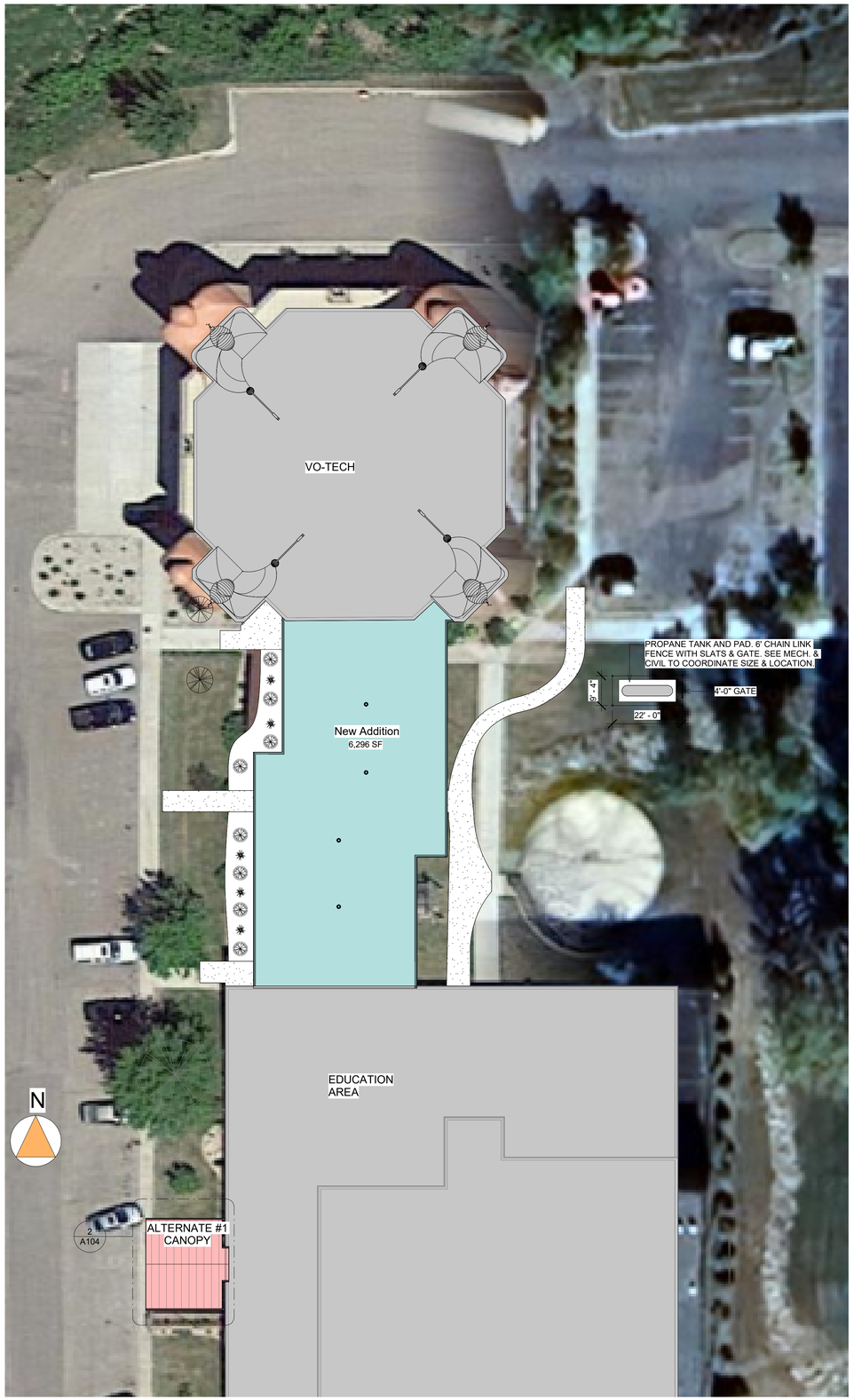

1 Site
1" = 20'-0"

*SEE CIVIL PLANS FOR SITE PLAN. COORDINATE WITH CIVIL ON SITE RELATED ITEMS.

*LANDSCAPING BY ALLOWANCE

Sheet List	
Sheet Number	Sheet Name
A101	Title Sheet
C100	Topographic Survey
C101	Plan Notes
C102	Site Removals Plan
C103	Site Grading
C104	Alternate Bid Stie Grading
C105	Site Utilities
C106	Site Utilities
C107	Details
C108	Storm Water Pollution Prevention and Seeding Plan
C109	Storm Water Pollution Prevention and Seeding Plan
C110	Storm Water Pollution Prevention and Seeding Plan
A102	ADA Notes & Code Review
A103	Demolition Plans & Code Review Plan
A104	Floor Plans, Interior Elevations, Canopy Plans, & Wall Types
A105	Elevations & Sections
A106	RCP, Interior Elevation, & Roof Plan
A107	Schedules, Details, & Flooring Layout
A108	Nichiha Details
C113	Footing & Foundation Plans/ Details
S101	Roof Structural Pland & Details
MD101	Mechanical Demolition Plan
M001	Mechanical Site Plan
M101	Underfloor Plumbing Plan
M201	Plumbing Floor Plan
M301	HVAC Ventilation Plan
M401	Mechanical Details
M402	Mechanical Details
M501	Mechanical Control Details
M601	Mechanical Schedules
E101	Electrical Demolition Plan
E102	Electrical Plan - Overall
E103	Power Floor Plan
E104	Signal Floor Plan
E105	Lighting Floor Plan
E106	Electrical Details
E107	Electrical Details
E108	Electrical Schedules

ALTERNATE SCHEDULE	
ALT. #1	BUILD FRONT EXTERIOR CANOPY IN FRONT OF EXISTING BUILDING. CANOPY TO BE COMPLETED BY AUGUST 1ST, 2025.
ALT. #2	ADD 3'-0" TALL THIN BRICK WAINSCOT ON EXTERIOR WALLS & CHANGE WINDOW A TYPE TO TYPE A ALT. #2 WINDOWS
ALT. #3	REPLACE HALLWAY VCT WITH LVT

Instructional Building
Sisseton Wahpeton College
Agency Village, South Dakota

HKG Architects, INC
Architects, A.I.A.
Aberdeen, South Dakota

Project Directory

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ABERDEEN, SD 57401
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FAX: (605) 225-7770

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SOLIEN & LARSON
3330FIECHTNER DRIVE STE 206
FARGO, ND 58103
(701) 235-5593

MECHANICAL & ELECTRICAL:
WEST PLAINS ENGINEERING, INC.
4609 S. TECHLINK CIRCLE
SIOUX FALLS, SD 57106
(605) 362-3753

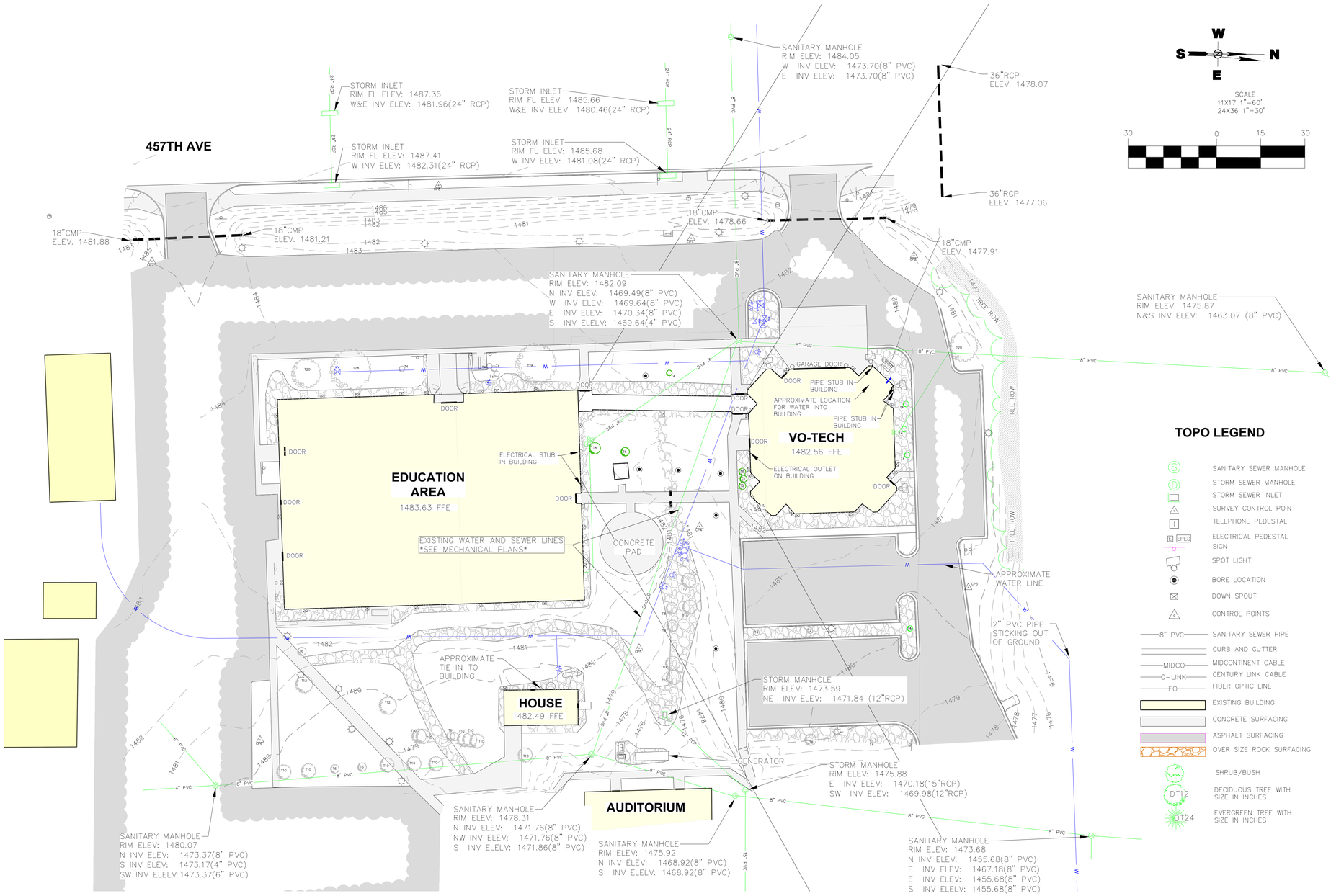
CIVIL:
HELMS & ASSOCIATES
416 PRODUCTION ST. N.
ABERDEEN, SD 57401
(605) 225-1212

2 Front Base Bid
12" = 1'-0"

3 Front View Brick Alt. #2
12" = 1'-0"

REGISTERED PROFESSIONAL ARCHITECT — REG. NO. 5810 — SEAN MARSKE — SOUTH DAKOTA — 3/7/2025

REVISED DATE	**Plans for** Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	Title Sheet	DRAWN BY CH TRACED BY ____ CHECKED BY AS A101
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.		DATE 3/7/25 PROJECT NO. 2023-0029 OF- 8



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12065
LEIF C. REDINGER
SOUTH DAKOTA
3/24/2025

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Plans for
SWO Instructional BUILDING
Sisseton Wahpeton College
Agency Village, South Dakota

Topographic Survey

C100
OF- 11

HKG Architects, Inc. Aberdeen, S.D.

2/27/25

DWG: I:\HELMS-SERVER\Shares\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\8968-PNT.dwg

SHEET: TOPO (PLANS)

Note Regarding Existing Utilities
The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor shall call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities.

It is the responsibility of the contractor to relocate all utilities requiring relocation. It is the responsibility of the contractor to verify in the field, the locations of existing water mains, water services, sewer mains and sewer services. The contractor shall be responsible for locating and preserving all existing utilities in their present condition. Existing utilities shown on the plans are for general information only and are to be located by the contractor prior to the start of construction.

Existing utilities included but not limited to:
Underground and overhead electrical
Underground and overhead cable television
Underground water system
Underground sewer system
Underground and overhead telephone
Underground natural gas

Note Regarding Project Cleanup and Safety
The general contractor shall take all precautions necessary to avoid property damage to adjacent properties during the construction phases of this project. The contractor is held solely responsible for any damages to the adjacent properties occurring during the construction phases of this project.

The designs represented in these plans are in accordance with established practices of civil engineering for the design functions and uses intended by the owner. However, neither Helms and Associates, nor its personnel can or do warranty these designs or plans as constructed except in the specific cases where Helms and Associates personnel observe and control the physical construction on a contemporary basis at the site.

In accordance with generally accepted construction practices, the contractor is solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work this requirement applies continuously and is not limited to normal working hours.

The duty of the engineer or owner to conduct construction review of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures, in, on, or near the construction site.The contractor shall clean the entire site on a daily basis and should not restrict local traffic over night. All roads leading to the site shall be cleaned as needed as specified by the owners representative.

Waste Disposal
The contractor shall be required to furnish a site for the disposal of construction/demolition debris generated by this project. Construction/demolition debris may not be disposed of on owner's property.

Salvaging, Stockpiling, and Placing Topsoil
The contractor shall remove a minimum of 6 inches of soil cover for topsoiling operations. The contractor shall place a minimum of 24 inches of topsoil evenly in the areas to receive landscape plantings. Coordinate with Landscaping for any other requirements.

Salvageable Materials
All materials salvaged by the contractor that are not incorporated into the project or as noted in the plans, shall be removed from the property.

Sequence of Operations and Traffic Control
During construction of the project, the existing traffic control devices shall be removed, reset or relocated as necessary by the contractor to safely control traffic through or around the project. Devices no longer needed shall be neatly stockpiled on the project at a location designated by the engineer. This work shall be considered incidental work, no extra compensation will be considered.

The contractor shall furnish and install traffic control devices in accordance with the Manual on Uniform Traffic Control Devices (MUTCD)

The contractor shall have qualified personnel to be responsible for traffic control items 24 hours per day and 7 days per week. The contractor shall be responsible for maintaining all existing traffic control signing for safety of traveling public. Construction operations will be allowed during daylight hours only, unless otherwise allowed by the engineer.

Note Regarding Storm Drainage Provisions

The Contractor shall provide for and maintain drainage of storm waters away from existing buildings, and exposed surfaces or provide immediate pumping of ponded areas on the work site. No compensation will be made for damage resulting from improper drainage during construction.

Note Regarding Building Excavation
Building earthwork volumes are not included in the civil site design. Coordinate w/ soils report and Architectural Plans.

Contaminated Material

The Contractor shall give notice to the Owner if contaminated soil is encountered on the project. The Owner will contact the Department of Agriculture and Natural Resources (DANR) and consultant to inspect and monitor removal of any contaminated soil.

Contaminated soil may be disposed of at the Roberts County Landfill, phone (605) 882-6219.

Piping located in areas of contamination shall require the installation of ductile iron pipe with nitrile butadiene gaskets.

Backfill material for trenches located in contaminated soil areas shall be as shall be Contractor furnished barrow.

Note Regarding Water For Compaction
Contractor shall obtain all permits required and the water source shall be approved by the Owner.

The Contractor shall obtain a Temporary Water Rights Permit to use water for construction, testing, or drilling purposes from the EPA for all water sources.

Note Regarding Haul Roads
Contractor shall obtain written permission from the proper state, county, and municipal authorities for use of local roads as haul roads. A copy shall be sent to the Owner as well as the Architect and Engineer prior to construction. Contractor shall obtain a written release from all cities, counties, and townships owning or maintaining the haul roads used by the Contractor upon completion of the construction. Haul road restoration shall be the responsibility of the Contractor.

Unclassified Excavation
All excavation that must be performed to construct the new grades in conformance with the cross-sections and plan details, will be included in the bid. Material taken from excavated areas shall used in the formation of embankments along the project. The excavated or other suitable material, as directed by the engineer, shall be replaced and recompacted to the density specified for the section constructed. Excess material shall be removed from the site, as waste material, upon completion of the Project.

Sidewalks, and Paved Parking Areas
For support of the sidewalks, concrete driveways, and paved parking areas. All topsoil shall be removed. The exposed soils shall be scarified and recompacted 6" prior to the placement of approved fill material. Coordinate w/ Soils Report (compaction requirement)

Earthwork
The excavation shall be to the elevations or depths required to obtain the specified depths as shown on the plans. Should the Contractor, through negligence or other fault, excavate below the designated lines or elevations, he shall replace the excavation with suitable materials and properly compact and control the moisture content in a manner as specified. All replacement work shall be at the Contractor's expense.

The Contractor shall inform and satisfy himself as to the character, quantity, and distribution of all material to be excavated. No payment will be made for any excavated material which is used for purposes other than those designated. All spoil areas shall be leveled to a uniform line and section and shall present a neat appearance before project acceptance.

Those areas outside of the embankment areas in which the top layer of soil material becomes compacted due to hauling or to any other activity of the Contractor shall be scarified and disked to a depth of 4 inches as directed to loosen and pulverize the soil. Coordinate soil compaction requirements per Soils Report.

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3/24/2025

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hKG Architects, Inc. Aberdeen, S.D.

Plans for
SWO Instructional BUILDING
Sisseton Wahpeton College
Agency Village, South Dakota

Plan Notes

DRAWN BY: BBS
CHECKED BY: LCR
DATE: 2/27/25
PROJECT NO: 8468-0000
C101
OF: 11

DWG: I:\HELMS-SERVER\Shares\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHARTON COLLEGE\8968-PNT.dwg
SHEET: NOTES

VO-TECH
1482.56 FFE

EDUCATION AREA
1483.63 FFE

HOUSE
1482.49 FFE

AUDITORIUM

EXISTING WATER VALVE
EXISTING FIRE HYDRANT

REMOVE AND SALVAGE EXISTING LANDSCAPE ROCK

REMOVE AND DISPOSE EXISTING TREES

REMOVE AND DISPOSE EXISTING CONCRETE SIDEWALK

SEE MECHANICAL PLAN

SEE MECHANICAL PLAN FOR SANITARY SEWER

REMOVE AND DISPOSE EXISTING CULVERT PIPE

APPROXIMATE WATERMAIN

EXISTING CURB STOP

EXISTING WATER VALVE

STORM MANHOLE
RIM ELEV: 1473.59
NE INV ELEV:1471.84 (12"RCP)

SANITARY MANHOLE
RIM ELEV: 1482.09
N INV ELEV: 1469.49(8" PVC)
W INV ELEV: 1469.64(8" PVC)
E INV ELEV: 1470.34(8" PVC)
S INV ELELV: 1469.64(4" PVC)

SANITARY MANHOLE
RIM ELEV: 1478.31
N INV ELEV: 1471.76(8" PVC)
NW INV ELEV: 1471.76(8" PVC)
S INV ELELV: 1471.86(8" PVC)

REMOVE AND DISPOSE EXISTING TREES

EXISTING BREEZEWAY TO BE REMOVED

REMOVE AND DISPOSE EXISTING CONCRETE SIDEWALK

EXISTING PAVILION TO BE REMOVED

REMOVE AND DISPOSE EXISTING TREES

REMOVE AND DISPOSE EXISTING ASPHALT

SEE MECHANICAL PLAN

ALTERNATE BID
REMOVE AND DISPOSE
LANDSCAPE BLOCK RETAINING WALL

ALTERNATE BID
REMOVE AND DISPOSE
EXISTING CONCRETE SIDEWALK

ALTERNATE BID
REMOVE AND DISPOSE
LANDSCAPE BLOCK RETAINING WALL

N
W E
S

SCALE
11X17 1"=20'
24X36 1"=10'
20 0 10 20

REGISTERED PROFESSIONAL ENGINEER
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SOUTH DAKOTA
3/24/2025

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Plans for
SWO Instructional BUILDING
Sisseton Wahpeton College
Agency Village, South Dakota

Site Removals Plan

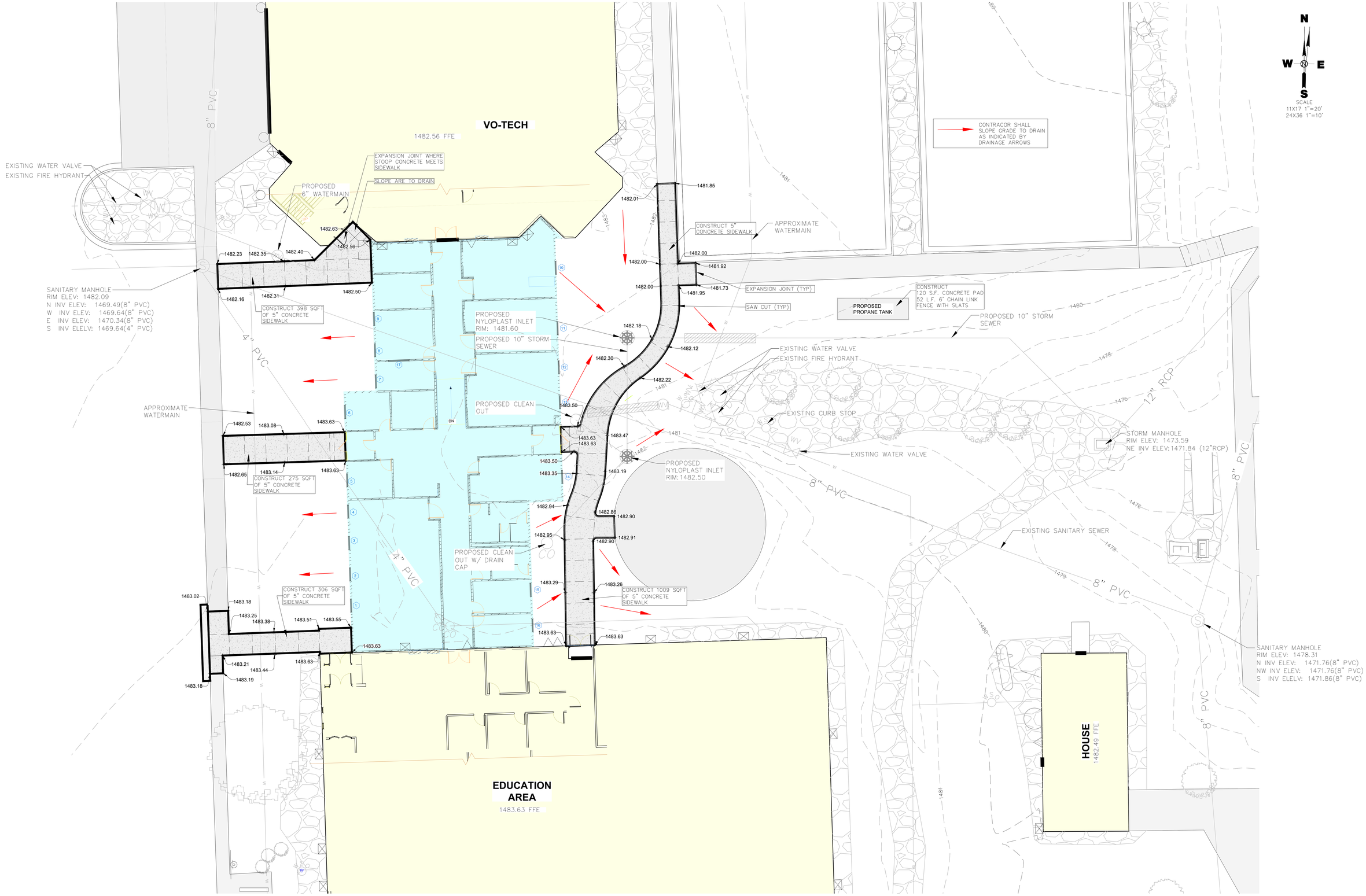
C102

2/27/25

HKG Architects, Inc. Aberdeen, S.D.

DWG: I:\HELMS-SERVER\Shares\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\9968-PNT.dwg

SHEET: REMOVALS



REGISTERED PROFESSIONAL ENGINEER
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3/24/2025

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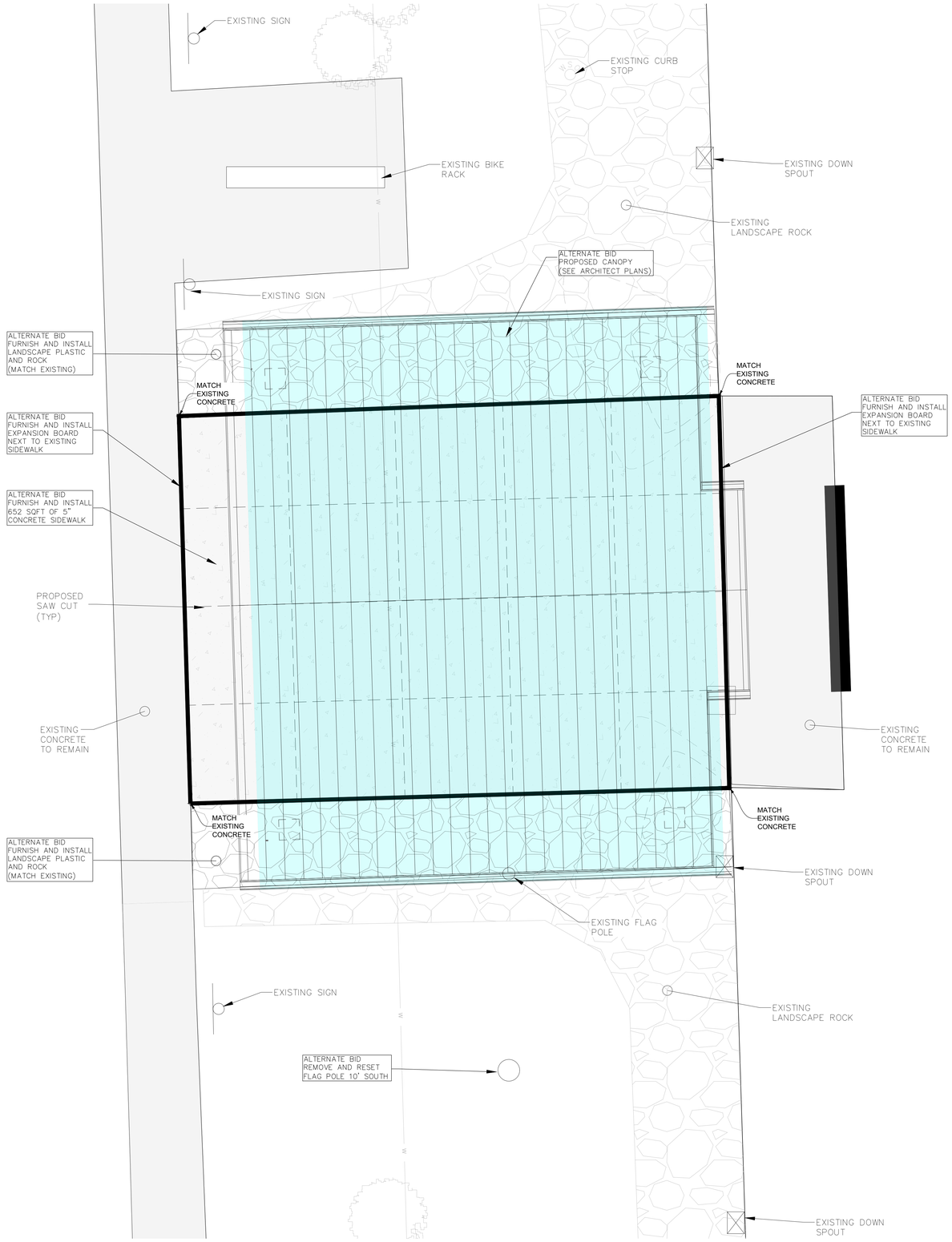
	Plans for SWO Instructional BUILDING Sisseton Wahpeton College Agency Village, South Dakota	Site Grading	C103
	HKG Architects, Inc. Aberdeen, S.D.	2/27/25	

DWG: I:\HELMS-SERVER\Shared\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\8968-PINT.dwg

SHEET: SITE GRADING



N
W E
S

SCALE
11X17 1"=5'
24X36 1"=2.5'

EDUCATION AREA
1483.63 FFE

NOTE: EXISTING FLAG POLE SHALL BE REMOVED AND RESET 10' SOUTH OF EXISTING LOCATION

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3/24/2025

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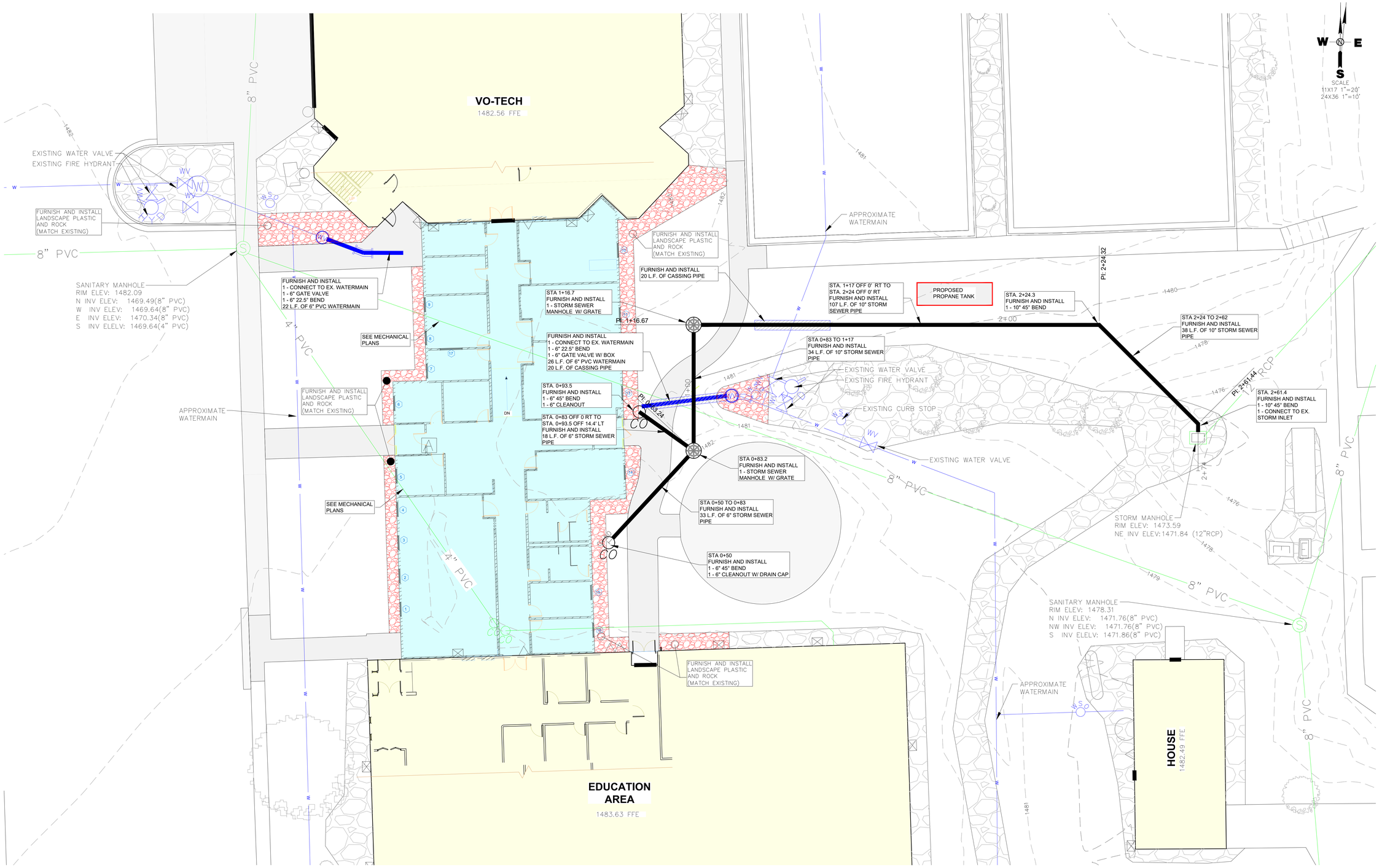
	Plans for SWO Instructional BUILDING Sisseton Wahpeton College Agency Village, South Dakota	Alternate Bid Site Grading	C104
HKG Architects, Inc.	Aberdeen, S.D.	DATE 2/27/25	SHEET OF 11

DWG: \\helms-server\Shares\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\8468-PNT.dwg

SHEET: ALT



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REG. NO. 12065
LEIF C REDINGER
SOUTH DAKOTA
3/24/2025

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Plans for
SWO Instructional BUILDING
Sisseton Wahpeton College
Agency Village, South Dakota

SITE UTILITIES

C105

2/27/25

HKG Architects, Inc. Aberdeen, S.D.

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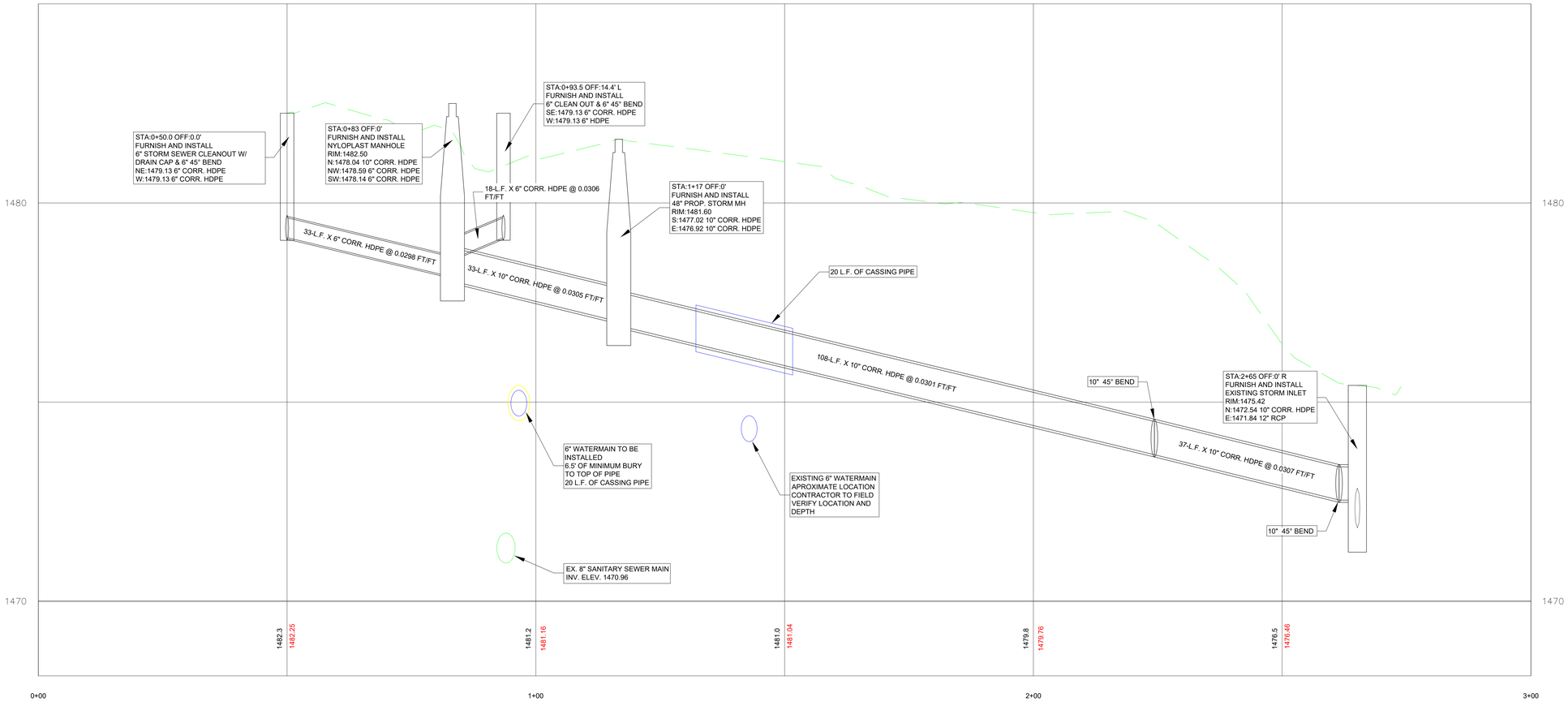
SHEET: UTILITY



REGISTERED PROFESSIONAL ENGINEER
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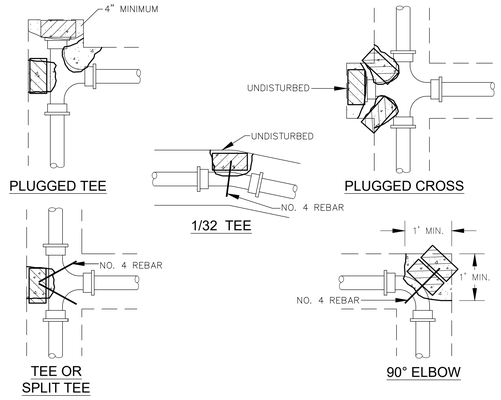
REVISED DATE:	**Plans for** SWO Instructional BUILDING Sisseton Wahpeton College Agency Village, South Dakota	SITE UTILITIES	DRAWN BY: BBS TRACED BY: .... CHECKED BY: LCR C106
DEPT. NO.:	HKG Architects, Inc. Aberdeen, S.D.	DATE: 2/27/25	OF: 11 PROJECT NO.: 2021-0007

DWG: I:\HELMS-SERVER\Shared\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\8968-PNT.dwg

SHEET: ULTILITY (2)

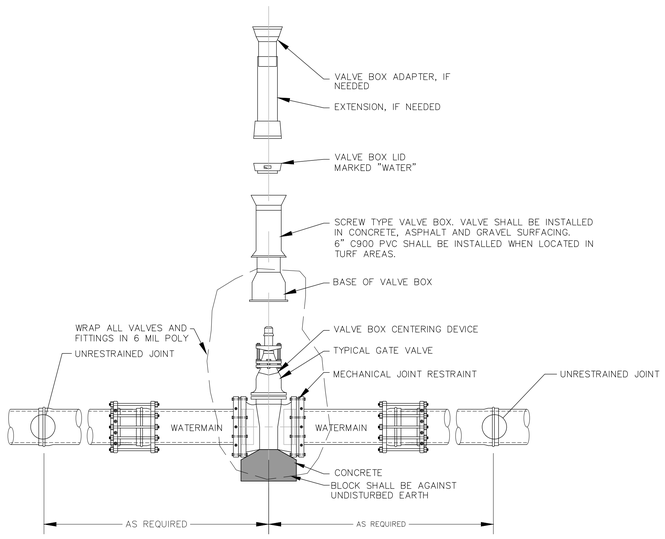


NOTE: SIZE AND TYPE OF THRUST BLOCKING SHALL BE DEPENDENT IN PART ON WATER PRESSURE, PIPE SIZE, TYPE OF FITTING, AND SOIL. CONTRACTOR SHALL DETERMINE EXISTING SOIL TYPE AND CONDITION. CONTRACTOR SHALL SIZE THRUST BLOCKING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES AND GUIDELINES.

PRECAST CONCRETE SOLID BLOCKS MAY BE USED FOR BLOCKING ALL BLOCKS USED MUST BE IN 4" MINIMUM THICKNESS X 8" WIDE X 16" LONG.

