

US Air Forces in Europe
LAJES FIELD, AZORES, PORTUGAL



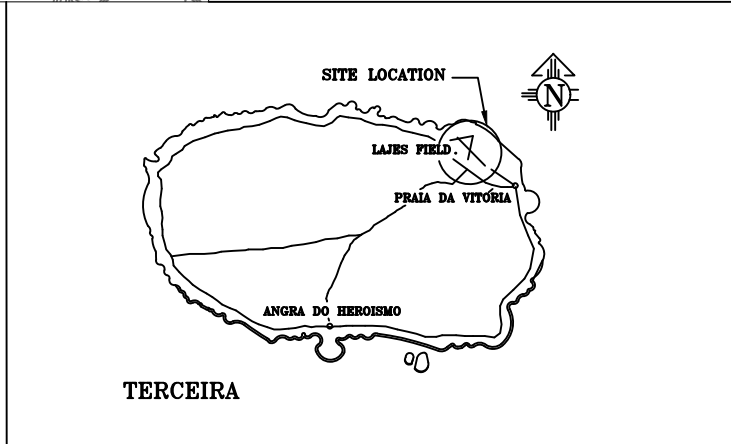
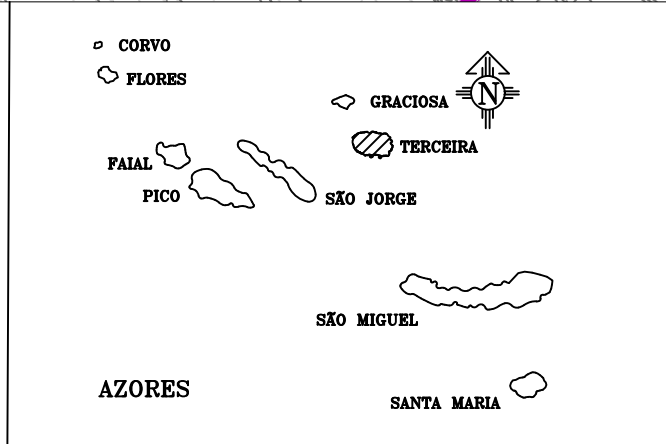
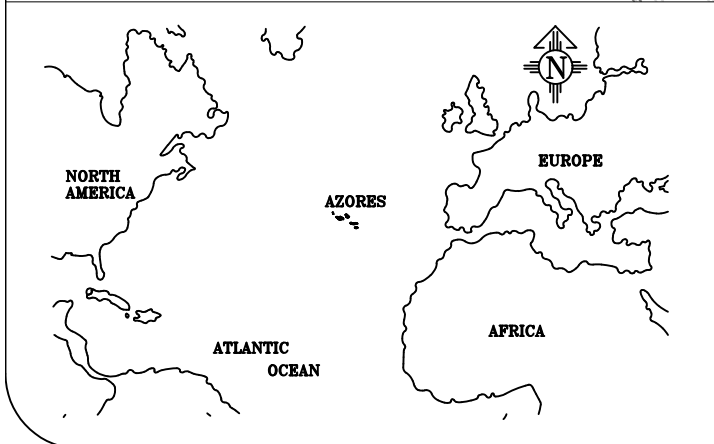
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DWG NO.

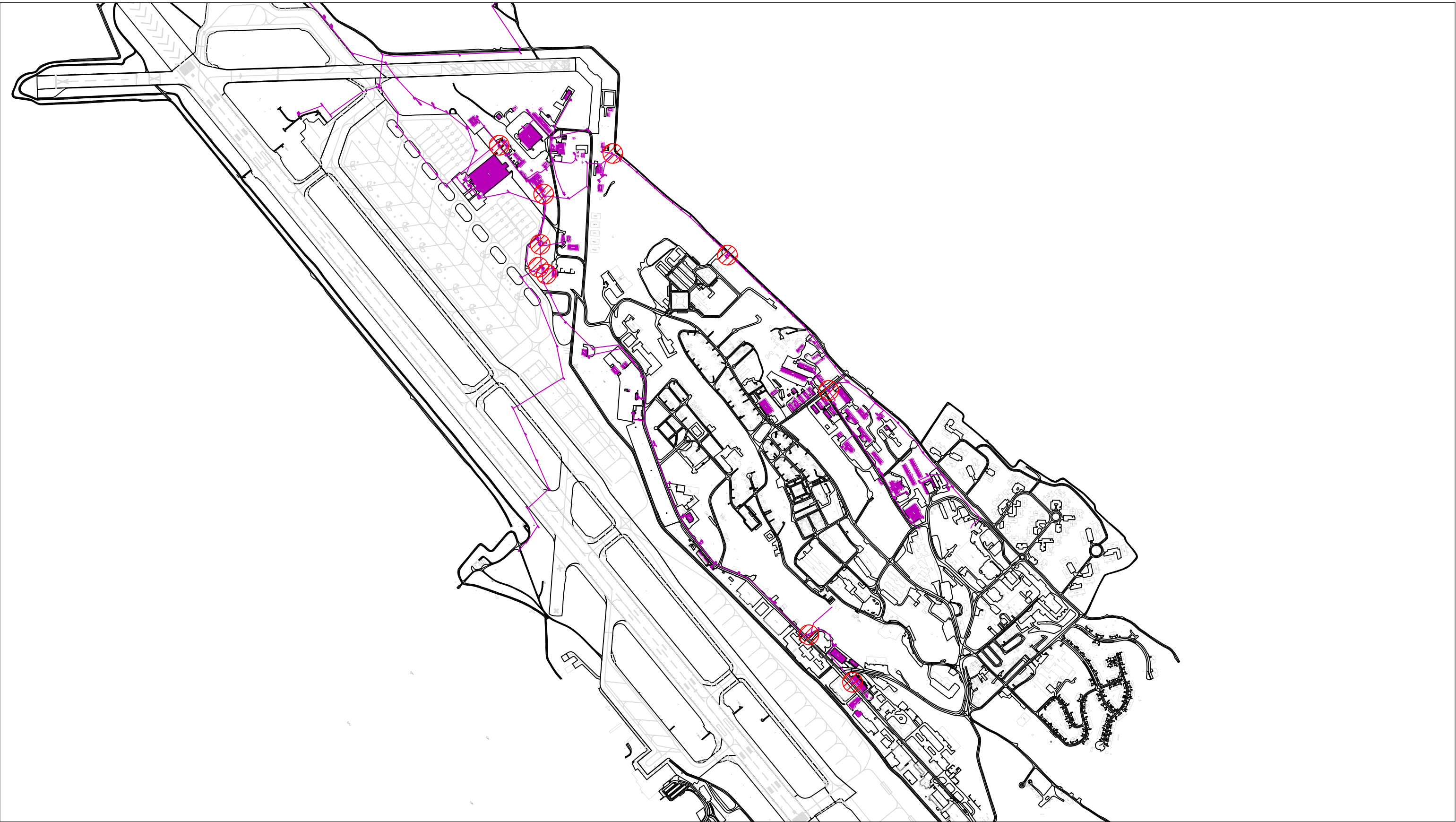
G-001
G-002
E-101
E-102
E-103
E-104
E-105
E-106
E-107
E-108
E-109
E-501
E-601
E-602

DWG TITLE

COVER SHEET & DRAWING INDEX
LOCATION PLAN
WORK PLAN - SWITCH S040
WORK PLAN - SWITCH S120
WORK PLAN - SWITCHES S130 AND 140
WORK PLAN - SWITCH S150
WORK PLAN - SWITCH S160
WORK PLAN - SWITCH S170
WORK PLAN - SWITCH S180
WORK PLAN - SWITCH S190
WORK PLAN - SWITCH S500
ELECTRICAL DETAILS
SWITCH SCHEDULE
ONE LINE SCHEMATIC - BLACK FEEDER



US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
			Drawn by / Desenhou Telmo Aguiar
Project Number N° Projecto	MQNA 20-1001	Facility # N° Edifício	T-81241
Project Title Título do Projecto			Repair Black Feeder Switches
			Scale / Escala (Imperial / Metric) N/A
			Date / Data 5 June 2020 - rev1
Drawing Title Título do Desenho			Situation Plan
			Drawing # N° Desenho G-001



 **Project Locations**

US Air Forces in Europe
LAJES FIELD, AZORES, PORTUGAL

Project Number Nº Projecto	MQNA 20-1001	Facility # Nº Edifício	T-81241
Project Title Título do Projecto	Repair Black Feeder Switches		
Drawing Title Título do Desenho	Location Plan		
		Date / Data	5 June 2020 - rev1
		Drawing # Nº Desenho	G-002

