Farnsworth GROUP

100% BID DOCUMENTS
07/18/2025

State of Iowa

Newton Correctional Facility
Iowa Prison Industries Phase II

Newton, Iowa

LOCATION MAP

Newton Correctional Facility
307 S 60th Avenue West
Newton, IA 50208

Iowa Prison Industries
Homes for Iowa
S 60th Avenue West
Newton, Iowa 50208

IMAGE © < COPYRIGHT NOTICE >

OWNER-PROVIDED INFORMATION

IPI PROJECT HOUSE INFORMATION:

1. 24' W x 50' L (28' W w/ EAVES)
2. EACH COMPLETED HOUSE WEIGHS APPROXIMATELY 53,000 POUNDS.
   - APPROXIMATE WEIGHT OF HOUSE AND TRANSPORT TRAILER IS 90,000 POUNDS.
3. PROJECT HOUSE BUILD HEIGHT IS 14'-9" TO PEAK OF ROOF
   - PROJECT HOUSE SUPPORTS PILLARSD ADD 30" TO 36" TO OVERALL HEIGHT DURING BUILD.
   - PROJECT HOUSE WHEN LOADED ON 15" HIGH TRAILER EQUALS 16'-7" OVERALL HEIGHT.

SITE MANEUVERING REQUIREMENTS:

1. MINIMUM 125 FT CLEAR AND LEVEL IN FRONT OF BUILDING.
2.

ARCHITECT

FARNSWORTH GROUP, INC.
14225 UNIVERSITY AVENUE, SUIT 110
WAUKEE, IOWA 50263
P: 515/225.3469
F: 515/225.9649

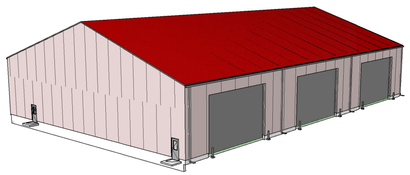
CONSULTANTS

BISHOP ENGINEERING
3501 104TH STREET
DES MOINES, IOWA 50322
P: 515/276-0467

KPFF ENGINEERING CONSULTANTS
604 LOCUST STREET, SUITE 202
DES MOINES, IOWA 50309
P: 515/279.3900

TWIN RIVERS ENGINEERING
1000 ILLINOIS STREET, SUITE A
DES MOINES, IOWA 50314
P: 515/288.3679

PROJECT IMAGE



PROFESSIONAL REGISTRATIONS

LICENSED PROFESSIONAL ARCHITECT — ROBERT C. RIDGWAY — 07570 — IOWA

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct personal supervision and responsible charge. I am a duly licensed architect under the laws of the state of Iowa.

Signature: _____
ROBERT C. RIDGWAY Date

License Expires: _____

Pages or sheets covered by this seal: _____

LICENSED PROFESSIONAL ENGINEER — SETH V. SUNDERMAN — 23468 — IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: _____
SETH V. SUNDERMAN, P.E. Date

License Expires: _____

Pages or sheets covered by this seal: _____

LICENSED PROFESSIONAL ENGINEER — NATHAN T. KRESS — 21136 — IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: _____
NATHAN T. KRESS, P.E. Date

License Expires: _____

Pages or sheets covered by this seal: _____

LICENSED PROFESSIONAL ENGINEER — NATHAN A. EMSICK — P19949 — IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: _____
NATHAN A. EMSICK, P.E. Date

License Expires: _____

Pages or sheets covered by this seal: _____

LICENSED PROFESSIONAL ENGINEER — CRAIG M. PHILLIPS — P14060 — IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: _____
CRAIG M. PHILLIPS, P.E. Date

License Expires: _____

Pages or sheets covered by this seal: _____

DRAWING LIST

DAS RFB923902-01
DAS PROJECT NO.: 9239.02 & 9239.03
PROJECT NO.: 02401959.001

DATE: 07/18/2025

7/22/2025 9:25:25 AM

Farnsworth GROUP
100% BID DOCUMENTS
Newton Correctional Facility Iowa Prison Industries Phase II
State of Iowa

NEWTON CORRECTIONAL FACILITY IOWA PRISON INDUSTRIES

PHASE II DESIGN

SHEET INDEX:

PROPERTY DESCRIPTION:

THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 79 NORTH, RANGE 19 WEST OF THE 5TH P.M., JASPER COUNTY, IOWA EXCEPT STREET AND EXCEPT APPROXIMATELY 1.0 ACRES IN THE NORTHEAST CORNER DEEDED TO THE CENTRAL IOWA WATER ASSOCIATION IN PATENT RECORDED AS INSTRUMENT # 04-01346.

ADDRESS:

803 S 60TH AVE W
NEWTON, IA 50208

OWNER/PREPARED FOR:

STATE OF IOWA
1007 EAST GRAND AVE
DES MOINES, IA 50319

ZONING:

CLASS: A (AGRICULTURAL)
PER JASPER COUNTY ASSESSOR PAGE

BENCHMARK:

POINT: #9000, MAG NAIL
NORTHING = 594215.79
EASTING = 1758735.35
ELEVATION = 776.85
DESCRIPTION: LOCATED ON THE SE CORNER OF THE INTERSECTION BETWEEN SW 60TH AVE AND THE PUBLIC ACCESS ROAD ON WHICH THE PROPERTY LIES

POINT: #9001, MAG NAIL
NORTHING = 592565.48
EASTING = 1759082.31
ELEVATION = 779.68
DESCRIPTION: LOCATED ON THE EAST SIDE OF THE PUBLIC ACCESS ROAD TOWARDS THE SOUTHERN END OF THE PROPERTY

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH SUDAS STANDARD SPECIFICATIONS AND ANY AND ALL STATE FIRE MARSHAL SUPPLEMENTAL SPECIFICATIONS. THE STATE FIRE MARSHALL & CORRECTIONS FACILITY MUST BE NOTIFIED BY ALL CONTRACTORS 72 HOURS PRIOR TO COMMENCING WORK.
2. IN EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
5. ALL NECESSARY CONSTRUCTION SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES REQUIRED DURING CONSTRUCTION WILL BE FURNISHED BY THE CONTRACTOR. SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
6. BISHOP ENGINEERING SHALL NOT BE LIABLE FOR ANY INJURIES THAT HAPPEN ON SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TRENCH COLLAPSES FROM VARYING SOIL CONDITIONS OR INJURIES CAUSED BY UNDERGROUND UTILITIES INCLUDING UTILITIES THAT ARE NOT SHOWN ON PLAN.
7. THE CONTRACTOR IS LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN PROVIDING FOR STORM WATER FLOW DURING CONSTRUCTION. DO NOT RESTRICT FLOWS IN EXISTING DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.
8. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A SCHEDULE FOR PERFORMANCE OF WORK ITEMS. THIS SCHEDULE SHALL BE PROVIDED BY THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. NO WORK SHALL BEGIN UNTIL A SCHEDULE HAS BEEN SUBMITTED AND ACCEPTED. THE CONTRACTOR SHALL THEN PERFORM WORK TO CONFORM TO THE ACCEPTED SCHEDULE.
9. LABORATORY TESTS SHALL BE PERFORMED BY THE OWNER UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE SAMPLES OF MATERIAL REQUIRED FOR LABORATORY TESTS AND TESTING IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
10. SOIL IMPORT OR EXPORT ON THIS PROJECT SHALL BE CONSIDERED INCIDENTAL AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY.
11. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES NOT SHOWN AS REMOVALS ON THE PLANS.
12. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL WORK WITH OWNER OR OWNERS REPRESENTATIVE ON ALL REQUIRED STORM WATER DISCHARGE PERMITS FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES.
13. GRADING AND EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED GRADING PLAN, SWPPP, NPDES DOCUMENTS, AND IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.
14. THE CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT RIGHT OF WAY OR ABUTTING PROPERTIES AS THE RESULT OF CONSTRUCTION, AT THE END OF EACH WORK DAY.
15. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REMOVAL OF ALL MUD THAT HAS BEEN TRACKED OR WASHED UNTO ADJACENT PROPERTY OR RIGHT OF WAY UNTIL SUCH TIME THAT PERMANENT VEGETATION HAS BEEN ESTABLISHED.
16. DISPOSE OF ALL EXCESS MATERIALS AND TRASH IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIALS NOT DESIRABLE FOR INCORPORATION INTO THE PROJECT.

PAVING NOTES:

1. THE PAVING/ GRADING CONTRACTOR SHALL BACKFILL THE PAVING SLAB AND FINE GRADE THE RIGHT OF WAY AS SOON AFTER THE PAVING AS POSSIBLE. ALL AREAS SHALL BE SEEDED IN ACCORDANCE WITH CITY OF NEWTON STANDARD SPECIFICATIONS AND THE CURRENT VERSION OF SUDAS.
2. SUBGRADE PREPARATION AND PAVEMENTS WILL BE CONSTRUCTED FOLLOWING RECOMMENDATIONS IN THE SOILS REPORT. APPROVED SOILS ENGINEER MUST SIGN OFF ON SUBASE PRIOR TO ANY PAVEMENT BEING PLACED.
3. SEE DETAILS FOR ALL PAVEMENT THICKNESS.
4. ALL PEDESTRIAN WALKWAYS THAT UNLOAD INTO A VEHICLES TRAVELED PATH MUST HAVE A.D.A. DETECTABLE WARNING PLANEL(S) AS PER A.D.A. REGULATIONS. PANEL TYPE & COLOR SHALL BE PER CITY STANDARD.
5. ALL WALKS, PARKING LOTS, HANDICAP PARKING, RAMPS, ETC. SHALL COMPLY WITH ALL A.D.A. AND CITY CODES. HANDICAP PARKING SIGNAGE IS REQUIRED FOR ALL HANDICAP STALLS AND SHALL BE CONSIDERED INCIDENTAL. IN EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE A.D.A./CITY CODES THE A.D.A./CITY CODES SHALL GOVERN. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING A.D.A. CODES ARE MET.

UTILITY NOTES:

1. QUANTITY CALLOUTS ON PIPE LENGTHS ARE APPROXIMATE AND SHOULD BE USED FOR REFERENCE ONLY.
2. THE CONTRACTOR SHALL PROVIDE AS-BUILTS OF ALL UTILITIES, INCLUDING DEPTH AND LOCATION OF ALL SERVICES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND ALL COSTS ASSOCIATED WITH AS-BUILT TOPO OF DETENTION POND & DETENTION POND STORM SEWER. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING BISHOP ENGINEERING (AT 515-276-0467) TO PERFORM SAID AS-BUILT SURVEY. IF DETENTION PONDS HAVE BEEN GRADED INCORRECTLY, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBSEQUENT AS-BUILT TOPO SURVEYS UNTIL ISSUES HAVE BEEN RECTIFIED.
4. THE CONTRACTOR SHALL COORDINATE THE ADJUSTMENT OF ANY AND ALL EXISTING AND PROPOSED UTILITIES TO PROPOSED GRADES. EXISTING UTILITIES SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY OWNER REQUIREMENTS. ANY NECESSARY ADJUSTMENTS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
5. ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE.
6. ALL PROPOSED RCP STORM SEWER PIPE JOINTS SHALL BE FABRIC WRAPPED AND THE LAST 3 PIPE SECTIONS ON THE APRON SHALL BE TIED WITH RF-14 TYPE II CONNECTORS. ALL APRONS SHALL HAVE A STANDARD FOOTING AND TRASH GUARD.
7. ALL RIP RAP CALLED OUT ON PLANS SHALL BE UNDERLAIN WITH ENGINEERING FABRIC.
8. SANITARY SEWER SERVICE CONNECTIONS SHALL BE PLACED AT A SLOPE OF NO LESS THAN 2%. SERVICES SHALL MAINTAIN 18" OF VERTICAL SEPARATION FROM THE WATERMAIN WITH 18" OF COMPACTED LOW PERMEABILITY SOIL BETWEEN THE UTILITIES WITHIN 10' OF THE CROSSING.
9. MANDREL AND PRESSURE TESTS SHALL BE REQUIRED FOR ALL PROPOSED SANITARY LINES. TELEVISING OF THE SANITARY SEWER SYSTEM SHALL BE COMPLETED PRIOR TO PAVING UNLESS OTHERWISE APPROVED BY JURISDICTION.

UTILITY MAPS PROVIDED BY:

1. ELECTRIC (ALLIANT ENERGY / 800-255-4268)
2. STORM AND SANITARY (REF. SNYDER & ASSOC. PLANS)
3. FIBER OPTIC (WINDSTREAM COMM / 800-289-1901)
4. GAS (IOWA REGIONAL UTILITY ASSOC. / 641-792-7011)5
5. WATER (BLACK HILLS ENERGY / 515-343-2037)

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

UTILITY NOTE:

THE LOCATION OF THE UTILITIES INDICATED ON THE PLANS HAVE BEEN TAKEN FROM THE FIELD SURVEY, EXISTING PUBLIC RECORDS, AND PLANS PROVIDED BY OTHERS. SURFACE UTILITY LOCATIONS HAVE BEEN FIELD LOCATED BY BISHOP ENGINEERING, UNLESS OTHERWISE NOTED. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE LOCATIONS ONLY. BISHOP ENGINEERING DOES NOT GUARANTEE THE UNDERGROUND LOCATION OF ANY UTILITIES SHOWN. IT SHALL BE THE DUTY OF THE CONTRACTOR TO DETERMINE THE LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES SHOWN AND IF ANY ADDITIONAL UTILITIES, OTHER THAN THOSE SHOWN ON THE PLANS, MAY BE PRESENT. A REQUEST WAS MADE TO IOWA ONE CALL FOR UTILITY PROVIDERS TO VERIFY, LOCATE, AND MARK THEIR UTILITIES IN THE FIELD.

UTILITY CONFLICT NOTES:

1. UTILITY CONFLICTS MAY EXIST ACROSS THE SITE WITH NEW UTILITIES, GRADING, PAVING ETC. MOST UTILITY CONFLICTS HAVE BEEN CALLED OUT FOR CONTRACTOR CONVENIENCE.
2. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONFLICTS THAT ARE EITHER CALLED OUT ON THE PLANS OR THAT CAN BE SEEN ON THE PLANS BETWEEN AN EXISTING UTILITY AND PROPOSED CONSTRUCTION

WETLAND NOTES:

1. BISHOP ENGINEERING DOES NOT PERFORM WETLAND STUDIES OR WETLAND MITIGATION. IT IS THE OWNER'S RESPONSIBILITY TO DETERMINE IF ANY WETLANDS ARE LOCATED ON THE PROJECT SITE AND PERFORM ANY NECESSARY MITIGATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

SURVEY NOTES:

1. SURVEY WORK WAS COMPLETED BY BISHOP ENGINEERING ON 02-11-20. SEE SITE SURVEY PROVIDED AS PART OF THIS SET OF PLANS FOR EXISTING SITE CONDITIONS AND BOUNDARY INFORMATION.

GEOTECHNICAL REPORT:

1. REFERENCE ALLENDER BUTZKE ENGINEERS INC. SOILS REPORT (PROJECT NO. 251210) FOR ADDITIONAL SOILS INFORMATION INCLUDING BUT NOT LIMITED TO SUBGRADE INFORMATION, FOOTING DESIGN, AND ANY POSSIBLE OVER EXCAVATION DUE TO POOR SOILS. PAVEMENT SECTIONS ON THE PLANS GOVERN OVER PAVEMENT THICKNESS IN THE SOILS REPORT.
2. THE RECOMMENDED DESIGN AND SPECIFICATIONS HAVE BEEN APPROVED BY THE OWNER.
3. ANY RECOMMENDATIONS MADE BY THE OWNER'S SELECTED GEOTECHNICAL FIRM SHALL GOVERN.

SPECIFICATIONS NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NEWTON CORRECTIONAL FACILITY PROJECT SPECIFICATIONS, STATE FIRE MARSHAL SPECIFICATIONS AND SUDAS SPECIFICATIONS.
2. FOR ANY DISCREPANCIES BETWEEN THE NEWTON CORRECTIONAL FACILITY PROJECT SPECIFICATIONS AND STATE FIRE MARSHAL REQUIREMENTS AND SPECIFICATIONS, PLUMBING CODE, AND URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENT (SUDAS 2020), STATE FIRE MARSHAL STANDARD SPECIFICATIONS SHALL GOVERN.
3. FOR ALL SPECIFICATION DISCREPANCIES, PROJECT ENGINEER SHALL BE CONTACTED PRIOR TO PROCEEDING WITH CONSTRUCTION. IF ENGINEER IS NOT CONTACTED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PROBLEMS THAT RESULT FROM SAID DISCREPANCIES.
4. FOR ALL SPECIFICATION DISCREPANCIES, CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM NEWTON CORRECTIONS FACILITY FOR ANY CHANGES TO PROPOSED SITE INFRASTRUCTURE OR GRADES PRIOR TO PROCEEDING WITH ANY CHANGES.

SECURITY NOTES:

1. CONTRACTOR RESPONSIBLE FOR SECURITY OF THE SITE.
2. TEMPORARY FENCES OR ANY OTHER SECURITY MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. NO SECURITY MEASURES WILL BE ELIGIBLE FOR A CHANGE ORDER AND MUST BE INCLUDED IN THE BASE BID.

STAKING NOTES:

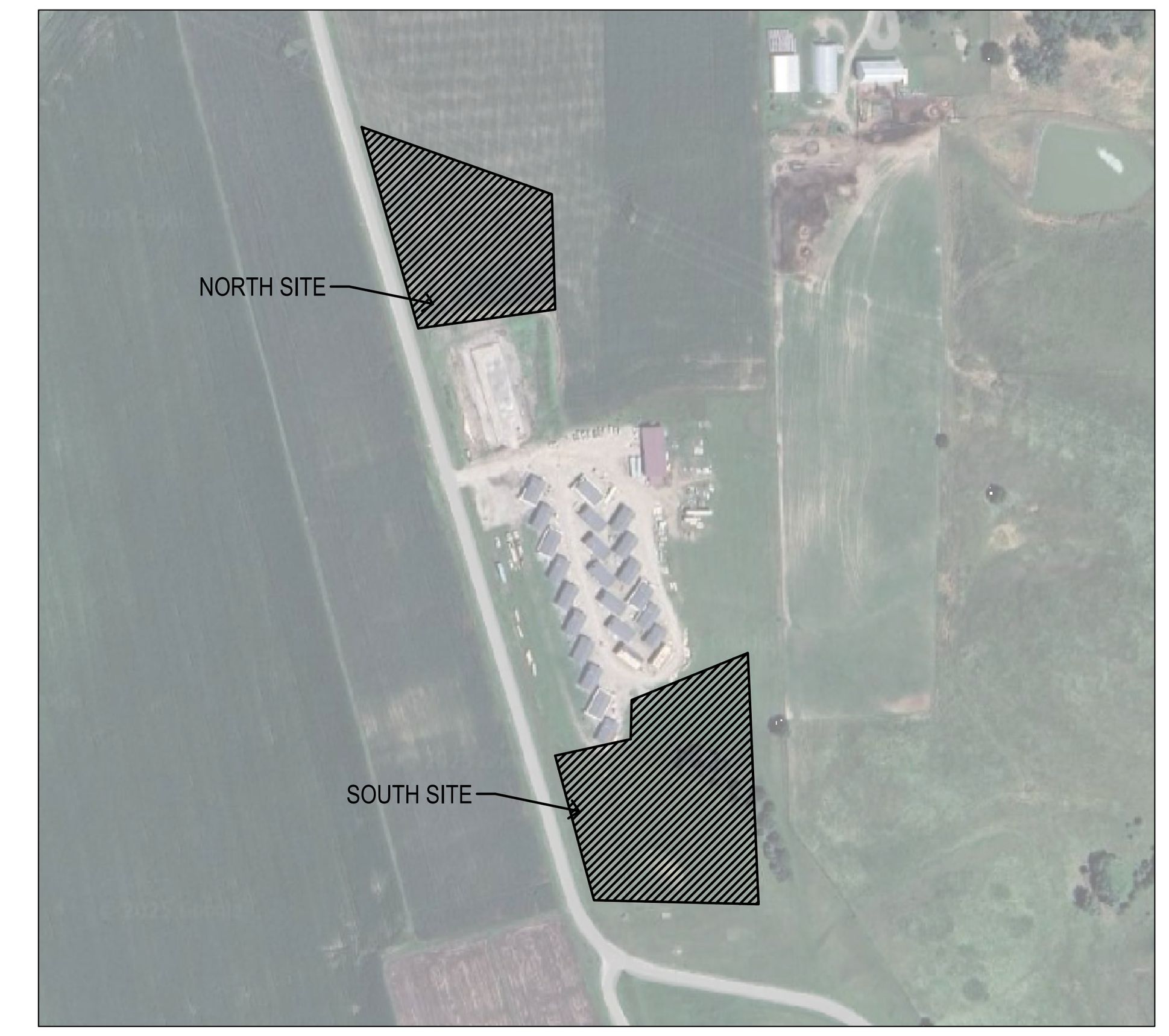
1. CONTRACTOR IS REQUIRED TO HAVE ALL STAKING DONE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR AND IN COORDINATION WITH THE PROJECT ENGINEER.
2. CONTRACTOR IS REQUIRED TO HAVE ALL STAKING DONE DIRECTLY UNDER THE CONTRACTOR BY A SINGLE COMPANY.
3. STAKING DOES NOT RELIEVE CONTRACTOR OF ULTIMATE RESPONSIBILITY TO CONSTRUCT THE PROJECT PER PLAN.

EARTHWORK BALANCE NOTES:

1. SOIL IMPORT OR EXPORT ON THIS PROJECT SHALL BE CONSIDERED INCIDENTAL AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY. CONTRACTOR RESPONSIBLE FOR MAKING THE SITE EARTHWORK BALANCE.
2. THIS INCLUDES BUT IS NOT LIMITED TO TOPSOIL, POOR SOILS AND STRUCTURAL FILL NECESSARY TO MEET PROJECT PLANS AND SPECIFICATIONS.

SPECIAL NOTES:

ALL INFORMATION PROVIDED IN THESE DOCUMENTS CONCERNING ANY WORK DIRECTLY ASSOCIATED WITH THE COMPLETE INSTALLATION OF THE CHAIN LINK SECURITY FENCE AND SALLY PORT IS FOR INFORMATION ONLY AND IS NOT INCLUDED IN THIS CONTRACT.



VICINITY MAP
SCALE: 1' = 400'

ABBREVIATIONS:

AC	ACRES
ASPH	ASPHALT
BK	BOOK
CONC	CONCRETE
D	DEEDED DISTANCE
EX	EXISTING
ENCL	ENCLOSURE
FF	FINISHED FLOOR
FL	FLOW LINE
FRAC	FRACTIONAL
M	MEASURED DISTANCE
MH	MANHOLE
OPC	ORANGE PLASTIC CAP
P	PLATTED DISTANCE
PG	PAGE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PRA	PREVIOUSLY RECORDED AS
PUE	PUBLIC UTILITY EASEMENT
ROW	RIGHT OF WAY
RPC	RED PLASTIC CAP
SF	SQUARE FEET
SAN	SANITARY
TYP	TYPICAL
YPC	YELLOW PLASTIC CAP
N	NORTH
S	SOUTH
E	EAST
W	WEST

LEGEND:

—SAN—	SANITARY SEWER
—ST—	STORM SEWER
—W—	WATER LINE
—G—	GAS LINE
—U/E—	UNDERGROUND ELECTRIC
—O/E—	OVERHEAD ELECTRIC
—TELE—	TELEPHONE LINE
—F/O—	FIBER OPTIC
—CATV—	CABLE TV
D	STORM MANHOLE
	CURB INTAKE
	SURFACE INTAKE
	FLARED END SECTION
S	SANITARY MANHOLE
CO	CLEANOUT
HYD	FIRE HYDRANT
	SPRINKLER
ICV	IRRIGATION CONTROL VALVE
W	WATER MANHOLE
W	WELL
WV	WATER VALVE
WSO	WATER SHUT OFF
YARD	YARD HYDRANT
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
E	ELECTRIC RISER
ELEC	ELECTRIC VAULT
	POWER POLE
	TRANSFORMER POLE
	LIGHT POLE
EJ	ELECTRIC JUNCTION BOX
EP	ELECTRIC PANEL
	TRANSFORMER
	GROUND LIGHT
	GUY WIRE
	ELECTRIC HANDHOLE
GM	GAS METER
GV	GAS VALVE
A/C	AIR CONDITIONING UNIT
T	TELEPHONE RISER
TEL	TELEPHONE VAULT
T	TELEPHONE MANHOLE
TS	TRAFFIC SIGNAL MANHOLE
F/O	FIBER OPTIC MANHOLE
FO	FIBER OPTIC RISER
F/O	FIBER OPTIC VAULT
TV	CABLE TV RISER
	SIGN
	BOLLARD
7	DENOTES NUMBER OF PARKING STALLS
	PROPERTY CORNER - FOUND AS NOTED
	PROPERTY CORNER- PLACED AS NOTED
	SECTION CORNER - FOUND AS NOTED

LICENSED PROFESSIONAL ENGINEER
SETH V. SUNDERMAN
23468
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

SIGNED:________ DATE:________
SETH V. SUNDERMAN, P.E. 23468

LICENSE RENEWAL DATE: DEC. 31, 2025
PAGES OR SHEETS COVERED BY THIS SEAL: C0.1 - C7.2

Farnsworth
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www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:
#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

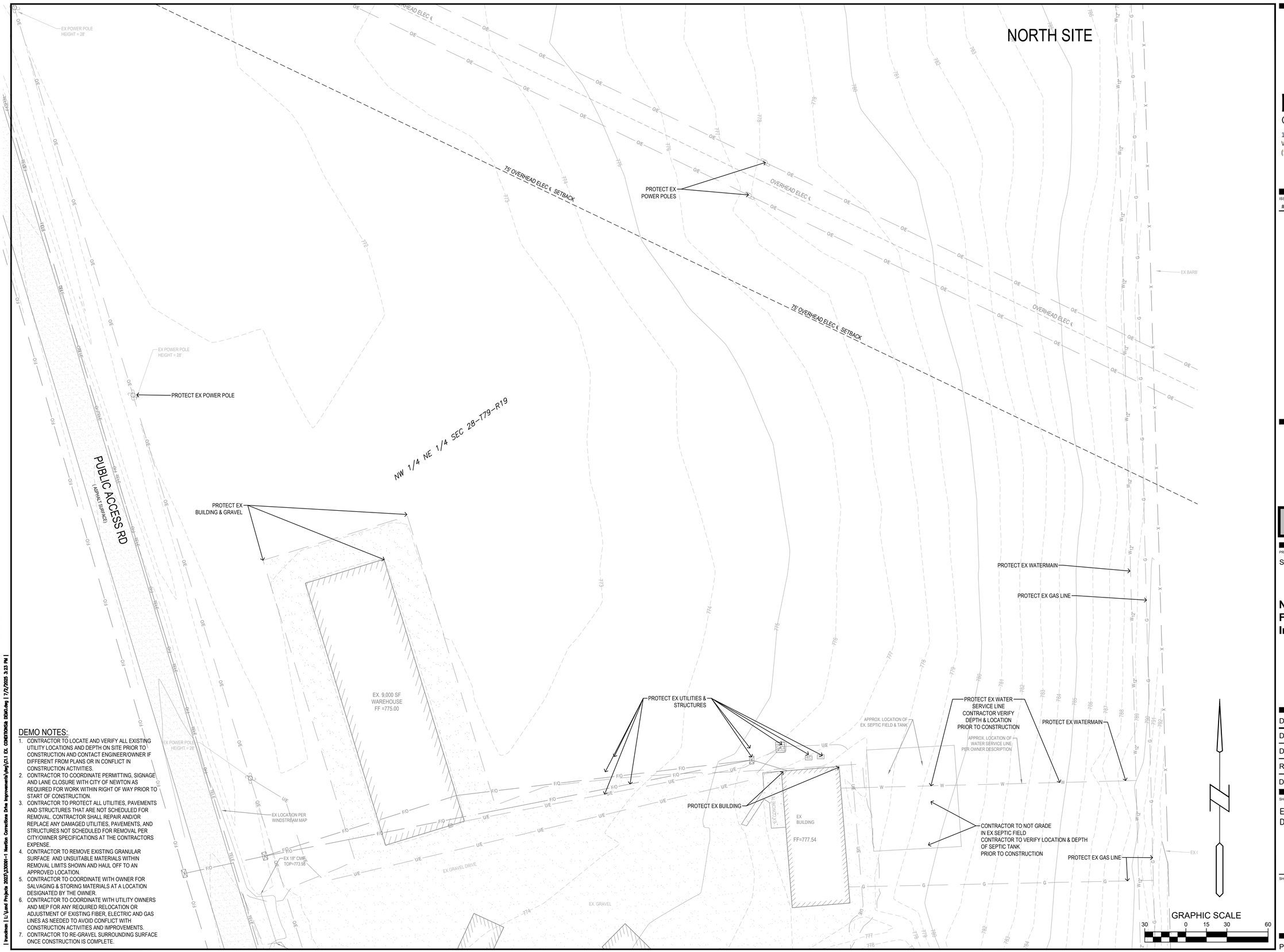
Newton Correctional Facility Iowa Prison Industries Phase II

DATE:	07/18/2025
DESIGNED:	BISHOP
DRAWN:	LCR
REVIEWED:	
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C0.1

PROJECT NO.: 02401959.001



DEMO NOTES:

1. CONTRACTOR TO LOCATE AND VERIFY ALL EXISTING UTILITY LOCATIONS AND DEPTH ON SITE PRIOR TO CONSTRUCTION AND CONTACT ENGINEER/OWNER IF DIFFERENT FROM PLANS OR IN CONFLICT IN CONSTRUCTION ACTIVITIES.
2. CONTRACTOR TO COORDINATE PERMITTING, SIGNAGE AND LANE CLOSURE WITH CITY OF NEWTON AS REQUIRED FOR WORK WITHIN RIGHT OF WAY PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR TO PROTECT ALL UTILITIES, PAVEMENTS AND STRUCTURES THAT ARE NOT SCHEDULED FOR REMOVAL. CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED UTILITIES, PAVEMENTS, AND STRUCTURES NOT SCHEDULED FOR REMOVAL PER CITY/OWNER SPECIFICATIONS AT THE CONTRACTORS EXPENSE.
4. CONTRACTOR TO REMOVE EXISTING GRANULAR SURFACE AND UNSUITABLE MATERIALS WITHIN REMOVAL LIMITS SHOWN AND HAUL OFF TO AN APPROVED LOCATION.
5. CONTRACTOR TO COORDINATE WITH OWNER FOR SALVAGING & STORING MATERIALS AT A LOCATION DESIGNATED BY THE OWNER.
6. CONTRACTOR TO COORDINATE WITH UTILITY OWNERS AND MEP FOR ANY REQUIRED RELOCATION OR ADJUSTMENT OF EXISTING FIBER, ELECTRIC AND GAS LINES AS NEEDED TO AVOID CONFLICT WITH CONSTRUCTION ACTIVITIES AND IMPROVEMENTS.
7. CONTRACTOR TO RE-GRAVEL SURROUNDING SURFACE ONCE CONSTRUCTION IS COMPLETE.

Farnsworth GROUP
14225 UNIVERSITY AVENUE, SUITE 110
WAUKEE, IOWA 50263
(515) 225-3469 / info@f-w.com
www.f-w.com
Engineers | Architects | Surveyors | Scientists

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State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

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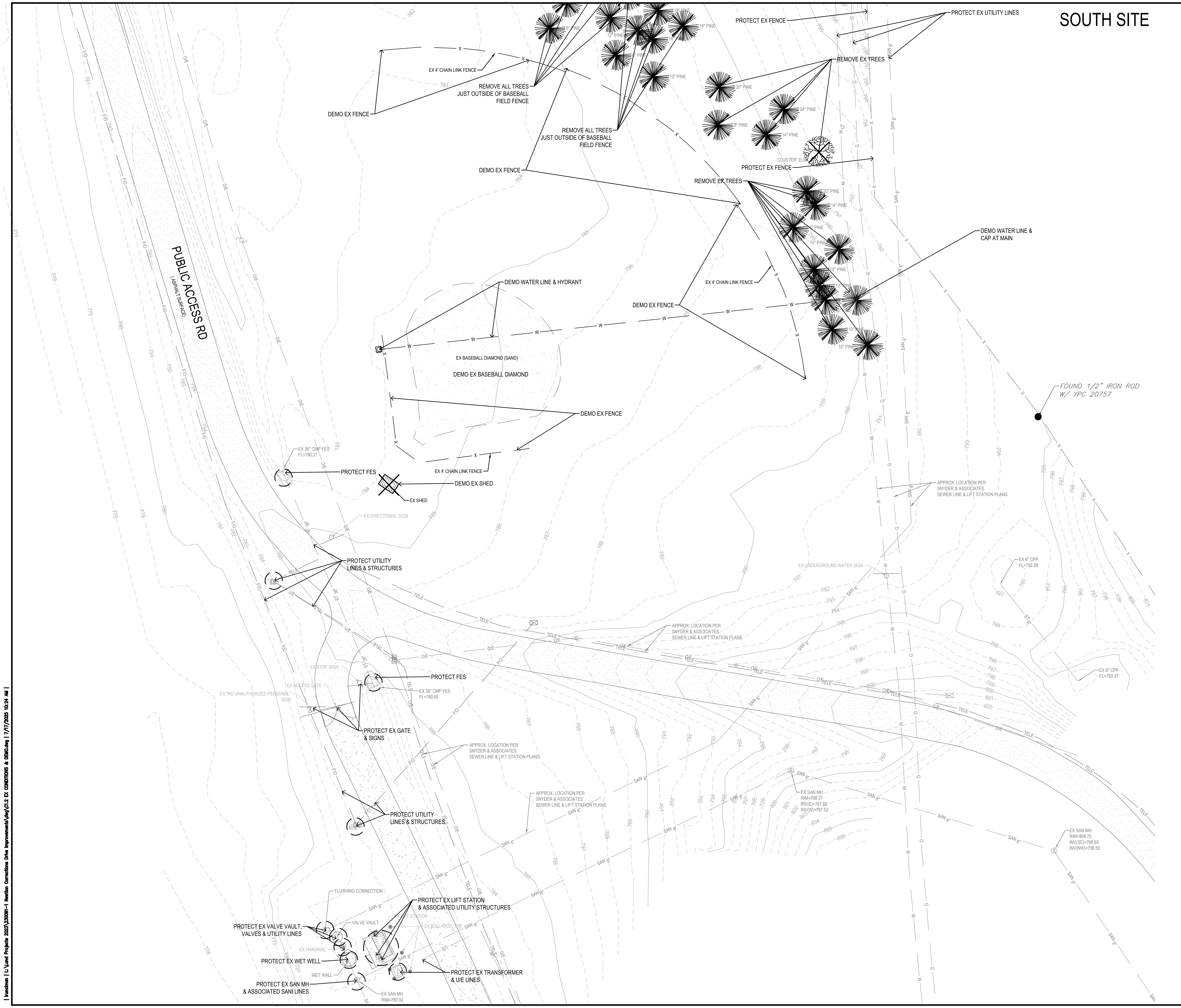
SHEET TITLE:
EX. CONDITIONS & DEMO

SHEET NUMBER:
C1.1

PROJECT NO.: 02401959.001

7/17/2025 10:01:48 AM L:\LAND PROJECTS 2023\23009\-1 NEWTON CORRECTIONS DRIVE IMPROVEMENTS\DWG\C1.1 EX. CONDITIONS& DEMO.DWG
| kandrus | L:\Land Projects 2023\23009\-1 Newton Corrections Drive Improvements\dwg\C1.1 EX. CONDITIONS& DEMO.dwg | 7/2/2025 3:23 PM |

SOUTH SITE



DEMO NOTES:

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7. CONTRACTOR TO RE-GRAVEL SURROUNDING SURFACE ONCE CONSTRUCTION IS COMPLETE.
8. PROTECT ALL TREES NOT CALLED OUT FOR REMOVAL WITH ORANGE CONSTRUCTION FENCE AT THE DRIP LINE.
9. CONTRACTOR TO PROTECT ALL ELEMENTS OF LIFT STATION & COORDINATE WITH FACILITY FOR ANY PHASING OR ACTIVITIES TO MAKE CONNECTION TO EXISTING SANITARY SEWER.

DEMO LEGEND:

- PAVEMENT REMOVAL LIMITS
- DENOTES PROTECTION
- DENOTES REMOVAL

Farnsworth GROUP
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(515) 225-3469 / info@f-w.com
www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

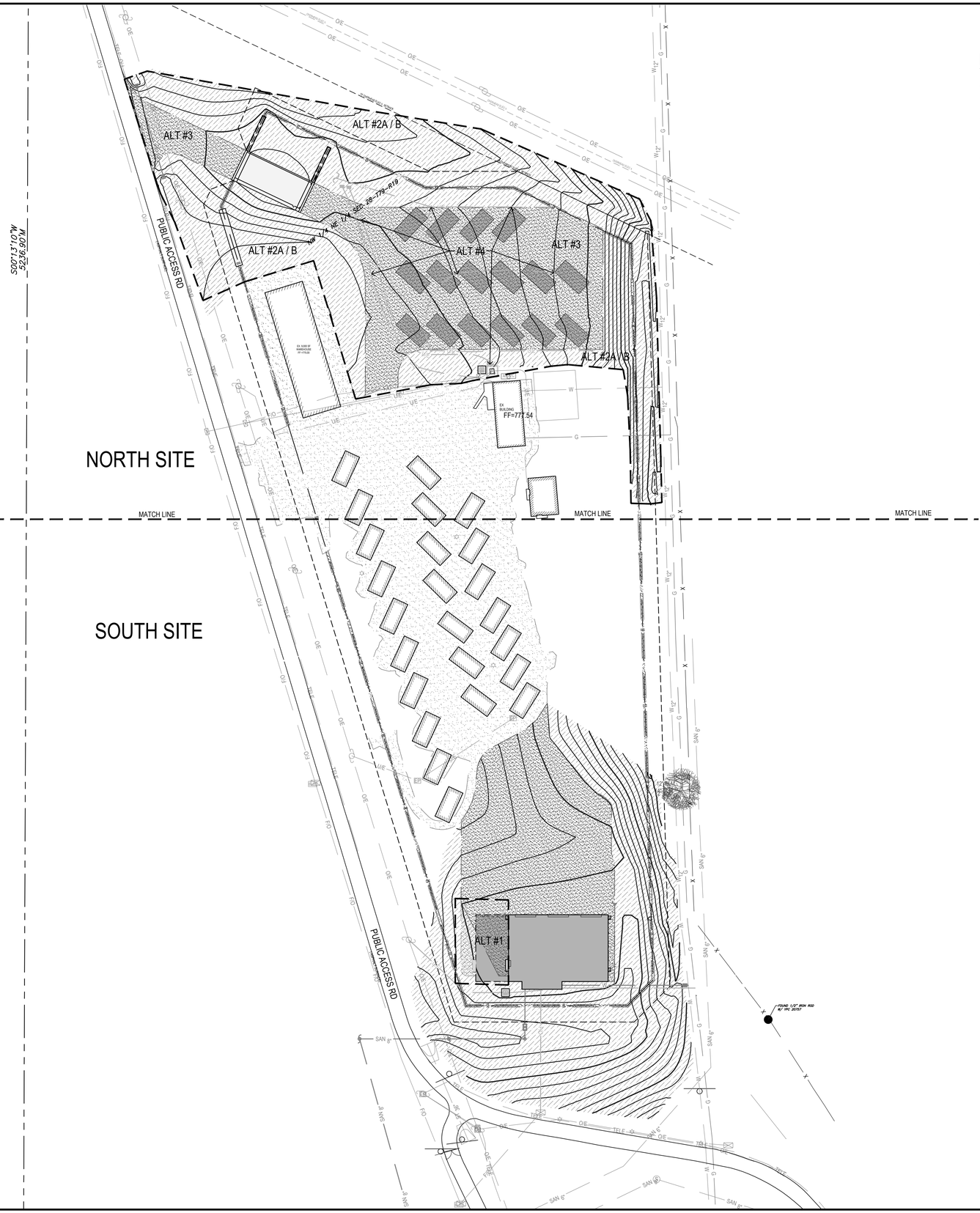
Newton Correctional Facility Iowa Prison Industries Phase II

DATE:	07/18/2025
DESIGNED:	BISHOP
DRAWN:	LCR
REVIEWED:	
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
EX. CONDITIONS & DEMO

SHEET NUMBER:
C1.2

PROJECT NO.: 02401959.001



PROJECT ALTERNATES:

*SEE SECTION 01 23 00 ALTERNATE BID ITEMS FOR ADDITIONAL INFORMATION.

ALT #1: EXTEND PRODUCTION BUILDING 50'-0" SO OVERALL BUILDING DIMENSIONS ARE 100'-0" X 200'-0".

ALT #2A: ADD ALL GRADING AND EARTHWORK ON THE NORTH REGION OF THE SITE AS NOTED.

ALT #2B: RE-SPREAD TOP SOIL AND SEED ALL GRADED AREAS AS NOTED.

ALT #3: ADD GRAVEL SURFACING AND ELECTRICAL WORK AS NOTED FOR THE NORTH REGION OF THE SITE.

ALT #4: ELECTRICAL SERVICE AND DISTRIBUTION RE-WORK AT THE NORTH REGION OF THE SITE.

PROJECT NOTES:

THE FUTURE SALLYPORT ASSEMBLIES, PAVEMENTS & PERIMETER FENCE ARE SHOWN FOR FUTURE COORDINATION PURPOSES ONLY AND ARE NOT INCLUDED IN THIS CONTRACT

GRAPHIC SCALE
80 0 40 80 160

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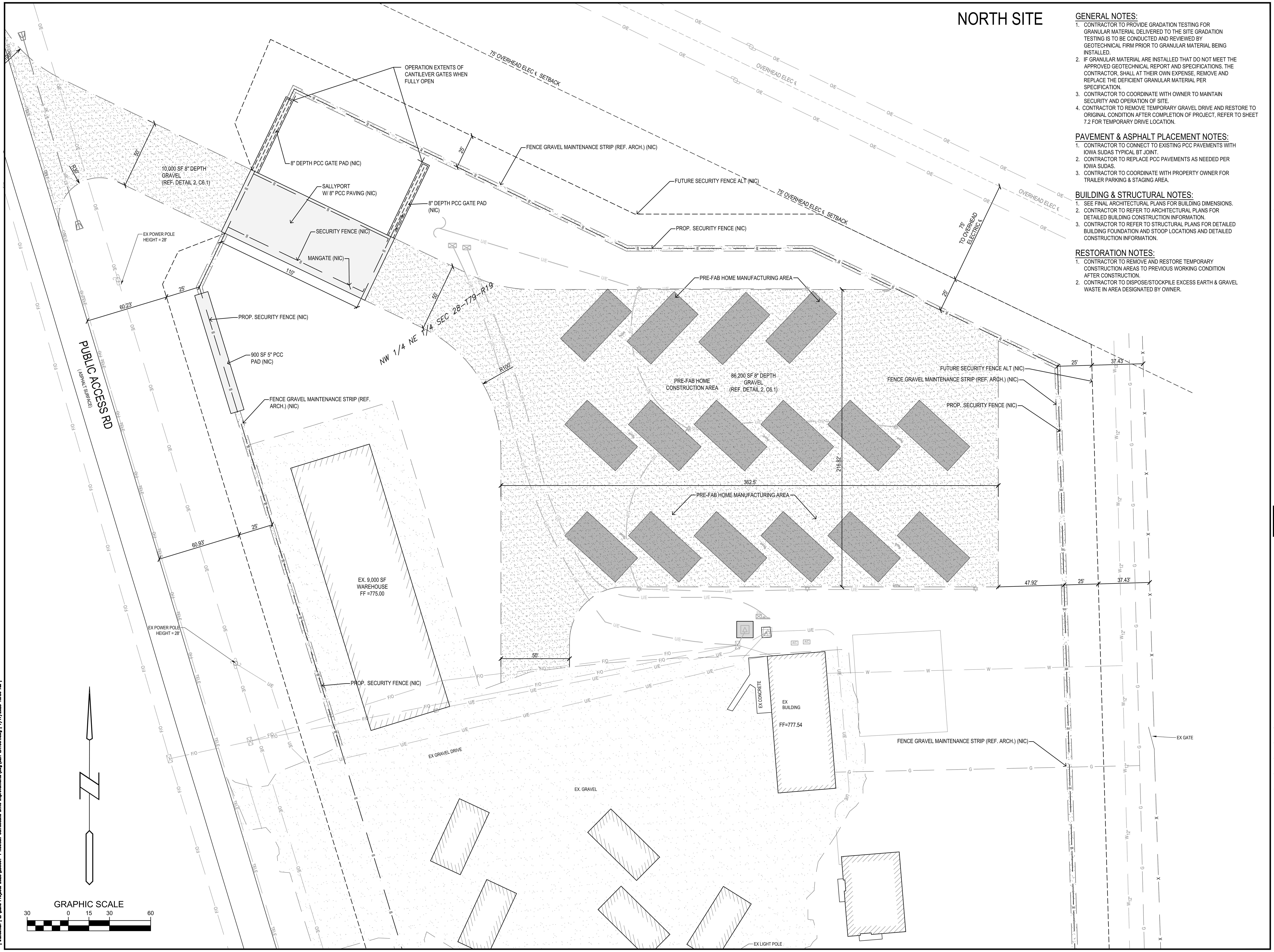
SHEET TITLE:
PROJECT LIMITS SHEET

SHEET NUMBER:
C2.0

PROJECT NO.: 02401959.001



GENERAL NOTES:

1. CONTRACTOR TO PROVIDE GRADATION TESTING FOR GRANULAR MATERIAL DELIVERED TO THE SITE GRADATION TESTING IS TO BE CONDUCTED AND REVIEWED BY GEOTECHNICAL FIRM PRIOR TO GRANULAR MATERIAL BEING INSTALLED.
2. IF GRANULAR MATERIAL ARE INSTALLED THAT DO NOT MEET THE APPROVED GEOTECHNICAL REPORT AND SPECIFICATIONS. THE CONTRACTOR, SHALL AT THEIR OWN EXPENSE, REMOVE AND REPLACE THE DEFICIENT GRANULAR MATERIAL PER SPECIFICATION.
3. CONTRACTOR TO COORDINATE WITH OWNER TO MAINTAIN SECURITY AND OPERATION OF SITE.
4. CONTRACTOR TO REMOVE TEMPORARY GRAVEL DRIVE AND RESTORE TO ORIGINAL CONDITION AFTER COMPLETION OF PROJECT, REFER TO SHEET 7.2 FOR TEMPORARY DRIVE LOCATION.

PAVEMENT & ASPHALT PLACEMENT NOTES:

1. CONTRACTOR TO CONNECT TO EXISTING PCC PAVEMENTS WITH IOWA SUDAS TYPICAL BT JOINT.
2. CONTRACTOR TO REPLACE PCC PAVEMENTS AS NEEDED PER IOWA SUDAS.
3. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER FOR TRAILER PARKING & STAGING AREA.

BUILDING & STRUCTURAL NOTES:

1. SEE FINAL ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS.
2. CONTRACTOR TO REFER TO ARCHITECTURAL PLANS FOR DETAILED BUILDING CONSTRUCTION INFORMATION.
3. CONTRACTOR TO REFER TO STRUCTURAL PLANS FOR DETAILED BUILDING FOUNDATION AND STOOP LOCATIONS AND DETAILED CONSTRUCTION INFORMATION.

RESTORATION NOTES:

1. CONTRACTOR TO REMOVE AND RESTORE TEMPORARY CONSTRUCTION AREAS TO PREVIOUS WORKING CONDITION AFTER CONSTRUCTION.
2. CONTRACTOR TO DISPOSE/STOCKPILE EXCESS EARTH & GRAVEL WASTE IN AREA DESIGNATED BY OWNER.

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REVIEWED:	
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
LAYOUT PLAN

SHEET NUMBER:
C2.1

PROJECT NO.: 02401959.001

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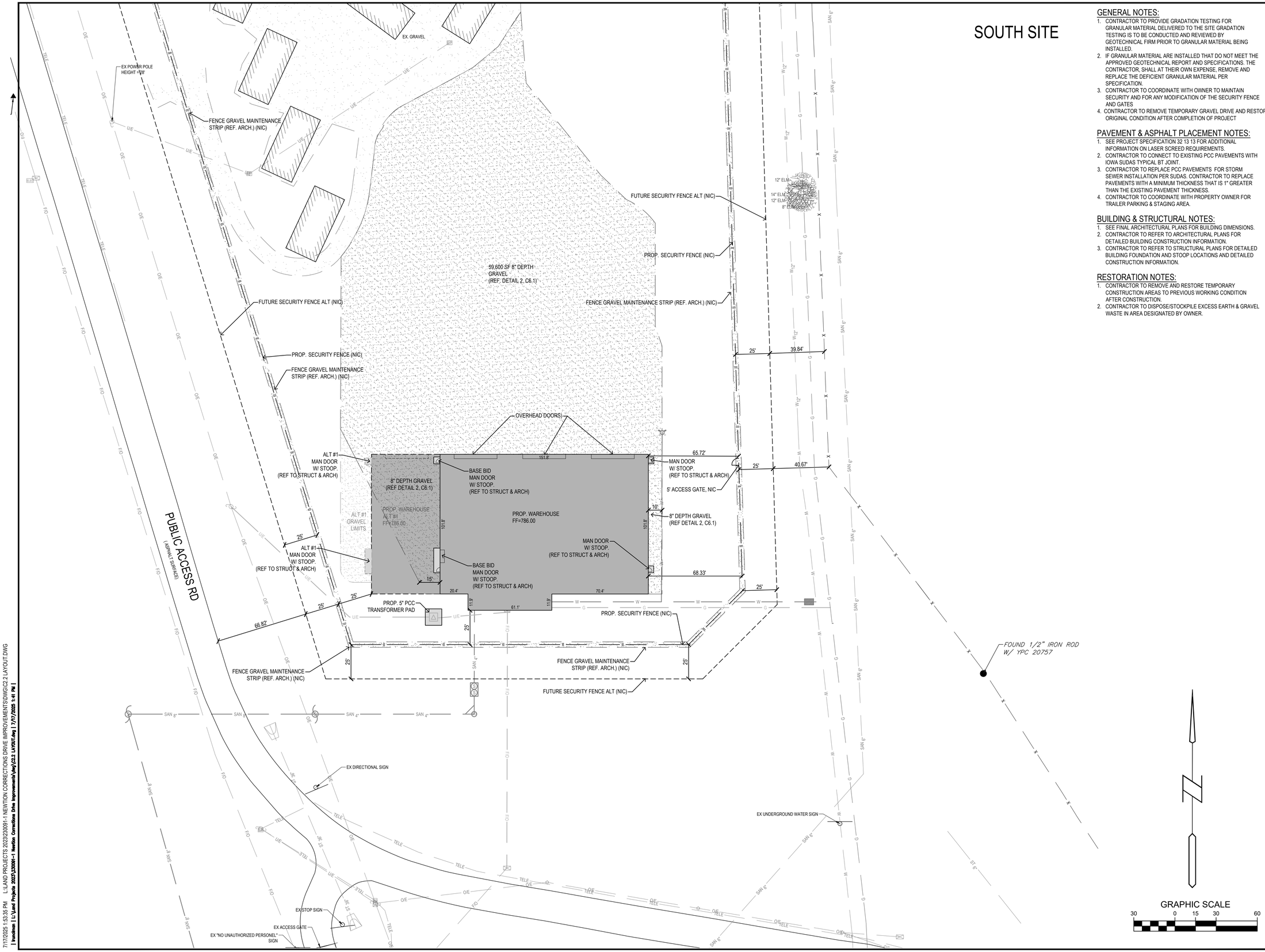
SOUTH SITE



GENERAL NOTES:

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2. IF GRANULAR MATERIAL ARE INSTALLED THAT DO NOT MEET THE APPROVED GEOTECHNICAL REPORT AND SPECIFICATIONS. THE CONTRACTOR, SHALL AT THEIR OWN EXPENSE, REMOVE AND REPLACE THE DEFICIENT GRANULAR MATERIAL PER SPECIFICATION.
3. CONTRACTOR TO COORDINATE WITH OWNER TO MAINTAIN SECURITY AND FOR ANY MODIFICATION OF THE SECURITY FENCE AND GATES
4. CONTRACTOR TO REMOVE TEMPORARY GRAVEL DRIVE AND RESTORE TO ORIGINAL CONDITION AFTER COMPLETION OF PROJECT

PAVEMENT & ASPHALT PLACEMENT NOTES:

1. SEE PROJECT SPECIFICATION 32 13 13 FOR ADDITIONAL INFORMATION ON LASER SCREED REQUIREMENTS.
2. CONTRACTOR TO CONNECT TO EXISTING PCC PAVEMENTS WITH IOWA SUDAS TYPICAL BT JOINT.
3. CONTRACTOR TO REPLACE PCC PAVEMENTS FOR STORM SEWER INSTALLATION PER SUDAS. CONTRACTOR TO REPLACE PAVEMENTS WITH A MINIMUM THICKNESS THAT IS 1" GREATER THAN THE EXISTING PAVEMENT THICKNESS.
4. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER FOR TRAILER PARKING & STAGING AREA.

BUILDING & STRUCTURAL NOTES:

1. SEE FINAL ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS.
2. CONTRACTOR TO REFER TO ARCHITECTURAL PLANS FOR DETAILED BUILDING CONSTRUCTION INFORMATION.
3. CONTRACTOR TO REFER TO STRUCTURAL PLANS FOR DETAILED BUILDING FOUNDATION AND STOOP LOCATIONS AND DETAILED CONSTRUCTION INFORMATION.

RESTORATION NOTES:

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GRAPHIC SCALE
30 0 15 30 60

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DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

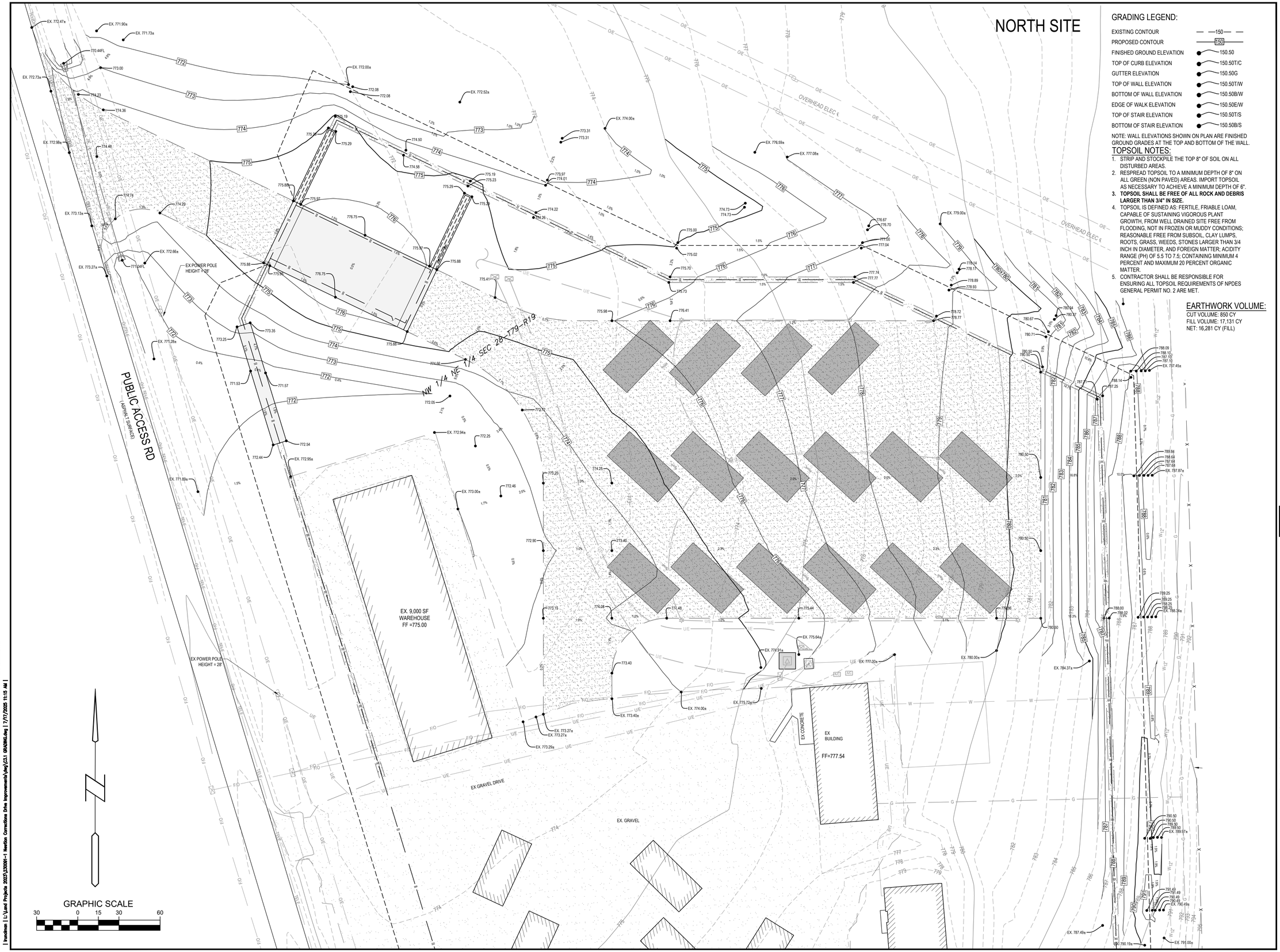
LAYOUT PLAN

SHEET NUMBER:

C2.2

PROJECT NO.: 02401959.001

7/17/2025 1:53:35 PM L:\LAND PROJECTS 2023\23009\-1 NEWTON CORRECTIONS DRIVE IMPROVEMENTS\DWG\C2.2 LAYOUT.DWG
| tvandrom | L:\Land Projects 2023\23009\-1 Newton Corrections Drive Improvements\dwg\C2.2 LAYOUT.dwg | 7/17/2025 1:41 PM |



GRADING LEGEND:

EXISTING CONTOUR	150
PROPOSED CONTOUR	150
FINISHED GROUND ELEVATION	150.50
TOP OF CURB ELEVATION	150.50T/C
GUTTER ELEVATION	150.50G
TOP OF WALL ELEVATION	150.50T/W
BOTTOM OF WALL ELEVATION	150.50B/W
EDGE OF WALK ELEVATION	150.50E/W
TOP OF STAIR ELEVATION	150.50T/S
BOTTOM OF STAIR ELEVATION	150.50B/S

NOTE: WALL ELEVATIONS SHOWN ON PLAN ARE FINISHED GROUND GRADES AT THE TOP AND BOTTOM OF THE WALL.

TOPSOIL NOTES:

1. STRIP AND STOCKPILE THE TOP 8" OF SOIL ON ALL DISTURBED AREAS.
2. RESPREAD TOPSOIL TO A MINIMUM DEPTH OF 8" ON ALL GREEN (NON PAVED) AREAS. IMPORT TOPSOIL AS NECESSARY TO ACHIEVE A MINIMUM DEPTH OF 6".
3. **TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE.**
4. TOPSOIL IS DEFINED AS: FERTILE, FRIABLE LOAM, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITIONS; REASONABLE FREE FROM SUBSOIL, CLAY LUMPS, ROOTS, GRASS, WEEDS, STONES LARGER THAN 3/4 INCH IN DIAMETER, AND FOREIGN MATTER; ACIDITY RANGE (PH) OF 5.5 TO 7.5; CONTAINING MINIMUM 4 PERCENT AND MAXIMUM 20 PERCENT ORGANIC MATTER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.

EARTHWORK VOLUME:

CUT VOLUME: 850 CY
FILL VOLUME: 17,131 CY
NET: 16,281 CY (FILL)

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SHEET TITLE:

GRADING PLAN

SHEET NUMBER:

C3.1

PROJECT NO.: 02401959.001

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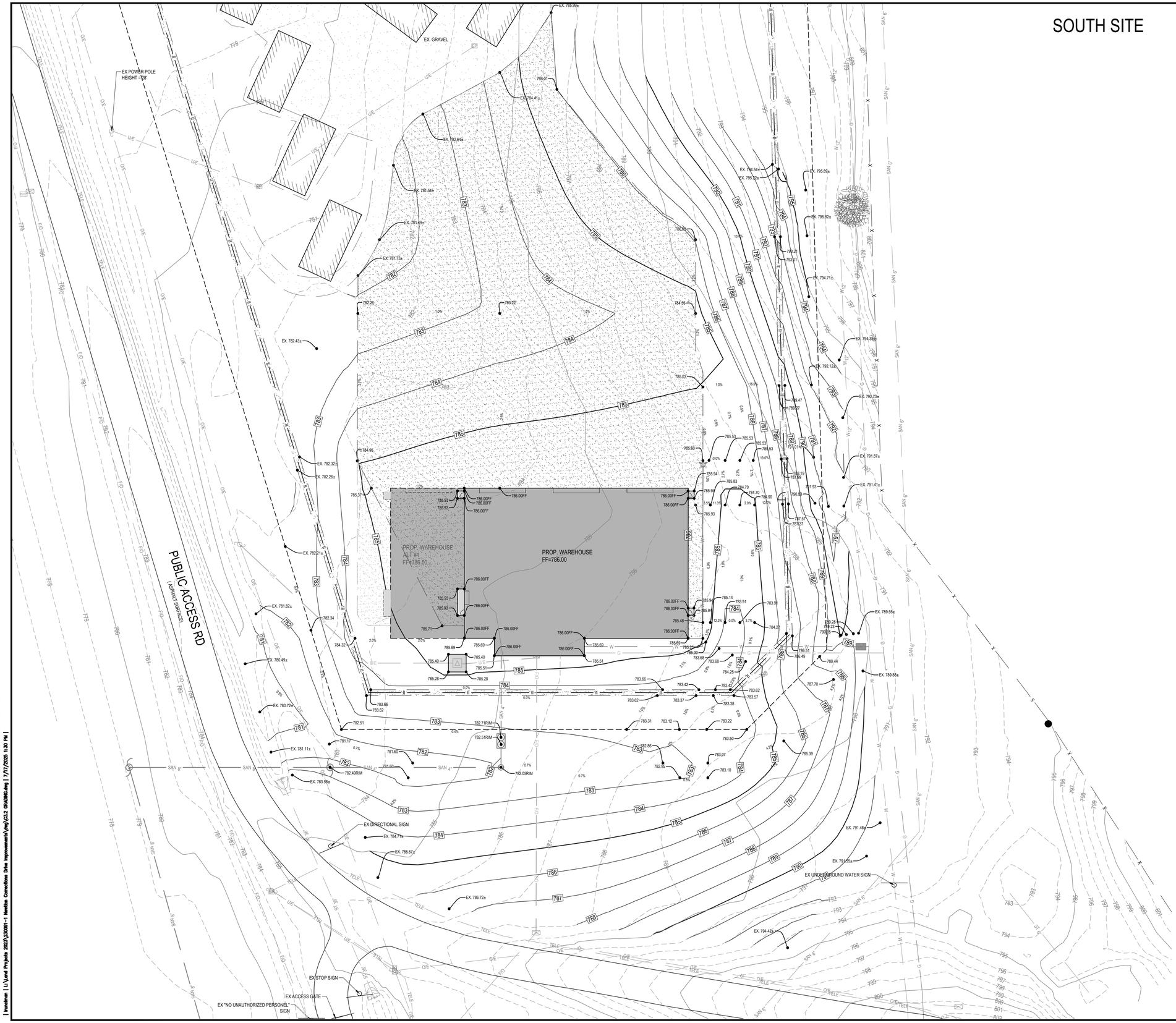

SOUTH SITE

TOPSOIL NOTES:

1. STRIP AND STOCKPILE THE TOP 8" OF SOIL ON ALL DISTURBED AREAS.
2. RESPREAD TOPSOIL TO A MINIMUM DEPTH OF 8" ON ALL GREEN (NON PAVED) AREAS. IMPORT TOPSOIL AS NECESSARY TO ACHIEVE A MINIMUM DEPTH OF 8".
3. **TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE.**
4. TOPSOIL IS DEFINED AS: FERTILE, FRIABLE LOAM, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITIONS; REASONABLE FREE FROM SUBSOIL, CLAY LUMPS, ROOTS, GRASS, WEEDS, STONES LARGER THAN 3/4 INCH IN DIAMETER, AND FOREIGN MATTER; ACIDITY RANGE (PH) OF 5.5 TO 7.5; CONTAINING MINIMUM 4 PERCENT AND MAXIMUM 20 PERCENT ORGANIC MATTER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.

