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SURF ACCESS CONTROL PHASE II SURFACE LOCATIONS CONSTRUCTION DOCUMENTS

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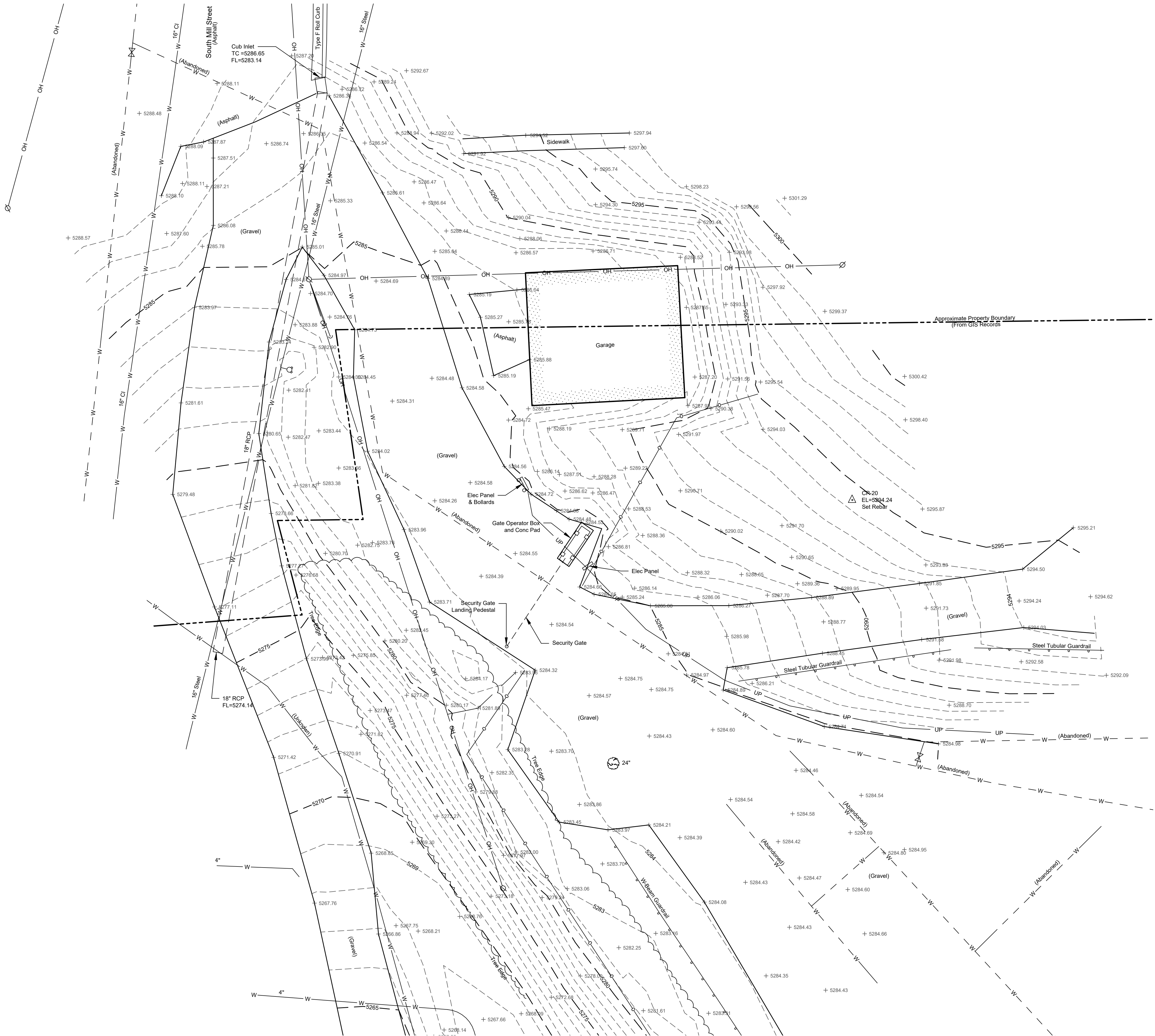
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RAPID CITY, SD ▪ SIOUX FALLS, SD ▪ CASPER, WY ▪ CEDAR RAPIDS, IA



Z:\221249 00 WPE-SDSTA Access Control Phase 2\CAD\X-Ref\221249 Topo.dwg - C1.01 Existing Conditions - Wednesday, February 8, 2023 11:06:51 AM





FMG ENGINEERING
3700 Sturgis Road
Rapid City, SD 57702
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FMG Job #
221249

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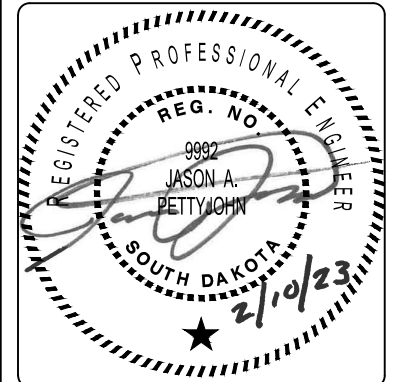
EXISTING CONDITIONS

SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#:	BR220033
DESIGNED:	JAP
DRAWN:	MDS
APPROVED:	JAP
DATE:	02/10/2023



SHEET:

C1.01

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SCALE: 1" = 10'

LEGEND

 CP 1

 Spot Elevation

 Fire Hydrant

 Overhead Utility Line

 Power Pole

 Power Pole Anchor

 Type B Inlet

 Tree (Deciduous)

 Plus Trunk Diameter

 Edge of Trees

 Wood Fence

 Chain Link Fence

 Guardrail

 Curb & Gutter

 Contour (1')

 Contour (5')

 Survey Control Point

 Spot Elevation

 Fire Hydrant

 Overhead Utility Line

 Power Pole

 Power Pole Anchor

 Type B Inlet

 Tree (Deciduous)

 Plus Trunk Diameter

 Edge of Trees

 Wood Fence

 Chain Link Fence

 Guardrail

 Curb & Gutter

 Contour (1')

 Contour (5')

Note Regarding Utilities
Unless otherwise noted, utility locations shown are based on GIS mapping provided by SDSTA. Existence and location of actual utilities may vary from that shown. Contractor must verify location of all utilities before excavation.

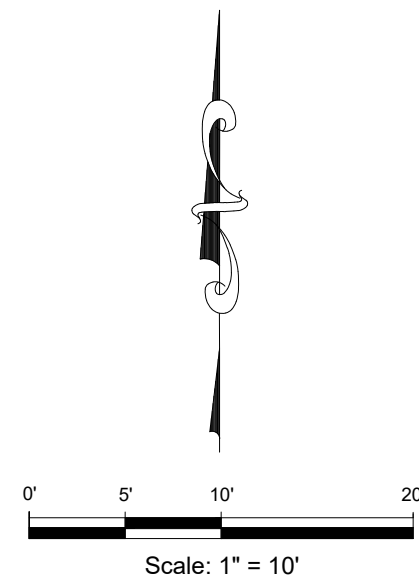
Basis of Bearings
South Dakota State Plane, North Zone, 4001
based on results from GNSS static observation and OPUS post processing solution.

Horizontal Datum is NAD83(2011) using US Survey Feet.

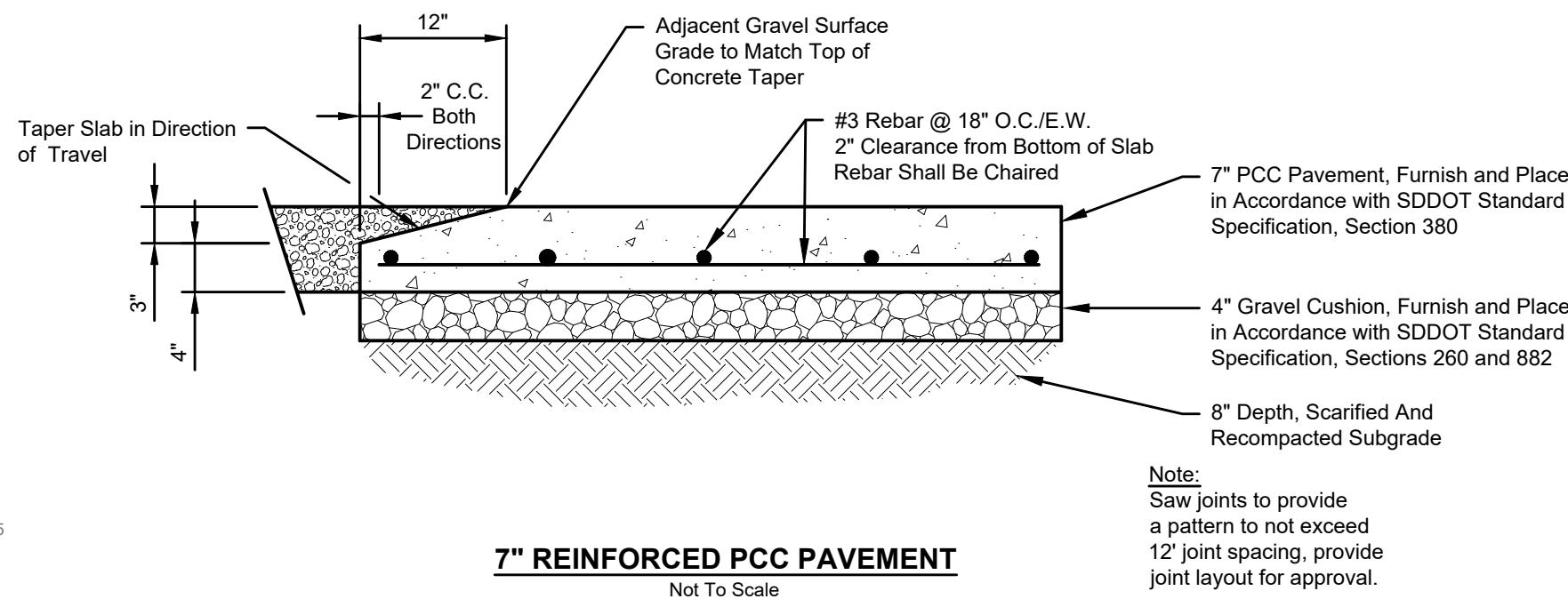
Vertical Datum for elevations using North American Datum (NAVD88) in US Survey Feet and determined using Geoid Model g2018u0.

All distances are grid.

Table of Control Points				
Point #	Northing	Easting	Elevation	Description
20	209972.1360	985296.6390	5294.24	SET REBAR



Note:
All civil work shall conform to the South Dakota Department of Transportation (SDDOT) Standard Specifications for Roads and Bridges, 2015 Edition.



Z:\221249.00\WPE-SDSTA Access Control Phase 2\CAD\Plan Sheets\Site Plan.dwg - C2.01 Site Layout - Wednesday, February 8, 2023 11:07:00 AM

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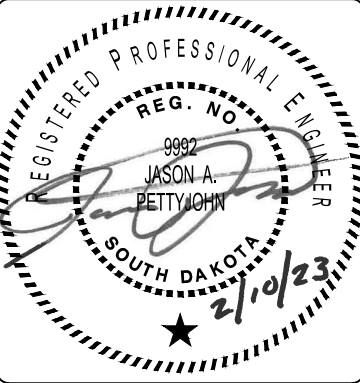
SITE LAYOUT

SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#:	BR22033
DESIGNED:	JAP
DRAWN:	MDS
APPROVED:	JAP
DATE:	02/10/2023



SHEET:

C2.01

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SURF ACCESS CONTROL PHASE II SURFACE LOCATIONS									
<i>Door Designation</i>	<i>Thickness</i>	<i>Width</i>	<i>Height</i>	<i>Frame Material/ Type</i>	<i>Door Material/ Type</i>	<i>Fire Rating</i>	<i>Glazing</i>	<i>Hardware Group</i>	<i>Comments</i>
1105	1 3/4"	2' - 8"	7' - 0"	HM	HM			1110	
1110	1 3/4"	3' - 0"	7' - 0"	HM	HM			1110	
1205	1 3/4"	7' - 6"	7' - 0"	HM	HM			1103	
1210	1 3/4"	7' - 6"	7' - 0"	HM	HM			1120	
1215	1 3/4"	2' - 8"	7' - 0"	HM	HM			1120	
1220	1 3/4"	2' - 8"	7' - 0"	HM	HM			1120	
1225	1 3/4"	2' - 8"	7' - 0"	HM	HM			1120	
1230	1 3/4"	2' - 8"	7' - 0"	HM	HM			1120	
1240	1 3/4"	2' - 8"	7' - 0"	HM	HM			1120	
1245	1 3/4"	2' - 8"	7' - 0"	HM	HM			1103	
1250	1 3/4"	3' - 0"	7' - 0"	HM	HM			1103	
1305	1 3/4"	3' - 0"	7' - 0"	HM	HM			1102	
1310	1 3/4"	8' - 0"	7' - 0"	HM	HM			1001	
1315	1 3/4"	3' - 0"	7' - 0"	HM	HM			1001	
1405	1 3/4"	6' - 0"	7' - 0"	HM	HM			1102	
1410	1 3/4"	6' - 0"	7' - 0"	HM	HM			1102	
1415	1 3/4"	3' - 0"	7' - 0"	HM	HM			1103	
1420	1 3/4"	3' - 0"	7' - 0"	HM	HM			1001	
1425	1 3/4"	3' - 0"	7' - 0"	HM	HM			1110	
1430	1 3/4"	6' - 0"	7' - 0"	HM	HM			1103	
1440	1 3/4"	3' - 0"	7' - 0"	HM	HM			1111	NEW DOOR / FRAME VERIFY SIZE
1445	1 3/4"	3' - 0"	7' - 0"	HM	HM			1001	
1450	1 3/4"	3' - 0"	7' - 0"	HM	HM			1110	
1505	1 3/4"	3' - 0"	7' - 0"	HM	HM			1102	
1506	1 1/2"	10' - 0"	10' - 0"	HM	HM			1001	
1510	1 3/4"	3' - 0"	7' - 0"	HM	HM			1102	
1511	1 1/2"	10' - 0"	10' - 0"	HM	HM			1001	
1605	1 3/4"	6' - 0"	7' - 0"	HM	HM			1001	
1610	1 3/4"	3' - 0"	7' - 0"	HM	HM			1001	
1615	1 3/4"	3' - 0"	7' - 0"	HM	HM			1001	
1620	1 3/4"	3' - 0"	7' - 0"	HM	HM			1001	
1625	1 3/4"	6' - 0"	7' - 0"	HM	HM			1105	



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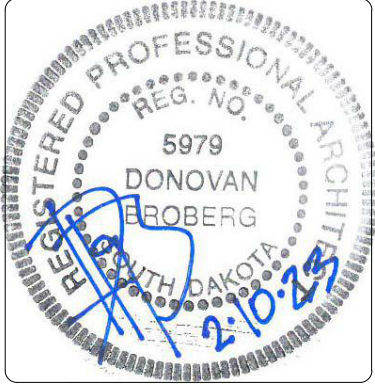
OVERALL CAMPUS

SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#:	2021-011.2
DESIGNED:	DB
DRAWN:	RT
APPROVED:	DB
DATE:	2/10/23



SHEET:

A1.00

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1105

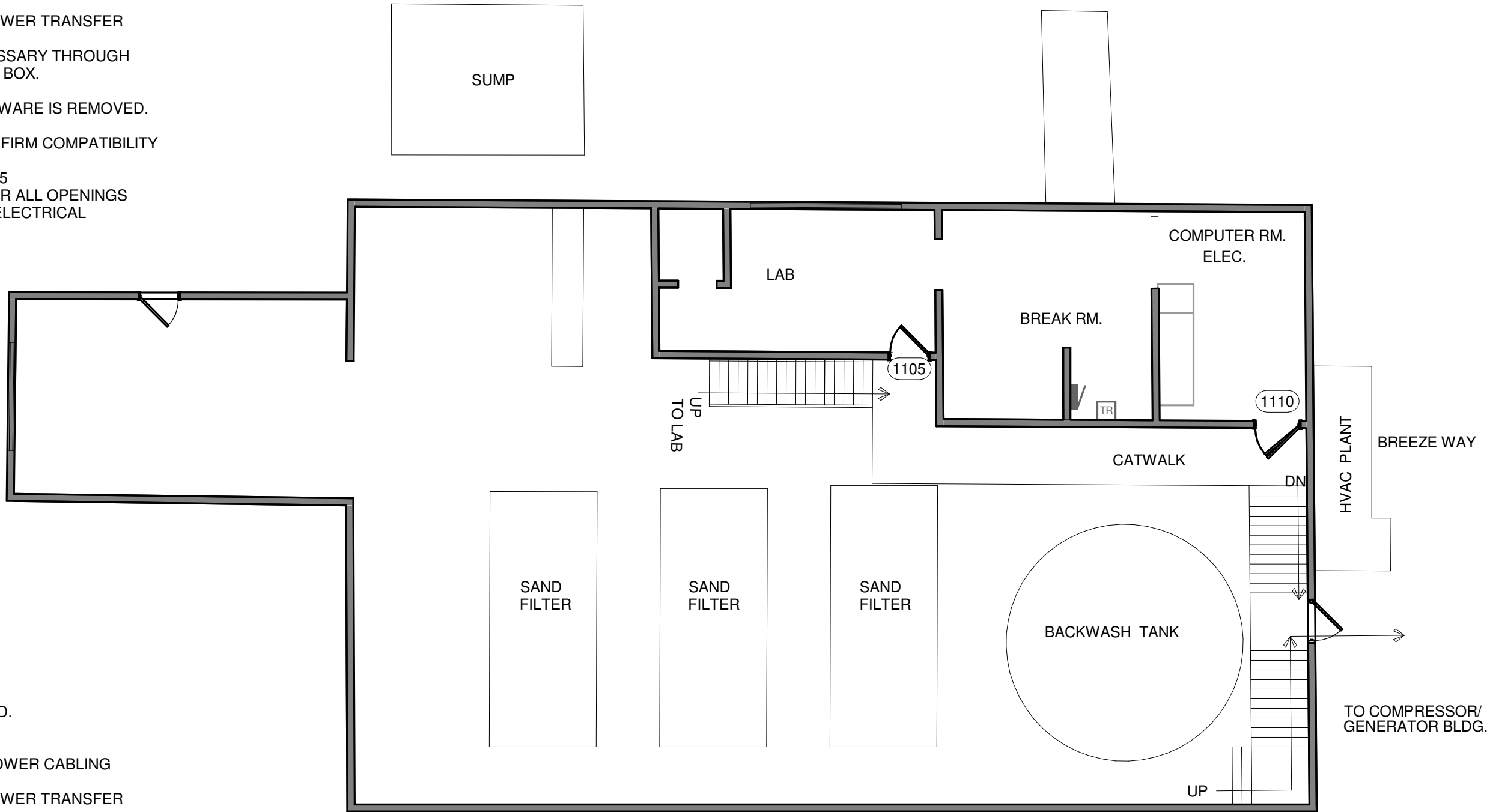


1110



- DOOR# 1105 – WASTE WATER TREATMENT OFFICE
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH GYPBD.
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE EXISTING KNOB LOCKSET.
 - 2. PROVIDE NEW ELECTRIFIED LOCKSET. ROUTE POWER CABLING THROUGH DOOR.
 - 3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
 - 4. BORE THROUGH FRAME. FISH CABLING AS NECESSARY THROUGH FRAMED/DRYWALL PARTITION TO NEW JUNCTION BOX.
 - 5. COORDINATE WITH ELECTRICAL.
 - 6. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1110:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. ELECTRIFIED LOCKSET: CORBIN RUSSWIN CL33905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL

- DOOR# 1110 – WASTE WATER TREATMENT OFFICE
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH GYPBD.
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE EXISTING KNOB LOCKSET.
 - 2. PROVIDE NEW ELECTRIFIED LOCKSET. ROUTE POWER CABLING THROUGH DOOR.
 - 3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
 - 4. BORE THROUGH FRAME. FISH CABLING AS NECESSARY THROUGH FRAMED/DRYWALL PARTITION TO NEW JUNCTION BOX.
 - 5. COORDINATE WITH ELECTRICAL.
 - 6. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1110:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. ELECTRIFIED LOCKSET: CORBIN RUSSWIN CL33905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



1 WASTE WATER TREATMENT PLANT - LAB AREA
1/8" = 1'-0"

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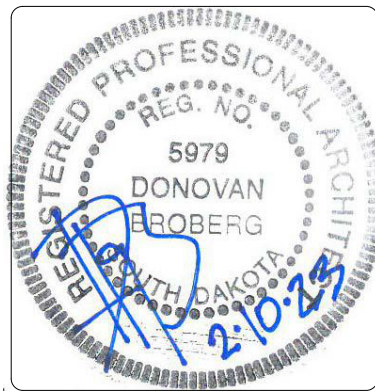
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WASTE WATER TREATMENT PLANT
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

PROJECT#: 2021-011.2

DESIGNED: DB
DRAWN: RT
APPROVED: DB
DATE: 2/10/23



SHEET:
A1.10
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1205



- DOOR# 1205 – EXTERIOR PAIR TO SURFACE LAB**
- a. SIZE: PAIR X 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH METAL EXTERIOR / DRYWALL INTERIOR
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE ACCESS CONTROL KEYPAD AND ELECTRONIC LOCKSET.
 - 2. MAINTAIN EXISTING PANIC.
 - 3. PROVIDE NEW ELECTRIFIED OPERATING TRIM ON OPPOSITE SIDE OF EXISTING PANIC. ROUTE POWER CABLING THROUGH EXISTING PANIC.
 - 4. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
 - 5. BORE THROUGH FRAME, AND MASONRY AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 - 6. COORDINATE WITH ELECTRICAL.
 - 7. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1103:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



1250



② SURFACE LAB PARTIAL LOWEST LEVEL
1/8" = 1'-0"

- DOOR# 1250 – LOWEST LEVEL EXTERIOR DOOR NEAR STAIRWAY**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: CONCRETE
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE ACCESS CONTROL KEYPAD AND ELECTRONIC LOCKSET.
 - 2. MAINTAIN EXISTING PANIC.
 - 3. PROVIDE NEW ELECTRIFIED OPERATING TRIM ON OPPOSITE SIDE OF EXISTING PANIC. ROUTE POWER CABLING THROUGH EXISTING PANIC.
 - 4. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
 - 5. BORE THROUGH FRAME, AND MASONRY AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 - 6. COORDINATE WITH ELECTRICAL.
 - 7. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1103:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



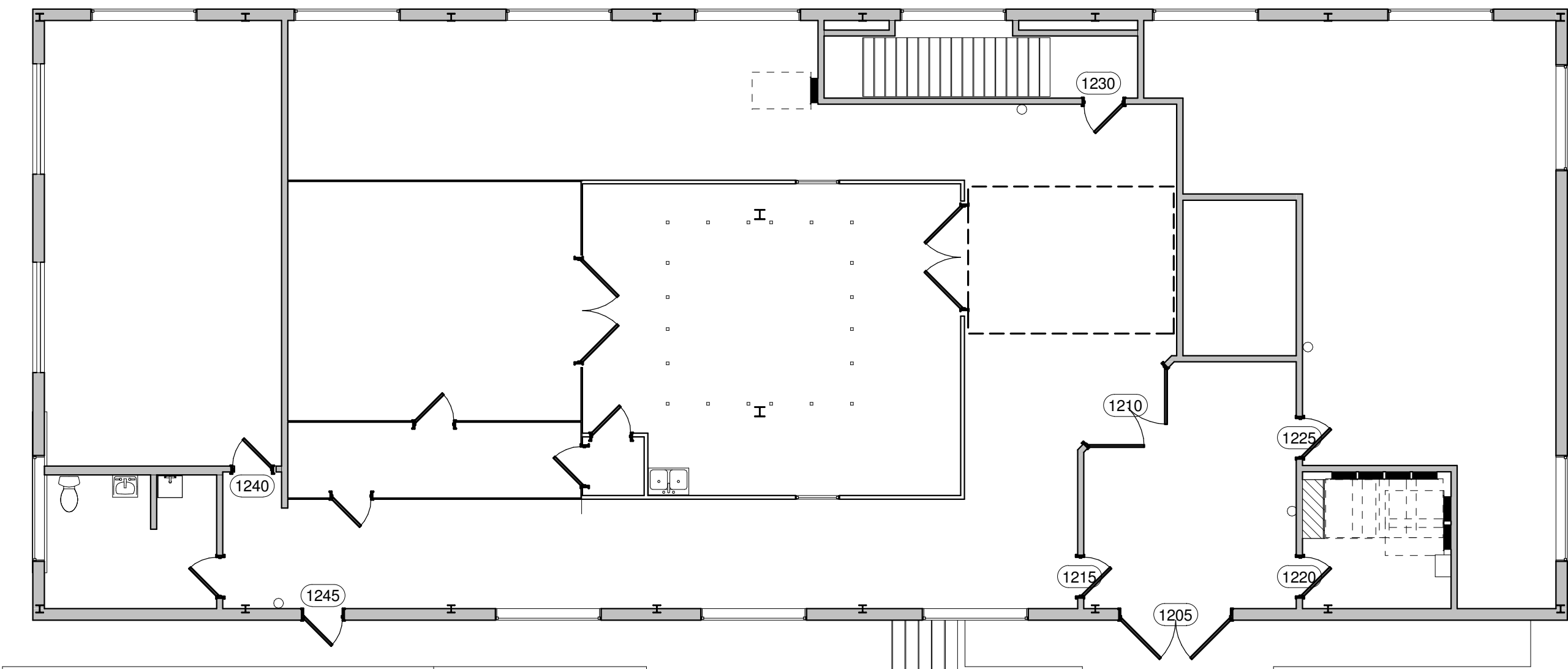
1215

- DOOR# 1215**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH DRYWALL
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE EXISTING LEGACY ACCESS CONTROL ELECTRONIC LOCKSET.
 - 2. PROVIDE NEW MECHANICAL LATCHSET/TRIM.
 - 3. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1120:
 - 1. MECHANICAL LOCKSET: CORBIN RUSSWIN CL3300
 - 2. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS



1210

- DOOR# 1210**
- a. SIZE: PAIR X 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH DRYWALL
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE EXISTING LEGACY ACCESS CONTROL ELECTRONIC LOCKSET.
 - 2. PROVIDE NEW MECHANICAL LATCHSET/TRIM.
 - 3. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1120:
 - 1. MECHANICAL LOCKSET: CORBIN RUSSWIN CL3300
 - 2. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS



① SURFACE LAB LEVEL 0
1/8" = 1'-0"

- DOOR# 1225**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH DRYWALL
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE EXISTING LEGACY ACCESS CONTROL ELECTRONIC LOCKSET.
 - 2. PROVIDE NEW MECHANICAL LOCKSET/OFFICE FUNCTION.
 - 3. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1120:
 - 1. MECHANICAL LOCKSET: CORBIN RUSSWIN CL3300
 - 2. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS



1220

- DOOR# 1220**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH DRYWALL
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE EXISTING LEGACY ACCESS CONTROL ELECTRONIC LOCKSET.
 - 2. PROVIDE NEW MECHANICAL LOCKSET/STORAGE FUNCTION.
 - 3. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1120:
 - 1. MECHANICAL LOCKSET: CORBIN RUSSWIN CL3300
 - 2. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS



1225

- DOOR# 1240 – SURFACE LAB MECHANICAL ROOM**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH GYPBD.
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE EXISTING LEGACY ACCESS CONTROL ELECTRONIC LOCKSET.
 - 2. PROVIDE NEW MECHANICAL LOCKSET/STORAGE FUNCTION.
 - 3. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1120:
 - 1. MECHANICAL LOCKSET: CORBIN RUSSWIN CL3300
 - 2. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS



1240



1245



- DOOR 1245 – SINGLE EXTERIOR DOOR ACCESS TO SURFACE LAB**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH METAL EXTERIOR / DRYWALL INTERIOR
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE ACCESS CONTROL KEYPAD AND ELECTRONIC LOCKSET.
 - 2. MAINTAIN EXISTING PANIC.
 - 3. PROVIDE NEW ELECTRIFIED OPERATING TRIM ON OPPOSITE SIDE OF EXISTING PANIC. ROUTE POWER CABLING THROUGH EXISTING PANIC.
 - 4. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
 - 5. BORE THROUGH FRAME, AND MASONRY AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 - 6. COORDINATE WITH ELECTRICAL.
 - 7. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1103:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



1230

- DOOR# 1230 – FROM STAIRWAY**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH DRYWALL
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE ACCESS CONTROL KEYPAD AND ELECTRONIC LOCKSET.
 - 2. PROVIDE NEW MECHANICAL LATCHSET/TRIM.
 - 3. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1120:
 - 1. MECHANICAL LOCKSET: CORBIN RUSSWIN CL3300
 - 2. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS

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SURFACE LAB
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

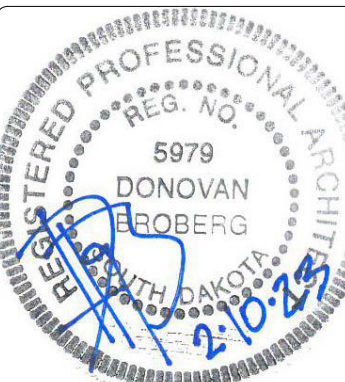
PROJECT#: 2021-011.2

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APPROVED: DB

DATE: 2/10/23



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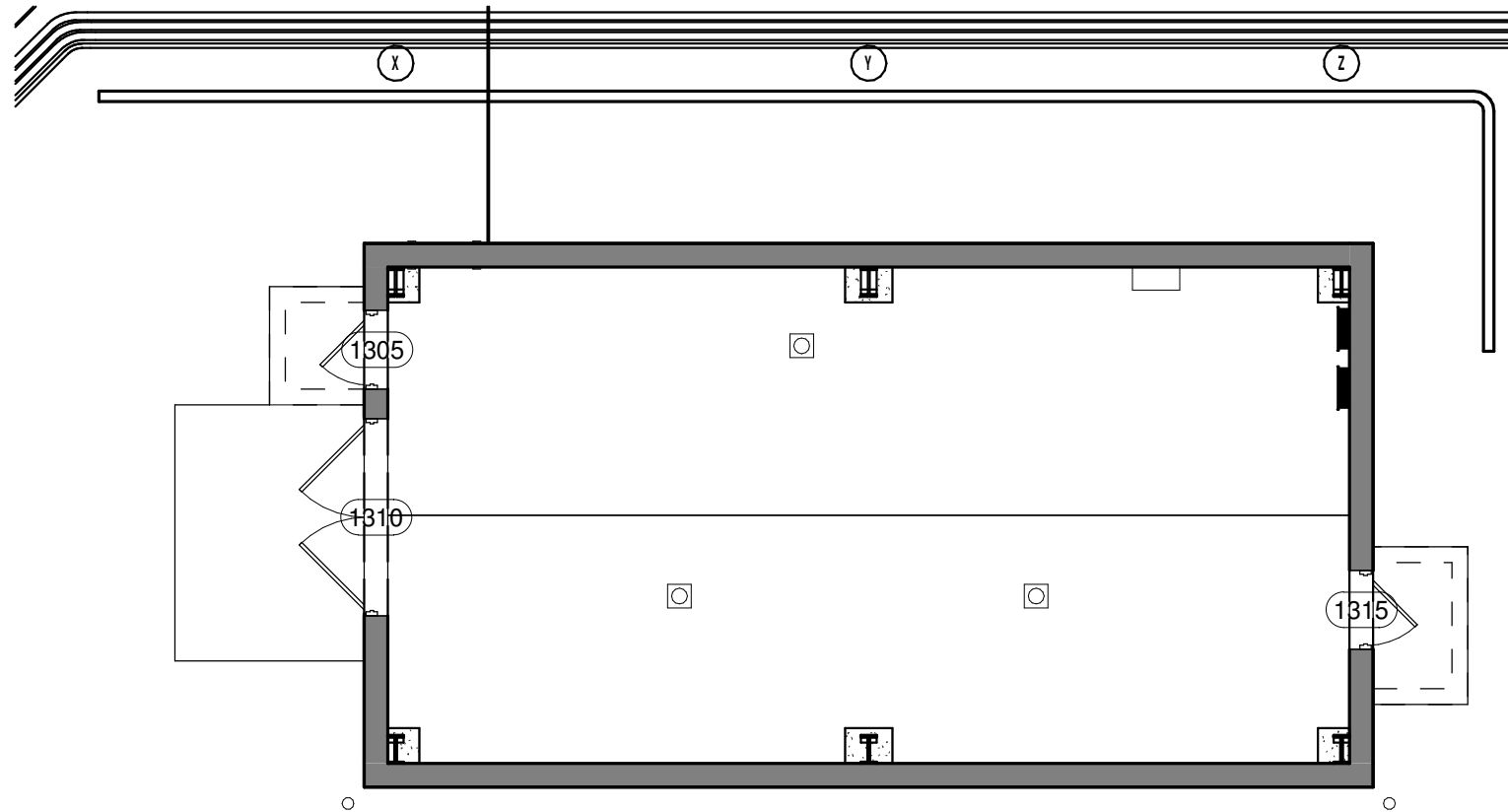
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1305



- DOOR# 1305
- a. SIZE: 3'-0" X 7'-0"
- b. DOOR/FRAME MATERIAL: HM/HM
- c. WALL SUBSTRATE: FRAMED WALL WITH METAL
- d. OVERVIEW DESCRIPTION:
1. REMOVE LEGACY ACCESS CONTROL ELECTRONIC LOCKSET.
 2. PROVIDE NEW PANIC WITH ELECTRIFIED OPERATING TRIM AT EGRESS SIDE. ROUTE POWER CABLING THROUGH PANIC.
 3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
 4. BORE THROUGH FRAME, AND MASONRY AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 5. COORDINATE WITH ELECTRICAL.
 6. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
- e. HARDWARE GROUP 1102:
1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 2. EXIT DEVICE WITH ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 3. COVER PLATES. PROVIDE AS REQUIRED TO COVER ALL OPENINGS
- f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



1 RRS BUILDING FLOOR PLAN
1/8" = 1'-0"



1310



1315

- DOOR# 1310
- a. ADD DPS/REX – COORDINATE WITH ELECTRICAL

- DOOR# 1315
- a. ADD DPS/REX – COORDINATE WITH ELECTRICAL

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RRS BUILDING
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

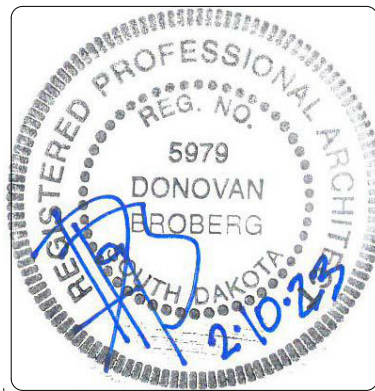
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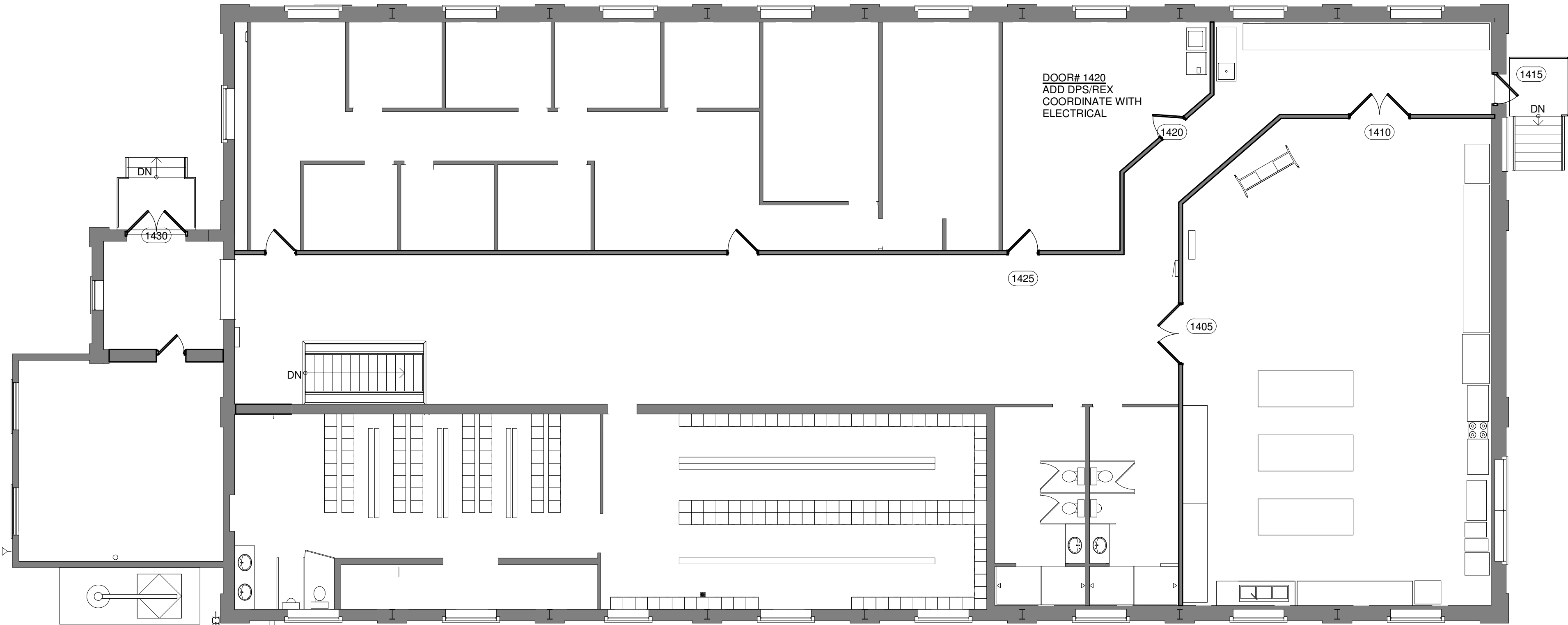
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- DOOR# 1415 – ROSS DRY EGRESS TO EXTERIOR**
- 1415**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: MASONRY
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE LEGACY ACCESS CONTROL ELECTRONIC LOCKSET. MAINTAIN EXISTING PANIC.
 - 2. PROVIDE NEW ELECTRIFIED OPERATING TRIM ON OPPOSITE SIDE OF EXISTING PANIC. ROUTE POWER CABLING THROUGH EXISTING PANIC.
 - 3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE. BORE THROUGH FRAME, AND MASONRY AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 - 4. COORDINATE WITH ELECTRICAL.
 - 5. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1103:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL

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- 2 ROSS DRY MAIN LEVEL FLOOR PLAN**
1/8" = 1'-0"
- DOOR# 1405**
- a. SIZE: PAIR X 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH DRYWALL
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE LEGACY ACCESS CONTROL ELECTRONIC LOCKSET. PROVIDE NEW PANIC WITH ELECTRIFIED OPERATING TRIM AT EGRESS SIDE. ROUTE POWER CABLING THROUGH PANIC.
 - 2. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE. BORE THROUGH FRAME, AND MASONRY AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 - 3. COORDINATE WITH ELECTRICAL.
 - 4. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1102:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. EXIT DEVICE WITH ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



- DOOR# 1410**
- a. SIZE: PAIR X 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH DRYWALL
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE LEGACY ACCESS CONTROL ELECTRONIC LOCKSET. PROVIDE NEW PANIC WITH ELECTRIFIED OPERATING TRIM AT EGRESS SIDE. ROUTE POWER CABLING THROUGH PANIC.
 - 2. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE. BORE THROUGH FRAME, AND MASONRY AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 - 3. COORDINATE WITH ELECTRICAL.
 - 4. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1102:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. EXIT DEVICE WITH ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



- DOOR# 1425**
- a. SIZE: 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: FRAMED WALL WITH DRYWALL
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE EXISTING LEGACY ACCESS CONTROL ELECTRONIC LOCKSET.
 - 2. PROVIDE NEW ELECTRIFIED LOCKSET. ROUTE POWER CABLING THROUGH EXISTING DOOR.
 - 3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
 - 4. BORE THROUGH FRAME, FRAMING AND DRYWALL AS NECESSARY, TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 - 5. COORDINATE WITH ELECTRICAL.
 - 6. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1110:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. ELECTRIFIED LOCKSET: CORBIN RUSSWIN CL33905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



- DOOR# 1430**
- a. SIZE: PAIR X 3'-0" X 7'-0"
 - b. DOOR/FRAME MATERIAL: HM/HM
 - c. WALL SUBSTRATE: MASONRY
 - d. OVERVIEW DESCRIPTION:
 - 1. REMOVE ACCESS CONTROL KEYPAD AND ELECTRONIC LOCKSET. MAINTAIN EXISTING PANIC.
 - 2. PROVIDE NEW ELECTRIFIED OPERATING TRIM ON OPPOSITE SIDE OF EXISTING PANIC. ROUTE POWER CABLING THROUGH EXISTING PANIC.
 - 3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE. BORE THROUGH FRAME, AND MASONRY AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 - 4. COORDINATE WITH ELECTRICAL.
 - 5. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
 - e. HARDWARE GROUP 1103:
 - 1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 - 2. ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 - 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 - f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL

ROSS DRY MAIN LEVEL FLOOR PLAN

SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

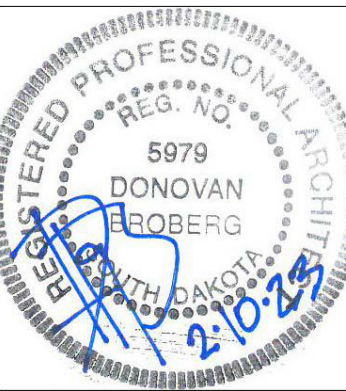
PROJECT#: 2021-011.2

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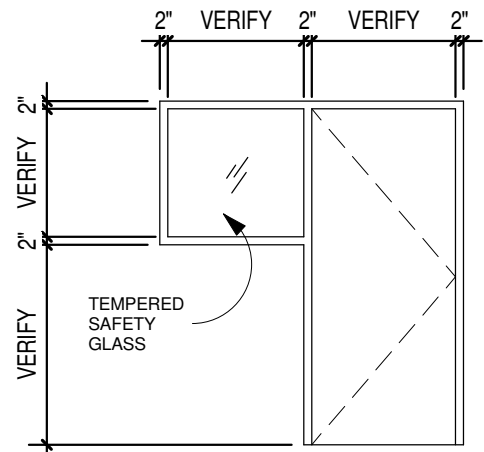
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1425

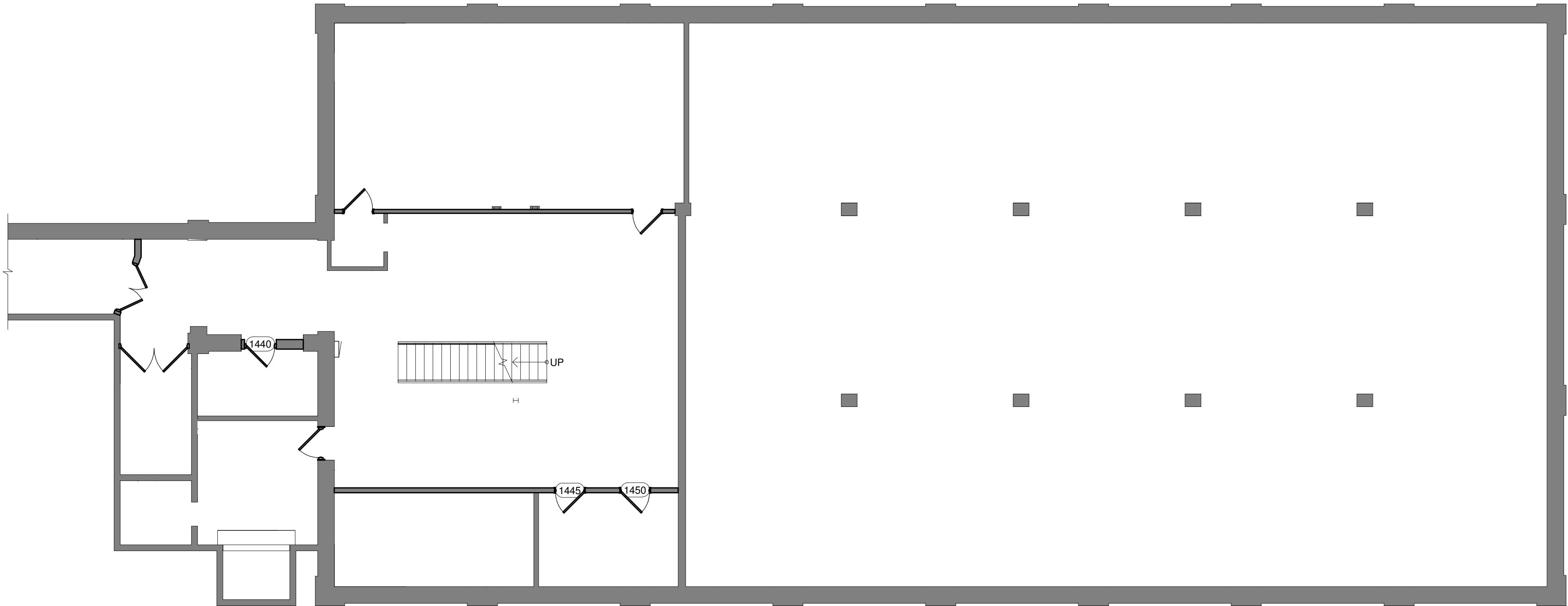
1430

1440



DOOR #1440
1/4" = 1'-0"

- DOOR# 1440
- a. SIZE: DOOR/FRAME MATERIAL: VERIFY HM/HM WITH SIDELITE FRAME/GLASS CONCRETE
- b. WALL SUBSTRATE: CONCRETE
- c. OVERVIEW DESCRIPTION:
- d. 1. REMOVE EXISTING DOOR, FRAME, HARDWARE AND SIDE PANEL.
2. PROVIDE/INSTALL NEW HM FRAME, DOOR, 1/4" TEMPERED GLASS GLAZING PANEL, AND HARDWARE.
3. BORE THROUGH EXISTING CONCRETE WALL AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED BOX.
4. COORDINATE ELECTRICAL.
- e. HARDWARE GROUP 1111:
1. 2 PAIR BUTT HINGES
2. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
3. ELECTRIFIED MORTISE LOCKSET: CORBIN RUSSWIN ML20906 X SEC OVERHEAD STOP
4. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL
- f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



ROSS DRY LOWER LEVEL FLOOR PLAN
1/8" = 1'-0"

1445 / 1450



DOOR# 1445
-- ADD DPS/REX – COORDINATE WITH ELECTRICAL

- DOOR# 1450
- a. SIZE: 3'-0" X 7'-0"
- b. DOOR/FRAME MATERIAL: HM/HM
- c. WALL SUBSTRATE: CONCRETE
- d. OVERVIEW DESCRIPTION:
1. REMOVE EXISTING MECHANICAL LOCKSET.
2. PROVIDE NEW ELECTRIFIED LOCKSET. ROUTE POWER CABLING THROUGH EXISTING DOOR.
3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
4. BORE THROUGH FRAME, AND CONCRETE AS NECESSARY, TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
5. COORDINATE WITH ELECTRICAL.
6. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
- e. HARDWARE GROUP 1110:
1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
2. ELECTRIFIED LOCKSET: CORBIN RUSSWIN CL33905
3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
- f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL

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ROSS DRY LOWER LEVEL
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

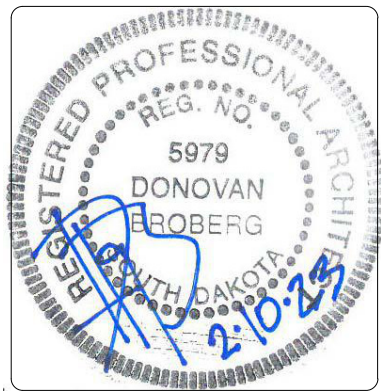
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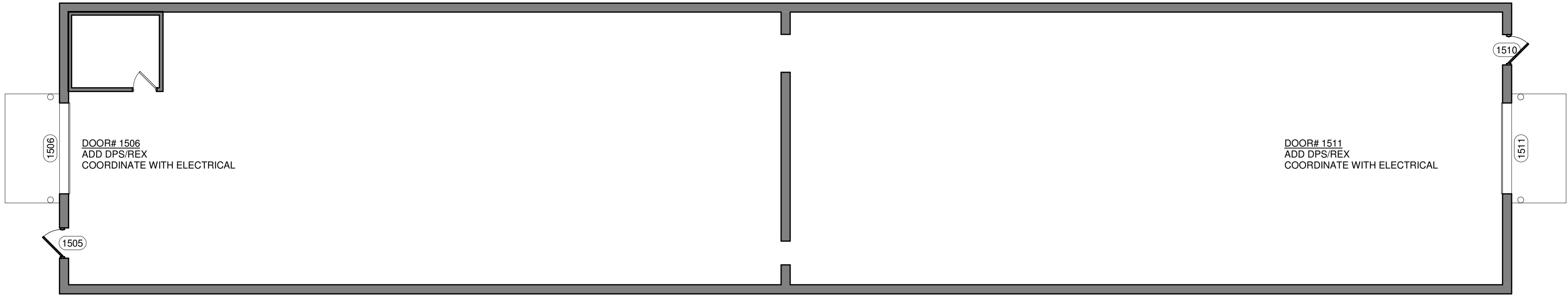
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1 ROSS WAREHOUSE
1/8" = 1'-0"



1505



DOOR# 1505

- a. SIZE: 3'-0" X 7'-0"
b. DOOR/FRAME MATERIAL: HM/HM
c. WALL SUBSTRATE: FRAMED WALL WITH METAL
d. OVERVIEW DESCRIPTION:
1. REMOVE ACCESS CONTROL KEYPAD AND ELECTRONIC LOCKSET.
2. PROVIDE NEW PANIC WITH ELECTRIFIED OPERATING TRIM AT EGRESS SIDE. ROUTE POWER CABLING THROUGH PANIC.
3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
4. BORE THROUGH FRAME, FRAMING, AND METAL AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
5. COORDINATE WITH ELECTRICAL.
6. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
e. HARDWARE GROUP 1102:
1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
2. EXIT DEVICE WITH ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL



1510



DOOR# 1510

- a. SIZE: 3'-0" X 7'-0"
b. DOOR/FRAME MATERIAL: HM/HM
c. WALL SUBSTRATE: FRAMED WALL WITH METAL
d. OVERVIEW DESCRIPTION:
1. REMOVE ACCESS CONTROL KEYPAD AND ELECTRONIC LOCKSET.
2. PROVIDE NEW PANIC WITH ELECTRIFIED OPERATING TRIM AT EGRESS SIDE. ROUTE POWER CABLING THROUGH PANIC.
3. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
4. BORE THROUGH FRAME, FRAMING, AND METAL AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
5. COORDINATE WITH ELECTRICAL.
6. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
e. HARDWARE GROUP 1102:
1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
2. EXIT DEVICE WITH ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL

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ROSS WAREHOUSE
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

