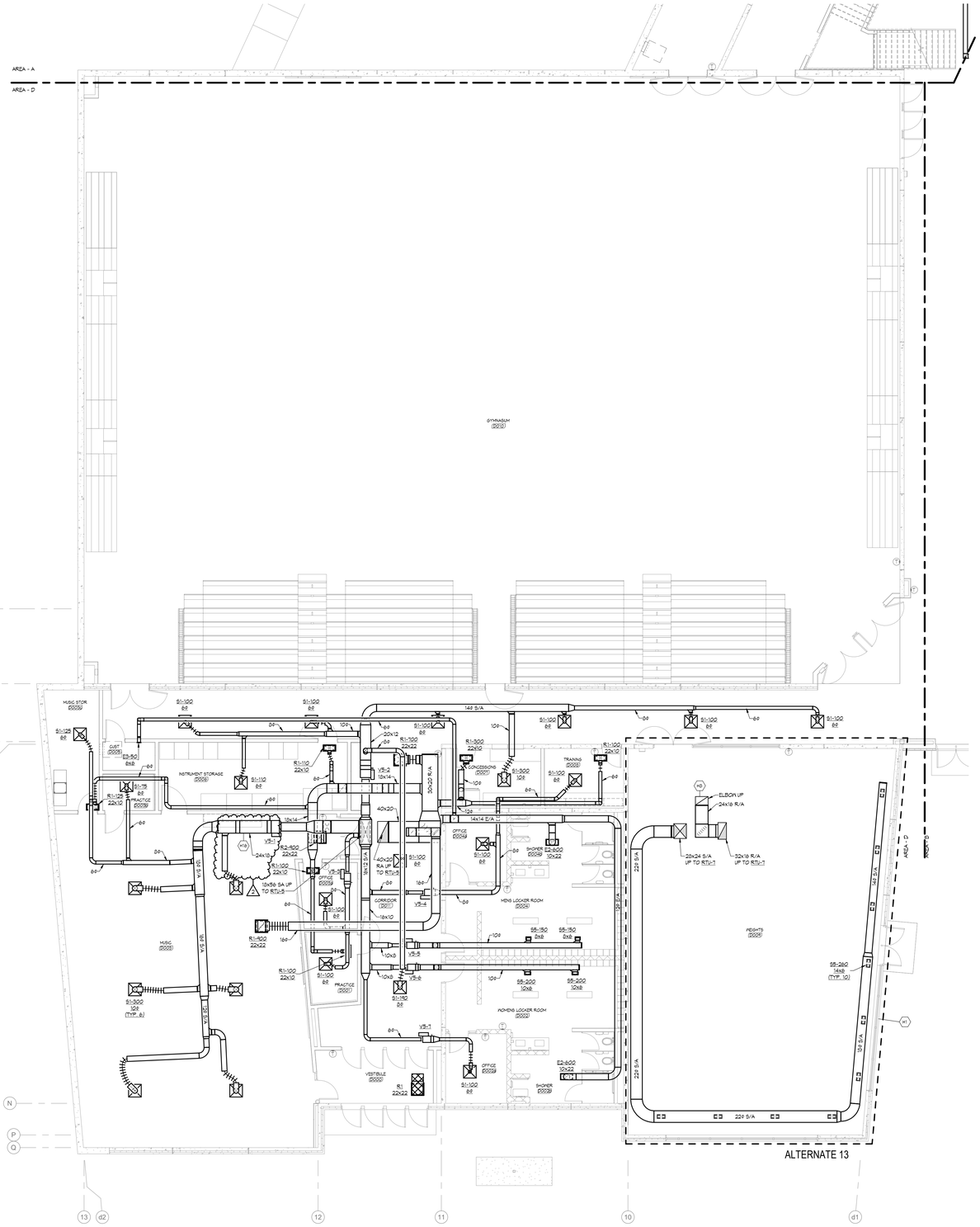
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SHEET NOTES

H1 ALL WORK IN THIS AREA TO BE INSTALLED UNDER BASE BID. UNDER DEDUCT ALT. 13 ALL WORK IN THIS AREA TO BE REMOVED.

H2 SEE NOTE 3 ON VARIABLE AIR VOLUME UNIT SCHEDULE



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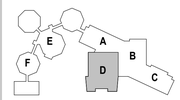
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LOWER LEVEL SEGMENT D - HVAC

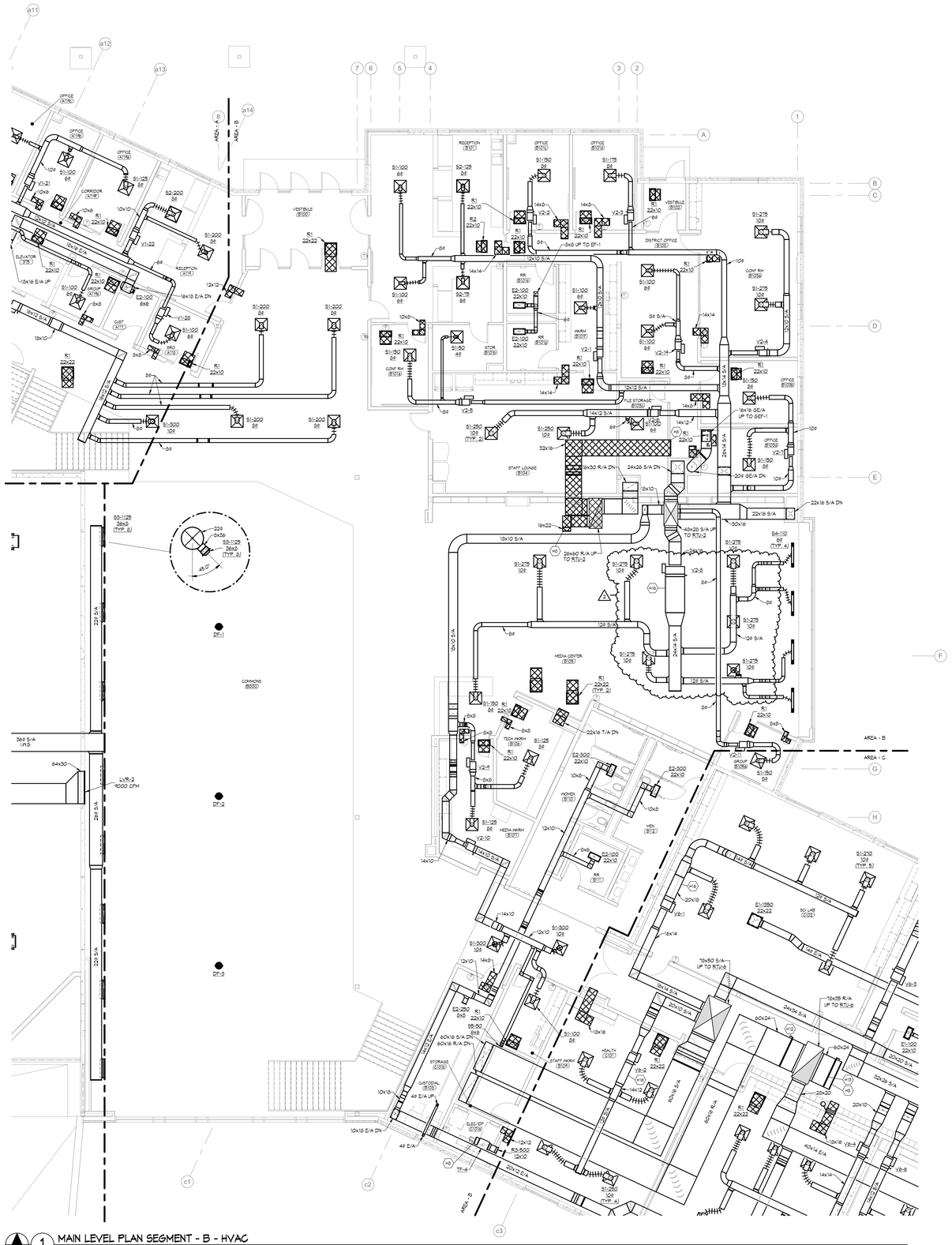
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1 LOWER LEVEL PLAN SEGMENT - D - HVAC
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SHEET NOTES

H5 WIRE MESH TO COVER DUCT OPENING
H12 BALANCE DAMPER TO 13,700 CFM
H13 BALANCE DAMPER TO 12,900 CFM
H18 SEE NOTE 3 ON VARIABLE AIR VOLUME UNIT SCHEDULE



1 MAIN LEVEL PLAN SEGMENT - B - HVAC
SCALE: 1/8" = 1'-0"

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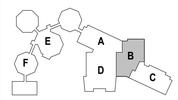
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MAIN LEVEL SEGMENT B - HVAC

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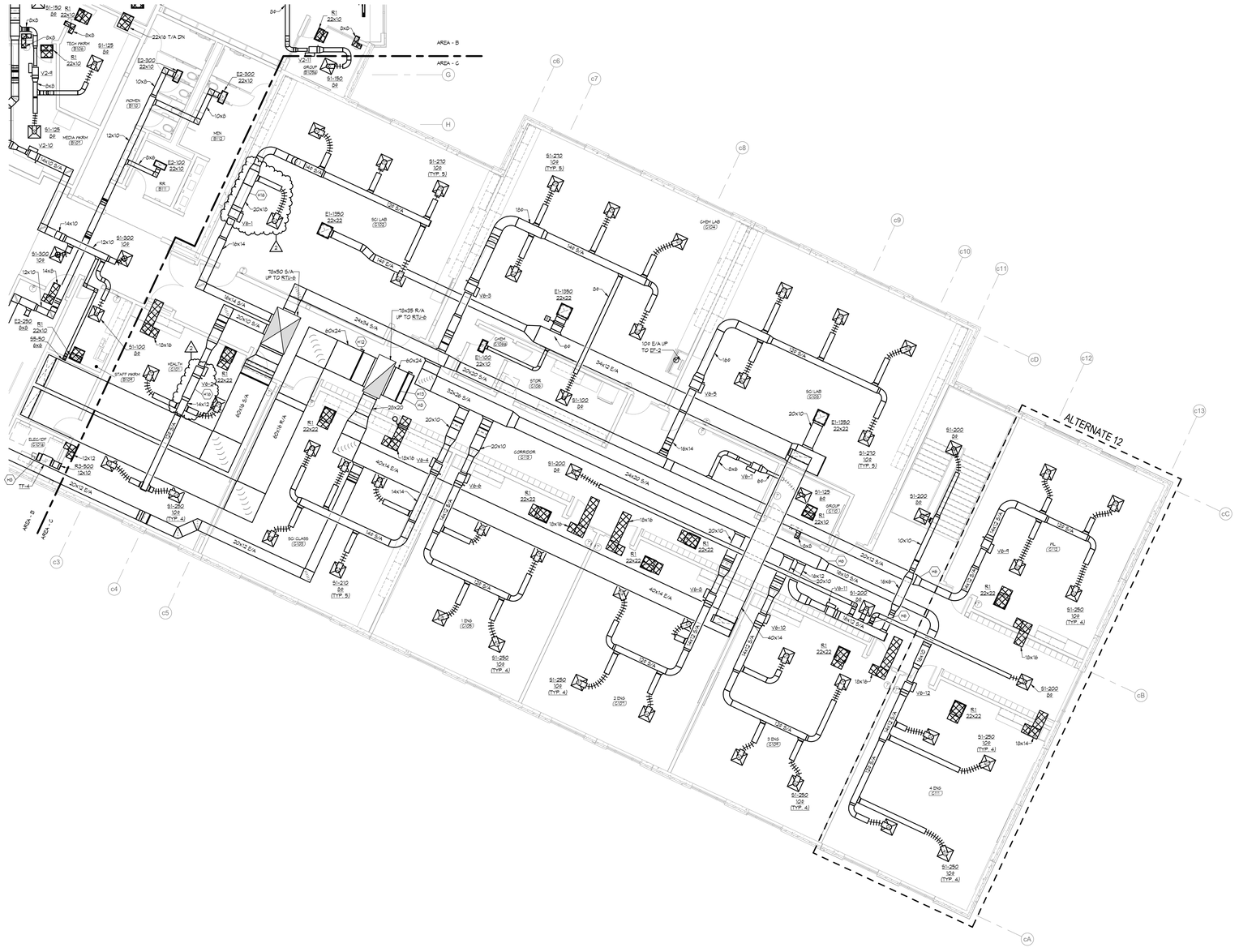
H6 DUCTWORK TO BE CAPPED HERE IF ALTERNATE 12 IS NOT ACCEPTED

H5 WIRE MESH TO COVER DUCT OPENING

H12 BALANCE DAMPER TO 13,100 CFM

~~H13 BALANCE DAMPER TO 2,300 CFM~~

H18 SEE NOTE 3 ON VARIABLE AIR VOLUME UNIT SCHEDULE



1 MAIN LEVEL PLAN - HVAC-AREA C

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

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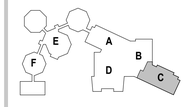
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2	ADDENDUM #2	03/24/2026

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MAIN LEVEL SEGMENT C - HVAC

SHEET

M301C

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1 UPPER LEVEL PLAN SEGMENT - A - HVAC

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

NORTH

SHEET NOTES

H5 WIRE MESH TO COVER DUCT OPENING
H9 BALANCE DAMPER TO 12,000 CFM
H10 BALANCE DAMPER TO 8,325 CFM
H18 BALANCE DAMPER TO 2,625 CFM
H19 SEE NOTE 3 ON VARIABLE AIR VOLUME UNIT SCHEDULE

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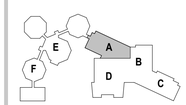
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UPPER LEVEL SEGMENT A - HVAC

SHEET
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GENERAL NOTES

A. REFER TO ELECTRICAL RISER DIAGRAM FOR ALL INFORMATION CONCERNING THE ELECTRICAL SERVICE.

SHEET NOTES

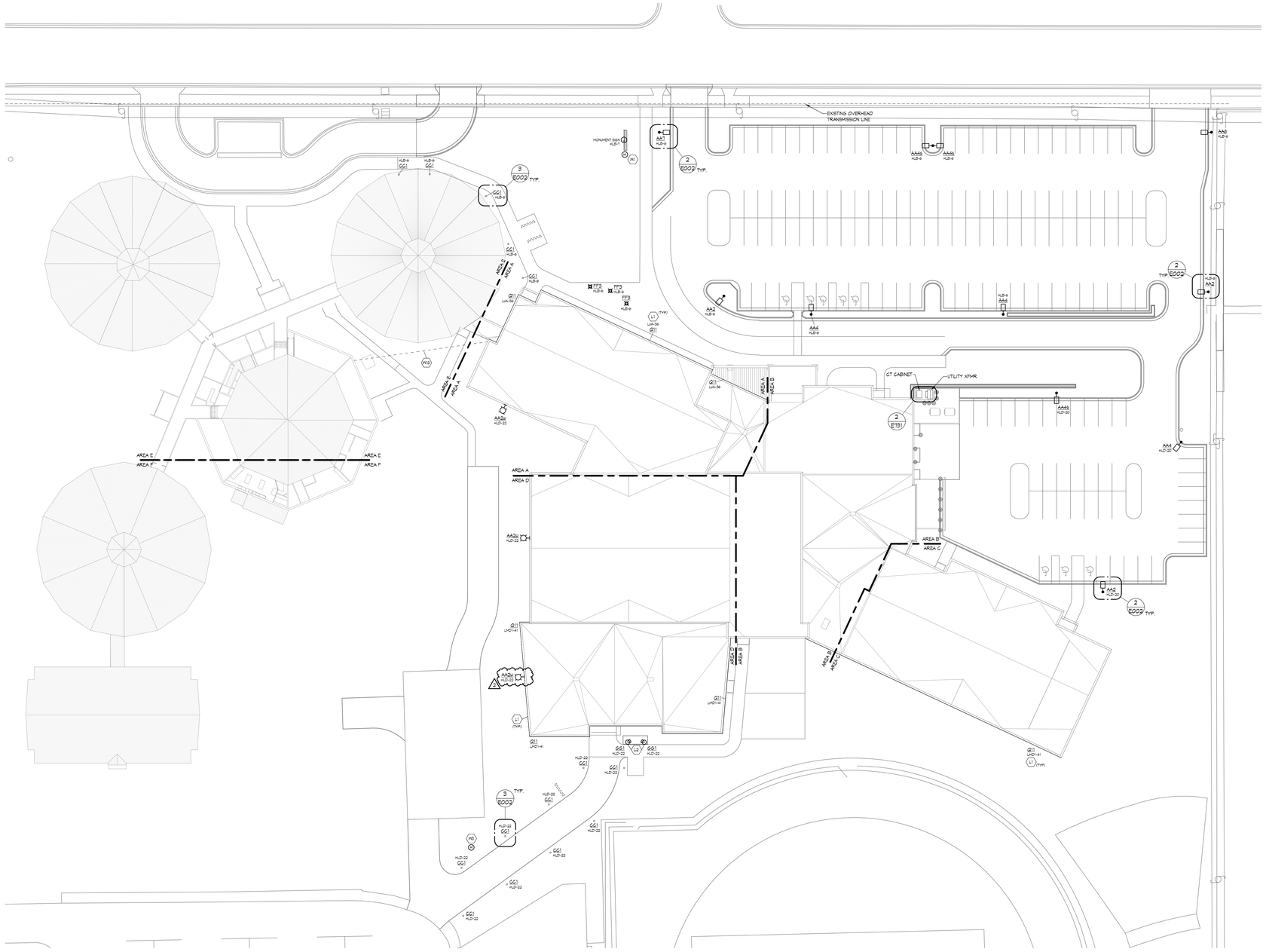
L1 PROVIDE UNDER ALTERNATE 1. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

L2 PROVIDE UNDER ALTERNATE 2. FIXTURES ARE TO BE MOUNTED TO BASE OF MONUMENT SIGN. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. E.G. TO ADJUST FIXTURE AIMPOINT AS DIRECTED BY ARCHITECT.

M1 PROVIDE 277V POWER TO MONUMENT SIGN LIGHTING IN 1-1/2" CONDUIT. PROVIDE (2) ADDITIONAL 1-1/2" CONDUITS FOR FUTURE USE AND ROUTE BACK TO ELECTRICAL ROOM B005a.

M2 PROVIDE (2) 1-1/2" CONDUIT TO THIS LOCATION FOR FUTURE MONUMENT SIGN.

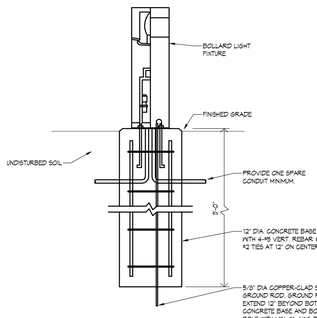
M3 UNDERGROUND ROUTING OF JEFFERSON ELEMENTARY ELECTRICAL SERVICE BACKFEED FROM NEW SERVICE ENTRANCE SWITCHBOARD. REFER TO ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.



1 SITE PLAN - ELECTRICAL
SCALE: 1" = 30'-0"

LIGHT POLE BASE DETAIL NOTES:

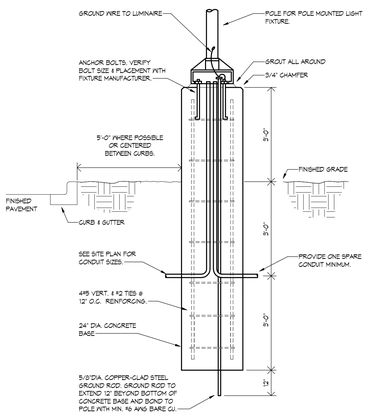
A. SEE SITE PLAN FOR LOCATIONS AND QUANTITY.
B. PROVIDE SPARE 1-1/2" PVC FROM EACH BOLLARD BASE.
C. CONCRETE BASE PROVIDED BY E.C.
D. SEE LUMINARES, GROUNDING AND BONDING SPECIFICATION SECTIONS.



3 FLUSH GRADE BOLLARD BASE DETAIL
SCALE: NTS

LIGHT POLE BASE DETAIL NOTES:

A. SEE SITE PLAN FOR LOCATIONS AND QUANTITY.
B. PROVIDE 6'-0" OF COILED WIRE AT TOP OF EACH BASE.
C. PROVIDE SPARE 1-1/2" PVC FROM EACH BASE.
D. CONCRETE BASE PROVIDED BY E.C.
E. SEE LUMINARES, GROUNDING AND BONDING SPECIFICATION SECTIONS.
F. PROVIDE VIBRATION DAMPENERS FOR ALL POLES/POSTS.
G. ALL POLE/POSTS SHALL HAVE HANDHOLES NEAR BASE.



2 LIGHT POLE BASE DETAIL - 3'-0" BASE
SCALE: NTS

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PE - 27743
DATE 03/10/2026
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	CONSTRUCTION DOCUMENTS	03/10/2026
1	ADDENDUM #1	03/17/2026
2	ADDENDUM #2	03/24/2026

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SITE PLAN - ELECTRICAL

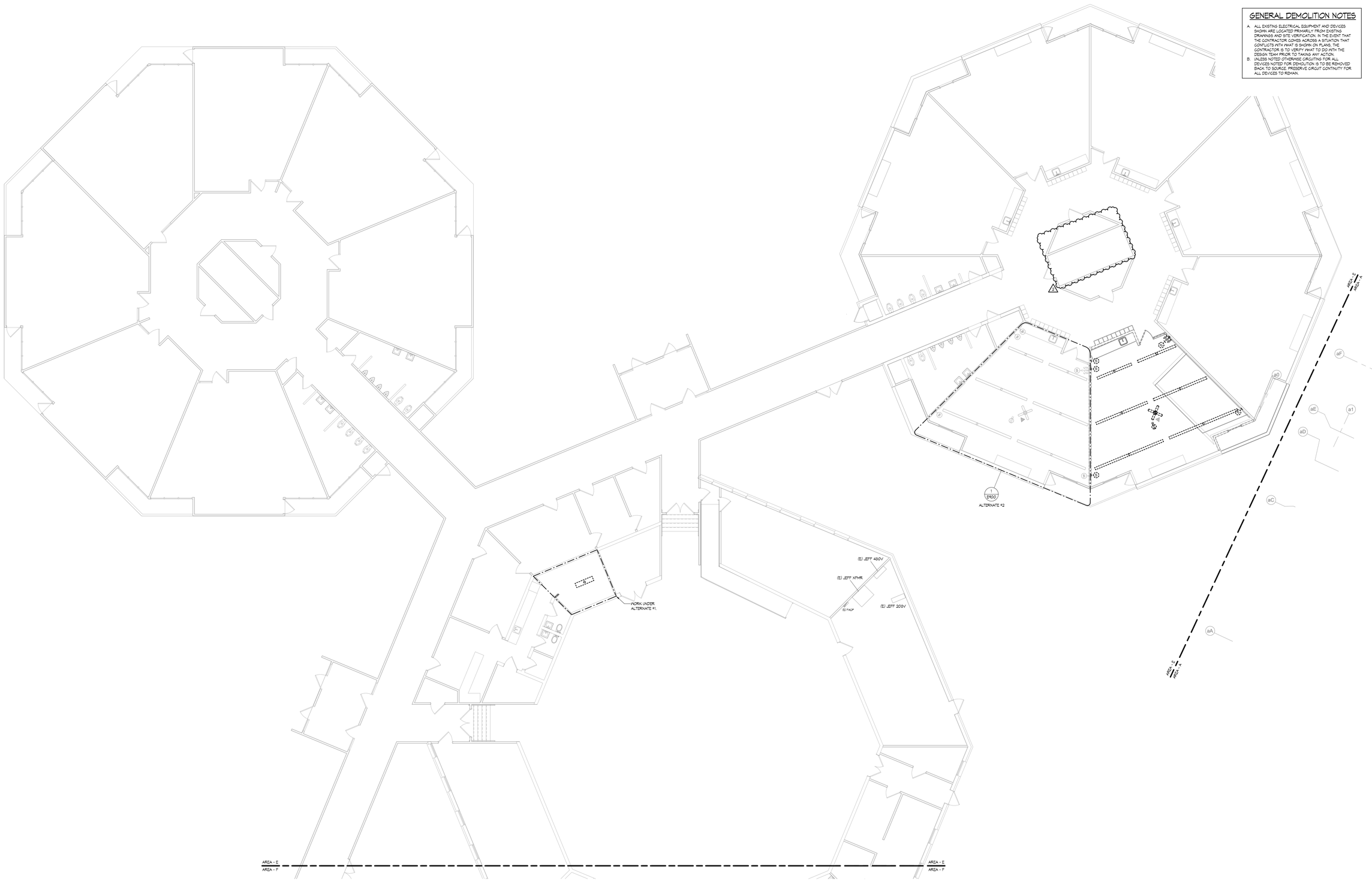
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GENERAL DEMOLITION NOTES

A. ALL EXISTING ELECTRICAL EQUIPMENT AND DEVICES SHOWN ARE LOCATED PRIMARILY FROM EXISTING DRAWINGS AND SITE VERIFICATION. IN THE EVENT THAT THE CONTRACTOR COMES ACROSS A SITUATION THAT CONFLICTS WITH WHAT IS SHOWN ON PLANS, THE CONTRACTOR IS TO VERIFY WHAT TO DO WITH THE DESIGN TEAM PRIOR TO TAKING ANY ACTION.

B. UNLESS NOTED OTHERWISE CAP/TAG FOR ALL DEVICES NOTED FOR DEMOLITION IS TO BE REMOVED BACK TO SOURCE. PRESERVE CIRCUIT CONTINUITY FOR ALL DEVICES TO REMAIN.



1 MAIN LEVEL DEMOLITION PLAN - AREA E - ELECTRICAL
SCALE: 1/8" = 1'-0"

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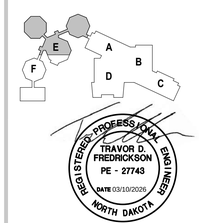
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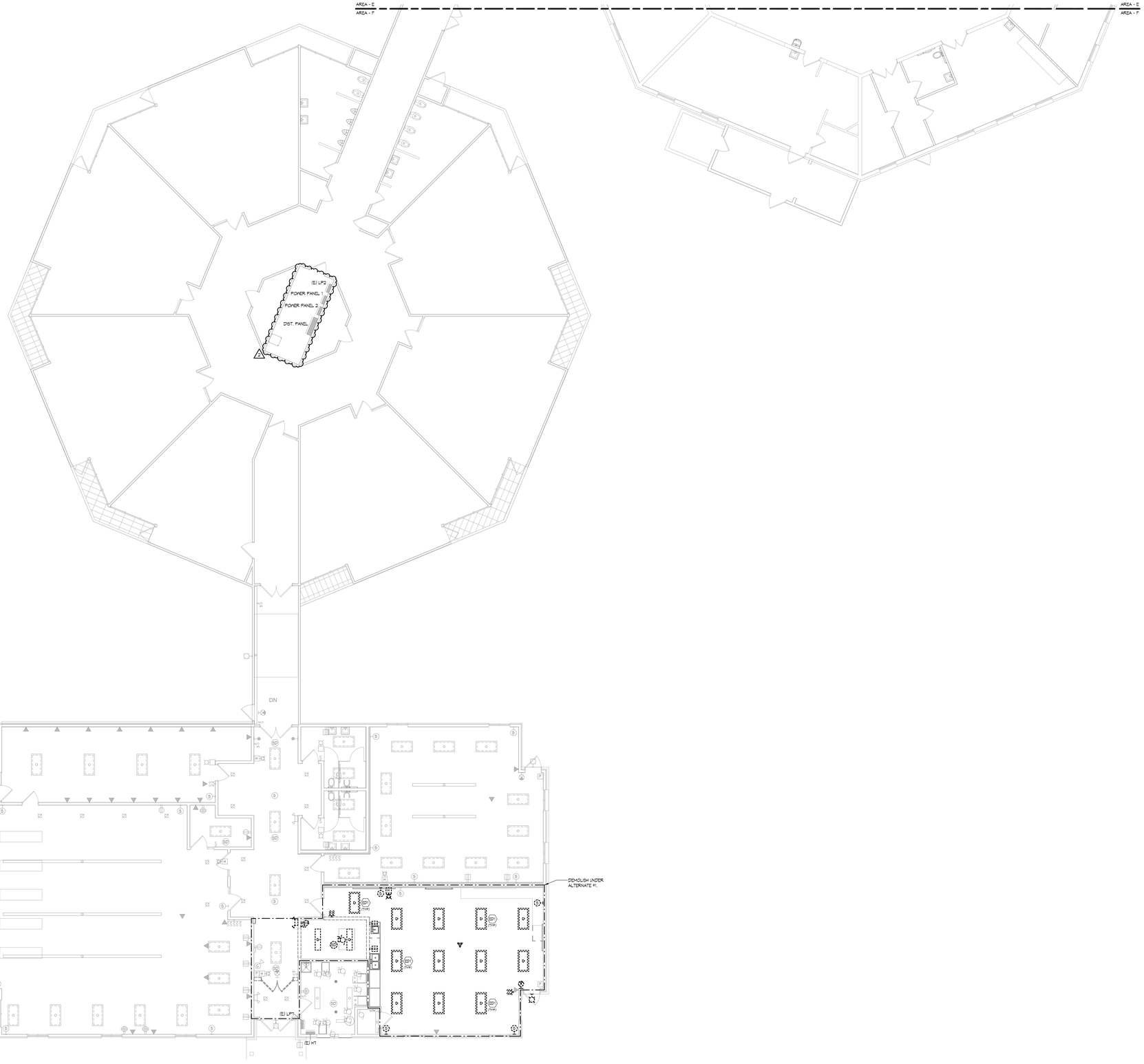
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MAIN LEVEL SEGMENT E - ELECTRICAL DEMOLITION

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E101E

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1 MAIN LEVEL DEMOLITION PLAN - AREA F - ELECTRICAL
SCALE: 1/8" = 1'-0"

NORTH

GENERAL DEMOLITION NOTES

A. ALL EXISTING ELECTRICAL EQUIPMENT AND DEVICES SHOWN ARE LOCATED PRIMARILY FROM EXISTING DRAWINGS AND SITE VERIFICATION. IN THE EVENT THAT THE CONTRACTOR COMES ACROSS A SITUATION THAT CONFLICTS WITH WHAT IS SHOWN ON PLANS, THE CONTRACTOR IS TO VERIFY WHAT TO DO WITH THE DESIGN TEAM PRIOR TO TAKING ANY ACTION.
B. UNLESS NOTED OTHERWISE CIRCUITING FOR ALL DEVICES NOTED FOR DEMOLITION IS TO BE REMOVED BACK TO SOURCE. PRESERVE CIRCUIT CONTINUITY FOR ALL DEVICES TO REMAIN.

SHEET NOTES

ED1 PRESERVE LIGHT FIXTURE CIRCUITING FOR CONNECTION TO NEW FIXTURE.

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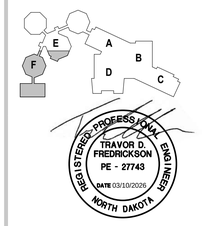
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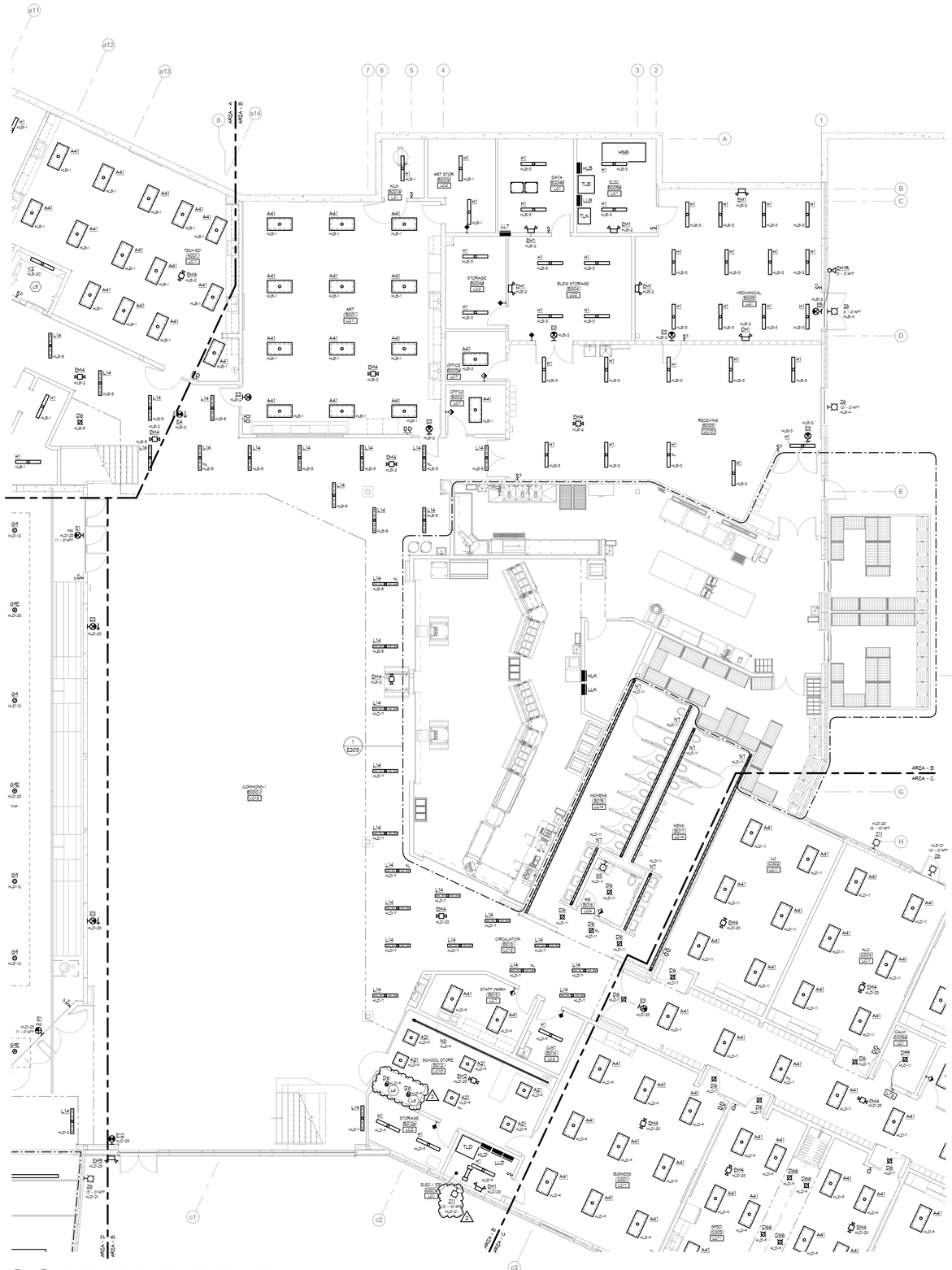
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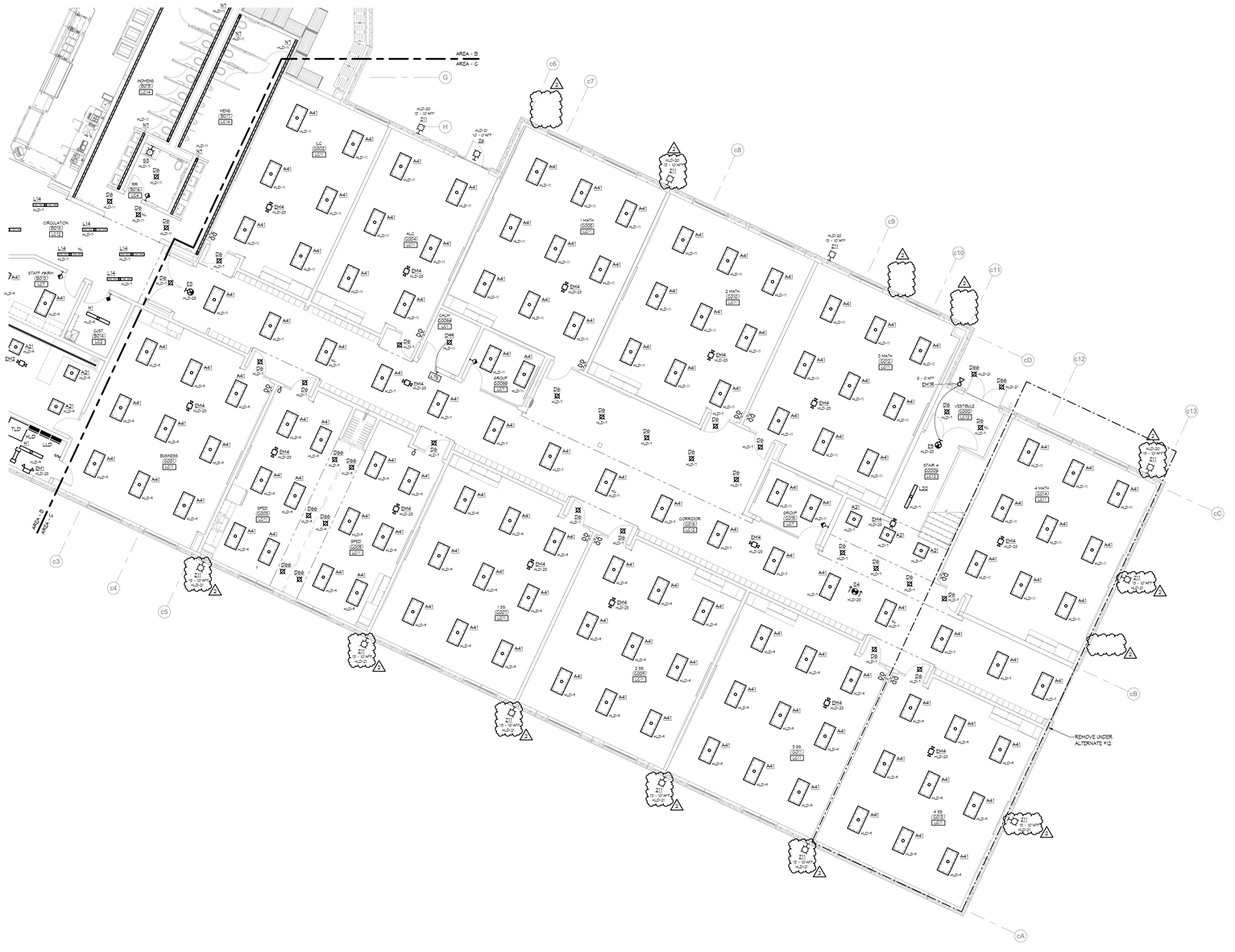
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MAIN LEVEL SEGMENT F - ELECTRICAL DEMOLITION

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AREA - A
AREA - B
AREA - C
COMMONS
STAIR 1
STAIR 2
STAIR 3
ELEV
MSB
TLB
TLK
LLB
LLK
LLT
ART STOR
ART
TECH ED
STORAGE
BLDG STORAGE
OFFICE
OFFICE
MECHANICAL
RECEIVING
CORRIDOR
CORRIDOR
CORRIDOR



1 LOWER LEVEL PLAN - LIGHTING-AREA C
SCALE: 1/8" = 1'-0"

LIGHTING CONTROL NOTES:

GENERAL NOTES:
- AUTOMATIC LIGHTING CONTROL REQUIRED TO COMMUNICATE WIRELESSLY, UNLESS NOTED OTHERWISE IN LIGHTING CONTROL NOTES. ALL SWITCHES AND SENSORS ALL REQUIRE A 120V CONNECTION.