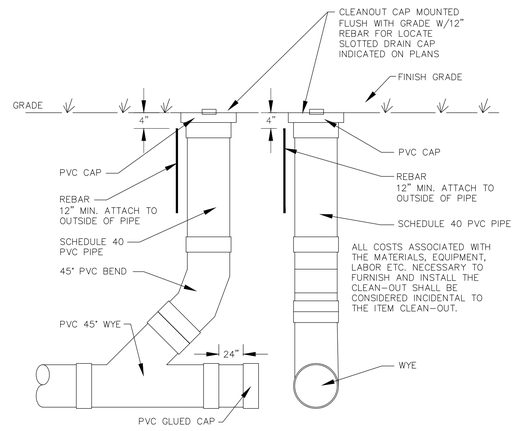
TYPICAL THRUST BLOCK DETAILS

NO SCALE



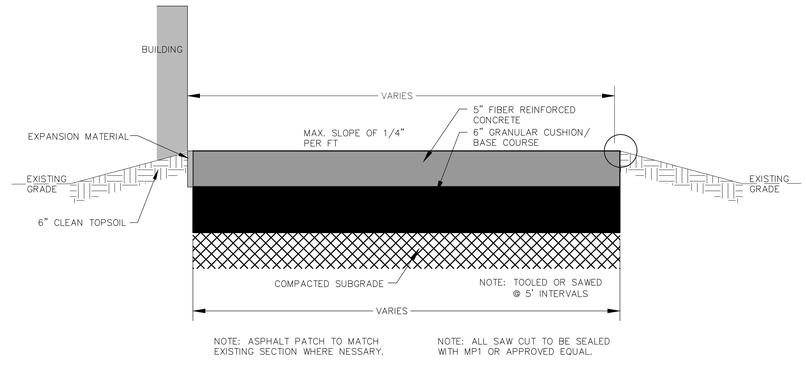
TYPICAL GATE VALVE DETAIL

NO SCALE



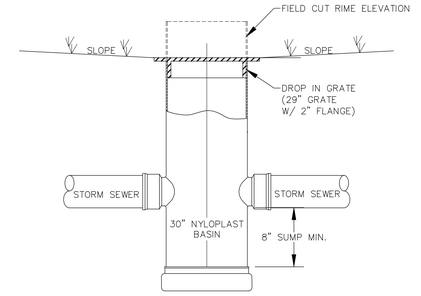
SANITARY SEWER CLEAN-OUT DETAIL

NO SCALE

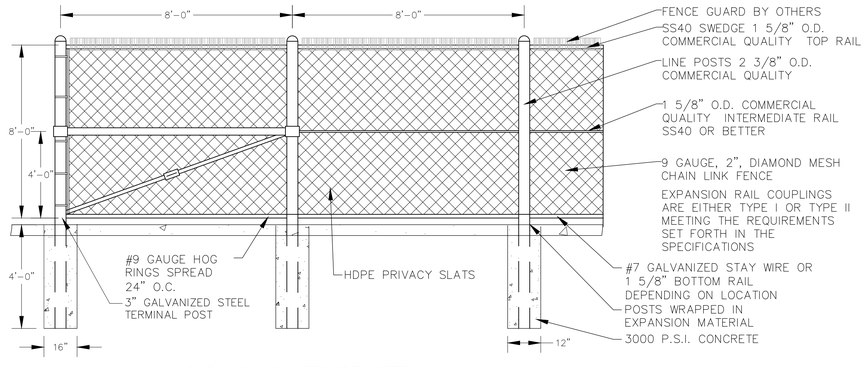


CONCRETE SIDEWALK TYPICAL DETAIL

NO SCALE

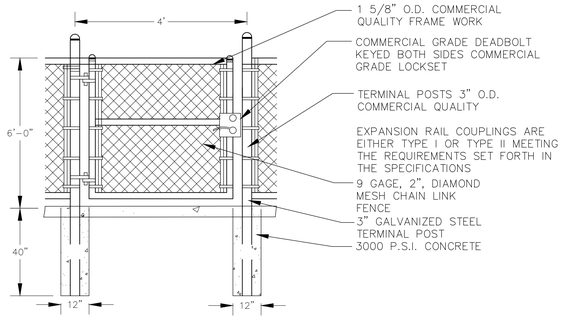


ELEVATION VIEW



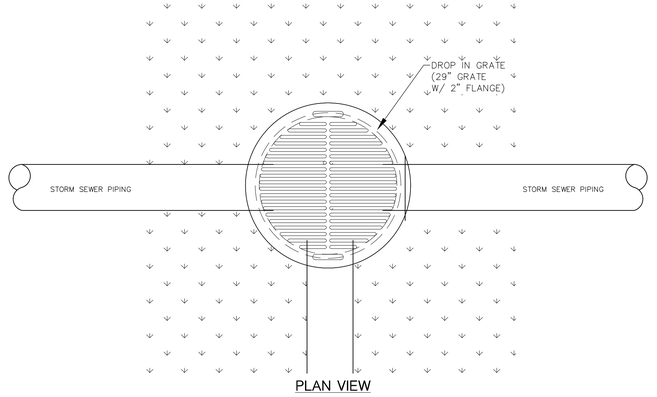
6' CHAIN LINK FENCE DETAIL

NO SCALE



4' WALK THROUGH GATE WITH SLATS DETAIL

NO SCALE



NYLOPLAST DRAIN BASIN

NO SCALE

REGISTERED PROFESSIONAL ENGINEER
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3/24/2025

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Plans for
SWO Instructional BUILDING
Sisseton Wahpeton College
Agency Village, South Dakota

Details

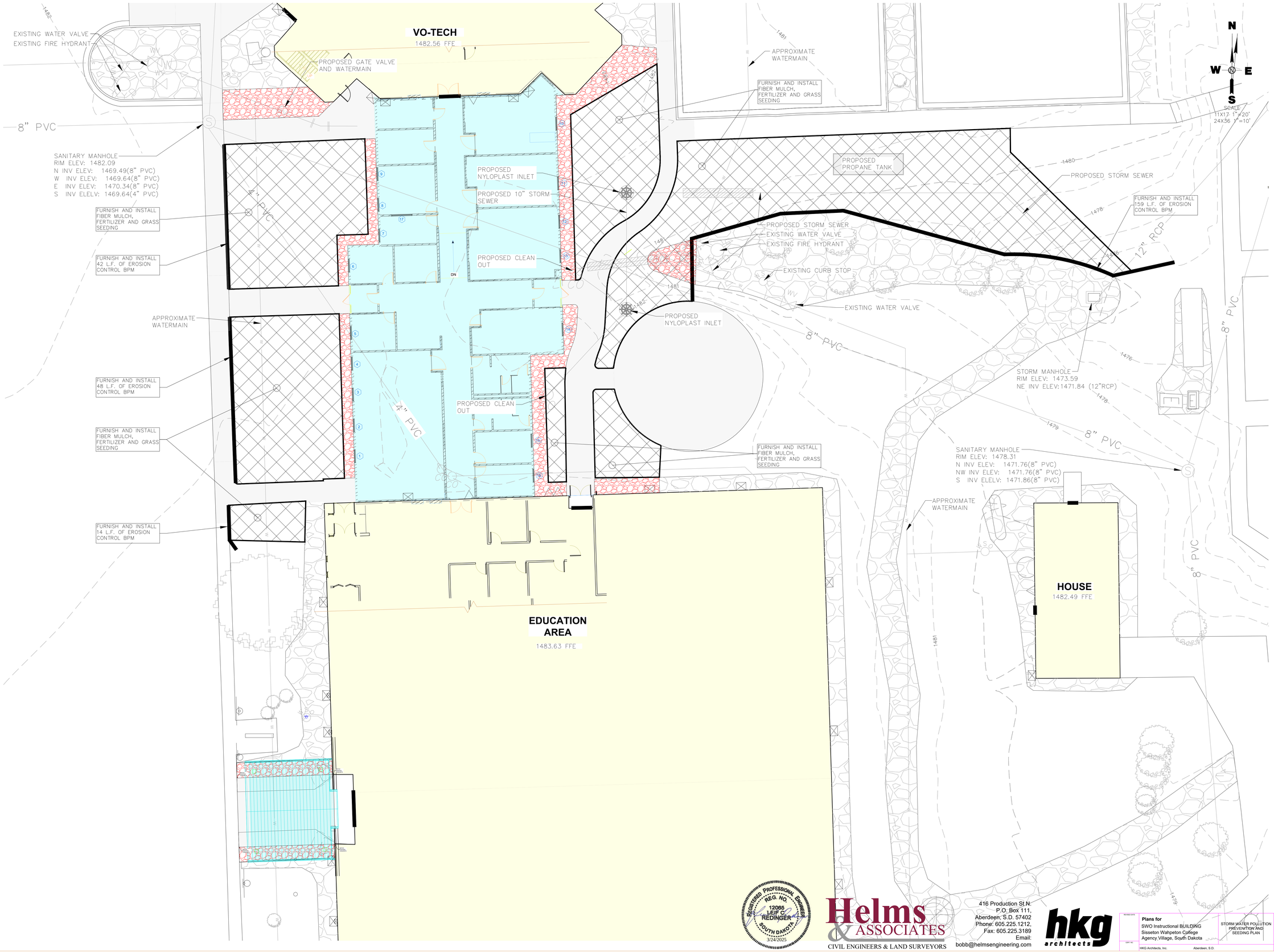
C107

HKG Architects, Inc. Aberdeen, S.D.

2/27/25

DWG: I:\HELMS-SERVER\Shared\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\0966-PNT.dwg

SHEET: DET(1)



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3/24/2025

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Plans for
SWO Instructional BUILDING
Sisseton Wahpeton College
Agency Village, South Dakota

STORM WATER POLLUTION PREVENTION AND SEEDING PLAN

C108

2/27/25

HKG Architects, Inc. Aberdeen, S.D.

DWG: I:\HELMS-SERVER\Shares\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\9968-PNT.dwg

SHEET: SWPPP

STORMWATER POLLUTION PREVENTION PLAN CHECKLIST

(The numbers left of the title headings are **reference numbers** to the GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES (Stormwater Permit))

5.3 (2): STAFF TRAINING/SWPPP IMPLEMENTATION

To promote stormwater management awareness specific for this project, the Contractor's Erosion Control Supervisor should provide correspondence of how the SWPPP will be implemented. The Contractor's Erosion Control Supervisor is responsible for providing this information at the preconstruction meeting, and subsequently completing an attendance log, which should identify site-specific implementation of the SWPPP and the names of the personnel who attended the preconstruction meeting. Documentation of the preconstruction meeting will be filed with the SWPPP documents.

5.3 (3): DESCRIPTION OF CONSTRUCTION ACTIVITIES

- **5.3 (3a): Project Limits** (See Title Sheet)
- **5.3 (3a): Project Description** (See Title Sheet)
- **5.3 (4): Site Map(s)** (See Title Sheet and Plans)
- **Major Soil Disturbing Activities** (check all that apply)
  - [X] Clearing and grubbing
  - [X] Excavation/ Borrow
  - [X] Filling
  - [ ] Other (describe)
- **5.3 (3b): Total Project Area: 2.5 AC**
- **5.3 (3b) Total Area to be Disturbed: 11.5 AC**
- **5.3 (3c) Maximum Area to be Disturbed at One Time: 1.9 AC**
- **5.3 (3d): Existing Vegetative Cover 50%**
- **5.3 (3d): Description of Vegetative Cover: Seeded and maintained grass**

- **5.3 (3e): Soil Properties**: AASHTO Soil or USDA-NRCS Soil Series Classification
- **5.3 (3f): Name of Receiving Water Body/Bodies: Lake Kampeska 5.3 (3g): Location of Construction Support Activity Areas: N/A**

5.3 (3h): ORDER OF CONSTRUCTION ACTIVITIES

- **Special sequencing requirements** (see sheet)

The Contractor will enter the Estimated Start Date.

- Install stabilized construction entrance(s).
- Install perimeter protection where runoff may exit site.
- Install perimeter protection around stockpiles.
- Install channel and ditch bottom protection
- Clearing and grubbing
- Remove soil and topsoil.
- Stabilize disturbed areas
- Install utilities, storm sewers, curb and gutter.
- Install inlet and culvert protection after completing storm drainage and other utility installations.
- Final grading.
- Final Paving.
- Removal of Protection devices.
- Reseed areas disturbed by removal activities.

5.3 (5): DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES

All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report. Include the technical reasoning for selecting each control. (check all that apply)

Perimeter Controls (See Detail Plan Sheets)

- [X] Natural Buffers (within 50 ft of Waters of State)
- [X] Silt Fence
- [ ] Erosion Control Wattles
- [ ] Temporary Berm / Windrow
- [X] Stabilized Construction Entrances
- [ ] Entrance/Exit Equipment Tire Wash
- [ ] Other:

Structural Erosion and Sediment Controls

- [X] Silt Fence
- [ ] Temporary Berm / Windrow
- [ ] Erosion Control Wattles
- [ ] Temporary Sediment Barriers
- [ ] Erosion Bales'
- [ ] Temporary Slope Drain
- [ ] Turf Reinforcement Mat
- [ ] Riprap
- [ ] Gabions
- [ ] Rock Check Dams
- [ ] Sediment Traps/Basins
- [ ] Culvert Inlet Protection
- [ ] Transition Mats
- [X] Median/ Area Drain Inlet Protection
- [ ] Curb Inlet Protection
- [ ] Interceptor Ditch
- [ ] Concrete Washout Facility
- [ ] Work Platform
- [ ] Temporary Water Barrier
- [ ] Temporary Water Crossing
- [ ] Permanent Stormwater Ponds
- [ ] Permanent Open Vegetated Swales
- [ ] Natural Depressions to allow for Infiltration
- [ ] Sequential Systems that combine several practices
- [ ] Other:

Dust Controls

- [ ] Tarps & Wind Impervious Fabrics
- [ ] Watering
- [X] Stockpile location/ orientation
- [ ] Dust Control Chlorides
- [ ] Other:

Dewatering BMPs

- [ ] Sediment Basins
- [ ] Dewatering bags
- [ ] Weir Tanks
- [ ] Temporary Diversion Channel
- [ ] Other:

Stabilization Practices (See Detail Plan Sheets)

(Stabilization measures shall begin the following work day whenever earth disturbing activity on any portion of the site has temporarily or permanently ceased. Temporary stabilization shall be completed as soon as practicable but no later than 14 days after initiating soil stabilization activities (3.18))

- [X] Vegetation Buffer Strips
- [ ] Temporary Seeding (Cover Crop Seeding)
- [X] Permanent Seeding
- [ ] Sodding
- [ ] Planting (Woody Vegetation for Soil Stabilization)
- [X] Mulching (Grass Hay or Straw)
- [ ] Fiber Mulching (Wood Fiber Mulch)
- [ ] Soil Stabilizer
- [ ] Bonded Fiber Matrix
- [ ] Fiber Reinforced Matrix
- [ ] Erosion Control Blankets
- [ ] Surface Roughening (e.g. tracking)
- [ ] Other:

Wetland Avoidance

Will construction and/or erosion and sediment controls impinge on regulated wetland? Yes ___ No [X] If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

5.3 (6): PROCEDURES FOR INSPECTIONS

- Inspections will be conducted at least once every 7 days.
- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
- Silt fence will be inspected for depth of sediment and for tears to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches 1/3 of the height of the silt fence.
- Sediment basins and traps will be checked. Sediment will removed when depth reaches approximately 50 percent of the structure's capacity, at the conclusion of the construction.
- Check dams will be inspected for stability. Sediment will be removed when depth reaches ½ the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be included on the weekly progress report for each site inspection, this report will also be used to document changes to SWPPP. A copy of the completed inspection form will be filed with the SWPP documents.
- The Resident Project Engineer and the Contractor's Erosion Control Supervisor are responsible for inspections. Maintenance and repair activities are the responsibility of the Contractor. The Resident Project Engineer will complete the inspection and maintenance reports..

5.3 (7): POST CONSTRUCTION STORMWATER MANAGEMENT

Stormwater management will be handled by temporary controls outlined in "DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES" above, and any permanent controls needed to meet permanent stormwater management needs in the post construction period will be shown in the plans and noted as permanent.

5.3 (8): POLLUTION PREVENTION PRECENDURES

5.3 (8A): Spill Prevention and Response Procedures

- **Material Management**
  - House Keeping
    - Only needed products will be stored on-site by the Contractor.
    - Except for bulk materials the contractor will store all materials under cover and/or in appropriate containers.
    - Products must be stored in original containers and labeled.
    - Material mixing will be conducted in accordance with the manufacturer's recommendations.
    - When possible, all products will be completely used before properly disposing of the container off-site.
    - The manufacturer's directions for disposal of materials and containers will be followed.
    - The Contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
    - Dust generated will be controlled in an environmentally safe manner.
  - Hazardous Materials
    - Products will be kept in original containers unless the container is not resealable and provide secondary containment as applicable.
    - Original labels and material safety data sheets will be retained in a safe place to relay important product information.
    - In surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
    - Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
    - Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any stormwater system or stormwater treatment system.
    - Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, residuals from concrete saw cutting (either wet or dry), and mixer washout waters will be collected on site and managed to prevent contamination of stormwater runoff.

- **Spill Control Practices**

In addition to the previous housekeeping and management practices, the following practices will be followed for spill prevention and cleanup if needed.

- For all hazardous materials stored on site, the manufacturer's recommended methods for spill cleanup will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
- Appropriate cleanup materials and equipment will be maintained by the Contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for cleanup purposes.
- All spills will be cleaned immediately after discovery and the materials disposed of properly.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- After a spill a report will be prepared describing the spill, what caused it, and the cleanup measured taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurrences.
- The Contractor's site superintendant, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator.

- **Spill Response**

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into stormwater runoff and conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens stormwater or surface water at the site, the spill response procedures outlined below must be implemented in a timely manner to prevent the release of pollutants.

- The Contractor's site superintendent will be notified immediately when a spill or threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the Contractor at the site.
- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The Contractor will use appropriate materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SDDANR
- Personnel with primary responsibility for spill response and cleanup will receive training by the Contractor's site superintendent or designee. The training must include identifying the location of the
- spill kits and other spill response equipment and the use of spill response materials.
- Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities

5.3 (8b): WASTE MANGAGEMENT PROCEDURES

- **Waste Disposal**
  - All liquid waste materials will be collected and stored in approved sealed containers. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal and notices stating proper practices will be posted. The Contractor is responsible for ensuring waste disposal procedures are followed.

- **Hazardous Waste**
  - All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the Contractor will be responsible for seeing that these practices are followed.

- **Sanitary Waste**
  - Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units which must be secured to prevent tipping and serviced in a timely manner by a licensed waste management Contractor or as required by any local regulations.

5.3 (9): CONSTRUCTION SITE POLLUTANTS

The following materials or substances are expected to present on the site during the construction period. These materials will be handled as noted under the heading "POLLUTION PREVENTION PROCEDURES" (check all that apply)

- [ ] Concrete and Portland Cement
- [X] Detergents
- [ ] Paints
- [X] Metals
- [X] Bituminous Materials
- [X] Petroleum Based Products
- [X] Diesel Exhaust Fluid
- [ ] Cleaning Solvents
- [ ] Wood
- [X] Cure
- [X] Texture
- [X] Chemical Fertilizers
- [ ] Other:

Product Specific Practices

- **Petroleum Products**
  All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

- **Fertilizers**
  Fertilizers will be applied only in the amounts specified by the Engineer. Once applied, fertilizers will be worked into the soil to limit the exposure to stormwater. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.

- **Paints**
  All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.

5.3 (8b): WASTE MANAGEMENT PROCEDURES

- **Waste Disposal**
  - All liquid waste materials will be collected and stored in approved sealed containers. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal and notices stating proper practices will be posted. The Contractor is responsible for ensuring waste disposal procedures are followed.

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- [ ] Concrete and Portland Cement
- [ ] Detergents
- [X] Paints
- [ ] Metals
- [X] Bituminous Materials
- [X] Petroleum Based Products
- [X] Diesel Exhaust Fluid
- [X] Cleaning Solvents
- [ ] Wood
- [ ] Cure
- [X] Texture
- [X] Chemical Fertilizers
- [X] Other:

Product Specific Practices

- **Petroleum Products**
  All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

- **Fertilizers**
  Fertilizers will be applied only in the amounts specified by the Engineer. Once applied, fertilizers will be worked into the soil to limit the exposure to stormwater. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.

- **Paints**
  All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.

- **Concrete Trucks**
  Contractors will provide designated truck washout facilities on the site. These areas must be self contained and not connected to any stormwater outlet of the site. Upon completion of construction, the area at the washout facility will be properly stabilized.

5.3 (10): NON-STORMWATER DISCHARGES

The following non-stormwater discharges are anticipated during the course of this project (check all that apply).

- [X] Discharge from water line flushing
- [X] Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
- [ ] Uncontaminated ground water associated with dewatering activities.

5.3 (11): INFEASIBILITY DOCUMENTATION

If it is determined to be infeasible to comply with any of the requirements of the Stormwater Permit, the infeasibility determination must be thoroughly documented in the SWPPP.

7.1: SPILL NOTIFICATION

In the event of a spill, the Contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:

- A release or spill of regulated substance (includes petroleum and petroleum products) must be reported to SDDANR immediately **if any one of the following** conditions exists:
  - The release or spill threatens or is able to threaten waters of the state (surface water or ground water)
  - The release or spill causes an immediate danger to human health or safety
  - The release or spill exceeds 25 gallons
  - The release or spill causes a sheen on surface water
  - The release or spill of any substance that exceeds the ground water quality standards of ARSD Chapter 74:54:01
  - The release or spill of any substance that exceeds the surface water quality standards of ARSD Chapter 74:54:01
  - The release or spill of any substance that harms or threatens to harm wildlife or aquatic life.
  - The release or spill is required to be reported according to Superfund Amendments and Reauthorization Act (SARA) Title III List of Lists, Consolidated List of Chemicals Subject to Reporting under the Emergency Planning and Community Right to Know Act, US Environmental Protection Agency.

- To report a release or spill, call SDDANR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central Standard Time). To report the release after hours, on weekends or holidays, call South Dakota Emergency Management at 605-773-3231. Reporting the release to SDDANR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, you must also contact local authorities to determine the local reporting requirements for release. A written report of the unauthorized release of any regulated substance, including quantity discharged, and the location of the discharge shall be sent to the SDDANR within 14 days of the discharge.

4: SWPPP CERTIFICATIONS

- **Certification of Compliance with Federal, State, and Local Regulations**

The Storm Water Pollution Prevention Plan (SWPPP) for this project reflects the requirements of all local municipal jurisdictions for storm water management and sediment and erosion control as established by ordinance, as well as other state and federal requirements for the sediment and erosion control plans, permits, notices or documentation as appropriate.

Watertown Regional Airport, City of Watertown

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assume that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment knowing violations.

_____

Authorized Signature (See the General Permit, Section 7.4 (1))

- **Prime Contractor**

This section is to be executed by the General Contractor after the award of the contract. This section may be executed any time there is a change in the Prime Contractor of the project.

- I certify under penalty of law that this document and all attachments will be revised or maintained under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____

Authorized Signature

CONTACT INFORMATION

The following personnel are duly authorized representatives and have signatory authority for modifications made to the SWPP:

- Contractor Information:
  - Prime Contractor Name:_____
  - Contractor Contact Name:_____
  - Address:_____
  - _____
  - City:_____State:_____Zip:_____
  - Office Phone:_____Field:_____
  - Cell Phone:_____Fax:_____

Erosion Control Supervisor

- Name:_____
- Address:_____
- _____
- City:_____State:_____Zip:_____
- Office Phone:_____Field:_____
- Cell Phone:_____Fax:_____

- Project Engineer
  - Leif Redinger PE
  - Business Address: 416 N. PRODUCTION ST.
  -
  - Job Office Location: Aberdeen, SD
  - City: Aberdeen State: SD Zip: 57401
  - Office Phone: (605) 225-1212 Field:
  - Cell Phone: (605)-216-8707 Fax: (605) 225-3189

- **SDDANR Contact Spill Report**
  - Business Hours Monday-Friday (605) 773-3296
  - Nights and Weekends (605) 773-3231

- **SDDANR Contact for Hazardous Materials**
  - (605) 773-3153

- **National Response Center Hotline**
  - (800) 424-8802

- **SDDANR Stormwater Contact Information**
  - SDDANR Stormwater (800) 737-8676
  - Surface Water Quality Program (605) 773-3351

5.5: REQUIRED SWPPP MODIFICATIONS

- **5.5 (1): Conditions Requiring SWPP Modification**

The SWPPP must be modified, including the site map(s), in response to any of the following conditions:

- When a new operator responsible for implementation of any part of the SWPPP begins to work on the site.
- When Changes to construction plans, sediment and erosion control measures, or any best management practices on site that are no longer accurately reflected in the SWPPP. This included changes made in response to corrective actions triggered by inspections.
- To reflect areas on the site map where operations control has been transferred (including the date of the transfer) or has been covered under a new permit since initiating coverage under this general permit.
- If inspections by site staff, local officials, SDDANR, or U.S. EPA determine that SWPPP modifications are necessary for compliance with Stormwater Permit.
- To reflect any revisions to applicable federal, state, or local requirements that affect the control measures implemented at the site.
- If approved by the Secretary, to reflect any changes in chemical water treatment systems or controls, including the use of a different water treatment chemical, age rates, different areas, or methods of applications.

- **5.5 (2): Deadlines for SWPPP Modification**

Any required revisions to the SWPPP must be completed within 7 calendar days following any of the items listed above.

- **5.5 (3): Documentation of Modifications to the Plan**

All SWPPP modification records are required to be maintained showing the dates of when the modification occurred. The records must include the name of the person authorizing each change and a brief summary of all changes.

- **5.5 (5): Required Notice to Other Operators**

If there are multiple operators at the site, the Contractor's Erosion Control Supervisor must notify each operator that may be impacted by the change to the SWPP within 24 hours.

When modifications as described above occur, the SWPPP will be modified to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The Project Engineer will modify the SWPPP and drawings on the plans will be modified to reflect the needed changes. Copies of the SWPPP modifications will be given to the Contractor Erosion Control Supervisor and a copy will be emailed Owner.

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12066
LEIF C.
REDINGER
SOUTH DAKOTA
3/24/2025

Helms & ASSOCIATES
CIVIL ENGINEERS & LAND SURVEYORS
416 Production St N.
P.O. Box 111,
Aberdeen, S.D. 57402
Phone: 605.225.1212,
Fax: 605.225.3189
Email:
bobb@helmsengineering.com

hkg architects

HKG Architects, Inc. Aberdeen, S.D.

Plans for
SWO Instructional BUILDING
Sisseton Wahpeton College
Agency Village, South Dakota

STORM WATER POLLUTION PREVENTION AND SEEDING PLAN

DRAWN BY: BBS
PROJECT MGR: ____
CHECKED BY: LCR
DATE: 2/27/25
PROJECT NO: 2021-0027

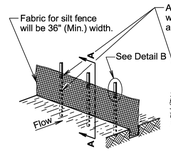
C109
SHT. 11 OF. 11

DWG: I:\HELMS-SERVER\Shares\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\8968-PNT.dwg
SHEET: SWPPP (2)

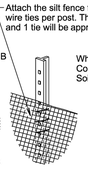
MANUAL HIGH FLOW SILT FENCE INSTALLATION

① EXCAVATE TRENCH

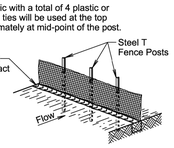
② DRIVE STEEL T FENCE POSTS



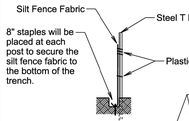
③ ATTACH SILT FENCE FABRIC



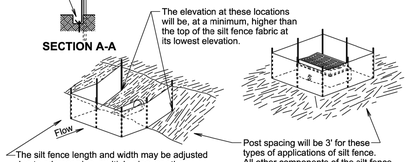
DETAIL B



④ BACKFILL TRENCH AND WHEEL COMPACT SOIL



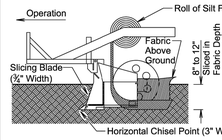
SECTION A-A



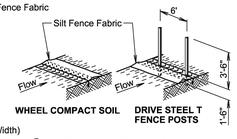
February 14, 2020

Published Date: 2025	SDDOT	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05
			Sheet 1 of 2

MACHINE SLICED HIGH FLOW SILT FENCE INSTALLATION



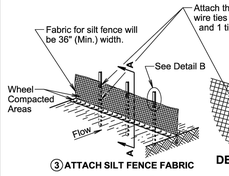
① INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.



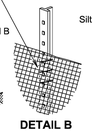
WHEEL COMPACT SOIL

DRIVE STEEL T FENCE POSTS

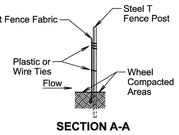
② WHEEL COMPACT SOIL ABOVE SLICED IN PORTION OF FABRIC AND THEN DRIVE STEEL T FENCE POSTS.



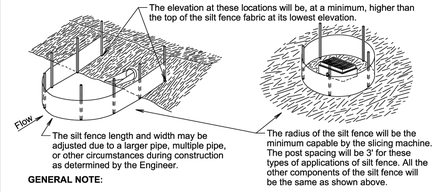
③ ATTACH SILT FENCE FABRIC



DETAIL B



SECTION A-A



GENERAL NOTE:

If a trench can not be dug or the silt fence fabric can not be sliced in due to the type of earthen material (such as rock), then a row of 30 to 40 pound sandbags butted end to end will be provided on top of the extra length of silt fence fabric to prevent underflow.

February 14, 2020

Published Date: 2025	SDDOT	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05
			Sheet 2 of 2

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12065
LEIF C. REDINGER
SOUTH DAKOTA
3/24/2025

Helms & ASSOCIATES
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hkg architects

REVISED DATE:

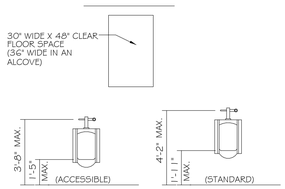
Plans for
SWO Instructional BUILDING
Sisseton Wahpeton College
Agency Village, South Dakota

STORM WATER POLLUTION PREVENTION AND SEEDING PLAN

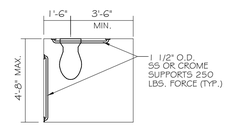
DRAWN BY: BBG
TRACED BY: ____
CHECKED BY: MB
DATE: 2/27/25

C110
OF- 11

DIST. NO.
HKG Architects, Inc. Aberdeen, S.D.
PROJECT NO.
DWG: I:\HELMS-SERVER\Shares\CAD\Land Desktop Projects\00001 Sisseton SD Projects\8468-SISSETON WHAPETON COLLEGE\9968-PNT.dwg
SHEET: SWPPP (3)



URINAL PLAN/ ELEVATIONS
SCALE: 1/4" = 1'-0"



URINAL PLAN/ ELEVATIONS
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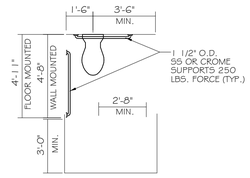

ACCESSIBLE TOILET STALL
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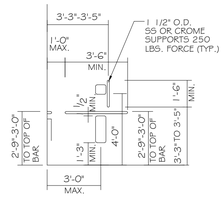

WC SECTION
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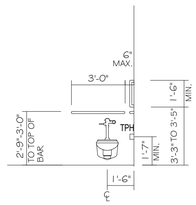

WC ELEVATION
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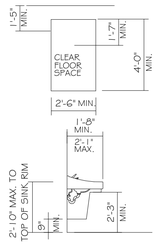
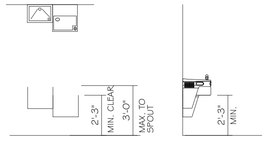
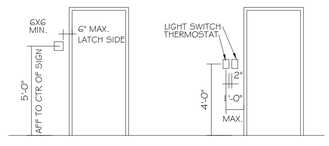


WALL HUNG SINK CLEARANCES
SCALE: 1/4" = 1'-0"

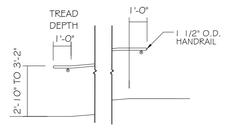


DRINKING FOUNTAIN CLEARANCES
SCALE: 1/4" = 1'-0"

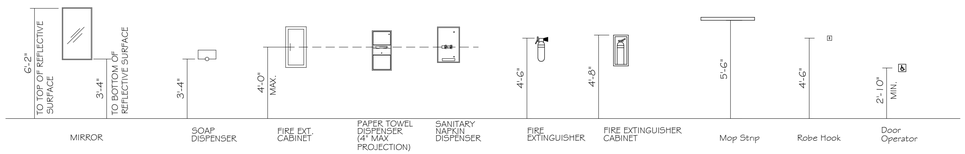


SIGNAGE AT DOOR
SCALE: 1/4" = 1'-0"

SWITCH AT DOOR
SCALE: 1/4" = 1'-0"



HANDRAIL AT RAMP
SCALE: 1/4" = 1'-0"



TYPICAL ADA MOUNTING HEIGHTS & DIMENSIONS

1. ADA UNOBSTRUCTED REACH RANGES (AFF.)
   A. ADA FORWARD REACH = 48" MAX./15" MIN.
   B. ADA SIDE REACH = 48" MAX/15" MIN.

2. ELEVATORS:
   A. STANDARD CALL BUTTONS: 35"-48 TO C.L.
   B. ADA CALL BUTTONS: 42" TO C.L.
   C. ADA VISIBLIE SIGNALS: 72" MIN. TO C.L.
   D. TACTILE SIGNAL ON HOIST WAY: 60" TO BASE

3. DOOR HARDWARE:
   (MEASURED AFF. TO C.L. OF HARDWARE)
   A. STANDARD MOUNTING HEIGHTS:
      1. PUSH PLATES = 42"
      2. PULL PLATES = 42"
      3. KNOBS/LEVERS = 40"
      4. PANIC EXIT = 42" TO CENTERLINE OF BAR
      5. KICK PLATE:
         WIDTH = DOOR WIDTH MINUS 2" CENTERED
         HEIGHT = 16" FROM B.O. DOOR
      6. THRESHOLDS:
         STANDARD = 1/2" MAX.
         AT EXT. SLIDING DOORS = 3/4"
   B. ADA HARDWARE = 34" MIN. TO 48" MAX.

4. DRINKING FOUNTAINS & EWC.'S
   (MEASURED FROM FLOOR TO SPOUT)
   A. STD. FLOOR MOUNTING40" TYP.; 42" MAX.
   B. ADA = 36" MAX. (27" MIN. CLEAR KNEE SPACE)

5. WATER CLOSETS: (AFF. TO TOP OF SEAT)
   A. STANDARD MOUNTING = 14" TO 15"
   B. ADA (TO TOP OF SEAT) = 17" TO 19"
   C. ADA FLUSH CONTROLS = 44" MAX.

6. URINALS: (MEASURED FROM FLOOR TO RIM)
   A. STANDARD MOUNTING = 24" MAX.
   B. ADA = 17" MAX.
   C. ADA FLUSH CONTROLS = 44" MAX.

7. LAVATORIES: (AFF. TO RIM/COUNTERTOP)
   A. STANDARD MOUNTING = 36"
   B. ADA ACCESSIBLE = 40" MAX.

8. MIRRORS: (AFF. TO B.O. REFLECTIVE SURFACE)
   A. STANDARD MOUNTING = VARIES
   B. ADA ACCESSIBLE = 40" MAX.

9. ADA GRAB BARS (MEASURED TO TOP OF BAR)
   A. WATER CLOSETS: 33" MIN. TO 36" MAX AFF.
   B. SHOWERS: 33" MIN. TO 36" MAX. (AT B.O. SHOWER)
   C. BATHTUBS: TOP OF BAR = 33" MIN. TO 36" MAX. AFF. BOT. BAR = 9" ABOVE T.O. TUB

10. COUNTERTOPS: (MEASURED AFF. TO SINK RIM/COUNTERTOP)
    A. STANDARD MOUNTING = 36" MAX.
    B. ADA ACCESSIBLE = 28" MIN. TO 48" MAX.

11. TOILET ROOM PARTITIONS: (MEASURED AFF.)
    A. AT W.C.'S = 12" TO BOTTOM & 70" TO TOP
    B. AT URINALS = 18" TO BOTTOM & 60" TO TOP

12. TOILET PAPER DISPENSERS: (AFF. TO C.L. OUTLET)
    A. STANDARD MOUNTING = 24"
    B. ADA ACCESSIBLE = 19" TO 24" MAX.

13. WALL MOUNTED SOAP DISPENSERS:
    (MEASURED AFF. TO C.L. OF PUSH BUTTON)
    A. STANDARD MOUNTING = 40"
    B. ADA ACCESSIBLE = 46" MAX.

14. PAPER TOWEL DISP./WASTE RECEPTACLE:
    (MEASURED AFF. TO TOWEL SLOT)
    A. STANDARD MOUNTING = 40" MAX.
    B. ADA FORWARD REACH = 48" MAX. & 15" MIN.
    C. ADA SIDE REACH = 48" MAX. & 15" MIN.

15. SANITARY NAPKIN DISPENSER:
    (MEASURED AFF. TO C.L. OF COIN SLOT)
    A. STANDARD MOUNTING = 40" MAX.
    B. ADA FORWARD REACH = 48" MAX. & 15" MIN.
    C. ADA SIDE REACH = 48" MAX. & 15" MIN.

16. SANITARY NAPKIN DISPOSAL UNIT:
    A. STANDARD MOUNTING = 28" MAX. (T.O. UNIT)
    B. ADA ACCESSIBLE = 19" MIN. TO 24" MAX. (OPENING)

17. TOILET SEAT COVER DISPENSERS: (TO OPENING)
    A. STANDARD MOUNTING = 40" MAX.
    B. ADA FORWARD REACH = 48" MAX. & 15" MIN.
    C. ADA SIDE REACH = 48" MAX. & 15" MIN.

18. COAT HOOKS:
    A. STANDARD = 68"
    B. ADA ACCESSIBLE = 48" MIN. TO 54" MAX.

19. CHALKBOARDS/TACK BOARDS/ MARKER BOARDS:
    A. STANDARD MOUNTING = 32: TO 39" (TO BOTTOM)
    B. STANDARD MOUNTING = 80" (TO TOP)
    C. VERIFY WITH INDIVIDUAL INSTRUCTOR

20. THERMOSTATS & CONTROL DEVICES (TO TOP)
    A. STANDARD MOUNTING = 42 3/4" MAX.
    B. ADA FORWARD REACH = 48" MAX. & 15" MIN.
    C. ADA SIDE REACH = 48" MAX. & 15" MIN.

21. LIGHT SWITCHES & CARD READERS: (TO C.L.)
    A. STANDARD MOUNTING = 42 3/4" MAX.
    B. ADA FORWARD REACH = 48" MAX. & 15" MIN.

22. CONVINCE RECEPTACLES:
    (ELECTRICAL/TELEPHONE/DATA)
    A. STANDARD = 18 3/4"
    B. ADA ACCESSIBILITY = 15" MIN.

23. EXIT LIGHTS: (STANDARD WALL MOUNTED)
    A. 2" MIN. BELOW CEILING
    B. 2" MON. ABOVE DOOR FRAME
    C. EQUAL SPACE - CEILING TO TOP OF FRAME

24. FIRE EXTINGUISHERS (MEASURED AFF.)
    A. GROSS WT. 40 LBS OR LESS = 60" MAX. TO TOP
    B. GROSS WT. MORE THAN 40 LBS. 42" MAX. TO TOP
    C. ADA REACH RANGES = 48" MAX. & 15" MIN.

25. FIRE ALARM PULL STATION (AFF. TO LEVER)
    A. STANDARD MOUNTING = 48" MAX. & 15" MIN
    B. ADA FORWARD REACH = 48" MAX. & 15" MIN.
    C. ADA SIDE REACH = 48" MAX. & 15" MIN.

26. SMOKE AND/OR HEAT DETECTORS
    A. STANDARD = CEILING HEIGHT

27. HORN/SPEAKER/VISUAL/SIGNALS:
    A. STANDARD = 80" AFF. OR 6' BELOW CEILING WHICH EVER IS LOWER

28. ROOM SIGNAGE FOR ROOM NAMES (TO C.L.)
    A. STANDARD = 60" AFF. AND WITHIN 18" OF LATCH SIDE OF DOOR.

TYPICAL ADA NOTES

CODE ANALYSIS

Plan Analysis is Based on the 2024 International Building Code.

Building Sizes

Existing Educational Building 1st Floor	28,923 S.F.
Existing Vo-Tech Building 1st Floor	9,031 S.F.
New Instructional Building	6,296 S.F.

Section 305

Occupancy Classification = E

Table 504.3

Allowable Building Height in Feet Above Grade Plane
E Occupancy Type VB = 40 Feet
14' - 0" < 40'

Table 504.4

Allowable Number of Stories Above Grade Plane
E Occupancy NS (Non-Sprinkled) = Type VB - 1 Story

Table 506.2

Allowable Area Factor in Square Feet
E Occupancy NS, Type VB = 9,500 S.F.
6,296 S.F. < 9,500 S.F.

Fire-Resistance Rating Requirements for Building Elements - Type VB

Structural Frame:		0
Bearing Walls:	Exterior	0
	Interior	0
Non-Bearing Walls:	Exterior	0
	Interior	0
Floor Construction:		0
Roof Construction:		0

NOTE:
Table 707.3.10 Fire-Resistance-Rating requirements for fire barriers, fire walls or horizontal assemblies between fire areas = 2 hours.

A 2 hour fire-resistance barrier shall be installed between New Instructional Building & Educational Building & Vo-Tech Building,

Section 903.2.3

Group E Building
More than 12,000 square feet shall be protected by an automatic sprinkler system.
New Instructional Building 6,296
6,296 < 12,000

Table 1004.5

Maximum Floor Area
Allowances per occupant
Education - Classroom Area = 20 net
Education - Lab Area = 50 net
1,524 Classroom Area/20 = 76 Occupant Load
1,283 Lab Area/ 50 = 25 Occupant Load
Total Occupant Load = 111 Occupant Load

Plumbing Fixture Calculations
Table 2902.1
E-Occ.
1/50 Men, 1/50 Women, - WC
1/50 Men / Women, - LAV
1/100 - D.F.
E-Occ. = 111
(55.5 M, 55.5 W) Water

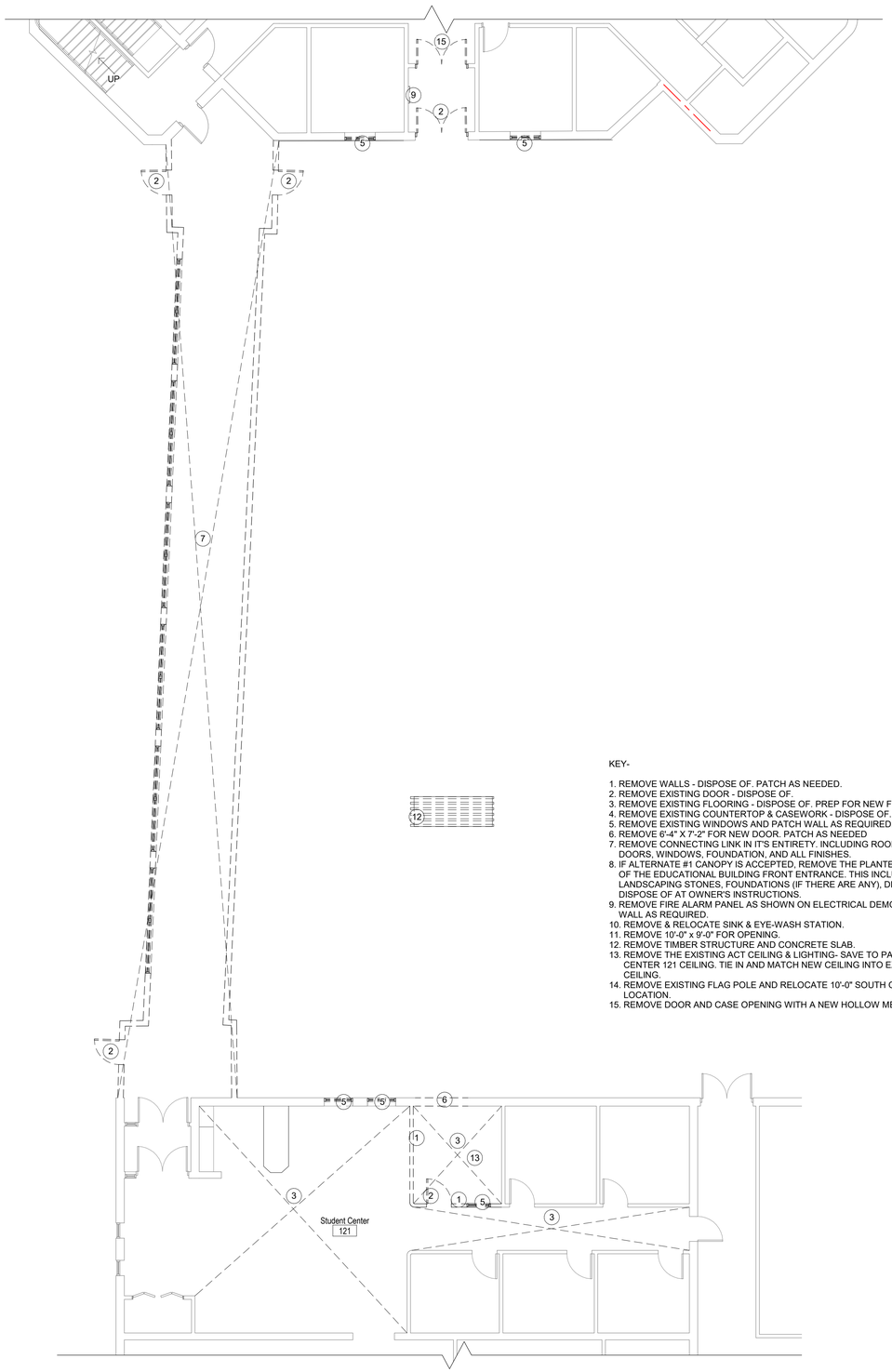
Closets	Men	2
	Women	2
	Family/ Unisex	0
Lavatories	Men	2
	Women	2
	Family/ Unisex	0
Drinking Fountain		1
Service Sink		1

Provided
Men 1 - Water Closet, 1 Urinal
Women - 2 Water Closets
Men - 2 Lavatories, Women - 2 Lavatories

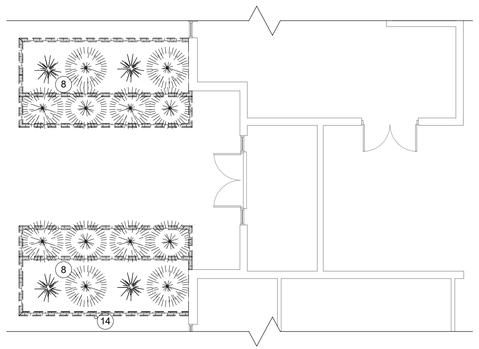
REGISTERED PROFESSIONAL ENGINEER
DEAN MARSKE
5376
SOUTH DAKOTA
11/30

hkg architects

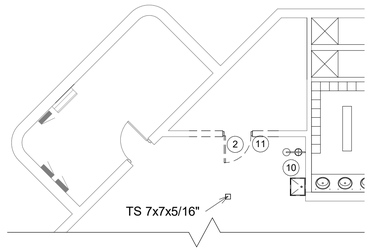
REVISED DATE	Plans for	ADA Notes & Code Review	DRAWN BY: CH TRACED BY: ____ CHECKED BY: RE A102
CERT. NO.	Instructional Building Sisseton Wahpeton College Agency Village, South Dakota		DATE: 3/7/25 PROJECT NO: 2023-0029 OF- 8
	HKG Architects, Inc. Aberdeen, S.D.		



