

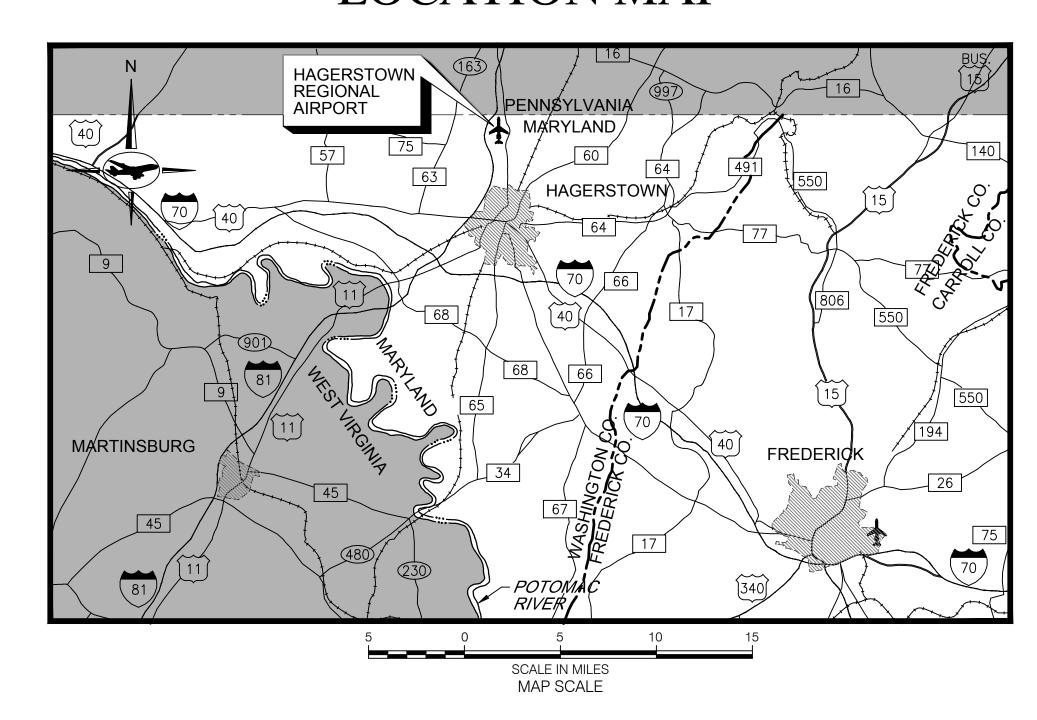
TAXIWAY F REHABILITATION A.I.P. No. 3-24-0019-065-2021 (DESIGN) **BID DOCUMENTS** FEBRUARY 2023

BID No. PUR-1592

VICINITY MAP

HENSON BLVD. MAIN ENTRANCE

LOCATION MAP



S.W.M. NARRATIVE

THIS PROJECT AREA CURRENTLY IS TREATED BY AN EXISTING BMP (SOUTHWEST REGIONAL POND ADJACENT TO THE PROPERTY). THE PROJECT WILL DEMOLISH EXISTING TAXIWAY PAVEMENT. MILL EXISTING TAXIWAY PAVEMENT, AND CONSTRUCT NEW TAXIWAY PAVEMENT WITHIN AIRPORT LIMITS. THE AFFECTED AREAS WILL BE GRADED TO TIE-IN TO EXISTING SURROUNDING PAVEMENTS AND TURFED AREA LIMITS. THIS WILL RESULT IN A NET IMPERVIOUS AREA REDUCTION CONTRIBUTING TO THE BMP OF APPROXIMATELY 47,824

SUMMARY: THE NET IMPERVIOUS AREA RESULTING FROM THE PROJECT IS AN DECREASE OF 47,824 SQ.FT. IMPERVIOUS SURFACE AND IS TREATED BY AN EXISTING BMP, THEREFORE A VARIANCE IS REQUESTED IN ACCORDANCE WITH 2015 MARYLAND STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL GUIDELINES FOR STATE AND FEDERAL PROJECTS SECTION 3.4 VARIANCES.

UTILITY NOTIFICATION

THE SOIL CONSERVATION DISTRICT MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITIES AT THE CONSTRUCTION SITE. SHOWN ON THESE CONSTRUCTION DRAWINGS ARE THOSE UTILITIES WHICH HAVE BEEN IDENTIFIED. IT IS THE RESPONSIBILITY OF THE LANDOWNERS OR OPERATORS AND CONTRACTORS TO ASSURE THEMSELVES THAT NO HAZARD EXISTS OR DAMAGE WILL OCCUR TO UTILITIES. CONTRACTOR TO CONTACT MISS UTILITY AT: PHONE No *1–800–257–7777*.

DISTURBED AREA QUANTITIES

GRADING PERMIT No.: GP-22-008

BE APPROXIMATELY 17.48 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 2,966 C.Y. OF EXCAVATION AND 4,966 C.Y. OF FILL.



OWNER/DEVELOPER CERTIFICATION - SCD

I/WE CERTIFY ALL/ANY PARTIES RESPONSIBLE FOR CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL; BE DONE PURSUANT TO THIS PLAN AND RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND

WASHINGTON COUNTY DIVISION OF ENGINEERING **GRADING & STORMWATER MANAGEMENT APPROVAL**

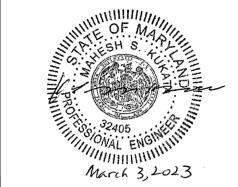
WASHINGTON COUNTY SOIL CONSERVATION DISTRICT SOIL EPOSION AND SEDIMENT CONTROL PLAN APPROVAL

ENGINEER/ARCHITECT DESIGN CERTIFICATION

HEREBY CERTIFY THIS PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAS BEEN DESIGNED IN ACCORDANCE WITH LOCAL ORDINANCES, COMAR 26,17.01.07, AND MARYLAND STANDARDS AND

Feb 22, 2023

SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.



CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

EXPIRATION DATE: 12-22-23

Burnsgroup ENGINEERING AND CONSTRUCTION

OWNER / DEVELOPER

WASHINGTON COUNTY COMMISSIONERS

100 WEST WASHINGTON STREET

HAGERSTOWN, MD 21740

240-313-2200



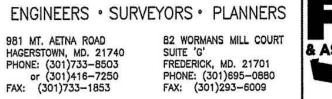
HAGERSTOWN REGIONAL AIRPORT

FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008

SHEET NO.:

G100

DATE 02/06/2023 01 OF 97



FOX & ASSOCIATES, INC.

& ASSOCIATES INC

phone 215-979-7700 fax 215-405-2510

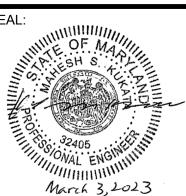
01 G100 COVER SHEET 02 G101 DRAWING INDEX	
02 G101 DRAWING INDEX	
03 G102 QUANTITY TABLE	
04 G200 GENERAL CONSTRUCTION AND SAFETY NOTES 1	
05 G201 GENERAL CONSTRUCTION AND SAFETY NOTES 2	
06 G202 GENERAL PROJECT LAYOUT	
07 G203 BASELINE LAYOUT PLAN	
08 G300 OVERALL CONSTRUCTION SAFETY AND PHASING I	PLAN
09 G301 CONSTRUCTION SAFETY AND PHASING PLAN - PHA	ASE 1
10 G302 CONSTRUCTION SAFETY AND PHASING PLAN - PHA	ASE 2
11 G500 CONSTRUCTION SAFETY PHASING NOTES AND DE	TAILS 1
12 G501 CONSTRUCTION SAFETY PHASING NOTES AND DE	TAILS 2
13 C101 EXISTING CONDITIONS AND CIVIL DEMOLITION PLA	N 1
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16 C201 PAVING AND GEOMETRY PLAN 1	
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18 C203 PAVING AND GEOMETRY PLAN 3	
19 C220 TYPICAL SECTIONS AND PAVING DETAILS 1	
20 C221 TYPICAL SECTIONS AND PAVING DETAILS 2	
21 C301 GRADING & DRAINAGE PLAN AND PROFILE 1	
22 C302 GRADING & DRAINAGE PLAN AND PROFILE 2	
23 C303 GRADING & DRAINAGE PLAN AND PROFILE 3	
24 C304 GRADING & DRAINAGE PLAN AND PROFILE 4	
25 C305 GRADING & DRAINAGE PLAN AND PROFILE 5	
26 C306 DRAINAGE DETAILS	
27 C401 EROSION AND SEDIMENT CONTROL PLAN 1	
28 C402 EROSION AND SEDIMENT CONTROL PLAN 2	
29 C403 EROSION AND SEDIMENT CONTROL PLAN 3	
30 C404 EROSION AND SEDIMENT CONTROL NOTES & DETA	AILS
31 C501 OVERALL MARKING PLAN	
32 C510 PAVEMENT AND MARKING NOTES AND DETAILS	
33 C601 BORING PLAN	
34 C602 BORING LOGS 1	
35 C603 BORING LOGS 2	
36 C700 CROSS SECTIONS 1	
37 C701 CROSS SECTIONS 2	
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57 C721 CROSS SECTIONS 22	

SHEET NUMBER	SHEET ID	SHEET TITLE
58	C722	CROSS SECTIONS 23
59	C723	CROSS SECTIONS 24
60	C724	CROSS SECTIONS 25
61	C725	CROSS SECTIONS 26
62	C726	CROSS SECTIONS 27
63	C727	CROSS SECTIONS 28
64	C728	CROSS SECTIONS 29
65	C729	CROSS SECTIONS 30
66	C730	CROSS SECTIONS 31
67	C731	CROSS SECTIONS 32
68	C732	CROSS SECTIONS 33
69	C733	CROSS SECTIONS 34
70	C734	CROSS SECTIONS 35
71	C735	CROSS SECTIONS 36
72	E001	LIGHTING AND SIGNAGE GENERAL NOTES
73	E002	LIGHTING AND SIGNAGE LEGEND AND ABBREVIATIONS
74	E101	LIGHTING AND SIGNAGE DEMOLITION PLAN 1
75	E102	LIGHTING AND SIGNAGE DEMOLITION PLAN 2
76	E103	LIGHTING AND SIGNAGE DEMOLITION PLAN 3
77	E201	LIGHTING AND SIGNAGE NEW WORK PLAN 1
78	E202	LIGHTING AND SIGNAGE NEW WORK PLAN 2
79	E203	LIGHTING AND SIGNAGE NEW WORK PLAN 3
80	E204	LIGHTING AND SIGNAGE NEW WORK PLAN 4
81	E301	SIGNAGE PLAN 1
82	E302	SIGNAGE PLAN 2
83	E303	SIGNAGE PLAN 3
84	E501	LIGHTING DETAILS 1
85	E502	LIGHTING DETAILS 2
86	E503	LIGHTING DETAILS 3
87	E504	LIGHTING DETAILS 4
88	E505	LIGHTING DETAILS 5
89	E511	SIGN DETAIL 1
90	E512	SIGN DETAIL 2
91	E513	SIGN DETAIL 3
92	E600	LIGHT SCHEDULES 1
93	E601	LIGHT SCHEDULES 2
94	E610	SIGN SCHEDULE
95	E701	TAXIWAY EDGE LIGHTING AND SIGNAGE CIRCUIT SCHEMATIC 1
96	E702	TAXIWAY EDGE LIGHTING AND SIGNAGE CIRCUIT SCHEMATIC 2
97	E703	TAXIWAY EDGE LIGHTING AND SIGNAGE CIRCUIT SCHEMATIC 3

SHEET RESPONSIBILTY NOTE

ADCI IS RESPONSIBLE FOR ALL SHEETS EXCLUSIVE OF: FOX AND ASSOCIATES: C401-C404 BURNS ENGINEERING: E701-E703





PROFESSIONAL
CERTIFICATION:
"I HEREBY CERTIFY THAT
THESE DOCUMENTS WERE
PREPARED OR APPROVED BY
ME, AND THAT I AM A DULY
LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND"

LICENSE NO. 32405

DESIGNED:
Z.A.F.

DRAWN:
G.C.S.

CHECKED:
M.P.P

APPROVED:
M.S.K.



PROJECT TITLE:	TAXIWAY F F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
SHEET TITLE:		SHEET NO.:	
	DRAWIN	G101	
SCALE:	N/A	DATE: FEBRUARY 2023	02 OF 97

ITEM	DESCRIPTION	UNIT	BID QUANTITY	AS BUILT QUANTITY
M-100-4.1	MAINTENANCE AND PROTECTION OF TRAFFIC	LS	1	
	PROJECT SURVEY AND STAKEOUT	LS	1	
C-100-1.1	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	LS	1	
	SILT FENCE	LF	5,100	
C-102-5.1b	RIP RAP (CLASS II)	SY	5,600	
C-102.5.1c	STANDARD INLET PROTECTION TYPE 'B' WRAPPING IN SUPER SILT FENCE	EA	6	
C-102-5.1d	AT-GRADE INLET PROTECTION	EA	1	
C-102-5.1e	FLOW BARRIER	EA	1	
C-105-6.1	MOBILIZATION	LS	1	
P-101-5.1	PAVEMENT REMOVAL	SY	21,500	
P-101-5.2	COLD MILLING, 3-INCH DEPTH	SY	16,400	
P-101-5.3	COLD MILLING, VARIABLE DEPTH (0"-3")	SY	1,000	
P-101-5.4	PIPE REMOVAL, 48" RCP	LF	150	
P-101-5.5	STRUCTURE REMOVAL	EA	2	
P-152-4.1	UNCLASSIFIED EXCAVATION	CY	10,770	
P-152-4.2	SEPARATION GEOTEXTILE	SY	31,000	
P-152-4.3	UNDERCUT	CY	5,200	
P-152-4.4	SUITABLE FILL (MARYLAND #2 STONE)	CY	5,200	
P-209-5.1	CRUSHED AGGREGATE BASE COURSE 14" DEPTH	SY	15,700	
P-209-5.2	CRUSHED AGGREGATE BASE COURSE 6" DEPTH	SY	200	
	ASPHALT MIX PAVEMENT SURFACE COURSE	TON	8,000	
P-403-8.1	ASPHALT MIX BASE COURSE	TON	5,900	
P-603-5.1	EMULSIFIED ASPHALT TACK COAT	GAL	6,400	
P-620-5.1	MARKING REMOVAL	SF	1,700	
	PERMANENT PAVEMENT MARKING	SF	19,500	
P-620-5.3	TEMPORARY PAVEMENT MARKING	SF	19,500	
D-705-5.1	UNDERDRAIN (6" PERFORATED PIPE)	LF	3,700	
D-705.5.2	UNDERDRAIN CLEANOUT	EA	12	
	UNDERDRAIN REMOVAL	LF	2,700	
	ADJUST STRUCTURE	EA	2	
T-901-5.1		AC	8	
	TOPSOIL, 4" DEPTH	SY	46,600	
	1-1/C NO. 8 AWG, 5 KV, L-824, TYPE C CABLE, INSTALLED IN DUCTBANK OR CONDUIT	LF	19,100	
L-108-5.2	1-1/C NO. 6 AWG, SOLID, BARE COPPER COUNTERPOISE WIRE, INSTALLED ABOVE THE DUCTBANK OR CONDUIT, INCLUDING 3/4" X 10' GROUND RODS, CONNECTIONS, AND TERMINATIONS	LF	6,805	
L-108-5.3	REMOVAL OF CABLE FROM DUCTBANK OR CONDUIT	LF	12,300	
L-108-5.4	TEMPORARY ELECTRICAL WORK	LS	1	
	CONCRETE ENCASED, ELECTRICAL DUCTBANK IN PAVEMENT, 4 WAY 4-INCH	LF	150	
L-110-5.2	CONCRETE ENCASED, ELECTRICAL DUCTBANK IN PAVEMENT, 2 WAY 2-INCH	LF	55	
L-110-5.3	CONCRETE ENCASED, ELECTRICAL CONDUIT IN PAVEMENT, 1 WAY 2-INCH	LF	7,600	
	PRE-CAST ELECTRICAL AIRCRAFT RATED HANDHOLE	EA	3	
L-125-5.1	NEW ELEVATED L-861T(L) LED TAXIWAY EDGE LIGHT, L-867 LIGHT BASE, GROUND ROD, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT, INSTALLED COMPLETE IN PLACE	EA	126	
L-125-5.2	NEW ELEVATED L-861T(L) LED TAXIWAY EDGE LIGHT, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT, INSTALLED COMPLETE IN PLACE ON EXISTING LIGHT BASE	EA	16	
L-125-5.3	REMOVE EXISTING TAXIWAY EDGE LIGHT, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT. EXISTING LIGHT BASE TO REMAIN	EA	16	
L-125-5.4	REMOVE EXISTING TAXIWAY EDGE LIGHT, EXISTING LIGHT BASE, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT	EA	111	
L-125-5.5	REMOVE AND REPLACE ALL EXISTING SIGN PANELS WITHIN EXISTING SIGN HOUSING	EA	3	
L-125-5.6	INSTALL NEW L-858 GUIDANCE SIGN MODULE EXTENSION ONTO EXISTING GUIDANCE SIGN, INSTALLED COMPLETE IN PLACE ON EXTENDED GUIDANCE SIGN FOUNDATION. REPLACE EXISTING SIGN PANELS WITHIN EXISTING SIGN HOUSING FOUNDATION	EA	2	
L-125-5.7	REMOVE AND STORE EXISTING GUIDANCE SIGN, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT. REMOVE EXISTING GUIDANCE SIGN FOUNDATION. RE-INSTALL STORED GUIDANCE SIGN AND ASSOCIATED EQUIPMENT. RETROFIT EXISTING GUIDANCE SIGN WITH A L-858 LED LIGHTING UPGRADE KIT, INSTALLED COMPLETE IN PLACE ON NEW FOUNDATION	EA	2	

ITEM	DESCRIPTION	UNIT	BID QUANTITY	AS BUILT QUANTITY
L-125-5.8	REMOVE EXISTING GUIDANCE SIGN, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT. REMOVE EXISTING GUIDANCE SIGN FOUNDATION. INSTALL NEW L-858 LED GUIDANCE SIGN, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT, INSTALLED COMPLETE IN PLACE ON NEW FOUNDATION	EA	5	
L-125-5.9	REMOVE AND STORE EXISTING GUIDANCE SIGN, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT. REMOVE EXISTING GUIDANCE SIGN FOUNDATION. RE-INSTALL STORED GUIDANCE SIGN, ISOLATION TRANSFORMER, AND ASSOCIATED EQUIPMENT, INSTALLED COMPLETE IN PLACE ON NEW FOUNDATION	EA	1	
L-125-5.10	RETROFIT EXISTING GUIDANCE SIGN WITH A L-858 LED LIGHTING UPGRADE KIT. REMOVE AND REPLACE ALL EXISTING SIGN PANELS WITHIN EXISTING SIGN HOUSING	EA	1	
L-125-5.11	INSTALL NEW L-858 GUIDANCE SIGN MODULE EXTENSION ONTO EXISTING GUIDANCE SIGN, RETROFIT EXISTING GUIDANCE SIGN WITH A L-858 LED LIGHTING UPGRADE KIT. REMOVE AND REPLACE ALL EXISTING SIGN PANELS WITHIN EXISTING SIGN HOUSING, INSTALLED COMPLETE IN PLACE ON EXTENDED GUIDANCE SIGN FOUNDATION	EA	1	

EARTHWORK SUMMARY TABLE							
	EXCAVATION (CY)				EMBANKMENT (CY)		
LOCATION	(A)	(B)	(C)	(D)	(E)		
	CUT	TOPSOIL STRIPPING (CUT AREAS)	TOPSOIL STRIPPING (FILL AREAS)	FILL	4" TOPSOIL		
TAXIWAY F	6,410	2,800	1,560	4,700	4,700		

*AVERAGE DEPTH OF TOPSOIL STRIPPING ASSUMED TO BE APPROXIMATELY 4 INCHES

DESCRIPTION	CUBIC YARDS
TOTAL EXCAVATION SHOWN = (A+B+C) =	10,770
LESS TOPSOIL = (B+C) =	4,360
EXCAVATION AVAILABLE FOR EMBANKMENT (A) =	6,410
TOTAL EMBANKMENT = (D+E) =	9,400
LESS TOPSOIL = (E) =	4,700
TOTAL EMBANKMENT NEEDED = (D) =	4,700
OFFSITE TOPSOIL (T-905-4.1) =	340
EXCESS EMBANKMENT =	1,710
PAY ITEM FOR EXCAVATION (P-152-4.1)	10,770





PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

DESCRIPTIONS DATE Z.A.F. G.C.S. CHECKED: M.P.P APPROVED: M.S.K.



OJECT TITLE:	TAXIWAY F F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
EET TITLE:			
	QUANTIT	SHEET NO.:	
AI F:		DATE:	G102
, .	N/A	FEBRUARY 2023	03 OF 97

GENERAL CONSTRUCTION NOTES:

- THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS AND ANY RULES, REGULATIONS, STANDARDS OR SPECIFICATIONS REFERENCED THEREIN. THE PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF WASHINGTON COUNTY (THE AIRPORT SPONSOR), THEIR AUTHORIZED REPRESENTATIVES, THE FEDERAL AVIATION ADMINISTRATION (FAA), AND OTHER GOVERNING AGENCIES.
- 2. THE PROJECT IS TO BE COMPLETED IN CLOSE CONFORMANCE WITH THE CONSTRUCTION PLANS AND CONTRACT SPECIFICATIONS AND SHALL BE CONSTRUCTED IN A TIMELY MANNER IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED PROJECT SCHEDULE. THE SCHEDULE SHALL PROVIDE FOR COMPLETION OF THE PHASES AS SHOWN ON THE PLANS AND DESCRIBED IN THE CONTRACT SPECIFICATIONS.
- THE CONTRACTOR IS EXPECTED TO COMPLETE THE ENTIRE PROJECT ON TIME. THE IMPORTANCE OF THIS IS STRESSED BY THE INCLUSION OF LIQUIDATED DAMAGES IN THE SPECIFICATIONS.
- 4. HAGERSTOWN REGIONAL AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT COORDINATION OF WORK WITH THE AIRPORT AND AIRLINES (THROUGH THE AIRPORT DIRECTOR) IS MANDATORY SO AS TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS.
- 5. CONSTRUCTION AND MAINTENANCE OPERATIONS BY OTHERS WILL OCCUR CONCURRENTLY AND AT TIMES IN THE VICINITY OF CONSTRUCTION ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS AND COOPERATE WITH MAINTENANCE CREWS AND OTHER CONTRACTORS WORKING ON THE AIRPORT COORDINATION WITH APPROPRIATE GOVERNMENT AND UTILITY AGENCIES IS ALSO REQUIRED.
- 6. ACCESS TO THE SITE THE CONTRACTOR'S ACCESS POINTS TO THE SITE ARE SHOWN ON THE GENERAL PROJECT LAYOUT PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL VEHICLES AND PERSONNEL WHO ENTER THE AIRPORT PROPERTY. THE CONTRACTOR SHALL CONSULT WITH THE MAINTENANCE DEPARTMENT AT THE BEGINNING AND ENDING OF EACH WORK PERIOD.
- 7. HAUL ROUTES THE CONTRACTOR'S ON-AIRPORT HAUL ROUTES ARE SHOWN ON THE GENERAL PROJECT LAYOUT. ANY DEBRIS (WHETHER CAUSED BY THE CONTRACTOR OR NOT) SHALL BE REMOVED IMMEDIATELY.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS, OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE PAVEMENTS USED AS HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE TO THEIR PRE-CONSTRUCTION CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE BEFORE AND AFTER CONDITION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE RESIDENT PROJECT REPRESENTATIVE(RPR).

GRADING AND OTHER DRAINAGE, MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY THE RPR PRIOR TO COMMENCING THE WORK. THIS WORK IS CONSIDERED INCIDENTAL TO WORK AND NO SEPARATE PAYMENT WILL BE MADE. ALL ON-SITE ACCESS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL

- CONTRACTOR'S STAGING AREAS AREAS ARE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE. THESE AREAS ARE SHOWN ON THE GENERAL PROJECT LAYOUT AND PHASING PLANS. THE CONTRACTOR'S STAGING AREAS SHALL BE GRADED, TOPSOILED, SEEDED, AND MULCHED UPON COMPLETION OF USE.
- 9. DISPOSAL AREA ALL MATERIALS THAT ARE SALVAGEABLE. INCLUDING PAVEMENT MILLINGS. AND ARE DESIRED BY AIRPORT MAINTENANCE SHALL BE TURNED OVER TO THE AIRPORT. THE AIRPORT WILL ACCEPT A MAXIMUM OF 10 TRUCKLOADS OF PAVEMENT MILLINGS, AS WELL AS ALL TAXIWAY EDGE LIGHT FIXTURES. EDGE LIGHT TRANSFORMERS, AND AIRFIELD SIGNS. A DISPOSAL AREA FOR THE NONSALVAGEABLE MATERIAL WILL NOT BE AVAILABLE ON AIRPORT PROPERTY. THE CONTRACTOR'S WASTE MATERIALS, SHALL BE DISPOSED OF OFF AIRPORT PROPERTY. WASTE MATERIALS INCLUDE THOSE ITEMS WHICH ARE A DIRECT RESULT OF CONSTRUCTION. TRASH. (I.E. CUPS, CANS, ETC.) SHALL BE DISPOSED OF THROUGH PROPER SANITARY METHODS.

- 10. SAFETY THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A SAFE MANNER AS SPECIFIED IN THE SECTION TITLED, "CONTRACTORS SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THIS SHEET.
- 11. PROTECTION OF AND REPAIR TO EXISTING CABLES LOCATIONS OF KNOWN EXISTING AIRPORT UNDERGROUND CABLES ARE SHOWN ON THE PLANS AND MUST BE VERIFIED BY THE CONTRACTOR. REPAIR OF DAMAGED CABLES MUST BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETED. ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE AT THE CONTRACTOR'S EXPENSE. IF FAA CABLES ARE DAMAGED, REPAIRS SHALL BE DONE IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF AN FAA REPRESENTATIVE. THE FAA MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.
- 12. ALL CONSTRUCTION EQUIPMENT IS LIMITED TO A MAXIMUM HEIGHT OF 25 FEET. IF ANY EQUIPMENT IS GOING TO BE HIGHER THAN 25', CONTRACTOR MUST COORDINATE WITH
- 13. CONSTRUCTION LIMITS ALL CONTRACTOR VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. CONSTRUCTION, STORAGE AND STOCKPILING LIMITS ARE FURTHER DEFINED IN THE SECTION TITLED. "CONTRACTORS SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THIS SHEET.
- 14. THE CONTRACTOR SHALL OBTAIN ALL THE PERMITS AND LICENSES REQUIRED FOR THE PROJECT WORK AT HIS OWN
- 15. BASE MAPPING FOR THIS PROJECT IS BASED ON HISTORICAL MAPPING PROVIDED BY THE AIRPORT
- 16. EXISTING AND PROPOSED GRADES EXISTING GRADES SHOWN ON THE DRAWINGS ARE BELIEVED TO BE ACCURATE, BUT THE SPONSOR, OR RPR ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THESE GRADES IF THE CONTRACTOR DOES NOT CONCUR WITH THE ELEVATIONS GIVEN ON THE DRAWINGS, HE SHALL NOTIFY THE RPR IN WRITING PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES. START OF WORK BY THE CONTRACTOR WITHOUT SUCH NOTIFICATION WILL BE INTERPRETED AS AN AGREEMENT BY THE CONTRACTOR WITH THE ACCURACY OF THE GRADES SHOWN ON THE PLANS.
- PERMITS THE CONTRACTOR MUST OBTAIN APPROPRIATE PERMITS FROM THE PROPER GOVERNMENT AGENCIES FOR ACCESS TO, AND TO USE THEIR ROADS FOR DELIVERY OF MATERIALS AND EQUIPMENT TO THE SITE. ANY DAMAGE TO OFF-SITE OR ON-SITE ROADS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. IF BLASTING IS REQUIRED TO FACILITATE EXCAVATION PROPER PERMITS MUST BE OBTAINED
- 18. AS INDICATED IN THE BORING LOGS, THE CONTRACTOR SHALL ANTICIPATE ENCOUNTERING ROCK EXCAVATION. IF BLASTING IS BEING PROPOSED BY THE CONTRACTOR, THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A BLASTING PLAN. THE CONTRACTOR OR SUBCONTRACTOR PERFORMING THE BLASTING IS REQUIRED TO BE LICENSED IN THE STATE OF MARYLAND IN ACCORDANCE WITH THE MARYLAND PUBLIC SAFETY CODE, TITLE 11, EXPLOSIVES. THE CONTRACTOR SHALL OBTAIN A BLASTER'S PERMIT FROM THE STATE OF MARYLAND, DEPARTMENT OF STATE POLICE, OFFICE OF THE STATE FIRE MARSHALL FOR GENERAL ABOVE GROUND CONSTRUCTION. THE COST FOR OBTAINING SUCH LICENSES AND PERMITS SHALL BE INCIDENTAL TO THE PROJECT

CONTRACTORS SAFETY REQUIREMENTS DURING CONSTRUCTION:

- FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULARS (AC), ORDERS AND FEDERAL AVIATION REGULATIONS (F A R).
 - **PUBLICATIONS** CONTAIN FOLLOWING DEFINITIONS/DESCRIPTIONS OF CRITICAL AIRPORT OPERATING AREAS. THE AREAS DEFINED BELOW PERTAIN TO AIRFIELD SAFETY REQUIREMENTS AND ARE REFERENCED THROUGHOUT THE CONTRACT DOCUMENTS COPIES OF THESE PUBLICATIONS ARE AVAILABLE THROUGH THE FAA AND CAN BE REVIEWED AT THE OFFICES OF THE HAGERSTOWN REGIONAL AIRPORT
 - AC 150/5370-2G, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION", CURRENT EDITION, SETS FORTH GUIDELINES TO ASSIST AIRPORT OPERATORS IN COMPLYING WITH F A R PART 139, "CERTIFICATION AND OPERATION: LAND AIRPORTS SERVING CERTAIN AIR CARRIERS" AND WITH THE REQUIREMENTS OF FEDERALLY FUNDED CONSTRUCTION PROJECTS.
 - 2. F A R PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE, CURRENT EDITION:
 - (A) ESTABLISHES STANDARDS FOR DETERMINING OBSTRUCTIONS TO NAVIGABLE AIRSPACE. CIVIL AIRPORT IMAGINARY SURFACES ARE DEFINED IN THE PUBLICATION AND ARE SHOWN ON THE SAFETY/PHASING NOTES AND DETAILS.
 - (B) SETS FORTH REQUIREMENTS FOR NOTICE OF CERTAIN PROPOSED CONSTRUCTION OR ALTERATION. NOTICE OF CONSTRUCTION PROVIDES A BASIS IDENTIFYING THE RECOMMENDATIONS FOR CONSTRUCTION OR ALTERATION IN ACCORDANCE WITH AC 70/7460-1L "OBSTRUCTION MARKING AND LIGHTING," CURRENT EDITION.
 - AC 150/5300-13B. "AIRPORT DESIGN", CURRENT EDITION, ESTABLISHES DESIGN, OPERATIONAL, AND MAINTENANCE STANDARDS FOR AIRPORTS. STANDARD TERMS DEFINED IN THIS AC AND USED IN THE CONTRACT PLANS AND SPECIFICATIONS ARE DEFINED BELOW:
 - (A) OBSTACLE FREE ZONE (OFZ) A VOLUME OF SPACE WHICH IS FREE OF ALL FIXED OBJECTS AND CLEAR OF VEHICLES IN THE PROXIMITY OF AN AIRPLANE CONDUCTING AN APPROACH, MISSED APPROACH, LANDING, TAKEOFF, OR DEPARTURE. AN OFZ TYPICAL SECTION IS SHOWN ON THE SAFETY/PHASING NOTES AND DETAILS SHEET.
 - (B) RUNWAY PROTECTION ZONE (RPZ): A TRAPEZOIDAL AREA CENTERED ON THE RUNWAY BEGINNING AT A POINT 200 FEET BEYOND THE END OF THE AREA USABLE FOR TAKEOFF OR LANDING. THE RPZ IS SHOWN ON THE GENERAL PROJECT LAYOUT PLAN.
 - (C) OBJECT FREE AREA (OFA): A TWO DIMENSIONAL GROUND AREA SURROUNDING RUNWAYS, TAXIWAYS, AND TAXILANES WHICH IS CLEAR OF OBJECTS EXCEPT FOR OBJECTS WHOSE LOCATION IS FIXED BY FUNCTION.
 - (D) SAFETY AREA THE SURFACE ADJACENT TO RUNWAYS TAXIWAYS. AND TAXILANES OVER WHICH AIRCRAFT SHOULD. IN DRY WEATHER. BE ABLE TO CROSS AT NORMAL SPEEDS WITHOUT INCURRING SIGNIFICANT DAMAGE. A SAFETY AREA IS GRADED, DRAINED AND COMPACTED. IT IS FREE OF ANY HOLES, TRENCHES, BUMPS OR OTHER SIGNIFICANT SURFACE VARIATIONS OR OBJECTS OTHER THAN THOSE WHICH MUST BE THERE BECAUSE OF THEIR ESSENTIAL AERONAUTICAL FUNCTION. THE SAFETY AREA REQUIRES THE CAPABILITY OF SUPPORTING MAINTENANCE VEHICLES AND AIRCRAFT RESCUE AND FIRE FIGHTING VEHICLES UNDER NORMAL (DRY) CONDITIONS.

B GENERAL SAFETY REQUIREMENTS

DESCRIPTIONS

- THE CONTRACTOR SHALL ACQUAINT HIS SUPERVISORS AND EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO HAGERSTOWN REGIONAL AIRPORT AND SHALL CONDUCT HIS CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES FOR SAFETY SPECIFIED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SAFETY DEVICES AS REQUIRED FOR THE PROTECTION OF HIS PERSONNEL.
- PROTECTION OF ALL PERSONS SHALL BE PROVIDED THROUGHOUT THE PROGRESS OF THE WORK. THE WORK SHALL PROCEED IN SUCH A MANNER AS TO PROVIDE SAFE CONDITIONS FOR ALL WORKERS AND GOVERNMENT PERSONNEL. THE SEQUENCE OF OPERATION SHALL BE SUCH THAT MAXIMUM PROTECTION IS AFFORDED TO INSURE THAT PERSONNEL AND WORKERS IN THE WORK AREA ARE NOT SUBJECT TO ANY DANGEROUS CONDITIONS. THE CONTRACTOR MUST PROVIDE SAFETY MEASURES TO **GUARD AGAINST INJURY.**

DURING PERFORMANCE OF THIS CONTRACT, THE AIRPORT RUNWAYS. TAXIWAYS. AND AIRCRAFT PARKING APRONS SHALL REMAIN IN USE BY AIRCRAFT TO THE MAXIMUM EXTENT POSSIBLE. ALL AIRCRAFT TRAFFIC ON THESE AREAS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. THE OWNER RESERVES THE RIGHT TO ORDER THE CONTRACTOR AT ANY TIME TO VACATE ANY AREA NECESSARY TO MAINTAIN SAFE AIRCRAFT OPERATIONS. USE OF AREAS NEAR THE CONTRACTOR'S WORK WILL BE CONTROLLED TO MINIMIZE DISTURBANCE TO THE CONTRACTOR'S OPERATION. THE CONTRACTOR SHALL NOT ALLOW EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, OR ANY OTHER UNAUTHORIZED PERSON TO ENTER OR REMAIN IN ANY AIRPORT AREA WHICH WOULD BE HAZARDOUS TO PERSONS OR TO AIRCRAFT OPERATIONS.

CONSTRUCTION AND FACILITIES MAINTENANCE

- THE CONTRACTOR SHALL BE AWARE OF AND PREVENT THE FOLLOWING TYPES OF SAFETY PROBLEMS AND/OR **HAZARDS**:
 - (A) TRENCHES, HOLES, OR EXCAVATION ON OR ADJACENT TO ANY OPEN RUNWAY OR IN SAFETY AREAS.
 - (B) UNMARKED/UNLIGHTED HOLES OR EXCAVATION IN ANY APRON, OPEN TAXIWAY, OPEN TAXILANE, OR RELATED SAFETY AREA.
 - (C) MOUNDS OR PILES OF EARTH, CONSTRUCTION MATERIALS, TEMPORARY STRUCTURES, OR OTHER OBJECTS IN THE VICINITY OF THE OPEN RUNWAY, TAXIWAYS, TAXILANES, OR IN A RELATED SAFETY APPROACH OR DEPARTURE AREA.
 - (D) VEHICLES OR EQUIPMENT, WHETHER OPERATING OR IDLE ON ANY OPEN RUNWAY, TAXIWAY, TAXILANE, OR IN ANY RELATED SAFETY APPROACH OR DEPARTURE AREA.
 - (E) VEHICLES, EQUIPMENT, EXCAVATION, STOCKPILES, OR OTHER MATERIALS WHICH COULD DEGRADE OR OTHERWISE INTERFERE WITH ELECTRONIC SIGNALS FROM RADIOS OR ELECTRONIC NAVIGATIONAL AIDS (NAVAIDS). (F) PAVEMENT DROP-OFFS OR PAVEMENT TURF-LIPS (EITHER
 - PERMANENT OR TEMPORARY) WHICH COULD CAUSE DAMAGE TO AIRCRAFT IF CROSSED AT NORMAL OPERATING SPEEDS. THE NORMAL MAXIMUM DROP-OFF OR LIP IS 1-1/2 INCHES.
 - (G) UNMARKED UTILITY, NAVAID, WEATHER SERVICE, RUNWAY LIGHTING, OR OTHER POWER OR SIGNAL CABLES THAT COULD BE DAMAGED DURING CONSTRUCTION. (H) OBJECTS. WHETHER OR NOT MARKED OR FLAGGED. OR
- ACTIVITIES ANYWHERE ON OR IN THE VICINITY OF AIRPORT WHICH COULD BE DISTRACTING, CONFUSING, OR ALARMING TO PILOTS DURING AIRCRAFT OPERATIONS. (I) UNFLAGGED/UNLIGHTED LOW VISIBILITY ITEMS SUCH AS
- TALL CRANES, DRILLS, AND THE LIKE ANYWHERE IN THE VICINITY OF ACTIVE RUNWAYS, OR IN ANY APPROACH OR DEPARTURE AREAS. (J) MISLEADING OR MALFUNCTIONING OBSTRUCTION LIGHTS
- OR UNLIGHTED/UNMARKED OBSTRUCTIONS IN THE APPROACH TO ANY ACTIVE RUNWAY. (K) INADEQUATE APPROACH/DEPARTURE SURFACES (THESE
- SURFACES ARE NEEDED TO ASSURE ADEQUATE LANDING/TAKEOFF CLEARANCE OVER OBSTRUCTIONS. OR WORK OR STORAGE AREAS). (L) INADEQUATE, CONFUSING OR MISLEADING (TO USER
- PILOTS) MARKING/LIGHTING OF RUNWAYS, TAXIWAYS. OR TAXILANES (INCLUDING DISPLACED OR RELOCATED THRESHOLDS). (M) WATER, SNOW, DIRT, DEBRIS, OR OTHER TRANSIENT
- ACCUMULATION WHICH TEMPORARILY OBSCURES PAVEMENT MARKINGS OR PAVEMENT EDGES, OR REDUCES VISIBILITY OF RUNWAY/TAXIWAY MARKINGS OR LIGHTING.
- (N) INADEQUATE OR IMPROPER METHODS OF MARKING, BARRICADING, AND LIGHTING OF TEMPORARILY CLOSED PORTIONS OF THE AIRPORT OPERATIONS AREA. (O) TRASH OR OTHER MATERIALS WITH FOREIGN OBJECT
- DAMAGE (FOD) POTENTIAL: WHETHER ON RUNWAYS. TAXIWAYS, OR APRONS; OR IN RELATED SAFETY AREAS. (P) INADEQUATE BARRICADING OR OTHER MARKING WHICH IS
- PLACED TO SEPARATE CONSTRUCTION OR MAINTENANCE AREAS FROM OPEN AIRCRAFT OPERATING AREAS. (Q) FAILURE TO CONTROL UNAUTHORIZED VEHICLE AND HUMAN ACCESS FROM ACTIVE AIRCRAFT OPERATING
- AREAS. (R) FAILURE TO MAINTAIN RADIO COMMUNICATION BETWEEN CONSTRUCTION/MAINTENANCE VEHICLES AND AIR TRAFFIC CONTROL TOWER.
- (S) CONSTRUCTION/MAINTENANCE ACTIVITIES OR MATERIALS WHICH COULD HAMPER THE RESPONSE OF AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) OR OTHER EMERGENCY EQUIPMENT FROM REACHING AIRCRAFT, ALL OR ANY PART OF THE RUNWAY/TAXIWAY SYSTEM, RUNWAY APPROACH AND DEPARTURE AREAS AND TO AIRCRAFT PARKING LOCATIONS.
- (T) BIRD ATTRACTANTS ON AIRPORT SUCH AS: EDIBLES (FOOD SCRAPS, ETC.), MISCELLANEOUS TRASH, OR PONDED WATER.

- THE CONTRACTOR SHALL CONDUCT ACTIVITIES SO AS NOT TO VIOLATE ANY SAFETY STANDARDS CONTAINED HEREIN THE CONTRACTOR SHALL INSPECT ALL CONSTRUCTION AND STORAGE AREAS AS OFTEN AS NECESSARY AND PROMPTLY TAKE ALL STEPS NECESSARY TO PREVENT/REMEDY ANY UNSAFE OR POTENTIALLY UNSAFE CONDITIONS OR ACTIVITIES DISCOVERED.
- BEFORE ACTUAL COMMENCEMENT OF CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY, IN WRITING, AT LEAST 48 HOURS IN ADVANCE, THE AIRPORT DIRECTOR OF HIS INTENTIONS OF CONSTRUCTION, STATING THE PROPOSED TIME, DATE, AND AREA OF WHICH COMMENCEMENT IS TO OCCUR.

UPON COMPLETION OF WORK AND RETURN OF ALL RELATED AREAS TO STANDARD CONDITIONS, THE CONTRACTOR SHALL AGAIN NOTIFY THE AIRPORT DIRECTOR, IN WRITING, AND DESCRIBE THE AREA THAT IS COMPLETE AND AVAILABLE FOR NORMAL AIRPORT OPERATIONS.

THE ISSUANCE OF NOTAMS SHALL BE REQUIRED FOR ALL AIRFIELD IMPACTS (I.E. RUNWAY CLOSURES, TAXIWAY CLOSURES, NAVAID IMPACTS, BLASTING, ETC.). THE CONTRACTOR SHALL COORDINATE THE NECESSARY NOTAMS FOR ALL AIRFIELD IMPACTS WITH THE RESIDENT PROJECT REPRESENTATIVE (RPR) AND THE OWNER A MINIMUM OF 72 HOURS IN ADVANCE OF THE DESIRED CLOSURE. IN ACCORDANCE WITH THE CONTRACTORS ACCEPTED SCHEDULE, THE CONTRACTOR SHALL ALSO PROVIDE A MINIMUM OF TWO (2) WEEKS PRIOR WRITTEN NOTIFICATION, TO THE RPR, OF ANTICIPATED AIRFIELD **IMPACTS**

THE AIRPORT DIRECTOR WILL BE RESPONSIBLE FOR ISSUING APPROPRIATE NOTICE TO AIR MISSIONS (NOTAM) CONCERNING CONSTRUCTION ACTIVITY ON THE AIRFIELD.

D MOTORIZED VEHICLES

THIS PROJECT INCLUDES WORK WITHIN THE AIRFIELD OPERATIONS AREA (AOA) (I.E.), THE SECURE PORTION OF THE AIRPORT. ALL PERMITTED VEHICLES SHALL DISPLAY IN FULL VIEW ABOVE THE VEHICLE A 3-FOOT X 3-FOOT OR LARGER, ORANGE AND WHITE CHECKERBOARD, PLASTIC FLAG. EACH CHECKERBOARD COLOR SHALL BE ONE FOOT SQUARE. IN LIEU OF FLAGS, VEHICLES MAY DISPLAY A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. THESE LIGHTS SHALL REMAIN FLASHING AT ALL TIMES WHEN THE VEHICLE IS IN THE AOA, **EVEN IF PARKED.**

ANY VEHICLE OPERATING IN THE AOA DURING THE HOURS OF DARKNESS SHALL BE EQUIPPED WITH A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. DARKNESS SHALL BE DEFINED AS ONE HOUR BEFORE OFFICIAL SUNSET UNTIL ONE HOUR AFTER **SUNRISE**

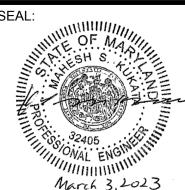
ALL VEHICLES OPERATING WITHIN THE AIRFIELD BOUNDARY SHALL BE IDENTIFIED WITH A SIGN ON FACH SIDE OF THE VEHICLE BEARING THE CONTRACTOR'S NAME THE MINIMUM SIZE FOR LETTERING ON THE VEHICLE SIGNS IS 12 INCHES. IN ADDITION ALL CONSTRUCTION VEHICLES OPERATING IN THE AIRFIELD MUST BE ISSUED AND DISPLAY AN AIRPORT VEHICLE ID TAG.

VEHICLES MAKING ONLY OCCASIONAL VISITS TO THE JOB SITE ARE EXEMPT FROM THE IDENTIFICATION REQUIREMENTS CONTAINED HEREIN PROVIDED THAT THEY ARE ESCORTED INTO, THROUGH, AND OUT OF THE AOA BY A PROPERLY IDENTIFIED VEHICLE.

E RADIO COMMUNICATIONS

RADIO COMMUNICATIONS MAY BE REQUIRED BETWEEN THE CONTRACTOR'S REPRESENTATIVE AND THE AIR TRAFFIC CONTROL TOWER (ATCT). RADIO CONTACT IS REQUIRED AT ALL TIMES WHILE THE CONTRACTOR HAS PERSONNEL AND EQUIPMENT ON THE PROJECT SITE AND WHILE THEY ARE IN AN ACTIVE AIRFIELD OPERATIONS AREA (AOA) OF THE AIRPORT. RADIOS SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE CAPABLE OF TRANSMITTING AND RECEIVING AT A GROUND CONTROL FREQUENCY OF 120.8 MHZ. THIS FREQUENCY IS TO BE UTILIZED WHEN CROSSING ACTIVE FACILITIES. SUFFICIENT RADIOS SHALL BE ON SITE AND OPERATING AT ALL TIMES SO THAT INSTRUCTIONS OR COMMUNICATIONS MAY BE DISPATCHED TO ALL CREWS AND/OR EQUIPMENT WORKING IN AN ACTIVE AOA IMMEDIATELY AFTER RECEIPT FROM THE ATCT. HAGERSTOWN REGIONAL AIRPORT IS SERVED BY PART-TIME ATCT. DURING CERTAIN PHASES OF CONSTRUCTION. THE ATCT MAY BE CLOSED. DURING THOSE PERIODS WHEN THE ATCT IS CLOSED, THE CONTRACTOR SHALL MAINTAIN CONTACT WITH AIRCRAFT USING THE AIRPORT BY MONITORING THE CTAF FREQUENCY OF 120.3 MHZ AND UNICOM FREQUENCY OF 122.95 MHZ.





PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT I AM A DULY LICENSED PROFESSIONAL **ENGINEER UNDER THE LAWS** OF THE STATE OF MARYLAND'

DATE NO. Z.A.F. G.C.S. CHECKED: A MARIIMALAIT J DUUGUNIEN IA M.P.P LICENSE NO. 32405 PPROVED EXPIRATION DATE: 12-22-23 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0004_G200_2_GENERAL CONSTRUCTION AND SAFETY NOTES.dwg LAYOUT NAME: G200 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 5:14pm



PROJECT TITLE

SHEET TITLE:

TAXIWAY F REHABILITATION

GRADING PERMIT NO.: GP-22-008

Bid No.: PUR-1592

SHEET NO.:

SCALE: FEBRUARY 2023 N/A

GENERAL CONSTRUCTION AND SAFETY NOTES 1

G200 04 OF 97

FAA AIP No.: 3-24-0019-065-2021 (DESIGN)

F DEBRIS

DEBRIS. WASTE. AND LOOSE MATERIAL (INCLUDING DUST AND DIRT) CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEAR OR PROPELLERS, OR BEING INGESTED IN JET ENGINES, SHALL NOT BE ALLOWED ON ACTIVE AIRCRAFT MOVEMENT AREAS OR ADJACENT GRASSED AREAS. MATERIALS OBSERVED TO BE WITHIN THESE AREAS SHALL BE REMOVED IMMEDIATELY AND/OR CONTINUOUSLY BY THE CONTRACTOR. THE CONTRACTOR SHALL HAVE A SWEEPING MACHINE AND OPERATOR ON SITE AND READY AT ALL TIMES DURING CONSTRUCTION ACTIVITY WHERE TRAVEL ON OR ACROSS RUNWAYS. RAMP AREAS, TAXIWAYS, OR AIRCRAFT APRONS IS REQUIRED, THE CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL AND EQUIPMENT TO KEEP SUCH SURFACES CLEAR OF DEBRIS. THE CONTRACTOR SHALL ALSO MAINTAIN A WATER TRUCK ON SITE FOR DUST CONTROL PURPOSES.

G FLAGMEN

IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, FURNISH FLAGMEN AS NECESSARY TO CONTROL HIS TRAFFIC (UNLESS OTHERWISE DIRECTED BY THE RPR).

ALL CONTRACTOR VEHICLES THAT ARE REQUIRED TO CROSS ACTIVE RUNWAYS, TAXIWAYS AND APRONS SHALL DO SO UNDER THE DIRECT CONTROL OF A COMPETENT FLAGMAN WHO IS IN DIRECT RADIO CONTACT WITH GROUND CONTROL. ALL AIRCRAFT TRAFFIC ON RUNWAYS. TAXIWAYS. AND APRONS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. AT NO TIME SHALL THE CONTRACTOR'S VEHICLES OR PERSONNEL BE ALLOWED TO ENTER OR CROSS ACTIVE RUNWAYS, TAXIWAYS, SAFETY AREAS, OBJECT FREE AREAS, OR RUNWAY PROTECTION ZONES WITHOUT PROPER AUTHORIZATION OBTAINED THROUGH GROUND CONTROL.

MISCELLANEOUS

- OPEN FLAME, WELDING OR TORCH CUTTING OPERATIONS ARE PROHIBITED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS HAVE BEEN TAKEN AND THE PROCEDURE PREVIOUSLY APPROVED BY THE RPR.
- 2. EQUIPMENT AND STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS.
- 3. THE CONTRACTOR SHALL PROVIDE POLYETHYLENE CONSTRUCTION BARRIERS WITH FLASHING RED LIGHTS AS SHOWN ON THE DRAWINGS TO DELINEATE THE WORK AREAS WHEN CLOSED TO AIRPORT TRAFFIC. OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL LOCATED IN THE AOA SHALL BE PROMINENTLY MARKED WITH ORANGE FLAGS AND LIGHTED BY APPROVED LIGHT UNITS DURING HOURS OF LIMITED VISIBILITY AND DARKNESS.
- 4. ALL MATERIALS AND EQUIPMENT WHEN NOT IN USE SHALL BE PLACED IN APPROVED AREAS WHERE THEY WILL NOT CONSTITUTE A HAZARD TO AIRCRAFT OPERATIONS AND NOT PENETRATE CLEARANCE SURFACES DEFINED PREVIOUSLY AND SHOWN ON THE CONSTRUCTION SAFETY AND PHASING NOTES AND DETAILS SHEET. EQUIPMENT SHALL BE PARKED AT THE STAGING AREA WHEN NOT IN
- UPON COMPLETION OF ANY STAGE/PHASE OF WORK, THE RPR WILL ARRANGE A PHYSICAL INSPECTION OF THE AREA WITH AIRPORT OPERATIONS PERSONNEL PRIOR TO OPENING ANY PORTION OR WHOLE RUNWAY, TAXIWAY, OR RAMP AREA THAT HAS BEEN CLOSED FOR WORK OR USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR.
- 6. ENTRANCE TO THE AIRFIELD IS SUBJECT TO STRICT SECURITY REGULATIONS. ALL PERSONNEL ENTERING THE AIRFIELD MAY BE SUBJECT TO A BACKGROUND CHECK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL OF HIS EMPLOYEES WHO NEED TO HAVE ACCESS TO THE AIRFIELD. HAVE INFORMATION AVAILABLE FOR A BACKGROUND CHECK TO BE PERFORMED, DATING BACK TEN (10) YEARS VERIFYING REPRESENTATIONS MADE BY THE EMPLOYEE RELATING TO EMPLOYMENT.
- 7. THE CONTRACTOR SHALL PROVIDE THE RPR AND AIRPORT DIRECTOR A CURRENT LIST OF ALL EMPLOYEES WORKING ON THE AIRPORT. THE LIST SHALL BE MAINTAINED CURRENT BY THE CONTRACTOR AND APPLIES TO BOTH THE CONTRACTOR AND SUBCONTRACTORS.
- 8. THE CONTRACTOR SHALL FAMILIARIZE HIS PERSONNEL WITH CLEARANCES NEEDED TO PROVIDE FOR THE SAFE OPERATION OF RUNWAYS AND TAXIWAYS AS SHOWN IN THE PLANS.
- EXCEPT FOR EMERGENCIES, ALL CONTACT WITH AIRPORT PERSONNEL SHALL BE MADE THROUGH THE RPR. FOR EMERGENCIES INVOLVING SAFETY (INJURIES, FIRES, SECURITY BREACHES, ETC.) THE CONTRACTOR SHALL MAKE DIRECT CONTACT WITH AIRPORT OPERATIONS MANAGER FOLLOWED BY NOTIFICATION TO THE RPR AS SOON AS POSSIBLE.