GRADING LEGEND:

EXISTING CONTOUR	150
PROPOSED CONTOUR	150
FINISHED GROUND ELEVATION	150.50
TOP OF CURB ELEVATION	150.50T/C
GUTTER ELEVATION	150.50G
TOP OF WALL ELEVATION	150.50T/W
BOTTOM OF WALL ELEVATION	150.50B/W
EDGE OF WALK ELEVATION	150.50E/W
TOP OF STAIR ELEVATION	150.50T/S
BOTTOM OF STAIR ELEVATION	150.50B/S

NOTE: WALL ELEVATIONS SHOWN ON PLAN ARE FINISHED GROUND GRADES AT THE TOP AND BOTTOM OF THE WALL.

GENERAL NOTES:

1. CONTRACTOR TO ADJUST GRADE AS NECESSARY TO PROVIDE COVER OVER PIPES AND PROVIDE A SMOOTH TRANSITION
2. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL PLANS FOR BUILDING OVERHEAD AND MAN DOOR ELEVATION DETAILS. ALL BUILDING STOOPS SHALL HAVE A MINIMUM 1.0% CROSS SLOPE AND A MAX 2% CROSS SLOPE.
3. CONTRACTOR TO VERIFY AND COORDINATE EXTERIOR PAVEMENT/GRAVEL ELEVATIONS ADJACENT TO STOOP AND DOOR LOCATIONS TO PROVIDE A MINIMUM 1.0% SLOPE AND A MAX 5% SLOPE AWAY FROM BUILDING AND BUILDING STOOPS.
4. ALL PAVEMENT AREAS SHALL HAVE A MINIMUM 1.0% SLOPE TO PROVIDE POSITIVE DRAINAGE.
5. THE TRADE CONTRACTOR AND THEIR SURVEYOR SHALL BE RESPONSIBLE FOR CREATING THE STAKING MODEL. CONTRACTOR TO VERIFY ALL GRADING ELEVATIONS AND CONTACT THE OWNER/ENGINEER, PRIOR TO CONSTRUCTION, IF THERE ARE ANY DISCREPANCIES OR CONFLICTS BETWEEN THE PLANS AND TYPICAL CONSTRUCTION STANDARDS AND TOLERANCES.
6. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDERS FOR ANY RELOCATION OR LOWERING OF EXISTING UTILITIES TO ACCOMMODATE GRADING AND NEW UTILITIES. ANY REMOVAL AND REPLACEMENT OF SAID UTILITIES SHALL BE INCIDENTAL.
7. THE GEOTECHNICAL REPORT/SPECIFICATIONS AS APPROVED BY THE OWNER'S GEOTECHNICAL ENGINEER SHALL GOVERN.
8. ADDITIONAL GRADING AND REWORK TO CORRECT DEFICIENCIES OR MEET THE GEOTECHNICAL REPORT/SPECIFICATION DESIGN REQUIREMENTS SHALL BE INCIDENTAL AND AT THE CONTRACTOR'S EXPENSE.

BUILDING DOOR ELEVATIONS:

1. THE ELEVATIONS SHOWN AT THE BUILDING DOORS AND BUILDING WALLS ON THE GRADING PLAN ARE FOR COORDINATION ONLY. BUILDING ARCHITECTURAL/STRUCTURAL PLANS AND DETAILS SHALL GOVERN FOR BUILDING DOOR ELEVATIONS, STOOP SLOPES AND EXPOSED WALLS OR FOOTINGS.
2. CONTRACTOR TO COORDINATE AND VERIFY ALL BUILDING AND DOOR ELEVATIONS WITH EXTERIOR IMPROVEMENTS TO MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDING PRIOR TO CONSTRUCTION. IF THERE IS A DISCREPANCY, CONTRACTOR TO CONTACT OWNER/ENGINEER FOR DIRECTION PRIOR TO CONSTRUCTION AND/OR INSTALLATION.

BUILDING ALTERNATE NOTES:

IF BUILDING ALTERNATE #1 IS SELECTED, CONTRACTOR TO ADJUST GRADES TO ACCOMMODATE ALTERNATE #1 BUILDING LIMITS AND STOOPS.

EARTHWORK VOLUME:

CUT VOLUME: 9,720 CY
FILL VOLUME: 2,438 CY
NET: 7,283 CY (CUT)

GRAPHIC SCALE
30 0 15 30 60

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GRADING PLAN

SHEET NUMBER:
C3.2

PROJECT NO.: 02401959.001

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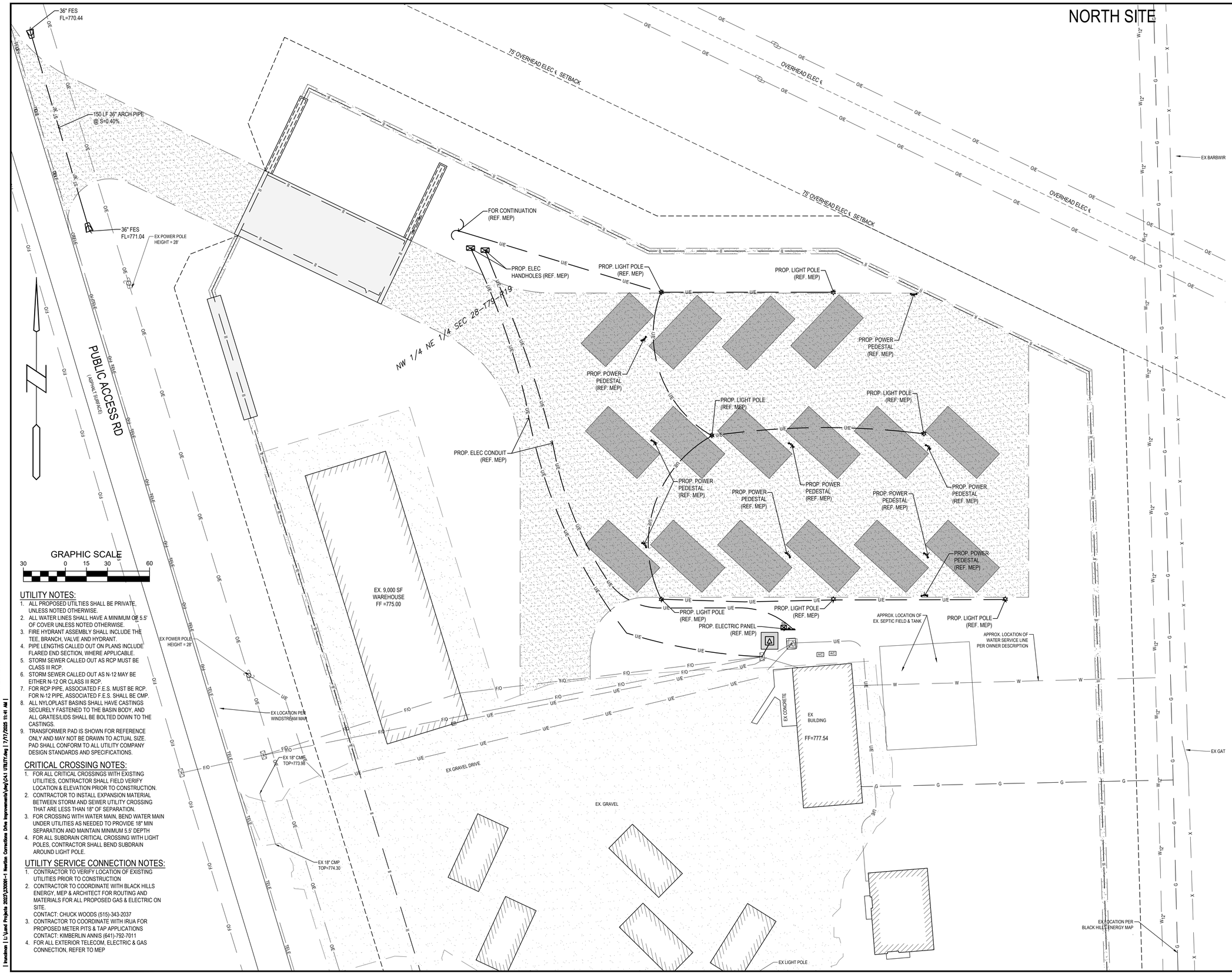
| bandman | L:\Land Projects 2023\23009\-1 Newton Corrections Drive Improvements\dwg\C3.2 GRADING.dwg | 7/17/2025 1:30 PM |



UTILITY NOTES:

1. ALL PROPOSED UTILITIES SHALL BE PRIVATE, UNLESS NOTED OTHERWISE.
2. ALL WATER LINES SHALL HAVE A MINIMUM OF 5.5' OF COVER UNLESS NOTED OTHERWISE.
3. FIRE HYDRANT ASSEMBLY SHALL INCLUDE THE TEE, BRANCH, VALVE AND HYDRANT.
4. PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
5. STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
6. STORM SEWER CALLED OUT AS N-12 MAY BE EITHER N-12 OR CLASS III RCP.
7. FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.
8. ALL NYLOPLAST BASINS SHALL HAVE CASTINGS SECURELY FASTENED TO THE BASIN BODY, AND ALL GRATES/LIDS SHALL BE BOLTED DOWN TO THE CASTINGS.
9. TRANSFORMER PAD IS SHOWN FOR REFERENCE ONLY AND MAY NOT BE DRAWN TO ACTUAL SIZE. PAD SHALL CONFORM TO ALL UTILITY COMPANY DESIGN STANDARDS AND SPECIFICATIONS.

CRITICAL CROSSING NOTES:

1. FOR ALL CRITICAL CROSSINGS WITH EXISTING UTILITIES, CONTRACTOR SHALL FIELD VERIFY LOCATION & ELEVATION PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO INSTALL EXPANSION MATERIAL BETWEEN STORM AND SEWER UTILITY CROSSING THAT ARE LESS THAN 18" OF SEPARATION.
3. FOR CROSSING WITH WATER MAIN, BEND WATER MAIN UNDER UTILITIES AS NEEDED TO PROVIDE 18" MIN SEPARATION AND MAINTAIN MINIMUM 5.5' DEPTH
4. FOR ALL SUBDRAIN CRITICAL CROSSING WITH LIGHT POLES, CONTRACTOR SHALL BEND SUBDRAIN AROUND LIGHT POLE.

UTILITY SERVICE CONNECTION NOTES:

1. CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION
2. CONTRACTOR TO COORDINATE WITH BLACK HILLS ENERGY, MEP & ARCHITECT FOR ROUTING AND MATERIALS FOR ALL PROPOSED GAS & ELECTRIC ON SITE.
   CONTACT: CHUCK WOODS (515)-343-2037
3. CONTRACTOR TO COORDINATE WITH IRUA FOR PROPOSED METER PITS & TAP APPLICATIONS
   CONTACT: KIMBERLIN ANNIS (641)-792-7011
4. FOR ALL EXTERIOR TELECOM, ELECTRIC & GAS CONNECTION, REFER TO MEP

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UTILITY PLAN

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C4.1

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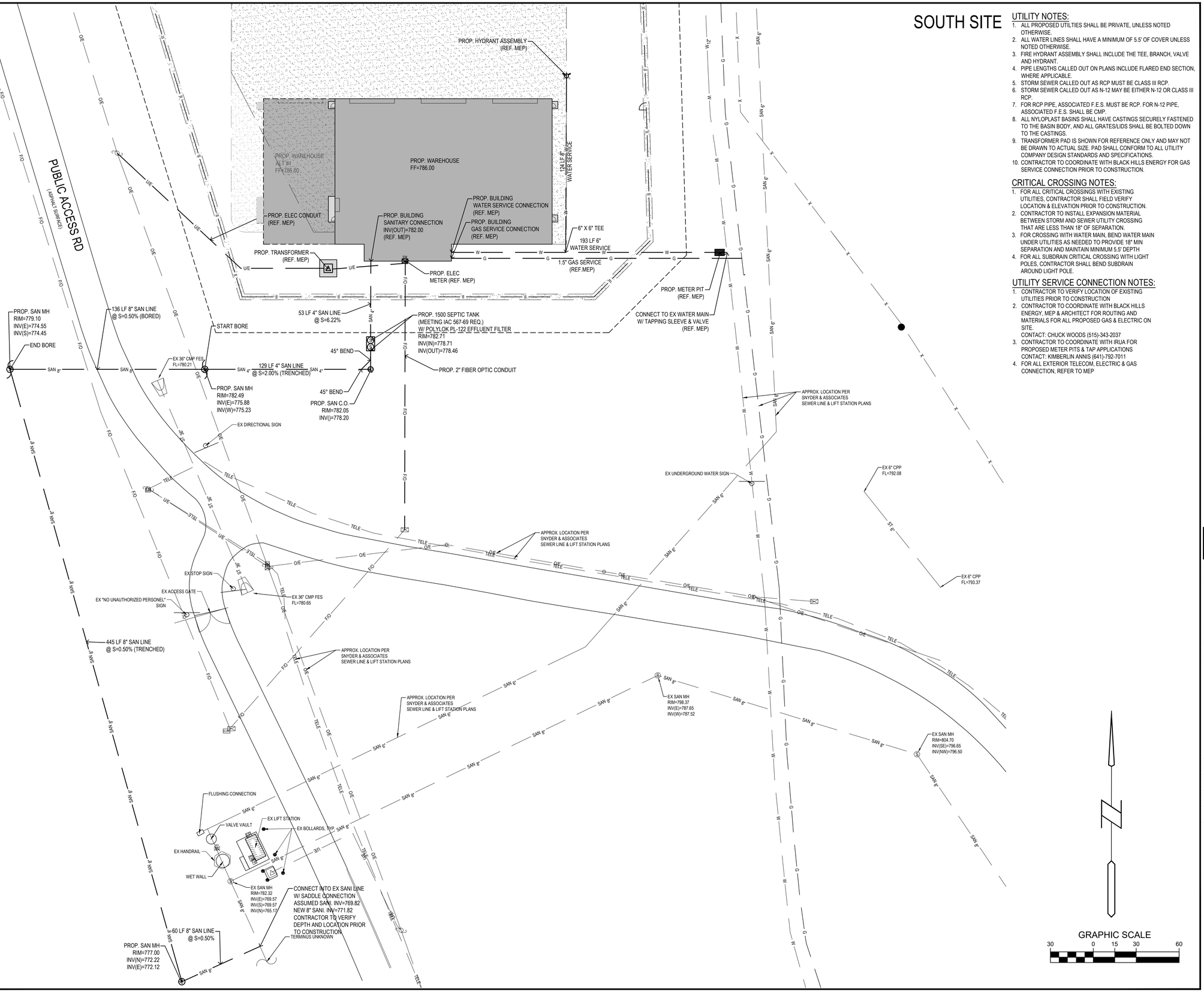
SOUTH SITE



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9. TRANSFORMER PAD IS SHOWN FOR REFERENCE ONLY AND MAY NOT BE DRAWN TO ACTUAL SIZE. PAD SHALL CONFORM TO ALL UTILITY COMPANY DESIGN STANDARDS AND SPECIFICATIONS.
10. CONTRACTOR TO COORDINATE WITH BLACK HILLS ENERGY FOR GAS SERVICE CONNECTION PRIOR TO CONSTRUCTION.

CRITICAL CROSSING NOTES:

1. FOR ALL CRITICAL CROSSINGS WITH EXISTING UTILITIES, CONTRACTOR SHALL FIELD VERIFY LOCATION & ELEVATION PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO INSTALL EXPANSION MATERIAL BETWEEN STORM AND SEWER UTILITY CROSSING THAT ARE LESS THAN 18" OF SEPARATION.
3. FOR CROSSING WITH WATER MAIN, BEND WATER MAIN UNDER UTILITIES AS NEEDED TO PROVIDE 18" MIN SEPARATION AND MAINTAIN MINIMUM 5.5' DEPTH
4. FOR ALL SUBDRAIN CRITICAL CROSSING WITH LIGHT POLES, CONTRACTOR SHALL BEND SUBDRAIN AROUND LIGHT POLE.

UTILITY SERVICE CONNECTION NOTES:

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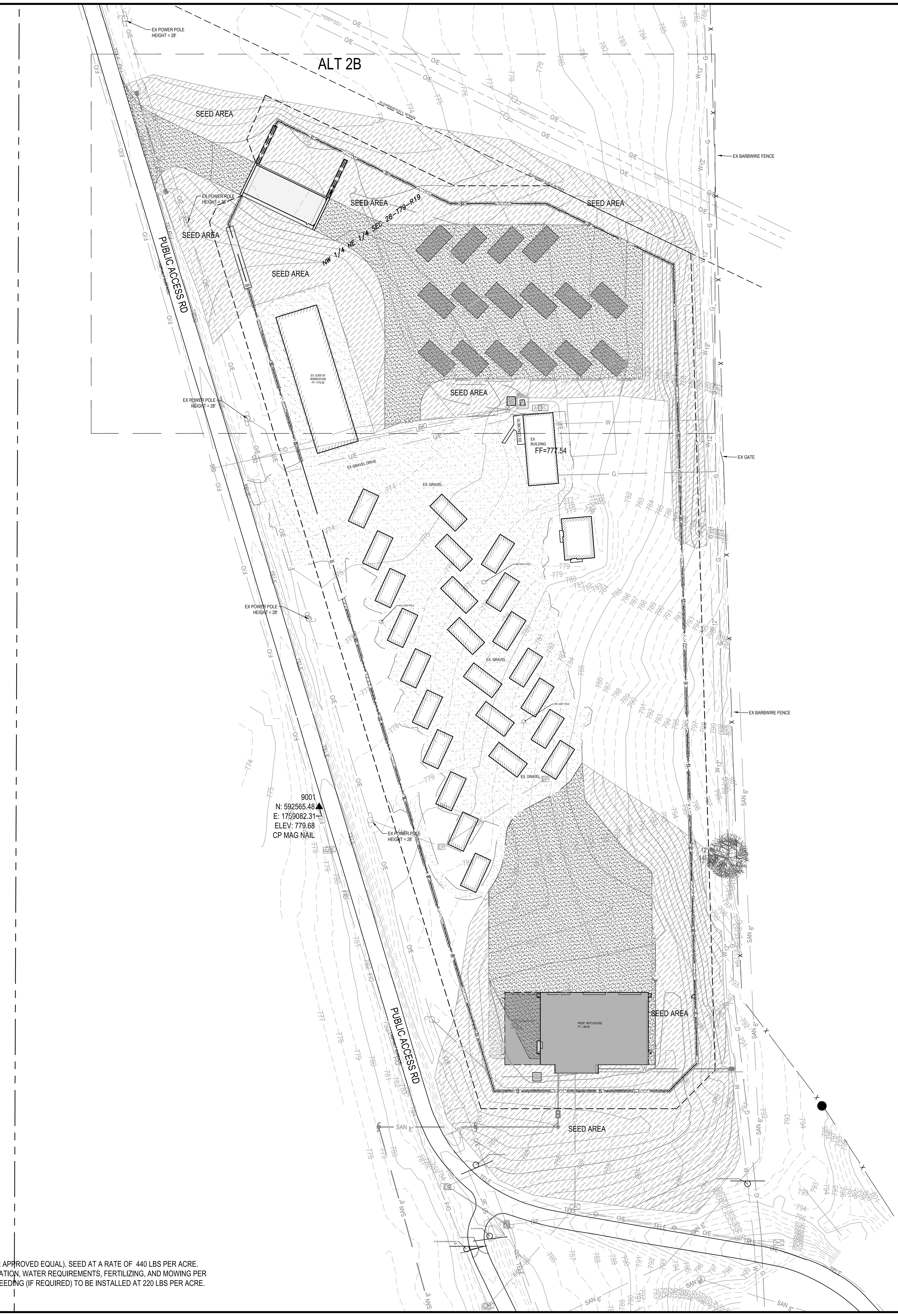

SEED: MIX TO BE "SUPER TURF II" BY UNITED SEEDS (OR APPROVED EQUAL). SEED AT A RATE OF 440 LBS PER ACRE. SEEDING DATES, SITE PREPARATION, SEEDING INSTALLATION, WATER REQUIREMENTS, FERTILIZING, AND MOWING PER UNITED SEEDS TECH BULLETIN FOR SEED TYPE. OVERSEEDING (IF REQUIRED) TO BE INSTALLED AT 220 LBS PER ACRE.

LANDSCAPE NOTES:

1. ALL SODDING/SEEDING & LANDSCAPE PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.
2. SOD/SEED ALL DISTURBED AREAS WITHIN THE CONTRACT LIMITS, UNLESS NOTED OTHERWISE. SOD/SEED LIMITS SHOWN ON PLAN ARE FOR REFERENCE ONLY. FINAL LIMITS MAY CHANGE BASED ON CONSTRUCTION ACTIVITIES.
3. STAKE SOD ON ALL SLOPES 3 : 1 OR GREATER.
4. PLANT QUANTITIES ARE FOR CONTRACTORS CONVENIENCE, THE DRAWING SHALL PREVAIL IF A CONFLICT OCCURS.
5. ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
6. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF INITIAL ACCEPTANCE.
7. FOR WARRANTY PURPOSES, THE DATE OF INITIAL ACCEPTANCE SHALL BE SUBMITTED IN WRITING TO THE OWNER AND/OR OWNER'S REPRESENTATIVE AFTER ALL PLANT MATERIALS HAVE BEEN INSTALLED AND REVIEWED BY OWNER OR OWNER'S REPRESENTATIVE. PLANT MATERIALS WILL ONLY BE ACCEPTED IF THEY ARE IN AN ALIVE AND THRIVING CONDITION.
8. CONDITIONAL ACCEPTANCE OF PLANT MATERIAL MAY BE GIVEN FOR PLANTS INSTALLED IN A DORMANT CONDITION WITH INITIAL ACCEPTANCE OCCURRING THE FOLLOWING SPRING ONCE THEY ARE SHOWN TO BE ALIVE AND THRIVING.
9. IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE IDENTIFICATION TAGS AND CORDS ON ALL PLANT MATERIAL PRIOR TO THE COMPLETION OF THE CONTRACT. IDENTIFICATION TAGS (INCLUDING SIZING INFORMATION) MUST BE LEFT ON UNTIL AFTER ACCEPTANCE BY OWNER OR OWNER'S REPRESENTATIVE.
10. CONTRACTOR SHALL PLACE SHREDDED HARDWOOD MULCH AROUND ALL TREES, SHRUBS AND GROUND COVER BEDS TO A DEPTH OF 4 INCHES, UNLESS NOTED.
11. STAKING AND GUYING OF TREES SHALL BE AT THE DISCRETION OF THE CONTRACTOR BASED ON CURRENT ACCEPTED NURSERY STANDARDS. GENERALLY, TREES IN LARGE OPEN AREAS SUBJECT O SIGNIFICANT WIND SHALL BE STAKED. STAKE AND WRAP TREES IMMEDIATELY AFTER PLANTING. CONTRACTOR SHALL ADJUST AND MAINTAIN GUYING TENSION THROUGHOUT THE PLANT ESTABLISHMENT PERIOD. REMOVE ALL STAKES AND GUY WIRES NO MORE THAN ONE YEAR AFTER INSTALLATION.
12. THE LANDSCAPING CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BEFORE STARTING ANY SITE WORK OR PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES.
13. NO LANDSCAPE MATERIAL SHALL BE SUBSTITUTED WITHOUT THE AUTHORIZATION OF THE LANDSCAPE ARCHITECT.
14. ALL EDGING SHALL BE DURAEDGE 3/16" STEEL EDGING - COLOR BLACK, OR APPROVED EQUAL..
15. CONTRACTOR SHALL BE RESPONSIBLE MAINTAINING APPROPRIATE LEVEL OF WATERING FOR ALL NEW PLANTS FOR A PERIOD OF 30 DAYS.
16. ALL SHRUB AND PERENNIAL PLANTING BEDS SHALL BE MULCHED WITH 4" THICK SHREDDED HARDWOOD MULCH.
14. ALL SHRUB AND PERENNIAL PLANTING BEDS SHALL INCORPORATE TYPAR 3301 NONWOVEN LANDSCAPE FABRIC (OR SIMILAR) AND 3" THICK LAYER OF WASHED RIVER ROCK (1.5" NOMINAL SIZE).
15. ALL BEDS TO RECEIVE GRANULAR PRE-EMERGENT WEED CONTROL BEFORE AND AFTER MULCH/ROCK IS INSTALLED.

GRAPHIC SCALE

80 0 40 80 160

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ISSUE:

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100% BID DOCUMENTS

PROJECT:

State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

DATE:	07/18/2025
DESIGNED:	
DRAWN:	
REVIEWED:	
DAS NO.:	9239.02 & 9239.03

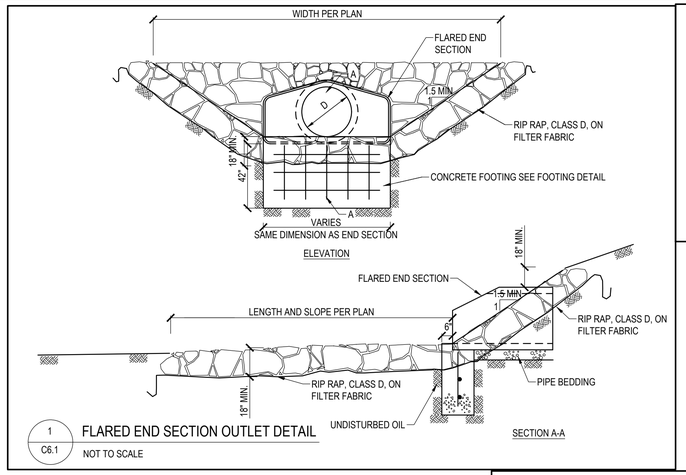
SHEET TITLE:

SEEDING PLAN

SHEET NUMBER:

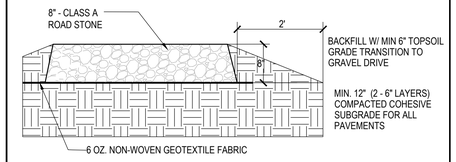
C5.1

PROJECT NO.: 02401959.001

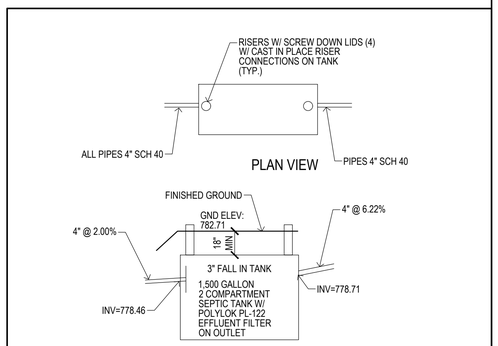


1 C6.1 FLARED END SECTION OUTLET DETAIL

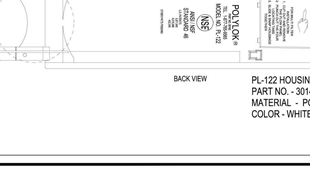
NOT TO SCALE



2 C6.1 GRANULAR SURFACE SECTION



PLAN VIEW

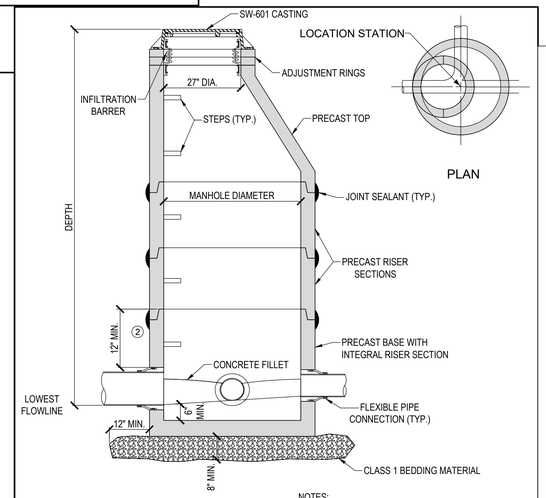


PROFILE VIEW

NOTES:
1. CONTRACTOR SHALL COORDINATE INSTALLATION WITH MANUFACTURER SPECIFICATIONS.
2. SEPTIC TANK SHALL BE CONCRETE AND MEET CHAPTER 69 REQUIREMENTS
3. SEPTIC SYSTEM SHALL BE INSTALLED BY A DALLAS COUNTY LICENSED SEPTIC CONTRACTOR. THE SEPTIC CONTRACTOR SHALL OBTAIN THE DALLAS COUNTY SEPTIC PERMIT
4. EFFLUENT SCREEN SHALL BE POLYLOK PL-122
5. SURFACE ELEVATIONS ABOVE TANKS WILL BE SET BASED ON COCO FILTER TANK OUTLET ELEVATION (837.20) AND THE 18 INCHES OF COVER OVER SEPTCI TANKS. THE ELEVATIONS SHOWN ABOVE TANKS IS APPROXIMATE. SEPTIC TANK LIDS SHALL BE FLUSH WITH FINISHED GRADE. COCO FILTER AND PUMP TANK LIDS SHALL BE ABOVE GRADE.

3 C6.1 SEPTIC SYSTEM

SCALE NONE



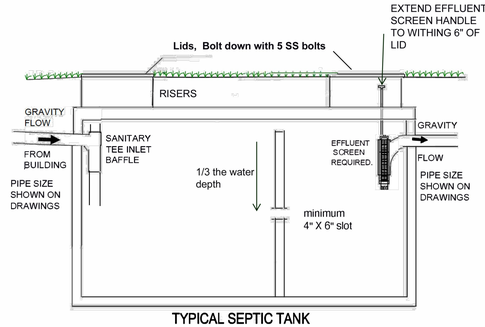
TYPICAL SECTION

Manhole Diameter (inches)	Maximum Pipe Diameter (inches) for 2 Pipes (1)	
	At 180° Separation	At 90° Separation
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

NOTES:
1. FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES OF CONCRETE BETWEEN VERTICAL EDGES OF PIPE OPENINGS.
2. 12 INCH MINIMUM RISER HEIGHT ABOVE ALL PIPE OPENINGS.

4 C6.1 SW-301 CIRCULAR SANITARY SEWER MANHOLE DETAIL

NOT TO SCALE



TYPICAL SEPTIC TANK

TANK SHALL MEET IAC 567-69 REQUIREMENTS

TANK VOLUME SHOWN ON THE PLANS

ENGINEERS NOTE:
CONTRACTOR TO SUPPLY PLASTIC OR CONCRETE TANK MEETING IAC 567-69 REQUIREMENTS, CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL OF ENGINEER

5 C6.1 SEPTIC TANK DETAIL

SCALE NONE

8 C6.1 EFFLUENT FILTER INFO BROCHURE

SCALE NONE

POLYLOK Inc. Innovations in Precast, Drainage & Wastewater Products — Zabel® A Division of Polylok Inc.

PL-122 Effluent Filter

PL-122 Filter

The PL-122 was the original Polylok filter. It was the first filter on the market with an automatic shut-off ball installed with every filter. When the filter is removed for regular servicing, the ball will float up and prevent any solids from leaving the tank. Our patented design cannot be duplicated.

Features:

- Offers 122 linear feet of 1/16" filter slots, which significantly extends time between cleaning.
- Has a flow control ball that shuts off the flow of effluent when the filter is removed for cleaning.
- Has its own gas deflector ball which deflects solids away.
- Installs easily in new tanks, or retrofits in existing systems.
- Comes complete with its own housing. No gluing of tees or pipe, no extra parts to buy.
- Has a modular design, allowing for increased filtration.

PL-122 Installation:

Ideal for residential waste flows up to 3,000 gallons per day (GPD). Easily installs in any new or existing 4" outlet tee.

1. Locate the outlet of the septic tank.
2. Remove the tank cover and pump tank if necessary.
3. Glue the filter housing to the outlet pipe, or use a Polylok Extend & Lok if not enough pipe exists.
4. Insert the PL-122 filter into tee.
5. Replace and secure the septic tank cover.

PL-122 Maintenance:

The PL-122 Effluent Filter will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years.

1. Do not use plumbing when filter is removed.
2. Pull PL-122 cartridge out of the tee.
3. Hose off filter over the septic tank. Make sure all solids fall back into septic tank.
4. Insert filter back into tee/housing.

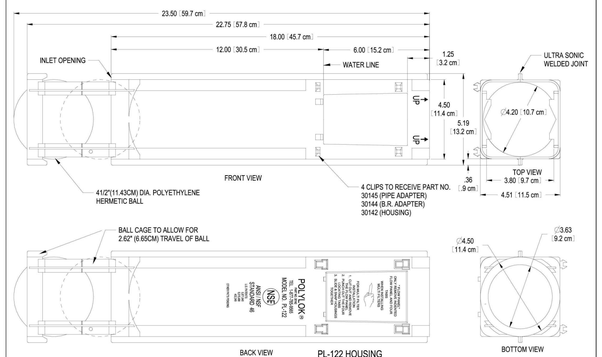
Polylok offers the only filter on the market where you can get more GPD by simply snapping our filters together!

Patent Numbers 6,015,488 & 5,871,640

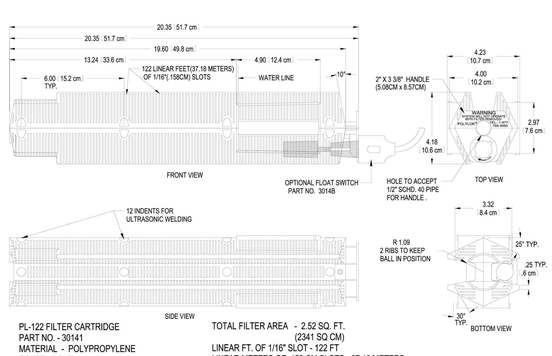
Filter Ready Adapter Connects to Septic Tank Wall

Outdoor SmartFilter® Alarm
Polylok, Zabel & Best filters accept the SmartFilter® switch and alarm.

www.polylok.com 1-877-765-9565



PL-122 HOUSING
PART NO. - 30142
MATERIAL - POLYPROPYLENE
COLOR - WHITE

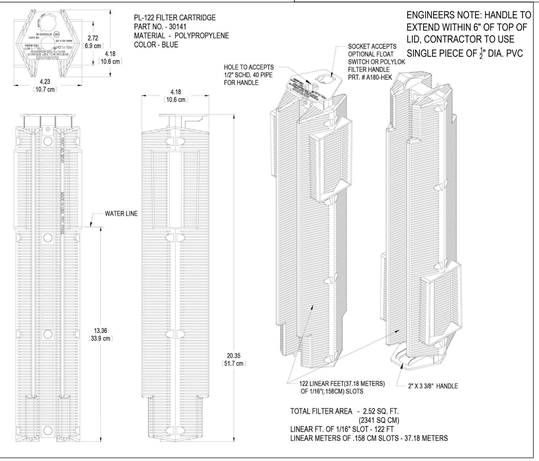


PL-122.FILTER CARTRIDGE
PART NO. - 30141
MATERIAL - POLYPROPYLENE
COLOR - BLUE

TOTAL FILTER AREA - 2.52 SQ. FT. (2341 SQ CM)
LINEAR FT. OF 1/16" SLOT - 122 FT
LINEAR METERS OF .158 CM SLOTS - 37.18 METERS

7 C6.1 POLYLOK PL-122 EFFLUENT FILTER DETAILS

SCALE NONE



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PROJECT:

State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

DATE:	07/18/2025
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DRAWN:	LCR
REVIEWED:	
DAS NO.:	9239.02 & 9239.03

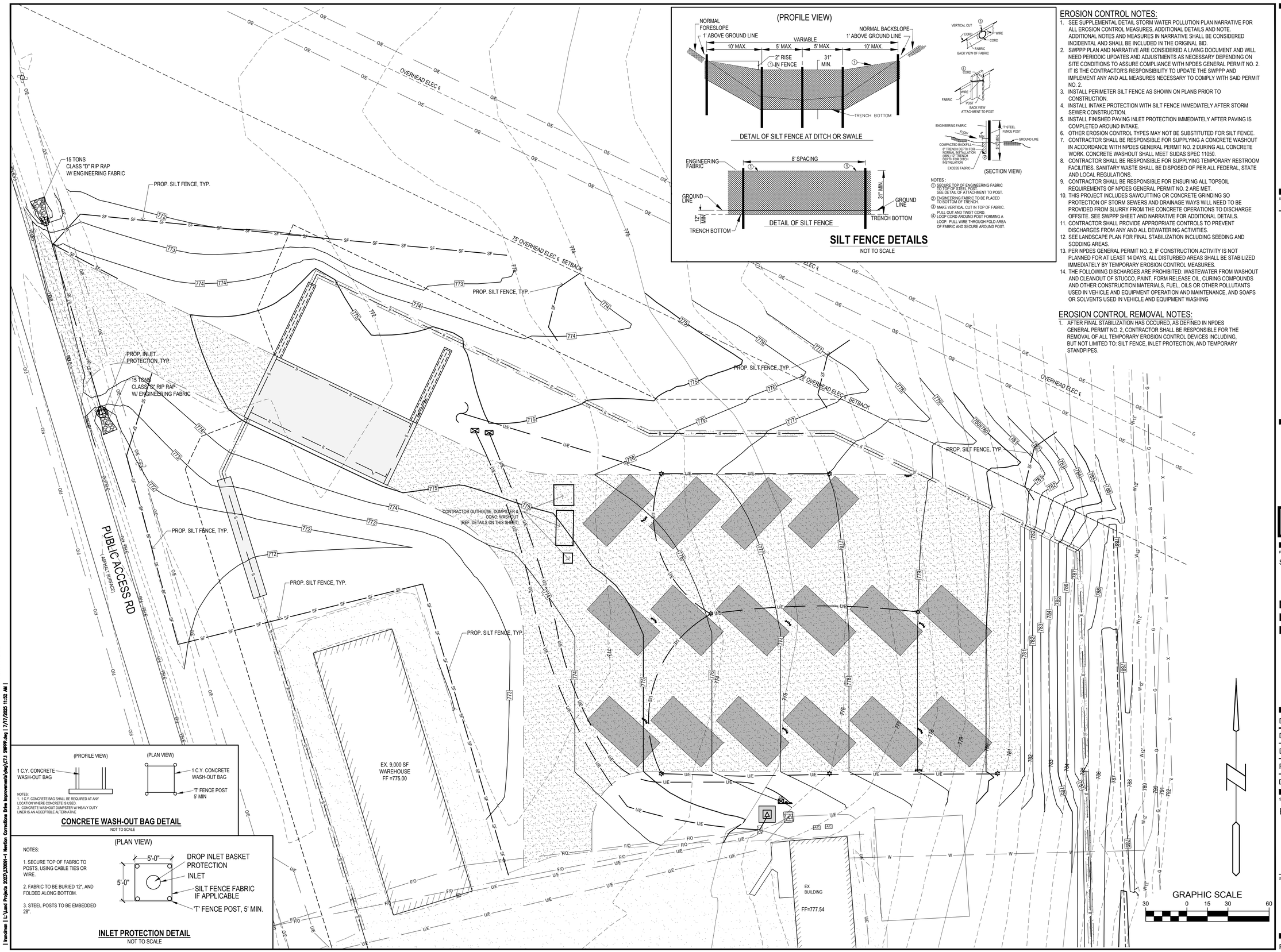
SHEET TITLE:

DETAILS SHEET

SHEET NUMBER:

C6.1

PROJECT NO.: 02401959.001



(PROFILE VIEW)

DETAIL OF SILT FENCE AT DITCH OR SWALE

DETAIL OF SILT FENCE

SILT FENCE DETAILS

NOT TO SCALE

NOTES :
① SECURE TOP OF ENGINEERING FABRIC TO TOP OF 'T' STEEL POST. SEE DETAIL OF ATTACHMENT TO POST.
② ENGINEERING FABRIC TO BE PLACED TO BOTTOM OF TRENCH.
③ MAKE VERTICAL CUT IN TOP OF FABRIC. PULL OUT AND TWIST CORD.
④ LOOP CORD AROUND POST FORMING A LOOP. PULL WIRE THROUGH FOLD AREA OF FABRIC AND SECURE AROUND POST.

EROSION CONTROL NOTES:

1. SEE SUPPLEMENTAL DETAIL STORM WATER POLLUTION PLAN NARRATIVE FOR ALL EROSION CONTROL MEASURES, ADDITIONAL DETAILS AND NOTE. ADDITIONAL NOTES AND MEASURES IN NARRATIVE SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE ORIGINAL BID.
2. SWPPP PLAN AND NARRATIVE ARE CONSIDERED A LIVING DOCUMENT AND WILL NEED PERIODIC UPDATES AND ADJUSTMENTS AS NECESSARY DEPENDING ON SITE CONDITIONS TO ASSURE COMPLIANCE WITH NPDES GENERAL PERMIT NO. 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UPDATE THE SWPPP AND IMPLEMENT ANY AND ALL MEASURES NECESSARY TO COMPLY WITH SAID PERMIT NO. 2.
3. INSTALL PERIMETER SILT FENCE AS SHOWN ON PLANS PRIOR TO CONSTRUCTION.
4. INSTALL INTAKE PROTECTION WITH SILT FENCE IMMEDIATELY AFTER STORM SEWER CONSTRUCTION.
5. INSTALL FINISHED PAVING INLET PROTECTION IMMEDIATELY AFTER PAVING IS COMPLETED AROUND INTAKE.
6. OTHER EROSION CONTROL TYPES MAY NOT BE SUBSTITUTED FOR SILT FENCE.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING A CONCRETE WASHOUT IN ACCORDANCE WITH NPDES GENERAL PERMIT NO. 2 DURING ALL CONCRETE WORK. CONCRETE WASHOUT SHALL MEET SUDAS SPEC 11050.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING TEMPORARY RESTROOM FACILITIES. SANITARY WASTE SHALL BE DISPOSED OF PER ALL FEDERAL, STATE AND LOCAL REGULATIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.
10. THIS PROJECT INCLUDES SAWCUTTING OR CONCRETE GRINDING SO PROTECTION OF STORM SEWERS AND DRAINAGE WAYS WILL NEED TO BE PROVIDED FROM SLURRY FROM THE CONCRETE OPERATIONS TO DISCHARGE OFFSITE. SEE SWPPP SHEET AND NARRATIVE FOR ADDITIONAL DETAILS.
11. CONTRACTOR SHALL PROVIDE APPROPRIATE CONTROLS TO PREVENT DISCHARGES FROM ANY AND ALL DEWATERING ACTIVITIES.
12. SEE LANDSCAPE PLAN FOR FINAL STABILIZATION INCLUDING SEEDING AND SODDING AREAS.
13. PER NPDES GENERAL PERMIT NO. 2, IF CONSTRUCTION ACTIVITY IS NOT PLANNED FOR AT LEAST 14 DAYS, ALL DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY BY TEMPORARY EROSION CONTROL MEASURES.
14. THE FOLLOWING DISCHARGES ARE PROHIBITED: WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OIL, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS, FUEL, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE, AND SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING

EROSION CONTROL REMOVAL NOTES:

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(PROFILE VIEW) (PLAN VIEW)

NOTES:
1. 1 C.Y. CONCRETE BAG SHALL BE REQUIRED AT ANY LOCATION WHERE CONCRETE IS USED.
2. CONCRETE WASHOUT DUMPSTER W/ HEAVY DUTY LINER IS AN ACCEPTIBLE ALTERNATIVE.

CONCRETE WASH-OUT BAG DETAIL

NOT TO SCALE

(PLAN VIEW)

NOTES:

1. SECURE TOP OF FABRIC TO POSTS, USING CABLE TIES OR WIRE.
2. FABRIC TO BE BURIED 12", AND FOLDED ALONG BOTTOM.
3. STEEL POSTS TO BE EMBEDDED 28".

INLET PROTECTION DETAIL

NOT TO SCALE

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WAUKEE, IOWA 50263
(515) 225-3469 / info@f-w.com
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Engineers | Architects | Surveyors | Scientists

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State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

DATE:	07/18/2025
DESIGNED:	BISHOP
DRAWN:	LCR
REVIEWED:	
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
EROSION CONTROL SHEET

SHEET NUMBER:
C7.1

PROJECT NO.: 02401959.001

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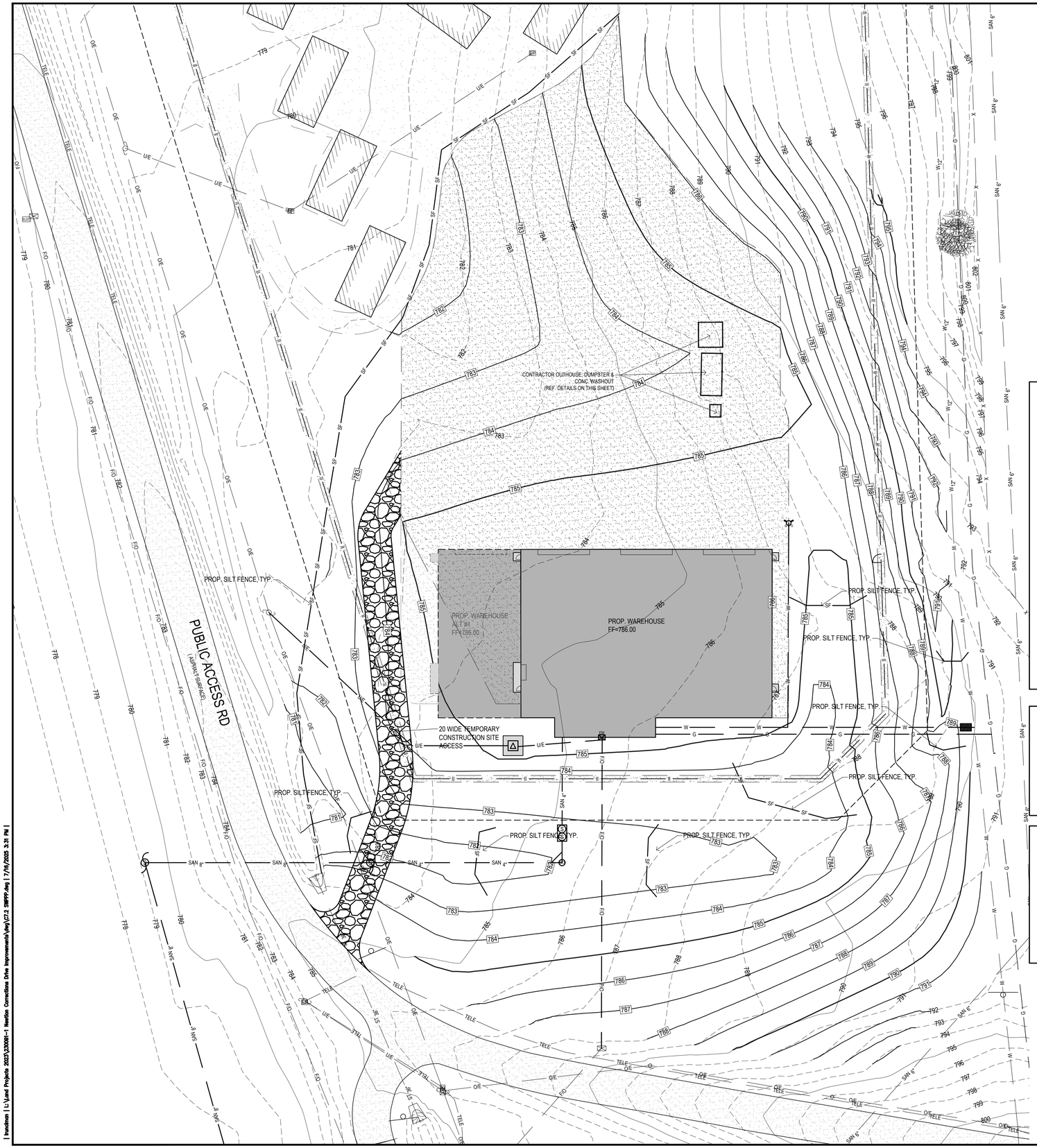

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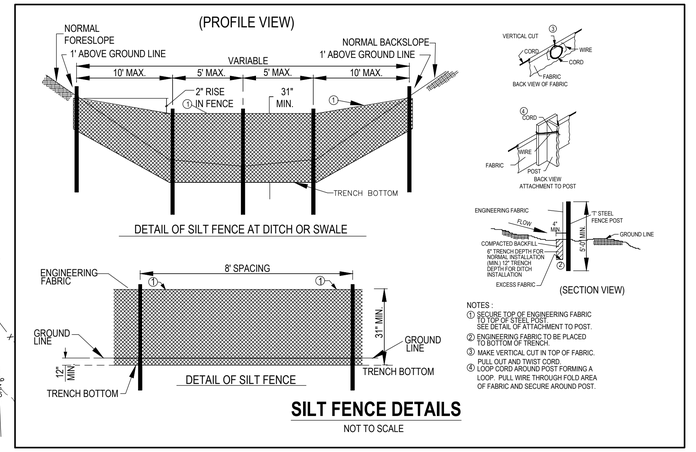
GRAPHIC SCALE
30 0 15 30 60



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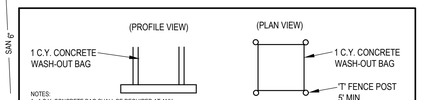
SILT FENCE DETAILS
NOT TO SCALE



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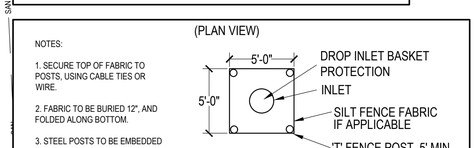
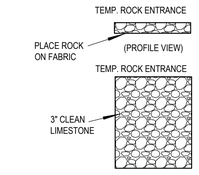


INLET PROTECTION DETAIL
NOT TO SCALE

STABILIZED ENTRANCE SHALL BE AT LEAST 50' LONG AND EXTEND TO THE PUBLIC ROADWAY.



SITE ENTRANCE DETAIL
NOT TO SCALE

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14225 UNIVERSITY AVENUE, SUITE 110
WAUKEE, IOWA 50263
(515) 225-3469 / info@f-w.com
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SHEET TITLE:
EROSION CONTROL SHEET

SHEET NUMBER:
C7.2

PROJECT NO.: 02401959.001

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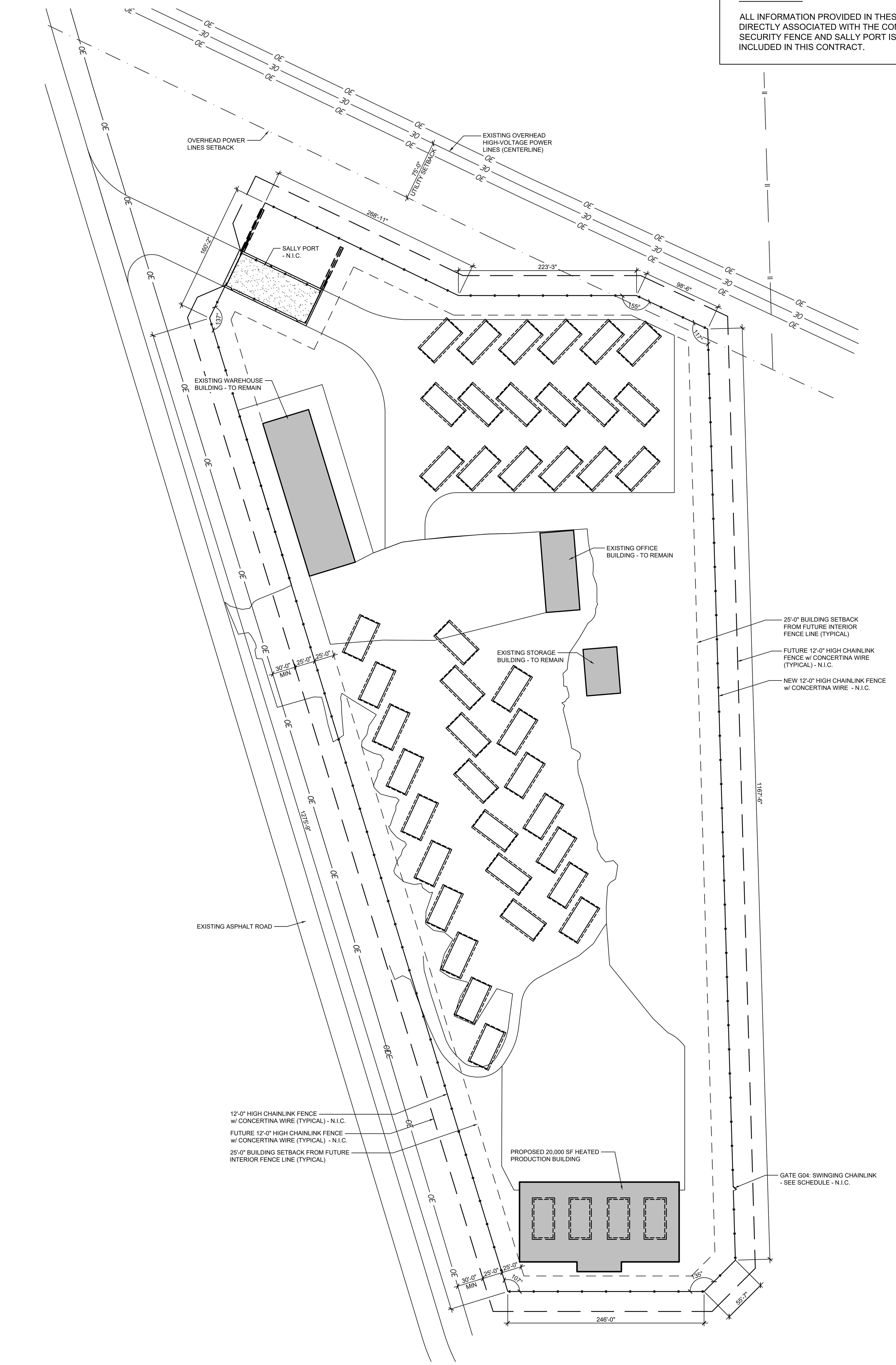
bhackman | L:\Land Projects 2023\230091-1 Newton Corrections Drive Improvements\dwg\C7.2 SWPPP.dwg | 7/16/2025 8:31 PM |



1 **OVERALL SITE PLAN**
SCALE: 1" = 80'-0"

SPECIAL NOTE:

ALL INFORMATION PROVIDED IN THESE DOCUMENTS CONCERNING ANY WORK DIRECTLY ASSOCIATED WITH THE COMPLETE INSTALLATION OF THE CHAINLINK SECURITY FENCE AND SALLY PORT IS FOR INFORMATION ONLY AND IS NOT INCLUDED IN THIS CONTRACT.

PROJECT ALTERNATES:

*SEE SECTION 01 23 00 ALTERNATE BID ITEMS FOR ADDITIONAL INFORMATION.

ALTERNATE #1: EXTEND PRODUCTION BUILDING 50'-0" SO OVERALL BUILDING DIMENSIONS ARE 100'-0" x 200'-0".

ALTERNATE #2A: ADD ALL GRADING AND EARTHWORK ON THE NORTH REGION OF THE SITE AS NOTED.

ALTERNATE #2B: RE-SPREAD TOPSOIL AND SEED ALL GRADED AREAS AS NOTED.

ALTERNATE #3: ADD GRAVEL SURFACING AND ELECTRICAL WORK AS NOTED FOR THE NORTH REGION OF THE SITE.

ALTERNATE #4: ELECTRICAL SERVICE AND DISTRIBUTION RE-WORK AT THE NORTH REGION OF THE SITE.

GENERAL SITE NOTES:

1. ALL SITE WORK SHALL COMPLY WITH THE STATEWIDE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS).
2. CONTRACTOR SHALL ADJUST ALL UTILITIES TO THE FINISH GRADE. UTILITY ADJUSTMENTS SHALL BE INCLUDED IN THE BID FOR GRADING.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
5. THE CONTRACTOR IS LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN PROVIDING FOR STORM WATER FLOW DURING CONSTRUCTION. DO NOT RESTRICT FLOWS IN EXISTING DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.
6. THE OWNER'S GEOTECHNICAL ENGINEER SHALL MONITOR THE GRADING OF THE PAVEMENT SUBGRADE, AND PROVIDE DENSITY TESTS. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE FINISHED SUBGRADE PRIOR TO PAVING TO DETERMINE IF ADDITIONAL WORK IS REQUIRED. SOILS TEST RESULTS SHALL BE SUBMITTED TO AND APPROVED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION.
7. SITE CONTOURS SHOWN ARE EXISTING GRADES. MINOR GRADING SHALL BE PERFORMED TO ACCOMMODATE INSTALLATION OF PERIMETER FENCE COMPONENTS.
8. CONTRACTOR SHALL CONTACT OWNER 48 HOURS PRIOR TO CONSTRUCTION.
9. CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT PROPERTY AND RIGHT OF WAY AS THE RESULT OF CONSTRUCTION.
10. CONTRACTOR TO OBTAIN ANY AND ALL NECESSARY PERMITS FOR THIS PROJECT.
11. THIS SITE WILL BE DISTURBED DURING DEMOLITION, TREE CLEARING, FENCE INSTALLATION, OR OTHER CONSTRUCTION ACTIVITIES. ANY PROPERTY DISTURBED BY THIS CONSTRUCTION PROJECT SHALL BE RESTORED TO ORIGINAL CONDITION. PREPARE SEEDBED, FERTILIZE, AND SEED IN ACCORDANCE WITH SUDAS SPECIFICATIONS.

PAVING NOTES:

1. ALL PAVING WORK SHALL COMPLY WITH THE STATEWIDE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS).
2. THE PAVING CONTRACTOR SHALL BACKFILL THE PAVING SLAB AND FINE GRADE AREAS DISTURBED BY NEW CONSTRUCTION AS SOON AFTER THE PAVING AS POSSIBLE. DISTURBED LANDSCAPED AREAS SHALL BE SEEDED IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
3. SAWCUT NEW PAVEMENT INTO SQUARES BETWEEN APPROXIMATELY 12' X 12' AND 15' X 15'. LENGTH SHALL NOT EXCEED 150% OF WIDTH.
4. PLACE 1/2" EXPANSION JOINT MATERIAL (FIBERBOARD) AROUND ALL STRUCTURES (MANHOLES, JUNCTION BOXES, POLES, BOLLARDS, ETC.) IN PAVEMENT; NEXT TO BUILDING, AND ALONG ADJACENT SIDEWALKS.
5. CONTRACTOR TO PROVIDE SAWCUT JOINTING PLAN TO OWNER OR OWNER'S REPRESENTATIVE PRIOR TO ANY CONCRETE PAVEMENT INSTALLATION.
6. PAVEMENT MAY BE REQUIRED TO BE REMOVED AND REPLACED IF PLACED WITHOUT AN APPROVED JOINTING PLAN.
7. LONGITUDINAL JOINTS IN DRIVE LANES SHALL BE TYPE "CD" CONTRACTION JOINTS AND HAVE STEEL. PROVIDE 36" LONG #4 BARS AT 30" CENTERS.

DEMOLITION NOTES:

1. EXISTING STRUCTURE AND ADJACENT PAVEMENT TO REMAIN. PROTECT DURING CONSTRUCTION.
2. EXISTING UTILITIES TO REMAIN. COORDINATE ANY NECESSARY ADJUSTMENTS WITH THE UTILITY SERVICE PROVIDER AND OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXISTENCE, EXACT LOCATION AND DEPTH OF UTILITIES IN PROXIMITY OF PROPOSED WORK PRIOR TO CONSTRUCTION.
3. REMOVE/MODIFY EXISTING GRAVEL-SURFACE ACCESS DRIVE AS REQUIRED FOR NEW CONSTRUCTION. COORDINATE RELOCATION OF EXISTING MATERIALS WITH CONSTRUCTION OF NEW CONCRETE PAVED ACCESS DRIVE.

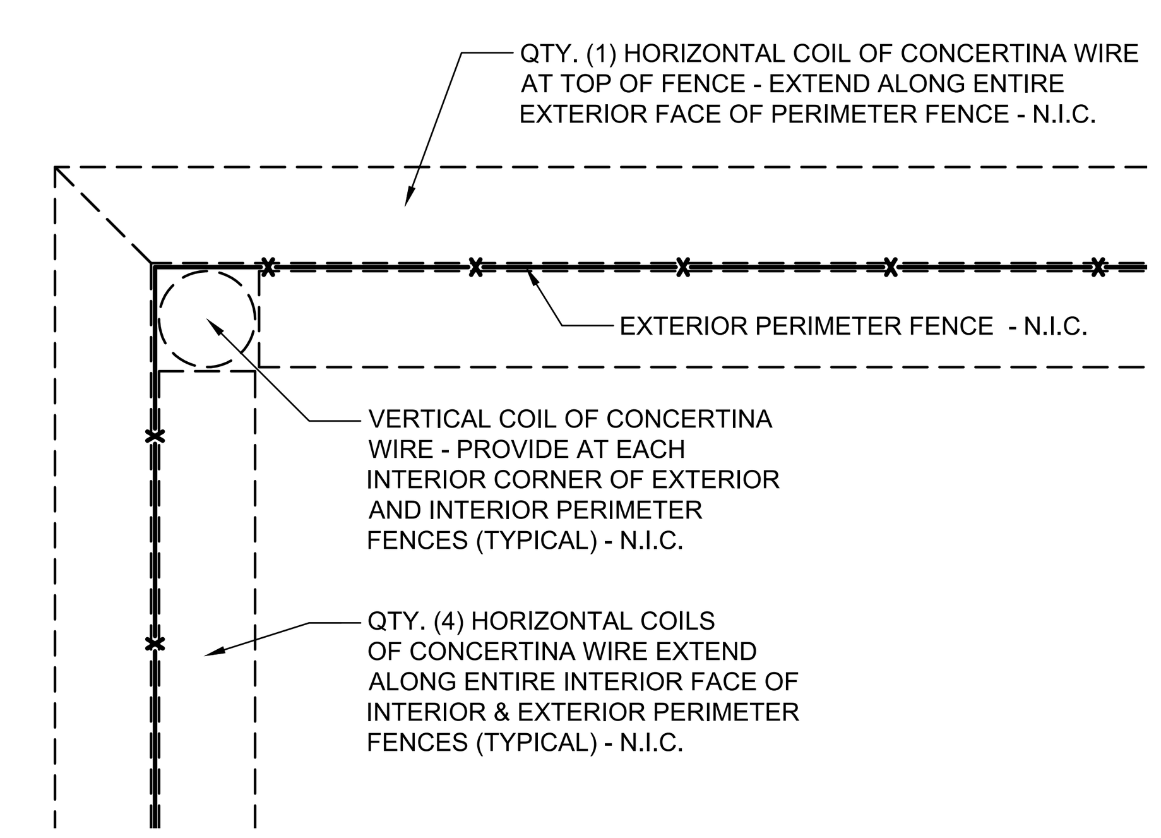
SECURITY FENCE NOTES:

1. SECURITY FENCE MATERIALS:
   - RAZOR TAPE: 30" DIAMETER STAINLESS STEEL BARBED TAPE 51 LOOP 5-CLIP 25 FT STAINLESS STEEL CORE WIRE.
   - CONCERTINA (DANNERT) WIRE: BARBED TAPE ASTM F 1910 430 STAINLESS STEEL, .025 INCH (.6MM) THICK X 1 INCH (25MM) WIDE PRIOR TO FORMING, DIE STAMPED TO PRODUCE 4 BARBED POINTS AT 4 INCHES (100MM) ON CENTER. TAPE COLD CLENCHED OVER STAINLESS STEEL CORE WIRE WITH MINIMUM TENSILE STRENGTH OF 220,000 PSI (1,517MPA). 1.2 INCH (30.5MM) MINIMUM LENGTH FOR EACH BARB CONCERT IN A 5-CLIP CONFIGURATION. 30 INCH (750MM) COIL.
   - EACH ROLL OF RAZOR WIRE SHALL CONSIST OF 51 CONTINUOUS LOOPS, WITH ADJACENT LOOPS CLIPPED AT 5 EQUALLY SPACED LOCATIONS AROUND THE CIRCUMFERENCE TO PROVIDE CONCERTINA EFFECT WITH A LOOP SPACING OF 12" (+/- 2"), FOR AN ERECTED LENGTH OF 25FT. (+/- 2FT.) THESE CLIPS ARE INSTALLED IN SUCH A FASHION, AS TO PREVENT THE SLIPPING OF ONE LOOP PAST ANOTHER.
   - BULL RINGS: FABRICATED FROM .065"X .375" AISI T 430 STAINLESS STEEL, THAT ARE CAPABLE OF WITHSTANDING A MINIMUM LOAD OF 200 LBS.
2. RAZOR TAPE/CONCERTINA WIRE SHALL BE INSTALLED ON THE TOP OF EACH FENCE LINE AND PROVIDE QTY. (3) HORIZONTAL ROLLS OF CONCERTINA WIRE ON THE INTERIOR FACE OF EACH PERIMETER FENCE LINES. SECURE HORIZONTAL ROLLS AT THE BOTTOM, MIDDLE AND JUST BELOW THE TOP ROLL OF RAZOR TAPE WITH CONCERTINA BULL RINGS TO THE FENCE.
3. INSIDE CORNER INSTALLATIONS:
   - INSTALL ADDITIONAL CONCERTINA WIRE (AKA DANNERT WIRE) AT EVERY CORNER AROUND THE COMPLEX AS NOTED. PROVIDE EITHER A CONCERTINA ROLL STRAND FROM THE TOP OF THE FENCE RAN VERTICALLY TO THE BOTTOM AND SECURED TO THE FENCE ITSELF WITH CONCERTINA BULL RINGS OR PROVIDE A CRISS-CROSS PATTERN OF CONCERTINA WIRE IN THE CORNERS OF THE FENCES AND SECURED TO THE FENCE FROM TOP TO BOTTOM.
   - SECURE HORIZONTAL ROLLS TO VERTICAL ROLL AT CORNER AND FENCE WITH CORRESPONDING CONCERTINA BULL AND HOG RINGS.