1 Demolition Plan
1/8" = 1'-0"



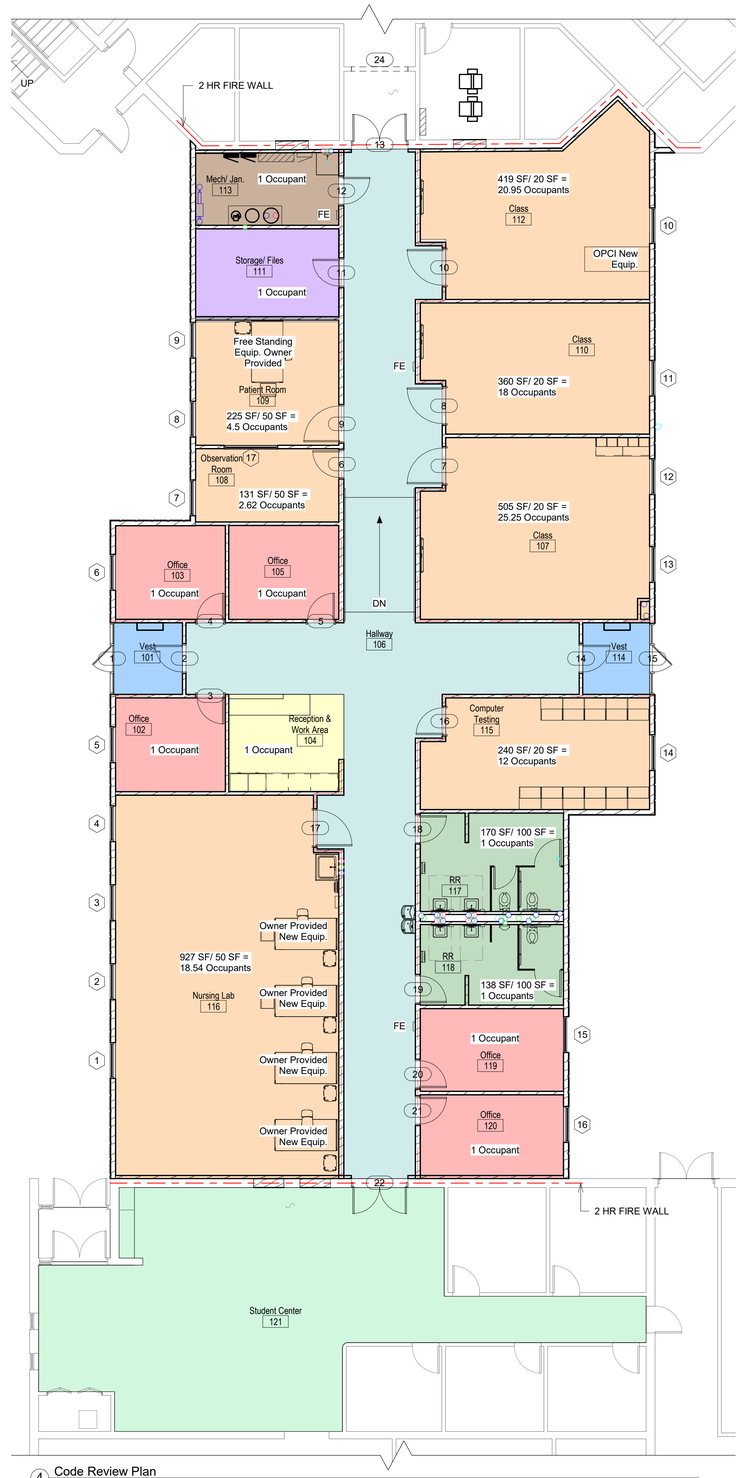
2 Alternate #1 Demo
1/8" = 1'-0"



3 VoTech Demo
1/8" = 1'-0"

KEY-

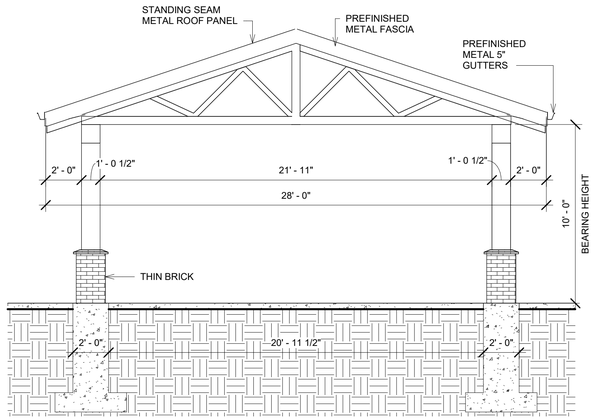
1. REMOVE WALLS - DISPOSE OF. PATCH AS NEEDED.
2. REMOVE EXISTING DOOR - DISPOSE OF.
3. REMOVE EXISTING FLOORING - DISPOSE OF. PREP FOR NEW FLOORING
4. REMOVE EXISTING COUNTERTOP & CASEWORK - DISPOSE OF.
5. REMOVE EXISTING WINDOWS AND PATCH WALL AS REQUIRED. SEE DETAIL ##
6. REMOVE 6'-4" X 7'-2" FOR NEW DOOR. PATCH AS NEEDED
7. REMOVE CONNECTING LINK IN IT'S ENTIRETY. INCLUDING ROOF, WALLS, DOORS, WINDOWS, FOUNDATION, AND ALL FINISHES.
8. IF ALTERNATE #1 CANOPY IS ACCEPTED, REMOVE THE PLANTERS IN FRONT OF THE EDUCATIONAL BUILDING FRONT ENTRANCE. THIS INCLUDES THE LANDSCAPING STONES, FOUNDATIONS (IF THERE ARE ANY), DIRT, & PLANTS. DISPOSE OF AT OWNER'S INSTRUCTIONS.
9. REMOVE FIRE ALARM PANEL AS SHOWN ON ELECTRICAL DEMO PLANS. PATCH WALL AS REQUIRED.
10. REMOVE & RELOCATE SINK & EYE-WASH STATION.
11. REMOVE 10'-0" x 9'-0" FOR OPENING.
12. REMOVE TIMBER STRUCTURE AND CONCRETE SLAB.
13. REMOVE THE EXISTING ACT CEILING & LIGHTING- SAVE TO PATCH STUDENT CENTER 121 CEILING. TIE IN AND MATCH NEW CEILING INTO EXISTING CEILING.
14. REMOVE EXISTING FLAG POLE AND RELOCATE 10'-0" SOUTH OF ORIGINAL LOCATION.
15. REMOVE DOOR AND CASE OPENING WITH A NEW HOLLOW METAL FRAME.



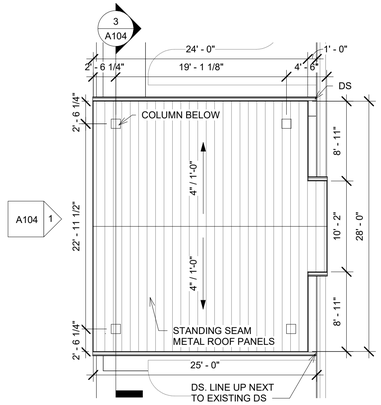
4 Code Review Plan
1/8" = 1'-0"

hkg architects

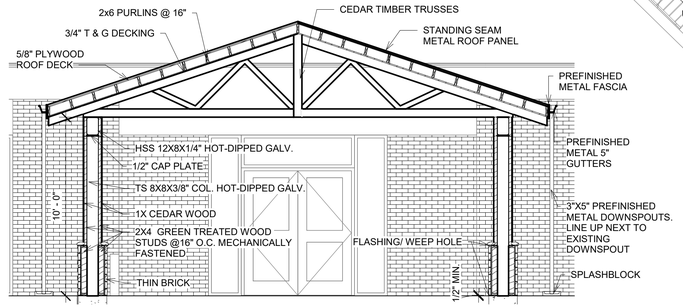
REVISED DATE	**Plans for** Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	Demolition Plans & Code Review Plan	DRAWN BY: CH TRACED BY: ____ CHECKED BY: AB A103
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.	DATE 3/7/25	PROJECT NO. 2023-0029 OF- 8



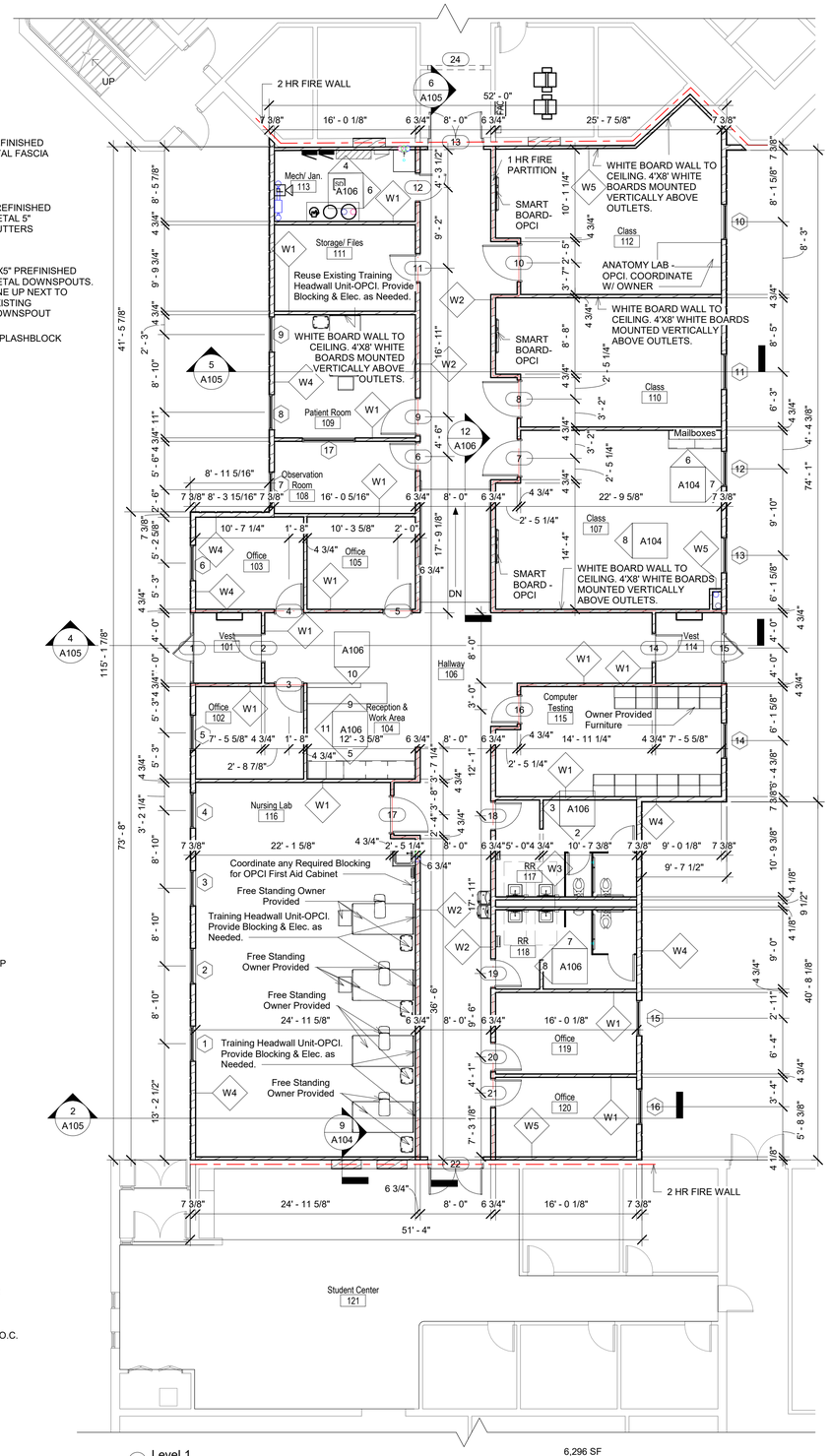
1 Alternate #1 Canopy Front
1/4" = 1'-0"



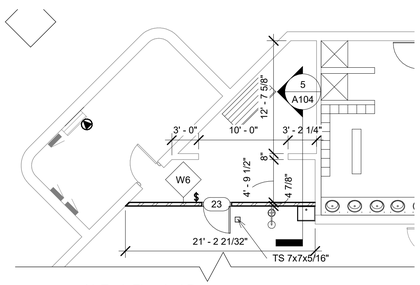
2 Alternate #1 Canopy Overhead
1/8" = 1'-0"



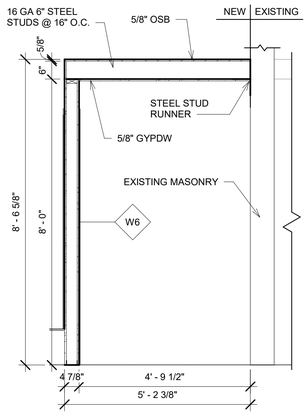
3 Alternate #1 Canopy Section
1/4" = 1'-0"



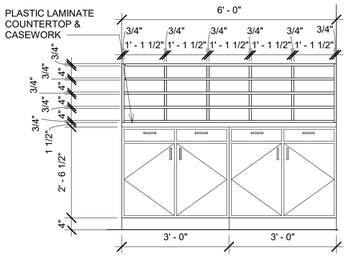
11 Level 1
1/8" = 1'-0"



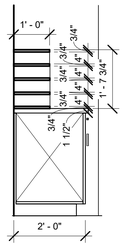
4 VoTech Electrical Room
1/8" = 1'-0"



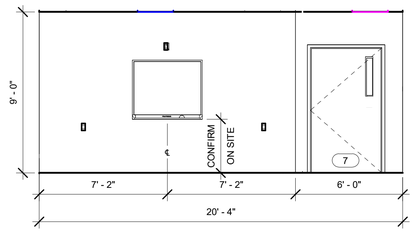
5 Electrical Room Section
1/2" = 1'-0"



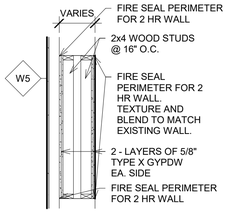
6 Class Mailboxes
1/2" = 1'-0"



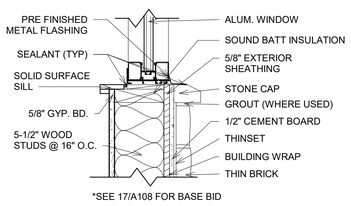
7 Side Class Mailboxes
1/2" = 1'-0"



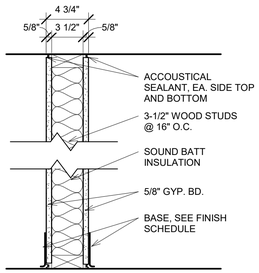
8 Typ. Teaching Wall
1/4" = 1'-0"



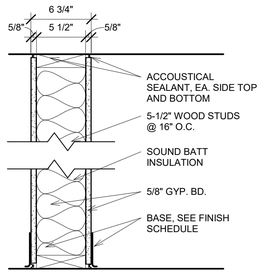
9 Typ. Window Infill Detail
1/2" = 1'-0"



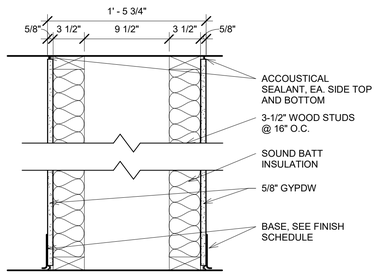
10 Window Sill Alt. #2
1 1/2" = 1'-0"



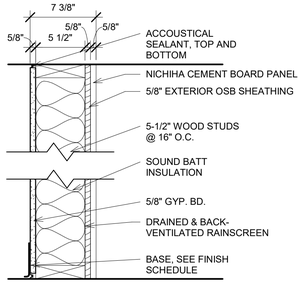
W1 4 3/4" INT. WALL
SCALE: 1 1/2" = 1'-0"



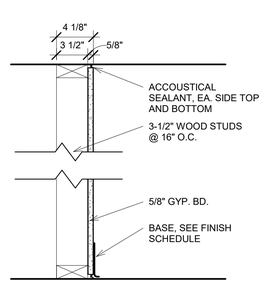
W2 6 3/4" INT. WALL
SCALE: 1 1/2" = 1'-0"



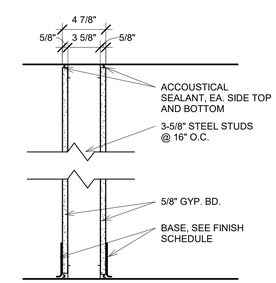
W3 INT. PLUMBING WALL
SCALE: 1 1/2" = 1'-0"



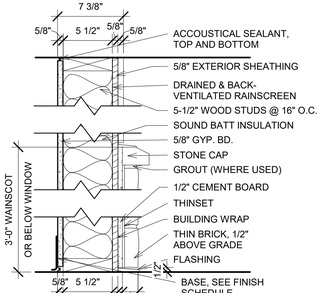
W4 7 3/8" EXT. WALL
SCALE: 1 1/2" = 1'-0"



W5 4 1/8" INT. WALL
SCALE: 1 1/2" = 1'-0"



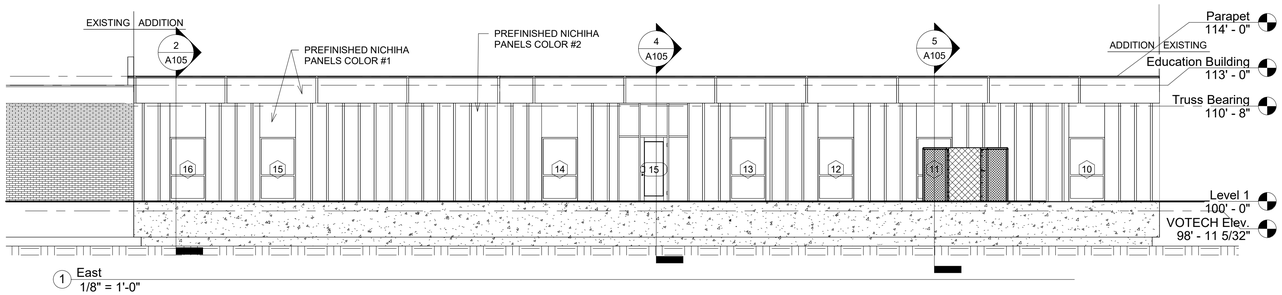
W6 4 7/8" INT. WALL
SCALE: 1 1/2" = 1'-0"



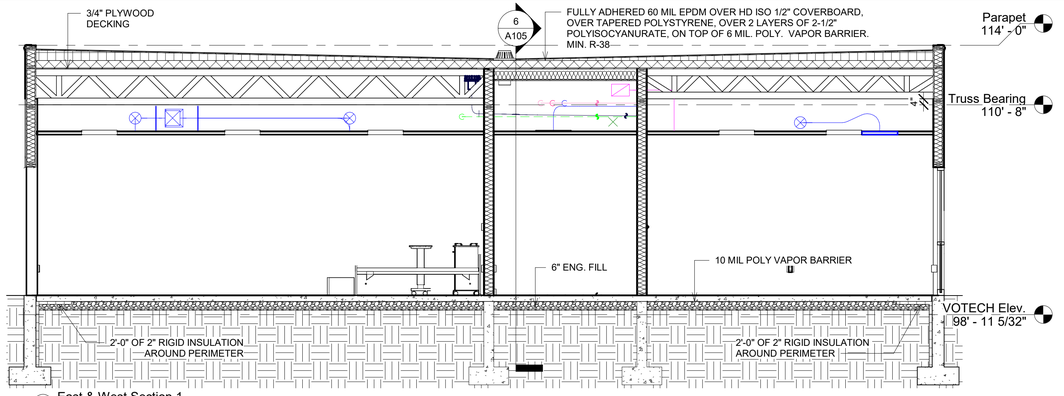
W7 ALT. #2 EXT. WALL
SCALE: 1 1/2" = 1'-0"

hkg architects

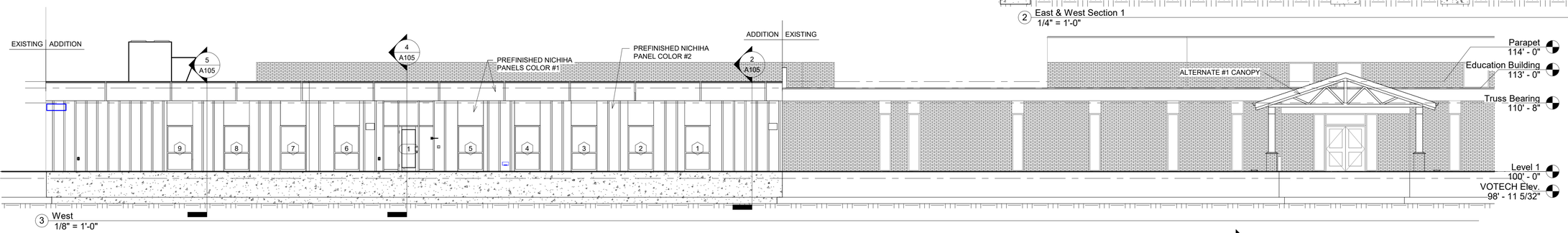
REVISED DATE	**Plans for** Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	Floor Plans, Interior Elevations, Canopy Plans, & Wall Types	DRAWN BY: CH; TRACED BY: ___; CHECKED BY: AB; A104; OF- 8
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.		DATE 3/7/25; PROJECT NO. 2023-0029



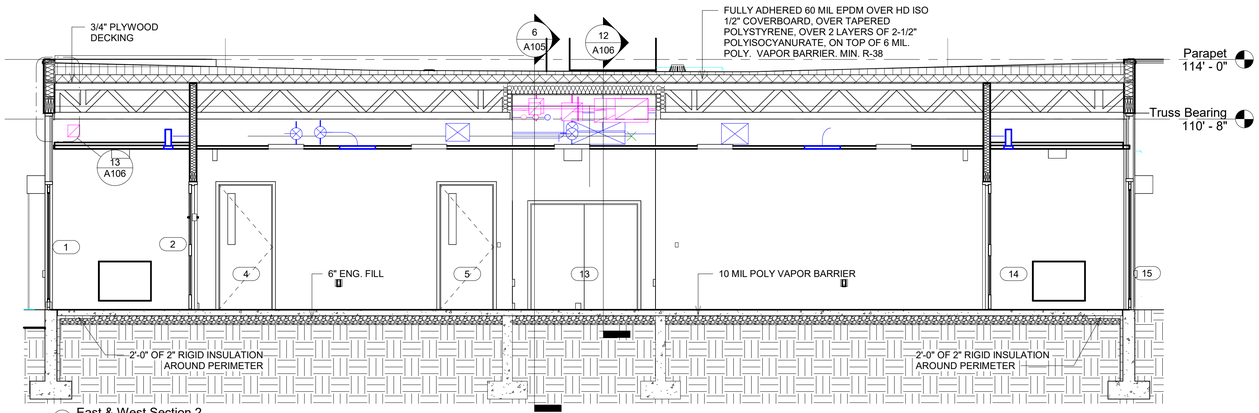
1 East
1/8" = 1'-0"



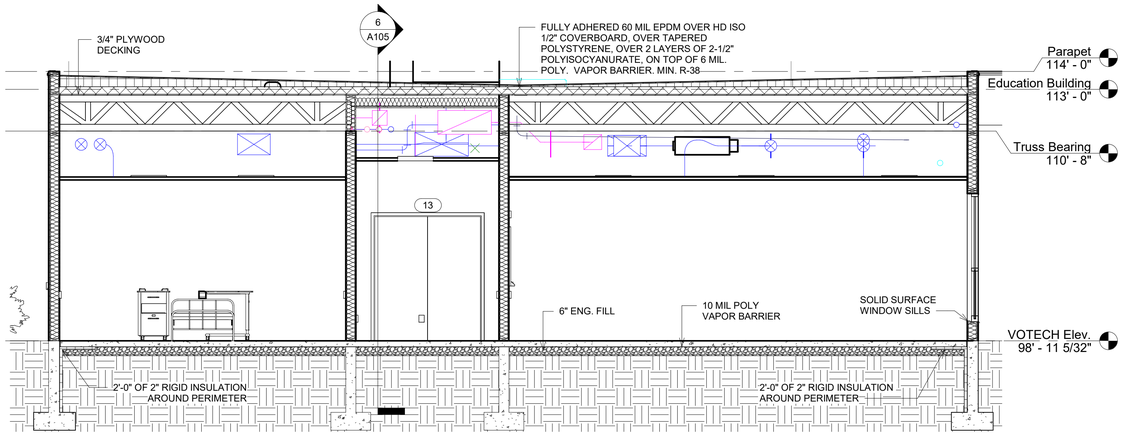
2 East & West Section 1
1/4" = 1'-0"



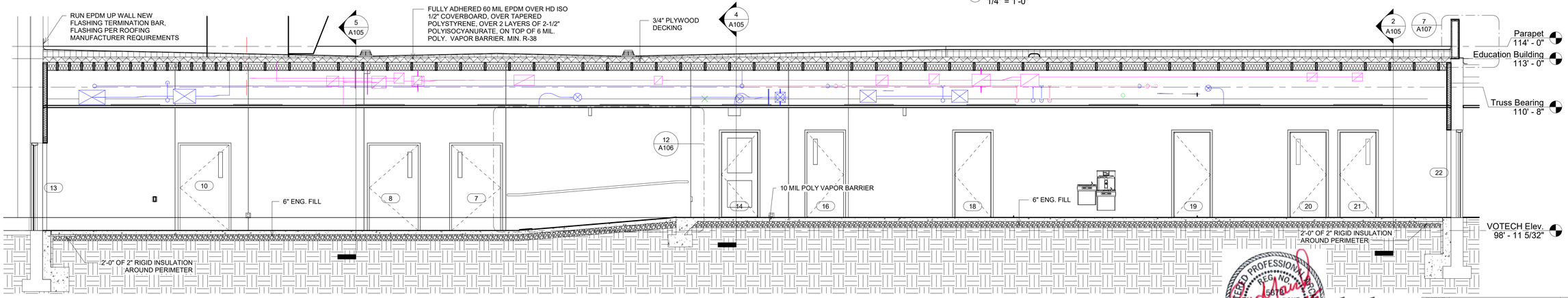
3 West
1/8" = 1'-0"



4 East & West Section 2
1/4" = 1'-0"



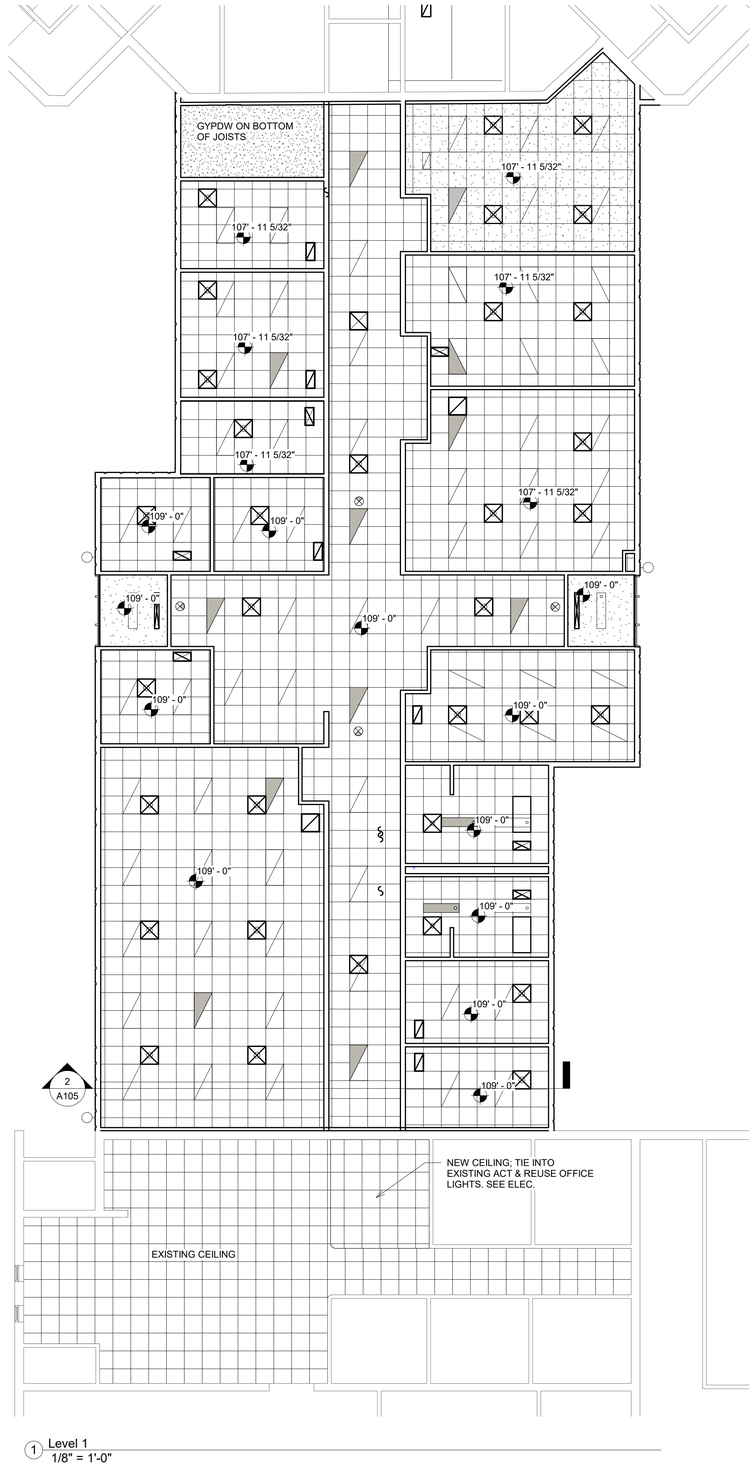
5 East & West Section 3
1/4" = 1'-0"



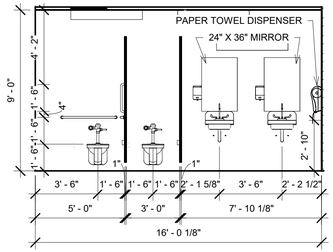
6 North & South Section
1/4" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 5976
DEAN MARSKE
SOUTH DAKOTA
hkg architects
HKG Architects, Inc. Aberdeen, S.D.

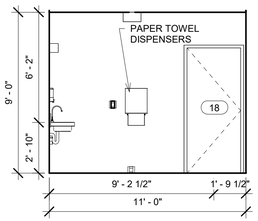
REVISED DATE	Plans for	Elevations & Sections	DRAWN BY: CH TRACED BY: ____ CHECKED BY: AS	A105
DEPT. NO.	Instructional Building Sisseton Wahpeton College Agency Village, South Dakota		DATE: 3/7/25	OF- 8 PROJECT NO: 2023-0029



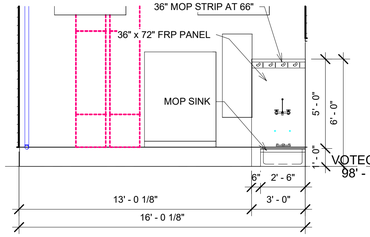
1 Level 1
1/8" = 1'-0"



2 Women's RR South
1/4" = 1'-0"

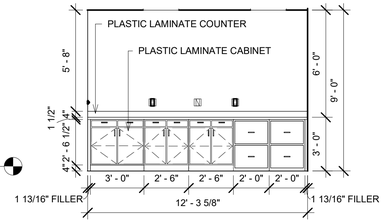


3 Women's RR West
1/4" = 1'-0"

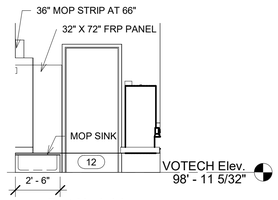


4 North Mech./ Jan.
1/4" = 1'-0"

VOTECH Elev.
98' - 11 5/32"

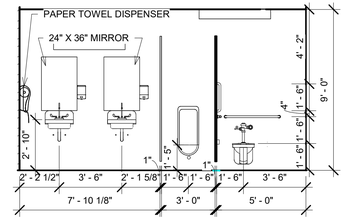


5 Back Reception South
1/4" = 1'-0"

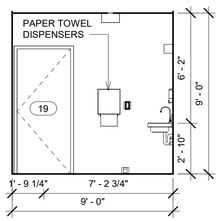


VOTECH Elev.
98' - 11 5/32"

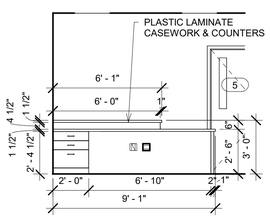
6 East Mech./ Jan.
1/4" = 1'-0"



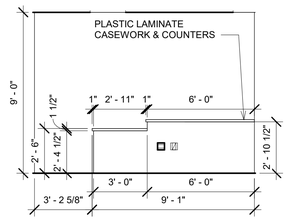
7 Men's RR North
1/4" = 1'-0"



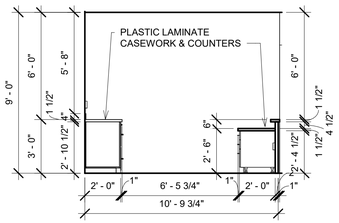
8 Men's RR West
1/4" = 1'-0"



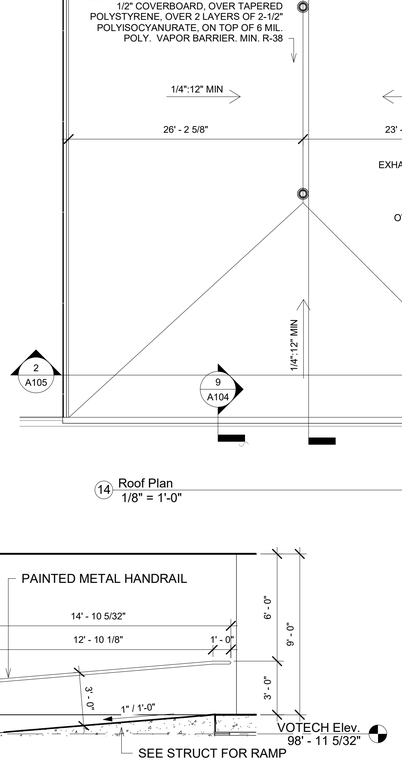
9 Reception North
1/4" = 1'-0"



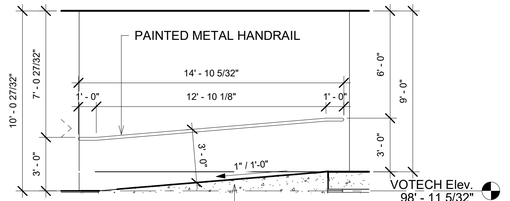
10 Front Reception South
1/4" = 1'-0"



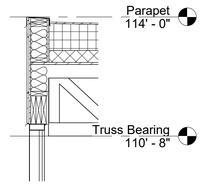
11 Reception West
1/4" = 1'-0"



14 Roof Plan
1/8" = 1'-0"



12 Ramp Section
1/4" = 1'-0"

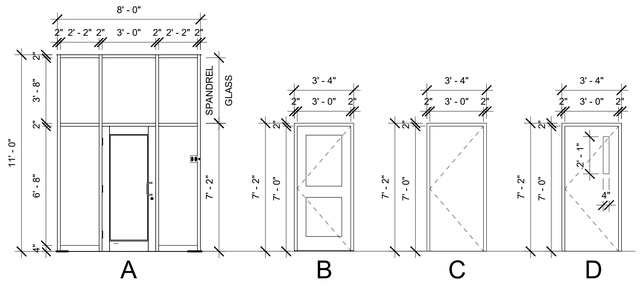


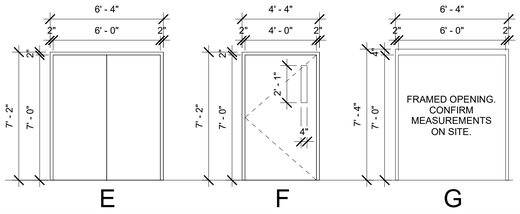
13 Parapet @ Vestibules
1/2" = 1'-0"

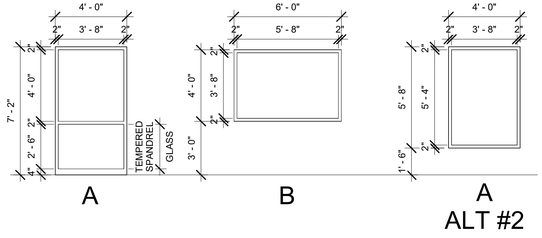
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 5076
CLEAN MARSKE
SOUTH DAKOTA
3-7-25

hkg architects

REVISED DATE	**Plans for** Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	RCP, Interior Elevation, & Roof Plan	DRAWN BY CH	A106
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.		TRACED BY ____ CHECKED BY AS	OF- 8
			DATE 3/7/25	PROJECT NO. 2023-0029







Door Schedule

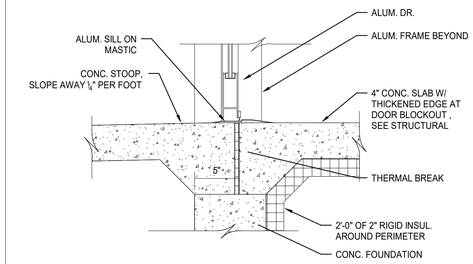
Mark	Width	Height	Thickness	Type	Material	Glazing	Frame	Details	Comments
1	3' - 0"	7' - 0"		A	Alum.	1" Tempered Insul.	Alum.	1/A106, 4/A106, 5/A106	
2	3' - 0"	7' - 0"	0' - 1 3/4"	B	Alum.	1/4" Tempered	Alum.	4/A106, 5/A106	
3	3' - 0"	7' - 0"	0' - 1 3/4"	D	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
4	3' - 0"	7' - 0"	0' - 1 3/4"	D	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
5	3' - 0"	7' - 0"	0' - 1 3/4"	D	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
6	3' - 0"	7' - 0"	0' - 1 3/4"	C	Wood	None	HM	2/A106, 3/A106	20 Min. Door
7	4' - 0"	7' - 0"	0' - 1 3/4"	F	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
8	4' - 0"	7' - 0"	0' - 1 3/4"	F	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
9	4' - 0"	7' - 0"	0' - 1 3/4"	F	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
10	4' - 0"	7' - 0"	0' - 1 3/4"	F	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
11	3' - 0"	7' - 0"	0' - 1 3/4"	C	Wood	None	HM	2/A106, 3/A106	20 Min. Door
12	3' - 0"	7' - 0"	0' - 1 3/4"	C	Wood	None	HM	2/A106, 3/A106	20 Min. Door
13	6' - 0"	7' - 0"	0' - 1 3/4"	E	Wood	None	HM	2/A106, 3/A106	90 Min. Rated Door
14	3' - 0"	7' - 0"	0' - 1 3/4"	B	Alum.	1/4" Tempered	Alum.	4/A106, 5/A106	
15	3' - 0"	7' - 2"		A	Alum.	1" Tempered Insul.	Alum.	1/A106, 4/A106, 5/A106	
16	3' - 0"	7' - 0"	0' - 1 3/4"	D	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
17	4' - 0"	7' - 0"	0' - 1 3/4"	F	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
18	3' - 0"	7' - 0"	0' - 1 3/4"	C	Wood	None	HM	2/A106, 3/A106	20 Min. Door
19	3' - 0"	7' - 0"	0' - 1 3/4"	C	Wood	None	HM	2/A106, 3/A106	20 Min. Door
20	3' - 0"	7' - 0"	0' - 1 3/4"	D	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
21	3' - 0"	7' - 0"	0' - 1 3/4"	D	Wood	20 Min. Rated Glazing	HM	2/A106, 3/A106	20 Min. Door
22	6' - 0"	7' - 0"	0' - 1 3/4"	E	Wood	None	HM	2/A106, 3/A106	90 Min. Rated Door
23	3' - 0"	7' - 0"	0' - 1 3/4"	C	Wood	None	HM	2/A106, 3/A106	
24	6' - 4"	7' - 4"		G	NA	None	HM	9/A107	REMOVE EXISTING DOOR, FRAME OPENING. CONFIRM MEASUREMENTS ON SITE

Window Schedule

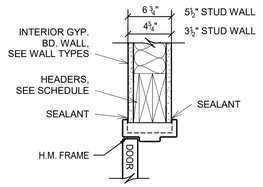
Mark	Width	Height	Window Type	Window Glazing	Window Frame	Detail	Comments
1	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
2	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
3	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
4	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
5	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
6	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
7	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
8	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
9	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
10	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
11	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
12	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
13	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
14	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
15	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
16	4' - 0"	7' - 2"	A	1" Annealed Insul. W/ Low-E	Alum.	17/A108, 18/A108	IF ALT. #2 ACCEPTED REFER TO 10/A104 FOR WINDOW SILL
17	6' - 0"	4' - 0"	B	1/4" 1-Way Glass	HM	6/A107	ONE WAY GLASS LOOKING FROM OBSERVATION ROOM INTO PATIENT ROOM

Room Schedule

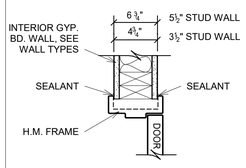
Number	Name	Floor Finish	Base Finish	Wall Finish	Ceiling Finish	CLG. Height	Wall Paint	Ceiling Paint	Comments
101	Vest	WALK OFF CARPET	Vinyl	GYPDW	GYPDW	9'-0"	EN	EN	
102	Office	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
103	Office	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
104	Reception & Work Area	VCT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
105	Office	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
106	Hallway	VCT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	Match Existing VCT Pattern & Colors in VoTech Hallways. See Flooring Layout 8/A107
107	Class	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
108	Observation Room	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
109	Patient Room	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
110	Class	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
111	Storage/ Files	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
112	Class	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
113	Mech/ Jan.	Sealed Conc.	Vinyl	GYPDW	GYPDW	Open to Above	EN	EN	
114	Vest	WALK OFF CARPET	Vinyl	GYPDW	GYPDW	9'-0"	EN	EN	
115	Computer Testing	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
116	Nursing Lab	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
117	RR	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
118	RR	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
119	Office	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
120	Office	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	
121	Student Center	LVT	Vinyl	GYPDW	ACT	9'-0"	EN	NONE	



