## METROPOLITAN TOPEKA AIRPORT AUTHORITY TOPEKA, KANSAS



## TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA

PROJECT DRAWINGS FOR

### FEDERAL AVIATION ADMINISTRATION

AIP PROJECT GRANT NO. 3-20-0113-047 JANUARY 16, 2024

WSP USA INC. PROJECT NO. 30900280J APPROVED: METROPOLITAN TOPEKA AIRPORT AUTHORITY

ERIC M. JOHNSON PRESIDENT AND DIRECTOR OF AIRPORTS

DATE: JANUARY 16, 2024

DATE JANUARY 16, 2024

SCALE N.T.S.

DRAWN BY JTR

CHECKED BY GFR

APPROVED BY TMS

**ISSUED FOR BID** 

**COVER SHEET** 

WSP PROJECT NUMBER 3090028

**MTAA** 

HEET NUMBER G0.00

Jan 16 . 2024 - 9:

SHEET 1 OF 98
SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZ

SHEET TITLE

FILE NAME: 30900280J-G0.00.E

AIRFIELD ELECTRICAL DETAILS

### **EXISTING CONDITION** DESCRIPTION PROPOSED CONDITION CONTROL POINT RUNWAY END INDICATOR LIGHT REIL-X RUNWAY LIGHT RWL R98 🌣 RUNWAY THRESHOLD/END LIGHT REL T7 🌣 TWL-X TAXIWAY LIGHT VASI-₩ VISUAL APPROACH SLOPE INDICATOR LIGHT BH 26 🕀 **BOREHOLE** CONCRETE BOX CLEAN OUT Ε **ELECTRICAL BOX ELECTRICAL MANHOLE** Н HAND HOLE $\bigcirc$ MANHOLE AIRFIELD GUIDANCE SIGN —— UGE —— UNDERGROUND POWER —— FO —— UNDERGROUND FIBER OPTIC STORM SEWER \_\_\_ RSA \_\_\_ RUNWAY SAFETY AREA \_\_\_ RSA \_\_\_ RUNWAY OBJECT FREE AREA — ROFA —

TAXIWAY SAFETY AREA

TAXIWAY OBJECT FREE AREA

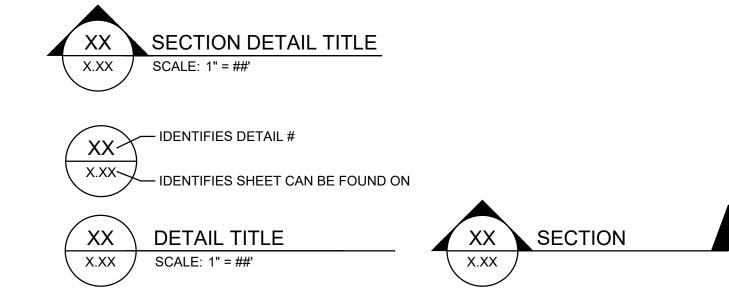
\_\_\_ TSA \_\_\_

— TOFA —

\_\_\_ TSA \_\_\_

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LEGEND OF SYMBOLS

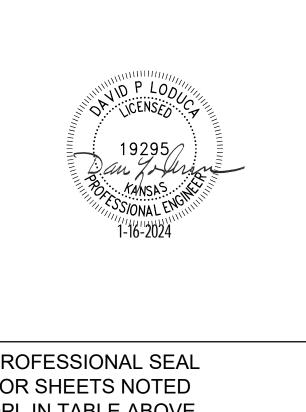




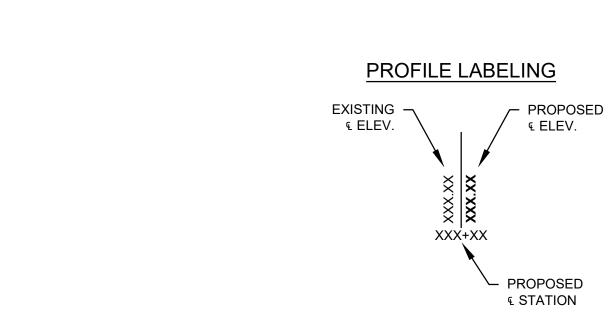
E5.01 - E5.04

95-98

PROFESSIONAL SEAL FOR SHEETS NOTED SFS IN TABLE ABOVE KS#26293



DPL



### **ABBREVIATIONS**

ABC	AGGREGATE BASE COURSE	NAVAID	NAVIGATIONAL AID
AC	ASPHALT CONCRETE	NOTAM	NOTICE TO AIR MISSIONS
ADD ALT	ADDITIVE ALTERNATE	NTS N/C	NOT TO SCALE
ADG AFG	AIRCRAFT DESIGN GROUP ABOVE FINISHED GRADE	N/S OC	NAIL SET ON CENTER
AGU	ABOVE TIMISHED GRADE ABOVEGROUND UTILITY	OPS	OPERATIONS
AOA	AIRCRAFT OPERATIONS AREA	OD	OUTSIDE DIAMETER
AL	APPROACH LIGHT	OFA	OBJECT FREE AREA
ALC	APPROACH LIGHT CAN	OFZ	OBSTACLE FREE ZONE
ALUM	ALUMINUM	OWS	OIL WATER SEPARATOR
APP	APPROACH	PAPI	PRECISION APPROACH PATH INDICATOR
APPROX	APPROXIMATE	PC	POINT OF CURVATURE
ASP	ASPHALT	PCC	PORTLAND CEMENT CONCRETE
ATCT ATG	AIR TRAFFIC CONTROL TOWER ADJUST TO GRADE	PCCP PCTB	PORTLAND CEMENT CONCRETE PAVEMENT PERMEABLE CEMENT TREATED BASE
AVE	AVENUE	PUB	POINT OF INTERSECTION
AVG	AVERAGE	PIP	PROTECT IN PLACE
BH	BOREHOLE	PT	POINT OF TANGENT
BIT	BITUMINOUS	PVC	POLYVINYL CHLORINE/POINT OF VERTICAL CURV
BLDG	BUILDING	PVI	POINT VERTICAL INTERSECTION
BLVD	BOULEVARD	PVMT	PAVEMENT
BM	BENCHMARK	PVT	POINT OF VERTICAL TANGENCY
СВ	CONCRETE BOX	PW	POTABLE WATER
CO	CLEANOUT	R	RADIUS
C)	CONTROL/CONTRACTION JOINT	RCP	REINFORCED CONCRETE PIPE
€ CLR	CENTER LINE OR CLASS CLEAR	RED REIL	REDUCER RUNWAY END IDENTIFIER LIGHT
CLR CONC	CONCRETE	REINF	RUNWAY END IDENTIFIER LIGHT REINFORCING
CONC	CONCRETE	REQD	REQUIRED
CONST	CONSTRUCTION	ROFA	RUNWAY OBJECT FREE AREA
CONT	CONTINUOUS	RSA	RUNWAY SAFETY AREA
CORP	CORPORATION	RT	RIGHT
CMP	CORROGATED METAL PIPE	RWL	RUNWAY LIGHT
CP	CONTROL POINT	RWY	RUNWAY
DEMO	DEMOLITION OR DEMOLISH	SAN	SANITARY
DIA	DIAMETER	SCH	SCHEDULE
DWG	DRAWING	SFM	SANITARY FORCE MAIN
E 	EAST/EASTING	SHT	SHEET
EA - ·	EACH	S	SOUTH
EJ	EXPANSION JOINT	SALS	SHORT APPROACH LIGHTING SYSTEM
EL, ELEV	ELEVATION	SD	STORM DRAIN
ELEC EMER	ELECTRICAL EMERGENCY	SE SIDA	SOUTHEAST SECURITY IDENTIFICATION DISPLAY AREA
EMH	ELECTRICAL MANHOLE	SP	SPACES
EP	EDGE OF PAVEMENT	SS	STAINLESS STEEL
EQ	EQUAL	ST	STORM OR STREET
EQUIP	EQUIPMENT	STA	STATION
EW	EACH WAY	STD	STANDARD
EX, EXIST	EXISTING	STR	STRUCTURE
EXP	EXPANSION	SW	SOUTHWEST
FES	FLARED END SECTION	SWPPP	STORMWATER POLLUTION PREVENTION PLAN
FF	FINISHED FLOOR	TBM	TEMPORARY BENCH MARK
FIN	FINISHED	TBRBO	TO BE RELOCATED BY OTHERS
FM	FORCE MAIN	TELE	TELEPHONE
FH	FIRE HYDRANT	TEMP	TEMPORARY
[ [	FLOWLINE	TOFA	TAXIWAY OBJECT FREE AREA
FOD GALV	FOREIGN OBJECT DEBRIS GALVANIZED	TP TSA	TRAVERSE POINT TAXIWAY SAFETY AREA
GALV H	HEIGHT OR HORIZON	TWL	TAXIWAY SAFETT AREA TAXIWAY LIGHT
HAZMAT	HAZARDOUS MATERIALS	TWY	TAXIWAY
HDPE	HIGH-DENSITY POLYETHYLENE	TYP	TYPICAL
HH	HANDHOLE	UG	UNDERGROUND
HORIZ	HORIZONTAL	UIP	USE IN PLACE
HYDR	HYDRANT	UNK	UNKNOWN UTILITY
HZ	HERTZ	UON	UNLESS OTHERWISE NOTED
INV	INVERT ELEVATION	UT	UNDERGROUND TELEPHONE
JUNC	JUNCTION BOX	UP	UNDERGROUND POWER
JT	JOINT	VAR	VARIES
KANG	KANSAS AIR NATIONAL GUARD	VASI	VISUAL APPROACH SLOPE INDICATOR
L	LENGTH	VERT	VERTICAL CURVE
LOS	LINE OF SIGHT	VC	VERTICAL CURVE
LP I PN	LIGHT POLE	W/L w	WATER LINE WEST WATER OR WIDTH
LPD LT	LOW POINT DRAIN LEFT	W W/	WEST, WATER OR WIDTH WITH
L I MAX	MAXIMUM	W/O	WITHOUT
MECH	MECHANICAL	W/O WTR	WATER
MH	MANHOLE	WWF	WELDED WIRE FABRIC
MIN	MINIMUM	WWM	WELDED WIRE MESH
MPH	MILES PER HOUR	WS	WINDSOCK
MSL	MEAN SEA LEVEL	@	AT
MTAA	METROPOLITAN TOPEKA AIRPORT AUTHORITY	Ø	DIAMETER/PHASE
	NOT IN CONTRACT	#	NUMBER
NIC			
NIC N	NORTH/NORTHING	%	PERCENT

LICENSE NO. E-447 300 WYANDOTTE STREET, SUITE 200 KANSAS CITY, MO 64105

T 816-702-4300 I www.wsp.com **MTAA** 

THORITY

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**TOPEKA** 

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TOPEKA REGIONAL | BILLARD AIRPORT AIRPORT & BUSINESS CENTER

-DEL

A REGIONAL AIRPORT OWER TAXIWAY ALPH 3-20-0113-047 SUITE 1 319

TOPEKA TRUCT LC

RECONS

ISSUED FOR BID

SHEET TITLE INDEX, LEGEND, AND

**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY GFR

**ABBREVIATIONS** 

WSP PROJECT NUMBER 30900280J

G0.01 SHEET NUMBER

SHEET **2** OF 98

TMS

NOTE: SEE SHEETS ED2.01 AND EL2.01 FOR SEALS ON EACH INDIVIDUAL SHEET

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

APPROVED BY

PROFESSIONAL SEAL FOR SHEETS NOTED DPL IN TABLE ABOVE KS#19295

		BID SCHEDULE - RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA		
ITEM NO.	SPEC NO.	ITEM DESCRIPTION	QUANTITY	UNIT
1	C-102-5.1	TEMPORARY SEEDING AND MULCHING	21	AC
2	C-102-5.2	INSTALLATION AND REMOVAL OF SILT FENCE	1,770	LF
3	C-102-5.3	INSTALLATION AND REMOVAL OF DITCH CHECK	200	LF
4	C-102-5.4	INSTALLATION AND REMOVAL OF INLET PROTECTION	14	EA
5	C-105-6.1	MOBILIZATION	1	LS
6	C-106-4.1	TRAFFIC CONTROL	1	LS
7	P-101-5.1	TYPE A PAVEMENT REMOVAL	26,690	SY
8	P-101-5.2	TYPE B PAVEMENT REMOVAL	15,020	SY
9	P-101-5.3	TYPE C PAVEMENT REMOVAL	19,940	SY
10	P-101-5.4	COLD MILLING (0-4")	28,070	SY
11	P-101-5.5	JOINT AND CRACK REPAIR	14,000	LF
12	P-101-5.6	REMOVAL OF STORM SEWERS AND INLETS	1	LS
13	P-152-4.1	UNCLASSIFIED EXCAVATION	20,150	CY
14	P-152-4.2	EMBANKMENT IN PLACE	21,170	CY
15	P-155-8.1	LIME-TREATED SUBGRADE	19,260	SY
16	P-155-8.2	LIME	430	TON
17	P-209-5.1	CRUSHED AGGREGATE BASE COURSE (6")	5,530	SY
18	P-209-5.2	CRUSHED AGGREGATE BASE COURSE (VAR. DEPTH)	6,190	SY
19	P-307-7.1	CEMENT TREATED PERMEABLE BASE (6")	8,570	SY
20	P-401-8.1	ASPHALT MIX PAVEMENT - OVERLAY	6,060	TON
21	P-401-8.2	ASPHALT MIX PAVEMENT - FULL DEPTH SHOULDER - SURFACE	1,290	TON
22	P-401-8.3	ASPHALT SURFACE COURSE - FULL DEPTH SHOULDER - BASE	3,860	TON
23	P-501-8.1	PORTLAND CEMENT CONCRETE PAVEMENT (16.5")	5,750	SY
24	P-501-8.2	PORTLAND CEMENT CONCRETE PAVEMENT (16.5"), REINFORCED	1,470	SY
25	P-501-8.3	PORTLAND CEMENT CONCRETE PAVEMENT (16.5"), REINFORCED ISOLATION JOINT	640	SY
26	P-602-5.1	EMULSIFIED ASPHALT PRIME COAT	3,490	GAL
27	P-603-5.1	EMULSIFIED ASPHALT TACK COAT (OVERLAY)	2,260	GAL
28	P-603-5.1	EMULSIFIED ASPHALT TACK COAT (OVERLAT)  EMULSIFIED ASPHALT TACK COAT (SHOULDER)	1,170	GAL
29	P-620-5.1		4,600	SF
30	P-620-5.1	PAVEMENT MARKING REMOVAL	·	SF SF
		TEMPORARY PAVEMENT MARKING (YELLOW)	9,860	
31	P-620-5.3	TEMPORARY PAVEMENT MARKING (RED)	140	SF
32	P-620-5.4	TEMPORARY PAVEMENT MARKING (GREEN)	7,110	SF
33	P-620-5.5	REFLECTORIZED PAVEMENT MARKING (YELLOW)	9,860	SF
34	P-620-5.6	REFLECTORIZED PAVEMENT MARKING (WHITE)	70	SF
35	P-620-5.7	REFLECTORIZED PAVEMENT MARKING (RED)	140	SF
36	P-620-5.8	NON-REFLECTORIZED PAVEMENT MARKING (GREEN)	7,110	SF
37	P-620-5.9	NON-REFLECTORIZED PAVEMENT MARKING (BLACK)	25,330	SF
38	D-701-5.1	18" REINFORCED CONCRETE PIPE (CLASS V)	390	LF 
39	D-701-5.2	36" REINFORCED CONCRETE PIPE (CLASS V)	680	LF ·-
40	D-705-5.1	6" PERFORATED UNDERDRAIN (COMPLETE)	3,530	LF
41	D-705-5.2	6" NON-PERFORATED UNDERDRAIN OUTLET	450	LF
42	D-705-5.3	UNDERDRAIN CLEANOUT IN PAVED SHOULDER	28	EA
43	D-705-5.4	UNDERDRAIN OUTLET CONNECTION TO STRUCTURE	4	EA
44	D-751-5.1	STORM SEWER MANHOLE GRADE ADJUSTMENT	1	EA
45	D-751-5.2	DROP INLET GRADE ADJUSTMENT IN PAVEMENT	4	EA
46	D-751-5.3	STORM SEWER MANHOLE	4	EA
47	D-751-5.4	DOUBLE GRATE INLET	4	EA
48	T-901-5.1	PERMANENT SEEDING & MULCHING	21	AC
49	T-904-5.1	SODDING	4,000	SY

		BID SCHEDULE - RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA		
50	L-107-5.1	RELOCATE WIND CONE	1	LS
51	L-108-5.1	REMOVE #8 L-824 CABLE FROM CONDUIT, PER LF OF CONDUIT	7,000	LF
52	L-108-5.2	REMOVE #6 BARE COPPER COUNTERPOISE DIRECT BURIED	6,000	LF
53	L-108-5.3	#8 5KV L-824 TYPE C LIGHTING CABLE IN CONDUIT	8,260	LF
54	L-108-5.4	#6 BARE COPPER COUNTERPOISE DIRECT BURIED	4,630	LF
55	L-108-5.5	REMOVE FAA REIL/VASI DIRECT BURIED 600V ARMORED CABLES	1,060	LF
56	L-108-5.6	FAA FEEDER EXTENSION 600V #2 THWN-2	400	LF
57	L-108-5.7	FAA VASI 600V #2 THWN-2	2,510	LF
58	L-108-5.8	FAA REIL 600V #8 THWN-2	2,400	LF
59	L-108-5.9	INSTALL FAA REIL 600V CURRENT SENSING CABLE FURNISHED BY REIL MANUFACTURER	10	LF
60	L-108-5.10	FAA REIL 600V TRIGGER CABLE, #16 SHIELDED	320	LF
61	L-109-7.1	EQUIPMENT WITHIN EXISTING VAULT	1	LS
62	L-109-7.2	MODIFY EXISTING TOWER LIGHTING CONTROL PANEL	1	LS
63	L-110-5.1	REMOVE 2" PVC CONDUIT	6,000	LF
64	L-110-5.2	(1) 2" PVC SCHEDULE 40 CONDUIT DIRECT BURIED	5,030	LF
65	L-110-5.3	(1) 2" PVC SCHEDULE 40 CONDUIT CONCRETE ENCASED	400	LF
66	L-110-5.4	(2) 2" PVC SCHEDULE 40 CONDUIT CONCRETE ENCASED	200	LF
67	L-115-5.1	REMOVE ELECTRICAL HANDHOLE/JUNCTION STRUCTURE	4	EA
68	L-115-5.2	ELECTRICAL JUNCTION BOX, L-867D, 16" DIAMETER	7	EA
69	L-125-5.1	REMOVE ELEVATED TWY EDGE LIGHT	46	EA
70	L-125-5.2	REMOVE ELEVATED RWY THRESHOLD LIGHT	2	EA
71	L-125-5.3	REMOVE IN-PAVEMENT RWY EDGE LIGHT	5	EA
72	L-125-5.4	L-861T(L) ELEVATED TWY EDGE LIGHT, LED W/ HEATER KIT	42	EA
73	L-125-5.5	L-861 ELEVATED RWY EDGE LIGHT	5	EA
74	L-125-5.6	L-861E ELEVATED RWY THRESHOLD LIGHT	2	EA
75	L-125-5.7	CONNECT L-824 CABLE TO EXISTING LIGHT/SIGN	7	EA
76	L-125-5.8	L-853 ELEVATED TWY EDGE REFLECTOR	7	EA
77	L-125-5.9	REMOVE GUIDANCE SIGN	14	EA
78	L-125-5.10	L-858(L) GUIDANCE SIGN	10	EA
79	L-125-5.11	REMOVE FAA REIL/VASI EQUIPMENT RACK, REIL MASTER TIMER	1	LS
80	L-125-5.12	REMOVE FAA REIL LIGHT UNIT	2	EA
81	L-125-5.13	FAA REIL/VASI EQUIPMENT RACK W/ RACK-MOUNTED EQUIPMENT	1	LS

WSP USA INC. KANSAS LICENSE NO. E-447 300 WYANDOTTE STREET, SUITE 200 KANSAS CITY, MO 64105 T 816-702-4300 I www.wsp.com



# METROPOLITAN TOPEKA AIRPORT AUTHORITY TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA

CONSTRUCTION GRANT NO. 3-20-0113-047 6510 SE FORBES AVENUE, SUITE 1 TOPEKA, KANSAS 66619

DESCRIPTION					
ВУ					
DATE					
NO.					

### ISSUED FOR BID

SHEET TITLE

SUMMARY OF QUANTITIES

JANUARY 16, 2024 DATE SCALE DRAWN BY GFR CHECKED BY

WSP PROJECT NUMBER 30900280J

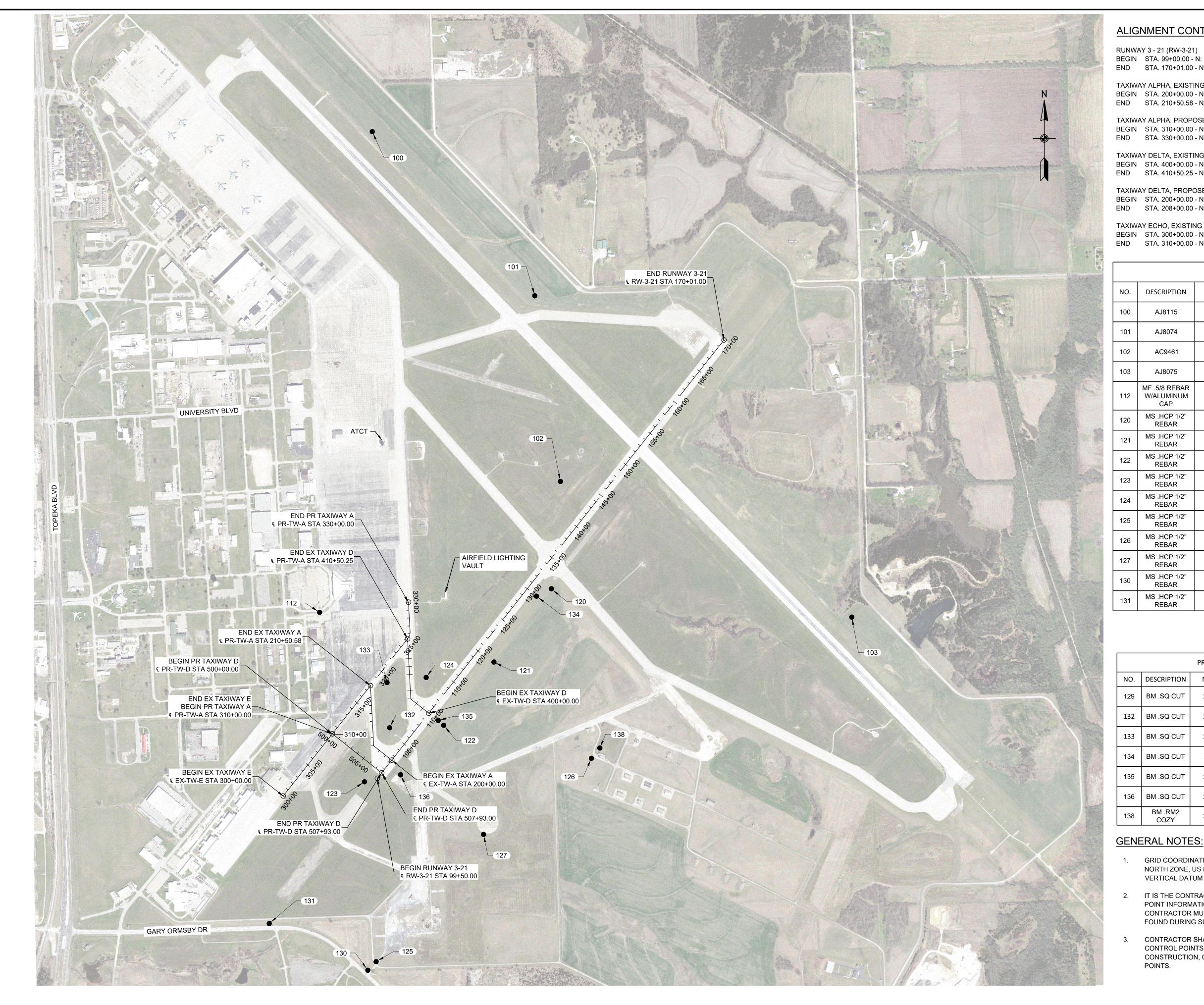
SHEET NUMBER

APPROVED BY

SFS

G0.02

SHEET 3 OF 98 SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET.



### **ALIGNMENT CONTROL:**

RUNWAY 3 - 21 (RW-3-21) BEGIN STA. 99+00.00 - N: 229512.70, E: 1974041.91 END STA. 170+01.00 - N: 235082.09, E: 1978447.15

TAXIWAY ALPHA, EXISTING (EX-TW-A) BEGIN STA. 200+00.00 - N: 229781.09, E: 1974254.21 END STA. 210+50.58 - N: 230720.66 , E: 1973986.30

TAXIWAY ALPHA, PROPOSED (PR-TW-A) BEGIN STA. 310+00.00 - N: 230112.83 , E: 19735.05.52 END STA. 330+00.00 - N: 231774.04 , E: 1974464.85

TAXIWAY DELTA, EXISTING (EX-TW-D) BEGIN STA. 400+00.00 - N: 230372.62 , E: 1974722.09 END STA. 410+50.25 - N: 231312.05 , E: 1974454.07

TAXIWAY DELTA, PROPOSED (PR-TW-D) BEGIN STA. 200+00.00 - N: 229620.88, E: 1974127.48 END STA. 208+00.00 - N: 230117.18, E: 1973500.03

TAXIWAY ECHO, EXISTING (EX-TW-E) BEGIN STA. 300+00.00 - N: 229328.52 , E: 1972885.15 END STA. 310+00.00 - N: 230112.83 , E: 1973505.52

CONTROL POINTS						
NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION		
100	AJ8115	237710.78	1974008.90	1065.50		
101	AJ8074	235640.30	1976059.60	1057.90		
102	AC9461	233297.68	1976383.42	1054.00		
103	AJ8075	231585.63	1980059.68	1035.60		
112	MF .5/8 REBAR W/ALUMINUM CAP	231647.27	1973344.31	1061.78		
120	MS .HCP 1/2" REBAR	231944.16	1976268.55	1049.60		
121	MS .HCP 1/2" REBAR	231018.62	1975543.94	1059.97		
122	MS .HCP 1/2" REBAR	230220.33	1974909.72	1068.73		
123	MS .HCP 1/2" REBAR	229508.34	1973911.57	1076.75		
124	MS .HCP 1/2" REBAR	230824.00	1974688.78	1065.89		
125	MS .HCP 1/2" REBAR	227237.91	1974056.95	1083.20		
126	MS .HCP 1/2" REBAR	229804.30	1976773.94	1065.02		
127	MS .HCP 1/2" REBAR	228843.83	1975413.04	1079.21		
130	MS .HCP 1/2" REBAR	227129.62	1973953.06	1082.06		
131	MS .HCP 1/2" REBAR	227719.45	1972708.81	1070.22		

	PROJECT BENCHMARKS					
NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION		
129	BM .SQ CUT	225985.65	1975035.81	1070.01		
132	BM .SQ CUT	230189.14	1974227.88	1070.27		
133	BM .SQ CUT	230760.04	1974195.61	1064.94		
134	BM .SQ CUT	231849.81	1976081.36	1053.06		
135	BM .SQ CUT	230281.93	1974841.53	1070.37		
136	BM .SQ CUT	229596.96	1974366.47	1074.22		
138	BM .RM2 COZY	229933.85	1976880.42	1063.65		

- 1. GRID COORDINATE SYSTEM: NAD83, KANSAS STATE PLANES, NORTH ZONE, US FOOT. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), US FOOT.
- 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CONTROL POINT INFORMATION PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST REPORT TO MTAA ANY DISCREPANCIES FOUND DURING SURVEY VERIFICATIONS.
- CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING CONTROL POINTS SHOWN ON PLAN. IF DAMAGED DURING CONSTRUCTION, CONTRACTOR SHALL RESTORE CONTROL POINTS.

Ç	)	30	0,	60	0'	120	0
H	IORI	ZOI	NTAI	L S	CALE	1"=600"	1

WSP USA INC LICENSE NO. E-447 300 WYANDOTTE STREET, SUITE 200 KANSAS CITY, MO 64105 **T** 816-702-4300 **I** www.wsp.com

\* **MTAA** TOPEKA REGIONAL | BILLARD AIRPORT

### THORITY -DELT A REGIONAL AIRPORT LOWER TAXIWAY ALPH **AIRPOR TOPEKA** TOPEKA TRUCT LC TROPOLITAN RECONS

ISSUED FOR BID

SHEET TITLE

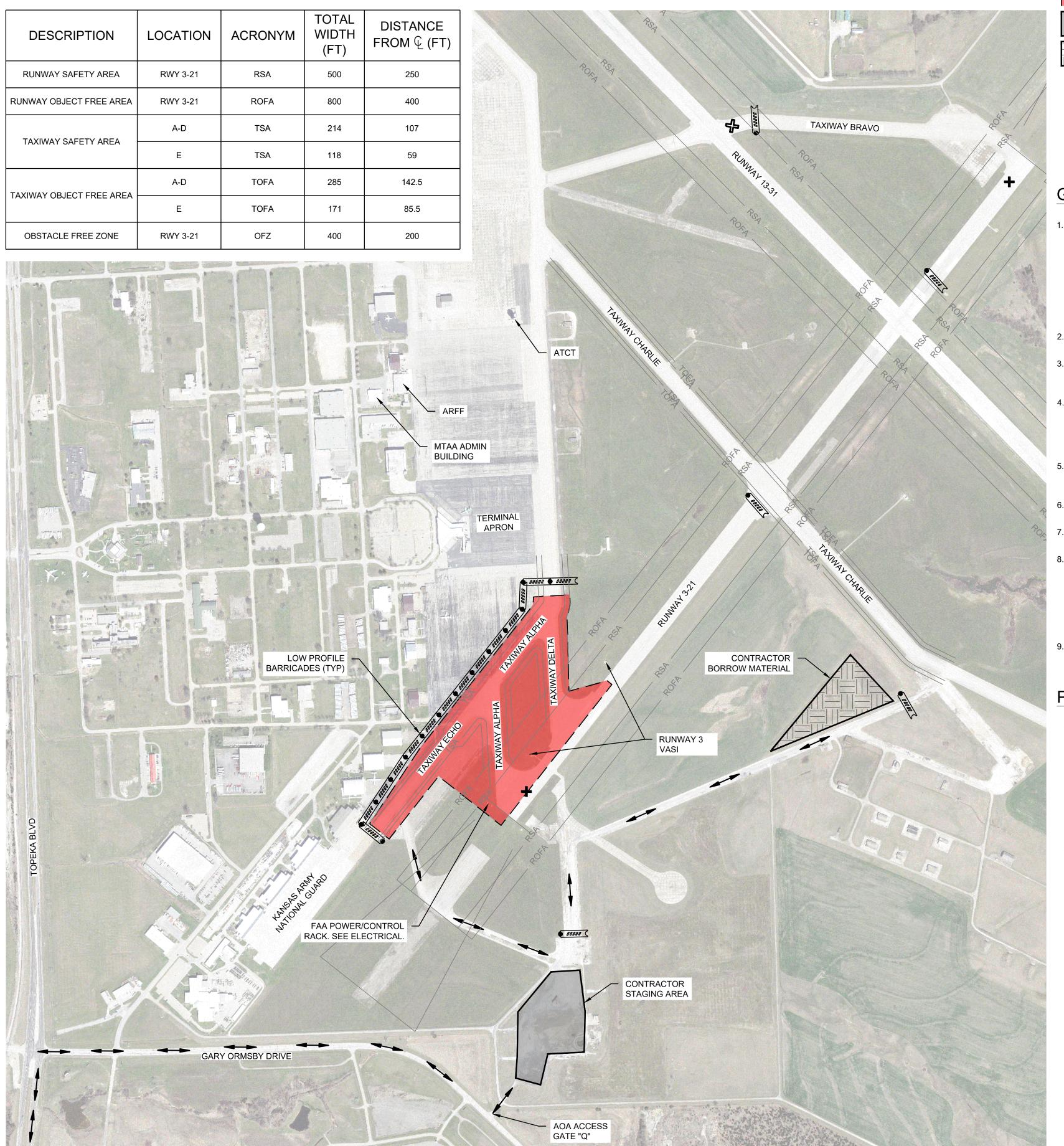
**LOCATION MAP AND ALIGNMENT CONTROL** 

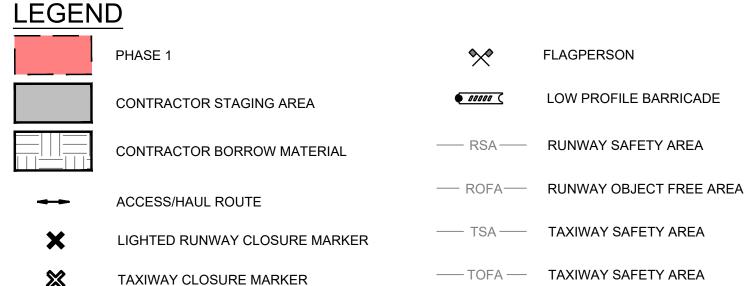
**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY APPROVED BY

WSP PROJECT NUMBER 30900280J

**GI1.01** SHEET NUMBER

SHEET **4** OF 98





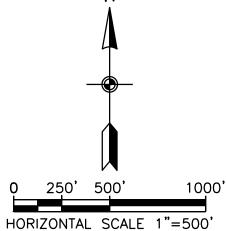
### **GENERAL CONTRACT NOTES:**

- THE CONTRACTOR MUST PROVIDE A PROJECT SUPERINTENDENT WHO MUST BE ON THE PROJECT SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED TO SUPERVISE AND DIRECT THE CONSTRUCTION. THE PROJECT SUPERINTENDENT MUST SERVE AS THE ON-PROJECT SAFETY COORDINATOR FOR THE CONTRACTOR AND BE EQUIPPED WITH A RADIO CAPABLE OF COMMUNICATING WITH THE AIR TRAFFIC CONTROL TOWER (ATCT) FOR THE PURPOSES OF RECEIVING INSTRUCTIONS AND OBTAINING CLEARANCES AS NEEDED. THIS RADIO IS FOR THE PROJECT SUPERINTENDENT'S EXCLUSIVE USE ONLY AND MUST BE ON THEIR PERSON AT ALL TIMES. THE SUPERINTENDENT MUST BE THE 24 HOUR ON-CALL REPRESENTATIVE FOR EMERGENCY SITUATIONS. THE PROJECT SUPERINTENDENT MUST BE RESPONSIBLE FOR SECURING PERMISSION FROM THE ATCT FOR CONSTRUCTION VEHICLES TO ENTER INTO AIRCRAFT MOVEMENT AREAS, WHEN NECESSARY, AND TO COMMUNICATE WITH THE ATCT DURING CONSTRUCTION. CONTRACTOR MUST NOT ACCESS THE AIRCRAFT MOVEMENT AREA WITHOUT ATCT PERMISSION.
- 2. GROUND CONTROL RADIO FREQUENCY IS 118.425 MHZ. TOWER CONTROL RADIO FREQUENCY IS 120.80 MHZ.
- 3. CONTRACTOR SUPERINTENDENT MUST BE RESPONSIBLE FOR COMMUNICATING WITH THE ATCT IN THE EVENT THAT ACCESS TO AIRCRAFT MOVEMENT AREAS BECOME NECESSARY AND TO RECEIVE SPECIAL INSTRUCTIONS FROM THE ATCT IN THE CASE OF AN EMERGENCY.
- 4. CONTRACTOR MUST BE RESPONSIBLE FOR COORDINATING MOVEMENT OF WORKERS WITHIN THE AIRCRAFT OPERATIONS AREA, THE DELIVERY OF MATERIALS TO THE PROJECT SITE AND THE ESCORTS FOR THOSE VEHICLES ONTO AND FROM THE PROJECT SITE THROUGH THE AIRCRAFT OPERATIONS AREA. ESCORT VEHICLES MUST BE REQUIRED TO HAVE RADIO COMMUNICATION WITH THE TOWER AT ALL TIMES (SUPERINTENDENT'S RADIO IS NOT TO BE USED BY ESCORT VEHICLES).
- 5. ACCESS ROUTES FROM GARY ORMSBY DRIVE MUST BE ADEQUATELY DELINEATED WITH CONES AND/OR BARRICADES TO MARK TRAVEL ROUTES FOR DELIVERY VEHICLES AND TO PREVENT VEHICLES FROM STRAYING FROM DESIGNATED TRAVEL ROUTES.
- 6. SPEED LIMIT ON HAUL ROUTES, ACTIVE APRONS AND TAXIWAYS AND RUNWAYS IS 20 MPH UNLESS OTHERWISE POSTED.
- 7. CONTRACTOR'S PERSONNEL WILL BE ALLOWED TO PARK PERSONAL VEHICLES AT THE STAGING AREA AS SHOWN ON THIS SHEET.
- 8. CONTRACTOR MUST MAINTAIN CONTROL OF EQUIPMENT AND PERSONNEL AND PREVENT THE MOVEMENT OF THE SAME OUTSIDE OF THE PROJECT LIMITS AND/OR THROUGH ACTIVE AIRCRAFT OPERATION AREAS. ACTIVE AIRCRAFT OPERATION AREAS INCLUDE TAXIWAYS AND RUNWAYS NOT CLOSED DUE TO THE PROJECT REQUIREMENTS. FOR EXAMPLE, WHILE AIRCRAFT MAY BE MOVING ALONG OPEN TAXIWAYS AND PORTIONS OF CLOSED RUNWAY, CONTRACTOR'S PERSONNEL WILL NOT BE PERMITTED TO ACCESS THESE OPEN TAXIWAYS OR RUNWAYS WITHOUT SECURING PERMISSION FROM THE ATCT. CONTRACTOR EQUIPMENT, VEHICLES, AND PERSONNEL MUST YIELD TO ALL AIRCRAFT MOVEMENT AND EMERGENCY EQUIPMENT. CONTRACTOR'S EQUIPMENT MUST BE REMOVED FROM ROFA WHEN NOT IN USE.
- 9. THE NORMAL WORKDAY WILL OCCUR BETWEEN THE HOURS OF 7:00 AM AND 6:00 PM. FOR WORK OUTSIDE OF THESE HOURS, THE CONTRACTOR MUST SUBMIT TO MTAA FOR REVIEW A REVISED WORKPLAN SEVEN (7) DAYS IN ADVANCE OF WORK.

### PHASING NOTES:

- 1. PHASE 1 WILL CONSIST OF:
- PAVEMENT DEMOLITION
- EARTHWORK
- FINAL GRADING
- TAXIWAY LIGHTING INSTALLATION
- CONSTRUCTION OF TAXIWAY PAVEMENT
- PAVEMENT MARKING
- ASSOCIATED EROSION AND SEDIMENT CONTROL MEASURES
- 2. RUNWAY 3-21, TAXIWAY ALPHA (SOUTH OF THE TERMINAL), TAXIWAY DELTA, AND TAXIWAY ECHO MUST BE CLOSED FOR THE ENTIRE DURATION OF THE PROJECT.
- 3. TAXIWAYS ALPHA (PARTIAL), BRAVO AND CHARLIE WILL REMAIN OPEN FOR ACCESS TO RUNWAY 13-31 WHILE RUNWAY 3-21 AND LOWER TAXIWAY ALPHA ARE CLOSED DURING THE CONSTRUCTION OF THIS PROJECT.
- 4. THE PROJECT MUST BE COMPLETED WITHIN 120 CALENDAR DAYS AFTER THE NOTICE TO PROCEED (NTP). SEE SHEET GC0.02 FOR PROJECT DURATION TABLE.

TRAFFIC CONTROL QUANTITIES					
PHASE	DESCRIPTION	LOCATION	UNITS	QUANTITY	
		RWY 3-21 @ RWY 13-31 OFA	EACH	26	
	BARRICADES W/ LIGHTS	RWY 3-21 @ TWY CHARLIE OFA	EACH	26	
1		TWY BRAVO @ RUNWAY 13-31 RSA	EACH	11	
		TAXIWAY ALPHA/ECHO/APRON	EACH	250	
		CONTRACTOR STAGING AREA	EACH	13	
1	RUNWAY CLOSURE	RWY 3 APPROACH	EACH	1	
1	MARKER	RWY 21 APPROACH	EACH	1	



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SHEET TITLE

**CONSTRUCTION SAFETY &** PHASING PLAN - OVERALL

**JANUARY 16, 2024** SCALE DRAWN BY **CHECKED BY** APPROVED BY

WSP PROJECT NUMBER 30900280J

GC0.01 SHEET NUMBER

SHEET **5** OF 98

- 1.1. A PRE-CONSTRUCTION CONFERENCE WILL BE HELD PRIOR TO THE START OF WORK ON THE PROJECT AT LEAST TWO WEEKS PRIOR TO THE START OF WORK. DURING THE PRE-CONSTRUCTION CONFERENCE, THE CONTRACTOR'S SAFETY PLAN AND HIS ADHERENCE TO HIS SAFETY PLAN WILL BE DISCUSSED. REVIEWS OF ADHERENCE TO THE SAFETY PLAN WILL TAKE PLACE DURING CONSTRUCTION PROGRESS MEETINGS.
- 1.2. MANDATORY PROJECT PROGRESS MEETINGS WILL BE HELD DURING THE COURSE OF CONSTRUCTION. THOSE REQUIRED TO ATTEND THE MEETING WILL INCLUDE THE MTAA, THE ENGINEER THE AIR TRAFFIC CONTROL TOWER CHIEF, THE CONTRACTOR (MINIMUM OF THE PROJECT SUPERINTENDENT) AND SUBCONTRACTORS WHO WILL BE PROVIDING WORK DURING THE PERIOD OF TIME BETWEEN THE CURRENT MEETING AND THE NEXT PROJECT PROGRESS MEETING. FAA FACILITIES PERSONNEL, SAFETY PERSONNEL, AND FIRE FIGHTING TEAM MEMBERS WILL HAVE A STANDING INVITATION TO THESE MEETINGS AND WILL ATTEND AS REQUIRED, OR IF THEY FEEL THEY HAVE A NEED TO BE PRESENT. MEETING WILL BE GENERALLY HELD ON A WEEKLY BASIS. DEPENDING ON THE CRITICAL ITEMS OF WORK AND MUTUAL AGREEMENT BETWEEN THE MTAA, THE ENGINEER, AND THE CONTRACTOR. MEETING DATES AND TIMES WILL BE ESTABLISHED AT THE PRE-CONSTRUCTION CONFERENCE. MEETING LOCATIONS WILL BE AT THE MTAA ADMINISTRATION OFFICE, 6510 SE FORBES AVE., TOPEKA, KS 66619.
- SURVEY CREWS, AND OTHER PROJECT ENTITIES, MAY BE REQUIRED TO ACCESS RUNWAY 3-21 PRIOR TO RUNWAY CLOSURE DURING THESE ACTIVITIES, SHORT RUNWAY CLOSURES ARE EXPECTED WHERE WORK CREWS WILL BE REQUIRED TO VACATE THE RUNWAY FOR AIRCRAFT OPERATIONS. ENGINEER WILL ESCORT SURVEY CREWS AND ENGINEER WILL COMMUNICATE WITH ATCT FOR ALLOWANCE ON RUNWAY 3-21. NO PERSONNEL SHALL ENTER RUNWAY SAFETY AREA WITHOUT EXPRESS VERBAL CONSENT FROM ATCT.

### PHASING

- 2.1. SEE SHEET GC0.01 FOR PHASING OF THIS PROJECT
- 2.2. ENGINEER AND AIRPORT MANAGER WILL APPROVE A PROPOSED SCHEDULE FOR CONSTRUCTION OF EACH PHASE PRIOR TO ANY CONSTRUCTION.
- CONTRACTOR MUST NOTIFY ENGINEER AND AIRPORT MANAGER IF A CHANGE IN SCHEDULE IS NEEDED.
- 2.4. LIGHTED X'S MUST BE PLACED ON EACH END OF RUNWAY WHEN RUNWAY IS CLOSED. THE GROUND X'S ON THE TAXIWAYS A AND D WILL BE PLACED 5-10 FEET AWAY FROM THE RUNWAYS EDGE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LIGHTED AND GROUND X'S AND MAINTAINING TRAFFIC CONTROL IN GOOD WORKING ORDER FOR THE DURATION OF THE PROJECT.
- 2.5. FOR CLOSED RUNWAYS, LOW PROFILE BARRICADES MUST BE PLACED AT THE RSA EDGE AT EACH TAXIWAY OPENING. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, PLACING, MAINTAINING, AND REMOVING LOW PROFILE BARRICADES.
- 2.6. TAXIWAY LEAD ON/OFF LINES AND CENTERLINES ON TAXIWAY ALPHA (APRON) AT THE INTERSECTION OF TAXIWAY ALPHA AND TAXIWAY ECHO, AND TAXIWAY DELTA AT THE INTERSECTION OF TAXIWAY ALPHA AND TAXIWAY DELTA WILL BE OBLITERATED DURING THIS PHASE.

### AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY

CONTRACTOR MUST COMPLY WITH ALL REQUIREMENTS AND SAFETY PRECAUTIONS PRESENTED IN FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR 150/5370-2G, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION." A COPY OF THE DOCUMENT CAN BE FOUND IN THE PROJECT MANUAL FOR REFERENCE AND USE. OR AT THE FEDERAL AVIATION ADMINISTRATION INTERNET WEB SITE (HTTP://WWW.FAA.GOV/REGULATIONS\_POLICIES/ADVISORY\_CIRCULARS/INDEX.CFM/GO/DOCUMENT.INFORMATION/DOCUMENTID/1032410).

	RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA			
	NORMAL (EXISTING)	PHASE 1		
SCOPE OF WORK	N/A	DEMOLISH AND RECONSTRUCT TAXIWAY ALPHA-DELTA PAVEMENT, INSTALL NEW ELECTRICAL INFRASTRUCTURE		
EFFECTS OF CONSTRUCTION OPERATIONS	N/A	RUNWAY 3-21, TAXIWAY LOWER ALPHA, TAXIWAY DELTA, TAXIWAY ECHO CLOSED		
CONSTRUCTION PHASE	N/A	PHASE 1 (ANTICIPATED)		
RUNWAY 3-21 AIRCRAFT CATEGORY	C-II	C-II		
RUNWAY 3 APPROACH VISIBILITY MINIMUMS	1 MILE	1 MILE		
RUNWAY 21 APPROACH VISIBILITY MINIMUMS	1 MILE	1 MILE		
RUNWAY 3 NAVAIDS*	VOR/DME, TACAN, GPS	VOR/DME, TACAN, GPS		
RUNWAY 21 NAVAIDS*	VOR/DME, TACAN, GPS	VOR/DME, TACAN, GPS		
RUNWAY 3 VISUAL AIDS	REIL, VASI	CLOSED		
RUNWAY 21 VISUAL AIDS	REIL, PAPI	CLOSED		
TAXIWAY A ADG	IV	CLOSED		
TAXIWAY A TDG	5	CLOSED		
TAXIWAY D ADG	IV	CLOSED		
TAXIWAY D TDG	5	CLOSED		
TAXIWAY E ADG	III	CLOSED		
TAXIWAY E TDG	4	CLOSED		

\*CONTRACTOR SHALL NOT DISTURB ANY NAVAID CRITICAL AREAS UNLESS SHOWN ON THE PLANS

PROJECT DURATION TABLE					
PHASE OR ACTIVITY	DESCRIPTION OF ACTIVITES	WORK AREA START DATE	CALENDAR DAYS	LIQUIDATED DAMAGES	AIRFIELD PAVEMENTS
PHASE 1	DEMOLISH EXISTING TAXIWAY DELTA AND TAXIWAY ALPHA CONNECTIONS TO RUNWAY 3; CONSTRUCT NEW TAXIWAY DELTA; MILL AND OVERLAY TAXIWAY ALPHA	NTP EXPECTED JUNE 3, 2024	120 DAYS	\$3,000 PER CALENDAR DAY	RUNWAY 3-21 CLOSED; TAXIWAY A CLOSED AT PROJECT LIMITS

### PROTECTION OF NAVIGATIONAL AIDS (NAVAIDS)

- 4.1. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR WILL WALK THE PROJECT LIMITS WITH THE OWNER, FAA AIRWAYS FACILITIES AND AIRPORT OPERATIONS TO IDENTIFY ANY AFFECTED NAVAIDS. IN ADDITION, THE CONTRACTOR SHALL COORDINATE WITH FOE TECHNICAL OPERATIONS CONCERNING OPERATION AND SHUTDOWN OF NAVIGATIONAL FACILITIES DURING
- 4.2. PARKING OF LARGE EQUIPMENT ON THE AIRFIELD IS ONLY ALLOWED IN AN AREA THAT IS AT LEAST 400 FEET FROM THE CENTERLINE OF ANY RUNWAY AND 93 FEET FROM THE CENTERLINE OF ANY TAXIWAY. NO EQUIPMENT WILL BE ALLOWED TO PARK IN AN INSTRUMENT LANDING SURFACE CRITICAL AREA.
- 4.3. THE MAXIMUM HEIGHT OF STORED MATERIALS AND CONSTRUCTION EQUIPMENT IS 25 FEET UNLESS OTHERWISE APPROVED. THE MAXIMUM ALLOWABLE STORED MATERIAL HEIGHT AND HEIGHT OF CONSTRUCTION EQUIPMENT OPERATING IN THE AOA IS GOVERNED BY FAA ADVISORY CIRCULAR 150/5370-2, CURRENT EDITION. WHEN MATERIAL STOCKPILES OR CONSTRUCTION EQUIPMENT. SUCH AS CRANE OR BOOM, COULD PENETRATE ANY RUNWAY APPROACH SURFACE OR TRANSITIONAL SLOPE SURFACE, THE CONTRACTOR SHALL APPLY FOR AND OBTAIN A SPECIAL USE PERMIT (7460-1) FROM THE FAA. THIS FORM SHALL BE SUBMITTED TO THE FAA NO LATER THAN 90 DAYS PRIOR TO THE MATERIAL'S OR CONSTRUCTION EQUIPMENT'S ARRIVAL ON SITE. THE CONTRACTOR SHALL MARK THE MATERIAL STOCKPILE OR CONSTRUCTION EQUIPMENT AS REQUIRED BY THE FAA ADVISORY CIRCULAR 70/7460-1K AND 150/5210-5. CRANES AND BOOMS ARE TO BE LOWERED TO BELOW APPROACH SURFACE/TRANSITIONAL SLOPE SURFACE ELEVATION WHENEVER UNATTENDED OR ILS RUNWAY IS IN EFFECT.
- CONTRACTOR SHALL NOTIFY THE AIRPORT MANAGER 72 HOURS IN ADVANCE WHENEVER THE HEIGHT OF ANY EQUIPMENT OR MATERIAL STOCKPILE IS EXPECTED TO PENETRATE A RUNWAY APPROACH SURFACE, TO INCLUDE USE OF ANY CRANE OR BOOM TRUCK THAT IS EXPECTED TO BE AT A HEIGHT OF 12 FEET OR MORE.

### CONTRACTOR ACCESS

- 5.1. ACCESS TO THE STAGING AREA DURING ALL PHASES OF THE PROJECT WILL BE MADE BY MEANS OF GATE "Q" OFF GARY ORMSBY DRIVE.
- ACCESS TO THE PROJECT SITE FROM THE STAGING AREA MUST BE BY THE PERIMETER ROAD TO GATE "Q" OFF GARY ORMSBY DRIVE. FROM THE GATE, THE CONTRACTOR MUST CONTINUE WITH ACCESS TO THE PROJECT VIA THE VEHICLE SERVICE ROAD HEADED NORTH AND THEN WEST, CROSSING OVER ABANDONED PAVEMENT SOUTHWEST OF RUNWAY 3-21 AND CONTINUING TO THE PROJECT SITE. CONTRACTOR MUST BE RESPONSIBLE FOR THE MAINTENANCE OF THE VEHICLE SERVICE ROAD FOR THE DURATION OF THE PROJECT. CONTRACTOR MUST KEEP FOD FROM ENTERING THE AIRFIELD ROUTE FROM THE ACCESS ROUTE.
- CONTRACTOR WILL PROVIDE A GUARD AT ACCESS GATE(S) TO CONTROL THE ACCESS OF CONTRACTOR-ONLY PERSONNEL ONTO THE PROJECT SITE DURING THE PROJECT WORK. ACCESS GUARDS MUST HAVE A RADIO OR CELLULAR TELEPHONE CAPABLE OF COMMUNICATING WITH THE PROJECT SUPERINTENDENT AND MUST NOTIFY THE PROJECT SUPERINTENDENT IMMEDIATELY OF UNUSUAL CIRCUMSTANCES OR UNAUTHORIZED ENTRIES THROUGH THE GATE. CONSTRUCTION TRAFFIC WILL BE LIMITED TO THE PATHWAYS INDICATED AS THEY HAVE BEEN DEEMED TO FORM THE MOST DIRECT ROUTE FROM THE ACCESS POINT TO THE PROJECT SITE.
- CONTRACTOR MUST COORDINATE SECURITY ARRANGEMENTS WITH THE MTAA DURING THE COURSE OF THE PROJECT. CONTRACTOR MUST BE REQUIRED TO PROVIDE PERSONNEL AT ACCESS POINTS, AS NEEDED, TO CONTROL TRAFFIC ENTERING AND LEAVING THE PROJECT SITE. CONTRACTOR MUST MEET THE SECURITY REQUIREMENTS ESTABLISHED BY THE APPROPRIATE CONTROLLING BODY AND MUST BE RESPONSIBLE FOR ENSURING THAT CONTRACTOR'S PERSONNEL AND SUBCONTRACTOR'S PERSONNEL ADHERE TO SUCH REQUIREMENTS.
- 5.5. STORAGE AND STAGING AREA IS DESIGNATED AT THE GRAVEL APRON AREA IN THE VICINITY OF THE GARY ORMSBY DRIVE GATE "Q". ACCESS TO THE STAGING AREA WILL BE BY MEANS OF THE GATE AT GARY ORMSBY DRIVE. STAGING WILL NOT BE PERMITTED NEAR THE KANSAS AIR NATIONAL GUARD AT THE NORTH END OF RUNWAY 13-31 DUE TO CONCERNS OF FOD.
- 5.6. IF BATCH PLANT IS REQUIRED, THE BATCH PLANT WILL BE LOCATED AT THE STAGING AREA AND MUST NOT EXCEED 50 FEET. CONTRACTOR MAY NEGOTIATE WITH ADJACENT PROPERTY OWNERS FOR ALTERNATIVE BATCH PLANT LOCATIONS.
- ALL HIGH PROFILE EQUIPMENT, SUCH AS CRANES, WILL BE LOWERED WHEN NOT IN USE.
- SEE SPECIAL PROVISIONS AND SAFETY PLAN REGARDING ACCESS AND SECURITY ISSUES

### WILDLIFE MANAGEMENT

6.1. ALTHOUGH THE RESPONSIBILITY OF WILDLIFE MANAGEMENT AND ANY NECESSARY REMOVAL FOR THE AIRPORT RESIDES WITH TOPEKA REGIONAL AIRPORT. THE CONTRACTOR MUST CONTACT AIRPORT OPERATIONS IMMEDIATELY IN THE EVENT THAT WILDLIFE IS OBSERVED

### TRASH

7.1. THE CONTRACTOR WILL OBSERVE STRICT ADHERENCE TO SITE CLEANLINESS. DAILY END OF DAY AS WELL AS PERIODIC THROUGHOUT THE DAY VISUAL INSPECTIONS WILL BE PERFORMED BY THE CONTRACTOR AND AIRPORT TO ENSURE SITE TRASH IS PICKED UP TO PREVENT FROM BEING BLOWN AROUND THE AIRFIELD. TRASH IS CONSIDERED A HAZARD IN THAT IT MAY BECOME WINDBLOWN AND BECOME FOREIGN OBJECT DEBRIS (FOD); OR IT MAY ATTRACT UNWANTED WILDLIFE WHICH MAY PRESENT SERIOUS HAZARDS TO AIRCRAFT IN THE AOA.

### STANDING WATER

8.1. THE CONTRACTOR WILL BE REQUIRED TO USE TEMPORARY PUMPS, AS NEEDED, ALTHOUGH NOT ANTICIPATED, TO PROVIDE DRAINAGE TO ANY EXCAVATION AREAS IN ORDER TO PROTECT EXPOSED BASE OR SUBGRADE MATERIALS FROM OVER-SATURATION AND WEAKENING. THE CONTRACTOR WILL BE REQUIRED TO SPRAY WORK AREAS FREQUENTLY THROUGHOUT THE PROJECT TO KEEP DOWN DUST AND WINDBLOWN IRRITANTS FROM THE WORK SITE ONTO THE AIRFIELD, OUT OF THE AOA, OR OFF AIRPORT-PROPERTY. WATER SPRAYED FOR DUST CONTROL MAY ACCUMULATE AND MUST BE MANAGED. THE CONTRACTOR MAY EMPLOY THE USE OF TEMPORARY DITCHES IN EXCAVATION AREAS TO ALLOW POSITIVE DRAINAGE AND MINIMIZE STANDING WATER. STANDING WATER IS CONSIDERED A HAZARD IN THAT IT MAY ATTRACT UNWANTED WILDLIFE WHICH MAY PRESENT SERIOUS HAZARDS TO AIRCRAFT IN THE AOA.

### TALL GRASS AND SEEDS

9.1. THE AIRPORT IS REGULARLY MAINTAINED FOR VEGETATION (MOWING, WEED REMOVAL, ETC.). THESE MAINTENANCE ITEMS ARE REGULARLY SCHEDULED AND THE AIRPORT WILL CONTINUE THEM INDEFINITELY. THE PROJECT AREA IS ON AREAS THAT ARE ALREADY PAVED OR HAVE VERY LITTLE VEGETATION, SO CONSTRUCTION WILL CAUSE NO DISRUPTION TO THESE MAINTENANCE ITEMS. CONTRACTOR MUST BE RESPONSIBLE FOR MOWING THE AREA INSIDE THE CONSTRUCTION ZONE.

### 10. POORLY MAINTAINED FENCING AND GATES

- 10.1. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN IN GOOD WORKING ORDER ANY GATE HE USES FOR SITE ACCESS. ADDITIONALLY, THE CONTRACTOR WILL BE REQUIRED TO STRICTLY FOLLOW AIRPORT SECURITY PROTOCOLS FOR KEEPING THE AIRFIELD SECURE AT ALL TIMES AS WELL AS FOR ENTERING/EXITING THE AOA.
- 10.2. DISRUPTION OF EXISTING WILDLIFE HABITAT
- 10.3. BECAUSE THE PROJECT AREA IS AN ACTIVE AREA OF THE AOA, NO KNOWN HABITAT DISRUPTION SHOULD OCCUR AND NO KNOWN ISSUES ARE ANTICIPATED.

### 11. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

- 11.1. A MINIMUM OF ONE SWEEPER MUST BE OPERATIONAL AT ALL TIMES. THE BROOM MUST NOT BE COMPRISED OF STEEL BRISTLES. CONTRACTOR MUST MAINTAIN EFFECTIVE CONTROL OF FOD AT ALL TIMES ON AIRFIELD PAVEMENTS WHILE OPEN TO AIRCRAFT. CONTRACTOR MUST HAVE A MECHANIZED BROOM DEDICATED FOR THE EXCLUSIVE USE OF CLEANING AIRFIELD PAVEMENTS AND REMOVING FOD FROM THE AIRFIELD PAVEMENTS AT AND NEAR THE TAXIWAY ACCESS CROSSING. THE ACCESS ROUTE ACROSS THE ABANDONED APRON MUST BE SWEPT DAILY OR AS NEEDED TO PICK UP FOD, LOOSE DEBRIS, MUD, DIRT OR OTHER OBJECTS FROM THE ACCESS ROUTE. THE CONTRACTOR MUST BE RESPONSIBLE FOR IMMEDIATELY CLEANING UP ANY FOD GENERATED FROM CONSTRUCTION ACTIVITIES FROM ALL ACTIVE TAXIWAYS, AIRCRAFT MOVEMENT AREAS AND RUNWAY SAFETY AREAS.
- 11.2. PILES OF RUBBLE AND/OR SUPPLIES ARE NOT PERMITTED ALONG ANY AREAS OPEN TO AIRCRAFT. ANY PILE GENERATED IN THESE AREAS MUST BE CLEANED UP AND HAULED AWAY BEFORE THE END OF THE WORK DAY. RUNWAY OBSTACLE FREE AREAS (200' FROM CENTERLINE OF RUNWAY) FOR ANY ACTIVE RUNWAY MUST BE CLEAR OF ALL PILES AND SURFACE IRREGULARITIES. ANY OPEN TRENCHES OR EXCAVATION ALONG AREAS OPEN TO AIRCRAFT MUST BE BACKFILLED OR SECURELY COVERED AS SOON AS POSSIBLE AND NOT LEFT OPEN DURING NON-WORK HOURS. AIRCRAFT OPERATIONS WILL NOT BE ALLOWED ON A RUNWAY WHERE OPEN TRENCHES OR EXCAVATIONS OCCUR WITHIN THE ROFA.
- 11.3. THE CONTRACTOR MUST BE REQUIRED TO CONTROL DUST AND DEBRIS THAT RESULTS FROM HIS OPERATIONS. WASTE AND LOOSE MATERIALS MUST NOT BE PLACED IN ACTIVE MOVEMENT AREAS. MATERIALS TRACKED ONTO THESE AREAS MUST BE REMOVED CONTINUALLY DURING THE COURSE OF THE PROJECT.

### 12. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

12.1. ALTHOUGH HAZARDOUS MATERIALS ARE NOT ANTICIPATED ON THIS PROJECT, THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A SAFETY AND HEALTH PLAN, WHICH DETAILS HOW THEIR COMPANY MANAGES AND HANDLES HAZARDOUS MATERIALS, FOR CIRCUMSTANCES WHICH MAY OCCUR ON THIS PROJECT. ALL LUBRICATING LIQUIDS AND SOLIDS (OILS AND GREASES) MUST BE SECURED AND CONTAINED IN DRY AREAS UNTIL USED BY TRAINED PERSONNEL OR MECHANICS. ALL WASTE MATERIAL MUST BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE ENVIRONMENTAL LAWS AND ACCORDING TO MANUFACTURER'S DIRECTIONS. CONSTRUCTION FUEL MUST NOT BE STORED AT THE SITE.

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SHEET TITLE CONSTRUCTION SAFETY & PHASING OVERVIEW & NOTES

SHEET 1 OF 2 **JANUARY 16, 202**4 DATE SCALE **DRAWN BY** 

> APPROVED BY WSP PROJECT NUMBER 30900280J

SHEET NUMBER

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SHEET **6** OF 98

GC0.02

### 13. NOTIFICATION OF CONSTRUCTION ACTIVITIES

- 13.1. CONTRACTOR MUST COORDINATE WITH MTAA TO ISSUE REQUIRED NOTAMS FOR RUNWAY/TAXIWAY CLOSURES FOR THE CONSTRUCTION PERIOD. COORDINATE THE ISSUANCE OF THE APPROPRIATE NOTAM PRIOR TO ACCESSING THE PROJECT AND PRIOR TO EACH CHANGE IN CONSTRUCTION PHASING, THE PROJECT SPONSOR, THE MTAA, WILL BE RESPONSIBLE FOR CANCELING NOTAMS.
- 13.2. APPROPRIATE NOTICE TO AIR MISSIONS (NOTAMS) MUST BE ISSUED PRIOR TO COMMENCING WORK ACTIVITIES IN THE VICINITY OF AIRCRAFT OPERATION AREAS. CONTRACT MUST COORDINATE WORK ACTIVITIES AND PROJECT SCHEDULE WITH THE METROPOLITAN TOPEKA AIRPORT AUTHORITY (MTAA). MTAA MUST COORDINATE ISSUANCE OF NOTAMS BASED UPON INFORMATION SUPPLIED BY THE CONTRACTOR. MTAA MUST ISSUE NOTAMS AND CONFIRM THAT NOTAMS HAVE BEEN PUBLISHED. PRIOR TO MOVING INTO AIRCRAFT MOVEMENT AREAS TO ERECT TRAFFIC CONTROL, CONFIRMATION OF ISSUANCE OF NOTAMS WITH AIR TRAFFIC CONTROL TOWER MUST BE MADE WHILE SECURING PERMISSION TO ENTER AIRCRAFT MOVEMENT AREAS.
- 13.3. COORDINATION WITH AIRPORT RESCUE AND FIRE FIGHTING (ARFF) THROUGH THE RPR IS NECESSARY IF CONSTRUCTION ACTIVITIES REQUIRE THE DEACTIVATION AND SUBSEQUENT REACTIVATION OF WATER LINES OR FIRE HYDRANTS, THE RE-ROUTING, BLOCKING, AND RESTORATION OF EMERGENCY ACCESS ROUTES, OR THE USE OF HAZARDOUS MATERIALS ON THE AIRFIELD. ARFF ROADS AND AIRFIELD ACCESS ROUTES MUST BE MAINTAINED AND OPEN AT ALL TIMES.

EMERGENCY NOTIFICATION PROCEDURES

IDENTIFICATION AND QUALIFICATIONS OF A DEDICATED SECURITY AND SAFETY POINT OF CONTACT - THE SUPERINTENDENT MUST BE THE 24 HOUR ON-CALL REPRESENTATIVE FOR EMERGENCY **SITUATIONS** 

24 HOUR EMERGENCY CONTACTS FOR POLICE, FIRE, MEDICAL RESPONSE, AND KEY PROJECT PERSONNEL - THE CONTRACTOR WILL PRODUCE AN EMERGENCY CONTACT LIST WITHIN 7 DAYS FOLLOWING THE PRE-CONSTRUCTION MEETING. AT A MINIMUM, THE FOLLOWING EMERGENCY CONTACTS MUST BE INCLUDED ON THE CONTACT LIST:

DO NOT CALL 911 FOR EMERGENCIES CALL 785-862-1130				
AGENCY	NAME	TITLE	PHONE	
METROPOLITAN TOPEKA AIRPORT AUTHORITY	SAFETY DEPARTMENT	EMERGENCY CALLS ONLY - POLICE & FIRE	785-862-1130	
METROPOLITAN TOPEKA AIRPORT AUTHORITY	ERIC M. JOHNSON	PRESIDENT & DIRECTOR OF AIRPORTS	785-862-2362 W	
METROPOLITAN TOPEKA AIRPORT AUTHORITY	MAJ. CHRIS ORTEGA	ACTING CHIEF OF POLICE & FIRE	785-862-9250 W	
METROPOLITAN TOPEKA AIRPORT AUTHORITY	RITA EGGENBERGER	OPERATIONS OFFICER	785-862-0711 W	
METROPOLITAN TOPEKA AIRPORT AUTHORITY	TERRY POLEY	DIRECTOR OF MAINTENANCE	785-862-0711 W	
MIDWEST AIR TRAFFIC CONTROL SERVICES	JOHN E. WOOTEN JR.	AIR TRAFFIC CONTROL TOWER MANAGER	785-862-2058 W	
KANSAS AIR NATIONAL GUARD, 190TH AIR REFUELING WING	LT. COL. BARRY R. VEEN	CIVIL ENGINEERING SQUADRON COMMANDER	785-861-4029 W	
WSP	SAM F. STALLBAUMER, PE	PROJECT MANAGER/ OWNER'S REP	816-702-4244 W 210-867-6532 C	

### 14. INSPECTION REQUIREMENTS

DAILY INSPECTIONS

14.1. THE CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL INSPECTION OF HIS/HER OWN WORK, AS WELL AS FOR ALL SAFETY REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR IS REQUIRED TO ADHERE TO THE CONTRACT DOCUMENTS, WHICH INCLUDE ALL SAFETY REQUIREMENTS OF THIS SAFETY AND PHASING PLAN. INSPECTIONS OF THE WORK ZONE CONES/BARRICADES, STOCKPILE AREAS, EQUIPMENT, EROSION/SEDIMENT CONTROL DEVICES AND ADJACENT SURFACES MUST OCCUR ON A DAILY BASIS TO ENSURE ALL CONDITIONS MEET THE REQUIREMENTS SPECIFIED WITHIN THIS SAFETY & PHASING PLAN AND THE CONTRACT DOCUMENTS. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR ANY INSPECTIONS OF MOVEMENT AREAS PRIOR TO THE AREA BEING OPENED FOR ANY AIRCRAFT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADDRESS CONSTRUCTION SAFETY ISSUES ADJACENT OR INCIDENTAL TO THE PROJECT, EVEN IF THEY ARE NOT DIRECTLY RELATED TO THIS PROJECT

FINAL INSPECTIONS

- 14.2. ANY DAMAGE ALONG THE HAUL ROUTES MUST BE REPAIRED BY THE CONTRACTOR PRIOR TO THE COMPLETION OF THE PHASE THE ROUTE IS USED. THE CONTRACTOR MUST, NEAR THE COMPLETION OF PHASE 1, REPLACE IN KIND PAVEMENT AS SHOWN IN THE PAVING DETAIL PLAN SHEETS.
- 14.3. A FINAL INSPECTION WILL BE PERFORMED PRIOR TO ANY PAVEMENT SECTION BEING RE-OPENED TO AIRCRAFT

### 15. UNDERGROUND UTILITIES

PROCEDURE FOR LOCATING AND PROTECTING EXISTING UNDERGROUND UTILITIES, CABLES AND WIRES.

