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*Department of Transportation  
Federal Aviation Administration*



# Roof and Rooftop Exhaust Fan Replacement with New Fall Protection Potomac Consolidated TRACON Warrenton, Virginia



ISSUE FOR CONSTRUCTION  
18 FEBRUARY 2022

PLOT DATE/TIME  
2/15/2022 9:15:51 PM

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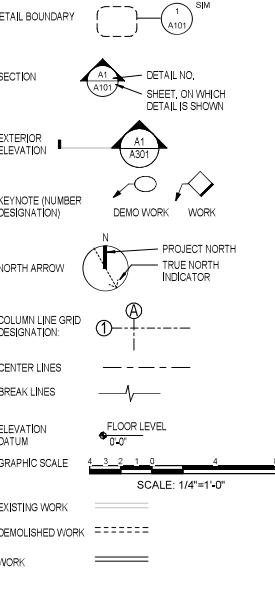
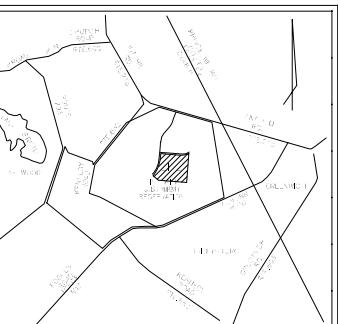
FOR OFFICIAL USE ONLY PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552																										
 <b>JACOBS</b> 1100 N GLEBE RD. SUITE 500 ARLINGTON, VA 22201																										
REV.	APPROVED DATE	DESCRIPTION		JCN	REDLINE DATE																					
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POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT																										
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 ROBERT LEE SIMMONS, JR. Lic No. 013959 2/16/2022 ARCHITECT																										

**ABBREVIATIONS**

@	AT	GPM	GALLONS PER MINUTE
°	DGREE	GRILLE	GRILLE-TYPE
	DIAETER	GYP	GYPSUM
H	CENTERLINE	GT-(#)	GRAUT-TYPE
ABA	ARCHITECTURAL BARRS ACT	HB	HOSE BBB
ACO-(#)	ACOUSTICAL CO-E TYPE	HOL	HOLLOW CORE
ACP-(#)	ALUMINUM CHECKER PLATE	HOR	HARDWARE
AFF-(#)	ACCESS FLOOR -TYPE	HORZ	HORIZONTAL
AFF	ABOVE FINN FLOOR	HORIZ	HORIZONTAL
ALUM	ALUMINUM	HP	HIGH POINT
AMHS	AUTOMATED MATERIAL HANDLING SYSTEM	HPC	HIGH PERFORMANCE COATING
AMM&M	ALTERNATE MATERIALS AND METHODS	HR	HOUR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	HS	HIGH STRENGTH
APPROX	APPROXIMATE	HT	HEIGHT
ARCH	ARCHITECT	IBC	INTERNATIONAL BUILDING CODE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	ICR	INFORMAL CONFERENCE ROOM
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	IICC	INTERNATIONAL ENERGY CONSERVATION CODE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	IFC	INTERNATIONAL FIRE CODE
AVT	ACOUSTICAL WALL TREATMENT	IGU	INSULATED GLASS UNIT
B'	BOTTOM OF	IMC	INTERNATIONAL MECHANICAL CODE
BOD	BOD	IN	INCHES
BLDG	BUILDING	INSUL	INSULATION
BULK	BULKING	INT	INTERIOR
BM	BEAM	IPC	INTERNATIONAL PLUMBING CODE
BOTM	BOTTOM OF STEEL	IRV	INTERNATIONAL ROLLING LANDINGS URBAN INTERFACE CODE
CF	CURB FEET	JT	JOINT
CFM	CUBIC FEET PER MINUTE	KEC	KITCHEN EQUIPMENT CONSULTANT
CGW-(#)	CORNER GUARD -TYPE	LAM	LAMINATED
CHK	CHECKERED	LB	LOW BLINDS / POUND
CI	CORNER INTERPRETATION	LP	LOW POINT
CP	CAS-TIN-PLACE	LSS	LIFE SAFETY SYSTEMS
CJ	CONTROL JOINT	MAQ	MAXIMUM ALLOWABLE QUANTITIES
CLF	CHAIN LINK FENCE	MAS	MASONRY
CLG	CEILING	MAX	MAXIMUM
CLR	CLEAR	MAXL	MATERIAL
CMU	CONCRETE MASONRY UNIT	MB-(#)	MARKER BOARD -TYPE
COL	COLUMN	MC	MECHANICAL
CONC	CONCRETE	MEZZ	MEZZANINE
CONF	CONFERENCE	MFR	MANUFACTURER
CONT	CONTINUOUS	MIN	MINIMUM, MINUTE
COORD	COORDINATE	MIR	MIRROR
COR	CONTRACTING OFFICER'S REPRESENTATIVE	MISC	MISCELLANEOUS
CR	CARD READER	MO	MASONRY OPENING
CRF-(#)	CRASH RAIL -TYPE	MNU	MEDIEVUM OF UNDERSTANDING
CRC	CHEMICAL RESISTANT COATING	MS	MOP-SH
CS	CONCRETE SEALER	MTL	METAL
CTR	CTRAMC TILE -TYPE	MT	MKTET TRAY
CT-(#)	CENTER	NA	NOT APPLICABLE
CVS-(#)	CLEANROOM WALL SYSTEM -TYPE	NC	NAPKIN DISPOSAL
DC	INTERNSITY AMHS	NEC	NATIONAL ELECTRIC CODE
DAT	DATUM	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
DF	DRINKING FOUNTAIN	NC	NOT IN CONTRACT
DIA	DIAETER	NT	NOT TO SCALE
DM	DIMENSION	NTS	NOT TO SCALE
DN	DOWN	NV	NAPKIN VENDOR
DO	DOOR OPENING	OC	ON CENTER
DR	DOOR	OD	OVERFLOW DRAIN
DRB	DESIGN REVISION BULLETIN	OH	OPPOSITE HAND
DSL	DISCOUNT	OHC	OVERHEAD COILING DOOR
DTL	DETIAL	OSHA	OCCUPATIONAL SAFETY AND HEALTH ASSOCIATION
DWG	DRAWING	PC-(#)	POLYMER COMPOSITE
DWP	DUMBWAITER	POF	PERSONAL OVERLAY FOAM
DWP	DEMOUNTABLE WALL PARTITION	PGV	PERSONAL GUIDED VEHICLE
DXB	DISPLAY	PKG	PACKAGE
EA	EACH	PL	PLATE
EBS	EXTERIOR INSULATION FINISH SYSTEM	PLAM-(#)	PLASTIC LAMINATE -TYPE
EJ-(#)	EXPANSION JOINT -TYPE	PBS	PLASTIC BUSHING
ELEC	ELECTRICAL	PLYWD	PLYWOOD
ELEV	ELEVATOR OR ELEVATOR	PNL	PANEL
EM	ENTRANCE MAT -TYPE	PR	PART
EMERG	EMERGENCY	PREFA8	PREFABRICATED
EDGE	EDGE OF DECK	PRD-C	PROCESS
EQ	EQUIPMENT	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	P/T	PASS THROUGH
EXP	EXPOSED	PT-(#)	PAINT SYSTEM - COLOR
EXT	EXTERIOR	PTD	PAPER TOWEL DISPENSER
FEC-(#)	FIRED EXTINGUISHER - TYPE	R	RISER
FF	FINISH FLOOR	RA	RETURN AIR
FF&E	FURNITURE, FIXTURES AND EQUIPMENT	RAG	RETURN AIR GRILLE
FFU	FAN FILTER UNIT	RB-(#)	RESIDENT BASE -TYPE
FG	FINE GRADE	RD	ROLL UP DOOR
FIN	FLASHING	REGD	REFERENCE
FLG	FLASHING	RF	RESILIENT FLOORING - TYPE
FLR	FLOOR	RF-(#)	RESILIENT FLOORING - TYPE
FM	FACTORY MUTUAL	RIV	ROOM
FMS	FACTORY MANAGEMENT SYSTEM	RO	ROUGH OPENING
FOC	FACE OF	ROC	REMOTE OPERATIONS CENTER
FOC	FACE OF CONCRETE	RODI	REVERSE OSMOSIS DEIONIZED WATER
FOF	FACE OF FINISH	ROM	ROUGH ORDER OF MAGNITUDE
FOM	FACE OF MASONRY	RRO	RAPID ROLL-UP DOOR
FOP	FACE OF PLATE	RS-(#)	REDUCER STRIP -TYPE
FOUP	FACE OF STUDS / STEEL	S	STAIN.
FRP-(#)	FRIBERGLASS REINFORCED PLASTIC -TYPE	SAC-(#)	SUSPENDED ACOUSTICAL CEILING -TYPE
FT	FOOTFEET	SAT	SUSPENDED ACOUSTICAL TILE
FWP-(#)	FABRIC WRAPPED PANEL -TYPE	SCD	SEALER DISPENSER
GAU	GAUZE	SCR	SATELLITE COMMUNICATIONS ROOM
GALV	GALVANIZED	SD	SOAP DISPENSER
GB	GRAB BAR	SECT	SECTION
GB	GYPSUM BOARD	SF	SQUARE FEET
GLW-(#)	GLASS -TYPE	SH	SEALER / HARDENER

**LIST OF DRAWINGS**

DRAWING NUMBER	DRAWING TITLE
G001	COVER SHEET
G002	ABBREVIATIONS, LIST OF DRAWINGS, VICINITY MAP
G003	CONSTRUCTION STAGING PLAN
G004	UTILITIES PLAN
D100	OVERALL DEMOLITION PLAN
D200	DEMOLITION BUILDING ELEVATIONS
D411	DEMOLITION ROOF DETAILS
D412	DEMOLITION ROOF DETAILS
D413	DEMOLITION ROOF DETAILS
A100	OVERALL PLAN
A101	ROOF PLAN -PART A
A102	ROOF PLAN -PART B-C
A103	ROOF PLAN -PART D-E
A104	ROOF PLAN -PART F
A201	BUILDING ELEVATIONS
A202	BUILDING ELEVATIONS
A203	BUILDING ELEVATIONS
A411	ROOF DETAILS
A412	ROOF DETAILS
A413	ROOF DETAILS
A414	ROOF DETAILS
A415	ROOF DETAILS
A416	ROOF DETAILS
M001	MECHANICAL LEGEND, NOTES AND ABBREVIATIONS
M002	MECHANICAL INSTRUMENTATION
M101	HVAC ROOF PLAN -DEMOLITION
M102	HVAC ROOF PLAN -DEMOLITION
M103	HVAC ROOF PLAN -DEMOLITION
M201	HVAC ROOF PLAN -NEW WORK
M202	HVAC ROOF PLAN -NEW WORK
M203	HVAC ROOF PLAN -NEW WORK
M501	MECHANICAL SCHEDULES
M601	EXHAUST FAN CONTROL DIAGRAMS -DEMOLITION
M602	EXHAUST FANS CONTROL DIAGRAMS -NEW WORK
M803	ECMS POINT FUNCTION SCHEDULE
P001	PLUMBING ALLEGANTHIC SCHEDULES AND GENERAL NOTES
P002	PLUMBING SCHEDULES AND DETAILS
P101	PLUMBING ROOF PLAN -DEMOLITION
P102	PLUMBING ROOF PLAN -NEW WORK
E001	ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL AND DEMOLITION NOTES
E101	ROOF PLAN -DEMOLITION
E201	ROOF PLAN -POWERED NEW WORK
E202	ROOF PLAN -POWERED NEW WORK
E301	ROOF PLAN -LPS AND GROUNDED NEW WORK
E302	ROOF PLAN -LPS AND GROUNDED NEW WORK
E303	ROOF PLAN -LPS AND GROUNDED NEW WORK
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS
E503	ELECTRICAL DETAILS

**SYMBOLS****VICINITY MAP**

**Jacobs**

REV.	APPROVED DATE	DESCRIPTION	JCN	REISSUE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO-TECHNICAL OPERATIONS EASTERN SERVICE AREA					
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT					
ABBREVIATIONS, LIST OF DRAWINGS, VICINITY MAP					
RECEIVED BY	SUBMITTED BY	APPROVED BY			
DESIGNED BY	Designer	DATE	JCN	REISSUE DATE	APVD
DRAWN BY	Author	DATE	JCN	REISSUE DATE	APVD
CHECKED BY	Checker	DATE	JCN	REISSUE DATE	APVD
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA					
DRAWN NO. PCT-D-TRACON-G002					

## GENERAL CONSTRUCTION STAGING NOTES

THE FOLLOWING NOTES AND ACCOMPANYING "CONSTRUCTION STAGING PLAN" GRAPHICALLY REPRESENT MANY OF THE MAJOR REQUIREMENTS STATED IN DIVISION 1 - GENERAL REQUIREMENTS. THESE NOTES ARE NOT A SUBSTITUTION FOR THE DIVISION 1 REQUIREMENTS AND ARE NOT INTENDED TO MODIFY OR REPLACE ANY DIVISION 1 REQUIREMENTS.

**CONSTRUCTION ACCESS:** CONTRACTOR PARKING, CONSTRUCTION OFFICES AND THE EXACT SIZE OF THE CONSTRUCTION STAGING AREA MUST BE COORDINATED WITH THE CONTRACTING OFFICER'S REPRESENTATIVE (COR).

### A SECURITY REQUIREMENTS

A.1 PROVIDE A LIST OF CONSTRUCTION PERSONNEL AND VEHICLES WITH A 72 HOUR MINIMUM ADVANCED NOTICE TO THE COR. THE CONTRACTORS SUPERVISORY PERSONNEL SHALL BE RESPONSIBLE FOR THE CONDUCT OF THEIR PERSONNEL WHILE ON THE SITE.

### B PROTECTION OF UTILITIES, FACILITIES AND LANDSCAPING

B.1 UNDERGROUND FACILITIES AND UTILITIES HAVE BEEN SHOWN BASED ON RECORD DRAWINGS. SEE THESE RECORDS FOR THE DRAWINGS FOR REFERENCE.

B.2 CONSTRUCTION ACTIVITIES INCLUDE CRANE POSITIONING TO AVOID INTERFERENCE WITH MICROWAVE OPERATIONS.

B.3 THE SATELLITE DISH THAT FEEDS NATCA TV SERVICES WILL NEED TO BE DETACHED AND RESET, COORDINATE WITH COR WHO WILL COORDINATE WITH NATCA AND DIRECTV.

### C SCHEDULING REQUIREMENTS AND CONSTRAINTS

C.1 PHASING OF MOBILIZATION, DEMOLITION, AND CONSTRUCTION OPERATIONS SHALL BE FULLY DOCUMENTED BY THE CONTRACTOR CONSTRUCTION STAGING.

C.2 UPON EXPOSURE TO EXISTING METAL DECKING, AN INSPECTION SHALL BE PERFORMED IN THE PRESENCE OF THE COR TO DETERMINE THE AREAS OF DETERIORATED AND/OR DAMAGED METAL DECKING.

### D CONSTRUCTION ACCESS

D.1 ACCESS TO THE SITE FOR CONSTRUCTION VEHICLES, DELIVERIES, AND CONSTRUCTION RELATED ACTIVITIES WILL ONLY BE THROUGH THE GATE HOUSE (WITH AN APPROXIMATE 7'-5" WIDTH) AT THE MAIN ENTRANCE.

### E TEMPORARY CONTROLS

E.1 CONTRACTOR TO SUBMIT A CONSTRUCTION SIGNAGE PLAN TO THE US DEPARTMENT OF TRANSPORTATION (DOT) AND FEDERAL AVIATION ADMINISTRATION (FAA) FOR APPROVAL. TEMPORARY TRAFFIC CONTROL DEVICES, MUTCD STANDARDS AND GUIDES FOR TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND INCIDENT MANAGEMENT OPERATIONS SHALL BE USED AS REFERENCED IN THE COR.

E.2 PROVIDE TEMPORARY CONTROLS TO ENSURE PROPER ACCESS, WARNING, AND SAFETY PROTECTION. TEMPORARY CONTROLS INCLUDE SIGNAGE, LIGHTS, BARRICADES, TRAFFIC CONTROL DEVICES, AND GUARD RAILS. LOCATE CONSTRUCTION ACTIVITIES NEAR CONSTRUCTION GATES TO PROVIDE SECURE PERIMETERS AROUND THE AREAS OCCUPIED BY CONSTRUCTION ACTIVITIES AND THE CONSTRUCTION STAGING AREA.

### F CONTRACTORS TEMPORARY FACILITIES

F.1 TRAILERS IF FURNISHED BY THE CONTRACTOR FOR OFFICE, MATERIALS, AND EQUIPMENT STORAGE SHALL BE LOCATED WITHIN THE CONSTRUCTION STAGING AREA. THE EXACT LOCATION FOR THE CONTRACTOR CONSTRUCTION STAGING SHALL DETERMINED AT THE PRECONSTRUCTION MEETING.

F.2 PROVIDE SAFETY, SANITATION, FIRE, AND OTHER REQUIRED FACILITIES.

### G CONSTRUCTION MATERIAL STORAGE AND DISPOSAL OF DEBRIS

G.1 ROOFING MATERIALS NEED TO BE STORED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS TO AVOID ANY DAMAGE THAT MIGHT IMPACT THE INTEGRITY OR LONGEVITY OF THE INSTALLED ROOF.

G.2 PROVIDED ENCLOSURE DUMPSTERS FOR DISPOSAL OF CONSTRUCTION DEBRIS. REMOVE DEBRIS FROM SITE AND DISPOSE OF LEGALLY. DUMPSTERS SHALL BE EMPTIED ONCE A WEEK AT A MINIMUM.

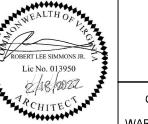
### H CONTRACTOR EMPLOYEE PARKING

H.1 PARKING FOR CONTRACTORS EMPLOYEE PERSONAL VEHICLES IS TO BE PROVIDED WITHIN THE CONSTRUCTION STAGING AREA.

### I SITE RESTORATION

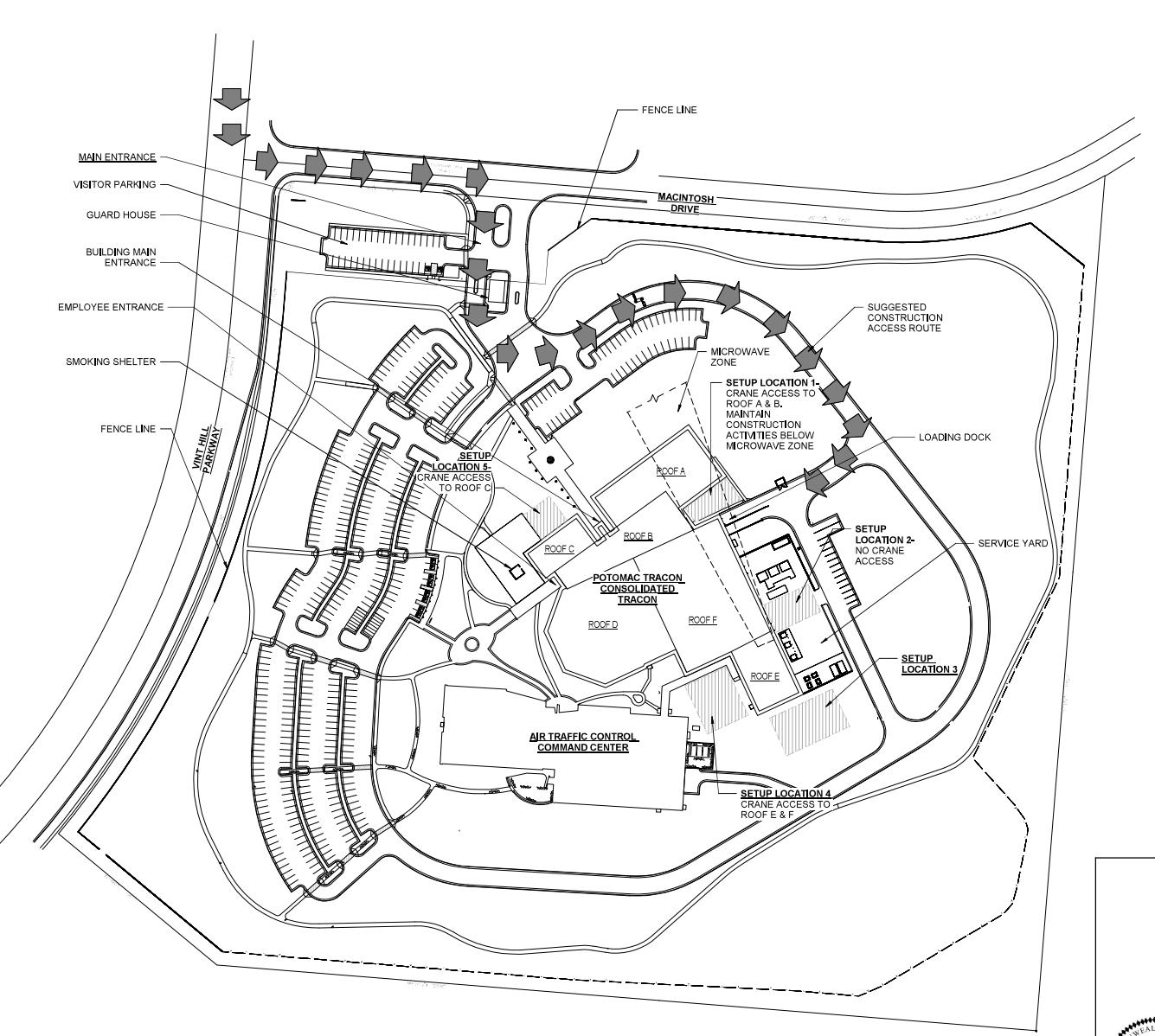
I.1 UPON COMPLETION OF WORK, REPAIR AREAS OR FACILITIES DAMAGED BY CONSTRUCTION OPERATIONS, INCLUDING PAVEMENT STRIPPING, LAWN, LANDSCAPING, AND IRRIGATION SYSTEM. REMOVE ALL CONSTRUCTION DEBRIS AND MATERIALS. NOTIFY THE COR OF THE PRECONSTRUCTION CONFERENCE, AND DOCUMENT EXISTING DAMAGE TO SITE FEATURES. IF ANY, SUBMIT THIS DOCUMENTATION TO THE COR BEFORE CONSTRUCTION BEGINS.

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PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552

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POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT					
CONSTRUCTION STAGING PLAN					
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SUBMITTER'S TITLE		APPROVING PERSON'S TITLE			
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CHECKED BY	CHECKED BY	DATE	PCT - D - TRACON - G003	APVO	
Jacobs					
 <p>ROBERT LEE DODD, JR. Lic No. 013958 ARCHITECT</p>					
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA					

## A8 CONSTRUCTION STAGING PLAN

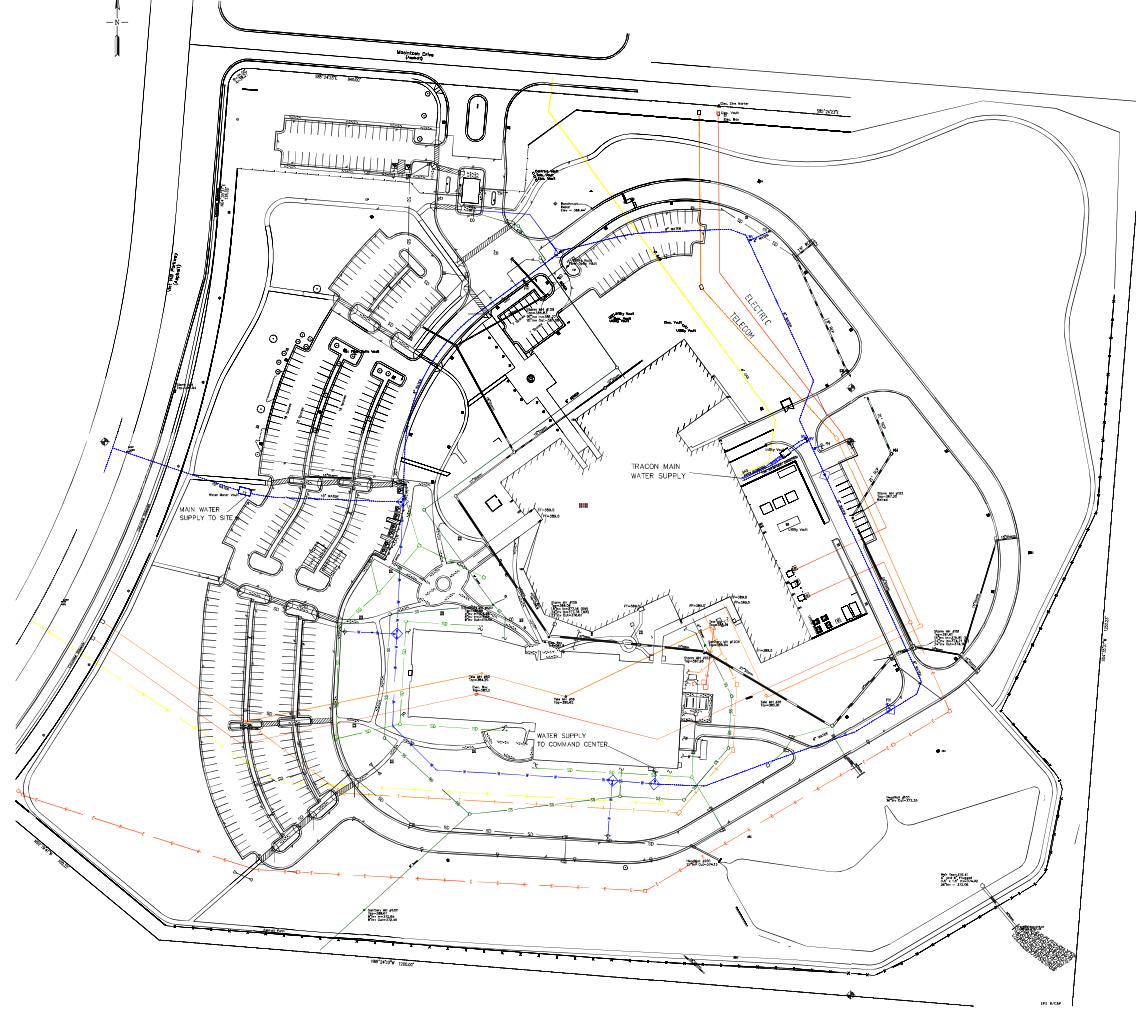
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UTILITIES PLAN - FOR REFERENCE ONLY



1 UTILITY PLAN

PLOT DATE/TIME

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UTILITIES PLAN						
REVIEWED BY	SUBMITTED BY	APPROVED BY				
SUBMITTER'S TITLE		APPROVING OFFICER'S TITLE				
DESIGNED BY	Designer	ISSUED BY	Engineering Services	DATE	JOH	APVO
DRAWN BY	Author	TERMINAL	Services	DRAWN BY	JOH	APVO
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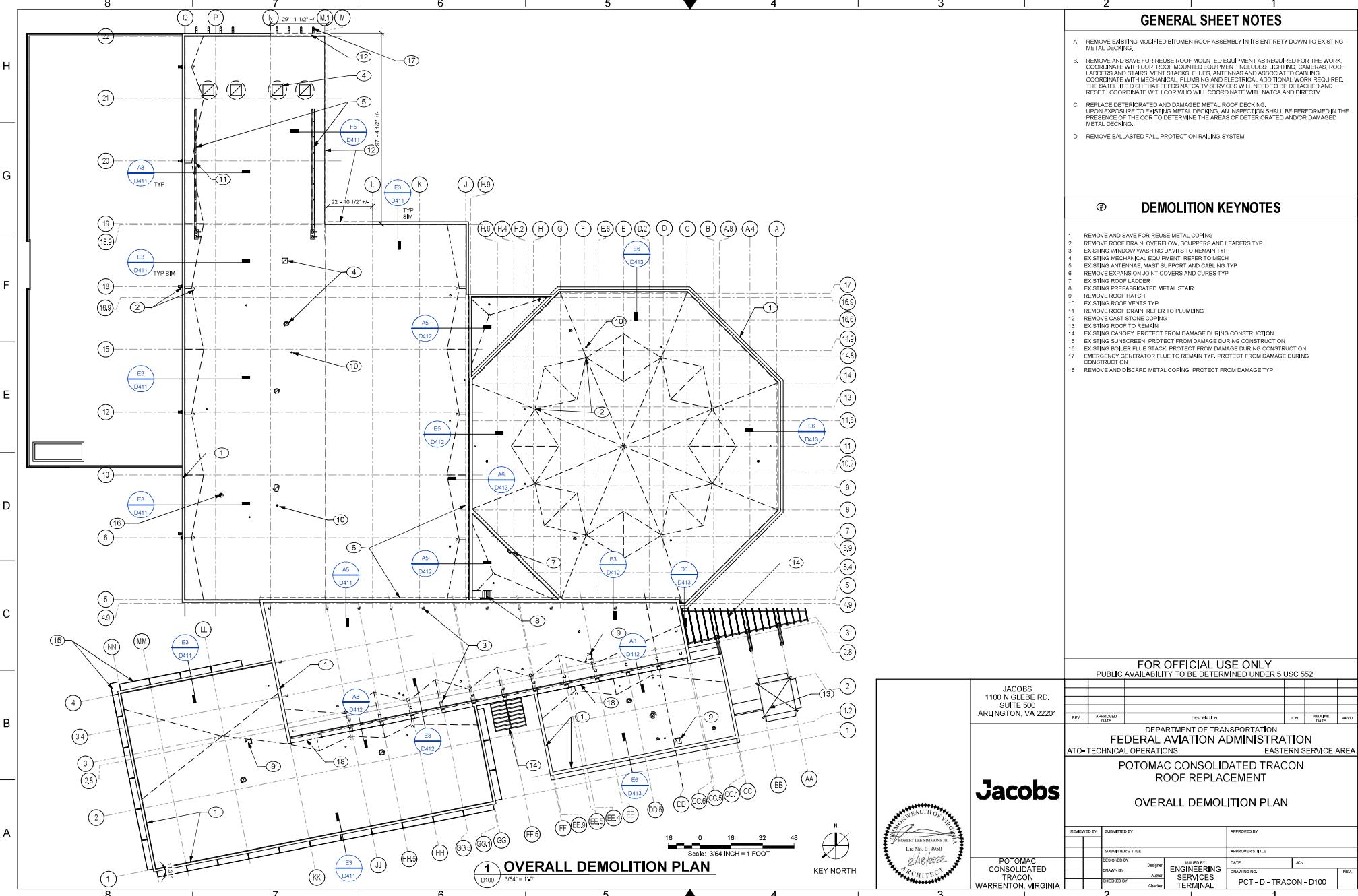
JACOBS  
1100 N GLEBE RD.  
SUITE 500  
ARLINGTON, VA 22201

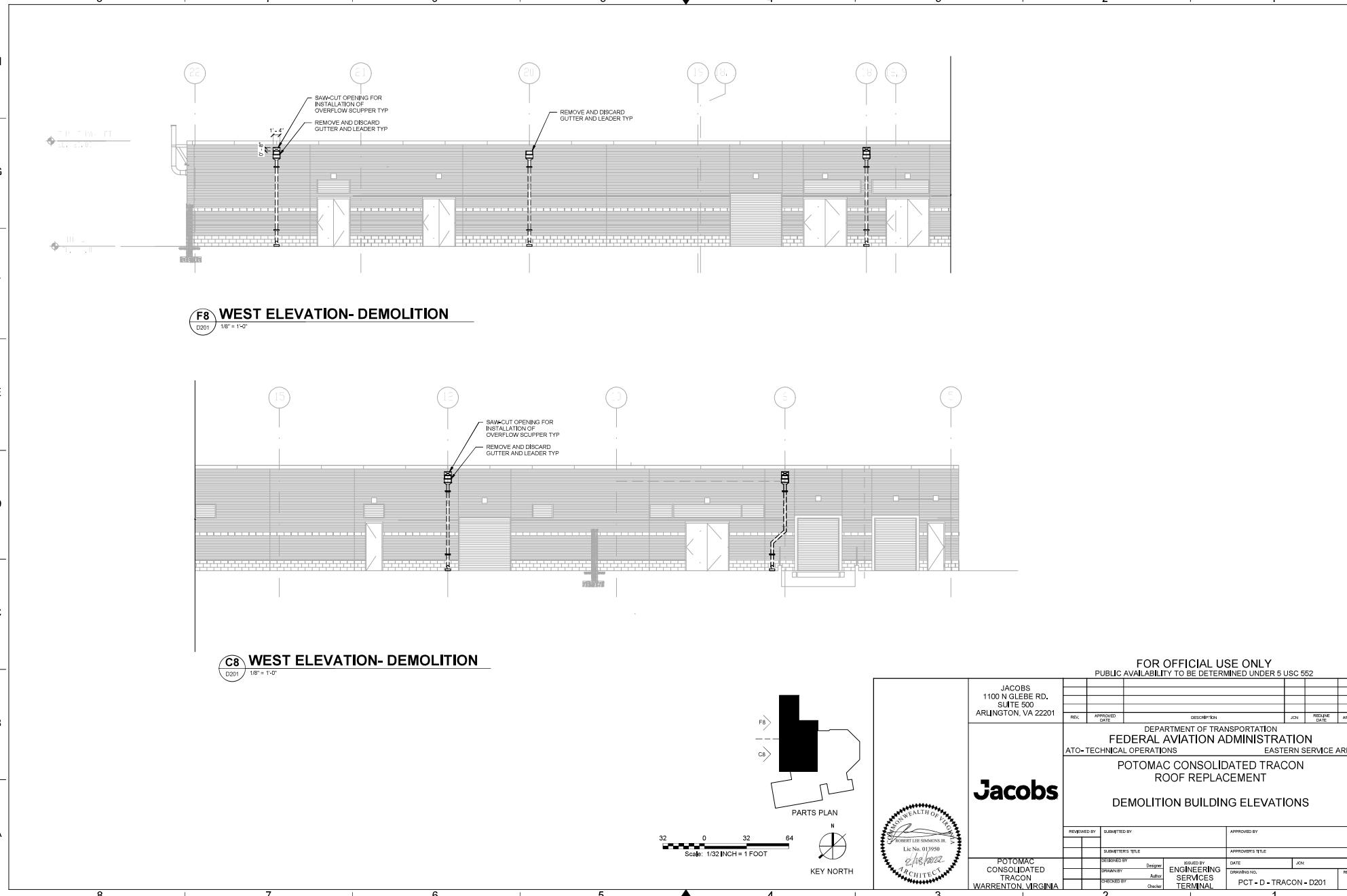
ROBERT LEE SIMMONS, JR.  
Lic No. 013959  
Architect

Jacobs

POTOMAC CONSOLIDATED TRACON  
WARRENTON, VIRGINIA

PCT-D-TRACON-G004





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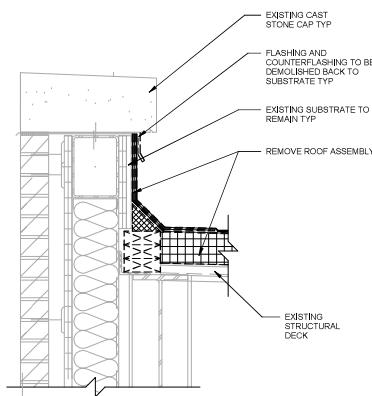
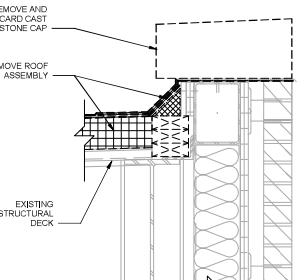
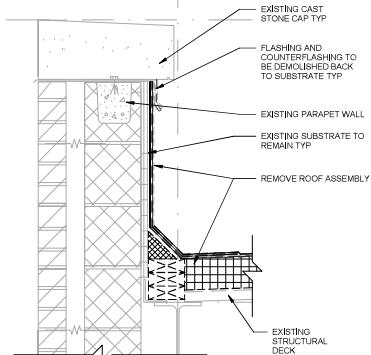
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ENGINEERING SERVICES TERMINAL		REV.

