

CONSTRUCT UNHEATED STORAGE BUILDING

JEFFERSON BARRACKS

ST. LOUIS, ST. LOUIS COUNTY, MO



CONSTRUCTION &
 FACILITIES MANAGEMENT
 OFFICE
 6819 N BOUNDARY RD
 Jefferson City, Mo. 65101
 573-638-9534

SHEET INDEX

G001 :	COVER SHEET
C101 :	SITE PLAN & DETAILS
S-101 :	FOUNDATION PLAN
S-501 :	FOUNDATION, JOINT & BOLLARD DETAILS
A100 :	FLOOR PLAN
	ENLARGED FLOOR PLAN
A300 :	CROSS SECTION
	NORTH ELEVATION
	WEST ELEVATION
E1 :	POWER AND LIGHTING PLAN

OWNER: MICHAEL L. PARSON, GOVERNOR

DEPARTMENT OF PUBLIC SAFETY
 MISSOURI NATIONAL GUARD

PROJECT MANAGEMENT: OFFICE OF ADMINISTRATION
 DIVISION OF FACILITIES MANAGEMENT
 DESIGN AND CONSTRUCTION

ADDRESS:
 24 DAVIS ST.
 ST. LOUIS, MO. 65125



DESIGNER: MISSOURI ARMY NATIONAL GUARD

PROJECT NUMBER: T2312-01

SITE NUMBER: 6303
 ASSET NUMBER: 8136303053

SHEET NUMBER:

GO01

01 OF 7 SHEETS
 06/21/2023

GENERAL NOTES:

GOVERNING CODE: INTERNATIONAL BUILDING CODE 2006
 DESIGN LOADS:
 ROOF LIVE LOAD = 20 PSF
 ROOF SNOW LOAD = 25 PSF
 COLLATERAL LOAD = 5 PSF
 BASIC WIND SPEED (EXPOSURE B) = 90 MPH
 IMPORTANCE FACTOR, I = 1.0
 SEISMIC:
 SEISMIC IMPORTANCE FACTOR = 1.0
 SEISMIC DESIGN CATEGORY = D
 SITE CLASS = D

FOOTING EXCAVATIONS SHALL BE FLAT, LEVEL AND WELL CLEANED OF ALL LOOSE SOIL PRIOR TO CONCRETING. THE FOOTING SUBGRADE SHALL BE THOROUGHLY COMPACTED USING MECHANICAL TAMPERS PRIOR TO INSTALLING REINFORCING STEEL. FOOTINGS ARE DESIGNED TO BEAR ON UNDISTURBED SOIL WITH A MAXIMUM NET BEARING PRESSURE OF 2000 PSF.

THE STRENGTH PROPERTIES OF THE SOIL WILL VARY WITH CHANGES IN MOISTURE CONTENT. THEREFORE, EVERY EFFORT SHOULD BE MADE TO PLACE CONCRETE THE SAME DAY AS THE FOOTING EXCAVATION IS COMPLETED.

COORDINATE WITH OTHER DISCIPLINES FOR ADDITIONAL EMBEDDED ITEMS.

THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL FOUNDATION DIMENSIONS WITH THE FINAL "CERTIFIED" METAL BUILDING SYSTEM DRAWINGS FOR, BUT NOT LIMITED TO, COLUMN LOCATIONS, BUILDING LINE TO CENTER LINE COLUMNS, BASEPLATE AND ANCHOR BOLTS AND ALL OTHER BUILDING TO FOUNDATION INTERFACE ITEMS REQUIRED. ANY CHANGES TO THE FOUNDATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

INSIDE FOUNDATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL PER SPECIFICATIONS. SPOIL MATERIAL FROM FOOTING EXCAVATION SHALL BE USED TO BACKFILL OUTSIDE FOUNDATION WALL PROVIDING POSITIVE DRAINAGE AWAY FROM BUILDING.

EXTEND VERTICAL BARS IN GRADE BEAM AND COLUMN PIERS 6" INTO SLAB ABOVE. PROVIDE CORNER BARS TO MATCH SIZE AND SPACING OF HORIZONTAL BARS WITH 2'-6" EACH DIRECTION.

ISOLATION JOINTS SHALL HAVE 1/4" NON-EXTRUDING BITUMINOUS JOINT FILLER COMPLYING WITH ASTM D1751

CONTRACTOR SHALL CERTIFY THE DESIGN STRENGTH, PERFORM COMPRESSIVE STRENGTH TESTS PER ACI 318 AND AIR CONTENT PER ASTM C231. SLUMP TESTS PERFORMED FOR EACH LOAD AND ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY CHANGES

TOP AND BOTTOM BARS IN CONTINUOUS GRADE BEAMS SHALL RUN CONTINUOUS THROUGH MULTIPLE SPANS, WHERE POSSIBLE. OTHERWISE, TOP BARS SHALL SPLICE WITHIN THE MIDDLE 1/3 OF THE SPAN AND THE BOTTOM BARS SHALL SPLICE BY LAPPING 3'-0" OVER SUPPORTS

POUR GRADE BEAMS MONOLITHIC WITH COLUMN PILASTERS

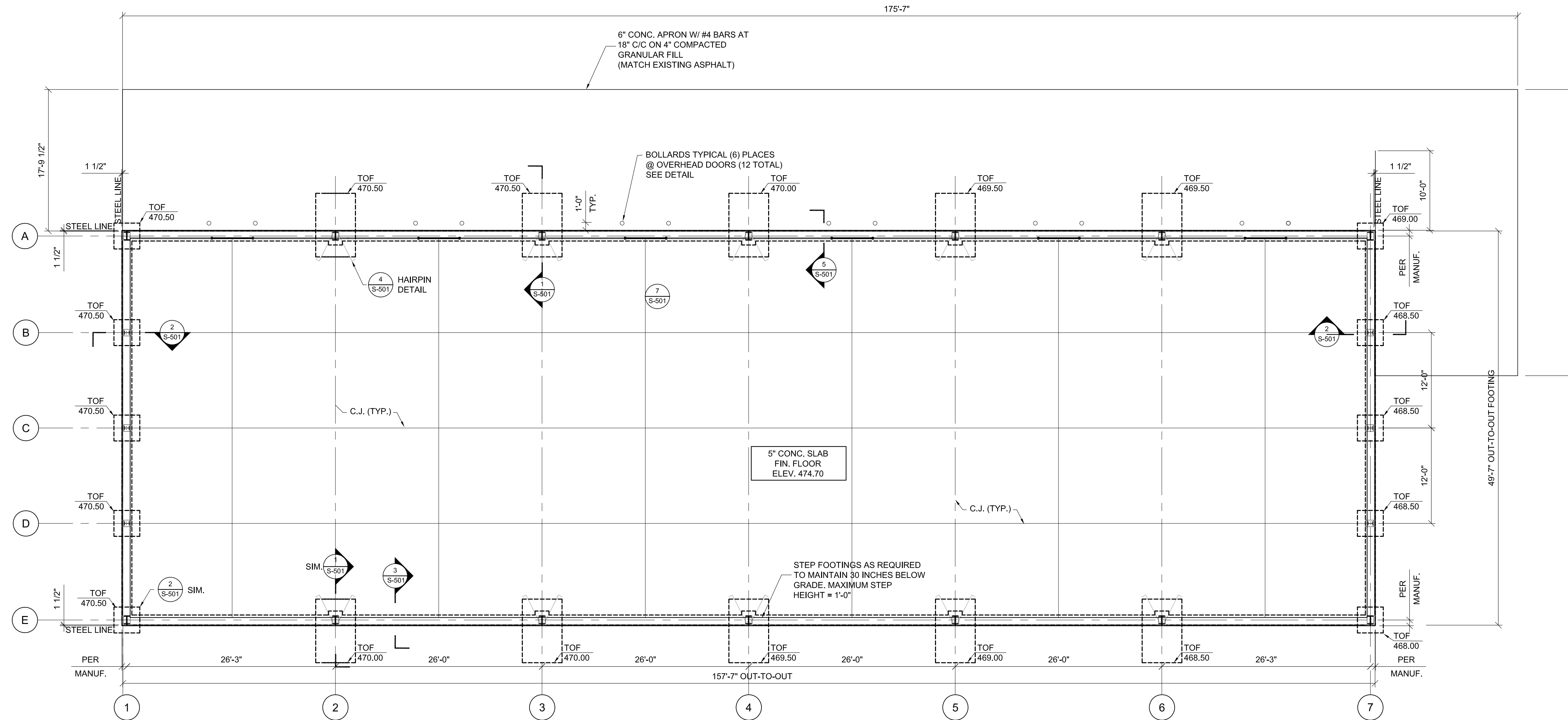
PIPE BOLLARDS: ASTM A53 STD. WT. STEEL PIPE, 6.625 O.D., CONCRETE FILLED PAINTED SAFETY YELLOW. SET EDGE OF PIPE EVEN WITH FINISHED JAMB OF DOOR OPENING.

