# CDB - PROJECT NUMBER 321-055-138

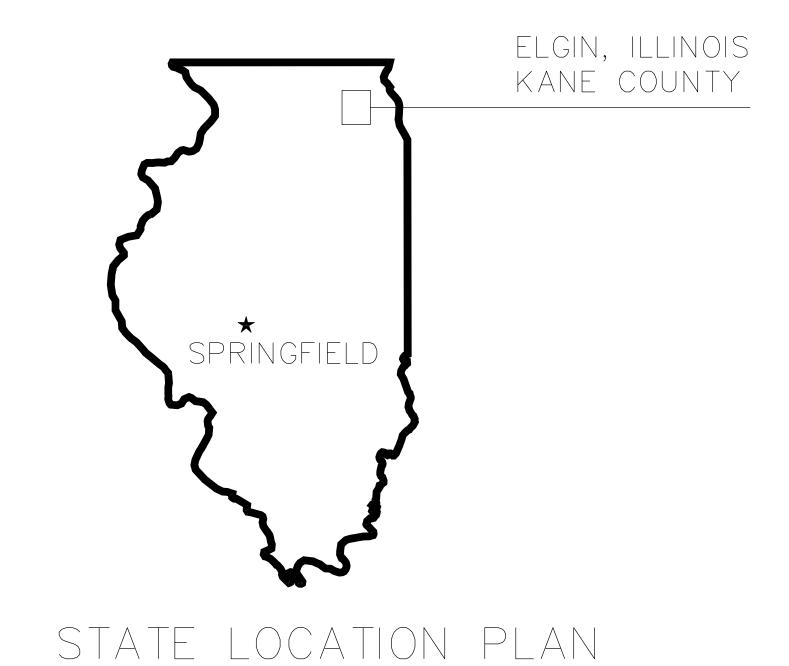
NEW POWER PLANT ELGIN MENTAL HEALTH CENTER DEPARTMENT OF HUMAN SERVICES ELGIN (KANE COUNTY), ILLINOIS CDB ILLINOIS BUILDING INVENTORY NUMBER: DHS055-0001 (NEW POWER PLANT) CONTRACT: DESIGN-BUILD

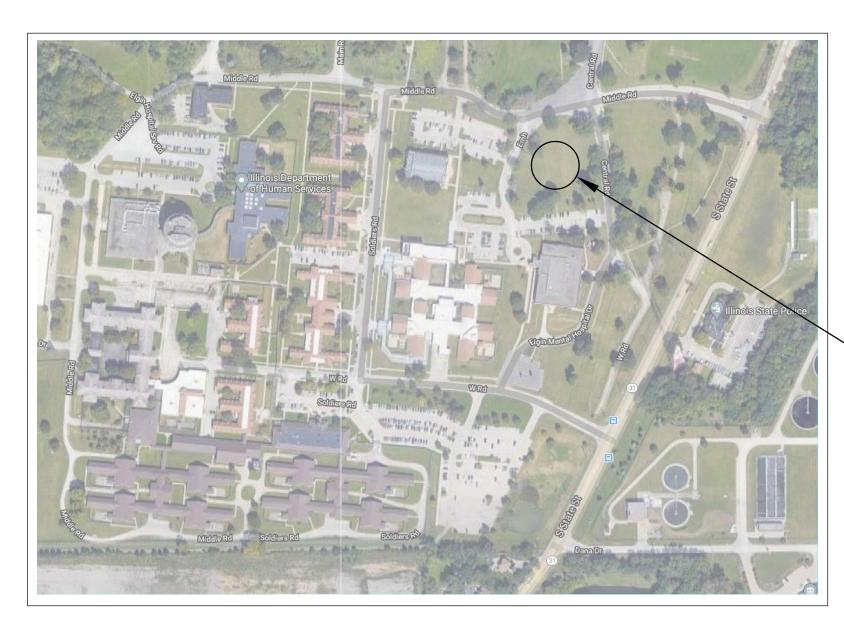
FOR:

STATE OF ILLINOIS CAPITAL DEVELOPMENT BOARD

USING AGENCY: ILLINOIS DEPARTMENT OF HUMAN SERVICES

STANLEY CONSULTANTS, INC. 8501 W. HIGGINS ROAD SUITE 730 CHICAGO, ILLINOIS 60631





AREA LOCATION PLAN

NORTH

-SITE FOR NEW

POWER PLANT

INDEX OF	DRAWINGS
01 G-1 02 G-2 03 C-1 04 C-2 05 C-3	TITLE SHEET AND LOCATION PLAN LIFE SAFETY PLAN TOPOGRAPHIC SITE SURVEY SITE DEMOLITION PLAN GFOMFTRIC SITE PLAN
06 C-4 07 C-5 08 C-6 09 C-7 10 C-8	SITE GRADING PLAN  SITE UTILITY PLAN — SEWER AND WATER  SITE UTILITY PLAN — STEAM AND CONDENSATE  SITE UTILITY PLAN — NATURAL GAS  SITE UTILITY PLAN — ELECTRICAL
11 C-9 12 A-1 13 A-2 14 A-2.1	REMOTE SALT STORAGE PLAN ARCHITECTURAL SITE PLAN OVERALL FLOOR PLAN PARTIAL FLOOR PLAN NORTH
15 A-2.2 16 A-3 17 A-4 18 A-5 19 A-6	PARTIAL FLOOR PLAN SOUTH MEZZANINE LEVEL PLAN REFLECTED CEILING PLAN ROOF PLAN BUILDING ELEVATIONS
20 A-7 21 A-8 22 A-9 23 S-1 24 S-2	BUILDING SECTIONS WALL SECTIONS SCHEDULES STRUCTURAL GENERAL NOTES OVERALL FOUNDATION PLAN
25 S-2.1 26 S-2.2 27 S-3 28 S-3.1 29 S-3.2	PARTIAL FOUNDATION PLAN — NORTH PARTIAL FOUNDATION PLAN — SOUTH OVERALL MEZZANINE AND LOW ROOF PLAN MEZZANINE AND LOW ROOF PLAN — NORTH MEZZANINE AND LOW ROOF PLAN — SOUTH
30 S-4 31 H-1 32 H-2 33 H-3	HIGH ROOF PLAN MECHANICAL SYMBOLS AND ABBREVIATIONS SCHEMATIC DIAGRAM — STEAM AND CONDENSATE SCHEMATIC DIAGRAM — BOILER FEEDWATER
34 H-4 35 H-5 36 H-6.1 37 H-6.2 38 H-7	SCHEMATIC DIAGRAM — NATURAL GAS SCHEMATIC DIAGRAM — DIESEL FUEL PIPING PLAN — HEATING PLANT NORTH PIPING PLAN — HEATING PLANT SOUTH PIPING PLAN — FUEL TANKS
39 V-1 40 V-2.1	VENTILATION PLAN — FIRST FLOOR NORTH VENTILATION PLAN — FIRST FLOOR SOUTH HVAC EQUIPMENT SCHEDULES
44 P-2 45 P-3.1 46 P-3.2	

SANITARY SEWER PLAN SOUTH

PLUMBING FIXTURE SCHEDULE

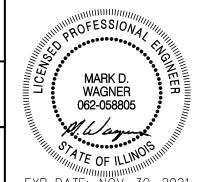
ELECTRICAL ONE-LINE DIAGRAM

ELECTRICAL ELEVATIONS

101% BRIDGING DOCUMENTS ISSUED FOR REVIEW 4/22/2021

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME

REVISIONS APPROVED CHECKED M.D.W.







State of Illinois JB PRITZKER, GOVERNOR Illinois Capital Development Board

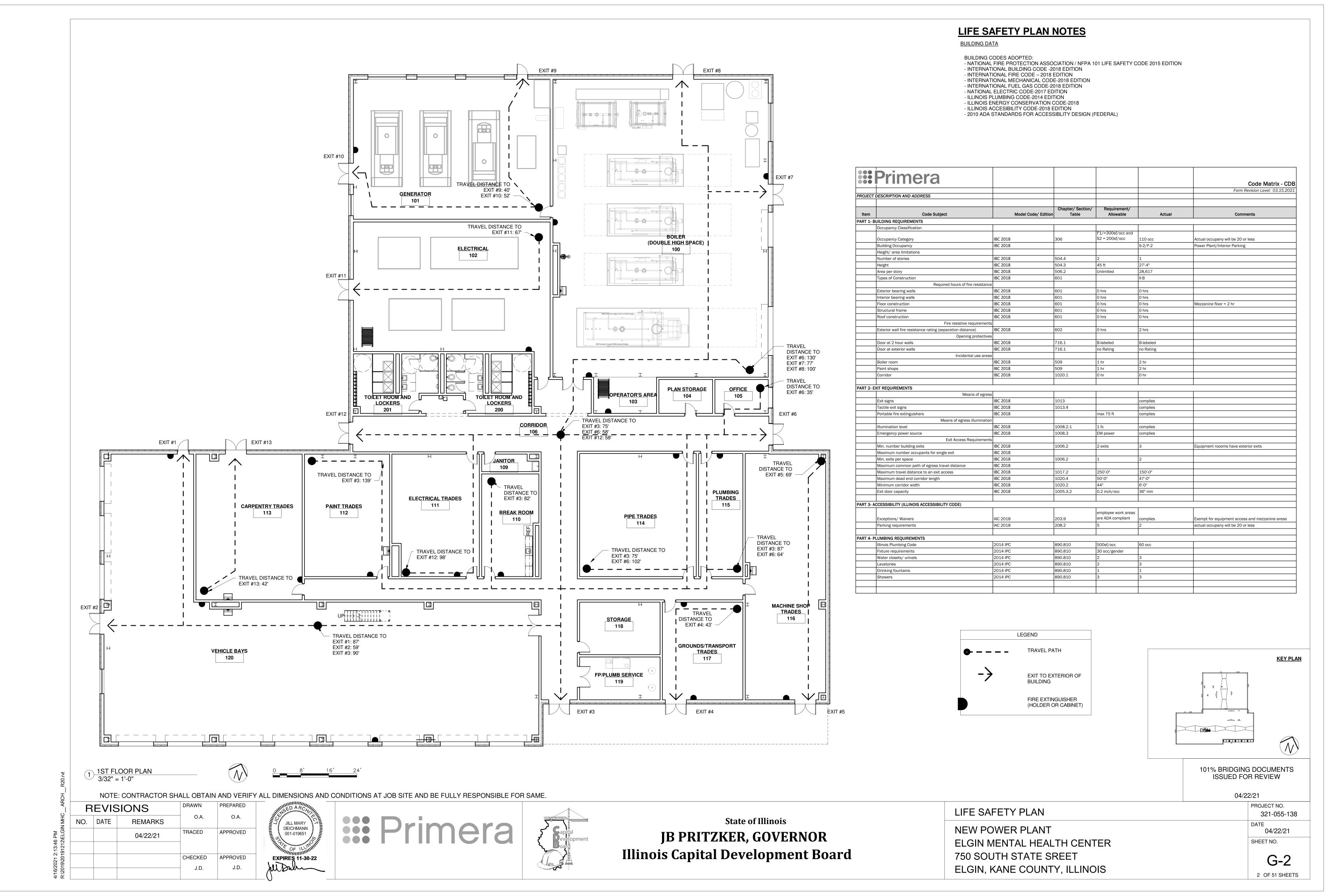
COVER	SHEET	AND	INDEX	OF	DRAWINGS

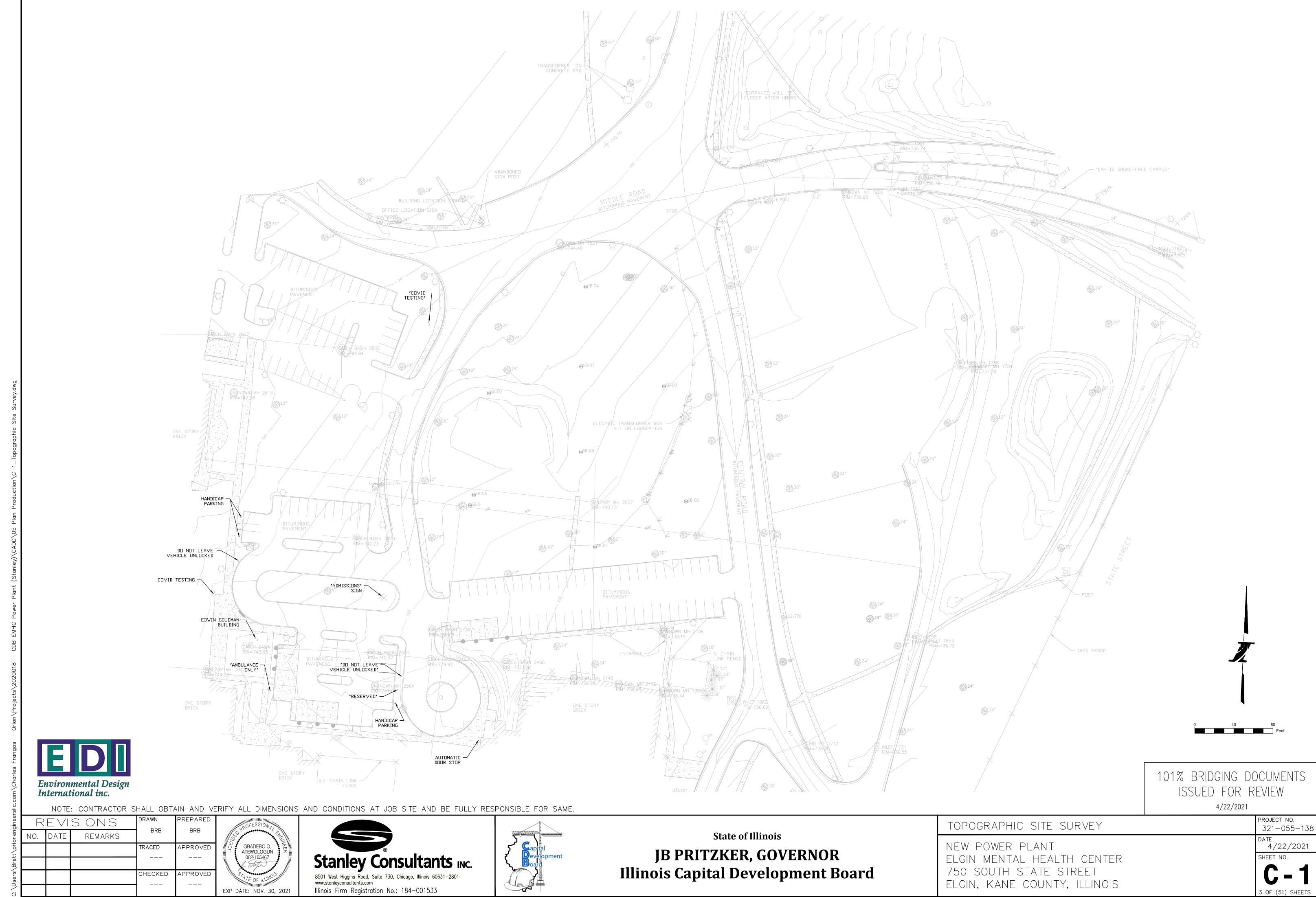
PROJECT NO. 321-055-138

NEW POWER PLANT ELGIN MENTAL HEALTH CENTER 750 SOUTH STATE STREET ELGIN, KANE COUNTY, ILLINOIS

51 E-2

DATE 4/22/2021 SHEET NO. G-OF (51) SHEETS

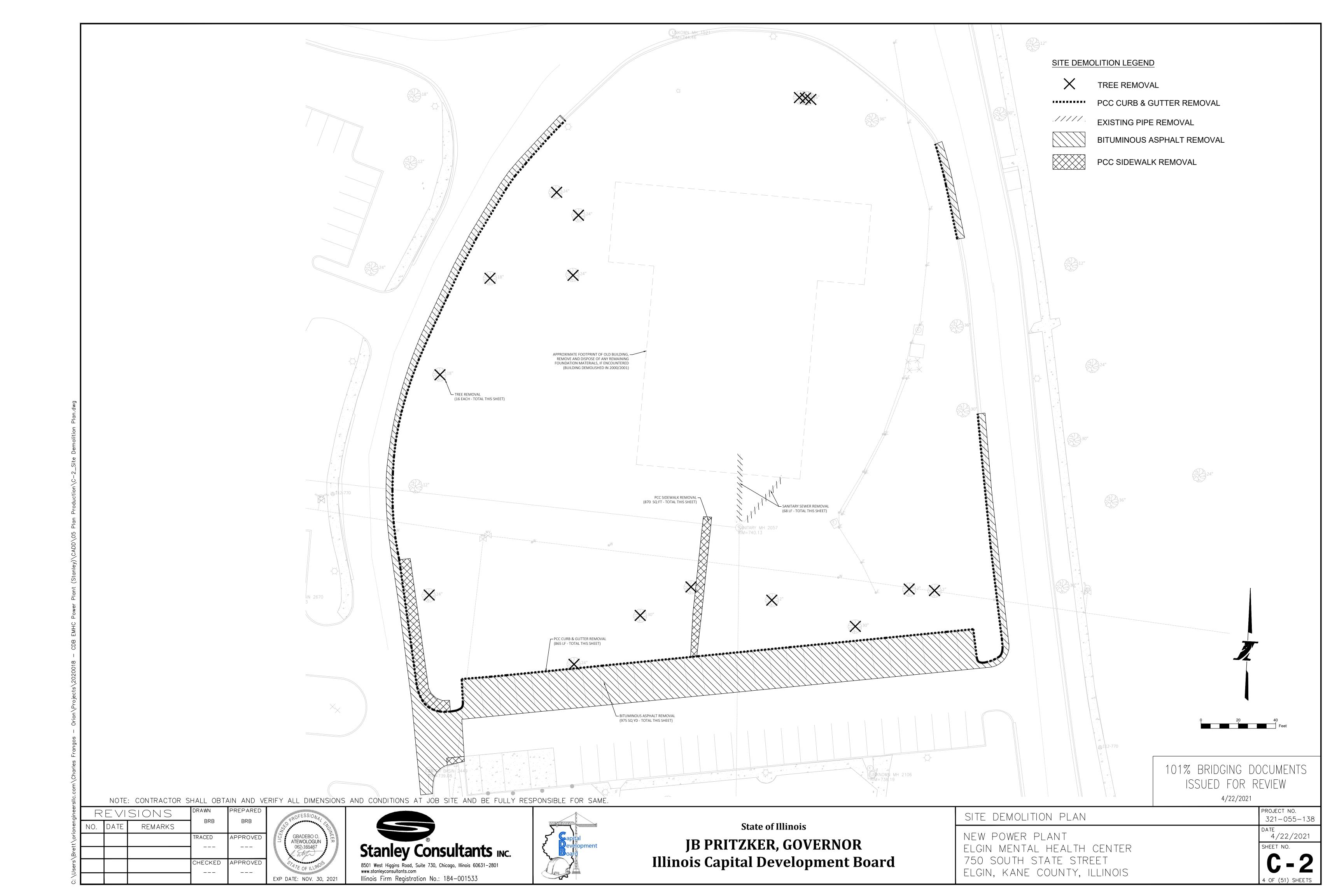


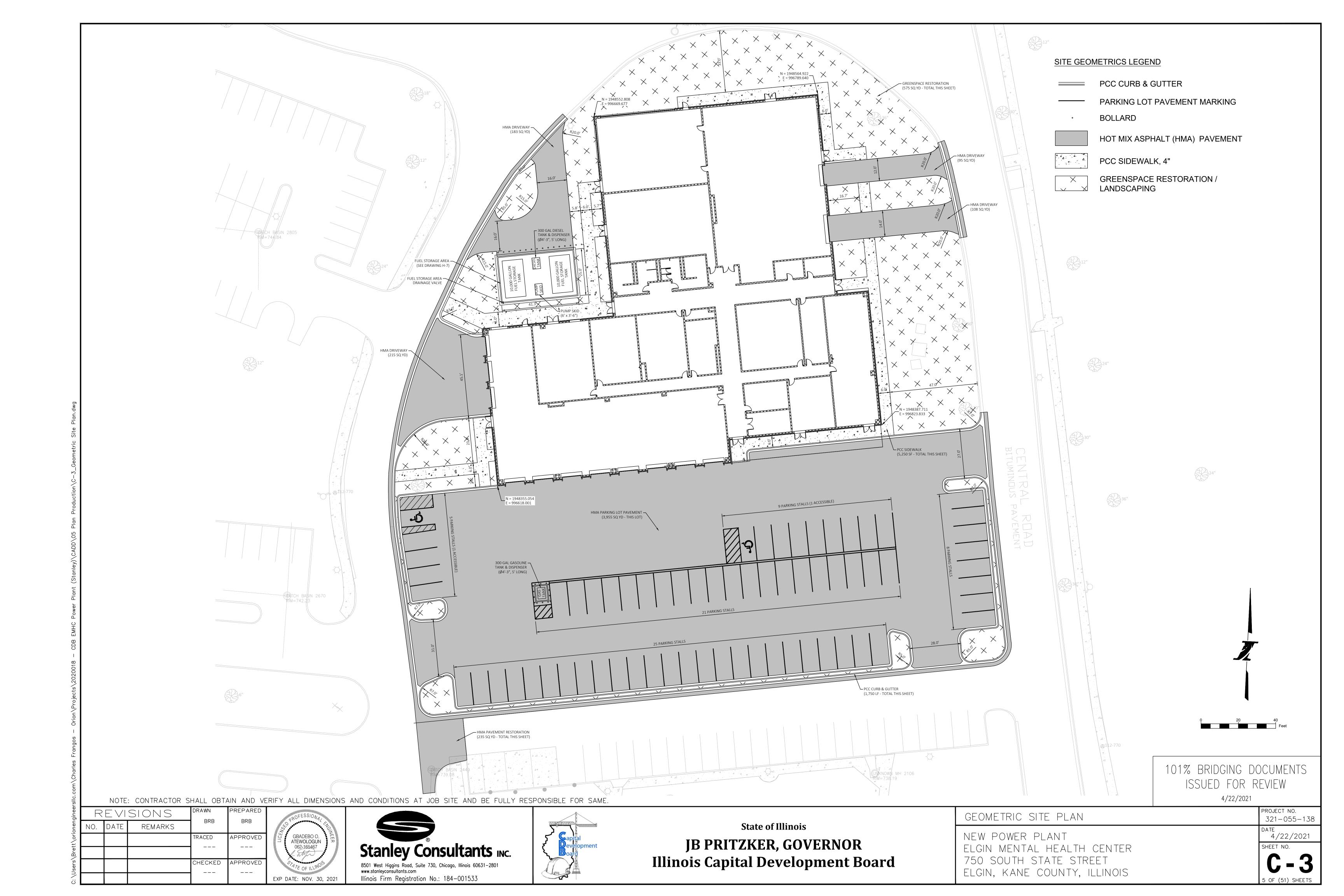


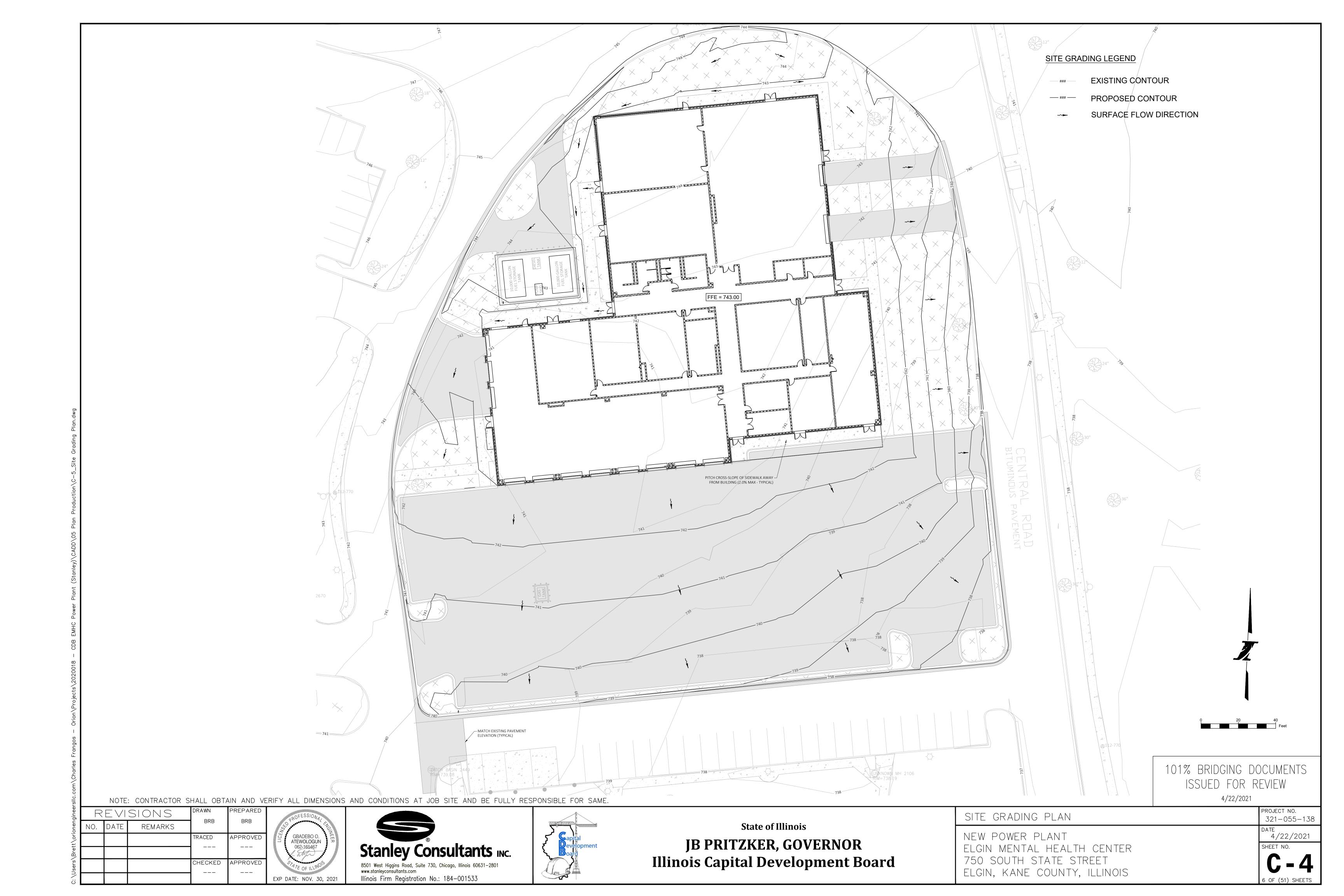
ELGIN, KANE COUNTY, ILLINOIS

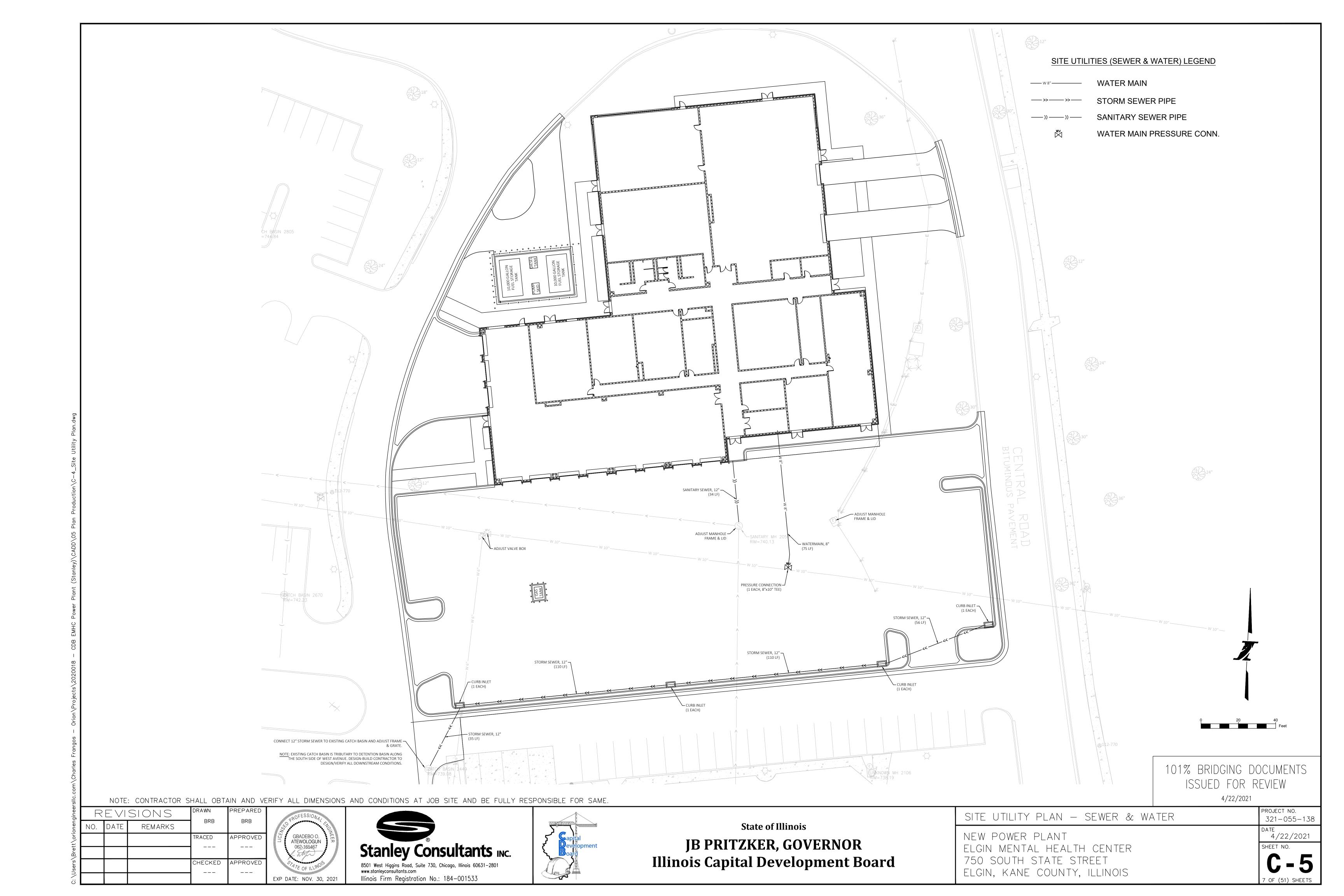
3 OF (51) SHEETS

EXP DATE: NOV. 30, 2021





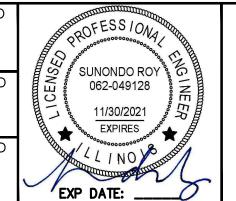




SITE UTILITY PLAN - STEAM AND NATURAL GAS NORTH SCALE: 1:100'

101% BRIDGING DOCUMENTS ISSUED FOR REVIEW 4/22/2021

REVISIONS NO. DATE REMARKS CHECKED







# State of Illinois

JB PRITZKER, GOVERNOR Illinois Capital Development Board

SITE	UTILITY	PLAN		
NEW	POWER	PLANT		
<b>ELGIN</b>	N MENT	AL HEAL	_TH CE	NTE
750	SOUTH	STATE	STREE 1	Γ
<b>ELGIN</b>	I. KANE	COUNT	Y, ILLI	NOI

NOTES:

DIRECT-BURIED INSTALLATION.

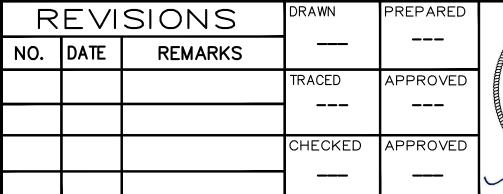
ABANDONED AFTER NEW WORK.

