# AASF & Cold Storage Hangar LED Lighting, POV and MVC Expansion Whiteman Air Force Base Knob Noster, Missouri

### CLARK& ENERSEN

OWNER: STATE OF MISSOURI

MICHAEL L. PARSON,

**GOVERNOR** 

**DEPARTMENT OF PUBLIC** 

**SAFETY** 

MISSOURI ARMY NATIONAL

**GUARD** 

PROJECT
MANAGEMENT:

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES

MANAGEMENT, DESIGN AND

CONSTRUCTION



Project LocationOne Attack AvenueKnob Noster, MO 65305

DESIGNER: CLARK & ENERSEN

PROJECT NUMBER: T2045-01
A/E PROJECT NUMBER: 050-010-20

SITE NUMBER: 6258

ASSET NUMBER: 8136258001 & 8136258003

#### REFERENCE SYMBOLS

1 A101 SIM DETAIL OR SECTION NUMBER SHEET ON WHICH IT IS FOUND

1 VIEW NAME

DETAIL REFERENCE NUMBER

SECTION REFERENCE

DETAIL REFERENCE

**ELEVATION REFERENCE** 

CROSS SECTION REFERENCE

DETAIL SECTION REFERENCE

ROOM IDENTIFIER

DOOR/OPENING IDENTIFIER

1t

WINDOW/OPENING IDENTIFIER



**ELEVATION REFERENCE** 

**GRID LINE** 

WALL TYPE REFERENCE



**REVISION TAG & CLOUD INDICATOR** 



B = Bid Package

D = Construction Change Directive or Change Directive F = Field Order

G = Guaranteed Maximum Price I = Architects Supplemental Instructions or Architects Supplemental

L = Information P = Limited Permit

R = Proposal Request, Proposal Request Order or Change Proposal Request BOT = Request For Information Number assigned to instrument type

#### GENERAL NOTES

- 1. ALL DISCIPLINES SHALL BE RESPONSIBLE FOR THEIR SCOPE OF WORK. THIS WORK IS TO BE SCHEDULED AND COMPLETED WITH THE GENERAL CONTRACTOR'S FULL KNOWLEDGE.
- ALL WORK TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF CODES AND STANDARDS (INCLUDING THE AMERICANS WITH DISABILITIES ACT (ADAAG), INTERNATIONAL BUILDING CODE (IBC), NATIONAL FIRE PROTECTION AGENCY (NFPA 101), ASHRAE STANDARD 90.1, AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AND THE SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
- FINAL CLEANING REMOVE OR REPAIR DAMAGED OR SOILED SPOTS ON NEWLY PAINTED WALLS AND ON ALL NEWLY INSTALLED WORK. REMOVE DUST AND DEBRIS FROM ALL

#### STANDARD ABBREVIATIONS

ARCHITECT/ENGINEERANCHOR BOLT RABBREVIATE	CONTR COORD COORDINATE COORD COORDINATE CORR CORRIDOR COV PL COVER PLATE CPRS COMPRESSIBLE CPT CARPET CRCMF CIRCUMFERENCE CRS COLD ROLLED STEEL CSG CASING CSK COUNTERSUNK CSMT CASEMENT CSWK CASEWORK CT CERAMIC TILE CTV CABLE TELEVISION CUB CUBRED COLD WATER DBL GLZ DOUBLE GLAZING DEPT DEPARTMENT DET DETAIL DF DRINKING FOUNTAIN DF DRAPERY FABRIC DFR DOUBLE HUNG DIA DIMETER DIM DIMETER DIM DIMETER DIM DIMENSION DIST DISTANCE DIV DEIONIZED WATER DJ DOUBLE JOIST DL DEAD LOAD DL DRAPERY LINER DMP DOUBLE JOIST DL DEAD LOAD DL DRAPERY LINER DMP DAMPPROOFING DN DAMPPROOFING DN DOWN DO DITTO
R ABBREVIATE ABOVE AROVE AROVE AROVE AROVE AROUSTIONING DRES ACID-RESISTANT DUS ACOUSTICAL DUS INSUL ACOUSTICAL INSULATION DUS PNL ACOUSTICAL PANEL DUS PLAS ACOUSTICAL PLASTER DUS TILE ACOUSTICAL TILE ACTUAL AREA DRAIN C AUTOMATIC DOOR CLOSER ADDITIONAL ADDENDUM ADJUSTABLE C ADJACENT ACCESS FLOOR ABOVE FINISHED FLOOR ABOVE FINISHED SLAB	CORR COV PL COMPRESSIBLE
D RESACID-RESISTANT	CPT CRCMF CIRCLIMERERINGE
OUS INSUL ACOUSTICAL INSULATION ACOUSTICAL PANEL	CRSCOLD ROLLED STEEL CSGCASING
DUS PLASACOUSTICAL PLASTER DUS TILEACOUSTICAL TILE	CSKCOUNTERSUNK CSMTCASEMENT
ACTUAL AREA DRAIN	CSWKCASEWORK
AUTOMATIC DOOR CLOSER L ADDITIONAL	CIVCABLE TELEVISION CUBCUBICLE CUBPENT
ADJUSTABLE ADJUSTABLE C	CURCURRENT CWCOLD WATER DRI GLZ DOUBLE GLAZING
ACCESS FLOOR ABOVE FINISHED ELOOR	DEPATMENT DET DEPATMENT DET
ABOVE FINISHED GRADE ABOVE FINISHED SLAB	DF
GRAGGREGATE RANCHOR	DFRDOOR FRAME DHDOUBLE HUNG
ABOVE FINISHED GRADE	DIADIAMETER DIMDIMENSION
ALARM ALTERNATE	DISTDISTANCE DIVDIVIDER
MALUMINUM BAMBIENT	DIW
AMBIENT AMPLIFIER AMOUNT ANNUNCIATOR	DL DRAPERY LINER DMDE DAMPPROGENIC
DDANODIZED ANTENNA	DN DO DITTO
ANNUNCIATOR D ANODIZED ANTENNA ACCESS PANEL ACOUSTICAL PANEL CELLING X	DR DOOR DR DRAIN
X APPENDIX CH ARCHITECT (URAL) ASBESTOS ABOVE SUSPENDED CEILING	DRCLSR DOOR CLOSURE DS DOWNSPOUT
ASBÈSTOŚ ABOVE SUSPENDED CEILING	DSTDOOR STOP DTDRAIN TILE
HASPHALT MASYMMETRICAL AUDIO VISUALE	DUPLDUPLICATE DVTLDOVETAIL
AVENUE ACCUSTICAL WALL COVERING	DWDISHWASHER DWGDRAWING
ACOUSTICAL WALL COVERING ACOUSTICAL WALL PANEL BALLED AND BURLAPPED BAFFI F	DIL DRAPERY LINER DMPF DAMPPROOFING DN DOWN DO DITTO DR DOOR DR DRAIN DRCLSR DOOR CLOSURE DS DOWNSPOUT DST DOOR STOP DT DRAIN TILE DUPL DUPLICATE DVTL DOVETAIL DW DISHWASHER DWG DRAWING DWL DOWEL DWR DRAWER DWTR DUMBWAITER E EAST EA EACH EF EACH FACE EIFS EXTERIOR INSULATION FINISH SYSTEM EJ EXPANSION JOINT EL ELEVATION ELEC ELECTRICAL ELEV ELEVATOR EMER MERGENCY EMER SHR EMERGENCY SHOWER ENAM ENAMEL ENCI ENCLOSURE
BAFFLE BALLED AND BURLAPPED	E
BAFFLE BALANCE BULLETIN BOARD BOTTOM OF CURB	EF EACH FACE  FIES EXTERIOR INSULATION FINISH SYSTEM
BOARD BEVEL	EJEXPANSION JOINT EL ELEVATION
BOTH FACES BELOW FINISH FLOOR	ELECELECTRICAL ELEVELEVATOR
BACKFLOW PREVENTER JMBITUMINOUS	EMEREMERGENCY EMER SHREMERGENCY SHOWER
BED JOINT BASE LINE	ENAMENAMEL ENCLENCLOSURE
GBUILDINGBLOCK	ENGR ENTRANCE
BOTTOM OF CURB BOARD BEVEL BOTH FACES BELOW FINISH FLOOR BACKFLOW PREVENTER JM BITUMINOUS BED JOINT BASE LINE G BUILDING BLOCK G BLOCKING HD BULKHEAD T BAALAST	EOELECTRICAL OUTLET  EPELECTRICAL PANEL  EPEVANDED DOLVETYPENE
BALLAST	EPX EPOXY FLOOR FOLIALLY SPACED
BACK OF CURB W BOTTOM OF WALL	EQ EQUIP EQUIPMENT
BASE PLATE BRACING	EQUIVEQUIVALENT ERECTERECTION
OG JSTBRIDGING JOIST OGBRIDGING	ESCALESCALATOR ESMTEASEMENT
BEARING PLATE BEARING PLATE	ESTESTIMATE EWEACH WAY
TBRICK	EXGEXISTING
BRASS BRONZE BRONZE BOTH SIDES  IT BASEMENT BOTTOM BUILT-UP ROOF BOTH WAYS CENTER TO CENTER CURB AND GUTTER	EXH FN EXHAUST FAN
ITBASEMENT BOTTOM	EXSP EXPOSED  EXST FXISTING
BUILT-UP ROOF BOTH WAYS	EXST GREXISTING GRADE EXTEXTERIOR
	EXTNEXTENSION F BRKFIRE BRICK
CABINET CAVITY CATCH BASIN CLOSED CIRCUIT TELEVISION	F/FFACE TO FACE FBDFIBERBOARD
CLOSED CIRCUIT TELEVISION	FCFIRE COATED FDFLOOR DRAIN FONFOUNDATION
MCEMENT M PLASCEMENT PLASTER CFRAMIC	EMER SHR EMERGENCY SHOWER ENAM ENAMEL ENCL ENCLOSURE ENGR ENGINEER ENTR ENTRANCE EO ELECTRICAL OUTLET EP FLECTRICAL PANEL EPS EXPANDED POLYSTYRENE EPX EPOXY FLOOR EQL SP EQUAL EQUIP EQUIPMENT EQUIV EQUIVALENT ERECT ERECTION ESCAL ESCALATOR ESMT EASEMENT EST ESTIMATE EW EACH WAY EXC EXCAVATE EXG EXISTING EXH HD EXHAUST HOOD EXH FN EXHAUST HOOD EXH FN EXPANSION EXST EXISTING EXST EXISTING EXST EXISTING EXST EXISTING EXST EXISTING EXST EXISTING EXH DEXT EXTENDED EXT EXTENDED EXTENDED EXT EXTENDED EXTE
RCERAMIC R TILECERAMIC TILE GCOUNTER FLASHING	FFFACTORY FINISH FFEFINISH FLOOR ELEVATION FGLFIBERGLASS
CORNER GUARD BDCHALKBOARD	FGL FIBERGLASS FIN GR FINISH GRADE FIN FL FINISH FLOOR
R CHAMFER	FINFINISH FLFLASHING FLFLOWLINE FLDGFOLDING
CHECK CAST IRON	FLFLOWLINE FLDGFOLDING
CAST IN PLACECIRCLECONTROL JOINT	FLGFLANGE FLRFLOOR
CONTROL JOINT CENTER LINE CEILING	FLG
DIFF CEILING DIFFUSER  HT CFILING HEIGHT	FLOOR FINISH  FLOOR FINISH  FLOOR FINISH  FLOOR FINISH
CENTER LINE CEILING CEILING DIFF CEILING DIFFUSER CEILING HEIGHT CONTRACT LIMIT LINE CONTRACT LIMIT LINE CLOSET CLEAR CLOSURE COMPOSITE COMPOSITE CONCRETE MASONRY UNIT COUNTER COUNTER CLEANOUT COLUMN	FOCFACE OF CONCRETE FOM FACE OF MASONRY
CLEAR RCLOSURE	FOSFACE OF STUD FPLFIREPLACE
COMPOSITE CONCRETE MASONRY UNIT	FPRFFIREPROOFING FRMFRAME
CORNER COUNTER	FRONT FS FAR SIDE
CLEANOUT COLUMN COMMERCIAL	FSFLAT SCREEN FSFULL SIZE FSDFULL STANDEDE
MM COMMERCIAL MPL COMPLETE NC CONCRETE NC FL CONCRETE FLOOR	FSTNR FOOTING
IF CONFERENCE	FURRFURRING
INCONNECTION ISTRCONSTRUCTION	FLR FIN FLOOR FINISH FLT GL FLOAT GLASS FLUOR FLUORESCENT FOC FACE OF CONCRETE FOM FACE OF MASONRY FOS FACE OF STUD FPL FIREPLACE FPRF FIREPROOFING FRM FRAME FRNT FRONT FS FAR SIDE FS FLAT SCREEN FS FLIL SIZE FSP FIRE STANDPIPE FSTNR FASTENER FTG FOOTING FURR FUTURE FXTR GALV GALVANIZED GB GRAB BAR
ITCONTINUOUS	GBGRAB BAR

GDRL	GUARD RAIL GENERAL	MTG	
GENL CONT	GENERAL GENERAL CONTRACTOR GROUND FAULT INTERRUPTER	MTR	
GL	GLASS	MULT	
GL BLK GLU LAM	GLASS GLASS BLOCK GLUE LAMINATED	MVBL N	
	GLAZING GLAZED CONCRETE MASONRY UNIT	N/A	N
GND	GROUND  GYPSUM DRY WALL	NF	NO
GPDW GR BM	GYPSUM DRY WALL GRADE BEAM	NO	
CD	CDADE	NOM	
GUT	GRADE GRATING GUTTER GYPSUM GYPSUM PLASTER HIGH HOT AND COLD WATER	NTS	
GYP GYP PLAS	GYPSUM GYPSUM PLASTER	$\Omega/\Omega$	
H	HIGH	0C	OUT OV
		OD	
HC	HANDICAP HOLLOW CORE HOLLOW CONCRETE MASONRY UNIT	OF	_OWNER FURNISHED/CONTR
HCMU	HOLLOW CONCRETE MASONRY UNIT	OFF	
HD HDJT	HEAVY DUTY HEAD JOINT	OFOI OHD	OWNER FURNISHED-OW
HDBD	HEAD JOINT HARDBOARD	OPER	
HDWD	HEADER  HARDWOOD  HEIGHT  HORIZONTAL LOUVER BLINDS	OPP	
HGT	HEIGHT	OPT	
HM	HOLLOW METAL	OTA	OPEN TO
HMD HMF	HOLLOW METAL HOLLOW METAL DOOR HOLLOW METAL FRAME	OTS	OPEN
HNDRI	HAND RAII	OVHD	
HORIZ	HOLD-OPEN HORIZONTAL	OZ	
HR HS	HOUR HIGH STRENGTH HIGH STRENGTH BOLT	DAD	
HSB	HIGH STRENGTH BOLT	PARG	
HTG HVAC	HEATING _HEATING, VENTILATION, AIR CONDITIONING	PBD	P/
HW	HOT WATER	PC	P, PORTLAND CE
ID	HYDRANT INSIDE DIAMETER	PED	OKILAND CE
IF INCAND	INSIDE FACEINCANDESCENT		
INII	INLETINSTALLATION	DEDM	P
INSUL	INSULATION	PF	
INTR INV	INTERIOR INVERT	PFP PGBD	PRE-F
INV EL	INVERT INVERT ELEVATION	PH	
JC	JANITOR JANITOR'S CLOSET	PL	PLA
JS1	JANTONS CLOSET  JOIST  JOINT  KNEE BRACE  KNOCKOUT  KNOCKOUT PANEL  KICK PLATE	PLAM PLAS	
KB	KNEE BRACE	PLAT	
KOP	KNOCKOUT PANEL	PI YWI)	
		POL POLY	POLY
L	LEFT LABORATORY LAVATORY LAVATORY POUND LUMBER LIGHTWEIGHT CONCRETE MASONRY UNIT	POLYISO_	POLY
LAV	LAVATORY	PR	
LB	POUND LUMBER	PREFAB PRELIM	P
LCMU	LIGHTWEIGHT CONCRETE MASONRY UNIT	PRKG	PROJE
LDG	LOAD BEARING LANDING LINEAR FOOT	PS	PROJE
LF LG	LINEAR FOOT	PT PCT	POLYV
LH I HR	LENGTH LEFT HAND LEFT HAND REVERSE	PTN PVC	POLY\
LIN	LINEAR LINOLEUM	PVG	, 0211
LIQ	LIQUID	PWR	
LKR LKR RM	LIQUID LOCKER LOCKER ROOM	QI QTY	
LL	LIVE LOAD  LINTEL  LOCATION  LONGITUDINAL	QUAL	
LOC	LOCATION	RAD	
LONG LRG	LONGTTUDINAL LARGE	RB	
LS	LUMP SUM	RC	REINFOR REINFORCED (
LT WT	LARGE LUMP SUM LIGHT LIGHT	RD	
LTG LVL	LIGHTING LEVEL LOUVER LIGHTWEIGHT PLASTER LIGHTWEIGHT CONCRETE	REC RECD	
LVR	LOUVER	RECPT	
LWC	LIGHTWEIGHT CONCRETE	REF	R
M MAINT	METER MAINTENANCE	REINF REM	R
MARB	MARBLE MASONRY	REQD RESIL	
MATL	MATERIAL	RFM	RECESS
MAX MB	MAXIMUM MARKERBOARD	RH	
MBR	MEMBERMETAL CLADMOMENT CONNECTION	RHR	RIGHT
MC	MOMENT CONNECTION	RO	R RUBBE
MDO	MEDIUM DENSITY FIBERBOARD MEDIUM DENSITY OVERLOAD	RT	
ME	MATCH EXISTING MISCELLANEOUS EQUIPMENT	RV	
MECH	MECHANICAL	S	
MED	MEDIUM MEMBRANE	S SALV	
MEZZ	MEDIOWI MEMBRANE MEZZANINE MANUFACTURING	SB	
MFR	MANUFACTURER	SCH	SOLID CONCRETE
MH MIL_	MANHOLE MILLIMETER	SCMU SCRN	SOLID CONCRETE
MIN	MINIMUM	SD	
MISC	MIRROR MISCELLANEOUS	SF	SYSTE
MK ML	MARK MATCH LINE	3GL	
MI	METAL LATH METAL LABORATORY CASEWORK	SHTHG	
MLDG	METAL LABORATORY CASEWORK MOLDING MILLWORK	SIM	
MO	MASONRY OPENING	SK	
MOD	MODULE MOUNTED	SLA	
0		JLI	

MEETING	SLS	SUB-FLOOR LEVELING SYSTEM
METAL MORTAR MULLION	SM	SUB-FLOOR LEVELING SYSTEM SLEEVE SHEET METAL SEAMLESS SPACING SPECIAL SPECIFICATION SPRINKLER SPEAKER SUPPORT SQUARE FOOT SQUARE SQUARE INCH SQUARE YARD SERVICE SINK STAINLESS STEEL SOLID SURFACING MATERIAL STAIN
MI II TIPI F	SP	SPACING SPECIAL
MOVABLE NORTH NOT APPLICABLE	SPEC	SPECIFICATION SPRINKLER
NEGATIVE NEAR FACE	SPKR	SPEAKER SUPPORT
NOT IN CONTRACT  NUMBER	SQFT	SQUARE FOOT
NOMINAL NEAR SIDE	SQIN	SQUARE INCH
NOT TO COALE	SSK	SERVICE SINK
OVERALL ON CENTER OUTSIDE DIAMETER	SSM	SOLID SURFACING MATERIAL
OUTSIDE DIAMETER	ST	STAINLESS STEEL SOLID SURFACING MATERIAL STAIN STREET STAGGERED SOUND TRANSMISSION CLASS STANDARD STIRRUP STEEL JOIST STEEL JOIST STEEL PLATE STORE STORAGE STORAGE STRUCTURAL STRUCTURAL STEUL SUPPLEMENT SURFACE SUSPENDED SUSPENDED CEILING SHEET VINYL BASE SHEET VINYL FLOOR SYMMETERICAL SYSTEM TOP AND BOTTOM TONGUE AND GROOVE TABLE TACKBOARD JEST BORING-xx(E.G. TB-1) TOP OF CURB TRENCH DRAIN TRANSITION EDGE TECHNICAL TEMPORARY TERRAZZO THICK THRESHOLD THROUGH TACKBOARD TOILET TEMPERED TACKBOARD TOILET TEMPERED TACKBOARD TOILET TEMPERED TACKBOARD
OVERFLOW DRAIN OUTSIDE FACE	STAG	SOUND TRANSMISSION CLASS
ED/CONTRACTOR INSTALL OFFICE	STIR	STANDARD
SHED-OWNER INSTALLED OVERHEAD DOOR	STL JST	STEEL JOIST STEEL PLATE
OPERABLE OPENING	STL STN	STEEL STONE
OPPOSITE OPTIONAL	STOR STRUCT	STORAGE STRUCTURAL
OPTIONAL ORIGINAL OPEN TO ABOVE	STRUCT STL_	STRUCTURAL STEEL
_OPEN TO FLOOR ABOVE OPEN TO STRUCTURE	SURF	SURFACE
OVERHEAD OXYGEN	SUSP CLG	SUSPENDED CEILING
OUNCE PRECAST	SVF	SHEET VINYL FLOOR
PRECAST PARALLEL PARGING PANIC BAR PARTICLE BOARD	SYMM	SYMMETERICAL SYSTEM
PANIC BAR	T&B	TOP AND BOTTOM
PORTLAND CEMENT TLAND CEMENT PLASTER	T	IONGUE AND GROOVE
PEDESTALPERFORATED	TB-xx	I ACKBOARD TEST BORING-xx(E.G. TB-1)
PERFORATED PERIMETER	TC TD	TOP OF CURB TRENCH DRAIN
PERIMETER PERMANENT PERPENDICULAR	TE TECH	TRANSITION EDGE TECHNICAL
PANEL FABRIC PRE-FINISHED PANEL	TEMP TER	TEMPORARY TERRAZZO
PEGBOARD PHASE PLATE	THK	THICK
PLATEPLASTIC LAMINATE PLASTIC LAMINATE	THRU	THROUGH TACKBOARD
PLASTIC LAMINATE PLASTER	TLT	TOILET
PLATFORM PLUMBING	TMPD GL	TEMPERED GLASS
PLYWOOD POLISHED POLYSTYRENE	TO	TUNNEL TOP OF FLANGE TOP OF FINISH FLOOR
POLYSTYRENE POLYISOCYANURATE	TOFF	TOP OF FLANGE
POSITIVE PAIR	TOL	TOLERANCE
PREFABRICATED PRELIMINARY	TOS	TOTAL
PARKING	TRNBKL	TURNBUCKLE
PROJECT PROJECTION SCREEN	TS TS	TOP OF FINISH FLOOR TOP OF JOIST TOP OF STEEL TOP OF STEEL TOP OF WALL TURNBUCKLE TURNBUCKLE TENSILE STRENGTH TUBE STEEL TELEVISION TYPICAL UNDER UNDERLAYMENT UPHOLSTERY FABRIC UNDERGROUND UNDERWRITERS LABORATORY ULTIMATE UNEXCAVATED UNFINISHED UNITERSUPTIBLE POWER SUPPLY URINAL
PAINT PORCELAIN TILE	TV TYP	TELEVISION TYPICAL
PARTITIONPOLYVINYL CHLORIDE	UDR UDRLMNT	UNDER UNDERLAYMENT
PAVING PAVEMENT POWER QUARRY TILE QUANTITY	UF UFD	UPHOLSTERY FABRIC UNDER FLOOR DUCT
POWERQUARRY TILE	UG UL	UNDERGROUND UNDERWRITERS LABORATORY
QUANTITY QUALITY	ULT UNFX	ULTIMATE
QUALITY RISER RADIUS	UNFIN	UNFINISHED LINI ESS NOTED OTHERWISE
RUBBER BASE RUBBER	UPS	UNINTERRUPTIBLE POWER SUPPLY
REINFORCED CONCRETE FORCED CONCRETE PIPE	UTIL	UTILITY
ROOF DRAIN	VAC	VADIABLE AID VOLUME
RECEIVED RECEPTACLE RECTANGULAR REFERENCE REINFORCEMENT	VB	UNINTERROPTIBLE POWER SUPPLY  URINAL  UTILITY  VOLT  VACUUM  VARIABLE AIR VOLUME  VAPOR BARRIER  VINYL BASE  VINYL COMPOSITION TILE  VISUAL DISPLAY ROARD
RECTANGULAR REFERENCE	VCT	VINYL COMPOSITION TILE
REFERENCE REINFORCEMENT REMOVABLE	ADR	VISUAL DISPLAY BOARD VERTICAL
REMOVABLE REQUIRED RESILIENT	VEST	
RECESSED FLOOR MAT	VNR VOL	VENEER VOLUME
ROOFINGRIGHT HAND	VR VT	VISUAL DISPLAY BOARD VERTICAL VESTIBULE VIBRATION VENEER VOLUME VAPOR RETARDER VINYL TILE VINYL WALL COVERING
RIGHT HAND REVERSE ROUND	VWC	VINYL WALL COVERING WITH
ROUGH OPENING RUBBER STAIR TREAD	W/W W/O	WITHWALL TO WALLWITHOUT
RUBBER TILE ROOF VENT	W	WEST WATER CLOSET
RE\/ERSE	WC WCPT	WEST WATER CLOSET WALL COVERING WALL CARPET
SOUTH SEATING SEATING SEATING	WD	WOOD WOOD DOOR WOOD FILE CORNER
SPLASH BLOCK SOLID CORF	WDW	WINDOW WIDE ELANGE
SCHEDULE ONCRETE MASONRY UNIT	VV <b>–</b>	V/()()() FI ()()RIN(-
SCREEN STORM DRAIN	WH	WIRE GLASS WALL HUNG WATER HEATER WARRENOUSE
SECTION SYSTEMS FURNITURE	WHSE	
SINGLE SHOWER	WLD	WAINLI 1003L WIND LOAD WELDED WATER RESISTANT WEATHERSTRIPPING WATER CHARACTER WEATHERSTRIPPING
SHEATHING	WS	WATER RESISTANT WEATHERSTRIPPING
SHELVES SIMILAR SLIP JOINT	WSCT	WAINSCOT WEIGHT
SLIP JOINT SINK SLATE	WTR WTRPRF	WEIGHT WATER WATERPROOFING WELDED WIRE MESH CROSS SECTION
SLATE SLOPE	WWM X SECT	WELDED WIRE MESH CROSS SECTION