ANCHOR BOLTS - ASTM-A307 TO BE LOCATED BY TEMPLATE, DO NOT HAND SET ANCHOR BOLTS.

TOP OF FOUNDATION - GRADE BEAMS AND COLUMN PILASTERS - TO RECEIVE A TROWEL FINISH.

SEE ARCHITECTURAL AND ELECTRICAL REQUIREMENTS FOR IMBEDDED ITEMS NOT SHOWN HEREIN AND TO VERIFY SIZE AND LOCATION OF ALL OPENINGS.

INSTALL 8" X 3' X 3' THICKENED SLAB AT PORTAL COLUMNS (LOCATIONS DETERMINED BY PRE ENGINEERED BUILDING MANUFACTURER)



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

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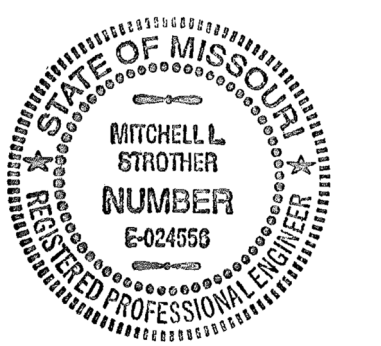
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 MITCHELL L. STROTHER
 79698
 Date: 2023.06.21 10:37:35 -0500
 DATE: 06/21/2023
 MITCHELL L. STROTHER
 PROFESSIONAL ENGINEER
 E-024556

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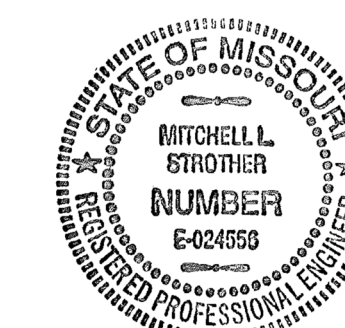
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 CHECKED BY: KAL/MLS
 DESIGNED BY: MLS

SHEET TITLE:
 FOUNDATION PLAN

SHEET NUMBER:

S-101

SHEET 3 OF 7
 DATE 06/21/2023



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DRAWN BY: MLS
CHECKED BY: KAL/MLS
DESIGNED BY: MLS

SHEET TITLE:
FOUNDATION, JOINT & BOLLARD
DETAILS

SHEET NUMBER:

S-501

SHEET 4 OF 7
DATE 06/21/2023

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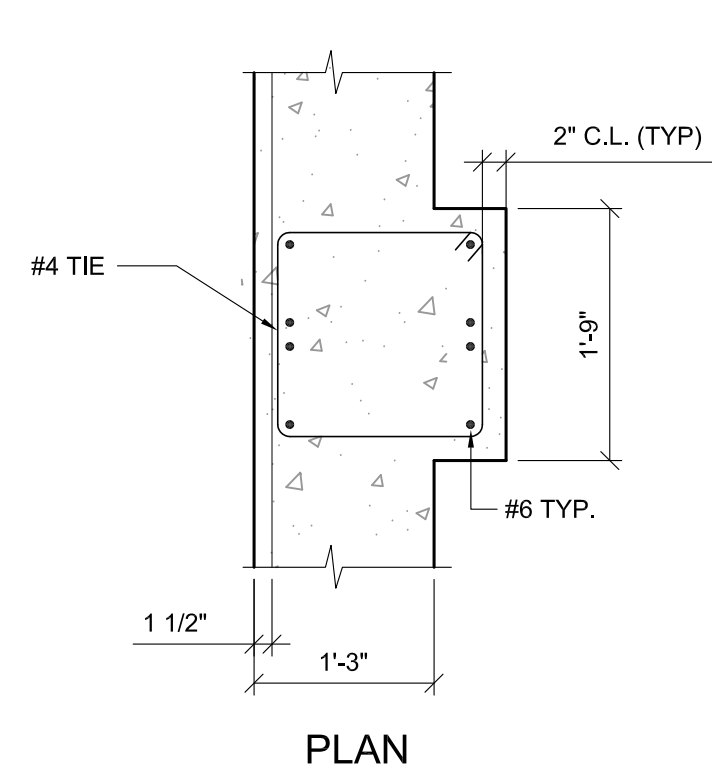
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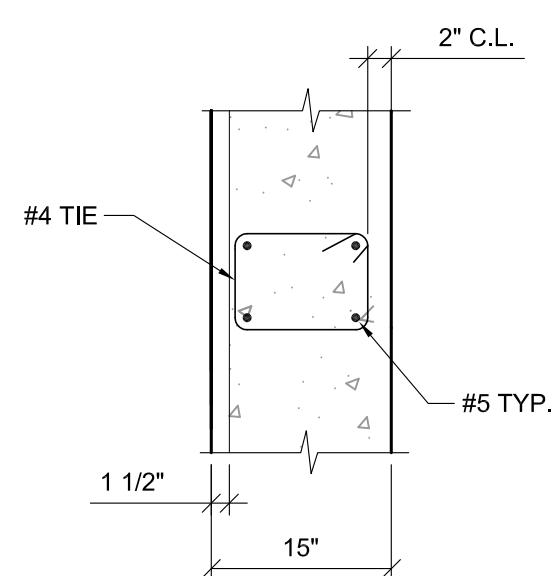
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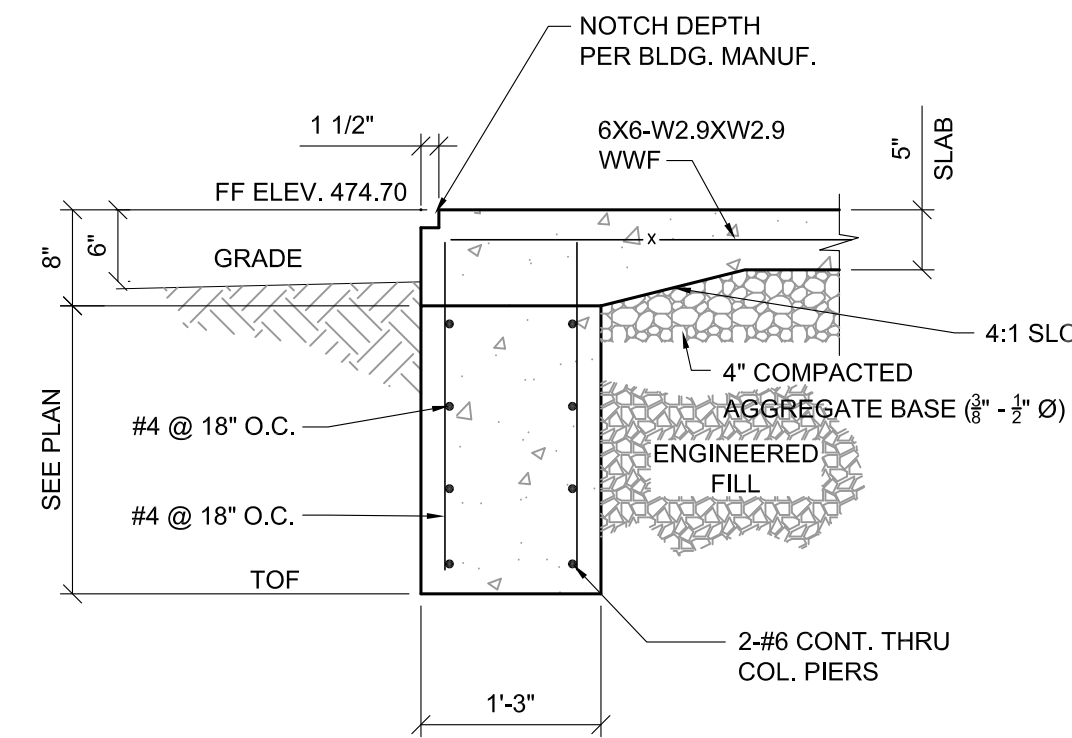
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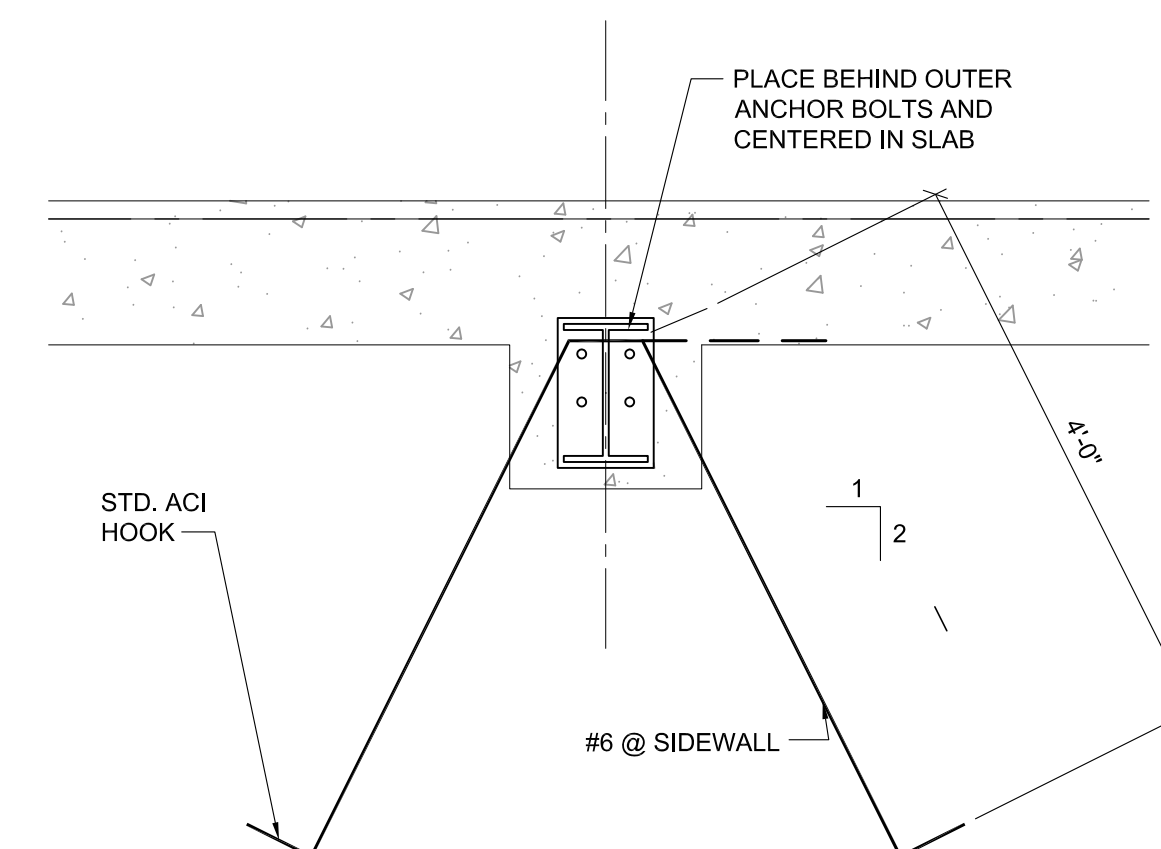
PLAN