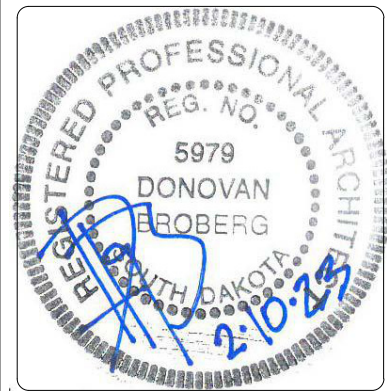
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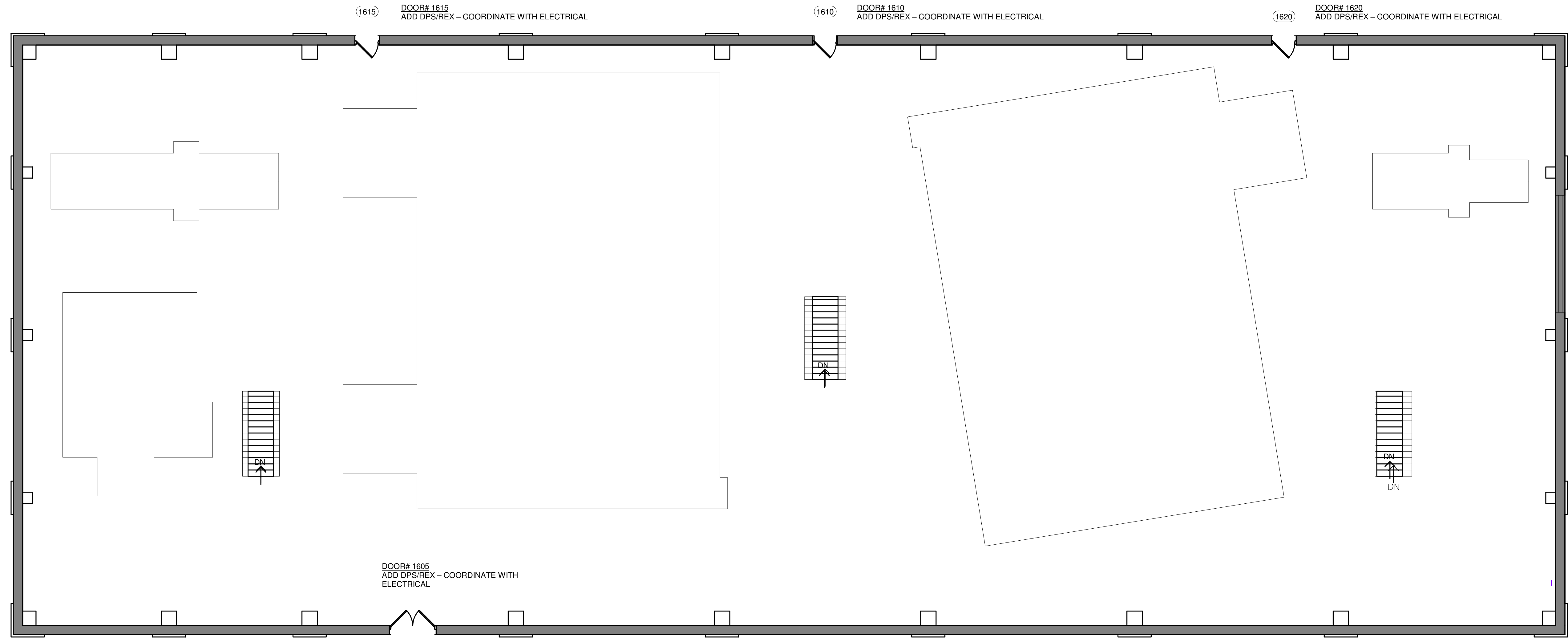
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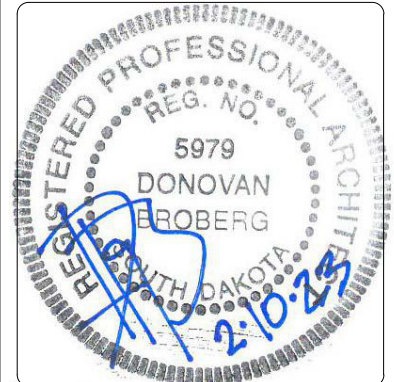
ROSS HOIST ROOM - MAIN LEVEL

SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#:	2021-011.2
DESIGNED:	DB
DRAWN:	RT
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1605



2 ROSS HOIST ROOM - MAIN LEVEL
1/8" = 1'-0"

1620

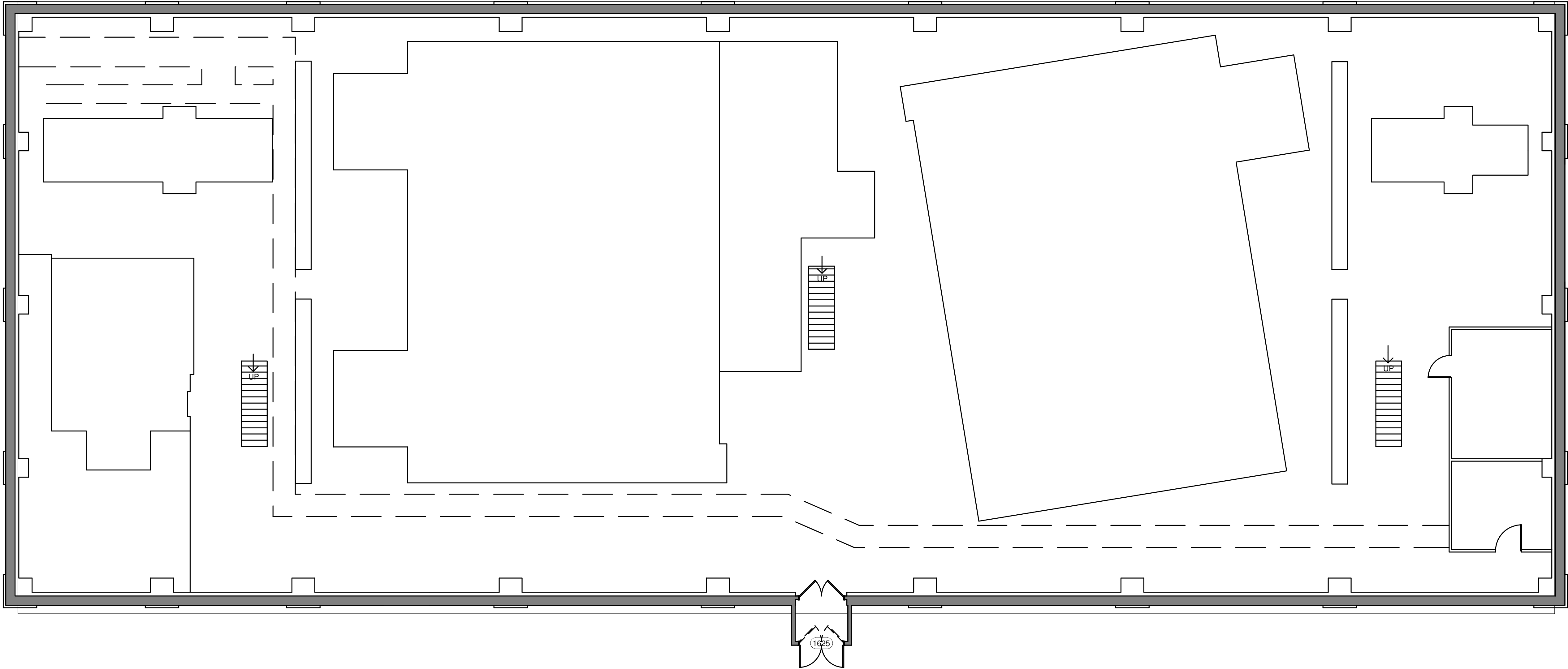


1610



1615





① ROSS HOIST ROOM - LOWER LEVEL
1/8" = 1'-0"



1625



- DOOR# 1625 – MAIN ENTRANCE VESTIBULE
- a. SIZE: PAIR X 3'-0" X 7'-0"
- b. DOOR/FRAME MATERIAL: HM/HM
- c. WALL SUBSTRATE: FRAMED WITH METAL
- d. OVERVIEW DESCRIPTION:
1. REMOVE AND REVERSE EXISTING FRAME AND DOOR CONFIGURATION SO DOORS SWING OUTWARD. THIS IS BEING DONE FOR SAFETY AND SECURITY CONSIDERATIONS AND ALSO FOR STANDARDIZATION OF OPERATIONS.
 2. REMOVE EXISTING LEGACY ACCESS CONTROL ELECTRONIC LOCKSET.
 3. PROVIDE NEW PANIC WITH ELECTRIFIED TRIM ON OPPOSITE SIDE.
 4. REMOVE ONE BUTT HINGE AND PROVIDE NEW POWER TRANSFER HINGE.
 5. BORE THROUGH FRAME, FRAMING, AND METAL AS NECESSARY TO FISH CABLING TO NEW SURFACE MOUNTED JUNCTION BOX.
 6. COORDINATE WITH ELECTRICAL.
 7. REMOVE EXISTING FIELD APPLIED STOP/ASTRAGAL. ADD VERTICAL SWEEP AT EXTERIOR FACE.
 8. ADD WEATHERSTRIPPING AT PERIMETER.
 9. PROVIDE NEW THRESHOLD AND BOTTOM SWEEP.
 10. PROVIDE COVER PLATES WHERE EXISTING HARDWARE IS REMOVED.
- e. HARDWARE GROUP 1105:
1. POWER TRANSFER/HINGE: HAGER ETW/QC – CONFIRM COMPATIBILITY AND SIZE WITH EXISTING HINGE
 2. EXIT DEVICE WITH ELECTRICALLY CONTROLLED TRIM: CORBIN RUSSWIN ED 5000 X9905
 3. COVER PLATES: PROVIDE AS REQUIRED TO COVER ALL OPENINGS
 4. VERTICAL SWEEPS AT EXTERIOR FACE
 5. WEATHERSTRIPPING AT PERIMETER
 6. THRESHOLD
 7. BOTTOM SWEEP
- f. ADD CARD READER, REX AND DPS – COORDINATE WITH ELECTRICAL

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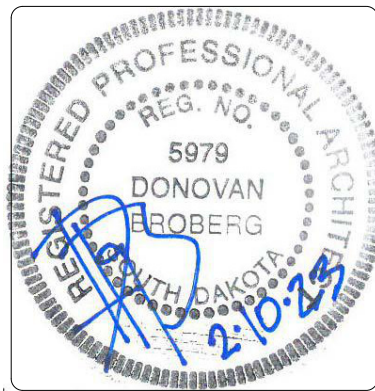
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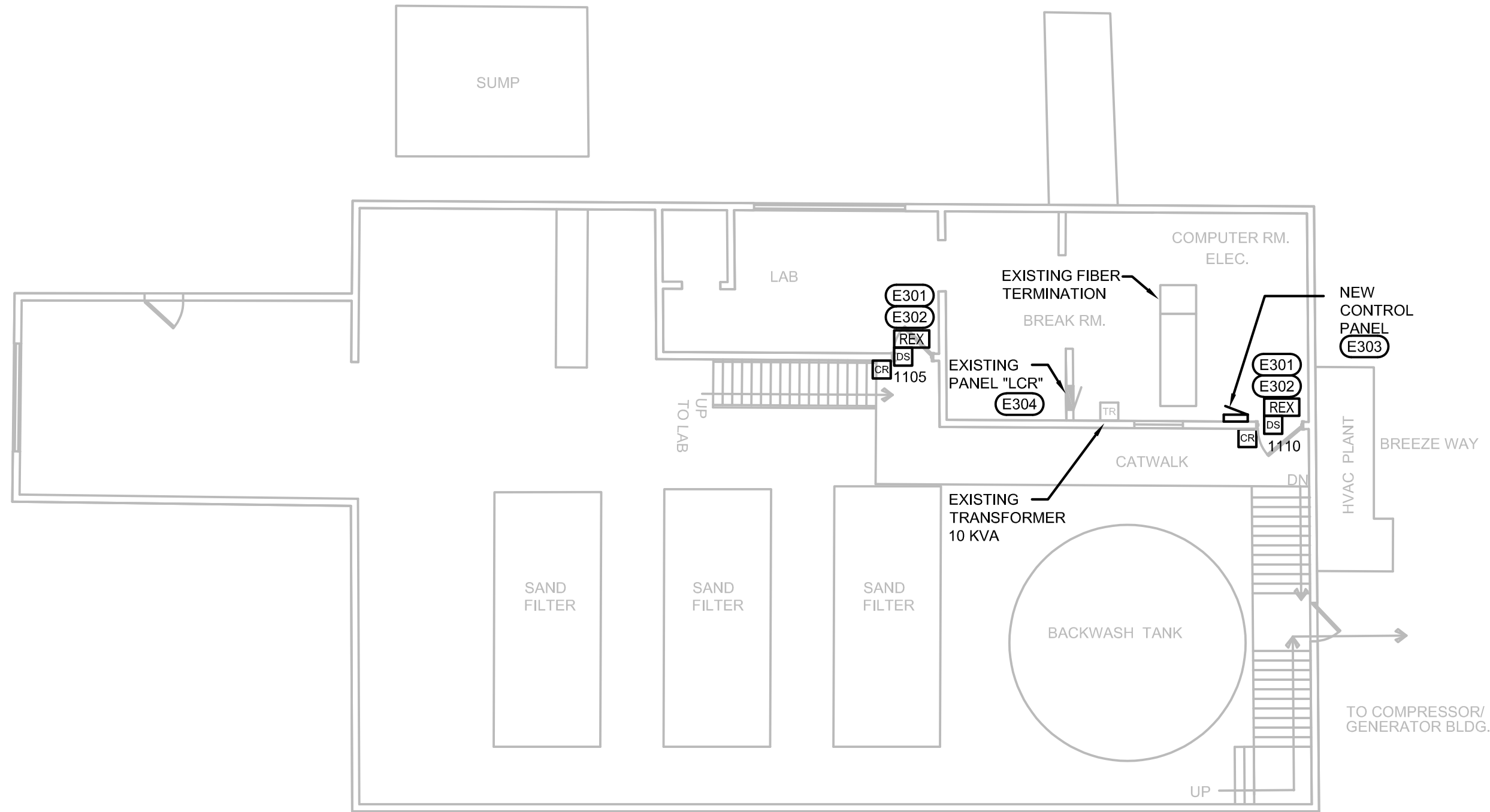
ROSS HOIST ROOM - LOWER LEVEL
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

PROJECT#: 2021-011.2

DESIGNED: DB
DRAWN: RT
APPROVED: DB
DATE: 2/10/23



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① WASTE WATER TREATMENT PLANT ELECTRICAL PLAN
1/8" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES:

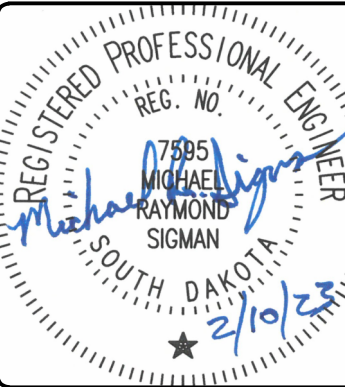
- A. THIS PROJECT WILL PROVIDE NEW ACCESS CONTROL DEVICES THAT WILL NEED TO BE INTERFACED WITH THE FACILITIES EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM. JASON KLOCKER OF JOHNSON CONTROLS IS THE POINT OF CONTACT FOR ALL WORK RELATED TO THIS SYSTEM AND HIS CONTACT NUMBER IS (605)928-7627. JOHNSON CONTROLS IS THE SERVICING CONTRACTOR FOR THIS SYSTEM. ALL NEW DEVICES, EQUIPMENT AND PROGRAMMING ARE TO BE PROVIDED BY JOHNSON CONTROLS TO ENSURE EXISTING WARRANTIES ARE NOT VOIDED.
- B. NEW SECURITY CONTROL PANELS WILL BE INSTALLED IN EACH OF THE AREAS/BUILDINGS THIS PROJECT IS AFFECTING. THESE CONTROL PANELS WILL NEED TO BE TIED TO THE EXISTING C-CURE 9000 SERVER SYSTEM THAT RESIDES IN THE EXISTING SERVER ROOM OF THE ADMINISTRATION BUILDING. EACH DOOR THAT IS HAVING DEVICES INSTALLED WILL HAVE CONDUIT RAN FROM THAT DOOR BACK TO THE CONTROL PANEL WITHIN THAT AREA/BUILDING. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR EACH NEW CONTROL PANEL.
- C. CARD READERS SHALL BE HID SIGNO READERS MODEL 40NKS UNLESS SPECIFICALLY NOTED OTHERWISE. DOOR POSITION SWITCHES (DS) FOR WALK-IN DOORS SHALL BE GE MODEL 1078 FOR RECESSED APPLICATIONS OR GE MODEL 2605A FOR SURFACE MOUNTED APPLICATIONS. DOOR POSITION SWITCHES (DS) FOR OVERHEAD DOORS SHALL BE GE MODEL 2204. REQUEST TO EXIT (REX) DEVICES SHALL BE BOSCH MODEL DS160. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL DEVICES.
- D. THE FOLLOWING CABLES SHALL BE PROVIDED: 22/6 FOR CARD READERS (CR); 20/4 FOR REQUEST TO EXIT (REX) DEVICES; 22/2 FOR DOOR POSITION SWITCHES (DS); AND 18/2 FOR ELECTRIC LATCHES OR STRIKES.

ELECTRICAL SPECIFIC NOTES:

- E301 THIS DOOR DOES NOT HAVE AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE. THIS DOOR HAS KNOB HANDLES ON BOTH SIDES. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE DOOR TO A NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO EXTEND LATCH SET POWER WITHIN RACEWAY WITHIN DOOR FRAME/WALL TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER; NEW REQUEST TO EXIT (REX) DEVICE; AND NEW SURFACE MOUNTED DOOR POSITION SWITCHES THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-1 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E302 CONTRACTOR TO FISH CONDUIT IN WALL FOR NEW DEVICES.
- E303 LOCATION OF NEW CONTROL PANEL FOR ACCESS CONTROL SYSTEM TO SERVE WASTE WATER TREATMENT BUILDING. PROVIDE POWER FROM EXISTING PANEL LCR. CONTRACTOR TO PROVIDE CAT 6 CABLE FROM ACCESS CONTROL PANEL TO EXISTING NETWORK PANEL. LOCATED NEAR THE FIBER TERMINATION LOCATION FOR CONNECTION TO OWNER NETWORK.
- E304 PANEL LCR IS AN EXISTING GE 125A 120/240V/1-PHASE/3-WIRE LOAD CENTER THAT IS RECESSED INTO THE WALL. CONTRACTOR TO PROVIDE A NEW 20A/1P THOL BREAKER IN THIS PANEL TO PROVIDE POWER FOR NEW ACCESS CONTROL PANEL. CONTRACTOR TO EXTEND A 1/2-INCH CONDUIT FROM THIS PANEL TO THE NEW ACCESS CONTROL PANEL. PATCH AND REPAIR WALL AS NEEDED.

WASTE WATER TREATMENT ELECTRICAL PLAN
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

PROJECT#:	BR22033
DESIGNED:	MRS
DRAWN:	VLS
APPROVED:	MRS
DATE:	02/10/2023



#	DESCRIPTION	DATE
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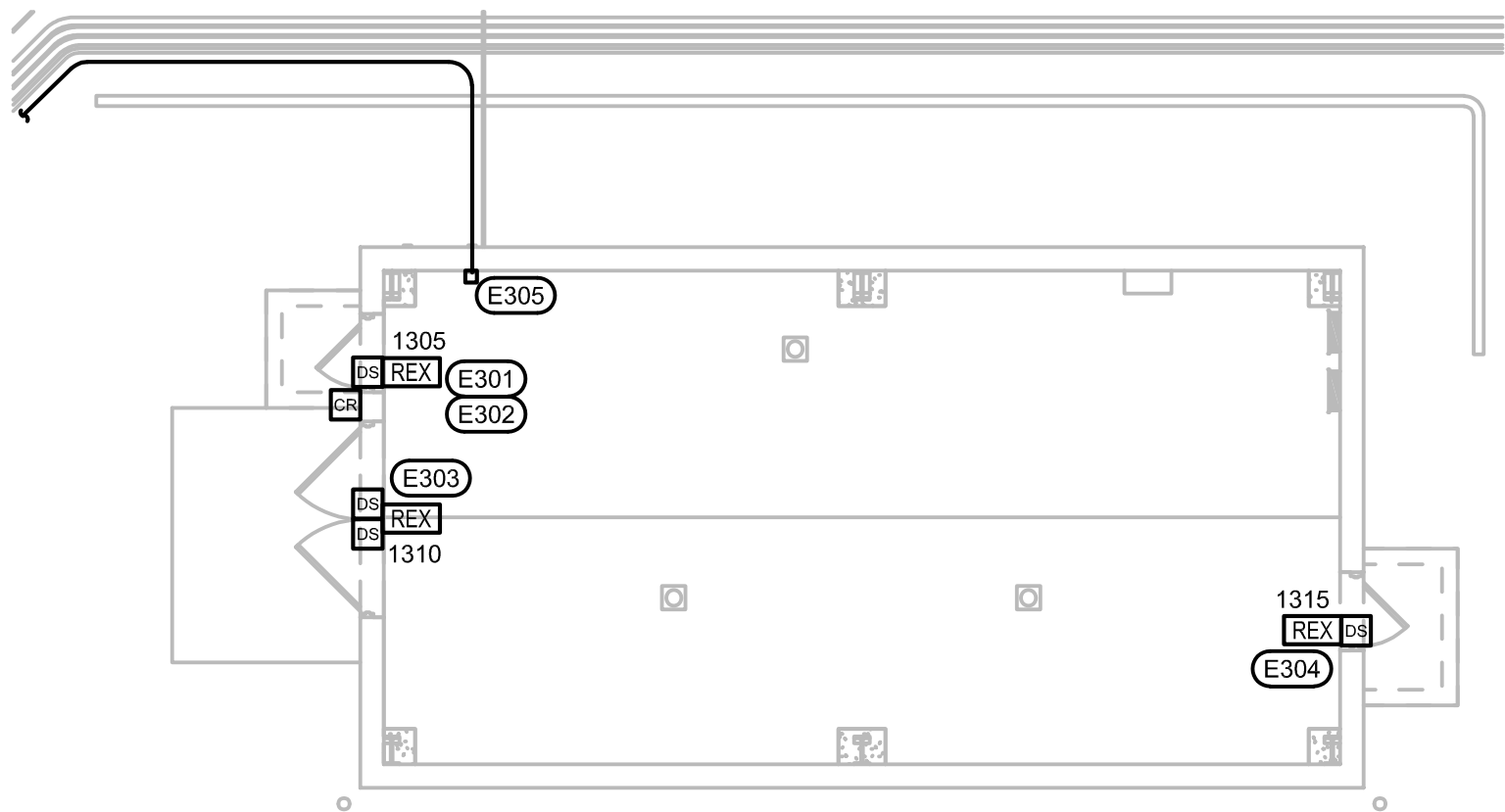


- #
- ELECTRICAL SPECIFIC NOTES:**
- E301 ONE LEAF OF THESE DOORS HAS AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE WITH AN ELECTRIFIED LATCH SET WITH PANIC HARDWARE ON THE SECURE SIDE AND A LEVER HANDLE ON THE NON-SECURE SIDE. THE OTHER LEAF HAS PANIC HARDWARE ON THE SECURE SIDE AND NOTHING ON THE NON-SECURE SIDE. THE EXISTING CARD READER/LOCKSET WILL BE REMOVED. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED THROUGH THE HINGE TO RELOCATE THE EXISTING PANIC HARDWARE TO A NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO SURFACE MOUNT RACEWAY TO A J-BOX AT THE HINGE AND THEN EXTEND CABLE FROM J-BOX THROUGH A HOLE DRILLED IN FRAME TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW READER-NEW REQUEST TO EXIT (REX) DEVICE AND NEW SURFACE MOUNTED OR POSITION SWITCH THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CALL 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL, DT-2 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E302 THIS DOOR IS EQUIPPED WITH A STAND-ALONE CARD READER/LOCKING DEVICE WITH LEVER HANDLE ON THE NON-SECURE SIDE AND PANIC HARDWARE ON THE SECURE ROOM SIDE. THE EXISTING CARD READER/LOCKING DEVICE WILL BE REMOVED AND WIRING WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE EXISTING PANIC HARDWARE TO A NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO SURFACE MOUNT RACEWAY TO A J-BOX AT THE J-BOX AT THE HINGE AND THEN EXTEND CABLE FROM J-BOX THROUGH A HOLE DRILLED IN FRAME TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER-NEW REQUEST TO EXIT (REX) DEVICE AND NEW SURFACE MOUNTED DOOR POSITION SWITCH THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CALL 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-1 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E303 CONDUIT FOR CARD READER MAYBE RUN SURFACE MOUNT INSIDE OF BUILDING AND THEN PUNCH THROUGH WALL TO A SURFACE MOUNTED BOX.
- E304 THIS DOOR IS EQUIPPED WITH A STAND-ALONE CARD READER/LOCKING DEVICE. THESE DEVICES WILL BE REMOVED AND NEW PANIC HARDWARE WILL BE INSTALLED. THERE WILL NOT BE A NEW ACCESS CONTROL OR MONITORING DEVICES INSTALLED AT THIS DOOR.
- E305 LOCATION OF NEW CONTROL PANEL FOR ACCESS CONTROL SYSTEM TO SERVE SURFACE LAB AND RRS BUILDING. THE EXISTING PANEL WILL BE MOVED TO THE SURFACE LAB ALARM PANEL. IN ORDER TO INSTALL THE NEW CONTROL PANEL AT THIS LOCATION THE CONTRACTOR WILL NEED TO RELOCATE AN EXISTING 3/4-INCH CONDUIT THAT RUNS UNDER THE EXISTING FIRE ALARM CONTROL PANEL WITH 2 - 20A CIRCUITS. PROVIDE POWER FROM EXISTING 20A/1P BRK TO THE NEW CONTROL PANEL. PROVIDE CABLE FROM THE NEW ACCESS CONTROL PANEL TO THE EXISTING NETWORK PANEL LOCATED IN THIS ROOM FOR CONNECTION TO OWNER NETWORK.
- E306 CONTRACTOR TO PROVIDE A 1-1/2-INCH RIGID CONDUIT FROM THE RRS BUILDING TO THE SURFACE LAB USING THE EXISTING PIPE RACK SYSTEM. ONCE AT THE SURFACE LAB THE CONDUIT SHALL BE EXTEND TO THE NEW ACCESS CONTROL PANEL LOCATION. THE NEW CONDUIT WILL BE USED TO EXTEND ACCESS CONTROL CABLE FROM THE NEW ACCESS CONTROL PANEL IN THE SURFACE LAB TO THE RRS BUILDING.