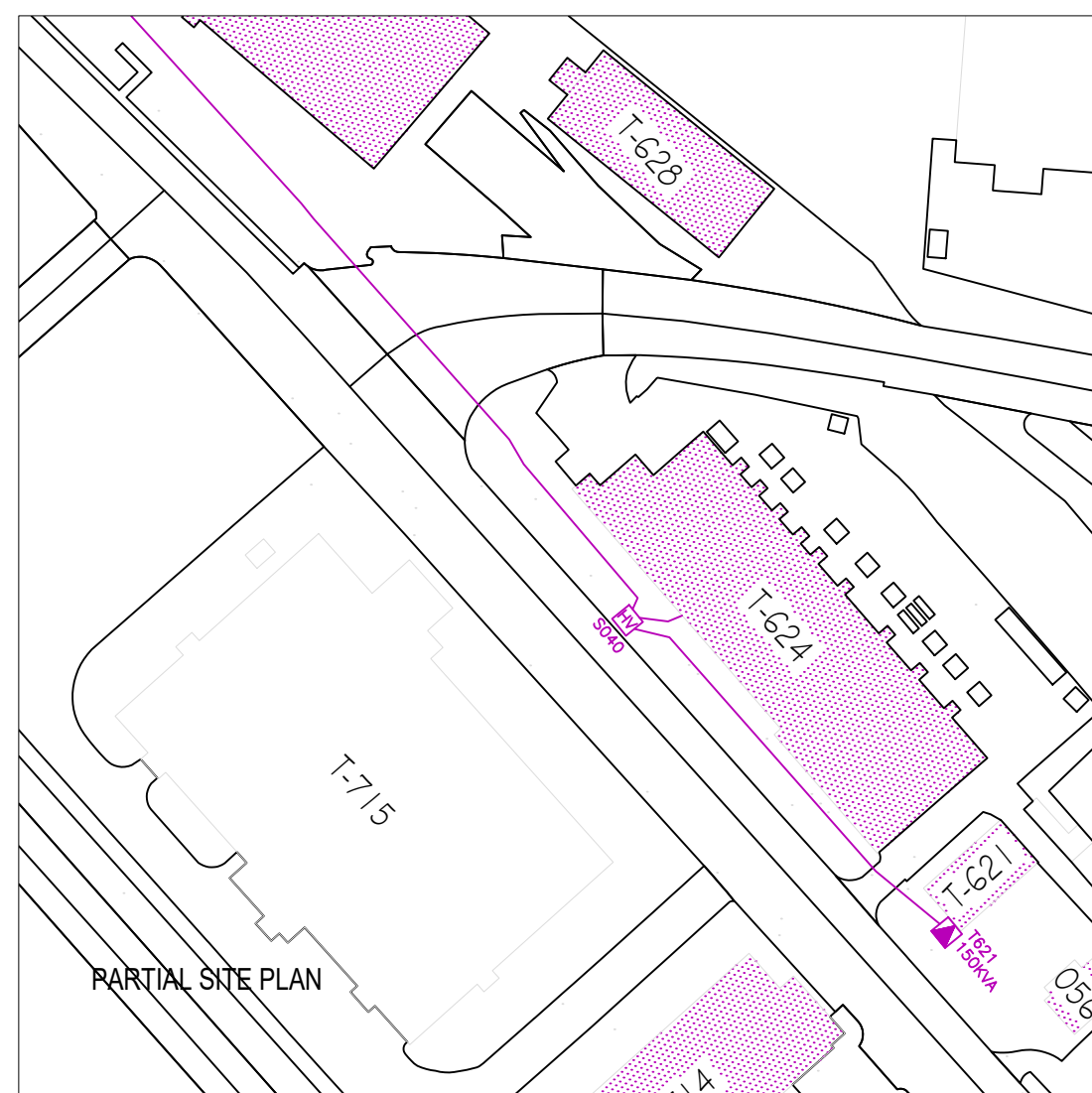
Design by / Projectou
Telmo Aguiar

Drawn by / Desenhou
Telmo Aguiar

Scale / Escala (Imperial / Metric)
N/A

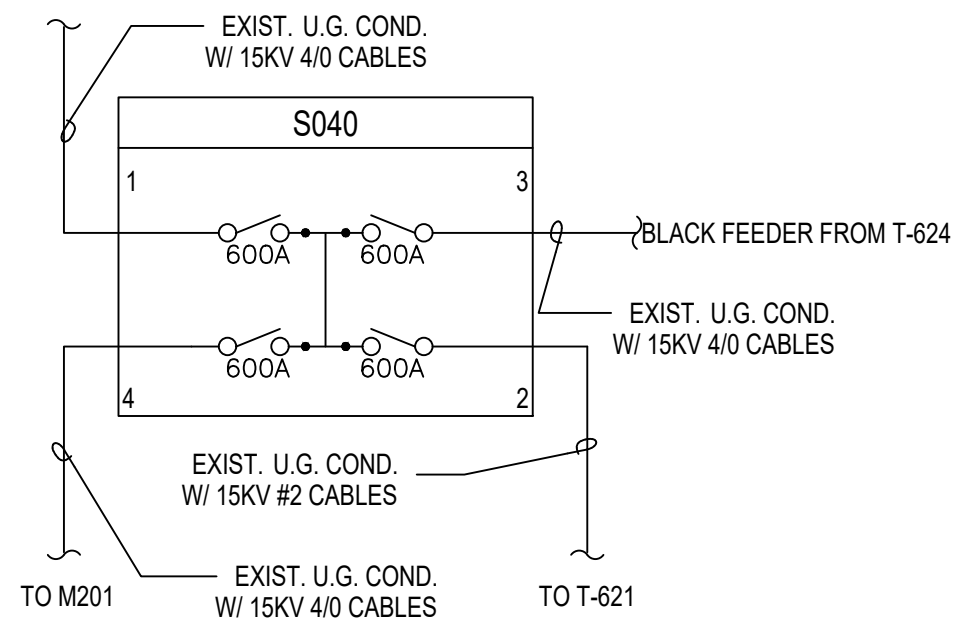
Date / Data
5 June 2020 - rev1

Drawing #
Nº Desenho
G-002



1

CROSS-TIE TO GREEN FEEDER



3 SWITCHGEAR S040 - DIAGRAM



2 EXISTING SWITCHGEAR S040

GENERAL NOTES:

1. ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
2. BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

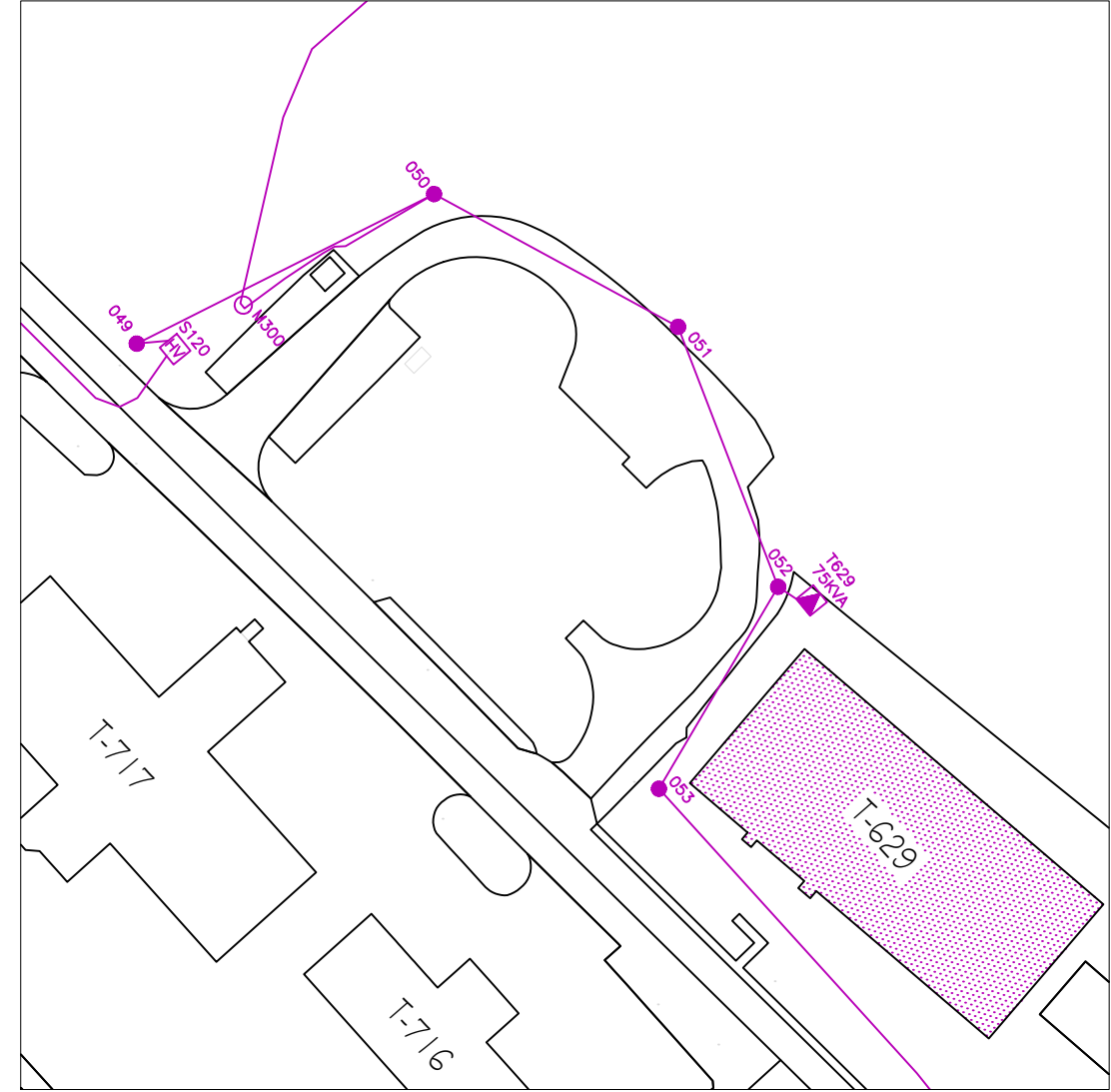
DEMOLITION NOTES (THIS SHEET ONLY):

1. REMOVE AND DISPOSE EXISTING SWITCHGEAR
2. EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PAD

NEW WORK NOTES (THIS SHEET ONLY):

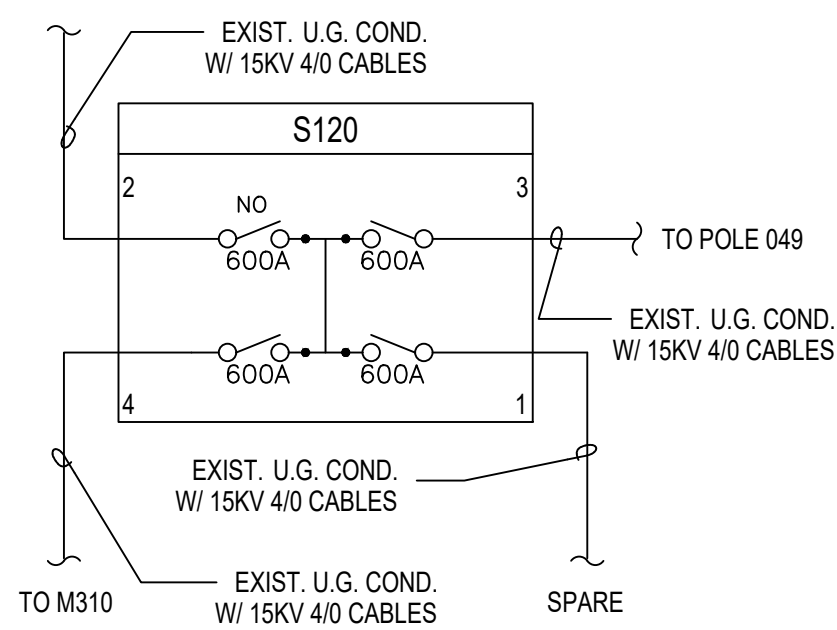
1. INSTALL NEW SWITCHGEAR WITH SAME SPECIFICATIONS OF EXISTING
2. EXTEND CONCRETE PAD TO 2'8" ALL AROUND (EXISTING CONCRETE PAD SERVES FOUR SWITCHES)