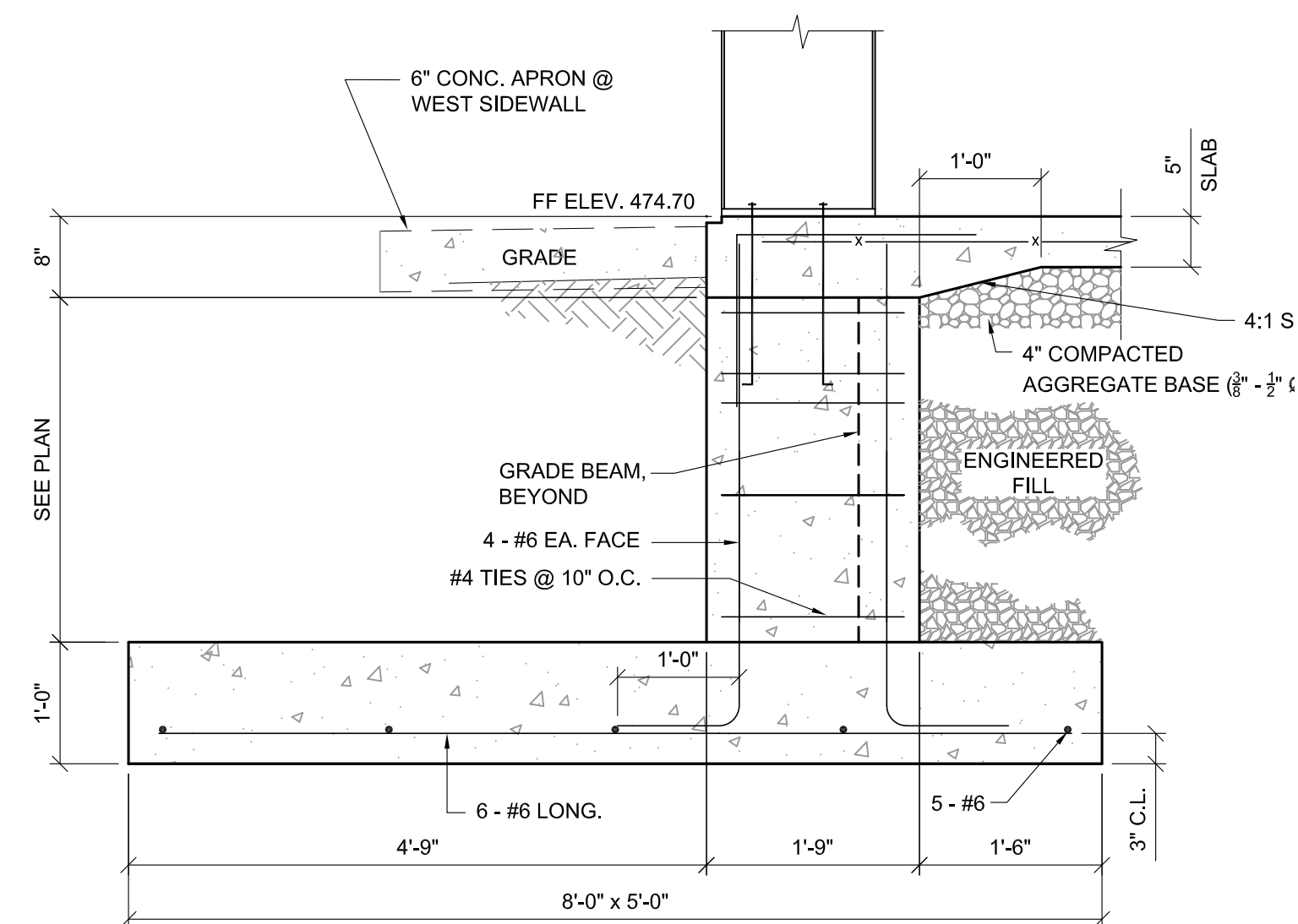
PLAN



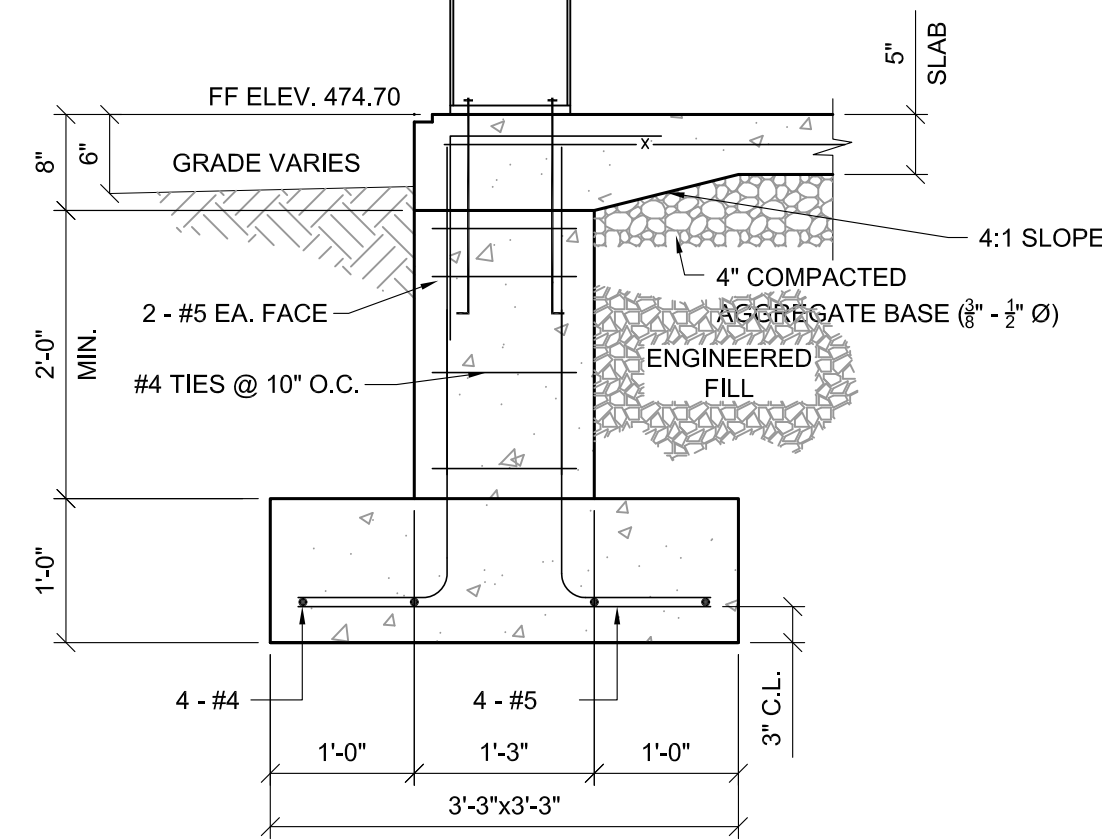
3 GRADE BEAM
S-501 SCALE: 3/4\"/>



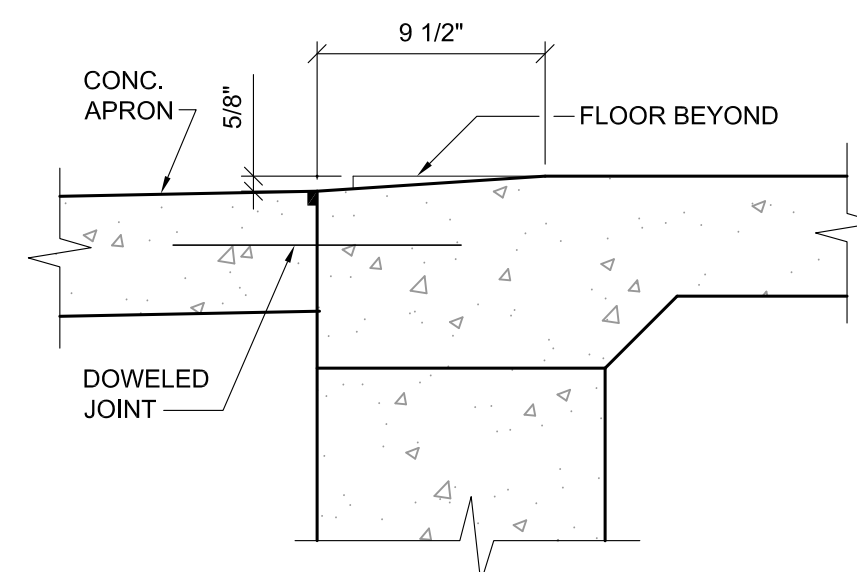