GENERAL NOTES:
A. WINDOW DAYLIGHTING ZONE DEPTH IS 15'-0" DEEP FROM WINDOW AND WIDTH IS 2'-0" WIDER FROM EACH EDGE OF WINDOW. SKYLIGHTING DAYLIGHT ZONE DEPTH IS THE AVERAGE CEILING HEIGHT FROM THE EDGE OF THE SKYLIGHT INTO THE ROOM.
B. LUMINARES INDICATED WITH 'NL' SHALL BE CIRCUITED AS NIGHT LIGHTS AND SHALL REMAIN ON 24/7.
C. PROVIDE POWER PACKS AND ACCESSORIES AS REQUIRED FOR A FULLY FUNCTIONING SYSTEM.
D. OCCUPANCY SENSOR AND PHOTOCELL FUNCTION MAY BE COMBINED INTO ONE DEVICE.
E. COORDINATE CONFIGURATION OF LIGHTING CONTROL ZONES WITH LOCATION OF TEACHING / TEACHING WALL OF ALL CLASSROOMS.

- LC1 MANUAL WALL SWITCH / DIMMER CONTROL.
- LC2 WALL MOUNTED PIR SENSOR.
- LC4 WALL MOUNTED DUAL TECHNOLOGY SENSOR.
- LC7 WALL MOUNTED DUAL TECHNOLOGY SENSOR WITH INTEGRAL 0-10V DIMMER.
- LC8 CEILING MOUNTED PIR SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
- LC10 CEILING MOUNTED DUAL TECHNOLOGY SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
- LC11 VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S) WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER. FRONT OF ROOM TO BE CONTROLLED SEPARATE FROM BACK OF ROOM.
- LC12 VACANCY SENSOR(S) WITHIN SPACE TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE SPACE. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. AUTO OFF OPERATION IS TO BE PLACED ON DIGITAL TIME-SCHEDULE THAT SHALL BE COORDINATED WITH OWNER. LIGHTING WITHIN STAIRWELLS TO STAY ON 24/7 AND DIM TO 50% WHEN AREA IS UNOCCUPIED FOR 30 MINUTES.
- LC14 CEILING-MOUNTED DUAL TECHNOLOGY SENSOR. NO MANUAL CONTROLS.
- LC16 WIRELESS OCCUPANCY SENSOR. INTEGRATED WITHIN LIGHT FIXTURE. REFER TO LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- LC17 VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S) WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER.
- LC18 CEILING MOUNTED VACANCY SENSORS RATED FOR HIGH HUMIDITY. AUTO OFF OPERATION IS TO BE PLACED ON DIGITAL TIME-SCHEDULE THAT SHALL BE COORDINATED WITH OWNER.

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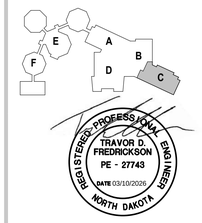
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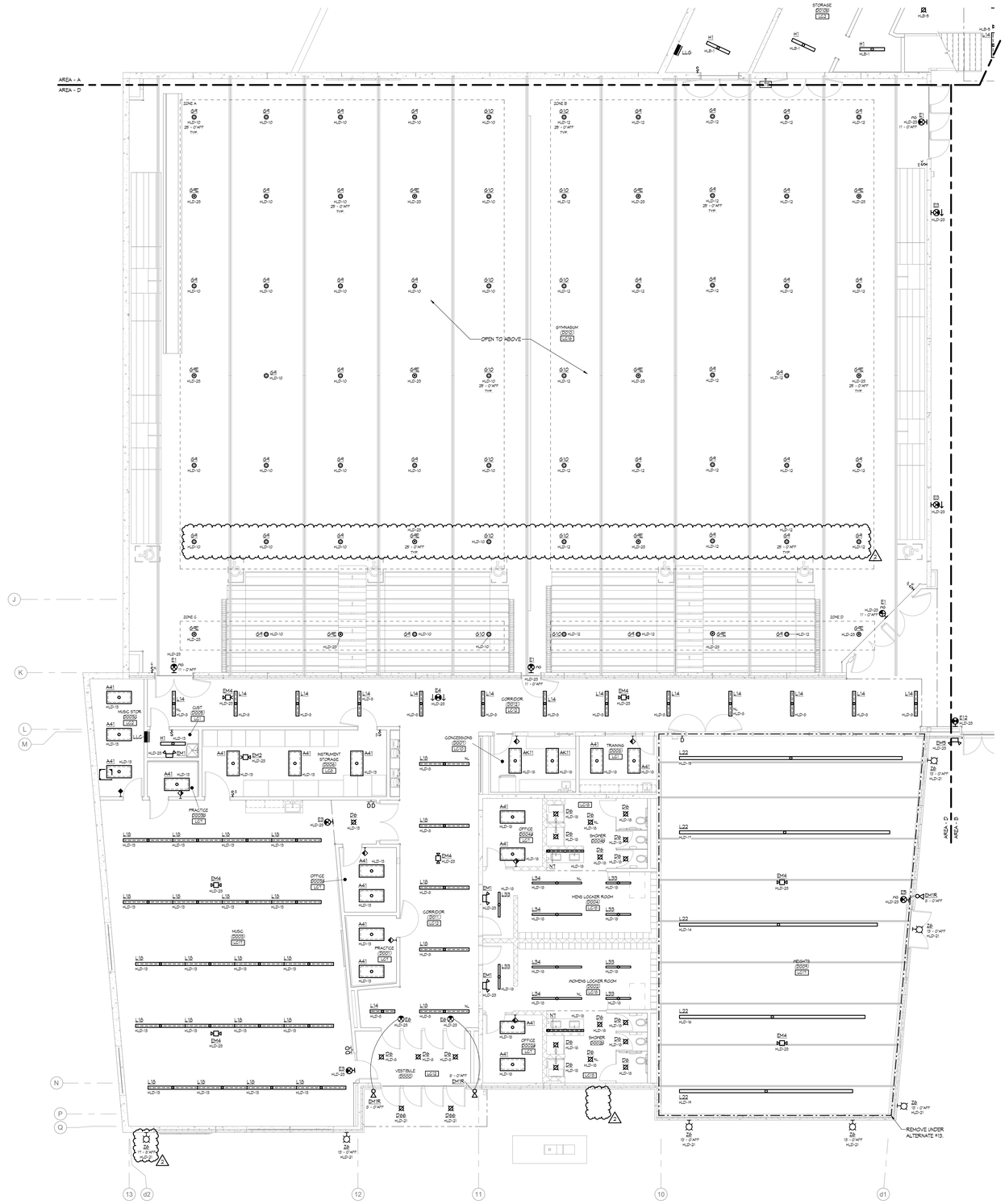
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LOWER LEVEL SEGMENT C - LIGHTING

SHEET
E200C

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1 LOWER LEVEL PLAN SEGMENT - D - LIGHTING

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

LIGHTING CONTROL NOTES:

GENERAL NOTES:

- AUTOMATIC LIGHTING CONTROL REQUIRED TO COMMUNICATE WIRELESSLY, UNLESS NOTED OTHERWISE IN LIGHTING CONTROL NOTES. ALL SWITCHES AND SENSORS ALL REQUIRE A 120V CONNECTION.

GENERAL NOTES:

A. WINDOW DAYLIGHTING ZONE DEPTH IS 15'-0" DEEP FROM WINDOW AND WIDTH IS 2'-0" WIDER FROM EACH EDGE OF WINDOW. SKYLIGHTING DAYLIGHT ZONE DEPTH IS THE AVERAGE CEILING HEIGHT FROM THE EDGE OF THE SKYLIGHT INTO THE ROOM.
B. LUMINAIRES INDICATED WITH "NL" SHALL BE CIRCUITED AS NIGHT LIGHTS AND SHALL REMAIN ON 24/7.
C. PROVIDE POWER PACKS AND ACCESSORIES AS REQUIRED FOR A FULLY FUNCTIONING SYSTEM.
D. OCCUPANCY SENSOR AND PHOTOCELL FUNCTION MAY BE COMBINED INTO ONE DEVICE.
E. COORDINATE CONFIGURATION OF LIGHTING CONTROL ZONES WITH LOCATION OF TEACHING / TEACHING WALL OF ALL CLASSROOMS.

LC1	MANUAL WALL SWITCH / DIMMER CONTROL.
LC2	WALL MOUNTED PIR SENSOR.
LC4	WALL MOUNTED DUAL TECHNOLOGY SENSOR.
LC7	WALL MOUNTED DUAL TECHNOLOGY SENSOR WITH INTEGRAL 0-10V DIMMER.
LC8	CEILING MOUNTED PIR SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
LC10	CEILING MOUNTED DUAL TECHNOLOGY SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
LC11	VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S) WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER. FRONT OF ROOM TO BE CONTROLLED SEPARATE FROM BACK OF ROOM.
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LC14	CEILING-MOUNTED DUAL TECHNOLOGY SENSOR. NO MANUAL CONTROLS.
LC16	WIRELESS OCCUPANCY SENSOR. INTEGRATED WITHIN LIGHT FIXTURE. REFER TO LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
LC17	VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S) WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER.
LC18	CEILING MOUNTED VACANCY SENSORS RATED FOR HIGH HUMIDITY. AUTO OFF OPERATION IS TO BE PLACED ON DIGITAL TIME-SCHEDULE THAT SHALL BE COORDINATED WITH OWNER.

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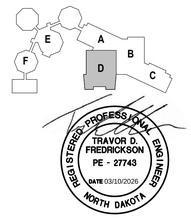
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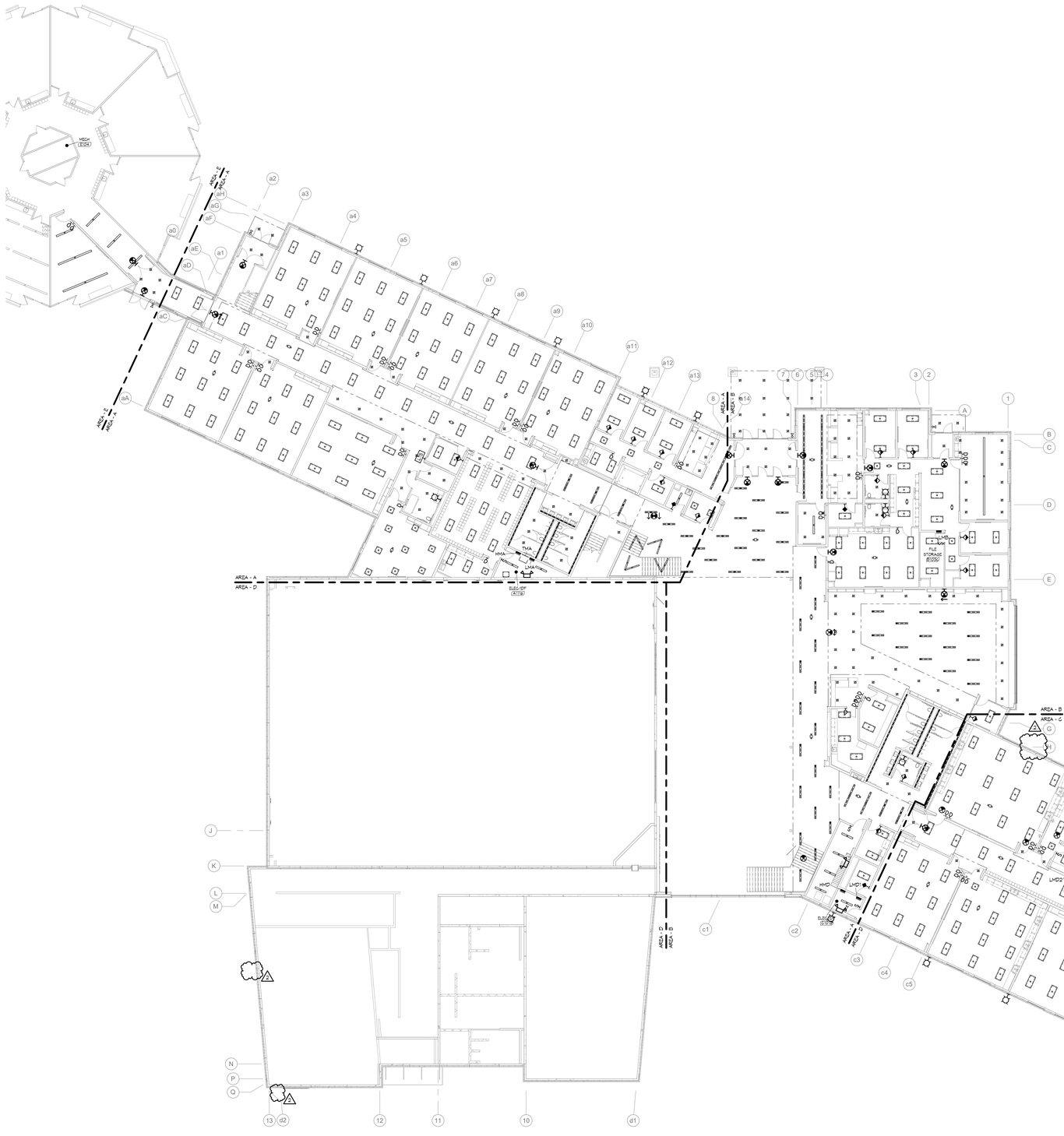
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2	ADDENDUM #2	03/24/2026

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LOWER LEVEL SEGMENT D - LIGHTING

SHEET
E200D

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1 MAIN LEVEL OVERALL PLAN - LIGHTING
SCALE: 1/16" = 1'-0"

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PE - 27743
DATE 03/10/2026
NORTH DAKOTA

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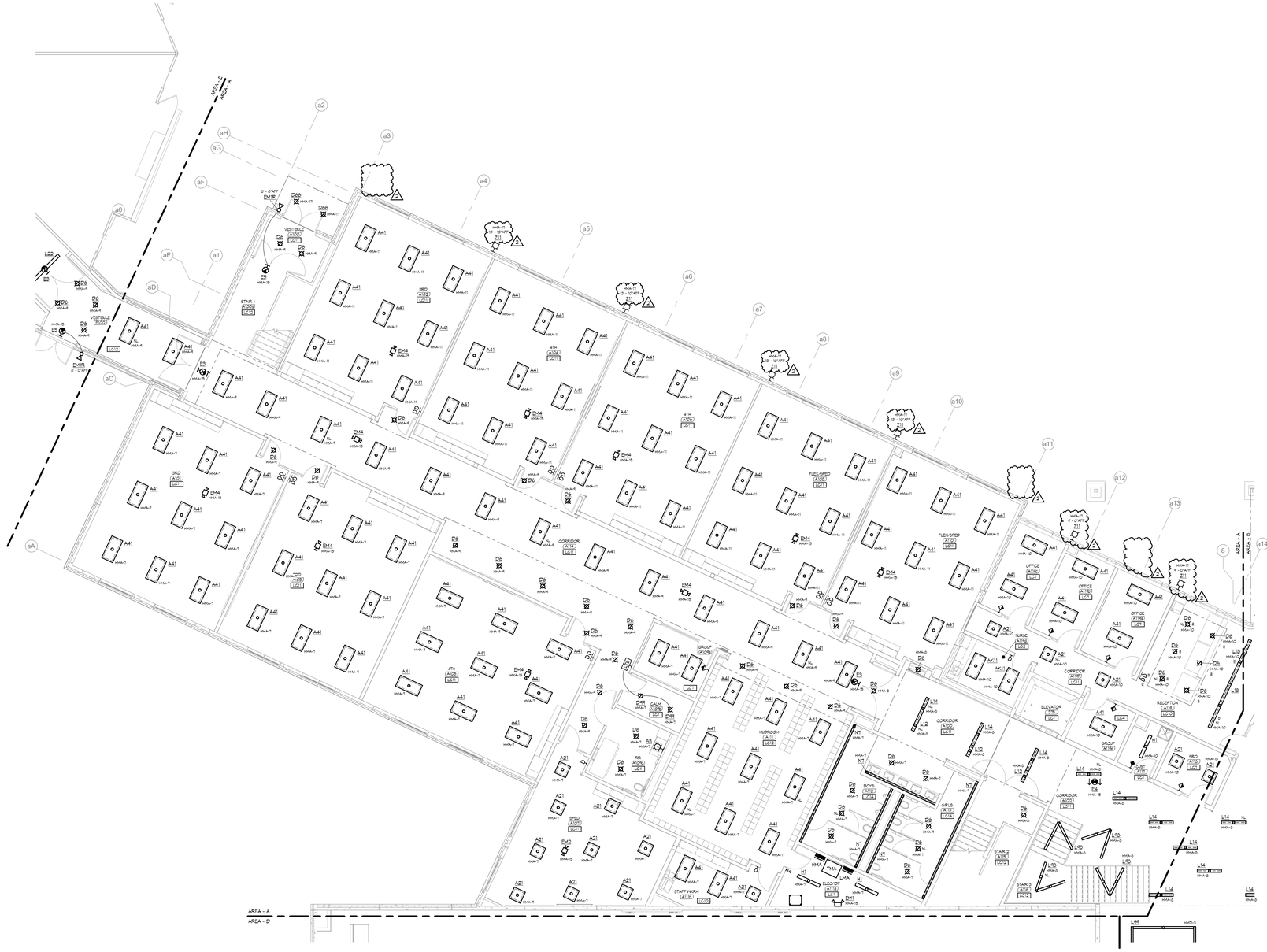
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MAIN LEVEL OVERALL PLAN - LIGHTING

SHEET
E201

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1 MAIN LEVEL PLAN SEGMENT - A - LIGHTING
SCALE: 1/8" = 1'-0"

NORTH

LIGHTING CONTROL NOTES:

GENERAL NOTES:
- AUTOMATIC LIGHTING CONTROL REQUIRED TO COMMUNICATE WIRELESSLY, UNLESS NOTED OTHERWISE IN LIGHTING CONTROL NOTES. ALL SWITCHES AND SENSORS ALL REQUIRE A 120V CONNECTION.

GENERAL NOTES:
- A. WINDOW DAYLIGHTING ZONE DEPTH IS 15'-0" DEEP FROM WINDOW AND WIDTH IS 2'-0" WIDER FROM EACH EDGE OF WINDOW. SKYLIGHTING DAYLIGHT ZONE DEPTH IS THE AVERAGE CEILING HEIGHT FROM THE EDGE OF THE SKYLIGHT INTO THE ROOM.
- B. LUMINAIRES INDICATED WITH 'NL' SHALL BE CIRCUITED AS NIGHT LIGHTS AND SHALL REMAIN ON 24/7.
- C. PROVIDE POWER PACKS AND ACCESSORIES AS REQUIRED FOR A FULLY FUNCTIONING SYSTEM.
- D. OCCUPANCY SENSOR AND PHOTOCELL FUNCTION MAY BE COMBINED INTO ONE DEVICE.
- E. COORDINATE CONFIGURATION OF LIGHTING CONTROL ZONES WITH LOCATION OF TEACHING / TEACHING WALL OF ALL CLASSROOMS.

- LG1 MANUAL WALL SWITCH / DIMMER CONTROL.
- LG2 WALL MOUNTED PIR SENSOR.
- LG4 WALL MOUNTED DUAL TECHNOLOGY SENSOR.
- LG7 WALL MOUNTED DUAL TECHNOLOGY SENSOR WITH INTEGRAL 0-10V DIMMER.
- LG9 CEILING MOUNTED PIR SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
- LG10 CEILING MOUNTED DUAL TECHNOLOGY SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
- LG11 VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S) WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER. FRONT OF ROOM TO BE CONTROLLED SEPARATE FROM BACK OF ROOM.
- LG12 VACANCY SENSOR(S) WITHIN SPACE TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE SPACE. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. AUTO OFF OPERATION IS TO BE PLACED ON DIGITAL TIME-SCHEDULE THAT SHALL BE COORDINATED WITH OWNER. LIGHTING WITHIN STAIRWELLS TO STAY ON 24/7 AND DIM TO 50% WHEN AREA IS UNOCCUPIED FOR 30 MINUTES.
- LG14 CEILING-MOUNTED DUAL TECHNOLOGY SENSOR. NO MANUAL CONTROLS.
- LG16 WIRELESS OCCUPANCY SENSOR INTEGRATED WITHIN LIGHT FIXTURE. REFER TO LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- LG17 VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S) WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER.
- LG18 CEILING MOUNTED VACANCY SENSORS RATED FOR HIGH HUMIDITY. AUTO OFF OPERATION IS TO BE PLACED ON DIGITAL TIME-SCHEDULE THAT SHALL BE COORDINATED WITH OWNER.

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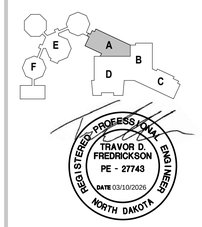
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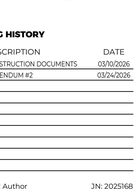
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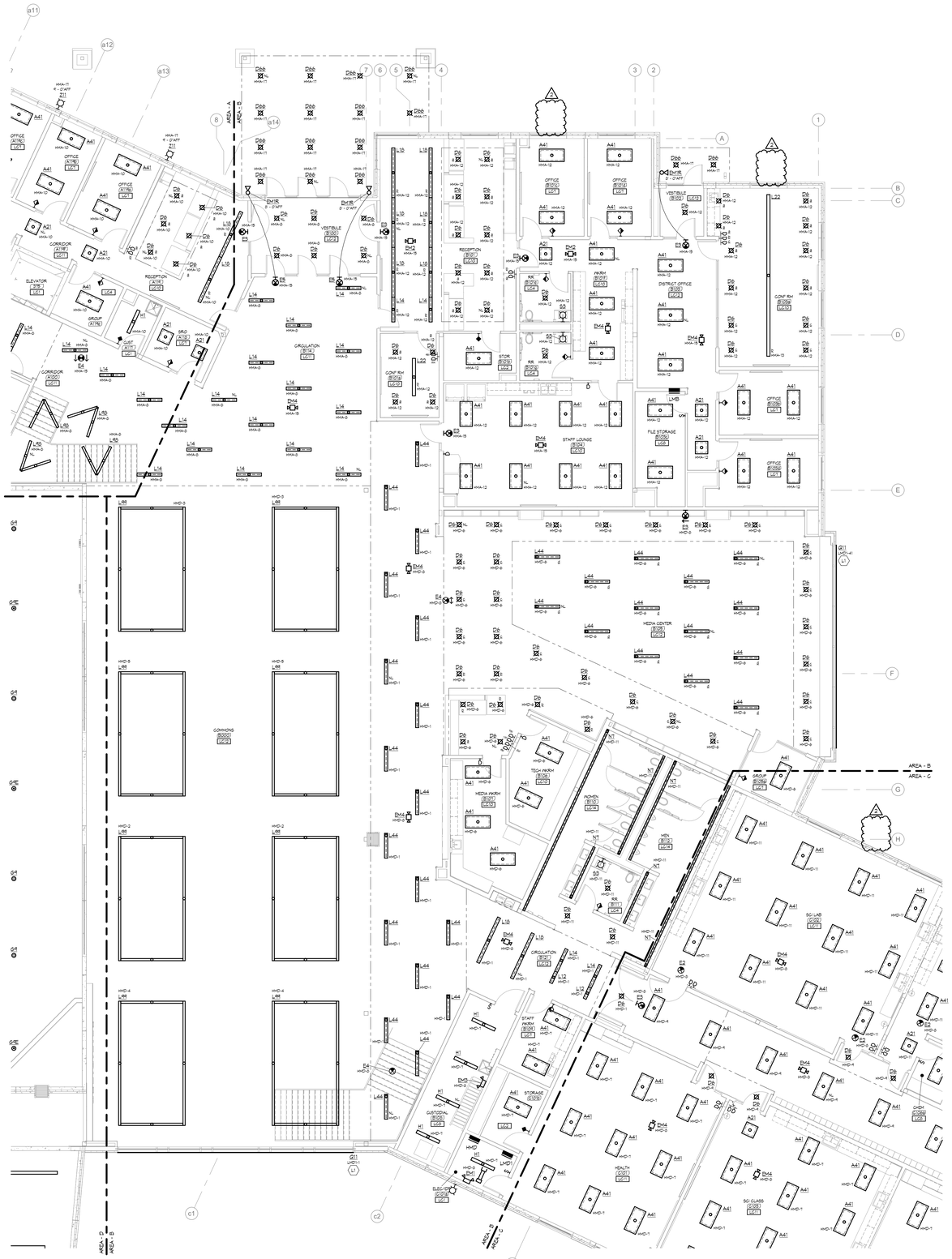
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MAIN LEVEL SEGMENT A - LIGHTING

SHEET
E201A

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5 MAIN LEVEL PLAN SEGMENT - B - LIGHTING

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

SHEET NOTES

L1 PROVIDE UNDER ALTERNATE 1. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

LIGHTING CONTROL NOTES:

GENERAL NOTES:
- AUTOMATIC LIGHTING CONTROL REQUIRED TO COMMUNICATE WIRELESSLY, UNLESS NOTED OTHERWISE IN LIGHTING CONTROL NOTES. ALL SWITCHES AND SENSORS ALL REQUIRE A 120V CONNECTION.

GENERAL NOTES:

A. WINDOW DAYLIGHTING ZONE DEPTH IS 15'-0" DEEP FROM WINDOW AND WIDTH IS 2'-0" WIDER FROM EACH EDGE OF WINDOW. SKYLIGHTING DAYLIGHT ZONE DEPTH IS THE AVERAGE CEILING HEIGHT FROM THE EDGE OF THE SKYLIGHT INTO THE ROOM.

B. LUMINAIRES INDICATED WITH "NL" SHALL BE CIRCUITED AS NIGHT LIGHTS AND SHALL REMAIN ON 24/7.

C. PROVIDE POWER PACKS AND ACCESSORIES AS REQUIRED FOR A FULLY FUNCTIONING SYSTEM.

D. OCCUPANCY SENSOR AND PHOTOCELL FUNCTION MAY BE COMBINED INTO ONE DEVICE.

E. COORDINATE CONFIGURATION OF LIGHTING CONTROL ZONES WITH LOCATION OF TEACHING / TEACHING WALL OF ALL CLASSROOMS.

LC1 MANUAL WALL SWITCH / DIMMER CONTROL.
LC2 WALL MOUNTED PIR SENSOR.
LC4 WALL MOUNTED DUAL TECHNOLOGY SENSOR.
LC7 WALL MOUNTED DUAL TECHNOLOGY SENSOR WITH INTEGRAL 0-10V DIMMER.
LC8 CEILING MOUNTED PIR SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
LC10 CEILING MOUNTED DUAL TECHNOLOGY SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
LC11 VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S). WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER. FRONT OF ROOM TO BE CONTROLLED SEPARATE FROM BACK OF ROOM.
LC12 VACANCY SENSOR(S) WITHIN SPACE TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE SPACE. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. AUTO OFF OPERATION IS TO BE PLACED ON DIGITAL TIME-SCHEDULE THAT SHALL BE COORDINATED WITH OWNER. LIGHTING WITHIN STAIRWELLS TO STAY ON 24/7 AND DIM TO 50% WHEN AREA IS UNOCCUPIED FOR 30 MINUTES.
LC14 CEILING-MOUNTED DUAL TECHNOLOGY SENSOR. NO MANUAL CONTROLS.
LC16 WIRELESS OCCUPANCY SENSOR INTEGRATED WITHIN LIGHT FIXTURE. REFER TO LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
LC17 VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S). WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER.
LC18 CEILING MOUNTED VACANCY SENSORS RATED FOR HIGH HUMIDITY. AUTO OFF OPERATION IS TO BE PLACED ON DIGITAL TIME-SCHEDULE THAT SHALL BE COORDINATED WITH OWNER.

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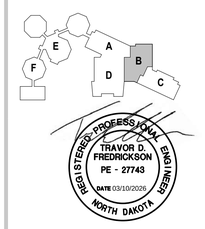
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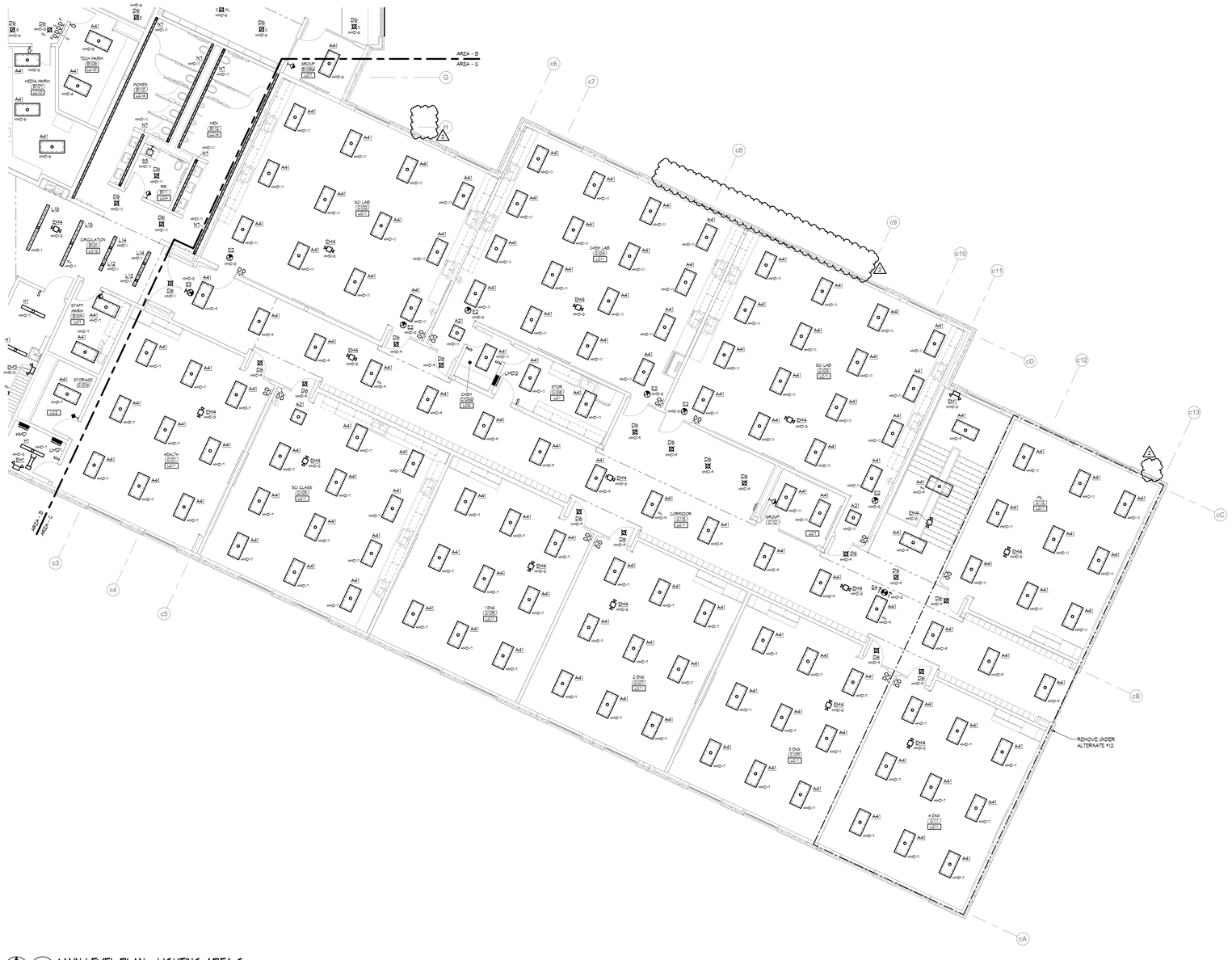
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MAIN LEVEL SEGMENT B - LIGHTING

SHEET
E201B

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1 MAIN LEVEL PLAN - LIGHTING-AREA C
SCALE: 1/8" = 1'-0"

LIGHTING CONTROL NOTES:

GENERAL NOTES:
- AUTOMATIC LIGHTING CONTROL REQUIRED TO COMMUNICATE WIRELESSLY UNLESS NOTED OTHERWISE IN LIGHTING CONTROL NOTES. ALL SWITCHES AND SENSORS ALL REQUIRE A 120V CONNECTION.

GENERAL NOTES:
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LC9 CEILING MOUNTED PIR SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
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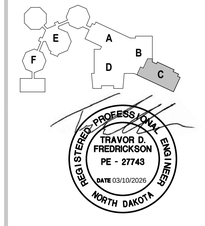
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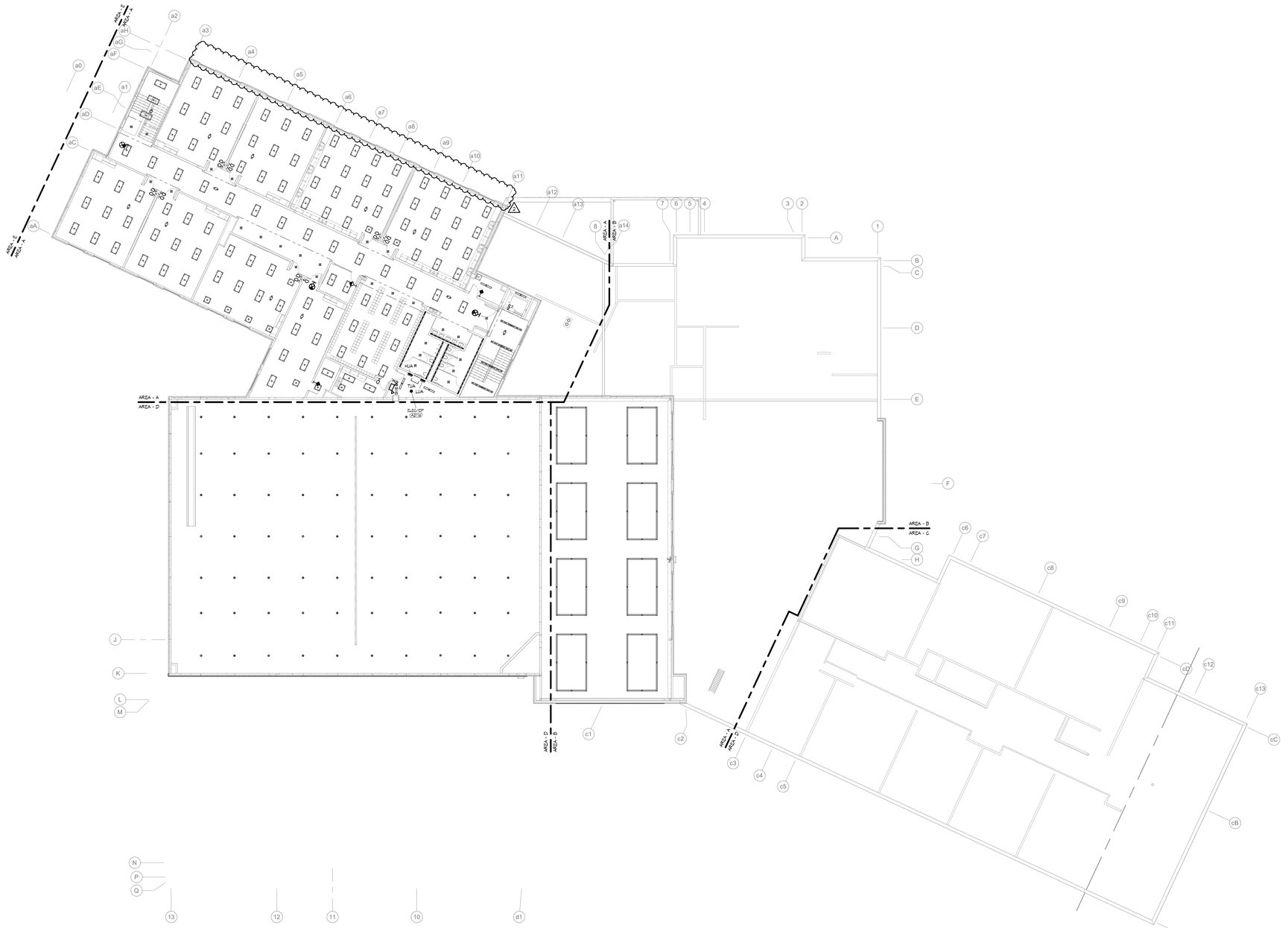
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MAIN LEVEL SEGMENT C - LIGHTING

SHEET
E201C

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1 UPPER LEVEL OVERALL PLAN - LIGHTING
SCALE: 1/16" = 1'-0"

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UPPER LEVEL OVERALL PLAN - LIGHTING

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1 UPPER LEVEL PLAN SEGMENT - A - LIGHTING

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

NORTH

LIGHTING CONTROL NOTES:

GENERAL NOTES:

- AUTOMATIC LIGHTING CONTROL REQUIRED TO COMMUNICATE WIRELESSLY, UNLESS NOTED OTHERWISE IN LIGHTING CONTROL NOTES. ALL SWITCHES AND SENSORS ALL REQUIRE A 120V CONNECTION.

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E. COORDINATE CONFIGURATION OF LIGHTING CONTROL ZONES WITH LOCATION OF TEACHING / TEACHING WALL OF ALL CLASSROOMS.

