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# State of Michigan

DEPARTMENT OF TECHNOLOGY,  
MANAGEMENT, AND BUDGET

## Outdoor Adventure Center - Emergency Back Up Power

1801 Atwater St, Detroit, MI  
48207

DTMB NUMBER: 751- 23030 MNB

11/14/2025

DATE DESCRIPTION

### PROJECT CONTACT LIST

**OWNER:**  
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STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
FACILITIES AND BUSINESS SERVICES ADMINISTRATION  
DESIGN AND CONSTRUCTION DIVISION  
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PLANS FOR:  
Outdoor Adventure Center -  
Emergency Back Up Power  
1801 Atwater Street  
Detroit, MI 48207

DESIGNED  
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DRAWN  
K. PICKART  
CHECKED  
D.M.  
APPROVED  
D. MOSS

DATE  
11/14/2025

ISSUED FOR  
PRELIMINARY  
CONSTRUCTION  
PLAN REVIEW  
CORRECTION  
FINAL RECORD

IDENTIFICATION NO.  
FILE NO.  
751-23030.MNB  
CONTRACT NO.  
Y24249

SHEET  
G000

STATE REVIEW  
11/14/2025  
CED PROJECT NUMBER: 23015965G



Abbreviations

A	D		GSKT	GASKET	M		R		V
ABV ABOVE	DL DEAD LOAD		GEN GENERAL		MACH MACHINE		RBT RABBET		VAP BAR VAPOR BARRIER
AFCE ABOVE FINISHED CEILING	DEG DEGREE		GC GENERAL CONTRACTOR		MACH RM MACHINE ROOM		RAD PANEL RADIANT PANEL		VARN VARNISH
AFCE ABOVE FINISHED FLOOR	DEMO DEMOLITION		GL GLASS		MAU MAKE-UP AIR UNIT		RAD RADIUS		VNR VENEER
ARFF ABOVE REFERENCED FINISH FLOOR	DPT PARTN DEMOUNTABLE PARTITION		GR GRADE		MDP MAIN DISTRIBUTION PANEL		RWC RAIN WATER CONDUCTOR		VTR VENT THRU ROOF
AD ACCESS DOOR	DEPT DEPARTMENT		GND GROUND		MSB MAIN SWITCH BOARD		RR RAILROAD		VERT VERTICAL
ACOUST ACOUSTIC/ACOUSTICAL	DET/DTL DETAIL		GFI GROUND FAULT INTERRUPTOR		MAINT MAINTENANCE		REC V RECEIVE/RECEIVING		VEST VESTIBULE
ACP ACOUSTICAL CEILING PANEL	DTE DETROIT EDISON COMPANY		GYP GYPSUM		MAN MANHOLE		RECPT RECEPTACLE		VIN VINYL
ACT ACOUSTICAL CEILING TILE	DIAG DIAGONAL		GYP BD GYPSUM BOARD		MFR MANUFACTURER		RP RECEPTACLE PANEL		VCT VINYL COMPOSITION TILE
ADDM ADDENDUM	DIA DIAMETER				MAR MARBLE		REC RECESS		VIN FAB VINYL FABRIC
ADDN ADDITIONAL	DIFF DIFFUSER	H			MAS MASONRY		REC RECTANGLE		VRS VINYL REDUCER STRIP
ADJ ADJUSTABLE	DIM DIMENSION				MASON MASONRY OPENING		REF REFER REFERENCE		VWB VINYL WALL BASE
AC AIR CONDITIONING	DISH DISHWASHER	HNDCP HANDICAPPED			MATL MATERIAL		REFL REFLECTED		VWC VINYL WALL COVERING
ACC AIR CONDITIONING COMPRESSOR	DSP DISPENSER	H.R. HANDRAIL			MAX MAXIMUM		REFRIG REFRIGERATOR		VOL VOLUME
ACU AIR CONDITIONING UNIT	DIV DIVISION	HDHW/HDWE HARDWARE			MECH MECHANICAL		REG REGISTER		VIF VERIFY IN FIELD
AHU AIR HANDLING UNIT	DR DOOR	HDWD HARDWOOD			MED MEDICAL		REIN REINFORCED/REINFORCING/		
ALT ALTERNATE	DO DOOR OPENING	HRU HEAT RECOVERY UNIT			MBR MEMBER		REINFORCEMENT		W
AL/ALUM ALUMINUM	DBL DOUBLE	HTR HEATER			MSE MERCHANDISE		REMY REMOVABLE		
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE	DWL DOWEL	HTG HEATING			MTL/MET METAL		REQD REQUIRED		WAINS WAINSCOT
ANCH ANCHOR	DWN DOWN	HV HEATING AND VENTILATING			MEZZ MEZZANINE		RESIL RESILIENT		WCO WALL CLEAN OUT
ANOD ANODIZED	DRN DRAIN	HVAC HEATING, VENTILATING, & AIR CONDITIONING			RET RETURN		RET RETURN		W.C. WALL COVERING
APPROX APPROXIMATE	DWR DRAWER	HD HEAVY DUTY			REIN REINFORCED/REINFORCING/		RA RETURN AIR		WH WALL HYDRANT
ARCH ARCH / ARCHITECTURAL	DWG DRAWING	HGT HEIGHT			MI MILES		RAF RETURN AIR FAN		WW WALL TO WALL
ATM AUTOMATIC TELLER MACHINE	DR DRINKING FOUNTAIN	HEX HEXAGON			MILL MILLWORK		REV REVISED/ REVISION		WH WATER HEATER
ASPH ASPHALT	DWTR DUMBWATER	HP HIGH POINT			MIN MINIMUM		RPM REVOLUTIONS PER MINUTE		WT WEIGHT
AUP ASSEMBLY	DUP DUPLICATE	HS HIGH STRENGTH			MR MIRROR		RH RIGHT HAND		W WEST
AUTO AUTOMATIC	DTTO THE SAME - REPEAT	HWY HIGHWAY			MISC MISCELLANEOUS		RHRB RIGHT HAND REVERSE BEVEL		WO WINDOW OPENING
AUX AUXILIARY		HSTWY HOIST WAY			MGN MONUMENT		ROW RIGHT OF WAY		W GL WIRE GLASS
AVG AVERAGE	E	HC HOLLOW CORE			MDG MOULDING		RD ROAD		W/ WITH
AFCE ABOVE FINISHED CEILING	E EAST	HM HOLLOW METAL			MTD MOUNTED		RD ROOF CONDUCTOR		W/O WITHOUT
	EA EACH	HNVCB HONEYCOMB			MTG MEETING		RS ROOF SUMP		WD WOOD
B	EF EACH FACE	HORIZ HORIZONTAL			MOV PARTN MOVEABLE PARTITION		RTU ROOF TOP UNIT		WL WORKING LINE
B/B BACK TO BACK	ES EACH SIDE	HB HOSE BIB			MULL MULLION		RM ROOM		WP WORKING POINT
BF BARRIER FREE	EW EACH WAY	HOSP HOSPITAL					RO ROUGH OPENING		WI WROUGHT IRON
BSMT BASEMENT	ELEC ELECTRIC/ELECTRICAL	HW HOT WATER					RND ROUND		WRB WEATHER-RESISTIVE BARRIER
BM BEAM	ELEC CAB ELECTRIC CABINET	HR HOUR					RFT RUBBER FLOOR TILE		
BRG BEARING	ELEC CLO ELECTRIC CLOSET	HYD HYDRANT/ HYDRAULIC					RWB RUBBER WALL BASE		
BFF BELOW FINISHED FLOOR	EP ELECTRICAL PANEL		I		NATL NATIONAL				Y
BTWN BETWEEN	EWC ELECTRICAL WATER COOLER				NEC NATIONAL ELECTRICAL CODE				
BEV BEVEL	ELEV ELEVATION	IDEN IDENTIFICATION			NFPA NATIONAL FIRE PROTECTION AGENCY				
BIT BITUMINOUS	ELVT ELEVATOR	INCAND INCANDESCENT			NAT NATURAL				
BLK BLOCK	EMERG EMERGENCY	IN INCHES			NAT FIN WD NATURAL FINISHED WOOD		S		
BLKG BLOCKING	ENCL ENCLOSURE	INCON INCINERATOR			NRC NOISE REDUCTION COEFFICIENT		SAN SANITARY		YD YARD
BD BOARD	E/E END TO END	INCL INCLUDE			NOM NOMINAL		SCHED SCHEDULE		YR YEAR
BE BOTH ENDS	ENAM ENAMEL	INFO INFORMATION			N NORTH		SCHM SCHEMATIC		
BS BOTH SIDES	ENGR ENTRANCE	ID INSIDE DIAMETER			NIA NOT APPLICABLE		STG SEATING		
BS BOTH WAYS	EQM ETHYLENE PROPYLENE DIENE MONOMER	IS/D INSIDE DIMENSION			NTS NOT IN CONTRACT		STC SECTION		
BOS BOTTOM OF STEEL	EQ EQUAL	IF INSIDE FACE			NO NUMBER		S.S. SERVICE SINK		
BOT BOTTOM	EQUI EQUIPMENT	INSP INSPECTION					SHT SHEET		
BRKT BRACKET	EST ESTIMATE	INSTL INSTALLATION					SHT MET SHEET METAL		
BR BRASS	EQUIV EQUIVALENT	INSUL INSULATION					SVF SHEET VINYL FLOORING		
BKWR BREAKER	EX EXHAUST FAN	INT INTERIOR			OFF OFFICE		S.C. SHOPPING CENTER		
BRZ BRONZE	EG EXHAUST GRILLE	IE INVERT			OC ON CENTER		SHWR SHOWER		
BLDG BUILDING	EXG/EXIST EXISTING	INV INVERT ELEVATION			OPG/OPNG OPENING		SIM SIMILAR		
BL BUILDING LINE	EXP EXPANSION				OPER OPERATOR		SGL SINGLE		
BULL BULLETIN	EJ EXPANSION JOINT	J			OPP OPPOSITE		SLDR SLIDING DOORS		
B.B. BULLETIN BOARD	EXT EXTERIOR	JAN JANITOR			OH/OP HD OPPOSITE HAND		STC SOUND TRANSMISSION CLASS		
BO BY OTHERS/BY OWNER	EIFS EXTERIOR INSULATION FINISH SYSTEM	JT JOINT			OZ OUNCE		S SOUTH		
		JST JOIST			OA OUTSIDE AIR		SPKR SPEAKER		
C	F	JB JUNCTION BOX			OD OUTSIDE DIAMETER		SPEC SPECIFICATION		
CAB CABINET	FAB FABRICATED	K			OS/D OUTSIDE DIMENSION		SPKLR SPRINKLER		
CUH CABINET UNIT HEATER	F/F FACE TO FACE	KP KICK PLATE			OF OUTSIDE FACE		SQ SQUARE		
CANT CANTILEVER	FAC FIN FACTORY FINISH	KIT KITCHEN			O/O OUTSIDE TO OUTSIDE		SF SQUARE FEET		
CAP CAPACITY	FM FACTORY MUTUAL	KB KNEE BRACE			OA OVERALL		STN STAIN		
CPT CARPET	FOU FAN COIL UNIT	KD KNOCK DOWN			OVD OVERHEAD		ST STL STAINLESS STEEL		
CRS CARPET REDUCER STRIP	FS FAR SIDE	KO KNOCK OUT			OVDH DR OVERHEAD DOOR		STD STANDARD		
CSMT CASEMENT	FT FEET	KOP KNOCK OUT PANEL			P		STA STATION		
CSWRK CASEWORK	FPM FEET PER MINUTE				PTD PAINTED		STM STEAM		
C.R. CASH REGISTER	FIG FIGURE				PT/PNT PAINT		STL PL STEEL PLATE		
CI CAST IRON	FIN FINISH/ FINISHED	KB KNEE BRACE			PR PAIR		STR STREET		
CAULK CAULKING	FF FINISH FLOOR	KD KNOCK DOWN			PNL PANEL		STRUC/ STRUCT STRUCTURAL		
CLG CEILING	FTR FINNED TUBE RADIATION	KO KNOCK OUT			PART PARTIAL		SUPP SUPPORT		
C.H./ CLG HT CEILING HEIGHT	FD FIRE DAMPER				PARTN PARTITION		SUSP/ SUSPEND/ SUSPENDED/ SUSPENSION		
CEM CEMENT	FDC FIRE DEPARTMENT CONNECTION				PVMT PAVEMENT		ST STONE TYPE		
CEM PLAS CEMENT PLASTER	FE FIRE EXTINGUISHER				PVG PAVING				
CTR CENTER	FEC FIRE EXTINGUISHER CABINET	L			PED PEDESTAL		T		
CC CENTER TO CENTER	FHC FIRE HOSE CABINET	LBL LABEL			PERF PERFORATED		TB TO BE REINFORCED		
< OR CL CENTERLINE	FH FIRE HYDRANT	LAB LABORATORY			PERIM PERIMETER		TEL TELEPHONE		
CER CERAMIC	FRT WD FIRE RETARDANT TREATED WOOD	LAM LAMINATE/ LAMINATED			PERM PERMANENT		TEL CAB TELEPHONE CABINET		
CHKD PL CHECKERED PLATE	FVC FIRE VALVE CABINET	LAMD PLAS LAMINATED PLASTIC			PERP PERPENDICULAR		TV TELEVISION		
CR PL CHROMIUM PLATE	FFRFG FIREPROOFING	L.L. LANDLORD			PH PHYSICALLY HANDICAPPED		TEMP TEMPERATURE		
CIR CIRCLE	FLR FITTING ROOM	LRG LARGE			PLAS PLASTIC		TEMP GL TEMPERED GLASS		
CLRM CLASSROOM	FIXT FIXTURE	LAV LAVATORY			PLAS LAM PLASTIC LAMINATE		TERR TERRAZZO		
CO CLEAN OUT	FLASH FLASHING	LF LEFT HAND			PL PLATE		THK THICK		
CLF CLEAR	FLU FLUR FLOOR	LFB LEFT HAND REVERSE BEVEL			PLBG PLUMBING		THRESH THRESHOLD		
CLR GL CLEAR GLASS	FLD FLOOR DRAIN	LEV LEVEL			+ / - PLUS OR MINUS		T.R. TIME RECORDER		
CLO CLOSET	FLR.FIN FLOOR FINISH	LHRB LEFT HAND REVERSE BEVEL			PLWD/PLYWD PLYWOOD		TOIL TOILET		
CFMF COLD FORMED METAL FRAMING	FLUOR FLUORESCENT	LIB LIBRARY			PT POINT		T & G TONGUE AND GROOVE		
COL COLUMN	FTG FOOTING	LIF LIFT			P.O.S. POINT OF SALE		T & B TOP AND BOTTOM		
COL LAQD COLORED LAQUER	FTN FOUNDATION	LT LIGHT			POL POLISH/ POLISHED		T.O. TOP OF		
CO COMPANY	FR FRAME	LTP LIGHT TIGHT			POL PL.GL POLISHED PLATE GLASS		T/C TOP OF CURB		
CONC CONCRETE	FRZR FREEZER	LTS LIGHTING			PVC POLYVINYL CHLORIDE		TOP OF FOOTING		
CMU CONCRETE MASONRY UNIT	F.S. FULL SIZE	LP LIGHTING PANEL			PORC PORCELAIN		T/M TOP OF MASONRY		
CONF CONFERENCE	FURN FURNITURE	LRP LIGHTING RECEPTACLE PANEL			PORC ENAM PORCELAIN ENAMEL		T/S TOP OF STEEL		
CONST CONSTRUCTION	FURR FURRING	LTWGT LIGHTWEIGHT			PCF POUNDS PER CUBIC FOOT		T/W TOP OF WALL		
CJ CONTROL JOINT	FWRB FLUID-APPLIED	LIN LINEAL			PLF POUNDS PER LINEAR FOOT		TWP TOWNSHIP		
CONT CONTINUE / CONTINUOUS	WEATHER-RESISTIVE BARRIER	LIN DIFF LINEAR DIFFUSER			PSF POUNDS PER SQUARE FOOT		TRANS GRILLE TRANSFER GRILLE		
CONTR CONTRACTOR		LF LINEAR FEET			PC PRECAST PREFAB PREFABRICATED		T TREAD		
CP CONTROL PANEL		LIG LIQUID			PN PREFINISHED		TS TUBE SECTION		
CONV CONVECTOR		LPG LIQUID PROPANE GAS			PRELIM PRELIMINARY		TYP TYPICA		
COORD COORDINATE CORP CORPORATION		LL LIVE LOAD			PT WD PRESERVATIVE TREATED WOOD				
CNTR COUNTER	GA GAUGE	LR LIVING ROOM			PRIM PRIMARY		U		
COV COVER	GAL GALLON	LOC LOCATION			PROJ PROJECT/ PROJECTION		UGND UNDER GROUND		
COV PL COVER PLATE	GPH GALLONS PER HOUR	LKR LOCKER			PROP PROPERTY		UL UNDERWRITER'S LABORATORY		
CU FT CUBIC FEET / CUBIC FOOT	GPM GALLONS PER MINUTE	LG LONG			PA PUBLIC ADDRESS		UNFIN UNFINISHED		
CY CUBIC YARD	GALV GALVANIZED	LLH LONG LEG HORIZONTAL					UH UNIT HEATER		
CULV CULVERT	G.H. GARMENT HANGER	LLV LONG LEG VERTICAL					USGS UNITED STATES GEOLOGICAL SURVEY		
CYL CYLINDER	G GAS	LVR LOUVER					UNO UNLESS NOTED OTHERWISE		
		LO LOUVER OPENING							
		LP LOW POINT							
		LBR LUMBER							
		LBS POUND							
						</			