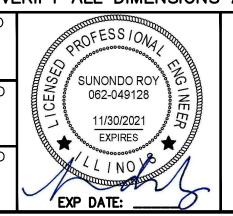
1. UNLESS INDICATED OTHERWISE, NEW SITE STEAM PIPES AND GAS PIPES ARE

2. EXISTING INACTIVE UNDERGROUND GAS PIPES AND STEAM PIPES TO BE

PROJECT NO. 321-055-138 DATE 4/22/2021

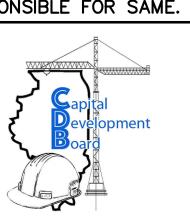
**C-6 8** OF (**51**) SHEETS







SEE -NOTE





VINTERCEPT

X.741.0

LOCATION OF EXISTING LOW PSI (10 PSI) GAS PIPE IS SUBJECT FIELD

EXISTING GAS SERVICE PIPE TO DIETARY

BUILDING #46 AT GAS SERVICE



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State of Illinois

MIDDLE

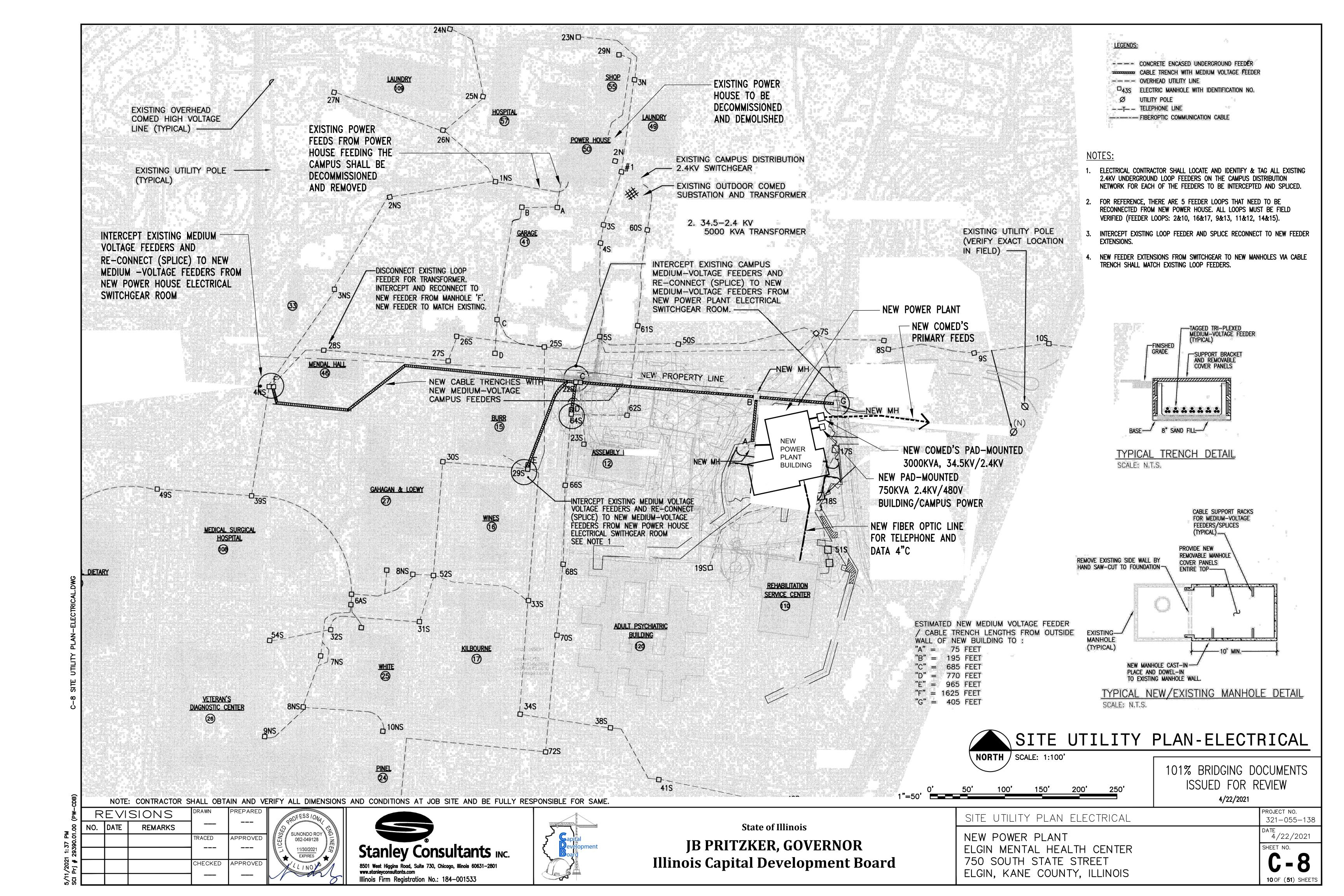
JB PRITZKER, GOVERNOR Illinois Capital Development Board

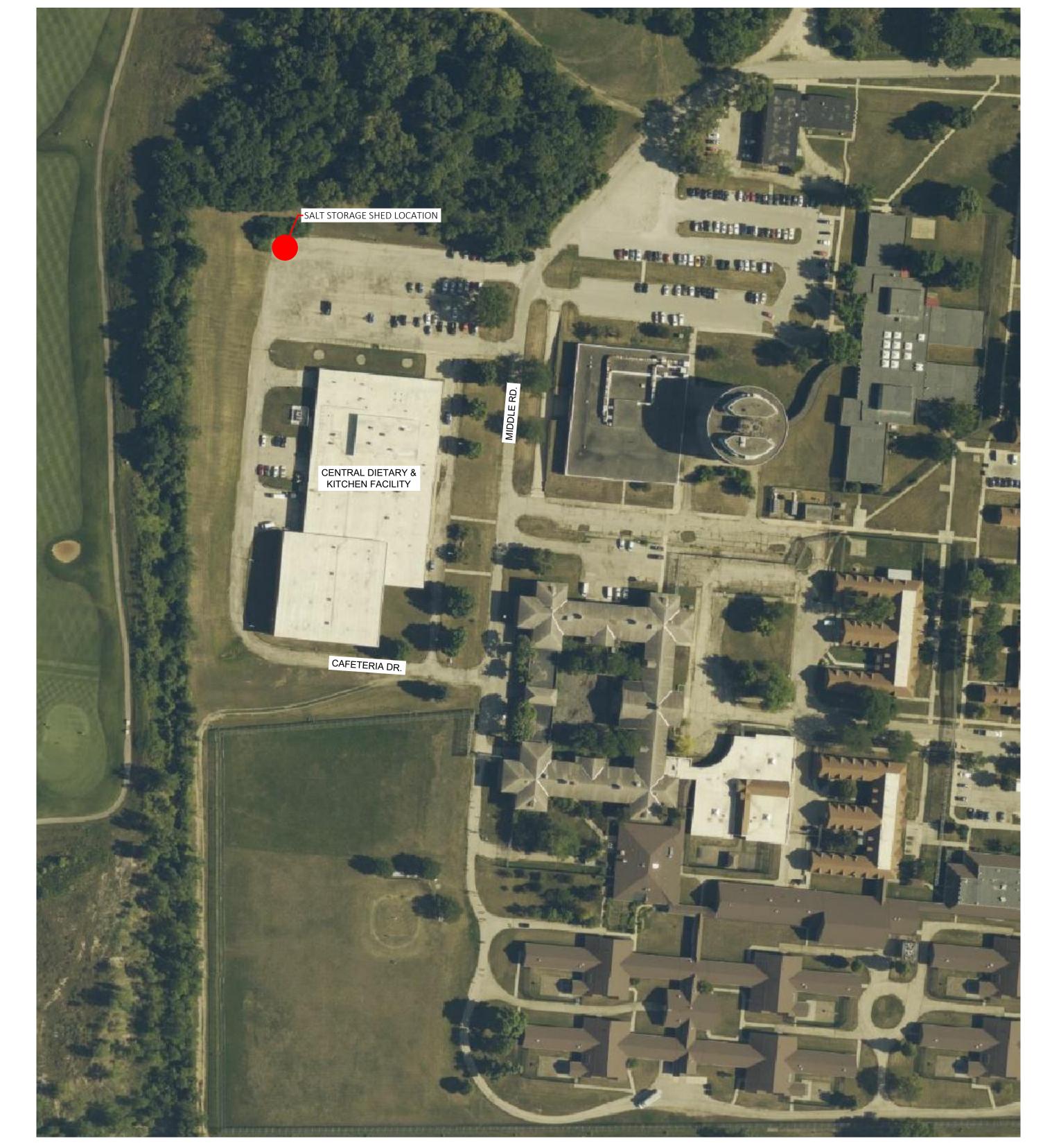
SITE UTILITY PLAN
NEW POWER PLANT
ELGIN MENTAL HEALTH CENTER
750 SOUTH STATE STREET
ELGIN, KANE COUNTY, ILLINOIS

PROJECT NO. 321-055-138 DATE 4/22/2021 **C-7** 

**9** OF **(51)** SHEETS

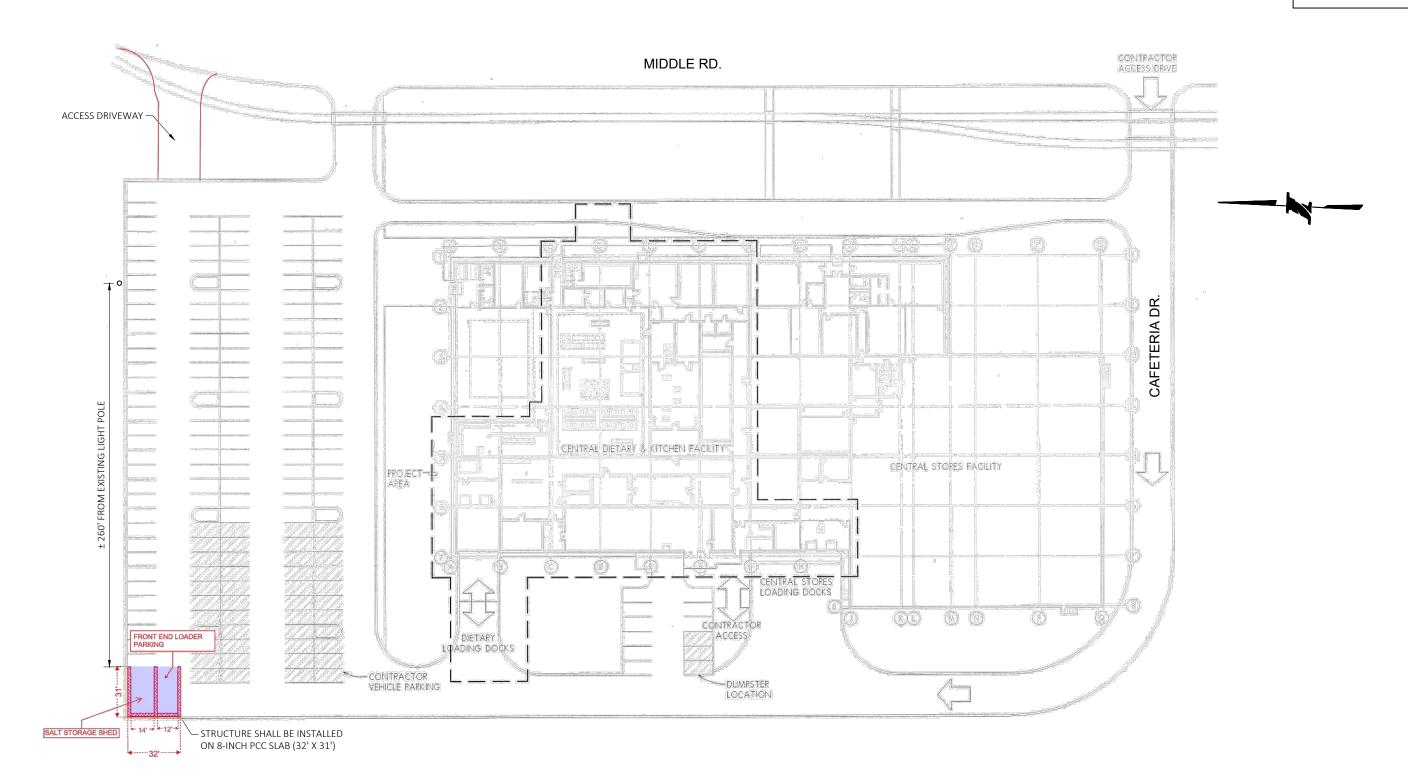
NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.



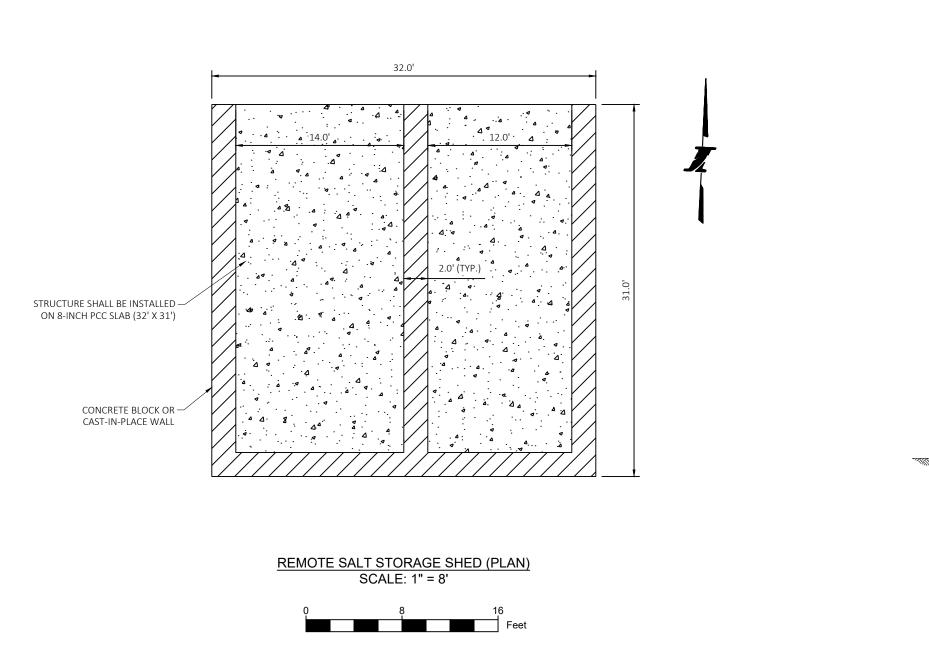


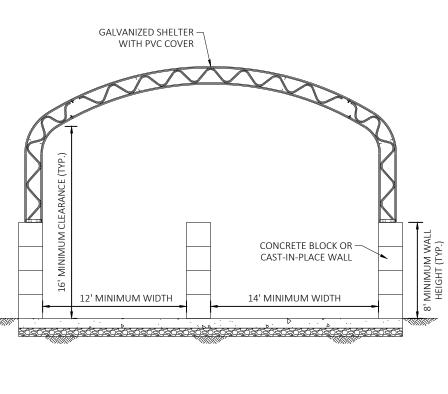
REMOTE SALT STORAGE LOCATION MAP SCALE: 1" = 100'





REMOTE SALT STORAGE PLAN OVERVIEW
SCALE: 1" = 60'





REMOTE SALT STORAGE SHED (ELEVATION - LOOKING EAST SCALE: 1" = 8'

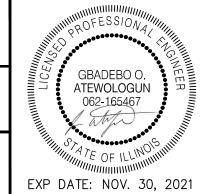
GENERAL NOTES:

1. ALTERNATE 1 - WORK SHOWN ON THIS DRAWING IS TO BE INCLUDED AS PART OF ALTERNATE

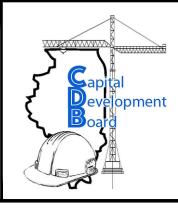
101% BRIDGING DOCUMENTS
ISSUED FOR REVIEW
4/22/2021

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

REVISIONS			DRAWN	PREPARED	
NO.	DATE	REMARKS	<b>-</b> BRB	BRB	
			TRACED	APPROVED	
			<b>1</b>		
			CHECKED	APPROVED	
			<b>-</b>		







State of Illinois

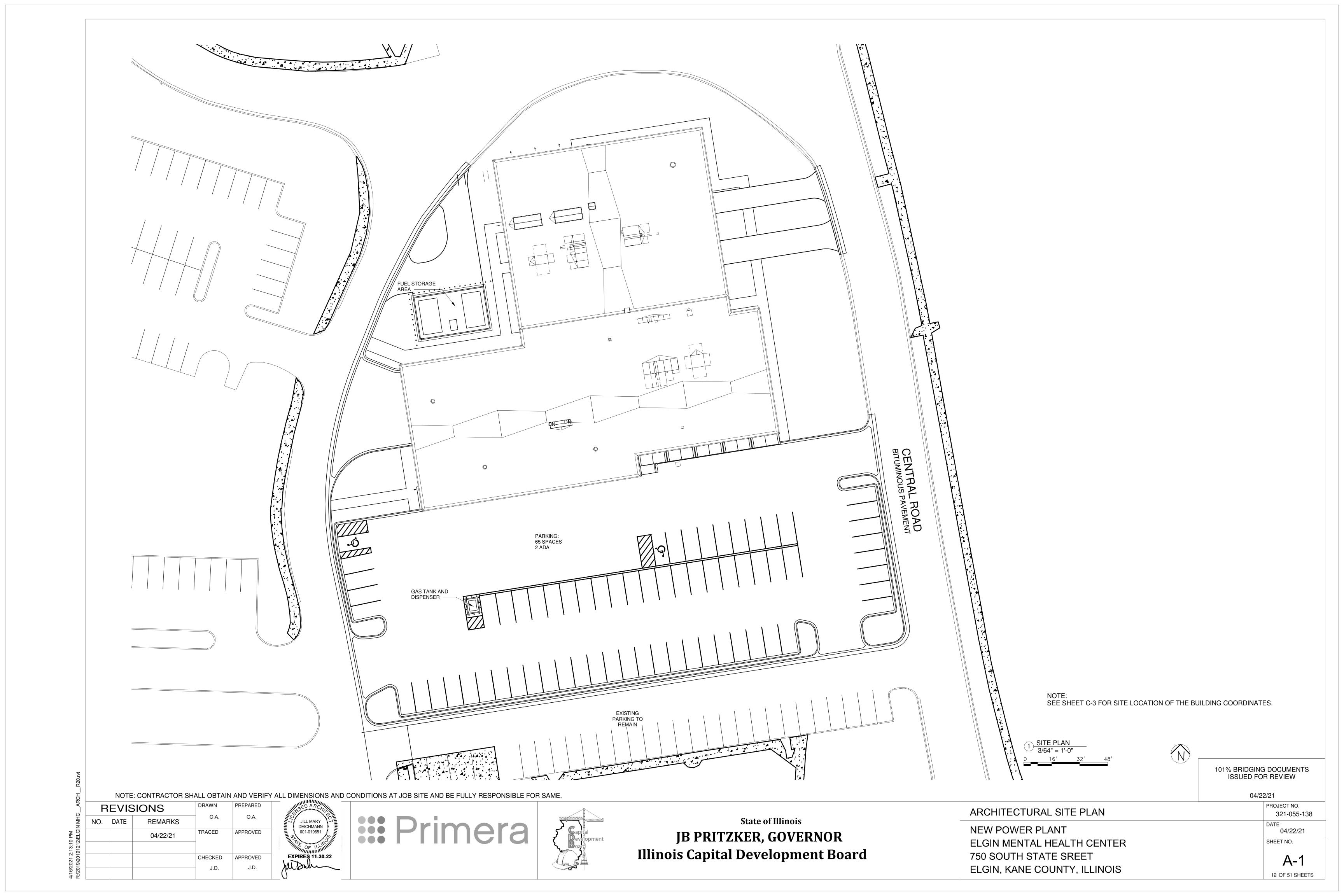
JB PRITZKER, GOVERNOR Illinois Capital Development Board

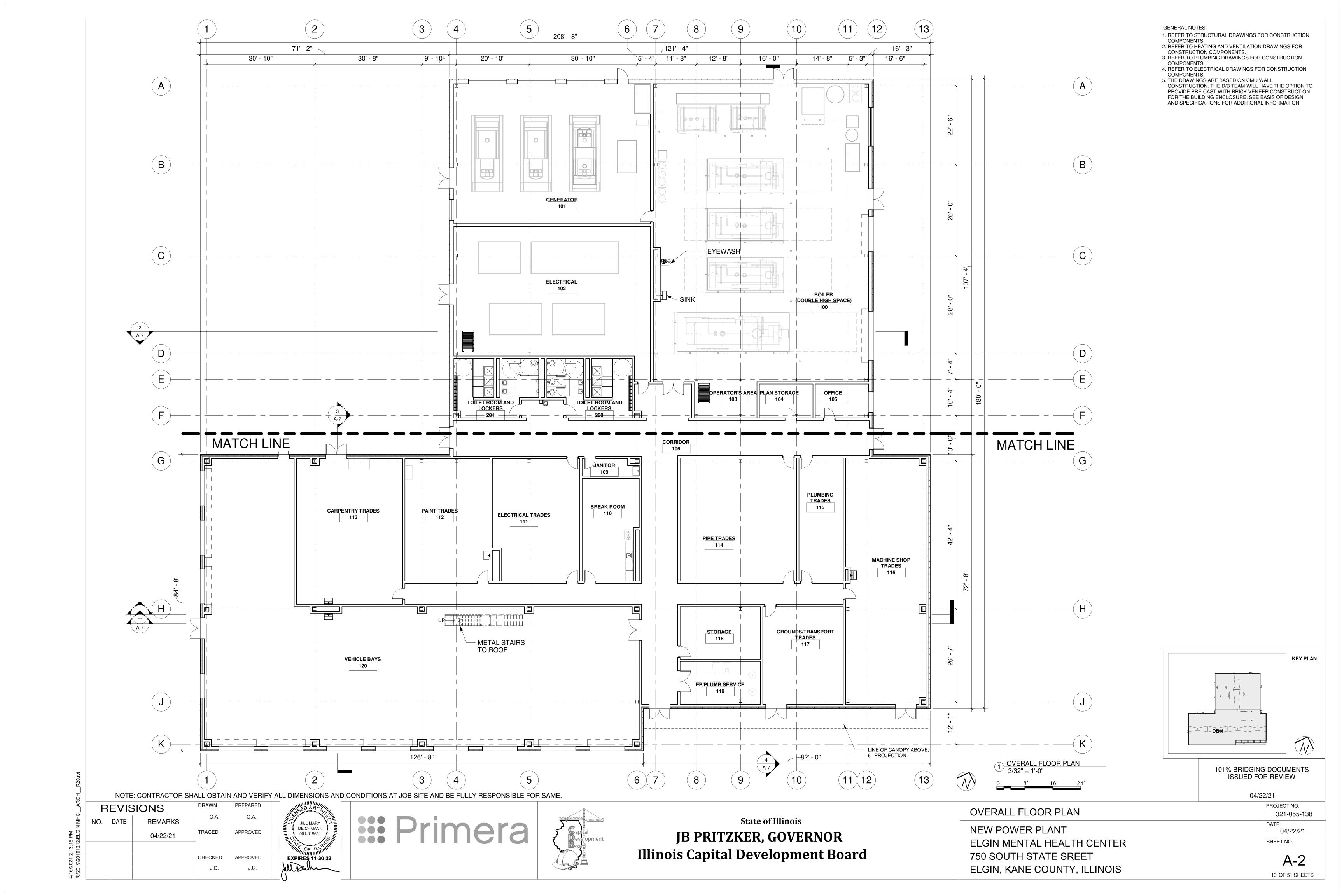
REMOTE	SALT	STORAGE	PLAN

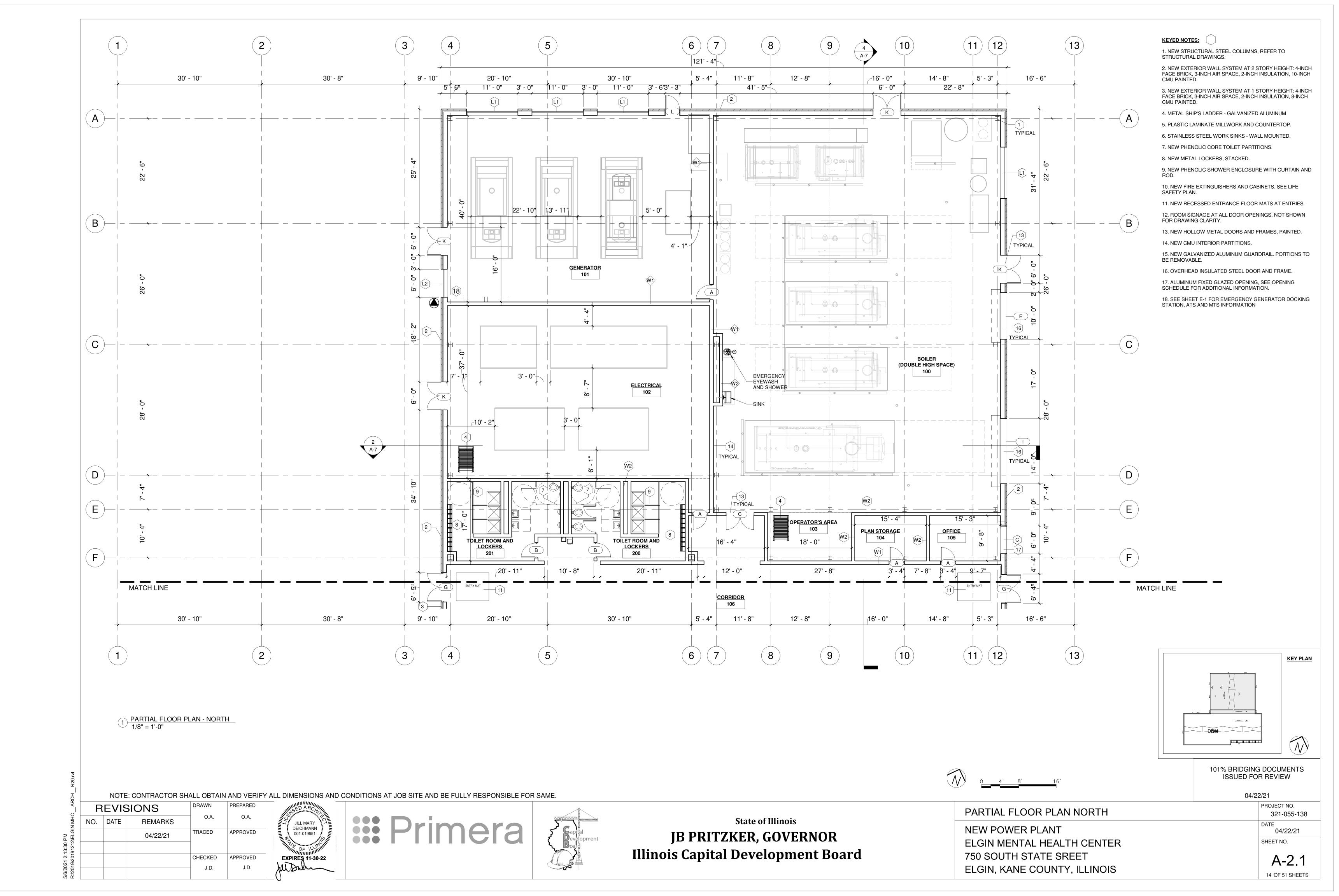
NEW POWER PLANT
ELGIN MENTAL HEALTH CENTER
750 SOUTH STATE STREET
ELGIN, KANE COUNTY, ILLINOIS

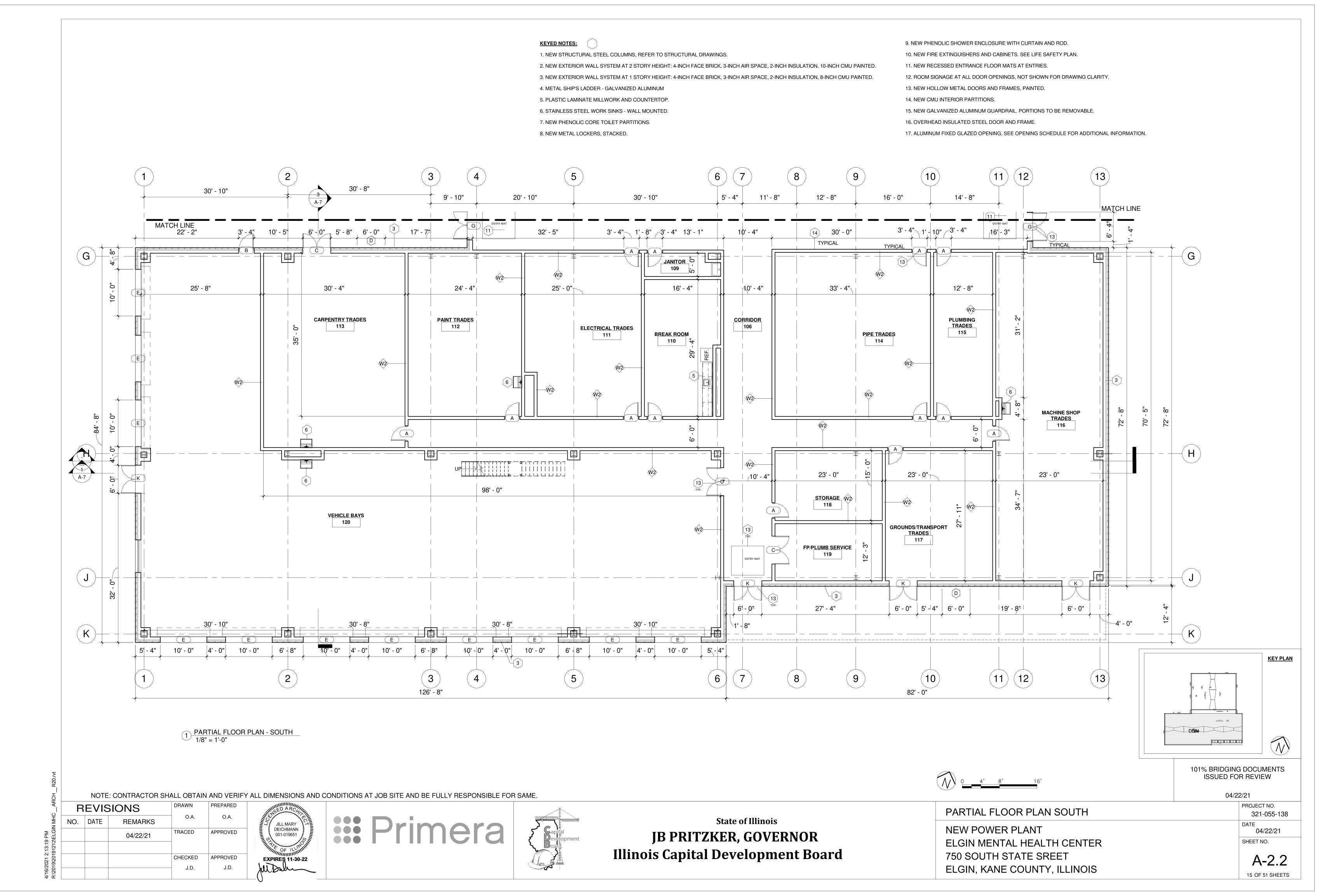
PROJECT NO. 321-055-138 DATE 4/22/2021

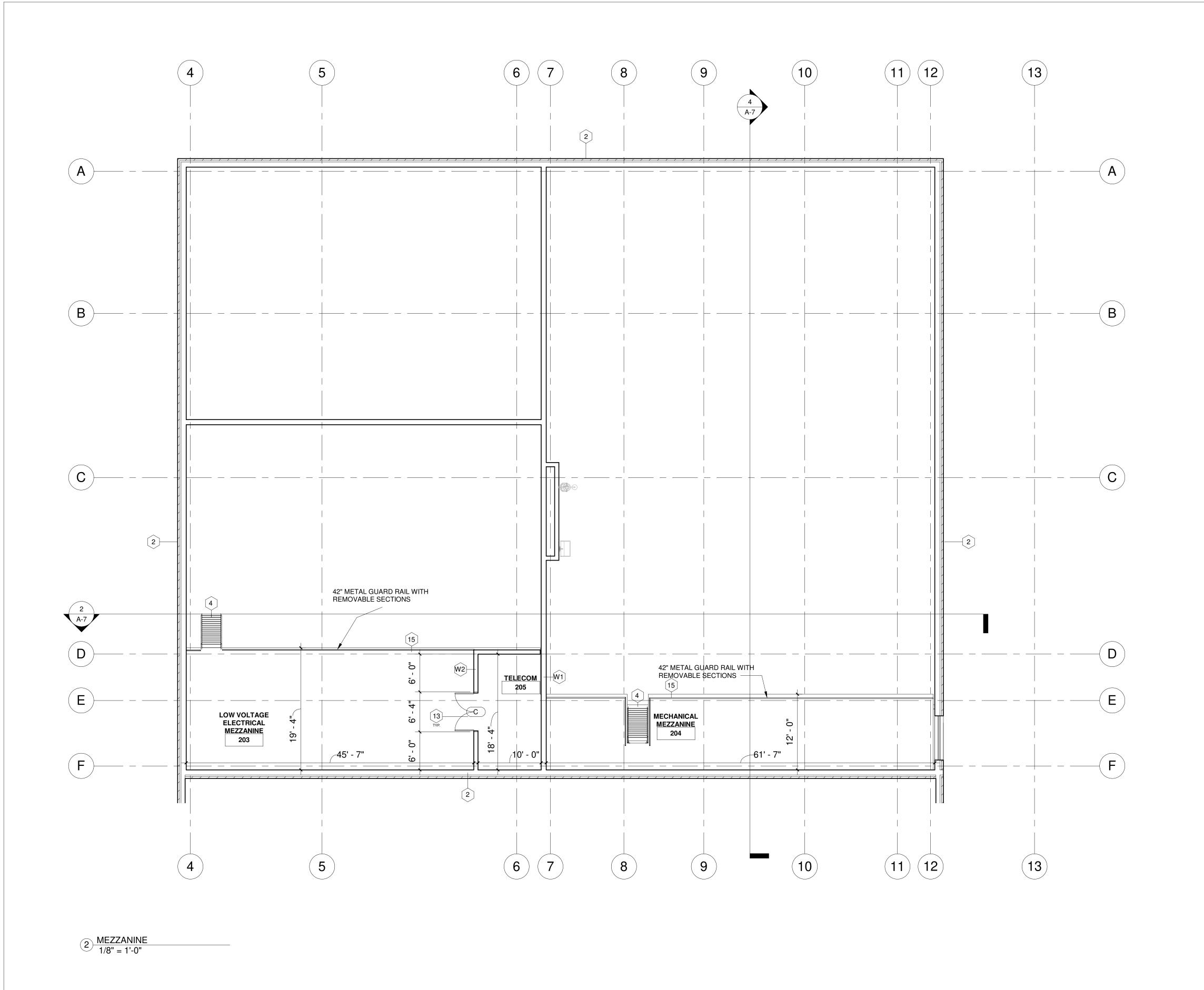
**C-9**11 OF (51) SHEETS











KEYED NOTES:

1. NEW STRUCTURAL STEEL COLUMNS, REFER TO STRUCTURAL DRAWINGS.

2. NEW EXTERIOR WALL SYSTEM AT 2 STORY HEIGHT: 4-INCH FACE BRICK, 3-INCH AIR SPACE, 2-INCH INSULATION, 10-INCH

FACE BRICK, 3-INCH AIR SPACE, 2-INCH INSULATION, 10-INCH CMU PAINTED.