- 15.1. AT LEAST FOURTEEN (14) CALENDAR DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST WALK THE JOB SITE WITH THE OWNER, AIRPORT OPERATIONS AND FAA TECHNICAL OPERATIONS TO ALLOW THE FAA SUFFICIENT TIME TO IDENTIFY ANY EXISTING UNDERGROUND UTILITIES, CABLES AND WIRES WHICH MIGHT BE AFFECTED BY THIS PROJECT.
- 15.2. THE CONTRACTOR MUST VERIFY, IDENTIFY, LOCATE, MARK OUT & PROTECT THE ACTUAL LOCATIONS OF UTILITIES PRIOR TO ANY EXCAVATION. WHEN AT ALL FEASIBLE, THE CONTRACTOR WILL NOT MARK EXISTING UTILITIES IN THE MOVEMENT AREA
- 15.3. THE CONTRACTOR MUST COORDINATE WITH ALL APPROPRIATE AGENCIES.
- 15.4. THE CONTRACTOR MUST HAND-DIG WHEN WITHIN 3 FEET OF ANY KNOWN OR SUSPECTED UTILITY
- 15.5. THE CONTRACTOR MUST PROTECT ALL UNDERGROUND UTILITIES DURING THE DURATION OF THE PROJECT.

### **PENALTIES**

- 16.1. IN THE EVENT AN EMPLOYEE OF THE CONTRACTOR VIOLATES A SAFETY PROVISION, THEY MUST BE PROHIBITED FROM RETURNING TO WORK ON THE AOA WITHOUT REMEDIAL SAFETY TRAINING AND THE APPROVAL OF THE AIRPORT. VIOLATIONS MAY BE DEEMED AS JUST AND SUFFICIENT CAUSE TO REQUIRE THE EMPLOYEE BE PERMANENTLY REMOVED FROM THE JOB SITE AT THE DISCRETION OF THE AIRPORT. SHOULD VIOLATIONS BY CONTRACTOR PERSONNEL BE SUBJECT TO FINES AS ASSESSED BY THE FEDERAL AVIATION ADMINISTRATION, THE CONTRACTOR MUST BE RESPONSIBLE FOR THE PAYMENT OF SAID FINES AND THE REMOVAL OF THE EMPLOYEE RESPONSIBLE FOR THE VIOLATION TO BE REMOVED FROM THE PROJECT SITE PERMANENTLY. FURTHER, FOR THE CONTRACTOR'S VIOLATION OF THE SECURITY IDENTIFICATION DISPLAY AREA (SIDA), THE CONTRACTOR MUST BE RESPONSIBLE FOR ALL PENALTIES ISSUED BY THE TRANSPORTATION SECURITY ADMINISTRATION.
- 16.2. THE CONTRACTOR MUST BE RESPONSIBLE FOR ALL COSTS AND DELAYS CAUSED BY A SAFETY VIOLATION(S). CONSTRUCTION PERSONNEL DRIVING ERRATICALLY ON THE AIRPORT, EXCEEDING THE 20 MPH SPEED LIMIT, OR VIOLATING ANY OTHER AIRPORT DRIVING RULE OR SAFETY REGULATION, AT A MINIMUM, MUST BE REMOVED FROM THE PROJECT PERMANENTLY. AIRPORT OPERATIONS CAN REMOVE ANY CONTRACTOR PERSONNEL, AT ANY TIME, FOR ANY DURATION, DUE TO A SAFETY VIOLATION. AIRPORT OPERATIONS MUST REPORT ANY OCCURRENCES TO THE CONTRACTOR AND THE OWNER.

### 17. SPECIAL CONDITIONS

- 17.1. ALL CONTRACTOR'S SUPERVISORY PERSONNEL (PROJECT MANAGERS, SUPERINTENDENTS, FOREMEN, AND LEAD WORKERS) WHO WILL BE DIRECTING THE PROJECT WORK, WHO WILL BE DRIVING EQUIPMENT ON THE AIRFIELD, OR ESCORTING OTHERS ON THE AIRFIELD MUST BE REQUIRED TO TAKE AND PASS THE MTAA PEDESTRIAN/FLIGHT LINE DRIVING COURSE OF INSTRUCTION. TRUCK DRIVERS AND EQUIPMENT OPERATORS WHO WILL BE DRIVING STRICTLY WITHIN THE CONFINES OF THE HAUL ROUTES AND THE PROJECT AREA WILL NOT BE REQUIRED. TO TAKE THIS TRAINING COURSE. THOSE DRIVERS OR OPERATORS WHO WILL BE DRIVING OUTSIDE OF THE HAUL ROUTES OR PROJECT LIMITS WILL BE REQUIRED TO TAKE AND PASS THE TRAINING COURSE. THIS COURSE OF INSTRUCTION LASTS APPROXIMATELY 1-2 HOURS AND WILL BE PROVIDED BY THE MTAA TO CONTRACTOR'S PERSONNEL AT NO COST TO THE CONTRACTOR. CONTRACTOR WILL ATTEMPT TO PROVIDE PERSONNEL FOR TRAINING IN GROUPS SO AS TO MINIMIZE THE NUMBER OF TRAINING SESSIONS. TRAINING SESSIONS MUST BE COORDINATED WITH RITA EGGENBERGER, OPERATIONS OFFICER, 785-862-0399.
- 17.2. CONTRACTOR'S PERSONNEL MUST BE PROHIBITED FROM DRIVING IN THE SIDA AROUND THE TERMINAL BUILDING AREA UNLESS SAID PERSONNEL HAVE THE APPROPRIATE SECURITY BADGE. THESE SECURITY BADGES MAY BE OBTAINED FROM THE MTAA AFTER SUCCESSFULLY PASSING A SIDA TEST, BEING FINGERPRINTED, AND SUCCESSFULLY COMPLETING CRIMINAL HISTORY RECORD CHECK. THERE IS NO COST TO PROCESS THE BADGE, BUT IF THE BADGE IS NOT RETURNED THERE WILL BE A \$100 USD FEE. THE COST FOR THE TESTING, FINGERPRINTING, AND CHRC IS ESTIMATED TO BE NO MORE THAN \$30 USD. IT IS NOT ANTICIPATED THAT PERSONNEL FOR THIS PROJECT WILL BE REQUIRED TO BE IN THE SIDA AREA.
- 17.3. CONTRACTOR MUST BE RESPONSIBLE FOR PROVIDING ESCORT VEHICLES/PERSONNEL TO PROVIDE ESCORT FOR ASPHALT DELIVERY TRUCKS, CONCRETE READY-MIX TRUCKS OR OTHER VEHICLES THAT WILL DELIVER FRESH MATERIALS TO THE WORK SITE ALONG THE RUNWAY. MTAA SAFETY PERSONNEL MUST PROVIDE TRAINING FOR CONTRACTOR'S PERSONNEL AT THE ONSET OF THE PROJECT TO PROVIDE ESCORT AND AIRFIELD MOVEMENT TRAINING.

### 18. RUNWAYS AND TAXIWAY VISUAL AIDS

18.1. CLOSURES WILL BE NOTED WITH THE USE OF LOW PROFILE BARRICADES AT RUNWAY AND TAXIWAY CROSSINGS. BARRICADES SHOULD BE SECURED TO PREVENT MOVEMENT FROM JET BLAST, THE AIRPORT WILL PROVIDE NOTAMS FOR CLOSURES AND THE CONTRACTOR WILL BE REQUIRED TO PROVIDE, PLACE AND MAINTAIN TEMPORARY BARRICADES AT CLEARLY VISIBLE LOCATIONS TO KEEP PILOTS FROM ERRANTLY TAXIING DOWN A CLOSED TAXIWAY OR CLOSED RUNWAY. LOW PROFILE BARRICADES ARE TO BE PLACED AT THE LOCATIONS SHOWN IN THE PLANS OR AS DESIGNATED BY THE ENGINEER.

### MARKINGS

18.2. ALL PAVEMENT MARKINGS WILL BE REPLACED FOR RUNWAY AND TAXIWAY RELATED RECONSTRUCTION OR REHABILITATION WORK. PAVEMENT MARKINGS WILL COMPLY WITH CURRENT FAA ADVISORY CIRCULAR 150/5340-1M "STANDARDS FOR AIRPORT MARKINGS". EXISTING STRIPING THAT IS IN CONFLICT WITH TEMPORARY PHASES WILL BE REMOVED BY GRINDING OR OTHERWISE APPROVED METHOD. TEMPORARY STRIPING WILL BE PLACED IN ONE APPLICATION. NO BEADS AND CONFORM TO SPECIFICATION P-620.

LIGHTING AND VISUAL NAVAIDS

- 18.3. THE RUNWAY LIGHTS WILL BE DEACTIVATED OR COVERED WHEN THE RESPECTIVE RUNWAY IS CLOSED. CLOSED PORTION OF TAXIWAY ALPHA WILL HAVE LIGHTS SUFFICIENTLY COVERED OR UTILIZE A JUMPER AT THE PROJECT LIMITS TO MAINTAIN TAXIWAY ALPHA LIGHTS FOR THE NON-CLOSED PORTION.
- 18.4. IF CLOSURES ARE REQUIRED, CLOSED TAXIWAY EDGE LIGHTS AND GUIDANCE SIGNAGE WILL BE COVERED TO FURTHER ELIMINATE THE POSSIBILITY OF CONFUSING A PILOT. LIGHTING ACTIVITIES WILL COMPLY WITH CURRENT FAA ADVISORY CIRCULAR 150/5340-30J "DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS", AC 150/5345-50B "SPECIFICATION FOR PORTABLE RUNWAY AND TAXIWAY LIGHTS" AND AC 150/5345-53D "AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM".

### <u>SIGNS</u>

- 18.5. GUIDANCE SIGNAGE WILL BE COVERED TO FURTHER ELIMINATE THE POSSIBILITY OF CONFUSING A PILOT. SIGNS MUST BE IN CONFORMANCE WITH CURRENT FAA ADVISORY CIRCULAR 150/5345-44K "SPECIFICATION FOR RUNWAY AND TAXIWAY SIGNS", AC 150-5340-18G "STANDARDS FOR AIRPORT SIGN SYSTEMS" AND AC 150/5345-53D "AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM".
- 18.6. ALL OUTBOUND DESTINATIONS SIGNS FOR THE CLOSED RUNWAY NEED TO BE COVERED.
- 18.7. ALL RUNWAY EXIT SIGNS LEADING TO A CLOSED TAXIWAY NEED TO BE COVERED.
- 18.8. COVER TAXIWAY DIRECTIONAL SIGNS THAT LEAD TO CLOSED TAXIWAYS

### 19. MARKING AND SIGNS FOR ACCESS ROUTES

19.1. THE ACCESS ROADS USED FOR HAULING AND DELIVERY OF MATERIALS TO THE SITE WILL BE MARKED WITH TEMPORARY GUIDANCE SIGNS (STAKE MOUNTED OR SAW-HORSE, WEIGHTED DOWN WITH SAND BAGS) CONFORMING TO CURRENT FAA ADVISORY CIRCULAR 150/5345-44K, AC 150/5340-18F, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) OR STATE HIGHWAY DEPARTMENT REQUIREMENTS. AT ALL ENTRANCES TO THE AOA, SPEED LIMIT SIGNS (20 MPH) WILL BE PLACED. STOP SIGNS AND DIRECTION ARROW SIGNS WILL BE PLACED AT KEY POINTS ALONG THE ACCESS ROAD TO ENSURE THE CONTRACTOR VEHICLES DRIVING THE ROUTE ADHERE TO YIELDING ALL AIRCRAFT THE RIGHT-OF-WAY AT ALL TIMES AND MINIMIZING POTENTIAL FOR ACCIDENTS OR ERRANTLY DRIVING OFF THE ROUTE. CHANNELIZERS OR OTHER TRAFFIC CONTROL MUST BE UTILIZED TO DESIGNATE THE HAUL ROUTES.

### 20. HAZARD MARKING AND LIGHTING

- 20.1. CONTRACTOR MUST BE RESPONSIBLE FOR THE TRAFFIC CONTROL USED DURING THE COURSE OF THE PROJECT. CONTRACTOR MUST FURNISH, INSTALL, MAINTAIN AND DISMANTLE ALL TRAFFIC CONTROL ITEMS USED DURING COURSE OF THE PROJECT. BARRICADES AROUND AIRCRAFT MOVEMENT AREAS MUST BE LOW PROFILE, LOW MASS BARRICADES SIMILAR TO THAT SHOWN ON THIS SHEET.
- 20.2. ALL VEHICLES AND EQUIPMENT THAT WILL BE CROSSING OR OPERATING IN THE AIR OPERATIONS AREAS OR ON ANY ACTIVE RUNWAY OR TAXIWAY, AIRCRAFT MOVEMENT AREAS AND RUNWAY SAFETY AREAS MUST BE MARKED WITH EITHER A FLAG OR A FLASHING BEACON. THE FLAGS (DAYTIME USE) MUST BE ON A STAFF ATTACHED TO THE VEHICLE, 3-FOOT SQUARE WITH ORANGE AND WHITE CHECKERED PATTERN. BEACONS MUST BE OF ADEQUATE SIZE AND STRENGTH AS TO BE VISIBLE FROM THE AIR AND MOUNTED ON THE UPPERMOST PART OF THE VEHICLE. ALL VEHICLES OPERATING DURING NIGHTTIME OPERATIONS MUST BE EQUIPPED WITH A FLASHING BEACON.

### 21. PROTECTION OF EXISTING OPEN FACILITIES AND WORK AREA

- 21.1. NO WORK WILL OCCUR WITHIN A ROFA OR A TOFA OF AN OPEN RUNWAY OR TAXIWAY
- 21.2. CONTRACTOR MUST CONFINE HIS WORK ACTIVITIES ALONG RUNWAY 3-21 TO SECTORS OR ZONES THAT ELIMINATE THE NEED FOR CROSSING OVER RUNWAY 13-31. ADDITIONALLY, ACTIVITIES SHOULD BE CONFINED TO AN AREA OR WORK ZONE SUCH THAT TRENCHES, OPEN EXCAVATIONS, AND CLEANING OPERATIONS CAN BE PERFORMED IN A RELATIVELY SHORT PERIOD OF TIME PRIOR TO THE END OF THE WORK DAY.
- 21.3. ALL CONTRACTOR'S AND SUBCONTRACTORS' VEHICLES, PERSONNEL AND EQUIPMENT MUST BE CONFINED TO THE LIMITS OF THE CONSTRUCTION PHASES, OCCUPYING ONLY THE PHASE WHERE WORK IS IN PROGRESS.

### 22. OTHER LIMITATIONS ON CONSTRUCTION

- 22.1. WORK WILL NOT BE PERMITTED WITHIN THE RUNWAY SAFETY AREA FOR RUNWAY 3-21 WHILE THE RUNWAY IS OPEN TO AIRCRAFT TRAFFIC.
- 22.2. NO USE OF OPEN FLAMES, WELDING OR TORCHES UNLESS ADEQUATE FIRE SAFETY PRECAUTIONS ARE PROVIDED AND APPROVED IN WRITING BY MTAA.
- 22.3. NO USE OF FLARE POTS WITHIN THE AOA AT ANY TIME.
- 22.4. NO USE OF ELECTRICAL BLASTING CAPS ON OR WITHIN 1,000 FEET OF AIRPORT PROPERTY.
- 22.5. NO SMOKING IS PERMITTED ON AIRPORT PROPERTY.
- 22.6. NO DISRUPTION OF UTILITIES SERVING THE FACILITIES OCCUPIED BY THE AIRPORT OR THEIR TENANTS, UNLESS PERMITTED IN WRITING (WITH PROVISIONS FOR TEMPORARY UTILITIES IN THEIR PLACE). NOTIFY MTAA A MINIMUM OF 48 HOURS IN ADVANCE OF PROPOSED UTILITY DISRUPTIONS AND DO NOT PROCEED WITH UTILITY INTERRUPTION WITHOUT WRITTEN PERMISSION.
- 22.7. THE CONTRACTOR SHOULD BE AWARE OF JET BLAST AT ALL TIMES, ESPECIALLY WHILE AROUND ACTIVE RUNWAYS, TAXIWAYS AND APRONS. BARRICADES MUST BE FIXED TO THE GROUND OR PAVEMENT TO PREVENT MOVEMENT DUE TO JET BLAST. STOCKPILES AND CONSTRUCTION EQUIPMENT MUST BE KEPT AWAY FROM PLACES WHERE JET BLAST IS LIKELY TO OCCUR (RUN-UP APRONS, TAXIWAY CORNERS, ETC.).
- 22.8. THE USE OF FLOOD LIGHTING FOR NIGHTTIME WORK MUST BE LIMITED TO NON-DIRECTIONAL LIGHT. LIGHTS CANNOT BE POINTED AT THE TOWER OR POINTED TOWARD THE AIRFIELD OR RUNWAY APPROACHES. LIGHTS THAT CAUSE GLARE OR BLIND SPOTS TO THE TOWER OR TO PILOTS WILL NOT BE ALLOWED.

LICENSE NO. E-447 300 WYANDOTTE STREET, SUITE 200 KANSAS CITY. MO 64105 **「**816-702-4300 **」** www.wsp.com



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SHEET TITLE

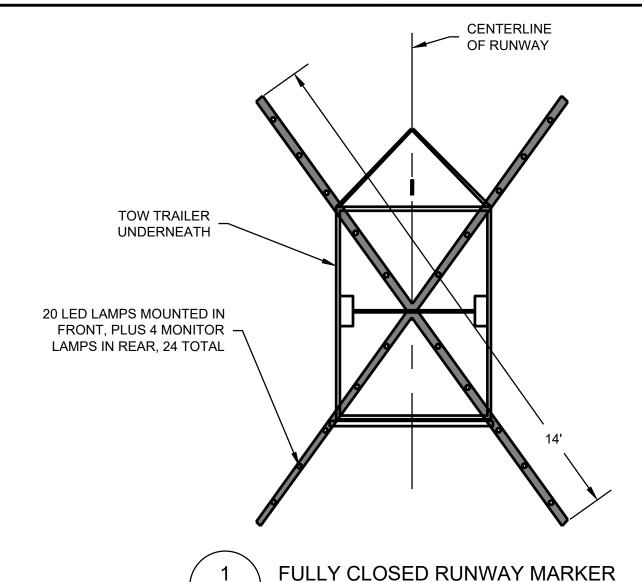
CONSTRUCTION SAFETY & **PHASING OVERVIEW & NOTES** SHEET 2 OF 2

**JANUARY 16, 202**4 DATE SCALE **DRAWN BY** CHECKED BY APPROVED BY

WSP PROJECT NUMBER 30900280J

GC0.03 SHEET NUMBER

SHEET **7** OF 98

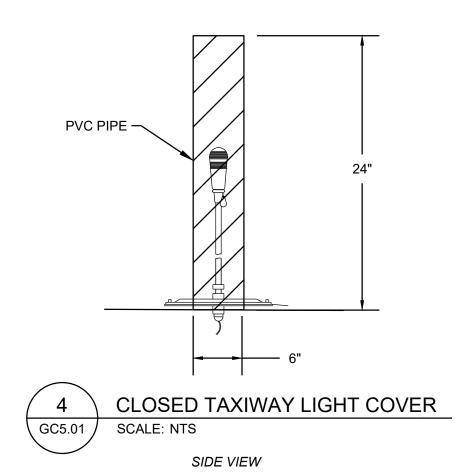


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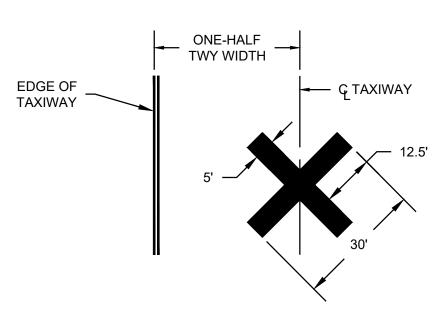
COLOR - LIGHTED (FOR DAYTIME AND NIGHT USE)

GC5.01

- 1. MARKER SHALL BE PLACED OVER THE RUNWAY DESIGNATION NUMBERS, AS SHOWN ON THE PHASING PLANS.
- 2. MARKING SHALL BE LIT AND BE CAPABLE OF RELOCATION DUE TO CONSTRUCTION ACTIVITIES NEAR THE RUNWAY APPROACH. AN LIGHTED RUNWAY CLOSURE MARKER SHALL BE PLACED AT EACH END OF THE RUNWAY DIRECTLY ON OR AS NEAR AS POSSIBLE TO THE RUNWAY DESIGNATION NUMBERS.
- 3. LIGHTED RUNWAY CLOSURE MARKERS MEETING THE REQUIREMENTS OF FAA ADVISORY CIRCULAR 150/5345-55 CURRENT EDITION WILL BE REQUIRED.
- 4. LIGHTED RUNWAY CLOSURE EQUIPMENT SHALL BE IN CONTINUOUS OPERATION 24 HOURS A DAY, 7 DAYS A WEEK.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF ALL LIGHTED RUNWAY CLOSURE MARKER COMPONENTS, INCLUDING FUEL AND REPLACEMENT BULBS.

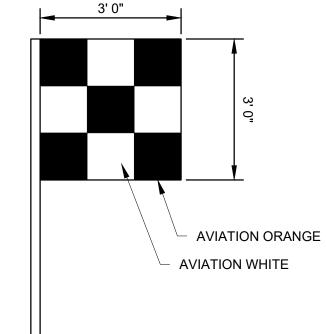


1. COVER SHALL BE BLACK, SCHEDULE 40 PVC PIPE

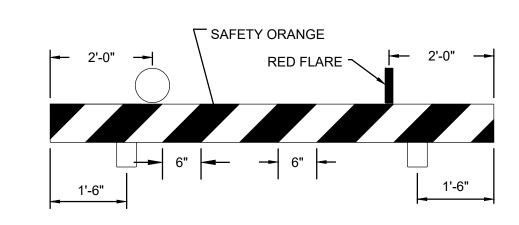




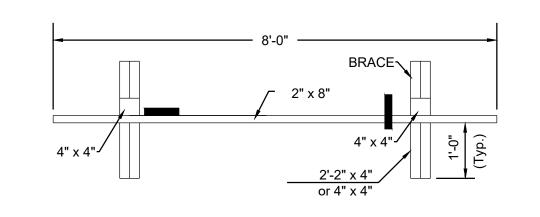
- 1. MARKER SHALL BE PLACED AS SHOWN ON THE PHASING PLANS.
- 2. MARKINGS SHALL BE FLEXIBLE MATERIAL SUCH AS POLYMER FABRIC OR FINE MESH. SNOW FENCE IS NOT CONSIDERED ACCEPTABLE MATERIAL.



CONSTRUCTION SAFETY FLAG GC5.01 SCALE: NTS



SIDE VIEW

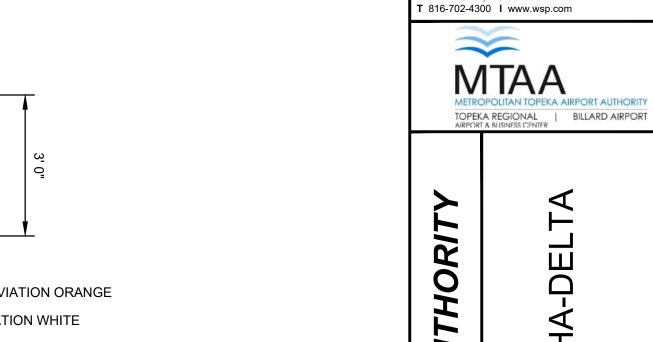


TOP VIEW

、GC5.01 /

LOW-PROFILE BARRICADE DETAIL SCALE: NTS

- 1. FLARES TO BE FLASHING AND BATTERY OPERATED. LENS TO BE RED AND ABLE TO ROTATE 90 DEGREES (AMBER LENS WILL NOT BE ACCEPTABLE).
- ALTERNATING FLARE LENS ARE ROTATED 90 DEGREES TO ADJACENT LENS.
- 3. SUPPORT BRACES TO BE SECURELY ATTACHED TO 2" X 8".
- 4. SAND BAGS OR OTHER ADEQUATE WEIGHT TO BE PLACED ON EACH SUPPORT BRACE.
- 5. FACING OF 2" X 8" TO BE COVERED WITH REFLECTIVE TAPE OR PAINT.
- 6. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM.
- 7. PLACE AT 12' CENTER TO CENTER INTERVALS (4' GAP).
- BARRICADES SHALL BE LOCATED IN A LINE PARALLEL WITH THE RUNWAY OR THE TAXIWAY CENTERLINE.
- 9. IN THE PRESENCE OF FOOT TRAFFIC, AND WHERE AGREED UPON BY MTAA, BARRICADES MUST BE INTERLOCKING AND HAVE NO SPACES BETWEEN THEM. GAPS BETWEEN BARRICADES MUST BE NO MORE THAN 4 FEET.
- 10. ALL BARRICADES MUST BE MOVED AT LEAST ONCE A WEEK AND THE CONTRACTOR MUST SWEEP ANY DEBRIS THAT HAS ACCUMULATED AND
- REMOVE THIS DEBRIS FROM SITE. THE BARRICADES MUST THEN BE REPLACED AT THE APPROPRIATE LOCATION.
- 11. BARRICADES MUST BE PLACED AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY MTAA. 12. CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING BARRICADES (INCLUDING LIGHTS) IN WORKING CONDITION AT ALL TIMES.
- 13. BARRICADES ARE TO BE SECURED FROM JET BLAST WITH SAND BAGS OR AN EQUIVALENT APPROVED METHOD.
- 14. LOW PROFILE BARRICADES MUST BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR MUST SUPPLY A SUFFICIENT NUMBER OF BARRICADES FOR THE DURATION OF THE PROJECT. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE NUMBER OF BARRICADES FOR THE WORK AREAS AS IT RELATES TO THE CONTRACTOR'S WORK PLAN. THE COST FOR FURNISHING THE BARRICADES AS WELL AS MAINTENANCE, PLACEMENT AND SECURING (SEE NOTES 1-13), WILL BE CONSIDERED INCIDENTAL TO SAFETY AND SECURITY. CONTRACTOR TO ASSUME AT LEAST 5000 LF OF BARRICADES FOR BIDDING PURPOSES. BARRICADES WILL BE TURNED OVER TO THE AIRPORT AT THE CONCLUSION OF THE PROJECT,



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WSP USA INC

LICENSE NO. E-447

300 WYANDOTTE STREET, SUITE 200

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KANSAS CITY, MO 64105

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SHEET TITLE

**CONSTRUCTION SAFETY** & PHASING DETAILS

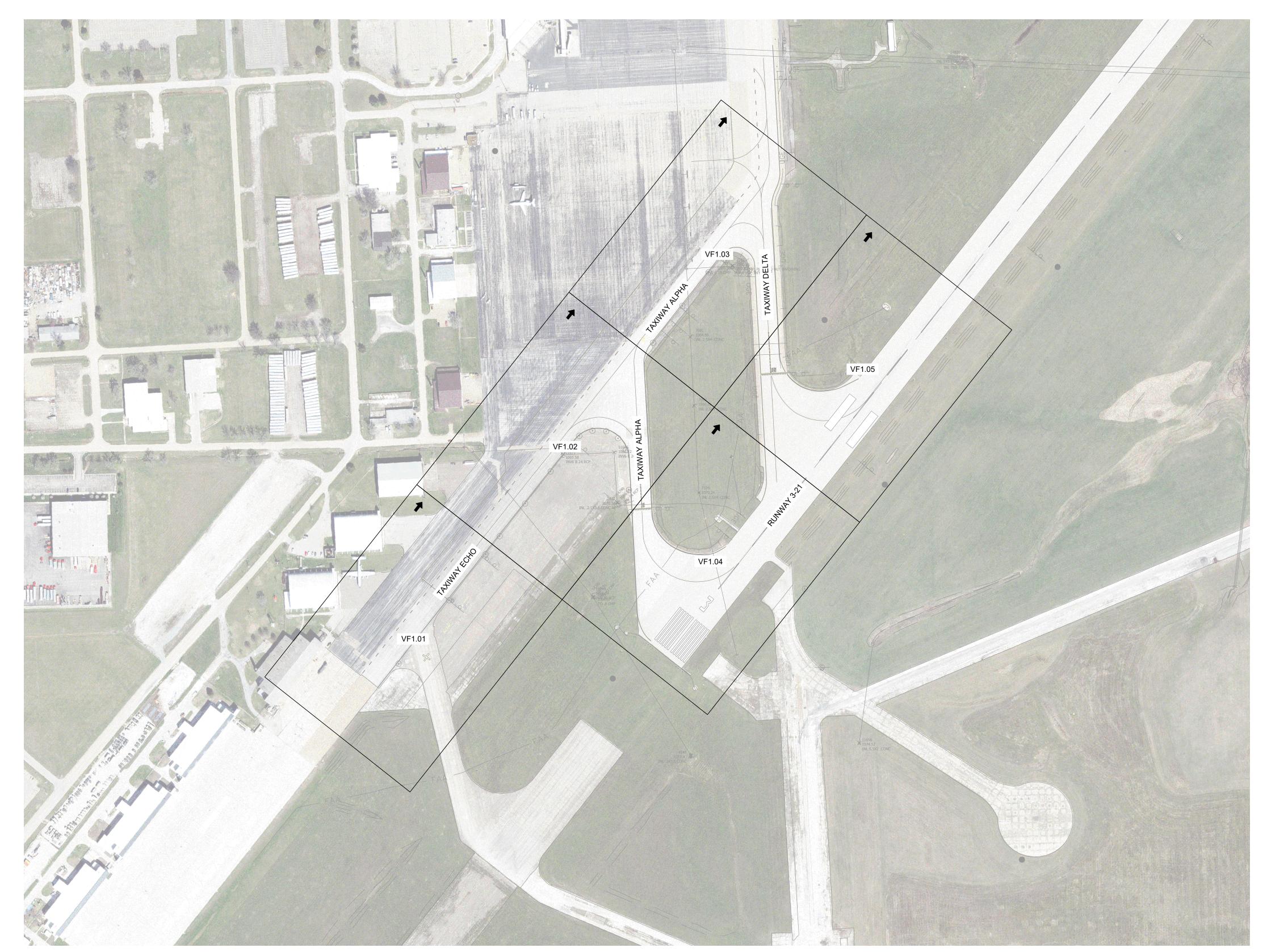
**JANUARY 16, 2024** DATE SCALE DRAWN BY GFR CHECKED BY TMS APPROVED BY

WSP PROJECT NUMBER 30900280J

GC5.0<sup>2</sup> SHEET NUMBER

SHEET 8 OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET





ARROW POINTS IN DIRECTION OF ORIENTATION OF SHEET

WSP USA INC. KANSAS LICENSE NO. E-447 300 WYANDOTTE STREET, SUITE 200 KANSAS CITY, MO 64105 T 816-702-4300 I www.wsp.com

METROPOLITAN TOPEKA AIRPORT AUTHORITY
TOPEKA REGIONAL
AIRPORT A BIJSINESS CENTER

BILLARD AIRPORT

## TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA **AIRPORT AUTHORITY** TOPEKA METROPOLITAN

ISSUED FOR BID

**JANUARY 16, 2024** 

1" = 200'

SHEET TITLE

0 100' 200' 400' HORIZONTAL SCALE 1"=200'

AIRFIELD EXISTING CONDITIONS **KEY PLAN** 

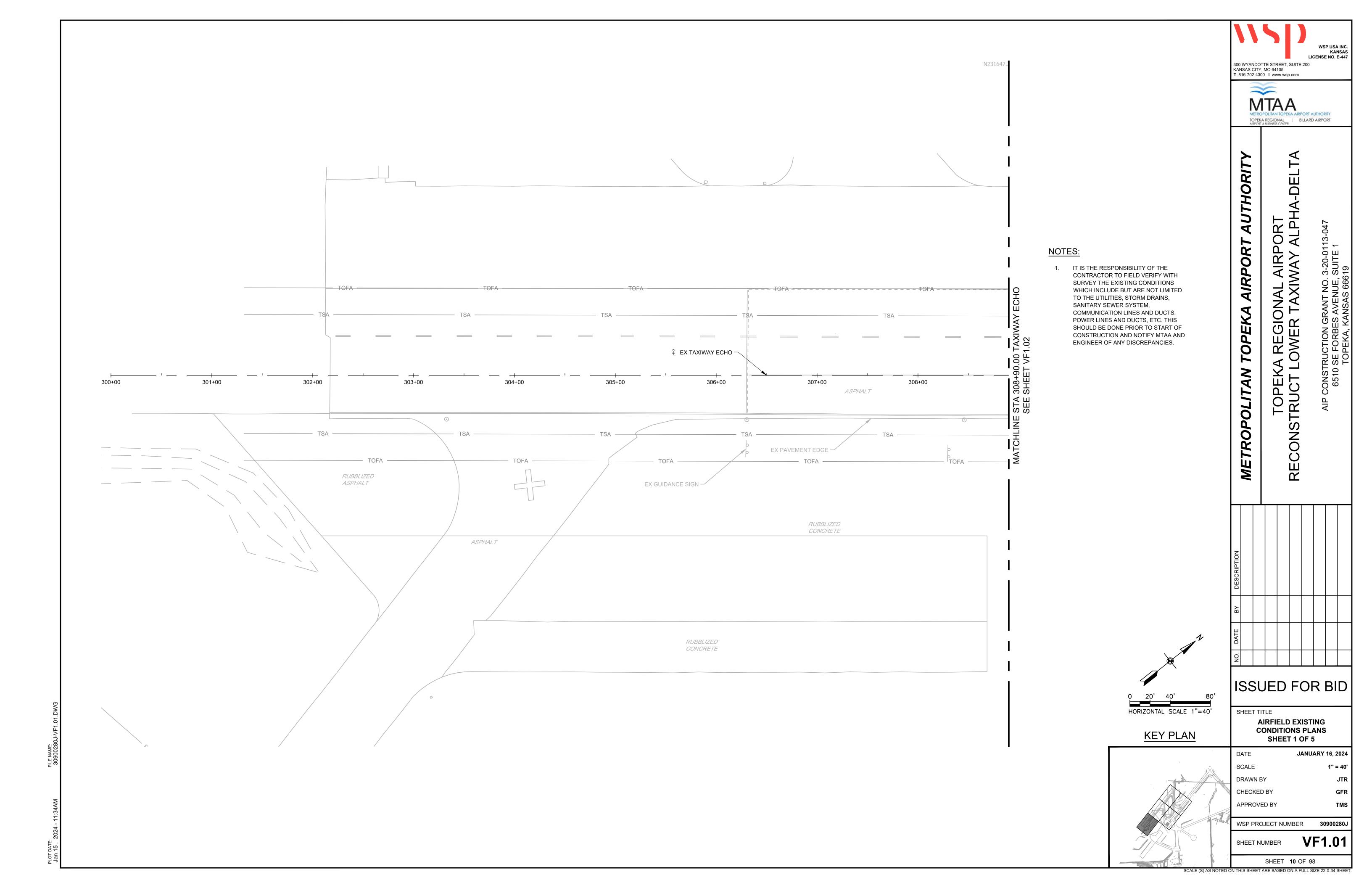
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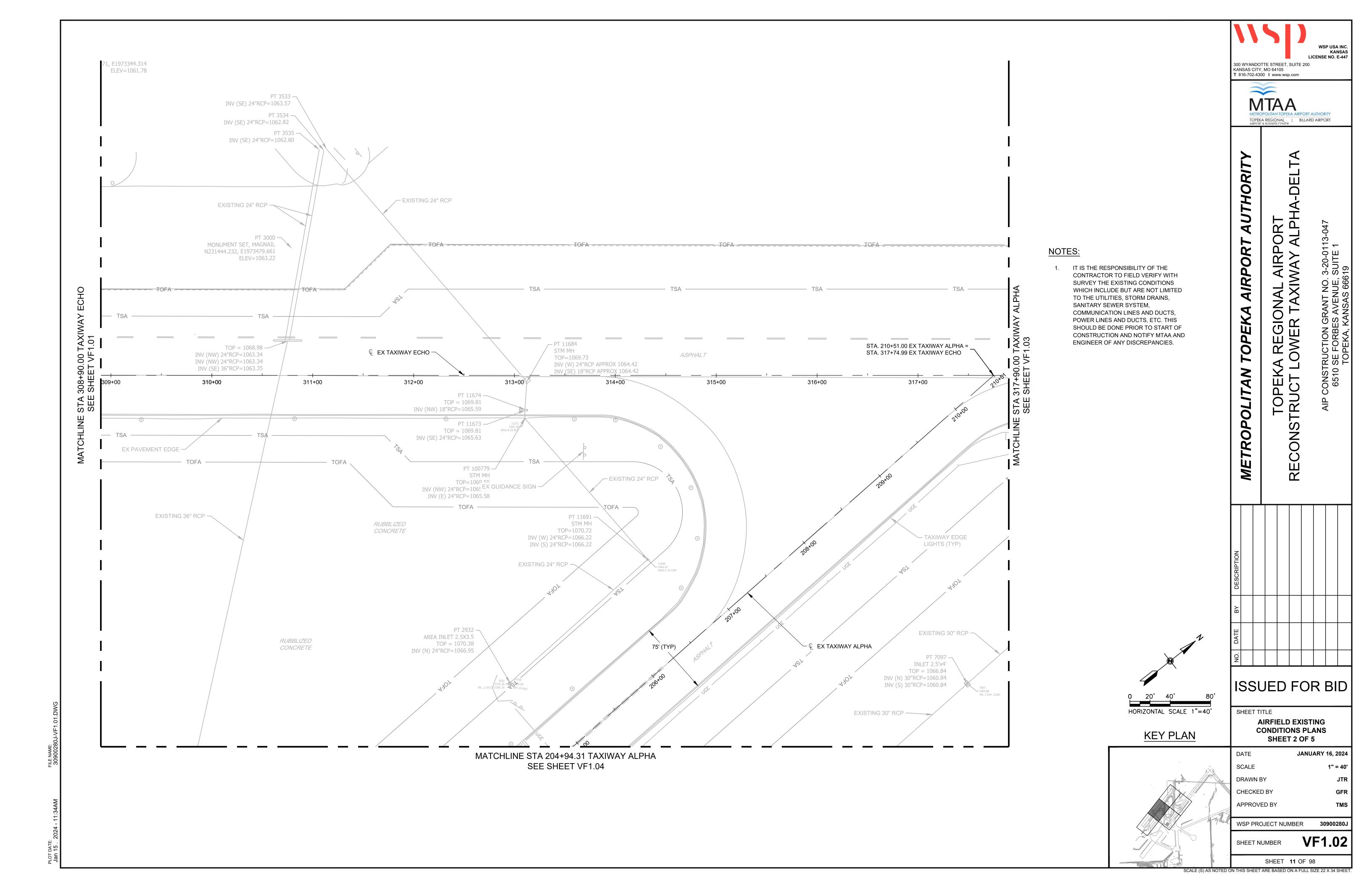
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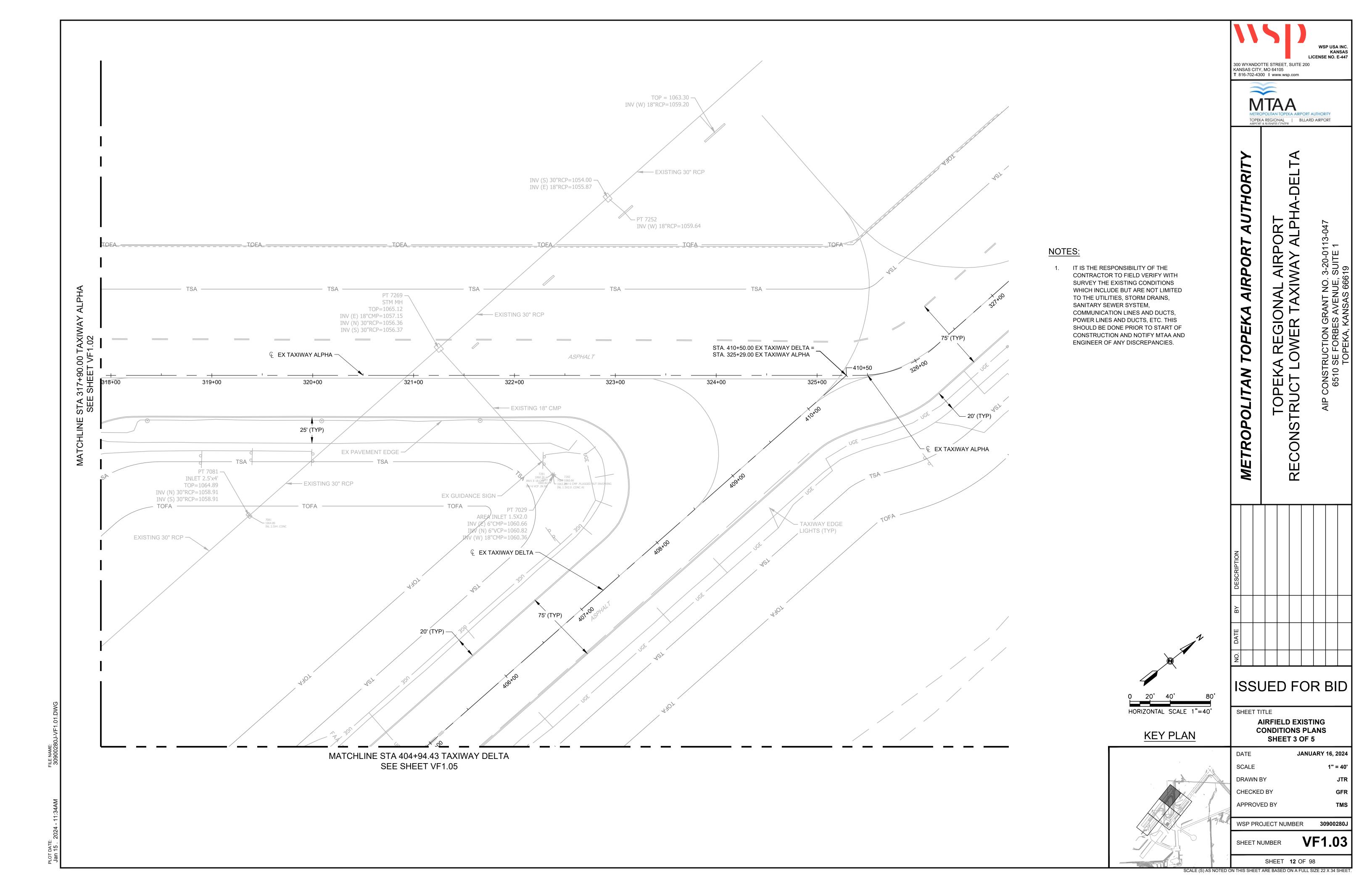
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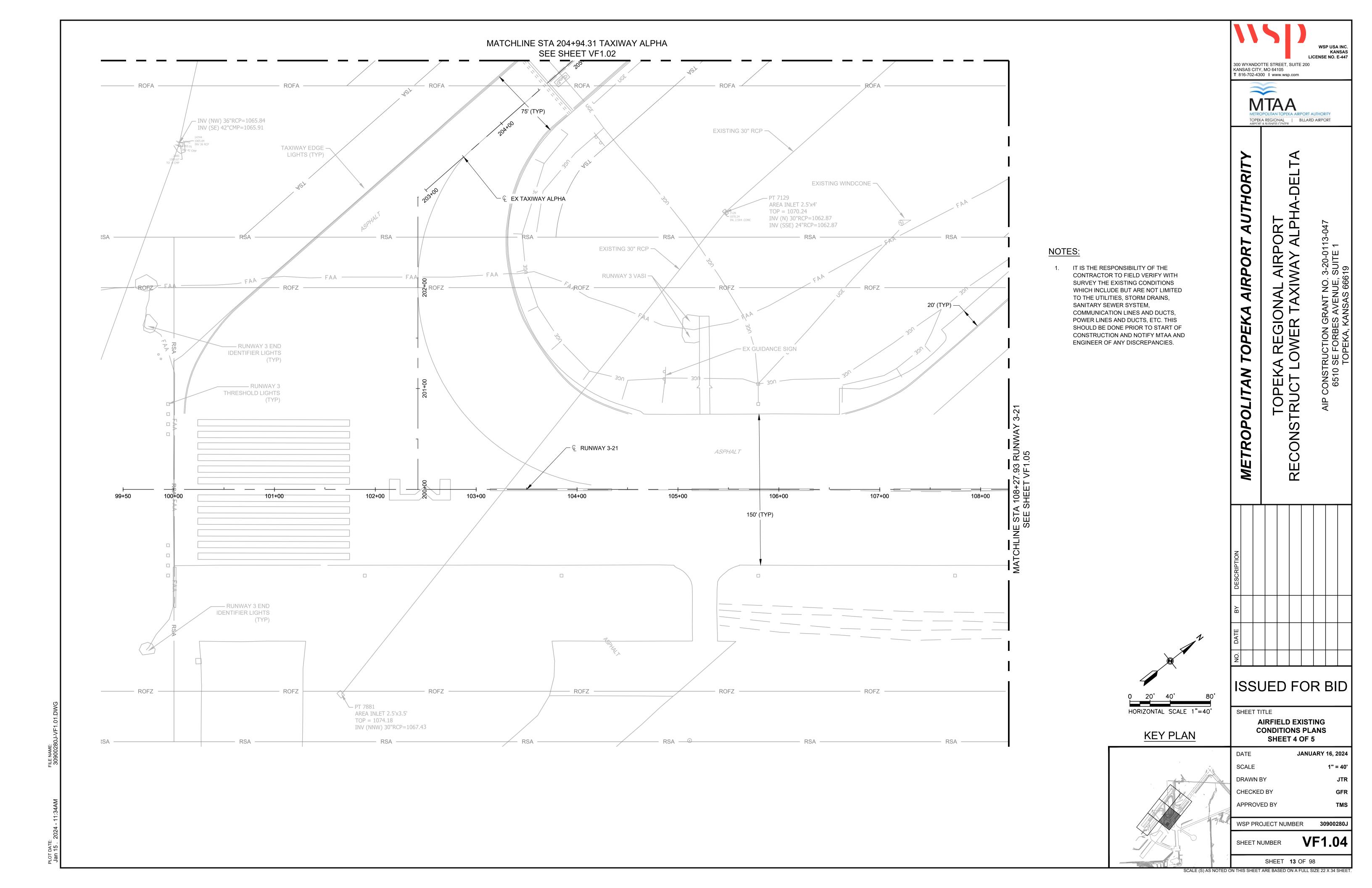
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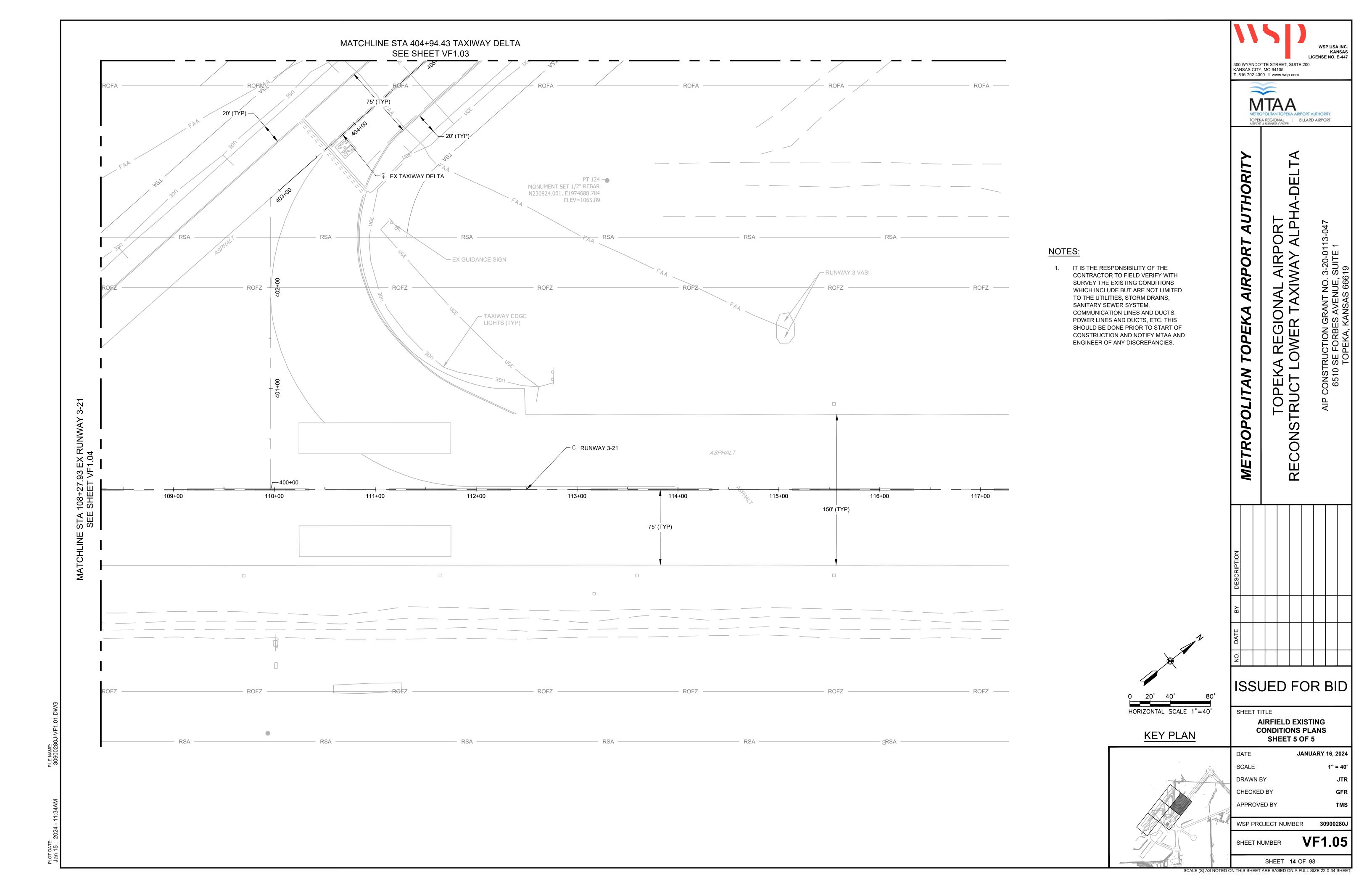
SHEET **9** OF 98 SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET.











MILL BITUMINOUS OVERLAY ON CONCRETE

TYPE A PAVEMENT REMOVAL - TW E (FULL DEPTH)

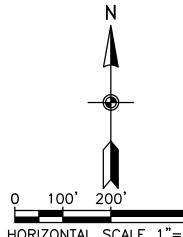
(FULL DEPTH)

(FULL DEPTH)

(FULL DEPTH)

ARROW POINTS IN DIRECTION OF ORIENTATION OF SHEET

- REPAIR OF ANY PAVEMENT, PAVEMENT MARKING, LIGHTING UNIT, UTILITIES, HANDHOLE, SIGNAGE, NEGLIGENCE AT NO ADDITIONAL COST TO MTAA.
- THE EXISTING UTILITY INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE TYPE AND LOCATION OF UTILITIES WITHIN THE PROJECT LIMITS AS NECESSARY TO AVOID DAMAGE OF EXISTING SYSTEMS. THE CONTRACTOR MUST VERIFY LOCATIONS OF ALL UTILITIES NO LATER THAN FOURTEEN (14) DAYS AFTER NTP. PROVIDE ANY DISCREPANCIES FROM PLAN UTILITIES SHOWN TO MTAA FOR COORDINATION. NONDESTRUCTIVE POTHOLING DURING THE PROJECT TO PROVIDE ADEQUATE PROTECTION OF THE UTILITIES DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST RECORD THE EXISTING UTILITY INFORMATION ON THE AS-BUILT DRAWINGS. THE CONTRACTOR MUST LOCATE ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY DEMOLITION WORK
- MARKING REMOVAL IS NOT QUANTIFIED FOR MARKINGS THAT ARE LOCATED ON CONCRETE PANELS/PAVEMENTS THAT ARE TO BE REMOVED. THE REMOVAL OF ASSOCIATED REMAINING PARTIAL MARKINGS IS SUBSIDIARY TO CONCRETE PANEL REPLACEMENT OR ANY PAVEMENT REMOVAL PAY
- CONTRACTOR MUST CONTAIN AND CLEANUP SLURRY FROM CONCRETE REMOVAL (SAWCUTTING) FOR BOTH DEMOLITION AND JOINT SAWCUTTING. ALL SLURRY MUST BE REMOVED AN PROPERLY DISPOSED OF OFFSITE BY THE CONTRACTOR.



TYPE A EXISTING PAVEMENT STRUCTURE (TAXIWAY ECHO): - 10"-12" TOTAL PAVEMENT THICKNESS

CONSISTS OF: 1"-2" AC LAYER 9"-10" PCC LAYER TYPE B EXISTING PAVEMENT STRUCTURE (TAXIWAY ALPHA): - 35" TOTAL PAVEMENT THICKNESS CONSISTS OF:

4.5" AC LAYER

30.5" PCC LAYER

TYPE C EXISTING PAVEMENT STRUCTURE (TAXIWAY DELTA): - 27" TOTAL PAVEMENT THICKNESS CONSISTS OF: 7" AC LAYER

20" PCC LAYER

TYPE D EXISTING PAVEMENT STRUCTURE (TAXIWAY ECHO): - 23" TOTAL PAVEMENT THICKNESS CONSISTS OF: 5" AC LAYER 18" PCC LAYER

LEGEND

TYPE B PAVEMENT REMOVAL - TW A

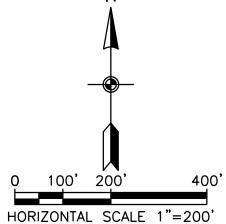
TYPE C PAVEMENT REMOVAL - TW D

TYPE D PAVEMENT REMOVAL - TW E

### **GENERAL NOTES:**

- CONTRACTOR TO BE HELD RESPONSIBLE FOR THE OTHER APPURTENANCES AND ANY OTHER EXISTING ELEMENTS TO REMAIN THAT ARE DAMAGED FROM CONSTRUCTION ACTIVITIES OR THE CONTRACTOR'S
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY WITH SURVEY THE EXISTING CONDITIONS WHICH INCLUDE BUT ARE NOT LIMITED TO THE UTILITIES, STORM DRAINS, SANITARY SEWER SYSTEM, COMMUNICATION LINES AND DUCTS, POWER LINES AND DUCTS, ETC.

- THE CONTRACTOR MUST SAWCUT THE EDGES TO ALL PAVEMENT TIE-INS, LONGITUDINAL AND TRANSVERSE JOINTS INCLUDING BUT NOT LIMITED TO ASPHALT, CONCRETE, BASE, ETC.
- THE TRANSPORT OF MATERIALS OFF-SITE WILL BE INCIDENTAL TO THE ASSOCIATED PAY ITEMS.



ISSUED FOR BID

WSP USA INC LICENSE NO. E-447

300 WYANDOTTE STREET, SUITE 200

**MTAA** 

TOPEKA REGIONAL | BILLARD AIRPORT AIRPORT A BLISINESS CENTER

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A REGIONAL AIRPORT OWER TAXIWAY ALPH

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SHEET TITLE AIRFIELD DEMOLITION

**KEY PLAN JANUARY 16, 2024** DATE SCALE 1" = 200' DRAWN BY

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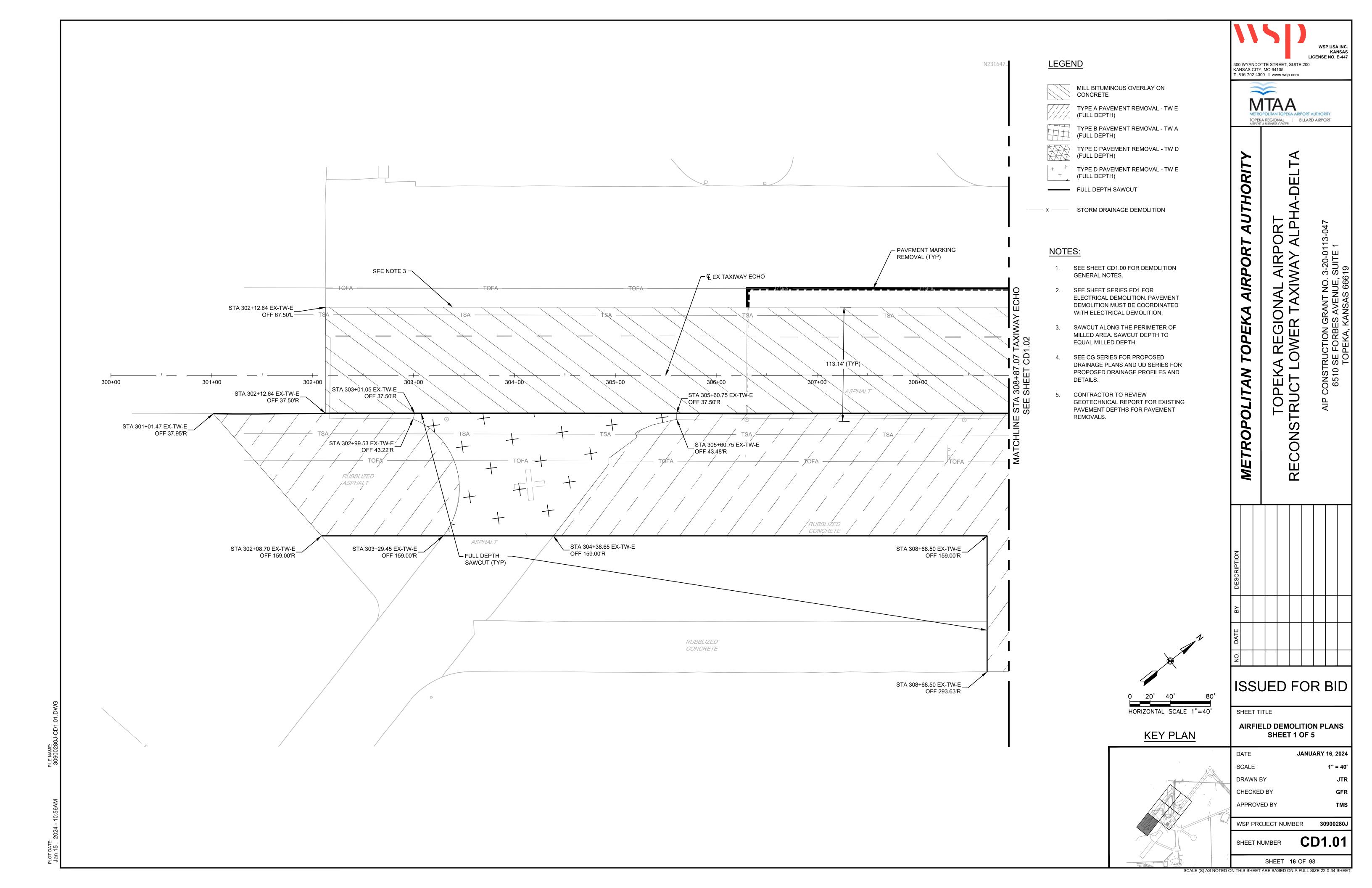
SHEET **15** OF 98