US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
Project Number Nº Projecto			Drawn by / Desenhou Telmo Aguiar
Project Title Titulo do Projecto			Scale / Escala (Imperial / Metric) N/A
Drawing Title Titulo do Desenho			Date / Data 5 June 2020 - rev1
Drawing # Nº Desenho			E-101



1 PARTIAL SITE PLAN

CROSS-TIE TO GREEN FEEDER



3 SWITCHGEAR S120 - DIAGRAM



2 EXISTING SWITCHGEAR S120

GENERAL NOTES:

1. ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
2. BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

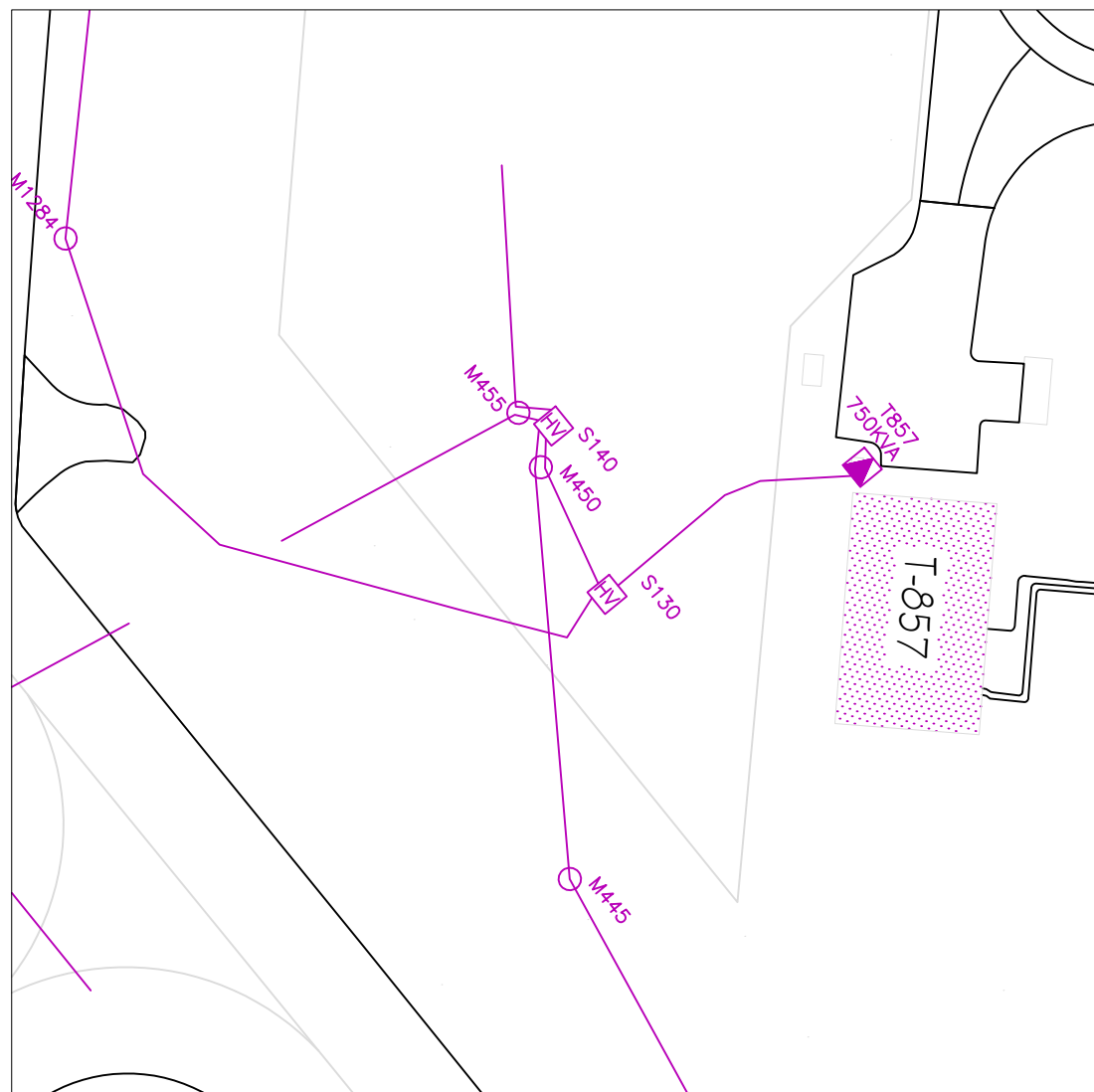
DEMOLITION NOTES (THIS SHEET ONLY):

1. REMOVE AND DISPOSE EXISTING SWITCHGEAR
2. EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PAD

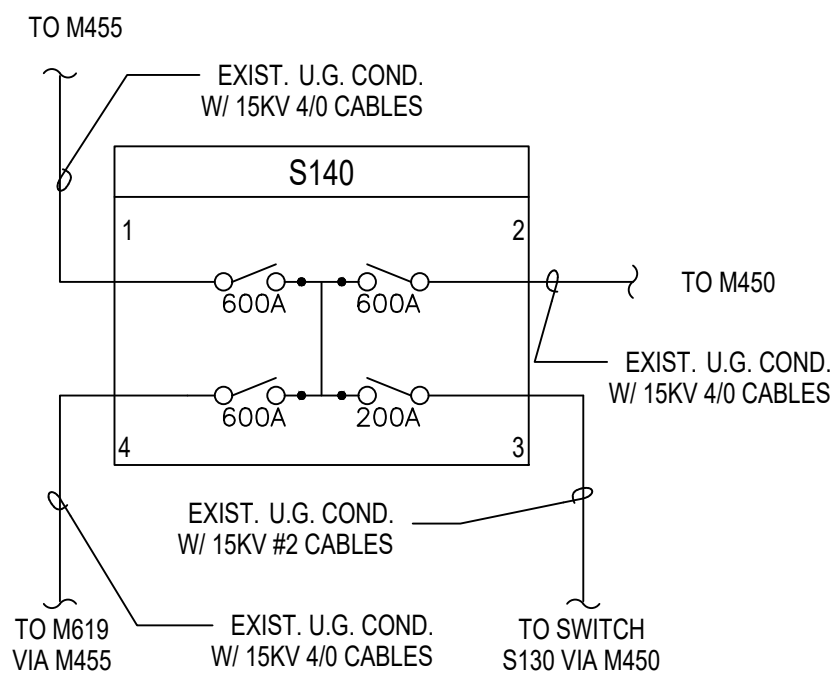
NEW WORK NOTES (THIS SHEET ONLY):

1. INSTALL NEW SWITCHGEAR WITH SAME SPECIFICATIONS OF EXISTING
2. EXTEND CONCRETE PAD TO 2'8" ALL AROUND

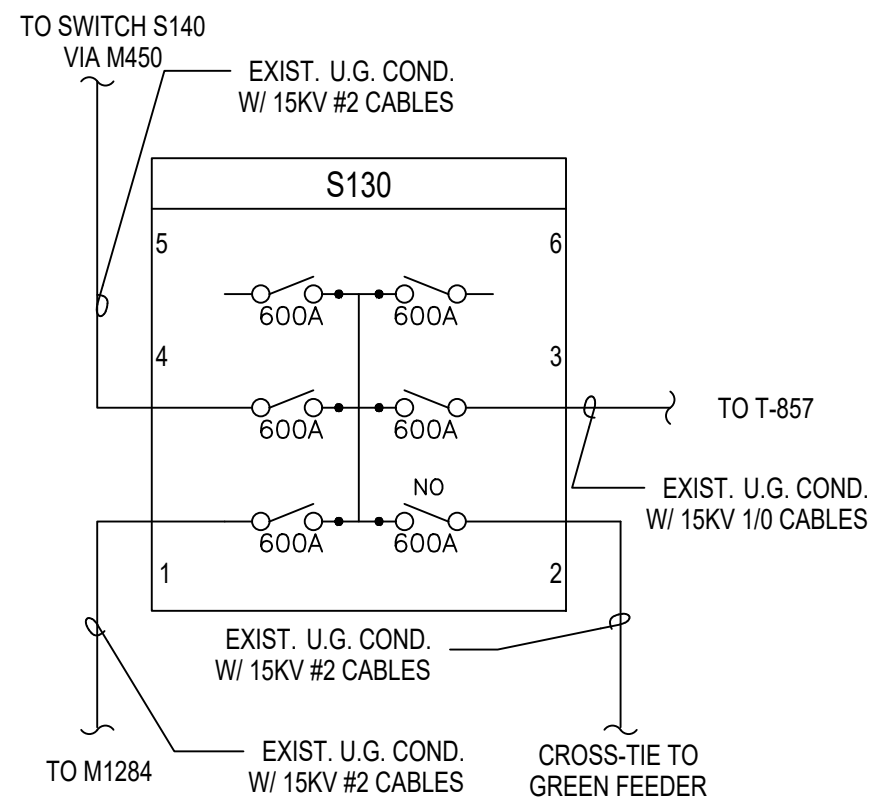
US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
Project Number N° Projecto			Drawn by / Desenhou Telmo Aguiar
Project Title Titulo do Projecto			Scale / Escala (Imperial / Metric) N/A
Drawing Title Titulo do Desenho			Date / Data 5 June 2020 - rev1
Drawing # N° Desenho			E-102



1 PARTIAL SITE PLAN



3 SWITCHGEAR S140 - DIAGRAM



2 SWITCHGEAR S130 - DIAGRAM

GENERAL NOTES:

- ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
- BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