3. NEW EXTERIOR WALL SYSTEM AT 1 STORY HEIGHT: 4-INCH

FACE BRICK, 3-INCH AIR SPACE, 2-INCH INSULATION, 8-INCH CMU PAINTED.

4. METAL SHIP'S LADDER - GALVANIZED ALUMINUM

E DI ASTIC I AMINIATE MILLIMODIK AND COLINITED

5. PLASTIC LAMINATE MILLWORK AND COUNTERTOP.

6. STAINLESS STEEL WORK SINKS - WALL MOUNTED.7. NEW PHENOLIC CORE TOILET PARTITIONS.

8. NEW METAL LOCKERS, STACKED.

9. NEW PHENOLIC SHOWER ENCLOSURE WITH CURTAIN AND ROD.

10. NEW FIRE EXTINGUISHERS AND CABINETS.

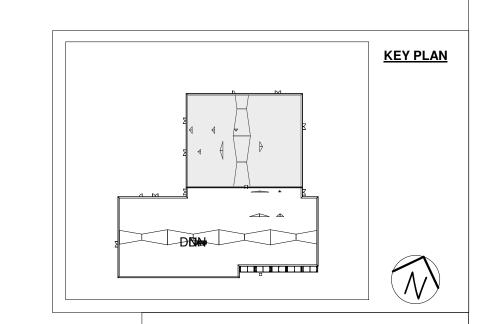
11. NEW RECESSED ENTRANCE FLOOR MATS AT ENTRIES.

12. ROOM SIGNAGE AT ALL DOOR OPENINGS, NOT SHOWN FOR DRAWING CLARITY.

13. NEW HOLLOW METAL DOORS AND FRAMES, PAINTED.

14. NEW CMU INTERIOR PARTITIONS.

15. NEW GALVANIZED ALUMINUM GUARDRAIL. PORTIONS TO BE REMOVABLE.



0 4' 8' 16'

101% BRIDGING DOCUMENTS ISSUED FOR REVIEW

04/22/21

MEZZANINE LEVEL
NEW POWER PLANT

321-055-138

DATE
04/22/21

SHEET NO.

A-3

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

REVISIONS

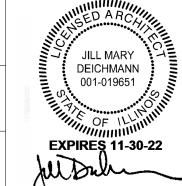
NO. DATE REMARKS

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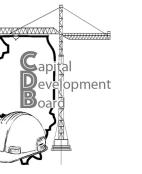
OA/22/21

CHECKED APPROVED

J.D. J.D.



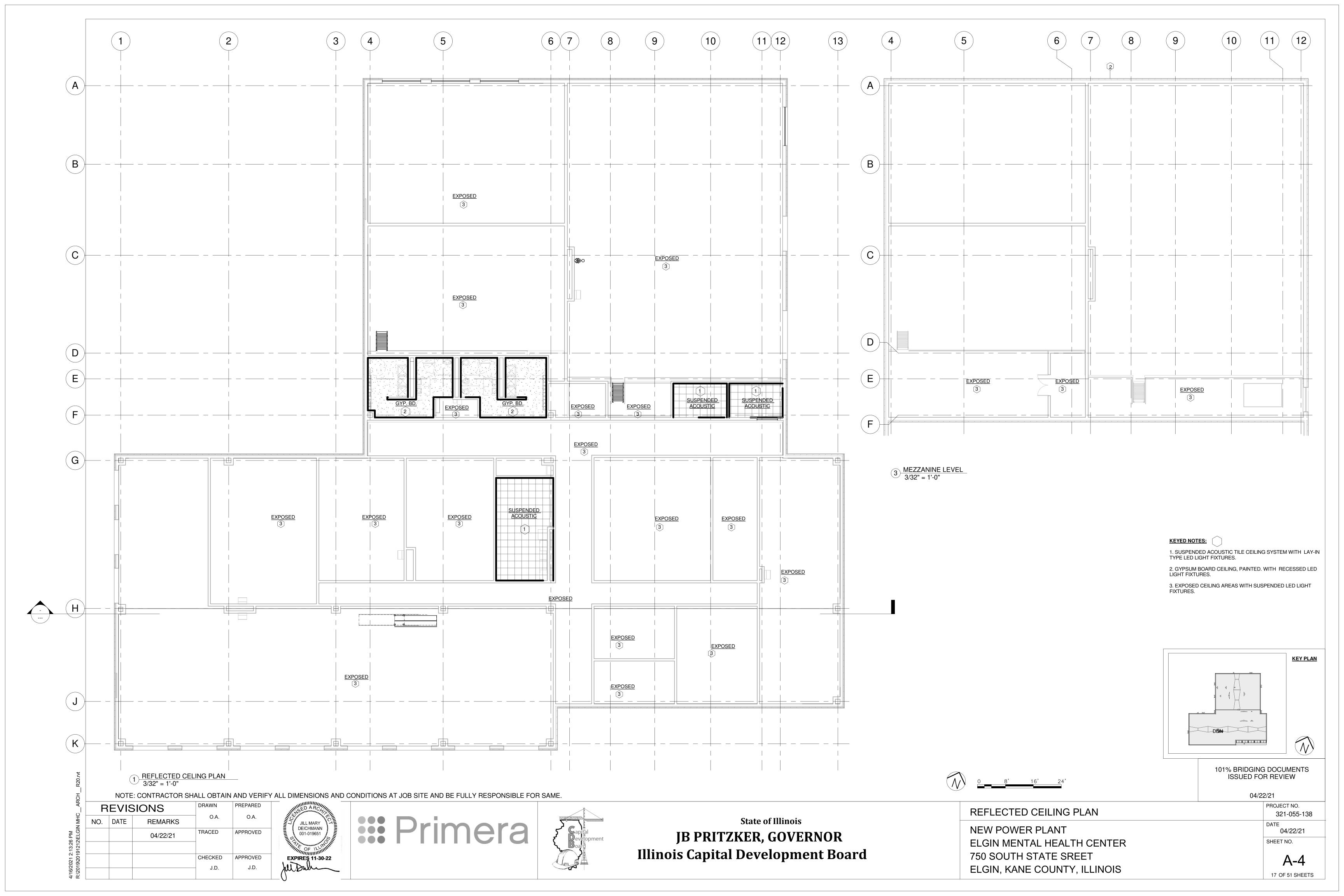


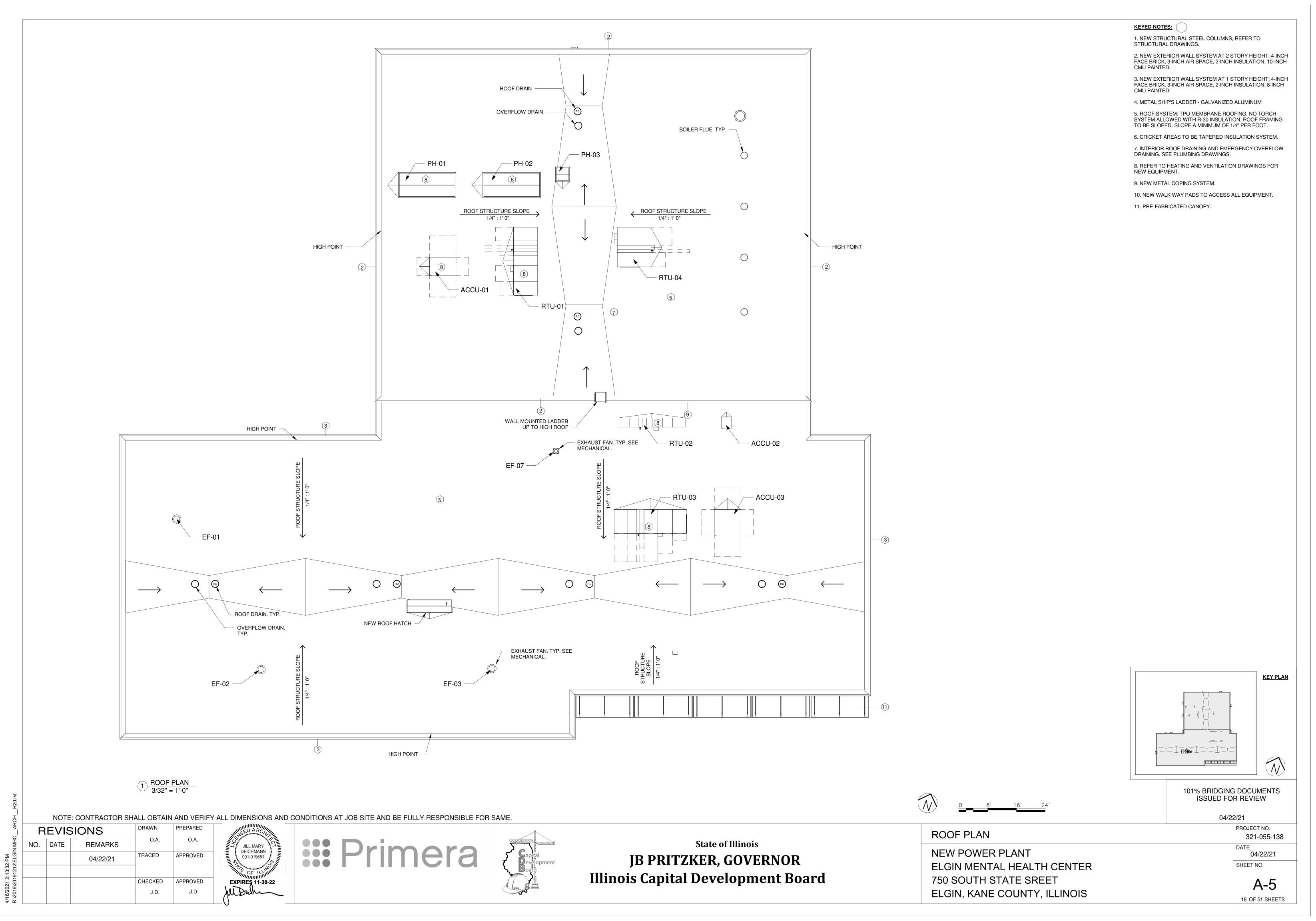


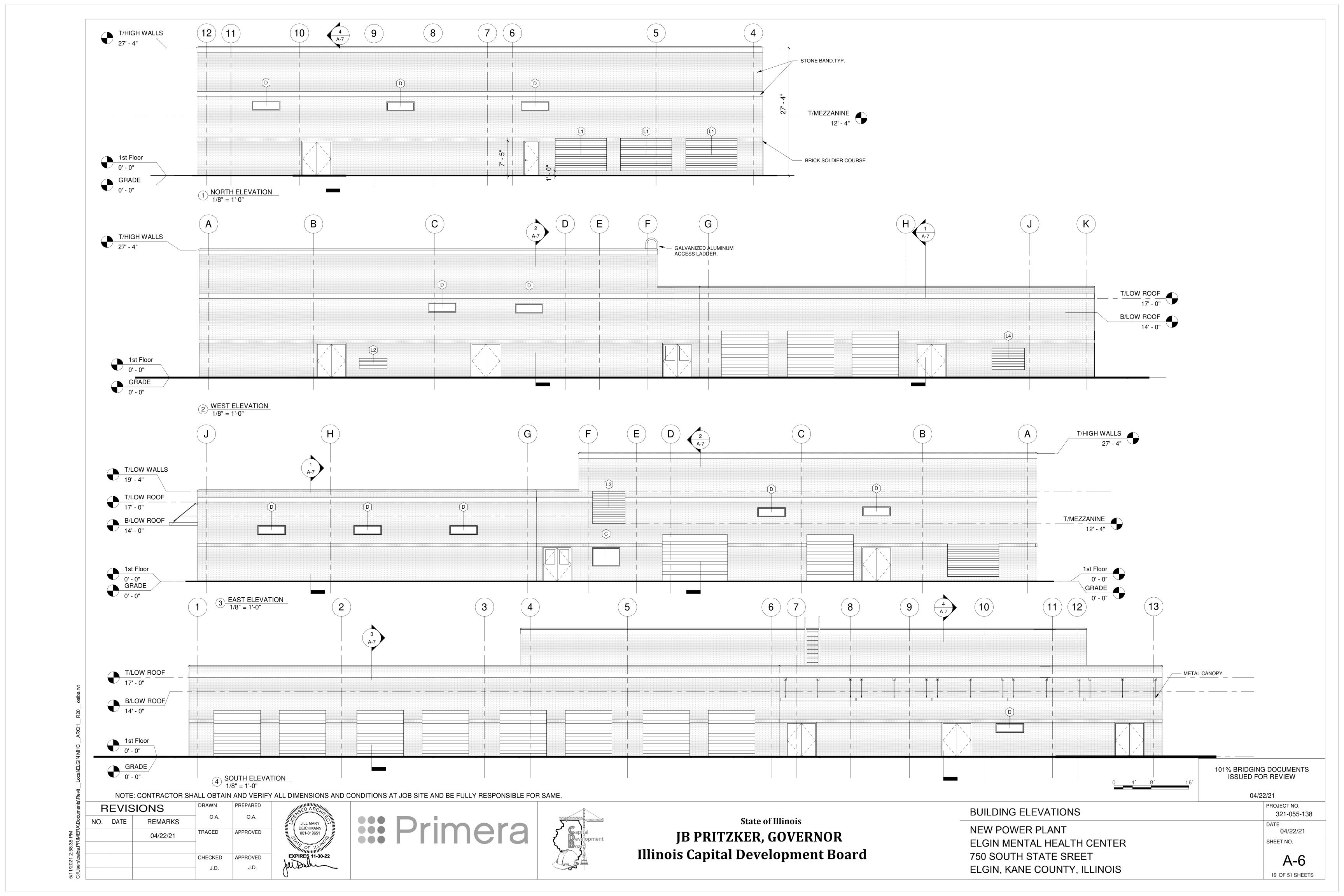
State of Illinois

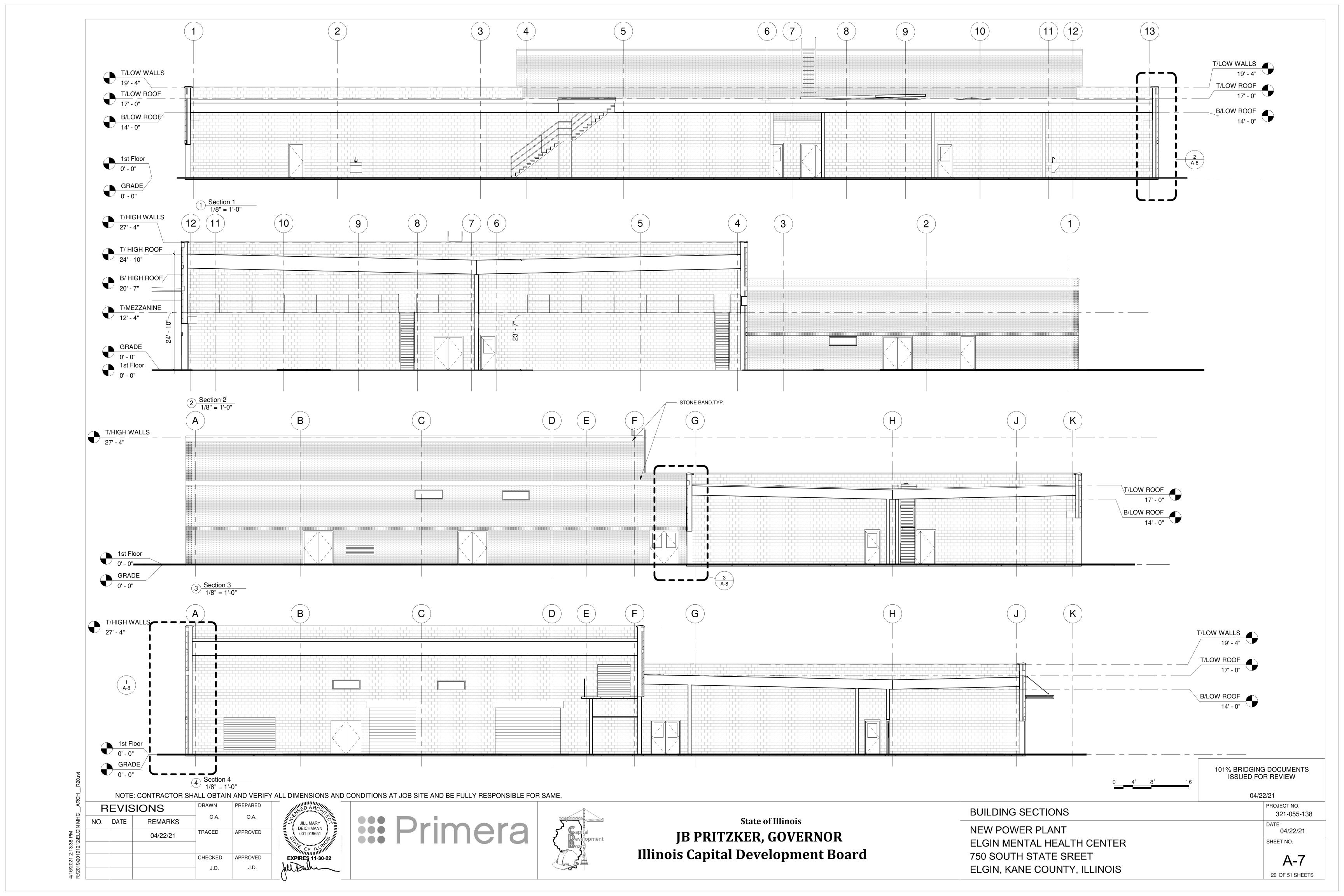
JB PRITZKER, GOVERNOR

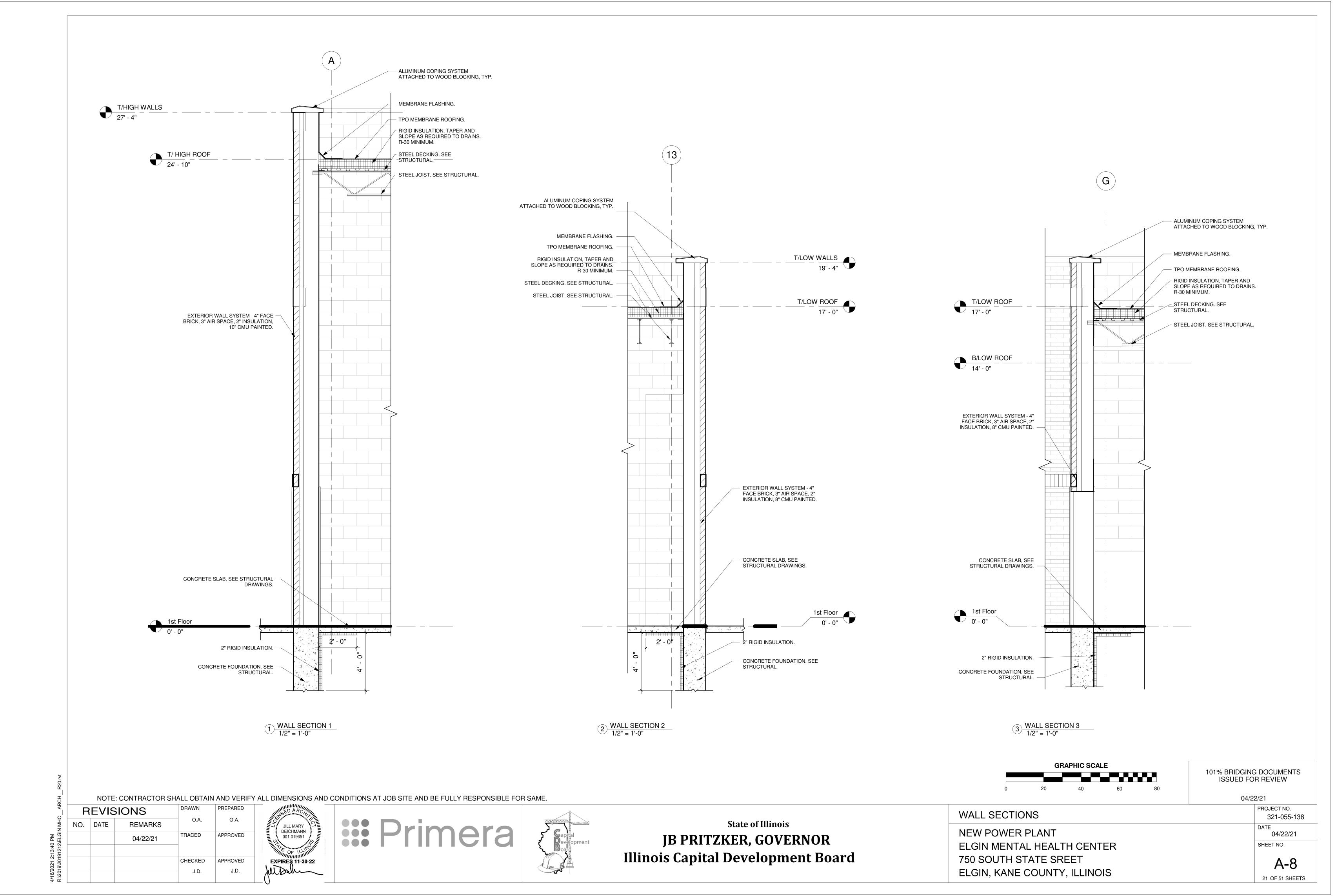
Illinois Capital Development Board









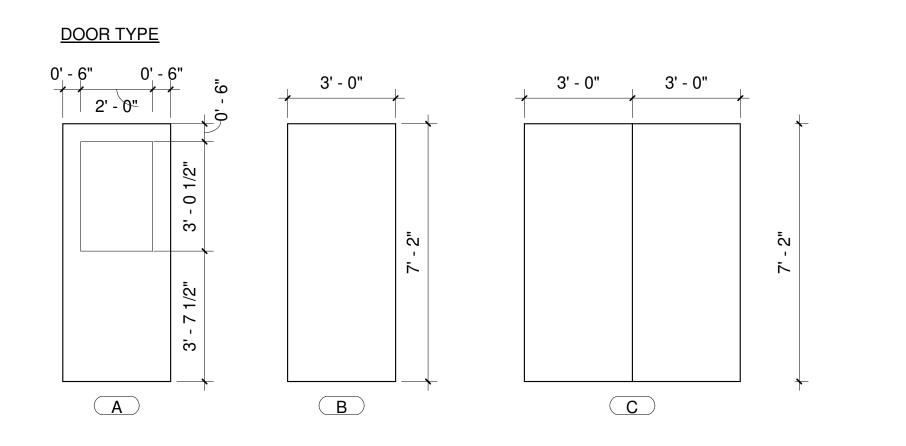


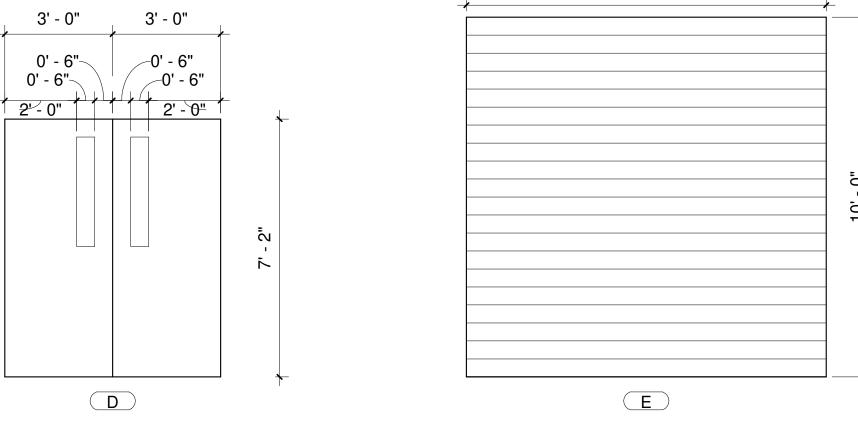
WALL TYPE LEGEND						
WALL TYPE MARK	TYPE	DESCPRIPTION				
W1	INTERIOR CONCRETE MASONRY UNIT	CONCRETE MASONRY UNITS, HEAVY DUTY WEIGHT CLASSIFICATION. NOMINAL DIMENSIONS OF 8"X10"X16".				
W2	INTERIOR CONCRETE MASONRY UNIT	CONCRETE MASONRY UNITS, HEAVY DUTY WEIGHT CLASSIFICATION. NOMINAL DIMENSIONS OF 8"X8"X16".				

NAADIK OPEDATION VIII VIII VIII VIII VIII VIII VIII V						
MARK	OPERATION	WIDTH	HEIGHT			
	FIXED WINDOW	6' - 0"	4' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
D D	FIXED WINDOW	6' - 0"	2' - 0"			
D D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
 D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
D	FIXED WINDOW	6' - 0"	2' - 0"			
L1	LOUVER	11' - 0"	7' - 0"			
L1	LOUVER	11' - 0"	7' - 0"			
L1	LOUVER	11' - 0"	7' - 0"			
L1	LOUVER	11' - 0"	7' - 0"			
L2	LOUVER	6' - 0"	2' - 2"			
L3	LOUVER	7' - 0"	7' - 0"			
L4	LOUVER	7' - 0"	4' - 8"			

	RO	OM FINISH	SCHEDULE	Ē	
NUMBER	NAME	FLOOR FINISH	WALL FINISH	CEILING FINISH	Comments
100	BOILER (DOUBLE HIGH SPACE)	Concrete	СМИ	EXPOSED	
100	BOILER (OPEN TO BELOW)	Concrete	CMU	EXPOSED	
101	GENERATOR	Concrete	CMU	EXPOSED	
102	ELECTRICAL	Concrete	CMU	EXPOSED	
103	OPERATOR'S AREA	Concrete	CMU	EXPOSED	
104	PLAN STORAGE	Concrete	CMU	SUSPENDED ACOUSTIC	
105	OFFICE	Concrete	CMU	SUSPENDED ACOUSTIC	
106	CORRIDOR	Concrete	CMU	EXPOSED	
109	JANITOR	Concrete	CMU	EXPOSED	
110	BREAK ROOM	Concrete	CMU	SUSPENDED ACOUSTIC	
111	ELECTRICAL TRADES	Concrete	CMU	EXPOSED	
112	PAINT TRADES	Concrete	CMU	EXPOSED	
113	CARPENTRY TRADES	Concrete	CMU	EXPOSED	
114	PIPE TRADES	Concrete	CMU	EXPOSED	
115	PLUMBING TRADES	Concrete	CMU	EXPOSED	
116	MACHINE SHOP TRADES	Concrete	CMU	EXPOSED	
117	GROUNDS/TRANSPORT TRADES	Concrete	CMU	EXPOSED	
118	STORAGE	Concrete	CMU	EXPOSED	
119	FP/PLUMB SERVICE	Concrete	CMU	EXPOSED	
120	VEHICLE BAYS	Concrete	CMU	EXPOSED	
200	TOILET ROOM AND LOCKERS	Concrete	CMU	GYP. BD.	TILE AT SHOWERS
201	TOILET ROOM AND LOCKERS	Concrete	CMU	GYP. BD.	TILE AT SHOWERS
202	ELECTRICAL & MECHANICAL (OPEN TO BELOW)	Concrete	CMU	EXPOSED	
203	LOW VOLTAGE ELECTRICAL MEZZANINE	Concrete	CMU	EXPOSED	
204	MECHANICAL MEZZANINE	Concrete	CMU	EXPOSED	
205	TELECOM	Concrete	CMU	EXPOSED	
_00	LELOON	COLICIELE	OIVIO	LVI OOFD	

1. ALL CMU WALL SURFACES TO BE PAINTED. 2. ALL GYPSUM BOARD CEILING SURFACES TO BE PAINTED.





10' - 0"

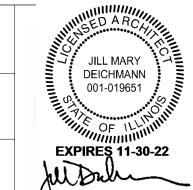


14' - (	)"	<u>_</u>
		0
		10' - 0"
		$\Box$ $lacksquare$

DOOR SCHEDULE NOTES: 1. ALL EXTERIOR DOORS TO BE INSULATED

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND	D BE FULLY RESPONSIBLE FOR SAME.

$\sim$					
AR _	R	EVIS	SIONS	DRAWN	PREPARED
N MHG	NO.	DATE	REMARKS	O.A.	O.A.
2019\20191212\ELGIN MHC			04/22/21	TRACED	APPROVED
91212					
/201				CHECKED	APPROVED
2019				J.D.	J.D.







# State of Illinois JB PRITZKER, GOVERNOR Illinois Capital Development Board

	04/22/21
SCHEDULES	PROJECT NO. 321-055-138
NEW POWER PLANT	DATE 04/22/21
ELGIN MENTAL HEALTH CENTER	SHEET NO.

DOOR SCHEDULE

7' - 2"

|7' - 2"

10' - 0" | 10' - 0" | 0' - 1 3/4"

10' - 0" | 10' - 0" | 0' - 1 3/4"

|10' - 0" | 10' - 0" | 0' - 1 3/4"

10' - 0" | 10' - 0" | 0' - 1 3/4"

|10' - 0" | 10' - 0" | 0' - 1 3/4"

|10' - 0" | 10' - 0" | 0' - 1 3/4"

|10' - 0" | 10' - 0" | 0' - 1 3/4"

10' - 0" 10' - 0" 0' - 1 3/4"

10' - 0" | 10' - 0" | 0' - 1 3/4"

10' - 0"

7' - 2"

6' - 0"

6' - 0"

6' - 0"

6' - 0"

750 SOUTH STATE SREET

ELGIN, KANE COUNTY, ILLINOIS

10' - 0" 0' - 1 3/4"

10' - 0" | 0' - 1 3/4"

0' - 1 3/4"

0' - 1 3/4"

0' - 1 3/4"

0' - 1 3/4"

0' - 1 3/4"

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0' - 1 3/4"

0' - 1 3/4"

0' - 1 3/4"

INSULATED

INSULATED STEEL

INSULATED

STEEL

STEEL

STEEL

STEEL

STEEL

STEEL

HM

HM

HM

STEEL

OPERATION | WIDTH | HEIGHT | THICKNESS | MATERIAL | MATERIAL | FINISH | GLAZING

FILE

**RATING** 

TYPE.