- 10. THE CONTRACTOR SHALL PROVIDE THE PHONE NUMBERS OF THREE PERSONNEL, INCLUDING THE PROJECT SUPERINTENDENT. WHO MAY BE CONTACTED IN AN EMERGENCY. PERSONNEL SHALL BE ON CALL 24 HOURS PER DAY FOR MAINTAINING AIRPORT HAZARD LIGHTING AND BARRICADES.
- 11. IN ACCORDANCE WITH THE SPECIFICATIONS, FEDERAL WAGE RATES SHALL BE POSTED OUTSIDE THE SITE FIELD OFFICE(S) IN A WEATHERPROOF ENCLOSURE.

UTILITIES

- UNDERGROUND UTILITIES: THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE CONSIDERED TO BE ONLY APPROXIMATE LOCATIONS. ALL UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT ANY UTILITY IS DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING FOR INCURRED COSTS OF REPAIRS.
- THE CONTRACTOR SHALL ALSO NOTIFY "MISS UTILITY" AT 1-800-257-7777. THE COST ASSOCIATED WITH CONTACTING MISS UTILITY SHALL BE BORNE BY THE CONTRACTOR. ANY COSTS ASSOCIATED WITH DAMAGE TO UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
- 3. UTILITIES NOTIFICATION: AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES. THE CONTRACTOR SHALL NOTIFY THE RPR AND THE OWNER OF EACH UNDERGROUND UTILITY FACILITY AFFECTED.

SECURITY

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF/HERSELF WITH THE VARIOUS ASPECTS OF TRANSPORTATION SECURITY ADMINISTRATION (TSA) SECTION 1542 "AIRPORT SECURITY". ANY VIOLATION OF TSA SECTION 1542 BY THE CONTRACTOR AND ANY SUBSEQUENT FINES IMPOSED DUE TO THE VIOLATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL VEHICLES TO BE USED ON THE AIRPORT SHALL BE REGISTERED WITH THE AIRPORT OPERATIONS MANAGER. REGISTRATION CONSISTS OF LICENSE PLATE NUMBER AND OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT VEHICLES ARE REGISTERED IN A TIMELY MANNER SO AS NOT TO DELAY THE PROJECT. VISITING VEHICLES ARE EXEMPT FROM THE REGISTRATION REQUIREMENTS SO LONG AS THEY ARE ESCORTED BY A REGISTERED VEHICLE AT ALL TIMES WHEN ON THE AOA.
- THE AIRPORT WILL NOT PROVIDE AIRFIELD OPERATIONS AREA ESCORTS. THE CONTRACTOR MUST PROVIDE HIS OWN RADIO, ACQUAINT HIMSELF AND ANY OTHER PERSONNEL THAT ARE ANTICIPATED TO USE THE RADIO WITH THE PROPER PROCEDURES IN COMMUNICATING WITH GROUND CONTROL (FREQUENCY 121.9 MHZ). THE CONTRACTOR WILL NEED TO ATTEND SECURITY/GROUND VEHICLE OPS TRAINING.
- 4. THE PROJECT SUPERVISORS SHALL HAVE WITH THEM AT ALL TIMES THE TELEPHONE NUMBERS FOR THE FOLLOWING PERSONS. IN THE EVENT OF AN EMERGENCY THESE PERSONNEL SHOULD BE CONTACTED IN DESCENDING ORDER:

MR. NEIL DORAN, AIRPORT DIRECTOR MR. TERRY STOUFFER, AIRPORT MAINTENANCE SUPERVISOR MR. GENE BOLANOWSKI, OPERATIONS MANAGER MR. BOB HOOPENGARDNER, AIRPORT FIRE CHIEF

TELEPHONE NUMBERS WILL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING. ADDITIONAL CONTACTS MAY BE PROVIDED TO THE CONTRACTOR AT THAT TIME.

WHEN CONSTRUCTION ACTIVITY IS CONDUCTED IN THE AOA, KEY PROJECT SITE SUPERVISORY PERSONNEL OF THE CONTRACTOR AND ITS SUBCONTRACTORS (INCLUDING CONSTRUCTION GATE GUARD PERSONNEL) SHALL BE ISSUED AIRPORT IDENTIFICATION (ID) BADGES. ALL INDIVIDUALS WHO RECEIVE AN AIRPORT BADGE ARE REQUIRED TO ATTEND A SECURITY TRAINING CLASS PROVIDED BY THE AIRPORT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPLICATIONS AND MAKE ALL NECESSARY ARRANGEMENTS TO ENABLE ITS PERSONNEL TO OBTAIN ID BADGES. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ENSURING THAT IT HAS SUFFICIENT SUPERVISORY AND CONSTRUCTION GATE PERSONNEL ON THE PROJECT SITE WHENEVER WORK IS OCCURRING TO FULFILL THE RESPONSIBILITIES.

PROJECT SITE SUPERVISORY PERSONNEL ARE SUBJECT TO FEDERAL CRIMINAL RECORDS CHECKS AND MUST PROVIDE EMPLOYMENT VERIFICATION FORMS THAT COVER THE LAST TEN (10) YEARS OF EMPLOYMENT AND EDUCATION. INFORMATION ON THESE FORMS WILL BE VERIFIED BY THE AIRPORT.

APPLICATIONS AND FORMS CAN BE OBTAINED FROM THE AIRPORT BY CALLING MR. GENE BOLANOWSKI, 240-313-2769. ALL APPLICATIONS AND FORMS ARE TO BE SUBMITTED TO THE AIRPORT AT LEAST TWO (2) WEEKS PRIOR TO THE PROJECT START DATE IN ORDER TO ALLOW TIME TO PERFORM THE EMPLOYMENT AND BACKGROUND CHECKS. THERE IS A REFUNDABLE DEPOSIT OF ONE HUNDRED DOLLARS (\$100.00) FOR EACH PHOTO ID BADGE ISSUED. PAYMENT MUST ACCOMPANY THE APPLICATION. APPLICATIONS. ACCESS INVESTIGATION FORMS AND EMPLOYMENT VERIFICATION FORMS MUST BE FILLED OUT COMPLETELY BEFORE AN APPLICATION WILL BE PROCESSED. NON-REFUNDABLE CONTRACTOR BADGE FEES WILL NOT BE RETURNED TO THE CONTRACTOR IF AN APPLICATION CANNOT BE PROCESSED BECAUSE IT IS INCOMPLETE. COST FOR SECURITY SHALL BE INCLUDED IN CONTRACTORS PRICE FOR MOBILIZATION/DEMOBILIZATION.

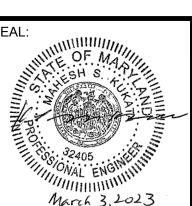
PHOTO ID BADGES MUST BE RETURNED TO THE AIRPORT ID PROCESSING OFFICE NO LATER THAN FIVE (5) DAYS AFTER COMPLETION OF THE CONTRACT TO RECEIVE A REFUND OF THE DEPOSIT AND MUST BE RETURNED BEFORE THE FINAL PAY ESTIMATE WILL BE PROCESSED. IN ADDITION TO THE LOSS OF THE BADGE SECURITY DEPOSIT, HOLDERS OF BADGES WHICH ARE LOST WILL BE ASSESSED A BADGE REPLACEMENT FEE OF FIFTY DOLLARS (\$50.00). THE AIRPORT MUST BE NOTIFIED IMMEDIATELY IF A BADGE IS LOST OR STOLEN OR IF ITS HOLDER TERMINATES EMPLOYMENT OR IS REASSIGNED.

PHOTO ID BADGES SHALL BE DISPLAYED ON THE OUTERMOST GARMENT ABOVE THE WAIST SO THEY CAN BE SEEN BY FAA, POLICE AND OTHER AIRPORT PERSONNEL.

6031 UNIVERSITY BLVD. SUITE 330 ELLICOTT CITY, MD 21043

TEL: 410.465.9600

FAX: 410.465.9602



CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT I AM A DULY LICENSED PROFESSIONAL **ENGINEER UNDER THE LAWS** OF THE STATE OF MARYLAND"

DATE Z.A.F. CHECKED: J DUUGUNIEN IA LICENSE NO. 32405 **APPROVED** EXPIRATION DATE: 12-22-23

DESCRIPTIONS



PROJECT TITLE TAXIWAY F REHABILITATION FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008

SHEET NO.:

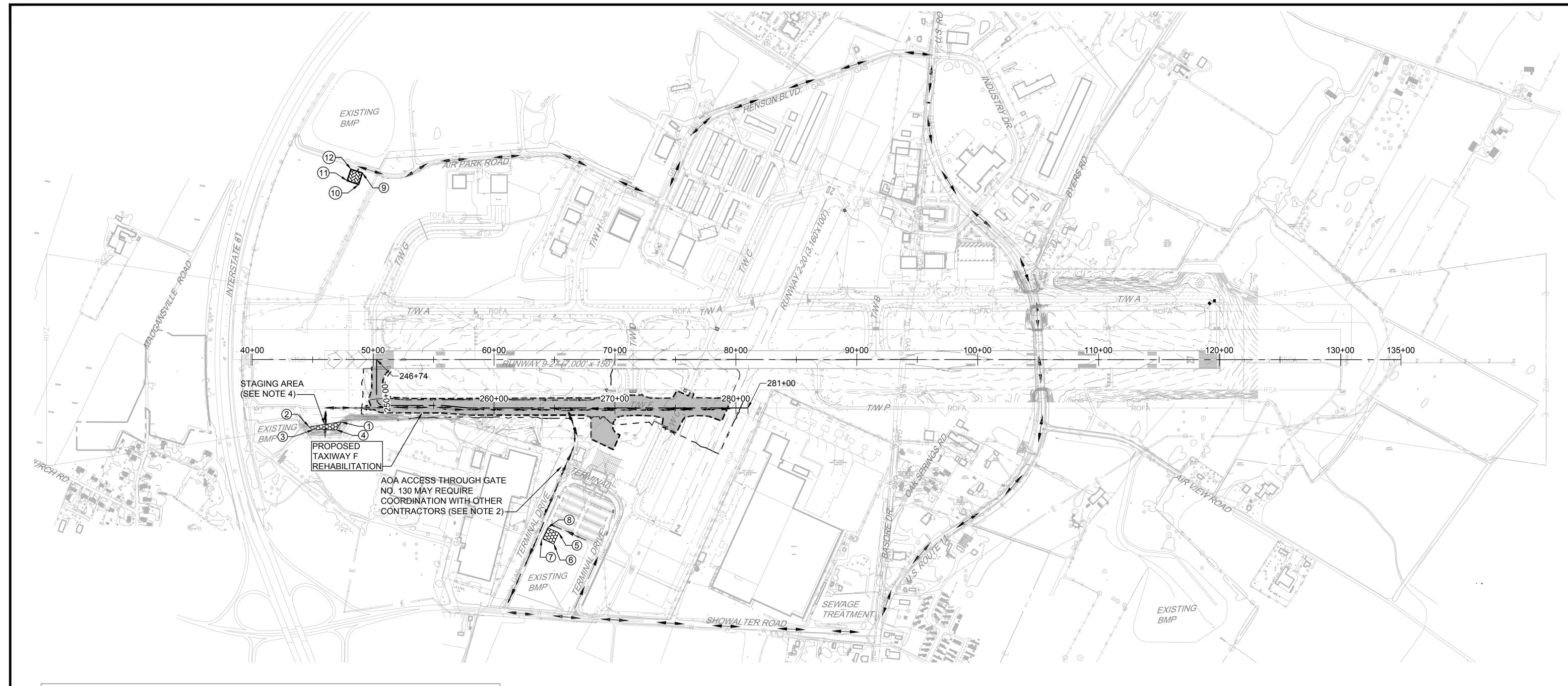
FEBRUARY 2023

G201

05 OF 97

FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0004 G200 2 GENERAL CONSTRUCTION AND SAFETY NOTES.dwg LAYOUT NAME: G201 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 5:14pm

SHEET TITLE: GENERAL CONSTRUCTION AND SAFETY NOTES 2 SCALE: N/A



	STAGING/STOCKPILE AREA LOCATION TABLE							
POINT #	NORTHING	EASTING	EXISTING GROUND	PART 77 ELEVATION				
1	743378.55	1104396.92	39° 42' 19.61"	77° 44' 20.40"	651.7	666.77		
2	743297.70	1104142.41	39° 42' 18.79"	77° 44' 23.65"	650.1	672.08		
3	743281.02	1104181.90	39° 42' 18.63"	77° 44' 23.14"	650.1	675.37		
4	743308.65	1104367.77	39° 42' 18.91"	77° 44' 20.77"	650.0	675.92		
5	742756.63	1106318.01	39° 42' 13.61"	77° 43' 55.76"	685.0	666.77		
6	742660.15	1106291.72	39° 42' 12.66"	77° 43' 56.08"	685.0	666.77		
7	742682.44	1106186.57	39° 42' 12.87"	77° 43' 57.43"	685.0	666.77		
8	742782.92	1106221.53	39° 42' 13.87"	77° 43' 57.00"	685.0	666.77		
9	745438.83	1104247.42	39° 42' 39.95"	77° 44' 22.53"	651.7	666.77		
10	745340.09	1104231.59	39° 42' 38.98"	77° 44' 22.72"	651.7	666.77		
11	745355.92	1104132.85	39° 42' 39.13"	77° 44' 23.98"	651.7	666.77		
12	745454.66	1104148.68	39° 42' 40.10"	77° 44' 23.79"	651.7	666.77		

NOTES:

- 1. CONTRACTOR WILL NOT BE PERMITTED TO ENTER/ACCESS AOA WITHOUT PROPER CLEARANCES (SEE SHEET G200).
- 2. GENERAL STAGING AREA LOCATION SHOWN. CONTRACTOR TO COORDINATE WITH RPR TO ACCESS THE AREA. A BUDDY LOCK SYSTEM IS UTILIZED AT THE ACCESS AREA AND NEEDS TO BE COORDINATED WITH THE RESIDENT PROJECT REPRESENTATIVE (RPR) DURING CONSTRUCTION.
- 3. STAGING AREA AND TEMPORARY STOCKPILE AREA ARE TO BE SEEDED AND MULCHED AFTER PROJECT COMPLETION.
- 4. ALL EQUIPMENT AND MATERIALS STAGED IN THIS AREA SHALL BE BELOW 19'

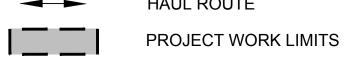
EXISTING LEGEND:

EXISTING AOA FENCE **RUNWAY PROTECTION ZONE** RUNWAY SAFETY AREA -----ROFA -RUNWAY OBJECT FREE AREA TAXIWAY OBJECT FREE AREA ----- TOFA ------- GSCA -GLIDESLOPE CRITICAL AREA

LOCALIZER CRITICAL AREA

PROPOSED LEGEND:

— — — LIMIT OF FIELD SURVEY



HAUL ROUTE

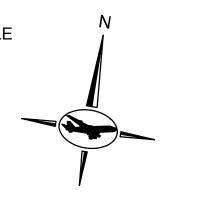


STAGING AREA



TEMPORARY TOPSOIL STOCKPILE (MAXIMUM HEIGHT 25' AGL)

FEBRUARY 2023

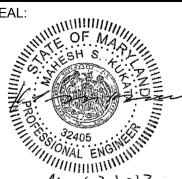


GRAPHIC SCALE

6031 UNIVERSITY BLVD, SUITE 330 ELLICOTT CITY, MD 21043

TEL: 410.465.9600

FAX: 410.465.9602



PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS

DESCRIPTIONS DATE Z.A.F. NO. G.C.S. CHECKED: OF THE STATE OF MARYLAND" M.P.P LICENSE NO. _ 32405 APPROVED: EXPIRATION DATE: 12-22-23



PROJECT TITLE: TAXIWAY F REHABILITATION

SHEET TITLE:

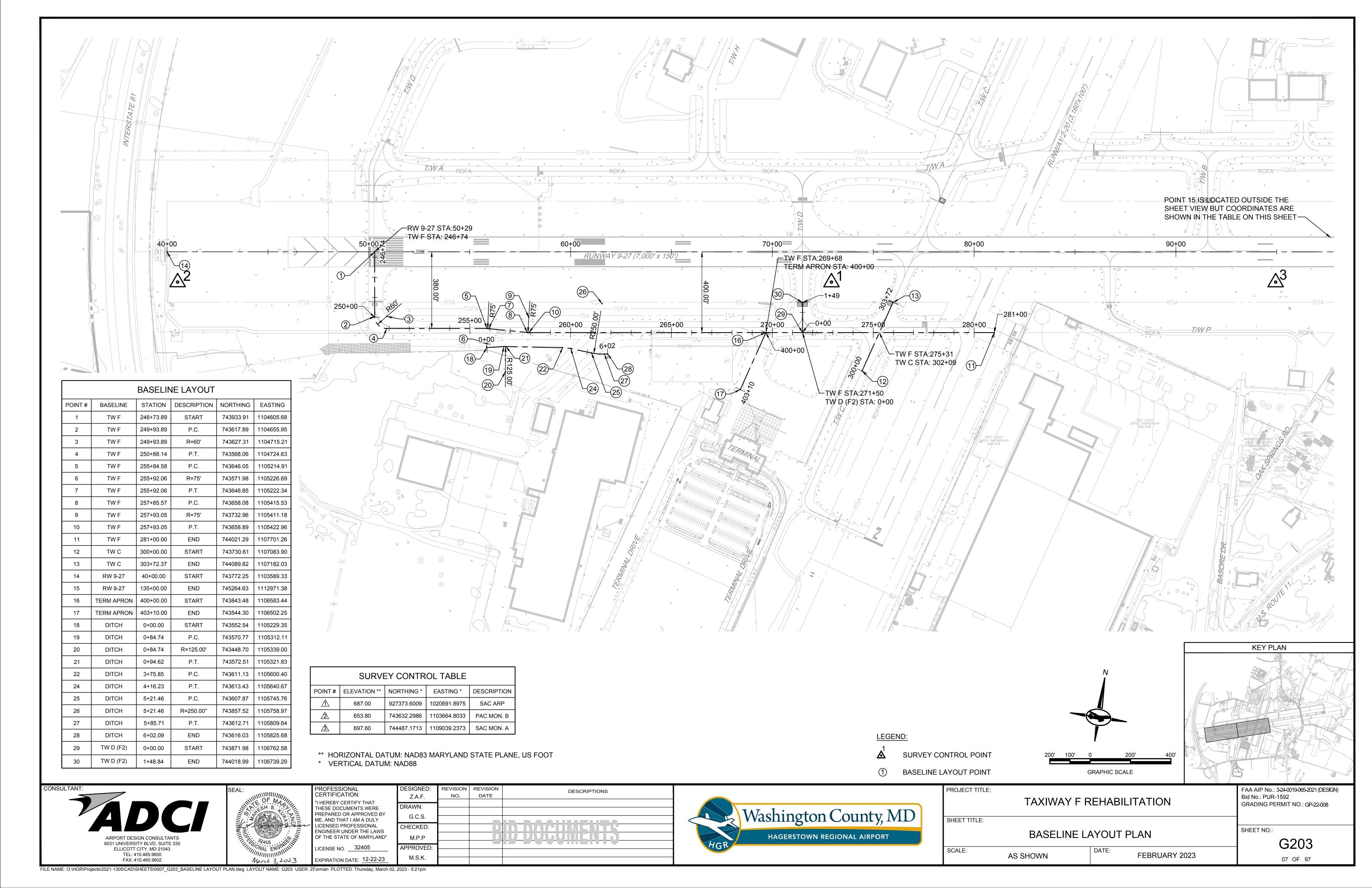
AS SHOWN

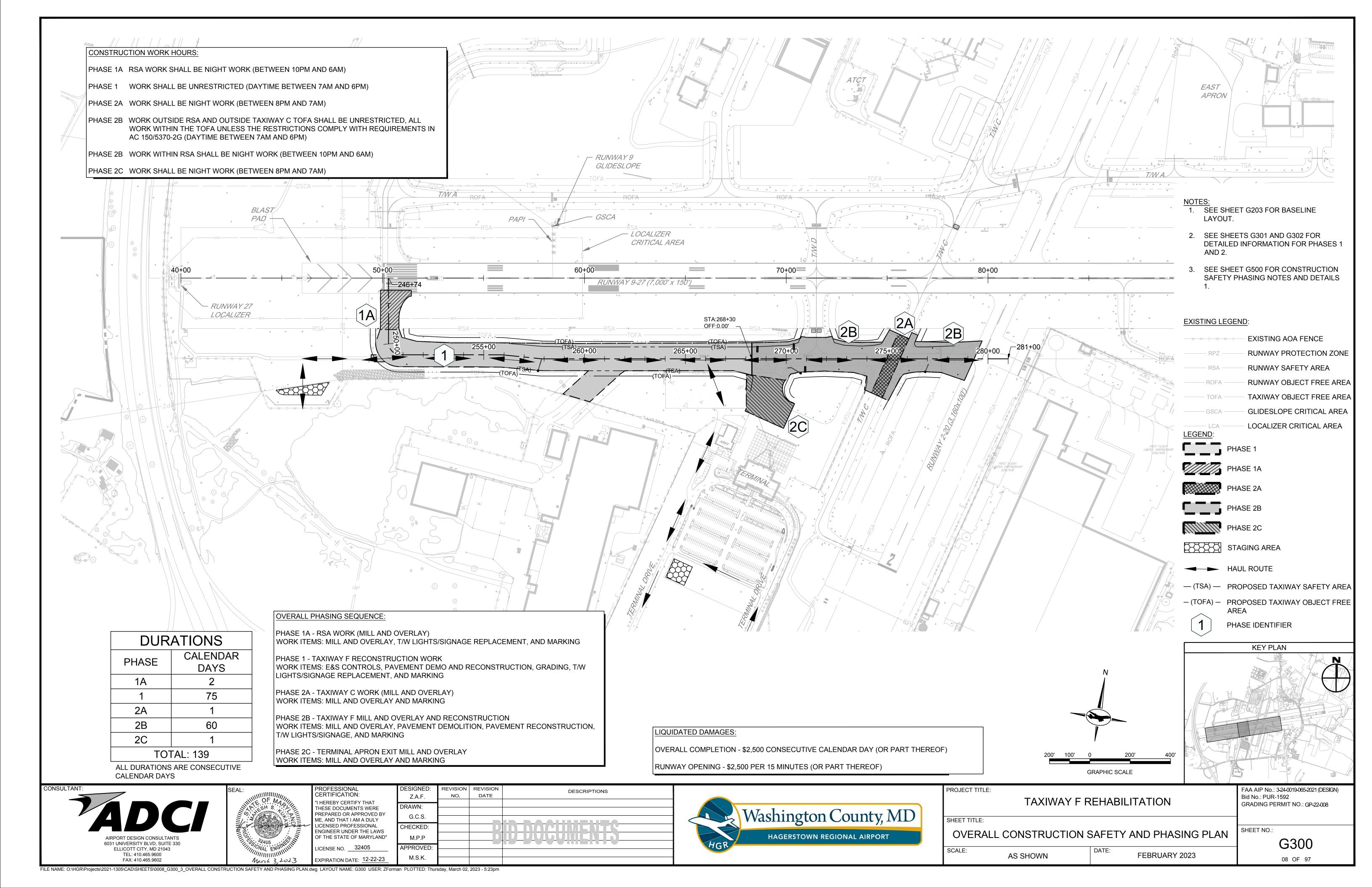
GENERAL PROJECT LAYOUT

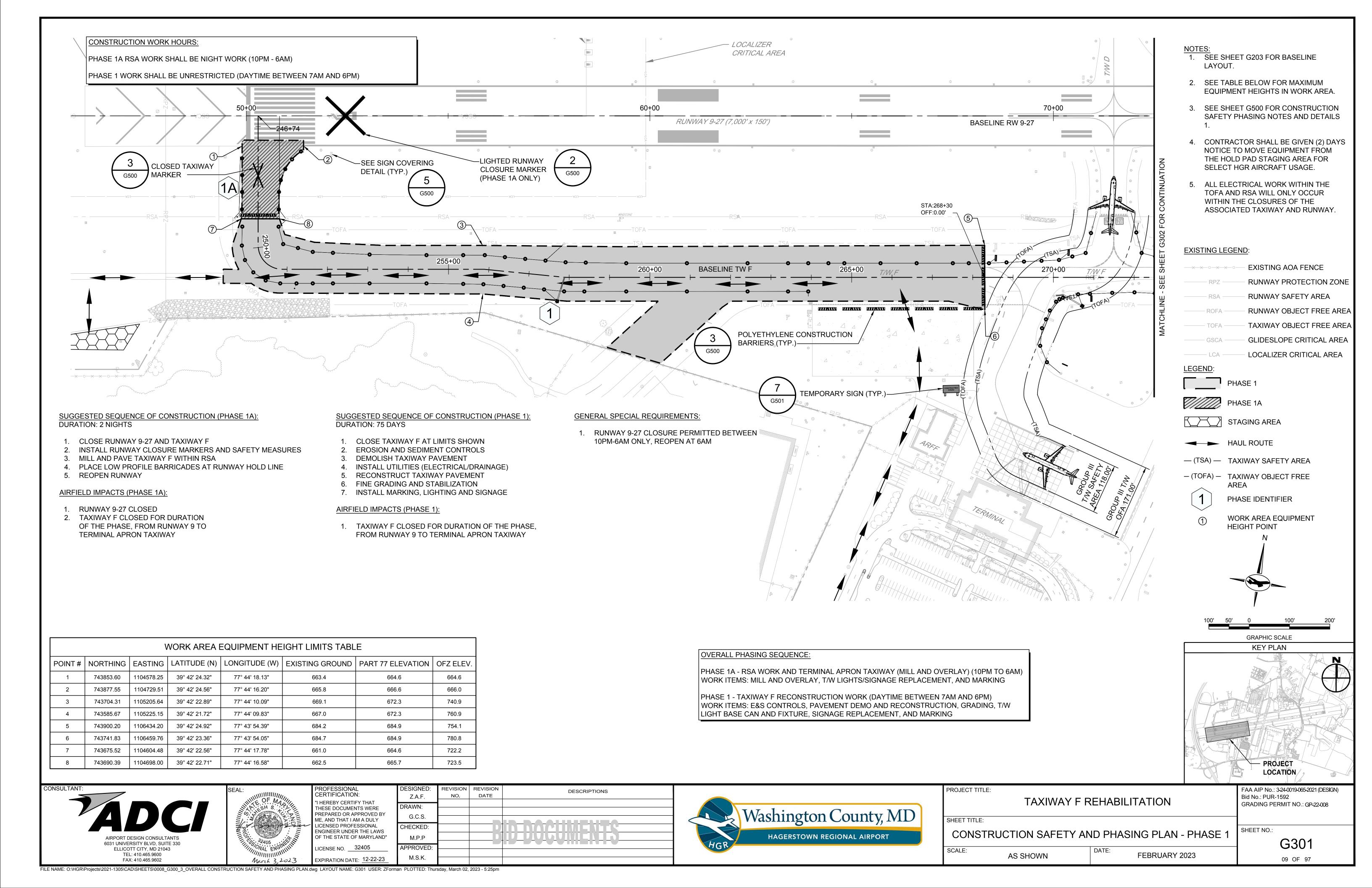
FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008

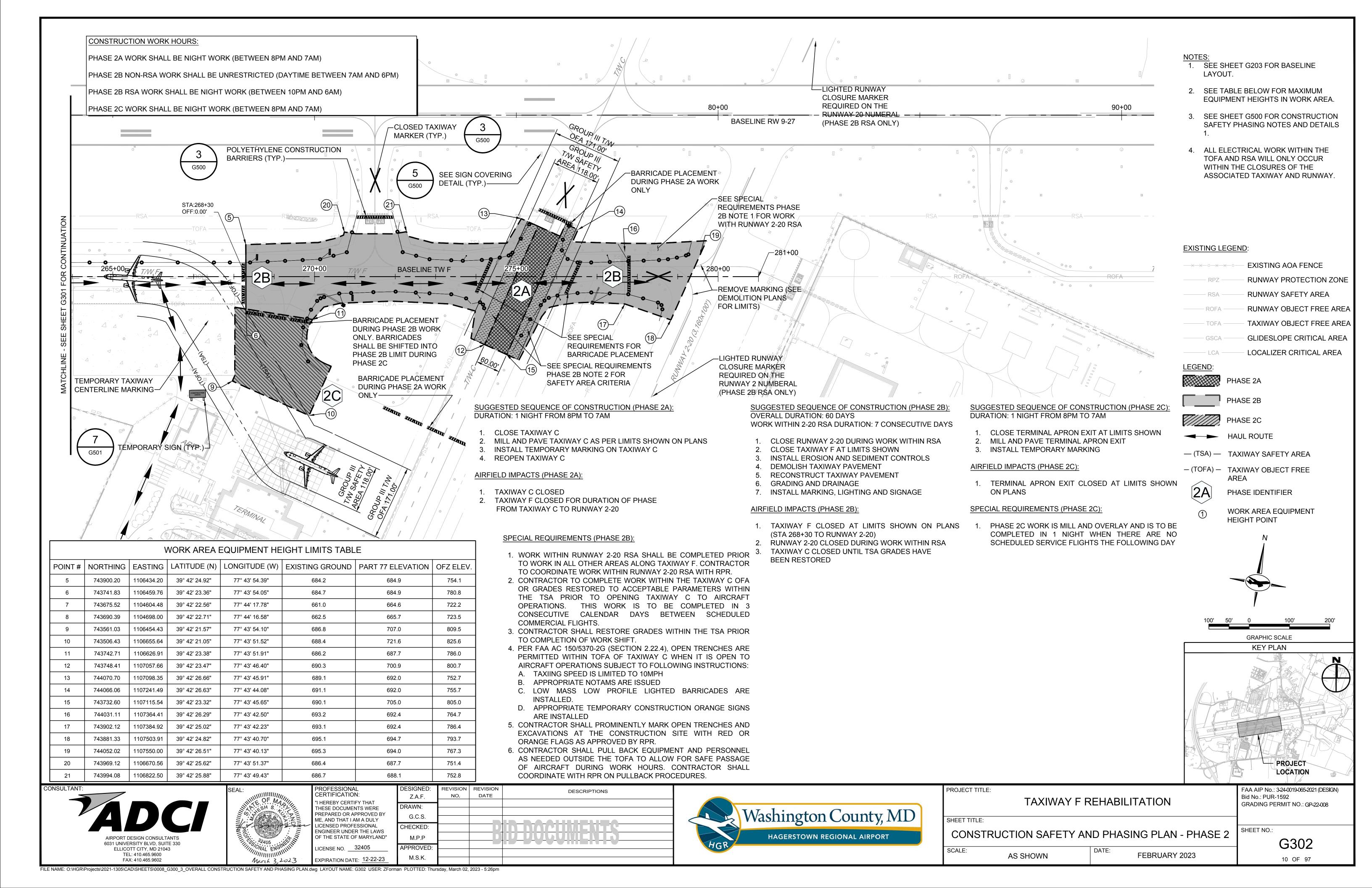
SHEET NO.:

G202 06 OF 97









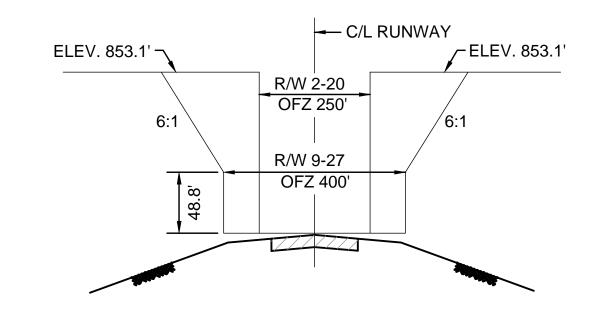
GENERAL PHASING NOTES:

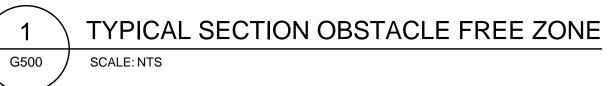
- 1. THE INTENT OF THE PHASING PLAN IS TO MINIMIZE THE IMPACT OF CONSTRUCTION ON THE OPERATION OF THE AIRPORT. THE CONTRACTOR SHALL CONSTRUCT THE PROJECT AS OUTLINED IN THE PLANS UNLESS OTHERWISE APPROVED BY THE RESIDENT PROJECT REPRESENTATIVE (RPR). ADJUSTMENTS TO THE PHASING PLAN MAY BE NECESSARY TO ACCOMMODATE UNFORESEEN PROBLEMS WITH AIRPORT OPERATIONS.
- 2. THE CONTRACTOR SHALL PROVIDE, MAINTAIN, MOVE, REMOVE (AS DIRECTED) THE SAME PERSON EACH DAY THROUGHOUT THE CONSTRUCTION BARRIERS TO DELINEATE AREAS CLOSED TO AIRCRAFT TRAFFIC AND TO PROJECT. THE SUPERINTENDENT SHALL HAVE THE MARK ALL OPEN EXCAVATIONS, PAVEMENT DROP-OFFS, ETC.
- 3. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE FOR REVIEW AND WITH THE RPR AND AIRPORT PERSONNEL AND SHALL APPROVAL OF THE RPR A MINIMUM OF 14 CALENDAR DAYS PRIOR TO THE PRE CONSTRUCTION MEETING. STRICT ADHERENCE TO THE APPROVED SCHEDULE WILL BE ENFORCED TO AVOID CONFLICTS WITH OTHER CONSTRUCTION ACTIVITIES AND ADVERSE EFFECTS ON AIRPORT OPERATIONS.
- 4. ELECTRICAL WORK SHALL BE SEQUENCED TO MAINTAIN ALL ELECTRICAL SYSTEMS ALL WORK MUST BE PERFORMED WITH THE RPR AND/OR WITHOUT ANY INTERRUPTIONS. TEMPORARY WIRING IF REQUIRED SHALL BE INCIDENTAL TO THE CORRESPONDING ELECTRICAL WORK. ALL ELECTRICAL WORK SHALL BE EVENINGS AND WEEKENDS MUST BE COORDINATED COORDINATED WITH THE RPR AND THE AIRPORT MAINTENANCE DEPARTMENT
- 5. EROSION AND SEDIMENT CONTROL DEVICES MUST BE IN PLACE PRIOR TO THE START OF EARTH MOVING OPERATIONS.
- 6. THE CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL AND EQUIPMENT TO KEEP THE ACTIVE PAVEMENTS CLEAN AND FREE OF DEBRIS AT ALL TIMES
- 7. THE CONTRACTOR MUST COMPLY WITH ALL APPLICABLE FAA ADVISORY CIRCULARS AND FEDERAL AVIATION REGULATIONS. PAY PARTICULAR ATTENTION TO FAA AC 150/5370-2G.
- 8. MAXIMUM EQUIPMENT HEIGHTS FOR ACTIVE WORK AREAS AND STAGING AREA ARE LIMITED BY FAR PART 77 AND OBSTACLE FREE ZONE (OFZ) SURFACES IDENTIFIED ON THIS
- 9. DUST ON CONSTRUCTION PROJECTS IS A MAJOR PROBLEM. THE CONTRACTOR SHALL BE MAGNETIC PLACARD ISSUED BY THE AIRPORT RESPONSIBLE FOR DUST CONTROL ON-SITE AT ALL TIMES ON A CONTINUOUS BASIS. THE OPERATIONS CONTRACTOR MUST SUBMIT A DETAILED DUST CONTROL PLAN TO THE RPR FOR APPROVAL PRIOR TO BEGINNING WORK. THE COST FOR THIS WORK SHALL BE INCLUDED UNDER MAINTENANCE AND PROTECTION OF TRAFFIC.
- 10. RED LIGHTS SHALL MEET THE LUMINANCE REQUIREMENTS OF THE FAA.

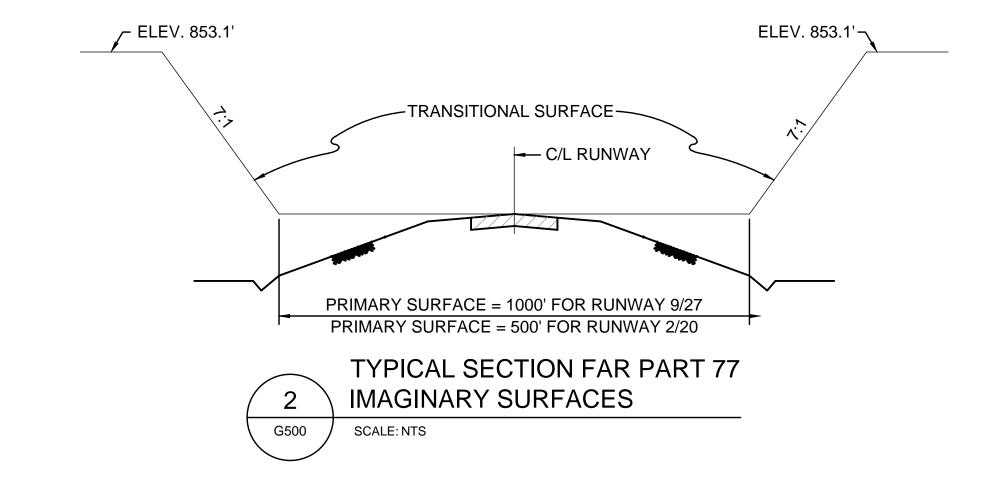
SUPERVISION:

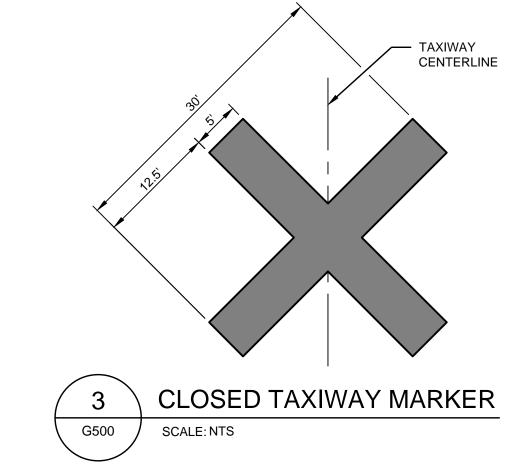
THE PRIME CONTRACTOR SHALL HAVE THE PROJECT SUPERINTENDENT OR SOMEONE IN RESPONSIBLE CHARGE BE PRESENT AT ALL TIMES ON THE PROJECT SITE. THIS PERSON SHALL BE FAMILIAR WITH ALL TYPES OF CONSTRUCTION BEING PERFORMED AND SHALL BE RESPONSIBILITY OF COORDINATING EACH DAY'S WORK HAVE AUTHORITY TO SCHEDULE AND ADJUST ALL WORKERS, PRIME AND SUB CONTRACTORS, TO ACCOMMODATE AIRPORT OPERATION AS DIRECTED BY THE RPR AND/OR AIRPORT PERSONNEL.

AIRPORT PERSONNEL ON THE SITE, WORK DURING WITH THE RPR AND AIRPORT PERSONNEL AT LEAST 7 DAYS IN ADVANCE, EXCLUDING EMERGENCIES AND INCLEMENT WEATHER CONDITIONS. ALL PERSONNEL SHALL CLEAR THE CONSTRUCTION AREA ONCE WORK HAS STOPPED FOR THE DAY. ALL MECHANICS NEEDING ACCESS TO THE AIR OPERATIONS AREA DURING EVENINGS AND WEEKENDS TO WORK ON CONSTRUCTION EQUIPMENT SHALL HAVE A PICTURED IDENTIFICATION BADGE. RECEIVE DRIVING PRIVILEGES. AND HAVE THEIR VEHICLES IDENTIFIED WITH THE CONTRACTOR NAME OR



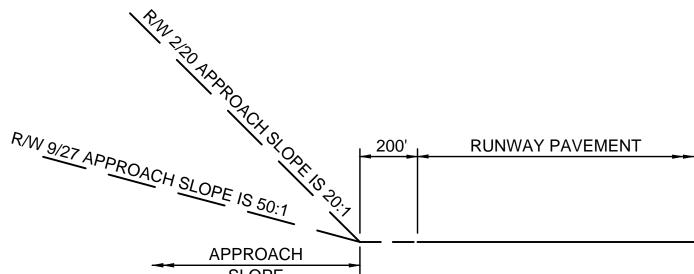






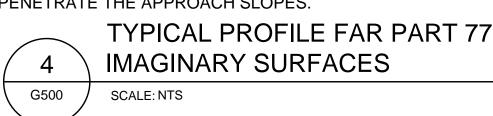
NOTES:

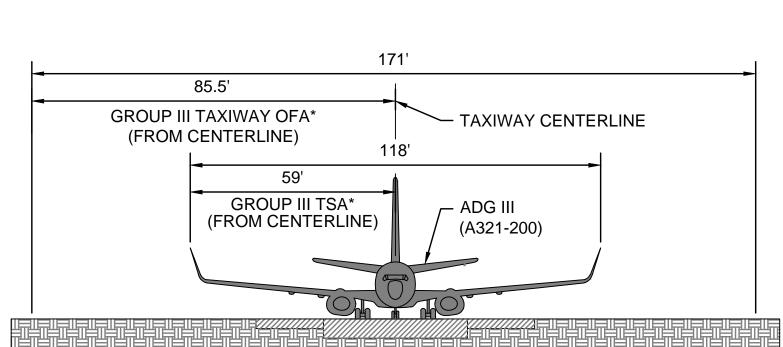
- 1. TEMPORARY TAXIWAY CLOSURE MARKERS SHALL BE CONSTRUCTED OF YELLOW POLYETHYLENE TARP (OR OTHER MATERIAL APPROVED BY THE ENGINEER), A MINIMUM OF 7MM THICKNESS, WITH GROMMETS EVERY 3 FEET FOR SANDBAG OR STAKE ATTACHMENTS.
- 2. MAINTAIN AND REPAIR DAMAGES TO MARKERS AND ANCHORAGE AS REQUESTED.
- 3. CONTRACTOR MUST SUBMIT SHOP DRAWINGS PRIOR TO ORDERING TAXIWAY CLOSURE MARKERS.
- 4. TEMPORARY TAXIWAY CLOSURE MARKERS ARE NEEDED WHEN TAXIWAY EXITS FROM RUNWAY ARE CLOSED FOR MORE THAN 3 CONSECUTIVE DAYS.



FAR PART 77 NOTES:

- 1. THE OFZ SHALL GOVERN EQUIPMENT CLEARANCE DURING CONSTRUCTION ADJACENT TO AN ACTIVE RUNWAY, UNDER NO CIRCUMSTANCES SHALL ANY MEN OR EQUIPMENT PENETRATE THESE SURFACES UNLESS PRIOR ARRANGEMENTS HAVE BEEN MADE WITH THE RPR. HGR. AND THE TOWER.
- THE FAR PART 77 SURFACES (PRIMARY AND TRANSITIONAL) GOVERN STOCKPILE AND PARKED EQUIPMENT. UNDER NO CIRCUMSTANCES SHALL PARKED EQUIPMENT, STOCKPILES, OR OTHER ITEMS PENETRATE THESE SURFACES DURING CONSTRUCTION ADJACENT TO AN ACTIVE RUNWAY.
- THE FAR PART 77 APPROACH SURFACE GOVERNS STOCKPILES, CONSTRUCTION EQUIPMENT AND OTHER OBJECTS BEYOND THE RUNWAY END. UNDER NO CIRCUMSTANCES SHALL THESE ITEMS PENETRATE THE APPROACH SLOPES



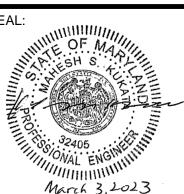


*NO CONSTRUCTION MAY OCCUR WITHIN THE TAXIWAY OBJECT FREE AREA WHILE THE TAXIWAY IS OPEN FOR AIRCRAFT OPERATIONS. SEE FAA AC 150/5370-2G, SECTION 2.22.4 FOR ADDITIONAL RESTRICTIONS. RESTORATION OF TAXIWAY C OFA NOT REQUIRED TO OPEN TAXIWAY TO TRAFFIC. RESTORATION OF TAXIWAY C TSA REQUIRED TO OPEN TAXIWAY TO TRAFFIC.

GROUP III TAXIWAY SAFETY AREA (TSA) - TAXIWAY OBJECT FREE AREA (TOFA) - TANGENT SECTION G500 SCALE: NTS



FAX: 410.465.9602



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EXPIRATION DATE: 12-22-23

LICENSE NO. 32405

DESCRIPTIONS NO. DATE Z.A.F. G.C.S. CHECKED: M.P.P APPROVED



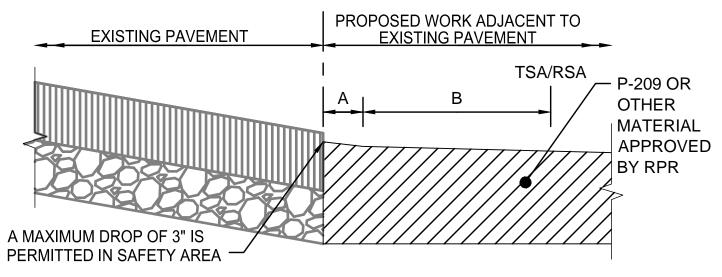
PROJECT TITLE TAXIWAY F REHABILITATION SHEET TITLE:

FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008

11 OF 97

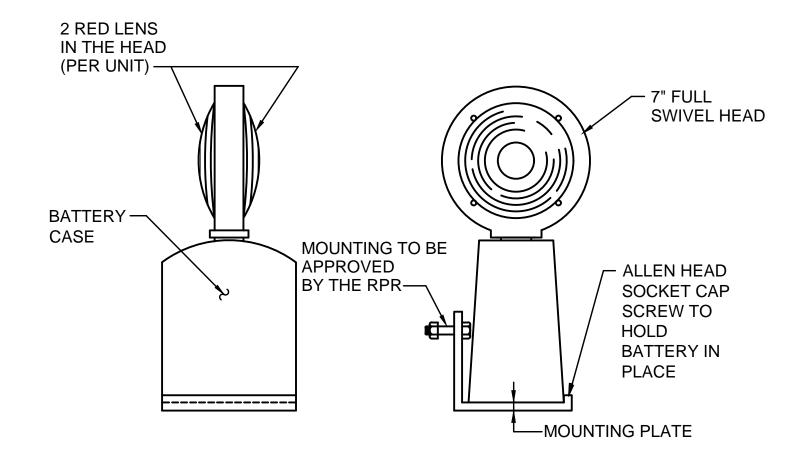
CONSTRUCTION SAFETY PHASING NOTES AND DETAILS 1 G500

SCALE: FEBRUARY 2023 **AS SHOWN**

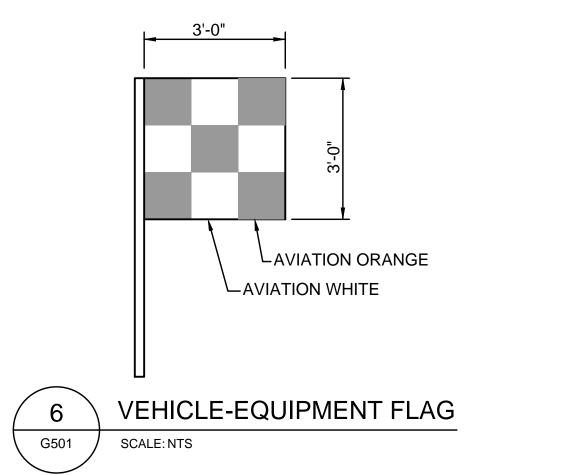


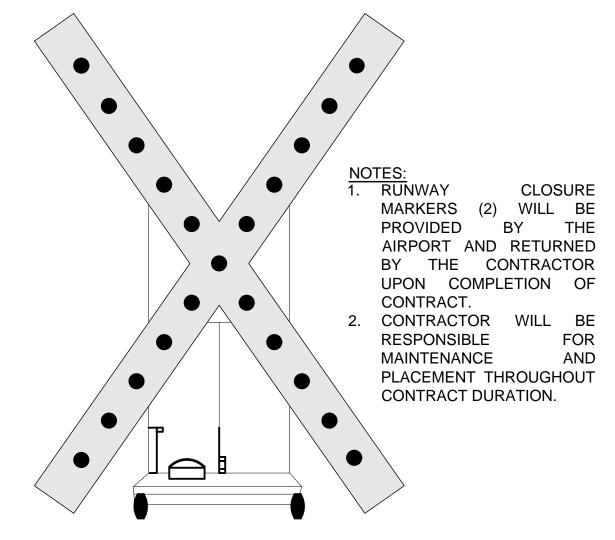
- A. MAINTAIN A 5.0% GRADE AWAY FROM PAVEMENT FOR 10 FEET OF UNPAVED SURFACE ADJACENT TO THE PAVED SURFACE TOWARD A DRAIN.
- B. MAINTAIN A 1.5% TO 3.0% GRADE AWAY FROM PAVEMENT TOWARD A DRAIN
- NOTES: 1. THE RSA EXTENDS 250 FT. MEASURED FROM THE RUNWAY CENTERLINE UNLESS OTHERWISE NOTED. THE TSA EXTENDS 59 FT. FROM THE TAXIWAY CENTERLINE (T/W A/D/F) AND 39.5' FROM CENTERLINE FOR B/C/G/H/N/Q.
- 2. RPR SHALL APPROVE GRADING PRIOR TO OPENING THE RUNWAY OR TAXIWAY.