## General Requirements

1. THE EXISTING DEPICTED CONDITIONS ARE PER CONSTRUCTION DRAWINGS COMPLETED BY HOBBS + BLACK ARCHITECTS FOR THE WILLIAM G. MILLIKEN STATE PARK & HARBOR OUTDOOR ADVENTURE & DISCOVERY CENTER DATED 8/10/12 WITH REVISIONS THROUGH 11/18/13. WHERE THE PROPOSED NEW CONSTRUCTION CONFLICTS WITH THE EXISTING CONSTRUCTION THAT IS TO REMAIN, NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE NEW WORK FOR DIRECTION. EXISTING CONSTRUCTION CONFLICTS ARE TO BE DOCUMENTED AND SUBMITTED IN WRITING TO THE ARCHITECT/ENGINEER PER THE REQUIREMENTS OF THE PROJECT MANUAL.
2. ALL EXISTING STRUCTURES, FINISHES, EQUIPMENT, ETC. TO REMAIN, SHALL BE PROTECTED FROM DAMAGE AND ABUSE DURING CONSTRUCTION.
3. THE EXISTING WORK SITE SHALL BE INSPECTED FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS BEFORE COMMENCEMENT OF WORK. IF DISCREPANCIES ARE PRESENT, THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED AND NO WORK SHOULD PROCEED UNTIL THE DISCREPANCIES ARE RESOLVED. IF DISCREPANCIES ARE DISCOVERED DURING THE COURSE OF CONSTRUCTION, THE SAME PROCEDURE SHALL APPLY.
4. WHERE EXISTING WALLS HAVE BEEN REMOVED, PATCH THE FLOOR AND CEILINGS WITH NEW MATERIALS TO MATCH EXISTING OR SPECIFIED MATERIALS.
5. WHERE WALLS, FLOORS, OR CEILINGS, AND ASSOCIATED CONSTRUCTION, ARE REMOVED, AND ADJACENT SURFACES, SUCH AS WALLS, FLOORS, BASES AND CEILINGS, ARE TO REMAIN IN PLACE, ADDITIONAL REMOVAL AND PATCHING SHALL BE DONE AS REQUIRED SO THAT DISTURBED SURFACES TO REMAIN WILL MATCH EXISTING ADJACENT UNDISTURBED SURFACES.
6. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER AS WILL CAUSE THE LEAST INCONVENIENCE TO THE OWNER IN HIS OCCUPANCY AND USE OF THE AREA. WORK WHICH WILL INTERFERE SHALL BE SCHEDULED AND APPROVED BY THE OWNER IN ADVANCE.
7. ALL MATERIALS SHALL BE NEW, UNLESS SPECIFICALLY IDENTIFIED TO BE REUSED OR RELOCATED.
8. ALL CONSTRUCTION SHALL BE IN SUBSTANTIAL CONFORMANCE WITH FINAL PLANS AND SPECIFICATIONS APPROVED BY BOTH PARTIES, AND ALL LOCAL BUILDING CODES AND APPLICABLE LAWS.
9. THE CONTRACTOR(S) SHALL BE FAMILIAR WITH ALL THE PROJECT REQUIREMENTS AND SHALL BE RESPONSIBLE FOR COMPLIANCE WITH SAME. THE CONTRACTOR(S) SHALL INVESTIGATE ALL LOCAL CODES AND PROCEDURES AND SHALL COMPLY WITH ALL REQUIREMENTS.
10. ALL MATERIALS SHALL BE IN ACCORDANCE WITH CODE REQUIREMENTS AND SHALL BEAR THE UNDERWRITERS LABORATORIES, INC. LABEL OR OTHER REQUIRED GOVERNING AGENCIES' APPROVAL LABELS WHERE REQUIRED. NON-LABELED MATERIAL MUST BE APPROVED PRIOR TO INSTALLATION.
11. THE DESIGN, MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS SET FORTH IN THE CONTRACT DOCUMENTS.
12. AT ALL TIMES THE AREA OF THE WORK SHALL BE KEPT FREE OF RUBBISH AND DEBRIS. UPON COMPLETION OF THE WORK, ALL AREAS AFFECTED SHALL BE LEFT BROOM CLEAN. DIRT, DUST AND NOISE SHALL BE CONFINED TO THE CONSTRUCTION AREA.
13. THE WORK SITE SHALL BE INSPECTED FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS BEFORE COMMENCEMENT OF WORK. IF DISCREPANCIES ARE PRESENT, THE ARCHITECT SHOULD BE IMMEDIATELY NOTIFIED AND NO WORK SHOULD PROCEED UNTIL THE DISCREPANCIES ARE RESOLVED. IF DISCREPANCIES ARE DISCOVERED DURING THE COURSE OF CONSTRUCTION, THE SAME PROCEDURE SHALL APPLY.
14. NO OBSTRUCTIONS SHALL BE PLACED SO AS TO IMPEDE TRAFFIC THROUGH REQUIRED EXITS.
15. PROPER AND APPROVED CONNECTIONS OF NEW WORK TO EXISTING WORK AND ALL NECESSARY ADJUSTMENTS OF EITHER OR BOTH SHALL BE MADE AS REQUIRED TO PRODUCE A COMPLETE AND WORKMANLIKE JOB.
16. UNFORESEEN CONDITIONS: THE OWNER ASSUMES ALL RISK AND RESPONSIBILITY FOR ACTUAL CONDITIONS ENCOUNTERED. IF CONCEALED, UNUSUAL OR UNRECORDED CONDITIONS SHOULD BE ENCOUNTERED IN THE PERFORMANCE OF THE WORK, INCLUDING BUT NOT LIMITED TO, CONCEALED FOOTINGS, CONCEALED PIPING AND WIRING AND UNUSUAL EXISTING CONSTRUCTION, ADVISE THE ARCHITECT OF THE DEFICIENCY OR DISCREPANCY AS SOON AS POSSIBLE.
17. DAMAGE: THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE OR INJURY TO THE OWNER THROUGH IMPROPER WORKMANSHIP AND SHALL REPAIR OR PAY FOR THE REPAIRS NECESSARY TO CORRECT THE WORK OF OTHER TRADES OR MATERIALMEN. WHERE SAID DAMAGE IS NOT PROPERLY AND PROMPTLY CORRECTED WHEN ORDERED, THE OWNER MAY DIRECT OTHERS TO PERFORM SAID WORK AND HAVE THE REASONABLE COST OF SUCH WORK BACK CHARGED AGAINST THE CONTRACT OF THE OFFENDING PARTY.
18. HOLD HARMLESS: THE OWNER, CONTRACTOR, EACH INDIVIDUAL SUBCONTRACTOR AND MATERIALMAN AGREE TO SAVE THE ARCHITECT AND ENGINEER HARMLESS AS A RESULT OF ANY INJURY OR DAMAGE THAT MAY OCCUR TO ANY INDIVIDUAL OR PROPERTY DURING CONSTRUCTION AS A RESULT OF ACTS OR OMISSIONS BY THE SAID OWNER, CONTRACTORS, AND/OR MATERIALMEN IN THE PERFORMANCE OF THEIR WORK.
19. SECURING OF WORK: CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND SECURING HIS WORK AT ALL TIMES.
20. AT THE CLOSE OF THE PROJECT, AND PRIOR TO RECEIPT OF FINAL PAYMENT, SUBMIT ONE (1) SET OF REPRODUCIBLE DOCUMENTS CLEARLY REPRESENTING THE FINAL CONDITION OF THE CONSTRUCTION AT THE TIME OF OCCUPANCY (AS-BUILT DRAWINGS). ALL MARKS SHALL BE CLEARLY, NEATLY AND INDELIBLY MADE.

# Building Code Compliance

THE PROPOSED AREA FOR ALTERATIONS INCLUDES THE ADDITION OF AN OUTDOOR BACKUP GENERATOR AND ELECTRICAL SERVICE RECONFIGURATION, AND EXTERIOR SCREEN WALL CONSTRUCTION ADJACENT TO THE EXISTING ENCLOSED SERVICE AREA.

**BUILDING CODE - REFERENCES**

MICHIGAN BUILDING CODE INCORPORATING THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE

UNIFORM FEDERAL ACCESSIBILITY STANDARDS  
AMERICANS WITH DISABILITIES ACT (ADAA, 2010)

AMERICAN NATIONAL STANDARD - ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES (ANSI A117.1-2009)

MICHIGAN MECHANICAL CODE RULES INCORPORATING THE 2021 EDITION OF THE INTERNATIONAL MECHANICAL CODE

MICHIGAN PLUMBING CODE INCORPORATING THE 2021 EDITION OF THE INTERNATIONAL PLUMBING CODE

MICHIGAN ELECTRICAL CODE INCORPORATING THE 2023 EDITION OF THE NATIONAL ELECTRICAL CODE WITH PART 8 AMENDMENTS

INTERNATIONAL FIRE CODE - 2015

FIRE SUPPRESSION - NFPA 13 - 2013

FIRE ALARM - NFPA 72 - 2013

ENERGY CODE - MEC 2015 (MICHIGAN ENERGY CODE - CHAPTER 4, COMMERCIAL ENERGY EFFICIENCY COMPLYING WITH THE REQUIREMENTS OF ANSI/ASHRAE/IESNA 90.1-2013.

INTERNATIONAL FUEL GAS CODE (IFGC) - 2015

1. COMPLIANCE:  
A. OBTAIN ALL REQUIRED PERMITS AND PAYMENT OF PERMIT AND APPLICATION FEES FOR THE WORK.

2. CERTIFICATIONS:  
A. THE ARCHITECT'S CERTIFICATION IS ONLY FOR THE WORK SHOWN TO BE DONE. IT DOES NOT CONSTITUTE APPROVAL OF PRE-EXISTING CONDITIONS OR REVIEW OF THOSE CONDITIONS FOR CODE COMPLIANCE.  
B. THE ARCHITECT'S CERTIFICATION IS FOR COMPLIANCE WITH THE BUILDING CODE OF MICHIGAN AND ITS VARIOUS REFERENCE STANDARDS. FOR PURPOSES OF OBTAINING A BUILDING PERMIT THROUGH THE AUTHORITY HAVING JURISDICTION AND TO CONVEY CONSTRUCTION REQUIREMENTS FOR THE PROJECT, CERTIFICATION DOES NOT GUARANTEE COMPLIANCE WITH LOCAL CODES THAT MAY APPLY.

**EXISTING BUILDING PROPERTIES**

USE: NON-SEPARATED MIXED USE (EXISTING) (S 508)

OCCUPANCIES: A-3, ASSEMBLY (EXISTING)  
B, BUSINESS (EXISTING)  
M, MERCANTILE (EXISTING)  
S-1, STORAGE (EXISTING)

CONSTRUCTION CLASSIFICATION: **II B, NON-COMBUSTIBLE**, PROTECTED (EXISTING) (S 602.2 AND TABLE 601)

STORIES: 2-STORY PLUS MEZZANINE (EXISTING)  
AREA: FIRST FLOOR: 25771 SF (EXISTING)  
SECOND FLOOR: 14,714 SF (EXISTING)  
MEZZANINE: 923 SF (EXISTING)

HEIGHT: 63'-2" AT MIDPOINT OF ROOF

SUPPRESSION SYSTEM: FULLY SPRINKLERED (EXISTING) (S903)

FIRE SUPPRESSION SYSTEM TO BE PROVIDED THROUGHOUT BASED ON MOST RESTRICTIVE OCCUPANCY (ASSEMBLY) PER OCCUPANCY CLASSIFICATION (S 508.3.1) AND AS REQUIRED PER CHAPTER 9 OF THE BUILDING CODE.  
FIRE SUPPRESSION SYSTEM IS A DEFERRED SUBMITTAL BY THE FIRE SUPPRESSION CONTRACTOR.

FIRE ALARM SYSTEM: FIRE ALARM (S907)

FIRE ALARM SYSTEM TO BE PROVIDED THROUGHOUT BASED ON MOST RESTRICTIVE OCCUPANCY (ASSEMBLY) PER OCCUPANCY CLASSIFICATION (S 508.3.1) AND AS REQUIRED PER CHAPTER 9 OF THE BUILDING CODE.  
FIRE ALARM SYSTEM IS A DEFERRED SUBMITTAL BY THE FIRE ALARM CONTRACTOR

SEPARATION: NON-SEPARATED OCCUPANCIES (S 508.3 )

NON-SEPARATED OCCUPANCIES SHALL BE INDIVIDUALLY CLASSIFIED IN ACCORDANCE WITH SECTION 302.1. CODE REQUIREMENTS SHALL APPLY TO EACH PORTION OF THE BUILDING BASED ON THE OCCUPANCY CLASSIFICATION OF THAT SPACE EXCEPT THAT THE MOST RESTRICTIVE APPLICABLE PROVISIONS OF SECTION 403 (HIGH-RISE BUILDINGS) AND CHAPTER 9 (FIRE PROTECTION) SHALL APPLY TO THE ENTIRE BUILDING OR PORTION THEREOF (S 508.3.2.1).

**DEFERRED/ DELEGATED-DESIGN SERVICES**



1. EXTERIOR ACOUSTICAL BARRIER WALL SYSTEM AND ASSOCIATED STRUCTURAL FRAMING

DELEGATED-DESIGN SERVICES:

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required by Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.  
a. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads and other factors used in performing these services.