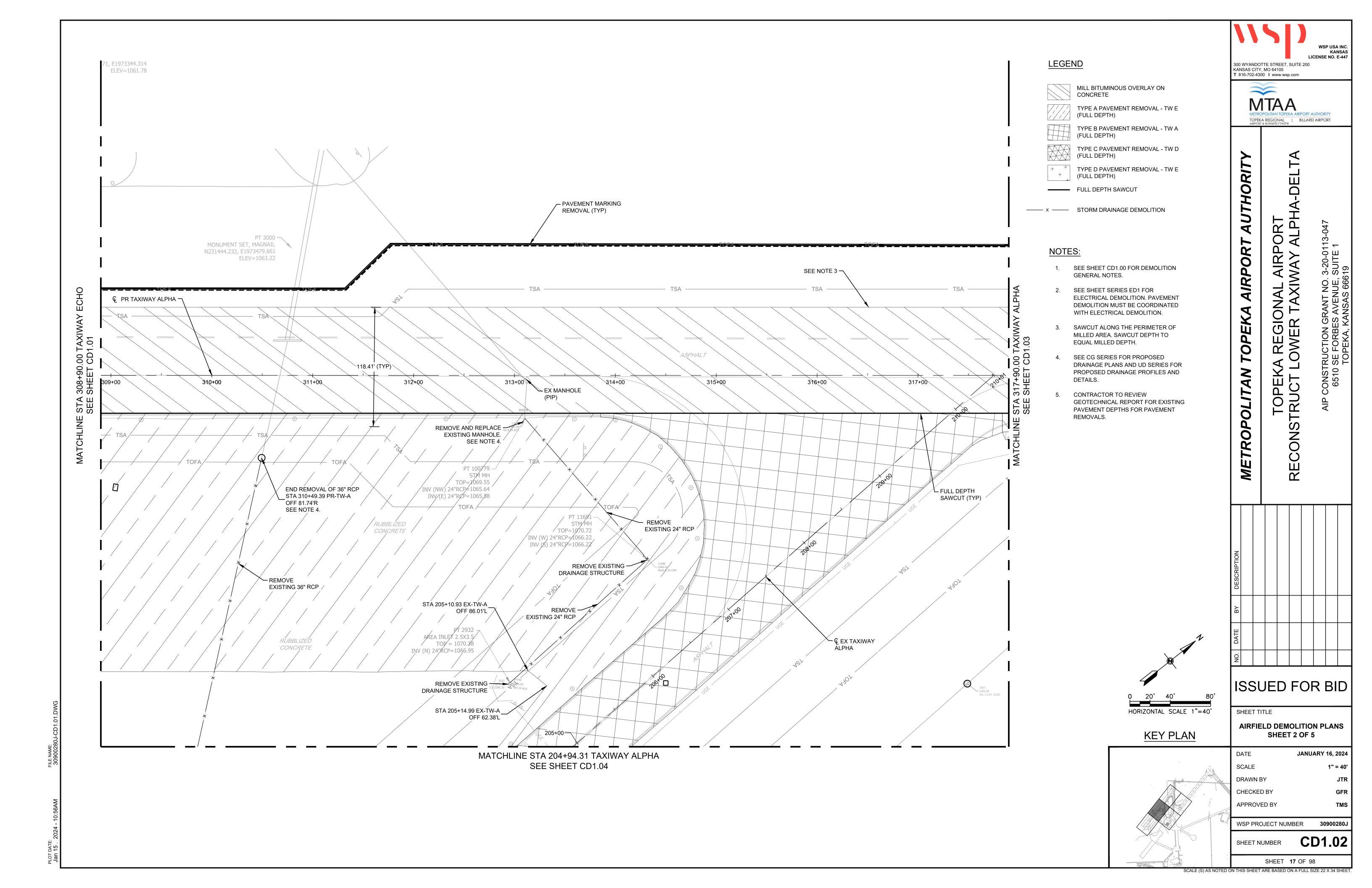
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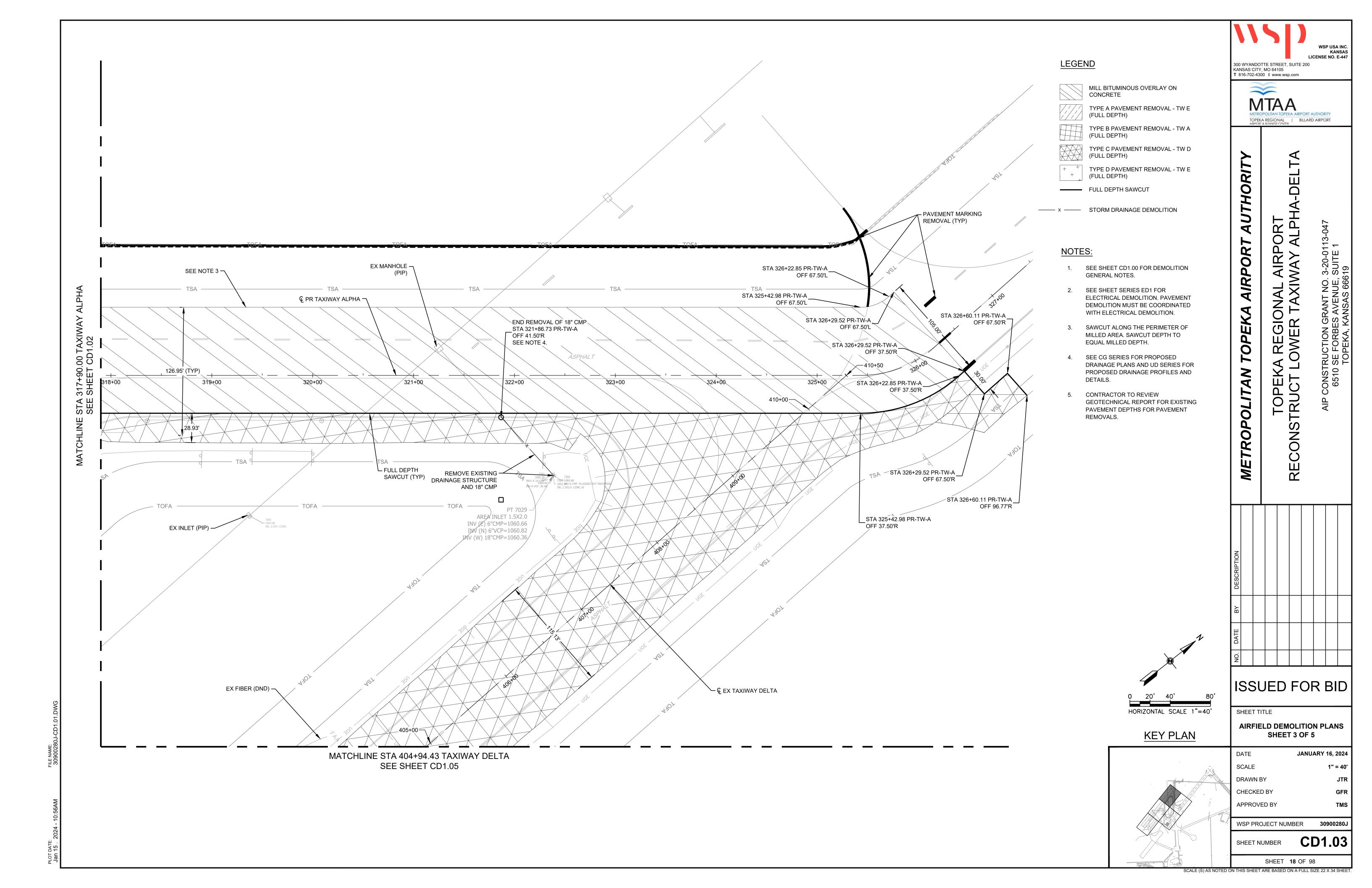
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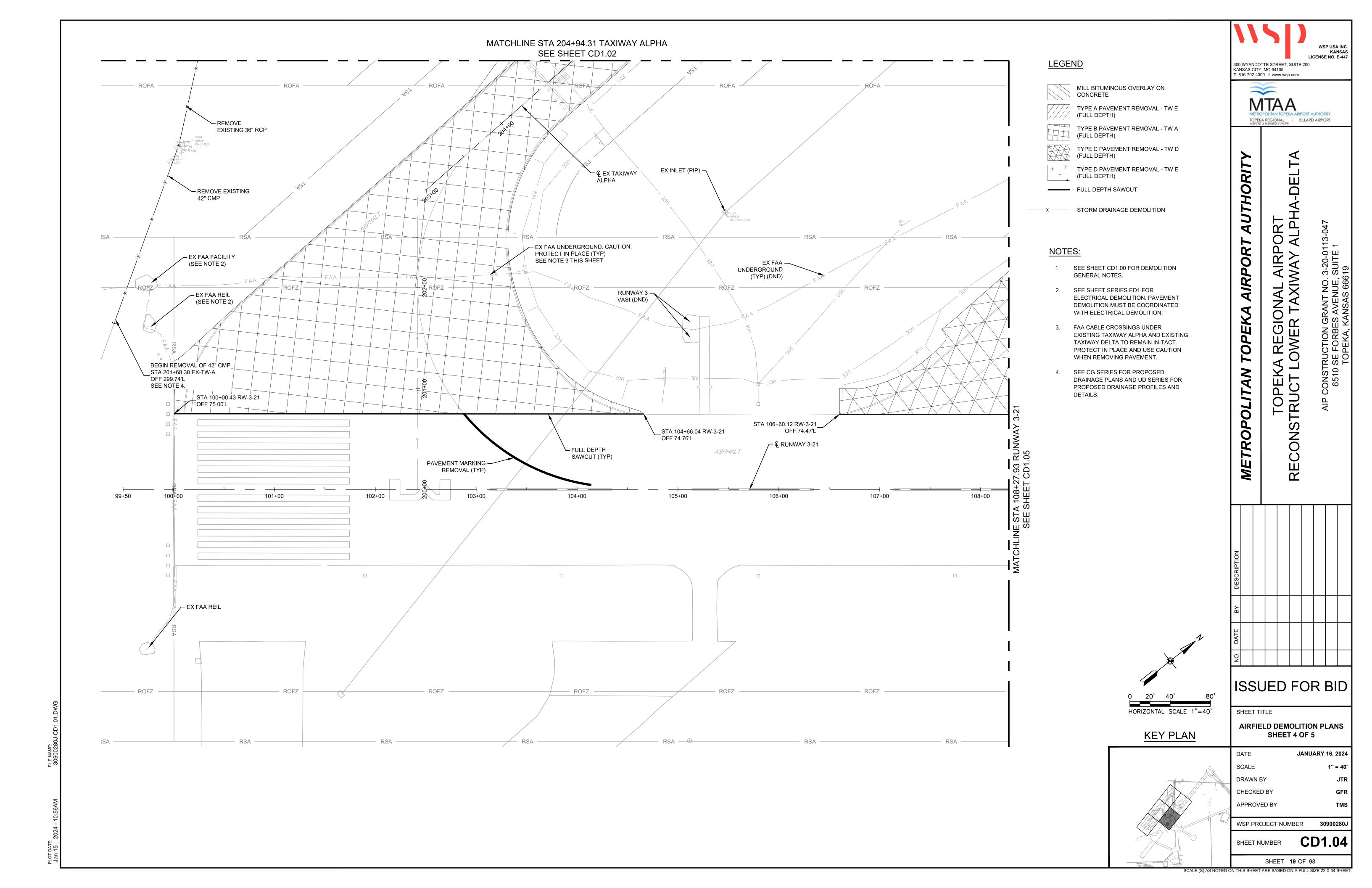
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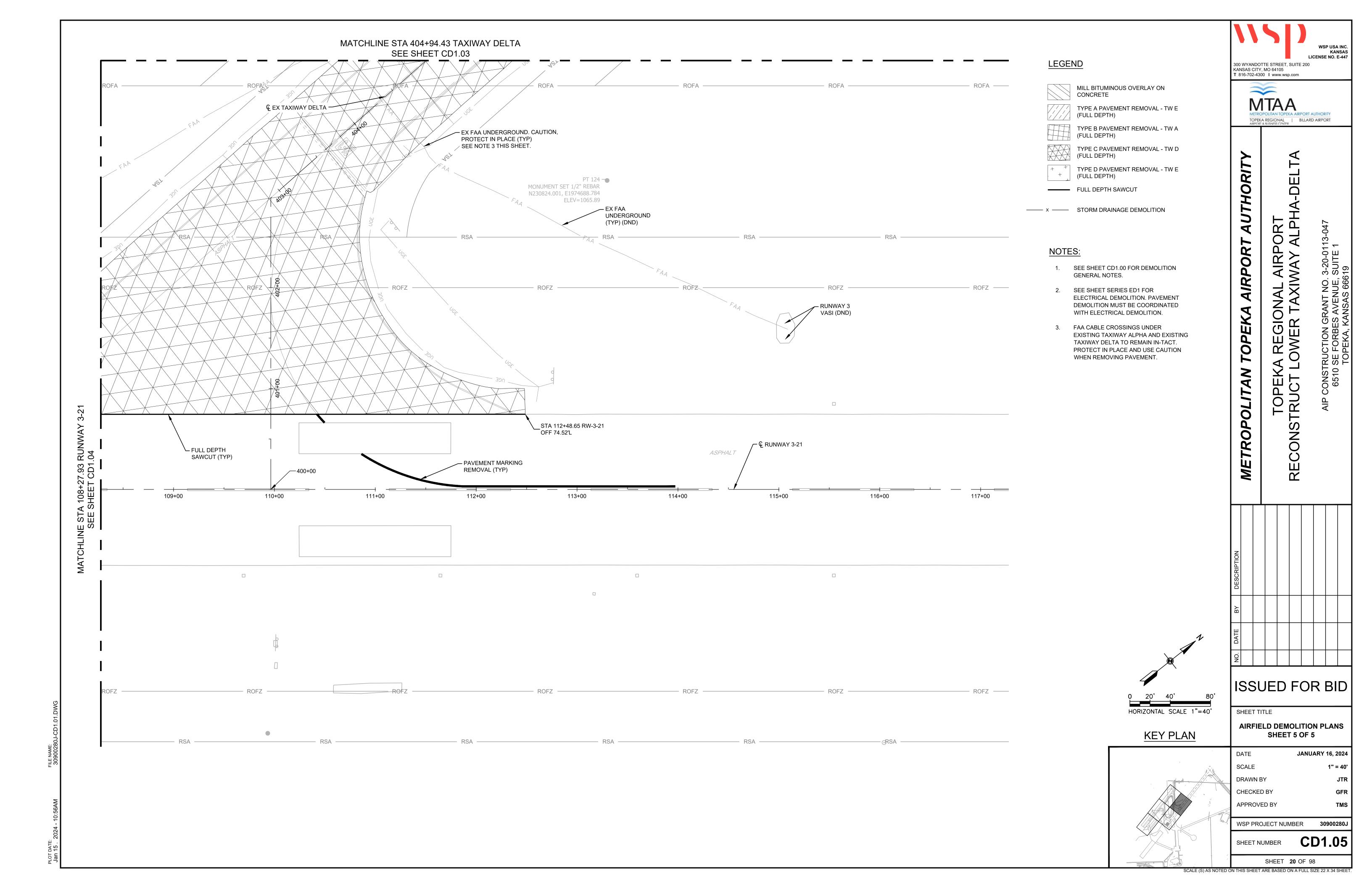
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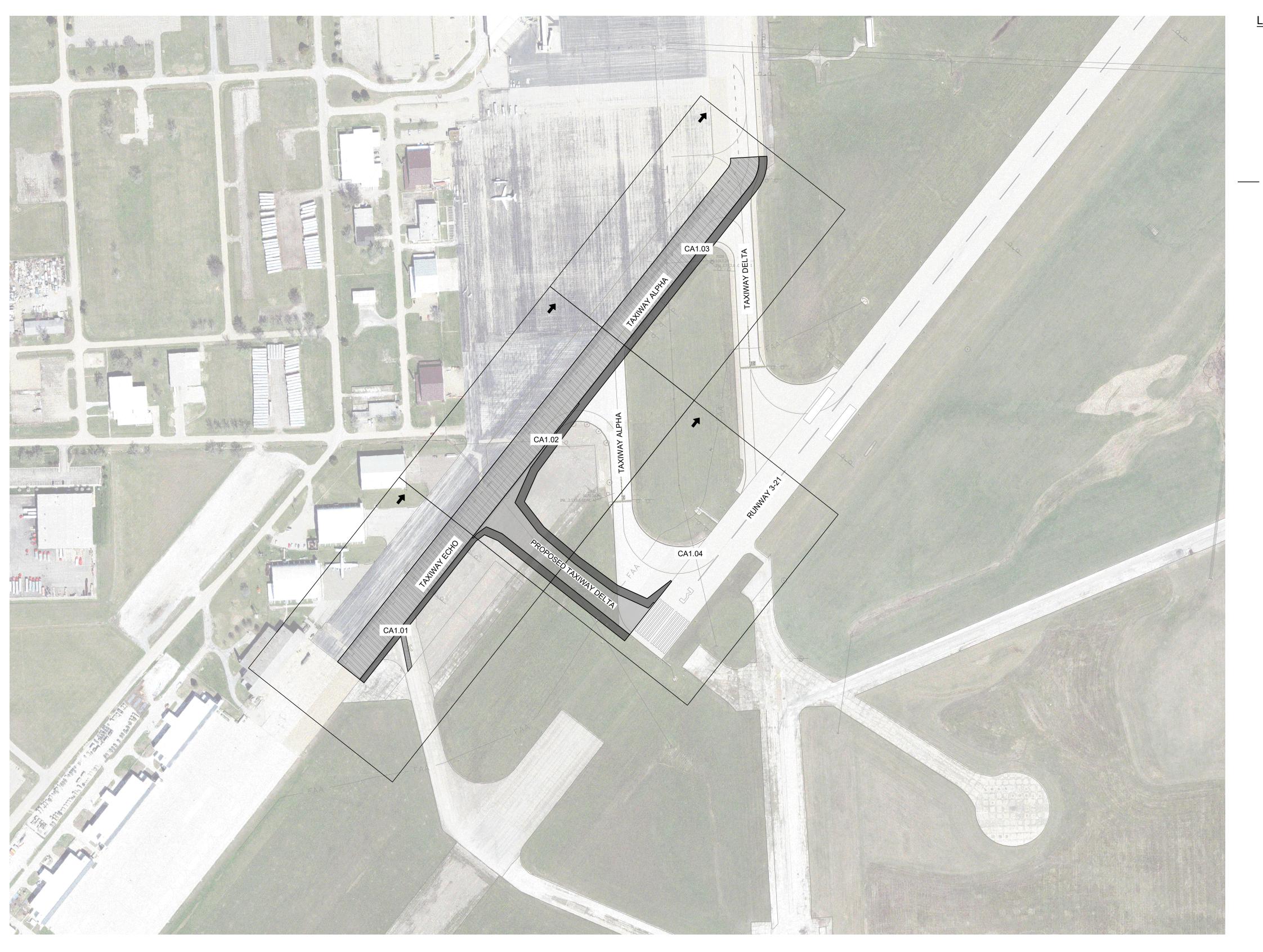


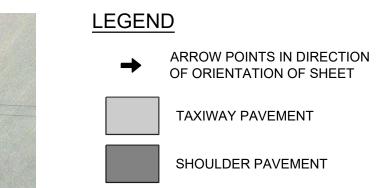












ASPHALT OVERLAY VSR PAVEMENT

—— LIMITS OF DISTURBANCE

**AIRPORT AUTHORITY TOPEKA** METROPOLITAN WSP USA INC. KANSAS LICENSE NO. E-447

300 WYANDOTTE STREET, SUITE 200 KANSAS CITY, MO 64105 T 816-702-4300 I www.wsp.com

MTAA

METROPOLITAN TOPEKA AIRPORT AUTHORITY
TOPEKA REGIONAL | BILLARD AIRPORT
AIRPORT A BUSINESS CENTER

TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA

ISSUED FOR BID

SHEET TITLE

AIRFIELD GEOMETRY KEY PLAN

**JANUARY 16, 2024** SCALE 1" = 200' DRAWN BY CHECKED BY

WSP PROJECT NUMBER

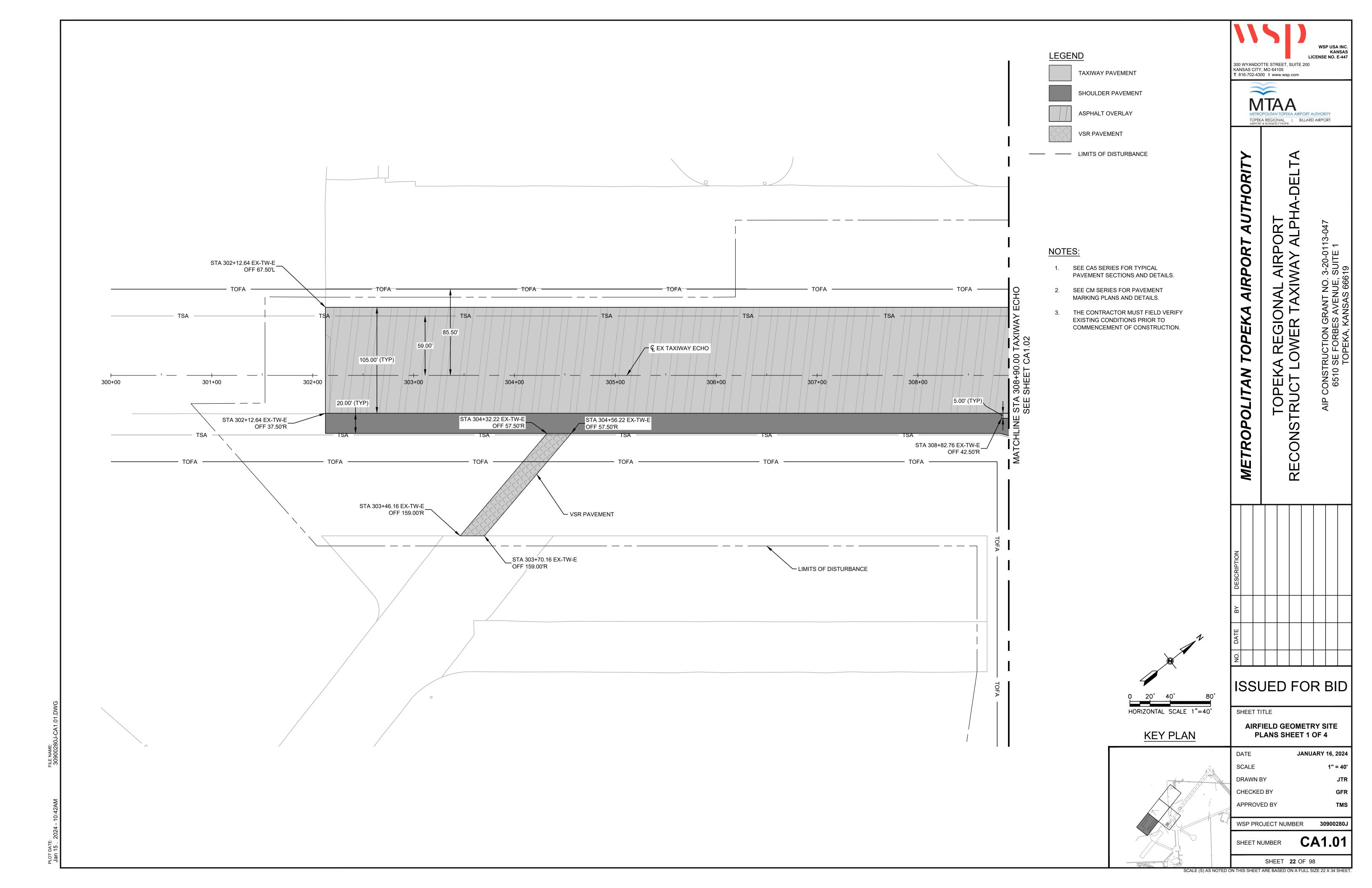
CA1.00 SHEET NUMBER

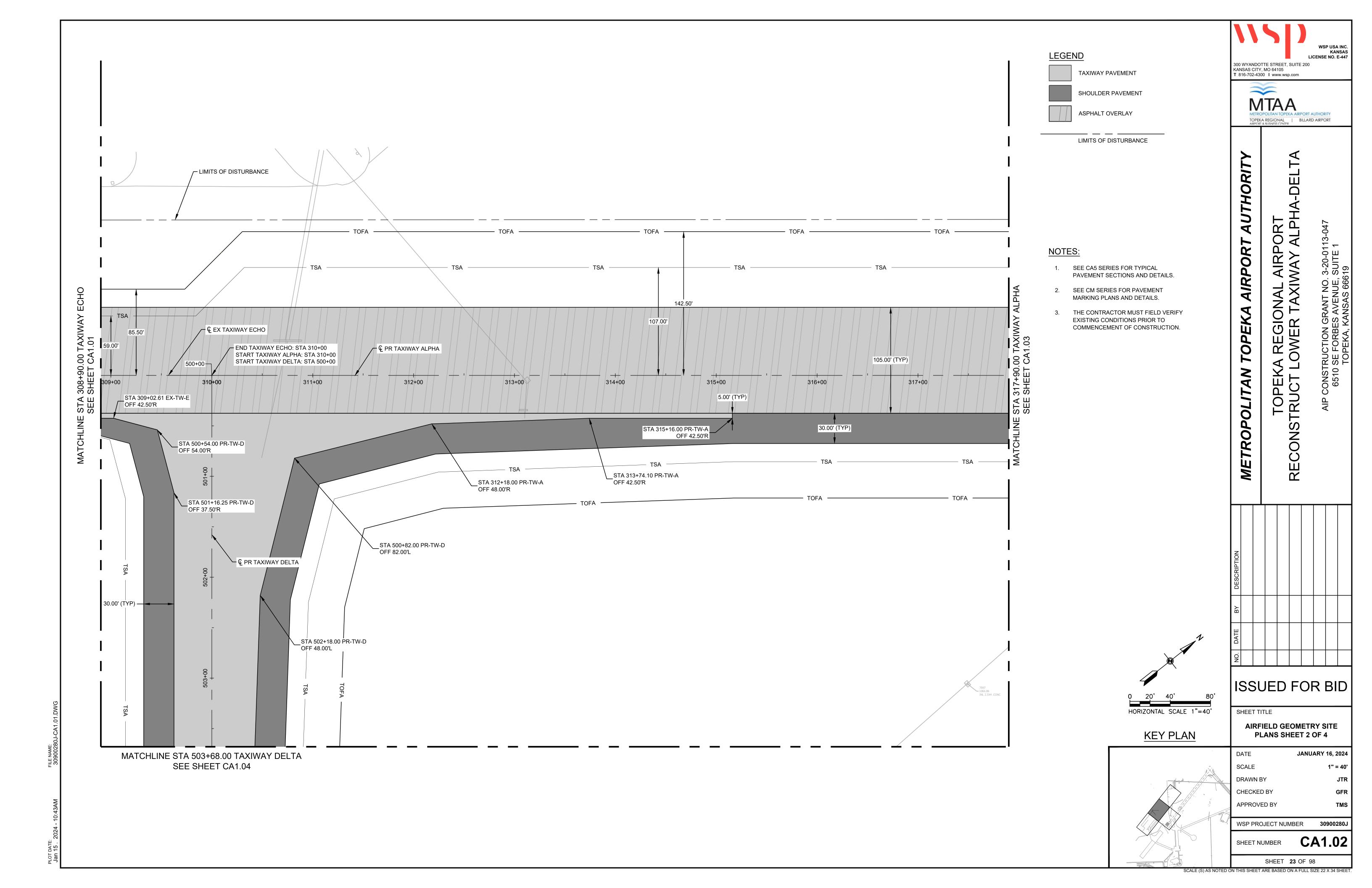
SHEET **21** OF 98

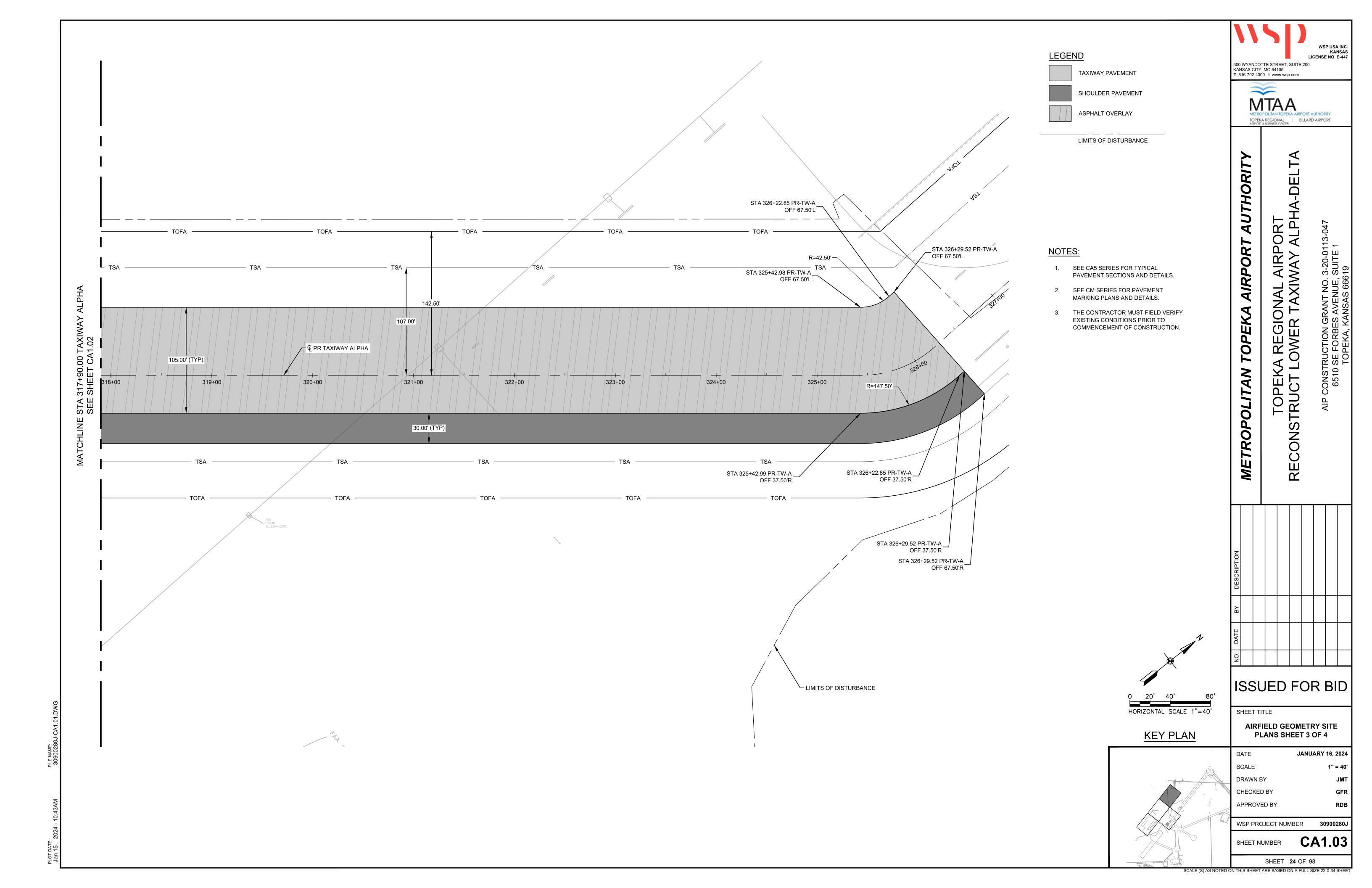
SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET.

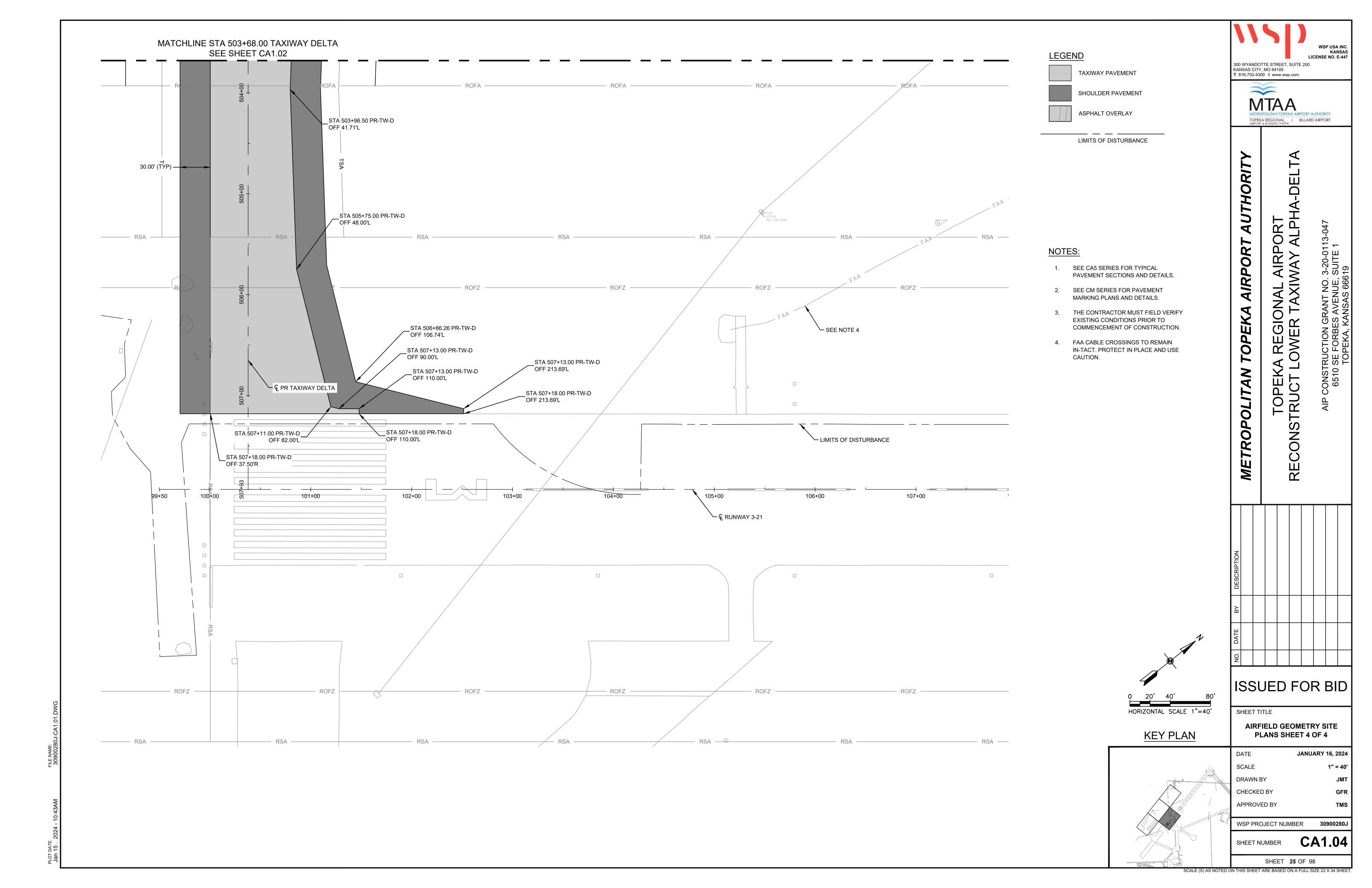
APPROVED BY

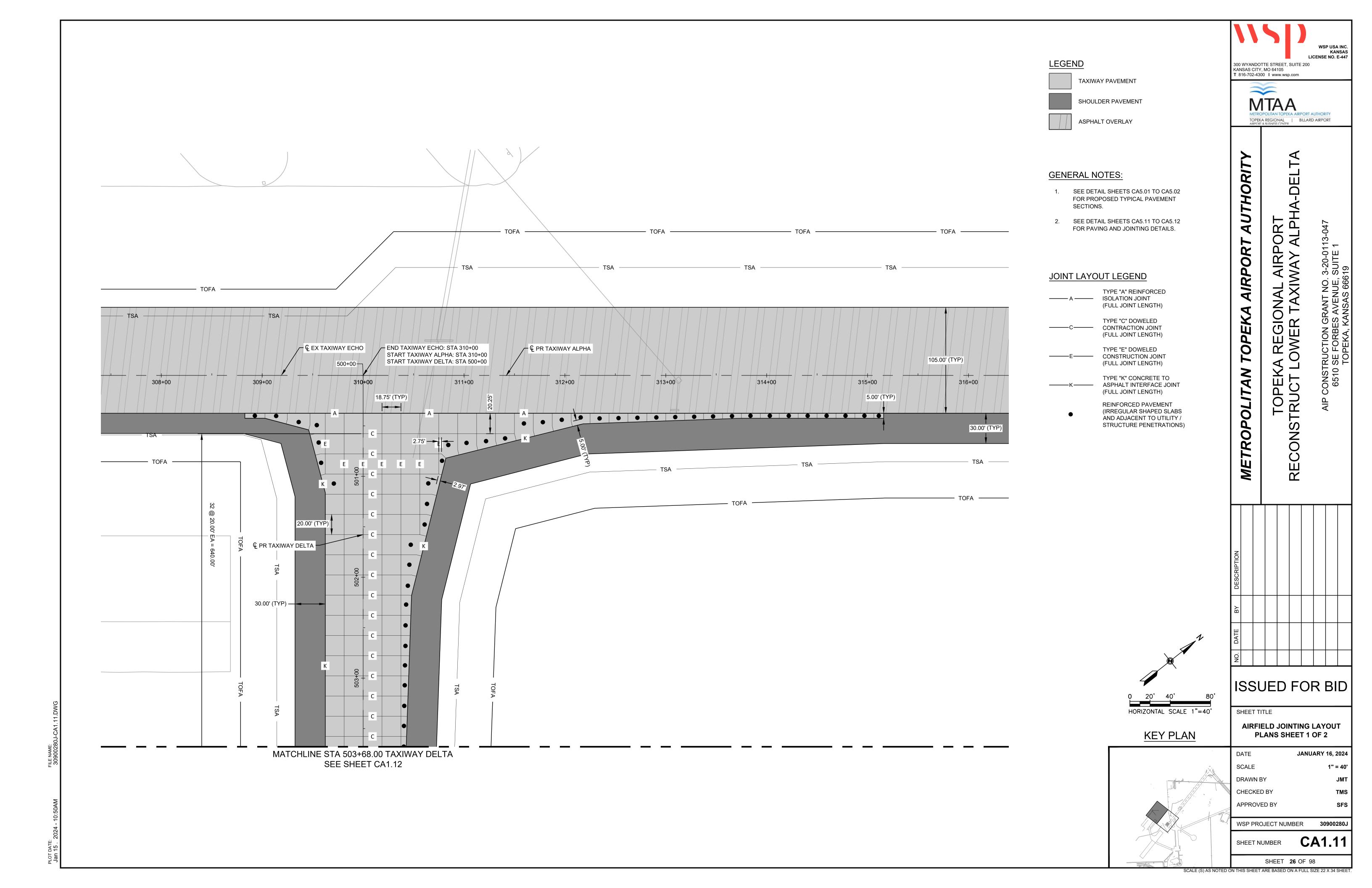
0 100' 200' 400' HORIZONTAL SCALE 1"=200'

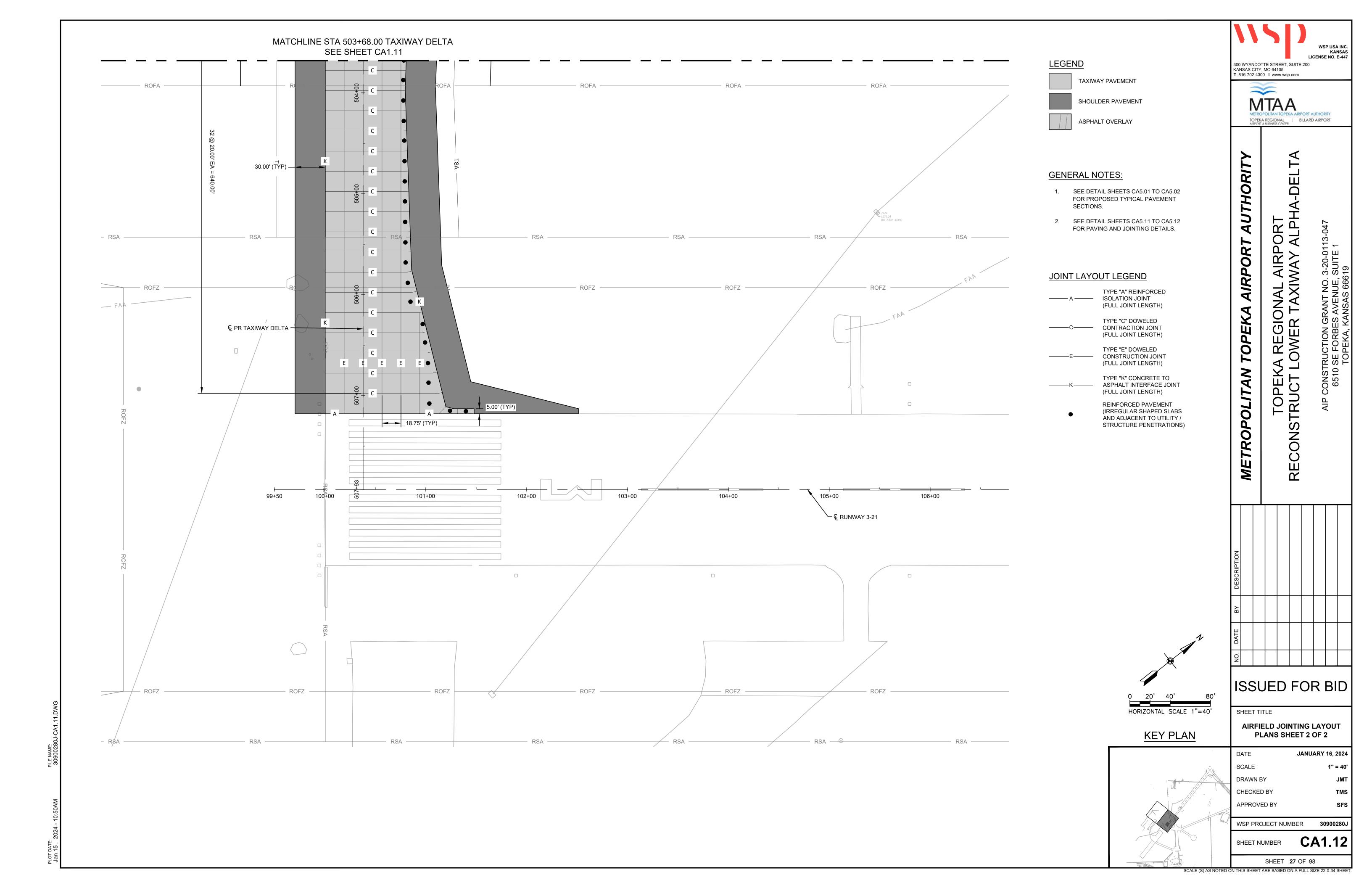


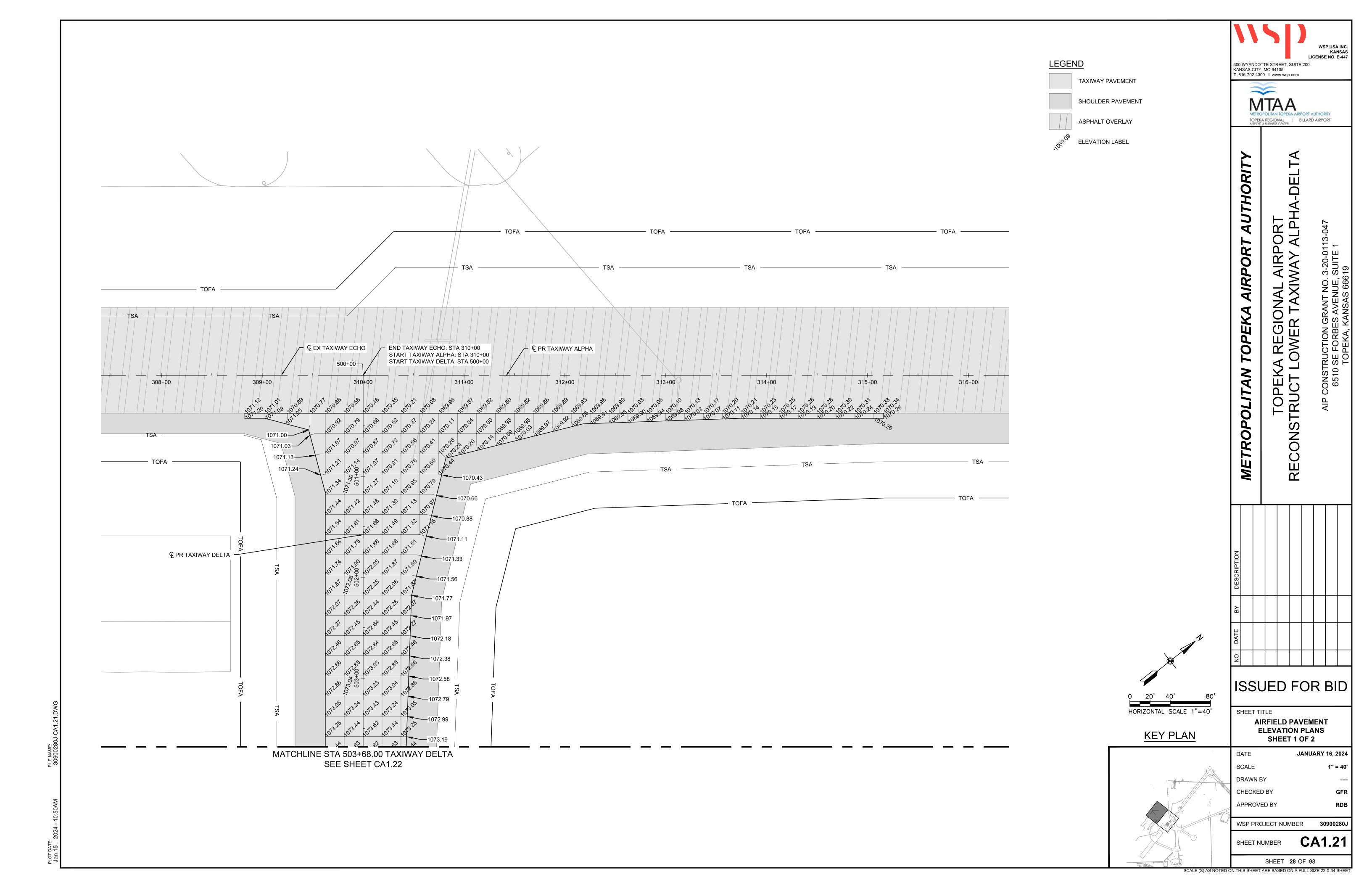


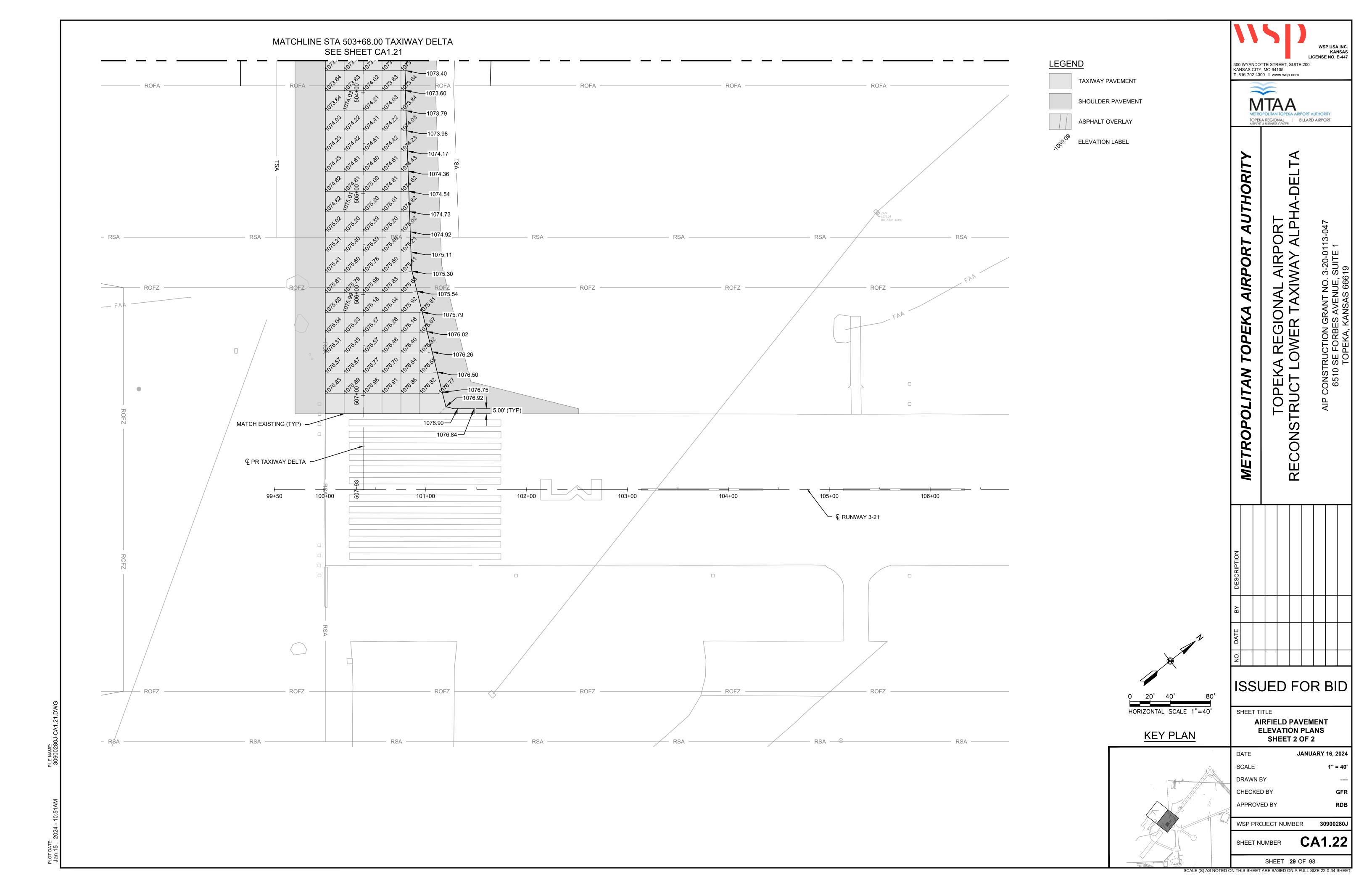


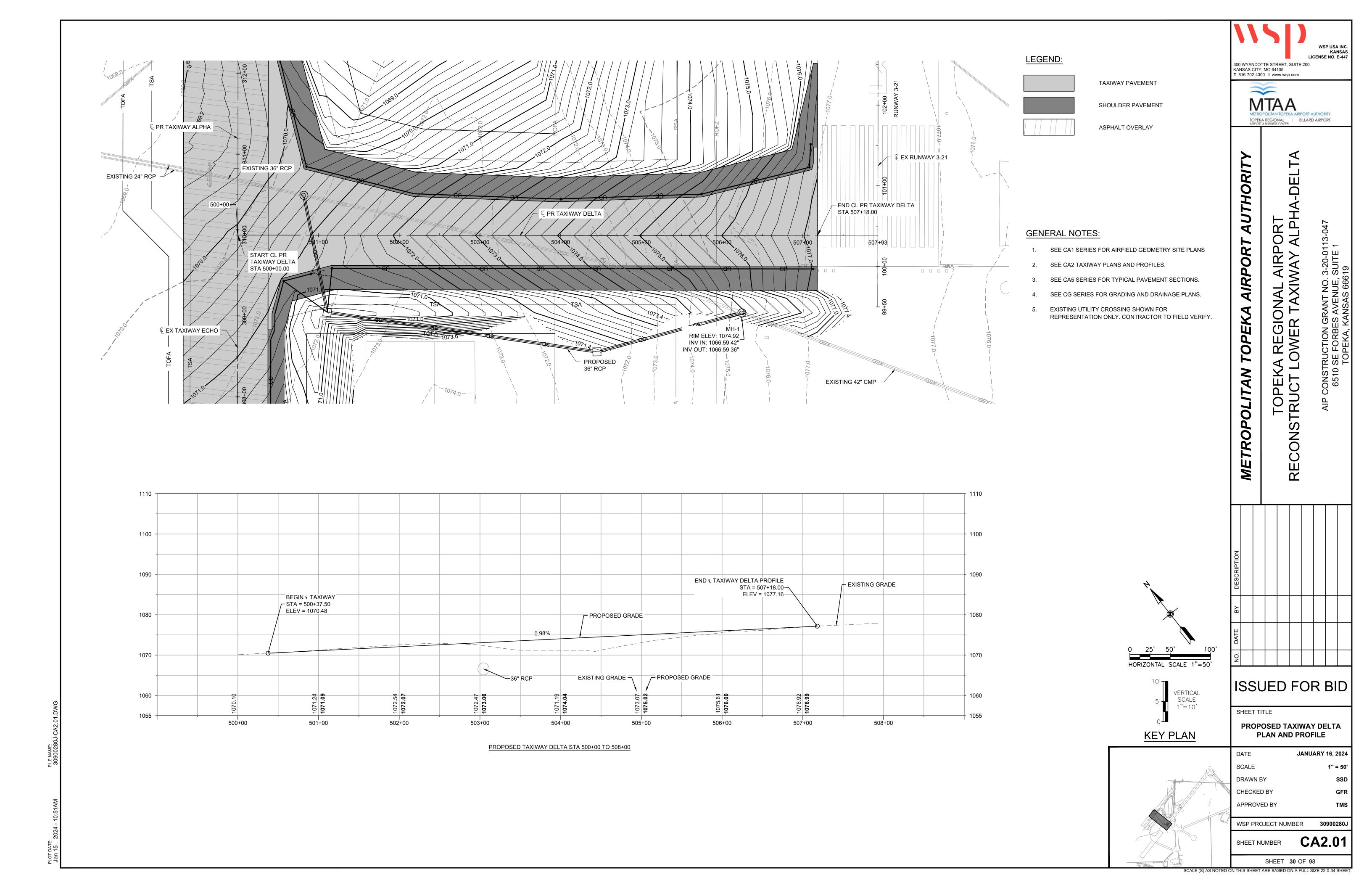


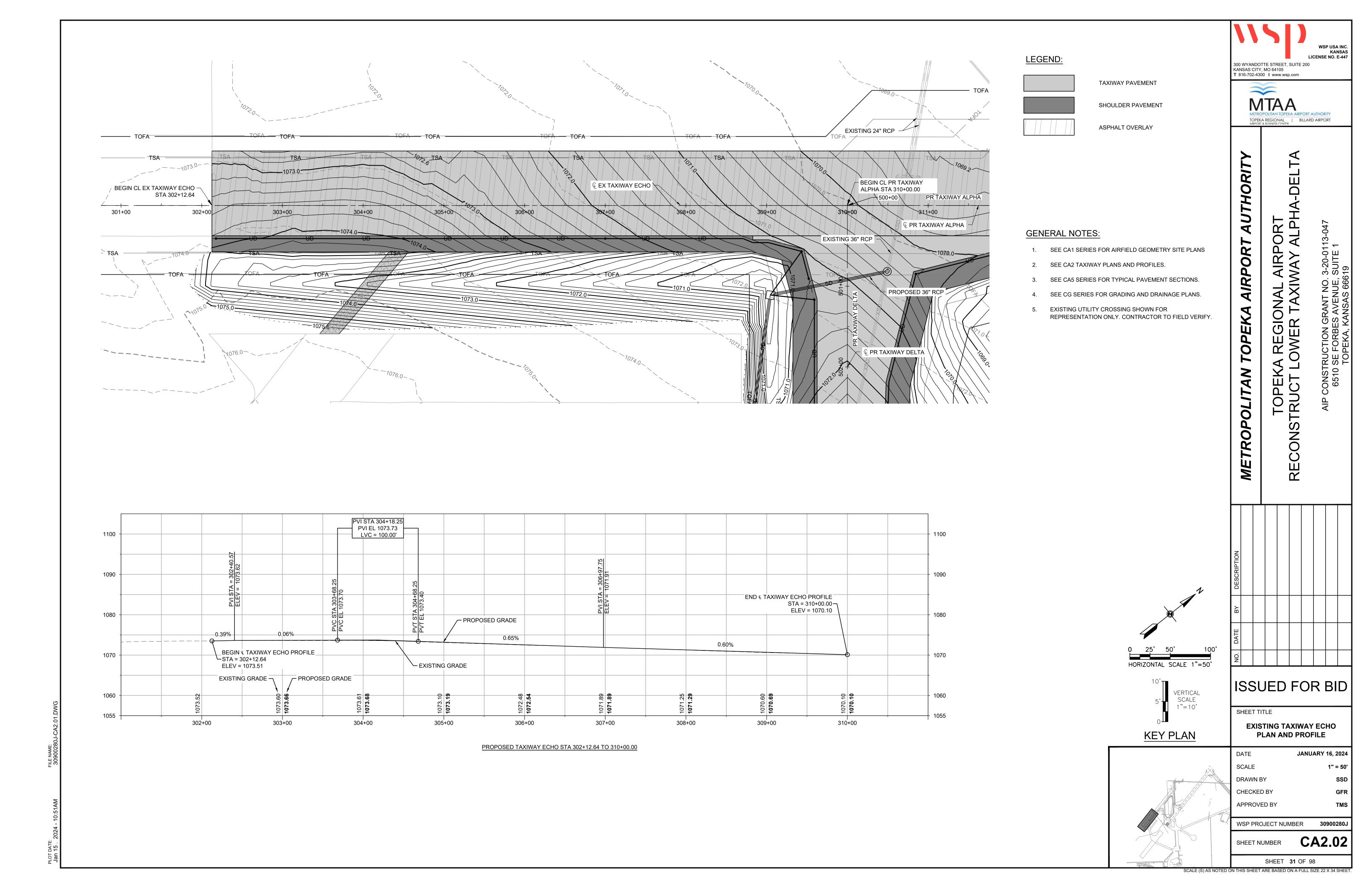


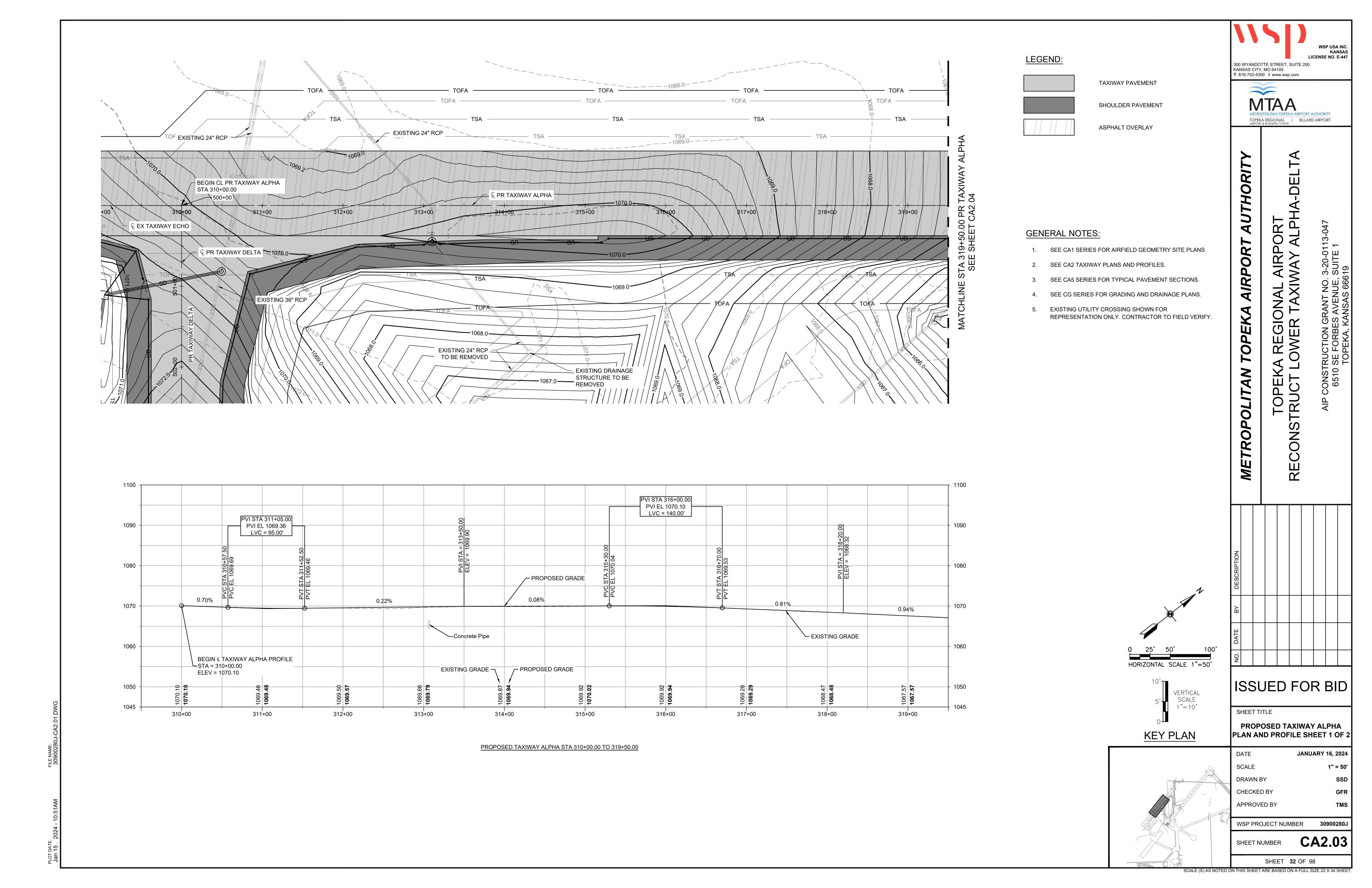


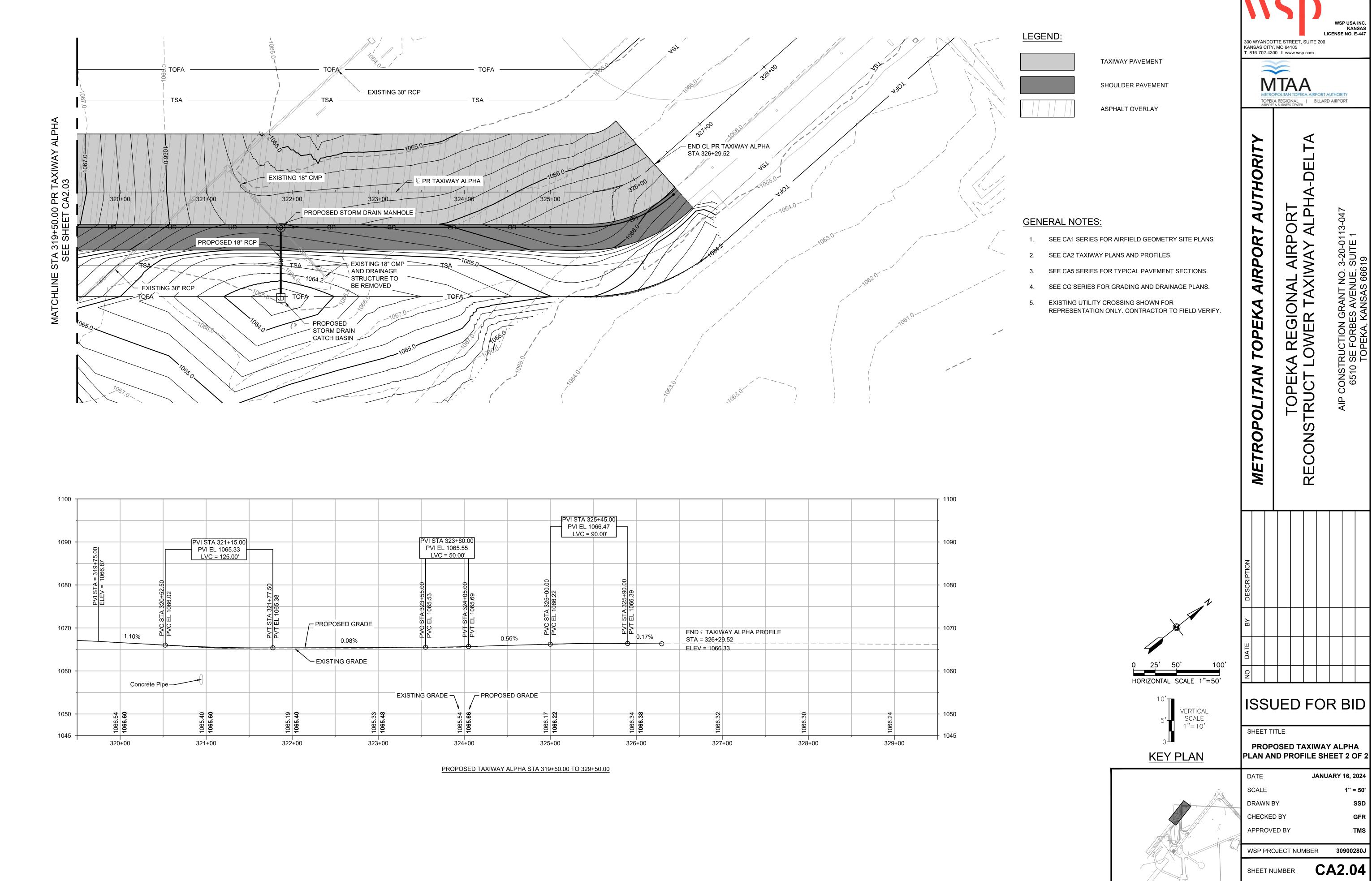








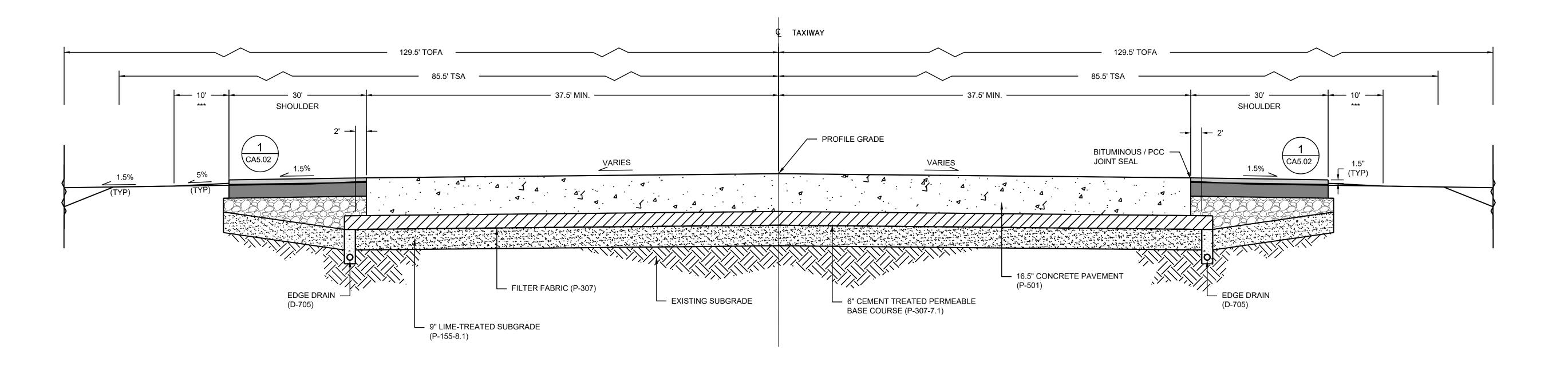




FILE NAME: 30900280J-CA2.01.DW(

SHEET 33 OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET.



TAXIWAY DELTA TYPICAL PAVEMENT SECTION

CA5.01

SCALE: NTS

\*\*\* PROVIDE 10 FT WIDE T-904 SODDING ADJACENT TO PAVED EDGE

WSP USA INC. KANSAS LICENSE NO. E-447 300 WYANDOTTE STREET, SUITE 200 KANSAS CITY, MO 64105 **T** 816-702-4300 **I** www.wsp.com

\* MTAA TOPEKA REGIONAL | BILLARD AIRPORT

**A-DELTA AUTHORITY AIRPORT TOPEKA** 

A REGIONAL AIRPORT LOWER TAXIWAY ALPHA TOPEKA RECONSTRUCT LO

METROPOLITAN

ISSUED FOR BID

SHEET TITLE

TYPICAL PAVEMENT SECTIONS SHEET 1 OF 2

**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY GFR

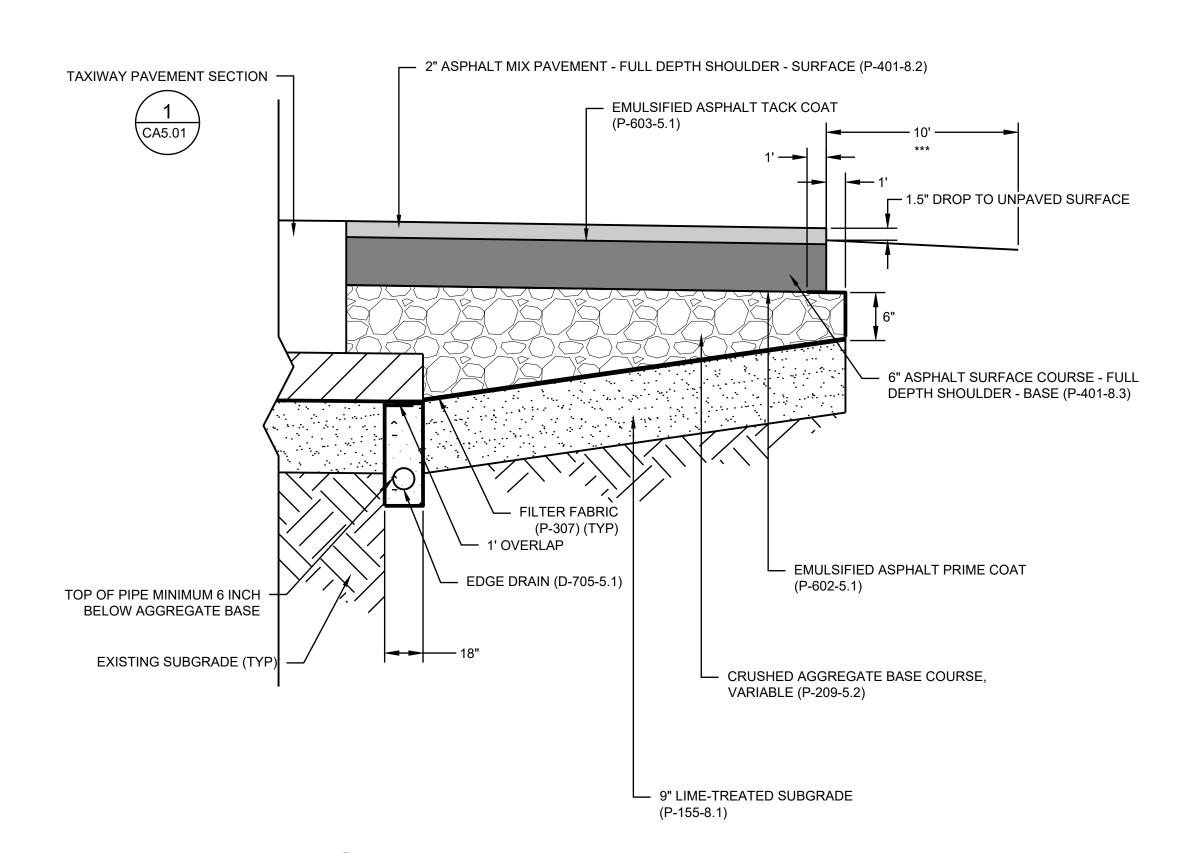
WSP PROJECT NUMBER 30900280J

CA5.01 SHEET NUMBER

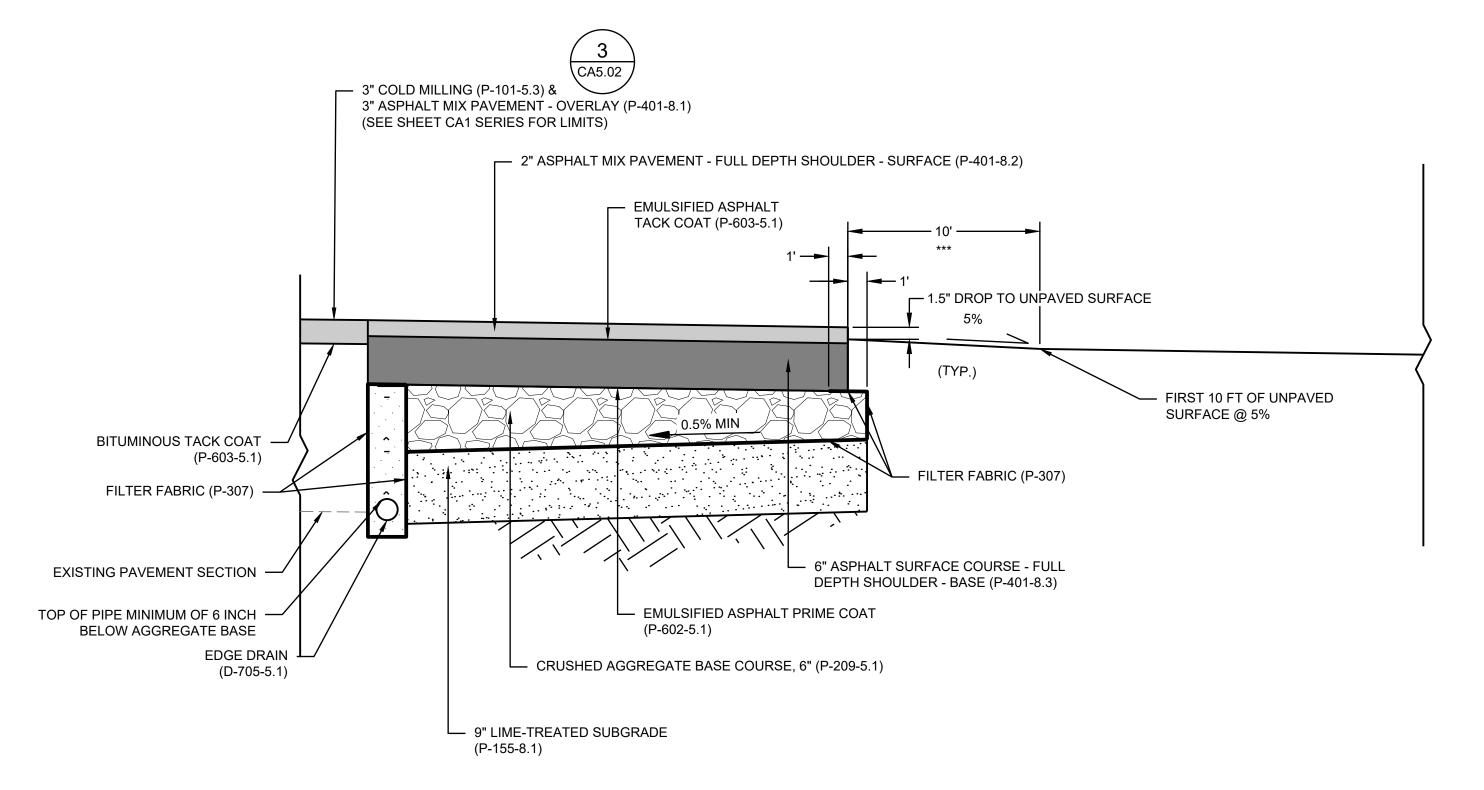
SHEET **34** OF 98

TMS

APPROVED BY

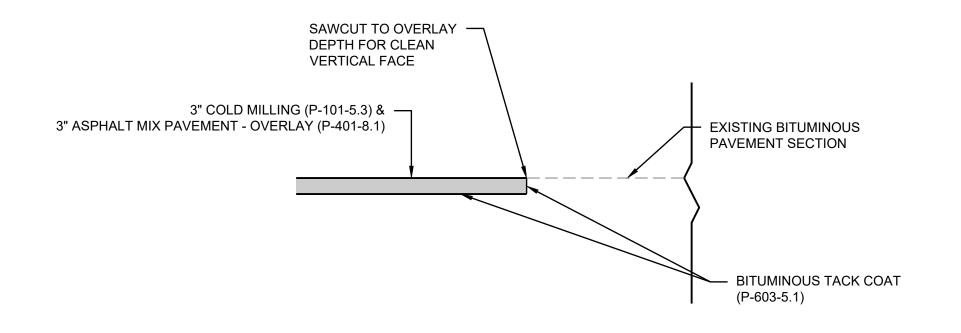


TAXIWAY DELTA TYPICAL SHOULDER SECTION



CA5.02

TAXIWAY ALPHA AND ECHO TYPICAL SHOULDER SECTION SCALE: NTS



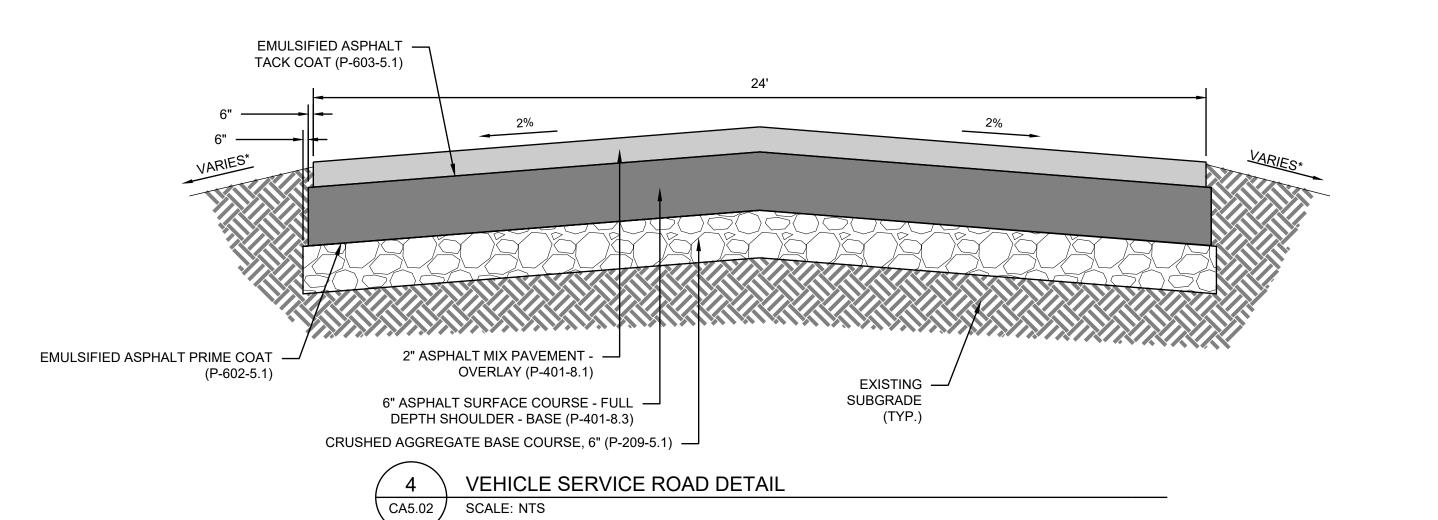
CA5.02

CA5.02

SCALE: NTS

SCALE: NTS

BITUMINOUS OVERLAY TO EXISTING BITUMINOUS PAVEMENT DETAIL



\*\*\* PROVIDE 10 FT WIDE T-904 SODDING ADJACENT TO PAVED EDGE

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**MTAA** TOPEKA REGIONAL | BILLARD AIRPORT

> A REGIONAL AIRPORT OWER TAXIWAY ALPHA-DELT TOPEKA RECONS

AUTHORITY

**AIRPOR** 

TOPEKA

METROPOLITAN

ISSUED FOR BID

SHEET TITLE

TYPICAL PAVEMENT SECTIONS SHEET 2 OF 2

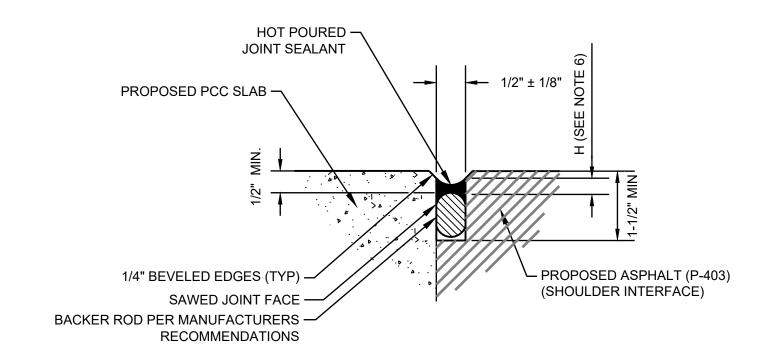
**JANUARY 16, 2024** DATE SCALE DRAWN BY GFR CHECKED BY APPROVED BY TMS

WSP PROJECT NUMBER 30900280J

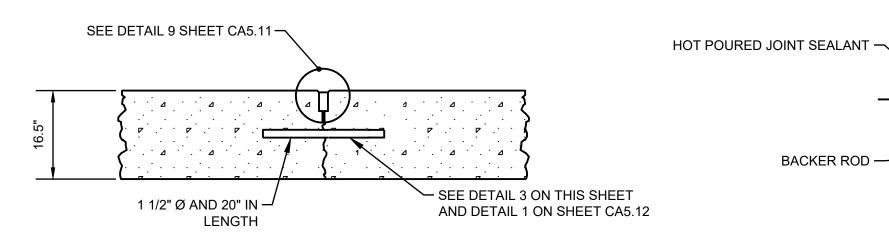
CA5.02 SHEET NUMBER

SHEET **35** OF 98





TYPE 'K' CONCRETE TO ASPHALT INTERFACE JOINT CA5.11





JOINT -

FULL STRENGTH PCC -

NOTES:

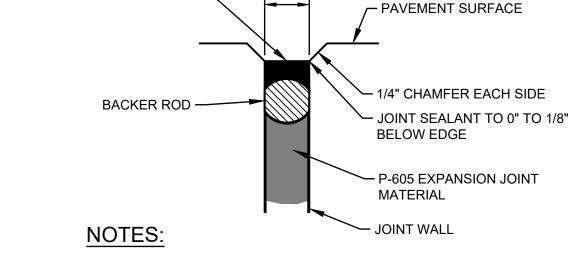
CA5.11

**PAVEMENT** 

SCALE: NTS

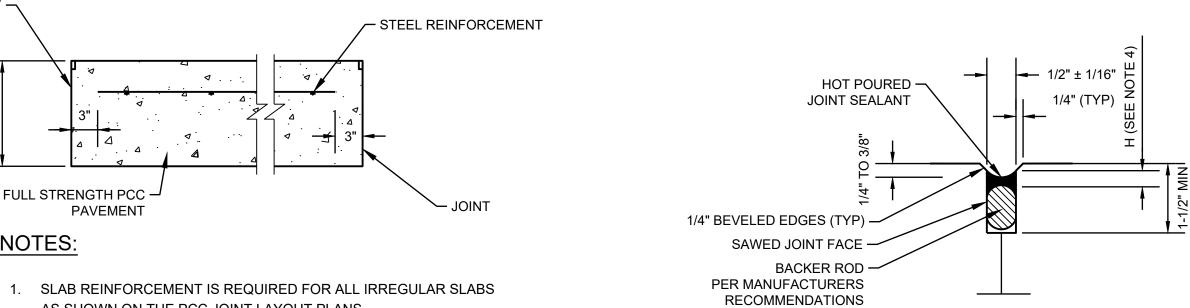
AS SHOWN ON THE PCC JOINT LAYOUT PLANS.