STORM WATER POLLUTION PREVENTION PLAN GENERAL NOTES:

1. ADDITIONAL MEASURES TO MEET THE REQUIREMENTS OF THE SWPPP AND CHANGING SITE CONDITIONS MAY BE NEEDED.
2. ALL POLLUTION PREVENTION MEASURES REQUIRED, AS A RESULT OF CONSTRUCTION ACTIVITIES, ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL ACTIONS NECESSARY FOR INSTALLATION OF CONTROL MEASURES FOR COMPLIANCE WITH PERMIT REQUIREMENTS.
3. ALL AREAS DISTURBED BY CONSTRUCTION SHALL NOT BE ALLOWED TO STAND BARREN FOR MORE THAN 14 DAYS. DISTURBED AREAS SHALL BE SEEDED OR MULCHED FOR TEMPORARY EROSION CONTROL UNTIL THE PERMANENT SURFACE IS IN PLACE. PERMANENT SURFACES INCLUDE BUILDING, PAVEMENT, GRANULAR SURFACE, OR LAWN.
4. WASHOUT FACILITIES SHALL BE A MINIMUM OF 50' FROM STORM DRAIN INLETS OR DRAINAGE WAYS.
5. SIGNAGE SHALL BE PROVIDED AT SITE TO IDENTIFY FACILITY.
6. INSPECTOR SHALL MEET IDNR AND EPA REQUIREMENTS FOR ALL INSPECTION INCLUDING BUT NOT LIMITED TO DISTURBED AREAS, TRACK OUT, ENTRANCE, DISCHARGE POINTS AND STORAGE AREAS.
7. MODIFICATIONS TO THE SWPPP SHALL BE IMPLEMENTED WITHIN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.
8. THE INSPECTION REPORTS SHALL INCLUDE THE INSPECTORS QUALIFICATIONS.
9. ANY CONTRACTOR PERFORMING LAND DISTURBING ACTIVITIES WILL SIGN A CONTRACTORS CERTIFICATION STATEMENT PRIOR TO BEGINNING WORK AT THE SITE. ALL CERTIFICATIONS SHALL BE INCLUDED IN THE SWPPP.

TYPICAL CONCERTINA WIRE CONNECTIONS:
- SECURE TO FENCE FABRIC w/ BULL RINGS
- SECURE COILS TO EACH OTHER w/ HOG RINGS



2 **TYPICAL FENCING CORNER DETAIL - N.I.C.**
SCALE: 1/4" = 1'-0"

CHAINLINK GATE SCHEDULE - N.I.C.

NUMBER	DOOR: LEAFS	DOOR: DOOR SIZE (W x H)	DETAIL	CONTROLS	REMARKS
G01	1	3'-0" x 7'-0"	3/AC2.1	CC + PEDESTAL	NOTES: 1 & 2
G02	1	3'-0" x 7'-0"	3/AC2.1	CC	NOTES: 1 & 2
G03	1	3'-0" x 7'-0"	3/AC2.1	CC	NOTES: 1 & 2
G04	1	5'-0" x 7'-0"	3/AC2.1	PADLOCK	-

GENERAL NOTES:
1. ALL GATES ARE SWINGING CHAIN LINK TYPE. SEE SPEC. FOR ADDITIONAL INFORMATION.
2. HARDWARE DESIGNATED AS "CC" DENOTES THE INTEGRATION OF REMOTE ACCESS CONTROLS MANAGED FROM THE MAIN FACILITY CONTROL CENTER. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

OPENING SCHEDULE KEY NOTES:
NOTE 1: SEE ELECTRICAL DRAWINGS FOR POWER CONNECTIONS.
NOTE 2: SEE ELECTRICAL DRAWINGS FOR ACCESS CONTROL ROUGH-INS.

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Engineers | Architects | Surveyors | Scientists

ISSUE:
DATE: DESCRIPTION:

100% Bid Documents

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	LS
DRAWN:	KH
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
OVERALL ARCHITECTURAL SITE PLAN

SHEET NUMBER:
AC1.0

PROJECT NO.: 02401959.001

SPECIAL NOTE:

ALL INFORMATION PROVIDED IN THESE DOCUMENTS CONCERNING ANY WORK DIRECTLY ASSOCIATED WITH THE COMPLETE INSTALLATION OF THE CHAINLINK SECURITY FENCE AND SALLY PORT IS FOR INFORMATION ONLY AND IS NOT INCLUDED IN THIS CONTRACT.

PROJECT ALTERNATES:

*SEE SECTION 01 23 00 ALTERNATE BID ITEMS FOR ADDITIONAL INFORMATION.

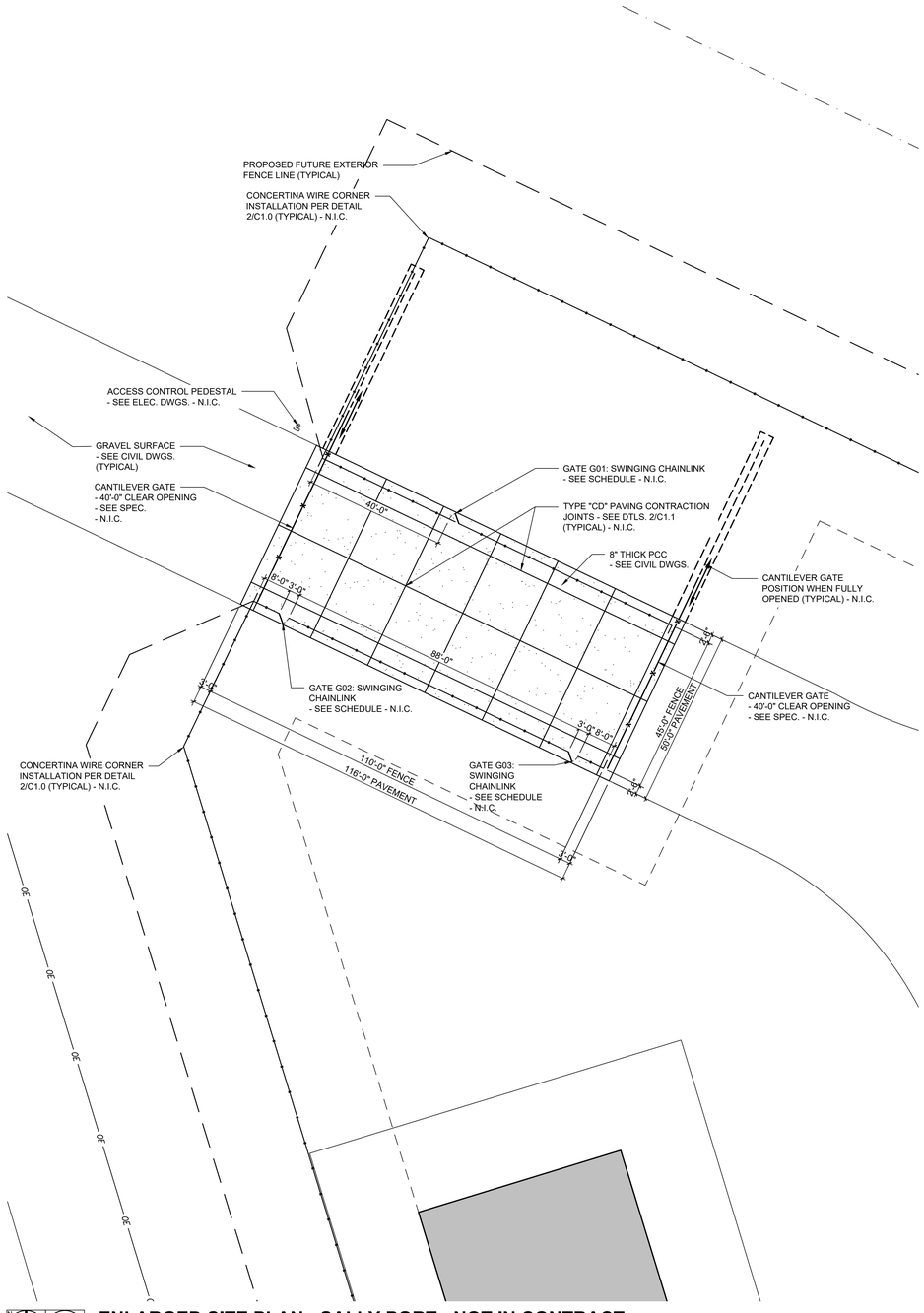
ALTERNATE #1: EXTEND PRODUCTION BUILDING 50'-0" SO OVERALL BUILDING DIMENSIONS ARE 100'-0" x 200'-0".

ALTERNATE #2A: ADD ALL GRADING AND EARTHWORK ON THE NORTH REGION OF THE SITE AS NOTED.

ALTERNATE #2B: RE-SPREAD TOPSOIL AND SEED ALL GRADED AREAS AS NOTED.

ALTERNATE #3: ADD GRAVEL SURFACING AND ELECTRICAL WORK AS NOTED FOR THE NORTH REGION OF THE SITE.

ALTERNATE #4: ELECTRICAL SERVICE AND DISTRIBUTION RE-WORK AT THE NORTH REGION OF THE SITE.



1 ENLARGED SITE PLAN - SALLY PORT - NOT IN CONTRACT

SCALE: 1" = 20'-0"

SALLY PORT GATE OPERATION PROCEDURES:

1. ALL SALLY PORTS SHALL BE CONTROLLED BY STAFF LOCATED IN A SECURE AREA EITHER ADJACENT TO THE GATE OR REMOTELY LOCATED.
2. TWO INDEPENDENTLY OPERATED GATES AND/OR DOORS. THESE GATES/DOORS SHALL BE ELECTRONICALLY, MECHANICALLY, OR PHYSICALLY INTERLOCKED SO THAT ONLY ONE GATE/DOOR MAY BE OPENED AT ONE TIME.
3. ENTERING COMPOUND PROCEDURES:
   - AS A VEHICLE APPROACHES TO ENTER THE SALLY PORT, THE VEHICLE WILL STOP AND PRODUCE A VALID ID IN ORDER TO BE AUTHORIZED INTO THE SALLY PORT. ONCE THE ID HAS BEEN VALIDATED AND THE VEHICLE IS ALLOWED TO ENTER THE SALLY PORT, THE ENTRY GATE MAY BE OPENED.
   - THE ENTERING VEHICLE WILL STOP IN THE SALLY PORT ONCE CLEARED OF THE OPEN GATE AND PRIOR TO THE SECOND GATE. ONCE THE OPEN GATE HAS BEEN RE-SECURED, THE VEHICLE WILL BE THOROUGHLY SEARCHED.
   - ONCE THE SEARCH OF THE VEHICLE IS COMPLETED, THE SECOND GATE CAN BE OPENED TO ALLOW THE VEHICLE TO ENTER.
4. EXITING COMPOUND PROCEDURES:
   - MINUS HAVING TO PRODUCE AN ID, THE OVERALL PROCESS IS REVERSED. ONCE THE VEHICLE IS SECURED IN THE SALLY PORT AREA, THE VEHICLE WILL BE SEARCHED AND ALL INMATES SHALL BE ACCOUNTED FOR PRIOR TO OPENING THE OUTER GATE FOR THE VEHICLE TO EXIT.

GENERAL SITE NOTES:

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4. PLACE 1/2" EXPANSION JOINT MATERIAL (FIBERBOARD) AROUND ALL STRUCTURES (MANHOLES, JUNCTION BOXES, POLES, BOLLARDS, ETC.) IN PAVEMENT; NEXT TO BUILDING, AND ALONG ADJACENT SIDEWALKS.
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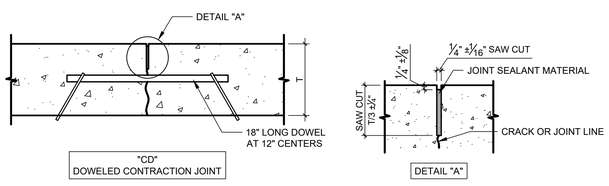
6. PAVEMENT MAY BE REQUIRED TO BE REMOVED AND REPLACED IF PLACED WITHOUT AN APPROVED JOINTING PLAN.
7. LONGITUDINAL JOINTS IN DRIVE LANES SHALL BE TYPE "CD" CONTRACTION JOINTS AND HAVE STEEL. PROVIDE 36" LONG #4 BARS AT 30" CENTERS.



2 PAVING JOINT DETAILS - NOT IN CONTRACT

SCALE: N.T.S.

DEMOLITION NOTES:

1. EXISTING STRUCTURE AND ADJACENT PAVEMENT TO REMAIN. PROTECT DURING CONSTRUCTION.
2. EXISTING UTILITIES TO REMAIN. COORDINATE ANY NECESSARY ADJUSTMENTS WITH THE UTILITY SERVICE PROVIDER AND OWNER. CONTRACTOR SHALL BE RESPONSIBLE OR DETERMINING THE EXISTENCE, EXACT LOCATION AND DEPTH OF UTILITIES IN PROXIMITY OF PROPOSED WORK PRIOR TO CONSTRUCTION.
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SECURITY FENCE NOTES:

1. SECURITY FENCE MATERIALS:
   - RAZOR TAPE: 30" DIAMETER STAINLESS STEEL BARBED TAPE 51 LOOP 5-CLIP 25 FT STAINLESS STEEL CORE WIRE.
   - CONCERTINA (DANNERT) WIRE: BARBED TAPE ASTM F 1910 430 STAINLESS STEEL, .025 INCH (.6MM) THICK X 1 INCH (25MM) WIDE PRIOR TO FORMING, DIE STAMPED TO PRODUCE 4 BARBED POINTS AT 4 INCHES (100MM) ON CENTER. TAPE COLD CLENCHED OVER STAINLESS STEEL CORE WIRE WITH MINIMUM TENSILE STRENGTH OF 220,000 PSI (1,517MPA). 1.2 INCH (30.5MM) MINIMUM LENGTH FOR EACH BARB CONCERT IN A 5-CLIP CONFIGURATION. 30 INCH (750MM) COIL.
     - EACH ROLL OF RAZOR WIRE SHALL CONSIST OF 51 CONTINUOUS LOOPS, WITH ADJACENT LOOPS CLIPPED AT 5 EQUALLY SPACED LOCATIONS AROUND THE CIRCUMFERENCE TO PROVIDE CONCERTINA EFFECT WITH A LOOP SPACING OF 12" (+/- 2"), FOR AN ERECTED LENGTH OF 25FT. (+/- 2FT.) THESE CLIPS ARE INSTALLED IN SUCH A FASHION, AS TO PREVENT THE SLIPPING OF ONE LOOP PAST ANOTHER.
   - BULL RINGS: FABRICATED FROM .065"X .375" AISI T 430 STAINLESS STEEL, THAT ARE CAPABLE OF WITHSTANDING A MINIMUM LOAD OF 200 LBS.
2. RAZOR TAPE/CONCERTINA WIRE SHALL BE INSTALLED ON THE TOP OF EACH FENCE LINE AND PROVIDE QTY. (3) HORIZONTAL ROLLS OF CONCERTINA WIRE ON THE INTERIOR FACE OF EACH PERIMETER FENCE LINES. SECURE HORIZONTAL ROLLS AT THE BOTTOM, MIDDLE AND JUST BELOW THE TOP ROLL OF RAZOR TAPE WITH CONCERTINA BULL RINGS TO THE FENCE.
3. INSIDE CORNER INSTALLATIONS:
   - INSTALL ADDITIONAL CONCERTINA WIRE (AKA DANNERT WIRE) AT EVERY CORNER AROUND THE COMPLEX AS NOTED. PROVIDE EITHER A CONCERTINA ROLL STRAND FROM THE TOP OF THE FENCE RAN VERTICALLY TO THE BOTTOM AND SECURED TO THE FENCE ITSELF WITH CONCERTINA BULL RINGS OR PROVIDE A CRISS-CROSS PATTERN OF CONCERTINA WIRE IN THE CORNERS OF THE FENCES AND SECURED TO THE FENCE FROM TOP TO BOTTOM.
   - SECURE HORIZONTAL ROLLS TO VERTICAL ROLL AT CORNER AND FENCE WITH CORRESPONDING CONCERTINA BULL AND HOG RINGS.

STORM WATER POLLUTION PREVENTION PLAN GENERAL NOTES:

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2. ALL POLLUTION PREVENTION MEASURES REQUIRED, AS A RESULT OF CONSTRUCTION ACTIVITIES, ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL ACTIONS NECESSARY FOR INSTALLATION OF CONTROL MEASURES FOR COMPLIANCE WITH PERMIT REQUIREMENTS.
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4. WASHOUT FACILITIES SHALL BE A MINIMUM OF 50' FROM STORM DRAIN INLETS OR DRAINAGE WAYS.
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6. INSPECTOR SHALL MEET IDNR AND EPA REQUIREMENTS FOR ALL INSPECTION INCLUDING BUT NOT LIMITED TO DISTURBED AREAS, TRACK OUT, ENTRANCE, DISCHARGE POINTS AND STORAGE AREAS.
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9. ANY CONTRACTOR PERFORMING LAND DISTURBING ACTIVITIES WILL SIGN A CONTRACTORS CERTIFICATION STATEMENT PRIOR TO BEGINNING WORK AT THE SITE. ALL CERTIFICATIONS SHALL BE INCLUDED IN THE SWPPP.

CHAINLINK GATE SCHEDULE - N.I.C.

NUMBER	DOOR LEAFS	DOOR SIZE (W x H)	DETAIL	CONTROLS	REMARKS
G01	1	3'-0" x 7'-0"	3/AC2.1	CC + PEDESTAL	NOTES: 1 & 2
G02	1	3'-0" x 7'-0"	3/AC2.1	CC	NOTES: 1 & 2
G03	1	3'-0" x 7'-0"	3/AC2.1	CC	NOTES: 1 & 2
G04	1	5'-0" x 7'-0"	3/AC2.1	PADLOCK	-

GENERAL NOTES:
1. ALL GATES ARE SWINGING CHAIN LINK TYPE. SEE SPEC. FOR ADDITIONAL INFORMATION.
2. HARDWARE DESIGNATED AS "CC" DENOTES THE INTEGRATION OF REMOTE ACCESS CONTROLS MANAGED FROM THE MAIN FACILITY CONTROL CENTER. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

OPENING SCHEDULE KEY NOTES:
NOTE 1: SEE ELECTRICAL DRAWINGS FOR POWER CONNECTIONS.
NOTE 2: SEE ELECTRICAL DRAWINGS FOR ACCESS CONTROL ROUGH-INS.

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Engineers | Architects | Surveyors | Scientists

ISSUE:

#	DATE:	DESCRIPTION:

100% Bid Documents

PROJECT:

State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	LS
DRAWN:	KH
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

ENLARGED ARCHITECTURAL SITE PLAN & DETAILS

SHEET NUMBER:

AC1.1

PROJECT NO.: 02401959.001

SPECIAL NOTE:

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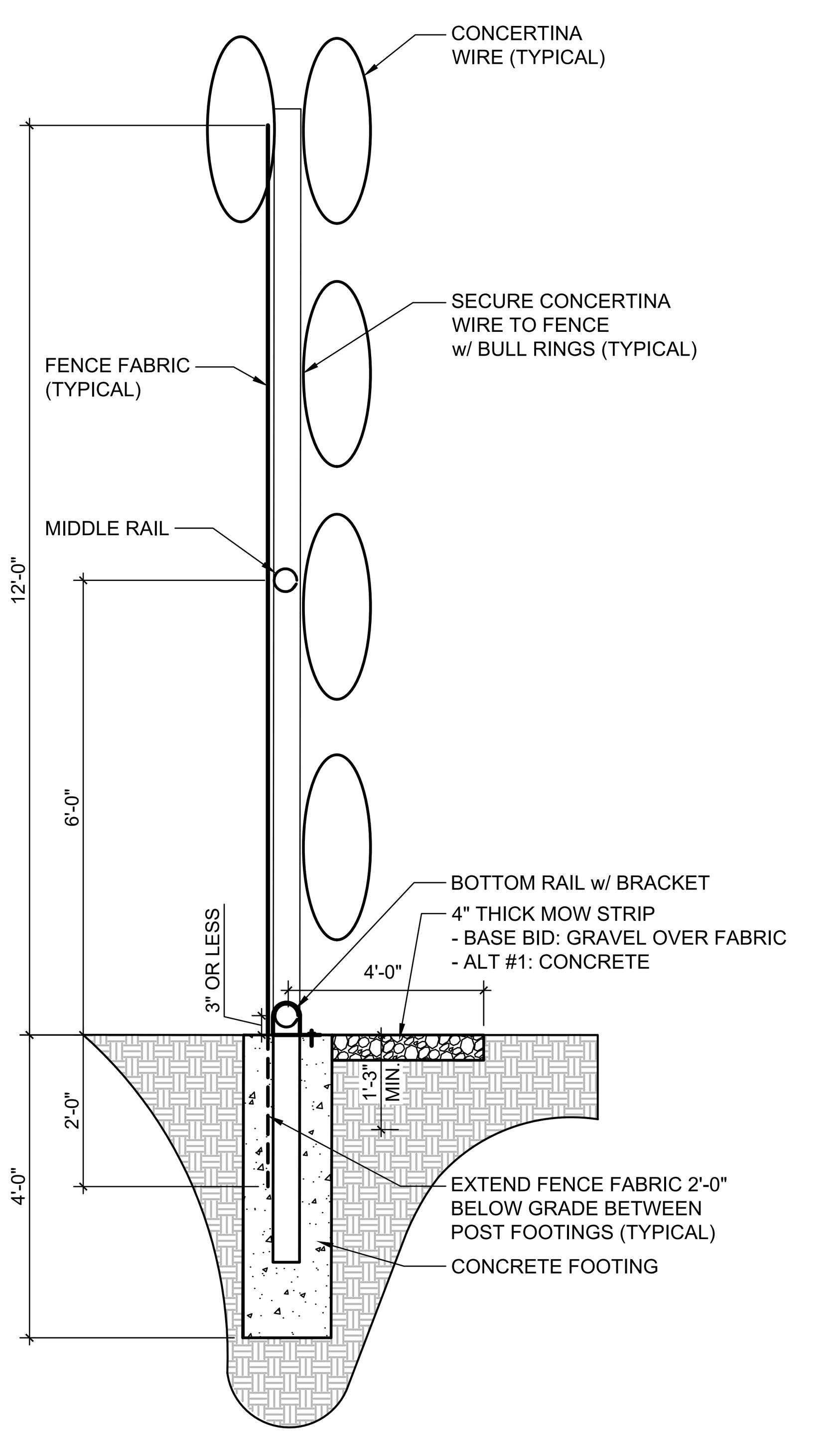
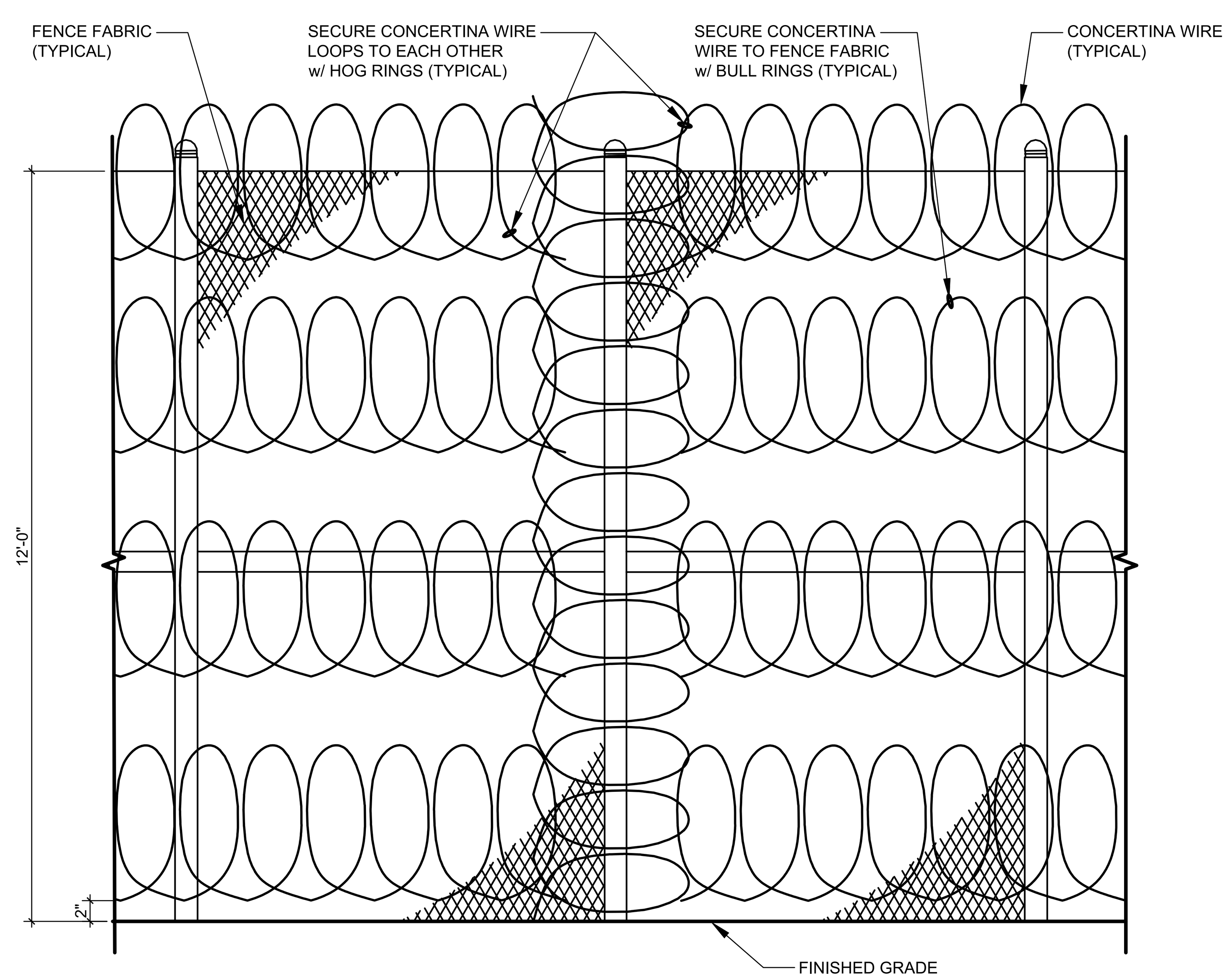
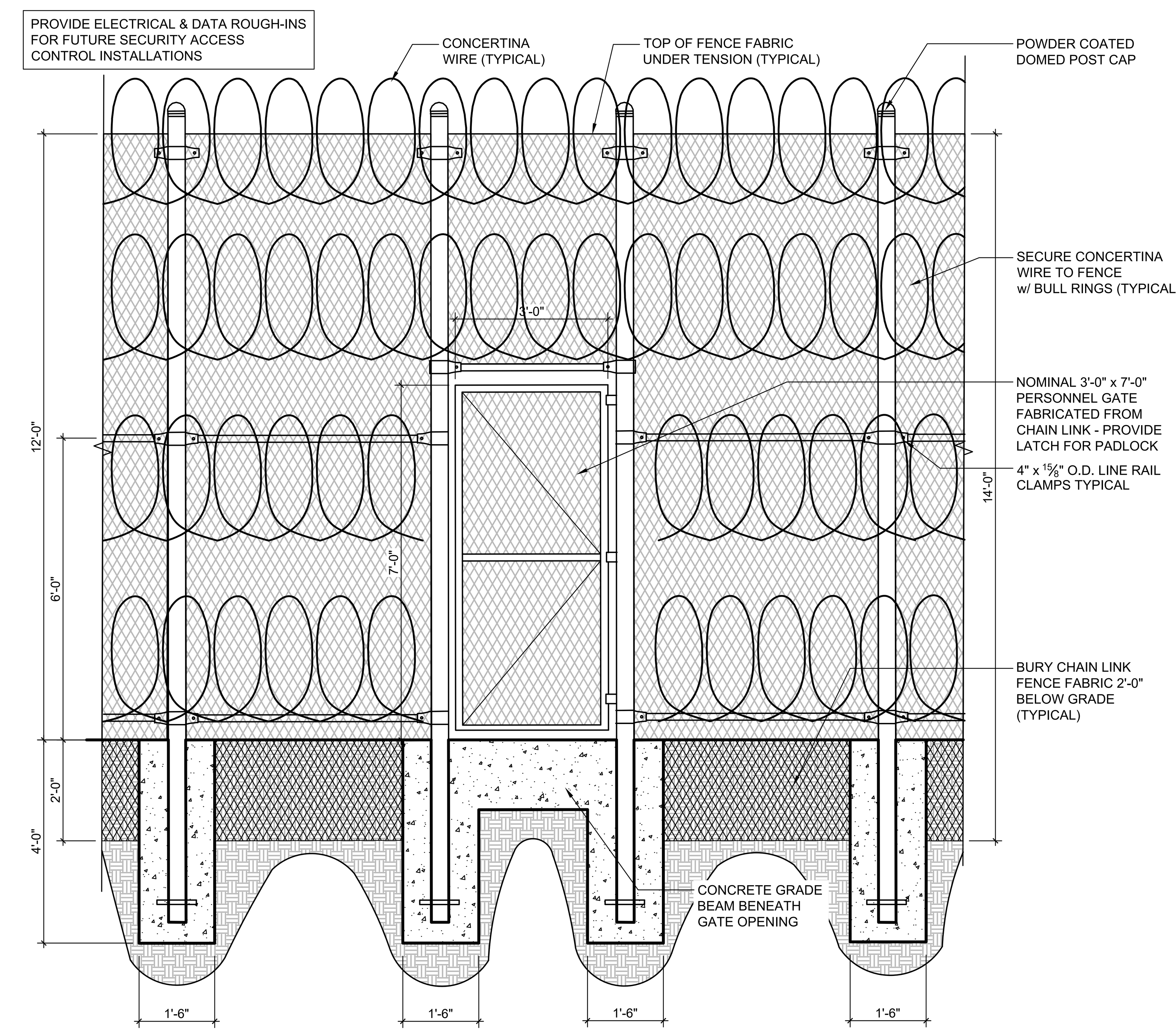


1 **TYPICAL PERIMETER FENCE SECTION**
SCALE: 1/2" = 1'-0"
N CONTRACT



2 **TYPICAL PERIMETER FENCE CORNER ELEVATION - NOT IN CONTRACT**
SCALE: 1/2" = 1'-0"



3 **ELEVATION - TYPICAL 3'-0" SWINGING DOOR - NOT IN CONTRACT**
SCALE: 1/2" = 1'-0"

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Engineers | Architects | Surveyors | Scientists

ISSUE:

#	DATE:	DESCRIPTION:

100% Bid Documents

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	BR
DRAWN:	SD
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
TYPICAL PERIMETER FENCE SECTION & SWINGING GATE ELEVATIONS

SHEET NUMBER:
AC2.1

PROJECT NO.: 02401959.001

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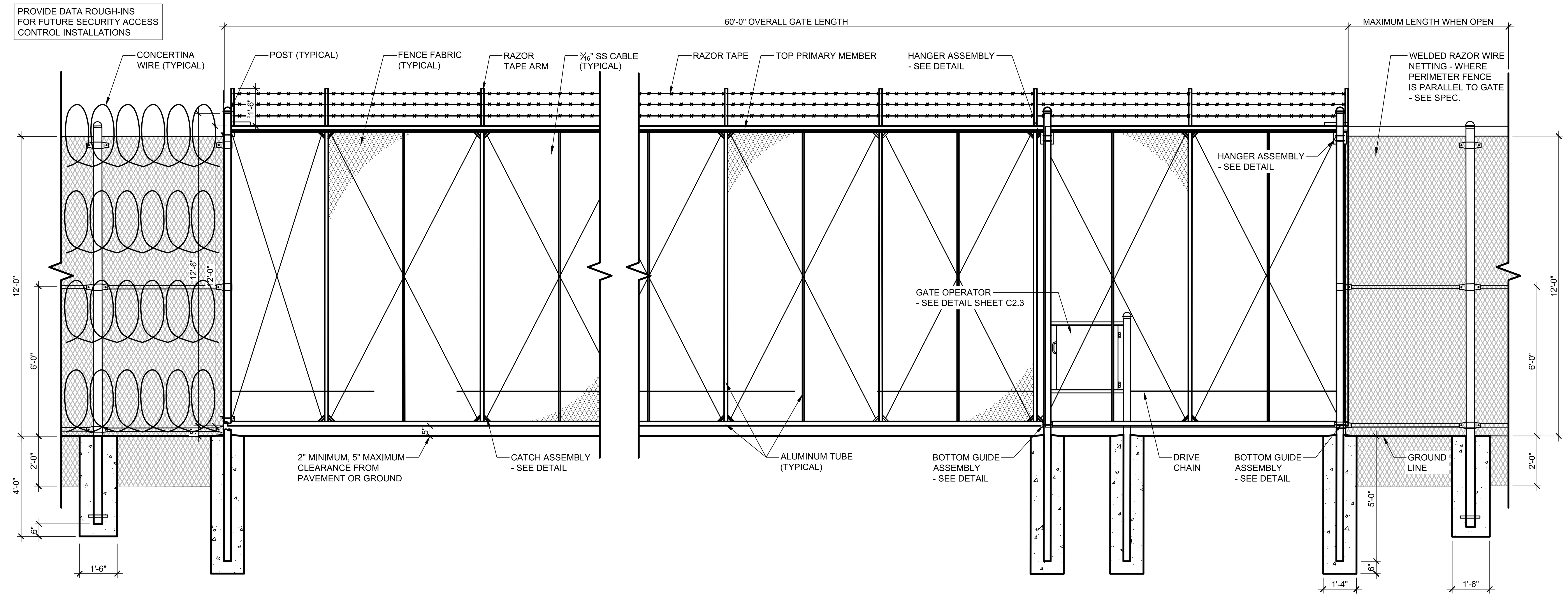
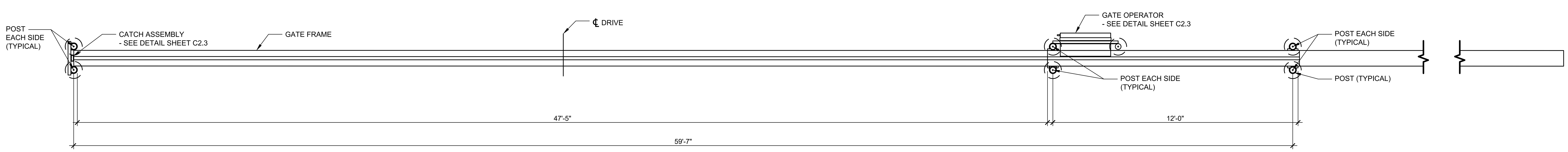
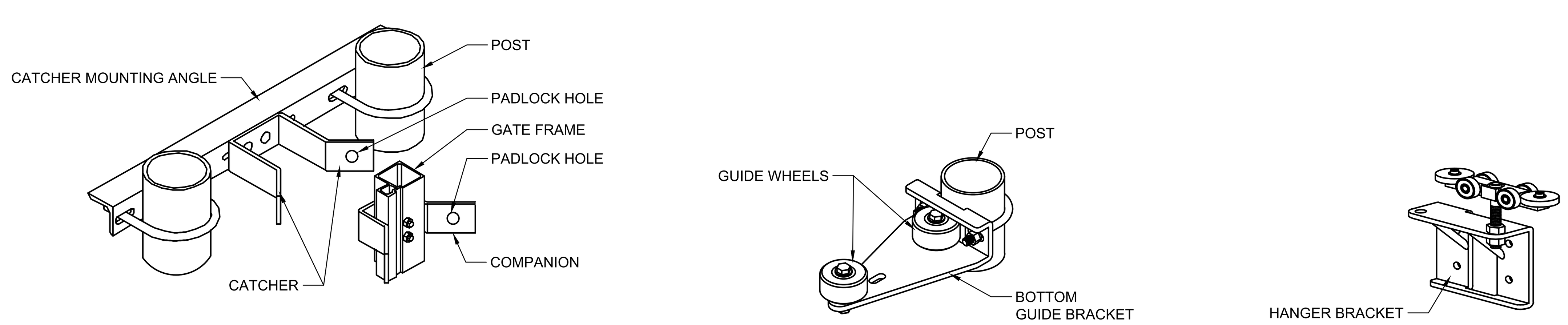
ALL INFORMATION PROVIDED IN THESE DOCUMENTS CONCERNING ANY WORK DIRECTLY ASSOCIATED WITH THE COMPLETE INSTALLATION OF THE CHAINLINK SECURITY FENCE AND SALLY PORT IS FOR INFORMATION ONLY AND IS NOT INCLUDED IN THIS CONTRACT.



1 **AUTOMATIC CANTILEVER GATE - ELEVATION - NOT IN CONTRACT**
SCALE: 3/8" = 1'-0"



2 **AUTOMATIC CANTILEVER SLIDE GATE - PLAN - NOT IN CONTRACT**
SCALE: 3/8" = 1'-0"



CATCH ASSEMBLY

BOTTOM GUIDE ASSEMBLY

GATE HANGER ASSEMBLY

3 **GATE ASSEMBLY COMPONENTS - NOT IN CONTRACT**
SCALE: NOT TO SCALE

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PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	LS
DRAWN:	LS
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
AUTOMATIC CANTILEVER GATE DETAILS

SHEET NUMBER:
AC2.2

PROJECT NO.: 02401959.001

SPECIAL NOTE:

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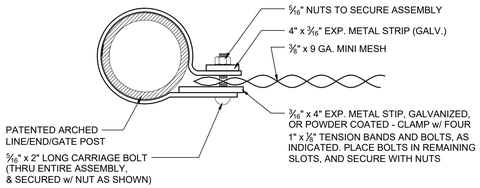
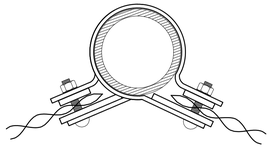
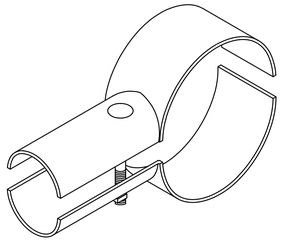


END ASSEMBLY

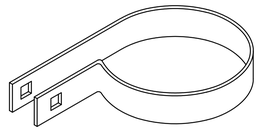


NOTE: CORNER AND END ASSEMBLIES REQUIRE SAME HARDWARE

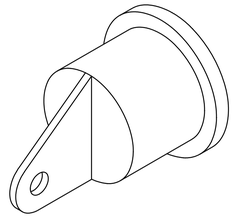
CORNER ASSEMBLY



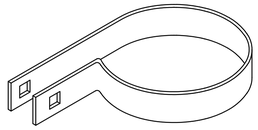
END RAIL CLAMP
POWDER COATED



TENSION BAND
POWDER COATED



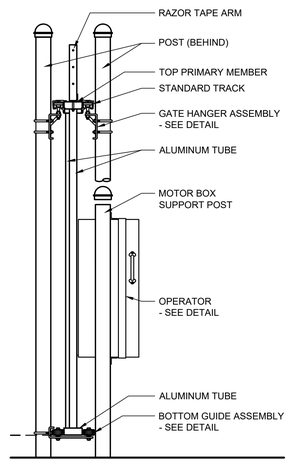
OFFSET RAIL END



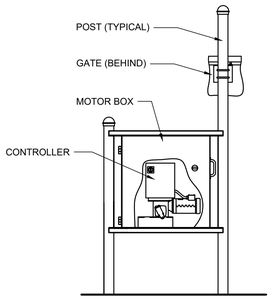
TENSION BAND

1 MISCELLANEOUS FENCE ASSEDMBLY DETAILS - NOT IN CONTRACT

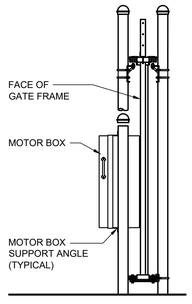
SCALE: NOT TO SCALE



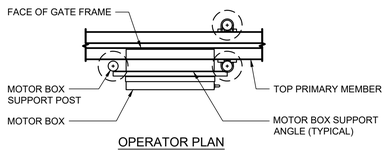
SECTION DETAIL



OPERATOR FRONT ELEVATION



OPERATOR SIDE ELEVATION



OPERATOR PLAN

2 MISCELLANEOUS CANTILEVER GATE DETAILS - NOT IN CONTRACT

SCALE: NOT TO SCALE

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SHEET TITLE:

MISCELLANEOUS CANTILEVER GATE & FENCE ASSEMBLY DETAILS

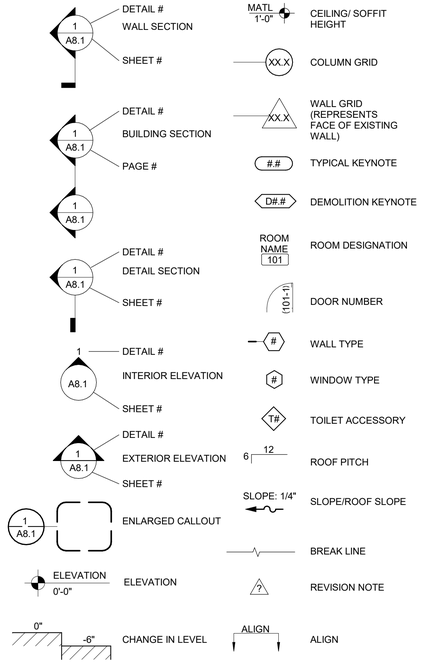
SHEET NUMBER:

AC2.3

PROJECT NO.: 02401959.001

SYMBOLS LEGEND

NOTE: NOT ALL SYMBOLS ARE USED IN CONSTRUCTION DOCUMENTS



ABBREVIATIONS

GENERAL

ACP/APC	ACOUSTIC CEILING PANEL/ ACOUSTIC PANEL CEILING
ACT	ACOUSTIC(AL) TILE
ADJ	ADJUSTABLE
ADT'L	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
AL	ALUMINUM
APPROX	APPROXIMATE(LY)
ASPH	ASPHALT
AUTO	AUTOMATIC
B/O	BOTTOM OF
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BOT	BOTTOM
BRG	BEARING
℄	CENTERLINE
C/C	CENTER TO CENTER
CEM	CEMENT(ITIOUS)
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED, INSTALLED BY OTHERS
CJ	CONTROL JOINT
CLL	CONTRACT LIMIT LINE
CLNG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CTR	CENTER(ED)
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION
DET/DTL	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWNSPOUT
DWG(S)	DRAWING(S)
E	EAST
EA	EACH
EC	ELECTRICAL CONTRACTOR
EHO	ELECTRICAL HOLD OPEN
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EMER	EMERGENCY
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EX/EXST	EXISTING
EXJ	EXPANSION JOINT
EXP	EXPOSED
EXT	EXTERIOR
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FFE	FINISH FLOOR ELEVATION
FIN	FINISH
FLSHG	FLASHING
FLR	FLOOR
FRMG	FRAMING
FT	FOOT/FEET
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERAL
GYP	GYPSUM
HDWR	HARDWARE
HM	HOLLOW METAL
HOL	HOLLOW
HOR	HORIZONTAL
HT	HEIGHT
HVAC	HEATING/VENTILATION/AIR CONDITIONING
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDING
INSUL	INSULATION
INT	INTERIOR
JAN	JANITOR
JT	JOINT
L/S	LANDSCAPE
LAM	PLASTIC LAMINATE
LAV	LAVATORY
LB(S)	POUND(S)
LF	LINEAR FEET (FOOT)
LT	LIGHT
LTTR	LONG-TERM THERMAL RESISTANCE
MAS	MASONRY
MAT'L	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTL	METAL
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, INSTALLED BY OTHERS
O TO O	OUT TO OUT
OPNG	OPENING
OPP	OPPOSITE
OVHD	OVERHEAD
PEB	PRE-ENGINEERED BUILDING
PERIM	PERIMETER
PFIN	PREFINISHED
PJF	PREFORMED JOINT FILLER
PL	PLATE
PLBG	PLUMBING
PLYWD	PLYWOOD
PNT	PAINT
PR	PAIR
PT	PRESSURE TREATED
PTD	PAINTED
PWR	POWER
RAD	RADIUS
RB	RUBBER BASE
REC	RECESSED
REINF	REINFORCED
REQ'D	REQUIRED
REV	REVISED (REVISION)
RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
RV	DRYWALL/MILLWORK REVEAL
S	SOUTH
SB	SPLASH BLOCK
SF	SQUARE FEET (FOOT)
SIM	SIMILAR
SPEC	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SY	SQUARE YARD(S)
T/O	TOP OF
T&G	TONGUE AND GROOVE
TELE	TELEPHONE
TRTD	TREATED
TS	TUBE STEEL
TYP	TYPICAL
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
W	WEST
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER
WT	WEIGHT
WWF	WELDED WIRE FABRIC

GENERAL NOTES

A. REFER TO LIFE SAFETY SHEETS FOR LIFE SAFETY INFORMATION. LS1.1

B. CONTRACTOR TO PROVIDE ALL ADDITIONAL FRAMING NECESSARY FOR ALL OPENINGS AND SUPPLEMENTAL FRAMING ABOVE PARTITIONS.

C. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR SYSTEM RELATED PENETRATIONS NOT SHOWN.

D. TEMPORARY BARRICADES AS PERTAINING TO CONTRACTOR'S ACTIVITIES SHALL BE INSTALLED TO PREVENT POSSIBLE INJURY TO PERSONS IN AND AROUND DEMOLITION AND CONSTRUCTION AREAS IN ACCORDANCE WITH OSHA REQUIREMENTS. COORDINATE WITH OWNER.

E. AT CONSTRUCTION ACCESS, CONTRACTOR TO PROVIDE LABOR AND MATERIALS TO REPAIR ALL DISTURBED ELEMENTS.

F. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO PROVIDE COMPLETE WORKING SYSTEMS FOR ALL NEW ELEMENTS AND TO COORDINATE THEIR WORK WITH ALL OTHER TRADES.

G. ALL CONTRACTORS SHALL PROVIDE NEW, UNDAMAGED MATERIALS UNLESS OTHERWISE SPECIFIED.

H. STORE MATERIALS IN SUCH A MANNER AS NOT TO OVERSTRESS, OVERLOAD, OR OTHERWISE PUT AN UNSAFE LOAD ON ANY STRUCTURE DURING CONSTRUCTION.

I. INSTALL ALL WORK IN ACCORDANCE WITH CURRENT APPLICABLE CODES, PUBLISHED STANDARDS, AND ACCEPTABLE CONSTRUCTION STANDARDS.

J. DETAILS ARE GENERALLY TYPICAL AND ARE NOT TO BE CONSTRUED AS LIMITED TO THOSE AREAS SPECIFICALLY INDICATED. REVIEW ANY QUESTIONS OR CONFLICTING INFORMATION WITH THE DESIGN PROFESSIONAL PRIOR TO FABRICATION OR INSTALLATION.

K. HINGE SIDE OF DOOR JAMBS TO BE LOCATED 4" FROM NEAREST WALL INTERSECTION UNLESS OTHERWISE NOTED.

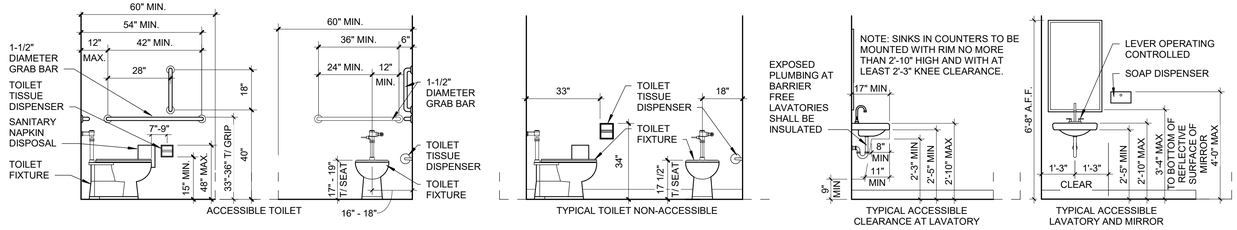
BID ALTERNATES

REFERENCE SECTION 01 22 00 - UNIT PRICES AND 01 23 00 - ALTERNATES OF THE PROJECT MANUAL FOR THE SCHEDULE OF BID ALTERNATES TO BE INCLUDED WITH THE BID PACKAGE

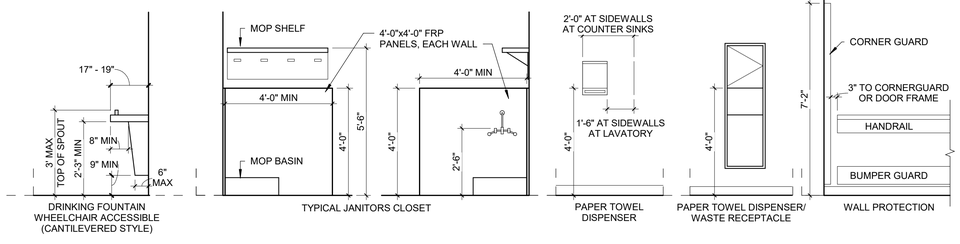
DEFERRED SUBMITTALS

THE FOLLOWING SYSTEMS ARE A DESIGN/BUILD RESPONSIBILITY OF THE CONTRACTOR OR PRODUCT MANUFACTURER AND WILL REQUIRE THE DEFERRED SUBMITTAL OF DESIGN WORK TO THE CITY OF ANYWHERE FOR PLAN REVIEW AND PERMITTING:

1. FIRE SPRINKLER SYSTEMS
2. FIRE ALARM SYSTEMS



NOTES:
1. FIXTURES SHOWN ARE FOR REFERENCE ONLY AND ARE NOT PROJECT SPECIFIC. SEE MECHANICAL DRAWINGS AND SCHEDULES FOR FIXTURE TYPES.
2. MOUNTING HEIGHTS ARE TO BE COMPLIANT WITH 2010 ADA, ICC/ANSI A117.1-2007 AND THE STATE ACCESSIBILITY CODE. PROVIDE ALL NECESSARY CONCEALED BLOCKING AND REINFORCEMENT FOR THE SECURE INSTALLATION OF ALL EQUIPMENT AND ACCESSORIES.
3. EXPOSED PLUMBING BARRIER FREE LAVATORIES MUST BE INSULATED OR OTHERWISE CONFIGURED TO ELIMINATE POSSIBLE CONTACT.
4. SEE TOILET ACCESSORY SCHEDULE AND RESTROOM ELEVATIONS, A8.1



0 STANDARD MOUNTING HEIGHTS

SCALE: 3/8" = 1'-0"

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SHEET TITLE:

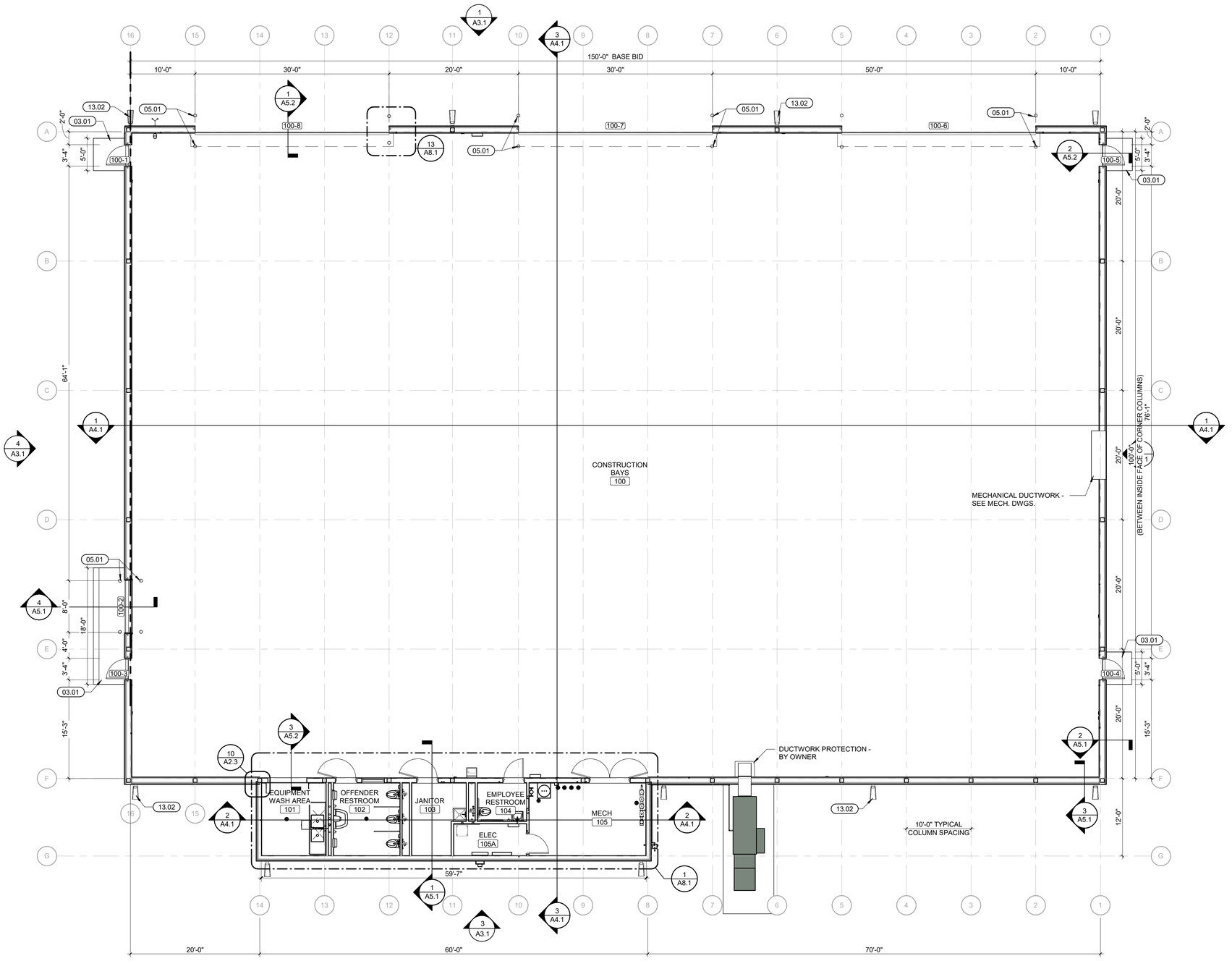
GENERAL INFORMATION

SHEET NUMBER:

A0.1

PROJECT NO.: 02401959.001

7/22/2025 10:00:42 AM



OVERALL FLOOR PLAN - BASE BID

SCALE: 1/8" = 1'-0"

0 4 8 16

PLAN NORTH

7/22/2025 10:00:42 AM

PLAN GENERAL NOTES

A. ALL INTERIOR PARTITIONS ARE TYPE 1 UNLESS OTHERWISE NOTED OR SHOWN.

B. ALL DIMENSIONS ARE TO FACE OF STUD, AND/OR CONCRETE UNLESS NOTED OTHERWISE.

C. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.

D. ALL NEW WORK SHALL BE PLUMB TRUE, AND LEVEL UNLESS OTHERWISE NOTED.

E. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTES (BY DIVISION) #.#

DIVISION 03	
03.01	**REINFORCED CONCRETE STOOP, SEE STRUCTURAL**
DIVISION 05	
05.01	**CONCRETE FILLED STEEL PIPE BOLLARD W/ HDPE COVER - SEE DETAIL 4/A5.2**
DIVISION 13	
13.01	**PREFINISHED METAL GUTTER**
13.02	**PREFINISHED METAL DOWNSPOUT AND SPLASH BLOCK**
DIVISION 22	
22.01	**ELECTRIC WATER COOLER WITH BOTTLE FILLER, SEE PLUMBING DRAWINGS.**

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OVERALL FLOOR PLAN - BASE BID

SHEET NUMBER:

A1.1

PROJECT NO.: 02401959.001

KEYNOTES (BY DIVISION)

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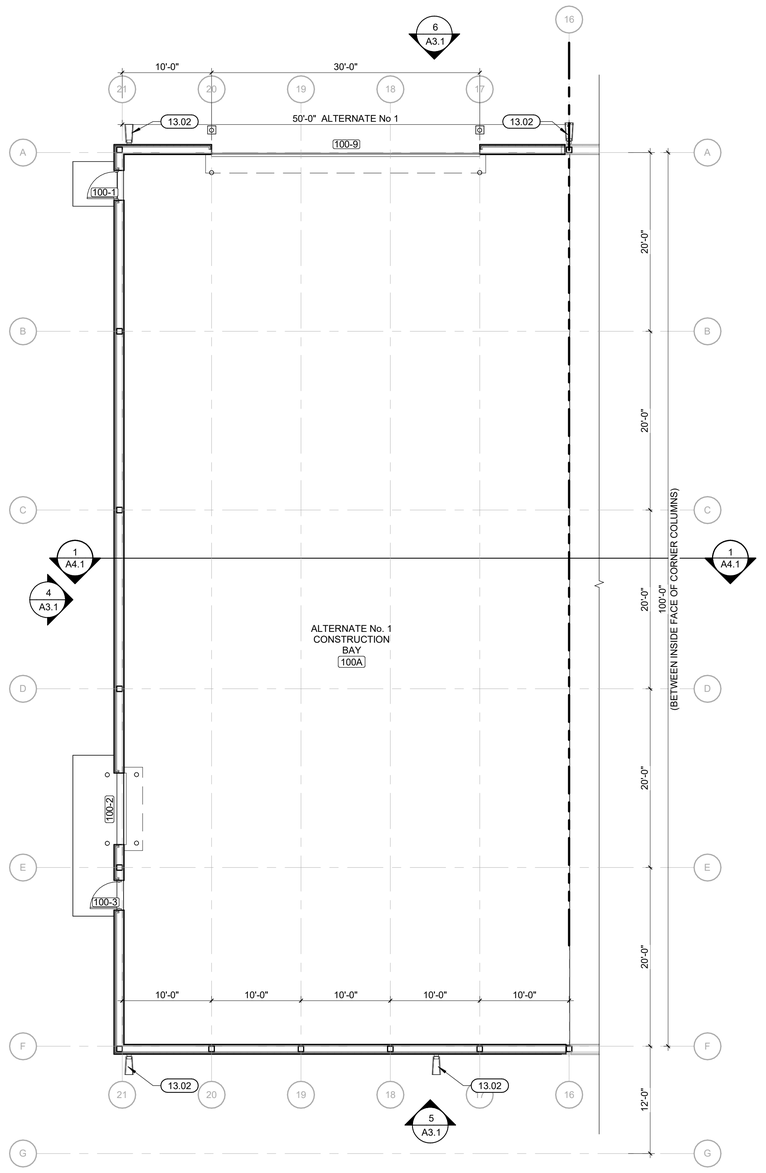

1 **OVERALL FLOOR PLAN**
SCALE: 1/8" = 1'-0"

0 4 8 16

PLAN NORTH

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SHEET TITLE:

OVERALL FLOOR PLAN - ALTERNATE No.1

SHEET NUMBER:

A1.2

PROJECT NO.: 02401959.001

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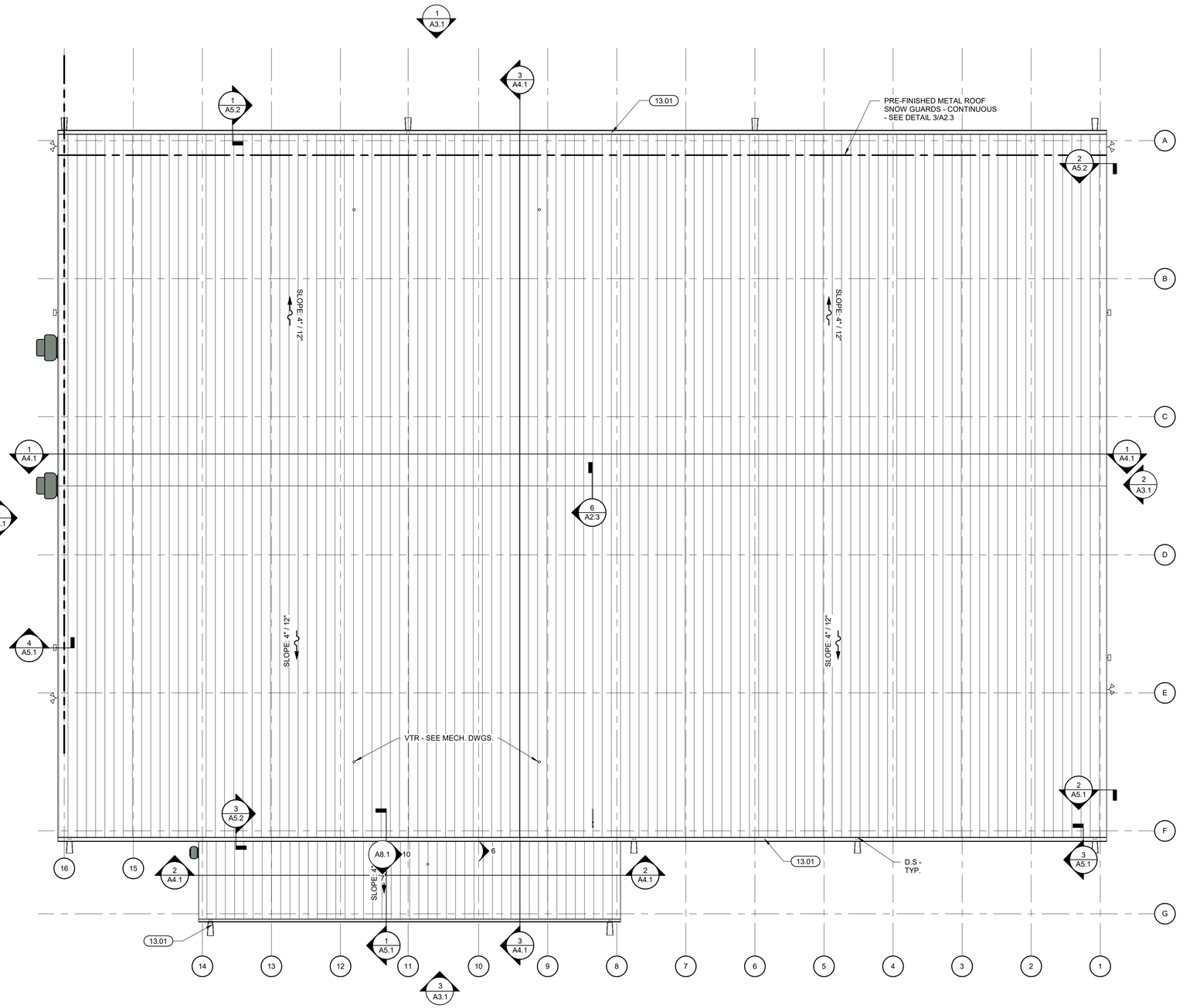

1 **ROOF PLAN**
SCALE: 1/8" = 1'-0"

0 4 8 16

PLAN NORTH

ROOF GENERAL NOTES

A. COORDINATE ALL ROOF PENETRATION REQUIREMENTS, INCLUDING THOSE THAT MAY NOT BE SHOWN, WITH ROOFING CONTRACTOR, AND MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.