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LG7	WALL MOUNTED DUAL TECHNOLOGY SENSOR WITH INTEGRAL 0-10V DIMMER.
LG9	CEILING MOUNTED PIR SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
LG10	CEILING MOUNTED DUAL TECHNOLOGY SENSOR. MANUAL CONTROLS AS INDICATED ON FLOOR PLAN.
LG11	VACANCY SENSOR(S) WITHIN ROOM TO BE INTEGRAL TO LIGHT FIXTURE(S). PROVIDE AS MANY INTEGRAL SENSORS AS IS NECESSARY FOR COVERAGE OF ENTIRE ROOM. ALL OTHER LIGHT FIXTURES ARE TO COMMUNICATE WITH FIXTURES WITH INTEGRAL SENSORS FOR AUTOMATIC OFF OPERATION. 120V CONTROL AT ENTRANCE(S) WITH WIRELESS CONTROL AT LOCATION COORDINATED WITH OWNER. FRONT OF ROOM TO BE CONTROLLED SEPARATE FROM BACK OF ROOM.
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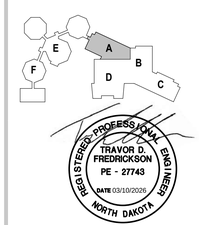
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	CONSTRUCTION DOCUMENTS	03/10/2026
2.	ADDENDUM #2	03/24/2026

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UPPER LEVEL SEGMENT A - LIGHTING

SHEET

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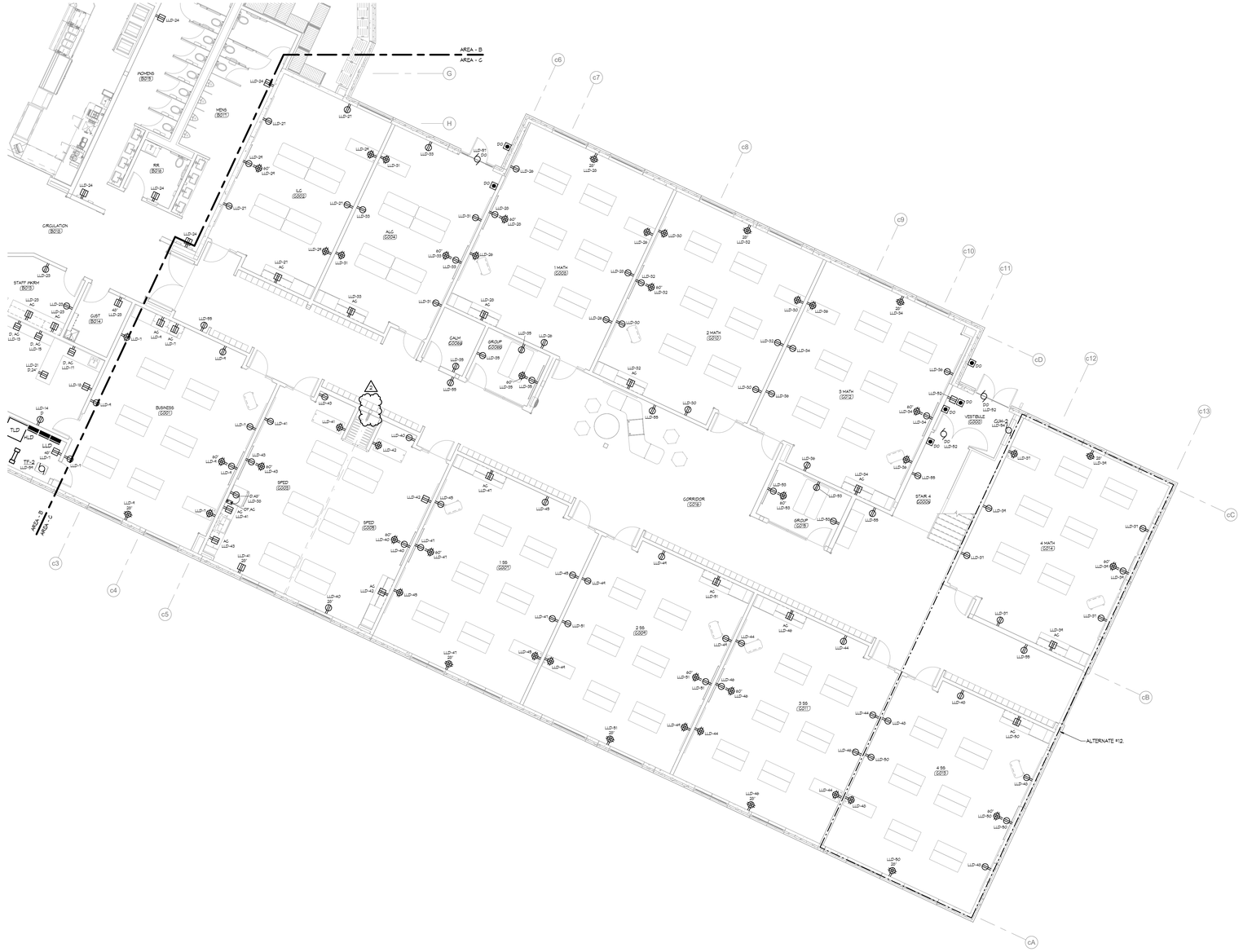
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GENERAL NOTES

A. ALL RECEPTACLES ARE TO BE TAMPER RESISTANT.

SHEET NOTES



1 LOWER LEVEL PLAN - POWER-AREA C

NORTH

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

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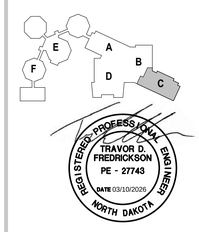
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2	ADDENDUM #2	03/24/2026

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LOWER LEVEL SEGMENT C - POWER

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1 MAIN LEVEL PLAN SEGMENT - A - POWER

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

GENERAL NOTES

A. ALL RECEPTACLES ARE TO BE TAMPER RESISTANT.

SHEET NOTES

1 V/R PROVIDE 120V CONNECTION TO MOTORIZED CHANGING STATION. COORDINATE EXACT REQUIREMENTS WITH ARCHITECT. COORDINATE EXACT LOCATION OF REMOTELY MOUNTED CONTROLS AND EMERGENCY STOP WITH ARCHITECT AND OWNER.

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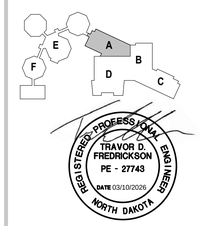
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NO.	DESCRIPTION	DATE
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2	ADDENDUM #2	03/24/2026

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MAIN LEVEL SEGMENT A - POWER

SHEET

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FOODSERVICE EQUIPMENT ELECTRICAL ROUGH-IN SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	VOLTAGE	PHASE	AMPS	CONN. TYPE	NEMA	ROUTING	R.I. HEIGHT	ELECTRICAL REMARKS
1	1	WALK-IN COOLER/FREEZER	120V	1	8.9	DIRECT		OH & BTC	72"	ELECTRICAL NOTE 5, 8, 9, 10, 11
2	1	COOLER EVAPORATOR COIL	120V	1	2.7	DIRECT		DFA & BTC	72"	ELECTRICAL NOTE 5, 12, 13
3	1	COOLER REMOTE CONDENSING UNIT	460V	3	9.8	DIRECT		OH & BTC	108"	ELECTRICAL NOTE 5, 12
4	1	FREEZER EVAPORATOR COIL	208V	1	1.5	DIRECT		DFA & BTC	72"	ELECTRICAL NOTE 5, 12, 13, 14
4P	2	DEFROST PLUG	120V	1	13.1	RECPT.	5-20P	OH	54"	ELECTRICAL NOTE 14
5	1	FREEZER REMOTE CONDENSING UNIT	460V	3	17.0	DIRECT		OH & BTC	108"	ELECTRICAL NOTE 5, 12
24	1	218" EXHAUST HOOD	120V	1	19.0	DIRECT		DFA & BTC	138"	ELECTRICAL NOTE 4, 6, 8, 9, 19, 20, 21, 22, 23
25	1	EXHAUST FAN (NOT SHOWN)								ELECTRICAL NOTE 29
26	1	MAKE-UP AIR UNIT (NOT SHOWN)								ELECTRICAL NOTE 26
27	1	HOOD CONTROLS	120V	1	15.0	DIRECT		DFA & BTC	78"	ELECTRICAL NOTE 4, 13, 16
28	1	FIRE SUPPRESSION SYSTEM	120V	1	20.0	DIRECT		DFA & BTC	78"	ELECTRICAL NOTE 4, 23
29	1	MICROWAVE OVEN	120V	1	16.5	CIP	5-20P	#34		ELECTRICAL NOTE 2; POWER THRU ISLAND COUNTER #34
30	1	40GAL TILT SKILLET	480V	3	53.0	DIRECT		OH & BTC	22"	ELECTRICAL NOTE 5
31X	1	12" 2-BURNER RANGE, ELECTRIC	208V	3	17.3	DIRECT		OH & BTC	22"	ELECTRICAL NOTE 5, 28
32T	1	DOUBLE STACKED ELECTRIC CONVECTION OVEN - TOP	208V	3	28.0	DIRECT		OH & BTC	80"	ELECTRICAL NOTE 5, 28
32X	1	DOUBLE STACKED ELECTRIC CONVECTION OVEN	208V	3	28.0	DIRECT		OH & BTC	22"	ELECTRICAL NOTE 5, 28
33	1	DOUBLE STACK 6-FULL COMBI OVEN	480V	3	30.0	DIRECT		OH & BTC	22"	ELECTRICAL NOTE 5
33T	1	DOUBLE STACK 6-FULL COMBI OVEN - TOP	480V	3	30.0	DIRECT		OH & BTC	80"	ELECTRICAL NOTE 5
34	1	ROLL-IN 20-FULL COMBI OVEN	480V	3	51.1	DIRECT		OH & BTC	22"	ELECTRICAL NOTE 5
34I	1	120" X 40" ISLAND PREP TABLE	120V	1	20.0	DIRECT		OH & BTC	54"	ELECTRICAL NOTE 4; LOAD TBD, SERVICES CONVENIENCE OUTLETS
42	1	ELECTRIC CAN OPENER	120V	1	1.5	CIP	5-15P	OH	54"	ELECTRICAL NOTE 1
43	1	2 HP DISPOSER	208V	1	12.1	DIRECT		OH & BTC	54"	ELECTRICAL NOTE 5, 7
47	1	80 QT. MIXER	480V	3	8.5	CIP	L16-20P	OH	22"	ELECTRICAL NOTE 2
48	1	WATER METER	120V	1	0.2	DIRECT		OH & BTC	48"	ELECTRICAL NOTE 5
54	1	1-SEC. ROLL-THRU HEATED CABINET WITH GLASS DOORS	208/240V	1	6.3	CIP	6-20P	OH	78"	ELECTRICAL NOTE 2
56	1	2-SEC. ROLL-IN COLD HOLDING CABINET WITH GLASS DOORS	120V	1	8.5	CIP	5-15P	OH	78"	ELECTRICAL NOTE 1
57	1	1-SEC. ROLL-IN HOT HOLDING CABINET WITH GLASS DOOR	208V	1	6.3	CIP	6-20P	OH	78"	ELECTRICAL NOTE 2
59	2	74" REFRIGERATED DISPLAY CASE WITH MILK CRATE HOLDER	208/240V	1	24.0	CIP	6-30P	OH / DFA		ELECTRICAL NOTE 2

FOODSERVICE EQUIPMENT ELECTRICAL ROUGH-IN SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	VOLTAGE	PHASE	AMPS	CONN. TYPE	NEMA	ROUTING	R.I. HEIGHT	ELECTRICAL REMARKS
60	1	60" 4-WELL HOT FOOD SERVING COUNTER	208/240V	1	9.6	CIP	L5-30P	OH	22"	ELECTRICAL NOTE 2
61	2	60" SNEEZE GUARD	120V	1	1.5	CIP	1-15P	#60 & #66		ELECTRICAL NOTE 2
62	1	52" 2-WELL COLD FOOD SERVING COUNTER	120V	1	2.0	CIP	5-15P	#60		ELECTRICAL NOTE 2
63	2	52" SNEEZE GUARD	120V	1	1.5	CIP	1-15P	#62 & #67		ELECTRICAL NOTE 2
64	1	74" 3-WELL SALAD SERVING COUNTER	120V	1	4.9	CIP	5-15P	#62		ELECTRICAL NOTE 2
65	2	74" SNEEZE GUARD	120V	1	1.5	CIP	1-15P	#64 & #65		ELECTRICAL NOTE 2
66	1	60" 4-WELL HOT FOOD SERVING COUNTER	208/240V	1	9.6	CIP	L5-30P	DFA	22"	ELECTRICAL NOTE 2, 3; DAISY CHAINED
67	1	52" 2-WELL COLD FOOD SERVING COUNTER	120V	1	2.0	CIP	5-15P	#66		ELECTRICAL NOTE 2, 3; DAISY CHAINED
68	1	74" 3-WELL SALAD SERVING COUNTER	120V	1	4.9	CIP	5-15P	#67		ELECTRICAL NOTE 3
72	2	CASH REGISTER STAND	120V	1	20.0	CIP	5-20P	FFR		ELECTRICAL NOTE 1 ; 3; DAISY CHAINED
73	2	POS SYSTEM	120V	1	15.0	CIP	5-20P	#72		ELECTRICAL NOTE 1 ; 25; THROUGH #72
73B	1	80" HEATED COUNTERTOP DISPLAY MERCHANDISER	120/208V	1	13.4	CIP	L14-30P	FFR		ELECTRICAL NOTE 1 ; 2
85A	1	COFFEE GRINDER	120V	1	11.0	CIP	5-20P	OH	54"	ELECTRICAL NOTE 1
84A	1	COFFEE/TEA BREWER	120V	1	14.0	CIP	5-15P	OH	50"	ELECTRICAL NOTE 1
86A	2	BLENDER	120V	1	13.5	CIP	5-15P	OH	54"	ELECTRICAL NOTE 1
87A	1	UNDERCOUNTER ICE MACHINE	120V	1	12.8	CIP	5-15P	FLOOR	22"	ELECTRICAL NOTE 1
89A	1	UNDERCOUNTER REFRIGERATOR	120V	1	2.0	CIP	5-15P	OH	22"	ELECTRICAL NOTE 1
90A	1	ESPRESSO CAPPUCCINO MACHINE	208/240V	1	30.0	CIP	L6-30P	OH	54"	ELECTRICAL NOTE 2
94B	1	POS SYSTEM	120V	1	15.0	CIP	5-20P	FFR		ELECTRICAL NOTE 1 ; 25
100	1	PEDESTAL DUMP SINK	120V	1	2.0	CIP	VAC ADAPTER	OH	22"	ELECTRICAL NOTE 1
102	1	DISPOSAL SYSTEM	460V	3	5.5	DIRECT		OH & BTC	22"	ELECTRICAL NOTE 5, 7
106	1	CONVEYOR TYPE DISHMACHINE	460V	3	54.7	DIRECT		OH & BTC	54"	ELECTRICAL NOTE 5, 15, 16, 17
107	1	CONDENSATE HOOD	120V	1	20.0	DIRECT		DFA & BTC	138"	ELECTRICAL NOTE 5, 18
120	1	CONDENSATE FAN (NOT SHOWN)								ELECTRICAL NOTE 28
CO1	1	CONVENIENCE OUTLET	120V	1	20.0	RECEPT.	5-20R	OH	54"	ELECTRICAL NOTE 1
FPS	1	FIRE PULL STATION	120V	1	20.0	DIRECT		OH	48"	ELECTRICAL NOTE 24

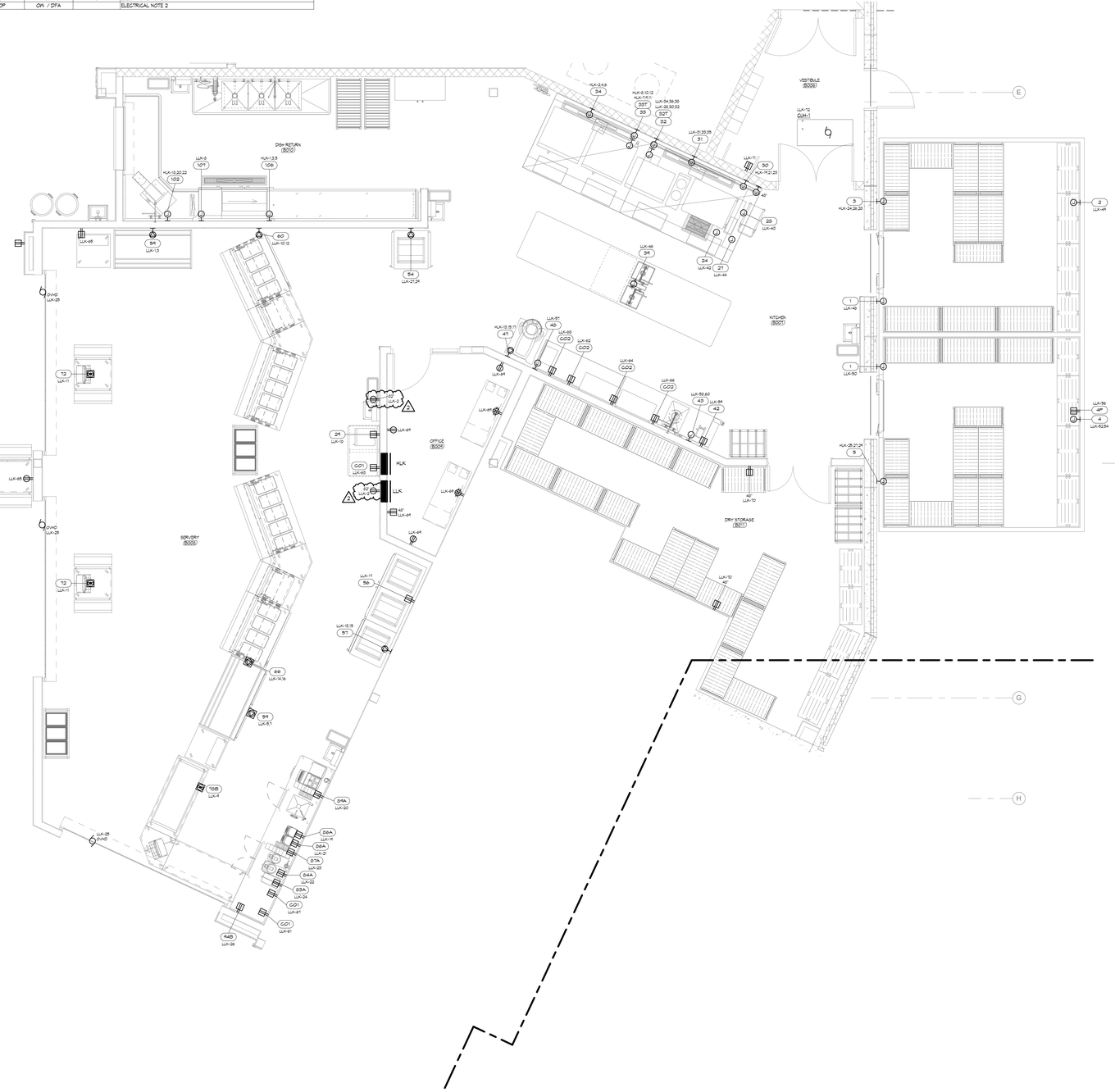
GENERAL NOTES

A. ALL RECEPTACLES ARE TO BE TAMPER RESISTANT.
B. ALL INFORMATION SHOWN ON THIS SHEET TAKEN FROM KITCHEN CONSULTANT DESIGN. REFER TO KITCHEN CONSULTANT PLANS FOR ADDITIONAL INFORMATION. IF ANY DISCREPANCIES OCCUR BETWEEN ELECTRICAL AND KITCHEN CONSULTANT PLANS, THE KITCHEN CONSULTANT PLANS SHALL TAKE PRECEDENT.

SHEET NOTES

ELECTRICAL NOTES

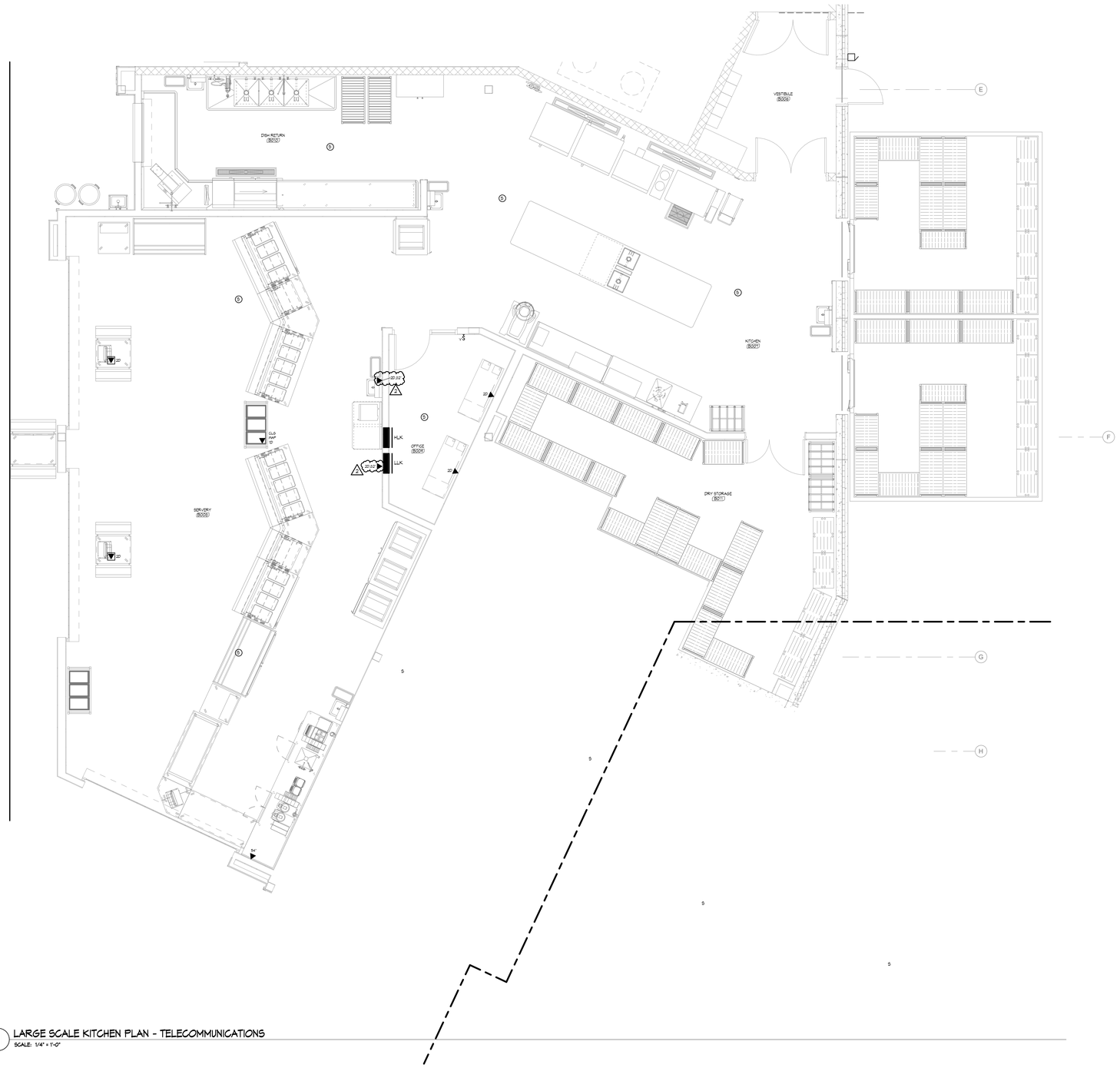
1. DIVISION 26 SHALL FURNISH & INSTALL APPROVED GFCI PROTECTION FOR EQPM FURNISHED WITH GFP(S).
2. DIVISION 26 SHALL FURNISH & INSTALL SPECIFIED GFP(S).
3. DIVISION 26 SHALL INSTALL FSEC FURNISHED GFP(S).
4. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) TO JB.
5. DIVISION 26 SHALL FURNISH & INSTALL LIQUID-TIGHT NEMA DIRECT CONNECTION(S) & BTC.
6. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) TO FSEC FURNISHED REMOTE CNTRL SWITCH(ES).
7. DIVISION 26 SHALL INTERWIRE FSEC FURNISHED WASTE DISPOSAL SYSTEM, CNTRL(S), & SOLENOID VALVE(S).
8. DIVISION 26 SHALL CONNECT POWER SUPPLY TO FSEC FURNISHED LOAD CENTER & BTC(S) BETWEEN PREWIRED SECTIONS.
9. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) TO JB ABOVE COLD STORAGE ROOM DOOR(S) & MOUNT & INTERCONNECT ADDITIONAL FSEC FURNISHED LIGHT(S) & SWITCH(ES) PER MFR'S SHOP DRAWINGS IN A CONCEALED MANNER. FACTORY-MOUNTED LIGHT ADJACENT TO DOOR IS PREWIRED. NO EXPOSED CONDUIT IS PERMITTED IN COLD STORAGE ROOM(S).
10. DIVISION 26 SHALL FULLY FOAM & SEAL INSIDE & OUTSIDE OF CONDUIT PENETRATIONS THROUGH COLD STORAGE ROOM WALLS & CEILINGS.
11. DIVISION 26 SHALL INSTALL & CONNECT FSEC FURNISHED TEMP ALARM SYSTEM FOR COLD STORAGE ROOM(S), & INTERCONNECT WITH BMS IF REQUIRED.
12. DIVISION 26 SHALL FURNISH & INSTALL FUSED DISCONNECT(S) AT COLD STORAGE ROOM CONDENSING UNIT(S).
13. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) FROM FSEC FURNISHED CONDENSING UNIT TO FSEC FURNISHED EVAPORATOR COIL. INTER-CONNECT DEFROST TIMER FOR FREEZER SECTIONS.
14. DIVISION 26 SHALL FURNISH & INSTALL LIQUID-TIGHT NEMA RECEPTACLE(S) BEHIND FREEZER SECTION EVAPORATOR COIL(S) FOR CONDENSATE DRAIN LINE HEATER & COORDINATE INSTALLATION WITH PC.
15. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) FROM DISHMACHINE FAN CONTROL CONTACTS TO CONDENSATE EXHAUST FAN INTERCONNECT TIME-DELAY RELAY IF REQUIRED.
16. DIVISION 26 SHALL CONNECT FSEC FURNISHED DRAIN WATER TEMPERING DEVICE PER MFR'S REQUIREMENTS.
17. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) FROM DISHMACHINE DRY CONTACT TO TABLE LIMIT SWITCH.
18. DIVISION 26 SHALL INTERCONNECT LIGHT FIXTURES BETWEEN KITCHEN EXHAUST HOOD SECTIONS PER MFR'S SHOP DRAWINGS & FURNISH & INSTALL DIRECT CONNECTION(S) TO FSEC FURNISHED HOOD CNTRLS &/OR LIGHT SWITCH(ES).
19. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) FROM HOOD CNTRLS TO EXHAUST & SUPPLY FAN(S) & INTERCONNECT FAN MOTOR-STARTER(S), VFD(S), & OVERLOAD PROTECTION DEVICE(S) PER MFR'S SHOP DRAWINGS.
20. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) FROM HEAT &/OR SMOKE SENSOR(S) IN HOOD(S) TO EXHAUST & SUPPLY FAN(S).
21. DIVISION 26 SHALL FURNISH & INSTALL 120V DIRECT CONNECTION(S) FROM MICRO SWITCH(ES) IN FIRE SUPPRESSION SYSTEM CONTROL PANEL TO SHUNT-TRIP BREAKER(S) TO CUT POWER TO ALL ELECTRICAL DEVICES UNDER HOOD(S) & 10' BEYOND IN EACH DIRECTION.
22. DIVISION 26 SHALL FURNISH & INSTALL DIRECT CONNECTION(S) FROM MICRO SWITCH(ES) IN FIRE SUPPRESSION SYSTEM CONTROL PANEL TO SHUT-DOWN & CONTROL HOOD LIGHTS & SUPPLY FAN(S) INCLUDING REQUIRED RELAY(S) & SWITCH(ES).
23. DIVISION 26 SHALL FURNISH & INSTALL 120V DIRECT CONNECTION(S) FROM MICRO SWITCH(ES) IN FIRE SUPPRESSION SYSTEM CONTROL PANEL TO ELECTRONIC GAS VALVE THROUGH MANUAL RESET RELAY. EC IS RESPONSIBLE FOR REQUIRED INTERCONNECTING OF POWER & CNTRLS FOR FIRE SUPPRESSION SYSTEM & ASSOCIATED ELECTRONIC GAS VALVE(S).
24. DIVISION 26 SHALL FURNISH & INSTALL AN OCTAGONAL JB IN WALL BETWEEN 42" & 60" AFF FOR REMOTE, MANUAL PULL STATION(S). EC SHALL COORDINATE LOCATION(S) WITH FIRE SUPPRESSION CONTRACTOR, & AHJ(S).
25. DIVISION 26 SHALL FURNISH & INSTALL AN EMPTY 3/4" CONDUIT & JB FOR DATA. EC SHALL VERIFY EXACT REQUIREMENTS & TERMINATION POINTS PRIOR TO ROUGH-IN.
26. VERIFY UTILITY REQUIREMENTS FOR EQUIPMENT THAT IS NOT INCLUDED IN 11 40 00 CONTRACT INCLUDING EXISTING EQUIPMENT.


DISH RETURN (B205)
SOILED (B206)
SERVERY (B203)
OFFICE (B209)
KITCHEN (B207)
DRY STORAGE (B211)
VESTIBULE (B208)
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GENERAL NOTES

A. REFER TO GYM AV SYSTEM RISER DIAGRAM FOR ADDITIONAL INFORMATION ON GYM SOUND SYSTEM.

SHEET NOTES



1 LARGE SCALE KITCHEN PLAN - TELECOMMUNICATIONS
SCALE: 1/4" = 1'-0"

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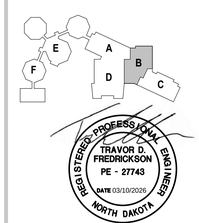
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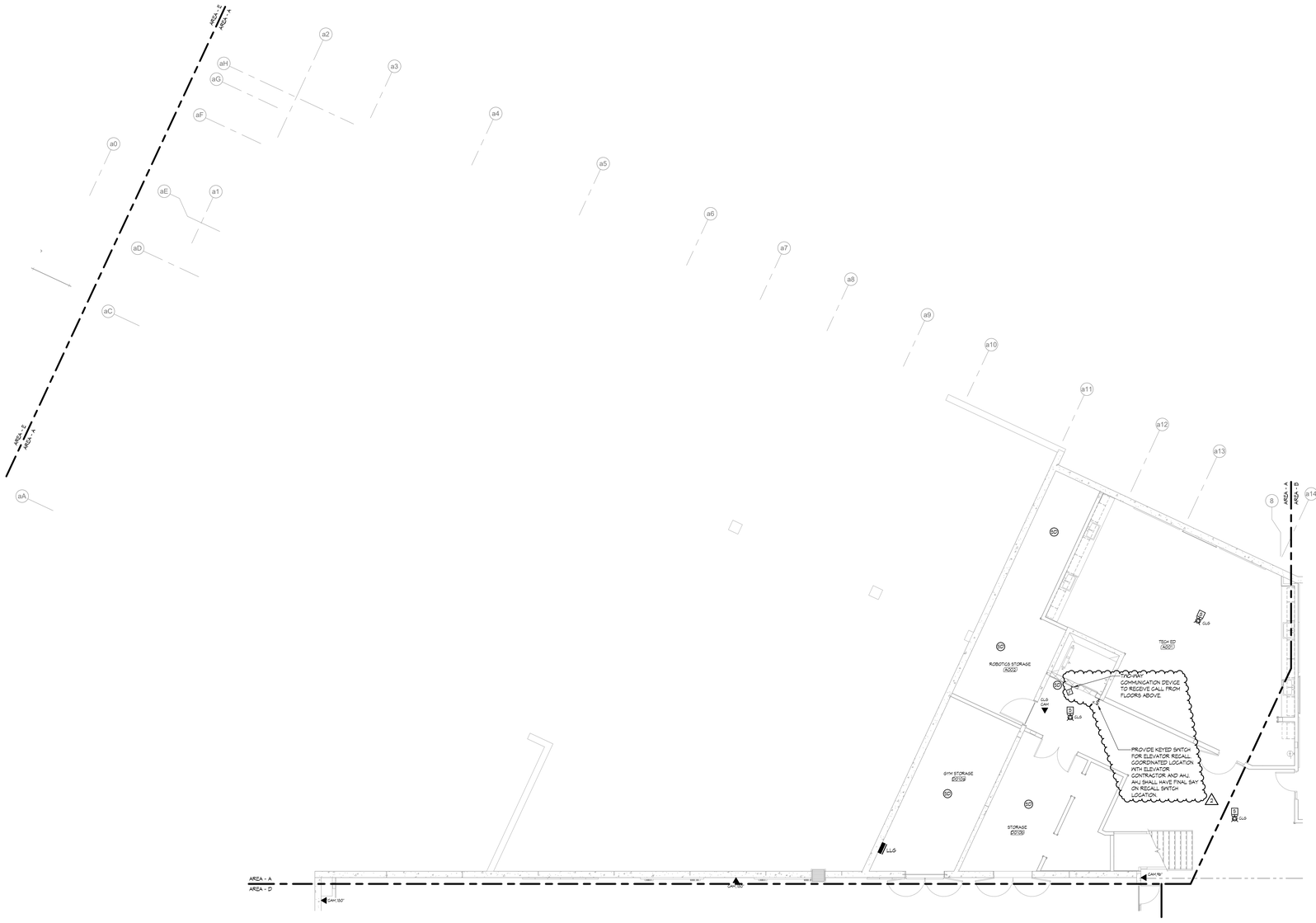
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LARGE SCALE KITCHEN PLAN - TELECOMMUNICATIONS

SHEET
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1 LOWER LEVEL PLAN SEGMENT - A - ELEC SAFETY & SECURITY

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

NORTH

GENERAL NOTES

A. THIS IS THE TEMPLATE FOR THE GENERAL NOTES.
B. DO NOT CHANGE THE WIDTH OF THE BORDER.

SHEET NOTES

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Valley City Public Schools New High School

STRUCTURAL

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MECHANICAL

CMTA
2201 12TH STREET NORTH, SUITE E
FARGO, NORTH DAKOTA 58108
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ELECTRICAL

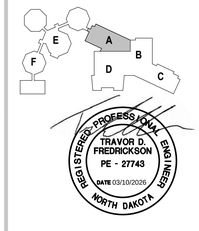
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REGISTERED PROFESSIONAL ENGINEER
TRAVOR D. FREDRICKSON
PE - 27743
DATE 03/10/2026
NORTH DAKOTA

DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/2026
2	ADDENDUM #2	03/24/2026

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LOWER LEVEL SEGMENT A - ELECTRONIC SAFETY & SECURITY

SHEET

E500A

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1 MAIN LEVEL PLAN SEGMENT - A - ELEC SAFETY & SECURITY

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

NORTH

GENERAL NOTES

A. THIS IS THE TEMPLATE FOR THE GENERAL NOTES.
B. DO NOT CHANGE THE WIDTH OF THE BORDER.

SHEET NOTES

52 WHEN PRESSED, LOCKDOWN PUSHBUTTON SHALL ALERT THE LOCAL AUTHORITIES, SEND NOTIFICATION VIA FIRE ALARM SYSTEM, AND LOCKDOWN ALL POSSIBLE DOORS. COORDINATE FINAL LOCATIONS WITH OWNER.