SHEET:

E1.20

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1 RRS BUILDING ELECTRICAL PLAN
1/8" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES:

- A. THIS PROJECT WILL PROVIDE NEW ACCESS CONTROL DEVICES THAT WILL NEED TO BE INTERFACED WITH THE FACILITIES EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM. JASON KLOCKER OF JOHNSON CONTROLS IS THE POINT OF CONTACT FOR ALL WORK RELATED TO THIS SYSTEM AND HIS CONTACT NUMBER IS (605)929-7627. JOHNSON CONTROLS IS THE SERVICING CONTRACTOR FOR THIS SYSTEM. ALL NEW DEVICES, EQUIPMENT AND PROGRAMMING ARE TO BE PROVIDED BY JOHNSON CONTROLS TO ENSURE EXISTING WARRANTIES ARE NOT VOIDED.
- B. NEW SECURITY CONTROL PANELS WILL BE INSTALLED IN EACH OF THE AREAS/BUILDINGS THIS PROJECT IS AFFECTING. THESE CONTROL PANELS WILL NEED TO BE TIED TO THE EXISTING C-CURE 9000 SERVER SYSTEM THAT RESIDES IN THE EXISTING SERVER ROOM OF THE ADMINISTRATION BUILDING. EACH DOOR THAT IS HAVING DEVICES INSTALLED WILL HAVE CONDUIT RAN FROM THAT DOOR BACK TO THE CONTROL PANEL WITHIN THAT AREA/BUILDING. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR EACH NEW CONTROL PANEL.
- C. CARD READERS SHALL BE HID SIGNO READERS MODEL 40NKS UNLESS SPECIFICALLY NOTED OTHERWISE. DOOR POSITION SWITCHES (DS) FOR WALK-IN DOORS SHALL BE GE MODEL 1078 FOR RECESSED APPLICATIONS OR GE MODEL 2005A FOR SURFACE MOUNTED APPLICATIONS. DOOR POSITION SWITCHES (DS) FOR OVERHEAD DOORS SHALL BE GE MODEL 2204. REQUEST TO EXIT (REX) DEVICES SHALL BE BOSCH MODEL DS160. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL DEVICES.
- D. THE FOLLOWING CABLES SHALL BE PROVIDED: 22/6 FOR CARD READERS (CR); 20/4 FOR REQUEST TO EXIT (REX) DEVICES; 22/2 FOR DOOR POSITION SWITCHES (DS); AND 18/2 FOR ELECTRIC LATCHES OR STRIKES.

ELECTRICAL SPECIFIC NOTES:

- E301 THIS DOOR IS EQUIPPED WITH A STAND-ALONE CARD READER LOCKING DEVICE WITH LEVER HANDLE ON BOTH SIDES. THE EXISTING CARD READER AND LEVER LATCH SET WILL BE DEMOED. THE LEVER HARDWARE SET WILL BE REPLACED WITH A NEW PANIC DEVICE ON THE SECURE SIDE AND A NEW ELECTRIFIED OPERATING TRIM WITH LEVER HANDLE ON THE NON-SECURE SIDE. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE NEW PANIC DEVICE TO THE NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO SURFACE MOUNT RACEWAY TO A J-BOX AT THE HINGE AND THEN EXTEND CABLE FROM J-BOX THROUGH A HOLE DRILLED IN FRAME TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER; NEW REQUEST TO EXIT (REX) DEVICE; AND NEW SURFACE MOUNTED DOOR POSITION SWITCHES THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-1 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E302 CONDUIT FOR CARD READER MAYBE RUN SURFACE MOUNT INSIDE OF BUILDING AND THEN PUNCH THROUGH WALL TO A SURFACE MOUNTED BOX.
- E303 THESE DOORS DO NOT HAVE AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE. CONTRACTOR WILL PROVIDE NEW SURFACE MOUNTED DOOR POSITION SWITCHES TO MONITOR BOTH DOORS WITH A NEW REX ON THE SECURE SIDE OF THE DOORS. THE REX AND DOOR POSITION SWITCHES SHALL BE CONNECTED AND MONITORED BY THE C-CURE 9000 ACCESS CONTROL SYSTEM. SEE DETAIL DT-4 SHEET E2.11 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E304 THIS DOOR DOES NOT HAVE AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE. CONTRACTOR WILL PROVIDE NEW SURFACE MOUNTED DOOR POSITION SWITCH WITH A NEW REX ON THE SECURE SIDE OF THE DOOR. THE REX AND DOOR POSITION SWITCH SHALL BE CONNECTED AND MONITORED BY THE C-CURE 9000 ACCESS CONTROL SYSTEM. SEE DETAIL DT-3 SHEET E2.11 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E305 CONTRACTOR TO PROVIDE A NEW 6-INCH BY 6-INCH JUNCTION BOX TO CONSOLIDATE ACCESS CONTROL WIRING FOR THE RRS BUILDING. CONTRACTOR TO PROVIDE A 1-1/2-INCH CONDUIT FROM THE RRS BUILDING TO THE SURFACE LAB USING THE EXISTING PIPE RACK SYSTEM. ONCE AT THE SURFACE LAB THE CONDUIT SHALL BE EXTEND TO THE NEW ACCESS CONTROL PANEL LOCATION. THE NEW CONDUIT WILL USED TO EXTEND ACCESS CONTROL CABLING FROM THE NEW ACCESS CONTROL PANEL IN THE SURFACE LAB TO THE RRS BUILDING.

WPE WEST PLAINS ENGINEERING, INC.

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REVISIONS

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RRS BUILDING ELECTRICAL PLAN

SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#: BR22033

DESIGNED: MRS

DRAWN: VLS

APPROVED: MRS

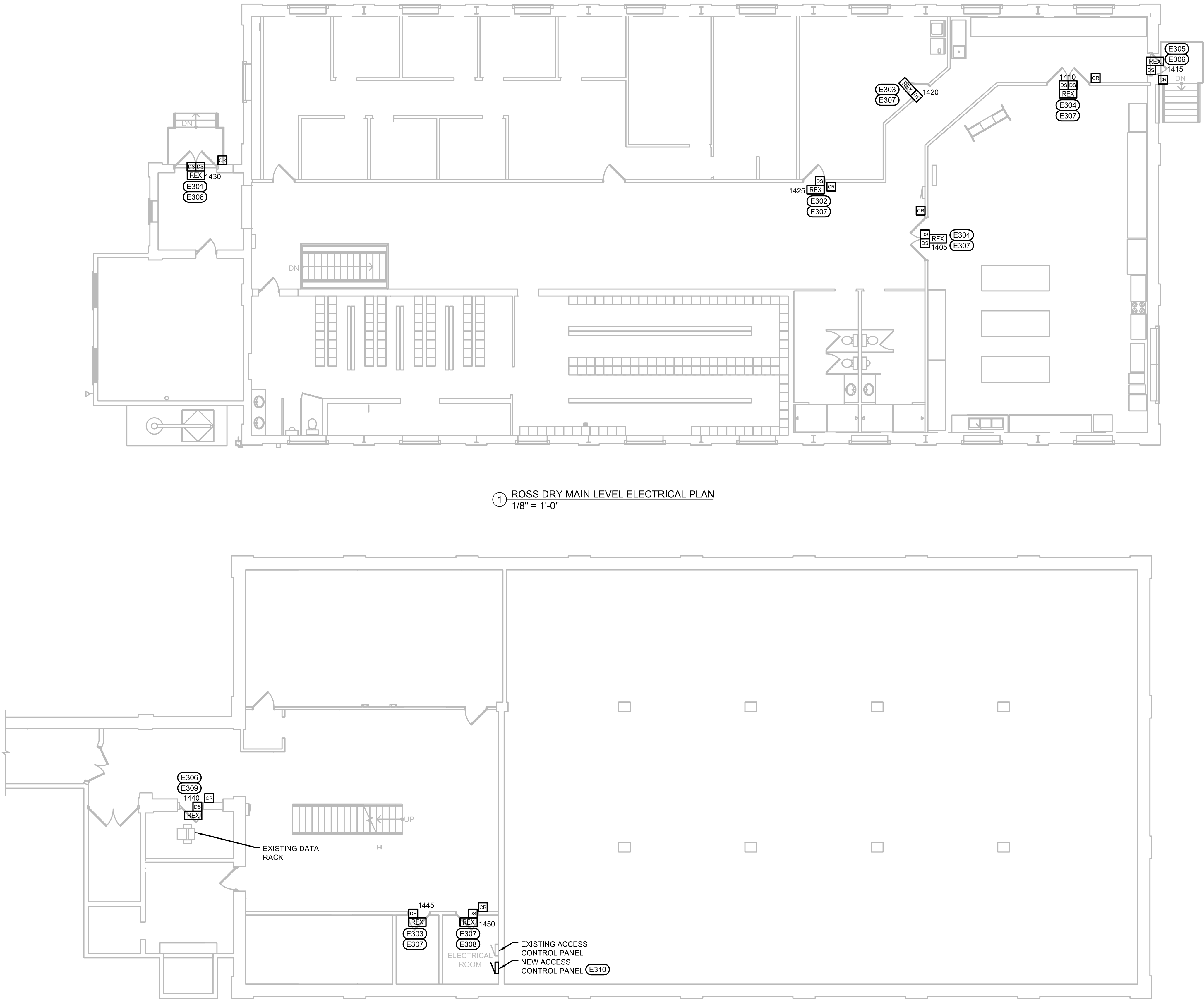
DATE: 02/10/2023



SHEET:

E1.30

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① ROSS DRY MAIN LEVEL ELECTRICAL PLAN
1/8" = 1'-0"

② ROSS DRY LOWER LEVEL ELECTRICAL PLAN
1/8" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES:

- A. THIS PROJECT WILL PROVIDE NEW ACCESS CONTROL DEVICES THAT WILL NEED TO BE INTERFACED WITH THE FACILITIES EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM. JASON KLOCKER OF JOHNSON CONTROLS IS THE POINT OF CONTACT FOR ALL WORK RELATED TO THIS SYSTEM AND HIS CONTACT NUMBER IS (605)929-7627. JOHNSON CONTROLS IS THE SERVING CONTRACTOR FOR THIS SYSTEM. ALL NEW DEVICES, EQUIPMENT AND PROGRAMMING ARE TO BE PROVIDED BY JOHNSON CONTROLS TO ENSURE EXISTING WARRANTIES ARE NOT VOIDED.
- B. NEW SECURITY CONTROL PANELS WILL BE INSTALLED IN EACH OF THE AREAS/BUILDINGS THIS PROJECT IS AFFECTING. THESE CONTROL PANELS WILL NEED TO BE TIED TO THE EXISTING C-CURE 9000 SERVER SYSTEM THAT RESIDES IN THE EXISTING SERVER ROOM OF THE ADMINISTRATION BUILDING. EACH DOOR THAT IS HAVING DEVICES INSTALLED WILL HAVE CONDUIT RAN FROM THAT DOOR BACK TO THE CONTROL PANEL WITHIN THAT AREA/BUILDING. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR EACH NEW CONTROL PANEL.
- C. CARD READERS SHALL BE HID SIGNO READERS MODEL 40NKS UNLESS SPECIFICALLY NOTED OTHERWISE. DOOR POSITION SWITCHES (DS) FOR WALK-IN DOORS SHALL BE GE MODEL 1078 FOR RECESSED APPLICATIONS OR GE MODEL 2505A FOR SURFACE MOUNTED APPLICATIONS. DOOR POSITION SWITCHES (DS) FOR OVERHEAD DOORS SHALL BE GE MODEL 2204. REQUEST TO EXIT (REX) DEVICES SHALL BE BOSCH MODEL DS160. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL DEVICES.
- D. THE FOLLOWING CABLES SHALL BE PROVIDED: 22/6 FOR CARD READERS (CR); 20/4 FOR REQUEST TO EXIT (REX) DEVICES; 22/2 FOR DOOR POSITION SWITCHES (DS); AND 19/2 FOR ELECTRIC LATCHES OR STRIKES.

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ELECTRICAL SPECIFIC NOTES:

- E301 ONE LEAF OF THESE DOORS HAS AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE WITH LEVER HANDLE ON THE NON-SECURE SIDE AND PANIC HARDWARE ON THE SECURE ROOM SIDE. THE OTHER LEAF HAS MANUAL VERTICAL RODS FOR LOCKING THE LEAF IN PLACE. THE EXISTING CARD READER/LOCKSET WILL BE DEMOED. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE EXISTING PANIC HARDWARE TO A NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO SURFACE MOUNT RACEWAY TO A J-BOX AT THE HINGE AND THEN EXTEND CABLE FROM J-BOX THROUGH A HOLE DRILLED IN FRAME TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER; NEW REQUEST TO EXIT (REX) DEVICE; AND NEW SURFACE MOUNTED DOOR POSITION SWITCH THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-2 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E302 THIS DOOR IS EQUIPPED WITH A STAND-ALONE CARD READER LOCKING DEVICE WITH LEVER HANDLE ON BOTH SIDES. THE EXISTING CARD READER/LOCKSET WILL BE DEMOED. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE DOOR TO A NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO EXTEND LATCH SET POWER WITHIN RACEWAY WITHIN DOOR FRAME/WALL TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER; NEW REQUEST TO EXIT (REX) DEVICE; AND NEW SURFACE MOUNTED DOOR POSITION SWITCHES THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-1 SHEET E2.11 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E303 THIS DOOR DOES NOT HAVE AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE. THIS DOOR HAS LEVER HANDLES ON BOTH SIDES. CONTRACTOR WILL PROVIDE NEW SURFACE MOUNTED DOOR POSITION SWITCH WITH A NEW REX ON THE SECURE SIDE OF THE DOOR. THE REX AND DOOR POSITION SWITCH SHALL BE CONNECTED AND MONITORED BY THE C-CURE 9000 ACCESS CONTROL SYSTEM. SEE DETAIL DT-3 SHEET E2.11 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E304 ONE LEAF OF THESE DOORS HAS AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE WITH LEVERS ON BOTH SIDES. THE OTHER LEAF HAS MANUAL VERTICAL RODS FOR LOCKING THE LEAF IN PLACE. THE EXISTING CARD READER AND LEVER LATCH SET WILL BE DEMOED. THE LEVER HARDWARE SET WILL BE REPLACED WITH A NEW PANIC DEVICE ON THE SECURE SIDE AND A NEW ELECTRIFIED OPERATING TRIM WITH LEVER HANDLE ON THE NON-SECURE SIDE. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE NEW PANIC DEVICE TO THE NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO EXTEND LATCH SET POWER WITHIN RACEWAY WITHIN DOOR FRAME/WALL TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER; NEW REQUEST TO EXIT (REX) DEVICE; AND NEW SURFACE MOUNTED DOOR POSITION SWITCHES THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-2 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E305 THIS DOOR IS EQUIPPED WITH A STAND-ALONE CARD READER LOCKING DEVICE WITH LEVER HANDLE ON THE NON-SECURE SIDE AND PANIC HARDWARE ON THE SECURE ROOM SIDE. THE EXISTING CARD READER/LOCKSET WILL BE DEMOED. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE EXISTING PANIC HARDWARE TO A NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO EXTEND LATCH SET POWER WITHIN RACEWAY WITHIN DOOR FRAME/WALL TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER; NEW REQUEST TO EXIT (REX) DEVICE; AND NEW SURFACE MOUNTED DOOR POSITION SWITCH THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-1 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E306 CONDUIT FOR CARD READER MAYBE RUN SURFACE MOUNT INSIDE OF BUILDING AND THEN PUNCH THROUGH WALL TO A SURFACE MOUNTED BOX.
- E307 CONTRACTOR TO FISH CONDUIT IN WALL FOR NEW DEVICES.
- E308 THIS DOOR DOES NOT HAVE AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE. THIS DOOR HAS LEVER HANDLES ON BOTH SIDES. THE EXISTING LEVER/LATCH SET WILL BE DEMOED. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE DOOR TO A NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO EXTEND LATCH SET POWER WITHIN RACEWAY WITHIN DOOR FRAME/WALL TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER; NEW REQUEST TO EXIT (REX) DEVICE; AND NEW SURFACE MOUNTED DOOR POSITION SWITCHES THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-1 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E309 THIS DOOR AND FRAME ARE BEING REPLACED WITH NEW. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE DOOR TO A NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO EXTEND LATCH SET POWER WITHIN RACEWAY WITHIN DOOR FRAME/WALL TO THE NEW HINGE. J-BOX FOR SECURITY CABLING, REX AND ASSOCIATED CONDUIT MAYBE SURFACE MOUNTED WITHIN ROOM. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER; NEW REQUEST TO EXIT (REX) DEVICE; AND NEW SURFACE MOUNTED DOOR POSITION SWITCHES THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-1 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E310 CONTRACTOR TO PROVIDE NEW ACCESS CONTROL PANEL NEXT TO EXISTING ACCESS CONTROL PANEL. PROVIDE 120V POWER FOR NEW CONTROL PANEL FROM EXISTING CONTROL PANEL. CONTRACTOR TO PROVIDE CAT 6 CABLE FROM ACCESS CONTROL PANEL TO EXISTING DATA RACK FOR CONNECTION TO OWNERS NETWORK PANEL.

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ROSS DRY ELECTRICAL PLANS

SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#: BR22033

DESIGNED: MRS

DRAWN: VLS

APPROVED: MRS

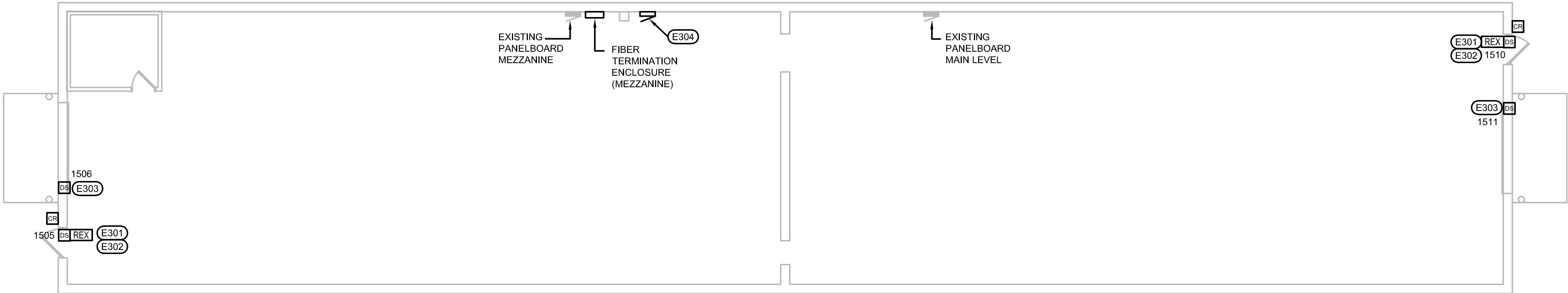
DATE: 02/10/2023



SHEET:

E1.40

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① ROSS WAREHOUSE MAIN LEVEL ELECTRICAL PLAN
1/8" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES:

- A. THIS PROJECT WILL PROVIDE NEW ACCESS CONTROL DEVICES THAT WILL NEED TO BE INTERFACED WITH THE FACILITIES EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM. JASON KLOCKER OF JOHNSON CONTROLS IS THE POINT OF CONTACT FOR ALL WORK RELATED TO THIS SYSTEM AND HIS CONTACT NUMBER IS (605)929-7627. JOHNSON CONTROLS IS THE SERVICING CONTRACTOR FOR THIS SYSTEM. ALL NEW DEVICES, EQUIPMENT AND PROGRAMMING ARE TO BE PROVIDED BY JOHNSON CONTROLS TO ENSURE EXISTING WARRANTIES ARE NOT VOIDED.
- B. NEW SECURITY CONTROL PANELS WILL BE INSTALLED IN EACH OF THE AREAS/BUILDINGS THIS PROJECT IS AFFECTING. THESE CONTROL PANELS WILL NEED TO BE TIED TO THE EXISTING C-CURE 9000 SERVER SYSTEM THAT RESIDES IN THE EXISTING SERVER ROOM OF THE ADMINISTRATION BUILDING. EACH DOOR THAT IS HAVING DEVICES INSTALLED WILL HAVE CONDUIT RAN FROM THAT DOOR BACK TO THE CONTROL PANEL WITHIN THAT AREA/BUILDING. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR EACH NEW CONTROL PANEL.
- C. CARD READERS SHALL BE HID SIGNO READERS MODEL 40NKS UNLESS SPECIFICALLY NOTED OTHERWISE. DOOR POSITION SWITCHES (DS) FOR WALK-IN DOORS SHALL BE GE MODEL 1018 FOR RECESSED APPLICATIONS OR GE MODEL 2505A FOR SURFACE MOUNTED APPLICATIONS. DOOR POSITION SWITCHES (DS) FOR OVERHEAD DOORS SHALL BE GE MODEL 2204. REQUEST TO EXIT (REX) DEVICES SHALL BE BOSCH MODEL DS160. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL DEVICES.
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ELECTRICAL SPECIFIC NOTES:

- E301 THIS DOOR IS EQUIPPED WITH A STAND-ALONE CARD READER LOCKING DEVICE WITH LEVER HANDLE ON BOTH SIDES. THE EXISTING CARD READER AND LEVER LATCH SET WILL BE DEMOED. THE LEVER HARDWARE SET WILL BE REPLACED WITH A NEW PANIC DEVICE ON THE SECURE SIDE AND A NEW ELECTRIFIED OPERATING TRIM WITH LEVER HANDLE ON THE NON-SECURE SIDE. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE NEW PANIC DEVICE TO THE NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO SURFACE MOUNT RACEWAY TO A J-BOX AT THE HINGE AND THEN EXTEND CABLE FROM J-BOX THROUGH A HOLE DRILLED IN FRAME TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER, NEW REQUEST TO EXIT (REX) DEVICE, AND NEW SURFACE MOUNTED DOOR POSITION SWITCHES THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-1 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E302 CONDUIT FOR CARD READER MAYBE RUN SURFACE MOUNT INSIDE OF BUILDING AND THEN PUNCH THROUGH WALL TO A SURFACE MOUNTED BOX.
- E303 CONTRACTOR TO PROVIDE DOOR POSITION SWITCH FOR OVERHEAD DOOR. THE DOOR POSITION SWITCH SHALL BE CONNECTED AND MONITORED BY THE C-CURE 9000 ACCESS CONTROL SYSTEM. SEE DETAIL SHEET E2.12 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.
- E304 LOCATION OF NEW CONTROL PANEL FOR ACCESS CONTROL SYSTEM TO SERVE ROSS WAREHOUSE. NEW CONTROL PANEL TO BE MOUNTED AT MEZZANINE LEVEL. CONTRACTOR TO PROVIDE STRUT SUPPORT BETWEEN HORIZONTAL PURLINS FOR MOUNTING OF NEW CONTROL PANEL. PROVIDE POWER FROM EXISTING 20A/1P BREAKER IN EXISTING PANELBOARD LOCATED AT THE MAIN LEVEL. CONTRACTOR TO PROVIDE CAT 6 CABLE FROM ACCESS CONTROL PANEL TO EXISTING NETWORK PANEL LOCATED NEAR THE FIBER TERMINATION ENCLOSURE FOR CONNECTION TO OWNER NETWORK.