B. ALL ROOF PENETRATIONS TO BE IN COMPLIANCE WITH MANUFACTURER AND NRCA REQUIREMENTS.

C. ROOFING COMPONENTS MAY VARY DEPENDING ON ROOFING MANUFACTURER. CONTRACTOR SHALL INSTALL A COMPLETE CODE COMPLIANT AND WARRANTIED ROOFING SYSTEM BASED ON THE SPECIFIED ROOFING MANUFACTURERS WRITTEN INSTRUCTIONS AND INSTALLATION GUIDELINES.

D. PROVIDE MINIMUM 15'-0" CLEARANCE FROM ANY INTAKE FOR ALL EQUIPMENT AND VENT STACKS. ALERT DESIGN PROFESSIONAL OF ANY CONFLICTS PRIOR TO CONSTRUCTION.

E. ONCE ROOF WORK BEGINS, THE CONTRACTOR IS ACCEPTING ALL CONDITIONS AND WILL BE RESPONSIBLE FOR ALL DEMOLITION AND NEW WORK REQUIRED TO PROVIDE A WATERTIGHT ROOF SYSTEM.

F. THE CONTRACTOR SHALL ENSURE THAT UPON COMPLETION OF ROOF WORK, ALL GUTTERS AND DOWNSPOUTS ARE CLEAN AND CLEAR OF DEBRIS TO PROVIDE AN UNOBSTRUCTED, FREE FLOW OF WATER.

ROOF PLAN LEGEND

SLOPE: 1/4" — INDICATES ROOF SLOPE

KEYNOTES (BY DIVISION) #.#

DIVISION 03	
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DIVISION 05	
05.01	**CONCRETE FILLED STEEL PIPE BOLLARD W/ HDPE COVER - SEE DETAIL 4/A5.2**
DIVISION 13	
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DIVISION 22	
22.01	**ELECTRIC WATER COOLER WITH BOTTLE FILLER, SEE PLUMBING DRAWINGS.**

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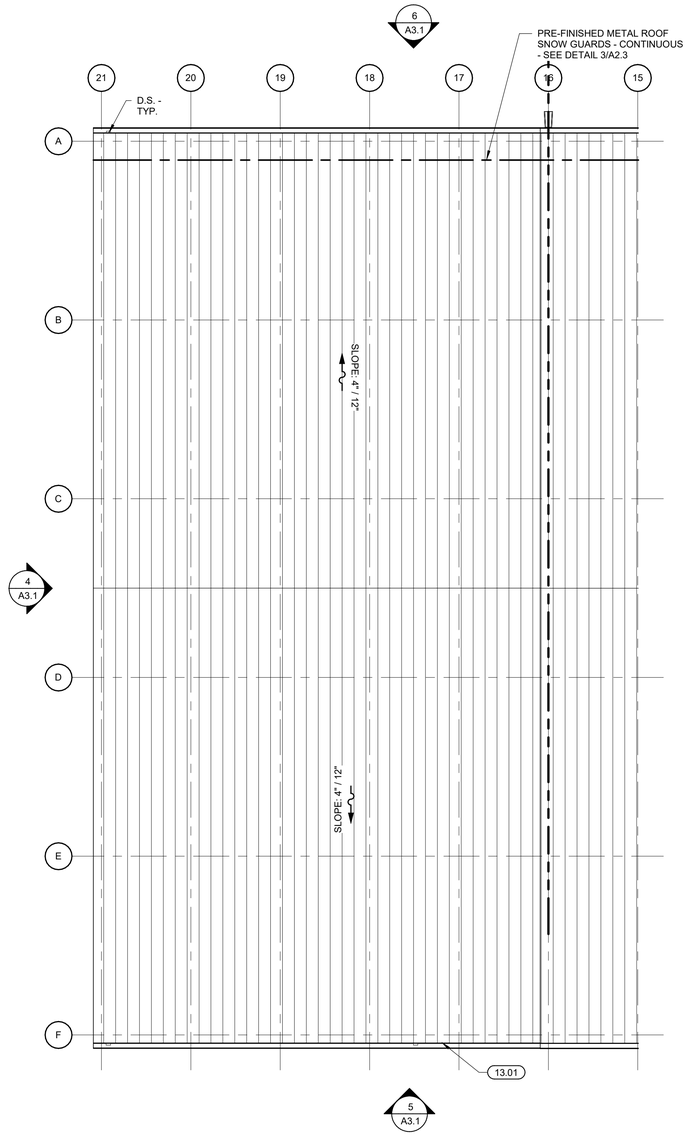

ROOF GENERAL NOTES

A. COORDINATE ALL ROOF PENETRATION REQUIREMENTS, INCLUDING THOSE THAT MAY NOT BE SHOWN, WITH ROOFING CONTRACTOR, AND MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.

B. ALL ROOF PENETRATIONS TO BE IN COMPLIANCE WITH MANUFACTURER AND NRCA REQUIREMENTS.

C. ROOFING COMPONENTS MAY VARY DEPENDING ON ROOFING MANUFACTURER. CONTRACTOR SHALL INSTALL A COMPLETE CODE COMPLIANT AND WARRANTIED ROOFING SYSTEM BASED ON THE SPECIFIED ROOFING MANUFACTURERS WRITTEN INSTRUCTIONS AND INSTALLATION GUIDELINES.

D. PROVIDE MINIMUM 15'-0" CLEARANCE FROM ANY INTAKE FOR ALL EQUIPMENT AND VENT STACKS. ALERT DESIGN PROFESSIONAL OF ANY CONFLICTS PRIOR TO CONSTRUCTION.

E. ONCE ROOF WORK BEGINS, THE CONTRACTOR IS ACCEPTING ALL CONDITIONS AND WILL BE RESPONSIBLE FOR ALL DEMOLITION AND NEW WORK REQUIRED TO PROVIDE A WATERTIGHT ROOF SYSTEM.

F. THE CONTRACTOR SHALL ENSURE THAT UPON COMPLETION OF ROOF WORK, ALL GUTTERS AND DOWNSPOUTS ARE CLEAN AND CLEAR OF DEBRIS TO PROVIDE AN UNOBSTRUCTED, FREE FLOW OF WATER.

ROOF PLAN LEGEND

SLOPE: 1/4" — INDICATES ROOF SLOPE

KEYNOTES (BY DIVISION) #.#

DIVISION 03	
03.01	**REINFORCED CONCRETE STOOP, SEE STRUCTURAL**
DIVISION 05	
05.01	**CONCRETE FILLED STEEL PIPE BOLLARD W/ HDPE COVER - SEE DETAIL 4/A5.2**
DIVISION 13	
13.01	**PREFINISHED METAL GUTTER**
13.02	**PREFINISHED METAL DOWNSPOUT AND SPLASH BLOCK**
DIVISION 22	
22.01	**ELECTRIC WATER COOLER WITH BOTTLE FILLER, SEE PLUMBING DRAWINGS.**

1 **ROOF PLAN - ALTERNATE No. 1**
SCALE: 1/8" = 1'-0"

0 4 8 16 PLAN NORTH

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ROOF PLAN - ALTERNATE No. 1

SHEET NUMBER:
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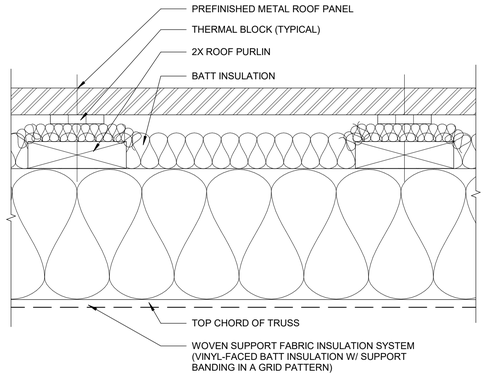
PROJECT NO.: 02401959.001

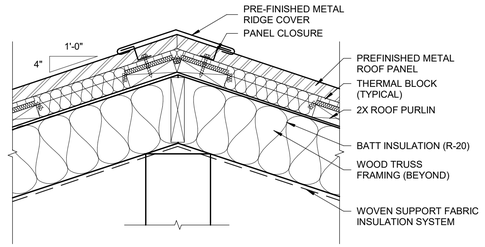
7/22/2025 10:00:43 AM



NOTE: WALL INSULATION CONDITION SIMILAR TO ROOF INSTALLATION

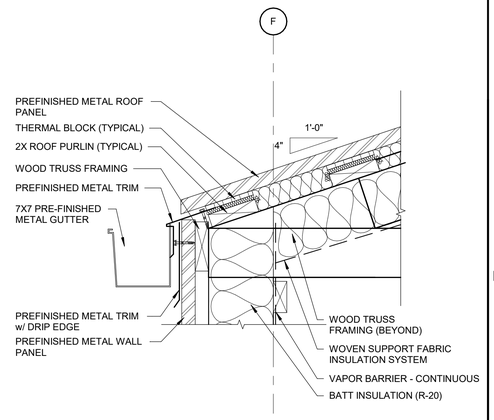
9 TYPICAL ROOF INSULATION SECTION

SCALE: 3" = 1'-0"



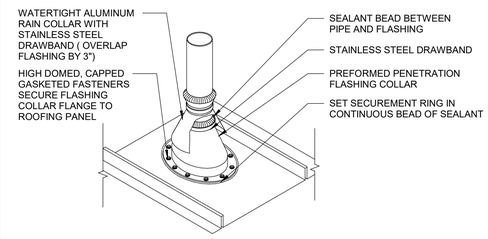
6 RIDGE DETAIL

SCALE: 1 1/2" = 1'-0"



3 UPPER ROOF GUTTER DETAIL

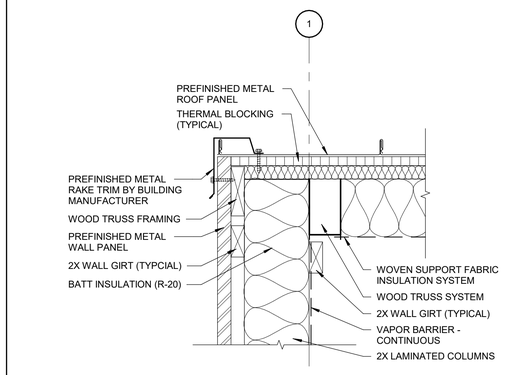
SCALE: 1 1/2" = 1'-0"



NOTES:
1. VENT STACKS AND OTHER PIPES SHALL HAVE A MINIMUM OF 12 INCHES OF CLEARANCE ON ALL SIDES FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. VALIDATE WITH MANUFACTURERS STANDARD STANDING SEAM METAL ROOF PENETRATION DETAILS

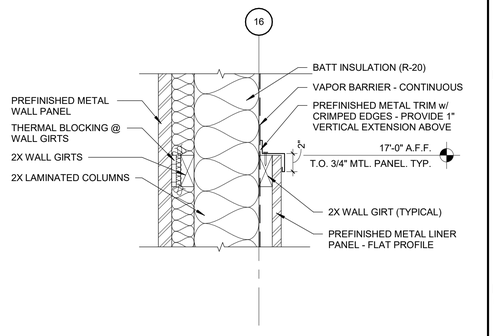
8 TYPICAL METAL ROOF PENETRATION

SCALE: 1 1/2" = 1'-0"



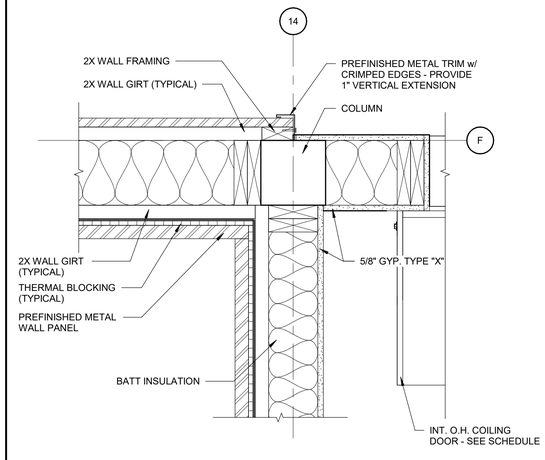
5 GABLE TRIM DETAIL

SCALE: 1 1/2" = 1'-0"



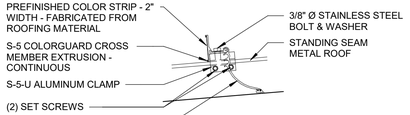
2 METAL LINER PANEL TRANSITION DETAIL

SCALE: 1 1/2" = 1'-0"



10 WALL CONNECTION

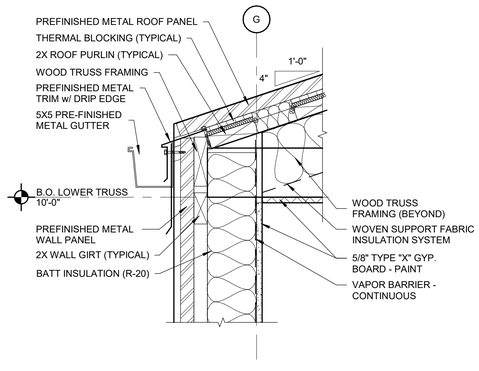
SCALE: 1 1/2" = 1'-0"



NOTES:
1. CLAMP-ON SNOW GUARD SYSTEM SHALL NOT PUNCTURE OR PENETRATE ROOF PANELS OR RIBS.
2. SEE ROOF PLAN FOR LOCATIONS.

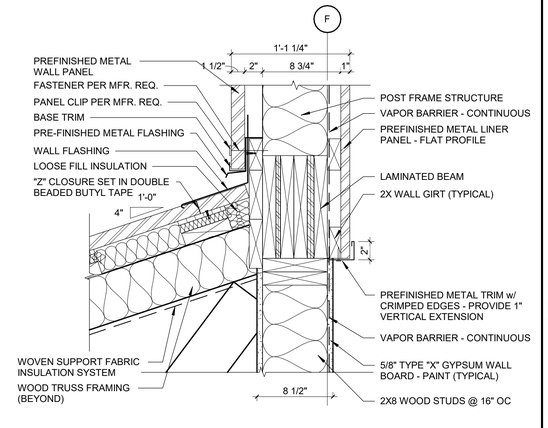
7 SNOW GUARD DETAIL

SCALE: 3" = 1'-0"



4 LOWER ROOF GUTTER DETAIL

SCALE: 1 1/2" = 1'-0"



1 ROOF TRANSITION DETAIL

SCALE: 1 1/2" = 1'-0"

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ROOF DETAILS

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PROJECT NO.: 02401959.001

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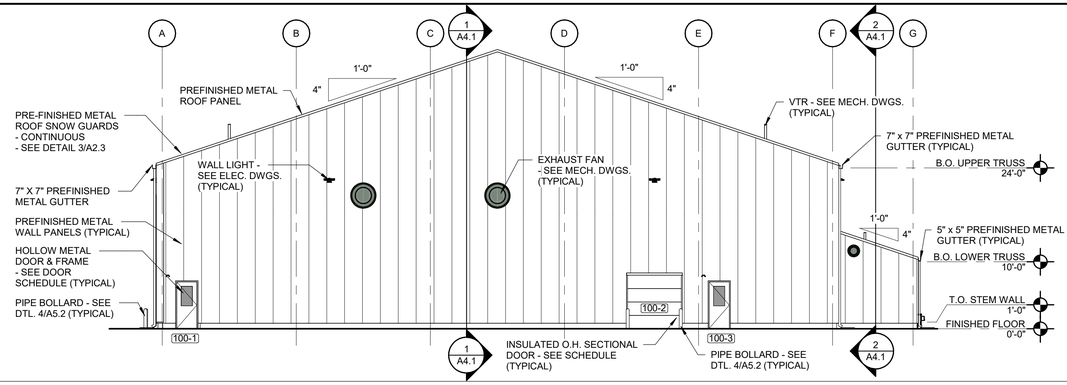
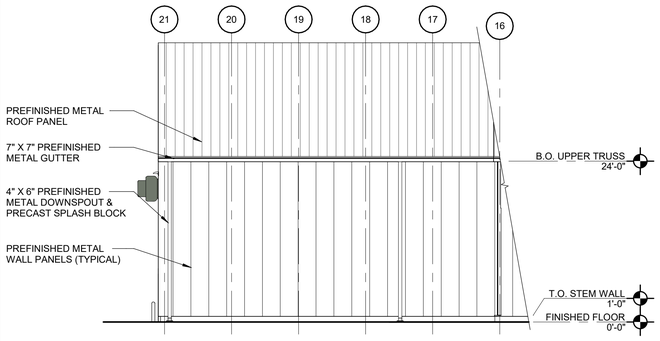


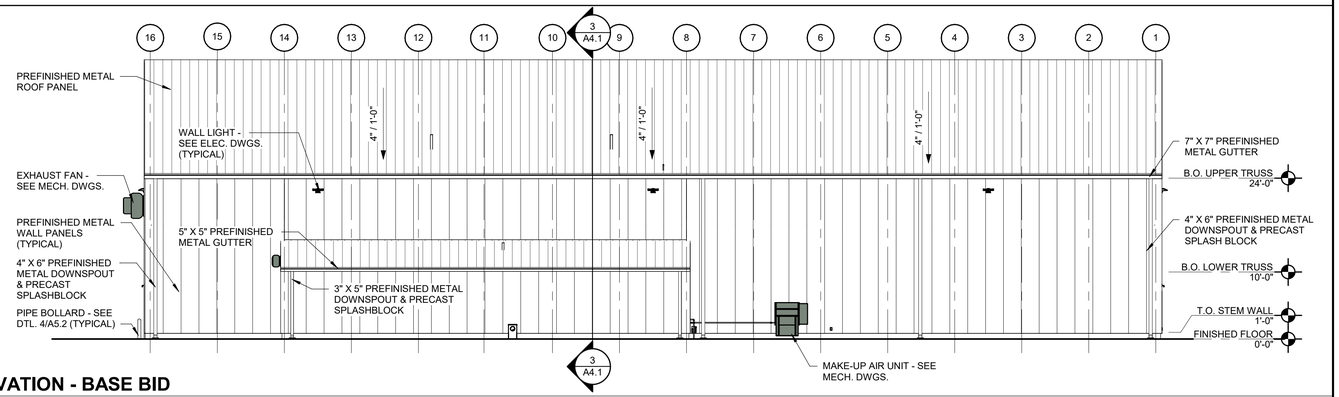
4 WEST ELEVATION

SCALE: 3/32" = 1'-0"



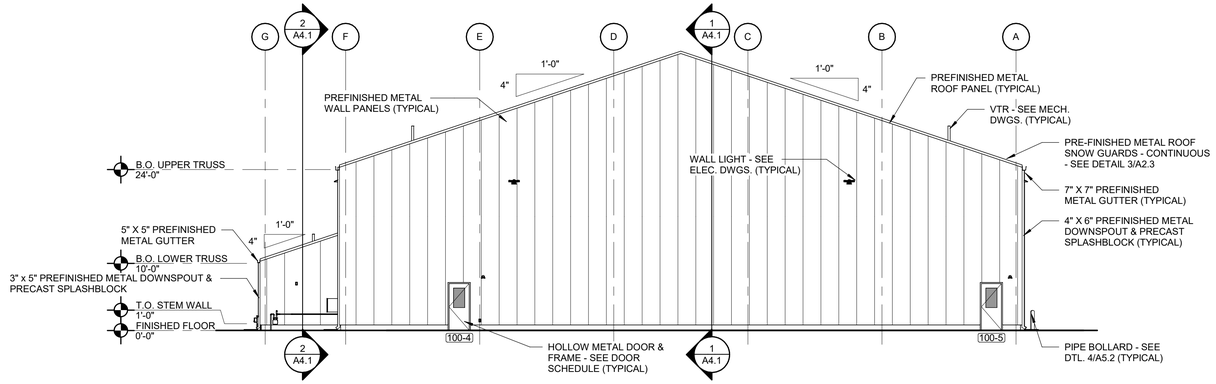
5 SOUTH ELEVATION - ALTERNATE

SCALE: 3/32" = 1'-0"



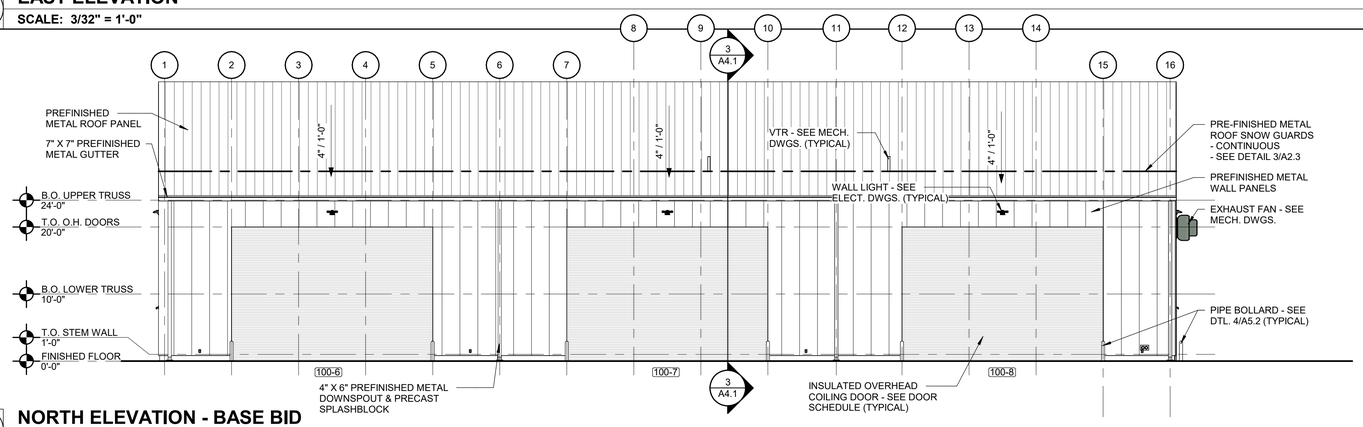
3 SOUTH ELEVATION - BASE BID

SCALE: 3/32" = 1'-0"



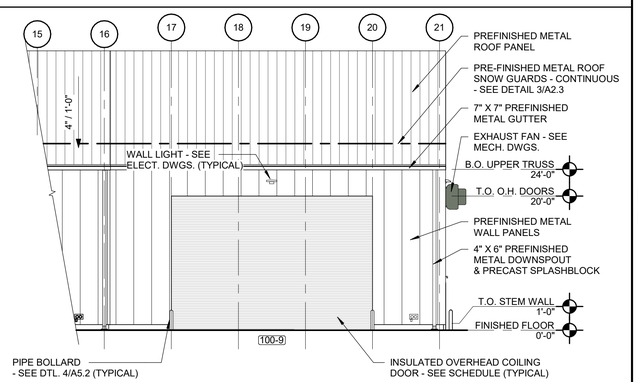
2 EAST ELEVATION

SCALE: 3/32" = 1'-0"



1 NORTH ELEVATION - BASE BID

SCALE: 3/32" = 1'-0"



6 NORTH ELEVATION - ALTERNATE

SCALE: 3/32" = 1'-0"

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EXTERIOR ELEVATIONS

SHEET NUMBER:

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PROJECT NO.: 02401959.001

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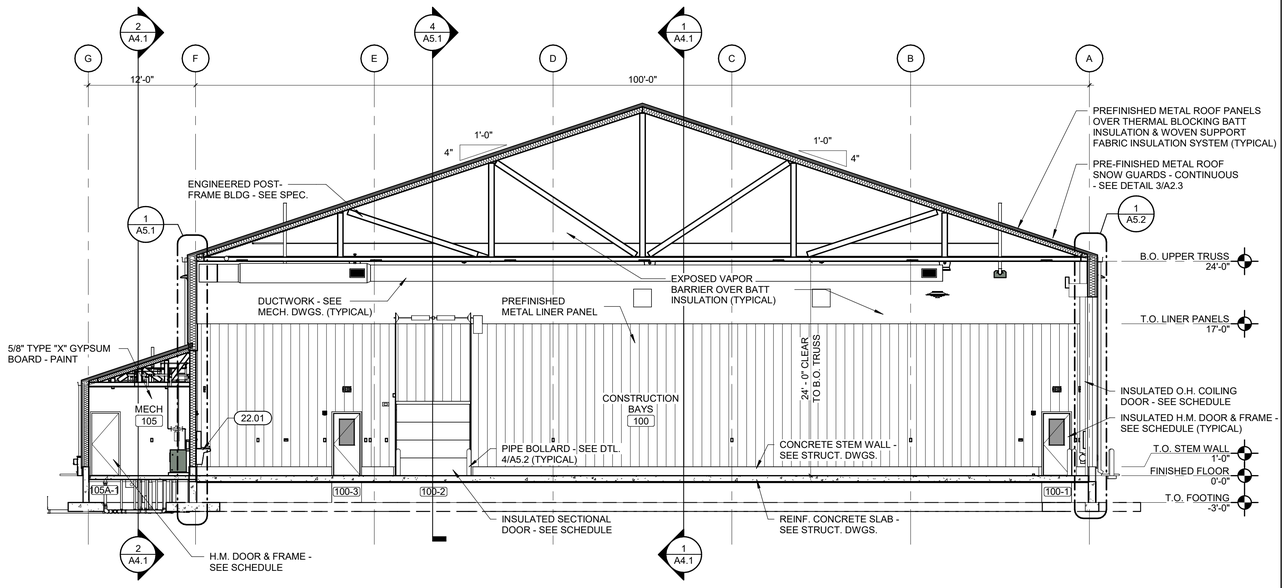
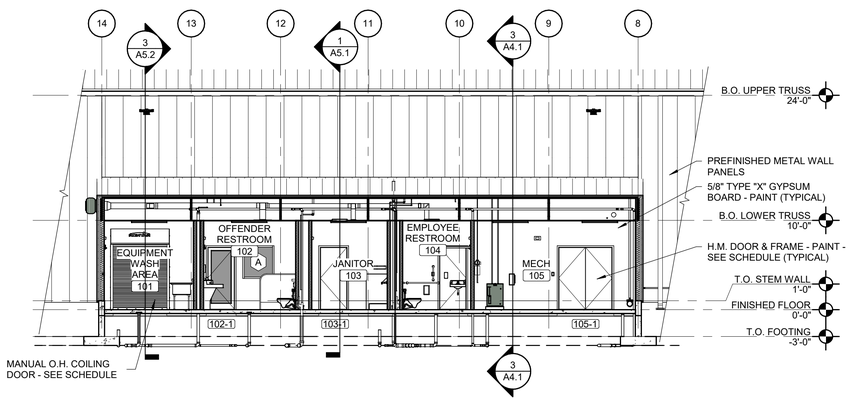


3 TYPICAL OVERALL BUILDING SECTION

SCALE: 1/8" = 1'-0"



2 TYPICAL BUILDING SECTION

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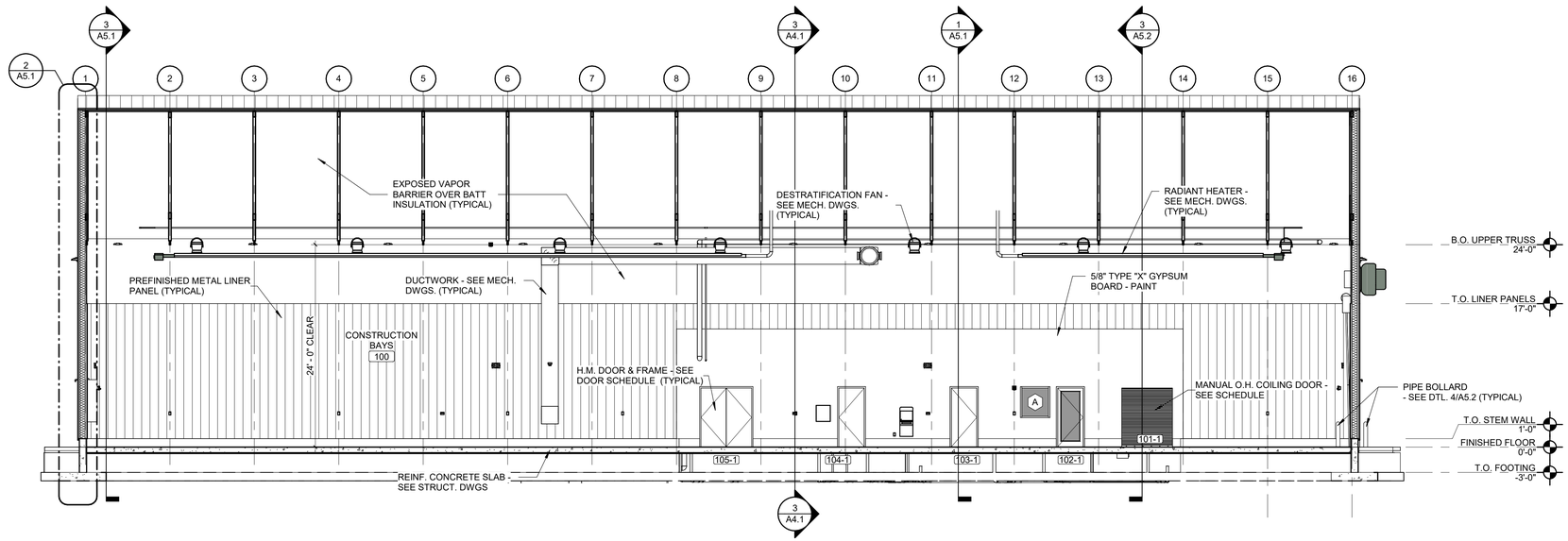

1 OVERALL BUILDING SECTION

SCALE: 1/8" = 1'-0"

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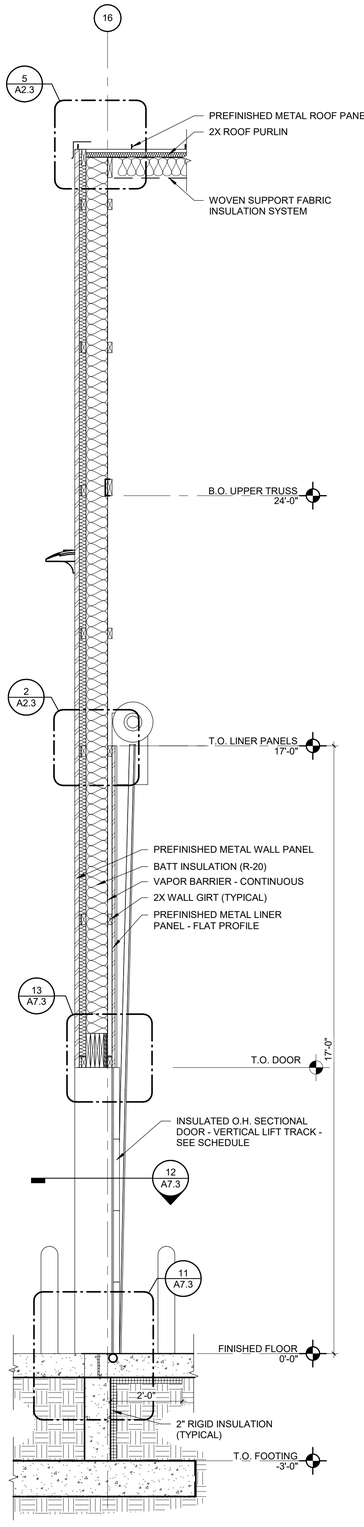
BUILDING SECTIONS

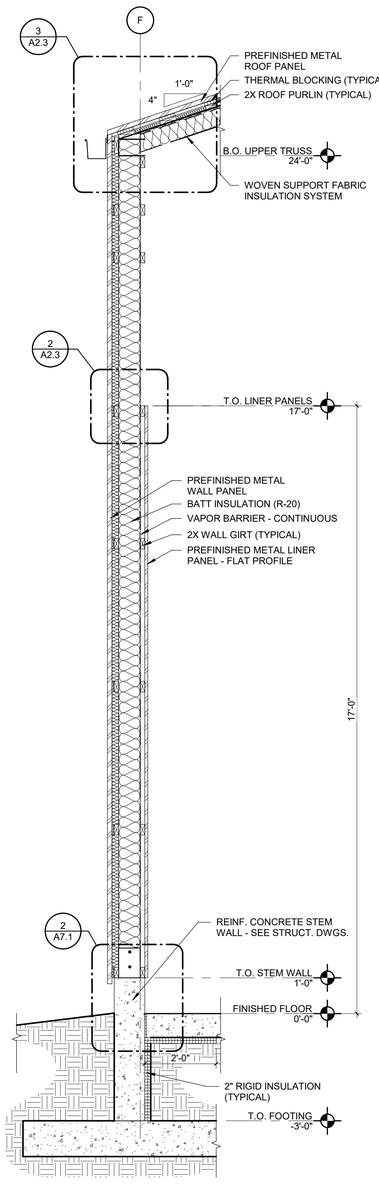
SHEET NUMBER:

A4.1

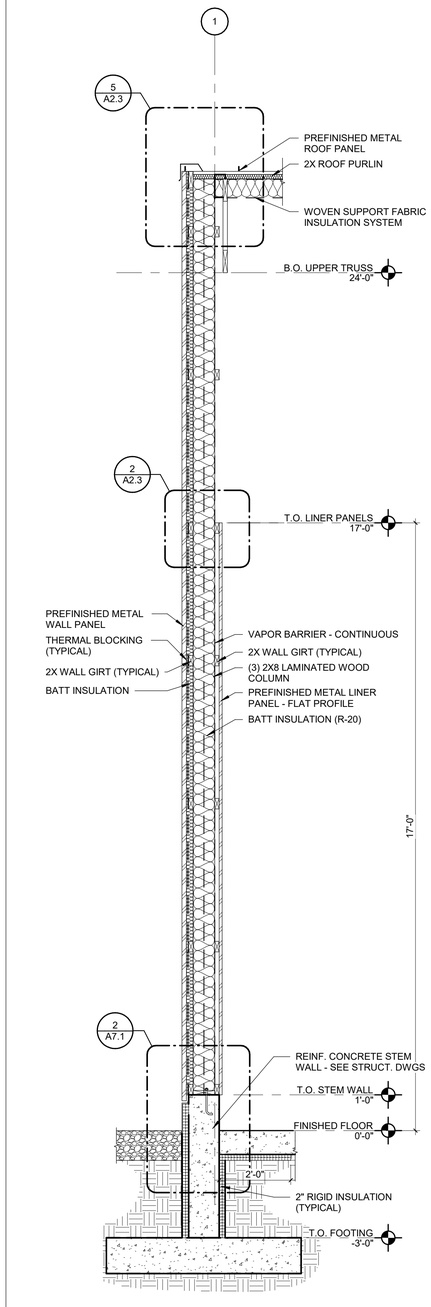
PROJECT NO.: 02401959.001



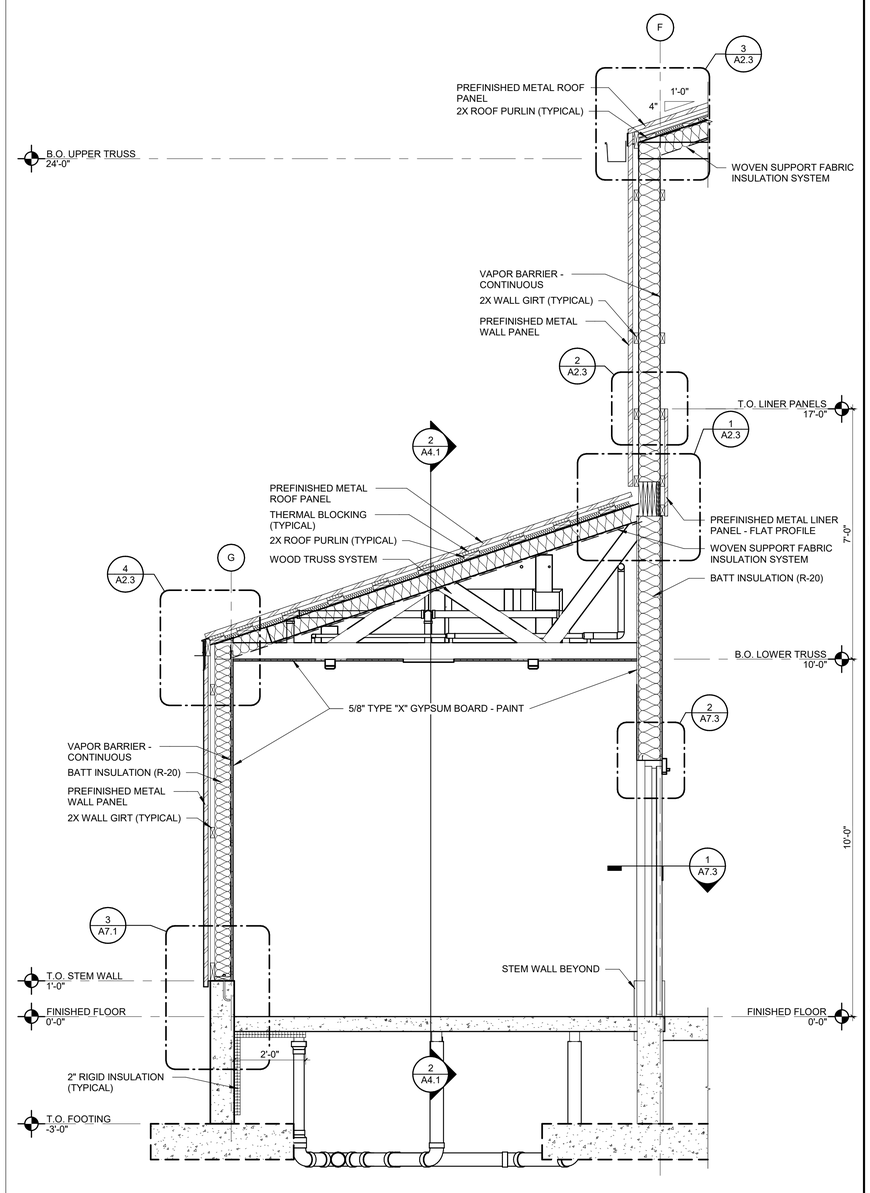
4 WALL SECTION @ SECTIONAL DOOR
SCALE: 1/2" = 1'-0"



3 TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"



2 TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"



1 SUPPORT AREA WALL SECTION
SCALE: 1/2" = 1'-0"

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WALL SECTIONS

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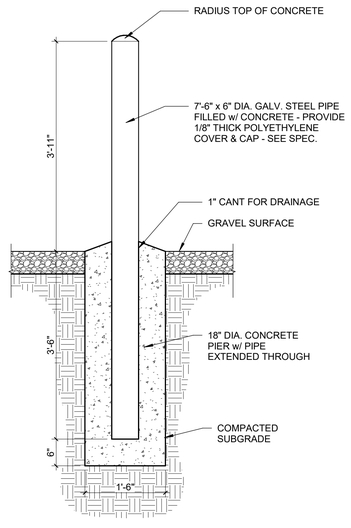
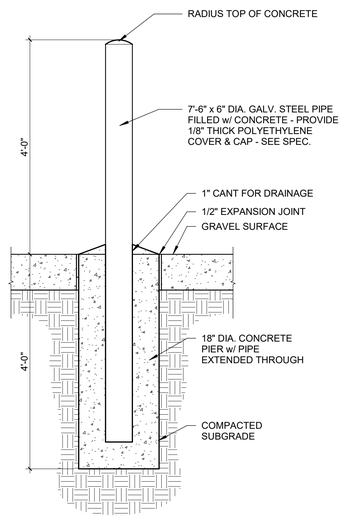


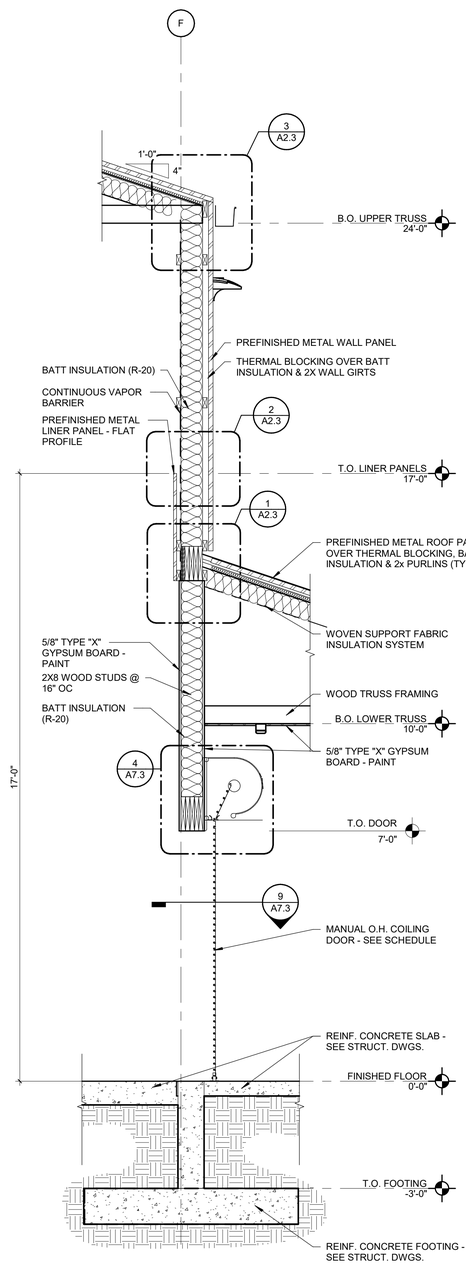
5 EXTERIOR BOLLARD DETAIL

SCALE: 3/4" = 1'-0"



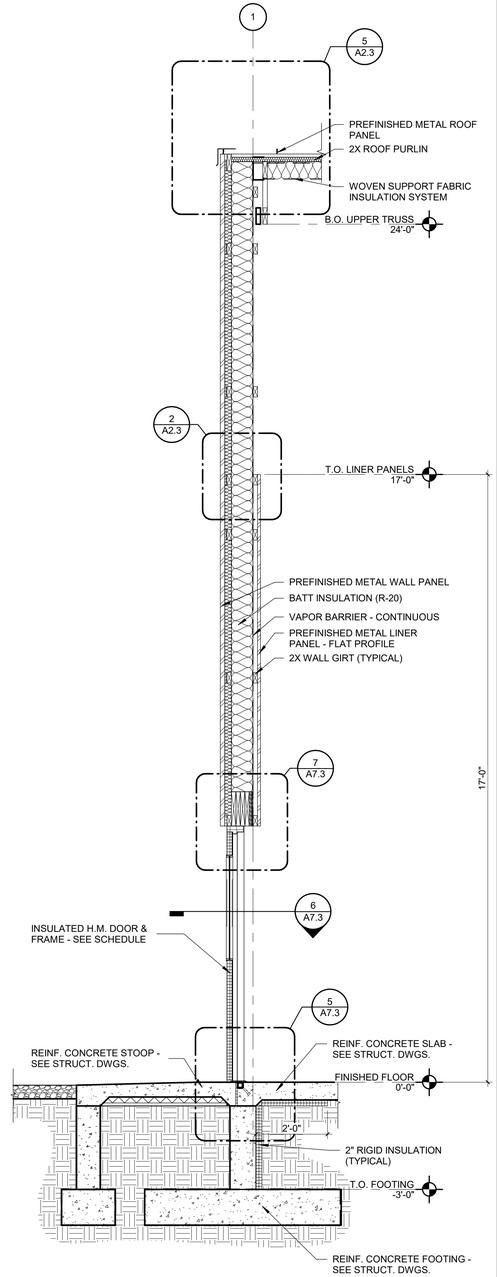
4 INTERIOR BOLLARD DETAIL

SCALE: 3/4" = 1'-0"



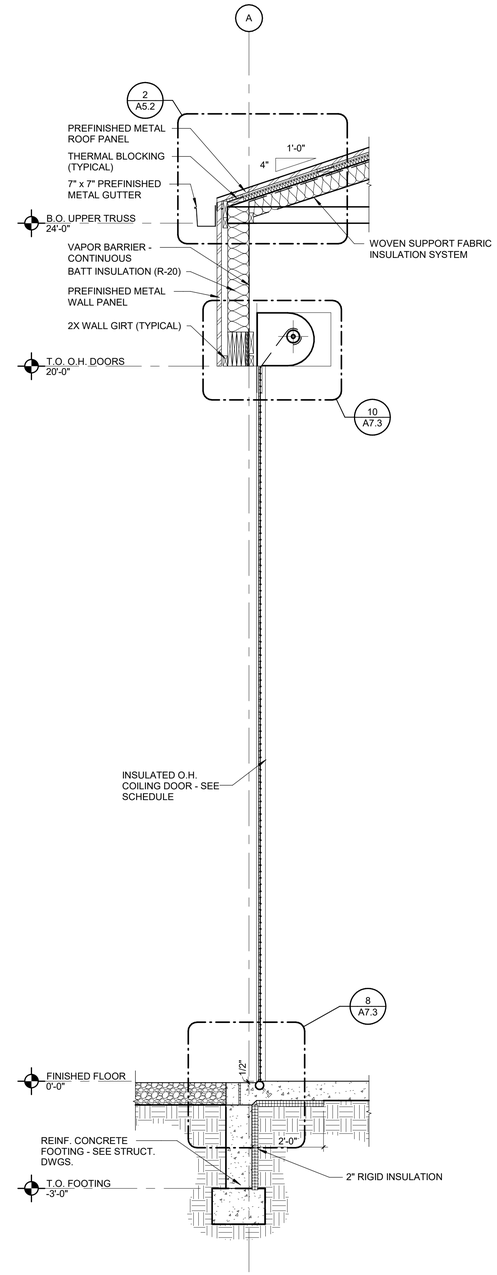
3 WALL SECTION @ SUPPORT AREA

SCALE: 1/2" = 1'-0"



2 TYPICAL WALL SECTION @ EXTERIOR H.M. DOOR

SCALE: 1/2" = 1'-0"



1 TYPICAL WALL SECTION @ O.H. COILING DOOR

SCALE: 1/2" = 1'-0"

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WALL SECTIONS

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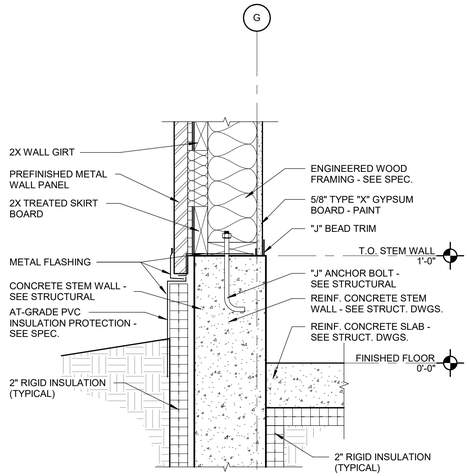
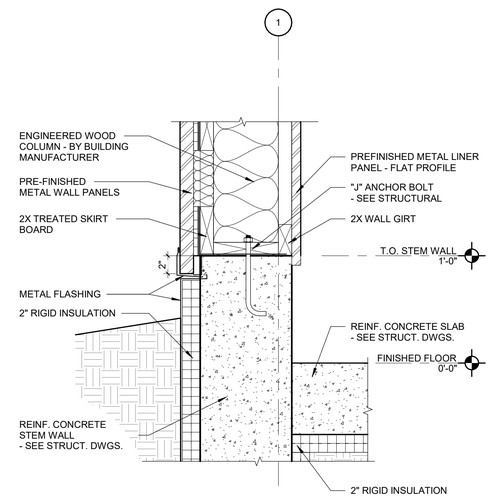


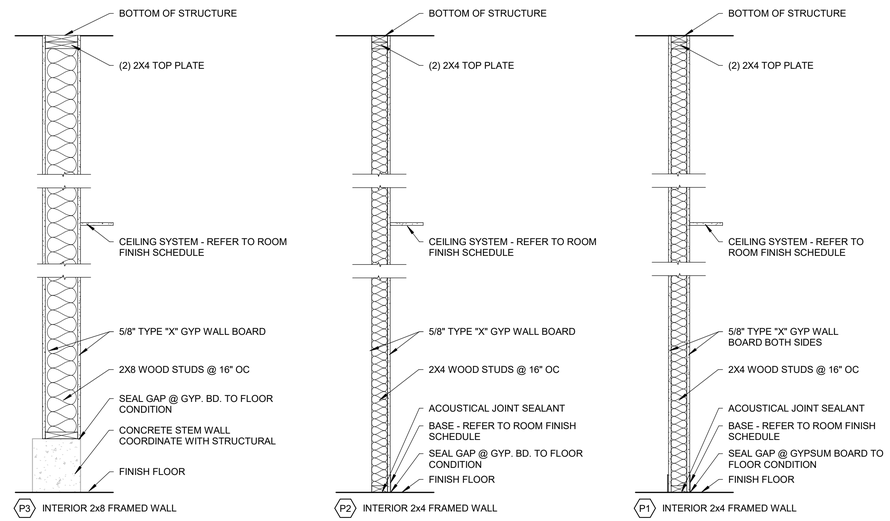
3 SUPPORT AREA EXTERIOR WALL DETAIL

SCALE: 1 1/2" = 1'-0"



2 TYPICAL EXTERIOR WALL DETAIL

SCALE: 1 1/2" = 1'-0"



1 PARTITION TYPES

SCALE: 3/4" = 1'-0"

PARTITION TYPE NOTES

A. CONTROL JOINTS SHALL BE INSTALLED AT ALL CONSTRUCTION CHANGES WITHIN A PLANE OF PARTITION OR CEILING, AT PARTITION RUNS THAT EXCEED 30'-0" IN LENGTH, CEILING DIMENSIONS THAT EXCEED 50' IN EITHER DIRECTION WITH PERIMETER RELIEF AND 30' WITHOUT, AT WINGS OF "L", "U" AND "T" SHAPED CEILING AREAS, AT BUILDING EXPANSION OR CONTROL JOINTS.

B. CONTROL JOINTS SHALL BE INSTALLED AT EACH DOOR WITH CLOSERS FROM OUTSIDE CORNER OF THE TOP OF DOOR JAMB TO ABOVE CEILING. REFER TO PUBLISHED CONTROL JOINT DETAILS IN GA 600-900 FIRE RESISTANCE DESIGN MANUAL.

C. AT THE BASE OF ALL WALLS NOT REQUIRING SOUND ATTENUATION INSULATION, ENSURE THAT THE GYPSUM BOARD WALL PANELS ARE NOT OFFSET FROM THE SUBFLOOR GREATER THAN 1/2". IF CONSTRUCTION CONDITIONS REQUIRE THE GYPSUM BOARD WALL PANELS TO BE INSTALLED WITH AN OFFSET GREATER THAN 1/2", PROVIDE A CONTINUOUS BEAD OF BACKER ROD AND SEALANT TO PREVENT THE WALL BASE FROM DEFLECTING INTO THE CAVITY.

D. PROVIDE RED ROSIN PAPER OR SIMILAR MATERIAL BETWEEN DISSIMILAR MATERIALS

E. PROVIDE 5/8" FIRE RATED MOISTURE RESISTANT/MOLD RESISTANT GYPSUM BOARD AT ALL LOCATIONS WHERE WATER PRODUCING DEVICES MAY BE PRESENT OR SPLASHED ONTO THE WALL SURFACE (I.E. WATER COOLERS, SINKS, LAVATORIES, HOSE BIBS, ETC.). EXTEND GYPSUM BOARD A MINIMUM OF 4'-0" IN ALL DIRECTIONS FROM CENTER OF DEVICE.

F. PROVIDE CONTINUOUS STIFFENER CHANNELS AT 4'-0" MAXIMUM VERTICAL SPACING, TYPICAL. ALSO PROVIDE AT MIDPOINT BETWEEN BOTTOM OF STRUCTURE AND HEAD OF INTERIOR WINDOWS AND DOORS AS WELL AS HINGE MIDPOINT AT DOORS. IF DOOR OPENING IS OVER 4'-0" LONG, PROVIDE STIFFENER CHANNELS AT ALL HINGE POINTS FOR MINIMUM OF 2 STUD SPACES HORIZONTALLY.

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PARTITION TYPES

SHEET NUMBER:

A7.1

PROJECT NO.: 02401959.001

7/22/2025 10:00:49 AM

ROOM FINISH SCHEDULE

ROOM NO.	NAME	FLOOR	BASE	WALLS								CEILING		REMARKS
				EAST		NORTH		SOUTH		WEST				
				MAT'L	FIN	MAT'L	FIN	MAT'L	FIN	MAT'L	FIN	FIN	HEIGHT	
FINISHED FLOOR														
100	CONSTRUCTION BAYS	HC		MLP	FF	MLP	FF	GYP	PNT	MLP	FF	EXP	24' - 0"	
102	OFFENDER RESTROOM	HC	RB	GYP	PNT	GYP	PNT	GYP	PNT	GYP	PNT	GWB	10' - 0"	
101	EQUIPMENT WASH AREA	HC		GYP/FRP	PNT/PF	GYP	PNT	GYP	PNT	GYP	PNT	GWB	10' - 0"	
104	EMPLOYEE RESTROOM	HC	RB	GYP	PNT	GYP	PNT	GYP	PNT	GYP	PNT	GWB	10' - 0"	
103	JANITOR	HC	RB	GYP	PNT	GYP	PNT	GYP	PNT	GYP	PNT	GWB	10' - 0"	
105A	ELEC	HC		GYP	PNT	GYP	PNT	GYP	PNT	GYP	PNT	GWB	10' - 0"	
105	MECH	HC		GYP	PNT	GYP	PNT	GYP	PNT	GYP	PNT	GWB	10' - 0"	

DOOR SCHEDULE

NO.	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR MAT'L	DOOR FINISH	DOOR ELEV	FRAME MAT'L	FRAME FINISH	FRAME ELEV	HEAD DETAIL NO.	JAMB DETAIL NO.	THRESH DETAIL NO.	LBL (MINUTES)	HDWR SET	NOTES
FINISHED FLOOR															
100-1	3' - 0"	7' - 0"	1 3/4"	IHM	P	G	HM	P	1					1	
100-2	8' - 0"	8' - 0"	2"	OHSD	FF	OHSD-1				12/A7.3	11/A7.3	10/A7.3			
100-3	3' - 0"	7' - 0"	1 3/4"	IHM	P	G	HM	P	1	6/A7.3	5/A7.3	4/A7.3		1	
100-4	3' - 0"	7' - 0"	1 3/4"	IHM	P	G	HM	P	1	6/A7.3	5/A7.3	4/A7.3		1	
100-5	3' - 0"	7' - 0"	1 3/4"	IHM	P	G	HM	P	1	6/A7.3	5/A7.3	4/A7.3		1	
100-6	30' - 0"	20' - 0"	3"	OHCD	FF	OHCD	-	FF	1	9/A7.3	8/A7.3	7/A7.3			
100-7	30' - 0"	20' - 0"	3"	OHCD	FF	OHCD	-	FF	1	9/A7.3	8/A7.3	7/A7.3			
100-8	30' - 0"	20' - 0"	3"	OHCD	FF	OHCD	-	FF	1	9/A7.3	8/A7.3	7/A7.3			
101-1	6' - 0"	7' - 0"	1 3/4"	OHCD	FF	OHCD	-	FF	1	9/A7.3	8/A7.3	7/A7.3			
102-1	3' - 0"	7' - 0"	1 3/4"	IHM	P	FG-M	HM	P	1	3/A7.3	2/A7.3	1/A7.3		2	
103-1	3' - 0"	7' - 0"	1 3/4"	IHM	P	F	HM	P	1	3/A7.3	2/A7.3	1/A7.3		4	
104-1	3' - 0"	7' - 0"	1 3/4"	IHM	P	F	HM	P	1	3/A7.3	2/A7.3	1/A7.3		5	
105-1	6' - 0"	7' - 0"	1 3/4"	IHM	P	F	HM	P	1	3/A7.3	2/A7.3	1/A7.3		3	
105A-1	3' - 0"	7' - 0"	1 3/4"	IHM	P	F	HM	P	1	3/A7.3	2/A7.3	1/A7.3		4	

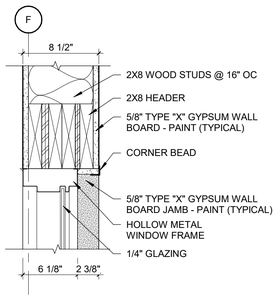
AL= ALUMINUM
ALCW= ALUMINUM CLAD WOOD
EXIST= EXISTING
FRP= FIBER REINFORCED PLASTIC
HC= HARDENED CONCRETE
HM= HOLLOW METAL
IHM= INSULATED HOLLOW METAL
OHCD= OVERHEAD COILING DOOR
OHSD= OVERHEAD SECTIONAL DOOR
PF= PREFINISHED
PNT= PAINT
RB= RUBBER BASE
SCW= SOLID CORE WOOD
STN= STAIN
WD= WOOD

GLAZING GENERAL NOTES

NOTES:

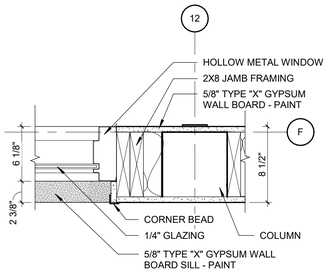
1. ALL INTERIOR GLASS TO BE 1/4" CLEAR TEMPERED GLASS UNLESS NOTED OTHERWISE.
2. ALL GLASS IN DOORS SHALL BE TEMPERED.
3. ALL EXTERIOR GLASS SHALL BE INSULATED.
4. SIZES SHOWN ARE NOMINAL - CONTRACTOR SHALL DETERMINE CLEARANCES REQUIRED FOR JOINTS, ETC.

NOTES:
1.