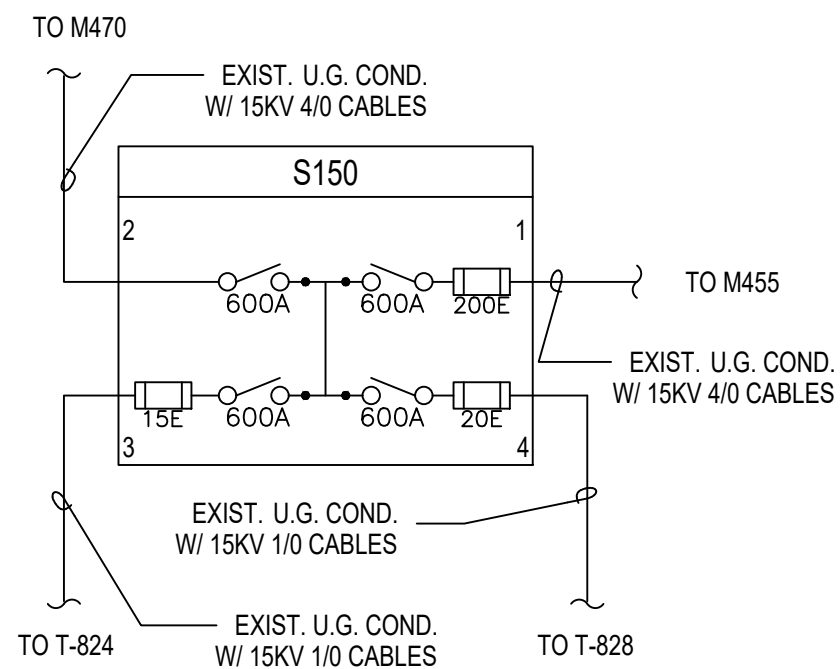
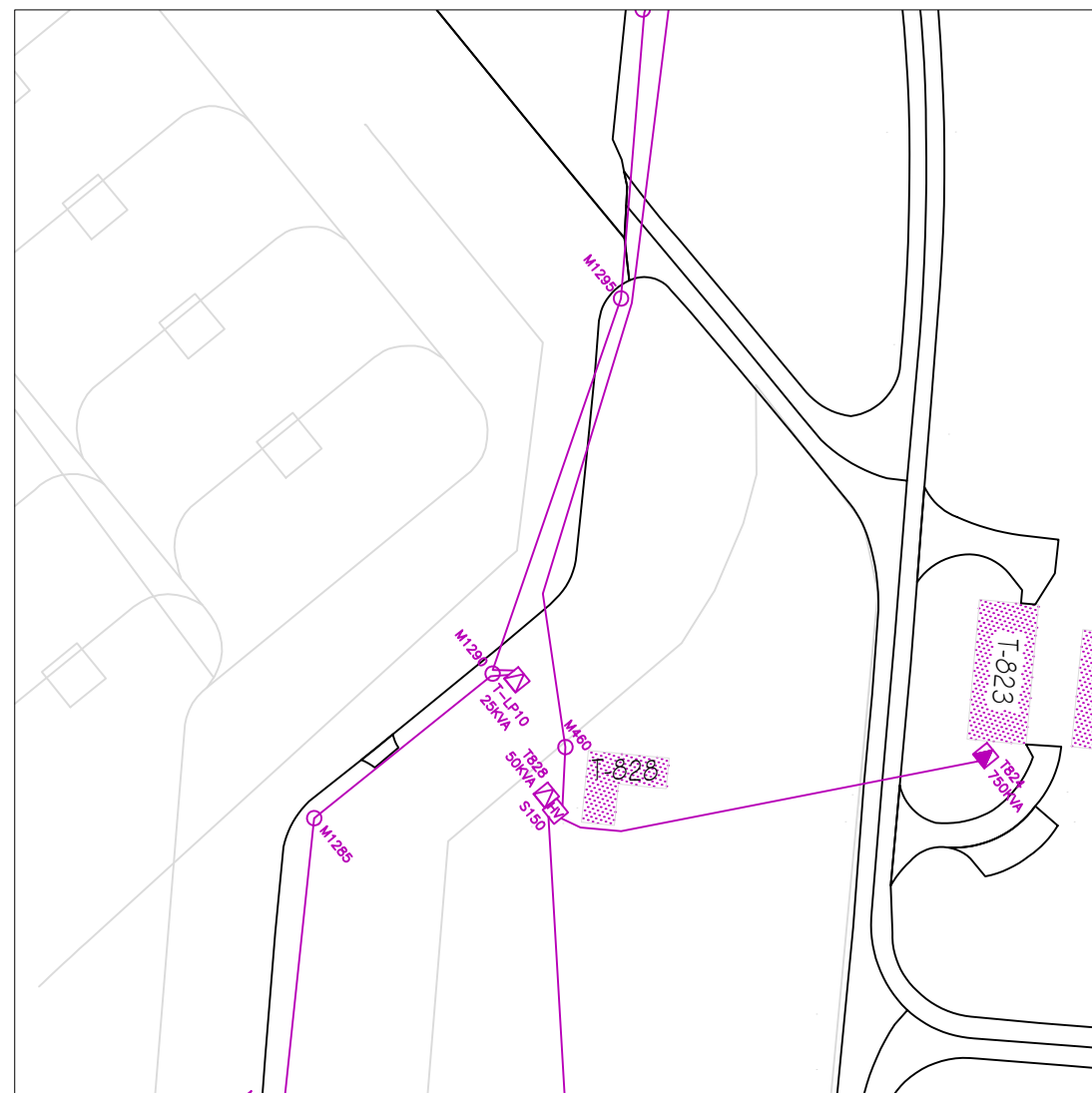
DEMOLITION NOTES (THIS SHEET ONLY):

- REMOVE AND DISPOSE EXISTING SWITCHGEARS
- EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PADS

NEW WORK NOTES (THIS SHEET ONLY):

- INSTALL NEW SWITCHGEAR S140 WITH SAME SPECIFICATIONS OF EXISTING
- INSTALL NEW SWITCHGEAR S130 WITH SAME SPECIFICATIONS OF EXISTING AND ADD SWITCHED COMPARTMENTS 5 & 6 FOR FUTURE USE
- EXTEND CONCRETE PADS TO 2'8" ALL AROUND

US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
Project Number Nº Projecto			Drawn by / Desenhou Telmo Aguiar
Project Title Título do Projecto			Scale / Escala (Imperial / Metric) N/A
Project Title Título do Projecto			Date / Data 5 June 2020 - rev1
Drawing Title Título do Desenho			Drawing # Nº Desenho E-103
MQNA 20-1001			
Facility #			
T-81241			
Repair Black Feeder Switches			
Work Plan - Switches S130 and S140			

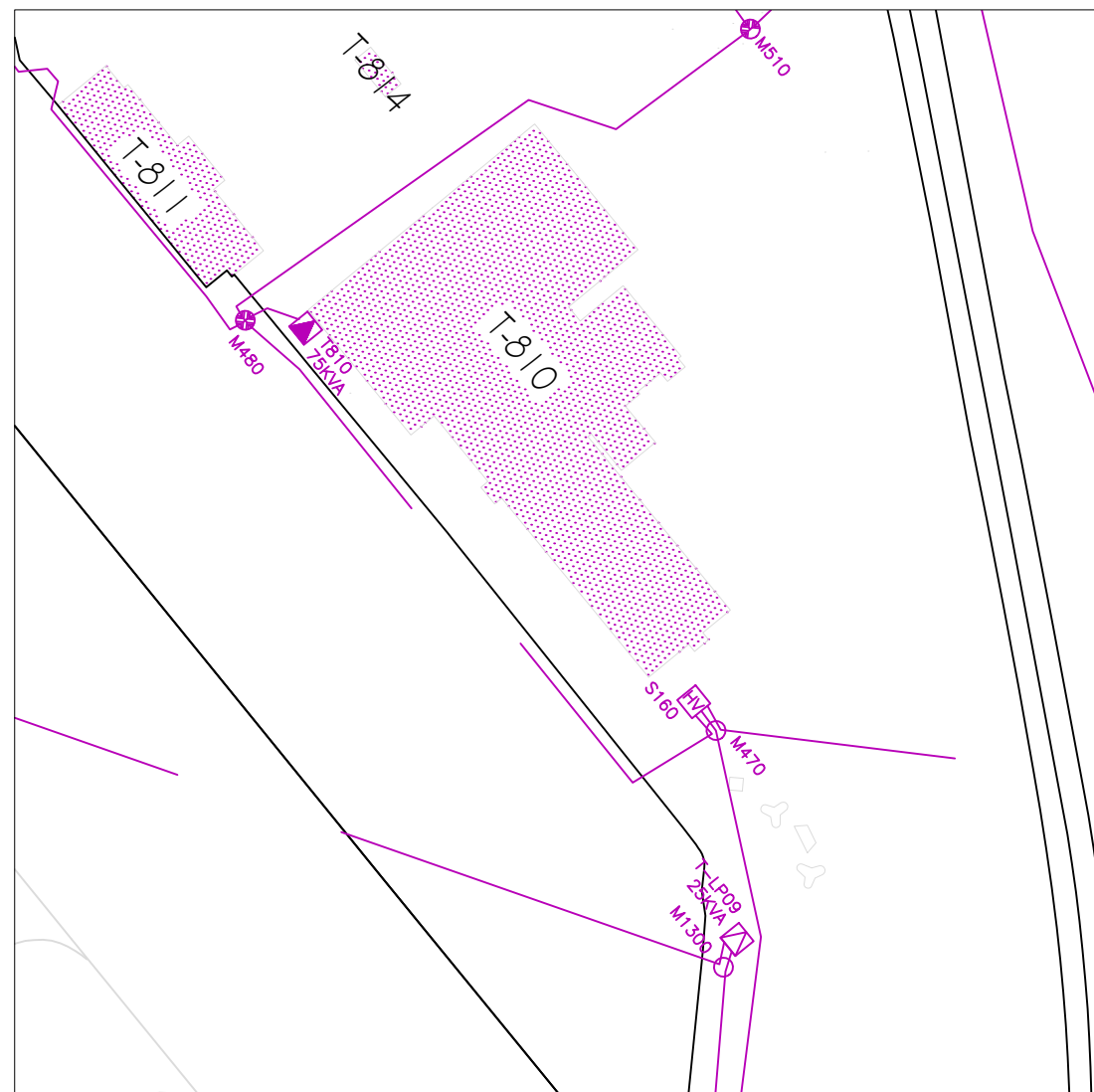


- GENERAL NOTES:**
1. ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
 2. BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