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REVISIONS

#	DESCRIPTION	DATE
1		
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ROSS WAREHOUSE MAIN LEVEL ELECTRICAL PLAN

SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#: BR22033

DESIGNED: MRS

DRAWN: VLS

APPROVED: MRS

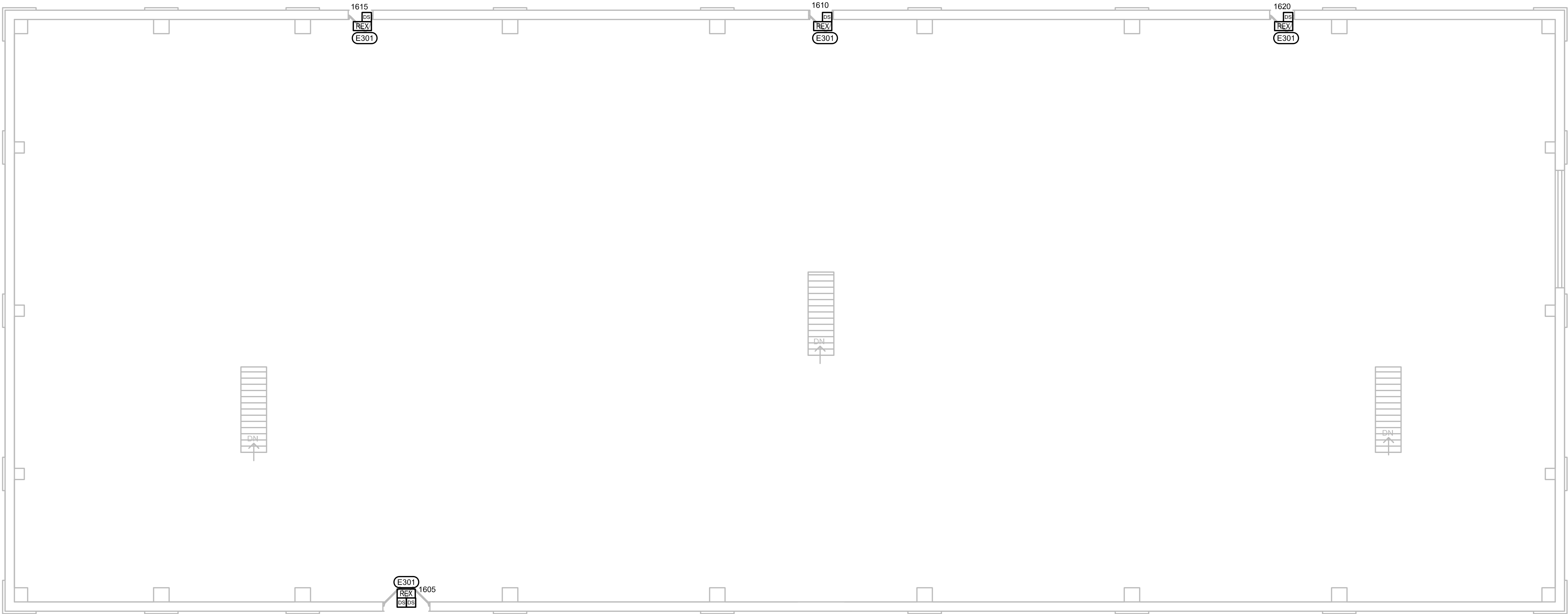
DATE: 02/10/2023



SHEET:

E1.50

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① ROSS HOIST ROOM MAIN LEVEL ELECTRICAL PLAN
1/8" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES:

- A. THIS PROJECT WILL PROVIDE NEW ACCESS CONTROL DEVICES THAT WILL NEED TO BE INTERFACED WITH THE FACILITIES EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM. JASON KLOCKER OF JOHNSON CONTROLS IS THE POINT OF CONTACT FOR ALL WORK RELATED TO THIS SYSTEM AND HIS CONTACT NUMBER IS (605)828-7927. JOHNSON CONTROLS IS THE SERVICING CONTRACTOR FOR THIS SYSTEM. ALL NEW DEVICES, EQUIPMENT AND PROGRAMMING ARE TO BE PROVIDED BY JOHNSON CONTROLS TO ENSURE EXISTING WARRANTIES ARE NOT VOIDED.
- B. NEW SECURITY CONTROL PANELS WILL BE INSTALLED IN EACH OF THE AREAS/BUILDINGS THIS PROJECT IS AFFECTING. THESE CONTROL PANELS WILL NEED TO BE TIED TO THE EXISTING C-CURE 9000 SERVER SYSTEM THAT RESIDES IN THE EXISTING SERVER ROOM OF THE ADMINISTRATION BUILDING. EACH DOOR THAT IS HAVING DEVICES INSTALLED WILL HAVE CONDUIT RAN FROM THAT DOOR BACK TO THE CONTROL PANEL WITHIN THAT AREA/BUILDING. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR EACH NEW CONTROL PANEL.
- C. CARD READERS SHALL BE HID SIGNO READERS MODEL 40NKS UNLESS SPECIFICALLY NOTED OTHERWISE. DOOR POSITION SWITCHES (DS) FOR WALK-IN DOORS SHALL BE GE MODEL 1078 FOR RECESSED APPLICATIONS OR GE MODEL 2505A FOR SURFACE MOUNTED APPLICATIONS. DOOR POSITION SWITCHES (DS) FOR OVERHEAD DOORS SHALL BE GE MODEL 2204. REQUEST TO EXIT (REX) DEVICES SHALL BE BOSCH MODEL DS160. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL DEVICES.
- D. THE FOLLOWING CABLES SHALL BE PROVIDED: 22/8 FOR CARD READERS (CR); 20/4 FOR REQUEST TO EXIT (REX) DEVICES; 22/2 FOR DOOR POSITION SWITCHES (DS); AND 18/2 FOR ELECTRIC LATCHES OR STRIKES.

ELECTRICAL SPECIFIC NOTES:

E301 THIS DOOR DOES NOT HAVE AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE. THIS DOOR HAS LEVER HANDLES ON BOTH SIDES. CONTRACTOR WILL PROVIDE NEW SURFACE MOUNTED DOOR POSITION SWITCH WITH A NEW REX ON THE SECURE SIDE OF THE DOOR. THE REX AND DOOR POSITION SWITCH SHALL BE CONNECTED AND MONITORED BY THE C-CURE 9000 ACCESS CONTROL SYSTEM. SEE DETAIL DT-3 SHEET E2.11 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.

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2		
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ROSS HOIST ROOM MAIN LEVEL ELECTRICAL PLAN

SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

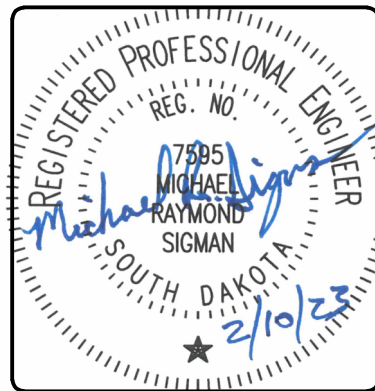
PROJECT#: BR220233

DESIGNED: MRS

DRAWN: VLS

APPROVED: MRS

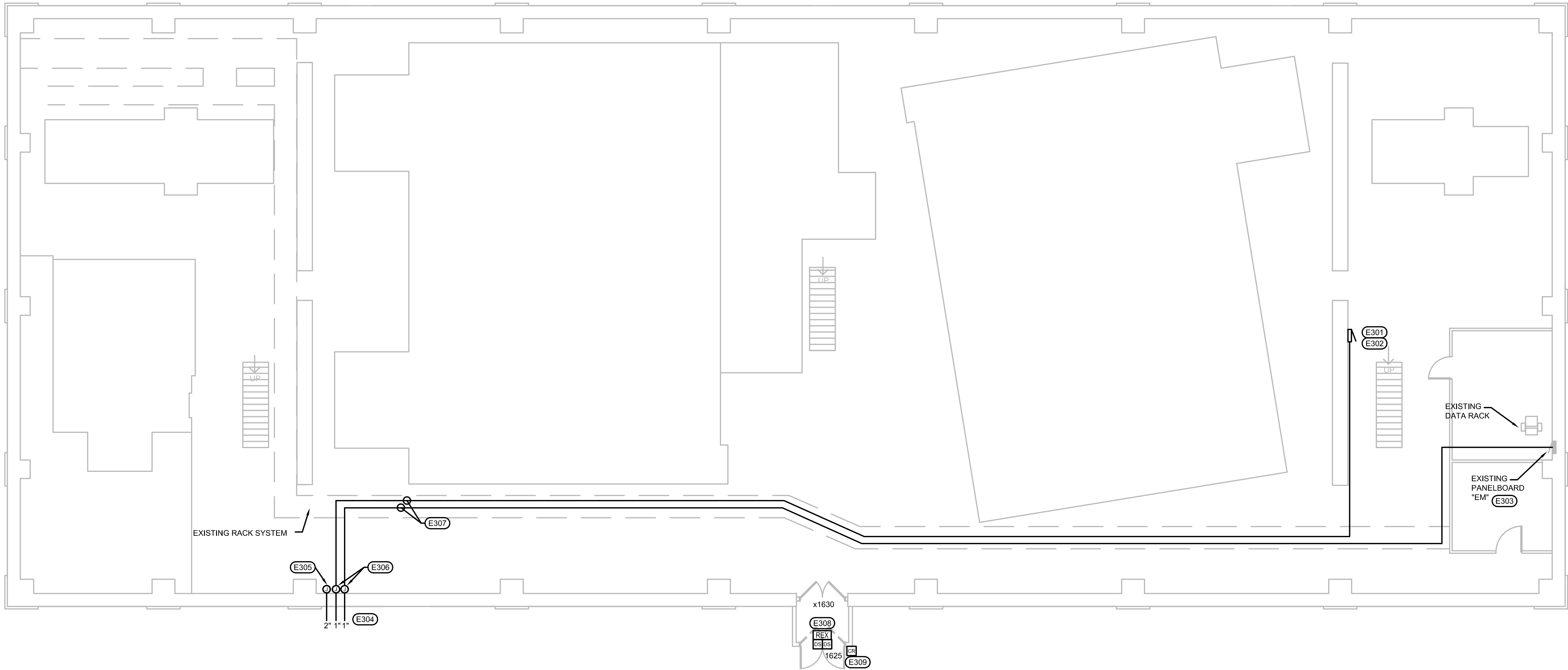
DATE: 02/10/2023



SHEET:

E1.60

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① ROSS HOIST ROOM LOWER LEVEL ELECTRICAL PLAN
1/8" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES:

- A. THIS PROJECT WILL PROVIDE NEW ACCESS CONTROL DEVICES THAT WILL NEED TO BE INTERFACED WITH THE FACILITIES EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM. JASON KLOCKER OF JOHNSON CONTROLS IS THE POINT OF CONTACT FOR ALL WORK RELATED TO THIS SYSTEM AND HIS CONTACT NUMBER IS (605)929-7627. JOHNSON CONTROLS IS THE SERVING CONTRACTOR FOR THIS SYSTEM. ALL NEW DEVICES, EQUIPMENT AND PROGRAMMING ARE TO BE PROVIDED BY JOHNSON CONTROLS TO ENSURE EXISTING WARRANTIES ARE NOT VOIDED.
- B. NEW SECURITY CONTROL PANELS WILL BE INSTALLED IN EACH OF THE AREAS/BUILDINGS THIS PROJECT IS AFFECTING. THESE CONTROL PANELS WILL NEED TO BE TIED TO THE EXISTING C-CURE 9000 SERVER SYSTEM THAT RESIDES IN THE EXISTING SERVER ROOM OF THE ADMINISTRATION BUILDING. EACH DOOR THAT IS HAVING DEVICES INSTALLED WILL HAVE CONDUIT RAN FROM THAT DOOR BACK TO THE CONTROL PANEL WITHIN THAT AREA/BUILDING. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR EACH NEW CONTROL PANEL.
- C. CARD READERS SHALL BE HID SIGNO READERS MODEL 40NKS UNLESS SPECIFICALLY NOTED OTHERWISE. DOOR POSITION SWITCHES (DS) FOR WALK-IN DOORS SHALL BE GE MODEL 1078 FOR RECESSED APPLICATIONS OR GE MODEL 2505A FOR SURFACE MOUNTED APPLICATIONS. DOOR POSITION SWITCHES (DS) FOR OVERHEAD DOORS SHALL BE GE MODEL 2204. REQUEST TO EXIT (REX) DEVICES SHALL BE BOSCH MODEL DS160. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL DEVICES.
- D. THE FOLLOWING CABLES SHALL BE PROVIDED: 22/6 FOR CARD READERS (CR); 20/4 FOR REQUEST TO EXIT (REX) DEVICES; 22/2 FOR DOOR POSITION SWITCHES (DS); AND 18/2 FOR ELECTRIC LATCHES OR STRIKES.

#

ELECTRICAL SPECIFIC NOTES:

- E301 LOCATION OF NEW CONTROL PANEL FOR ACCESS CONTROL SYSTEM TO SERVE ROSS HOIST ROOM BUILDING AND ROSS HOIST GATE. PROVIDE POWER FROM EXISTING PANEL EM. CONTRACTOR TO PROVIDE CAT 6 CABLE FROM ACCESS CONTROL PANEL TO EXISTING DATA RACK FOR CONNECTION TO OWNERS NETWORK PANEL.
- E302 PROVIDE CONDUIT AND ASSOCIATED CABLES FROM THIS NEW ACCESS CONTROL PANEL TO NEW GATE LOCATION FOR NEW CARD READER AND CONTROL WIRING FOR THE OPERATION OF THE GATE. CABLES SHALL INCLUDE 8/18 STRANDED, TWISTED, SHIELDED CABLE TO CARD READER AND 2/16 STRANDED, TWISTED, SHIELDED CABLE TO GATE CONTROLLER.
- E303 PANEL EM IS AN EXISTING EATON 125A 120/240V/1-PHASE/3-WIRE LOAD CENTER THAT IS SURFACE MOUNTED ON THE WALL WITH CH AND/OR BR BREAKERS. CONTRACTOR TO PROVIDE A NEW 20A/1P BREAKER TO PROVIDE POWER FOR NEW ACCESS CONTROL PANEL. CONTRACTOR TO EXTEND A 1/2-INCH CONDUIT FROM THIS PANEL TO THE NEW ACCESS CONTROL PANEL. CONTRACTOR TO PROVIDE A NEW 20A/2P BREAKER TO PROVIDE POWER FOR THE NEW GATE. CONTRACTOR TO EXTEND A 1-INCH CONDUIT FROM THIS PANEL TO THE EXISTING WIRE GUTTER SHOWN ON SHEET E1.62. CONDUCTORS SHALL BE 2-#8, 1-#8 NEUTRAL AND 1-#8 GND CU.
- E304 THE TWO 1 INCH CONDUITS AND ONE 2 INCH CONDUIT WILL ENTER THE BUILDING AT THIS LOCATION. CONTRACTOR SHALL EXTEND CONDUITS UP EXTERIOR OF BUILDING TO APPROXIMATELY 7 FEET ABOVE FINISHED FLOOR OF THE LOWER LEVEL AND THEN LB INTO THE BUILDING. CONTRACTOR WILL NEED TO CORE HOLES INTO BUILDING AND SEAL AROUND THE CONDUITS ON BOTH INTERIOR AND EXTERIOR SIDES.

E305 THE 2 INCH CONDUIT WILL TERMINATE INTO A 6 INCH X 6 INCH J-BOX ON THE INSIDE OF THE BUILDING WITH PULL STRING TO THE GUTTER AT THE GATE.

E306 THE TWO 1 INCH CONDUITS SHALL TERMINATE INTO 4 INCH SQUARE BOX ON THE INSIDE OF THE BUILDING

E307 FROM THE 4 INCH SQUARE BOXES THE CONTRACTOR SHALL EXTEND THE 1 INCH CONDUITS TO THE PANEL EM AND ACCESS CONTROL PANEL RESPECTIVELY. THE CONTRACTOR MAY USE THE EXISTING RACK SYSTEM SHOWN ON THE PLANS TO SUPPORT THE CONDUIT FOR MOST OF THE RUN. CONTRACTOR WILL NEED TO PROVIDE NEW SUPPORT WHERE NOT FOLLOWING THE RACK SYSTEM.

E308 THIS SET OF DOORS AND FRAME ARE GOING TO BE REMOVED AND REINSTALLED AFTER ROTATING SO THAT THE DOORS SWING OUT OF THE ROOM RATHER THAN INTO THE ROOM. ONE LEAF OF THESE DOORS HAS AN EXISTING ELECTRONIC ACCESS CONTROL DEVICE WITH LEVERS HANDLES ON BOTH SIDES. THE OTHER LEAF HAS MANUAL VERTICAL RODS FOR LOCKING THE LEAF IN PLACE. THE EXISTING CARD READER AND LEVER LATCH SET WILL BE DEMOED. THE LEVER HARDWARE SET WILL BE REPLACED WITH A NEW PANIC DEVICE ON THE SECURE SIDE AND A NEW ELECTRIFIED OPERATING TRIM WITH LEVER HANDLE ON THE NON-SECURE SIDE. A NEW POWER TRANSFER HINGE WILL BE PROVIDED AND WIRING WILL BE ROUTED FROM THE HINGE THROUGH THE NEW PANIC DEVICE TO THE NEW ELECTRIFIED LATCH SET. CONTRACTOR WILL NEED TO SURFACE MOUNT RACEWAY TO A J-BOX AT THE HINGE AND THEN EXTEND CABLE FROM J-BOX THROUGH A HOLE DRILLED IN FRAME TO THE NEW HINGE. THIS CONTRACTOR SHALL PROVIDE A NEW CARD READER, NEW REQUEST TO EXIT (REX) DEVICE, AND NEW SURFACE MOUNTED DOOR POSITION SWITCHES THAT WILL ALL BE NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM AND CONTROL THE ELECTRIFIED LATCH SET. SEE DETAIL DT-2 SHEET E2.10 FOR MORE INFORMATION REGARDING ROUGH-IN AND INSTALLATION OF NEW DEVICES.

E309 CONDUIT FOR CARD READER MAYBE RUN SURFACE MOUNT INSIDE OF BUILDING AND THEN PUNCH THROUGH WALL TO A SURFACE MOUNTED BOX.

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ROSS HOIST ROOM LOWER LEVEL ELECTRICAL PLAN
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

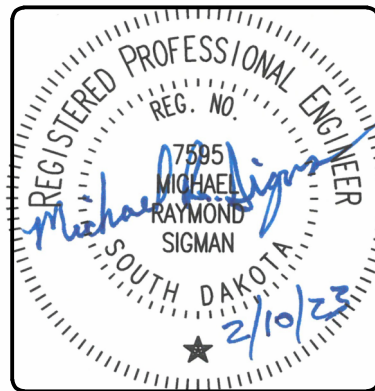
PROJECT#: BR22033

DESIGNED: MRS

DRAWN: VLS

APPROVED: MRS

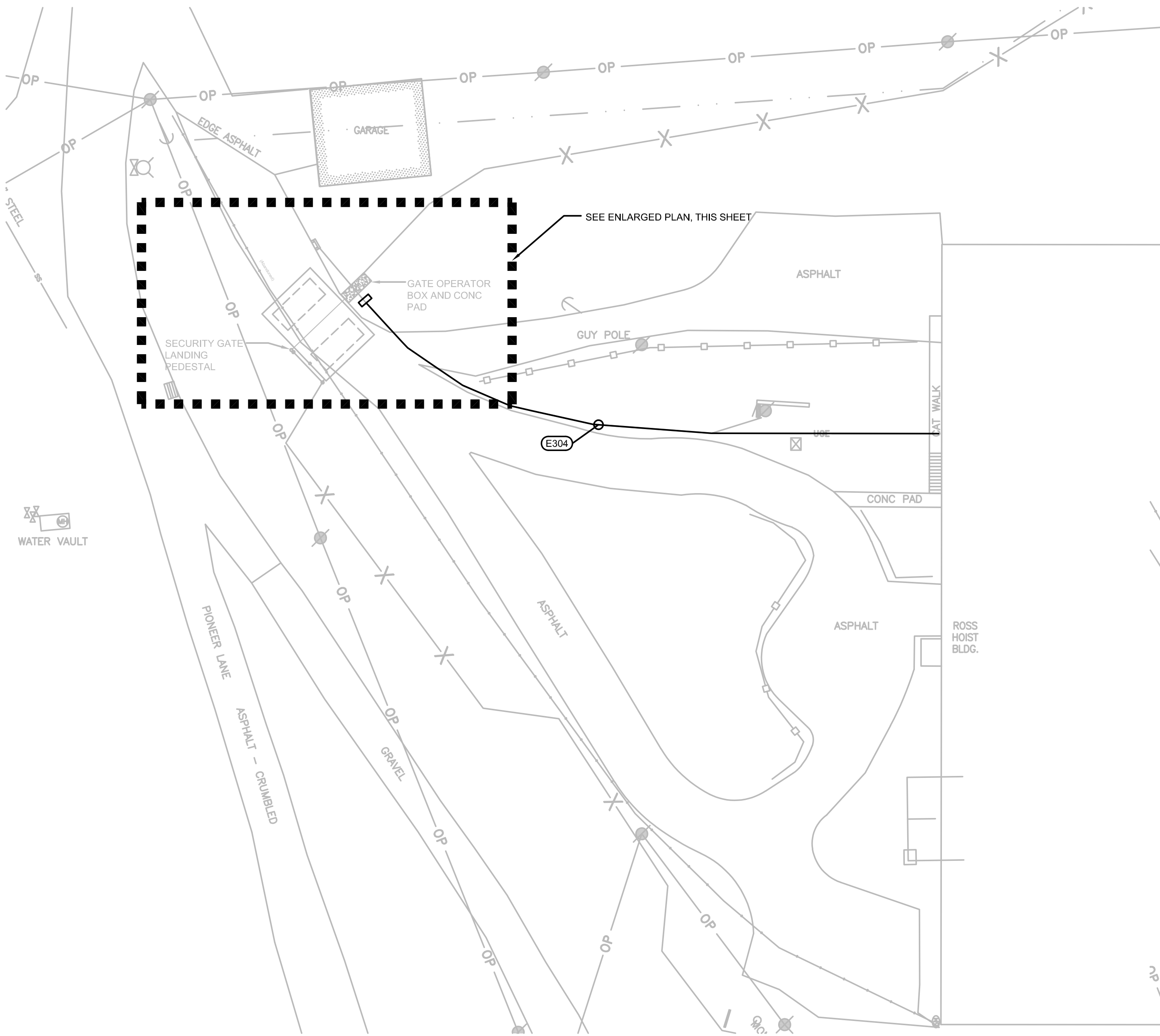
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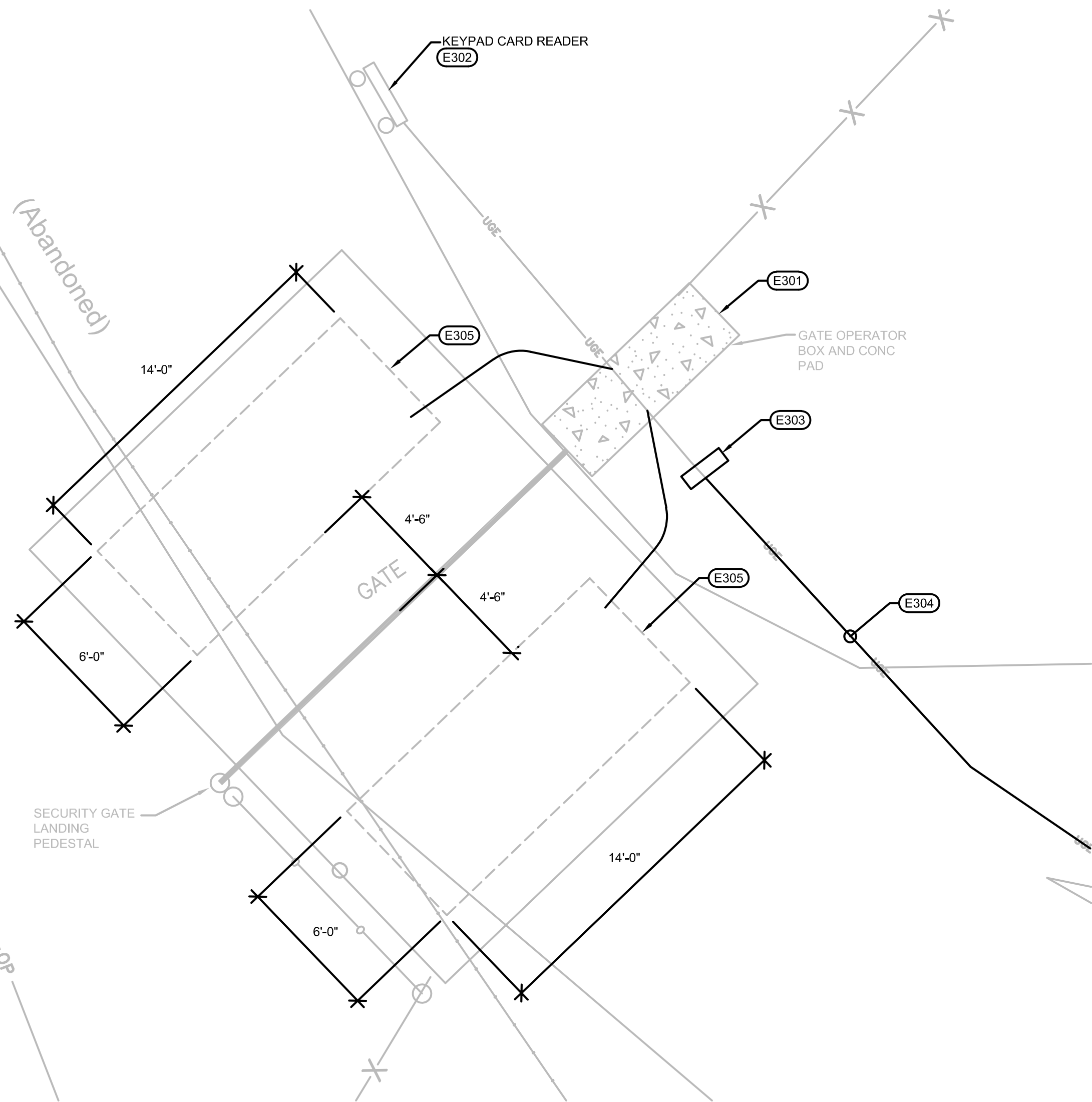
SHEET:

E1.61

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① ROSS ELECTRICAL SITE PLAN
1" = 20'-0"



② ROSS ENLARGED ELECTRICAL SITE PLAN
1/4" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES:

- A. THIS PROJECT WILL PROVIDE NEW ACCESS CONTROL DEVICES THAT WILL NEED TO BE INTERFACED WITH THE FACILITIES EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM. JASON KLOCKER OF JOHNSON CONTROLS IS THE POINT OF CONTACT FOR ALL WORK RELATED TO THIS SYSTEM AND HIS CONTACT NUMBER IS (855)829-7827. JOHNSON CONTROLS IS THE SERVICING CONTRACTOR FOR THIS SYSTEM. ALL NEW DEVICES, EQUIPMENT AND PROGRAMMING ARE TO BE PROVIDED BY JOHNSON CONTROLS TO ENSURE EXISTING WARRANTIES ARE NOT VOIDED.
- B. NEW SECURITY CONTROL PANELS WILL BE INSTALLED IN EACH OF THE AREAS/BUILDINGS THIS PROJECT IS AFFECTING. THESE CONTROL PANELS WILL NEED TO BE TIED TO THE EXISTING C-CURE 9000 SERVER SYSTEM THAT RESIDES IN THE EXISTING SERVER ROOM OF THE ADMINISTRATION BUILDING. EACH DOOR THAT IS HAVING DEVICES INSTALLED WILL HAVE CONDUIT RAN FROM THAT DOOR BACK TO THE CONTROL PANEL WITHIN THAT BUILDING. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR EACH NEW CONTROL PANEL.
- C. CARD READERS SHALL BE HID SIGNO READERS MODEL 40NKS UNLESS SPECIFICALLY NOTED OTHERWISE. DOOR POSITION SWITCHES (DS) FOR WALK-IN DOORS SHALL BE GE MODEL 1078 FOR RECESSED APPLICATIONS OR GE MODEL 2505A FOR SURFACE MOUNTED APPLICATIONS. DOOR POSITION SWITCHES (DS) FOR OVERHEAD DOORS SHALL BE GE MODEL 2204. REQUEST TO EXIT (REX) DEVICES SHALL BE BOSCH MODEL DS160. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL DEVICES.
- D. THE FOLLOWING CABLES SHALL BE PROVIDED: 18/6 FOR CARD READER (CR) AT GATE AND 16/2 FOR GATE CONTROL.