#### SHEET INDEX

#### **GENERAL**

Title Sheet G-000 General Notes, Symbols, Abbreviations & Sheet Index

#### LANDSCAPE ARCHITECTURAL

Site Demolition Plan Site Layout Plan Erosion Control Plan Site Grading Plan L-401 Site Details

#### **ELECTRICAL**

Electrical Abbreviations, Symbols Legend, & General Notes Electrical Lighting Site Plan Electrical Power Demolition Site E-003 Electrical Power & Auxiliary Systems Site Plan **Enlarged Power Plans** Cold Storage Lighting Demolition Plan-South Cold Storage Lighting Demolition Plan-North AASF Exterior Lighting Demolition Cold Storage Lighting Plan-South Cold Storage Lighting Plan-North AASF Exterior Lighting Plans Electrical Schedules Electrical Demolition One Line Diagram New Electrical One Line Diagram Electrical Details E-402 Electrical Details

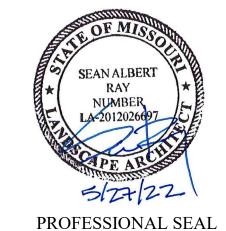
#### ADD ALTERNATE INFORMATION

1. New south MVC parking lot, to include lighting and fencing in expansion,

2. Expand POV parking lot, to include lighting in expansion, per drawings.

3. Installation of new Manual Transfer Switch and Docking Station as shown on the Electrical Sheets.

#### STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**



**CLARK ENERSEN** 

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**OFFICE OF ADMINISTRATION** DIVISION OF FACILITIES, MANAGEMENT, DESIGN AND CONSTRUCTION

**PUBLIC SAFETY MISSOURI ARMY** 

NATIONAL GUARD

**DEPARTMENT OF** 

AASF & COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING

**EXPANSION** WHITEMAN AIR FORCE **BASE** 

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258001 & 8136258003

**REVISION:** DATE: **REVISION:** DATE: **REVISION:** DATE: \_ ISSUE DATE: 05/27/2022

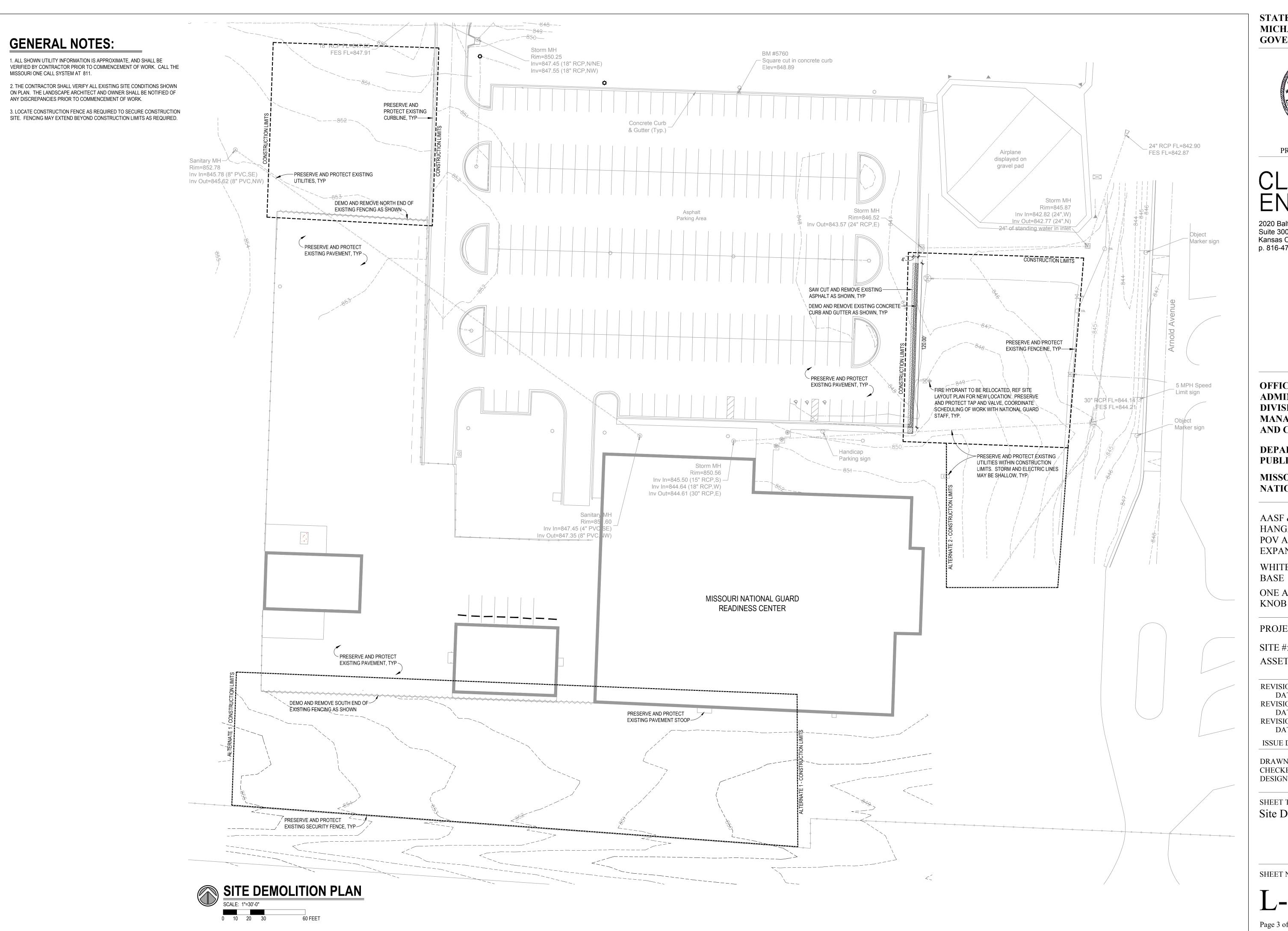
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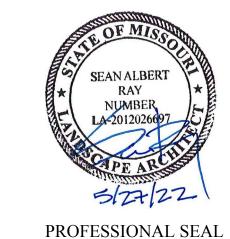
SHEET TITLE:

General Notes, Symbols, Abbreviations & Sheet Index

SHEET NUMBER:

Page 2 of 23 05/27/2022





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**DEPARTMENT OF PUBLIC SAFETY** 

**MISSOURI ARMY** NATIONAL GUARD

AASF & COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING **EXPANSION** 

WHITEMAN AIR FORCE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258003

**REVISION:** DATE: REVISION: DATE: **REVISION:** 

ISSUE DATE: 05/27/2022

DRAWN BY: SAR CHECKED BY: SAR DESIGNED BY: SAR

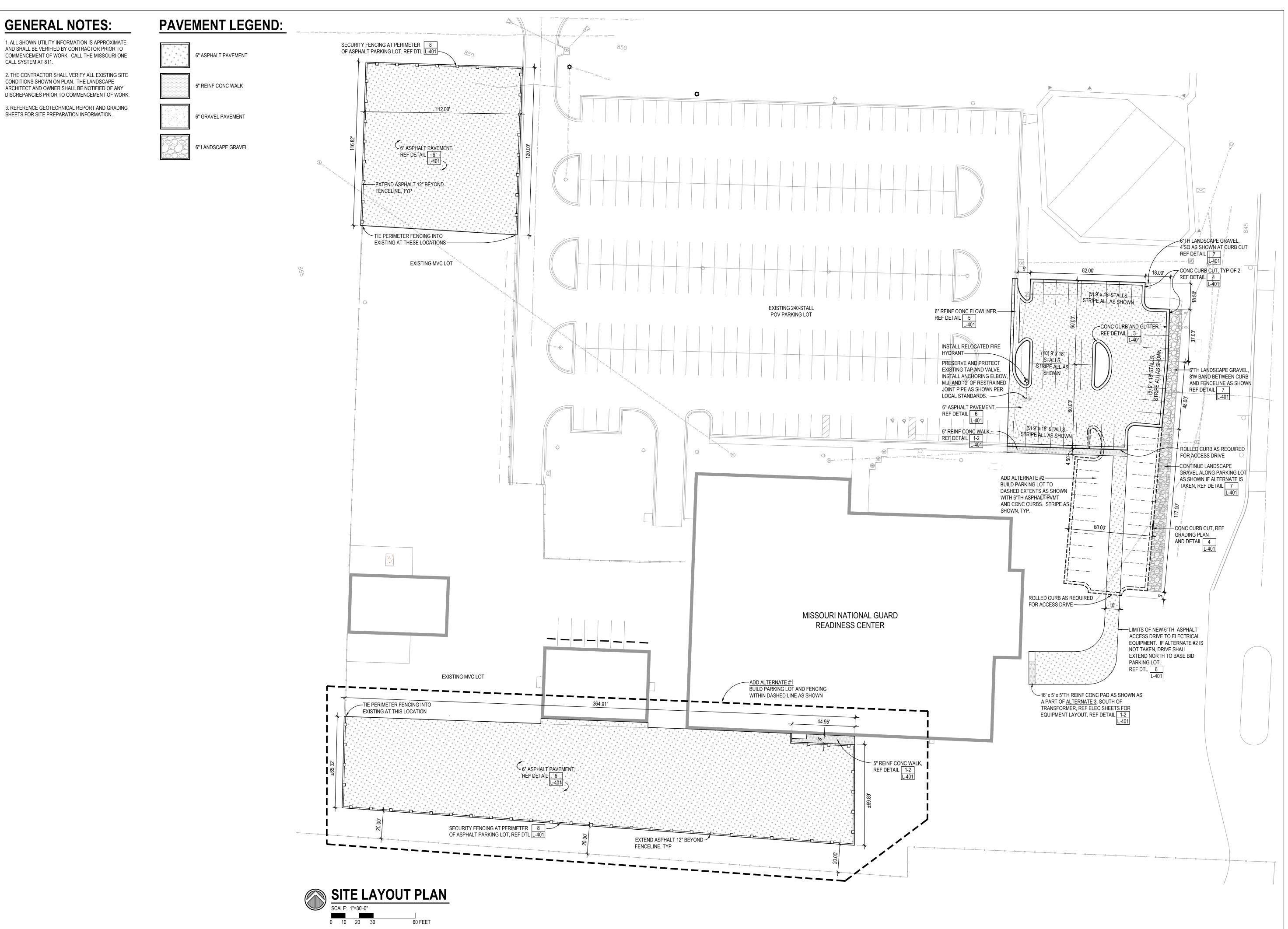
SHEET TITLE:

DATE:

Site Demolition Plan

SHEET NUMBER:

Page 3 of 23 05/27/2022





PROFESSIONAL SEAL

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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES, MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF PUBLIC SAFETY

MISSOURI ARMY NATIONAL GUARD

AASF & COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258003

REVISION: \_\_\_\_\_\_\_
DATE: \_\_\_\_\_
REVISION: \_\_\_\_\_
DATE: \_\_\_\_
REVISION: \_\_\_\_\_

ISSUE DATE: 05/27/2022

DATE:

DRAWN BY: SAR
CHECKED BY: SAR
DESIGNED BY: SAR

SHEET TITLE:
Site Layout Plan

SHEET NUMBER:

L-201

Page 4 of 23 05/27/2022

#### EROSION CONTROLS PROCEDURES

- 1. SEQUENCE OF EROSION CONTROL BMP'S (BEST MANAGEMENT PRACTICES)
- PRIOR TO GRADING OPERATION, INSTALL ALL SILT FENCE - FOLLOWING SOIL DISTURBANCE, DISTURBED AREAS OF THE CONSTRUCTION SITE THAT WILL NOT BE REDISTURBED FOR 21 DAYS MUST BE STABILIZED BY THE 14TH DAY AFTER THE LAST DISTURBANCE, EXCEPT AS PRECLUDED BY SNOW COVER. IN THE EVENT OF SNOW COVER, STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE THEREAFTER. -MINIMIZE ANY TRACKING OF SOIL ONTO AREAS OF PAVEMENT OUTSIDE OF CONSTRUCTION LIMITS
- 2. THE CONTRACTOR SHALL HAVE A SPILL PREVENTION AND RESPONSE PLAN THAT ADDRESSES FUELING, MAINTENANCE AND STORAGE AREAS ON-SITE INCLUDING A DESCRIPTION OF SAID CONSTRUCTION MATERIALS (WITH UPDATES AS APPROPRIATE). THIS SPILL PREVENTION PLAN SHALL BE MAINTAINED ON THE PROJECT SITE.
- 3. ANY WASTES PRESENT OR GENERATED AT THE SITE SHALL BE TAKEN TO A PERMITTED SANITARY LANDFILL.
- 4. TREAT OR DISPOSE OF SANITARY WATERS THAT ARE GENERATED ON-SITE IN ACCCORDANCE WITH STATE OF LOCAL REQUIREMENTS.

5. DUST BLOWING CONTROL. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO CONTROL DUST.

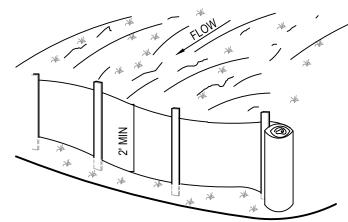
6. THE CONTRACTOR SHALL PERIODICALLY REMOVE ACCUMULATED SEDIMENT FROM BEHIND SILT FENCES DURING THE LIFE OF THIS CONTRACT. ACCUMULATION OF SEDIMENT MUST NOT BE ALLOWED TO REACH ABOVE HALF THE HEIGHT OF THE FENCE. ALL EROSION CONTROL FEATURES SHALL BE KEPT IN WORKING ORDER DURING THE LIFE OF THIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER.

#### INSPECTIONS AND MODIFICATIONS TO THE PLAN

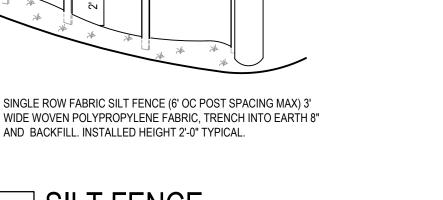
- 1. THE SITE SHALL BE INSPECTED TO IDENTIFY MAINTENANCE NEEDS AND/OR SWPPP DEFICIENCIES ONCE EVERY 7 CALENDAR DAYS, AND WITHIN 24 HOURS AFTER A PRECIPITATION EVENT OF 0.5 INCHES OR GREATER. CONTROLS MUST BE IN GOOD OPERATING CONDITION UNTIL THE CONSTRUCTION ACTIVITY IS COMPLETE AND FILNAL STABILIZATION HAS BEEN REACHED. ANY CHANGES THAT MAY BE REQUIRED TO CORRECT DEFICIENCIES IN THE SWPPP NOTED DURING AN INSPECTION SHOULD BE MADE AS SOON AS PRACTICAL AFTER AN INSPECTION BUT IN NO CASE LATER THAN 7 DAYS AFTER THE INSPECTION.
- 2. INSPECTIONS MUST BE CONDUCTED BY QUALIFIED PERSONNEL KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICE OF EROSION AND SEDIMENT CONTROLS WHO POSSESSES THE SKILLS TO ASSESS CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT STORM WATER QUALITY AND TO ASSESS THE EFFECTIVENESS OF ANY EROSION AND SEDIMENT CONTROL MEASURES SELECTED TO CONTROL THE QUALITY OF STORM WATER DISCHARGE FROM THE CONSTRUCTION ACTIVITY.
- 5. THE EROSION CONTROL PLAN SHALL REMAIN DYNAMIC. IF DEFICIENCIES ARISE DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL IMPLEMENT EFFECTIVE CORRECTIVE ACTIONS.
- 7. A COPY OF THE EROSION CONTROL PLAN MUST BE KEPT AT THE CONSTRUCTION SITE FROM THE TIME CONSTRUCTION BEGINS UNTIL THE SITE HAS REACHED FINAL STABILIZATION.

#### **GENERAL NOTES**

1. THE CONSTRUCTION MANAGER SHALL VERIFY ALL EXISTING SITE CONDITIONS SHOWN ON PLAN, ANY DISCREPANCIES NOTICED IN FIELD SHALL BE RELAYED TO THE ARCHITECT / OWNER PRIOR TO COMMENCEMENT OF WORK.



1. SINGLE ROW FABRIC SILT FENCE (6' OC POST SPACING MAX) 3'





STEEL 'T' POST

POLYPROPYLENE

#### SOD NOTES:

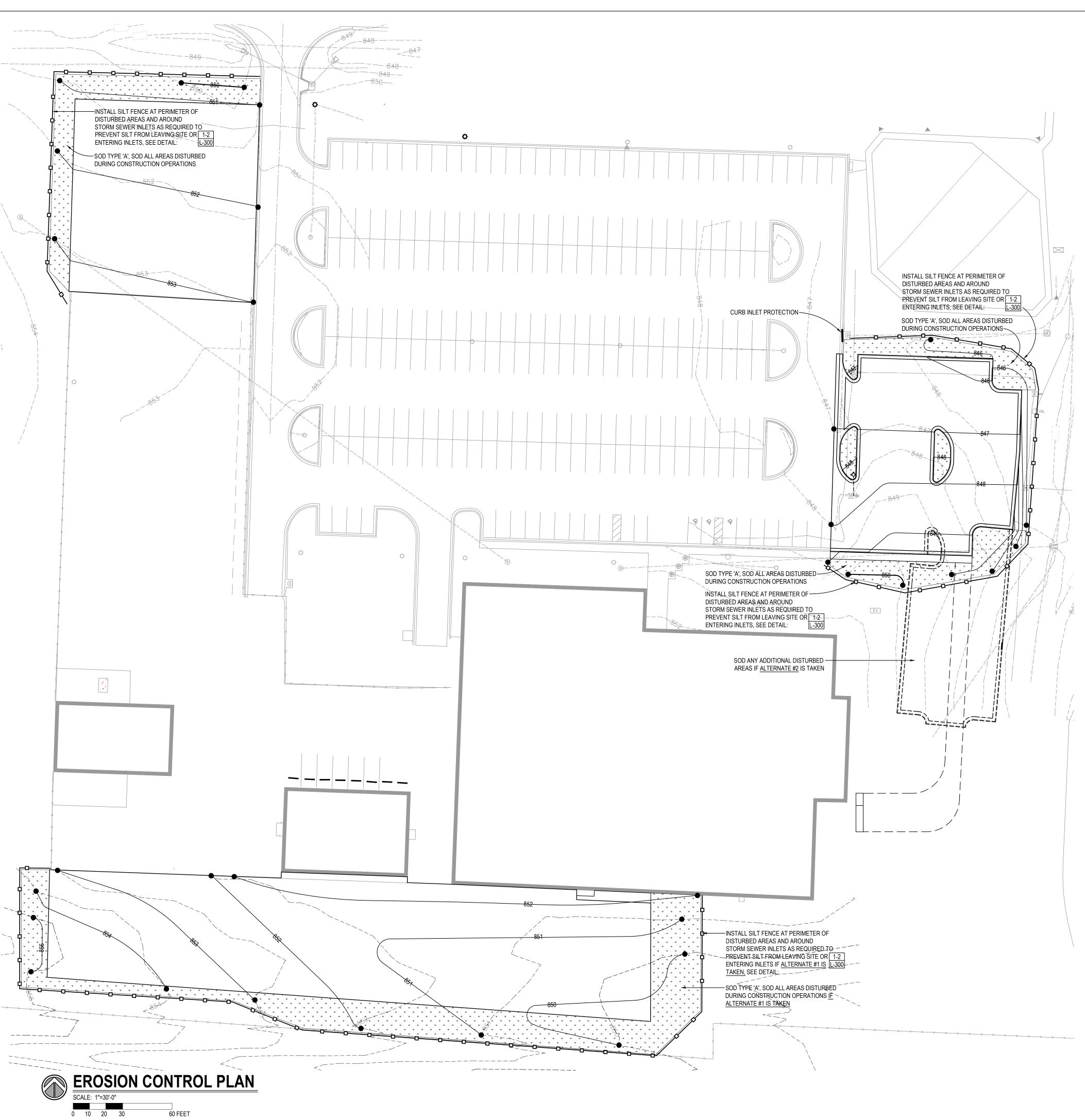
1. FINE GRADE AND SOD ANY AREAS DAMAGED BY CONSTRUCTION OPERATIONS NOT OTHERWISE INDICATED ON PLAN, TYP

2. PROVIDE 6" TOPSOIL FOR TURF AREAS. EXISTING TOPSOIL SHALL BE STOCKPILED ON-SITE FOR REDISTRIBUTION.

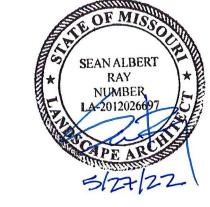
#### SOD LEGEND:



(REF SPEC FOR SOD MIX)



**STATE OF MISSOURI** MICHAEL L. PARSON, **GOVERNOR** 



PROFESSIONAL SEAI

#### **CLARK ENERSEN**

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**OFFICE OF ADMINISTRATION** DIVISION OF FACILITIES, MANAGEMENT, DESIGN AND CONSTRUCTION