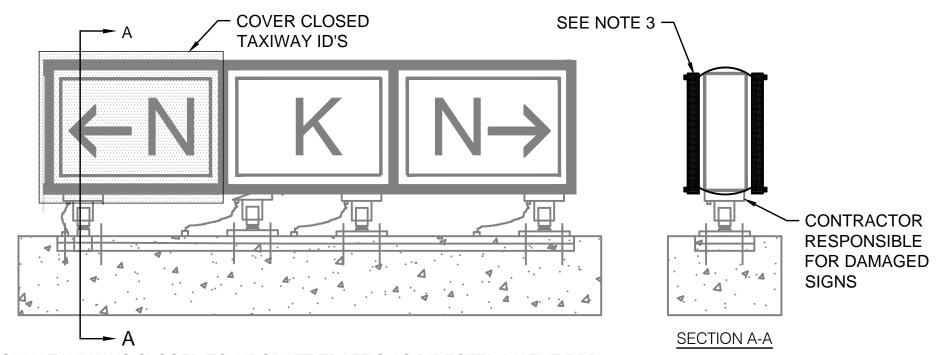












1. COVER ONLY TAXIWAYS CLOSED TO AIRCRAFT TRAFFIC AS DIRECTED BY THE RPR

2. FASTEN TO WITHSTAND 80 MPH WINDS

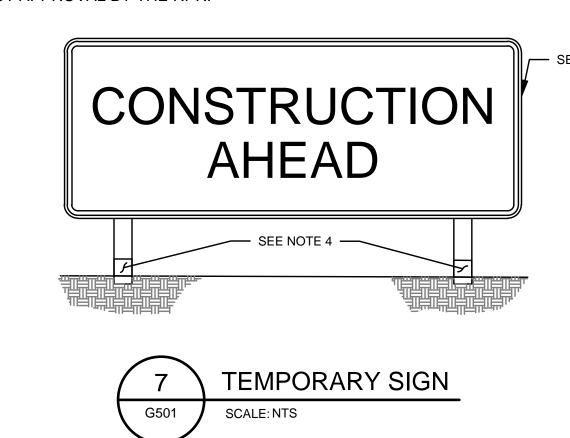
DESCRIPTIONS

METHOD OF COVERING SHALL BE SUBMITTED FOR APPROVAL OF RPR/ENGINEER. NO BAGS OR TAPE WILL BE PERMITTED

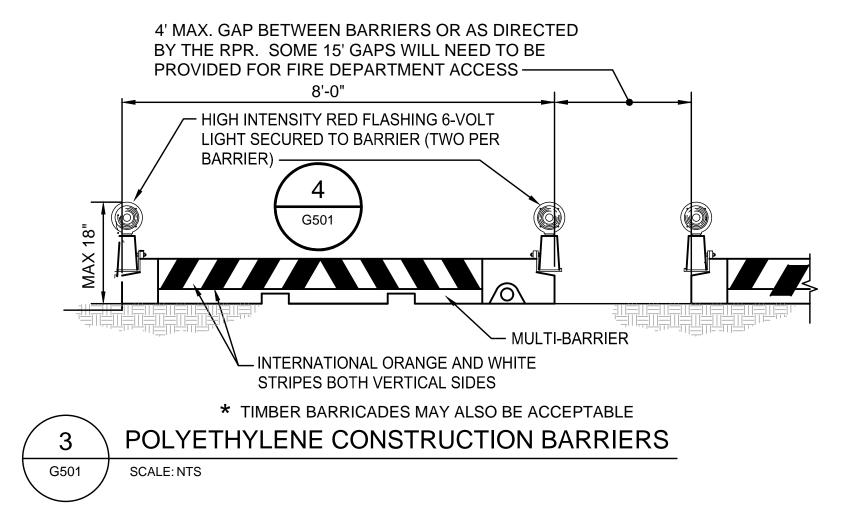
4. COSTS ARE INCIDENTAL TO TEMPORARY CONSTRUCTION ITEMS.

5. MAINTAIN EXISTING TAXI SIGNAGE OR PROVIDE TEMPORARY SIGNAGE DURING DURATION OF PROJECT. AS WORK PROGRESSES, COVER ANY NEW OR EXISTING MESSAGES THAT DO NOT APPLY OR LEAD INTO NEW WORK AREAS. SIGNS MAY BE ENCASED BY (2) 1/4" THICK FLEXIBLE PLYWOOD SHEETS PAINTED BLACK WITH EYE HOOKS AT THE TOP AND BOTTOM CONNECTED BY BUNGEE CORDS TO SANDWICH THE GUIDANCE SIGNS TEMPORARILY. PRIOR TO DISCONNECTING OR COVERING TAXI GUIDANCE SIGNAGE, SUBMIT TO THE CONSTRUCTION MANAGER A LIST OR DIAGRAM OF THE INTENDED SIGNS. NO SIGNAGE MAY BE DISCONNECTED OR COVERED WITHOUT APPROVAL BY THE RPR.





SCALE:

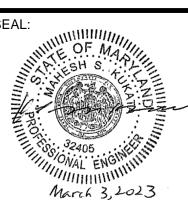


NOTES (FOR TEMPORARY SIGN):

- 1. SIGN LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE
- $^{--}$ SEE NOTE 6 2. TEMPORARY SIGNS SHALL BE CONSTRUCTED TO WITHSTAND 100 MPH WINDS AND JET BLAST FROM AIRCRAFT WITHOUT BENDING OR CHANGING SHAPE. IF LOCATED WITHIN AN ACTIVE RSA OR TSA, TEMPORARY SIGNS SHALL BE MOUNTED ON FRANGIBLE SUPPORTS, AS DEFINED BY AC 150/5220-23, FRANGIBLE CONNECTIONS.
 - 3. THESE SIGNS ARE ONLY REQUIRED IF THE CONTRACTOR WILL BE WORKING WITHIN AN ACTIVE TOFA.
 - 4. TEMPORARY MOUNTING DETAILS SHALL BE PROVIDED BY THE CONTRACTOR DURING SHOP DRAWING REVIEW. MOUNTING SHALL BE FRANGIBLE AND NO PERMANENT PART OF THE MOUNTING SHALL PROTRUDE UP MORE THAN 3 INCHES ABOVE FINISHED GRADE. ENSURE MOUNTING PROCEDURE SUBMITTED WITH SHOP DRAWINGS.
 - 5. COSTS FOR SIGNS SHALL BE INCIDENTAL TO TEMPORARY CONSTRUCTION ITEMS.
 - 6. SIGN SHALL BE 3M DIAMOND GRADE 4084 FLORESCENT ORANGE BACKGROUND WITH MINIMUM 6" BLACK LETTERING AS REQUIRED IN ACCORDANCE WITH AC 150-5370-2G.
 - 7. SIGNS SHALL BE PLACED OUTSIDE OF THE TSA AND AHEAD OF THE CONSTRUCTION AREA.

FEBRUARY 2023





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DATE NO. Z.A.F. G.C.S. CHECKED: APPROVED: EXPIRATION DATE: 12-22-23



PROJECT TITLE: TAXIWAY F REHABILITATION SHEET TITLE:

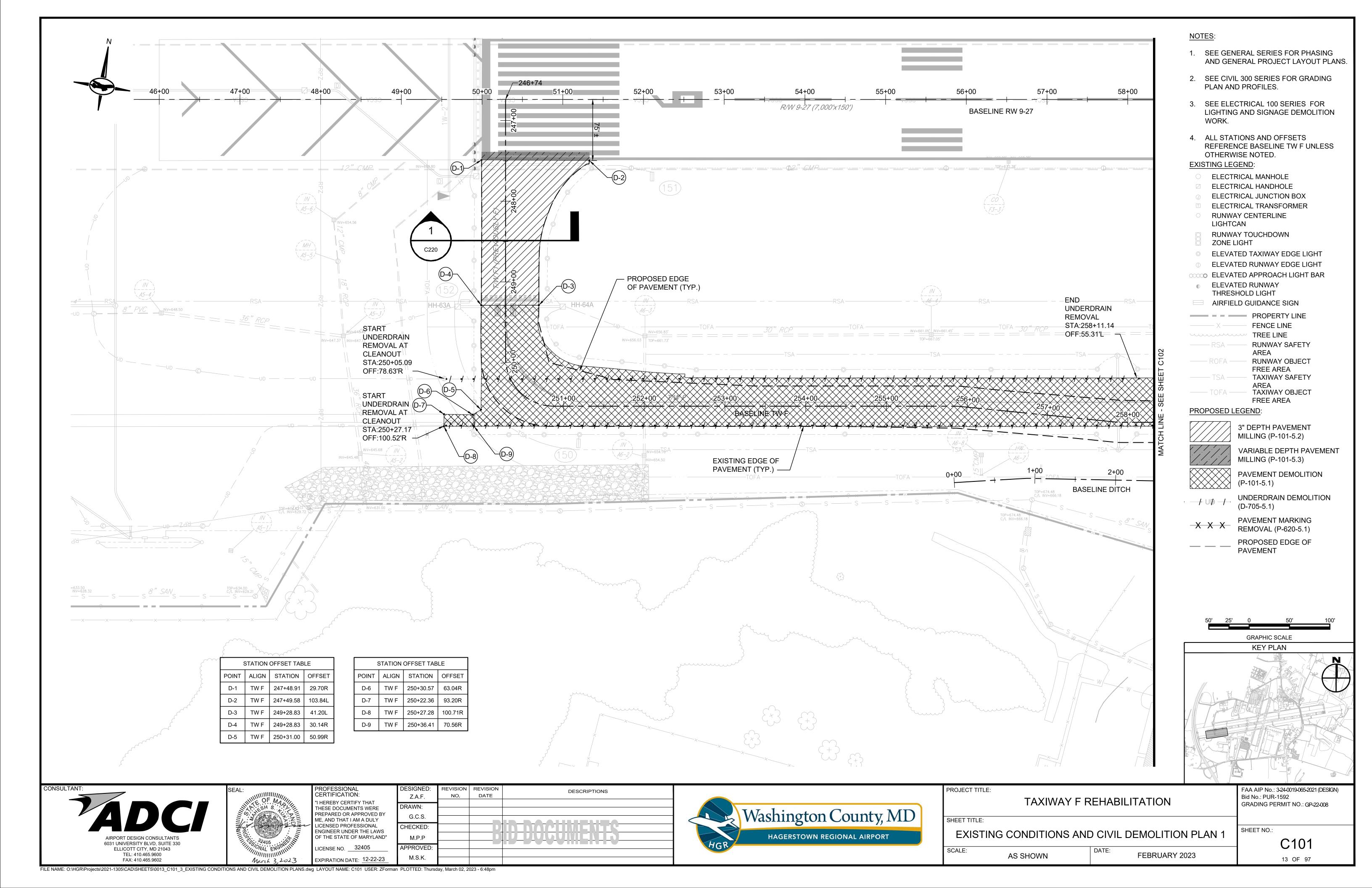
AS SHOWN

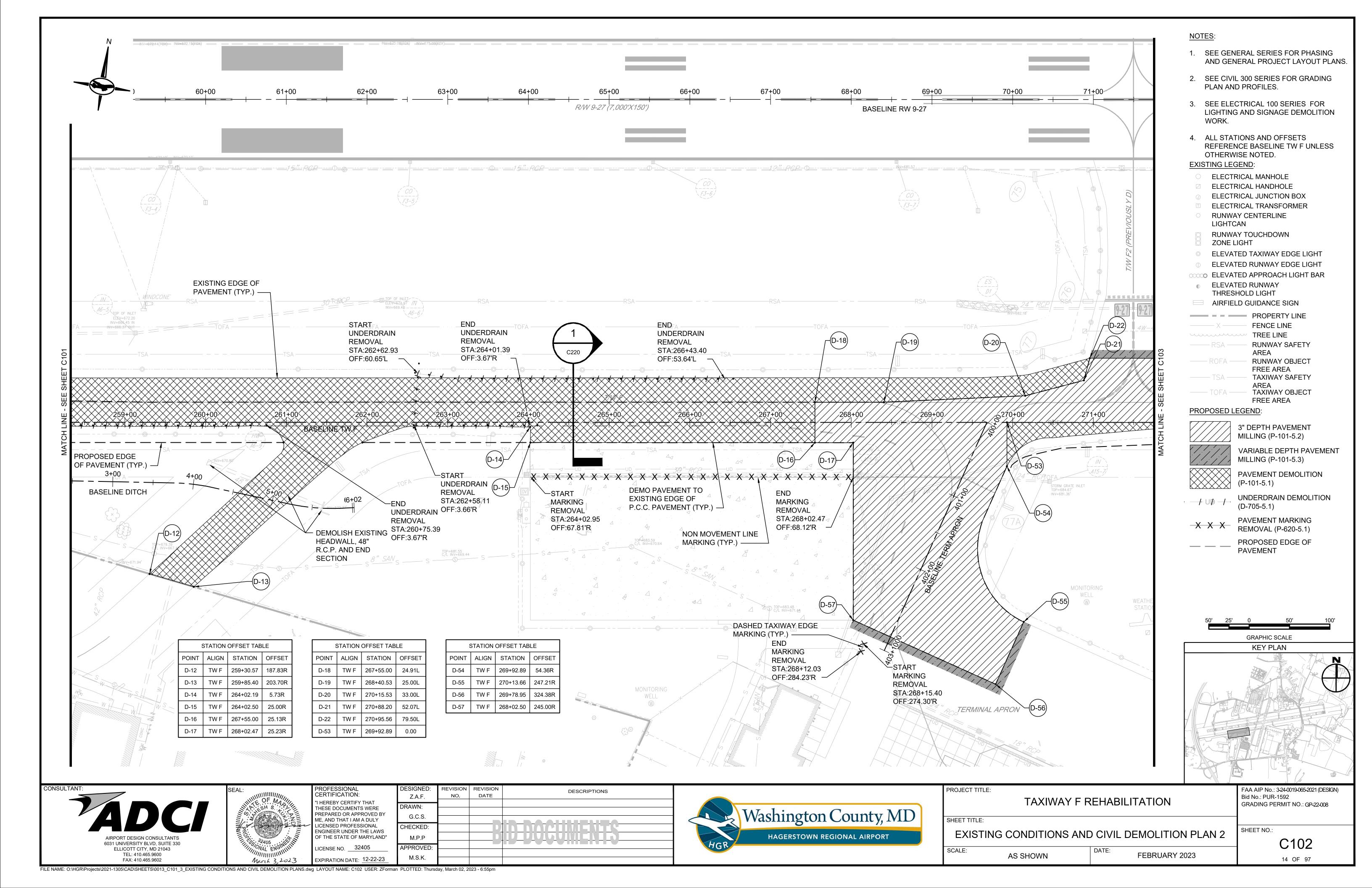
FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008

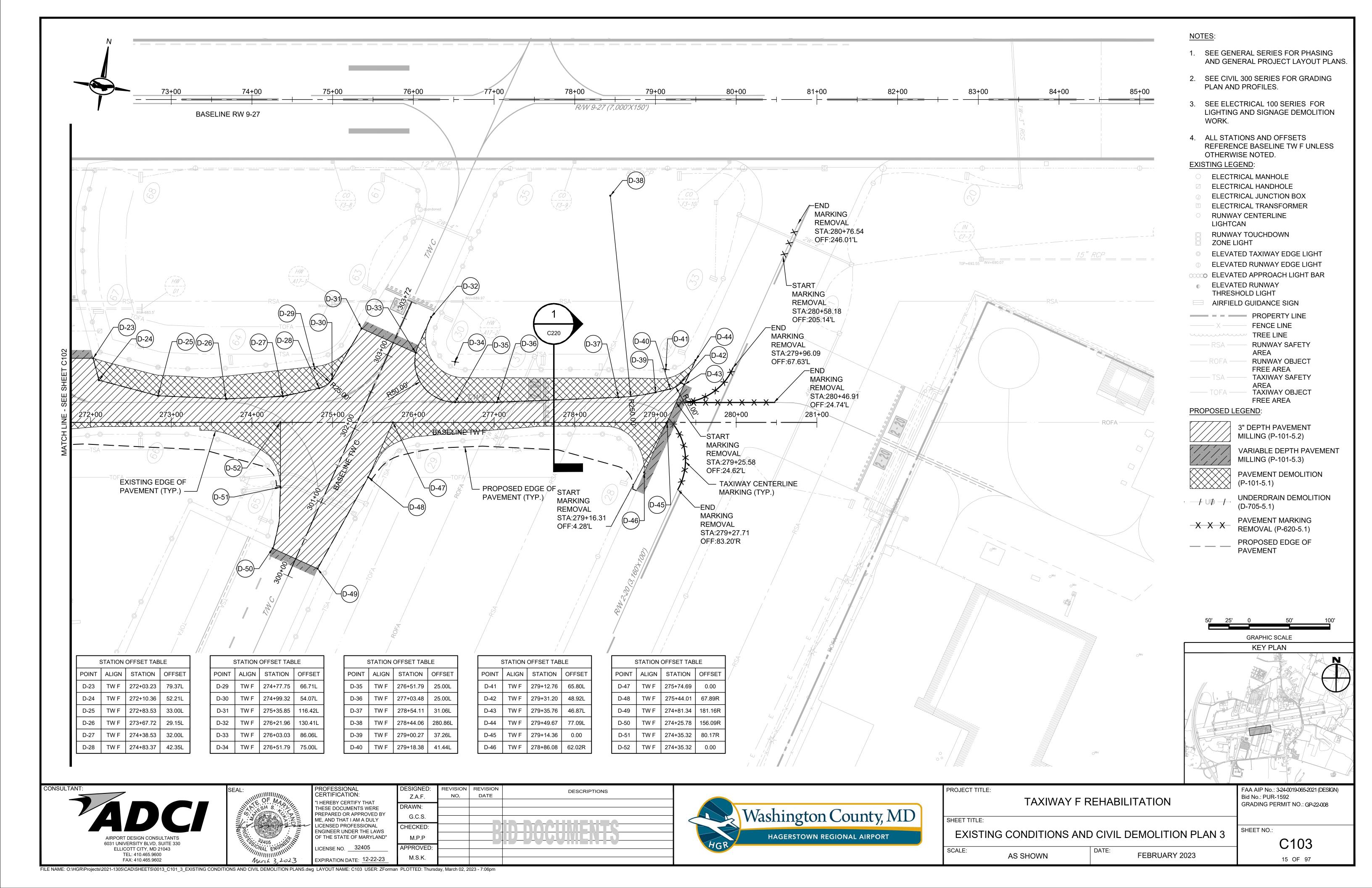
CONSTRUCTION SAFETY PHASING NOTES AND DETAILS 2

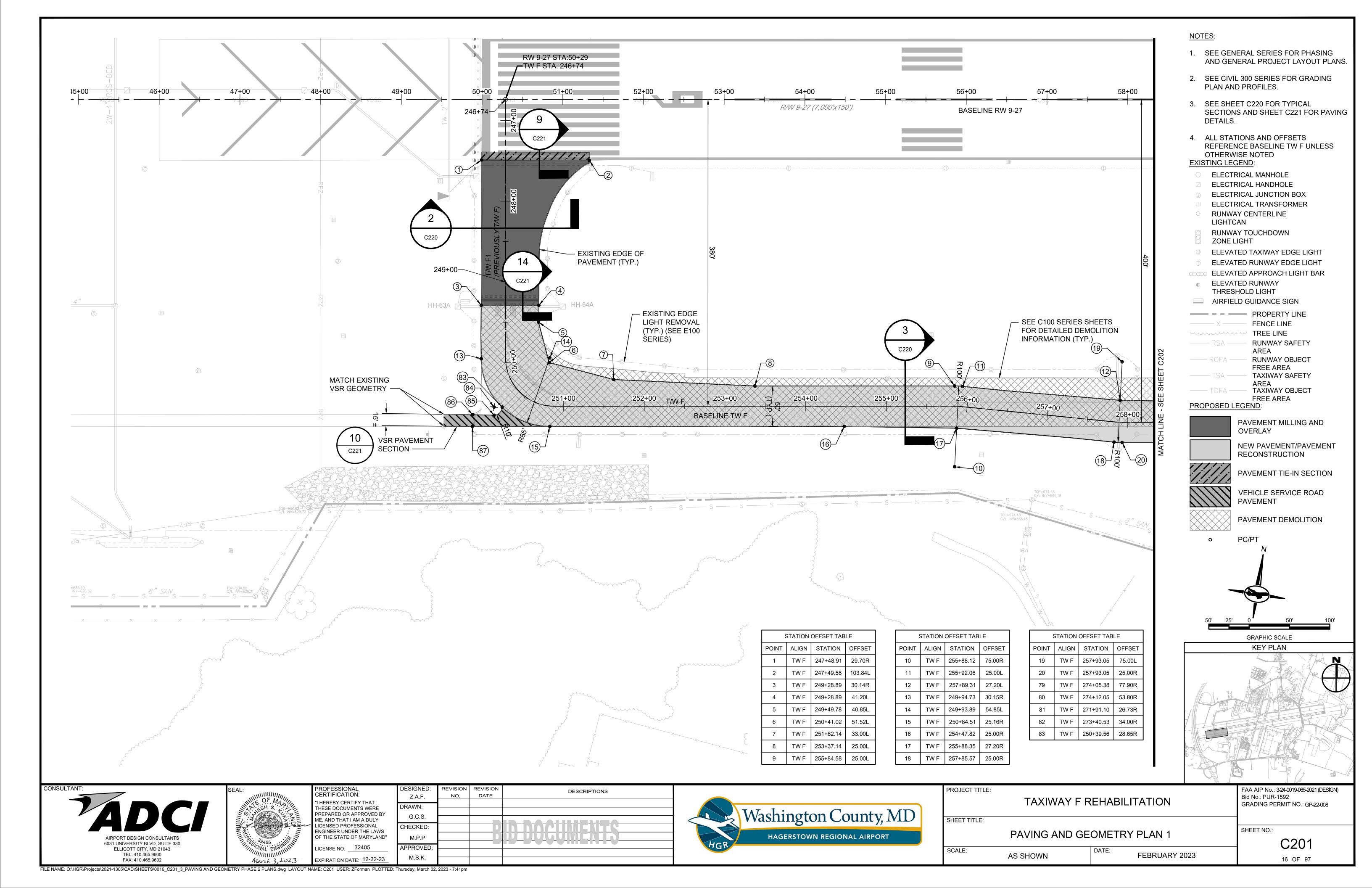
G501 12 OF 97

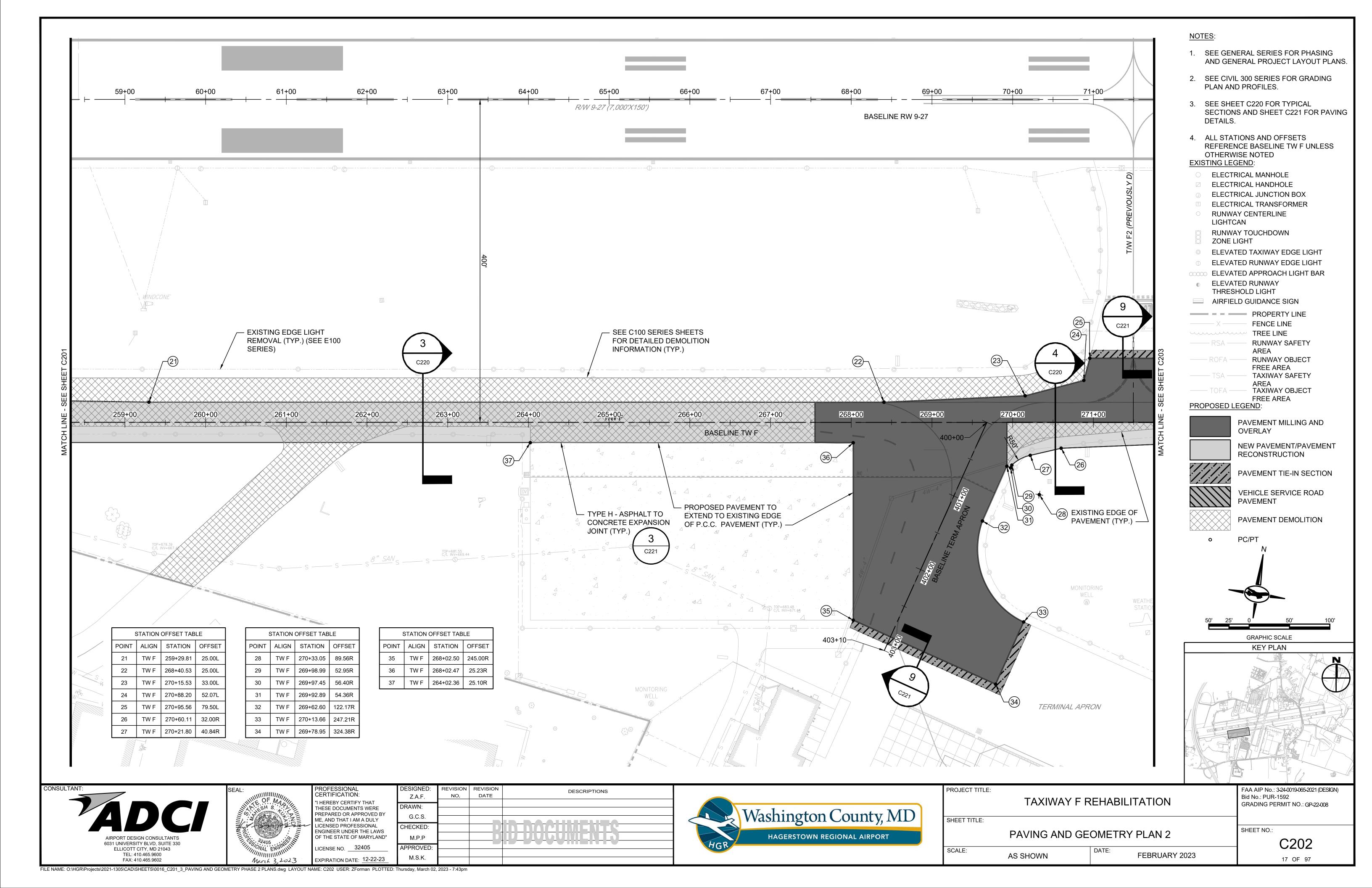
FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0011_G500_2_CONSTRUCTION SAFETY PHASING NOTES AND DETAILS.dwg LAYOUT NAME: G501 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 5:28pm

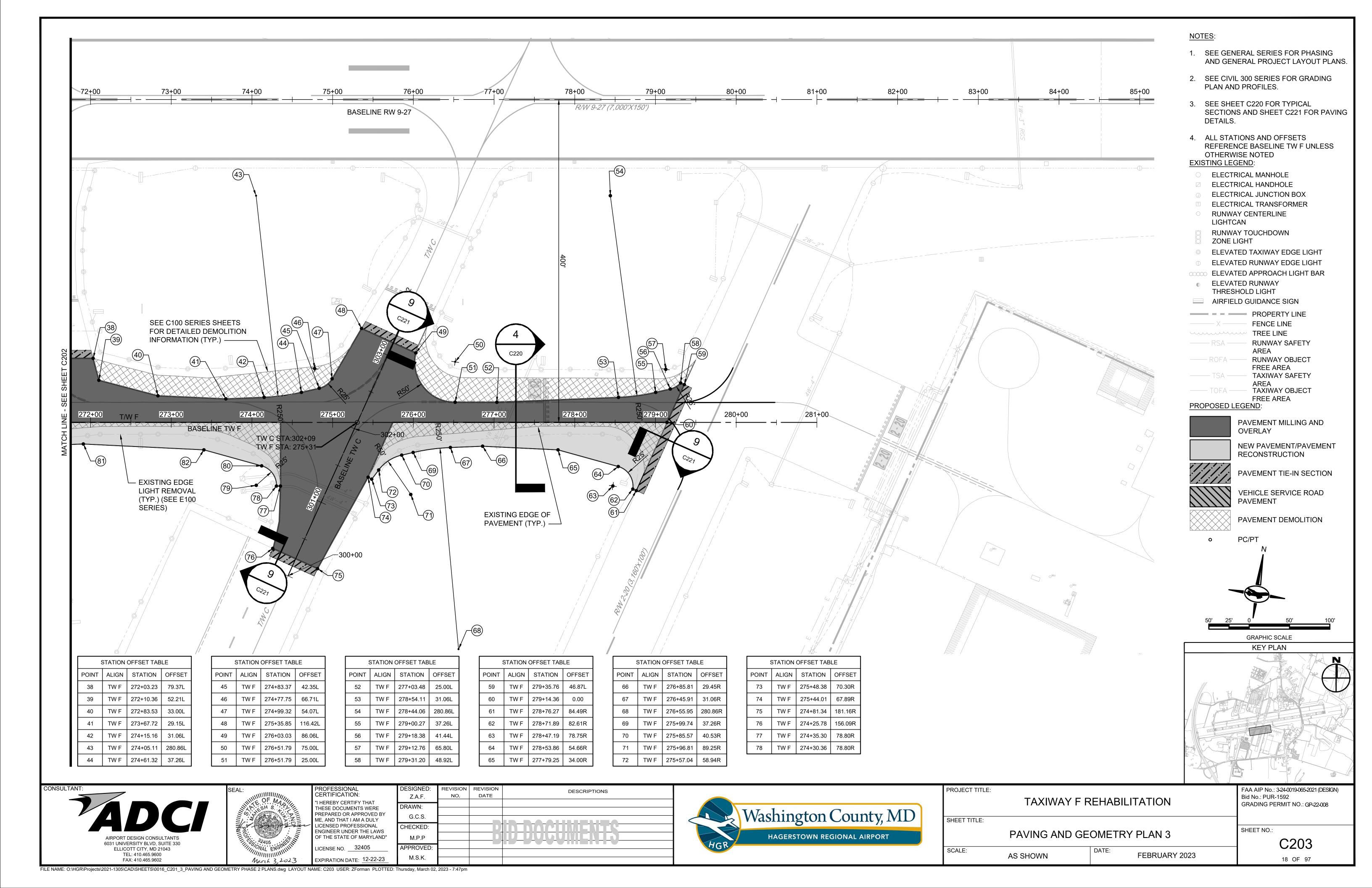


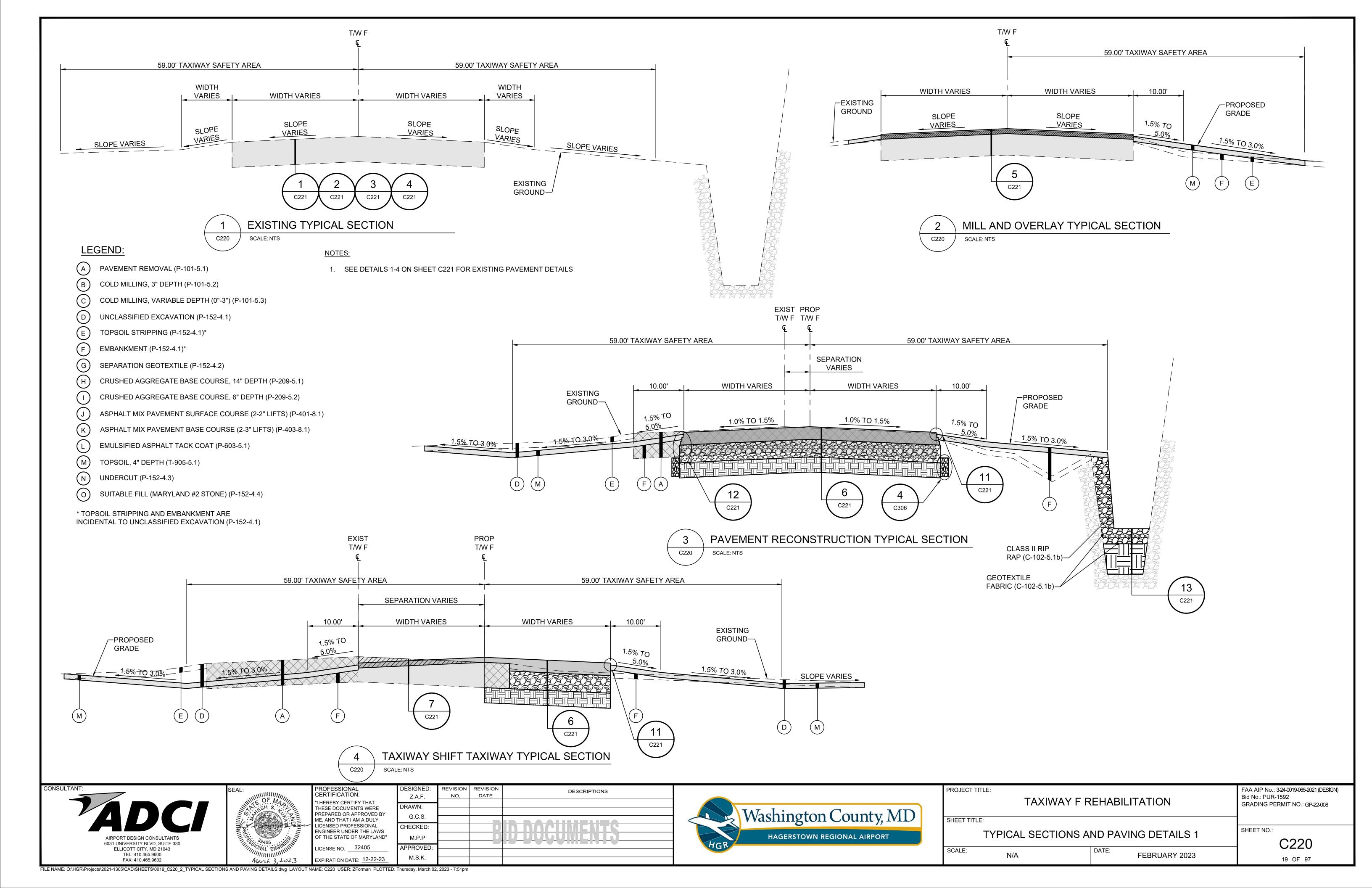


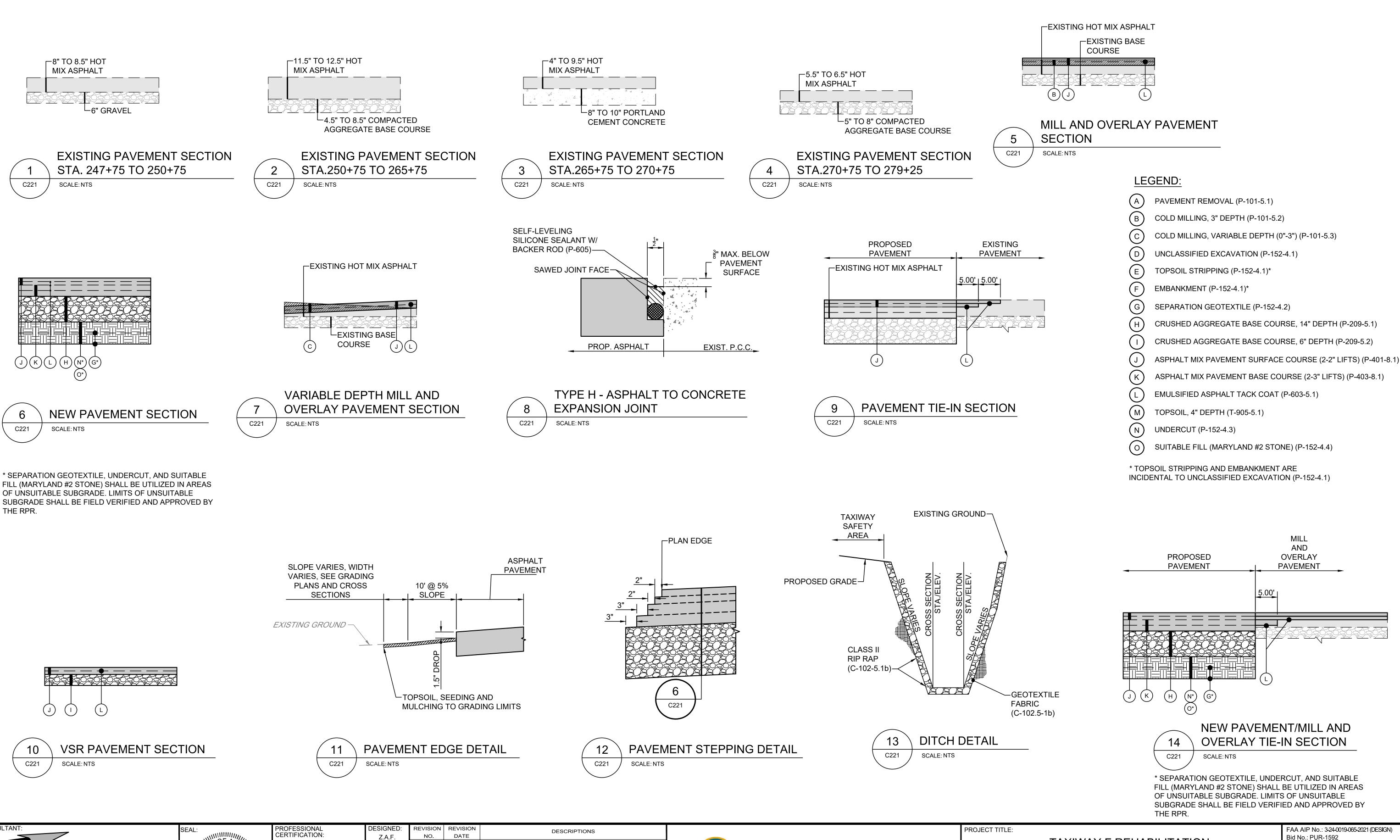












EXPIRATION DATE: 12-22-23 FAX: 410.465.9602 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0019_C220_2_TYPICAL SECTIONS AND PAVING DETAILS.dwg LAYOUT NAME: C221 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 7:53pm

6031 UNIVERSITY BLVD, SUITE 330 ELLICOTT CITY, MD 21043

TEL: 410.465.9600

Washington County, MD HAGERSTOWN REGIONAL AIRPORT

TAXIWAY F REHABILITATION

FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008

SHEET TITLE: TYPICAL SECTIONS AND PAVING DETAILS 2

SCALE: N/A FEBRUARY 2023 SHEET NO.: C221 20 OF 97

G.C.S.

CHECKED:

M.P.P

APPROVED

I HEREBY CERTIFY THAT

THESE DOCUMENTS WERE PREPARED OR APPROVED BY

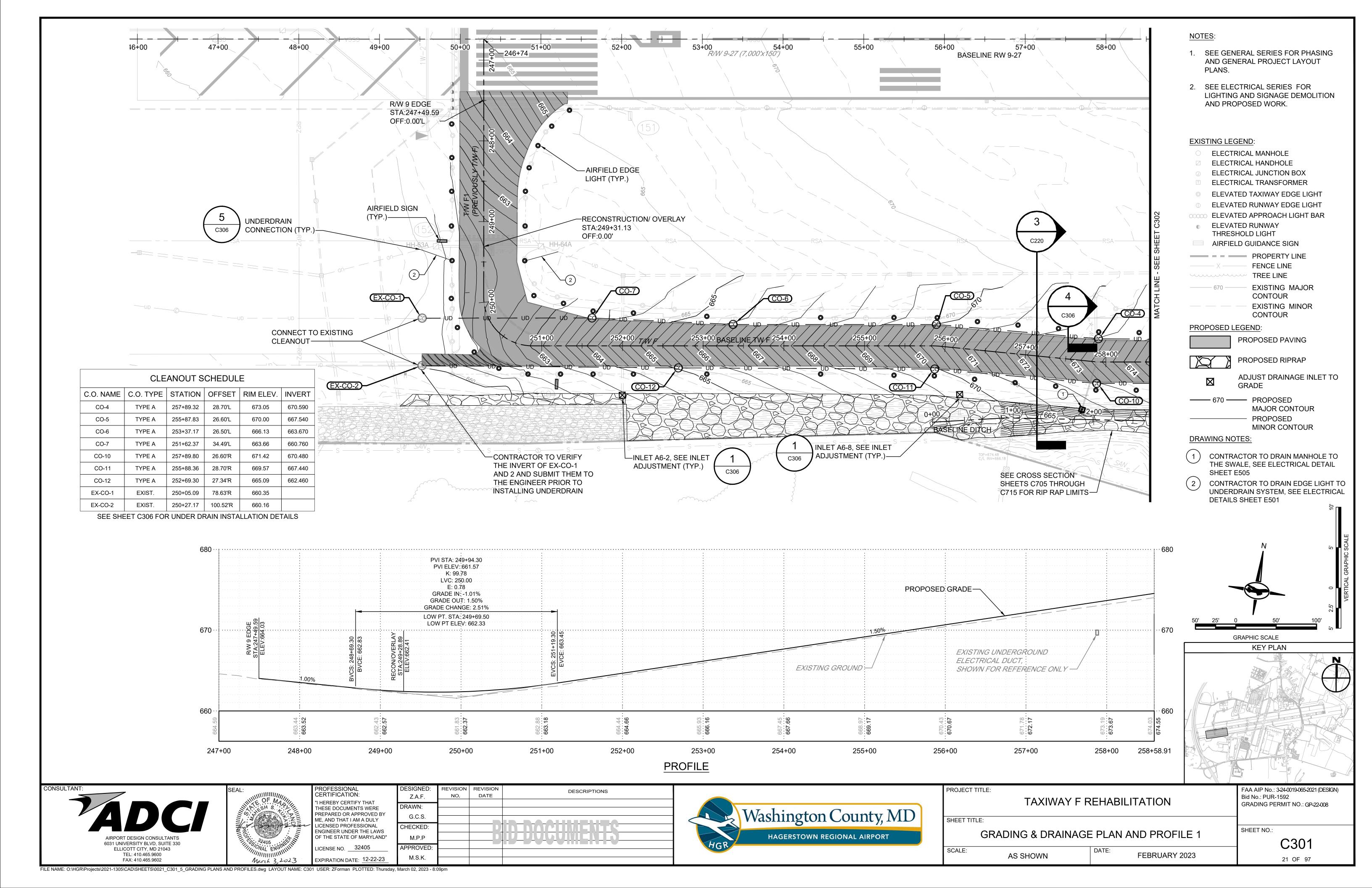
ME, AND THAT I AM A DULY

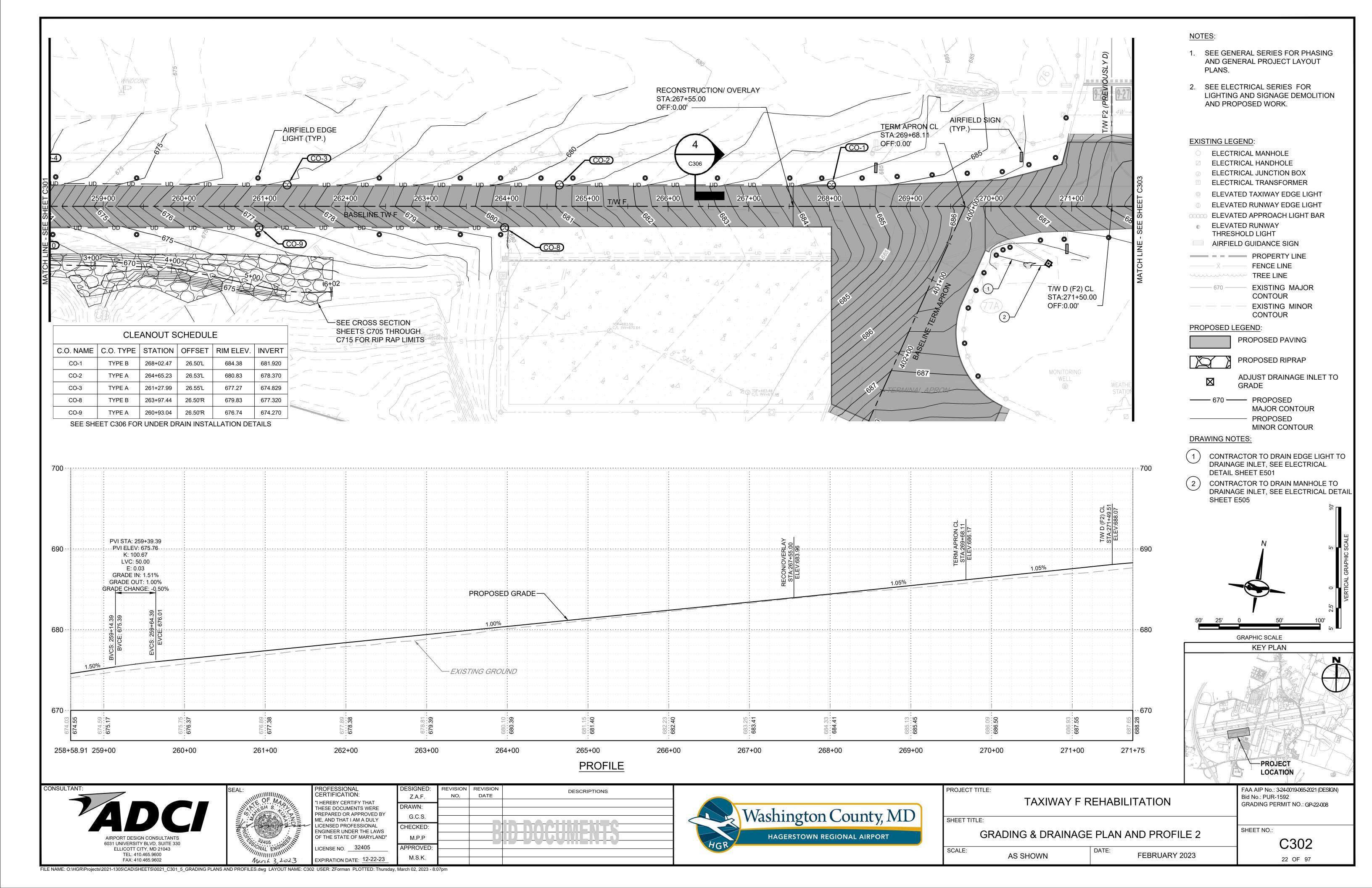
LICENSED PROFESSIONAL

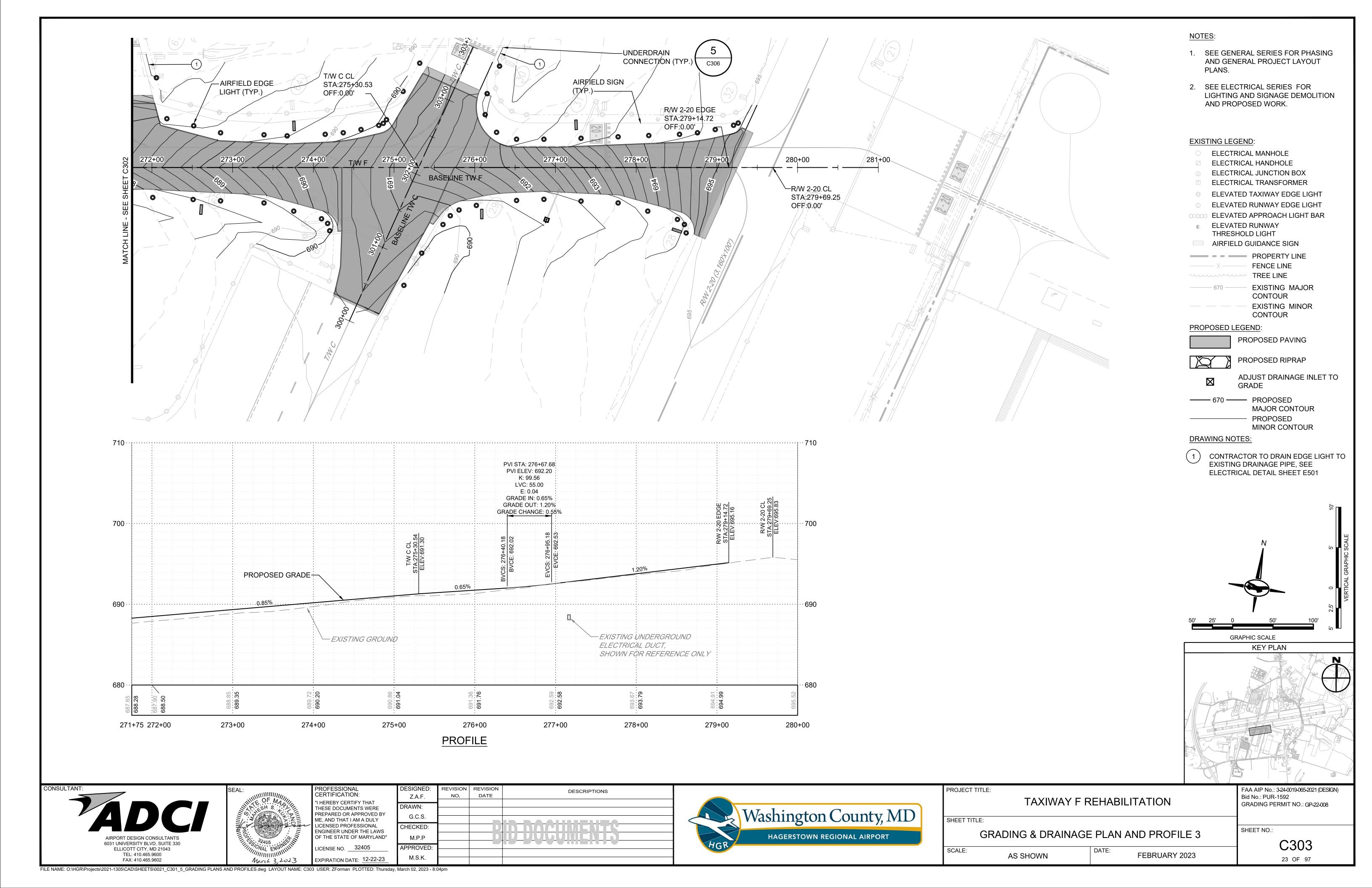
LICENSE NO. 32405

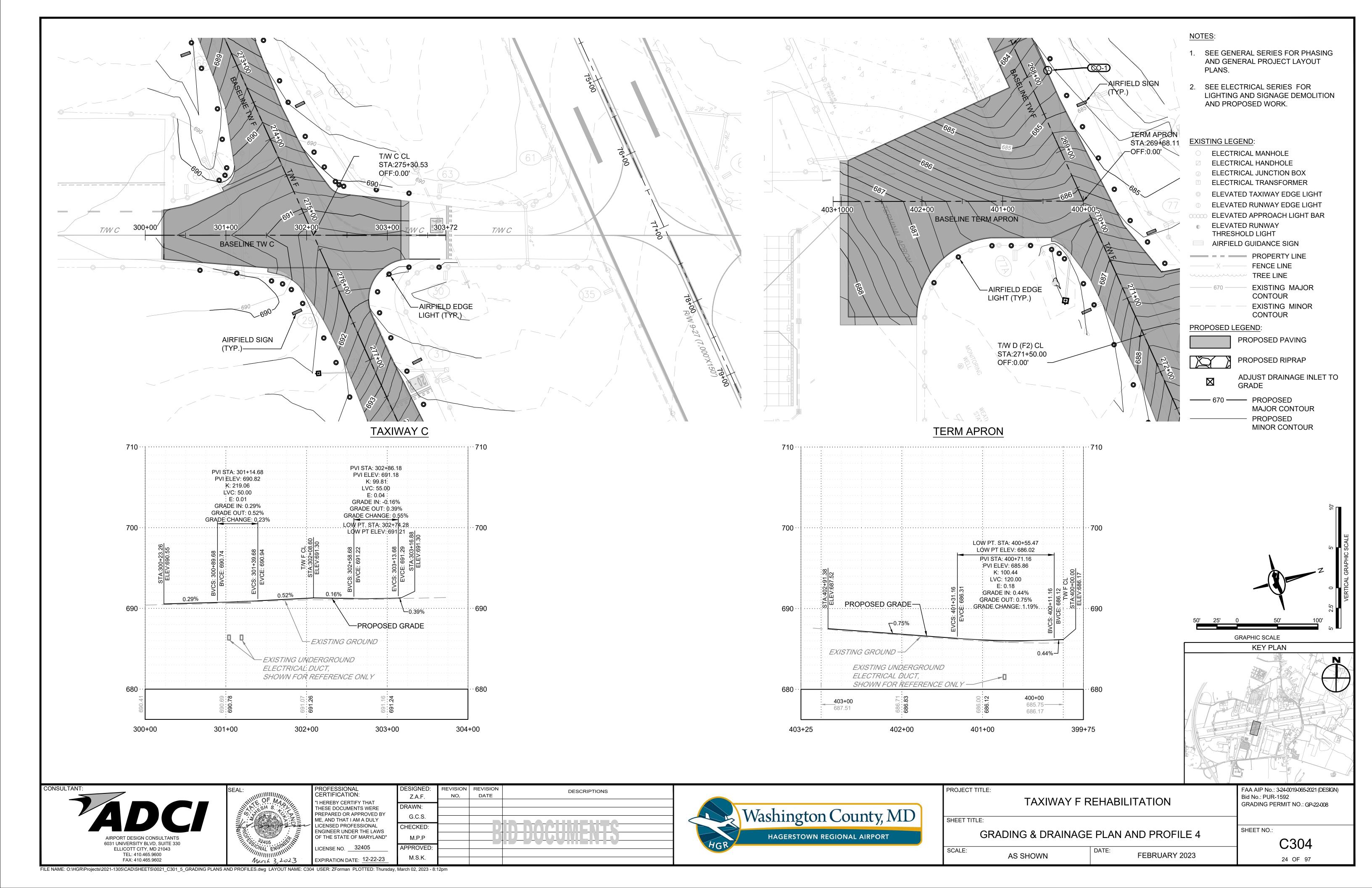
ENGINEER UNDER THE LAWS

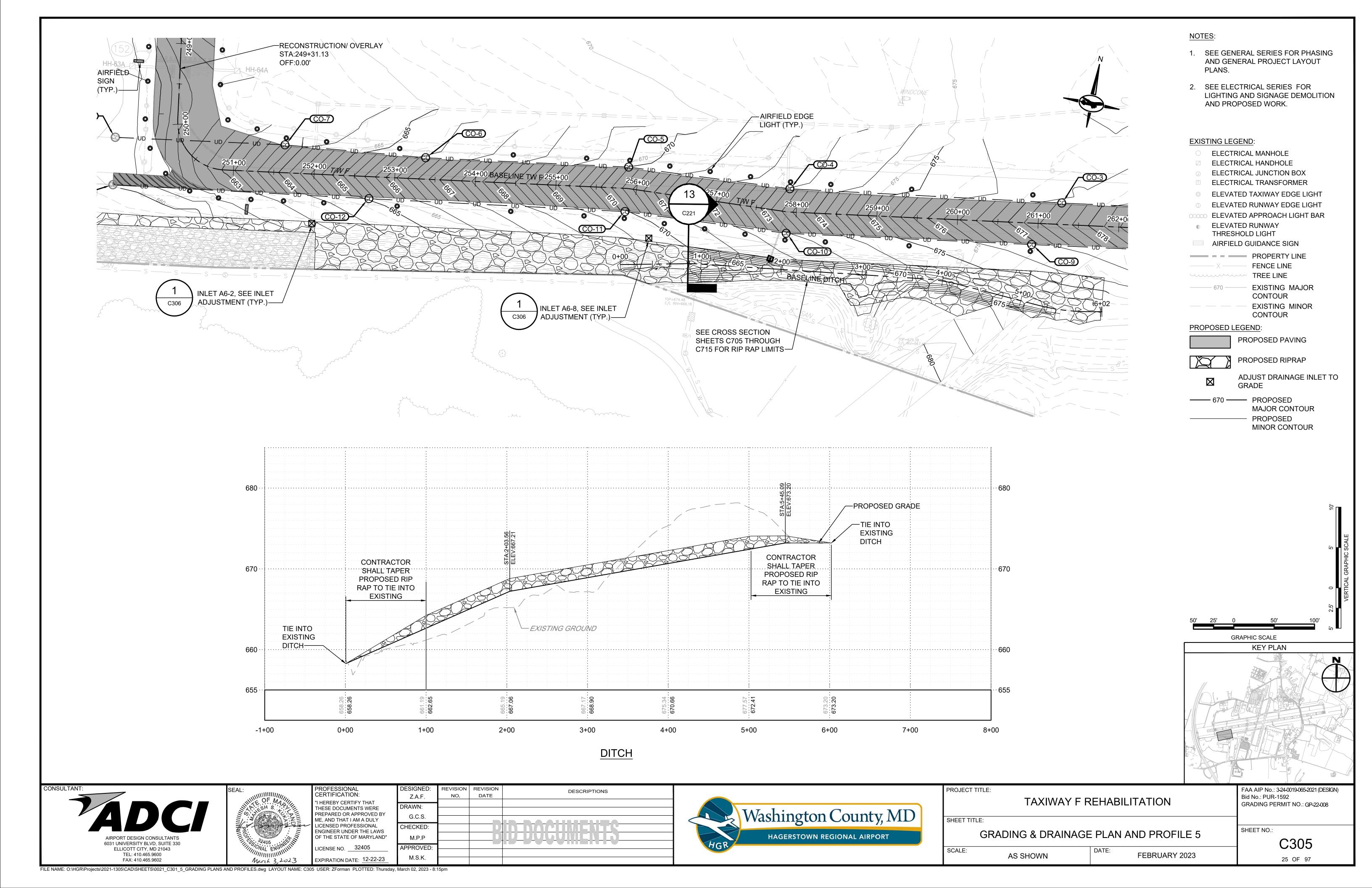
OF THE STATE OF MARYLAND'