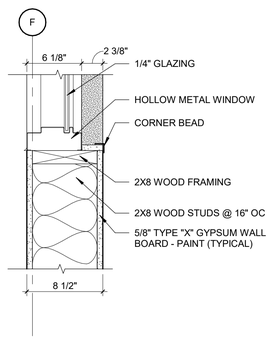
6 HM WINDOW HEAD

SCALE: 1 1/2" = 1'-0"



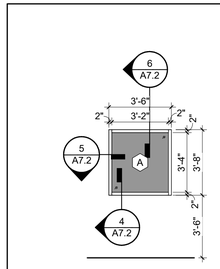
5 HM WINDOW JAMB

SCALE: 1 1/2" = 1'-0"



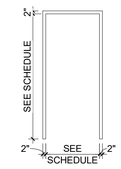
4 HM WINDOW SILL

SCALE: 1 1/2" = 1'-0"



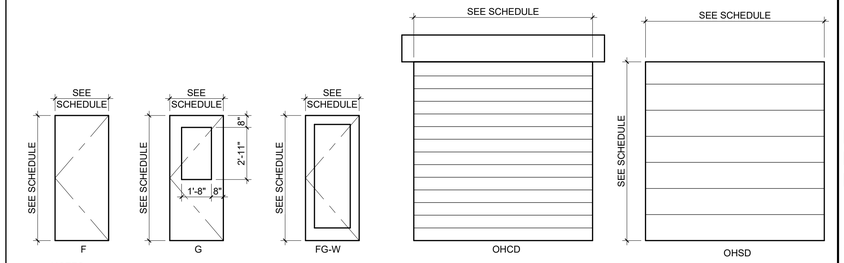
3 WINDOW TYPE - A

SCALE: 1/4" = 1'-0"



2 FRAME ELEVATIONS

SCALE: 1/4" = 1'-0"



NOTES:
1. ALL EXTERIOR GLASS SHALL BE INSULATED
2. ALL GLASS MUST BE TEMPERED

1 DOOR ELEVATIONS

SCALE: 1/4" = 1'-0"

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ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	LS
DRAWN:	SD
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

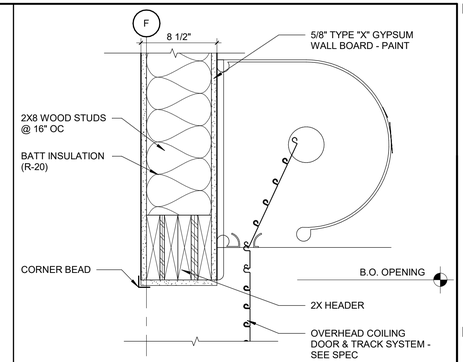
DOOR SCHEDULE, ELEVATIONS AND DETAILS

SHEET NUMBER:

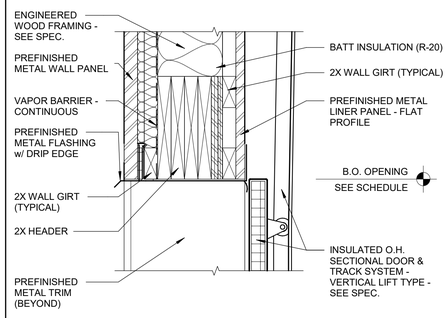
A7.2

PROJECT NO.: 02401959.001

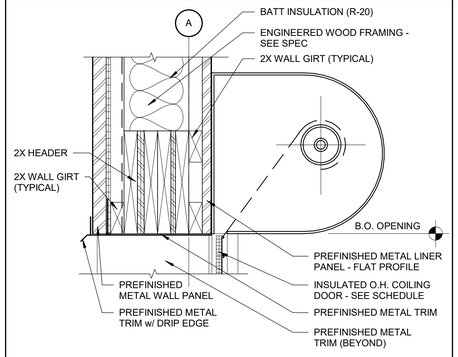
7/22/2025 10:00:59 AM



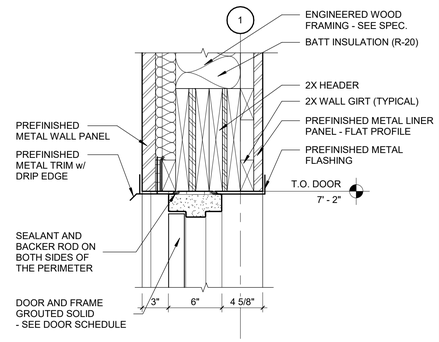
4 INT. COILING DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



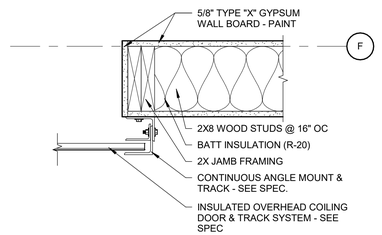
13 OH SECTIONAL DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



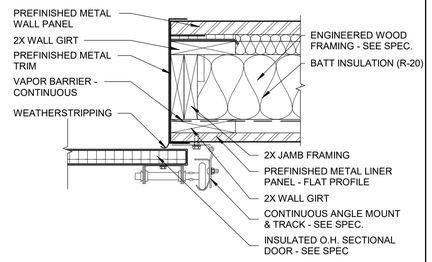
10 EXT. COILING DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



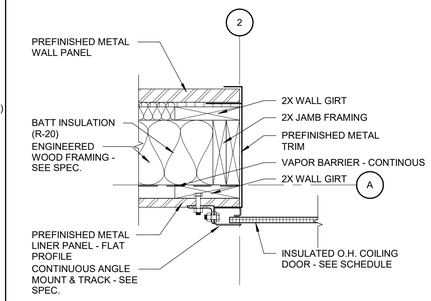
7 EXT. HM DOOR HEAD
SCALE: 1 1/2" = 1'-0"



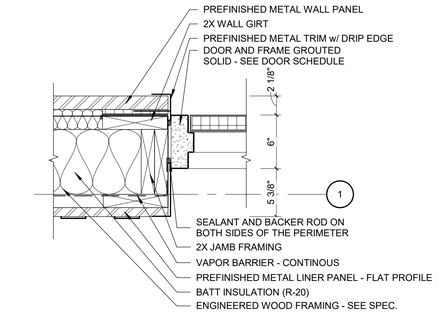
3 INT. COILING DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



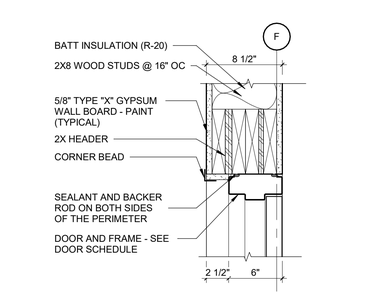
12 OH SECTIONAL DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



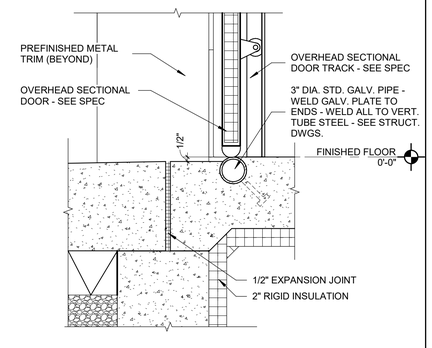
9 EXT. COILING DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



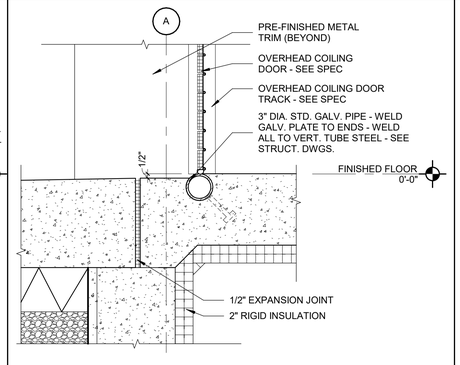
6 EXT. HM DOOR JAMB
SCALE: 1 1/2" = 1'-0"



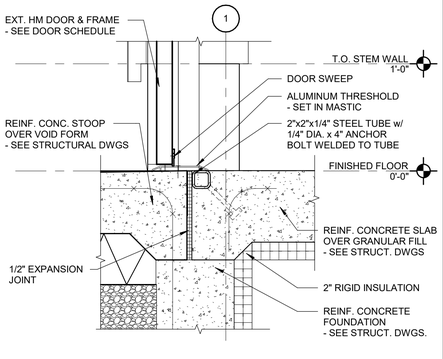
2 H.M. DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



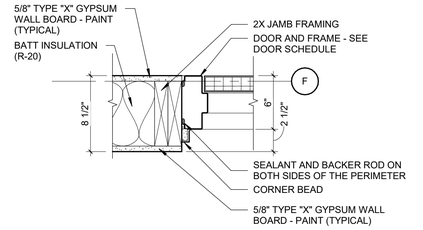
11 OH SECT. DOOR THRESHOLD DETAIL
SCALE: 1 1/2" = 1'-0"



8 EXT. COILING DOOR THRESHOLD DETAIL
SCALE: 1 1/2" = 1'-0"



5 EXT. HM DOOR THRESHOLD DETAIL
SCALE: 1 1/2" = 1'-0"



1 H.M. DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"

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ISSUE:

#	DATE:	DESCRIPTION:

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PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

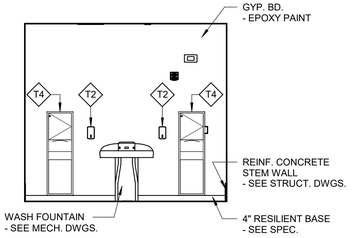
DATE:	07/18/2025
DESIGNED:	LS
DRAWN:	SD
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
DOOR DETAILS

SHEET NUMBER:
A7.3

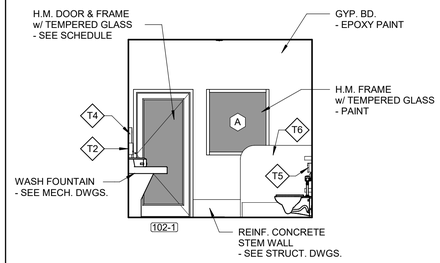
PROJECT NO.: 02401959.001

7/22/2025 10:00:53 AM



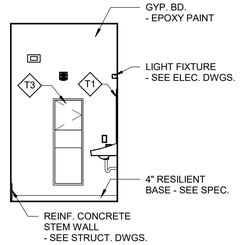
12 **102 - WEST ELEVATION**

SCALE: 1/4" = 1'-0"



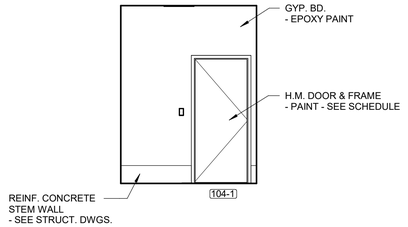
9 **102 - NORTH ELEVATION**

SCALE: 1/4" = 1'-0"



6 **104 - EAST ELEVATION**

SCALE: 1/4" = 1'-0"



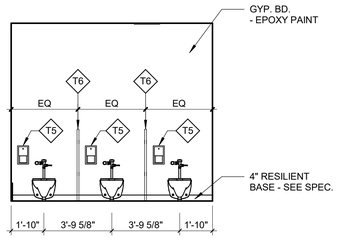
4 **104 - NORTH ELEVATION**

SCALE: 1/4" = 1'-0"

INTERIOR ELEVATION GENERAL NOTES

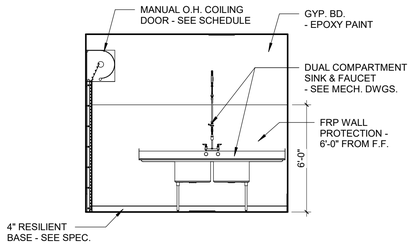
A. SEE G0.1 FOR STANDARD MOUNTING HEIGHTS.

B. CONTROL JOINTS SHOWN ARE DESIGNATED FOR AESTHETIC PURPOSES. WHERE CONTROL JOINTS ARE NOT SHOWN, COMPLY WITH REQUIREMENTS AS DICTATED IN THE PARTITION GENERAL NOTES.



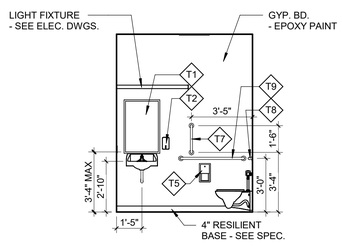
11 **102 - EAST ELEVATION**

SCALE: 1/4" = 1'-0"



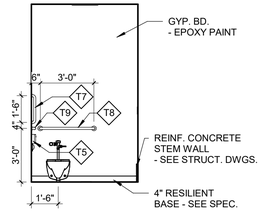
8 **101 - EAST ELEVATION**

SCALE: 1/4" = 1'-0"



5 **104 - SOUTH ELEVATION**

SCALE: 1/4" = 1'-0"

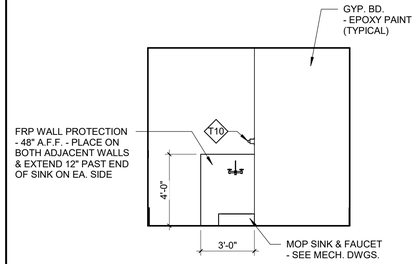


3 **104 - WEST ELEVATION**

SCALE: 1/4" = 1'-0"

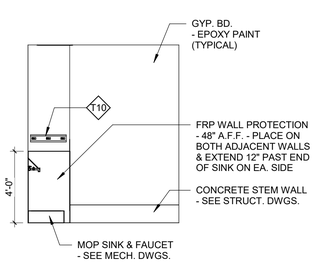
TOILET ACCESSORY SCHEDULE

MARK	DESCRIPTION
T1	24" x 36" MIRROR
T2	LIQUID SOAP DISPENSER
T3	RECESSED PAPER TOWEL DISPENSER TRASH COMBO
T4	SEMI-RECESSED PAPER TOWEL DISPENSER TRASH COMBO
T5	SEMI-RECESSED TOILET TISSUE DISPENSER
T6	STAINLESS STEEL PRIVACY PARTITION
T7	18" GRAB BAR
T8	36" GRAB BAR
T9	42" GRAB BAR
T10	MOP HOLDER



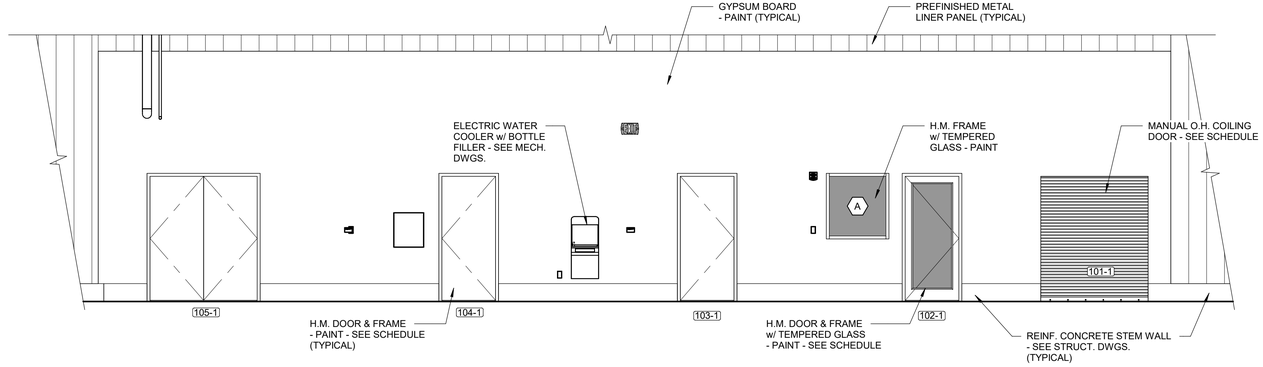
10 **103 - EAST ELEVATION**

SCALE: 1/4" = 1'-0"



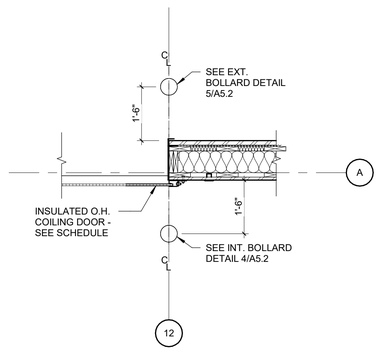
7 **103 - SOUTH ELEVATION**

SCALE: 1/4" = 1'-0"



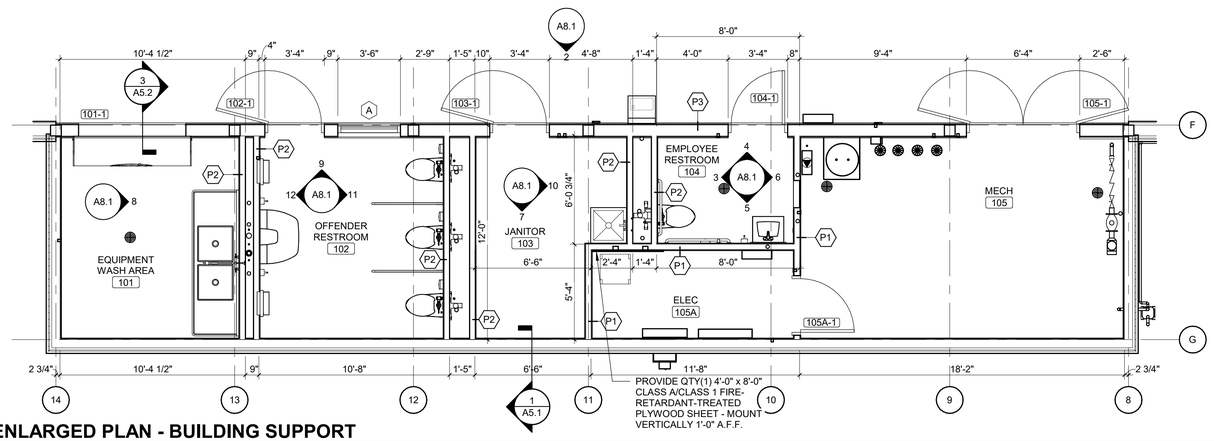
2 **100 - PARTIAL SOUTH ELEVATION**

SCALE: 1/4" = 1'-0"



13 **TYPICAL BOLLARD DETAIL**

SCALE: 1/2" = 1'-0"



1 **ENLARGED PLAN - BUILDING SUPPORT**

SCALE: 1/4" = 1'-0"

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GROUP

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PROJECT:

State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	LS
DRAWN:	SD
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

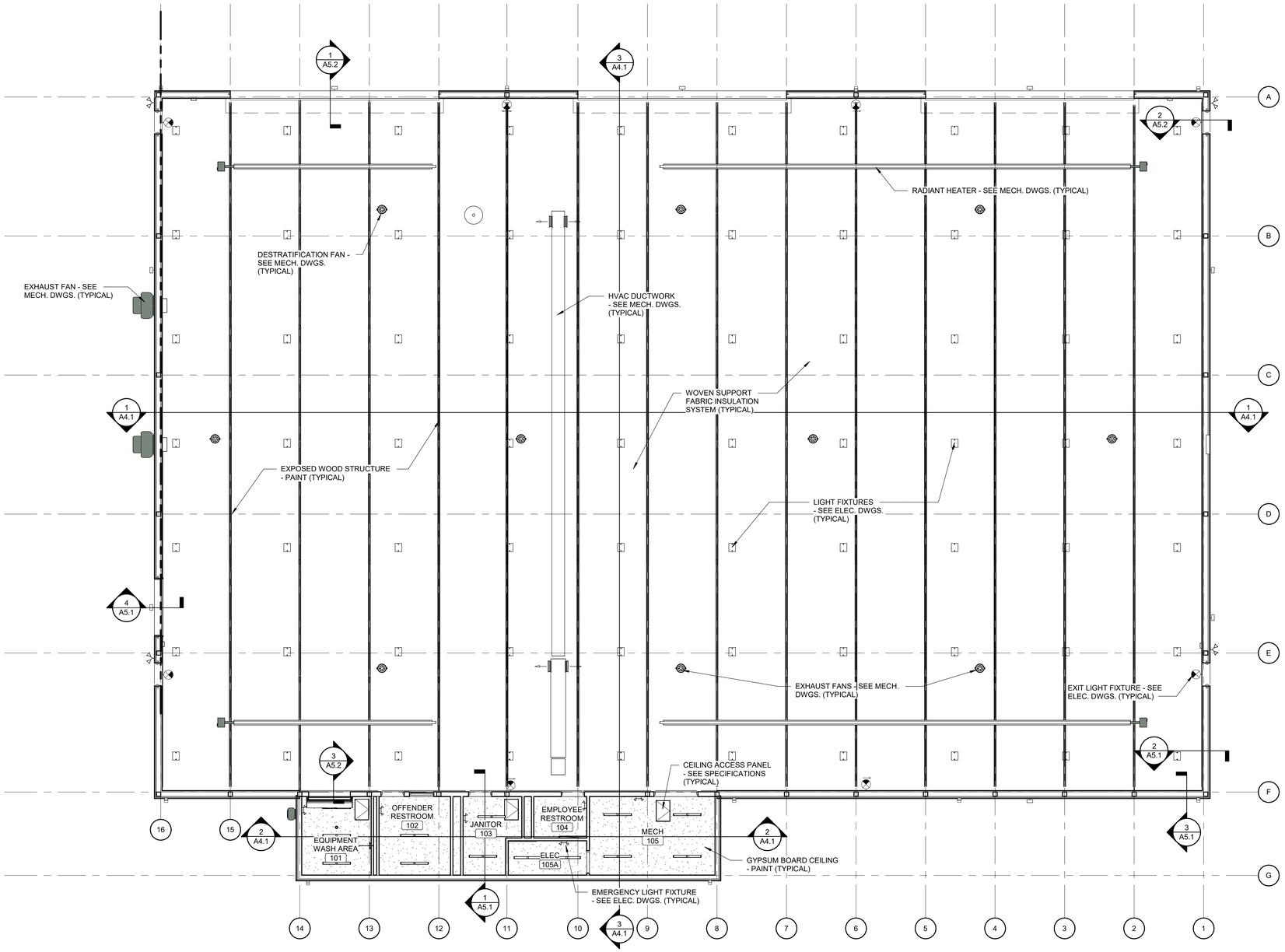
INTERIOR ELEVATIONS AND ENLARGED PLANS

SHEET NUMBER:

A8.1

PROJECT NO.: 02401959.001

7/23/2025 1:46:43 PM



REFLECTED CEILING PLAN GENERAL NOTES

A. CEILING MOUNTED LIGHT FIXTURES AND DIFFUSERS ARE SHOWN FOR COORDINATION PURPOSES. EXIT SIGNAGE, SPRINKLER HEADS, SMOKE DETECTORS AND OTHER DEVICES ARE NOT SHOWN. ALL CEILING MOUNTED DEVICES SHALL BE CENTERED IN THE CEILING PANEL IN WHICH THEY OCCUR. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR DEVICES NOT SHOWN. CONTRACTOR TO REVIEW CEILING LAYOUT AND NOTIFY DESIGN PROFESSIONAL OF ANY CONFLICTS BEFORE PROCEEDING WITH CONSTRUCTION.

B. CONTROL JOINTS SHALL BE INSTALLED; AT ALL CONSTRUCTION CHANGES WITHIN PLANE OF CEILING WHERE CEILING DIMENSIONS EXCEED 50'-0" IN EITHER DIRECTION WITH PERIMETER RELIEF AND 30'-0" WITHOUT, AT WINGS OF "L", "U" AND "T" SHAPED CEILING AREAS, AND AT BUILDING EXPANSION OR CONTROL JOINTS. REFER TO PUBLISHED CONTROL JOINT DETAILS

C. PAINT ALL EXPOSED CEILINGS & STRUCTURE, UNLESS OTHERWISE NOTED. SEE SECTION 09 91 00 PAINTING FOR ADDITIONAL INFORMATION.

D. PAINT ALL GYPSUM CEILINGS. UNLESS OTHERWISE NOTED. SEE SECTION 09 91 00 PAINTING FOR ADDITIONAL INFORMATION.

E. ALL GYPSUM BOARD CEILINGS SHALL BE 10'-0" ALL UNLESS OTHERWISE NOTED.

KEYNOTES (BY DIVISION)

1 **OVERALL REFLECTED CEILING PLAN**
SCALE: 1/8" = 1'-0"

0 4 8 16

PLAN NORTH

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ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	LS
DRAWN:	SD
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
OVERALL REFLECTED CEILING PLAN - BASE BID

SHEET NUMBER:
A9.1

PROJECT NO.: 02401959.001

7/22/2025 4:04:09 PM

REFLECTED CEILING PLAN GENERAL NOTES

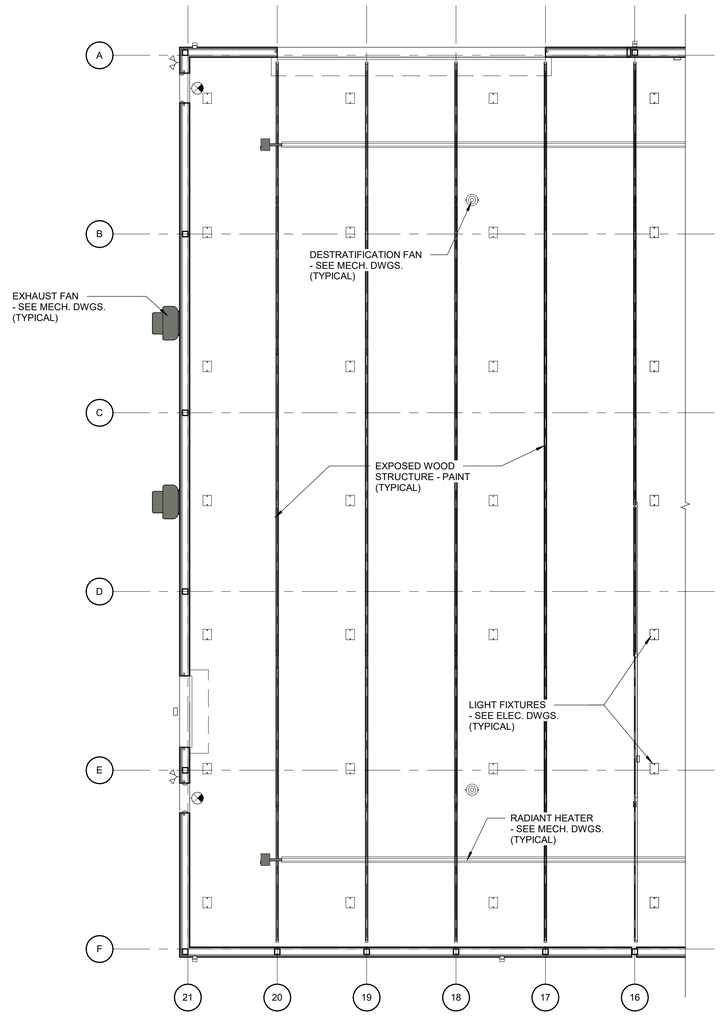
A. CEILING MOUNTED LIGHT FIXTURES AND DIFFUSERS ARE SHOWN FOR COORDINATION PURPOSES. EXIT SIGNAGE, SPRINKLER HEADS, SMOKE DETECTORS AND OTHER DEVICES ARE NOT SHOWN. ALL CEILING MOUNTED DEVICES SHALL BE CENTERED IN THE CEILING PANEL IN WHICH THEY OCCUR. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR DEVICES NOT SHOWN. CONTRACTOR TO REVIEW CEILING LAYOUT AND NOTIFY DESIGN PROFESSIONAL OF ANY CONFLICTS BEFORE PROCEEDING WITH CONSTRUCTION.

B. CONTROL JOINTS SHALL BE INSTALLED; AT ALL CONSTRUCTION CHANGES WITHIN PLANE OF CEILING WHERE CEILING DIMENSIONS EXCEED 50'-0" IN EITHER DIRECTION WITH PERIMETER RELIEF AND 30'-0" WITHOUT, AT WINGS OF "L", "U" AND "T" SHAPED CEILING AREAS, AND AT BUILDING EXPANSION OR CONTROL JOINTS. REFER TO PUBLISHED CONTROL JOINT DETAILS

C. PAINT ALL EXPOSED CEILINGS & STRUCTURE, UNLESS OTHERWISE NOTED. SEE SECTION 09 91 00 PAINTING FOR ADDITIONAL INFORMATION.

D. PAINT ALL GYPSUM CEILINGS. UNLESS OTHERWISE NOTED. SEE SECTION 09 91 00 PAINTING FOR ADDITIONAL INFORMATION.

E. ALL GYPSUM BOARD CEILINGS SHALL BE 10'-0" ALL UNLESS OTHERWISE NOTED.



1 **REFLECTED CEILING PLAN - ALTERNATE No. 1**
SCALE: 1/8" = 1'-0"

0 4 8 16 PLAN NORTH

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ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	LS
DRAWN:	SD
REVIEWED:	LS
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
OVERALL REFLECTED CEILING PLAN - ALTERNATE No. 1

SHEET NUMBER:
A9.2

PROJECT NO.: 02401959.001

7/23/2025 2:11:23 PM

DESIGN CRITERIA

D1) Codes:

International Building Code, 2015
American Concrete Institute 318-14
American Society of Civil Engineers / Structural Engineering
Institute ASCE/SEI 7-10
American Wood Council
National Design Specification 2015

D2) Lateral loads:

Wind:	Ultimate design wind speed:	117 mph
	Nominal design wind speed:	90 mph
	Risk category:	II
Wind exposure:		C
Interior pressure coefficient (+/-):		GCpi=0.55
Wall component wind pressure:		ASCE/SEI 7-10
Seismic: Design Category:		B
	Risk category:	II
Importance factor:		Ie=1.00
Mapped spectral response acceleration:		
		Ss=0.093
		S1=0.06
Site class:		D
Spectral response coefficients:		Sds=0.099
		Sd1=0.096

Assumed wood framed building design forces below, to be verified with final wood framed delegated designer reactions.
Basic seismic-force-resisting system:
Light frame wood walls sheathed with structural panels rated for shear resistance

Design base shear:	V=4.5 kips
Response coefficient:	Cs= 0.0153
Response modification factors:	R=6.5
Analysis procedure used:	

Equivalent Lateral Force Analysis

D3) Live loads:

Snow load:	
Ground snow load:	30 psf
Flat-roof snow load (minimum):	Pf=24 psf
Snow exposure factor:	Ce=1.0
Thermal factor:	Ct=1.0
Snow importance factor:	Is=1.00
Snow drift load:	ASCE/SEI 7-10
Roof load (minimum):	20 psf

Equipment Load:
Trailer for House Transportation:
100,000 pounds combined trailer and house weight on 4 axles (2 front and 2 rear)

D4) Net allowable soil bearing pressures: (To be field verified by Testing Agency.)

Footings: 1500 psf

D5) Concrete strengths - Minimum 28 day f 'c
(145 pcf density unless noted otherwise)

Typical-unless noted otherwise:	4000 psi
Footings:	3000 psi
Foundation Wall:	4500 psi
Slabs on grade:	4000 psi

D6) Reinforcing steel shall be high strength new billet steel conforming to the following:

Deformed bars: ASTM A615, Gr. 60
(unless otherwise noted)

D7) Structural steel:

Pipe: ASTM A53, Gr. B
Jamb & Header Framing by Wood Building Supplier

D8) Wood framing:

a) By Pre-Engineered Wood Building Supplier

SPECIAL INSPECTION REQUIREMENTS

SR1) The following types of work require special inspection based on section 1705 of the 2015 International Building Code. See Specification section 014500 for specific requirements. The owner will employ special inspectors who shall provide special inspections during:

a) Earth Work
b) Cast-in-place Concrete.

GENERAL NOTES

G1) Establish and verify all openings and inserts for mechanical, electrical, and plumbing with appropriate trade contractors. Opening sizes and locations shown for ducts, pipes, inserts, etc., when shown are for general information only and shall be verified prior to forming.

G2) Field verify all existing dimensions, member sizes, and elevations shown on the drawings. All discrepancies shall be immediately brought to the attention of the architect.

G3) Before submitting a proposal for this work, each bidder shall visit the premises and acquaint themselves fully with the existing conditions, temporary construction required, quantities and types of equipment, etc. The bid shall include all sums required to do the work within the existing conditions. Disruption of normal activities in the work area must be kept to a minimum.

G4) Shop drawings prepared by suppliers, subcontractors, etc. shall be reviewed and coordinated prior to submitting to the architect. Each shop drawing submitted shall be stamped, initialed, and dated as being reviewed by the construction manager/general contractor.

G5) Shop drawings prepared by the subcontractors, suppliers, etc. shall be reviewed by the architect for conformance with design concept only. Review by the architect shall not begin without the prior coordination and review by the construction manager/general contractor. Work shall not begin without the review by the architect.

G6) Details and notes on the structural drawings are intended to be typical for similar situations elsewhere. Verify all dimensions with the architectural drawings. Do not scale drawings; use dimensions provided only.

G7) Options are for the contractor's convenience. The contractor shall be responsible for all changes necessary if they choose an option and shall coordinate all details. The cost of additional design work necessitated by selection of an option shall be borne by the contractor.

G8) The cost of additional design work due to errors or omissions in construction shall be borne by the contractor.

G9) Any engineering design provided by others and submitted for review or record shall bear the stamp and signature of a professional structural engineer licensed in the state of Iowa.

G10) All elevations given thus (+10'-0") are to top of footing, joist bearing, top of steel, top of slab, etc. with reference to the finished first floor slab = (0'-0").

CONSTRUCTION PROCEDURES AND SAFETY REQUIREMENTS

P1) Comply with all applicable city, county, state, and federal laws, including the Occupational Safety and Health Act (OSHA) and regulations adopted pursuant thereto.

P2) The contract structural drawings and specifications represent the finished structure. Unless otherwise indicated, they do not indicate the means or methods of construction.

P3) Provide all measures necessary to protect the workers and other persons during construction. Provide all necessary measures to avoid excessive stresses and to hold the structural elements in place during construction. Such measures shall include, but not be limited to, bracing, shoring for construction equipment, shoring for earth banks forms, scaffolding, planking, safety nets, support and bracing for cranes and hoists, guying, etc.

P4) Engage properly qualified persons to determine where and how temporary precautionary measures shall be used. Observation visits to the site by structural engineer's field representatives shall not include the items noted above.

P5) Supervise and direct the work so as to maintain sole responsibility for all construction means, methods, techniques, sequences, and procedures. Retain the services of a professional structural engineer licensed in the state of Iowa to design and supervise any scaffolding for workmen, and all shoring of forms and elements of the construction.

P6) Any engineering design provided by others and submitted for review and/or record shall bear the stamp and signature of a professional structural engineer licensed in the state of Iowa.

FOOTINGS AND FOUNDATIONS

F1) All footings shall be placed onto firm undisturbed soil or controlled compacted fill as directed by the project soils consultant recommendations. Footing elevations shown designate a minimum depth of footings where a safe soil bearing pressure is expected (see Design Criteria). Footings shall be lowered and piers and/or walls extended as required to reach the design bearing pressure.

F2) General machine excavation for footings done more than 12 hours before the footing is placed shall stop not less than 4" above the elevation of bottoms of footings. Final excavation to the required undisturbed soil elevation shall be done not more than 12 hours before the footing is placed. The excavation shall be crumbed clean.

F3) All foundation excavations shall be inspected and certified by a qualified independent soils testing firm.

F4) No footing shall be placed onto or against sub-grades containing free water, frost, or ice.

F5) Unless noted otherwise, all footings shall be centered under walls, piers, or columns.

F6) Longitudinal reinforcing in wall footings shall be continuous at step downs. Slope or step bottom bars in wall to follow steps in footing unless otherwise shown.

F7) Lap wall footing reinforcing 24 bar diameters or a minimum of 1'-6" at splices, unless otherwise noted.

F8) Provide corner bars in footings the same size and number as the continuous reinforcing, lapped 2'-0" with main steel.

F9) Reinforcing in wall footings between columns shall extend into column footings a minimum of 2'-0".

F10) Reinforcing in footings shall be accurately placed, spaced, supported, and secured before placing concrete (do not "float" reinforcing into footings).

F11) Pipes extending under footings shall be placed before footing is placed and the void produced in laying the pipe shall be filled with concrete.

F12) Cross reference architectural and structural drawings to assure proper dimensions and placement of all anchor bolts, inserts, notches, and edges in grade beams, foundation walls, and piers.

F13) All unacceptable fill and top soil shall be removed from below all proposed slabs-on-grade and the exposed natural soil shall be proof rolled and the compaction verified by a qualified independent soils testing firm prior to placing fill. Areas exhibiting weakness shall be removed and replaced by acceptable compacted fill.

F14) A minimum 4" of clean compacted granular fill shall be placed under all slabs-on-grade. A minimum of 8" of non-expansive cohesive or granular fill material shall be placed under compacted granular fill. All fill required to attain final sub-grade for slabs and walls shall be an acceptable material placed and compacted as directed by the project soils consultant report recommendations.

F15) A vapor retarder with minimum 10 mil thickness shall be placed under all interior slab-on-grade or below granular fill. Lap and seal all edges.

CONCRETE AND REINFORCING

C1) All concrete work shall conform to the latest edition of the American Concrete Institute Publications: ACI 301, ACI 304, ACI 311, ACI 315, ACI 318, and ACI 347 unless otherwise noted on the drawings.

C2) Concrete shall consist of the following:

ASTM C150Type I Portland cement
ASTM C33Normal weight aggregates
(Limestone aggregate at exposed locations)
Potable water
Chlorides content shall be limited by ACI requirements for type of exposure.
Concrete which will be subjected to repeated cycles of freeze-thaw during the life of the structure shall have a water-cement ratio not exceeding 0.45 and shall contain entrained air. See ACI 301 for additional requirements.

C3) Unless otherwise noted, principal reinforcement shall have the following protection:

Surfaces cast against & permanently exposed to earth:	3 inches
Formed surfaces exposed to earth or water:	2 inches
Slabs:	1 inch (top)
	3/4 inch (bot.)

C4) All slabs-on-grade, pads, fills, and toppings shall have a minimum of 6 x 6 - W1.4 x W1.4 WWR, unless noted otherwise, placed 1" from top of slab. Lap WWR minimum 2 panels at edges and ends and provide additional reinforcing where shown on the drawings.

C5) All slabs-on-grade shall be placed on compacted granular fill. Pitch slabs to drains and provide depressions, where shown on the structural or architectural drawings, without reducing the thickness of slab indicated. For slabs on grade depressions greater than 1", see details for additional reinforcing.

C6) Provide slab-on-grade construction joints around each column, against grade beams, interior walls, and between columns and walls. Provide slab joints to form areas not to exceed 15' in length in each direction. See typical details. Submit detailed drawings showing locations of all construction joints.

C7) Construction joints in floors shall be located within the middle third of spans of slabs, beams, and girders. Joints in girders shall be offset a minimum distance of two times the width of intersecting beams.

C8) Provide vertical construction joints in exposed concrete curbs at a maximum uniform spacing not to exceed 30'-0". Locate joints centered between wood columns.

C9) Provide adequate bolsters, hi-chairs, support bars, etc., to maintain specified clearances for the entire length of all reinforcing bars. Provide accessories which are plastic tipped or galvanized with turned up ends for reinforcement at all faces of exposed concrete, interior or exterior.

C10) Unless otherwise noted, no concrete shall be placed without a minimum reinforcing of 0.002 times the concrete cross sectional area in each direction.

C11) All field bending of reinforcing shall be done cold. Heating of bars will not be permitted.

C12) No aluminum of any type shall be allowed in the concrete work unless coated to prevent aluminum-concrete reaction.

C13) Maximum O.D. of embedded conduit shall be no larger than 1/3 of the slab thickness.

C14) Mechanically vibrate concrete except that slabs-on-grade need only be vibrated around under floor ducts and other embedded items.

C15) All construction joints between adjacent concrete pours shall be keyed. Joints must be kept free of dirt, debris, form oils, etc. to assure proper bond with adjacent pour or masonry construction.

C16) Do not place pipes, ducts, reglets or chases in structural concrete or composite floor systems without approval of the structural engineer through the architect.

C17) Floor tolerances:
Surface tolerance: Class B. (See ACI 301)
Thickness: Plus 1", minus 1/2" slab on grade. Plus 3/8", minus 1/4" structural and composite slabs. Replace any slab with a thickness deviation as directed by the architect.

C18) Maximum free drop of any concrete = 6'-0".

C19) All bar detailing and accessories to be furnished shall conform to typical details and standards in the latest ACI Standard 315 Detailing Manual, except as otherwise shown, noted, or specified.

WOOD

W1) Install wood building according to manufacturer's instructions. Design, fabricate, transport and erect truss-joists and light metal plate connected wood trusses in accordance with latest AITC standards and manufacturer's recommendations.

KPFF ABBREVIATIONS

ADDED	ADDITIONAL	KO	KNOCK OUT
ALT	ALTERNATE	LAM	LAMINATED
ALUM	ALUMINUM	LT GA	LIGHT GAGE
ANCH	ANCHOR	LOC	LOCATION
APPROX	APPROXIMATE	LDH	LONG DIM HORIZ
ARCH	ARCHITECTURAL	LDV	LONG DIM VERT
@	AT	LLBB	LONG LEG BACK-TO-BACK
BM	BEAM	LLH	LONG LEG HORIZ
BRG	BEARING	LLV	LONG LEG VERT
BTWN	BETWEEN	LONGIT	LONGITUDINAL
BLKG	BLOCKING	MFR	MANUFACTURER
BD	BOARD	MAS	MASONRY
BOT	BOTTOM	MAT	MATERIAL
BLDG	BUILDING	MAX	MAXIMUM
CIP	CAST-IN-PLACE	MECH	MECHANICAL
CNTR	CENTER	MTL	METAL
CL	CENTERLINE	MIN	MINIMUM
CLR	CLEAR	MISC	MISCELLANEOUS
CFMF	COLD-FORMED METAL FRAMING	NS	NEAR SIDE
COL	COLUMN	NOM	NOMINAL
COMP	COMPOSITE	NIC	NOT IN CONTRACT
CONC	CONCRETE	NTS	NOT TO SCALE
CMU	CONCRETE MASONRY UNIT	# or NO	NUMBER
CONN	CONNECTION	OC	ON CENTER
CONST	CONSTRUCTION	OPNG	OPENING
CONT	CONTINUOUS	OPP	OPPOSITE
CONTR	CONTRACTOR	OD	OUTSIDE DIA.
CW	CURTAIN WALL	OF	OUTSIDE FACE
DEFL	DEFLECTION	PARL	PARALLEL
°	DEGREE	d	PENNY
DTL	DETAIL	PERP	PERPENDICULAR
DIAG	DIAGONAL	PL	PLATE
ø	DIAMETER	PLYWD	PLYWOOD
DIM	DIMENSION	# OR LB	POUND
DBL	DOUBLE	PSI	POUNDS PER SQ. INCH
DWG	DRAWING	PSF	POUNDS PER SQ.FT.
EA	EACH	PDF	POWER DRIVEN FASTENER
EF	EACH FACE	PREFAB	PREFABRICATED
ELECT	ELECTRICAL	PRELIM	PRELIMINARY
EL	ELEVATION	RAD or R	RADIUS
ELEV	ELEVATOR	RXN	REACTION
EMBED	EMBEDMENT	REINF	REINFORCING
EOD	EDGE OF DECK	REQD	REQUIRED
EOR	ENGINEER OF RECORD	RTN	RETURN
EOS	EDGE OF SLAB	REV	REVISION
EQ	EQUAL	SCHED	SCHEDULE
ERECT	ERECTION	SECT	SECTION
EW	EACH WAY	SHTHG	SHEATHING
EXISTG	EXISTING	SHT	SHEET
EXP	EXPANSION	SLBB	SHORT LEG BACK-TO-BACK
EXT	EXTERIOR	SSLT	SHORT SLOTTED HOLE
FS	FAR SIDE	SIM	SIMILAR
FV	FIELD VERIFY	SPA	SPACE
FIN	FINISH	SPECS	SPECIFICATIONS
FLR	FLOOR	SQ	SQUARE
FT	FOOT	STD	STANDARD
FTG	FOOTING	STL	STEEL
FDN or FOUND	FOUNDATION	STIFF	STIFFENER
FRMG	FRAMING	STRUCT	STRUCTURAL
GA	GAGE OR GAUGE	TEMP	TEMPERATURE
GALV	GALVANIZED	THRU	THROUGH
GYP	GYPSUM	T & G	TONGUE & GROOVE
GYP BD	GYPSUM BOARD	TRANS	TRANSVERSE
HD	HEADED	TYP	TYPICAL
HT	HEIGHT	UNO	UNLESS NOTED OTHERWISE
HPC	HIGH-PERFORMANCE COATING	VIF	VERIFY IN FIELD
HORIZ	HORIZONTAL	VERT	VERTICAL
IN	INCH	WWR	WELDED WIRE REINF
ID	INSIDE DIAMETER	W/	WITH
IF	INSIDE FACE	WD	WOOD
INSUL	INSULATION	WP	WORKING POINT
INT	INTERIOR	X-BRACING	CROSS BRACING
JT	JOINT	X-STRONG	EXTRA STRONG
JST	JOIST	XX-STRONG	DOUBLE EXTRA STRONG

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100% BID DOCUMENTS

PROJECT:

State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	MR
DRAWN:	MW
REVIEWED:	NK
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

STRUCTURAL NOTES

SHEET NUMBER:

S0.1

PROJECT NO.: 02401959.001

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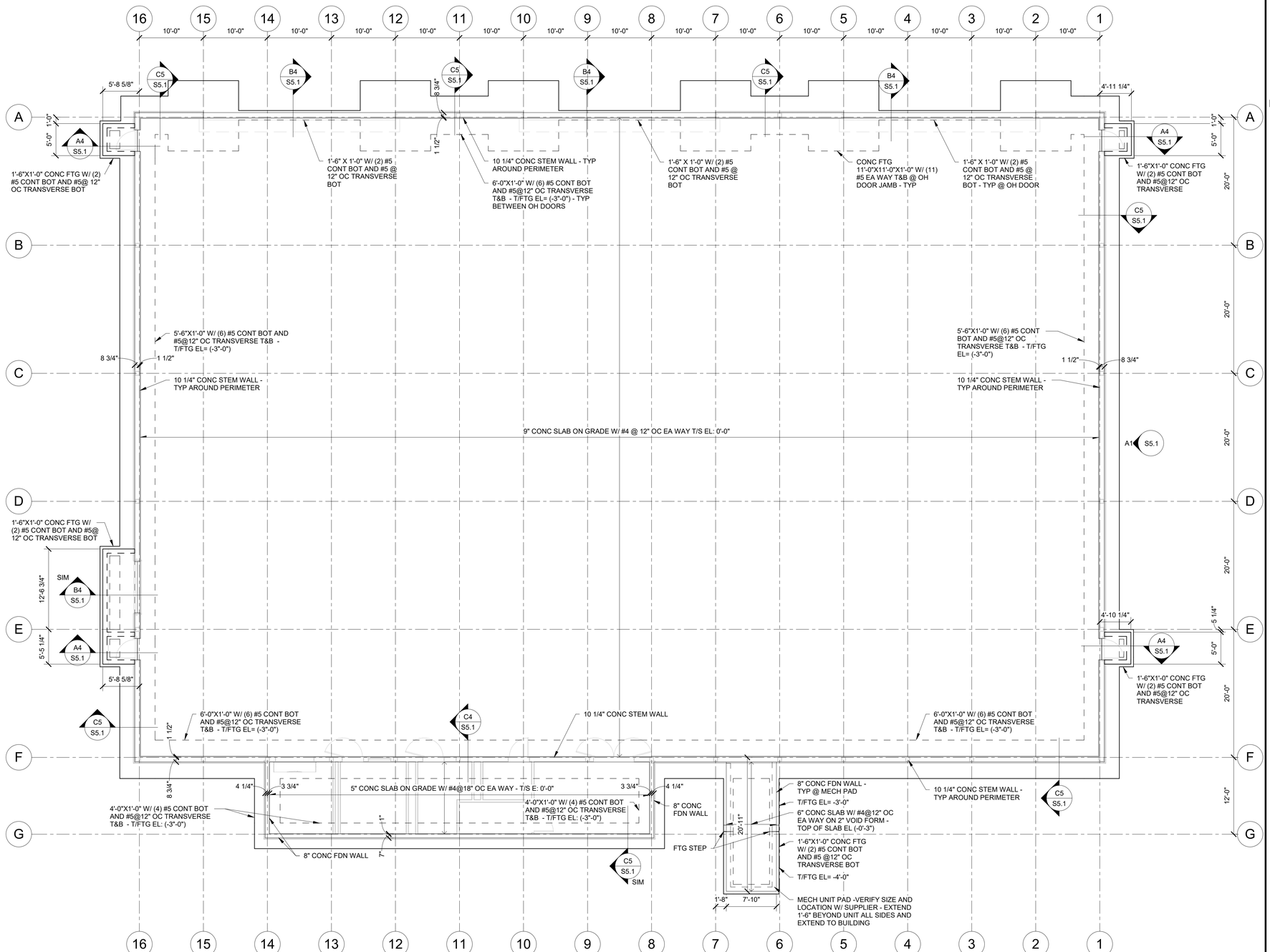

1 FOUNDATION PLAN - BASE BID
1/8" = 1'-0"

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SHEET NUMBER:

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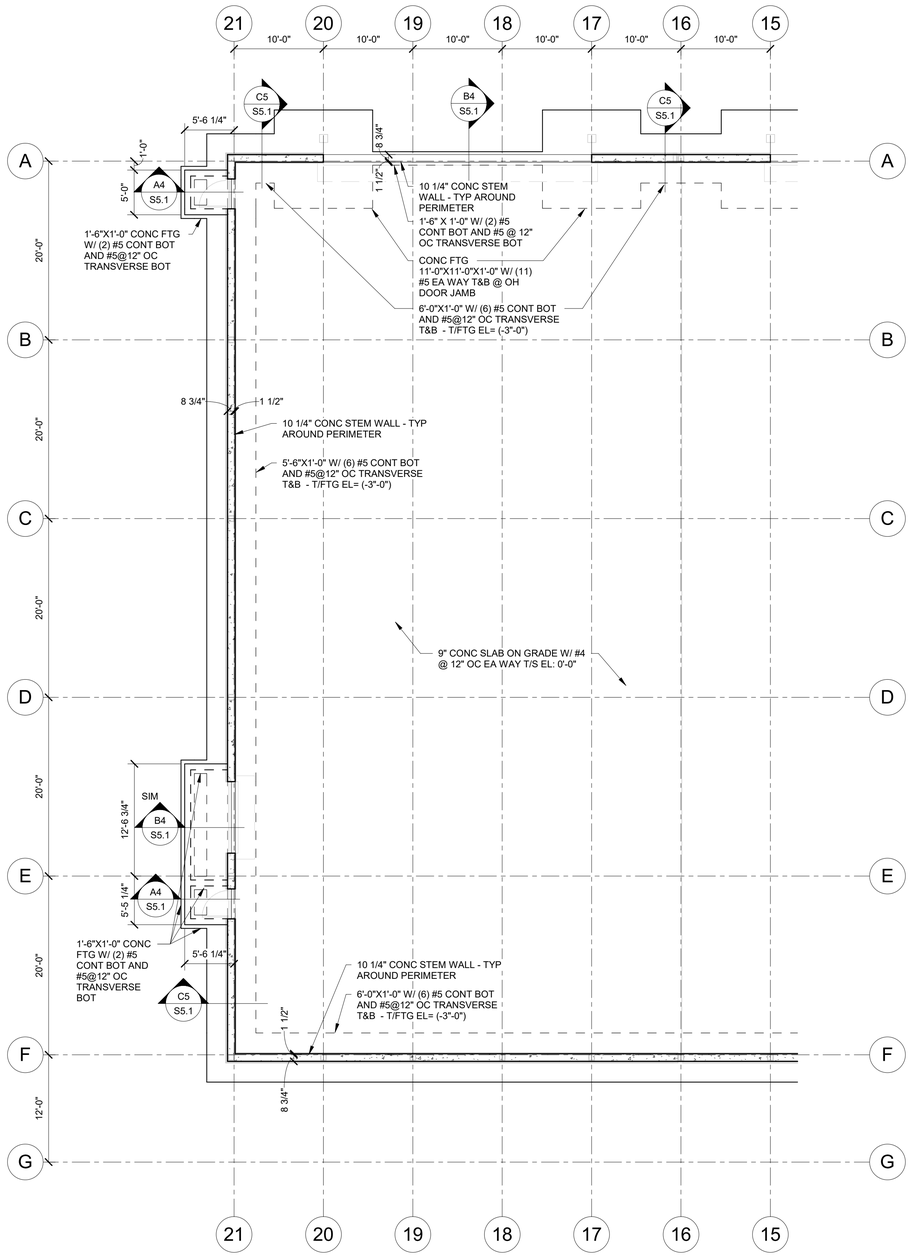
PROJECT NO.: 02401959.001



1 FOUNDATION PLAN - ALTERNATE NO. 1

1/8" = 1'-0"

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FOUNDATION PLAN - ALTERNATE NO. 1

SHEET NUMBER:

S1.2

PROJECT NO.: 02401959.001

ROOF TRUSS NOTES

1. FABRICATE WITH STRUCTURAL GRADE LUMBER AND METAL GUSSET PLATES - WEB CONFIGURATION MAY VARY AS REQUIRED BY TRUSS MFR - TRUSSES TO BE DESIGNED AND SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF IOWA .

2. TRUSSES ARE TO MEET THE FOLLOWING DESIGN CRITERIA (UNLESS NOTED ON THE ROOF TRUSS DIAGRAMS):

LOADING -

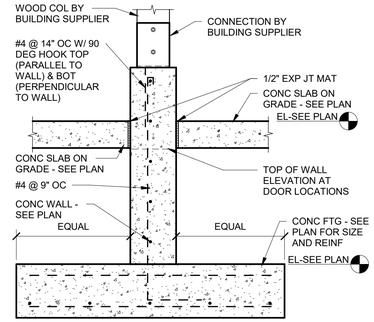
TOP CHORD	
BALANCED LIVE LOAD	SEE DTL A1/S5.1
UNBALANCED LIVE LOAD	SEE DTL A1/S5.1
DEAD LOAD	12 PSF
BOTTOM CHORD	
DEAD LOAD	8 PSF
(LOAD DURATION STRESS INCREASE 15%)	

3. PROVIDE TEMPORARY AND/OR PERMANENT BRACING AS RECOMMENDED BY THE TRUSS PLATE INSTITUTE AND AS REQUIRED BY THE TRUSS MANUFACTURER IN ADDITION TO THE BRACES NOTED BELOW.

4. NO HOLES, NOTCHES OR CUTS ARE ALLOWED IN TRUSS CHORDS OR WEBS.

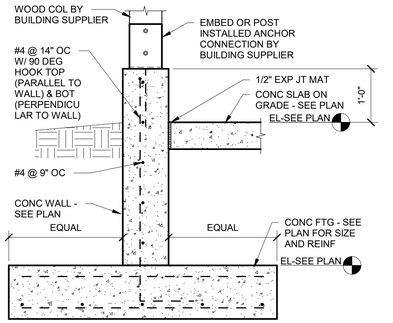
D4 ROOF TRUSS NOTES

1" = 1'-0"



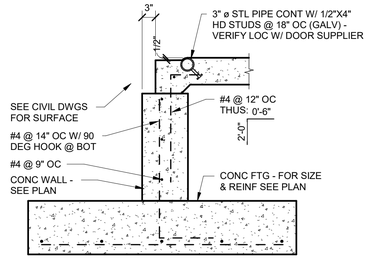
C4 TYP FTG @ INT WALL

3/4" = 1'-0"



C5 TYP FTG @ WALL

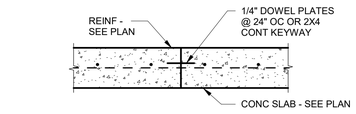
3/4" = 1'-0"



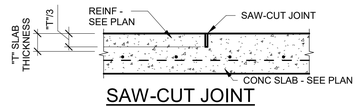
- AT SIM SECTION CUT LOCATION SEE A4/S5.1 FOR EXTERIOR ENTRANCE SLAB AND SLAB FOUNDATION WALL AND FOOTING

B4 TYP FTG @ OVERHEAD DOOR

3/4" = 1'-0"



CONSTRUCTION JOINT

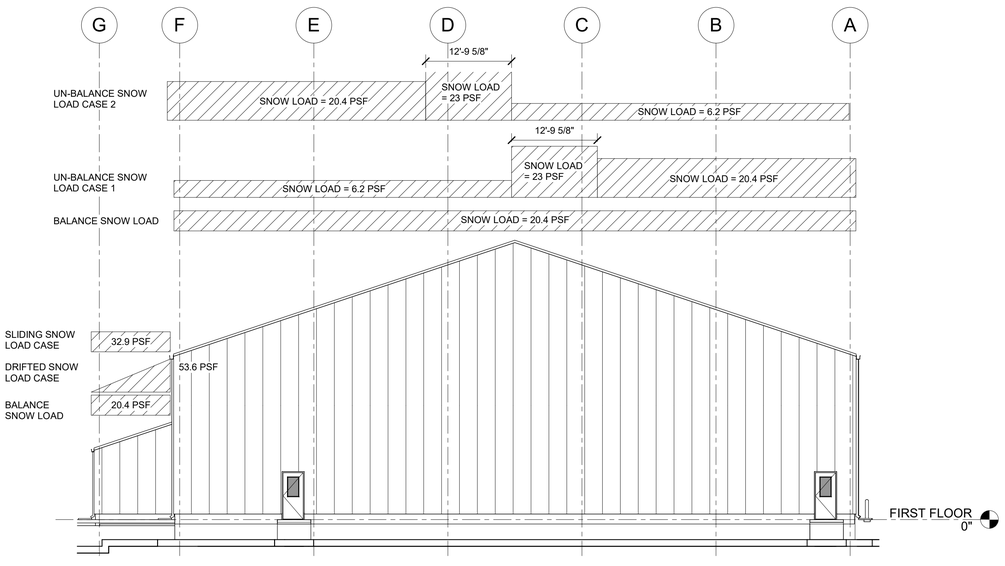


SAW-CUT JOINT

- CONCRETE SLAB JOINTS SHALL BE EITHER CONSTRUCTION OR SAW-CUT JOINTS
- LOCATE CONSTRUCTION JOINTS ON COLUMN CENTERLINE
- LOCATE SAW-CUT JOINTS BETWEEN CONSTRUCTION JOINTS
- LOCATE SLAB JOINTS AT PARTITIONS WHERE POSSIBLE
- MAXIMUM SPACING OF SLAB JOINTS SHALL NOT EXCEED 15'-0" IN ANY DIRECTION

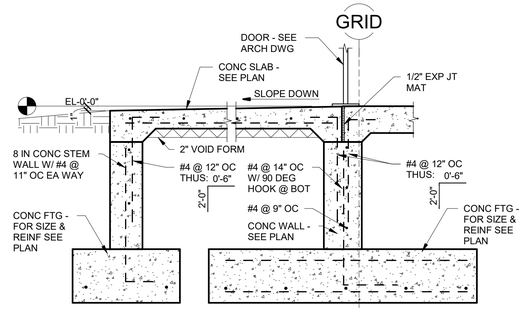
B5 TYP CONC SLAB JOINTS

3/4" = 1'-0"



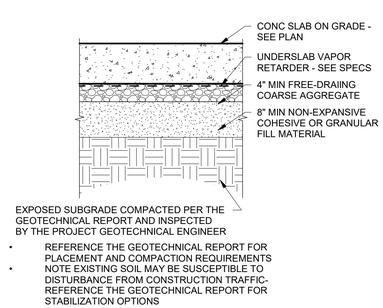
A1 LOADING DIAGRAM

3/32" = 1'-0"



A4 TYP FTG @ ENTRANCE

3/4" = 1'-0"



- REFERENCE THE GEOTECHNICAL REPORT FOR PLACEMENT AND COMPACTION REQUIREMENTS
- NOTE EXISTING SOIL MAY BE SUSCEPTIBLE TO DISTURBANCE FROM CONSTRUCTION TRAFFIC- REFERENCE THE GEOTECHNICAL REPORT FOR STABILIZATION OPTIONS

A5 TYP SUBGRADE PREP

3/4" = 1'-0"

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STRUCTURAL DETAILS

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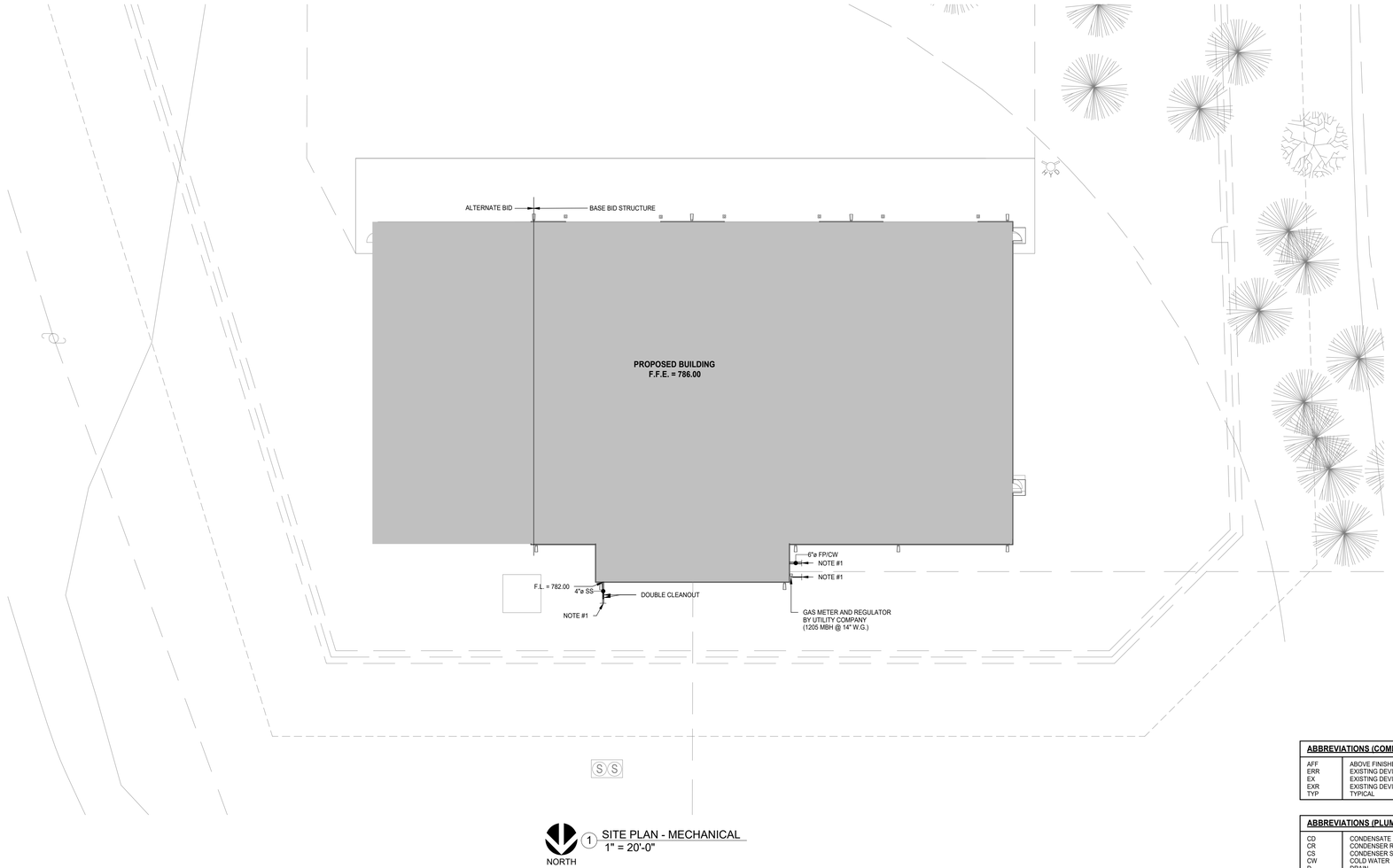
S5.1

PROJECT NO.: 02401959.001



1 SITE PLAN - MECHANICAL
1" = 20'-0"
NORTH

GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
2. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT ACTUAL INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL DUCTWORK, PIPING, EQUIPMENT, ETC. AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS AS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.

REFERENCE NOTES

1. SEE CIVIL DRAWINGS FOR CONTINUATION.

MECHANICAL LEGEND

ABBREVIATIONS (COMMON):

AFF	ABOVE FINISHED FLOOR
ERR	EXISTING DEVICE TO BE REMOVED AND RELOCATED
EX	EXISTING DEVICE TO REMAIN
EXR	EXISTING DEVICE TO BE REMOVED
TYP	TYPICAL

ABBREVIATIONS (PLUMBING/PIPING SYSTEMS):

CD	CONDENSATE DRAIN
CR	CONDENSER RETURN
CS	CONDENSER SUPPLY
CW	COLD WATER
D	DRAIN
FP	FIRE PROTECTION
G	GAS
HW	HOT WATER
HWRC	HOT WATER RECIRCULATION
PC	PUMPED CONDENSATE
PD	PUMPED DISCHARGE
RD	REFRIGERANT DISCHARGE
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
V	VENT
W	WASTE

COMMON SYMBOLS:

	POINT OF CONNECTION
?	KITCHEN EQUIPMENT TAG

PLUMBING/PIPING SYMBOLS:

	EXISTING PIPING TO REMAIN
	EXISTING PIPING TO BE REMOVED
	EXISTING PIPING TO BE ABANDONED IN PLACE
	BALL VALVE
	MANUAL BALANCING VALVE
	GATE VALVE
	GAS COCK
'A'	SHOCK ABSORBER (SIZE INDICATED BY LETTER DESIGNATION)
	FLOOR DRAIN

SHEET METAL SYMBOLS:

	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	SIDEWALL REGISTER OR GRILLE
	PLENUM SLOT DIFFUSER
XX / YYY	DIFFUSER TAG (XX = DIFFUSER TYPE, YY = CFM AIR QUANTITY) REFER TO GRILLES, REGISTERS AND DIFFUSERS SCHEDULE
T	THERMOSTAT
H	HUMIDISTAT
OC	OCCUPANCY SENSOR
FS	FLOW MEASURING STATION
VD	VOLUME DAMPER
FD	HORIZONTAL DAMPER (FD = FIRE DAMPER, SD = SMOKE DAMPER, FSD = FIRE/SMOKE DAMPER, CD = CONTROL DAMPER)
	EXISTING DUCTWORK TO REMAIN
	EXISTING DUCTWORK TO BE REMOVED

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ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	NE
DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
MECHANICAL SITE PLAN

SHEET NUMBER:
M1.1

PROJECT NO.: 02401959.001

7/21/2025 4:07:14 PM

GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
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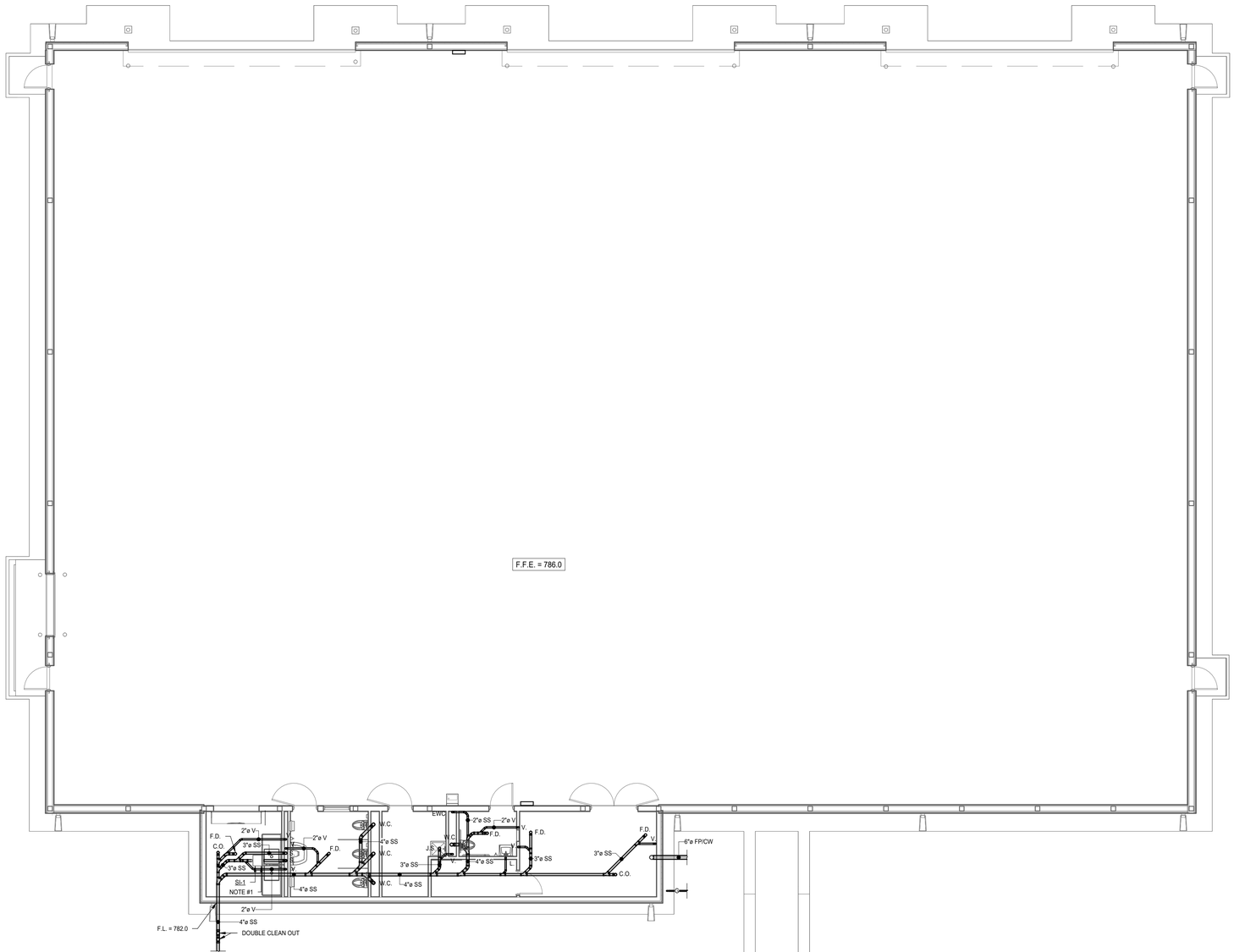
REFERENCE NOTES

1. SOLID INTERCEPTOR (S-1) TO BE INSTALLED FLUSH WITH FINISHED FLOOR.



1 BASE BID FLOOR PLAN - UNDERFLOOR PIPING PLAN
1/8" = 1'-0"

NORTH

PLUMBING FIXTURE SCHEDULE

FIXTURE TYPE	C.W.	H.W.	WASTE	VENT
ELECTRIC WATER COOLER	1/2"	-	1-1/2"	1-1/2"
FLOOR DRAIN	-	-	3"	2"
JANITOR SINK	1/2"	1/2"	3"	2"
LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"
SINK	1/2"	1/2"	2"	1-1/2"
URINAL	3/4"	-	2"	1-1/2"
WATER CLOSET - FLUSH	1"	-	4"	2"

NOTES:
1. ALL UNDERFLOOR WASTE PIPING SHALL BE 3" UNLESS NOTED OTHERWISE ON THE DRAWINGS.