4 TYPICAL HAIRPIN DETAIL
S-501 SCALE: 3/4\"/>



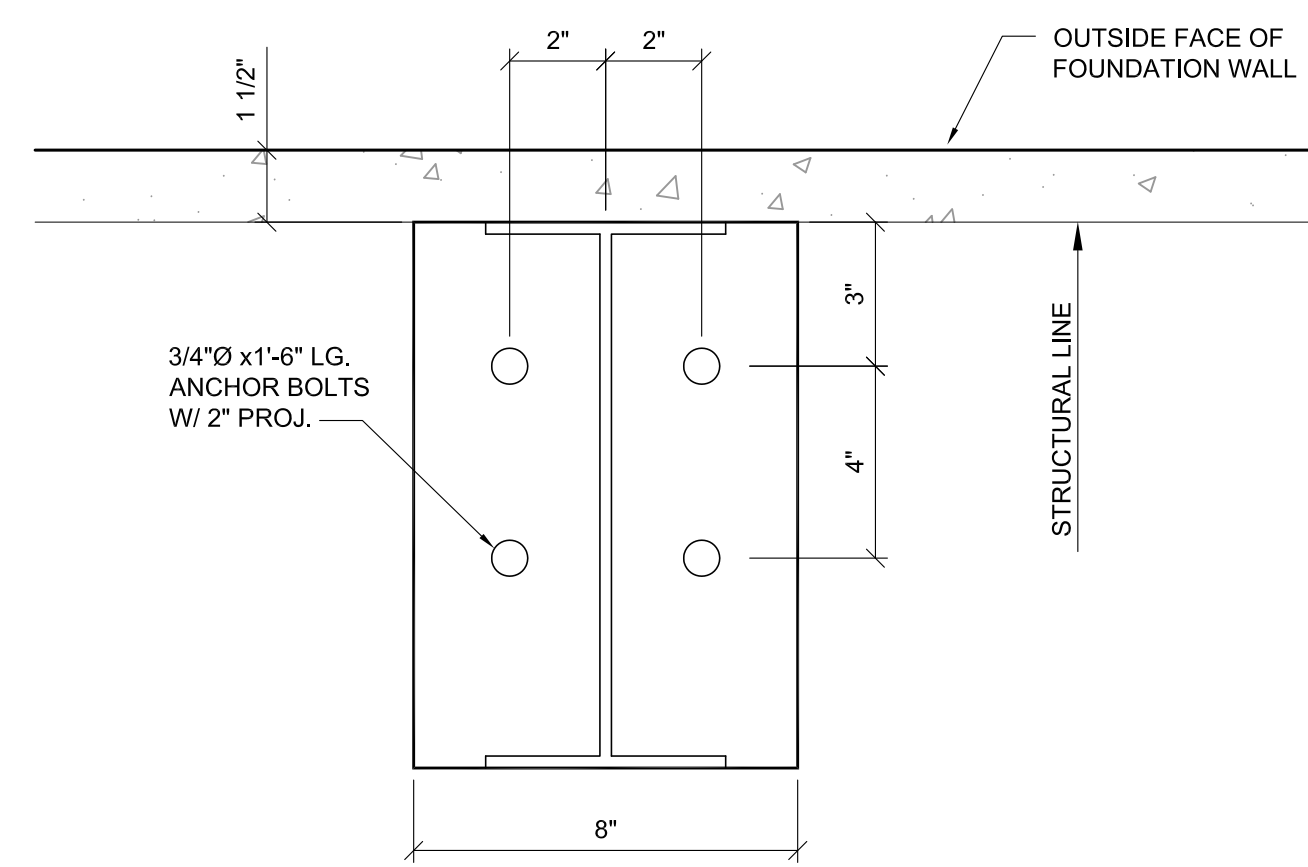
1 FRAMELINE 2, 3, 4, 5, & 6 FOOTING
S-501 SCALE: 3/4\"/>