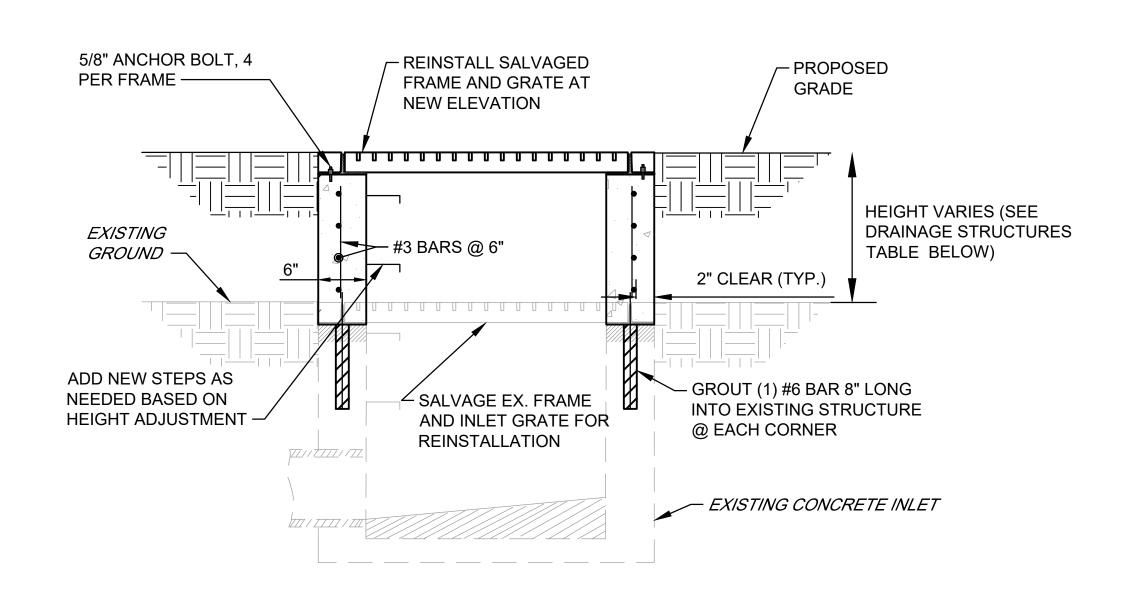


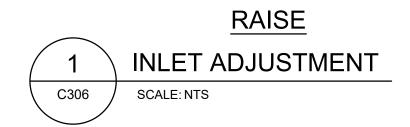




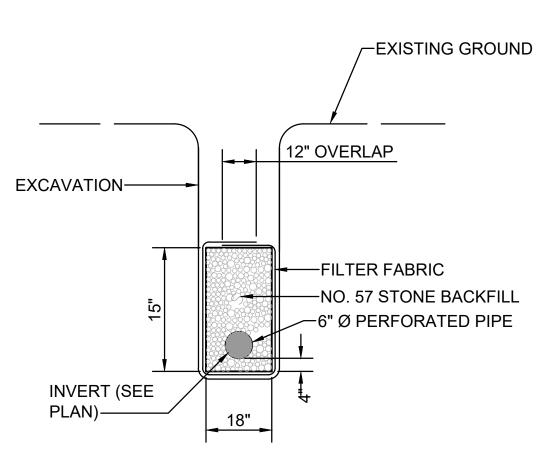








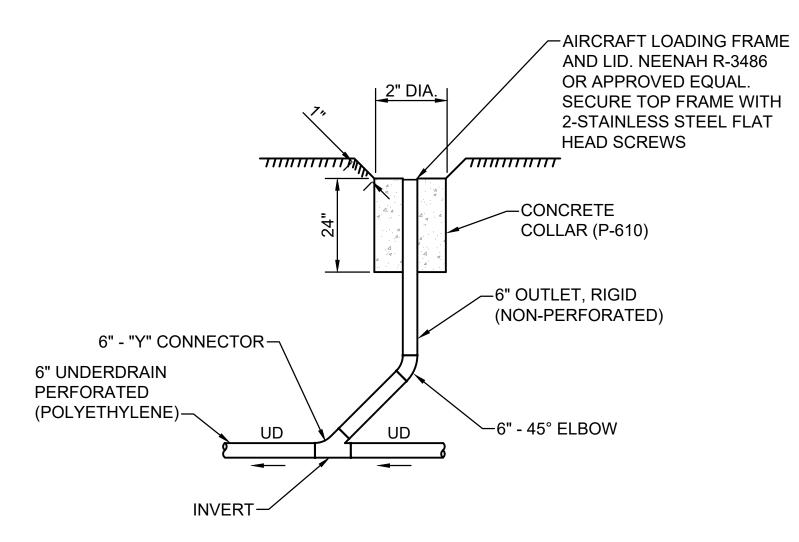
STRUCTURE ADJUSTMENT TABLE				
EXISTING EXISTING PROPOSED STRUCTURE RIM ELEV. RIM ELEV				
IN A6-2	661.36'	662.85'		
IN A6-8	667.61'	669.39'		



NOTES:

- 1. FOR LOCATION AND DEPTH OF UNDERDRAIN SEE UNDERDRAIN
- 2. INSTALLATION COSTS OF UNDERDRAIN SHALL INCLUDE EXCAVATION AND BACKFILL REQUIRED AS WELL AS COSTS FOR STONE, PIPE, FITTINGS, AND FABRIC.

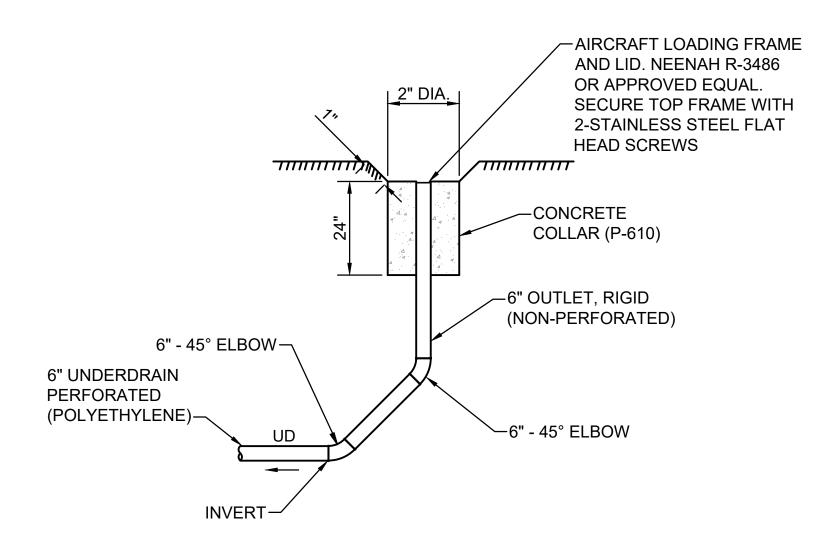




NOTES:

- 1. ALL CLEANOUT TOPS SHALL BE SET FLUSH WITH FINISHED **GRADES**
- 2. 1" DROP OFF AT TOP OF DRAIN SPECIFIC TO GRASSY **AREAS**

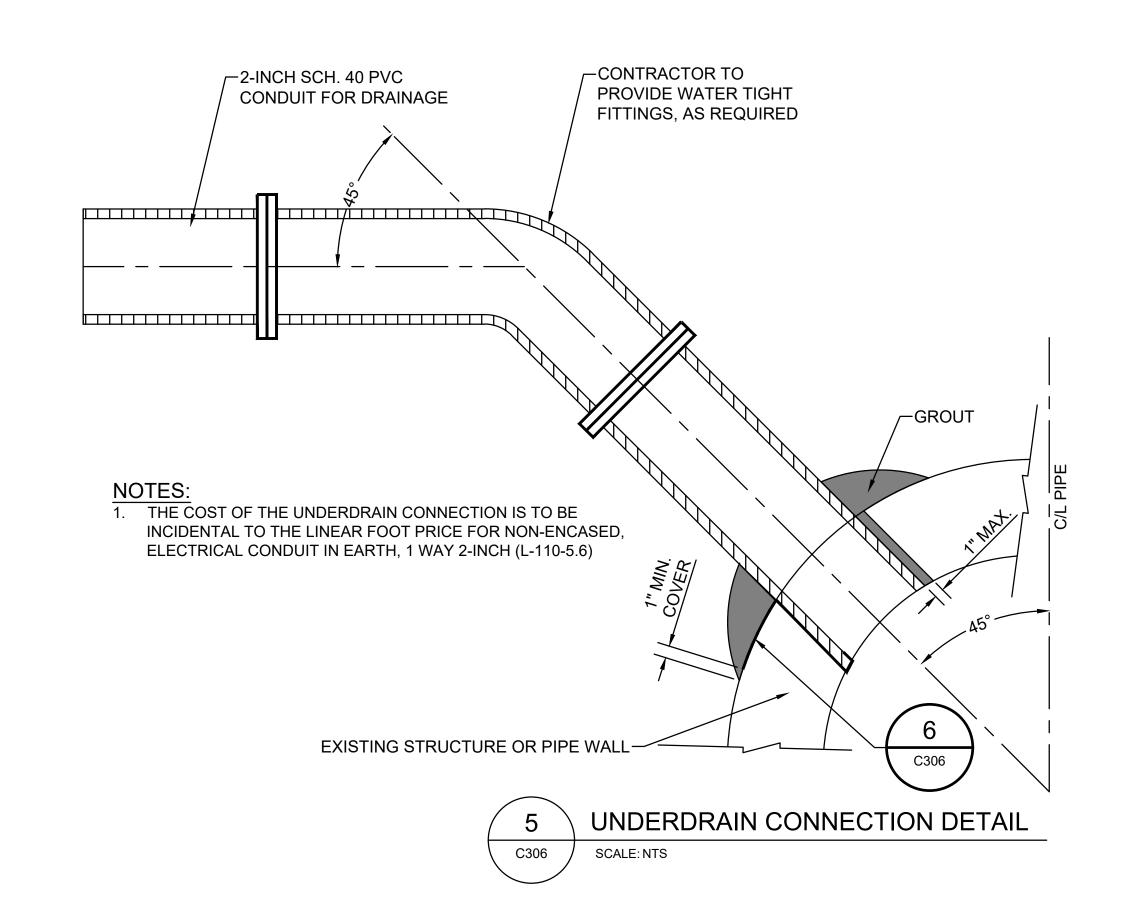


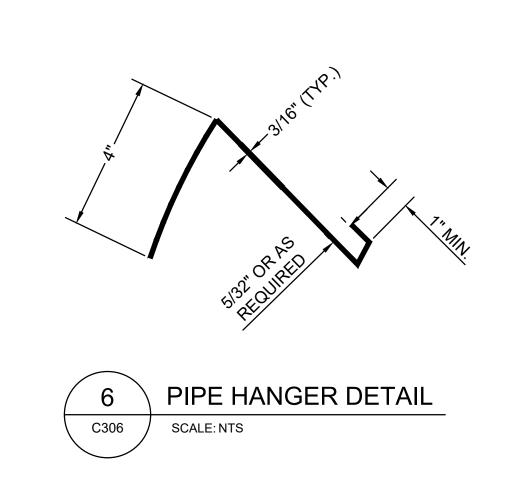


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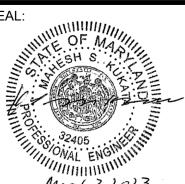
- 1. ALL CLEANOUT TOPS SHALL BE SET FLUSH WITH FINISHED **GRADES**
- 2. 1" DROP OFF AT TOP OF DRAIN SPECIFIC TO GRASSY AREAS

UNDERDRAIN CLEANOUT DETAIL B C306 SCALE: NTS









PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL **ENGINEER UNDER THE LAWS** OF THE STATE OF MARYLAND"

DESCRIPTIONS DATE Z.A.F. CHECKED: M.P.P APPROVED: EXPIRATION DATE: 12-22-23



ROJECT TITLE:	TAXIWAY F REHABILITATION	
HEET TITLE:		

SCALE:

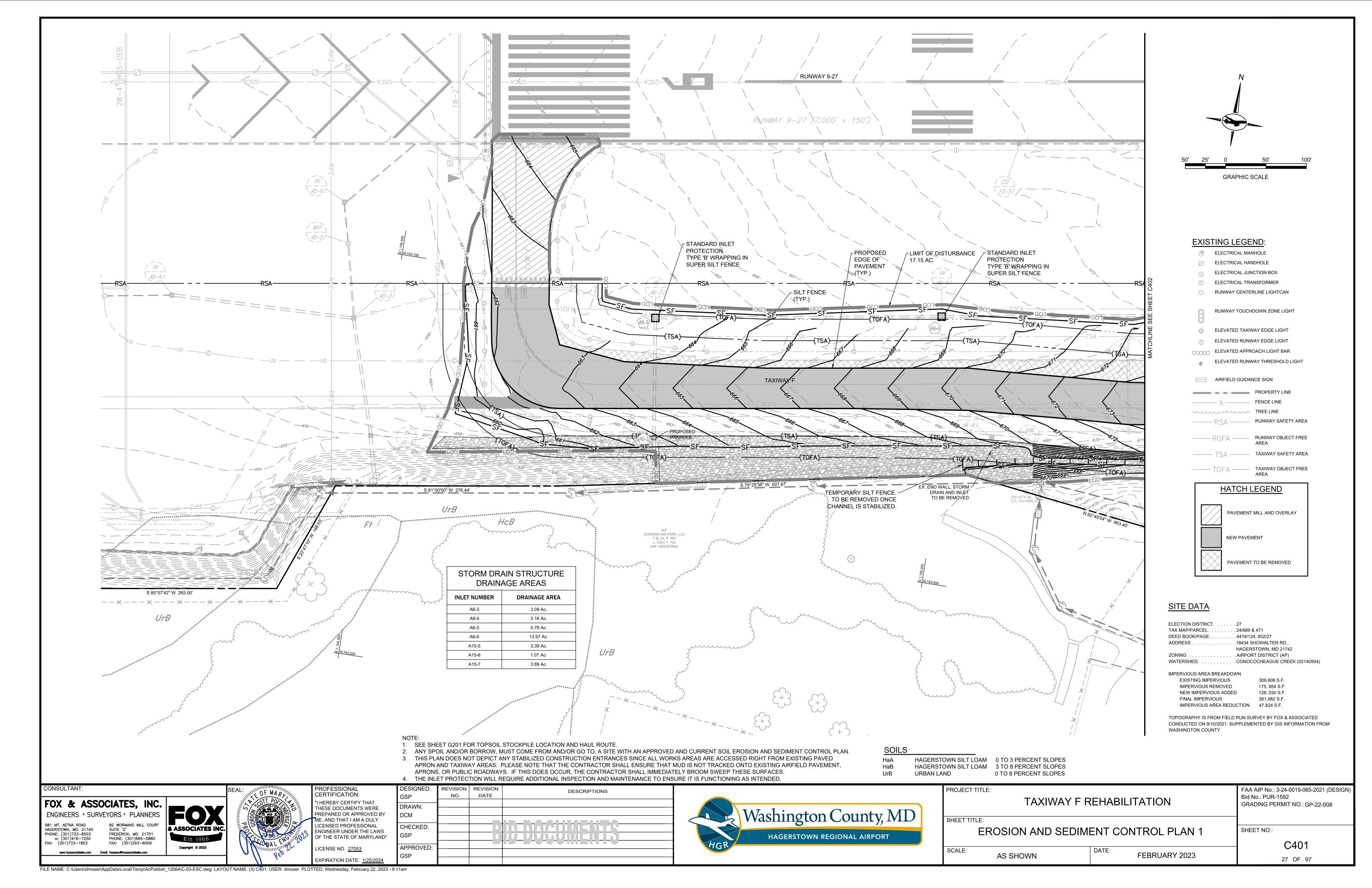
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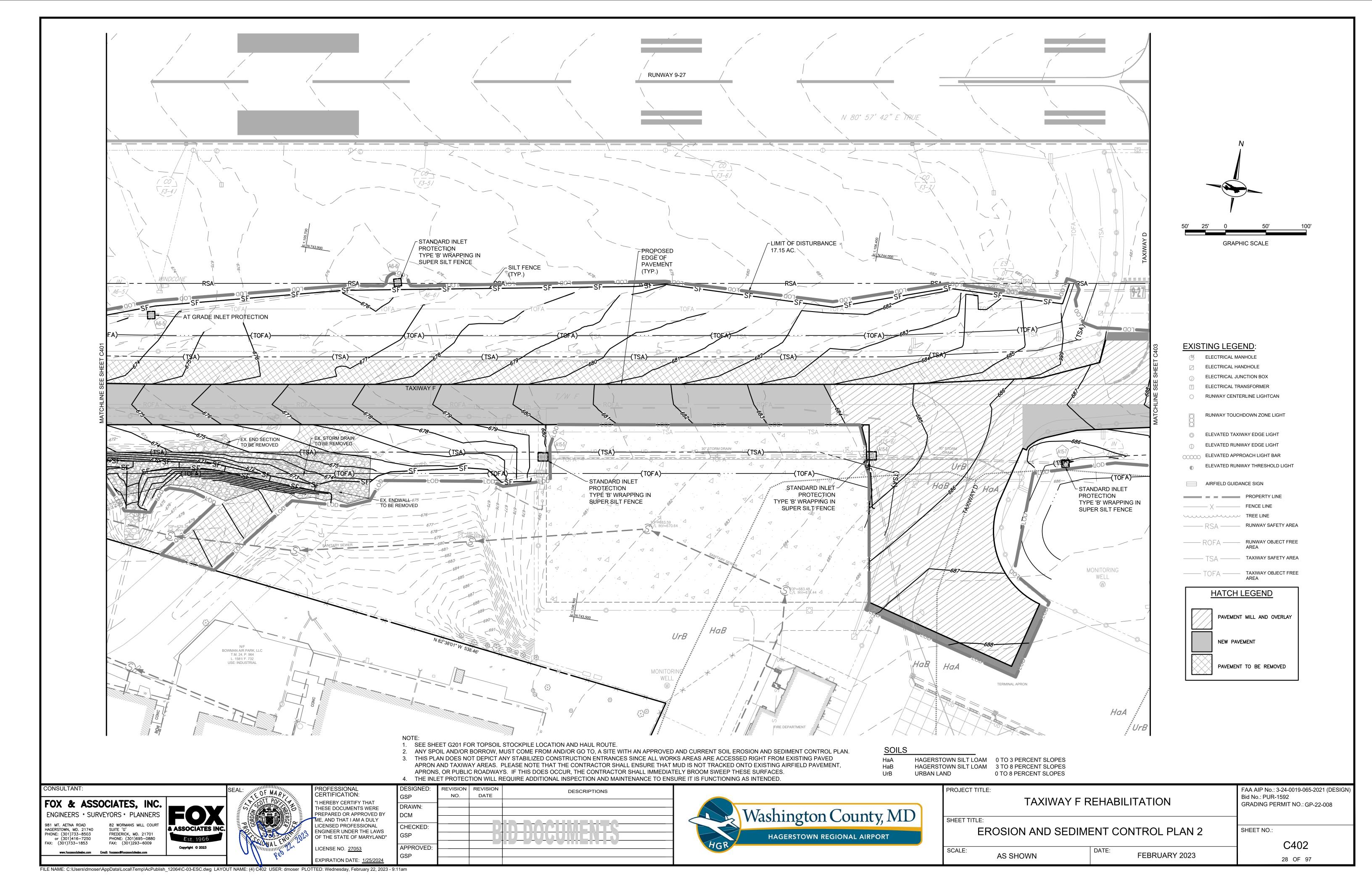
FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008

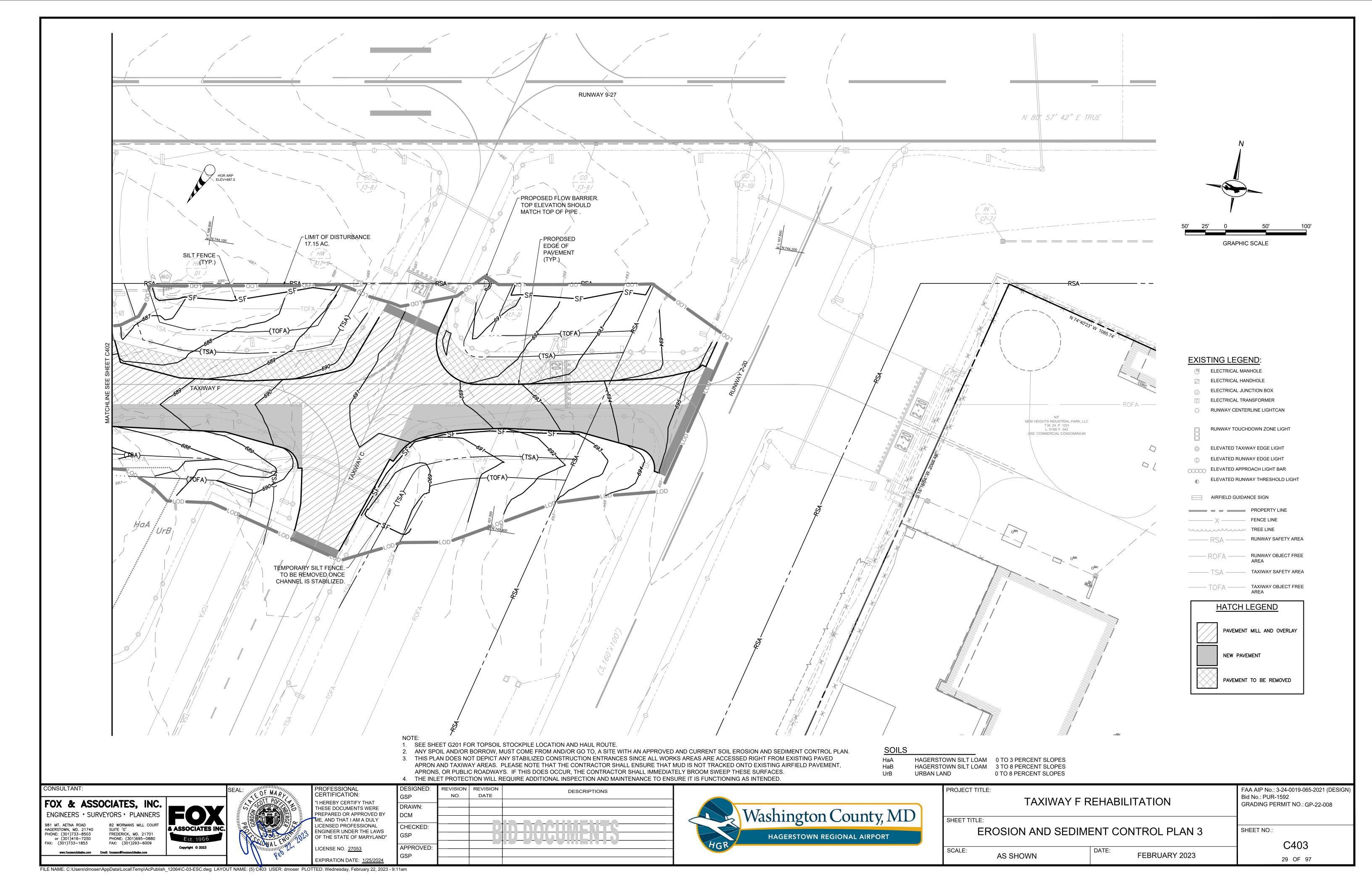
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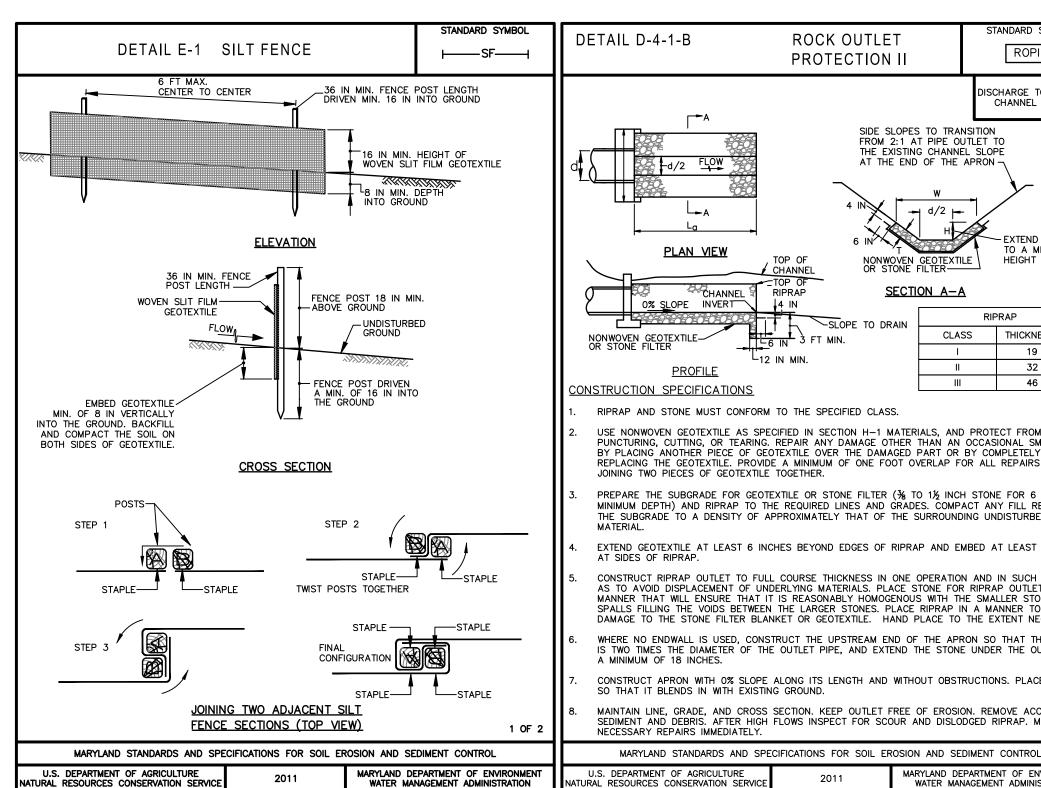
DRAINAGE DETAILS FEBRUARY 2023

C306 26 OF 97

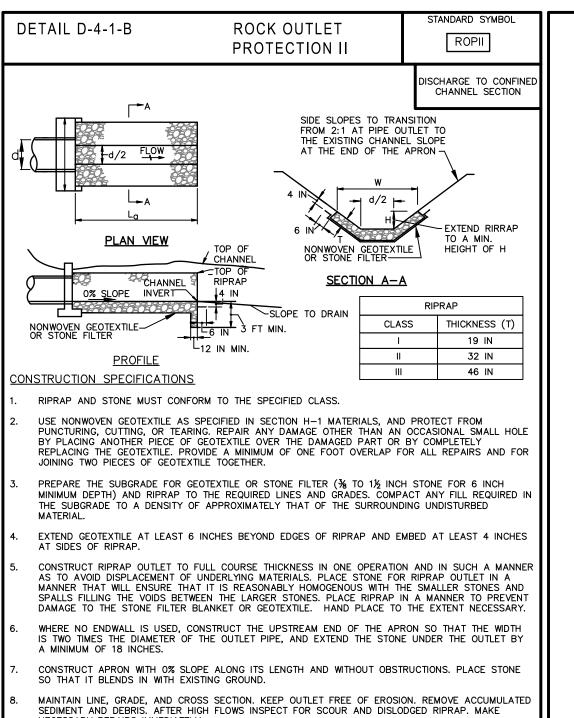




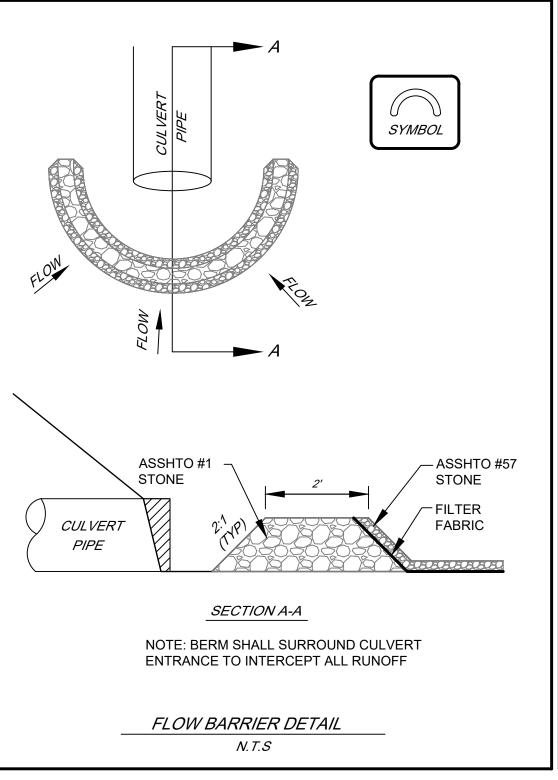


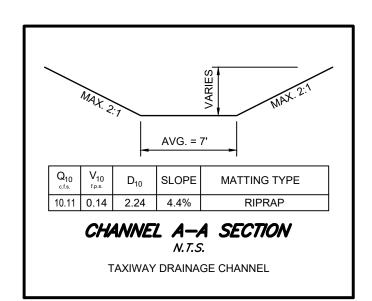


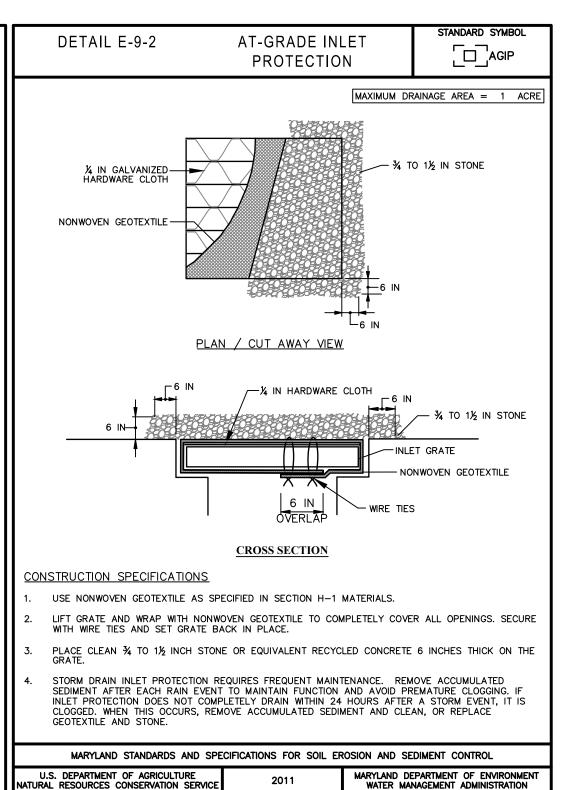
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MARYLAND DEPARTMENT OF ENVIRONMEN'
WATER MANAGEMENT ADMINISTRATION







STANDARD UTILITY NOTES

- 1. CONTRACTOR TO ONLY OPEN UP LENGTH OF TRENCH THAT CAN BE CONSTRUCTED
- AND BACKFILLED IN ONE WORKING DAY IN PAVED AREAS. 2. CONTRACTOR TO PLACE EXCAVATED MATERIALS IN A DUMP TRUCK AND HAULED TO
- AN APPROVED LOCATION TO WASTED MATERIALS TO PAVED AREAS. 3. CONTRACTOR TO BACKFILL TRENCH WITH APPROVED MATERIALS AND STABILIZE
- DISTURBED AREAS THE SAME WORKING DAY. 4. IN AREAS WHERE THE CONSTRUCTION TAKES TO PLACE OUTSIDE OF THE EXISTING ROADBED, CONTRACTOR TO INSTALL SILT FENCE ALONG THE DOWNHILL SIDE OF THE TRENCH BEFORE BEGINNING CONSTRUCTION AND PLACE EXCAVATED MATERIAL FROM
- THE TRENCH ON THE UPHILL SIDE. 5. IF DEWATERING OF THE TRENCH IS REQUIRED, CONTRACTOR TO PUMP WATER TO A FILTER BAG TO DEWATER.
- 6. CONTRACTOR TO SWEEP STREETS OF ANY DEBRIS OR SEDIMENTS CAUSED BY
- CONSTRUCTION OPERATIONS AND DISPOSE OF AT AN APPROVED LOCATION. 7. CONTRACTOR TO STABILIZE ALL DISTURBED AREAS WITH SEED & MULCH OR APPROPRIATE STREET REPAIR.

SEQUENCE OF CONSTRUCTION

PHASE 1 - INITIAL DISTURBANCE

- CONTACT THE WASHINGTON COUNTY DPW ENGINEERING & CONSTRUCTION AT (240) 313-2400 AND THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT AT (301) 797-6821 EXT. 3 FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE PRE-CONSTRUCTION MEETING.
- CONDUCT PRE-CONSTRUCTION MEETING.
- NO STABILIZED CONSTRUCTION ENTRANCE TO BE INSTALLED PER THIS PLAN. CONTRACTOR TO USE EXISTING PAVED ROADS/TAXIWAYS TO ACCESS SITE. IF ANY DIRT IS TRACKED ONTO ROADWAYS, A STABILIZED CONSTRUCTION ENTRANCE WILL
- CLEAR & GRUB AS NECESSARY FOR INSTALLATION OF PERIMETER CONTROLS. INSTALL PERIMETER STANDARD SILT FENCE.

PHASE 3 - SITE WORK CONSTRUCTION

- BEGIN EXISTING ASPHALT PAVEMENT REMOVAL IN AREAS OF FULL DEPTH
- RECONSTRUCTION (SHEET C102). INSTALL NEW PAVING SECTION.
- REPAIR ANY TOPSOIL DISTURBANCE ALONG TAXIWAY EDGES AND STABILIZE. INSTALL PAVEMENT MARKINGS.

PHASE 4 - PROJECT CLOSE-OUT

- 13. WHEN SITE IS 95% STABILIZED, CONTACT THE WASH. CO. SCD AT 301-797-6821 EXT. 3 AND THE WASHINGTON COUNTY DEPARTMENT OF PUBLIC WORKS-ENGINEERING & CONSTRUCTION AT 240-313-2400 TO SCHEDULE A FINAL SITE CLOSEOUT REVIEW
- 14. AFTER APPROVAL FROM SCD, REMOVE PERIMETER CONTROLS. STABILIZE AREAS LEFT DISTURBED BY PERIMETER CONTROL REMOVAL.

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

- 1. ALL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND THE PROVISIONS OF THE APPROVED PLAN.
- 2. ALL GRADING AND STABILIZATION SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL". "SECTION B - GRADING AND STABILIZATION" AND THE PROVISIONS OF THE
- 3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) ARE TO BE CONSTRUCTED AND/OR INSTALLED PRIOR TO OR AT THE INITIATION OF GRADING IN ACCORDANCE WITH "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND THE APPROVED PLAN.
- 4. A GRADING UNIT IS THE MAXIMUM CONTIGUOUS AREA ALLOWED TO BE GRADED AT A GIVEN TIME AND IS LIMITED TO 20 ACRES. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY AND/OR THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT (APPROVAL AUTHORITY). UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN
- 5. FOR INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, TEMPORARY OR PERMANENT STABILIZATION MUST BE COMPLETED
- a) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- b) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER
- 6. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 7 DAY STABILIZATION REQUIREMENT. AS WELL AS. STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION. (AS APPLICABLE)
- 7. ALL CONSTRUCTED CHANNELS AND SWALES SHALL HAVE SPECIFIED TREATMENT INSTALLED TO THE DESIGN FLOW DEPTH COMPLETED DOWNSTREAM TO UPSTREAM AS CONSTRUCTION PROGRESSES. AN INSTALLATION DETAIL SHALL BE
- 8. ALL STORM DRAIN AND SANITARY SEWER LINES NOT IN PAVED AREAS ARE TO BE MULCHED AND SEEDED WITHIN 3 DAYS OF INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
- 9. ELECTRIC POWER, TELEPHONE, AND GAS LINES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 3 DAYS AFTER INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
- 10. NO SLOPE SHALL BE GREATER THAN 2:1.
- 11. AS REQUIRED BY SECTION B, OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. "ADEQUATE VEGETATIVE STABILIZATION". IS DEFINED AS 95 PERCENT GROUND COVER. THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT REQUIRES THE PROJECT ADHERE TO THIS FOR SCHEDULING OF THE FINAL SITE CLOSEOUT REVIEW, AND/OR THE RELEASE OF THE SITE FOR SOIL EROSION AND SEDIMENT CONTROL.

FOR SITES 1.0 ACRE OR MORE, THE FOLLOWING ARE REQUIRED:

- A. MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH A CONSTRUCTION ACTIVITY, N.P.D.E.S. PERMIT NUMBER MDRC, STATE DISCHARGE PERMIT NUMBER 14GP, OR AN INDIVIDUAL PERMIT
- B. THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT NOTICE OF INTENT N.O.I.) APPLICATION AND PERMIT SHALL BE POSTED AND/OR AVAILABLE ON-SITE AT ALL TIMES.
- C. DURING CONSTRUCTION, ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (B.M.P.'s) SHALL BE INSPECTED AND RECORDED ON THE "STANDARD INSPECTION FORM". "GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY" PER MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT - NOTICE OF INTENT - N.O.I.).
- D. FOLLOWING CONSTRUCTION AND RELEASE OF THE SIGHT FOR SOIL EROSION AND SEDIMENT CONTROL BY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT, I.E., ALL PORTIONS OF A SITE HAVE BEEN PERMANENTLY STABILIZED. AND ALL STORMWATER DISCHARGES FROM THE CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT AREA ELIMINATED, THE AUTHORIZED PERMITEE SHALL SUBMIT THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL/INDIVIDUAL PERMIT - NOTICE OF TERMINATION - N.O.T.

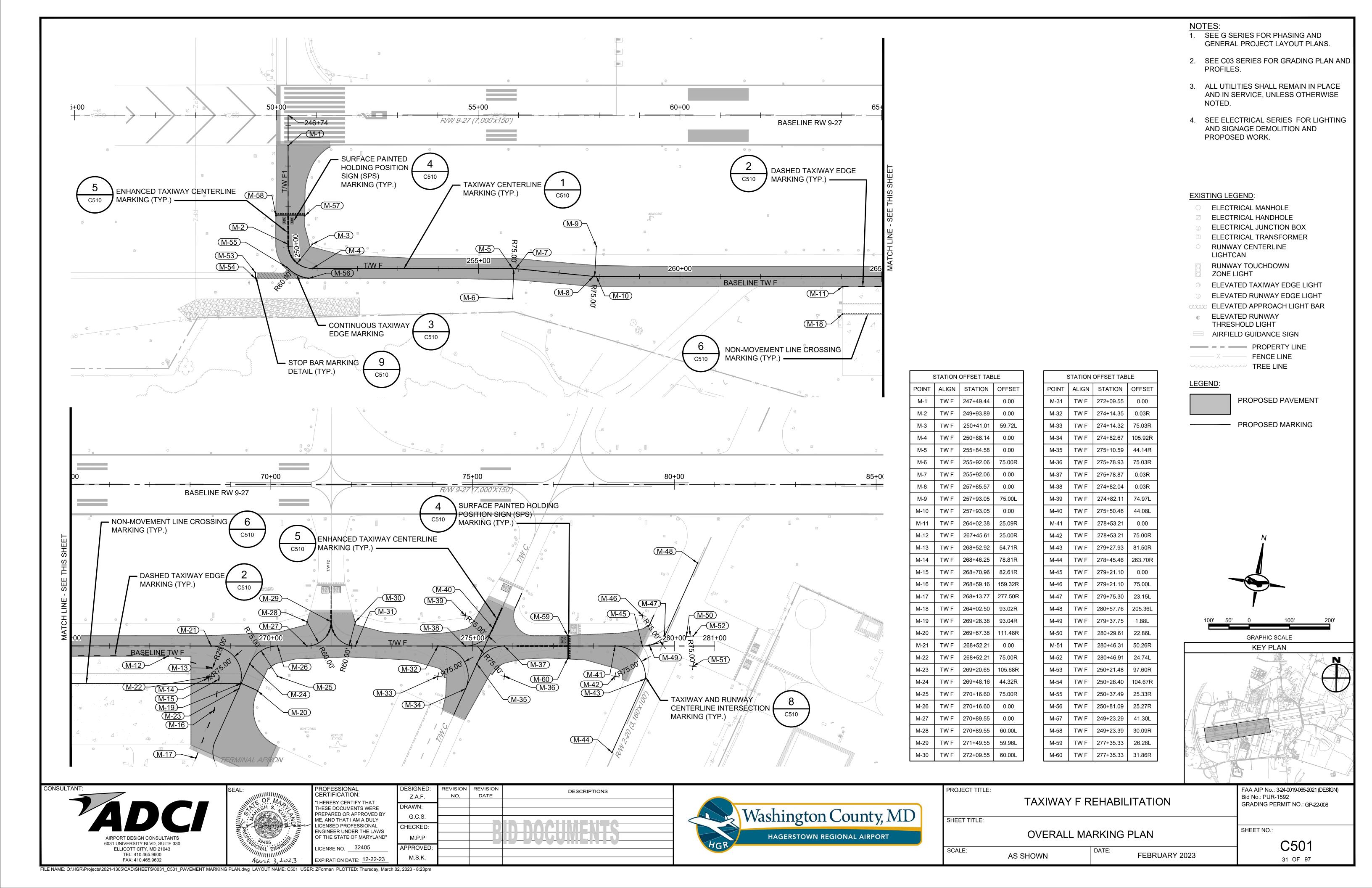
PERMANENT SEEDING SUMMARY

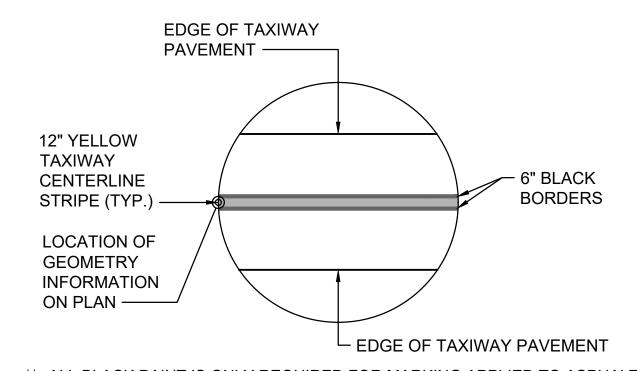
SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE B.3						FERTILIZER RATE (10-20-20)			
No.	SPECIES APPLICATION RATE (LB/AC) SEEDING DATES SEEDING DEPTHS N P205 K20					RATE			
TALL FESCUE 40 3/1 - 5/15 1 1 1 2 45 LB/AC 90 LB/AC 90 LB/AC (2 LB/ 1000 S.F.) 90 LB/AC 1000 S.F.)								2 TONS/AC (90 LB/ 1000 S.F.)	
	PERMANENT SEEDING SHALL COMPLY WITH SECTION 8-4-5 OF THE 2011 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL								

TEMPORARY SEEDING SUMMARY

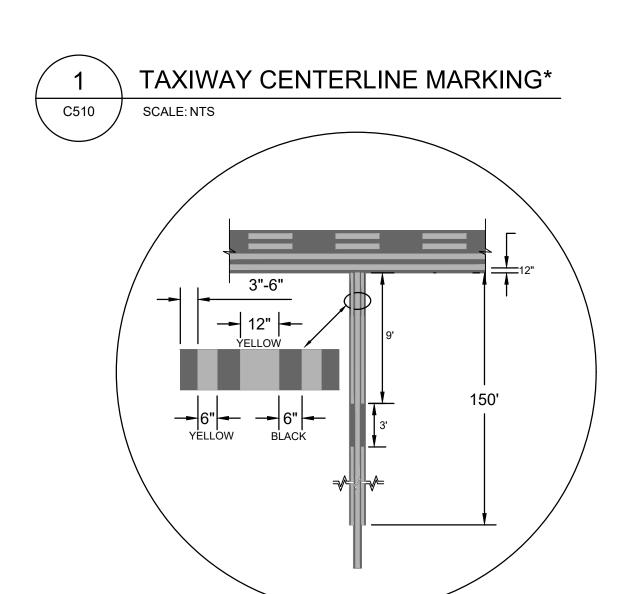
SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE B.1					FERTILIZER		
No.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	RATE (10-20-20)	LIME RATE	
2	BARLEY (HORDEUM VULGARE)	96	3/1 - 5/15 8/1 - 10/15	1.0"	436 LBS./AC. (10 LBS/1000 S.F.)	2 TONS/AC. (90 LBS/1000 S.F.)	
	TEMPORARY SEEDING SHALL COMPLY WITH SECTION B-4-4 OF THE 2011 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL						

CONSULTANT PROFESSIONAL REVISION | REVISION FAA AIP No.: 3-24-0019-065-2021 (DESIGN PROJECT TITLE DESCRIPTIONS CERTIFICATION: NO. DATE Bid No.: PUR-1592 TAXIWAY F REHABILITATION FOX & ASSOCIATES, INC. I HEREBY CERTIFY THAT GRADING PERMIT NO.: GP-22-008 DRAWN: THESE DOCUMENTS WERE Washington County, MD PREPARED OR APPROVED BY DCM ME, AND THAT I AM A DULY SHEET TITLE: 981 MT. AETNA ROAD LICENSED PROFESSIONAL CHECKED: HAGERSTOWN, MD. 21740 PHONE: (301)733-8503 & ASSOCIATES INC EROSION AND SEDIMENT CONTROL NOTES & DETAILS | SHEET NO.: **ENGINEER UNDER THE LAWS** FREDERICK, MD. 21701 HAGERSTOWN REGIONAL AIRPORT OF THE STATE OF MARYLAND" or (301)416-7250 PHONE: (301)695-0880 FAX: (301)293-6009 C404 AX: (301)733-1853 Copyright © 2023 APPROVED: LICENSE NO. <u>27053</u> SCALE: FEBRUARY 2023 N/A 30 OF 97 EXPIRATION DATE: 1/25/202





** ALL BLACK PAINT IS ONLY REQUIRED FOR MARKING APPLIED TO ASPHALT SURFACES OLDER THAN 2 YEARS.

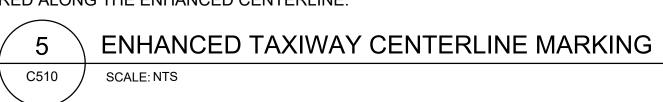


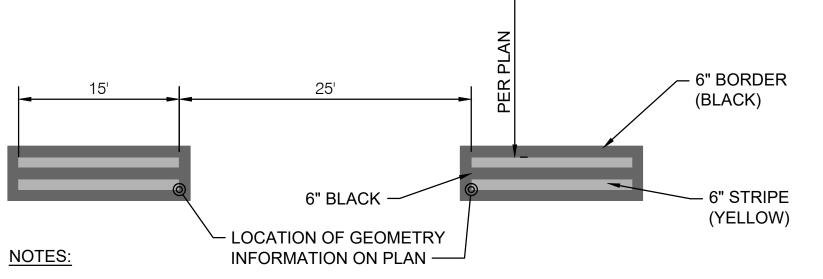
NOTES:

- THE DISTANCE BETWEEN THE YELLOW HOLD LINE AND YELLOW TAXIWAY **CENTERLINE IS 12".**
- 2. THE 9' IS MEASURED ALONG CENTERLINE WITH THE INNER CHORD BEING SLIGHTLY SHORTER AND THE OUTER CHORD BEING SLIGHTLY LONGER

DETAIL A*

- THE NUMBER OF DASHES SHALL ALWAYS BE EQUAL
- 4. THERE MUST BE NO PARTIAL DASHED LINES LESS THAN 5' AT THE POINT OF CONVERGENCE. THE FIRST INSIDE DASHED LINE MUST BE ALIGNED WITH THE OUTSIDE DASHED LINE.
- 5. THE 150' DISTANCE IS MEASURED ALONG THE ENHANCED CENTERLINE.





TAXIWAY &

- 1. ALL TAXILANE/TAXIWAY EDGE STRIPING IS 6 INCHES WIDE AND SPACED 6 INCHES APART (EDGE TO EDGE).
- ALL TAXIWAY AND TAXILANE EDGE MARKINGS ARE YELLOW WITH CLASS III GLASS BEADS, AS SPECIFIED.
- DASHED EDGE MARKINGS ARE NOT TO BE USED TO DESIGNATE ISLANDS.

C510

SCALE: NTS

DETAIL B

4. ALL TAXILANE/TAXIWAY EDGE STRIPING WILL HAVE A 6 INCHES WIDE BLACK BORDER AND FILL

DASHED TAXIWAY EDGE MARKING*

POINT OF

WITH THE OTHER TAXIWAY CENTERLINE.