ELECTRICAL SPECIFIC NOTES:

- E301 EXISTING VERTICAL PIVOT 20' WIDE GATE WITH OPERATOR TO BE DEMOED ALONG WITH FOOTING/FOUNDATION. CONTRACTOR TO ALSO DEMO EXISTING GATE RETAINER BRACKET AND FOUNDATION ON OPPOSITE SIDE OF ROADWAY. CONTRACTOR TO INSTALL NEW IDEAL MANUFACTURING INC TILT-A-WAY MODEL HYJG HYDRAULIC OPERATOR VERTICAL PIVOT 20' X 6' ALUMINUM GATE OR PRE-APPROVED EQUAL WITH NEW FOOTING/FOUNDATION SYSTEM AS DETAILED. GATE SHALL OPERATE AT 120V AND HAVE BATTERY BACKUP SYSTEM FOR OPERATION. POWER FOR THE GATE WILL COME FROM PANEL EM IN THE ROSS HOIST BUILDING. ALSO INSTALL NEW GATE LANDING PEDESTAL WITH NEW FOUNDATION AS DETAILED ON SHEET E1.63. REFER TO SPECIFICATION 323137 HYDRAULIC VERTICAL PIVOT GATE SYSTEM FOR MORE INFORMATION RELATED TO NEW GATE.
- E302 THE EXISTING VEHICLE GATE HAS A STAND-ALONE KEYPAD/CARD READER REMOTELY MOUNTED TO A RACK SYSTEM SO THAT DRIVERS CAN DRIVE UP TO THE READER AND SCAN CARD AND GATE WILL OPEN. THERE IS ALSO A RF RECEIVER THAT OPERATES BASED ON REMOTE CONTROLS INSIDE OF WORK VEHICLES. THE KEYPAD/CARD READER WILL BE DEMOED AND A NEW CARD READER INSTALLED THAT WILL NETWORKED WITH THE EXISTING C-CURE 9000 ACCESS CONTROL SYSTEM. THE CARD READER WILL NEED TO INTERFACE THE EXISTING GATE FOR OPERATION TO MATCH EXISTING OPERATION. THE EXISTING RF RECEIVER SHALL REMAIN AND CONTINUE TO OPERATE AS IT CURRENTLY WORKS.
- E303 EXISTING POWER AND CONTROL WIRING IS ROUTED THROUGH AN EXISTING WIRE GUTTER AT THIS LOCATION. AN EXISTING CONDUIT FROM THE GUTTER TO THE EXISTING CARD READER LOCATION CAN BE USED TO EXTEND THE NEW CARD READER CABLE FROM THE GUTTER TO THE NEW CARD READER. CONTRACTOR TO PROVIDE TWO NEW 1" CONDUITS FROM THE WIRE GUTTER TO THE NEW GATE OPERATOR. ONE FOR POWER AND ONE FOR GATE CONTROL.
- E304 FROM THE WIRE GUTTER BACK TO THE ROSS HOIST BUILDING THE CONTRACTOR WILL NEED TO PROVIDE TWO NEW 1 INCH CONDUITS AND ONE NEW 2 INCH CONDUIT IN A NEW TRENCH TO THE ROSS HOIST BUILDING. TRENCH SHALL BE 24-INCHES DEEP AND SHALL BE ROUTED AROUND HEAL OF SLOPE TO THE HOIST BUILDING. EXACT ROUTING SHALL BE COORDINATED WITH

OWNER. TRENCH WILL CROSS OTHER EXISTING ELECTRICAL LINES. CONTRACTOR WILL NEED TO LOCATE THESE UTILITIES BEFORE TRENCHING. ONE 1 INCH CONDUIT SHALL INCLUDE 8/18 STRANDED, TWISTED, SHIELDED CABLE FOR CARD READER AND 2/16 STRANDED, TWISTED, SHIELDED CABLE FOR GATE CONTROLLER. THE SECOND 1 INCH CONDUIT WILL HAVE 2-#8; 1-#8 NEUTRAL AND 1-#8 GND CU FOR POWER FOR THE GATE. THE 2 INCH CONDUIT WILL HAVE A PULL STRING AND WILL BE A SPARE.

E305 CONTRACTOR TO PROVIDE NEW PREFORMED DIRECT BURIAL CONTROL LOOPS EQUAL TO 8D LOOPS AND SUPPLIED BY GATE SUPPLIER. LOOPS SHALL BE 6 FOOT BY 14 FOOT AS DETAILED AND SHALL BE INSTALLED PER THE MANUFACTURERS REQUIREMENTS. LOOPS SHALL BE TIED TO GATE CONTROLLER.

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ROSS ELECTRICAL SITE PLAN SURF ACCESS CONTROL PHASE II SURFACE LOCATIONS LEAD, SOUTH DAKOTA

PROJECT#: BR22033

DESIGNED: MRS

DRAWN: VLS

APPROVED: MRS

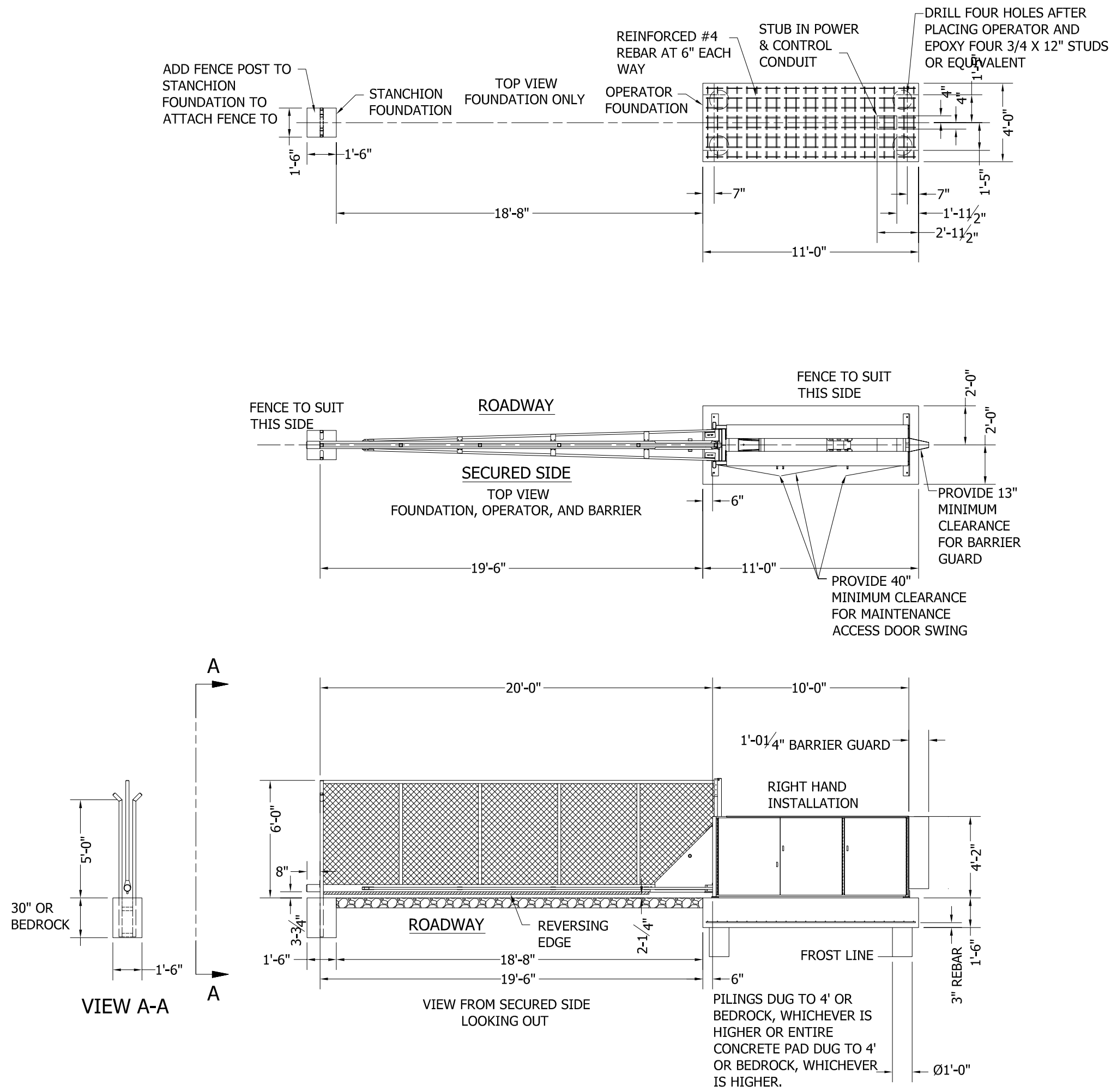
DATE: 02/10/2023



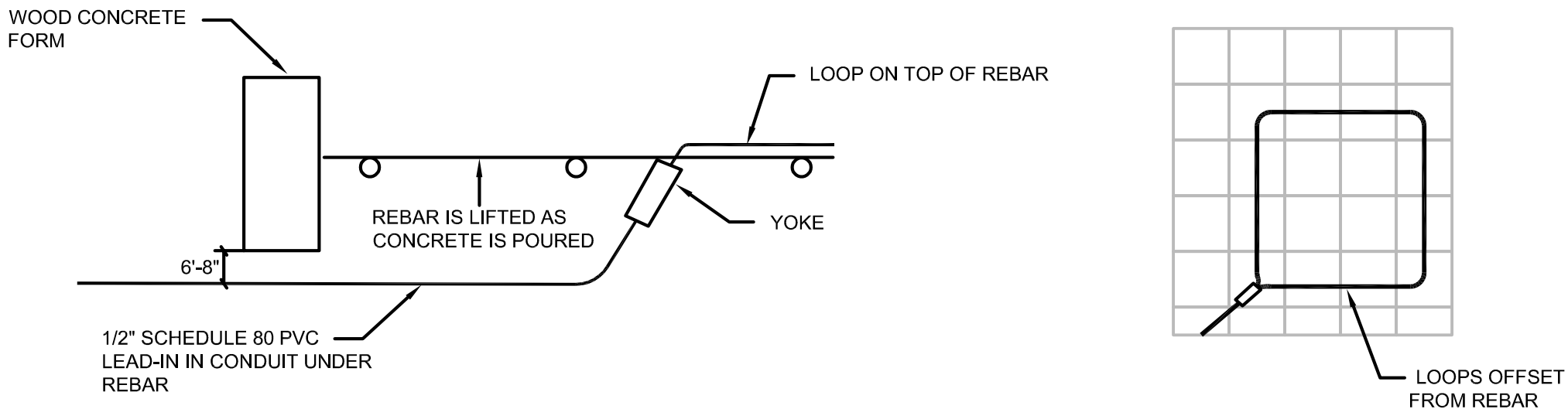
SHEET:

E1.62

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① TILT-A-WAY MODEL HYJG 20' X 6' DETAIL
NO SCALE



③ BD LOOPS IN CONCRETE OVER REBAR/ WIRE MESH DETAIL
NO SCALE

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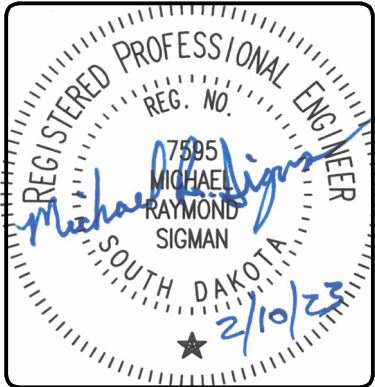
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REVISIONS		
#	DESCRIPTION	DATE
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ROSS ELECTRICAL SITE DETAILS
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

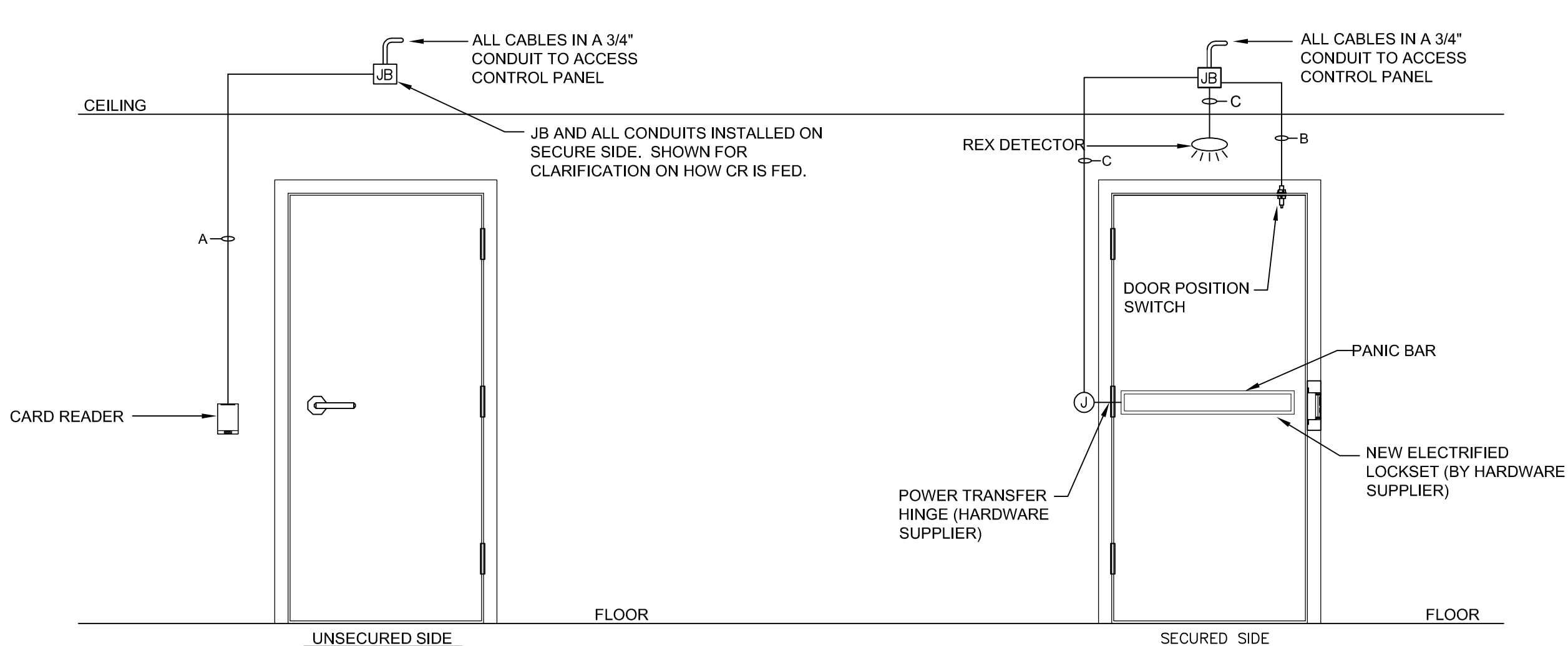
PROJECT#:	BR22033
DESIGNED:	MRS
DRAWN:	VLS
APPROVED:	MRS
DATE:	02/10/2023



SHEET:

E1.63

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DT-1

- DEVICES :
- 1. CARD READER-IN
 - 2. REX DETECTOR
 - 3. ELECTRIFIED LOCKSET
 - 4. DOOR POSITION SWITCH
 - 5. POWER TRANSFER HINGE
- SINGLE DOOR

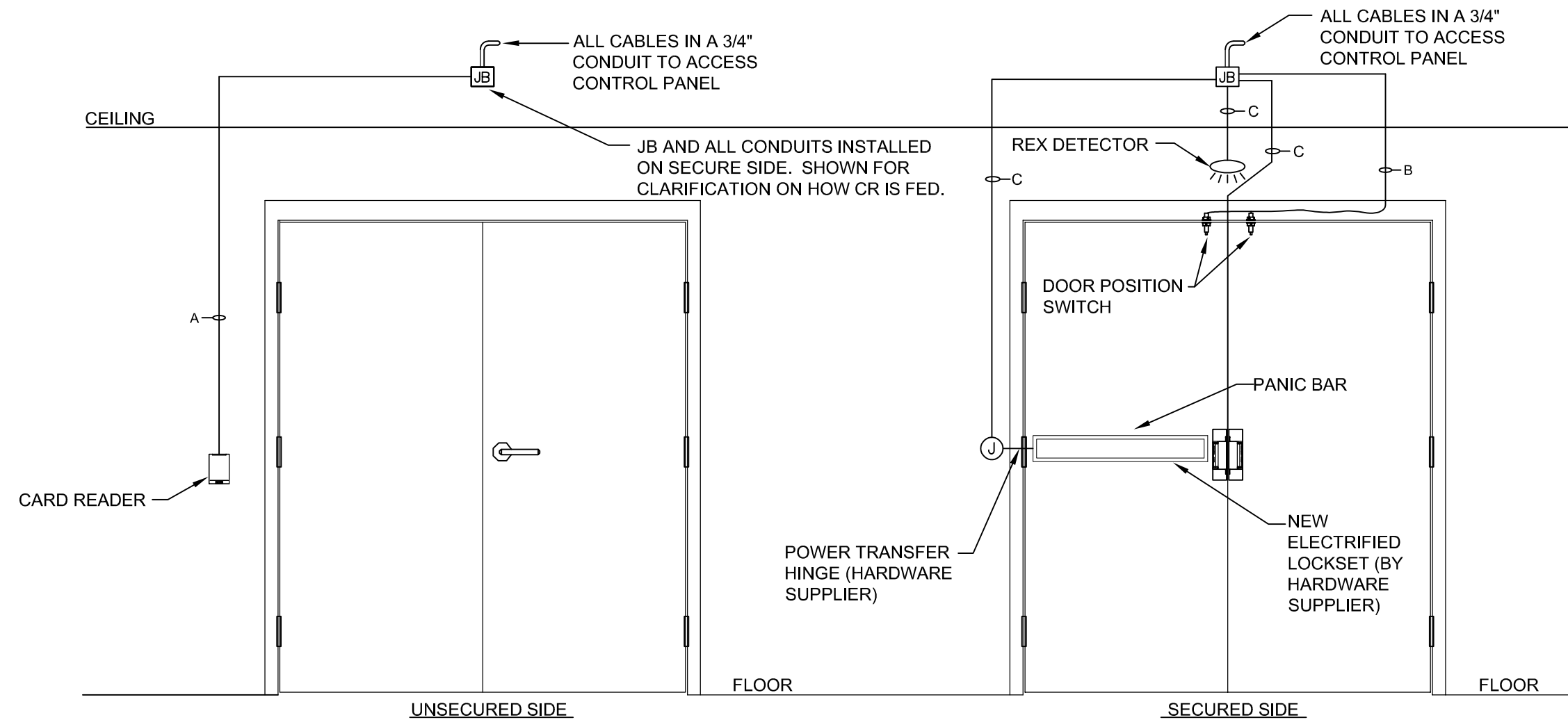
DOOR FUNCTION :

INGRESS: PRESENTING VALID CREDENTIALS TO CARD READER UNLOCKS ELECTRIC STRIKE ALLOWING INGRESS.

EGRESS: FREE MECHANICAL EGRESS AT ALL THE TIMES.

REX DETECTOR SHUNTS DOOR ALARM ALLOWING VALID EGRESS.

DOOR POSITION MONITORED BY DOOR POSITION SWITCH



DT-2

- DEVICES :
- 1. CARD READER-IN
 - 2. REX DETECTOR
 - 3. DOOR POSITION SWITCH-2 NOS.
 - 4. ELECTRIC LOCKSET
 - 5. POWER TRANSFER HINGE
- DOUBLE DOOR

DOOR FUNCTION :

INGRESS: PRESENTING VALID CREDENTIALS TO CARD READER UNLOCKS ELECTRIC STRIKE ALLOWING INGRESS.

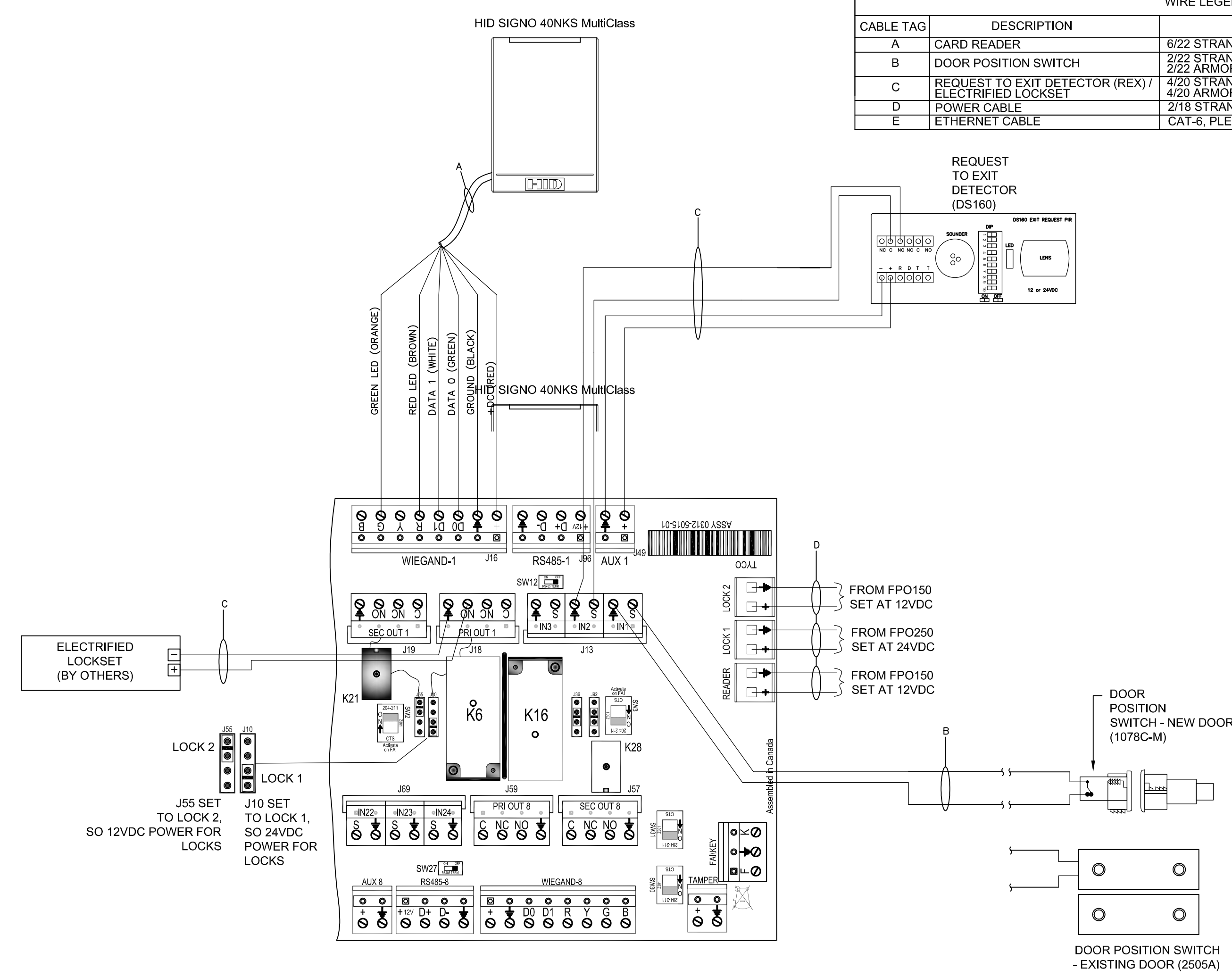
EGRESS: REX DETECTOR SENSES MOTION & UNLOCKS THE DOOR.

REX FUNCTION SHUNTS THE DOOR ALARM VALID EGRESS.