**DEPARTMENT OF PUBLIC SAFETY** 

**MISSOURI ARMY** NATIONAL GUARD

AASF & COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING **EXPANSION** 

WHITEMAN AIR FORCE

BASE ONE ATTACK AVENUE

KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258003

**REVISION:** DATE: **REVISION:** DATE: **REVISION:** DATE:

ISSUE DATE: 05/27/2022

DRAWN BY: SAR CHECKED BY: SAR DESIGNED BY: SAR

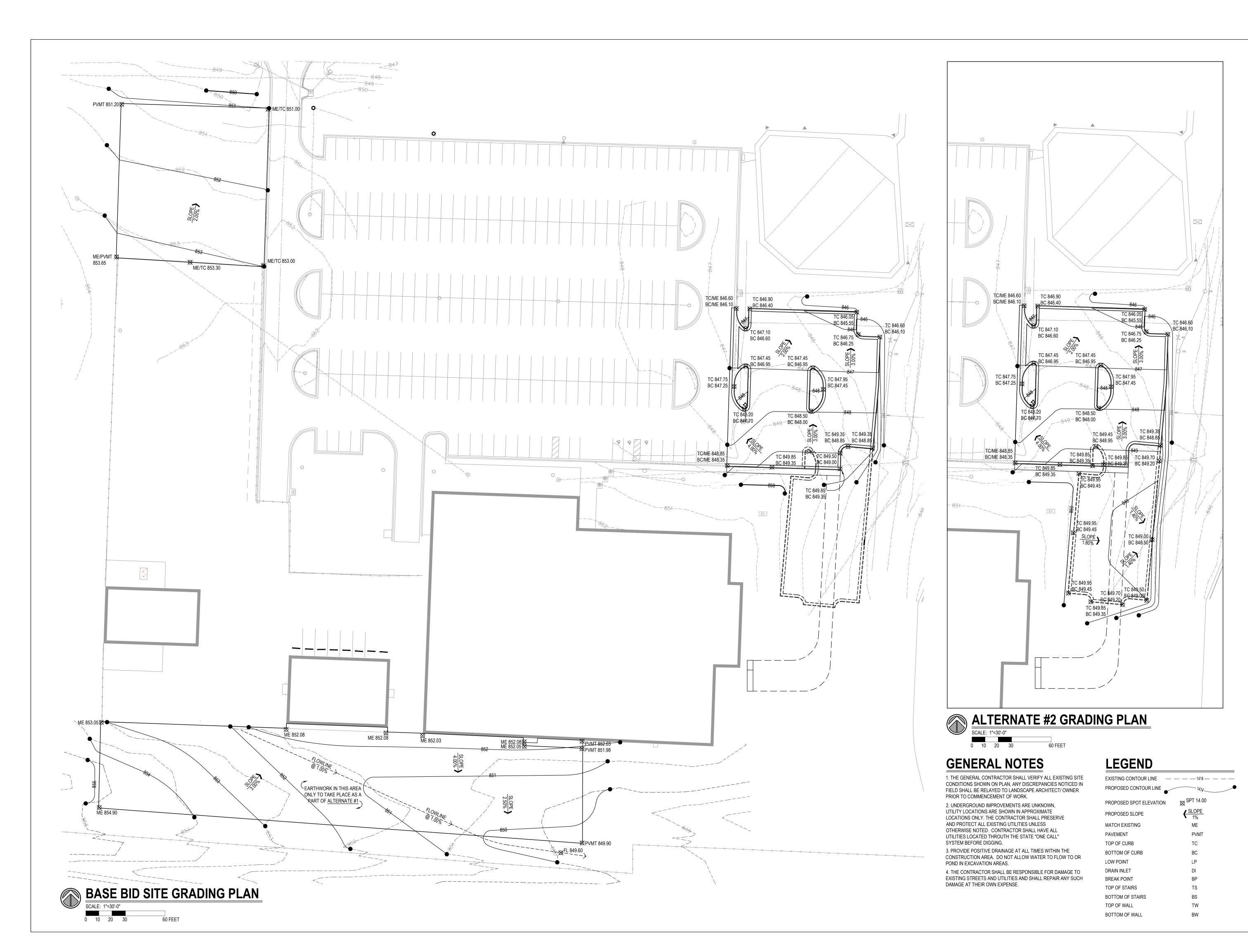
SHEET TITLE:

**Erosion Control Plan** 

SHEET NUMBER:

L-300

Page 5 of 23 05/27/2022





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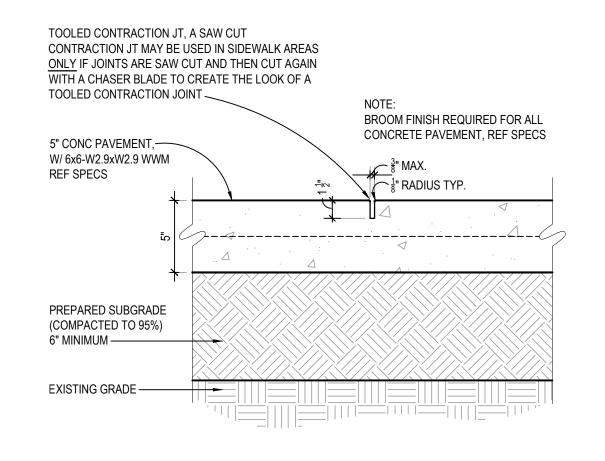
DRAWN BY: SAR CHECKED BY: SAR DESIGNED BY: SAR

SHEET TITLE: Site Grading Plan

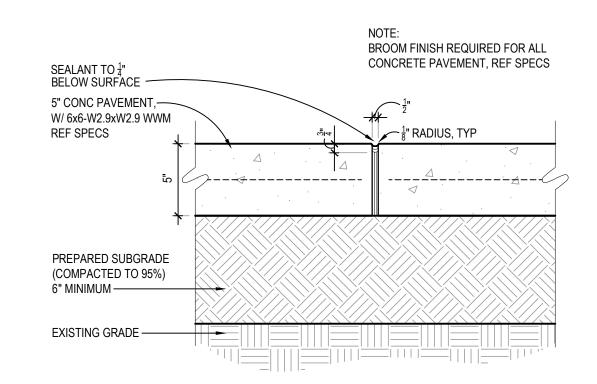
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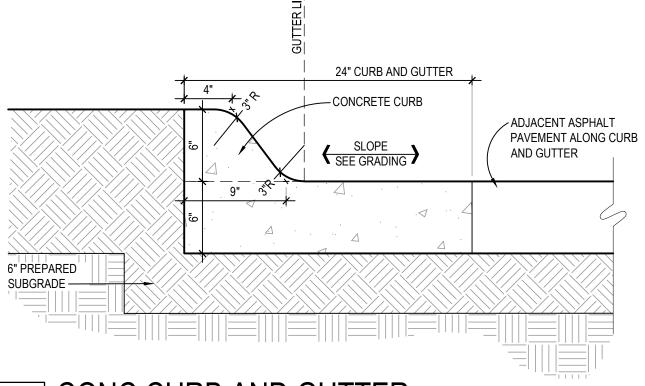
L-301

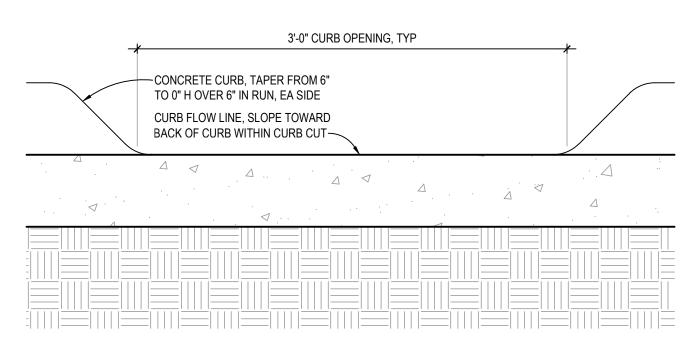
Page 6 of 23 05/27/2022



CONC. CONTRACTION JOINT







**CONCRETE EXPANSION JOINT** (LOCATED AT 50' INTERVALS, OR WHERE WALKS

ABUT STAIRS, BUILDINGS, STOOPS, ETC.)

**CONC CURB CUT** 

6" TH CONC FLOWLINER, W/ 6x6-W2.9xW2.9 WWM REF SPECS -6" MIN PREPARED SUBGRADE ADJACENT ASPHALT (COMPACTED TO 95%) ~ PAVEMENT, TYP~ EXISTING GRADE~

2" ASPH CONC SURFACE COURSE (BP-1 MODOT STANDARD SPECIFICATIONS) -4" ASPH CONC BASE COURSE (PER MODOT STANDARD SPECIFICATIONS) -TACK COAT BETWEEN -LIFTS, TYP PREPARED SUBGRADE 6" MINIMUM — EXISTING GRADE —

ANGULAR ROCK TO BE 2-4" IN WIDTH--ADJACENT TURF AREA -6" BLACK POWDERCOATED STEEL LANDSCAPE EDGING WHERE ROCK ABUTS TURF, TYP

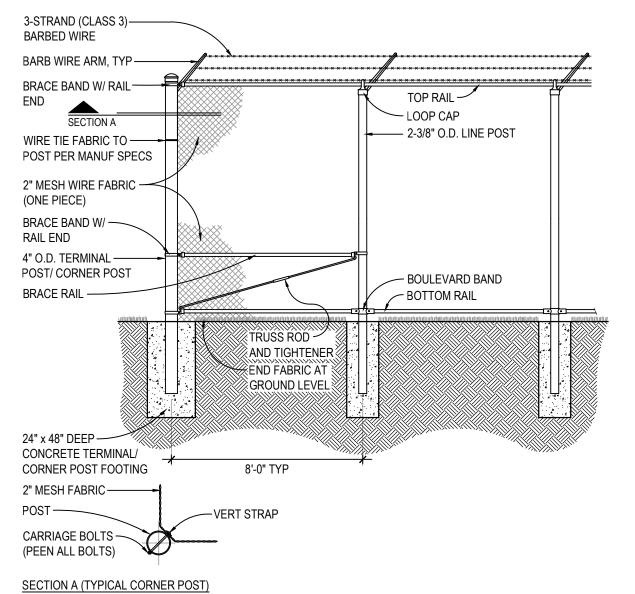
5 CONC FLOWLINER

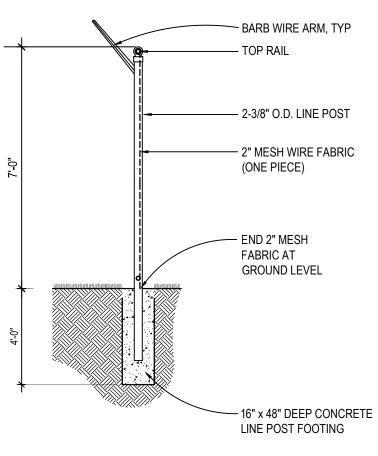
SCALE: 1 1/2"=1'-0"

SCALE: 1 1/2"=1'-0"

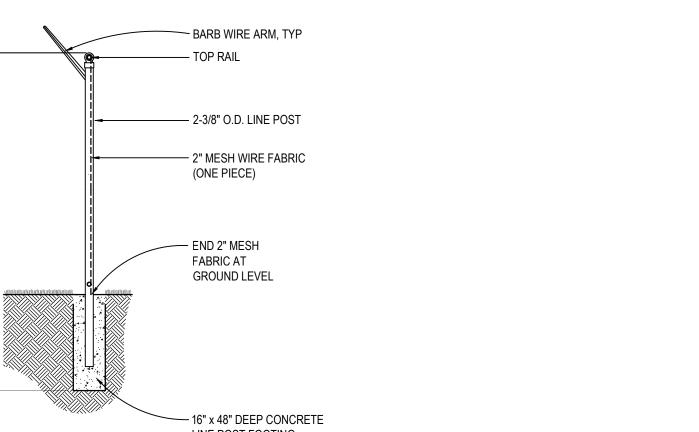
6 ASPHALT PAVEMENT

7 LANDSCAPE GRAVEL





8 CHAIN LINK FENCE
SCALE: 1/4"=1'-0"



DESIGNED BY: SAR SHEET TITLE:

**STATE OF MISSOURI** 

**GOVERNOR** 

MICHAEL L. PARSON,

PROFESSIONAL SEAL

**ENERSEN** 

**CLARK** 

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DIVISION OF FACILITIES,

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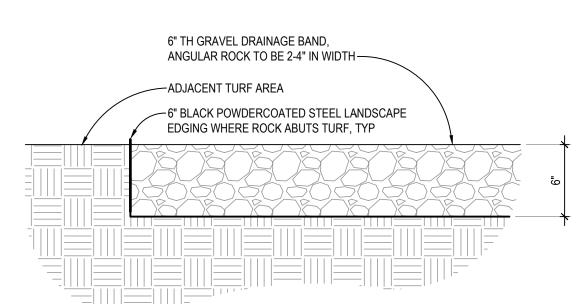
Kansas City, MO 64108

Suite 300

Site Details

SHEET NUMBER:

Page 7 of 23 05/27/2022



ELECTRICAL ABBREVIATIONS AND SYMBOLS LEGEND							
ABBREVIATIONS LIGHTING		ELECTRICAL DISTRIBUTION			ELECTRICAL DISTRIBUTION EQUIPMENT		
AFF	ABOVE FINISHED FLOOR	0(-) (-)	POLE MOUNTED EXTERIOR LIGHT FIXTURE. LETTER INDICATES FIXTURE AND POLE TYPE.	S	SINGLE POLE SWITCH		LIGHTING AND APPLIANCE PANEL
AFG C	ABOVE FINISH GRADE SUBSCRIPT 'C' ADJACENT TO ANY DEVICE INDICATES CEILING.	(-)	LINEAR FIXTURE. LETTER/NUMBER DENOTES FIXTURE TYPE.	s <sub>2</sub>	TWO POLE SWITCH		(LIGHTING) RELAY PANEL
CATV	CABLE TELEVISION	(/	LINEAR FIXTURE WITH EMERGENCY BATTERY BACKUP AND/OR ON EM	s <sub>3</sub>	THREE WAY SWITCH		MOTOR CONTROL CENTER OR SWITCHBOARD
DAS	CLOSED CIRCUIT TELEVISION  DISTRIBUTED ANTENNA SYSTEM	(-)	CIRCUIT. LETTER/NUMBER DENOTES FIXTURE TYPE.	S <sub>4</sub>	FOUR WAY SWITCH		POWER PANEL (DISTRIBUTION)
(E)	SUBSCRIPT 'E' ADJACENT TO ANY DEVICE INDICATES EXISTING.		2' X 4' TROFFER. LETTER/NUMBER DENOTES FIXTURE TYPE.	S <sub>P</sub>	SINGLE POLE SWITCH WITH PILOT LIGHT	T	TRANSFORMER
EPO	EMERGENCY POWER OFF SUBSCRIPT 'ER' ADJACENT TO ANY DEVICE INDICATES EXISTING TO	(-)	OLY ALTROPPED WITH EMPROPHOY DATTERY DAGGLER AND OR ON TH	s <sub>D</sub>	DIMMER SWITCH	$\triangle$	CIRCUIT BREAKER
(ER)	BE RELOCATED.	(-)	2' X 4' TROFFER WITH EMERGENCY BATTERY BACKUP AND/OR ON EM CIRCUIT. LETTER/NUMBER DENOTES FIXTURE TYPE.	s <sub>MC</sub>	MOMENTARY CONTACT SWITCH	-\-	FUSIBLE SWITCH
EWC F	ELECTRIC WATER COOLER SUBSCRIPT 'F' ADJACENT TO ANY DEVICE INDICATES FLOOR.		1' X 4' TROFFER. LETTER/NUMBER DENOTES FIXTURE TYPE.	S <sub>TE</sub>	THERMAL ELEMENT SWITCH		AUTOMATIC TRANSFER SWITCH
GFI	GROUND FAULT INTERRUPTER	(-)	1' X 4' TROFFER WITH EMERGENCY BATTERY BACKUP AND/OR ON EM	s <sub>K</sub>	KEYED SWITCH	₩₩	POTENTIAL TRANSFORMER
H HOA	SUBSCRIPT 'H' DENOTES HOSPITAL GRADE HAND-OFF-AUTO	(-)	CIRCUIT. LETTER/NUMBER DENOTES FIXTURE TYPE.	s <sub>O</sub>	OCCUPANCY SENSING SWITCH, WATTSTOPPER #DW-100-G		CURRENT TRANSFORMER
N.C.	NORMALLY CLOSED		2' X 2' TROFFER. LETTER/NUMBER DENOTES FIXTURE TYPE.	S <sub>T</sub>	LINE VOLTAGE DIGITAL TIMER SWITCH, WATTSTOPPER #TS-400		GROUND
NF NIC	NON-FUSED NOT IN CONTRACT		2' X 2' TROFFER WITH EMERGENCY BATTERY BACKUP AND/OR ON EM	S <sub>3T</sub>	LINE VOLTAGE 3-WAY DIGITAL TIMER SWITCH, WATTSTOPPER #TS-400	G	ENGINE GENERATOR
NL	24 HOUR "NIGHT LIGHT"	(-)	CIRCUIT. LETTER/NUMBER DENOTES FIXTURE TYPE.	s <sub>X</sub>	SPST EXPLOSION PROOF SWITCH	RGA	REMOTE GENERATOR ANNUNCIATOR
N.O. OHE	NORMALLY OPEN  OVERHEAD ELECTRICAL	<u> </u>	2' X 4' SURFACE OR PENDANT MOUNTED FIXTURE. LETTER/NUMBER DENOTES FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING	S <sub>2</sub> X	DPST EXPLOSION PROOF SWITCH	M	METER
OHT	OVERHEAD TELEPHONE	(-)	HEIGHT.  2' X 4' SURFACE OR PENDANT MOUNTED FIXTURE WITH EMERGENCY	#	20A, 125V DOUBLE DUPLEX CONVENIENCE OUTLET (NEMA 5 - 20R)		PANELBOARD TAG. SEE THE CORRESPONDING PANELBOARD SCHEDULE
PVC	POLYVINYL CHLORIDE	(-)	BATTERY BACKUP AND/OR ON EM CIRCUIT. LETTER/NUMBER DENOTES FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.	Ф	20A, 125V DUPLEX CONVENIENCE OUTLET (NEMA 5 - 20R)	PNL#	AND/OR ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
(R)	SUBSCRIPT 'R' ADJACENT TO ANY DEVICE INDICATES THE RELOCATED POSITION OF AN EXISTING DEVICE.		2' X 4' TROFFER RECESSED IN GWBD OR PLASTER CEILING LETTER	— ⊓ ∰ <sub>USB</sub>		-	
RGS	RIGID GALVANIZED STEEL	(-)	DENOTES FIXTURE TYPE.				
(S)	SUBSCRIPT 'S' ADJACENT TO ANY DEVICE INDICATES THE DEVICE IS TO BE SURFACE MOUNTED.		2' X 4' TROFFER WITH EMERGENCY BATTERY BACKUP AND/OR ON EM CIRCUIT, RECESSED IN GWBD OR PLASTER CEILING. LETTER DENOTES	₩ <sub>USB</sub>	20A, 125V DUPLEX CONVENIENCE OUTLET (NEMA 5 - 20R) WITH USB CHARGING PORTS.		
TR UGE	TAMPER RESISTANT  UNDERGROUND ELECTRICAL	(-)	FIXTURE TYPE.  SURFACE OR PENDANT MOUNTED FIXTURE. LETTER/NUMBER DENOTES	Φ	20A, 125V SIMPLEX OUTLET (NEMA 5 - 20R)		
USB	UNIVERSAL SERIAL BUS	(-)	FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.	Φ	20A, 125V RED DUPLEX CONVENIENCE OUTLET ON EMERGENCY SYSTEM (NEMA 5 - 20R)		
HVE UGT	UNDERGROUND MEDIUM OR HIGH VOLTAGE ELECTRICAL UNDERGROUND TELEPHONE		SURFACE OR PENDANT MOUNTED FIXTURE WITH EMERGENCY BATTERY BACKUP AND/OR ON EM CIRCUIT. LETTER/NUMBER DENOTES FIXTURE	сФ ₽Ф	20A, 125V DUPLEX CONVENIENCE OUTLET - CEILING AND FLOOR MOUNTED (NEMA 5 - 20R)		
WAP	WIRELESS ACCESS POINT		TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.  2' X 2' SURFACE OR PENDANT MOUNTED FIXTURE. LETTER/NUMBER	<b>⊙</b> ⊣	SPECIAL PURPOSE OUTLET, TYPE AS NOTED ON DRAWINGS.	1	
WG WP	WIRE GUARD WEATHERPROOF	(-)	DENOTES FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.	₩	20A, 125V SAFETY DUPLEX CONVENIENCE OUTLET (NEMA 5- 20R)	1	
WPU	WEATHERPROOF IN-USE TYPE	0	2' X 2' SURFACE OR PENDANT MOUNTED FIXTURE WITH EMERGENCY BATTERY BACKUP AND/OR ON EM CIRCUIT. LETTER/NUMBER DENOTES	ΦΦΦ	SURFACE MOUNTED RACEWAY. TYPE AND NUMBER OF DEVICES AS INDICATED. REFER TO SPECIFICATION AND DETAIL.	1	
1///.	CROSS-HATCHING INDICATES REMOVAL	(-)	FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.		SURFACE MOUNTED RACEWAY (RED OUTLETS ON STANDBY SYSTEM). TYPE	1	
		(-) <u></u>	WALL MOUNTED FIXTURE. LETTER/NUMBER DENOTES FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.		AND NUMBER OF DEVICES AS INDICATED, REFER TO SPECIFICATION AND DETAIL.		
			WALL MOUNTED FIXTURE WITH EMERGENCY BATTERY BACKUP AND/OR ON EM CIRCUIT. LETTER/NUMBER DENOTES FIXTURE TYPE. REFER TO	<u>ک</u>	PIGTAIL DENOTES CONNECTION TO EQUIPMENT  JUNCTION BOX - CEILING, FLOOR, AND WALL MOUNTING. WALL MOUNTED		
			DRAWINGS FOR FIXTURE MOUNTING HEIGHT.  1' X 4' TROFFER RECESSED IN GWBD OR PLASTER CEILING. LETTER	QQ <sub>F</sub> 0-	DEVICES SHALL BE FLUSH MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED.		
		(-) J	DENOTES FIXTURE TYPE.  1' X 4' TROFFER WITH EMERGENCY BATTERY BACKUP AND/OR ON EM	▼	2 GANG TELECOMMUNICATIONS OUTLET BOX WITH SINGLE GANG EXTENSION RING FLUSH MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. ROUTE (1) 1" CONDUIT, CONCEALED, FROM BOX AND STUB ABOVE THE NEAREST		
		(-)	CIRCUIT, RECESSED IN GWBD OR PLASTER CEILING. LETTER DENOTES FIXTURE TYPE.		ACCESSIBLE CEILING. BUSH CONDUIT ENDS.		
		F-1-0-1	STRIP FIXTURE. LETTER DENOTES FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.	$\nabla_{D}$	2 GANG DATA OUTLET BOX AND COVERPLATE WITH SINGLE GANG EXTENSION RING FLUSH MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. ROUTE (1) 1"		
			STRIP FIXTURE WITH EMERGENCY BATTERY BACKUP AND/OR ON EM		CONDUIT, CONCEALED, FROM BOX AND STUB ABOVE THE NEAREST ACCESSIBLE CEILING. BUSH CONDUIT ENDS.		
		(-)	CIRCUIT. LETTER DENOTES FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.	T.	2 GANG TELECOMMUNICATIONS/DATA OUTLET BOX WITH SINGLE GANG	1	
		( <u>-</u> )	RECESSED, SURFACE OR PENDANT MOUNTED FIXTURE. LETTER DENOTES FIXTURE TYPE. REFER TO DRAWINGS FOR MOUNTING DETAILS AND MOUNTING HEIGHT.	•	EXTENSION RING FLUSH MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. ROUTE (1) 1" CONDUIT, CONCEALED, FROM BOX AND STUB ABOVE THE NEAREST ACCESSIBLE CEILING. BUSH CONDUIT ENDS.		
			RECESSED, SURFACE OR PENDANT MOUNTED FIXTURE WITH EMERGENCY BATTERY BACKUP AND/OR ON EM CIRCUIT. LETTER DENOTES FIXTURE		TELEPHONE TERMINAL BOARD OR TERMINAL CABINET - SIZE AND TYPE AS INDICATED (TTB OR TTC).		
		(-)	TYPE. REFER TO DRAWINGS FOR MOUNTING DETAILS AND HEIGHT.  WALL MOUNTED FIXTURE. LETTER DENOTES FIXTURE TYPE. REFER TO		BRANCH CIRCUIT HOMERUN TO PANEL (NUMBER OF ARROWS INDICATES	1	
		(-)	BIGUILIO FOR MOSITINO NELOTTI.	XX	NUMBER OF CIRCUITS. NUMBER OF TICK MARKS INDICATES NUMBER OF WIRES) (NUMBER 12AWG, MINIMUM, UNLESS OTHERWISE NOTED). IF NO TICK MARKS ARE SHOWN. ASSUME 3- NUMBER 12 AWG IN 3/4" CONDUIT.		
			BATTERY POWERED EMERGENCY LIGHT FIXTURE. REFER TO FIXTURE SCHEDULE ON DRAWINGS FOR FIXTURE TYPE. REFER TO DRAWINGS FOR FIXTURE MOUNTING HEIGHT.	/#K	CONDUIT AND WIRE CONCEALED. NUMBER OF TICK MARKS INDICATES NUMBER OF WIRES (NUMBER 12AWG MINIMUM, UNLESS OTHERWISE NOTED) IF		
		⊦⊗∱	WALL MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS. REFER TO FIXTURE SCHEDULE FOR FIXTURE TYPE. REFER TO DRAWINGS FOR MOUNTING HEIGHT. (DARKENED PORTION OF	<b>X</b>	NO TICK MARKS ARE SHOWN, ASSUME 3-NUMBER 12 IN 3/4" CONDUIT.  PARTIAL CIRCUIT		
			FIXTURE INDICATES ILLUMINATED FACES.)		CONDUIT RISER UP		
			CEILING MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS. REFER TO FIXTURE SCHEDULE FOR FIXTURE TYPE.		CONDUIT RISER DOWN		
			(DARKENED PORTION OF FIXTURE INDICATES ILLUMINATED FACES.)		INDICATES BUSH AND CAP  CONDUIT SEAL FITTING FOR HAZARDOUS AREAS	-	
				<b>/</b>	CONDUIT SEAL FITTING FOR HAZARDOUS AREAS  CONDUIT STUBBED UP 6" AFF AND CAPPED	-	
					555011 5105555 51 6 7111 71115 5711 FE		