**REINFORCED PAVEMENT (1-MAT)** 



1. ISOLATION JOINTS SHALL BE 3/4" WIDE UNLESS NOTED OTHERWISE





**CONSTRUCTION JOINT** CA5.11 SCALE: NTS

### NOTES:

- 1. JOINTS MUST NOT INTERSECT THE EDGE OF THE PAVEMENT NOR ANY OTHER JOINT AT AN ANGLE OF LESS THAN 90°.
- 2. DOWEL BASKETS MUST BE FIRMLY ATTACHED TO THE EXISTING UNDERLYING COURSE PRIOR TO PLACING P.C.C.
- 3. DOWEL DRILLING METHOD MUST BE CAPABLE OF MAINTAINING DRILL HOLES PARALLEL TO THE CONCRETE SURFACE AND NORMAL TO THE JOINT LINE WITHIN 1/4"± AT THE END OF THE DOWEL. DRILL HOLES MUST BE ACCURATELY LAID OUT SO THAT THE MAXIMUM DEVIATION DOES NOT EXCEED 1" IN THE HORIZONTAL DIRECTION AND 1/2" IN THE VERTICAL DIRECTION. DRILL HOLE DIAMETER TO BE APPROXIMATELY 1-7/8" FOR 1-1/2" DOWELS. BAR POSITIONING MUST BE WITHIN A 1/4" TOLERANCE IN HORIZONTAL AND VERTICAL PLANES.
- 4. SEALANT DIMENSION H IS BASED ON MANUFACTURER RECOMMENDATIONS.
- 5. THE DOWEL BAR OR TIE BAR SPACING MUST BE STARTED FROM THE INSIDE OF THE JOINT AT 12 INCH TO 18 INCH (12 INCH MIN.) SPACING FROM THE JOINT EDGE. IF THE SPACING DOES NOT ALLOW FOR AN 18 INCH SPACING AT THE CENTER OF THE SLAB AND THE REMAINING OPENING IS GREATER THAN 18 INCHES THEN A BAR MUST BE PLACED IN THE CENTER OF THE REMAINING SPACE. IF THE REMAINING SPACE IS LESS THAN 18 INCHES, NO ADDITIONAL BAR WILL BE REQUIRED.





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**TOPEKA** 

TROPOLITAN

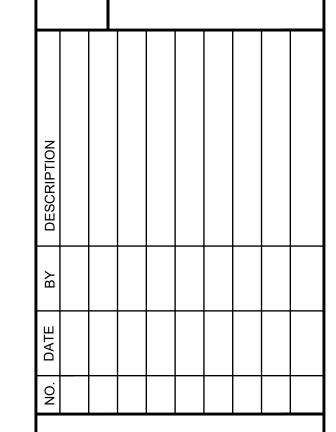
300 WYANDOTTE STREET, SUITE 200

KANSAS CITY, MO 64105 **T** 816-702-4300 **I** www.wsp.com

WSP USA INC LICENSE NO. E-447

-DEL A REGIONAL AIRPORT OWER TAXIWAY ALPH

TOPEKA TRUCT LC NO O REC



ISSUED FOR BID

SHEET TITLE

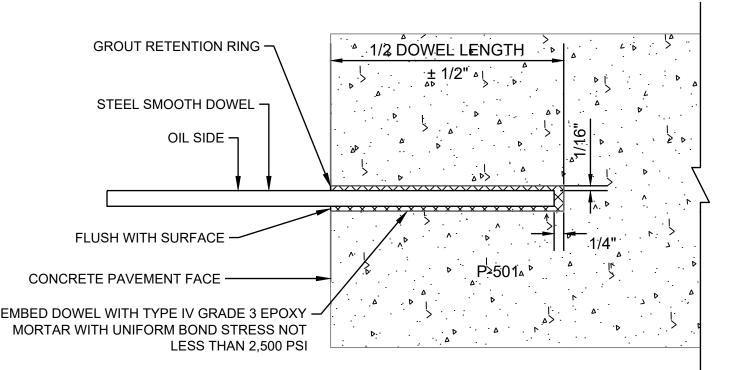
**PAVING AND JOINTING DETAILS SHEET 1 OF 2** 

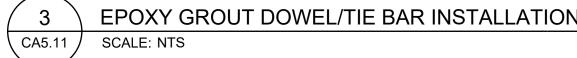
DATE	JANUARY 16, 202
SCALE	ΝT
DRAWN BY	JT
CHECKED BY	GF
APPROVED BY	TM

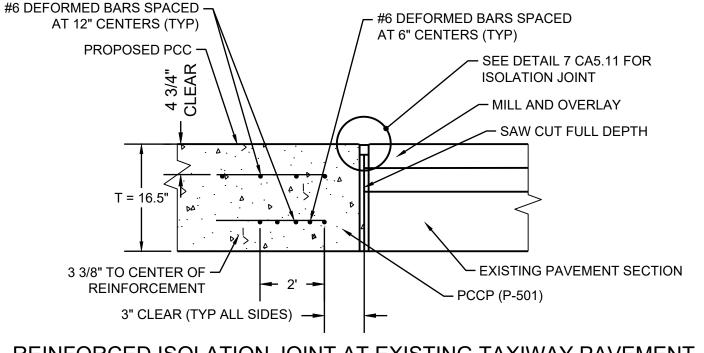
WSP PROJECT NUMBER

CA5.11 SHEET NUMBER

SHEET **36** OF 98

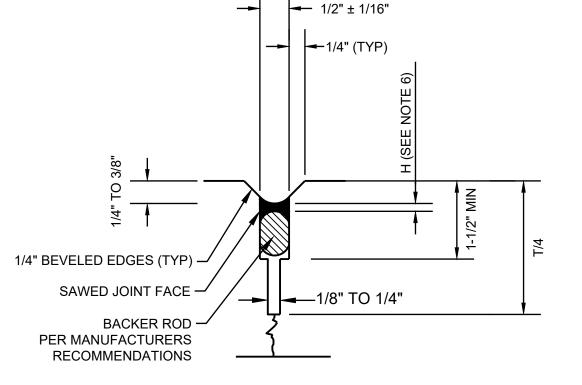






REINFORCED ISOLATION JOINT AT EXISTING TAXIWAY PAVEMENT





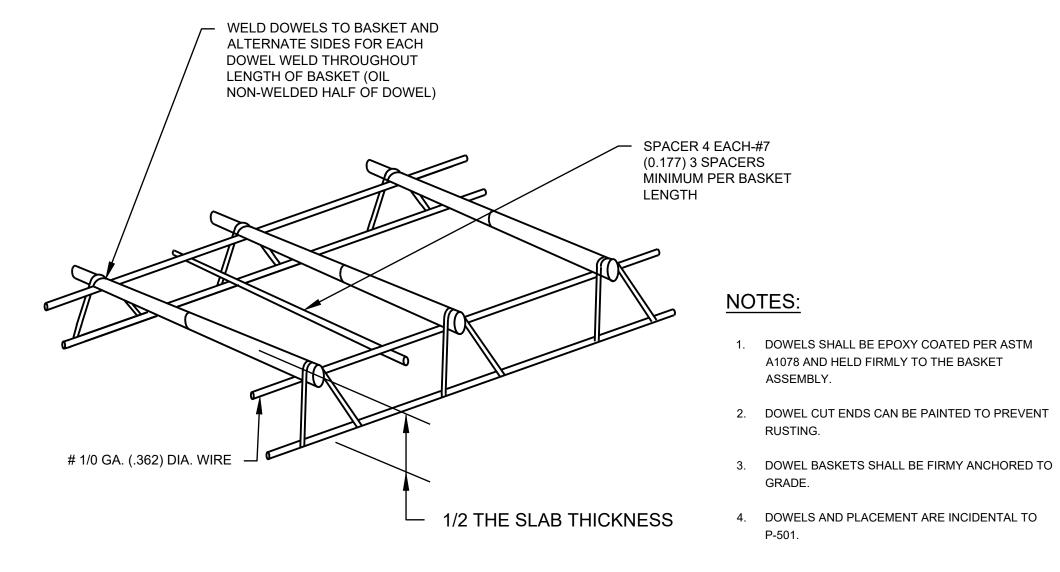
**CONTRACTION JOINT** SCALE: NTS CA5.11

**EPOXY GROUT DOWEL/TIE BAR INSTALLATION** 

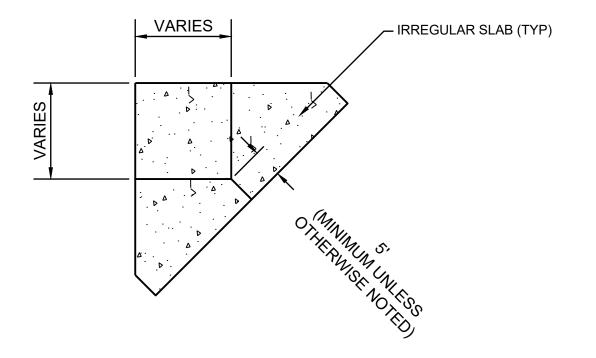


#### NOTES:

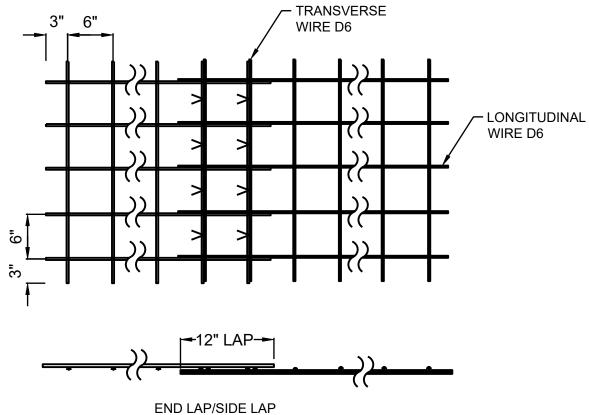
1. REFER TO JOINT DETAILS NOTES SHOWN ON PLAN SHEET CA5.11.



#### CONTRACTION JOINT DOWEL BASKET CA5.12 SCALE: NTS



TYPICAL EDGE/FILLET SLAB DETAIL CA5.12 SCALE: NTS



NOTES:

SECTION

- 1. ALL IRREGULAR SHAPED SLABS SHALL BE REINFORCED AS IDENTIFIED ON THE PCC JOINT LAYOUT PLANS.
- 2. #4 REBAR MAT 12" ON CENTER MAY BE SUBSTITUTED.





TOPEKA REGIONAL | BILLARD AIRPORT

-DELT A REGIONAL AIRPORT LOWER TAXIWAY ALPHA TOPEKA TRUCT LC RECONS

AIRPORT AUTHORITY

TOPEKA

METROPOLITAN

ISSUED FOR BID

SHEET TITLE

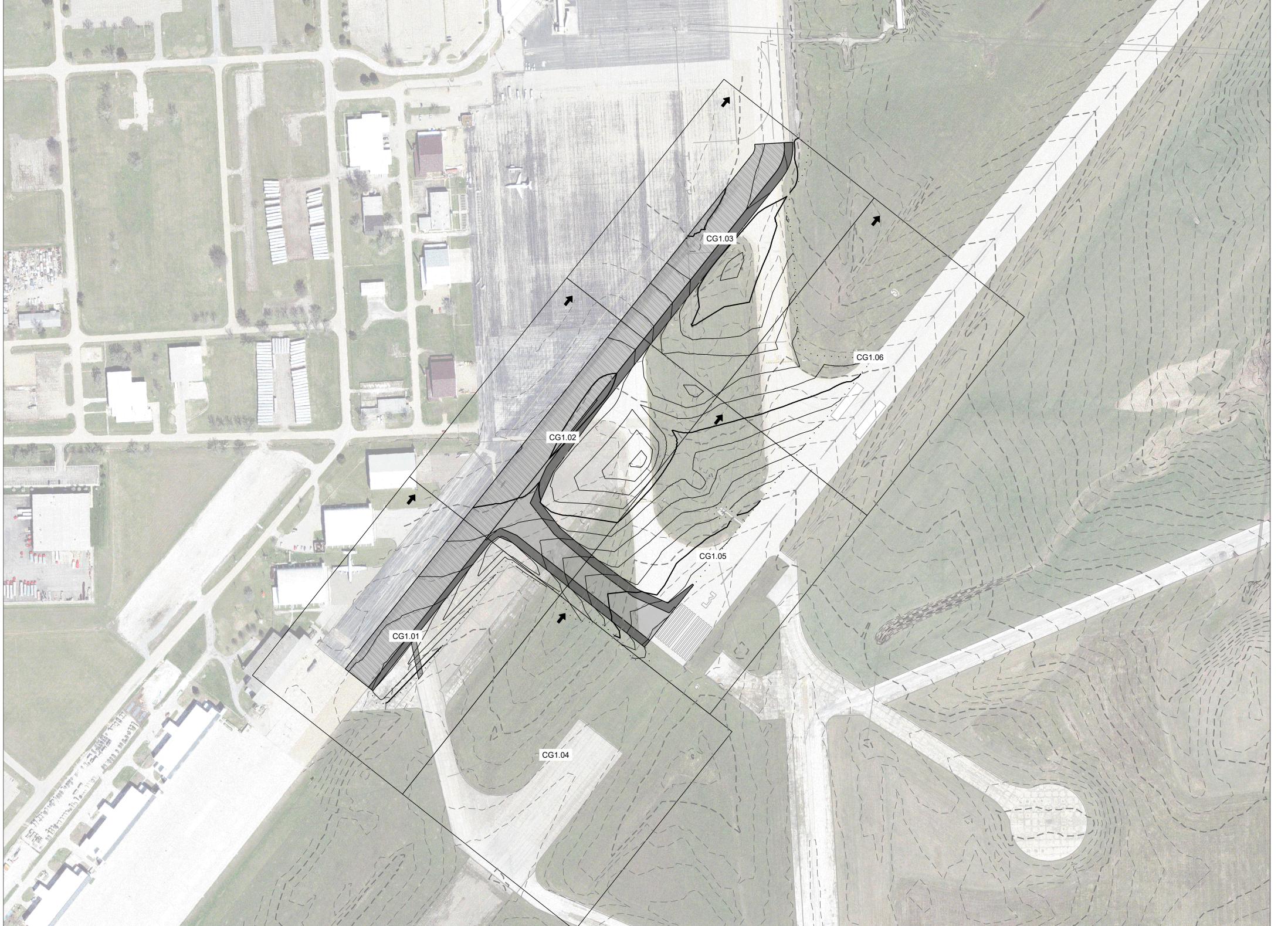
**PAVING AND JOINTING DETAILS SHEET 2 OF 2** 

DATE	JANUARY 16, 2024
SCALE	NTS
DRAWN BY	JTF
CHECKED BY	GFF
APPROVED BY	TMS

WSP PROJECT NUMBER 30900280J

CA5.12 SHEET NUMBER

SHEET **37** OF 98 SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET.





ARROW POINTS IN DIRECTION OF ORIENTATION OF SHEET



### METROPOLITAN TOPEKA AIRPORT AUTHORITY TOPEKA REGIONAL AIRPORT A BIJSINESS CENTER BILLARD AIRPORT

# TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA AIRPORT AUTHORITY METROPOLITAN

ISSUED FOR BID

SHEET TITLE **GRADING AND DRAINAGE KEY PLAN** 

0 100' 200' 400' HORIZONTAL SCALE 1"=200'

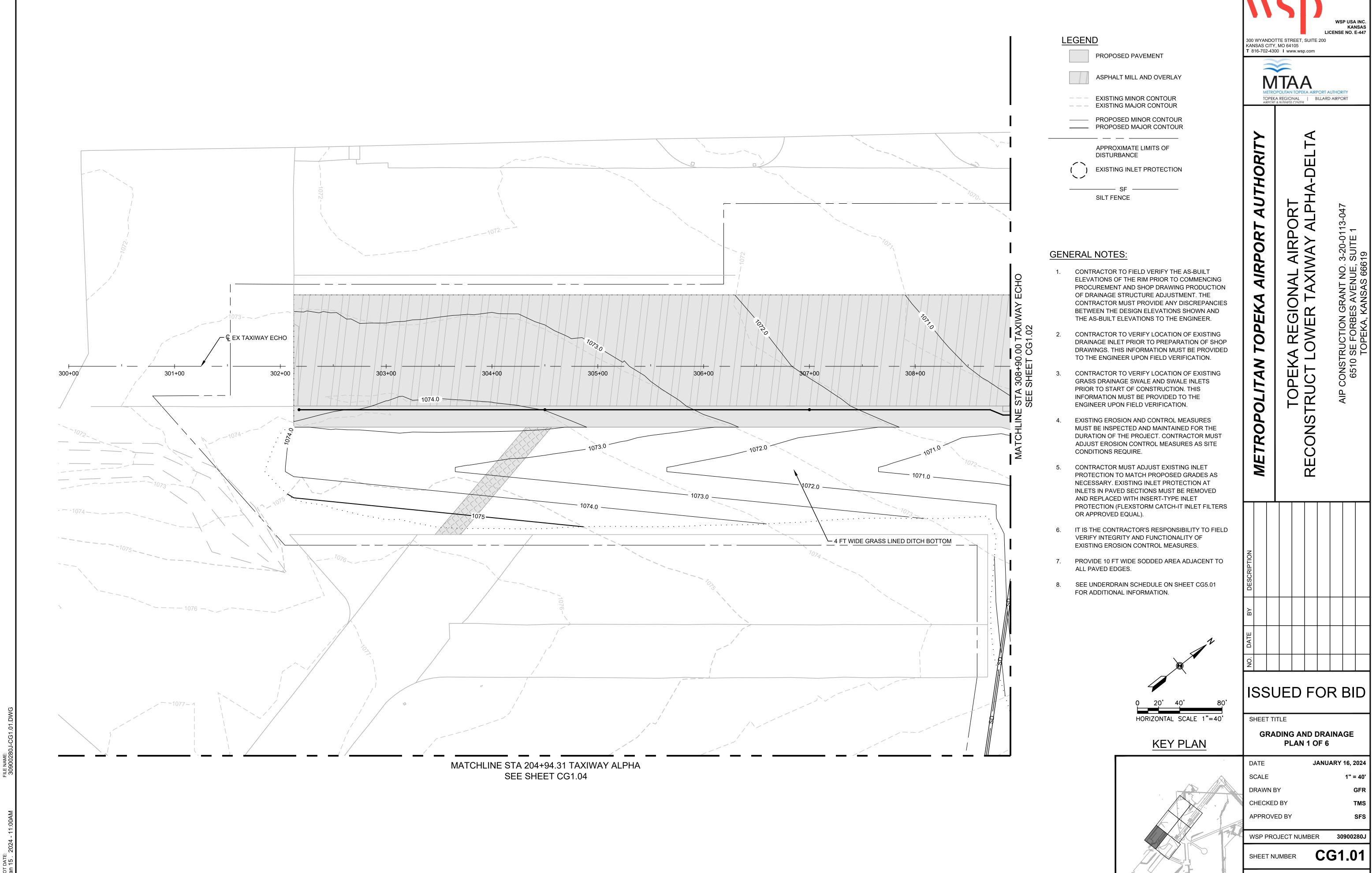
**JANUARY 16, 2024** SCALE 1" = 200' DRAWN BY CHECKED BY

WSP PROJECT NUMBER

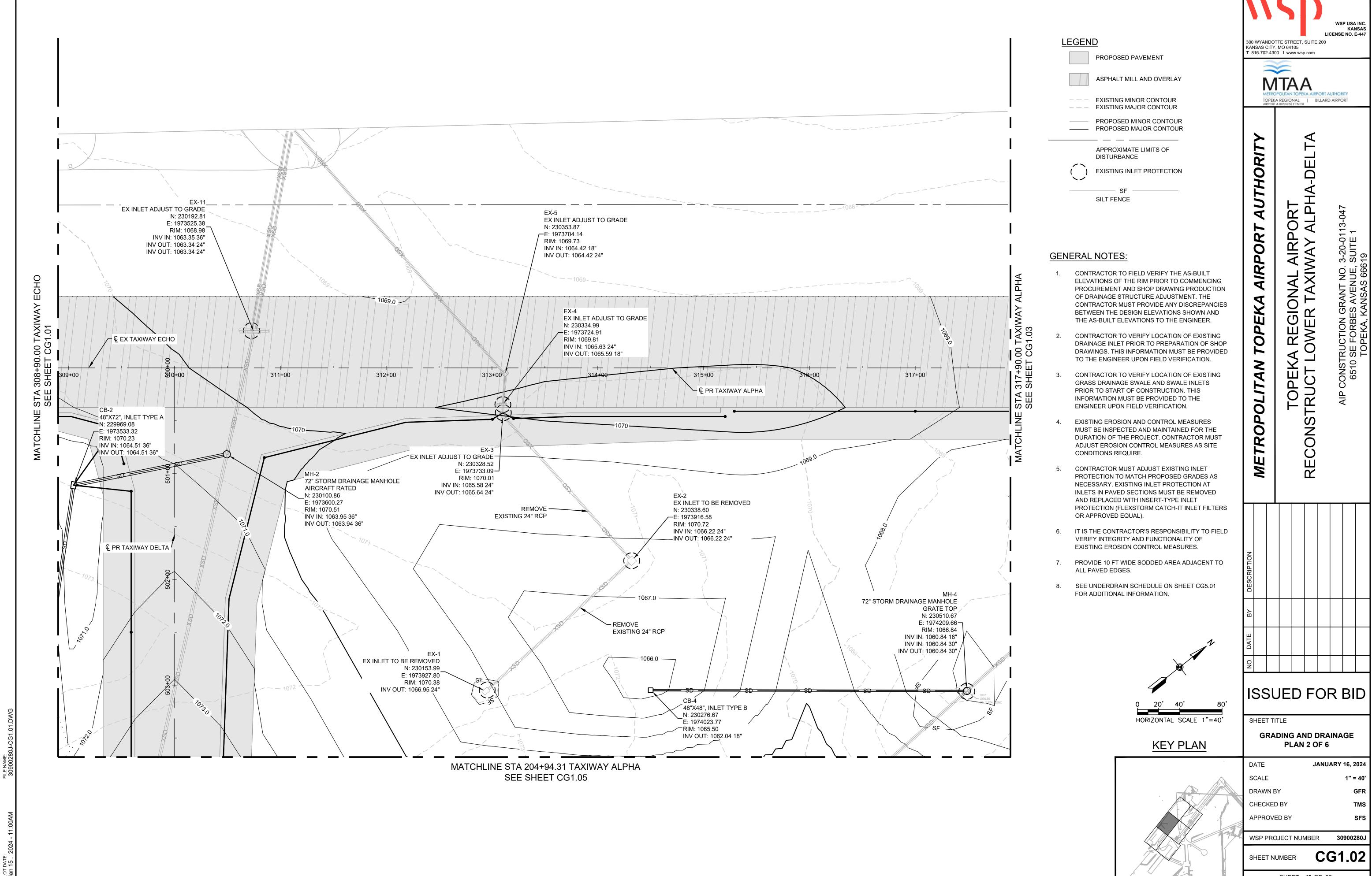
CG1.00 SHEET NUMBER

SHEET **38** OF 98

APPROVED BY

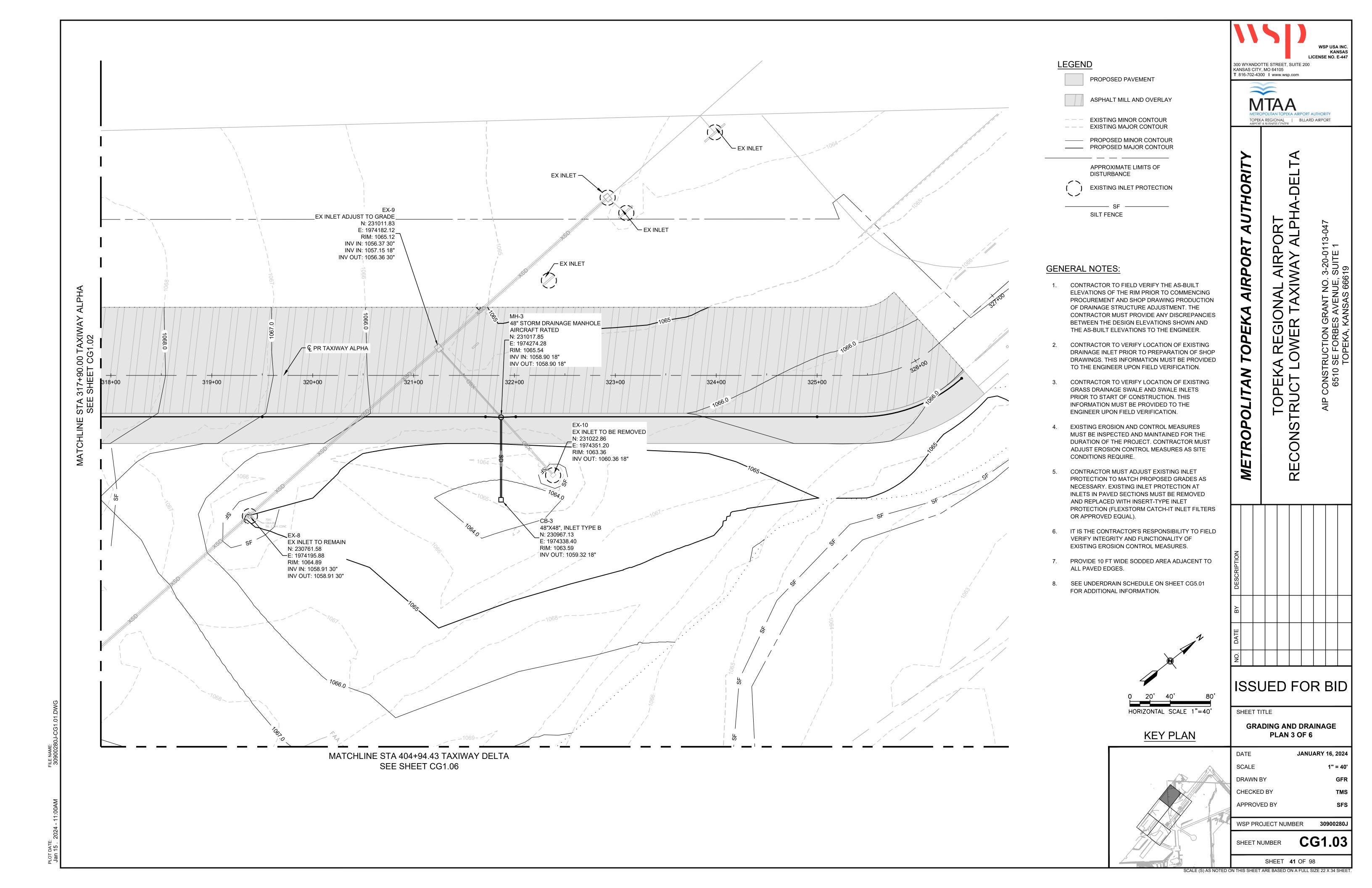


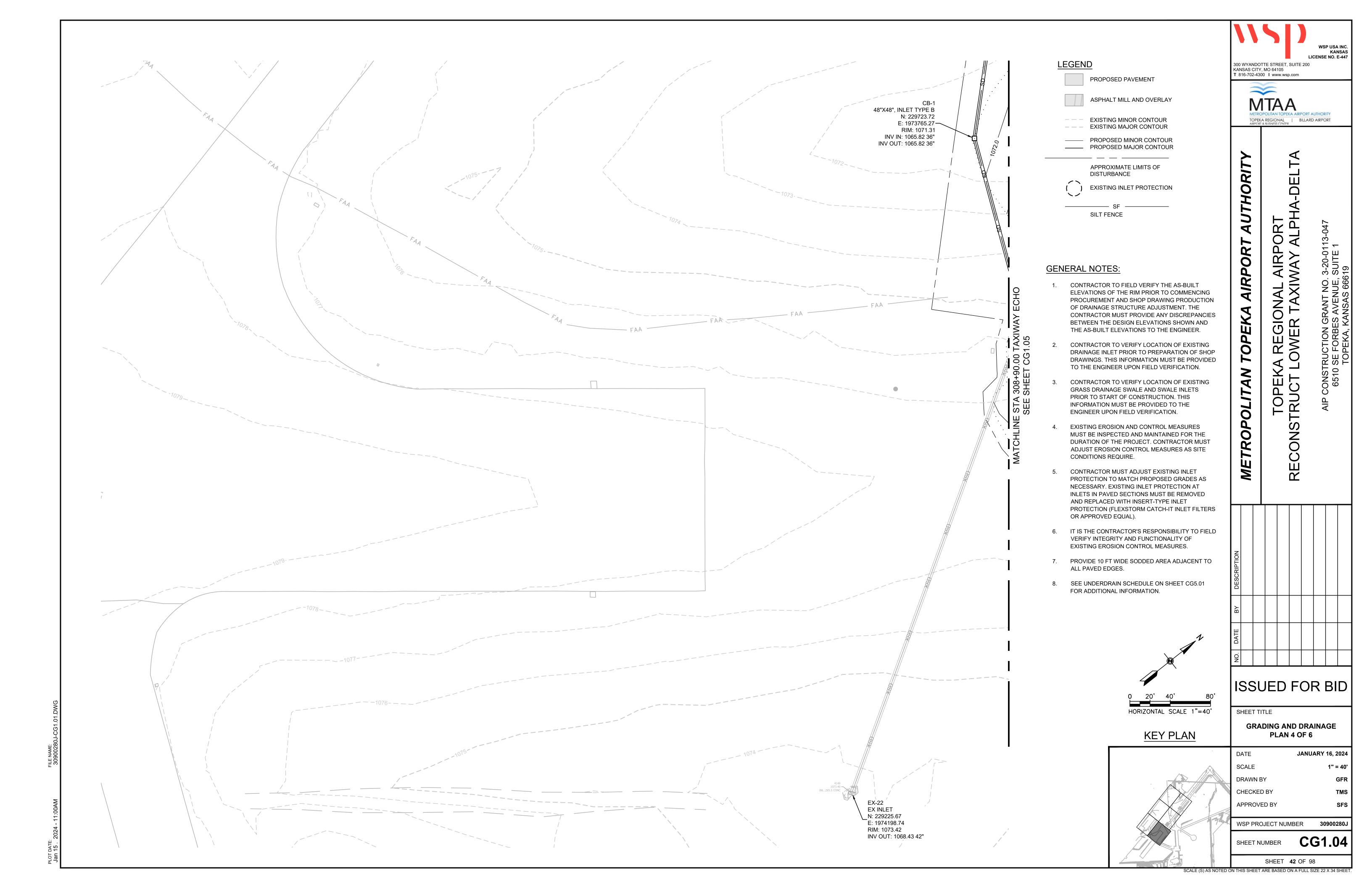
SHEET **39** OF 98

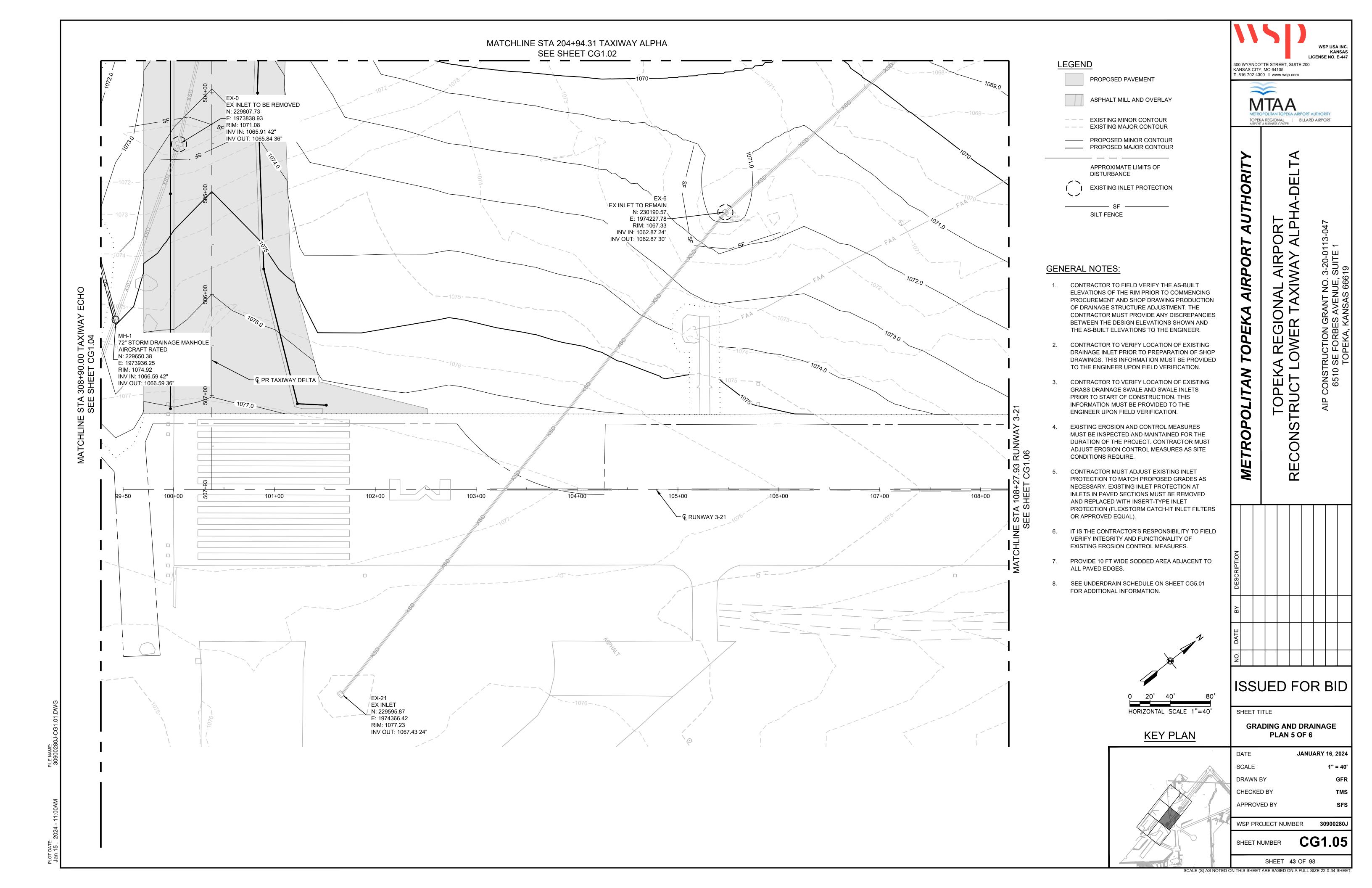


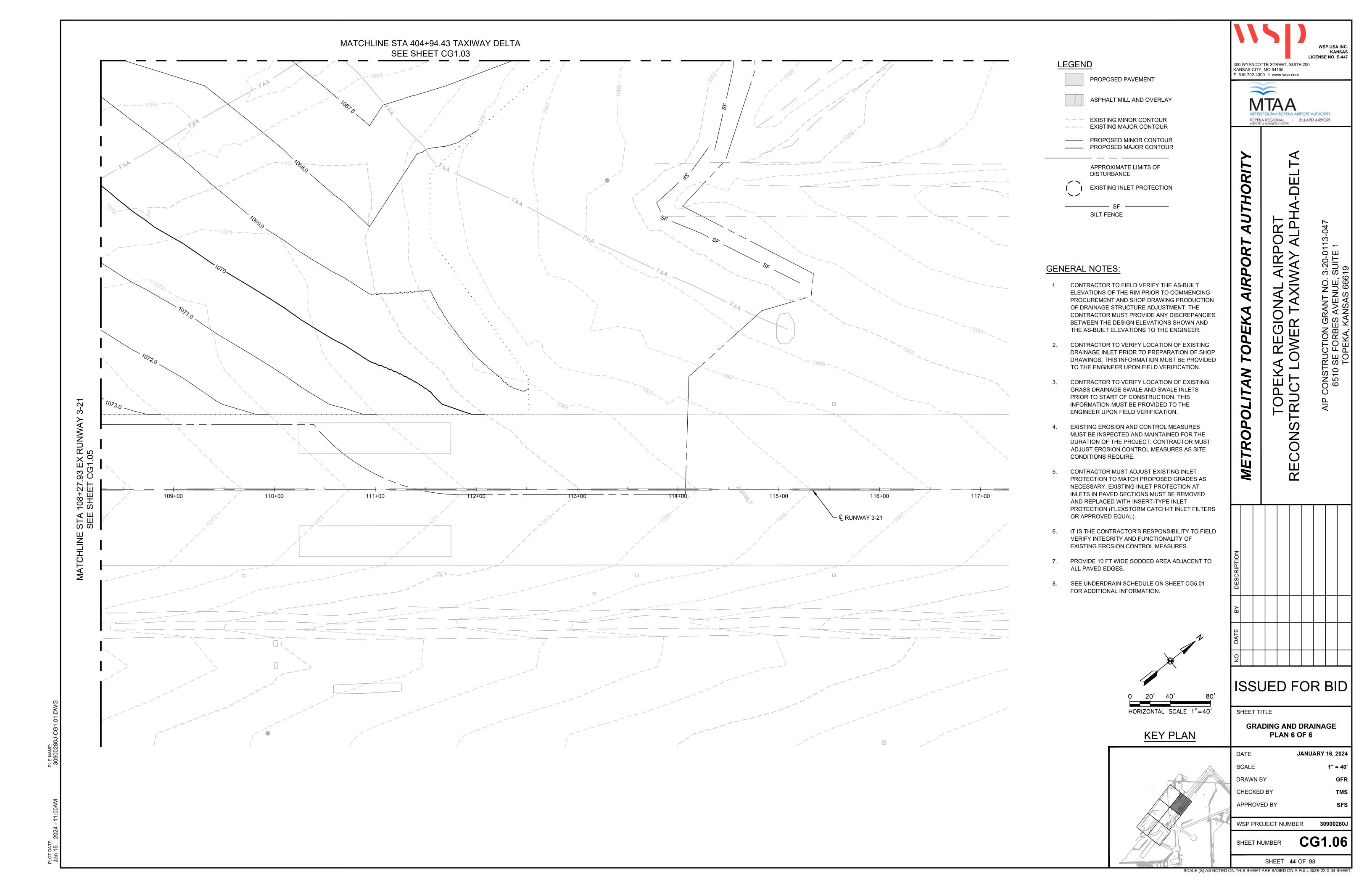
SHEET 40 OF 98

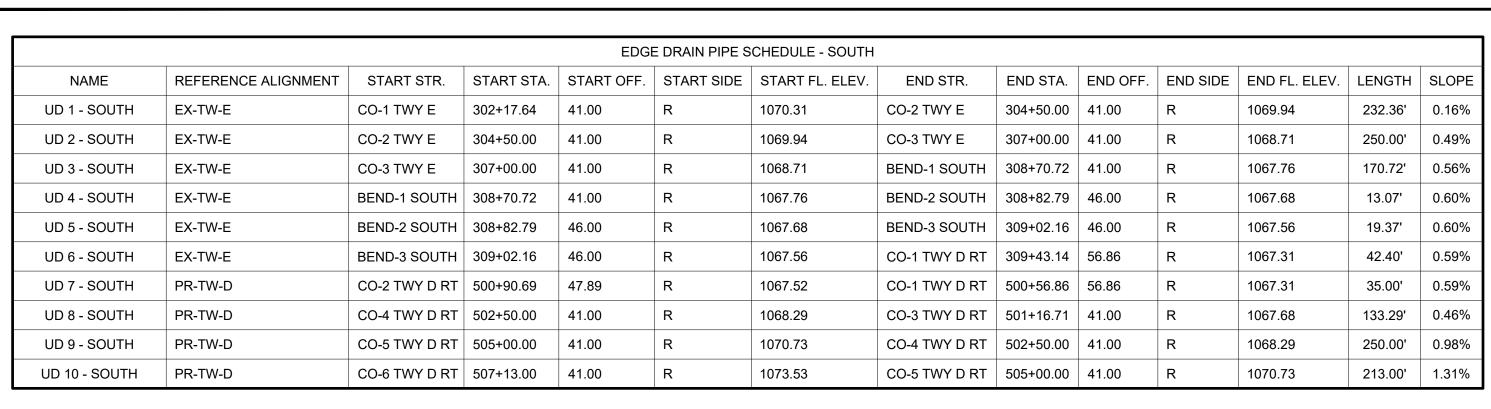
SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET











	EDGE DRAIN PIPE SCHEDULE - NORTH													
NAME	REFERENCE ALIGNMENT	START STR.	START STA.	START OFF.	START SIDE	START FL. ELEV.	END STR.	END STA.	END OFF.	END SIDE	END FL. ELEV.	LENGTH	SLOPE	
UD 1 - NORTH	PR-TW-D	CO-1 TWY D LT	507+09.50	113.50	L	1073.33	CO-2 TWY D LT	507+08.11	84.89	L	1073.29	28.65'	0.15%	
UD 2 - NORTH	PR-TW-D	CO-2 TWY D LT	507+08.11	84.89	L	1073.29	CO-3 TWY D LT	505+74.51	51.48	L	1071.72	137.72'	1.14%	
UD 3 - NORTH	PR-TW-D	CO-3 TWY D LT	505+74.51	51.48	L	1071.72	CO-4 TWY D LT	504+00.00	45.34	L	1070.02	174.62'	0.97%	
UD 4 - NORTH	PR-TW-D	CO-4 TWY D LT	504+00.00	45.34	L	1070.02	BEND-1 NORTH	503+96.50	45.21	L	1069.98	3.50'	1.02%	
UD 5 - NORTH	PR-TW-D	BEND-1 NORTH	503+96.50	45.21	L	1069.98	BEND-2 NORTH	502+18.49	51.49	L	1068.16	178.12'	1.02%	
UD 6 - NORTH	PR-TW-D	BEND-2 NORTH	502+18.49	51.49	L	1068.16	CO-5 TWY D LT	500+84.89	84.89	L	1066.75	137.71'	1.02%	
UD 7 - NORTH	PR-TW-A	CO-5 TWY D LT	310+84.89	84.89	R	1066.75	BEND-3 NORTH	312+18.50	51.48	R	1066.27	137.72'	0.35%	
UD 8 - NORTH	PR-TW-A	BEND-3 NORTH	312+18.50	51.48	R	1066.27	CO-1 TWY A	313+00.41	48.62	R	1065.99	81.96'	0.35%	
UD 9 - NORTH	PR-TW-A	BEND-4 NORTH	313+74.16	46.00	R	1066.11	CO-2 TWY A	313+20.39	47.92	R	1066.00	53.80'	0.20%	
UD 10 - NORTH	PR-TW-A	CO-3 TWY A	315+20.36	46.00	R	1066.40	BEND-4 NORTH	313+74.16	46.00	R	1066.11	146.20'	0.20%	
UD 11 - NORTH	PR-TW-A	CO-4 TWY A	315+29.02	41.00	R	1066.60	CO-5 TWY A	317+00.00	41.00	R	1065.56	170.98'	0.61%	
UD 12 - NORTH	PR-TW-A	CO-5 TWY A	317+00.00	41.00	R	1065.55	CO-6 TWY A	319+50.00	41.00	R	1063.17	250.00'	0.95%	
UD 13 - NORTH	PR-TW-A	CO-6 TWY A	319+50.00	41.00	R	1063.17	CO-7 TWY A	321+71.27	41.00	R	1061.86	221.27'	0.59%	
UD 14 - NORTH	PR-TW-A	CO-9 TWY A	325+00.00	41.00	R	1062.21	CO-8 TWY A	322+01.27	41.00	R	1061.76	298.73'	0.15%	
UD 15 - NORTH	PR-TW-A	BEND-5 NORTH	325+42.98	41.00	R	1062.27	CO-9 TWY A	325+00.00	41.00	R	1062.21	42.98'	0.15%	
UD 16 - NORTH	PR-TW-A	CO-10 TWY A	326+22.85	41.00	R	1062.44	BEND-5 NORTH	325+42.98	41.00	R	1062.27	109.64'	0.15%	

	EDGE DRAIN PIPE SCHEDULE - LATERALS												
NAME	REFERENCE ALIGNMENT	START STR.	START STA.	START OFF.	START SIDE	START FL. ELEV.	END STR.	END STA.	END OFF.	END SIDE	END FL. ELEV.	LENGTH	SLOPE
LATERAL NORTH - 1	PR-TW-A	NULL-3	313+00.41	48.62	R	1065.99	EX-3	313+10.22	42.47	R	1065.93	11.58'	0.50%
LATERAL NORTH - 2	PR-TW-A	NULL-2	313+20.39	47.92	R	1066.00	EX-3	313+10.22	42.47	R	1065.94	11.54'	0.50%
LATERAL NORTH - 3	PR-TW-A	NULL-4	321+71.27	41.00	R	1061.86	NULL-6	321+86.72	41.50	R	1061.71	15.46'	1.00%
LATERAL NORTH - 4	PR-TW-A	NULL-6	321+86.72	41.50	R	1061.71	NULL-5	322+01.27	41.00	R	1061.76	14.56'	0.34%
LATERAL SOUTH - 1	PR-TW-D	CO-1 TWY D RT	500+56.86	56.86	R	1067.31	CB-2	501+10.98	95.50	R	1066.68	66.50'	0.95%
LATERAL SOUTH - 2	PR-TW-D	NULL-1	501+16.71	41.00	R	1067.68	CB-2	501+10.94	95.53	R	1067.42	54.83'	0.48%

	STORM DRAIN PIPE SCHEDULE													
NAME	REFERENCE ALIGNMENT	START STR.	START STA.	START OFF.	START SIDE	START FL. ELEV.	END STR.	END STA.	END OFF.	END SIDE	END FL. ELEV.	LENGTH	SLOPE	PIPE SIZE (IN)
SD NORTH - 1	PR-TW-A	MH-3	321+86.73	41.50	R	1058.90	CB-3	321+86.73	123.25	R	1059.32	82'	0.51%	18
SD NORTH - 2	PR-TW-A	CB-4	314+50.00	304.82	R	1062.04	MH-4	317+48.85	305.45	R	1060.84	299'	0.40%	18
SD SOUTH - 1	PR-TW-D	MH-1	506+24.72	95.50	R	1066.59	CB-1	504+45.12	144.05	R	1065.82	187'	0.41%	36
SD SOUTH - 2	PR-TW-D	CB-1	504+45.12	144.05	R	1065.82	CB-2	501+10.98	95.50	R	1064.51	338'	0.39%	36
SD SOUTH - 3	PR-TW-D	CB-2	501+10.98	95.50	R	1064.51	MH-2	500+81.74	49.39	L	1063.95	148'	0.38%	36

EDG	E DRAIN STRU	CTURE SCHE	DULE -	SOUTH	
STR.	ALIGNMENT	STA.	OFF.	SIDE	RIM ELEV.
CO-1 TWY E	EX-TW-E	302+17.64	41.00	R	1073.86
CO-2 TWY E	EX-TW-E	304+50.00	41.00	R	1073.99
CO-3 TWY E	EX-TW-E	307+00.00	41.00	R	1072.30
BEND-1 SOUTH	EX-TW-E	308+70.72	41.00	R	1068.30
BEND-2 SOUTH	EX-TW-E	308+82.79	46.00	R	1068.22
BEND-3 SOUTH	EX-TW-E	309+02.16	46.00	R	1068.10
CO-1 TWY D RT	EX-TW-E	309+43.14	56.86	R	1071.04
CO-2 TWY D RT	PR-TW-D	500+90.69	47.89	R	1071.18
CO-3 TWY D RT	PR-TW-D	501+16.71	41.00	R	1071.30
CO-4 TWY D RT	PR-TW-D	502+50.00	41.00	R	1072.14
CO-5 TWY D RT	PR-TW-D	505+00.00	41.00	R	1074.59
CO-6 TWY D RT	PR-TW-D	507+13.00	41.00	R	1077.03

EDG	E DRAIN STRU	CTURE SCH	EDULE - N	NORTH	
STR.	ALIGNMENT	STA.	OFF.	SIDE	RIM ELEV.
BEND-3 NORTH	PR-TW-A	312+18.50	51.48	R	1066.82
CO-1 TWY A	PR-TW-A	313+00.41	48.62	R	1069.93
CO-2 TWY A	PR-TW-A	313+20.39	47.92	R	1069.98
BEND-4 NORTH	PR-TW-A	313+74.16	46.00	R	1066.65
CO-3 TWY A	PR-TW-A	315+20.36	46.00	R	1070.22
CO-4 TWY A	PR-TW-A	315+29.02	41.00	R	1070.30
CO-5 TWY A	PR-TW-A	317+00.00	41.00	R	1069.35
CO-6 TWY A	PR-TW-A	319+50.00	41.00	R	1066.98
CO-7 TWY A	PR-TW-A	321+71.27	41.00	R	1065.51
CO-8 TWY A	PR-TW-A	322+01.27	41.00	R	1065.58
CO-9 TWY A	PR-TW-A	325+00.00	41.00	R	1066.50
BEND-5 NORTH	PR-TW-A	325+42.98	41.00	R	1062.82
CO-10 TWY A	PR-TW-A	326+22.85	41.00	R	1065.92
CO-5 TWY D LT	PR-TW-D	500+84.89	84.89	L	1070.22
BEND-2 NORTH	PR-TW-D	502+18.49	51.49	L	1068.70
BEND-1 NORTH	PR-TW-D	503+96.50	45.21	L	1070.52
CO-4 TWY D LT	PR-TW-D	504+00.00	45.34	L	1073.57
CO-3 TWY D LT	PR-TW-D	505+74.51	51.48	L	1075.22
CO-2 TWY D LT	PR-TW-D	507+08.11	84.89	L	1076.84
CO-1 TWY D LT	PR-TW-D	507+09.50	113.50	L	1076.75

STORM DRAIN STRUCTURE SCHEDULE										
STR.	ALIGNMENT	STA.	OFF.	SIDE	RIM ELEV.					
CB-1	PR-TW-D	504+45.12	144.05	R	1071.31					
CB-2	PR-TW-D	501+10.98	95.50	R	1070.23					
CB-3	PR-TW-A	321+86.73	123.25	R	1063.59					
CB-4	PR-TW-A	314+50.00	304.82	R	1065.50					
MH-1	PR-TW-D	506+24.72	95.50	R	1074.92					
MH-2	PR-TW-D	500+81.74	49.39	L	1070.51					
MH-3	PR-TW-A	321+86.73	41.50	R	1065.54					
MH-4	PR-TW-A	317+48.85	305.45	R	1066.84					





## TOPEKA REGIONAL AIRPORT TRUCT LOWER TAXIWAY ALPHA-DELTA **AIRPORT AUTHORITY TOPEKA**

METROPOLITAN

RECONS

### ISSUED FOR BID

SHEET TITLE

**UNDERDRAIN AND STORM** DRAINAGE SCHEDULE

**JANUARY 16, 2024** SCALE DRAWN BY CHECKED BY APPROVED BY

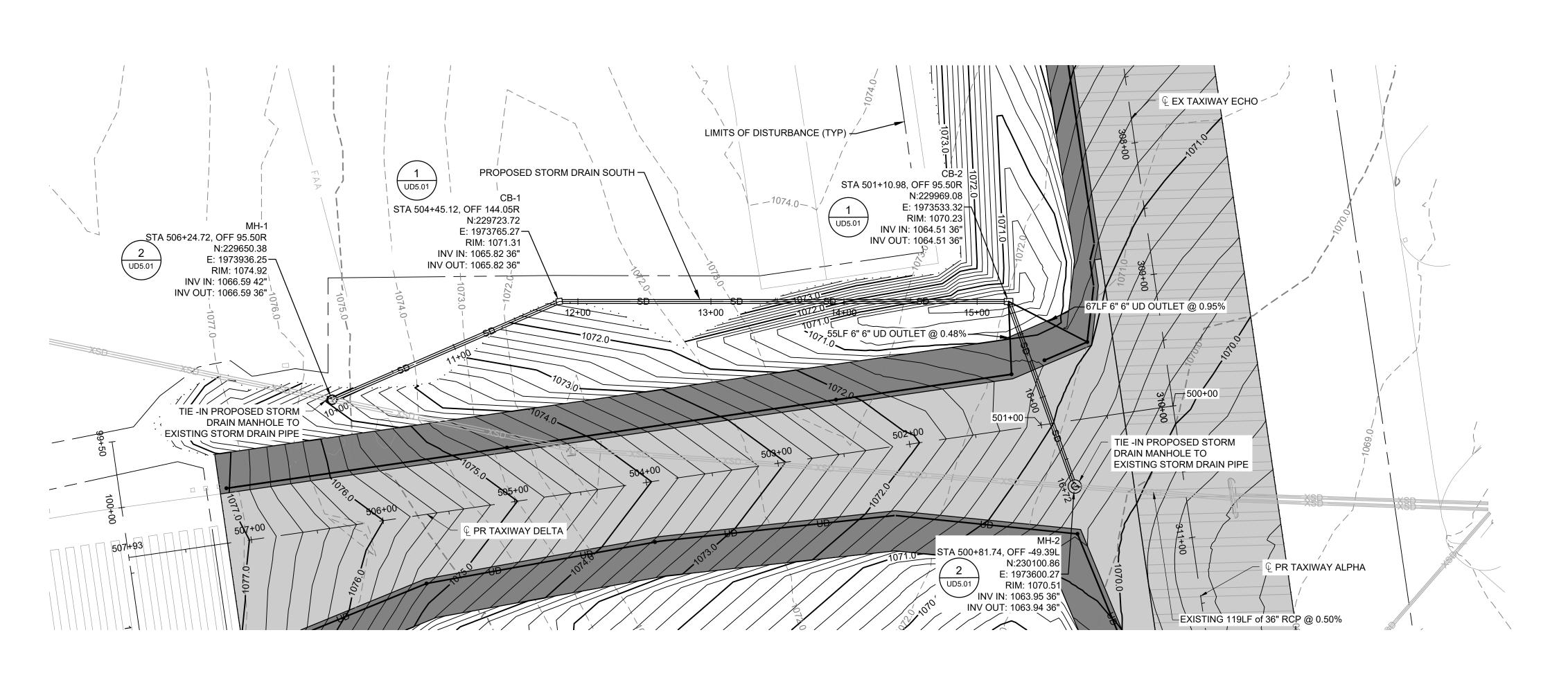
WSP PROJECT NUMBER

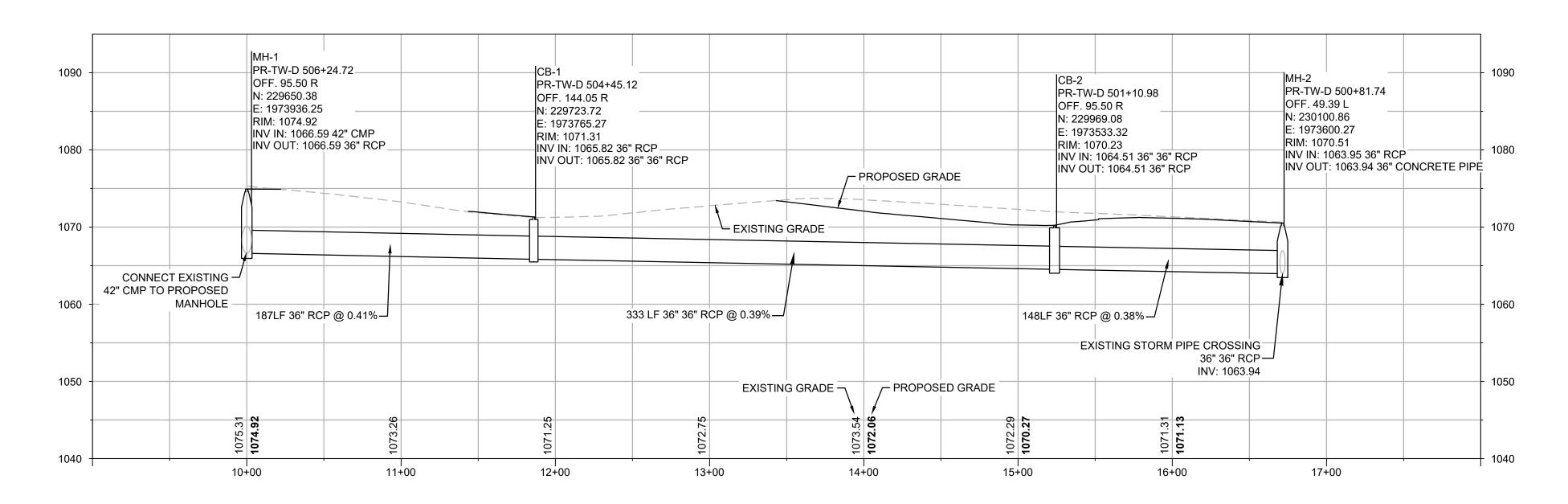
SHEET NUMBER

SHEET **45** OF 98

30900280J

CG5.01





PR-STORM-SOUTH STA 10+00 TO 17+00

#### **GENERAL NOTES:**

- 1. SEE CD SERIES FOR STORM DRAINAGE DEMOLITION.
- 2. SEE CA1 SERIES FOR AIRFIELD GEOMETRY SITE PLANS.
- 3. SEE CG SERIES FOR GRADING AND DRAINAGE PLANS.
- 4. SEE UD2.04 THROUGH UD2.08 SHEETS FOR UNDERDRAIN PLANS AND PROFILES.
- SEE UD5 SERIES FOR STORM DRAINAGE AND UNDERDRAIN DETAILS.
- 6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY WITH SURVEY THE EXISTING CONDITIONS WHICH INCLUDE BUT ARE NOT LIMITED TO THE UTILITIES, STORM DRAINS, SANITARY SEWER SYSTEM, COMMUNICATION LINES AND DUCTS, POWER LINES AND DUCTS, ETC.