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door |Single Flush | 3' - 0"

Single Door | Single Flush | 3' - 0"

Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

Single Door | Single Flush | 3' - 0"

Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

|Single Door | Single Flush | 3' - 0"

Double Door Double Flush 6' - 0"

Double Door | Double Flush | 6' - 0"

Double Door | Double Flush | 6' - 0"

Double Door Double Flush 6' - 0"

Double Door | Double Flush | 6' - 0"

Rolling

Rolling

Rolling

Rolling

Rolling

Rolling

Rolling

Rolling

Rolling

Overhead

Overhead

Rolling

| Double Door | Double Flush | 6' - 0"

|Single Door | Single Flush | 3' - 0"

Double Door | Double Flush

Overhead

Double Door

|Single Door | Single Flush | 3' - 0" | 7' - 2"

From Room: Name

PLUMBING

PIPE TRADES

PAINT TRADES

ELECTRICAL TRADES

GROUNDS/TRANSPORT

TRADES

TRADES STORAGE

CORRIDOR

CORRIDOR

CORRIDOR

CORRIDOR

ELECTRICAL

CORRIDOR

CORRIDOR

LOCKERS

LOCKERS CORRIDOR

BOILER

C TELECOM

E BOILER

C VEHICLE BAYS

E VEHICLE BAYS

**VEHICLE BAYS** 

**VEHICLE BAYS** 

(DOUBLE HIGH SPACE)

(DOUBLE HIGH SPACE) MACHINE SHOP TRADES

(DOUBLE HIGH SPACE) GROUNDS/TRANSPORT

CORRIDOR

CORRIDOR

CORRIDOR

**BOILER** 

**BOILER** 

**BOILER** 

TRADES

VEHICLE BAYS

GENERATOR

ELECTRICAL

GENERATOR

E VEHICLE BAYS

**BREAK ROOM** 

GENERATOR

PLAN STORAGE

TOILET ROOM AND

TOILET ROOM AND

CARPENTRY TRADES

(DOUBLE HIGH SPACE)

(DOUBLE HIGH SPACE)

VEHICLE BAYS

OFFICE

**A-9** 22 OF 51 SHEETS

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101% BRIDGING DOCUMENTS ISSUED FOR REVIEW

 ASCE 7-16 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 2014 EDITION (ACI 318-14)

 AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION TMS BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, 2016 EDITION (TMS 402-2016)

### DESIGN LOADS

•	L N / E L C A D C	
	LIVE LOADS	00 005
	- MINIMUM ROOF LIVE LOAD:	20 PSF
	- OFFICES:	50 PSF OR 2,000 LB CONCENTRATED LOAD
	- CORRIDORS:	400 DOE OD 0 000 LD 00NOENTDATED LOAD
	FIRST FLOOR	100 PSF OR 2,000 LB CONCENTRATED LOAD
	ABOVE FIRST FLOOR	80 PSF OR 2,000 LB CONCENTRATED LOAD
	- BREAK ROOMS:	100 PSF OR 2,000 LB CONCENTRATED LOAD
	- TOILET ROOMS & LOCKERS:	100 PSF OR 2,000 LB CONCENTRATED LOAD
	- GARAGE & MECHANICAL:	250 PSF, 3,000 LB CONCENTRATED LOAD, OR
		VEHICLE LOAD
	- STORAGE:	
	HEAVY	250 PSF
	LIGHT	125 PSF
	LOAD FOR STORAGE OF SPECIFIC ITEMS	PER VENDOR SUPPLIED DATA
	- STAIRS:	100 PSF OR 300 LB CONCENTRATED LOAD
	- HANDRAILS AND GUARDS:	50 PLF OR 200 LB CONCENTRATED LOAD IN
		ANY DIRECTION AT ANY POINT ALONG THE TOP
•	RISK CATEGORY PER CDB DESIGN AND	
	CONSTRUCTION MANUAL	IV
•	WIND LOADS PER ASCE 7-16	
	- BASIC WIND SPEED (V):	119 MPH
	- EXPOSURE CATEGORY:	C
	- ICE IMPORTANCE FACTOR (I <sub>W</sub> ):	1.00
	CEIOMIC I CADO DED ACCE 7.40	
•	SEISMIC LOADS PER ASCE 7-16	D
	- SITE CLASS:	D
	CEICNIC DECICNI CATECODY.	0
	- SEISMIC DESIGN CATEGORY:	С
	- MAPPED SPECTRAL RESPONSE ACCELERATIONS:	
	- MAPPED SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, $S_S$	0.127
	- MAPPED SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, $S_{\rm S}$ 1-SEC PERIOD, $S_{\rm 1}$	
	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>S</sub></li> <li>1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:</li> </ul>	0.127 0.063
	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>S</sub></li> <li>1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>DS</sub></li> </ul>	0.127 0.063 0.135
	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> </ul>	0.127 0.063 0.135 0.101
	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>S</sub></li> <li>1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>DS</sub></li> </ul>	0.127 0.063 0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY
	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS
	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):</li> </ul>	0.127 0.063 0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50
	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS
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•	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):         ANALYSIS PROCEDURE:</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50 EQUIVALENT LATERAL FORCE PROCEDURE  30 PSF (PER CDB DESIGN AND CONSTRUCTION
•	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):         ANALYSIS PROCEDURE:</li> <li>SNOW LOADS PER ASCE 7-16</li> <li>GROUND SNOW LOAD (p<sub>g</sub>, PLUS DRIFT AS REQ'D):</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50 EQUIVALENT LATERAL FORCE PROCEDURE  30 PSF (PER CDB DESIGN AND CONSTRUCTION MANUAL)
•	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):         ANALYSIS PROCEDURE:</li> <li>SNOW LOADS PER ASCE 7-16</li> <li>GROUND SNOW LOAD (p<sub>g</sub>, PLUS DRIFT AS REQ'D):</li> <li>MINIMUM ROOF SNOW LOAD (p<sub>m</sub>):</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50 EQUIVALENT LATERAL FORCE PROCEDURE  30 PSF (PER CDB DESIGN AND CONSTRUCTION MANUAL) 24 PSF
•	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):         ANALYSIS PROCEDURE:</li> <li>SNOW LOADS PER ASCE 7-16</li> <li>GROUND SNOW LOAD (p<sub>g</sub>, PLUS DRIFT AS REQ'D):</li> <li>MINIMUM ROOF SNOW LOAD (p<sub>m</sub>):         EXPOSURE FACTOR (C<sub>e</sub>):</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50 EQUIVALENT LATERAL FORCE PROCEDURE  30 PSF (PER CDB DESIGN AND CONSTRUCTION MANUAL)
•	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):         ANALYSIS PROCEDURE:</li> <li>SNOW LOADS PER ASCE 7-16</li> <li>GROUND SNOW LOAD (p<sub>g</sub>, PLUS DRIFT AS REQ'D):</li> <li>MINIMUM ROOF SNOW LOAD (p<sub>m</sub>):         EXPOSURE FACTOR (C<sub>e</sub>):         THERMAL FACTOR (C<sub>t</sub>):</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50 EQUIVALENT LATERAL FORCE PROCEDURE  30 PSF (PER CDB DESIGN AND CONSTRUCTION MANUAL) 24 PSF 1.0
•	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):         ANALYSIS PROCEDURE:</li> <li>SNOW LOADS PER ASCE 7-16         GROUND SNOW LOAD (p<sub>g</sub>, PLUS DRIFT AS REQ'D):</li> <li>MINIMUM ROOF SNOW LOAD (p<sub>m</sub>):         EXPOSURE FACTOR (C<sub>e</sub>):         THERMAL FACTOR (C<sub>t</sub>):         ABOVE UNHEATED AND OPEN AIR SPACES</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50 EQUIVALENT LATERAL FORCE PROCEDURE  30 PSF (PER CDB DESIGN AND CONSTRUCTION MANUAL) 24 PSF 1.0  1.2
•	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS:         SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):         ANALYSIS PROCEDURE:</li> <li>SNOW LOADS PER ASCE 7-16</li> <li>GROUND SNOW LOAD (p<sub>g</sub>, PLUS DRIFT AS REQ'D):</li> <li>MINIMUM ROOF SNOW LOAD (p<sub>m</sub>):         EXPOSURE FACTOR (C<sub>e</sub>):         THERMAL FACTOR (C<sub>t</sub>):         ABOVE UNHEATED AND OPEN AIR SPACES         ABOVE AREAS KEPT JUST ABOVE FREEZING</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50 EQUIVALENT LATERAL FORCE PROCEDURE  30 PSF (PER CDB DESIGN AND CONSTRUCTION MANUAL) 24 PSF 1.0  1.2 1.1
•	<ul> <li>MAPPED SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>S</sub>         1-SEC PERIOD, S<sub>1</sub></li> <li>DESIGN SPECTRAL RESPONSE ACCELERATIONS: SHORT PERIOD, S<sub>DS</sub>         1-SEC PERIOD, S<sub>D1</sub></li> <li>SEISMIC FORCE RESISTING SYSTEM:</li> <li>IMPORTANCE FACTOR (I<sub>e</sub>):         ANALYSIS PROCEDURE:</li> <li>SNOW LOADS PER ASCE 7-16         GROUND SNOW LOAD (p<sub>g</sub>, PLUS DRIFT AS REQ'D):</li> <li>MINIMUM ROOF SNOW LOAD (p<sub>m</sub>):         EXPOSURE FACTOR (C<sub>e</sub>):         THERMAL FACTOR (C<sub>t</sub>):         ABOVE UNHEATED AND OPEN AIR SPACES</li> </ul>	0.127 0.063  0.135 0.101 BUILDING FRAME SYSTEM WITH ORDINARY REINFORCED MASONRY SHEAR WALLS 1.50 EQUIVALENT LATERAL FORCE PROCEDURE  30 PSF (PER CDB DESIGN AND CONSTRUCTION MANUAL) 24 PSF 1.0  1.2

# **GENERAL CONSTRUCTION**

EQUIPMENT AND PIPING LOADS APPLIED LOCALLY AND NOT SHOWN HERE

DEAD LOAD PER SELF WEIGHT OF MATERIALS

- 1. THE CONTRACTOR SHALL VERIFY JOBSITE CONDITIONS AND DIMENSIONS IN THE FIELD AND REPORT ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK.
- DIMENSIONS OF EXISTING CONSTRUCTION OR CONSTRUCTION IN PROGRESS SHALL BE VERIFIED AND COORDINATED PRIOR TO FABRICATION OF STRUCTURAL COMPONENTS.
- 3. VERIFY AND COORDINATE, WITH ALL CONTRACTORS, THE LOCATION OF ALL ARCHITECTURAL AND
- MECHANICAL APPURTENANCES AND OPENINGS. 4. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE PRIOR WRITTEN APPROVAL OF
- THE STRUCTURAL ENGINEER.
- 5. NO CHANGE IN SIZE OR DIMENSION OF ANY STRUCTURAL MEMBER SHALL BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
- 6. NO PIPES OR CONDUIT SHALL BE EMBEDDED IN SLABS OR WALLS UNLESS APPROVED BY AND COORDINATED WITH THE STRUCTURAL ENGINEER.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION AND JOB SITE SAFETY.
- 8. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. AS A RESULT OF THE CONSTRUCTION MEANS, METHODS, AND/OR SEQUENCES CHOSEN BY THE CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY DURING CONSTRUCTION.

PREPARED

9. DO NOT SCALE DRAWINGS, USE DIMENSIONS AS SHOWN.

#### CONCRETE

- 1. THE MINIMUM CONCRETE COMPRESSIVE STRENGTH (f'c) AT 28 DAYS SHALL BE 4,000 PSI. 2. THE MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE VERIFIED BY FIELD QUALITY CONTROL
- ACCORDING TO THE SPECIFICATIONS. SEE CAST-IN-PLACE CONCRETE SPECIFICATION.
- 3. THE MINIMUM YIELD STRENGTH (f<sub>v</sub>) OF DEFORMED BAR REINFORCEMENT SHALL BE 60,000 PSI.
- 4. THE MINIMUM YIELD STRENGTH (f<sub>v</sub>) OF WELDED WIRE FABRIC SHALL BE 65,000 PSI.
- 5. ALL CONCRETE SHALL BE NORMAL WEIGHT UNLESS NOTED OTHERWISE.
- 6. WHERE REINFORCEMENT HOOKS ARE REQUIRED, PROVIDE STANDARD HOOKS CONFORMING TO SECTION 25.3 OF ACI 318-14.
- 7. UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE PROTECTION OF CONCRETE REINFORCEMENT SHALL ADHERE TO ACI 318-14.

CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND: 3" CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND #5 BARS OR SMALLER: 1-1/2" #6 THROUGH #18: CONCRETE NOT EXPOSED TO EARTH OR IN CONTACT WITH GROUND 1-1/2" BEAMS, COLUMNS, PEDESTALS, & TENSION TIES: SLABS, JOISTS, AND WALLS, #11 BARS OR SMALLER: 3/4" SLABS, JOISTS, AND WALLS, #14 & #18 BARS: 1-1/2"

- 8. UNLESS OTHERWISE SHOWN OR NOTED, SPLICING OF CONCRETE REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-14. DEFORMED BARS AND WIRE IN TENSION SHALL USE A CLASS B SPLICE. MINIMUM LAP SPLICE LENGTHS SHALL BE IN ACCORDANCE WITH ACI 318-14.
- 9. ALL HORIZONTAL BARS IN WALLS, FOOTINGS, AND GRADE BEAMS SHALL BE BENT OR SPLICED AT CORNERS AND INTERSECTIONS IN SUCH A WAY THAT CONTINUITY IS PROVIDED THROUGH THE JOINT. 10. CONSTRUCTION JOINT LOCATION, IF NOT LOCATED ON THE DRAWINGS, IS SUBJECT TO STRUCTURAL ENGINEERS APPROVAL PRIOR TO JOINT INSTALLATION.
- 11. CONTRACTOR TO SUBMIT CONCRETE REINFORCEMENT SHOP DETAIL DRAWINGS TO STRUCTURAL ENGINEER FOR REVIEW PRIOR TO START OF CONSTRUCTION.

#### **FOUNDATIONS**

- 1. FOUNDATION RECOMMENDATIONS ARE BASED ON THE PROJECT GEOTECHNICAL REPORT DATED SEPTEMBER 18, 2020 BY GEO SERVICES, INC.
- 2. VERIFY ALL UNDERGROUND UTILITIES BEFORE PROCEEDING WITH WORK.
- 3. FROST DEPTH IS 4'-0" BELOW GRADE.
- 4. FOUNDATION SHALL BEAR ON NATURAL SOILS OR COMPACTED STRUCTURAL FILL HAVING A BEARING PRESSURE OF 4,000 PSF. EXISTING FILL AND SOILS WITH LESS THAN ADEQUATE BEARING STRENGTH SHOULD BE UNDERCUT TO REACH SUITABLE BEARING SOILS, AND THE UNDERCUT AREA FILLED WITH LEAN CONCRETE OR A SUITABLE STRUCTURAL FILL MATERIAL.
- 5. NO HOLES, TRENCHES, OR DISTURBANCES OF THE SOIL SHALL BE ALLOWED WITHIN THE VOLUME DESCRIBED BY 45 DEGREE LINES SLOPING FROM THE BOTTOM EDGE OF THE FOOTING. IF SUCH ARE REQUIRED, FOOTINGS MUST BE LOWERED.
- 6. CONTINUOUS STRIP FOOTINGS SHOULD HAVE A MINIMUM WIDTH OF 18". ISOLATED COLUMN FOOTINGS SHOULD HAVE A MINIMUM WIDTH OF 30".
- 7. STRUCTURAL FILL SHOULD BE EXTENDED AT LEAST 6" BEYOND THE PROPOSED FOOTING LIMITS AND THEN 1'-0" HORIZONTALLY FOR EACH 1'-0" OF FILL PLACED BELOW THE BASE OF THE FOOTING.
- 8. STRUCTURAL FILL SHOULD BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MAXIMUM DRY DENSITY (ASTM D-1557 MODIFIED PROCTOR). IF CA-1 OR CA-7 CRUSHED STONE MATERIALS ARE USED, THEY CAN BE MECHANICALLY COMPACTED. IF OPEN-GRADED STONE IS USED, A NON-WOVEN GEOTECHNICAL FABRIC SHOULD BE USED BETWEEN THE STRUCTURAL FILL AND THE BOTTOM OF
- 9. STRUCTURAL FILL SHOULD CONSIST OF INORGANIC MATERIAL FREE OF DEBRIS AND SHOULD BE PLACED IN MAXIMUM 9" LOOSE LIFTS AND COMPACTED TO AT LEAST THE SPECIFIED MINIMUM DRY DENSITY. IF CA-1 OR CA-7 CRUSHED STONE MATERIALS ARE USED, THEY CAN BE COMPACTED BY TAMPING WITH A BACKHOE BUCKET. IF OPEN-GRADED STONE IS USED, A NON-WOVEN GEOTECHNICAL FABRIC SHOULD BE USED BETWEEN THE STRUCTURAL FILL AND THE BOTTOM OF THE UNDERCUT.
- 10. THE MOISTURE CONTENT OF THE STRUCTURAL FILL SHOULD BE CONTROLLED WITHIN +2% OF THE OPTIMUM MOISTURE CONTENT.

# **SLAB-ON-GRADE**

- 1. SLAB-ON-GRADE RECOMMENDATIONS ARE BASED ON THE PROJECT GEOTECHNICAL REPORT DATED SEPTEMBER 18, 2020 BY GEO SERVICES, INC.
- 2. BELOW THE SLAB-ON-GRADE, THE EXISTING FILL SHOULD BE STRIPPED AND ANY ORGANIC UNSUITABLE, OR DELETERIOUS MATERIALS SHOULD BE REMOVED. THE SUBGRADE SHOULD ALSO BE THOROUGHLY PROOFROLLED PER THE GEOTECHNICAL REPORT.
- 3. ALL STRUCTURAL FILL SHOULD CONSIST OF INORGANIC MATERIAL FREE OF TOPSOIL AND DEBRIS. FILL MATERIAL THAT MAY BE EXPOSED TO FREEZING TEMPERATURES SHOULD BE NON-FROST
- 4. SUBGRADES AND SUBBASES SHALL BE GRADED WITHIN THE TOLERANCES SPECIFIED IN THE EARTHWORK OR EARTH MOVING SPECIFICATION.
- NEW STRUCTURAL FILL SHOULD BE PLACED IN MAXIMUM 9" LOOSE LIFTS AND COMPACTED TO AT LEAST 90% OF THE MAXIMUM DRY DENSITY (ASTM D-1557 MODIFIED PROCTOR). THE SUBGRADE SHOULD BE COMPACTED PRIOR TO FOOTING AND FOUNDATION INSTALLATION IF THE COMPACTION OF THE SUBGRADE WILL IMPOSE EXCESSIVE LATERAL PRESSURE ON THE FOUNDATION ELEMENTS.
- BENEATH SLAB ON GRADE AREAS, A MINIMUM OF 4" OF GRANULAR BASE COURSE MATERIAL SHOULD BE USED.
- A MINIMUM 10-mil THICK POLYETHYLENE VAPOR RETARDER SHALL BE PLACED BETWEEN THE BASE COURSE AND THE SLAB ON GRADE. THE JOINTS OF THE VAPOR BARRIER SHALL BE LAPPED A MINIMUM OF 6". IF THE TOP SURFACE OF THE BASE COURSE IS RELATIVELY ROUGH AND PUNCTURING OF THE VAPOR RETARDER IS LIKELY, THEN IT SHALL BE TOPPED WITH A 1/2" LAYER OF ASTM D448 NO. 10 FINE GRADED MATERIAL.
- 8. FLOOR SLABS SHOULD BE ISOLATED FROM FOUNDATIONS TO PERMIT RELATIVE DISPLACEMENT WITHOUT CRACKING. SLABS SHALL BE CAST ALLOWING A SUFFICIENT NUMBER OF JOINTS TO ADEQUATELY CONTROL SHRINKAGE CRACKING. SAWCUTTING SHALL BE DONE AS SOON AS SAWCUT WILL NOT RAVEL CONCRETE OR WITHIN 24 HOURS MAXIMUM OF INITIAL POURING OPERATION (CUTTING JOINTS ON SAME DAY AS POUR IS PREFERRED). MAXIMUM SIZE OF PANELS SHALL BE 15 FEET BY 15 FEET. GENERALLY, JOINTS SHALL OCCUR ON COLUMN CENTERLINES.

#### STRUCTURAL STEEL & CONNECTIONS

- 1. ALL DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO ANSI/AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AS WELL AS THE AISC 303-16 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
- 2. STRUCTURAL STEEL SHAPES SHOWN ON THE DRAWINGS SHALL ADHERE TO THE FOLLOWING SPECIFICATIONS:

W, WT, HP SHAPES ASTM A992 OR ASTM A572, GR. 50 ( $F_v = 50 \text{ KSI}$ ) M, S, C, MC, L SHAPES, PLATES, & BARS ASTM A36 (F<sub>v</sub> = 36 KSI)

ASTM A500, GR. C ( $F_v = 50 \text{ KSI}$ )

ROUND HSS ASTM A500, GR. C ( $F_v = 46 \text{ KSI}$ ) STRUCTURAL PIPE ASTM A53, GR. B ( $F_v = 35$  KSI)

ASTM A325, 3/4" DIA. OR ASTM A490, 1-1/4" DIA. THREADED RODS ASTM A36 ( $F_v = 36 \text{ KSI}$ ) ANCHOR RODS ASTM F1554, GR. 55 ( $F_v = 55 \text{ KSI}$ )

- 3. ALL WELDING SHALL COMPLY WITH AWS D1.1 USING E70XX ELECTRODES. ALL WELDING TO BE DONE BY AWS PREQUALIFIED WELDERS, CERTIFIED FOR WELDS MADE.
- 4. ALL FIELD WELDS TO BE MIN. 3/16" FILLET WELDS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 5. ALL GUSSET PLATES SHALL BE 3/8" MINIMUM THICKNESS UNLESS NOTED OTHERWISE ON THE
- 6. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER (A325-N) OR 1-1/4" DIAMETER (A490-N) HIGH STRENGTH BOLTS, BEARING TYPE, WITH THREADS EXCLUDED FROM THE SHEAR PLANE.
- 7. SHOP CONNECTIONS MAY BE WELDED OR HIGH STRENGTH BOLTED AT THE FABRICATORS OPTION.
- SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER.
- 8. GROUT UNDER BASE PLATES IN ACCORDANCE WITH AISC 303-16.
- MILL ALL COLUMNS AT BASE PLATES.

RECTANGULAR HSS

- 10. ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER, INCLUDING MASONRY SHELF ANGLES, SHALL BE HOT-DIP GALVANIZED ACCORDING TO ASTM A123 UNLESS NOTED OTHERWISE.
- 11. ALL STRUCTURAL STEEL NOT PERMANENTLY EXPOSED TO THE WEATHER SHALL BE SHOP PAINTED WITH RED IRON OXIDE ALKYD PRIMER OR EQUAL.
- 12. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL MISCELLANEOUS STEEL

## STEEL JOISTS

- 1. STEEL JOIST FABRICATION AND ERECTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE STEEL JOIST INSTITUTE. JOISTS SHALL BE MANUFACTURED WITH HOT-ROLLED TOP AND BOTTOM CHORD MEMBERS.
- 2. WHERE BEAMS SUPPORT JOISTS FROM ONLY ONE SIDE, JOIST SEAT SHALL EXTEND 1" BEYOND BEAM
- WELD ALL JOISTS TO SUPPORTING STRUCTURAL STEEL MEMBERS ACCORDING TO SJI AS A MINIMUM. 4. ALL WELDING SHALL COMPLY WITH AWS D1.1 USING E70XX ELECTRODES. ALL WELDING TO BE DONE
- BY AWS PREQUALIFIED WELDERS, CERTIFIED FOR WELDS MADE. 5. ALL JOISTS SHALL HAVE A STANDARD MINIMUM CAMBER IN ACCORDANCE WITH SJI STANDARD
- 6. JOIST SUPPLIER SHALL PROVIDE ALL ADDITIONAL BRIDGING (FOR NET UPLIFT) AND BRACING AS REQUIRED BY SJI.
- 7. NO LOAD SHALL BE HUNG FROM THE JOIST BRIDGING.
- 8. TOP AND BOTTOM CHORDS OF JOISTS SHALL BE CONTINUOUS WITHOUT ANY SPLICES OF MATERIALS.
- 9. A FIELD APPLIED WEB STIFFENER MUST BE INSTALLED IF CONCENTRATED LOADS DO NOT FALL AT PANEL POINTS.
- 10. ANY LOADS SUPPORTED FROM THE JOIST BOTTOM CHORD MUST BE ATTACHED AT THE BOTTOM
- 11. STEEL JOISTS SHALL BE PAINTED WITH MANUFACTURERS STANDARD RUST INHIBITIVE PAINT MEETING FEDERAL SPECIFICATION TT-P-636 (RED OXIDE) PAINT. DRY FILM THICKNESS TO BE 2.0-mils.

## STEEL ROOF DECK

- 1. STEEL DECK FABRICATION AND ERECTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE STEEL DECK INSTITUTE
- 2. STEEL ROOF DECK SHALL BE 1-1/2" 18-GAUGE GALVANIZED TYPE "B" STEEL ROOF DECK UNLESS
- NOTED OTHERWISE ON THE DRAWINGS. 3. ONLY ACOUSTIC CEILING GRID HANGERS MAY BE CONNECTED TO ROOF DECK. ALL OTHER HANGERS

MUST BE SUPPORTED BY STEEL FRAMING OR SUPPLEMENTAL UNISTRUT-TYPE FRAMING (BY

4. IF ANY ROOF PENETRATIONS ARE REQUIRED OTHER THAN THOSE CURRENTLY SHOWN ON THE DESIGN DRAWINGS, CONTRACTOR SHALL CONTACT THE STRUCTURAL ENGINEER TO VERIFY IF ANY ADDITIONAL FRAMING SHALL BE REQUIRED AROUND ROOF OPENING TO SUPPORT ROOF DECKING

# COMPOSITE STEEL DECK

AND CONCRETE.

- 1. STEEL DECK FABRICATION AND ERECTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE STEEL DECK INSTITUTE
- 2. COMPOSITE STEEL DECK SHALL BE 1-1/2" 20-GAUGE STEEL DECK WITH 2-1/2" THICK NORMAL WEIGHT
- CONCRETE TOPPING (4" TOTAL THICKNESS) UNLESS NOTED OTHERWISE ON THE DRAWINGS. 3. IF ANY PENETRATIONS ARE REQUIRED OTHER THAN THOSE CURRENTLY SHOWN ON THE DESIGN

ADDITIONAL FRAMING SHALL BE REQUIRED AROUND ROOF OPENING TO SUPPORT ROOF DECKING

DRAWINGS, CONTRACTOR SHALL CONTACT THE STRUCTURAL ENGINEER TO VERIFY IF ANY

#### **CONCRETE MASONRY**

- 1. PRODUCTION AND CONSTRUCTION OF CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH TMS
- 2. THE SPECIFIED COMPRESSIVE STRENGTH OF MASONRY (f'm) SHALL BE 2,000 PSI.
- 3. ALL CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, WITH A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
- 4. MORTAR FOR MASONRY WALLS SHALL CONFORM TO ASTM C270 TYPE S WITH A MINIMUM COMPRESSIVE STRENGTH OF 1,800 PSI.
- 5. GROUT FOR MASONRY SHALL CONFORM TO ASTM C476 AND WILL HAVE A COMPRESSIVE STRENGTH OF 2,000 PSI.
- 6. ALL CMU WALLS SHALL BE CONSTRUCTED IN A RUNNING BOND PATTERN.
- 7. MASONRY CELLS CONTAINING REINFORCEMENT SHALL BE FILLED WITH GROUT, NOT MORTAR.

8. WHERE NOT SHOWN OTHERWISE, MINIMUM SOLID GROUTED MASONRY BELOW BEAM REACTIONS

- SHALL BE 16" DEEP BY 32" LONG.
- 9. WHERE NOT SHOWN OTHERWISE, MINIMUM SOLID GROUTED MASONRY BELOW LINTEL REACTIONS SHALL BE 16" DEEP BY 16" LONG.
- 10. WHERE REINFORCEMENT HOOKS ARE REQUIRED, PROVIDE STANDARD HOOKS CONFORMING TO SECTION 6.1.8 OF TMS 402-2016.
- 11. REINFORCEMENT EMBEDDED IN GROUT SHALL HAVE A THICKNESS OF GROUT BETWEEN THE REINFORCEMENT AND MASONRY UNITS NOT LESS THAN 0.25 INCHES FOR FINE GROUT OR 0.50 INCHES FOR COARSE GROUT.
- 12. UNLESS NOTED OTHERWISE OR SHOWN ON THE DRAWINGS, THE PROTECTION OF MASONRY REINFORCEMENT SHALL ADHERE TO SECTION 6.1.4 OF TMS 402-2016.

MASONRY FACE EXPOSED TO EARTH OR WEATHER #5 BARS OR SMALLER: 1-1/2"

#6 BARS OR LARGER: JOINT REINFORCEMENT: MASONRY NOT EXPOSED TO EARTH OR WEATHER **REINFORCING BARS:** 

- JOINT REINFORCEMENT: 13. BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS, INCLUDING THROUGH VERTICAL CONTROL
- 14. PROVIDE THE NECESSARY ANCHORS, TIES, AND ACCESSORIES THAT CONFORM TO THE FOLLOWING SPECIFICATIONS:

PLATE AND BENT BAR ANCHORS ASTM A36 ASTM A185 WIRE MESH TIES WIRE TIES AND ANCHORS ASTM A82 ANCHOR BOLTS ASTM A307, GR. A

15. MINIMUM LAP SPLICE LENGTHS SHALL BE IN ACCORDANCE WITH TMS 402-2016.

101% BRIDGING DOCUMENTS ISSUED FOR REVIEW 4/22/2021

REMARKS TRACED APPROVED \_\_\_ \_\_\_ CHECKED APPROVED







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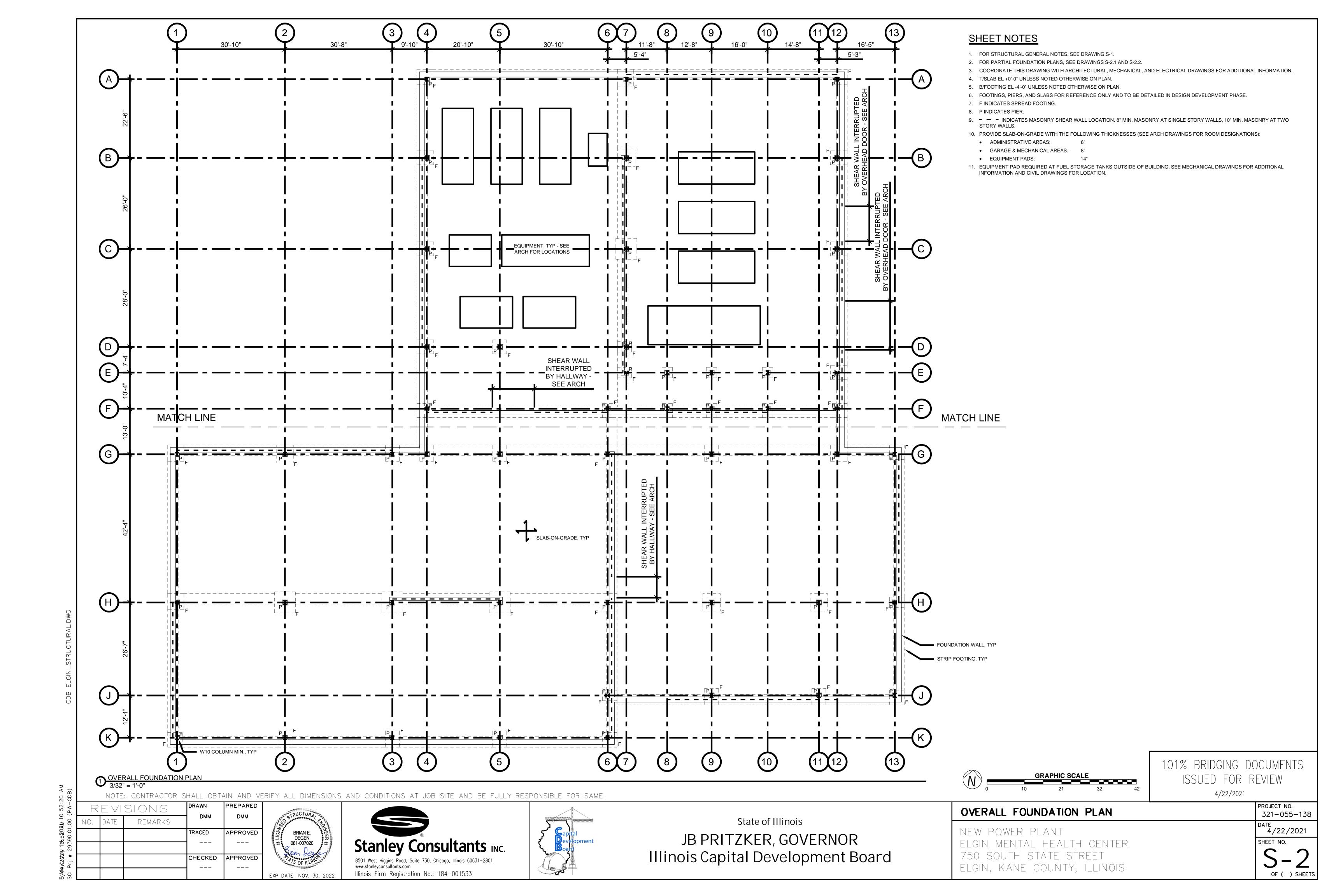
NEW POWER PLANT ELGIN MENTAL HEALTH CENTER 750 SOUTH STATE STREET ELGIN, KANE COUNTY, ILLINOIS