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PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	NE
DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
FLOOR PLAN - UNDERFLOOR

SHEET NUMBER:
M2.1

PROJECT NO.: 02401959.001

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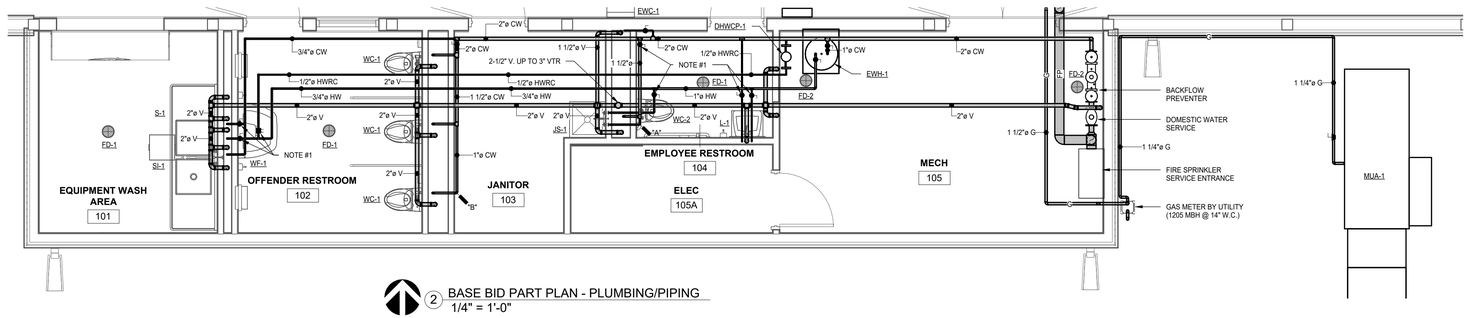
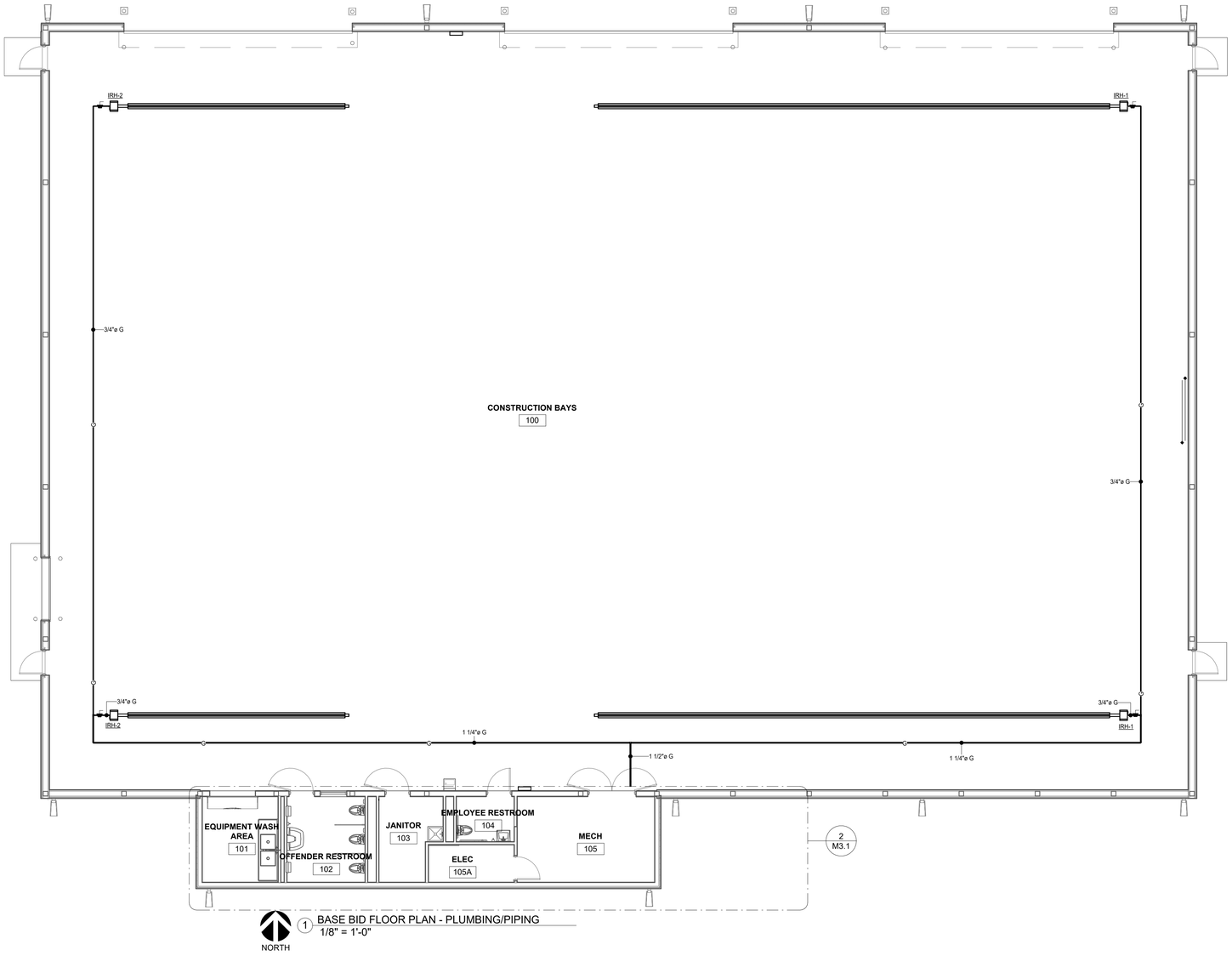


2 BASE BID PART PLAN - PLUMBING/PIPING
1/4" = 1'-0"
NORTH



1 BASE BID FLOOR PLAN - PLUMBING/PIPING
1/8" = 1'-0"
NORTH

GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
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REFERENCE NOTES

1. PROVIDE ACCESS PANELS FOR PLUMBING ISOLATION VALVES ABOVE CEILINGS. ACCESS PANELS IN EQUIPMENT ROOM WASH AREA 101 AND OFFENDER RESTROOM 102 MUST BE LOCKING PANELS.

PLUMBING FIXTURE SCHEDULE

FIXTURE TYPE	C.W.	H.W.	WASTE	VENT
ELECTRIC WATER COOLER	1/2"	-	1-1/2"	1-1/2"
FLOOR DRAIN	-	-	3"	2"
JANITOR SINK	1/2"	1/2"	3"	2"
LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"
SINK	1/2"	1/2"	2"	1-1/2"
URINAL	3/4"	-	2"	1-1/2"
WATER CLOSET - FLUSH	1"	-	4"	2"

NOTES:
1. ALL UNDERFLOOR WASTE PIPING SHALL BE 3" UNLESS NOTED OTHERWISE ON THE DRAWINGS.

ALTERNATE BID #1 NOTE

DRAWINGS M3.1 AND M3.1A REPRESENT THE BASE BID AND ALTERNATE BID LAYOUTS FOR THIS FACILITY. IT IS RECOMMENDED THAT CONTRACTORS CONDUCT A COMPLETE BID TAKE OFF OF DRAWING M3.1 FOR THE BASE BID, THEN CONDUCT A COMPLETE TAKEOFF OF DRAWING M3.1A. THE PRICE ADDER FOR THE ALTERNATE BID SHOULD BE CALCULATED BY COMPARING QUANTITIES BETWEEN THE BASE BID TO THE ALTERNATE BID.

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Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	NE
DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

FLOOR PLAN - PLUMBING / PIPING

SHEET NUMBER:

M3.1

PROJECT NO.: 02401959.001

7/21/2025 4:07:19 PM

GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

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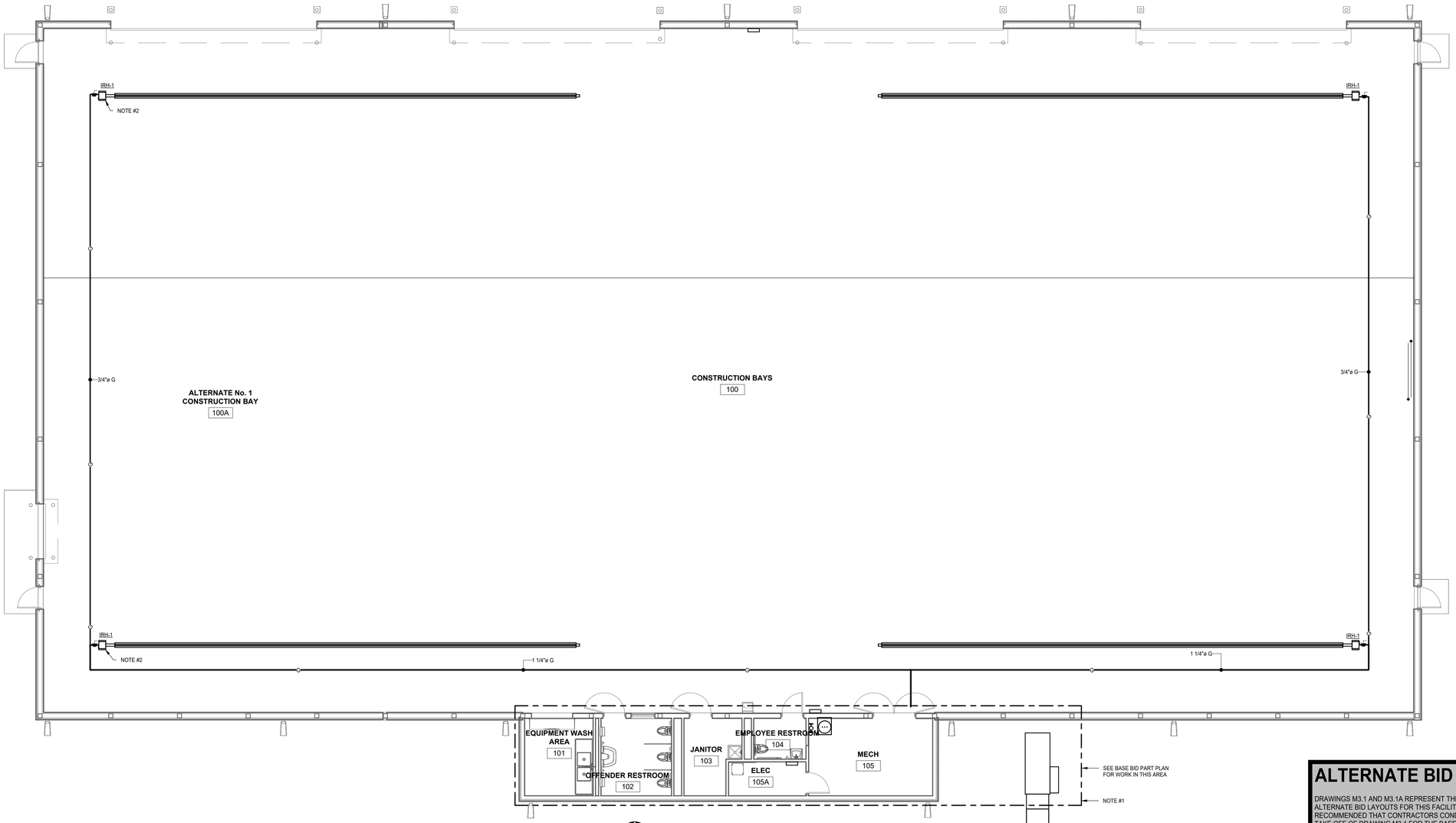
REFERENCE NOTES

1. REFERENCE M3.1 FOR ALTERNATE BID PLUMBING DETAILS.

2. HEATERS IRH-2 REPLACED WITH IR-1 FOR ALTERNATE BID.



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

ALTERNATE BID #1 NOTE

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DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
FLOOR PLAN - ALTERNATE NO.1 - PLUMBING / PIPING

SHEET NUMBER:
M3.1A

PROJECT NO.: 02401959.001

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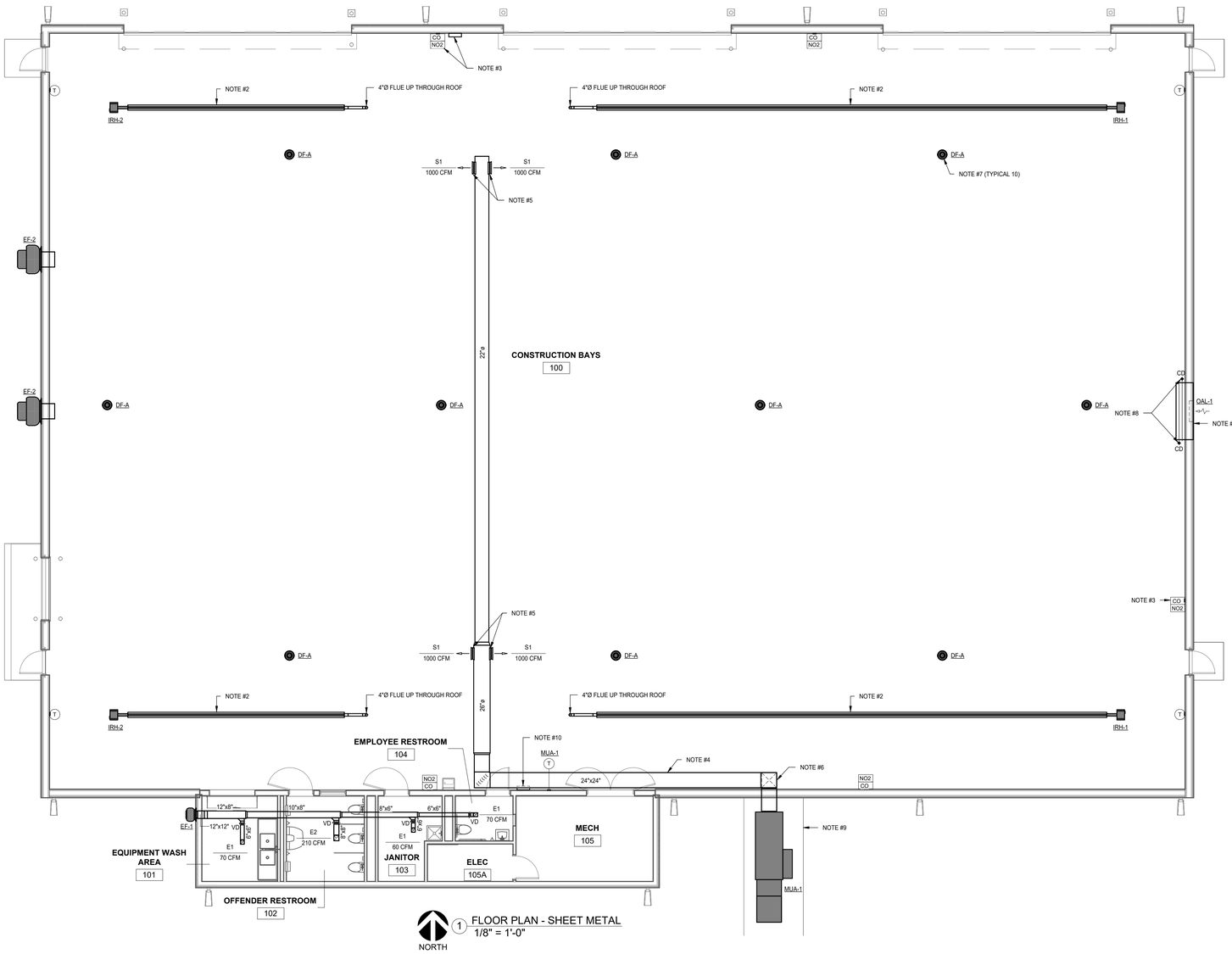

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REFERENCE NOTES

1. OAL-1 TO BE INSTALLED AT 36" ABOVE FINISHED FLOOR.
2. HANG INFRARED HEATERS AT A HEIGHT OF 23'-4" ABOVE FINISHED FLOORS. REVIEW MANUFACTURER'S INSTALLATION INSTRUCTIONS INCLUDING CLEARANCES.
3. GAS DETECTION SYSTEM CONTROL PANEL, CARBON MONOXIDE SENSOR, AND NITROGEN DIOXIDE SENSOR. MOUNT SENSORS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
4. ROUTE DUCTWORK AS HIGH AS POSSIBLE UNDER TRUSS STRUCTURE TO MAXIMIZE CLEARANCE.
5. ANGLE DIFFUSERS (S1) (APPROXIMATELY 13 DEGREES OFF CENTER AXIS) FOR BEST DISTRIBUTION OF VENTILATION AIR.
6. DUCTWORK PROTECTION BY OWNER.
7. DESTRATIFICATION FANS (DF-A) TO BE LOCATED ABOVE THE BOTTOM OF TRUSS STRUCTURE. REVIEW MANUFACTURER INSTALLATION INSTRUCTIONS.
8. DAMPER FOR LOUVER WILL REQUIRE TWO (2) DAMPER SECTIONS AND TWO (2) ELECTRIC OPERATORS DUE TO WIDTH.
9. CONCRETE EQUIPMENT PAD FOR MUA-1 BY MECHANICAL CONTRACTOR. FOLLOW MANUFACTURER'S INSTRUCTIONS AND INCLUDE FROST FOOTINGS.
10. MUA-1 CONTROL PANEL LOCATION.

ALTERNATE BID #1 NOTE

DRAWINGS M4.1 AND M4.1A REPRESENT THE BASE BID AND ALTERNATE BID LAYOUTS FOR THIS FACILITY. IT IS RECOMMENDED THAT CONTRACTORS CONDUCT A COMPLETE BID TAKE OFF OF DRAWING M4.1 FOR THE BASE BID, THEN CONDUCT A COMPLETE TAKEOFF OF DRAWING M4.1A. THE PRICE ADDER FOR THE ALTERNATE BID SHOULD BE CALCULATED BY COMPARING QUANTITIES BETWEEN THE BASE BID TO THE ALTERNATE BID.

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Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
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DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
FLOOR PLAN - SHEET METAL

SHEET NUMBER:
M4.1

PROJECT NO.: 02401959.001

7/21/2025 4:07:21 PM

REFERENCE NOTES

1. OAL-1 TO BE INSTALLED AT 36" ABOVE FINISHED FLOOR.
2. HANG INFRARED HEATERS AT A HEIGHT OF 23'-4" ABOVE FINISHED FLOORS. REVIEW MANUFACTURER'S INSTALLATION INSTRUCTIONS INCLUDING CLEARANCES.
3. GAS DETECTION SYSTEM CONTROL PANEL, CARBON MONOXIDE SENSOR, AND NITROGEN DIOXIDE SENSOR. MOUNT SENSORS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. ROUTE DUCTWORK AS HIGH AS POSSIBLE UNDER TRUSS STRUCTURE TO MAXIMIZE CLEARANCE.
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5. ANGLE DIFFUSERS (S1) (APPROXIMATELY 13 DEGREES OFF CENTER AXIS) FOR BEST DISTRIBUTION OF VENTILATION AIR.
6. DUCTWORK PROTECTION BY OWNER.
7. DESTRATIFICATION FANS (DF-A) TO BE LOCATED ABOVE THE BOTTOM OF TRUSS STRUCTURE. REVIEW MANUFACTURER INSTALLATION INSTRUCTIONS.
8. DAMPER FOR LOUVER WILL REQUIRE TWO (2) DAMPER SECTIONS AND TWO (2) ELECTRIC OPERATORS DUE TO WIDTH.
9. CONCRETE EQUIPMENT PAD FOR MUA-1 BY MECHANICAL CONTRACTOR. FOLLOW MANUFACTURER'S INSTRUCTIONS AND INCLUDE FROST FOOTINGS.
10. MUA-1 CONTROL PANEL LOCATION.

GENERAL NOTES

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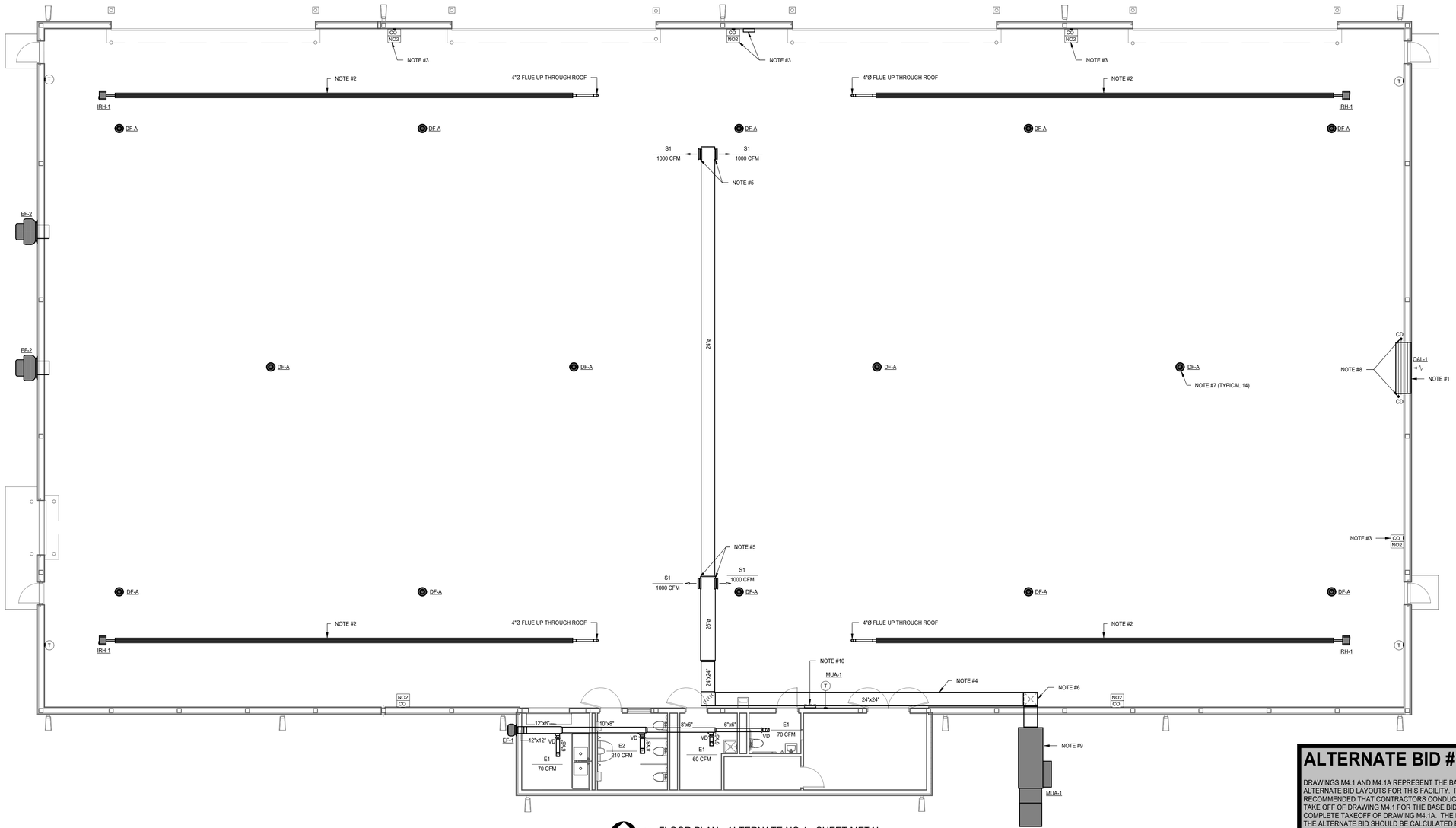

1 FLOOR PLAN - ALTERNATE NO.1 - SHEET METAL
1/8" = 1'-0"

NORTH

ALTERNATE BID #1 NOTE

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Newton, Iowa

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DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

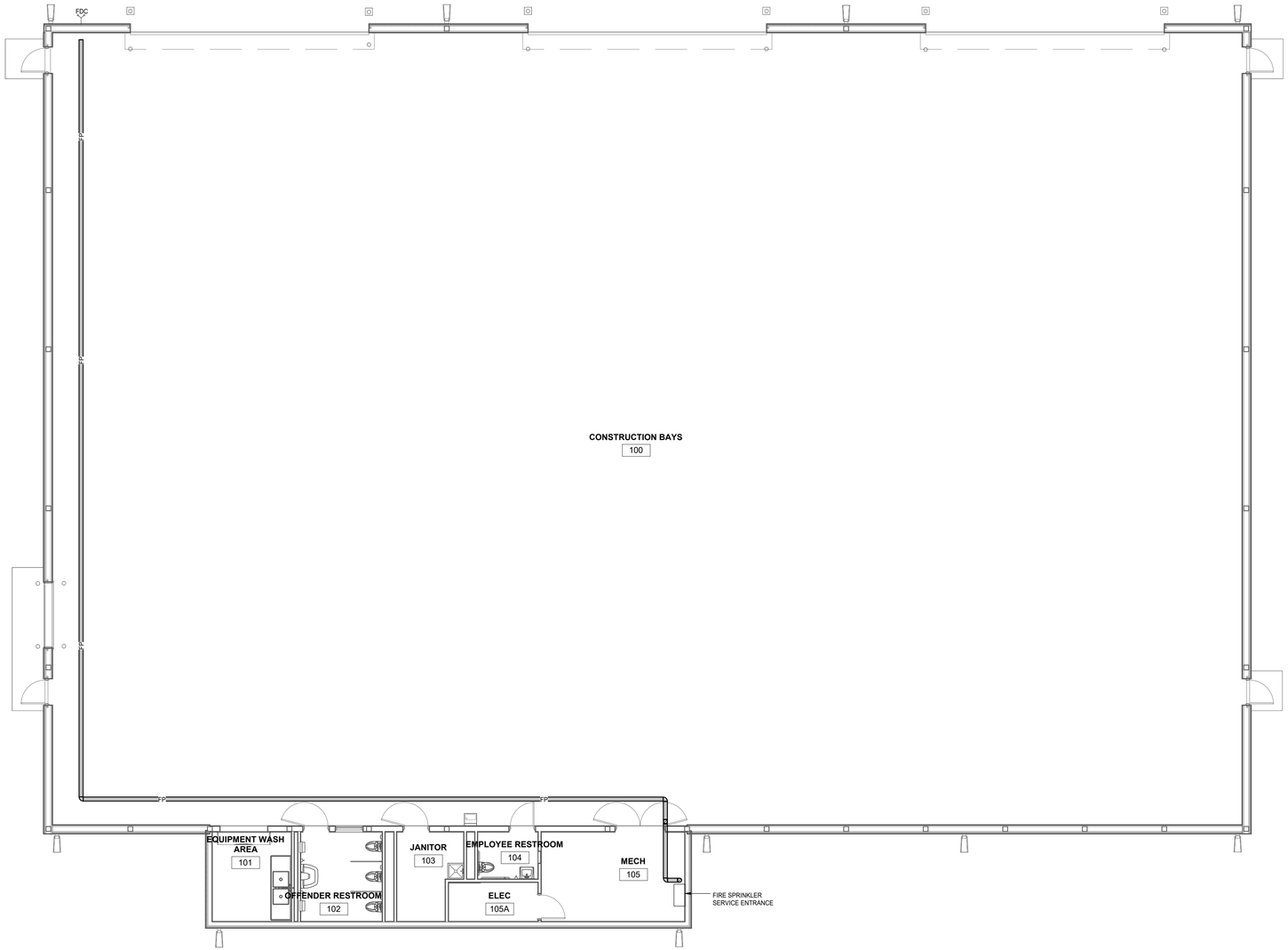
FLOOR PLAN - ALTERNATE NO.1 - SHEET METAL

SHEET NUMBER:

M4.1A

PROJECT NO.: 02401959.001

7/21/2025 4:07:22 PM



NORTH

1 BASE BID FLOOR PLAN - FIRE PROTECTION
1/8" = 1'-0"

GENERAL SPRINKLER NOTES

1. SITE WATER FLOW AND PRESSURE DATA IS PRESENTED FOR INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN AND/OR HYDRAULIC CALCULATIONS. CONTRACTOR SHALL BE REQUIRED TO PREFORM HYDRANT TESTING AT THE SITE FOR USE IN THEIR HYDRAULIC CALCULATIONS.
   A. HYDRANT TEST DATA: AT HYDRANT LOCATION NEAR THE CRC FACILITY ENTRANCE, SOUTHWEST OF THE PRMARY NEWTON CORRECTIONAL FACILITY LOCATED AT 307 S 60 TH AVE. W., NEWTON, IA, 50208, STATIC PRESSURE = 84 PSI, RESIDUAL PRESSURE = 76 PSI AT 1300 GPM FLOW (DIETORY HALL, 2025).
   B. COORDINATE ALL HYDRANT TESTING WITH THE NEWTON CORRECTIONAL FACILITY STAFF AND IOWA REGIONAL UTILITIES ASSOCIATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RELATED TO THE HYDRANT TESTING.
2. FIRE PROTECTION WORK SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

   A COMPLETE AND OPERABLE SYSTEM IN COMPLIANCE WITH APPLICABLE STATE AND LOCAL CODES, LAWS AND REGULATIONS INCLUDING ALL PIPING (FROM THE UTILITY MAIN, INCLUDING CONNECTION TAP WHERE REQUIRED), AND ALL VALVES, FIRE DEPARTMENT CONNECTIONS, ETC. PROVIDE FIRE PROTECTION RISER(S) INCLUDING REQUIRED VALVES, BACKFLOW PREVENTER, ALARM AND INSPECTORS TEST CONNECTION.

   ALL AREAS OF THE BUILDING SHALL BE SPRINKLED PER LATEST EDITION OF APPLICABLE NFPA STANDARDS. ENTIRE SYSTEM SHALL BE INSTALLED PER LOCAL FIRE DEPARTMENT REQUIREMENTS AND REQUIREMENTS OF AUTHORITY HAVING JURISDICTION.

   DESIGN SHALL BE BASED ON HYDRAULIC CALCULATIONS PER NFPA 13, WITH SHOP DRAWINGS PREPARED PER REQUIREMENTS OF AUTHORITY HAVING JURISDICTION. SPRINKLER CONTRACTOR SHALL PERFORM FIRE HYDRANT FLOW TESTING AT THE PROJECT SITE PRIOR TO HYDRAULIC DESIGN OF SYSTEM AND COMPLETION AND SUBMITTAL OF SHOP DRAWINGS IN ORDER TO DETERMINE CURRENTLY AVAILABLE WATER PRESSURE AND FLOW AT THE SITE. HYDRAULIC CALCULATIONS AND SYSTEM DESIGN SHALL BE BASED ON THE ACTUAL FLOW TEST DATA OBTAINED BY THE SPRINKLER CONTRACTOR.
3. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO CONVEY THE SCOPE OF WORK AND GENERAL ARRANGEMENT OF THE SYSTEM. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES AND LOCATIONS OF EXPOSED STRUCTURE. COORDINATE SPRINKLER SYSTEM LAYOUT WITH ALL ARCHITECTURAL, STRUCTURAL, HVAC, PLUMBING, AND ELECTRICAL COMPONETS. HVAC, PLUMBING, AND ELECTRICAL COMPONETS SHALL TAKE PRECEDENCE IN THE EVENT OF AN INSTALLATION CONFLICT.
4. SPRINKLER TYPES AND LOCATIONS, AND SPRINKLER PIPING ARE SHOWN FOR AESTHETIC AND COORDINATION PURPOSES. ACTUAL SYSTEM LAYOUT SHALL BE BASED ON HYDRAULIC DESIGN AND SHOP DRAWINGS. SPRINKLERS ADJACENT TO AIR OUTLETS/INLETS AND LIGHT FIXTURES SHALL BE LOCATED 6" (MINIMUM) FROM EITHER. SPRINKLERS IN LAY-IN CEILINGS SHALL BE INSTALLED IN THE CEILING TILE.
5. INSTALL 4" PIPE THROUGH EXTERIOR WALL FOR FIRE DEPARTMENT CONNECTION. FIRE DEPARTMENT CONNECTION SHALL BE INSTALLED 2'-6" (MINIMUM) ABOVE GRADE. PROVIDE HOSE CONNECTION THREADS TO MATCH LOCAL FIRE DEPARTMENT REQUIREMENTS.
6. PROVIDE AUXILIARY DRAINS FOR ALL LOW SPOTS IN PIPING SYSTEMS.
7. ALL EXPOSED PIPING SHALL BE PAINTED BY CONTRACTOR. VERIFY COLOR SELECTION WITH ARCHITECT.
8. SPRINKLER CONTRACTOR SHALL VERIFY ALL CEILING HEIGHTS PRIOR TO MAKING FINAL DROPS TO SPRINKLERS.
9. APPLICABLE U.L. CONSTRUCTION DETAIL(S) SHALL BE USED WHERE RATED ASSEMBLIES ARE PENETRATED BY SPRINKLER PIPING SYSTEM.
10. ENTIRE PIPING SYSTEM SHALL BE FLUSHED PRIOR TO PUTTING INTO SERVICE.
11. SEE PROJECT MANUAL SECTION 211300 FOR OTHER REQUIREMENTS.

ALTERNATE BID #1 NOTE

DRAWINGS M5.1 AND M5.1A REPRESENT THE BASE BID AND ALTERNATE BID LAYOUTS FOR THIS FACILITY. IT IS RECOMMENDED THAT CONTRACTORS CONDUCT A COMPLETE BID TAKE OFF OF DRAWING M5.1 FOR THE BASE BID, THEN CONDUCT A COMPLETE TAKEOFF OF DRAWING M5.1A. THE PRICE ADDER FOR THE ALTERNATE BID SHOULD BE CALCULATED BY COMPARING QUANTITIES BETWEEN THE BASE BID TO THE ALTERNATE BID.

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Engineers | Architects | Surveyors | Scientists

ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	NE
DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
FLOOR PLAN - FIRE PROTECTION

SHEET NUMBER:
M5.1

PROJECT NO.: 02401959.001

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GENERAL SPRINKLER NOTES

1. SITE WATER FLOW AND PRESSURE DATA IS PRESENTED FOR INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN AND/OR HYDRAULIC CALCULATIONS. CONTRACTOR SHALL BE REQUIRED TO PREFORM HYDRANT TESTING AT THE SITE FOR USE IN THEIR HYDRAULIC CALCULATIONS.
   A. HYDRANT TEST DATA: AT HYDRANT LOCATION NEAR THE CRC FACILITY ENTRANCE, SOUTHWEST OF THE PRMARY NEWTON CORRECTIONAL FACILITY LOCATED AT 307 S 60TH AVE. W., NEWTON, IA, 50208, STATIC PRESSURE = 84 PSI, RESIDUAL PRESSURE = 76 PSI AT 1300 GPM FLOW (DIETORY HALL, 2025).
   B. COORDINATE ALL HYDRANT TESTING WITH THE NEWTON CORRECTIONAL FACILITY STAFF AND IOWA REGIONAL UTILITIES ASSOCIATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RELATED TO THE HYDRANT TESTING.
2. FIRE PROTECTION WORK SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

   A COMPLETE AND OPERABLE SYSTEM IN COMPLIANCE WITH APPLICABLE STATE AND LOCAL CODES, LAWS AND REGULATIONS INCLUDING ALL PIPING (FROM THE UTILITY MAIN, INCLUDING CONNECTION TAP WHERE REQUIRED), AND ALL VALVES, FIRE DEPARTMENT CONNECTIONS, ETC. PROVIDE FIRE PROTECTION RISER(S) INCLUDING REQUIRED VALVES, BACKFLOW PREVENTER, ALARM AND INSPECTORS TEST CONNECTION.

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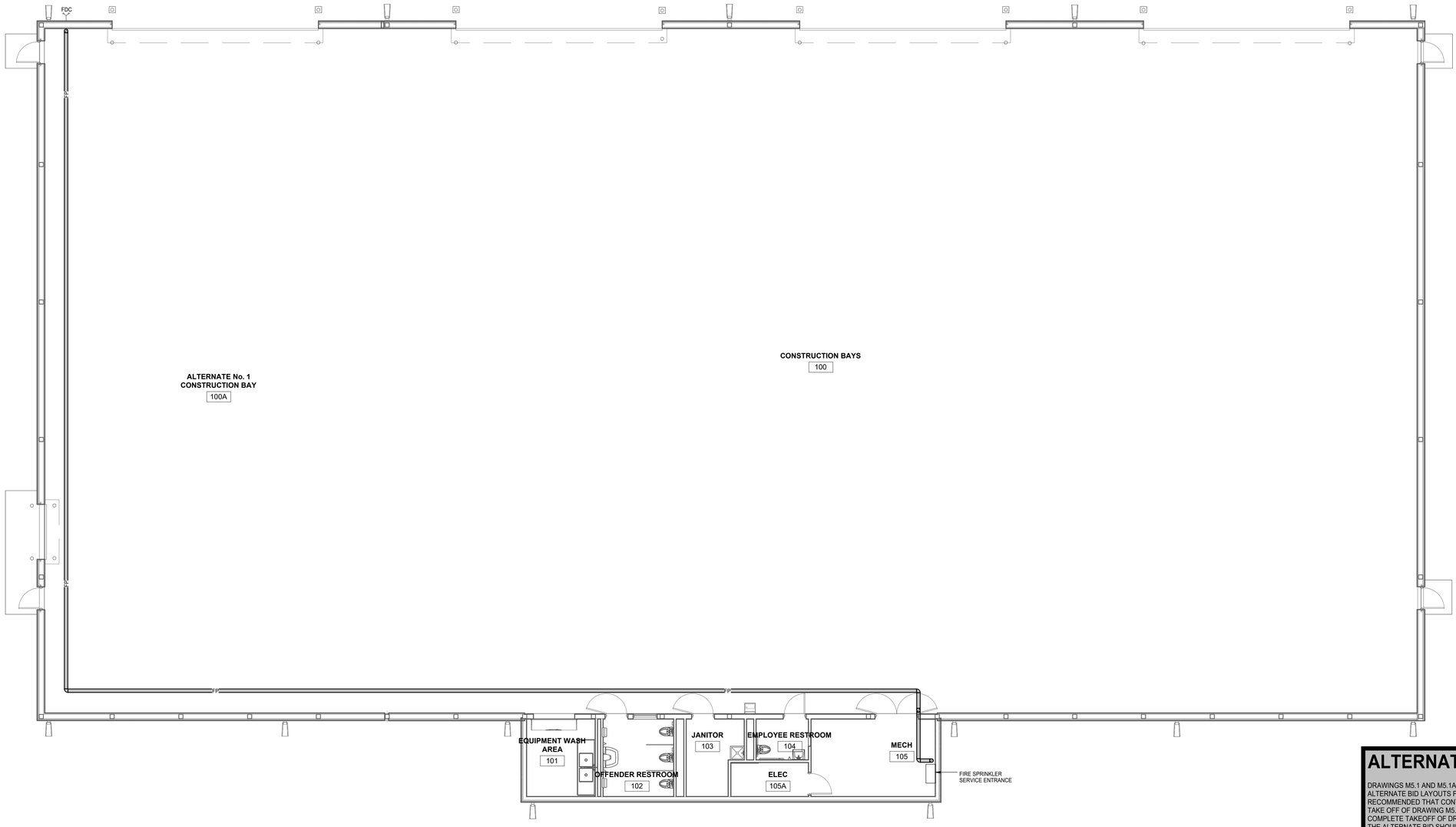

NORTH

1 ALTERNATE FLOOR PLAN - FIRE PROTECTION
1/8" = 1'-0"

ALTERNATE BID #1 NOTE

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State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

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DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

FLOOR PLAN - ALTERNATE NO. 1 - FIRE PROTECTION

SHEET NUMBER:

M5.1A

PROJECT NO.: 02401959.001

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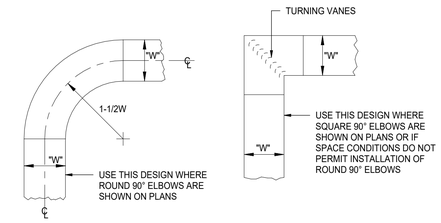
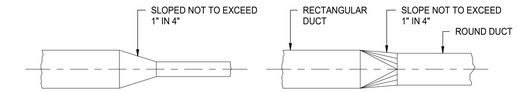


ROUND 90° ELBOW

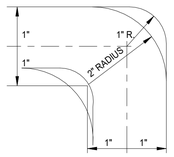
SQUARE 90° ELBOW

CONSTRUCTION OF 90° ELBOWS



TYPICAL RECTANGULAR TRANSITION

TYPICAL RECTANGULAR TO ROUND TRANSITION



DETAIL OF TURN VANES

INSTALLATION NOTES:

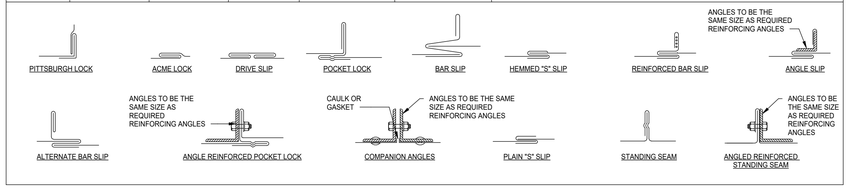
1. AIR TURN SHALL BE INSTALLED IN ALL ABRUPT ELBOWS TO PREVENT TURBULENCE.
2. DIVERGING TRANSITION PIECES SHALL BE MADE AS GRADUAL AS POSSIBLE.
3. INSTALL FIRE DAMPERS IN ACCORDANCE WITH UL 555.
4. ACCESS PANELS SHOULD BE PLACED BEFORE AND/OR AFTER EQUIPMENT INSTALLED IN THE DUCT.
5. FLEXIBLE FABRIC CONNECTIONS SHOULD BE USED ON BOTH INLETS AND OUTLETS OF ALL FANS AND AIR HANDLING UNITS.
6. JOINTS AND SEAMS OF SUPPLY DUCTS SHALL BE FASTENED SECURELY AND MADE AIR TIGHT.

1 LOW VELOCITY DUCT LAYOUT DETAILS
NOT TO SCALE

THICKNESS & REINFORCING SCHEDULE - * LOW PRESSURE DUCTWORK

*NOTE: LOW PRESSURE DUCTWORK SHALL BE DUCTWORK IN WHICH THE PRESSURE DOES NOT EXCEED 2" GATER GAUGE.

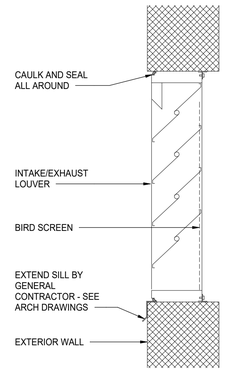
GREATEST DUCT DIMENSION	STEEL DUCTS U.S. STANDARD GAUGE	ALUMINUM DUCTS B&S GAUGE	LONGITUDINAL SEAM	TRANSVERSE JOINT SMALLEST DIMENSION	TRANSVERSE JOINT GREATEST DIMENSION	REINFORCING (ALL DUCTS 18" THRU 54" SHALL BE CROSSBROKEN)
12" OR LESS	26	24(0.020")	PITTSBURGH OR ACME LOCK	DRIVE SLIP OR POCKET LOCK OR BAR SLIP	PLAIN "S" SLIP OR POCKET LOCK OR BAR SLIP	NONE REQUIRED
13" THRU 18"	24	22(0.025")	PITTSBURGH OR ACME LOCK	DRIVE SLIP OR POCKET LOCK OR BAR SLIP	PLAIN "S" SLIP OR POCKET LOCK OR BAR SLIP	NONE REQUIRED
19" THRU 30"	24	22(0.025")	PITTSBURGH OR ACME LOCK	HEMMED "S" SLIP OR BAR SLIP OR DRIVE SLIP OR 1" POCKET LOCK	HEMMED "S" SLIP OR BAR SLIP OR 1" POCKET LOCK	IF TRANSVERSE JOINTS ARE LOCATED 4'-0" OR LESS ON CENTER NO REINFORCING IF ON 8'-0" CENTERS REINFORCE WITH 1"x1"x1/8" ANGLES AT 4'-0" O.C. FASTENED ON 8" CENTERS
31" THRU 42"	22	20(0.032")	PITTSBURGH OR ACME LOCK	DRIVE SLIP 18" OR LESS BAR SLIP REINFORCED BAR SLIP OR POCKET LOCK	BAR SLIP OR REINFORCED BAR SLIP OR POCKET LOCK	IF TRANSVERSE JOINTS ARE LOCATED 4'-0" OR LESS ON CENTER NO REINFORCING IF ON 8'-0" CENTERS REINFORCE WITH 1"x1"x1/8" ANGLES AT 4'-0" O.C. FASTENED ON 8" CENTERS
43" THRU 54"	22	20(0.032")	PITTSBURGH LOCK	1 1/4" BAR SLIP OR REINFORCED BAR SLIP OR 1 1/2" POCKET LOCK	1 1/4" BAR SLIP OR REINFORCED BAR SLIP OR 1 1/2" POCKET LOCK	IF TRANSVERSE JOINTS ARE LOCATED 4'-0" OR LESS ON CENTER NO REINFORCING IF ON 8'-0" CENTERS REINFORCE WITH 1"x1"x1/8" ANGLES AT 4'-0" O.C. FASTENED ON 8" CENTERS
55" THRU 60"	20	18(0.040")	PITTSBURGH LOCK	1 1/4" BAR SLIP OR REINFORCED BAR SLIP OR 1 1/2" POCKET LOCK	1 1/4" BAR SLIP OR REINFORCED BAR SLIP OR 1 1/2" POCKET LOCK	IF TRANSVERSE JOINTS ARE LOCATED 4'-0" OR LESS ON CENTER NO REINFORCING IF ON 8'-0" CENTERS REINFORCE WITH 1"x1"x1/8" ANGLES AT 4'-0" O.C. FASTENED ON 8" CENTERS
61" THRU 84"	20	18(0.040")	PITTSBURGH LOCK	REINFORCED BAR SLIP OR ANGLE SLIP ALTERNATE BAR SLIP, OR ANGLE REINFORCED POCKET LOCK	REINFORCED BAR SLIP OR ANGLE SLIP ALTERNATE BAR SLIP OR ANGLE REINFORCED POCKET LOCK	REINFORCE ALL SIDES OVER 60" WITH 1 1/2"x1 1/2"1/8" ANGLES ON 2'-0" CENTERS. SIDES UNDER 60" NEED NO REINFORCING IF JOINTS ARE ON 4'-0" CENTERS. IF JOINTS ARE ON 8'-0" CENTERS REINFORCE WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 4'-0" CENTERS.
85" THRU 95"	18	16(0.051") (LONGITUDINAL SEAM MAY BE STANDING SEAM)	PITTSBURGH LOCK	1 1/2" COMPANION ANGLES OR ANGLE REINFORCED POCKET LOCK OR 1 1/2" ANGLE SLIP OR REINFORCED BAR SLIP	1 1/2" COMPANION ANGLES OR ANGLE REINFORCED POCKET LOCK OR 1 1/2" ANGLE SLIP OR REINFORCED BAR SLIP	REINFORCE ALL SIDES OVER 84" WITH 1 1/2"x1 1/2"x3/16" ANGLES ON 2'-0" CENTERS. SIDES 61" THRU 84" REINFORCE WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 2'-0" CNETERS. SIDES 60" OR LESS NEED NO REINFORCING IF JOINTS ARE ON 4'-0" CENTERS. IF JOINTS ARE ON 8'-0" CENTERS REINFORCE WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 4'-0" CENTERS.
OVER 96"	18	16(0.051") (LONGITUDINAL SEAM MAY BE STANDING SEAM)	PITTSBURGH LOCK	2" COMPANION ANGLE OR 2"x2"x1/4" ANGLE SLIP OR 2"x2"x1/4" ANGLE REINFORCED POCKET LOCK OR REINFORCED BAR SLIP	2" COMPANION ANGLE OR 2"x2"x1/4" ANGLE SLIP OR 2"x2"x1/4" ANGLE REINFORCED POCKET LOCK OR REINFORCED BAR SLIP	REINFORCE ALL SIDES OVER 96" WITH 2"x2"x1/4" ANGLES ON 2'-0" CENTERS. REINFORCE ALL SIDES 85" THRU 96" WITH 1 1/2"x1 1/2"x3/16" ANGLES ON 2'-0" CENTERS. REINFORCE ALL SIDES 61" THRU 84" WITH 1 1/2"x1 1/2"x1/8" ANGLES ON 2'-0" CENTERS. REINFORCE ALL SIDES UNDER 60" WITH 1 1/2"x1 1/2"x1/8" ANGLES IF JOINTS ARE 8'-0" ON CENTER. NO REINFORCING IF JOINTS ARE 4'-0" ON CENTER.



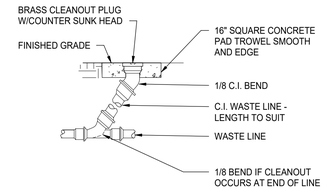
DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESS

RECTANGULAR DUCTS		
MAXIMUM SIZE (INCHES)	STEEL (MINIMUM THICKNESS, NOMINAL)	ALUMINUM (MINIMUM THICKNESS, NOMINAL)
THROUGH 12	0.022 INCH (26 GAGE, GALV.)	0.020 INCH (NO. 24 B&S GAGE)
13 THROUGH 30	0.028 INCH (24 GAGE, GALV.)	0.025 INCH (NO. 22 B&S GAGE)
31 THROUGH 54	0.034 INCH (22 GAGE, GALV.)	0.032 INCH (NO. 20 B&S GAGE)
55 THROUGH 84	0.040 INCH (20 GAGE, GALV.)	0.040 INCH (NO. 18 B&S GAGE)
OVER 84	0.052 INCH (18 GAGE, GALV.)	0.051 INCH (NO. 16 B&S GAGE)

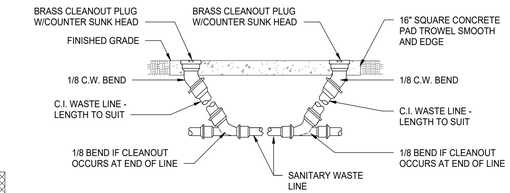
ROUND DUCTS			
MAXIMUM SIZE (INCHES	SPIRAL SEAM DUCT STEEL (MIN. THICKNESS, NOMINAL)	LONGITUDINAL SEAM DUCT STEEL (MIN. THICKNESS, NOMINAL)	FITTINGS STEEL (MIN. THICKNESS, NOMINAL)
THROUGH 12	0.019 INCH (28 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)
13 THROUGH 30	0.022 INCH (26 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)
31 THROUGH 54	0.028 INCH (24 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)
55 THROUGH 84	0.034 INCH (22 GAGE, GALV.)	0.040 INCH (20 GAGE, GALV.)	0.040 INCH (20 GAGE, GALV.)
OVER 84	0.040 INCH (20 GAGE, GALV.)	0.052 INCH (18 GAGE, GALV.)	0.052 INCH (18 GAGE, GALV.)



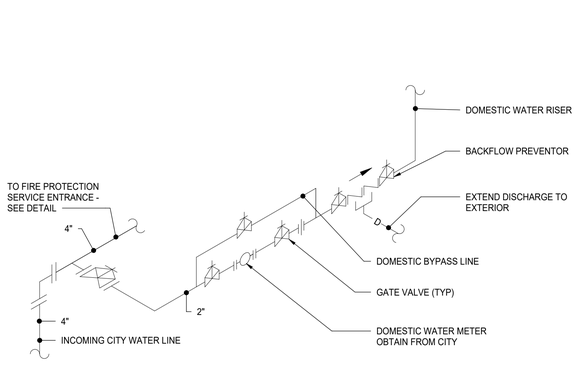
3 LOUVER DETAIL
NOT TO SCALE



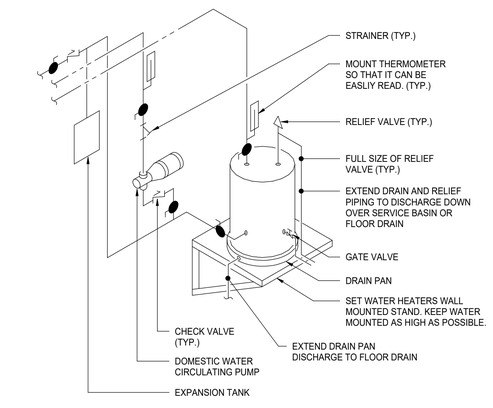
4 CLEANOUT TO GRADE DETAIL
NOT TO SCALE



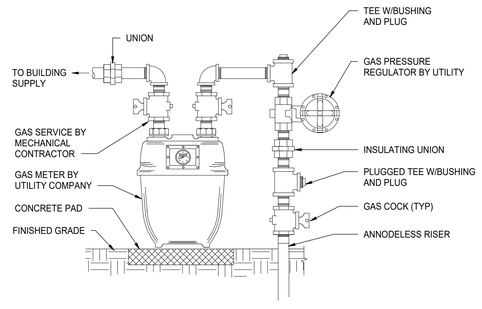
5 EXTERIOR SANITARY DOUBLE CLEANOUT
NOT TO SCALE



6 FIRE/DOMESTIC WATER SERVICE ENTRANCE DETAIL
NOT TO SCALE

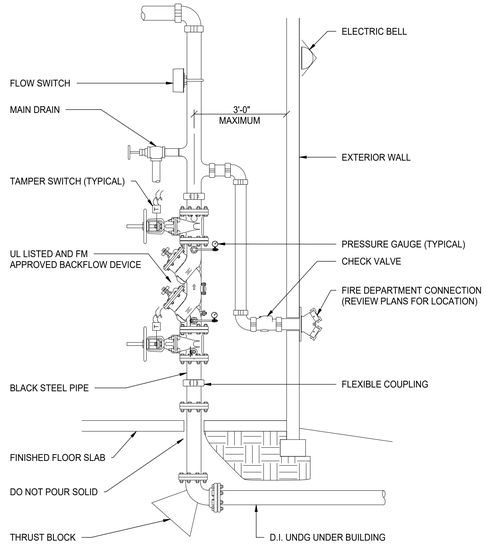


7 ELECTRIC WATER HEATER PIPING DETAIL
NOT TO SCALE

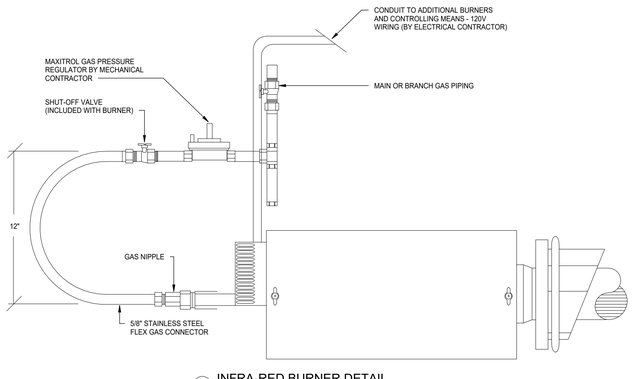


8 UTILITY GAS METER DETAIL
NOT TO SCALE

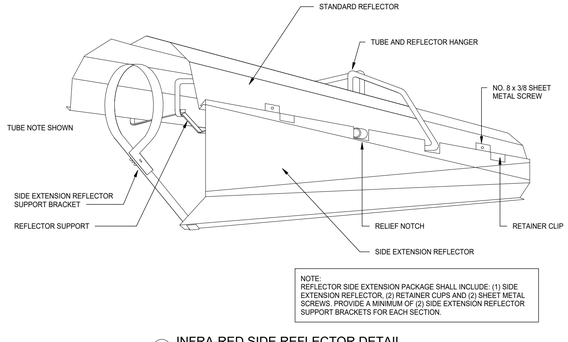
NOTES:
1. BACKFLOW PREVENTER SHALL BE TESTED FOR PROPER OPERATION BEFORE OCCUPANCY.
2. RISER SHALL BE HYDROSTATICALLY TESTED PER NFPA AND LOCAL FIRE MARSHAL REQUIREMENTS.



12 FIRE SPRINKLER RISER - VERTICAL INSTALLATION DETAIL
NOT TO SCALE

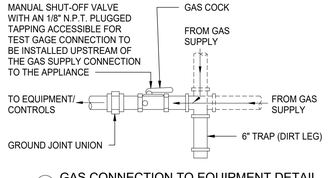


9 INFRA-RED BURNER DETAIL
NOT TO SCALE



NOTE:
REFLECTOR SIDE EXTENSION PACKAGE SHALL INCLUDE: (1) SIDE EXTENSION REFLECTOR, (2) RETAINER CUPS AND (2) SHEET METAL SCREWS. PROVIDE A MINIMUM OF (2) SIDE EXTENSION REFLECTOR SUPPORT BRACKETS FOR EACH SECTION.

10 INFRA-RED SIDE REFLECTOR DETAIL
NOT TO SCALE



11 GAS CONNECTION TO EQUIPMENT DETAIL
NOT TO SCALE

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SHEET TITLE:
MECHANICAL DETAILS

SHEET NUMBER:
M6.1

PROJECT NO.: 02401959.001

7/21/2025 4:07:25 PM

MAKE-UP AIR UNIT SCHEDULE

UNIT TAG	MANUFACTURER	MODEL NUMBER	SUPPLY FAN SECTION						GAS-FIRED SECTION							FILTER				ELECTRICAL		
			AIRFLOW (CFM)	EXTERNAL STATIC (IN WC)	TOTAL STATIC (IN WC)	FAN RPM	FAN BHP	FAN HP	ENTERING AIR (Edb)	LEAVING AIR (Ldb)	TOTAL CAPACITY (MBH)	GAS INPUT (MBH)	GAS OUTPUT (MBH)	HEAT EXCHANGER TYPE	GAS HEAT STAGING	FILTER TYPE	FILTER THICKNESS (IN)	FILTER EFFICIENCY	FILTER AREA (SQ FT)	ELECTRICAL CHARACTERISTICS	MINIMUM CIRCUIT AMPACITY (MCA)	MAX OVER CURRENT PROTECTION (MOCP)
MUA-1	WEATHERITE	XT-115	4000	0.5	1.17	1750	3	3	0°F	90°F	405.0	405	405	DIRECT FIRE	30:1	PLEATED	2	MERV 8	6.72	208V/3Ø	14.5	24.9

NOTES:
1. UNIT SHALL BE PROVIDED WITH A 19-INCH INSULATED CURB.
2. UNIT SHALL HAVE FACTORY PROVIDED FILTER SECTION. MECHANICAL CONTRACTOR TO FURNISH FILTERS.
3. MECHANICAL CONTRACTOR TO PROVIDE STAND ALONE ELECTROMECHANICAL CONTROL SYSTEM. WIRING BY MECHANICAL CONTRACTOR.
4. MUA-1 TO RUN CONTINUOUSLY WHEN BUILDING IS OCCUPIED. SHALL BE TIED TO LIGHTING IN CONSTRUCTION BAYS 100. WIRING BY MECHANICAL CONTRACTOR.

EXHAUST FAN SCHEDULE

UNIT TAG	MANUFACTURER	MODEL NUMBER	FAN TYPE	DRIVE TYPE	AIRFLOW (CFM)	EXTERNAL STATIC PRESSURE (IN WC)	BREAK HORSEPOWER (BHP)	MOTOR HORSEPOWER (HP)	FAN RPM	SOUND RATING (SONES)	ELECTRICAL CHARACTERISTICS
EF-1	COOK	101W17D (VF)	WALL MOUNT	ECM	410	0.5	0.069	1/8	1329	7.1	115V/1Ø
EF-2	COOK	225W17D (VF2)	WALL MOUNT	ECM	7500	0.3	2.55	5	1334	29	208V/1Ø

NOTES:
1. EXHAUST FANS SHALL HAVE BIRD SCREENS AND GRAVITY BACKDRAFT DAMPERS.
2. DIRECT DRIVE FANS SHALL BE PROVIDED WITH A FACTORY INSTALLED AND WIRED SPEED CONTROL.
3. EF-1 TO RUN CONTINUOUSLY WHEN BUILDING IS OCCUPIED. SHALL BE TIED TO LIGHTING IN CONSTRUCTION BAY 100. CONTROL WIRING FROM CONTACTOR TO FAN BY MECHANICAL CONTRACTOR.

LOUVER SCHEDULE

UNIT TAG	MANUFACTURER	MODEL NUMBER	SERVES	LOUVER AIRFLOW (CFM)	NOMINAL LOUVER SIZE (IN)	LOUVER FREE AREA (SQ FT)	FACE VELOCITY (FPM)	STATIC PRESSURE DROP (IN WC)	NOTES
OAL-1	RUSKIN	ELF6375DX	CONSTRUCTION BAYS 100	15,000	90x60	22.12	678.1	0.067	1,2

NOTES:
1. LOUVER FINISH SHALL BE AS SELECTED BY THE ARCHITECT.
2. LOUVERS SHALL HAVE BIRDSCREEN ON INTERIOR SURFACE.

ELECTRIC WATER HEATER SCHEDULE

UNIT TAG	MANUFACTURER	MODEL NUMBER	ELEMENT kW (MIN/MAX)	STORAGE CAPACITY (GAL)	RECOVERY RATE (GPH @ 100°F)	FULL LOAD AMPS (FLA)	ELECTRICAL CHARACTERISTICS
EWH-1	A.O. SMITH	DEL-30	4.5/4.5	33	18	22	208V/1Ø

NOTES:
1. FURNISH AND INSTALL A BLADDER TYPE EXPANSION TANK AT EACH WATER HEATER. BLADDER TANK OPERATING PRESSURE SHALL MATCH WATER HEATER OPERATING PRESSURE.
2. ELEMENTS TO BE NON-SIMULTANEOUS.