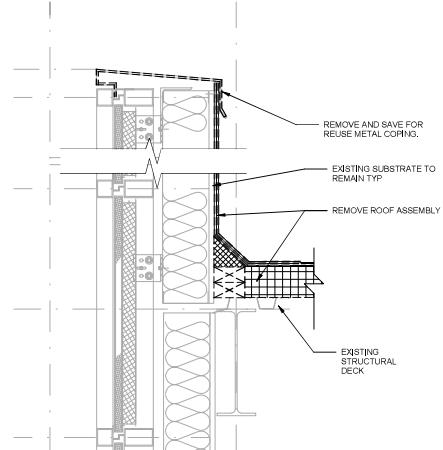
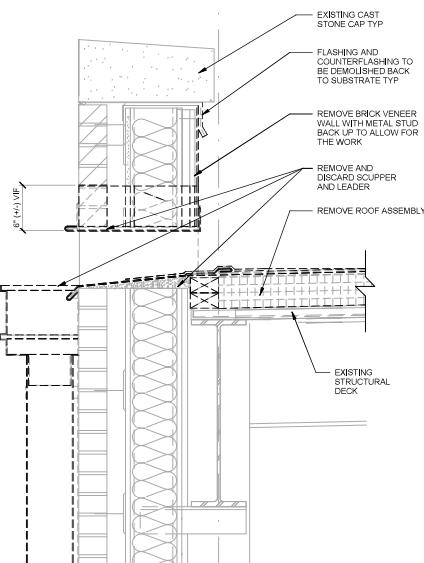
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ENGINEERING SERVICES TERMINAL		REV.																										



**E8 DETAIL**  
D411 1 1/2" = 1'-0"

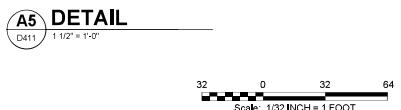
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D411 1 1/2" = 1'-0"

**E3 DETAIL**  
D411 1 1/2" = 1'-0"



**C3 DETAIL**  
D411 1 1/2" = 1'-0"

**A8 DETAIL**  
D411 1 1/2" = 1'-0"



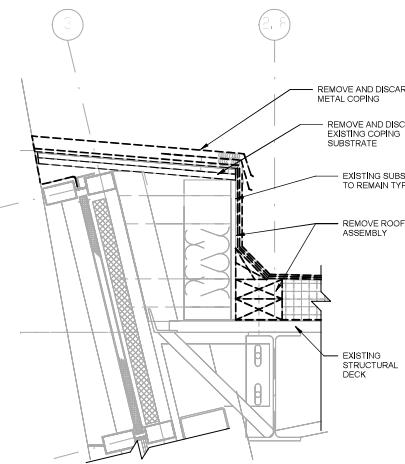
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D411 1 1/2" = 1'-0"



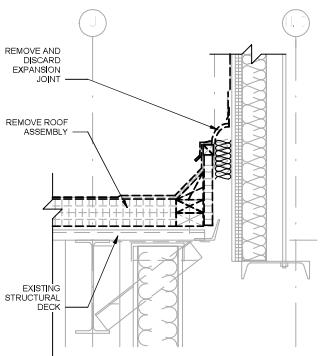
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**E8 DETAIL**

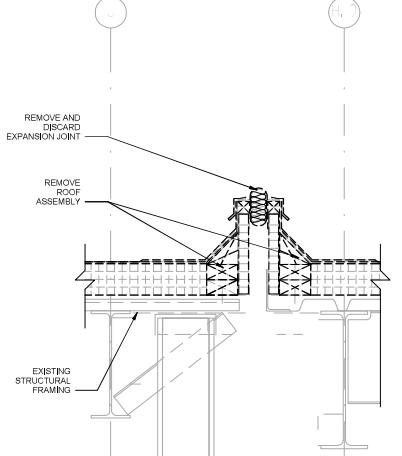
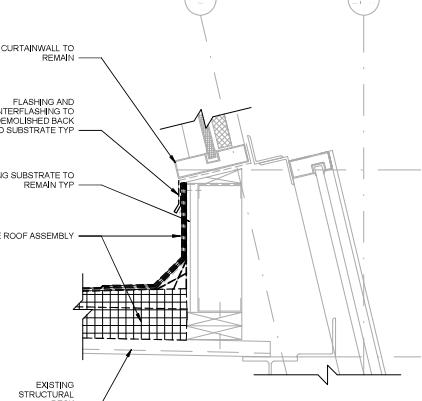
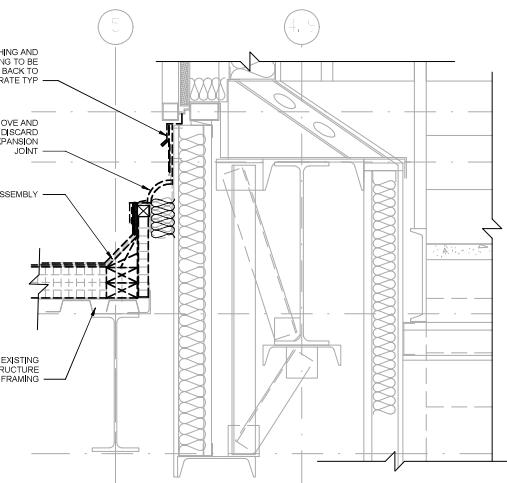
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**E5 DETAIL**

D412 1 1/2" = 1'-0"

**E3 DETAIL**

D412 1 1/2" = 1'-0"

**A8 DETAIL**

D412 1 1/2" = 1'-0"

**A5 DETAIL**

D412 1 1/2" = 1'-0"

Scale: 1 1/2 INCH = 1 FOOT

		JACOBS		DEPARTMENT OF TRANSPORTATION	
		1100 N GLEBE RD. SUITE 500 ARLINGTON, VA 22201		FEDERAL AVIATION ADMINISTRATION	
		ATO-TECHNICAL OPERATIONS		POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT	
		DEMOLITION ROOF DETAILS			
REVIEWED BY	SUBMITTED BY	APPROVED BY			
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DESIGNED BY	Designed	ISSUED BY	APPROVING TITLE		
DRAWN BY	Autodesk	ENGINEERING SERVICES TERMINAL	APPROVING TITLE		
CHECKED BY	Checked	APPROVING TITLE			
DRAWING NO.		DATE		JCN	
PCT - D - TRACON - D412					
REV.					

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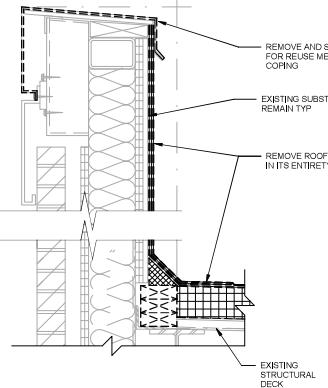
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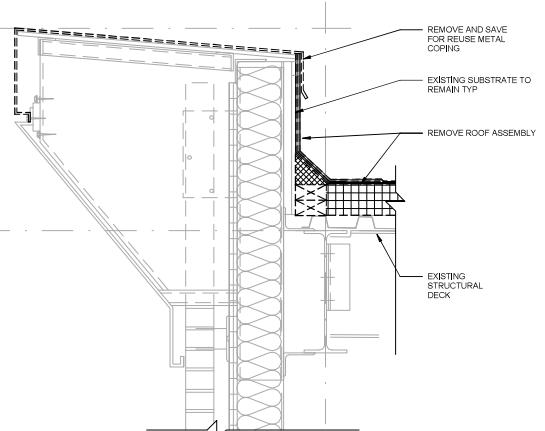
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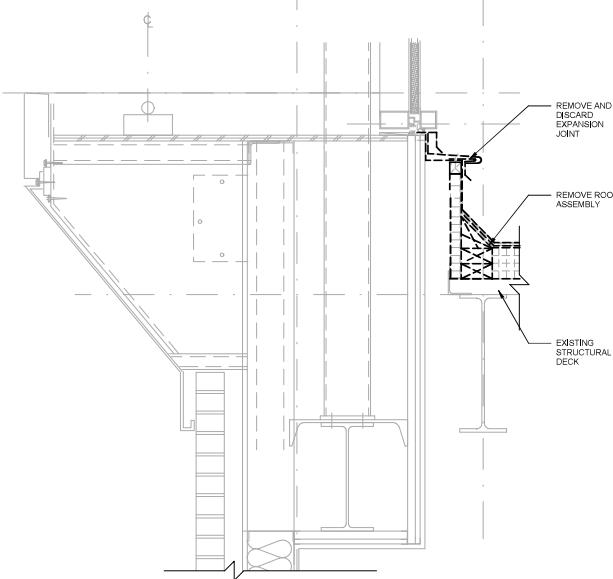
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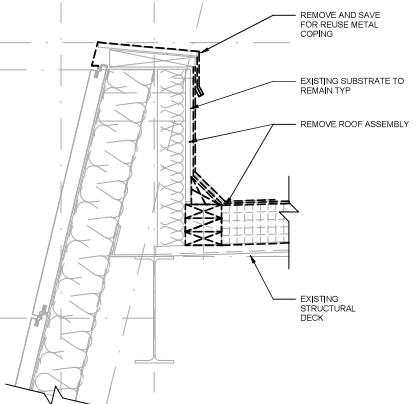
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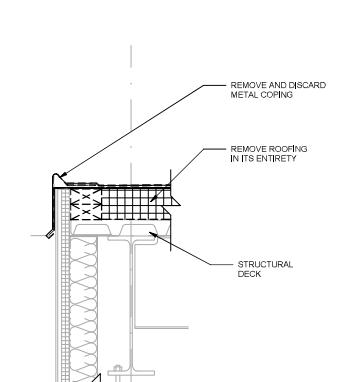
**E6 DETAIL**  
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**D3 DETAIL**  
D413 1 1/2' = 1'-0"



**A8 DETAIL**  
D413 1 1/2' = 1'-0"



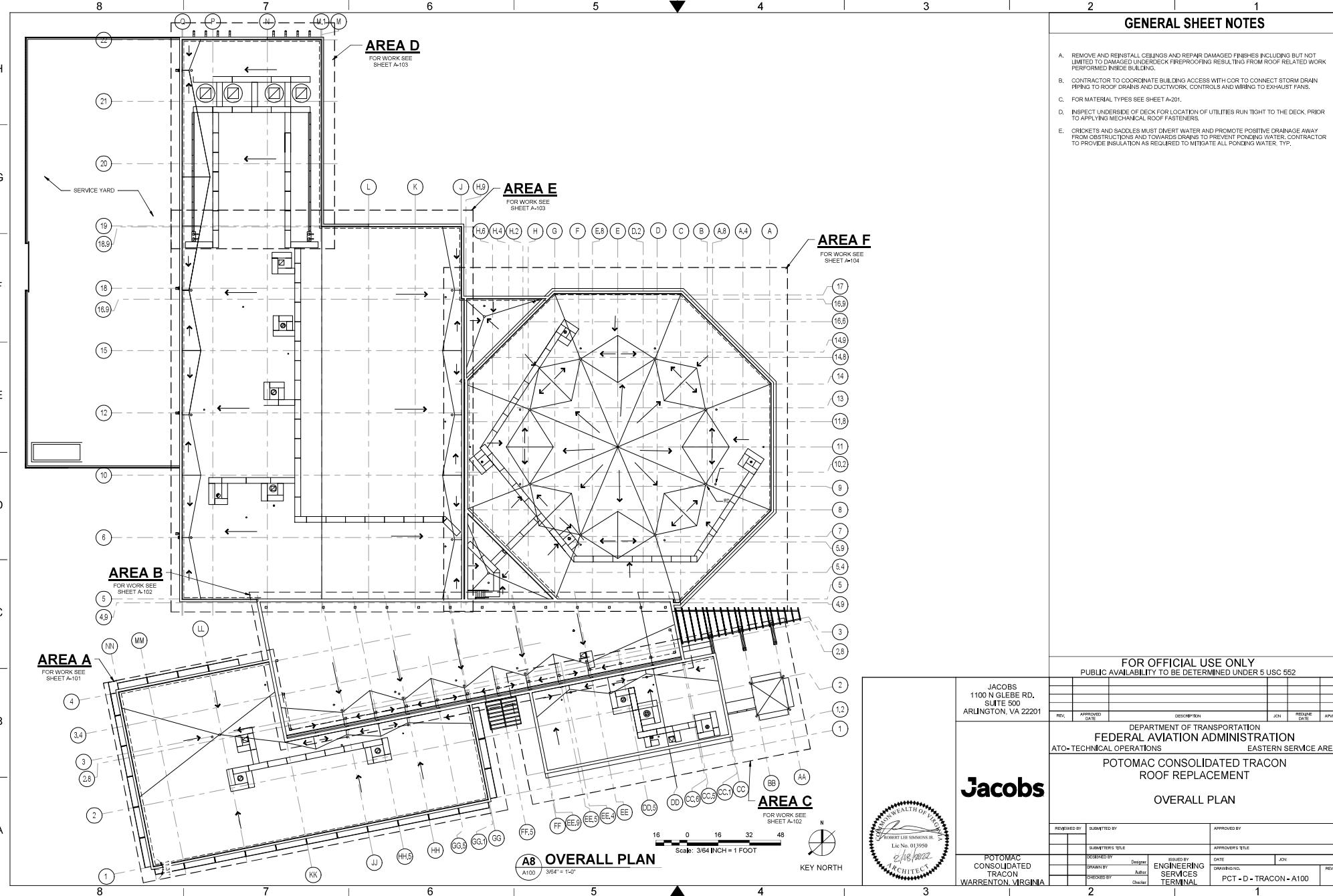
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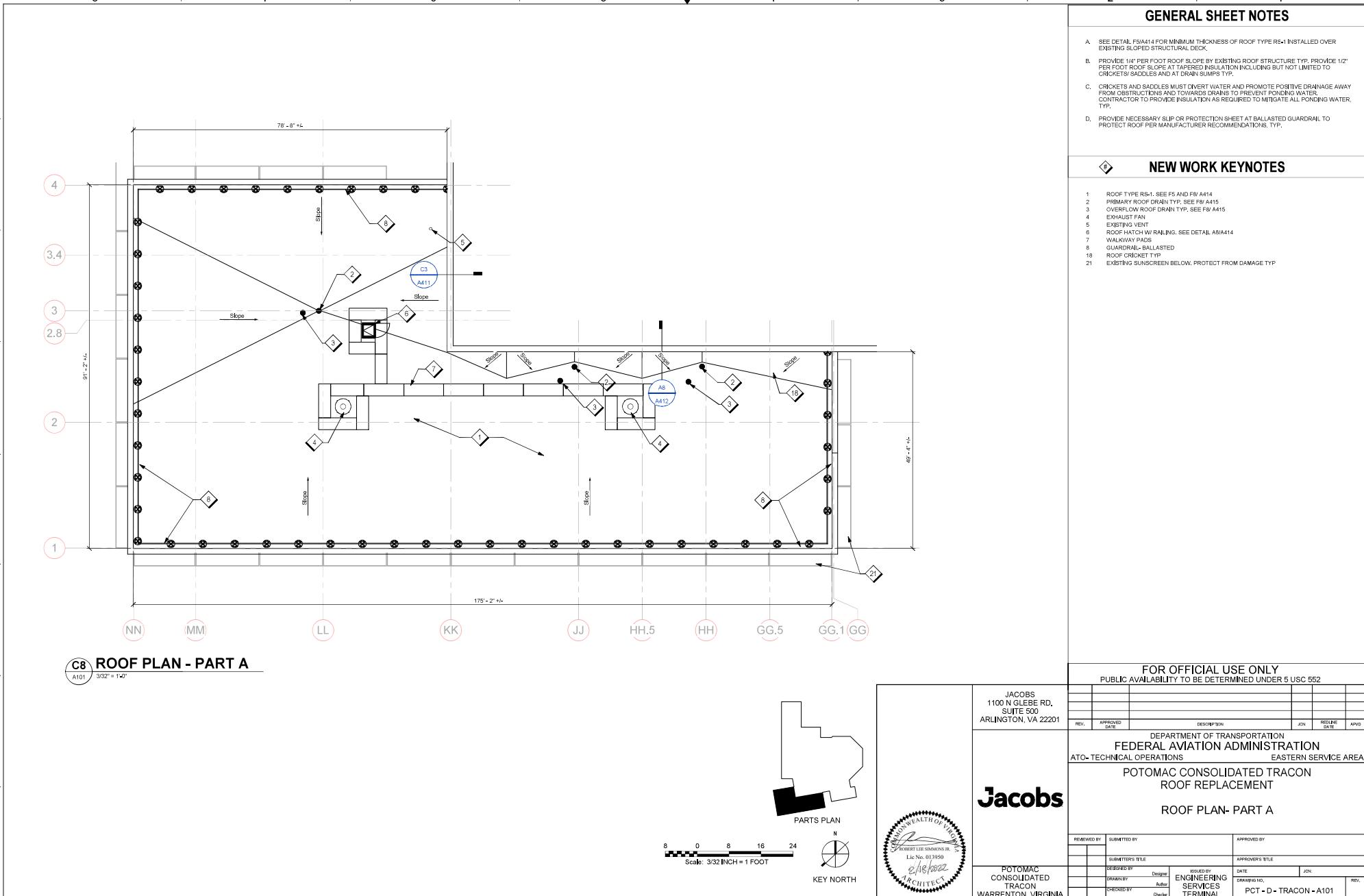
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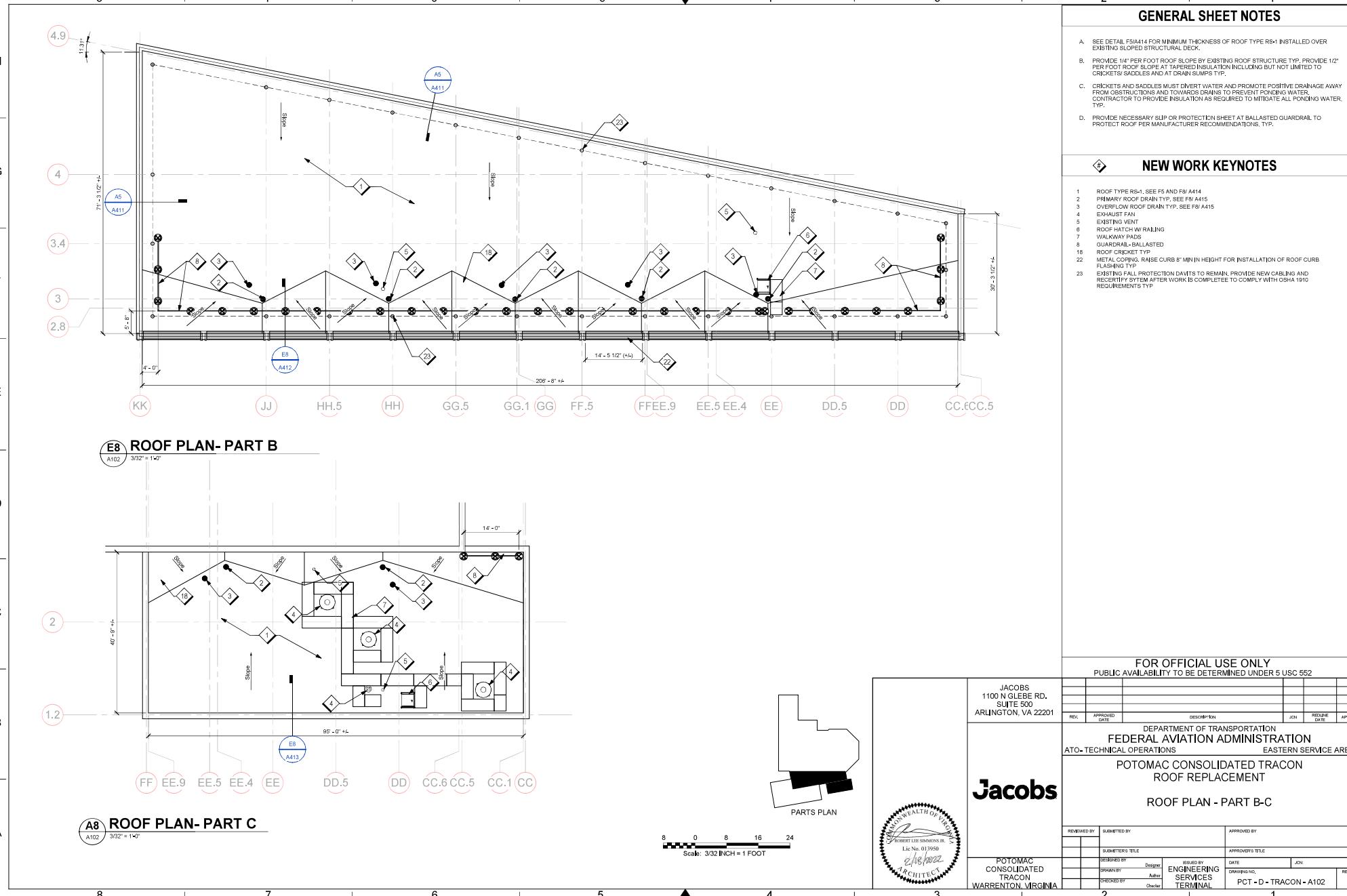
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			POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT					
			DEMOLITION ROOF DETAILS					
			REVIEWED BY	SUBMITTED BY	APPROVED BY			
			SUBMITTER'S TITLE		DESIGNED BY	DATE	JCN	APVO
					Designer			
			DRAWN BY	Checked by	REVIEWED BY	DATE	JCN	APVO
			Artist	Owner	Engineering Services Terminal			
			CHECKED BY	APPROVED BY	DATE	JCN	APVO	
			Owner					
			POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA	DRAWN NO.	PCT - D - TRACON - D413	REV.		

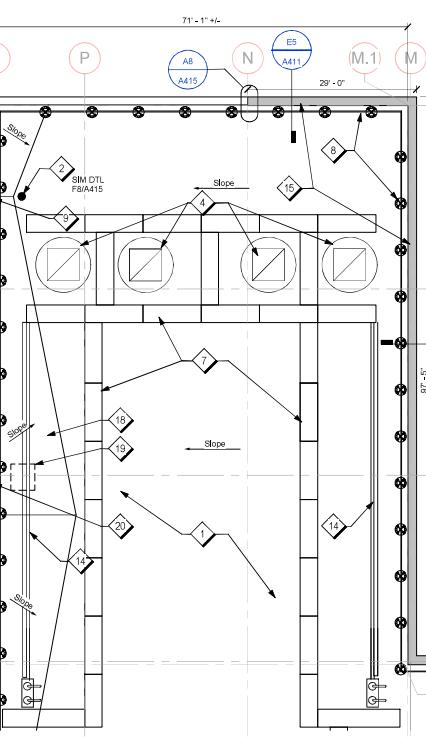
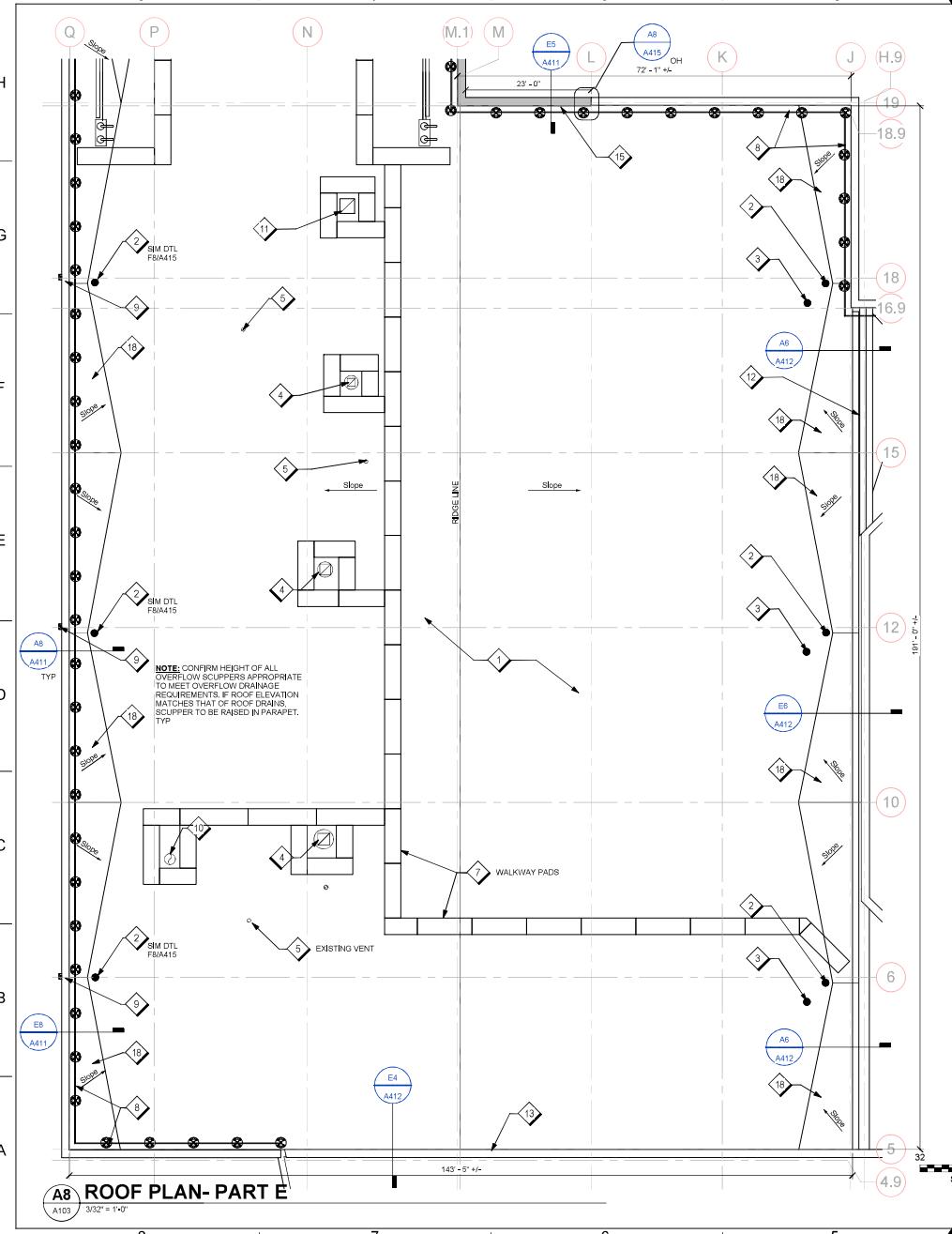


**Jacobs**





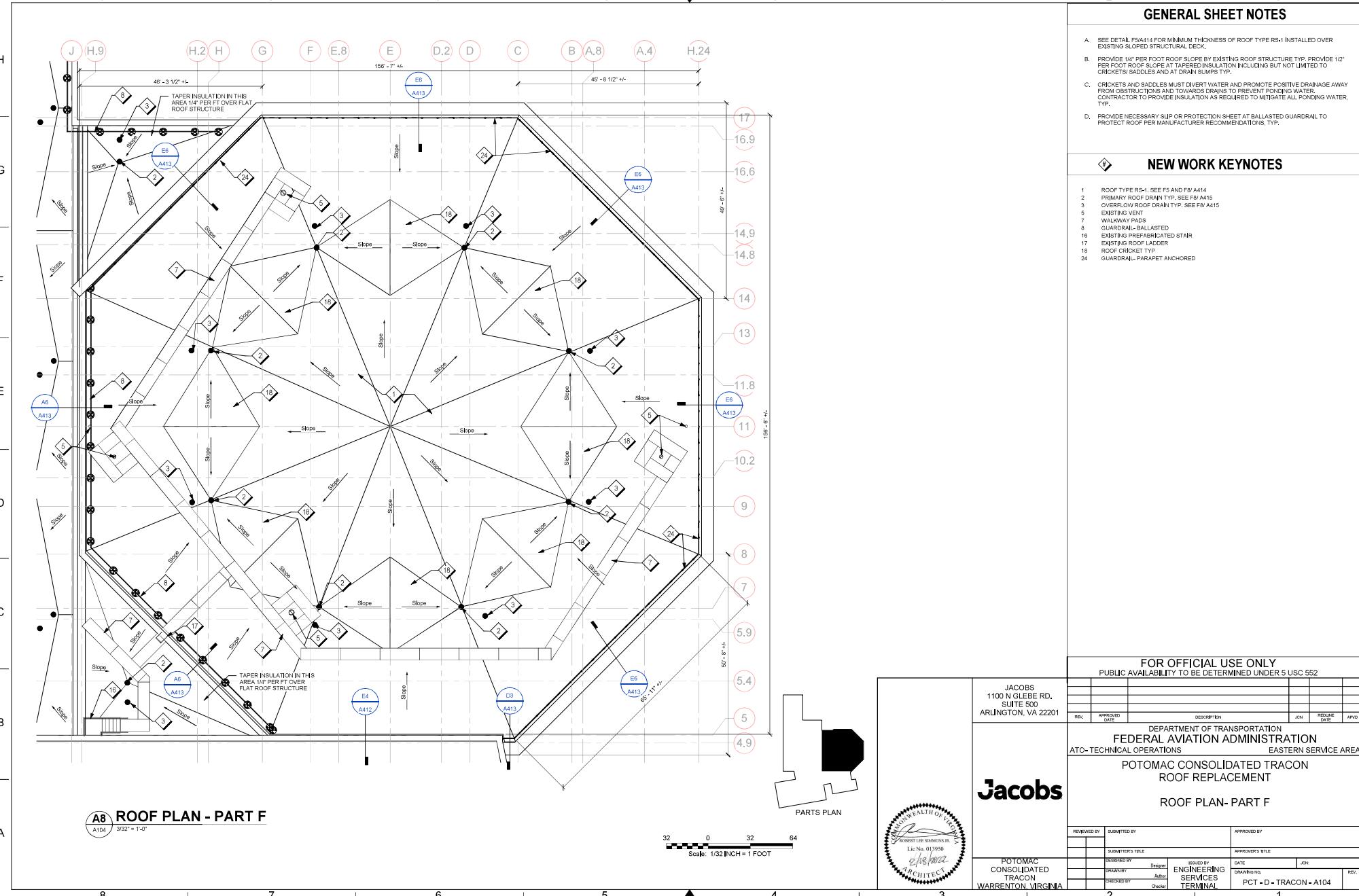


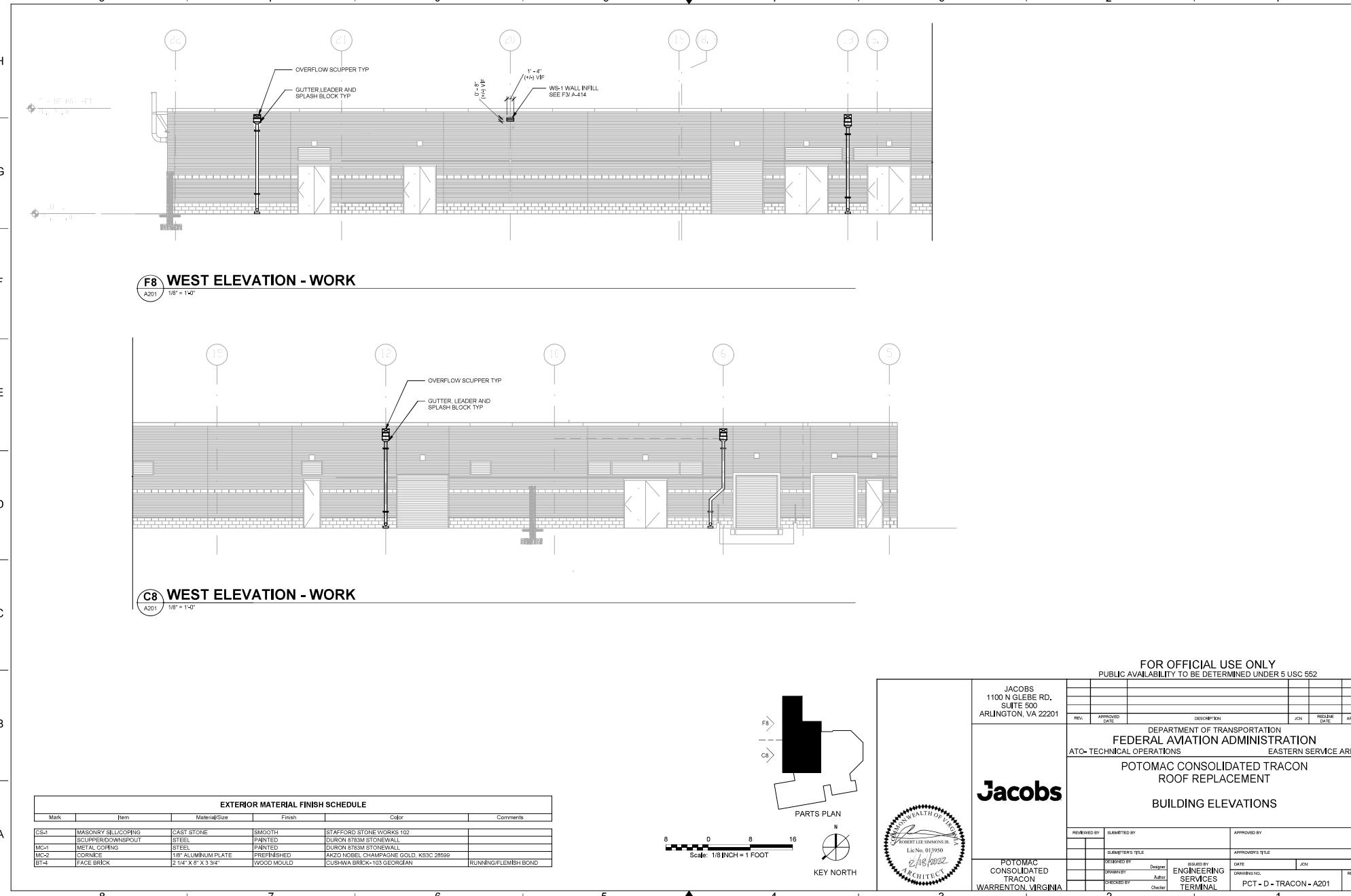


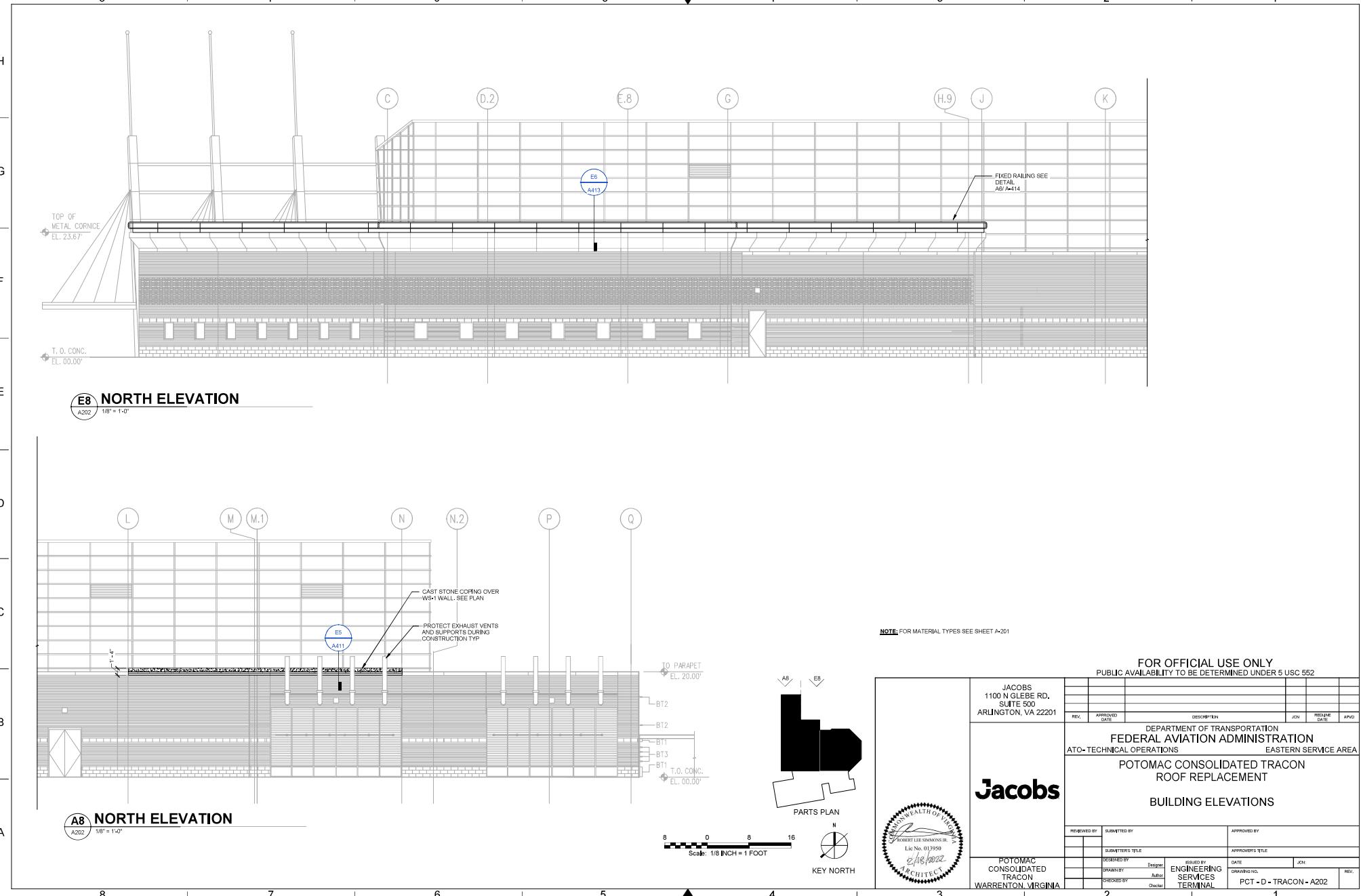
GENERAL SHEET NOTES									
A. SEE DETAIL F5/A414 FOR MINIMUM THICKNESS OF ROOF TYPE RS-1 INSTALLED OVER EXISTING SLOPED STRUCTURAL DECK.									
B. PROVIDE 1/4" PER FOOT ROOF SLOPE BY EXISTING ROOF STRUCTURE TYP. PROVIDE 1/2" PER FOOT ROOF SLOPE AT TADED GUARDRAIL SECTION INCLUDING BUT NOT LIMITED TO GUARDRAIL, OVERLAYS AND GUARDRAIL CLADDING TYP.									
C. CHICKENS AND SADDLES MUST DIVERT WATER AND PROMOTE POSITIVE DRAINAGE AWAY FROM OBSTRUCTIONS AND TOWARDS DRAINS TO PREVENT PONDING WATER. CONTRACTOR TO PROVIDE INSULATION AS REQUIRED TO MITIGATE ALL PONDING WATER TYP.									
D. PROVIDE NECESSARY SLIP OR PROTECTION SHEET AT BALLASTED GUARDRAIL TO PROTECT ROOF PER MANUFACTURER RECOMMENDATIONS TYP.									
NEW WORK KEYNOTES									
1. ROOF TYPE RS-1, SEE F5 AND F8/A414									
2. PRIMARY ROOF DRAIN TYP. SEE F8/A415									
3. OVERFLOW ROOF DRAIN TYP. SEE F8/A415									
4. MECHANICAL EQUIPMENT, REFER TO MECH.									
5. EXISTING VENTS									
6. WALKWAY PADS									
7. GUARDRAIL-BALLASTED									
8. SCUPPER OVERFLOW									
9. EXISTING BOILER FLUE									
10. EXISTING HOLE									
11. 2" EXPANSION JT COVER									
12. 3" EXPANSION JT COVER									
13. EXISTING ATTENNAE MAST									
15. CAST IRON COPING									
18. ROOF DRAIN TYP									
19. PATCH STRUCTURAL DECK AT DEMOLISHED ROOF DRAIN									
20. PATCH PARAPET AT DEMOLISHED SCUPPER, SEE WALL INFILL TYPE W5-1 DETAIL F5/A414									