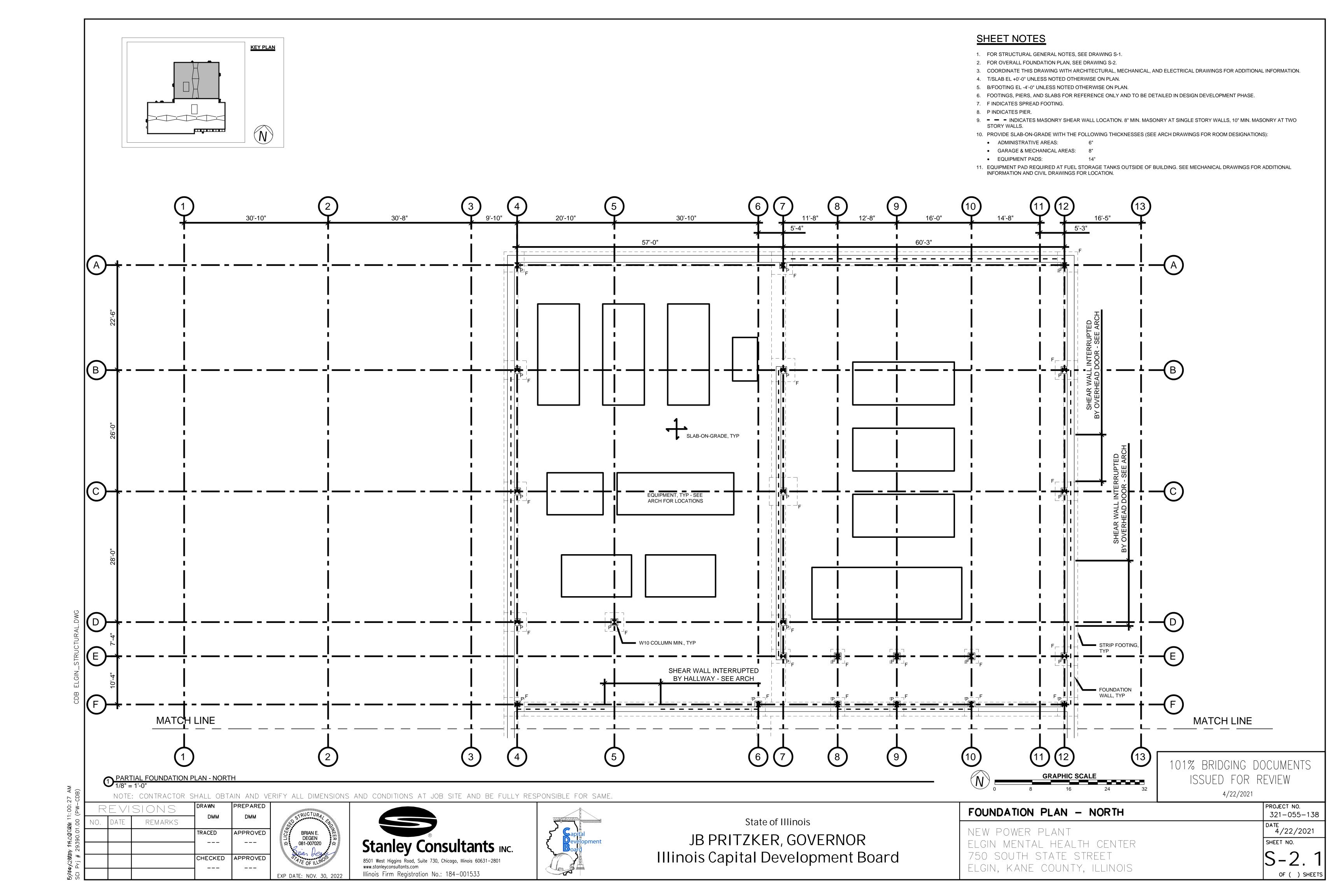
STRUCTURAL GENERAL NOTES

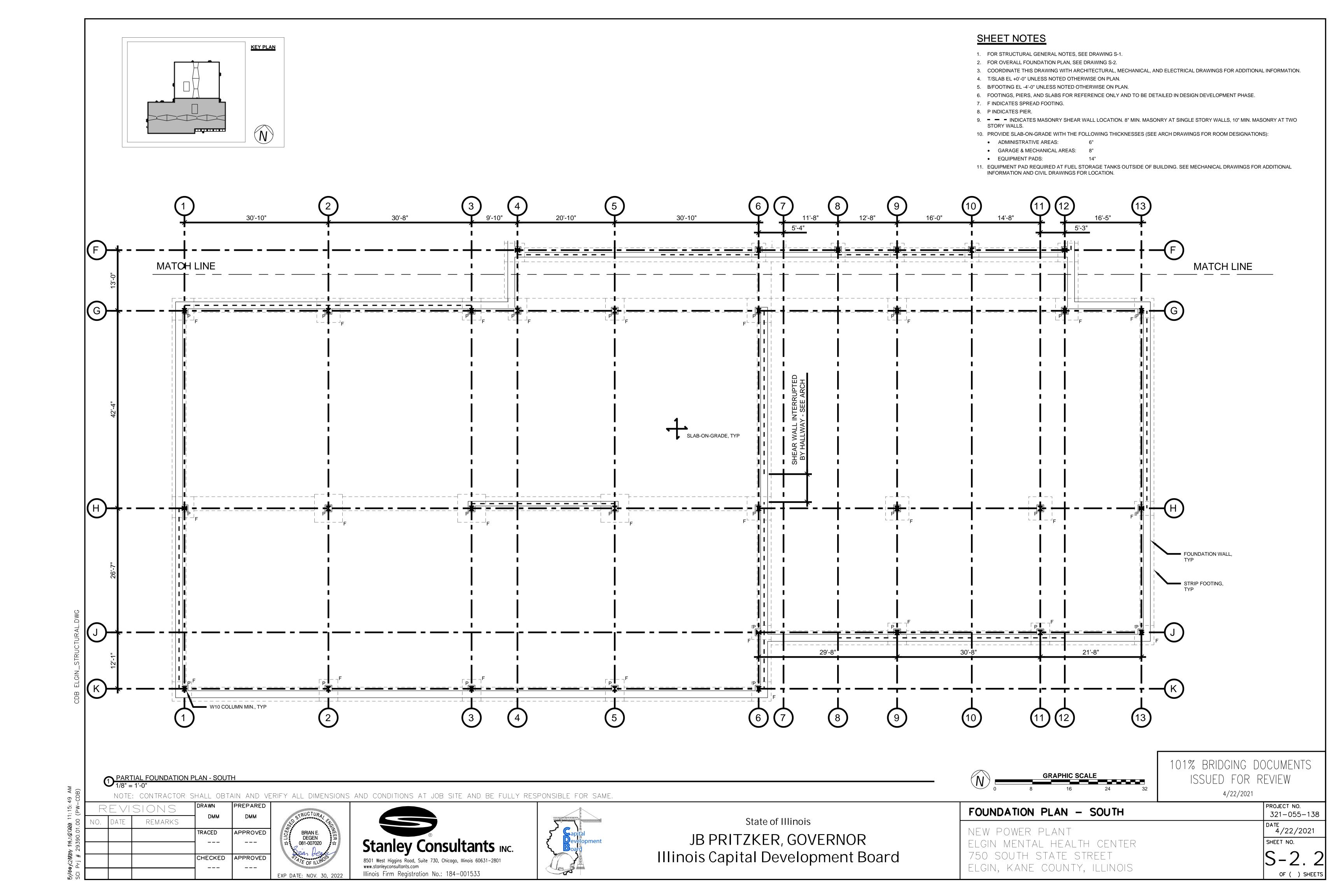
4/22/2021 SHEET NO. OF ( ) SHEETS

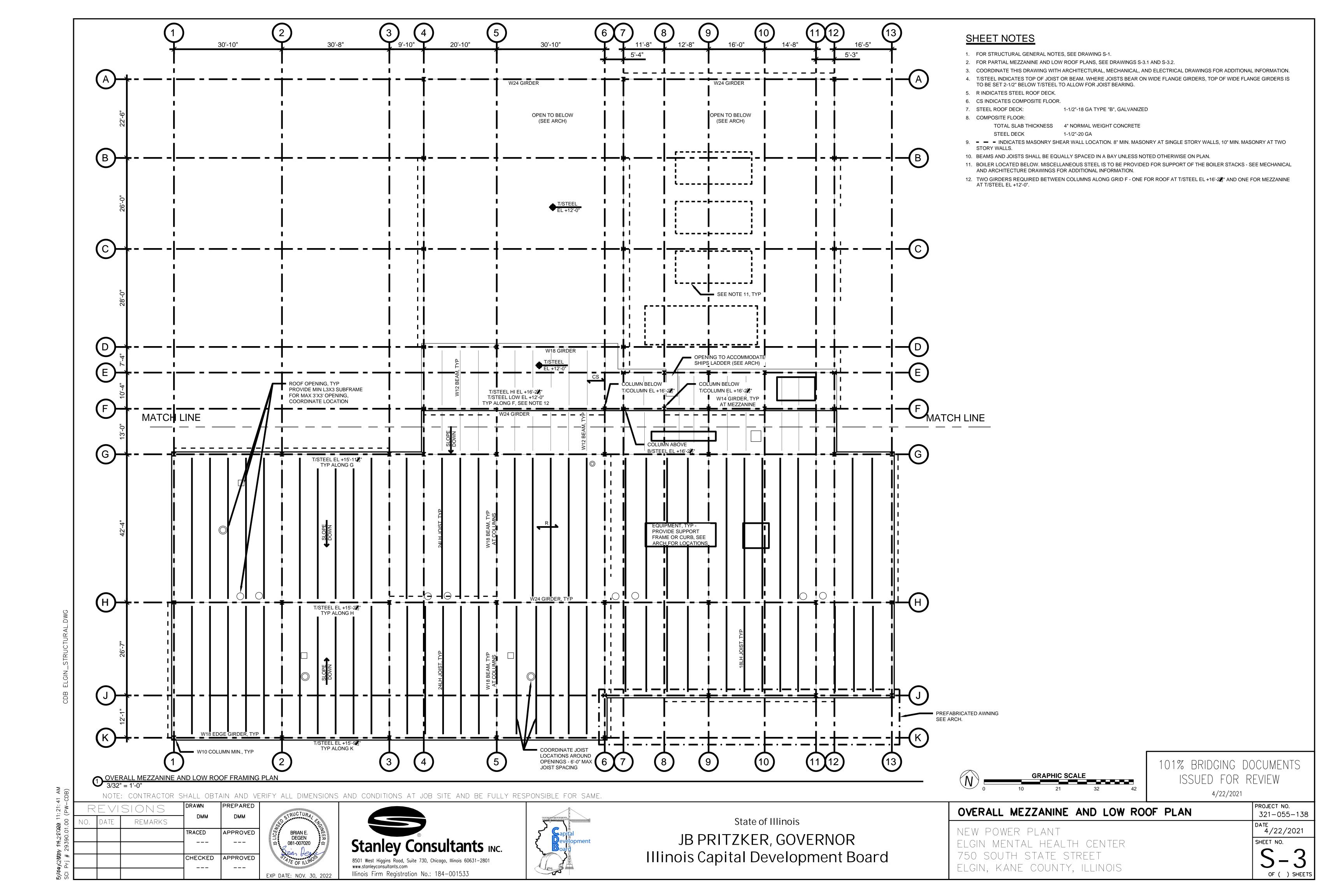
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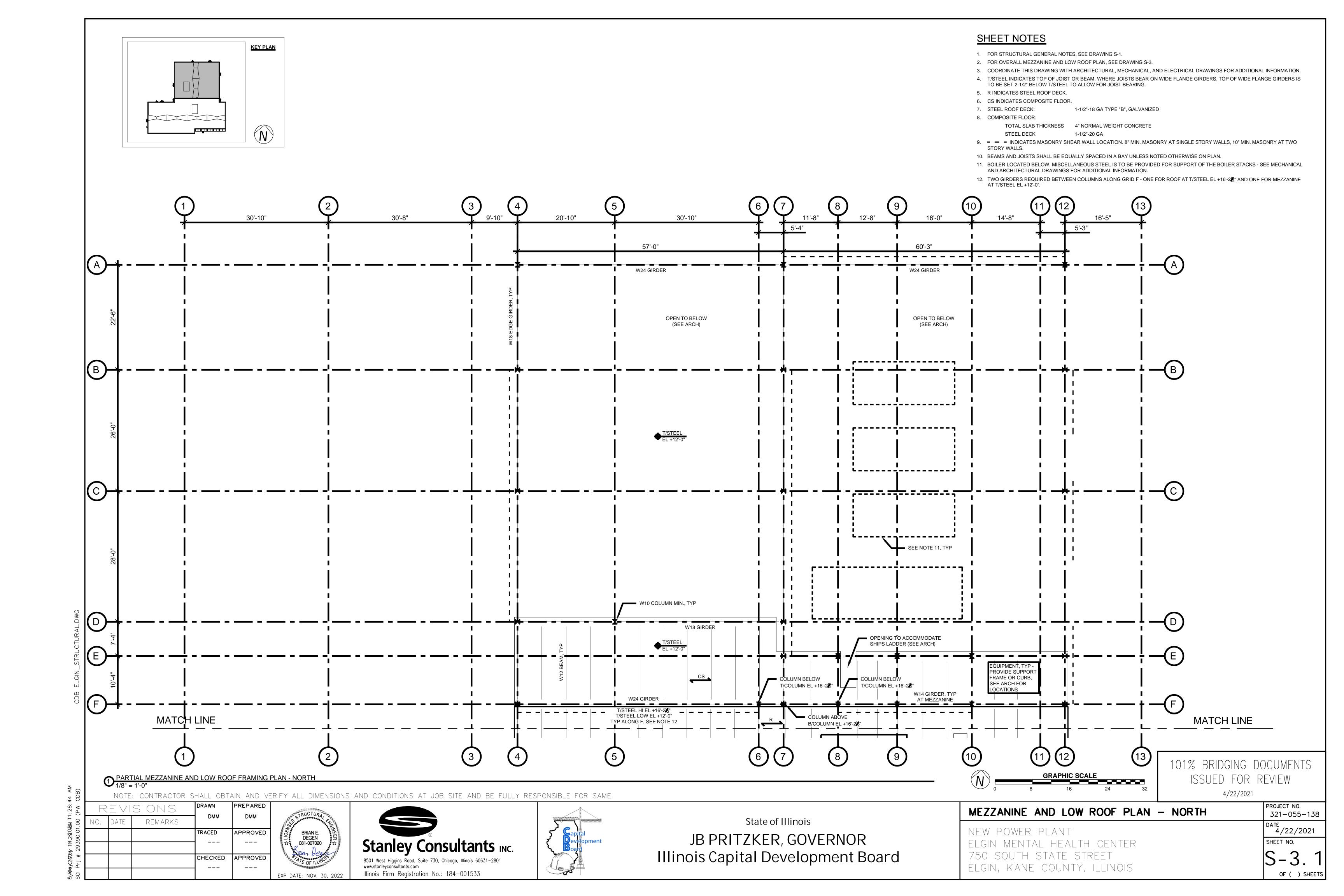
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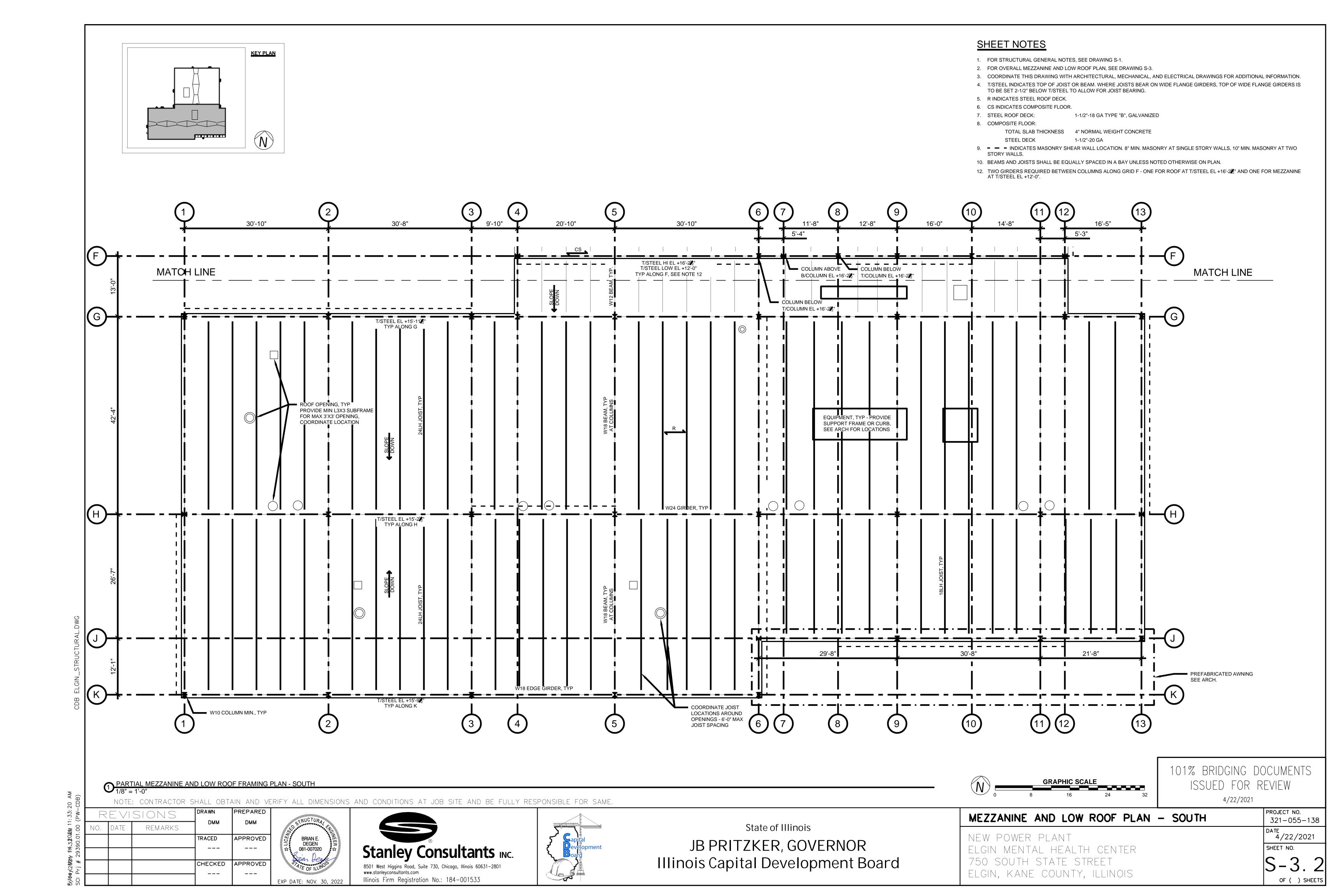


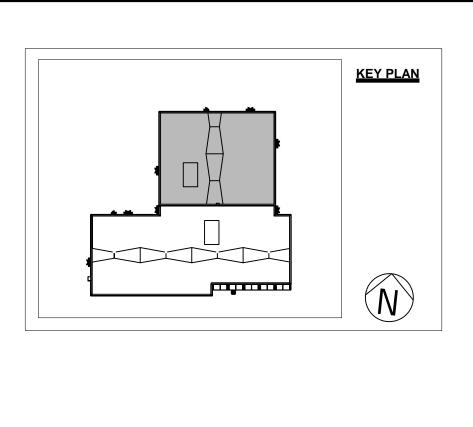








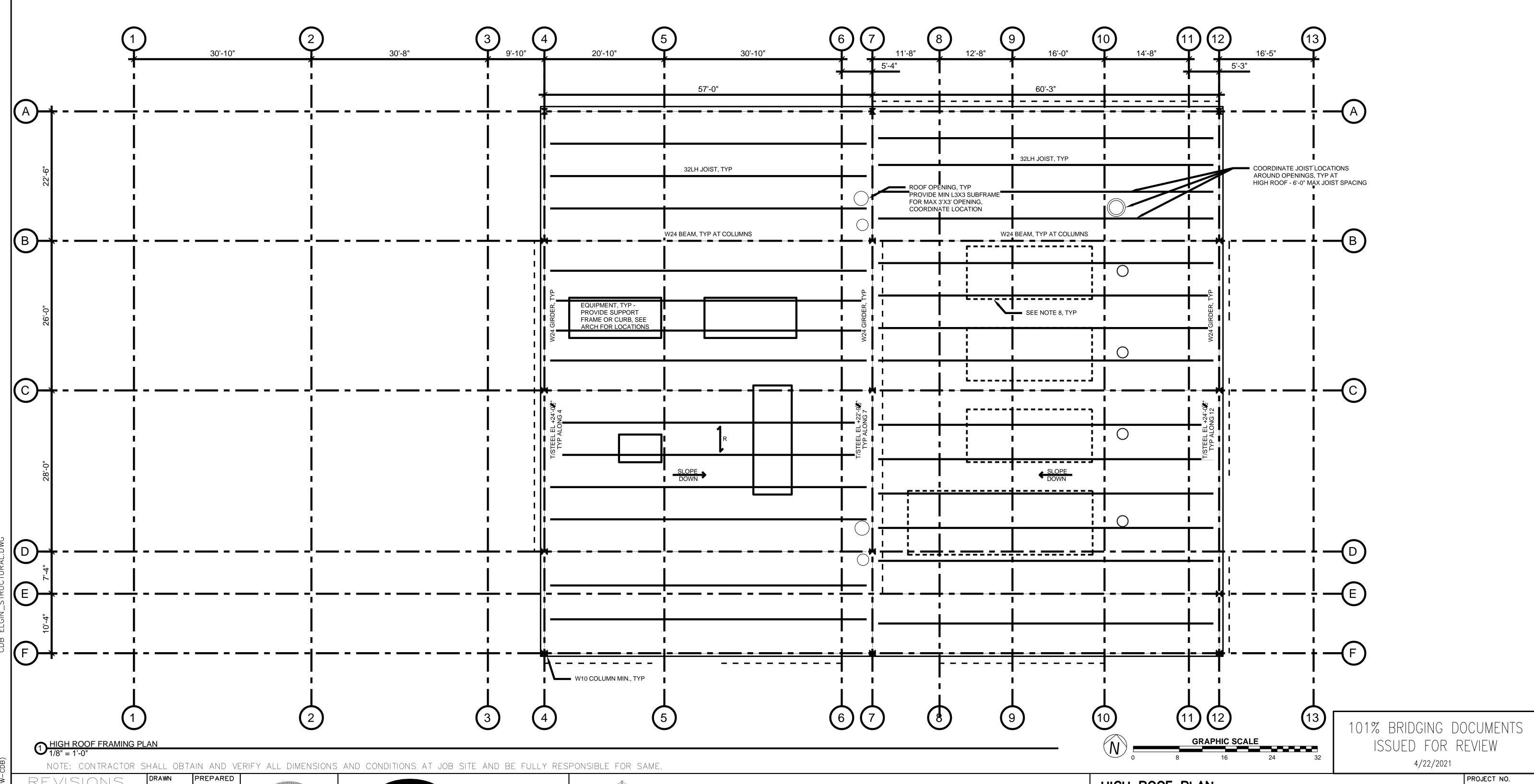




# SHEET NOTES

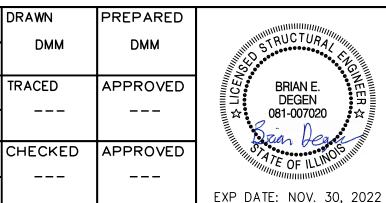
- 1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING S-1.
- 2. COORDINATE THIS DRAWING WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

  3. T/STEEL INDICATES TOP OF JOIST OR BEAM. WHERE JOISTS BEAR ON WIDE FLANGE GIRDERS, TOP OF WIDE FLANGE GIRDERS IS
- TO BE SET 2-1/2" BELOW T/STEEL TO ALLOW FOR JOIST BEARING.
- 4. R INDICATES STEEL ROOF DECK.
  5. STEEL ROOF DECK: 1-1/2"-18 GA TYPE "B", GALVANIZED
- 6. - INDICATES MASONRY SHEAR WALL LOCATION. 8" MIN. MASONRY AT SINGLE STORY WALLS, 10" MIN. MASONRY AT TWO STORY WALLS.
- 7. BEAMS AND JOISTS SHALL BE EQUALLY SPACED IN A BAY UNLESS NOTED OTHERWISE ON PLAN.
- 8. BOILER LOCATED BELOW. MISCELLANEOUS STEEL IS TO BE PROVIDED FOR SUPPORT OF THE BOILER STACKS SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

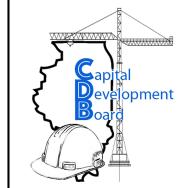


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REMARKS







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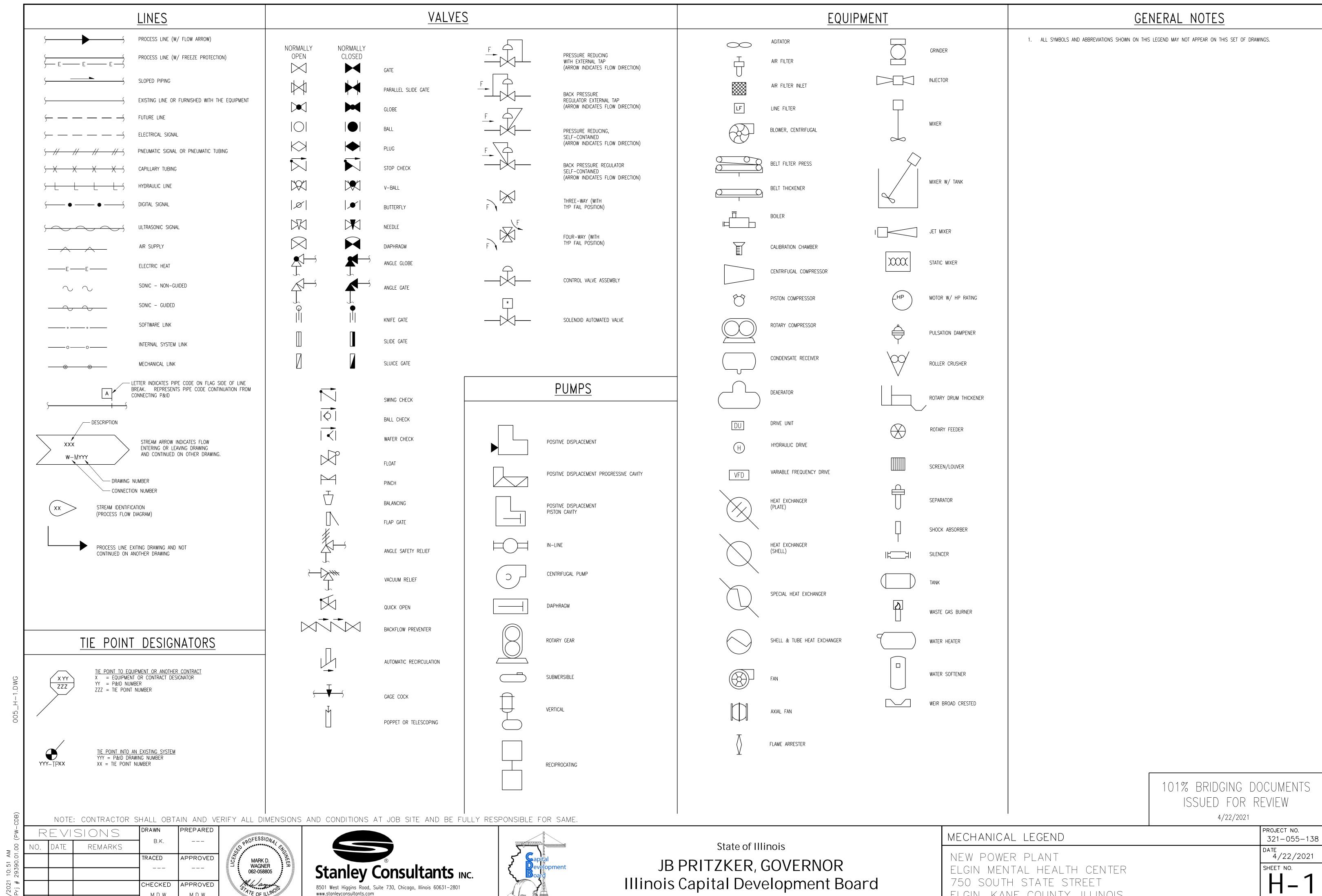
H	IGH	ROOF	PLAN

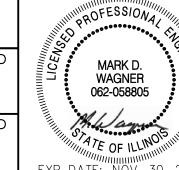
NEW POWER PLANT ELGIN MENTAL HEALTH CENTER 750 SOUTH STATE STREET ELGIN, KANE COUNTY, ILLINOIS 321-055-138

DATE
4/22/2021

SHEET NO.

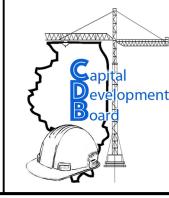
S-4





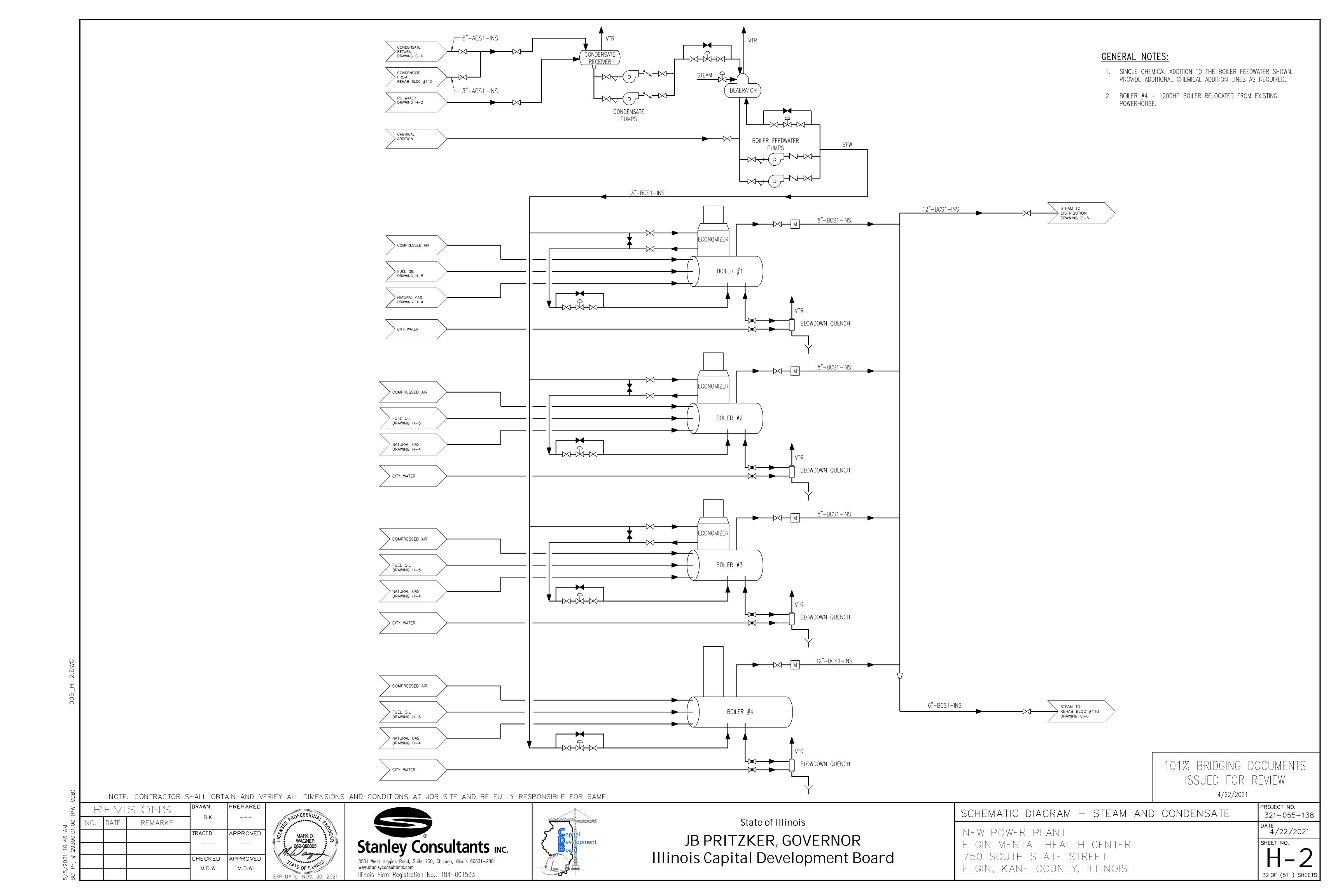


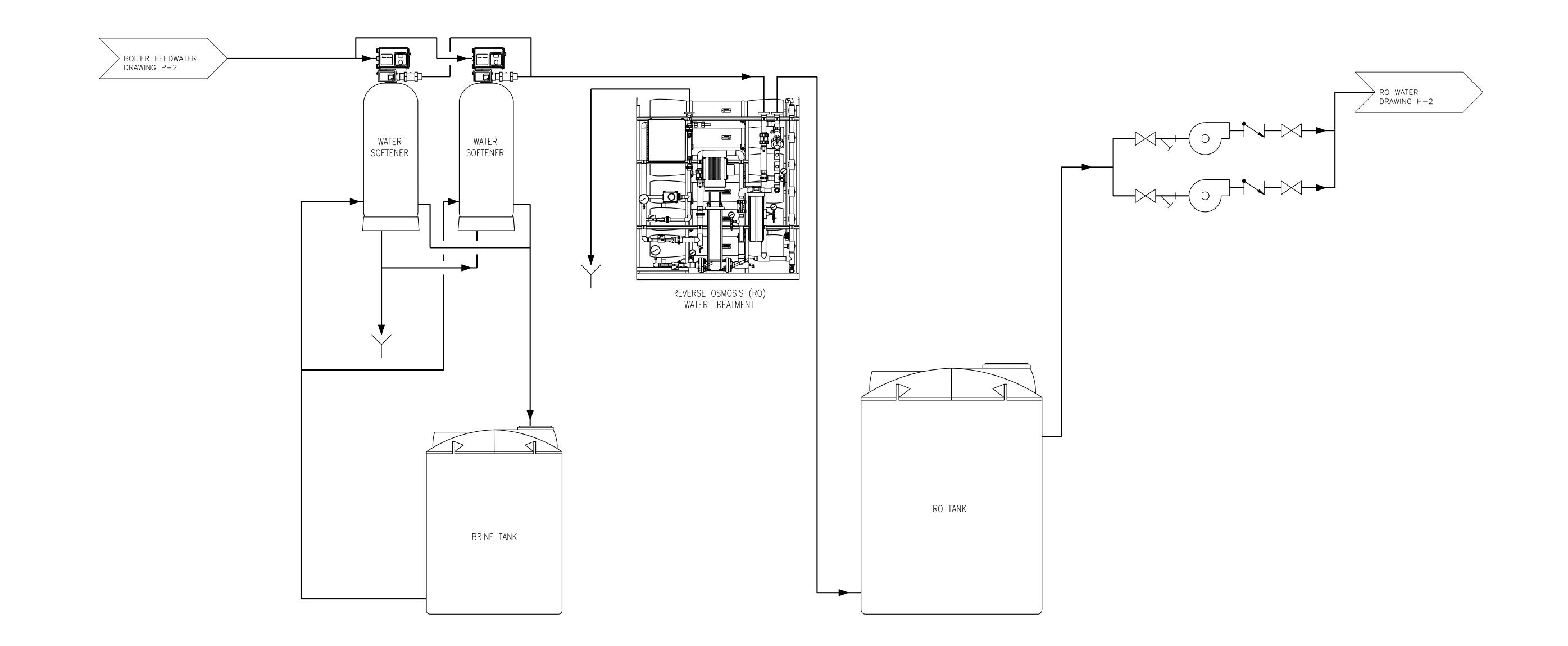




ELGIN, KANE COUNTY, ILLINOIS

31 **OF (**51**) SHEETS** 

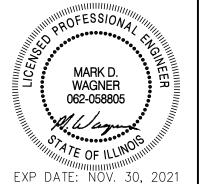




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NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