DESTRATIFICATION FANS SCHEDULE

UNIT TAG	MANUFACTURER	MODEL NUMBER	FAN TYPE	DRIVE TYPE	AIRFLOW (CFM)	MOTOR HORSEPOWER (WATTS)	SOUND RATING (dBA)	ELECTRICAL CHARACTERISTICS
DF-A	ZOO FANS	H25-AC	VARIABLE	DIRECT	588	55	36.4	120V/1Ø

NOTES:
1. DESTRATIFICATION FANS SHALL HAVE PROTECTIVE EXHAUST SAFETY GRILLE AT OPENING.
2. DIRECT DRIVE FANS SHALL BE PROVIDED WITH FACTORY AVST-10A-115V SPEED CONTROL AND WALL MOUNTED CONTROLLER. SINGLE CONTROLLER CAN BE USED FOR MULTIPLE FANS.
3. DESTRATIFICATION FANS SHALL BE PROVIDED WITH REDUNDANT FAN SUPPORT AND TETHERING GRIPPLE.
4. FANS SHALL HAVE 6FT, 3-PRONG PLUG.
5. FAN COLOR SHALL BE AS SELECTED BY THE ARCHITECT.

INFRARED HEATING EQUIPMENT SCHEDULE

UNIT TAG	MANUFACTURER	MODEL NUMBER	GAS INPUT (MBH)	GAS PRESSURE RANGE	TYPE OF GAS	STYLE OF IR - VENT	ELECTRICAL CHARACTERISTICS	AMPS (MCA)	AMPS (FLA)	NOTES
IRH-1	DETROIT RADIANT	HL3-70-200	200	3.5"-10" W.C.	NATURAL GAS	POSITIVE	120V/1Ø	4.8	1.1	1,2,3,4,5,6
IRH-2	DETROIT RADIANT	HL3-30-125	125	3.5"-10" W.C.	NATURAL GAS	POSITIVE	120V/1Ø	4.8	1.1	1,2,3,4,5,6

NOTES:
1. PROVIDE HEAT TREATED ALUMINIZED STEEL FOR ALL TUBING.
2. PROVIDE MANUFACTURER'S MILL FINISH ALUMINUM REFLECTOR OVER ALL TUBING.
3. ELECTRONIC IGNITION, THREE TRY SPARK, 100% SHUT-OFF.
4. PROVIDE MANUFACTURER'S SENSOR OR THERMOSTAT INCLUDING CONDUIT AND WIRING TO LOCATIONS SHOWN ON THE PLANS. THERMOSTAT WIRING BY MECHANICAL CONTRACTOR.
5. HEATERS INDICATED TO BE VENTED THROUGH THE ROOF.
6. PROVIDE HEATERS WITH GAS PRESSURE REGULATORS. REFER TO SPECIFICATIONS.

GRILLE, REGISTER AND DIFFUSER SCHEDULE

UNIT TAG	MANUFACTURER	MODEL NUMBER	AIR SYSTEM	INLET / OUTLET TYPE	MATERIAL TYPE	FACE SIZE (IN)	INLET SIZE (IN)	AIRFLOW (CFM)	NOISE LEVEL (NC)	FINISH	NOTES
E1	PRICE	530	EXHAUST	LOUVERED	STEEL	---	6x6	0-125	22	WHITE	1,2
E2	PRICE	530	EXHAUST	LOUVERED	STEEL	---	8x8	130-250		WHITE	1,2
S1	PRICE	HCD	SUPPLY	DRUM LOUVER	STEEL	18x10	18x10	700-1100	33	WHITE	1
S2	PRICE	RCDA	SUPPLY	ROUND CONE	STEEL	31.5"	14"Ø	600-850	20	WHITE	1

NOTES:
1. VERIFY GRILLE, REGISTER AND DIFFUSER BORDER TYPES WITH ARCHITECTURAL CEILING PLAN.
2. PROVIDE AN OPPOSED BLADE DAMPER WITH DIFFUSER/REGISTER.

TOXIN DETECTION SYSTEM SCHEDULE

ZONE	ROOM NUMBER	ROOM ID	AREA (SQ FT)	SENSORS	EXHAUST FANS	MUAU AND DAMPERS
1 CONSTRUCTION BAYS (BASE)	100	CONSTRUCTION BAYS	15,000	4 CO/NO2	EF-2	OAL-1 CONTROL DAMPERS
1 CONSTRUCTION BAYS (ALTERNATE)	100	CONSTRUCTION BAYS	20,000	5 CO/NO2	EF-2	OAL-1 CONTROL DAMPERS

NOTES:
1. 24 VOLT WIRING IN CONDUIT BY MECHANICAL CONTRACTOR THROUGHOUT.
2. 120V DAMPER MOTORS BY MECHANICAL CONTRACTOR.
3. SENSOR LOCATIONS ARE INDICATED FOR BID PURPOSE ONLY. ACTUAL LOCATIONS ARE TO BE PER MANUFACTURER'S RECOMMENDATION AND COORDINATED WITH OWNERS REPRESENTATIVE AND ENGINEER BEFORE CONSTRUCTION.

CONSTRUCTION BAYS 100 VENTILATION SYSTEM

IN CONSTRUCTION BAYS (100), VEHICLE EXHAUST GAS DETECTION SYSTEM SHALL MONITOR SPACE CO AND NO2 LEVELS FROM THE PROVIDED PANEL. CONNECT BOTH EXHAUST FANS EF-2 AND BOTH CONTROL DAMPERS FOR OAL-1 TO THE PANEL CONTROLS TO ENABLE FAN AND OPEN DAMPER ON AN ALARM CONDITION.

IN A "FREE COOLING MODE", EXHAUST FANS EF-2 SHALL BE ENABLED FROM A LOCAL SWITCH ON THE GAS DETECTION CONTROL PANEL AND THE CONTROL DAMPER AT EACH RESPECTIVE OUTSIDE AIR LOUVER SHALL BE OPENED TO PROVIDE MAKE UP AIR.

MUA-1 SEQUENCE OF OPERATION

SUPPLY FAN CONTROL:
THE SUPPLY FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED PERIODS. OPERATION SHALL BE INTERLOCKED TO LIGHTING CONTACTOR IN CONSTRUCTION BAYS (100).

SPACE TEMPERATURE:
IN A HEATING MODE, THE GAS HEATING SHALL MODULATE TO MAINTAIN DISCHARGE AIR TEMPERATURE AS REQUIRED. UNIT CONTROL SHALL BE FROM A LOCAL, STAND-ALONE MAKEUP UNIT CONTROL PANEL.

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ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	NE
DRAWN:	CEG/MVN
REVIEWED:	NE
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
MECHANICAL SCHEDULES

SHEET NUMBER:
M7.1

PROJECT NO.: 02401959.001

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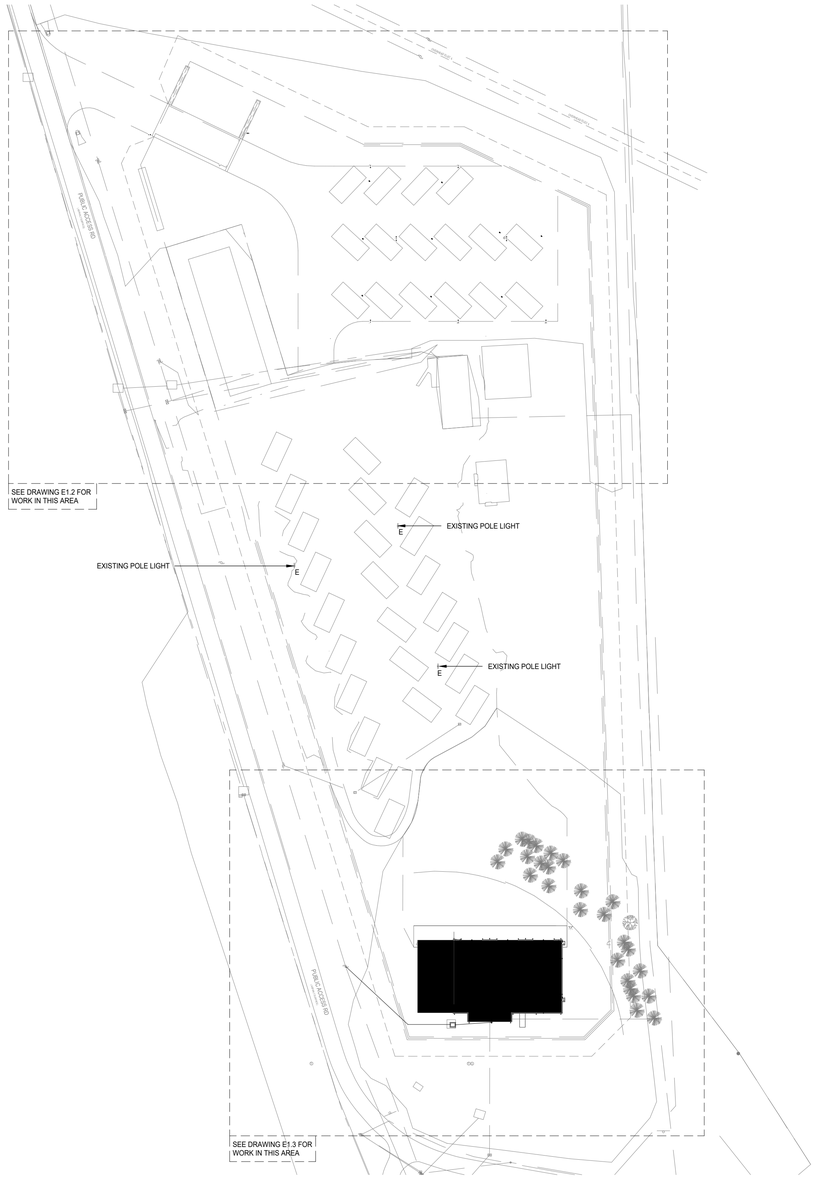

NORTH

1 SITE PLAN - ELECTRICAL
1" = 100'-0"

ELECTRICAL LEGEND

ABBREVIATIONS:

AC	ABOVE COUNTER
ACCU-#	AIR COOLED CONDENSING UNIT
ACU-#	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISHED FLOOR
AHU-#	AIR HANDLING UNIT
CLG	CEILING MOUNTED DEVICE
CS	CHILLER SHUTDOWN
CUH-#	CABINET UNIT HEATER
CWP-#	CHILLED WATER PUMP
DF-#	DESTRATIFICATION FAN
DHWCP-#	DOMESTIC HOT WATER CIRCULATION PUMP
DO	DOOR OPERATOR
DOAS-#	DEDICATED OUTSIDE AIR UNIT
EC-#	ELECTRIC COIL
EF-#	EXHAUST FAN
EM	EMERGENCY BALLAST
EPO	EMERGENCY POWER OFF
ER	EXISTING DEVICE RELOCATED
EWC	ELECTRIC WATER COOLER, DEVICE BESIDE HOUSING
EWF	ELECTRIC WASH FOUNTAIN, DEVICE OUTSIDE HOUSING
EWH-#	ELECTRIC WATER HEATER
F-#	FURNACE
FCU-#	FAN COIL UNIT
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
GFI	GROUND FAULT INTERRUPTIBLE DEVICE
GFUH-#	GAS-FIRED UNIT HEATER
GP	GROUND FAULT PROTECTED DEVICE
GWH-#	GAS-FIRED WATER HEATER
HP-#	HEAT PUMP
HWP-#	HOT WATER PUMP
IG	ISOLATED GROUND DEVICE
IRH-#	INFRARED RADIANT HEATER
IWH-#	INSTANTANEOUS WATER HEATER
MUA-#	MAKE-UP AIR UNIT
MW	MICROWAVE
N	NEW DEVICE IN EXISTING LOCATION
N.I.C.	NOT IN CONTRACT
NL	NIGHT LIGHT
PFUH-#	PROPELLER FAN UNIT HEATER
PROJ	PROJECTOR
R	EXISTING DEVICE TO BE REMOVED
REF	REFRIGERATOR
RR	EXISTING DEVICE TO BE REMOVED AND RELOCATED
RTU-#	ROOFTOP UNIT
RV-#	RELIEF VENTILATOR
SS	SURE SUPPRESSION DEVICE
SWP-#	SYSTEM WATER PUMP
TYP	TYPICAL
u	RED RECEPTACLE CONNECTED TO UPS BACKED CIRCUIT
UH-#	UNIT HEATER
USB	USB DEVICE
VAV-#	VARIABLE AIR VOLUME UNIT
VEF-#	VEHICLE EXHAUST FAN
VFD	VARIABLE FREQUENCY DRIVE
VG	VANDAL GUARD LEXAN COVER
WAP	WIRELESS ACCESS POINT
WG	WIREGUARD
WH-#	WATER HEATER
WP	WEATHERPROOF DEVICE
WSHP-#	WATER SOURCE HEAT PUMP
#D	DATA OUTLET (# INDICATES QUANTITY)
#V	VOICE OUTLET (# INDICATES QUANTITY)

REFERENCE SYMBOLS:

	POINT OF CONNECTION/DISCONNECTION
?	KEYED NOTE
?	KITCHEN EQUIPMENT IDENTIFICATION TAG
X / Y	DETAIL REFERENCE (X = DETAIL NUMBER, Y = DRAWING NUMBER)

LIGHTING CONTROL SYMBOLS:

y	SINGLE POLE SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
3,y	THREE-WAY SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
4,y	FOUR-WAY SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
D,y	DIMMER SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
G,y	GLOW SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
K,y	KEYED SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
M,y	MOMENTARY SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
P,y	PILOT SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
T,y	TIMER SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED (y = SWITCH LEG ID)
OCS y	OCCUPANCY SENSOR, +48" A.F.F. UNLESS OTHERWISE NOTED (# = OCCUPANCY SENSOR TYPE, y = SWITCH LEG ID)
LC	LIGHTING CONTACTOR
PC	PHOTOCELL ON ROOF
R	RELAY

LIGHT FIXTURE SYMBOLS:

X	CEILING/PENDANT MOUNTED EXIT LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, ARROW INDICATE DIRECTION)
X	WALL MOUNTED EXIT LIGHT FIXTURE, +8'-0" A.F.F. UNLESS OTHERWISE NOTED (X = LIGHT FIXTURE TYPE, ARROW INDICATE DIRECTION)
X,y	WALL MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	WALL MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X	WALL MOUNTED EMERGENCY LIGHT FIXTURE (X = LIGHT FIXTURE TYPE) +7'-6" A.F.F. UNLESS OTHERWISE NOTED
X	EXTERIOR WALL MOUNTED EMERGENCY EGRESS LIGHT FIXTURE (X = LIGHT FIXTURE TYPE) +7'6" A.F.F. UNLESS OTHERWISE NOTED
X,y	SURFACE MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	PENDANT MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	WALL MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	UNDERCABINET LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	RECESSED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	ROUND RECESSED CAN LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	SURFACE MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	PENDANT MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X,y	SQUARE RECESSED CAN LIGHT FIXTURE (X = LIGHT FIXTURE TYPE, y = LIGHT SWITCH LEG ID)
X	POLE MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE)
X	GROUND MOUNTED LIGHT FIXTURE (X = LIGHT FIXTURE TYPE)

FIRE ALARM SYSTEM SYMBOLS:

S	PHOTOELECTRIC SMOKER DETECTOR
S	120V SMOKER DETECTOR WITH SOUNDER BASE AND BATTERY BACKUP
H	COMBINATION FIXED 135°F / RATE OF RISE HEAT DETECTOR
H HT	FIXED 200°F HEAT DETECTOR
S D	DUCT SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
A	DUCT DETECTOR REMOTE TEST STATION AND INDICATOR
	FIRE ALARM HORN/STROBE, +80" A.F.F. UNLESS OTHERWISE NOTED
S	FIRE ALARM SPEAKER/STROBE, +80" A.F.F. UNLESS OTHERWISE NOTED
	FIRE ALARM STROBE, +80" A.F.F. UNLESS OTHERWISE NOTED
S	EXTERIOR SPRINKLER ALARM HORN/STROBE, +10'-0" A.F.F. UNLESS OTHERWISE NOTED
F	WEATHERPROOF FIRE ALARM HORN, +10'-0" A.F.F. UNLESS OTHERWISE NOTED
F	MANUAL FIRE ALARM PULL STATION, +48" A.F.F. UNLESS OTHERWISE NOTED
FS	FLOW SWITCH
TS	TAMPER SWITCH
DH	DOOR HOLD OPEN
DC	DOOR CLOSER
SD	SMOKE DAMPER
FSD	FIRE/SMOKE DAMPER
PA	FIRE PROTECTION PRE-ACTION CONTROL VALVE
AR	AREA OF RESCUE STATION

POWER SYMBOLS:

	SURFACE MOUNTED PANEL
	RECESSED PANEL
	ELECTRIC METER
	CONDUIT CONCEALED IN CEILING AND WALL CONSTRUCTION
	ELECTRICAL CIRCUIT HOMERUN
	GROUND BAR
	DUPLEX RECEPTACLE, +18" A.F.F. UNLESS OTHERWISE NOTED
	FOURPLEX RECEPTACLE, +18" A.F.F. UNLESS OTHERWISE NOTED
X	DUPLEX RECEPTACLE (X = DEVICE TYPE) +18" A.F.F. UNLESS OTHERWISE NOTED
X	FOURPLEX RECEPTACLE (X = DEVICE TYPE) +18" A.F.F. UNLESS OTHERWISE NOTED
FDV	FLOOR BOX WITH DEVICES AS INDICATED
	DUPLEX RECEPTACLE MOUNTED FLUSH IN FACE OF CEILING, DEVICE AS NOTED
	SPECIAL ELECTRICAL CONNECTION OR DEVICE AS NOTED
PP	POWER POLE
D	ELECTRIC HAND DRYER CONNECTION, HEIGHT AS INDICATED IN SPECIFICATIONS
	MOTOR
ATS	AUTOMATIC TRANSFER SWITCH
MTS	MANUAL TRANSFER SWITCH
PS	POWER SUPPLY
	ENCLOSED SAFETY SWITCH
FS	FUSE STAT SWITCH WITH FUSE, MOUNT ADJACENT TO EQUIPMENT
CB	ENCLOSED CIRCUIT BREAKER
TS	TIME SWITCH
T	BUCK-BOOST TRANSFORMER
VFD	VARIABLE FREQUENCY DRIVE
CD	CONTROL DAMPER
	PUSH BUTTON (FUNCTION AS INDICATED), +48" A.F.F. UNLESS OTHERWISE NOTED
	PUSH BUTTON, +48" A.F.F. UNLESS OTHERWISE NOTED
B	DOOR BELL, HEIGHT AS INDICATED
T	THERMOSTAT, +48" A.F.F. UNLESS OTHERWISE NOTED
AVST	AUTOTRANSFORMER CONTROLLER
UD	UP/DOWN/STOP CONTROL SWITCH, +48" A.F.F. UNLESS OTHERWISE NOTED
PB	START/STOP PUSHBUTTON WITH PILOT, +48" A.F.F. UNLESS OTHERWISE NOTED
C	SPEED CONTROL SUPPLIED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR, MOUNT ADJACENT TO OR INSIDE UNIT ENCLOSURE

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ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	CMP
DRAWN:	CEG/MVN
REVIEWED:	CMP
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
SITE PLAN - ELECTRICAL

SHEET NUMBER:
E1.1

PROJECT NO.: 02401959.001

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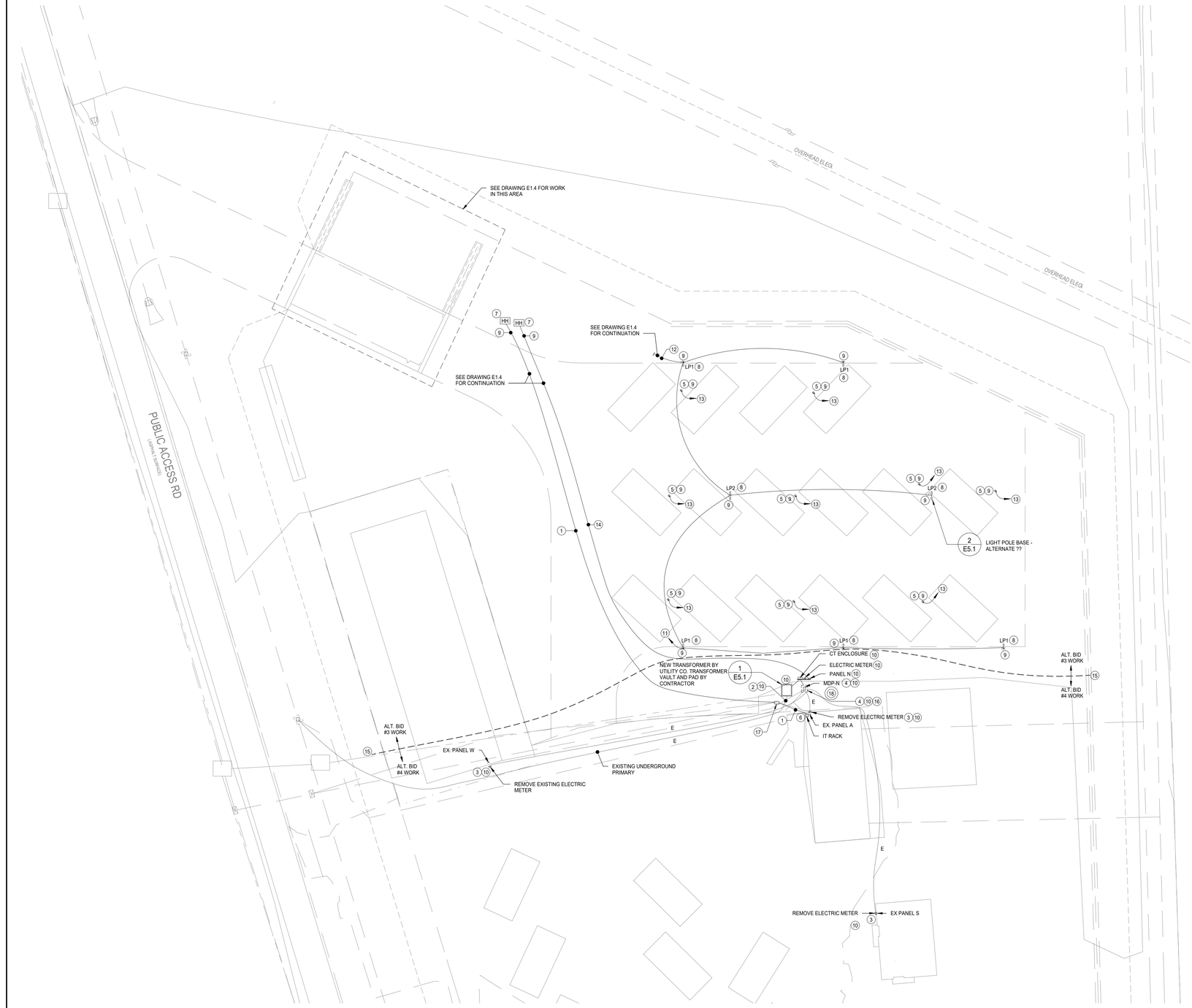

1 SITE PART PLAN (NORTH) - ELECTRICAL
1" = 40'-0"

NORTH

GENERAL NOTES

1. UNDERGROUND FACILITIES HAVE BEEN SHOWN BASED UPON INFORMATION OBTAINED FROM FIELD LOCATIONS BY UTILITY COMPANIES, AVAILABLE SURVEYS, AND RECORDS. LOCATIONS ARE APPROXIMATE ONLY. OTHER UNDERGROUND FACILITIES THAT ARE NOT SHOWN MAY EXIST. CONTRACTOR IS RESPONSIBLE TO VERIFY THE EXACT LOCATION AND TYPE OF UNDERGROUND FACILITIES ON THE SITE. CONTACT IOWA ONE CALL A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION TO LOCATE UNDERGROUND UTILITIES. IF A PROBLEM OR INTERFERENCE EXISTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING.
2. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE REQUIREMENTS WITH THE LOCAL UTILITY COMPANY AND INCLUDE ALL LABOR AND MATERIALS FOR A COMPLETE OPERATING SYSTEM. COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, REQUIREMENTS FOR TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, METER SOCKETS, PRIMARY CABLE RACEWAY, SECONDARY SERVICE AND METERING TRANSFORMERS.
4. ALL EXPOSED CONDUIT ABOVE GRADE SHALL BE RGS.
5. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVERCURRENT PROTECTION DEVICES AS REQUIRED IN DISTRIBUTION EQUIPMENT TO COORDINATE WITH AVAILABLE FAULT CURRENT.

REFERENCE NOTES

1. 2" SCHEDULE 40 PVC WITH PULL STRING FOR FIBER/TELECOM WIRING BY OTHERS. (ALTERNATE BID #3).
2. RE-ROUTE EXISTING PRIMARY TO NEW TRANSFORMER LOCATION. COORDINATE WITH UTILITY COMPANY. (ALTERNATE BID #4).
3. REMOVE EXISTING UTILITY METERS AND DELIVER TO UTILITY COMPANY. RECONNECT SERVICE TO BUILDING IN METER ENCLOSURE. PROVIDE NEW JUNCTION BOX COVER FOR METER ENCLOSURE WITH TAMPER RESISTANT SECURITY GRADE FASTENERS. (ALTERNATE BID #4).
4. INSTALL SECONDARY SECTION OF MDP ON EXISTING TRANSFORMER PAD OVER TOP OF EXISTING SECONDARY CONDUCTORS FOR PANELS A, W, AND S. (ALTERNATE BID #4).
5. ROUGH-IN FOR FUTURE CONSTRUCTION POWER PEDESTAL. PROVIDE 6"x6"x8" PRESSURE TREATED POST 4' BELOW GRADE, 4' ABOVE GRADE. STRAP CONDUIT ROUGH-IN +48" ABOVE GRADE AND CAP FOR FUTURE USE. (ALTERNATE BID #3).
6. EXTEND 2" CONDUIT WITH PULL STRING TO EXISTING IT EQUIPMENT RACK. (ALTERNATE BID #3)
7. EMPTY CONDUIT ROUGH-IN AND HANDHOLES FOR FUTURE SALLYPORT POWER AND TELECOMM/SECURITY. (ALTERNATE BID #3). SEE DRAWING E1.4 FOR ADDITIONAL INFORMATION.
8. LP1 LIGHT FIXTURES SHOWN FOR FUTURE PROJECT. N.I.C.
9. EMPTY CONDUIT ROUGH-IN AND LIGHT POLE BASES TO BE INSTALLED UNDER ALTERNATE BID #3, POLE LIGHT FIXTURES ARE FUTURE, N.I.C.
10. THIS WORK UNDER ALTERNATE BID #4.
11. EXTEND 1" CONDUIT WITH PULL STRING TO PANEL N. (ALTERNATE BID #3).
12. STUB-OUT APPROXIMATELY 4' FROM LIGHT POLE, CAP AND STAKE FOR FUTURE EXTENSION. (ALTERNATE BID #3).
13. EXTEND 1-1/2" CONDUIT WITH PULL STRING TO PANEL N SCHEDULE 40 PVC BELOW GRADE AND RGS ABOVE GRADE. (ALTERNATE BID #3).
14. (2) 1" SCHEDULE 40 PVC CONDUITS FOR SALLYPORT POWER WIRING. ROUTE TO PANEL N. (ALTERNATE BID #3).
15. THIS DIVISION OF WORK LINE IS APPROXIMATE TO GIVE CONTRACTORS A GENERAL IDEA OF WORK. ANY CONDUITS SHOWN AND NOTED ABOVE UNDER ALTERNATE BID #3 SHALL EXTEND TO LOCATION SHOWN AND CAPPED FOR FUTURE USE. CONTRACTOR SHALL PROVIDE METALLIC STAKE TO IDENTIFY THE END OF ANY BURRED CONDUIT AND INCLUDE DIMENSIONS TO EXISTING LANDMARK ON OFFICIAL RECORD DRAWINGS.
16. EXISTING TRANSFORMER TO BE REMOVED BY UTILITY COMPANY, PAD TO REMAIN FOR NEW MDP-N. ALTERNATE BID #4.
17. EXISTING TELECOMMUNICATIONS HAND HOLE BOX.
18. GROUND RING, SEE DETAIL 6/E5.1.

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ISSUE:

#	DATE:	DESCRIPTION:

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PROJECT:

State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	CMP
DRAWN:	CEG/MVN
REVIEWED:	CMP
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

SITE PART PLAN - ELECTRICAL

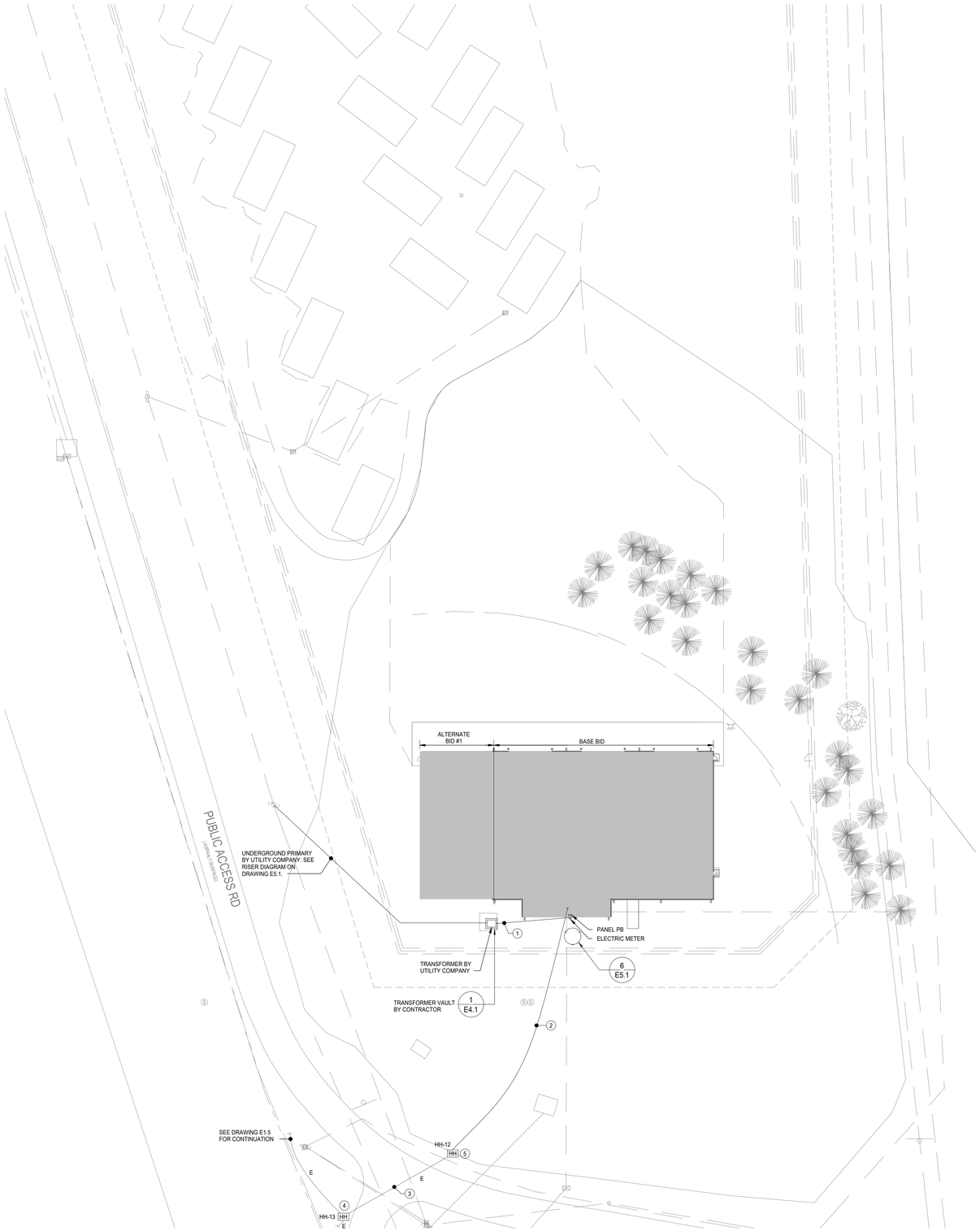
SHEET NUMBER:

E1.2

PROJECT NO.: 02401959.001

Twin Rivers Engineering Consultants
1000 Illinois Street
Des Moines, Iowa 50314
Phone: 515-288-3679 Fax: 515-288-4012
TRE Project #24038.01

7/21/2025 4:07:28 PM



1 SITE PART PLAN (SOUTH) - ELECTRICAL
1" = 40'-0"

NORTH

GENERAL NOTES

1. UNDERGROUND FACILITIES HAVE BEEN SHOWN BASED UPON INFORMATION OBTAINED FROM FIELD LOCATIONS BY UTILITY COMPANIES, AVAILABLE SURVEYS, AND RECORDS. LOCATIONS ARE APPROXIMATE ONLY. OTHER UNDERGROUND FACILITIES THAT ARE NOT SHOWN MAY EXIST. CONTRACTOR IS RESPONSIBLE TO VERIFY THE EXACT LOCATION AND TYPE OF UNDERGROUND FACILITIES ON THE SITE. CONTACT IOWA ONE CALL A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION TO LOCATE UNDERGROUND UTILITIES. IF A PROBLEM OR INTERFERENCE EXISTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING.
2. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE REQUIREMENTS WITH THE LOCAL UTILITY COMPANY AND INCLUDE ALL LABOR AND MATERIALS FOR A COMPLETE OPERATING SYSTEM. COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, REQUIREMENTS FOR TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, METER SOCKETS, PRIMARY CABLE RACEWAY, SECONDARY SERVICE AND METERING TRANSFORMERS.
4. ALL EXPOSED CONDUIT ABOVE GRADE SHALL BE RGS.
5. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVERCURRENT PROTECTION DEVICES AS REQUIRED IN DISTRIBUTION EQUIPMENT TO COORDINATE WITH AVAILABLE FAULT CURRENT.

REFERENCE NOTES

1. UNDERGROUND SECONDARY - SEE RISER DIAGRAM ON DRAWINGS E5.1.
2. 2" CONDUIT FOR FIBER OPTIC CONDUIT WITH TWO 12-STRAND OS-2 FIBERS.
3. EXISTING FIBER OPTIC CONDUIT WITH NEW TWO 12-STRAND OS-2 FIBERS.
4. EXISTING FIBER JUNCTION BOX/HAND HOLE (HH-13) WITH EXISTING FIBER CABLING. THERE ARE NUMEROUS EXISTING SPARE FIBERS. CONNECT TWO NEW 12-STRAND FIBERS INTO EXISTING FIBER WITH SLATE COLORED BUNDLE. COORDINATE WITH OWNER PRIOR TO CONNECTION.
5. EXISTING FIBER JUNCTION BOX/HAND HOLE (HH-12).

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State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

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DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
SITE PART PLAN - ELECTRICAL

SHEET NUMBER:
E1.3

PROJECT NO.: 02401959.001

Twin Rivers Engineering Consultants
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TRE Project #24038.01

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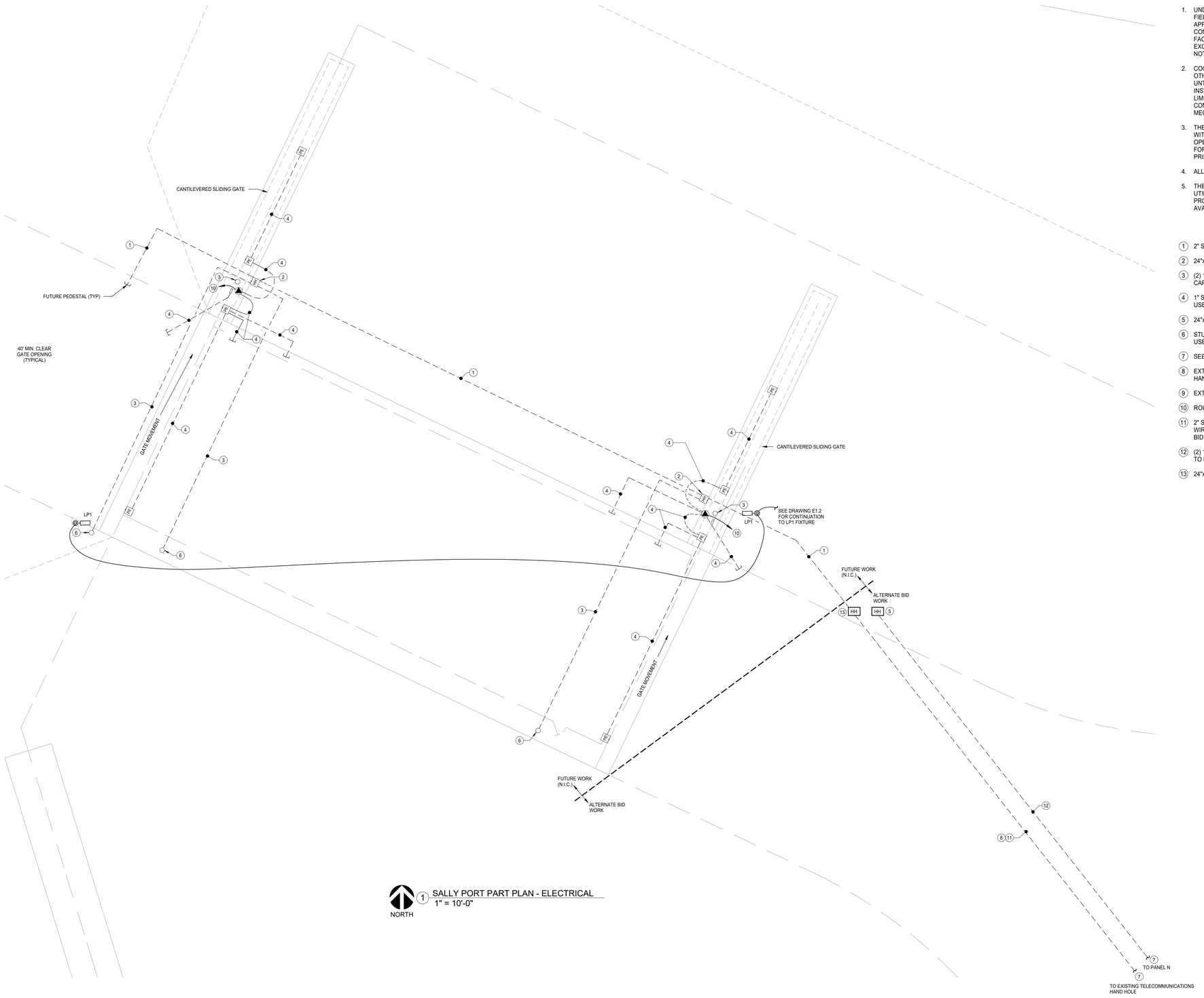

1 SALLY PORT PART PLAN - ELECTRICAL
1" = 10'-0"

GENERAL NOTES

1. UNDERGROUND FACILITIES HAVE BEEN SHOWN BASED UPON INFORMATION OBTAINED FROM FIELD LOCATIONS BY UTILITY COMPANIES, AVAILABLE SURVEYS, AND RECORDS. LOCATIONS ARE APPROXIMATE ONLY. OTHER UNDERGROUND FACILITIES THAT ARE NOT SHOWN MAY EXIST. CONTRACTOR IS RESPONSIBLE TO VERIFY THE EXACT LOCATION AND TYPE OF UNDERGROUND FACILITIES ON THE SITE. CONTACT IOWA ONE CALL A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION TO LOCATE UNDERGROUND UTILITIES. IF A PROBLEM OR INTERFERENCE EXISTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING.
2. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
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4. ALL EXPOSED CONDUIT ABOVE GRADE SHALL BE RGS.
5. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVERCURRENT PROTECTION DEVICES AS REQUIRED IN DISTRIBUTION EQUIPMENT TO COORDINATE WITH AVAILABLE FAULT CURRENT.

REFERENCE NOTES

1. 2" SCHEDULE 40 PVC FOR FIBER/TELECOM WIRING BY OTHERS. CAP FOR FUTURE USE. (N.I.C.)
2. 24"x30" HANDHOLE. (N.I.C.)
3. (2) 1" SCHEDULE 40 PVC CONDUITS FOR TELECOMMUNICATIONS / CONTROL WIRING BY OTHERS. CAP FOR FUTURE USE. (N.I.C.)
4. 1" SCHEDULE 40 PVC CONDUIT ROUGH-IN FOR CONTROL WIRING BY OTHERS. CAP FOR FUTURE USE. (N.I.C.)
5. 24"x24" HAND HOLE FOR POWER WIRING AT SALLYPORT. (ALTERNATE BID #3)
6. STUB-UP EMPTY CONDUITS FOR GATE LOCK CONTROLS/POWER BY OTHERS. CAP FOR FUTURE USE. (N.I.C.)
7. SEE DRAWING E1.2 FOR CONTINUATION AND ADDITIONAL INFORMATION.
8. EXTEND 2" CONDUIT TO SOUTH GATE WITH HAND HOLES AT MAXIMUM 300' INTERVALS. (24"x30" HAND HOLES). (N.I.C.)
9. EXTEND CONDUITS TO EXISTING DATA EQUIPMENT IN EXISTING BUILDING. (N.I.C.)
10. ROUTE CIRCUIT TO PANEL N VIA HAND HOLE, SEE NOTE 5. (N.I.C.)
11. 2" SCHEDULE 40 PVC CONDUITS WITH PULL STRINGS FOR TELECOMMUNICATIONS/CONTROL WIRING BY OTHERS. SCHEDULE 40 PVC BELOW GRADE AND RGS ABOVE GRADE. (ALTERNATE BID #3).
12. (2) 1" SCHEDULE 40 PVC CONDUITS WITH PULL STRING FOR SALLYPORT POWER WIRING. ROUTE TO PANEL N. (ALTERNATE BID #3).
13. 24"x30" HAND HOLE FOR TELECOMMUNICATIONS / CONTROL WIRING. (ALTERNATE BID #3).

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State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	CMP
DRAWN:	CEG/MVN
REVIEWED:	CMP
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

SALLY PORT PART PLAN - ELECTRICAL

SHEET NUMBER:

E1.4

PROJECT NO.: 02401959.001

Twin Rivers Engineering Consultants
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TRE Project #24038.01

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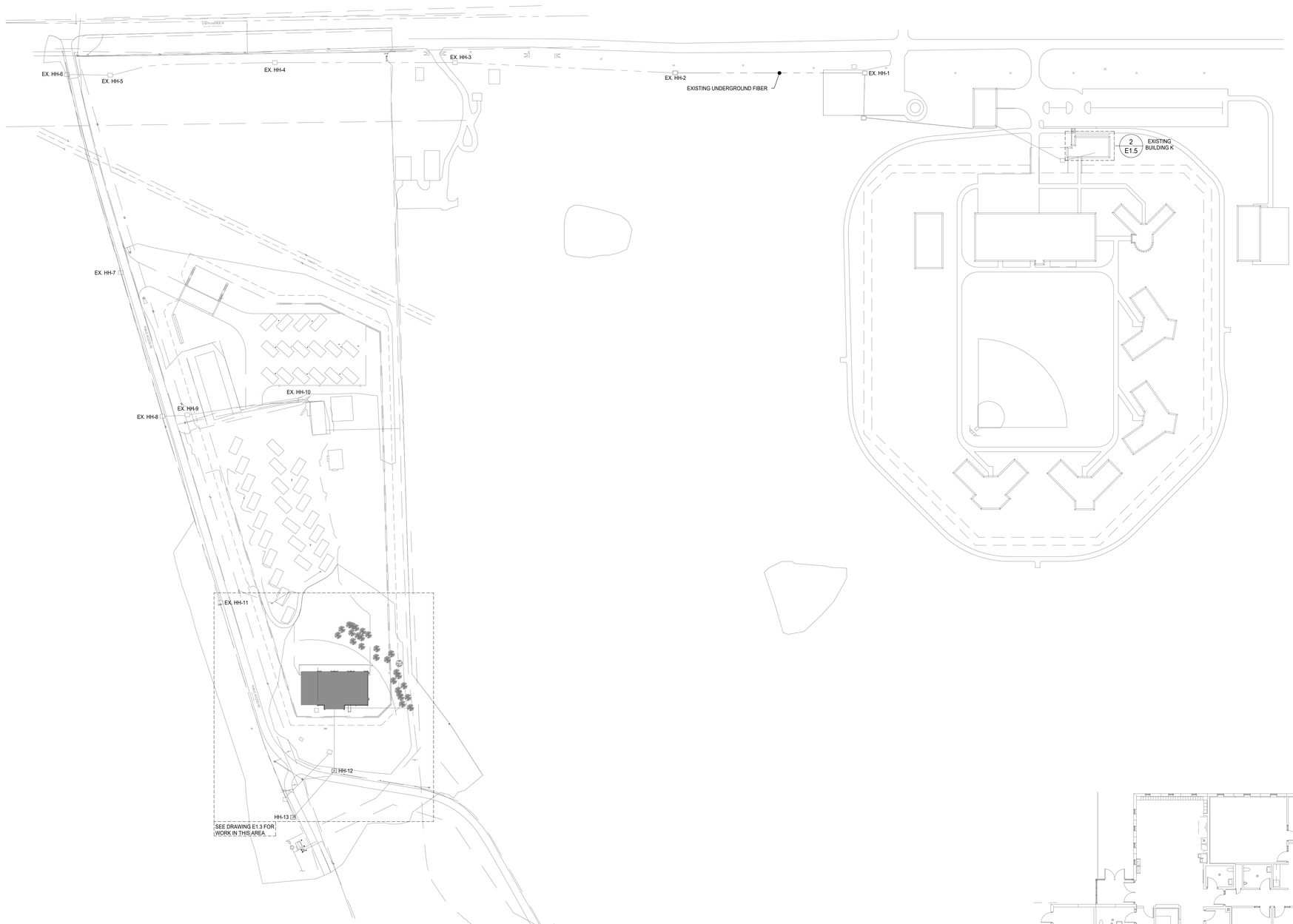
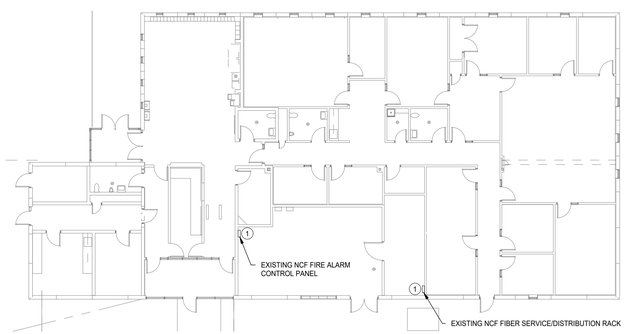


NORTH

1 OVERALL SITE PLAN - ELECTRICAL
1" = 160'-0"



NORTH

2 EXISTING BUILDING K - ELECTRICAL
1/16" = 1'-0"

GENERAL NOTES

1. UNDERGROUND FACILITIES HAVE BEEN SHOWN BASED UPON INFORMATION OBTAINED FROM FIELD LOCATIONS BY UTILITY COMPANIES, AVAILABLE SURVEYS, AND RECORDS. LOCATIONS ARE APPROXIMATE ONLY. OTHER UNDERGROUND FACILITIES THAT ARE NOT SHOWN MAY EXIST. CONTRACTOR IS RESPONSIBLE TO VERIFY THE EXACT LOCATION AND TYPE OF UNDERGROUND FACILITIES ON THE SITE. CONTACT IOWA ONE CALL A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION TO LOCATE UNDERGROUND UTILITIES. IF A PROBLEM OR INTERFERENCE EXISTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING.
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3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE REQUIREMENTS WITH THE LOCAL UTILITY COMPANY AND INCLUDE ALL LABOR AND MATERIALS FOR A COMPLETE OPERATING SYSTEM. COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, REQUIREMENTS FOR TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, METER SOCKETS, PRIMARY CABLE RACEWAY, SECONDARY SERVICE AND METERING TRANSFORMERS.
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REFERENCE NOTES

(1) VERIFY NETWORK CONNECTION BETWEEN SINGLE MODE FIBER AND EXISTING FACP. PROVIDE PROPER INTERFACE MATERIALS AND EQUIPMENT TO TRANSMIT FIRE ALARM NOTIFICATIONS FROM PRODUCTION FACP TO NCF FIRE ALARM SYSTEM.

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PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	Designer
DRAWN:	Author
REVIEWED:	Approver
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

OVERALL SITE PLAN - ELECTRICAL

SHEET NUMBER:

E1.5

PROJECT NO.: 02401959.001

Twin Rivers Engineering Consultants
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Phone: 515-288-3679 Fax: 515-288-4012
TRE Project #24038.01

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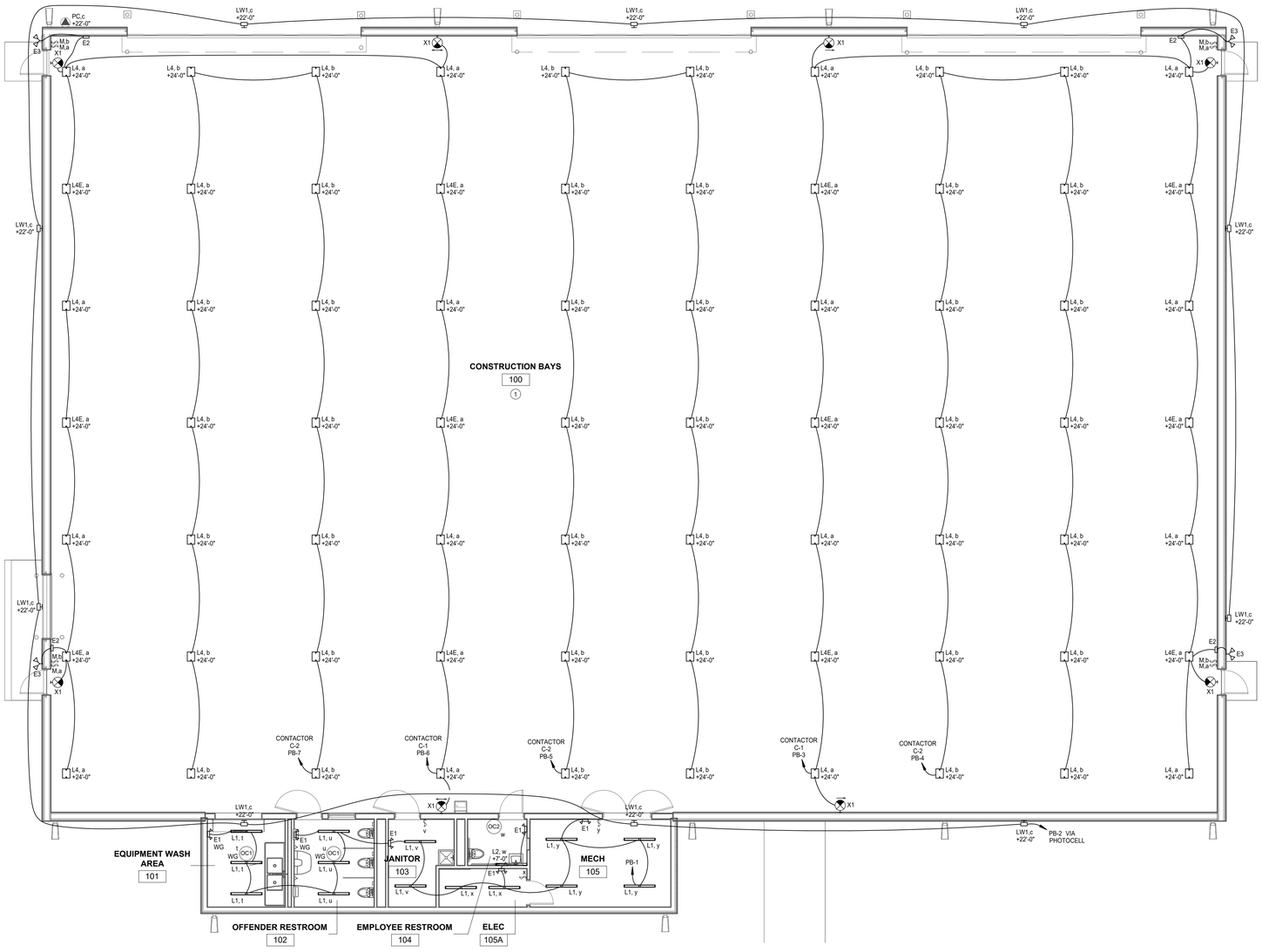
GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

REFERENCE NOTES

(1) COORDINATE L4 AND L4E LIGHT FIXTURE LOCATIONS WITH STRUCTURE. PROVIDE UNISTRUT STYLE SUPPORT BETWEEN TRUSSES. LIGHT FIXTURES SHALL HAVE VERTICAL SUPPORT CONNECTIONS.



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

ALTERNATE BID #1 NOTE

DRAWINGS E2.1 AND E2.1A REPRESENT THE BASE BID AND ALTERNATE BID LAYOUTS FOR THIS FACILITY. IT IS RECOMMENDED THAT CONTRACTORS CONDUCT A COMPLETE BID TAKE OFF OF DRAWING E2.1 FOR THE BASE BID, THEN CONDUCT A COMPLETE A TAKEOFF OF DRAWING E2.1A. THE PRICE ADDER FOR THE ALTERNATE BID SHOULD BE CALCULATED BY COMPARING QUANTITIES BETWEEN THE BASE BID TO THE ALTERNATE BID.

Twin Rivers Engineering Consultants
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TRE Project #24038.01

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State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	CMP
DRAWN:	CEG/MVN
REVIEWED:	CMP
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

FLOOR PLAN - LIGHTING

SHEET NUMBER:

E2.1

PROJECT NO.: 02401959.001

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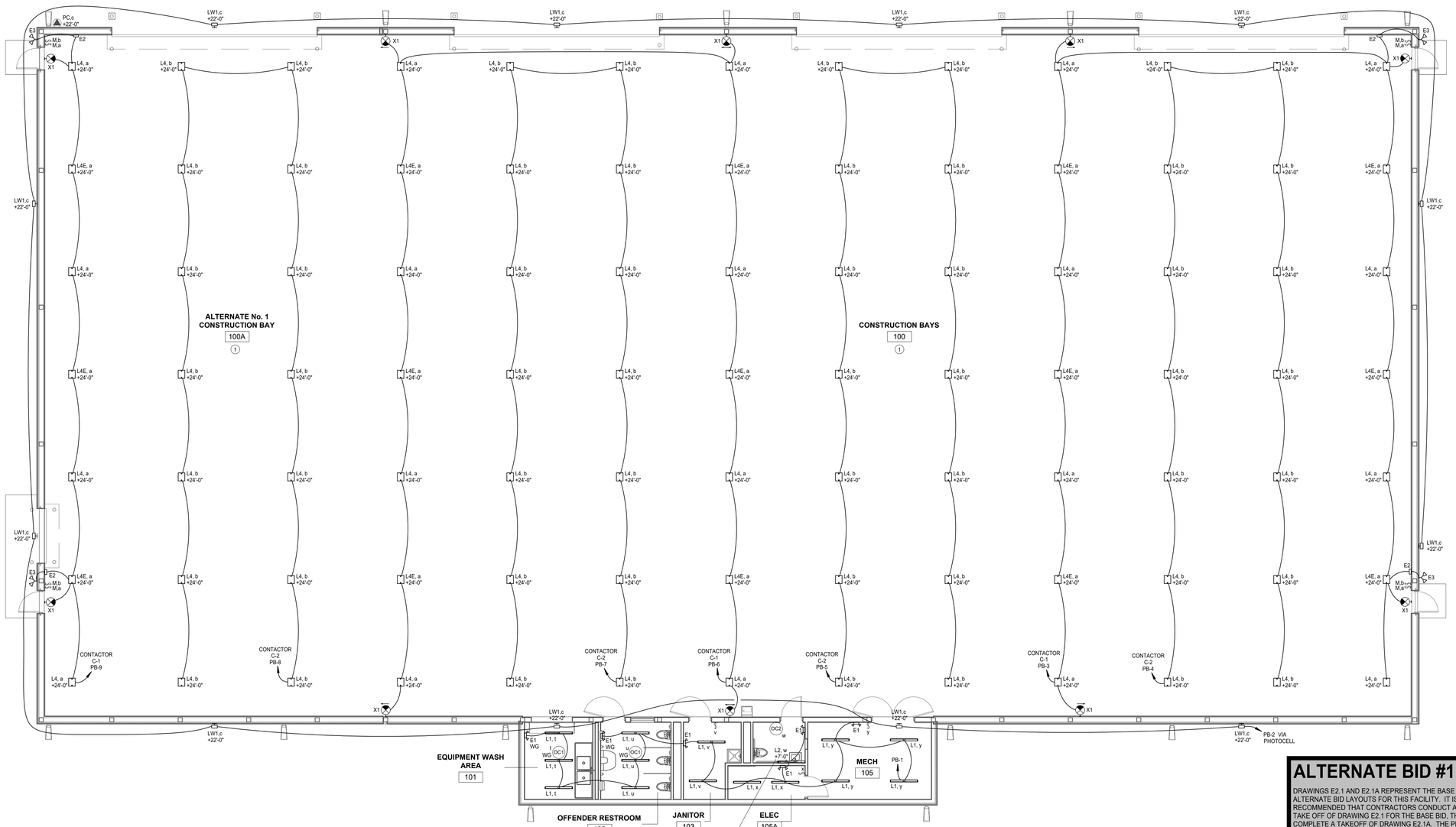
GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

REFERENCE NOTES

(1) COORDINATE L4 AND L4E LIGHT FIXTURE LOCATIONS WITH STRUCTURE. PROVIDE UNISTRUT STYLE SUPPORT BETWEEN TRUSSES. LIGHT FIXTURES SHALL HAVE VERTICAL SUPPORT CONNECTIONS.



1 FLOOR PLAN - ALTERNATE NO.1 - LIGHTING
1/8" = 1'-0"

ALTERNATE BID #1 NOTE

DRAWINGS E2.1 AND E2.1A REPRESENT THE BASE BID AND ALTERNATE BID LAYOUTS FOR THIS FACILITY. IT IS RECOMMENDED THAT CONTRACTORS CONDUCT A COMPLETE BID TAKE OFF OF DRAWING E2.1 FOR THE BASE BID, THEN CONDUCT A COMPLETE A TAKEOFF OF DRAWING E2.1A. THE PRICE ADDER FOR THE ALTERNATE BID SHOULD BE CALCULATED BY COMPARING QUANTITIES BETWEEN THE BASE BID TO THE ALTERNATE BID.

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SHEET TITLE:

FLOOR PLAN - ALTERNATE NO.1 - LIGHTING

SHEET NUMBER:

E2.1A

PROJECT NO.: 02401959.001

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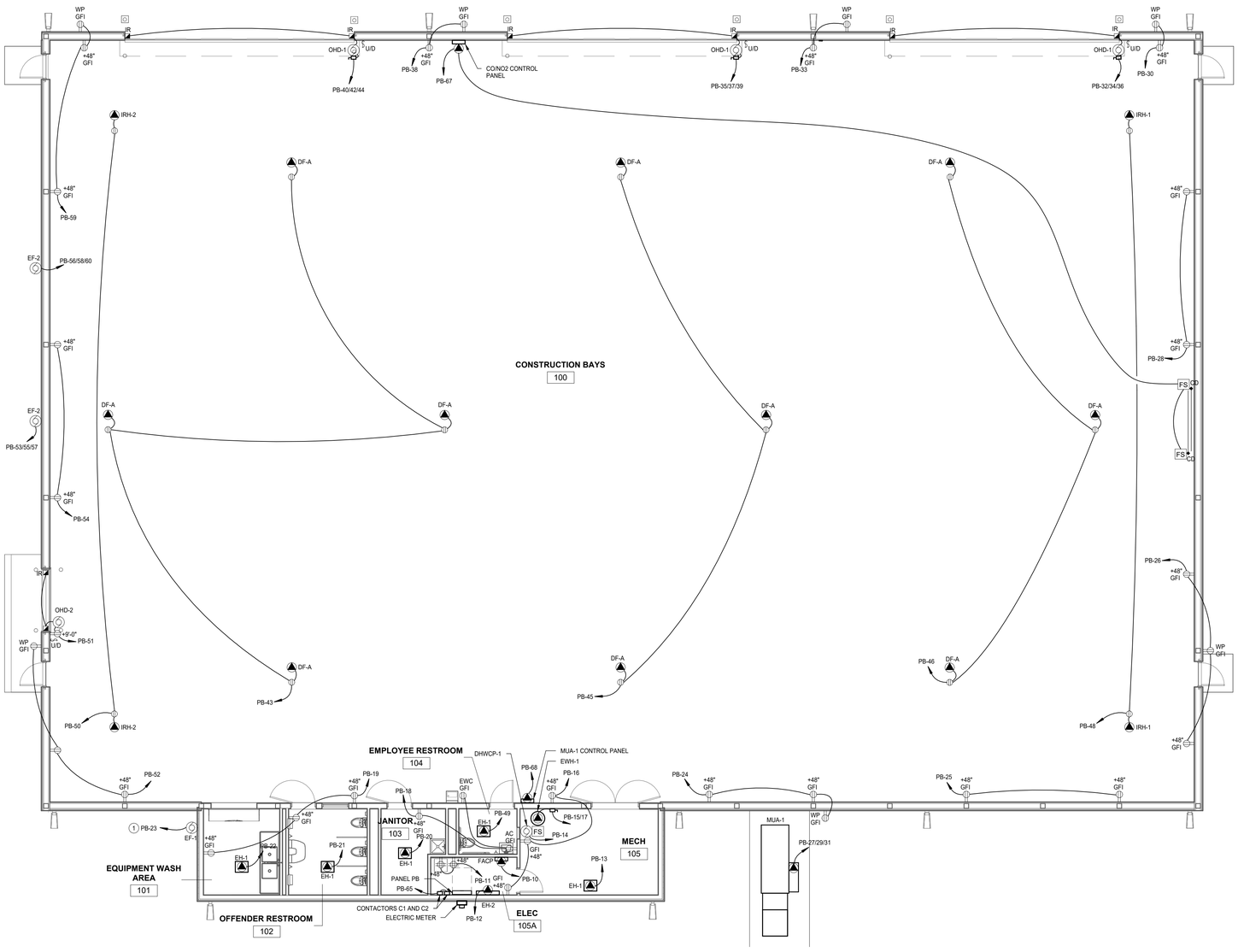
GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

REFERENCE NOTES

(1) ROUTE CIRCUIT THROUGH CONTACTORS C-1 AND C-2 IN PARALLEL SO EXHAUST FAN STARTS WHENEVER EITHER CONTACTOR, OR BOTH CONTACTORS ARE ENGAGED TO TURN ON LIGHTS IN CONSTRUCTION BAY AREAS.



NORTH

(1) 1ST FLOOR PLAN - POWER
1/8" = 1'-0"

ALTERNATE BID #1 NOTE

DRAWINGS E3.1 AND E3.1A REPRESENT THE BASE BID AND ALTERNATE BID LAYOUTS FOR THIS FACILITY. IT IS RECOMMENDED THAT CONTRACTORS CONDUCT A COMPLETE BID TAKE OFF OF DRAWING E3.1 FOR THE BASE BID, THEN CONDUCT A COMPLETE A TAKEOFF OF DRAWING E3.1A. THE PRICE ADDER FOR THE ALTERNATE BID SHOULD BE CALCULATED BY COMPARING QUANTITIES BETWEEN THE BASE BID TO THE ALTERNATE BID.