PROJECT GENERAL ELECTRICAL NOTES

#### GENERAL DEMOLITION NOTES:

- 1. ALL OF THE DEVICES SHOWN ON THE DEMOLITION PLANS ARE EXISTING. THE LOCATIONS OF EXISTING EQUIPMENT AND DEVICES WERE OBTAINED FROM PREVIOUS DRAWINGS AND SITE VISITS. THE LOCATIONS OF EXISTING EQUIPMENT AND DEVICES ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR. ACCURACY OF THE INFORMATION SHOWN IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING THE PROJECT BID. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CHANGES WHICH OCCUR AFTER BIDS ARE SUBMITTED WHICH ARE A RESULT OF EXISTING CONDITIONS. SITE VISITS PRIOR TO SUBMISSION OF BIDS MUST BE FULLY COORDINATED WITH THE OWNER.
- THE CONTRACTOR MUST FIELD VERIFY EXISTING CIRCUITING PRIOR TO COMMENCING ANY WORK. ALL BIDS MUST INCORPORATE THIS REQUIREMENT.
- 3. DEVICES SHOWN WITH CROSS HATCHING, DASHED AND/OR SO NOTED SHALL BE REMOVED. ALL OTHER DEVICES SHALL BE RELOCATED, SHALL REMAIN, OR SHALL BE ABANDONED AS SHOWN, OR AS FOLLOWS:
- OR AS FOLLOWS:

  DEVICES SHALL BE COMPLETELY REMOVED FROM WALLS THAT ARE ALSO SHOWN TO BE REMOVED. DEVICES SHOWN TO BE REMOVED ON DRYWALL OR PLASTER TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE WALL SURFACE PATCHED TO MATCH THE EXISTING FINISH. FLUSH TYPE DEVICES SHOWN TO BE REMOVED ON CONCRETE OR BRICK TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE DEVICES REMOVED AND BOXES PROVIDED WITH BLANK COVER PLATES.
- CONCEALED CONDUITS MAY BE ABANDONED IN WALLS THAT ARE TO REMAIN. ALL CONDUITS AND BOXES THAT ARE SURFACE MOUNTED AND NO LONGER REQUIRE ACTIVE CIRCUITS SHALL BE REMOVED.
- 5. THE CONDUCTORS FOR DEVICES SHOWN TO BE REMOVED SHALL BE DISCONNECTED AND REMOVED BACK TO THE PANEL OR BACK TO THE NEXT DEVICE SHOWN TO REMAIN OR AS REQUIRED BY ACTUAL CIRCUITING. ACTUAL CIRCUITING MUST BE DETERMINED IN THE FIELD. ALL BIDS SHOULD INCORPORATE THIS REQUIREMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CHANGES WHICH OCCUR AS A RESULT OF EXISTING CIRCUITING. CONTINUITY OF CIRCUITING SHALL BE MAINTAINED FOR ALL EXISTING CIRCUITS AS REQUIRED. CONTRACTOR SHALL PROVIDE ALL NECESSARY WIRE, CONDUIT, DEVICES AND CONNECTIONS TO ENSURE CIRCUIT CONTINUITY TO ALL NEW AND EXISTING EQUIPMENT.
- 7. THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
- 8. THE OWNER WILL OCCUPY PORTIONS OF THE FACILITY THROUGHOUT CONSTRUCTION. ELECTRICAL SYSTEMS TO OCCUPIED PORTIONS OF THE FACILITY MUST REMAIN IN OPERATION. THE ELECTRICAL CONTRACTOR MUST COORDINATE ALL PHASING REQUIREMENTS WITH THE GENERAL CONTRACTOR AND THE OWNER, AND MUST PROVIDE ALL NECESSARY DEVICES, EQUIPMENT, WIRE, CONDUIT, AND CONNECTIONS TO ENSURE PHASING AND OWNER OCCUPANCY REQUIREMENTS ARE SATISFIED. ALL BIDS SHOULD INCORPORATE THIS REQUIREMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ISSUES AND CHANGES WHICH OCCUR AS A RESULT OF PHASING AND OWNER OCCUPANCY REQUIREMENTS.

#### GENERAL LIGHTING NOTES:

- COORDINATE THE INSTALLATION OF LIGHTING FIXTURES WITH ALL OTHER TRADES.
- COORDINATE THE INSTALLATION OF ALL RECESSED LIGHTING FIXTURES WITH ACTUAL CEILING TYPES. REFER TO ARCHITECTURAL FINISH SCHEDULES FOR ADDITIONAL DETAILS.
- 3. SUPPORT ALL RECESSED AND PENDANT MOUNTED FIXTURES FROM STRUCTURE IN ACCORDANCE WITH APPLICABLE BUILDING CODE REQUIREMENTS. SUSPENDED CEILING MOUNTING SYSTEMS SHALL NOT BE USED TO SUPPORT FIXTURES OR RACEWAYS.
- 4. ROUTE ALL WIRE AND CONDUIT CONCEALED UNLESS OTHERWISE NOTED. PATCH ALL EXISTING SURFACES AFTER WIRE AND CONDUIT INSTALLATION, AS REQUIRED. REFER TO THE SPECIFICATION FOR CUTTING AND PATCHING REQUIREMENTS. ALL COSTS ASSOCIATED WITH ABOVE REQUIREMENTS MUST BE INCLUDED IN THE PROJECT
- 6. FLUSH MOUNT ALL NEW WIRING DEVICES IN NEW OR EXISTING SURFACES, THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
- 7. IN ROOMS WHERE NO FIXTURES ARE SHOWN, THE EXISTING LIGHTING LAYOUT AND CIRCUITING TO REMAIN.
- 8. LOCATE PHOTOCELL DEVICES FOR CONTROL OF EXTERIOR LIGHTING FIXTURES, ON THE ROOF AT A LOCATION WHICH CANNOT BE SEEN FROM GRADE LEVEL. PROVIDE WP DEVICES AND BOXES.
- 9. A DEDICATED NEUTRAL CONDUCTOR IS REQUIRED FOR ALL DIMMABLE CIRCUITS.
- 10. BOX AROUND RECESSED LIGHTING FIXTURES AS REQUIRED SO THAT ALL CODE REQUIRED CLEARANCES BETWEEN COMBUSTIBLE MATERIALS, THERMAL INSULATION, ETC AND LIGHTING FIXTURES ARE MAINTAINED. FULLY COORDINATE ALL REQUIREMENTS WITH THE GENERAL CONTRACTOR.
- 11. PROVIDE ENCLOSURES OVER RECESSED LIGHTING FIXTURES INSTALLED IN RATED CEILINGS SO ALL CODE REQUIRED RATINGS ARE MAINTAINED. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES AND RATINGS. FULLY COORDINATE ALL REQUIREMENTS WITH THE GENERAL CONTRACTOR.
- 12. SEAL AROUND ALL CONDUIT AND CABLE PENETRATIONS THROUGH WALLS, CEILINGS, AND FLOORS TO MAINTAIN CODE REQUIRED RATINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- 13. REFER TO THE LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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MISSOURI ARMY NATIONAL GUARD

AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258001 & 8136258003

REVISION:

DATE:

REVISION:

DATE:

REVISION:

ISSUE DATE: 05/27/2022

DRAWN BY: HB
CHECKED BY: BA
DESIGNED BY: HB

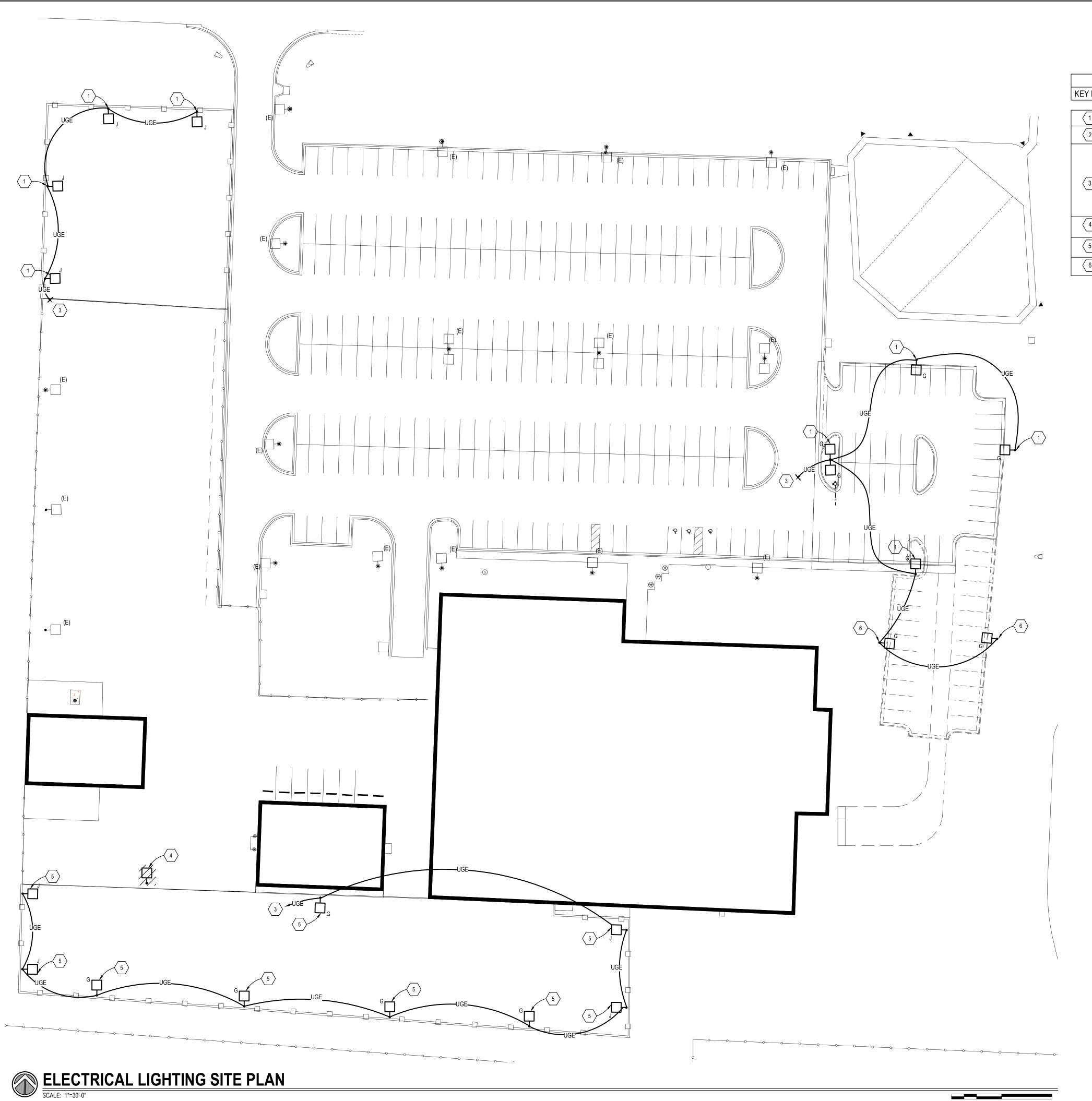
SHEET TITLE:

Electrical Abbreviations, Symbols Legend, & General Notes

SHEET NUMBER:

E-000

Page 8 of 23 05/27/2022



ELECTRICAL LIGHTING SITE PLAN NOTES		
KEY NOTE	DESCRIPTION	
1	NEW POLE MOUNTED LIGHT FIXTURE. SEE THE SITE FIXTURE POLE BASE DETAIL AND LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.	
2	NEW POLE MOUNTED LIGHT FIXTURE. SEE THE SITE FIXTURE POLE BASE DETAIL AND LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION. INSTALL ONLY IF ADD ALTERNATE #1 FOR PARKING LOT EXTENSION IS ACCEPTED.	
3	ELECTRICAL CONTRACTOR TO FIELD VERIFY AND ROUTE CIRCUIT FOR NEW POLE MOUNTED LIGHT FIXTURES TO EXISTING PANELBOARD SERVING EXISTING PARKING LOT LIGHT FIXTURES. ROUTE TO AN EXISTING SPARE 20A/1P CIRCUIT BREAKER. IF NO SPARE 20A/1P CIRCUIT BREAKERS ARE AVAILABLE, CONTRACTOR TO INSTALL NEW 20A/1P CIRCUIT BREAKER. NEW CIRCUIT BREAKER SHALL BE FULLY COMPATIBLE WITH EXISTING PANELBOARD AND SHALL MAINTAIN THE PANELBOARD'S UL LISTING AND INTERRUPT RATING. CONTRACTOR TO VERIFY THAT THE EXISTING PANELBOARD HAS ENOUGH SPACE TO ACCOMMODATE ADDITIONAL LOAD. ROUTE #10'S THROUGHOUT ENTIRE CIRCUIT. ROUTE CIRCUIT VIA NEW INTERMATIC NIGHTFOX SERIES ELECTRONIC PHOTOCELL. LOCATE PHOTOCELL ON THE ROOF AT A LOCATION WHICH CANNOT BE SEEN FROM GRADE LEVEL. PROVIDE WEATHER PROOF DEVICE, BOX, AND MOUNT PER MANUFACTURER'S INSTRUCTION. COORDINATE FINAL LOCATION OF PHOTOCELL WITH OWNER. NEW LIGHTS SHALL BE CONTROLLED TO TURN ON/OFF AT THE SAME TIME AS THE OTHER EXTERIOR LIGHTS SERVING THE AREA.	
$\langle 4 \rangle$	IF ALTERNATE #1 IS ACCEPTED, EXISTING POLE MOUNTED LIGHT FIXTURE AND ASSOCIATED CONCRETE BASE ARE TO BE REMOVED. REMOVE CONDUCTORS BACK TO SOURCE. EXISTING CONDUIT CAN BE ABANDONED IN PLACE.	
5	NEW POLE MOUNTED LIGHT FIXTURE. SEE THE SITE FIXTURE POLE BASE DETAIL AND LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION. INSTALL ONLY IF ADD ALTERNATE #1 FOR PARKING LOT EXTENSION IS ACCEPTED.	
6	NEW POLE MOUNTED LIGHT FIXTURE. SEE THE SITE FIXTURE POLE BASE DETAIL AND LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION. INSTALL ONLY IF ADD ALTERNATE #2 FOR PARKING LOT EXTENSION IS ACCEPTED.	

FINAL LOCATION OF ALL POLE MOUNTED SITE LIGHTING FIXTURES AND ASSOCIATED BELOW GRADE CIRCUITRY SHALL BE COORDINATED WITH EXISTING TREES AND PLANTS SO AS TO NOT DAMAGE ROOT SYSTEMS. COORDINATE WITH LANDSCAPE ARCHITECT.

CONTRACTOR SHALL IDENTIFY, SUPPORT, AND PROTECT ALL EXISTING UTILITES THROUGHOUT THE DURATION OF CONSTRUCTION. ALL SYSTEM OUTAGES SHALL BE FULLY COORDINATED WITH THE OWNER'S REPRESENTATIVE/LOCAL UTILITY.

ALL WORK SHOWN DARK, HATCHED AND NOTED IS EXISTING TO BE DEMOLISHED.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258001

REVISION:	
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ISSUE DATE: 05/27/2022

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DESIGNED BY:	BS

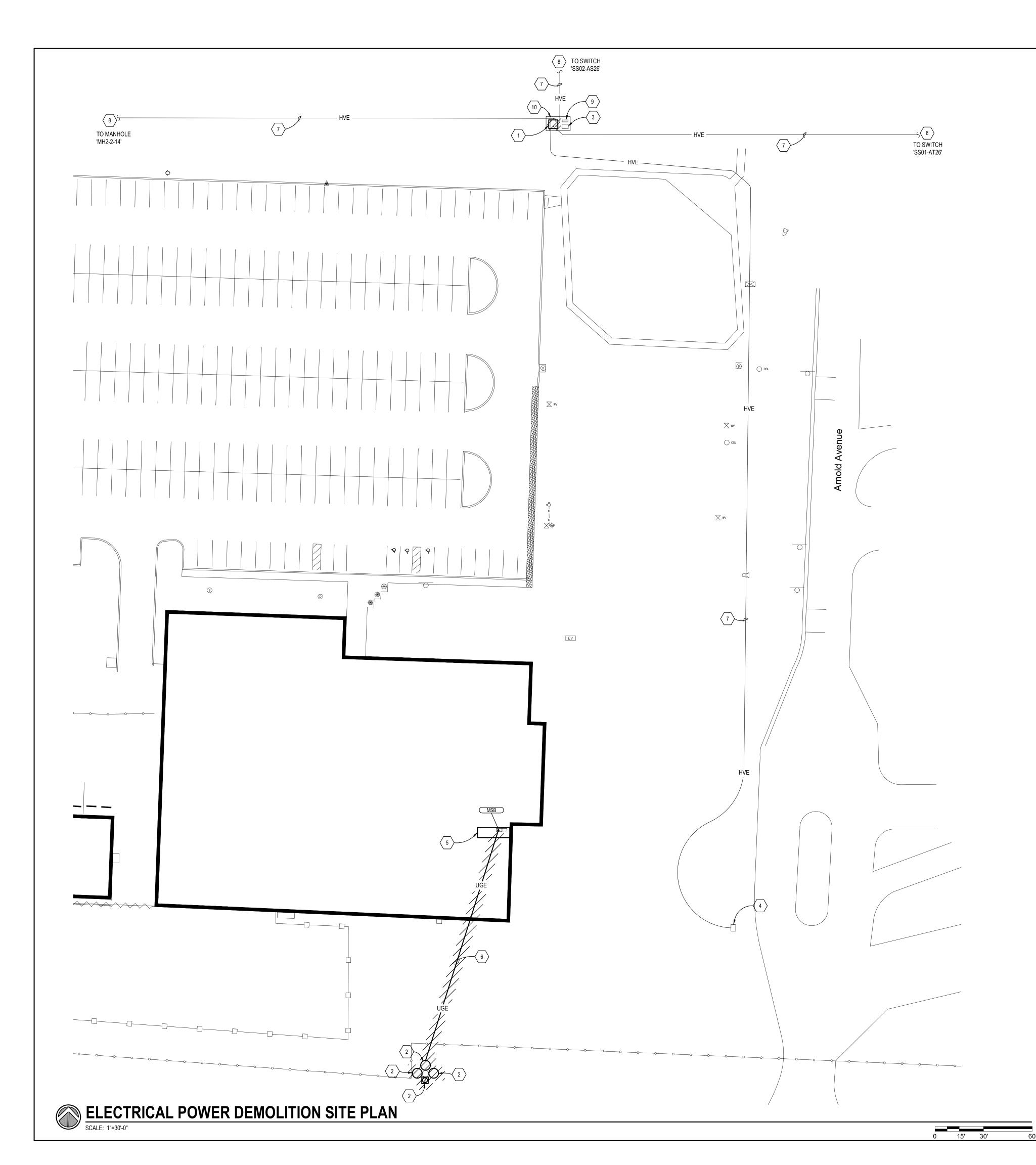
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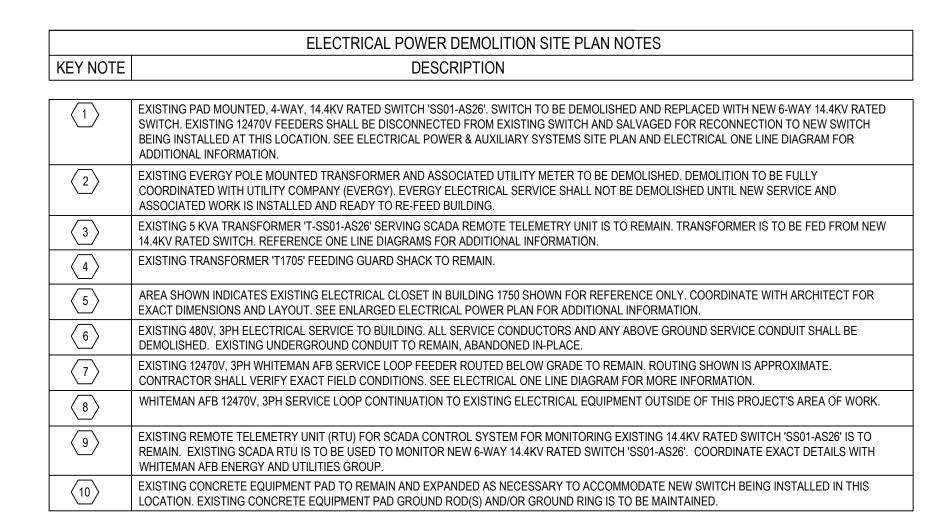
Electrical Lighting Site Plan

SHEET NUMBER:

E-001

Page 9 of 23 05/27/2022



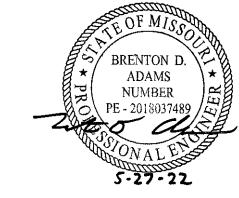


CONTRACTOR SHALL PHASE ALL WORK SO AS TO MINIMIZE ANY POWER OUTAGES TO OWNER AS ALL FACILITIES WILL REMAIN OCCUPIED FOR THE DURATION OF CONSTRUCTION

ALL WORK SHOWN DARK, HATCHED AND NOTED IS EXISTING TO BE DEMOLISHED.

ALL MEDIUM VOLTAGE WORK SHALL BE FULLY COORDINATED WITH WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP. INSTALLATION SHALL FULLY MEET ALL REQUIREMENTS AS SET FORTH BY WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP.