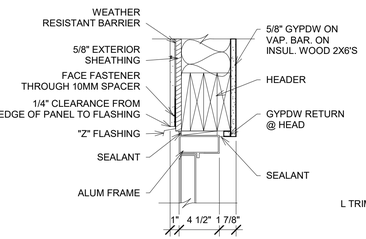
1 Typ. Alum. Door Sill
1 1/2" = 1'-0"



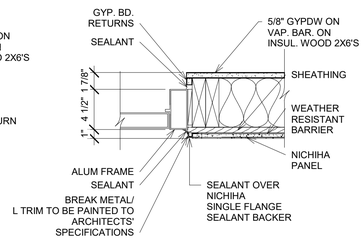
2 Typ. HM Door Head
1 1/2" = 1'-0"



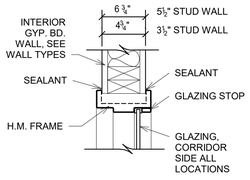
3 Typ. HM Door Jamb
1 1/2" = 1'-0"



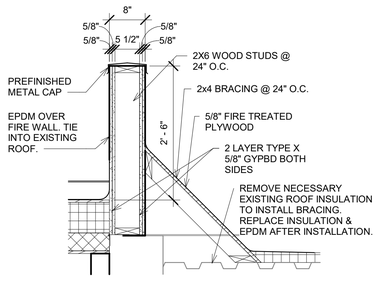
4 Typ. Alum. Door Head
1 1/2" = 1'-0"



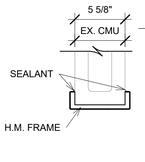
5 Typ. Alum. Door Jamb
1 1/2" = 1'-0"



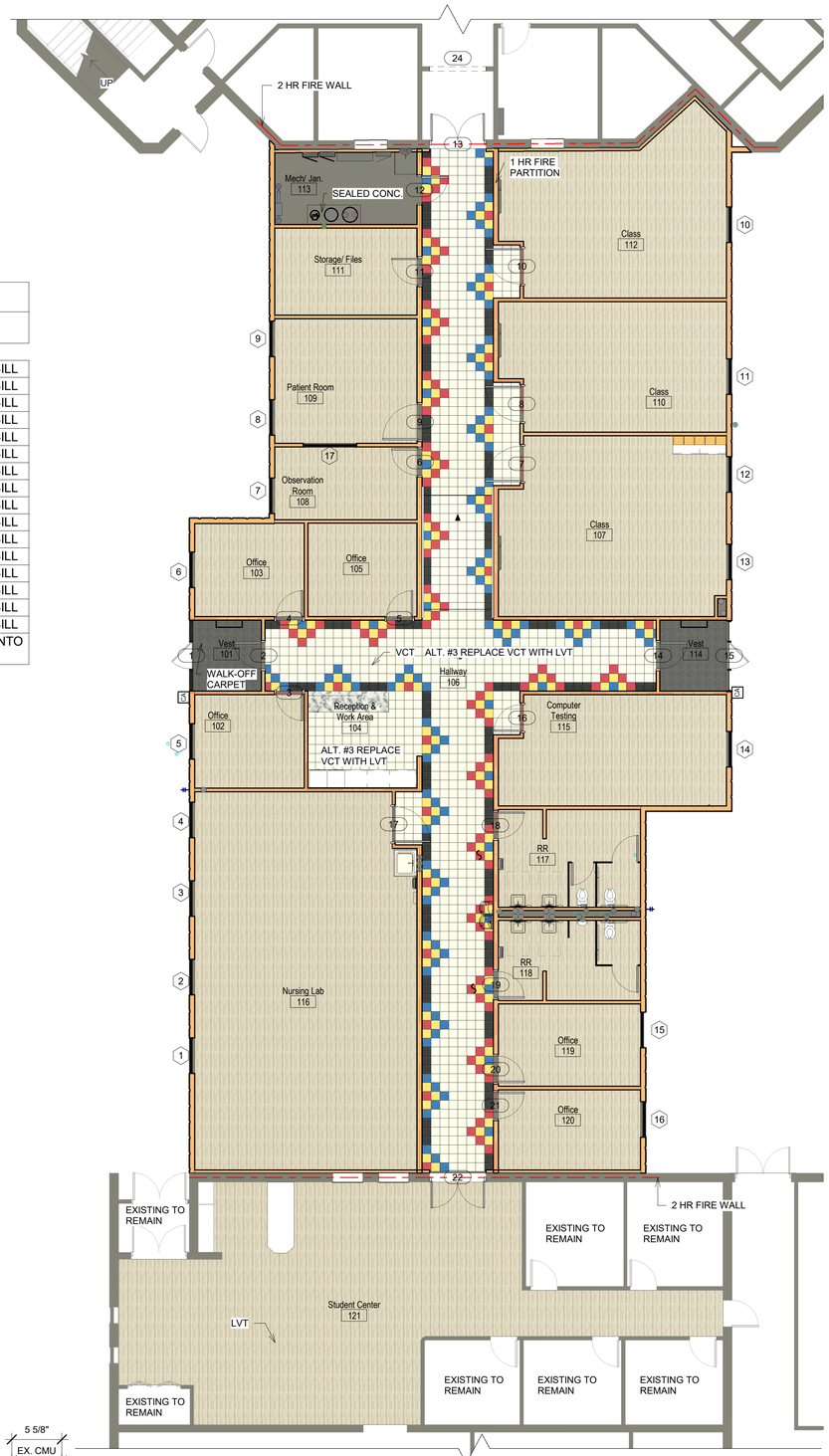
6 Typ. Interior Window
1 1/2" = 1'-0"



7 South Parapet Detail
3/4" = 1'-0"



9 HM FRAMED OPENING
1 1/2" = 1'-0"

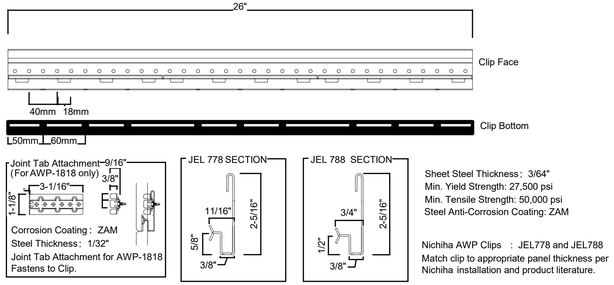


8 Level 1 Flooring
1/8" = 1'-0"

REGISTERED PROFESSIONAL ARCHITECT
REG. NO.
SEAN MARSKE
SOUTH DAKOTA
11/1/2025

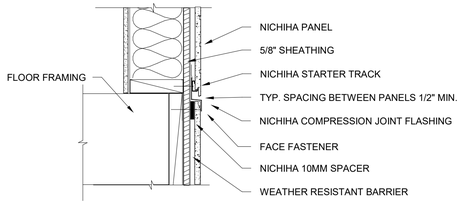
hkg architects

REVISED DATE		Plans for		DRAWN BY: CH	A107
		Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	Schedules, Details, & Flooring Layout	TRACED BY:	
DEPT. NO.				CHECKED BY: AS	OF- 8
	HKG Architects, Inc.	Aberdeen, S.D.		DATE: 3/7/25	PROJECT NO.: 2023-0029



1 Nichiha Clip
3" = 1'-0"

NOTES:
5. ADJUST FASTENER LENGTH TO ACCOUNT FOR UP TO 1" FOAM PLASTIC CONTINUOUS INSULATION.



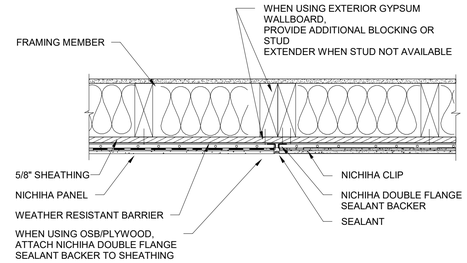
NICHIHA HORIZONTAL AWP - HORIZONTAL COMPRESSION JOINT

2 Nichiha Compression Joint
1 1/2" = 1'-0"

NICHIHA CORNER CLIP - JE 777C

3 Nichiha Corner Clip
6" = 1'-0"

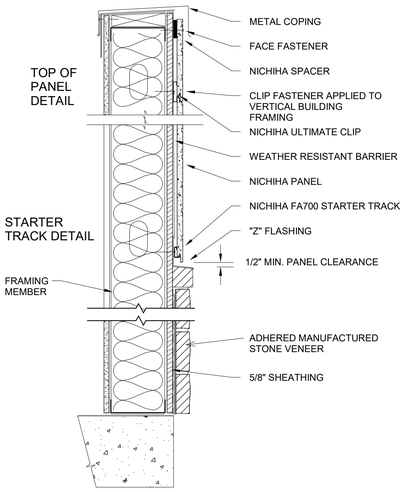
NOTES:
1. ADJUST FASTENER LENGTH TO ACCOUNT FOR UP TO 1" OF FOAM PLASTIC CONTINUOUS INSULATION.



NICHIHA HORIZONTAL AWP - CONTROL/EXPANSION JOINT DETAIL

4 Nichiha Expansion Joint
1 1/2" = 1'-0"

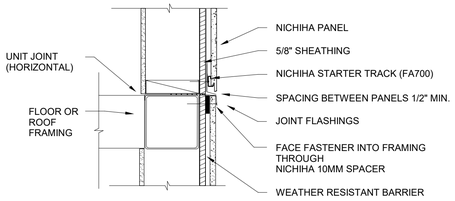
NOTES:
1. ADJUST FASTENER LENGTH TO COMPENSATE FOR UP TO 1" OF FOAM PLASTIC CONTINUOUS INSULATION.



NICHIHA HORIZONTAL AWP - HORIZONTAL MATERIAL TRANSITION

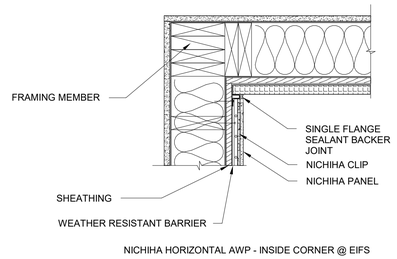
5 Nichiha Horizontal Expansion
1 1/2" = 1'-0"

NOTES:
1. MODULAR UNIT HORIZONTAL JOINT - COMPLETE OFFSITE INSTALLATION - FINAL FIELD DETAIL. TWO FLASHINGS ARE SHOWN: ONE CAPS THE LOWER UNIT AND AWP SIMILAR TO A PARAPET CAP. THE SECOND IS A SIMPLE DRIP ANGLE ATTACHED TO THE UPPER UNIT.



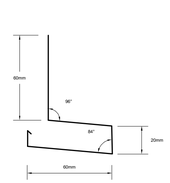
NICHIHA HORIZONTAL AWP - MODULAR HORIZONTAL JOINT - COMPLETE OFFSITE

6 Nichiha Horizontal Joint
1 1/2" = 1'-0"

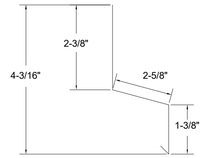


NICHIHA HORIZONTAL AWP - INSIDE CORNER @ EIFS

7 Nichiha Inside Corner
1 1/2" = 1'-0"

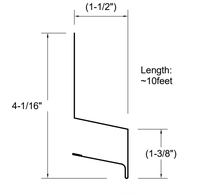


NICHIHA ESSENTIAL OVERHANG FLASHING



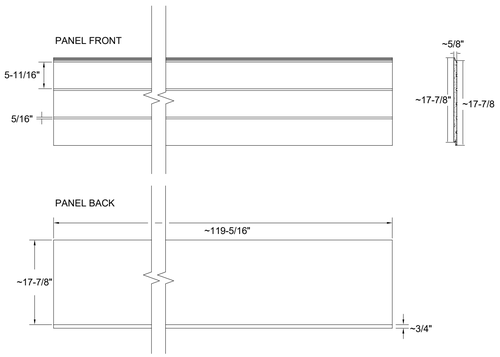
TRIM SECTION VIEW

8 Nichiha Overhang
6" = 1'-0"

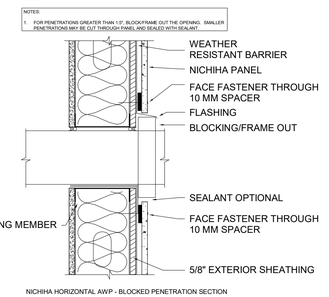


NICHIHA ESSENTIAL STARTER FLASHING

9 Nichiha Starter Flashing
6" = 1'-0"

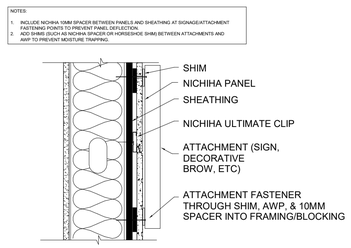


11 Nichiha Panel Details
1/32" = 1'-0"



NICHIHA HORIZONTAL AWP - BLOCKED PENETRATION SECTION

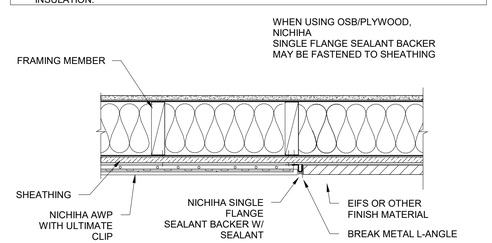
12 Nichiha Penetration
1 1/2" = 1'-0"



NICHIHA - AWP - HORIZONTAL - ATTACHMENT/SIGN ANCHOR DETAIL

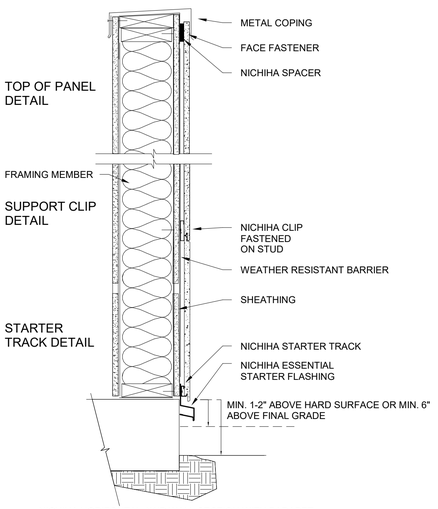
13 Nichiha Sign Attachment
1 1/2" = 1'-0"

NOTES:
1. A CODE APPROVED WRB IS REQUIRED.
2. COAT ANY CUT EDGES OF AWP WITH KILZ PREMIUM/MAX OR COLOR-MATCHED 100% ACRYLIC LATEX EXTERIOR PAINT.
3. ADJUST FASTENER LENGTH TO COMPENSATE FOR UP TO 1" OF FOAM PLASTIC CONTINUOUS INSULATION.



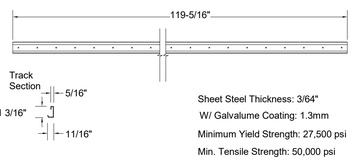
NICHIHA HORIZONTAL AWP - VERTICAL TRANSITION JOINT

14 Nichiha Vertical Transition
1 1/2" = 1'-0"

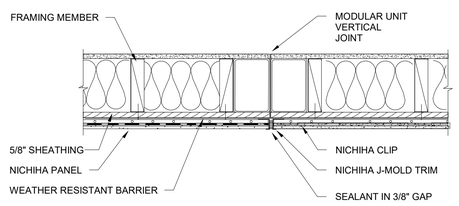


NICHIHA HORIZONTAL AWP WALL SECTION WITH PARAPET

10 Nichiha Parapet
1 1/2" = 1'-0"

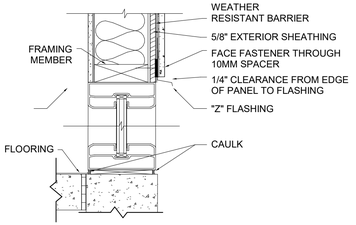


15 Nichiha Starter Strip
1/16" = 1'-0"

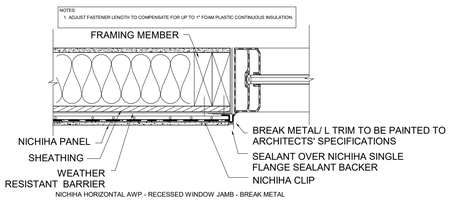


NICHIHA HORIZONTAL AWP - MODULAR VERTICAL JOINT DETAIL W/ J-MOLD - COMPLETE OFFSITE

16 Nichiha Vertical Joint
1 1/2" = 1'-0"



17 Nichiha Window Head/ Sill
1 1/2" = 1'-0"



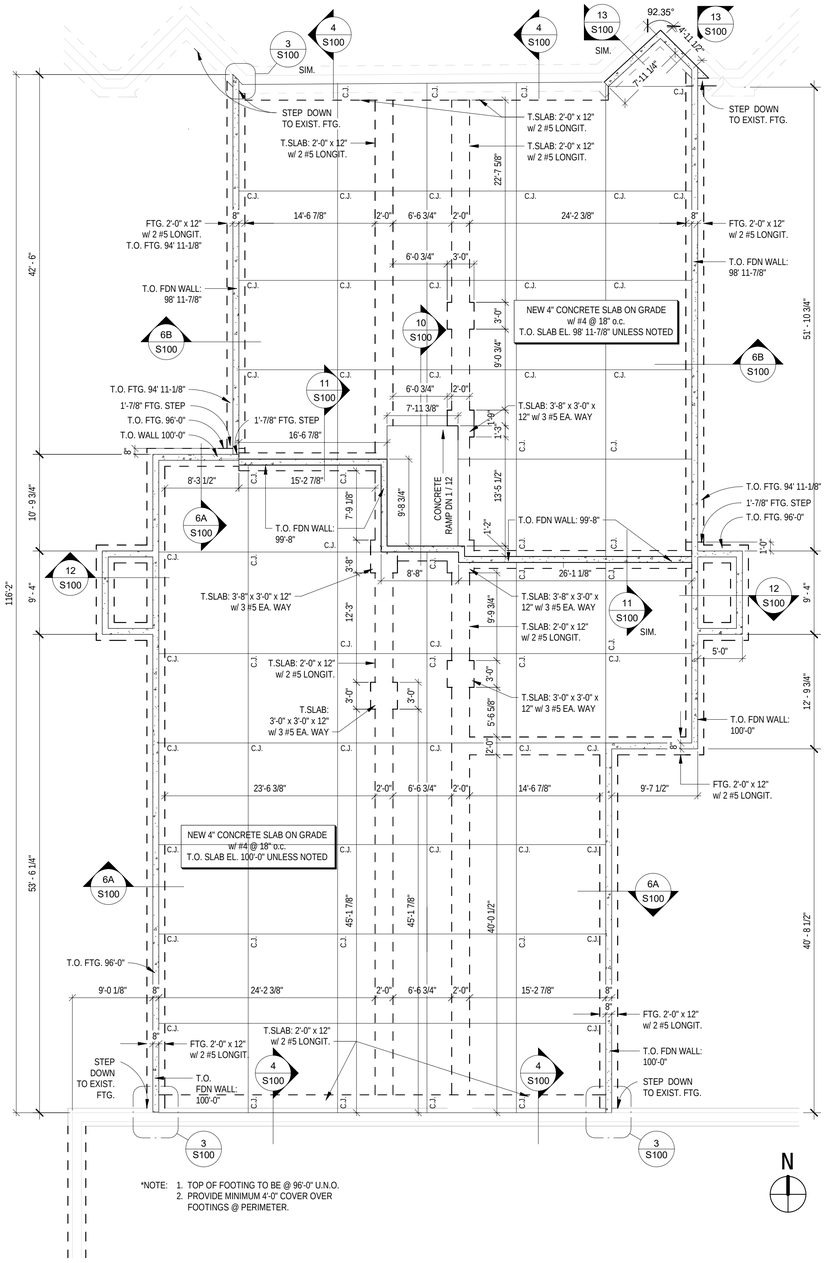
NICHIHA HORIZONTAL AWP - RECESSED WINDOW JAMB - BREAK METAL

18 Nichiha Window Jamb
1 1/2" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 5576
DEAN MARSKE
SOUTH DAKOTA
11/20/25

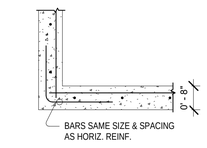
hkg architects

REVISED DATE:	Plans for: Instructional Building, Sisseton Wahpeton College, Agency Village, South Dakota	Nichiha Details	DRAWN BY: CH, TRACED BY: ____, CHECKED BY: AS	A108
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.		DATE: 3/7/25	OF- 8
			PROJECT NO: 2023-0029	

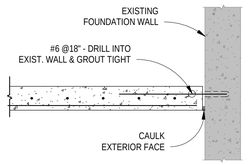


1 S100 — FTG & FDN PLAN
1/8" = 1'-0"

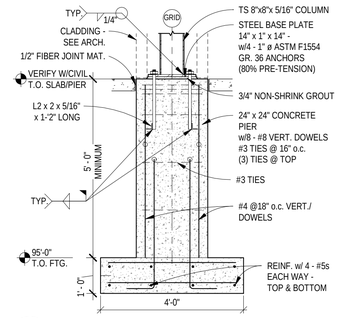
*NOTE: 1. TOP OF FOOTING TO BE @ 96'-0" U.N.O.
2. PROVIDE MINIMUM 4'-0" COVER OVER FOOTINGS @ PERIMETER.



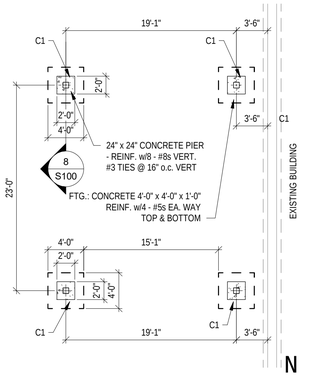
2 S100 — CONCRETE WALL DETAILS
1/2" = 1'-0"



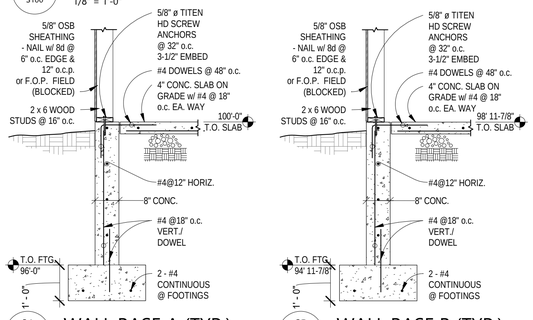
3 S100 — FDN CONN. - NEW TO EXIST.
1/2" = 1'-0"



8 S100 — COLUMN 'C1' BASE DETAIL
1/2" = 1'-0"

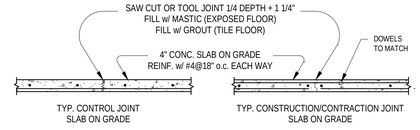


7 S100 — FDN PLAN @ CANOPY
1/8" = 1'-0"



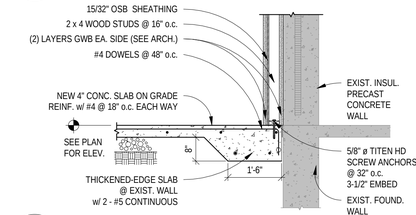
6A S100 — WALL BASE A (TYP.)
1/2" = 1'-0"

6B S100 — WALL BASE B (TYP.)
1/2" = 1'-0"

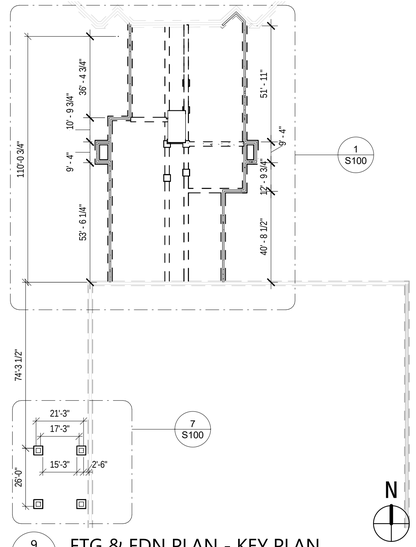


NOTE: SAW CUT JOINTS TO BE CUT AS SOON AS CONCRETE IS SET. (12 HOURS AFTER POUR MAXIMUM)

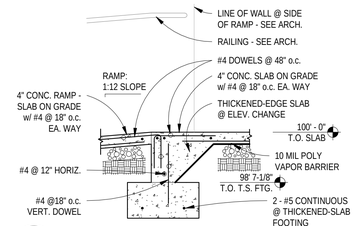
5 S100 — CONCRETE SLAB DETAILS
1/2" = 1'-0"



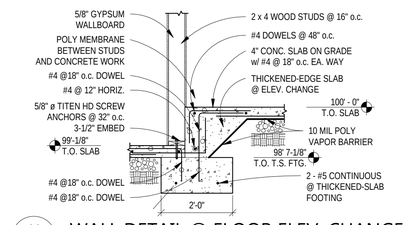
4 S100 — SLAB CONNECT. - NEW TO EXIST.- T.S.
1/2" = 1'-0"



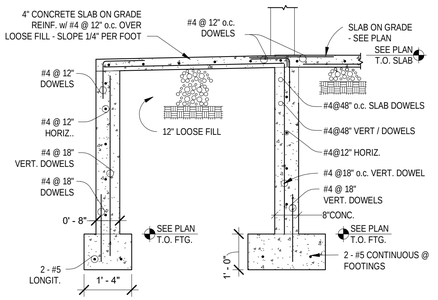
9 S100 — FTG & FDN PLAN - KEY PLAN
1/32" = 1'-0"



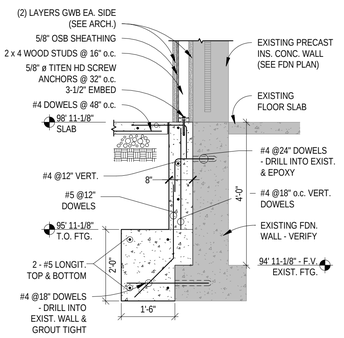
10 S100 — RAMP SECTION @ TOP
1/2" = 1'-0"



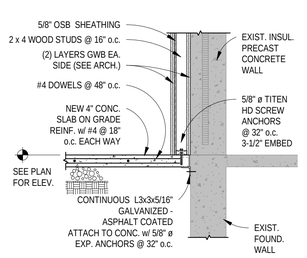
11 S100 — WALL DETAIL @ FLOOR ELEV. CHANGE
1/2" = 1'-0"



12 S100 — STOOP DETAIL (TYP.)
1/2" = 1'-0"



13 S100 — WALL SEC @ EXIST. 2
1/2" = 1'-0"



14 S100 — SLAB CONNECTION - NEW TO EXIST.-ANGLE
1/2" = 1'-0"

GENERAL STRUCTURAL NOTES

1. *Design Codes Used:*
   IBC 2021
   ACI Concrete Code
   AISC Code - ASD

2. *Design Loads:*
   Roof Snow Load: *Ps = 38.5 PSF + Drift (Balanced)*
   Unbalanced snow load as per ASCE 7-16 Section 7
   Pg = 50 PSF
   Pf = 38.5 PSF
   Ce = 1.0
   Is = 1.1
   Ct = 1.0
   Wind Load: *V_{ULT} = 120 MPH Basic Wind Speed*
   Risk Category = III
   Wind Exposure C
   Internal Pressure Coefficient +/- 0.18

3. *Design Stresses Used:*

Concrete	
- Slabs on Grade	*3000 PSI @ 28 Days*
- Footings & Foundation Walls	*3000 PSI @ 28 Days*
- Exterior Exposed	*4500 PSI @ 28 Days (air entrained)*
- Structural Slabs	*4000 PSI @ 28 Days*
- Masonry Strength	*f'm = 1500 PSI*
Steel	
- W Shapes	*Fy = 50 KSI (ASTM A992)*
- Tubes	*Fy = 46 KSI (ASTM A500 Grade B)*
- Angles, Channels, Bars	*Fy = 36 KSI (ASTM A36)*
- Pipes	*Fy = 35 KSI (ASTM A53)*
Reinforcing Steel	*60 KSI (ASTM A615-60)*
Soil Bearing Pressure	*1500 PSF (Assumed, Verify w/Geotechnical Engineer's review of Excavation)*

4. *CONCRETE COVERAGE for reinforcing shall be as follows:*

Footings	*3 inches*
Columns and Piers	*1 1/2 inches*
Slabs on Grade	*midheight for a single layer*
Walls	*1 1/2 inches @ exterior*
	3/4 inch @ interior
Structural Slabs	*3/4 inch unless noted*

PROVIDE BAR SUPPORTS AND SPACERS in accordance with the ACI Detailing Manual.

5. *REINFORCING STEEL to be bent and placed in accordance with ACI code. All splices to be 38db for #6 bar or smaller, 48 db for #7 bar and larger.*

6. *FOOTINGS to rest on undisturbed soil or engineered backfill. All walls and piers to center on footing unless otherwise noted. All footing elevations are given to the top of footings. - See Soils report for Site Recommendations.*

7. *ALL FOUNDATION WALLS to be laterally supported before backfilling. Vertical construction joints to be keyed.*

8. *OPENINGS in concrete FOUNDATION WALLS shall be reinforced with 2-#5 bars each side, extending 2'-0" past the face of the opening unless otherwise noted.*

9. *FOUNDATIONS SHALL BE BUILT from approved, fully dimensioned shop drawings coordinated with construction documents and field conditions. Foundation shop drawings shall consist of the anchor bolt setting plan, concrete mix design and concrete reinforcement plan with wall & pier dimensions. All subsequent shop drawings shall be coordinated with approved foundation shop drawings.*

9. *PORTLAND CEMENT to be ASTM C150, Type 1 & 1A.*

10. *CONCRETE to be in accordance with ACI 301. Maximum shale content shall not exceed 0.5% for exposed concrete.*

11. *CONTROL AND CONSTRUCTION JOINTS to be located as shown as on the plan or at contractor's option - not to exceed 10'-0" o.c.*

12. *PROVIDE NON-SHRINK Metallic Grout under Base Plates and Non-Shrink Grout for all Dowels.*

13. *ROOF TRUSSES to be engineered by the fabricator under the supervision of a professional engineer. Shop drawings to be stamped by the professional engineer. All trusses to have roof sheathing, including areas with scabbed in wood framing above.*

14. *ROOF TRUSSES shall be secured to wall plates with H2.5T Anchors by Simpson or equal at every truss.*

15. *General Contractor shall provide all lateral roof bracing as required by truss plate institute manual "HIB-91" or as required by the truss design.*

16. *CARPENTRY*

Beams/Wood Studs	*Hem Fir, SPF #2, or better*
L.V.L.'s (Laminated Veneer Lumber)	*Fb = 2600 psi min. E = 2.0 min.*
Glue-Laminated Beams & Columns	*Fb = 2400 psi (24F-V8 or better)*

17. *Refer to IBC table for typical nailing not shown. Table 2304.10.1.*

18. *ALL STRUCTURAL STEEL to be fabricated and erected in accordance with the AISC Code. Connections not detailed are to be designed in accordance with the AISC detailing for steel construction. Shop connections are to be welded. Field connections are to be double clip angle connection bolted with 3/4" diameter high strength bolts (ASTM A325).*
WHEN REACTIONS for structural members are not given on the plan, connections shall be designed by fabricator to support one-half the total uniform load capacity shown in the maximum uniform load tables in the current steel construction manual, for the given beam, span, and grade of steel specified.

19. *EXPANSION ANCHORS shall be Carbon Steel (Kwik Bolz TZ) as manufactured by "Hilti" or equal. Adhesive Anchors shall be "Hilti" - HIT HY70 (masonry) or HIT-HY 200 MAX (concrete) with screen tubes as required. All anchors shall have standard embedment unless noted. No not substitute detailed anchor without Architect/Engineer approval.*

20. *SEE MECHANICAL, ELECTRICAL & ARCHITECTURAL DRAWINGS for all openings and inserts not shown on the plan. All opening sizes and locations to be verified with mechanical and electrical contractors.*

21. *CONTRACTOR VERIFY all dimensions with Architectural Plan.*

22. *TIMBER CEDAR TRUSS by Supplier. Provide stamped design and truss shops. Coordinate connections. Consult Architectural for Aesthetics.*

REGISTERED PROFESSIONAL ENGINEER
14044
STEVEN S. VONDAL
03.14.25
NORTH DAKOTA

SOLIEN & LARSON ENGINEERING
CONSULTING STRUCTURAL ENGINEERS
3330 FIECHTNER DRIVE, SUITE 206
FARGO, NORTH DAKOTA 58103
TELEPHONE (701) 235-5593 FAX (701) 235-5594

hkg architects

Plans for
Instructional Building
Sisseton Wahpeton College
Agency Village, South Dakota

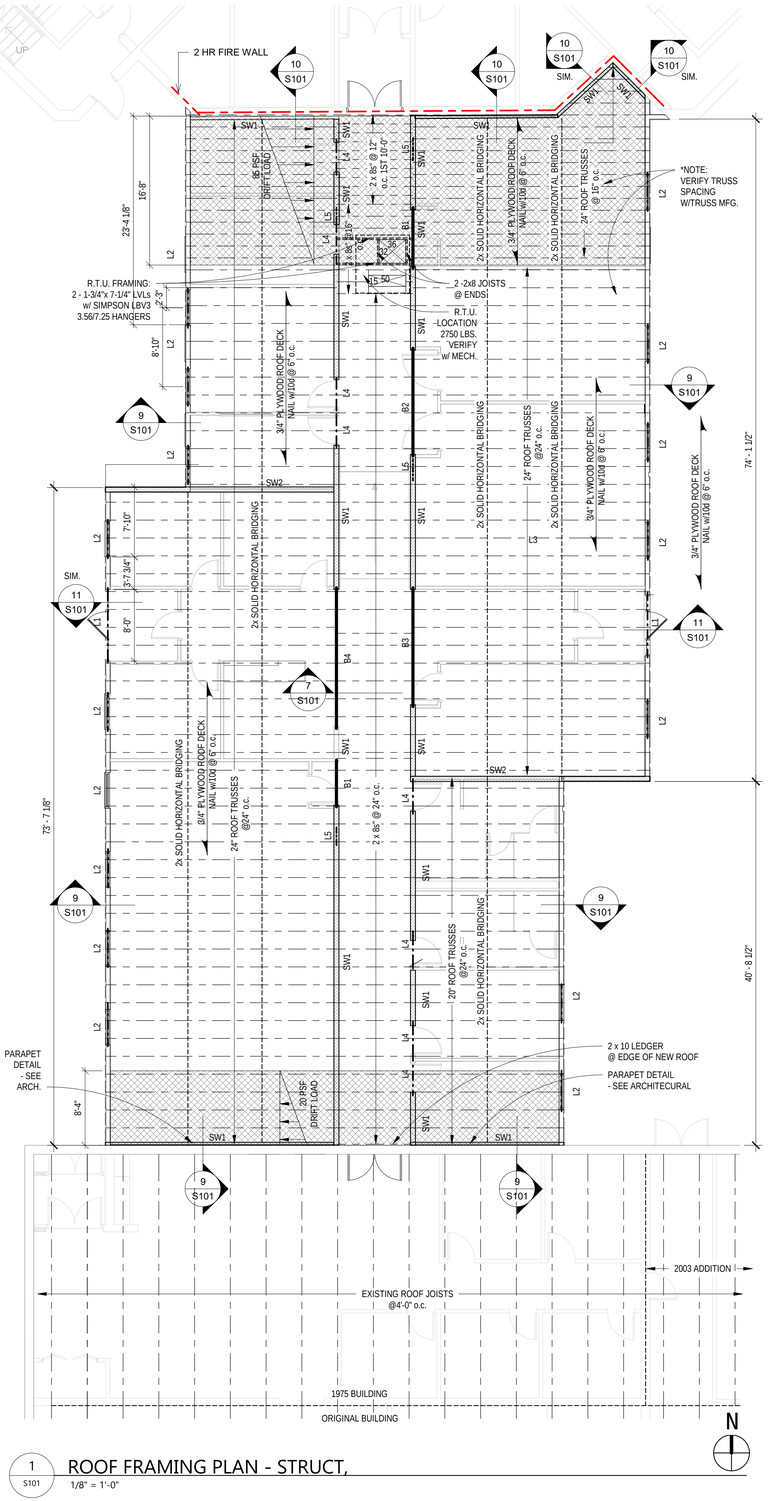
Footing & Foundation Plans/Details

DRAWN BY: PP
TRACED BY:
CHECKED BY: SL

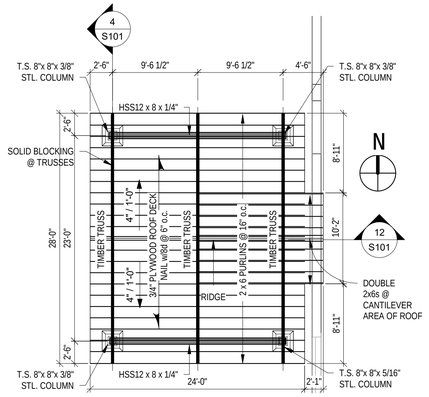
S100
OF- 1

DATE: 03/14/25
PROJECT NO.: SL 25016

HKG Architects, Inc. Aberdeen, S.D.



1 S101 — ROOF FRAMING PLAN - STRUCT,
1/8" = 1'-0"



2 S101 — ROOF PLAN -CANOPY -STRUCT.
1/8" = 1'-0"

ROOF TRUSS LOADING	
Roof Snow Load @ Building:	*Ps = 38.5 PSF + Draft (Balanced)* *Unbalanced snow load as per ASCE 7-16 Section 7* *Pg = 50 PSF* *Pf = 38.5 PSF* *Is = 1.1* *Ct = 1.0*
Roof Snow Load @ Canopy:	*Ps = 42P PSF*
Wind Load:	*V_{ULT} = 120 MPH Basic Wind Speed* *Risk Category = III* *Wind Exposure C* *Internal Pressure Coefficient +/- 0.18*
Dead Load:	*10 PSF Top Chord* *10 PSF Bottom* *20 PSF Total*

SHEAR WALL SCHEDULE		
NOTATION	'SW1'	'SW2'
APPROXIMATE WIDTH (VERIFY w/ ARCH)	16'-0" - 26'-0"	26'-0"
WALL PANEL AND FASTENING	5/8" GYPSUM BOARD - BLOCKED FASTEN w/No. 6 x 1-1/4" SCREWS @ 8" EDGE/12" FIELD PATTERN	5/8" O.S.B. - BLOCKED NAIL 8d @ 6" o.c. EDGE & 12" o.c. FIELD OF PANEL
HOLDOWNS	NOT REQUIRED	SIMPSON HD3B
HOLDOWN ANCHOR	NOT REQUIRED	SIMPSON 1/2" ø TITEN HD SCREW ANCHOR 10" EMBED
ADDITIONAL ANCHOR BOLTS	5/8" ø A-307 @ 24" o.c.	SIMPSON 1/2" ø TITEN HD SCREW ANCHOR - 3-1/2" EMBED @ 32" o.c.
COMMENTS		ATTACH HOLDOWNS TO 2 - 2x6's

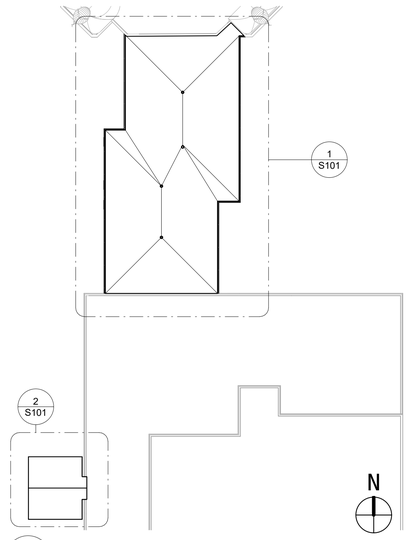
NOTE:
1). MINIMUM OF 3 ANCHOR BOLTS FOR EACH SHEAR WALL INCLUDING HOLDOWNS.
2). 5/8" ø A-307 ANCHOR BOLTS @ 32" o.c. - OR - 1/2" ø TITEN HD SCREW ANCHORS @ 32" o.c. 3-1/2" EMBED - ALL OTHER LOCATIONS UNLESS NOTICED
3). ALL EXTERIOR SHALL BE 5/8" O.S.B. SHEATHING FASTENED w/8d @ 6" o.c. EDGE & 12" F.O.P. OR FASTENED w/ SCREWS @ 6" o.c. EDGE & 12" o.c. F.O.P. (BLOCKED)
4). CORRIDOR WALLS - TO HAVE 5/8" GYPSUM WALLBOARD ONE SIDE - FASTEN WITH No. 6 x 1-1/4" SCREWS @ 8" o.c. EDGE & 12" o.c. FIELD OF PANEL - BLOCKED.

LINTEL SCHEDULE			
MARK	LINTEL	R.O.	REMARKS
L1	3 - 1-3/4" x 9-1/2" LVL's	7'-0" to 8 '-0"	2 TRIMMER 3 KING POSTS
L2	3 - 2 x 8's	4'-0"	1 TRIMMER 2 KING POSTS
L3	3 - 2 x 8's	3'-4"	1 TRIMMER 2 KING POSTS
L4	3 - 2 x 8's	3'-4"	1 TRIMMER 1 KING POST
L5	3 - 2 x 8's	2' 6-1/2"	1 TRIMMER - 1 KING POST (USE @ MECH. DUCTS BETWEEN 15" - 30" WIDE)

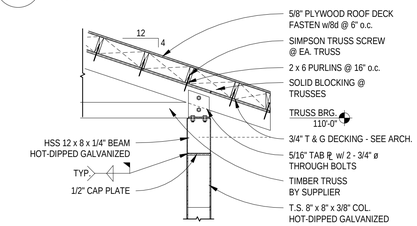
NOTE: 1). VERIFY ALL LINTEL OPENING WIDTHS, ELEVATIONS, AND LOCATIONS WITH THE ARCHITECTURAL PLANS.

BEAM SCHEDULE			
MARK	BEAM	R.O.	REMARKS
B1	3 - 1-3/4" x 11-1/4" LVL's	7' - 0"	BEAR ON 2- 2 x 6's
B2	3 - 1-3/4" x 11-7/8" LVL's	12' - 0"	BEAR ON 3- 2 x 6's
B3	3 - 1-3/4" x 11-7/8" LVL's	13' - 4"	BEAR ON 3- 2 x 6's
B4	3 - 1-3/4" x 14" LVL's	16' - 0"	BEAR ON 3- 2 x 6's

NOTE: 1). VERIFY ALL BEAM OPENING WIDTHS, ELEVATIONS, AND LOCATIONS WITH THE ARCHITECTURAL PLANS.