CONVERGENCE -

6. AS SHOWN IN THIS CASE THE V-SHAPED INNER DASHES START AND STOP WITH THE

MEASUREMENTS ARE TAKEN ALONG THE CENTER OF THE CENTERLINE STRIPE.

8. IF THE TAXIWAY CENTERLINE TO BE ENHANCED IS 150 FEET OR LESS AND MERGES WITH A STRAIGHT OR CURVED TAXIWAY CENTERLINE, THE ENHANCEMENT

OUTSIDE 9-FOOT DASHES. HOWEVER, THIS MAY NOT ALWAYS BE THE CASE FOR THE INNER DASHES. IF THE V-SHAPED ARE LESS THAN 5 FEET, THEY MAY BE OMITTED

TERMINATES AT THE LAST SET OF FULL DASHES PRIOR TO THE POINT OF TANGENCY

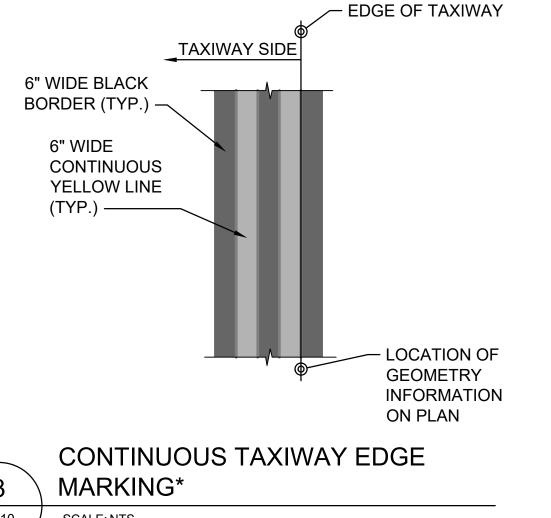
LOCATION OF

GEOMETRY INFORMATION

ON PLAN -

SCALE: NTS

DETAIL C



C510 SCALE: NTS

- LOCATION OF

GEOMETRY INFORMATION

ON PLAN

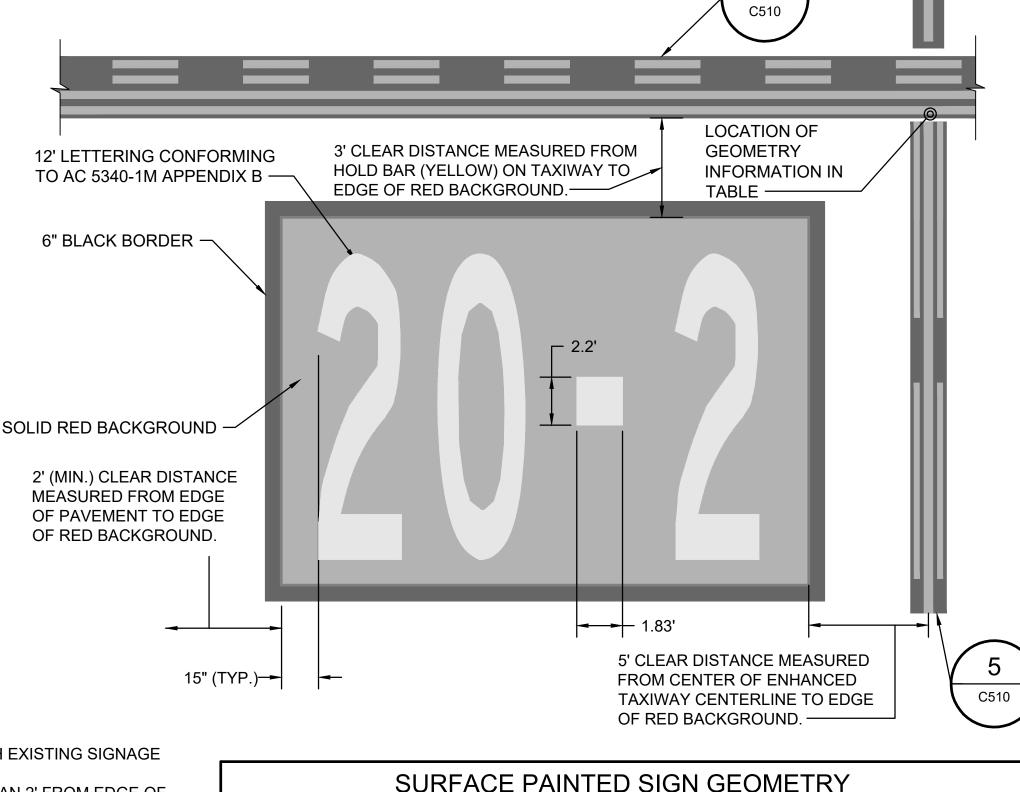
SEE NOTE 4

200'

LEAD-IN

TAXIWAY AND RUNWAY CENTERLINE

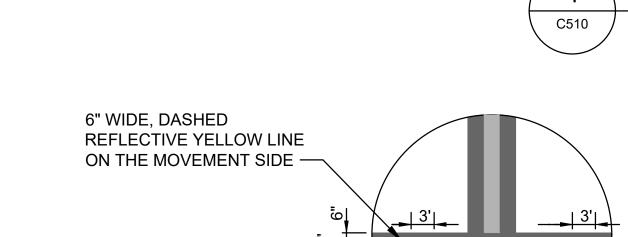
INTERSECTION MARKING*



NOTES:

- MARKING/NUMERALS SHALL MATCH EXISTING SIGNAGE ORIENTATION.
- NO MARKING SHALL BE CLOSER THAN 2' FROM EDGE OF PAVEMENT.
- 3. NO TYPE III GLASS BEADS ALLOWED IN SURFACE PAINTED SIGN.
- SEE SURFACE PAINTED SIGN GEOMETRY TABLE THIS SHEET FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL TURN OVER ALL STENCILS USED FOR SPS MARKING TO THE AIRPORT, UPON ACCEPTANCE FROM THE AIRPORT OPERATIONS MANAGER.





LOCATION OF GEOMETRY **INFORMATION** ON PLAN

- FOUR LINES AND THREE SPACES @ 12" = 7'-0" LOCATION OF **GEOMETRY** INFORMATION ON PLAN

RUNWAY HOLDING POSITION MARKING

NON-MOVEMENT LINE CROSSING MARKING SCALE: NTS — ROAD WIDTH — 6" BLACK OUTLINE WHITE STOP BAR 2'-0" — LOCATION OF GEOMETRY INFORMATION ON PLAN —

C510

SURFACE PAINTED HOLDING

SCALE: NTS

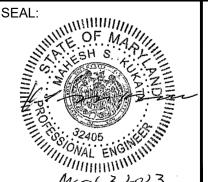
POSITION SIGN (SPS) MARKING*

STOP BAR MARKING DETAIL* C510 SCALE: NTS

6031 UNIVERSITY BLVD, SUITE 330

ELLICOTT CITY, MD 21043

TEL: 410.465.9600



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" ICENSE NO. 32405

REVISION | REVISION DESCRIPTIONS Z.A.F. DRAWN: G.C.S. CHECKED: APPROVED:

C510

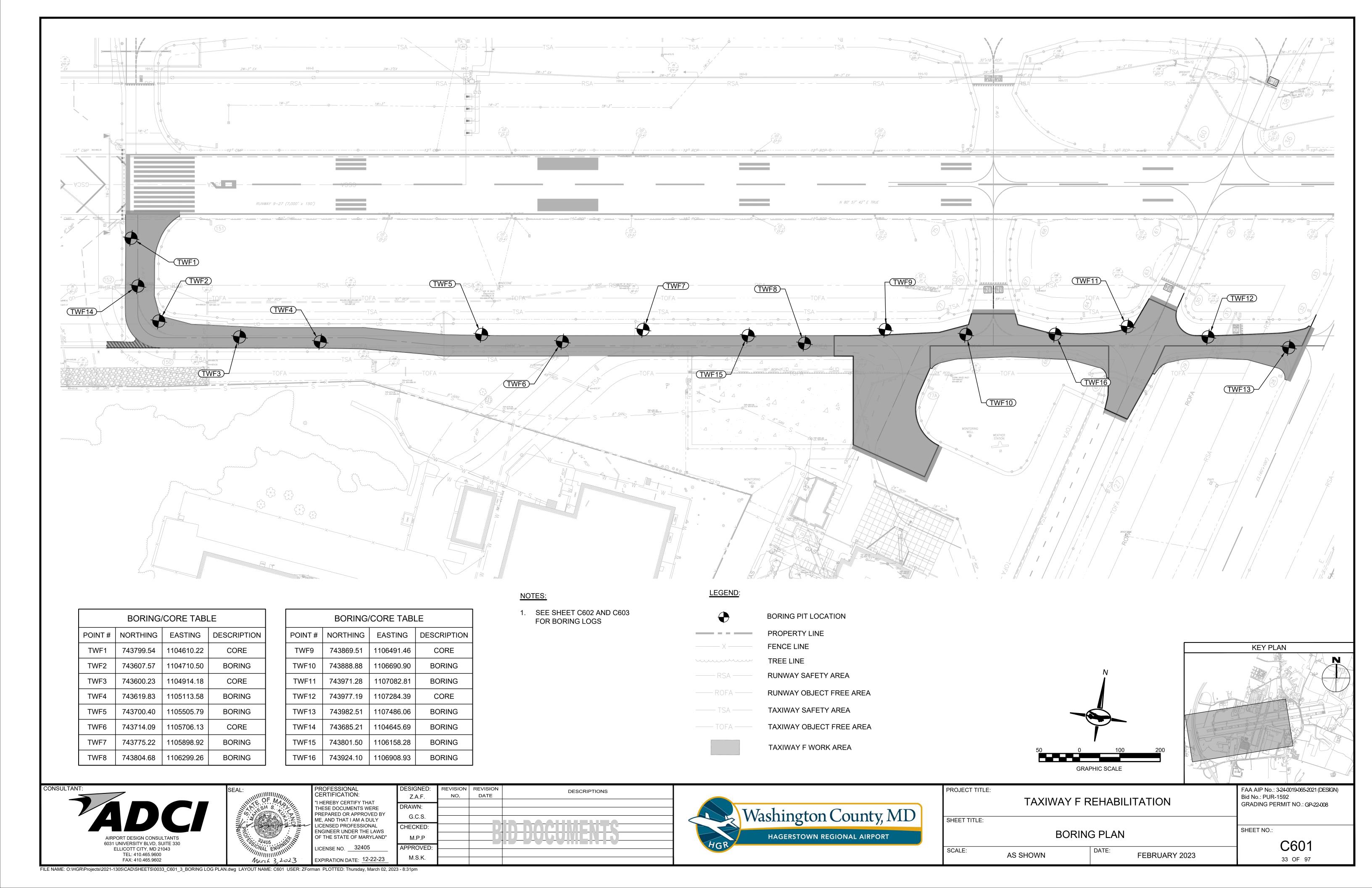


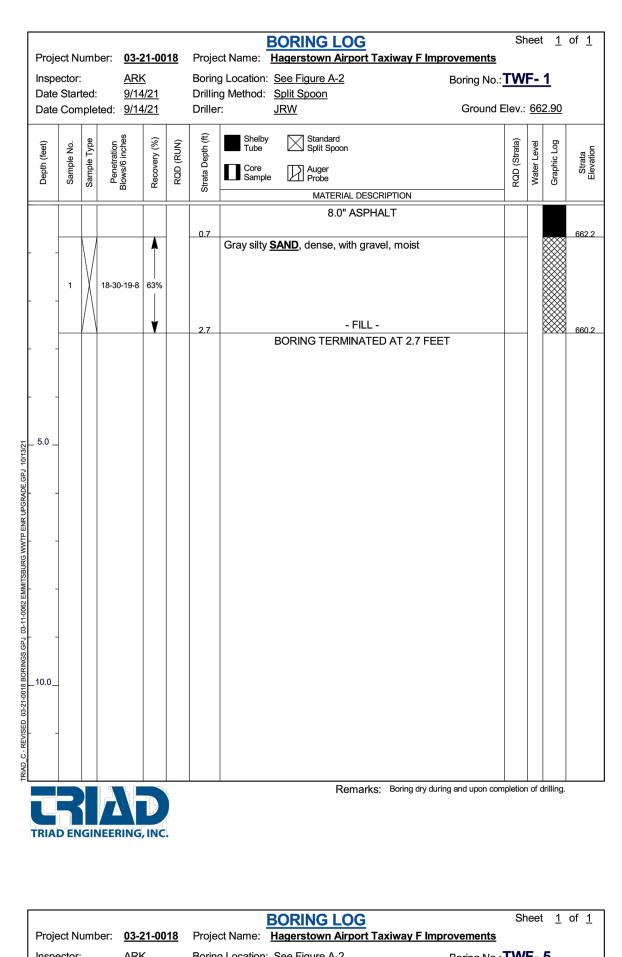
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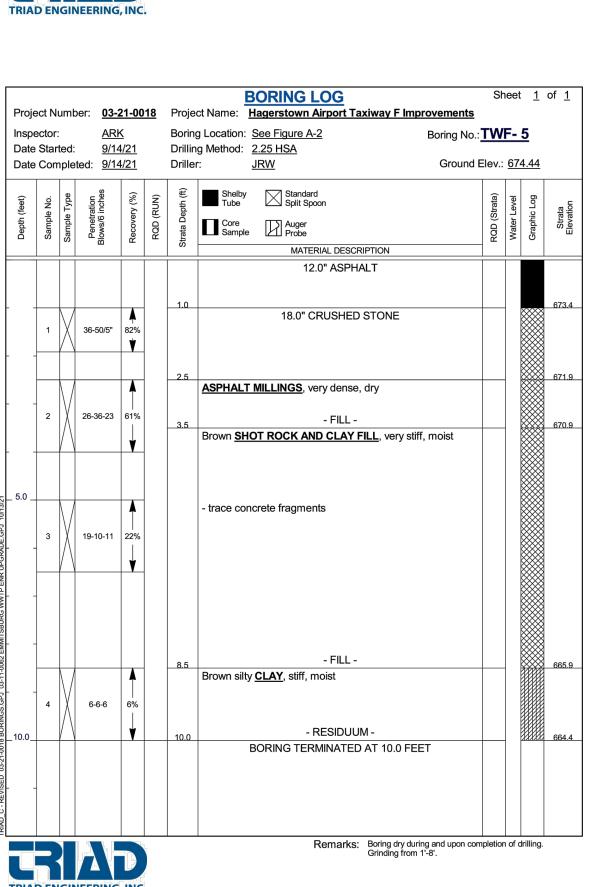
__ 3' EDGE TO EDGE

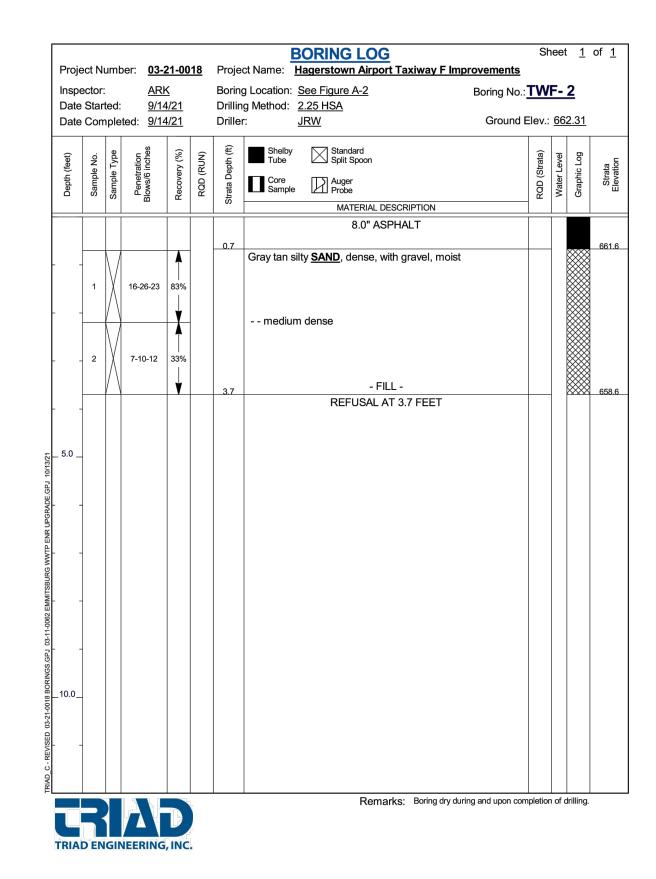
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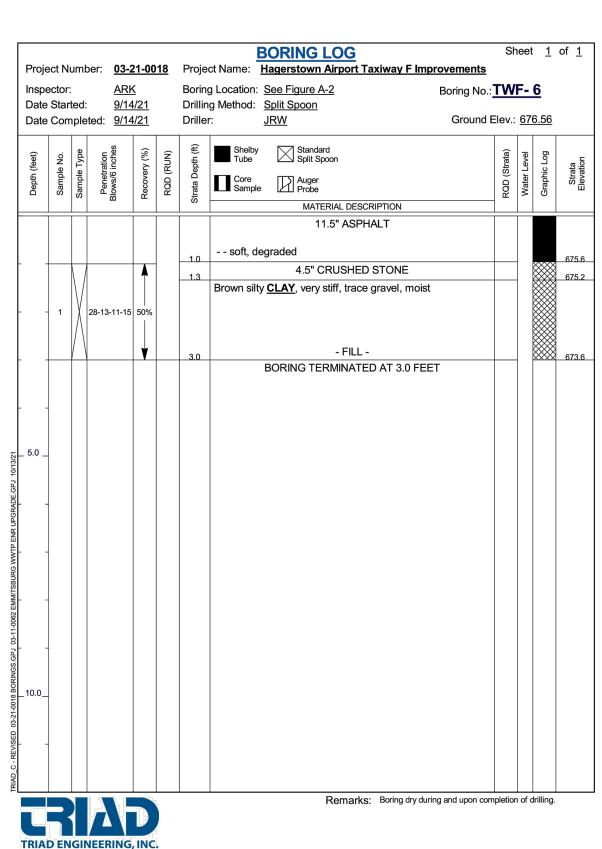
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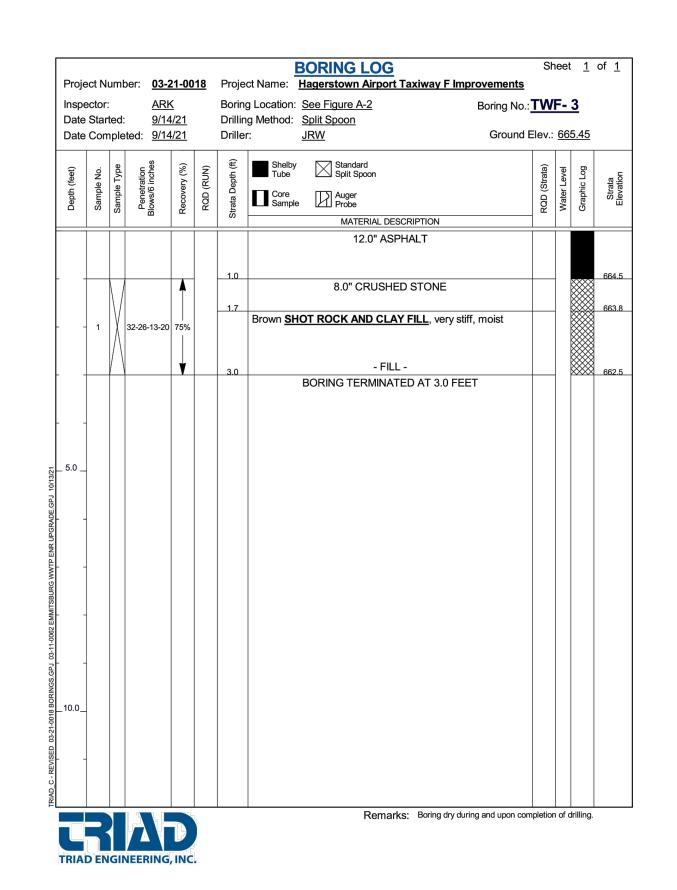


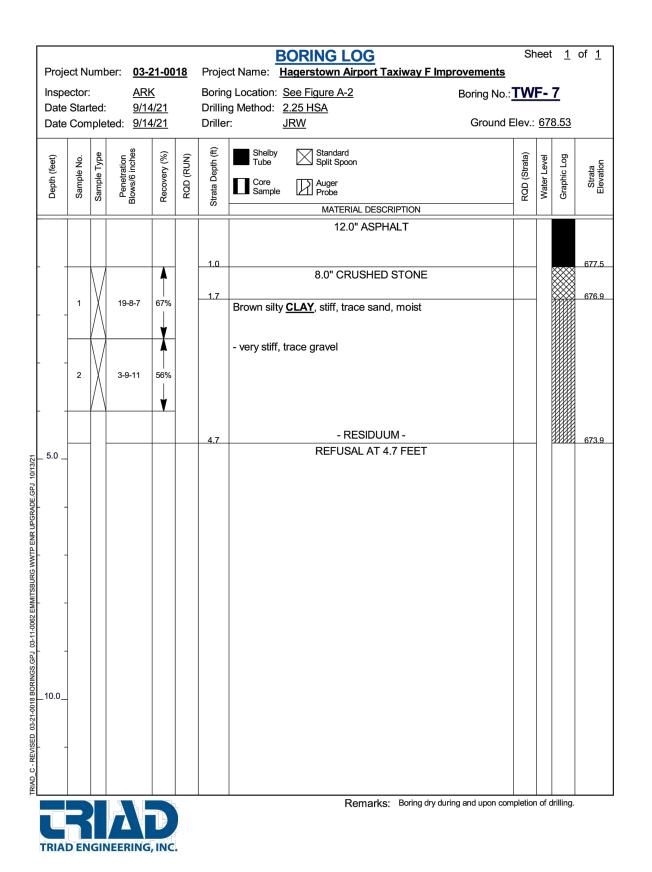








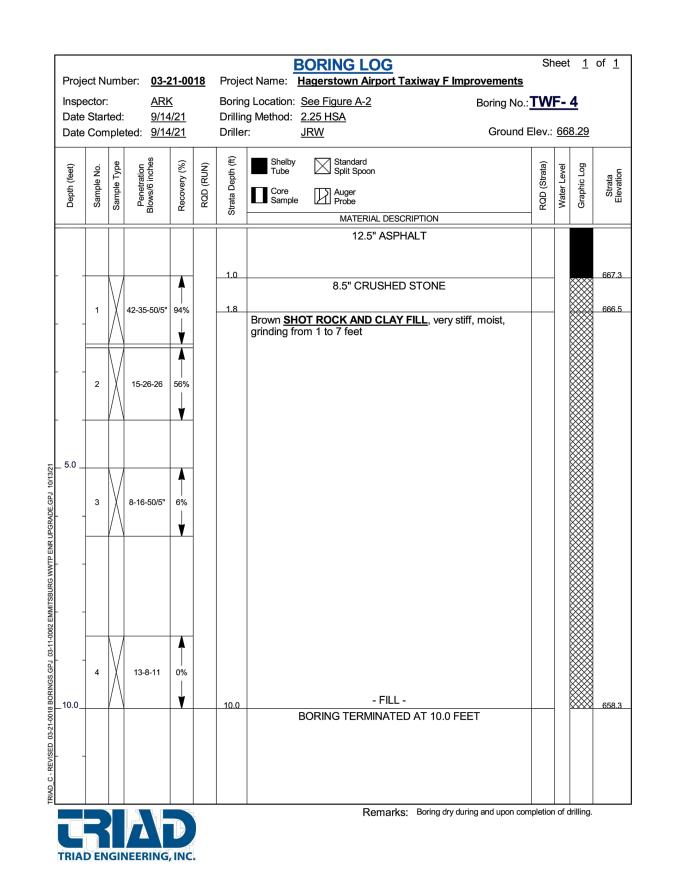


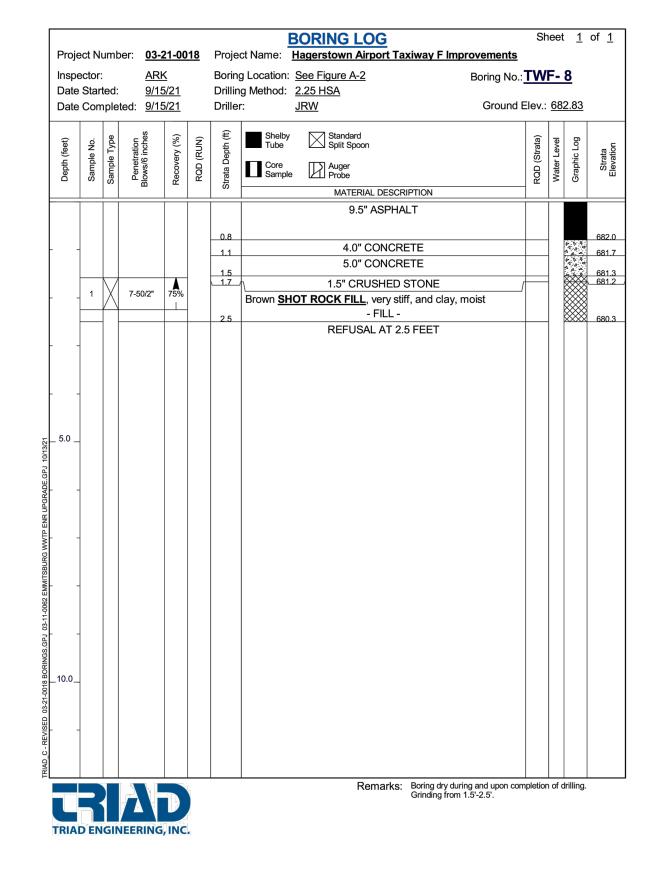


PROJECT

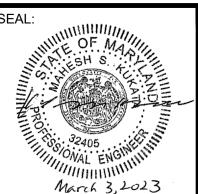
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SCALE:







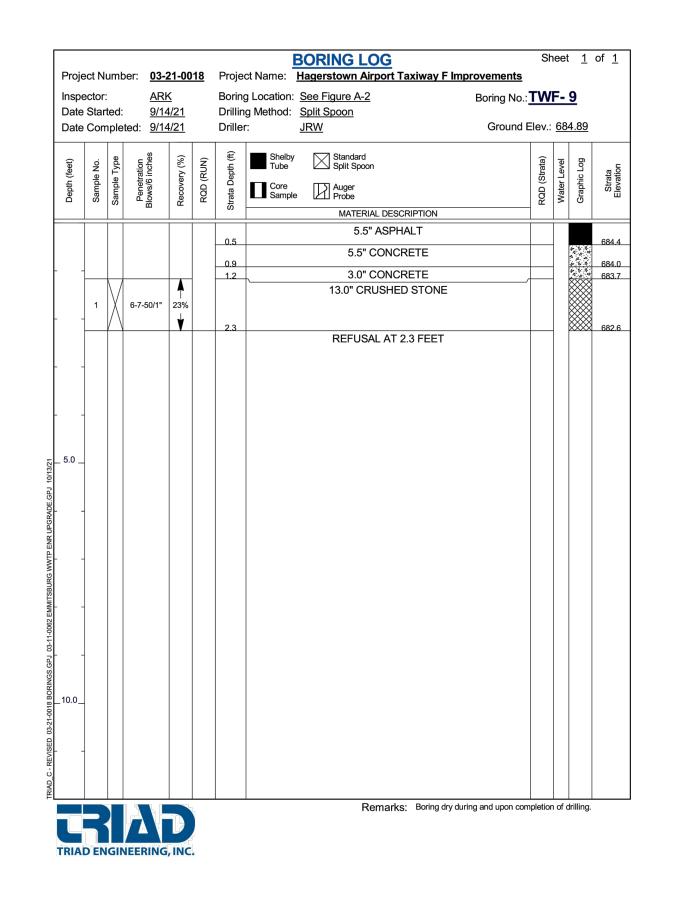


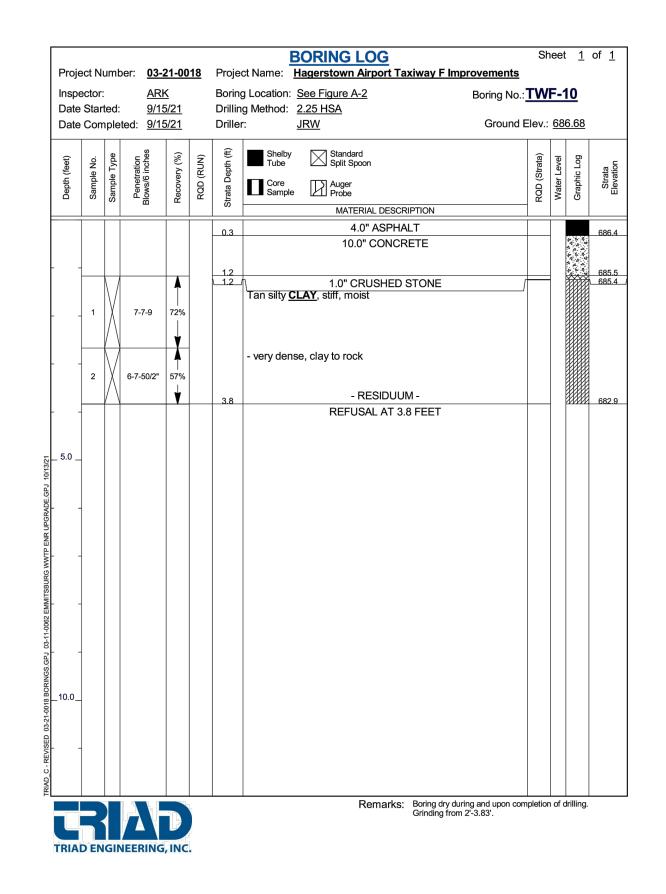
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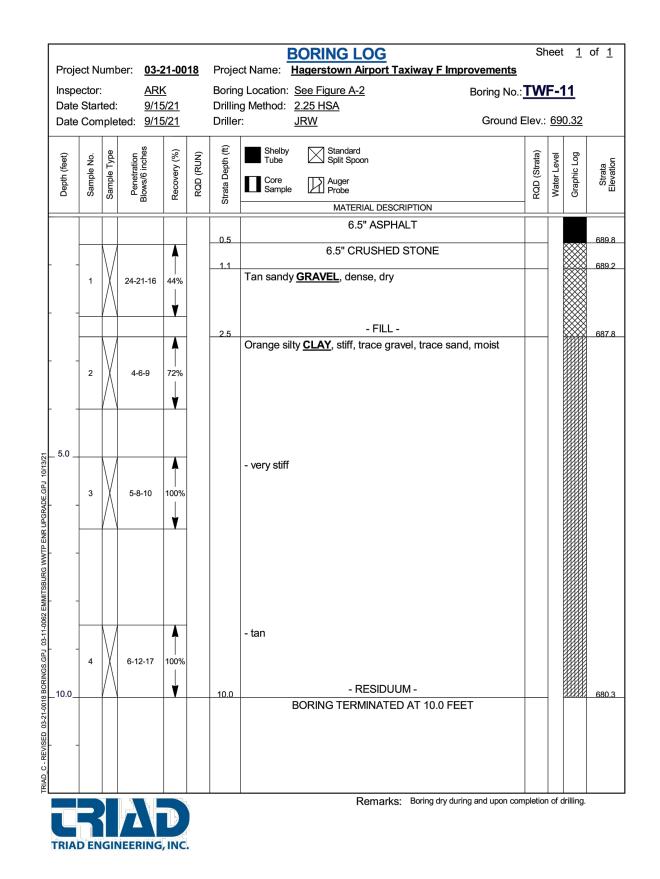
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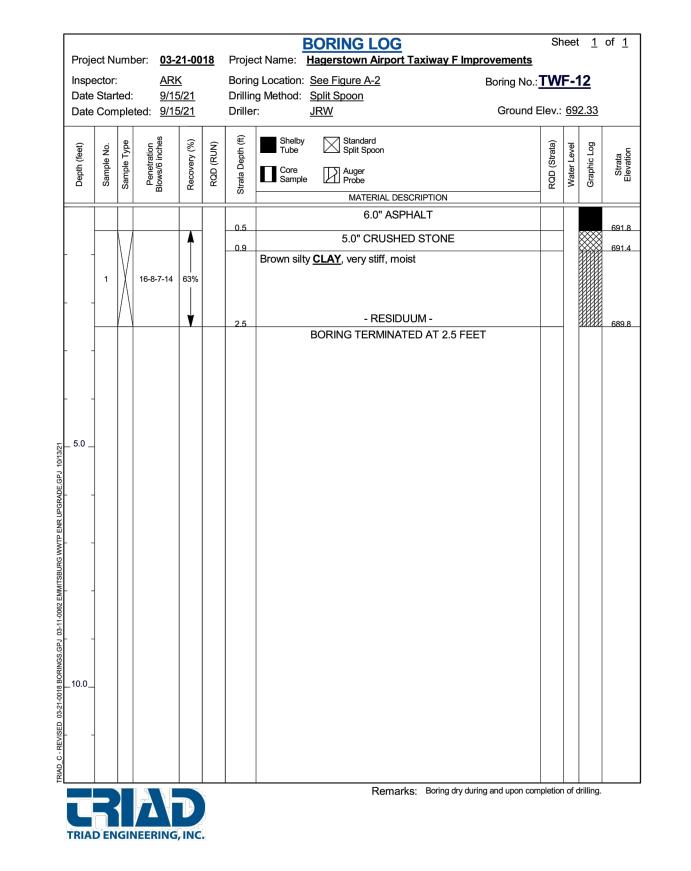


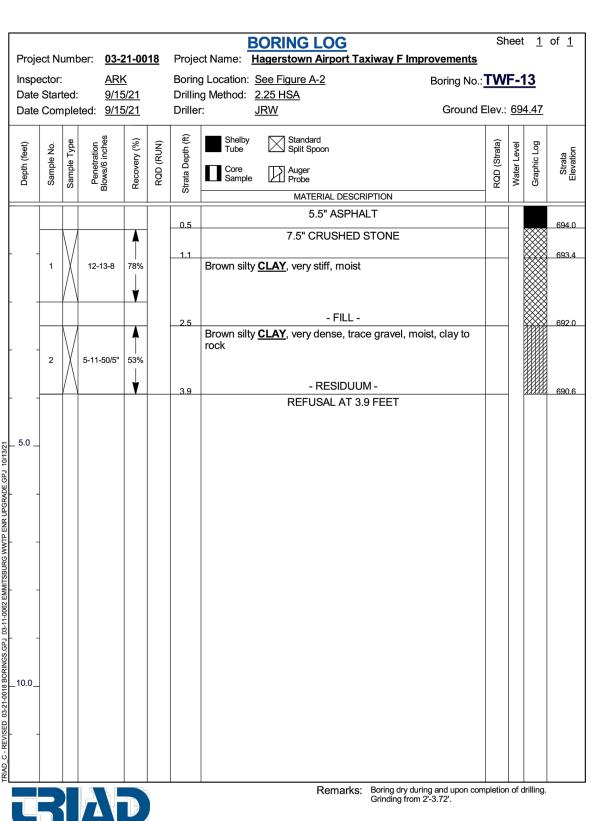
T TITLE: TAXIWAY	TAXIWAY F REHABILITATION		
TITLE:		SHEET NO.:	
BOR	— C602		
N/A	DATE: FEBRUARY 2023	34 OF 97	

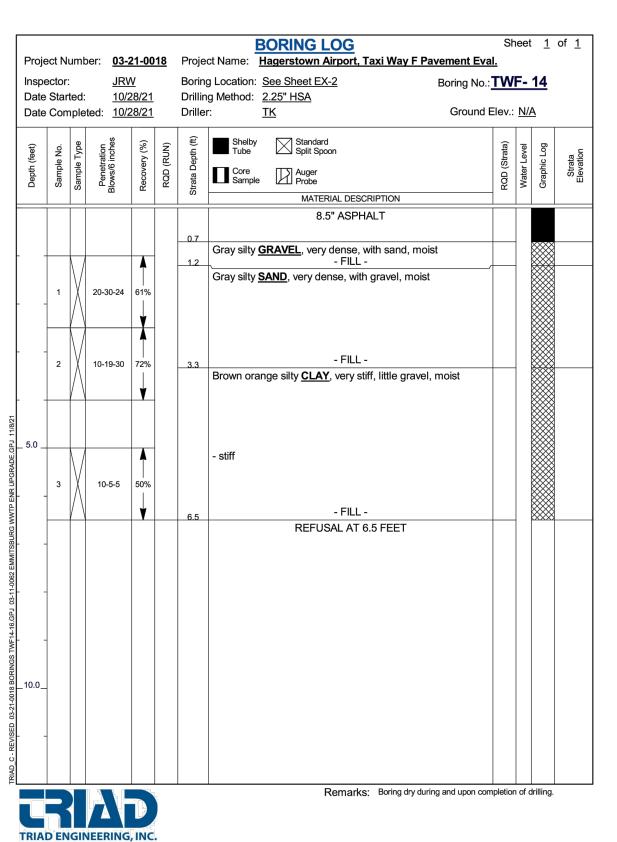


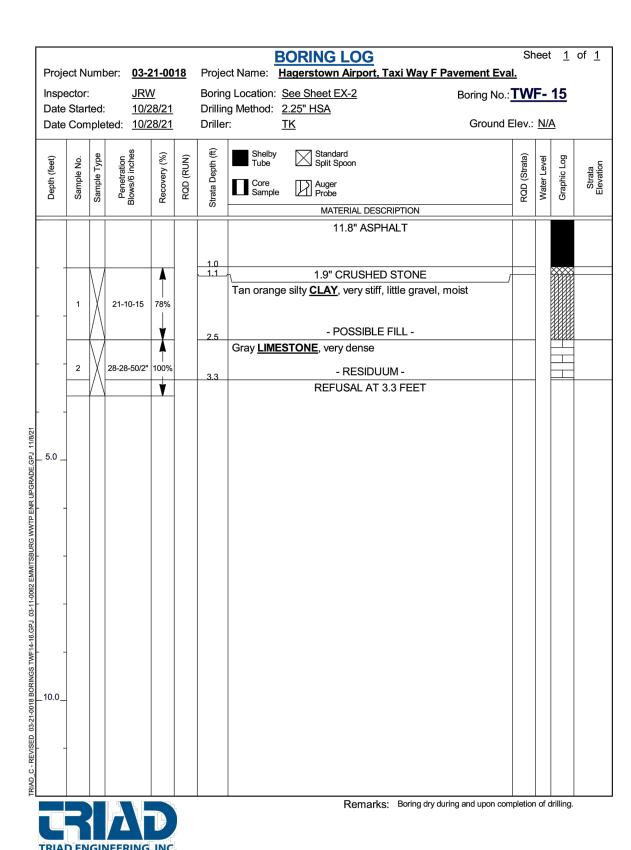


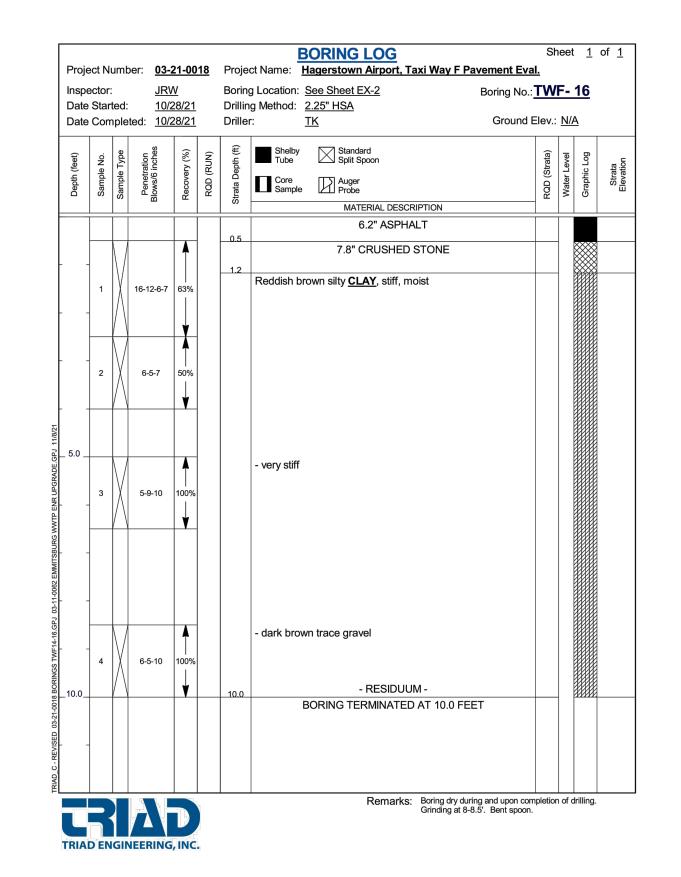




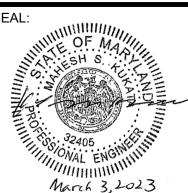












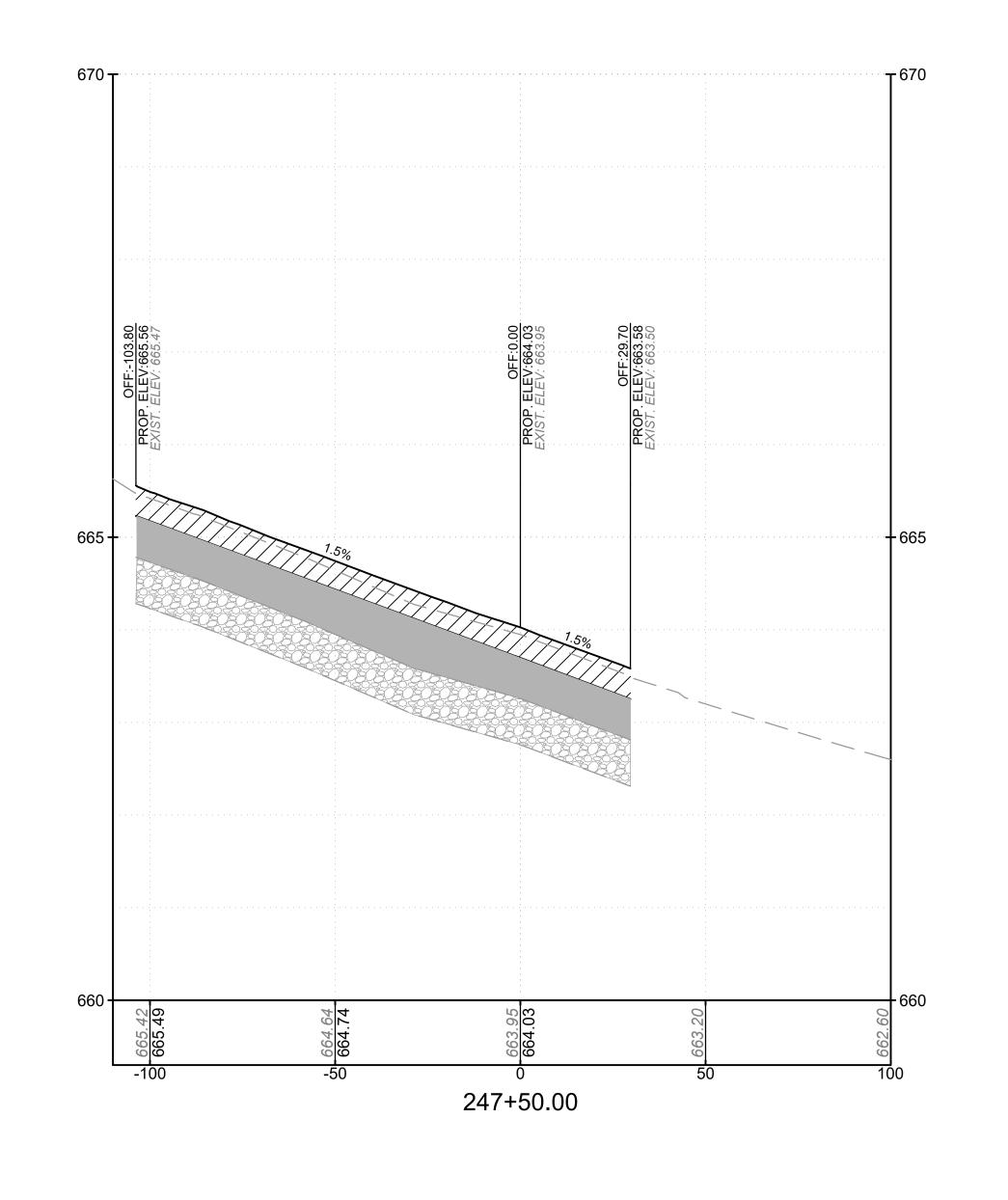
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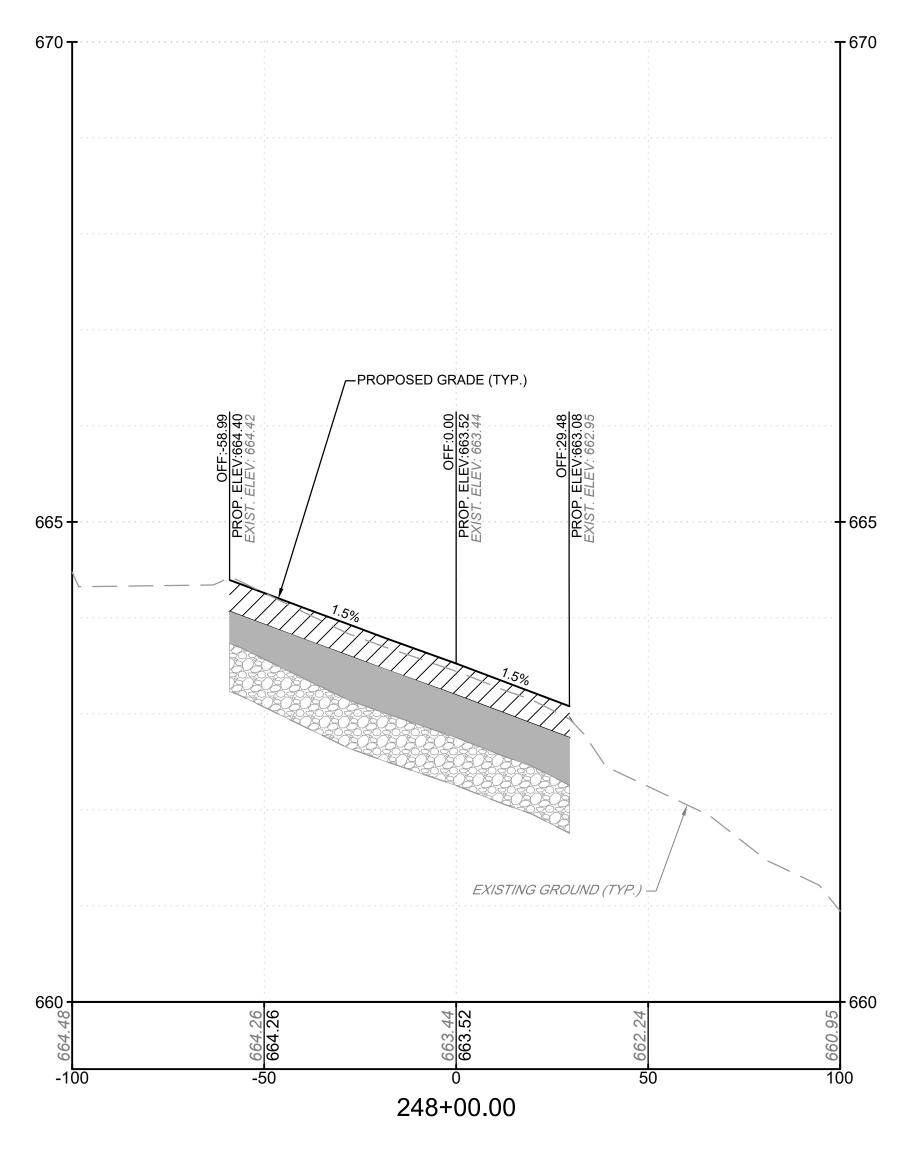
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PROJECT TITLE:	TAXIWAY F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008		
SHEET TITLE:				
	BORING	SHEET NO.:		
		- C603		
SCALE:	N/A	DATE: FEBRUARY 2023	35 OF 97	

FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0033_C601_3_BORING LOG PLAN.dwg LAYOUT NAME: C603 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 8:37pm





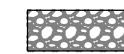
PAVEMENT LEGEND



ASPHALT MIX SURFACE COURSE OVERLAY



EXISTING ASPHALT PAVEMENT



EXISTING CRUSHED AGGREGATE BASE COURSE

LEGEND

662.00 EXISTING GROUND ELEVATION
662.60 PROPOSED GRADE ELEVATION

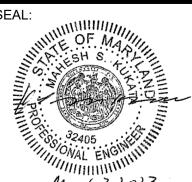
25' 12.5' 0 25' 50'

GRAPHIC SCALE

1' .5' 0 1' 2'

VERTICAL GRAPHIC SCALE

AIRPORT DESIGN CONSULTANTS
6031 UNIVERSITY BLVD, SUITE 330
ELLICOTT CITY, MD 21043
TEL: 410.465.9600
FAX: 410.465.9602



PROFESSIONAL
CERTIFICATION:
"I HEREBY CERTIFY THAT
THESE DOCUMENTS WERE
PREPARED OR APPROVED BY
ME, AND THAT I AM A DULY
LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND"

LICENSE NO. 32405

DESIGNED: REVISION NO. DATE

DRAWN:
G.C.S.

CHECKED:
M.P.P

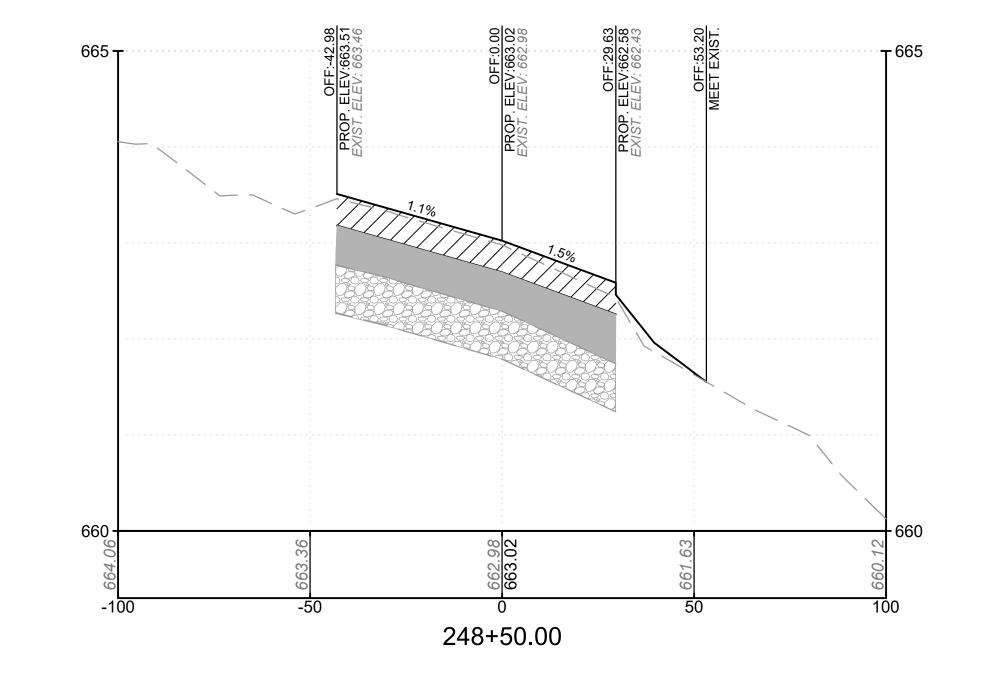
APPROVED:
M.S.K.