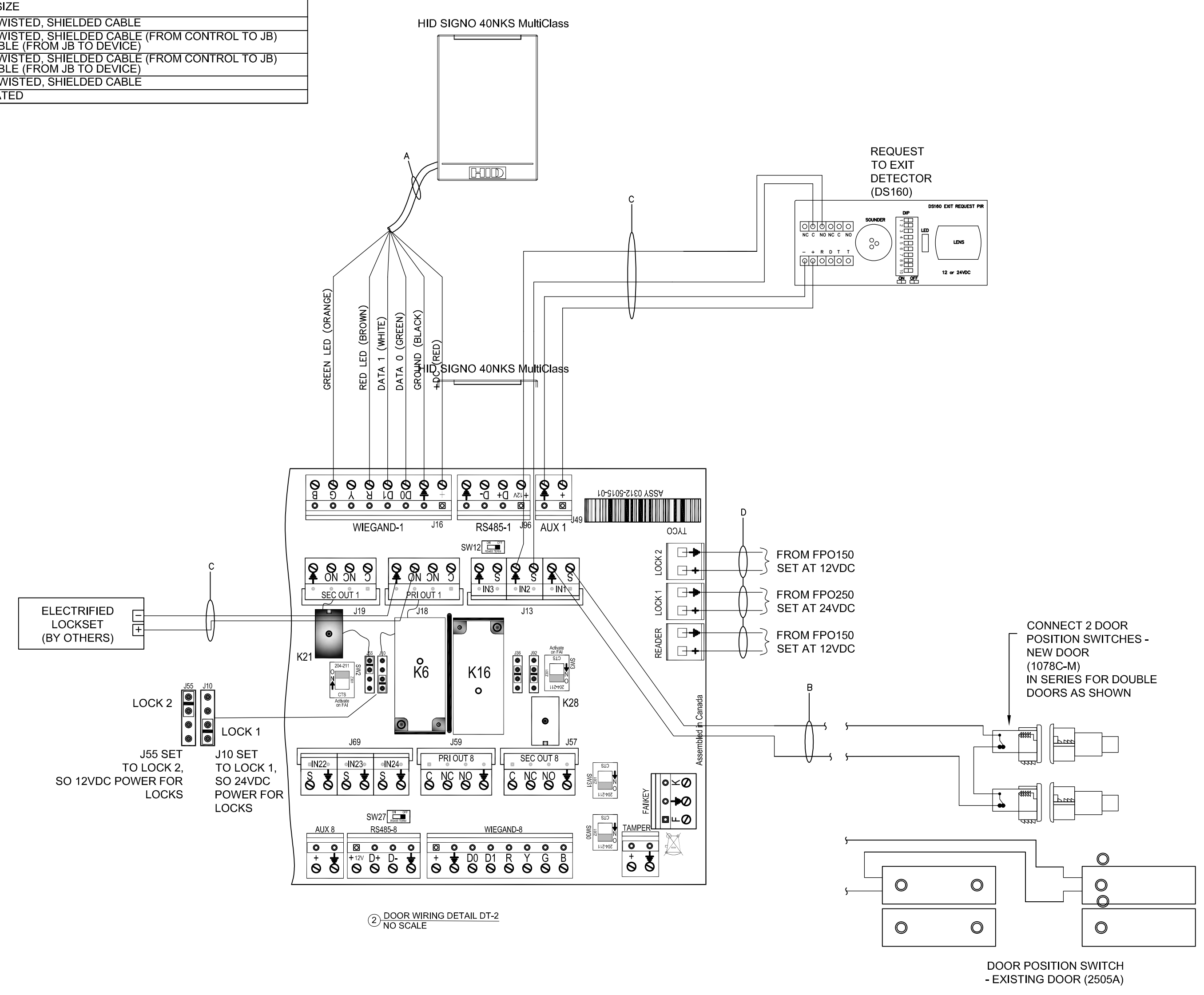
FREE MECHANICAL EGRESS AT ALL THE TIMES.

DOOR POSITION MONITORED BY DOOR POSITION SWITCHES.

WIRE LEGEND		
CABLE TAG	DESCRIPTION	WIRE SIZE
A	CARD READER	6/22 STRANDED, TWISTED, SHIELDED CABLE
B	DOOR POSITION SWITCH	2/22 STRANDED, TWISTED, SHIELDED CABLE (FROM CONTROL TO JB)
C	REQUEST TO EXIT DETECTOR (REX) / ELECTRIFIED LOCKSET	2/22 ARMORED CABLE (FROM JB TO DEVICE)
D	POWER CABLE	4/20 STRANDED, TWISTED, SHIELDED CABLE (FROM CONTROL TO JB)
E	ETHERNET CABLE	4/20 ARMORED CABLE (FROM JB TO DEVICE)
E	ETHERNET CABLE	CAT-6, PLENUM RATED



1 DOOR WIRING DETAIL DT-1
NO SCALE



2 DOOR WIRING DETAIL DT-2
NO SCALE

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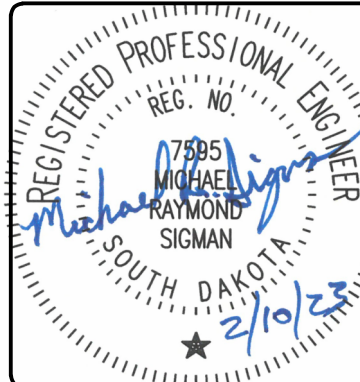
ELECTRICAL DETAILS

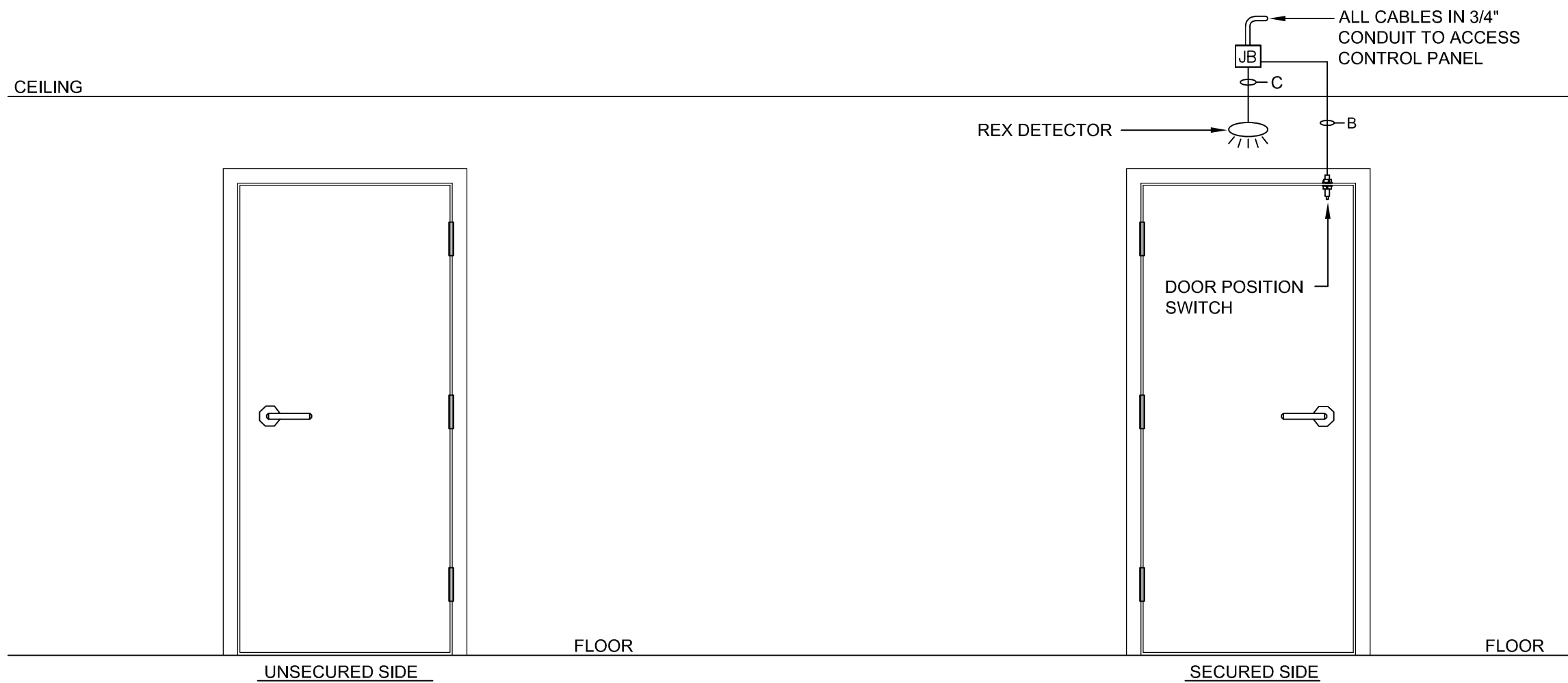
SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#:	BR22033
DESIGNED:	MRS
DRAWN:	VLS
APPROVED:	MRS
DATE:	02/10/2023





DT-3

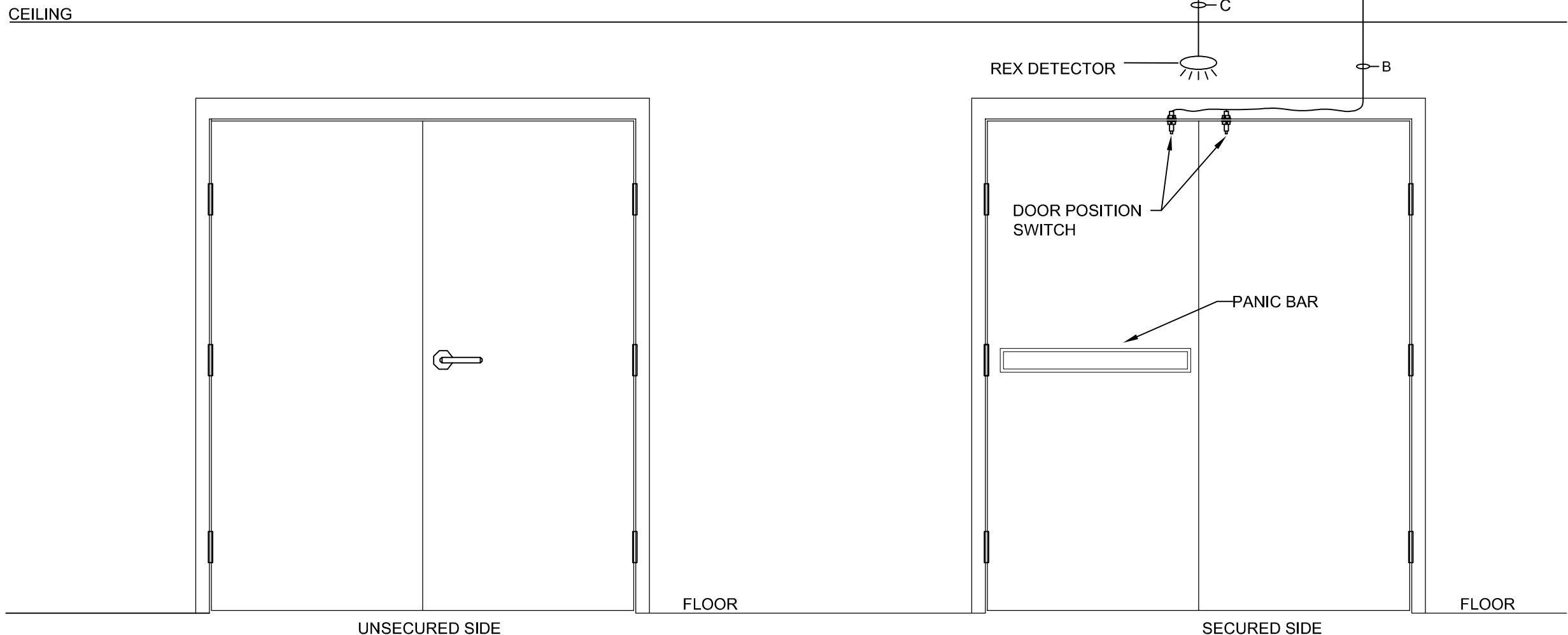
DEVICES :

1. DOOR POSITION SWITCH
2. REX DETECTOR

DOOR FUNCTION :

EGRESS: FREE MECHANICAL EGRESS AT ALL THE TIMES.
REX DETECTOR SHUNTS DOOR ALARM ALLOWING VALID EGRESS.
DOOR POSITION MONITORED BY DOOR POSITION SWITCH

SINGLE DOOR



DT-4

DEVICES :

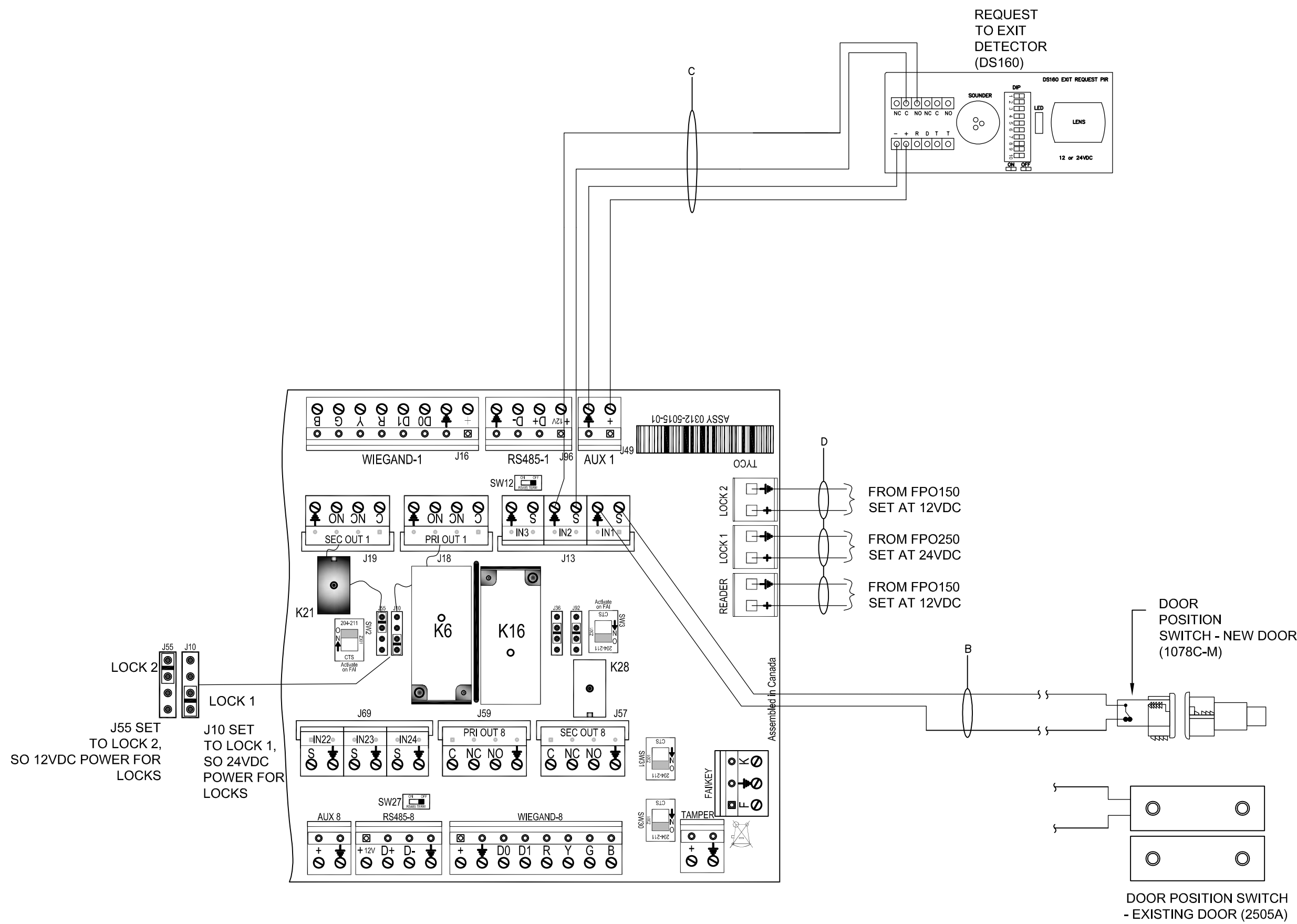
1. DOOR POSITION SWITCH-2 NOS.
2. REX DETECTOR

DOOR FUNCTION :

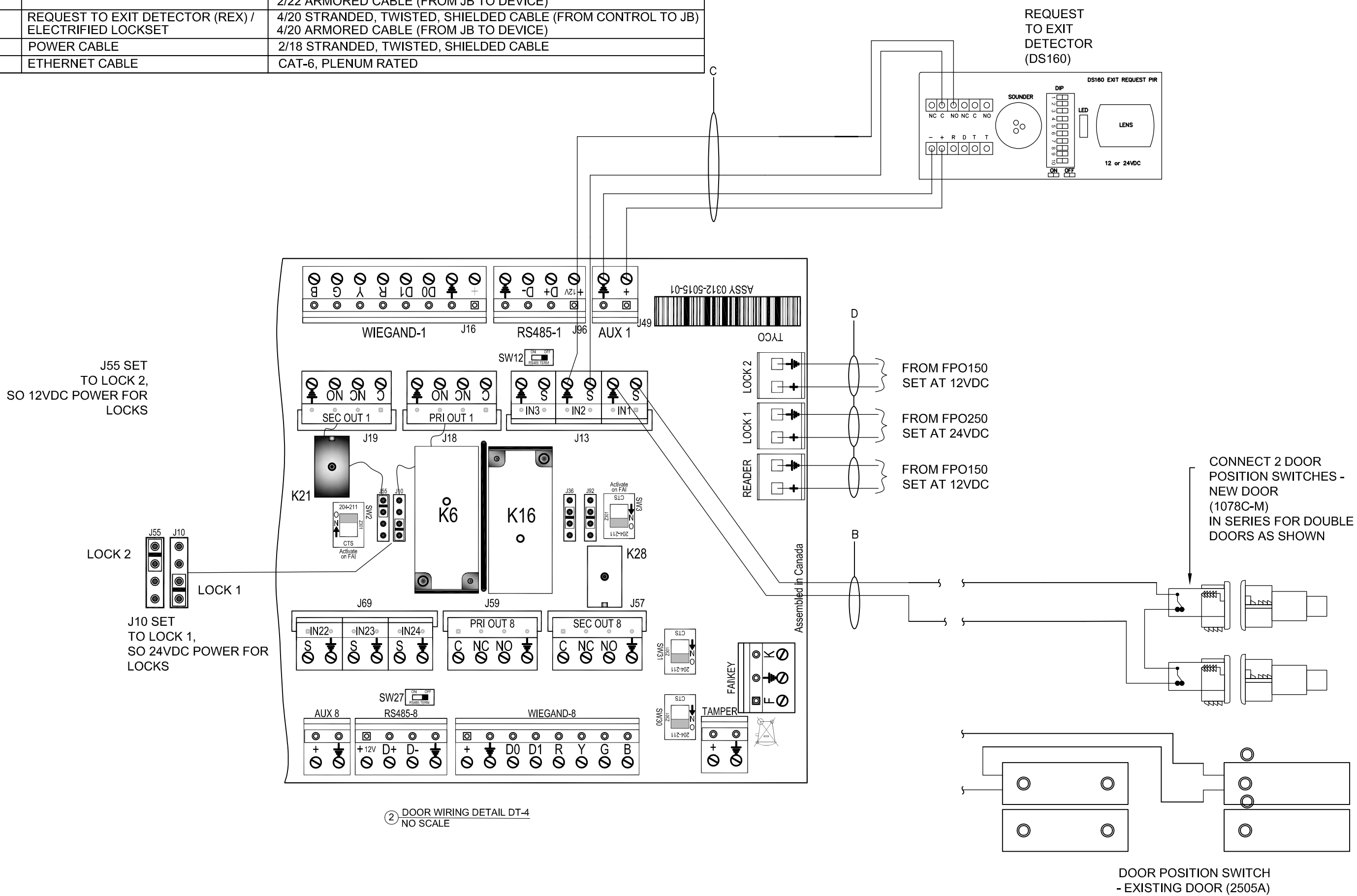
EGRESS: FREE MECHANICAL EGRESS AT ALL THE TIMES.
REX DETECTOR SHUNTS DOOR ALARM ALLOWING VALID EGRESS.
DOOR POSITION MONITORED BY DOOR POSITION SWITCH

DOUBLE DOOR

WIRE LEGEND		
CABLE TAG	DESCRIPTION	WIRE SIZE
A	CARD READER	6/22 STRANDED, TWISTED, SHIELDED CABLE
B	DOOR POSITION SWITCH	2/22 STRANDED, TWISTED, SHIELDED CABLE (FROM CONTROL TO JB) 2/22 ARMORED CABLE (FROM JB TO DEVICE)
C	REQUEST TO EXIT DETECTOR (REX) / ELECTRIFIED LOCKSET	4/20 STRANDED, TWISTED, SHIELDED CABLE (FROM CONTROL TO JB) 4/20 ARMORED CABLE (FROM JB TO DEVICE)
D	POWER CABLE	2/18 STRANDED, TWISTED, SHIELDED CABLE
E	ETHERNET CABLE	CAT-6, PLENUM RATED



1 DOOR WIRING DETAIL DT-3
NO SCALE



2 DOOR WIRING DETAIL DT-4
NO SCALE

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REVISIONS		
#	DESCRIPTION	DATE
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2		
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ELECTRICAL DETAILS
SURF ACCESS CONTROL PHASE II
SURFACE LOCATIONS
LEAD, SOUTH DAKOTA

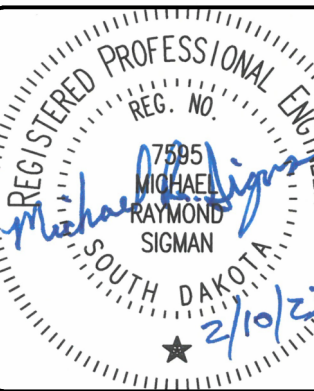
PROJECT#: BR22033

DESIGNED: MRS

DRAWN: VLS

APPROVED: MRS

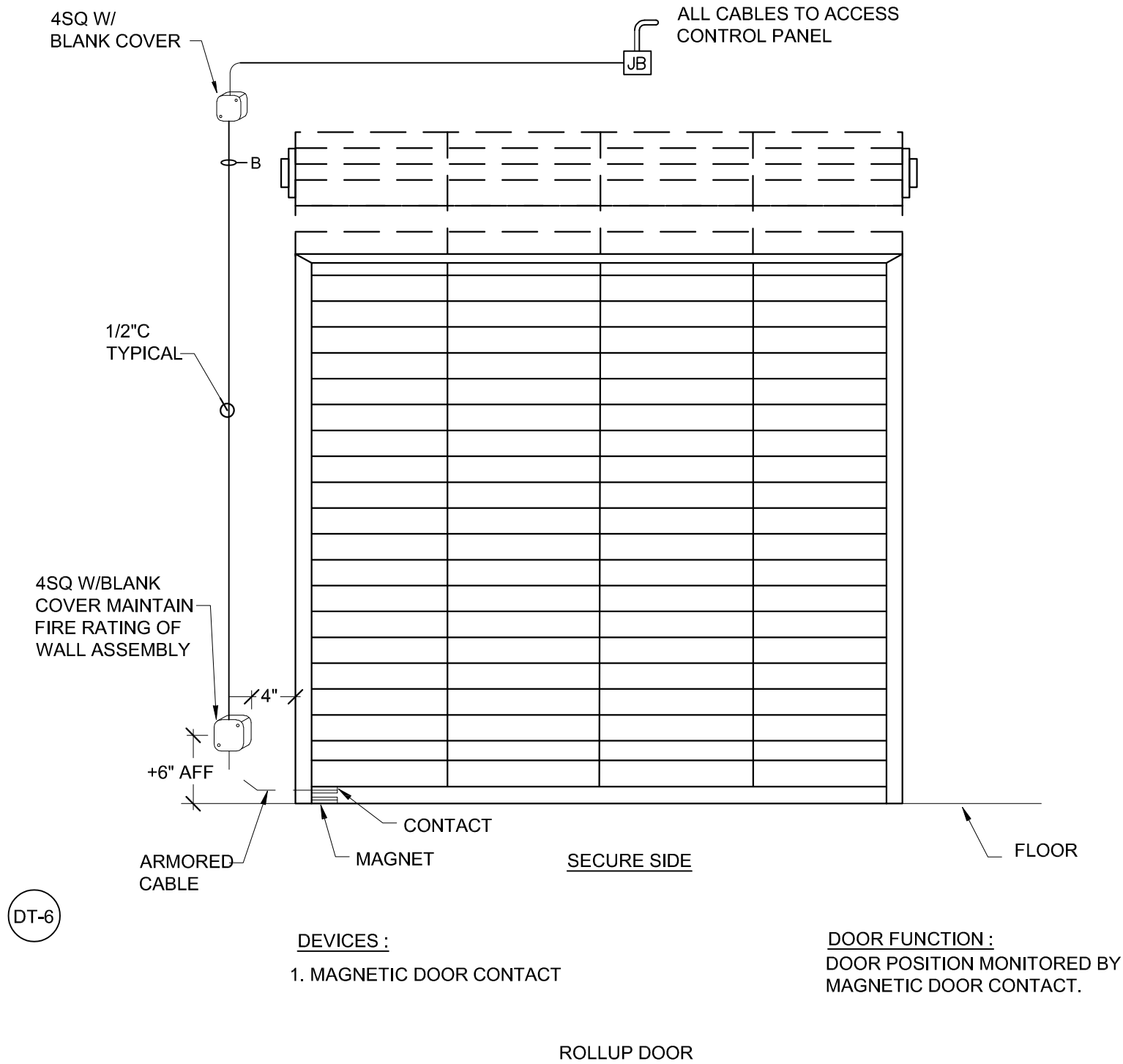
DATE: 02/10/2023



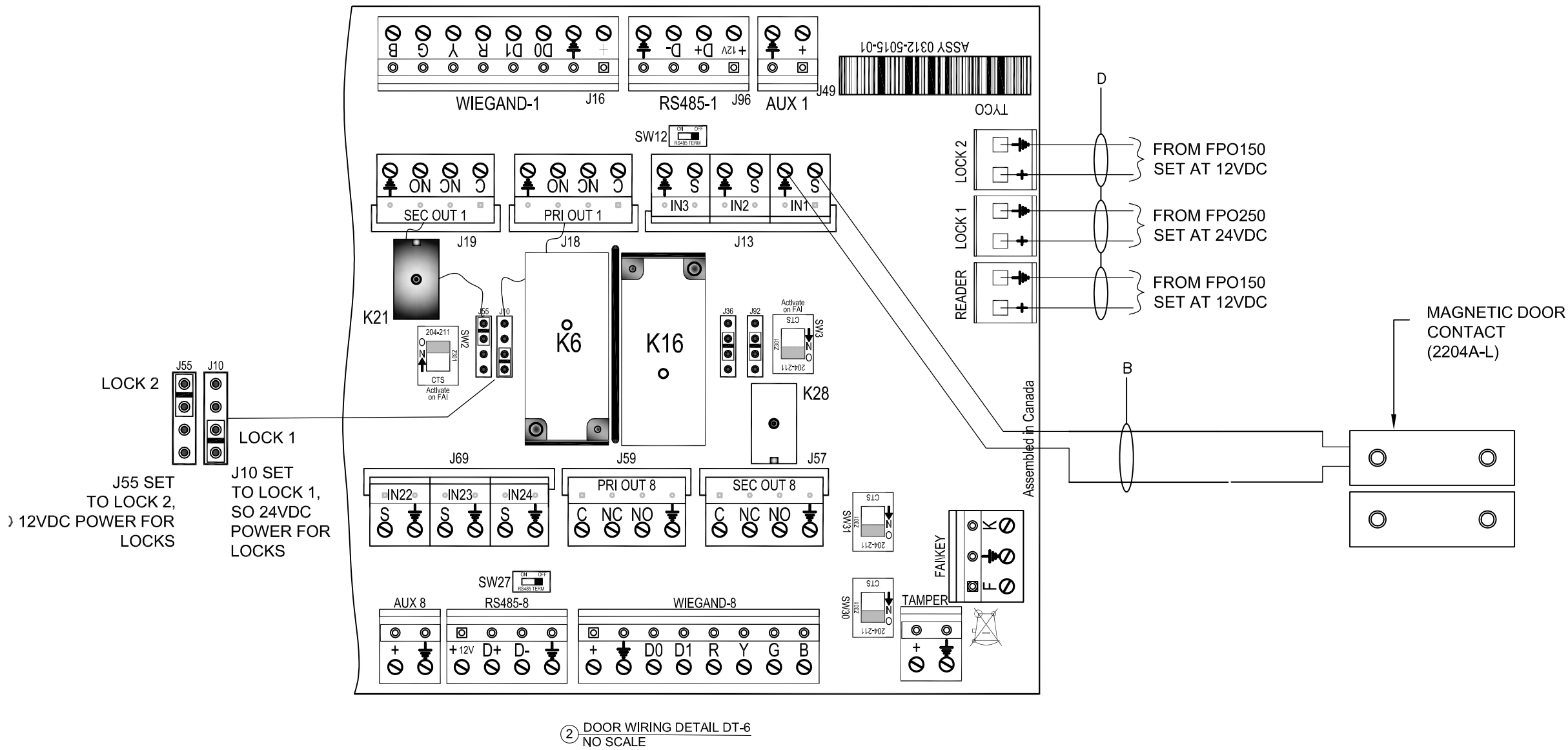
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WIRE LEGEND		
CABLE TAG	DESCRIPTION	WIRE SIZE
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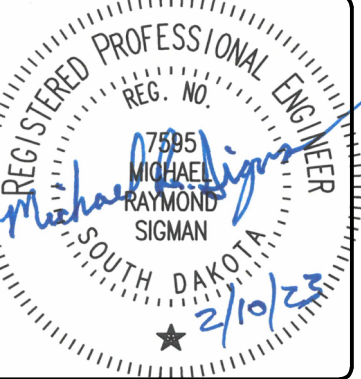
ELECTRICAL DETAILS

