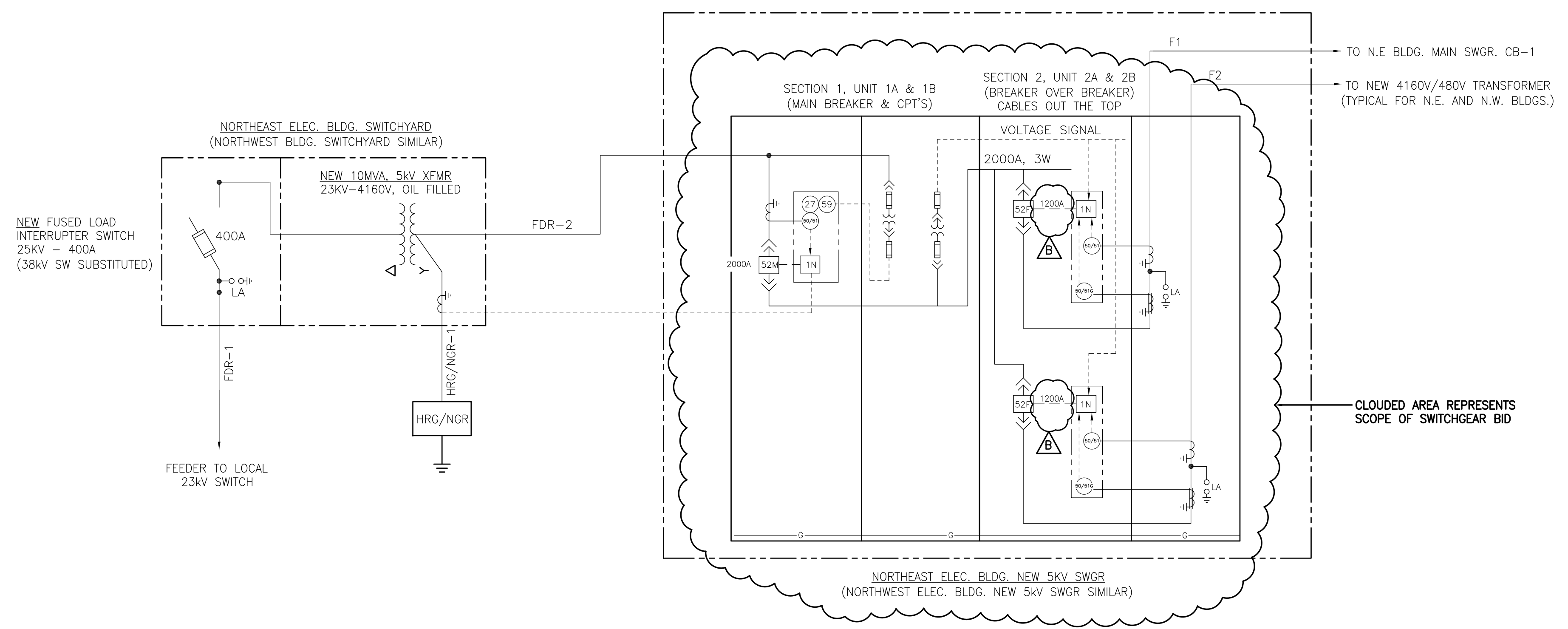


NOTES:

- SEE DWG. E1 FOR THE ELECTRICAL GENERAL SCOPE OF WORK, DRAWING INDEX, GENERAL NOTES AND DRAWING INDEX.
- ALL WORK AND WIRING SHALL COMPLY WITH OR EXCEED ALL NATIONAL ELECTRICAL CODE REQUIREMENTS, AND ALL CODE REQUIREMENTS OF THE STATE, CITY AND LOCAL ELECTRIC CODES.
- ALL EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH LOCAL REGULATIONS AND THE NATIONAL ELECTRIC CODE.
- ALL CONNECTIONS TO SWITCHGEAR AND TRANSFORMERS SHALL BE BOLTED DIRECTLY TO PROVIDED LUGS. CABLE JUMPERS SHALL NOT BE ALLOWED.
- ALL FUSES AND BREAKERS SETTINGS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO PURCHASE AND INSTALLATION.
- CONTRACTOR SHALL VERIFY CABLE TYPES AND SIZED AGAINST SUBMITTALS FROM THE "HRG" SUPPLIER PRIOR TO INSTALLATION.
- THE MV SWITCHGEAR SHALL BE LISTED & LABELED AS SUITABLE FOR "SERVICE ENTRANCE" REFERENCE SPECIFICATION 16310 'MEDIUM VOLTAGE SWITCHGEAR' FOR OTHER REQUIREMENTS.
- SUPPLY HRG IN ACCORDANCE WITH NEC 2023 250.186 AND 250.188. SEE SECTION 16322-9.5.13 OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. THE HRG CONTROL SYSTEM WILL SEND A TRIP AND PERMISSIVE SIGNAL TO THE MAIN M.V. BREAKER AS SHOWN. THE NEUTRAL FROM THE 5MVA OR 10MVA TRANSFORMER TO THE HRG CONNECTION POINT MUST FOLLOW NEC 250.186B.
- THIS EQUIPMENT IS TO BE PURCHASED AND INSTALLED BY THE OWNER.
- ALL ELECTRICAL EQUIPMENT OR PANELS SHALL BE FIELD MARKED PER NEC 2024, 110.16 TO WARN QUALIFIED PERSONNEL OF POTENTIAL ELECTRICAL ARC FLASH HAZARDS. LABELS SHALL BE BRADY CAT# 94913 OR EQUAL.