2 ENDWALL FOOTING
S-501 SCALE: 3/4\"/>

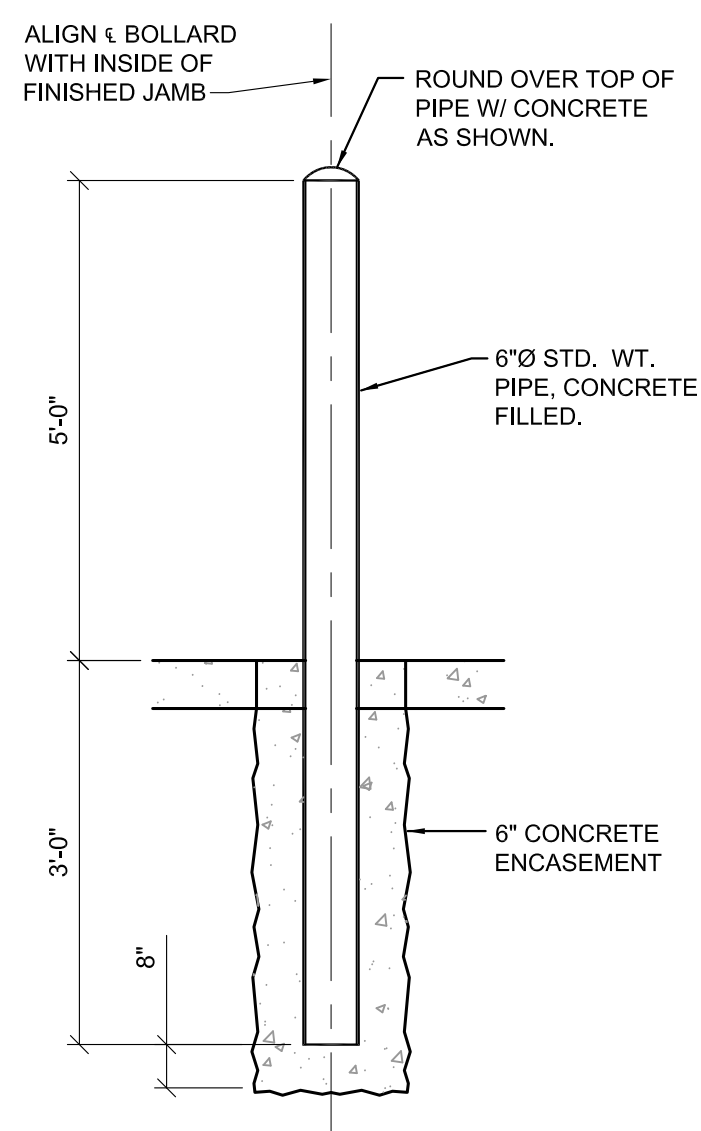


5 RAMP @ O.H. DOOR
S-501 SCALE: 1 1/2\"/>

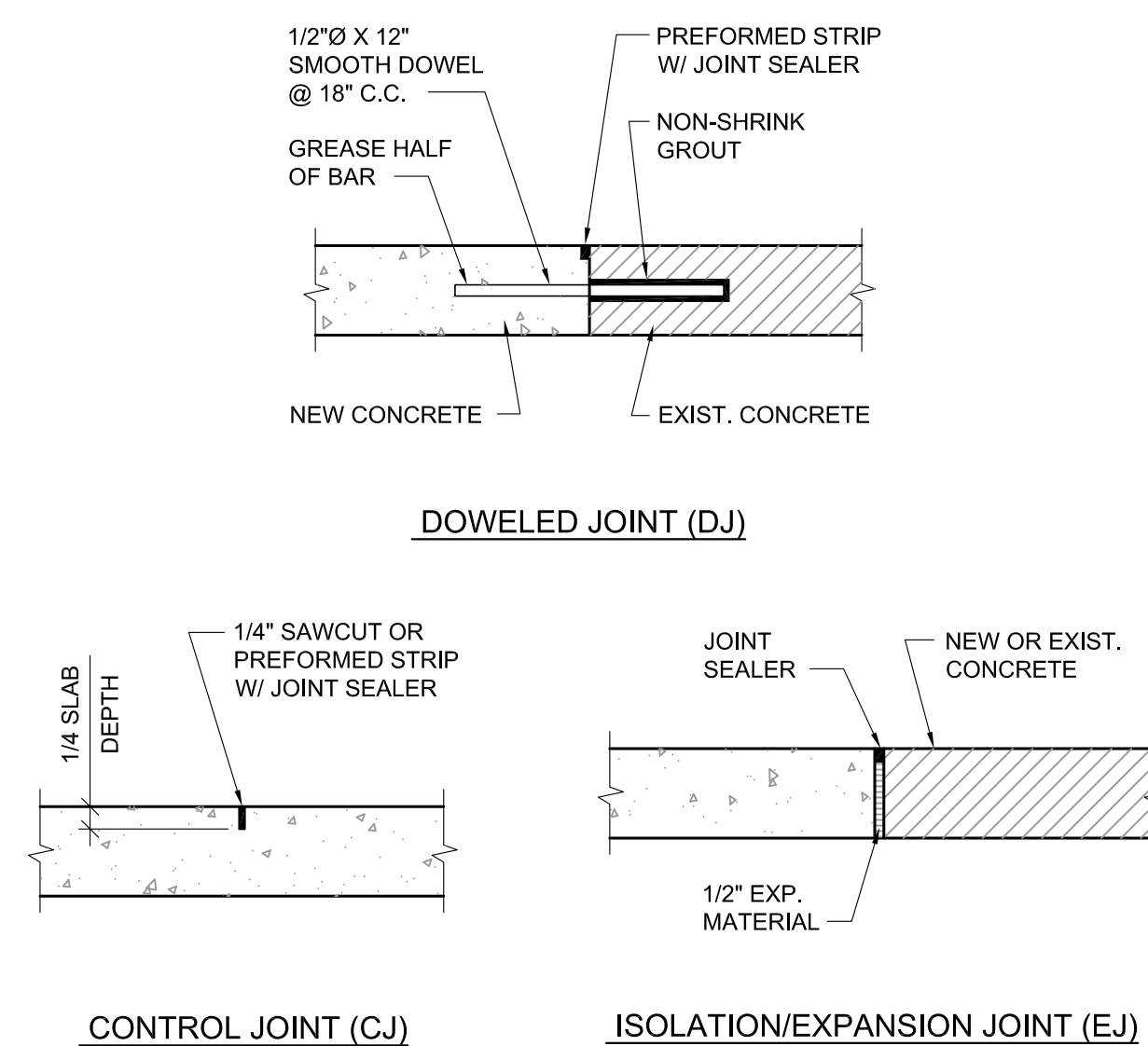


6 TYPICAL COLUMN DETAIL
S-501 SCALE: 3\"/>

NOTE: DIMENSIONS MAY VARY BY METAL BUILDING MANUFACTURER



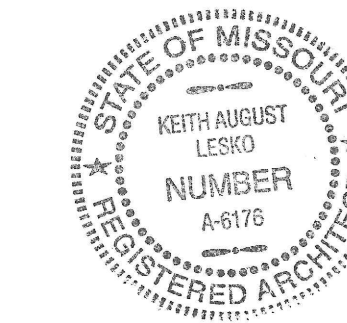
7 BOLLARD DETAIL
S-501 SCALE: 1/2\"/>



CONTROL JOINT (CJ)