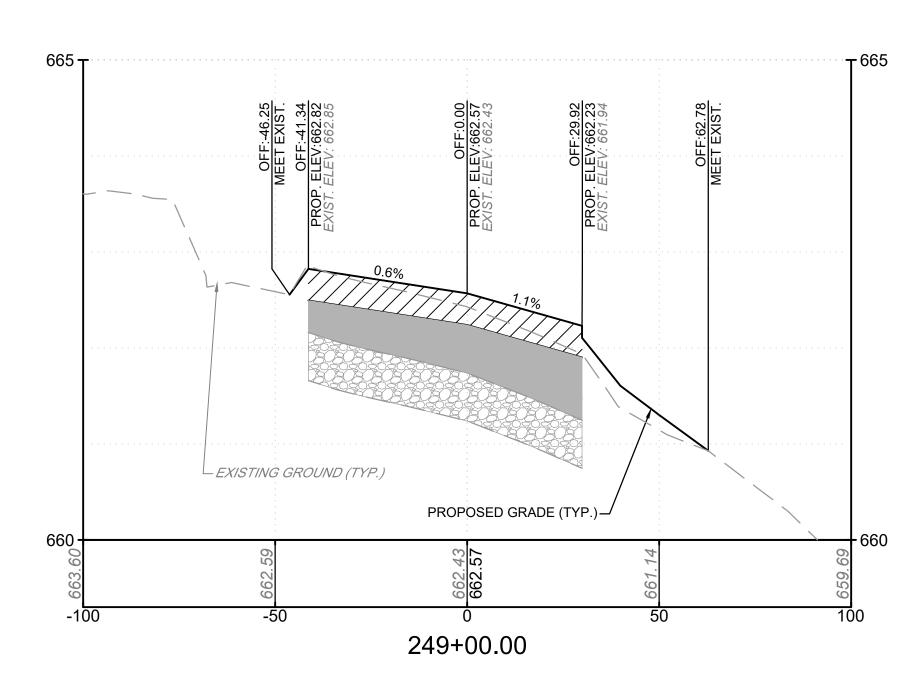


PROJECT TITLE	TAXIWAY F F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008		
SHEET TITLE: CROSS SECTIONS 1			SHEET NO.:	
SCALE:	AS SHOWN	DATE: FEBRUARY 2023	- C700 36 OF 97	

FAX: 410.465.9602 M.S.I.

FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C700 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 8:43pm







ASPHALT MIX SURFACE COURSE OVERLAY



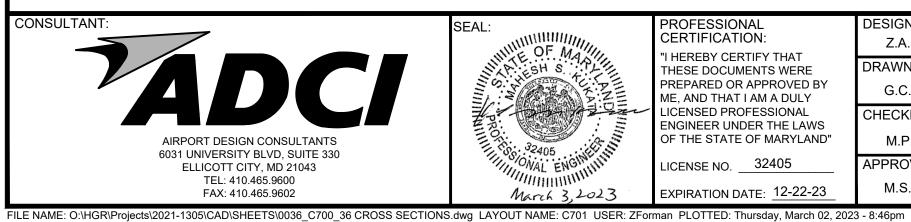
EXISTING ASPHALT PAVEMENT



EXISTING CRUSHED AGGREGATE BASE COURSE

LEGEND GRAPHIC SCALE 662.00 EXISTING GROUND ELEVATION 662.60 PROPOSED GRADE ELEVATION

AIRPORT DESIGN CONSULTANTS 6031 UNIVERSITY BLVD, SUITE 330 ELLICOTT CITY, MD 21043 TEL: 410.465.9600 FAX: 410.465.9602

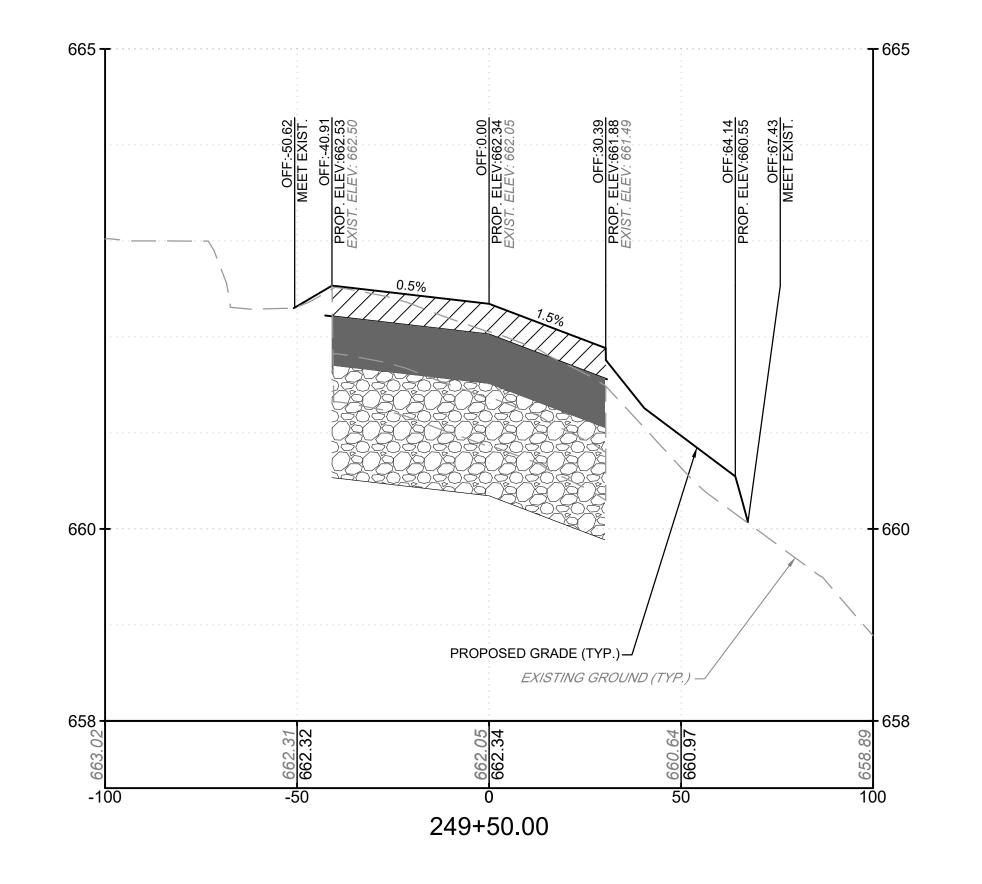


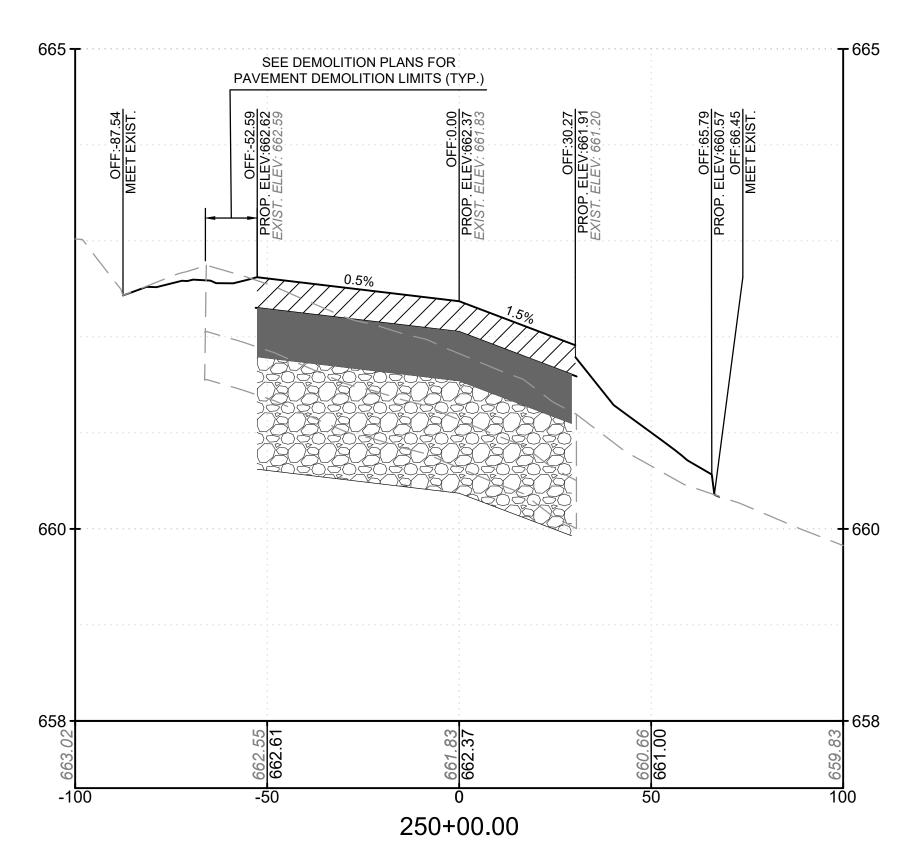
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. ___32405

REVISION REVISION NO. DATE DESCRIPTIONS Z.A.F. CHECKED: M.P.P APPROVED:



				VERTICAL GRAPHIC SCALE
PROJECT TITLE:	TAXIWAY F F	REHABILI	TATION	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
SHEET TITLE:				7
CROSS SECTIONS 2				SHEET NO.: C701
SCALE:	AS SHOWN	DATE:	FEBRUARY 2023	37 OF 97



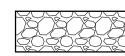




ASPHALT MIX SURFACE



ASPHALT MIX BASE COURSE

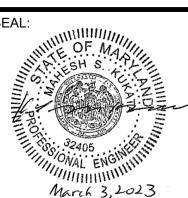


CRUSHED AGGREGATE BASE COURSE

<u>LEGEND</u> 662.00 EXISTING GROUND ELEVATION 662.60 PROPOSED GRADE ELEVATION

GRAPHIC SCALE VERTICAL GRAPHIC SCALE



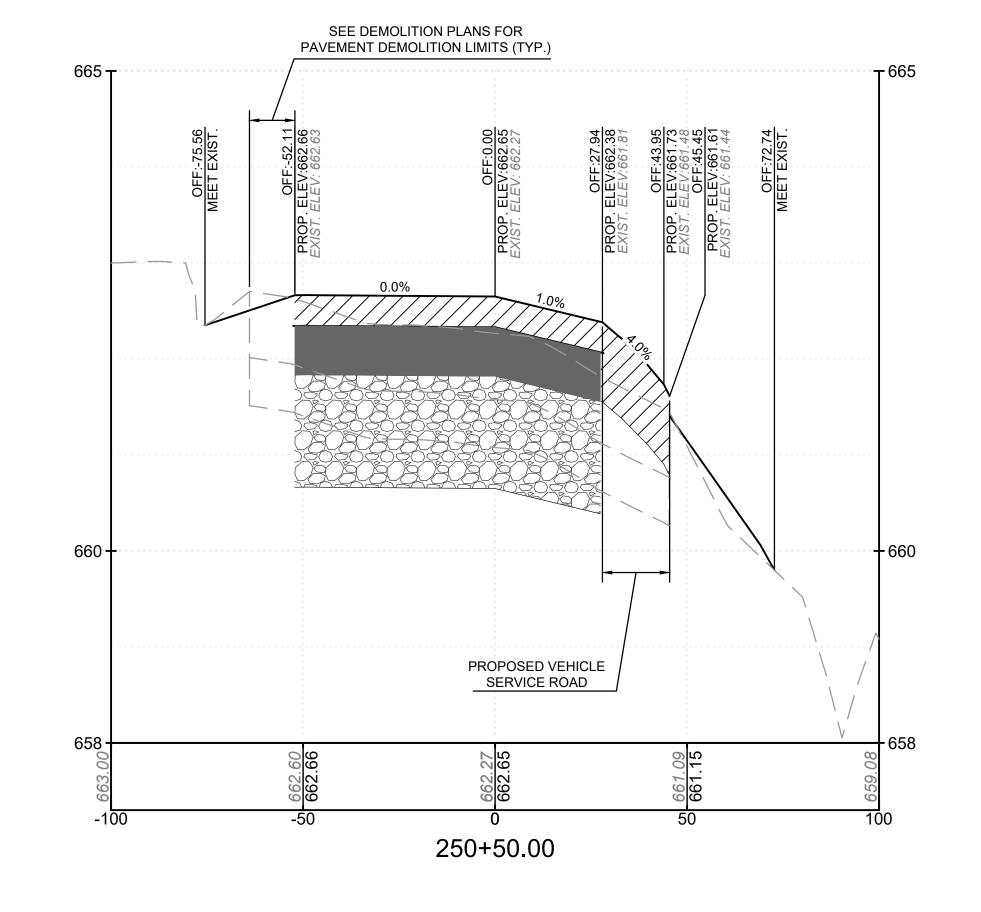


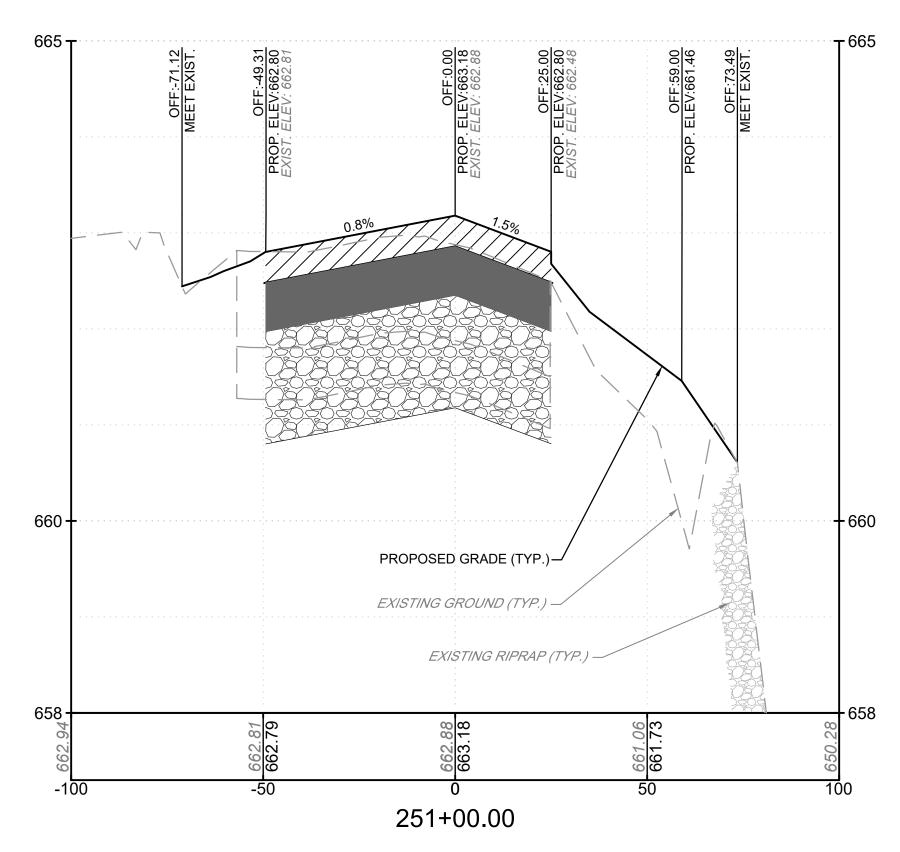
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

REVISION REVISION NO. DATE DESCRIPTIONS Z.A.F. CHECKED: M.P.P APPROVED: EXPIRATION DATE: 12-22-23 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C702 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 8:48pm



				VERTIONE GRAFFIIG SCALE
PROJECT TITLE: TAXIWAY F REHABILITATION				FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
SHEET TITLE:				
	SHEET NO.:			
	C702			
SCALE:	AS SHOWN	DATE:	FEBRUARY 2023	0102
	AS SHOWIN		I LDINUAINI 2023	38 OF 97



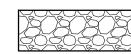




ASPHALT MIX SURFACE

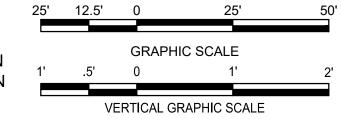


ASPHALT MIX BASE COURSE

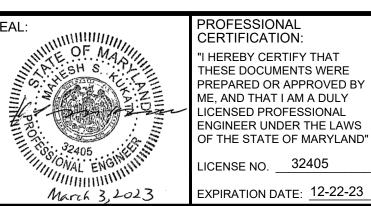


CRUSHED AGGREGATE BASE COURSE

<u>LEGEND</u> 662.00 EXISTING GROUND ELEVATION PROPOSED GRADE ELEVATION



AIRPORT DESIGN CONSULTANTS 6031 UNIVERSITY BLVD, SUITE 330 ELLICOTT CITY, MD 21043 TEL: 410.465.9600 FAX: 410.465.9602



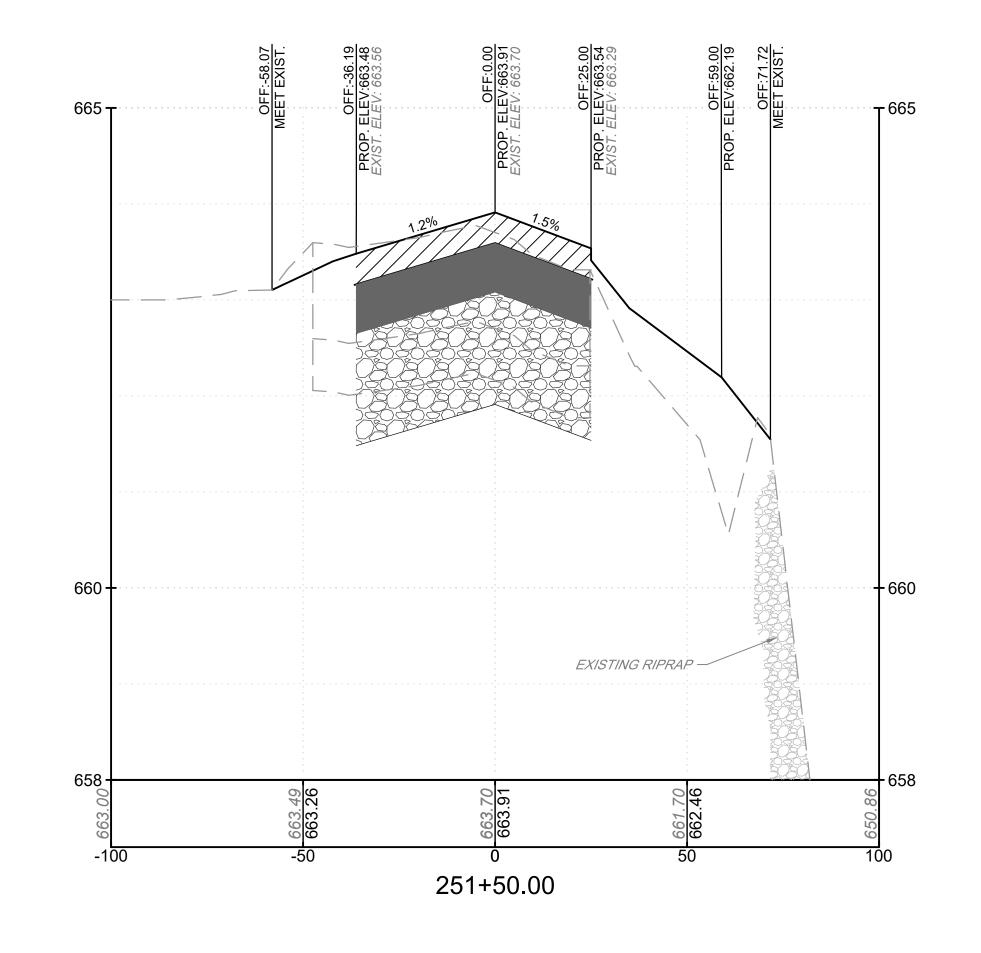
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

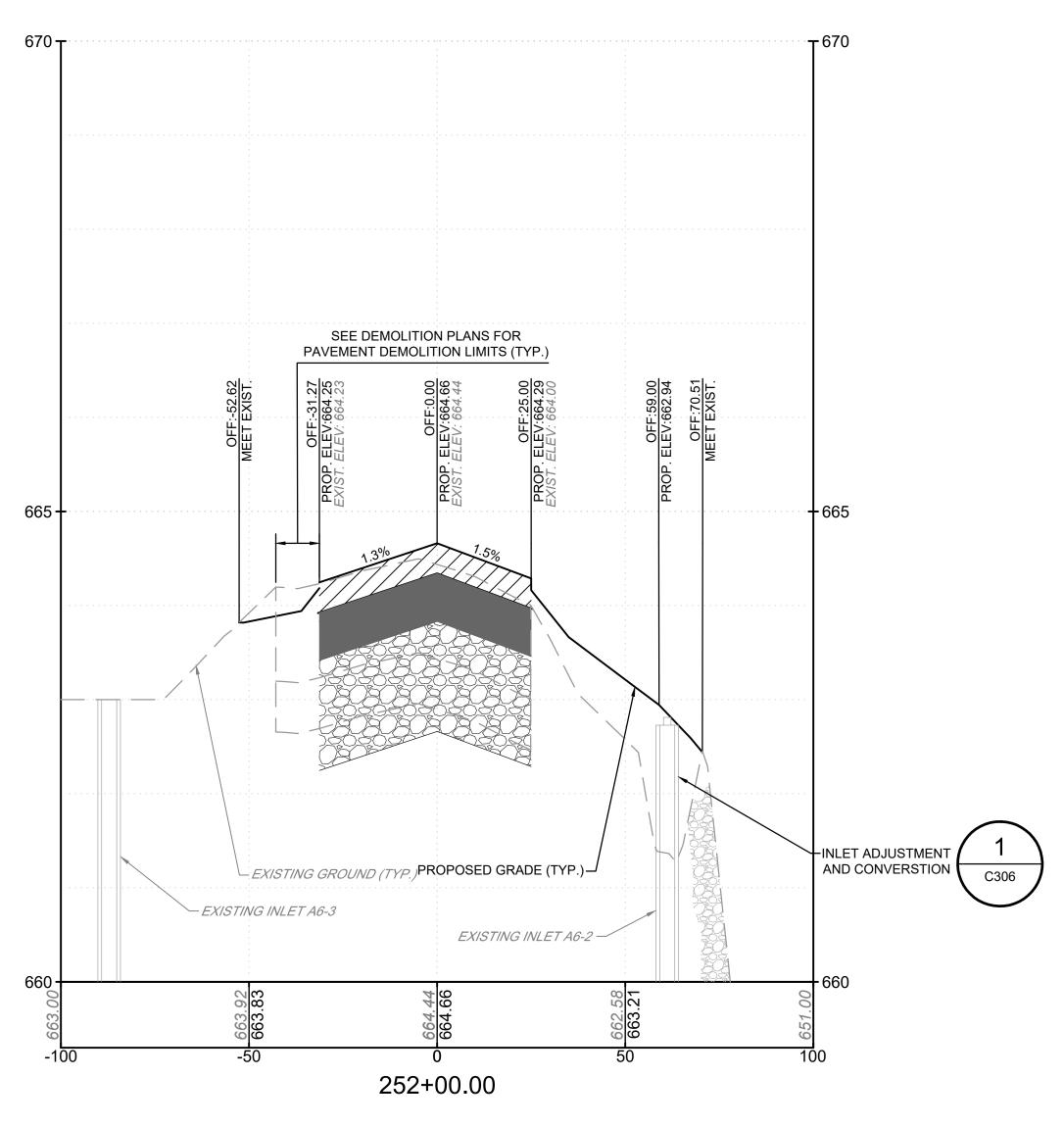
DESCRIPTIONS Z.A.F. CHECKED: M.P.P APPROVED:



				VERTICAL GRAPHIC SCALE
PROJECT TITLE:	TAXIWAY F F	REHABILI	TATION	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
SHEET TITLE:				
CROSS SECTIONS 4				SHEET NO.: C703
SCALE:	AS SHOWN	DATE:	FEBRUARY 2023	39 OF 97

FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C703 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 8:51pm



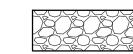




ASPHALT MIX SURFACE COURSE

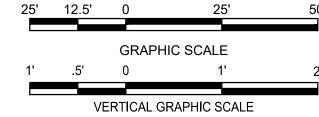


ASPHALT MIX BASE COURSE

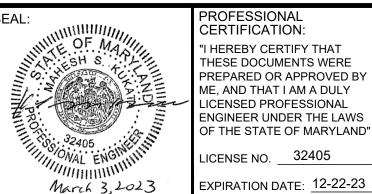


CRUSHED AGGREGATE BASE COURSE

<u>LEGEND</u> 662.00 EXISTING GROUND ELEVATION PROPOSED GRADE ELEVATION



AIRPORT DESIGN CONSULTANTS 6031 UNIVERSITY BLVD, SUITE 330 ELLICOTT CITY, MD 21043 TEL: 410.465.9600 FAX: 410.465.9602

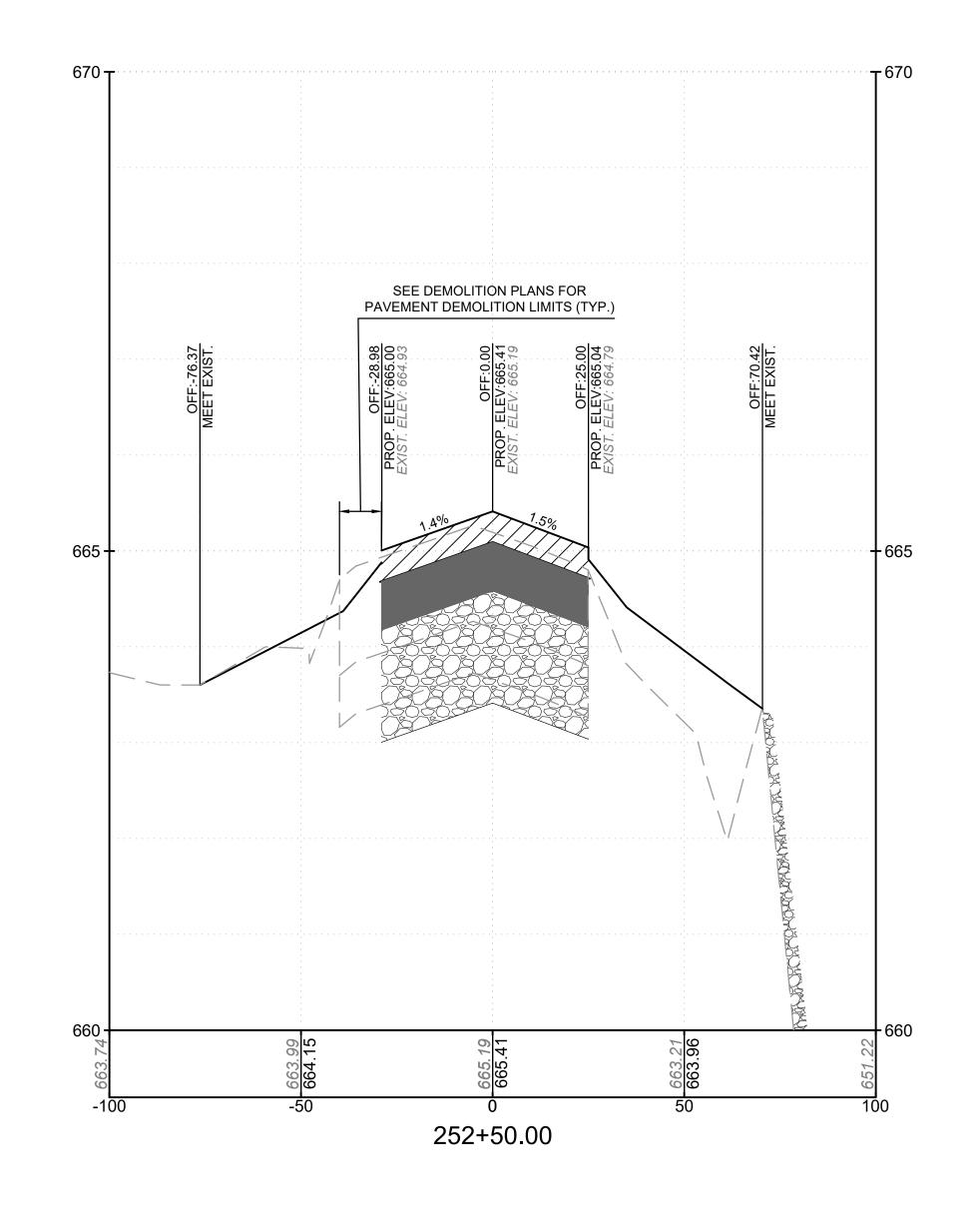


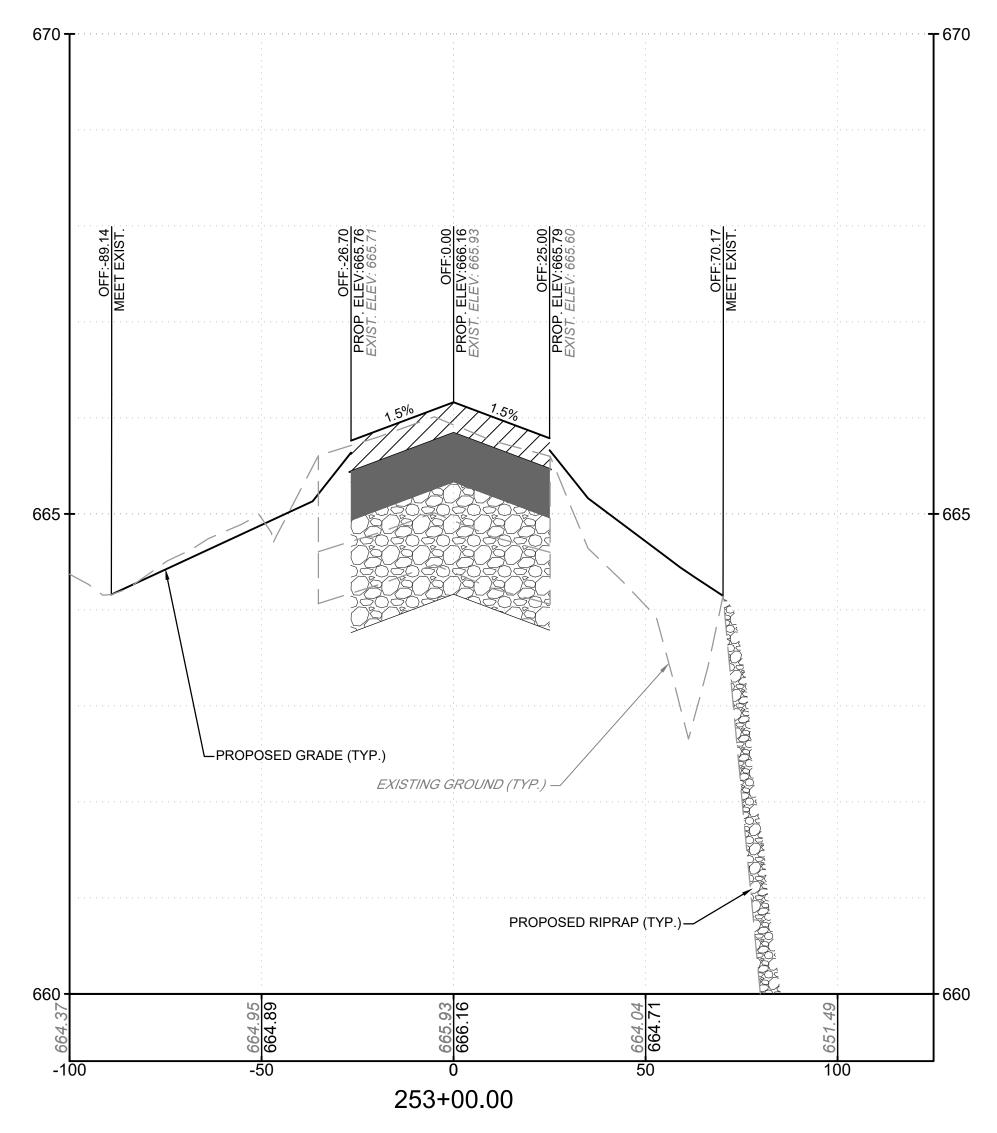
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

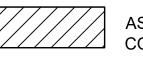
REVISION REVISION NO. DATE DESCRIPTIONS Z.A.F. CHECKED: M.P.P APPROVED: FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C704 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 8:52pm



PROJECT TITLE:	TAXIWAY F F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
SHEET TITLE:			
	CROSS SE	SHEET NO.:	
	011000 01	C704	
SCALE:	AS SHOWN	DATE: FEBRUARY 2023	40 OF 97



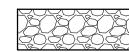




ASPHALT MIX SURFACE



ASPHALT MIX BASE COURSE

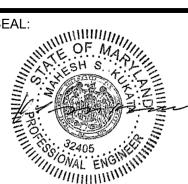


CRUSHED AGGREGATE BASE COURSE

LEGEND 662.00 EXISTING GROUND ELEVATION 662.60 PROPOSED GRADE ELEVATION

GRAPHIC SCALE VERTICAL GRAPHIC SCALE





PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

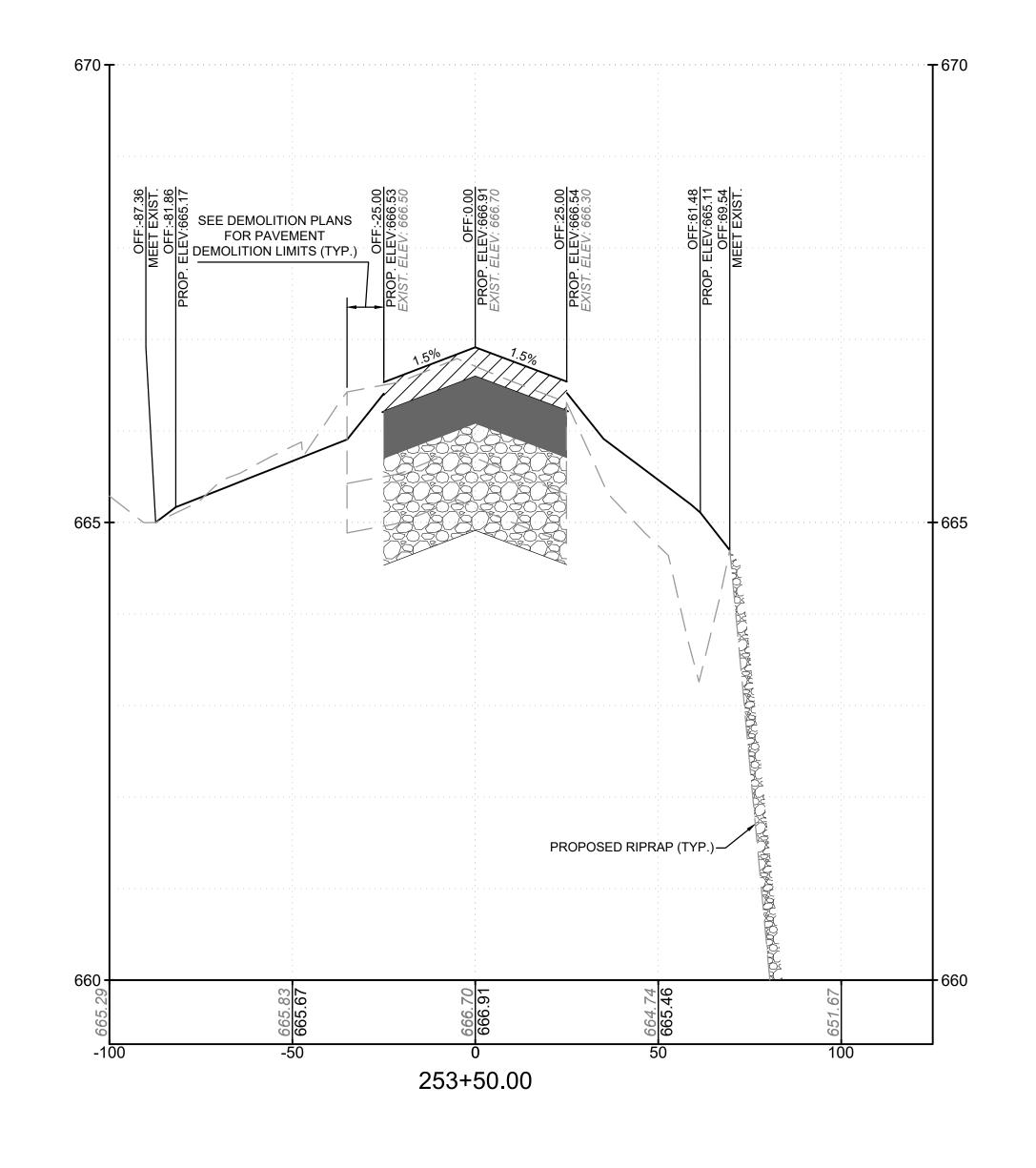
REVISION REVISION NO. DATE Z.A.F. CHECKED: M.P.P APPROVED:

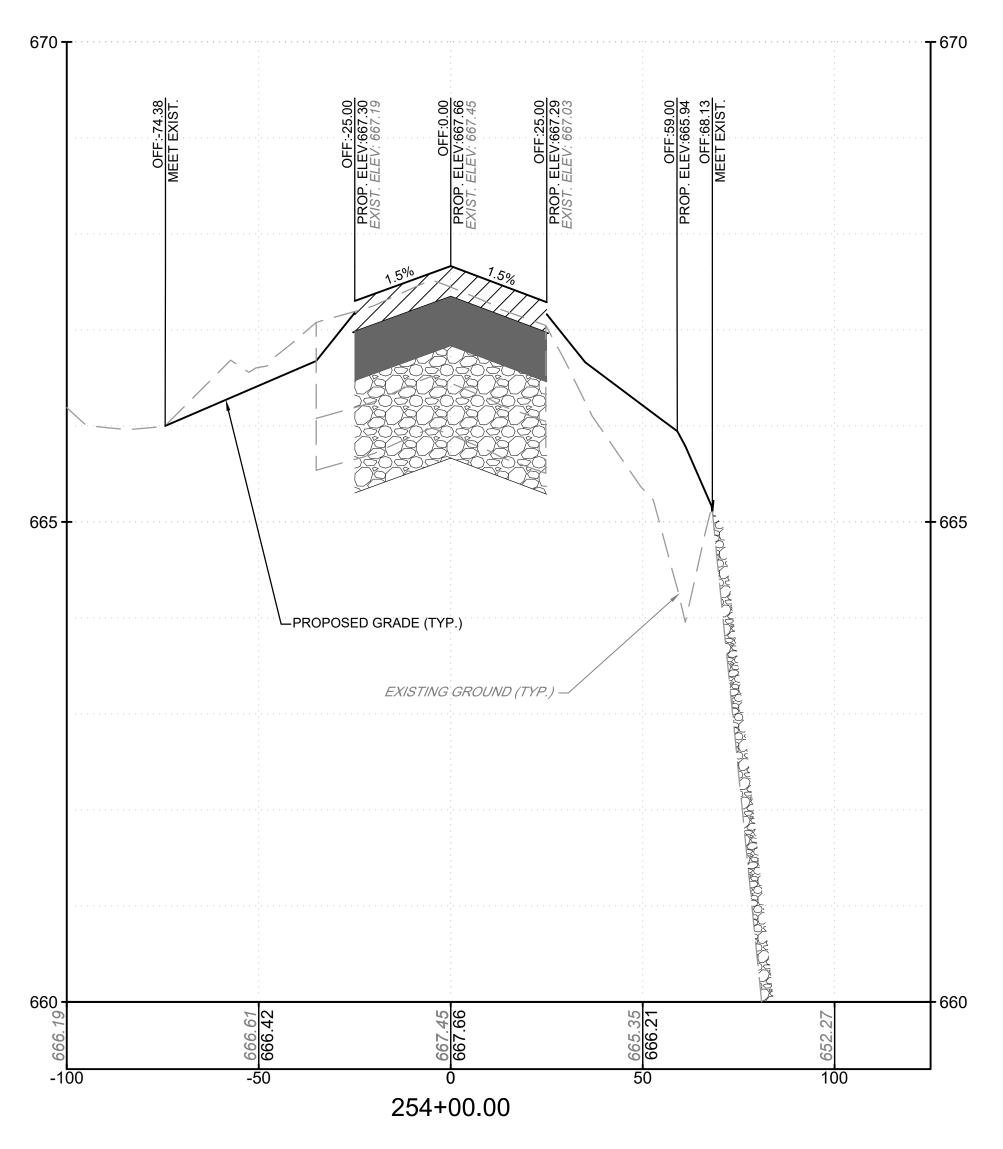
DESCRIPTIONS

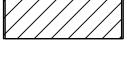


PROJECT TITLE:	TAXIWAY F R	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008		
SHEET TITLE:				
	CROSS SE	SHEET NO.: C705		
SCALE:	AS SHOWN	DATE:	FEBRUARY 2023	41 OF 97

EXPIRATION DATE: 12-22-23 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C705 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 8:54pm



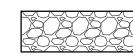




ASPHALT MIX SURFACE COURSE

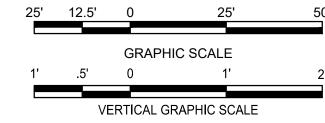


ASPHALT MIX BASE COURSE

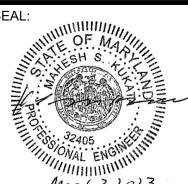


CRUSHED AGGREGATE BASE COURSE

LEGEND 662.00 EXISTING GROUND ELEVATION PROPOSED GRADE ELEVATION







FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C706 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 8:59pm

PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

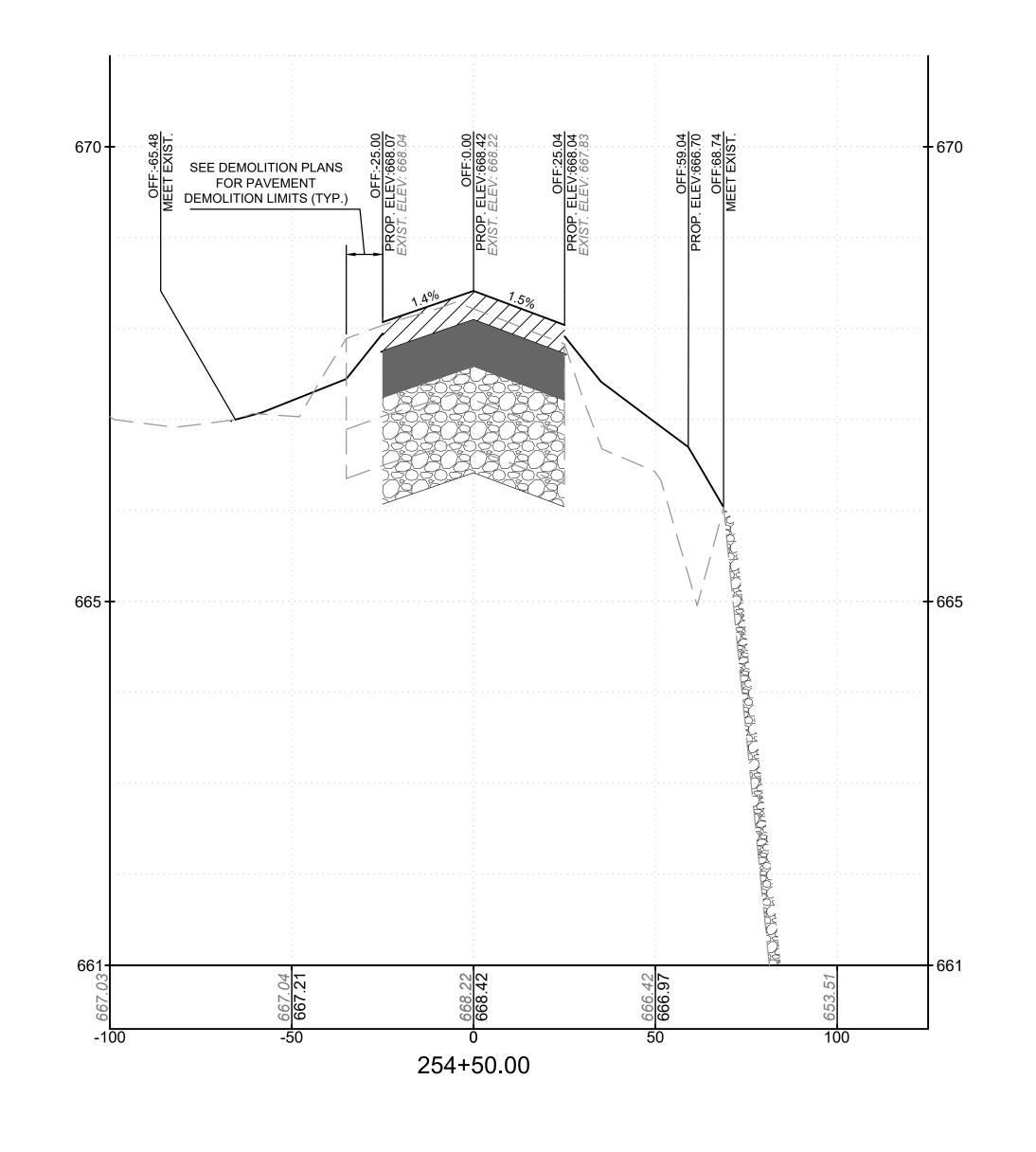
EXPIRATION DATE: 12-22-23

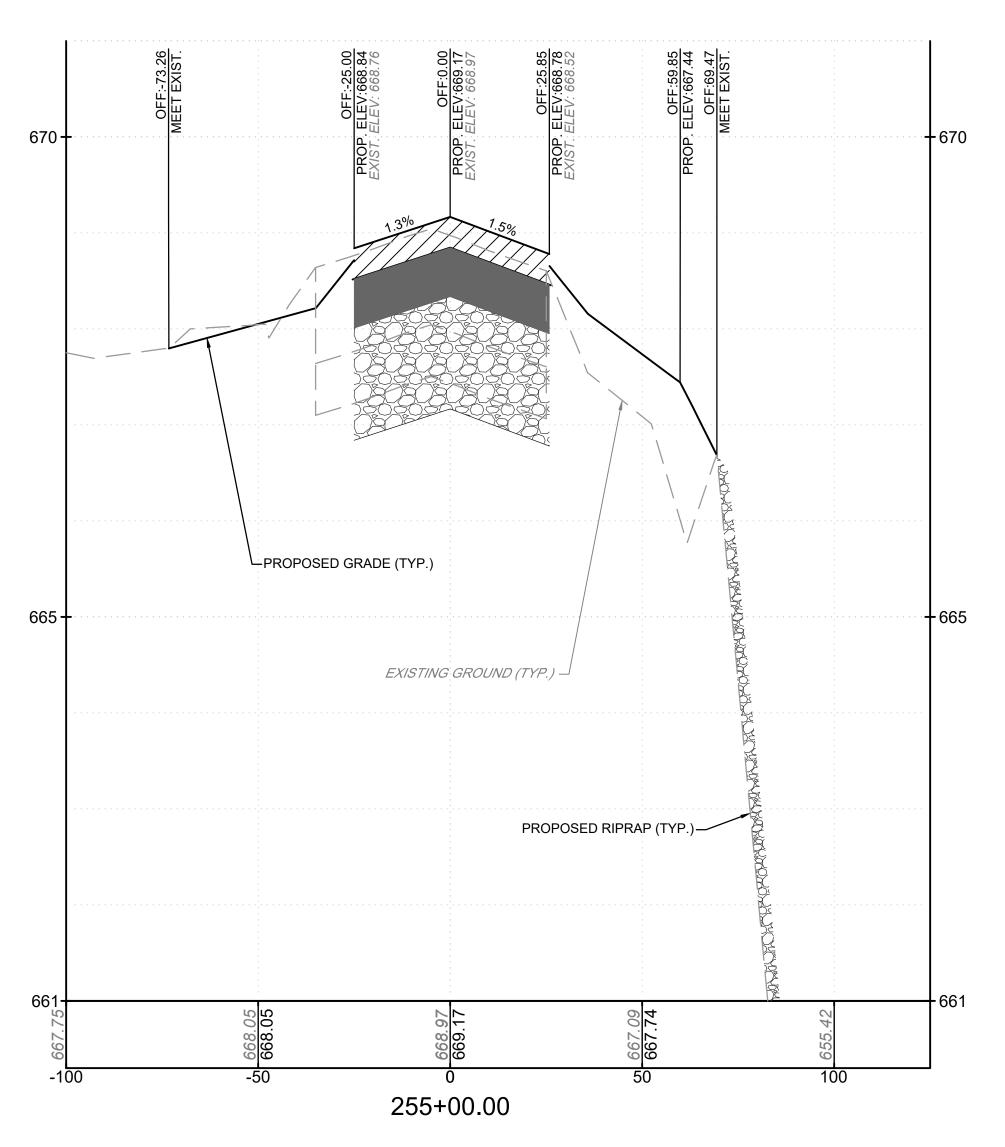
REVISION REVISION NO. DATE Z.A.F. CHECKED: M.P.P APPROVED:

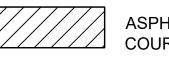
DESCRIPTIONS



PROJECT TITLE:	TAXIWAY F F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
SHEET TITLE:			
	CROSS SE	SHEET NO.:	
	CI (COO OL	C706	
SCALE:	AS SHOWN	DATE: FEBRUARY 2023	42 OF 97



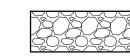




ASPHALT MIX SURFACE



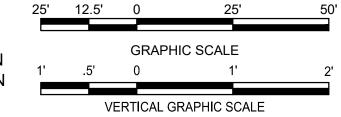
ASPHALT MIX BASE COURSE



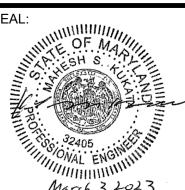
CRUSHED AGGREGATE BASE COURSE

LEGEND

662.00 EXISTING GROUND ELEVATION
662.60 PROPOSED GRADE ELEVATION







PROFESSIONAL
CERTIFICATION:

"I HEREBY CERTIFY THAT
THESE DOCUMENTS WERE
PREPARED OR APPROVED BY
ME, AND THAT I AM A DULY
LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND"

LICENSE NO. ____32405

DESIGNED:
Z.A.F.

DRAWN:
G.C.S.

CHECKED:
M.P.P

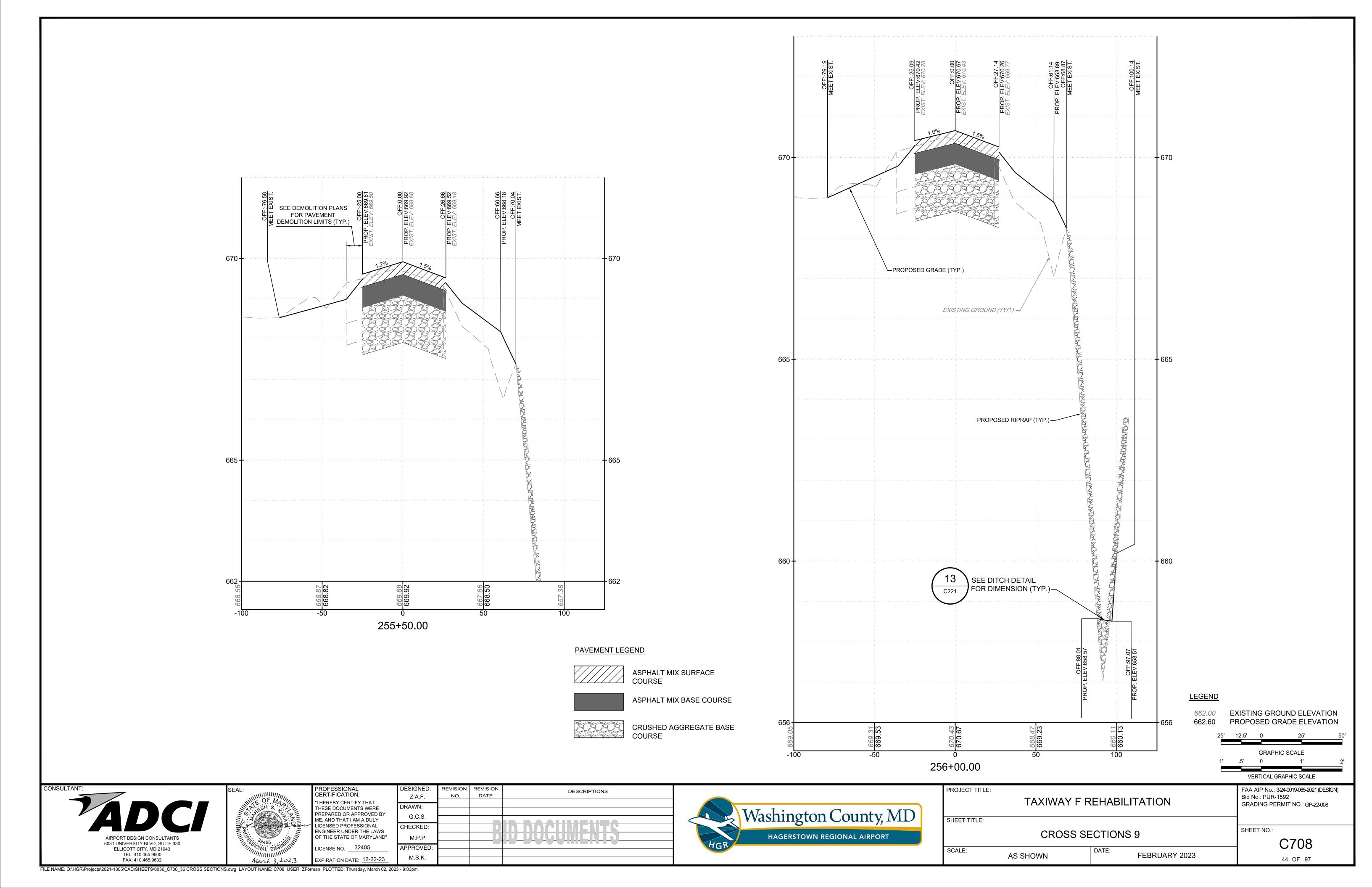
APPROVED:
M.S.K.