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ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258003

ISSUE DATE: 05/27/2022

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DESIGNED BY: HB

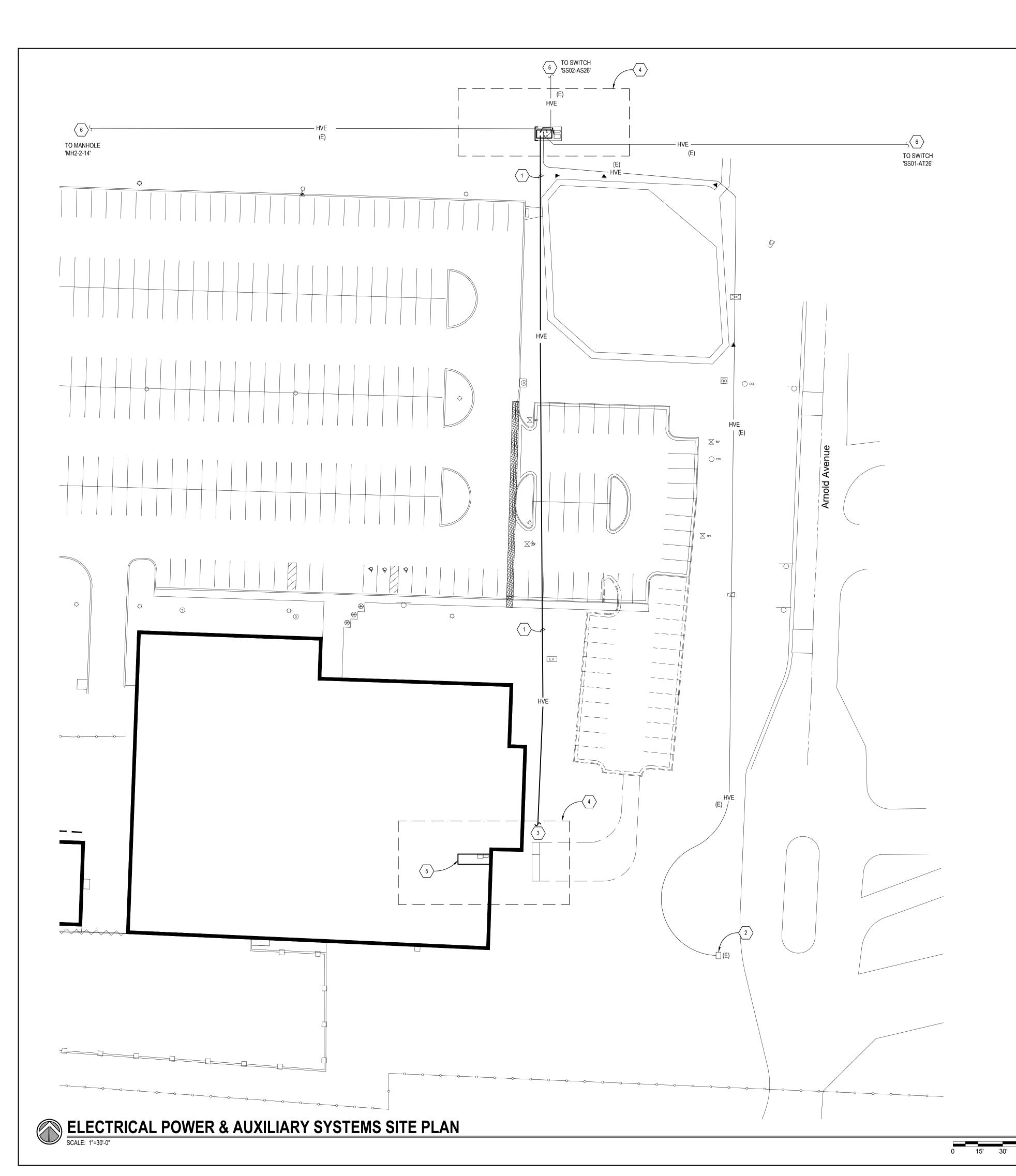
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Electrical Power Demolition Site Plan

SHEET NUMBER:

E-002

Page 10 of 23 05/27/2022



	ELECTRICAL POWER & AUXILIARY SYSTEMS SITE PLAN NOTES
KEY NOTE	DESCRIPTION
1	NEW 15KV RATED PRIMARY SERVICE ENTRANCE FEEDERS FROM THE NEW PAD MOUNTED 6-WAY, 14.4KV RATED SWITCH 'SS01-AS26' TO THE NEW PAD MOUNTED TRANSFORMER 'T-1' TO BE INSTALLED IN NEW 2-WAY CONCRETE ENCASED DUCTBANK AT A MINIMUM OF 42" BELOW FINAL GRADE. COORDINATE ROUTING WITH ALL OTHER BELOW GRADE SYSTEMS. ONE CONDUIT WITHIN DUCTBANK IS FOR FUTURE AND IS NOT TO BE USED. PROVIDE SPARE CONDUIT WITH PULL ROPE. COORDINATE INSTALLATION WITH OWNER. SEE ELECTRICAL ONE LINE DIAGRAM, ELECTRICAL DETAILS AND ELECTRICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2	EXISTING TRANSFORMER 'T1705' FEEDING GUARD SHACK TO REMAIN.
3	SEE ENLARGED ELECTRICAL POWER PLAN FOR FEEDER CONTINUATION.
4	AREA OF WORK. SEE ENLARGED POWER PLANS FOR ADDITIONAL INFORMATION.
5	AREA SHOWN INDICATES EXISTING ELECTRICAL CLOSET IN BUILDING 1750 SHOWN FOR REFERENCE ONLY. COORDINATE WITH ARCHITECT FOR EXACT DIMENSIONS AND LAYOUT. SEE ENLARGED ELECTRICAL POWER PLAN FOR ADDITIONAL INFORMATION.
<b>6</b>	WHITEMAN AFB 12470V, 3PH SERVICE LOOP CONTINUATION TO EXISTING ELECTRICAL EQUIPMENT OUTSIDE OF THIS PROJECT'S AREA OF WORK.

CONTRACTOR SHALL PHASE ALL WORK SO AS TO MINIMIZE ANY POWER OUTAGES TO OWNER AS ALL FACILITIES WILL REMAIN OCCUPIED FOR THE DURATION OF CONSTRUCTION.

ALL MEDIUM VOLTAGE WORK SHALL BE FULLY COORDINATED WITH WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP. INSTALLATION SHALL FULLY MEET ALL REQUIREMENTS AS SET FORTH BY WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP.

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WHITEMAN AIR FORCE BASE

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PROJECT # T2045-01

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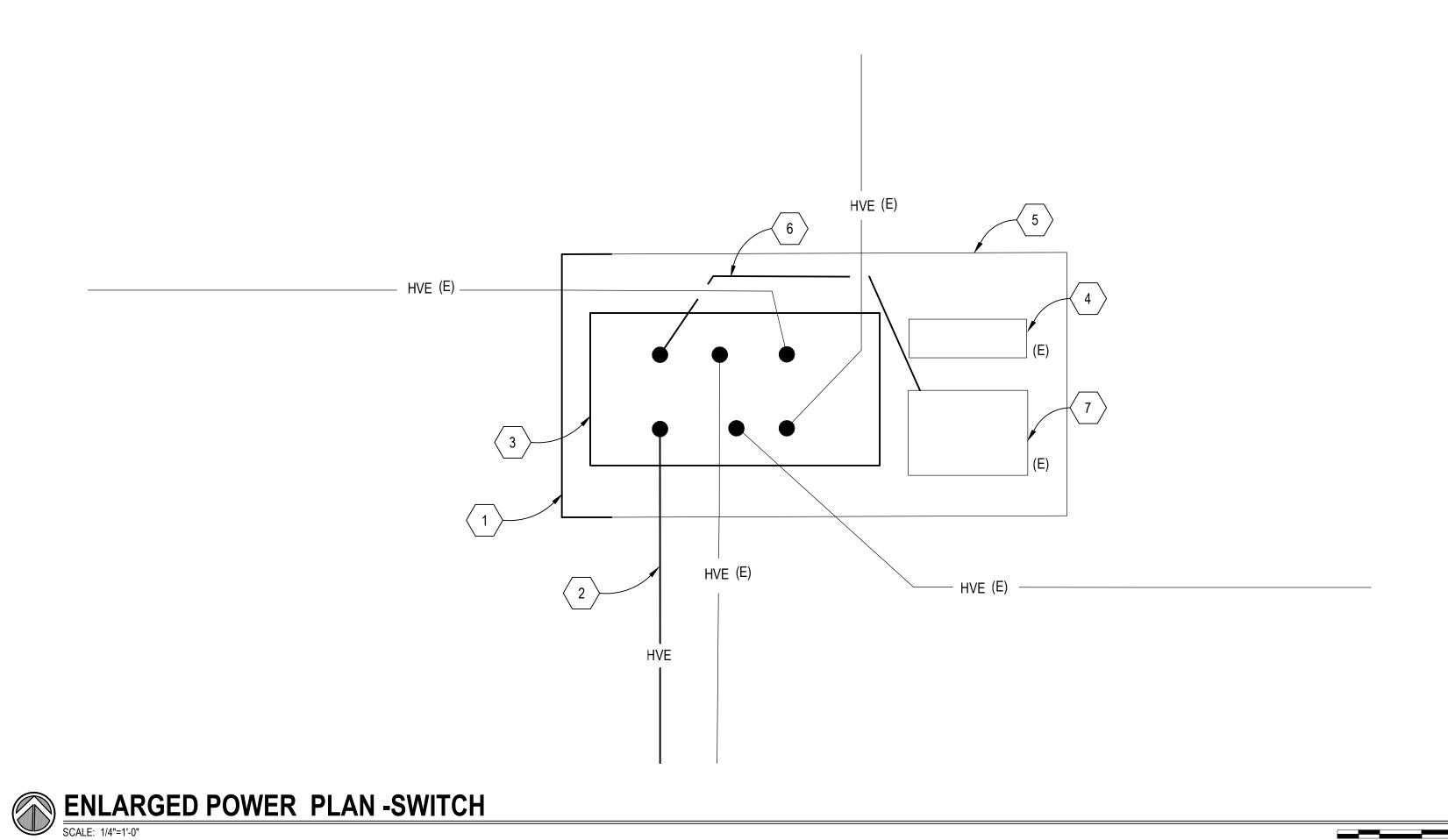
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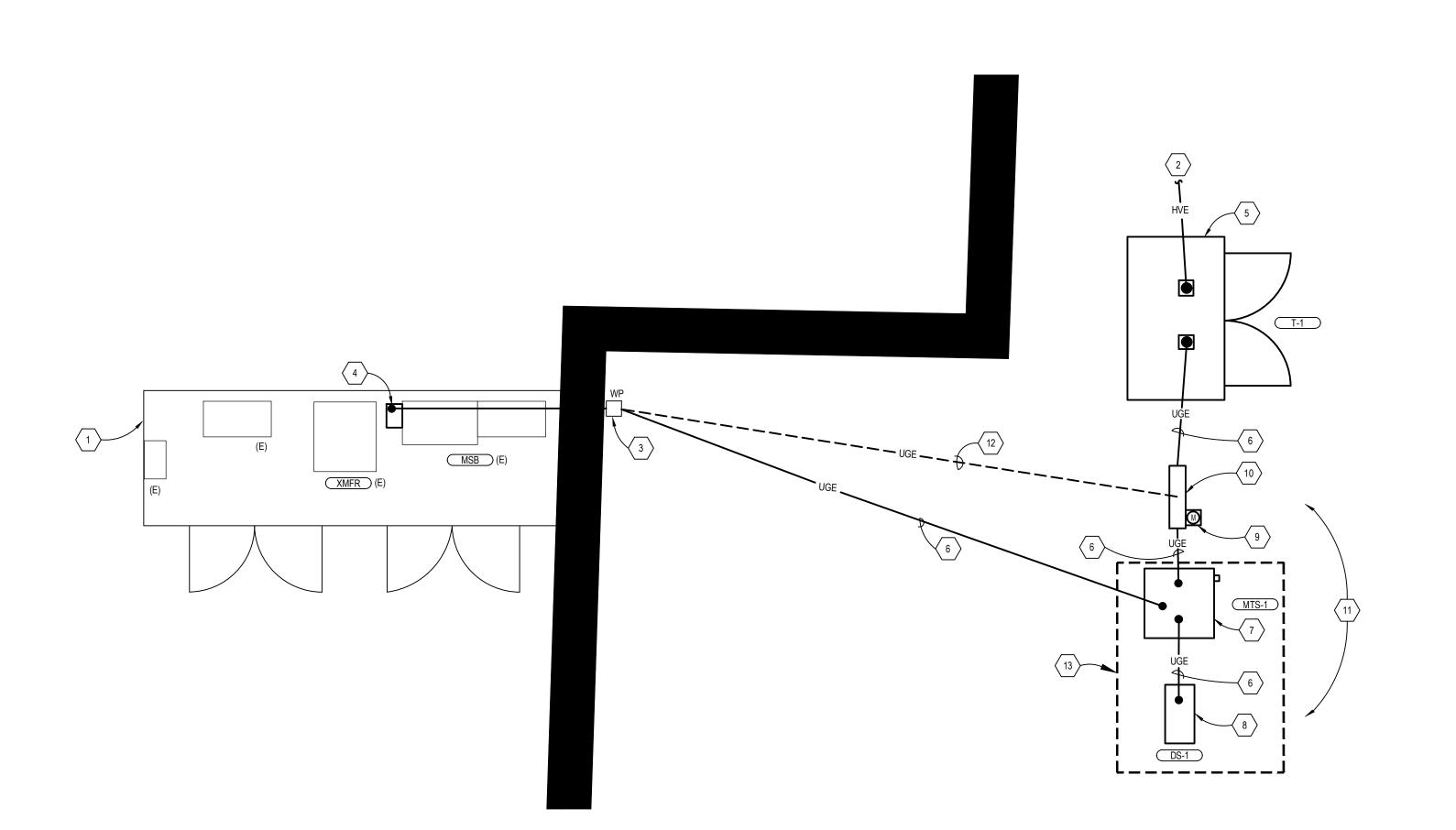
Electrical Power & Auxiliary Systems Site Plan

SHEET NUMBER:

E-003

Page 11 of 23 05/27/2022





ENLARGED POWER PLAN

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

ENLARGED POWER PLAN - SWITCH NOTES		
KEY NOTE	DESCRIPTION	
1	CONTRACTOR SHALL EXTEND EXISTING CONCRETE PAD TO ACCOMMODATE LARGER, 6-WAY SWITCH INSTALLATION. CONCRETE PAD SPECIFICATIONS/REQUIREMENTS TO MEET SWITCH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SHALL, AT A MINIMUM, EXTEND PAST THE LARGEST OUTSIDE DIMENSION OF THE SWITCH BY 6" ON ALL SIDES. CONCRETE PAD SHALL BE LEVEL AND SHALL EXTEND ABOVE GRADE BY A MINIMUM OF 6" OR AS REQUIRED TO MATCH THE EXISTING PORTION OF THE CONCRETE PAD. IF GROUND RING EXISTS, EXTEND GROUND RING AS NECESSARY IN ORDER TO ENCOMPASS THE NEW PORTION OF THE CONCRETE EQUIPMENT PAD.	
2	NEW 15KV RATED PRIMARY SERVICE ENTRANCE FEEDERS FROM THE NEW PAD MOUNTED 6-WAY, 14.4KV RATED SWITCH 'SS01-AS26' TO THE NEW PAD MOUNTED TRANSFORMER 'T-1' TO BE INSTALLED IN NEW 2-WAY CONCRETE ENCASED DUCTBANK AT A MINIMUM OF 42" BELOW FINAL GRADE. COORDINATE ROUTING WITH ALL OTHER BELOW GRADE SYSTEMS. ONE CONDUIT WITHIN DUCTBANK IS FOR FUTURE AND IS NOT TO BE USED. PROVIDE SPARE CONDUIT WITH PULL ROPE. COORDINATE INSTALLATION WITH OWNER. SEE ELECTRICAL ONE LINE DIAGRAM, ELECTRICAL DETAILS AND ELECTRICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.	
3	CONTRACTOR TO PROVIDE OF NEW PAD MOUNTED 6-WAY, 14.4KV RATED SWITCH 'SS01-AS26'. SALVAGED 12470V, 3PH FEEDERS SHALL BE RECONNECTED TO NEW SWITCH. NEW SWITCH'S COMPARTMENTS SHALL BE ARRANGED SO THAT EXISTING 12470V, 3PH FEEDER CONDUCTORS HAVE ENOUGH LENGTH TO BE RECONNECTED TO THE SWITCH. NEW SWITCH COMPARTMENT LOCATIONS ARE SHOWN FOR DIAGRAMMATIC PURPOSES ONLY. CONTRACTOR SHALL OBTAIN EXACT DIMENSIONED SHOP DRAWINGS FOR SWITCH IN ORDER TO DETERMINE SWITCH AND FUSIBLE BAY COMPARTMENT LOCATIONS. SEE ELECTRICAL DETAILS AND ELECTRICAL ONE LINE DIAGRAMS FOR ADDITIONAL INFORMATION.	
4	EXISTING REMOTE TELEMETRY UNIT (RTU) FOR SCADA CONTROL SYSTEM FOR MONITORING 14.4KV RATED SWITCH 'SS01-AS26' SWITCH POSITIONS. EXISTING SCADA RTU IS TO BE USED TO MONITOR NEW 6-WAY 14.4KV RATED SWITCH. PROVIDE ALL INTERCONNECTIONS BETWEEN EXISTING SCADA RTU AND NEW 6-WAY, 14.4 KV RATED SWITCH 'SS01-AS26' FOR A COMPLETE INSTALLATION. COORDINATE EXACT DETAILS WITH WHITEMAN AFB ENERGY AND UTILITIES GROUP AND THE 6-WAY, 14.4 KV RATED SWITCH MANUFACTURER.	
5	EXISTING PORTION OF CONCRETE PAD TO REMAIN. EXISTING CONCRETE EQUIPMENT PAD GROUND ROD(S) AND/OR GROUND RING IS TO BE MAINTAINED. IF GROUND RING EXISTS, EXTEND GROUND RING AS NECESSARY IN ORDER TO ENCOMPASS THE NEW PORTION OF THE CONCRETE EQUIPMENT PAD.	
6	ROUTE (3) #2 (15KV RATED) TYPE MV-105 CONDUCTORS IN (1) 5" CONDUIT IN ORDER TO RE-FEED EXISTING TRANSFORMER FROM NEW 6-WAY, 14.4KVA SWITCH 'SS01-AS26'. COORDINATE EXACT REQUIREMENTS WITH OWNER.	
7	EXISTING 5KVA TRANSFORMER 'T-SS01-AS26' TO REMAIN. TRANSFORMER TO BE DISCONNECTED FROM EXISTING 4-WAY SWITCH AND RECONNECTED TO NEW 6-WAY SWITCH 'SS01-AS26' IN ORDER TO CONTINUE FEEDING EXISTING REMOTE TELEMETRY UNIT (RTU).	

CONTRACTOR SHALL IDENTIFY, SUPPORT, AND PROTECT ALL EXISTING UTILITES THROUGHOUT THE DURATION OF CONSTRUCTION. ALL SYSTEM OUTAGES SHALL BE FULLY COORDINATED WITH THE OWNER'S REPRESENTATIVE/LOCAL

ALL MEDIUM VOLTAGE WORK SHALL BE FULLY COORDINATED WITH WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP. INSTALLATION SHALL FULLY MEET ALL REQUIREMENTS AS SET FORTH BY WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP.

	ENLARGED POWER PLAN NOTES
KEY NOTE	DESCRIPTION
1	EXISTING ELECTRICAL CLOSET IN BUILDING 1750 SHOWN FOR REFERENCE ONLY. REFER TO ARCHITECT FOR EXACT DIMENSIONS AND LAYOUT OF ROOM.
2	SEE ELECTRICAL POWER & AUXILIARY SYSTEMS SITE PLAN FOR FEEDER CONTINUATION.
3	ROUTE NEW FEEDER FROM SECONDARY SIDE OF NEW MANUAL TRANSFER SWITCH 'MTS-1', BELOW GRADE TO BUILDING. ONCE AT THE BUILDING, ROUTE FEEDER VERTICALLY, ALONG EXTERIOR SURFACE OF THE BUILDING TO A NEW WEATHERPROOF PULLBOX SURFACE MOUNTED ON EXTERIOR WALL. ROUTE NEW FEEDERS INTO BUILDING AND INTO ELECTRICAL CLOSET ON FIRST FLOOR VIA NEW PULLBOX. PROVIDE CONDUIT SLEEVES AND SEAL BUILDING PENETRATION PER SPECIFICATIONS IN ORDER TO CREATE A WEATHERTIGHT INSTALLATION. COORDINATE ANY PENETRATION WORK THROUGH EXTERIOR BUILDING WALL WITH ARCHITECT. SIZE PULLBOX PER NEC AT A MINIMUM, UPSIZE TO AID IN ROUTING OF FEEDERS AS NECESSARY. COORDINATE EXACT FINISH OF PULLBOX WITH OWNER. ONCE INSIDE THE BUILDING, FEEDERS SHALL BE ROUTED SURFACE MOUNTED ON CEILING OF EXISTING ELECTRICAL CLOSET THE REMAINDER OF THE RUN UNTIL CONNECTED TO EXISTING MAIN SWITCH BOARD 'MSB'.
4	CONDUIT TO BE ROUTED SURFACE MOUNTED DOWN WALL AND CONNECTED INTO EXISTING SWITCHBOARD 'MSB'. PROVIDE WIREWAY INSTALLED ALONGSIDE EXISTING SWITCHBOARD AS REQUIRED TO PROVIDE PATH FOR FEEDERS TO ENTER INTO EXISTING SWITCHBOARD 'MSB.
5	NEW PAD MOUNTED ELECTRICAL SERVICE TRANSFORMER 'T-1'. TRANSFORMER AND TRANSFORMER PAD TO BE PROVIDED AND INSTALLED BY CONTRACTOR. SEE TRANSFORMER PAD DETAIL FOR ADDITIONAL INFORMATION.
6	ROUTE 480V, 3PH FEEDER A MINIMUM OF 42" BELOW GRADE. CABLING AND CONDUIT PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE FINAL ROUTING AND REQUIREMENTS WITH OWNER. SEE ELECTRICAL ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
7	NEW 800A PAD MOUNTED MANUAL TRANSFER SWITCH 'MTS-1' TO BE INSTALLED AT THIS LOCATION. COORDINATE EXACT INSTALLATION REQUIREMENTS WITH MANUFACTURER IN ORDER TO ENSURE A SECURE INSTALLATION. REFER TO ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
8	NEW PORTABLE GENERATOR DOCKING STATION 'DS-1'. PROVIDE NEW GENERATOR DOCKING STATION WITH NEMA 3R ENCLOSURE. GENERATOR DOCKING STATION BOX SHALL HAVE A MINIMUM OF 5' OF CLEARANCE IN FRONT OF EQUIPMENT FOR ACCESS. GENERATOR DOCKING STATION TO BE UNISTRUT MOUNTED UTILIZING STANLESS STEEL UNISTRUT ANCHORED TO CONCRETE PAD FOR A SECURE INSTALLATION. SEE ELECTRICAL ONE LINE DIAGRAM AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
9	NEW kWH SOLID STATE POLYPHASE ELECTRICAL CONSUMPTION METER (GENERAL ELECTRIC KV2C METER FAMILY, OR ENGINEER APPROVED EQUAL) AND COMPATIBLE WEATHERPROOF METER BASE (MILBANK) TO BE PROVIDED AND INSTALLED BY CONTRACTOR. METER ASSEMBLY TO BE MOUNTED ON STAINLESS STEEL UNISTRUT RACK THAT IS SECURED TO CONCRETE PAD. CONTRACTOR TO PROVIDE CURRENT TRANSFORMERS (CT'S) COMPATIBLE WITH PROVIDED METER. CT'S SHALL BE REVENUE GRADE. CONTRACTOR SHALL PROVIDE AND INSTALL (1) 3/4" X 10' COPPER CLAD GROUND ROD INSTALLED ADJACENT TO THE NEW METER ASSEMBLY. TOP OF ROD SHALL BE JUST BELOW TOP SURFACE OF CONCRETE PAD AND SHALL BE PROVIDED WITH A GROUND ROD TEST WELL THAT IS FLUSH WITH TOP SURFACE OF THE CONCRETE PAD. FROM GROUND ROD, ROUTE (1) #3/0 GROUNDING ELECTRODE CONDUCTOR IN 1" SCHEDULE 40 PVC CONDUIT AND UTILIZE TO GROUND METER ASSEMBLY. CONTRACTOR SHALL ROUTE (1) 1-1/4" RIGID GALVINIZED STEEL CONDUIT BETWEEN CT CABINET AND METER SOCKET. PROVIDE ALL NECESSARY FUSES, FUSE BLOCKS, CURRENT TRANSFORMERS, METER, METER BASE, CONDUIT, GROUNDING, AND WIRING TO ENSURE A COMPLETE METERING INSTALLATION. COORDINATE EXACT INSTALLATION REQUIREMENTS WITH OWNER.
(10)	NEW 480V, 3PH, 800A, NEMA 4X, LOCKABLE, MILBANK (OR ENGINEER APPROVED EQUAL) CURRENT TRANSFRORMER (CT) CABINET TO BE BE MOUNTED ON STAINLESS STEEL UNISTRUT RACK THAT IS SECURED TO CONCRETE PAD. CONTRACTOR TO ENSURE CT CABINET IS COMPATIBLE WITH PROVIDED CURRENT TRANSFORMERS AND METER. PROVIDE ALL NECESSARY EQUIPMENT, WIRE, CONDUIT, AND CONNECTIONS TO ENSURE A COMPLETE METERING INSTALLATION. COORDINATE EXACT INSTALLATION REQUIREMENTS WITH OWNER.
(11)	REFERENCE LANDSCAPE SITE PLANS FOR CONCRETE PAD INFORMATION IN THIS AREA.
(12)	UNDER BAS BID CONDITION ONLY, SERVICE ENTRANCE FEEDER SHALL BE ROUTED DIRECTLY FROM THE NEW CT CABINET TO THE EXISTING MAIN SWITCHBOARD, 'MSB'.
(13)	ALL WORK ASSOCIATED WITH THE INSTALLATION OF 'MTS-1' AND 'DS-1', INCLUDING ASSOCIATED CONCRETE PAD, IS TO BE PERFORMED ONLY IF ADD ALTERNATE #3 IS ACCEPTED.

ALL MEDIUM VOLTAGE WORK SHALL BE FULLY COORDINATED WITH WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP. INSTALLATION SHALL FULLY MEET ALL REQUIREMENTS AS SET FORTH BY WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP.