ISOLATION/EXPANSION JOINT (EJ)

8 TYPICAL JOINT DETAILS
S-501 SCALE: 1 1/2\"/>



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LESKO.KEITH.AUGUST.14560715
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Date: 2023.06.21 10:16:25 -05'00'

DATE: 06/21/2023
KEITH A. LESKO
ARCHITECT A-6176

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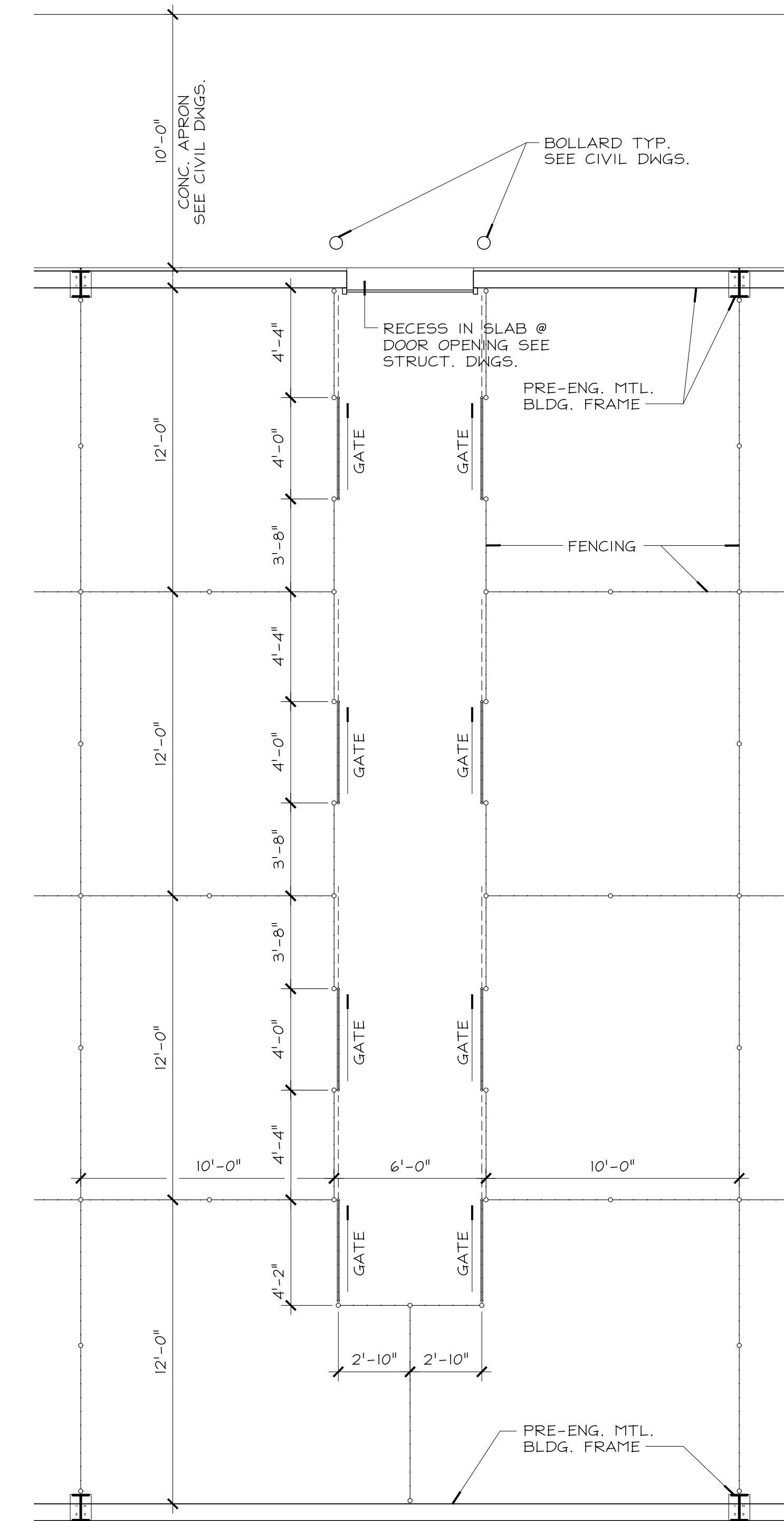
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FLOOR PLAN
ENLARGED FLOOR PLAN

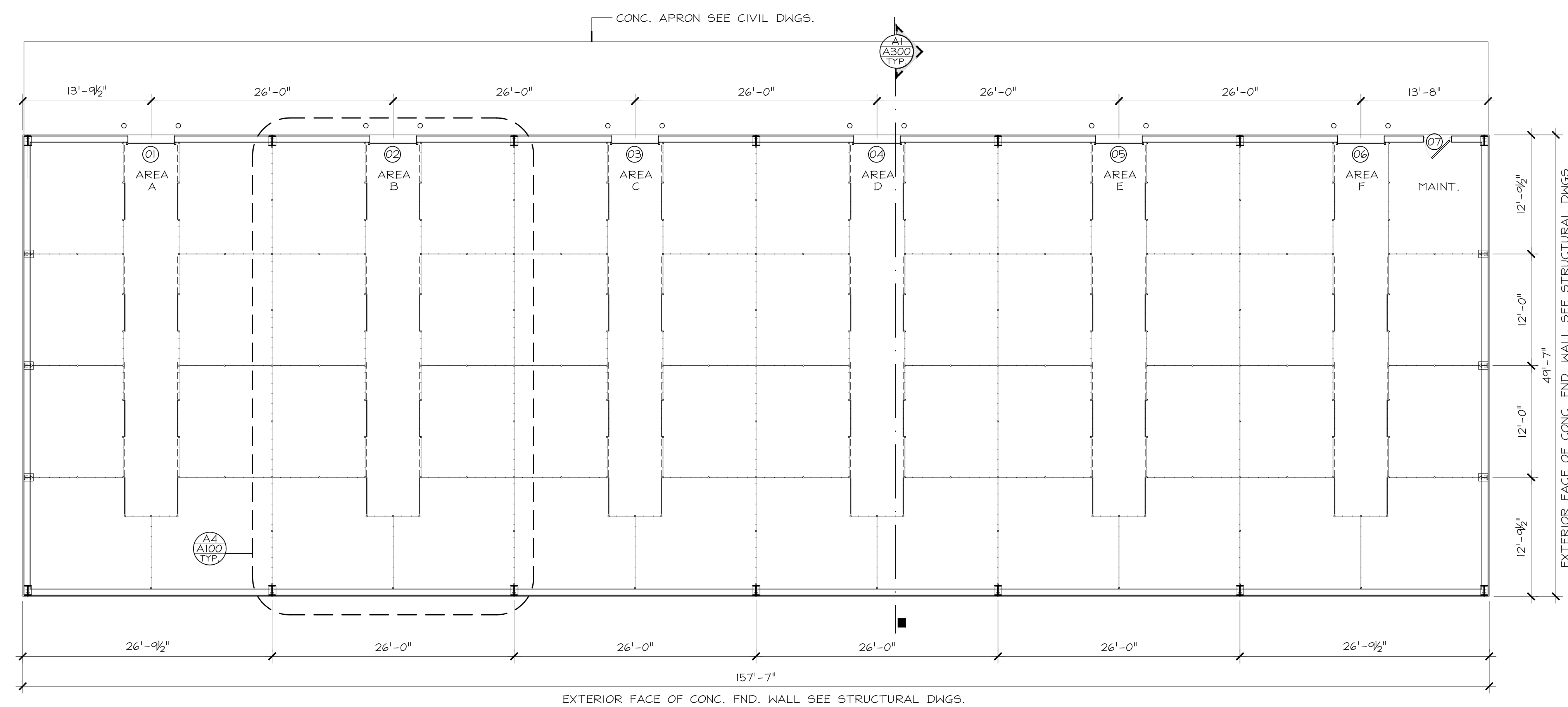
SHEET NUMBER:

A100

SHEET 5 OF 7
DATE 06/21/2023



A4 ENLARGED FLOOR PLAN
A100 SCALE: 1/4" = 1'-0"



c1 FLOOR PLAN
A100 SCALE: 1/8" = 1'-0"

DOOR SCHEDULE																									
DOOR NO.	SIZE	DESCRIPTION	FIRE RATING	FRAME	HARDWARE										REMARKS										
					LATCH SET				HINGES																
					MORTISE LOCK	DEAD BOLT	COMBINATION LOCK	PANIC DEVICE	BORED LOCK	1 PR (@ LEAF)	1 1/2 PR (@ LEAF)	2 PR (@ LEAF)	SPRING	PLAIN BEARING	BALL BEARING	FLUSH BOLT	DOOR STOP (@ DOOR)	THRESHOLD	WEATHER STRIP	BI-FOLD TRACK	CLOSER (ADA 5#)	CLOSER FMR ASSIST	SMOKE CONTROL	ASTRAGAL	
1	5'-0" X 7'-0"	OVERHEAD COILING DOOR		--	●														●						MUST EXCEPT BEST CORE
2	5'-0" X 7'-0"	OVERHEAD COILING DOOR		--	●														●						MUST EXCEPT BEST CORE
3	5'-0" X 7'-0"	OVERHEAD COILING DOOR		--	●														●						MUST EXCEPT BEST CORE
4	5'-0" X 7'-0"	OVERHEAD COILING DOOR		--	●														●						MUST EXCEPT BEST CORE
5	5'-0" X 7'-0"	OVERHEAD COILING DOOR		--	●														●						MUST EXCEPT BEST CORE
6	5'-0" X 7'-0"	OVERHEAD COILING DOOR		--	●														●						MUST EXCEPT BEST CORE
7	3'-0" X 6'-8"	H.M. INSULATED		H.M.	●				●		●			●				●	●						MUST EXCEPT BEST CORE

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ELECTRICAL SYMBOL SCHEDULE	
	HOME RUN CIRCUIT TO PANEL P2, CIRCUITS 22,24 EACH ARROW INDICATES ONE CIRCUIT SHORT HATCH MARKS INDICATE # OF PHASE CONDUCTORS LONG HATCH MARKS INDICATE # OF NEUTRAL CONDUCTORS NO HATCH MARK INDICATES TWO CONDUCTORS
	ELECTRICAL SERVICE OR FEEDER WIRING
	WIRING IN WALL OR CEILING - WIRING IN FLOOR
	RECEPTACLE OUTLET (DUPLEX - QUADRUPLX - SPECIAL POWER)
	COMMUNICATIONS OUTLET (TELEPHONE - CATV - DATA/PHONE)
	WALL SWITCH (3-WAY - DIMMER - 4-WAY - PILOT - SPEED - KEYED - TIMER - OCCUPANCY)
	LED STYLE LIGHT FIXTURE (CEILING MOUNTED - WALL MOUNTED)
	LED STYLE LIGHT FIXTURE (ENCLOSED - STRIP) (S INDICATES SPLIT WIRED)
	EXIT LIGHT - EMERGENCY LIGHT - EMERGENCY/EXIT LIGHT
	OTHER RECEPTACLE OUTLET (CLOCK - FLOOR - SPLIT WIRED)
	ELECTRIC PANEL
	SPEAKER - PUSH TO TALK
	JUNCTION BOX - PULL BOX
	DISCONNECT (FUUSED - NONFUUSED)
	STARTER - CONTACTOR
	ELECTRIC MOTOR (5 HP - 208V - 3 PHASE)
	THERMOSTAT - HUMIDISTAT (ZONE SUBSCRIPT)
	OUTLET MODIFIERS (MOUNT HEIGHT INCHES - GFI PROTECTED - WEATHER PROOF GFI - USB)
	SMOKE DETECTOR - HEAT DETECTOR - DUCT DETECTOR - MANUAL PULL STATION
	AUDIO VISUAL - VISUAL
	MAGNETIC DOOR HOLDER - INTERLOCK RELAY
	END OF LINE RESISTOR
	FIRE ALARM CONTROL PANEL
	DIALER

LIGHTING FIXTURE SCHEDULE						
MARK	MANUFACTURER AND MODEL NUMBER	TYPE	LAMPS #	SIZE	MOUNTING	REMARKS
A	MERCURY LSA-6-11400-40K-HTA-UNI	LED	1	99	CABLE	1,2
AE	MERCURY LSA-6-11400-40K-HTA-UNI-EM7	LED	1	99	CABLE	1,2
AO	MERCURY LSA-6-11400-40K-HTA-UNI-O1	LED	1	99	CABLE	1,2
B	MOBERN DS150-36W-50K	LED	1	36	WALL	1

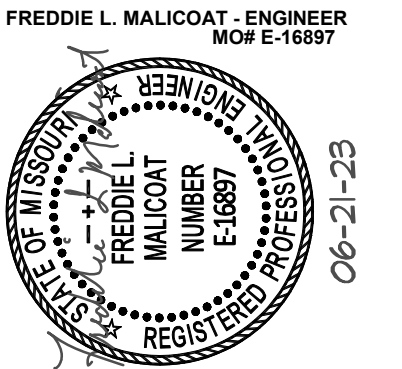
VERIFY COLOR AND MOUNTING HEIGHT WITH ARCHITECTURAL PLANS.
1. OR APPROVED EQUAL.
2. WIRE GUARD #WG-LSA-4, 2 REQUIRED PER LIGHT FIXTURE.

P1								
VOLTS 120/208		MAIN CAPACITY 100 A MLO		A WATTS 4356				
PHASE 1		BUSS MATERIAL		B WATTS 2430				
WIRE 3		MOUNTING		TOTAL WATTS 6786				
CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	#	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	AREA F LIGHTS	20-1	1089	A	1089	20-1	AREA E LIGHTS	2
3	AREA D LIGHTS	20-1	1089	B	1089	20-1	AREA C LIGHTS	4
5	AREA B LIGHTS	20-1	1089	A	1089	20-1	AREA A LIGHTS	6
7	WALL PACKS	20-1	252	B	0	20-1	SPARE	8
9	SPARE	20-1	0	A	0	20-1	SPARE	10
11	SPARE	20-1	0	B	0	20-1	SPARE	12
13	SPARE	20-1	0	A	0	20-1	SPARE	14
15	SPARE	20-1	0	B	0	20-1	SPARE	16
17	SPARE	20-1	0	A	0	20-1	SPARE	18
19	SPARE	20-1	0	B	0	20-1	SPARE	20