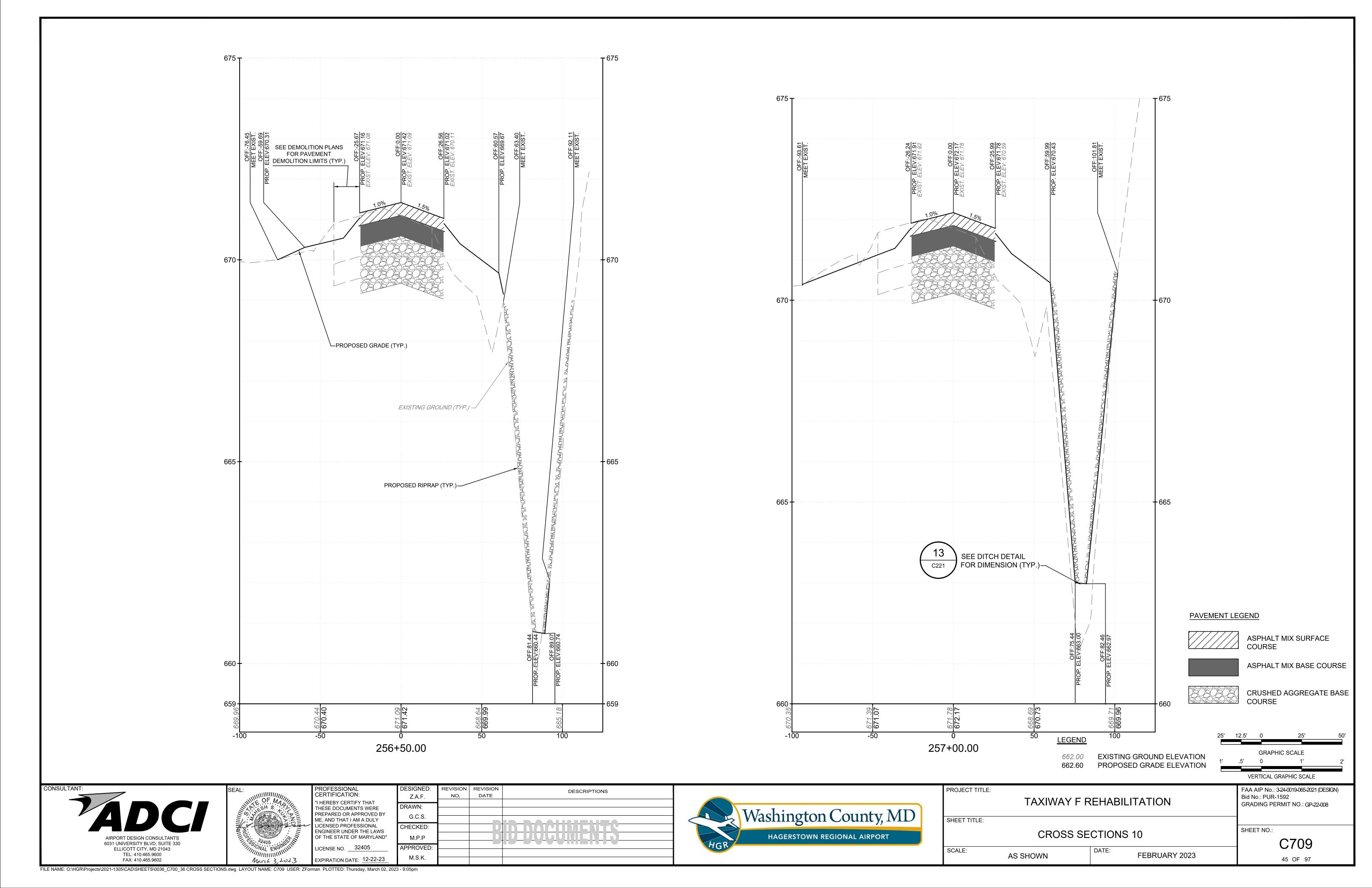


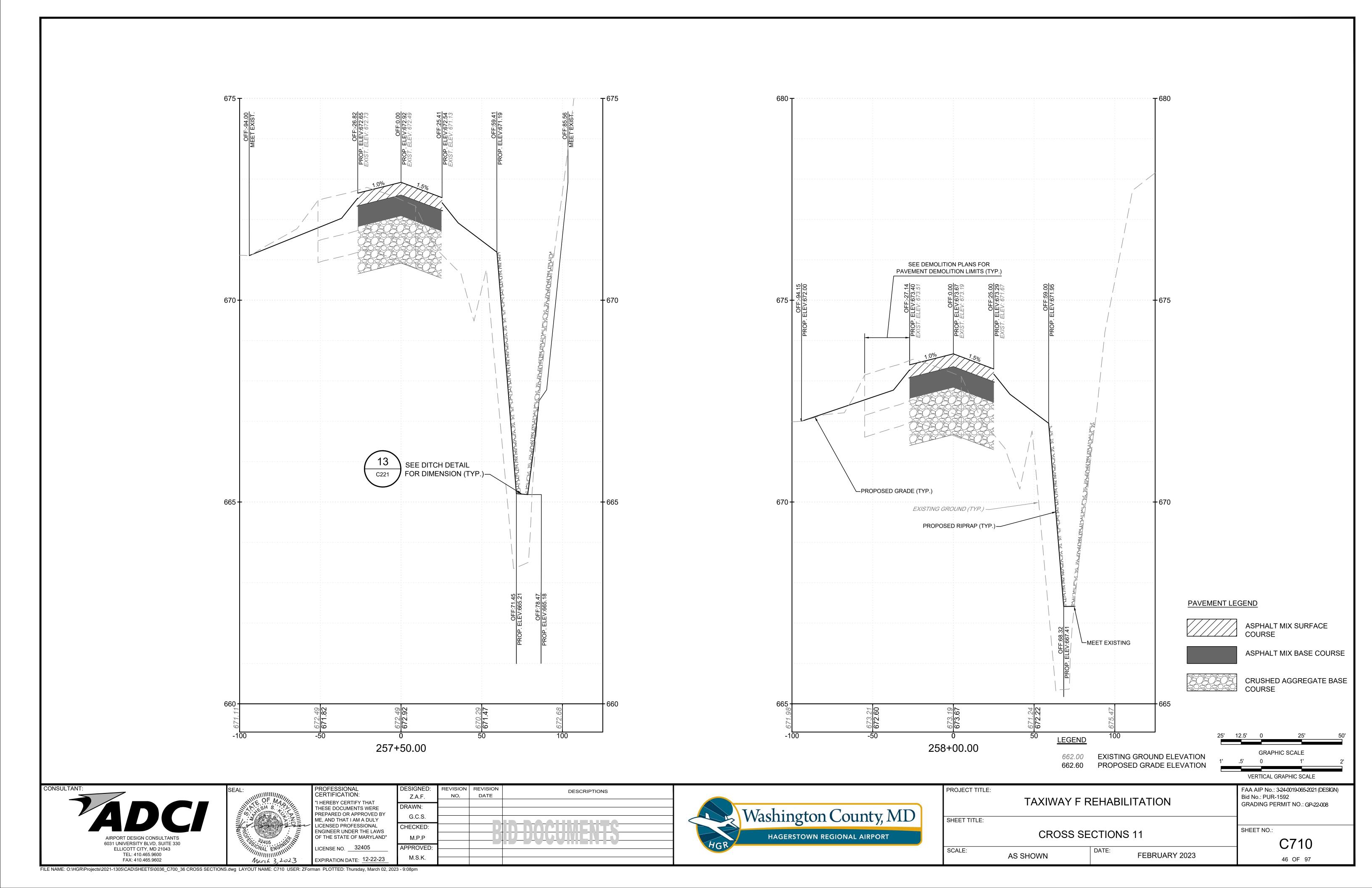
PROJECT TITLE:	TAXIWAY F F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
SHEET TITLE:			
	CROSS SE	SHEET NO.: C707	
SCALE:	AS SHOWN	DATE: FEBRUARY 2023	43 OF 97

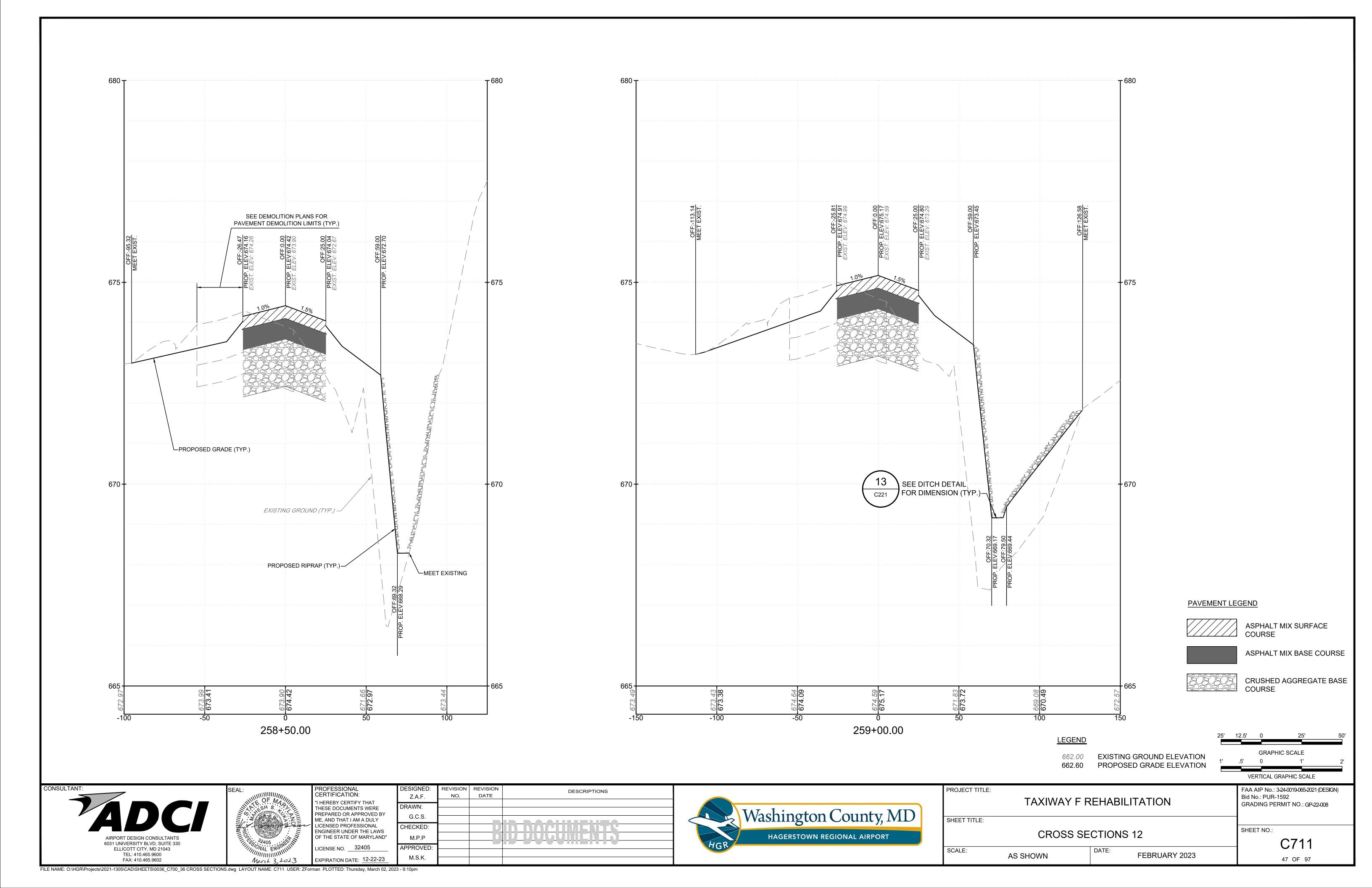
FAX: 410.465.9602 M.S.I.

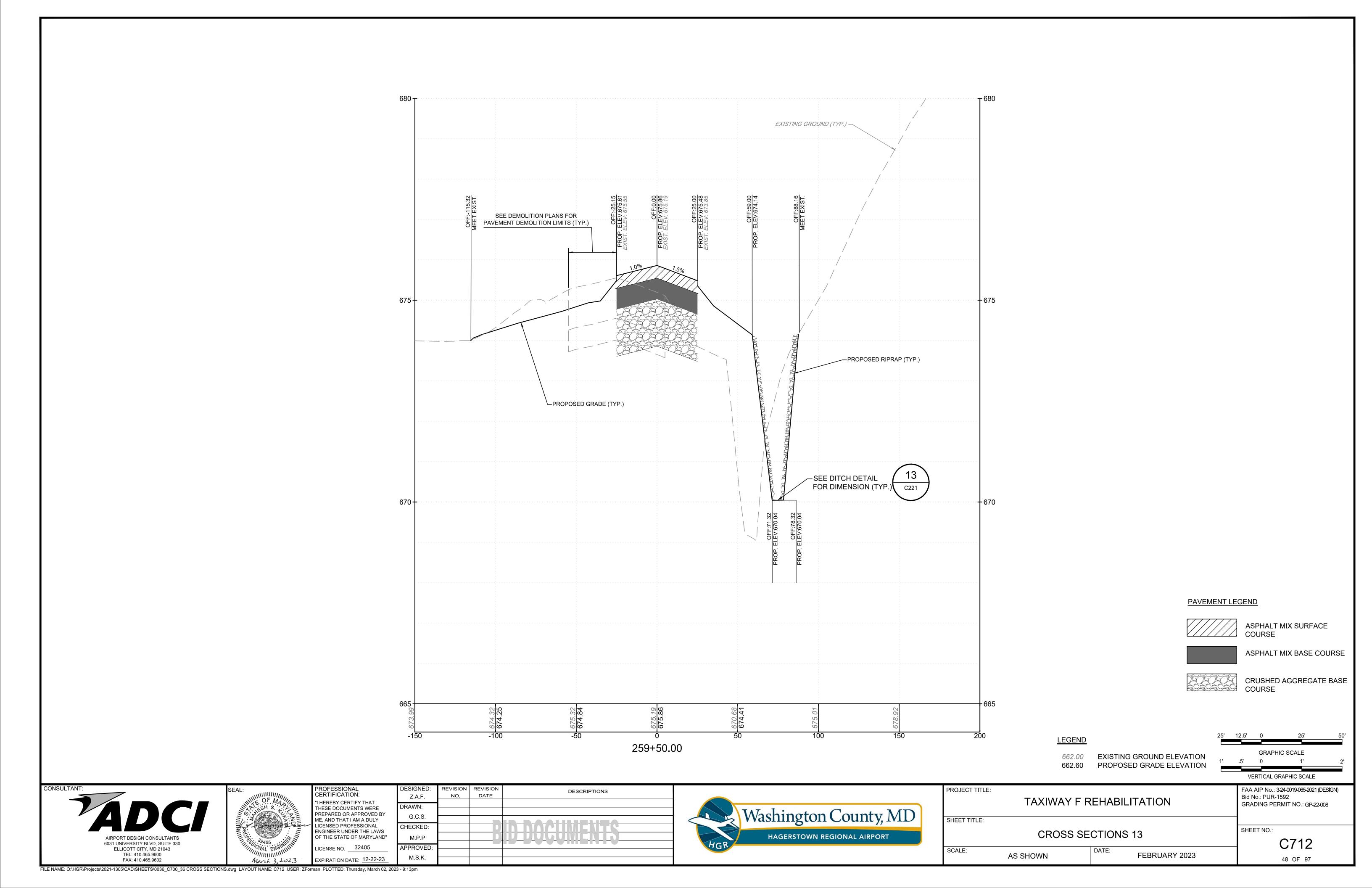
FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C707 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:01pm

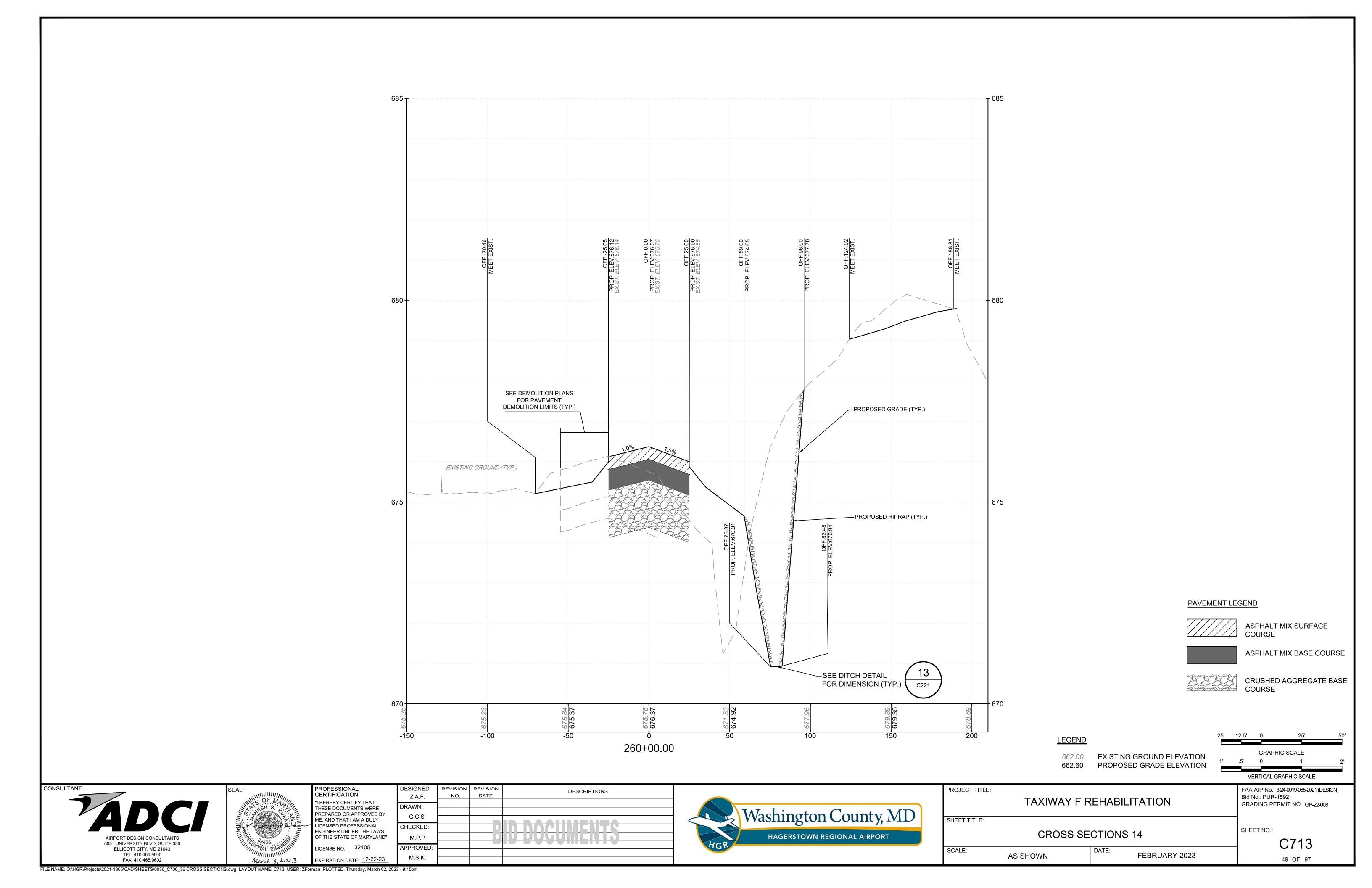


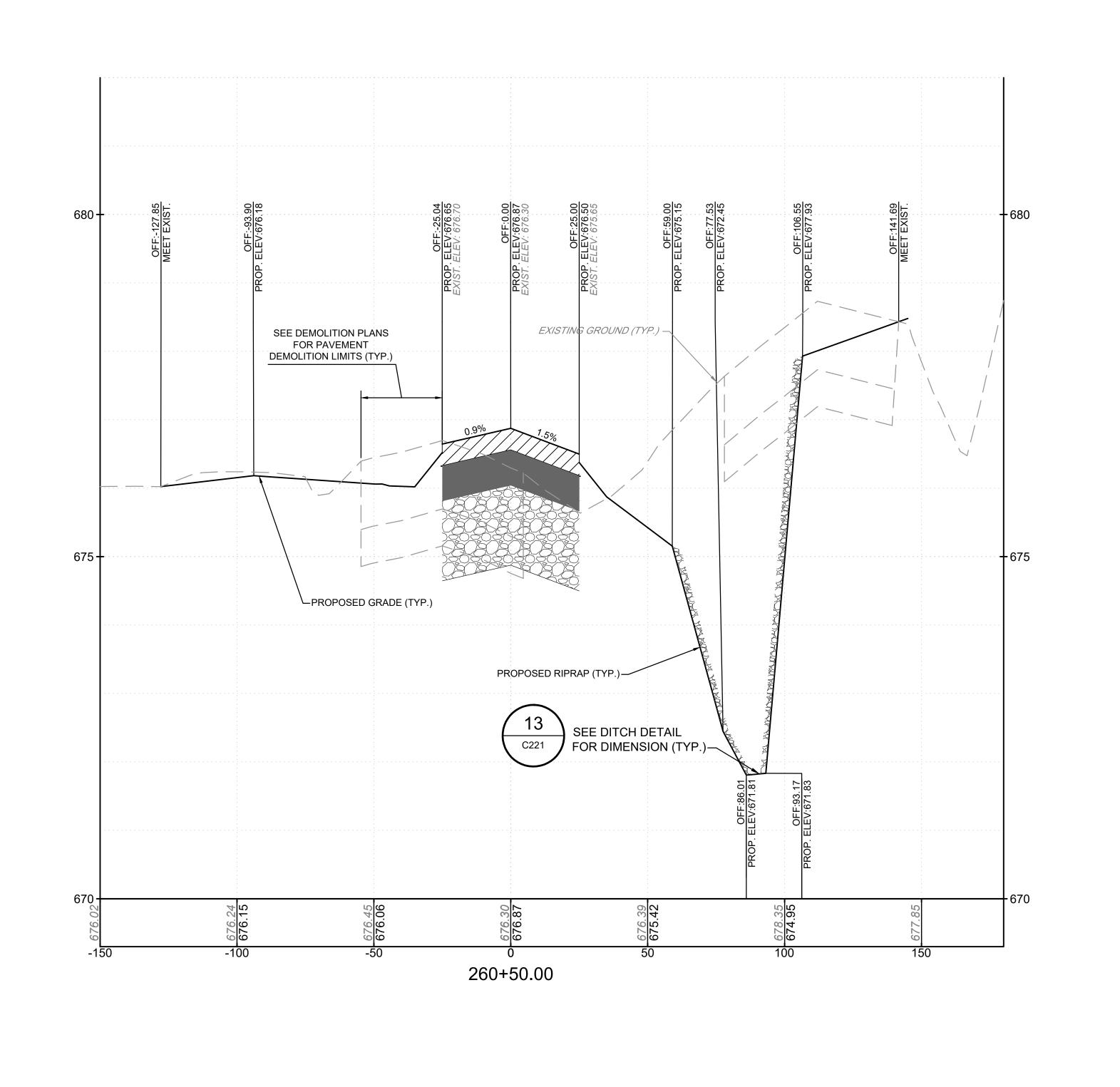










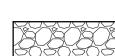




ASPHALT MIX SURFACE COURSE



ASPHALT MIX BASE COURSE



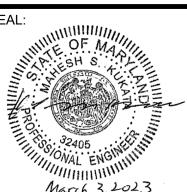
CRUSHED AGGREGATE BASE COURSE

50 OF 97

 LEGEND
 25'
 12.5'
 0
 25'
 50

 662.00
 EXISTING GROUND ELEVATION 662.60
 GRAPHIC SCALE 1'
 5'
 0
 1'
 2'

AIRPORT DESIGN CONSULTANTS
6031 UNIVERSITY BLVD, SUITE 330
ELLICOTT CITY, MD 21043
TEL: 410.465.9600
FAX: 410.465.9602



PROFESSIONAL
CERTIFICATION:

"I HEREBY CERTIFY THAT
THESE DOCUMENTS WERE
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LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND"

LICENSE NO. 32405

DESIGNED: Z.A.F.

DRAWN:
G.C.S.

CHECKED: M.P.P

APPROVED: M.S.K.



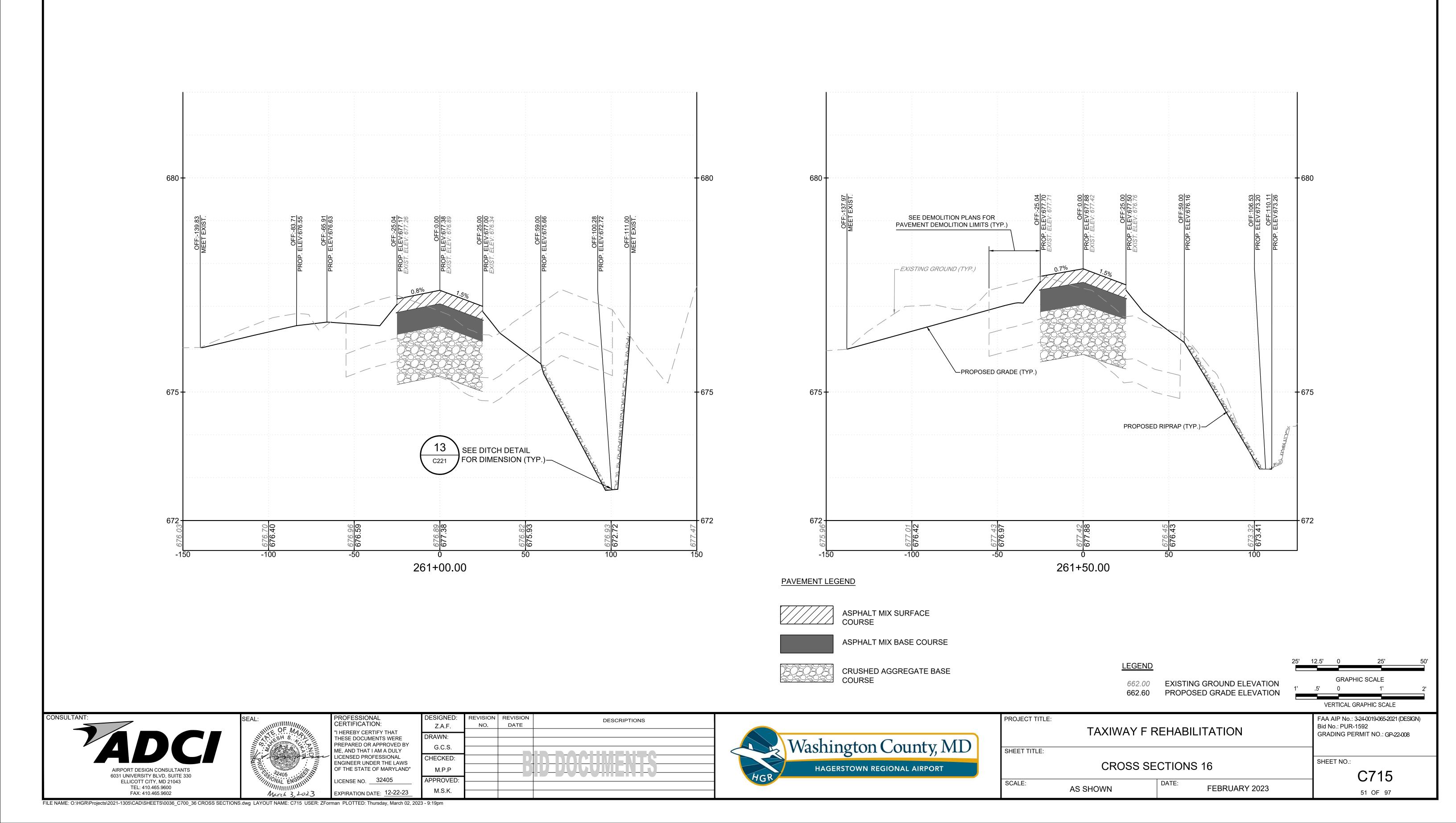
		VERTICAL GRAPHIC SCALE
OJECT TITLE:	TAXIWAY F REHABILITATION	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
EET TITLE:	CROSS SECTIONS 15	SHEET NO.: C714
A	DATE.	\sim \sim \sim \sim \sim

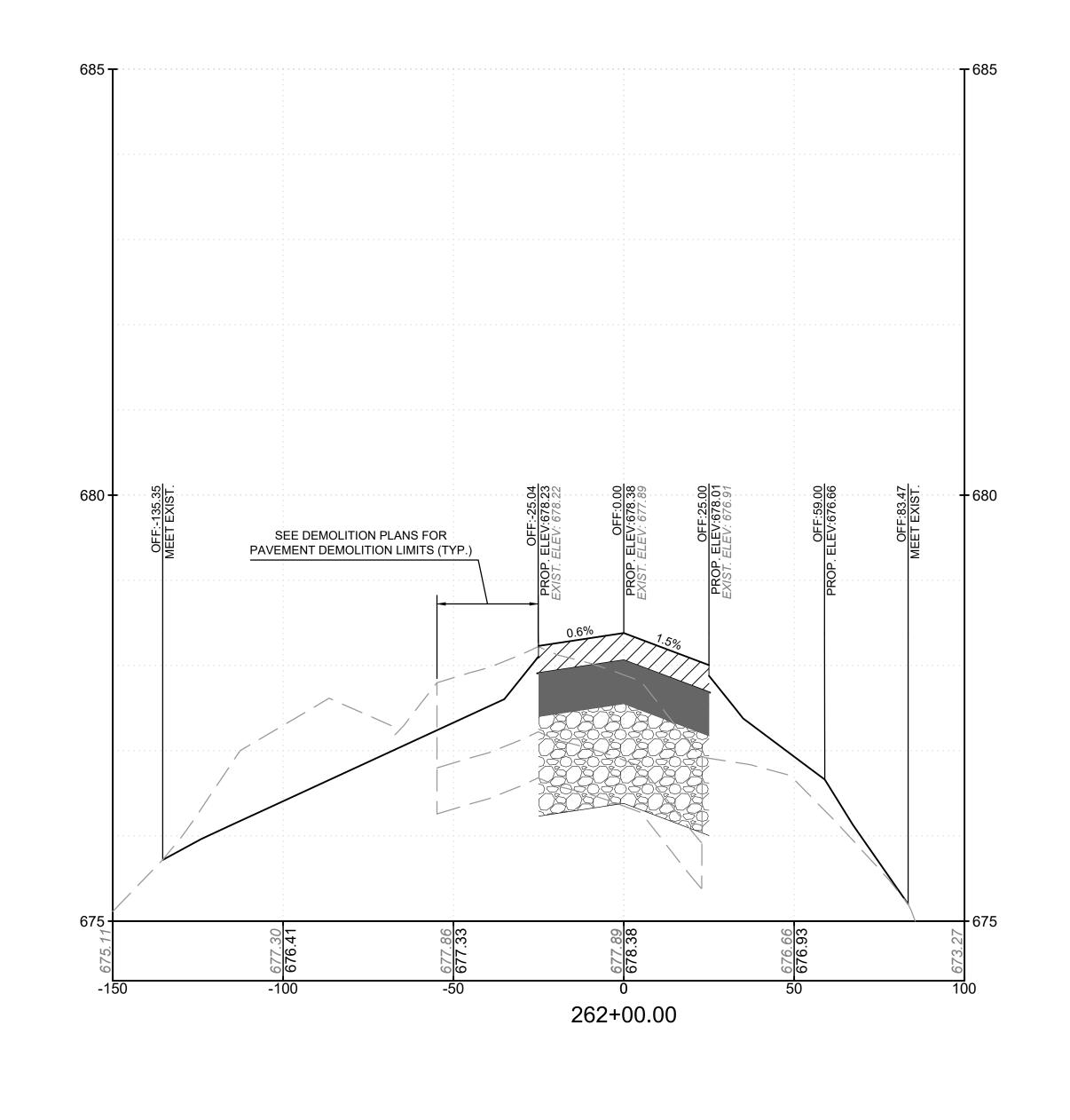
AS SHOWN

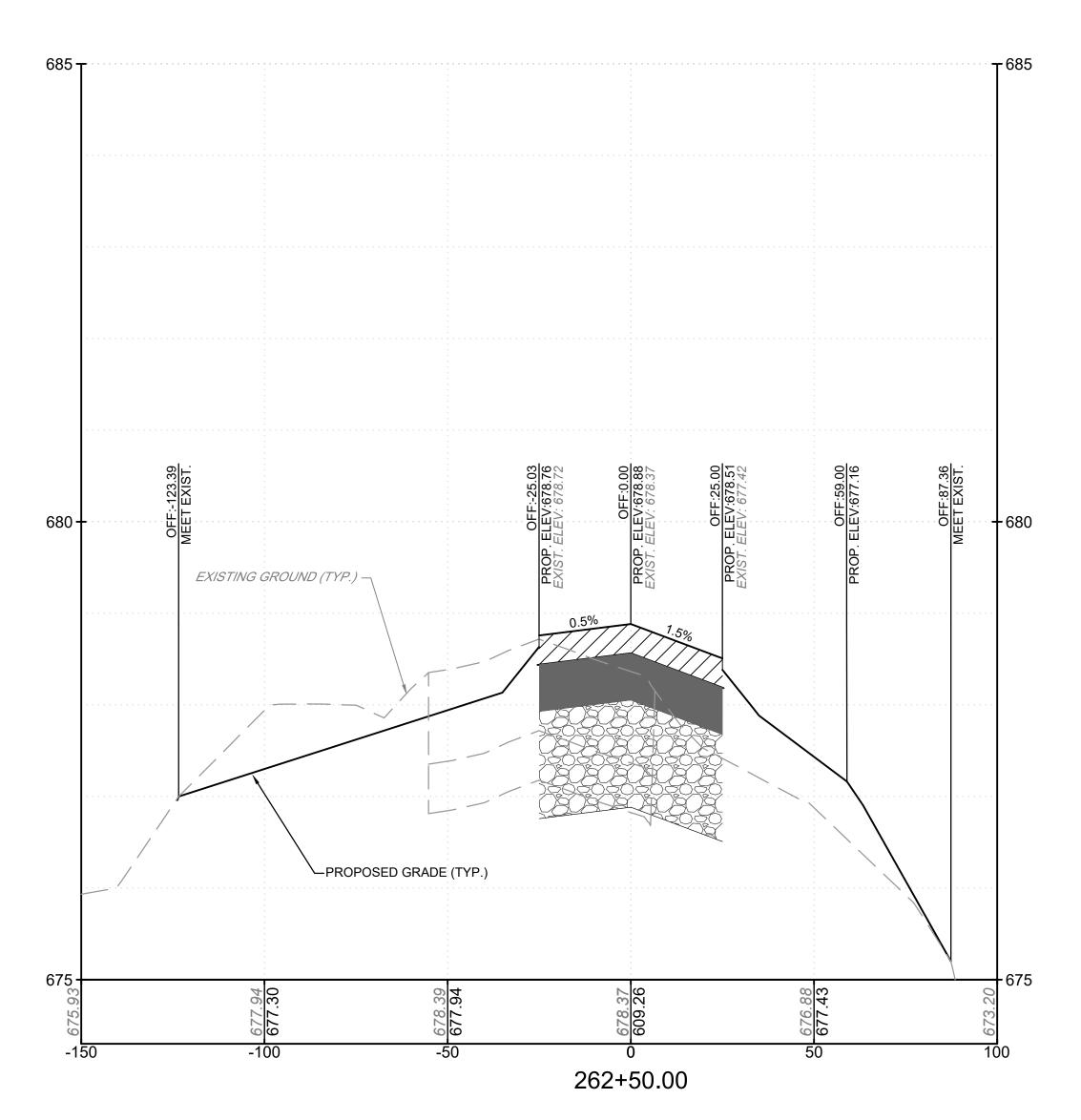
FEBRUARY 2023

FAX: 410.465.9602 M.S.I.

FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C714 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:17pm



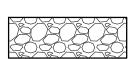




ASPHALT MIX SURFACE COURSE



ASPHALT MIX BASE COURSE



CRUSHED AGGREGATE BASE COURSE

LEGEND

662.00 EXISTING GROUND ELEVATION 662.60 PROPOSED GRADE ELEVATION

GRAPHIC SCALE VERTICAL GRAPHIC SCALE





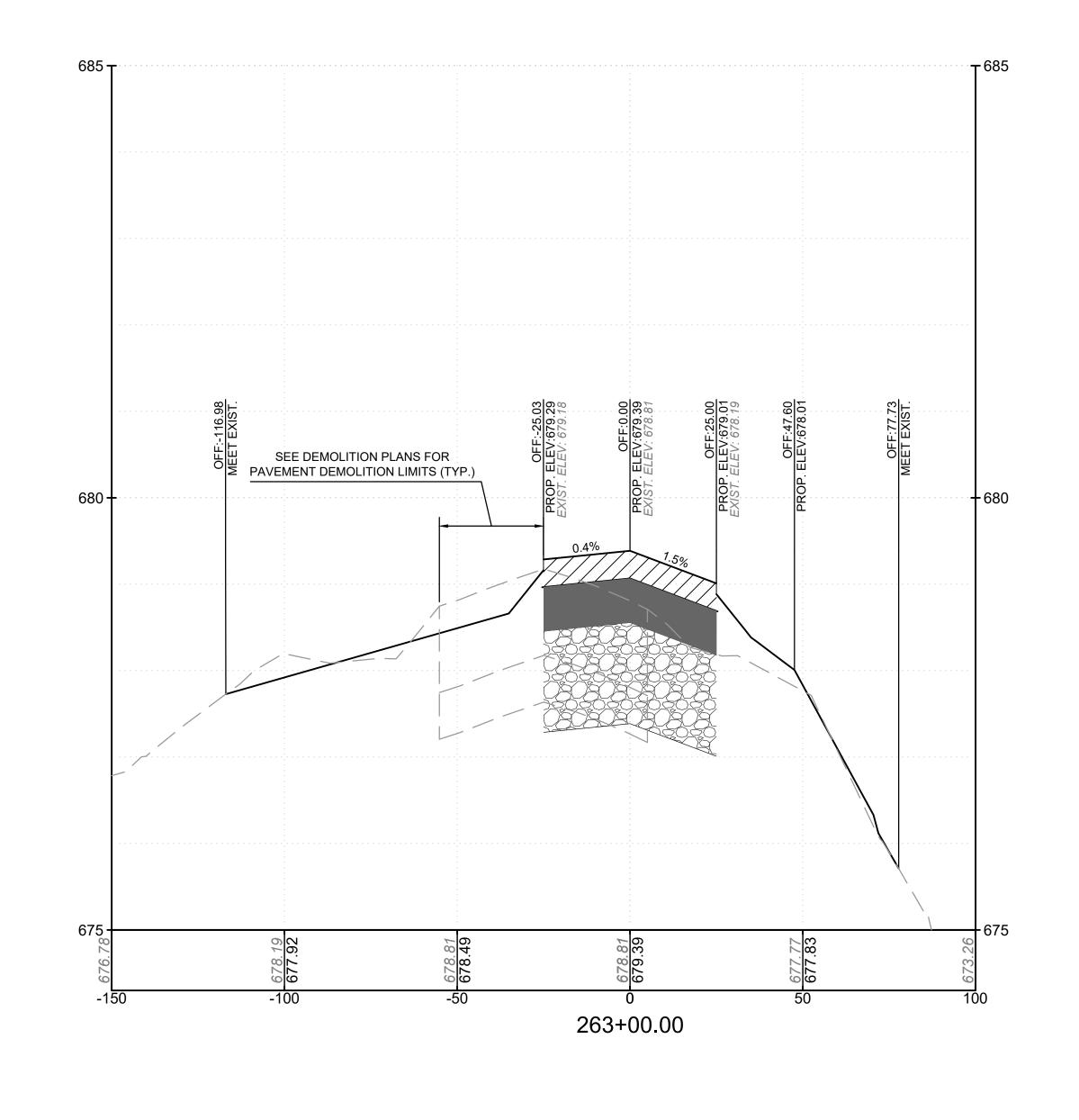
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

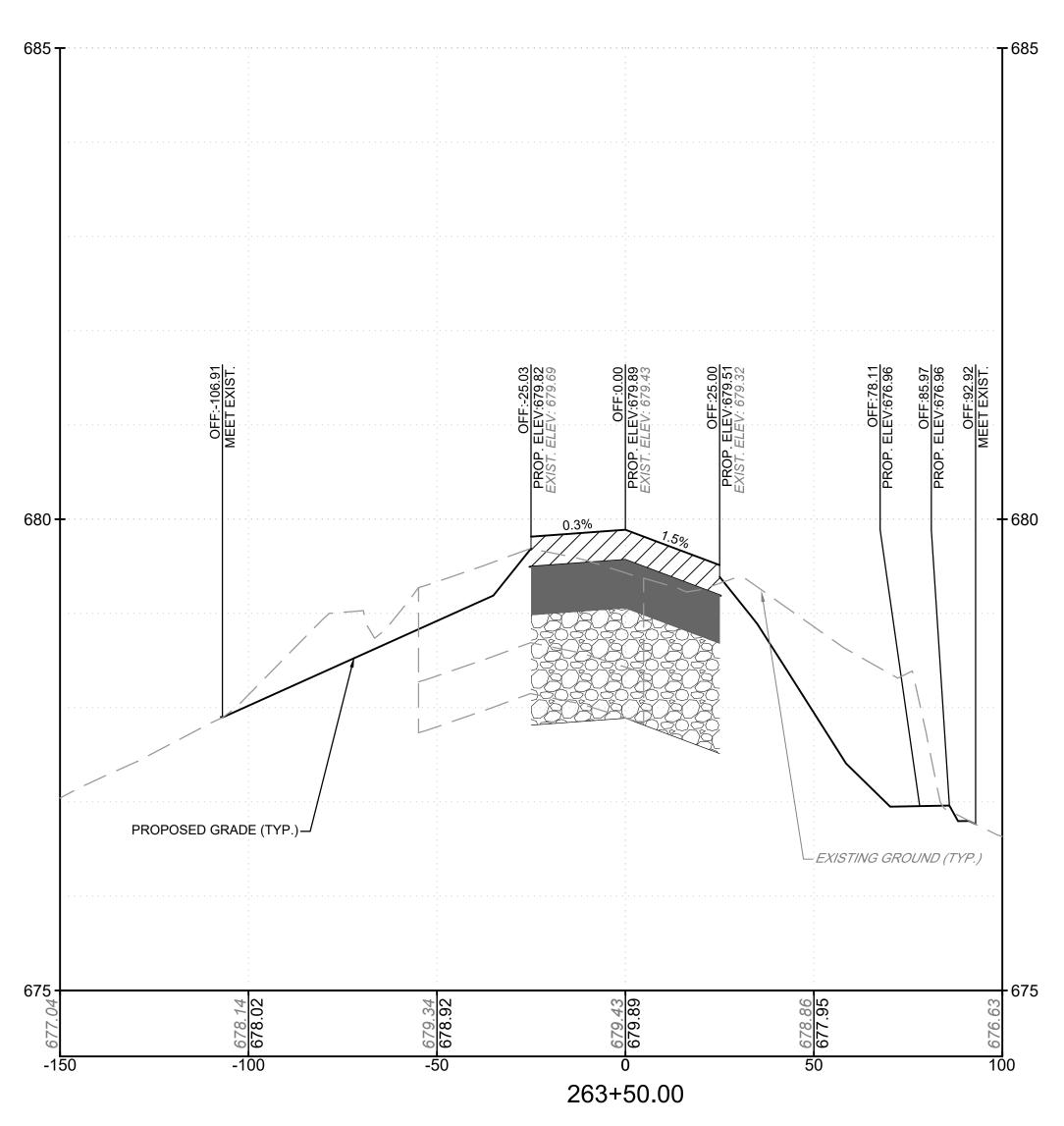
Z.A.F. CHECKED: M.P.P APPROVED: EXPIRATION DATE: 12-22-23 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C716 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:21pm

DESCRIPTIONS



PROJECT TITLE: TAXIWAY F R	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
SHEET TITLE:		
CROSS SE	SHEET NO.: C716	
SCALE: AS SHOWN	DATE: FEBRUARY 2023	52 OF 97







ASPHALT MIX SURFACE COURSE



ASPHALT MIX BASE COURSE



CRUSHED AGGREGATE BASE COURSE

<u>LEGEND</u>

662.00 EXISTING GROUND ELEVATION 662.60 PROPOSED GRADE ELEVATION

GRAPHIC SCALE VERTICAL GRAPHIC SCALE



FAX: 410.465.9602



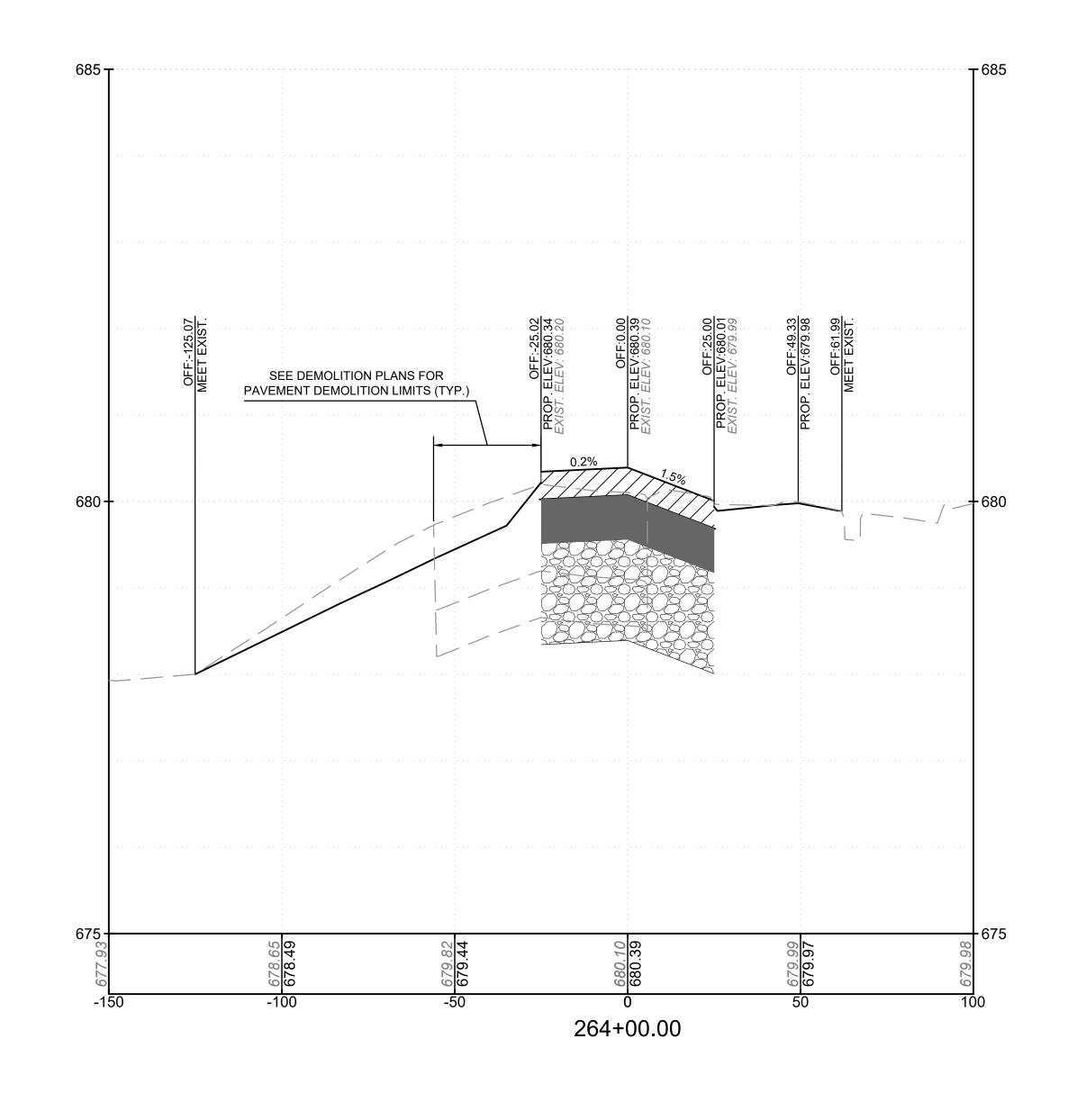
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

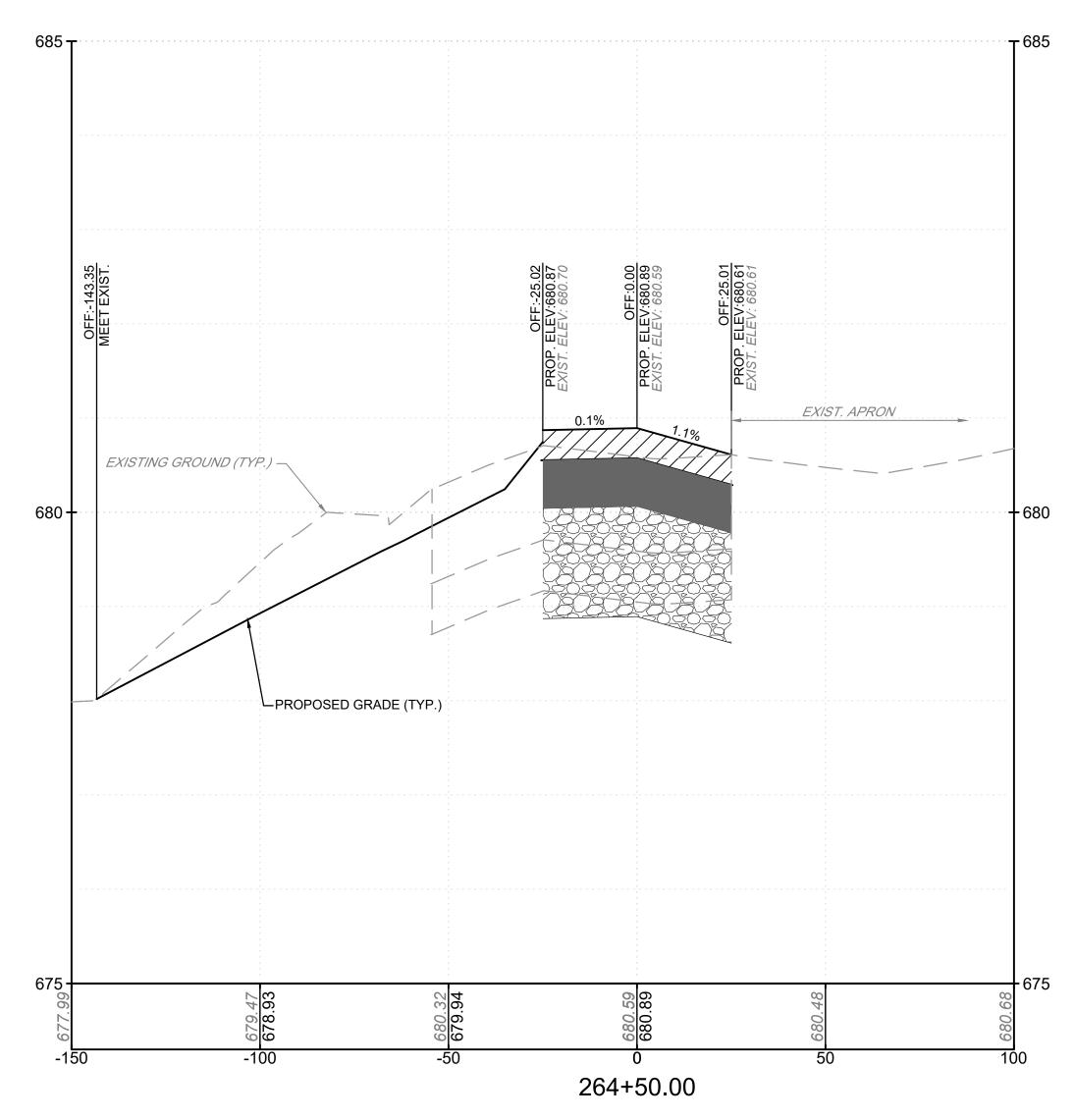
EXPIRATION DATE: <u>12-22-</u>23

DESCRIPTIONS DATE Z.A.F. CHECKED: M.P.P APPROVED: FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C717 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:22pm