REVISIONS REMARKS APPROVED CHECKED APPROVED







State of Illinois

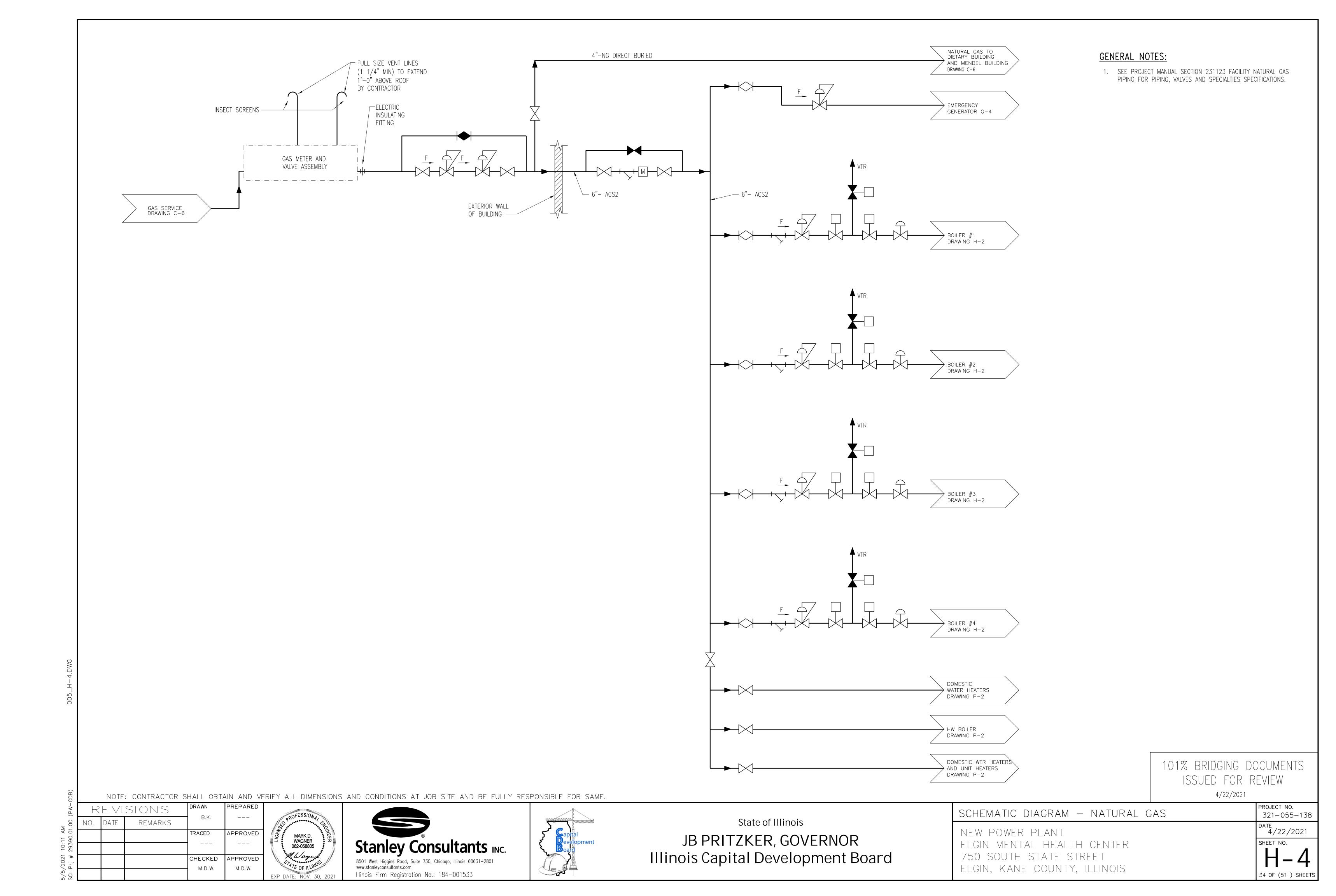
JB PRITZKER, GOVERNOR Illinois Capital Development Board

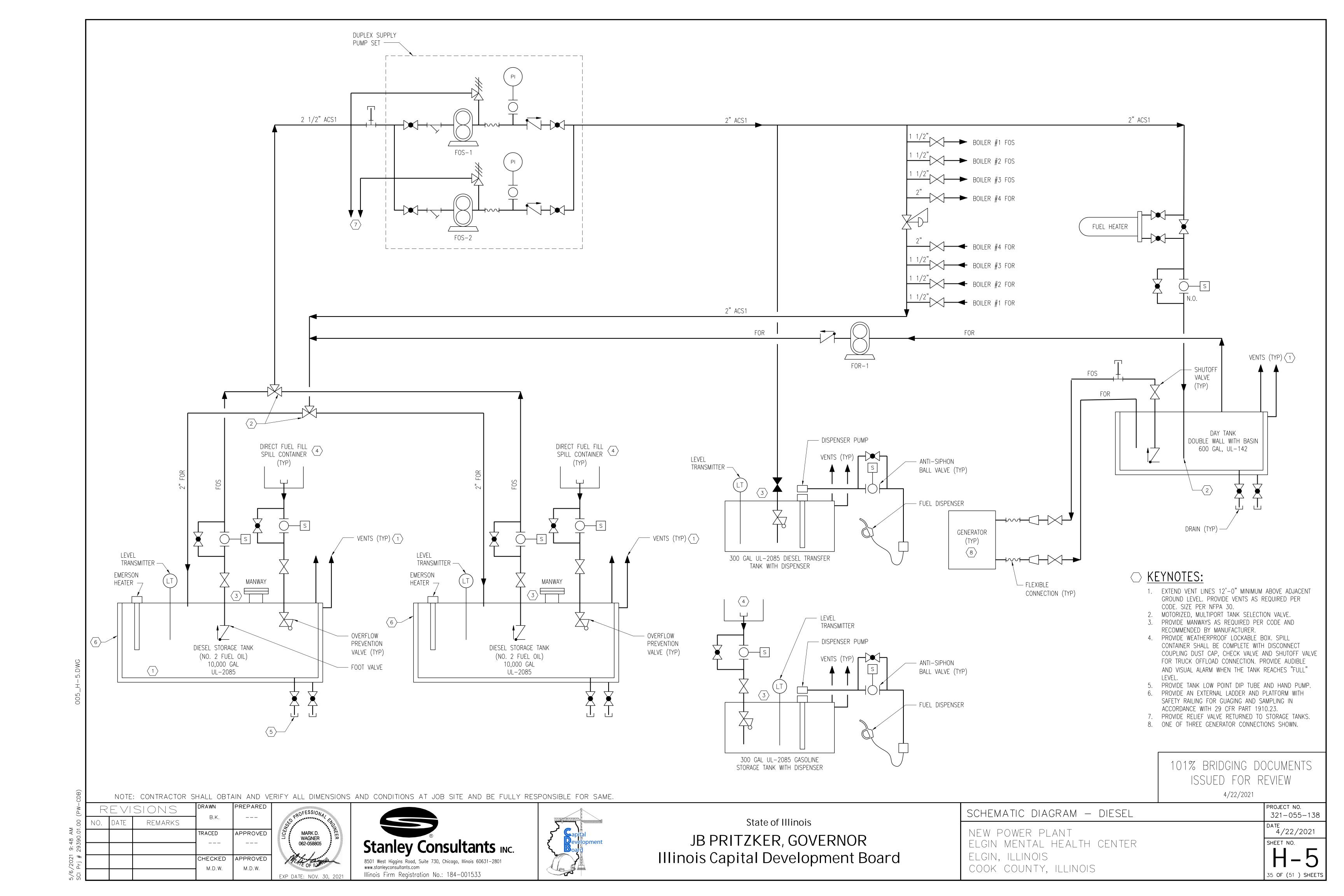
SCHEMATIC	DIAGRAM	_	FEEDWATER	TREATMENT

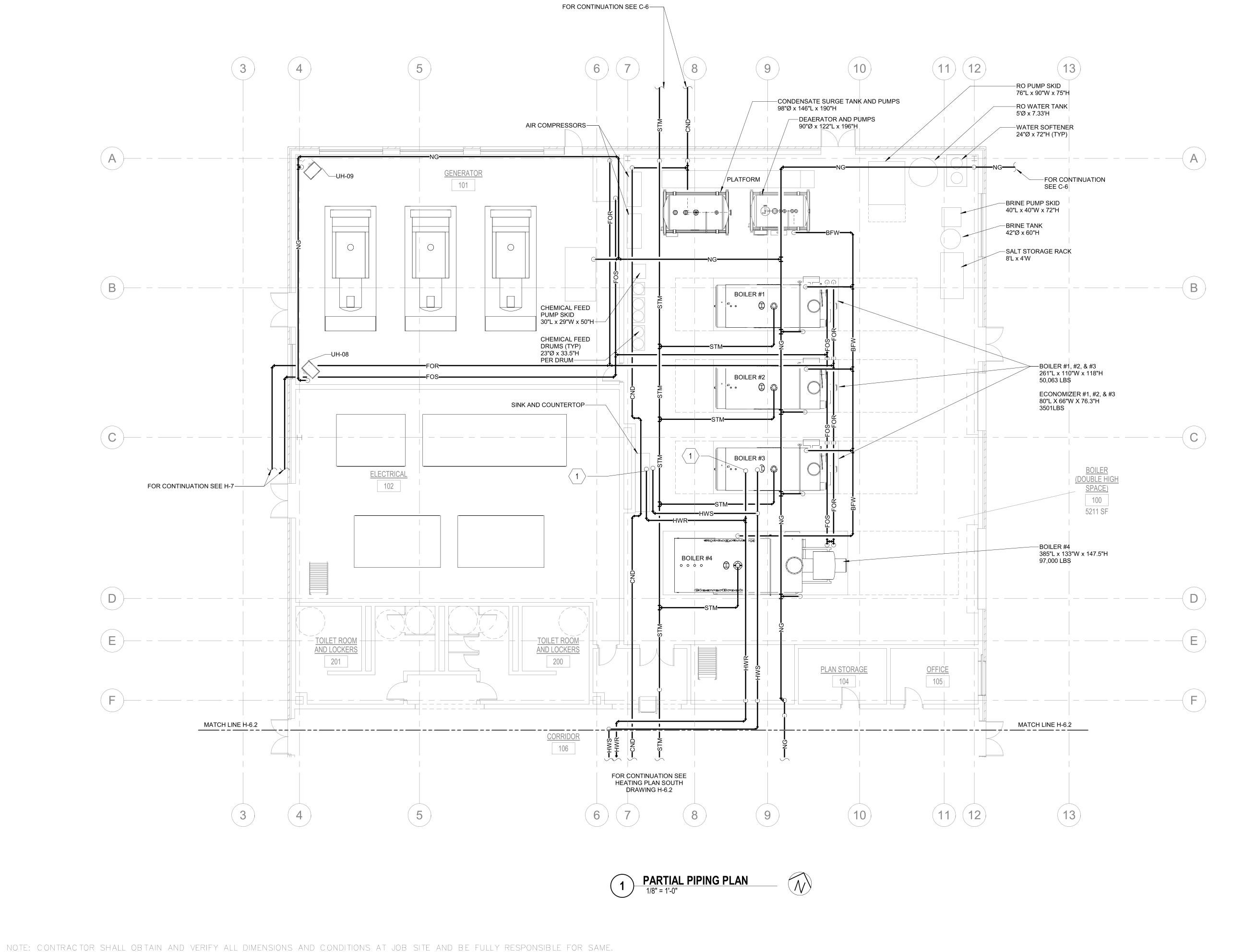
NEW POWER PLANT ELGIN MENTAL HEALTH CENTER 750 SOUTH STATE STREET ELGIN, KANE COUNTY, ILLINOIS

PROJECT NO. 321-055-138 DATE 4/22/2021

33 <mark>OF (51 ) SHEETS</mark>







**KEYED NOTES:** 

 HYDRONIC HEATING PIPES PENETRATE ROOF TO RTU. REFER TO A-5 ROOF PLAN FOR LOCATIONS OF RTU.

#### **GENERAL NOTES:**

1. DESIGN-BUILD CONTRACTOR IS RESPONSIBLE FOR FINAL PIPING DESIGN INCLUDING STRESS ANALYSIS, EXPANSION LOOPS, AND SUPPORT

2. BOILERS ARE SIZED TO PROVIDE FULL STEAM CAPACITY WITH ANY TWO BOILERS OPERATING. WHEN ONE BOILER REACHES 90% LOAD A SECOND BOILER SHALL START.

3. BOILERS SHALL RUN ON NATURAL GAS AS THE PRIMARY FUEL. FUEL OIL (DIESEL) SHALL BE PROVIDED AS BACKUP FUEL.

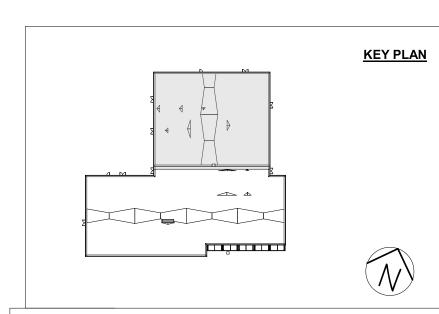
4. DIESEL POWERED ELECTRIC GENERATORS ARE SIZED TO PROVIDE FULL BACKUP POWER TO THE CAMPUS WITH TWO GENERATORS. A DAY TANK SHALL BE PROVIDED IN THE GENERATOR ROOM AND TWO FUEL OIL STORAGE TANKS ARE LOCATED OUTSIDE.

5. THE NATURAL GAS POWERED ELECTRIC GENERATOR PROVIDES EMERGENCY POWER TO THE PLANT.

6. THE NEW PLANT WILL INCLUDE A COMPLETE PLC-BASED CONTROL SYSTEM AS DESCRIBED IN THE BASIS OF DESIGN DOCUMENT.

7. AIR COMPRESSORS PROVIDE ATOMIZING AIR FOR THE BOILER'S FUEL OIL SYSTEM AND FOR PNEUMATIC TOOLS USED FOR MAINTENANCE IN THE VEHICLE BAYS. TWO COMPRESSORS SHALL PROVIDE FULL LOAD CAPACITY (50% EACH) OF THE STEAM SYSTEM AND MAINTENANCE ACTIVITIES COMBINED.

8. PROVIDE COMPRESSED AIR PIPING AS REQUIRED FOR FUEL OIL SYSTEM AND MAINTENANCE. NOT SHOWN ON THE PIPING PLANS.



101% BRIDGING DOCUMENTS
ISSUED FOR REVIEW
4/22/2021

REVISIONS

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DRAWN

L.J.A.

PREPARED

L.J.A.

L.J.A.

PREPARED

L.J.A

NO. DATE REMARKS

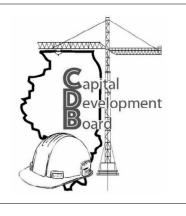
L.J.A. --
TRACED APPROVED

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CHECKED APPROVED

M.D.W. M.D.W.







State of Illinois

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Illinois Capital Development Board

PIPING PLAN - HEATING PLANT NORTH

NEW POWER PLANT

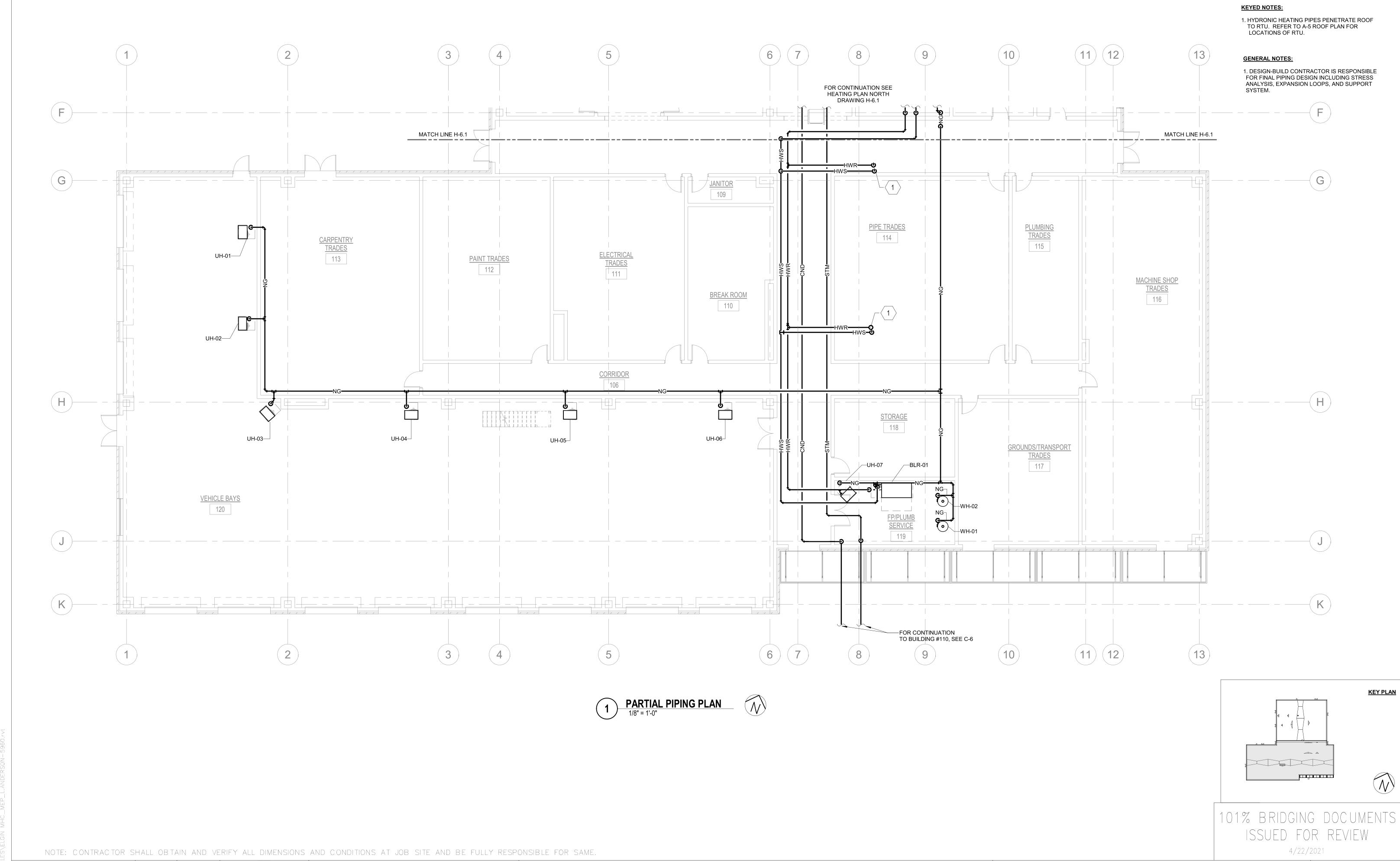
ELGIN MENTAL HEALTH CENTER

750 SOUTH STATE STREET

ELGIN, KANE COUNTY, ILLINOIS

PROJECT NO. 321-055-138 DATE 4/22/2021

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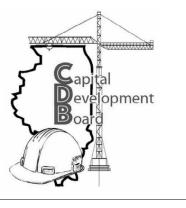
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M.D.W. M.D.W.







JB PRITZKER, GOVERNOR
Illinois Capital Development Board

PIPING PLAN — HEATING PLANT SOUTH

NEW POWER PLANT

ELGIN MENTAL HEALTH CENTER

750 SOUTH STATE STREET

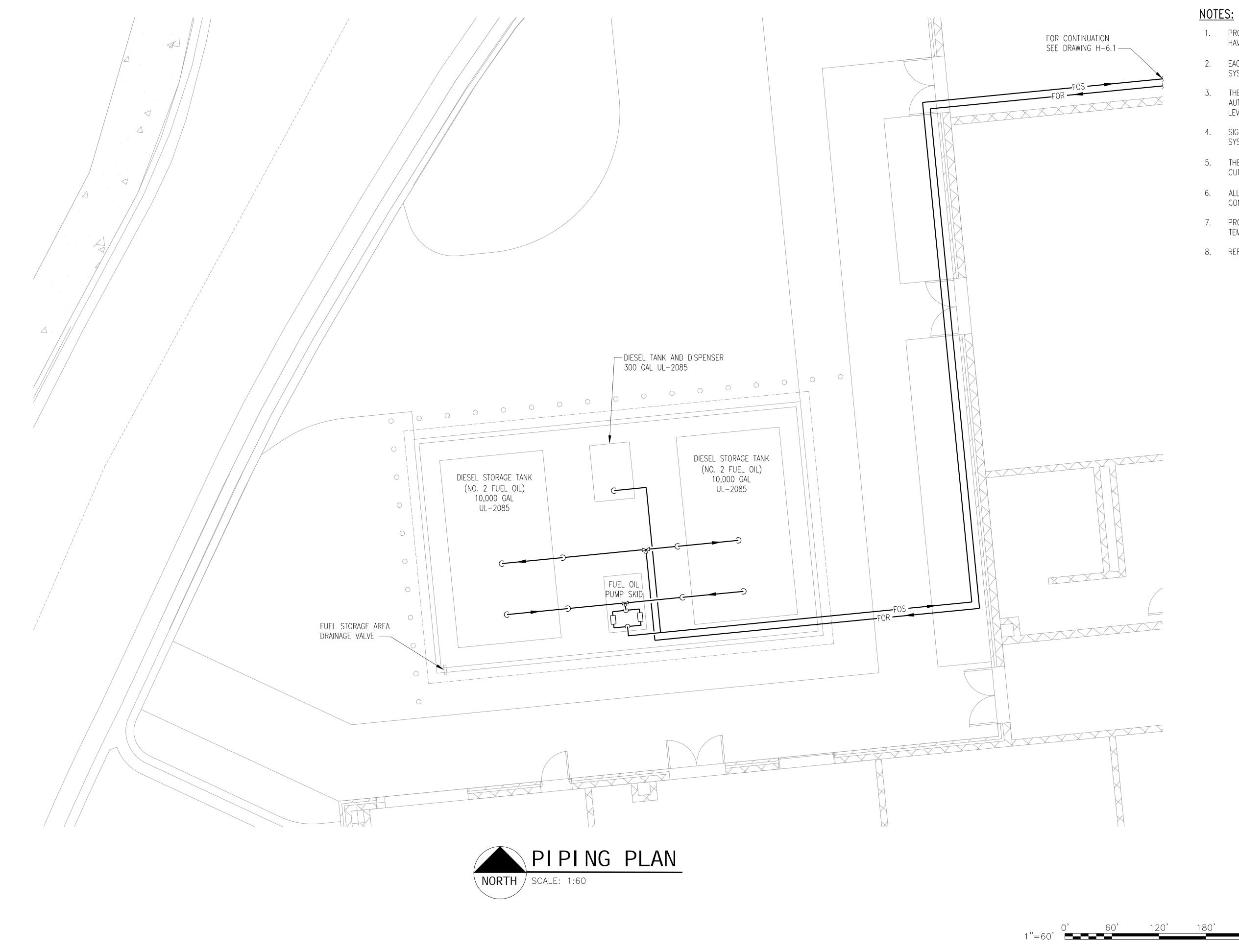
ELGIN, KANE COUNTY, ILLINOIS

321-055-138

DATE
4/22/2021

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H-6.2

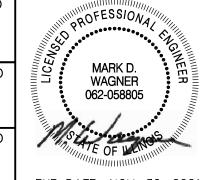


- 1. PROVIDE ABOVE GROUND TANKS FOLLOWING NFPA 30 AND 30A AND THE LOCAL AREA HAVING JURISDICTION INCLUDING THE ILLINOIS STATE FIRE MARSHAL.
- 2. EACH TANK WILL HAVE A COMBINATION GAUGING / LEVEL ALARM / LEAK DETECTION
- THE FUEL OIL PUMPS WILL HAVE A LOCAL CONTROL SYSTEM THAT WILL OPERATE IN AUTOMATIC MODE. THE CONTROL SYSTEM WILL MONITOR THE MAIN TANKS AND DAY TANK LEVELS. PROVIDE AN EMERGENCY FUELS SHUTOFF SYSTEM.
- 4. SIGNALS FOR ALL TANKS AND PUMPS WILL GO TO THE POWER PLANT MAIN CONTROL
- 5. THE FUEL OIL STORAGE AREA WILL INCLUDE SECURITY FENCE WITH GATE(S) AND A CURBED TANK PAD WITH LOCKABLE 2" BALL VALVE.
- 6. ALL TANKS, PIPING, PLATFORMS, STAIRS/LADDERS, AND FENCE WILL INCLUDE GROUND
- 7. PROVIDE PIPING WITH INSULATION AND HEAT TRACING AS REQUIRED FOR LOW TEMPERATURE OPERATION.
- 8. REFER TO DRAWING H-5 FOR PIPING SCHEMATIC.

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NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME

REVISIONS REMARKS TRACED APPROVED CHECKED APPROVED







State of Illinois

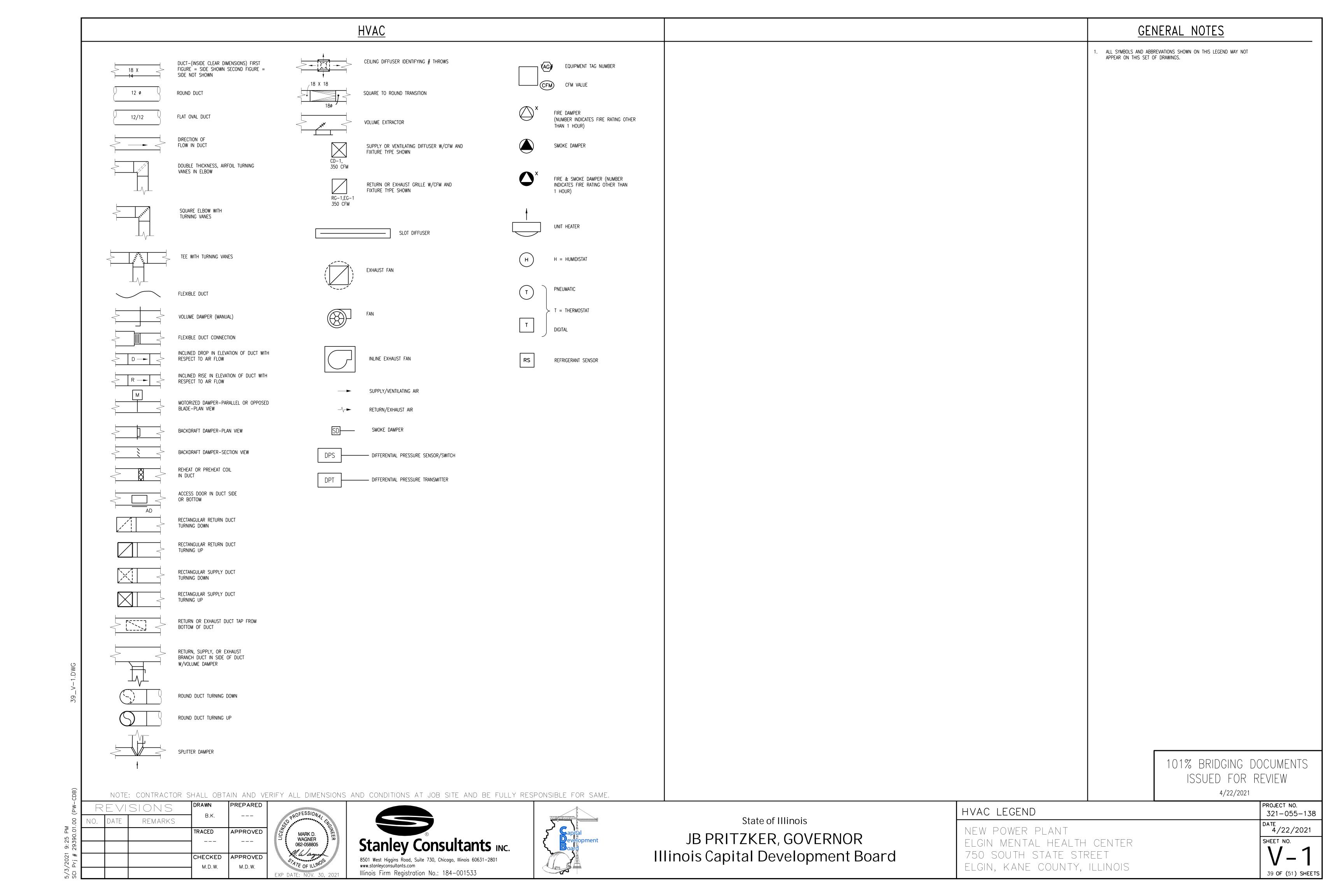
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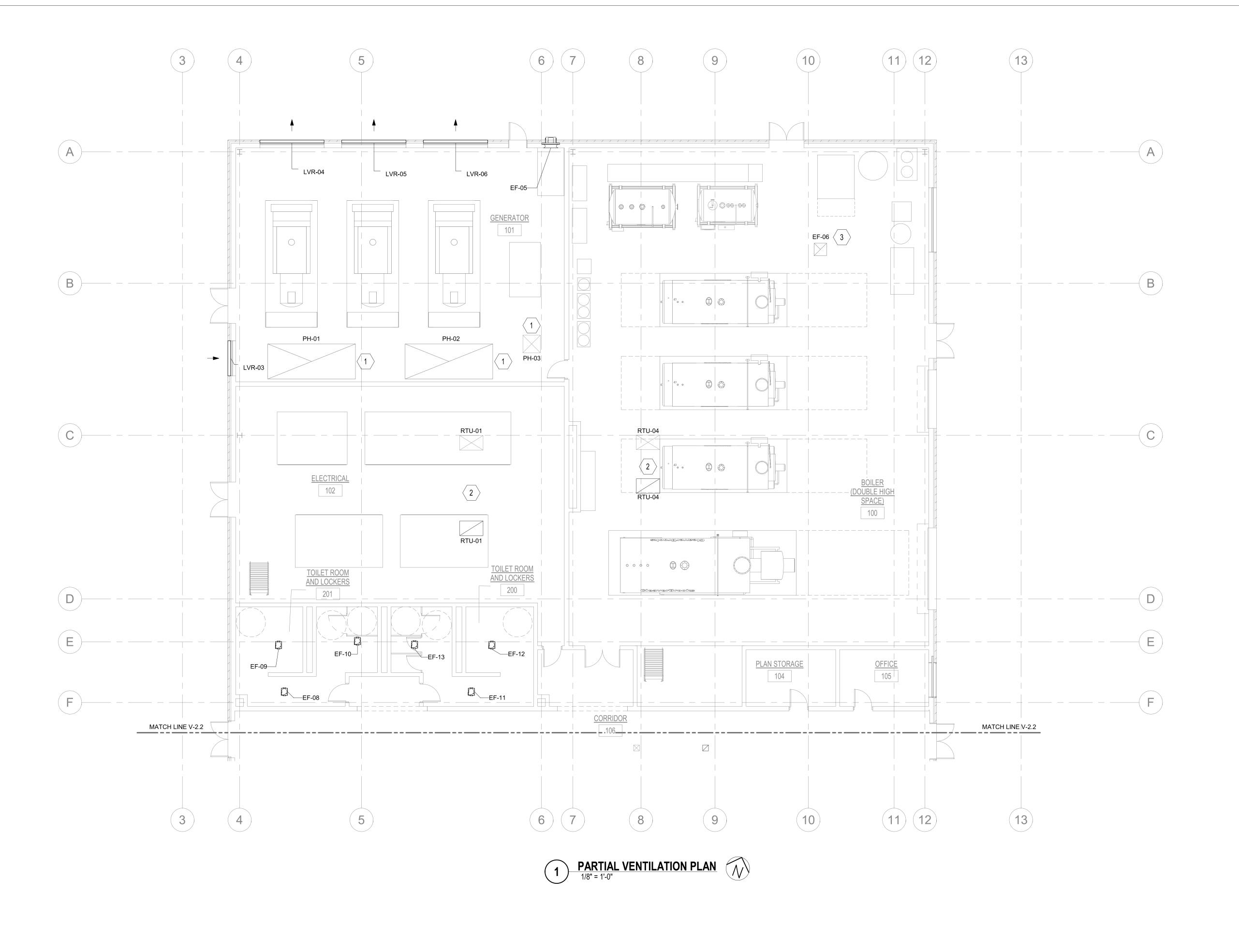
PING	PLAN	_	FUEL	TANK

NEW POWER PLANT ELGIN MENTAL HEALTH CENTER ELGIN, ILLINOIS COOK COUNTY, ILLINOIS

PROJECT NO. 321-055-138 DATE 4/22/2021 SHEET NO.