GENERAL MECHANICAL-ELECTRICAL SPECIFICATIONS

- ALL WORK SHALL BE DONE IN STRICT CONFORMANCE TO THE BUILDING CODES OF THE CITY OF ST. LOUIS, MO.
 - ALL MATERIALS SHALL BE NEW, FIRST CLASS, AND INSTALLED TO MANUFACTURER'S WRITTEN SPECIFICATIONS.
 - ALL SYSTEMS SHALL BE COMPLETE AND OPERABLE IN EVERY WAY.
 - DO ALL EXCAVATION, BACKFILLING, CUTTING, PATCHING, OFFSETTING, ADJUSTING AND BALANCING AS REQUIRED TO COMPLETE THE JOB.
 - SPECIFIC MODELS ARE SPECIFIED TO ESTABLISH QUALITY ONLY. ENGINEER'S DECISION SHALL BE FINAL ON ALL MATERIAL SELECTIONS OR SUBSTITUTIONS.
 - MAINTAIN SAFETY SIGNS AND BARRIERS AS REQUIRED TO ASSURE SAFE WORKING CONDITIONS.
 - GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR ONE YEAR FROM FINAL ACCEPTANCE. PROVIDE FIVE YEAR AIR CONDITIONING COMPRESSOR WARRANTY.
 - EACH CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING UP HIS OWN DEBRIS.
 - CONTRACTOR SHALL NOT BE RESPONSIBLE FOR PROPER OPERATION OF OWNER-FURNISHED MATERIALS.
 - INSPECT JOB SITE PRIOR TO BIDDING TO DETERMINE EXACT JOB REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR DEMOLITION AND CONSTRUCTION DETAILS.
 - REMOVE ALL UNUSED PLUMBING, HVAC, AND ELECTRICAL WHETHER OR NOT SPECIFICALLY NOTED AND PROPERLY TERMINATE REMAINING SERVICES. ALL EXISTING PLUMBING, HVAC, AND ELECTRICAL SHALL BE REWORKED TO COMPLY WITH CODE WHETHER OR NOT SPECIFICALLY INDICATED.
 - ALL REMOVED MATERIALS SHALL BE REMOVED FROM SITE OR GIVEN TO OWNER AT OWNER'S DIRECTION.
- ELECTRICAL SPECIFICATIONS**
- SEE GENERAL MECHANICAL-ELECTRICAL SPECIFICATIONS.
 - ALL CONDUCTORS SHALL BE COPPER MINIMUM #12 OR LARGER AS REQUIRED OR SHOWN.
 - ALL EQUIPMENT SHALL BE RATED FOR 75° C. CONDUCTORS.
 - ALL SERVICE WIRING, WIRING EXPOSED TO WEATHER, OR WIRING BELOW GRADE, SHALL BE IN RIGID GALVANIZED CONDUIT OR SCH 40 PVC.
 - ALL WIRING IN NONFIRE-RATED CONSTRUCTION MAY BE NON-METALLIC SHEATHED CABLE (ROMEX).
 - ALL OTHER WIRING SHALL BE IN EMT OR MC CABLE.
 - WALL SWITCHES SHALL BE LEVITON #1120 SERIES, OR APPROVED EQUAL, 20A.
 - DUPLEX CONVENIENCE RECEPTACLES SHALL BE LEVITON #5362 SERIES, OR APPROVED EQUAL, 20A. GROUNDING TYPE: GROUND FAULT RECEPTACLES SHALL BE LEVITON #7899-LW SERIES. USE SIDEWIRING ONLY, NOT BACKWIRING. COLOR AS SELECTED BY ARCHITECT.
 - SPECIAL OUTLETS SHALL BE AS REQUIRED OR SHOWN ON DRAWINGS, COMPLETE WITH COVER PLATE.
 - THE ENTIRE SYSTEM SHALL BE ELECTRICALLY CONTINUOUS AND PROPERLY GROUNDED. EVERY FEEDER AND BRANCH CONDUIT SHALL HAVE CODE SIZED GREEN INSULATED GROUND CONDUCTOR.
 - FURNISH AND INSTALL ALL LIGHTING FIXTURES, LAMPS, FUSES, BREAKERS, ETC. TO COMPLETE THE BRANCH CIRCUITS INDICATED.
 - ALL 120V, 20A LIGHTING AND RECEPTACLE CIRCUITS REQUIRING MORE THAN 100' OF CONDUCTORS (ONE WAY) SHALL BE #10 CONDUCTORS.

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR



DATE: XX/XX/2023
NAME: FREDDIE MALICOAT
PROFESSION: PE

OFFICE OF THE
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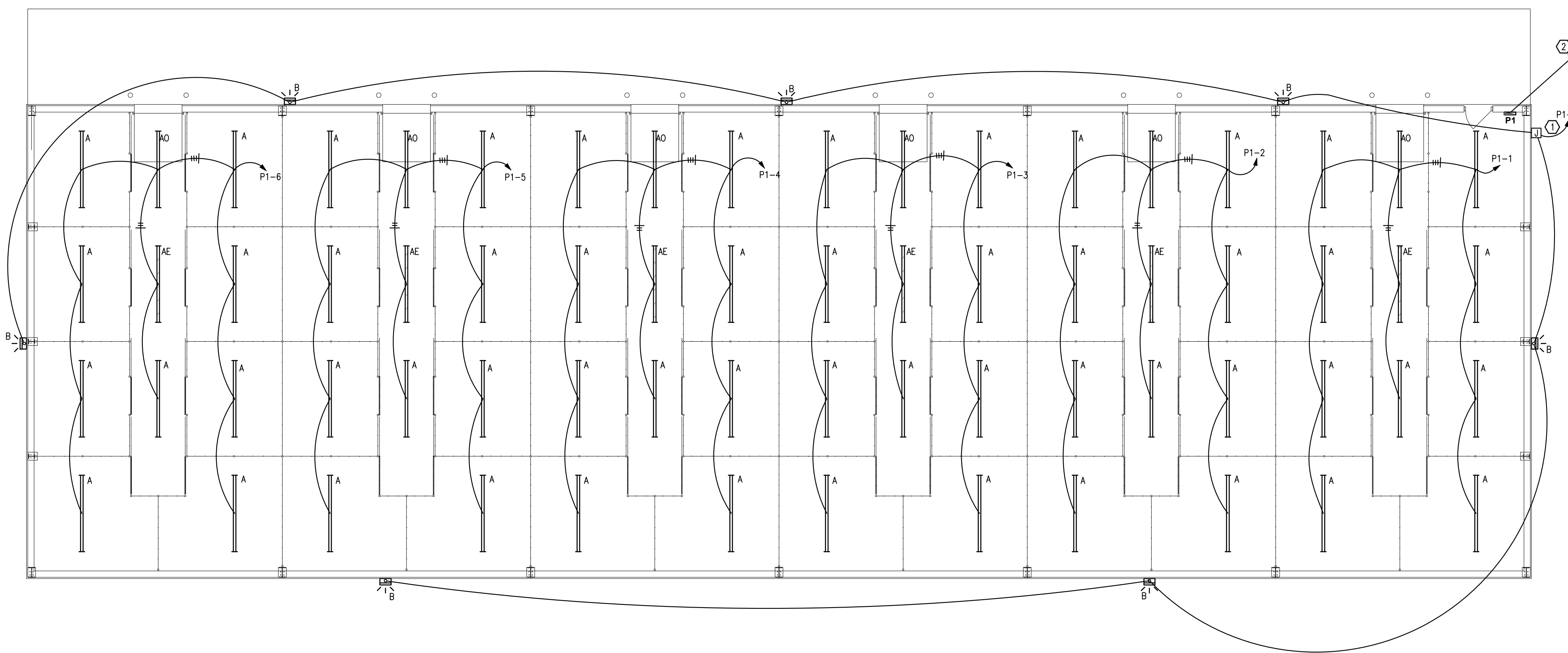
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CHECKED BY: FM
DESIGNED BY: FM

SHEET TITLE:
POWER AND
LIGHTING PLAN

SHEET NUMBER:

E1

SHEET 7 OF 7
DATE 06/21/2023



GENERAL NOTES:	
1.	VERIFY POWER AND LIGHTING REQUIREMENTS FOR OWNER'S SPECIFIC EQUIPMENT PRIOR TO ROUGH-IN.
2.	COORDINATE INSTALLATION OF EQUIPMENT WITH MANUFACTURERS' INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN.

KEYED NOTES:	
①	TO TIMER AND PHOTOCELL.
②	TO 100A, 2P BREAKER IN MAINTENANCE BUILDING (APPROXIMATELY 425'). 3-#3, 1-#8 GROUND IN 2" CONDUIT. BURY MINIMUM 18" WITH MARKER TAPE.

1
E1 **ELECTRICAL PLAN**
SCALE: 1/8" = 1'-0"