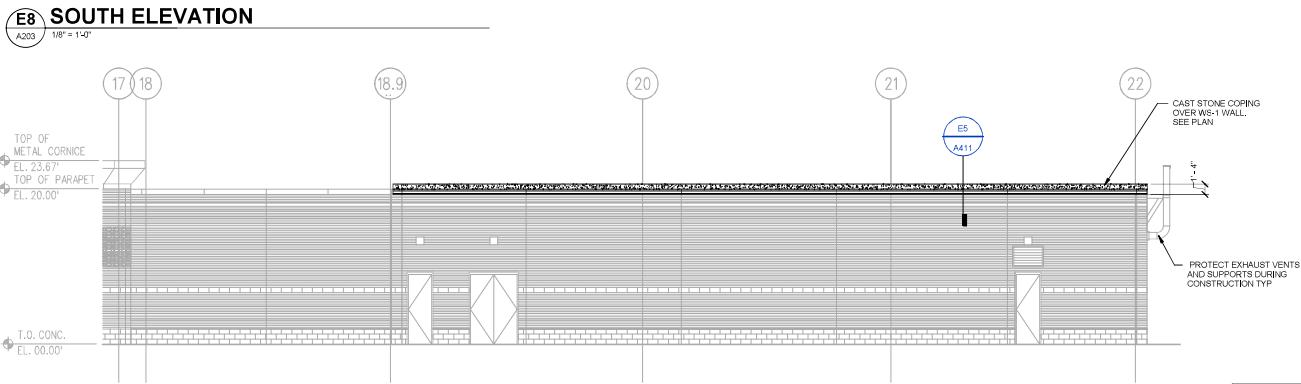
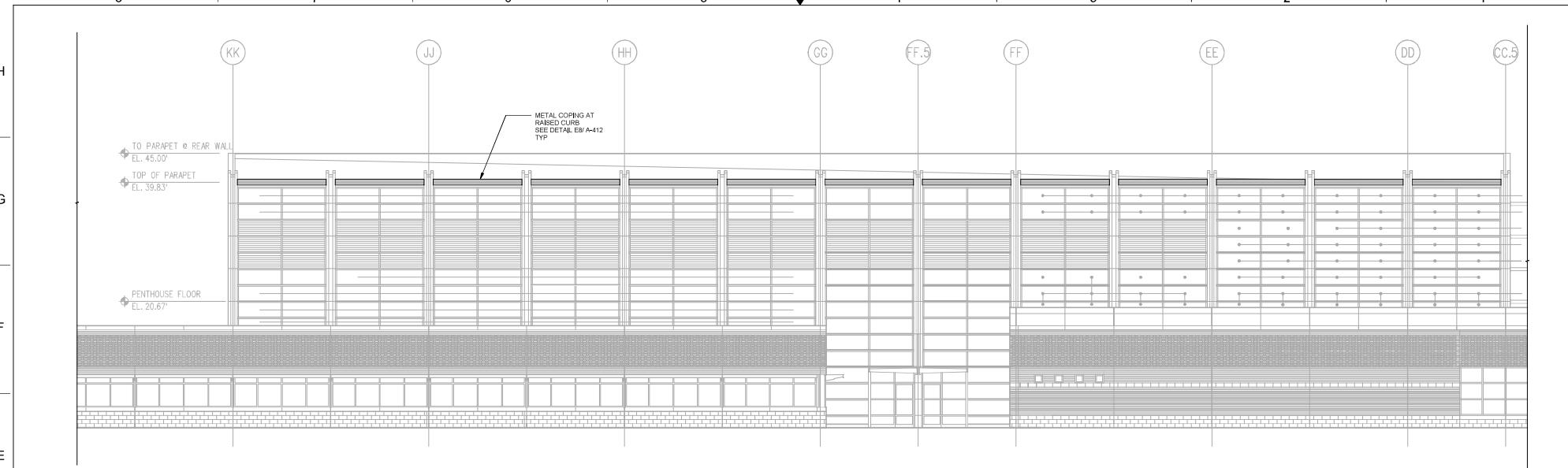
  

FOR OFFICIAL USE ONLY PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552																													
REV.	APPROVED DATE	DESCRIPTION	JCN	REVISION DATE	APV																								
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO-TECHNICAL OPERATIONS EASTERN SERVICE AREA																													
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT																													
Jacobs ROOF PLAN- PART D-E																													
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REVIEWED BY	SUBMITTED BY	APPROVED BY																											
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<table border="1"> <tr> <th>DRAWN BY</th> <th>DESIGNED BY</th> <th>ISSUED BY</th> <th>APPROVED BY</th> </tr> <tr> <td>ROBERT LEE SIMMONS JR. 2/15/2022</td> <td>JACOBS</td> <td>ENGINEERING SERVICES TERMINAL</td> <td></td> </tr> <tr> <th>ADVISOR</th> <th></th> <th>DRAWN NO.</th> <th>JCN</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED</td> <td>CHECKED</td> <td>REV.</td> <td>REV.</td> </tr> </table>										DRAWN BY	DESIGNED BY	ISSUED BY	APPROVED BY	ROBERT LEE SIMMONS JR. 2/15/2022	JACOBS	ENGINEERING SERVICES TERMINAL		ADVISOR		DRAWN NO.	JCN					CHECKED	CHECKED	REV.	REV.
DRAWN BY	DESIGNED BY	ISSUED BY	APPROVED BY																										
ROBERT LEE SIMMONS JR. 2/15/2022	JACOBS	ENGINEERING SERVICES TERMINAL																											
ADVISOR		DRAWN NO.	JCN																										
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POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA																													
DRAWN NO. PCT - D - TRACON - A103																													









FOR OFFICIAL USE ONLY PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552											
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO-TECHNICAL OPERATIONS EASTERN SERVICE AREA											
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT											
BUILDING ELEVATIONS											
RECEIVED BY			SUBMITTED BY			APPROVED BY					
SUBMITTER'S TITLE			DESIGNER'S TITLE			APPROVING TITLE					
ROBERT LEE SIMMONS, III Architect Lic No. 013950 2/18/2022			Designer AIA/ASCE Architect			DATE			JOH		
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA			BRANCH OF ENGINEERING SERVICES TERMINAL			DRAWINGS NO.			REV.		
						PCT - D - TRACON - A203					

**Jacobs**

**COMMONWEALTH OF VIRGINIA**

**KEY NORTH**

**Scale: 1/8 INCH = 1 FOOT**

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**2/10/2022 4:54:57 PM**

**PLOT DATE/TIME**

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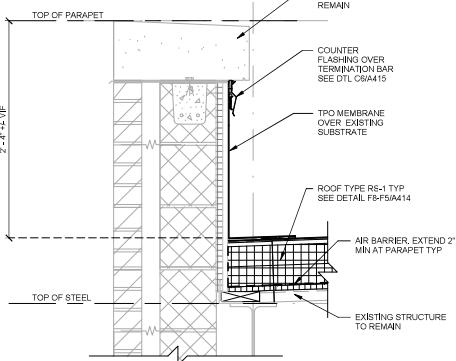
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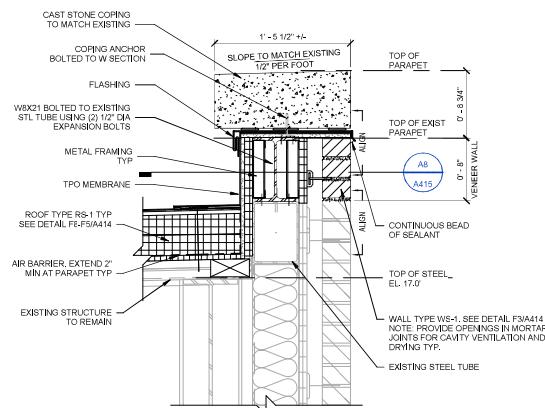
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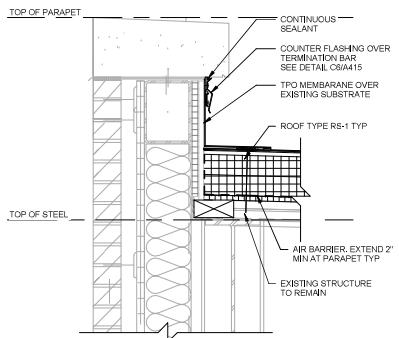
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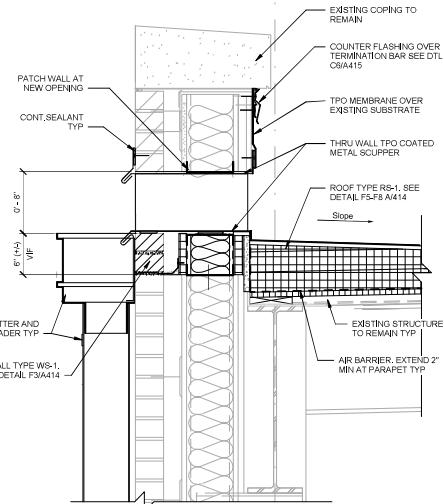
**E8 DETAIL**  
A411 1 1/2" = 1'-0"



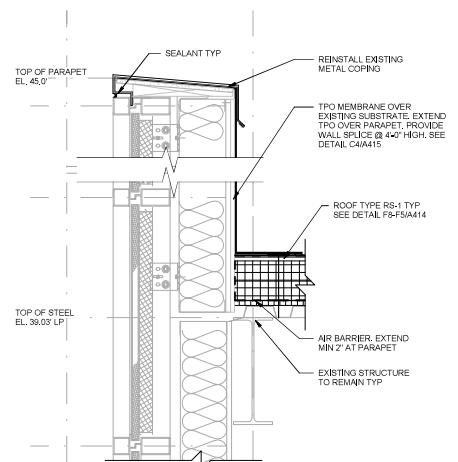
**E5 DETAIL**  
A411 1 1/2" = 1'-0"



**E3 DETAIL**  
A411 1 1/2" = 1'-0"



**A8 DETAIL**  
A411 1 1/2" = 1'-0"



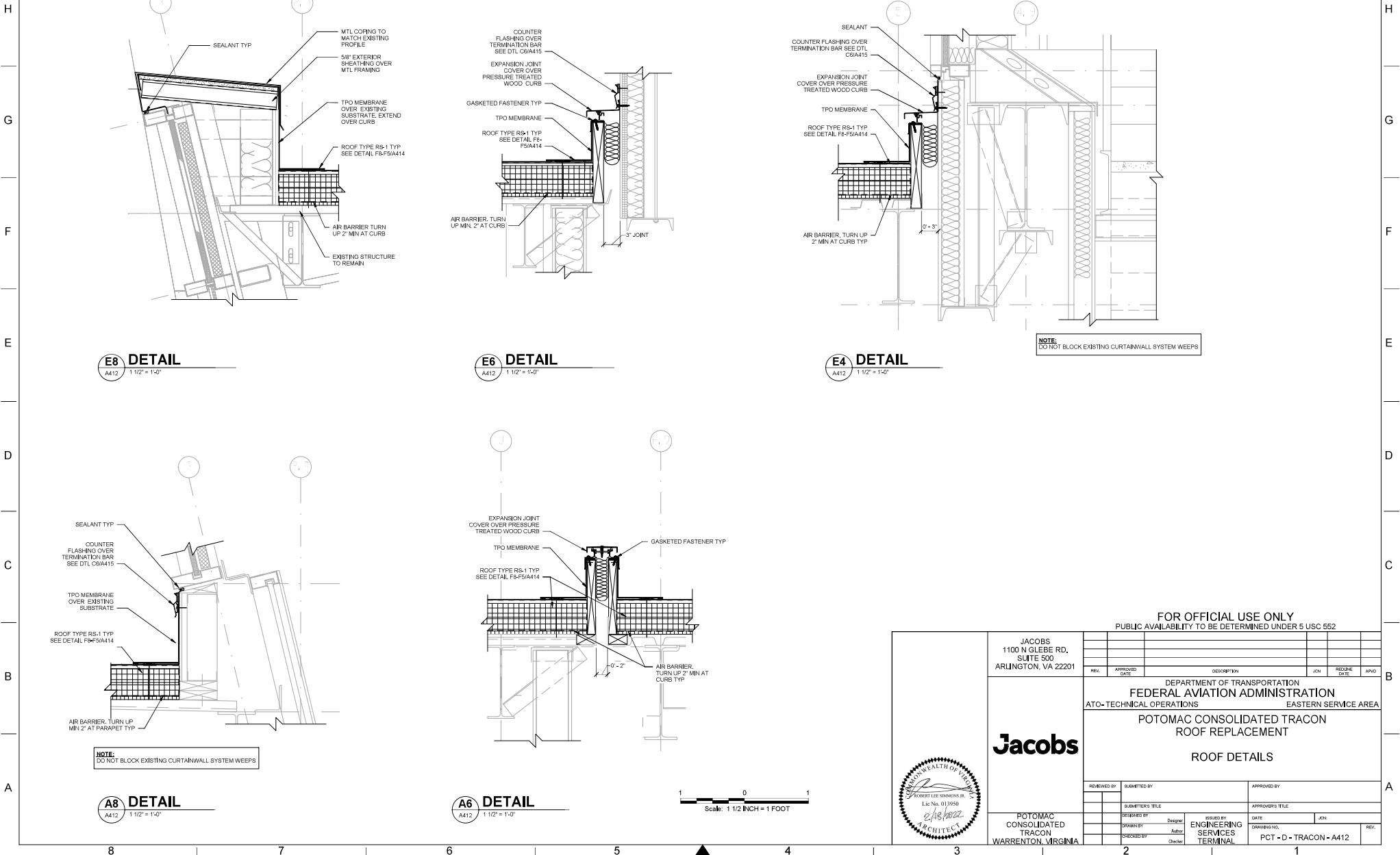
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A411 1 1/2" = 1'-0"

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Scale: 1 1/2 INCH = 1 FOOT

		JACOBS		DEPARTMENT OF TRANSPORTATION	
		1100 N GLEBE RD. SUITE 500 ARLINGTON, VA 22201		FEDERAL AVIATION ADMINISTRATION	
REV.	APPROVED DATE	DESCRIPTION		JCN	REDLINE DATE
		ATO- TECHNICAL OPERATIONS		POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT	
		Jacobs		ROOF DETAILS	
		REVIEWED BY	SUBMITTED BY	APPROVED BY	
		SUBMITTER'S TITLE		APPROV'R'S TITLE	
		DESIGNED BY	DESIGNED BY	RECD BY	APPROV'R'S TITLE
		GRANDED BY	DESIGNED BY	RECD BY	APPROV'R'S TITLE
		SIGNED BY	SIGNED BY	DATE	JCN
		ROBERT LEE SIMONS, JR.	ROBERT LEE SIMONS, JR.	DATE	JCN
		GRANDED BY	DESIGNED BY	RECD BY	APPROV'R'S TITLE
		ARCHITECT	ARCHITECT	ENGINEERING SERVICES	APPROV'R'S TITLE
		SIGNED BY	SIGNED BY	RECD BY	APPROV'R'S TITLE
		ROBERT LEE SIMONS, JR.	ROBERT LEE SIMONS, JR.	ENGINEERING SERVICES	APPROV'R'S TITLE
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		ROBERT LEE SIMONS, JR.	ROBERT LEE SIMONS, JR.	TERMINAL	APPROV'R'S TITLE
		POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA		GRANDED BY	PCT - D - TRACON - A411
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NOTE: FOR MATERIAL TYPES SEE SHEET A-201



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PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552

REVIEWED BY		SUBMITTED BY		APPROVED BY	
REVIEWER	DATE	SUBMITTER'S NAME	DATE	APPROVING ENGINEER	DATE
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO-TECHNICAL OPERATIONS EASTERN SERVICE AREA		POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT			
Jacobs					
ROOF DETAILS					
REVIEWED BY	SUBMITTED BY	APPROVED BY			
REVIEWER	DATE	SUBMITTER'S NAME	DATE	APPROVING ENGINEER	DATE
DESIGNED BY <i>[Signature]</i> Designer <i>[Signature]</i>		ISSUED BY <i>[Signature]</i> ENGINEERING SERVICES TERMINAL		APPROVING ENGINEER'S TITLE	
DRAWN BY <i>[Signature]</i> AutoCAD	DATE <i>[Signature]</i> JCN	DRAWN BY <i>[Signature]</i> AutoCAD	DATE <i>[Signature]</i> JCN	APPROVING ENGINEER'S SIGNATURE	DATE <i>[Signature]</i> JCN
CHECKED BY <i>[Signature]</i> Checker	DATE <i>[Signature]</i> JCN	PCT-D-TRACON-A412	REV.		

POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA

ROOF DETAILS

REVIEWED BY *[Signature]* SUBMITTED BY *[Signature]* APPROVED BY *[Signature]*

REVIEWER *[Signature]* DATE *[Signature]* JCN

SUBMITTER'S NAME *[Signature]* DATE *[Signature]* JCN

APPROVING ENGINEER *[Signature]* DATE *[Signature]* JCN

APPROVING ENGINEER'S SIGNATURE *[Signature]* DATE *[Signature]* JCN

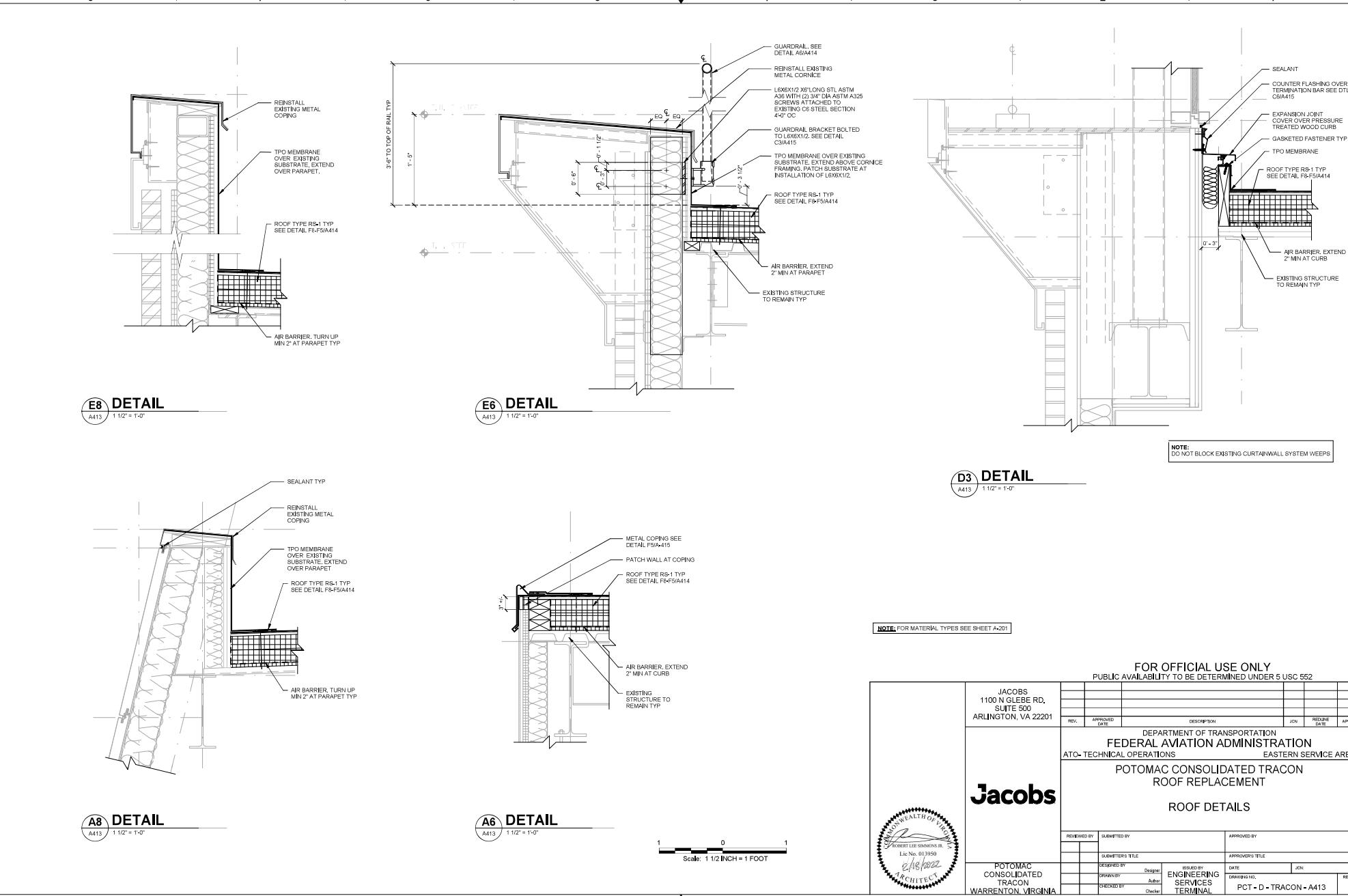
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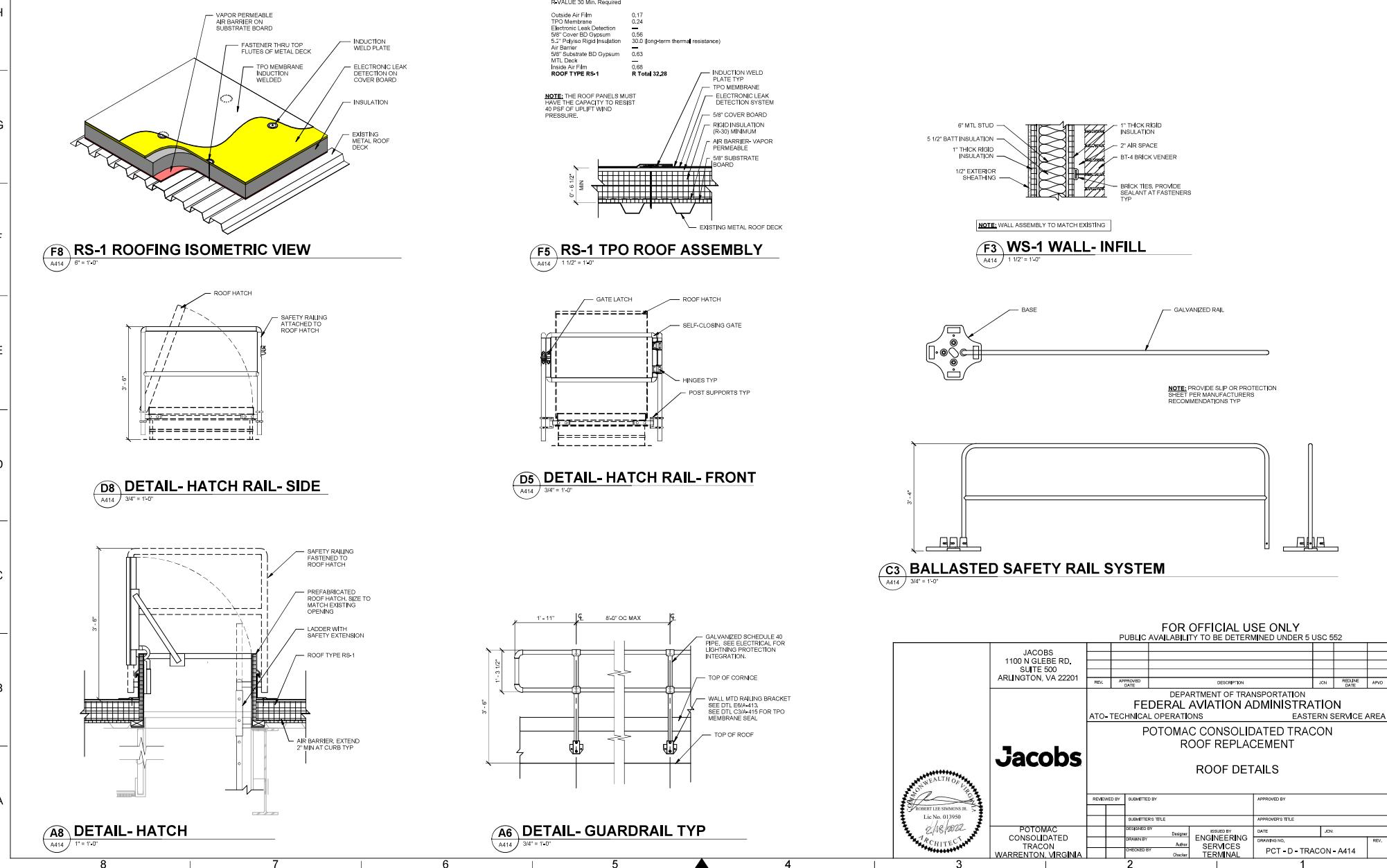
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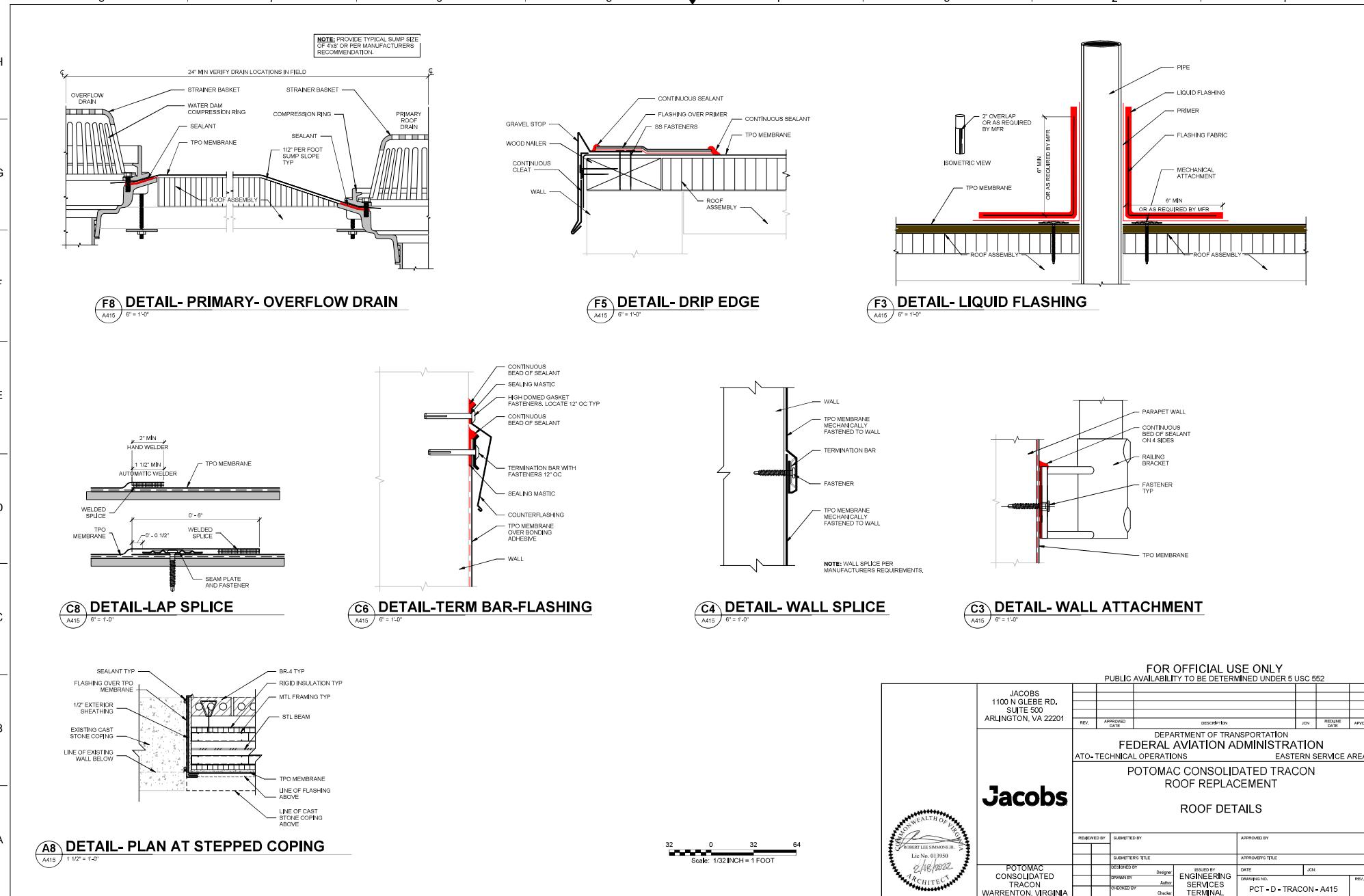
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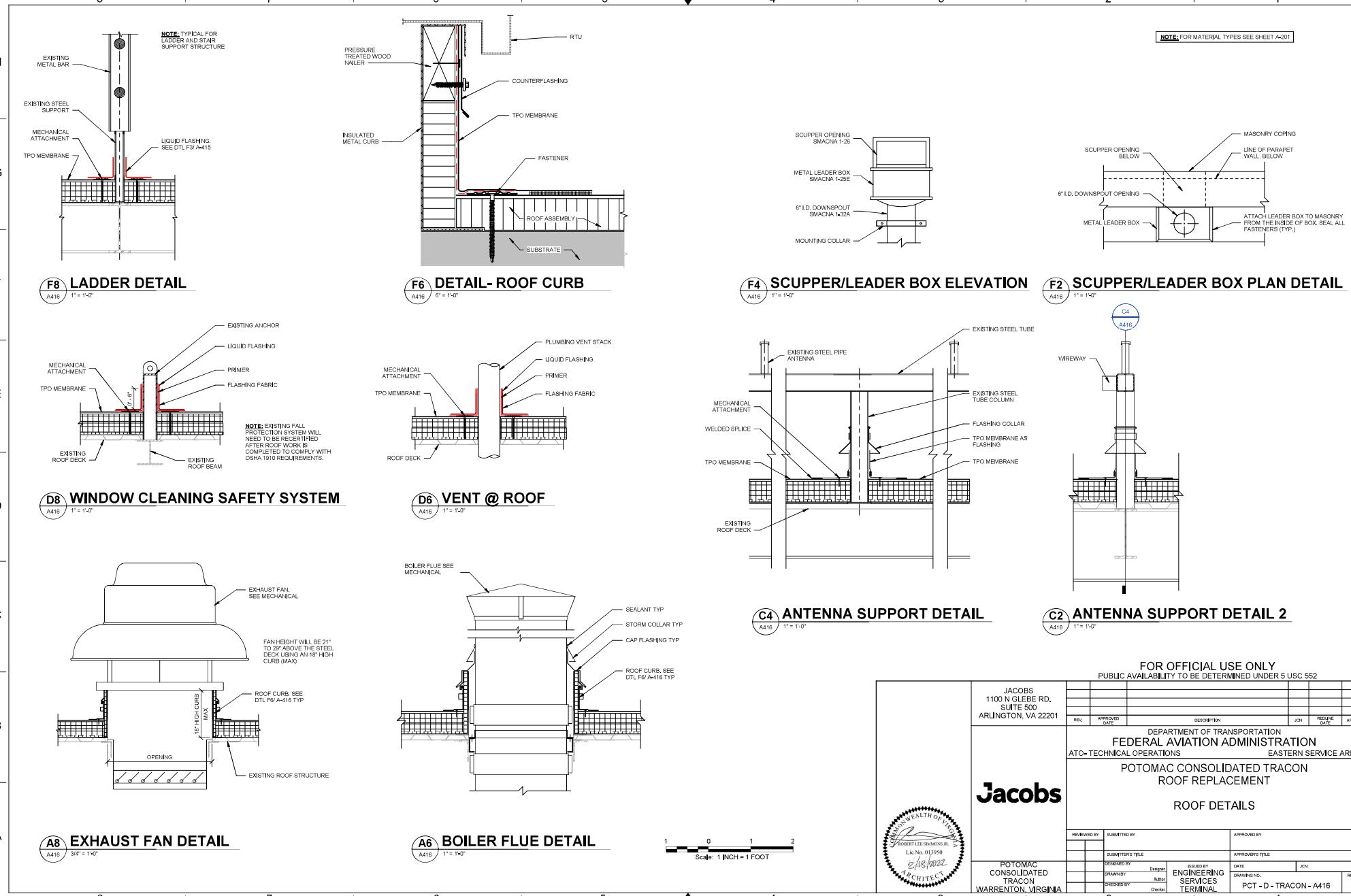