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REVIEWED:	CMP
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SHEET TITLE:
FLOOR PLAN - POWER

SHEET NUMBER:
E3.1

PROJECT NO.: 02401959.001

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GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

REFERENCE NOTES

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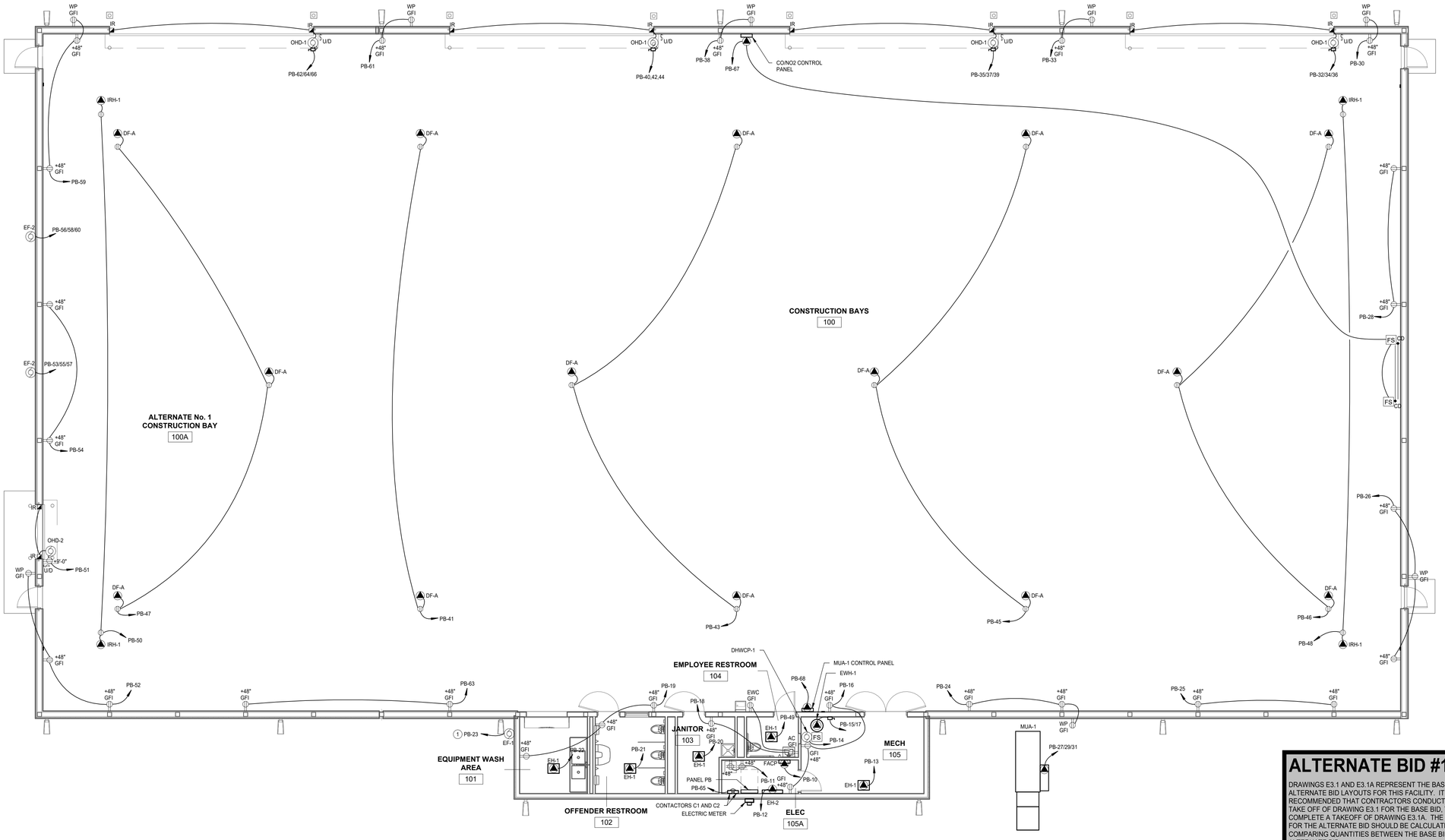

1 FLOOR PLAN - ALTERNATE NO.1 - POWER
1/8" = 1'-0"

NORTH

ALTERNATE BID #1 NOTE

DRAWINGS E3.1 AND E3.1A REPRESENT THE BASE BID AND ALTERNATE BID LAYOUTS FOR THIS FACILITY. IT IS RECOMMENDED THAT CONTRACTORS CONDUCT A COMPLETE BID TAKE OFF OF DRAWING E3.1 FOR THE BASE BID, THEN CONDUCT A COMPLETE A TAKEOFF OF DRAWING E3.1A. THE PRICE ADDER FOR THE ALTERNATE BID SHOULD BE CALCULATED BY COMPARING QUANTITIES BETWEEN THE BASE BID TO THE ALTERNATE BID.

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SHEET TITLE:
FLOOR PLAN - ALTERNATE NO.1 - POWER

SHEET NUMBER:
E3.1A

PROJECT NO.: 02401959.001

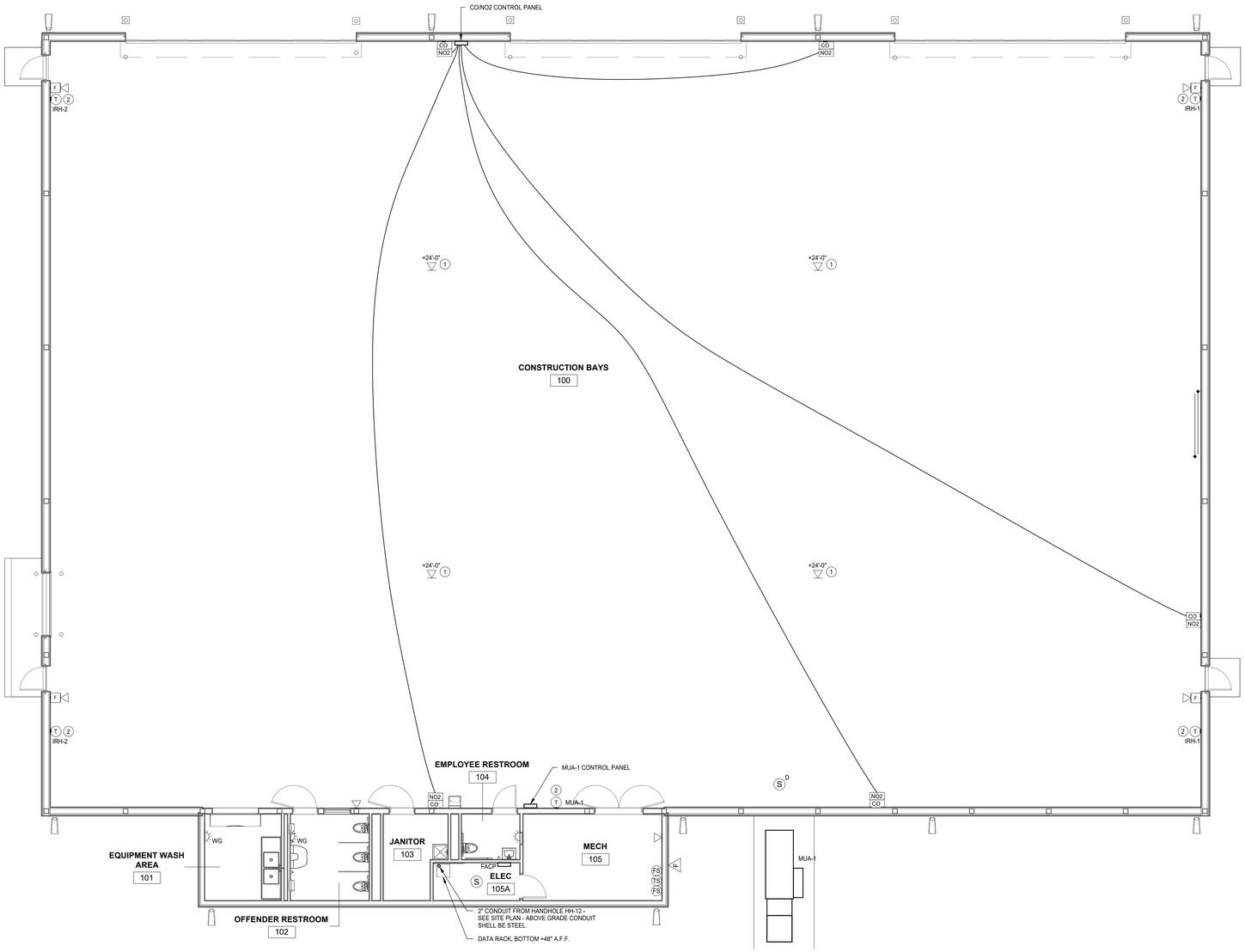
7/21/2025 4:07:36 PM

GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

REFERENCE NOTES

1. MOUNT DEVICE TO BOTTOM OF STRUCTURE.
2. THERMOSTAT ROUGH-IN BY ELECTRICAL CONTRACTOR, EXTEND CONDUIT TO STRUCTURE AND TERMINATE WITH FIBER BUSHING. WIRING BY MECHANICAL CONTRACTOR.



1 FLOOR PLAN - SPECIAL SYSTEMS
1/8" = 1'-0"

ALTERNATE BID #1 NOTE

DRAWINGS E4.1 AND E4.1A REPRESENT THE BASE BID AND ALTERNATE BID LAYOUTS FOR THIS FACILITY. IT IS RECOMMENDED THAT CONTRACTORS CONDUCT A COMPLETE BID TAKE OFF OF DRAWING E4.1 FOR THE BASE BID, THEN CONDUCT A COMPLETE A TAKEOFF OF DRAWING E4.1A. THE PRICE ADDER FOR THE ALTERNATE BID SHOULD BE CALCULATED BY COMPARING QUANTITIES BETWEEN THE BASE BID TO THE ALTERNATE BID.

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ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	CMP
DRAWN:	CEG/MVN
REVIEWED:	CMP
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
FLOOR PLAN - SPECIAL SYSTEMS

SHEET NUMBER:
E4.1

PROJECT NO.: 02401959.001

7/21/2025 4:07:37 PM

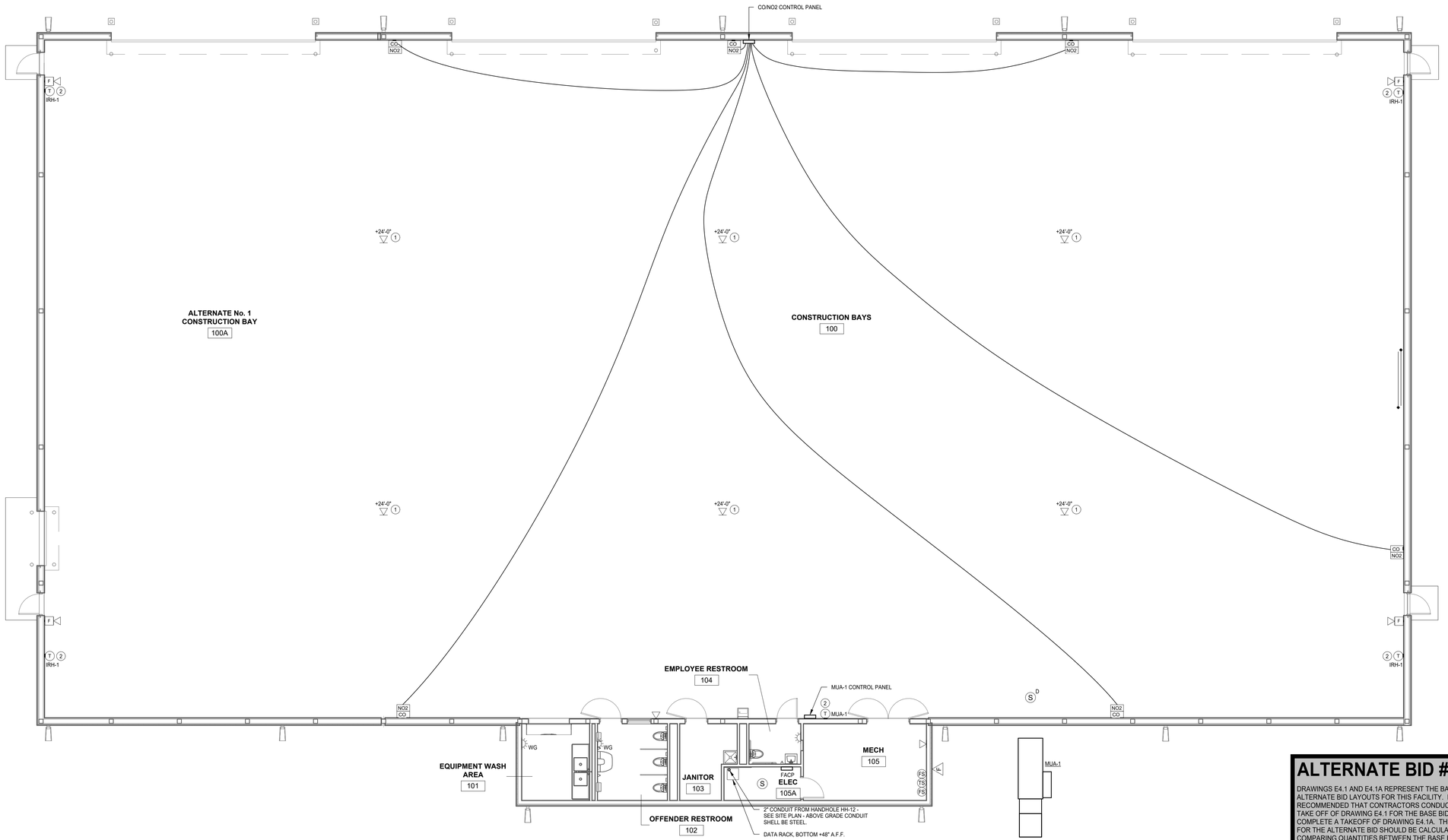
GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION ON MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR IT'S ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATE SHALL INCLUDE, BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, WORK ABOVE LAY-IN CEILINGS, ETC. REFER TO ALL GENERAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

REFERENCE NOTES

(1) MOUNT DEVICE TO BOTTOM OF STRUCTURE.

(2) THERMOSTAT ROUGH-IN BY ELECTRICAL CONTRACTOR, EXTEND CONDUIT TO STRUCTURE AND TERMINATE WITH FIBER BUSHING. WIRING BY MECHANICAL CONTRACTOR.



1 FLOOR PLAN - ALTERNATE NO.1 - SPECIAL SYSTEMS
1/8" = 1'-0"

NORTH

ALTERNATE BID #1 NOTE

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FLOOR PLAN - ALTERNATE NO.1 - SPECIAL SYSTEMS

SHEET NUMBER:

E4.1A

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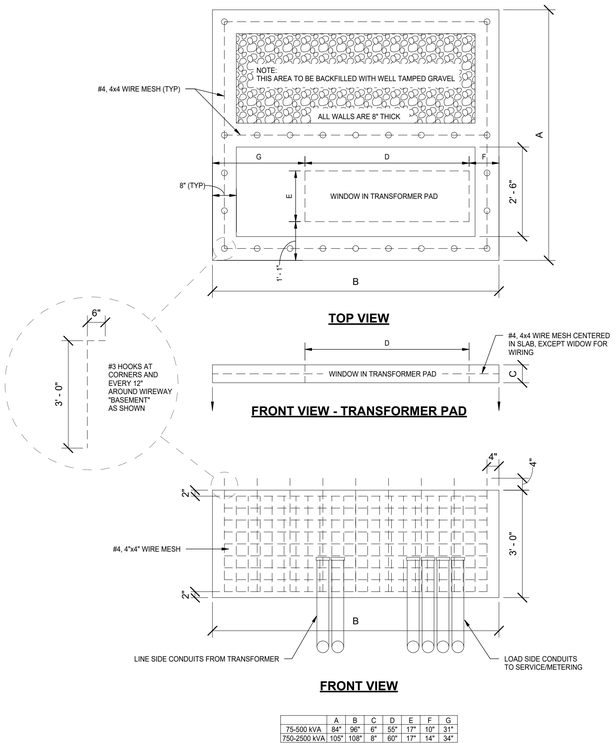
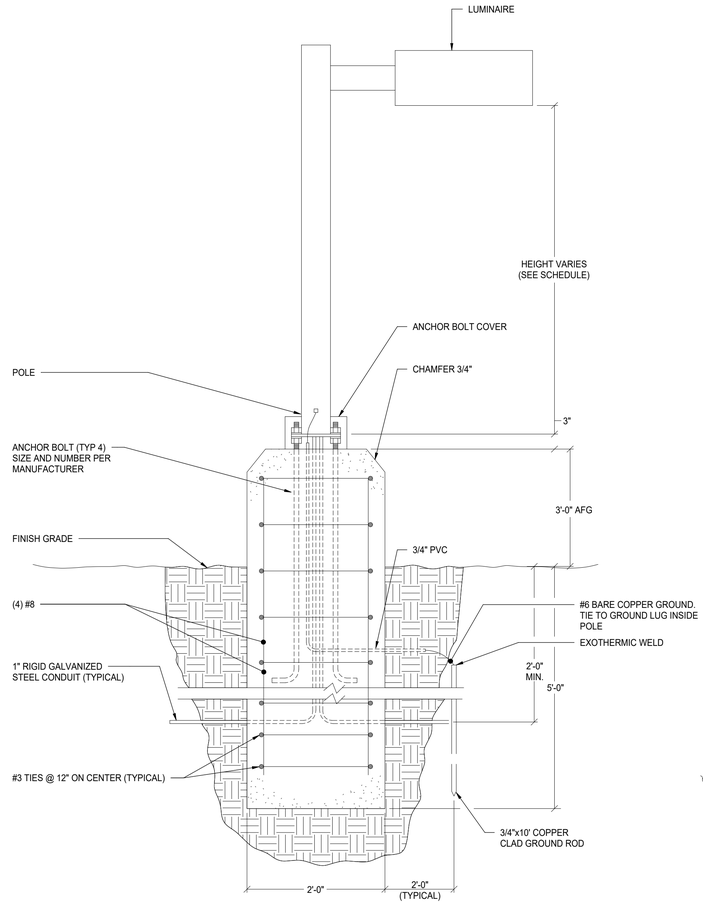


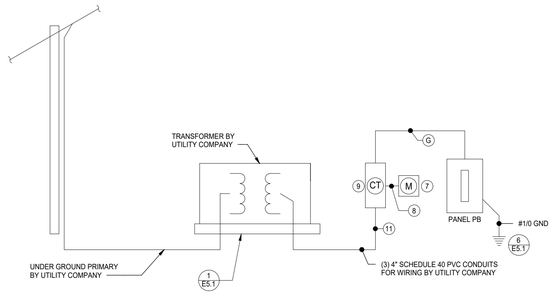
	A	B	C	D	E	F	G
75-500 kVA	84"	96"	6"	55"	17"	10"	31"
750-2500 kVA	105"	108"	8"	60"	17"	14"	34"

1 TRANSFORMER PAD DETAIL
NOT TO SCALE

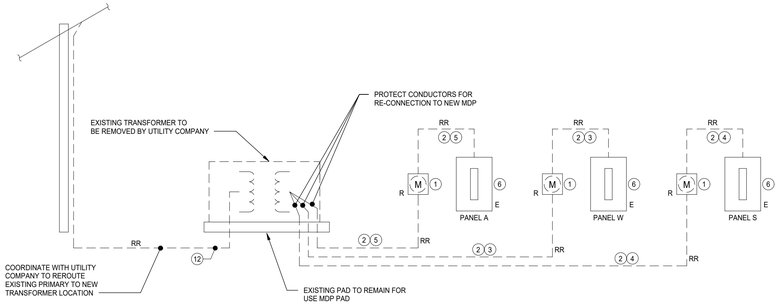


2 POLE MOUNTED SITE LIGHT DETAIL - 36 INCHES AFG
NOT TO SCALE

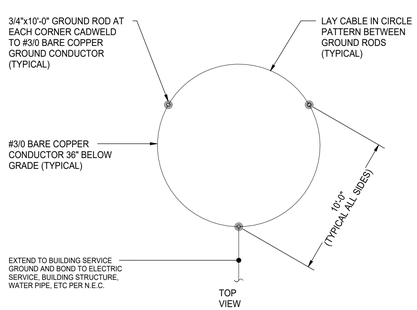
FEEDER SCHEDULE - 120/208-3PH		
TAG	PHASE	CONDUIT
A	(4) #3 & (1) #8 (GND) THWN	1-1/4"
B	(4) #1 & (1) #6 (GND) THWN	1-1/2"
C	(4) #1/0 & (1) #6 (GND) THWN	2"
D	(4) #3/0 & (1) #6 (GND) THWN	2-1/2"
E	(4) #4/0 & (1) #4 (GND) THWN	2-1/2"
F	(4) 500 kcmil & (1) #3 (GND) THWN	4"
G	(2) SETS OF: (4) 500 kcmil & (1) #1/0 (GND) THWN	(2) 4"
H	(4) SETS OF: (4) 500 kcmil & (1) #3/0 (GND) THWN	(2) 4"



3 SOUTH SITE FEEDER RISER DIAGRAM
NOT TO SCALE



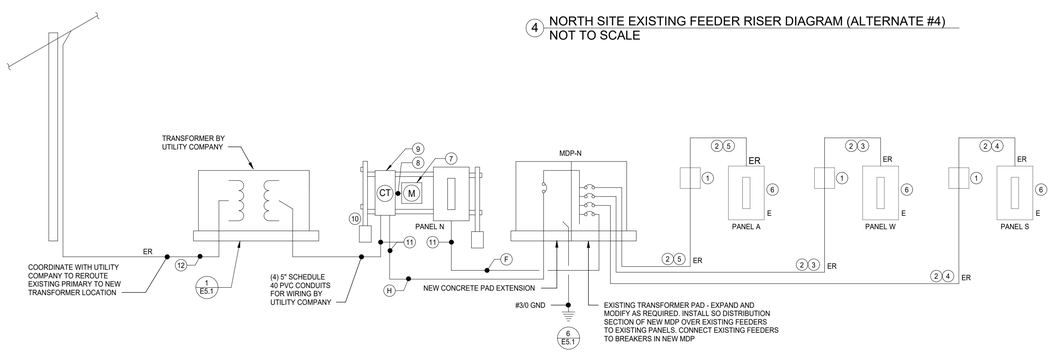
4 NORTH SITE EXISTING FEEDER RISER DIAGRAM (ALTERNATE #4)
NOT TO SCALE



6 GROUND RING DETAIL
NOT TO SCALE

KEYED NOTES

1. REMOVE EXISTING UTILITY METERS AND DELIVER TO UTILITY COMPANY. RECONNECT SERVICE TO BUILDING IN METER ENCLOSURE. PROVIDE NEW JUNCTION BOX COVER FOR METER ENCLOSURE WITH TAMPER RESISTANT SECURITY GRADE FASTENERS.
2. PULL OUT EXISTING WIRING AND RE-PULL BACK INTO EXISTING CONDUIT WITH NEW GROUND CONDUCTOR. EXISTING CONDUCTOR AND CONDUIT SIZES ARE ESTIMATED, FIELD VERIFY.
3. EXISTING (4) #350 AL IN EXISTING 3" CONDUIT, ADD NEW GROUND CONDUCTOR #1/0 AL WHEN RE-INSTALLING.
4. EXISTING (4) #350 AL IN EXISTING 4" CONDUIT, ADD NEW GROUND CONDUCTOR #1/0 AL WHEN RE-INSTALLING.
5. EXISTING #4/0 AL IN EXISTING 3" CONDUIT, ADD NEW GROUND CONDUCTOR #1/0 AL WHEN RE-INSTALLING.
6. CONTRACTOR SHALL VERIFY ALL CIRCUIT NEUTRALS ARE ON NEUTRAL BUS AND ALL GROUNDS ARE ON GROUND BUS AND CORRECT AS REQUIRED. REMOVE NEUTRAL TO GROUND BOND.
7. METER ENCLOSURE PER UTILITY COMPANY REQUIREMENTS BY CONTRACTOR.
8. 1" RGS CONDUIT BETWEEN CT ENCLOSURE AND METER. METER WIRING BY UTILITY COMPANY.
9. CT ENCLOSURE PER UTILITY COMPANY REQUIREMENTS BY CONTRACTOR.
10. PROVIDE UNISTRUT RACK SUITABLE FOR INSTALLING CT ENCLOSURE, METER, AND PANEL N. PROVIDE 36" DEEP CONCRETE BASES TO SUPPORT RACK.
11. ABOVE GRADE CONDUIT TO BE RGS.
12. REMOVE AND RE-ROUTE EXISTING PRIMARY WIRING BY UTILITY COMPANY, CONTRACTOR TO PROVIDE CONDUIT AT NEW TRANSFORMER AS DIRECTED BY UTILITY COMPANY.



5 NORTH SITE FEEDER RISER DIAGRAM (ALTERNATE #4)
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LIGHT FIXTURE SCHEDULE

TYPE DESIGNATION	MANUFACTURER	MODEL NUMBER	MOUNTING TYPE	NOMINAL DIMENSIONS	LAMP TYPE	FIXTURE LOAD (WATTS)	INITIAL LUMEN OUTPUT	MINIMUM CRI RATING	CCT	DIMMING	FIXTURE VOLTAGE	DESCRIPTION	APPROVED EQUALS
E1	DUAL-LITE	EV4	WALL	5"Hx8-1/2"Wx2-1/4"D	LED	4	290	N/A	N/A	N/A	120-277	EMERGENCY LIGHTING UNIT. UNIT OF FLAME RATE, UV STABLE, ABS THERMOPLASTIC IN TEXTURED WHITE FINISH. LAMP HOUSINGS OF FLAME RATED, UV STABLE POLYCARBONATE IN MATCHING FINISH. EMERGENCY ILLUMINATION BY TWO INTEGRAL 1W LED LAMPS. MICROPROCESSOR CONTROLLED PULSE CHARGER WITH MAINTENANCE FREE NICKEL METAL HYDRIDE BATTERY WITH REMOTE CAPACITY. AC ON LED INDICATOR LIGHT AND TEST SWITCH.	LIGHTALARMS LCA-2RHL SERIES LITHONIA ELM2L SERIES CHLORIDE CLU2 SERIES MULE SSL-HO SERIES
E2	DUAL-LITE	EV4-0	WALL	5"Hx8-1/2"Wx2-1/4"D	LED	4	290	N/A	N/A	N/A	120-277	EMERGENCY LIGHTING UNIT SIMILAR TO E1 EXCEPT WITH NO LAMPS, FOR POWERING REMOTE E3 LAMPS.	LIGHTALARMS LCA-2RHL SERIES EMERGI-LITE EL-2RHL-AD SERIES LITHONIA ELM2L SERIES CHLORIDE CLU2 SERIES MULE SSL-HO SERIES
E3	DUAL-LITE	EVO	WALL	4.8"DIAx7.3"L	LED	4	290	N/A	N/A	N/A	120-277	TWO DIRECTIONAL DC INPUT REMOTE FLOOD LIGHTS. DIE-CAST ALUMINUM HOUSING WITH EPOXY PRIMER AND BLACK POWDER COAT FINISH. EACH LAMP HOUSING ATTACHED TO THREADED FITTER. FIXTURE HEAD ROTATES 360° AND SECURES WITH (1) 1/2" LOCKING NUT. SINGLE CAST ALUMINUM THREADED JUNCTION BOX COVER FOR TWO FIXTURES IN LOCATION AS SHOWN ON THE DRAWINGS.	LIGHTALARMS SAF-2 SERIES LITHONIA ELMRW SERIES
L1	LITHONIA	CLX L48 4000LM SEF RDL MVOLT GZ10 80CRI WH	SURFACE / SUSPENDED	3.5"Wx3.5"Hx48"L	LED	25.5	4,019	80+	4,000	0-10V TO 10%	120-277	LED STRIP LIGHT. 22 GAUGE STEEL HOUSING WITH ACRYLIC LENS. REFLECTIVE AND REFRACTIVE OPTICAL COMPONENTS FOR UNIFORM APPEARANCE AND PIXELATION ELIMINATION. MEANS OF SUBSPENSION PROVIDED BY EC WHERE REQUIRED. DAMP LOCATION, UL LISTED.	H.E. WILLIAMS 75R SERIES HUBBELL LCL SERIES COOPER SNLED SERIES
L2	H.E. WILLIAMS	LLM-4-L15-840-S-SQ-UNV	SURFACE	2-5/8"Wx3-7/16"Hx48"L	LED	41.6	6,144	80+	4,000	N/A	120-277	SLIM, LOW PROFILE, SURFACE MOUNT LED. 20 GAUGE DIE FORMED C.R.S. HOUSING. FROSTED ACRYLIC LENS WITH TEXTURED MATTE WHITE POLYESTER TGIC POWDER COAT FINISH. UL LISTED, SUITABLE FOR DAMP LOCATIONS.	BARTCO BLT SERIES PRUDENTIAL S1-LED SERIES AIREY THOMPSON 62L SERIES
L4	LITHONIA	CPHB-12000LM-SEF-GCL-WD-MVOLT-GZ10-40K-80CRI-LSXR6-DWH-IBAC120M100-CS3WIMP	SURFACE	14.44"Lx11.52"Wx2.42"H	LED	87	12,273	80+	4,000	0-10V TO 10%	120-277	LED HIGH BAY. EXTRUDED ALUMINUM CHANELS FOR HEAT REJECTION. GLARE CONTROL ACRYLIC LENS. CABLE MOUNTING ACCESSORIES AS REQUIRED FOR HEIGHT INDICATED ON DRAWINGS. COUNTER BALANCE WEIGHT AS REQUIRED. SAFETY CABLE. POWER CORD WITH LOCKING PLUG. CONTRACTOR TO PROVIDE MATCHING RECEPTACLE. UL LISTED DAMP LOCATION. SUITABLE FOR -40 DEG TO 55 DEG C.	LUX DYNAMICS L-2CFO SERIES
L4E	LITHONIA	CPHB-12000LM-SEF-GCL-WD-MVOLT-GZ10-40K-80CRI-E15WMCP-LSXR6-DWH-IBAC120M100-CS3WIMP	SURFACE	14.44"Lx11.52"Wx2.42"H	LED	87	12,273	80+	4,000	0-10V TO 10%	120-277	LED HIGH BAY. EXTRUDED ALUMINUM CHANELS FOR HEAT REJECTION. GLARE CONTROL ACRYLIC LENS. CABLE MOUNTING ACCESSORIES AS REQUIRED FOR HEIGHT INDICATED ON DRAWINGS. COUNTER BALANCE WEIGHT AS REQUIRED. SAFETY CABLE. POWER CORD WITH LOCKING PLUG. CONTRACTOR TO PROVIDE MATCHING RECEPTACLE. UL LISTED DAMP LOCATION. SUITABLE FOR -40 DEG TO 55 DEG C. MINIMUM 15W EMERGENCY BATTERY BACKUP (35 DEG C.).	LUX DYNAMICS L-2CFO SERIES
LP1	LITHONIA	DSX1 LED P3 40K 70CRI T4M MVOLT RPA PIR DBLBXD	POLE	32.7"Lx14.3"Wx7.88"H	LED	102	13,698	70+	4,000	N/A	120-277	LED POLE MOUNTED LIGHT FIXTURE. DIE-CAST ALUMINUM HOUSING. LED OPTICAL SYSTEM WITH TYPE T4M DISTRIBUTION. DIE-CAST ALUMINUM INTEGRAL THERMAL MANAGEMENT SYSTEM. FADE AND ABRASION RESISTANT BLACK POLYESTER POWDER COAT FINISH. PROVIDE 25' ROUND STRAIGHT STEEL POLE WITH MATCHING FINISH. POLE DIMENSIONS TO BE 25'H x 4.5"DIA x 0.120"THICK. UL WET LOCATION LISTED, IP66 RATED. INTEGRAL PHOTOCELL FOR ON/OFF CONTROL	KIM BEACON SERIES
LP2	LITHONIA	(TWO) DSX1 LED P3 40K 70CRI T4M MVOLT RPA PIR DBLBXD	POLE	(TWO) 32.7"Lx14.3"Wx7.88"H	LED	204 (102 EA)	27,936 (13,698 EA)	70+	4,000	N/A	120-277	TWO LED POLE MOUNTED LIGHT FIXTURE. DIE-CAST ALUMINUM HOUSING. LED OPTICAL SYSTEM WITH TYPE T4M DISTRIBUTION. DIE-CAST ALUMINUM INTEGRAL THERMAL MANAGEMENT SYSTEM. FADE AND ABRASION RESISTANT BLACK POLYESTER POWDER COAT FINISH. PROVIDE 25' ROUND STRAIGHT STEEL POLE WITH MATCHING FINISH. POLE DIMENSIONS TO BE 25'H x 4.5"DIA x 0.120"THICK. UL WET LOCATION LISTED, IP66 RATED. INTEGRAL PHOTOCELL FOR ON/OFF CONTROL	KIM BEACON SERIES
LW1	LITHONIA	DSXW2 LED-P6-40K-80CRI-T4M-MVOLT	WALL	18.5"Wx7.625"Hx10"D	LED	71	10,256	80+	4,000	N/A	120-277	LED WALL MOUNTED LUMINAIRE . DIE-CAST ALUMINUM HOUSING WITH TEXTURED POWDERCOAT FINISH. IP66 RATED, UL LISTED. TYPE III OPTICS. RATED FOR -40 DEG C. TEMPERATURE. COLOR AS SELECTED BY ARCHITECT.	CURRENT LIGHTING GEOPAK SERIES
X1	DUAL-LITE	EVE-U-R-W-E	WALL / CEILING	9.6"Hx11.5"Wx1.5"D	LED	2	N/A	N/A	N/A	N/A	120-277	EMERGENCY EXIT SIGN. FLAME RATED, UV STABLE THERMOPLASTIC HOUSING IN TEXTURED WHITE FINISH. EXIT FACE WILL PROVIDE 6" HIGH LETTERS WITH 3/4" STROKE AND SNAPOUT, CHEVRON TYPE DIRECTIONAL ARROWS. 50/60 HZ OPERATION. NORMAL AC ILLUMINATION WILL BE PROVIDED BY 6 RED HIGH-OUTPUT LEDS. EXIT LETTERS WILL PROVIDE TWICE THE LUMEN OUTPUT AND 10 TIMES THE ILLUMINATION UNIFORMITY REQUIRED BY 1998 UL SPECIFICATIONS. EXITS WILL BE UNIVERSAL SINGLE/DOUBLE FACE AND PROVIDED WITH ALL NECESSARY COMPONENTS FOR WALL, CEILING OR END MOUNTING APPLICATIONS. MOUNTING CANOPIES WILL BE PROVIDED WITH ALL MODELS AND WILL BE OF IDENTICAL CONSTRUCTION AND COLOR TO MATCH THE EXIT FRAME. EXITS WILL BE DESIGNED TO MOUNT TO 3-1/2" OR 4" OCTAGON, 4" SQUARE OR STANDARD PLASTER RINGS. EMERGENCY EXIT MODELS WILL BE ACHIEVED THROUGH A FACTORY INSTALLED FULLY AUTOMATIC EMERGENCY OPERATION MODULE. ALL EMERGENCY MODULE COMPONENTS WILL MOUNT INSIDE THE EXIT HOUSING AND WILL INCLUDE A SOLID-STATE CONSTANT CURRENT TYPE BATTERY CHARGER, MAINTENANCE-FREE NICKEL METAL HYDRIDE BATTERY, AN AC-ON INDICATOR LIGHT AND A TEST SWITCH. THE UNIT CHARGER WILL BE CAPABLE OF RECHARGING THE BATTERY WITHIN ACCEPTABLE UL TIME STANDARDS. THE EMERGENCY OPERATION MODULE MUST BE CAPABLE OF PROVIDING A MINIMUM OF TWO HOURS OF EMERGENCY OPERATION. EXIT SIGNS MUST COMPLY WITH ALL UL 924, AND NFPA 101 LIFE SAFETY CODE REQUIREMENTS.	EMERGENSEE SEEX SERIES SURE-LITES LPX SERIES EMERGI-LITE ELX SERIES LIGHTALARMS GRAN SERIES CHLORIDE CLX SERIES LITHONIA LQM SERIES MULE MX SERIES

NOTES:
1. ALL LED SUBSTITUTION REQUESTS WILL REQUIRE IES FILES TO BE SUBMITTED.
2. ALL LIGHTING SUBMITTALS MUST BE SUBMITTED ON LOCAL AUTHORIZED MANUFACTURER REPRESENTATIVE LETTERHEAD AND CONTAIN PROJECT NAME AND LOCATION.
3. ALL LIGHTING FOR THE PROJECT MUST BE SOURCED THROUGH LOCAL DISTRIBUTORS.
4. APPROVED EQUAL FIXTURES TO MEET REQUIREMENTS OF BASIS OF DESIGN.
5. ALL LUMINAIRES AND LIGHTING EQUIPMENT SHALL BE UL OR ETL LISTED.

BRANCH CIRCUIT SCHEDULE

BREAKER SIZE	WIRE SIZE	GROUND	CONDUITS
20A	#12 THWN	#12 THWN	1/2"
25A	#10 THWN	#10 THWN	3/4"
30A	#10 THWN	#10 THWN	3/4"
35A	#10 THWN	#10 THWN	3/4"
40A	#8 THWN	#10 THWN	3/4"
45A	#8 THWN	#10 THWN	3/4"
50A	#8 THWN	#10 THWN	3/4"
60A	#6 THWN	#10 THWN	1"
70A	#4 THWN	#8 THWN	1-1/4"
80A	#4 THWN	#8 THWN	1-1/4"
90A	#3 THWN	#8 THWN	1-1/4"

NOTES:
1. BRANCH CIRCUIT WIRE AND CONDUIT SIZES ARE FOR A SINGLE CIRCUIT PER CONDUIT APPLICATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST WIRE AND CONDUIT SIZES TO COMPLY WITH WIRE DERATING AND CONDUIT FILL REQUIREMENTS WHERE MORE THAN ONE CIRCUIT IS INSTALLED IN A CONDUIT.
2. BRANCH CIRCUIT WIRE SIZES ARE FOR 120V CIRCUITS LESS THAN 100' IN LENGTH. INCREASE WIRE SIZE BY ONE NOMINAL WIRE SIZE FOR EACH CIRCUIT LENGTH GREATER THAN 100'.
3. BRANCH CIRCUIT WIRE SIZES FOR ALL EXTERIOR UNDERGROUND CIRCUITS SHALL BE MIMIMUM #8 THWN IN 1" CONDUIT.

OCCUPANCY SENSOR SCHEDULE

UNIT TAG	MANUFACTURER	MODEL NUMBER	MOUNTING TYPE	DESCRIPTION	COMMENTS	APPROVED EQUALS
OC1	nLIGHT	nCM PDT 9/10	CEILING	CEILING MOUNTED 360° PIR AND ULTRASONIC SENSOR WITH SMALL MOTION DETECTION, ADAPTIVE MICROPROCESSOR AND POWER PACK. 1000 SQ FT COVERAGE. PROVIDE WITH POWER PACK FOR LIGHTING AND RECEPTACLE CONTROL AS APPLICABLE.	FIELD SELECTABLE VACANCY DELAY UP TO 30 MINUTES, PRELIMINARY SET POINT 20 MINUTES	HUBBELL BUILDING AUTOMATION SENSOR SWITCH WATTSTOPPER
OC2	nLIGHT	nWSX PDT LV	WALL	WALL MOUNTED 180 DEGREE WIDE VIEW, PIR AND ULTRASONIC OCCUPANCY SENSOR WITH 20' SMALL MOTION AND 36' LARGE MOTION RANGE. PROVIDE WITH POWER PACK FOR LIGHTING AND RECEPTACLE CONTROLS AS APPLICABLE. WALL SWITCH LOCATION MOUNTING WITH DIMMING CONTROL.	FIELD SELECTABLE VACANCY DELAY UP TO 30 MINUTES, PRELIMINARY SET POINT 20 MINUTES	HUBBELL BUILDING AUTOMATION SENSOR SWITCH WATTSTOPPER
P	nLIGHT	nPP16		DUAL VOLTAGE POWER PACK FOR ON/OFF LIGHTING CONTROL.	QUANTITY AND LOCATIONS AS REQUIRED TO SUPPORT THE ROOM / AREA	HUBBELL BUILDING AUTOMATION SENSOR SWITCH WATTSTOPPER

NOTES:
1. PROVIDE MANUAL ON/AUTO OFF (VACANCY) AND AUTO ON/AUTO OFF (OCCUPANCY) OPTIONS FOR OCCUPANCY SENSORS. OPTIONS FOR EACH AREA TO BE SELECTED BY OWNER AT STARTUP. PROVIDE COMPATIBLE SWITCHES FOR OPTIONS SELECTED.
2. MOUNT ALL OCCUPANCY SENSORS A MINIMUM OF 4'-0" AWAY FROM ALL SUPPLY REGISTERS AND DIFFUSERS.
3. COORDINATE OCCUPANCY SENSORS AND DEVICES WITH LIGHTING CONTROL SEQUENCE SCHEDULE.
4. LOCATION AND QUANTITY OF OCCUPANCY SENSORS SHOWN ON DRAWINGS IS APPROXIMATE. CONTRACTOR SHALL ENSURE PROPER OCCUPANCY SENSOR COVERAGE OF SPACE.

CONTACTOR SCHEDULE

NO.	DESCRIPTION	CHARACTERISTICS	CIRCUIT NO.	CONTROL	REMARKS
C-1	LIGHTING	30A-6P	PB-3,6,9,23	LIGHT SWITCH	NOTE #1 AND 2
C-2	LIGHTING	30A-6P	PB-4,5,7,8,23	LIGHT SWITCH	NOTE #1 AND 2

NOTES:
1. CIRCUIT EXHAUST FAN EF-1 THROUGH CONTRACTORS 1 AND 2 IN PARALLEL SO EITHER CONTACTOR, OR BOTH CONTACTORS WILL START EF-1 WHENEVER LIGHTS ARE TURNED ON, AND STOP EF-1 WHEN EVER ALL LIGHTS ARE TUNED OFF.
2. MECHANICAL CONTRACTOR TO WIRE 120V CONTACTS THROUGH CONTACTORS 1 AND 2 TO PROVIDE "OCCUPIED" STATUS TO MAU-1. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR.

ELECTRIC UNIT HEATER

UNIT TAG	MANUFACTURER	MODEL NUMBER	TOTAL CAPACITY (BTUH)	ELEMENT WATTS	MOUNTING TYPE	ELECTRICAL CHARACTERISTICS
EH-1	BERKO	QFF1500	5120	1500	CEILING RECESSED	120V/1Ø
EH-2	BERKO	2513NW	2559	750	WALL SURFACE	120V/1Ø

NOTES:
1. HEATER THERMOSTAT AND CONTROLS SHALL BE INTEGRAL WITH UNIT.
2. DISCONNECT SWITCH SHALL BE INTEGRAL TO UNIT.

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ELECTRICAL SCHEDULES

SHEET NUMBER:
E6.1

PROJECT NO.: 02401959.001

7/17/2025 4:07:40 PM

Branch Panel: PB (BASE BID)

Location: ELEC 105A
Mounting: SURFACE
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	Load Classification	A		B		C		Load Classification	Poles	Trip	Circuit Description	CKT
1	LIGHTING	20 A	1	Lighting	423 VA	710 VA					Lighting	1	20 A	LIGHTING	2
3	LIGHTING	20 A	1	Lighting			1242 VA	1218 VA			Lighting	1	20 A	LIGHTING	4
5	LIGHTING	20 A	1	Lighting					1218 VA	1242 VA	Lighting	1	20 A	LIGHTING	6
7	LIGHTING	20 A	1	Lighting	1218 VA	0 VA								SPARE	8
9	SPARE	20 A	1	--			0 VA	1000 VA			Receptacle	1	20 A	$ FACP	10
11	RECEPTACLE	20 A	1	Receptacle					2000 VA	750 VA	Heating	1	20 A	EH-2	12
13	EH-1	20 A	1	Heating	1500 VA	41 VA					Motor	1	20 A	DHWCP-1	14
15	EWH-1	30 A	2	Other			2250 VA	540 VA			Receptacle	1	20 A	RECEPTACLES	16
17	--	--	--	--					2250 VA	720 VA	Receptacle	1	20 A	RECEPTACLES	18
19	RECEPTACLES	20 A	1	Receptacle	540 VA	1500 VA					Heating	1	20 A	EH-1	20
21	EH-1	20 A	1	Heating			1500 VA	1500 VA			Heating	1	20 A	EH-1	22
23	EF-1	20 A	1	Motor					300 VA	1080 VA	Receptacle	1	20 A	RECEPTACLES	24
25	RECEPTACLES	20 A	1	Receptacle	1080 VA	1080 VA					Receptacle	1	20 A	RECEPTACLES	26
27	MUA-1	20 A	3	Motor			1273 VA	1080 VA			Receptacle	1	20 A	RECEPTACLES	28
29	--	--	--	--					1273 VA	720 VA	Receptacle	1	20 A	RECEPTACLES	30
31	--	--	--	--	1273 VA	901 VA					Motor	3	20 A	OHD-1	32
33	RECEPTACLES	20 A	1	Receptacle			720 VA	901 VA			--	--	--	--	34
35	OHD-1	20 A	3	Motor					901 VA	901 VA	--	--	--	--	36
37	--	--	--	--	901 VA	360 VA					Receptacle	1	20 A	RECEPTACLES	38
39	--	--	--	--			901 VA	901 VA			Motor	3	20 A	OHD-1	40
41	SPARE	20 A	1	--					0 VA	901 VA	--	--	--	--	42
43	DF-A, DF-A, DF-A, DF-A	20 A	1	Motor	220 VA	901 VA					--	--	--	--	44
45	DF-A, DF-A, DF-A	20 A	1	Motor			165 VA	165 VA			Motor	1	20 A	DF-A, DF-A, DF-A	46
47	SPARE	20 A	1	--					0 VA	1600 VA	Heating	1	20 A	IRH-1, IRH-1	48
49	EH-1	20 A	1	Heating	1500 VA	1600 VA					Heating	1	20 A	IRH-2, IRH-2	50
51	OHD-2	20 A	1	Motor			1176 VA	1080 VA			Receptacle	1	20 A	RECEPTACLES	52
53	EF-2	30 A	3	Motor					2005 VA	1080 VA	Receptacle	1	20 A	RECEPTACLES	54
55	--	--	--	--	2005 VA	2005 VA					Motor	3	30 A	EF-2	56
57	--	--	--	--			2005 VA	2005 VA			--	--	--	--	58
59	RECEPTACLES	20 A	1	Receptacle					1080 VA	2005 VA	--	--	--	--	60
61	SPARE	20 A	1	--	0 VA	0 VA					--	3	20 A	SPARE	62
63	SPARE	20 A	1	--			0 VA	0 VA			--	--	--	--	64
65	CONTACTORS C1 AND C2	20 A	1	Lighting					200 VA	0 VA	--	--	--	--	66
67	CO/NO2 CONTROL PANEL	20 A	1	Power	500 VA	500 VA					Other	1	20 A	MUA-1 CONTROL PANEL	68
69	SPARE	20 A	1	--			0 VA	0 VA			--	1	20 A	SPARE	70
71	SPARE	20 A	1	--					0 VA	0 VA	--	1	20 A	SPARE	72
73	SPARE	20 A	1	--	0 VA	0 VA					--	1	20 A	SPARE	74
75	SPACE	--	1	--			--	--			--	1	--	SPACE	76
77	SPACE	--	1	--					--	--	--	1		SPACE	78
79	SPACE	--	1	--	--	0 VA					--	3	400 A	SPARE	80
81	SPACE	--	1	--			--	0 VA			--	--	--	--	82
83	SPACE	--	1	--					--	0 VA	--	--	--	--	84
				Total Load:	20757 VA		21622 VA		22226 VA						
				Total Amps:	173 A		181 A		186 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Heating	11450 VA	100.00%	11450 VA		
Lighting	7471 VA	100.00%	7471 VA	**Total Conn. Load:**	64605 VA
Motor	26024 VA	100.00%	26024 VA	**Total Est. Demand:**	62375 VA
Other	5000 VA	100.00%	5000 VA	**Total Conn. Current:**	179 A
Power	500 VA	70.00%	350 VA	**Total Est. Demand Current:**	173 A
Receptacle	14160 VA	85.31%	12080 VA		

Notes:
$ PROVIDE LOCK-ON DEVICE

Branch Panel: PB (ALTERNATE BID #1)

Location: ELEC 105A
Mounting: SURFACE
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	Load Classification	A		B		C		Load Classification	Poles	Trip	Circuit Description	CKT
1	LIGHTING	20 A	1	Lighting	423 VA	852 VA					Lighting	1	20 A	LIGHTING	2
3	LIGHTING	20 A	1	Lighting			1242 VA	1218 VA			Lighting	1	20 A	LIGHTING	4
5	LIGHTING	20 A	1	Lighting					1218 VA	1226 VA	Lighting	1	20 A	LIGHTING	6
7	LIGHTING	20 A	1	Lighting	1218 VA	1218 VA					Lighting	1	20 A	LIGHTING	8
9	LIGHTING	20 A	1	Lighting			629 VA	1000 VA			Receptacle	1	20 A	$ FACP	10
11	RECEPTACLE	20 A	1	Receptacle					2000 VA	750 VA	Heating	1	20 A	EH-2	12
13	EH-1	20 A	1	Heating	1500 VA	41 VA					Motor	1	20 A	DHWCP-1	14
15	EWH-1	30 A	2	Other			2250 VA	540 VA			Receptacle	1	20 A	RECEPTACLES	16
17	--	--	--	--					2250 VA	720 VA	Receptacle	1	20 A	RECEPTACLES	18
19	RECEPTACLES	20 A	1	Receptacle	540 VA	1500 VA					Heating	1	20 A	EH-1	20
21	EH-1	20 A	1	Heating			1500 VA	1500 VA			Heating	1	20 A	EH-1	22
23	EF-1	20 A	1	Motor					300 VA	1080 VA	Receptacle	1	20 A	RECEPTACLES	24
25	RECEPTACLES	20 A	1	Receptacle	1080 VA	1080 VA					Receptacle	1	20 A	RECEPTACLES	26
27	MUA-1	20 A	3	Motor			1273 VA	1080 VA			Receptacle	1	20 A	RECEPTACLES	28
29	--	--	--	--					1273 VA	720 VA	Receptacle	1	20 A	RECEPTACLES	30
31	--	--	--	--	1273 VA	901 VA					Motor	3	20 A	OHD-1	32
33	RECEPTACLES	20 A	1	Receptacle			720 VA	901 VA			--	--	--	--	34
35	OHD-1	20 A	3	Motor					901 VA	901 VA	--	--	--	--	36
37	--	--	--	--	901 VA	360 VA					Receptacle	1	20 A	RECEPTACLES	38
39	--	--	--	--			901 VA	901 VA			Motor	3	20 A	OHD-1	40
41	DF-A,DF-A	20 A	1	Motor					110 VA	901 VA	--	--	--	--	42
43	DF-A, DF-A, DF-A	20 A	1	Motor	165 VA	901 VA					--	--	--	--	44
45	DF-A, DF-A, DF-A	20 A	1	Motor			165 VA	165 VA			Motor	1	20 A	DF-A,DF-A, DF-A	46
47	DF-A, DF-A, DF-A	20 A	1	Motor					165 VA	1600 VA	Heating	1	20 A	IRH-1, IRH-1	48
49	EH-1	20 A	1	Heating	1500 VA	1600 VA					Heating	1	20 A	IRH-1, IRH-1	50
51	OHD-2	20 A	1	Motor			1176 VA	1080 VA			Receptacle	1	20 A	RECEPTACLES	52
53	EF-2	30 A	3	Motor					2005 VA	1080 VA	Receptacle	1	20 A	RECEPTACLES	54
55	--	--	--	--	2005 VA	2005 VA					Motor	3	30 A	EF-2	56
57	--	--	--	--			2005 VA	2005 VA			--	--	--	--	58
59	RECEPTACLES	20 A	1	Receptacle					1080 VA	2005 VA	--	--	--	--	60
61	RECEPTACLES	20 A	1	Receptacle	720 VA	901 VA					Motor	3	20 A	OHD-1	62
63	RECEPTACLES	20 A	1	Receptacle			1080 VA	901 VA			--	--	--	--	64
65	CONTACTORS C1 AND C2	20 A	1	Lighting					200 VA	901 VA	--	--	--	--	66
67	CO/NO2 CONTROL PANEL	20 A	1	Power	500 VA	500 VA					Other	1	20 A	MUA-1 CONTROL PANEL	68
69	SPARE	20 A	1	--			0 VA	0 VA			--	1	20 A	SPARE	70
71	SPARE	20 A	1	--					0 VA	0 VA	--	1	20 A	SPARE	72
73	SPARE	20 A	1	--	0 VA	0 VA					--	1	20 A	SPARE	74
75	SPACE	--	1	--			--	--			--	1	--	SPACE	76
77	SPACE	--	1	--					--	--	--	1	--	SPACE	78
79	SPACE	--	1	--	--	0 VA					--	3	400 A	SPARE	80
81	SPACE	--	1	--			--	0 VA			--	--	--	--	82
83	SPACE	--	1	--					--	0 VA	--	--	--	--	84
				Total Load:	23683 VA		24231 VA		23385 VA						
				Total Amps:	198 A		202 A		195 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Heating	11450 VA	100.00%	11450 VA		
Lighting	9444 VA	100.00%	9444 VA	**Total Conn. Load:**	71300 VA
Motor	28946 VA	100.00%	28946 VA	**Total Est. Demand:**	68170 VA
Other	5000 VA	100.00%	5000 VA	**Total Conn. Current:**	198 A
Power	500 VA	70.00%	350 VA	**Total Est. Demand Current:**	189 A
Receptacle	15960 VA	81.33%	12980 VA		

Notes:
$ PROVIDE LOCK-ON DEVICE

MECHANICAL AND BUILDING EQUIPMENT SCHEDULE

UNIT TAG	ELECTRICAL VOLT PHASE	MOTOR HP	kW	M.C.A.	DISCONNECT TYPE	SIZE (AMPS)	NEMA ENCLOSURE	FUSE (AMPS)	STARTER NEMA	CONTROLS DESCRIPTION	REMARKS
CD	120V/1Ø	---	---	0.3	FS	15	1	2	---	CO/NO2 PANEL	NOTE #2
DF-A	120V/1Ø	FHP	0.06	0.57	CP	---	---	---	---	CBM	
DHWCP-1	120V/1Ø	FHP	---	0.43	FS	15	1	1	---	CBM	
EF-1	120V/1Ø	1/8	---	2.38	BI	---	---	---	---	SL	NOTE #3
EF-2	208V/3Ø	5	---	20.88	BI	---	---	---	---	CO/NO2 PANEL	NOTE #2
EWH-1	208V/1Ø	---	4.50	27.04	FDS	30	1	30	---	BI	
IRH-1	120V/1Ø	FHP	---	4.8	CP	---	---	---	---	CBM	
IRH-2	120V/1Ø	FHP	---	4.8	CP	---	---	---	---	CBM	
MUA-1	208V/3Ø	3	---	13.25	BI	---	---	---	---	CBM	NOTE #1
OHD-1	208V/3Ø	2	---	9.38	FDS	30	---	10	---	SSPE	
OHD-2	120V/1Ø	1/2	---	12.25	CP	---	---	0	---	SSPE	

NOTES:
1. MECHANICAL CONTRACTOR TO CONNECT THROUGH LIGHTING CONTACTORS C-1 & C-2 TO ENABLE MAU-1 OPERATION.
2. ELECTRICAL CONTRACTOR TO WIRE CONTROLS FOR CO/NO2 CONTROL PANEL AS DIRECTED BY MECHANICAL CONTRACTOR. WIRING TO INCLUDE REMOTE SENSORS, EXHAUST FANS AND CONTROL DAMPERS. COORDINATE CONTROLS WITH MECHANICAL CONTRACTOR.
3. MECHANICAL CONTRACTOR TO WIRE THROUGH BOTH LIGHTING CONTACTORS C1 AND C2 SO FAN RUNS WHENEVER EITHER LIGHTING CONTACTOR, OR BOTH CONTACTORS TURN ON LIGHTS. COORDINATE WITH MECHANICAL CONTRACTOR.

ABBREVIATIONS:

1	NEMA 1 ENCLOSURE
3R	NEMA 3R ENCLOSURE
4	NEMA 4 ENCLOSURE
4X	NEMA 4X ENCLOSURE
AVST	AUTOTRANSFORMER CONTROLLER PROVIDED BY M.C., POWERED BY E.C.
BCP	BOILER CONTROL PANEL
BI	BUILT-IN
BS	BOILER SHUT-OFF
CB	CIRCUIT BREAKER AT PANEL
CBM	CONTROLS BY M.C.
CP	CORD & PLUG BY E.C.
CSD	COMBINATION STARTER DISCONNECT SWITCH
DDC	DIRECT DIGITAL CONTROLS BY OTHERS
ECB	ENCLOSED CIRCUIT BREAKER
EPO	EMERGENCY POWER OFF BUTTON
FAR	FIRE ALARM SHUTDOWN RELAY
FDS	FUSED DISCONNECT SWITCH
FHP	FRACTIONAL HORSEPOWER
FS	FUSE STAT SWITCH
HOA	HAND-OFF-AUTO
INT	INTEGRAL TO UNIT
LDS	LOCKABLE DISCONNECT SWITCH
LS	LOCAL TOGGLE SWITCH
NCR	NORMALLY CLOSED RELAY
NFD	NON-FUSED DISCONNECT SWITCH
NOR	NORMALLY OPEN RELAY
RD	RETURN AIR DUCT DETECTOR
RLS	REMOTE TEST/RESET STATION
SC	SPEED CONTROL BY M.C., INSTALLED BY E.C.
SD	SUPPLY AIR DUCT DETECTOR
KS	KEYED SWITCH
SL	SWITCHED WITH LIGHTS
SP	SWITCH WITH PILOT LIGHT
SR	CONNECT TO SHUTDOWN RELAY
SSP	START/STOP PUSHBUTTON W/PILOT
SSPE	START/STOP PUSHBUTTON PROVIDED BY OTHERS, INSTALLED BY E.C.
ST	SHUNT TRIP CIRCUIT BREAKER WITH GROUND FAULT PROTECTION
TE	THERMOSTAT PROVIDED AND INSTALLED BY E.C.
TME	THERMOSTAT PROVIDED BY M.C., INSTALLED BY E.C.
TOR	TIME DELAY OFF RELAY
VFD	VARIABLE FREQUENCY DRIVE PROVIDED BY M.C., INSTALLED BY E.C.

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Engineers | Architects | Surveyors | Scientists

ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	Designer
DRAWN:	Author
REVIEWED:	Approver
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:
ELECTRICAL PANEL SCHEDULES

SHEET NUMBER:
E6.2

PROJECT NO.: 02401959.001

7/21/2025 4:07:41 PM

Branch Panel: **PANEL N (ALTERNATE BID #4)**

Location: SITE DISTRIBUTION RACK
Mounting:: SURFACE
Enclosure: NEMA 4R

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 35,000
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	Load Classification	A		B		C		Load Classification	Poles	Trip	Circuit Description	CKT
1	FUTURE LIGHTING	20 A	1	Lighting	1000 VA	1000 VA					Lighting	1	20 A	FUTURE LIGHTING	2
3	FUTURE LIGHTING	20 A	1	Lighting			1000 VA	1000 VA			Lighting	1	20 A	FUTURE LIGHTING	4
5	FUTURE LIGHTING	20 A	1	Lighting					1000 VA	1000 VA	Lighting	1	20 A	FUTURE LIGHTING	6
7	FUTURE SALLYPORT	20 A	3	Power	1600 VA	1600 VA					Power	3	20 A	FUTURE SALLYPORT	8
9	--	--	--	--			1600 VA	1600 VA			--	--	--	--	10
11	--	--	--	--					1600 VA	1600 VA	--	--	--	--	12
13	FUTURE CONSTRUCTION PEDESTAL	100 A	3	Power	4200 VA	4200 VA					Power	3	100 A	FUTURE CONSTRUCTION PEDESTAL	14
15	--	--	--	--			4200 VA	4200 VA			--	--	--	--	16
17	--	--	--	--					4200 VA	4200 VA	--	--	--	--	18
19	FUTURE CONSTRUCTION PEDESTAL	100 A	3	Power	4200 VA	4200 VA					Power	3	100 A	FUTURE CONSTRUCTION PEDESTAL	20
21	--	--	--	--			4200 VA	4200 VA			--	--	--	--	22
23	--	--	--	--					4200 VA	4200 VA	--	--	--	--	24
25	FUTURE CONSTRUCTION PEDESTAL	100 A	3	Power	4200 VA	4200 VA					Power	3	100 A	FUTURE CONSTRUCTION PEDESTAL	26
27	--	--	--	--			4200 VA	4200 VA			--	--	--	--	28
29	--	--	--	--					4200 VA	4200 VA	--	--	--	--	30
31	FUTURE CONSTRUCTION PEDESTAL	100 A	3	Power	4200 VA	4200 VA					Power	3	100 A	FUTURE CONSTRUCTION PEDESTAL	32
33	--	--	--	--			4200 VA	4200 VA			--	--	--	--	34
35	--	--	--	--					4200 VA	4200 VA	--	--	--	--	36
37	FUTURE CONSTRUCTION PEDESTAL	100 A	3	Power	4200 VA	4200 VA					Power	3	100 A	FUTURE CONSTRUCTION PEDESTAL	38
39	--	--	--	--			4200 VA	4200 VA			--	--	--	--	40
41	--	--	--	--					4200 VA	4200 VA	--	--	--	--	42
43	FUTURE CONSTRUCTION PEDESTAL	100 A	3	Power	4200 VA	0 VA					--	3	100 A	SPARE	44
45	--	--	--	--			4200 VA	0 VA			--	--	--	--	46
47	--	--	--	--					4200 VA	0 VA	--	--	--	--	48
49	SPACE	--	1	--	--	--					--	1	--	SPACE	50
51	SPACE	--	1	--			--	--			--	1	--	SPACE	52
53	SPACE	--	1	--					--	--	--	1	--	SPACE	54
55	SPACE	--	1	--	--	--					--	1	--	SPACE	56
57	SPACE	--	1	--			--	--			--	1	--	SPACE	58
59	SPACE	--	1	--					--	--	--	1	--	SPACE	60
				Total Load:	51400 VA		51400 VA		51400 VA						
				Total Amps:	428 A		428 A		428 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	6000 VA	100.00%	6000 VA		
Power	148200 VA	70.00%	103740 VA	**Total Conn. Load:**	154200 VA
				Total Est. Demand:	109740 VA
				Total Conn. Current:	428 A
				Total Est. Demand Current:	305 A

Notes:

Panel: **MDP-N (ALTERNATE BID #4)**

Location: SITE DISTRIBUTION PAD
Supply From: TRANSFORMER
Mounting: SURFACE
Enclosure: NEMA 4

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65,000
Mains Type: MB
Mains Rating: 1600 A

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	EXISTING PANEL A	3	400 A	300 A	60000 VA	
2	EXISTING PANEL W	3	200 A	200 A	30000 VA	
3	EXISTING PANEL S	3	200 A	200 A	30000 VA	
4	PANEL N	3	400 A	400 A	109740 VA	
5	SPARE	3	400 A	400 A	150000 VA	
6	SPACE	1	--	--	--	
7	SPACE	1	--	--	--	
8						
9						
10						
				Total Conn. Load:	379740 VA	
				Total Amps:	1054 A	

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	379740 VA	100.00%	379740 VA		
				Total Conn. Load:	379740 VA
				Total Est. Demand:	379740 VA
				Total Conn. Current:	1054 A
				Total Est. Demand Current:	1054 A

Notes:

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Engineers | Architects | Surveyors | Scientists

ISSUE:

#	DATE:	DESCRIPTION:

100% BID DOCUMENTS

PROJECT:
State of Iowa

Newton Correctional Facility Iowa Prison Industries Phase II

Newton, Iowa

DATE:	07/18/2025
DESIGNED:	Designer
DRAWN:	Author
REVIEWED:	Approver
DAS NO.:	9239.02 & 9239.03

SHEET TITLE:

ELECTRICAL PANEL SCHEDULES

SHEET NUMBER:

E6.3

PROJECT NO.: 02401959.001

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