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**TOPEKA** 

TROPOLITAN

ME

WSP USA INC LICENSE NO. E-447 300 WYANDOTTE STREET, SUITE 200 KANSAS CITY, MO 64105 **T** 816-702-4300 **I** www.wsp.com



-DEL A REGIONAL AIRPORT OWER TAXIWAY ALPH TOPEKA TRUCT LC O REC

ISSUED FOR BID 0 2.5' 5'

SHEET TITLE

STORM DRAINAGE PLAN AND PROFILE SOUTH

DATE SCALE DRAWN BY CHECKED BY APPROVED BY

0 25' 50'

HORIZONTAL SCALE 1"=50'

VERTICAL SCALE 1"=5"

**KEY PLAN** 

WSP PROJECT NUMBER 30900280J

**UD2.01** SHEET NUMBER

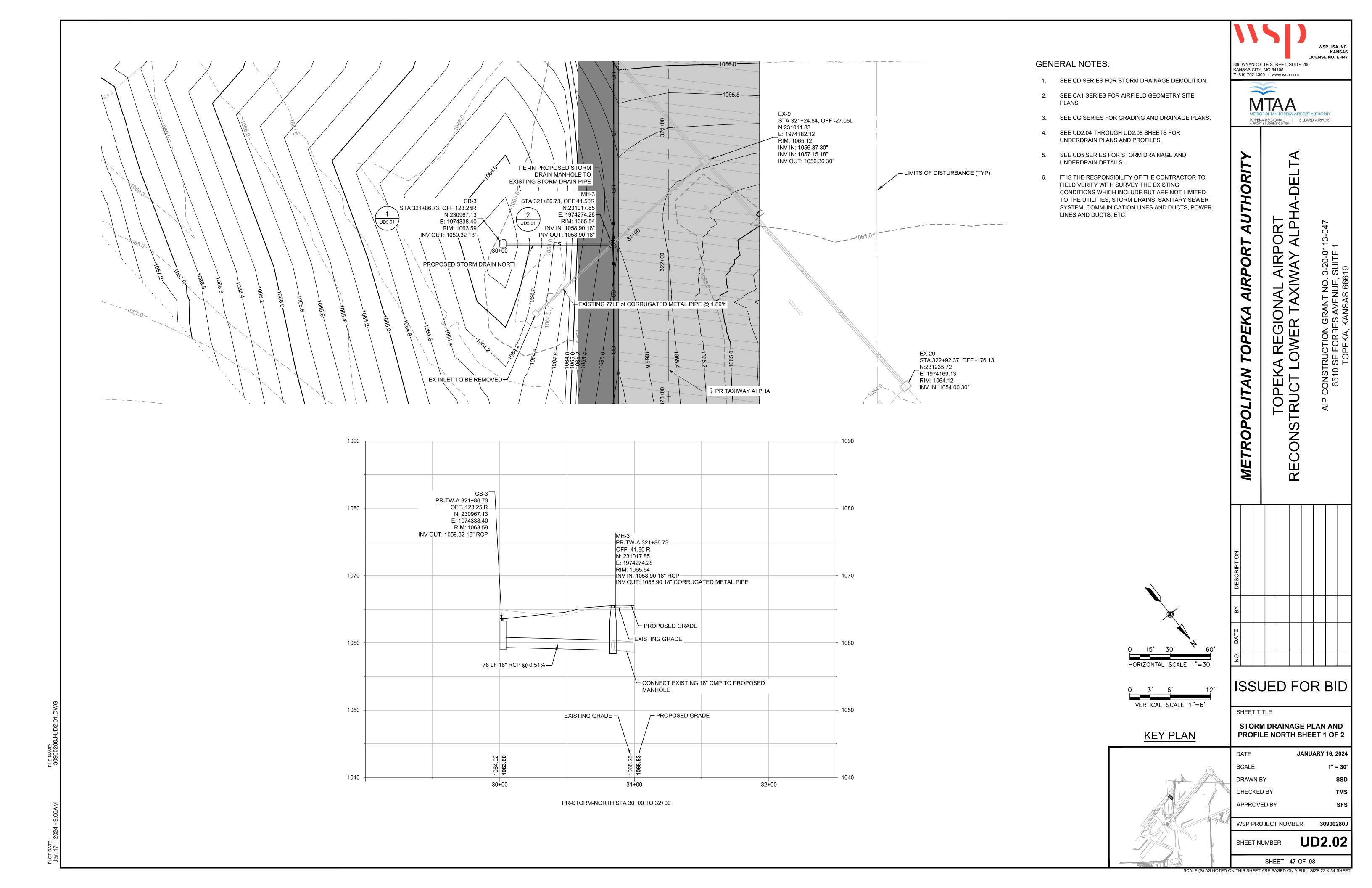
**JANUARY 16, 2024** 

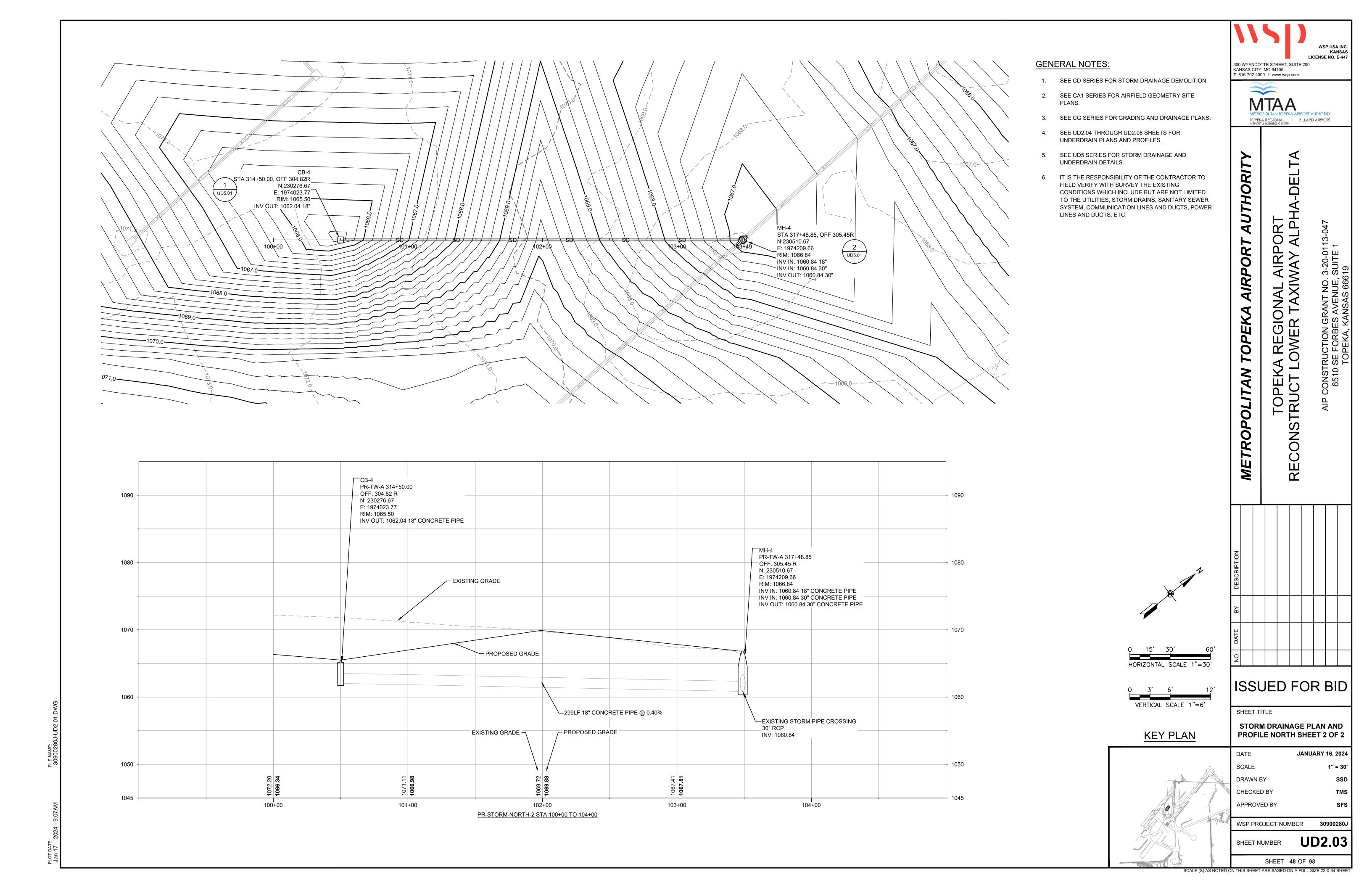
1" = 50'

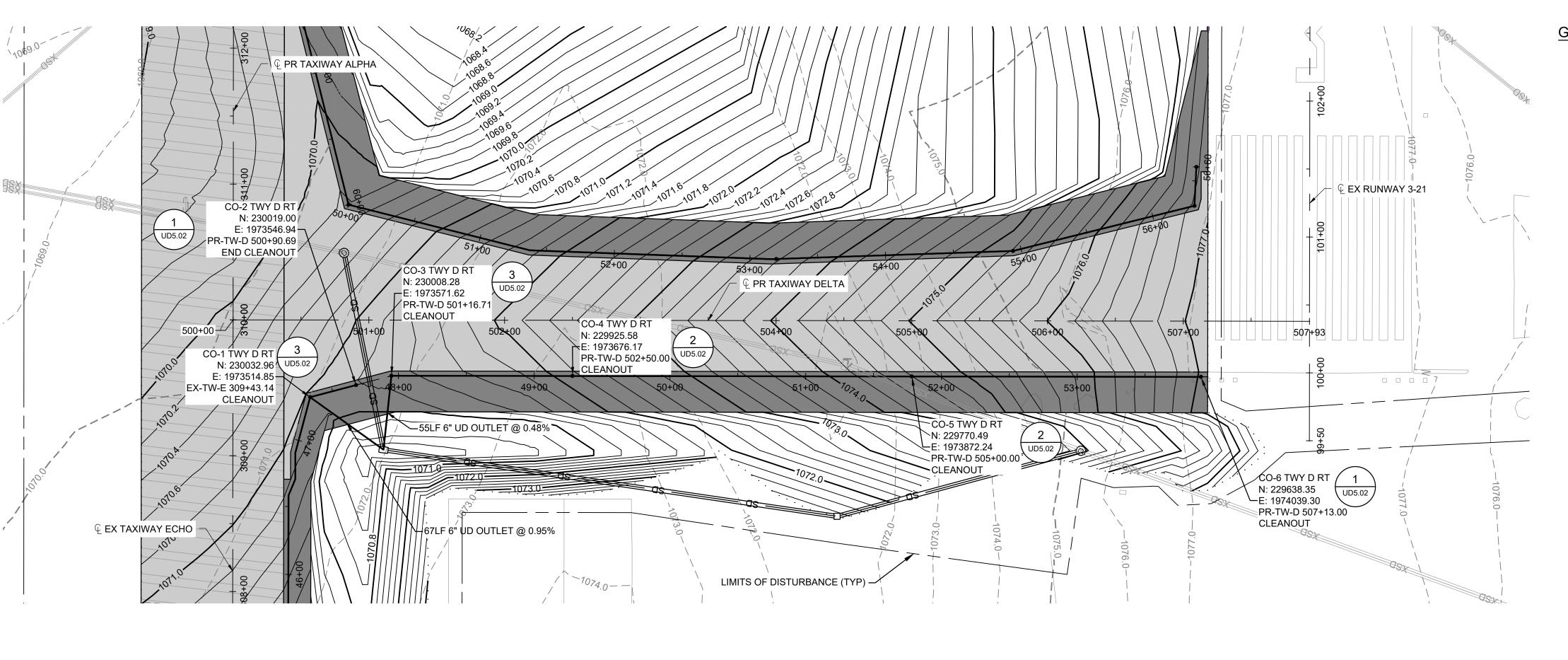
SSD

SFS

SHEET **46** OF 98 SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET







- 1. ALL NON-OUTLET UNDERDRAIN PIPE WILL BE PERFORATED PVC. ALL OUTLET UNDERDRAIN PIPE WILL BE NON-PERFORATED PVC.
- 2. SEE CD SERIES FOR STORM DRAINAGE DEMOLITION.
- SEE CA1 SERIES FOR AIRFIELD GEOMETRY SITE PLANS.
- 4. SEE CG SERIES FOR GRADING AND DRAINAGE PLANS.
- SEE SHEETS UD2.01 THROUGH UD2.03 FOR STORM DRAINAGE PLANS AND PROFILES.
- 6. SEE SHEETS UD5.02 AND UD5.03 FOR UNDERDRAIN DETAILS.
- 7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY WITH SURVEY THE EXISTING CONDITIONS WHICH INCLUDE BUT ARE NOT LIMITED TO THE UTILITIES, STORM DRAINS, SANITARY SEWER SYSTEM, COMMUNICATION LINES AND DUCTS, POWER LINES AND DUCTS, ETC

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THORE

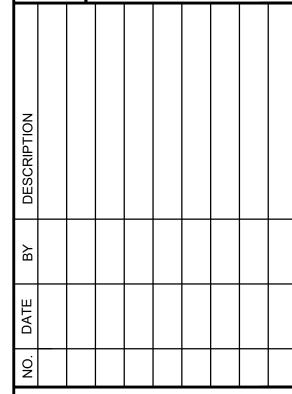
**AIRPOR** 

**TOPEKA** 

TROPOLITAN

-DEL A REGIONAL AIRPORT OWER TAXIWAY ALPH TOPEKA TRUCT LC

IST 10 REC



O

ISSUED FOR BID

SHEET TITLE

**TAXIWAY DELTA UNDERDRAIN** 

PLAN AND PROFILE - SOUTH

**JANUARY 16, 2024** DATE SCALE 1" = 50' DRAWN BY CHECKED BY GFR APPROVED BY TMS

WSP PROJECT NUMBER

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

30900280J **UD2.04** SHEET NUMBER

SHEET **49** OF 98

VERTICAL SCALE 1"=10' **KEY PLAN** 

0 25' 50'

HORIZONTAL SCALE 1"=50'

E: 1973872.24 RIM ELEV: 1077.03 N: 229925.58 RIM ELEV: 1074.59 E: 1973676.17 INV OUT: 1073.53 6" -INV IN: 1070.73 6" 1080 RIM ELEV: 1072.14 - PROPOSED GRADE INV OUT: 1070.73 6" INV IN: 1068.29 6" INV OUT: 1068.29 6" 213LF 6" @ 1.31% 1070 250LF 6" @ 0.98% EXISTING GRADE 1060 EXISTING GRADE -PROPOSED GRADE 1050 50+00 51÷00 52÷00 53+00 54+00

CO-5 TWY D RT

OFF. 41.00 R

-N: 229770.49

PR-TW-D 505+00.00

CO-6 TWY D RT

OFF. 41.00 R

N: 229638.35

E: 1974039.30 -

PR-TW-D 507+13.00

1090

UNDR-SOUTH STA 47+00 TO 54+00

CO-4 TWY D RT

OFF. 41.00 R

PR-TW-D 502+50.00

1100

1090

1080

1070

1060

1050

CO-2 TWY D RT PR-TW-D 500+90.69

> OFF. 47.89 R N: 230019.00

E: 1973546.94 -

CO-3 TWY D RT

OFF. 41.00 R

\_N: 230008.28

E: 1973571.62

─35LF 6" @ 0.59%

48+00

PR-TW-D 501+16.71

RIM ELEV: 1071.30

\_INV IN: 1067.68 6"

133LF 6" @ 0.46%

49÷00

RIM ELEV: 1071.18

INV OUT: 1067.52 6"

CO-1 TWY D RT

OFF. 56.86 R

N: 230032.96

E: 1973514.85

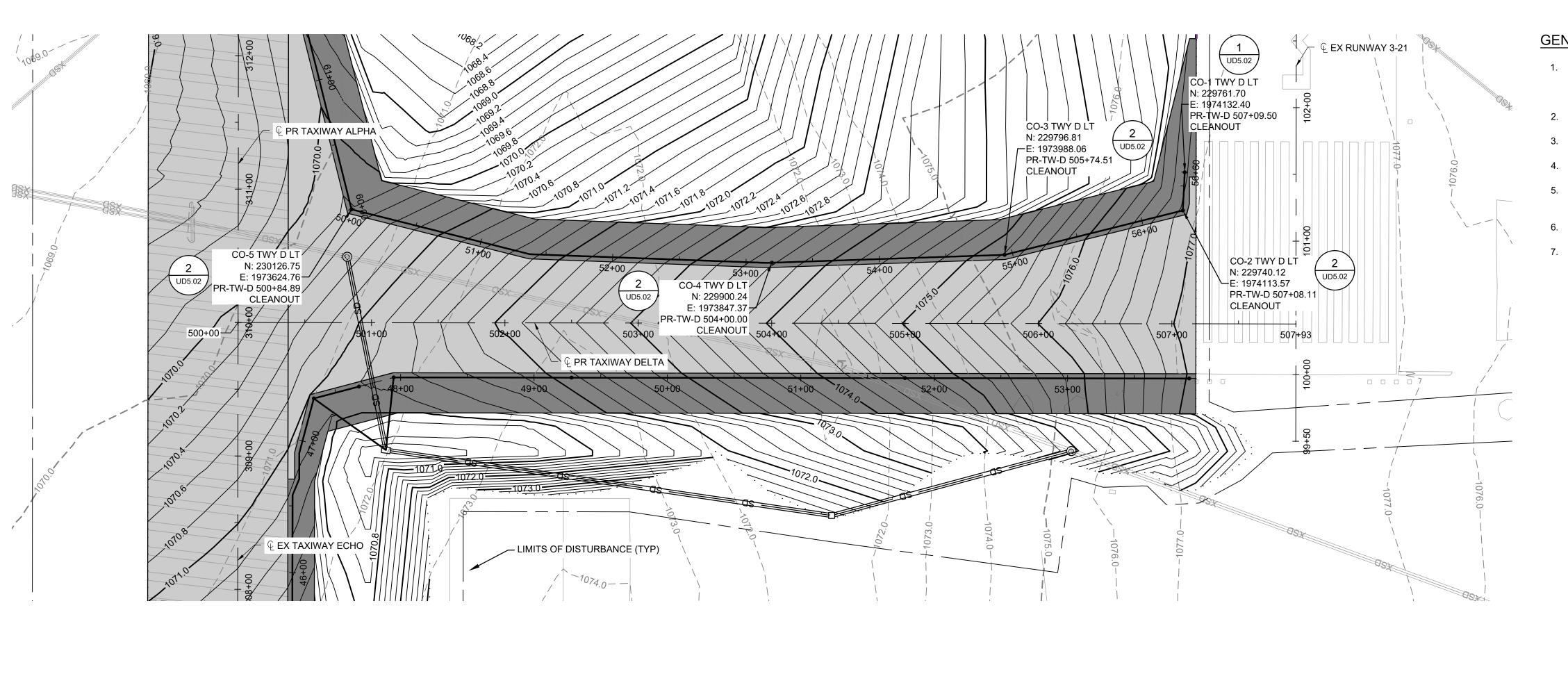
77LF 6" @ 0.59%

47+00

RIM ELEV: 1071.04

INV IN: 1067.31 6" INV IN: 1067.31 6"

EX-TW-E 309+43.14



- 1. ALL NON-OUTLET UNDERDRAIN PIPE WILL BE PERFORATED PVC. ALL OUTLET UNDERDRAIN PIPE WILL BE NON-PERFORATED PVC.
- 2. SEE CD SERIES FOR STORM DRAINAGE DEMOLITION.
- SEE CA1 SERIES FOR AIRFIELD GEOMETRY SITE PLANS.
- 4. SEE CG SERIES FOR GRADING AND DRAINAGE PLANS.
- SEE SHEETS UD2.01 THROUGH UD2.03 FOR STORM DRAINAGE PLANS AND PROFILES.
- 6. SEE SHEETS UD5.02 AND UD5.03 FOR UNDERDRAIN DETAILS.
- 7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY WITH SURVEY THE EXISTING CONDITIONS WHICH INCLUDE BUT ARE NOT LIMITED TO THE UTILITIES, STORM DRAINS, SANITARY SEWER SYSTEM, COMMUNICATION LINES AND DUCTS, POWER LINES AND DUCTS, ETC

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TROPOLITAN

TOPEKA REGIONAL | BILLARD AIRPORT

## -DEL A REGIONAL AIRPORT OWER TAXIWAY ALPH TOPEKA TRUCT LC O

REC

ISSUED FOR BID

SHEET TITLE

APPROVED BY

0 25' 50'

HORIZONTAL SCALE 1"=50'

VERTICAL SCALE 1"=10'

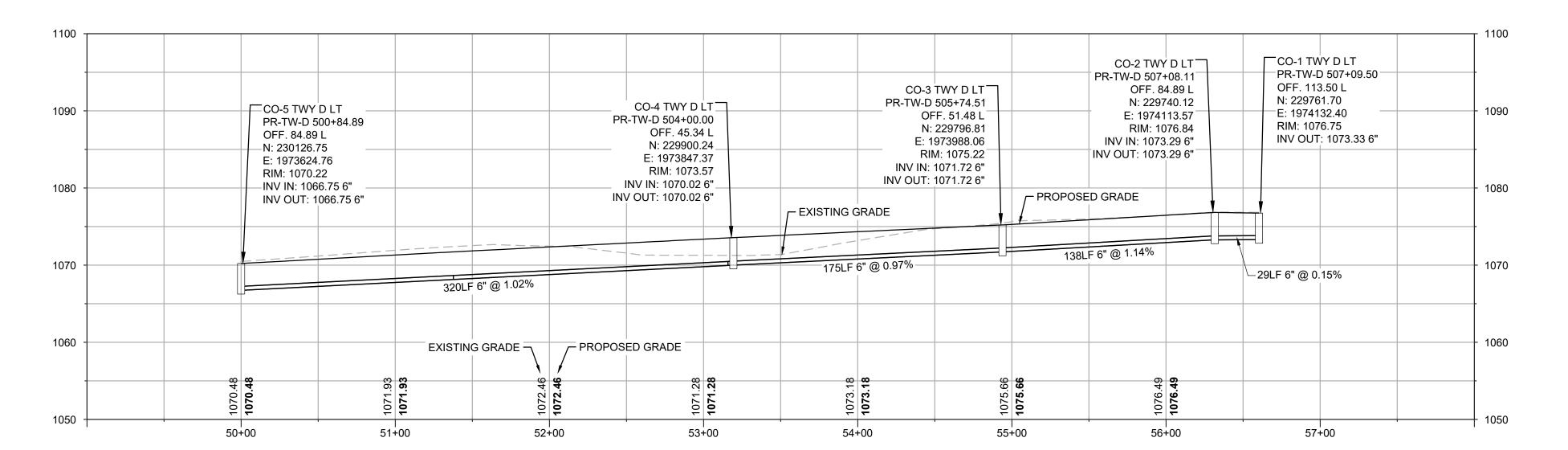
**KEY PLAN** 

**TAXIWAY DELTA UNDERDRAIN** PLAN AND PROFILE - NORTH

**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY GFR

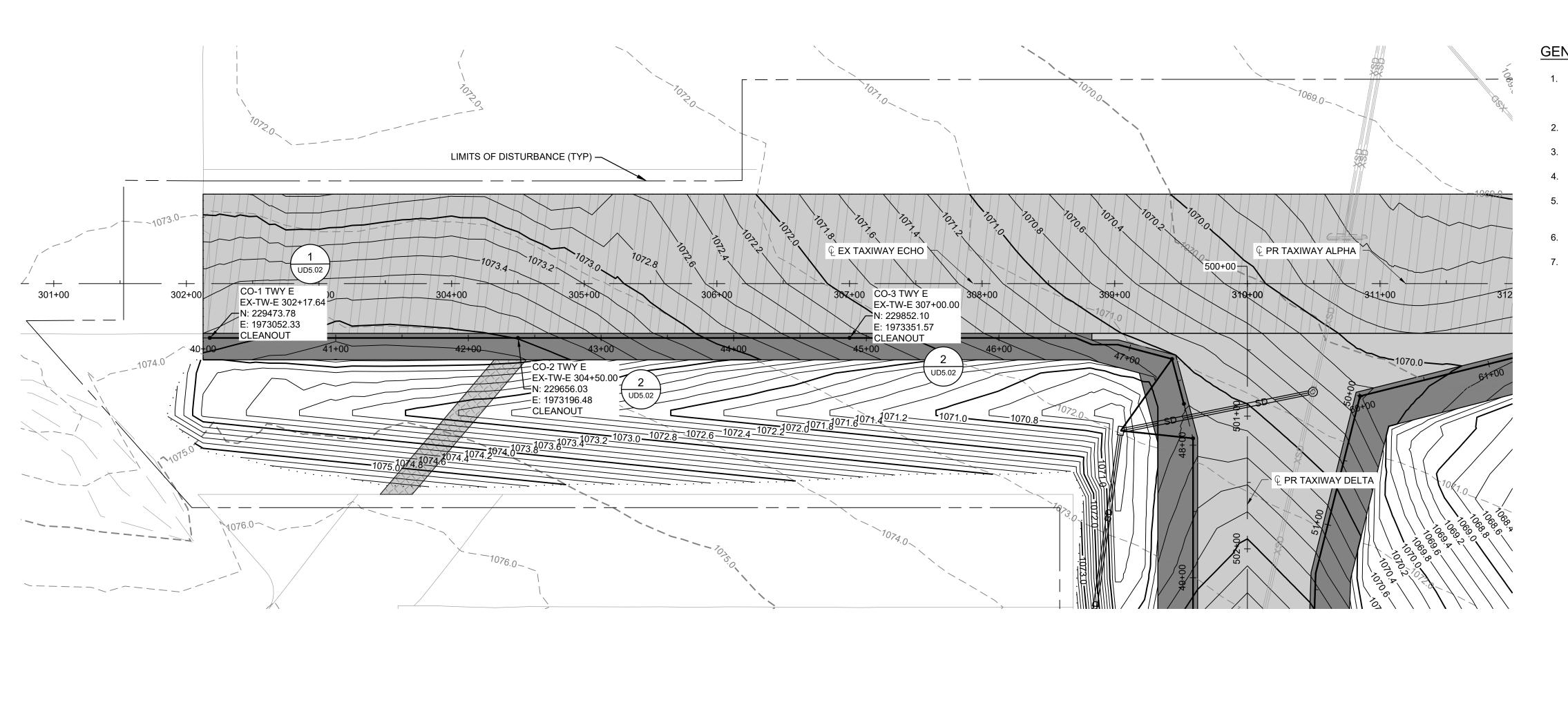
WSP PROJECT NUMBER 30900280J

**UD2.05** SHEET NUMBER



UNDR-NORTH STA 50+00 TO 57+00

TMS



- ALL NON-OUTLET UNDERDRAIN PIPE WILL BE PERFORATED PVC. ALL OUTLET UNDERDRAIN PIPE WILL BE NON-PERFORATED PVC.
- 2. SEE CD SERIES FOR STORM DRAINAGE DEMOLITION.
- SEE CA1 SERIES FOR AIRFIELD GEOMETRY SITE PLANS.
- 4. SEE CG SERIES FOR GRADING AND DRAINAGE PLANS.
- SEE SHEETS UD2.01 THROUGH UD2.03 FOR STORM DRAINAGE PLANS AND PROFILES.
- 6. SEE SHEETS UD5.02 AND UD5.03 FOR UNDERDRAIN DETAILS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY WITH SURVEY THE EXISTING CONDITIONS WHICH INCLUDE BUT ARE NOT LIMITED TO THE UTILITIES, STORM DRAINS, SANITARY SEWER SYSTEM, COMMUNICATION LINES AND DUCTS, POWER LINES AND DUCTS, ETC





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-DEL A REGIONAL AIRPORT OWER TAXIWAY ALPH TOPEKA TRUCT LC

O

REC

ISSUED FOR BID

SHEET TITLE

**TAXIWAY ECHO UNDERDRAIN** PLAN AND PROFILE **JANUARY 16, 2024** DATE

**KEY PLAN** 

HORIZONTAL SCALE 1"=50'

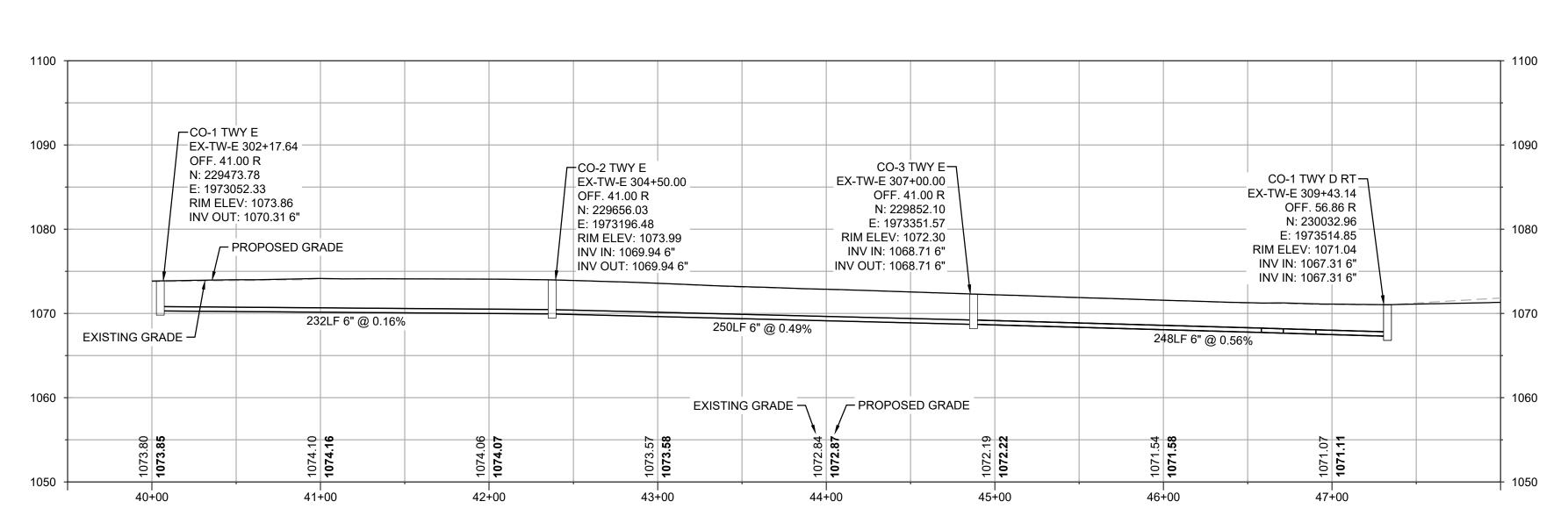
VERTICAL SCALE 1"=10'

1" = 50' SCALE DRAWN BY CHECKED BY GFR APPROVED BY TMS

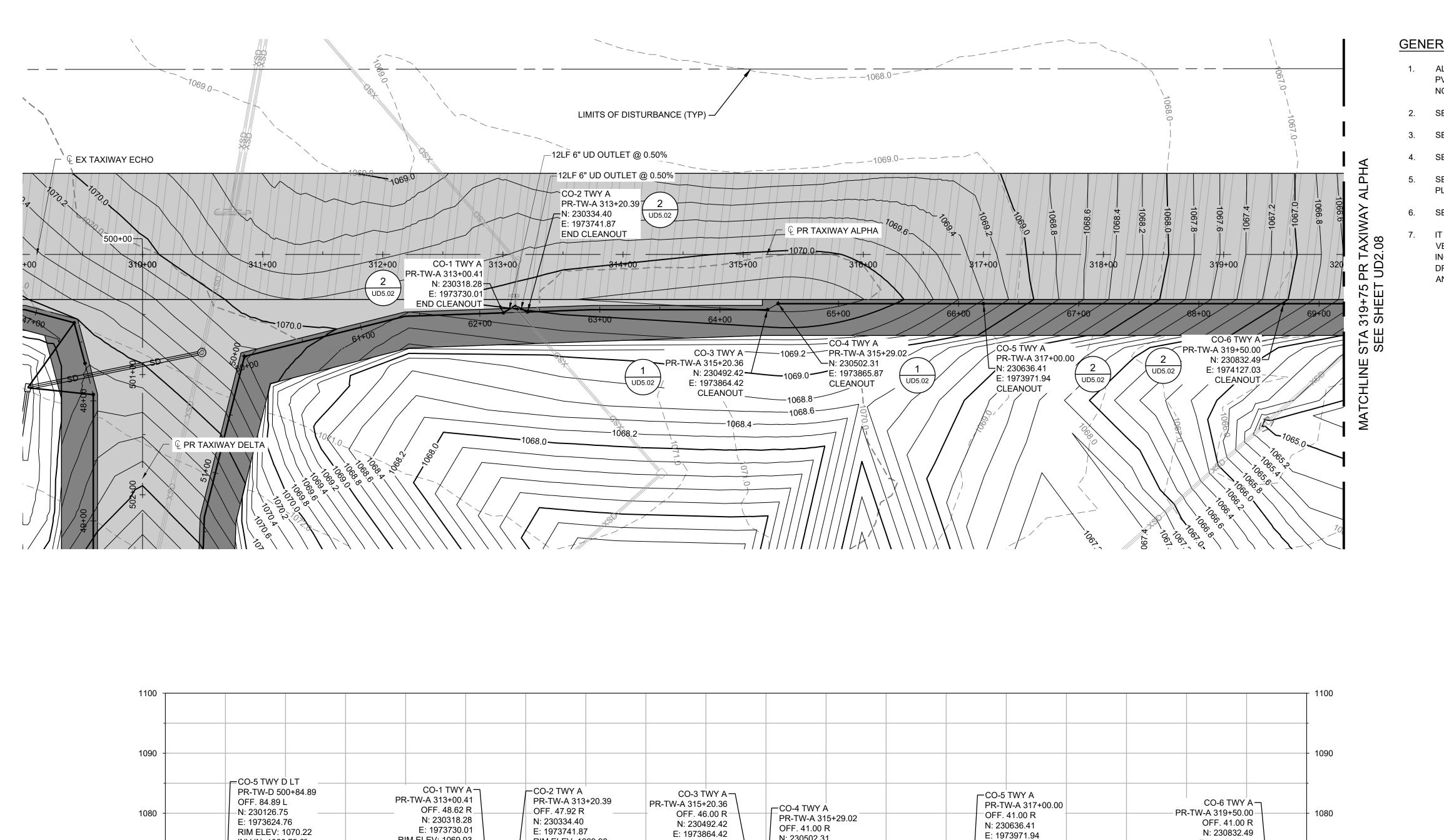
WSP PROJECT NUMBER 30900280J

**UD2.06** SHEET NUMBER

SHEET **51** OF 98



UNDR-SOUTH STA 40+00 TO 47+00



E: 1974127.03-

EXISTING GRADE -

1070

1050

RIM ELEV: 1066.98

INV IN: 1063.17 6"

−INV OUT: 1063.17 6"−

68+00

250LF 6" @ 0.95%

RIM ELEV: 1069.35

INV IN: 1065.56 6"

INV OUT: 1065.55 6"

67+00

- 1. ALL NON-OUTLET UNDERDRAIN PIPE WILL BE PERFORATED PVC. ALL OUTLET UNDERDRAIN PIPE WILL BE NON-PERFORATED PVC.
- 2. SEE CD SERIES FOR STORM DRAINAGE DEMOLITION.
- SEE CA1 SERIES FOR AIRFIELD GEOMETRY SITE PLANS.
- SEE CG SERIES FOR GRADING AND DRAINAGE PLANS.
- SEE SHEETS UD2.01 THROUGH UD2.03 FOR STORM DRAINAGE PLANS AND PROFILES.
- 6. SEE SHEETS UD5.02 AND UD5.03 FOR UNDERDRAIN DETAILS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY WITH SURVEY THE EXISTING CONDITIONS WHICH INCLUDE BUT ARE NOT LIMITED TO THE UTILITIES, STORM DRAINS, SANITARY SEWER SYSTEM, COMMUNICATION LINES AND DUCTS, POWER LINES AND DUCTS, ETC

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WSP USA INC LICENSE NO. E-447

-DEL

A REGIONAL AIRPORT OWER TAXIWAY ALPH TOPEKA TRUCT LC O REC

VERTICAL SCALE 1"=10'

**KEY PLAN** 

HORIZONTAL SCALE 1"=50'

ISSUED FOR BID

SHEET TITLE TAXIWAY ALPHA

UNDERDRAIN PLAN AND PROFILE SHEET 1 OF 2 **JANUARY 16, 2024** DATE

SCALE 1" = 50' DRAWN BY CHECKED BY APPROVED BY

WSP PROJECT NUMBER 30900280J

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

**UD2.07** SHEET NUMBER

SHEET **52** OF 98

GFR

TMS

UNDR-NORTH STA 57+00 TO 65+00

64÷00

RIM ELEV: 1070.22-

INV OUT: 1066.40 6"

-- 201LF 6" @ 0.20% --

EXISTING GRADE -

RIM ELEV: 1069.93

INV IN: 1065.99 6"

62÷00

220LF 6" @ 0.35%

61÷00

-- INV IN: 1066.75 6"

60+00

1070

1060

1050

INV OUT: 1066.75 6"

PROPOSED GRADE

RIM ELEV: 1069.98

INV IN: 1066.00 6"

63÷00

N: 230502.31

/- PROPOSED GRADE

E: 1973865.87

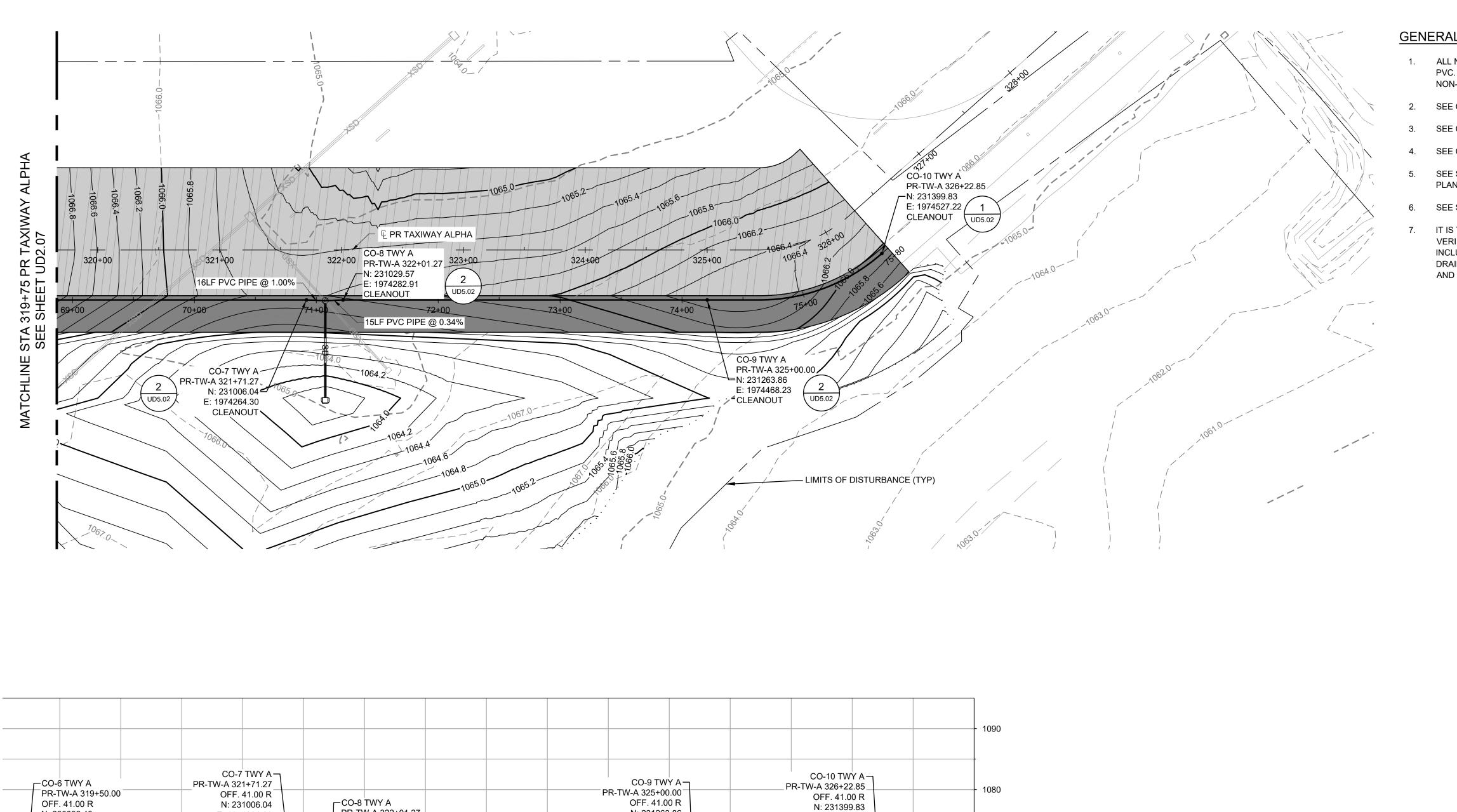
RIM ELEV: 1070.30

\_INV OUT: 1066.60 6"

65÷00

\_171LF 6" @ 0.61%-

66÷00



- 1. ALL NON-OUTLET UNDERDRAIN PIPE WILL BE PERFORATED PVC. ALL OUTLET UNDERDRAIN PIPE WILL BE NON-PERFORATED PVC.
- SEE CD SERIES FOR STORM DRAINAGE DEMOLITION.
- SEE CA1 SERIES FOR AIRFIELD GEOMETRY SITE PLANS.
- SEE CG SERIES FOR GRADING AND DRAINAGE PLANS.
- SEE SHEETS UD2.01 THROUGH UD2.03 FOR STORM DRAINAGE PLANS AND PROFILES.
- 6. SEE SHEETS UD5.02 AND UD5.03 FOR UNDERDRAIN DETAILS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY WITH SURVEY THE EXISTING CONDITIONS WHICH INCLUDE BUT ARE NOT LIMITED TO THE UTILITIES, STORM DRAINS, SANITARY SEWER SYSTEM, COMMUNICATION LINES AND DUCTS, POWER LINES AND DUCTS, ETC

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TOPEKA REGIONAL | BILLARD AIRPORT AIRPORT & BUSINESS CENTER

-DELT THOR A REGIONAL AIRPORT LOWER TAXIWAY ALPH **AIRPOR TOPEKA** TOPEKA TRUCT LC METROPOLITAN RECONS

ONSTRUC 6510 SE F TOF

ISSUED FOR BID VERTICAL SCALE 1"=10'

**KEY PLAN** 

HORIZONTAL SCALE 1"=50'

SHEET TITLE TAXIWAY ALPHA UNDERDRAIN PLAN AND PROFILE SHEET 2 OF 2

DATE SCALE APPROVED BY

1" = 50' DRAWN BY CHECKED BY GFR TMS

**JANUARY 16, 2024** 

WSP PROJECT NUMBER 30900280J

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

**UD2.08** SHEET NUMBER

SHEET **53** OF 98

UNDR-NORTH STA 66+00 TO 73+00

/- PROPOSED GRADE

E: 1974527.22\_

1070

1060

1050

1045

76+00

RIM ELEV: 1065.92

INV OUT: 1062.44 6"

153LF 6" @ 0.15%

75+00

N: 231263.86

74+00

E: 1974468.23

RIM ELEV: 1066.50

INV IN: 1062.21 6"

INV OUT: 1062.21 6"

EXISTING GRADE -

299LF 6" @ 0.15%

73+00

PR-TW-A 322+01.27

RIM ELEV: 1065.58

INV IN: 1061.76 6"

EXISTING GRADE

71+00

72+00

OFF. 41.00 R

N: 231029.57

E: 1974282.91

E: 1974264.30

RIM ELEV: 1065.51

INV IN: 1061.86 6"

PROPOSED GRADE

221LF 6" @ 0.59%

70+00

N: 230832.49

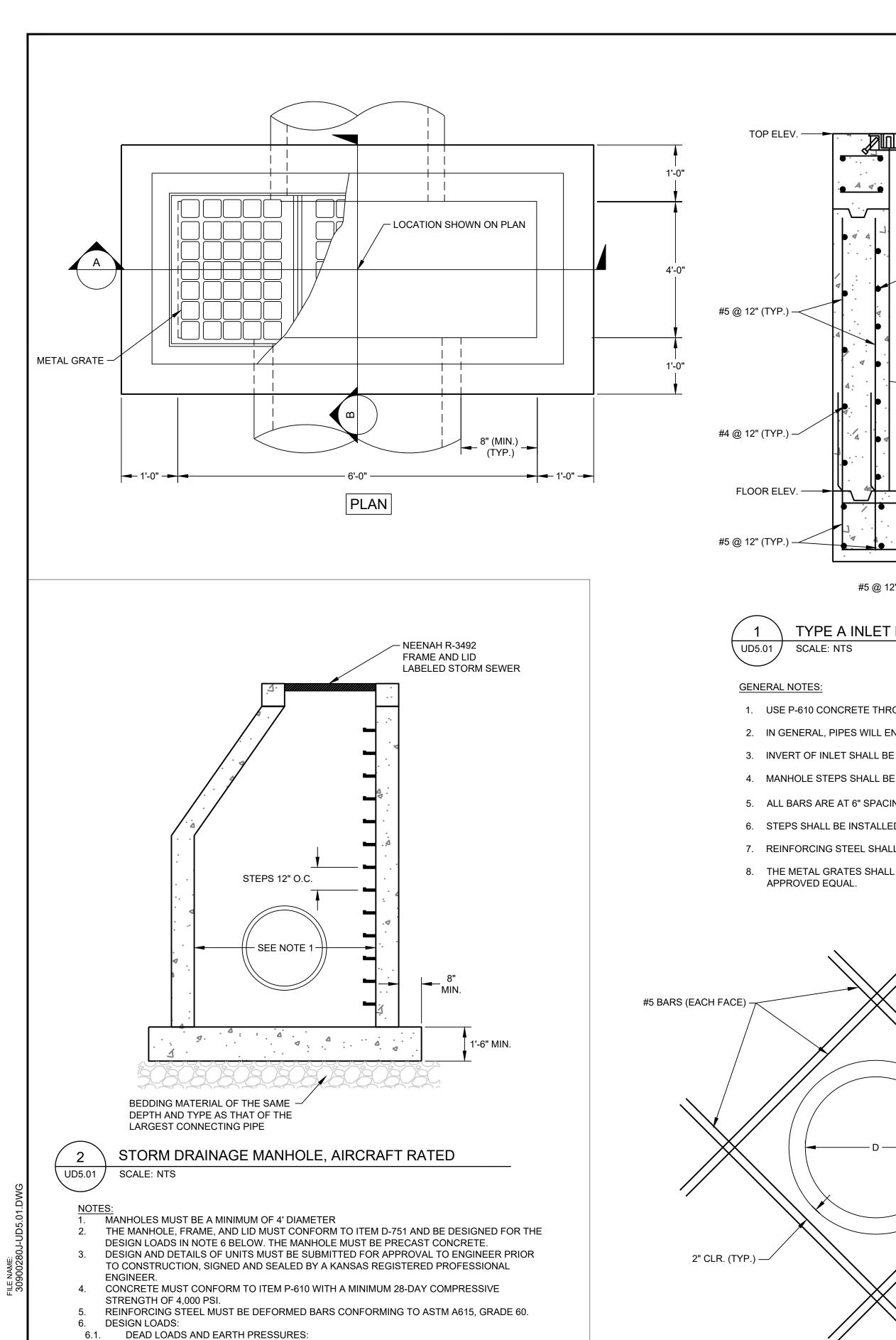
69<sup>+</sup>00

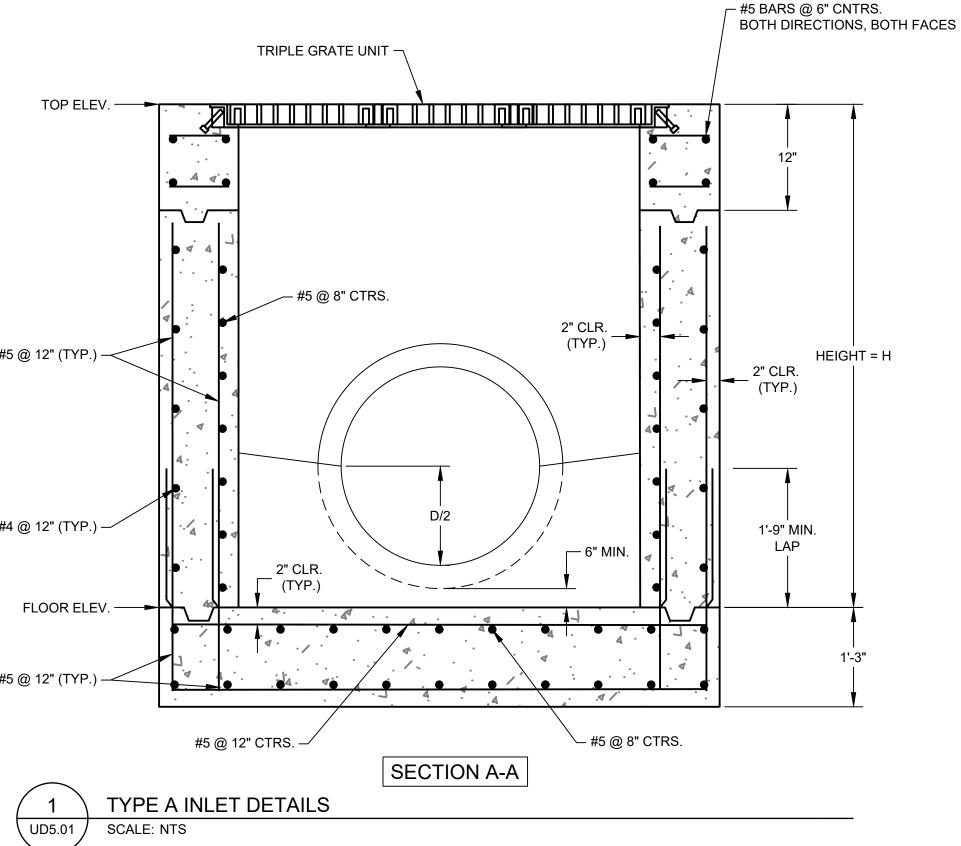
E: 1974127.03

RIM ELEV: 1066.98

\_INV OUT: 1063.17 6"

INV IN: 1063.17 6"





- 1. USE P-610 CONCRETE THROUGHOUT. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL.
- 2. IN GENERAL, PIPES WILL ENTER AND LEAVE THE MANHOLE AT VARIOUS POSITIONS. WHERE POSSIBLE BEND BARS AROUND PIPES.
- 3. INVERT OF INLET SHALL BE SHAPED AS SHOWN TO PROVIDE A SMOOTH FLOW.
- 4. MANHOLE STEPS SHALL BE PLACED TO AFFORD EASY ACCESS TO TOP OF SHAPED INVERT.
- 5. ALL BARS ARE AT 6" SPACING AND SHALL HAVE A MINIMUM CLEARANCE OF  $2\frac{1}{2}$ " UNLESS OTHERWISE NOTED ON THE PLANS.
- 6. STEPS SHALL BE INSTALLED IN ALL STORM SEWER INLETS.
- 7. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.

PIPE OPENING DETAIL

\* WALL REINFORCING STEEL SHALL BE CUT TO ALLOW 2" CLEARANCE WITH

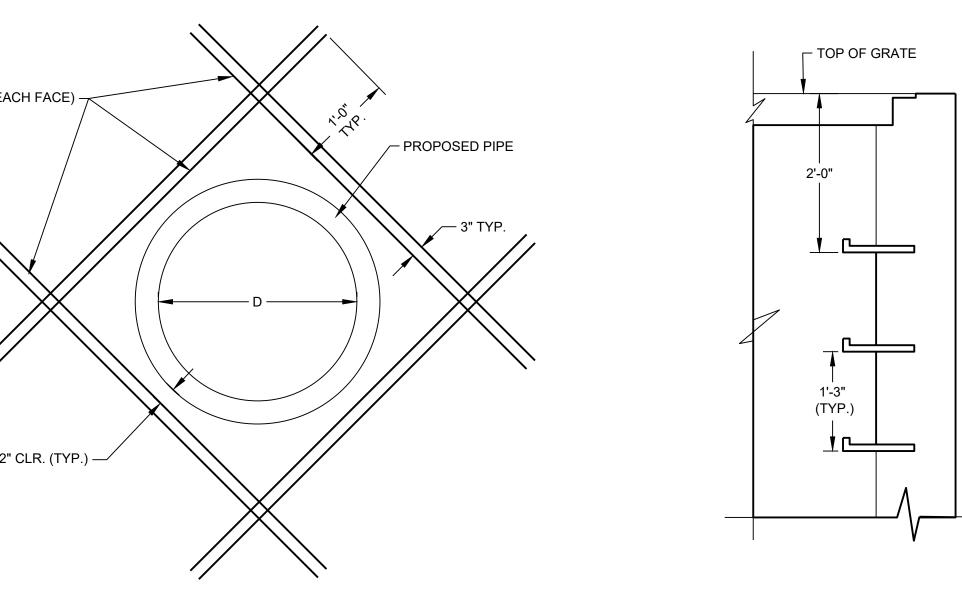
OPENING. DIAGONAL STEEL SHALL BE ADDED AS SHOWN, AND BENT AS

REQUIRED TO MAINTAIN 2" CLEARANCE TO CONCRETE FACE.

SCALE: NTS

UD5.01

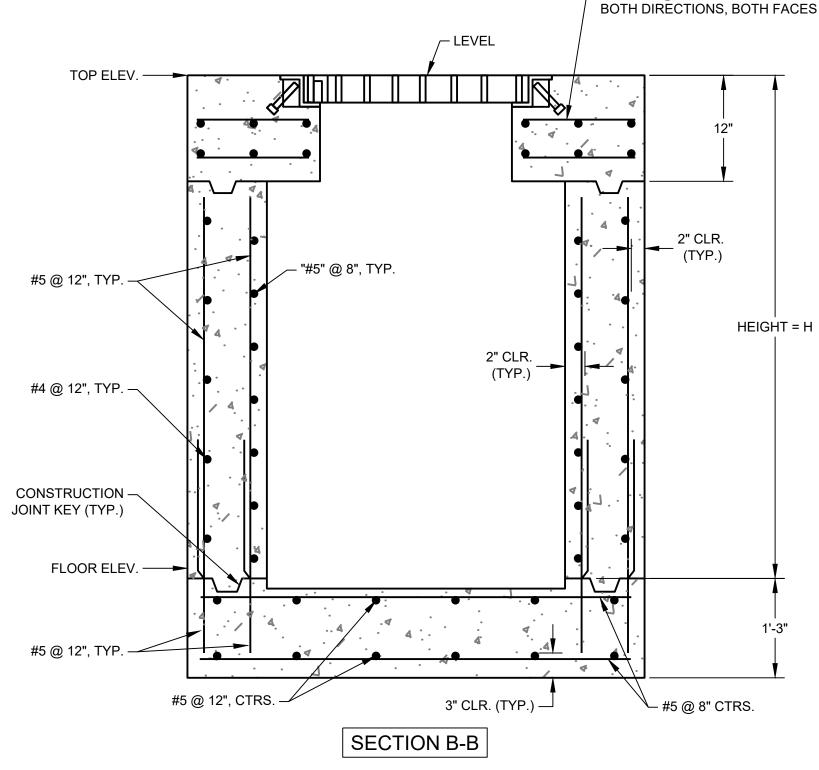
8. THE METAL GRATES SHALL BE NEENAH R-3475-G OR APPROVED EQUAL. THE MANHOLE STEPS SHALL BE NEENAH R-1981-J OR

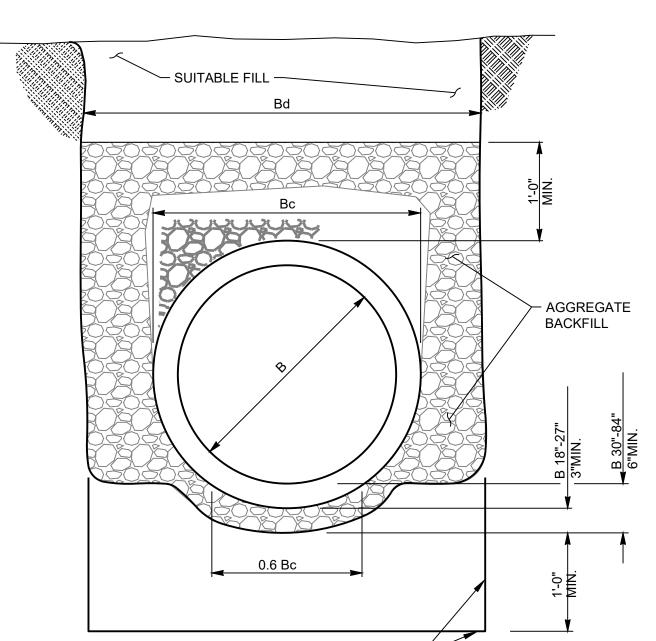




**INLET STEP DETAIL** SCALE: NTS

\* STEPS ARE REQUIRED WHEN "H" EXCEEDS 5'-0"





OVEREXCAVATE IN ROCK OR INCOMPRESSIBLE MATERIAL AND REPLACE WITH SUITABLE FILL PER FAA ITEM P-152. UNDERCUT WHERE DIRECTED BY ENGINEER.

TABLE OF DIMENSIONS							
В	Bd						
12"-36"	Bc+1'-6"						
39"-60"	Bc+2'-0"						
66"-96"	Bc+3'-0"						
108"-120"	Bc+4'-0"						

PIPE BEDDING DETAIL UD5.01 SCALE: NTS

THORI A REGIONAL AIRPORT OWER TAXIWAY ALPH **AIRPOR TOPEKA** METROPOLITAN

LICENSE NO. E-447

300 WYANDOTTE STREET, SUITE 200

**MTAA** 

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-DEL

KANSAS CITY, MO 64105 **T** 816-702-4300 **I** www.wsp.com

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ISSUED FOR BID

STORM DRAINAGE DETAILS

SHEET TITLE

**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY APPROVED BY SFS

WSP PROJECT NUMBER 30900280J

UD5.01 SHEET NUMBER

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

6.2. LIVE LOADS:

6.1.1. PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

8. CONTRACTOR MUST PROVIDE BOTTOM SHAPING OF ALL MANHOLES.

1,500,000 LB AIRCRAFT WITH TWO MAIN LANDING GEAR ASSEMBLIES, EACH

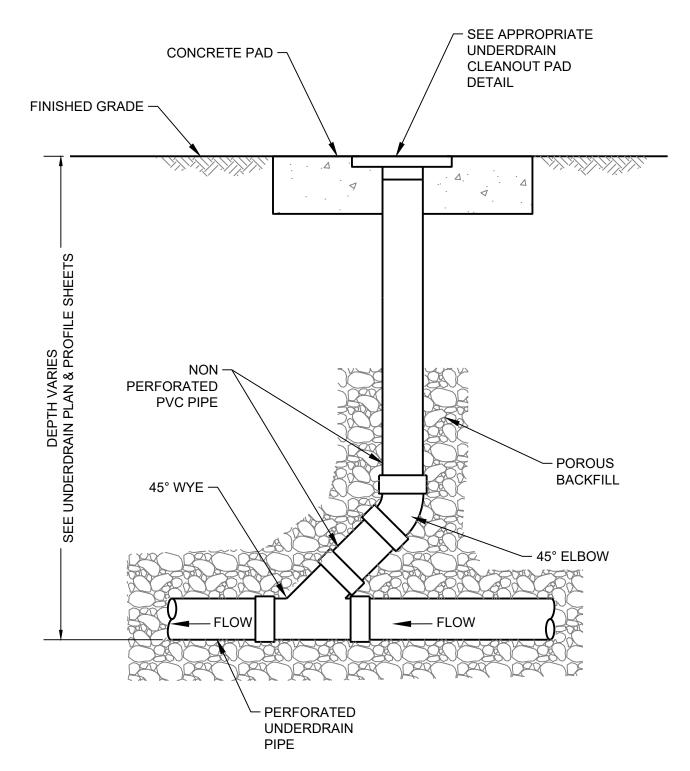
ALL STRUCTURES MUST BE PROVIDED WITH STEPS AT MAXIMUM SPACING OF 12".

CARRYING 50% OF AIRCRAFT GROSS WEIGHT. GEAR CONFIGURATION PER FAA AC

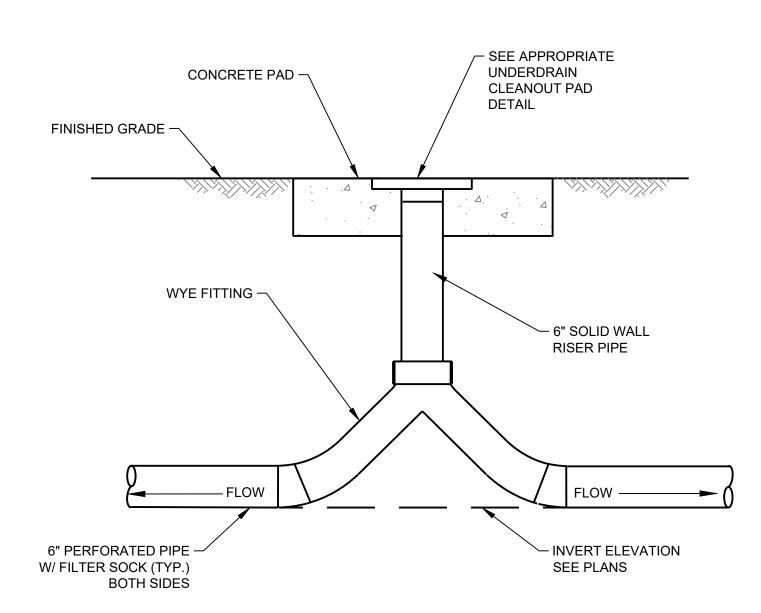
150/5320-5D. WHEEL LOADS ARE DISTRIBUTED OVER A RECTANGLE WITH SIDES EQUAL TO 1.75 TIMES THE DEPTH OF FILL PER FAA AC 150/5320-6F APPENDIX B.

SHEET **54** OF 98

1 UNDERDRAIN CLEANOUT, TYPE - I
UD5.02 SCALE: NTS

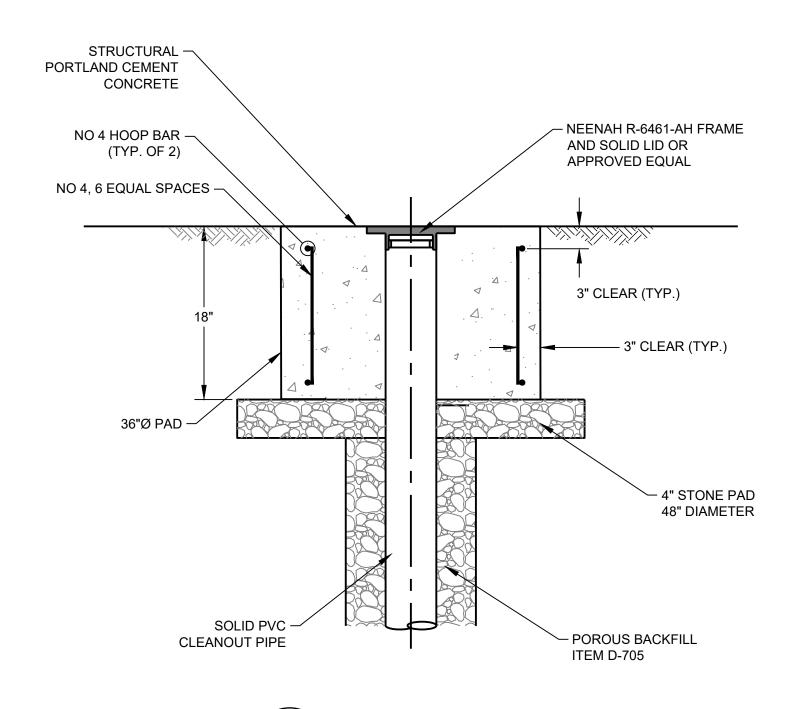


2 UNDERDRAIN CLEANOUT, TYPE - II
UD5.02 SCALE: NTS

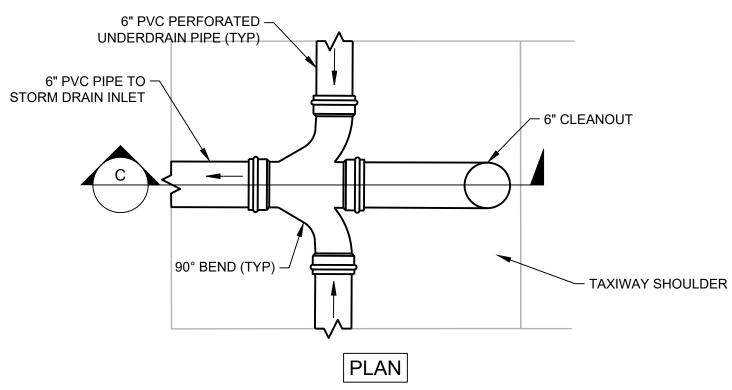


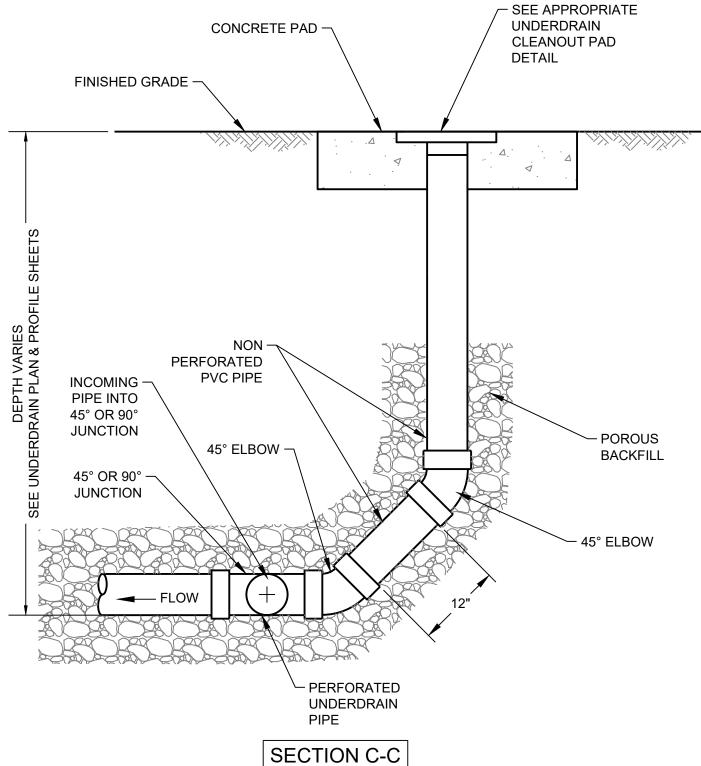
4 CO-LOCATED HIGH POINT UNDERDRAIN CLEANOUT

UD5.02 SCALE: NTS

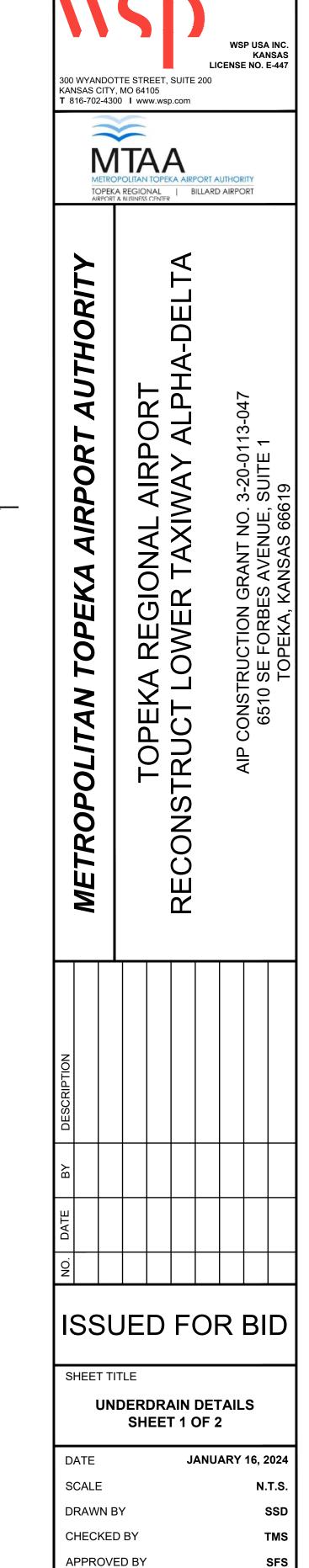


5 TYPICAL STRUCTURE CONNECTION
UD5.02 SCALE: NTS





3 UNDERDRAIN CLEANOUT, TYPE - III
UD5.02 SCALE: NTS



FILE NAME: 30000280 LI IDS 01 DW/G

PLOT DATE:

SHEET **55** OF 98

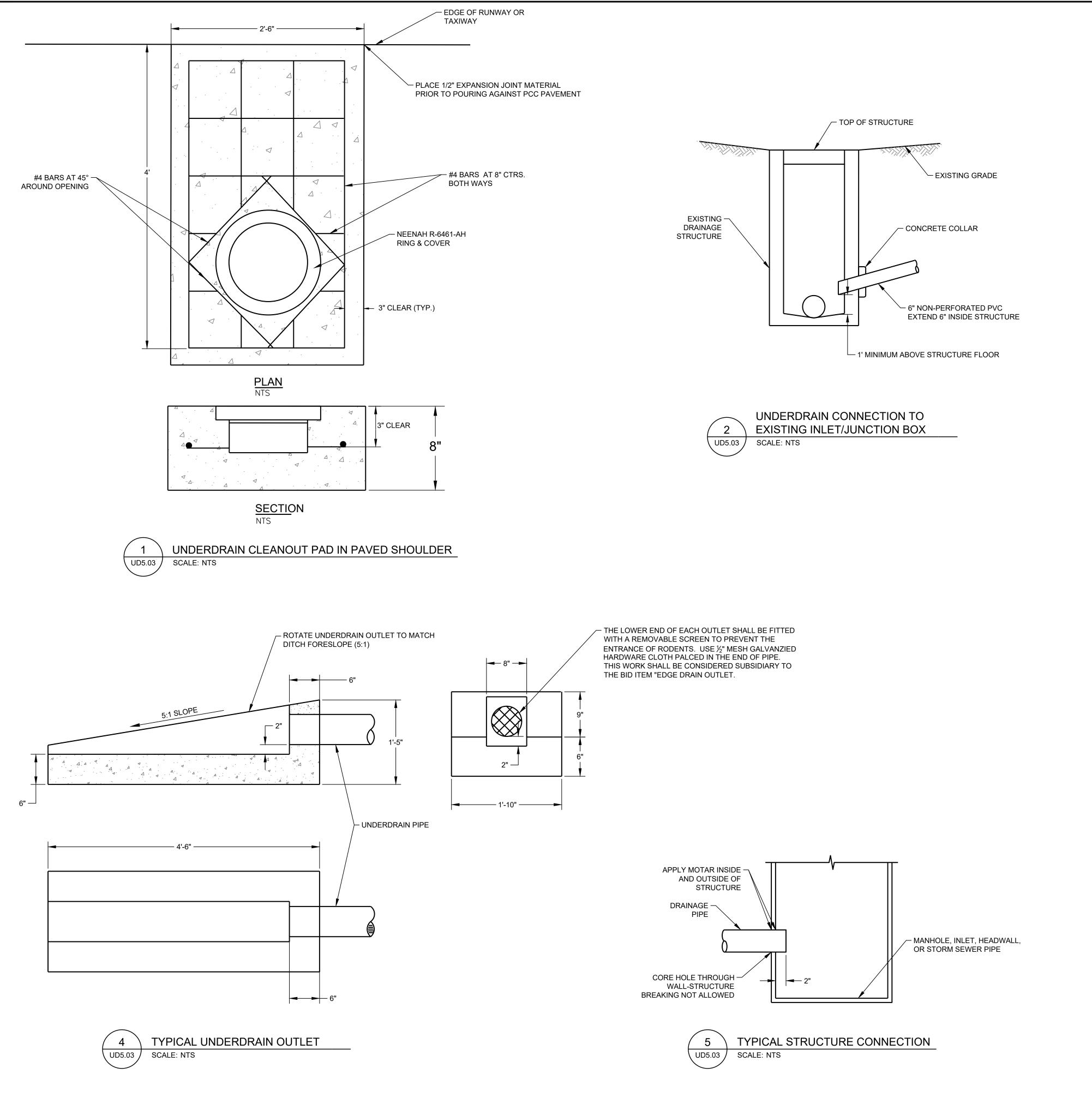
SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

SHEET NUMBER

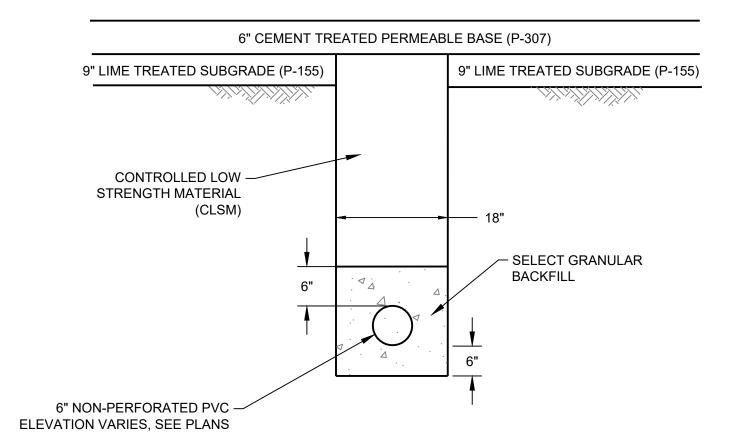
WSP PROJECT NUMBER

30900280J

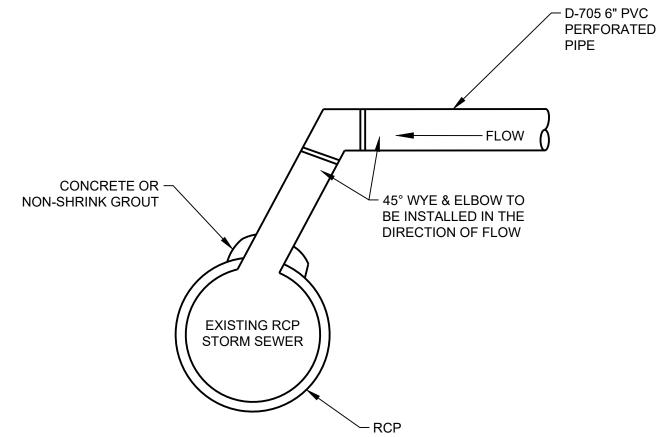
UD5.02







UNDERDRAIN PAVEMENT CROSSING UD5.03 SCALE: NTS



#### NOTES:

- 1. HOLE SHALL BE CUT IN TOP OF FILTER FABRIC FOR PLACEMENT OF RISER PIPE.
- 2. STANDARD MANUFACTURER FITTINGS SHALL BE USED TO CONNECT VERTICAL UNDERDRAINS TO 6" PVC UNDERDRAINS AND OUTLET PIPES.
- 3. ALL UNDERDRAIN CLEANOUT AND COLLECTION STRUCTURE COVERS SHALL BE BOLT DOWN TYPE.
- 4. INVERTS FROM OPPOSITE DIRECTIONS MAY NOT BE AT THE SAME ELEVATIONS AS SHOWN IN DETAIL 5 / UD5.02.
- 5. REFER TO DETAILS 6/UD5.01 AND 1/UD5.02 FOR UNDERDRAIN CLEANOUT PAD.
- 6. UNDERDRAIN MIGHT CONNECT TO STORM DRAIN PIPE OR EXISTING STORM INLET THROUGH SIDE WALL PENETRATION. ALL UNDERDRAIN CONNECTIONS TO EXISTING STORM DRAIN SYSTEM SHALL BE COORDINATED WITH THE ENGINEER DURING CONSTRUCTION.