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NOTE: FOR MATERIAL TYPES SEE SHEET A-201







HVAC LEGEND												
EQUIPMENT		DOUBLE LINE DUCTWORK			PIPING (CONT.)			ABBREVIATIONS			GENERAL NOTES	
H		 SYMBOL  EQUIPMENT DESIGNATION  NUMBER <b>MISCELLANEOUS</b>  POINT OF CONNECTION OF NEW TO EXISTING  POINT OF TERMINATION  NEW WORK - DARK LINE WEIGHT  EXISTING - LIGHT LINE WEIGHT  TO BE DEMOLISHED									A. HVAC LEGEND IS THE STANDARD LEGEND WHICH IS USED FOR FAA FACILITIES DESIGN, NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN MAY BE USED ON THIS PROJECT.	
G											B. PROVIDE READY ACCESS TO VALVES, DAMPERS, COLLS AIR FILTERS, AND OTHER DEVICES, ACCESS DOORS SHALL BE INSTALLED TO PROVIDE ADEQUATE CLEARANCES FOR DIRECT ACCESS.	
F											C. DESIGNATE A PERSON TO BE RESPONSIBLE FOR FIRE PROTECTION DURING WELDING AND CUTTING OPERATIONS; PERSON PERFORMING THESE PROTECTION DUTIES SHALL NOT BE SAME INDIVIDUAL THAT IS PERFORMING WELDING, CUTTING, OR DRILLING OPERATIONS. IN CASE OF FIRE, CALL 911. IN CASE OF FIRE, CALL 911. PROVIDE TEMPORARY FIRE EXTINGUISHERS DURING CONSTRUCTION, WELDING SHALL BE SCHEDULED IN WRITING WITH COR AND SHALL BE PERFORMED OUTSIDE OF FACILITY OR IN SAFE LOCATION TO BE DETERMINED BY COR.	
E											D. FOR WELDING THAT MUST BE PERFORMED INSIDE THE BUILDING, PROVIDE LOCAL MECHANICAL VENTILATION DURING WELDING DUCTED TO OUTSIDE, APPROVED BY FAA AND AGC.	
D											E. NO WELDING MUST BE POWERED FROM FACILITY ELECTRICAL SYSTEM, CONNECT METAL TO BE WELDED TO A GOOD EARTH GROUND, FACILITY STRUCTURAL STEEL OR PIPING SHALL NOT BE USED AS A GROUND PATH.	
C											F. EQUIPMENT MUST BE INSTALLED PER MANUFACTURERS RECOMMENDATION AND INSTRUCTIONS.	
B											G. LOCATIONS, SIZES, CLEARANCES AND CONFIGURATIONS OF EQUIPMENT SHOWN ARE BASED ON SPECIFIC SCHEDULED MANUFACTURERS AND MODEL NUMBERS, SUBSTITUTION OF SUCH EQUIPMENT MANUFACTURERS WILL REQUIRE THE CONTRACTORS PRIOR VERIFICATION OF CONFORMANCE PER THE REQUIREMENTS OF LOCATION, SIZE, CLEARANCES AND CONFIGURATION AS COMPARED TO SPACE ALLOCATED TO HOUSE SPECIFIC EQUIPMENT, REQUEST PROPOSED EQUIPMENT TO CONTRACTING OFFICER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION.	
A											H. PROVIDE LOCAL VENTILATION DURING APPLICATION OF PRODUCTS WHICH MAY CAUSE ACUTE OR CHRONIC HEALTH OR SAFETY EFFECTS TO FACILITY OCCUPANTS IN ACCORDANCE WITH OSHA AND AGCH REQUIREMENTS. SUBMIT VENTILATION PLAN TO COR FOR APPROVAL.	
											I. PROVIDE A DETAILED SCHEDULE FOR DEMOLITION OF HVAC EQUIPMENT AND INSTALLATION OF NEW HVAC SYSTEMS, COORDINATE WITH COR PRIOR TO REMOVAL OF EQUIPMENT, HVAC SYSTEMS MUST REMAIN IN OPERATION THROUGHOUT REMOVAL AND REPLACEMENT OF EQUIPMENT.	
											J. PRIOR TO THE DEMOLITION OF ITEMS WHICH HAVE UTILITY CONNECTIONS (WATER, ELECTRICITY, GAS ETC), ARRANGE WITH COR TO LOCATE SHUT-OFF VALVES, PANEL BOXES AND OTHER CONTROL ELEMENTS, FAA PERSONNEL SHALL SHUT OFF, ISOLATE EQUIPMENT AND BRING EQUIPMENT BACK ONLINE.	
											K. TO THE EXTENT POSSIBLE, COMPLETE MECHANICAL WORK FROM THE ROOF, WHERE WORK IS REQUIRED INSIDE THE BUILDING TO CONNECT OR RECONNECT FANS, WIRING, CONTROLS OR DUCTWORK, COORDINATE SCHEDULE WITH COR TO MINIMIZE DISRUPTION TO FACILITY OPERATIONS.	
											ABBREVIATIONS (CONT.)	
											SR SUPPLY REGISTER TR THROAT TA TRANSFER AIR TDS TOTAL DYNAMIC HEAD TSP TOTAL STATIC PRESSURE TSTAT THERMOSTAT TV TURNING VANES TYP TYPICAL TX TOILET EXHAUST UH UNIT HEATER UON UNLESS OTHERWISE NOTED V VOLTS VAC VACUUM VEL VELOCITY VFD VARIABLE FREQUENCY DRIVE W, (W) WIDTH W/ WITHOUT WB WET BULB WHA WATER HAMMER ARRESTOR WMS WIRE MESH SCREEN WP WORKING PRESSURE WPD WATER PRESSURE DROP	
											FOR OFFICIAL USE ONLY PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552	
											<div style="text-align: center;">   <b>JACOBS</b>  1100 N GLEBE RD, SUITE 500, ARLINGTON, VA 22201  REV. APPENDED DATE: DESCRIPTION: JOB NUMBER DATE: APPROVED DATE:    <b>DEPARTMENT OF TRANSPORTATION</b>  <b>FEDERAL AVIATION ADMINISTRATION</b>  EASTERN SERVICE AREA ATLANTA, GA    <b>POTOMAC CONSOLIDATED TRACON</b>  <b>ROOF REPLACEMENT</b>    <b>MECHANICAL LEGEND, NOTES AND ABBREVIATIONS</b>    REVIEWED BY: SUBMITTED BY: APPROVED BY:  SUBMITTER'S TITLE: APPROVED BY'S TITLE:  DESIGNED BY: DRAWN BY: CHECKED BY: DRAWN BY: CHECKED BY: APPROVED BY: DRAWN BY: CHECKED BY:  DRAWN BY: CHECKED BY: APPROVED BY: DRAWN BY: CHECKED BY: APPROVED BY: DRAWN BY: CHECKED BY:  POTOMAC CONSOLIDATED TRACON SERVICES TERMINAL PCT - D - TRACON - M001 </div>	

## CONTROLS &amp; INSTRUMENTATION

MEASURED VARIABLE OR CONTROLLED DEVICE  
 1 INSTRUMENT OR DEVICE IDENTIFICATION NUMBER  
 EQUIPMENT, INSTRUMENT OR DEVICE NOT LOCATED IN AN ENCLOSURE  
 INSTRUMENT OR DEVICE LOCATED IN AN ENCLOSURE

AF	AIR FLOW SENSOR	H	HORN
AFS	AIR FLOW SWITCH	H	HUMIDISTAT
AM	AMPERAGE	HS	HUMIDITY SENSOR
AX	AUXILIARY CONTACT	LS	LEVEL SWITCH
C	COMMON	M	MOTOR/ACTUATOR
CD	CONTROL DAMPER	N.C.	NORMALLY CLOSED
CI	CURRENT INPUT	N.O.	NORMALLY OPEN
CR	CURRENT RELAY	PD	PRESSURE DIFFERENTIAL SENSOR /POWER DEMAND
DC	DRY CONTACT	PDI	PRESSURE DIFFERENTIAL INDICATOR
DDCP	DIRECT DIGITAL CONTROL PANEL	PI	PRESSURE INDICATOR
DI	DAMPER POSITION INDICATOR	RA	REFRIGERANT ALARM
DP	DI. PRESSURE SWITCH	S	SMOKE DETECTOR
ECMS	ENERGY CONTROL AND MONITORING SYSTEM	SL	STROBE LIGHT
ED	ENABLE/DISABLE	SS	START/STOP
FACP	FIRE ALARM CONTROL PANEL	SW	SWITCH
FEPC	FRONT END PERSONAL COMPUTER	T	THERMOSTAT
FR	FIELD RELAY	TI	TEMPERATURE INDICATOR
FZ	FREEZESTAT	TS	TEMPERATURE SENSOR
		WD	WATER DETECTOR

- ELECTRONIC INTERLOCK WIRING
- DDC CONTROL SYSTEM WIRING
-  ADDRESSABLE INTERFACE MODULE
-  DDCP DATA INPUT/OUTPUT TO CENTRAL FEPC
-  DIGITAL INPUT TO DDCP
-  DIGITAL OUTPUT FROM DDCP
-  ANALOG INPUT TO DDCP
-  ANALOG OUTPUT FROM DDCP

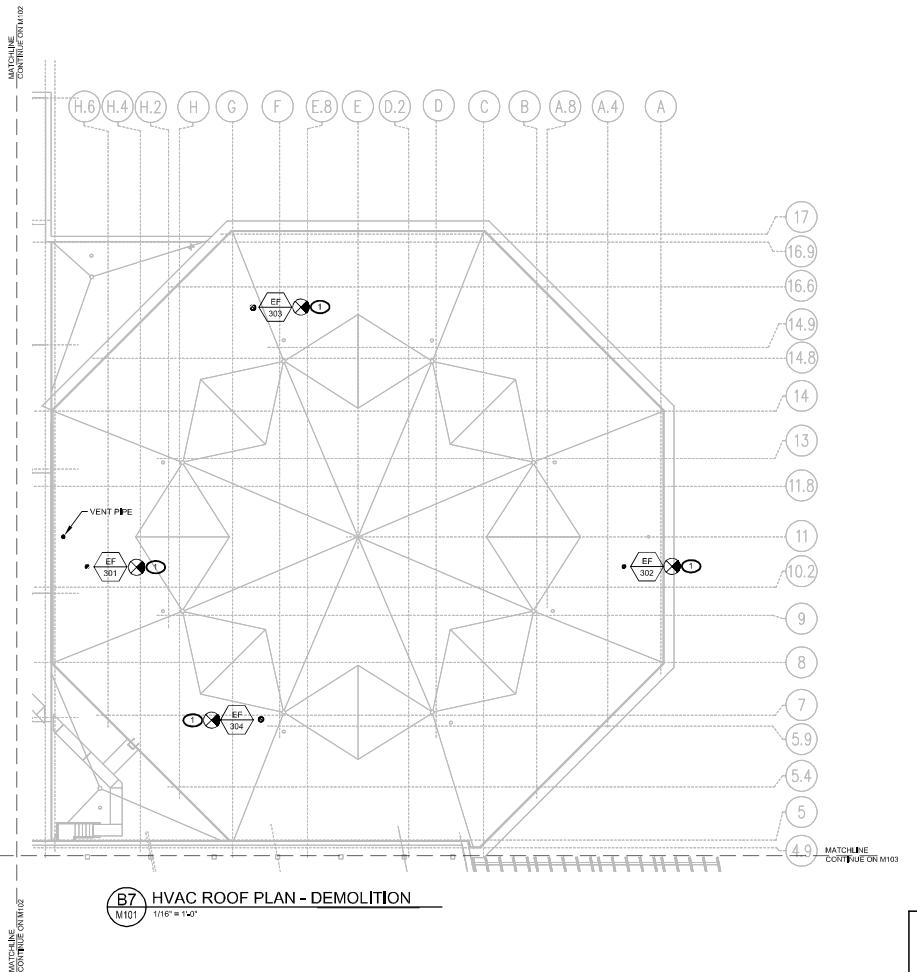
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JACOBS		DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION			
		EASTERN SERVICE AREA      ATLANTA, GA			
 <b>Jacobs</b> 1100 N GLEBES RD. SUITE 500 ARLINGTON, VA 22201 <small>US NO. 025709 02/17/2022</small>		POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT			
		MECHANICAL INSTRUMENTATION			
REV.	APPROVED BY	SUBMITTED BY	APPROVED BY		
			SUBMITTER'S TITLE		
			S. TOWN		
			DRAWN BY	S. TOWN	ISSUED BY
			CHECKED BY	J. LEMENS	ENGINEERING SERVICES TERMINAL
			DATE: FEBRUARY 15, 2022    JD#:		
			DRAWING NO. PCT-D-TRACON-M002    REV.:		

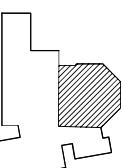
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KEY NORTH



 <b>JACOBS</b> 1100 N GLEBE RD. SUITE 500 ARLINGTON, VA 22201	REVIEWED BY	SUBMITTED BY	APPROVED BY

DEPARTMENT OF TRANSPORTATION  
**FEDERAL AVIATION ADMINISTRATION**  
EASTERN SERVICE AREA      ATLANTA, GA

POTOMAC CONSOLIDATED TRACON  
ROOF REPLACEMENT

HVAC ROOF PLAN - DEMOLITION

 <b>Jacobs</b> POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA	REVIEWED BY	SUBMITTED BY	APPROVED BY

DESIGNED BY: S. TRAM  
DRAWN BY: S. TRAM  
CHECKED BY: J. FLEMIS

DATE: FEBRUARY 18, 2022      JOB #: \_\_\_\_\_

DRAWING NO.: \_\_\_\_\_

ENGINEERING SERVICES TERMINAL

REV. PCT-D-TRACON-M101

## GENERAL SHEET NOTES

A. REFER TO SHEETS M001 AND M002 FOR MECHANICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.

B. LOCATIONS ARE APPROXIMATE. VERIFY LOCATIONS AND DIMENSIONS OF EXISTING PENETRATIONS TO PROPERLY CONNECT NEW/SALVAGED EQUIPMENT.

## DEMOLITION KEYNOTES

1. REMOVE EXHAUST FAN AND ASSOCIATED ROOF CURB, DAMPER, MOTOR STARTER AND DUCTWORK CONNECTION, PROTECT AND REUSE EXISTING CONTROL WIRING.

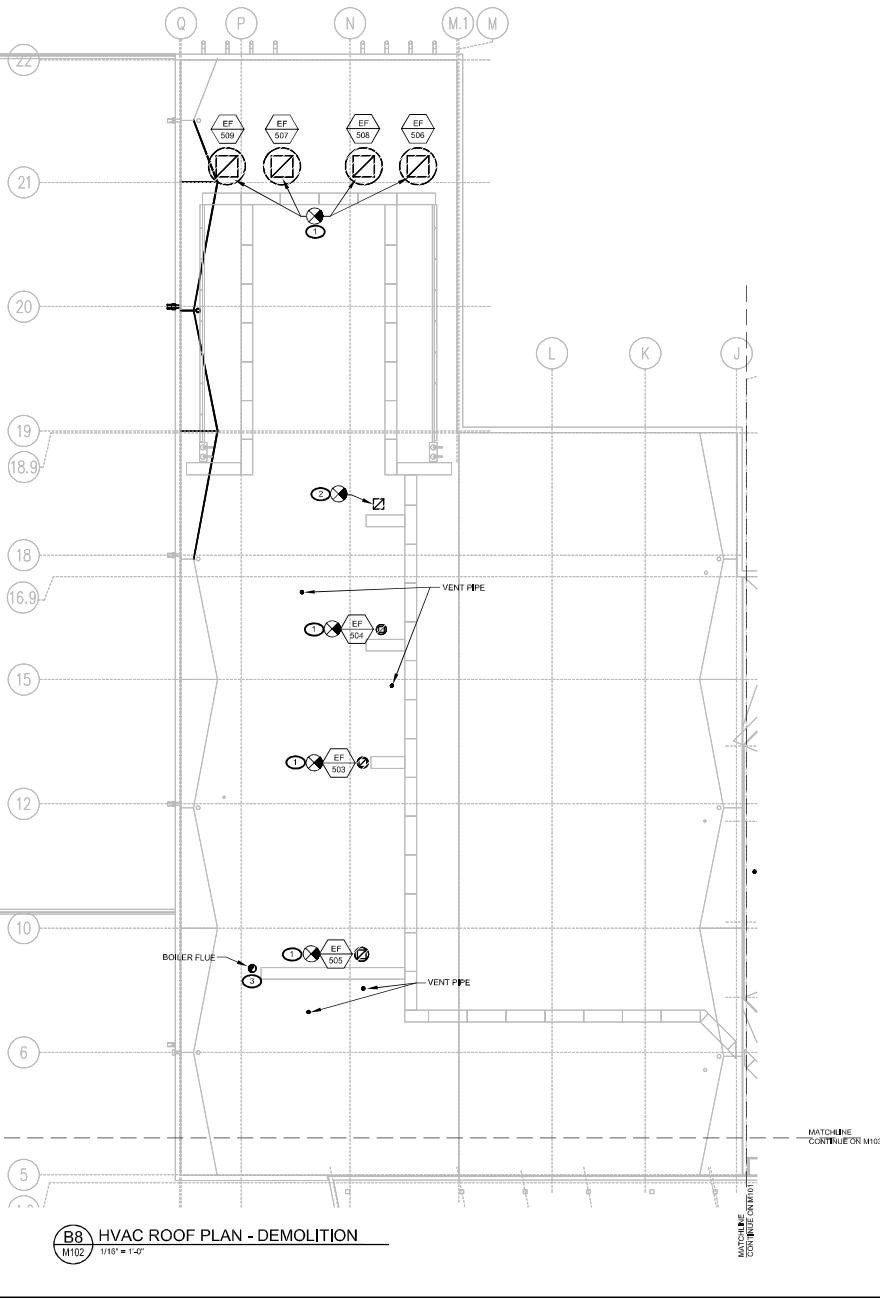
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## GENERAL SHEET NOTES

- A. REFER TO SHEETS M001 AND M002 FOR MECHANICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.
- B. LOCATIONS ARE APPROXIMATE. VERIFY LOCATIONS AND DIMENSIONS OF EXISTING PENETRATIONS TO PROPERLY CONNECT NEW/SALVAGED EQUIPMENT.

## DEMOLITION KEYNOTES ◻

1. REMOVE EXHAUST FAN AND ASSOCIATED ROOF CURB, DAMPER, MOTOR STARTER AND DUCTWORK CONNECTION. PROTECT AND REUSE EXISTING CONTROL WIRING.
2. DISCONNECT AND SALVAGE EXHAUST HOOD FOR REINSTALLATION.
3. EXISTING BOILER FLUE TO REMAIN. PROTECT EQUIPMENT DURING WORK.



JACOBS  
1100 N GLEBE RD.  
SUITE 500  
ARLINGTON, VA 22201



JEROME JOSEPH S.  
LEMENS  
02/17/2022

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FEDERAL AVIATION ADMINISTRATION  
EASTERN SERVICE AREA ATLANTA, GA

POTOMAC CONSOLIDATED TRACON  
ROOF REPLACEMENT

HVAC ROOF PLAN - DEMOLITION

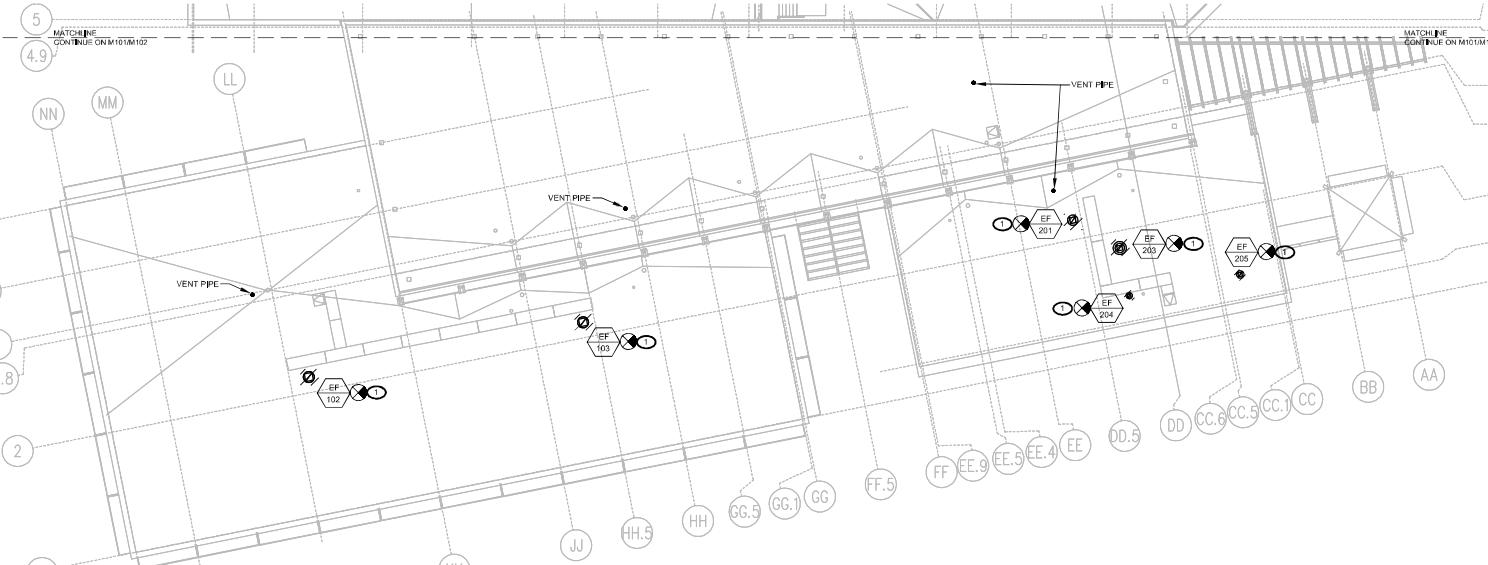
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SUBMISSION DATE		APPROVAL DATE
SUBMISSIONS TEL:	S. TIAN	APPROVALS TEL:
SIGNED BY	S. TIAN	SIGNED BY
DATE	02/17/2022	DATE
DRAWING NO.	PCT - D - TRACON - M102	REV.
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA	J. LEMENS	J. LEMENS

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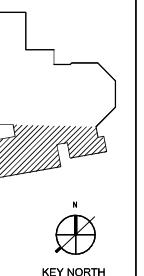
### GENERAL SHEET NOTES

A. REFER TO SHEETS M001 AND M002 FOR MECHANICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.

B. LOCATIONS ARE APPROXIMATE, VERIFY LOCATIONS AND DIMENSIONS OF EXISTING PENETRATIONS TO PROPERLY CONNECT NEW/SALVAGED EQUIPMENT.



B8 HVAC ROOF PLAN - DEMOLITION  
M103 1/16" = 1'



JACOBS 1100 N GLEBE RD. SUITE 500 ARLINGTON, VA 22201		
COMBINE STATE JOHN JOSEPH LMC Lic No CEC799 02/17/2022		
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA ATLANTA, GA		
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT		
HVAC ROOF PLAN - DEMOLITION		
REVIEWED BY	SUBMITTED BY	APPROVED BY
DESIGNED BY	S. TAYLOR	APPROVED'S TITLE
DRAWN BY	J. JAMES	DATE: FEBRUARY 18, 2022
CHECKED BY	J. JAMES	FOR:
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA	ENGINEERING SERVICES TERMINAL	REV:
PCT-D - TRACON-M103		

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DESIGNED BY	S. TAYLOR	APPROVED'S TITLE
DRAWN BY	J. JAMES	DATE: FEBRUARY 18, 2022
CHECKED BY	J. JAMES	FOR:
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA	ENGINEERING SERVICES TERMINAL	REV:
PCT-D - TRACON-M103		

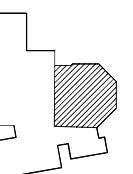
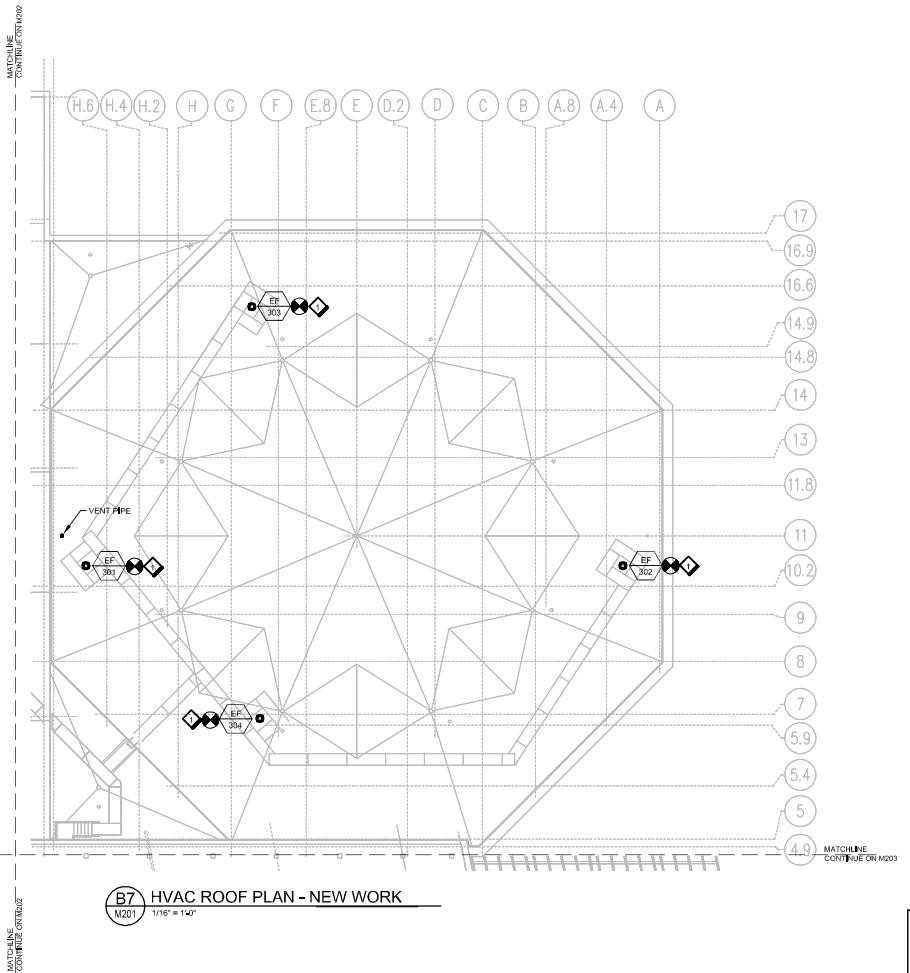
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KEY NORTH

JACOBS	
1100 N GLEBE RD. SUITE 500 ARLINGTON, VA 22201	
 JOHN JOSEPH LEMENS Lie No. 025709 02/17/2022 PROFESSIONAL ENGINEER	
<b>Jacobs</b>	
REVIEWED BY	SUBMITTED BY
APPROVED BY	APPROVED BY
DATE:	DATE:
ISSUED BY	ISSUED BY
DRAWING NO.	DRAWING NO.
SPECIFIED BY	SPECIFIED BY
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT	
HVAC ROOF PLAN - NEW WORK	

## GENERAL SHEET NOTES

- A. REFER TO SHEETS M001 AND M002 FOR MECHANICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.
- B. LOCATIONS ARE APPROXIMATE. VERIFY LOCATIONS AND DIMENSIONS OF EXISTING DUCTWORK, PROVIDE REMOTE CIRCUITS AS SHOWN AND CONNECT TO EXISTING MINING. PROVIDE MANUFACTURER PROVIDED HOA CONTROLLER AND CONNECT TO WIRING.

## NEW WORK KEYNOTES

1. PROVIDE EXHAUST FAN, DAMPER AND ASSOCIATED DUCT GIBS. CONNECT TO EXISTING DUCTWORK. PROVIDE REMOTE CIRCUITS AS SHOWN AND CONNECT TO EXISTING MINING. PROVIDE MANUFACTURER PROVIDED HOA CONTROLLER AND CONNECT TO WIRING.

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DEPARTMENT OF TRANSPORTATION  
**FEDERAL AVIATION ADMINISTRATION**  
EASTERN SERVICE AREA ATLANTA, GA

POTOMAC CONSOLIDATED TRACON  
ROOF REPLACEMENT

HVAC ROOF PLAN - NEW WORK

REVIEWED BY	SUBMITTED BY	APPROVED BY
APPROVED BY	SUBMITTED BY	APPROVED BY
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POTOMAC CONSOLIDATED TRACON		APPROVED BY
WARRENTON, VIRGINIA		APPROVED BY
ENGINEERING SERVICES TERMINAL		APPROVED BY
PCT-D-TRACON-M201		APPROVED BY

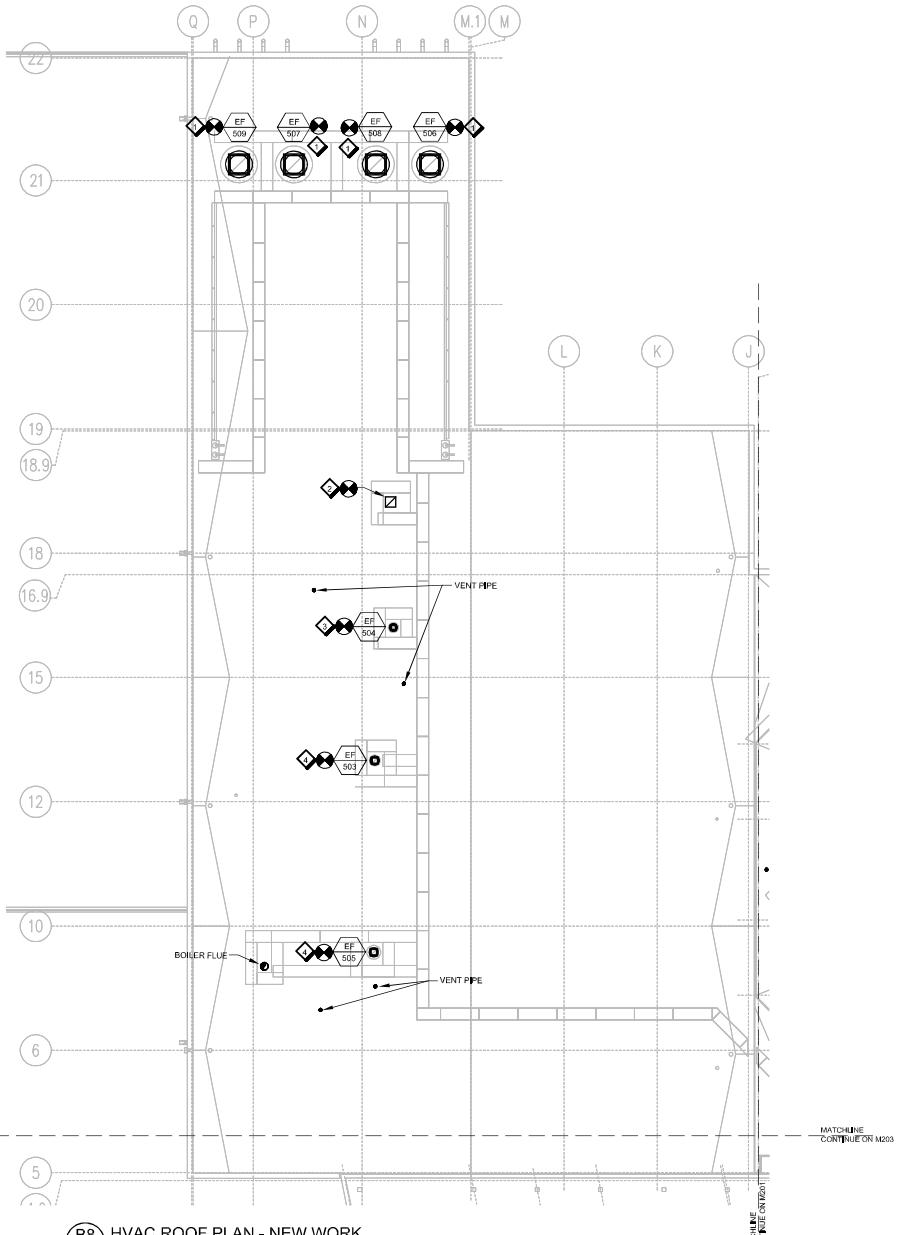
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## GENERAL SHEET NOTES

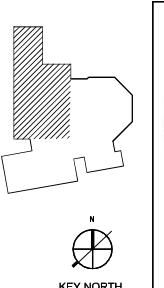
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- B. LOCATIONS ARE APPROXIMATE, VERIFY LOCATIONS AND DIMENSIONS OF EXISTING PENETRATIONS TO PROPERLY CONNECT NEWSALVAGED EQUIPMENT.

## NEW WORK KEYNOTES

1. PROVIDE EXHAUST FAN, MOTOR STARTER, DAMPER AND ASSOCIATED ROOF CURB, CONNECT TO EXISTING DUCTWORK.
2. RECONNECT SALVAGED EXHAUST HOOD.
3. PROVIDE EXHAUST FAN, DAMPER AND ASSOCIATED ROOF CURB, CONNECT TO EXISTING DUCTWORK, PROVIDE REMOTE CM IN SPACE SERVED AND CONNECT TO EXISTING WIRING, PROVIDE MANUFACTURER PROVIDED HOA CONTROLLER AND CONNECT TO WIRING.
4. PROVIDE EXHAUST FAN, DAMPER AND ASSOCIATED ROOF CURB, CONNECT TO EXISTING DUCTWORK, PROVIDE MANUFACTURER PROVIDED HOA CONTROLLER AND CONNECT TO WIRING.