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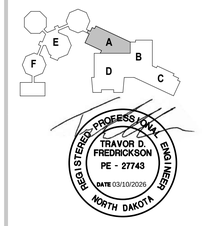
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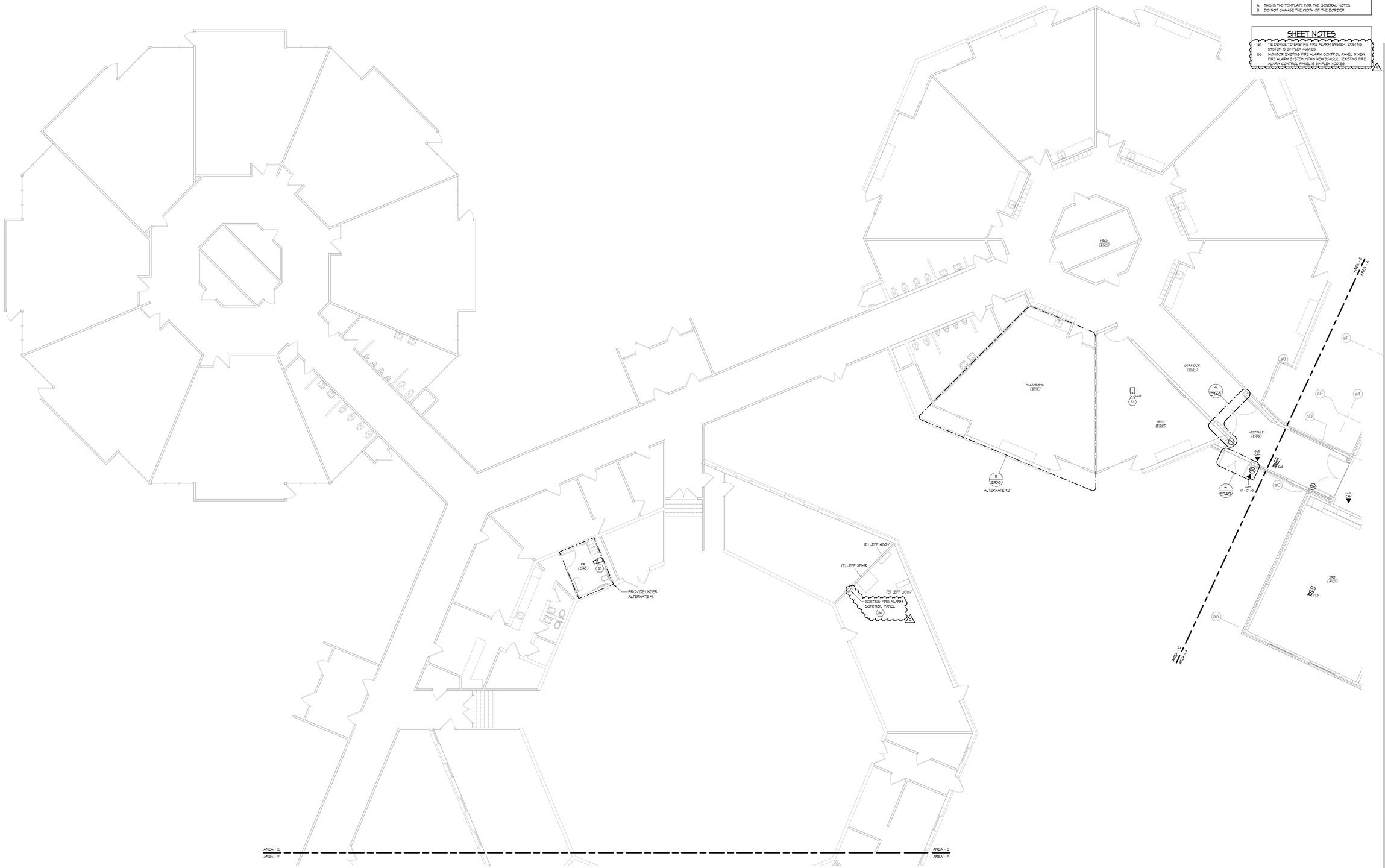
DRAWN BY: Author JN: 2025168

MAIN LEVEL SEGMENT A - ELECTRONIC SAFETY & SECURITY

SHEET

E501A

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NORTH

1 MAIN LEVEL PLAN SEGMENT - E - ELEC SAFETY & SECURITY

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

GENERAL NOTES

A. THIS IS THE TEMPLATE FOR THE GENERAL NOTES.
B. DO NOT CHANGE THE WIDTH OF THE BORDER.

SHEET NOTES

S1 TIE DEVICE TO EXISTING FIRE ALARM SYSTEM. EXISTING SYSTEM IS SIMPLEX 4007ES.
S6 MONITOR EXISTING FIRE ALARM CONTROL PANEL IN NEW FIRE ALARM SYSTEM WITHIN NEW SCHOOL. EXISTING FIRE ALARM CONTROL PANEL IS SIMPLEX 4007ES. 1

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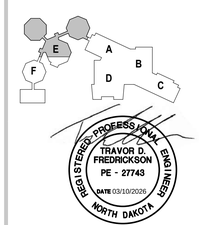
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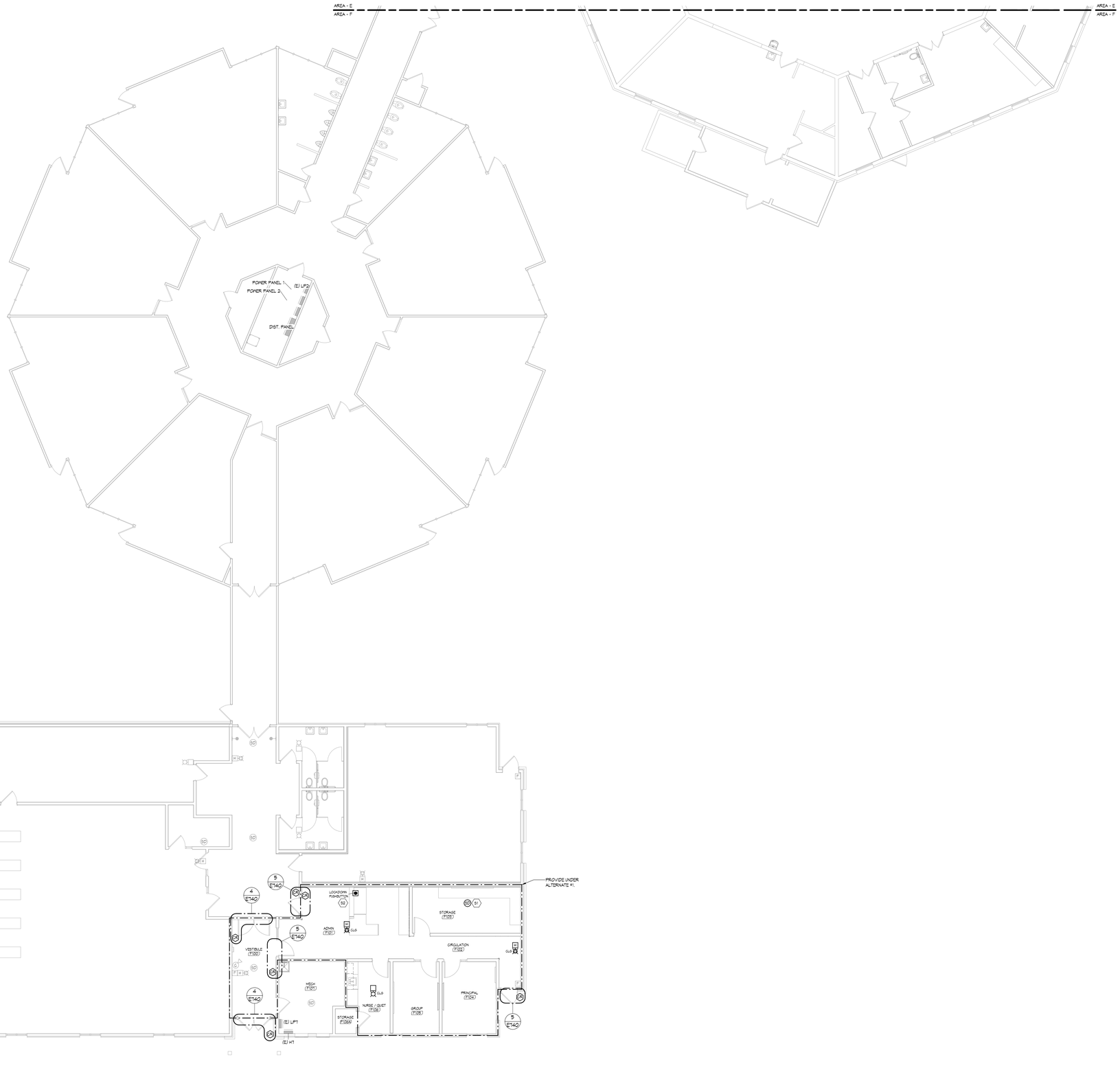
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MAIN LEVEL SEGMENT E - ELECTRONIC SAFETY & SECURITY

SHEET

E501E

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1 MAIN LEVEL PLAN SEGMENT - F - ELEC SAFETY & SECURITY

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

NORTH

SHEET NOTES

S1 TIE DEVICE TO EXISTING FIRE ALARM SYSTEM. EXISTING SYSTEM IS SIMPLEX. ADDED DEVICES SHALL BE COMPATIBLE WITH EXISTING SYSTEM.

S2 DOOR WITHOUT LOCKDOWN PREVENTION SHALL ALERT THE LOCAL AUTHORITIES, SEND NOTIFICATION VIA FIRE ALARM SYSTEM, AND LOCKDOWN ALL POSSIBLE DOORS. COORDINATE FINAL LOCATIONS WITH OWNER.

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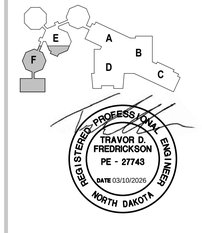
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MAIN LEVEL SEGMENT F - ELECTRONIC SAFETY & SECURITY

SHEET

E501F

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3/24/2026 09:53:24



1 UPPER LEVEL PLAN SEGMENT - A - ELEC SAFETY & SECURITY

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

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GENERAL NOTES

A. THIS IS THE TEMPLATE FOR THE GENERAL NOTES.
B. DO NOT CHANGE THE WIDTH OF THE BORDER.

SHEET NOTES

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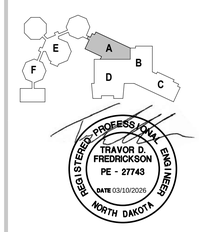
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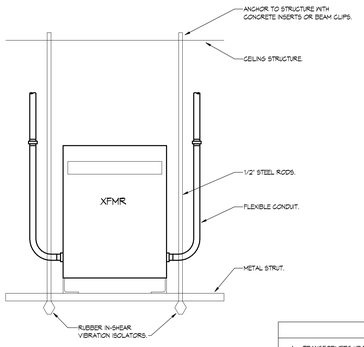
DRAWN BY: Author JN: 2025168

UPPER LEVEL SEGMENT A - ELECTRONIC SAFETY & SECURITY

SHEET

E502A

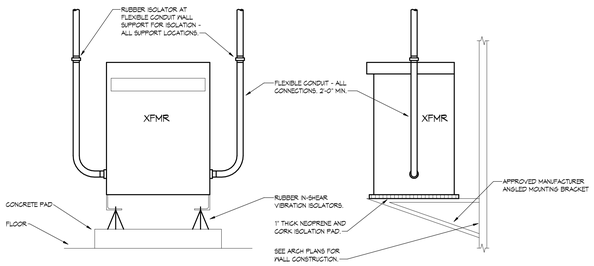
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CEILING MOUNTED

NOTES:

A. TRANSFORMERS UP TO AND INCLUDING 15KVA SHALL BE WALL MOUNTED.
B. TRANSFORMERS ABOVE 15KVA SHALL BE FLOOR MOUNTED OR SUSPENDED FROM CEILING STRUCTURE.
C. TRANSFORMERS ABOVE 15KVA SHALL BE FLOOR MOUNTED.

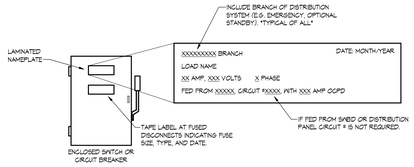


FLOOR MOUNTED

WALL MOUNTED

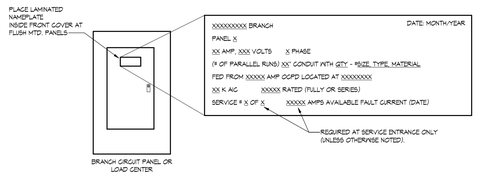
4 TYPICAL DRY-TYPE TRANSFORMER MOUNTING AND CONNECTION DETAIL

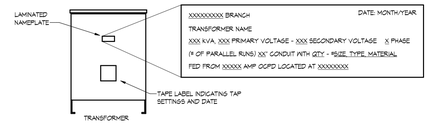
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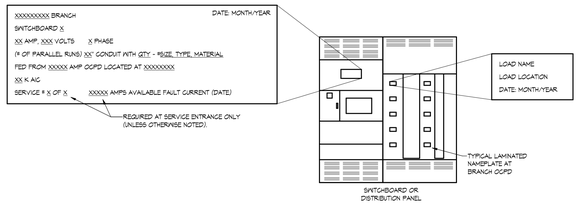


EQUIPMENT NAMEPLATE NOTES:

A. SEE SPEC SECTION 'IDENTIFICATION FOR ELECTRICAL SYSTEMS' FOR LABELING INFORMATION.
B. SECURE NAMEPLATE WITH SCREWS OR RIVETS PER SPEC SECTION 'IDENTIFICATION FOR ELECTRICAL SYSTEMS'. UTILIZE STAINLESS STEEL SCREWS AT EXTERIOR LOCATIONS.
C. UTILIZE BLACK LETTERS ON WHITE BACKGROUND (UNLESS NOTED OTHERWISE).
D. DATE INDICATED SHALL BE DATE OF INSTALL/ OR SUBSTANTIAL COMPLETION (UNLESS NOTED OTHERWISE).





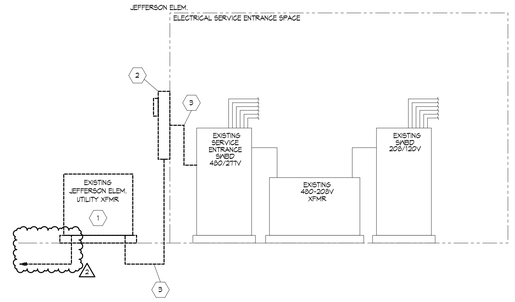


3 EQUIPMENT NAMEPLATE DETAIL

SCALE: NTS

SHEET NOTES:

1. COORDINATE REMOVAL OF EXISTING UTILITY TRANSFORMER WITH VALLEY CITY PUBLIC WORKS (VCPW). TEMPORARY OVERHEAD SERVICE IS TO BE SUPPLIED BY VCPW DURING THE CONSTRUCTION OF THE NEW SCHOOL.
2. DEMOLISH EXISTING GT CABINET AND METER BASE. TURN METER OVER TO UTILITY COMPANY.
3. DEMOLISH EXISTING CONDUIT/CONDUCTOR FROM TRANSFORMER TO SERVICE ENTRANCE SWITCHBOARD. WALL PENETRATIONS SHALL BE REUSED FOR NEW CONDUIT.



2 EXISTING JEFFERSON RISER DIAGRAM

SCALE: NTS

ELEC RISER LEGEND

- EQUIPMENT AND CONDUIT TO BE DEMOLISHED
- EXISTING EQUIPMENT AND CONDUIT TO REMAIN
- NEW EQUIPMENT AND CONDUIT

SHEET NOTES:

1. CONDUIT/CONDUCTOR ROUTED UNDERGROUND FROM NEW BUILDING TO JEFFERSON ELEMENTARY SERVICE ENTRANCE. COORDINATE FINAL ROUTING WITH CONSTRUCTION TEAM. REFER TO ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.

TRANSFORMER SCHEDULE

NOTES:
1. PLACEHOLDER NOTE.

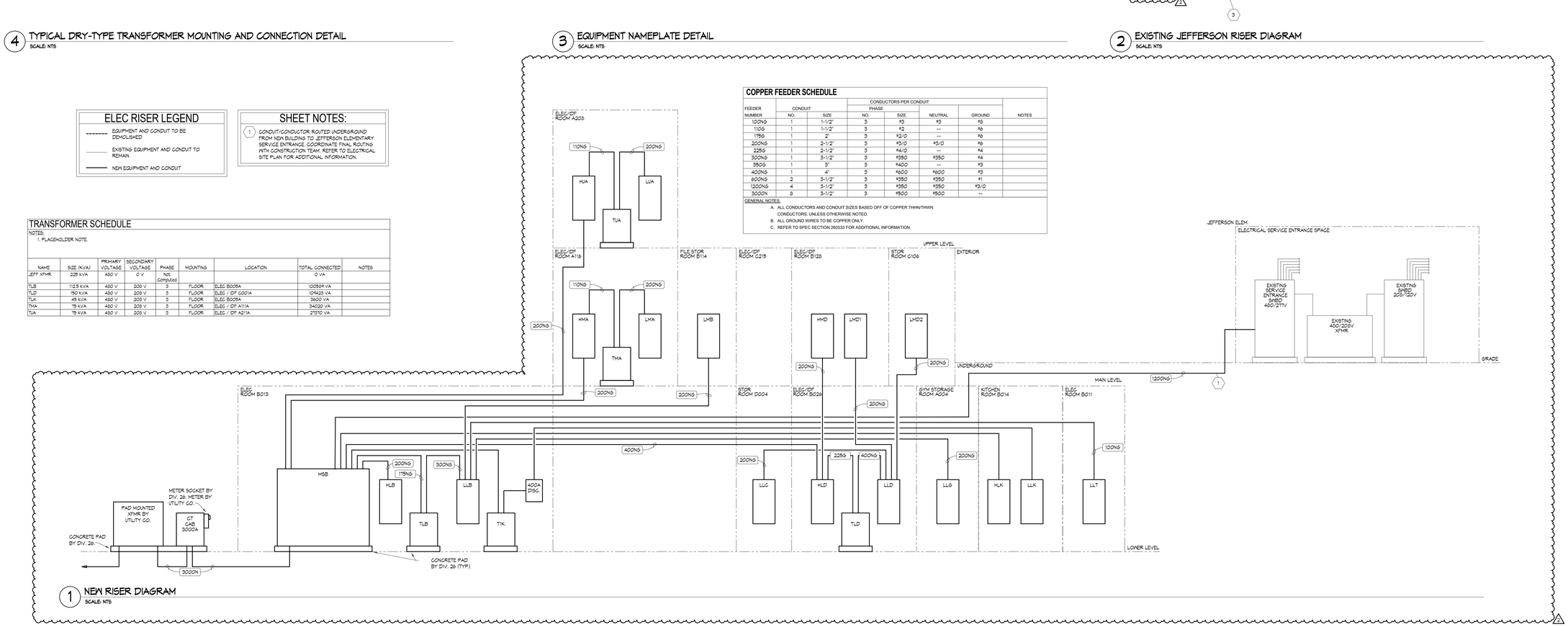
NAME	SIZE (KVA)	PRIMARY VOLTAGE	SECONDARY VOLTAGE	PHASE	MOUNTING	LOCATION	TOTAL CONNECTED	NOTES
JEFF XFMR	225 kVA	480 V	0 V	NOT Complete			0 VA	
TLB	112.5 kVA	480 V	208 V	3	FLOOR	ELEC B005A	100584 VA	
TLD	150 kVA	480 V	208 V	3	FLOOR	ELEC / DT G001A	109423 VA	
TLK	45 kVA	480 V	208 V	3	FLOOR	ELEC B005A	3600 VA	
TMA	75 kVA	480 V	208 V	3	FLOOR	ELEC / DT A111A	34020 VA	
TJA	75 kVA	480 V	208 V	3	FLOOR	ELEC / DT A211A	21330 VA	

COPPER FEEDER SCHEDULE

FEEDER NUMBER	CONDUIT NO.	CONDUIT SIZE	CONDUCTORS PER CONDUIT PHASE NO.	PHASE SIZE	NEUTRAL	GROUND	NOTES
100NS	1	1-1/2"	3	#3	#3	#6	
110S	1	1-1/2"	3	#2	--	#6	
175S	1	2"	3	#2/0	--	#6	
200NS	1	2-1/2"	3	#3/0	#3/0	#6	
225S	1	2-1/2"	3	#4/0	--	#4	
300NS	1	3-1/2"	3	#350	#350	#4	
350S	1	3"	3	#400	--	#3	
400NS	1	4"	3	#600	#600	#3	
600NS	2	3-1/2"	3	#350	#350	#1	
1200NS	4	3-1/2"	3	#350	#350	#3/0	
3000N	8	3-1/2"	3	#500	#500	--	

GENERAL NOTES:

A. ALL CONDUCTORS AND CONDUIT SIZES BASED OFF OF COPPER THHN/THWN CONDUCTORS, UNLESS OTHERWISE NOTED.
B. ALL GROUND WIRES TO BE COPPER ONLY.
C. REFER TO SPEC SECTION 260533 FOR ADDITIONAL INFORMATION.



1 NEW RISER DIAGRAM

SCALE: NTS

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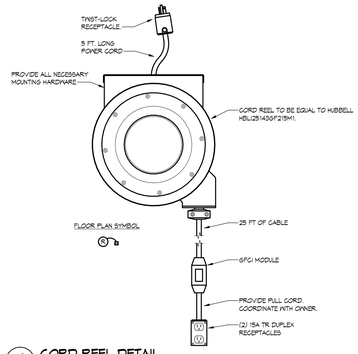
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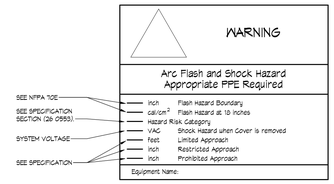
POWER DETAILS

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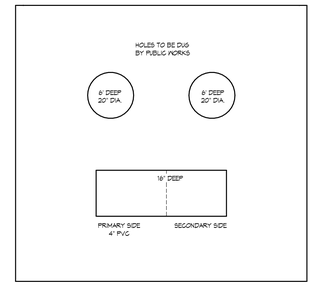
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4 CORD REEL DETAIL
SCALE: NTS

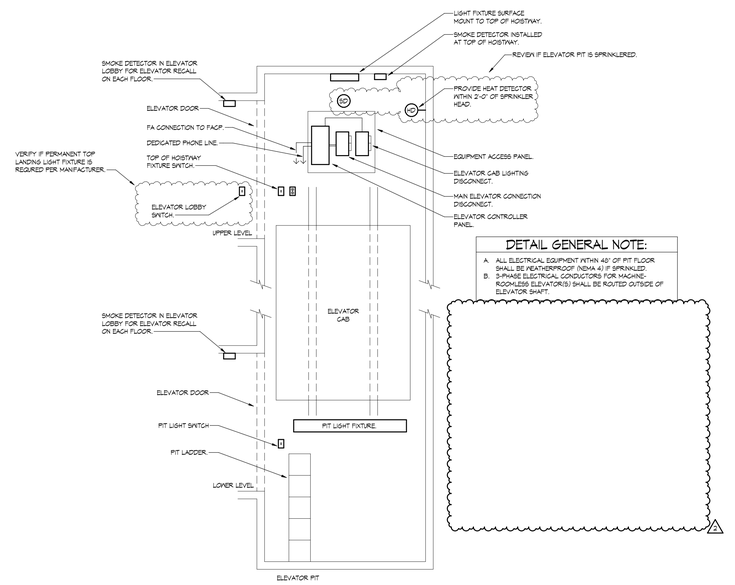


3 ARC FLASH LABEL DETAIL
SCALE: NTS



CONCRETE PAD SHALL BE MINIMUM 4" ABOVE FINISHED GRADE AND 10" THICK & 1/2" RE-BAR 1' O.C. 6" MIN. FROM PERIMETER

2 PAD FOR ERMCO 150-1000 KVA TRANSFORMER DETAIL
SCALE: NTS



1 ELEVATOR DETAIL - MACHINE-ROOMLESS
SCALE: NTS

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POWER DETAILS

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E731

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LIGHT FIXTURE SCHEDULE

GENERAL NOTES:

A. SEE SPEC SECTION 26 0000 AND 26 9100 FOR ADDITIONAL REQUIREMENTS AS REQUIRED.
B. EQUAL TO AND OR EQUAL: WHERE MATERIALS ARE SPECIFICALLY IDENTIFIED WITH EQUAL TO / OR EQUAL, SUBSTITUTE MANUFACTURERS COMPLYING WITH THE REQUIREMENTS OF THESE SPECIFICATIONS BUT NOT LISTED MAY BE INCORPORATED IN THE WORK. SUCH MATERIAL EQUAL TO OR SUPERIOR, IN ENGINEER'S OPINION, TO THAT SPECIFIED IN CONSTRUCTION, EFFICIENCY, APPEARANCE, AND UTILITY.
C. ALL DIMENSIONS ARE NOMINAL UNLESS NOTED OTHERWISE.
D. RATED LIFE OF LED LUMINARES SHALL BE 50,000 HOURS UNLESS OTHERWISE NOTED.
E. EMERGENCY LUMINARES SHALL BE EQUIPPED WITH SELF-DIAGNOSTIC BATTERIES UNLESS OTHERWISE NOTED.
F. COLOR TEMPERATURE OF LED LUMINARES IS NOMINAL UNLESS OTHERWISE NOTED.
G. SYSTEM WATTAGE SCHEDULED IS NOMINAL UNLESS NOTED OTHERWISE.
H. 0-10V LED DRIVERS TO BE FURNISHED WITH ISOLATED GROUNDS. COMMON WIRE SHALL BE ISOLATED FROM THE POWER SYSTEM GROUND WIRE OF THE POWER SUPPLY.
I. DIMMING COMPONENTS SHALL BE COMPATIBLE WITH SPECIFIED LIGHTING CONTROL SYSTEMS.
K. LINEAR LUMINAIRE LENGTHS GREATER THAN 8'-0": LENS & REFLECTOR SHALL BE CONTINUOUS FROM END TO END (WITHOUT VISIBLE JOINTS) FOR THE TOTAL RUN LENGTH.
L. REFER TO ARCHITECTURAL, LANDSCAPING, AND CIVIL PLANS FOR COORDINATION AND ADDITIONAL INFORMATION, DETAILS, MOUNTING, AND LOCATION OF EQUIPMENT.
M. FOR SITE POLE LIGHTING, PROVIDE ROUND, TAPERED, STEEL POLE, WITH HANDHOLE, ANCHOR BOLTS, BOLT TEMPLATE, VIBRATION DAMPER, AND BASE COVER. SHALL BE FACTORY FINISHED TO MATCH LUMINAIRE. REFER TO POLE BASE DETAILS FOR ADDITIONAL INFORMATION.
N. PROVIDE T-GRID MOUNTING HARDWARE WHERE REQUIRED. REFER TO ARCHITECTURAL RCP PLANS FOR MORE INFORMATION.

NOTES:

1. PROVIDE FIXTURE MOUNTED BI-LEVEL MOTION SENSOR. POWER SUPPLY TO BE 0-10V DIMMING TO DIM WATTAGE DOWN IN 1% INCREMENTS TO REDUCE LIGHT LEVEL WHEN AREA IS UNOCCUPIED.

TYPE	MANUFACTURER	SERIES	VOLT	LIGHT SOURCE CCT	LIGHT SOURCE CRI	LIGHT SOURCE LUMENS	POWER SUPPLY/DIMMING SYSTEM WATTAGE	POWER SUPPLY/DIMMING DIMMING	DIMENSIONS	MOUNTING	FINISH	DESCRIPTION
A21	EQUAL TO: SIGNIFY COLUMBIA METALUX LITHONIA	2FP2 CBT22 2DFPX CFX2X2	MVOLT	4000K	(MIN) 80	3200	30 W	10% 0-10V DIM	2.25" DEPTH 2' X 2'	RECESSED IT-GRID OR GYP)	WHITE	BACK LIT FLAT PANEL, RIGID HOUSING DIE-FORMED STEEL FRAME CONSTRUCTION, SATIN WHITE LENS, NO VISIBLE LED DIODES. SUITABLE FOR DAMP LOCATION.
A41	EQUAL TO: SIGNIFY COLUMBIA METALUX LITHONIA	2FP2 CBT24 2MFPX CFX2X4	MVOLT	4000K	(MIN) 80	4000	37 W	10% 0-10V DIM	2.25" DEPTH 2' X 4'	RECESSED IT-GRID OR GYP)	WHITE	BACK LIT FLAT PANEL, RIGID HOUSING DIE-FORMED STEEL FRAME CONSTRUCTION, SATIN WHITE LENS, NO VISIBLE LED DIODES. SUITABLE FOR DAMP LOCATION. REFER TO LIGHTING CONTROL NOTES FOR INTEGRAL SENSOR REQUIREMENTS.
AK11	APPROVED EQUAL TO: LITHONIA	CPX1F	MVOLT	4000K	80	5421	40 W	10% 0-10V DIM	2-5/8" H 2' X 4'	RECESSED T-GRID	WHITE	IP65 RATED FLAT PANEL WITH SATIN ACRYLIC LENS.
D8	EQUAL TO ATLANTIC PORTFOLIO	SYL LEDb LDS6B	MVOLT	4000K	90	1200	25 W	10% 0-10V DIM	1" H 6" DIA	RECESSED (T-GRID OR GYP)	SPECULAR REFLECTOR SMOOTH WHITE TRIM RING	RECESSED DOWNLIGHT SELF-FLANGED SPUN ALUMINUM LOWER REFLECTOR, STAINLESS STEEL, TRIM RING WITH STAINLESS STEEL CONTERSUNK SCREWS, CAN BE SERVICED FROM ABOVE OR BELOW CEILING. DAMP LOCATION RATED.
D8B	EQUAL TO: ATLANTIC PORTFOLIO	SYL LEDb LDS6B	MVOLT	4000K	90	1200	25 W	10% 0-10V DIM	1" H 6" DIA	RECESSED (T-GRID OR GYP)	BLACK	SAME AS TYPE D8, EXCEPT IP66 RATED.
DM1	APPROVED EQUAL TO: GOTHAM	EVO-4	MVOLT	RGBW	90	1250	31 W	DMX	6-5/8"H 4-5/16"DIA APERTURE	RECESSED GYP	WHITE	SELF FLANGED 4" DOWNLIGHT WITH GLEAR MATTE FINISH AND MEDIUM DISTRIBUTION. TUNABLE RGBW.
E1	EQUAL TO CHLORIDE DUAL-LITE EVENLITE SURE-LITE	55 SERIES SE GGDS GX	MVOLT	MS	MS	MS	2.5 W	--	STANDARD	WALL	WHITE	SINGLE FACE DIE-CAST ALUMINUM EXIT SIGN, STENCIL FACE WITH RED OPTICAL DIFFUSER. INTEGRAL NI-CAD BATTERY EQUIPPED WITH SELF DIAGNOSTICS.
E2	EQUAL TO CHLORIDE DUAL-LITE EVENLITE SURE-LITE	55 SERIES SE GGDS GX	MVOLT	MS	MS	MS	2.5 W	--	STANDARD	CEILING	WHITE	SINGLE FACE DIE-CAST ALUMINUM EXIT SIGN, STENCIL FACE WITH RED OPTICAL DIFFUSER. INTEGRAL NI-CAD BATTERY EQUIPPED WITH SELF DIAGNOSTICS.
E3	EQUAL TO CHLORIDE DUAL-LITE EVENLITE SURE-LITES	VE EVE TLX LPX	MVOLT	MS	MS	MS	2.5 W	--	STANDARD	WALL	WHITE	SINGLE FACE THERMOPLASTIC / POLYCARBONATE EXIT SIGN. STENCIL FACE WITH RED OPTICAL DIFFUSER. INTEGRAL NI-CAD BATTERY EQUIPPED WITH SELF-DIAGNOSTICS.
E4	EQUAL TO: CHLORIDE DUAL-LITE EVENLITE SURE-LITES	VE EVE TLX LPX	MVOLT	MS	MS	MS	2.5 W	--	STANDARD	CEILING	WHITE	SINGLE FACE THERMOPLASTIC / POLYCARBONATE EXIT SIGN. STENCIL FACE WITH RED OPTICAL DIFFUSER. INTEGRAL NI-CAD BATTERY EQUIPPED WITH SELF-DIAGNOSTICS.
E5	EQUAL TO: CHLORIDE EVENLITE SURE-LITES	VE TLX APWHRG	MVOLT	MS	MS	MS	2.5 W	--	STANDARD	WALL	WHITE	SINGLE FACE THERMOPLASTIC / POLYCARBONATE EXIT SIGN. STENCIL FACE WITH RED OPTICAL DIFFUSER. INTEGRAL NI-CAD BATTERY EQUIPPED WITH SELF-DIAGNOSTICS. BATTERY CAPACITY SHALL BE SIZED FOR (1) TYPE 'XXX' FIXTURE RATED FOR 90 MINUTES.
E6	EQUAL TO CHLORIDE EVENLITE SURE-LITES	VE TLX APWHRG	MVOLT	MS	MS	MS	2.5 W	--	STANDARD	CEILING	WHITE	SINGLE FACE THERMOPLASTIC / POLYCARBONATE EXIT SIGN. STENCIL FACE WITH RED OPTICAL DIFFUSER. INTEGRAL NI-CAD BATTERY EQUIPPED WITH SELF-DIAGNOSTICS. BATTERY CAPACITY SHALL BE SIZED FOR (1) TYPE 'XXX' FIXTURE RATED FOR 90 MINUTES.
E12	EQUAL TO SURE-LITES DUAL-LITE EVENLITE SOLITE	ELX LE SOV ELTHR	MVOLT	MS	MS	MS	1.5 W	--	STANDARD	END MOUNT	BRUSHED ALUMINUM	ARCHITECTURAL END MOUNTED EDGE LIT EXIT SIGN. RED LETTERS ON (WHITE) (CLEAR) (MIRRORED) BACKGROUND. SEE FLOORPLANS FOR CHEVRONS. INTEGRAL NI-CAD BATTERY EQUIPPED WITH SELF-DIAGNOSTICS.
EM1	EQUAL TO: LITHONIA DUAL-LITE SOLITE SURE-LITES	ELM2L EV BUG APELM2	MVOLT	MS	MS	MS	1.5 W	--	4-1/2"H 9"W 2-15/16"D	WALL	WHITE	SELF-CONTAINED EMERGENCY LIGHTING UNIT, 2-FULLY ADJUSTABLE HEADS, MAINTENANCE FREE NICKEL CADMIUM BATTERY EQUIPPED WITH (REMOTE CAPACITY NOTE RATED FOR 90 MINUTES) MAINTENANCE FREE NICKEL CADMIUM BATTERY. 5-YEAR WARRANTY.
EM1R	APPROVED EQUAL TO: SURE-LITES	APWR2	3.6 V	MS	MS	MS	3 W	--	MS	WALL	WHITE	DUAL REMOTE BATTERY HEAD. (2) ADJUSTABLE REMOTE HEADS. UNIVERSAL MOUNTING PLATE. THERMOPLASTIC HOUSING. FIXTURE SHALL BE OPERATIONAL FOR 90 MINTES MINIMUM. FED THROUGH FIXTURE TYPE 'XXX'. PET LOCATION RATED.
EM2	EQUAL TO LITHONIA SOLITE SURE-LITES	ELZL EV BUG APEL	MVOLT	MS	MS	MS	1 W	--	4-1/2"H 9"W 2-15/16"D	CEILING	WHITE	SELF-CONTAINED EMERGENCY LIGHTING UNIT, 2-FULLY ADJUSTABLE HEADS, (REMOTE CAPACITY NOTE RATED FOR 90 MINUTES) MAINTENANCE FREE NICKEL CADMIUM BATTERY. 5-YEAR WARRANTY.
EM3	EQUAL TO: LITHONIA DUAL-LITE SOLITE SURE-LITES	ELM4L EVNC BUG SELBO	MVOLT	MS	MS	MS	4 W	--	4-3/4"H 3-1/2"D 14"L	WALL	WHITE	SELF-CONTAINED EMERGENCY LIGHTING UNIT, 2-FULLY ADJUSTABLE HEADS, MAINTENANCE FREE NICKEL CADMIUM BATTERY EQUIPPED WITH SELF-DIAGNOSTICS. HIGH IMPACT THERMOPLASTIC CONSTRUCTION. 60'-0" SPACING. 5-YEAR WARRANTY.
EM4	EQUAL TO: SOLITE SURE-LITES	BUG SELBO	MVOLT	MS	MS	MS	4 W	--	4-3/4"H 3-1/2"D 14"L	CEILING	WHITE	SELF-CONTAINED EMERGENCY LIGHTING UNIT, 2-FULLY ADJUSTBLE HEADS, MAINTENANCE FREE NICKEL CADMIUM BATTERY EQUIPPED WITH SELF-DIAGNOSTICS. HIGH IMPACT THERMOPLASTIC CONSTRUCTION. 5-YEAR WARRANTY.
EM5	EQUAL TO: SURE-LITES	SELN29	MVOLT	MS	MS	MS	1.5 W	--	7-15/16" H 2-5/16" D 7-1/2" W	WALL	WHITE	LOW PROFILE EMERGENCY LUMINARE. HIGH IMPACT THERMOPLASTIC HOUSING, 4.8V BATTERY BACKUP. PET LOCATION RATED. 29'-0" SPACING.
G4	APPROVED EQUAL TO: METALUX	56 LED	MVOLT	4000K	90	12855	85 W	--	17-1/2" H 17-3/4" DIA	ROD SUSPENDED	WHITE	HIGHBAY WITH WIDE BEAM ANGLE AND INTEGRAL OCCUPANCY AND DAYLIGHT SENSORS.
G4E	APPROVED EQUAL TO: METALUX	56 LED	MVOLT	4000K	90	12855	85 W	--	17-1/2" H 17-3/4" DIA	ROD SUSPENDED	WHITE	HIGHBAY WITH WIDE BEAM ANGLE AND INTEGRAL OCCUPANCY AND DAYLIGHT SENSORS.
G10	APPROVED EQUAL TO: METALUX	56 LED	MVOLT	4000K	90	8427	84 W	--	17-1/2" H 17-3/4" DIA	ROD SUSPENDED	WHITE	SAME AS TYPE G4, EXCEPT LUMEN OUTPUT.
H1	EQUAL TO: ELITE LIGHTING COLUMBIA LITHONIA METALUX	4-DEC-LED MP3 ZLTD SNLED	MVOLT	4000K	80	5000	50 W	--	4"W 3"H 4'-0"L	CHAN SUSPENDED	WHITE	INDUSTRIAL LED STRIPLIGHT, DIE FORMED COLD ROLLED STEEL CHANNEL. RUST RESISTANT FINISH. NO DIMMING. EXTRUDED CURVED FROSTED LENS. WIDE BEAM DISTRIBUTION.
L12	APPROVED EQUAL TO: METALUX COLUMBIA LITHONIA	RBG NRL LSX	MVOLT	4000K	80	2000	20 W	10% 0-10V DIM	6" H 2 3/8" H 2'-0" L	RECESSED (T-GRID)	WHITE	EDGE LIT LAY-IN LINEAR FIXTURE WITH 4' APERTURE AND 6" WIDTH. DAMP LISTED. REFER TO LIGHTING CONTROL NOTES FOR INTEGRAL SENSOR REQUIREMENTS.
L14	APPROVED EQUAL TO: METALUX COLUMBIA LITHONIA	RBG NRL LSX	MVOLT	4000K	80	4000	39 W	10% 0-10V DIM	6" H 2 3/8" H 4'-0" L	RECESSED (T-GRID)	WHITE	EDGE LIT LAY-IN LINEAR FIXTURE WITH 4' APERTURE AND 6" WIDTH. DAMP LISTED. REFER TO LIGHTING CONTROL NOTES FOR INTEGRAL SENSOR REQUIREMENTS.
L10	APPROVED EQUAL TO: METALUX COLUMBIA LITHONIA	RBG NRL LSX	MVOLT	4000K	80	8000	80 W	10% 0-10V DIM	6" H 2 3/8" H 8'-0" L	RECESSED (T-GRID)	WHITE	EDGE LIT LAY-IN LINEAR FIXTURE WITH 4' APERTURE AND 6" WIDTH. DAMP LISTED. REFER TO LIGHTING CONTROL NOTES FOR INTEGRAL SENSOR REQUIREMENTS.
L22	APPROVED EQUAL TO: ALN LIGHTING EXTANT LIGHTING	SP2.5S MTGDU-3P	MVOLT	4000K	90	150 LM/FT UP 224 LM/FT DN	100 W/FT	10% 0-10V DIM	SEE DWGS FOR LENGTH	FULLY ADJUSTABLE AIR-CRAFT CABLE	WHITE	BI-DIRECTIONAL LINEAR, EXTRUDED ALUMINUM HOUSING & PRECISION MACHINED ALUM. ENDCAPS. 1.04 W/FT, 224 LM/FT DN, 1.5 W/FT, 150 LM/FT UP OUTPUT. DIFFUSING DOWN DISTRIBUTION & BATANG UP DISTRIBUTION. INTEGRAL DRIVER. REFER TO LIGHTING CONTROL NOTES FOR INTEGRAL SENSOR REQUIREMENTS.

LIGHT FIXTURE SCHEDULE

GENERAL NOTES:

A. SEE SPEC SECTION 26 0000 AND 26 9100 FOR ADDITIONAL REQUIREMENTS AS REQUIRED.
B. EQUAL TO AND OR EQUAL: WHERE MATERIALS ARE SPECIFICALLY IDENTIFIED WITH EQUAL TO / OR EQUAL, SUBSTITUTE MANUFACTURERS COMPLYING WITH THE REQUIREMENTS OF THESE SPECIFICATIONS BUT NOT LISTED MAY BE INCORPORATED IN THE WORK. SUCH MATERIAL EQUAL TO OR SUPERIOR, IN ENGINEER'S OPINION, TO THAT SPECIFIED IN CONSTRUCTION, EFFICIENCY, APPEARANCE, AND UTILITY.
C. ALL DIMENSIONS ARE NOMINAL UNLESS NOTED OTHERWISE.
D. RATED LIFE OF LED LUMINARES SHALL BE 50,000 HOURS UNLESS OTHERWISE NOTED.
E. EMERGENCY LUMINARES SHALL BE EQUIPPED WITH SELF-DIAGNOSTIC BATTERIES UNLESS OTHERWISE NOTED.
F. COLOR TEMPERATURE OF LED LUMINARES IS NOMINAL UNLESS OTHERWISE NOTED.
G. SYSTEM WATTAGE SCHEDULED IS NOMINAL UNLESS NOTED OTHERWISE.
H. 0-10V LED DRIVERS TO BE FURNISHED WITH ISOLATED GROUNDS. COMMON WIRE SHALL BE ISOLATED FROM THE POWER SYSTEM GROUND WIRE OF THE POWER SUPPLY.
I. DIMMING COMPONENTS SHALL BE COMPATIBLE WITH SPECIFIED LIGHTING CONTROL SYSTEMS.
K. LINEAR LUMINAIRE LENGTHS GREATER THAN 8'-0": LENS & REFLECTOR SHALL BE CONTINUOUS FROM END TO END (WITHOUT VISIBLE JOINTS) FOR THE TOTAL RUN LENGTH.
L. REFER TO ARCHITECTURAL, LANDSCAPING, AND CIVIL PLANS FOR COORDINATION AND ADDITIONAL INFORMATION, DETAILS, MOUNTING, AND LOCATION OF EQUIPMENT.
M. FOR SITE POLE LIGHTING, PROVIDE ROUND, TAPERED, STEEL POLE, WITH HANDHOLE, ANCHOR BOLTS, BOLT TEMPLATE, VIBRATION DAMPER, AND BASE COVER. SHALL BE FACTORY FINISHED TO MATCH LUMINAIRE. REFER TO POLE BASE DETAILS FOR ADDITIONAL INFORMATION.
N. PROVIDE T-GRID MOUNTING HARDWARE WHERE REQUIRED. REFER TO ARCHITECTURAL RCP PLANS FOR MORE INFORMATION.