38 OF (51 ) SHEETS





**KEYED NOTES:** 

REFER TO A-5 ROOF PLAN FOR LOCATION OF ROOF MOUNTED PENTHOUSES.

2. REFER TO A-5 ROOF PLAN FOR LOCATION OF RTU.

3. REFER TO A-5 FOOR PLAN FOR LOCATION OF ROOF MOUNTED EXHAUST FAN.

**GENERAL NOTES:** 

1. DESIGN-BUILD CONTRACTOR TO DESIGN AND PROVIDE DUCTWORK TO MEET THE PERFORMANCE SPECIFIED IN THE BASIS OF

KEY PLAN 

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4/22/2021

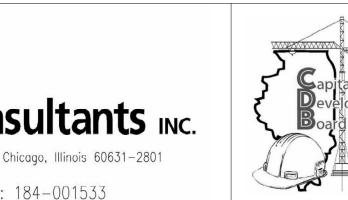
PROJECT NO. 321-055-138 4/22/2021

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.



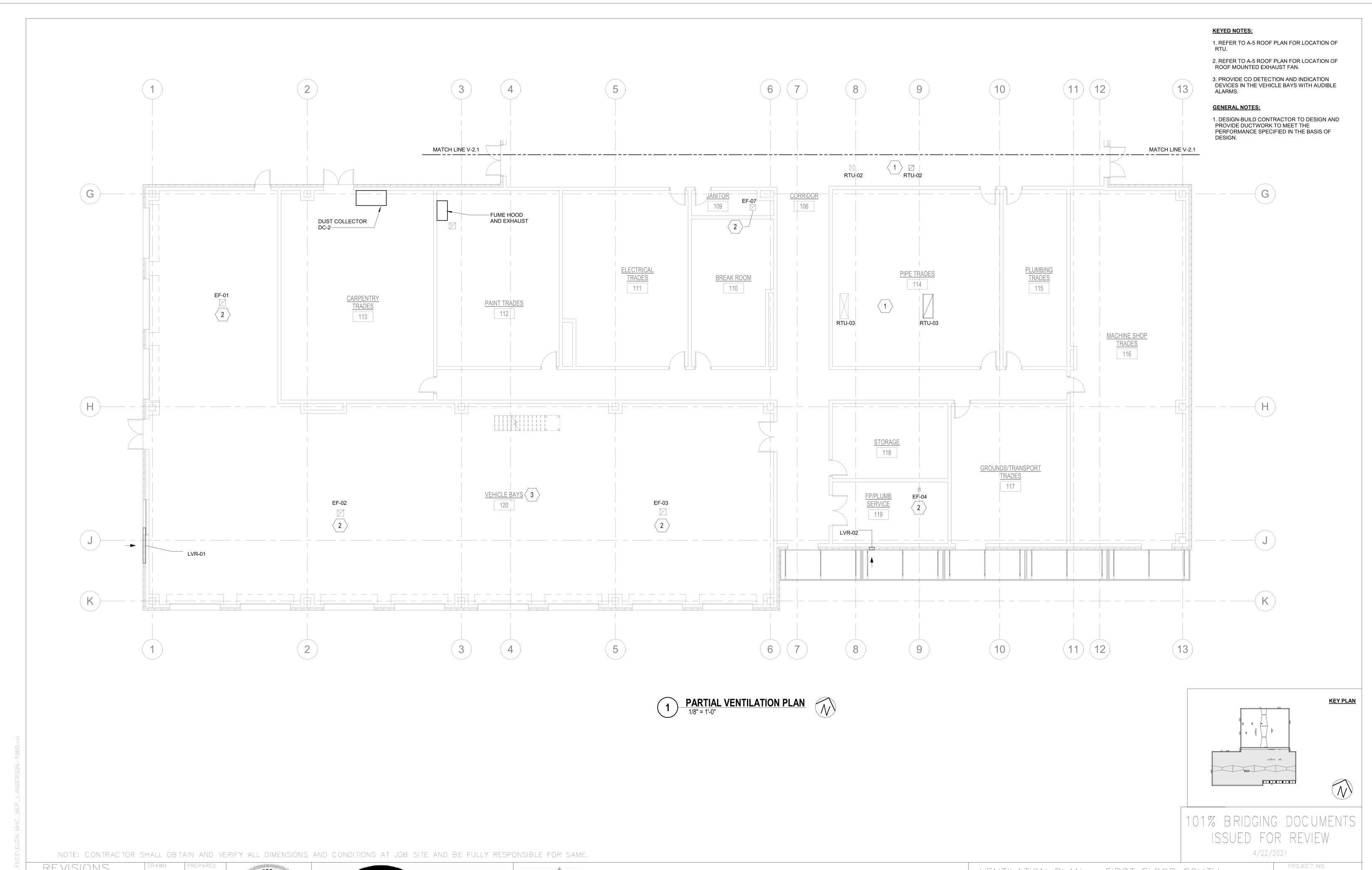






### State of Illinois JB PRITZKER, GOVERNOR Illinois Capital Development Board

VENTILATION PLAN - FIRST FLOOR NORTH



REVISIONS REMARKS TRACED



Stanley Consultants INC. 8501 West Higgins Road, Suite 730, Chicago, Illinois 60631—2801 www.stanleyconsultants.com Illinois Firm Registration No.: 184-001533



### State of Illinois JB PRITZKER, GOVERNOR Illinois Capital Development Board

VENTILATION PLAN - FIRST FLOOR SOUTH NEW POWER PLANT

ELGIN, KANE COUNTY, ILLINOIS

4/22/2021 ELGIN MENTAL HEALTH CENTER 750 SOUTH STATE STREET

321-055-138

FAN (EF) SCHEDULE							
PLAN DESIGNATION	TYPE	SERVICE	FLOW RATE (CFM)	EXTERNAL STATIC PRESSURE (IN. W.C.)	NOTES		
EF-01	DOWNBLAST POWERED ROOF	120 VEHICLE BAY - EXHAUST	1,850	0.25	(1) (3) (8) (9) (10) (11)		
EF-02	DOWNBLAST POWERED ROOF	120 VEHICLE BAY - EXHAUST	1,850	0.25	(1) (3) (8) (9) (10) (11)		
EF-03	DOWNBLAST POWERED ROOF	120 VEHICLE BAY - EXHAUST	1,850	0.25	(1) (3) (8) (9) (10) (11)		
EF-04	CENTRIFUGAL CEILING CABINET	119 FP/PLUMB SERVICE - EXHAUST	260	0.25	(1) (3) (4) (5) (6) (7) (11)		
EF-05	PROPELLER WALL	101 GENERATOR ROOM - EXHAUST	220	0.25	(1) (2) (3) (11)		
EF-06	DOWNBLAST POWERED ROOF	100 BOILER ROOM - EXHAUST	8,800	0.25	(1) (3) (8) (9) (10) (11)		
EF-07	CENTRIFUGAL CABINET	109 Janitor Closet - Exhaust	85	0.25	(1) (3) (4) (5) (6) (7) (11)		
EF-08	CENTRIFUGAL CABINET	208 MEN'S LOCKER ROOM - EXHAUST	115	0.25	(1) (3) (4) (5) (6) (7) (11)		
EF-09	CENTRIFUGAL CABINET	208 MEN'S SHOWER - EXHAUST	150	0.25	(1) (3) (4) (5) (6) (7) (11)		
EF-10	CENTRIFUGAL CABINET	208 MEN'S TOILET - EXHAUST	210	0.25	(1) (3) (4) (5) (6) (7) (11)		
EF-11	CENTRIFUGAL CABINET	202 WOMEN'S LOCKER ROOM - EXHAUST	115	0.25	(1) (3) (4) (5) (6) (7) (11)		
EF-12	CENTRIFUGAL CABINET	202 WOMEN'S SHOWER - EXHAUST	150	0.25	(1) (3) (4) (5) (6) (7) (11)		
EF-13	CENTRIFUGAL CABINET	202 WOMEN'S TOILET - EXHAUST	210	0.25	(1) (3) (4) (5) (6) (7) (11)		

1. PROVIDE UNIT MOUNTED DISCONNECT SWITCH

2. PROVIDE OSHA WIRE GUARD, WALL COLLAR, GRAVITY WALL SHUTTER, 45° WEATHERHOOD, SHUTTERGUARD, AND BIRD SCREEN

3. PROVIDE UNIT MOUNTED FAN SPEED CONTROLLER FOR SYSTEM BALANCING

4. PROVIDE HANGING VIBRATION ISOLATORS

5. PROVIDE FLEXIBLE DUCT CONNECTOR

6. PROVIDE WHITE GRILL FOR CEILING FAN

7. PROVIDE WALL CAP

8. PROVIDE ROOF CURB W/ DAMPER TRAY

9. PROVIDE ALUMINUM BIRDSCREEN

10. PROVIDE BACKDRAFT DAMPER 11. DESIGN-BUILD CONTRACTOR TO CONFIRM FINAL SIZING

ROOFTOP UNIT (RTU) SCHEDULE								
PLAN DESIGNATION	ТҮРЕ	SERVICE	COOLING COIL TOTAL CAPACITY (MBH)	COOLING COIL AIRFLOW (CFM)	HEATING COIL TOTAL CAPCITY (MHB)	HEATING COIL AIRFLOW (CFM)	NOTES	
RTU-01	ROOFTOP UNIT	102 ELECTRICAL ROOM 212 ELECTRICAL MEZZANINE 214 TELECOM AND LV EQUIPMENT	290	7,600	95	3,800	(1) (2) (3) (4)	
RTU-02	ROOFTOP UNIT	104 PLAN STORAGE 105 OFFICE 106 CORRIDOR 109 JANITOR 110 BREAKROOM 118 STORAGE	55	1,200	50	600	(1) (2) (3) (4)	
RTU-03	ROOFTOP UNIT	111 ELECTRICAL TRADES 112 PAINT TRADES 113 CARPENTRY TRADES 114 PIPE TRADES 115 PLUMBING TRADES 116 MACHINE SHOP TRADES 117 GROUNDS/TRANSPORT TRADES 202 TOILETS AND LOCKERS 208 TOILETS AND LOCKERS	435	10,500	260	5,250	(1) (2) (3) (4)	
RTU-04	ROOFTOP UNIT	100 BOILER ROOM	N/A	14,000	760	14,000	(2) (3) (4)	

1. PROVIDE UNIT CAPABLE OF USE WITH VARIABLE SPEED DRIVE

2. PROVIDE UNIT SUITABLE FOR OUTDOOR INSTALLATION

3. PROVIDE UNIT WITH ROOF CURB

4. DESIGN-BUILD CONTRACTOR TO CONFIRM FINAL SIZING

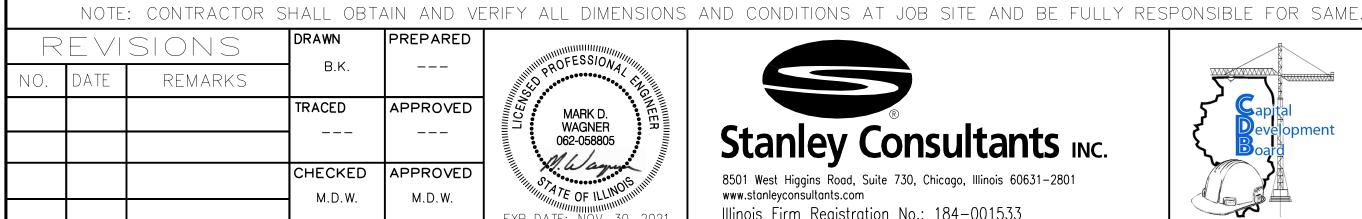
LOUVER (LVR) SCHEDULE							
PLAN DESIGNATION	ТҮРЕ	SYSTEM SERVED	FLOW RATE (CFM)	MAXIMUM FREE AREA VELOCITY (ft/min)	MINIMUM FREE AREA (ft²)	NOTES	
LVR-01	FIXED	120 VEHICLE BAYS	5,550	500	22.2	(1) (2)	
LVR-02	OPERABLE	119 FP/PLUMB SERVICE	260	500	1.0	(1) (2)	
LVR-03	FIXED	101 GENERATOR ROOM	3300	500	6.6	(1) (2)	
LVR-04	OPERABLE	101 GENERATOR ROOM	73,280	1,000	73.3	(1) (2)	
LVR-05	OPERABLE	101 GENERATOR ROOM	73,280	1,000	73.3	(1) (2)	
LVR-06	OPERABLE	101 GENERATOR ROOM	73,280	1,000	73.3	(1) (2)	

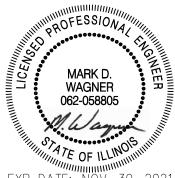
1. PROVIDE ALUMINUM BIRD SCREEN

2. PROVIDE DRAINABLE LOUVERS

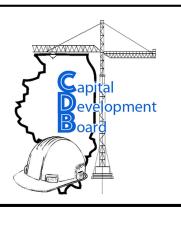
3. DESIGN-BUILD CONTRACTOR TO CONFIRM FINAL SIZING

PREPARED









## State of Illinois

NEW POWER PLANT JB PRITZKER, GOVERNOR ELGIN MENTAL HEALTH CENTER Illinois Capital Development Board 750 SOUTH STATE STREET ELGIN, KANE COUNTY, ILLINOIS

HVAC - SCHEDULES

AIR COOLED CONDENSING UNIT (ACCU) SCHEDULE NOMINAL CAPACITY PLAN DESIGNATION **ASSOCIATED RTU** (1)(2)(3) ACCU-02 RTU-02 (1)(2)(3)

PENTHOUSE (PH) SCHEDULE							
PLAN DESIGNATION TYPE SERVICE (CFM) (IN. W.C.) NOTES							
PH-01	GRAVITY INTAKE	101 GENERATOR ROOM	76,570	0.25	(1) (2) (3) (4)		
PH-02	GRAVITY INTAKE	101 GENERATOR ROOM	76 <i>,</i> 570	0.25	(1) (2) (3) (4)		
PH-03	GRAVITY INTAKE	101 GENERATOR ROOM	9,275	0.25	(1) (2) (3) (4)		

1. PROVIDE ROOF CURB WITH DAMPER TRAY

2. PROVIDE ALUMINUM BIRDSCREEN

3. PROVIDE MOTORIZED INTAKE BACKDRAFT DAMPER

1. SET ON 4 IN CONCRETE BASE AS LOCATED ON PLANS

3. DESIGN-BUILD CONTRACTOR TO CONFIRM FINAL SIZING

2. ACCU CAPACITY SHALL MATCH CAPACITY OF ASSOCIATED COOLING COIL

4. DESIGN-BUILD CONTRACTOR TO CONFIRM FINAL SIZING

UNIT HEATER (UH) SCHEDULE							
PLAN DESIGNATION	FUEL	MOUNTING POSITION	SUPPLY FAN FLOW RATE (CFM)	CAPACITY (MBH)	NOTES		
UH-01	NATURAL GAS	WALL	935	58.0	(1)(2)(3)		
UH-02	NATURAL GAS	WALL	935	58.0	(1) (2) (3)		
UH-03	NATURAL GAS	WALL	935	58.0	(1) (2) (3)		
UH-04	NATURAL GAS	WALL	935	58.0	(1)(2)(3)		
UH-05	NATURAL GAS	WALL	935	58.0	(1)(2)(3)		
UH-06	NATURAL GAS	WALL	935	58.0	(1) (2) (3)		
UH-07	NATURAL GAS	WALL	260	17.5	(1) (2) (3)		
UH-08	NATURAL GAS	WALL	1380	83.0	(1) (2) (3)		
UH-09	NATURAL GAS	WALL	1380	83.0	(1) (2) (3)		

1. PROVIDE UNIT MOUNTED DISCONNECT

2. PROVIDE WALL MOUNTED THERMOSTAT

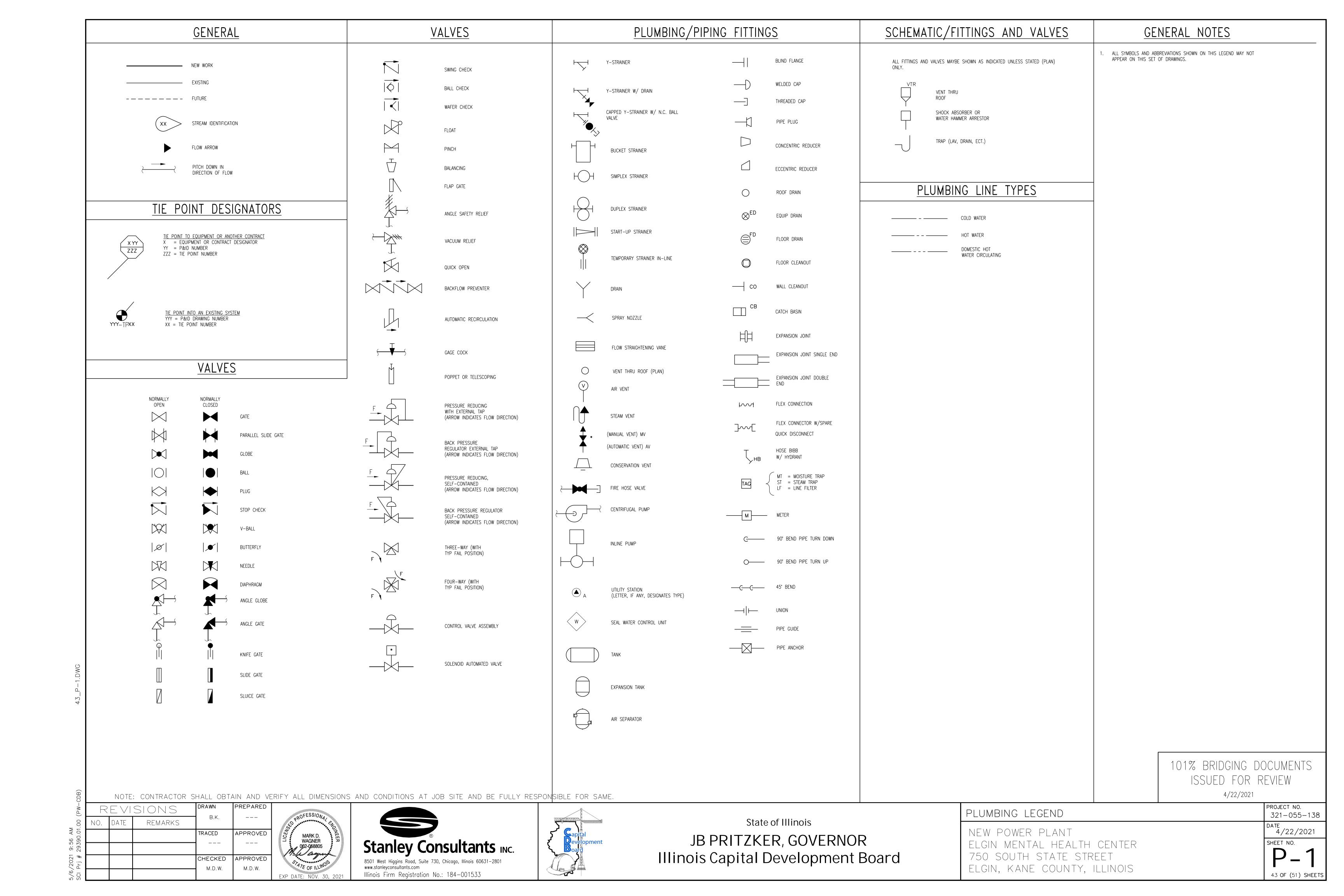
3. PROVIDE SURFACE MOUNTING BRACKET 3. DESIGN-BUILD CONTRACTOR TO CONFIRM FINAL SIZING

> 101% BRIDGING DOCUMENTS ISSUED FOR REVIEW

4/22/2021

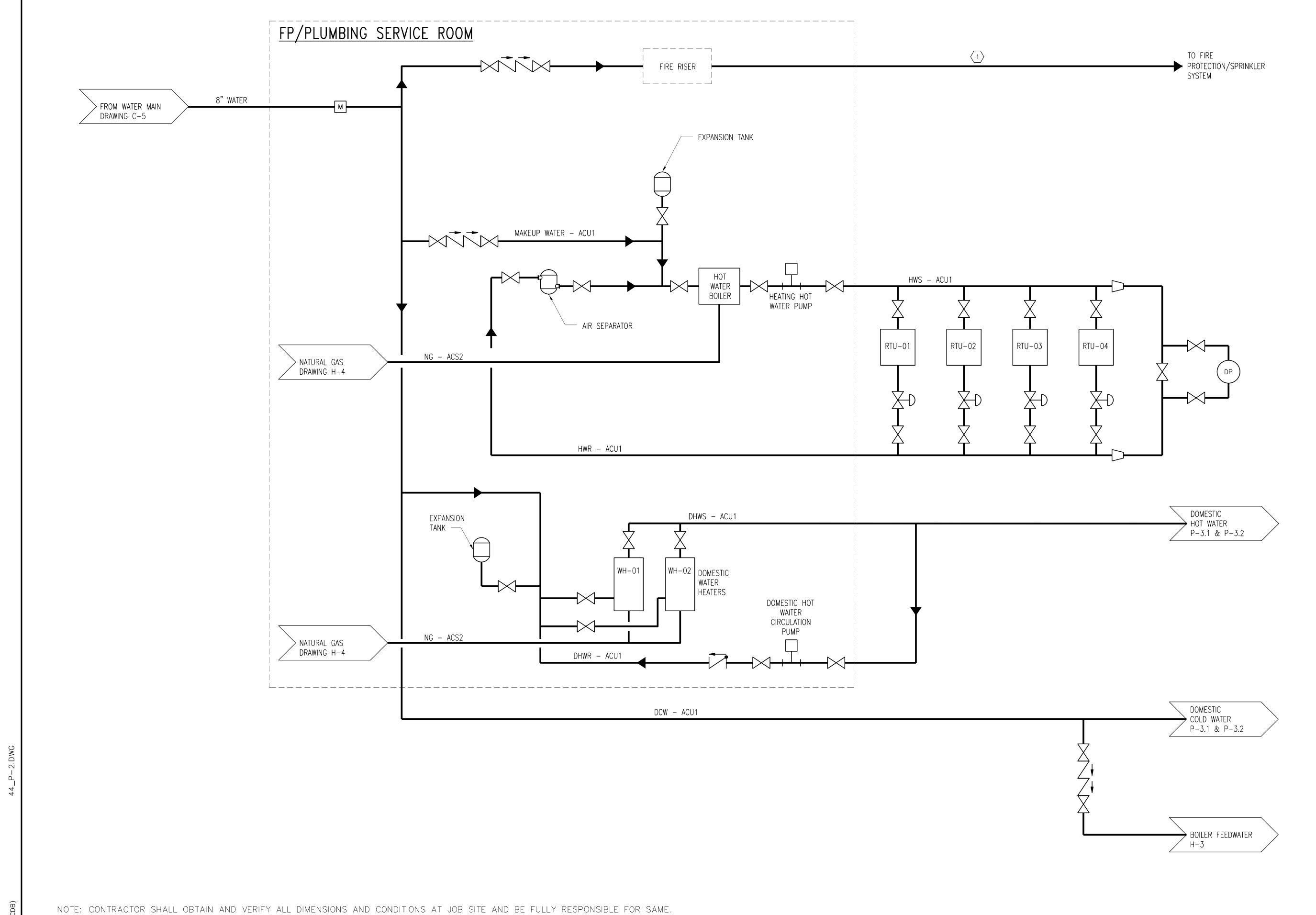
PROJECT NO. 321-055-138 4/22/2021 SHEET NO.

V-3 42 **OF (**51**) SHEETS** 



### 

1. REFER TO PROJECT MANUAL DIVISION 21 FOR FIRE PROTECTION PIPING.



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4/22/2021

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PREPARED
B.K.

NO. DATE REMARKS

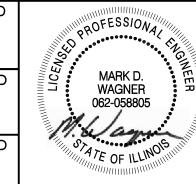
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CHECKED APPROVED

M.D.W.

M.D.W.

M.D.W.







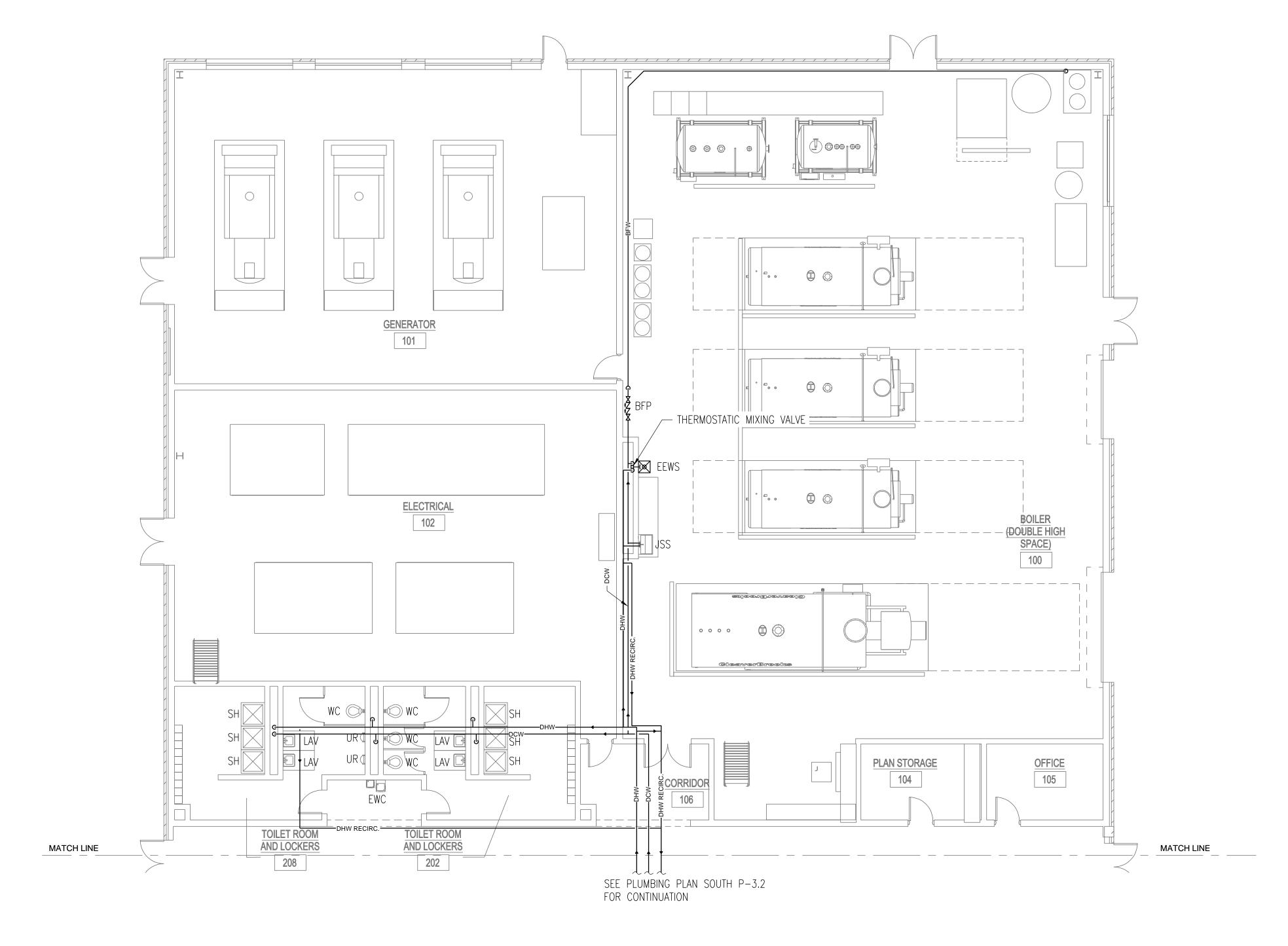
# JB PRITZKER, GOVERNOR Illinois Capital Development Board

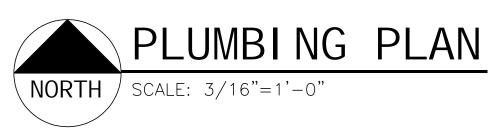
DOMESTIC WATER SCHEMATIC
NEW POWER PLANT
ELGIN MENTAL HEALTH CENTER
750 SOUTH STATE STREET
FIGIN KANE COUNTY ILLINOIS

PROJECT NO.
321-055-138

DATE
4/22/2021

SHEET NO.





3/16"=1'-0" 5' 10' 20

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ISSUED FOR REVIEW
4/22/2021

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

PREPARED
B.K.

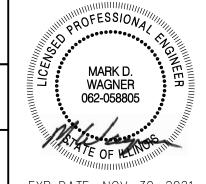
NO. DATE REMARKS

TRACED APPROVED

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# [Jd]
DRAWN
B.K.

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CHECKED APPROVED
M.D.W.

M.D.W.







State of Illinois

JB PRITZKER, GOVERNOR Illinois Capital Development Board

LUMBING PLAN NORTH
IEW POWER PLANT
LGIN MENTAL HEALTH CENTER
50 SOUTH STATE STREET
LGIN, KANE COUNTY, ILLINOIS

321-055-138

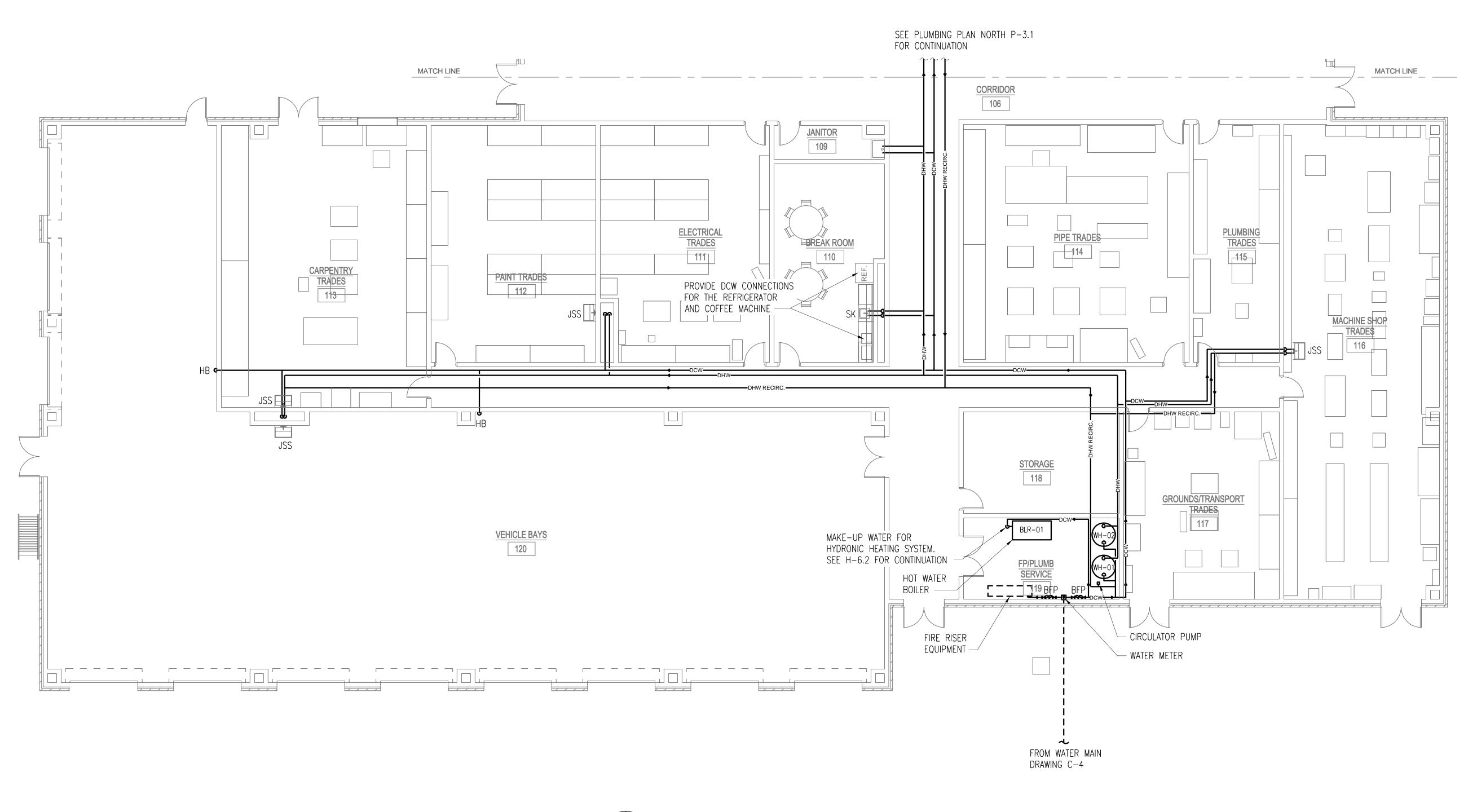
DATE
4/22/2021

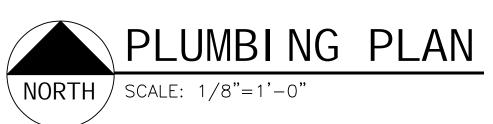
SHEET NO.