3 S101 — ROOF KEY PLAN
1/32" = 1'-0"



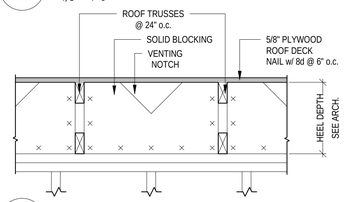
4 S101 — CANOPY ROOF EDGE DETAIL - TIMBER
1/2" = 1'-0"

CANOPY ROOF TRUSS LOADING

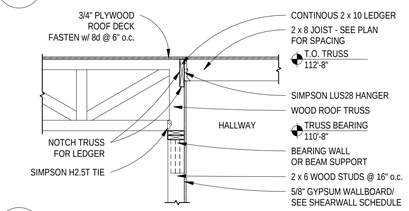
Snow Load: *507 P.L.F. Balanced*
Unbalanced as per ASCE 7-16 Section 7

Dead Load: *145 P.L.F. + SW*

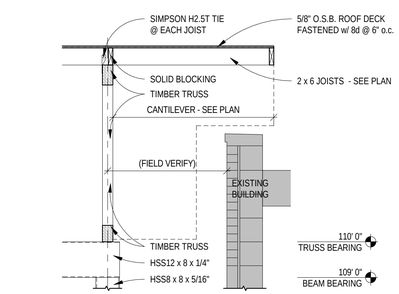
5 S101 — CANOPY TIMBER TRUSS SCHEMATIC
1/8" = 1'-0"



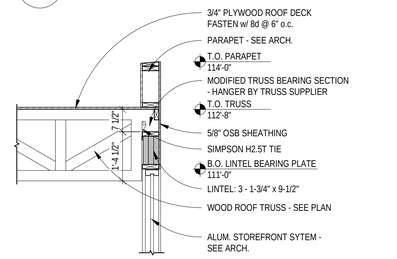
6 S101 — SOLID TRUSS BLOCKING PANELS
1" = 1'-0"



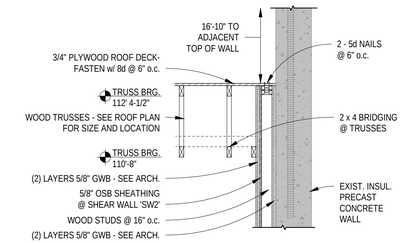
7 S101 — ROOF DETAIL @ HALLWAY
1/2" = 1'-0"



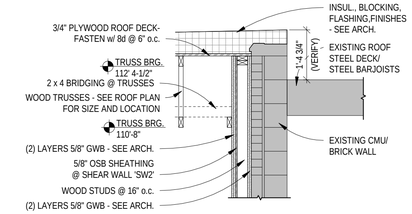
12 S101 — ROOF EDGE @ CANT.
1/2" = 1'-0"



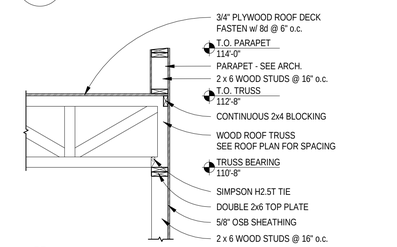
11 S101 — ROOF DETAIL @ EXT. WALL-ENT.
1/2" = 1'-0"



10 S101 — ROOF EDGE @ EXISTING - 2
1/2" = 1'-0"



9 S101 — ROOF EDGE @ EXISTING - 1
1/2" = 1'-0"



8 S101 — ROOF DETAIL @ EXTERIOR WALL
1/2" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER — STATE OF NORTH DAKOTA — 14044 — STEVEN S. VONDAL — 03.14.25

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Plans for
Instructional Building
Sisseton Wahpeton College
Agency Village, South Dakota

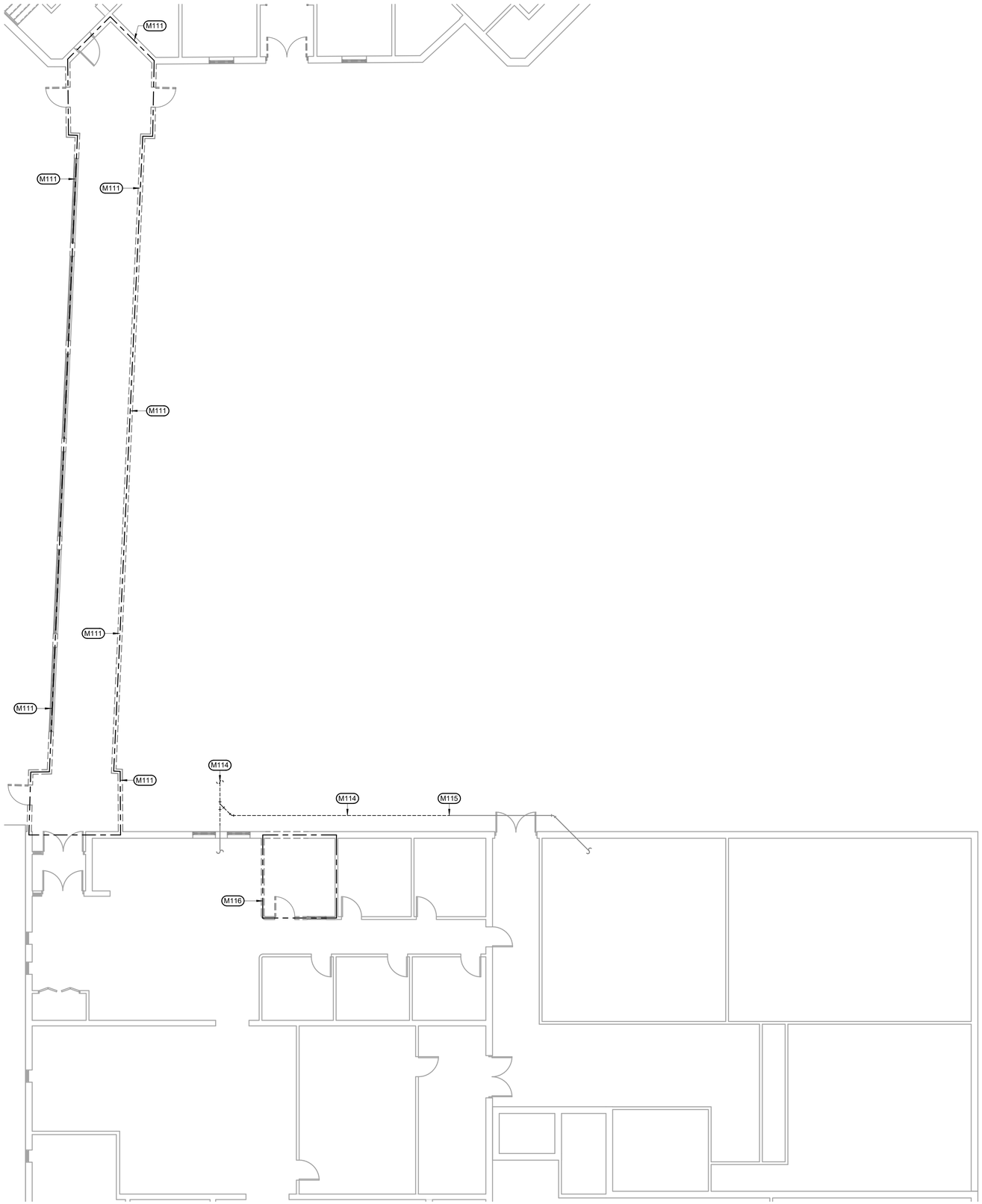
Roof Structural Plan and Details

S101

OF- 1

HKG Architects, Inc. Aberdeen, S.D.

DRAWN BY: PR
TRACED BY:
CHECKED BY: SL
DATE: 03/14/25
PROJECT NO.: SL 25016



1 MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"

MECHANICAL DEMOLITION MISCELLANEOUS NOTES

A DRAWINGS ARE SCHEMATIC IN NATURE BASED ON EXISTING DRAWINGS AND FIELD OBSERVATIONS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS BEFORE BEGINNING WORK. REPORT DISCREPANCIES TO ARCHITECT/ ENGINEER.

B COORDINATE ANY OUTAGES WITH OWNER A MINIMUM OF 48 HOURS IN ADVANCE, OR AS REQUESTED BY OWNER.

C OWNER SHALL HAVE FIRST SALVAGE RIGHTS OF ALL MATERIALS AND EQUIPMENT. CONTRACTOR SHALL DISPOSE OF ANY MATERIAL OR EQUIPMENT NOT TO BE SALVAGED BY OWNER AT NO ADDITIONAL COST TO THE PROJECT.

D REMOVE EXISTING EQUIPMENT AS INDICATED ON PLANS. MECHANICAL CONTRACTOR SHALL RECLAIM REFRIGERANT AS REQUIRED BY STATE AND LOCAL AUTHORITY HAVING JURISDICTION.

E COORDINATE CUTTING AND PATCHING OF ALL SURFACES WITH GENERAL CONTRACTOR.

F ITEMS INDICATED AS DASHED ARE TO BE REMOVED, ITEMS INDICATED AS LIGHT ARE TO REMAIN. ITEMS INDICATED AS DARK ARE NEW.

G SEAL OFF AREAS WHERE DEMOLITION IS TO OCCUR FROM UNDISTURBED AREAS TO CONTAIN DUST AND DEBRIS WITHIN THE DEMOLITION AREA.

H PROVIDE ADEQUATE VENTILATION AS PER OWNER AND OSHA TO PROPERLY REMOVE ODORS AND FUMES FROM SPACES WHERE WORK IS BEING PERFORMED TO OUTDOORS.

J MAINTAIN CURRENT AND ACCURATE FIELD DRAWINGS OF "AS -BUILT" CONDITIONS. THESE DRAWINGS SHALL BE REVIEWED AT EACH CONSTRUCTION PROGRESS MEETING.

(#) MECHANICAL SPECIFIC NOTES

M111 REMOVE ALL EXISTING MECHANICAL SYSTEMS IN OUTLINED AREA SHOWN.

M114 REMOVE 4" SANITARY WASTE PIPING BELOW AT LOCATION SHOWN. SEE UNDERFLOOR PLUMBING PLANS FOR ADDITIONAL INFORMATION ON REPLACEMENT OF EXISTING PIPING IS SAME LOCATION UNDER NEW BUILDING.

M115 REMOVE 4" SANITARY WASTE PIPING TO POINT SHOWN AND PREPARE FOR CONNECTION AND EXTENSION OF NEW PIPING AS SHOWN ON UNDERFLOOR PLUMBING PLANS.

M116 IN OUTLINED AREA SHOWN WHERE OFFICE IS BEING REMOVED, REMOVE EXISTING CEILING SUPPLY AIR DIFFUSER AND CONNECTED DUCTWORK BACK TO SERVING MAIN ABOVE AND CAP DUCTWORK AT MAIN AIRTIGHT. ALSO REMOVE EXISTING CEILING RETURN AIR GRILLE AND CONNECTED DUCTWORK BACK TO SERVING MAIN ABOVE AND CAP DUCTWORK AT MAIN AIRTIGHT.

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 9513
STUART M. OSTER
3-7-25
SOUTH DAKOTA

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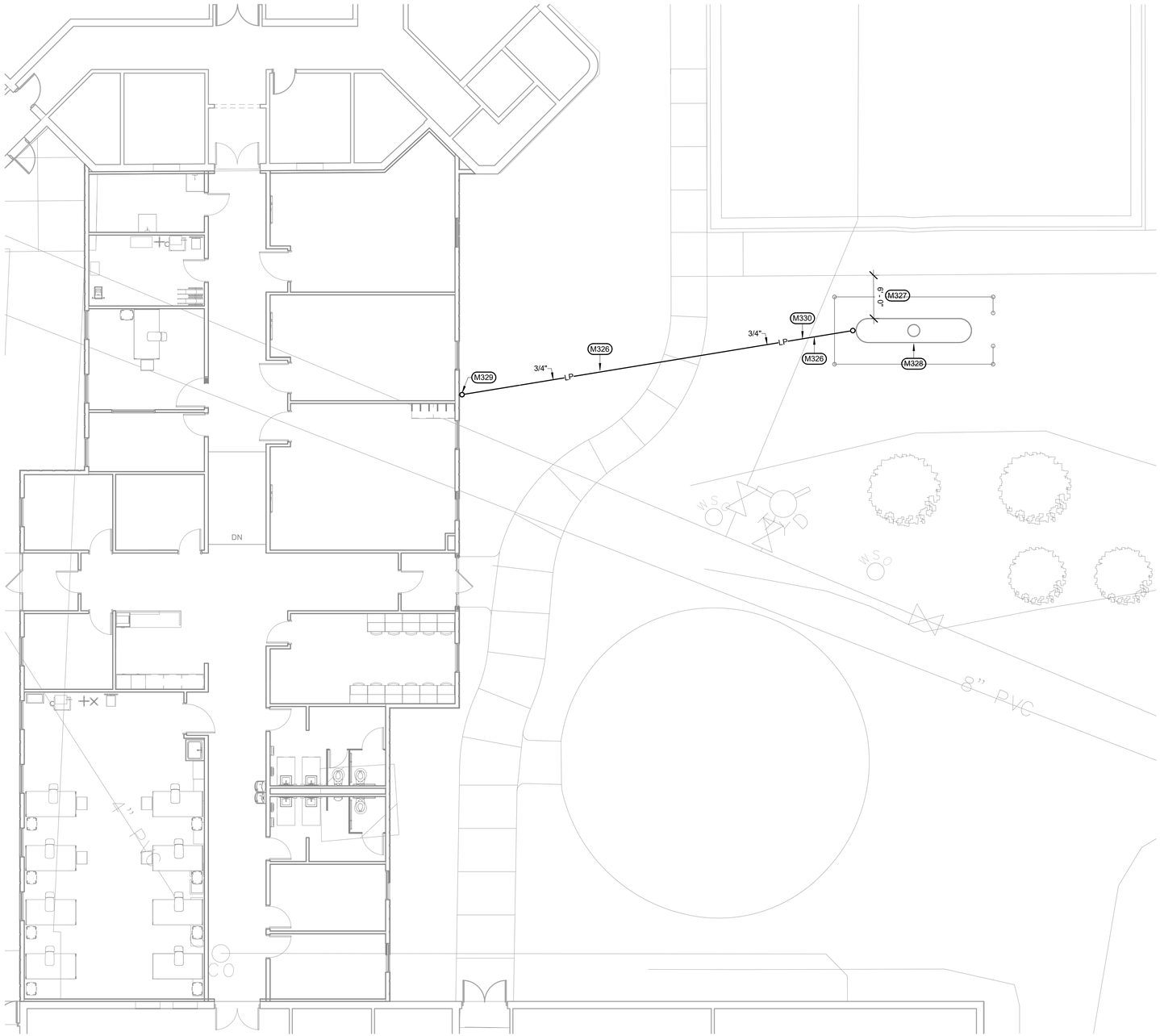
hkg architects

REVISED DATE			
CERT. NO.	Plans for Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	MECHANICAL DEMOLITION PLAN	MD101
	HKG Architects, Inc. Aberdeen, S.D.	DRAWN BY DK / TRACED BY ____ / CHECKED BY SO / DATE 03/07/25	PROJECT NO. 2023-0029



1 MECHANICAL SITE PLAN
1/8" = 1'-0"

UNDERFLOOR PLUMBING MISCELLANEOUS NOTES

A DRAWINGS ARE SCHEMATIC IN NATURE BASED ON EXISTING DRAWINGS AND FIELD OBSERVATIONS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS BEFORE BEGINNING WORK. REPORT DISCREPANCIES TO ARCHITECT/ ENGINEER.

B COORDINATE ALL UNDERGROUND PIPING WITH FOOTING, FOUNDATION, AND ALL OTHER TRADES. PROVIDE SLEEVES AND OFFSETS AS REQUIRED TO AVOID CONFLICT.

C COORDINATE ANY OUTAGES WITH OWNER A MINIMUM OF 72 HOURS IN ADVANCE, OR AS REQUESTED BY OWNER.

D PROVIDE CLEANOUTS AS REQUIRED BY CODE AND AUTHORITY HAVING JURISDICTION.

E OBTAIN AND COORDINATE ALL "HOT WORK PERMITS" WITH OWNER FOR ALL WORK WHICH REQUIRES SAID PERMIT.

F PROVIDE ADEQUATE VENTILATION AS PER OWNER AND OSHA TO PROPERLY REMOVE ODORS AND FUMES FROM SPACES WHERE WORK IS BEING PERFORMED TO OUTDOORS.

G ITEMS INDICATED AS LIGHT ARE EXISTING AND ITEMS INDICATED AS DARK ARE NEW.

H SEAL OFF AREAS WHERE CONSTRUCTION IS TO OCCUR FROM UNDISTURBED AREAS TO CONTAIN DUST AND DEBRIS WITHIN CONSTRUCTION AREA.

I COORDINATE LOCATIONS OF ALL SERVICES WITH SITE CONTRACTOR.

J MAINTAIN CURRENT AND ACCURATE FIELD DRAWINGS OF "AS –BUILT" CONDITIONS. THESE DRAWINGS SHALL BE REVIEWED AT EACH CONSTRUCTION PROGRESS MEETING.

MECHANICAL SPECIFIC NOTES

#	
M326	ROUTE 3/4" LP GAS (10#) PIPING BELOW GROUND AT LOCATION SHOWN. DIRECT BURY PIPING TO MAINTAIN MINIMUM 48" OF GROUND COVER ABOVE ENTIRE LENGTH OF PIPING RUN. LP PIPING BELOW GRADE SHALL BE SEAMLESS WITH NO JOINTS.
M327	LOCATE EDGE OF TANK MINIMUM 6 FEET FROM EXISTING SIDEWALK AT LOCATION SHOWN.
M328	INSTALL (1) 1,000 GALLON LP TANK ON GRADE AND 6" DEEP CONCRETE PAD AT LOCATION SHOWN. SEE DETAILS FOR ADDITIONAL INFORMATION. TANK TO BE PROVIDED BY CONTRACTOR FROM LOCAL LP GAS UTILITY.
M329	ROUTE 3/4" LP GAS (10#) PIPING UP THROUGH GRADE AT LOCATION SHOWN. SEE PLUMBING PLANS FOR CONTINUATION OF PIPING.
M330	LP GAS PIPING TO CROSS EXISTING DOMESTIC COLD WATER UTILITY AT LOCATION SHOWN. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF EXISTING UTILITY PRIOR TO EXCAVATING FOR INSTALLATION OF NEW LP GAS PIPING.

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3-27-2025

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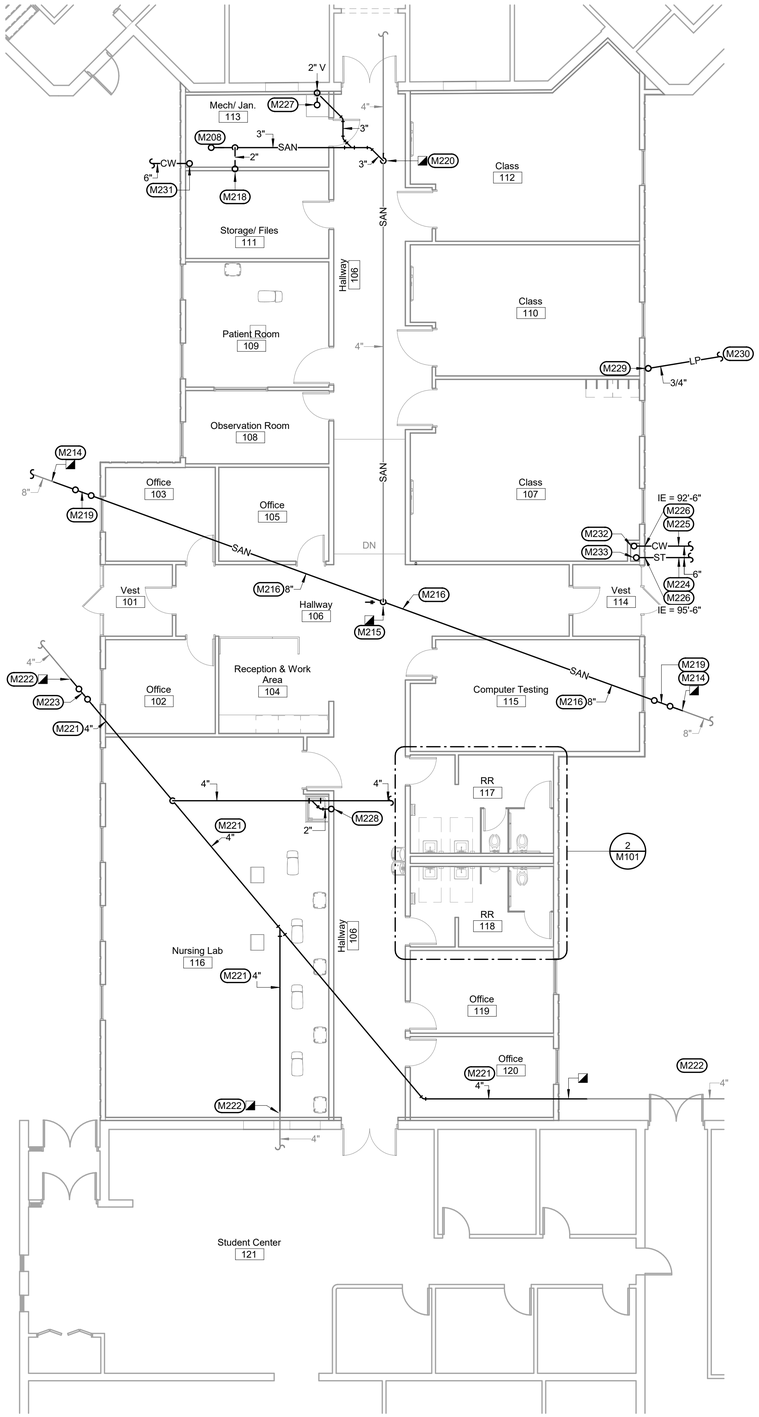
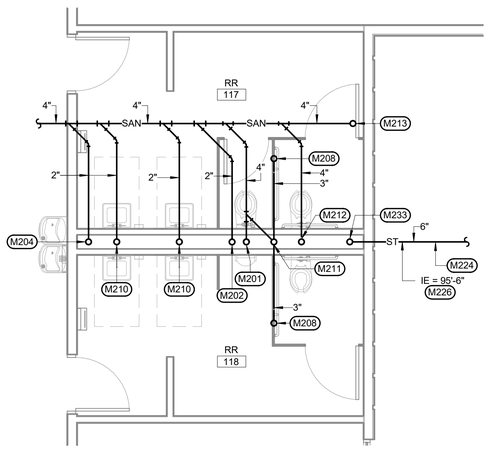
hkg architects

REVISED DATE		Plans for	MECHANICAL SITE PLAN	DRAWN BY: DV	M001
		Instructional Building Sisseton Wahpeton College Agency Village, South Dakota		TRACED BY: _____ CHECKED BY: SO	
DEPT. NO.		HKG Architects, Inc. Aberdeen, S.D.		DATE: 03/07/25	PROJECT NO.: 2023-0029



1 UNDERFLOOR PLUMBING PLAN
1/8" = 1'-0"



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

UNDERFLOOR PLUMBING MISCELLANEOUS NOTES

A DRAWINGS ARE SCHEMATIC IN NATURE BASED ON EXISTING DRAWINGS AND FIELD OBSERVATIONS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS BEFORE BEGINNING WORK. REPORT DISCREPANCIES TO ARCHITECT/ ENGINEER.

B COORDINATE ALL UNDERGROUND PIPING WITH FOOTING, FOUNDATION, AND ALL OTHER TRADES. PROVIDE SLEEVES AND OFFSETS AS REQUIRED TO AVOID CONFLICT.

C COORDINATE ANY OUTAGES WITH OWNER A MINIMUM OF 72 HOURS IN ADVANCE, OR AS REQUESTED BY OWNER.

D PROVIDE CLEANOUTS AS REQUIRED BY CODE AND AUTHORITY HAVING JURISDICTION.

E OBTAIN AND COORDINATE ALL "HOT WORK PERMITS" WITH OWNER FOR ALL WORK WHICH REQUIRES SAID PERMIT.

F PROVIDE ADEQUATE VENTILATION AS PER OWNER AND OSHA TO PROPERLY REMOVE ODORS AND FUMES FROM SPACES WHERE WORK IS BEING PERFORMED TO OUTDOORS.

G ITEMS INDICATED AS LIGHT ARE EXISTING AND ITEMS INDICATED AS DARK ARE NEW.

H SEAL OFF AREAS WHERE CONSTRUCTION IS TO OCCUR FROM UNDISTURBED AREAS TO CONTAIN DUST AND DEBRIS WITHIN CONSTRUCTION AREA.

I COORDINATE LOCATIONS OF ALL SERVICES WITH SITE CONTRACTOR.

J MAINTAIN CURRENT AND ACCURATE FIELD DRAWINGS OF "AS –BUILT" CONDITIONS. THESE DRAWINGS SHALL BE REVIEWED AT EACH CONSTRUCTION PROGRESS MEETING.

MECHANICAL SPECIFIC NOTES

#	
M201	4" WASTE UP TO WATER CLOSET
M202	2" WASTE UP TO URINAL.
M204	2" WASTE UP TO ELECTRIC WATER COOLER
M208	3" WASTE UP TO FLOOR DRAIN.
M210	2" WASTE UP TO BACK TO BACK LAVATORIES
M211	2" VENT UP THROUGH FLOOR FROM FLOOR DRAINS. SEE ABOVE FLOOR PLUMBING PLANS FOR CONTINUATION.
M212	4" WASTE UP TO BACK TO BACK WATER CLOSETS.
M213	LINE SIZED WASTE UP TO CLEANOUT. 4" MAXIMUM. SEE CLEANOUT DETAIL.
M214	CONNECT NEW 8" WASTE TO EXISTING 8" WASTE MAIN. CONTRACTOR SHALL FIELD VERIFY EXACT SIZE, LOCATION, INVERT ELEVATION AND DIRECTION OF FLOW OF EXISTING PRIOR TO CONNECTION.
M215	CONNECT EXISTING 4" WASTE TO NEW 8" WASTE AT LOCATION SHOWN. CONTRACTOR SHALL FIELD VERIFY EXACT SIZE, LOCATION, INVERT ELEVATION AND DIRECTION OF FLOW OF EXISTING PRIOR TO CONNECTION.
M216	NEW 8" WASTE PIPING TO REPLACE EXISTING 8" WASTE PIPING BELOW NEW BUILDING. NEW PIPING SHALL BE INSTALLED IN SAME LOCATION AND SLOPE OF EXISTING PIPING IT IS REPLACING. FIELD VERIFY SLOPE AND DIRECTION OF EXISTING PIPING PRIOR TO REMOVAL.
M218	2" VENT UP. SEE ABOVE FLOOR PLUMBING PLANS FOR CONTINUATION.
M219	PROVIDE DOUBLE GRADE CLEANOUT AT THIS APPROXIMATE LOCATION ON NEW 8" WASTE PIPING. CLEANOUTS SHALL BE CAPPED FLUSH WITH FINISH GRADE. SEE CLEANOUTS DETAIL.
M220	CONNECT NEW 3" WASTE TO EXISTING 4" WASTE MAIN. CONTRACTOR SHALL FIELD VERIFY EXACT SIZE, LOCATION, INVERT ELEVATION AND DIRECTION OF FLOW OF EXISTING PRIOR TO CONNECTION.
M221	NEW 4" WASTE PIPING TO REPLACE EXISTING 4" WASTE PIPING BELOW NEW BUILDING. NEW PIPING SHALL BE INSTALLED IN SAME LOCATION AND SLOPE OF EXISTING PIPING IT IS REPLACING. FIELD VERIFY SLOPE AND DIRECTION OF EXISTING PIPING PRIOR TO REMOVAL.
M222	CONNECT NEW 4" WASTE TO EXISTING 4" WASTE MAIN. CONTRACTOR SHALL FIELD VERIFY EXACT SIZE, LOCATION, INVERT ELEVATION AND DIRECTION OF FLOW OF EXISTING PRIOR TO CONNECTION.
M223	PROVIDE DOUBLE GRADE CLEANOUT AT THIS APPROXIMATE LOCATION ON NEW 4" WASTE PIPING. CLEANOUTS SHALL BE CAPPED FLUSH WITH FINISH GRADE. SEE CLEANOUTS DETAIL.
M224	6" ST ROUTED TO 5'-0" OUTSIDE OF BUILDING. SEE CIVIL PLANS FOR CONTINUATION.
M225	6" CW ROUTED TO 5'-0" OUTSIDE OF BUILDING. SEE CIVIL PLANS FOR CONTINUATION.
M226	INVERT OF PIPING AT LOCATION SHOWN IS BASED ON FINISHED FLOOR ELEVATION OF 100'-0".
M227	3" WASTE UP TO MOP SINK. ROUTE 2" VENT UP IN WALL AS SHOWN.
M228	2" WASTE UP TO SINK.
M229	3/4" LP GAS PIPING UP THROUGH GRADE AND TIGHT TO EXTERIOR WALL AT LOCATION SHOWN. SEE PLUMBING PLANS FOR CONTINUATION OF PIPING.
M230	ROUTE 3/4" LP GAS PIPING BELOW GRADE TO PROPANE TANK. SEE MECHANICAL SITE PLAN FOR CONTINUATION.
M231	ROUTE 6" CW UP THROUGH FLOOR AT LOCATION SHOWN. SEE DETAILS FOR WATER SERVICE SCHEMATIC. SEE PLUMBING PLANS FOR CONTINUATION OF PIPING.
M232	ROUTE 6" CW UP THROUGH FLOOR AND INTO CHASE ABOVE AT LOCATION SHOWN. SEE DETAILS FOR WATER SERVICE SCHEMATIC. SEE PLUMBING PLANS FOR CONTINUATION OF PIPING.
M233	ROUTE 6" ST UP THROUGH FLOOR AND INTO CHASE ABOVE AT LOCATION SHOWN. SEE PLUMBING PLANS FOR CONTINUATION OF PIPING.

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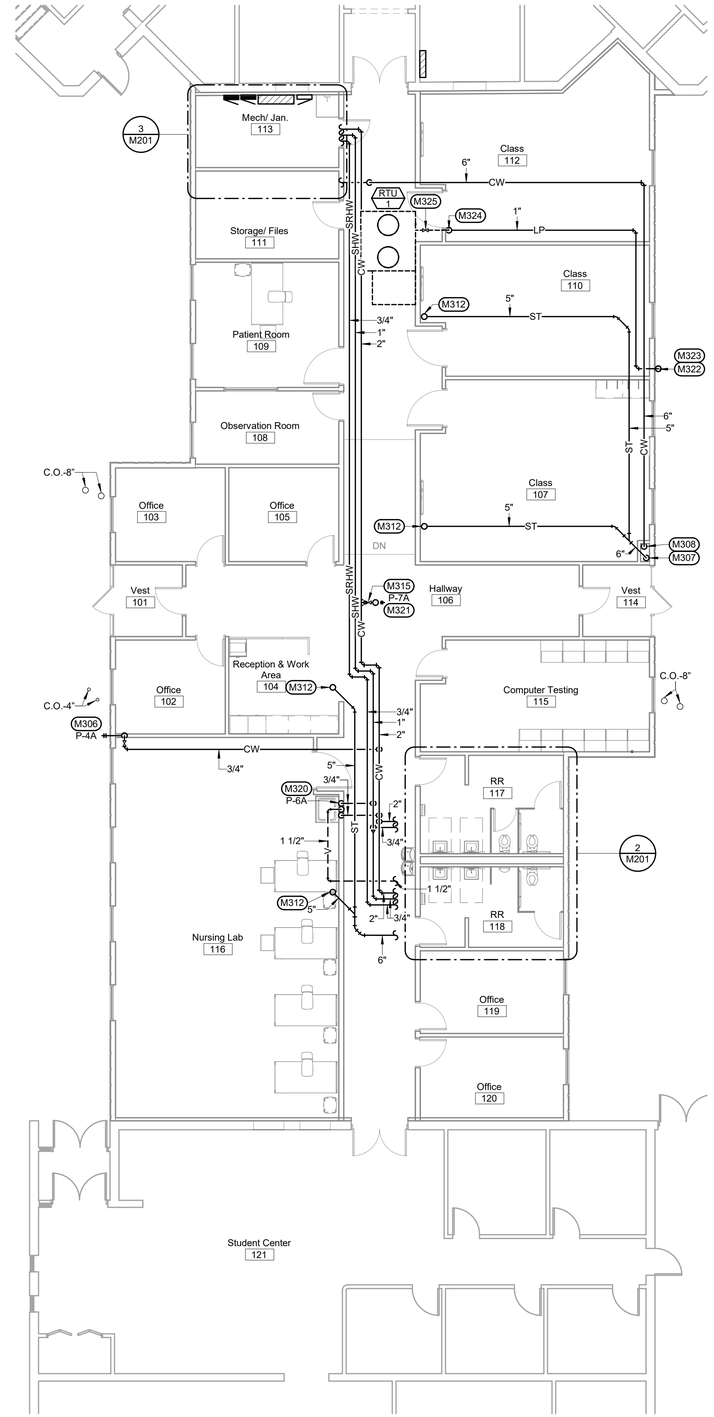
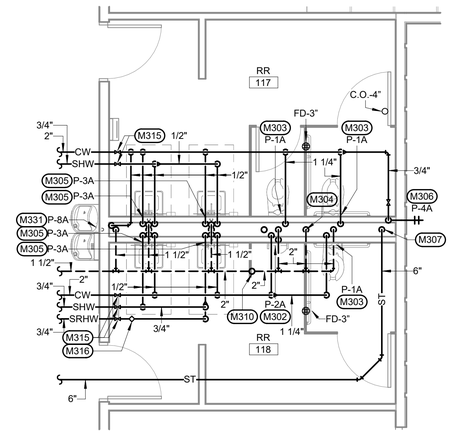
hkg architects

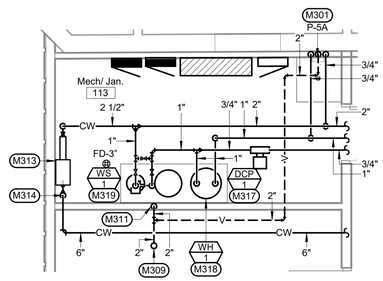
REVISED DATE / DESCR. NO.	Plans for: Instructional Building, Sisseton Wahpeton College, Agency Village, South Dakota	UNDERFLOOR PLUMBING PLAN	M101
HKG Architects, Inc. Aberdeen, S.D.	DRAWN BY: DC / TRACED BY: ____ / CHECKED BY: SO	DATE: 03/07/25	PROJECT NO: 2023-0029



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



2 ENLARGED PLUMBING PLAN RR 117/118
1/4" = 1'-0"



3 ENLARGED PLUMBING PLAN MECH/JAN. 112
1/4" = 1'-0"

PLUMBING MISCELLANEOUS NOTES

A DRAWINGS ARE SCHEMATIC IN NATURE BASED ON EXISTING DRAWINGS AND FIELD OBSERVATIONS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS BEFORE BEGINNING WORK. REPORT DISCREPANCIES TO ARCHITECT/ENGINEER.

B DO NOT ROUTE PIPING ABOVE OR IN FRONT OF ELECTRICAL GEAR. MAINTAIN CODE REQUIRED CLEARANCES.

C COORDINATE ANY OUTAGES WITH OWNER A MINIMUM OF 72 HOURS IN ADVANCE, OR AS REQUESTED BY OWNER.

D COORDINATE PIPING LAYOUTS WITH ALL EXISTING CONDITIONS. PROVIDE OFFSET AS REQUIRED TO AVOID CONFLICT.

E COORDINATE CUTTING AND PATCHING OF ALL SURFACES WITH GENERAL CONTRACTOR.

F OBTAIN AND COORDINATE ALL "HOT WORK PERMITS" WITH OWNER FOR ALL WORK WHICH REQUIRES SAID PERMIT.

G PROVIDE ADEQUATE VENTILATION AS PER OWNER AND OSHA TO PROPERLY REMOVE ODORS AND FUMES FROM SPACES WHERE WORK IS BEING PERFORMED TO OUTDOORS.

H ITEMS INDICATED AS LIGHT ARE EXISTING AND ITEMS INDICATED AS DARK ARE NEW.

J SEAL OFF AREAS WHERE CONSTRUCTION IS TO OCCUR FROM UNDISTURBED AREAS TO CONTAIN DUST AND DEBRIS, WITHIN CONSTRUCTION AREA.

K PROVIDE AND INSTALL INDIVIDUAL SHUT OFF VALVES TO ALL WALL HYDRANTS AND HOSE BIBS. INSTALL SHUT OFF VALVES IN AN ACCESSIBLE LOCATION.

L MAINTAIN CURRENT AND ACCURATE FIELD DRAWINGS OF "AS –BUILT" CONDITIONS. THESE DRAWINGS SHALL BE REVIEWED AT EACH CONSTRUCTION PROGRESS MEETING.

M COORDINATE LOCATIONS OF ALL SERVICES WITH SITE CONTRACTOR.

(#) MECHANICAL SPECIFIC NOTES

M301 3/4" CW, 3/4" SHW, 2" VENT DOWN TO MOP SINK.

M302 3/4" CW, 2" WASTE, 1-1/2" VENT DOWN TO URINAL.

M303 1-1/4" CW, 2" VENT DOWN TO WATER CLOSET.

M304 2 VENT DOWN THROUGH FLOOR FOR FLOOR DRAINS. SEE UNDERFLOOR PLUMBING PLANS FOR CONTINUATION.

M305 1/2" CW, 1/2" HW, 1-1/2" VENT DOWN TO LAVATORY

M306 3/4" CW DN TO WALL HYDRANT. PROVIDE MANUAL ISOLATION VALVE ABOVE CEILING OR ON EXPOSED PIPE RISER IN ACCESSIBLE LOCATION. MOUNT AT 24" ABOVE FINISHED GRADE.

M307 ROUTE 6" ST PIPING DOWN IN CHASE AND THROUGH FLOOR. SEE UNDERFLOOR PLUMBING PLANS FOR CONTINUATION.

M308 6" CW PIPING DOWN IN CHASE AND THROUGH FLOOR. SEE UNDERFLOOR PLUMBING PLANS FOR CONTINUATION.

M309 2" VENT UP TO 4" VTR. MAINTAIN CODE REQUIRED CLEARANCES FROM ALL FRESH AIR INTAKES. SEE VENT DETAIL.

M310 3" VENT UP TO 4" VTR. MAINTAIN CODE REQUIRED CLEARANCES FROM ALL FRESH AIR INTAKES. SEE VENT DETAIL.

M311 2 VENT DOWN THROUGH FLOOR FOR FLOOR DRAIN. SEE UNDERFLOOR PLUMBING PLANS FOR CONTINUATION.

M312 5" ST UP TO ROOF DRAIN.

M313 WATER SERVICE ENTRANCE. SEE WATER SERVICE DETAIL AND WATER METER PIPING DETAIL.

M314 6" WATER SERVICE DN. SEE UNDERFLOOR PLUMBING PLANS FOR CONTINUATION.

M315 PROVIDE MANUAL ISOLATION VALVE ABOVE CEILING OR IN ACCESSIBLE LOCATION. (TYPICAL).

M316 INSTALL MANUAL BALANCING VALVE ABOVE CEILING OR IN ACCESSIBLE LOCATION. BALANCE TO 1.0 GPM.

M317 INLINE PUMP INSTALLED IN ACCESSIBLE LOCATION OVERHEAD. SEE INLINE CENTRIFUGAL PUMP DETAIL.

M318 INSTALL WATER HEATER ON 4" HIGH CONCRETE HOUSEKEEPING PAD TO BE PROVIDED BY THE GENERAL CONTRACTOR. COORDINATE FINAL SIZE AND LOCATION WITH THE GENERAL CONTRACTOR. ROUTE 1" CW/HW PIPING DOWN TO CONNECTIONS ON WATER HEATER AS SHOWN.

M319 INSTALL WATER SOFTENER ON 4" HIGH CONCRETE HOUSEKEEPING PAD TO BE PROVIDED BY THE GENERAL CONTRACTOR. COORDINATE FINAL SIZE AND LOCATION WITH THE GENERAL CONTRACTOR. ROUTE 1" CW PIPING DOWN TO CONNECTIONS ON WATER SOFTENER AS SHOWN.

M320 3/4" CW, 3/4" HW, 1-1/2" VENT DOWN TO SINK.

M321 ROUTE 3/4" UP THROUGH ROOF TO ROOF HYDRANT. PROVIDE EPDM RUBBER BOOT AT ROOF PENETRATION.

M322 3/4" (10#) LP GAS UP TO 3'-0" ABOVE FINISHED GRADE. INSTALL GAS COCK AND REGULATOR AT LOCATION SHOWN. REGULATOR TO BE 10 PSI INLET TO INCHES OUTLET AND RATED FOR EXTERIOR USE. VENT REGULATOR AS PER MANUFACTURE'S INSTRUCTION. ADJUST TO 14" WC DISCHARGE PRESSURE.

M323 ROUTE 1" (14" W.C.) LP GAS THROUGH WALL DOWN TO REGULATOR ON WALL. COORDINATE WALL PENETRATION WITH GENERAL CONTRACTOR. SEAL WALL PENETRATION WEATHER TIGHT.

M324 ROUTE 1" (14" WC) LP GAS UP THROUGH ROOF TO RTU. PROVIDE EPDM RUBBER BOOT AT ROOF PENETRATION.

M325 PIPING SHOWN DASHED SHALL BE ROUTED ON ROOF WITH 4X4 TREATED WOOD BLOCKING. CONNECT 1" (14" WC) LP GAS TO RTU WITH GAS COCK AND 6" DIRT LEG AT CONNECTION.

M331 1/2" CW, 1-1/2" VENT DOWN TO ELECTRIC WATER COOLER, 2" WASTE DOWN THROUGH FLOOR.