SHEET	A001	FILE NO. 751-23030 MNB CONTRACT NO. Y24249	ISSUED FOR	DATE	DESIGNED K. FICKART	PLANS FOR:				 <b>Engineering &amp; Design</b> 7000 West Saginaw Hwy. Suite 200 Lansing, MI 48917 Phone: 517.272.5800 Fax: 517.272.5805 <a href="http://www.colliersengineering.com">www.colliersengineering.com</a>	 <b>STATE OF MICHIGAN</b> DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET STATE FACILITIES ADMINISTRATION <b>DESIGN AND CONSTRUCTION DIVISION</b> <b>ADAM P. LACH, RA DIRECTOR</b>
						<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> CONSTRUCTION <input checked="" type="checkbox"/> PLAN REVIEW <input type="checkbox"/> CORRECTION <input type="checkbox"/> FINAL RECORD	<input type="checkbox"/> B.B.M. <input checked="" type="checkbox"/> 1/14/2025 <input type="checkbox"/> D. MORSE				



ABBREVIATIONS

ACI AMERICAN CONCRETE INSTITUTE	LO LOW
AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION	MAS MASONRY
ARCH ARCHITECT OR ARCHITECTURAL	MAX MAXIMUM
ASCE AMERICAN SOCIETY OF CIVIL ENGINEERS	MECH MECHANICAL
ASTM AMERICAN STANDARDS FOR TESTING AND MATERIALS	MIN MINIMUM
AWS AMERICAN WELDING SOCIETY	MPH MILES PER HOUR
BM BEAM	NCA NATIONAL CONCRETE MASONRY ASSOCIATION
B.O. BOTTOM OF	O.C. ON CENTER
BRG BEARING	OSHA OCCUPATION SAFETY AND HEALTH ADMINISTRATION
CL CENTERLINE	PL PLATE(S)
DNR DEPARTMENT OF NATURAL RESOURCES	PCI PRESTRESSED CONCRETE INSTITUTE
DWGS DRAWINGS	PSI POUNDS PER SQUARE INCH
E.F., E/F EACH FACE	PSF POUNDS PER SQUARE FOOT
ELECT ELECTRICAL	P.E.M.B. PRE-ENGINEERED METAL BUILDING
ELEV ELEVATION	SDI STEEL DECK INSTITUTE
E.W., E/W EACH WAY	SIMSIMILAR
EX., EXIST. EXISTING	SJI STEEL JOIST INSTITUTE
EXP EXPANSION	STRUCT STRUCTURAL
HI HIGH	T.O. TOP OF
HORIZ HORIZONTAL	TPI TRUSS PLATE INSTITUTE
IBC INTERNATIONAL BUILDING CODE	TYP TYPICAL (SITUATION OCCURS REPEATEDLY)
I.F., I/F INSIDE FACE	U.N.O. UNLESS NOTED OTHERWISE
KIPS KILOPOUNDS	U.O.N. UNLESS OTHERWISE NOTED
LLV LONG LEG VERTICAL	V. VERT. VERTICAL
LLH LONG LEG HORIZONTAL	V.I.F. VERIFY IN FIELD

GENERAL CONDITIONS:

- IF ANY GENERAL NOTE CONFLICTS WITH ANY DETAIL OR NOTE ON THE PLANS OR IN THE SPECIFICATIONS, THE STRICTEST PROVISION SHALL GOVERN.
- THE STRUCTURAL DRAWINGS ARE FOR THE PLACEMENT AND SIZE OF STRUCTURAL COMPONENTS ONLY. REQUIREMENTS MADE BY OSHA, DNR, AND ALL APPLICABLE SAFETY CODES ARE TO BE DETERMINED AND PROVIDED BY THE CONTRACTOR.
- THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER IT IS FULLY COMPLETED ACCORDING TO THE PLANS AND SPECIFICATIONS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE CONSTRUCTION/ERECTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES PROVIDING TEMPORARY BRACING, SHORING, GUYS OR TIE-DOWNS. THESE TEMPORARY SUPPORTS SHALL REMAIN IN PLACE UNTIL ALL STRUCTURAL COMPONENTS ARE IN PLACE AND COMPLETED AS THE STRUCTURAL MEMBERS OR SYSTEMS ARE NOT SELF-BRACING UNTIL PERMANENTLY CONNECTED TO THE STRUCTURE.
- DEFERRED SUBMITTALS  
COMPONENTS OF THE PROJECT DESIGNED BY THE CONTRACTOR'S SPECIALTY ENGINEER WHICH REQUIRE PRODUCT OR SYSTEM ENGINEERING, SEALED SHOP DRAWINGS AND CALCULATIONS TO BE SUBMITTED FOR REVIEW BY THE DESIGN PROFESSIONAL OF RECORD AND TO THE BUILDING OFFICIAL ARE AS FOLLOWS:
  - SCREEN WALL STEEL COLUMNS
  - BASE PLATES AND ANCHOR RODS
- THE ARCHITECT AND STRUCTURAL ENGINEER ASSUME NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION. AS SUCH, THE MEANS AND METHODS OF CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S).
- USE OF ENGINEERING DRAWINGS AS ERECTION DRAWINGS BY THE CONTRACTOR IS EXPRESSLY PROHIBITED.
- DIMENSIONS ON STRUCTURAL DRAWINGS ARE TO BE CHECKED AGAINST ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AS WELL AS AGAINST EXISTING FIELD CONDITIONS BY THE CONTRACTOR.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND PLACEMENT OF INSERTS, HANGERS, SLEEVES, DUCTWORK, PADS AND ANCHOR RODS THAT ARE REQUIRED BY MECHANICAL EQUIPMENT.

SHOP DRAWING SUBMITTALS

SHOP DRAWINGS, FABRICATION DETAILS, PRODUCT LITERATURE AND CERTIFICATES SHALL BE SUBMITTED BEARING THE CONTRACTOR'S REVIEW STAMP FOR THE FOLLOWING STRUCTURAL SYSTEMS. FAILURE OF THE CONTRACTOR TO REVIEW AND STAMP SUBMITTALS PRIOR TO FORWARDING THEM TO THE DESIGN PROFESSIONAL(S) FOR REVIEW SHALL CONSTITUTE GROUNDS FOR REJECTION. USE OF THESE ENGINEERING DRAWINGS, PLANS OR DETAILS USED AS ERECTION PLANS OR SHOP DRAWINGS BY THE CONTRACTOR IS EXPRESSLY PROHIBITED. SUBMITTALS BEARING IMAGES ELECTRONICALLY COPIED FROM THE ENGINEERING'S DRAWINGS WILL BE REJECTED.

- CONCRETE COMPONENTS, MIX DESIGNS AND CONCRETE REINFORCEMENT
- STRUCTURAL STEEL

EXISTING CONDITIONS

- VERIFY ALL DIMENSIONS AND CONDITIONS ASSUMED AS EXISTING (I.E. EXISTING MATERIALS, FOUNDATION SIZES AND CONFIGURATION, FRAMING MEMBER SIZES AND LOCATIONS, METHODS OF CONSTRUCTION, ETC.) AT THE SITE PRIOR TO CONSTRUCTION AND FABRICATION. IF DISCREPANCIES ARE FOUND, NOTIFY THE ARCHITECT PRIOR TO PROCEEDING.

DESIGN LOADS

DESIGN CRITERIA PER THE CURRENT BUILDING CODE AND ASCE 7-10 LOAD STANDARD

BUILDING OCCUPANCY CATEGORY (1604.5): CATEGORY I

ROOF LIVE LOAD (1603.1.1): N/A

FLOOR LIVE LOAD (1603.1.1):

- NO SUPPORTED FLOORS

ROOF SNOW LOAD (1603.1.3 & 1609):

- GROUND SNOW LOAD,  $P_g = 20$  PSF
- EXPOSURE
- FLAT ROOF SNOW LOAD,  $P_f = 13.5$  PSF
- SNOW EXPOSURE FACTOR,  $C_e = 1.0$
- SNOW LOAD IMPORTANCE FACTOR,  $I_s = 0.8$
- THERMAL FACTOR,  $C_t = 1.2$

WIND LOAD: BASED ON ASCE 7-10 (1603.1.4 & 1609):

- BASIC WIND SPEED = 105 MPH
- WIND EXPOSURE = D
- INTERNAL PRESSURE COEFFICIENT = 0
- VELOCITY PRESSURE AT TOP OF WALLS = 24.71 PSF

EARTHQUAKE DESIGN DATA (1603.1.5 & 1613):

- SEISMIC IMPORTANCE FACTOR,  $I_e = 1.00$
- MAPPED SPECTRAL RESPONSE ACCELERATIONS  
 $S_s = 0.096$  g  
 $S_1 = 0.047$  g
- SITE CLASS = D (DEFAULT ASSUMED)
- SPECTRAL RESPONSE COEFFICIENTS  
 $S_D = 0.103$  g  
 $S_1 = 0.075$  g
- SEISMIC DESIGN CATEGORY = B
- BASIC SEISMIC-FORCE-RESISTING SYSTEMS:  
STEEL ORDINARY CANTILEVER COLUMN SYSTEMS

- SEISMIC RESPONSE COEFFICIENTS ( $C_s$ ) = 0.082 W

- RESPONSE MODIFICATION FACTOR ( $R$ ) = 1.25

- DESIGN BASE SHEAR = 0.082 W

- ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PER ASCE 7, SECTION 12.8

FLOOD DESIGN DATA (1603.1.6):

- THIS STRUCTURE IS NOT LOCATED IN A FLOOD HAZARD AREA.

SPECIAL LOADS (1603.1.7):

- REFER TO PLANS FOR MECHANICAL EQUIPMENT LOADS.

SYSTEM AND COMPONENTS FOR SEISMIC RESISTANCE (1603.1.8):

- BY ITS SEISMIC DESIGN CATEGORY B, THIS STRUCTURE HAS NO REQUIREMENT FOR SYSTEMS AND COMPONENTS REQUIRING SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.

03.00.01 - FOUNDATIONS

- A GEOTECHNICAL REPORT WAS NOT PROVIDED FOR THE PROJECT SITE. THE CONTRACTOR, THROUGH THE CLIENT, IS RESPONSIBLE FOR OBTAINING A GEOTECHNICAL REPORT OR SOILS TESTING TO CONFIRM THE PRESUMPTIVE LOAD VALUES (IBC TABLE 1806.2). ASSUMED VERTICAL FOUNDATION PRESSURE = 1500 PSF. PRIOR TO PLACING FOUNDATIONS, IN-PLACE SOIL DENSITY AND SOIL BEARING CAPACITY TESTING TO BE PERFORMED BY A QUALIFIED ENGINEERING TECHNICIAN. TEST REPORTS TO BE SUBMITTED TO THE ARCHENG. COLLIER'S ENGINEERING AND DESIGN ASSUMES NO LIABILITY FOR THESE DESIGN ASSUMPTIONS OR FOR ANY FOUNDATION REDESIGN NECESSITATED BY DIFFERING SOIL CONDITIONS.
- COLLIERS ENGINEERING AND DESIGN ASSUMES NO LIABILITY FOR MOVEMENT AND DAMAGE OF EQUIPMENT FOUNDATION SLAB DUE TO FROST HEAVING. WHERE NO FROST PROTECTION MEASURES ARE TAKEN, THE EQUIPMENT CONNECTIONS SHOULD BE FLEXIBLE TO ALLOW FOR MOVEMENT DUE TO FROST HEAVING.
- PREPARATION OF THE SITE, BUILDING FOOTPRINT AND SLAB SUB-BASE SHALL PROCEED IN COMPLIANCE WITH LOCAL CODES AND THE PROJECT SOILS REPORT IDENTIFIED ABOVE. UNLESS OTHERWISE NOTED OR SPECIFIED, ALL FILL UNDER FLOOR SLABS AND BEHIND FOUNDATION WALLS SHALL BE COMPACTED WITH VIBRATORS, COMPACTORS, ETC. TO 95% MAXIMUM DENSITY (MODIFIED PROCTOR) AT OPTIMUM MOISTURE CONTENT.
- PROVIDE NECESSARY SHEETING, SHORING, FORMING OR BRACING, ETC., DURING EXCAVATION AS REQUIRED TO PROTECT SIDES OF EXCAVATIONS OR AS REQUIRED TO COMPLY WITH SAFETY REGULATIONS. DO NOT BACKFILL BEHIND BASEMENT WALLS UNTIL FLOOR FRAMING OR TEMPORARY BRACING IS IN PLACE.
- THIS TRADE SHALL PROVIDE PUMPS, WELL POINTS, OR OTHER SYSTEMS AS REQUIRED BY THE CONDITIONS IDENTIFIED IN THE PROJECT SOILS REPORT. PUMPS SHALL BE OPERATED AS REQUIRED TO ACCOMPLISH THE ABOVE, ON A 24-HOUR BASIS. IF NECESSARY, UNDER NO CONDITION SHALL WATER BE ALLOWED TO WASH OVER FRESHLY PLACED CONCRETE.

03.00.02 - CONCRETE

- THE CONCRETE PORTIONS OF THIS STRUCTURE ARE DESIGNED ACCORDING TO THE LATEST ULTIMATE STRENGTH DESIGN PROVISIONS OF THE AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY (ACI 318) INCLUDING SECTIONS 1902 THRU 1908 OF CHAPTER 19 IN THE INTERNATIONAL BUILDING CODE. CONCRETE COMPONENTS HAVE BEEN DESIGNED ACCORDING TO THE PROVISIONS FOR SEISMIC DESIGN CATEGORY B.
- ALL CONCRETE SHALL BE NORMAL WEIGHT (150 PCF). PROVIDE  $f_c = 4500$  PSI WITH 4-6% ENTRAINED AIR WHERE CONCRETE IS EXPOSED TO EXTERIOR ATMOSPHERE OR WEATHER.
- ALL CONCRETE SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150. AGGREGATE SHALL CONFORM TO ASTM C33.
- ADMIXTURES SHALL BE USED TO FACILITATE CONCRETE PLACEMENT, AID DIFFICULT PLACING CONDITIONS OR ASSIST IN ATTAINING SPECIFIED CONCRETE QUALITIES. ADMIXTURES SHALL HAVE LESS THAN 0.05 PERCENT CHLORIDE IONS.
  - AIR ENTRAINMENT PER ASTM C260
  - WATER REDUCER PER ASTM C494, TYPE A
  - WATER REDUCER/ACCELERATOR PER ASTM C494, TYPE C OR E
  - WATER REDUCER/RETARDER PER ASTM C494, TYPE B OR TYPE D
  - SUPER-PLASTICIZER PER ASTM C494, TYPE F OR G
- CONCRETE MIXES SHALL BE PROPORTIONED PER SECTION 3.9 OF ACI-301. CERTIFIED HISTORICAL TEST DATA SHALL SERVE AS A BASIS FOR EACH MIX DESIGN. DEVIATIONS SHALL BE SUBSTANTIATED WITH ADDITIONAL CERTIFIED TRIAL MIX TESTING AND RESULTS. SUBMIT MIX DESIGN, HISTORICAL TEST DATA OR TRIAL MIX RESULTS FOR APPROVAL PRIOR TO PROCEEDING WITH THE WORK.
- ALL CONCRETE WORK AND PLACEMENT SHALL CONFORM TO THE LATEST ACI STANDARDS AND RECOMMENDATIONS. FREE FALL SHALL NOT EXCEED 10 FEET FOR ALL CONCRETE CONTAINING HIGH-RANGE WATER REDUCER (SUPER-PLASTICIZER) AND 5 FEET FOR ALL OTHER CONCRETE. PROVIDE ELEPHANT TRUNK, TREMIES OR OTHER PLACING EQUIPMENT OR OPENINGS IN SIDES OF FORMS AS REQUIRED TO LIMIT FREE FALL.
- ALL REINFORCING BARS, DOWELS AND TIES SHALL CONFORM TO ASTM A615, GRADE 60. ALL REINFORCING STEEL SHALL BE CONTINUOUS AND SHALL HAVE 36 BAR DIAMETER LAP (MIN.) AND SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315 AND ACI 318, LATEST EDITION. HOOK ALL BEAM BARS AT DISCONTINUOUS ENDS.

05.00.01 - STRUCTURAL STEEL

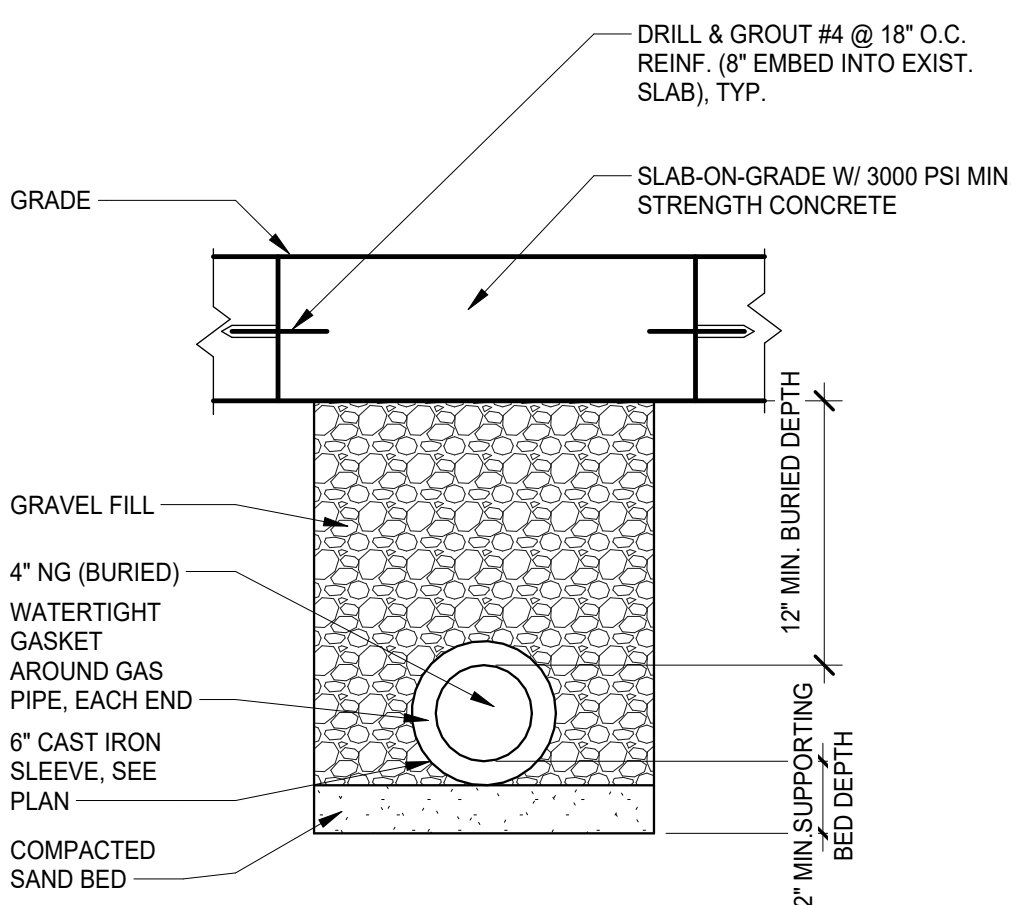
- STRUCTURAL STEEL WORK SHALL CONFORM TO THE AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL BUILDINGS". THE AISC CODE OF STANDARD PRACTICE AND SHALL COMPLY WITH ALL LOCAL LAWS AND ORDINANCES. WHERE CONFLICTING REQUIREMENTS OCCUR, THE MORE STRINGENT SHALL APPLY.
- PROVIDE NEW MATERIAL CONFORMING TO THE FOLLOWING REQUIREMENTS FOR ALL STRUCTURAL STEEL:
  - MEMBER GRADE
  - SHAPES ASTM A992, GRADE 50
  - PLATES ASTM A36
- PERFORM ALL WELDING USING CERTIFIED WELDERS AND IN ACCORDANCE WITH THE AWS D1.1 "STRUCTURAL WELDING CODE- STEEL", LATEST EDITION.
- STEEL COLUMNS SHALL BE HOT-DIP GALVANIZED PER ASTM A123. ANCHOR RODS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED PER ASTM A153.