SURF ACCESS CONTROL PHASE II

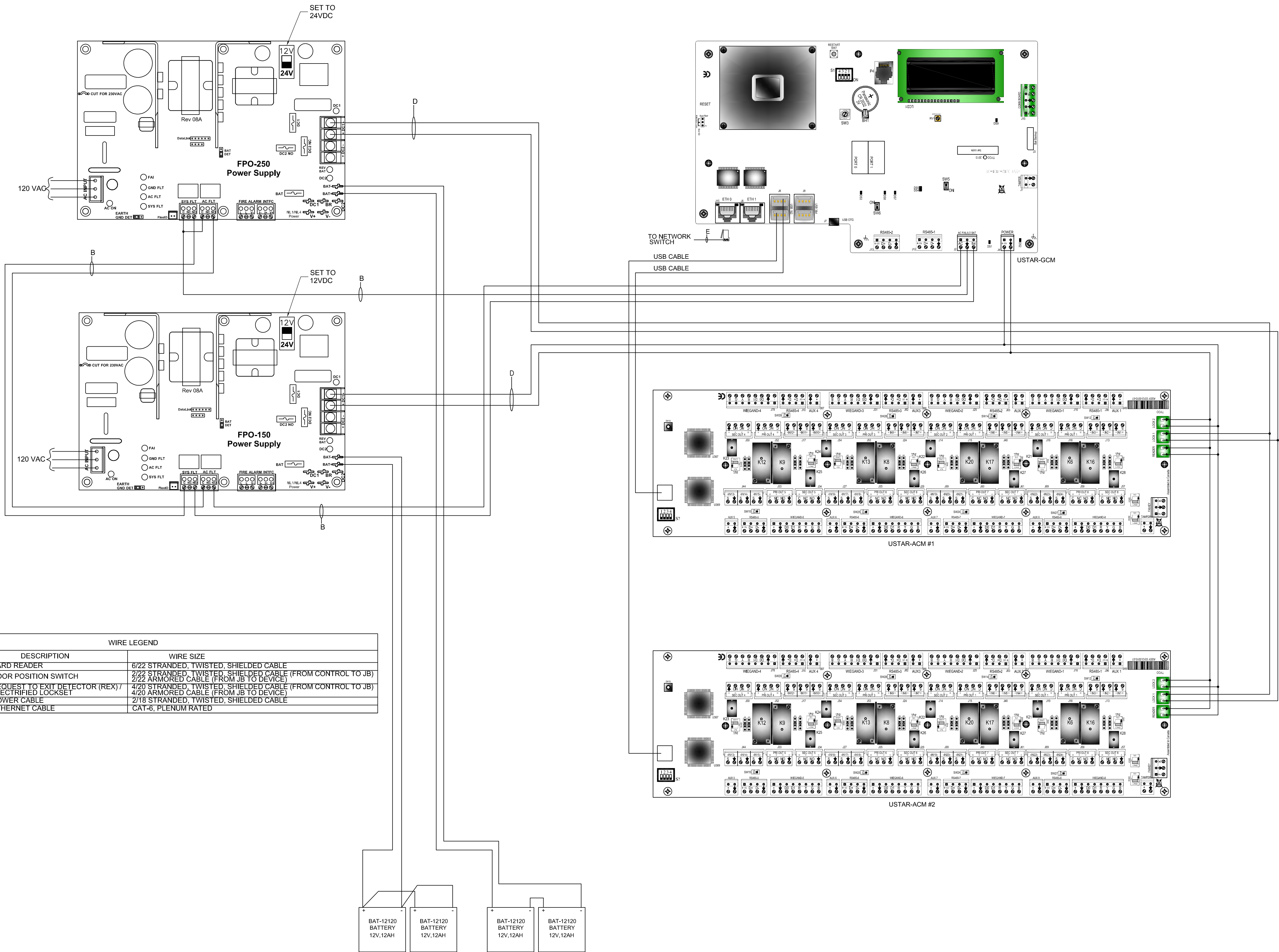
SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#:	BR22033
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WIRE LEGEND		
CABLE TAG	DESCRIPTION	WIRE SIZE
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TYPICAL ACCESS CONTROL BOARDS WIRING TO POWER SUPPLY

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ELECTRICAL DETAILS

SURF ACCESS CONTROL PHASE II

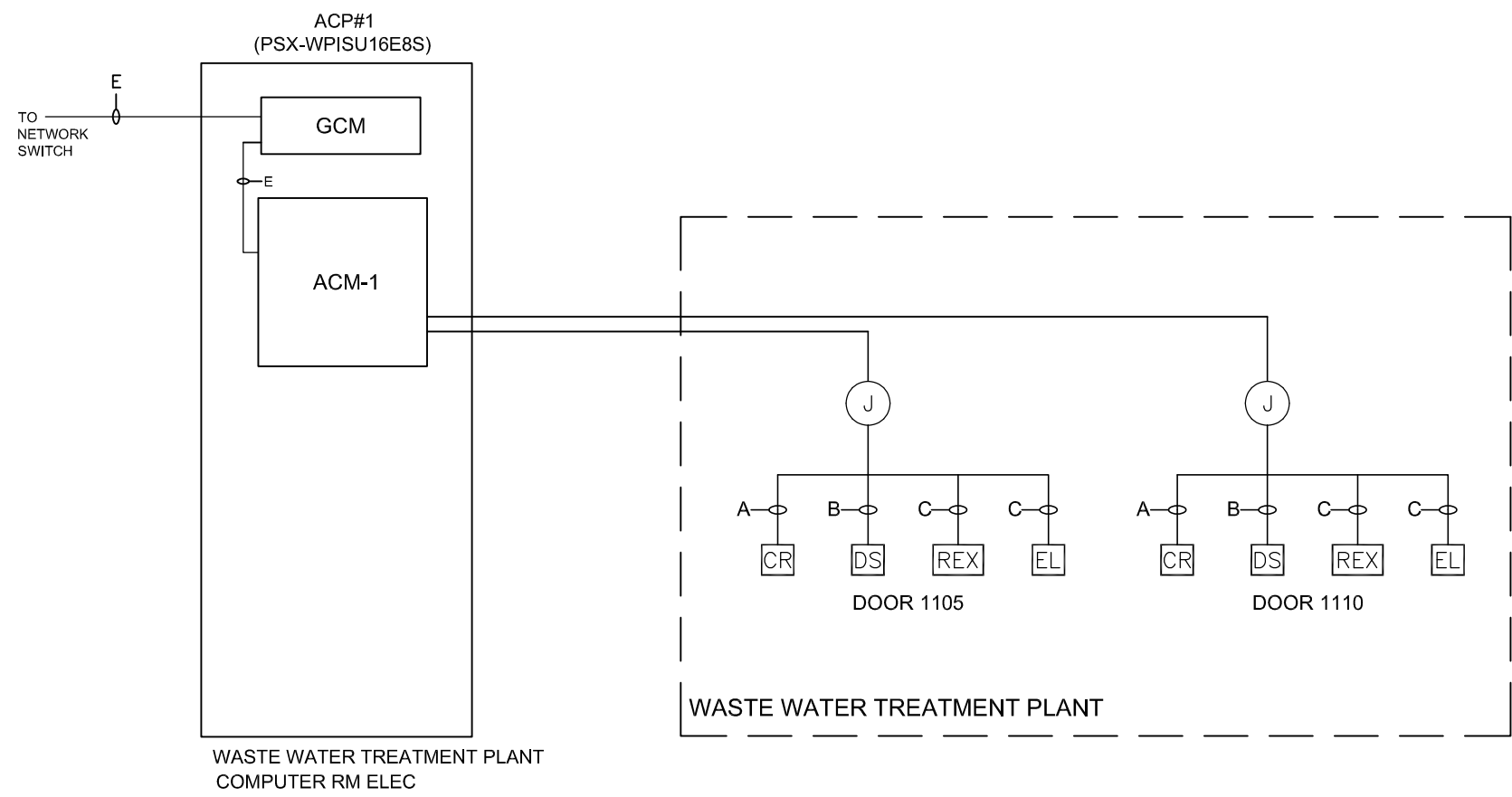
SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

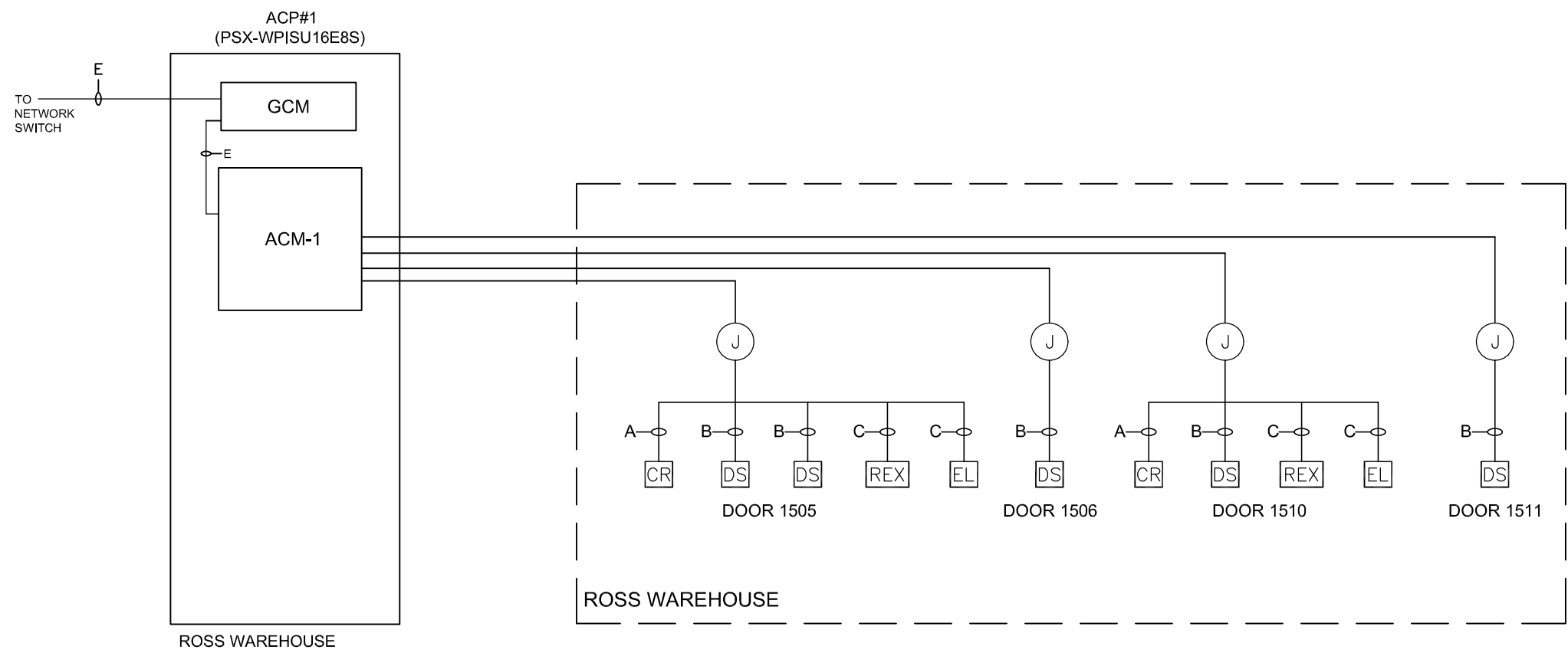
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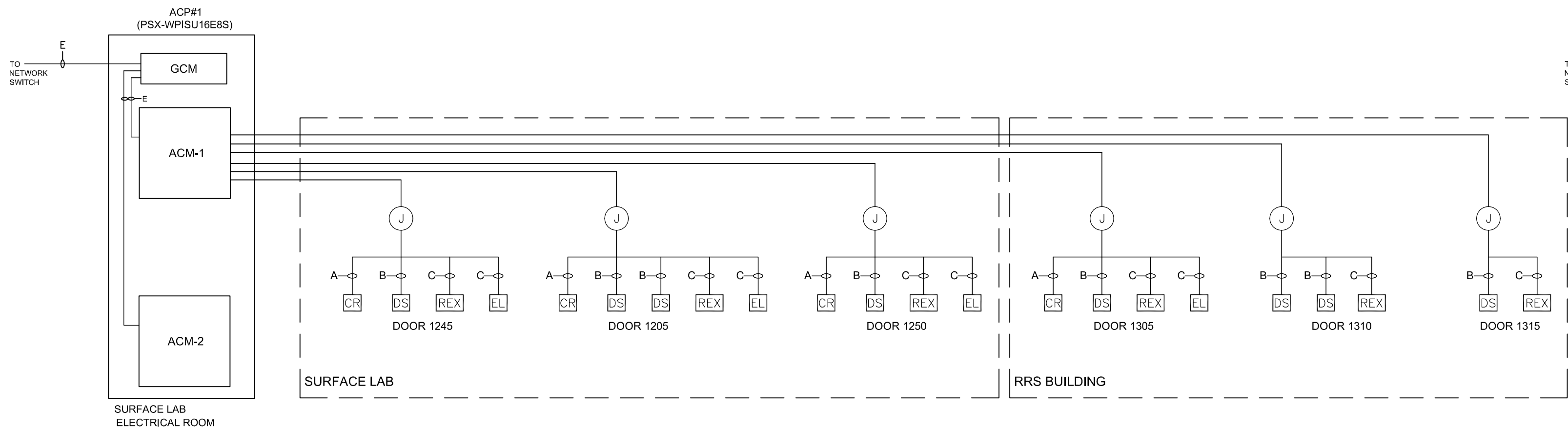
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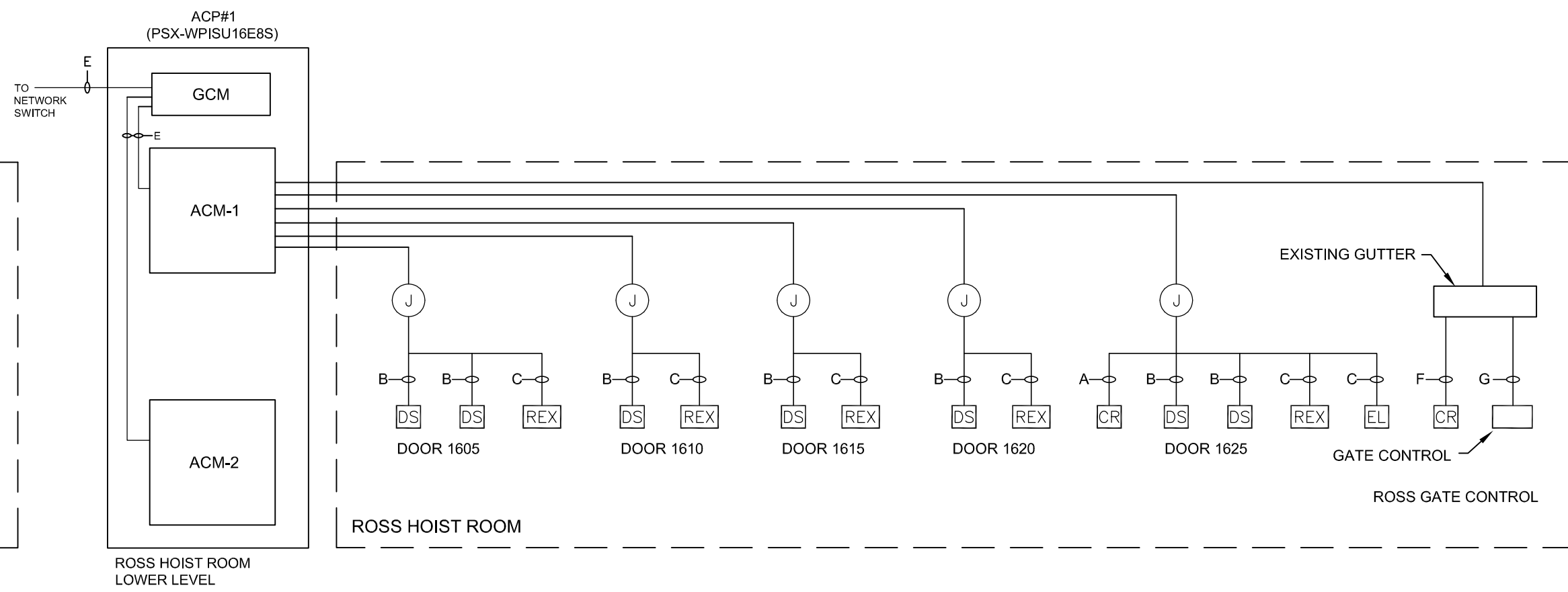
① ACCESS CONTROL SYSTEM RISER - WASTE WATER TREATMENT PLANT
NO SCALE



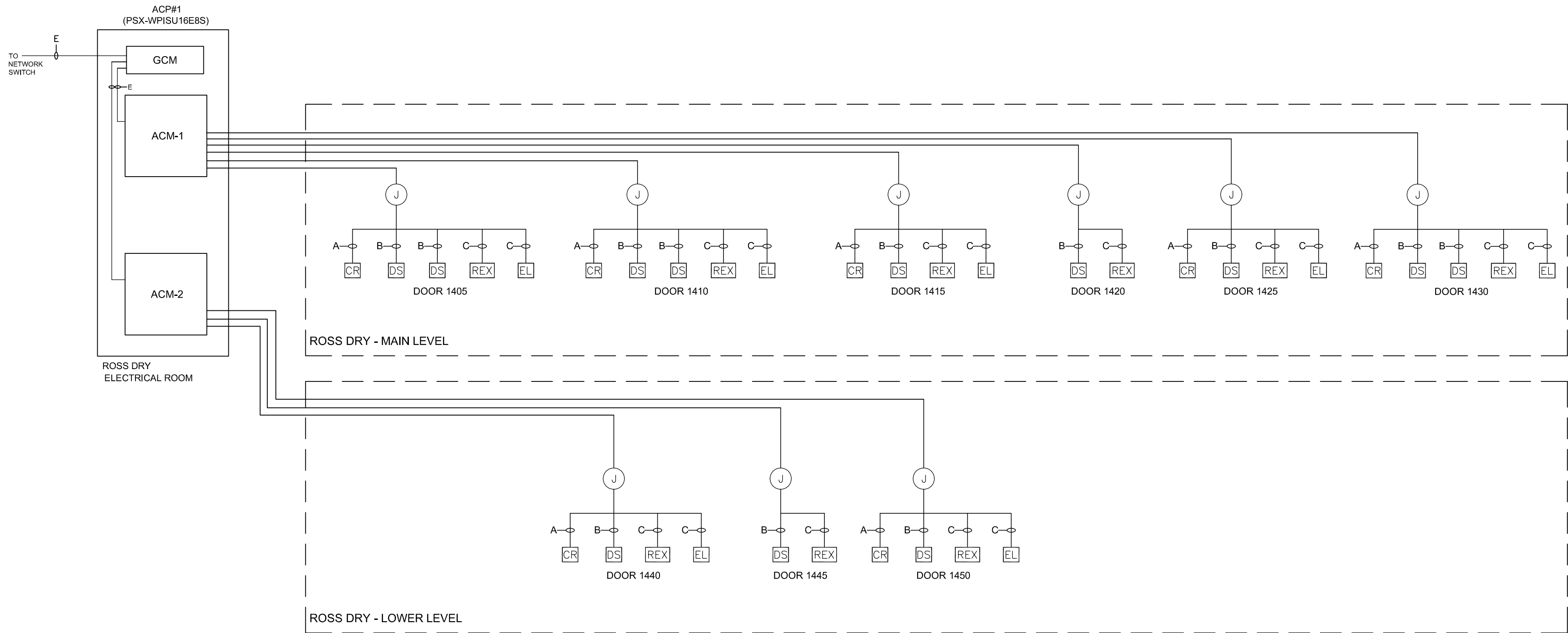
④ ACCESS CONTROL SYSTEM RISER - ROSS WAREHOUSE
NO SCALE



② ACCESS CONTROL SYSTEM RISER - SURFACE LAB
NO SCALE



④ ACCESS CONTROL SYSTEM RISER - ROSS HOIST ROOM
NO SCALE



③ ACCESS CONTROL SYSTEM RISER - ROSS DRY
NO SCALE

WIRE LEGEND		
CABLE TAG	DESCRIPTION	WIRE SIZE
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D	POWER CABLE	2/18 STRANDED, TWISTED, SHIELDED CABLE
E	ETHERNET CABLE	CAT-6, PLENUM RATED
F	CARD READER GATE	6/18 STRANDED, TWISTED, SHIELDED CABLE
G	POWER CABLE GATE	2/16 STRANDED, TWISTED, SHIELDED CABLE

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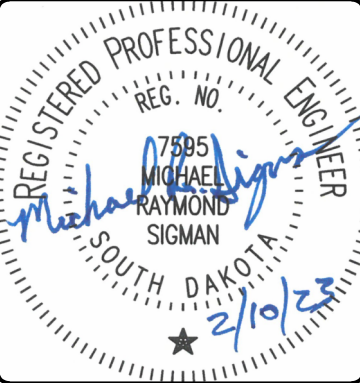
ELECTRICAL DETAILS

SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

PROJECT#:	BR22033
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APPROVED:	MRS
DATE:	02/10/2023



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

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 OR AS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED BELOW.					
SOUND AND SECURITY					
	FLUSH SPEAKER		SURVEILLANCE VIDEO CAMERA - PAN/TILT/ZOOM		ALARM DOOR SWITCH
	SURFACE SPEAKER		SURVEILLANCE VIDEO MONITOR		DOOR RELEASE MECHANISM
	PAGING HORN		SURVEILLANCE VIDEO RECORDER		ALARM MOTION DETECTOR
	VOLUME CONTROL (46" M.H.)		SURVEILLANCE VIDEO SWITCHER		ALARM SHUNT PAD
	MICROPHONE OUTLET (18" M.H.)		ALARM CONTROL PANEL		ALARM KEYPAD
	AUXILIARY OUTLET		BURGLAR ALARM ANNUNCIATOR		CARD READER
	AMPLIFIER		ANTENNA (AS NOTED)		SECURITY INTERCOM (54" M.H.)
	CEILING MOUNTED SURVEILLANCE VIDEO CAMERA		ALARM PANIC SWITCH		REQUEST EXIT PUSH BUTTON
					ELECTRIFIED LOCKSET
					ELECTRIFIED STRIKE

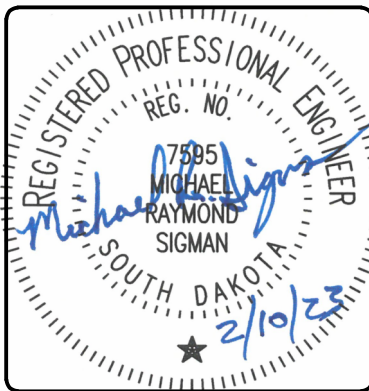
ELECTRICAL SYMBOLS & ABBREVIATIONS

SURF ACCESS CONTROL PHASE II

SURFACE LOCATIONS

LEAD, SOUTH DAKOTA

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