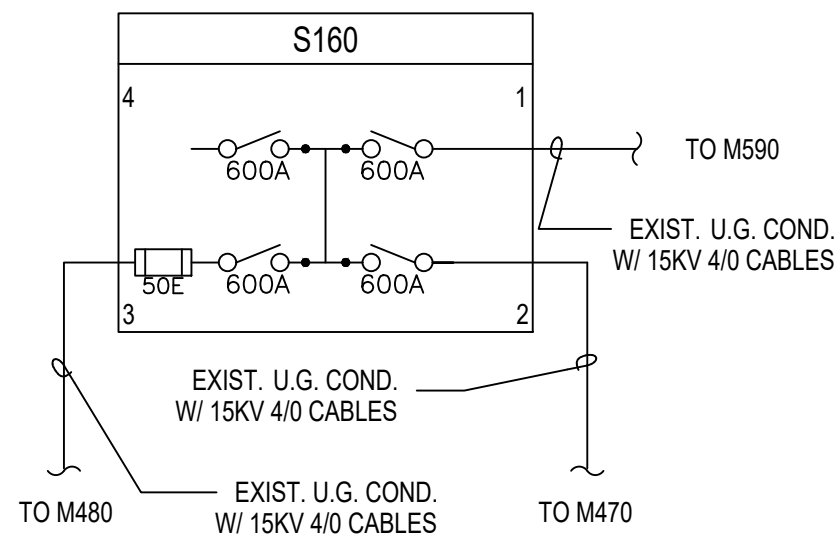
- DEMOLITION NOTES (THIS SHEET ONLY):**
1. REMOVE AND DISPOSE EXISTING SWITCHGEAR
 2. EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PAD

- NEW WORK NOTES (THIS SHEET ONLY):**
1. INSTALL NEW SWITCHGEAR WITH SAME SPECIFICATIONS OF EXISTING
 2. EXTEND CONCRETE PAD TO 2'8" ALL AROUND. MATCH EXISTING TRANSFORMER CONCRETE PAD TO SWITCHGEAR PAD EXTENSION

US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL		Design by / Projectou Telmo Aguiar
Project Number N° Projecto MQNA 20-1001		Facility # N°Edifício T-81241
Project Title Titulo do Projecto Repair Black Feeder Switches		Scale / Escala (Imperial / Metric) N/A
Drawing Title Titulo do Desenho Work Plan - Switch S150		Date / Data 5 June 2020 - rev1
		Drawing # N° Desenho E-104



1 PARTIAL SITE PLAN



3 SWITCHGEAR S160 - DIAGRAM



2 EXISTING SWITCHGEAR S160

GENERAL NOTES:

- ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
- BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

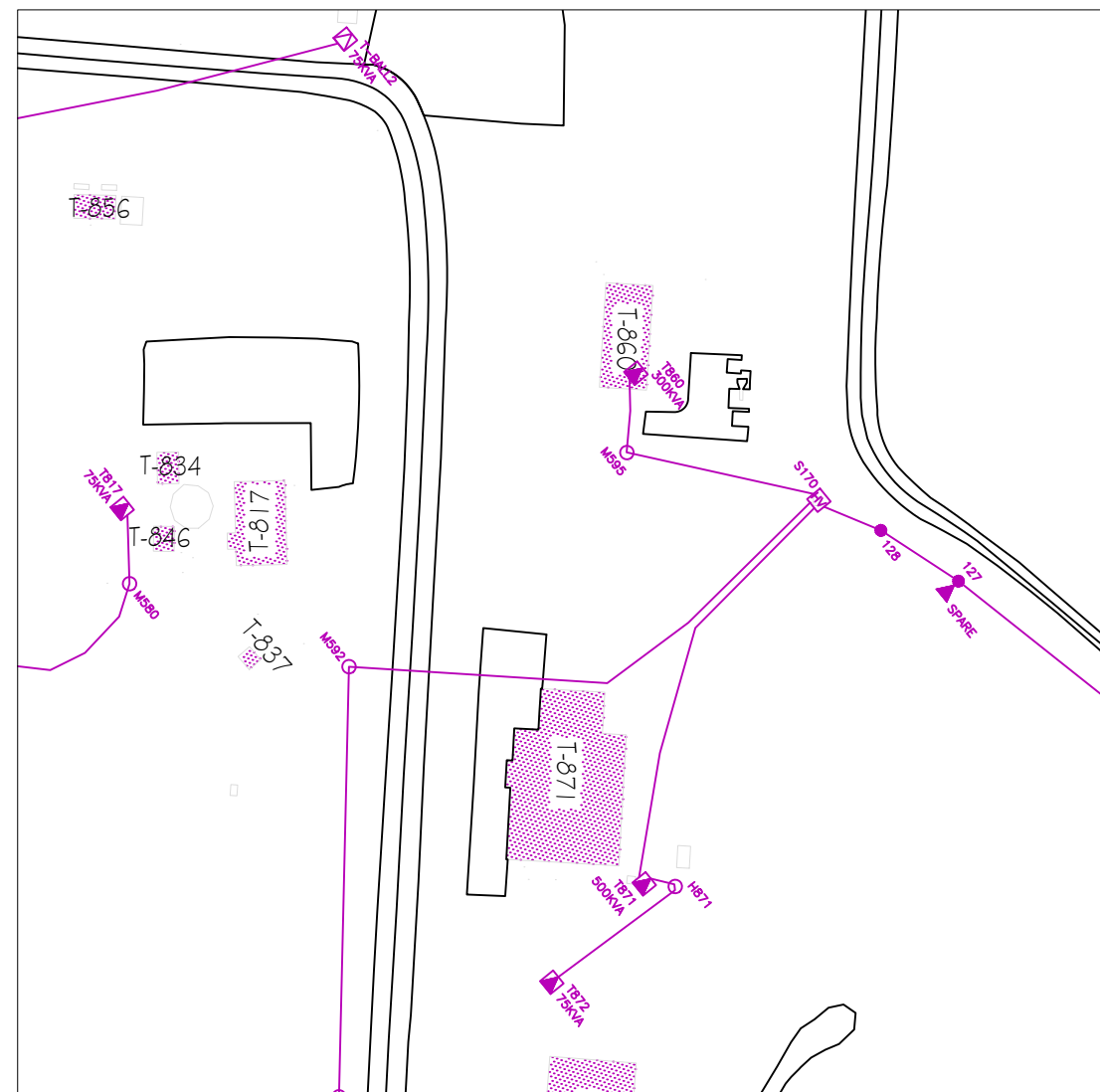
DEMOLITION NOTES (THIS SHEET ONLY):

- REMOVE AND DISPOSE EXISTING SWITCHGEAR
- EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PAD

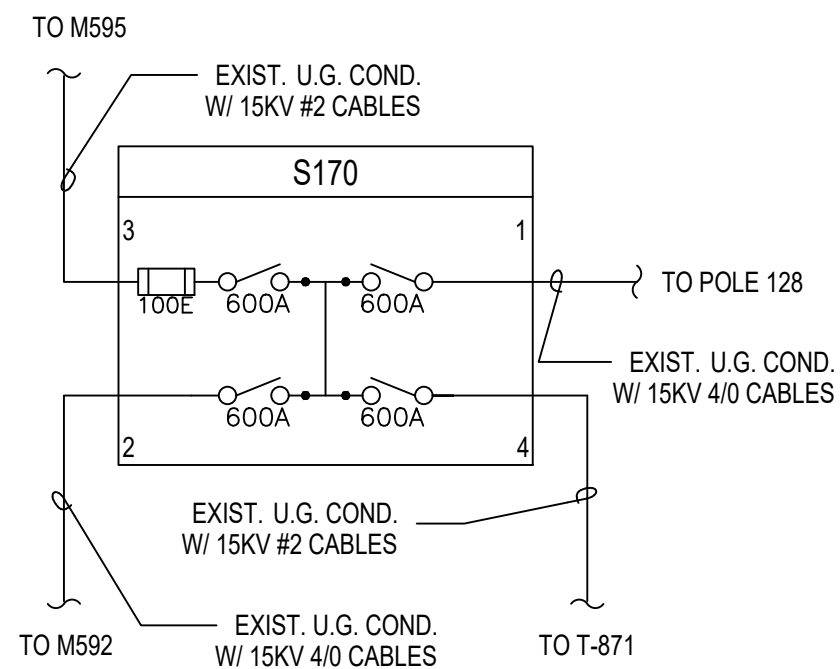
NEW WORK NOTES (THIS SHEET ONLY):

- INSTALL NEW SWITCHGEAR WITH SAME SPECIFICATIONS OF EXISTING
- EXTEND CONCRETE PAD TO 2'8" ALL AROUND. MATCH EXISTING TRANSFORMER CONCRETE PAD TO SWITCHGEAR PAD EXTENSION

US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
Project Number Nº Projecto			Drawn by / Desenhou Telmo Aguiar
Project Title Título do Projecto			Scale / Escala (Imperial / Metric) N/A
Drawing Title Título do Desenho			Date / Data 5 June 2020 - rev1
MQNA 20-1001			Drawing # Nº Desenho E-105
Facility # T-81241			
Repair Black Feeder Switches			
Work Plan - Switch S160			



1 PARTIAL SITE PLAN



3 SWITCHGEAR S170 - DIAGRAM



2 EXISTING SWITCHGEAR S170

GENERAL NOTES:

1. ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
2. BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