Know what's below.  
Call before you dig.

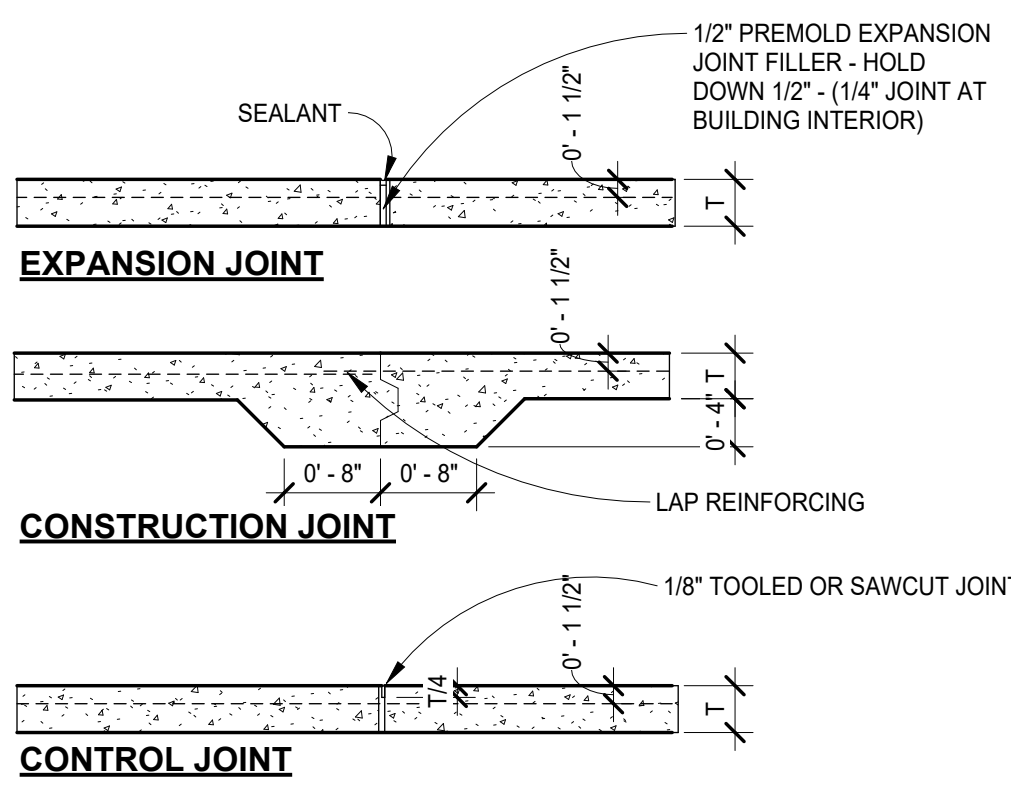
FOR STATE SPECIFIC DIRECT PHONE NUMBERS  
VISIT: WWW.CALL811.COM

PROTECT YOURSELF  
ALL STATES REQUIRE NOTIFICATION OF  
EXCAVATORS, DESIGNERS, OR ANY PERSON  
PREPARING TO DISTURB THE EARTH'S  
SURFACE ANYWHERE IN ANY STATE



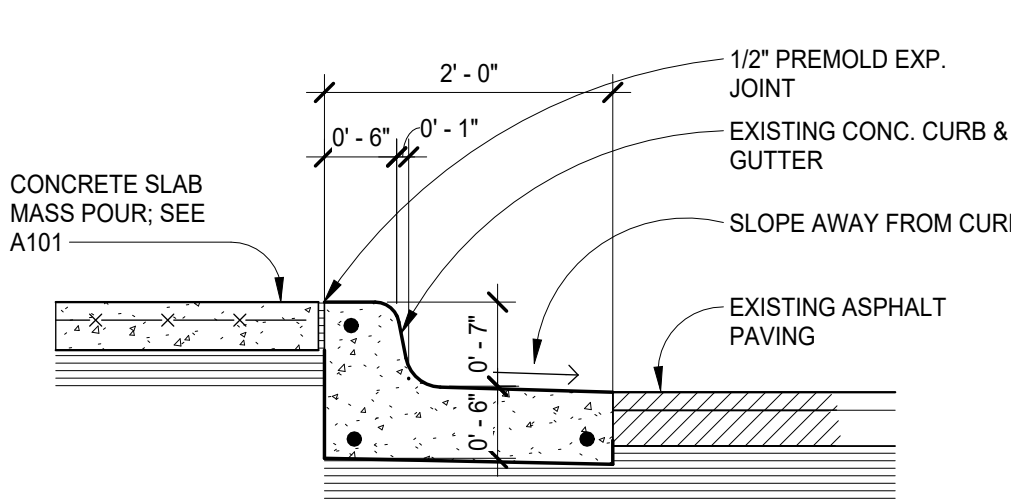
7 BURIED NG PIPING DETAIL

SCALE : NTS



5 Typical Concrete Walk/Slab Joint Detail

SCALE : 3/4\"/>



4 Concrete Curb & Gutter Detail

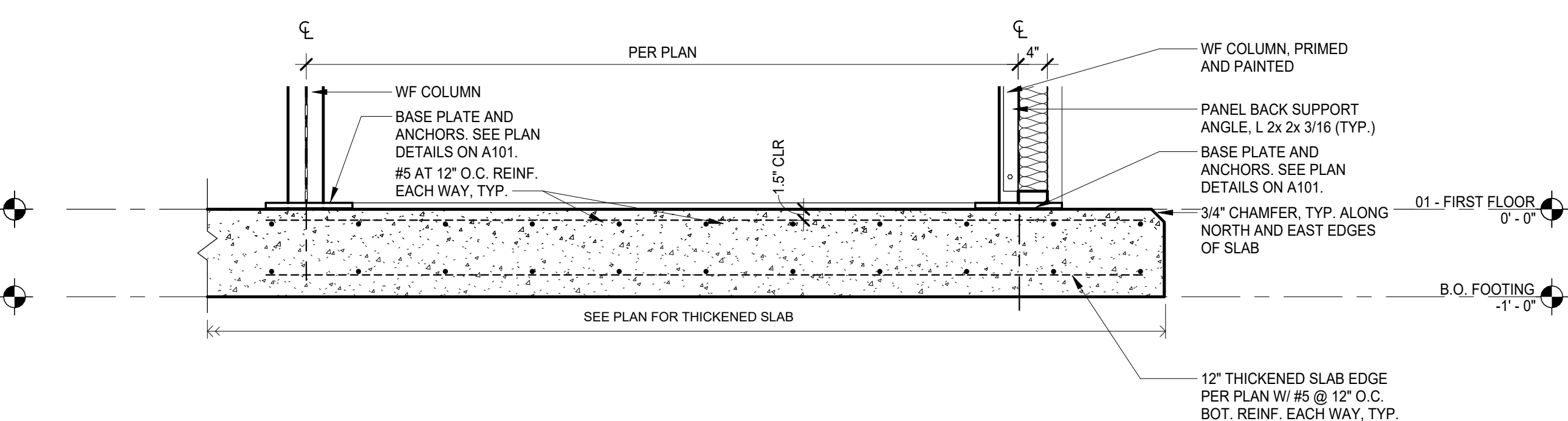
SCALE : 3/4\"/>

2 PERIMETER SLAB DETAIL

SCALE : 3/4\"/>

6 HOUSEKEEPING SLAB AT GENERATOR DETAIL

SCALE : 3/4\"/>



3 SLAB AT COLUMN DETAIL

SCALE : 3/4\"/>



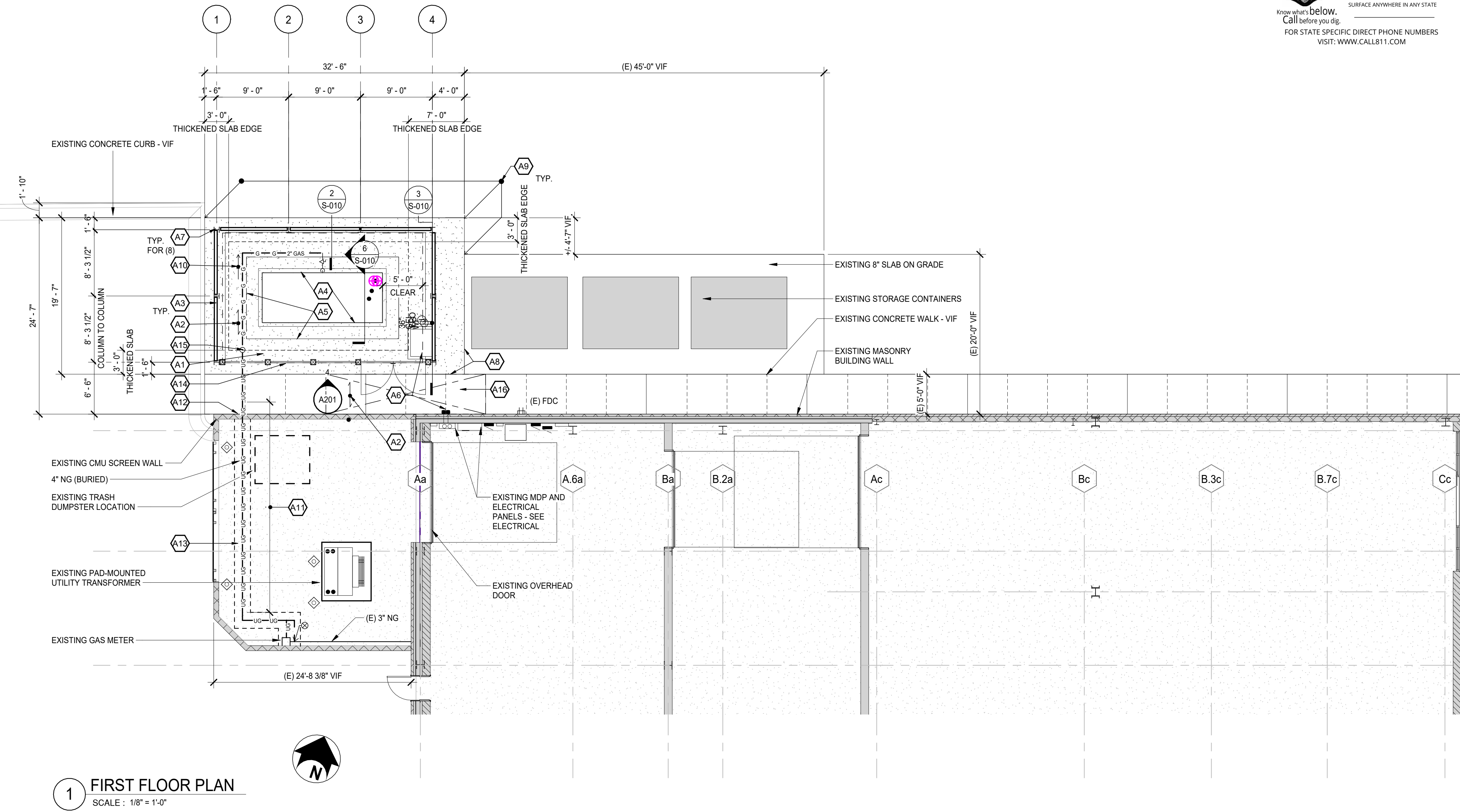
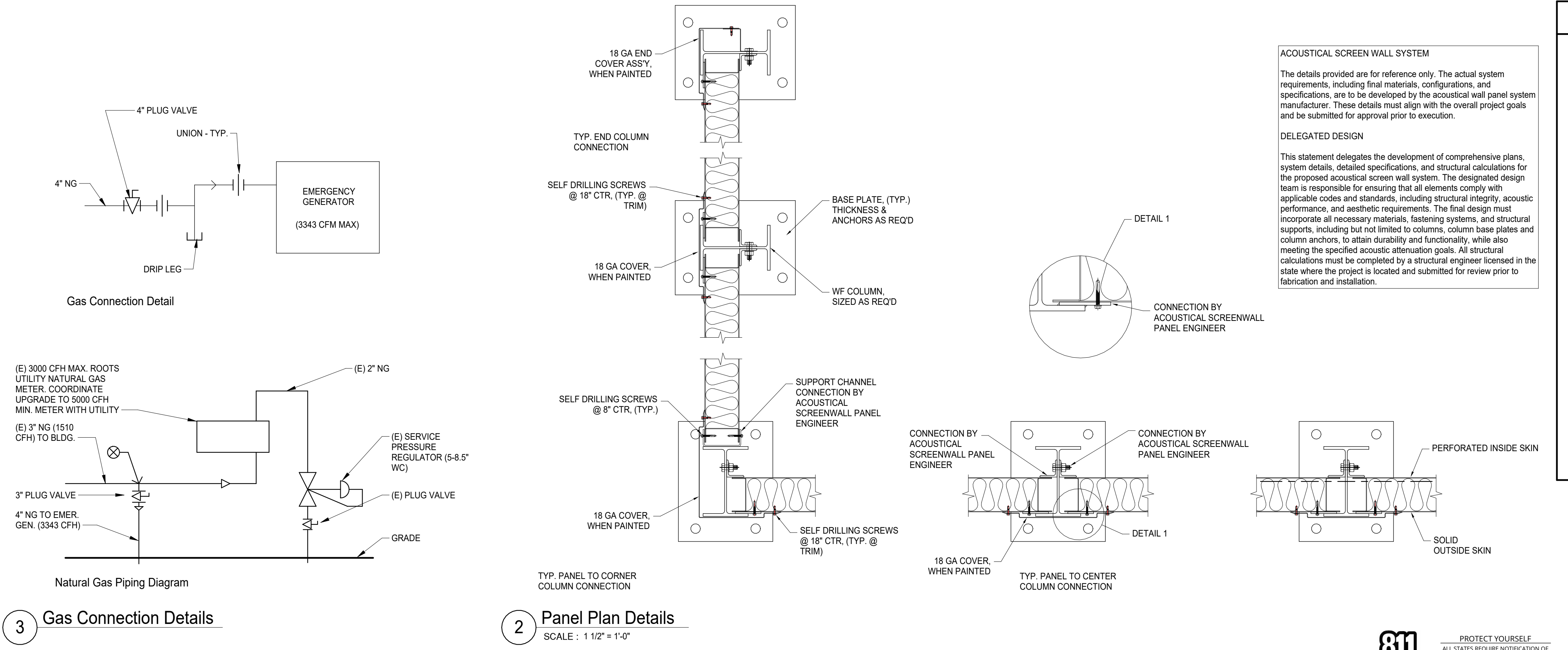
Engineering  
& Design

7500 West Baginaw Hwy.  
Livonia, MI 48150  
Phone: 313.480.1717  
Fax: 313.480.1717  
www.colliersengineering.com

PLANS FOR:  
**Outdoor Adventure Center -  
Emergency Back Up Power**  
1801 Awater Street  
Detroit, MI 48207

DESIGNED	DATE	ISSUED FOR	IDENTIFICATION NO.	SHEET
A. ALSHAIT		PRELIMINARY	FILE NO. 751-23030.MNB	<b>S-010</b>
B. FICKART		CONSTRUCTION	CONTRACT NO. Y24249	
C. CHECKED		PLAN REVIEW		
D. APPROVED	11/14/2025	CORRECTION		
E. APPROVED		FINAL RECORD		





### GENERAL NOTES

A. FIELD VERIFY ALL EXISTING SITE CONDITIONS. WHERE EXISTING CONSTRUCTION CONFLICTS WITH PROPOSED NEW WORK, NOTIFY ARCHITECT AND CIVIL ENGINEER IMMEDIATELY.