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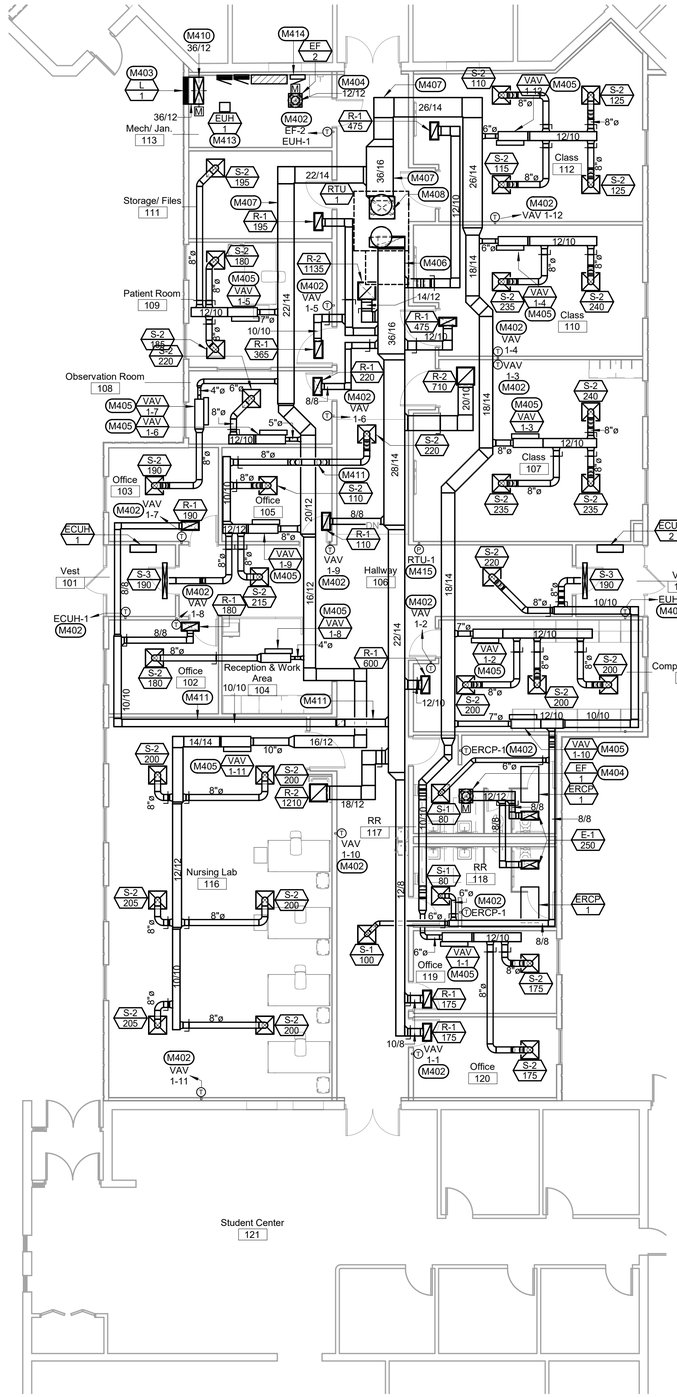
REVISED DATE:	Plans for	PLUMBING FLOOR PLAN	M201
DEPT. NO.:	Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	DRAWN BY: DV TRACED BY: ____ CHECKED BY: SO DATE	
	HKG Architects, Inc. Aberdeen, S.D.	03/07/25	PROJECT NO.: 2023-0029



1 HVAC VENTILATION FLOOR PLAN
1/8" = 1'-0"

HVAC VENTILATION MISCELLANEOUS NOTES

A DRAWINGS ARE SCHEMATIC IN NATURE BASED ON EXISTING DRAWINGS AND FIELD OBSERVATIONS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS BEFORE BEGINNING WORK. REPORT DISCREPANCIES TO ARCHITECT AND ENGINEER.

B DO NOT ROUTE DUCTWORK ABOVE OR IN FRONT OF ELECTRICAL GEAR. MAINTAIN CODE REQUIRED CLEARANCES.

C COORDINATE ANY OUTAGES WITH OWNER A MINIMUM OF 72 HOURS IN ADVANCE, OR AS REQUESTED BY OWNER.

D COORDINATE DUCTWORK LAYOUTS WITH ALL EXISTING CONDITIONS. PROVIDE OFFSET AS REQUIRED TO AVOID CONFLICT.

E COORDINATE CUTTING AND PATCHING OF ALL SURFACES WITH GENERAL CONTRACTOR.

F OBTAIN AND COORDINATE ALL "HOT WORK PERMITS" WITH OWNER FOR ALL WORK WHICH REQUIRES SAID PERMIT.

G PROVIDE ADEQUATE VENTILATION AS PER OWNER AND OSHA TO PROPERLY REMOVE ODORS AND FUMES FROM SPACES WHERE WORK IS BEING PERFORMED TO OUTDOORS.

H ITEMS INDICATED AS LIGHT ARE EXISTING AND ITEMS INDICATED AS DARK ARE NEW.

J FLEXIBLE DUCTWORK SHALL BE LIMITED TO 3'-0" MAXIMUM LENGTH.

K SEAL OFF AREAS WHERE CONSTRUCTION IS TO OCCUR FROM UNDISTURBED AREAS TO CONTAIN DUST AND DEBRIS WITHIN CONSTRUCTION AREA.

L NO FLEXIBLE DUCTWORK IS ALLOWED ON THE RETURN AIR DUCTWORK.

M TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE ALL LOW VOLTAGE AND LINE VOLTAGE CONTROL WIRING AS REQUIRED FOR COMPLETE OPERATION OF ALL MECHANICAL EQUIPMENT.

N MAINTAIN CURRENT AND ACCURATE FIELD DRAWINGS OF "AS –BUILT" CONDITIONS. THESE DRAWINGS SHALL BE REVIEWED AT EACH CONSTRUCTION PROGRESS MEETING.

O ALL MITERED ELBOWS SHALL HAVE TURNING VANES INSTALLED.

MECHANICAL SPECIFIC NOTES

#	
M402	BAS SPACE TEMPERATURE SENSOR ON WALL TO BE PROVIDED BY THE TEMPERATURE CONTROLS CONTRACTOR FOR THE EQUIPMENT INDICATED.
M403	INSTALL BOTTOM OF LOUVER AT APPROXIMATELY 8'-0" AFF.
M404	ROUTE 12/12 EXHAUST AIR DUCTWORK UP TO ROOF EXHAUST FAN. MOTORIZED DAMPER IN DUCTWORK BELOW ROOF SHALL BE PROVIDED BY THE TEMPERATURE CONTROLS CONTRACTOR.
M405	MOUNT VAV BOX IN ACCESSIBLE LOCATION. MAINTAIN 3'-0" CLEARANCE ON DASHED SIDE OF UNIT INDICATED FOR ACCESS TO HEATING COIL DISCONNECT SWITCH AND CONTROL ENCLOSURE.
M406	THE FIRST 10 FEET OF RETURN AIR DUCTWORK FROM CONNECTION ON BOTTOM OF RTU SHALL BE DOUBLE WALL CONSTRUCTION. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
M407	THE FIRST 10 FEET OF SUPPLY AIR DUCTWORK FROM CONNECTION ON BOTTOM OF RTU SHALL BE DOUBLE WALL CONSTRUCTION. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
M408	ROUTE FULL SIZE SUPPLY AIR DUCTWORK UP THROUGH ROOF TO CONNECTION ON BOTTOM OF ROOFTOP UNIT. PROVIDE FLEXIBLE DUCTWORK CONNECTOR AT CONNECTION TO EQUIPMENT.
M410	PROVIDE OPENING ON TOP OF DUCTWORK AT LOCATION SHOWN. TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE MOTORIZED DAMPER IN OPENING AS SHOWN.
M411	ROUTE DUCTWORK THROUGH ROOF STRUCTURE AT LOCATION SHOWN.
M413	INSTALL UNIT HEATER AT APPROXIMATELY 8'-0" AFF TO BOTTOM OF DEVICE.
M414	APPROXIMATE LOCATION OF TEMPERATURE CONTROL PANEL. COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR. SEE TEMPERATURE CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.
M415	BAS SPACE PRESSURE SENSOR TO BE PROVIDED BY THE TEMPERATURE CONTROLS CONTRACTOR ON WALL AT LOCATION SHOWN.

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REVISED DATE / CERT. NO.	**Plans for** Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	HVAC VENTILATION PLAN	DRAWN BY: DV TRACED BY: ____ CHECKED BY: SO M301
	HKG Architects, Inc. Aberdeen, S.D.		DATE: 03/07/25 PROJECT NO.: 2023-0029

MECHANICAL SYMBOLS

THESE SYMBOLS COMPRISE A STANDARD LIST; NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT.

PIPING SYSTEMS IDENTIFICATION

- CW — COLD WATER
- HW — HOT WATER
- RHW — RECIRCULATING HOT WATER
- SAN — SANITARY WASTE
- D — EQUIPMENT DRAIN
- F — FIRE SPRINKLER
- G — NATURAL GAS
- CWR — CHILLED WATER RETURN
- CWS — CHILLED WATER SUPPLY
- HWR — HOT WATER HEATING RETURN
- HWS — HOT WATER HEATING SUPPLY
- LS — LAWN SPRINKLER
- SCW — SOFT COLD WATER
- SHW — SOFT HOT WATER
- SRHW — SOFT RECIRCULATING HOT WATER
- PC — PUMPED CONDENSATE
- PD — PUMP DISCHARGE
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- CA — COMPRESSED AIR
- ST — STORM PIPING
- OST — OVERFLOW STORM
- V — VENT PIPING

FITTINGS - VALVES - ACCESSORIES

- PIPE CONNECTION
- TEE DOWN
- REDUCER OR INCREASER
- UNION
- PIPE PITCH DOWN
- DIRECTION OF FLOW
- CURB STOP
- SHUT OFF VALVE
- BACK FLOW PREVENTER
- WH — WALL HYDRANT
- STRAINER
- CONTROL VALVE
- PRESSURE REDUCING VALVE
- AIR VENT
- PRESSURE/TEMPERATURE TAP
- PRESSURE GAUGE
- T — FLOW CONTROL VALVE
- STRAINER VALVE
- CO — CLEAN OUT ABOVE FLOOR
- WCO — WALL CLEAN OUT
- AREA DRAIN
- FD — FLOOR DRAIN
- ELBOW DOWN
- ELBOW UP
- CAPPED OUTLET
- FLEXIBLE PIPE CONNECTION
- EXPANSION JOINT, PIPE GUIDE
- PIPE ANCHOR
- CHECK VALVE
- DOMESTIC WATER TEMPERING VALVE
- BALANCING VALVE
- HB — HOSE BIB
- STEAM TRAP
- PRESSURE RELIEF VALVE
- 3-WAY CONTROL VALVE
- FLOW MEASURING DEVICE
- STATIC PRESSURE SENSOR
- THERMOMETER
- P — PRESSURE DIFFERENTIAL SENSOR
- RADIATION ELEMENT
- CO — CLEAN OUT IN FLOOR
- FS — FLOOR SINK
- ORD — OVERFLOW ROOF DRAIN
- RD — ROOF DRAIN

RAD-1 / 5'-0" — TYPE FINNED ELEMENT; FINNED ELEMENT LENGTH — RADIATION DESIGNATION

DEMOLITION HATCHING

- T — THERMOSTAT
- T_N — NIGHT THERMOSTAT
- T_L — THERMOSTAT W/ LOCKABLE COVER
- H — HUMIDISTAT
- CONNECT TO EXISTING SERVICE

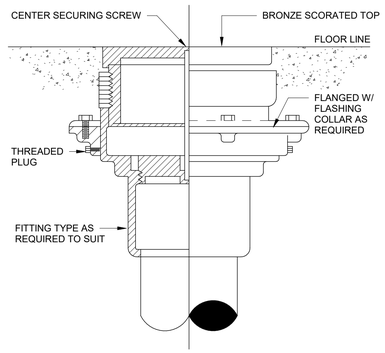
ADDITIONAL PIPING SYSTEMS IDENTIFICATION

- A — CLINICAL AND LAB AIR
- AV — ACID RESISTANT VENT
- AW — ABOVE FLOOR ACID WASTE
- CR — CONDENSER WATER RETURN
- CS — CONDENSER WATER SUPPLY
- FOG — FUEL OIL GAUGE
- FOR — FUEL OIL RETURN
- FOS — FUEL OIL SUPPLY
- FOV — FUEL OIL VENT
- GE — GAS EVACUATION
- GLWR — GROUND LOOP WATER RETURN
- GLWS — GROUND LOOP WATER SUPPLY
- HG — HOT GAS
- HPR — HIGH PRESSURE RETURN
- HPS — HIGH PRESSURE STEAM
- HPWR — HEAT PUMP WATER RETURN
- HPWS — HEAT PUMP WATER SUPPLY
- LP — LIQUIFIED PETROLEUM GAS
- LPR — LOW PRESSURE RETURN
- LPS — LOW PRESSURE STEAM
- MPR — MEDIUM PRESSURE RETURN
- MPS — MEDIUM PRESSURE STEAM
- N — NITROGEN
- NO — NITROUS OXIDE
- O — OXYGEN
- VAC — CLINICAL AND LAB VACUUM

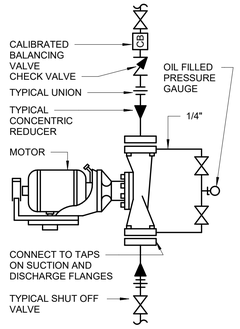
VENTILATION SYMBOLS

THESE SYMBOLS COMPRISE A STANDARD LIST; NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT.

- SUPPLY DUCT (UP & DOWN)
- RETURN DUCT (UP & DOWN)
- EXHAUST DUCT (UP & DOWN)
- W — STANDARD RADIUS ELBOW R EQUAL W (MINIMUM)
- DUCT TURN WITH TURN VANES
- FLEXIBLE DUCT CONNECTION
- SPIRAL DUCTWORK
- LOW PRESURE DUCTWORK MAX 2" W.G. PRESSURE
- MEDIUM PRESSURE DUCTWORK 2"-6" W.G. PRESSURE
- B C F M S — B - BACKDRAFT DAMPER; C - COMBINATION FIRE/SMOKE DAMPER; F - FIRE DAMPER; M - MOTORIZED DAMPER; S - SMOKE DAMPER
- MANUAL VOLUME DAMPER
- 1/2 A — BRANCH DUCT INTO SIDE OF MAIN DUCT
- R OR D — DUCT RISE OR DROP IN DIRECTION OF AIR FLOW
- 12/8 — DUCT DIMENSION- WIDTH x DEPTH
- DUCT INSULATION (SEE SPECIFICATION)
- DUCT TURN AND AIR SPLIT TYPE TAKEOFF (NON-ADJUSTABLE)
- S-1 / 200 — TYPE OF EQUIP; CFM — GRILLE, REGISTER & DIFFUSER DESIGNATION SUPPLY, RETURN, EXHAUST, & TRANSFER
- EF / 1 — TYPE OF EQUIP; EQUIP. NO. — EQUIPMENT DESIGNATION
- FLEX DUCT (5' MAXIMUM)



1 FLOOR CLEAN OUT CLEANOUT
NO SCALE



2 INLINE CENTRIFUGAL PUMP DETAIL
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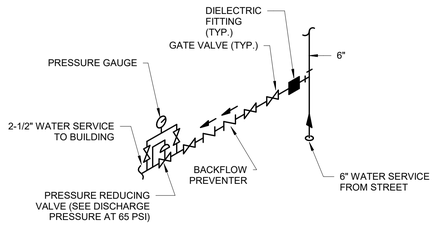
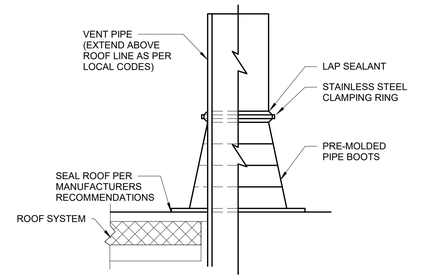
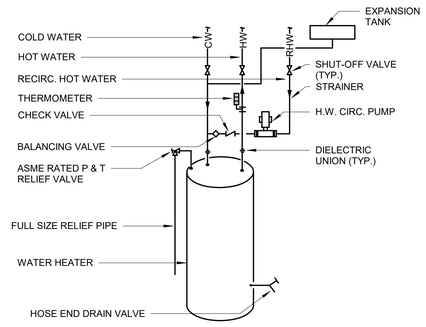


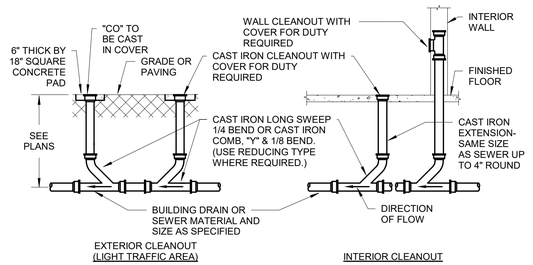
3 WATER METER PIPING DETAIL
NO SCALE



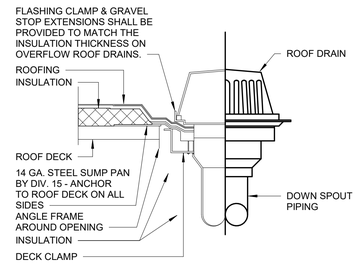
4 PLUMBING VENT DETAIL
NO SCALE



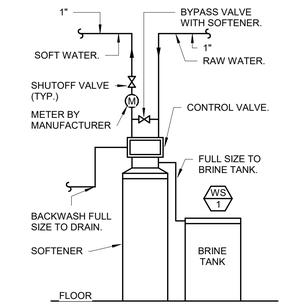
5 WATER HEATER PIPING DETAIL
NO SCALE



6 CLEAN OUT DETAIL
NO SCALE



7 ROOF DRAIN DETAIL
NO SCALE



8 WATER SOFTENER DETAIL
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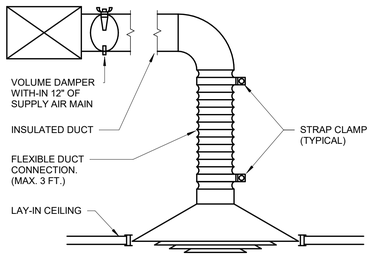
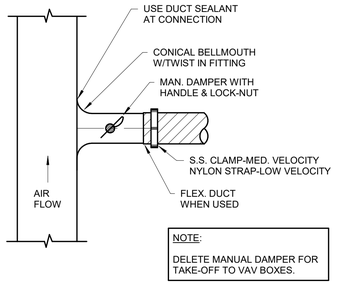
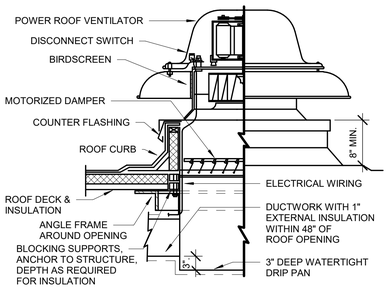


9 DIFFUSER MOUNTING - DETAIL
NO SCALE



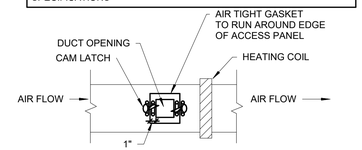
NOTE:
DELETE MANUAL DAMPER FOR TAKE-OFF TO VAV BOXES.

10 ROUND DUCT TAKE-OFF DETAIL
NO SCALE



11 POWER ROOF VENTILATOR DETAIL
NO SCALE

NOTE:
REQUIRED AT ALL HEATING COILS, FIRE DAMPERS, SMOKE DAMPERS, MOTORIZED DAMPERS & HUMIDIFIERS-SEE SPECIFICATIONS

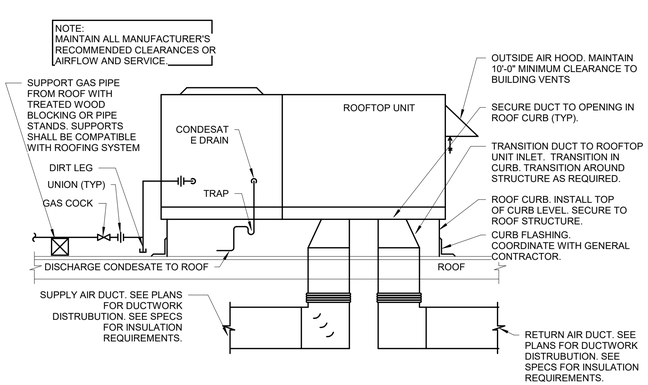


ACCESS PANEL SIZE SCHEDULE	
DUCT SIZE	ACCESS PANEL SIZE
6" TO 15"	10"W X [DUCT DEPTH-2"] D
15" TO 21"	12"W X [DUCT DEPTH-2"] D
21" AND ABOVE	18"W X [DUCT DEPTH-2"] D

ALL OTHER ACCESS PANELS TO BE A MINIMUM OF 15" X 15" WHERE DUCT SIZE ALLOWS. USE FOUR CAM LATCHES ON PANELS LARGER THAN 18" X 18" SIZE.

12 ACCESS PANEL DETAIL
NO SCALE

NOTE:
MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES OR AIRFLOW AND SERVICE.



14 DOWNFLOW ROOFTOP UNIT DETAIL
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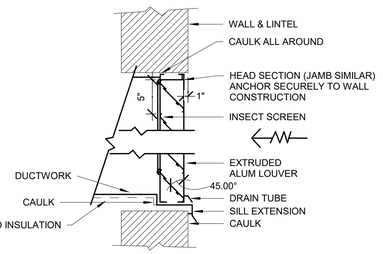

13 LOUVER-INTAKE AIR DETAIL
NO SCALE

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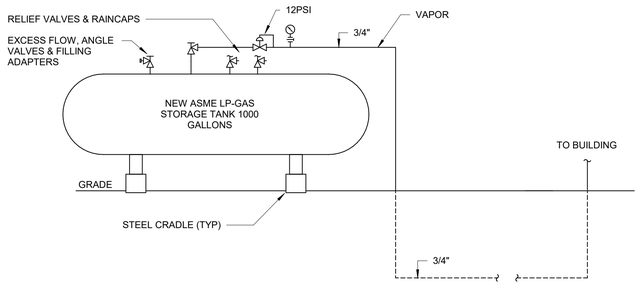
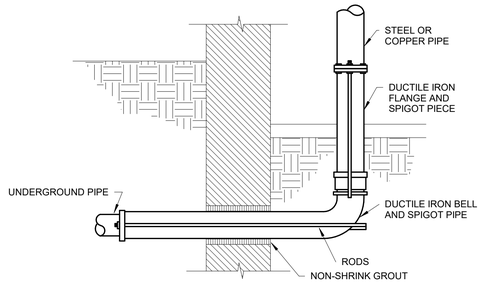
hkg architects

REVISED DATE	Plans for	MECHANICAL DETAILS	M401
	Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	DRAWN BY: DV TRACED BY: ____ CHECKED BY: SO	
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.	DATE: 03/07/25	PROJECT NO.: 2023-0029



1 LP-GAS TANK AND VAPORIZER DETAIL
NO SCALE



2 WATER SERVICE ENTRANCE DETAIL
NO SCALE

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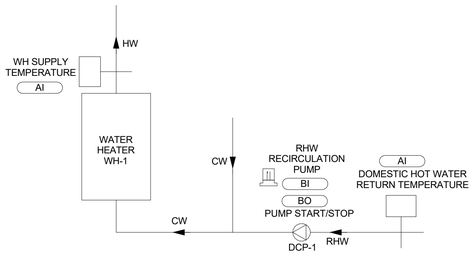
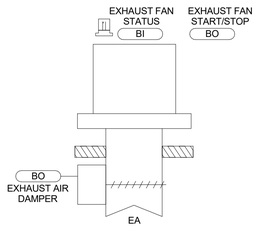
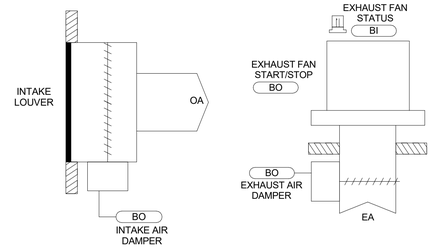
REVISED DATE	**Plans for** Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	MECHANICAL DETAILS	DRAWN BY: DV TRACED BY: ____ CHECKED BY: SO	M402
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.		DATE 03/07/25	PROJECT NO. 2023-0029



1 DOMESTIC HOT WATER SYSTEM DETAIL
NOT TO SCALE



2 EF-1 DETAIL
NOT TO SCALE



3 EF-2 DETAIL
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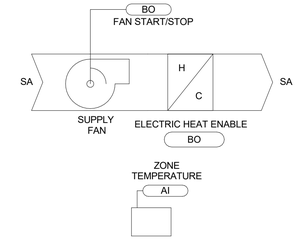
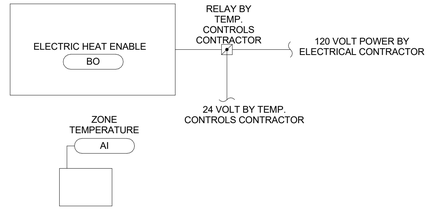
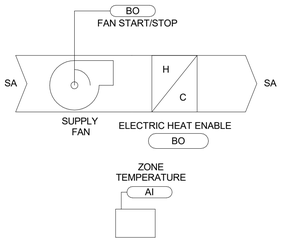


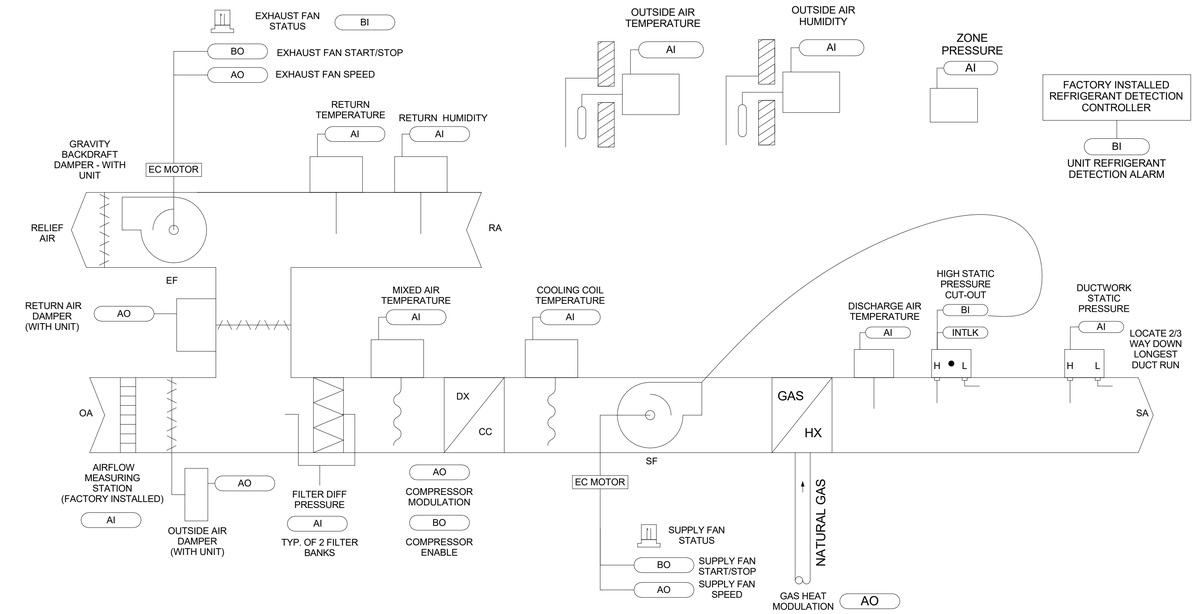
4 ELECTRIC CABINET UNIT HEATER DETAIL
NOT TO SCALE



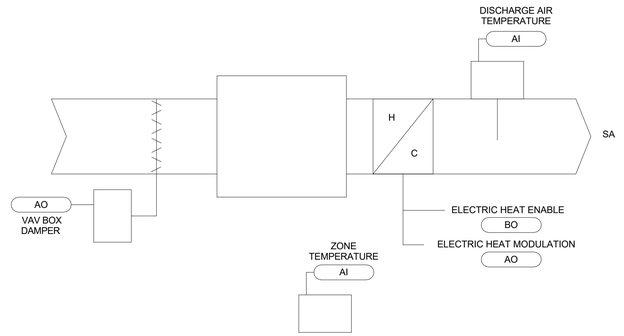
5 ELECTRIC RADIANT CEILING PANELS DETAIL
NOT TO SCALE



6 ELECTRIC UNIT HEATERS DETAIL
NOT TO SCALE



7 RTU-1 DETAIL
NOT TO SCALE



8 VAV BOXES DETAIL
NOT TO SCALE

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REVISED DATE
CERT. NO.

Plans for
Instructional Building
Sisseton Wahpeton College
Agency Village, South Dakota

MECHANICAL CONTROL DETAILS

DRAWN BY: DV
TRACED BY: ____
CHECKED BY: SO

M501

DATE: 03/07/25
PROJECT NO.: 2023-0029

HKG Architects, Inc. Aberdeen, S.D.

ROOF TOP UNIT SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	MIN O.A. CFM	SUPPLY FAN					EXHAUST FAN					COOLING SECTION									GAS HEATING SECTION			ELECTRICAL				COMMENTS
					QUANTITY	CFM	E.S.P.	HP	RPM	QUANTITY	CFM	E.S.P	HP	RPM	TOTAL (MBH)	SENSIBLE (MBH)	AMB DB/WB	EAT		LAT		APD	REFRIG TYPE	FACE VELOCITY	FUEL	RATING (BTUH)		EAT	VOLTAGE	PHASES	HERTZ	MCA	
																		DB	WB	DB	WB					INPUT (BTUH)	OUTPUT (BTUH)						
RTU	1	DAIKIN	DPSC17B	1645	1	6375	2.50 in-wg	7	1705	1	6375	0.6" in-wg	4.3	2005	194.3	164.4	95 °F	79.2 °F	64.6 °F	54.5 °F	54.0 °F	0.5"	R-32	413 FPM	LP	200	162	5.2 °F	208	3	60	118 A	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19

COMMENTS:

1 PROVIDE WITH MINIMUM 24" HIGH CDI (OR EQUAL) SOLID BOTTOM CURB.
2 PROVIDE WITH FACTORY INSTALLED, MOTORIZED OUTSIDE AND RETURN AIR DAMPERS AND ACTUATORS.
3 PROVIDE WITH 120V CONVENIENCE OUTLET FACTORY WIRED WITH THE UNIT PROVIDE WITH 120V CONVENIENCE OUTLET FACTORY WIRED WITH THE UNIT.
4 PROVIDE WITH 2" MERV 8 PRE-FILTERS AND 4" MERV 14 PLEATED THROWAWAY FILTERS.
5 PROVIDE WITH STAINLESS STEEL COOLING COIL DRAIN PAN. SPILL CONDENSATE DRAINAGE ON TO GRADE WITH VENTED TRAP.
6 DIRECT DRIVE PLENUM SUPPLY FAN (NEMA PREMIUM EFFICIENCY) SHALL BE PROVIDED WITH EC MOTOR.
7 DIRECT DRIVE PLENUM EXHAUST FAN (NEMA PREMIUM EFFICIENCY) SHALL BE PROVIDED WITH EC MOTOR.
8 FUNCTIONALITY OF UNIT SHALL BE CONTROLLED BY THE TEMPERATURE CONTROLS CONTRACTOR AND BUILDING AUTOMATION SYSTEM. PROVIDE ALL RELAYS AND CONTACTS REQUIRED FOR A COMPLETE OPERATING SYSTEM IN ACCORDANCE WITH THE SEQUENCES OF OPERATION.
9 PROVIDE WITH MODULATING GAS STAINLESS STEEL HEAT EXCHANGER. MINIMUM TURNDOWN SHALL BE 10 TO 1.
10 PROVIDE WITH SCREENED OUTSIDE AND EXHAUST AIR WEATHER HOODS ON OPENINGS.
11 PROVIDE WITH VARIABLE SPEED INVERTOR SCROLL COMPRESSOR WITH R-32 REFRIGERANT IN SYSTEM. R-454B REFRIGERANT SHALL ALSO BE ACCEPTABLE.
12 PROVIDE WITH COMPRESSOR SOUND BLANKETS.
13 PROVIDE WITH PHASE AND BROWNOUT PROTECTION.
14 PROVIDE WITH FACTORY INSTALLED HIGH SHORT-CIRCUIT CURRENT RATED (65kA) DISCONNECT SWITCH.
15 PROVIDE WITH CONDENSER COIL HAIL GUARDS AND ECM CONDENSER FANS WITH HEAD PRESSURE CONTROL.
16 PROVIDE UNIT DOUBLE WALL CONSTRUCTION WITH MINIMUM 1" AND R-7 FOAM INSULATION. INNER LINER SHALL BE GALVANIZED STEEL.
17 PROVIDE WITH FACTORY INSTALLED AIRFLOW MEASURING DEVICE IN OUTSIDE AIR OPENING ON UNIT.
18 HEATING EAT BASED ON 1,855 CFM SUPPLY AIR.
19 PROVIDE WITH FACTORY INSTALLED REFRIGERANT MONITORING SYSTEM WITH SENSORS AND CONTROL PANEL TO TURN ON FAN TO DESIGN FLOW AND SHUT OFF COMPRESSORS AND GAS HEATER UPON DETECTION. CONTROL PANEL SHALL ALSO PROVIDE SIGNAL TO BAS.

ELECTRIC HEAT SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	CFM	EAT	ELECTRICAL DATA			REMARKS
						KW	VOLT	PHASE	
ECUH	1	MARLEY	CUH935	250	70	5	208	3	1,2,4
ECUH	2	MARLEY	CUH935	250	70	5	208	3	1,2,4
ERCP	1	MARLEY	CP-751F	-	70	0.75	120	1	2,5
EUH	1	MARLEY	HUH520SA	270	70	5	208	3	1,2,3

COMMENTS:

1 PROVIDE WITH FACTORY INSTALLED POWER DISCONNECT SWITCH.
2 PROVIDE WITH THERMAL OVERLOAD PROTECTION.
3 ELECTRIC UNIT HEATER. PROVIDE WITH WALL MOUNTING BRACKET AND FRONT, DIRECTIONAL LOUVERS.
4 ELECTRIC CABINET UNIT HEATER, WALL SURFACE MOUNTED, FRONT BOTTOM IN, FRONT TOP OUT STAMPED GRILLES. COLOR TO BE SELECTED BY THE PROJECT ARCHITECT.
5 48X24 MODULAR ELECTRIC CEILING PANEL, FACTORY WHITE COLOR FOR INSTALLATION IN T-BAR CEILING. PROVIDE WITH MANUFACTURER'S 1" FIBERGLASS INSULATION ON TOP OF PANEL.

FAN SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	LOCATION	SERVICE	CFM	S.P.D.	MAX RPM	HP	VOLTAGE	PHASES	SONES	COMMENTS
EF	1	LOREN COOK COMPANY	ACED-101	ROOF	TOLIET EXHAUST	500	0.60 in-wg	1550	0.125	120	1	8.8	1,2,3,4,5,6
EF	2	LOREN COOK COMPANY	ACED-101	ROOF	MECH/JAN. ROOM	500	0.60 in-wg	1550	0.125	120	1	8.8	1,2,3,4,5,6

COMMENTS:

1 PROVIDE WITH STANDARD PREWIRED NEMA 3 DISCONNECT SWITCH.
2 DIRECT DRIVE FAN MOTOR.
3 PROVIDE WITH 14" HIGH INSULATED ROOF CURB.
4 PROVIDE WITH FACTORY INSTALLED FAN SPEED CONTROLLER.
5 FAN TO BE CONTROLLED BY THE BUILDING AUTOMATION SYSTEM.
6 DOWNBLAST POWER ROOF VENTILATOR.

LOUVER SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	LOCATION	FUNCTION	CFM	S.P.	SIZE		FREE AREA	VELOCITY	COMMENTS
								WIDTH	HEIGHT			
L	1	RUSKIN	ELF6375DX	MECH/JAN. RM 112	EF-2 INTAKE	500	0.05 in-wg	36"	12"	1.22 SF	410 FPM	1,2,3

COMMENTS:

1 PROVIDE WITH ALUMINUM BIRDSCREEN.
2 ARCHITECT TO SELECT COLOR FROM MANUFACTURER'S STANDARD COLOR CHART.
3 ALUMINUM CONSTRUCTION WITH BAKED ENAMEL FINISH.

PLUMBING FIXTURE SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	FIXTURE TYPE	WASTE	VENT	SUPPLY		TRIM/REMARKS
							CW	HW	
P	1A	ZURN	Z5615-BWL-AM	WATER CLOSET (WALLHUNG BATTERY OPERATED SENSOR FV) 1.28 GPF - MOUNT AT ADA HEIGHT	4"	2"	1 1/4"		1
P	2A	ZURN	Z5755-U	URINAL (BATTERY OPERATED SENSOR FV) 0.5 GPF - MOUNT AT ADA HEIGHT	2"	1 1/2"	3/4"		2
P	3A	ZURN	Z5364	LAVATORY (WALLHUNG, HARDWIRED SENSOR FAUCET) 0.5 GPM. MOUNT AT ADA HEIGHT.	2"	1 1/2"	1/2"	1/2"	3
P	4A	WOODFORD	B67	WALL HYDRANT WITH RECESSED BOX AND DOOR			3/4"		4
P	5A	FIAT	MSB-2424	SERVICE SINK 24"X24"	3"	2"	3/4"	3/4"	5
P	6A	COLUMBIA PRODUCTS	SANI-LAV 524	HANDS FREE SS FLOOR MOUNTED SINK WITH DUAL FOOT PEDALS, GOOSENECK FAUCET, 2.0 GPM, 20"X17" INSIDE BOWL DIMENSIONS	2"	1 1/2"	3/4"	3/4"	6
P	7A	WOODFORD	SRH-MS	ROOF HYDRANT			3/4"		7
P	8A	ELKAY	EZSTL8WSLK	WATER CHILLER WITH BOTTLE FILLER (SPLIT LEVLE) ADA	2"	1 1/2"	1/2"		8

COMMENTS:

1 BEMIS 1955C WHITE OPEN FRONT SEAT WITH SS CHECK HINGE, VITREOUS CHINA ELONGATED BOWL, SIPHON JET, ZURN ZERS6000AV-HET-CPM BATTERY POWERED FLUSH VALVE, 1.28 GPF. PROVIDE WITH WALL CARRIER. MOUNT AT ADA HEIGHT. SEE ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS.
2 WHITE WASHDOWN, ZURN ZERS6003AV-EWS-CPM BATTERY POWERED FLUSH VALVE, 0.5 GPF. MOUNT AT ADA HEIGHT. SEE ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS.
3 VITREOUS CHINA, ZURN Z6950-XL-S-ACA-CWB-CP4-TMV-1-N HARDWIRED FAUCET WITH VANDAL RESISTANT 0.5 GPM LAMINAR FLOW OUTLET, 4" COVER PLATE AND THERMOSTATIC MIXING VALVE FOR SINGLE FAUCET. PROVIDE WITH 17 GAUGE P TRAP, OFFSET GRID DRAIN, HOLES AT 4" CENTERS, TRUEBRO LAV GUARD TAILPIECE INSULATION, EBC LA12K SUPPLY KIT WITH STOP VALVE AND TUBE RISERS. MOUNT AT ADA HEIGHT. PROVIDE ASSE 1070 RATED THERMAL MIXING VALVE LOCATED DOWNSTREAM OF THE FIXTURE STOPS. PROVIDE WITH PLUG IN POWER TRANSFORMER.
4 FREEZE RESISTANT, SELF DRAINING INTERGRAL BACKFLOW PREVENTOR, REMOVABLE KEY, BOX AND DOOR.
5 ZURN Z843M1-RC, STAINLESS STEEL BUMPER GAURD, HOSE AND HOSE BRACKET, 3" STAINLESS STEEL DRAIN WITH DOME STRAINER, STAINLESS STEEL WALL GUARD.
6 FLOOR MOUNTED SINGLE COMPARTMENT STAINLESS STEEL SINK WITH INTEGRAL SS BACKSPLASH. SINGLE HOLE ON BACKSPLASH FOR FAUCET. PROVIDE WITH 6" SWIVEL SPOUT WITH 2.0 GPM AERATOR. PROVIDE WITH 17 GAUGE CHROME PLATED P TRAP AND SUPPLY KIT WITH KEYED ANGLED STOP VALVE AND TUBE RISERS. PROVIDE ASSE 1070 RATED THERMAL MIXING VALVE LOCATED DOWNSTREAM OF THE FIXTURE STOPS. PROVIDE WITH SS DUAL FOOT PEDALS AND TUBE RISERS FROM FOOT PEDALS TO FAUCET.
7 FREEZE RESISTANT, SELF DRAINING ROOF MOUNTING SYSTEM.
8 WATER COOLER WITH ELECTRONIC SENSOR OPERATED BOTTLE FILLER. PROVIDE WITH 17 GAUGE P TRAP AND EBC VA12K KEYED ANGLED STOP VALVE. ALSO PROVIDE WITH ADA CANE APRON.

PUMP SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	Service	GPM	HEAD	RPM	% GLYCOL	ELECTRICAL				COMMENTS
									HP	VOLTAGE	PHASES	HZ	
DCP	1	ARMSTRONG	E22.2B	DOMESTIC HW RECIRCULATION	1 GPM	39 flH2O	3350	0	0.4 hp	120 V	1	60	1,2

COMMENTS:

1 PUMP TO BE CONTROLLED BY BUILDING AUTOMATION SYSTEM.
2 BRONZE PUMP TO BE USED IN DOMESTIC WATER SYSTEMS.

REGISTER GRILLES AND DIFFUSER SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	NOMINAL SIZE			THROAT SIZE			MAX CFM	S.P.D.	NC	FRAME	COMMENTS
				WIDTH	LENGTH	DIA.	WIDTH	LENGTH	DIA.					
E	1	KRUEGER	EGC5	12"	24"		10"	22"		900	0.06 in-wg	25	LAY-IN	1,2
R	1	KRUEGER	EGC5	12"	24"		10"	22"		950	0.06 in-wg	25	LAY-IN	1,2
R	2	KRUEGER	EGC5	24"	24"		22"	22"		2100	0.07 in-wg	30	LAY-IN	1,2
S	1	KRUEGER	51400	24"	24"				6"	120	0.04 in-wg	15	LAY-IN	1,3
S	2	KRUEGER	51400	24"	24"				8"	280	0.09 in-wg	20	LAY-IN	1,3
S	3	KRUEGER	1910	6"	48"		4"	46"	8"	270	0.05 in-wg	14	SURFACE	1,5

COMMENTS:

1 PROVIDE WITH FACTORY STANDARD WHITE FINISH.
2 ALUMINUM EGGCRATE GRILLE WITH 1/"X1/2X1/2 ALUMINUM CORE AND BORDER.
3 LOUVERED ALUMINUM DIFFUSER.
4 ALUMINUM PERFORATED DIFFUSER WITH SQUARE NECK AS SHOWN.
5 ALUMINUM LINEAR SLOT DIFFUSER, 1" SLOTS, 3 SLOTS. PROVIDE WITH FIELD FABRICATED AND INSULATED PLENUM.