CONTRACTOR SHALL IDENTIFY, SUPPORT, AND PROTECT ALL EXISTING UTILITES THROUGHOUT THE DURATION OF CONSTRUCTION. ALL SYSTEM OUTAGES SHALL BE FULLY COORDINATED WITH THE OWNER'S REPRESENTATIVE/LOCAL UTILITY.

ALL WORK ASSOCIATED WITH THE INSTALLATION OF 'MTS-1'
AND 'DS-1', INCLUDING ASSOCIATED CONCRETE PAD, IS TO BE
PERFORMED ONLY IF ADD ALTERNATE #3 IS ACCEPTED.
BASE BID SHALL INCLUDE ROUTING NEW SERVICE ENTRANCE
FEEDER DIRECTLY FROM THE NEW CT CABINET TO THE
BUILDING'S EXISTING MAIN SWITCHBOARD, 'MSB'.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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MISSOURI ARMY NATIONAL GUARD

AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258003

REVISION:	
DATE:	
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ISSUE DATE: 05/27/2022

DRAWN BY: HB
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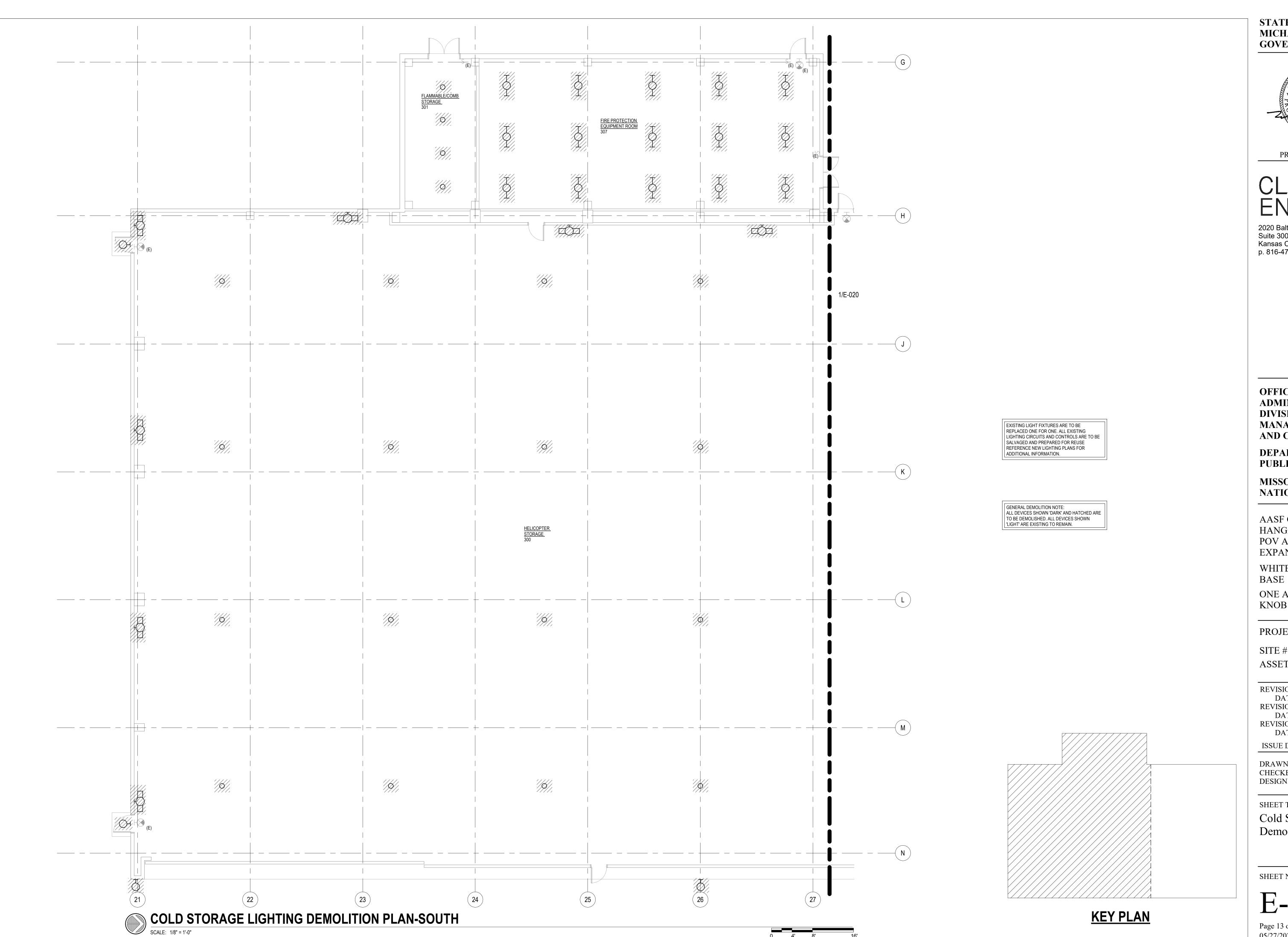
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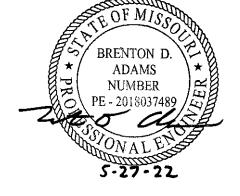
**Enlarged Power Plans** 

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Page 12 of 23 05/27/2022





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WHITEMAN AIR FORCE

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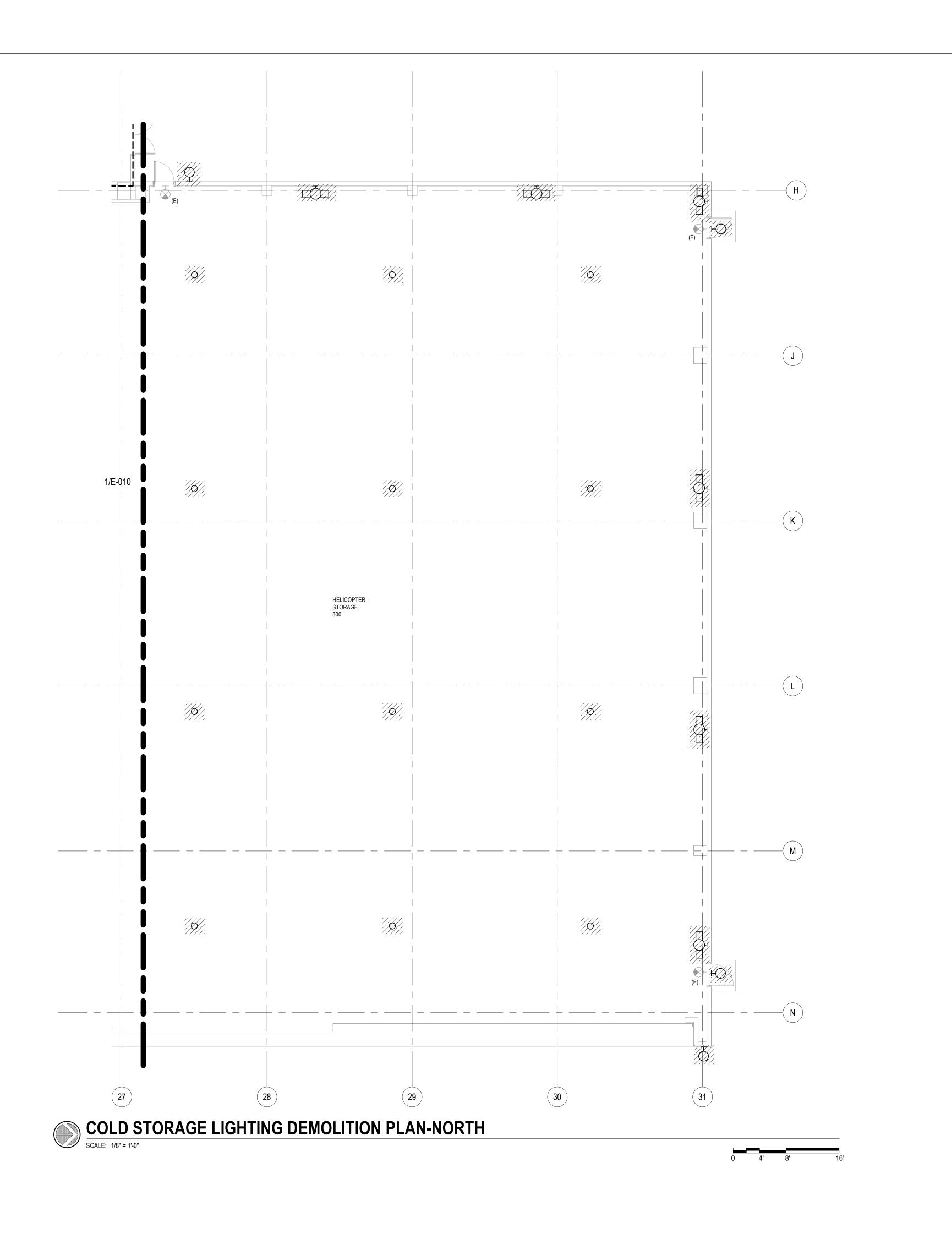
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Cold Storage Lighting Demolition Plan-South

SHEET NUMBER:

E-010

Page 13 of 23 05/27/2022

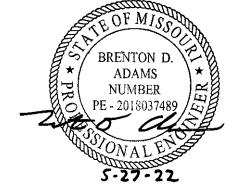


EXISTING LIGHT FIXTURES ARE TO BE
REPLACED ONE FOR ONE. ALL EXISTING
LIGHTING CIRCUITS AND CONTROLS ARE TO BE
SALVAGED AND PREPARED FOR REUSE
REFERENCE NEW LIGHTING PLANS FOR
ADDITIONAL INFORMATION.

GENERAL DEMOLITION NOTE:
ALL DEVICES SHOWN 'DARK' AND HATCHED ARE
TO BE DEMOLISHED. ALL DEVICES SHOWN
'LIGHT' ARE EXISTING TO REMAIN.

MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI



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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES, MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF PUBLIC SAFETY

MISSOURI ARMY NATIONAL GUARD

AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258 ASSET #: 8136258001

REVISION:
DATE:
REVISION:
DATE:
REVISION:
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ISSUE DATE: 05/27/2022

DRAWN BY: BS
CHECKED BY: BA
DESIGNED BY: BS

SHEET TITLE:

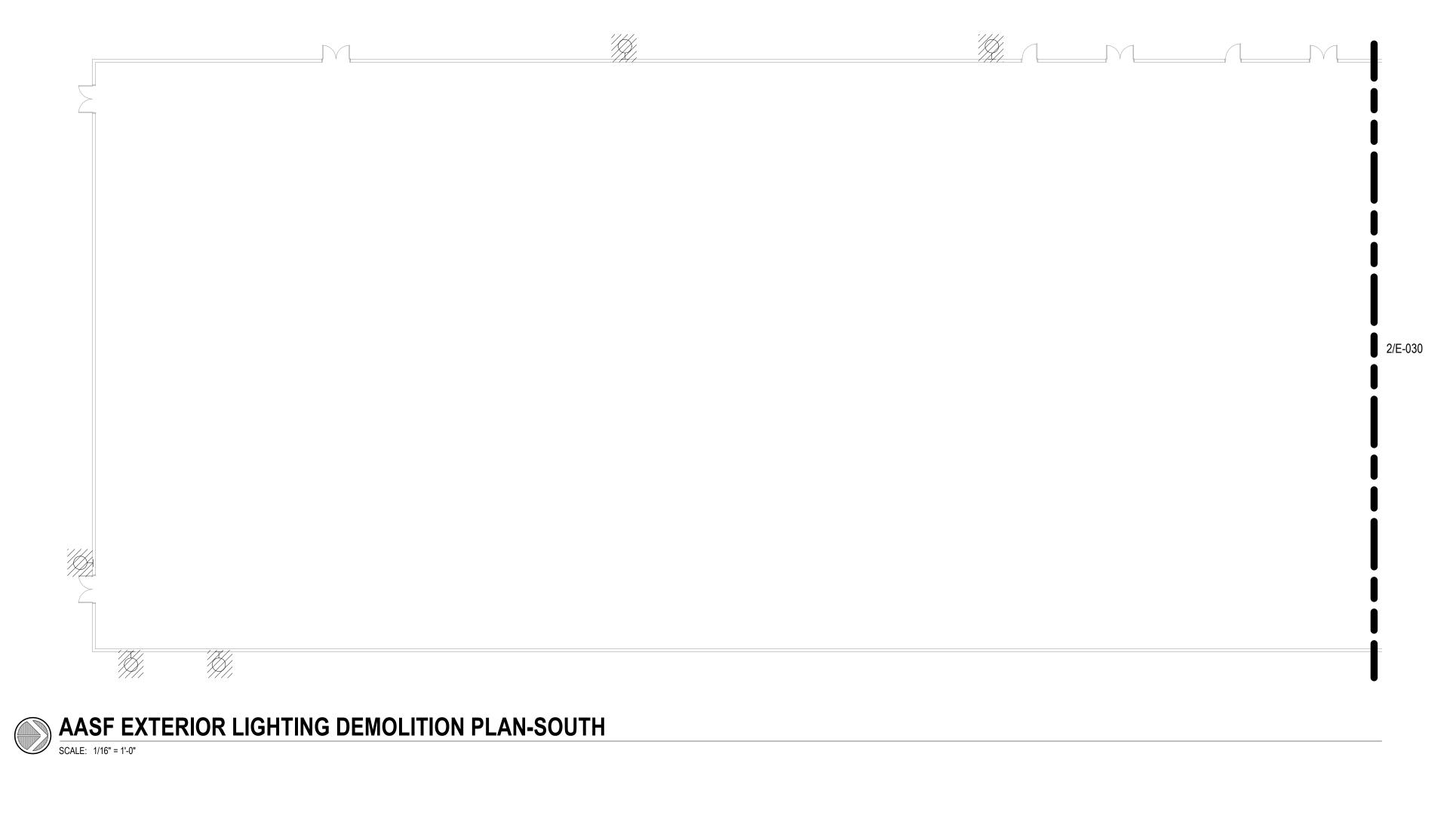
Cold Storage Lighting Demolition Plan-North

SHEET NUMBER:

E-020

Page 14 of 23 05/27/2022

**KEY PLAN** 



EXISTING LIGHT FIXTURES ARE TO BE REPLACED ONE FOR ONE. ALL EXISTING SALVAGED AND PREPARED FOR REUSE REFERENCE NEW LIGHTING PLANS FOR ADDITIONAL INFORMATION.

GENERAL DEMOLITION NOTE: ALL DEVICES SHOWN 'DARK' AND HATCHED ARE TO BE DEMOLISHED. ALL DEVICES SHOWN 'LIGHT' ARE EXISTING TO REMAIN.

LIGHTING CIRCUITS AND CONTROLS ARE TO BE

**MISSOURI ARMY** NATIONAL GUARD AASF COLD STORAGE

**STATE OF MISSOURI** MICHAEL L. PARSON,

PROFESSIONAL SEAL

**CLARK**&

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DIVISION OF FACILITIES, MANAGEMENT, DESIGN

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Kansas City, MO 64108 p. 816-474-8237

Suite 300

**ENERSEN** 

**GOVERNOR** 

HANGAR LED LIGHTING, POV AND MVC PARKING **EXPANSION** 

WHITEMAN AIR FORCE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258 ASSET #: 8136258001

REVISION: DATE: \_ REVISION: \_ DATE: \_ REVISION: \_ DATE: \_

ISSUE DATE: 05/27/2022

DRAWN BY: BS
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SHEET TITLE:

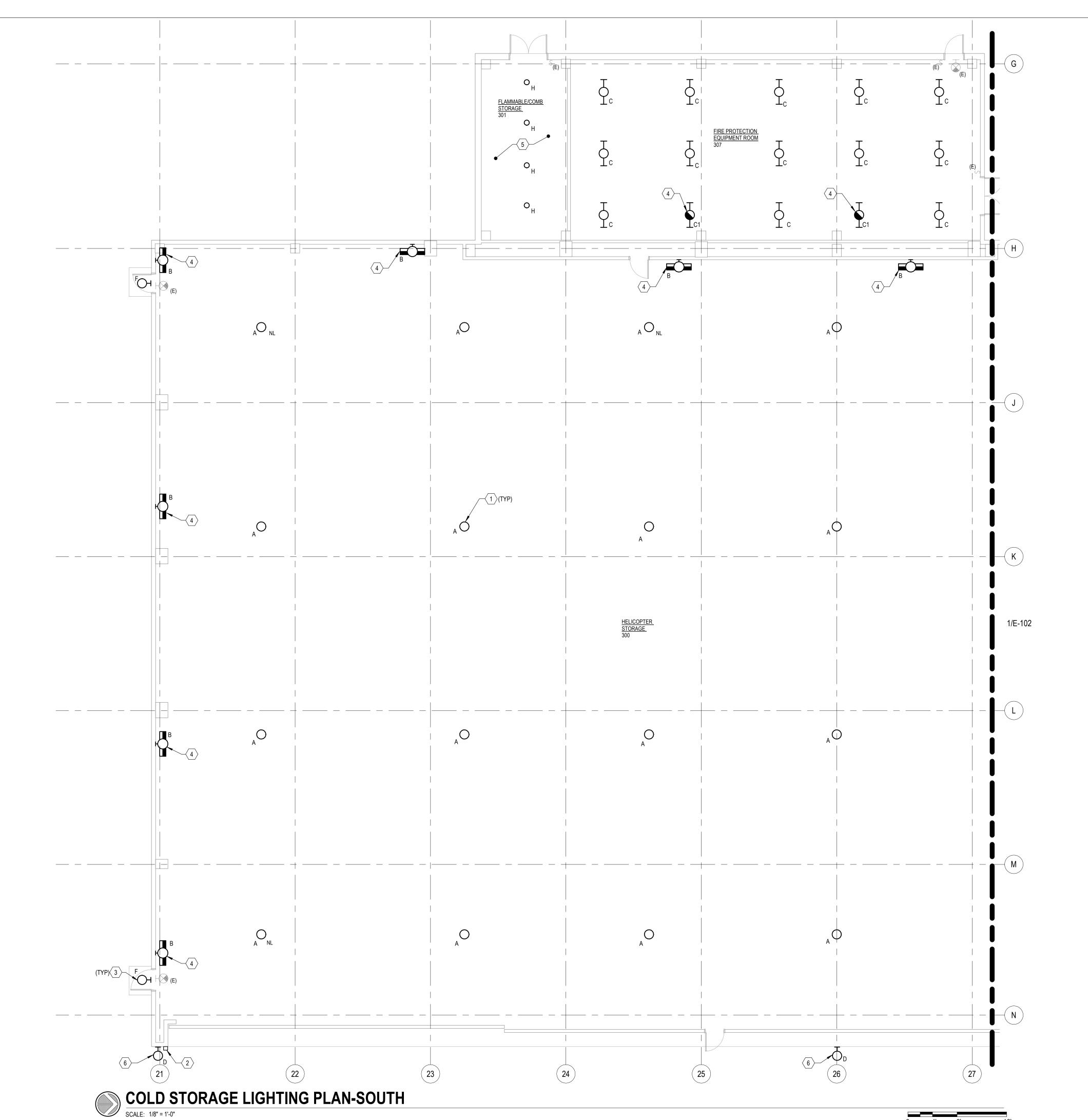
AASF Exterior Lighting Demolition Plan

SHEET NUMBER:

E-030

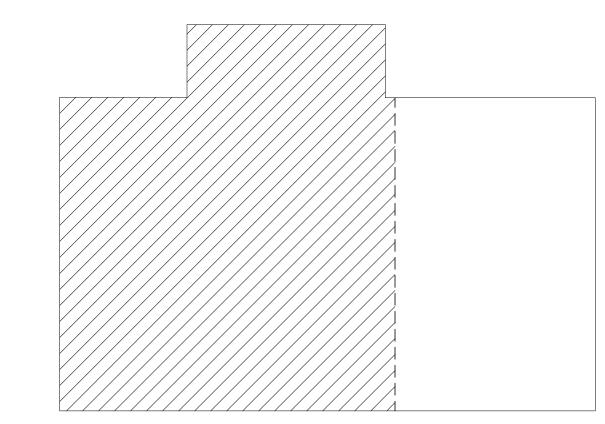
Page 15 of 23 05/27/2022





RECONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUIT AND LIGHTING CONTROLS SALVAGED DURING DEMOLITION UNLESS OTHERWISE NOTED.

COLD STORAGE LIGHTING PLAN-SOUTH NOTES **KEY NOTE** DESCRIPTION CONNECT NEW HIGH BAY FIXTURES TO EXISTING CIRCUIT SALVAGED DURING DEMOLITION. PROVIDE ALL REQUIRED COMPONENTS FOR A RIGID PENDANT MOUNTED SUSPENDED INSTALLATION. FIXTURES ARE TO BE MOUNTED AT SAME ELEVATION AS DEMOLISHED HIGH BAY FIXTURES THAT ARE BEING REPLACED. PROVIDE FIXTURES WITH SAFETY CABLE/CHAIN OR OTHER SECONDARY SAFETY MEANS TO PREVENT FIXTURE FROM FALLING IF PRIMARY PENDANT MOUNT FAILS. COORDINATE EXACT INSATALLATION REQUIRMENTS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. REPLACE EXISTING EXTERIOR PHOTOCELL WITH NEW EXTERIOR PHOTOCELL. PROVIDE INTERMATIC NIGHTFOX SERIES ELECTRONIC PHOTOCELL (OR ENGINEER APPROVED EQUAL). PROVIDE WEATHER PROOF DEVICE, BOX, AND MOUNT PER MANUFACTURÈR'S INSTRUCTION.NEW PHOTOCÉLL TO CONTROL ALL NEW LED WALL PACKS ON EXTERIOR OF HANGAR. MAINTAIN EXISTING CIRCUITRY WHERE POSSIBLE. NEW LED WALL PACK TO REPLACE EXISTING WALL PACK. CONNECT TO EXISTING CIRCUIT AND LIGHTING CONTROL SALVAGED DURING DEMOLITION. REFERENCE LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL CONTRACTOR TO VERIFY AND MAINTAIN EXISTING CIRCUITING FOR EMERGENCY FIXTURES. VERIFY FIXTURE IS CIRCUITED TO AN UNSWITCHED HOT CONDUCTOR OF THE EXISTING LIGHTING CIRCUIT. INTEGRAL EMERGENCY BATTERY DRIVER SHALL ENERGIZE FIXTURE ONLY IN A POWER LOSS SITUATION, NOT A SWITCHING EVENT. ALL MATERIALS AND INSTALLATION METHODS FOR DEVICES WITHIN THIS ROOM SHALL MEET REQUIREMENTS FOR A HAZARDOUS LOCATION, CLASS 1, DIVISION 2 ENVIRONMENT (NEC ARTICLE 501). NEW FLOOD LIGHT FIXTURE TO REPLACE EXISTING FLOOD LIGHT FIXTURE. CONNECT TO EXISTING CIRCUIT AND LIGHTING CONTROL SALVAGED DURING DEMOLITION. PROVIDE NEW FIXTURE WITH ALL NECESSARY COMPONENTS FOR AN ADJUSTABLE YOKE/TRUNION MOUNTING THAT IS COMPATIBLE WITH EXISTING INSTALLATION. REFERENCE LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.