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<p>JACOBS 1100 N GLEBE RD, SUITE 500 ARLINGTON, VA 22201</p> <p>REV. APPROVED DATE DESCRIPTION JDN RRN/RN DATE APVS</p> <p>16 0 16 32</p>																									
<p>DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA ATLANTA, GA</p> <p>POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT</p> <p>HVAC ROOF PLAN - NEW WORK</p>																									
<table border="1"> <thead> <tr> <th>RECEIVED BY</th> <th>SUBMITTED BY</th> <th>APPROVED BY</th> </tr> </thead> <tbody> <tr> <td>SUBMITTING FIRM</td> <td>DESIGNED BY S. TIAN</td> <td>APPROVED BY</td> </tr> <tr> <td>DRAWN BY S. TIAN</td> <td>checked by J. EMERS</td> <td>DATE: FEBRUARY 10, 2022 JDN:</td> </tr> <tr> <td>DRAWN INCL.</td> <td>ENGINEERING SERVICES TERMINAL</td> <td>DRAWN INCL.</td> </tr> <tr> <td colspan="2">POTOMAC CONSOLIDATED TRACON</td> <td>REV.</td> </tr> <tr> <td colspan="2">WARRENTON, VIRGINIA</td> <td></td> </tr> </tbody> </table>								RECEIVED BY	SUBMITTED BY	APPROVED BY	SUBMITTING FIRM	DESIGNED BY S. TIAN	APPROVED BY	DRAWN BY S. TIAN	checked by J. EMERS	DATE: FEBRUARY 10, 2022 JDN:	DRAWN INCL.	ENGINEERING SERVICES TERMINAL	DRAWN INCL.	POTOMAC CONSOLIDATED TRACON		REV.	WARRENTON, VIRGINIA		
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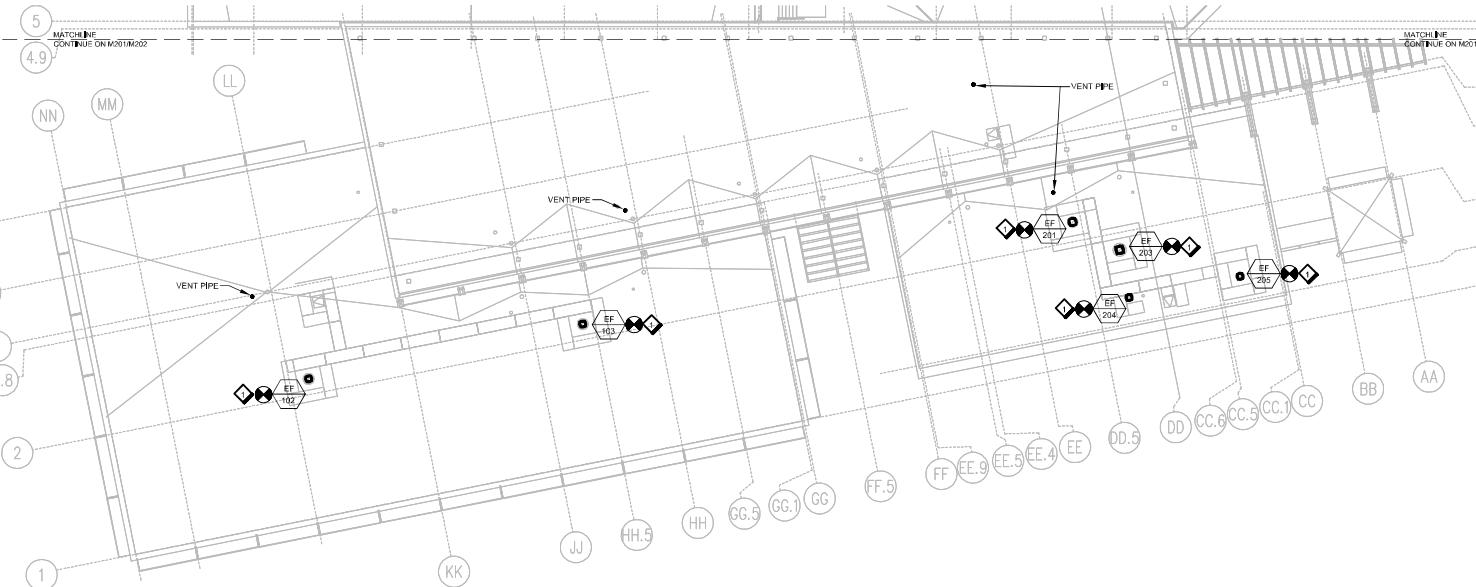
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### GENERAL SHEET NOTES

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- B. LOCATIONS ARE APPROXIMATE, VERIFY LOCATIONS AND DIMENSIONS OF EXISTING PENETRATIONS TO PROPERLY CONNECT NEW/SALVAGED EQUIPMENT.

### NEW WORK KEYNOTES

1. PROVIDE EXHAUST FAN, DAMPER AND ASSOCIATED ROOF CURL, CONNECT TO EXISTING DUCTWORK, PROVIDE MANUFACTURER PROVIDED HOA CONTROLLER AND CONNECT TO WIRING.



**B8**  
HVAC ROOF PLAN - NEW WORK  
M203 1/16" = 1'-0"

JACOBS  
1100 N GLEB RD,  
SUITE 500  
ARLINGTON, VA 22201



POTOMAC  
CONSOLIDATED  
TRACON  
WARRENTON, VIRGINIA



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REV:	APPROVED DATE	DESCRIPTION	JDN	PRODUCING DATE	APPROV'D

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
EASTERN SERVICE AREA  
ATLANTA, GA

POTOMAC CONSOLIDATED TRACON  
ROOF REPLACEMENT

HVAC ROOF PLAN - NEW WORK

REVIEWED BY	SUBMITTED BY	APPROVED BY
REVIEWED BY	SUBMITTED BY	APPROVED BY
DESIGNED BY	S. TOWN	APPROVED BY
GRANTBY	S. TOWN	
CHIEFBY	J. LEMENS	
DESIGNED BY	APPROVED BY	
DESIGNED BY	S. TOWN	
GRANTBY	S. TOWN	
CHIEFBY	J. LEMENS	
DATE: FEBRUARY 10, 2022	JDN:	
DRAWING NO:		
PCT + D - TRACON - M203		REV:

EXHAUST FAN SCHEDULE															
UNIT NO.	LOCATION	SERVICE	FAN TYPE	DRIVE TYPE	CFM	ESP IN W.G.	FAN RPM	MOTOR DATA				KNOWN ACCEPTABLE SOURCES		REMARKS	
								HP	RPM	VOLTS	PH	HZ	MFGR	MODEL/SERIES	
EF-102	ADMIN WING ROOF	REPRO ROOM 118	CENTRIFUGAL	DIRECT	350	0.5	1725	0.10	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-103	ADMIN WING ROOF	REPRO ROOM 121	CENTRIFUGAL	DIRECT	500	0.5	1587	0.10	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-201	COMMONS WING ROOF	TOILET 205, 206, 207, 203A	CENTRIFUGAL	BELT	2,155	0.875	927	0.75	1725	460	3	60	GREENHECK	GB	NOTES 1-3,5,7
EF-203	COMMONS WING ROOF	KITCHEN HOOD, ROOM 203	CENTRIFUGAL	DIRECT	1,800	1.5	1645	1.00	1725	208	1	60	GREENHECK	CUE	NOTES 1-3,5,6
EF-204	COMMONS WING ROOF	KITCHEN ROOM 203	CENTRIFUGAL	DIRECT	365	0.5	1725	0.10	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-205	COMMONS WING ROOF	PRIVATE DINING ROOM 202	CENTRIFUGAL	DIRECT	900	0.5	1537	0.25	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-301	OPS WING ROOF	TOILET EXHAUST	CENTRIFUGAL	DIRECT	525	0.75	1704	0.17	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-302	OPS WING ROOF	TOILET EXHAUST	CENTRIFUGAL	DIRECT	525	0.75	1704	0.17	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-303	OPS WING ROOF	REPRO ROOM 316	CENTRIFUGAL	DIRECT	375	0.125	1274	0.10	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-304	OPS WING ROOF	REPRO ROOM 329	CENTRIFUGAL	DIRECT	550	0.125	1201	0.10	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-503	ENVIRONMENTAL WING ROOF	REFRIGERANT EMERGENCY VENT	CENTRIFUGAL	BELT	3,000	0.5	930	0.75	1725	460	3	60	GREENHECK	GB	NOTES 1-3,5,7
EF-504	ENVIRONMENTAL WING ROOF	TOILET EXHAUST	CENTRIFUGAL	DIRECT	650	0.5	1725	0.10	1725	115	1	60	GREENHECK	G	NOTES 1-3,5,7
EF-505	ENVIRONMENTAL WING ROOF	BOILER ROOM	CENTRIFUGAL	BELT	3,000	0.5	930	0.75	1725	460	3	60	GREENHECK	GB	NOTES 1-3,5,7
EF-506	ENVIRONMENTAL WING ROOF	E/G VENT	CENTRIFUGAL	BELT	34,000	1	483	15.00	1725	460	3	60	GREENHECK	GB	NOTES 1-4,7
EF-507	ENVIRONMENTAL WING ROOF	E/G VENT	CENTRIFUGAL	BELT	34,000	1	483	15.00	1725	460	3	60	GREENHECK	GB	NOTES 1-4,7
EF-508	ENVIRONMENTAL WING ROOF	E/G VENT	CENTRIFUGAL	BELT	34,000	1	483	15.00	1725	460	3	60	GREENHECK	GB	NOTES 1-4,7
EF-509	ENVIRONMENTAL WING ROOF	E/G VENT	CENTRIFUGAL	BELT	34,000	1	483	15.00	1725	460	3	60	GREENHECK	GB	NOTES 1-4,7

## NOTES:

1. PROVIDE UNIT WITH 5 YEAR WARRANTY.
2. PROVIDE UNIT WITH BIRD SCREEN.
3. PROVIDE UNIT WITH ROOF CURB.
4. PROVIDE UNIT WITH DISCONNECT SWITCH/MOTOR STARTER FROM MANUFACTURER.
5. PROVIDE UNIT WITH VARGREEN MOTOR AND DISCONNECT SWITCH. PROVIDE WITH FACTORY CONTROLLER FOR HOA FUNCTION AND CONTACTS FOR FAN START/STOP.
6. PROVIDE UNIT WITH GREASE TRAP.
7. PROVIDE UNIT WITH MANUAL DANPER.

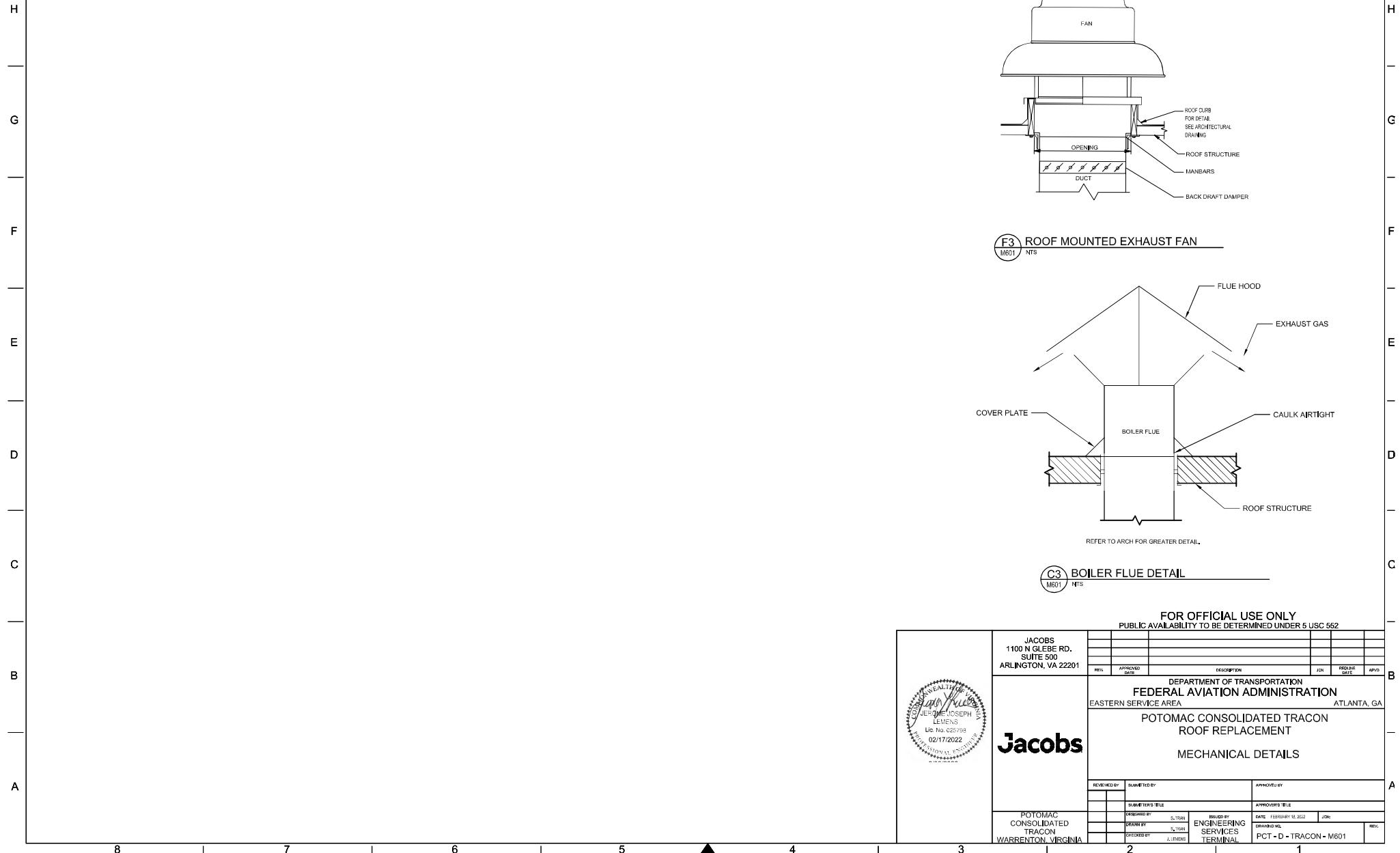
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 <b>VERNON JOSEPH LEMENS</b> LIC No. 025793 02/17/2022	JACOBS	REVIEWED BY	SUBMITTED BY	APPROVED BY
	1100 N GLEBE RD. SUITE 500 ARLINGTON, VA 22201			
	DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION			
	EASTERN SERVICE AREA      ATLANTA, GA			
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT				
MECHANICAL SCHEDULES				
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DRAWN BY      SIGNED BY      DATE: FEBRUARY 15, 2022      JDN: _____				
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POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA				
Jacobs				

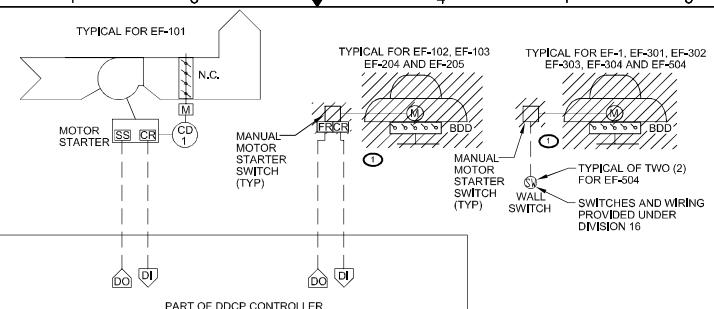
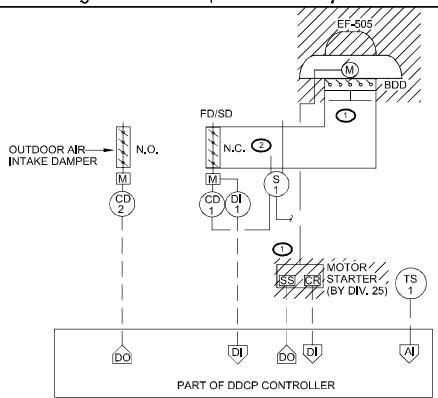
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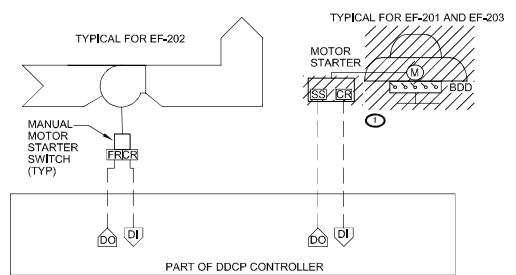
## GENERAL SHEET NOTES

- A. REFER TO SHEETS M001 AND M002 FOR MECHANICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.
- B. LOCATIONS ARE APPROXIMATE. VERIFY LOCATIONS AND DIMENSIONS OF EXISTING PENETRATIONS TO PROPERLY CONNECT NEW/SALVAGED EQUIPMENT.

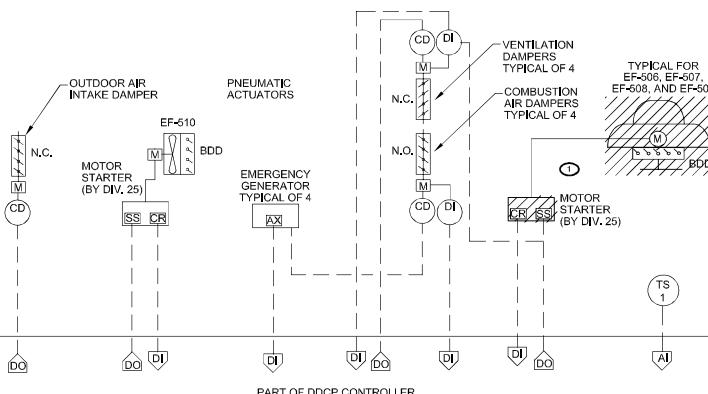
## DEMOLITION KEYNOTES

1. DISCONNECT AND REMOVE MOTOR STARTER, PROTECT AND REUSE EXISTING CONTROL WIRING.
2. DISCONNECT AND PROTECT SMOKE DETECTOR DURING REPLACEMENT OF EXHAUST FAN FOR REINSTALLATION.

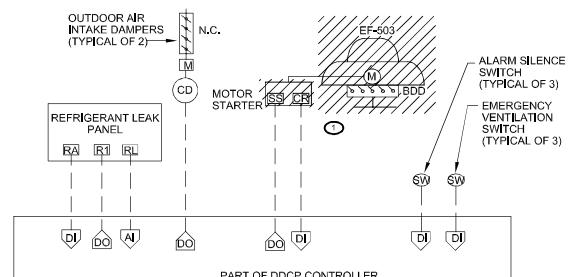
**E8 BOILER ROOM CONTROL DIAGRAM**



**F5 MISCELLANEOUS EXHAUST FAN CONTROL DIAGRAM**



**F3 MISCELLANEOUS EXHAUST FAN CONTROL DIAGRAM**



**B6 GENERATOR ROOM CONTROL DIAGRAM**

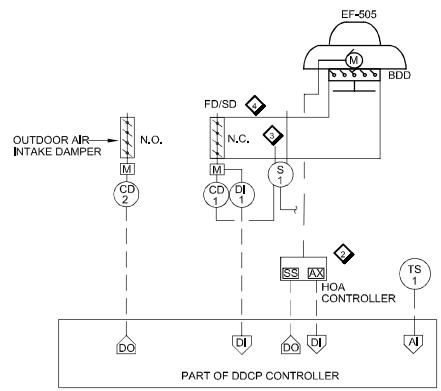
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				REV.	02/17/2022	APPROVED BY
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION						
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT						
EXHAUST FANS CONTROL DIAGRAMS - DEMOLITION						
REVIEWED BY	SUBMITTED BY	APPROVED BY				
SUBMITTER'S TITLE		APPROVING TITLE				
DESIGNED BY	S. LEEON	PROJECT MANAGER				
DRAFTER	J. LEMENS	ENGINEERING SERVICES TERMINAL				
CHIEF DRAFTER	J. LEMENS	DRAWING NO.			REV.	
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA		DATE: FEBRUARY 17, 2022			CON	
PCT-D - TRACON - M801		DRIVING NO.			REV.	

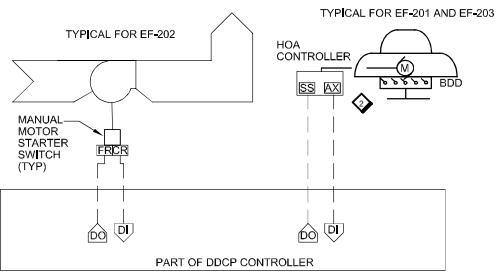
**Jacobs**

**D3 CHILLER ROOM CONTROL DIAGRAM**

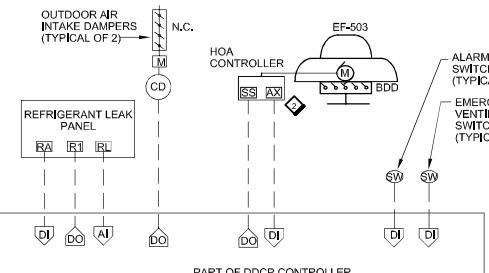
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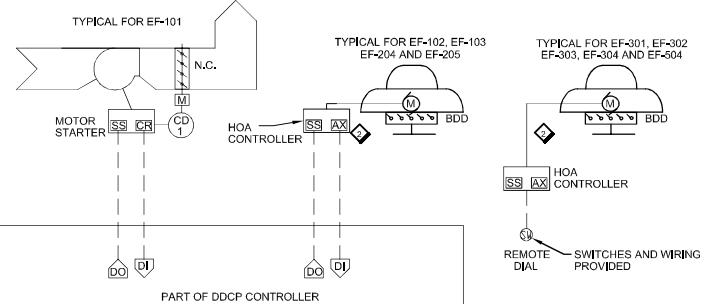
**E8 BOILER ROOM CONTROL DIAGRAM**  
M802 NTS



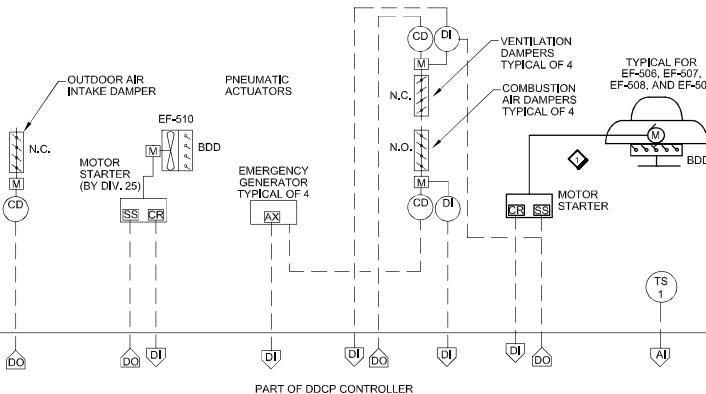
**F3 MISCELLANEOUS EXHAUST FAN CONTROL DIAGRAM**  
M802 NTS



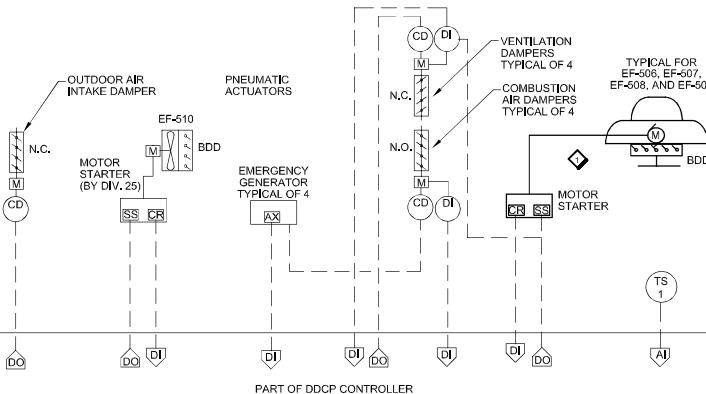
**D3 CHILLER ROOM CONTROL DIAGRAM**  
M802 NTS



**F5 MISCELLANEOUS EXHAUST FAN CONTROL DIAGRAM**  
M802 NTS



**B6 GENERATOR ROOM CONTROL DIAGRAM**  
M802 NTS



## GENERAL SHEET NOTES

- A. REFER TO SHEETS M001 AND M002 FOR MECHANICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.
- B. LOCATIONS ARE APPROXIMATE, VERIFY LOCATIONS AND DIMENSIONS OF EXISTING PENETRATIONS TO PROPERLY CONNECT NEW/ALVAGED EQUIPMENT.

## NEW WORK KEYNOTES

1. REUSE EXISTING CONTROL WIRING TO RECONNECT NEW MOTOR STARTER, TEST AND ENSURE FANS OPERATE PROPERLY AFTER INSTALLATION.
2. REUSE EXISTING CONTROL WIRING TO RECONNECT NEW HOA CONTROLLER, TEST AND ENSURE FANS OPERATE PROPERLY AFTER INSTALLATION.
3. RECONNECT SMOKE DETECTOR TO DUCTWORK DURING REPLACEMENT OF EXHAUST FAN.
4. FIELD VERIFY IF EF-404 IS INTERLOCKED WITH FIRE SMOKE DAMPER. IF NOT, INTERLOCK EF-406 TO SHUTDOWN IF RESPECTIVE FIRE SMOKE DAMPER CLOSES. INTERLOCK MUST BE HARD WIRED AND NOT PERFORMED THROUGH THE DOOR.

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POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT		
EXHAUST FANS CONTROL DIAGRAMS - NEW WORK		
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SUBMITTER'S TITLE <input type="text"/>	APPROV. TITLE <input type="text"/>	
DESIGNED BY <input type="text"/> S. TOWN	ISSUED BY <input type="text"/> ENGINEERING SERVICES TERMINAL	DRIVING NO. <input type="text"/>
DRAWN BY <input type="text"/> S. TOWN	CHECKED BY <input type="text"/> J. LEMENS	REV. <input type="text"/>
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA	PCT-D-TRACON-M802	

Jacobs



## ECMS Point Function Schedule

Point Description		Device Code	Hardware	Fail Mode	Software	Alarm Limits		Notes	
EXHAUST FANS EF-102, EF-103, EF-202, EF-204, AND 205			Supervised Wiring Analog Input Digital Input Addressable Input Accumulator Input	Analog Output 2 State Digital Output 3 State Digital Output Addressable Output Fail On (Open) Fail Off (Closed)	Local Default Network Point Calculated Point Maintenance Alarm Critical Alarm Program Start (Stop) Optimum Start (Stop) Morning Warm/Cool Unoccupied Setpoint Demand Limit			Low Limit	High Limit
EXHAUST FAN START STOP	FR								
EXHAUST FAN RUN STATUS	CR	●		●					
EXHAUST FANS EF-201 AND EF-203									
EXHAUST FAN START STOP	SS			●					
EXHAUST FAN RUN STATUS	CR	●		●					
GENERATOR ROOM EXHAUST FANS									
GENERATOR ROOM AIR TEMPERATURE	TS	●							
EF-506 START STOP	SS	●		●					
EF-507 RUN STATUS	CR	●		●					
EF-507 START STOP	SS	●		●					
EF-507 RUN STATUS	CR	●		●					
EF-508 START STOP	SS	●		●					
EF-508 RUN STATUS	CR	●		●					
EF-509 START STOP	SS	●		●					
EF-509 RUN STATUS	CR	●		●					
EF-510 START STOP	SS	●		●					
EF-510 RUN STATUS	CR	●		●					
VENTILATION DAMPER OPEN/CLOSE	CD			●					
VENTILATION DAMPER POSITION	DI	●		●					
EMERGENCY GENERATOR RUN STATUS	AX								
COMBUSTION AIR DAMPER POSITION	DI	●		●					
EF-510 DA INTAKE DAMPER OPEN/CLOSE	CD		●	●					
BOILER ROOM									
SPACE TEMPERATURE	TS	●							
EXHAUST FAN EF-505 START STOP	SS	●		●					
EXHAUST FAN EF-505 RUN STATUS	CR	●		●					
DAMPER OPEN/CLOSE	CD		●	●					
FD/SD DAMPER POSITION	DI	●		●					
CHILLER ROOM									
EXHAUST FAN EF-503 START STOP	SS	●		●					
EXHAUST FAN EF-503 RUN STATUS	CR	●		●					
VENTILATION DAMPER OPEN/CLOSE	CD		●	●					
REFRIGERANT LEVEL	RL	●		●					
REFRIGERANT ALARM	RA	●		●					
EMERGENCY VENTILATION SWITCHES	SW	●		●					
ALARM SILENCE SWITCHES	SW	●		●					
ALARM SILENCE OUTPUT	R1		●	●					

## GENERAL SHEET NOTES

A. ALL POINTS ARE EXISTING AND TO REMAIN.

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		DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA	ATLANTA, GA	
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT				
ECMS POINT FUNCTION SCHEDULE				
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DESIGNED BY: <input type="text"/> DRAWN BY: <input type="text"/> CHECKED BY: <input type="text"/> POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA		REVIEWED BY: <input type="text"/> DRAWN BY: <input type="text"/> CHECKED BY: <input type="text"/> POTOMAC CONSOLIDATED TRACON - M803	APPROVED BY: <input type="text"/> DRAWN BY: <input type="text"/> CHECKED BY: <input type="text"/> POTOMAC CONSOLIDATED TRACON - M803	DATE: FEBRUARY 16, 2012 / JDN: <input type="text"/> DRAWING NO.: <input type="text"/> REV.: <input type="text"/>

H  
G  
F  
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D  
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A

ABBREVIATION	DESCRIPTION
AFG	ABOVE FINISHED GRADE
AW	ACID WASTE
AV	ACID VENT
AC	AIR COMPRESSOR
F	FIRE
P	PUMP
SP	SUMP PUMP/SEWAGE PUMP
TK	TANK
UH	UNIT HEATER
FP	FIRE PUMP
JP	JOCKEY PUMP
VLV	VALVE
PSIG	POUNDS PER SQUARE INCH GAUGE
ACFM	ACTUAL CUBIC FEET PER MIN.
CA	COMPRESSED AIR
CI	CAST IRON
CD	CLEANOUT
CV	CENTRAL VACUUM
FL	FILTER
FCD	FLOOR CLEANOUT
FDV	FUEL OIL VENT
GCD	GRADE CLEANOUT
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HTR	HEATER
HD	HUB DRAIN
HW	HOT WATER
ID	INDIRECT DRAIN
RD	ROOF DRAIN
RL	RAIN LEADER
RPPBP	REDUCED PRESSURE BACKFLOW PREVENTOR
RPM	REVOLUTIONS PER MINUTE
SAN	SANITARY
SD	STORM
V	VENT
WCD	WALL CLEANOUT
DISP	DISPLACEMENT
HP	HORSEPOWER
CFM	CUBIC FEET PER MINUTE
GALS	GALLONS
IN. HG	INCHES OF MERCURY
TDH	TOTAL DYNAMIC HEAD
V	WASTE
CW	COLD WATER
AP	ACCESS PANEL
SDV	SOLENOID VALVE
NFWH	NON-FREEZE WALL HYDRANT
DFD	EMERGENCY OVERFLOW ROOF DRAIN
VTR	VENT THRU ROOF

SYMBOL	ABBREVIATION	DESCRIPTION
— CA —	CA	COMPRESSED AIR LINE
— AV —	AV	ACID WASTE ABOVE FLOOR OR GRADE
— AV —	AV	ACID WASTE BELOW FLOOR OR GRADE
— CRPD —	CRPD	CONDENSATE RETURN PUMP DISCHARGE
— —	CV	DOMESTIC COLD WATER
— —	CW&V	COMBINATION WASTE & VENT ABOVE FLOOR OR GRADE
— —	CW&V	COMBINATION WASTE & VENT BELOW FLOOR OR GRADE
— F —	F	FIRE LINE
— △ —		GAS COCK
— G —	G	NATURAL GAS (LOW PRESSURE)
— HV —	HV	DOMESTIC HOT WATER SUPPLY
→ → →	ID	INDIRECT DRAIN
— IV —	IV	INDUSTRIAL COLD WATER
— MPG —	MPG	MEDIUM PRESSURE NATURAL GAS
— DFD —	DFD	OVERFLOW RAIN LEADER ABOVE FLOOR OR GRADE
— DFD —	DFD	OVERFLOW RAIN LEADER BELOW FLOOR OR GRADE
— RL —	RL	RAIN LEADER ABOVE FLOOR OR GRADE
— RL —	RL	RAIN LEADER BELOW FLOOR OR GRADE
— SD —	SD	STORM DRAIN ABOVE FLOOR OR GRADE
— SD —	SD	STORM DRAIN BELOW FLOOR OR GRADE
— SSD —	SSD	SUB-SOIL DRAIN
— SAN —	SAN	SANITARY SEWER/WASTE ABOVE FLOOR OR GRADE
— SAN —	SAN	SANITARY SEWER/WASTE BELOW FLOOR OR GRADE
— GW —	GW	GREASE WASTE BELOW FLOOR OR GRADE
— UD —	UD	USED OIL ABOVE FLOOR OR GRADE
— UD —	UD	USED OIL BELOW FLOOR OR GRADE
— V —	V	SANITARY VENT
— CV —	CV	VACUUM CLEANING ABOVE FLOOR OR GRADE
— CV —	CV	VACUUM CLEANING BELOW FLOOR
■	WHA	WATER HAMMER ARRESTER
— X —		ANCHOR
— RBFP —	RBFP	REDUCED PRESSURE BACKFLOW ASSEMBLY
— BFP —	BFP	BACKFLOW PREVENTER
— ▶ —		FLUID FLOW DIRECTION
○		PIPE TURNING UP
○		PIPE TURNING DOWN
○ — ○ —		CONCENTRIC REDUCER
○ — ○ —		ECCENTRIC REDUCER
— □ —		CAPPED PIPE/OUTLET
— □ —		PLUGGED PIPE/OUTLET
○ — ○ —	ES	EMERGENCY SHOWER AND EYEWASH
— X —		RUNNING TRAP
○ — ○ —	BV	BALL VALVE
○ — ○ —	GV	GATE VALVE
○ — ○ —	AV	ANGLE VALVE
○ — ○ —	GLV	GLOBE VALVE
○ — ○ —	CV	CHECK VALVE
○ — ○ —	PRV	PRESSURE REDUCING VALVE
— P/TRV —	P/TRV	PRESSURE/TEMPERATURE RELIEF OR SAFETY VALVE
○	U	UNION
HB/WH		HOSE BIBB OR WALL HYDRANT W/VACUUM BREAKER
FD		FLOOR DRAIN/SINK
FD		FLOOR DRAIN
CV		CENTRAL VACUUM SYSTEM (FLOOR OUTLET)
CV		CENTRAL VACUUM SYSTEM (WALL OUTLET)
○ — ○ —	SV	SOLENOID VALVE
○ — ○ —	EJ	EXPANSION JOINT

SYMBOL	ABBREVIATION	DESCRIPTION
○	DFD	OVERFLOW ROOF DRAIN
○	RD	ROOF DRAIN
—	FLD	FUNNEL DRAIN, OPEN
—	VCD	VALL CLEANOUT OR CLEANOUT PLUG
○	FCD	FLOOR CLEANOUT
○	CP	CIRCULATING PUMP
○	BV	BALANCING VALVE
○	GC	GAS COCK
○	PV	PLUG VALVE
○	MV	MOTORIZED VALVE
—	DSAY	OUTSIDE SCREW AND YOKE
○	FSP	FIRE STANDPIPE RISER
—	FDC	FIRE DEPARTMENT CONNECTION (SIAMESE)
—	FPT	FIRE PUMP TEST CONNECTION
SIZE	TYPE	PIPE IDENTIFICATION
— □ —		VALVE AND BLIND FLANGE
— □ —		PIPE HEADER WITH BLIND FLANGE
— ○ —		BOTTOM PIPE TAP
— ○ —		TOP OF PIPE TAP
— ○ —		BUTTERFLY VALVE
— ○ —		THERMOMETER
— ○ —	FACP	FIRE ALARM CONTROL PANEL
— ○ —	MFAP	MAIN FIRE ALARM PANEL
— ○ —	GAP	GRAPHIC DISPLAY ANNUNCIATOR PANEL
— ○ —	DSAY	OUTSIDE SCREW AND YOKE GATE VALVE W/ TAMPER SWITCH
— ○ —	ATP	AUTOMATIC TRAP PRIMER
— ○ —	ETP	ELECTRONIC TRAP PRIMER
— ○ —	DSV	STRAINER WITH BLOWDOWN VALVE
— ○ —	DS&Y	OUTSIDE SCREW AND YOKE ON DROP
— ○ —	BBV	BACKWATER VALVE

NOTE: NOT ALL ABBREVIATIONS AND SYMBOLS SHOWN HERE ARE UTILIZED IN THE DOCUMENTS.