P 3 1

45 OF (51 ) SHEETS

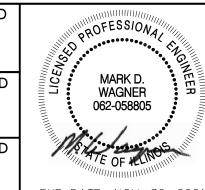
PROJECT NO.





101% BRIDGING DOCUMENTS ISSUED FOR REVIEW 4/22/2021

REMARKS APPROVED APPROVED CHECKED M.D.W. M.D.W.







## State of Illinois JB PRITZKER, GOVERNOR Illinois Capital Development Board

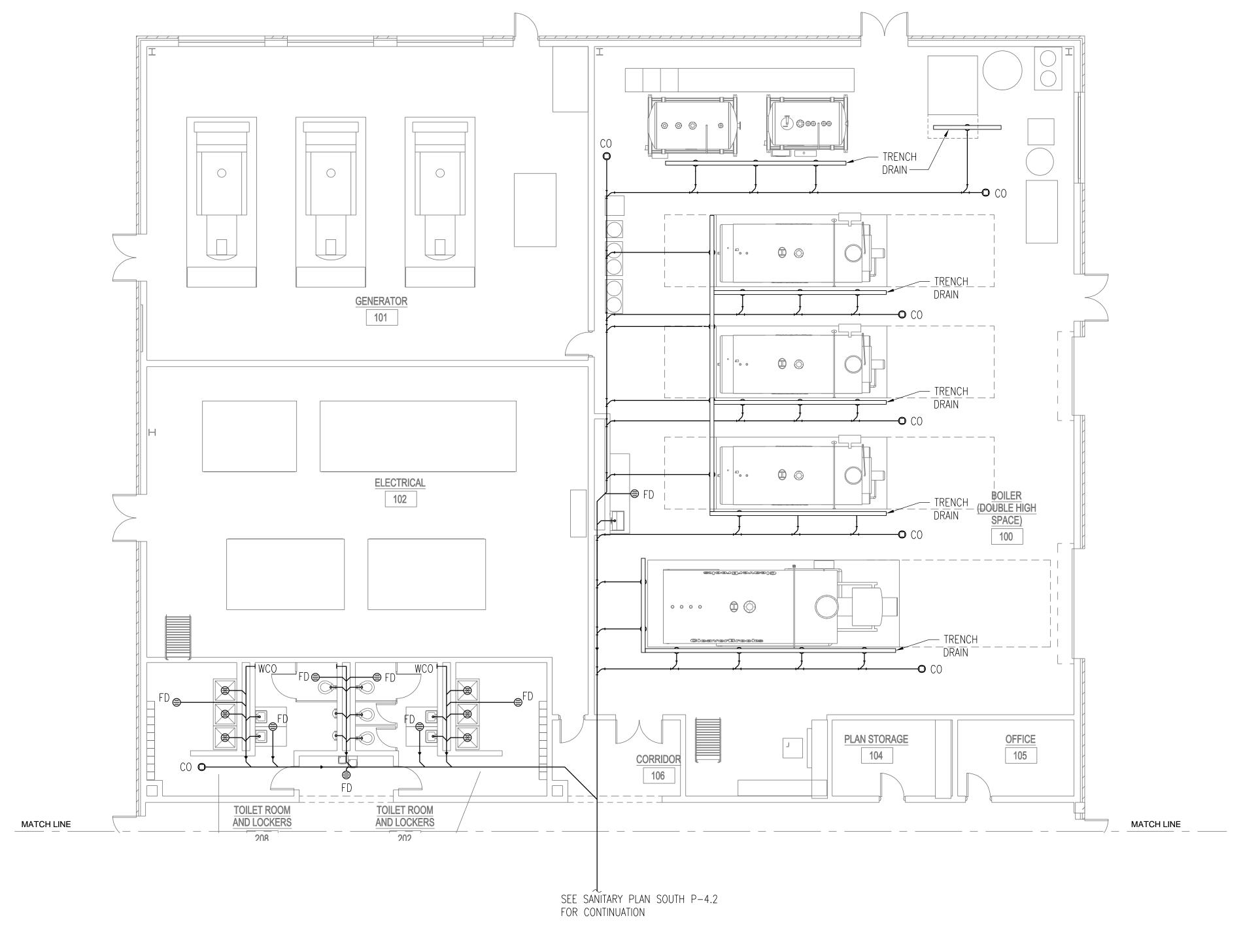
PLUMBING PLAN SOUTH
NEW POWER PLANT
ELGIN MENTAL HEALTH CENTER
750 SOUTH STATE STREET
ELGIN, KANE COUNTY, ILLINOIS

4/22/2021 SHEET NO.

PROJECT NO. 321-055-138

### NOTES:

1. SANITARY VENTS AND CLEANOUTS TO BE PROVIDED BY DESIGN—BUILD CONTRACTOR





3/16"=1'-0" 5' 10' 2

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4/22/2021

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

DRAWN PREPARED

B.K.

NO. DATE REMARKS

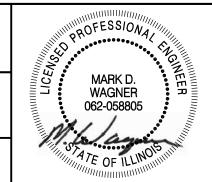
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M.D.W.

M.D.W.

M.D.W.







JB PRITZKER, GOVERNOR Illinois Capital Development Board

SANITARY PLAN NORTH
NEW POWER PLANT
ELGIN MENTAL HEALTH CENTER
750 SOUTH STATE STREET
ELGIN, KANE COUNTY, ILLINOIS

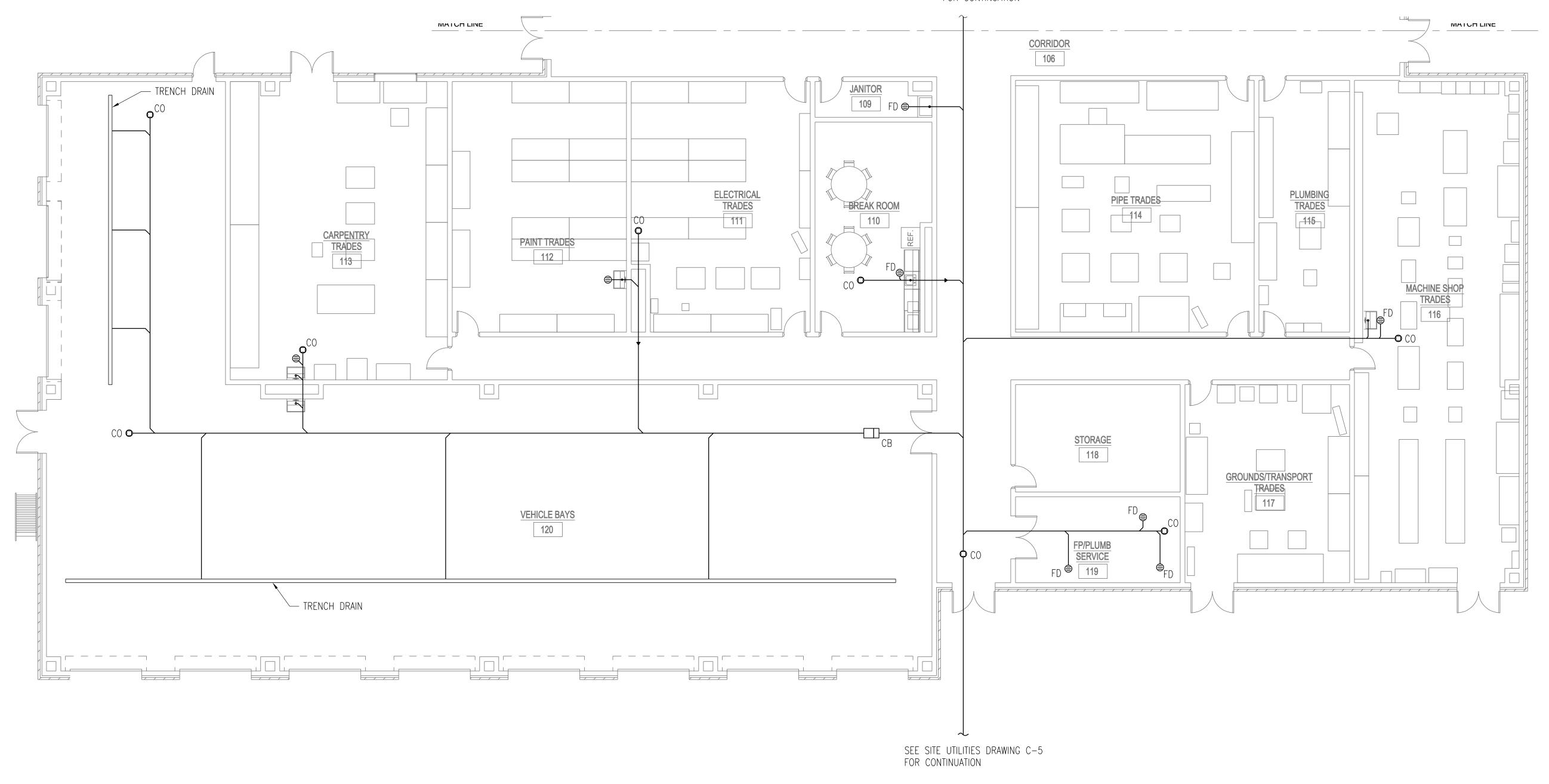
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	47	OF	<b>(</b> 51	)	SHEETS

321-055-138

PROJECT NO.

1. SANITARY VENTS AND CLEANOUTS TO BE PROVIDED BY DESIGN—BUILD CONTRACTOR.

SEE SANITARY PLAN NORTH P-4.1 FOR CONTINUATION





1/8"=1'-0" 0' 5' 10' 20' 30

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4/22/2021

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

PREPARED
B.K.

NO. DATE REMARKS

TRACED APPROVED

TRACED APPROVED

M.D.W.

M.D.W.

TRACED APPROVED

M.D.W.





State of Illinois

JB PRITZKER, GOVERNOR Illinois Capital Development Board

SANITARY PLAN SOUTH
NEW POWER PLANT
ELGIN MENTAL HEALTH CENTER
750 SOUTH STATE STREET
ELGIN, KANE COUNTY, ILLINOIS

321-055-138

DATE 4/22/2021

SHEET NO.

48 **OF (**51 **) SHEETS** 

PROJECT NO.

PLUMBING FIXTURE SCHEDULE							
PLAN DESIGNATION	ТҮРЕ	DESCRIPTION					
LAV-01	LAVATORY	WALL-HUNG, 20" x 18", WHITE VITREOUS CHINA WITH SOAP DISPENSER AND OVERFLOW					
LAV-02	LAVATORY	WALL-HUNG, 20" x 18", WHITE VITREOUS CHINA WITH SOAP DISPENSER AND OVERFLOW					
LAV-03	LAVATORY	WALL-HUNG, 20" x 18", WHITE VITREOUS CHINA WITH SOAP DISPENSER AND OVERFLOW					
LAV-04	LAVATORY	WALL-HUNG, 20" x 18", WHITE VITREOUS CHINA WITH SOAP DISPENSER AND OVERFLOW					
WC-01	WATER CLOSET	WALL MOUNTED, TOP SPUD, VITREOUS CHINA, SIPHON-JET, ELONGATED					
WC-02	WATER CLOSET	WALL MOUNTED, TOP SPUD, VITREOUS CHINA, SIPHON-JET, ELONGATED					
WC-03	WATER CLOSET	WALL MOUNTED, TOP SPUD, VITREOUS CHINA, SIPHON-JET, ELONGATED					
WC-04	WATER CLOSET	WALL MOUNTED, TOP SPUD, VITREOUS CHINA, SIPHON-JET, ELONGATED					
UR-01	URINAL	WALL-MOUNTED, WHITE VITREOUS CHINA, SIPHON JET					
UR-02	URINAL	WALL-MOUNTED, WHITE VITREOUS CHINA, SIPHON JET					
SH-01	SHOWER	FIELD-CONSTRUCTED					
SH-02	SHOWER	FIELD-CONSTRUCTED					
SH-03	SHOWER	FIELD-CONSTRUCTED, ADA-COMPLIANT, TRANSFER					
SH-04	SHOWER	FIELD-CONSTRUCTED					
SH-05	SHOWER	FIELD-CONSTRUCTED					
SH-06	SHOWER	FIELD-CONSTRUCTED, ADA-COMPLIANT, TRANSFER					
EWC-01	ELECTRIC WATER COOLER	ADA-COMPLIANT, SELF-CONTAINED, REFRIGERATED, DOUBLE-BASIN TYPE WITH SELF-CLOSING CONTROLS ON FRONT AND BOTH SIDES					
EWC-02	ELECTRIC WATER COOLER	ADA-COMPLIANT, SELF-CONTAINED, REFRIGERATED, DOUBLE-BASIN TYPE WITH SELF-CLOSING CONTROLS ON FRONT AND BOTH SIDES					
JSS-01	JANITORIAL SERVICE SINK	ACID-RESISTING, 22" x 18" x 12", 10" BACK ENAMLED CAST IRON SERVICE SINK WITH BLANK BACK, STAINLESS STEEL RIM GUARD, AND WALL HANGAR SUPPORTS					
EEWS-01	EMERGENCY EYEWASH AND SHOWER	FREE-STANDING COMBINATION EYEWASH AND SHOWER					
SK-01	SINK	SELF-RIMMING, 19" x 19", 18 GAGE STAINLESS STEEL BAR SINK.					
SK-02	SINK	SELF-RIMMING, 19" x 19", 18 GAGE STAINLESS STEEL BAR SINK.					
SK-03	SINK	SELF-RIMMING, 19" x 19", 18 GAGE STAINLESS STEEL BAR SINK.					
SK-04	SINK	SELF-RIMMING, 19" x 19", 18 GAGE STAINLESS STEEL BAR SINK.					
SK-05	SINK	SELF-RIMMING, 19" x 19", 18 GAGE STAINLESS STEEL BAR SINK.					
SK-06	SINK	SELF-RIMMING, 19" x 19", 18 GAGE STAINLESS STEEL BAR SINK.					

WATER HEATER (WH) SCHEDULE						
PLAN DESIGNATION	VOLUME (GALLONS)	HEATING INPUT (BTU/HR)	WATER OUTLET TEMPERATURE (°F)	RECOVERY RATE (HRS)	NOTES	
WH-01	55	60,000	140	0.95	(1) (2) (3) (4) (5) (6)	
WH-02	55	60,000	140	0.95	(1) (2) (3) (4) (5) (6)	
NOTES:						

1. ROUTE DRAINS TO NEAREST FLOOR DRAIN

2. PROVIDE UNIT MOUNTED DISCONNECT

3. PROVIDE 5 YEAR WARRANTY ON TANK 4. PROVIDE TWO (2) FULL SIZE RELIEF VALVES. SECOND RV SHALL BE INSTALLED IN DHW LINE BETWEEN WH AND ISOLATION VALVE

5. WATER HEATER SHALL SET ON 6 IN CONCRETE EQUIPMENT BASE

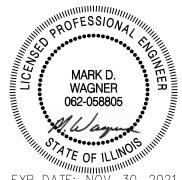
6. DESIGN-BUILD CONTRACTOR TO CONFIRM FINAL SIZING

2. DESIGN-BUILD CONTRACTOR TO CONFIRM FINAL SIZING

PLAN DESIGNATION	DESCRIPTION	HEATING OUTPUT (MBH)	NOTES
BLR-01	PROVIDE FACTORY PACKAGED UNIT COMPLETE WITH JACKET, GAS MANIFOLD, BURNER, CONTROL, PRIMARY HEAT EXCHANGER, SECONDARY HEAT EXCHANGER, CIRCULATION PUMP, AND OTHER TRIM REQUIRED FOR OPERATION.	1,155	(1) (2)

101% BRIDGING DOCUMENTS ISSUED FOR REVIEW

PREPARED REMARKS APPROVED APPROVED M.D.W. M.D.W.





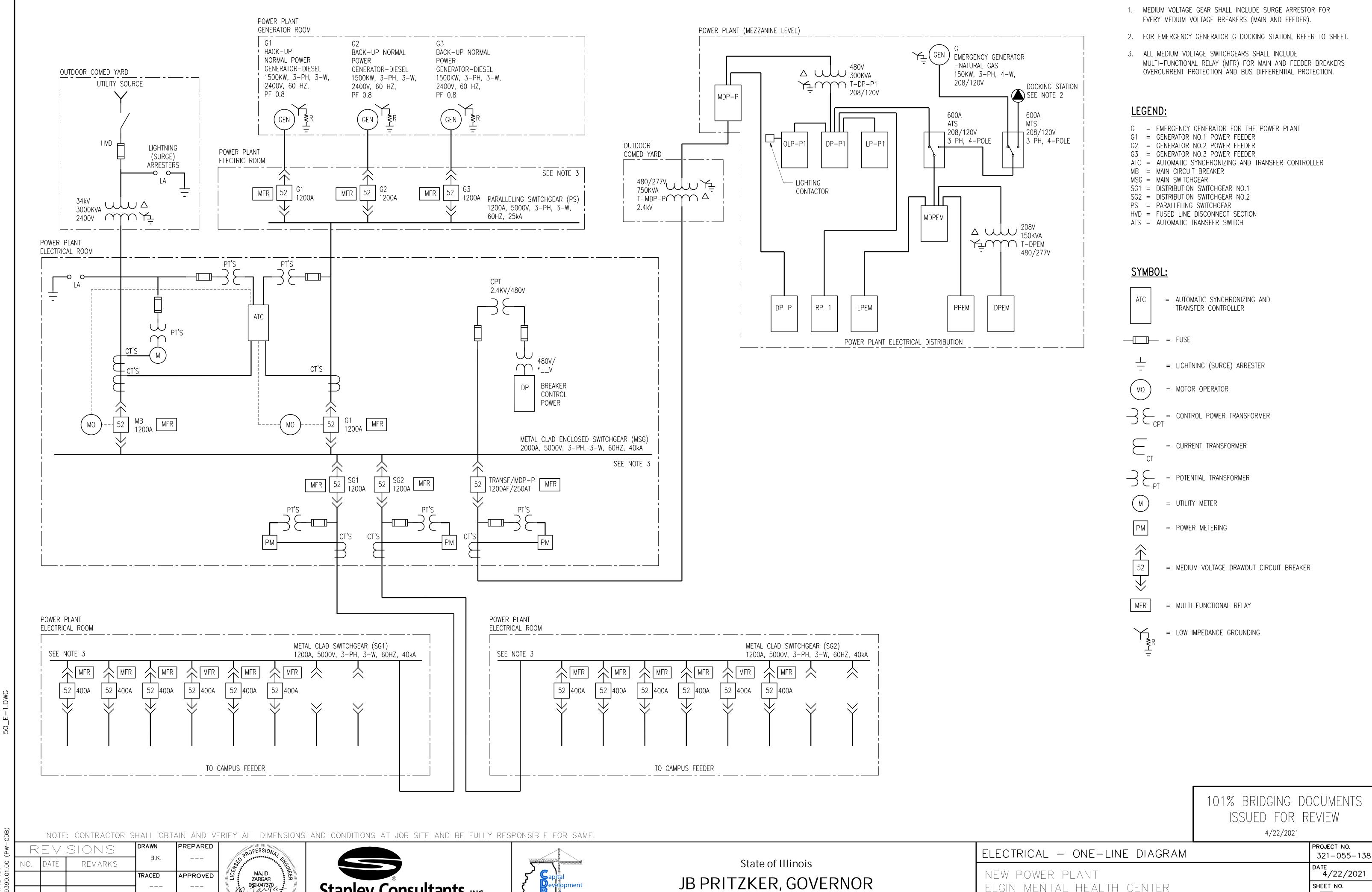


## JB PRITZKER, GOVERNOR Illinois Capital Development Board

4/22/2021 PROJECT NO. 321-055-138 DATE 4/22/2021

P-5 49 **OF (**51**) SHEETS** 

State of Illinois



Illinois Capital Development Board

**Stanley Consultants INC.** 

Illinois Firm Registration No.: 184-001533

**NOTES:** 

ELGIN MENTAL HEALTH CENTER

ELGIN, KANE COUNTY, ILLINOIS

750 SOUTH STATE STREET

SHEET NO.

50 **OF (**51**) SHEETS** 

PPROVED

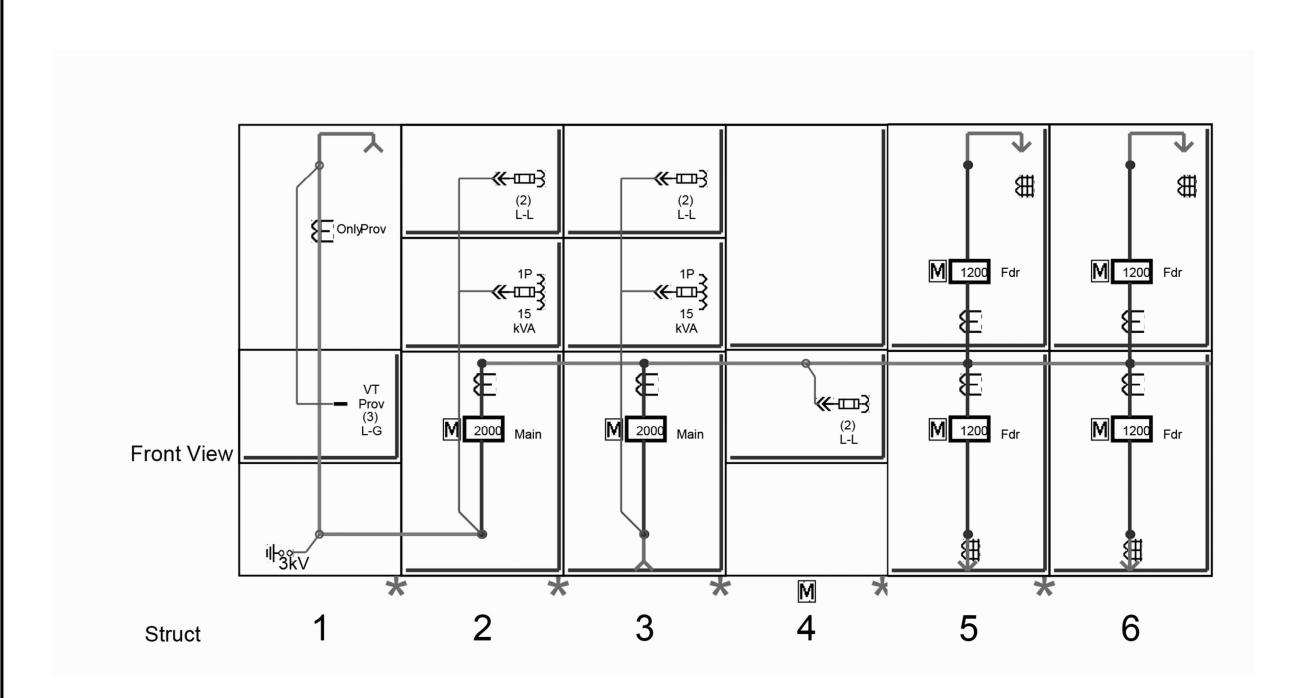
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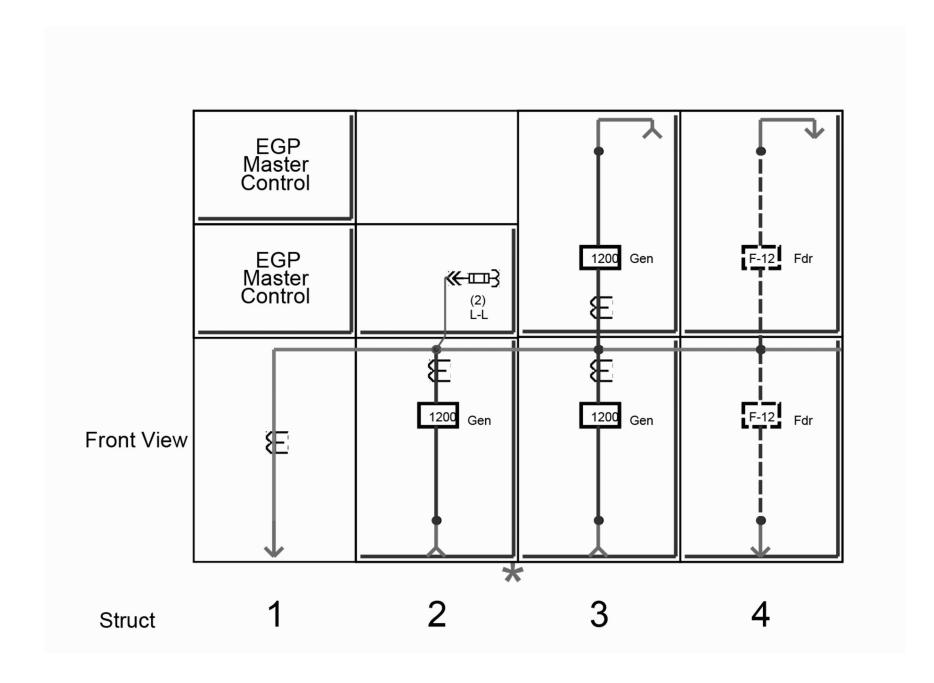
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### NOTES:

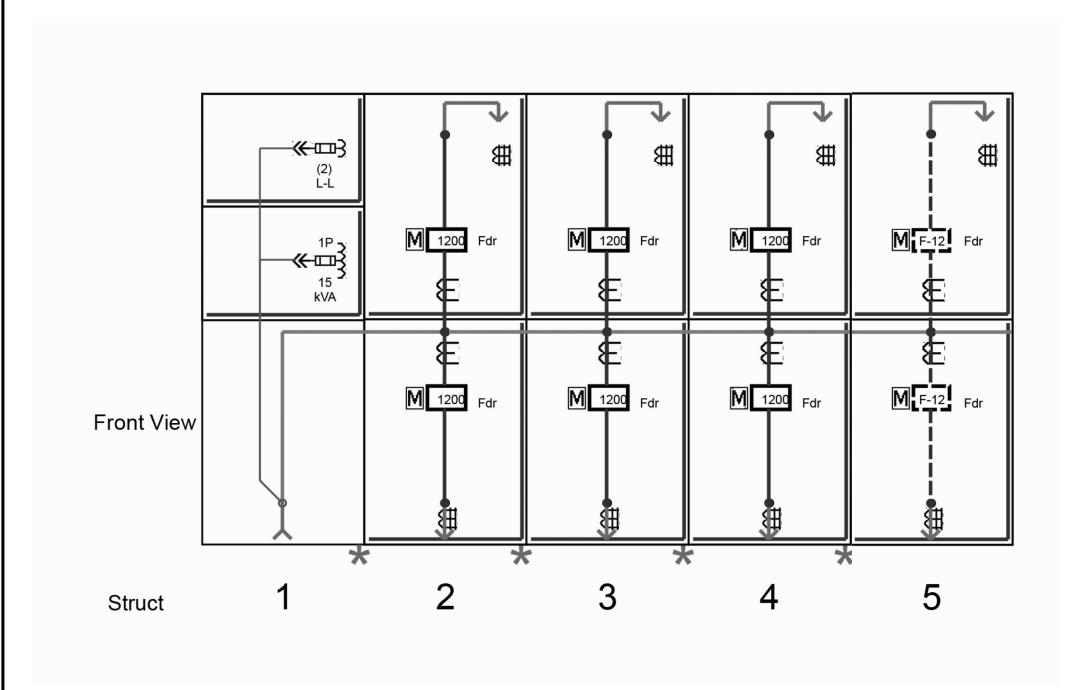
1. REFER TO SHEET E-1 FOR VOLTAGE, CONTINUOUS CURRENT AND SHORT CIRCUIT CURRENT RATINGS.



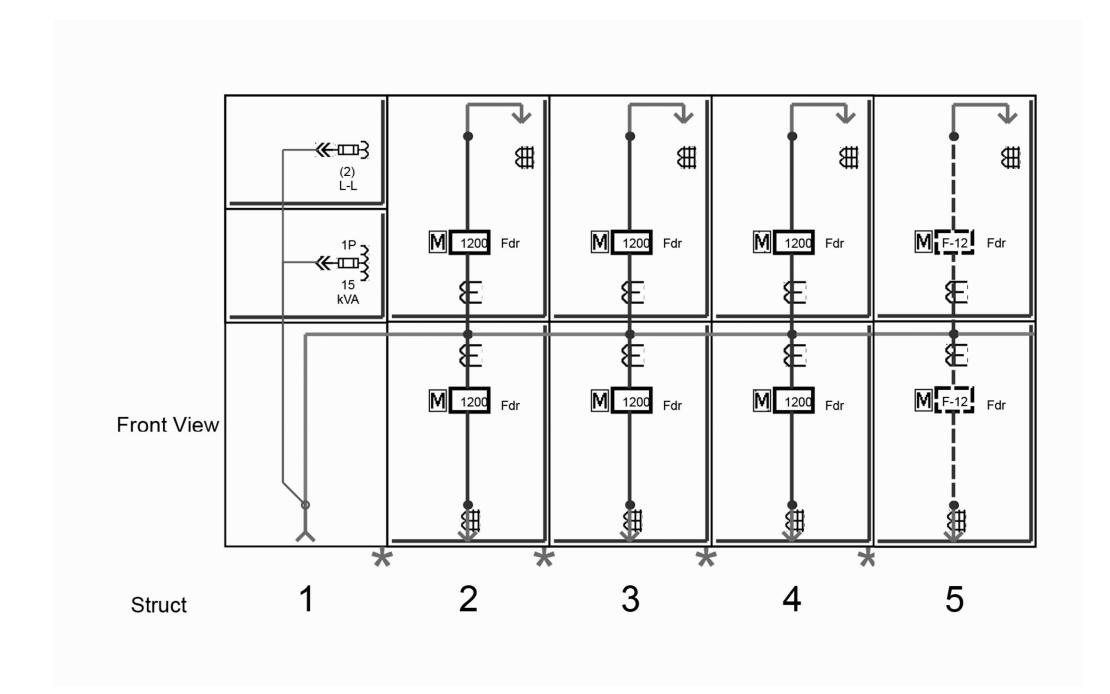
1 MAIN SWITCHGEAR (MSG) FRONT ELEVATION SCALE: NONE



2 GENERATOR PARALLELING (PS) SWITCHGEAR FRONT ELEVATION SCALE: NONE



METAL CLAD SWITCHGEAR (SG1) FRONT ELEVATION
SCALE: NONE



4 METAL CLAD SWITCHGEAR (SG2) FRONT ELEVATION
SCALE: NONE

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

101% BRIDGING DOCUMENTS
ISSUED FOR REVIEW
4/22/2021

DRAWN
B.K.

NO. DATE

REMARKS

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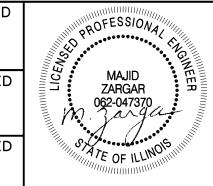
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# JB PRITZKER, GOVERNOR Illinois Capital Development Board

NEW POWER PLANT
LGIN MENTAL HEALTH CENTER
750 SOUTH STATE STREET
IGN KANE COUNTY HINOIS

ELECTRICAL - ELEVATIONS

PROJECT NO.
321-055-138

DATE
4/22/2021

SHEET NO.

E-2