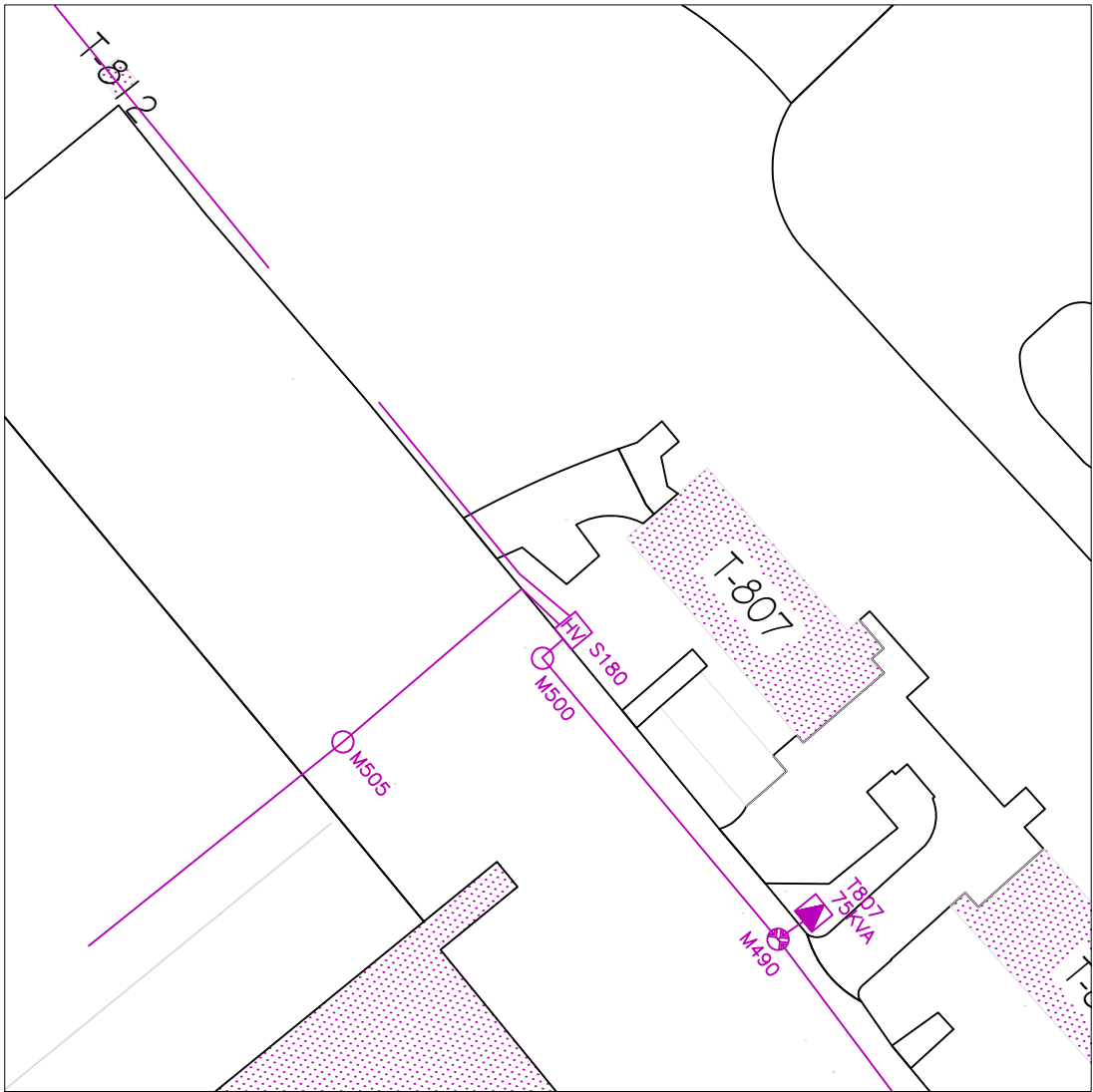
DEMOLITION NOTES (THIS SHEET ONLY):

1. REMOVE AND DISPOSE EXISTING SWITCHGEAR
2. EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PAD

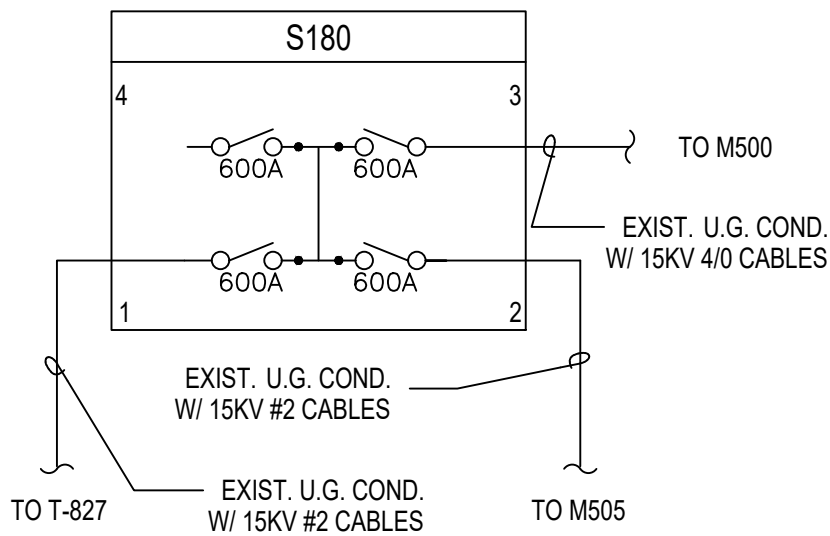
NEW WORK NOTES (THIS SHEET ONLY):

1. INSTALL NEW SWITCHGEAR WITH SAME SPECIFICATIONS OF EXISTING
2. EXTEND CONCRETE PAD TO 2'8" ALL AROUND. MATCH EXISTING TRANSFORMER CONCRETE PAD TO SWITCHGEAR PAD EXTENSION

US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
Project Number Nº Projecto			Drawn by / Desenhou Telmo Aguiar
Project Title Titulo do Projecto			Scale / Escala (Imperial / Metric) N/A
Drawing Title Titulo do Desenho			Date / Data 5 June 2020 - rev1
Project Title Titulo do Projecto			Drawing # Nº Desenho
Project Number Nº Projecto			E-106
Project Title Titulo do Projecto			Facility # Nº Edificio
Project Title Titulo do Projecto			T-81241
Project Title Titulo do Projecto			Repair Black Feeder Switches
Project Title Titulo do Projecto			Work Plan - Switch S170



1 PARTIAL SITE PLAN



3 SWITCHGEAR S180 - DIAGRAM



2 EXISTING SWITCHGEAR S180

GENERAL NOTES:

- ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
- BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

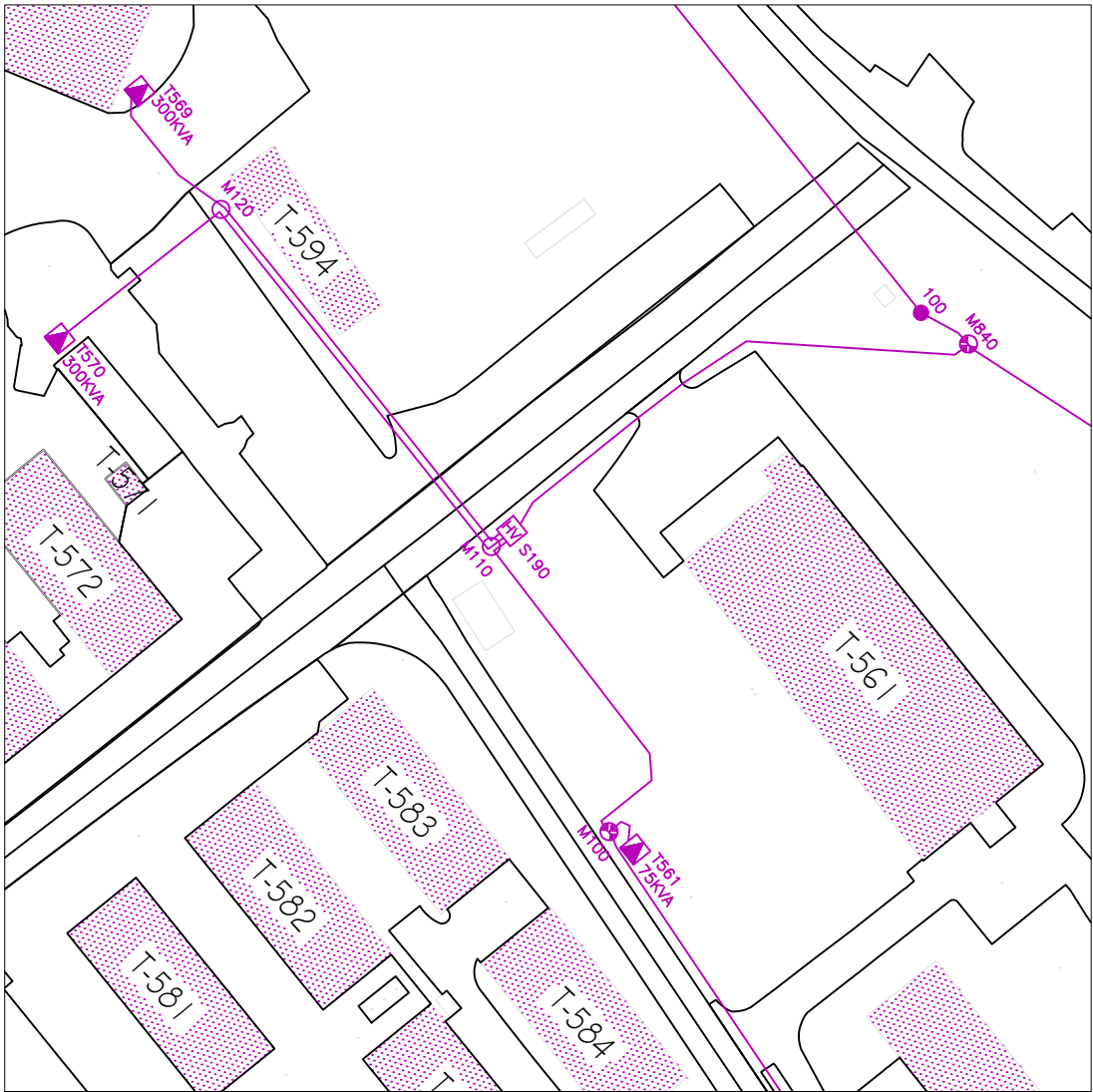
DEMOLITION NOTES (THIS SHEET ONLY):