## GENERAL NOTES:

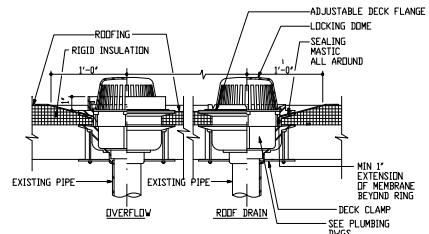
- THE INTENT OF THESE DRAWINGS IS TO PROVIDE COMPLETE AND PROPERLY FUNCTIONING PLUMBING SYSTEMS. PROVIDE LABOR AND MATERIALS.
- PLUMBING WORK ON THIS PROJECT MUST BE CONDUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE INTERNATIONAL PLUMBING, AND APPLICABLE STATE AND COUNTY CODES.
- COORDINATE PLUMBING WORK WITH SITE CONDITIONS AND THE WORK OF OTHER TRADES. VERIFY EXISTING SLOPES AND INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF WORK.
- ADVISE THE COR AT LEAST 5 DAYS PRIOR TO THE INTERRUPTION OF ANY SERVICES. OBTAIN PRIOR APPROVAL FROM THE COR IN WRITING. ALL INTERRUPTIONS SHALL BE COORDINATED WITH THE COR AND THE FACILITY REPRESENTATIVE.
- PROVIDE MATERIALS, CUTTING, PATCHING, REPAIRING, ADAPTING AND ALL OTHER INCIDENTAL WORK, TOGETHER WITH SUCH TEMPORARY CONNECTIONS AS MAY BE REQUIRED.
- HORIZONTAL PIPING SHALL RUN ABOVE CEILING AND HORIZONTAL SANITARY AND STORM PIPING SHALL RUN BELOW SLAB UNLESS OTHERWISE NOTED.
- PIPE PENETRATIONS THROUGH SLAB AND WALLS MUST HAVE PIPE COATED WITH FIRE PROOF MATERIAL. CALK ANULAR SPACE BETWEEN PIPE AND SLEEVE. PIPES THRU WALLS SHALL HAVE ESCUTCHEONS.
- TO THE EXTENT POSSIBLE, COMPLETE WORK FROM THE ROOF. WHERE WORK IS REQUIRED INSIDE BUILDINGS, DO SO DISCRETELY OR NECESSARILY. COORDINATE SCHEDULE WITH COR TO MINIMIZE DISRUPTION TO FACILITY OPERATIONS.

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		REVIEWED BY	SUBMITTED BY	APPROVED BY							
		Jacobs		PLUMBING ABBREVIATION, SYMBOLS AND GENERAL NOTES							
		REVIEWED BY	SUBMITTED BY	APPROVED BY							
		POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA		DESIGNED BY B.HARRIS DRAWN BY B.HARRIS CHECKED BY J.HARRIS		APPROVED BY JCN DRAWING NO. PCT - D - TRACON - P001					
		REVIEWED BY	SUBMITTED BY	APPROVED BY							

## PLUMBING FIXTURE SCHEDULE

DESIGNATION	DESCRIPTION	REMARKS
RD-1	PRIMARY ROOF DRAIN	SEE SPECIFICATION FOR MORE INFO. SEE FLOOR PLANS FOR DRAIN SIZE
ODF-1	OVERFLOW ROOF DRAIN	SEE SPECIFICATION FOR MORE INFO. SEE FLOOR PLANS FOR DRAIN SIZE

**NOTES:**

1. RE-CONNECT EXISTING DRAIN PIPE TO NEW ROOF DRAINS AND PROVIDE WATER PROOFING. INSTALL ROOF DRAINS PER MANUFACTURER REQUIREMENTS.
2. FOR MORE INFORMATION SEE SHEET P02 AND SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ROOF DRAINS AND ROOF MATERIAL BEING USED.

E8 ROOF DRAIN/ OVERFLOW DETAIL  
P02 MTS

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POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT				
<b>PLUMBING SCHEDULES AND DETAILS</b>				
<b>Jacobs</b> 	REVISED BY SUBMITTED BY APPROVED BY <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> SUBMITTER'S TITLE APPROVING TITLE <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		APPROVING TITLE <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
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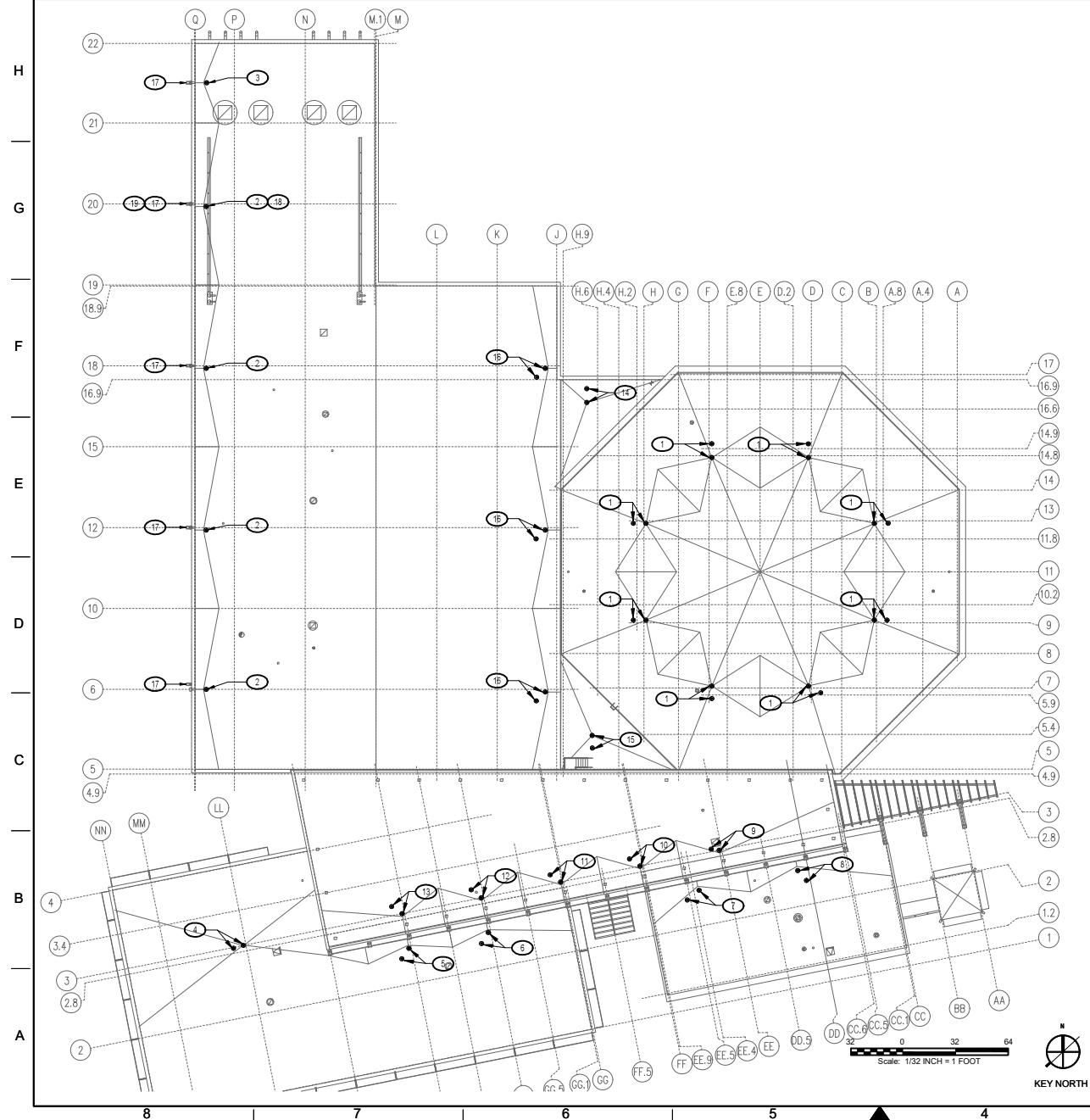
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**GENERAL SHEET NOTES**

1. SEE DRAWING P001 FOR LEGEND, ABBREVIATIONS AND SYMBOLS
2. SEE DRAWING P002 FOR SCHEDULES
3. SCHEDULE WORK TO REMOVE AND REPLACE ROOF DRAINS ON DAYS WHERE PRECIPITATION IS NOT EXPECTED FOR A MINIMUM OF 24 HOURS FROM START OF WORK.

**DEMOLITION KEYNOTES**

- (1) REMOVE 3' ROOF DRAIN (2576 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (2) REMOVE 4' ROOF DRAIN (4658 SQ. FT.)
- (3) REMOVE 4' ROOF DRAIN (2456 SQ. FT.)
- (4) REMOVE 6' ROOF DRAIN (8260 SQ. FT.) WITH 6' OVERFLOW DRAIN.
- (5) REMOVE 3' ROOF DRAIN (1785 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (6) REMOVE 3' ROOF DRAIN (2561 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (7) REMOVE 3' ROOF DRAIN (1833 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (8) REMOVE 3' ROOF DRAIN (2316 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (9) REMOVE 3' ROOF DRAIN (2330 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (10) REMOVE 3' ROOF DRAIN (1464 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (11) REMOVE 3' ROOF DRAIN (1674 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (12) REMOVE 3' ROOF DRAIN (1879 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (13) REMOVE 4' ROOF DRAIN (3116 SQ. FT.) WITH 4' OVERFLOW DRAIN.
- (14) REMOVE 2' ROOF DRAIN (850 SQ. FT.) WITH 2' OVERFLOW DRAIN.
- (15) REMOVE 3' ROOF DRAIN (1089 SQ. FT.) WITH 3' OVERFLOW DRAIN.
- (16) REMOVE 4' ROOF DRAIN (4538 SQ. FT.) WITH 4' OVERFLOW DRAIN.
- (17) REMOVE STORM WATER PIPE BACK TO GENERATOR ROOM AT COLUMN LINE 21 AND CAP.
- (18) REMOVE SCUPPER AND DOWNSPOUT, SEE ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
- (19) REMOVE SCUPPER AND DOWNSPOUT, SEE ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.



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APPROVED BY: JEROME JOSEPH LEMENS Lic. No. G201798 Date 02/17/2022			
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA ATLANTA, GA			
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT			
PLUMBING ROOF PLAN - DEMOLITION			
REVIEWED BY: SUBMITTED BY: APPROVED BY:			
SUBMITTER'S TITLE: APPROVING TITLE:			
RE-SIGNED BY: DATED: APPROVED BY: DRAWN BY: J. LEMENS ENGINEERING SERVICES TERMINAL CHECKED BY: J. LEMENS J. LEMENS REV. DATE: FEBRUARY 16, 2022 JCN DRAWING NO: PCT - D - TRACON - P101			

# GENERAL SHEET NOTES

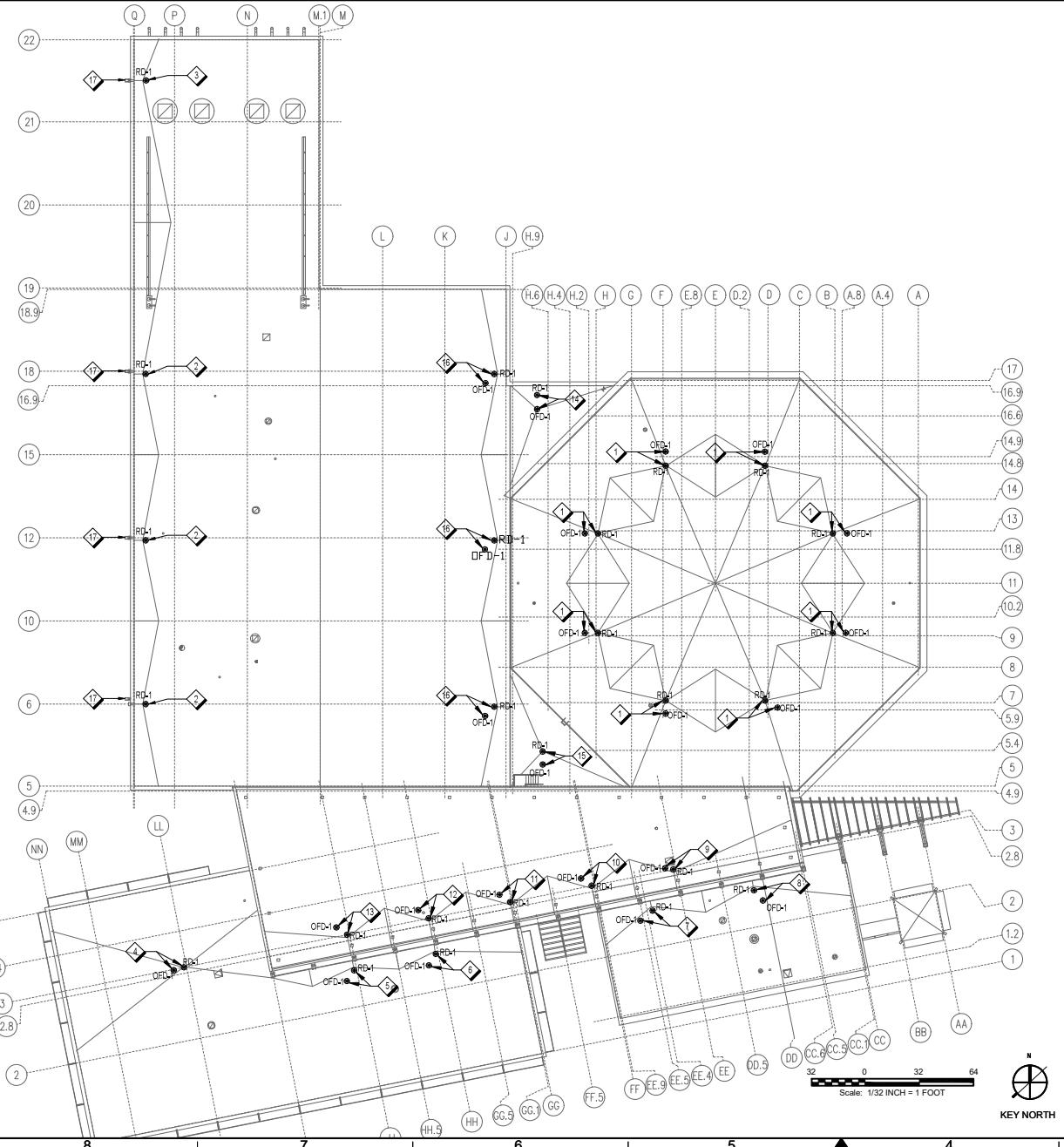
1. SEE DRAWING P001 FOR LEGEND ABBREVIATIONS AND SYMBOLS.
2. SEE DRAWING P002 FOR SCHEDULES.
3. SCHEDULE WORK TO REMOVE AND REPLACE ROOF DRAINS ON DAYS WHERE PRECIPITATION IS NOT EXPECTED FOR A MINIMUM OF 24 HOURS FROM START OF WORK.

## # NEW WORK KEYNOTES

- 3" ROOF DRAIN (2576 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 4" ROOF DRAIN (5835 SQ. FT.)
- 4" ROOF DRAIN (5835 SQ. FT.)
- 6" ROOF DRAIN (8260 SQ. FT.) WITH 6" OVERFLOW DRAIN.
- 3" ROOF DRAIN (1785 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 3" ROOF DRAIN (2561 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 3" ROOF DRAIN (1833 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 3" ROOF DRAIN (2616 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 3" ROOF DRAIN (2330 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 3" ROOF DRAIN (1468 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 3" ROOF DRAIN (1674 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 3" ROOF DRAIN (1879 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 4" ROOF DRAIN (3116 SQ. FT.) WITH 4" OVERFLOW DRAIN.
- 2" ROOF DRAIN (860 SQ. FT.) WITH 2" OVERFLOW DRAIN.
- 3" ROOF DRAIN (1099 SQ. FT.) WITH 3" OVERFLOW DRAIN.
- 4" ROOF DRAIN (4638 SQ. FT.) WITH 4" OVERFLOW DRAIN,
- OVERFLOW SCUPPER DRAIN.

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 <b>JACOBS</b> 1100 N GLEBE RD. SUITE 500 ARLINGTON, VA 22201		APPROVED DATE _____ DESCRIPTION _____ JCN _____ RECDATE _____ APVO _____	
<b>POTOMAC CONSOLIDATED TRACON</b> <b>ROOF REPLACEMENT</b> <b>PLUMBING ROOF PLAN - NEW WORK</b>			
<b>Jacobs</b> 		APPROVED BY _____ APPROVING TITLE _____ APPROVING DATE _____	
REVIEWED BY _____ SUBMITTED BY _____ SUBMITTER'S TITLE _____ DESIGNER BY _____ DRAWER BY _____ CHECKED BY _____		APPROVED BY _____ APPROVING TITLE _____ APPROVING DATE _____ DRAWING NO. _____ REV. _____	
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA		ENGINEERING SERVICES TERMINAL	



## GENERAL NOTES

1. THE ELECTRICAL DRAWINGS ARE DIAGRAMMICAL IN NATURE AND INDICATE THE GENERAL LOCATION OF EQUIPMENT AND THE CIRCUIT ARRANGEMENT OF THE REQUIRED WIRING. IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY OFFSETS, BENDS, FULL BOXES, AND OBSTRUCTIONS. THE DRAWINGS ARE NOT INTENDED TO BE SCAFFOLDING. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
2. NOT ALL SYMBOLS SHOWN IN LEGENDS ARE USED - SEE DRAWINGS FOR APPLICABLE DEVICES.
3. SEAL PENETRATIONS OF FIRE AND SMOKE-RATED CONSTRUCTION WITH APPROVED STOPPING MATERIAL TO RESTORE THE ORIGINAL RATING OF THE PENETRATED CONSTRUCTION.
4. SEAL PENETRATIONS OF NON-RATED PARTITIONS WITH APPROVED MATERIAL TO PREVENT AIRFLOW AND DRAFTS.
5. SUPPORT BOXES AND CONDUIT ABOVE CEILINGS INDEPENDENTLY, DO NOT SUPPORT FROM SUSPENDED CEILING SYSTEM.
6. WORK ON ENERGIZED CIRCUITS IS NOT PERMITTED AT ANY TIME.
7. ONLY FAIR SPECIALISTS ARE PERMITTED TO OPERATE CIRCUIT BREAKERS. CONTRACTOR MUST REQUEST PERMISSION OF THE COR AT LEAST 10 WORKING DAYS IN ADVANCE AND IN WRITING FOR EACH CASE OF BREAKER OPERATION. CONTRACTOR MUST NOT OPEN (DIS-ENERGIZE) OR CLOSE (ENERGIZE) CIRCUIT BREAKER AT ANY TIME.
8. UNSCHEDULED INTERRUPTIONS ARE NOT PERMITTED, WORK REQUIRING PERMANENT TEMPORARY OR PARTIAL OUTAGES MUST BE SCHEDULED AND APPROVED IN WRITING BY THE CONTRACTOR. CONTRACTOR MUST COORDINATE WITH THE COR FOR APPROVAL OF SPECIFICATIONS REQUIREMENTS, COORDINATE TIME OF ANY ELECTRICAL SHUTDOWN WITH COR. SHUTDOWNS MAY NEED TO BE DONE BETWEEN 12:00AM AND 6:00AM.
9. ALL OUTAGES MUST BE SCHEDULED WITH A MINIMUM OF 21 CALENDAR DAYS IN ADVANCE. NOTIFY THE BASE PERSONNEL (CONTRACTING OFFICER), MAKE AN APPLICATION FOR OUTAGE, AND SUBMIT A FORM TO THE COR FOR APPROVAL. OUTAGES NOT APPROVED REQUEST FORMS AND SUBMIT FOR APPROVAL. FOR THE OUTAGES, NO OUTAGES MAY TAKE PLACE WITHOUT WRITTEN AUTHORIZATION TO THE GOVERNMENT PERSONNEL BY THE CONTRACTOR. OUTAGES CAN BE CANCELED BY THE GOVERNMENT UP UNTIL THE SCHEDULED TIME. CONTRACTOR MUST NOTIFY THE COR AND THE GOVERNMENT PERSONNEL (CONTRACTING OFFICER) TO MINIMIZE TOTAL OUTAGES TO THE FACILITY.
10. WHEN CONDUITS AND CONDUCTORS ARE TO BE REMOVED AND ARE TO BE REUSED, CONTRACTOR MUST ADEQUATELY PROTECT CONDUITS AND CONDUCTORS FROM ALL PHYSICAL DAMAGE, INCLUDING ANY OUTDOOR EQUIPMENT. WHERE APPROPRIATE, NEED, OR IF APPROVED BY THE COR, THE CONTRACTOR MUST SECURE THE COR.
11. ALL ELECTRICAL CONDUCTORS THAT ARE SCHEDULED TO BE REUSED, MUST BE COATED BEFORE BEING DISTURBED, OR DISCONNECTED FROM THEIR TERMINALS, OR SPLICES. THE MEGOHMMETER READINGS SHALL BE TAKEN, RECORDED, AND SUBMITTED AS PER SPECIFICATIONS. ALL TESTING OF THOSE CONDUCTORS TO BE REUSED, SHALL BE WITNESSED BY THE COR, WITHOUT EXCEPTION. THE COR SHALL SIGN THE FIELD REPORT OF THESE MEGOHMMETER READINGS.

## GENERAL DEMOLITION NOTES

1. EXISTING INFORMATION IS INTENDED TO ASSIST IN IDENTIFYING THE EXISTING CONDITIONS BASED UPON THE REMOVED EQUIPMENT FROM EXISTING DRAWINGS AND THROUGH INSPECTION AND INVESTIGATION. PERFORM DEMOLITION WITH CARE, IN A MANNER OF COMPLETELY REMOVING EQUIPMENT, DEVICES, AND ASSOCIATED WIRING AND CONDUIT WITHIN THE PROJECT AREA, UNLESS NOTED OTHERWISE. VERIFY ROUTING AND CIRCUIT ARRANGEMENT SHOWN ON THE DRAWINGS PRIOR TO COMMENCING WORK.
2. WHERE EXISTING CIRCUITS FEEDING DEVICES THAT ARE TO BE DEMOLISHED OR RELOCATED, MAINTAIN CIRCUIT CONTINUITY TO THE PORTION OF THE CIRCUIT REQUIRED TO REMAIN IN SERVICE.
3. REMOVE DEMOLISHED ELECTRICAL EQUIPMENT FROM THE SITE UNLESS NOTED OTHERWISE. CLEAR AND PREPARE AREAS AS REQUIRED FOR NEW ELECTRICAL WORK.
4. PATCH, REPAIR, AND PAINT HOLES AND DAMAGE CAUSED BY THE ELECTRICAL DEMOLITION AND RELOCATE TO MATCH THE DEMOLITION AREA AND EXISTING CONDITIONS. PATCHES MUST BE MADE SUCH THAT EXISTING PARTITIONS, FIRE, ACOUSTIC, RF, AND AIR FORCE PROTECTION RATINGS ARE MAINTAINED.
5. SAFEGUARD EXISTING TO REMAIN EQUIPMENT, DEVICES, WIRING, CONDUIT AND RELATED ITEMS FROM DAMAGE OR SERVICE INTERRUPTION. IF DEEMED NECESSARY TO RELOCATE COMPONENTS TEMPORARILY OR OTHERWISE, ACQUIRE APPROVAL FROM THE COR PRIOR TO SUCH ACTION.
6. VERIFY CIRCUITS SERVING EQUIPMENT TO BE REPLACED PRIOR TO BEGINNING WORK.
7. COORDINATE ELECTRICAL DEMOLITION WORK WITH WORK SHOWN ON ARCHITECTURAL AND MECHANICAL DRAWINGS.
8. VERIFY EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION OR CONSTRUCTION IDENTIFY CIRCUITS, CONDUIT AND WIRING FEEDING THE TO BE REPAVED EQUIPMENT, USE EXISTING CONDUIT AND WIRING TO REFLECT THE REPLACED EQUIPMENT UNLESS OTHERWISE NOTED. OTHERWISE, USE CONDUIT AND WIRING TO REMAIN CIRCUITS WHETHER INSIDE OR OUTSIDE OF THE DEMOLITION AREA. CONCEALED CONDUITS THAT ARE INACCESSIBLE MAY BE ABANDONED IN PLACE ONLY AFTER ALL CONDUITS AND CIRCUITS IDENTIFIED AS BEING USED ARE CAPPED, AND EACH END IS IDENTIFIED WITH THE OPPOSITE END'S TERMINATION CODE.
9. DEMOLITION OF THE EXISTING LIGHTNING PROTECTION SYSTEM MUST BE COORDINATED WITH THE ROOFING WORK. PROVIDE TEMPORARY LIGHTNING PROTECTION SYSTEM TO PROTECT EXISTING AND NEW EQUIPMENT, INCLUDING ANTENNA MAST, MECHANICAL EQUIPMENT, AND METAL OBJECTS LOCATED ON THE ROOF AT ALL TIME.

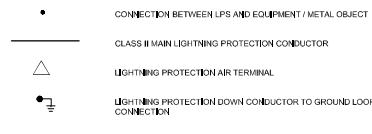
## LIGHTNING PROTECTION NOTES

- CONTRACTOR MUST OBTAIN THE SERVICES OF A QUALIFIED LIGHTNING PROTECTION CONTRACTOR TO PERFORM THE WORK AS DESCRIBED. THE LIGHTNING PROTECTION CONTRACTOR MUST GIVE EVIDENCE OF HAVING A MINIMUM OF FIVE YEARS EXPERIENCE.
- THE LIGHTNING PROTECTION SYSTEM MUST BE INSTALLED IN ACCORDANCE WITH UL, NFPA 780, AND LOCAL CODE REQUIREMENTS. UPON COMPLETION OF THE INSTALLATION, INSTALLING CONTRACTOR MUST COORDINATE WITH COR FOR FINAL WALK THROUGH AND APPROVAL.
- CONDUCTORS MUST MAINTAIN A HORIZONTAL OR DOWNWARD COURSE, FREE FROM "U" OR "V" (DOWN AND UP) POCKETS. NO BEND OF A CONDUCTOR IS PERMITTED TO FORM AN ANGLE OF LESS THAN 90 DEGREES OR HAVE A RADIUS OF BEND LESS THAN 8 INCHES.
- ALL ADHESIVE AIR TERMINAL BASES AND FITTINGS MUST BE SECURED TO ROOF WITH AN ADHESIVE COMPOUND OR PITCH WHICH COUPLES WITH ROOFING BOND REQUIREMENTS, ADHESIVE COMPOUND MUST BE FURNISHED BY ROOFING CONTRACTOR.
- THE DRAWINGS INDICATE THE EXTENT AND GENERAL ARRANGEMENT OF THE LIGHTNING PROTECTION SYSTEM SHOWING THE LOCATION OF THE GROUNDS AND CABLE COURSES.
- ACTUAL JOB SITE CONDITIONS MAY REQUIRE SLIGHT ALTERATIONS IN AIR TERMINAL CONDUCTOR, AND GROUND ROD LOCATIONS. BASE COPPER MATERIALS MUST NOT BE INSTALLED ON ALUMINUM SURFACE AND ALUMINUM MATERIALS MUST NOT BE INSTALLED ON COPPER SURFACE.
- THE LIGHTNING PROTECTION SYSTEM MUST BE INSTALLED IN A NEAT, WORKMANLIKE AND INCONSPICUOUS MANNER SO THAT ALL COMPONENTS WILL BLEND IN WITH THE BUILDING AESTHETICS.
- ALL LIGHTNING PROTECTION CONDUCTOR MUST BE RATED CLASS II.

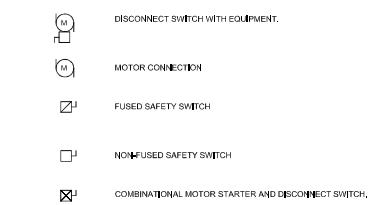
## ELECTRICAL ABBREVIATIONS

A	#	NUMBER
AACS		AUTOMATED ACCESS CONTROL SYSTEM
A	AMPS (AMPS)	AMPERE (AMPS)
AC		ALTERNATING CURRENT
AF		ADDITIONAL FLOOR
AFF		ABOVE FINISHED FLOOR
AFG		ABOVE FINISHED GRADE
AHJ		AUTHORIZED HEADING JURISDICTION
AGS		ADJUSTABLE INTERRUPTING CURRENT
ASD		ADJUSTABLE SPEED DRIVE
AT		ADJUSTABLE TILT
ATS		AUTOMATIC TRANSFER SWITCH
AUTO		AUTOMATIC
AUX		AUXILIARY
AWG		AMERICAN WIRE GAUGE
B	-	-
BATT		BATTERY
BC		BARE COPPER
BFF		BOTTOM FINISHED FLOOR
BFG		BELLOW FINISHED GRADE
BL		BASIC IMPULSE LEVEL
BKR		BREAKER
BKGD		BKGND
C	-	-
C	-	CRITICAL, CONSOLE CABINET
CAB		CABINET
CB		CIRCUIT BREAKER
CBS		CENTRAL BATTERY SYSTEM
CTV		CLOSED CIRCUIT TELEVISION
CFQ		CONTRACTOR FURNISHED CONTRACTOR
INSTALLED		INSTALLED
CKT		CIRCUIT
CMH		COMMUNICATIONS MANHOLE
CTRL	T	CONTROLS TRANSFORMER
CD		COMMUNICATIONS
COMP		COMPUTER
COND		CONDENSER
CONTR		CONTRACTOR
CONT		CONTACTOR
COR		CONTRACTING OFFICER'S REPRESENTATIVE
CP		CONDENSING WATER PUMP
CONV		CONVENTION
CPT		CONSTANT POWER TRANSFORMER
CT		CURRENT TRANSFORMER
CU		COPPER
D	-	-
DB		DIRECT BURIAL
DC		DIRECT CURRENT
DDC		DIGITAL DIRECT CONTROL
DDCP		DIGITAL DIGITAL CONTROL PANEL
DF		DEMAND FACTOR
DP		DISTRIBUTION
DP1		DOUBLE POLE
DPDT		DOUBLE POLE DOUBLE THROW
DPST		DOUBLE POLE SINGLE THROW
DS		DISCONNECT SWITCH
DTS		DO NOT SCALE
DWGS		DRAWING
E	->	->
EE		EEING
EEB		EARTH ELECTRODE SYSTEM
EF		EXHAUST FAN
EG / G		EMERGENCY GENERATOR
ELEV		ELEVATION
EMER		EMERGENCY
EMH		EMERGENCY MANHOLE
EMT		ELECTRICAL METALLIC TUBING
ENCL		ENCLOSURE
EO		EXCLUSIVELY OPERATED
EQD		END-OF-LINE RESISTOR
EPMS		ELECTRICAL POWER MONITORING SYSTEM
EPW		EMERGENCY POWER OFF
EQUIP		EQUIPMENT
EST		ESTIMATE
EWC		ELECTRIC WATER COOLER
EWH		ELECTRIC WATER HEATER
EXT		EXTENSION
EXP		EXPLOSION PROOF
F	-	-
FA		FIRE ALARM
FACP		FIRED ALARM CONTROL PANEL
FCU		FIRED COLUMN UNIT
FDC		FIRED DEPARTMENT CONNECTION
FDS		FIRED DUCT SYSTEM
FDI		FIRED INTERIOR DUCT
FIKT		Fixture
FLA		FUTURE LOAD AMPS
FLX		FLUID METAL CONDUIT
FP		FP PROTECTION, FIRE PLUG
FPB		FAIR POINT INDUCTION BOX
FRE		FREE ACCESS REPAIR IN EPOXY
FII		FAA TELECOMMUNICATIONS INFRASTRUCTURE
G	-	-
GALV		GALVANIZED
GEN		GENERATOR
GFE		GOVERNMENT FURNISHED EQUIPMENT
GFC		GROUND FAULT CIRCUIT INTERRUPTER
GFI	(GFCI)	INSTALLED EQUIPMENT INSTALLATION
GHD		GROUND FAULT CIRCUIT INTERRUPTER
GND		GROUND
GP		GROUND PLATE
H	-	-
HH		HANDLE
HOA		HIGH PRESSURE AUTOMATIC
HPS		HIGH PRESSURE SODIUM
HV		HIGH VOLTAGE
HZ		HERTZ
I	-	-
IMC		INTERMEDIATE METAL CONDUIT
ISO		ISOLATED, ISOLATION
J	-	-
J, JB		JUNCTION BOX
K	-	-
KM1		THOUSAND CIRCULAR MILS
KO		KEY OPERATED
KV		KILOVOLTS
KWA		KILOWATT AMPERES
KW		KILOWATT
KWH		KILOWATT HOURS
L	-	-
LA		LIGHTNING ARRESTOR
LAN		LOCAL AREA NETWORK
LDP		LEAK DETECTOR PANEL
LED		LIGHT EMITTING DIODE
LNC		LIQUID CYANOTINIC METAL CONDUIT
LPS		LIGHTNING PROTECTION SYSTEM
LRA		LOCKED ROTOR AMPERES
LTO		LOCKED TORQUE
LV		LOW VOLTAGE
M	-	-
M		MOTOR
MCB		MOTOR CIRCUIT BREAKER
MCC		MOTOR CONTROL CENTER
MCR		MOTOR CIRCUIT PROTECTOR
MCS		MOLDED CASE SWITCH
MIN		MINIMUM / MIN / META HALIDE
MIN		MINIMUM
MAX		MAXIMUM
MUL		MULTIPLY
MOM		MOMENTARY
MPG		MAIN GROUND PLATE
MTS		MAIN TRANSFER SWITCH
MVA		MEGAVOLT AMPERE
N	-	-
NEUT		NEUTRAL
NAC		NOTIFICATION/APPLIANCE CIRCUIT
NC		NORMALLY CLOSED
REC		RECOMMENDED
NEMA		NATIONAL ELECTRICAL MANUFACTURERS
NF		NON-FUSED
NO		NOT OPEN
NP		NOT PERMITTED
NTS		NOT TO SCALE
O	-	-
OCPD		OVERCURRENT PROTECTION DEVICE
OL		OVERLOAD
P	-	-
POLE		POLE
PULLBOX		PULLBOX
POF		PHOTO CELL
PF		POWER FACTOR
PH		PHASE
PNL		PANEL
POC		POINT OF CONNECTION
PQM		POWER QUALITY METER
PRM		PRIMER
PS		PANEL SCHEDULE
PT		POTENTIAL TRANSFORMER
PV		PHOTOVOLTAIC
PVR		POWER
Q	-	-
QTY		QUANTITY
R	-	-
REC		RECEPTACLE
RGS		RIGID GALVANIZED STEEL CONDUIT
S	-	-
SEC		SECONDARY
SEP		SEPARATE
SERV		SERVICE
SPD		SURGE PROTECTIVE DEVICE
STS		STATIC TRANSFER SWITCH
SWI		SWITCHBOARD
SWGR		SWITCHGEAR
T	-	-
T		TIME / TRIP / TRANSFORMER
TELEC		TELECOMMUNICATIONS
TEMP		TEMPERATURE
TH		THREE PHASE, THREE WIRE
TVSS		TRANSIENT VOLTAGE SURGE SUPPRESSION
TP		TYPE
U	-	-
UG		UNDERGROUND
UL		UNDERWITNESS LABORATORY
UN		UNLESS OTHERWISE NOTED
V	-	-
V		VOLT
VA		VOLT AMPERES
W	-	-
W		WIRE / WATTS
WP		WEATHERPROOF
X	-	-
XFMR		TRANSFORMER
Y	-	-
Y		WYE
Z	-	-
Z		IMPEDANCE