**KEY PLAN** 

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258 ASSET #: 8136258001

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DATE:
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REVISION:

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DESIGNED BY: BS

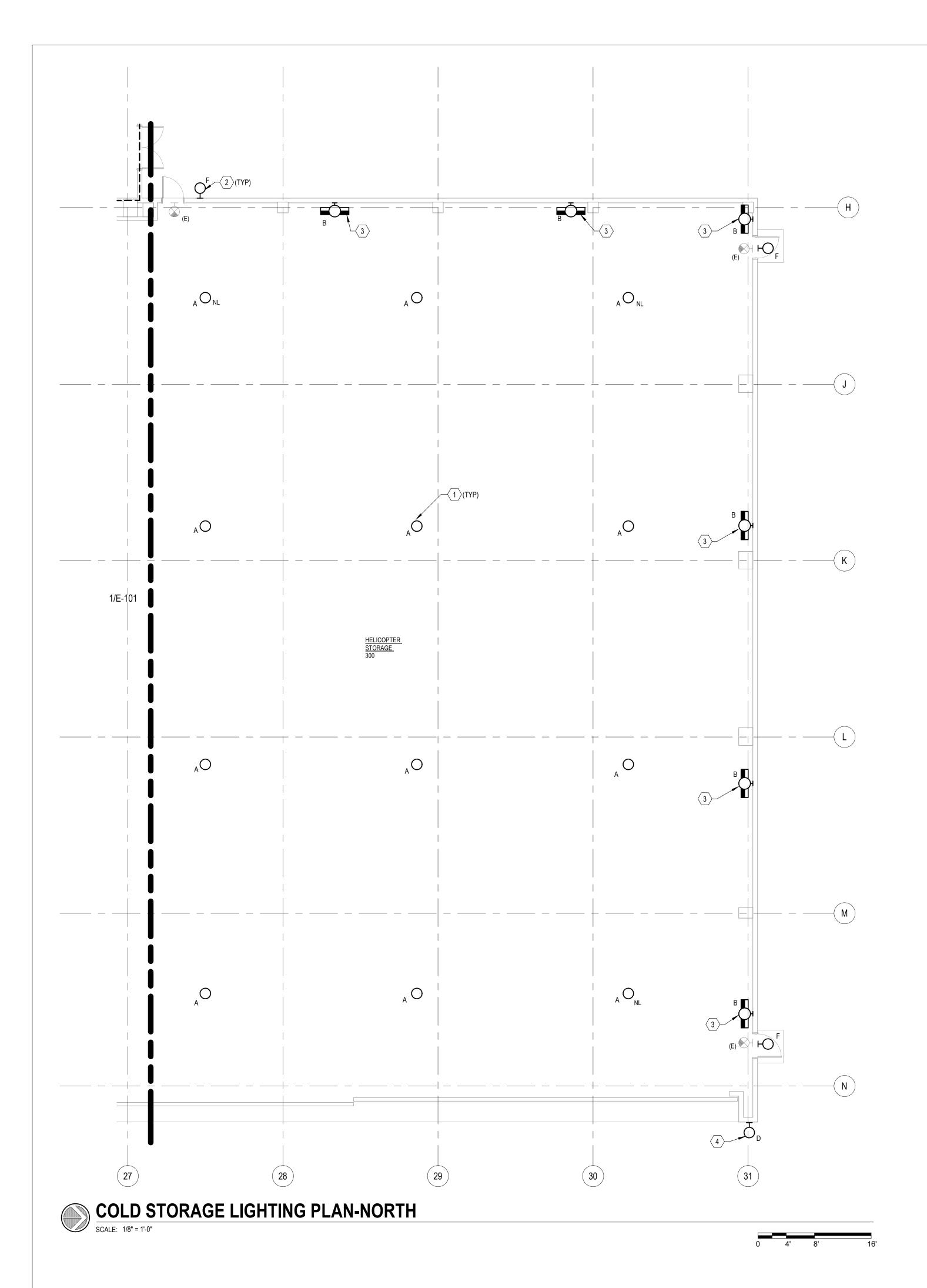
SHEET TITLE:

Cold Storage Lighting Plan-South

SHEET NUMBER:

E-101

Page 16 of 23 05/27/2022



RECONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUIT AND LIGHTING CONTROLS SALVAGED DURING DEMOLITION UNLESS OTHERWISE NOTED.

	COLD STORAGE LIGHTING PLAN-NORTH NOTES					
KEY NOTE	DESCRIPTION					
<u>(1)</u>	CONNECT NEW HIGH BAY FIXTURES TO EXISTING CIRCUIT SALVAGED DURING DEMOLITION. PROVIDE ALL REQUIRED COMPONENTS FOR A RIGID PENDANT MOUNTED SUSPENDED INSTALLATION. FIXTURES ARE TO BE MOUNTED AT SAME ELEVATION AS DEMOLISHED HIGH BAY FIXTURES THAT ARE BEING REPLACED. PROVIDE FIXTURES WITH SAFETY CABLE/CHAIN OR OTHER SECONDARY SAFETY MEANS TO PREVENT FIXTURE FROM FALLING IF PRIMARY PENDANT MOUNT FAILS. COORDINATE EXACT INSATALLATION REQUIRMENTS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.					
<b>(2)</b>	NEW LED WALL PACK TO REPLACE EXISTING WALL PACK. CONNECT TO EXISTING CIRCUIT AND LIGHTING CONTROL SALVAGED DURING DEMOLITION. REFERENCE LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.					
3	CONTRACTOR TO VERIFY AND MAINTAIN EXISTING CIRCUITING FOR EMERGENCY FIXTURES. VERIFY FIXTURE IS CIRCUITED TO AN UNSWITCHED HOT CONDUCTOR OF THE EXISTING LIGHTING CIRCUIT. INTEGRAL EMERGENCY BATTERY DRIVER SHALL ENERGIZE FIXTURE ONLY IN A POWER LOSS SITUATION, NOT A SWITCHING EVENT.					
4	NEW FLOOD LIGHT FIXTURE TO REPLACE EXISTING FLOOD LIGHT FIXTURE. CONNECT TO EXISTING CIRCUIT AND LIGHTING CONTROL SALVAGED DURING DEMOLITION. PROVIDE NEW FIXTURE WITH ALL NECESSARY COMPONENTS FOR AN ADJUSTABLE YOKE/TRUNION MOUNTING THAT IS COMPATIBLE WITH EXISTING INSTALLATION. REFERENCE LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.					





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AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258 ASSET #: 8136258001

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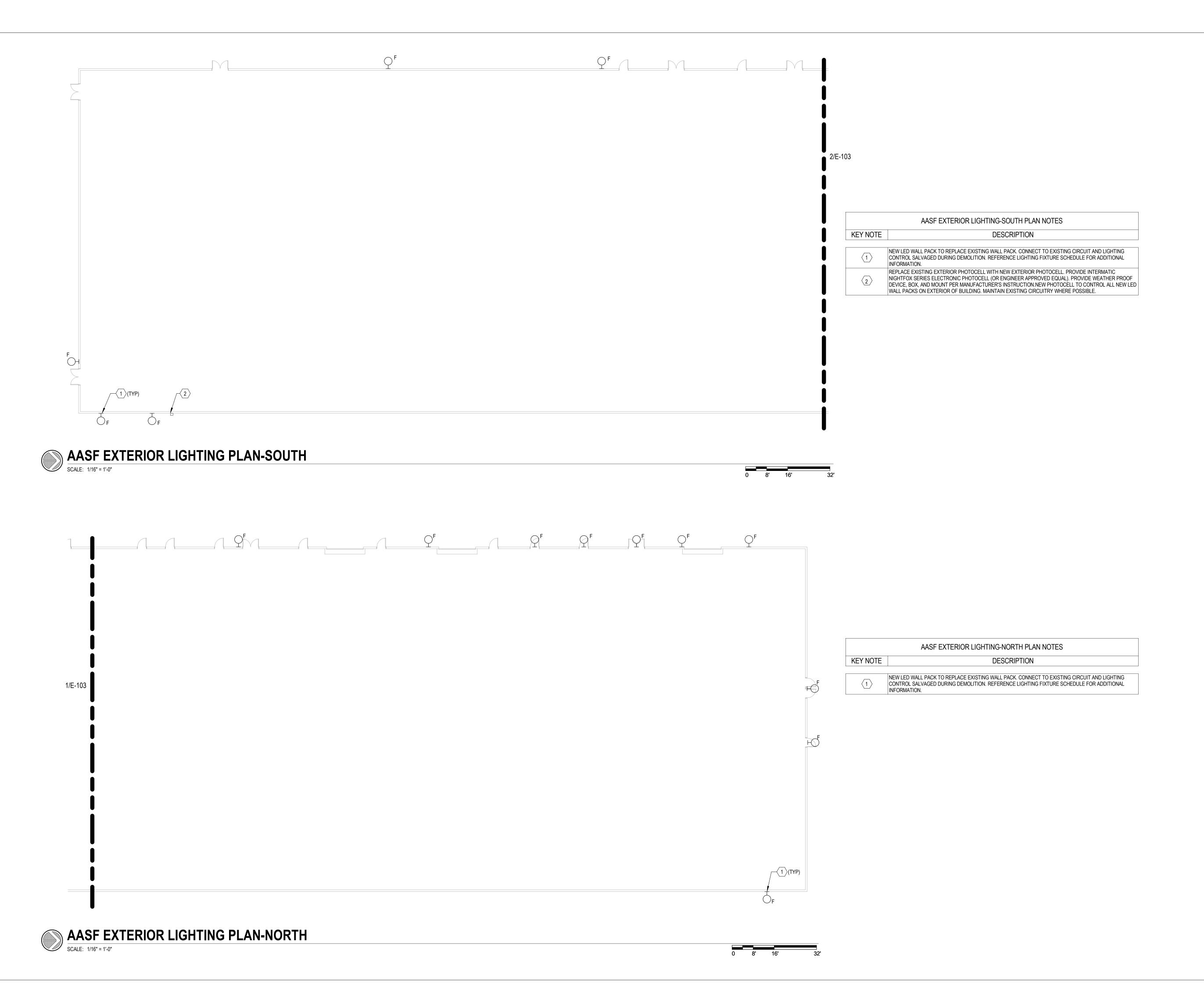
Cold Storage Lighting Plan-North

SHEET NUMBER:

E-102

Page 17 of 23 05/27/2022

**KEY PLAN** 





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WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258 ASSET #: 8136258001

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ISSUE DATE: 05/27/2022

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SHEET TITLE:

AASF Exterior Lighting Plans

SHEET NUMBER:

E-10

Page 18 of 23 05/27/2022

		LIGH	TING FIXTURE S	CHEDU	-E				
Fixture Type	Manufacturers	Catalog Numbers	Description	No. of Lamps	Lamp Type	Volt	VA	Mounting	Remarks
А		JHBL-60000LM-ACL-WD-277-40K-80CRI  BMK-60-WCL-277-L840  GP6-L600-8-40-W-DRV-277	HIGH BAY LED	NA	LED, 4000K	277	388	SUSPENDED	PROVIDE ALL REQUIRED COMPONENTS FOR A RIGID PENDANT MOUNTED SUSPENDED INSTALLATION. FIXTURES ARE TO BE MOUNTED AT SAME ELEVATION AS DEMOLISHED HIGH BAY FIXTURES THAT ARE BEING REPLACED. PROVIDE FIXTURES WITH SAFETY CABLE/CHAIN OR OTHER SECONDARY SAFETY ME
В	LITHONIA HE WILLAIMS METALUX	FEM-L48-6000LM-LPAFL-WD-277-40K-80  96-4-L62-8-40-HIAFR-DRV-277  4VT2-LD5-6-FR50-W-UNV-EL10W-L840-5LTD1-WL-U	1'x 4' GASKETED INDUSTRIAL LED	NA	LED, 4000K	277	38	SURFACE	PROVIDE ALL COMPONENTS FOR A SURFACE MOUNT INSTALLATION ON WALL.PROVIDE FIXTURE WITH INTGRAL BATTERY DRIVER.
С	HE WILLAIMS  LITHONIA  METALUX	80-4'-L63-8-40-VBY-2-DRV-UNV  MSL-6000LM-SBL  4'-ILED-LD5-7-W-UNV-L8401	1' x 4' INDUSTRIAL LED	NA	LED, 4000K	UNV	42	SURFACE	PROVIDE ALL COMPONENTS REQUIRED FOR A SURFACE MOUNT INSTALLATION. PROVIDE C1 FIXTURES WITH INTEGERAL BATTERY DRIVER. COORDINATE WITH MANUFACTURER FOR EXACT LUMEN PACKAGE SPECIFIED.
D	LITHONIA  SPECGRADE  CREE	HLF2-P6-40K-WFL-480-YKC64-DF-DDBXD  AFL-1000-40K-75-V04-TL-NDIM  FLD-EHO-70-HV-24-E-UH-BZ-1000-F-40K-EHO-UNV	LED FLOODLIGHT	NA	LED, 4000K	480	1000	SURFACE	PROVIDE ALL COMPONENTS NECESSARY FOR WALL MOUNT AT LOCATION OF PREVIOUS FLOODLIGHT THAT IS TO BE DEMOLISHED WITH SAME AIMING POINTS. PROVIDE NEW FIXTURE WITH ALL NECESSARY COMPONENTS FOR AN ADJUSTABLE YOKE/TRUNION MOUNTING THAT IS COMPAT
F	MCGRAW-EDISON KIM VISIONAIRE	IST-SA1-600-740-U-E1-T4FT-BZ  WDS-D-24L-40-4K8-4F-UNV-DB  PGA S-1-T4-16L C-700MA-4k-UNV-WM-BZ	WALL MOUNTED LED SITE FIXTURE	NA	LED, 4000K	UNV	40	WALL	MOUNT AT SAME LOCATION AND HEIGHT AS PREVIOUS LIGHT FIXTURES THAT ARE TO BE DEMOLSIHED. REFERENCE LIGHTING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING PHOTOCELL CONTROL FOR FIXTURES.
G	KIM LITHONIA POLE: LITHONIA POLE: KIM	GLEON-SA2-AU-T4W-BZ  ALT1-54L-1204W-UNV-ASQ-DB  DSX0-P6T4M-MV-OLT-SPADDBXD  SSS-30-5G-PT-DDBXD  SSS-K-30-50-B-1/2-K2-DBS  SSS-5-M-30-S-F-1-1-2	30' POLE WITH LED SITE LIGHTING FIXTURE	NA E	LED	UNV	129	POLE	MOUNT FIXTURE ON 30' POLE. SEE ELECTRICAL LIGHTING SITE PLAN FOR ADDITIONAL INFORMATION. REFERENCE PARKING LOT POLE BASE DETAIL FOR ADDITIONAL MOUNTING INFORMATION. PROVIDE ALL ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. COLOR TEMPERATURE IS TO MATC
Н	COLUMBIA	VTH-4K-G-X-DGR  HRLL-8L-AS-GG-CE  HAZXLED-26-F-DG	LED EXPLOSION PROOF LIGHT	NA	LED, 4000K	UNV	25	SURFACE	PROVIDE ALL COMPONENTS REQUIRED FOR A SURFACE MOUNTED INSTALLATION ON EXISTING FRAME. FIXTURE TO BE CLASS 1 DIVISION 2 RATED AND FULLY EXPLOSION PROOF.
J	Kim  Lithonia  Pole: Lithonia  Pole: Kim	GLEON-SA2-B-740-U-T4FT-BZ  ALT1-54L-1204-UNV-ASQ-DB  DSX0-P6TFTM-MVOLT-SPADDBXD  SSS-30-5G-PT-DDBXD  SSS-K-30-50-B-1/2-K2-DBS  SSS-5-M-30-S-F-1-1-2	30' POLE WITH LED SITE LIGHTING FIXTURE	NA :	LED	UNV	129	POLE	MOUNT FIXTURE ON 30' POLE. SEE ELECTRICAL LIGHTING SITE PLAN FOR ADDITIONAL INFORMATION. REFERENCE PARKING LOT POLE BASE DETAIL FOR ADDITIONAL MOUNTING INFORMATION. PROVIDE ALL ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. COLOR TEMPERATURE IS TO MATC
LIGHTING FIXTURE SCHEDULE GENERAL NOTES:  1. FIXTURES WITH EMERGENCY BATTERY BACKUP OR INVERTER BACKUP SHALL BE PROVIDED WITH TEST SWITCH AS REQUIRED BY CODE. TEST SWITCH SHALL EITHER BE FIXTURE MOUNTED OR LOCATED IN NEARBY ACCESSIBLE LOCATION. FINAL LOCATION SHALL BE COORDINATED WITH OWNER, ARCHITE  2. EMERGENCY BATTERY BACKUP SHALL BE PROVIDED FOR ENTIRE FIXTURE SHOWN AS EMERGENCY UNLESS OTHERWISE NOTED. MULTIPLE BATTERY PACKS SHALL BE PROVIDED AS NECESSARY TO POWER THE ENTIRE FIXTURE. PROVIDE ALL PARTS NECESSARY FOR A COMPLETE AND CODE COMPLIANT INSTA  3. FIXTURES WITH EMERGENCY BATTERY BACKUP SHALL BE CAPABLE OF BEING LOCALLY SWITCHED OFF. BATTERY SHALL ENERGIZE FIXTURE ONLY IN A POWER LOSS SITUATION, NOT A SWITCHING EVENT.  4. CONTRACTOR SHALL VERIFY MOUNTING HEIGHTS OF ALL FIXTURES PRIOR TO INSTALLATION.									

BLANK AREAS IN THE CATALOGUE NUMBER DENOTES AREAS WHERE THE CONTRACTOR WILL NEED TO VERIFY AND MATCH EXISTING LIGHTING CONDITIONS IN THE FIELD.

FOR ALL FIXTURES REPLACING EXISTING FIXTURES, CONTRACTOR SHALL VERIFY MOUNTING OF EXISTING FIXTURES AND COORDINATE WITH MANUFACTURER TO ENSURE NEW FIXTURES ARE PROVIDED WITH ALL COMPONENT NECESSARY SO THAT NEW INSTALLATION IS COMPATIBLE WITH AND MATCHES EXISTING INSTALLATION.

#### STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



PROFESSIONAL SEAL



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MISSOURI ARMY NATIONAL GUARD

AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258001

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-	REVISION:	
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ISSUE DATE: 05/27/2022

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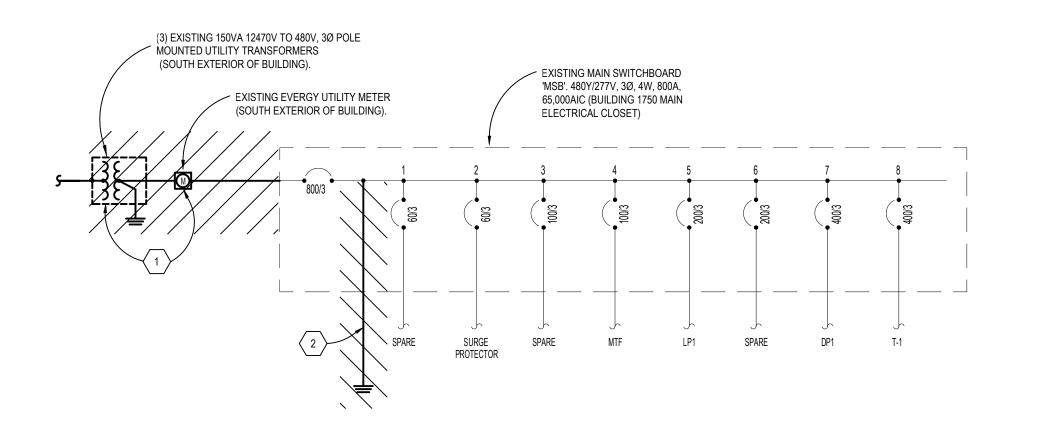
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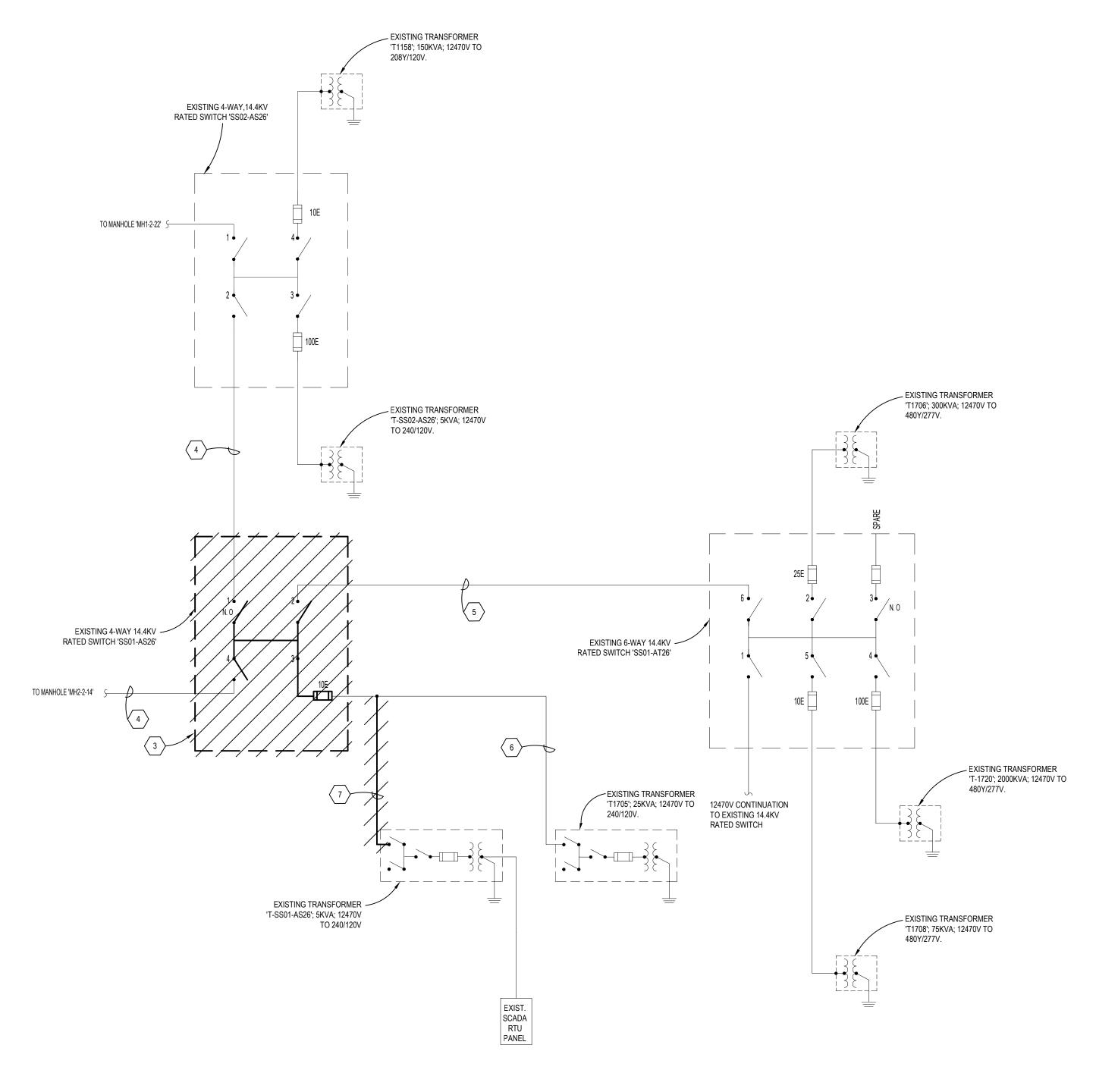
Electrical Schedules

SHEET NUMBER:

E-201

Page 19 of 23





#### ELECTRICAL DEMOLITION ONE LINE DIAGRAM

NO SCA

ELECTRICAL DEMOLITION ONE LINE DIAGRAM NOTES					
KEY NOTE	DESCRIPTION				
1	EXISTING EVERGY POLE MOUNTED TRANSFORMER AND ASSOCIATED UTILITY METER TO BE DEMOLISHED. DEMOLITION TO BE FULLY COORDINATED WITH UTILITY COMPANY (EVERGY). EVERGY ELECTRICAL SERVICE SHALL NOT BE DEMOLISHED UNTIL NEW SERVICE AND ASSOCIATED WORK IS INSTALLED AND READY TO RE-FEED BUILDING.				
2	EXISTING BUILDING GROUNDING ELECTRODE SYSTEM SHALL BE DISCONNECTED FROM PANEL 'MSB'. EXISTING MAIN BONDING JUMPER CONNECTING THE NEUTRAL BUS AND EQUIPMENT GROUND BUS INSIDE OF 'MSB' SHALL BE REMOVED AS 'MSB' WILL NO LONGER BE THE BUILDING'S SERVICE ENTRANCE EQUIPMENT.				
3	EXISTING PAD MOUNTED, 4-WAY 14.4KV RATED SWITCH 'SS01-AS26' SWITCH TO BE DEMOLISHED AND REPLACED WITH NEW 6-WAY 14.4KV RATED SWITCH. EXISTING 12470V FEEDERS SHALL BE DISCONNECTED FROM EXISTING SWITCH AND SALVAGED FOR RECONNECTION TO NEW SWITCH BEING INSTALLED AT THIS LOCATION. SEE ELECTRICAL POWER & AUXILIARY SYSTEMS SITE PLAN AND ELECTRICAL ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION.				
4	EXISTING (3) 350MCM 15KV RATED CONDUCTORS.				
5	EXISTING (3) #4/0 15KV RATED CONDUCTORS.				
6	EXISTING (3) #1/0 15KV RATED CONDUCTORS.				
7	EXISTING (3) #2 15KV RATED CONDUCTORS.				

ALL DEVICES SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL DEVICES SHOWN "DARK" AND HATCHED ARE EXISTING TO BE DEMOLISHED.