NOTES:

1. PROVIDE FIXTURE MOUNTED BI-LEVEL MOTION SENSOR. POWER SUPPLY TO BE 0-10V DIMMING TO DIM WATTAGE DOWN IN 1% INCREMENTS TO REDUCE LIGHT LEVEL WHEN AREA IS UNOCCUPIED.

TYPE	MANUFACTURER	SERIES	VOLT	LIGHT SOURCE CCT	LIGHT SOURCE CRI	LIGHT SOURCE LUMENS	POWER SUPPLY/DIMMING SYSTEM WATTAGE	POWER SUPPLY/DIMMING DIMMING	DIMENSIONS	MOUNTING	FINISH	DESCRIPTION
L30	APPROVED EQUAL TO: ANS	PET BEAM	MVOLT	4000K	90	1800 LM UP 4000 LM DOWN	64 W	1% 0-10V DIM	5-1/8" H 3-7/16" W 4'-0" L	SUSPENDED (AIRCRAFT CABLE)	BLACK	BI-DIRECTIONAL LINEAR SUSPENDED FROM STRUCTURAL DECK. IP64 RATED REFER TO LIGHTING CONTROL NOTES FOR INTEGRAL SENSOR REQUIREMENTS.
L34	APPROVED EQUAL TO: ANS	PET BEAM	MVOLT	4000K	90	1800 LM UP 4000 LM DOWN	120 W	1% 0-10V DIM	5-1/8" H 3-7/16" W 8'-0" L	SUSPENDED (AIRCRAFT CABLE)	BLACK	BI-DIRECTIONAL LINEAR SUSPENDED FROM STRUCTURAL DECK. IP64 RATED REFER TO LIGHTING CONTROL NOTES FOR INTEGRAL SENSOR REQUIREMENTS.
L44	APPROVED EQUAL TO: ALN	SLM-2	MVOLT	4000K	90	325 LM/FT	5 W/FT	10% 0-10V DIM	2" H 5" W SEE DWGS FOR LENGTH	RECESSED	WHITE	LINEAR FIXTURE WITH EXTRUDED ALUMINUM CHASIS. OPAL POLYCARBONATE LENS. COMPLATABLE WITH 2" WOOD SLOT CEILING REFER TO LIGHTING CONTROL NOTES FOR INTEGRAL SENSOR REQUIREMENTS.
L45	APPROVED EQUAL TO: ALN LIGHTING EXTANT LIGHTING	SP2.5S MTGDU-3P	MVOLT	4000K	90	150 LM/FT UP 224 LM/FT DN	85 W	10% 0-10V DIM	2-1/8" H 3-1/8" W SEE DWGS FOR LENGTH	FULLY ADJUSTABLE AIR-CRAFT CABLE	WHITE	ONE CONTINUOUS SUSPENDED FIXTURE WITH 'V' SHAPE, UP/DOWN DISTRIBUTION FLUSH SATIN LENS FOR DOWN DISTRIBUTION AND A FLUSH CLEAR DUST COVER FOR UP DISTRIBUTION. BOTTOM LENS SHALL BE CONTINUOUS COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
L85	APPROVED EQUAL TO: ALN LIGHTING EXTANT LIGHTING	SP2.5S MTGDU-3P	MVOLT	4000K	90	150 LM/FT UP 224 LM/FT DN	VERIFY W	10% 0-10V DIM	2-1/8" H 3-1/8" W SEE DWGS FOR LENGTH	FULLY ADJUSTABLE AIR-CRAFT CABLE	WHITE	ONE CONTINUOUS SUSPENDED FIXTURE WITH RECTANGULAR SHAPE, UP/DOWN DISTRIBUTION FLUSH SATIN LENS FOR DOWN DISTRIBUTION AND A FLUSH CLEAR DUST COVER FOR UP DISTRIBUTION.
N1	APPROVED EQUAL TO: PINNACLE LEDALITE LUMINAIRE X	EDGE TRUGROOVE VIA 3 PERIMETER	MVOLT	4000K	90	150 LM/FT	8 W/FT	1% 0-10V DIM	6-1/2" H 4" W 2'-0" L	VERIFY CLG INSTALLATION	WHITE	RECESSED PERIMETER LINEAR LED WITH ASYMETRIC OPTIC. EXTRUDED ALUMINUM HOUSING. RSGRESSED SNAP-IN LENS.
N3	APPROVED EQUAL TO: AXIS LIGHTING ALN PINNACLE	SPRLED HYLITE EDGE EVZDPW	MVOLT	4000K	90	575	5.4 W/FT	1% 0-10V DIM	4" H 3" W 4'-0" L	RECESSED	WHITE	THIN PROFILE LINEAR PERIMETER WALL GRAZER. CONTINUOUS SNAP IN LENS.
X1	APPROVED EQUAL TO: SCALA LED	NEON-CUSTOM	MVOLT	848	--	MAX 82	5.4 W/FT	CUSTOM	1-1/4" H 3-1/4" W SEE DWGS FOR LENGTH	CHANNEL	WHITE	EXTERIOR IP66 RATED TAPE LIGHT. DIGITAL RGB DRIVER ALLOWING FOR SCALAR PROGRAMMING.
S3	APPROVED EQUAL TO: MODERN FORMS PAC LIGHTING	MN VOGUE BRNK	MVOLT	3000K	90	1225	19.5 W	10% 0-10V DIM	WALL ABOVE MIRROR 2' SQ. 13" L	BRUSHED ALUMINUM	BRUSHED ALUMINUM	ABOVE MIRROR VANITY LUMINARE. SQUARE EXTRUDED DIFFUSER ARCHITECTURAL WITH BRUSHED ALUMINUM ADJUSTABLE BACKPLATE AND ENDCAPS. MOUNTS TO 4" J-BOX. DAMP LOCATION LISTED.
V2	APPROVED EQUAL TO: NUITE LITHONIA	INT VAP	MVOLT	MS	80	8000	67 W	10% 0-10V DIM	12" H 7-1/2" W 4'-0" L	WALL SURFACE	M.S.	WALL MOUNTED VAPOR TIGHT POLYCARBONATE HOUSING. CONTINUOUS CLOSED CELL GASKET. WIDE DISTRIBUTION WITH FROSTED POLYCARBONATE LENS.
Z4	EQUAL TO: PERFORMANCE IN LIGHTING LITHONIA	SHIELD* WPX1 LED P2 SHIELD*	MVOLT	4000K	80	2100	18 W	--	6-3/4" H 5-3/4" W 3'-8" L	EXTERIOR WALL	TO BE SELECTED BY ARCH	SLIM, LOW PROFILE EXTERIOR WALL MOUNT JET LOCATION LISTED.
Z11	EQUAL TO: BEACON	JET VIPER SERIES	MVOLT	4000K	80	4054	132 W	0-10V	6" H 6" W 4'-0" L	WALL	TO BE SELECTED BY ARCH	SQUARE WALL MOUNTED LED LUMINARE. ALUMINUM HOUSING WITH CLEAR GLASS DIFFUSER. UP AND DOWN DISTRIBUTION WITH 60° BEAM. PROVIDE CUSTOM MOUNTING PLATE AS REQUIRED TO INSTALL ON WALL SURFACE.
AA2	APPROVED EQUAL TO: BEACON LITHONIA NLS LIGHTING MCGRAW EDISON	VIPER SERIES D-SERIES NV SERIES GLEON	MVOLT	4000K	85	24,321	207 W	10% 0-10V DIM	HEAD PER MANUFACTURER 1" ARM	30'-0" POLE	DARK BRONZE	POLE MOUNTED SITE FIXTURE. LUMINAIRE HOUSE DESIGN HEAD W/ CRADLE TOP. EXTRUDED ALUMINUM DRIVER & HEAVY-WALL DIE CAST ALUMINUM END CAPS ENCLOSED HOUSING. 1" ARM. PET LOCATION LISTED. SINGLE HEAD WITH T2 DISTRIBUTION. INTEGRAL MOTION SENSOR FOR DIMMING OPERATION & PHOTOCELL.
AA2U	APPROVED EQUAL TO: BEACON LITHONIA NLS LIGHTING MCGRAW EDISON	VIPER SERIES D-SERIES NV SERIES GLEON	MVOLT	4000K	85	24,321	207 W	10% 0-10V DIM	HEAD PER MANUFACTURER 1" ARM	EXTERIOR WALL	DARK BRONZE	SAME AS TYPE AA2. EXCEPT BUILDING MOUNTED.
AA4	APPROVED EQUAL TO: BEACON LITHONIA NLS LIGHTING MCGRAW EDISON	VIPER SERIES D-SERIES NV SERIES GLEON	MVOLT	4000K	85	24,321	207 W	10% 0-10V DIM	HEAD PER MANUFACTURER 1" ARM	30'-0" POLE	DARK BRONZE	SAME AS TYPE AA2 EXCEPT T4 DISTRIBUTION.
AA4B	APPROVED EQUAL TO: BEACON LITHONIA NLS LIGHTING MCGRAW EDISON	VIPER SERIES D-SERIES NV SERIES GLEON	MVOLT	4000K	85	24,321	207 W	10% 0-10V DIM	HEAD PER MANUFACTURER 1" ARM	30'-0" POLE	DARK BRONZE	SAME AS TYPE AA4, EXCEPT, PROVIDE HOUSE SIDE SHIELD
AA5	APPROVED EQUAL TO: BEACON LITHONIA NLS LIGHTING MCGRAW EDISON	VIPER SERIES D-SERIES NV SERIES GLEON	MVOLT	4000K	85	24,321	207 W	10% 0-10V DIM	HEAD PER MANUFACTURER 1" ARM	30'-0" POLE	DARK BRONZE	SAME AS TYPE AA2 EXCEPT SLR DISTRIBUTION.
GG1	APPROVED EQUAL TO: FC LIGHTING	FCBBC-36L02	MVOLT	4000K	80	1100	20 W	NOTE 1 0-10V DIM	5.5"DIA 24.5"H	SEE DWG	TO BE SELECTED BY ARCH	DIE-CAST ALUMINUM LINEAR CYLINDRICAL POST. PET LOCATION LISTED.
FF1	APPROVED EQUAL TO: KIRLIN	LWR-09480	277 V	4000K	80	2300	42.6 W	--	15-1/8" H 9" DIA.	FLAG POLE MTD	TO BE SELECTED BY ARCH	ON POLE LED FLAG LIGHT. ALUMINUM HOUSING, 11 DEGREE AND 20 DEGREE BEAM ANGLE. FIXTURE SLIPS OVER 4" TO 5" DIAMETER POLE. VERIFY FLAG POLE DIAMETER. REMOTE DRIVER SHALL BE INSTALLED WITHIN FLAG POLE. COORDINATE WORK WITH FLAG POLE INSTALLER PRIOR TO FLAG POLE INSTALLATION. IP65 RATED.
FF3	APPROVED EQUAL TO: FOLLED	EXTENDED	24 V	5000K	--	3250	38 W	REMOTE STD	12" H 8-1/2" DIA.	FLAG POLE MTD	M.S.	ON POLE LED FLAG LIGHT. ALUMINUM HOUSING, 11 DEGREE AND 20 DEGREE BEAM ANGLE. FIXTURE SLIPS OVER 4" TO 5" DIAMETER POLE. VERIFY FLAG POLE DIAMETER. REMOTE DRIVER SHALL BE INSTALLED WITHIN FLAG POLE. COORDINATE WORK WITH FLAG POLE INSTALLER PRIOR TO FLAG POLE INSTALLATION. IP65 RATED.
GG1	APPROVED EQUAL TO: VISTA LIGHTING LUMINIS	MODEL 22\2 SC050	MVOLT	4000K	80	924	13 W	10% 0-10V DIM	6.1" H 3" DIA. 9.6' L	ON GRADE STEM	DARK BRONZE	ON-GRADE SPOT LIGHT. 20 DEGREE BEAM ANGLE. EXTRUDED ALUMINUM CONSTRUCTION. 108 DEGREE TILT ADJUSTMENTS AND 354 DEGREE ROTATION. LOCKABLE. IP65 RATED. PROVIDE WITH LOW VOLTAGE TRANSFORMER.

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(701) 235.0199 OFFICE

FOODSERVICE

FOODSERVICE CONCEPT DESIGN
7900 INTERNATIONAL DRIVE
SUITE 300 -7043
BLOOMINGTON, MN 55425
(612) 325.1494 OFFICE

REGISTERED PROFESSIONAL ENGINEER
TRAVOR D. FREDRICKSON
PE - 27743
DATE 03/10/2026
NORTH DAKOTA

DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	03/10/2026
2	ADDENDUM #2	03/24/2026

DRAWN BY: Author JN: 2025168

LIGHTING SCHEDULES

SHEET
E820

3/24/2026 09:53:31 Autodesk Docs://24-028 Valley City Public Schools High School/2025168_Valley City Public Schools New High School_MEP26.rvt

Switchboard: MSB

LOCATION: ELEC B005a
SUPPLY FROM: GT CABINET
MOUNTING: FLOOR
ENCLOSURE: NEMA 1

VOLTS: 480/277 Pyle
PHASES: 3
WIRES: 4

A.I.C. RATING:
MAINS TYPE: MCB
MAINS RATING: 2000 A
BUSSING: 2000 A

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	# OF POLES	TRIP RATING	Load	REMARKS
1	HLB		3	200 A	42911	
2	TLB		3	175 A	100584	
3	TLK		3	1 A	3600	
4	HLK		3	1 A	16071	
5	HLD		3	400 A	163326	
6	HMA		3	200 A	48160	
7	RTU-1		3	250 A	192050	
8	RTU-2		3	150 A	103092	
9	RTU-3		3	150 A	114731	
10	RTU-4		3	110 A	74825	
11	RTU-5		3	60 A	30244	
12	RTU-6		3	300 A	233619	
13	RTU-7		3	30 A	19953	NOTE 1
14	MAU-1, MECH B005		3	15 A	3326	
15	HWP-1, MECH B005		3	20 A	9146	
16	HWP-2, MECH B005		3	20 A	9146	
17	HUA		3	200 A	33416	
18	SPACE		3	--	--	NOTE 2
19	SPACE		1	--	--	NOTE 2
20	JEFFERSON ELEMENTARY		3	1200 A	0	
21						
22						
23						
24						
25						
26						
27						
28						
29						
30	SURGE PROTECTIVE DEVICE		3	100 A	0	
					1191704 VA	
					1433 A	

NOTES:
1. REMOVE UNDER ALTERNATE #13.
2. SPACE FOR FUTRE EQUIPMENT.

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Motor/HVAC/Mech	868751 VA	100%	868751 VA		
Receptacle, Convenience	185220 VA	52.56%	102610 VA	TOTAL CONN. LOAD:	1191704 VA
Kitchen Equipment	0 VA	0%	0 VA	TOTAL EST. DEMAND:	1120160 VA
Lighting	84366 VA	125%	105458 VA	TOTAL CONN.:	1433 A
Receptacle,Non-Convenience/Power	22440 VA	100%	22440 VA	TOTAL EST. DEMAND:	1347 A
Power	20043 VA	100%	20043 VA		
Receptacle,Non-Convenience	0 VA	0%	0 VA		

MOTOR & EQUIPMENT SCHEDULE

GENERAL NOTES:
A. REFER TO PANELBOARD SCHEDULES FOR CONDUIT AND WIRE SIZES.
B. REFER TO SPEC SECTION 26 0519 FOR WIRING BETWEEN VFDS AND MOTORS.
C. IF LOCATION AND/OR FED FROM ARE BLANK, SEE DRAWINGS FOR LOCATION.

NOTES:
1. ELECTRICAL CONTRACTOR SHALL FURNISH, SET, AND WIRE & CONNECT.
2. ELECTRICAL CONTRACTOR SHALL SET, AND WIRE & CONNECT.
3. ELECTRICAL CONTRACTOR SHALL WIRE & CONNECT.
4. ELECTRICAL CONTRACTOR SHALL PROVIDE SINGLE POINT CONNECTION.
5. CONTROL WIRING BY MECHANICAL CONTRACTOR.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE DSD IN SUPPLY AND RETURN AIR DUCT WORK AND PROVIDE ADDRESSABLE CONTROL MODULE. FIRE ALARM SYSTEM SHALL SHUT UNIT DOWN UPON AN ALARM.
7. PROVIDE ADDRESSABLE FIRE ALARM CONTROL MODULE FOR ELEVATOR PRIMARY AND SECONDARY LEVEL RECALL AND FOR SHUNT TRIP OPERATION. PROVIDE ADDRESSABLE MONITOR MODULE TO MONITOR SHUNT TRIP.
8. PROVIDE 120V POWER VIA NEARBY RECEPTACLE CIRCUIT.
9. CORD, PLUG, AND CONTROL PANEL WIRING BY M.C. E.C. SHALL PROVIDE MATCHING RECEPTACLE.
10. REMOVE UNDER ALTERNATE #13.
11. PROVIDE UNDER ALTERNATE #1.

ID	QTY	DESCRIPTION	LOCATION: NAME	#	HP	kW	(MCA) FLA	(MFS) MOCP	VOLTAGE/ PHASE	FED FROM (PANEL-CIRCUIT)	LOCAL DISCONNECT: FURNISH BY	SIZE	FUSE SIZE	REMARKS	CONTROLLER: FURNISH BY	TYPE	SIZE	REMARKS	AUX. CONTROL: INTERLOCK	FIRE ALARM	ATC	OTHER	NOTES
(FUTURE 1)	1	HOT WATER PUMP	MECHANICAL	B005	--				480/3										--			--	
(FUTURE)	1	BOILER	MECHANICAL	B005	--				480/3										--			--	
B-1	1	BOILER	MECHANICAL	B005	--	--	(15)	20	480/3	HLB-15,17,19	EC	30A	NF	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
B-2	1	BOILER	MECHANICAL	B005	--	--	(15)	20	480/3	HLB-5,10,12	EC	30A	NF	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
BP-1	1	BOILER PUMP	MECHANICAL	B005	3	--	4.8	15	480/3	HLB-9,11,13					MC	VFD	--	NOTE 5	--	--	--	--	
BP-2	1	BOILER PUMP	MECHANICAL	B005	3	--	4.8	15	480/3	HLB-14,16,18					MC	VFD	--	NOTE 5	--	--	--	--	
CU-SB-1	1	SPLIT SYSTEM	ROOF	--	--	--	(10.3)	30	120/1	LMB-11	EC	30A	NF	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
GUH-1	1	CABINET UNIT HEATER	VESTIBULE	B006	FHP	--	--	--	120/1	LLK-72	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	D
GUH-2	1	CABINET UNIT HEATER	VESTIBULE	C000	FHP	--	--	--	120/1	LLD-54	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	D
GUH-3	1	CABINET UNIT HEATER	VESTIBULE	D000	FHP	--	--	--	120/1	LLC-9	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	D
GUH-5	1	CABINET UNIT HEATER	VESTIBULE	E100	FHP	--	--	--	120/1	LMA-45	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	D
GUH-6	1	CABINET UNIT HEATER	VESTIBULE	D000	FHP	--	--	--	120/1	LMA-40	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	D
GUH-7	1	CABINET UNIT HEATER	VESTIBULE	B100	FHP	--	--	--	120/1	LMA-42	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	D
GUH-8	1	CABINET UNIT HEATER	VESTIBULE	B100	FHP	--	--	--	120/1	LMA-42	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	D
GUH-9	1	CABINET UNIT HEATER	VESTIBULE	B102	FHP	--	--	--	120/1	LMB-19	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	D
DEF-1	1	FAN	ROOF	--	1/2	--	2.5	15	208/1	LMB-34,36	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	
DF-1	1	DESRAT FAN	CIRCULATION	B113	--	--	1.3	15	120/1	LLA-37	MC	--	--	NOTE 4	MC	ECM	--	NOTE 2	--	--	--	--	
DF-2	1	DESRAT FAN	CIRCULATION	B113	--	--	1.3	15	120/1	LLA-33	MC	--	--	NOTE 4	MC	ECM	--	NOTE 2	--	--	--	--	
DF-3	1	DESRAT FAN	CIRCULATION	B113	--	--	1.3	15	120/1	LLA-40	MC	--	--	NOTE 4	MC	ECM	--	NOTE 2	--	--	--	--	
DRP-1	1	RECIRC PUMP	MECHANICAL	B005	1/2	--	4.8	20	120/1	LLB-43	EC	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
EF-1	1	EXHAUST FAN	ROOF	--	1/6	--	3	15	208/1	LMB-30,32	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	
EF-2	1	EXHAUST FAN	ROOF	--	1/4	--	2.4	15	208/1	LMD1-43,45	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	
ELEV	1	ELEVATOR		--	--	--			120/1						EB		--		--				
GEF-1	1	FAN	ROOF	--	3	--	4.8	20	480/3	HLB-21,23,25	MC	--	--	NOTE 4	MC	ECM	--	NOTE 5	--	--	--	--	
HWP-1	1	HOT WATER PUMP	MECHANICAL	B005	7.5	--	11	20	480/3	MSB-15					MC	VFD	--	NOTE 5	--	--	--	--	
HWP-2	1	HOT WATER PUMP	MECHANICAL	B005	7.5	--	11	20	480/3	MSB-19					MC	VFD	--	NOTE 5	--	--	--	--	
MAU-1	1	MAKE UP AIR UNIT	MECHANICAL	B005	2	--	(4)	15	480/3	MSB-14	MC	--	--	NOTE 4	MC	VFD	--	NOTE 5	--	--	--	--	
RTU-1	1	ROOF TOP UNIT	ROOF	--	--	--	231	250	480/3	MSB-7					MC	VFD	--	NOTE 5	--	NOTE 6	--	--	
RTU-2	1	ROOF TOP UNIT	ROOF	--	--	--	124	150	480/3	MSB-3					MC	VFD	--	NOTE 5	--	NOTE 6	--	--	
RTU-3	1	ROOF TOP UNIT	ROOF	--	--	--	138	150	480/3	MSB-4					MC	VFD	--	NOTE 5	--	NOTE 6	--	--	
RTU-4	1	ROOF TOP UNIT	ROOF	--	--	--	90	110	480/3	MSB-10					MC	VFD	--	NOTE 5	--	NOTE 6	--	--	
RTU-5	1	ROOF TOP UNIT	ROOF	--	--	--	49	60	480/3	MSB-11					MC	VFD	--	NOTE 5	--	NOTE 6	--	--	
RTU-6	1	ROOF TOP UNIT	ROOF	--	--	--	231	300	480/3	MSB-12					MC	VFD	--	NOTE 5	--	NOTE 6	--	--	
RTU-7	1	ROOF TOP UNIT	ROOF	--	--	--	24	30	480/3	MSB-13					MC	VFD	--	NOTE 5	--	NOTE 6	--	--	12
SP-1	1	SUMP PUMP	STORAGE	D010B	3/4	--	13.8	25	120/1	LLB-49	EC	--	--	NOTE 9	EB	CP	--	NOTE 2	--	NOTE 5	--	--	SIMPLEX CP
SP-2A	1	SUMP PUMP	STORAGE	D010B	3/4	--	13.8	25	120/1	LLB-44	EC	--	--	NOTE 9	EB	CP	--	NOTE 2	--	NOTE 5	--	--	DUPLEX CP
SP-2B	1	SUMP PUMP	STORAGE	D010B	3/4	--	13.8	25	120/1	LLB-47	EC	--	--	NOTE 9	EB	CP	--	NOTE 2	--	NOTE 5	--	--	DUPLEX CP
SP-3A	1	SUMP PUMP	MECH	B005	3/4	--	13.8	25	120/1	LLB-33	EC	--	--	NOTE 9	EB	CP	--	NOTE 2	--	NOTE 5	--	--	DUPLEX CP
SP-3B	1	SUMP PUMP	MECH	B005	3/4	--	13.8	25	120/1	LLB-40	EC	--	--	NOTE 9	EB	CP	--	NOTE 2	--	NOTE 5	--	--	DUPLEX CP
SP-4A	1	SUMP PUMP	MUSIC STOR	D003C	3/4	--	13.8	25	120/1	LLC-35	EC	--	--	NOTE 9	EB	CP	--	NOTE 2	--	NOTE 5	--	--	DUPLEX CP
SP-4B	1	SUMP PUMP	MUSIC STOR	D003C	3/4	--	13.8	25	120/1	LLC-32	EC	--	--	NOTE 9	EB	CP	--	NOTE 2	--	NOTE 5	--	--	DUPLEX CP
SS-1	1	SPLIT SYSTEM	DATA	B024B					120/1	LLT-18									--	--	--	--	
SUH-1	1	SUSPENDED UNIT HEATER	GYM STORAGE	D010B	FHP	--	--	--	120/1	LLG-9	MC	--	--	NOTE 4	MC	--	--	NOTE 5	--	--	--	--	D
SUH-2	1	SUSPENDED UNIT HEATER	DATA	B024B	FHP	--	--	--	120/1	LLT-11	MC	--	--	NOTE 4	MC	--	--	NOTE 5	--	--	--	--	D
SUH-3	1	SUSPENDED UNIT HEATER	ELEC	B025B	FHP	--	--	--	120/1	LLB-21	MC	--	--	NOTE 4	MC	--	--	NOTE 5	--	--	--	--	D
SUH-4	1	SUSPENDED UNIT HEATER	MECHANICAL	B005	FHP	--	--	--	120/1	LLB-20	MC	--	--	NOTE 4	MC	--	--	NOTE 5	--	--	--	--	D
SUH-5	1	SUSPENDED UNIT HEATER	RECEIVING	B003	FHP	--	--	--	120/1	LLB-34	MC	--	--	NOTE 4	MC	--	--	NOTE 5	--	--	--	--	D
SUH-6	1	SUSPENDED UNIT HEATER	CUST/DIGIAL	B106	FHP	--	--	--	120/1	LMD1-25	MC	--	--	NOTE 4	MC	--	--	NOTE 5	--	--	--	--	D
TF-2	1	TRANSFER FAN	ELEC / IDF	C001A	1/4	--	5.8	15	120/1	LLD-54	MC	--	--	NOTE 2	MC	STAT	--	NOTE 5	--	--	--	--	
TF-3	1	TRANSFER FAN	ELEC/IDF	A113					208/1	LLB-54,56													
TF-4	1	TRANSFER FAN	ELEC / IDF	C101A	1/4	--	5.8	15	208/1	LMD1-3,5	MC	--	--	NOTE 2	MC	STAT	--	NOTE 5	--	--	--	--	
TF-5	1	TRANSFER FAN	ELEC/IDF	A213	1/4	--	5.8	15	208/1	LLA-41,43	MC	--	--	NOTE 2	MC	STAT	--	NOTE 5	--	--	--	--	
TF-6	1	TRANSFER FAN	MECHANICAL	B005	1/4	--	5.8	15	208/1	LLB-50,52	MC	--	--	NOTE 2	MC	STAT	--	NOTE 5	--	--	--	--	
TR-1	1	TRANSFER FAN	ELEC	B025B	1/4	--	5.8	15	208/1	LLB-51,53	MC	--	--	NOTE 2	MC	STAT	--	NOTE 5	--	--	--	--	
WH-1	1	WATER HEATER	MECHANICAL	B005	--	--	8.2	15	120/1	LLB-23	EC	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
WH-2	1	WATER HEATER	MECHANICAL	B005	--	--	8.2	15	120/1	LLB-45	EC	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
WS-1	1	WATER SOFTENER	MECHANICAL	B005	--	--	3.5	15	120/1	LLB-49	EC	--	--	GB	MC	--	--	NOTE 5	--	--	--	--	GFCI RECEPTACLE

PANELBOARD: HLB

LOCATION: ELEC B005a
SUPPLY FROM: MSB
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 480/277 Pyle
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A
BUSSING: 200 A

Notes:

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1	LIGHTING, RM A001, A002, D010A, D010B		20 A	1	1870 54			1	20 A		EMERGENCY LIGHTING	2
3	LIGHTING, RM B003-B005		20 A	1		1695 36		1	20 A		EXTERIOR LIGHTING	4
5	LIGHTING, CORRIDOR B000		20 A	1			656 1069	1	20 A		NORTH SITE LIGHTING	6
7	MONUMENT SIGN		20 A	1	0 4157						SPACE	8
9						1330 4157		3	20 A		B-2, MECH B005	10
11	BP-1, MECH B005		20 A	3			1330 4157					12
13					1330 1330							14
15						4157 1330		3	20 A		BP-2, MECH B005	16
17	B-1, MECH B005		20 A	3			4157 1330					18
19					4157 134			1	20 A		ELEVATOR LIGHTING	20
21						1330						22
23	GEF-1		20 A	3			1330					24
25					1330							26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42
					TOTAL LOAD (VA):	14152 VA	13907 VA	14656 VA				
					TOTAL AMPS:	51 A	50 A	53.0 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Motor/HVAC/Mech	36715 VA	100%	36715 VA		
Lighting	6042 VA	125%	7552 VA	TOTAL CONN. LOAD (VA):	42911 VA
Power	0 VA	0%	0 VA	TOTAL EST. DEMAND (VA):	44412 VA
				TOTAL CONNECTED:	52 A
				TOTAL EST. DEMAND:	53 A

PANELBOARD: HLD

LOCATION: ELEC / IDF C001a
SUPPLY FROM: MSB
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 480/277 Pyle
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MLO
MAINS RATING: 400 A
BUSSING: 400 A

Notes:

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1					30744 5651							2
3	TLD		225 A	3		36926 5565		3	200 A		MHD	4
5							34113 6605					6
7	LIGHTING, RM B000, B018		20 A	1	2186 1015			1	20 A		LIGHTING, CORRIDOR D000, D011, D012	8
9	LIGHTING, RM B012-B014, G001-G013		20 A	1		2835 2233		1	20 A		LIGHTING, GYMNASIUM D010	10
11	LIGHTING, RM B015-B017, G002-G014		20 A	1			2462 2233	1	20 A		LIGHTING, GYMNASIUM D010	12
13	LIGHTING, RM D001, D005, D008, D006		20 A	1	2019 3200			1	20 A		LIGHTING, MEZANITE D004	14
15	LIGHTING, MEZANITE D004		20 A	1		3600 3000		1	20 A		LIGHTING, MEZANITE D004	16
17	LIGHTING, MEZANITE D004		20 A	1			3400 1813	1	20 A		LIGHTING, RM D002, D004, D007, D008	18
19	LIGHTING, MEZANITE D004		20 A	1	3200 694			1	20 A		EXIT SIGN LIGHTING	20
21	LIGHTING, MEZANITE D004		20 A	1		320 918		1	20 A		SOUTH SITE LIGHTING	22
23	ISR8256 LIGHTING		20 A	1			1398					24
25												26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42
					TOTAL LOAD (VA):	56325 VA	54773 VA	52231 VA				
					TOTAL AMPS:	205 A	199 A	188.6 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Motor/HVAC/Mech	5850 VA	100%	5850 VA		
Receptacle, Convenience	40560 VA	55.01%	54200 VA	TOTAL CONN. LOAD (VA):	168326 VA
Lighting	55564 VA	125%	69456 VA	TOTAL EST. DEMAND (VA):	130024 VA
Power	0 VA	0%	0 VA	TOTAL CONNECTED:	116 A
				TOTAL EST. DEMAND:	160 A

PANELBOARD: HLK

LOCATION: OFFICE B004
SUPPLY FROM: MSB
MOUNTING: FLUSH
ENCLOSURE: NEMA 1

VOLTS: 480/277 Pyle
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MCB
MAINS RATING: 100 A
BUSSING: 100 A

Notes:

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1					0 0							2
3	DISHWASHING, DISH RETURN B010		20 A	3		0 0		3	20 A		COMBI OVEN, KITCHEN B007	4
5							0 0					6
7					0 0							8
9	COMBI OVEN, KITCHEN B007		20 A	3		0 0		3	20 A		COMBI OVEN TOP, KITCHEN B007	10
11							0 0					12
13					0 1541			1	20 A		LIGHTING, B006-B011	14
15	MIXER, KITCHEN B007		20 A	3		0 15		1	20 A		EMERGENCY LIGHTING	16
17							0 0					18
19					0 0			3	20 A		KITCHEN EQUIPMENT DISH RETURN B010	20
21	KITCHEN EQUIPMENT KITCHEN B007		20 A	3		0 0						22
23							0 0					24
25					0 0			3	20 A		KITCHEN EQUIPMENT	26
27	KITCHEN EQUIPMENT		20 A	3		0 0						28
29							0					30
31												32
33												34
35												36
37												38
39												40
41												42
					TOTAL LOAD (VA):	1541 VA	15 VA	0 VA				
					TOTAL AMPS:	6 A	0 A	0 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Kitchen Equipment	0 VA	0%	0 VA		
Lighting	1607 VA	125%	2009 VA	TOTAL CONN. LOAD (VA):	1607 VA
				TOTAL EST. DEMAND (VA):	2008 VA
				TOTAL CONNECTED:	2 A
				TOTAL EST. DEMAND:	2 A

PANELBOARD: HMA

LOCATION: ELEC/IDF A111a
SUPPLY FROM: MSB
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 480/277 Pyle
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A
BUSSING: 200 A

Notes:

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1					11920							2
3	THA		110 A	3		12560						4
5							9540					6
7	LIGHTING, RM A101-A113		20 A	1	2658 1749			1	20 A		LIGHTING, CORRIDOR A100	8
9	LIGHTING, CORRIDOR A100, A114		20 A	1		1130 635		1	20 A		LIGHTING, RM A110, A114	10
11	LIGHTING, RM A102-A110		20 A	1			1665 2811	1	20 A		LIGHTING, RM B101-B104	12
13	LIGHTING, CONF RM B105A		20 A	1	2600							14
15	EMERGENCY LIGHTING		20 A	1		46						16
17	EXTERIOR LIGHTING		20 A	1			522					18
19												20
21												22
23												24
25												26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42
					TOTAL LOAD (VA):	18441 VA	14621 VA	14599 VA				
					TOTAL AMPS:	68 A	53 A	52.7 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Motor/HVAC/Mech	2120 VA	100%	2120 VA		
Receptacle, Convenience	31500 VA	68.57%	20790 VA	TOTAL CONN. LOAD (VA):	48160 VA
Lighting	14142 VA	125%	17678 VA	TOTAL EST. DEMAND (VA):	40946 VA
Power	400 VA	100%	400 VA	TOTAL CONNECTED:	58 A
				TOTAL EST. DEMAND:	49 A

PANELBOARD: HMD

LOCATION: ELEC-IDF C101a
SUPPLY FROM: HLD
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 480/277 Pyle
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A
BUSSING: 200 A

Notes:

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1	LIGHTING, CIRCULATION B113, B121		20 A	1	877 2280			1	20 A		LIGHTING, CIRCULATION B121	2
3	LIGHTING, CIRCULATION B113		20 A	1		2280 2280		1	20 A		LIGHTING, CIRCULATION B121	4
5	LIGHTING, CIRCULATION B113		20 A	1			2280 1409	1	20 A		LIGHTING, MEDIA CENTER B105-B101	6
7	LIGHTING, RM B102, B104, C101-C111		20 A	1	2482 101			1	20 A		EMERGENCY LIGHTING	8
9	LIGHTING, CORRIDOR C113		20 A	1		1048						10
11	LIGHTING, RM B110-B112, C102-C112		20 A	1			2984					12
13												14
15												16
17												18
19												20
21												22
23												24
25												26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42
					TOTAL LOAD (VA):	5651 VA	5565 VA	6605 VA				
					TOTAL AMPS:	20 A	20 A	23.9 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Lighting	17785 VA	125%	22231 VA		
				TOTAL CONN. LOAD (VA):	17785 VA
				TOTAL EST. DEMAND (VA):	22231 VA
				TOTAL CONNECTED:	21 A
				TOTAL EST. DEMAND:	27 A

PANELBOARD: HUA

LOCATION: ELEC/IDF A211a
SUPPLY FROM: MSB
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 480/277 Pyle
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MLO
MAINS RATING:

PANELBOARD: LLB

LOCATION: ELEC B005a
SUPPLY FROM: TLB
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 208/120 Wye
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MCB
MAINS RATING: 300 A
BUSSING: 300 A

Notes:
1. PROVIDE 20/1 SPARES FOR ALL BLANK SPACES.

