



ARCHITECTURE

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NEW SMITH MIDDLE SCHOOL

Troy School District - Troy, Michigan 48085

2022 BOND PROGRAM - BID BACKAGE 03D

Project Number 22102

SWITCHGEAR

CONSULTANTS:

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LIST OF DRAWINGS

GENERAL INFORMATION

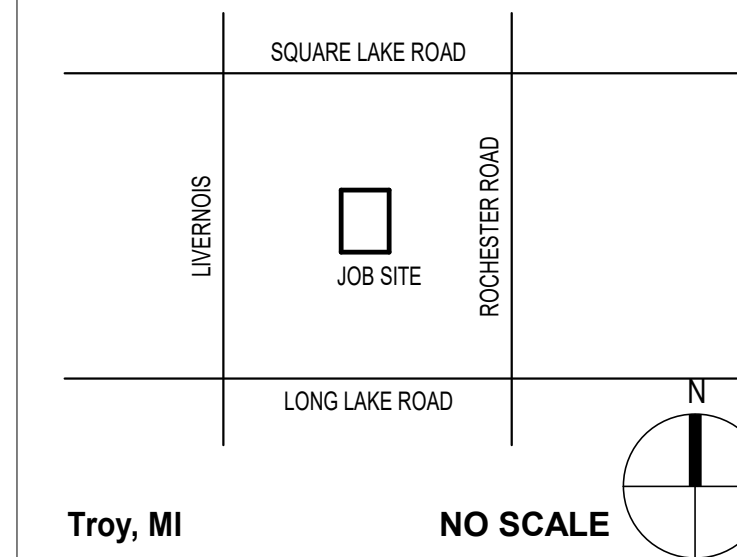
TS.1-03C Cover Sheet - Bid Package 03C
 TG.1 General Information

ELECTRICAL

EO.1 Electrical Standards and Drawing Index
 ES.1 One Line Diagram

PROJECT DATA:

LOCATION MAP:



Troy, MI

NO SCALE

ADDRESS: NEW SMITH MIDDLE SCHOOL
 5835 Donaldson
 Troy, Michigan 48085

Building:

BUILDING AREA(S) = **NOT APPLICABLE**

CODE:

- GOVERNING CODES:**
- 2016 SCHOOL FIRE SAFETY RULES (2012 Life Safety Code, plus amendments)
 - 2015 MICHIGAN BUILDING CODE
 - 2015 MICHIGAN PLUMBING CODE
 - 2015 MICHIGAN MECHANICAL CODE
 - 2015 MICHIGAN UNIFORM ENERGY CODE (ANSI/ASHRAE/IESNA Standard 90.1-2013)
 - 2017 MICHIGAN ELECTRICAL CODE (2017 NEC, plus Part 9 Rules)
 - 2010 MICHIGAN ELEVATOR RULES (ASME A17.1-2010, ASME A18.1-2011)
 - MICHIGAN BARRIER FREE CODE (Michigan Building Code 2015 and ICC A117.1-2009)
 - 2013 MICHIGAN BOILER CODE RULES (ASME Boiler and Pressure Vessel Code, 2019 edition) (National Board Inspection Code (NBIC), 2019 edition)

USE GROUP CLASSIFICATION: **"E" EDUCATION**

CONSTRUCTION TYPE: **TYPE II (000) LSC**
TYPE II-B (MBC)

ISSUE DATES

DATE	ISSUED FOR:
02-28-2024	SWITCHGEAR PACKAGE

LICENSEE'S STATEMENT:

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REGISTRATION SEALS

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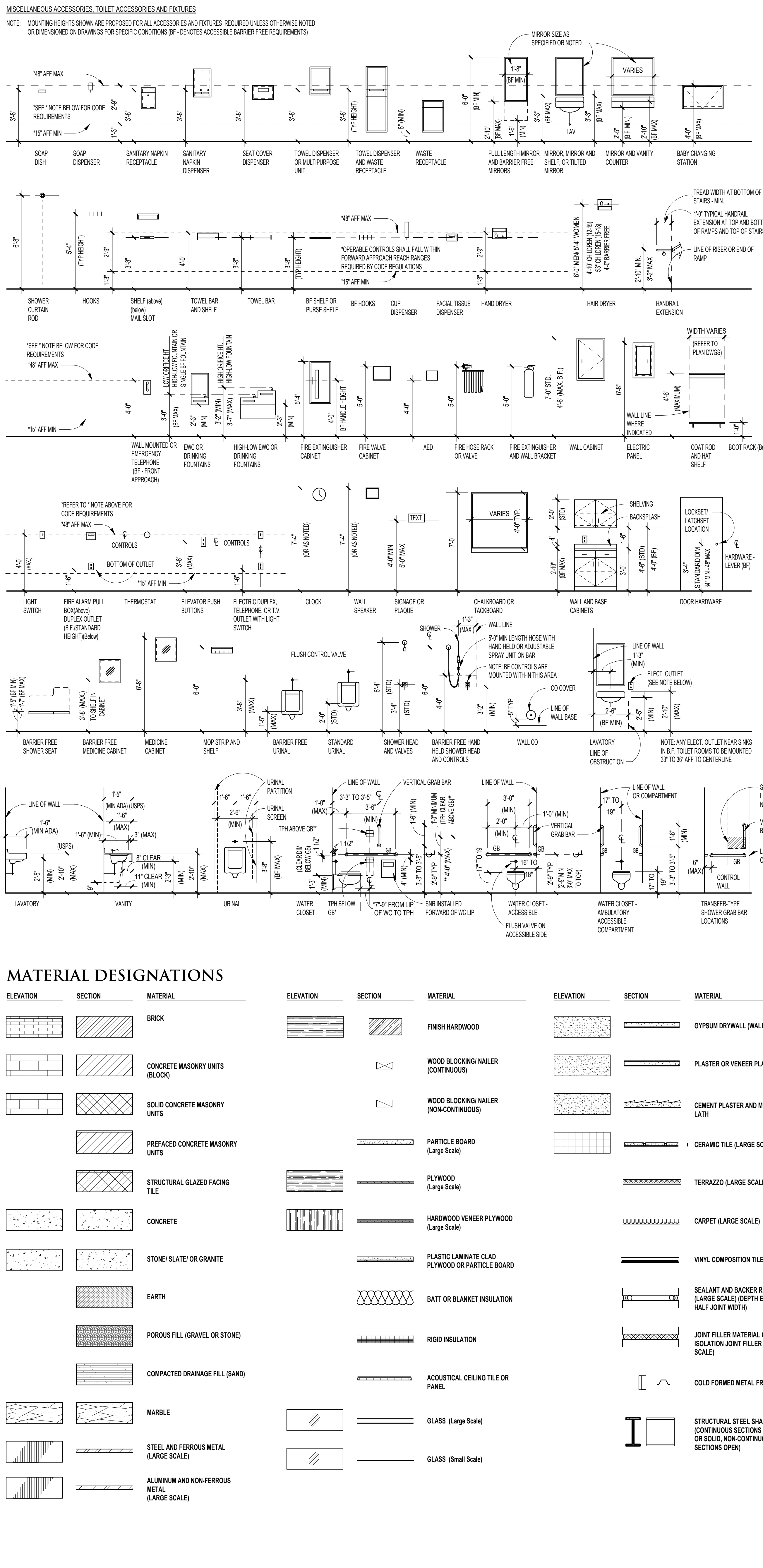
PROJECT TITLE
NEW SMITH MIDDLE SCHOOL