B. PROVIDE TRAFFIC SEALANT AT ALL EXTERIOR HORIZONTAL AND VERTICAL CONCRETE WALK JOINTS AND TRANSITIONS.

C. A GEOTECHNICAL REPORT WAS NOT PROVIDED FOR THE PROJECT SITE. THE CONTRACTOR, THROUGH THE CLIENT, IS RESPONSIBLE FOR OBTAINING A GEOTECHNICAL REPORT OR SOILS TESTING TO CONFIRM THE PRESUMPTIVE LOAD VALUES (BC TABLE 1806.2). ASSUMED VERTICAL FOUNDATION PRESSURE = 1500 PSF. PRIOR TO PLACING FOUNDATIONS, IN-PLACE SOIL DENSITY AND SOIL BEARING CAPACITY TESTING TO BE PERFORMED BY A QUALIFIED ENGINEERING TECHNICIAN. TEST REPORTS TO BE SUBMITTED TO THE ARCHITECT. COLLIER'S ENGINEERING AND DESIGN ASSUMES NO LIABILITY FOR THESE DESIGN ASSUMPTIONS OR FOR ANY FOUNDATION REDESIGN NECESSITATED BY DIFFERING SOIL CONDITIONS.

D. COLLIER'S ENGINEERING AND DESIGN ASSUMES NO LIABILITY FOR MOVEMENT AND DAMAGE OF EQUIPMENT FOUNDATION SLAB DUE TO FROST HEAVING. WHERE NO FROST PROTECTION MEASURES ARE TAKEN, THE EQUIPMENT CONNECTIONS SHOULD BE FLEXIBLE TO ALLOW FOR MOVEMENT DUE TO FROST HEAVING.

E. NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH WELDED JOINTED.

F. COORDINATE UPGRADE OF NATURAL GAS METER WITH UTILITY COMPANY. NEW METER SHALL HAVE A MINIMUM CAPACITY OF 5000 CFH BASED ON A NEW MAXIMUM LOAD OF 4853 CFH (1510 CFH EXISTING LOAD + MAXIMUM 3343 CFH NEW EMERGENCY GENERATOR LOAD). COST OF THE SERVICE METER UPGRADE SHALL BE WITHIN THE CONTRACTOR'S SCOPE OF WORK.

G. STEEL NG PIPING THAT WILL BE IN CONTACT WITH SOIL SHALL BE PROTECTED FROM CORROSION AS REQUIRED BY CODE. EXTEND THE PROTECTION A MINIMUM OF 6" ABOVE GRADE FOR VERTICAL PIPING PENETRATING THE SOIL. GALVANIZING OF THE PIPING IS NOT CONSIDERED ADEQUATE PROTECTION.

### KEYNOTES

Keynote Number	Keynote Description
A1	5" THICK MASS POUR SLAB W/ #5 REINFORCEMENT @ 12" O.C. EACH WAY (4500 PSI CONCRETE WITH 4-6 AIR ENTRAINMENT) - SEE S-010 FOR DETAIL
A2	CONCRETE SLAB - PROVIDE BROOM FINISH. DIRECTION AS INDICATED ON THE PLAN
A3	ACOUSTICAL WALL PANEL BARRIER WALL SYSTEM AS SPECIFIED - TYP
A4	4" CONCRETE EQUIPMENT HOUSEKEEPING SLAB AT GENERATOR, HOUSE KEEPING SLAB TO BE LEVEL IN ALL DIRECTIONS PER GENERATOR OPERATING REQUIREMENTS. COORDINATE PAD SIZE WITH GENERATOR REQUIREMENTS. SEE SHEET S-010 FOR DETAIL
A5	BACKUP GENERATOR - SEE ELECTRICAL FOR ALL REQUIREMENTS
A6	BACKUP GENERATOR SWITCH, DISCONNECT, AND CONDUIT. SEE ELECTRICAL
A7	SCREEN WALL PREFINISHED STEEL COLUMN BY ACOUSTICAL WALL PANEL MANUFACTURER (COLOR TO MATCH ACOUSTICAL SCREEN WALL PANEL - TYP)
A8	PROVIDE 1/2" ISOLATION JOINT BETWEEN EXISTING SLAB AND NEW SLAB, SEE TYPICAL DETAIL ON SHEET S-010 FOR ADDITIONAL REQUIREMENTS
A9	PROVIDE CONTINUOUS 3/4" CHAMFER SLAB EDGE, TYPICAL ALONG NORTH AND EAST EDGES OF NEW SLAB, REF 3/S-010
A10	SLOPE SLAB DOWN 1/8"/FT DOWN, DIRECTION AS INDICATED ON THE PLAN
A11	PROVIDE 6-INCH CONTINUOUS CAST IRON PIPE SLEEVE FOR UNDERGROUND GAS SERVICE LINE. SEE DETAIL ON SHEET S-010. PROVIDE WATERTIGHT GASKET SEAL AROUND GAS LINE AT EACH OF CAST IRON SLEEVE
A12	DRILL/ CORE THROUGH EXISTING REINFORCED CONCRETE FOOTING FOR UNDERGROUND UTILITY PIPE SLEEVE. BOTTOM OF CORE TO BE MINIMUM 12-INCHES ABOVE BOTTOM OF EXISTING FOOTING. PROVIDE CONTINUOUS 6-INCH CAST IRON SLEEVE THROUGH EXISTING FOOTING FOR UNDERGROUND GAS SERVICE LINE. SEE PLAN. 6-INCH SLEEVE TO EXTEND A MINIMUM 12-INCHES BEYOND FACE OF EXISTING FOOTING INTO PROPOSED GENERATOR ENCLOSURE. REFERENCE THE PLAN AND DETAIL ON SHEET S-010 FOR ADDITIONAL REQUIREMENTS.
A13	SAW CUT AND REMOVE PORTION OF EXISTING REINFORCED CONCRETE SLAB AS REQUIRED TO INSTALL NEW UNDERGROUND GAS SERVICE LINE FOR NEW BACKUP GENERATOR. SEE DETAIL ON SHEET S-010 FOR UNDERGROUND GAS SERVICE LINE AND SLAB INFILL REQUIREMENTS.
A14	SCREENWALL FENCE SYSTEM AS SPECIFIED
A15	NATURAL GAS PIPING TRANSITION FROM UNDERGROUND TO ABOVEGROUND. ABOVEGROUND NG PIPING SHALL BE ROUTED 8" ABOVE GRADE. PROVIDE PIPE SUPPORTS SPACED WITHIN 12" OF DIRECTIONAL TRANSITIONS AND EVERY 8'-0" FOR HORIZONTAL PIPING.
A16	REMOVE PORTION OF EXISTING SIDEWALK AS REQUIRED TO COMPLETE NEW WORK. NEW CONCRETE SIDEWALK INFILL TO MATCH EXISTING. FIELD VERIFY EXISTING SLAB THICKNESS. PROVIDE 4500 PSI CONCRETE (4-6% AIR ENTRAINMENT) WITH 6X6 W1 4X W1 4 WWF IN SLAB ON MINIMUM 6" COMPACTED SAND FILL. MATCH EXISTING SLAB ELEVATION AND GRADES. PROVIDE SLAB JOINT MATCHING EXISTING LOCATIONS AS REQUIRED.

### ENVIRONMENTAL REQUIREMENTS DURING EARTHWORK

A. PRIOR SITE PREPARATION HAS INCLUDED REMOVAL OF IMPACTED SURFACE SOILS. PLACEMENT OF A DEMARCATION LAYER (ORANGE-COLORED "SNOW-FENCE" MATERIAL) OVER REMAINING SUBGRADE SOILS, AND PLACEMENT OF CLEAN IMPORTED TOPSOIL OVER THE DEMARCATION LAYER TO CREATE AN UNCONTAMINATED GROUND SURFACE. SIMILAR IMPACTED SOILS MAY BE ENCOUNTERED IF CONSTRUCTION EXCAVATION EXTENDS BELOW THE DEMARCATION LAYER.

B. POTENTIAL IMPACTED SOILS MAY BE IDENTIFIED BY ODORS, STAINING, SHEENS, OR OILY LIQUIDS. THE MANAGEMENT (I.E., HANDLING, RELOCATION, OR GRADING) OF IMPACTED SOIL SHALL BE CONDUCTED IN ACCORDANCE WITH THE OWNER-PROVIDED "SOIL MANAGEMENT PLAN".

C. AT THE COMPLETION OF IMPACTED SOIL EXCAVATION AND RE-GRADING ACTIVITIES, THE DEMARCATION LAYER, CLEAN TOPSOIL, AND/OR SURFACE PAVEMENT, SHALL BE RECONSTRUCTED. VEGETATIVE COVER SHALL BE RE-ESTABLISHED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS TO SECURE THE SURFACE MATERIALS AGAINST STORMWATER OR WIND EROSION.

D. PERSONNEL WORKING IN CONTACT WITH IMPACTED SOILS BENEATH THE DEMARCATION LAYER ON THE SITE SHALL WEAR CLOTHING, GLOVES, AND WORK BOOTS THAT COVER ALL EXPOSED SKIN BELOW THE NECK-LINE. BOOTS WORN ONSITE SHOULD BE REMOVED BEFORE ENTERING PERSONAL RESIDENCES. CLOTHING WORN ONSITE SHOULD BE WASHED SEPARATELY FROM OTHER CLOTHING WHENEVER THEY BECOME SOILED. CONSTRUCTION WORKERS SHALL WASH HANDS AND ANY SOILED SKIN PRIOR TO EATING, SMOKING, OR LEAVING THE SITE.

E. IF IMPACTED SOILS ARE ENCOUNTERED DURING SITE WORK, THE ENVIRONMENTAL COMPLIANCE SUPERVISOR SHALL BE IMMEDIATELY NOTIFIED. IMMEDIATE ACTIONS SHALL BE TAKEN TO PREVENT RELEASES OF HAZARDOUS SUBSTANCES TO THE ENVIRONMENT, AND TO PROTECT SITE OCCUPANTS AND WORKERS. ACTIVITIES SHOULD BE PAUSED IN THAT AREA UNTIL AN ASSESSMENT OF THE POTENTIAL FOR ENVIRONMENTAL RISK IS PROPERLY CHARACTERIZED.

F. SUBJECT TO THE PROJECT SPECIFICATIONS AND PLANS, IMPACTED SOIL EXCAVATED AT THE SITE SHALL BE PLACED BACK IN THE AREA FROM WHICH IT WAS REMOVED TO THE EXTENT POSSIBLE. EXCESS IMPACTED SOILS THAT CANNOT BE BACKFILLED ON SITE WILL REQUIRE WASTE CHARACTERIZATION PRIOR TO OFFSITE DISPOSAL AT A LICENSED LANDFILL.

G. EXCESS IMPACTED SOILS SHALL BE STOCKPILED IN A DESIGNATED AREA UNTIL CHARACTERIZATION IS COMPLETE AND APPROPRIATE DISPOSAL OR RELOCATION OPTIONS ARE DETERMINED. STOCKPILED IMPACTED SOILS MUST BE COVERED EACH NIGHT WITH SECURED TARP OR PLASTIC MATERIAL TO MINIMIZE FUGITIVE DUST, UNNECESSARY CONTACT, AND EROSION OR RUNOFF DUE TO PRECIPITATION.

H. IMPACTED SOIL REQUIRING OFFSITE DISPOSAL WILL BE TRANSPORTED BY A LICENSED NON-HAZARDOUS WASTE HAULER AND DISPOSED INTO A LICENSED NON-HAZARDOUS LANDFILL FACILITY (TYPE II LANDFILL). CONTACT THE LANDFILL MANAGER OR WASTE HAULER FOR APPROPRIATE ANALYSES OF SOILS FOR DISPOSAL.

I. TRANSPORT TRUCKS OR CONTAINERS LEAVING THE CONSTRUCTION SITE FOR OFFSITE DISPOSAL SHALL BE COVERED WITH TARPS AND CLEANED OF ANY LOOSE MATERIALS ON THE EXTERIOR, FRAME, OR WHEELS OF THE TRANSPORT VEHICLE TO PREVENT TRACK-OUT OR ACCIDENTAL DEPOSITION OF IMPACTED SOIL AT UNAPPROVED LOCATIONS. ALL HAUL ROADS OR TRUCK ROUTES SHALL BE KEPT CLEAN OF SOILS TRACKED FROM THE SITE TO PREVENT WIND-BORNE MIGRATION OR STORMWATER RUNOFF OF IMPACTED SOILS.

J. OFF-SITE SOIL DISPOSAL ACTIVITIES WILL BE RECORDED BY APPROPRIATE DOCUMENTATION INCLUDING MANIFESTS, TRUCKING LOGS, LANDFILL RECEIPTS, AND OTHER DOCUMENTATION CONSISTENT WITH PA 451, SECTION 20120C. PROPOSED FORMS FOR THIS DOCUMENTATION SHALL BE SUBMITTED TO COLLIER'S FOR APPROVAL ALONG WITH PRE-CONSTRUCTION SUBMITTALS.

K. EACH LOAD OF IMPACTED SOIL LEAVING THE SITE FOR OFFSITE DISPOSAL SHALL BE DOCUMENTED WITH A NON-HAZARDOUS WASTE MANIFEST, IN TRIPPLICATE, AND BEARING A UNIQUE SEQUENTIAL IDENTIFYING NUMBER. THE LOAD MANIFEST SHALL IDENTIFY THE GENERATOR (SITE OWNER), TRANSPORTER (TRUCKING CONTRACTOR), AND RECEIVER (DISPOSAL FACILITY) OF THE LOAD.

L. THE GENERATOR AND TRANSPORTER SHALL SIGN THE LOAD MANIFEST PRIOR TO DEPARTURE FROM THE SITE. THE APPROVED FACILITY RECEIVING THE LOAD SHALL SIGN THE MANIFEST UPON ACCEPTANCE OF THE LOAD, AND ISSUE A LOAD ACCEPTANCE/WEIGHT RECEIPT FOR EACH LOAD ACCEPTED. THE WEIGHT RECEIPT SHALL INCLUDE THE LOADED WEIGHT OF THE INBOUND TRANSPORTER, AND THE TARE WEIGHT OF THE EMPTY OUTBOUND TRANSPORTER, AS MEASURED AT THE RECEIVING FACILITY SCALES.

M. COMPLETED SIGNED COPIES OF EACH LOAD MANIFEST, AND MATCHING ACCEPTANCE/WEIGHT RECEIPT, SHALL BE RETURNED TO THE COLLIER'S SITE REPRESENTATIVE DAILY. THE COLLIER'S SITE REPRESENTATIVE WILL MAINTAIN A LOG OF EACH TRUCK LEAVING THE SITE. THE MANIFEST NUMBER THAT WAS ISSUED WITH THAT LOAD, AND THE LOAD ACCEPTANCE/WEIGHT RECEIPT RETURNED FOR THAT LOAD. MISSING LOAD ACCEPTANCE/WEIGHT RECEIPTS MAY DISQUALIFY A LOAD FROM PAYMENT UNDER THE CONTRACT TERMS. AT THE COMPLETION OF CONSTRUCTION, THE COLLIER'S SITE REPRESENTATIVE WILL PREPARE A SUMMARY REPORT OF ALL DISPOSAL DOCUMENTATION FOR THE OWNER'S RECORD-KEEPING.

N. CONSTRUCTION-RELATED HAZARDOUS MATERIALS INCLUDING FUEL, PETROLEUM PRODUCTS, LUBRICANTS, BATTERIES, OR OTHER CHEMICALS, SHALL BE STORED WITHIN APPROVED LOCATIONS IDENTIFIED IN THE PROJECT CONSTRUCTION DOCUMENTS, IN A MANNER THAT WILL PREVENT RELEASES OF HAZARDOUS MATERIALS INCLUDING THE USE OF DOUBLE-WALLED CONTAINERS OR TEMPORARY SECONDARY CONTAINMENT SYSTEMS.

O. IF THERE IS A RELEASE OF HAZARDOUS MATERIALS DURING CONSTRUCTION, ACTIONS CONSISTENT WITH REQUIREMENTS OF MICHIGAN ACT 451, PART 201 OR PART 213, AS APPLICABLE, SHALL BE IMPLEMENTED, INCLUDING:

- IMMEDIATELY STOPPING OR PREVENTING THE RELEASE AT ITS SOURCE(S);
- DETERMINE THE EXTENT AND SEVERITY OF THE RELEASE;
- IMMEDIATELY IDENTIFY AND ELIMINATE ANY THREAT OF FIRE OR EXPLOSION OR ANY DIRECT CONTACT HAZARDS;
- REPORT THE RELEASE TO THE COLLIER'S SITE REPRESENTATIVE OR OWNER'S REPRESENTATIVE.