VARIABLE AIR VOLUME BOX SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	PRIMARY CFM		INLET STATIC	INLET CONNECTION	PRIMARY HEATING		REHEAT SECTION		ELECTRICAL			COMMENTS
				COOLING				HEATING CFM							
				MAX	MIN			MAX	MIN	KW	LAT	VOLTAGE	PHASES	NC	
VAV	1-1	KRUEGER	LMHS-06	350	130	0.08 in-wg	6"	350	130	4	91.1 °F	208	3	21	1,2,3,4,5,6,7
VAV	1-2	KRUEGER	LMHS-07	600	210	0.12 in-wg	7"	320	210	3	84.6 °F	208	1	25	1,2,3,4,5,6,7
VAV	1-3	KRUEGER	LMHS-08	710	250	0.10 in-wg	8"	425	250	4	84.7 °F	208	3	24	1,2,3,4,5,6,7
VAV	1-4	KRUEGER	LMHS-06	475	170	0.14 in-wg	6"	395	170	4	87.0 °F	208	3	26	1,2,3,4,5,6,7
VAV	1-5	KRUEGER	LMHS-07	560	200	0.10 in-wg	7"	465	200	5	89.0 °F	208	3	25	1,2,3,4,5,6,7
VAV	1-6	KRUEGER	LMHS-05	220	80	0.08 in-wg	5"	220	80	2	83.7 °F	208	1	22	1,2,3,4,5,6,7
VAV	1-7	KRUEGER	LMHS-04	190	70	0.16 in-wg	4"	190	70	2	88.3 °F	208	1	27	1,2,3,4,5,6,7
VAV	1-8	KRUEGER	LMHS-04	180	65	0.14 in-wg	4"	180	65	2	90.1 °F	208	1	27	1,2,3,4,5,6,7
VAV	1-9	KRUEGER	LMHS-08	735	270	0.11 in-wg	8"	735	270	7	85.1 °F	208	3	25	1,2,3,4,5,6,7
VAV	1-10	KRUEGER	LMHS-07	670	245	0.15 in-wg	7"	670	245	5.5	80.9 °F	208	3	26	1,2,3,4,5,6,7
VAV	1-11	KRUEGER	LMHS-10	1210	425	0.12 in-wg	10"	800	425	7	82.7 °F	208	3	21	1,2,3,4,5,6,7
VAV	1-12	KRUEGER	LMHS-06	475	170	0.14 in-wg	6"	395	170	4	87.0 °F	208	3	26	1,2,3,4,5,6,7

COMMENTS:

1 HEATING LAT BASED ON MAXIMUM HEATING AIRFLOW INDICATED.
2 REHEAT CAPACITY BASED ON 55 DEG. EAT.
3 PROVIDE WITH DISCONNECT SWITCH, HIGH TEMPERATURE THERMAL CUTOUT, AND AIRFLOW SWITCH FOR ELECTIRC HEAT.
4 ELECTRIC HEATER SHALL HAVE SCR CAPACITY CONTROL.
5 PROVIDE WITH FIBERFREE FOAM LINEAR.
6 PROVIDE WITH HINGED ACCESS DOOR ON BOTTOM OF VAV HOUSING FOR ACCESS TO HEATING COIL.
7 SOUND DATA BASED ON 1.25" PRESSURE ON INLET OF VAV BOX AND 0.25" PRESSURE DOWNSTREAM OF VAV BOX.

WATER HEATER SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	FUEL	STORAGE CAPACITY	ELECTRIC INPUT	RECOVERY RATE	TEMP. RISE	VOLTAGE	PHASES	COMMENTS
WH	1	A.O. SMITH	DEN-40	ELEC.	46.0 gal	6 kW	27	90 °F	208	3	1,2,3

COMMENTS:

1 PROVIDE AGA-RATED TEMPERATURE AND PRESSURE RELIEF VALVE.
2 PROVIDE WITH AMTROL THERM-X-TROL ST-30VC ASME RATED EXPANSION TANK.
3 SIMULTANEOUS ELEMENT OPERATION. (2) 3.0KW ELEMENTS.

WATER SOFTENER SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURE	MODEL	EXCHANGE CAP. @12 LB SALT	FLOW RATE CONTINUOUS	BACKWASH RATE	TANK SIZES		ELECTRICAL			COMMENTS
							SOFTENER	BRINE	VOLTAGE	PHASES	MCA	
WS	1	CULLIGAN	HE1.0 9IN-DF	27.8	11 GPM	3 GPM	9" DIA. X 48" H	18" DIA. X 43" H	120	1	1 A	1,2,3,4

COMMENTS:

1 SIMPLEX MODEL WITH ONE BRINE TANK.
2 INSTALL ON 4" HIGH CONCRETE PAD TO BE PROVIDED BY THE GENERAL CONTRACTOR.
3 PERFORMANCE BASED ON 15 GPG INFLUENT HARDNESS.
4 MAXIMUM 10 PSI PRESSURE DROP AT 9 GPM FLOW.

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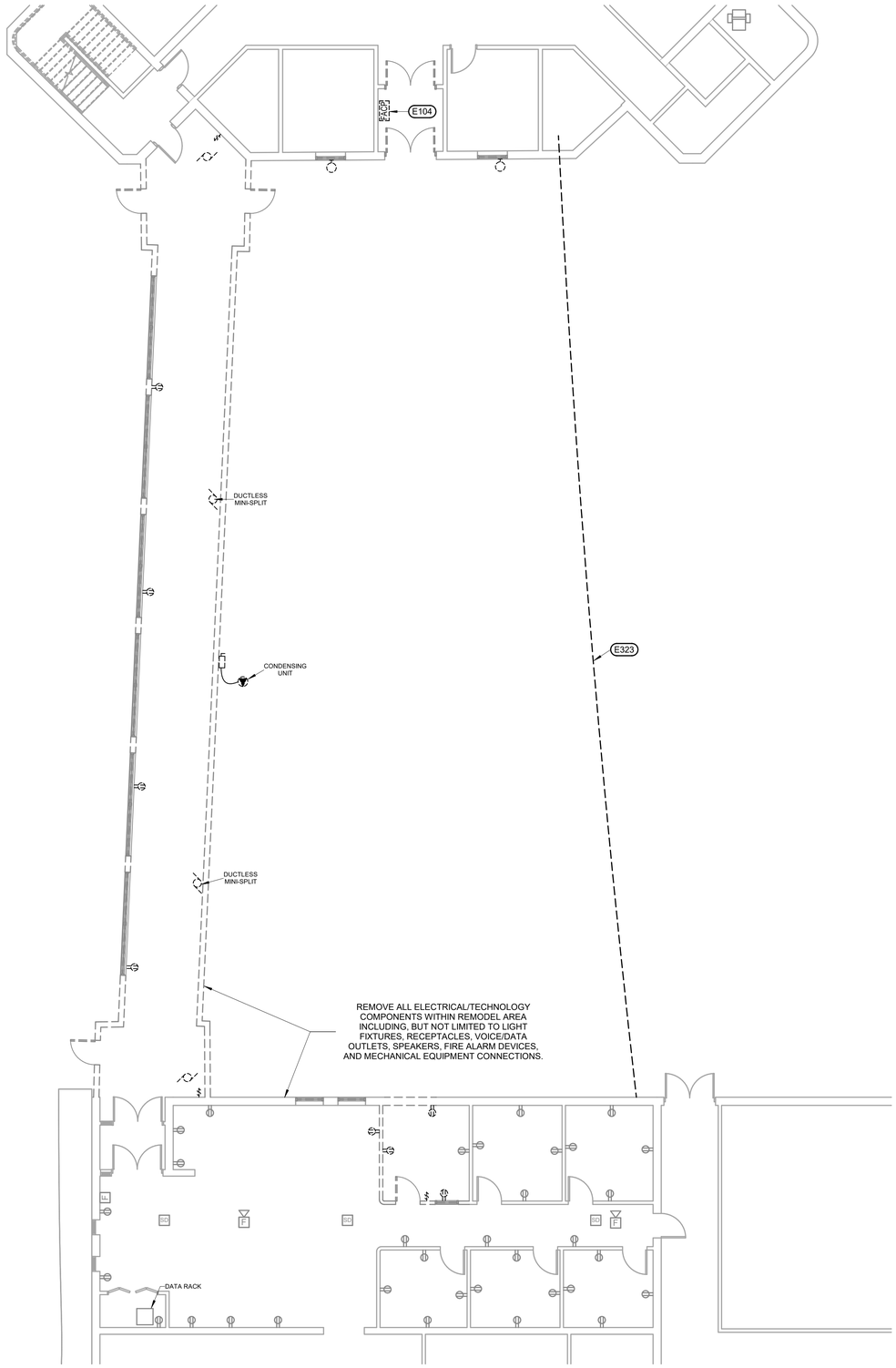
REVISED DATE	Plans for: Instructional Building, Sisseton Wahpeton College, Agency Village, South Dakota	MECHANICAL SCHEDULES	M601
DRAWN BY: DV			
TRACED BY: ____			
CHECKED BY: SO			
DEPT. NO.	HKG Architects, Inc. Aberdeen, S.D.	DATE: 03/07/25	PROJECT NO.: 2023-0029



1 ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"

ELECTRICAL SPECIFIC NOTES

#	
E104	EXISTING SIEMENS ADDRESSABLE FIRE ALARM CONTROL PANEL SERVING THE VO-TECH BUILDING TO BE REMOVED AND RELOCATED TO THE NEW VO-TECH BUILDING IT ROOM. EXISTING BACK BOX MAY BE UTILIZED AS A SPLICE BOX FOR EXISTING FIRE ALARM CIRCUITS. FIRE ALARM CONTRACTOR SHALL PROVIDE A BLANK HINGED COVER FOR EXISTING BOX. EXTEND ALL EXISTING CIRCUITS TO NEW FIRE ALARM CONTROL PANEL LOCATION.
E323	REMOVE EXISTING FIBER OPTIC CABLE BETWEEN THE RESOURCE BUILDING MAIN DISTRIBUTION FRAME AND THE VO-TECH BUILDING SECOND FLOOR

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REVISED DATE
CERT. NO.

Plans for
Instructional Building
Sisseton Wahpeton College
Agency Village, South Dakota

HKG Architects, Inc. Aberdeen, S.D.

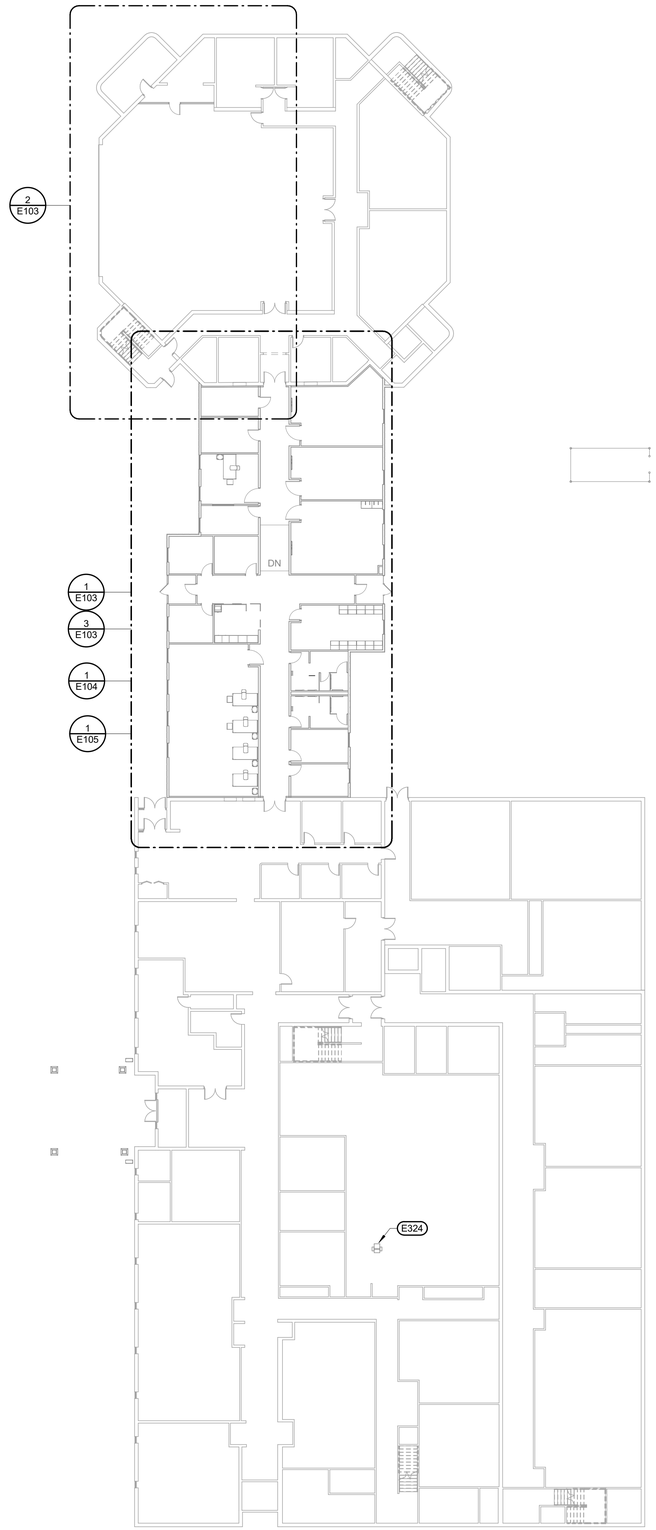
ELECTRICAL DEMOLITION PLAN

DRAWN BY JK
TRACED BY
CHECKED BY JK
DATE 03/07/25
PROJECT NO. 2023-0029

E101

ELECTRICAL SPECIFIC NOTES

E324 EXISTING DATA/IT RACK IN RESOURCE BUILDING MDF/DATA ROOM TO REMAIN.



1 OVERALL ELECTRICAL PLAN
1" = 20'-0"

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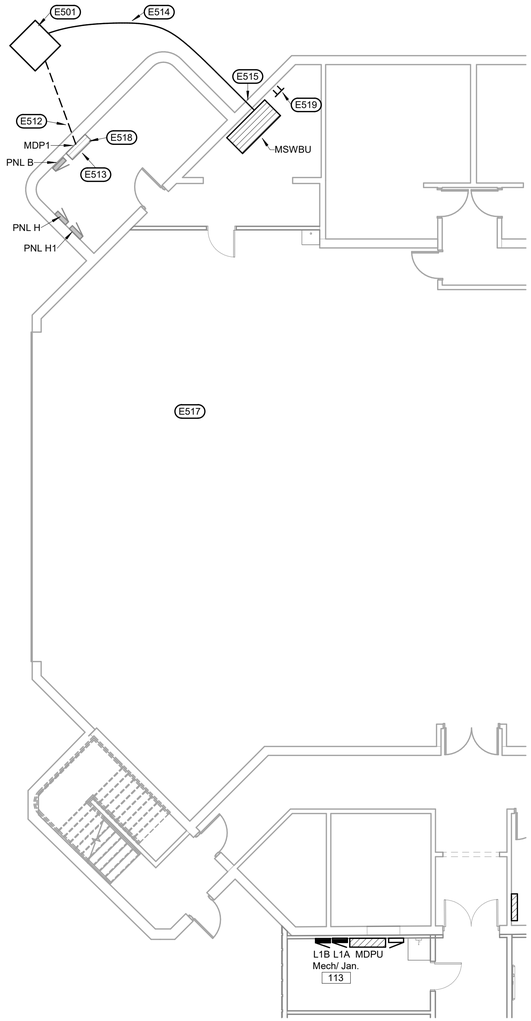
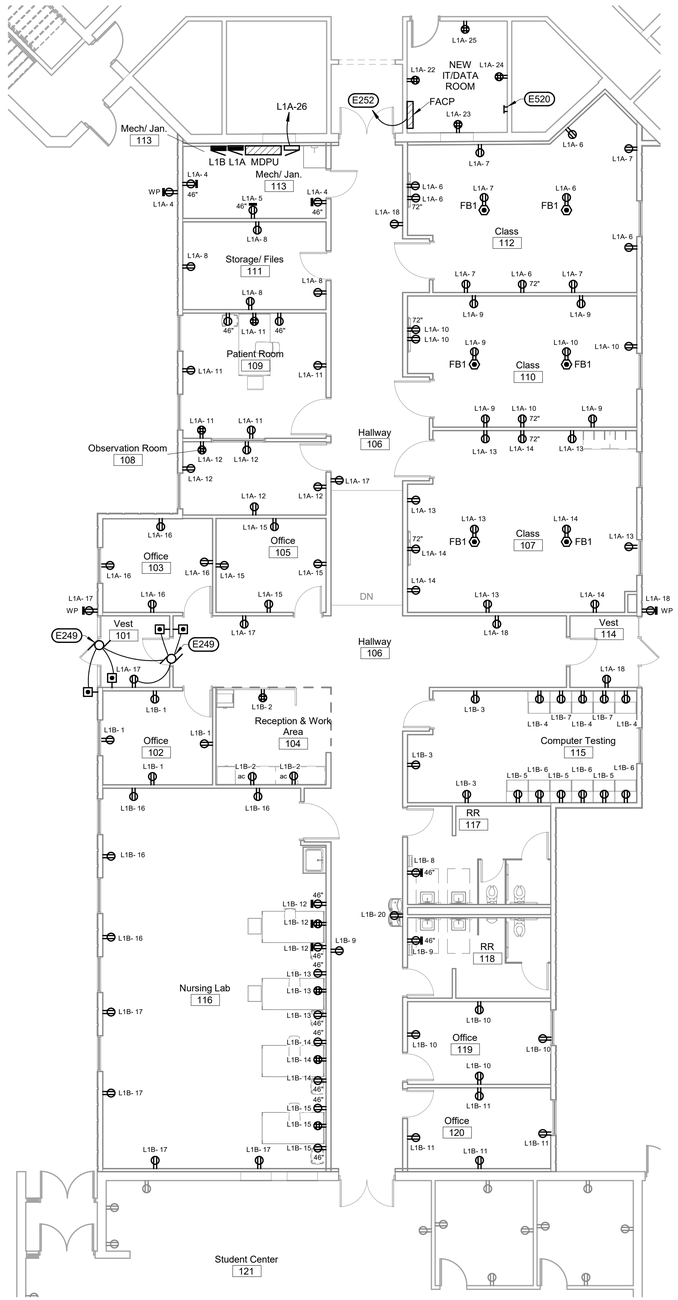
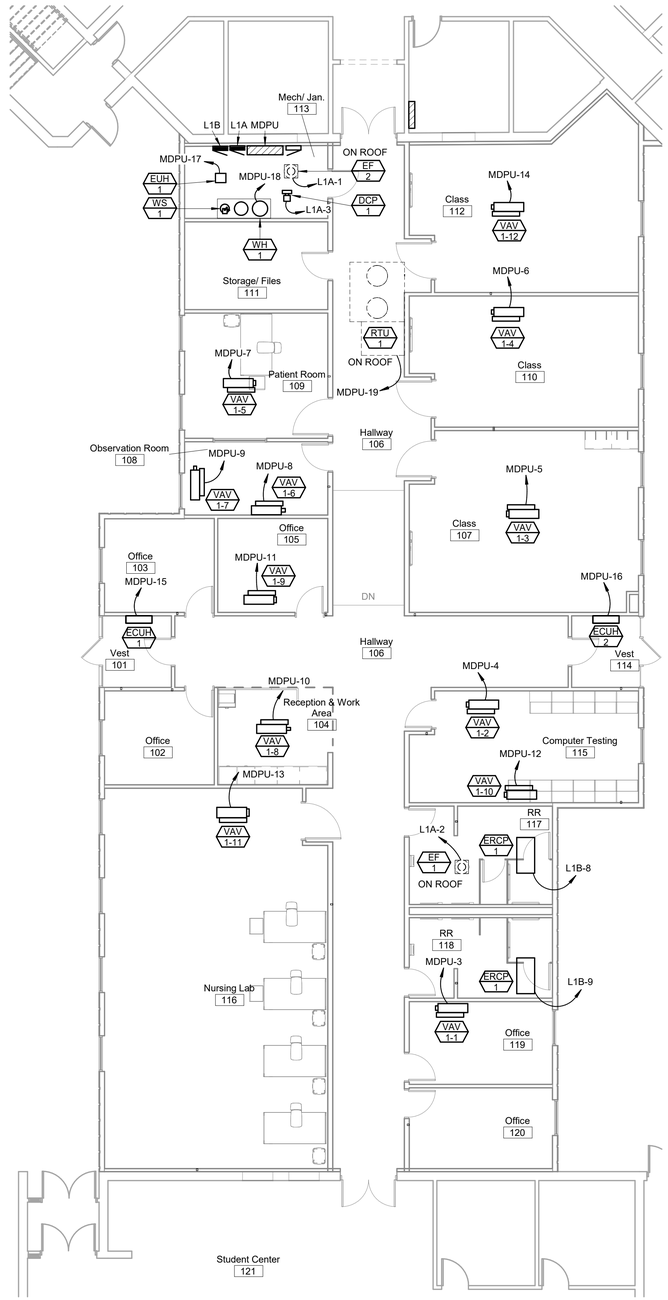
REVISED DATE:	Plans for Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	ELECTRICAL PLAN - OVERALL	DRAWN BY: JR TRACED BY: ____ CHECKED BY: JR E102
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.	DATE: 03/07/25	PROJECT NO: 2023-0029



2 POWER FLOOR PLAN - NORTH
1/8" = 1'-0"



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



3 POWER FLOOR PLAN - SOUTH - MECHANICAL EQUIPMENT
1/8" = 1'-0"

#	ELECTRICAL SPECIFIC NOTES
E249	PROVIDE AN ELECTRICAL CONNECTION TO NEW ADA MOTOR-OPERATED DOOR OPENERS AND ALL ASSOCIATED CONTROLS. MOTOR OPERATOR, PUSH-PADS, AND ALL REQUIRED HARDWARE FURNISHED BY GENERAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR. ALL CONDUCTORS, INCLUDING ANY LOW-VOLTAGE CONDUCTORS, SHALL BE INSTALLED IN RACEWAY.
E252	CONNECT THE FIRE ALARM CONTROL PANEL TO THE 120-VOLT CIRCUIT PREVIOUSLY SERVING THE FACP IN THIS AREA. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY.
E501	EXISTING PAD-MOUNTED UTILITY TRANSFORMER. 208Y/120-VOLT, 3-PHASE, 4-WIRE SECONDARY. COORDINATE ALL REVISIONS WITH THE SERVING UTILITY: WHETSTONE ELECTRIC COOPERATIVE.
E512	REMOVE EXISTING SERVICE-ENTRANCE FROM THE UTILITY PAD-MOUNTED TRANSFORMER TO EXISTING ELECTRICAL PANEL MDP1. COORDINATE PHASING OF NEW SERVICE SWITCH TO MINIMIZE DOWN TIME AS MUCH AS POSSIBLE. COORDINATE ALL SHUTDOWNS WITH THE UTILITY AND THE OWNER.
E513	REMOVE EXISTING BONDING JUMPER AND BOND TO THE GROUNDING ELECTRODE SYSTEM FROM PANEL MDP1. A NEW SERVICE ENTRANCE WILL BE ESTABLISHED AT A DIFFERENT PANEL.
E514	PROVIDE A NEW SERVICE ENTRANCE FROM THE EXISTING UTILITY TRANSFORMER TO NEW PANEL MSWBU. COORDINATE PHASING OF NEW SERVICE SWITCH TO MINIMIZE DOWN TIME AS MUCH AS POSSIBLE. CONCEAL RACEWAYS UNDERGROUND WHEREVER POSSIBLE. ANY DEVIATIONS SHOULD BE COORDINATED WITH THE ARCHITECT, ENGINEER, AND OWNER.
E515	COORDINATE ANY CORE-DRILLING OF EXISTING WALLS, FOUNDATIONS, ETC. AND LIKEWISE SAW-CUTTING OF ANY FLOORS WITH ARCHITECT, ENGINEER, AND OWNER. CONCEAL SERVICE-ENTRANCE RACEWAYS AS MUCH AS POSSIBLE.
E517	NEW FEEDER BETWEEN MSWBU AND MDPU SHALL BE ROUTED THROUGH THE OPEN CLASSROOM SPACE IN THE EXISTING BUILDING. COORDINATE EXACT ROUTING ON SITE PRIOR TO ROUGH-IN. WHERE JUNCTION BOXES ARE REQUIRED THEY MUST BE INSTALLED IN AN ACCESSIBLE LOCATION.
E518	PROVIDE NEW FEEDER FROM NEW SERVICE-ENTRANCE SWITCHBOARD MSWBU TO EXISTING PANEL MDP1. COORDINATE PHASING TO LIMIT DOWN TIME AS MUCH AS POSSIBLE. COORDINATE EXACT RACEWAY ROUTING ON SITE.
E519	PROVIDE AN INTERSYSTEMS BONDING BUS BAR.
E520	PROVIDE A TELECOMMUNICATIONS GROUNDING BUS BAR.

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

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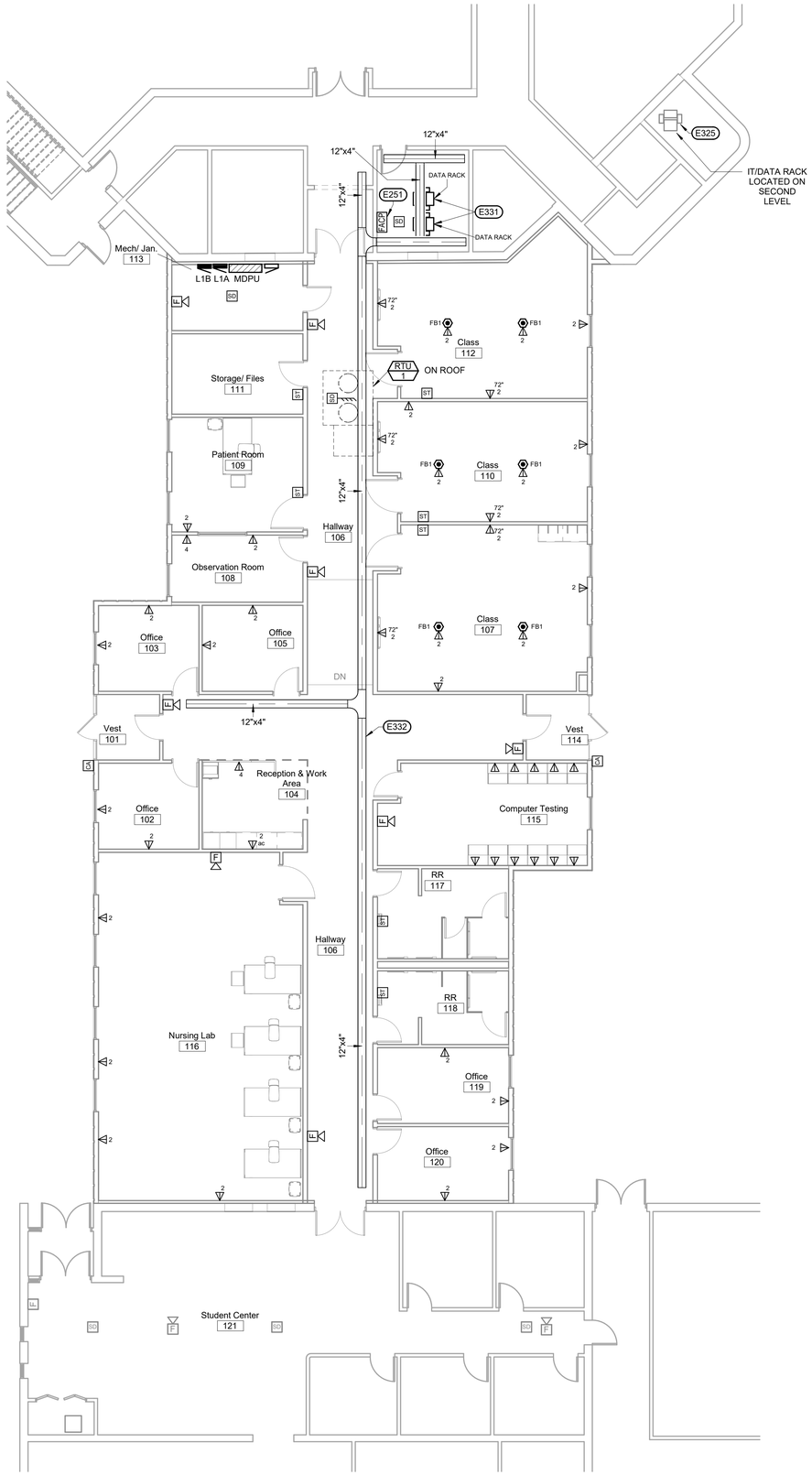
REVISED DATE		Plans for	POWER FLOOR PLAN	E103
DRWT. NO.		Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	DRAWN BY: JK TRACED BY: ____ CHECKED BY: JK	
		HKG Architects, Inc. Aberdeen, S.D.	DATE 03/07/25	PROJECT NO. 2023-0029



1 SIGNAL FLOOR PLAN
1/8" = 1'-0"

#	ELECTRICAL SPECIFIC NOTES
E251	EXISTING SIEMENS ADDRESSABLE FIRE ALARM PANEL, PREVIOUSLY LOCATED IN THE VESTIBULE OF THE VO-TECH BUILDING, SHALL BE RELOCATED TO THE NEW VO-TECH BUILDING IT ROOM. EXTEND ALL EXISTING FIRE ALARM CIRCUITS TO THIS LOCATION. ALL NEW FIRE ALARM DEVICES IN THE ADDITION SHALL BE FED FROM THIS FIRE ALARM PANEL.
E325	EXISTING DATA/IT RACK IN VO-TECH BUILDING TO REMAIN.
E331	PROVIDE NEW FLOOR-MOUNTED DATA RACKS WITH WIRE MANAGEMENT. COORDINATE EXACT LOCATION WITHIN THE ROOM WITH THE OWNER AND CABLE TRAY INSTALLATION.
E332	WIRE MESH CABLE TRAY. SIZE DEPICTED. TYPICAL.

VOICE AND DATA LEGEND	
	=1 DATA JACK
#D	# = TOTAL NUMBER OF DATA JACKS
	=1 DATA JACK, AND I VOICE JACK
2D 1V	=2 DATA JACK, AND I VOICE JACK

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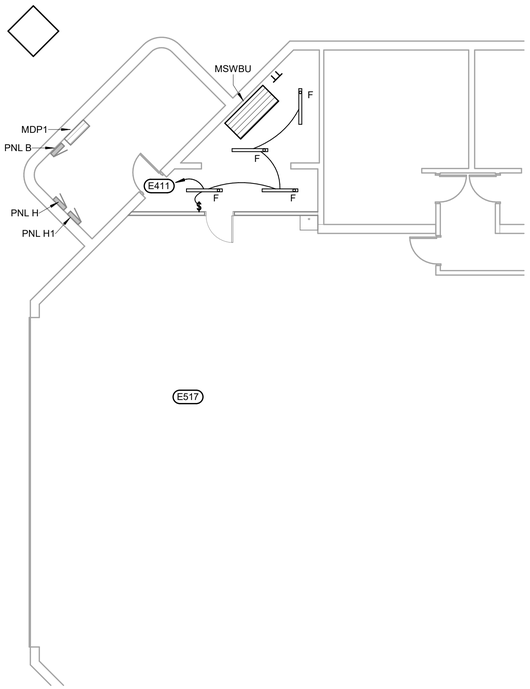
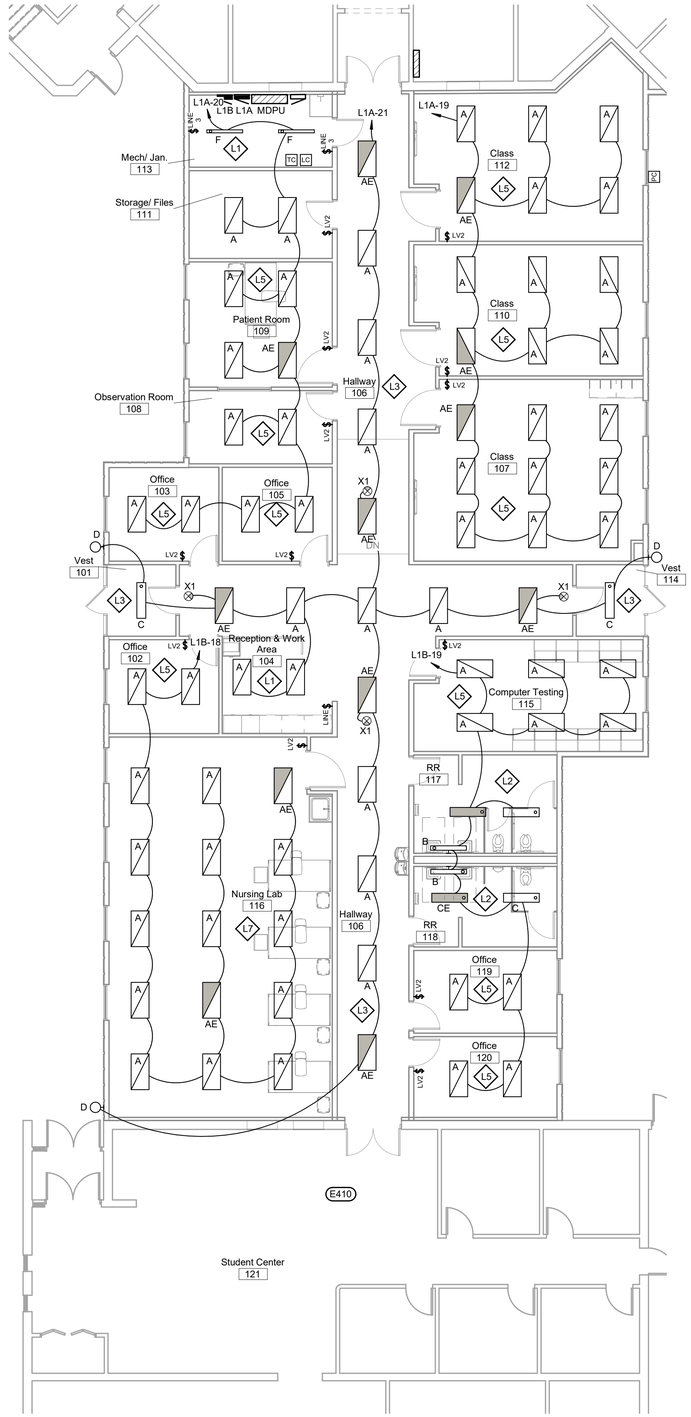
REVISED DATE		Plans for	SIGNAL FLOOR PLAN	DRAWN BY: JR	E104
		Instructional Building		TRACED BY: ____	
CERT. NO.		Sisseton Wahpeton College		CHECKED BY: JR	
		Agency Village, South Dakota		DATE	PROJECT NO.
		HKG Architects, Inc. Aberdeen, S.D.		03/07/25	2023-0029



2 LIGHTING FLOOR PLAN - NORTH
1/8" = 1'-0"



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

LIGHTING FIXTURE SCHEDULE

FIXTURE MARK	FIXTURE TYPE	FIXTURE DIFFUSER	VOLTAGE	LAMP NUMBER AND WATTS	LAMP TYPE	MOUNTING TYPE	MOUNTING HEIGHT	MANUFACTURER	MODEL	COMMENTS
A	2X4 LED FLAT PANEL	ACRYLIC	120	5400L/49W	4000K	RECESS	CEILING	LITHONIA OR EQUAL	EPANL LED	DIM TO 1%
AE	2X4 LED FLAT PANEL	ACRYLIC	120	5400L/49W	4000K	RECESS	CEILING	LITHONIA OR EQUAL	EPANL LED	DIM TO 1%; 20W, 2400 LUMEN EMG BATTERY; REMOTE TEST SWITCH
B	2' LED WALL BRACKET	ACRYLIC	120	2000L/16W	4000K	WALL	ABOVE MIRROR	HE WILLIAMS OR EQUAL	WMA	UP & DOWN DISTRIBUTION
C	4' LED WRAP	ACRYLIC	120	3,000L/23W	4000K	SURFACE	CEILING	HE WILLIAMS OR EQUAL	39	80 CRI
CE	4' LED WRAP	ACRYLIC	120	3,000L/23W	4000K	SURFACE	CEILING	HE WILLIAMS OR EQUAL	39	80 CRI; EMG BATTERY
D	WALL MOUNT	ACRYLIC	120	-	4000K	WALL	9' AFG	-	-	DIE-CAST ALUMINUM DARK BRONZE, HUBBELL PVL HOUSING, WET LOCATION, PULSE START ELECTRONIC BALLAST
F	4' LED INDUSTRIAL	ACRYLIC	120	5000L/33W	4000K	CHAIN	9' AFF	HE WILLIAMS OR EQUAL	75R	80CRI
X1	EXIT SIGN SINGLE FACE	RED	UNIV.	LED	LED	UNIV.	PER PLANS	LIGHTALARMS OR EQUAL	1XDND-B-RA	CAST ALUMINUM, BATTERY & CHARGER, SELF DIAGNOSTICS

(#) ELECTRICAL SPECIFIC NOTES

E410 EXISTING LIGHT FIXTURES (PREVIOUSLY IN THE OFFICE IN THIS AREA) SHALL BE CONTROLLED WITH THE REMAINING LIGHT FIXTURES IN THE COMMON SPACE OF STUDENT CENTER ROOM 121.

E411 CONNECT TO THE BRANCH CIRCUIT PREVIOUSLY SERVING LIGHTING IN THIS AREA. PROVIDE #12 WIRE IN RACEWAY.

E517 NEW FEEDER BETWEEN MSWBU AND MDPU SHALL BE ROUTED THROUGH THE OPEN CLASSROOM SPACE IN THE EXISTING BUILDING. COORDINATE EXACT ROUTING ON SITE PRIOR TO ROUGH-IN. WHERE JUNCTION BOXES ARE REQUIRED THEY MUST BE INSTALLED IN AN ACCESSIBLE LOCATION.

(◇) LIGHTING CONTROL SEQUENCE OF OPERATIONS

L1 SEQUENCE 1 - LIGHTING WITHIN A DEFINED ROOM OR SPACE SHALL BE CONTROLLABLE BY MEANS OF LINE-VOLTAGE SWITCHES. LIGHTS SHALL BE PERMITTED TO BE ALL ON OR ALL OFF.

L2 SEQUENCE 2 - LIGHTING WITHIN A DEFINED ROOM OR SPACE SHALL BE CONTROLLABLE BY MEANS OF LOCAL OCCUPANCY SENSORS AND LOW-VOLTAGE SWITCHES. LIGHTS SHALL BE PERMITTED TO BE ALL ON AND ALL OFF. SWITCH LOCATIONS ARE SHOWN ON THE DRAWINGS. OCCUPANCY SENSORS SHALL BE PROVIDED FOR 100% COMPLETE MINOR MOTION COVERAGE IN THE ROOM OR SPACE. OCCUPANCY SENSORS MAY BE CEILING MOUNTED IF CEILINGS ARE PRESENT. THE CONTRACTOR SHALL CONFIRM THE PRESENCE OF A CEILING WITH THE DOCUMENTS. OCCUPANCY SENSORS SHALL TURN LIGHTS OFF AND ON (I.E. AUTO-ON, AUTO-OFF).

L3 SEQUENCE 3 - LIGHTING WITHIN A DEFINED ROOM OR SPACE SHALL BE CONTROLLABLE BY MEANS OF LOCAL OCCUPANCY SENSORS. WHEN OCCUPANCY IS DETECTED, LIGHTS SHALL OPERATE AT 100% OUTPUT. WHEN NO OCCUPANCY IS DETECTED (DEFAULT 10 MINUTES), THE LIGHTS IN THE SPACE SHALL OPERATE AT 30% OUTPUT. OCCUPANCY SENSORS SHALL BE PROVIDED FOR 100% COMPLETE MINOR MOTION COVERAGE IN THE ROOM OR SPACE. OCCUPANCY SENSORS SHALL BE CEILING MOUNTED, AND WALL-MOUNTED WHERE NO CEILING IS PRESENT. THE CONTRACTOR SHALL CONFIRM THE PRESENCE OF A CEILING WITH THE DOCUMENTS. OCCUPANCY SENSOR SHALL TURN LIGHTS ON AND TO DIM STATE (I.E. AUTO-ON, AUTO-DIM).

L5 SEQUENCE 5 - LIGHTING WITHIN A DEFINED ROOM OR SPACE SHALL BE CONTROLLABLE BY MEANS OCCUPANCY SENSORS AND LOW VOLTAGE SWITCHES. LIGHTS SHALL BE PERMITTED TO BE ALL ON, ALL OFF, AND DIMMABLE TO USER-DESIRED LEVELS. SWITCH LOCATIONS ARE SHOWN ON THE DRAWINGS. OCCUPANCY SENSORS SHALL BE PROVIDED FOR 100% COMPLETE MINOR MOTION COVERAGE IN THE ROOM OR SPACE. OCCUPANCY SENSORS MAY BE CEILING MOUNTED IF CEILINGS ARE PRESENT. THE CONTRACTOR SHALL CONFIRM THE PRESENCE OF A CEILING WITH THE DOCUMENTS. OCCUPANCY SENSORS SHALL TURN LIGHTS OFF ONLY (I.E. MANUAL ON).

L7 SEQUENCE 7 - LIGHTING WITHIN A DEFINED ROOM OR SPACE SHALL BE CONTROLLABLE BY MEANS OF LOCAL LOW-VOLTAGE SWITCHES, OCCUPANCY SENSORS, AND DAYLIGHT SENSORS. LIGHTS SHALL BE PERMITTED TO BE ALL ON, ALL OFF, AND DIMMABLE TO USER-DESIRED LEVELS. LIGHTING SWITCH ZONES ARE DEPICTED ON THE DRAWINGS. WHERE NO SWITCH ZONES ARE INDICATED THE ROOM/SPACE SHALL BE CONTROLLED AS ONE ZONE. LOW-VOLTAGE LIGHT SWITCHES ARE ALSO SHOWN ON THE DRAWINGS. OCCUPANCY SENSORS SHALL BE PROVIDED FOR 100% COMPLETE MINOR MOTION COVERAGE IN THE ROOM OR SPACE. OCCUPANCY SENSORS SHALL BE CEILING MOUNTED, AND WALL-MOUNTED WHERE NO CEILING IS PRESENT. A DAYLIGHT SENSING DEVICE SHALL BE PROVIDED FOR EACH DAYLIGHT ZONE (DEPTH EQUAL TO 15 FEET INTO THE SPACE OR CEILING HEIGHT OPAQUE PARTITION AND WIDTH EQUAL TO WINDOW WIDTH PLUS 2 FEET ON EACH SIDE). DAYLIGHT RESPONSIVE CONTROLS SHALL OPERATE IN A CLOSED-LOOP FORMAT. LIGHT FIXTURE SHALL DIM IN RESPONSE TO DAYLIGHT LEVELS, AND SHALL DIM NO LOWER THAN 10% IN ANY INSTANCE. LIGHT FIXTURES SHALL NOT TURN OFF IN RESPONSE TO DAYLIGHT SENSORS. THE CONTRACTOR SHALL CONFIRM THE PRESENCE OF A CEILING WITH THE DOCUMENTS. OCCUPANCY SENSORS SHALL TURN LIGHTS OFF ONLY (I.E. MANUAL ON).

LIGHTING/SWITCHING KEY

X# = LIGHT FIXTURE TYPE PER LIGHT FIXTURE SCHEDULE

EM = EMERGENCY LIGHT FIXTURE

NL = NIGHT LIGHT FIXTURE

= PANEL CIRCUIT NUMBER

##' = HEIGHT TO CENTER OF FIXTURE OR SWITCH ABOVE FINISHED FLOOR (46" FOR SWITCHES IF NOT SHOWN)

x = SWITCHING SCHEME

LIGHTING/SWITCHING KEY

LOW VOLTAGE SWITCHES
^{LV1} - ON / OFF
^{LV2} - ON / OFF / DIMMING

LINE VOLTAGE SWITCHES
^{LINE} - ON / OFF

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REVISED DATE | CERT. NO.