CONDUIT & CABLE SCHEDULE

MARK	CONDUCTORS DESCRIPTIONS	CONDUIT SIZE	DISTANCE ESTIMATE (FT)	ROUTING	REMARKS/COMMENTS
FDR-1	6-1/C #4/0 MV105, 25KV, TYPE XLPE W/GND	5"	140'	23KV SWITCH IN NORTHEAST ELECTRICAL BLDG. XFMR YARD TO NEW 10MVA XFMR. LIS	NEW CABLES ROUTED THRU NEW DUCTBANK
FDR-2	12-1/C #500MCM, MV105, 5KV, TYPE XLPE W/GND	5"	100'	NEW 10MVA TRANSFORMER TO NEW 5KV MAIN SWITCHGEAR IN NORTHEAST ELECTRICAL BLDG.	NEW CABLES ROUTED IN NEW DUCTBANK AND CONDUITS.
F1	6-1/C #500MCM, MV105, 5KV, TYPE XLPE W/GND	5"	150'	NEW 5KV MAIN SWITCHGEAR IN NORTHEAST ELECTRICAL BLDG. TO EXISTING 4160V MAIN SWITCHGEAR	NEW CABLES ROUTED IN NEW CONDUIT AND CABLE TRAY
F2	6-1/C #350MCM, MV105, 5KV, TYPE XLPE W/GND	5"	150'	NEW 5KV MAIN SWITCHGEAR IN NORTHEAST ELECTRICAL BLDG. TO EXISTING 4160V MAIN SWITCHGEAR	NEW CABLES ROUTED IN NEW CONDUIT AND CABLE TRAY

MV MAIN SWITCHGEAR DESCRIPTION

MARK	QTY	DESCRIPTION
A/R		MV MAIN SWITCHGEAR, 5KV, 2000A BUS, INDOOR RATED, MEDIUM-VOLTAGE DRAWOUT VACUUM BREAKER 2000A EATON CAT. NO. 50VCP-140, MEDIUM-VOLTAGE DRAWOUT VACUUM BREAKERS 1200A EATON CAT. NO. 50VCP-1L25, EATON MULTI-FUNCTION PROTECTIVE RELAY MICROPROCESSOR-BASED PROTECTION, PHASE OVER CURRENT PROTECTION, GROUND OVER CURRENT PROTECTION, UNDER VOLTAGE PROTECTION, OVER VOLTAGE PROTECTION, AMP METER 2000A, CT'S, PT'S AND CPT'S PER ONE-LINE DIAGRAM THIS DWG. AND SPECIFICATION SECTION 16310 'MEDIUM VOLTAGE SWITCHGEAR'
02		HRG/NGR SYSTEMS PER SPECIFICATION 16322 SECTION 9.5.13. SEE NOTE 8 THIS DRAWING.

DRAW-OUT VACUUM BREAKERS REVISED AND CLARIFIED WITH CATALOG NUMBERS.

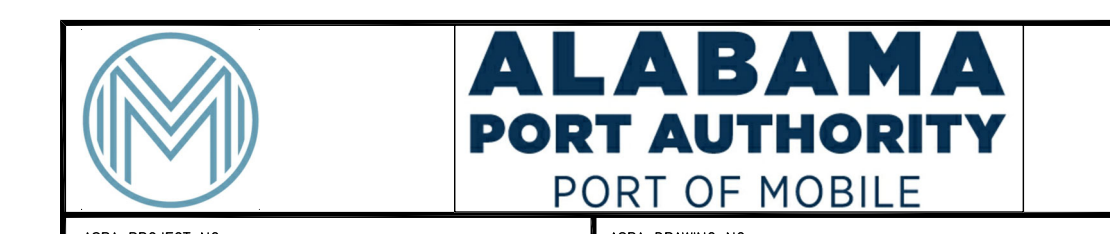
CLOUDED AREA REPRESENTS SCOPE OF SWITCHGEAR BID

SYMBOL LEGEND

- MICROPROCESSOR-BASED PROTECTION EATON EDR-5000 OR EQUIVALENT
- CIRCUIT BREAKER
- PHASE OVER CURRENT
- GROUND OVER CURRENT
- UNDER VOLTAGE 1Ø INVERSE
- OVER VOLTAGE 1Ø INVERSE
- CURRENT TRANSFORMER
- ZERO SEQUENCE CT(GROUND FAULT)
- LIGHTNING ARRESTER
- HIGH RESISTANT GROUND/NEUTRAL GROUND RESISTOR SYSTEMS
- GROUND BUS

FOR BID PURPOSES ONLY

04/10/2026



ASPA PROJECT NO:	ASPA DRAWING NO:
McDUFFIE TERMINAL POWER STUDY	
N.E. AND N.W. BLDGS NEW 5KV SWITCHGEAR	
PARTIAL ONE-LINE DIAGRAM	
FOR: ALABAMA PORT AUTHORITY	
PROJECT NO: 4734	DWG NO: E8
REV: B	

NOTES	REVISION	DATE	BY	CHK'D	APP'D
DAVID VOLKERT & ASSOCIATES - 1982 ELECTRICAL DRAWINGS FOR REFERENCE:					
DWG. 18 OF 25 (E-3) "NORTH EAST MOTOR CONTROL BLDG. - CONDUIT & CABLE LAYOUT"					
SHAW GBB - 2007/08 ELECTRICAL DRAWINGS FOR REFERENCE:	B	05/07/26	WMB	DAW	DAW
1876-E1 "McDUFFIE TERMINALS 2007/2008 EXP - PKG 2 ELECTRICAL SITE PLAN"	A	04/10/26	WMB	DAW	DAW
REFERENCE DRAWINGS	NO.		DRAWN	CK'D	APP'D