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1					0 12834							2
3	SPARE		100 A	3		0 12674		3	200 A		LL6	4
5							0 12514					6
7					6429 900			1	20 A		RECEPT, TECH ED A001	8
9	LHB		200 A	3		6660 900		1	20 A		RECEPT, TECH ED A001	10
11							4986 1440	1	20 A		RECEPT, TECH ED A001	12
13	RECEPT, ART B001		20 A	1	1440 720			1	20 A		RECEPT, RM A002, D010B	14
15	RECEPT, ART B001		20 A	1		900						16
17	RECEPT, ART B001		20 A	1			720 1260	1	20 A		RECEPT, MECH B005	18
19	RECEPT, ELEC B005A		20 A	1	360 120			1	20 A		SUH-4, MECH B005	20
21	SUH-2, ELEC B005A		20 A	1		720 360		1	20 A		RECEPT, BLDG STOR B004, B004a	22
23	AH-1, MECHANICAL B005		20 A	1			772 1080	1	20 A		RECEPT, OFFICE B005A, B002	24
25	RECEPT, RECEIVING B003		20 A	1	1080 180			1	20 A		RECEPT, RECEIVING B003	26
27	RECEPT, RECEIVING B003		20 A	1		180 180		1	20 A		RECEPT, RECEIVING B003	28
29	RECEPT, RECEIVING B003		20 A	1			180 180	1	20 A		RECEPT, RECEIVING B003	30
31	RECEPT, RECEIVING B003		20 A	1	180 900			1	20 A		OVERHEAD DOOR, RECEIVING B003	32
33	RECEPT, RECEIVING B003		20 A	1		180 720		1	20 A		SUH-5, RECEIVING B003	34
35	RECEPT, RECEIVING B003		20 A	1			180 720	1	20 A		RECEPT, COMMONS B030	36
37	RECEPT-AGLE-NON-CONVENIENCE-POWER, KILN B007A		20 A	2	5760 1656			1	20 A		SP-5A, MECH B005	38
39						5760 1656		1	20 A		SP-3B, MECH B005	40
41											RECEPT-ACLE, CONVENIENCE COMMONS B030	42
43	DPR-1, MECH B005		20 A	1	1116 1656			1	20 A		SP-2A, STORAGE D010B	44
45	SP-1, STORAGE D010B		20 A	1		1656 180		1	20 A		RECEP, ELEVATOR SHAFT	46
47	SP-2B, STORAGE D010B		20 A	1			1656 772	1	20 A		AH-1, MECHANICAL B005	48
49	AB-1, MECHANICAL B005		20 A	1	420 804							50
51	TF-1, ELEC B005A		20 A	2		604 604		2	20 A		TF-8, MECHANICAL B005	52
53							804 604	2	20 A		TF-3, ELEC/IDF A111a	54
55						804						56
57												58
59												60

TOTAL LOAD (VA): 36618 VA 30733 VA 33237 VA
TOTAL AMPS: 305 A 256 A 280.2 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Motor/HVAC/Mech	21866 VA	100%	21866 VA	
Receptacle, Convenience	38540 VA	83.66%	23210 VA	TOTAL CONN. LOAD (VA): 100584 VA
Receptacle,non-Convenience/Power	22440 VA	100%	22440 VA	TOTAL EST. DEMAND (VA): 87319 VA
Power	19643 VA	100%	19643 VA	TOTAL CONNECTED: 274 A
				TOTAL EST. DEMAND: 242 A

PANELBOARD: LLC

LOCATION: GUST D005
SUPPLY FROM: LLD
MOUNTING: FLUSH
ENCLOSURE: NEMA 1

VOLTS: 208/120 Wye
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A
BUSSING: 200 A

Notes:
1. PROVIDE 20/1 SPARES FOR ALL BLANK SPACES.

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1	RECEPT, MUSIC D003		20 A	1	720 720			1	20 A		RECEPT, RM D009, D009, D012	2
3	RECEPT, MUSIC D003, D003c		20 A	1		900 900		1	20 A		RECEPT, OFFICE D005A	4
5	RECEPT, MUSIC D003, D003b		20 A	1			1080 360	1	20 A		RECEPT, PRACTICE D001	6
7	DOOR OPENERS, VESTIBULE D000		20 A	1	1000 500			1	20 A	GFCI	ELECTRIC WATER COOLER, CORRIDOR D011	8
9	GUH-1/GUH-4, VESTIBULE D000		20 A	1		0 500		1	20 A	GFCI	ELECTRIC WATER COOLER, CORRIDOR D011	10
11	RECEPT, CONCESSIONS D001		20 A	1			180 500	1	20 A	GFCI	ELECTRIC WATER COOLER, CORRIDOR D011	12
13	RECEPT, CONCESSIONS D001		20 A	1	180 500			1	20 A	GFCI	ELECTRIC WATER COOLER, CORRIDOR D011	14
15	RECEPT, CONCESSIONS D001		20 A	1		180 500		1	20 A		OVERHEAD DOOR, CONCESSIONS D001	16
17	RECEPT, CONCESSIONS D001		20 A	1			180 900	1	20 A		RECEPT, TRAINING D008	18
19	REFRIGERATOR, CONCESSIONS D001		20 A	1	180 900			1	20 A		RECEPT, MENS LOCKER ROOM D004, D004b	20
21	RECEPT, OFFICE D004A		20 A	1		1080 900		1	20 A		RECEPT, ADMINS LOCKER ROOM D002, D002b	22
23	RECEPT, OFFICE D002A		20 A	1			1260 360	1	20 A		RECEPT, HEIGHTS D009	24
25	RECEPT, CORRIDOR D011		20 A	1	540 360			1	20 A		RECEPT, HEIGHTS D009	26
27	DATA RACK, MISC STOR D003C		20 A	1		360 360		1	20 A		RECEPT, HEIGHTS D009	28
29	RECEPT, HEIGHTS D009		20 A	1			360 360	1	20 A		RECEPT, HEIGHTS D009	30
31	RECEPT, HEIGHTS D009		20 A	1	360 1656			1	20 A		SP-4B, MISC STOR D003G	32
33	RECEPT, HEIGHTS D009		20 A	1		360 360		1	20 A		RECEPT, ROOF	34
35	SP-4A, MISC STOR D003G		20 A	1			1656					36
37												38
39												40
41												42
43												44
45												46
47												48
49												50
51												52
53												54
55												56
57												58
59												60

TOTAL LOAD (VA): 7616 VA 6400 VA 7196 VA
TOTAL AMPS: 64 A 53 A 61 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Motor/HVAC/Mech	4012 VA	100%	4012 VA	
Receptacle, Convenience	18400 VA	80.49%	13200 VA	TOTAL CONN. LOAD (VA): 21212 VA
				TOTAL EST. DEMAND (VA): 18012 VA
				TOTAL CONNECTED: 214 A
				TOTAL EST. DEMAND: 150 A

PANELBOARD: LLD

LOCATION: ELEC / IDF G001a
SUPPLY FROM: TLD
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 208/120 Wye
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MCB
MAINS RATING: 400 A
BUSSING: 400 A

Notes:
1. PROVIDE 20/1 SPARES FOR ALL BLANK SPACES.

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1					7616 9748							2
3	LLC		200 A	3		6402 10446		3	200 A		LHD1	4
5							7196 10110					6
7	RECEPT, BUSINESS G001, G001a		20 A	1	1080 180			1	20 A		RECEPT, SCHOOL STORE B012	8
9	RECEPT, BUSINESS G001		20 A	1		1260 180		1	20 A		RECEPT, SCHOOL STORE B012	10
11	RECEPT, SCHOOL STORE B012		20 A	1			180 180	1	20 A		RECEPT, SCHOOL STORE B012	12
13	RECEPT, SCHOOL STORE B012		20 A	1	180 180			1	20 A		RECEPT, SCHOOL STORE B012	14
15	RECEPT, SCHOOL STORE B012		20 A	1		180 180		1	20 A		HEAT PRESS, STORAGE B012A	16
17	RECEPT, SCHOOL STORE B012		20 A	1			180 360	1	20 A		RECEPT, SCHOOL STORE B012	18
19	COPIER, STAFF PARK B013		20 A	1	180 900			1	20 A	GFCI	ELECTRIC WATER COOLER, COMMONS B030	20
21	MICROWAVE, SCHOOL STORE B012		20 A	1		1500 900		1	20 A	GFCI	ELECTRIC WATER COOLER, COMMONS B030	22
23	RECEPT, RM B013, B014		20 A	1			900 900	1	20 A		RECEPT, RM B013, B014, B017	24
25	RECEPT, COMMONS B030		20 A	1	1440 900			1	20 A		RECEPT, 1 MATH G008	26
27	RECEPT, LC G002		20 A	1		900 1080		1	20 A		RECEPT, 1 MATH G009	28
29	RECEPT, LC G002		20 A	1			900 900	1	20 A		RECEPT, 2 MATH G010	30
31	RECEPT, ALC G004		20 A	1	900 1080			1	20 A		RECEPT, 2 MATH G010	32
33	RECEPT, ALC G004		20 A	1		1080 1080		1	20 A		RECEPT, 3 MATH G012	34
35	RECEPT, RM G008A, G006B		20 A	1			1080 900	1	20 A		RECEPT, 3 MATH G012	36
37	RECEPT, 4 MATH G014		20 A	1	1080 180			1	20 A		REFRIGERATOR, SPED G003	38
39	RECEPT, 4 MATH G014		20 A	1		1260 900		1	20 A		RECEPT, SPED G005	40
41	RECEPT, SPED G003		20 A	1			720 540	1	20 A		RECEPT, SPED G005	42
43	RECEPT, SPED G003		20 A	1	900 900			1	20 A		RECEPT, 5 55 G011	44
45	RECEPT, 1 55 G007		20 A	1		900 1080		1	20 A		RECEPT, 4 55 G013	46
47	RECEPT, 1 55 G007		20 A	1			1080 900	1	20 A		RECEPT, 4 55 G013	48
49	RECEPT, 2 55 G009		20 A	1	900 1080			1	20 A		RECEPT, 4 55 G013	50
51	RECEPT, 2 55 G009		20 A	1		1080 1152		1	20 A		RECEPT 4 DOOR OPENERS, VESTIBULE G000	52
53	RECEPT, GROUP G013		20 A	1			900 0	1	20 A		GUH-2, VESTIBULE G000	54
55	RECEPT, CORRIDOR G016, G000b		20 A	1	1080 1080			1	20 A		RECEPT-ACLE, CONVENIENCE COMMONS B030	56
57	DOOR OPENER, ALC G004		20 A	1		0 5320						58
59	SB-3, ELEC / IDF G001A		20 A	1			1207 5040	3	200 A		LHD2	60
61					7560							62
63												64
65												66
67												68
69												70
71												72
73												74
75												76
77												78
79												80
81												82
83												84

TOTAL LOAD (VA): 38744 VA 36506 VA 34173 VA
TOTAL AMPS: 326 A 307 A 284.9 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Motor/HVAC/Mech	6980 VA	100%	6980 VA	
Receptacle, Convenience	92660 VA	99.07%	54280 VA	TOTAL CONN. LOAD (VA): 109428 VA
Lighting	1913 VA	125%	2391 VA	TOTAL EST. DEMAND (VA): 69621 VA
Power	0 VA	0%	0 VA	TOTAL CONNECTED: 304 A
				TOTAL EST. DEMAND: 182 A

PANELBOARD: LLG

LOCATION: GYM STORAGE D010a
SUPPLY FROM: LLB
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 208/120 Wye
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A
BUSSING: 200 A

Notes:
1. PROVIDE 20/1 SPARES FOR ALL BLANK SPACES.

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1	RECEPT, GYMNASIUM D010		20 A	1	1080 1920			1	20 A		SCOREBOARD, GYMNASIUM D010	2
3	RECEPT, GYMNASIUM D010		20 A	1		1080 1920		1	20 A		SCOREBOARD, GYMNASIUM D010	4
5	BLEACHERS, GYMNASIUM D010		20 A	1			1080 1920	1	20 A		SCOREBOARD, GYMNASIUM D010	6
7	BLEACHERS, GYMNASIUM D010		20 A	1	1080 1920			1	20 A		SCOREBOARD, GYMNASIUM D010	8
9	SUH-1, STORAGE D010A		20 A	1		720 1080		1	20 A		RECEPT, GYMNASIUM D010	10
11	RECEPT, GYMNASIUM D010		20 A	1			1080 180	1	20 A		RECEPT, GYMNASIUM D010	12
13	RECEPT, GYMNASIUM D010		20 A	1	180 180			1	20 A		RECEPT, GYMNASIUM D010	14
15	RECEPT, GYMNASIUM D010		20 A	1		180 180		1	20 A		RECEPT, GYMNASIUM D010	16
17	RECEPT, GYMNASIUM D010		20 A	1			180 1800	1	20 A		HOOP, GYMNASIUM D010	18
19	HOOP, GYMNASIUM D010		20 A	1	1800 1800			1	20 A		HOOP, GYMNASIUM D010	20
21	HOOP, GYMNASIUM D010		20 A	1		1800 1800		1	20 A		HOOP, GYMNASIUM D010	22
23	HOOP, GYMNASIUM D010		20 A	1			1800 180	1	20 A		SHOT CLOCK, GYMNASIUM D010	24
25	SHOT CLOCK, GYMNASIUM D010		20 A	1	180 180			1	20 A		SHOT CLOCK, GYMNASIUM D010	26
27	SHOT CLOCK, GYMNASIUM D010		20 A	1		180 180		1	20 A		SHOT CLOCK, GYMNASIUM D010	28
29	SHOT CLOCK, GYMNASIUM D010		20 A	1			180 1420	1	20 A		DIVIDER CURTAIN, GYMNASIUM D010	30
31	RECEPT, ROOF		20 A	1	360 333							32
33						1321 333		3	20 A		REST BLEACHERS DISCONNECT, GYMNASIUM D010	34
35	MAT HOIST, GYMNASIUM D010		20 A	3			1321 333					36
37					1321 333							38
39						333 333		3	20 A		SOUTHWEST BLEACHERS DISCONNECT, GYMNASIUM D010	40
41	EAST BLEACHERS DISCONNECT, GYMNASIUM D010		20 A	3			333 333					42
43					333							44
45						333						46
47	SOUTHEAST BLEACHERS DISCONNECT, GYMNASIUM D010		20 A	3			333					48
49					333							50
51												52
53												54
55												56
57												58
59												60

TOTAL LOAD (VA): 12834 VA 10674 VA 12574 VA
TOTAL AMPS: 109 A 89 A 107.2 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Motor/HVAC/Mech	120 VA	100%	120 VA	
Receptacle, Convenience	5400 VA	100%	5400 VA	TOTAL CONN. LOAD (VA): 36088 VA
Receptacle,non-Convenience/Power	10920 VA	100%	10920 VA	TOTAL EST. DEMAND (VA): 36088 VA
Power	19643 VA	100%	19643 VA	TOTAL CONNECTED: 100 A
				TOTAL EST. DEMAND: 100 A

PANELBOARD: LLK

LOCATION: OFFICE B005
SUPPLY FROM: TLK
MOUNTING: FLUSH
ENCLOSURE: NEMA 1

VOLTS: 208/120 Wye
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MCB
MAINS RATING: 100 A
BUSSING: 100 A

Notes:

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1	REFRIGERATED DISPLAY CASE, SERVERY B003		20 A	2	0 360			1	20 A		LHD1	2
3						0						4
5	REFRIGERATED DISPLAY CASE, SERVERY B003		20 A	2			0					6
7					0 0			1	20 A		CONDENSATE HOOD, DISH RETURN B010	8
9	HEATED COUNTERTOP DISPLAY, SERVERY B003		20 A	1		0 0		2	20 A		SERVING COUNTER, SERVERY B003	10
11	CASH REGISTER STANDS, SERVERY B003		20 A	1			0 0					12
13	HOT HOLDING CABINET, SERVERY B003		20 A	2	0 0			2	20 A		SERVING COUNTER, SERVERY B003	14
15						0 0						16
17	COLD HOLDING CABINET, SERVERY B003		20 A	1			0 0	1	20 A		MICROWAVE, SERVERY B003	18
19	BLENDER, SERVERY B003		20 A	1	0 0			1	20 A		REFRIGERATOR, SERVERY B003	20
21	BLENDER, SERVERY B003		20 A	1		0 0		1	20 A		COFFEE-TEA BREWER, SERVERY B003	22
23	ICE MACHINE, SERVERY B003		20 A	1			0 0	1	20 A		COFFEE GRINDER, SERVERY B003	24
25	OVERHEAD DOOR, SERVERY B003		20 A	1	0 0			1	20 A		POS SYSTEM, SERVERY B003	26
27	HEATED CABINET, KITCHEN B007		20 A	2		0 0						28
29							0 0	3	20 A		CONVECTION OVEN, KITCHEN B007	30
31					0 0							32
33	HOT PLATE, KITCHEN B007		20 A	3		0 0						34
35							0 0	3	20 A		CONVECTION OVEN, KITCHEN B007	36
37					0							38
39						0		1	20 A		FIRE SUPPRESSION CABINET, KITCHEN B007	40
41							0	1	20 A		EXHAUST HOOD, KITCHEN B007	42
43					0			1	20 A		HOOD CONTROLS, KITCHEN B007	44
45						0		1	20 A		ISLAND PREP TABLE, KITCHEN B007	46
47							0	1	20 A		WALK-IN COOLER, KITCHEN B007	48
49	COOLER EVAPORATOR COIL, KITCHEN B007		20 A	1	0 0			1	20 A		WALK-IN FREEZER, KITCHEN B007	50
51						0		2	20 A		FREEZER EVAPORATOR COIL, KITCHEN B007	52
53							0					54
55					0			1	20 A		DEFROST PLUG, KITCHEN B007	56
57	WATER HETER, KITCHEN B007		20 A	1		0 0		2	20 A		DISPOSER, KITCHEN B007	58
59	ELECTRIC CAN OPENER, KITCHEN B007		20 A	1			180 0					60
61	RECEPT, SERVERY B003		20 A	1	0 180			1	20 A		RECEPT, KITCHEN B007	62
63	RECEPT, SERVERY B003		20 A	1		0 180		1	20 A		RECEPT, KITCHEN B007	64
65	RECEPT, SERVERY B003		20 A	1			360 180	1	20 A		RECEPT, KITCHEN B007	66
67	RECEPT, SERVERY B003		20 A	1	0 180			1	20 A		RECEPT, KITCHEN B007	68
69	RECEPT, OFFICE B004		20 A	1		1440 360		1	20 A		RECEPT, DRY STORAGE B011	70
71	GUH-4, VESTIBULE B006		20 A	1			180 0	1	20 A		GUH-1, VESTIBULE B006	72
73												74
75												76
77												78
79												80
81												82
83												84

TOTAL LOAD (VA): 720 VA 1980 VA 900 VA
TOTAL AMPS: 6 A 17 A 7.7 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Motor/HVAC/Mech	0 VA	0%	0 VA	
Receptacle, Convenience	3600 VA	100%	3600 VA	TOTAL CONN. LOAD (VA): 3600 VA
Kitchen Equipment	0 VA	0%	0 VA	TOTAL EST. DEMAND (VA): 3600 VA
Receptacle,Non-Convenience	0 VA	0%	0 VA	TOTAL CONNECTED: 10 A
				TOTAL EST. DEMAND: 10 A

PANELBOARD: LLT

LOCATION: DATA B004b
SUPPLY FROM:
MOUNTING: FLUSH
ENCLOSURE: NEMA 1

VOLTS: 208/120 Wye
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MLO
MAINS RATING: 100 A
BUSSING: 100 A

Notes:
1. PROVIDE 20/1 SPARES FOR ALL BLANK SPACES.

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1	RECEPT, DATA B004B		20 A	1	180 180			1	20 A		RECEPT, DATA B004B	2
3	RECEPT, DATA B004B		20 A	1		180 180		1	20 A		RECEPT, DATA B004B	4
5	RECEPT, DATA B004B		20 A	1			180 180	1	20 A		RECEPT, DATA B004B	6
7	RECEPT, DATA B004B		20 A	1	180 0							8
9	RECEPT, DATA B004B		20 A	1		180 0		3	30 A		RECEPT, DATA B004B	10
11	SUH-3, DATA B004B		20 A	1			120 0					12
13					0 180			1	20 A		RECEPT, DATA B004B	14
15	RECEPT, DATA B004B		30 A	3		0 0		1	20 A		B6-1, DATA B004B	16
17							0					18
19												20
21												22
23												24
25												26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42

TOTAL LOAD (VA): 720 VA 540 VA 480 VA
TOTAL AMPS: 6 A 5 A 4 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Motor/HVAC/Mech	120 VA	100%	120 VA	
Receptacle, Convenience	1620 VA	100%	1620 VA	TOTAL CONN. LOAD (VA): 1740 VA
Receptacle,Non-Convenience/Power	0 VA	0%	0 VA	TOTAL EST. DEMAND (VA): 1740 VA
				TOTAL CONNECTED: 5 A
				TOTAL EST. DEMAND: 5 A

PANELBOARD: LMA

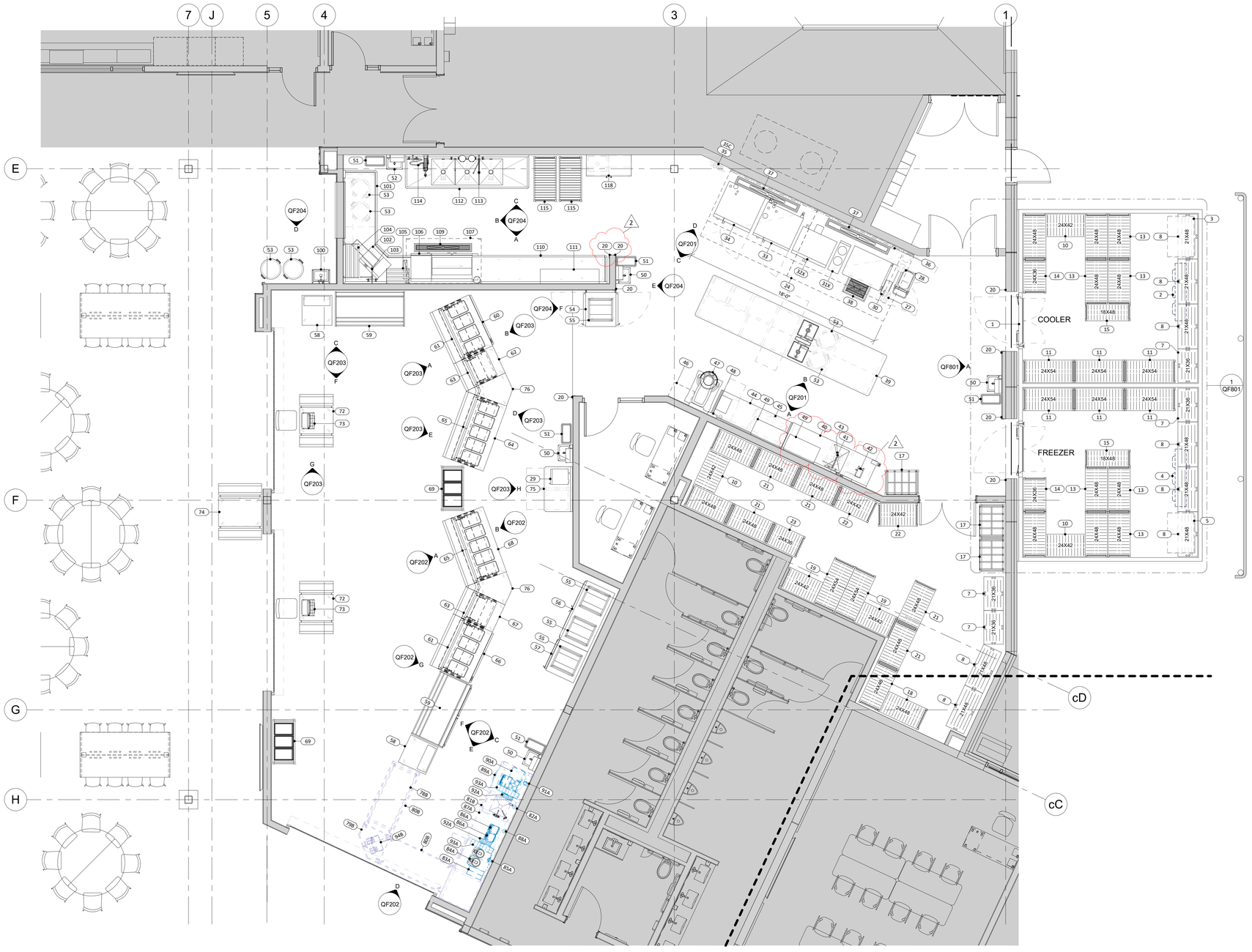
LOCATION: ELEC/IDF A111a
SUPPLY FROM: TMA
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 208/120 Wye
PHASES: 3
WIRES: 4
OPTIONS:

A.I.C. RATING:
MAINS TYPE: MCB
MAINS RATING: 200 A
BUSSING: 200 A

Notes:
1. PROVIDE 20/1 SPARES FOR ALL BLANK SPACES.

CKT	CIRCUIT DESCRIPTION	CONDUIT & WIRE	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CONDUIT & WIRE	CIRCUIT DESCRIPTION	CKT
1	RECEPT-AGLE-CONVENIENCE-POWER, STAIR 1A, RM A109		20 A	1	1080			1	20 A		RECEPT, 3RD A101	2
3						1260						4
5							1260	1	20 A		RECEPT, 3RD A105	6
7	RECEPT, 4TH A105		20 A	1	900 1260			1	20 A		RECEPT, 3RD A105	8
9	RECEPT, 4TH A105		20 A	1		1260 1260		1	20 A		RECEPT, 3RD A102	10
11	RECEPT, 4TH A104		20 A	1			900 900	1	20 A		RECEPT, 3RD A102	12
13	RECEPT, 4TH A104		20 A	1	1080 900			1	20 A		RECEPT, FLEX-SPED A105	14
15	RECEPT, 4TH A106		20 A	1		900 1080		1	20 A		RECEPT, FLEX-SPED A105	16
17	RECEPT, 4TH A106		20 A	1			1080 720	1	20 A		RECEPT, FLEX-SPED A110	18
19	RECEPT, RM A109A, A109C		20 A	1	900 1080			1	20 A		RECEPT, FLEX-SPED A110	20
21	RECEPT, STAFF PARK A111B		20 A	1		900 900		1	20 A		RECEPT, SPED A107	22
23	COPIER, STAFF PARK A111B		20 A	1			180 900	1	20 A		RECEPT, SPED A107	24
25	RECEPT, CORRIDOR A114		20 A	1	900 360			1	20 A		RECEPT, ELEC-IDF A111A	26
27	ELECTRIC WATER COOLER, CORRIDOR A120	GFCI	20 A	1		180 180		1	20 A		RECEPT, ELEC-IDF A111A	28
29	ELECTRIC WATER COOLER, CORRIDOR A120	GFCI	20 A	1			180 180	1	20 A		RECEPT, ELEC-IDF A111A	30
31	RECEPT, RM A112, A113		20 A	1	360 180			1	20 A		RECEPT, NURSE A114D	32
33	RECEPT, OFFICE A111G		20 A	1		900 540		1	20 A		RECEPT, NURSE A114D	34
35	RECEPT, OFFICE A111B		20 A	1			540 540	1	20 A		RECEPT, RM A100, A117, A119E	36
37	RECEPT, OFFICE A119A		20 A	1	1080 900			1	20 A		RECEPT, SRO A113	38
39	R



1 FOODSERVICE EQUIPMENT PLAN
1/4" = 1'-0"

EQUIPMENT NOTES

1. THE FOODSERVICE EQUIPMENT PLANS ARE FOR REFERENCE ONLY TO ASSIST THE LICENSED GENERAL CONTRACTOR (GC) & OTHER TRADES IN THEIR WORK. THE OWNER IS RESPONSIBLE FOR ADDITIONAL SUBMITTALS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION (AHJS). THE FOODSERVICE EQUIPMENT PLANS ARE NOT INTENDED TO BE COMPLETE CONSTRUCTION PLANS.
2. ALL TRADES SHALL VERIFY THE REQUIREMENTS OF THE NATIONAL, STATE AND LOCAL BUILDING CODES PRIOR TO INSTALLING.
3. THE GC SHALL FURNISH & INSTALL REINFORCEMENT ABOVE THE FINISHED CEILING FOR HANGING FSEC FURNISHED EQUIPMENT INCLUDING KITCHEN EXHAUST HOODS. THE GC SHALL COORDINATE THE EXACT SIZE & REQUIREMENTS WITH FSEC & CORRESPONDING MANUFACTURER SHOP DRAWINGS.
4. GC FIRE-RATED SHAFTS WHERE REQUIRED FOR KITCHEN EXHAUST DUCTS IN ACCORDANCE WITH NATIONAL, STATE, & LOCAL BUILDING CODES.
5. GC SHALL FURNISH & INSTALL STRUCTURAL SUPPORT FOR ROOFTOP EQUIPMENT WHERE REQUIRED. GC SHALL COORDINATE WITH THE ARCHITECT & ENGINEER TO VERIFY THE STRUCTURAL CALCULATIONS FOR ROOF LOADS.
6. THE FSEC SHALL NOTIFY THE DESIGNER OF CHANGES TO THE FOODSERVICE EQUIPMENT PLANS & COORDINATE WITH GC & OTHER TRADES.
7. FSEC SHALL VERIFY ALL EQUIPMENT SIZES & FIELD VERIFY THE LOCATIONS & REQUIREMENTS OF ROUGH-INS IN THE EVENT OF CHANGES TO FOODSERVICE EQUIPMENT PLANS.

FOODSERVICE EQUIPMENT SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	STATUS	FURNISHED BY	INSTALLED BY
1	1	WALK-IN COOLER/FREEZER	NEW	FSEC	FSEC
2	1	COOLER EVAPORATOR COIL	NEW	FSEC	FSEC
3	1	COOLER REMOTE CONDENSING UNIT	NEW	FSEC	FSEC
4	1	FREEZER EVAPORATOR COIL	NEW	FSEC	FSEC
5	1	FREEZER REMOTE CONDENSING UNIT	NEW	FSEC	FSEC
6		SPARE NUMBER			
7	4	36" X 21" DUNNAGE RACK	NEW	FSEC	FSEC
8	8	48" X 21" DUNNAGE RACK	NEW	FSEC	FSEC
9		SPARE NUMBER			
10	3	48" X 90" X 48" X 84"H. U-SHAPED 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
11	6	54" X 24" X 84"H 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
12		SPARE NUMBER			
13	6	48" X 24" X 84"H 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
14	2	36" X 24" X 84"H 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
15	2	48" X 18" X 84"H 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
16		SPARE NUMBER			
17	3	36" X 24" X 72" CAN RACK SHELVING UNIT	NEW	FSEC	FSEC
18	1	72" X 48" X 84"H L-SHAPED 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
19	2	68" X 54" X 84"H L-SHAPED 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
20	8	STAINLESS STEEL CORNER GUARDS	NEW	FSEC	FSEC
21	5	48" X 24" X 84"H 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
22	2	42" X 24" X 84"H 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
23	1	36" X 24" X 84"H 5-TIER SHELVING UNIT	NEW	FSEC	FSEC
24	1	216" EXHAUST HOOD	NEW	FSEC	DIV. 23
25	1	EXHAUST FAN (NOT SHOWN)	NEW	DIV. 23	DIV. 23
26	1	MAKE-UP AIR UNIT (NOT SHOWN)	NEW	DIV. 23	DIV. 23
27	1	HOOD CONTROLS	NEW	FSEC	DIV. 26
28	1	FIRE SUPRESSION SYSTEM	NEW	FSEC	FSEC
29	1	MICROWAVE OVEN	NEW	FSEC	FSEC
30	1	40GAL TILT SKILLET	NEW	FSEC	FSEC
31X	1	12" 2-BURNER RANGE, ELECTRIC	RELOCATED	OWNER	FSEC
32X	1	DOUBLE STACKED ELECTRIC CONVECTION OVEN	RELOCATED	OWNER	FSEC
33	1	DOUBLE STACK 6-FULL COMBI OVEN	NEW	FSEC	FSEC
34	1	ROLL-IN 20-FULL COMBI OVEN	NEW	FSEC	FSEC
35	1	COMBI OVEN WATER FILTRATION SYSTEM	NEW	FSEC	DIV. 22
35C	1	COMBI OVEN WATER FILTRATION SYSTEM	NEW	FSEC	DIV. 22
36	1	TILIT SKILLET WATER FILTRATION SYSTEM	NEW	FSEC	DIV. 22
37	2	72" X 8" FLOOR TROUGH	NEW	FSEC	DIV. 22
38	1	24" X 18" ANTI-SPLASH FLOOR TROUGH	NEW	FSEC	DIV. 22
39	1	207" X 48" ISLAND PREP TABLE	NEW	FSEC	FSEC
40	1	100" X 30" COLD PREP TABLE WITH SINK	NEW	FSEC	FSEC
41	1	PRE-RINSE WITH ULTRARINSE ADD-ON FAUCET	NEW	FSEC	DIV. 22
42	1	ELECTRIC CAN OPENER	NEW	FSEC	FSEC
43	1	2 HP DISPOSER	NEW	FSEC	DIV. 22
44	1	84" X 30" BAKERS TOP WORKTABLE WITH DRAWERS	NEW	FSEC	FSEC
45	1	36" X 21" DUNNAGE RACK	NEW	FSEC	FSEC
46	1	24" X 16" WALL SHELF WITH UTENSIL RACK	NEW	FSEC	FSEC
47	1	80 QT. MIXER	NEW	FSEC	FSEC
48	1	WATER METER	NEW	FSEC	DIV. 22
49	2	36" X 18" PREP SHELVING	NEW	FSEC	FSEC
50	4	HANDSINK WITH KNEE APRON	NEW	FSEC	DIV. 22
51	LOT	SLIM JIM TRASH CAN	NEW	OWNER	OWNER
52	1	HANDSINK WITH KNEE APRON & EYE WASH STATION	NEW	FSEC	DIV. 22
53	LOT	BRUTE TRASH CAN	NEW	OWNER	OWNER
54	1	1-SEC. ROLL-THRU HEATED CABINET WITH GLASS DORRS	NEW	FSEC	FSEC
55	4	SHEET PAN RACK	NEW	FSEC	FSEC
56	1	2-SEC. ROLL-IN COLD HOLDING CABINET WITH GLASS DOORS	NEW	FSEC	FSEC
57	1	1-SEC. ROLL-IN HOT HOLDING CABINET WITH GLASS DOOR	NEW	FSEC	FSEC
58	2	TRAY STAND CART	NEW	FSEC	FSEC
59	2	74" REFRIGERATED DISPLAY CASE WITH MILK CRATE HOLDER	NEW	FSEC	FSEC
60	1	60" 4-WELL HOT FOOD SERVING COUNTER	NEW	FSEC	FSEC
61	2	60" SNEEZE GUARD	NEW	FSEC	FSEC
62	1	32" 2-WELL COLD FOOD SERVING COUNTER	NEW	FSEC	FSEC
63	2	32" SNEEZE GUARD	NEW	FSEC	FSEC
64	1	74" 5-WELL SALAD SERVING COUNTER	NEW	FSEC	FSEC
65	2	74" SNEEZE GUARD	NEW	FSEC	FSEC
66	1	60" 4-WELL HOT FOOD SERVING COUNTER	NEW	FSEC	FSEC
67	1	32" 2-WELL COLD FOOD SERVING COUNTER	NEW	FSEC	FSEC
68	1	74" 5-WELL SALAD SERVING COUNTER	NEW	FSEC	FSEC
69	2	MERCHANDISING DISPLAY RACK	NEW	FSEC	FSEC
70-71		SPARE NUMBER			
72	2	CASH REGISTER STAND	NEW	FSEC	FSEC
73	2	POS SYSTEM	OWNER	OWNER	OWNER
74	1	46" CONDIMENT COUNTER	NEW	FSEC	FSEC
75	1	48" X 30" WORK CABINET WITH DRAWERS	NEW	FSEC	FSEC
76	2	45 DEGREE FILLER UTILITY COUNTER	NEW	FSEC	FSEC
77		SPARE NUMBER			
78B	1	60" HEATED COUNTERTOP DISPLAY MERCHANDISER	ALT 9B	FSEC	FSEC
79B	1	CORNER MOBILE UTILITY COUNTER	ALT 9B	FSEC	FSEC
80B	2	74" MOBILE UTILITY COUNTER	ALT 9B	FSEC	FSEC
81B	1	BEVERAGE COUNTER WITH DUMP SINK	ALT 9B	FSEC	FSEC
82A	1	DISPENSER WATER FILTER SYSTEM	ALT 9A	FSEC	DIV. 22
83A	1	COFFEE GRINDDER	ALT 9A	FSEC	FSEC
84A	1	COFFEE/TEA BREWER	ALT 9A	FSEC	FSEC
85A	1	COFFEE WATER FILTER SYSTEM	ALT 9A	FSEC	DIV. 22
86A	2	BLENDER	ALT 9A	FSEC	FSEC
87A	1	UNDERCOUNTER ICE MACHINE	ALT 9A	FSEC	FSEC
88A	1	ICE WATER FILTER SYSTEM	ALT 9A	FSEC	DIV. 22
89A	1	UNDERCOUNTER REFRIGERATOR	ALT 9A	FSEC	FSEC
90A	1	ESPRESSO CAPPUCCINO MACHINE	ALT 9A	FSEC	FSEC
91A	1	ESPRESSO WATER FILTER SYSTEM	ALT 9A	FSEC	DIV. 22
92A	2	SYRUP BOTTLE DISPLAY	ALT 9A	FSEC	FSEC
93A	2	CUP ORGANIZER	ALT 9A	FSEC	FSEC
94B	1	POS SYSTEM	ALT 9B	OWNER	OWNER
95-99		SPARE NUMBER			
100	1	PEDESTAL DUMP SINK	NEW	FSEC	DIV. 22
101	1	72" X 121" L-SHAPED SOILED DISHTABLE	NEW	FSEC	FSEC
102	1	DISPOSAL SYSTEM	NEW	FSEC	DIV. 22
103	1	PRE-RINSE WITH ADD-ON FAUCET	NEW	FSEC	FSEC
104	1	36" X 16" TUBULAR SHELF	NEW	FSEC	FSEC
105	1	24" X 16" TUBULAR SHELF	NEW	FSEC	FSEC
106	1	CONVEYOR TYPE DISHMACHINE	NEW	FSEC	FSEC
107	1	CONDENSATE HOOD	NEW	FSEC	DIV. 23
108	1	CONDENSATE FAN (NOT SHOWN)	NEW	DIV. 23	DIV. 23
109	1	72" X 8" FLOOR TROUGH	NEW	FSEC	DIV. 22
110	1	144" ROLLER CLEAN DISHTABLE	NEW	FSEC	FSEC
111	1	63" X 15" SOILED SORTING SHELF	NEW	FSEC	FSEC
112	1	135" 3-COMPARTMENT SINK	NEW	FSEC	FSEC
113	1	PRE-RINSE FAUCET WITH ADD-ON FAUCET	NEW	FSEC	DIV. 22
114	1	HOSE REEL ASSEMBLY	NEW	FSEC	DIV. 22
115	2	48" X 24" X 78" MOBILE DRYING RACK	NEW	FSEC	FSEC
116-117		SPARE NUMBER			
118	1	MOP SINK CABINET	NEW	FSEC	DIV. 22

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MANDAN, ND 58554
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2201 12TH STREET NORTH, SUITE E
FARGO, NORTH DAKOTA 58108
(701) 280.0500 OFFICE

ELECTRICAL
CMTA
2201 12TH STREET NORTH, SUITE E
FARGO, NORTH DAKOTA 58102
(701) 280.0500 OFFICE

CIVIL
LOWRY ENGINEERING
1111 WESTRAC DR. STE. 108
FARGO, ND 58103
(701) 235.0199 OFFICE

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FOODSERVICE CONCEPT DESIGN
7900 INTERNATIONAL DRIVE
SUITE 300 -7043
BLOOMINGTON, MN 55425
(612) 325.1494 OFFICE