Plans for
Instructional Building
Sisseton Wahpeton College
Agency Village, South Dakota

LIGHTING FLOOR PLAN

DRAWN BY: JK
TRACED BY:
CHECKED BY: JK

E105

DATE: 03/07/25
PROJECT NO.: 2023-0029

ELECTRICAL SYMBOLS

THESE SYMBOLS COMPRISE A STANDARD LIST; NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT.

ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR, MOUNTING HEIGHTS INDICATED ON ARCH. WALL ELEVATIONS ORAS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED BELOW.

LIGHTING

- CEILING SURFACE MOUNT FIXTURE. (Capital letter indicates fixture type. Small letter indicates switching. Typical for all fixture types).
- EMERGENCY CEILING SURFACE MOUNT FIXTURE
- WALL FIXTURE
- EMERGENCY WALL FIXTURE
- RECESSED FIXTURE
- EMERGENCY RECESSED FIXTURE
- EXTERIOR POLE LIGHT
- BOLLARD LIGHT
- SURFACE MOUNT FIXTURE
- EMERGENCY SURFACE MOUNT FIXTURE
- RECESSED FIXTURE
- EMERGENCY RECESSED FIXTURE
- WALL FIXTURE
- FLOOD LIGHT
- TRACK LIGHT
- PHOTO ELECTRIC CELL
- LIGHTING CONTACTOR (54"M.H.)
- TIME CLOCK (60" M.H.)
- EMERGENCY LIGHTING W/BATTERY PACK
- CEILING EXIT LIGHT (FACE(S) SHADED, ARROW INDICATES CHEVRON)
- WALL EXIT LIGHT (FACE(S) SHADED, ARROW INDICATES CHEVRON)
- OCCUPANCY SENSOR
- SINGLE POLE SWITCH (46" M.H.)
- DOUBLE POLE SWITCH (46" M.H.)
- THREE-WAY SWITCH (46" M.H.)
- FOUR-WAY SWITCH (46" M.H.)
- SWITCH WITH PILOT (46" M.H.)
- KEY OPERATED SWITCH (46" M.H.)
- MOMENTARY CONTACT SWITCH (60" M.H.)
- DIMMER SWITCH (46" M.H.)
- TIMER SWITCH (60" M.H.)
- VARIABLE SPEED SWITCH
- FUSED SWITCH

POWER

- PUSH BUTTON STATION (62" M.H.)
- DOUBLE PUSH BUTTON STATION
- EMERGENCY SHUTDOWN PUSHBUTTON
- ISOLATED GROUND RECEPTACLE (18" M.H.)
- DUPLEX CONVENIENCE RECEPTACLE (18" M.H.)
- SINGLE RECEPTACLE (18" M.H.)
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE (18" M.H.)
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE (18" M.H.)
- SPLIT WIRED DUPLEX RECEPTACLE (18" M.H)
- SAFETY CONVENIENCE RECEPTACLE
- POWER RECEPTACLE
- EMERGENCY DUPLEX RECEPTACLE
- TWIST LOCK RECEPTACLE
- GFI DUPLEX CONVENIENCE RECEPTACLE
- GFI DOUBLE DUPLEX CONVENIENCE RECEPTACLE
- SPECIAL PURPOSE OUTLET OR CONNECTION
- CORD/PLUG
- CORD REEL
- CEILING DUPLEX RECEPTACLE
- FLUSH FLOOR DUPLEX RECEPTACLE
- FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE
- FLUSH FLOOR MULTI-SERVICE OUTLET (WITH DEVICES INDICATED)
- MULTI-SERVICE POLE (WITH DEVICES INDICATED)
- BLANK OUTLET
- JUNCTION BOX
- PULL BOX
- MOTOR
- DISCONNECT SWITCH
- GENERATOR ANNUNCIATOR PANEL
- AUTOMATIC TRANSFER SWITCH
- VARIABLE FREQUENCY DRIVE
- COMBINATION VARIABLE FREQUENCY DRIVE DISCONNECT
- MAGNETIC STARTER
- COMBINATION STARTER/DISCONNECT
- MOTOR THERMAL SWITCH
- TRANSFORMER
- ELECTRIC METER
- SWITCHBOARD/DISTRIBUTION PANEL SECTION
- PANELBOARD OR LOAD CENTER
- PANELBOARD OR LOAD CENTER (EXISTING TO REMAIN)
- TVSS TRANSIENT VOLTAGE SURGE SUPPRESSER
- CIRCUIT BREAKER
- FUSE
- HUMIDISTAT
- THERMOSTAT
- REMOTE HVAC SENSOR
- RADIANT HEAT PANEL
- BASEBOARD OR COVE ELEC. HEAT
- ELECTRIC UNIT HEATER
- ELECTRIC CABINET UNIT HEATER
- MOTORIZED DAMPER
- BUS DUCT
- SURFACE MOUNT RACEWAY
- CEILING PADDLE FAN
- XX / # TYPE OF EQUIPMENT, EQUIPMENT NUMBER — SEE SCHEDULES
- ROOFTOP EQUIPMENT/CIRCUITING
- EXISTING EQUIPMENT/CIRCUITING
- GROUND
- UG CONDUIT IN FLOOR OR UNDERGROUND
- PNL,1,2,3 CONDUIT IN WALL OR CEILING SPACE. CROSS MARKS INDICATE NUMBER OF WIRES, NO MARKS INDICATE TWO WIRES. ARROWS INDICATE HOME RUNS TO PANEL. NUMBERS INDICATE PANEL AND CIRCUIT IN PANEL.
- SWITCHLEG
- TRAVELER
- HOT
- NEUTRAL
- INDICATES SEPARATE GROUND WIRE TO BE INSTALLED IN RACEWAY

TELECOM

- SPECIAL EQUIPMENT CABINET-AS NOTED
- TERMINATION BOARD - AS NOTED
- CABLE TRAY
- INTERCOM
- TELEPHONE/VOICE OUTLET (18" M.H.)
- W WALL PHONE (46" M.H.)
- DATA OUTLET (18" M.H.)
- CEILING MOUNT DATA OUTLET
- COMBINATION VOICE/DATA OUTLET (18" M.H.)
- TV TELEVISION OUTLET (18" M.H.)
- TV C CEILING MOUNT TELEVISION OUTLET

FIRE ALARM

- F FIRE ALARM MANUAL STATION (46" M.H.)
- D HEAT DETECTOR (RATE OF RISE)
- D HEAT DETECTOR (FIXED TEMP. ONLY)
- SD U UNITARY TYPE SMOKE DETECTOR
- SD SMOKE DETECTOR
- SD DUCT SMOKE DETECTOR
- SD BEAM DETECTOR TRANSMITTER
- SD BEAM DETECTOR RECEIVER
- RT REMOTE TEST STATION
- HS COMB HEAT/SMOKE DETECTOR
- FS FLOW SWITCH
- PS PRESSURE SWITCH
- TS TAMPER SWITCH
- FR FIRE ALARM CUT-OFF RELAY
- RA REMOTE ANNUNCIATOR
- DH DOOR HOLDER
- MM MONITOR MODULE
- CM CONTROL MODULE
- CH FIRE ALARM CHIME/STROBE
- F FIRE ALARM HORN/STROBE (80"M.H)
- F C CEILING MOUNT FIRE ALARM HORN/STROBE
- V FIRE ALARM VOICE/STROBE (80"M.H)
- V C CEILING MOUNT FIRE ALARM VOICE/STROBE
- H MINI FIRE ALARM HORN
- M MINI FIRE ALARM HORN/STROBE
- S PROJECTION HORN
- ST FIRE ALARM STROBE (80" M.H.)
- ST C CEILING MOUNT FIRE ALARM STROBE
- F FIRE ALARM BELL (88" M.H.)
- C COMBINATION FIRE/SMOKE DAMPER
- FAAP FIRE ALARM ANNUNCIATOR PANEL
- FACP FIRE ALARM CONTROL PANEL
- F FIRE FIGHTER PHONE JACK

SOUND AND SECURITY

- S FLUSH SPEAKER
- S SURFACE SPEAKER
- PAGING HORN
- V COLUME CONTROL (46" M.H.)
- M MICROPHONE OUTLET (18" M.H.)
- AUX AUXILIARY OUTLET
- AMP AMPLIFIER
- SURVEILLANCE VIDEO CAMERA
- C CEILING MOUNTED SURVEILLANCE VIDEO CAMERA
- PTZ SURVEILLANCE VIDEO CAMERA - PAN/TILT/ZOOM
- VM SURVEILLANCE VIDEO MONITOR
- VR SURVEILLANCE VIDEO RECORDER
- VS SURVEILLANCE VIDEO SWITCHER
- ACP ALARM CONTROL PANEL
- BAA BURGLAR ALARM ANNUNCIATOR
- ANTENNA (AS NOTED)
- AS ALARM PANIC SWITCH
- DS ALARM DOOR SWITCH
- DR DOOR RELEASE MECHANISM
- MD ALARM MOTION DETECTOR
- SP ALARM SHUNT PAD
- KP ALARM KEYPAD
- CA CARD ACCESS
- IC SECURITY INTERCOM (54" M.H.)
- RX REQUEST EXIT PUSH BUTTON

CLOCKS AND BELLS

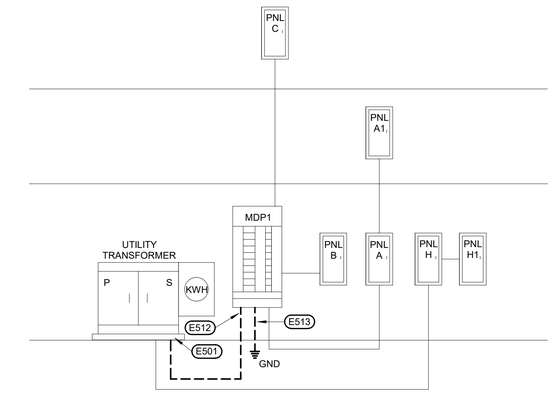
- SINGLE FACE CLOCK
- DOUBLE FACE CLOCK
- C CLOCK HANGER OUTLET
- GPS WIRELESS CLOCK SYSTEM TRANSMITTER/RECEIVER
- BELL (88"M.H.)

ELECTRICAL ABBREVIATIONS

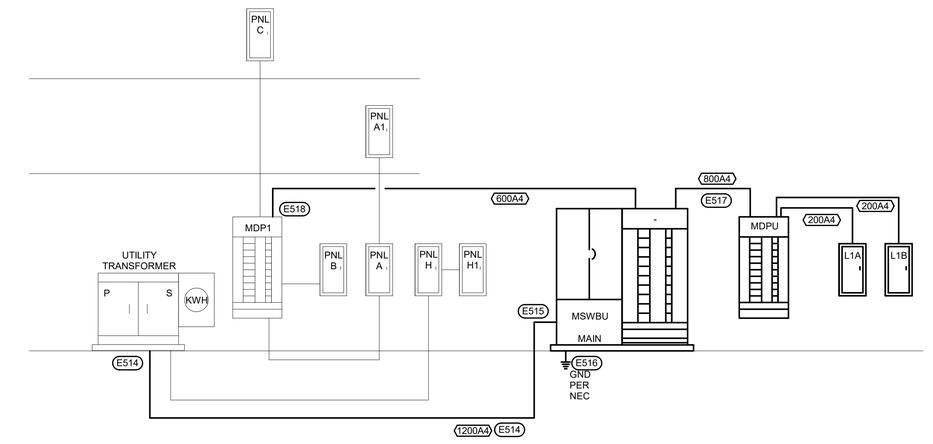
A STANDARD LIST. NOT ALL WORDS APPEAR IN THESE DRAWINGS.

SEE SPECIFICATION SECTION "EQUIPMENT WIRING" FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

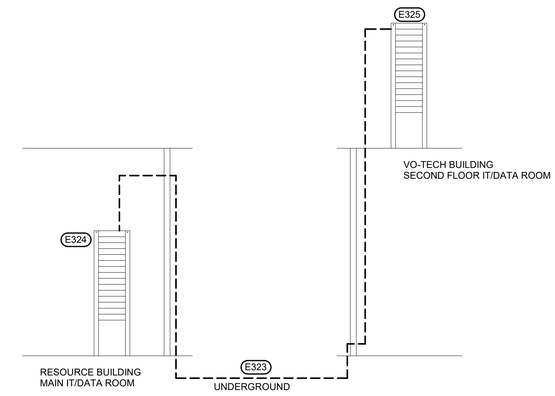
A or AMP	AMPERE
A/C	AIR CONDITIONING
A/E or AE	ARCHITECT & ENGINEER
ac	ABOVE COUNTER
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AFI or AFCI	ARC FAULT CIRCUIT INTERRUPTER
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CURRENT
AL	ALUMINUM
ANN	ANNUNCIATOR
AS	AUTOMATIC SENSORS
AWG	AMERICAN WIRE GAUGE
bc	BELOW COUNTER
BC	BELOW COUNTER
BH	BASKETBALL HOOP OPER
BL	BLEACHER ELECTRIC OPERATOR
BRD or BD	BOARD
BUH	BLAST UNIT HEATER
C or COND	CONDUIT
C/B or CB	CIRCUIT BREAKER
CAT	CATEGORY
CCT or CKT	CIRCUIT
CM	CARBON MONOXIDE SENSOR
CO	CARBON MONOXIDE
COMB	COMBINATION
CONF	CONFERENCE
CP	CEILING PROJECTOR
CTC	CABLE TERMINATION CABINET
Cu or CU	COPPER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
DC	DIRECT CURRENT
DC	DISTRIBUTION CABINET
DP	DISTRIBUTION PANEL
DISC	DISCONNECT
DISP	DISPOSAL
DL	DOCK LEVELER
DN or DWN	DOWN
DR	DOOR
DW	DISHWASHER
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EC	ELECTRICAL CABINET
EF	EXHAUST FAN
EH	ELECTRICAL HEAT
ELEC	ELECTRIC OR ELECTRICAL
EHD	ELECTRIC HAND DRYER
EM or EMERG	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NON-METALLIC TUBING
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EX	EXISTING
EXP	EXPLOSION PROOF
F or FUS	FUSE OR FUSIBLE
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FL, FLU or FLUOR	FLUORESCENT
FLA	FULL LOAD AMPERES
FVNR	FULL VOLTAGE, NON-REVERSING
FVR	FULL VOLTAGE, REVERSING
GC	GENERAL CONTRACTOR
GD	GARBAGE DISPOSAL
GEN	GENERATOR
GFI or GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GRC	GALVANIZED RIGID CONDUIT
GND or GRND	GROUND
H & AC	HEATING & AIR CONDITIONING
H & V	HEATING & VENTILATING
HA	HANDICAP ACCESS DOOR
HD	HAND DRYER
HID	HIGH INTENSITY DISCHARGE
HP	HORSE POWER
HPS	HIGH PRESSURE SODIUM
HTG	HEATING
HTR	HEATER
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HZ	HERTZ (CYCLES/SEC)
IC	INTERRUPTING CURRENT
IGR	ISOLATED GROUND RECEPTACLE
IMC	INTERMEDIATE METAL CONDUIT
INC	INCANDESCENT
ISO	ISOLATED OR ISOLATION
J, JB or J-BOX	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT - AMPERE
KVAR	KILOVOLT - AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT - HOUR
LA	LIGHTNING ARRESTOR
LT	LIGHT
LTG	LIGHTING
LTS	LIGHTS
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MFS	MAIN FUSIBLE SWITCH
MH	METAL HALIDE
MLO	MAIN LUG ONLY
MSB	MAIN SWITCHBOARD
MTD	MOUNTED
MTS	MOTOR THERMAL SWITCH
MV	MERCURY VAPOR
MW	MICROWAVE
NA or N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEU, NEUT or N	NEUTRAL
NF	NON-FUSED
NL	NIGHT LIGHT
NO	NORMALLY OPEN
OFF, OF, or OFC	OFFICE
OH	OVERHEAD
OHD	OVERHEAD DOOR
P	POLE
PA	PUBLIC ADDRESS
PB	PUSH BUTTON
PH	PHASE
PLBG	PLUMBING
PNL	PANEL
PR or pr	PAIR
PRV	POWER ROOF VENTILATOR
PS	PULL SWITCH
PS	PROJECTION SCREEN
PTZ	PAN TILT ZOOM
PVC	POLYVINYL CHLORIDE
PWR	POWER
RCP	REFLECTED CEILING PLAN
REC or RECEPT	RECEPTACLE
REF or REFRIG	REFRIGERATOR
RH	RADIANT HEAT
RH	RANGE HOOD
RLY	RELAY
RM	ROOM
RMS	ROOT MEAN SQUARE
SCC	SHORT CIRCUIT CURRENT
SD	SMOKE DETECTOR
SFR	SAFETY RECEPTACLE
SFTY	SAFETY
SHLD	SHIELD OR SHIELDED
SIG	SIGNAL
SMR	SURFACE MOUNT RACEWAY
SN	SOLID NEUTRAL
SP	SUMP PUMP
SPECS	SPECIFICATIONS
SPKR	SPEAKER
SPR	SPLIT WIRE RECEPTACLE
SW	SWITCH
SWBD	SWITCH BOARD
TC	TEMPERATURE CONTROL
TC	TELEPHONE CABINET
TCC	TEMPERATURE CONTROL CONTRACTOR
TEL	TELEPHONE
TL	TWIST LOCK
TR, TRANS or TRFMR	TRANSFORMER
TTB	TELEPHONE TERMINATION BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UV	UNIT VENTILATOR
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
WTR or H20	WATER
WS	WINDOW SHADE
XFMR	TRANSFORMER
Y	WYE CONNECTION
ϕ	PHASE
Δ	DELTA



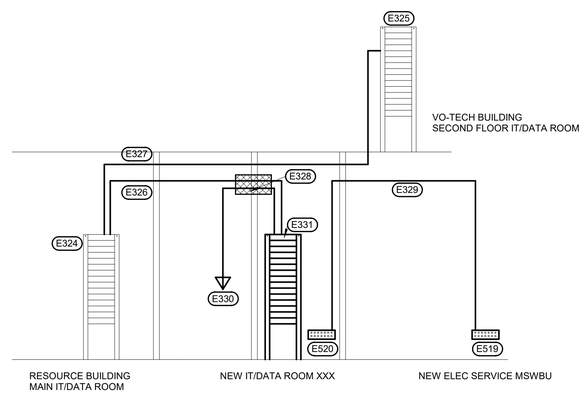
1 POWER RISER DIAGRAM - VO TECH BLDG DEMOLITION
1/4" = 1'-0"



2 POWER RISER DIAGRAM - VO TECH / UNION ADDITION
1/4" = 1'-0"



3 TECHNOLOGY RISER DIAGRAM - DEMOLITION
1/4" = 1'-0"



4 TECHNOLOGY RISER DIAGRAM
1/4" = 1'-0"

ELECTRICAL SPECIFIC NOTES

#	
E323	REMOVE EXISTING FIBER OPTIC CABLE BETWEEN THE RESOURCE BUILDING MAIN DISTRIBUTION FRAME AND THE VO-TECH BUILDING SECOND FLOOR
E324	EXISTING DATA/IT RACK IN RESOURCE BUILDING MDF/DATA ROOM TO REMAIN.
E325	EXISTING DATA/IT RACK IN VO-TECH BUILDING TO REMAIN.
E326	PROVIDE A NEW 6-PAIR, 12-STRAND, OM3 MULTI-MODE FIBER OPTIC CABLE WITH ARMOR JACKET FROM THE EXISTING RESOURCE BUILDING MDF ROOM TO THE NEW IT/DATA ROOM. INSTALL IN CABLE TRAY WHEREVER POSSIBLE. COORDINATE ROUTING THROUGH THE EXISTING BUILDING WITH THE OWNER. USE J-HOOKS AND/OR D-RINGS TO SUPPORT FIBER OPTIC CABLE WHERE INSTALLED IN THE EXISTING BUILDING.
E327	PROVIDE A NEW 6-PAIR, 12-STRAND, OM3 MULTI-MODE FIBER-OPTIC CABLE WITH ARMOR JACKET FROM THE EXISTING RESOURCE BUILDING MDF ROOM TO THE EXISTING VO-TECH SECOND FLOOR IT/DATA RACK. INSTALL IN CABLE TRAY WHEREVER POSSIBLE. COORDINATE ROUTING THROUGH THE EXISTING BUILDING WITH THE OWNER. USE J-HOOKS AND/OR D-RINGS TO SUPPORT FIBER OPTIC CABLE WHERE INSTALLED IN THE EXISTING BUILDING.
E328	PROVIDE FIRE RATED CABLE PENETRATION DEVICES. STI E-Z-PATH OR EQUAL. PROVIDE QUANTITY AS REQUIRED FOR THE CABLE COUNT INSTALLED PLUS CAPACITY FOR 25% FUTURE ADDITIONS.
E329	REFER TO GROUNDING AND BONDING DETAIL.
E330	TYPICAL OF ALL VOICE, DATA, COMBINATION VOICE/DATA, AND TELEVISION OUTLETS: PROVIDE A 4-INCH SQUARE X 2-1/8 INCH DEEP JUNCTION BOX WITH A SINGLE GANG MUD RING. PROVIDE A 1-INCH CONDUIT STUB-UP TO THE NEAREST CABLE TRAY.
E331	PROVIDE NEW FLOOR-MOUNTED DATA RACKS WITH WIRE MANAGEMENT. COORDINATE EXACT LOCATION WITHIN THE ROOM WITH THE OWNER AND CABLE TRAY INSTALLATION.
E501	EXISTING PAD-MOUNTED UTILITY TRANSFORMER. 208Y/120-VOLT, 3-PHASE, 4-WIRE SECONDARY. COORDINATE ALL REVISIONS WITH THE SERVING UTILITY: WHETSTONE ELECTRIC COOPERATIVE.
E512	REMOVE EXISTING SERVICE-ENTRANCE FROM THE UTILITY PAD-MOUNTED TRANSFORMER TO EXISTING ELECTRICAL PANEL MDP1. COORDINATE PHASING OF NEW SERVICE SWITCH TO MINIMIZE DOWN TIME AS MUCH AS POSSIBLE. COORDINATE ALL SHUTDOWNS WITH THE UTILITY AND THE OWNER.
E513	REMOVE EXISTING BONDING JUMPER AND BOND TO THE GROUNDING ELECTRODE SYSTEM FROM PANEL MDP1. A NEW SERVICE ENTRANCE WILL BE ESTABLISHED AT A DIFFERENT PANEL.
E514	PROVIDE A NEW SERVICE ENTRANCE FROM THE EXISTING UTILITY TRANSFORMER TO NEW PANEL MSWBU. COORDINATE PHASING OF NEW SERVICE SWITCH TO MINIMIZE DOWN TIME AS MUCH AS POSSIBLE. CONCEAL RACEWAYS UNDERGROUND WHEREVER POSSIBLE. ANY DEVIATIONS SHOULD BE COORDINATED WITH THE ARCHITECT, ENGINEER, AND OWNER.
E515	COORDINATE ANY CORE-DRILLING OF EXISTING WALLS, FOUNDATIONS, ETC. AND LIKEWISE SAW-CUTTING OF ANY FLOORS WITH ARCHITECT, ENGINEER, AND OWNER. CONCEAL SERVICE-ENTRANCE RACEWAYS AS MUCH AS POSSIBLE.
E516	PROVIDE A NEW GROUNDING ELECTRODE SYSTEM. BOND TO ANY EXISTING COMPONENTS PER CODE.
E517	NEW FEEDER BETWEEN MSWBU AND MDPU SHALL BE ROUTED THROUGH THE OPEN CLASSROOM SPACE IN THE EXISTING BUILDING. COORDINATE EXACT ROUTING ON SITE PRIOR TO ROUGH-IN. WHERE JUNCTION BOXES ARE REQUIRED THEY MUST BE INSTALLED IN AN ACCESSIBLE LOCATION.
E518	PROVIDE NEW FEEDER FROM NEW SERVICE-ENTRANCE SWITCHBOARD MSWBU TO EXISTING PANEL MDP1. COORDINATE PHASING TO LIMIT DOWN TIME AS MUCH AS POSSIBLE. COORDINATE EXACT RACEWAY ROUTING ON SITE.
E519	PROVIDE AN INTERSYSTEMS BONDING BUS BAR.
E520	PROVIDE A TELECOMMUNICATIONS GROUNDING BUS BAR.

ELECTRICAL SERVICE/FEEDER SCHEDULE

SERVICE/FEEDER AMPACITY	3 WIRE SERVICE/FEEDER	4 WIRE SERVICE/FEEDER
200A	2"C, 3#3/0 & 1#6 GND	2"C, 4#3/0 & 1#6 GND
600A	(2) 3"C, 3#350 & 1#1 GND	(2) 3"C, 4#350 & 1#1 GND
800A	(3) 3 1/2"C, 3#300 & 1#1/0 GND	(3) 3 1/2"C, 4#300 & 1#1/0 GND
1200A	(4) 3 1/2"C, 3#350 & 1#3/0 GND	(4) 3 1/2"C, 4#350 & 1#3/0 GND

XXXAY — XXX AMPERAGE; Y # OF CONDUCTORS

NOTES:

*OPTIONAL INSTALLATION, UNLESS NOTED OTHERWISE.

(#) = PROVIDE PARALLEL SETS OF CONDUCTORS AS INDICATED.

REGISTERED PROFESSIONAL ENGINEER — REG. NO. 12457 — JONATHAN N. KENNEDY — SOUTH DAKOTA — 7-7-25

WPE# BS24055

WPE WEST PLAINS ENGINEERING, INC.

4609 SOUTH TECHLINK CIRCLE • SIOUX FALLS, SD 57106

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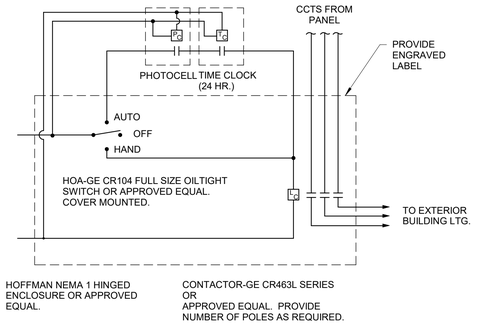
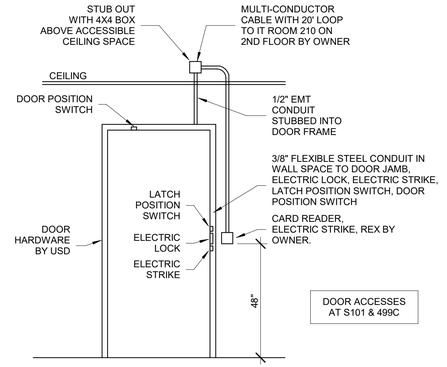
RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA

hkg architects

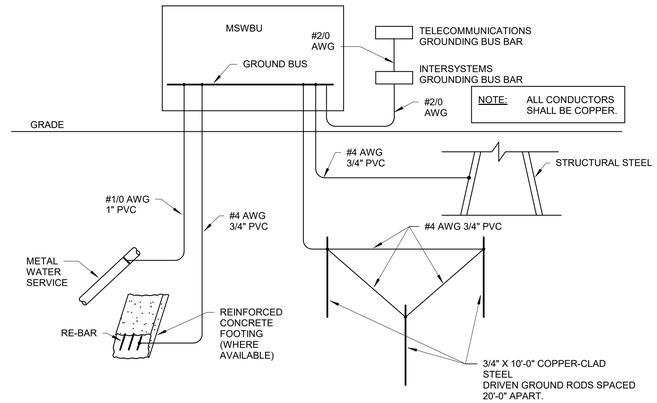
REVISED DATE	Plans for	ELECTRICAL DETAILS	E106
	Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	DRAWN BY: JK TRACED BY: ____ CHECKED BY: JK	
DEPT. NO.	HKG Architects, Inc. Aberdeen, S.D.	DATE: 03/07/25	PROJECT NO.: 2023-0029



3 EXTERIOR LIGHTING CONTROL DIAGRAM
NO SCALE



1 DOOR SECURITY/ACCESS SYSTEM (ROUGH-IN)
NO SCALE



2 GROUNDING ELECTRODE DIAGRAM
NO SCALE

WPE# 8524055
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ASSISTED PROFESSIONAL ENGINEER
REG. NO. 12457
JONATHAN N. KENNEDY
SOUTH DAKOTA
7-7-25

hkg architects

REVISED DATE	Plans for Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	ELECTRICAL DETAILS	DRAWN BY: JR TRACED BY: CHECKED BY: JR E107
CERT. NO.	HKG Architects, Inc. Aberdeen, S.D.	DATE 03/07/25	PROJECT NO. 2023-0029

L1A

		VOLTS:	120/208 Wye		**PHASES:**	3			**WIRE:**	4			**MAIN CAPACITY:**	200 A									
		AIC RATING:	22KAIC		**LOCATION:**	Mech/ Jan. 113							**MAIN CONNECTION:**	MLO									
		MOUNTING:	SURFACE		**FEEDER SIZE:**	SEE POWER RISER DIAGRAM							**MAIN TYPE:**	TYPE 1									
CKT	**LOAD TYPE**	**ITEM FED**	**WIRE SIZE**	**AMPS**	**POLES**	**BREAKER TYPE**	**A (WATTS)**		**B (WATTS)**		**C (WATTS)**		**BREAKER TYPE**	**POLES**	**AMPS**	**WIRE SIZE**	**ITEM FED**	**LOAD TYPE**	**CKT**				
1		EF-2	12	15 A	1		696	696						1	15 A	12	EF-1		2				
3		DCP-1	12	20 A	1				1100	540				1	20 A	12	REC - 112		4				
5		REC - WATER SOFTENER	12	20 A	1						180	1080		1	20 A	12	REC - 122		6				
7		REC - 122	12	20 A	1		900	720						1	20 A	12	REC - 107		8				
9		REC - 109	12	20 A	1				900	900				1	20 A	12	REC - 109		10				
11		REC - 111	12	20 A	1						1080	1080		1	20 A	12	REC - 110		12				
13		REC - 108	12	20 A	1		1080	900						1	20 A	12	REC - 108		14				
15		REC - 105	12	20 A	1				720	720				1	20 A	12	REC - 103		16				
17		REC - 101, 106, EXT WEST	12	20 A	1						1136	720		1	20 A	12	REC - 106, 113, EXT EAST		18				
19		LIGHTING - 108, 108, 122	12	20 A	1		1029	654						1	20 A	12	LTG- 103, 105, 110, 111, 107, 112		20				
21		LTG - CORRIDORS	12	20 A	1				1109	360				1	20 A	12	REC - IT/DATA WEST		22				
23		REC - IT/DATA SOUTH	12	20 A	1						360	360		1	20 A	12	REC - IT/DATA EAST		24				
25		REC - IT/DATA NORTH	12	20 A	1		360	0						1	20 A	12	TEMPERATURE CONTROL PANEL		26				
27	--	SPARE		20 A	1	--			0	0			--	1	20 A		SPARE	--	28				
29	--	SPARE		20 A	1	--					0	0	--	1	20 A		SPARE	--	30				
31	--	SPARE		20 A	1	--	0	0					--	1	20 A		SPARE	--	32				
33	--	SPARE		20 A	1	--			0	0			--	1	20 A		SPARE	--	34				
35	--	SPARE		20 A	1	--					0	0	--	1	20 A		SPARE	--	36				
37	--	SPARE		20 A	1	--	0	0					--	1	20 A		SPARE	--	38				
39	--	SPARE		20 A	1	--			0	0			--	1	20 A		SPARE	--	40				
41	--	SPARE		20 A	1	--					0	0	--	1	20 A		SPARE	--	42				
		TOTAL CONNECTED LOAD:		7035 W			6349 W				5996 W		**AMPS:**	54 A	**LOAD:**	19380 W							

LOAD CLASSIFICATION	**CONNECTED LOAD**	**DEMAND FACTOR**	**ESTIMATED DEMAND**	**PANEL TOTALS**	
Lighting	2792 VA	100.00%	2792 VA		
Motor	2908 VA	109.46%	3183 VA	**TOTAL CONN. LOAD:**	19380 VA
Receptacle	13680 VA	86.55%	11840 VA	**TOTAL EST. DEMAND LOAD:**	17815 VA
				TOTAL CONN. CURRENT:	54 A
				TOTAL EST. DEMAND CURRENT:	49 A

L1B

		VOLTS:	120/208 Wye		**PHASES:**	3			**WIRE:**	4			**MAIN CAPACITY:**	200 A									
		AIC RATING:	22KAIC		**LOCATION:**	Mech/ Jan. 113							**MAIN CONNECTION:**	MLO									
		MOUNTING:	SURFACE		**FEEDER SIZE:**	SEE POWER RISER DIAGRAM							**MAIN TYPE:**	TYPE 1									
CKT	**LOAD TYPE**	**ITEM FED**	**WIRE SIZE**	**AMPS**	**POLES**	**BREAKER TYPE**	**A (WATTS)**		**B (WATTS)**		**C (WATTS)**		**BREAKER TYPE**	**POLES**	**AMPS**	**WIRE SIZE**	**ITEM FED**	**LOAD TYPE**	**CKT**				
1		REC - 102	12	20 A	1		720	540						1	20 A	12	REC - 104		2				
3		REC - 114	12	20 A	1				540	540				1	20 A	12	REC - 114		4				
5		REC - 114	12	20 A	1						540	540		1	20 A	12	REC- 114		6				
7		REC - 114	12	20 A	1		360	930						1	20 A	12	REC - 117, ERCP-1		8				
9		REC - 118, ERCP-1	12	20 A	1				1110	720				1	20 A	12	REC - 119		10				
11		REC - 120	12	20 A	1						720	540		1	20 A	12	REC - 115		12				
13		REC - 115	12	20 A	1		540	540						1	20 A	12	REC - 115		14				
15		REC - 115	12	20 A	1				540	720				1	20 A	12	REC - 115		16				
17		REC - 115	12	20 A	1						720	833		1	20 A	12	LTG - 115, 102		18				
19		LTG - 114, 117, 118, 119, 120	12	20 A	1		642	500						1	20 A	12	WATER FOUNTAIN **		20				
21	--	SPARE		20 A	1	--			0	0			--	1	20 A		SPARE	--	22				
23	--	SPARE		20 A	1	--					0	0	--	1	20 A		SPARE	--	24				
25	--	SPARE		20 A	1	--	0	0					--	1	20 A		SPARE	--	26				
27	--	SPARE		20 A	1	--			0	0			--	1	20 A		SPARE	--	28				
29	--	SPARE		20 A	1	--					0	0	--	1	20 A		SPARE	--	30				
31	--	SPARE		20 A	1	--	0	0					--	1	20 A		SPARE	--	32				
33	--	SPARE		20 A	1	--			0	0			--	1	20 A		SPARE	--	34				
35	--	SPARE		20 A	1	--					0	0	--	1	20 A		SPARE	--	36				
37	--	SPARE		20 A	1	--	0	0					--	1	20 A		SPARE	--	38				
39	--	SPARE		20 A	1	--			0	0			--	1	20 A		SPARE	--	40				
41	--	SPARE		20 A	1	--					0	0	--	1	20 A		SPARE	--	42				
		TOTAL CONNECTED LOAD:		4772 W			4170 W				3893 W		**AMPS:**	36 A	**LOAD:**	12835 W							

LOAD CLASSIFICATION	**CONNECTED LOAD**	**DEMAND FACTOR**	**ESTIMATED DEMAND**	**PANEL TOTALS**	
HVAC	1500 VA	100.00%	1500 VA		
Lighting	1475 VA	100.00%	1475 VA	**TOTAL CONN. LOAD:**	12835 VA
Power	180 VA	100.00%	180 VA	**TOTAL EST. DEMAND LOAD:**	12835 VA
Receptacle	9680 VA	100.00%	9680 VA	**TOTAL CONN. CURRENT:**	36 A
				TOTAL EST. DEMAND CURRENT:	36 A

** DENOTES CIRCUIT BREAKER WITH GFCI TRIP

E-FLOOR BOX SCHEDULE

UNIT NUMBER	**DESCRIPTION**	**CONDUIT QUANTITY AND SIZE**				**MANUFACTURER AND SERIES**	**COVER ASSEMBLY**	**NOTES**
		POWER	**DATA**	**A/V**	**SPARE**			
FB1	RECESSED FLOOR BOX FOR CONCRETE ON-GRADE	(1) 1"	(1) 1-1/4"	-	-	LEGRAND RF4BA OR EQUAL	FTBTCAA	LISTED FOR USE ON GRADE

MAIN DISTRIBUTION PANEL: MSWBU

MOUNTING:	FLOOR	**VOLTAGE:**	120/208 Wye	**PHASES:**	3	**WIRE:**	4			**MAIN CAPACITY:**	1200 A
FEEDER SIZE:	SEE POWER RISER DIAGRAM					**LOCATIO...**				**MAIN CONNECTION:**	MCB

CKT	**ITEM FED**	**AMPS**	**POLES**	**FRAME**	**WIRE SIZE**	**A...**	**B...**	**C...**	**REMARKS**
1	MDPU	800 A	3	800 A	SEE POWER RISER	48143	46855	41725	SEE POWER RISER
2	MDP1 (EXISTING)	600 A	3	600 A	SEE POWER RISER	19000	19000	19000	SEE POWER RISER
3	SPARE	200 A	3	200 A		0	0	0	
4	SPARE	200 A	3	200 A		0	0	0	
5	SPARE	100 A	3	100 A		0	0	0	
6	SPARE	100 A	3	100 A		0	0	0	
7	SPACE	--	3	--		--	--	--	
8	SPACE	--	3	--		--	--	--	
9	SPACE	--	3	--		--	--	--	
10	SPACE	--	3	--		--	--	--	
	TOTAL LOAD:	1937...	**AMPS:**	538 A	**TOTAL CONNECTED LOAD:**	67143 W	65855 W	60725 W	

Notes:
SERVICE ENTRANCE RATED - 35KAIC
ARC ENERGY REDUCTION SWITCH
ELECTRONIC METERING
SURGE PROTECTIVE DEVICE

MAIN DISTRIBUTION PANEL: MDPU

MOUNTING:	WALL/SURFACE	**VOLTAGE:**	120/208 Wye	**PHASES:**	3	**WIRE:**	4			**MAIN CAPACITY:**	800 A
FEEDER SIZE:	SEE POWER RISER DIAGRAM					**LOCATION:**	Mech/ Jan. 113			**MAIN CONNECTION:**	MLO

CKT	**ITEM FED**	**AMPS**	**POLES**	**FRAME**	**WIRE SIZE**	**A**	**B**	**C**	**REMARKS**
1	L1A	200 A	3	200 A	SEE RISER DIAGRAM	7035	6349	5996	
2	L1B	200 A	3	200 A	SEE RISER DIAGRAM	4772	4170	3893	
3	VAV1-1	20 A	3	100 A	#10	1333	1333	1333	
4	VAV1-2	20 A	2	100 A	#10	1500	1500		
5	VAV1-3	20 A	3	100 A	#10	1333	1333	1333	
6	VAV1-4	20 A	3	100 A	#12	1333	1333	1333	
7	VAV1-5	20 A	3	100 A	#12	1667	1667	1667	
8	VAV1-6	20 A	2	100 A	#12	1000	1000		
9	VAV1-7	20 A	2	100 A	#12	1000	1000		
10	VAV1-8	20 A	2	100 A	#12	1000	1000		
11	VAV1-9	30 A	3	100 A	#10	2333	2333	2333	
12	VAV1-10	20 A	3	100 A	#8	1833	1833	1833	
13	VAV1-11	30 A	3	100 A	#8	2333	2333	2333	
14	VAV1-12	20 A	3	400 A	#12	1333	1333	1333	
15	ECUH-1	20 A	3	100 A	#10	1667	1667	1667	
16	ECUH-2	20 A	3	100 A	#10	1667	1667	1667	
17	EUH-1	20 A	3	100 A	#12	1667	1667	1667	
18	WH-1	30 A	3	100 A	#10	2000	2000	2000	
19	RTU-1	175 A	3	200 A	#2/0	11336	11336	11336	
20	SPARE	100 A	3	100 A		0	0	0	--
21	SPARE	200 A	3	200 A		0	0	0	--
22	SPACE	--	3	--		--	--	--	--
23	SPACE	--	3	--		--	--	--	--
24	SPACE	--	3	--		--	--	--	--
	TOTAL LOAD:	136724 W	**AMPS:**	380 A	**TOTAL CONNECTED LOAD:**	48143 W	46855 W	41725 W	

LOAD CLASSIFICATION	**CONNECTED LOAD**	**DEMAND FACTOR**	**ESTIMATED DEMAND**	**PANEL TOTALS**	
HVAC	35509 VA	100.00%	35509 VA		
Heating	63500 VA	100.00%	63500 VA	**TOTAL CONN. LOAD:**	136724 VA
Lighting	4267 VA	100.00%	4267 VA	**TOTAL EST. DEMAND:**	131794 VA
Motor	9908 VA	117.66%	11658 VA	**TOTAL CONN. AMPS:**	380 A
Power	180 VA	100.00%	180 VA	**TOTAL EST. DEMAND AMPS:**	366 A
Receptacle	23360 VA	71.40%	16680 VA		

Notes:
++ DENOTES CIRCUIT BREAKER WITH PERMANENT LOCKING MEANS
22KAIC

STARTER DISCONNECT SCHEDULE

UNIT TYPE	**UNIT NUMBER**	**KW**	**MOTOR**		**VOLTAGE**	**PHASES**	**STARTER TYPE**	**STARTER NEMA SIZE**	**STARTER ENCLOSURE TYPE**	**STARTER KEY FEATURES**	**CONTROL**	**DISCONNECT SWITCH SIZE**	**DISCONNECT FUSE SIZE**	**COMMENTS**
			HP	**MCA**										
DCP	1		0.4 hp		120 V	1	MMS	-	-	-	BY DIV 22/23	INTEGRAL TO STARTER	-	
ECUH	1		0 hp	14 A	208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	
ECUH	2		0 hp	14 A	208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	
EF	1		0.125 hp		120 V	1	-	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	
EF	2		0.125 hp		120 V	1	-	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	
ERCP	1				120 V	1					BY DIV 22/23	PROVIDE TOGGLE SWITCH		
ERCP	1				120 V	1					BY DIV 22/23	PROVIDE TOGGLE SWITCH		
EUH	1		0 hp	17 A	208 V	3	-	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	
RTU	1			118 A	208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL	-	FACTORY INSTALLED 120V RECPT
VAV	1-1				208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-2				208 V	1	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-3				208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-4				208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-5				208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-6				208 V	1	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-7				208 V	1	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-8				208 V	1	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-9				208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-10				208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-11				208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
VAV	1-12				208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT		
WH	1			0 A	208 V	3	INTEGRAL	-	-	-	BY DIV 22/23	-	-	

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hkg architects

REVISED DATE	**Plans for** Instructional Building Sisseton Wahpeton College Agency Village, South Dakota	ELECTRICAL SCHEDULES	E108
DRAWN BY: JK			
TRACED BY:			
CHECKED BY: JK			
DEPT. NO.		DATE: 03/07/25	PROJECT NO.: 2023-0029
	HKG Architects, Inc. Aberdeen, S.D.		