ALL WORK SHOWN DARK, HATCHED AND NOTED IS EXISTING TO BE DEMOLISHED.

ALL MEDIUM VOLTAGE WORK SHALL BE FULLY COORDINATED WITH WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP. INSTALLATION SHALL FULLY MEET ALL REQUIREMENTS AS SET FORTH BY WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP.

#### STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258003

ISSUE DATE: 05/27/2022

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DESIGNED BY: HB

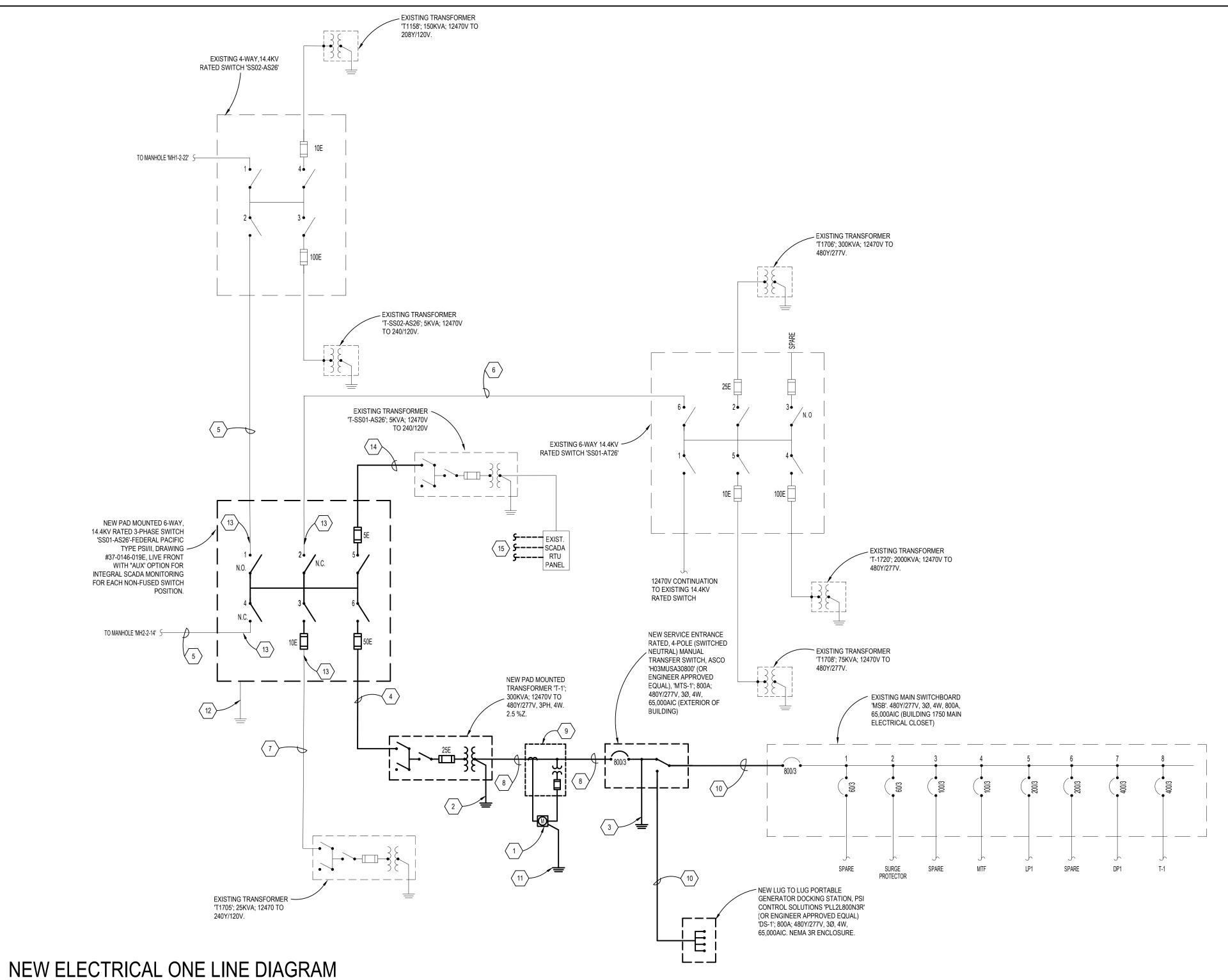
SHEET TITLE:

Electrical Demolition One Line Diagram

SHEET NUMBER:

E-301

Page 20 of 23



NEW ELECTRICAL ONE LINE DIAGRAM NOTES				
KEY NOTE	DESCRIPTION			
1	NEW ELECTRICAL CONSUMPTION METER TO BE PROVIDED AND INSTALLED BY CONTRACTOR. SEE ENLARGED POWER PLANS FOR ADDITIONAL INFORMATION.			
2	SEE THE GROUND CONNECTIONS DETAIL AND THE TRANSFORMER PAD DETAIL FOR GROUNDING INFORMATION.			
3	GROUND SERVICE IN ACCORDANCE WITH THE NEC AND SPECIFIED REQUIREMENTS. ROUTE (1) #2/0 GROUNDING ELECTRODE CONDUCTOR IN 1" CONDUIT. SEE THE GROUND CONNECTIONS DETAIL FOR ADDITIONAL INFORMATION.			
4	ROUTE (3) #2/0 (15KV RATED) TYPE MV-105 CONDUCTORS IN (1) 5" CONDUIT (PART OF 2-WAY DUCT BANK). SEE THE SITE ELECTRICAL UTILITIES PLAN, SPECIFICATIONS AND THE DUCT BANK DETAILS FOR ADDITIONAL INFORMATION.			
5	EXISTING (3) 350MCM 15KV RATED CONDUCTORS.			
6	EXISTING (3) #4/0 15KV RATED CONDUCTORS.			
7	EXISTING (3) #1/0 15KV RATED CONDUCTORS.			
8	ROUTE (4) 300MCM IN EACH OF (3) 2 1/2" CONDUITS			
9	NEW CURRENT TRANSFORMER (CT) CABINET TO BE PROVIDED AND INSTALLED BY CONTRACTOR. SEE ENLARGED POWER PLANS FOR ADDITIONAL INFORMATION.			
(10)	ROUTE (4) 300MCM & (1) 1/O GRND IN EACH OF (3) 2 1/2" CONDUITS			
(11)	PROVIDE GROUND CONNECTION TO NEW ELECTRICAL CONSUMPTION METER. REFERENCE ENLARGED ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.			
(12)	EXISTING MEDIUM VOLTAGE SWITCH CONCRETE EQUIPMENT PAD GROUND ROD(S) AND/OR GROUND RING IS TO BE MAINTAINED. IF GROUND RING EXISTS, EXTEND GROUND RING AS NECESSARY IN ORDER TO ENCOMPASS THE NEW PORTION OF THE CONCRETE EQUIPMENT PAD. GROUND NEW MV SWITCH TO EXISTING GROUNDING ROD/RING ELECTRODE SYSTEM.			
<b>13</b>	SALVAGED 12470V, 3PH FEEDERS SHALL BE RECONNECTED TO NEW SWITCH.			
<b>14</b>	ROUTE (3) #2 (15KV RATED) TYPE MV-105 CONDUCTORS IN (1) 5" CONDUIT IN ORDER TO RE-FEED EXISTING TRANSFORMER. COORDINATE EXACT REQUIREMENTS WITH OWNER.			
(15)	PROVIDE ALL INTERCONNECTIONS BETWEEN EXISTING SCADA RTU AND NEW 6-WAY, 14.4 KV RATED SWITCH FOR A COMPLETE SWITCH MONITORING INSTALLATION. COORDINATE EXACT DETAILS WITH WHITEMAN AFB ENERGY AND UTILITIES GROUP AND THE 6-WAY, 14.4 KV RATED SWITCH MANUFACTURER.			

ALL POWER OUTAGES SHALL BE FULLY COORDINATED WITH OWNER AND FACILITIES REPRESENTATIVES. OUTAGES SHALL ONLY OCCUR DURING DAYLIGHT HOURS AND SHALL NOT LAST LONGER THAN 8 HOURS.

DEVICES SHOWN LIGHT ARE EXISTING. DEVICES SHOWN DARK ARE NEW.

ALL MEDIUM VOLTAGE WORK SHALL BE FULLY COORDINATED WITH WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP. INSTALLATION SHALL FULLY MEET ALL REQUIREMENTS AS SET FORTH BY WHITEMAN AIR FORCE BASE ENERGY AND UTILITIES GROUP.

> ALL WORK ASSOCIATED WITH THE INSTALLATION OF 'MTS-1' AND 'DS-1', INCLUDING ASSOCIATED CONCRETE PAD, IS TO BE PERFORMED ONLY IF ADD ALTERNATE #3 IS ACCEPTED. BASE BID SHALL INCLUDE ROUTING NEW SERVICE ENTRANCE FEEDER DIRECTLY FROM THE NEW CT CABINET TO THE BUILDING'S EXISTING MAIN SWITCHBOARD, 'MSB'.

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR** 



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**DEPARTMENT OF PUBLIC SAFETY** 

**MISSOURI ARMY** NATIONAL GUARD

AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING **EXPANSION** 

WHITEMAN AIR FORCE **BASE** 

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258003

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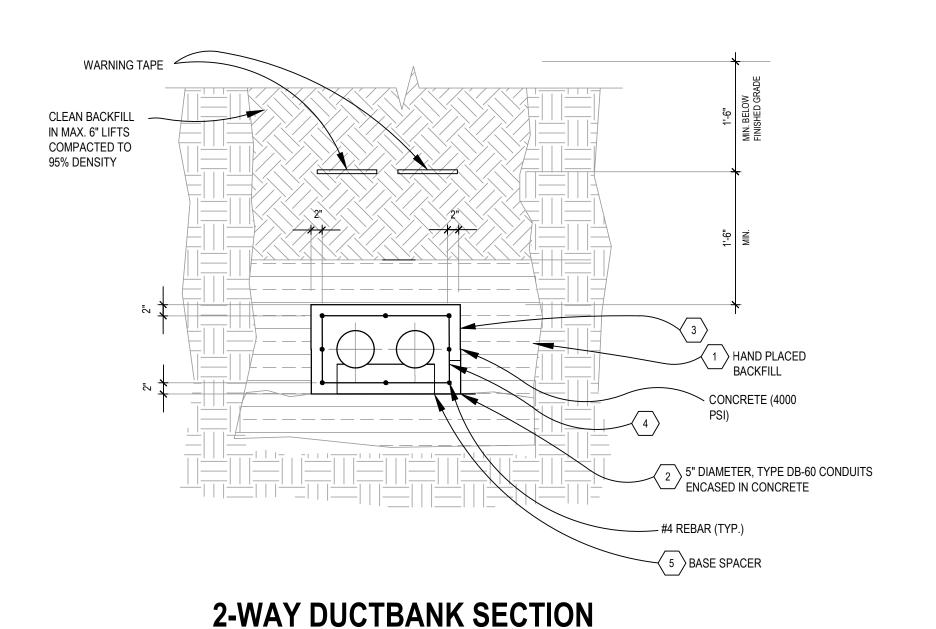
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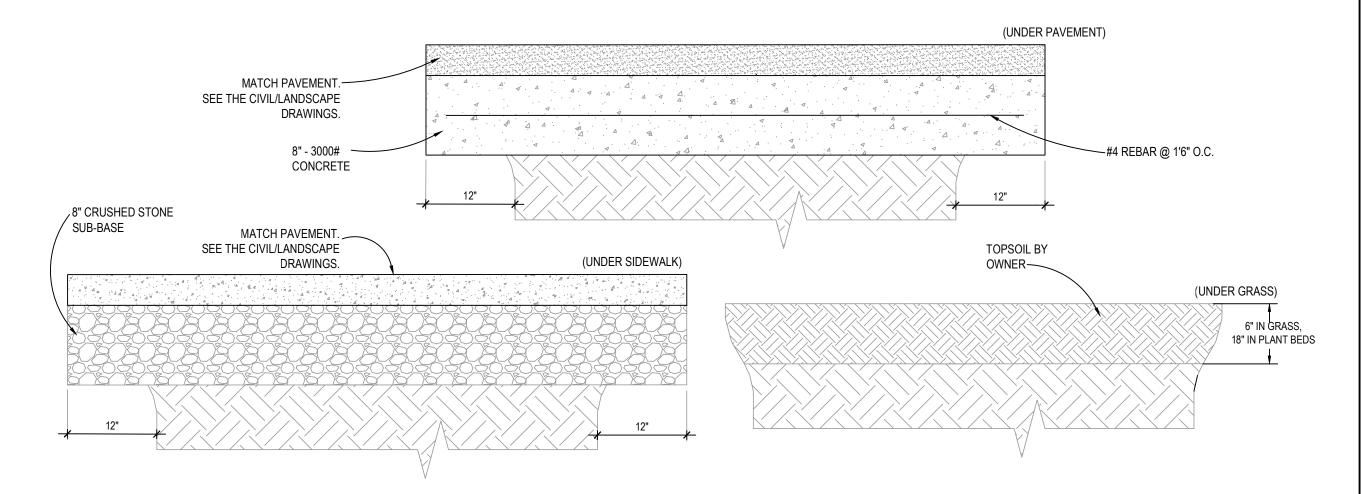
New Electrical One Line Diagram

SHEET NUMBER:

Page 21 of 23 05/27/2022



# BASE SPACER 5 ELECTRICAL DUCTBANK SPACER DETAIL



#### TYPICAL ELECTRICAL DUCTBANK TOPPING DETAIL

#### **ELECTRICAL DUCTBANK DETAILS**

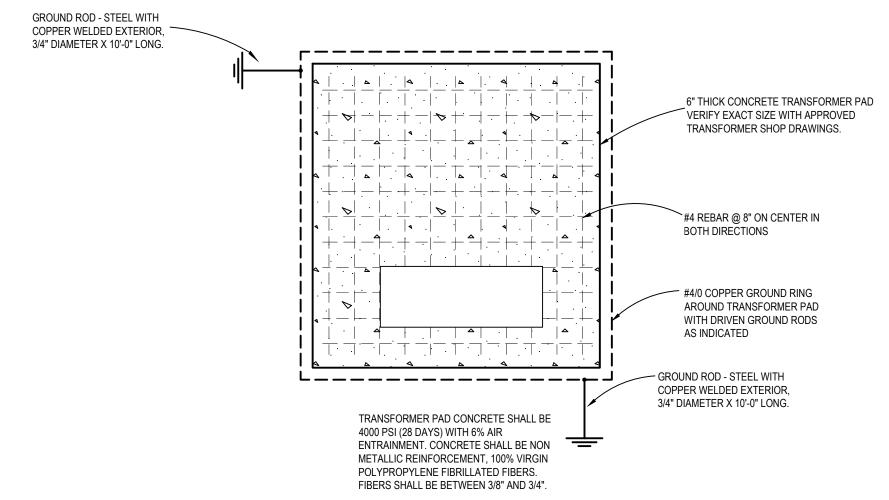
NO SCALE

#### DUCTBANK DETAIL NOTES: (TYPICAL FOR ALL DUCT BANK DETAILS)

- EARTH FORMING OF DUCT BACK IS ACCEPTABLE WHERE SIDES OF TRENCH CONSIST OF FIRM, UNDISTURBED SOIL. FORMING SHALL BE REQUIRED TO LIMIT DUCTBANK SIDEWALL THICKNESS TO 12" FROM SIDE OF DUCT.
- IN PLACING CONCRETE, USE A DELIVERY CHUTE TO MINIMIZE FALL OF THE CONCRETE INTO THE TRENCH. USE A SPLASH BOARD TO DIVERT THE FLOW OF CONCRETE AWAY FROM THE TRENCH SIDES AND AVOID DISLODGING SOIL AND STONES. CONCRETE SLUMP SHALL HAVE CONSISTENCY TO INSURE FLOWING OF GROUT BETWEEN, UNDER, AND ALL AROUND DUCTS. PRECAUTIONS SHALL BE USED TO PREVENT VOIDS AND AIR POCKETS, AND TO PREVENT THE DUCT FROM FLOATING.
- EACH UNDERGROUND CONDUIT MUST HAVE A MINIMUM 3" CONCRETE ENVELOPE IN EACH DIRECTION AND MAXIMUM OF 6" VERTICAL AND A MAXIMUM OF 12" HORIZONTAL. THE NUMBER AND CONFIGURATION OF CONDUIT IN DUCT BANKS WILL VARY.
- #4 REBAR TIE LOOP EVERY 48" MAXIMUM O.C.. SPACE BETWEEN LONGITUDINAL REINFORCING REBAR IS 12"
- 5 INSTALL SPACERS AT A MAXIMUM OF EVERY 8 FEET.

#### DUCTBANK DETAIL GENERAL NOTES: (TYPICAL FOR ALL DUCT BANK DETAILS)

- SEE SITE ELECTRICAL UTILITIES PLAN AND ONE LINE DIAGRAM FOR DUCTBANK LOCATIONS & NUMBER & SIZE OF CONDUITS.
- 2. SEE SPECIFICATION FOR DETAILED DUCT BANK REQUIREMENTS.
- 3. FOR ALL MEDIUM VOLTAGE ELECTRICAL DUCTBANKS PROVIDE (1) #2/0 GROUND CONDUCTOR ROUTED CONTINUOUSLY THROUGHOUT THE ELECTRICAL DUCTBANK.



# 2 TRANSFORMER PAD DETAIL NO SCALE

TRANSFORMER PAD DETAIL NOTES:

1. TOP OF SLAB MUST BE SMOOTH, FLAT, AND LEVEL.

- 2. ALL MATERIAL SHALL EQUAL OR EXCEED THE STANDARDS AS SPECIFIED IN THE NATIONAL ELECTRICAL
- 3. COORDINATE ACTUAL PAD DIMENSIONS WITH TRANSFORMER EQUIPMENT FURNISHED.

#### - LIGHT POLE (SEE SITE PLAN AND FIXTURE SCHEDULE) WEATHERPROOF - SEAL-OFF EACH END IF CONDUIT HANDHOLE -PASSES THROUGH HAZARD ZONE #10 AWG: BOND TO POLE -— GROUT AFTER LEVELING BOLTS SPACED PER — — 1" CHAMFER ALL AROUND MANUFACTURER RGS CONDUIT AND WIRE 4 EA., 1"X48" GALV. STEEL FINISH GRADE ANCHOR BOLTS. DOUBLE NUT LEVELING. VERIFY W/POLE MAN — CONDUIT ADAPTER PVC CONDUIT AND WIRE -RGS CONDUIT AND WIRE CONDUIT TO NEXT -POLE IF REQUIRED ➤3000 PSI CONCRETE - 6 #4 EQUALLY SPACED

#### 3 PARKING LOT FIXTURE POLE BASE DETAIL NO SCALE

-- #3 TIES 12" O.C.

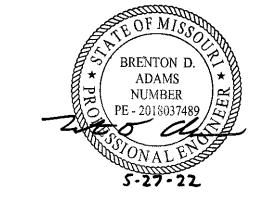
POLE BASE DETAIL NOTES:

1. FULLY COORDINATE INSTALLATION DETAILS WITH POLE MANUFACTURER.

5/8" DIA. X 10'-0" LONG -

DRIVEN GROUND ROD

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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DEPARTMENT OF

PUBLIC SAFETY

MISSOURI ARMY NATIONAL GUARD

AASF COLD STORAGE HANGAR LED LIGHTING, POV AND MVC PARKING EXPANSION

WHITEMAN AIR FORCE BASE

ONE ATTACK AVENUE KNOB NOSTER, MO 65305

PROJECT # T2045-01

SITE #: 6258

ASSET #: 8136258001 & 8136258003

ISSUE DATE: 05/27/2022

DRAWN BY: HB
CHECKED BY: BA
DESIGNED BY: HB

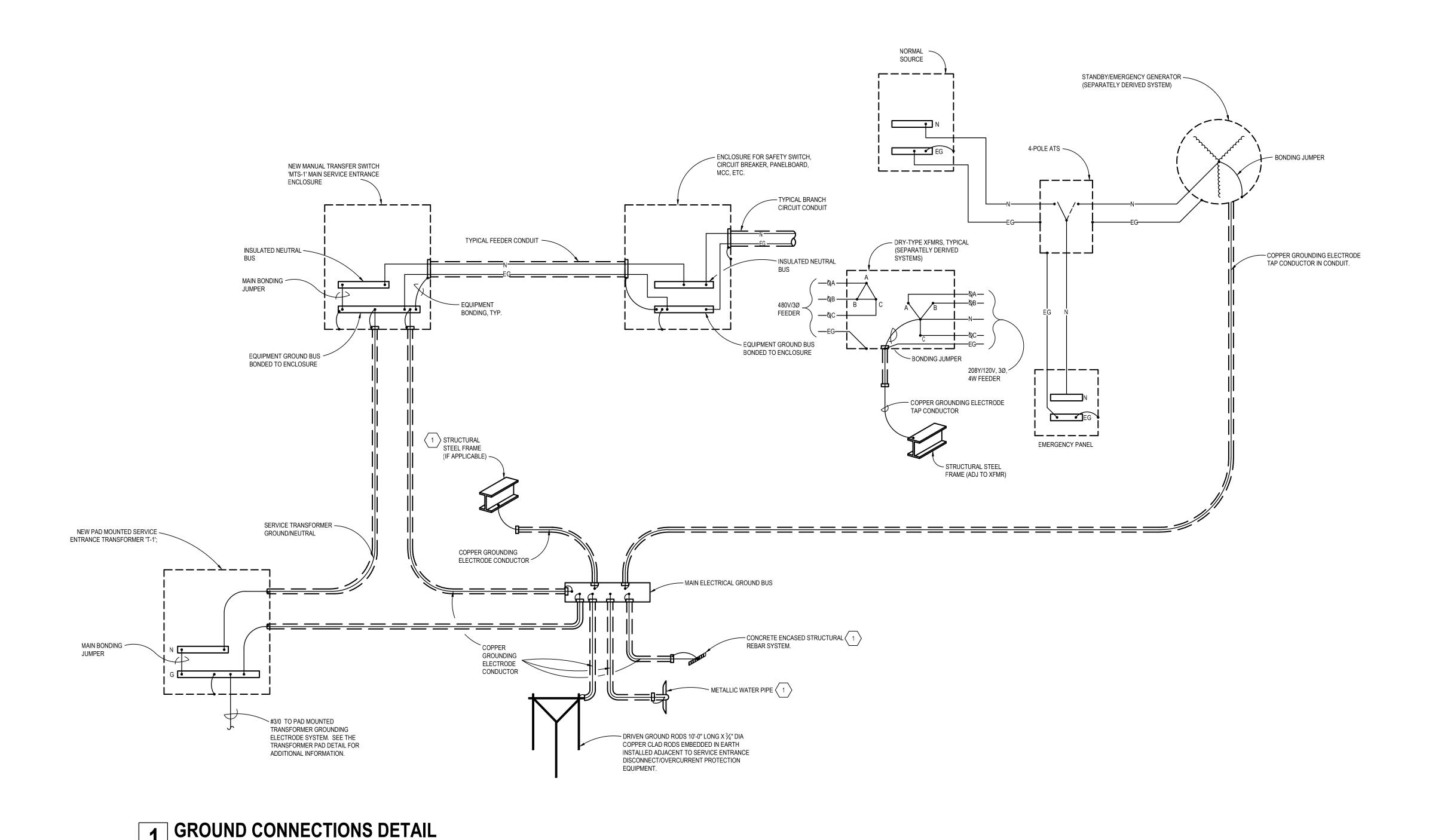
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Electrical Details

SHEET NUMBER:

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Page 22 of 23 05/27/2022



GENERAL NOTE: SEE ONE LINE DIAGRAM FOR GROUNDING ELECTRODE CONDUCTOR SIZES.

GROUND CONNECTIONS DETAIL NOTES:

1 ALL BUILDING ELECTRODES THAT ARE PRESENT SHALL BE UTILIZED PER NEC.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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Page 23 of 23 05/27/2022

ALL WORK ASSOCIATED WITH THE INSTALLATION OF 'MTS-1'
AND 'DS-1', INCLUDING ASSOCIATED CONCRETE PAD, IS TO BE
PERFORMED ONLY IF ADD ALTERNATE #3 IS ACCEPTED.
BASE BID SHALL INCLUDE ROUTING NEW SERVICE ENTRANCE
FEEDER DIRECTLY FROM THE NEW CT CABINET TO THE
BUILDING'S EXISTING MAIN SWITCHBOARD, 'MSB'.