PROJECT NO.
22102
DRAWING NO.
TS.1-03D

ABBREVIATIONS

A	AVF ABOVE	D	DMR DAMPER	H	HNDOP HANDICAPPED	O	OSB OBTUSE GLASS	S	SP STANDPIPE
ABV ABOVE FINISH FLOOR	DMRF DAMPROOFING	DEAL LOAD	DB DEBRIS	HR HARDWARE	HND HARDWOOD	OBS OBSOLETE GLASS OFF	SSB STAINLESS STEEL	STA STATIC PRESSURE	
ABR ABRASIVE	DB DEBRIS	DEBRIS	DC DECIBEL	HW HARDWARE	HO HO	OC ON CENTER	STM STEAM	STL STEEL	
ABS ABSORBING	DCL DEER	DGL DOOR GLAZING	DD DOOR	HDR HARDWARE	HWD HARDWOOD	OP OPENING	STL PL STEEL PLATE	STF STIFFENER	
ACC ACCESS PANEL	DMA DRAWING	DMG DRAWING	DOL DOOR LATCH	HOL HOLLOW CORE	HOH HOLLOW METAL	OPR OPERATOR	STO STR	SFR STORAGE	
ACC PNL ACCESS PANEL	DMG DRAWING	DMP PARTN	DMF DETAIL	HOS HOSE	HHT HEATER	OPP OPPOSITE	STO STR	SFR STORAGE	
ACC PNL AC ACCESS PANEL	DMP PARTN DEMOUNTABLE PARTITION	DMS DETAIL MECHANICAL DRAWING	DA DETAIL	HTR HEATER	HOC HOIST OPERATOR	OPH OPPOSITE HAND	ORIG ORIGINAL	ORNL ORNAMENTAL	
AC AC	DA DETAIL	DA DETAIL	DA DETAIL	HTG HEATING	HOV HEATING AND VENTILATING	ORL ORIGINAL	ST STRUCT	STRAIGHT	
AC AC	DA DETAIL	DA DETAIL	DA DETAIL	HTR HEATER	HOC HOIST OPERATOR	ORL ORIGINAL	ST STRUCT	STRAIGHT	
AC AC	DA DETAIL	DA DETAIL	DA DETAIL	HTR HEATER	HOC HOIST OPERATOR	ORL ORIGINAL	ST STRUCT	STRAIGHT	
AD AD	DA DETAIL	DA DETAIL	DA DETAIL	HTR HEATER	HOC HOIST OPERATOR	ORL ORIGINAL	ST STRUCT	STRAIGHT	
AD AD	DA DETAIL	DA DETAIL	DA DETAIL	HTR HEATER	HOC HOIST OPERATOR	ORL ORIGINAL	ST STRUCT	STRAIGHT	
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AD AD	DA DETAIL	DA DETAIL	DA DETAIL	HTR HEATER	HOC HOIST OPERATOR	ORL ORIGINAL	ST STRUCT	STRAIGHT	

TYPICAL MOUNTING HEIGHTS



REFERENCE

DETAIL	DETAIL IDENTIFICATION NUMBER (SAME NUMBER ON SHEET WHERE DRAWN OR REFERENCED)
SECTION IDENTIFICATION	SECTION IDENTIFICATION NUMBER (SAME NUMBER ON SHEET WHERE DRAWN OR REFERENCED)
ELEVATION IDENTIFICATION	ELEVATION IDENTIFICATION NUMBER(S) (SAME NUMBER ON SHEET WHERE DRAWN OR REFERENCED)
MATCHLINE	MATCHLINE IDENTIFICATION NUMBER (INDICATES SHEET NUMBER WHERE DETAIL IS DRAWN)
DOOR	DOOR IDENTIFICATION NUMBER (INDICATES SHEET NUMBER WHERE DETAIL IS DRAWN)
ROOM NAME AND NUMBER	ROOM NAME AND NUMBER (INDICATES SHEET NUMBER WHERE DETAIL IS DRAWN)
COLUMN	COLUMN IDENTIFICATION NUMBER OR NUMBER FOR NEW CONSTRUCTION
WALL TYPE	WALL IDENTIFICATION NUMBER AS LISTED IN WALL TYPE LEGEND
KEYED NOTE	KEYED NOTE IDENTIFICATION NUMBER AS LISTED IN NOTES LEGEND (DEMOLITION NOTATION)
STAIR DIRECTION	STAIR DIRECTION (UP OR DOWN)
MATERIAL OR WORK DIVISION	MATERIAL OR WORK DIVISION IDENTIFICATION NUMBER AS LISTED IN MATERIAL OR WORK DIVISION LEGEND

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REGISTRATION SEAL

CONSULTANT

PROJECT TITLE
NEW SMITH MIDDLE SCHOOL
Bid Package No. 03D

Troy School District
Troy, Michigan

DRAWING TITLE
General Information

KEY PLAN

ISSUE DATES

02-28-2024 SWITCHGEAR PACKAGE
DATE: ISSUED FOR:

DRAWN .
CHECKED .
APPROVED .