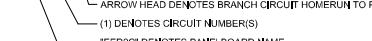
## GROUNDING AND LIGHTNING PROTECTION LEGEND



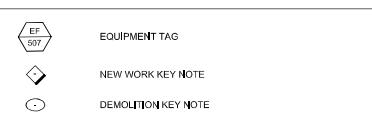
## POWER DISTRIBUTION / EQUIPMENT LEGEND



## WIRING SYMBOLS



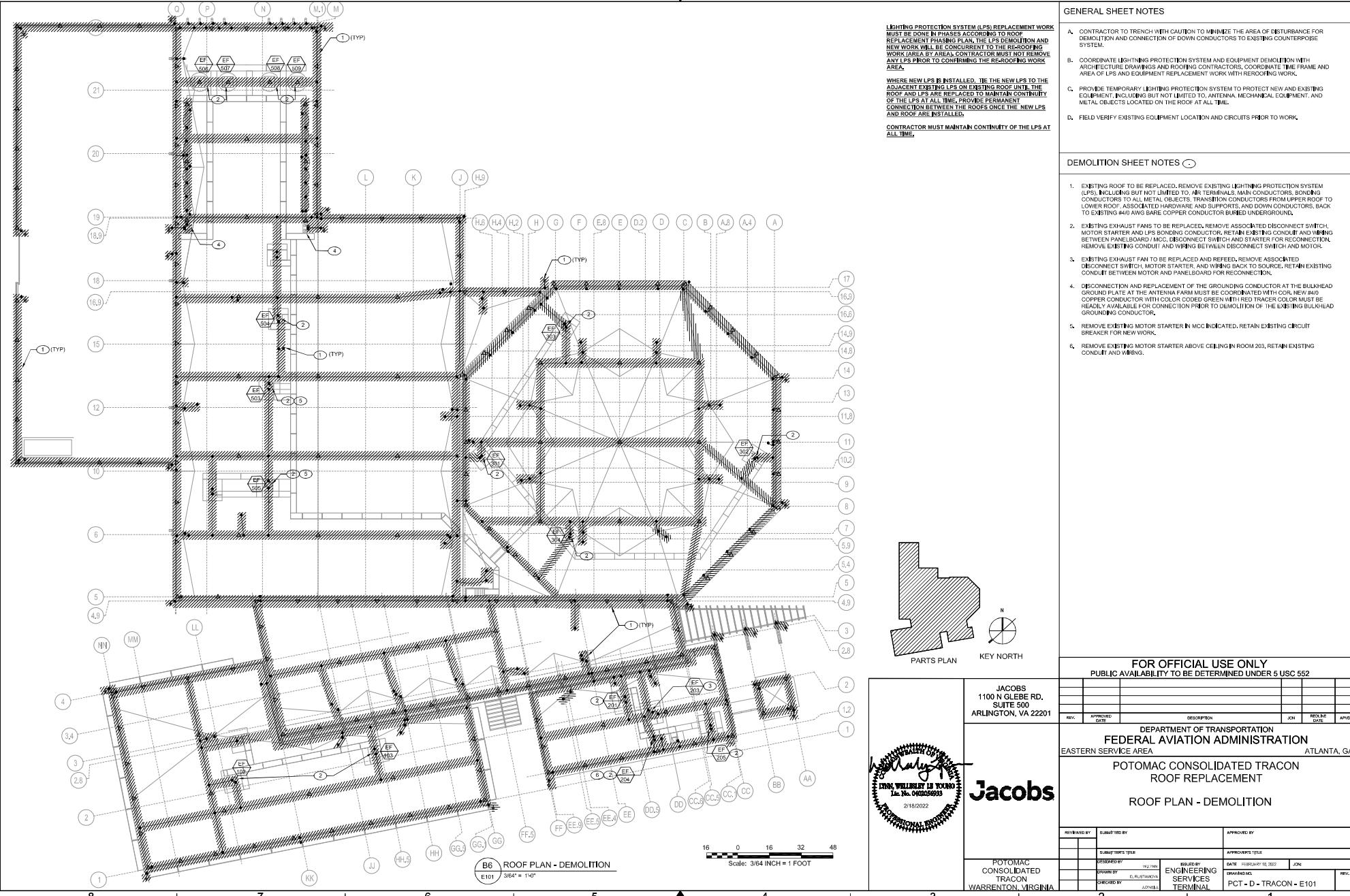
## MISCELLANEOUS



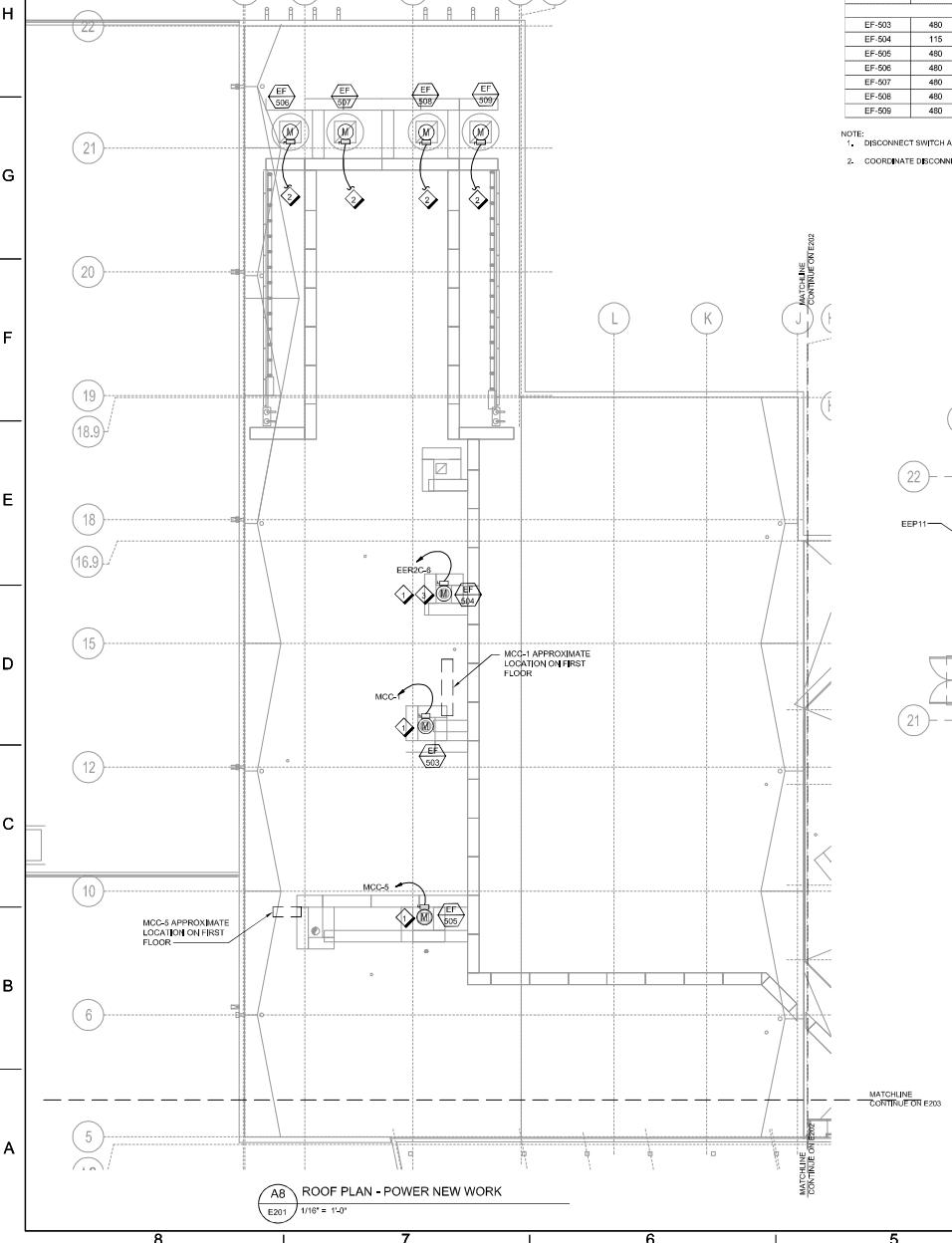
## ELECTRICAL ABBREVIATIONS

JACOBS	1100 N GLEBE RD.	SUITE 500	ARLINGTON, VA
REV.	APPROVED DATE	DESCRIPTION	JDN REC'D DATE APPROV'D
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA			
ATLANTA, GA			
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL AND DEMOLITION NOTES			
REVIEWED BY	SUBMITTED BY	APPROVED BY	
SUBMITTER'S TITLE		APPROV'R'S TITLE	
DESIGNED BY	W/L/100	DESIGNED BY	
DRAWN BY	IN PLASTIC	DRAWN BY	
CREATED BY	2/18/2022	CREATED BY	
DRAWING NO. PCT-D-TRACON-E001 REV. 1			

**Jacobs**  
Engineering Services Terminal  
POTOMAC CONSOLIDATED TRACON  
WARRENTON, VIRGINIA



8 | 7 | 6 | 5 | 4 | 3 | 2 | 1



### MECHANICAL EQUIPMENT SCHEDULE

TYPE	VOLTAGE	PHASE	HORSE POWER HP	FLC	PANEL	CIRCUIT NUMBER	MDCP	WIRE SIZE - PHASE	WIRE SIZE - GROUND	CONDUIT SIZE	NOTE
EF-503	480	3	3/4	1.6	MCC-1A		15	#12 AWG	#12 AWG	3/4"	12
EF-504	115	1	1/10	1.3	EER2C	6	20	#12 AWG	#12 AWG	3/4"	12
EF-505	480	3	3/4	1.6	MCC-5		15	#12 AWG	#12 AWG	3/4"	12
EF-506	480	3	15	21	EEP11	13.5	30	#10 AWG	#10 AWG	3/4"	12
EF-507	480	3	15	21	EEP11	2.4.6	30	#10 AWG	#10 AWG	3/4"	12
EF-508	480	3	15	21	EEP12	8.10.12	30	#10 AWG	#10 AWG	3/4"	12
EF-509	480	3	15	21	EEP12	2.4.6	30	#10 AWG	#10 AWG	3/4"	12

## NOTE:

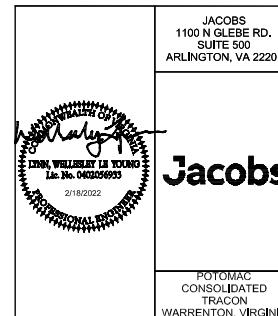
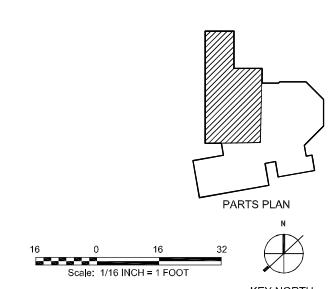
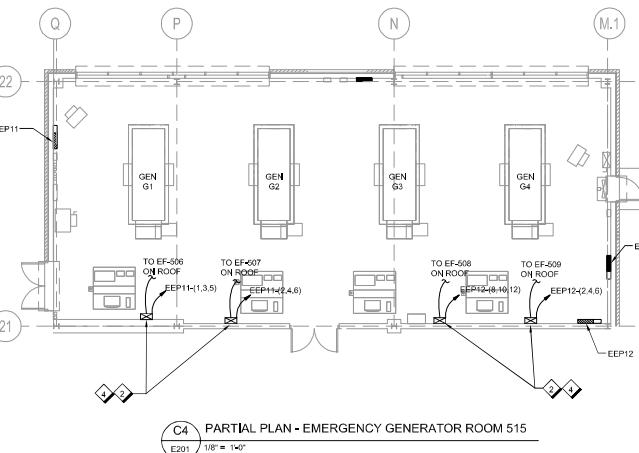
- 1. DISCONNECT SWITCH AND MOTOR STARTER TO BE FURNISHED WITH EQUIPMENT, COORDINATE CONNECTION WITH FINAL EQUIPMENT SELECTION.
- 2. COORDINATE DISCONNECTING MEANS AND STARTER WITH FINAL EQUIPMENT SELECTION.

## GENERAL SHEET NOTES

- A. REFER TO DRAWING E001 FOR SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.
- B. DRAWING SHOWS INTENT OF DESIGN, CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS PRIOR TO NEW WORK.
- C. BRANCH CIRCUIT RUNS ARE DIAGRAMMATIC. CONTRACTOR TO FIELD VERIFY BRANCH CIRCUITS PER PANELBOARD SCHEDULE AND THIS DRAWING, COORDINATE WITH COR.
- D. DISCONNECT SWITCH LOCATED OUTDOOR MUST BE PROVIDED WITH NEMA 4X ENCLOSURE.
- E. EXISTING PANEL AND CIRCUIT NUMBER INFORMATION IS BASED ON AS-BUILT DRAWINGS AND SITE VISIT IN JULY 2021, CONTRACTOR TO FIELD VERIFY PRIOR TO WORK.
- F. NEW DISCONNECT SWITCH AND MOTOR STARTER TO BE PROVIDED BY THE EQUIPMENT MANUFACTURER, COORDINATE WITH FINAL EQUIPMENT SELECTION FOR DISCONNECT SWITCH, STARTER TYPE AND INSTALLATION.
- G. CONTRACTOR MUST PROVIDE ALL CONDUIT, WIRING, AND REQUIRED APPARATUS TO ENSURE PROPER OPERATION OF THE NEW EQUIPMENT.

## SHEET NOTES ◊

1. EXTEND EXISTING CONDUIT AND WIRING TO NEW DISCONNECT SWITCH, PROVIDE NEW CONDUIT AND WIRING FROM NEW DISCONNECT SWITCH TO THE PANEL BOARD. WHERE EXTENDING EXISTING CONDUIT AND WIRING AT THE EXISTING LOCATION IS NOT FEASIBLE, PROVIDE NEW CONDUIT AND WIRING BETWEEN DISCONNECT SWITCH AND MOTOR, PROVIDE WEATHER PROOF ENCLOSURE WHERE DISCONNECT SWITCH IS EXPOSED TO EXTERIOR.
2. NEW MOTOR STARTER FURNISHED WITH EQUIPMENT AND MUST BE LOCATED AT THE SAME LOCATION AS THE EXISTING MOTOR STARTER. COORDINATE CONNECTION WITH NEW BRANCH CONDUIT AND WIRING TO NEW MOTOR STARTER. EXTEND AND RECONNECT EXISTING CONDUIT AND WIRING BETWEEN NEW MOTOR STARTER IN THE GENERATOR ROOM AND DISCONNECT SWITCH ON THE ROOF. PROVIDE NEW CONDUIT AND WIRING BETWEEN DISCONNECT SWITCH AND NEW MOTOR.
3. RECONNECT EXISTING CONDUIT AND WIRING BETWEEN EXISTING TOGGLE SWITCH IN MEN/WOMEN TOILETS ROOM 507 & 608 AND NEW EXHAUST FAN.
4. RECONNECT EXISTING CONTROL CONDUIT AND WIRING TO NEW MOTOR STARTER DISCONNECT SWITCH.

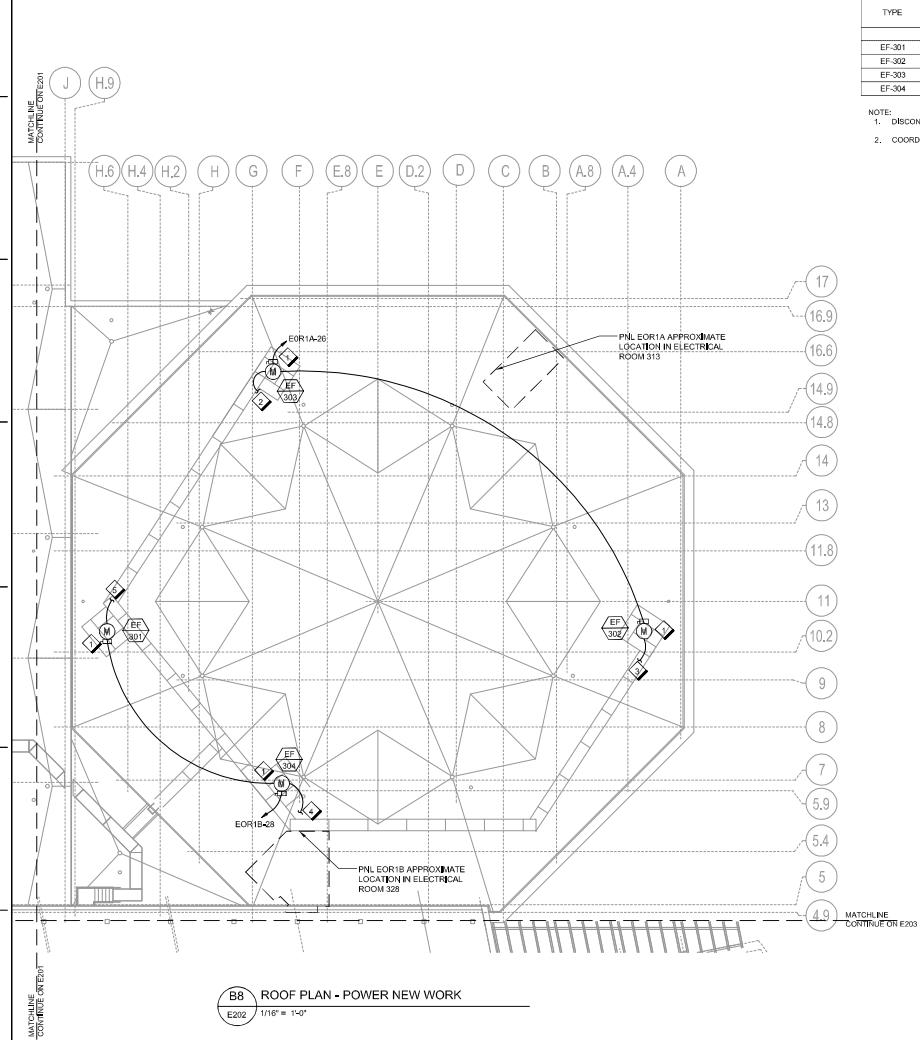


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ROOF PLAN - POWER NEW WORK

REVIEWED BY: SUBMITTED BY: APPROVED BY:  
SUBMITTER'S TITLE: APPROV'R'S TITLE:  
DESIGNED BY: K. LIVELY APPROV'R'S SIGNATURE:  
DESIGNED BY: D. RUSTAMOVA DATE: FEBRUARY 18, 2022  
CHECKED BY: J. ZHOU JO#: \_\_\_\_\_  
REVIEWED BY: ENGINEERING SERVICES TERMINAL REV.:  
DRAWING NO.: PCT-D-TRACON-E201

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### MECHANICAL EQUIPMENT SCHEDULE

TYPE	VOLTAGE	PHASE	HORSE POWER HP	FLC	PANEL	CIRCUIT NUMBER	MOCP	WIRE SIZE - PHASE	WIRE SIZE - GROUND	CONDUIT SIZE	NOTE
EF-301	115	1	1/6	4.4	EOR1B	28	20	#12 AWG	#12 AWG	3/4"	1.2
EF-302	115	1	1/6	4.4	EOR1A	26	20	#12 AWG	#12 AWG	3/4"	1.2
EF-303	115	1	1/10	1.3	EOR1A	26	20	#12 AWG	#12 AWG	3/4"	1.2
EF-304	115	1	1/10	1.3	EOR1B	28	20	#12 AWG	#12 AWG	3/4"	1.2

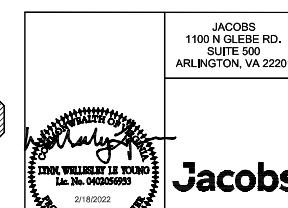
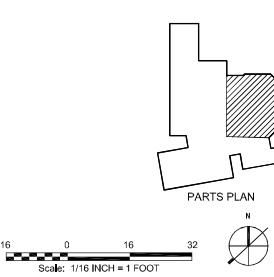
NOTE:  
1. DISCONNECT SWITCH AND MOTOR STARTER TO BE FURNISHED WITH EQUIPMENT. COORDINATE CONNECTION WITH FINAL EQUIPMENT SELECTION.  
2. COORDINATE DISCONNECTING MEANS AND STARTER WITH FINAL EQUIPMENT SELECTION.

### GENERAL SHEET NOTES

- A. REFER TO DRAWING E-001 FOR SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.
- B. DRAWINGS SHOW INTENT OF DESIGN, CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS PRIOR TO NEW WORK.
- C. BRANCH CIRCUIT RUNS ARE DIAGRAMMATIC. CONTRACTOR TO FIELD VERIFY BRANCH CIRCUITS PER PANELBOARD SCHEDULE AND THIS DRAWING. COORDINATE WITH CONDUIT.
- D. DISCONNECT SWITCH LOCATED OUTDOOR MUST BE PROVIDED WITH NEMA 4X ENCLOSURE.
- E. EXISTING PANEL AND CIRCUIT NUMBER INFORMATION IS BASED ON AS BUILT DRAWINGS AND SITE VISIT IN JULY 2021. CONTRACTOR TO FIELD VERIFY PRIOR TO WORK.
- F. NEW DISCONNECT SWITCH AND MOTOR STARTER TO BE PROVIDED BY THE EQUIPMENT MANUFACTURER, COORDINATE WITH FINAL EQUIPMENT SELECTION FOR DISCONNECT SWITCH, STARTER TYPE AND INSTALLATION.
- G. CONTRACTOR MUST PROVIDE ALL CONDUIT, WIRING, AND REQUIRED APPARATUS TO ENSURE PROPER OPERATION OF THE NEW EQUIPMENT.

### SHEET NOTES ↗

1. EXTEND EXISTING CONDUIT AND WIRING TO NEW DISCONNECT SWITCH. PROVIDE NEW CONDUIT AND WIRING FROM THE LAST COUPLING / JUNCTION BOX / PULL BOX TO NEW DISCONNECT SWITCH WHERE EXTENDING EXISTING CONDUIT AND WIRING AT THE EXISTING LOCATION IS NOT FEASIBLE. PROVIDE NEW CONDUIT AND WIRING BETWEEN DISCONNECT SWITCH AND MOTOR. PROVIDE WEATHER PROOF ENCLOSURE WHERE DISCONNECT SWITCH IS EXPOSED TO EXTERIOR.
2. RECONNECT EXISTING CONDUIT AND WIRING BETWEEN EXISTING TOGGLE SWITCH IN ROOM 313 AND NEW EXHAUST FAN. EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED.
3. RECONNECT EXISTING CONDUIT AND WIRING BETWEEN EXISTING TOGGLE SWITCH IN MEN/WOMEN TOILET ROOM 320 & 311 AND NEW EXHAUST FAN. EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED.
4. RECONNECT EXISTING CONDUIT AND WIRING BETWEEN EXISTING TOGGLE SWITCH IN ROOM 300 AND NEW EXHAUST FAN. EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED.
5. RECONNECT EXISTING CONDUIT AND WIRING BETWEEN EXISTING TOGGLE SWITCH IN MEN / WOMEN TOILETS ROOM 320 & 322 AND NEW EXHAUST FAN. EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED.



Jacobs

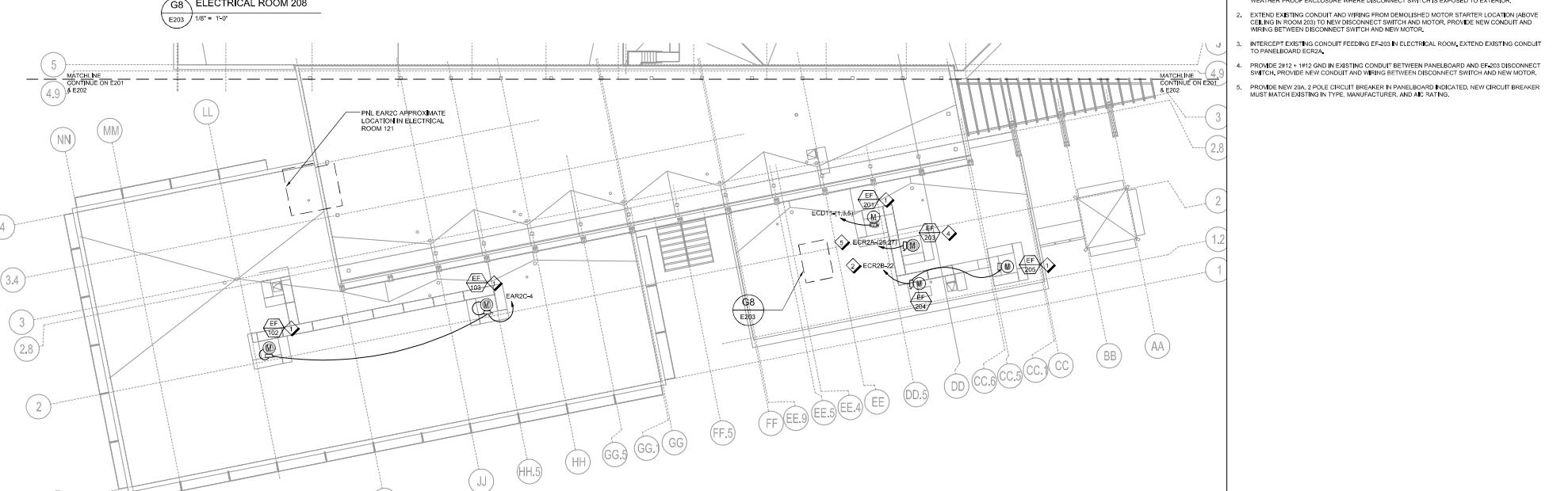
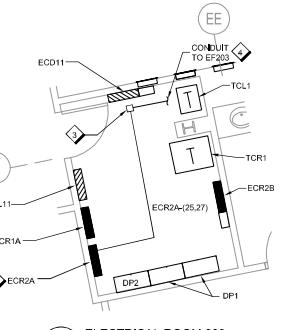
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PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552

REV.	APPROVED DATE	DESCRIPTION	JOID	REVIEW DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA ATLANTA, GA					
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT					
ROOF PLAN - POWER NEW WORK					
REVIEWED BY	SUBMITTED BY	APPROVED BY			
SUBMITTER'S TITLE					
DESIGNED BY	WILLIAM	DRAWN BY	WILLIAM	APPROVED'S TITLE	
CHIEF ENGINEER		CHIEF ENGINEER		DATE	FEbruary 18, 2022
REVIEWED BY	WILLIAM	REVIEWED BY	WILLIAM	JOID	
CHIEF ENGINEER		CHIEF ENGINEER		REV.	
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA					
REVIEWED BY	WILLIAM	REVIEWED BY	WILLIAM	APPROVED BY	
CHIEF ENGINEER		CHIEF ENGINEER		DATE	Februry 18, 2022
REVIEWED BY	WILLIAM	REVIEWED BY	WILLIAM	JOID	
CHIEF ENGINEER		CHIEF ENGINEER		REV.	
POTOMAC CONSOLIDATED TRACON - E202					

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## GENERAL SHEET NOTES

- A. REFER TO DRAWING E-001 FOR SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.
- B. DRAWING SHOWS INTENT OF DESIGN, CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS PRIOR TO NEW WORK.
- C. CONDUIT
- D. DISCONNECT SWITCH LOCATED OUTDOOR MUST BE PROVIDED WITH NEMA 4X ENCLOSURE.
- E. EXISTING PANEL AND CIRCUIT NUMBER INFORMATION IS BASED ON AS BUILT DRAWINGS AND SITE VISIT IN JULY 2021. CONTRACTOR TO FIELD VERIFY PRIOR TO WORK.
- F. NEW DISCONNECT SWITCH AND MOTOR STARTER TO BE PROVIDED BY THE EQUIPMENT MANUFACTURER, COORDINATE WITH LOCAL EQUIPMENT SELECTION FOR DISCONNECT SWITCH, STARTER TYPE AND INSTALLATION.
- G. CONTRACTOR MUST PROVIDE ALL CONDUIT, WIRING, AND REQUIRED APPARATUS TO ENSURE PROPER OPERATION OF THE NEW EQUIPMENT.



B8 ROOF PLAN - POWER NEW WORK  
E203 1/16" = 1'-0"

MECHANICAL EQUIPMENT SCHEDULE											
TYPE	VOLTAGE	PHASE	HORSE POWER HP	FLC	PANEL	CIRCUIT NUMBER	MOCP	WIRE SIZE - PHASE	WIRE SIZE - GROUND	CONDUIT SIZE	NOTE
EF-102	115	1	1/10	13	EAR2C	4	20	#12 AWG	#12 AWG	3/4"	1.2
EF-103	115	1	1/10	13	EAR2C	4	20	#12 AWG	#12 AWG	3/4"	1.2
EF-201	480	3	3/4	16	ECD11	1.35	15	#12 AWG	#12 AWG	3/4"	1.2
EF-203	208	1	8.8	8.8	EAR2A	25.27	20	#12 AWG	#12 AWG	3/4"	1.2
EF-204	115	1	1/4	5.8	EAR2B	22	20	#12 AWG	#12 AWG	3/4"	1.2
EF-205	115	1	1/4	5.8	EAR2B	22	20	#12 AWG	#12 AWG	3/4"	1.2

## NOTE:

1. DISCONNECT SWITCH AND MOTOR STARTER TO BE FURNISHED WITH EQUIPMENT, COORDINATE CONNECTION WITH FINAL EQUIPMENT SELECTION.
2. COORDINATE DISCONNECTING MEANS AND STARTER WITH FINAL EQUIPMENT SELECTION.

## SHEET NOTES

1. EXTEND EXISTING CONDUIT AND WIRING TO NEW DISCONNECT SWITCH, PROVIDE NEW CONDUIT AND WIRING FROM NEW DISCONNECT SWITCH TO NEW MOTOR. IF NEW DISCONNECT SWITCH WHERE EXTENDING EXISTING CONDUIT AND WIRING AT THE EXISTING LOCATION IS NOT FEASIBLE, PROVIDE NEW CONDUIT AND WIRING BETWEEN DISCONNECT SWITCH AND MOTOR, PROVIDE INSULATION AND MARKING FOR EXISTING CONDUIT AND WIRING WHERE DISCONNECT SWITCH IS EXPOSED TO EXTERIOR.
2. EXTEND EXISTING CONDUIT AND WIRING FROM DEMOLISHED MOTOR STARTER LOCATION (ABOVE CEILING IN ROOM 203) TO NEW DISCONNECT SWITCH AND NEW MOTOR.
3. INTERRUPT EXISTING CONDUIT FEEDING EF-203 IN ELECTRICAL ROOM, EXTEND EXISTING CONDUIT TO PANELBOARD EAR2A.
4. PROVIDE 2W12 + 1H12 GND IN EXISTING CONDUIT BETWEEN PANELBOARD AND EF-203 DISCONNECT SWITCH, PROVIDE NEW CONDUIT AND WIRING BETWEEN DISCONNECT SWITCH AND NEW MOTOR.
5. PROVIDE NEW 20A, 2 POLE CIRCUIT BREAKER IN PANELBOARD INDICATED, NEW CIRCUIT BREAKER MUST MATCH EXISTING IN TYPE, MANUFACTURER, AND AIC RATING.

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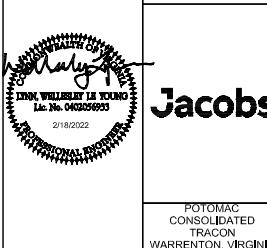
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DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
EASTERN SERVICE AREA ATLANTA, GA

POTOMAC CONSOLIDATED TRACON  
ROOF REPLACEMENT

ROOF PLAN - POWER NEW WORK

JACOBS  
1100 N GLEB RD.  
SUITE 500  
ARLINGTON, VA 22201



Jacobs

REVIEWED BY	SUBMITTED BY	APPROVED BY
SUBMITTER'S TITLE		
SUPERVISOR'S SIGNATURE		
APPROVING SIGNATURE		
DRAWN BY	DESIGNED BY	APPROVED BY
DRAWN BY	DESIGNED BY	APPROVING SIGNATURE
CHIEF CIVIL ENGINEER	STRUCTURAL ENGINEER	APPROVING SIGNATURE
DATE	DATE	DATE
DRAWING NO.	DRAWING NO.	DRAWING NO.
REV.	REV.	REV.

POTOMAC CONSOLIDATED TRACON  
WARRENTON, VIRGINIA

PCT-D-TRACON-E203

Scale: 1/16 INCH = 1 FOOT

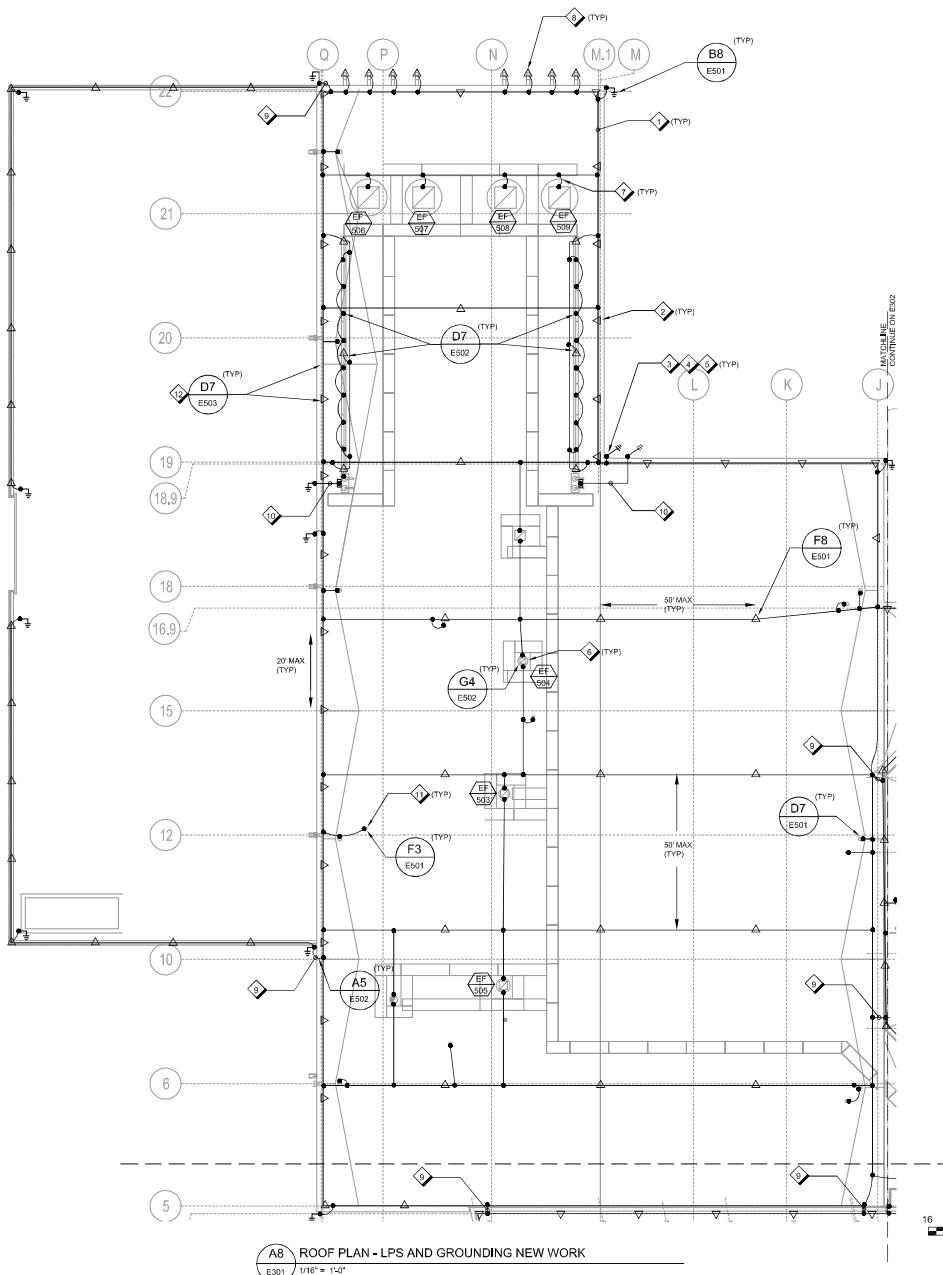
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KEY NORTH

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**LIGHTNING PROTECTION SYSTEM (LPS) REPLACEMENT WORK**  
MUST BE DONE IN PHASES ACCORDING TO ROOF  
PHASING PLAN. CONTRACTOR MUST FIELD VERIFY EXISTING  
CONDITIONS PRIOR TO NEW WORK.  
ALL ROOF EXPOSED METALLIC BODIES, SUCH AS EQUIPMENT ENCLOSURES, MECHANICAL  
PIPE, HVAC DUCTWORK, AND GUARD RAIL ASSEMBLIES MUST BE BONDED TO THE  
LIGHTNING PROTECTION SYSTEM.  
WHERE NEW LPS IS INSTALLED, TIE THE NEW LPS TO THE  
ADJACENT EXISTING LPS ON EXISTING ROOF UNTIL THE  
ROOF AND LPS ARE REPLACED TO MAINTAIN CONTINUITY  
OF THE LPS AT ALL TIME, PROVIDE PERMANENT  
CONNECTION BETWEEN THE ROOFS ONCE THE NEW LPS  
AND ROOF ARE INSTALLED.  
CONTRACTOR MUST MAINTAIN CONTINUITY OF THE LPS AT  
ALL TIMES.