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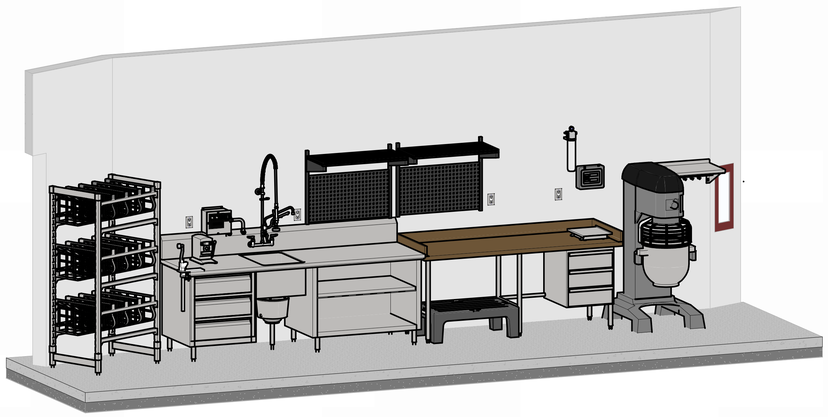
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2	Addendum #2	3/24/26

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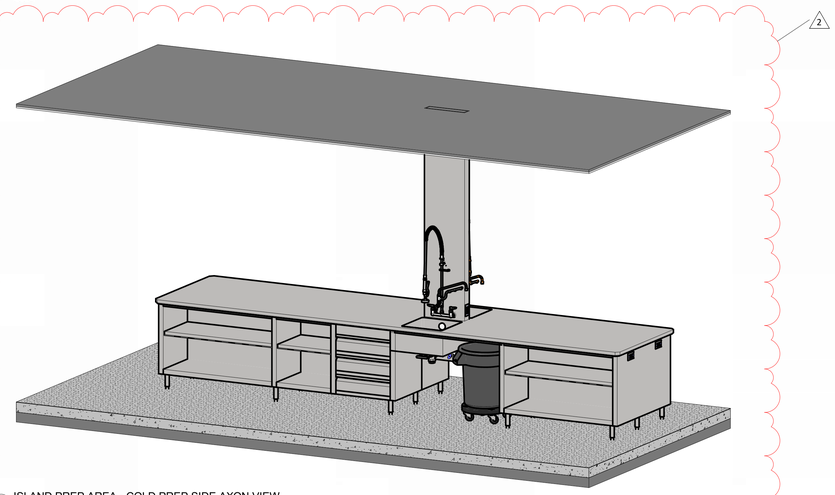
FOODSERVICE EQUIPMENT PLAN

SHEET
QF101

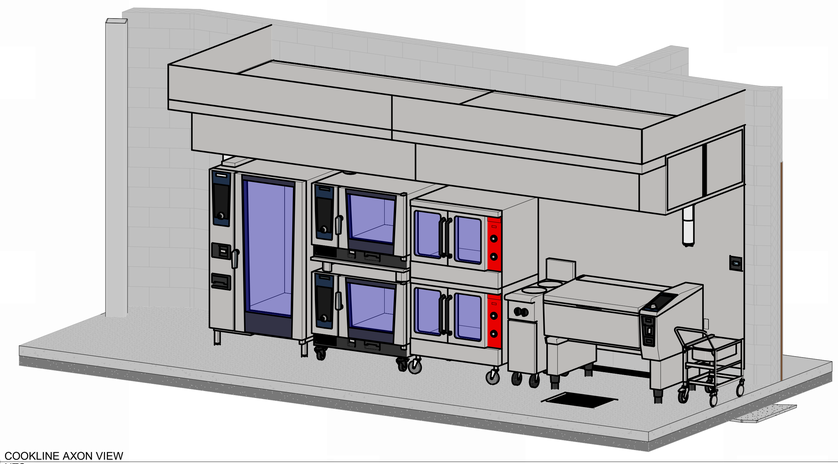
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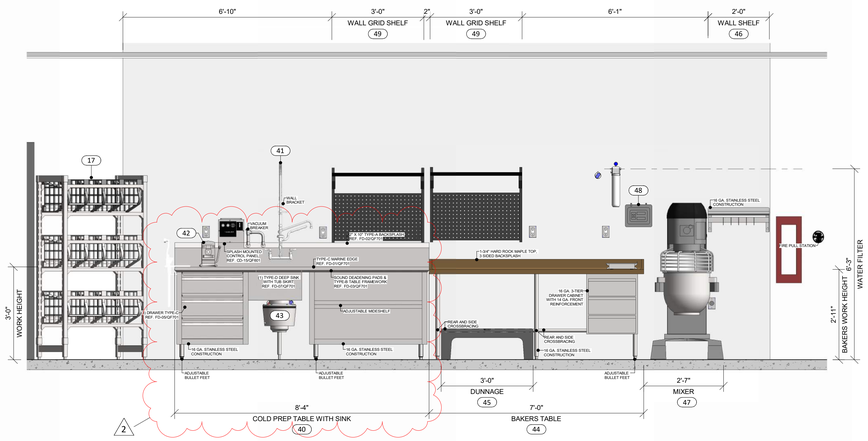
1. PREP AREA AXON VIEW
NTS



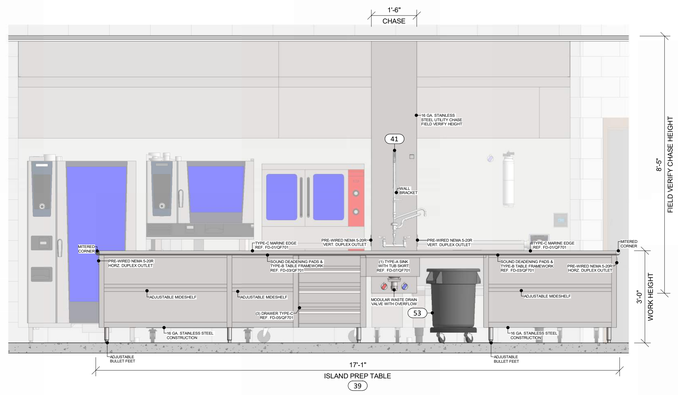
2 ISLAND PREP AREA - COLD PREP SIDE AXON VIEW
NTS



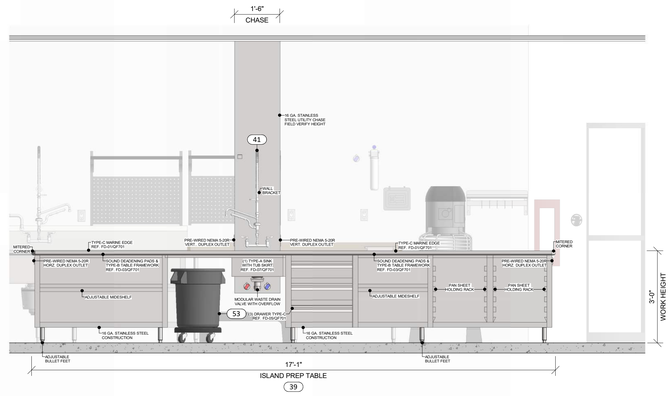
3 COOKLINE AXON VIEW
NTS



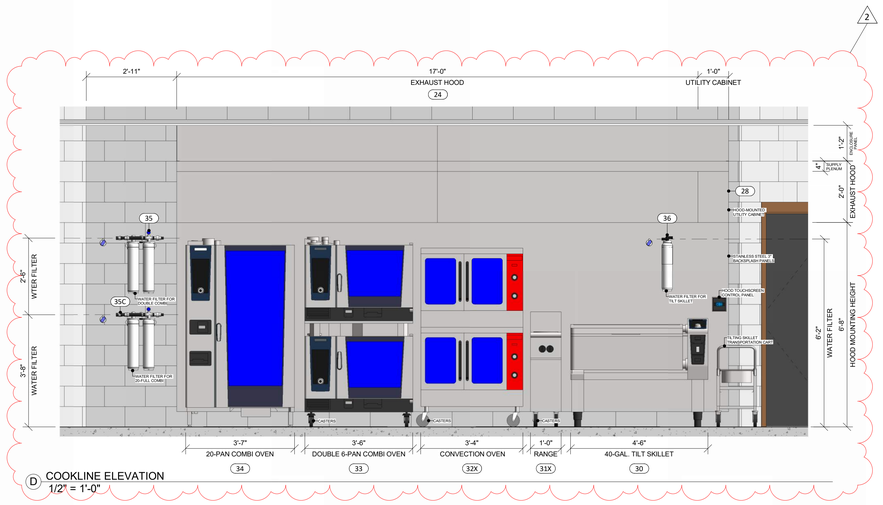
A PREP AREA ELEVATION
1/2" = 1'-0"



B ISLAND PREP AREA - COLD PREP SIDE ELEVATION
1/2" = 1'-0"



C ISLAND PREP AREA - COOKLINE SIDE ELEVATION
1/2" = 1'-0"



D COOKLINE ELEVATION
1/2" = 1'-0"

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DRAWING HISTORY

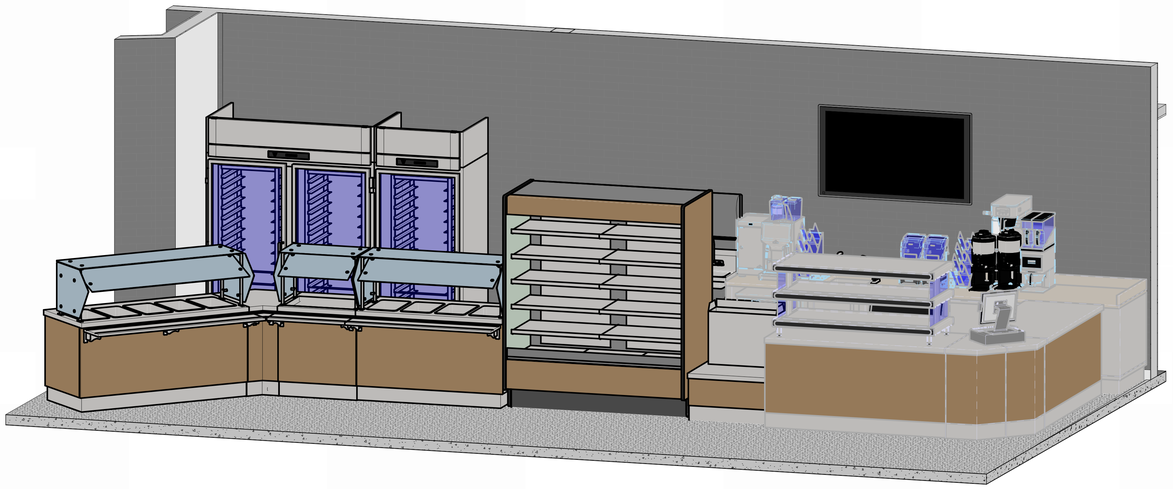
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1	Addendum #1	3/17/26
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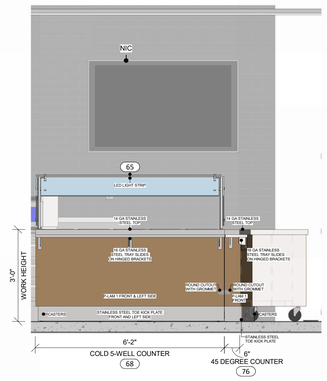
FOODSERVICE EQUIPMENT ELEVATIONS

SHEET
QF201

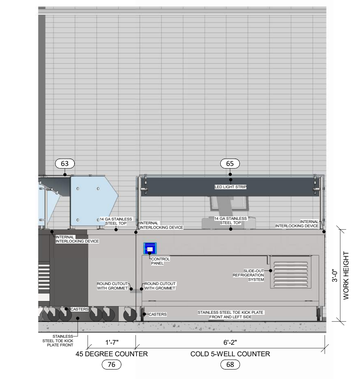
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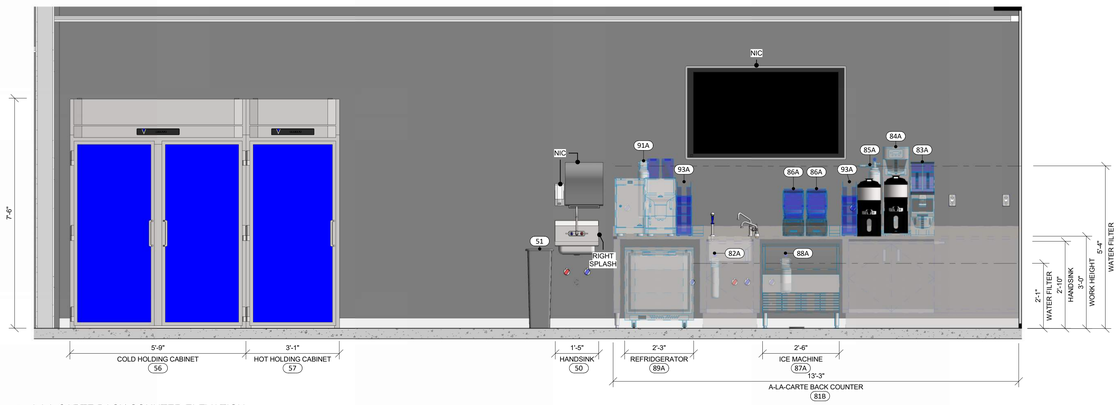
1 SERVERY A-LA-CARTE AREA AXON VIEW
NTS



A SALAD SERVERY COUNTER - CUSTOMER SIDE ELEVATION
1/2" = 1'-0"



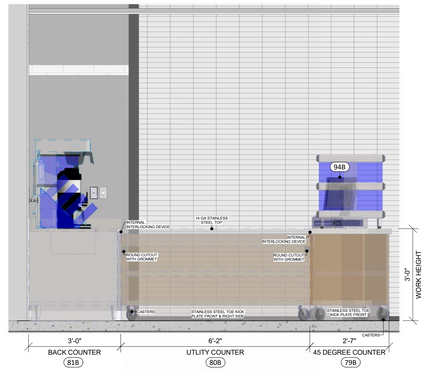
B SALAD SERVERY COUNTER - OPERATOR SIDE ELEVATION
1/2" = 1'-0"



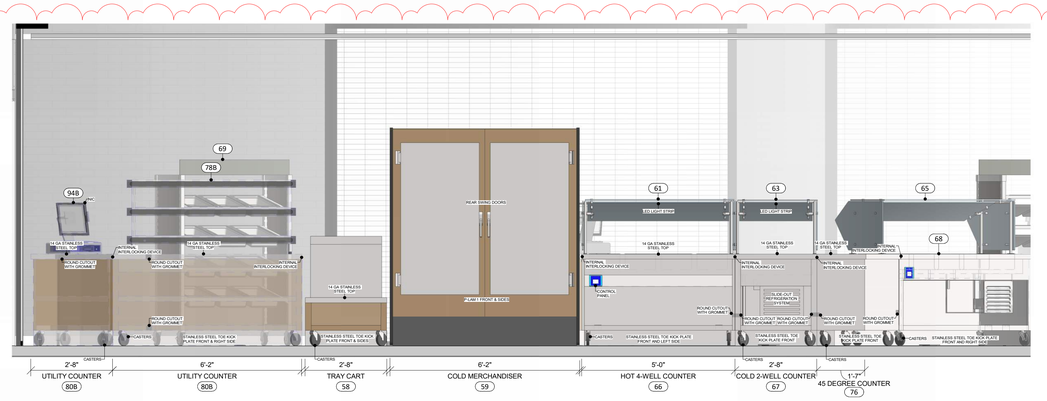
C A-LA-CARTE BACK COUNTER ELEVATION
1/2" = 1'-0"



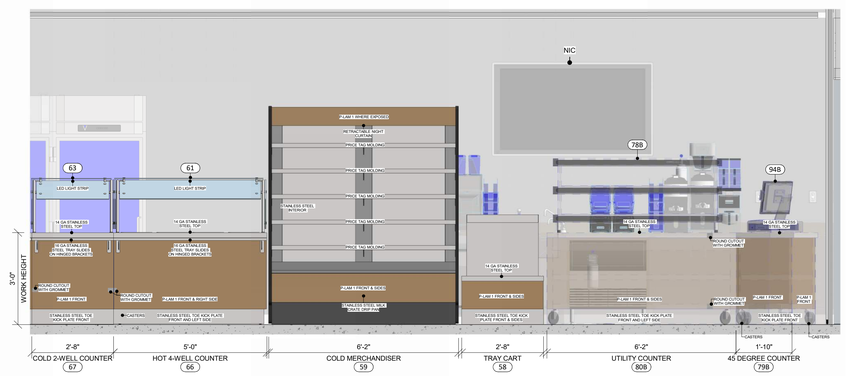
D A-LA-CARTE COUNTER - CUSTOMER SIDE ELEVATION
1/2" = 1'-0"



E A-LA-CARTE COUNTER - OPERATOR SIDE ELEVATION
1/2" = 1'-0"



F A-LA-CARTE SERVERY AREA - OPERATOR COLD SIDE ELEVATION
1/2" = 1'-0"



G A-LA-CARTE SERVERY AREA - CUSTOMER COLD SIDE ELEVATION
1/2" = 1'-0"

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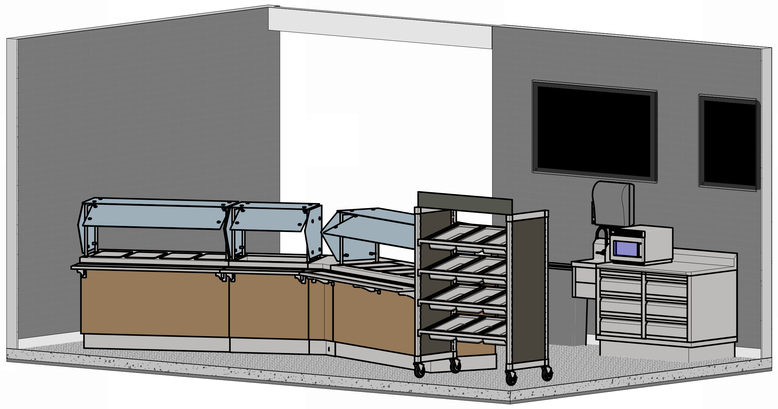
NO.	DESCRIPTION	DATE
	CONSTRCTUON DOCUMENTS	3/10/26
2	Addendum #2	3/24/26

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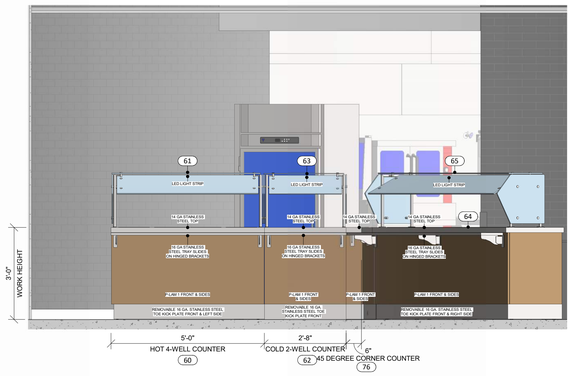
FOODSERVICE EQUIPMENT ELEVATIONS

SHEET
QF202

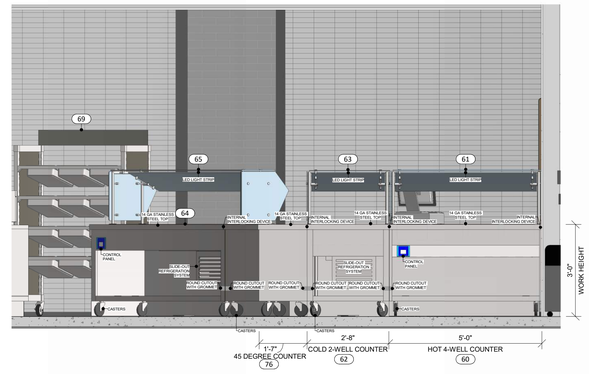
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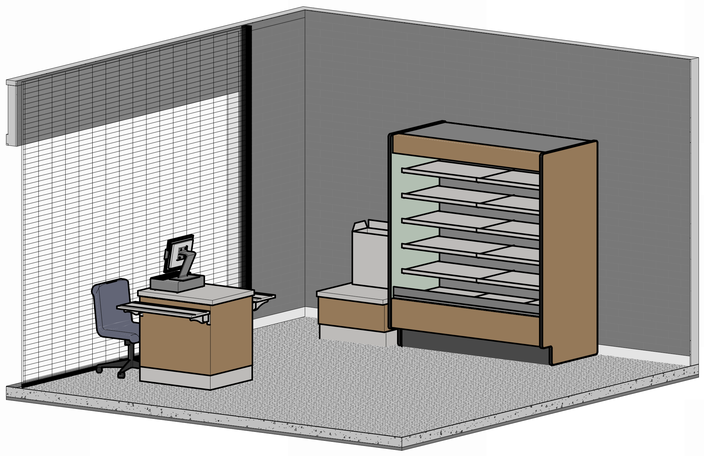
1 SERVERY AREA - SERVING LINE AXON VIEW
NTS



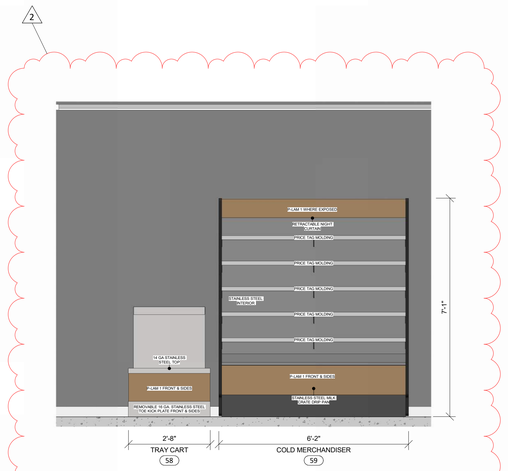
A SERVING LINE - CUSTOMER SIDE ELEVATION
1/2" = 1'-0"



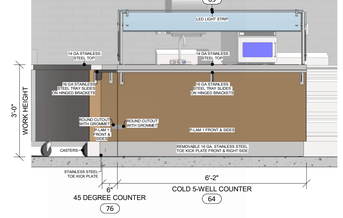
B SERVING LINE - OPERATOR SIDE ELEVATION
1/2" = 1'-0"



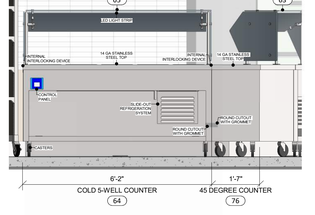
2 SERVERY AREA - CASHIER STAND, TRAY CART, & COLD MERCHANDISER AXON VIEW
NTS



C SERVING LINE - TRAY CART & COLD MERCHANDISER ELEVATION
1/2" = 1'-0"



E SERVING LINE - CUSTOMER COLD SIDE ELEVATION
1/2" = 1'-0"



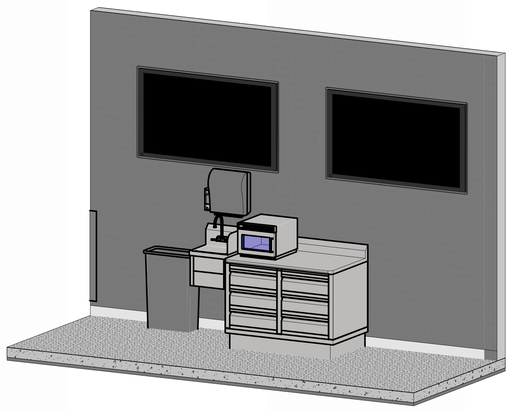
D SERVING LINE - OPERATOR COLD SIDE ELEVATION
1/2" = 1'-0"



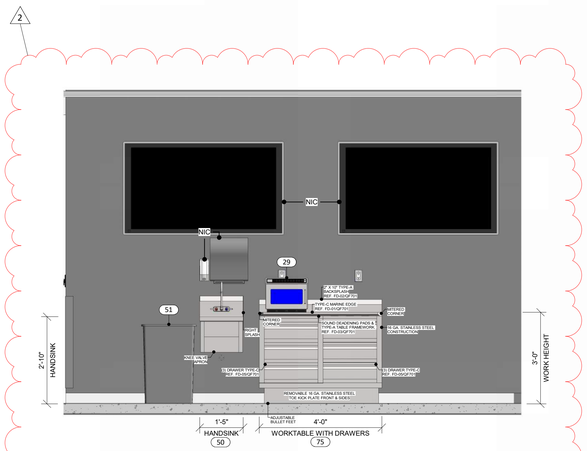
F CASHIER STAND & CONDIMENT COUNTER ELEVATION
1/2" = 1'-0"



G CASHIER STAND ELEVATION
1/2" = 1'-0"



3 SERVERY AREA - BACK COUNTER AXON VIEW
NTS



H SERVERY BACKCOUNTER ELEVATION
1/2" = 1'-0"

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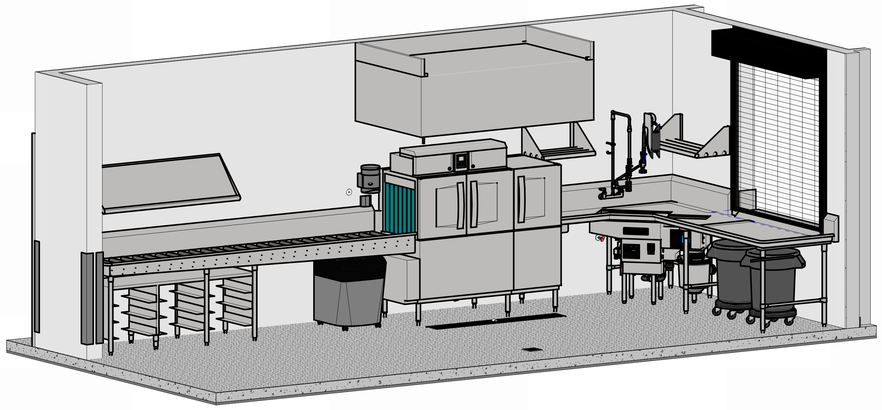
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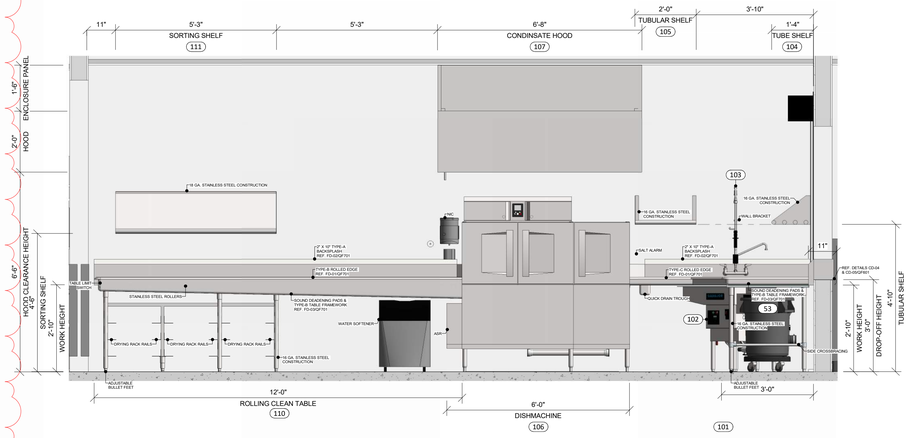
FOODSERVICE EQUIPMENT ELEVATIONS

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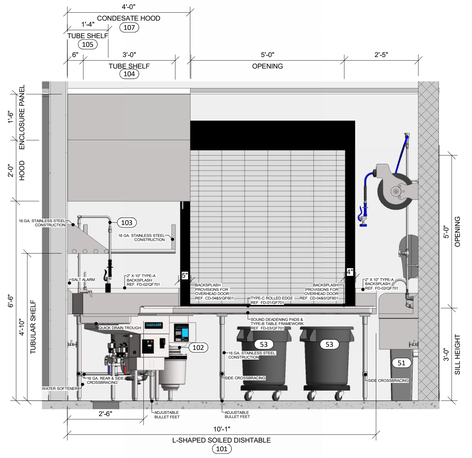
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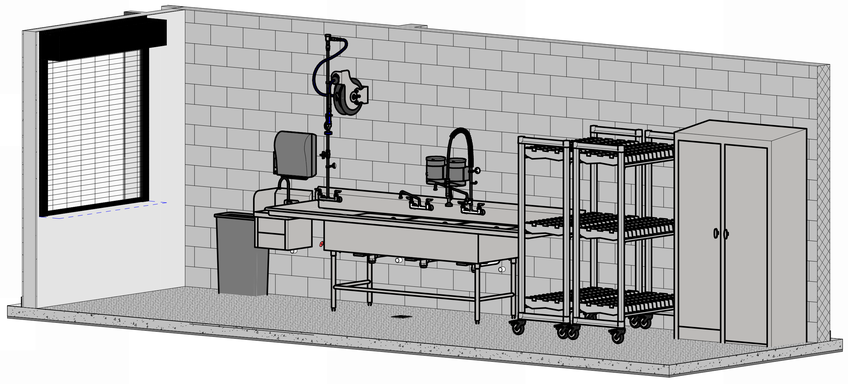
1 WAREWASHING - DISHLINE AXON VIEW
NTS



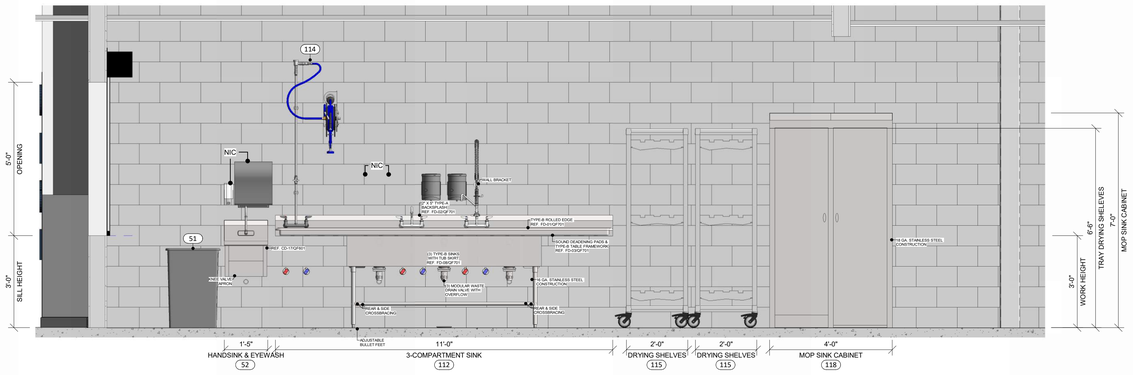
A WEREWASHING - DISHLINE ELEVATION
1/2" = 1'-0"



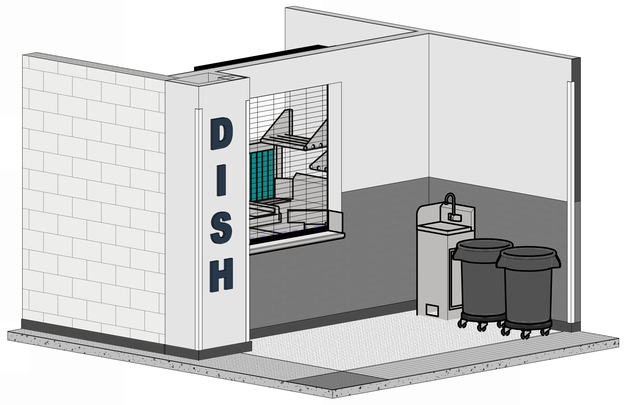
B WAREWASHING SOILD DISH DROP-OFF ELEVATION
1/2" = 1'-0"



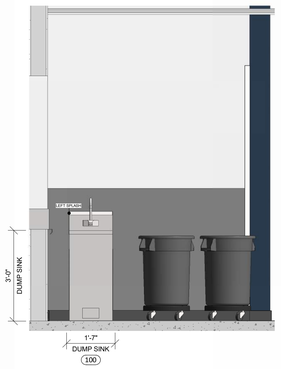
2 WAREWASHING - 3-COMPARTMENT AXON VIEW
NTS



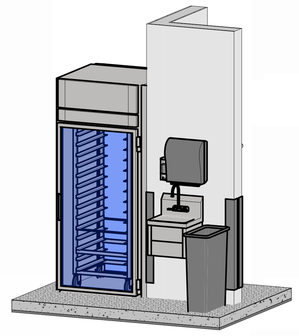
C WAREWASHING - 3-COMPARTMENT SINK ELEVATION
1/2" = 1'-0"



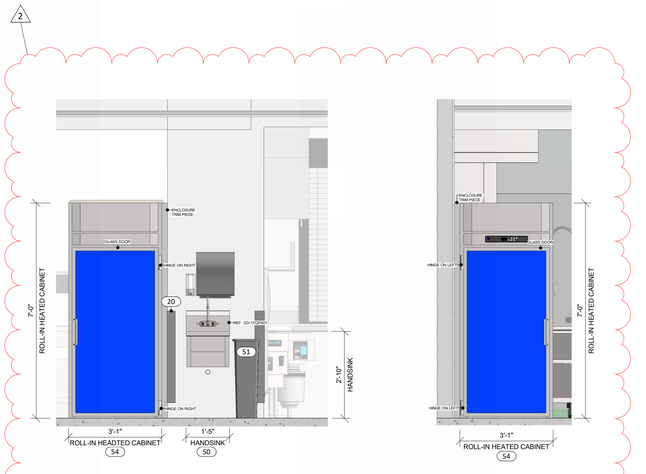
3 WAREWASHING - DISH DROP-OFF AXON VIEW
NTS



D DISH DROP-OFF ELEVATION
1/2" = 1'-0"



4 HEATED CABINET & HANSINK AXON VIEW
NTS



E HEATED CABINET & HANDSINK ELEVATION
1/2" = 1'-0"

F HEATED CABINET ELEVATION
1/2" = 1'-0"

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NO.	DESCRIPTION	DATE
	CONSTRUCTION DOCUMENTS	3/10/26
1.	Addendum #1	3/17/26
2.	Addendum #2	3/24/26

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FOODSERVICE EQUIPMENT ELEVATIONS

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1 FOODSERVICE PLUMBING ROUGH-IN PLAN
1/4" = 1'-0"

PLUMBING NOTES

1. DIVISION 22 SHALL EXTEND & CONNECT DRAIN(S) TO DW.
2. DIVISION 22 SHALL EXTEND DRAIN(S) TO IW.
3. NOT USED
4. DIVISION 22 SHALL FURNISH AND INSTALL A BACKFLOW PREVENTION DEVICE IF REQUIRED BY THE AHJ.
5. DIVISION 22 SHALL INSTALL FSEC FURNISHED PLUMBING FIXTURES, SUCH AS FAUCETS & WASTE DRAINS FOR FSEC FURNISHED EQPM.
6. DIVISION 22 SHALL INSTALL & CONNECT FSEC FURNISHED WALL-MOUNTED HAND SINK(S) & CORRESPONDING FIXTURE(S) PER THE MFR'S REQUIREMENTS.
7. DIVISION 22 SHALL CONNECT WASTE TO PC FURNISHED & INSTALLED GREASE INTERCEPTOR. COORDINATE LOCATION WITH FSEC & OTHER TRADES.
8. NOT USED
9. DIVISION 22 SHALL EXTEND & CONNECT WATER SUPPLY TO FSEC FURNISHED EQPM &/OR FIXTURES.
10. DIVISION 22 SHALL INSTALL & CONNECT FSEC FURNISHED WATER FILTER(S). PC SHALL FURNISH & INSTALL PIPING FROM FILTER OUTLET TO EQPM CONNECTIONS CONCEALED WITHIN WALLS & CLNG.
11. NOT USED
12. DIVISION 22 SHALL INSTALL & CONNECT FSEC FURNISHED HOSE REEL(S) INCLUDING FITTINGS THAT SHIP LOOSE SUCH AS MIXING VALVE(S), VACUUM BREAKER, & FLOW CONTROL VALVE(S).
13. DIVISION 22 SHALL INSTALL & CONNECT FSEC FURNISHED SOLENOID VALVE(S), MIXING VALVES, VACUUM BREAKER(S), FLOW CONTROL(S), PRESSURE REGULATOR(S), & WATER INLET(S). COORDINATE WITH DIVISION 23.
14. NOT USED
15. DIVISION 22 SHALL INTERCONNECT FSEC FURNISHED WATER SOFTENER.
16. DIVISION 22 SHALL CONNECT 110°F MINIMUM HOT WATER SUPPLY TO (Y)F RISE) BOOSTER HEATER & CONNECT BOOSTER HEATER TO DISHMACHINE, IF SEPARATE.
17. DIVISION 22 SHALL INSTALL FSEC FURNISHED DRAIN WATER TEMPERING KIT OR DRAIN QUENCH KIT PER MFR'S REQUIREMENTS.
18. DIVISION 22 SHALL FURNISH & INSTALL TEMP. GAUGE(S), PRESSURE GAUGE(S), &/OR PRESSURE REGULATOR(S) REQUIRED FOR FSEC FURNISHED BOOSTER HEATER(S). PC SHALL EXTEND & CONNECT BOOSTER HEATER DRAIN(S) WITH REFRIGERATION-GRADE HARD COPPER TO IW.
19. FSEC SHALL FURNISH & INSTALL SLEEVES THROUGH COLD-STORAGE ROOM(S) & BLDG WALLS FOR CONDENSATE DRAIN LINES. FOAM & FULLY SEAL PENETRATIONS. DIVISION 22 SHALL WRAP CONDENSATE DRAIN LINES WITH INSULATION AFTER FSEC INSTALLS DRAIN LINE HEATER WHERE CONDENSATE DRAIN LINE WILL BE EXPOSED TO FREEZING TEMPS. COORDINATE WITH DIVISION 23.
20. FSEC SHALL CONNECT DRAIN(S) WITH REFRIGERATION-GRADE HARD COPPER & FURNISH & INSTALL 1" STAND OFFS & P-TRAP IW OUTSIDE COLD-STORAGE ROOM(S).
21. DIVISION 22 SHALL INSTALL FSEC FURNISHED FIRE SUPPRESSION SYSTEM GAS SHUT-OFF VALVE PER MFR'S REQUIREMENTS CONCEALED IN WALL OR CEILING.
22. VERIFY UTILITY REQUIREMENTS FOR EQPM THAT IS NOT INCLUDED IN SECT. 11 40 00 CONTRACT INCLUDING EXISTING EQPM.