• IF THE RELEASE EXCEEDS THE APPLICABLE REPORTABLE QUANTITY (IF ANY) OR THERE IS A THREAT OR IMMINENT AND SUBSTANTIAL ENDANGERMENT TO THE PUBLIC OR THE ENVIRONMENT, REPORT TO THE POLLUTION EMERGENCY ALERTING SYSTEM (PEAS, 1-800-292-4706).

**CONTACTS:**  
COLLIER'S ENGINEERING SITE REPRESENTATIVE:  
SOMAT ENGINEERING REPRESENTATIVE: BRIAN SMITS, (313)-912-5291

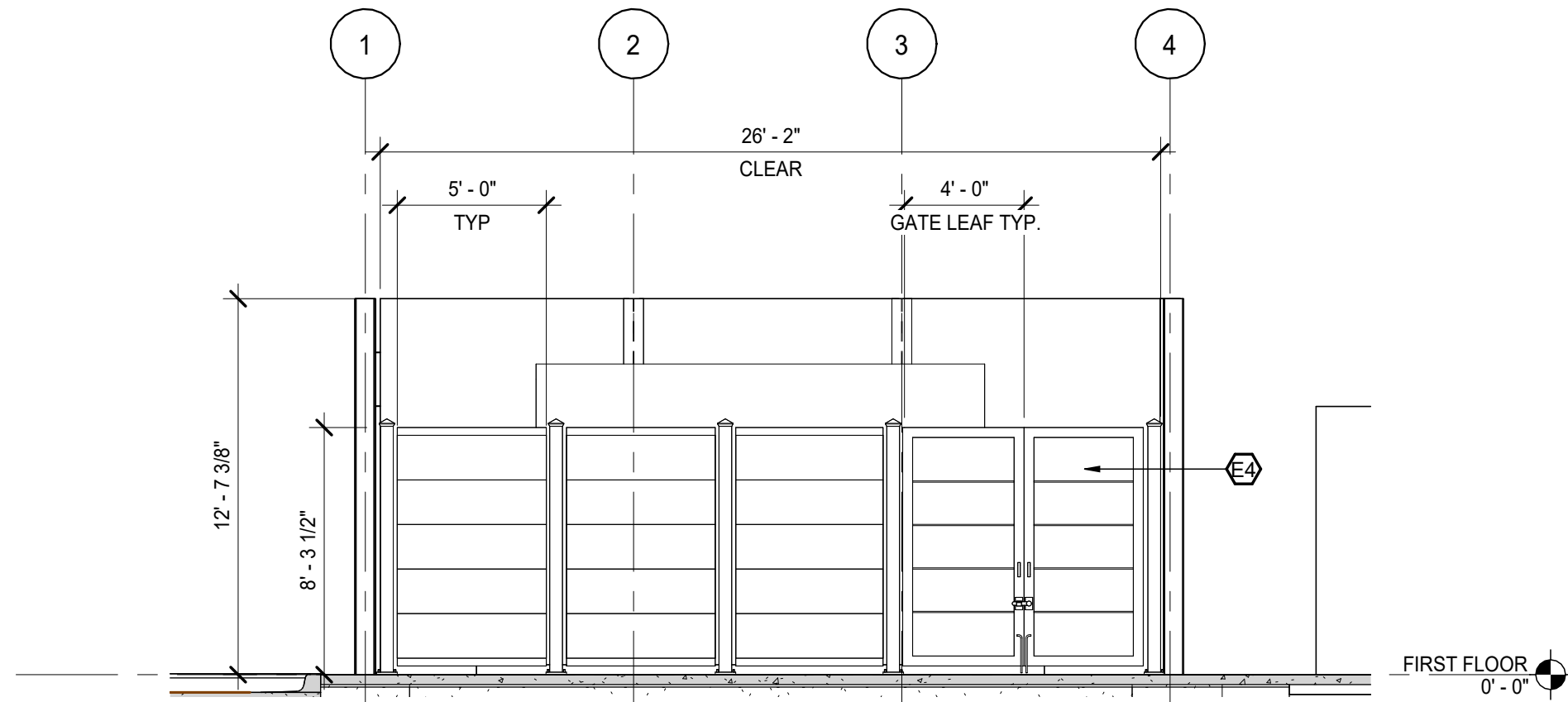
STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
STATE FACILITIES ADMINISTRATION  
DESIGN AND CONSTRUCTION DIVISION  
ADAM P. LACH, R.A., DIRECTOR

Colliers  
Engineering  
& Design

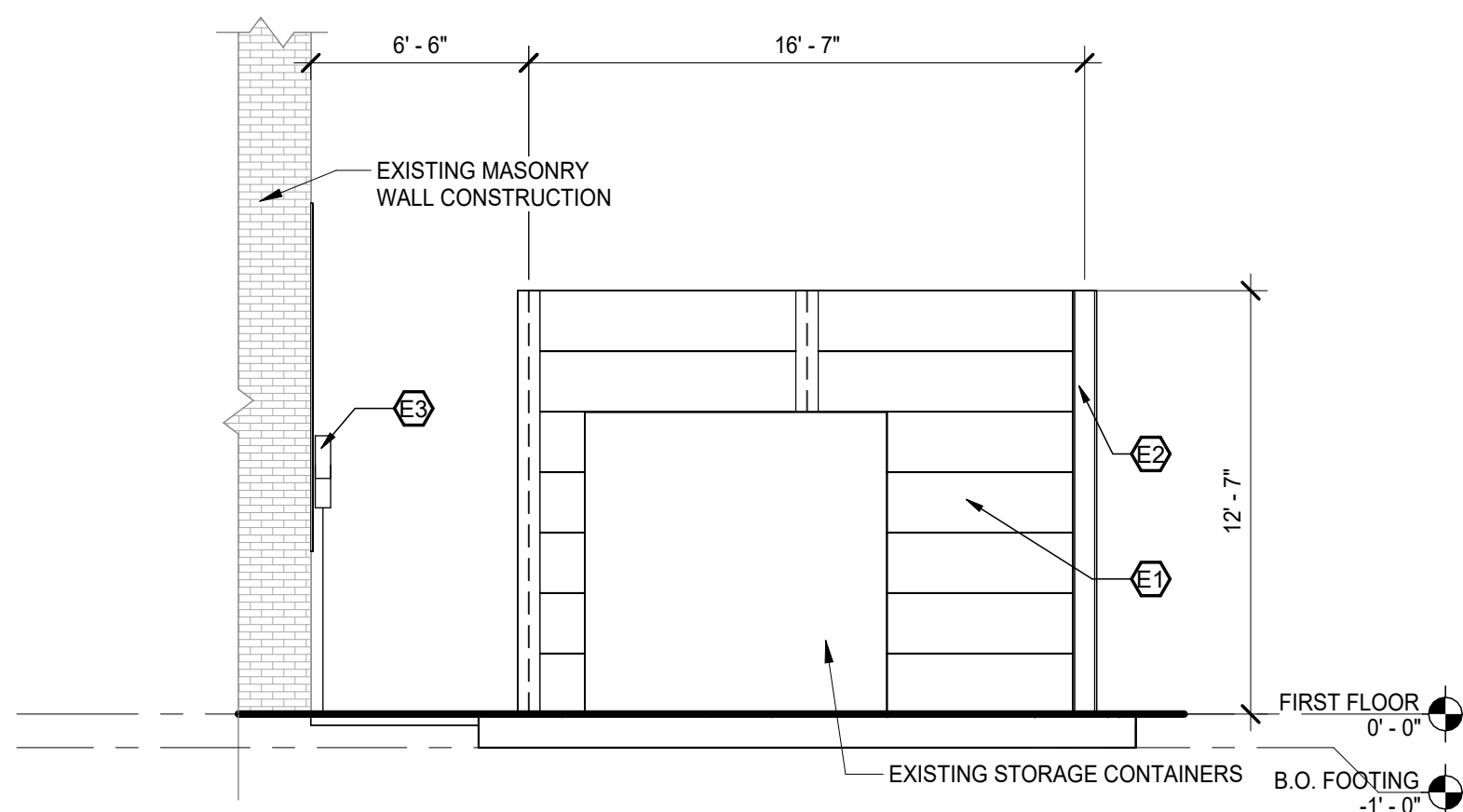
PLANS FOR:  
**Outdoor Adventure Center -  
Emergency Back Up Power**  
1801 Atwater Street  
Detroit, MI 48207

DESIGNED K. ROCKART	DRAWN K. ROCKART	CHECKED B.L.	APPROVED D. MOSE
DATE			
ISSUED FOR	<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> CONSTRUCTION <input checked="" type="checkbox"/> PLAN REVIEW <input type="checkbox"/> CORRECTION <input type="checkbox"/> FINAL RECORD		
IDENTIFICATION NO.	FILE NO. <b>751-23030.MNB</b> CONTRACT NO. <b>Y24249</b>		
SHEET	<b>A101</b>		

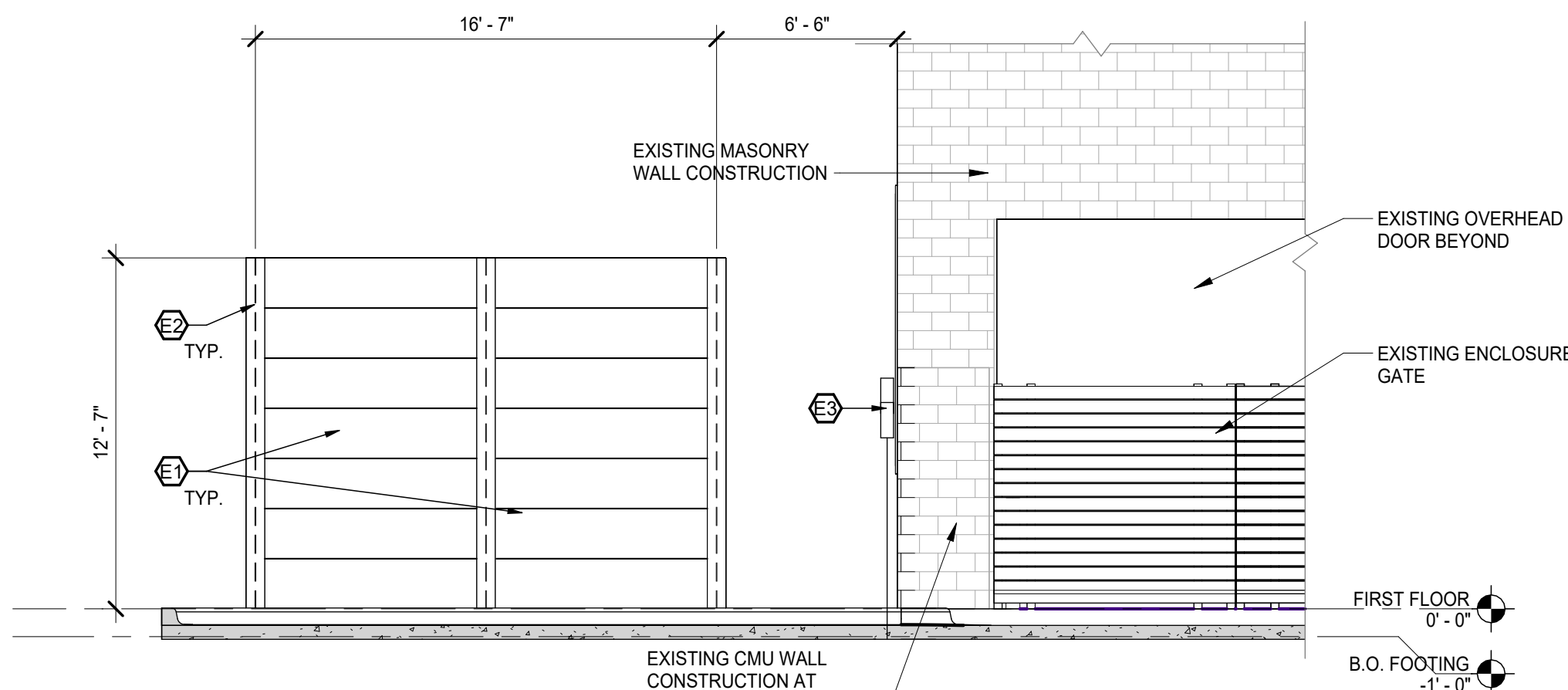




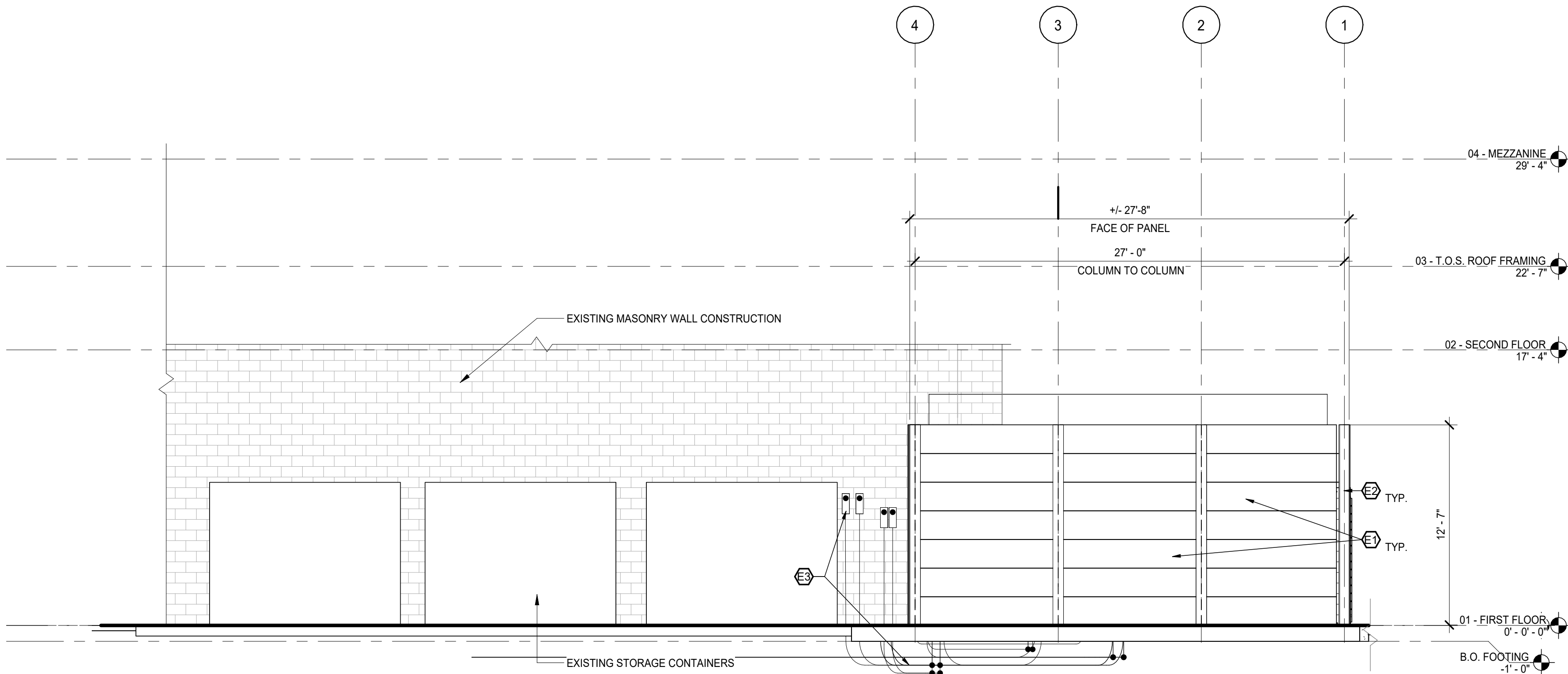
4 Elevation 1 - a  
SCALE : 3/16" = 1'-0"



3 EXTERIOR ELEVATION - EAST  
SCALE : 3/16" = 1'-0"



2 EXTERIOR ELEVATION - WEST  
SCALE : 3/16" = 1'-0"



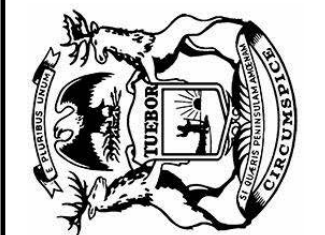
1 EXTERIOR ELEVATION - NORTH  
SCALE : 3/16" = 1'-0"

#### KEYNOTES

Keynote Number	Keynote Description
E1	ACOUSTICAL WALL PANEL BARRIER SYSTEM AS SPECIFIED - TYP.
E2	SCREEN WALL PREFINISHED STEEL COLUMN BY ACOUSTICAL WALL PANEL MANUFACTURER (COLOR TO MATCH ACOUSTICAL SCREEN WALL PANEL -TYP.)
E3	ELECTRICAL SERVICE CONDUITS FROM GENERATOR, SEE ELECTRICAL.
E4	SCREENWALL FENCE SYSTEM AS SPECIFIED, PROVIDE SLIDE BOLT CANE (EA. LEAF) AND PADLOCK HASP - SCREENWALL AND INFILL PANEL COLOR TO MATCH ACOUSTIC SCREENWALL COLOR- TYP.