- REMOVE AND DISPOSE EXISTING SWITCHGEAR
- EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PAD

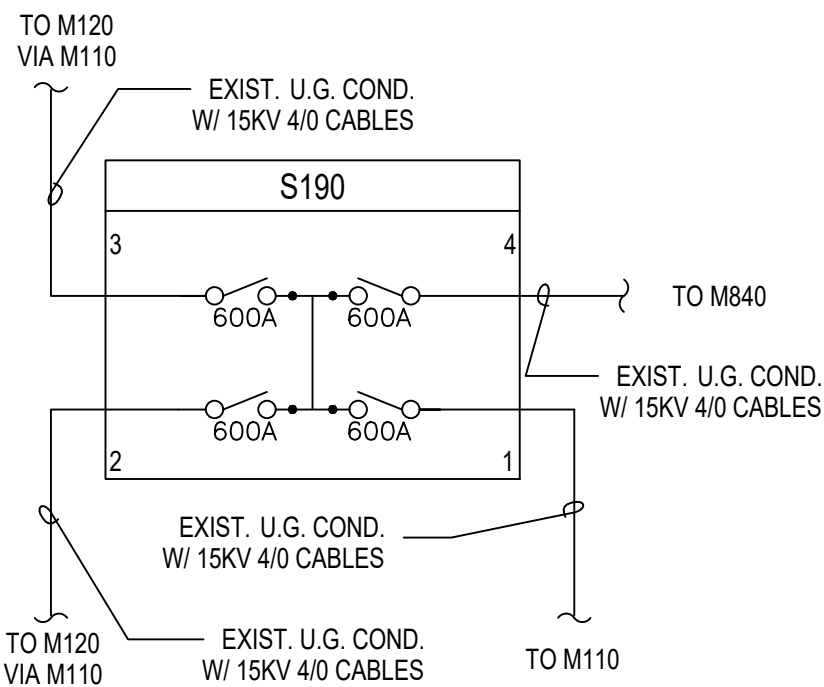
NEW WORK NOTES (THIS SHEET ONLY):

- INSTALL NEW SWITCHGEAR WITH SAME SPECIFICATIONS OF EXISTING
- EXTEND CONCRETE PAD TO 2'8" ALL AROUND. MATCH EXISTING TRANSFORMER CONCRETE PAD TO SWITCHGEAR PAD EXTENSION

US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
Project Number Nº Projecto			MQNA 20-1001
Project Title Título do Projecto			Facility # Nº Edifício
Repair Black Feeder Switches			T-81241
Drawing Title Título do Desenho			Scale / Escala (Imperial / Metric) N/A
Work Plan - Switch S180			Date / Data 5 June 2020 - rev1
			Drawing # Nº Desenho E-107



1 PARTIAL SITE PLAN



3 SWITCHGEAR S190 - DIAGRAM



2 EXISTING SWITCHGEAR S190

GENERAL NOTES:

1. ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
2. BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

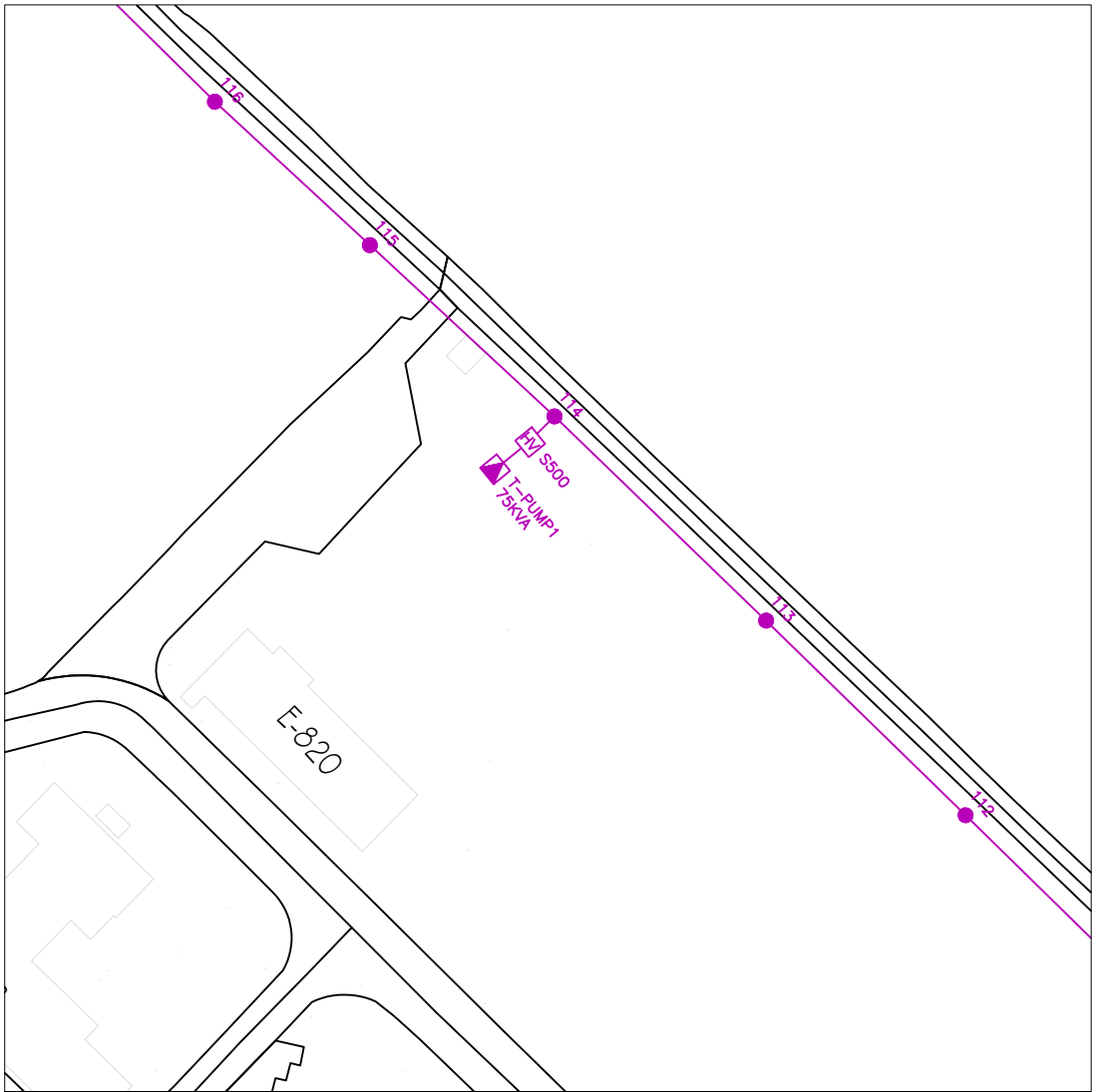
DEMOLITION NOTES (THIS SHEET ONLY):

1. REMOVE AND DISPOSE EXISTING SWITCHGEAR
2. EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PAD

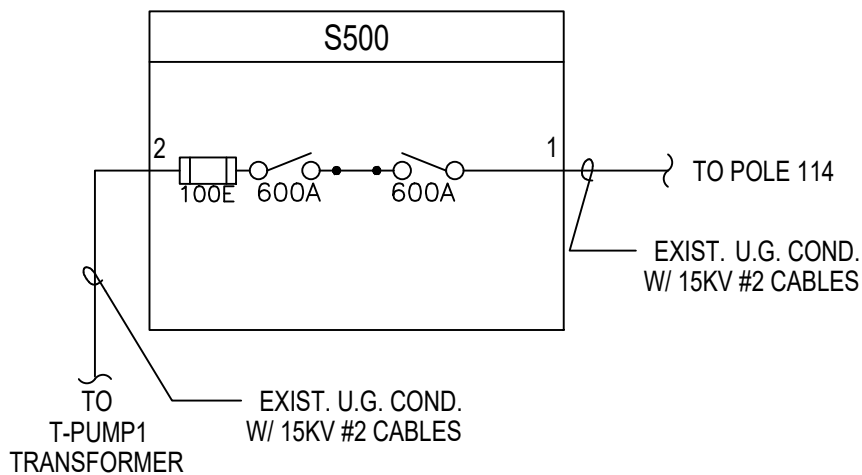
NEW WORK NOTES (THIS SHEET ONLY):

1. INSTALL NEW SWITCHGEAR WITH SAME SPECIFICATIONS OF EXISTING
2. EXTEND CONCRETE PAD TO 2'8" ALL AROUND. MATCH EXISTING TRANSFORMER CONCRETE PAD TO SWITCHGEAR PAD EXTENSION

US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
Project Number N° Projecto		MQNA 20-1001	Facility # N°Edifício
Project Title Titulo do Projecto		T-81241	
Repair Black Feeder Switches			Scale / Escala (Imperial / Metric) N/A
			Date / Data 5 June 2020 - rev1
Drawing Title Titulo do Desenho			Drawing # N° Desenho
Work Plan - Switch S190			E-108



1 PARTIAL SITE PLAN



3 SWITCHGEAR S500 - DIAGRAM



2 EXISTING SWITCHGEAR S500

GENERAL NOTES:

1. ALL PRIMARY CABLE SHALL BE REUSED. ALL CABLES SHALL REMAIN IN EXISTING DUCT, UNLESS NOTED OTHERWISE.
2. BUILDING POWER OUTAGES RELATED TO THIS WORK SHALL BE COORDINATED WITH AND APPROVED IN ADVANCE BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