PLUMBING LEGEND

SYMB	DESCRIPTION	ABBRV.
○	COLD/HOT WATER SUPPLY	CW/HW
⊘	FILTERED WATER CONN.	FW
⊕	DIRECT WASTE	DW
⊠	INDIRECT WASTE	IW
⊘	GAS	NG/LP
⊕	FLOOR DRAIN	FD
⊕TT	TELLTALE FLOOR DRAIN	TTFD
⊕	FUNNEL FLOOR DRAIN	FFD
⊕	HUB FLOOR DRAIN	HFD
⊠	FLOOR SINK	FS
⊠	HOT FLOOR SINK	HFS
- - - -	FIELD PIPING BY PC	FP

FOODSERVICE EQUIPMENT PLUMBING ROUGH-IN SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	COLD WATER SIZE	COLD WATER R.I. HEIGHT	HOT WATER SIZE	HOT WATER R.I. HEIGHT	FILTERED WATER SIZE	FILTERED WATER R.I. HEIGHT	DIRECT WASTE SIZE	DIRECT WASTE R.I. HEIGHT	INDIRECT WASTE SIZE	INDIRECT WASTE TAG NO.	PLUMBING REMARKS
2	1	COOLER EVAPORATOR COIL									3/4"	FS / IW-1	PLUMBING NOTE 2, 19, 20
4	1	FREEZER EVAPORATOR COIL									3/4"	FS / IW-1	PLUMBING NOTE 2, 19, 20
28	1	FIRE SUPRESSION SYSTEM											PLUMBING NOTE 21
30	1	40GAL TILT SKILLET					3/4"	#36			2"	#37	PLUMBING NOTE 2, 9; FILTERED CW FROM #36
33	1	DOUBLE STACK 6-FULL COMBI OVEN					3/4"	#35			2"	#37	PLUMBING NOTE 2, 9; FILTERED CW FROM #35
34	1	ROLL-IN 20-FULL COMBI OVEN					3/4"	#35C			2"	#37	PLUMBING NOTE 2, 9; FILTERED CW FROM #35
35	1	COMBI OVEN WATER FILTRATION SYSTEM	3/4"	72"									PLUMBING NOTE 4, 9, 10
35C	1	COMBI OVEN WATER FILTRATION SYSTEM	3/4"	72"									PLUMBING NOTE 4, 9, 10
36	1	TILT SKILLET WATER FILTRATION SYSTEM	3/4"	42"									PLUMBING NOTE 4, 9, 10
37	2	72" X 8" FLOOR TROUGH							4"	-4"			PLUMBING NOTE 1, 7
38	1	24" X 18" ANTI-SPLASH FLOOR TROUGH							4"	-4"			PLUMBING NOTE 1
39	1	207" X 48" ISLAND PREP TABLE	1/2"	18"	1/2"	18"					1 1/2"	FS / IW-2	PLUMBING NOTE 2, 4, 5, 9
41	1	PRE-RINSE WITH ULTRARINSE ADD-ON FAUCET	1/2"	18"	1/2"	18"							PLUMBING NOTE 4, 9
43	1	2 HP DISPOSER	1/2"	TEE					2"	10"			PLUMBING NOTE 1, 4, 9, 13; TEE CW FROM #41
48	1	WATER METER					1/2"	72"					PLUMBING NOTE 4, 9; CW THROUGH WATER FILTER
50	4	HANDSINK WITH KNEE APRON	1/2"	24"	1/2"	24"			1 1/2"	22"			PLUMBING NOTE 1, 6, 9
52	1	HANDSINK WITH KNEE APRON & EYE WASH STATION	1/2"	24"	1/2"	24"			1 1/2"	22"			PLUMBING NOTE 1, 6, 9
62	1	32" 2-WELL COLD FOOD SERVING COUNTER									1"	FD / IW-3	PLUMBING NOTE 2
64	1	74" 5-WELL SALAD SERVING COUNTER									1"	FD / IW-4	PLUMBING NOTE 2
67	1	32" 2-WELL COLD FOOD SERVING COUNTER									1"	FD / IW-6	PLUMBING NOTE 2
68	1	74" 5-WELL SALAD SERVING COUNTER									1"	FD / IW-5	PLUMBING NOTE 2
81B	1	BEVERAGE COUNTER WITH DUMP SINK	1/2"	18"	1/2"	18"	1/2"	#82A	1 1/2"	12"	1"	FS / IW-7	PLUMBING NOTE 2, 4, 6, 9; FILTERED CW FROM #82A
82A	1	DISPENSER WATER FILTER SYSTEM	1/2"	18"									PLUMBING NOTE 4, 9, 10
84A	1	COFFEE/TEA BREWER					1/4"	#85A					PLUMBING NOTE 9, 10; FILTERED CW FROM #85A
85A	1	COFFEE WATER FILTER SYSTEM	1/2"	47"									PLUMBING NOTE 2, 4, 9, 10
87A	1	UNDERCOUNTER ICE MACHINE					3/8"	#88A			3/4"	FS / IW-8	PLUMBING NOTE 2, 9, 10; FILTERED CW FROM #88A
88A	1	ICE WATER FILTER SYSTEM	3/8"	18"									PLUMBING NOTE 4, 9, 10
90A	1	ESPRESSO CAPPUCCINO MACHINE					1/2"	#91A			2"	HFS / IW-7	PLUMBING NOTE 2, 9, 10; FILTERED CW FROM #91A
91A	1	ESPRESSO WATER FILTER SYSTEM	1/2"	47"									PLUMBING NOTE 4, 9, 10
100	1	PEDESTAL DUMP SINK	1/2"	24"	1/2"	24"			3 1/2"	22"			PLUMBING NOTE 1, 6, 9; MIXING VALVE
101	1	72" X 121" L-SHAPED SOILED DISHTABLE									3/4"	HFS / IW-10	PLUMBING NOTE 2
102	1	DISPOSAL SYSTEM	1/2"	18"	1/2"	18"			3"	10"			PLUMBING NOTE 1, 4, 9, 13
103	1	PRE-RINSE WITH ADD-ON FAUCET	1/2"	18"	1/2"	18"							PLUMBING NOTE 4, 9
106	1	CONVEYOR TYPE DISHMACHINE	3/4"	18"	3/4"	18"					2"	HFS / IW-10 & 9	PLUMBING NOTE 2, 4, 9, 13, 15, 16, 17, 18
107	1	CONDENSATE HOOD									1"	HFS / IW-9	PLUMBING NOTE 2
109	1	72" X 8" FLOOR TROUGH							4"	-4"			PLUMBING NOTE 1
110	1	144" ROLLER CLEAN DISHTABLE									1/2"	HFS / IW-9	PLUMBING NOTE 2
112	1	135" 3-COMPARTMENT SINK	3/4"	18"	3/4"	18"			2"	12"		TTFD / IW-11	PLUMBING NOTE 1, 4, 9
113	1	PRE-RINSE FAUCET WITH ADD-ON FAUCET	1/2"	18"	1/2"	18"							PLUMBING NOTE 4, 9
114	1	HOSE REEL ASSEMBLY	3/8"	47"	3/8"	47"							PLUMBING NOTE 4, 9, 12
118	1	MOP SINK CABINET	1/2"	36"	1/2"	36"			3 1/2"	0"			PLUMBING NOTE 1, 4, 9

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FOODSERVICE

FOODSERVICE CONCEPT DESIGN
7900 INTERNATIONAL DRIVE
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BLOOMINGTON, MN 55425
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DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRCTUON DOCUMENTS	3/10/26
1	Addendum #1	3/17/26
2	Addendum #2	3/24/26

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FOODSERVICE PLUMBING ROUGH-IN PLAN

SHEET
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VCPS New 3-12 School

1150 Central Ave N, Valley City, ND 58072

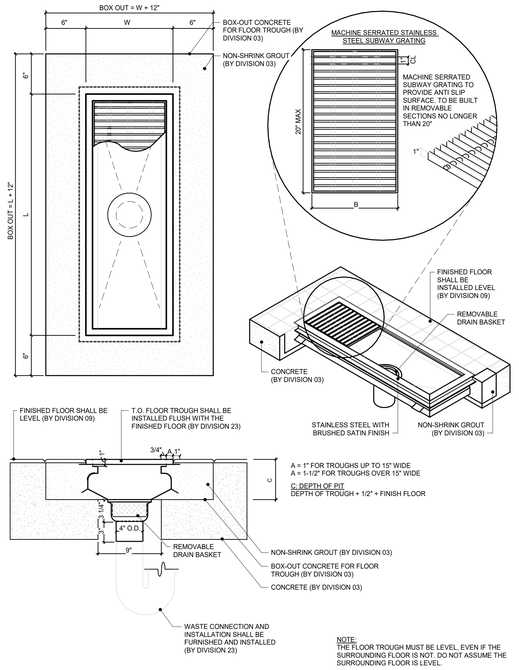
STRUCTURAL
ICON ARCHITECTURAL GROUP
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MECHANICAL
CMTA
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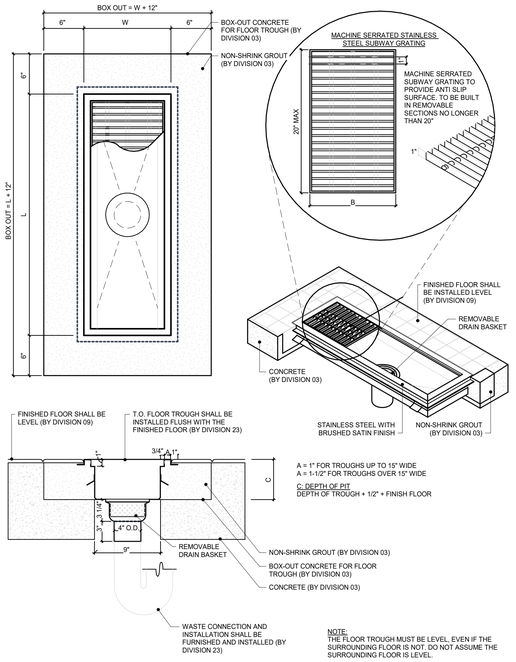
ELECTRICAL
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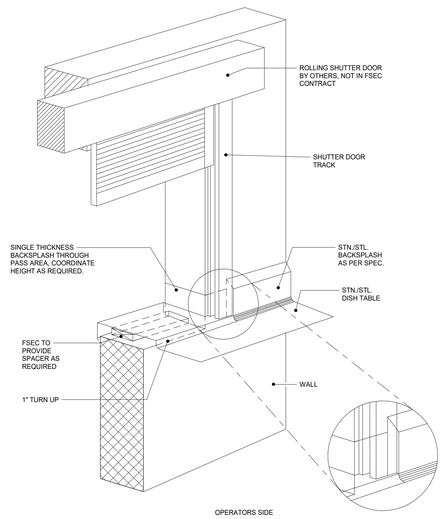
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1 CD-02 - ANTI-SPILL FLOOR TROUGH
NTS

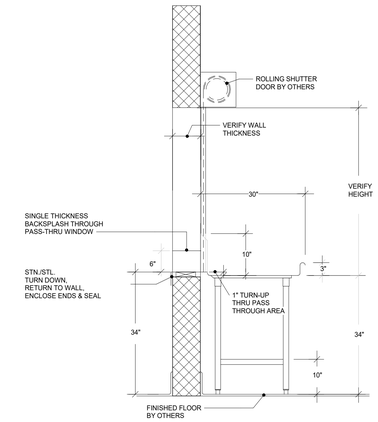


2 CD-03 - STANDARD FLOOR TROUGH
NTS

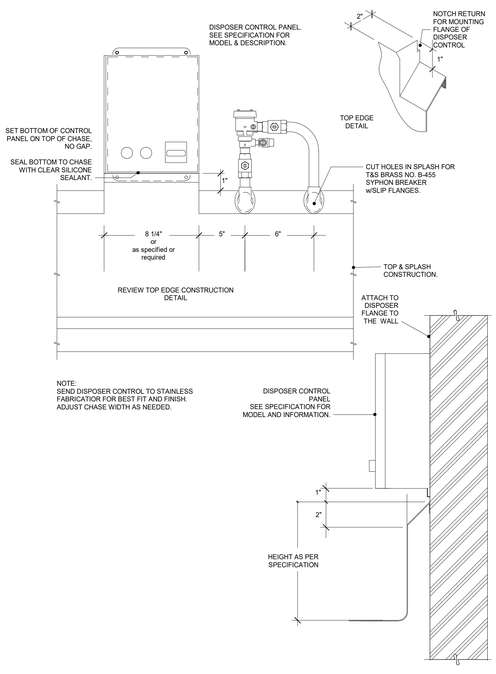


FSEC, SHALL PROVIDE FOR A FIELD WELDED PASS-THRU AREA INSTALLATION, TO INSURE THE BEST FIT AND FINISH.

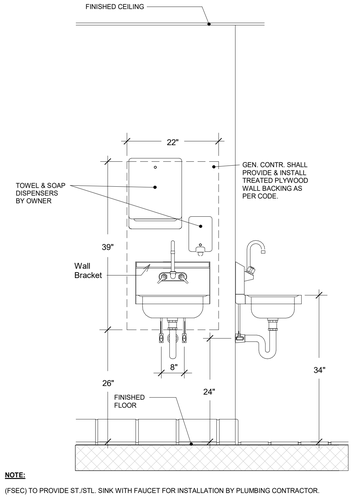
3 CD-04 - PASS-THRU WINDOW
NTS



4 CD-05 - PASS-THRU WINDOW SECTION
NTS

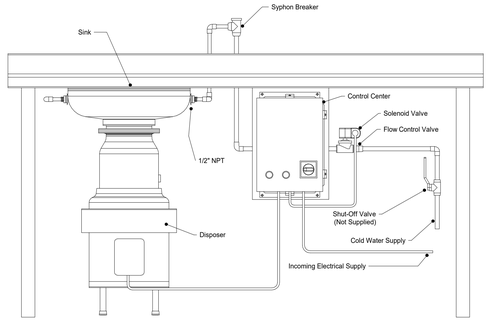


5 CD-15 - DISPOSER CONTROLS, SPLASH-MOUNT
NTS



NOTE:
(FSEC) TO PROVIDE ST./STL. SINK WITH FAUCET FOR INSTALLATION BY PLUMBING CONTRACTOR.

6 CD-17 - HANDSINK
NTS



7 CD-21 - DISPOSER RECOMMENDED INSTALLATION
NTS

2

DRAWING HISTORY

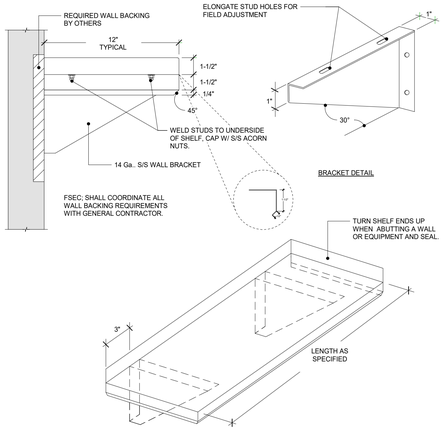
NO.	DESCRIPTION	DATE
	CONSTRCTUON DOCUMENTS	3/10/26
2	Addendum #2	3/24/26

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FOODSERVICE EQUIPMENT DETAILS

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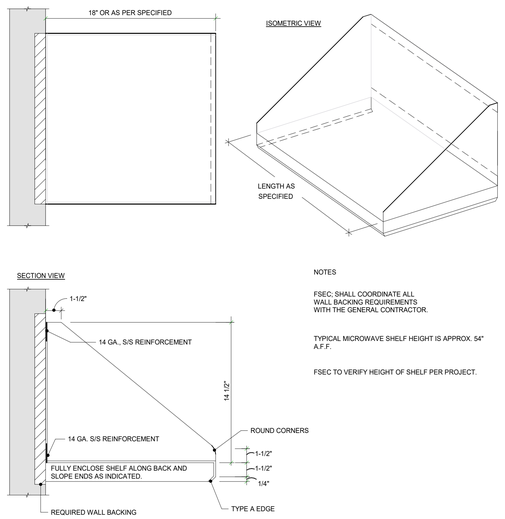


NOTES

MAXIMUM SPACING BETWEEN BRACKETS NOT TO EXCEED 42".
VERIFY ALL CONDITIONS AND SECURE BRACKETS WITH APPROPRIATE FASTENERS TO SUPPORT HEAVY LOADS.

TYPICAL WALL SHELF HEIGHT IS APPROX. 54" A.F.F.
VERIFY EACH SHELF HEIGHT REQUIREMENT IN PROJECT.

1 FD-10 - WALL SHELF
NTS



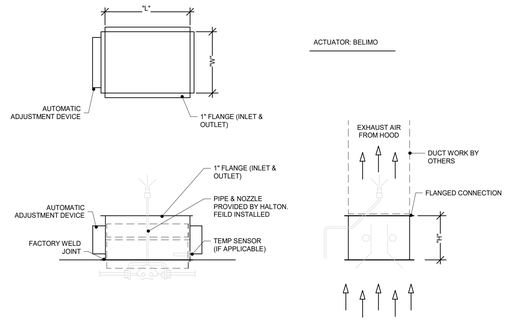
NOTES

FSEC; SHALL COORDINATE ALL
WALL BACKING REQUIREMENTS
WITH THE GENERAL CONTRACTOR.

TYPICAL MICROWAVE SHELF HEIGHT IS APPROX. 54"
A.F.F.

FSEC TO VERIFY HEIGHT OF SHELF PER PROJECT.

2 FD-11 - MICROWAVE SHELF
NTS

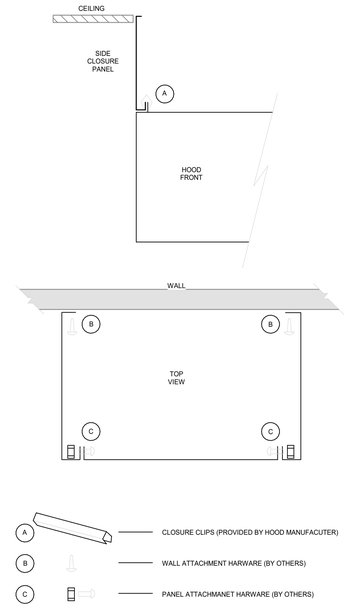


NOTES:

1. FLANGED FIELD CONNECTION REQUIRED. SLEEVED CONNECTION WILL CAUSE DAMPER BLADES TO BIND.
2. CONNECTIONS TO MEET NFPA96 REQUIREMENTS.
3. ANSUL COMPENSATES SHOWN FOR REFERENCE ONLY (UNLESS ORDERED WITH HOODS).
4. ADEQUATE ACCESS MUST BE PROVIDED TO DAMPERS FOR FUTURE SERVICING.

FACTORY NOTES:
1. CONSTRUCTION OF DAMPER WILL BE 16 GA, ALUMINIZED STEEL

3 FD-12 - VOLUME BALANCING DAMPER
NTS



4 FD-14 - CEILING ENCLOSURE PANELS
NTS

2

2

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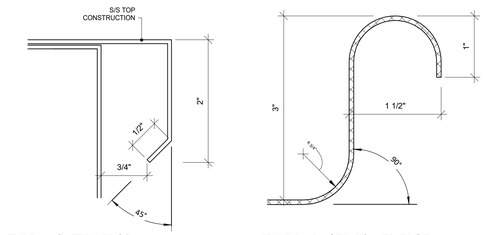
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FOODSERVICE EQUIPMENT DETAILS

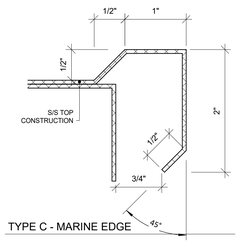
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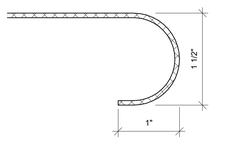


TYPE A - SAFTEY EDGE

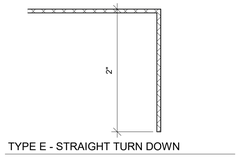
TYPE B - RAISED ROLLED EDGE



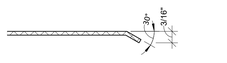
TYPE C - MARINE EDGE



TYPE D - BULL-NOSE EDGE

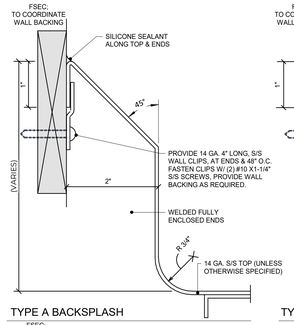


TYPE E - STRAIGHT TURN DOWN

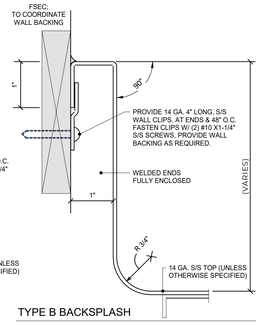


TYPE F - ANGLE EDGE

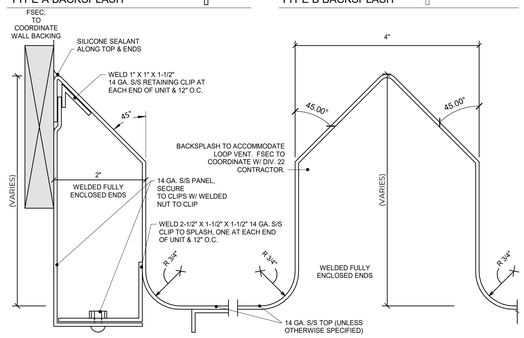
1 FD-01- TABLE EDGES
NTS



TYPE A BACKSPLASH



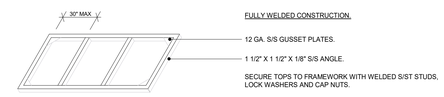
TYPE B BACKSPLASH



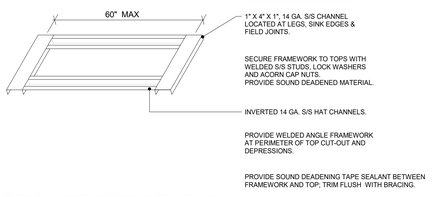
TYPE C BACKSPLASH

TYPE D BACKSPLASH

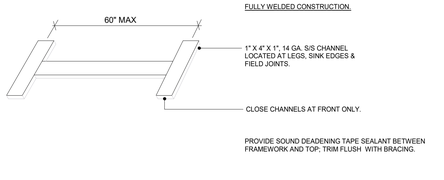
2 FD-02 - BACKSPLASHES
NTS



TYPE A - TABLE FRAMEWORK

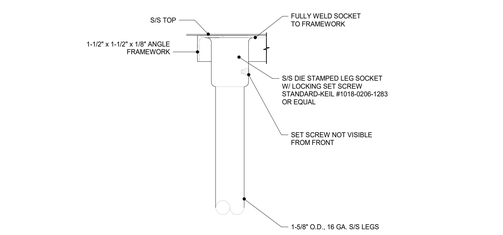


TYPE B - ALTERNATE TABLE FRAMEWORK

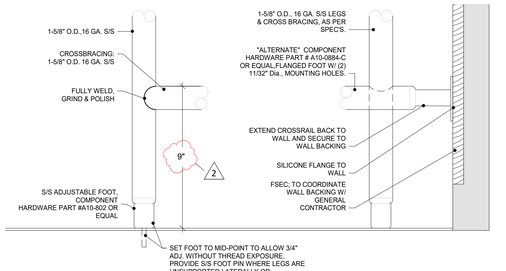


TYPE C - DRAINBOARD FRAMEWORK

3 FD-03 - FRAMEWORK
NTS



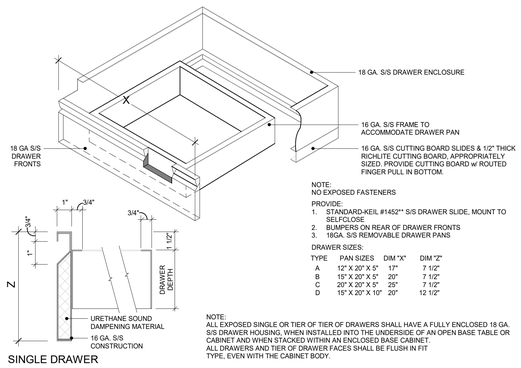
TOP OF LEG



TYPE A - LEG

TYPE B - LEG

4 FD-04 - TABLE AND SINK LEGS
NTS



NOTE:
NO EXPOSED FASTENERS

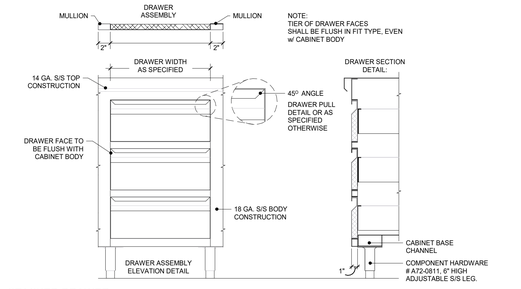
PROVIDE:
1. STANDARD-KEIL #1452** S/S DRAWER SLIDE, MOUNT TO SELFCLOSE
2. BUMPERS ON REAR OF DRAWER FRONTS
3. 18GA. S/S REMOVABLE DRAWER PANS

DRAWER SIZES:

TYPE	PAN SIZES	DIM "X"	DIM "Z"
A	12" X 20" X 5"	17"	7 1/2"
B	15" X 20" X 5"	20"	7 1/2"
C	20" X 20" X 5"	25"	7 1/2"
D	15" X 20" X 10"	20"	12 1/2"

NOTE:
ALL EXPOSED SINGLE OR TIER OF TIER OF DRAWERS SHALL HAVE A FULLY ENCLOSED 18 GA. S/S DRAWER HOUSING, WHEN INSTALLED INTO THE UNDERSIDE OF AN OPEN BASE TABLE OR CABINET AND WHEN STACKED WITHIN AN ENCLOSED BASE CABINET. ALL DRAWERS AND TIER OF DRAWER FACES SHALL BE FLUSH IN FIT TYPE, EVEN WITH THE CABINET BODY.

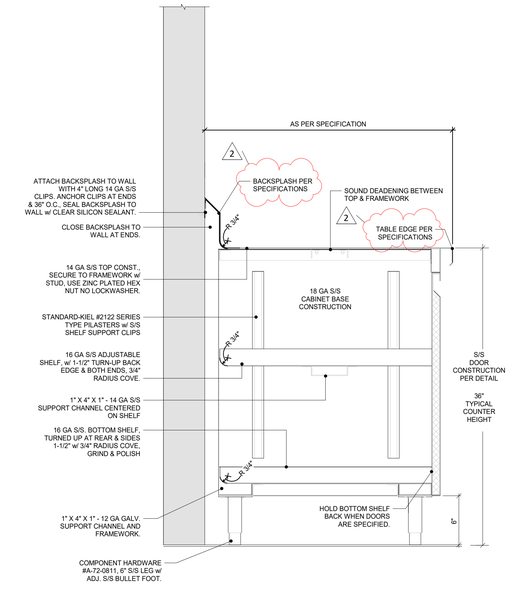
SINGLE DRAWER



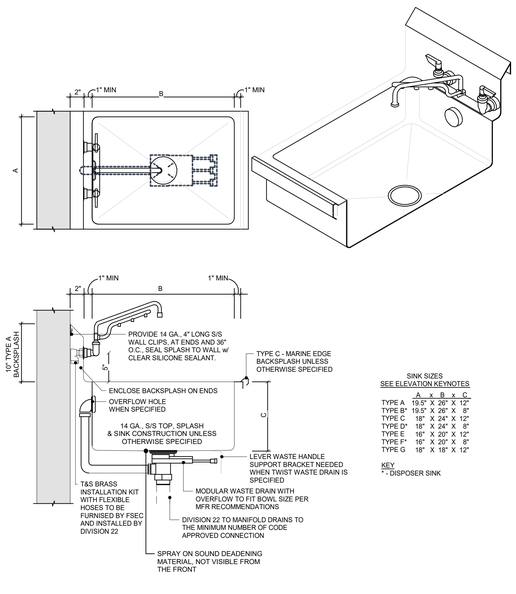
NOTE:
TIER OF DRAWER FACES SHALL BE FLUSH IN FIT TYPE, EVEN w/ CABINET BODY

STACKED DRAWER

5 FD-05 - DRAWERS
NTS



6 FD-06 - CABINET BASE
NTS



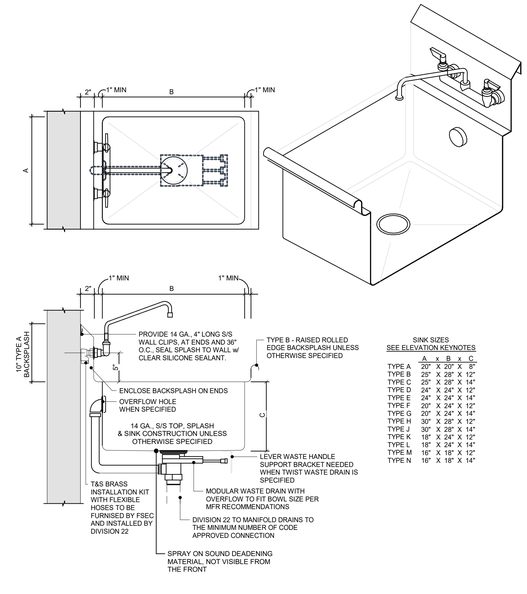
SINK SIZES
SEE ELEVATION KEYNOTES

	A	x	B	x	C
TYPE A	19.5"	X	26"	X	12"
TYPE B*	19.5"	X	26"	X	8"
TYPE C	18"	X	24"	X	12"
TYPE D*	18"	X	24"	X	8"
TYPE E	16"	X	20"	X	12"
TYPE F*	16"	X	20"	X	8"
TYPE G	18"	X	18"	X	12"

KEY
* - DISPOSER SINK

NOTES
1.) FULLY WELD SINK INTO TOP & DRAINBOARDS, GRIND & POLISH SINK TO BECOME AN INTEGRAL PART OF THE S/S TOP.
2.) ALL VERTICAL AND HORIZONTAL SINK CORNERS SHALL BE COVED WITH A 3/4" RADIUS, ALL WELDED CONSTRUCTION.
3.) SEAT LEVER DRAINS IN DIE-STAMPED DEPRESSION, PITCH SINK TO DRAIN OPENING.
4.) FSEC TO PROVIDE LEVER WASTE DRAINS LOOSE, FOR INSTALLATION BY DIVISION 22.
5.) FSEC TO PROVIDE FAUCETS & ASSYS LOOSE, FOR INSTALLATION BY DIVISION 22.
6.) MULTIPLE COMPARTMENTS SINKS SHALL BE CONSTRUCTED FROM ONE LARGE SINK, PROVIDE WELDED-IN DOUBLE WALL PARTITIONS TO FORM FULLY COVED CORNERS IN EACH SINK COMPARTMENT FULLY WELD FRONT FLUSH WITH NO INDENTATIONS.

7 FD-07 - PREP SINK
NTS



SINK SIZES
SEE ELEVATION KEYNOTES

	A	x	B	x	C
TYPE A	20"	X	20"	X	8"
TYPE B	25"	X	28"	X	12"
TYPE C	25"	X	28"	X	14"
TYPE D	24"	X	24"	X	12"
TYPE E	24"	X	24"	X	14"
TYPE F	20"	X	24"	X	12"
TYPE G	20"	X	24"	X	14"
TYPE H	30"	X	28"	X	12"
TYPE J	30"	X	28"	X	14"
TYPE K	18"	X	24"	X	12"
TYPE L	18"	X	24"	X	14"
TYPE M	16"	X	18"	X	12"
TYPE N	16"	X	18"	X	14"

NOTES
1.) FULLY WELD SINK INTO TOP & DRAINBOARDS, GRIND & POLISH SINK TO BECOME AN INTEGRAL PART OF THE S/S TOP.
2.) ALL VERTICAL AND HORIZONTAL SINK CORNERS SHALL BE COVED WITH A 3/4" RADIUS, ALL WELDED CONSTRUCTION.
3.) SEAT LEVER DRAINS IN DIE-STAMPED DEPRESSION, PITCH SINK TO DRAIN OPENING.
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5.) FSEC TO PROVIDE FAUCETS & ASSYS LOOSE, FOR INSTALLATION BY DIVISION 22.
6.) MULTIPLE COMPARTMENTS SINKS SHALL BE CONSTRUCTED FROM ONE LARGE SINK, PROVIDE WELDED-IN DOUBLE WALL PARTITIONS TO FORM FULLY COVED CORNERS IN EACH SINK COMPARTMENT FULLY WELD FRONT FLUSH WITH NO INDENTATIONS.

8 FD-08 - WAREWASHING SINK
12" = 1'-0"

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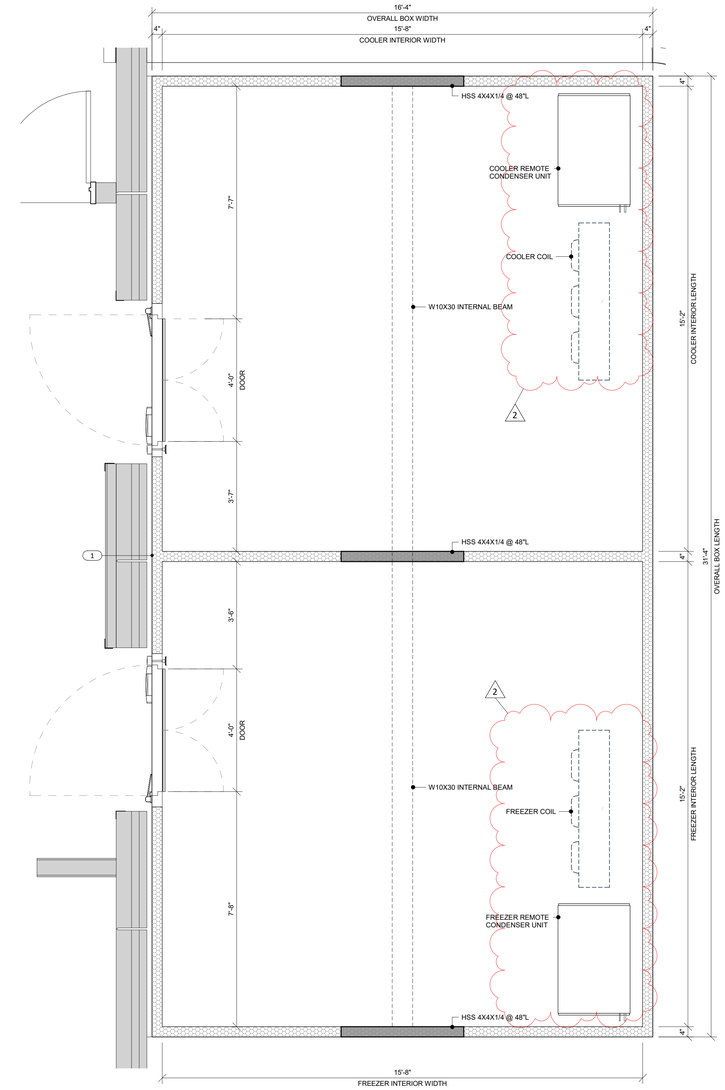
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2	Addendum #2	3/24/26

DRAWN BY: MJH JN: 24-028

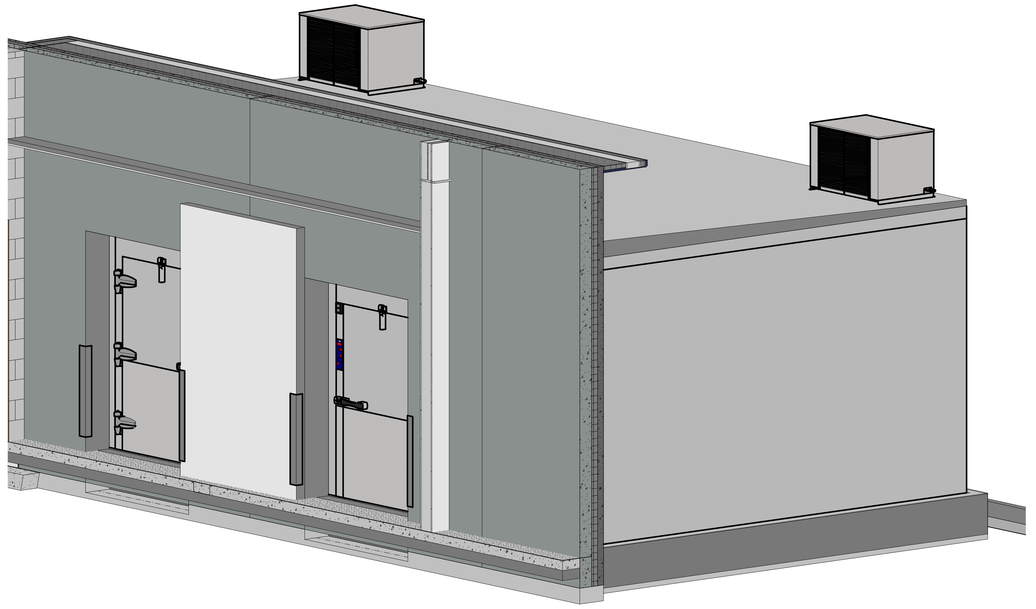
FOODSERVICE EQUIPMENT ITEM DETAILS

SHEET
QF701

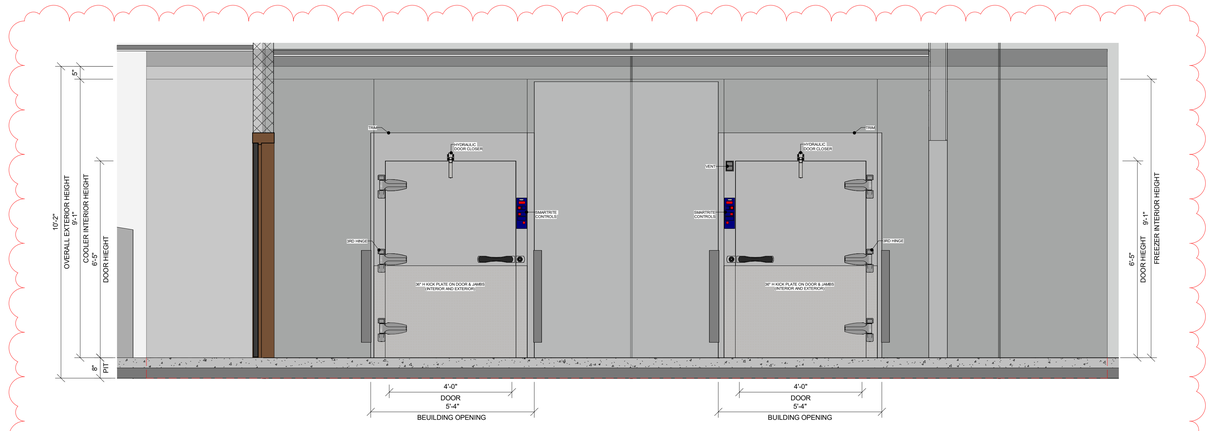
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1 FOODSERVICE EQUIPMENT PLAN - WALK-IN
1/2" = 1'-0"



2 WALK-IN ISO
NTS



A WALK-IN ELEVATION
1/2" = 1'-0"

2

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DRAWING HISTORY

NO.	DESCRIPTION	DATE
	CONSTRCTUON DOCUMENTS	3/10/26
2	Addendum #2	3/24/26

DRAWN BY: MJH JN: 24-028

FOODSERVICE WALK-IN DETAILS

SHEET
QF801

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