PROJECT NO.
22102

DRAWING NO.
TG.1

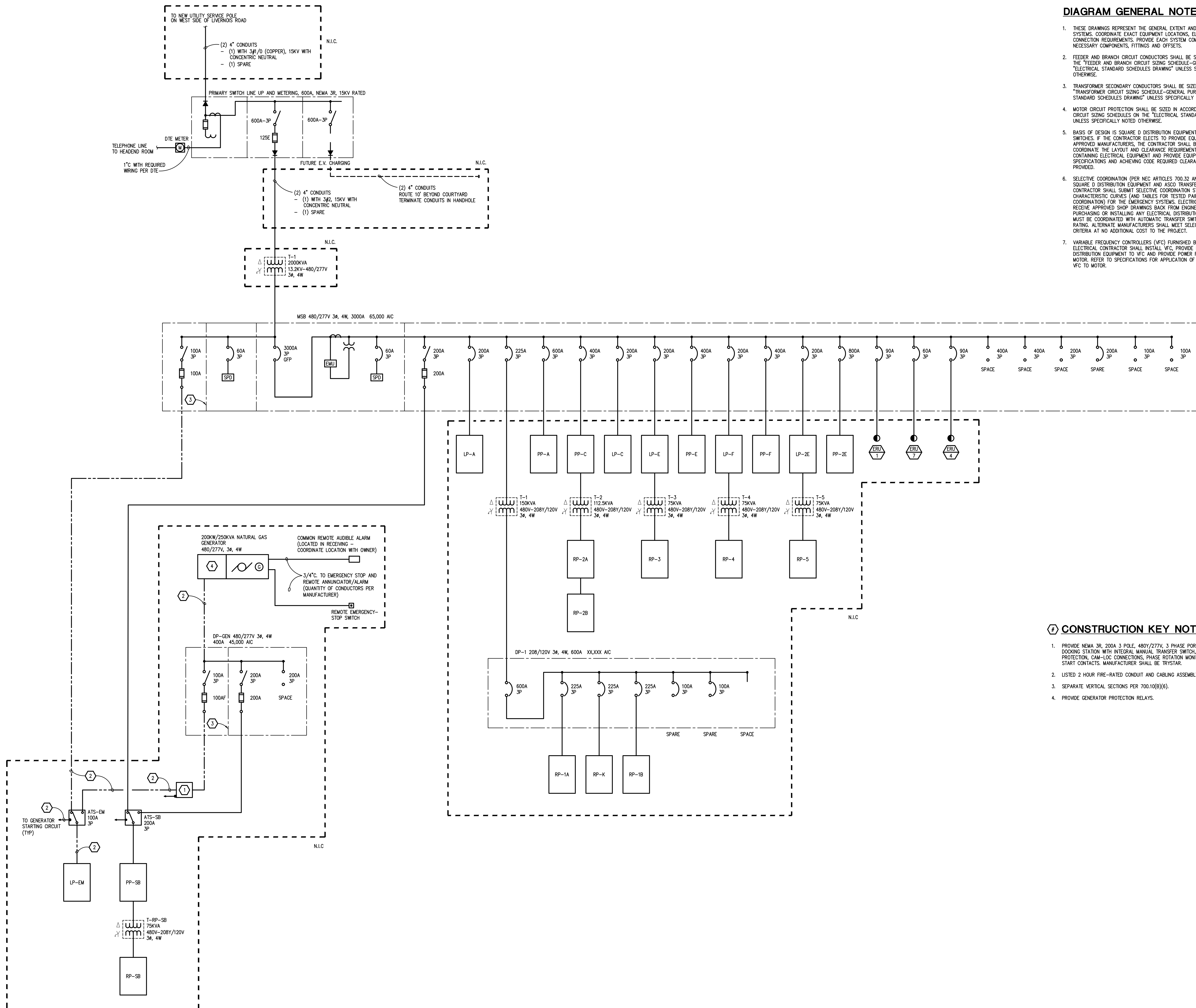


DIAGRAM GENERAL NOTES:

- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE "FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE--GENERAL PURPOSE" ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
- TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE "TRANSFORMER CIRCUIT SIZING SCHEDULE--GENERAL PURPOSE" ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
- MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH THE MOTOR CIRCUIT SIZING SCHEDULES ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
- BASES OF DESIGN IS SQUARE D DISTRIBUTION EQUIPMENT AND ASCO TRANSFER SWITCHES. IF THE CONTRACTOR ELECTS TO PROVIDE EQUIPMENT FROM OTHER APPROVED MANUFACTURERS, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE LAYOUT AND CLEARANCE REQUIREMENTS IN ALL SPACES CONTAINING ELECTRICAL EQUIPMENT AND PROVIDE EQUIPMENT MEETING THE SPECIFICATIONS AND ACHIEVING CODE REQUIRED CLEARANCES WITHIN THE SPACE PROVIDED.
- SELECTIVE COORDINATION (PER NEC ARTICLES 700.32 AND 701.27) IS BASED ON SQUARE D DISTRIBUTION EQUIPMENT AND ASCO TRANSFER SWITCHES. ELECTRICAL CONTRACTOR SHALL SUBMIT SELECTIVE COORDINATION STUDY WITH TIME CURRENT CHARACTERISTIC CURVES (AND TABLES FOR TESTED PAIR INSTANTANEOUS COORDINATION) FOR THE EMERGENCY SYSTEMS. ELECTRICAL CONTRACTORS SHALL RECEIVE APPROVED SHOP DRAWINGS BACK FROM ENGINEER OF RECORD PRIOR TO PURCHASING OR INSTALLING ANY ELECTRICAL DISTRIBUTION EQUIPMENT. BREAKERS MUST BE COORDINATED WITH AUTOMATIC TRANSFER SWITCHES 3-CYCLE WITHSTAND RATING. ALTERNATE MANUFACTURERS SHALL MEET SELECTIVE COORDINATION CRITERIA AT NO ADDITIONAL COST TO THE PROJECT.
- VARIABLE FREQUENCY CONTROLLERS (VFC) FURNISHED BY MECHANICAL TRADES. ELECTRICAL CONTRACTOR SHALL INSTALL VFC, PROVIDE POWER FEEDER FROM DISTRIBUTION EQUIPMENT TO VFC AND PROVIDE POWER FEEDER FROM VFC TO MOTOR. REFER TO SPECIFICATIONS FOR APPLICATION OF VFC POWER CABLE FROM VFC TO MOTOR.

CONSTRUCTION KEY NOTES:

- PROVIDE NEMA 3R, 200A 3 POLE, 480Y/277V, 3 PHASE PORTABLE GENERATOR DOCKING STATION WITH INTEGRAL MANUAL TRANSFER SWITCH, OVER CURRENT PROTECTION, CAM-LOC CONNECTIONS, PHASE ROTATION MONITOR, GENERATOR START CONTACTS. MANUFACTURER SHALL BE TRYSTAR.
- LISTED 2 HOUR FIRE-RATED CONDUIT AND CABLING ASSEMBLY PER 700.10(D).
- SEPARATE VERTICAL SECTIONS PER 700.10(B)(6).
- PROVIDE GENERATOR PROTECTION RELAYS.



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PSA Project No. 20230354

PROJECT TITLE
NEW SMITH MIDDLE SCHOOL
Bid Package No. 03D

Troy School District
Troy, Michigan

DRAWING TITLE
ONE LINE DIAGRAM

ISSUE DATES

02-28-2024	SWITCHEAR PACKAGE
DATE:	ISSUED FOR:
DRAWN	BAG
CHECKED	BAG
APPROVED	STP

PROJECT NO.
22102
DRAWING NO.
E5.1