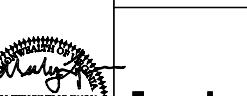
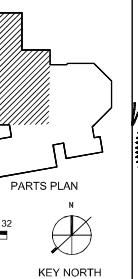
- A. REFER TO DRAWING E-001 FOR SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.  
B. DRAWING SHOWS INTENT OF DESIGN, CONTRACTOR MUST FIELD VERIFY EXISTING  
CONDITIONS PRIOR TO NEW WORK.  
C. ALL ROOF EXPOSED METALLIC BODIES, SUCH AS EQUIPMENT ENCLOSURES, MECHANICAL  
PIPE, HVAC DUCTWORK, AND GUARD RAIL ASSEMBLIES MUST BE BONDED TO THE  
LIGHTNING PROTECTION SYSTEM.  
D. PROVIDE CLASS II GRADE SYSTEM COMPONENTS IN ACCORDANCE WITH NFPA 780  
REQUIREMENTS FOR CLASS II SYSTEM INSTALLATIONS.  
E. LIGHTNING PROTECTION SYSTEM COMPONENT, INCLUDING BUT NOT LIMITED TO, BONDING  
CONNECTION, AIR TERMINALS, PIPE CLAMP, MECHANICAL CLAMP, ETC. MUST BE UL LISTED 98.  
F. WHERE ALUMINUM MATERIAL IS PRESENT, PROVIDE COMPATIBLE MATERIAL, PROVIDE  
BIMETALLIC CONNECTOR AS REQUIRED.  
G. CONTRACTOR TO TRENCH WITH CAUTION TO MINIMIZE THE AREA OF DISTURBANCE FOR  
CONNECTION OF NEW DOWN CONDUCTORS TO EXISTING COUNTERPOISE SYSTEM.  
H. CONTRACTOR MUST COORDINATE LPS INSTALLATION WITH REROOFING PHASING PLAN.

**SHEET NOTES**

1. ALL LIGHTNING PROTECTION SYSTEM (LPS) CONDUCTOR, INCLUDING PRIMARY CONDUCTOR, BONDING CONDUCTOR AND DOWN CONDUCTOR MUST BE CLASS II RATED MATERIAL.
2. AIR TERMINALS MUST BE 12-IN HIGH MINIMUM WITH A DIAMETER OF AT LEAST 1/2 INCH FOR COPPER AIR TERMINALS MUST EXTEND AT LEAST 1 INCH ABOVE THE OBJECT OR AREA IT IS TO PROTECT.
3. PROVIDE TWO DOWN CONDUCTORS FROM THE LIGHTNING PROTECTION SYSTEM (LPS) ON THE ROOF TO THE EXISTING UNDERGROUND EARTH ELECTRODE SYSTEM (SES). EXISTING GROUND ROD AND #4/2 BARE COPPER CONDUCTOR CONNECTED BETWEEN DOWN CONDUCTOR AND EXISTING #4/2 UNDERGROUND BARE COPPER CONDUCTOR MUST BE DONE WITH EXOTHERMIC WELDING, COORDINATE WITH THE FACILITY REPRESENTATIVES AND COR BEFORE TRENCHING AND PERFORMING EXOTHERMIC WELDING.
4. DOWN CONDUCTORS MUST BE ROUTED IN A SCHEDULE 40 PVC CONDUIT, CONDUIT MUST PROVIDED FROM 1 FT BELOW GRADE LEVEL EXTENDING TO 6 FT ABOVE GRADE.
5. DOWN CONDUCTORS MUST BE CONNECTED TO A #4/0 AWG COPPER CONDUCTOR PRIOR TO ENTERING THE GROUND AT NOT LESS THAN 18 INCHES ABOVE GRADE.
6. PROVIDE AIR TERMINALS ON THE EXHAUST FANS AND CONNECT TO THE LPS PRIMARY CONDUCTOR, REFER TO DETAIL.
7. PROVIDE BONDING FROM THE LPS CONDUCTOR TO THE GENERATOR EXHAUST FANS WITH MECHANICAL CLAMP.
8. PROVIDE AIR TERMINALS ON THE EXISTING FLUES AND CONNECT TO THE LPS PRIMARY CONDUCTOR, PROVIDE UL LISTED PIPE CLAMP WITH AIR TERMINAL BASE FOR MOUNTING.
9. TRANSITION OF DOWN CONDUCTORS FROM UPPER ROOF TO LOWER ROOF.
10. PROVIDE BIPOLAR #4/0 AWG COPPER CONDUCTORS WITH COLOR CODED GREEN/WHTRED TRACER FROM BULKHEAD GROUND PLATE TO THE ECG FASTEN CONDUCTOR TO ROOF AND EXTERIOR WALL, COORDINATE WITH CON FOR ACCESS TO BULKHEAD GROUND PLATE AND TIME FRAME TO PERFORM CONNECTION TO THE GROUND PLATE.
11. PROVIDE BONDING BETWEEN LPS AND EXISTING VENTILATION PIPE WITH STRAP TYPE PIPE CLAMP.
12. WHERE GUARDRAIL IS PROVIDED ON THE ROOF, AIR TERMINALS MUST BE MOUNTED ON THE GUARDRAIL, WHERE GUARDRAIL IS NOT PROVIDED, INSTALL AIR TERMINALS ON THE PARAPET, CONNECT AIR TERMINAL TO THE PRIMARY LIGHTNING PROTECTION CONDUCTOR. REFER TO ARCHITECTURE PLAN FOR GUARDRAIL LOCATION.

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REVISION DATE	APPROVED DATE	DESCRIPTION	JOB NO.	PEN IN DATE	APPROV'D
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA ATLANTA, GA					
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT					
Jacobs					
ROOF PLAN - LPS AND GROUNDING NEW WORK					
PREPARED BY	SUBMITTED BY	APPROVED BY			
SUBMITTER'S TITLE		APPROV'D TITLE			
DESIGNED BY	COL. JULIA	DESIGNER	COL. JULIA	APPROV'D	REV.
DRAWN BY	D. BURTON	DRAWN BY	D. BURTON	DATE: FEBRUARY 15, 2022	REV.
CHIEFED BY	L. COLE	CHIEFED BY	L. COLE	DRAWING NO.	REV.
POTOMAC CONSOLIDATED TRACON WARRENTON, VIRGINIA					
PCT - D - TRACON - E301					



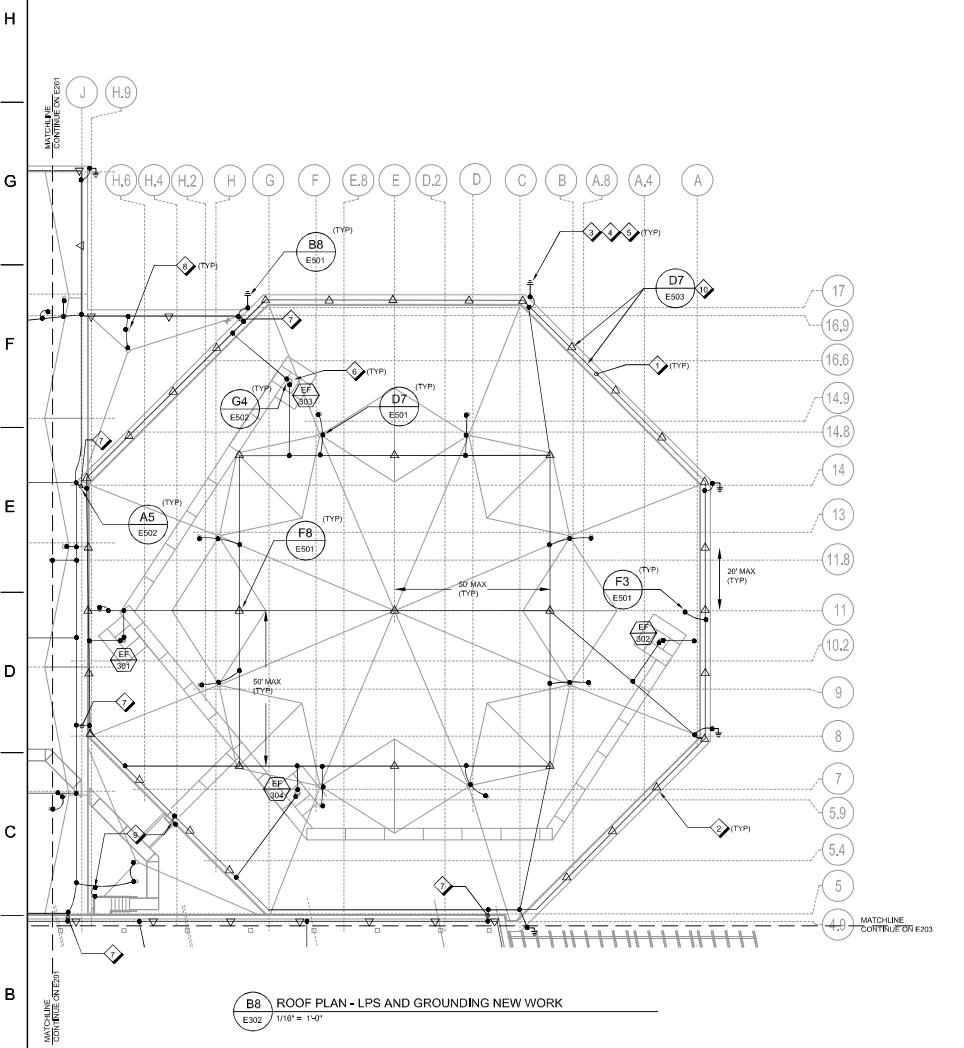
2/18/2022  
DRAFT, WILL NOT BE USED  
Jacobs  
Engineering Services Terminal  
POTOMAC CONSOLIDATED TRACON  
WARRENTON, VIRGINIA

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**LIGHTNING PROTECTION SYSTEM (LPS) REPLACEMENT WORK**  
MUST BE DONE IN PHASES ACCORDING TO ROOF  
REROOFING PHASING PLAN. THE LPS REPLACEMENT AND  
NEW WORK WILL BE CONCURRENT TO THE REROOFING  
WORK (AREA BY AREA). CONTRACTOR MUST NOT REMOVE  
ANY LPS PRIOR TO CONFIRMING THE REROOFING WORK  
AREA.

WHERE NEW LPS IS INSTALLED, RE THE NEW LPS TO THE  
ADJACENT EXISTING LPS ON EXISTING ROOF UNTIL THE  
ROOF AND LPS ARE REPLACED TO MAINTAIN CONTINUITY  
OF THE LPS AT ALL TIME, PROVIDE PERMANENT  
CONNECTION BETWEEN THE ROOFS ONCE THE NEW LPS  
AND ROOF ARE INSTALLED.

CONTRACTOR MUST MAINTAIN CONTINUITY OF THE LPS AT  
ALL TIME.

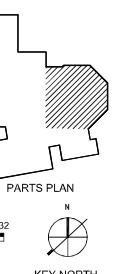
- A. REFER TO DRAWING E-001 FOR SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.
- B. DRAWINGS SHOWS INTENT OF DESIGN. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS PRIOR TO NEW WORK.
- C. ALL ROOF EXPOSED METALLIC BOODIES, SUCH AS EQUIPMENT ENCLOSURES, MECHANICAL PIPING, HYDRAULIC DUCTWORK, AND GUARD RAIL ASSEMBLIES MUST BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.
- D. PROVIDE CLASS II GRADE SYSTEM COMPONENTS IN ACCORDANCE WITH NFPA 780 REQUIREMENTS FOR CLASS II SYSTEM INSTALLATIONS.
- E. LIGHTNING PROTECTION SYSTEM COMPONENTS, INCLUDING BUT NOT LIMITED TO, BONDING CONNECTION, AIR TERMINALS, PIPE CLAMP, MECHANICAL CLAMP, ETC, MUST BE UL LISTED 95.
- F. WHERE ALUMINUM MATERIAL IS PRESENT, PROVIDE COMPATIBLE MATERIAL, PROVIDE BI-METALLIC CONNECTOR AS REQUIRED.
- G. CONTRACTOR TO TRENCH WITH CAUTION TO MINIMIZE THE AREA OF DISTURBANCE FOR CONNECTION OF NEW DOWN CONDUCTORS TO EXISTING COUNTERPOISE SYSTEM.
- H. CONTRACTOR MUST COORDINATE LPS INSTALLATION WITH REROOFING PHASING PLAN.

#### SHEET NOTES

1. ALL LIGHTNING PROTECTION SYSTEM (LPS) CONDUCTOR, INCLUDING PRIMARY CONDUCTOR, BONDING CONDUCTOR AND DOWN CONDUCTOR MUST BE CLASS II RATED MATERIAL.
2. AIR TERMINALS MUST BE 12-IN HIGH MINIMUM, WITH A DIAMETER OF AT LEAST 1/2 INCH FOR COPPER, AIR TERMINALS MUST EXTEND AT LEAST 10 INCH ABOVE THE OBJECT OR AREA IT IS TO PROTECT.
3. PROVIDE AND BOND DOWN CONDUCTORS FROM THE LIGHTNING PROTECTION SYSTEM (LPS) ON THE ROOF TO THE EXISTING UNDERGROUND EARTH ELECTRODE SYSTEM (LES). EXISTING GROUNDING ROD AND #4 AWG BAR/COPPER CONDUCTOR, CONNECTION BETWEEN DOWN CONDUCTOR AND EXISTING IMPERFECT BARE COPPER CONDUCTOR MUST BE DONE WITH EXOTHERMIC WELDING, COORDINATE WITH THE FACILITY REPRESENTATIVES AND COR BEFORE PERFORMING EXOTHERMIC WELDING.
4. DOWN CONDUCTORS MUST BE ROUTED IN A SCHEDULE 40 PVC CONDUIT, CONDUIT MUST PROVIDED FROM 1 FT BELOW GRADE LEVEL EXTENDING TO 6 FT ABOVE GRADE.
5. DOWN CONDUCTORS MUST BE CONNECTED TO A #4 AWG COPPER CONDUCTOR PRIOR TO ENTERING THE GROUND AT NOT LESS THAN 18 INCHES ABOVE GRADE.
6. PROVIDE AIR TERMINALS ON THE EXHAUST FANS AND CONNECT TO THE LPS PRIMARY CONDUCTOR, REFER TO DETAIL.
7. TRANSITION OF DOWN CONDUCTORS FROM UPPER ROOF TO LOWER ROOF.
8. PROVIDE BONDING BETWEEN LPS AND EXISTING VENTILATION PIPE AND ROOF DRAIN WITH STRAP TYPE PIPE CLAMP AND MECHANICAL CLAMP.
9. PROVIDE BONDING BETWEEN LPS AND EXISTING METAL STAIR, PROVIDE MECHANICAL CLAMP AT STAIR.
10. WHERE GUARDRAIL IS PROVIDED ON THE ROOF, AIR TERMINALS MUST BE MOUNTED ON THE GUARDRAIL. WHERE GUARDRAIL IS NOT PROVIDED, INSTALL AIR TERMINALS ON THE PARAPET. CONNECT AIR TERMINALS TO THE PRIMARY LIGHTNING PROTECTION CONDUCTOR, REFER TO ARCHITECTURE PLAN FOR GUARDRAIL LOCATION.

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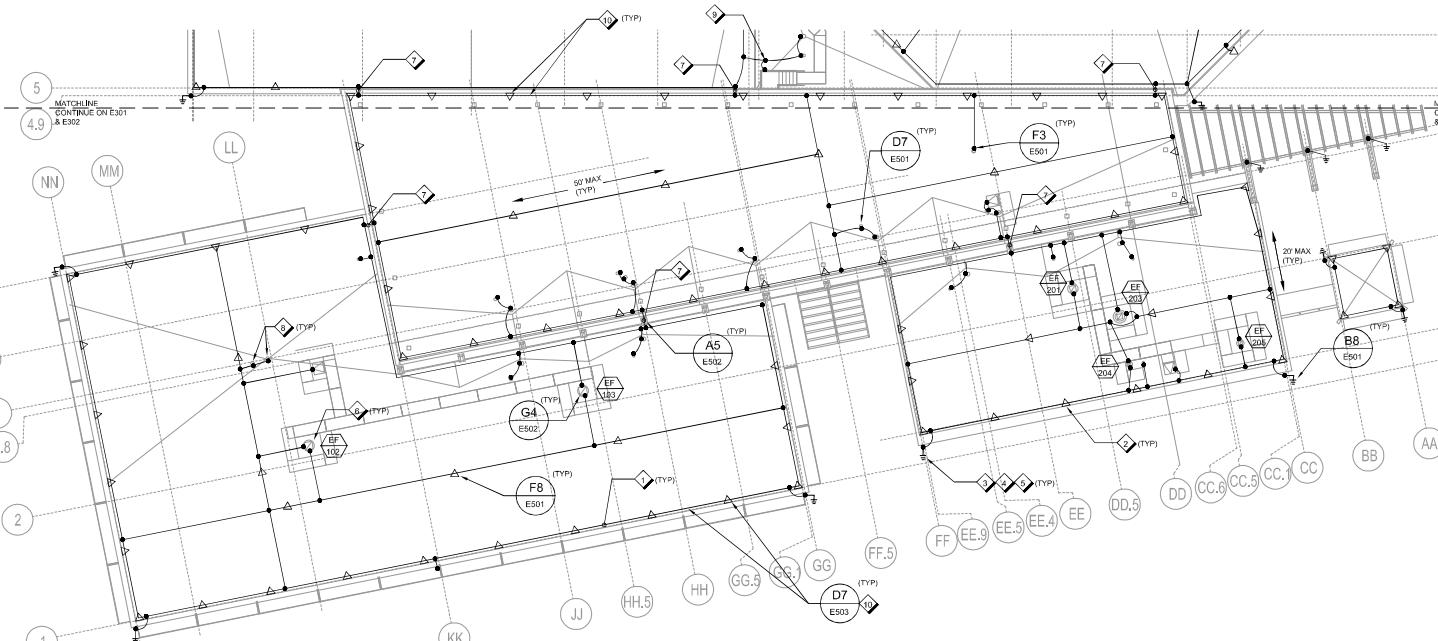
REV.	APPROVED DATE	DESCRIPTION	JDN	PEN IN DATE	APVD																								
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA ATLANTA, GA																													
POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT																													
Jacobs																													
ROOF PLAN - LPS AND GROUNDING NEW WORK																													
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DATE: FEBRUARY 15, 2022	JDN:																												
DRAWING NO. UZ7801																													
PCT - D - TRACON - E302																													
REV.																													



Scale: 1/16 INCH = 1 FOOT

KEY NORTH

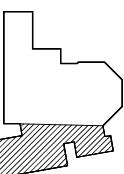
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B8 ROOF PLAN - LPS AND GROUNDING NEW WORK

B8  
E303  
1/16" = 1'-0"

Scale: 1/16 INCH = 1 FOOT

PARTS PLAN  
N

Jacobs

JACOBS  
1100 N GLEBE RD.  
SUITE 500  
ARLINGTON, VA 22201

REVIEWED BY	SUBMITTED BY	APPROVED BY
SUBMITTER'S TITLE		
DESIGNED BY T.Y. Young, Inc.	DATE FEBRUARY 18, 2022	JDN
DRAWN BY G. J. Galloway	ISSUED BY ENGINEERING SERVICES TERMINAL	REV. PCT-D-TRACON-E303

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PUBLIC AVAILABILITY TO BE DETERMINED UNDER 5 USC 552DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
EASTERN SERVICE AREA  
ATLANTA, GAPOTOMAC CONSOLIDATED TRACON  
ROOF REPLACEMENT

ROOF PLAN - LPS AND GROUNDING NEW WORK

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PHOTO FOR REFERENCE ONLY.

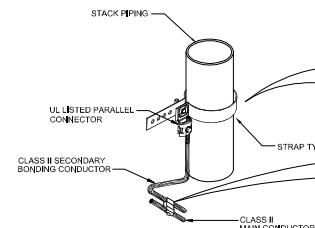
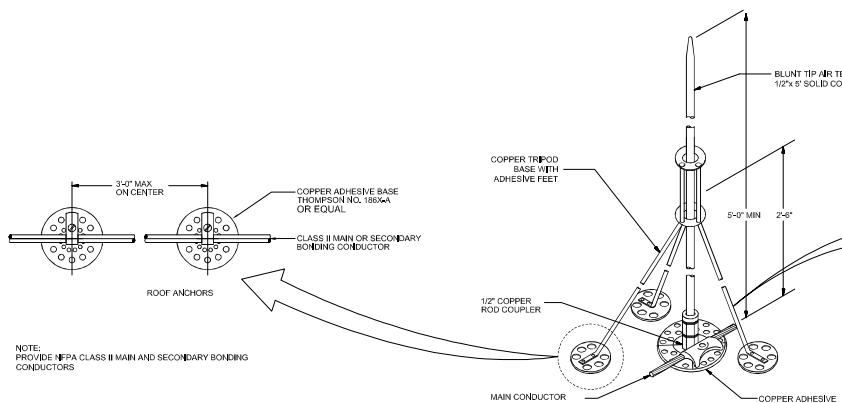


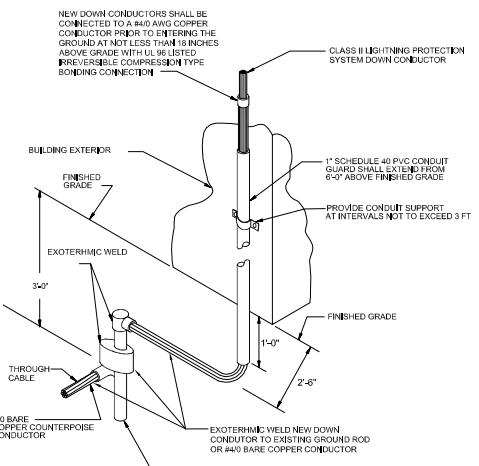
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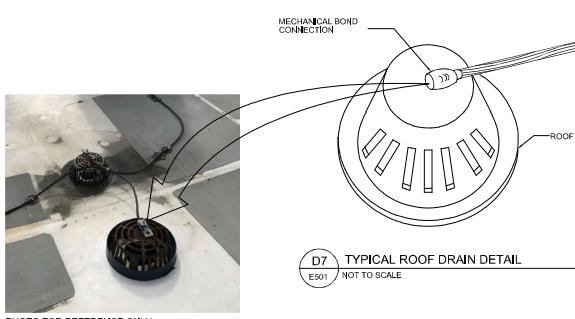
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**F8** AIR TERMINAL MOUNTING DETAIL (ON FLAT ROOF)  
E501 NOT TO SCALE



**B8** TYPICAL DOWN CONDUCTOR CONNECTION DETAIL  
E501 NOT TO SCALE



**D7** TYPICAL ROOF DRAIN DETAIL  
E501 NOT TO SCALE

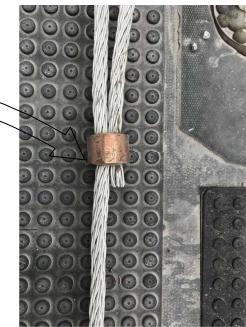
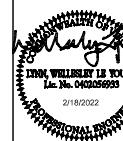


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#### GENERAL SHEET NOTES

- A. COORDINATE WITH THE FACILITY REPRESENTATIVES AND COR BEFORE PERFORMING EXOTHERMIC WELDING.
- B. ALL ROOF EXPOSED METALLIC BODIES, SUCH AS EQUIPMENT ENCLOSURES, MECHANICAL PIPING, HVAC DUCTWORK, AND GUARDRAIL ASSEMBLIES MUST BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.
- C. PROVIDE CLASS II GRADE SYSTEM COMPONENTS IN ACCORDANCE WITH NFPA 780 REQUIREMENTS FOR CLASS II SYSTEM INSTALLATIONS.
- D. LIGHTNING PROTECTION SYSTEM COMPONENTS, INCLUDING BUT NOT LIMITED TO, BONDING CONNECTION, AIR TERMINALS, PIPE CLAMP, MECHANICAL CLAMP, ETC, MUST BE UL LISTED 96.
- E. WHERE ALUMINUM MATERIAL IS PRESENT, PROVIDE COMPATIBLE MATERIAL, PROVIDE BI-METALLIC CONNECTOR AS REQUIRED.
- F. ABOVE GRADE CONDUCTOR CONNECTOR SHALL BE PARALLEL TYPE CONNECTOR OR UL 96 LISTED IRREVERSIBLE COMPRESSION TYPE BONDING CONNECTION TO PROVIDE UNIFORM PRESSURE ALONG THE SURFACE OF THE CONDUCTOR AND CONNECTORS,

JACOBS  
1100 N GLEBE RD.  
SUITE 500  
ARLINGTON, VA 22201



DR. WILLIS L. YOUNG  
E.I.T. No. 04025693  
2/18/2022

**Jacobs**

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POTOMAC CONSOLIDATED TRACON  
ROOF REPLACEMENT

ELECTRICAL DETAILS

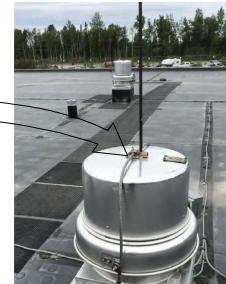
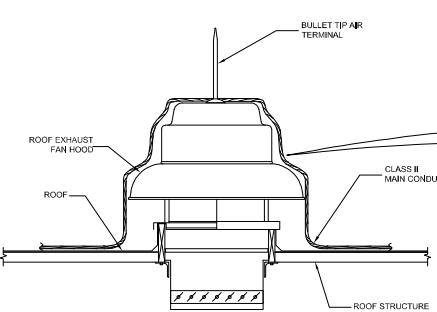
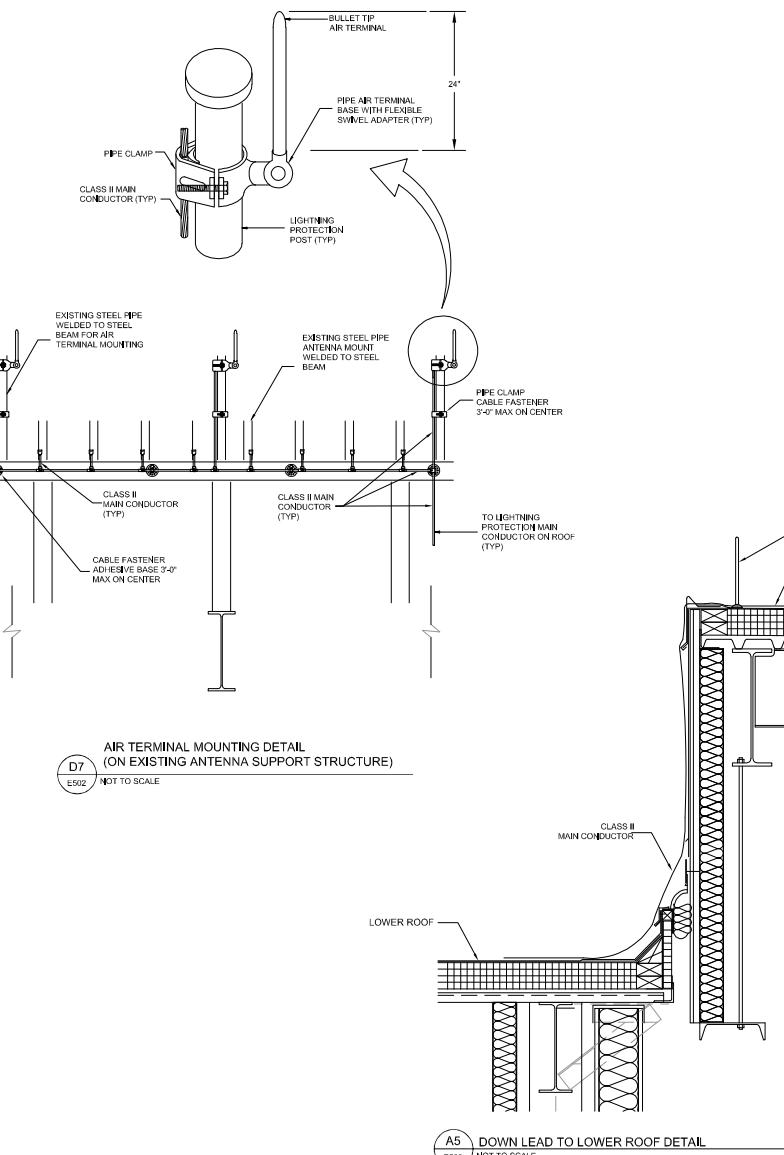
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CHOOSED BY	A. J. ALEXANDER	DRAWING NO. PCT-D-TRACON-E501
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#### GENERAL SHEET NOTES

- COORDINATE WITH THE FACILITY REPRESENTATIVES AND COR BEFORE PERFORMING EXOTHERMIC WELDING.
- ALL ROOF POSITIVE METALLIC BODIES, SUCH AS EQUIPMENT, BRIDGES, MECHANICAL SPANNING HEADS, DUCTWORK, AND GUARDRAIL ASSEMBLIES MUST BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.
- PROVIDE CLASS II GRADE SYSTEM COMPONENTS IN ACCORDANCE WITH NFPA 780 REQUIREMENTS FOR CLASS II SYSTEM INSTALLATIONS.
- LIGHTNING PROTECTION SYSTEM COMPONENT INCLUDING BUT NOT LIMITED TO, BONDING CONNECTION, AIR TERMINALS, PIPE CLAMP, MECHANICAL CLAMP, ETC, MUST BE UL LISTED OR APPROVED.
- WHERE ALUMINUM MATERIAL IS PRESENT, PROVIDE COMPATIBLE MATERIAL, PROVIDE BHIMETALLIC CONNECTOR AS REQUIRED.
- ABOVE GRADE CONDUCTOR CONNECTOR SHALL BE PARALLEL TYPE CONNECTOR, OR UL 86 LISTED IRREVERSIBLE COMPRESSION TYPE BONDING CONNECTION TO PROVIDE UNIFORM PRESSURE ALONG THE SURFACE OF THE CONDUCTOR AND CONNECTORS.

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APPROVED BY <i>[Signature]</i>	DESCRIPTION JDN REC'D DATE AP'D
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POTOMAC CONSOLIDATED TRACON ROOF REPLACEMENT	
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APPROVED BY <i>[Signature]</i>	APPROV'D TITLE DATE FEBRUARY 16, 2022 JDN:
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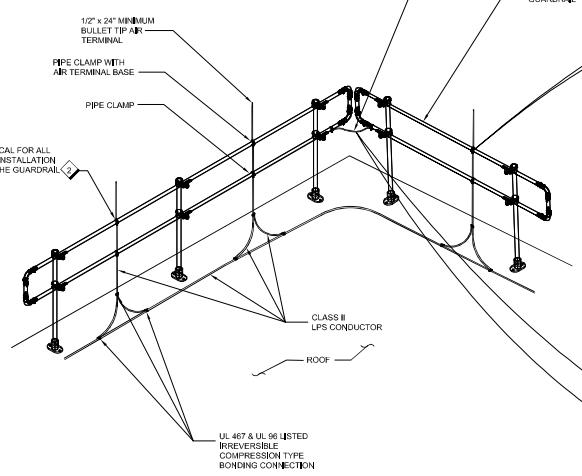
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ATLANTA, GA

POTOMAC CONSOLIDATED TRACON  
ROOF REPLACEMENT

ELECTRICAL DETAILS

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TYPICAL AIR TERMINAL MOUNTING DETAIL  
(ON GUARDRAIL SUPPORT STRUCTURE)  
D7  
E502 NOT TO SCALE



GENERAL SHEET NOTES	
A. COORDINATE WITH THE FACILITY REPRESENTATIVES AND COR BEFORE PERFORMING EXOTHERMIC WELDING.	
B. ALL ROOF EXPOSED METALLIC BODIES, SUCH AS EQUIPMENT ENCLOSURES, MECHANICAL PIPING, ROOFING, AND GUARDRAIL ASSEMBLIES MUST BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.	
C. PROVIDE CLASS II GRADE SYSTEM COMPONENTS IN ACCORDANCE WITH NFPA 780 REQUIREMENTS FOR CLASS II SYSTEM INSTALLATIONS.	
D. LIGHTNING PROTECTION SYSTEM COMPONENT, INCLUDING BUT NOT LIMITED TO, BONDING CONNECTION, AIR TERMINALS, PIPE CLAMP, MECHANICAL CLAMP, ETC. MUST BE UL LISTED 95.	
E. WHERE ALUMINUM MATERIAL IS PRESENT, PROVIDE COMPATIBLE MATERIAL, PROVIDE BI-METALLIC CONNECTOR AS REQUIRED.	
F. ABOVE GRADE CONDUCTOR CONNECTOR SHALL BE PARALLEL TYPE CONNECTOR OR UL 96 LISTED IRREVERSIBLE COMPRESSION TYPE BONDING CONNECTION TO PROVIDE UNIFORM PRESSURE ALONG THE SURFACE OF THE CONDUCTOR AND CONNECTORS.	
SHEET NOTES ◇	
1. PROVIDE BONDING JUMPER BETWEEN SECTIONS OF GUARDRAIL, COORDINATE WITH FINAL SELECTED GUARDRAIL.	
2. STRIP BACK THE GALVANIZING TO GET A GOOD METAL TO METAL CONNECTION, APPLY A GALVANIZING SPRAY AFTER THE CONNECTION TO KEEP THE HANDRAIL SYSTEM INTACT, COORDINATE WITH FINAL SELECTED GUARDRAIL.	

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