UD5.03 /

UNDERDRAIN CONNECTION TO STORM DRAIN PIPE SCALE: NTS

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**TOPEKA** 

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SHEET TITLE **UNDERDRAIN DETAILS** 

**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY

SHEET 2 OF 2

WSP PROJECT NUMBER 30900280J

**UD5.03** SHEET NUMBER

SHEET **56** OF 98

SFS

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FERTILIZER: A RATIO AND APPLICATION RATE THAT EQUALS OR EXCEEDS THE REQUIRED MINIMUM RATE PER ACRE OF N, P<sub>2</sub> O<sub>5</sub>, K<sub>2</sub> O LISTED IN SUMMARY OF QUANTITIES WILL BE

- \* N = NITROGEN RATE OF APPLICATION
- \*\*  $P_2 O_5$  = PHOSPHOROUS RATE OF APPLICATION
- \*\*\* K2 O = POTASSIUM RATE OF APPLICATION

THE CONTRACTOR WILL BE REQUIRED TO FINISH AREAS OF EXCAVATION, BORROW AND EMBANKMENT IN ACCORDANCE WITH THE SPECIFICATIONS. AREAS THAT REQUIRE INSTALLATION OR CONSTRUCTION OF TEMPORARY WATER POLLUTION CONTROL ITEMS WILL BE FINISHED IN REASONABLE CLOSE CONFORMITY TO THE ALIGNMENT, GRADE AND CROSS SECTION SHOWN ON THE PLANS OR AS ESTABLISHED BY THE ENGINEER.

CLT = CONSTRUCTION LIMIT TRACT. THIS AREA IS DEFINED BY THE ENTIRE DISTURBED AREA OF THE PROJECT THAT REQUIRES SEEDING AND EROSION CONTROL MEASURES TO BE PLACED. ANY IMPERVIOUS AREAS (I.E. PAVEMENT, GRAVEL, RIPRAP, ETC.) SHALL NOT BE INCLUDED IN THIS MEASUREMENT.

SLOPE = DEFINED BY THE AREA OF THE PROJECT THAT REQUIRES CLASS 1 EROSION CONTROL MATERIAL TO BE PLACED. THIS AREA SHALL BE SEEDED USING THE SOIL EROSION MIX PRIOR TO PLACEMENT OF THE MATERIAL. DRILLING SEED IS PREFERRED, HOWEVER, BROADCASTING IS ACCEPTABLE IF DRILLING IS NOT POSSIBLE.

CHANNEL = DEFINED BY THE AREA OF THE PROJECT THAT REQUIRES CLASS 2 EROSION CONTROL MATERIAL TO BE PLACED. THIS AREA SHALL BE SEEDED USING THE SOIL EROSION MIX PRIOR TO PLACEMENT OF THE MATERIAL. DRILLING SEED IS PREFERRED, HOWEVER, BROADCASTING IS ACCEPTABLE IF DRILLING IS NOT POSSIBLE.

#### **GENERAL NOTES**

THE ENTIRE DISTURBED AREA, EXCEPTING THE PAVED OR SURFACED AREAS, STEEP ROCKY SLOPES AND AREAS OF UNDISTURBED NATIVE SOD OR OTHER DESIRABLE VEGETATION SHALL BE FERTILIZED (LIMED WHEN REQUIRED), SEEDED, AND MULCHED. SOIL PREPARATION SHALL CONFORM TO THE STANDARD SPECIFICATIONS.

TEMPORARY SEEDING SHALL BE DONE DURING ANY TIME OF THE YEAR THAT THE SOIL CAN BE CULTIVATED. AFTER THE TEMPORARY SEEDING HAS BEEN COMPLETED ON THE ENTIRE PROJECT. PERMANENT SEEDING SHALL BE DONE DURING THE NORMAL SEEDING SEASON.

MULCHING: MULCH SHALL BE SPREAD UNIFORMLY OVER ALL DISTURBED AREAS AND PUNCHED IN THE SOIL, UNLESS OTHERWISE NOTED ON THE PLANS. THE RATE OF APPLICATION PER ACRE, THICKNESS IN PLACE, FOR THE MULCHING MATERIALS IS AS FOLLOWS:

 $1\frac{3}{4}$  -  $2\frac{1}{4}$  TONS PER ACRE =  $1\frac{1}{2}$  LOOSE DEPTH SPREAD UNIFORMLY OVER ACRE.

AGRICULTURAL PRODUCTS, SUCH AS NATIVE PRAIRIE HAY, USED FOR MULCHING AND EROSION CONTROL PRACTICES, EXCLUDING WOOD BASED MULCH, SHALL MEET THE NORTH AMERICAN WEED FREE FORAGE STANDARDS.

OTHER VEGETATIVE MULCHES ARE ACCEPTABLE ONLY WITH THE ENGINEER'S CONCURRENCE.

THE ABOVE RATE IS A GUIDE. IT WILL BE AT THE DISCRETION OF THE ENGINEER TO DETERMINE WHAT RATE IS SUFFICIENT FOR ADEQUATE PROTECTION OF NEWLY SEEDED AREAS.

THE AMOUNT OF MULCH AND MULCH TACKING SLURRY IN THE BID QUANTITIES IS ESTIMATED. THE TOTAL MULCH AND MULCH TACKING SLURRY REQUIRED SHALL BE DETERMINED IN THE FIELD. THE BID ITEM FOR MULCHING AND MULCH TACKING SLURRY SHALL BE PAID FOR ACCORDING TO THE STANDARD SPECIFICATIONS.

			SU	IMMARY OF SEEDING QUANTITIES		
P.L.S. RA	TE/ACRE	AC	RES	DID ITTLE	OLIANITITY (	
CLT	SL/CH	CLT	SL/CH	- BID ITEM	QUANTITY	UNIT
150		42.85		TEMPORARY FERTILIZER ( * - ** - *** )	6,428	LB
20		42.85		TEMPORARY SEED (CANADA WILDRYE)	857	LB
45		42.85		TEMPORARY SEED (GRAIN OATS)	1,928	LB
45		42.85		TEMPORARY SEED (STERILE WHEATGRASS)	1,928	LB
				SOIL EROSION MIX		LB
				AGRICULTURAL LIMESTONE		TON
				TEMPORARY BERM (SET PRICE)	1	LF
				TEMPORARY SLOPE DRAIN		LF
				TEMPORARY STREAM CROSSING		EACH
				TEMPORARY INLET SEDIMENT BARRIER		EACH
				SILT FENCE		LF
				BIODEGRADABLE LOG (****)		LF
				SYNTHETIC SEDIMENT BARRIER		LF
				FILTER SOCK (****)		LF
				TEMPORARY DITCH CHECK (ROCK)		CU YD
				TEMPORARY SEDIMENT BASIN		CU YD
				SEDIMENT REMOVAL (SET PRICE)	1	CU YD
				SWPPP DESIGN À	LUMP SUM	LS
				SWPPP INSPECTION À		EACH
				WATER POLLUTION CONTROL MANAGER À		EACH
				EROSION CONTROL (CLASS 1, TYPE Y)		SQ YD
				EROSION CONTROL (CLASS 2, TYPE Y)		SQ YD
900 LBS	/ ACRE	42.85		MULCH TACKING SLURRY	38,565	LB
2 TONS	/ ACRE	42.85		MULCHING (TEMPORARY)	86	TON
				WATER (EROSION CONTROL) (SET PRICE)	1	MGAL

NOTE: PROJECTS LESS THAN 1 ACRE SHALL BE BID AS "SEEDING" BY THE LUMP SUM. ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED AT THE LISTED RATE PER ACRE. THE ACRES ARE ESTIMATED.

IF THE TOTAL DISTURBED AREA OF THE PROJECT, NOT JUST THE SEEDING AREA, IS 1 ACRE OR MORE, THEN THESE BID ITEMS MUST BE INCLUDED.

REGREEN AND QUICK GUARD ARE THE APPROVED STERILE WHEATGRASS PRODUCTS.

\*\*\*\* LIST SIZE OF MATERIAL.

S	SOIL EROSION MIX											
PLS RATE	NAME	QTY (LB)										
	TOTAL (LB)											

THE SOIL EROSION MIX IS TO BE PLACED UNDER THE CLASS 1 AND CLASS 2 (IF USED) EROSION CONTROL MATERIAL.

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SHEET TITLE

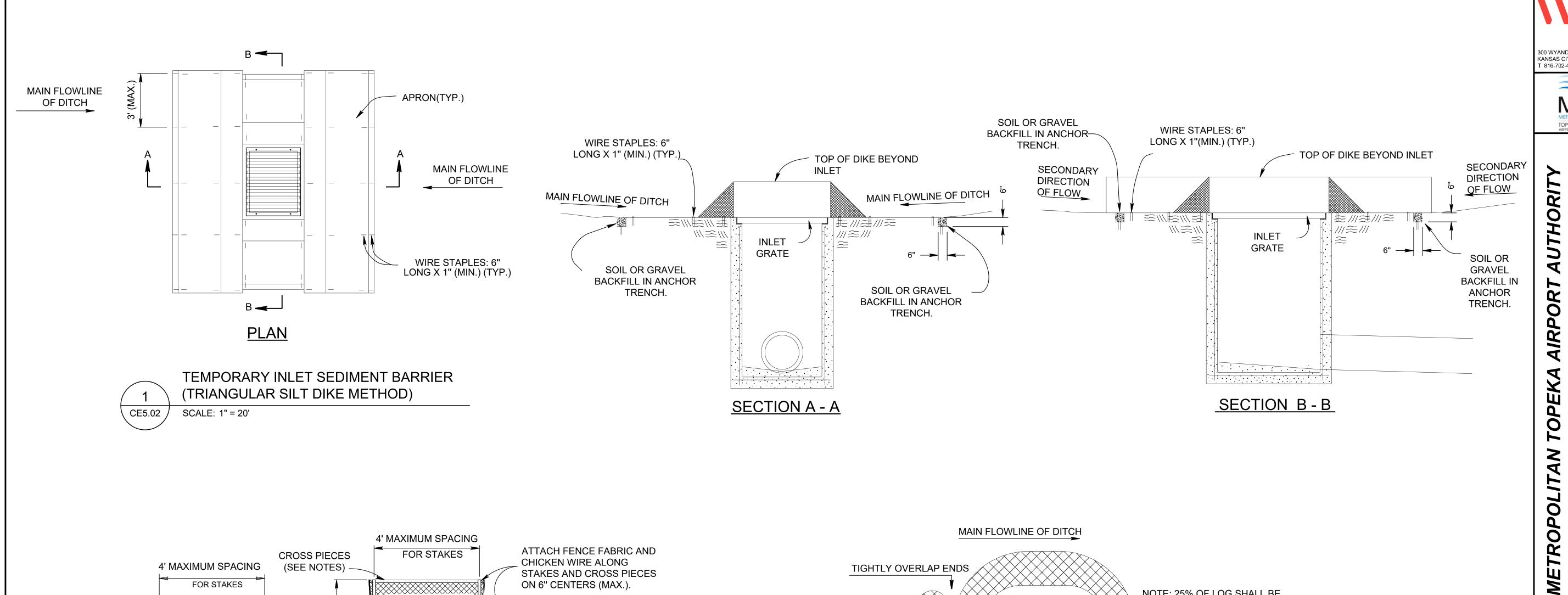
**TEMPORARY EROSION CONTROL** DETAILS SHEET 1 OF 5

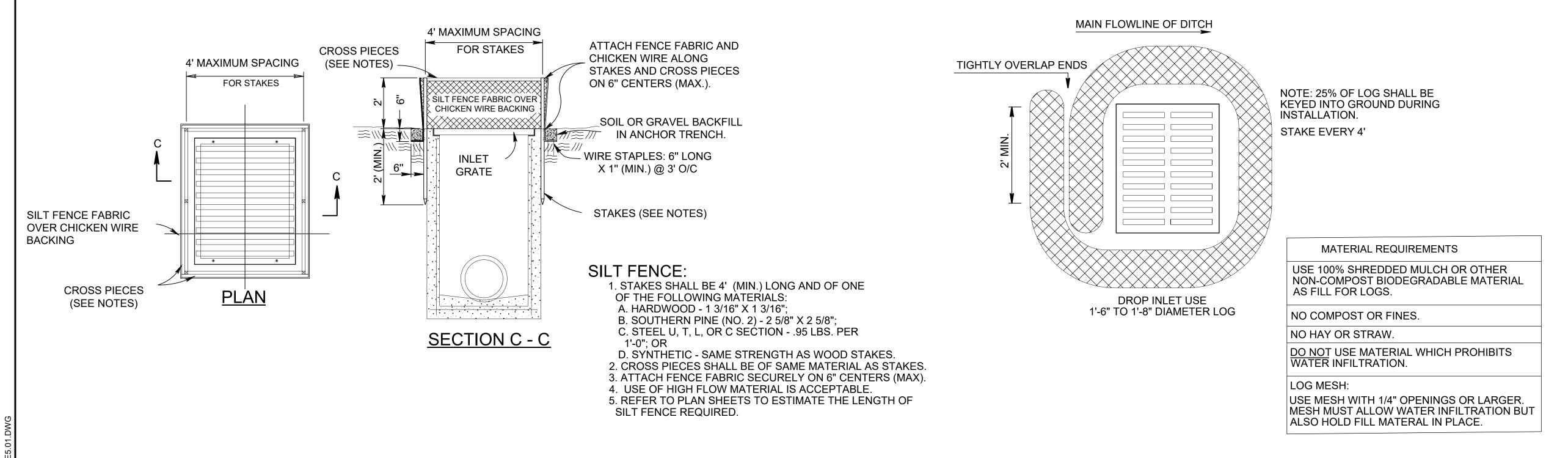
**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY APPROVED BY SFS

WSP PROJECT NUMBER 30900280J

CE5.01 SHEET NUMBER

SHEET **57** OF 98







BIODEGRADABLE LOG/FILTER SOCK DROP INLET PROTECTION CE5.02 / SCALE: 1" = 20'

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ALPHA-DELTA A REGIONAL AIRPORT LOWER TAXIWAY ALPI RECONS

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**TEMPORARY EROSION CONTROL DETAILS SHEET 2 OF 5** 

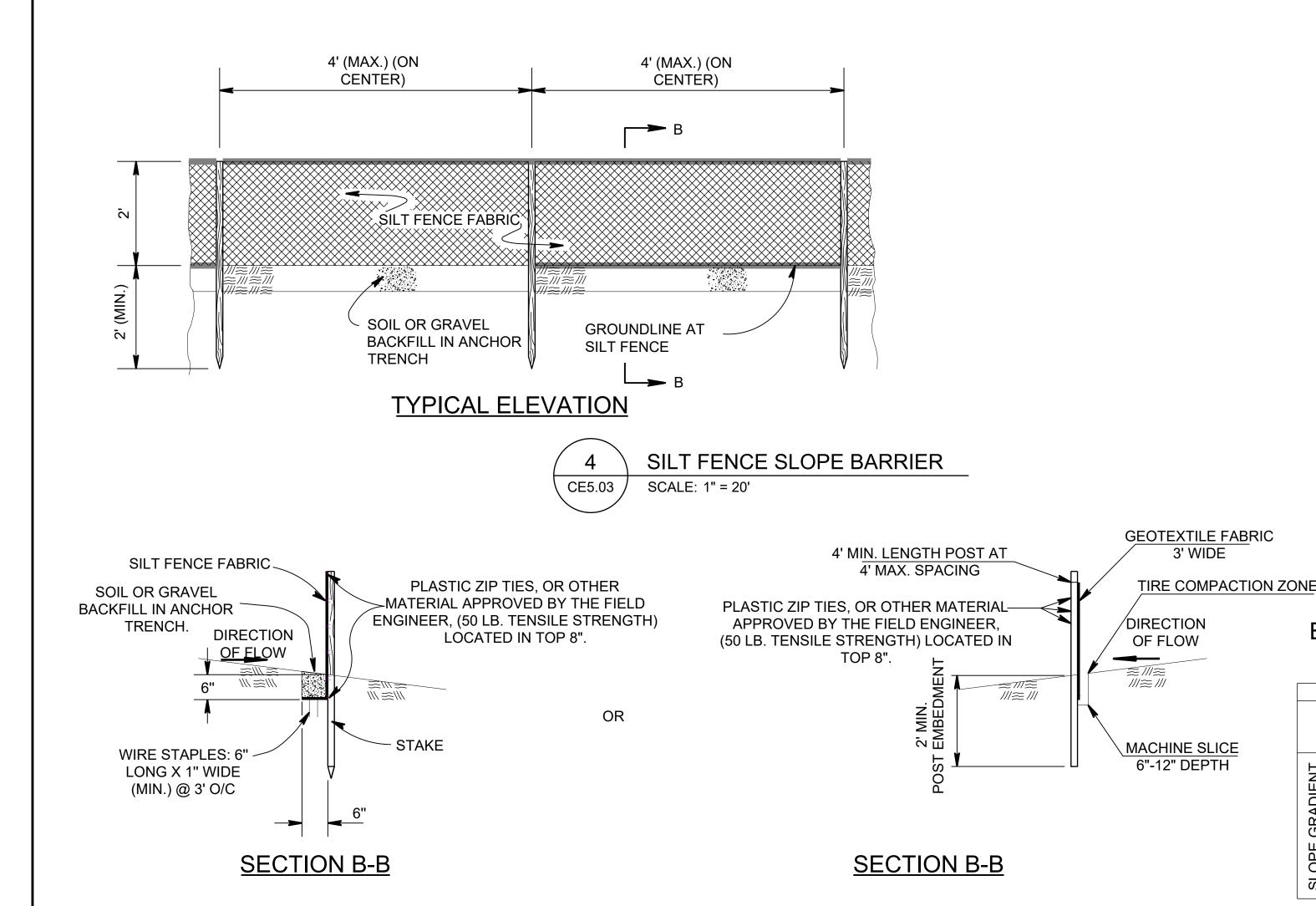
**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY APPROVED BY SFS

WSP PROJECT NUMBER 30900280J

**CE5.02** SHEET NUMBER

SHEET **58** OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET



#### 4' (MAX.) STAKES (TYP.) BIODEGRADABLE LOG SECTION DIRECTION OF FLOW ///≘/// *///≅///* ≈///≈ $/// \approx //$ 1/4H TYPICAL ELEVATION SECTION A - A BIODEGRADABLE LOG SLOPE BARRIER

SCALE: 1" = 20'

CE5.03

#### **INSTALLATION NOTES**

#### SILT FENCE:

- 1. STAKES SHALL BE 4'(MIN.) LONG AND OF ONE OF THE FOLLOWING MATERIALS:
- A. HARDWOOD 1<sup>3</sup>/<sub>16</sub>" X 1<sup>3</sup>/<sub>16</sub>";
- B. SOUTHERN PINE (NO. 2) 2\%" X 2\%"
- 2. CROSS PIECES SHALL BE OF SAME MATERIAL AS STAKES.
- 3. ATTACH FENCE FABRIC SECURELY ON 6" CENTERS (MAX.).
- 4. USE OF HIGH FLOW MATERIAL IS ACCEPTABLE.
- 5. REFER TO PLAN SHEETS TO ESTIMATE THE LENGTH OF SILT FENCE REQUIRED

#### **BIODEGRADABLE LOG BARRIERS**

- 1. PLACE BIODEGRADABLE LOGS TIGHTLY TOGETHER.
- 2. WOOD STAKES SHALL BE 2" X 2" (NOM.).
- 3. WIRE STAPLES SHALL BE 6" LONG X 1" WIDE (MIN.) AND PLACED ON 4' (MAX.) CENTERS.
- 4. REFER TO PLAN SHEETS TO ESTIMATE LENGTH OF BIODEGRADABLE LOG BARRIERS REQUIRED.
- 5. LOGS SHOULD BE KEYED INTO THE GROUND AT A MINIMUM OF 25% OF ITS HEIGHT. 6. LENGTH OF STAKES SHOULD BE 2 TIMES THE HEIGHT OF THE LOG AT A MINIMUM.

### BIODEGRADABLE LOGS, STRAW WATTLES & SEDIMENT LOGS

		a cerm					
		PRO	DUCT			BIODEG	RADABLE LOG MATERIAL
		9" SEDIMENT LOG	12" SEDIMENT LOG	20" SEDIMENT LOG		LOW FLOW	HIGH FLOW
			·	& 20" STRAW WATTLE	9"	STRAW/COMPOST	EXCELSIOR/WOOD CHIPS/COCONUT FIBER
		(FT)	(FT)	80 (FT)	12"	STRAW/COMPOST	EXCELSIOR/WOOD CHIPS/COCONUT FIBER
ADIENT	4H:1V	40	60		18"-20"	STRAW/COMPOST	EXCELSIOR/WOOD CHIPS/COCONUT FIBER
GRADII	3H:1V	30	45	60			
Ш	2H:1V	20	30	40			
SLOP	1H:1V	10	15	20			

9" AND 12" MATERIAL SHOULD ONLY BE USED IN AREAS WHICH HAVE BEEN SEEDED AND MULCHED. 20" MATERIAL SHOULD BE USED IN ALL OTHER AREAS.

DEVIATIONS SHOULD BE APPROVED BY THE FIELD ENGINEER.

#### **GENERAL NOTES**

- 1) THE SLOPE BARRIERS SHALL BE PLACED ALONG CONTOUR LINES. WITH A SHORT SECTION TURNED UPGRADE AT EACH END OF THE BARRIER. THE MAXIMUM LENGTH OF THE SLOPE BARRIER SHALL NOT EXCEED 250 FEET, AND THE BARRIER ENDS NEED TO BE STAGGERED.
- 2) AT CULVERTS, THE SILT FENCE SHALL BE PLACED OVER THE CULVERT, NOT THROUGH THE STREAMBED FLOWLINE.
- 3) BARRIERS DAMAGED BY CONTRACTOR'S NEGLIGENCE, INCLUDING IMPROPER MAINTENANCE OR LACK OF MAINTENANCE, SHALL BE REPAIRED IMMEDIATELY BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER
- 4) AGRICULTURAL PRODUCTS, SUCH AS NATIVE PRAIRIE HAY, USED FOR MULCHING AND EROSION CONTROL PRACTICES, EXCLUDING WOOD BASED MULCH, SHALL MEET THE NORTH AMERICAN WEED FREE FORAGE STANDARDS.
- 5) THE CHOICE OF DITCH CHECK METHODS IS AT THE OPTION OF THE CONTRACTOR.
- 6) DITCH CHECKS DAMAGED BY CONTRACTOR'S NEGLIGENCE, INCLUDING IMPROPER MAINTENANCE OR LACK OF MAINTENANCE, SHALL BE REPAIRED BY CONTRACTOR AT NO EXTRA COST TO OWNER

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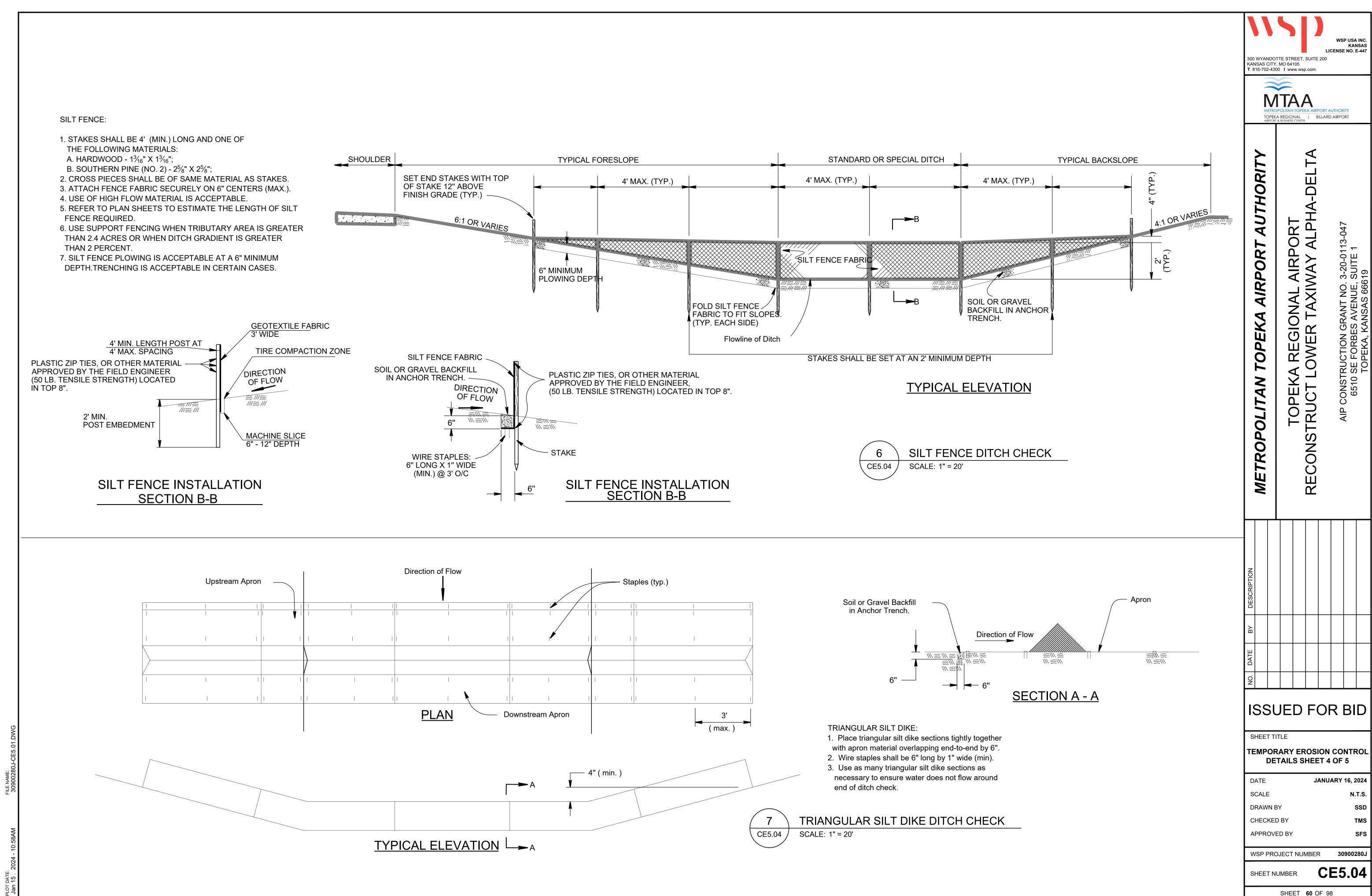
**TEMPORARY EROSION CONTROL DETAILS SHEET 3 OF 5** 

**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY APPROVED BY SFS

WSP PROJECT NUMBER 30900280J

CE5.03 SHEET NUMBER

SHEET **59** OF 98

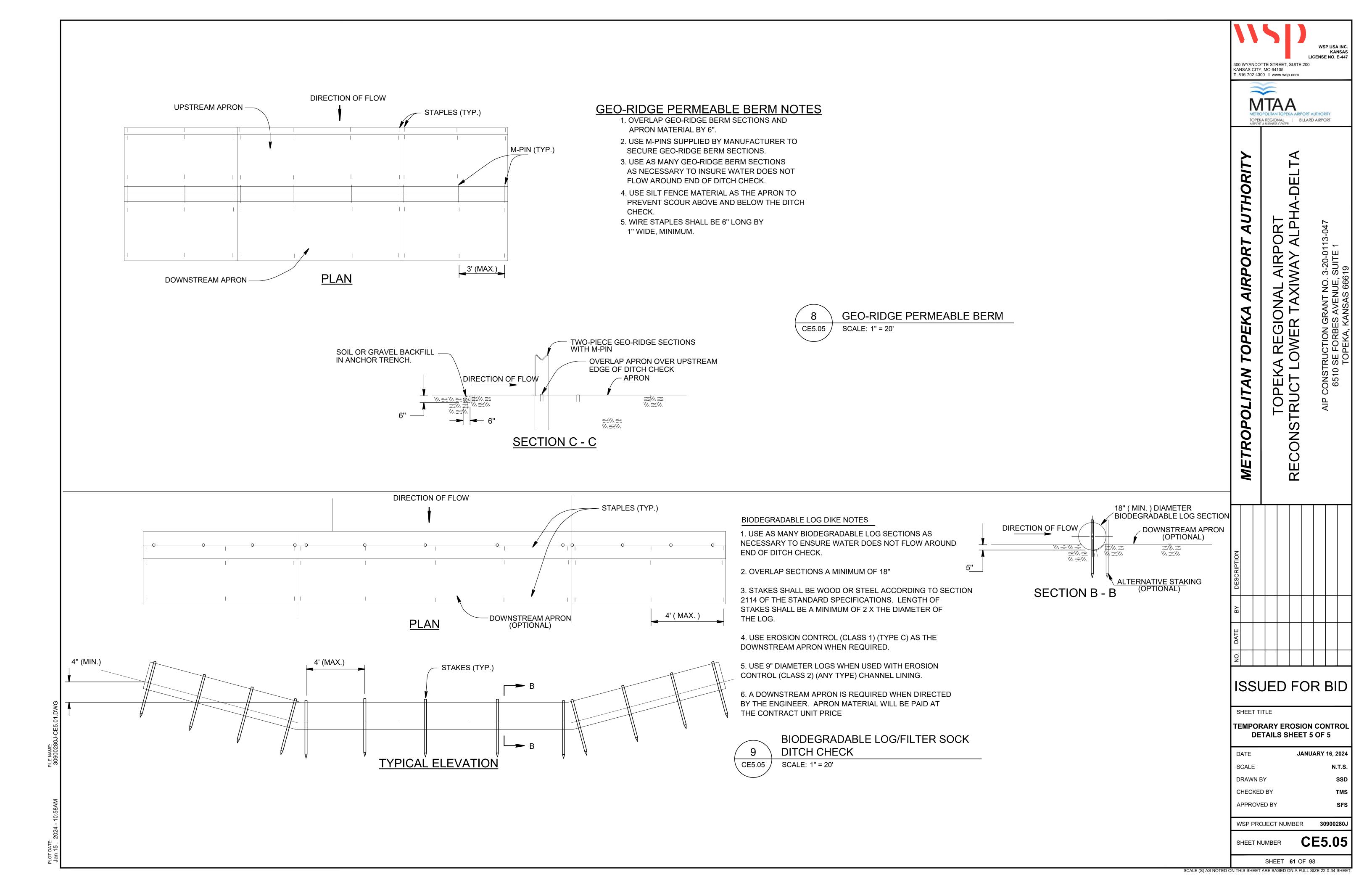


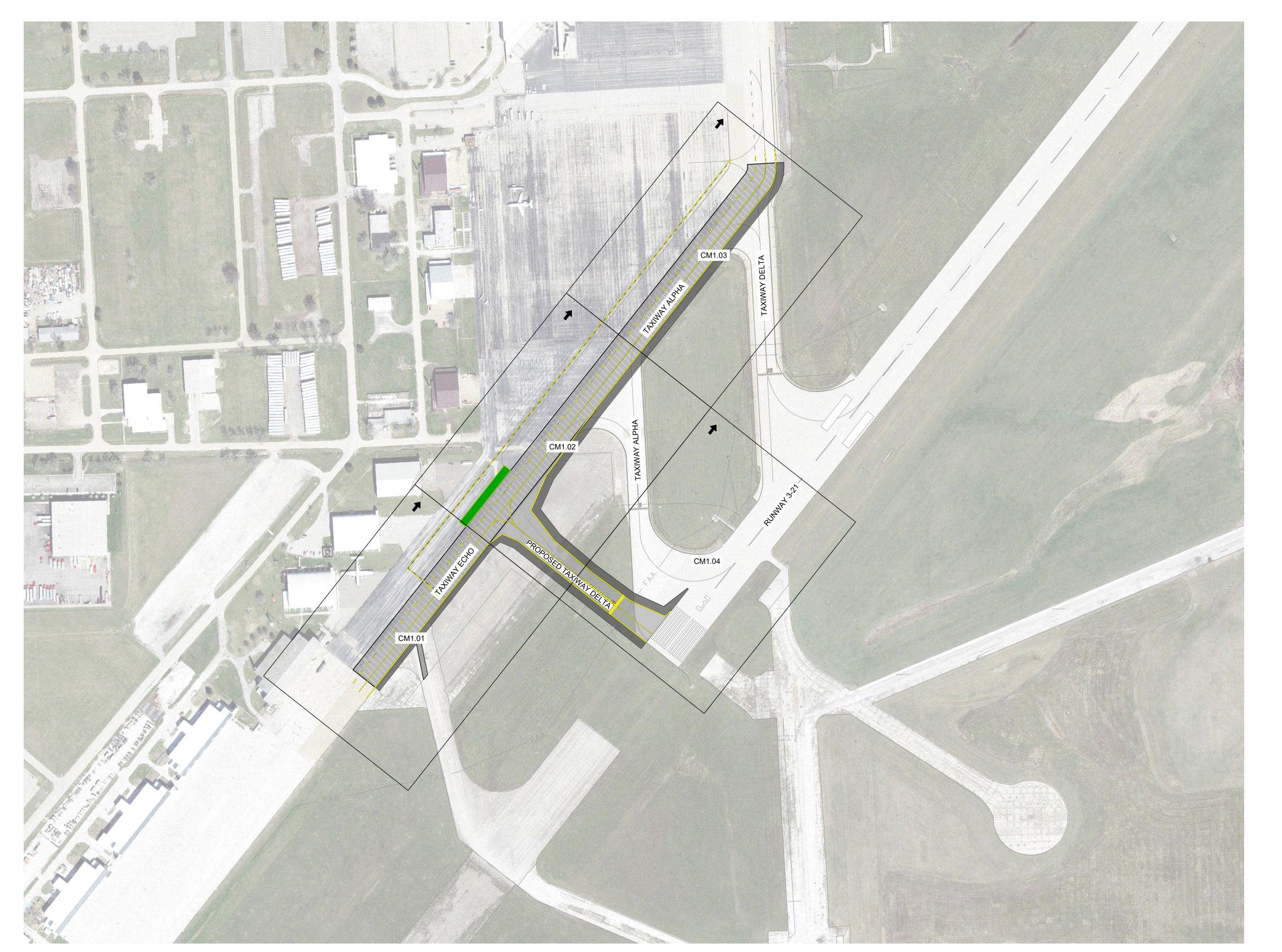
SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

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30900280J

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ARROW POINTS IN DIRECTION OF ORIENTATION OF SHEET

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METROPOLITAN TOPEKA AIRPORT AUTHORITY
TOPEKA REGIONAL
AIRPORT A BIJSINESS CENTER

BILLARD AIRPORT

## TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA **AIRPORT AUTHORITY** TOPEKA METROPOLITAN

DESCRIPTION					
ВҮ					
NO. DATE					
NO.					

ISSUED FOR BID

SHEET TITLE

0 100' 200' 400' HORIZONTAL SCALE 1"=200'

AIRFIELD PAVEMENT MARKING **KEY PLAN** 

SCALE DRAWN BY

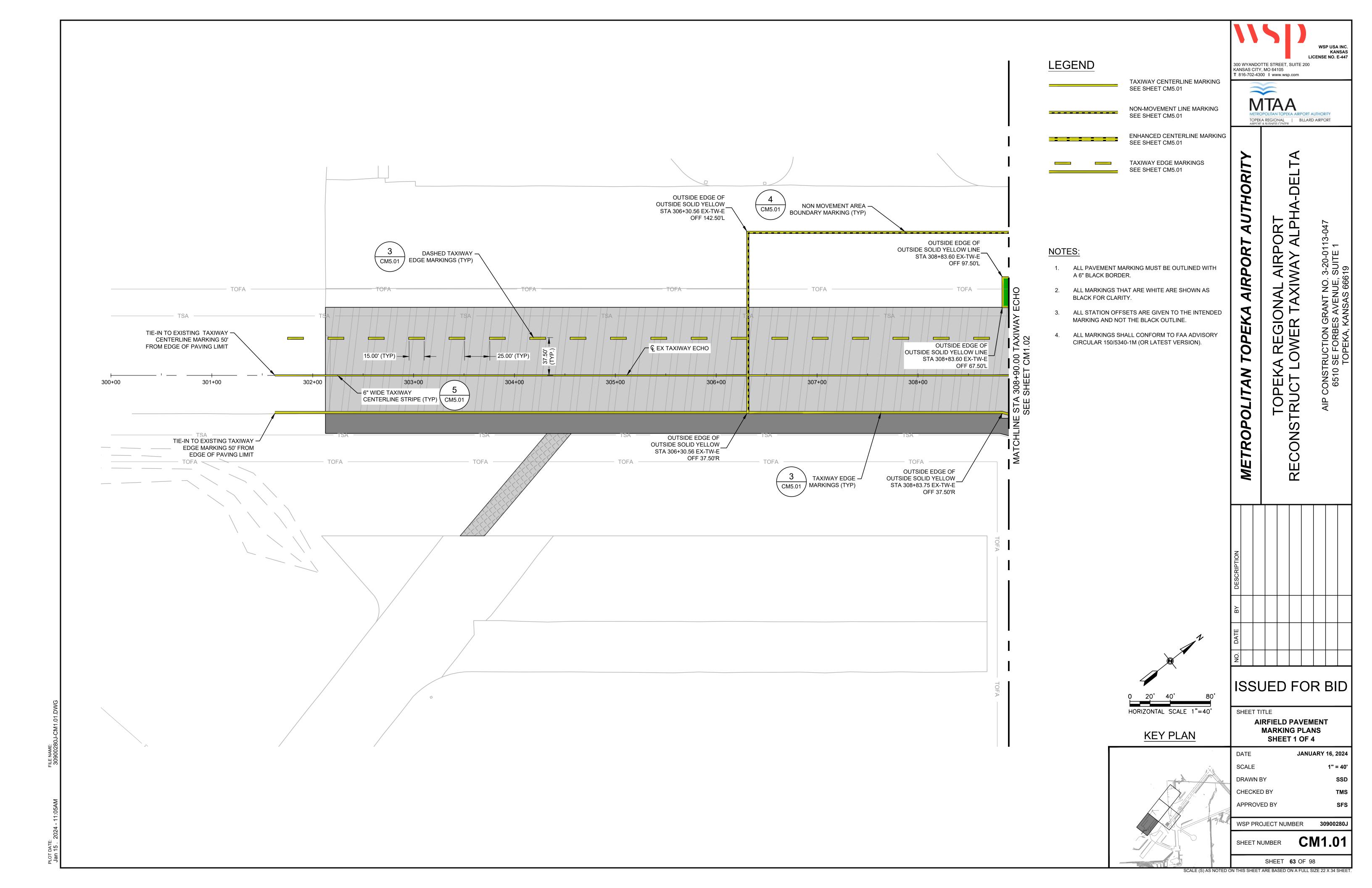
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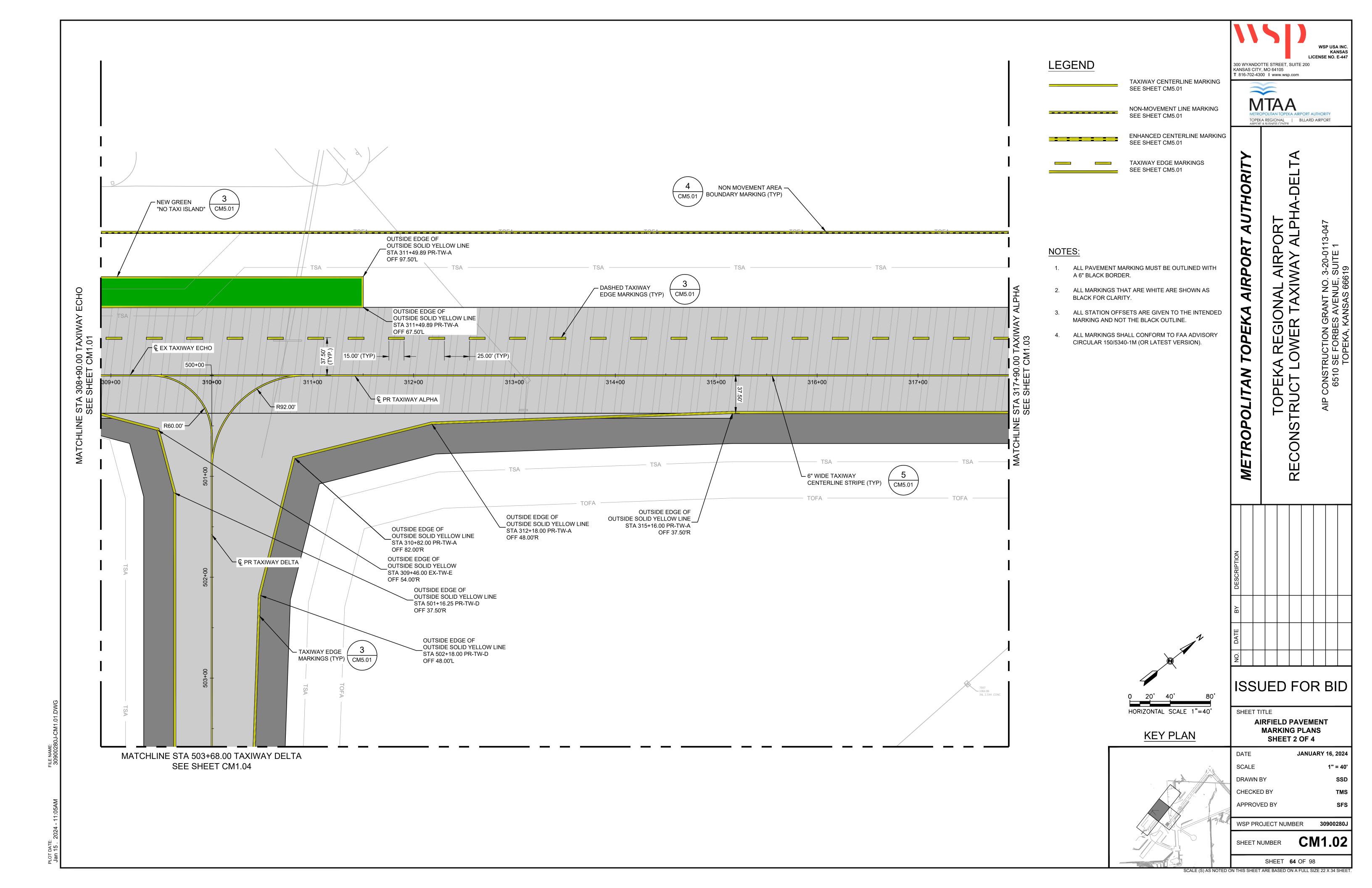
**JANUARY 16, 2024** 

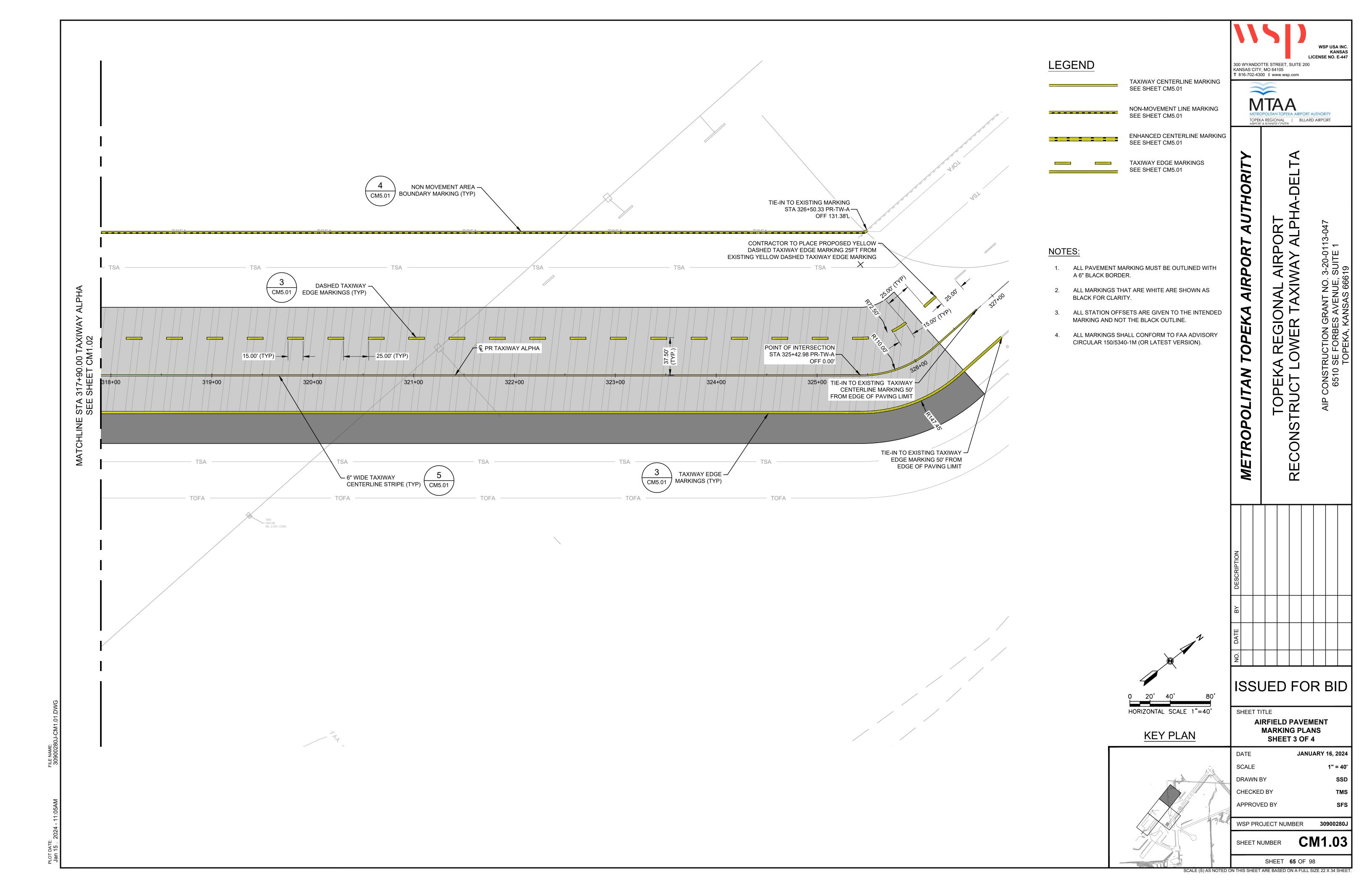
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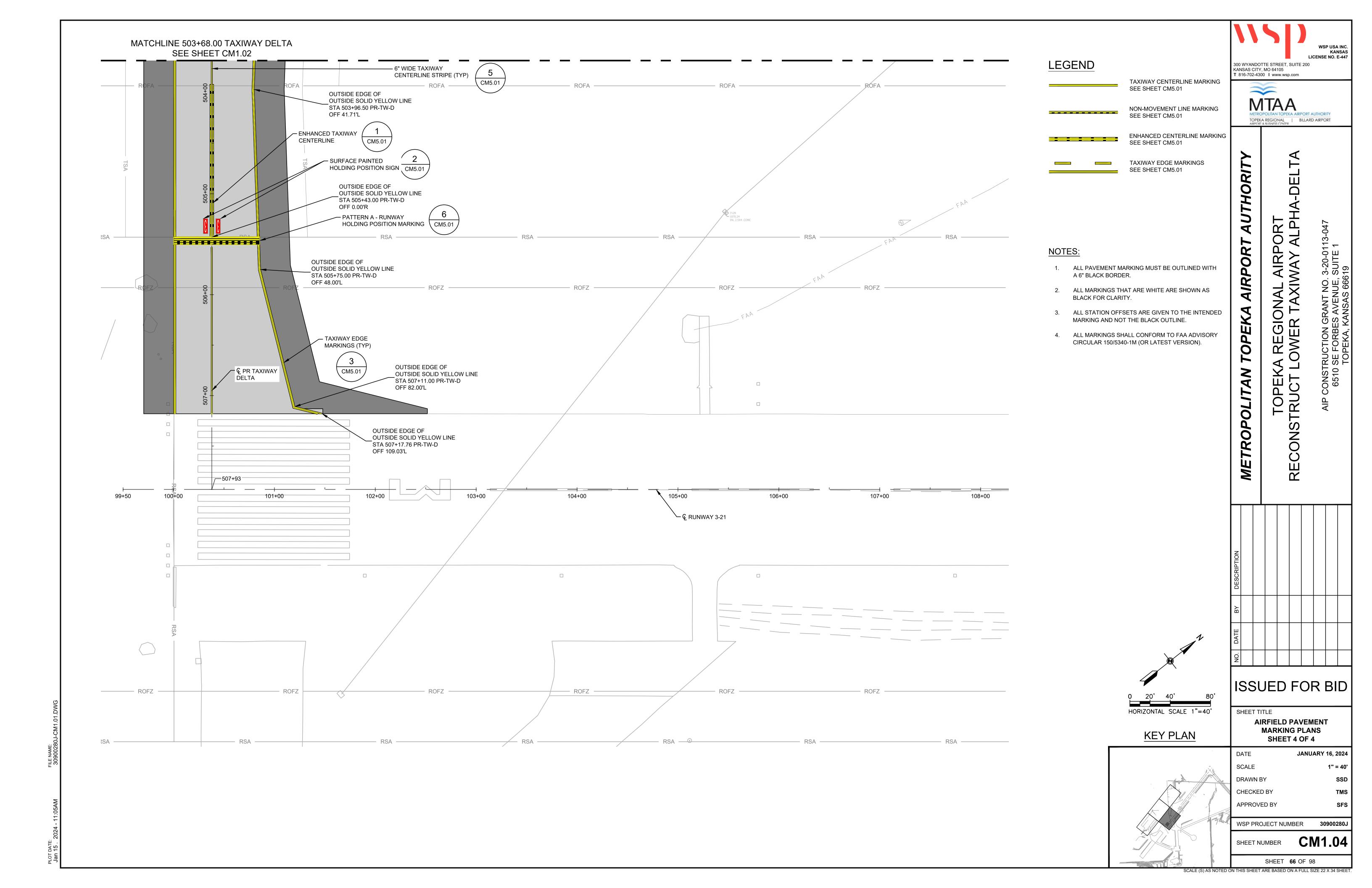
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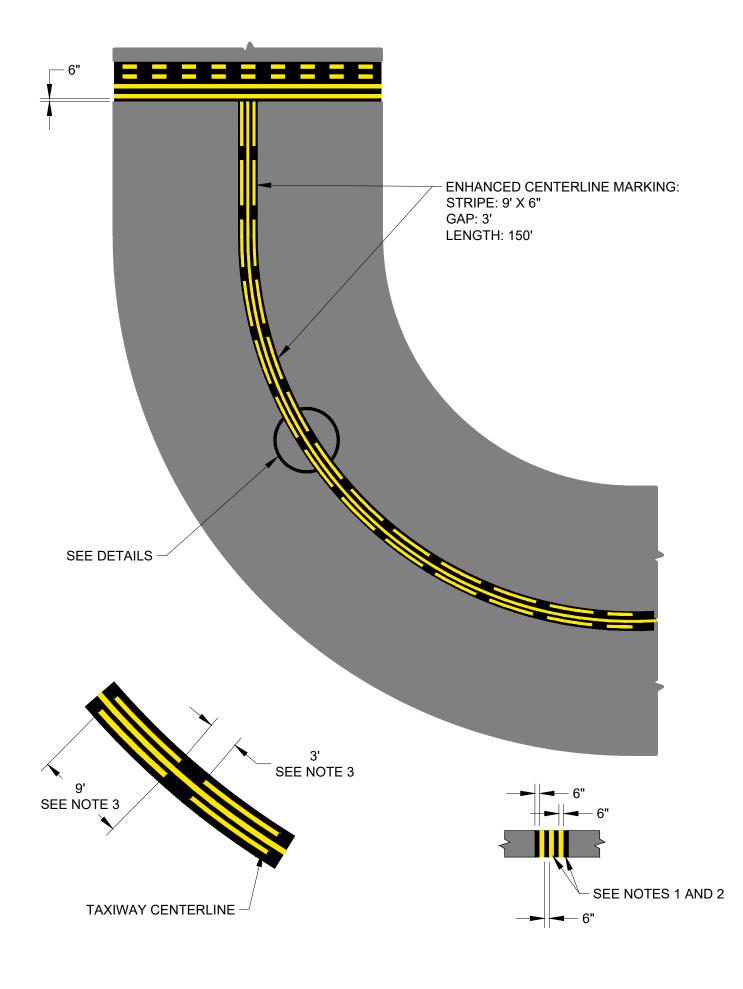
SHEET **62** OF 98 SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET













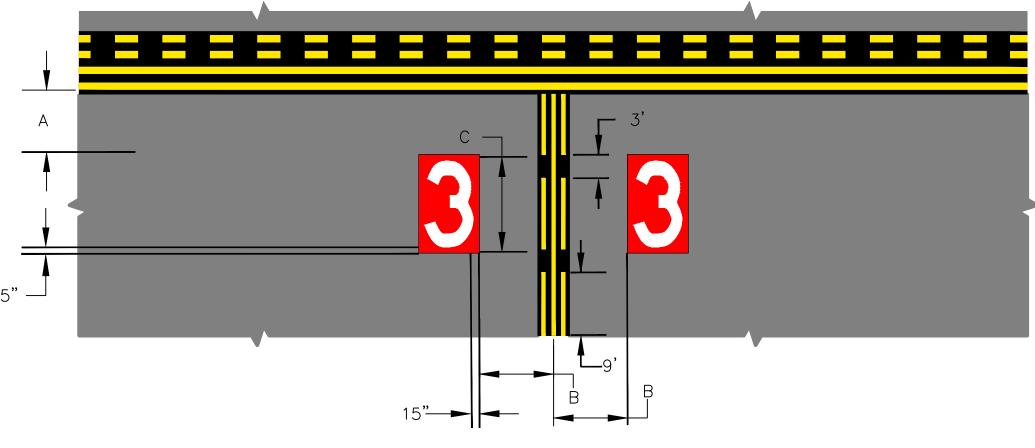
#### NOTES:

SOLID LINE ON NON-MOVEMENT SIDE

DASHED LINE ON MOVEMENT SIDE

- 1. DASHED LINES FOR THE ENHANCED TAXIWAY CENTERLINE MARKINGS ARE 6 INCHES IN WIDTH AND SEPARATED 6 INCHES FROM THE TAXIWAY CENTERLINE MARKINGS.
- 2. THE TAXIWAY CENTERLINE MARKINGS MAY BE SHIFTED LEFT OR RIGHT TO AVOID INTERFERENCE WITH THE TAXIWAY CENTERLINE LIGHTS.
- 3. THE DASHED LINES DIMENSIONS ARE TAKEN ALONG THE CENTER OF THE TAXIWAY CENTERLINE TYPICAL ENHANCED TAXIWAY MARKING SPACING.
- 4. ENHANCED TAXIWAY CENTERLINE MARKINGS ARE 150 FEET IN LENGTH.

— 0.50" (TYP)



SURFACE PAINTED HOLDING POSITION SIGNS FOR TAXIWAY WIDTHS GREATER THAN 35 FEET CM5.01 SCALE: NTS

#### NOTES:

1. A = 2' - 4'

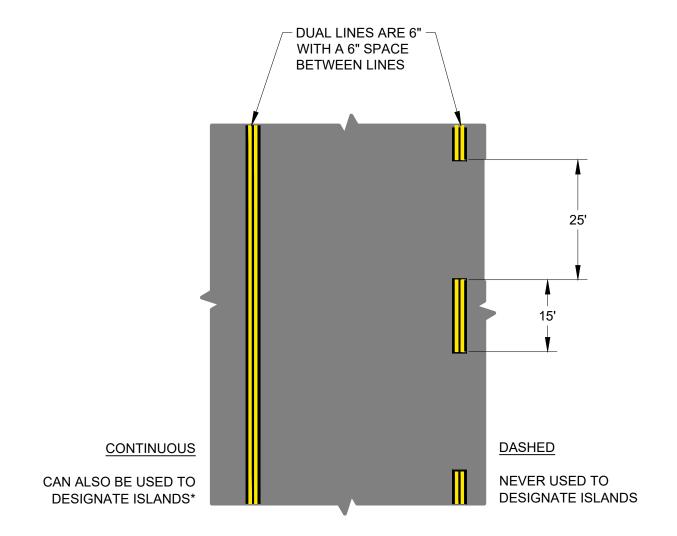
2. B = 3' - 10'

3. C. = 9' - 12'

— 0.50" (TYP)

INSCRIPTIONS MUST HAVE A HEIGHT OF 12 FEET; HOWEVER, THE HEIGHT MAY BE REDUCED, AS NECESSARY, TO THE MINIMUM HEIGHT OF 9 FEET. IN SPECIAL SITUATIONS, THE SURFACED PAINTED MARKING MAY BE REDUCED TO LESS THAN 9 FEET IN ORDER TO FIT THE MARKING APPROPRIATELY.

EXAMPLES OF SPECIAL SITUATIONS INCLUDE TAXIWAYS WITH WIDTHS NARROWER THAN 75 FEET OR TAXIWAYS THAT NEED TO DISPLAY MULTIPLE RUNWAY DESIGNATIONS WITH ARROWS. IN ALL CASES INSCRIPTIONS FOLLOW APPENDIX B INSCRIPTION CRITERIA. ALL OTHER TAXIWAY ENTRANCES TO THE SAME RUNWAY NOT NEEDING THE REDUCTION ARE TO MAINTAIN THE 12 FOOT HEIGHT DIMENSION. FOR PRACTICALITY, THE LOWEST HEIGHT REDUCTION IS 6 FEET.

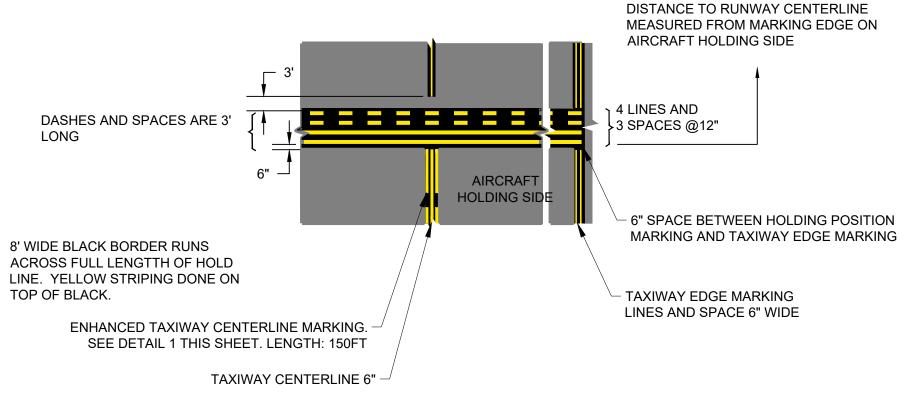




#### NOTES:

1. ALL PAVEMENT MARKINGS MUST BE OUTLINED WITH A 6" BLACK BORDER.

\*FOR "NO TAXI ISLAND", CONTINUOUS TAXIWAY EDGE MARKINGS SHALL ENCOMPASS GREEN ISLAND HATCH.



PATTERN A - RUNWAY HOLDING POSITION MARKING CM5.01 / SCALE: NTS

- 6" YELLOW STRIPE CENTERED ON GEOMETRIC CENTERLINE

TAXIWAY CENTERLINE STRIPE



AIRCRAFT HOLDING SIDE

→ 3.00' (TYP)

#### NOTES:

1. ALL MARKINGS MUST CONFORM TO FAA ADVISORY CIRCULAR 150/5340-1M.

—— 3.00' (TYP)

2. BOTH LINES ARE 6 INCH WIDE WITH A 6 INCH SPACE BETWEEN.

NOTES:

SCALE: NTS

CM5.01

- 1. ALL MARKINGS MUST CONFORM TO FAA ADVISORY CIRCULAR 150/5340-1M.
- 2. ALL MARKINGS SHALL BE OUTLINED WITH BLACK. SPACES BETWEEN PAINT LINES ARE PAINTED IN BLACK. PAINT EXTENDS AT LEAST 6" BEYOND THE OUTSIDE EDGE OF THE MARKINGS.