#### GENERAL EXTERIOR ELEVATION NOTES

- ALL EXISTING CONDITIONS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES BETWEEN THE EXISTING CONSTRUCTION AND THE PROPOSED NEW WORK SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PRIOR TO COMMENCEMENT OF THE WORK FOR DIRECTION.
- WHERE THE EXISTING EXTERIOR FINISH MATERIAL IS DAMAGED OR IDENTIFIED FOR NEW CONSTRUCTION, THE CONTRACTOR SHALL PATCH, REPAIR, AND/OR REPLACE THE EXISTING ADJACENT FINISHES AS REQUIRED TO DELIVER THE EXISTING PREMISES AND EXTERIOR FINISHES IN "LIKE NEW" CONDITION.
- REFINISHING AND/OR PAINTING OF THE EXISTING SURFACES SHALL BE FOR THE ENTIRE SURFACE AREA (EDGE TO EDGE) WHERE THE NEW WORK OR REQUIRED PATCHING, REPAIRING AND/OR REPLACEMENT WORK IS IDENTIFIED.



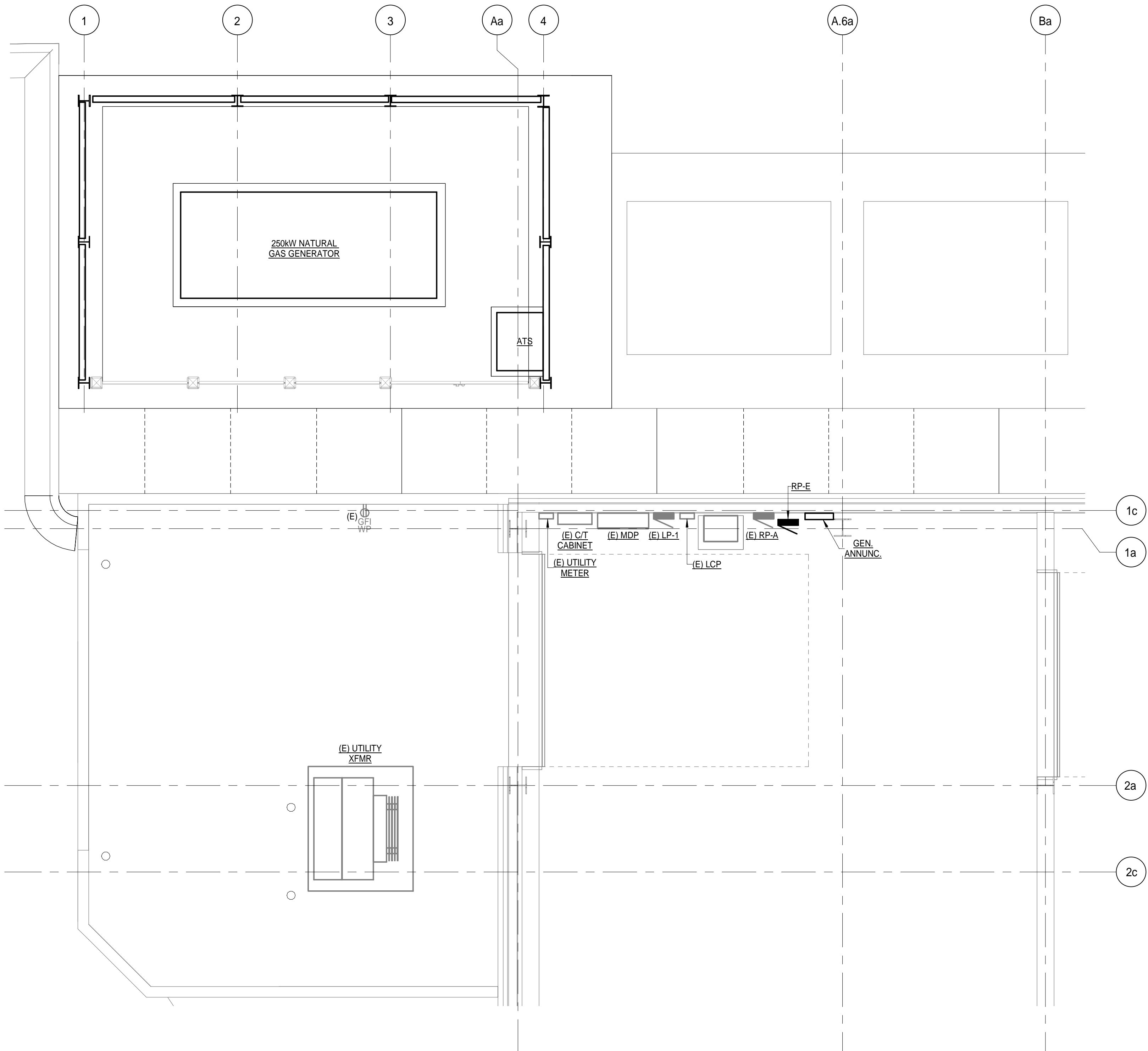






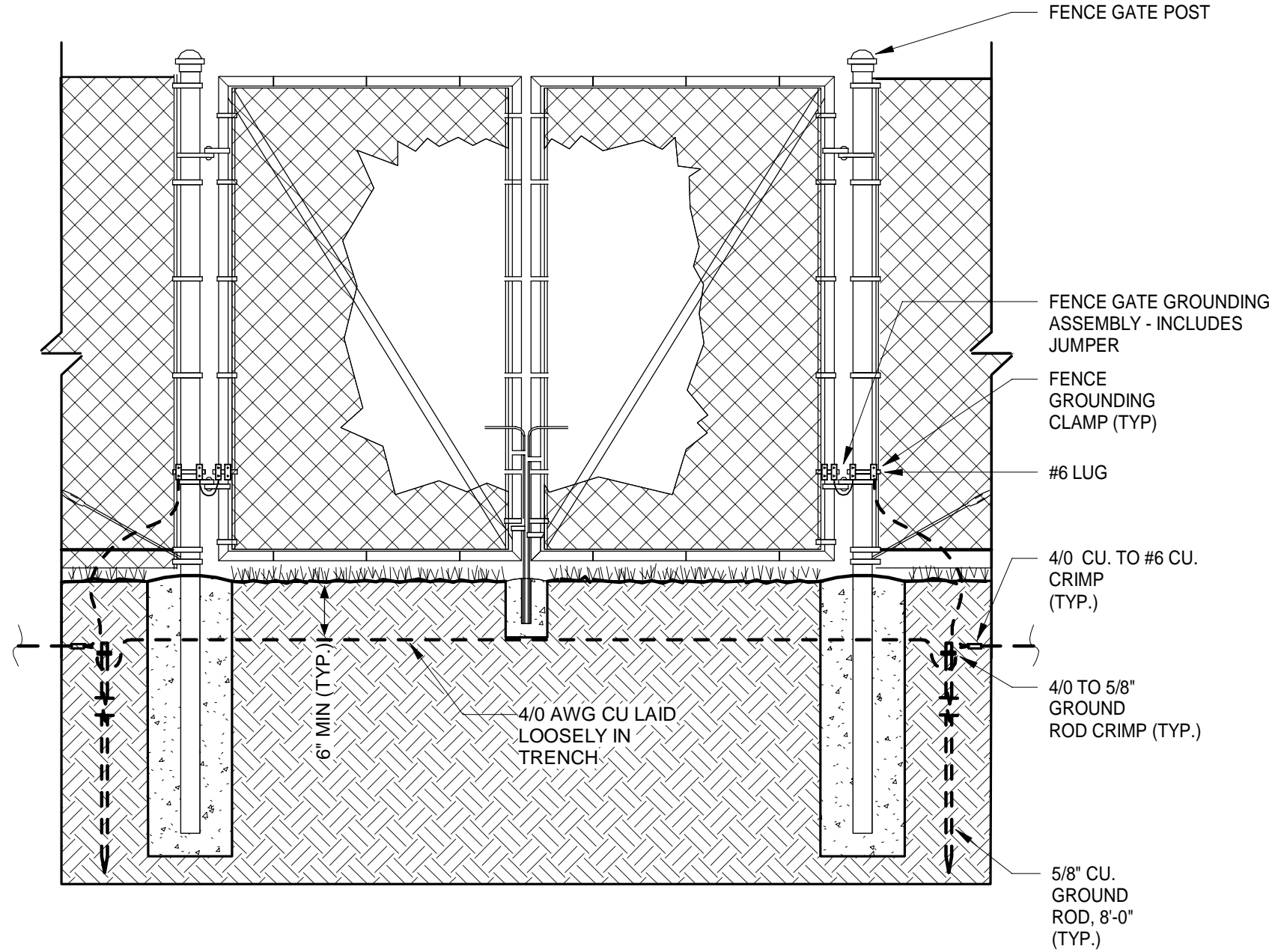
1 ELECTRICAL SITE PLAN

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



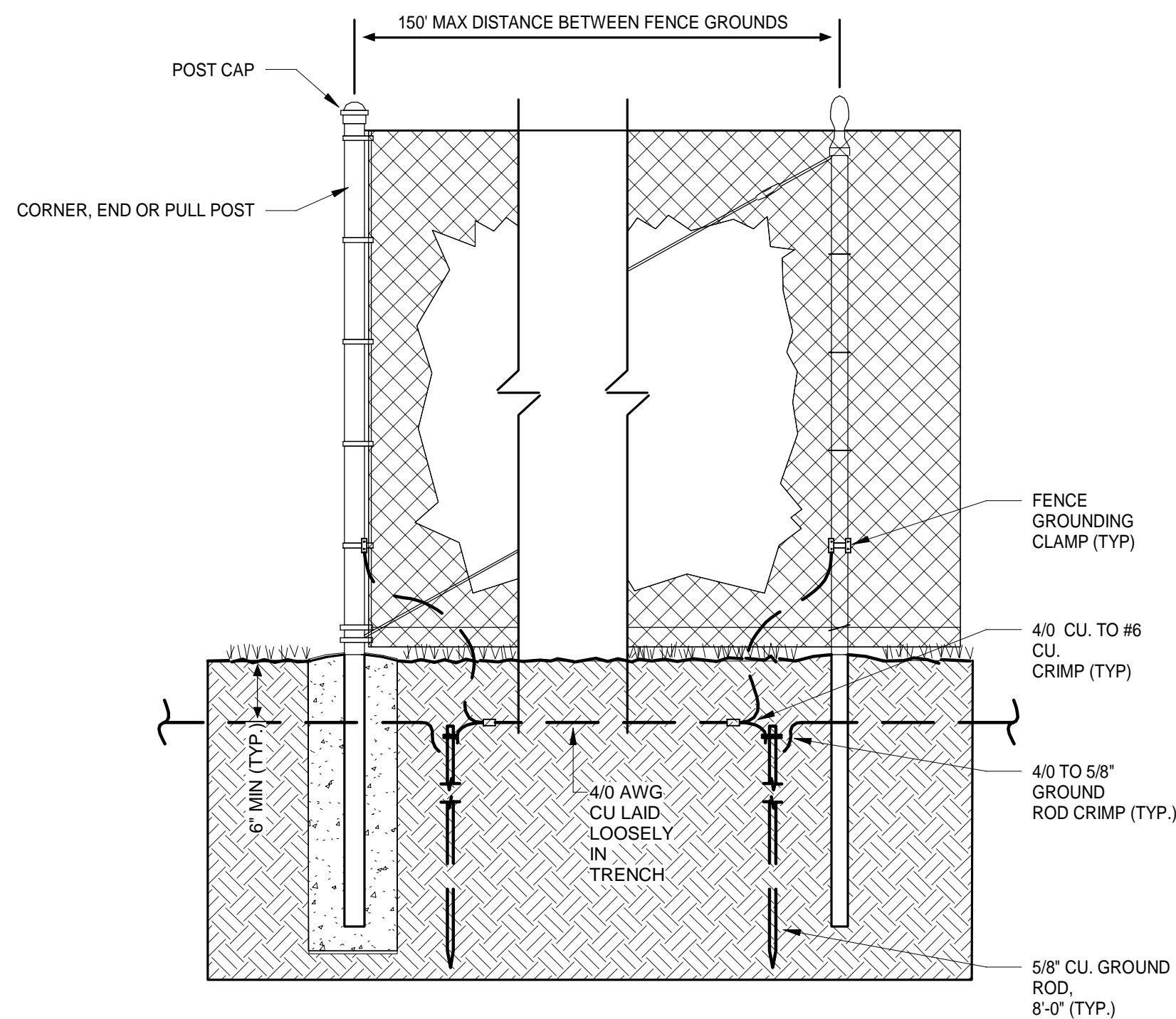
2 FENCE GATE GROUNDING DETAIL

SCALE : 12" = 1'-0"



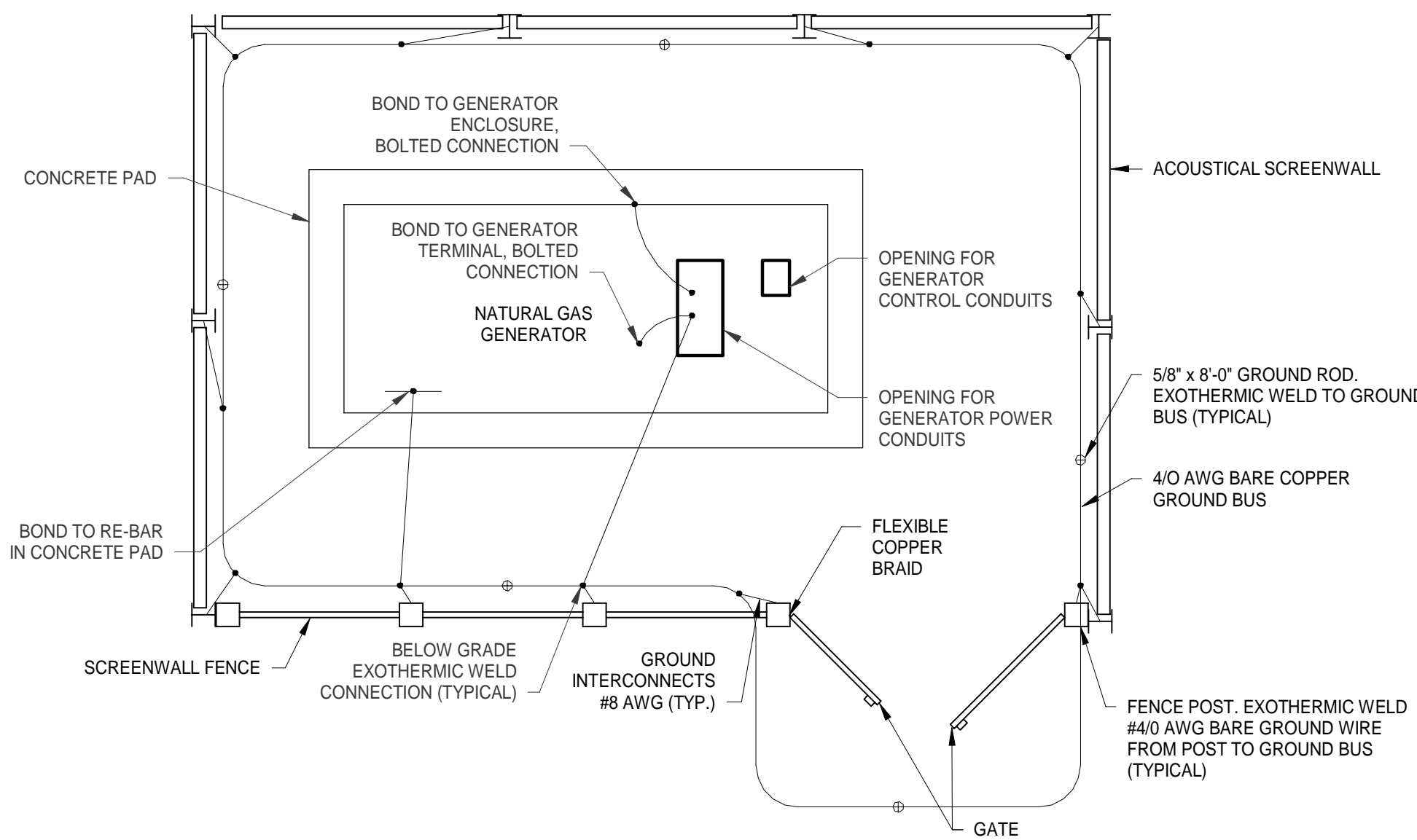
3 FENCE GROUNDING DETAIL

SCALE : 12" = 1'-0"



4 GENERATOR GROUNDING DETAIL

SCALE : NTS



GENERAL NOTES:

- A. CONTRACTOR SHALL CALL DIG AUTHORITY AT LEAST 3 WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO CONSTRUCTION.