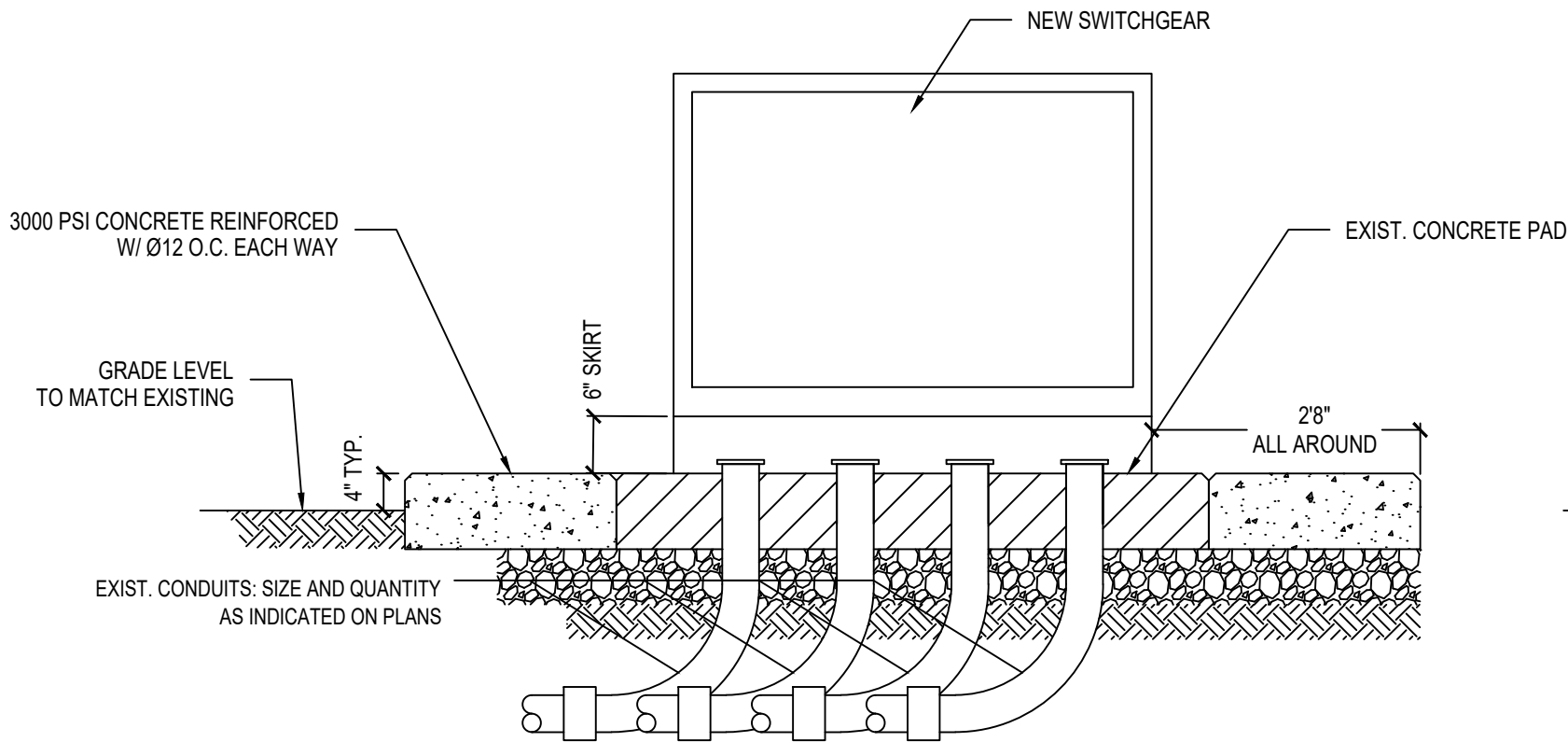
DEMOLITION NOTES (THIS SHEET ONLY):

1. REMOVE AND DISPOSE EXISTING SWITCHGEAR
2. EXCAVATE AREA TO BUILD NEW EXTENSION TO EXISTING PAD

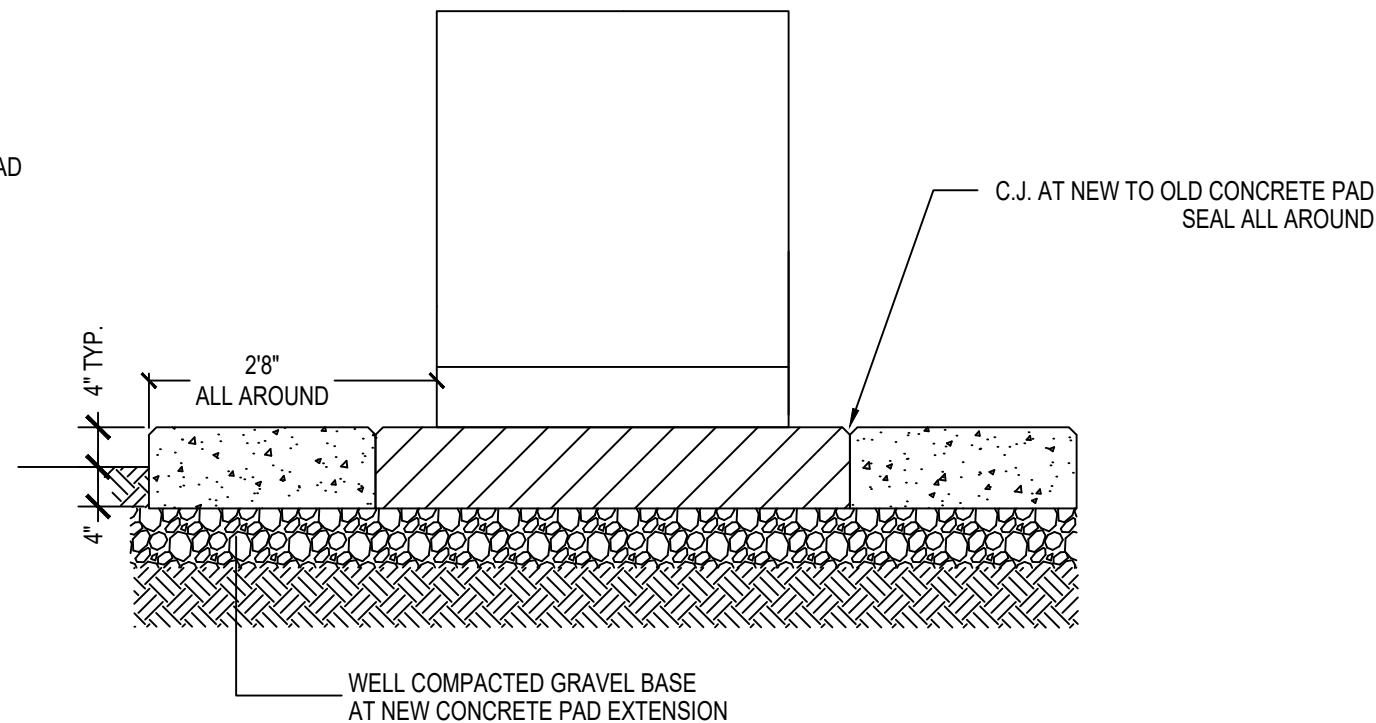
NEW WORK NOTES (THIS SHEET ONLY):

1. INSTALL NEW SWITCHGEAR WITH SAME SPECIFICATIONS OF EXISTING
2. EXTEND CONCRETE PAD TO 2'8" ALL AROUND. MATCH EXISTING TRANSFORMER CONCRETE PAD TO SWITCHGEAR PAD EXTENSION

US Air Forces in Europe LAJES FIELD, AZORES, PORTUGAL			Design by / Projectou Telmo Aguiar
Project Number Nº Projecto			Drawn by / Desenhou Telmo Aguiar
Project Title Título do Projecto			Scale / Escala (Imperial / Metric) N/A
Drawing Title Título do Desenho			Date / Data 5 June 2020 - rev1
Drawing # Nº Desenho			E-109



ELEVATION



SIDE

1 SWITCHGEAR PAD DETAIL

GENERAL NOTES:

1. ANCHOR NEW SWITCHGEAR AS PER MANUFACTURER'S INSTRUCTIONS.
2. EXISTING CABLES AND CONDUIT STUB-UPS ARE TO REMAIN UNLESS OTHERWISE NOTED.
3. INSPECT EXISTING CABLES, LUGS AND LOAD BREAK ELBOWS PRIOR TO REPLACE SWITCH.

US Air Forces in Europe
LAJES FIELD, AZORES, PORTUGAL

Project Number
Nº Projecto MQNA 20-1001 Facility #
Nº Edifício T-81241

Project Title
Título do Projecto **Repair Black Feeder Switches**

Drawing Title
Título do Desenho **One Line Schematic - Black Feeder**

Design by / Projectou
Telmo Aguiar

Drawn by / Desenhou
Telmo Aguiar

Scale / Escala (Imperial / Metric)
N/A

Date / Data
5 June 2020 - rev1

Drawing #
Nº Desenho
E-501

Lajes Field - Switch Schedule

ID #	Feeder	Manufacturer	Model	Nominal Voltage	Maximum Voltage	Continuous Current	Short Circuit Current	Comments
S040	Black	EEI	PSI/II-10	14.4	17	600	40	
S120	Black	Cooper	RVAC 10	15	15	200	16	
S130	Black	G&W	SPRAM44-376		15.5	600	20	
S140	Black	EEI	PSI/II-11	14.4	17	600	40	
S150	Black	S&C	PMH-12		17	600	20	55173R3-A10E2K12L71M3
S160	Black	EEI	PSI/II-9	14.4	17	600	40	
S170	Black	Fed Pacific	PSI/II-11	14.4	17	600	22.4	PSI/II-11-44312-B1-B2-F4-G1-G2-K3-S2
S180	Black	S&C	PMH-10	14.4	17	600	14	
S190	Black	S&C	PMH-10	14.4	17	600	14	55242R3-A10B5
S500	Black	Fed Pacific	PSI/II-4	14.4	17	200	14	PSI/II-4-42012-B2-E4-F4-G1-T4

US Air Forces in Europe		Design by / Projectou	
LAJES FIELD, AZORES, PORTUGAL		Telmo Aguiar	
Project Number Nº Projecto		MQNA 20-1001	
Facility # NºEdifício		T-81241	
Project Title Título do Projecto		Repair Black Feeder Switches	
		Scale / Escala (Imperial / Metric)	
		N/A	
		Date / Data	
		5 June 2020 - rev1	
Drawing Title Título do Desenho		Switch Schedule	
		Drawing # Nº Desenho	
		E-601	

SEE UPPER RIGHT
FOR CONTINUATION

US Air Forces in Europe

LAJES FIELD, AZORES, PORTUGAL

Facility # T-81241
NºEdificio

Project Title **Repair Black Feeder Switches**
 Titulo do Projecto

Drawing Title
Titulo do Desenho **One Line Schematic - Black Feeder**

Design by / Projectou
Telmo Aguiar

Drawn by / Desenhado por
Telmo Aguiar

Scale / Escala (Imperial / Metric)
N/A

Date / Data
5 June 2020 - rev1

Drawing #
N° Desenho
E-602