TOPEKA TOPEKA TROPOLITAN ONS REC ISSUED FOR BID SHEET TITLE AIRFIELD PAVEMENT MARKING DETAILS **JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY APPROVED BY SFS WSP PROJECT NUMBER 30900280J CM5.0 SHEET NUMBER

LICENSE NO. E-447

300 WYANDOTTE STREET, SUITE 200

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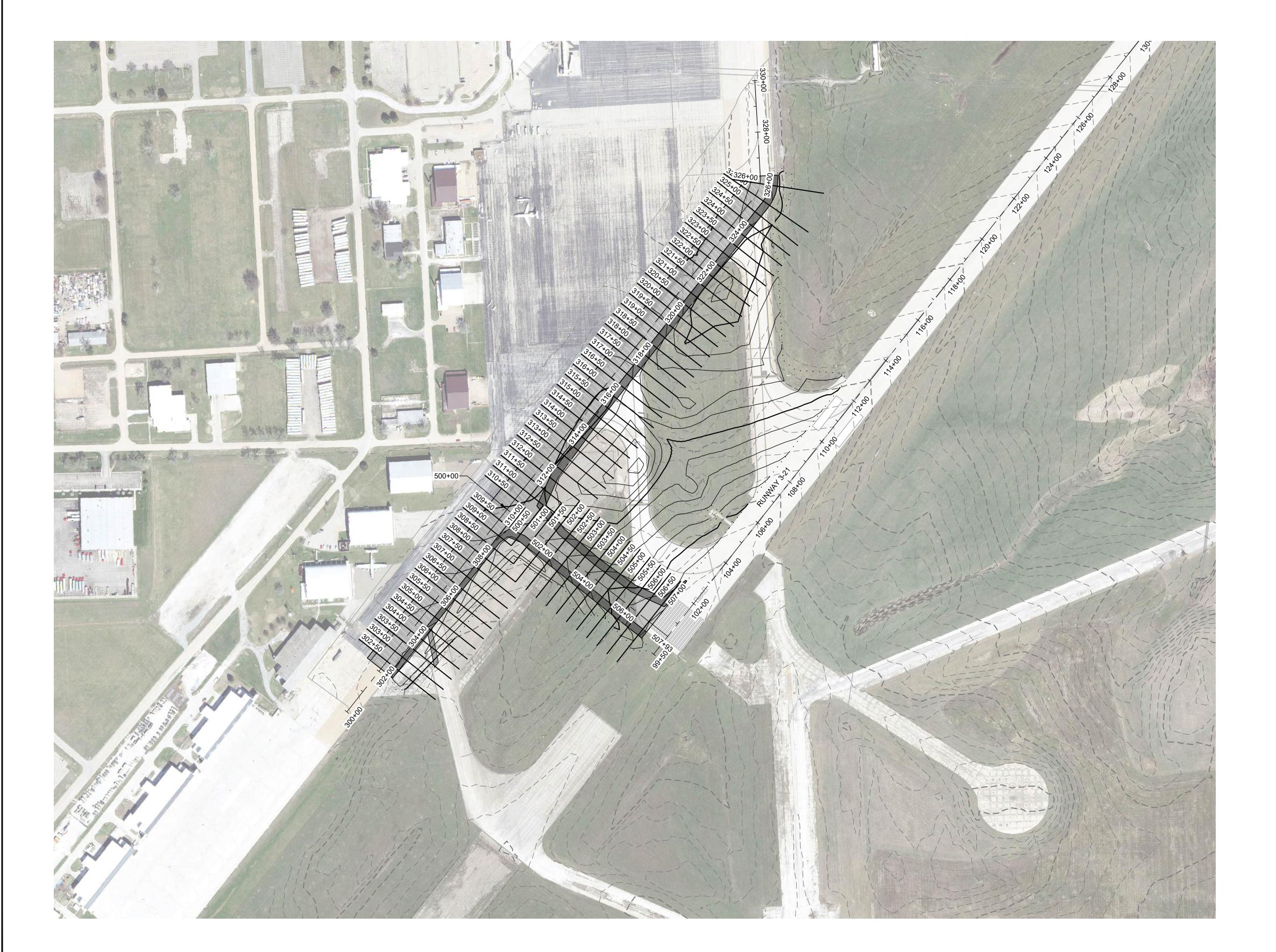
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SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

SHEET **67** OF 98





A REGIONAL AIRPORT LOWER TAXIWAY ALPHA-DELTA

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TOPEKA REGIONAL
AIRPORT A BISINESS CENTER

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SHEET TITLE

**CROSS SECTION OVERVIEW PLAN** 

**JANUARY 16, 2024** 

1" = 200'

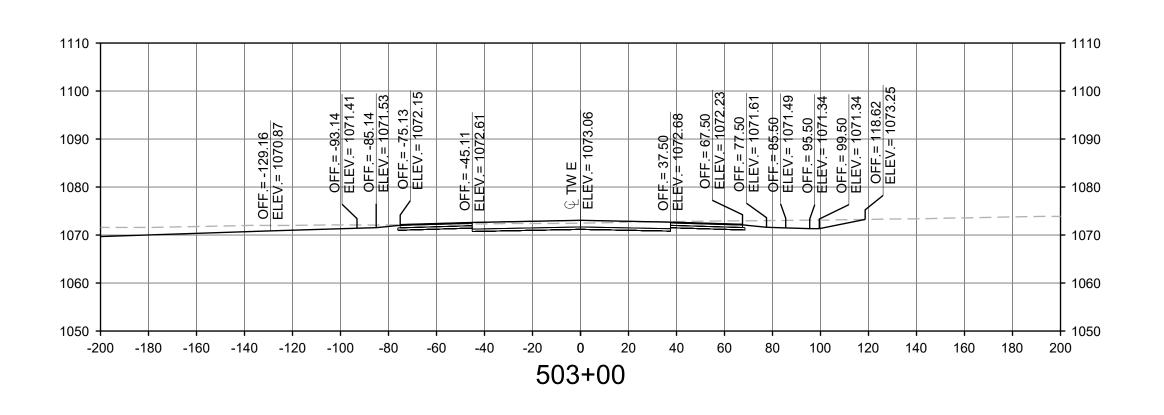
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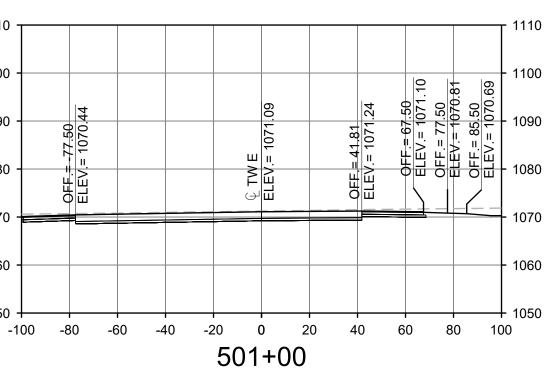
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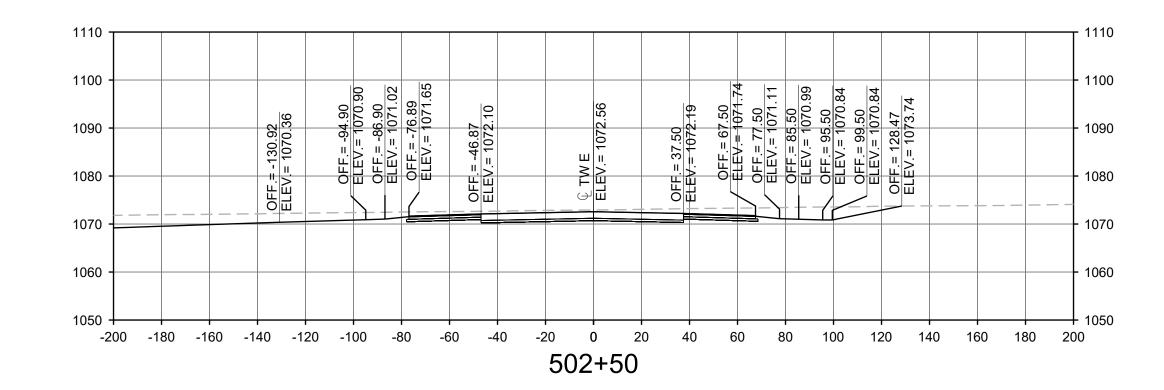
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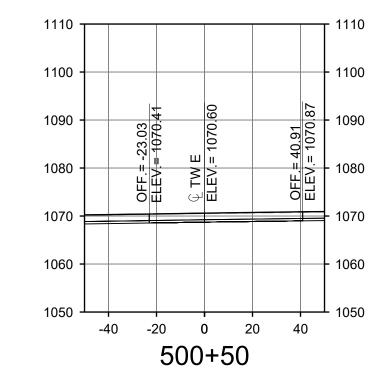
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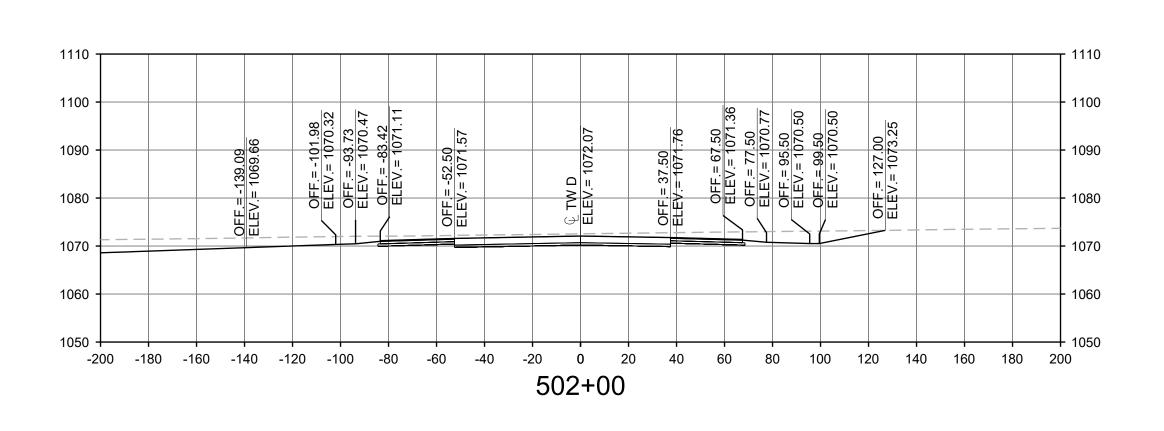
0 100' 200' 400' HORIZONTAL SCALE 1"=200'













PROPOSED PAVEMENT PROPOSED GRADE EXISTING GRADE

1100

1090

1080

1070 -

1060

1050

HORIZONTAL SCALE 1"=40' VERTICAL SCALE 1"=20'

## TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA AIRPORT AUTHORITY **TOPEKA** METROPOLITAN

300 WYANDOTTE STREET, SUITE 200

**MTAA** 

TOPEKA REGIONAL | BILLARD AIRPORT

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. 3-20-0113-047 , SUITE 1 619

CONSTRUCTION GRANT NO. 6510 SE FORBES AVENUE, TOPEKA, KANSAS 666

LICENSE NO. E-447

### ISSUED FOR BID

SHEET TITLE

**TAXIWAY DELTA CROSS SECTIONS SHEET 1 OF 2** 

1" = 200'

SFS

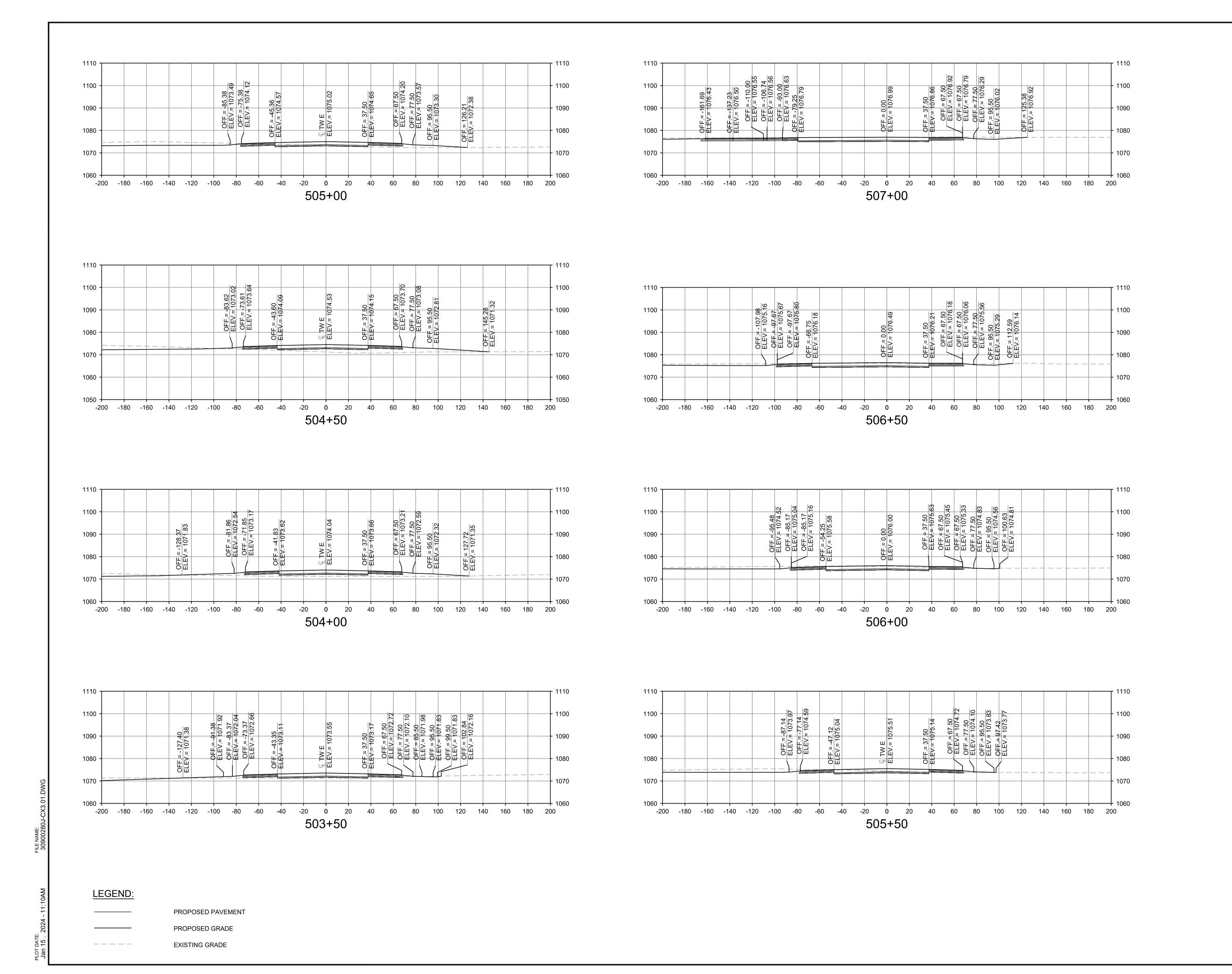
**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY

APPROVED BY WSP PROJECT NUMBER 30900280J

CX3.01 SHEET NUMBER

SHEET **69** OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET





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**-DELT** 

3-20-0113-047 SUITE 1 319

**AUTHORITY AIRPOR TOPEKA** METROPOLITAN

A REGIONAL AIRPORT LOWER TAXIWAY ALPHA CONSTRUCTION GRANT NO. 6510 SE FORBES AVENUE, TOPEKA, KANSAS 666 TOPEKA STRUCT LC RECONS

### ISSUED FOR BID

SHEET TITLE **TAXIWAY DELTA CROSS** 

**SECTIONS SHEET 2 OF 2 JANUARY 16, 2024** DATE SCALE 1" = 200'

DRAWN BY CHECKED BY

SHEET NUMBER

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

HORIZONTAL SCALE 1"=40'

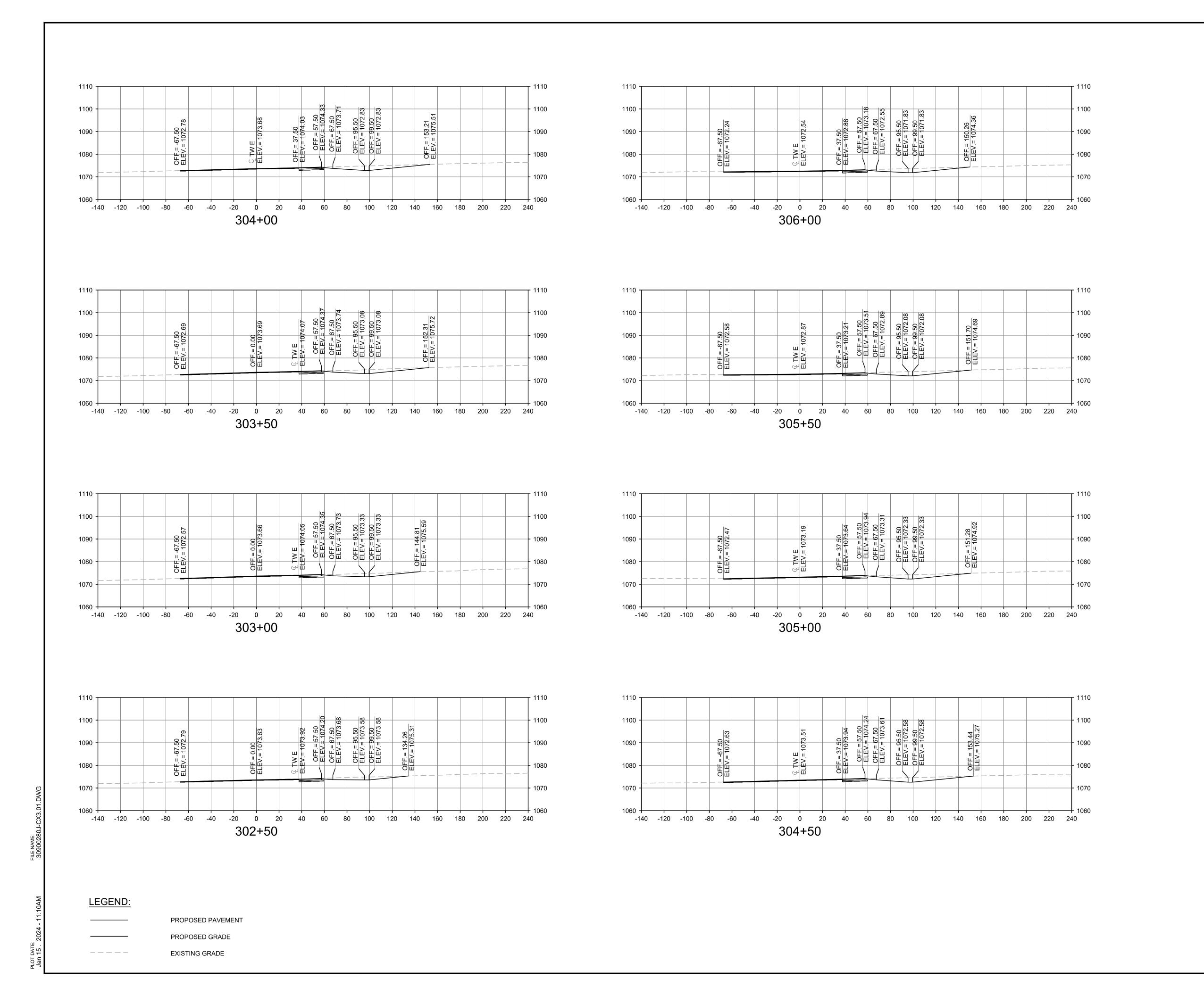
VERTICAL

SCALE 1"=20' APPROVED BY SFS

SSD

WSP PROJECT NUMBER 30900280J CX3.02

SHEET **70** OF 98





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**AIRPORT AUTHORITY** 

TOPEKA

METROPOLITAN

TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA

. 3-20-0113-047 , SUITE 1 619

CONSTRUCTION GRANT NO. 6510 SE FORBES AVENUE, TOPEKA, KANSAS 666

ISSUED FOR BID

SHEET TITLE

**TAXIWAY ECHO CROSS SECTIONS SHEET 1 OF 2 JANUARY 16, 2024** DATE

SCALE DRAWN BY CHECKED BY

APPROVED BY

HORIZONTAL SCALE 1"=40"

VERTICAL

SCALE 1"=20' WSP PROJECT NUMBER 30900280J

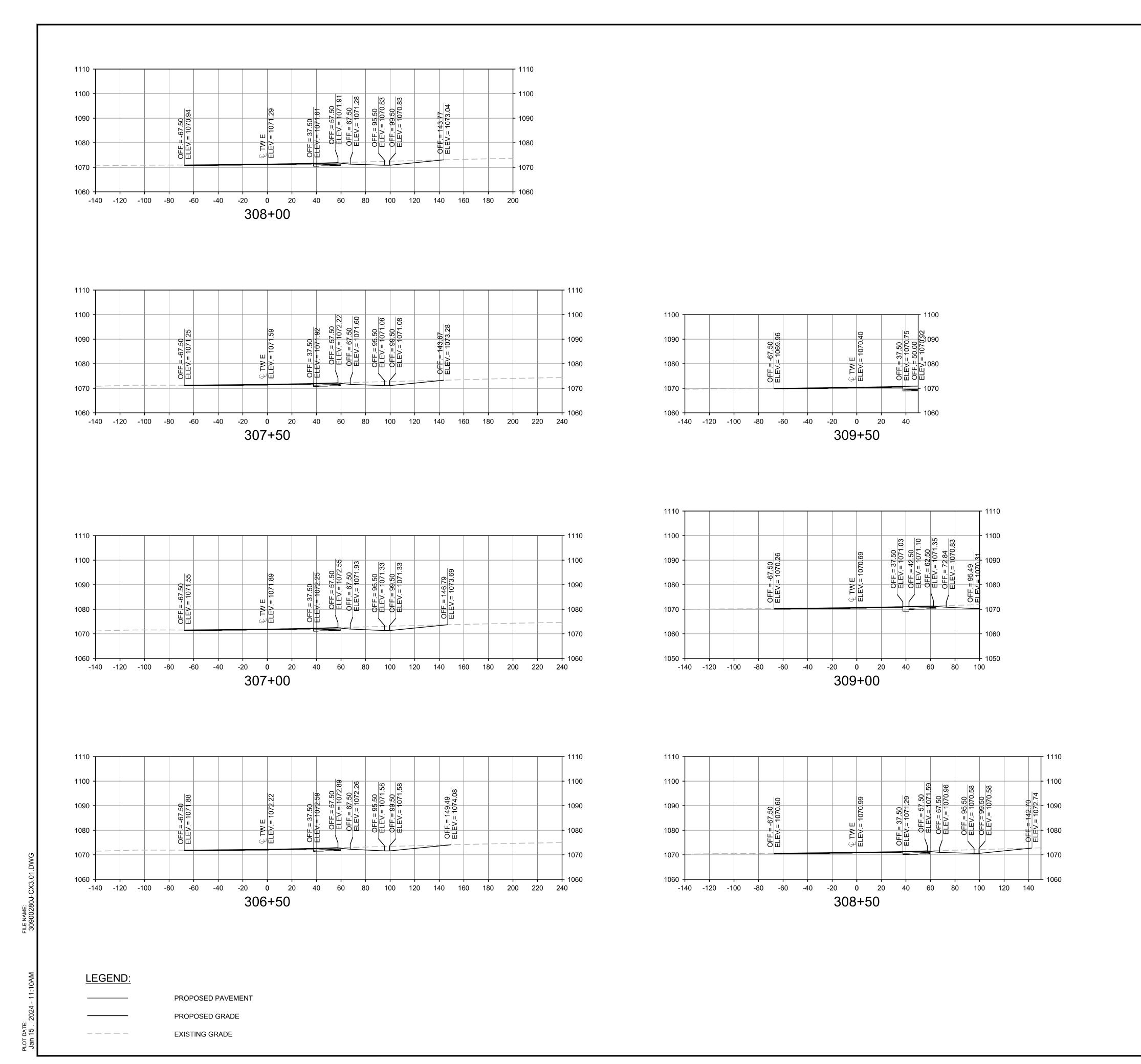
CX3.03 SHEET NUMBER

SHEET **71** OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

1" = 200'

SFS



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TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA **AIRPORT AUTHORITY TOPEKA** 

METROPOLITAN

. 3-20-0113-047 , SUITE 1 619 CONSTRUCTION GRANT NO. 6510 SE FORBES AVENUE, TOPEKA, KANSAS 666

ISSUED FOR BID

SHEET TITLE

**TAXIWAY ECHO CROSS SECTIONS SHEET 2 OF 2** 

1" = 200'

SFS

**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY

HORIZONTAL SCALE 1"=40"

VERTICAL SCALE 1"=20'

APPROVED BY WSP PROJECT NUMBER

30900280J CX3.04 SHEET NUMBER

SHEET **72** OF 98 SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

LEGEND:

PROPOSED PAVEMENT

PROPOSED GRADE

**EXISTING GRADE** 



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TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA AIRPORT AUTHORITY **TOPEKA** METROPOLITAN

# ISSUED FOR BID

SHEET TITLE TAXIWAY ALPHA CROSS

**SECTIONS SHEET 1 OF 5 JANUARY 16, 2024** DATE 1" = 200'

SCALE DRAWN BY CHECKED BY APPROVED BY

WSP PROJECT NUMBER 30900280J

CX3.05 SHEET NUMBER

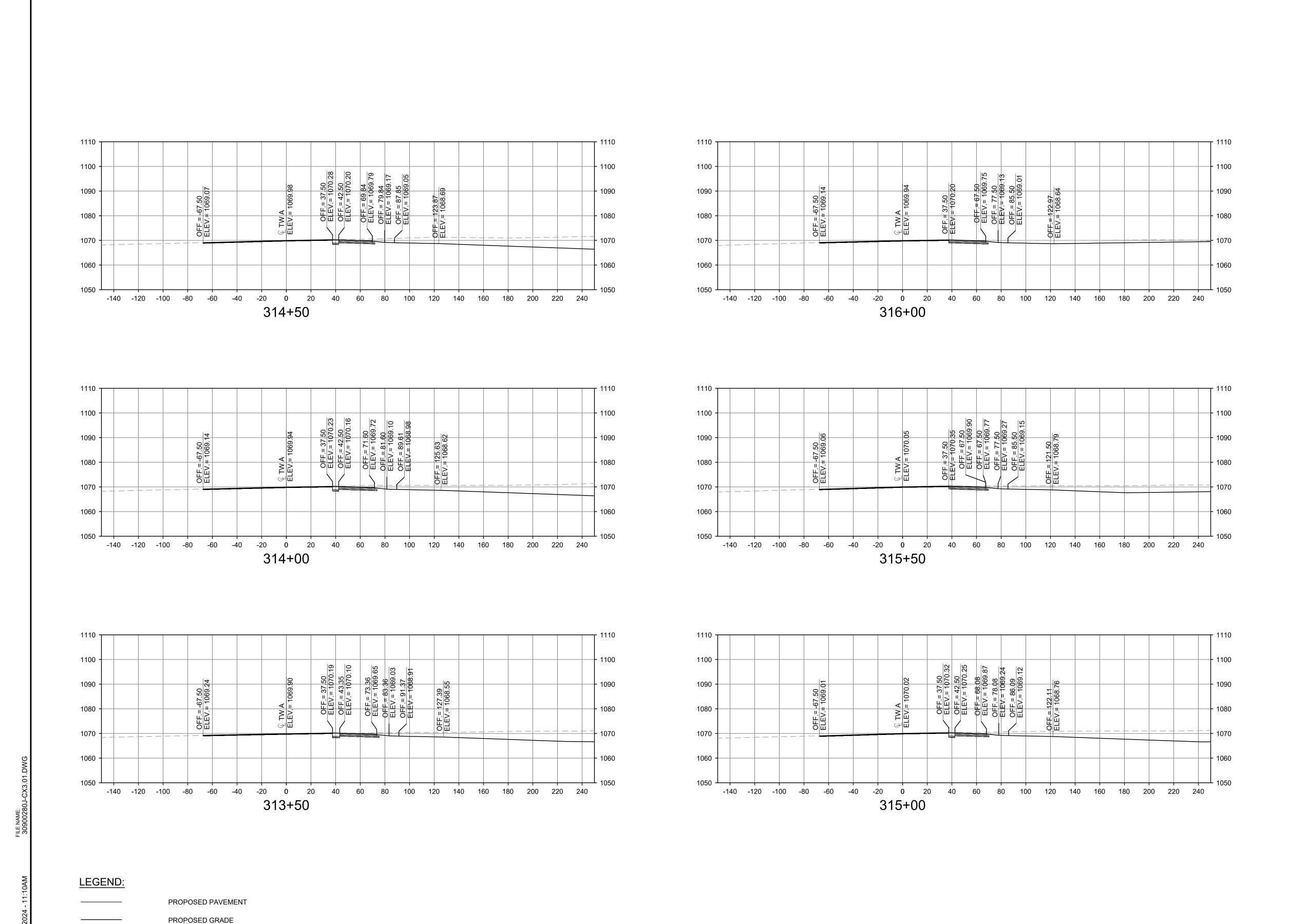
SHEET **73** OF 98

SFS

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

HORIZONTAL SCALE 1"=40"

VERTICAL SCALE 1"=20'



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**EXISTING GRADE** 



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TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA AIRPORT AUTHORITY **TOPEKA** METROPOLITAN

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SHEET TITLE **TAXIWAY ALPHA CROSS** 

**SECTIONS SHEET 2 OF 5 JANUARY 16, 2024** DATE SCALE 1" = 200'

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HORIZONTAL SCALE 1"=40'

VERTICAL SCALE 1"=20'

WSP PROJECT NUMBER 30900280J

CX3.06 SHEET NUMBER

SHEET **74** OF 98

SSD

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CONSTRUCTION GRANT NO. 6510 SE FORBES AVENUE, TOPEKA, KANSAS 666

**AUTHORITY** 

**AIRPOR** 

TOPEKA

METROPOLITAN

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SHEET TITLE **TAXIWAY ALPHA CROSS** 

**SECTIONS SHEET 3 OF 5 JANUARY 16, 2024** DATE SCALE 1" = 200'

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WSP PROJECT NUMBER 30900280J

CX3.07 SHEET NUMBER

SFS

SHEET **75** OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

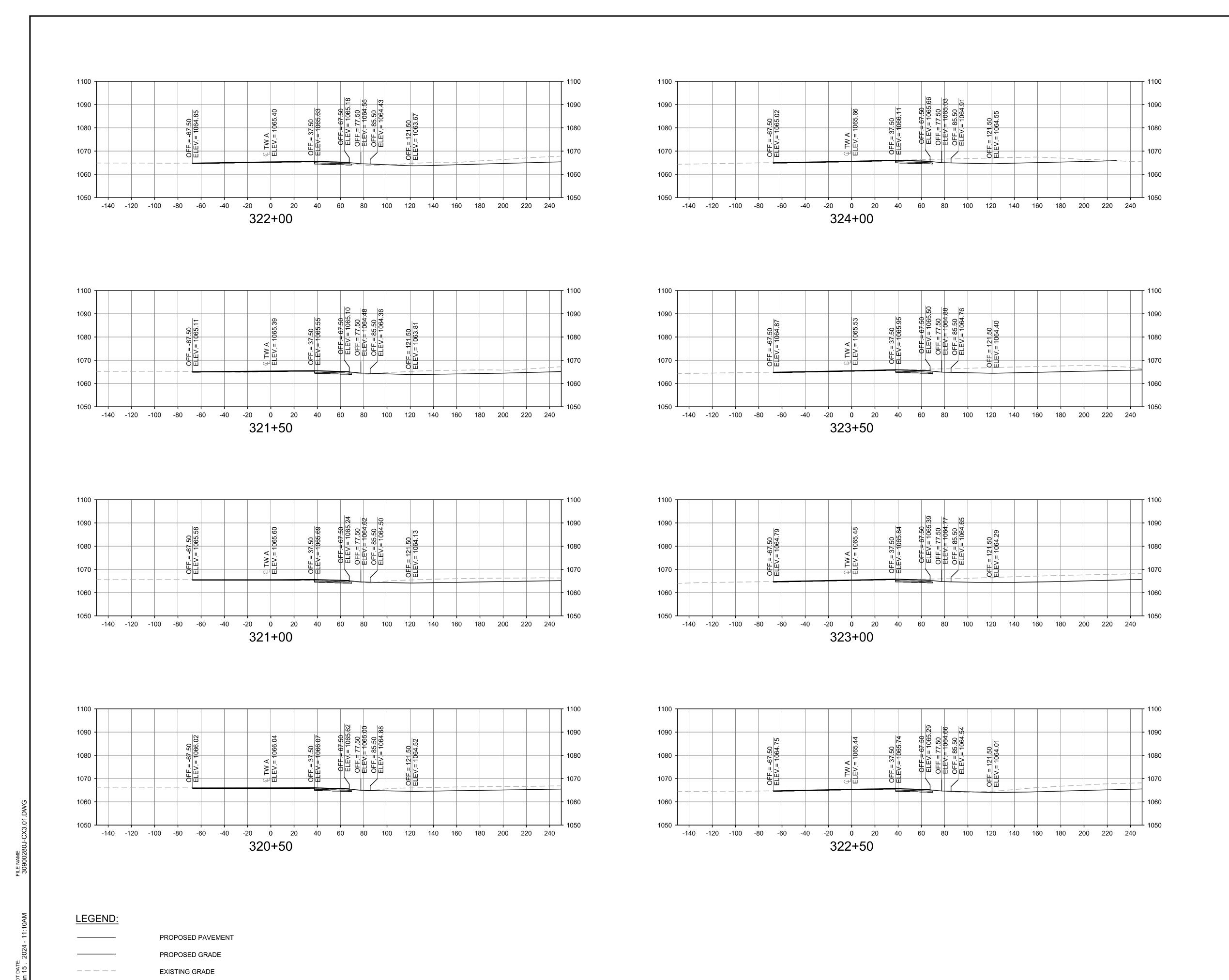
HORIZONTAL SCALE 1"=40'

VERTICAL

SCALE 1"=20'

PROPOSED GRADE **EXISTING GRADE** 

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**AUTHORITY** TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELT **AIRPORT** TOPEKA METROPOLITAN

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SHEET TITLE **TAXIWAY ALPHA CROSS** 

CHECKED BY

HORIZONTAL SCALE 1"=40"

VERTICAL

SCALE 1"=20'

**SECTIONS SHEET 4 OF 5 JANUARY 16, 2024** SCALE 1" = 200' DRAWN BY

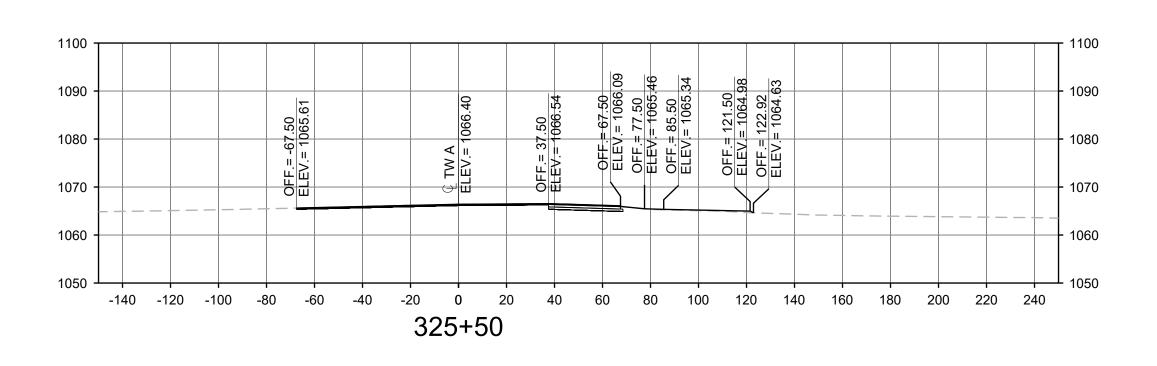
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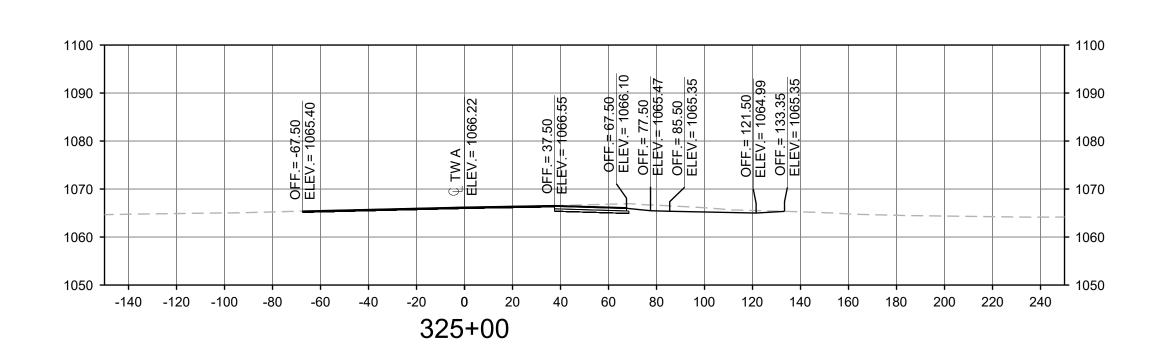
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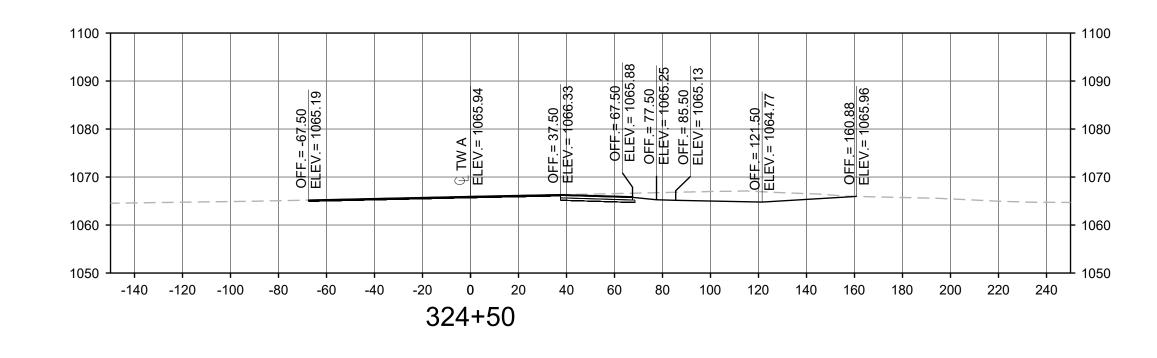
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SHEET **76** OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET







LEGEND:

PROPOSED PAVEMENT PROPOSED GRADE ----EXISTING GRADE

HORIZONTAL SCALE 1"=40" VERTICAL SCALE 1"=20'

TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA **AIRPORT AUTHORITY TOPEKA** METROPOLITAN

300 WYANDOTTE STREET, SUITE 200

**MTAA** 

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SHEET TITLE

TAXIWAY ALPHA CROSS SECTIONS SHEET 5 OF 5

1" = 200'

SFS

**JANUARY 16, 2024** DATE SCALE DRAWN BY CHECKED BY

APPROVED BY WSP PROJECT NUMBER 30900280J

CX3.09 SHEET NUMBER

SHEET **77** OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

3. REMOVE CABLES RENDERED ABANDONED AS A RESULT OF

THIS WORK FROM EXISTING CONDUITS AND DUCTS.

4. INSTALL 3/4-INCH STEEL BLANK COVERS FOR BASE CANS RENDERED ABANDONED AS A RESULT OF THIS WORK.

### **ELECTRICAL NEW WORK NOTES**

- 1. THE LOCATIONS OF THE UNDERGROUND UTILITIES. AIRPORT CABLES, AND FAA CABLES SHOWN ON THE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND FIELD CHECKED AND ARE BELIEVED TO BE CORRECT. NO GUARANTEE IS MADE AS TO THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDERGROUND UTILITIES IN THE WORK AREA PRIOR TO CONSTRUCTION. ANY UNDERGROUND UTILITIES LOCATED WHICH DO NOT APPEAR ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE AIRPORT. LOCATION, SUPPORT AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THE WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, PRIOR TO ANY CONSTRUCTION. TO DETERMINE IN THE FIELD THE ACTUAL LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES WHETHER THEY ARE SHOWN ON THE PLANS OR NOT. HAND DIG IF NECESSARY TO LOCATE EXISTING UTILITIES AND TO INSTALL CROSSINGS. REPAIR OF DAMAGED CABLE OR LIGHTS SHALL BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETED. ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, OR AS DIRECTED BY THE OWNER OF THE CABLE, AND SHALL BE AT THE CONTRACTOR'S EXPENSE. IF FAA CABLES ARE DAMAGED, REPAIRS SHALL BE MADE FROM POINT TO POINT IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF AN FAA REPRESENTATIVE. THE OWNER MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS. IF AIRPORT CABLES ARE DAMAGED, REPAIR SHALL BE MADE IN THE PRESENCE OF AIRPORT REPRESENTATIVE. AIRPORT MAY ELECT TO HAVE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF THE REPAIRS.
- 2. INTERRUPTION TO EXISTING AIRFIELD LIGHTING SYSTEMS NOT INCLUDED IN THIS PROJECT SHALL NOT BE PERMITTED. ALL AIRFIELD LIGHTING CIRCUITS AFFECTED BY THIS PROJECT SHALL BE TEMPORARILY MAINTAINED DURING OPERATIONAL PERIODS BY THE CONTRACTOR AND WORK THAT AFFECTS AIRFIELD LIGHTING SHALL BE COORDINATED AND APPROVED BY AIRPORT MAINTENANCE PERSONNEL.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PRIOR NOTIFICATION OF HIS CONSTRUCTION ACTIVITY TO ALL UTILITY COMPANIES WHO MIGHT BE AFFECTED. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR UTILITY LINE STAKING IN ADVANCE OF STARTING THE WORK AS OUTLINED IN THE CONTRACT DOCUMENTS. CONSTRUCTION SHALL NOT PROCEED WITHOUT PRIOR IDENTIFICATION AND LOCATION OF UTILITIES.
- 4. COMPLY WITH, AS A MINIMUM, THE LATEST EDITIONS OF APPLICABLE FAA ADVISORY CIRCULARS. THE NATIONAL ELECTRICAL CODE, AND LOCAL REGULATIONS.
- 5. LIGHTING SYSTEM COMPONENTS FURNISHED (INCLUDING FAA APPROVED EQUIPMENT) SHALL BE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. ANY NON-COMPATIBLE COMPONENTS FURNISHED BY THE CONTRACTOR MUST BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT, APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURER), THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM.
- 6. IF THE CONTRACTOR ELECTS TO FURNISH AND INSTALL AIRPORT LIGHTING EQUIPMENT REQUIRING ADDITIONAL WIRING, TRANSFORMERS, ADAPTERS, MOUNTINGS, ETC., TO THOSE SHOWN ON THE DRAWINGS AND/OR LISTED IN THE SPECIFICATIONS, THE COST FOR THESE ITEMS MUST BE INCIDENTAL TO THE EQUIPMENT COST.
- 7. CONTRACTOR-INSTALLED EQUIPMENT (INCLUDING FAA APPROVED) MUST NOT GENERATE ANY ELECTROMAGNETIC INTERFERENCE IN THE EXISTING AND/OR NEW COMMUNICATIONS, WEATHER, AIR NAVIGATION, AND AIR TRAFFIC CONTROL EQUIPMENT. ANY EQUIPMENT GENERATING SUCH INTERFERENCE MUST BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST WITH EQUIPMENT MEETING THE APPLICABLE SPECIFICATIONS AND NOT GENERATING ANY INTERFERENCE.
- 8. WHEN A SPECIFIC TYPE, STYLE, CLASS, ETC., OF FAA APPROVED EQUIPMENT IS SPECIFIED ONLY THAT TYPE, STYLE, CLASS, ETC., WILL BE ACCEPTABLE, EVEN THOUGH EQUIPMENT OF OTHER TYPES, STYLES, CLASSES, ETC., MAY BE FAA APPROVED.
- 9. MODIFICATIONS OR FIELD CHANGES TO CIRCUIT ROUTING SHALL BE PERFORMED AT THE DISCRETION OF AIRPORT WITH NO CLAIM BY THE CONTRACTOR. CONTRACTOR SHALL BE PAID FOR ACTUAL WORK COMPLETED PER THE TERMS OF THE CONTRACT.

- 10. INSTRUCTIONS FROM THE ENGINEER TO THE CONTRACTOR REGARDING CHANGES IN, OR DEVIATIONS FROM, THE PLANS AND SPECIFICATIONS MUST BE IN WRITING WITH COPIES SENT TO THE AIRPORT SPONSOR AND THE FAA FIELD OFFICE (ADO/AFO). THE CONTRACTOR SHALL NOT ACCEPT ANY VERBAL INSTRUCTIONS FROM THE ENGINEER REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS.
- 11. PERMANENT COMPONENTS OF PRIMARY OR SECONDARY CIRCUITS SHALL NOT BE BROUGHT ABOVE GROUND, UNLESS INDICATED.
- 12. SPLICES IN THE SECONDARY CABLE(S) WITHIN THE STEMS OF A RUNWAY/TAXIWAY EDGE/THRESHOLD LIGHTING FIXTURES ARE NOT ALLOWED.
- 13. APPLY ELECTRICAL INSULATING GREASE WITHIN THE L-823, SECONDARY, TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE.
- 14. DIRECTION OF PRIMARY CABLES MUST BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK FACING R/W OR T/W. CABLE TO THE LEFT IS CODED RED AND CABLE TO THE RIGHT IS CODED BLUE. THIS APPLIES TO BASE-MOUNTED LIGHTS WHERE THE BASE HAS ONLY ONE ENTRANCE.
- 15. WHERE ADDITIONAL JUNCTION CANS ARE NECESSARY TO COMPLETE THE WORK OUTSIDE OF FULL STRENGTH PAVEMENT, PROVIDE L-867 BASES CANS, 12 INCH DIAMETER, 24 INCHES DEEP, WITH BLANK COVER, CLASS IA, SIZE B, IN CONFORMANCE WITH AC 150/5345-42. OBTAIN WRITTEN APPROVAL FROM AIRPORT PRIOR TO PERFORMING WORK.
- 16. LIGHT FIXTURES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED WITH MANUFACTURER RECOMMENDED PARTS TO THE SATISFACTION OF THE ENGINEER.
- 17. WIRE AND CABLE PROVIDED FOR THE PERMANENT INSTALLATION SHALL BE NEW. RE-USE OF EXISTING CABLE IS NOT PERMITTED.
- 18. ENTRANCES INTO L-867 BASES MUST BE PLUGGED FROM THE INSIDE WITH DUCT SEAL.
- 19. IF DRILLING INTO EXISTING OR NEW BASE CANS IS REQUIRED, APPLY ZINC-RICH PAINT AS RECOMMENDED BY THE BASE CAN MANUFACTURER.
- 20. EDGE LIGHT NUMBERING TAGS MUST FACE THE PAVEMENT.
- 21. ALL POWER AND CONTROL CABLES IN MAN/HAND HOLES MUST BE TAGGED. USE EMBOSSED BRONZE TAGS ATTACHED AT BOTH ENDS TO THE CABLE BY THE USE OF PLASTIC STRAPS. MINIMUM OF TWO TAGS MUST BE PROVIDED ON EACH CABLE IN A MAN/HAND HOLE - ONE AT THE CABLE ENTRANCE AND ONE AT THE CABLE EXIT.
- 22. APPLY AN OXIDE INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS AND FRANGIBLE COUPLING THREADS
- 23. SPLICES BETWEEN ISOLATION TRANSFORMERS ARE NOT ALLOWED. L-823 CONNECTORS ARE ALLOWED ONLY AT TRANSFORMER CONNECTIONS AND AT SPLICE LOCATIONS SHOWN ON THE PLANS.
- 24. THE CONTRACTOR SHALL CONDUCT AND DOCUMENT DAILY INSPECTIONS TO VERIFY ALL LIGHTS, SIGNS, AND OTHER LOADS AND ALL TEMPORARY R/W AND T/W LIGHTING PROVIDED AS PART OF HIS WORK ARE FUNCTIONING PROPERLY. CONTRACTOR SHALL TAKE IMMEDIATE CORRECTIVE ACTION AS NEEDED OR AS DIRECTED BY AIRPORT, AND THE ENGINEER, AT HIS OWN COST.
- 25. SUBMIT RECORD DRAWINGS DOCUMENTING AS-BUILT CONDITIONS. RECORD THE PATH OF EACH CIRCUIT THROUGH EACH LIGHT, HANDHOLE AND MANHOLE.
- 26. WHERE CONDUITS AND/OR DUCTBANKS ARE EXTENDED, CONNECT NEW COUNTERPOISE SYSTEM TO THE EXISTING.
- 27. CONTRACTOR SHALL BE RESPONSIBLE TO PUMP WATER AND DEBRIS OUT OF CANS, HANDHOLES AND MANHOLES ON TO ADJACENT GRADE. IF CONTAMINANTS ARE APPARENT, CONTACT AIRPORT BEFORE PUMPING.
- 28. STATION NUMBERS, OFFSETS AND NORTH-EAST COORDINATES ARE MEASURED TO THE CENTER OF LIGHTS/CANS/HANDHOLES, UNLESS NOTED.
- 29. REFER TO CIVIL DRAWINGS FOR EXACT EXTENTS OF DEMOLITION AND PROPOSED PAVEMENT AND GRADING.
- 30. WHERE LIGHTS AND SIGNS ARE INDICATED FOR REMOVAL, PROTECT ISOLATION TRANSFORMERS AND TURN OVER TO OWNER.

## **ABBREVIATIONS**

AMPERES AIP ABANDON IN PLACE

**ALCS** AIRFIELD LIGHTING CONTROL SYSTEM **ASPH** ASPHALT

AWG AMERICAN WIRE GAUGE CONDUIT

CCR CONSTANT CURRENT REGULATOR CE CONCRETE ENCASED CKT CIRCUIT

CONC CONCRETE DB DIRECT BURIED **ETR** EXISTING TO REMAIN EX **EXISTING** KVA KILOVOLT-AMPS

KW KILOWATTS MANHOLE МН

MEDIUM INTENSITY RUNWAY EDGE LIGHT MIRL PVC POLYVINYL CHLORIDE

QTY QUANTITY REMOVE

REIL RUNWAY END IDENTIFIER LIGHT RGS RIGID GALVANIZED STEEL CONDUIT

RPR RESIDENT PROJECT REPRESENTATIVE RWY RUNWAY S/N SOLID NEUTRAL

TWY TAXIWAY TYP TYPICAL

UNO UNLESS NOTED OTHERWISE VASI VISUAL APPROACH SLOPE INDICATOR

XFMR TRANSFORMER

### **DETAIL REFERENCE**

E3.3/1 SHEET E3.3 DETAIL

## FAA FACILITIES

- RUNWAY 3 VASI AND REIL SYSTEMS ARE FAA-OWNED FACILITIES. COORDINATE WORK RELATED TO THESE SYSTEMS, THEIR POWER SUPPLY AND INTERCONNECTING CABLE WITH THE LOCAL ELECTRIC UTILITY (EVERGY), THE FAA AND RPR.
- PROVIDE TESTING REQUIRED BY THE FAA, INCLUDING BUT NOT LIMITED TO EQUIPMENT AND CABLE TESTING.
- PROVIDE ON-SITE ATTENDANCE DURING FAA FLIGHT CHECKS AND SUBSEQUENT ADJUSTMENTS TO THE SYSTEMS.

## **PROPOSED**

SYMBOL	DESCRIPTION	DETAIL REFERENCE
1	NEW WORK KEY NOTES	
<u>w</u> *w D# <u>Y</u> *W	L-861 MEDIUM INTENSITY ELEVATED RUNWAY EDGE LIGHT, BI-DIRECTIONAL, PROPERLY SIZED ISOLATION TRANSFORMER, L-823 CONNECTOR KIT MOUNTED ON L-867B BASE CAN IN CONCRETE FOUNDATION. (W)=WHITE, (Y)=YELLOW. D # = FIXTURE ID #  * = INSTALL LIGHT ON EXISTING BASE (ALL OTHER DESCRIPTION IS THE SAME).	E5.01/1
<u>R</u> ⊕G	L-861E MEDIUM INTENSITY ELEVATED RUNWAY THRESHOLD LIGHT, BI-DIRECTIONAL, PROPERLY SIZED ISOLATION TRANSFORMER, L-823 CONNECTOR KIT MOUNTED ON L-867B BASE CAN IN CONCRETE FOUNDATION. (R)=RED, (G)=GREEN.	E5.01/1
В⊠	L-853, ELEVATED TWY EDGE REFLECTOR, OMNI-DIRECTIONAL, SURFACE MOUNTED. (B)=BLUE.	E5.01/5
<u>B</u> <b>⊚</b>	L-861T(L), LED ELEVATED TWY EDGE LIGHT WITH HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON AN L-867, SIZE B BASE CAN. (B)=BLUE.	E5.01/1
#	L-858(L), LED AIRFIELD GUIDANCE SIGN, MOUNTED ON A CONCRETE FOUNDATION WITH AN L-867, SIZE D, 24 INCH DEEP BASE CAN. WITH PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. # REPRESENTS SIGN NUMBER.	E5.03/1
<u>D(2)</u>	SERIES LIGHTING CABLE IN DIRECT BURIED CONDUIT WITH #6 COUNTERPOISE ABOVE CONDUIT. 1/C #8 AWG COPPER L-824, TYPE C, 5kV AIRFIELD LIGHTING CABLES. 'D' INDICATES CIRCUIT DESIGNATION. (2) INDICATES NUMBER OF CABLES. CONDUIT: (1) 2"C, UNO. "EMPTY" INDICATES NO CABLE, PULL-STRING ONLY. * INDICATES L-824 CABLE THRU EXISTING CONDUIT. CE - CONCRETE ENCASED WHERE INDICATED.	E5.01/2 E5.02/1
•	COUPLE NEW (BOLD) CONDUIT TO EXISTING (SCREENED CONDUIT).	
J <sub>JB#</sub>	JUNCTION BOX, L-867D 16" DIAMETER BASE CAN WITH 3/4" THICK COVER IN CONCRETE FOUNDATION.	E5.01/4
	L-849V(L), RUNWWAY END IDENTIFIER LIGHT, LED, STYLE E, VOLTAGE POWERED, TRIGGER/3-STEP BRIGHTNESS CONTROL VIA RWY EDGE SERIES CIRCUIT. SYSTEM: (2) LIGHT UNITS WITH SINGLE CO-LOCATED CONTROLLER MOUNTED ON CONCRETE FOUNDATION.	E5.04/3

# EXISTING / DEMOLITION

SYMBOL	DESCRIPTION
1	DEMOLITION KEY NOTES
R R*	EXISTING L-861T, OMNI-DIRECTIONAL, BLUE, TWY EDGE LIGHT, MOUNTED ON AN L-867 BASE CAN, D=CIRCUIT, R=REMOVE, R*=REMOVE LIGHT AND ISOLATION TRANSFORMER, PRESERVE BASE FOR RE-USE.
•	EXISTING ELEVATED TAXIWAY EDGE REFLECTOR.
	EXISTING IN-PAVEMENT RUNWAY EDGE LIGHT.
#	EXISTING L-858 GUIDANCE SIGN. # REPRESENTS SIGN NUMBER.
H	EXISTING ELECTRICAL HANDHOLE, JUNCTION BOX.
	EXISTING WIND CONE.
UGE ————————————————————————————————————	EXISTING CONDUIT AND CABLE TO REMAIN, SCREENED ON DEMO SHEETS, CIRCUIT DESIGNATION AND CABLE QUANTITY AS INDICATED.
D(1)*	REMOVE CONDUIT AND CABLE, BOLD ON DEMO SHEETS * INDICATES REMOVE CABLE, PRESERVE CONDUIT FOR RE-USE.
	CUT AND REMOVE CONDUIT (BOLD) FROM EXISTING CONDUIT TO REMAIN (SCREENED).

# SIGNAGE



MODULE CONFIGURATION

NOTE:

SIGN # DETERMINED BY AIRPORT.

# SIGNAGE ARROW



ARROW - ANGLE MEASURED FROM 0°

NOTE:

ALL DIRECTIONAL ARROWS ARE 90° OR 270° UNLESS OTHERWISE INDICATED.

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SHEET TITLE

ELECTRICAL LEGEND, SYMBOLS, AND NOTES

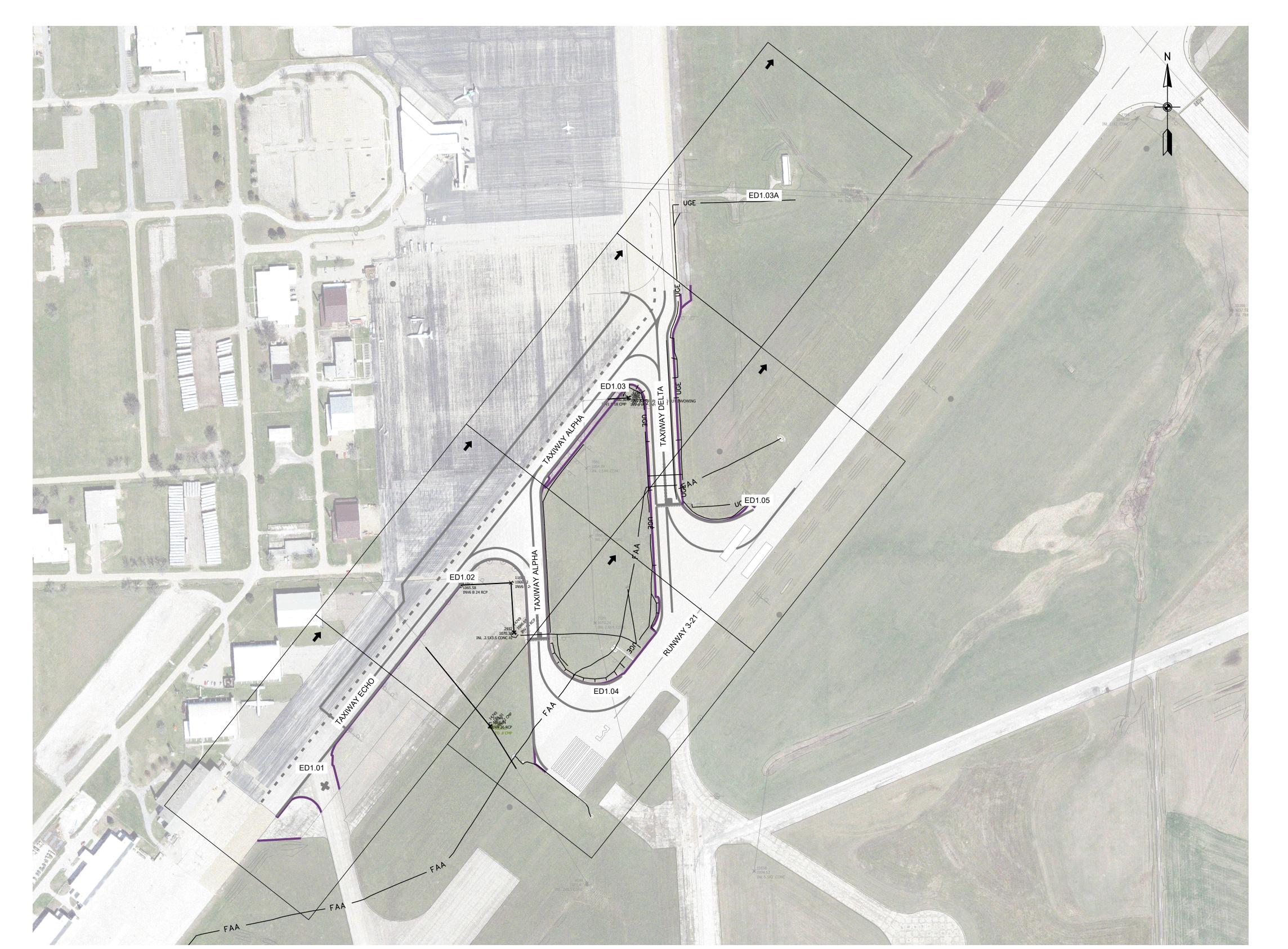
**JANUARY 16, 2024** DATE SCALE **AS SHOWN** DRAWN BY CHECKED BY APPROVED BY

WSP PROJECT NUMBER 30900280J

SHEET NUMBER

SHEET **78** OF 98

E0.01



# <u>LEGEND</u>

ARROW POINTS IN DIRECTION OF ORIENTATION OF SHEET

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TOPEKA REGIONAL
AIRPORT A BIJSINESS CENTER

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TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA

# **AIRPORT AUTHORITY TOPEKA** METROPOLITAN

ISSUED FOR BID

SHEET TITLE

0 100' 200' 400' HORIZONTAL SCALE 1"=200'

AIRFIELD ELECTRICAL LIGHTING **DEMOLITION KEY PLAN** 

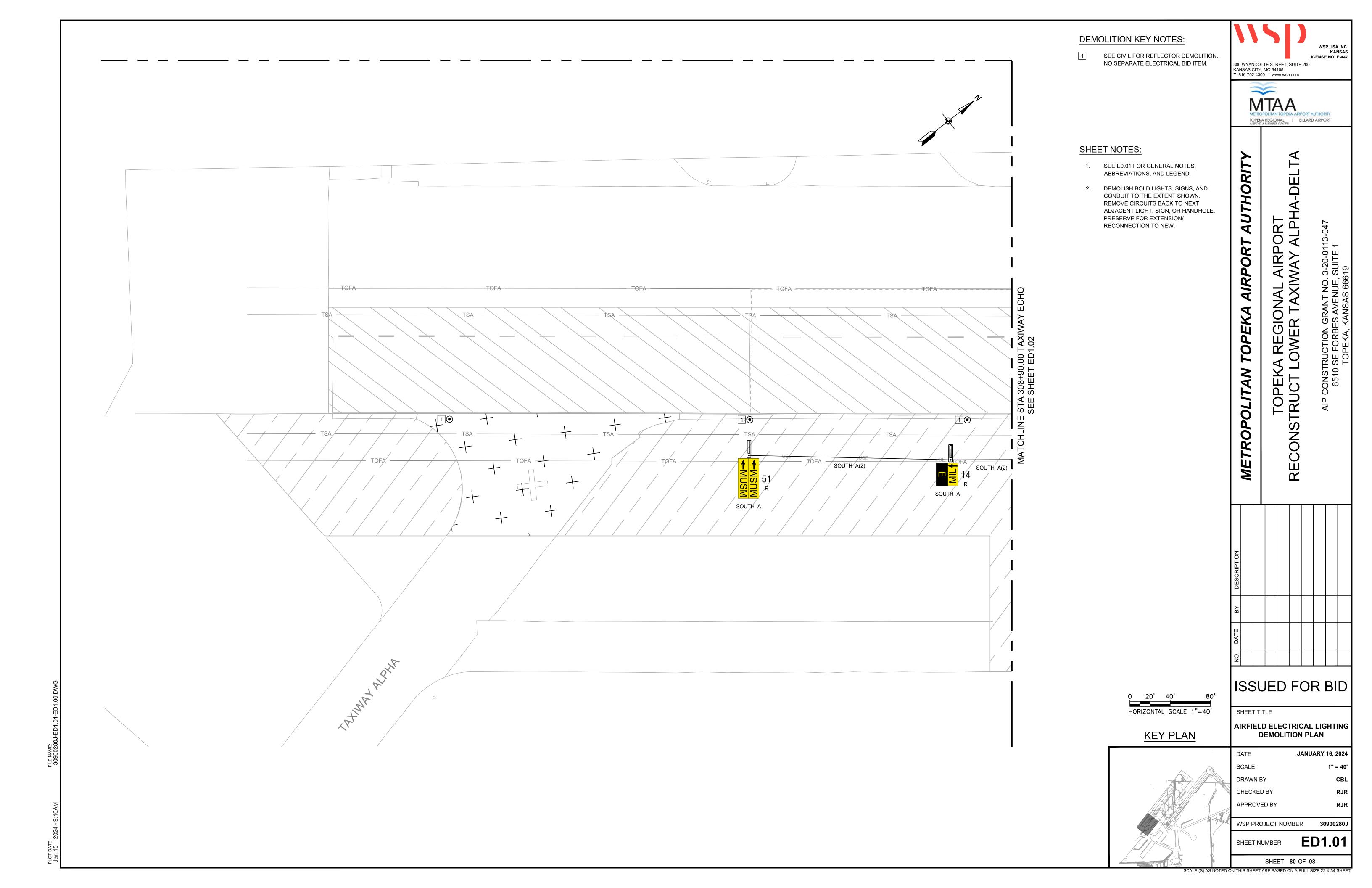
**JANUARY 16, 2024** SCALE 1" = 200' DRAWN BY CHECKED BY APPROVED BY

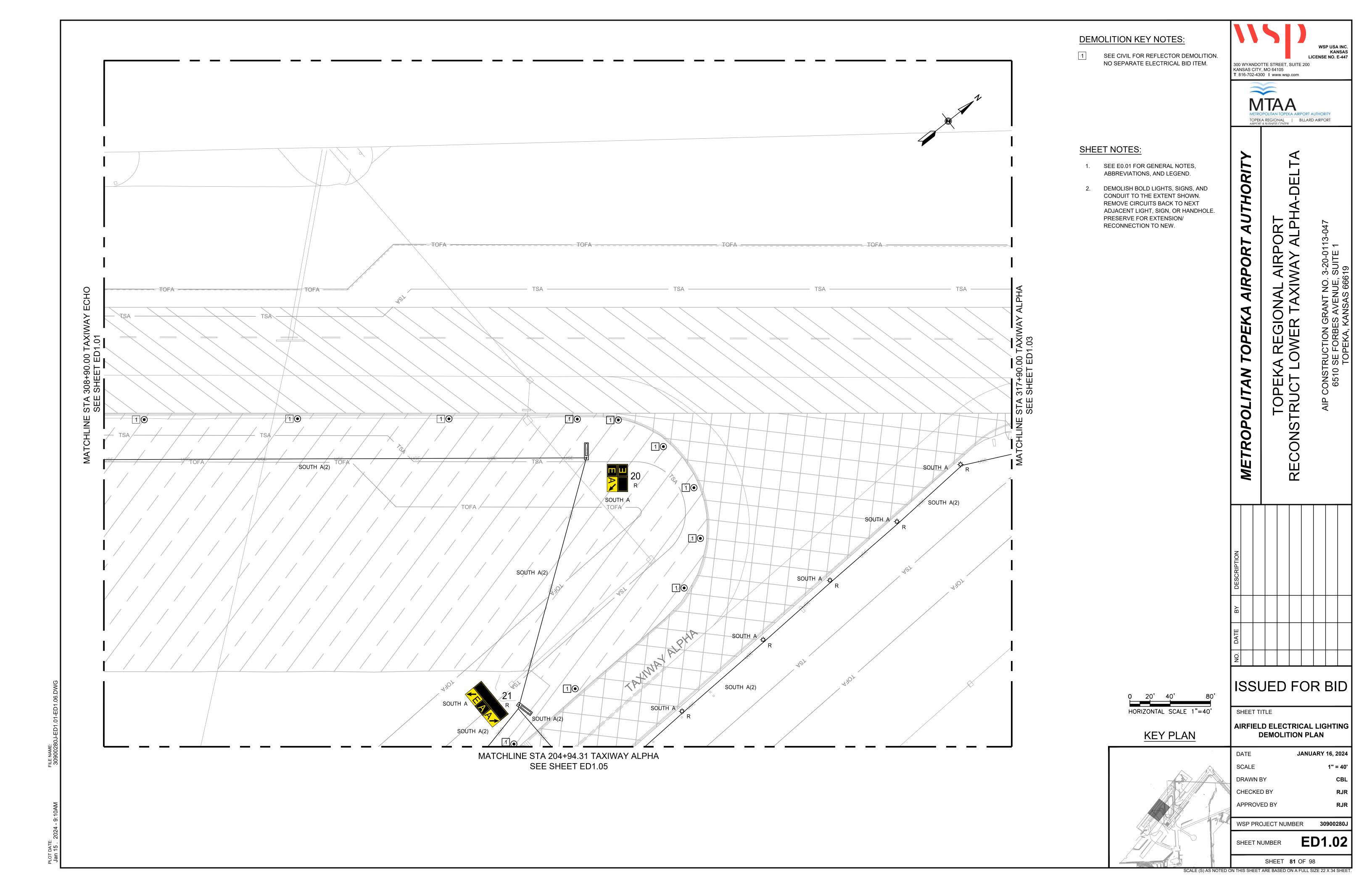
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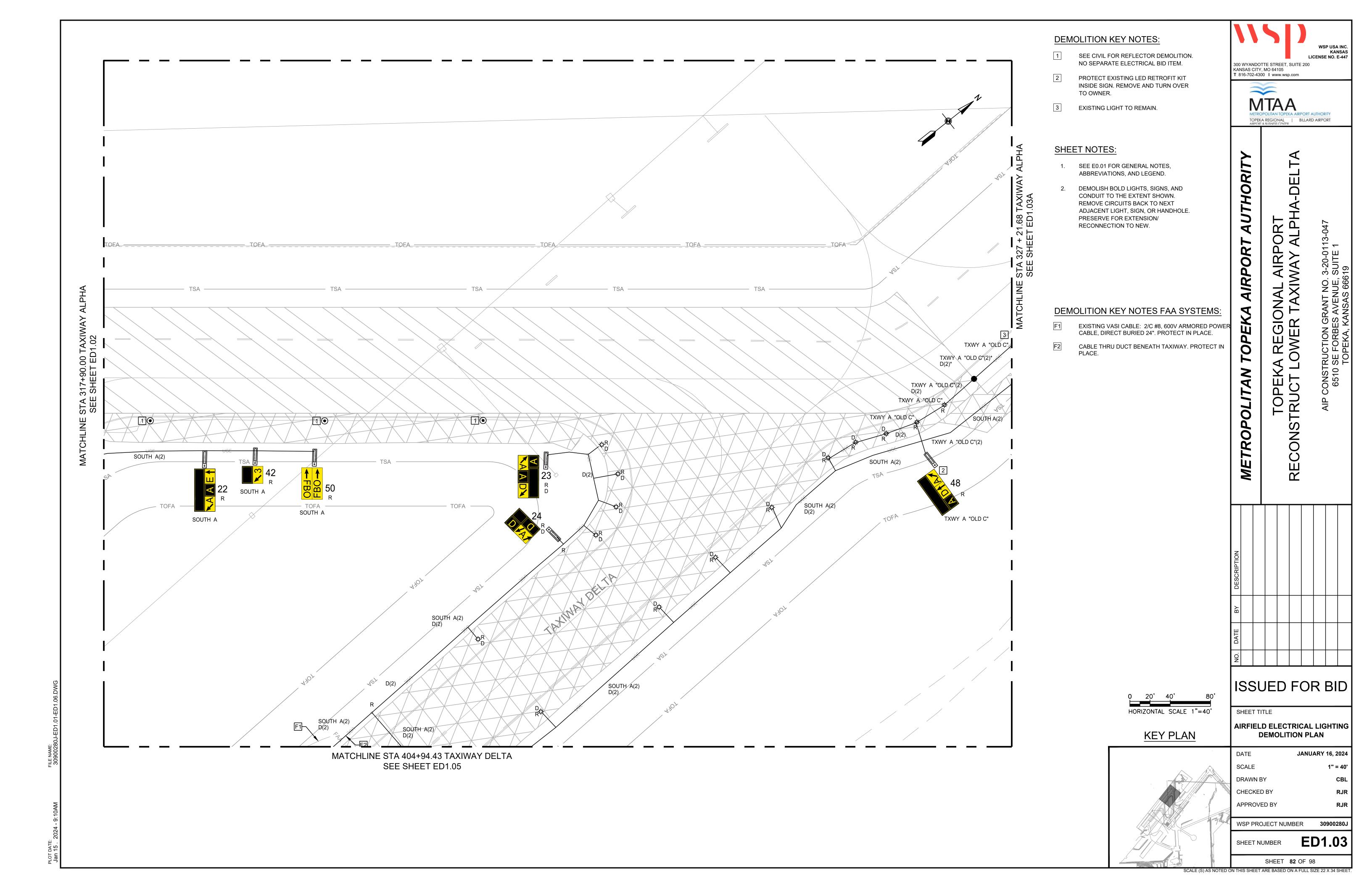
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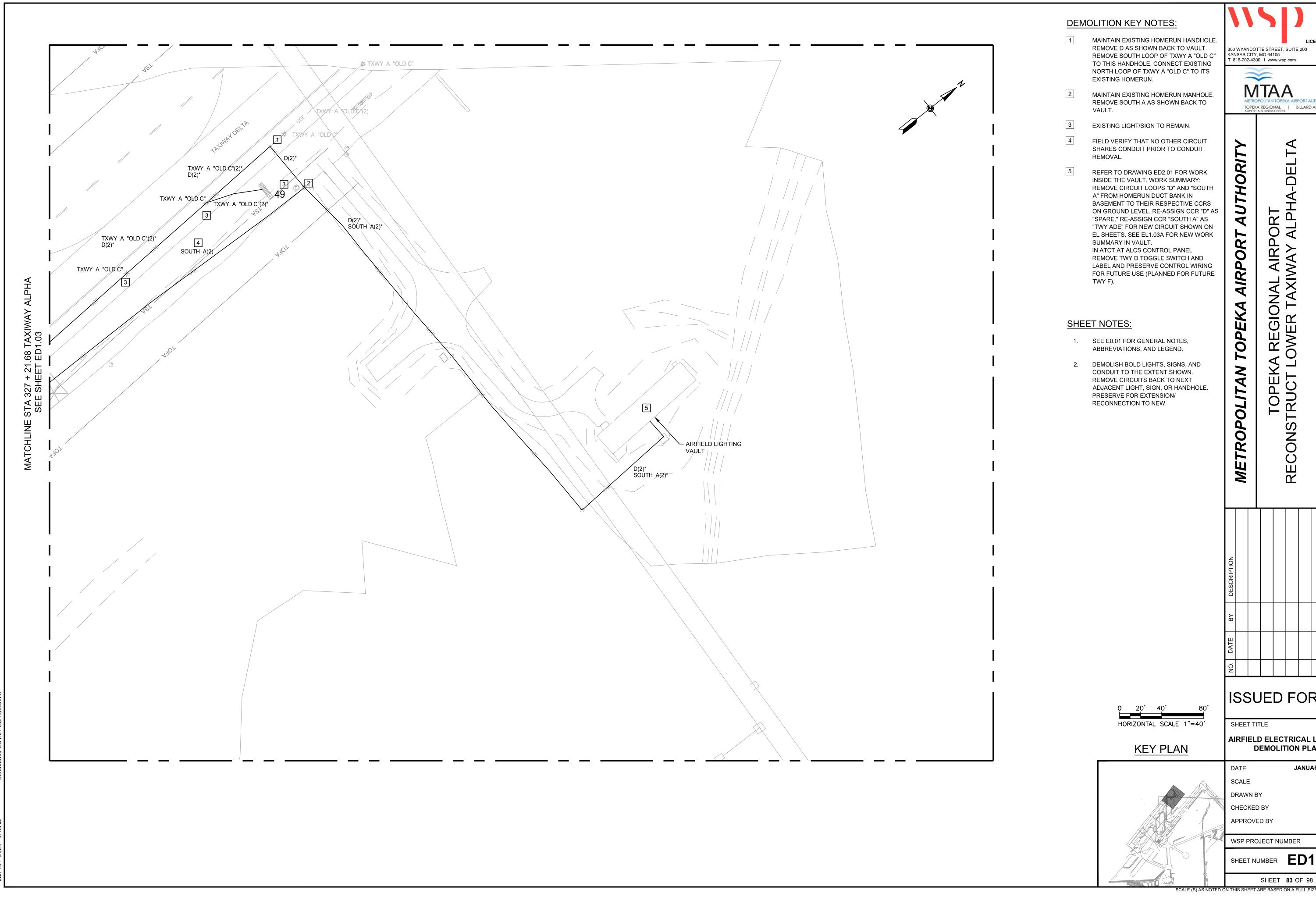
SHEET **79** OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET.