FENCE GROUNDING GENERAL NOTES:

1. GROUNDING RODS SHALL BE INSTALLED AT EVERY CORNER POST, ON BOTH SIDES OF THE GATE AND AT MAXIMUM OF 150 FEET. AT EACH OF THESE LOCATIONS THE FENCE POSTS, CORNER POSTS, GATE POSTS, AND FENCE MATERIAL SHALL BE BONDED.
2. AT THE GATED LOCATIONS, THE GROUND GRID SHALL EXTEND TO COVER THE SWING OF THE GATE BY A MINIMUM OF 3' AND A MAXIMUM OF 6'.
3. ALL BURIED OR EMBEDDED GROUND CONNECTIONS SHALL BE IRREVERSIBLE COMPRESSION TYPE.
4. ALL GROUND CONNECTIONS ABOVE GRADE OR EXPOSED ARE TO BE MADE WITH BOLTED SOLDER-LESS CONNECTIONS.
5. SECURE GROUND CONDUCTOR TO CONCRETE SURFACES USING GALVANIZED PIPE CLAMPS.
6. ALL GROUNDING MATERIAL SHALL BE LISTED FOR THE PURPOSE.
7. ALL GROUNDING AND BONDING SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT VERSION OF THE NATIONAL ELECTRIC CODE (NEC 250.194), NATIONAL ELECTRIC SAFETY CODE (RULE 092E) AND ALL OTHER APPLICABLE STATE OR LOCAL CODES AND STANDARDS.
8. SURVEYOR SHALL MARK ALL ENDS OF ALL GROUNDED FENCE SEGMENTS WITH WOODEN STAKE PRIOR TO CONSTRUCTION.



Know what's below.  
Call before you dig.

PROTECT YOURSELF  
ALL STATES REQUIRE NOTIFICATION OF  
EXCAVATORS, DESIGNERS, OR ANY PERSON  
PREPARING TO DISTURB THE EARTH'S  
SURFACE ANYWHERE IN ANY STATE  
FOR STATE SPECIFIC DIRECT PHONE NUMBERS  
VISIT: WWW.CALL811.COM

PLANS FOR:  
**Outdoor Adventure Center -  
Emergency Back Up Power**  
1801 ATWATER STREET  
DETROIT, MI 48207

DESIGNED  
C. NIKONCHUK  
DRAWN  
C. NIKONCHUK  
CHECKED  
A. ROBINSON  
APPROVED  
A. ROBINSON

DATE  
11/14/2025

ISSUED FOR  
☐ PRELIMINARY  
☐ CONSTRUCTION  
☒ PLAN REVIEW  
☐ CORRECTION  
☐ FINAL RECORD

IDENTIFICATION NO.  
FILE NO.  
751-23030-MNB  
CONTRACT NO.  
Y24249

SHEET  
ES001

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
STATE FACILITIES ADMINISTRATION  
DESIGN AND CONSTRUCTION DIVISION  
ADAM P. LACH, RA, DIRECTOR

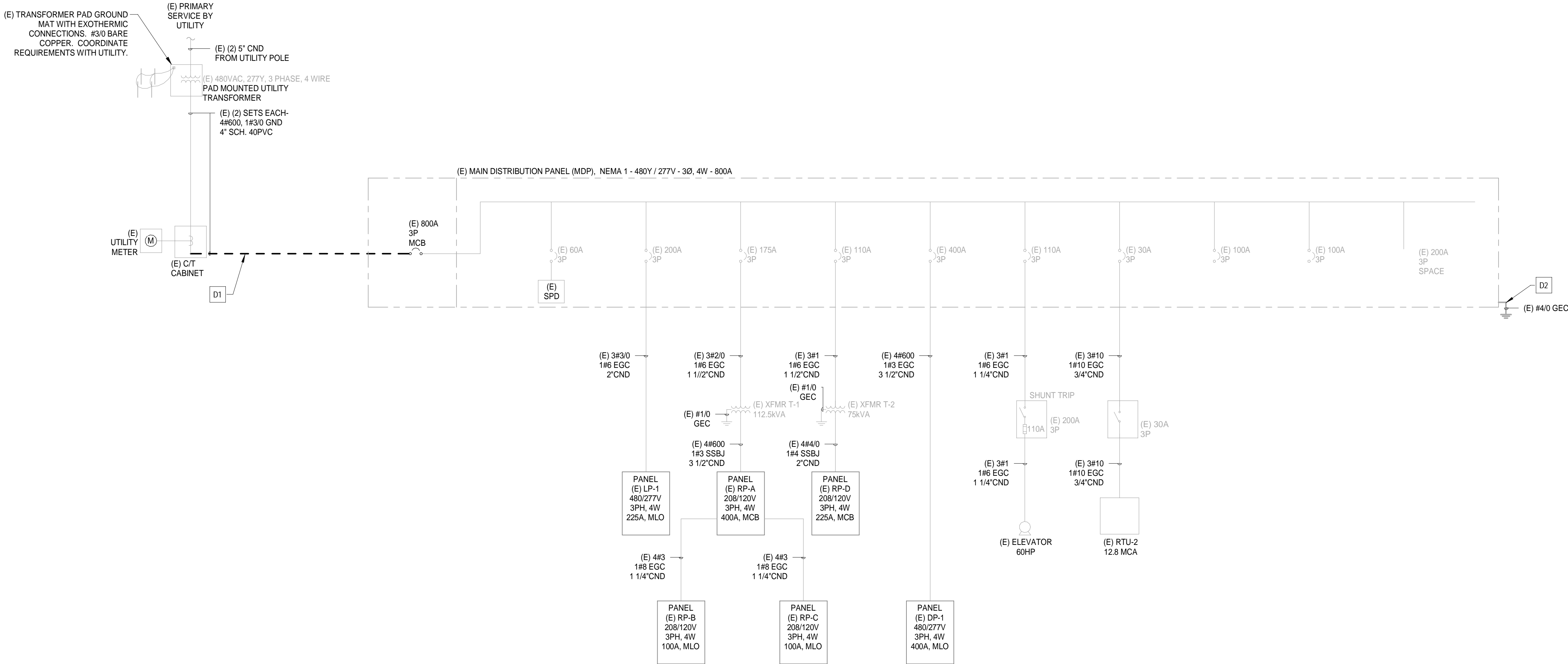


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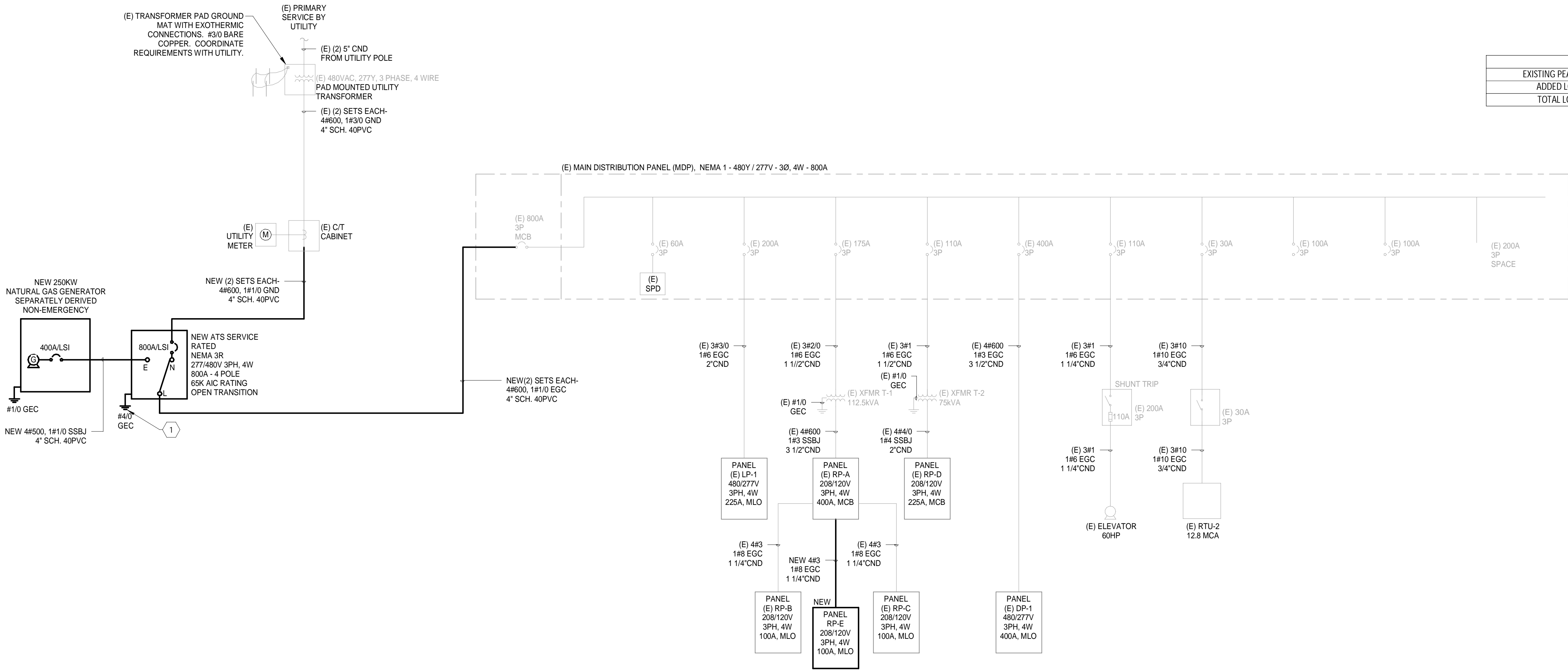








1 EXISTING ONE LINE DIAGRAM  
SCALE : N.T.S.



2 REVISED ONE LINE DIAGRAM  
SCALE : N.T.S.

GENERAL NOTES:

A. OVERCURRENT DEVICES OF ENTIRE DISTRIBUTION SYSTEM SHALL MEET STATED FAULT CURRENT VALUES WITH FULLY RATED EQUIPMENT.

DEMO KEYNOTES #

- D1 DISCONNECT AND REMOVE CONDUIT AND WIRE.
- D2 DISCONNECT AND REMOVE GROUNDING ELECTRODE CONDUCTOR.

ONE LINE KEYNOTES

- 1 PROVIDE NEW GEC TO EXISTING GROUNDING SYSTEM.

	LOAD (kW)	LOAD (A)
EXISTING PEAK LOAD:	61.6	82.3
ADDED LOAD:	5.8	7.8
TOTAL LOAD:	67.4	90.1



DESIGNED C. NIKONCHUK	DATE	ISSUED FOR	IDENTIFICATION NO.	SHEET
DRAWN C. NIKONCHUK	11/14/2015	PRELIMINARY CONSTRUCTION PLAN REVIEW CORRECTION FINAL RECORD	FILE NO. 751-23030.MNB CONTRACT NO. Y24249	E601



Branch Panel: (E) RP-A

Location: STORAGE 136

Supply From: (E) T-1

Mounting: SURFACE

Enclosure: NEMA1

Volts: 208Y/120

Phases: 3

Wires: 4

A.I.C. Rating: 10,000 AMPS SYMMETRICAL

Mains Type: MLO

Mains Rating: 400 A

MCB Rating: 350 A

Notes:  
\*\*NEW LOAD IN BOLD\*\*

CKT	Circuit Description	Trip	Poles	PHASE A	PHASE B	PHASE C	Poles	Trip	Circuit Description	CKT
1				8299	2000					2
3	RP-C	100 A	3		6000	1328		3	100 A RP-E	4
5						6600	1238			6
7	RECEPTACLE RM 132	20 A	1	400	400			1	20 A RECEPTACLE RM 132	8
9	RECEPTACLE RM 132	20 A	1		400	800		1	20 A RECEPTACLE RMS 125, 129 & 130	10
11	RECEPT OUTSIDE/GEN. EPO	20 A	1				917	1178	20 A DOOR OPERATOR RM 136	12
13	DOOR OPERATOR RM 130	20 A	1	1178	510			1	20 A SECURITY PANEL	14
15	RECEPTALCE RMS 122 & 123	20 A	1		600	200		1	20 A RECEPTACLE RM 120	16
17	RECEPTACLE RM 124	20 A	1			1000	400	1	20 A RECEPTACLE RM 124	18
19	RECEPTACLE RM 120	20 A	1	800	600			1	20 A RECEPTACLE RM 120	20
21	RECEPTACLE RM 120	20 A	1		600	1200		1	20 A VENDING MACHINE	22
23	EWI#2	20 A	1			2000	1200	1	20 A VENDING MACHINE	24
25	CAVE LIGHTING	20 A	1	1000	1200			1	20 A VENDING MACHINE	26
27	OZONE	20 A	1		800	500		1	20 A CAMERA	28
29	HAND DRYER 122	20 A	1			1200	1000	1	20 A 3RD FLOOR LTG / GIFT SHOP	30
31	HAND DRYER 122	20 A	1	1200	1000			1	20 A SOUTH WEST JBOX	32
33	HAND DRYER 123	20 A	1		1200	1000		1	20 A IT ROOM STATE OF MICHIGAN	34
35	HAND DRYER 123	20 A	1			1200	1000	1	20 A IT ROOM STATE OF MICHIGAN	36
37	RECEPTACK RM 136	20 A	1	800	1000			1	20 A IT ROOM STATE OF MICHIGAN	38
39	RECEPTACLE RMS 135 & 133	20 A	1		1000	1248				40
41	RECEPTACLE RM 134	20 A	1			800	1248	2	20 A WATERFALL PUMP #1 & #2	42
Total Load:				29668 VA	25518 VA	29018 VA				
Total Amps:				252 A	213 A	246 A				
Load Classification		Connected Load		Demand Factor		Estimated...		Panel Totals		
Equipment		10192 VA		100.00%		10192 VA				
Other		19847 VA		100.00%		19847 VA		Total Conn. Load: 84204 VA		
MTR		8273 VA		107.54%		8897 VA		Total Est. Demand: 68381 VA		
RCPT		43894 VA		61.39%		26947 VA		Total Conn.: 234 A		
LITES		1999 VA		125.00%		2499 VA		Total Est. Demand: 190 A		
Notes:										

Branch Panel: RP-E

Location: STORAGE 136

Supply From: (E) RP-A

Mounting: SURFACE

Enclosure: NEMA1

Volts: 208Y/120

Phases: 3

Wires: 4

A.I.C. Rating: 10,000 AMPS SYMMETRICAL

Mains Type: MLO

Mains Rating: 100 A

Notes:

CKT	Circuit Description	Trip	Poles	PHASE A	PHASE B	PHASE C	Poles	Trip	Circuit Description	CKT
1	RECEPTACLE RM 136	20 A	1	800	1200			1	20 A GEN. BATTERY CHARGER	2
3	RECEPTACLE RM 131	20 A	1		600	728		2	20 A GENERATOR BLOCK HEATER	4
5	FIRE ALARM PANEL	20 A	1			510	728			6
7	SPARE	20 A	1	0	0			1	20 A SPARE	8
9	SPARE	20 A	1		0	0		1	20 A SPARE	10
11	SPARE	20 A	1			0	0	1	20 A SPARE	12
13	SPACE	--	1	--	--			1	-- SPACE	14
15	SPACE	--	1	--	--	--	--	1	-- SPACE	16
17	SPACE	--	1	--	--	--	--	1	-- SPACE	18
19	SPACE	--	1	--	--			1	-- SPACE	20
21	SPACE	--	1	--	--	--	--	1	-- SPACE	22
23	SPACE	--	1	--	--	--	--	1	-- SPACE	24
25	SPACE	--	1	--	--			1	-- SPACE	26
27	SPACE	--	1	--	--	--	--	1	-- SPACE	28
29	SPACE	--	1	--	--	--	--	1	-- SPACE	30
Total Load:				2000 VA	1328 VA	1238 VA				
Total Amps:				17 A	11 A	10 A				
Load Classification		Connected Load		Demand Factor		Estimated...		Panel Totals		
Other		3166 VA		100.00%		3166 VA		Total Conn. Load: 4566 VA		
RCPT		1400 VA		100.00%		1400 VA		Total Est. Demand: 4566 VA		
								Total Conn.: 13 A		
								Total Est. Demand: 13 A		
Notes: **CIRCUITS 1, 3 & 5 HAVE BEEN RELOCATED FROM PANEL RP-A**										

STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

STATE FACILITIES ADMINISTRATION

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E801