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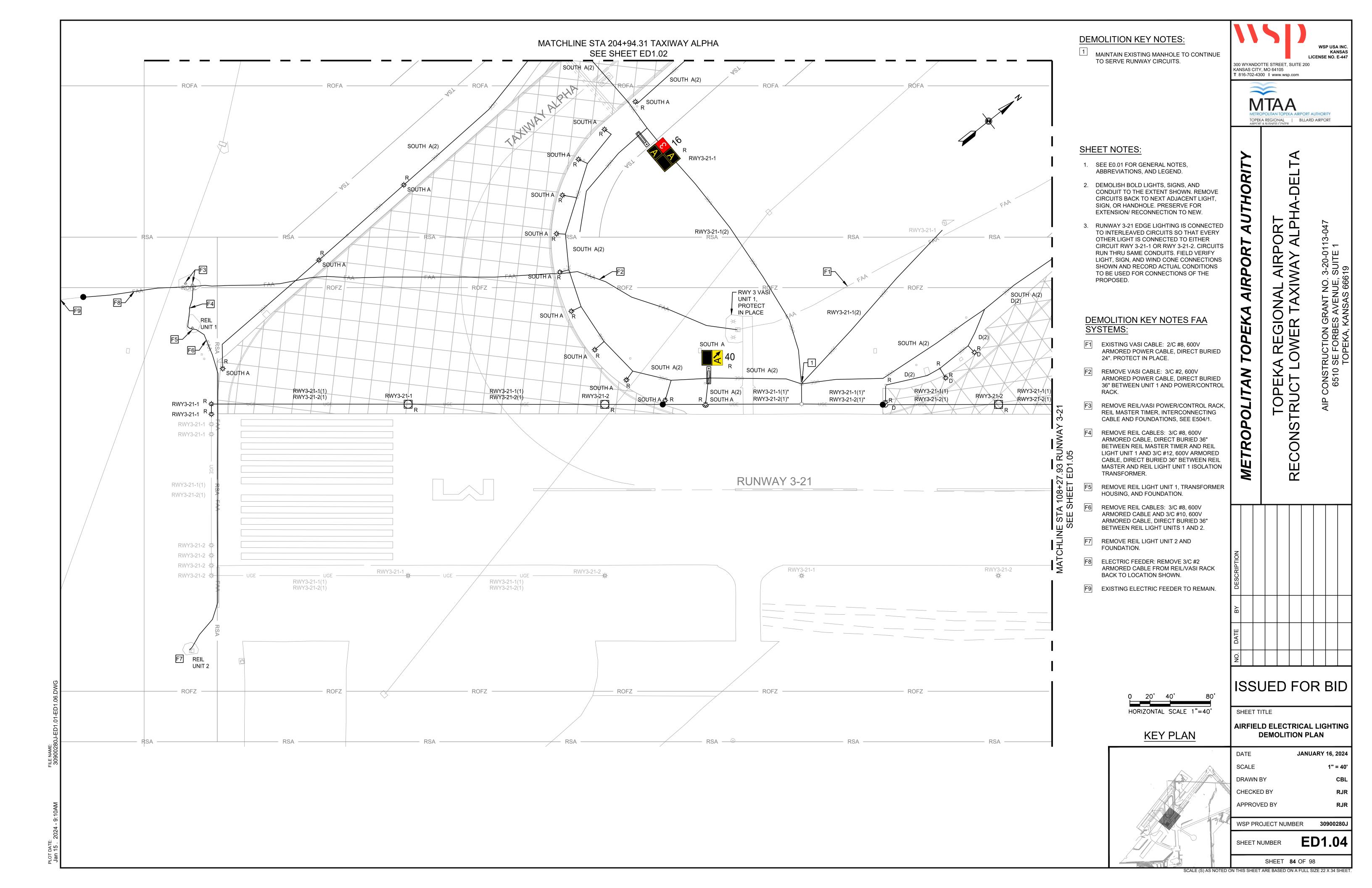
ISSUED FOR BID

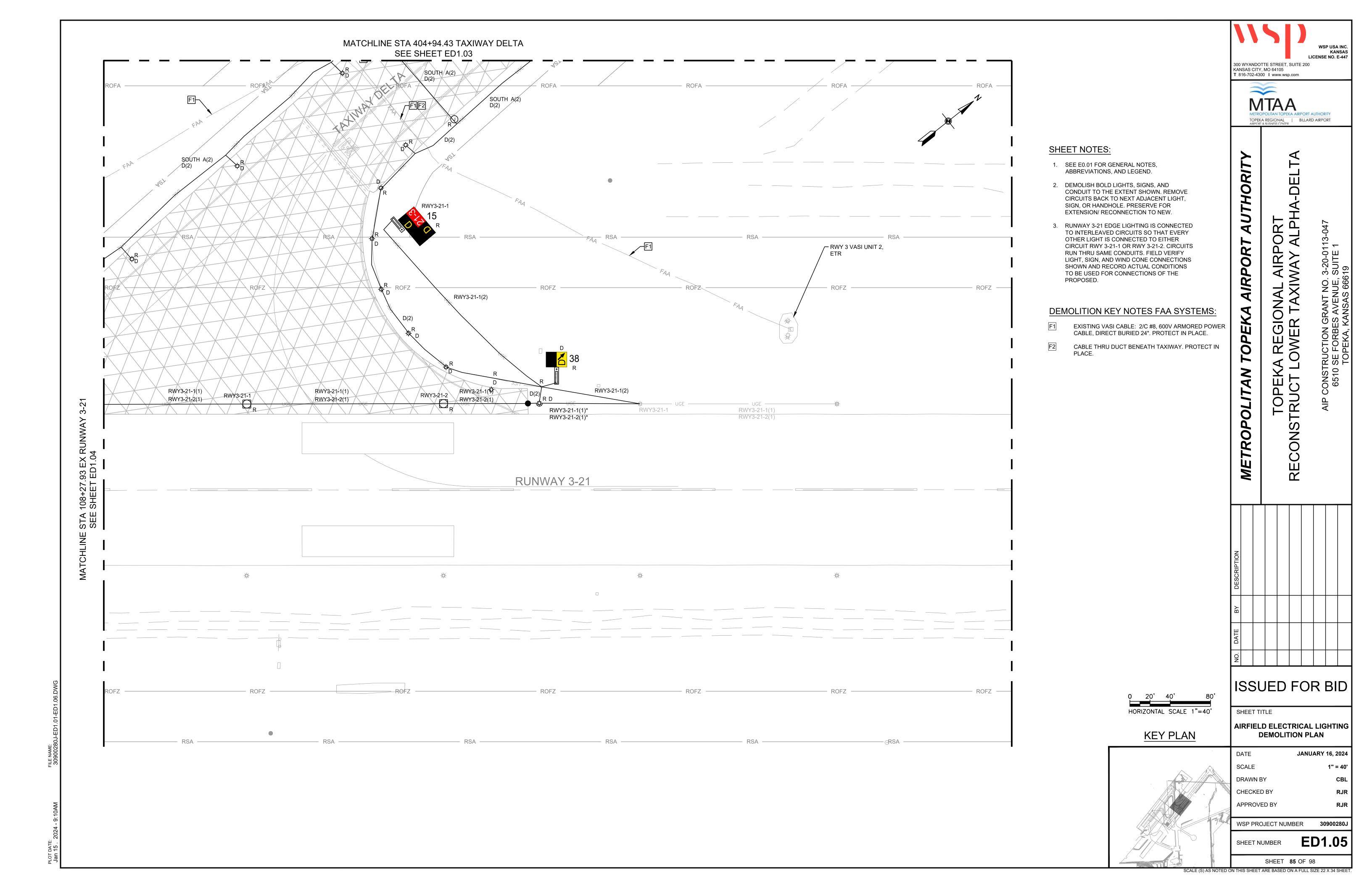
AIRFIELD ELECTRICAL LIGHTING **DEMOLITION PLAN** 

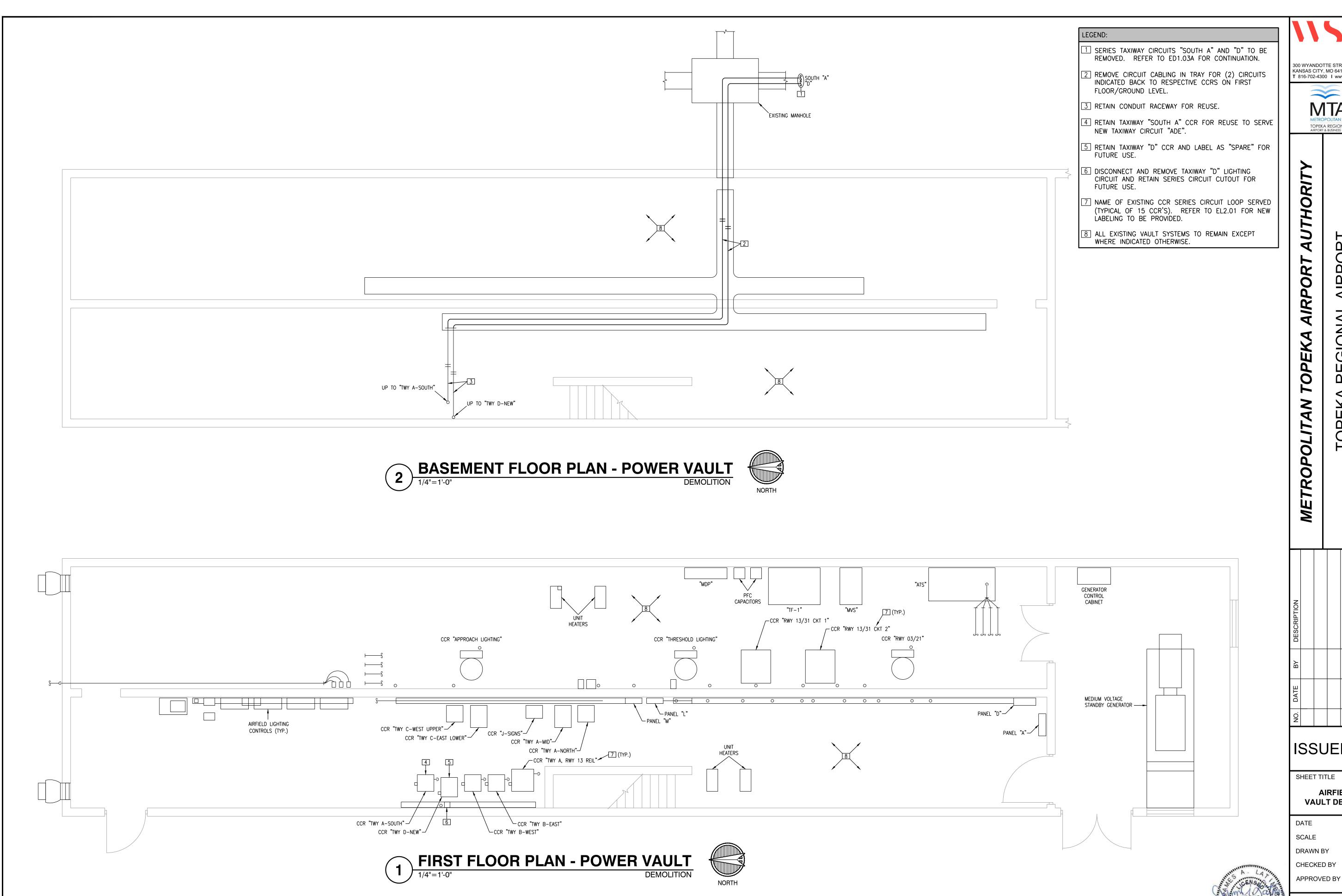
**JANUARY 16, 2024** 

WSP PROJECT NUMBER

SHEET NUMBER ED1.03A







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MTAA TOPEKA REGIONAL | BILLARD AIRPORT

A REGIONAL AIRPORT OWER TAXIWAY ALPH

ISSUED FOR BID

SHEET TITLE

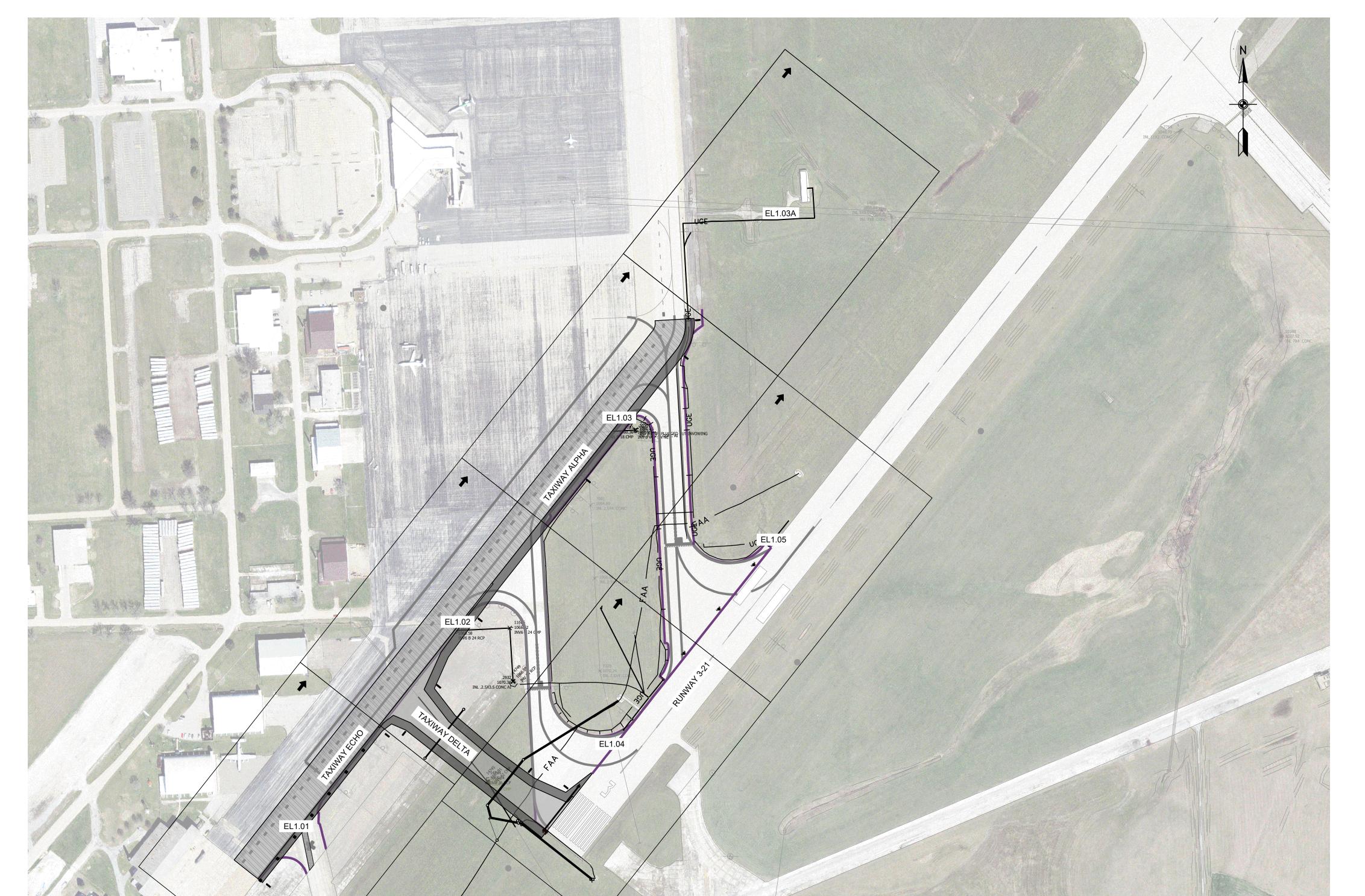
**AIRFIELD LIGHTING VAULT DEMOLITION PLANS** 

**JANUARY 16, 2024 REFER TO PLANS** SCALE DRAWN BY CHECKED BY

WSP PROJECT NUMBER

**ED2.01** SHEET NUMBER

SHEET OF 98



# <u>LEGEND</u>

ARROW POINTS IN DIRECTION OF ORIENTATION OF SHEET

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METROPOLITAN TOPEKA AIRPORT AUTHORITY
TOPEKA REGIONAL
AIRPORT A BIJSINESS CENTER

BILLARD AIRPORT

# **AIRPORT AUTHORITY TOPEKA** METROPOLITAN

TOPEKA REGIONAL AIRPORT RECONSTRUCT LOWER TAXIWAY ALPHA-DELTA

ISSUED FOR BID

SHEET TITLE

AIRFIELD ELECTRICAL LIGHTING **KEY PLAN** 

**JANUARY 16, 2024** SCALE 1" = 200' DRAWN BY

CHECKED BY APPROVED BY

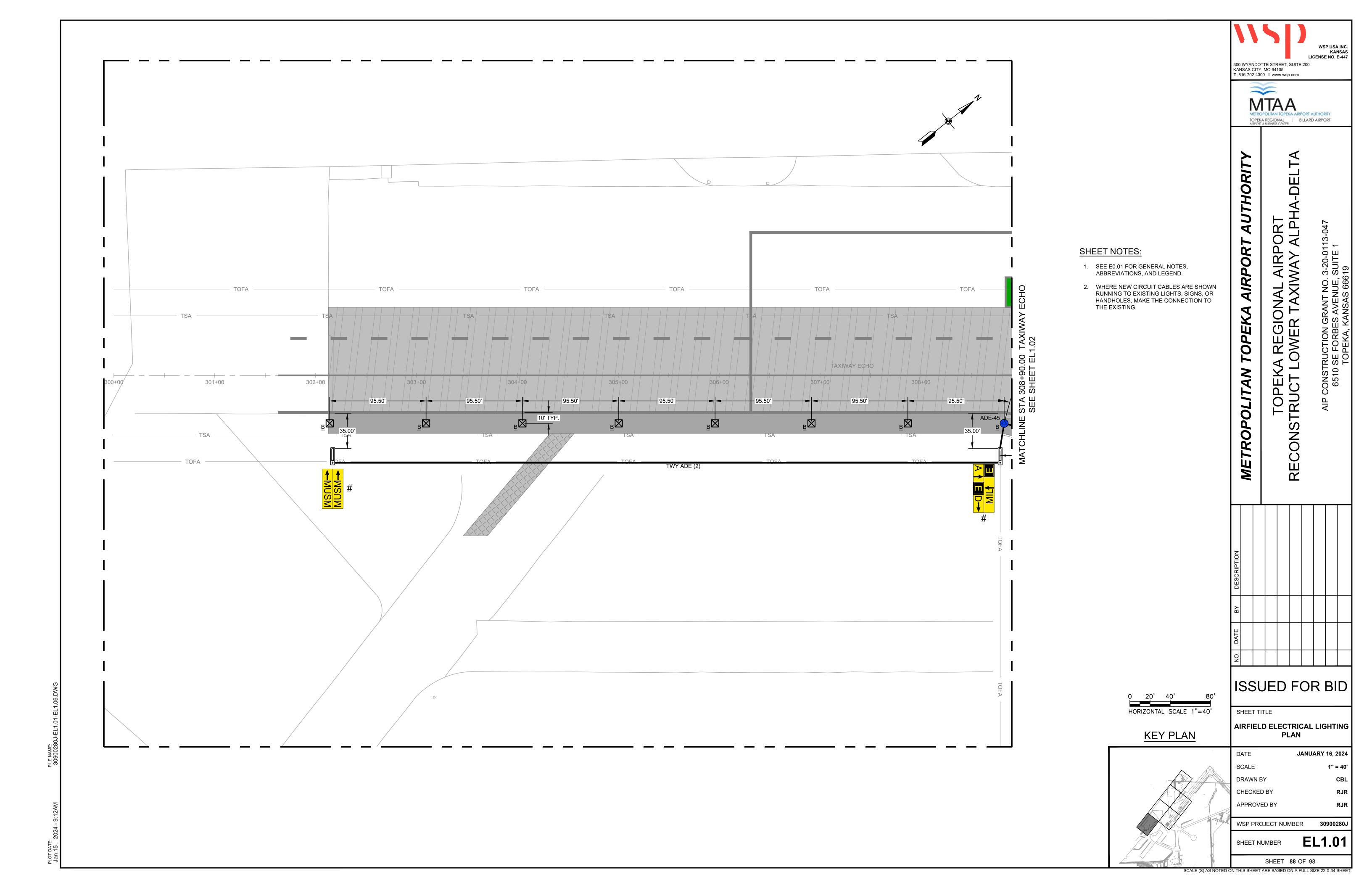
WSP PROJECT NUMBER

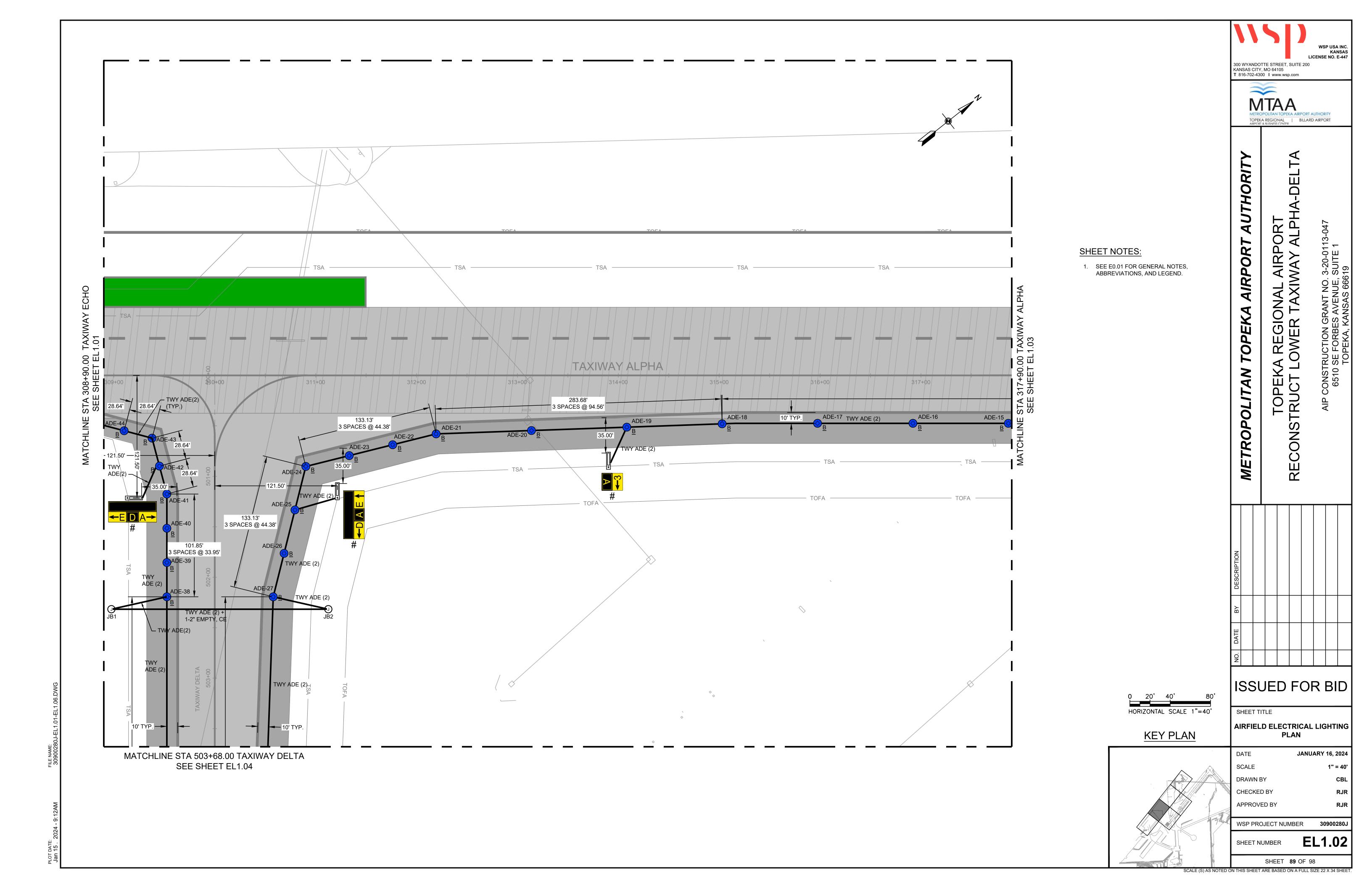
EL1.00 SHEET NUMBER

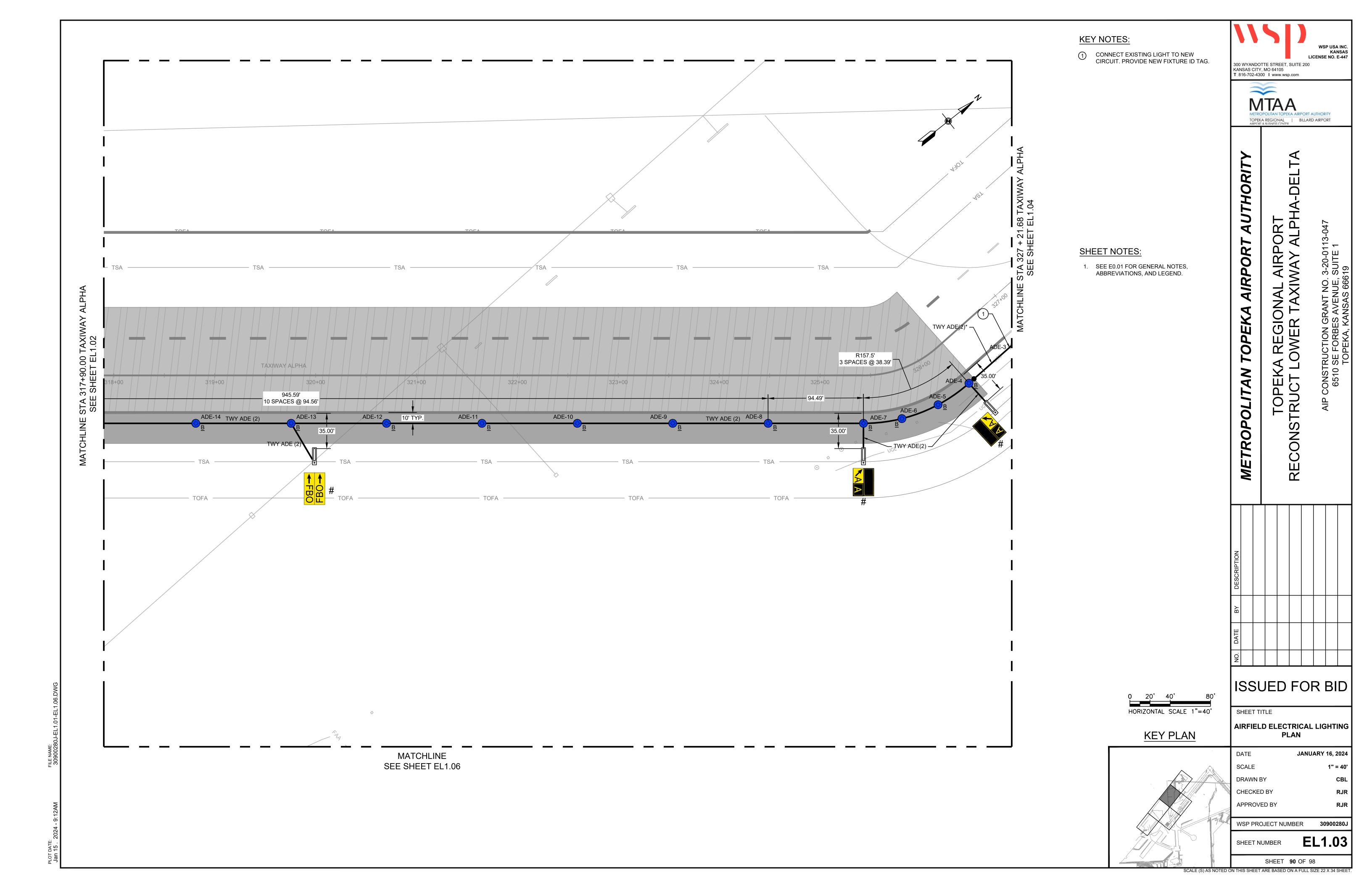
SHEET **87** OF 98

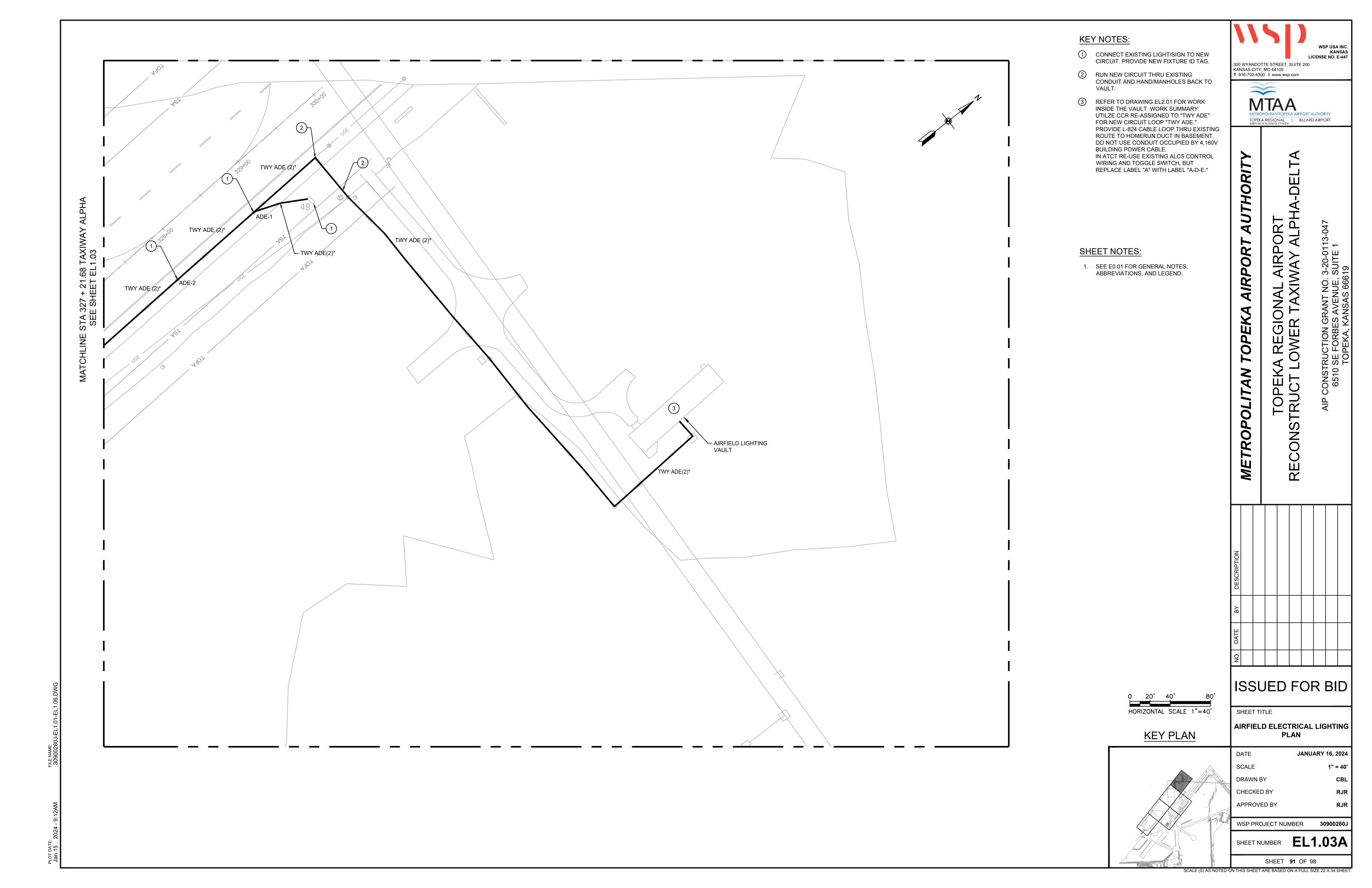
0 100' 200' 400' HORIZONTAL SCALE 1"=200'

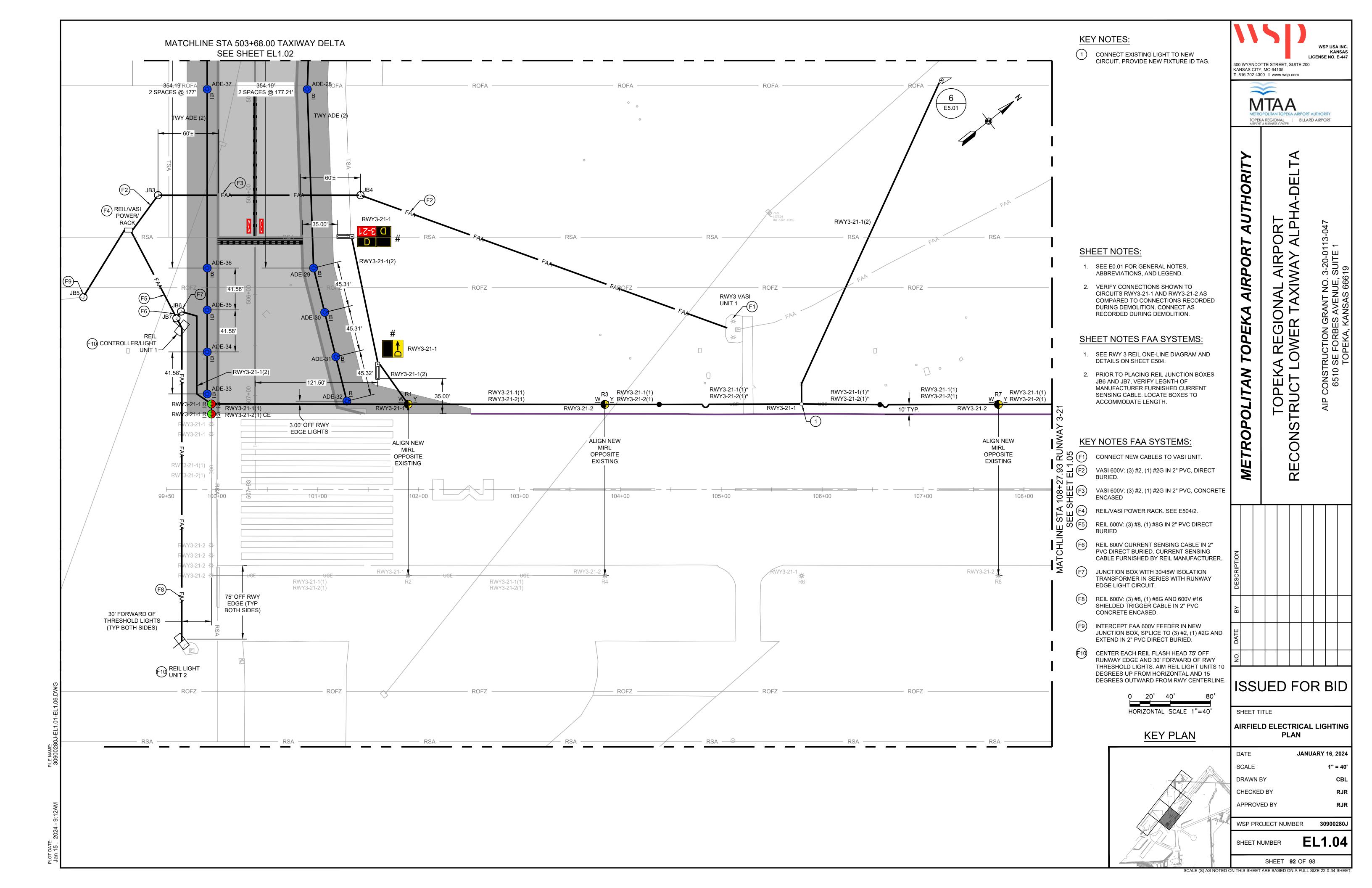
SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET.

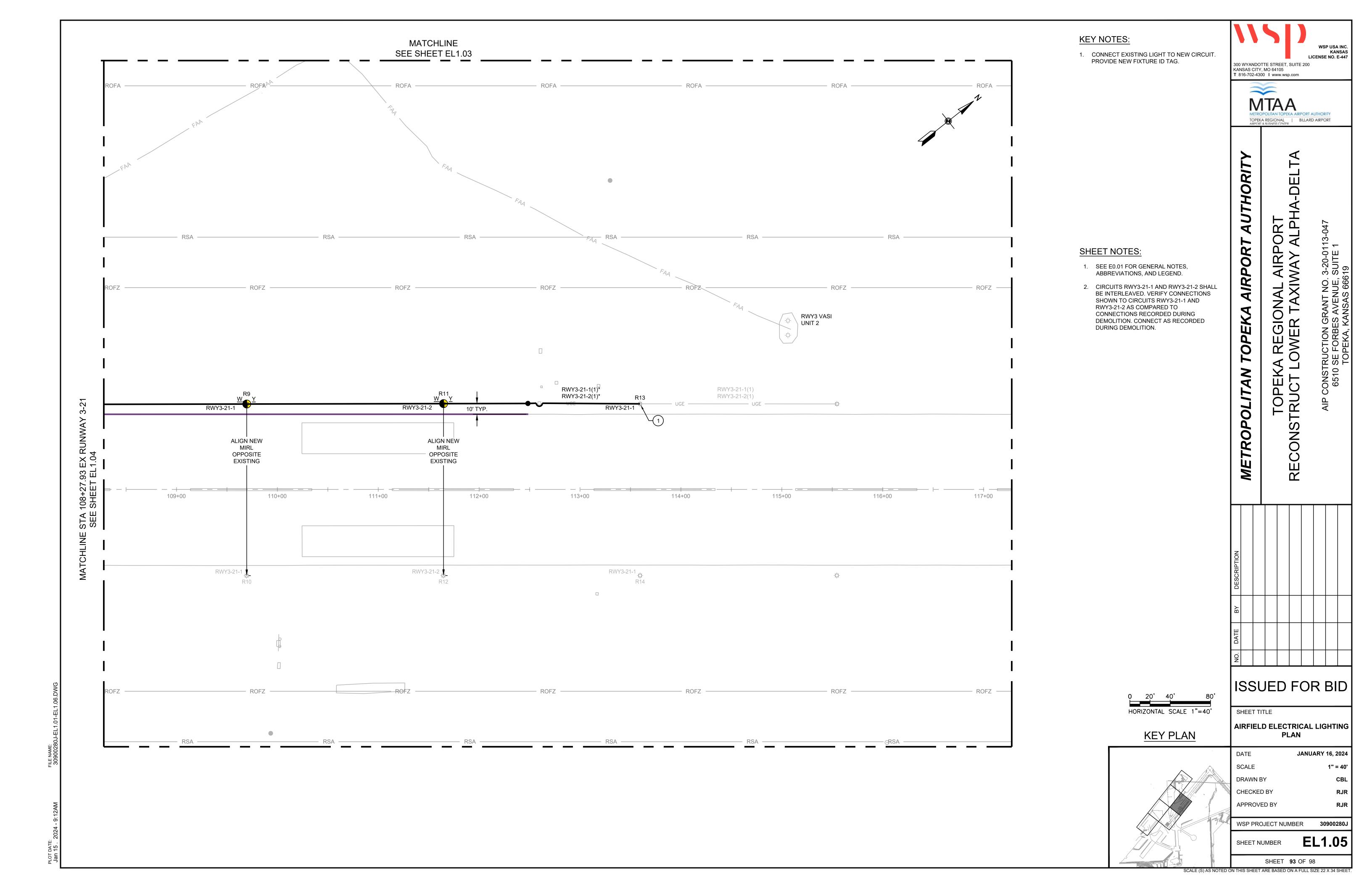


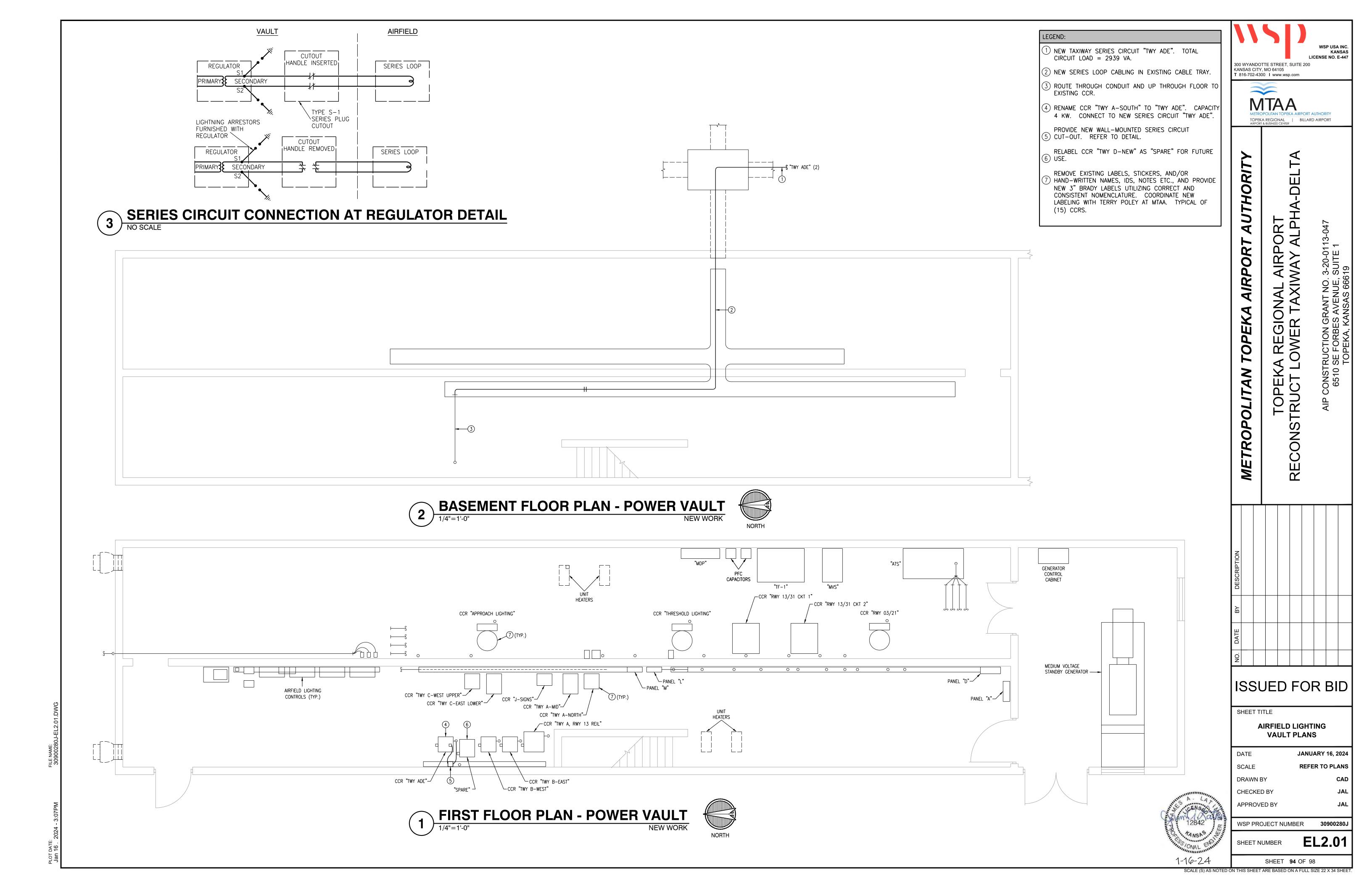


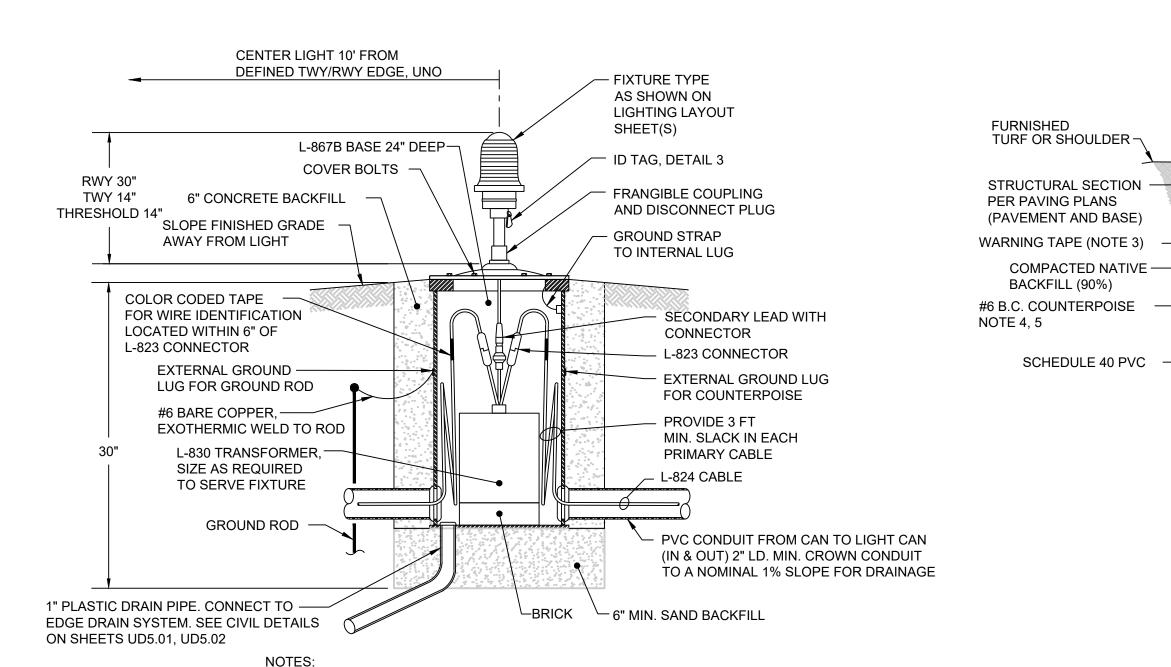








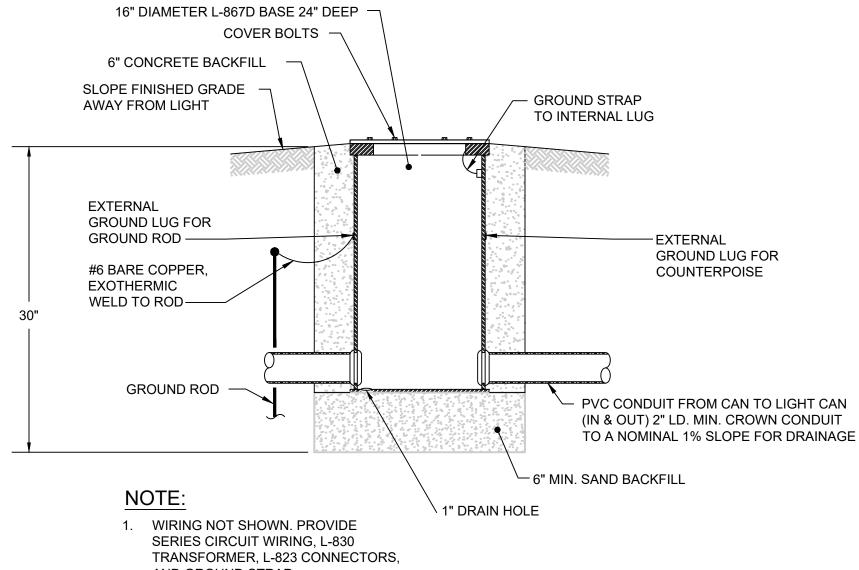




1. VIEW IS PERPENDICULAR TO RUNWAY EDGE.

2. BREAKING-POINT FRANGIBLE COUPLING SHOULD BE LOCATED 3 INCHES MAX. ABOVE GRADE.

**RUNWAY AND TAXIWAY EDGE LIGHTS -**NON ADJUSTABLE BASE - MOUNTED E5.01 SCALE: NTS



AND GROUND STRAP



WIDTH AS REQUIRED **FURNISHED** TURF OR SHOULDER-STRUCTURAL SECTION PER PAVING PLANS (PAVEMENT AND BASE) WARNING TAPE (NOTE 3) 0 0 COMPACTED NATIVE -A: 1-2" C B: 2-2" C BACKFILL (90%)

SCHEDULE 40 PVC —

-SAND IN TURF AND BENEATH SHOULDER PAVEMENT P-610 CONCRETE BENEATH FULL STRENGTH PAVEMENT

(UNLESS OTHERWISE

INDICATED ON PLANS)

- 1. SEE PLANS FOR REQUIRED DUCT SECTIONS.
- 2. PROVIDE PULL WIRES IN ALL (NEW) UNUSED CONDUITS. PLUG ENDS IN HANDHOLES, MANHOLES AND CANS.
- 3. WARNING TAPE REQUIRED WHEN DUCTS ARE INSTALLED IN AREAS NOT BELOW FULL STRENGTH PAVEMENT.
- 4. INSTALL COUNTERPOISE ABOVE EACH DUCT ASSEMBLY, E5.02/1 WHERE BENEATH PAVEMENT.
- 5. UNDER TURF OR SHOULDER: 18" FOR AIRPORT LIGHTING CABLE, 36" FOR FAA CABLE.

SIX (6) #4 REBAR -

SPACED EQUALLY

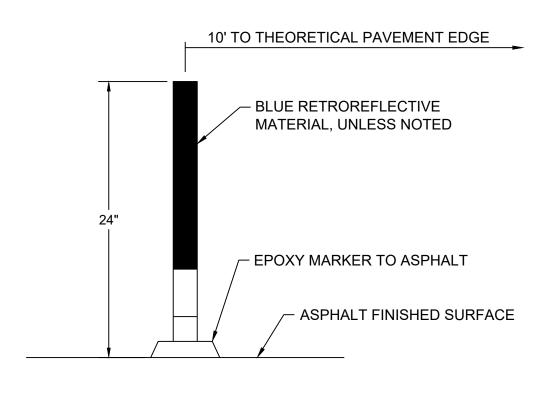
#4 HOOP

4 SPACED

**EQUALLY** 

6. UNDER FULL STRENGTH PAVEMENT: 18" FOR AIRPORT LIGHTING CABLE, 36" FOR FAA CABLE.





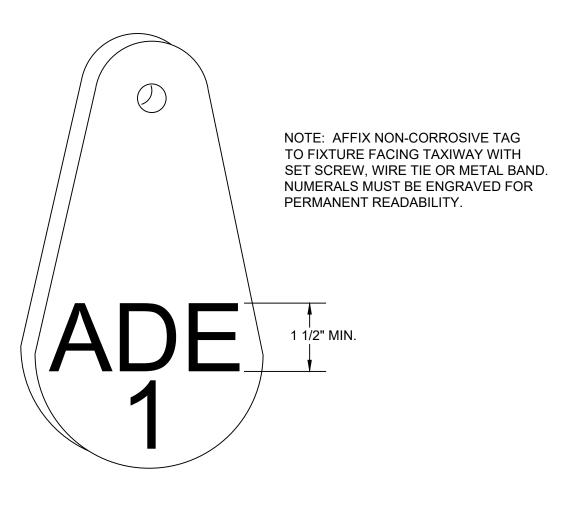
1. USE COMPATIBLE TWO PART EPOXY FOR AFFIXING BASE TO CONCRETE

- OR ASPHALT SURFACES. 2. PROVIDE ELEVATED RETROREFLECTIVE EDGE MARKERS AT LOCATIONS
- 3. ELEVATED RETROREFLECTIVE MARKERS SHALL BE CYLINDRICAL, TYPE II,

SURFACE MOUNT PER FAA ADVISORY CIRCULAR 150/5345-39D.

E5.01

L-853 RETROREFLECTIVE MARKER INSTALLATION - ON PAVEMENT SCALE: NTS

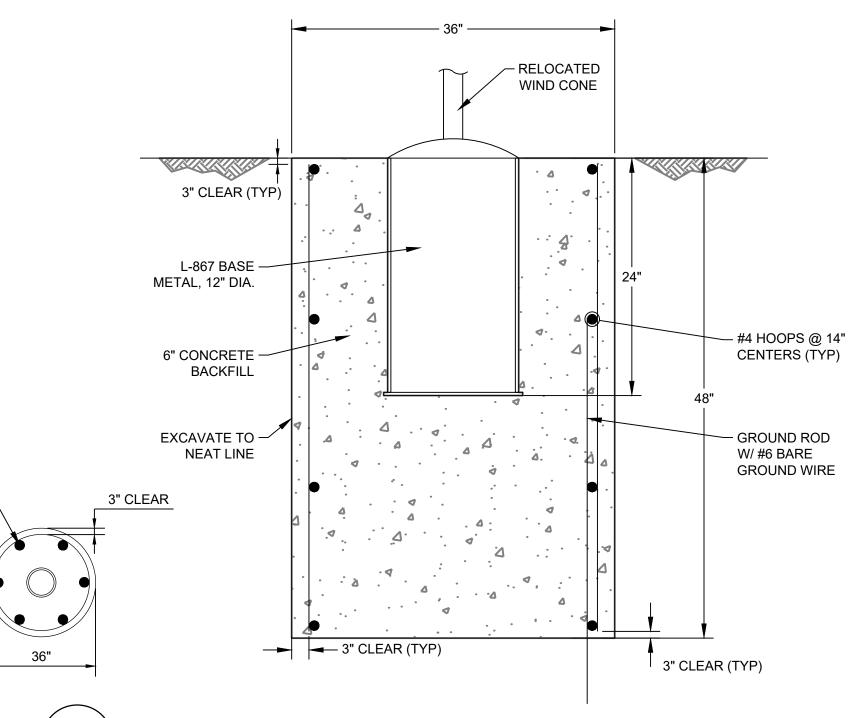


SHEET NOTES:

1. SEE E0.01 FOR GENERAL NOTES,

ABBREVIATIONS, AND LEGEND.

LIGHT FIXTURE I.D. TAG E5.01 SCALE: NTS



SUPPLEMENTAL WIND CONE FOOTING DETAIL E5.01 SCALE: NTS

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TOPEKA REGIONAL | BILLARD AIRPORT

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ISSUED FOR BID

SHEET TITLE

AIRFIELD ELECTRICAL DETAILS

**JANUARY 16, 2024** DATE SCALE **AS SHOWN** DRAWN BY CHECKED BY

WSP PROJECT NUMBER 30900280J

E5.01 SHEET NUMBER

SHEET **95** OF 98

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

APPROVED BY

# SHEET NOTES:

SEE E001 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.





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TROPOLITAN

 $\overline{Q}$ AIRPORT WAY ALPH TOPEKA 0 REC

# ISSUED FOR BID

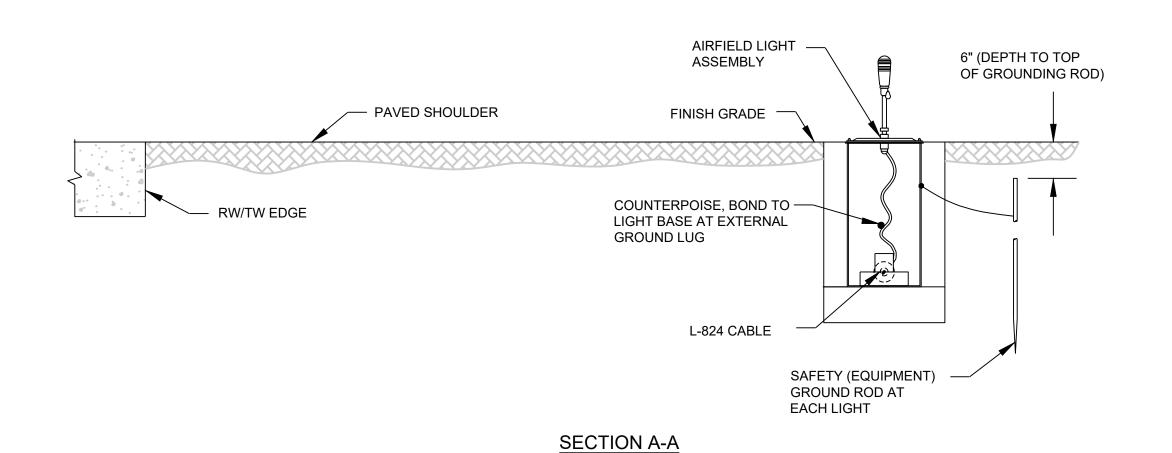
SHEET TITLE

AIRFIELD ELECTRICAL DETAILS

**JANUARY 16, 2024** DATE SCALE **AS SHOWN** DRAWN BY CHECKED BY APPROVED BY

30900280J WSP PROJECT NUMBER

E5.02 SHEET NUMBER



# NOTE:

- 1. COUNTERPOISE RUN IN SAME TRENCH AS L-824 CABLE. REFER TO E5.01/2.
- 2. INSTALL GROUND ROD AT MAXIMUM 500' SPACING. USE GROUND ROD TO TERMINATE THE COUNTERPOISE AT BOTH ENDS OF DUCT. COUNTERPOISE GROUND ROD NOT SHOWN ON THIS DRAWING.

L-824CABLE

ADE

ADDITIONAL ADHESIVE COMPOUND FILLER

- HEAT SHRINK TUBING WITH

INTERNAL ADHESIVE, USE

ONE-HALF OF HEAT SHRINK

3. COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRED GROUNDING UNLESS OTHERWISE SPECIFIED.



– L-823

- WRAP WITH AT LEAST ONE LAYER OF

TAPE, ONE-HALF LAPPED, EXTENDING

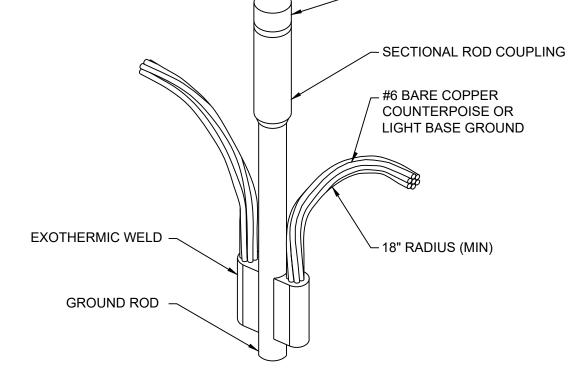
RUBBER OR SYNTHETIC RUBBER

AT LEAST 1-1/2" ON EACH SIDE OF

PLUG END

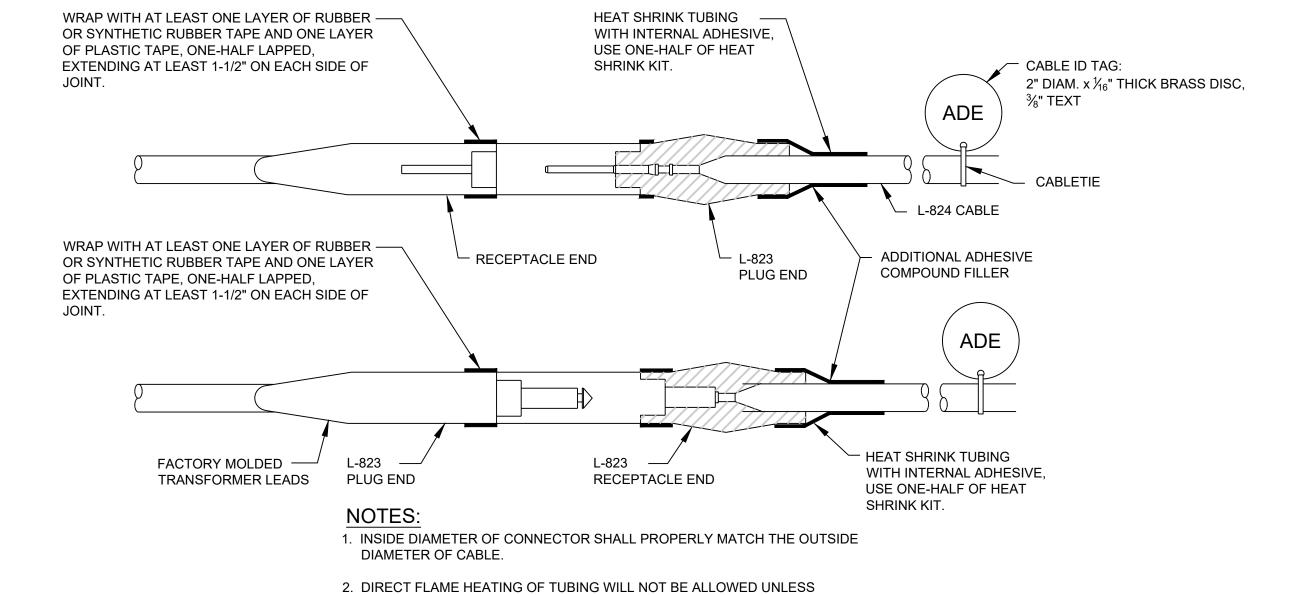
2" AFTER

SHRINKING



- DRIVING STUD

→ GROUND ROD EXOTHERMIC WELD DETAIL E5.02 SCALE: NTS



# NOTES:

L-823

END

RECEPTACLE

CABLE

ADE

ADDITIONAL ADHESIVE -

COMPOUND FILLER

- 1. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
- 2. DIRECT FLAME HEATING OF TUBING WILL NOT BE ALLOWED UNLESS
- APPROVED BY THE MANUFACTURER.
- 3. L-823, CLASS B, TYPE 1, STYLE 3 PLUG, STYLE 10 RECEPTACLE.

HEAT SHRINK TUBING WITH

INTERNAL ADHESIVE, USE

ONE-HALF OF HEAT SHRINK

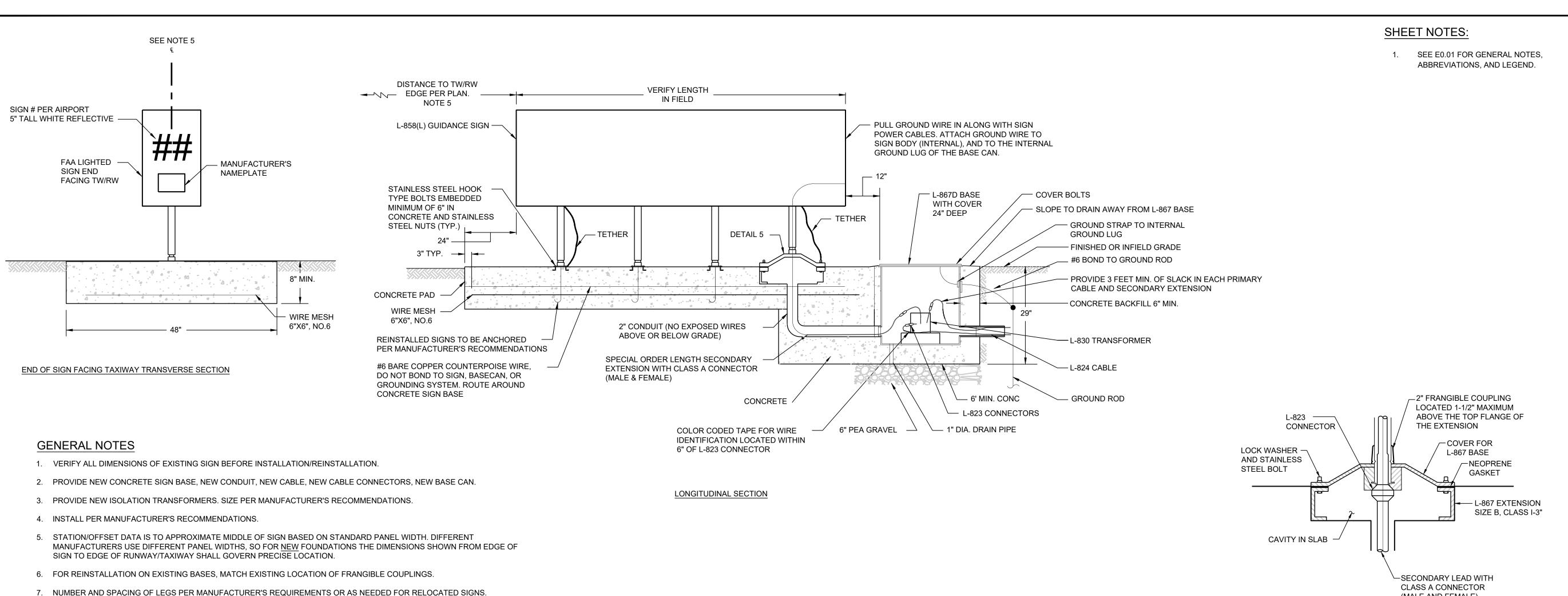


3. L-823, CLASS B, TYPE 1, STYLE 3 PLUG, STYLE 10 RECEPTACLE. E5.02

APPROVED BY THE MANUFACTURER.

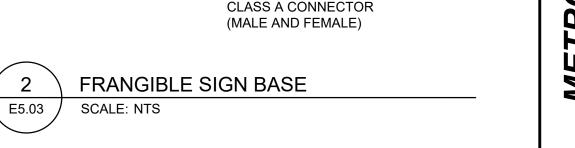
ISOLATION TRANSFORMER CONNECTION SCALE: NTS

SHEET **96** OF 98 SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET



RUNWAY HOLD AND GUIDANCE SIGNS

SCALE: NTS



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FILE NAME: 30900280J-E5.03.DWG

PLOT DATE:

SHEET **97** OF 98 SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

SHEET NUMBER

SCALE

DRAWN BY

CHECKED BY

APPROVED BY

WSP PROJECT NUMBER

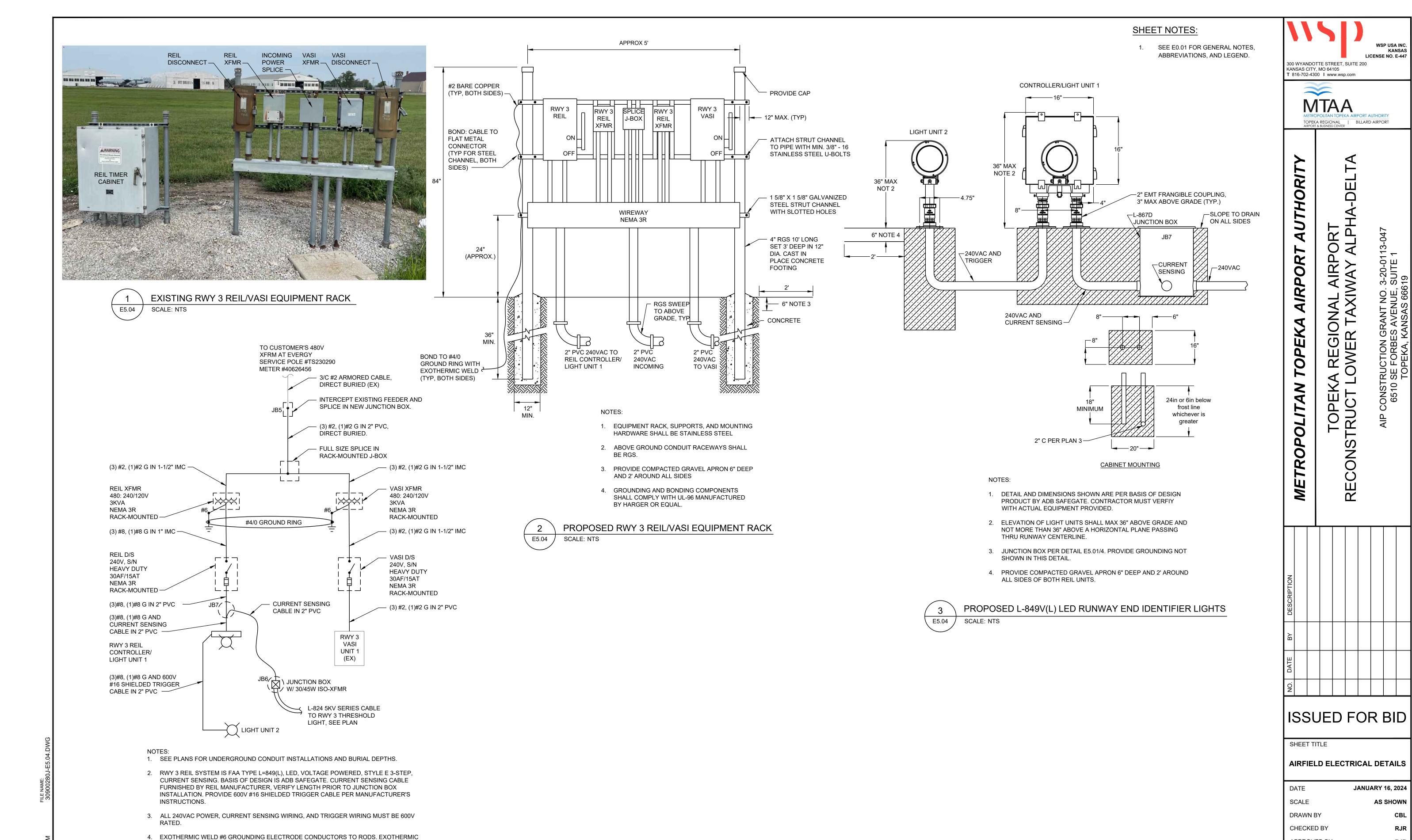
AIRFIELD ELECTRICAL DETAILS

**JANUARY 16, 2024** 

**AS SHOWN** 

30900280J

E5.03



WELD RODS TO #4/0 BARE COPPER GROUND RING ENCIRCLING EQUIPMENT RACK.

BURY RING 30" DEEP AND 2' OUTBOARD OF RACK FOUNDATIONS.

ONE-LINE DIAGRAM

SCALE: NTS

E5.04

SHEET NUMBER

SHEET **98** OF 98

30900280J

E5.04

SCALE (S) AS NOTED ON THIS SHEET ARE BASED ON A FULL SIZE 22 X 34 SHEET

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WSP PROJECT NUMBER