			VERTICAL GRAPHIC SCALE
PROJECT TITLE: TAXIWAY F REHABILITATION			FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
SHEET TITLE:			
	CROSS SE	SHEET NO.:	
SCALE:	AS SHOWN	DATE: FEBRUARY 2023	53 OF 97

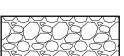




ASPHALT MIX SURFACE COURSE



ASPHALT MIX BASE COURSE

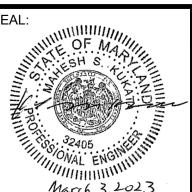


CRUSHED AGGREGATE BASE COURSE

<u>LEGEND</u> 662.00 EXISTING GROUND ELEVATION 662.60 PROPOSED GRADE ELEVATION

GRAPHIC SCALE VERTICAL GRAPHIC SCALE

6031 UNIVERSITY BLVD, SUITE 330 ELLICOTT CITY, MD 21043 TEL: 410.465.9600 FAX: 410.465.9602



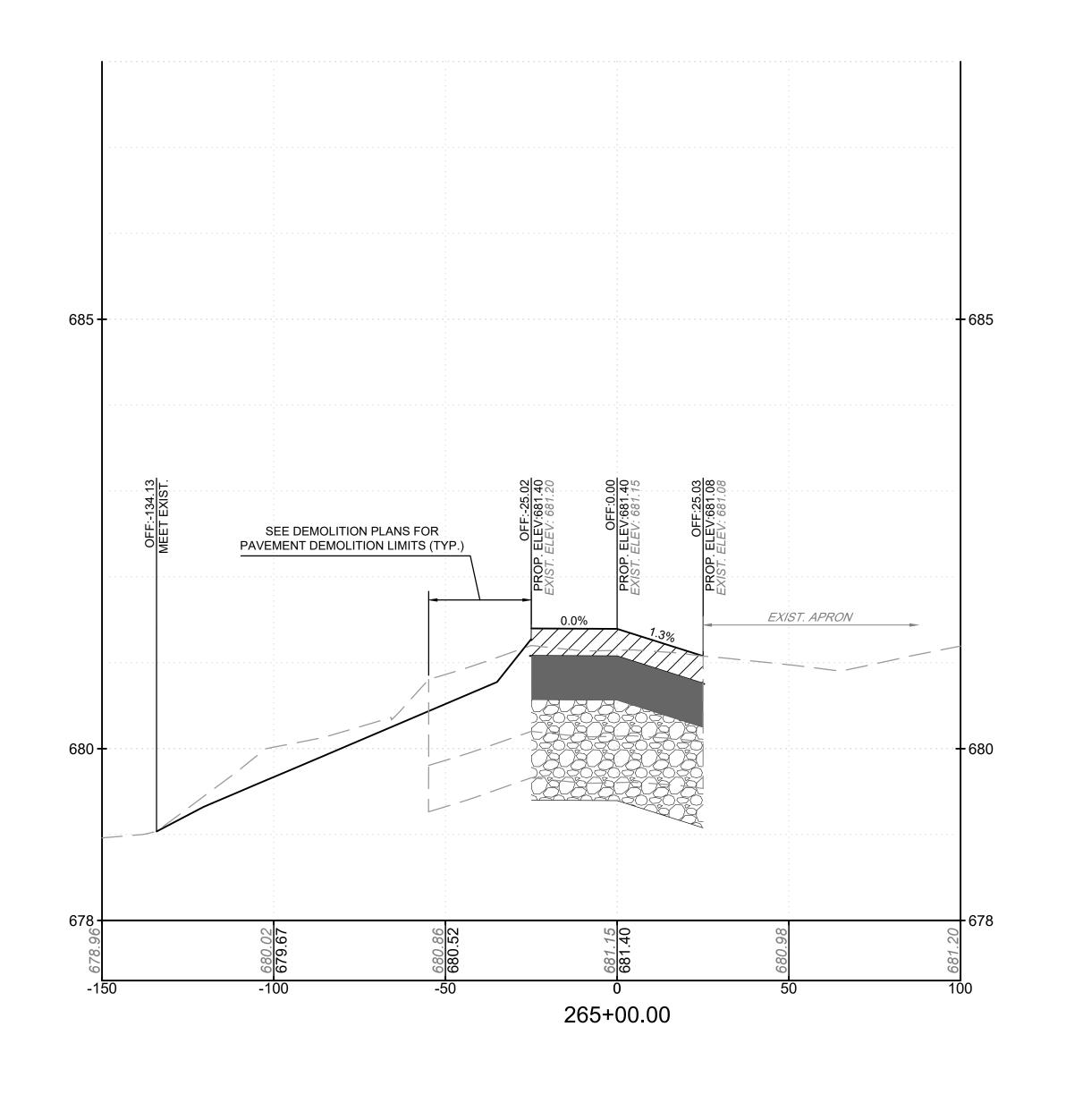
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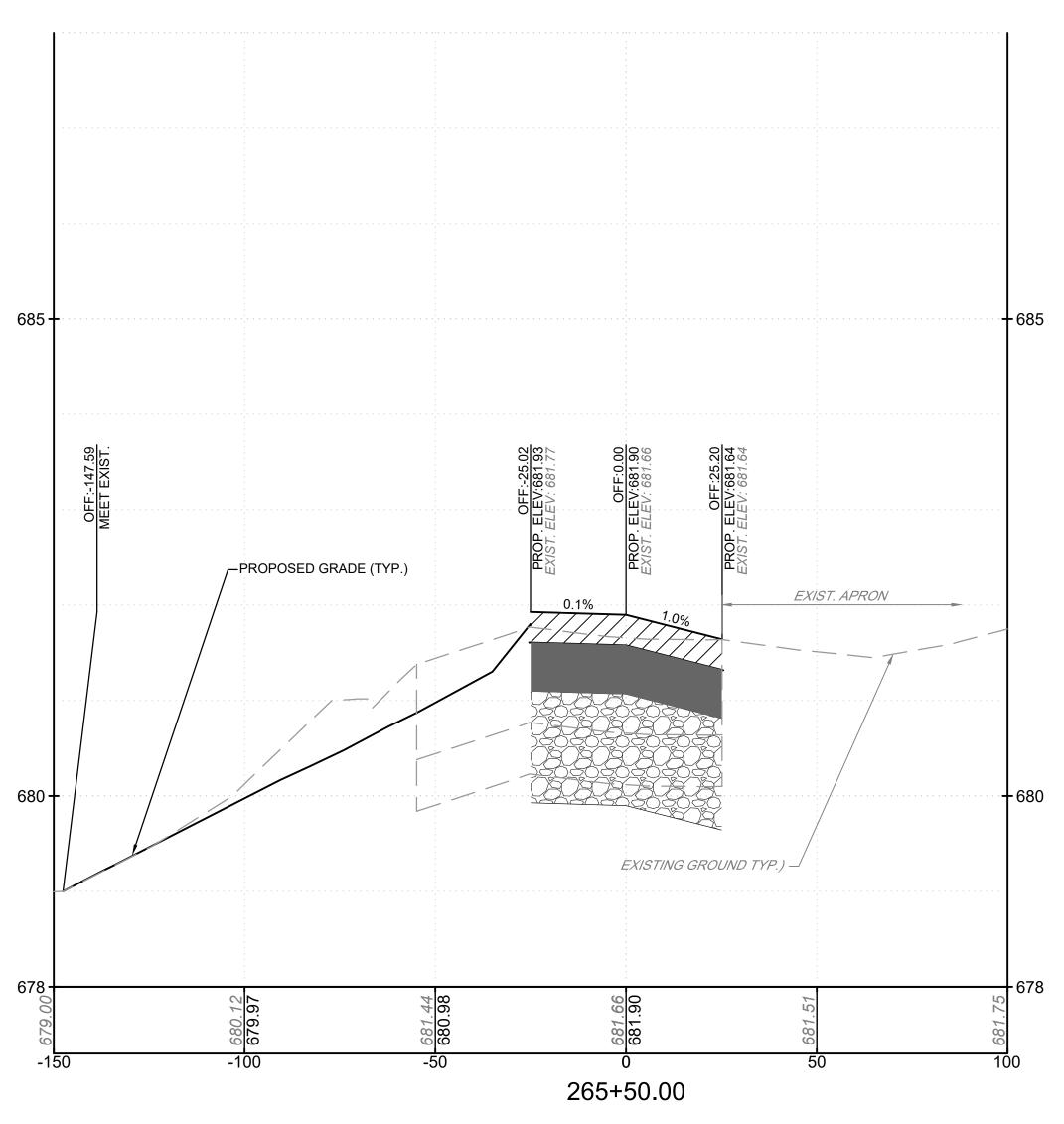
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PROJECT TITLE:	TAXIWAY F F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
SHEET TITLE:			
	CROSS SE	SHEET NO.: C718	
SCALE:	AS SHOWN	DATE: FEBRUARY 2023	54 OF 97

EXPIRATION DATE: 12-22-23 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C718 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:24pm

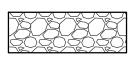




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ASPHALT MIX SURFACE COURSE

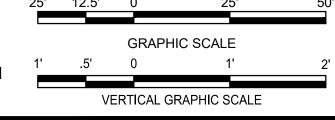
ASPHALT MIX BASE COURSE



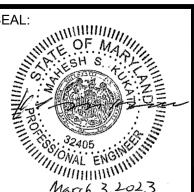
CRUSHED AGGREGATE BASE COURSE

LEGEND

662.00 EXISTING GROUND ELEVATION
662.60 PROPOSED GRADE ELEVATION



AIRPORT DESIGN CONSULTANTS
6031 UNIVERSITY BLVD, SUITE 330
ELLICOTT CITY, MD 21043
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ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND"

LICENSE NO. 32405

DESIGNED:
Z.A.F.

DRAWN:
G.C.S.

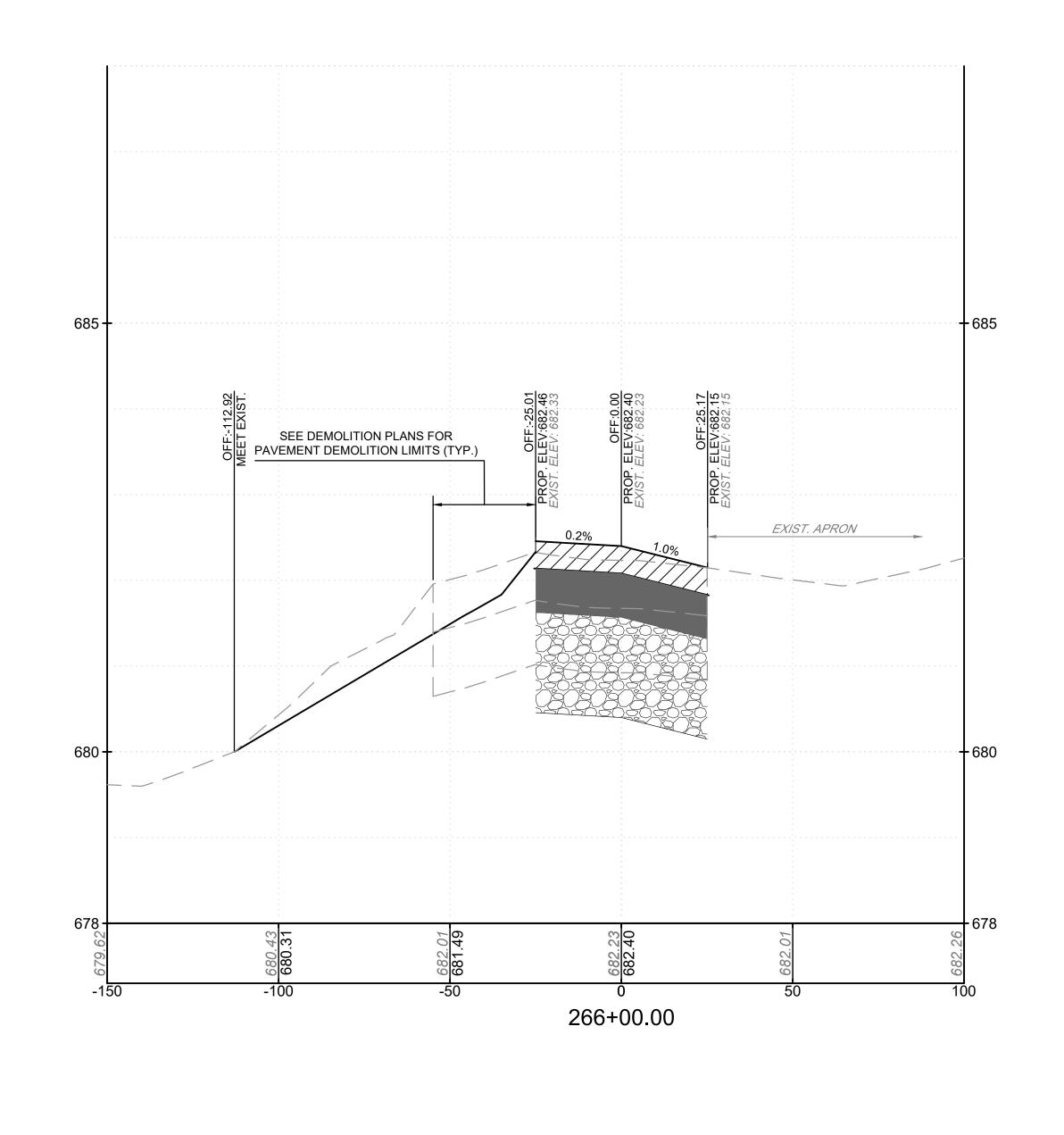
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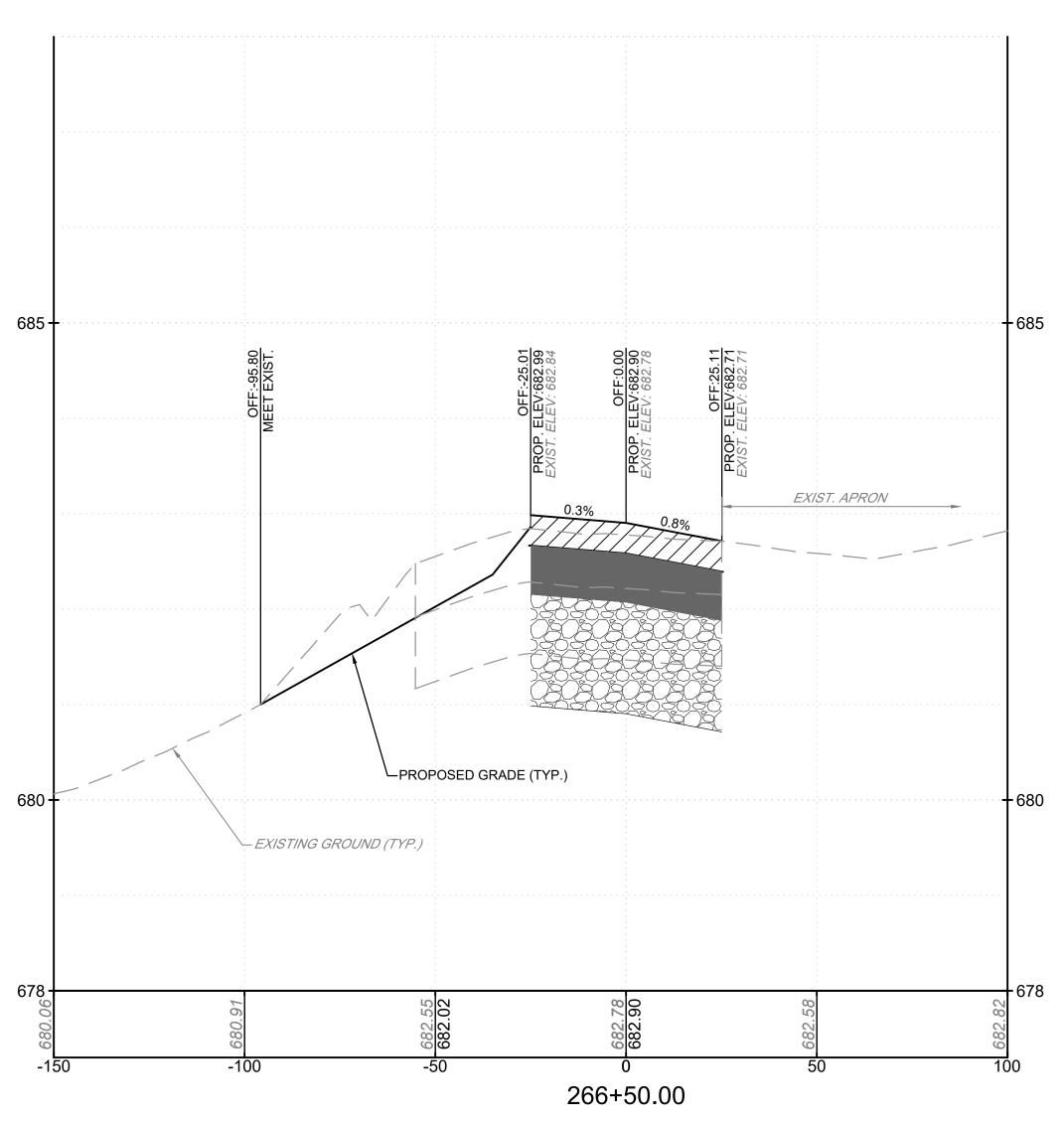
APPROVED:
M.S.K.



PROJECT TITLE:	TAXIWAY F R	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008		
SHEET TITLE:				
CROSS SECTIONS 20				SHEET NO.:
	ONOGO GE	C719		
SCALE:	AS SHOWN	DATE:	FEBRUARY 2023	0710
	AS SHOWN		I LBINDAINT 2023	55 OF 97

FAX: 410.465.9602 March 3, 2023 EXPIRATION DATE: 12-22-23 M.S.I. FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C719 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:25pm





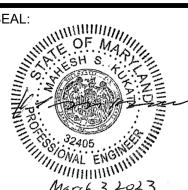
ASPHALT MIX SURFACE COURSE

ASPHALT MIX BASE COURSE

CRUSHED AGGREGATE BASE COURSE

<u>LEGEND</u>		25'	12.5'	0	25'	50
662.00 662.60	EXISTING GROUND ELEVATION PROPOSED GRADE ELEVATION	1'	.5' VI	0	IC SCALE 1' RAPHIC SCALE	2





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THESE DOCUMENTS WERE
PREPARED OR APPROVED BY
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LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND"

LICENSE NO. 32405

EXPIRATION DATE: 12-22-23

DESIGNED:
Z.A.F.

DRAWN:
G.C.S.

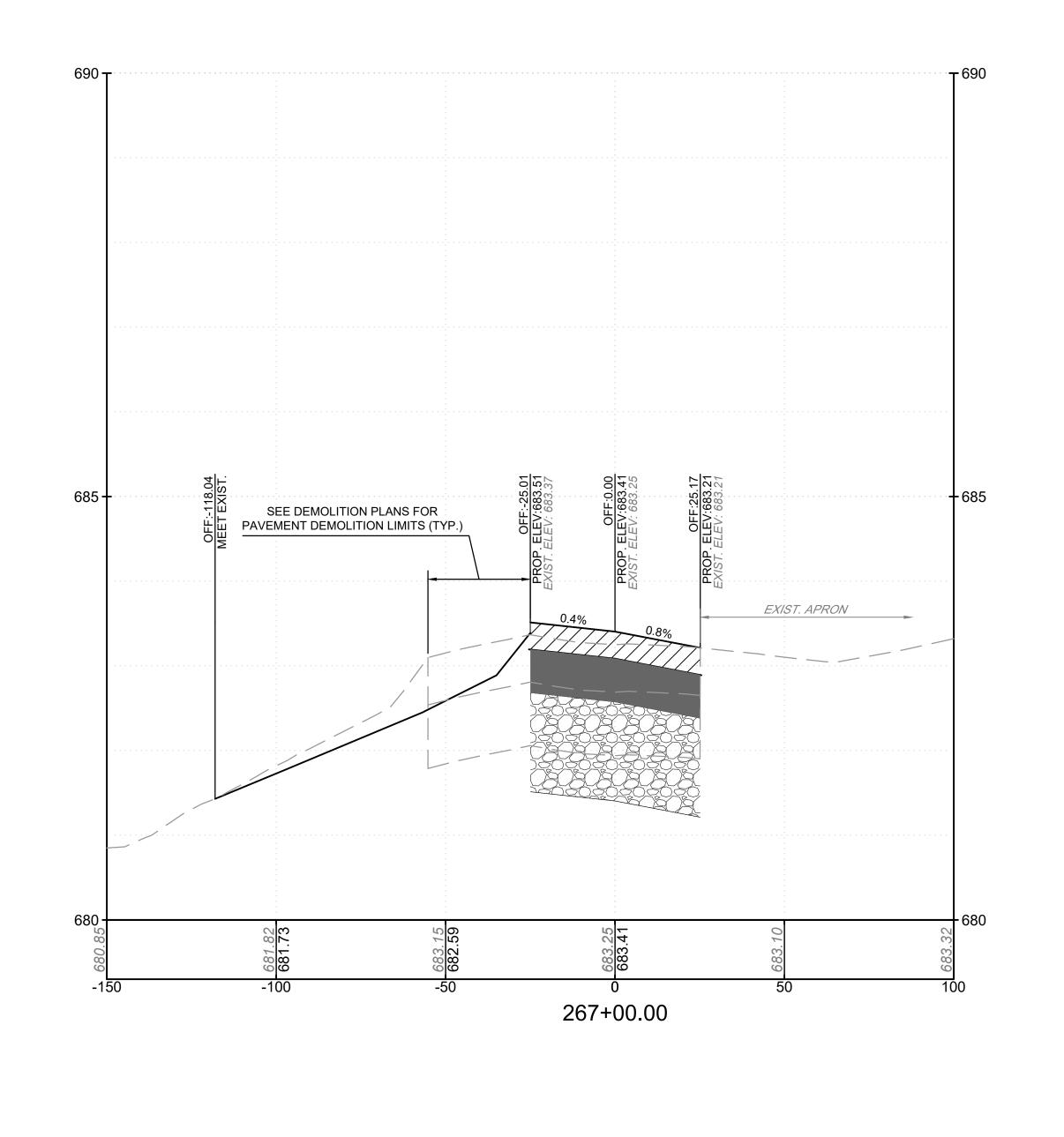
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M.P.P

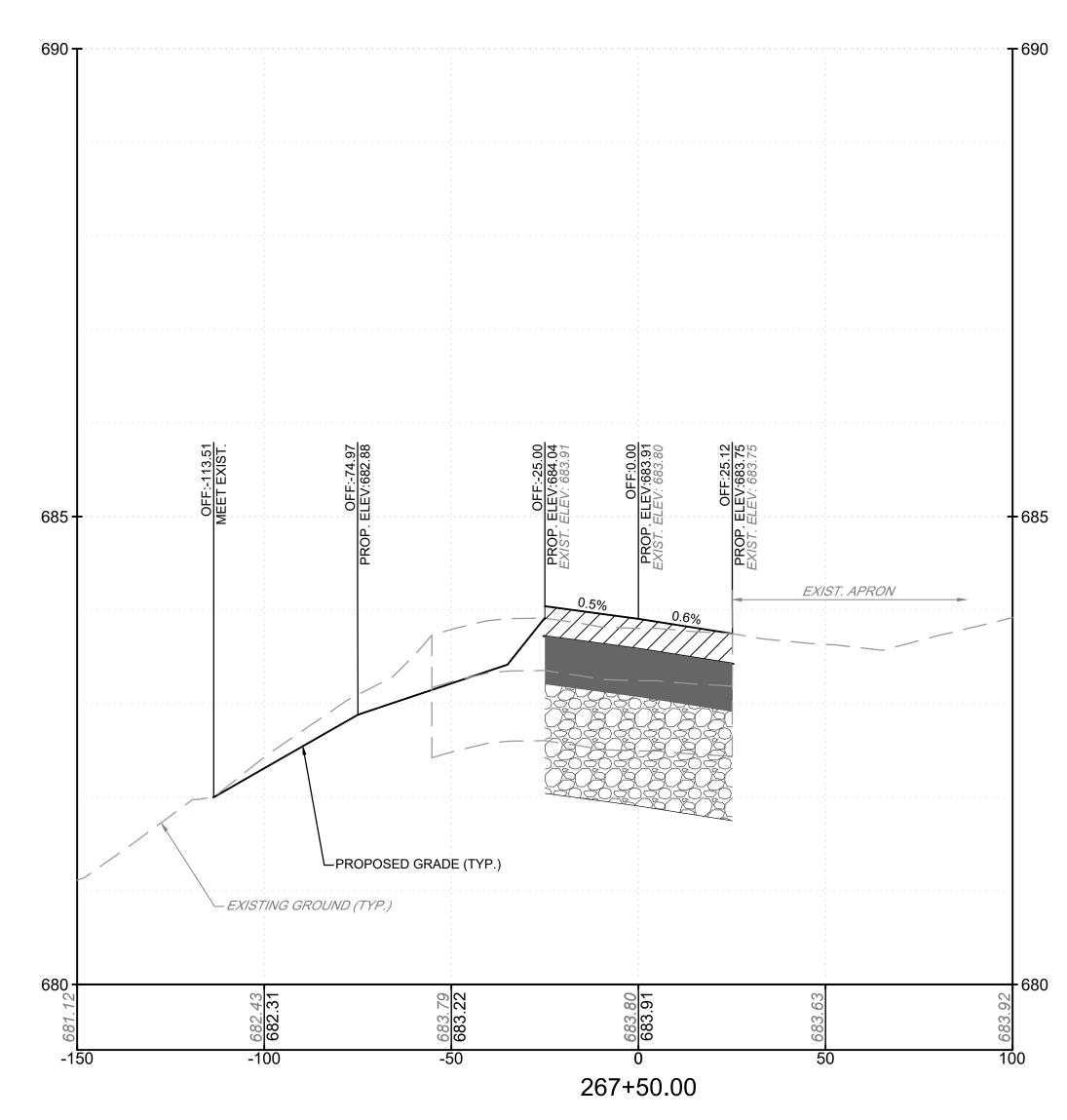
APPROVED:
M.S.K.



			VERTICAL GRAPHIC SCALE
)JECT TITLE:	TAXIWAY F F	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
ET TITLE:			
	CROSS SE	CTIONS 21	SHEET NO.:
		CTIONS 21	C720
ALE:	AS SHOWN	DATE: FEBRUARY 2023	56 OF 97

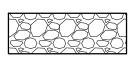
FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C720 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:27pm





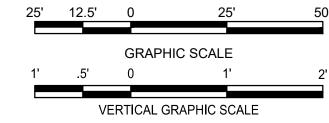
ASPHALT MIX SURFACE COURSE

ASPHALT MIX BASE COURSE

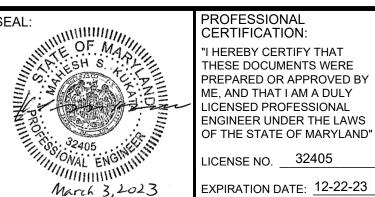


CRUSHED AGGREGATE BASE COURSE

LEGEND 662.00 EXISTING GROUND ELEVATION PROPOSED GRADE ELEVATION



AIRPORT DESIGN CONSULTANTS 6031 UNIVERSITY BLVD, SUITE 330 ELLICOTT CITY, MD 21043 TEL: 410.465.9600 FAX: 410.465.9602

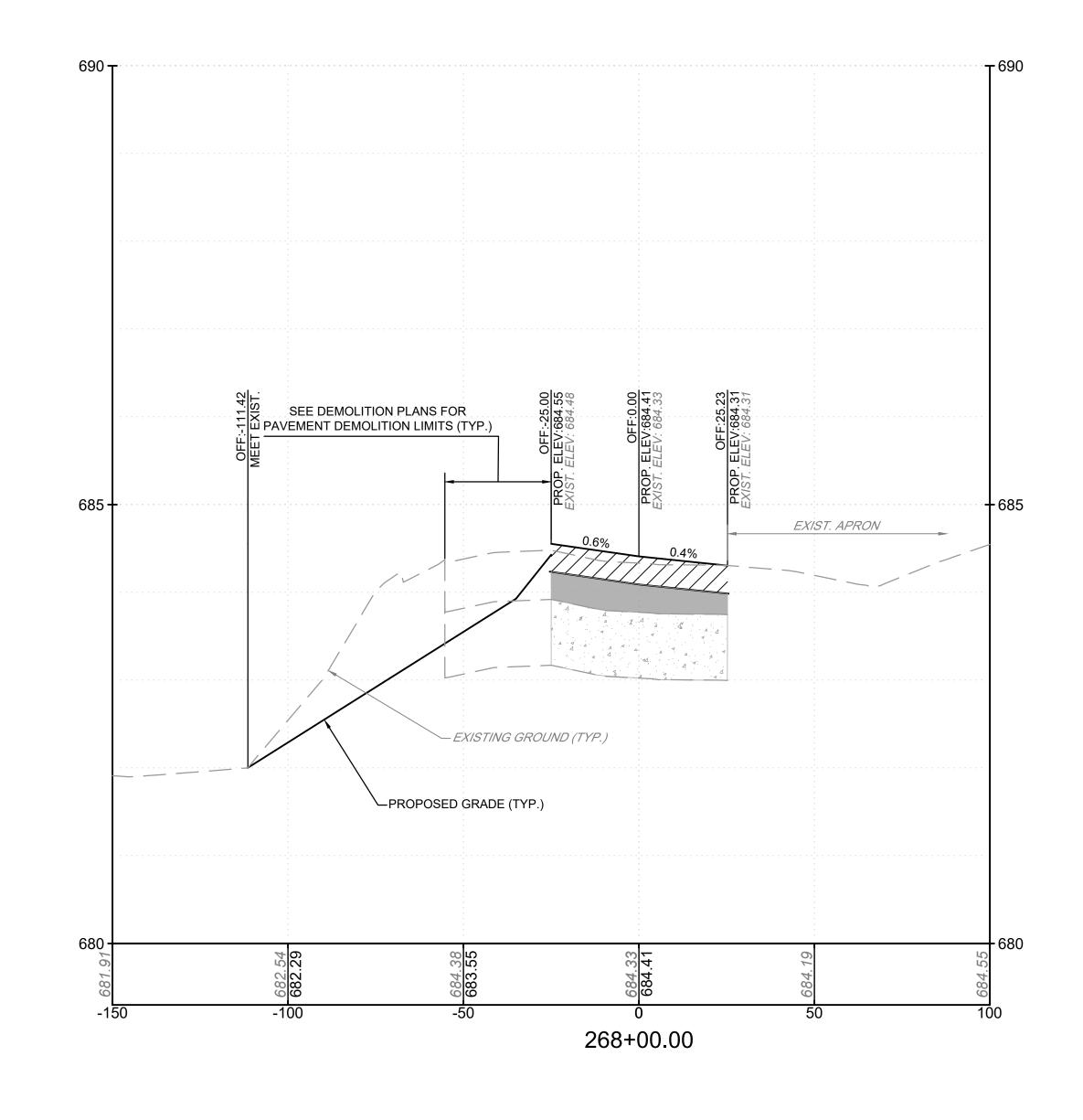


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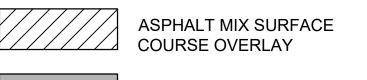
REVISION REVISION NO. DATE DESCRIPTIONS Z.A.F. CHECKED: M.P.P APPROVED: FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C721 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:29pm



			VERTICAL GRAPHIC SCALE		
OJECT TITLE:	TAXIWAY F REHABILITATION		FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008		
EET TITLE:			1		
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ALE:	AS SHOWN	DATE: FEBRUARY 2023	57 OF 97		





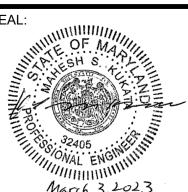


EXISTING ASPHALT PAVEMENT

EXISTING CONCRETE PAVEMENT

LEGEND		25'	12.5'	0	25'	50'
662.00 662.60	EXISTING GROUND ELEVATION PROPOSED GRADE ELEVATION	1'	.5' VE	0	IC SCALE 1' RAPHIC SCALE	2'

AIRPORT DESIGN CONSULTANTS
6031 UNIVERSITY BLVD, SUITE 330
ELLICOTT CITY, MD 21043
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FAX: 410.465.9602



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LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND"

LICENSE NO. ____32405

DESIGNED:
Z.A.F.

DRAWN:
G.C.S.

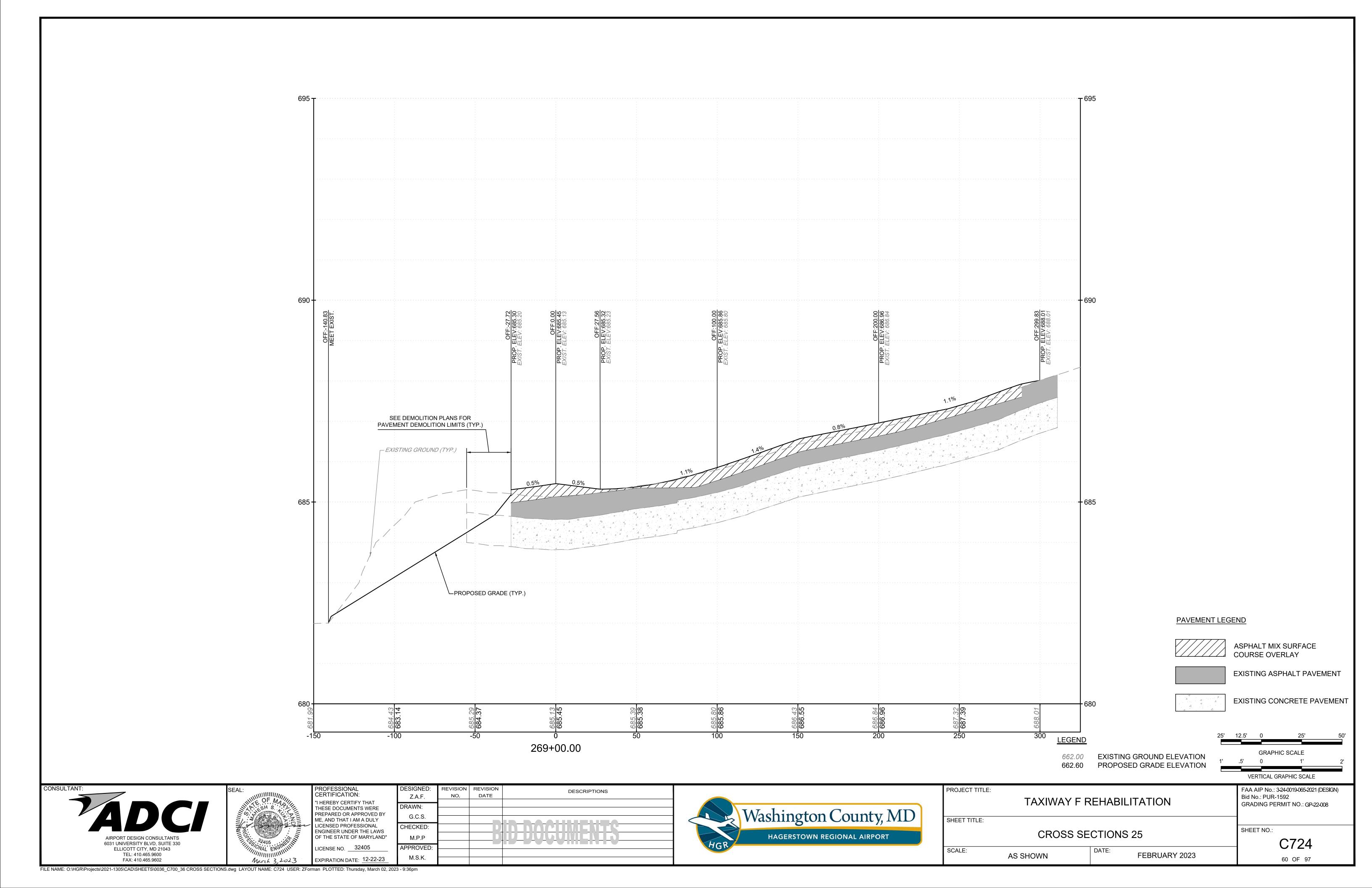
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M.P.P

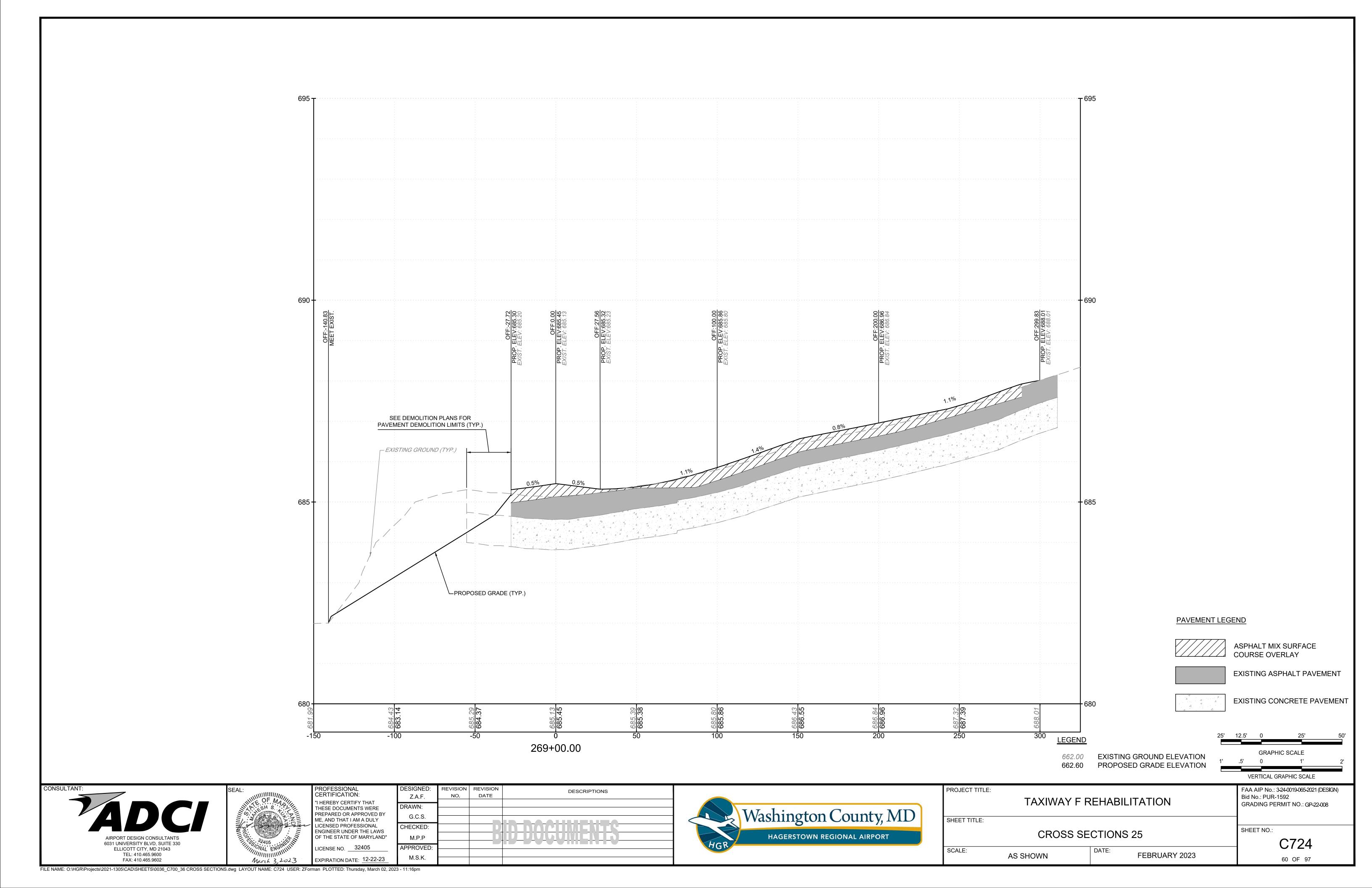
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M.S.K.

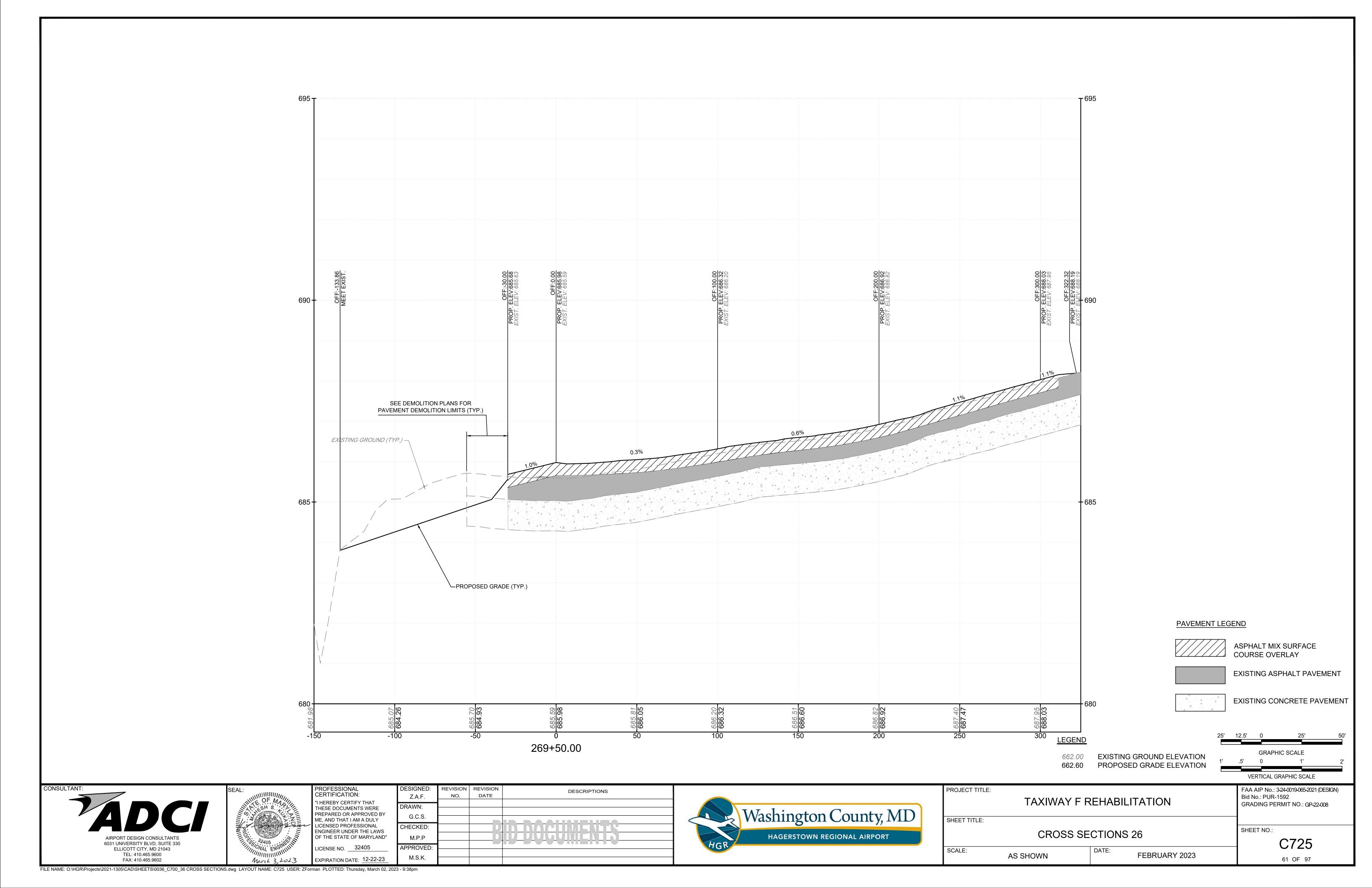


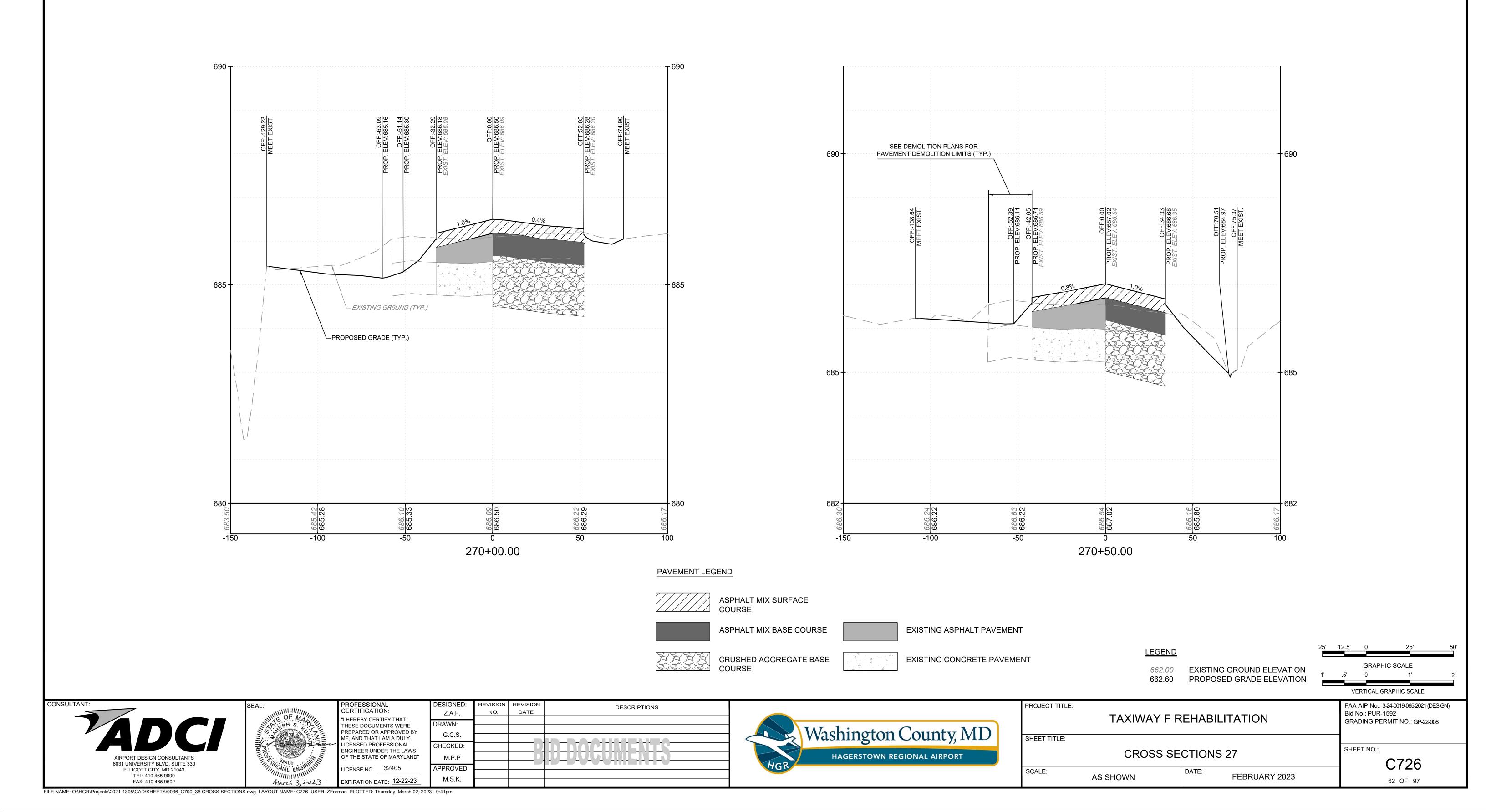
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PROJECT TITLE: TAXIWAY F REHABILITATION			FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
SHEET TITLE:			
	CROSS SE	CTIONS 23	SHEET NO.: C722
SCALE:	AS SHOWN	DATE: FEBRUARY 2023	58 OF 97

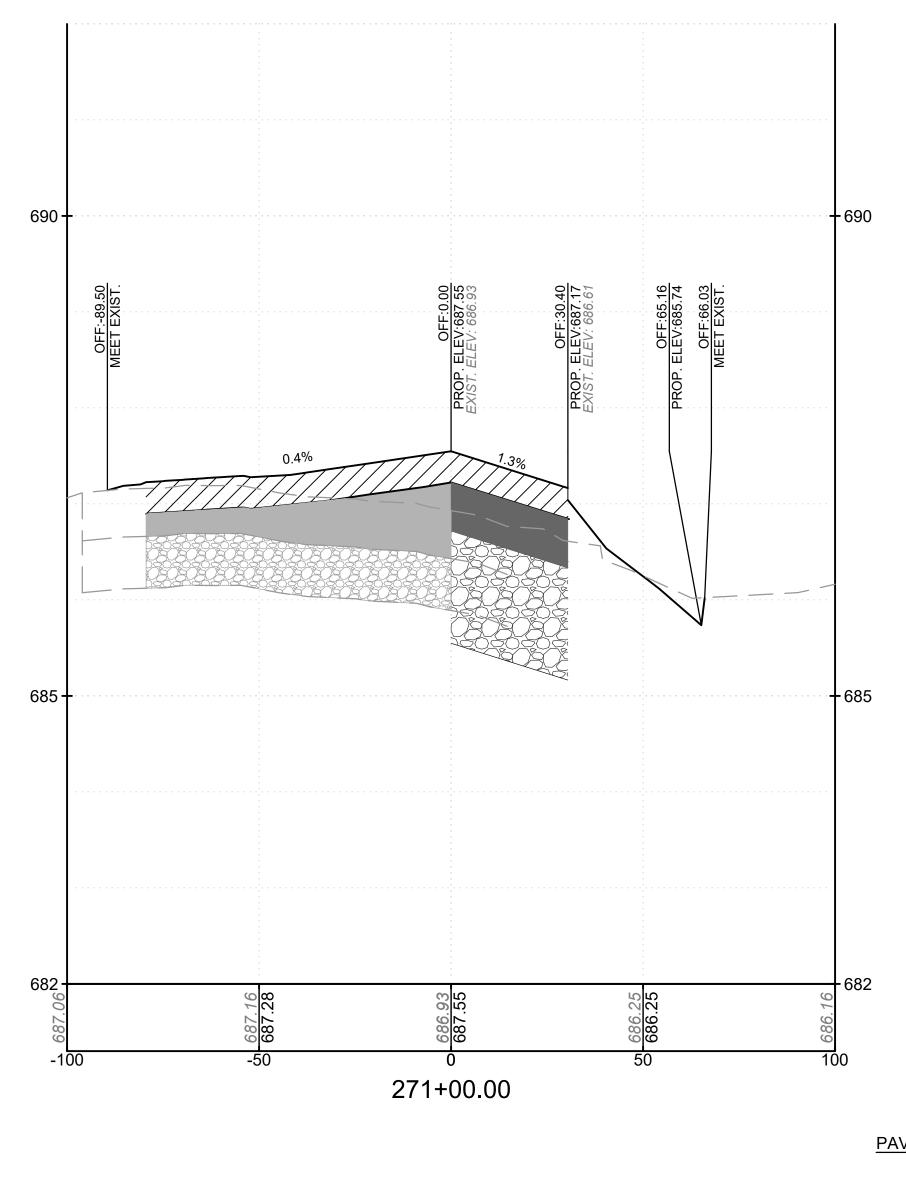
FAX: 410.465.9602 March 3, 2023 EXPIRATION DATE: 12-22-23 M.S.I. FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0036_C700_36 CROSS SECTIONS.dwg LAYOUT NAME: C722 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 9:31pm

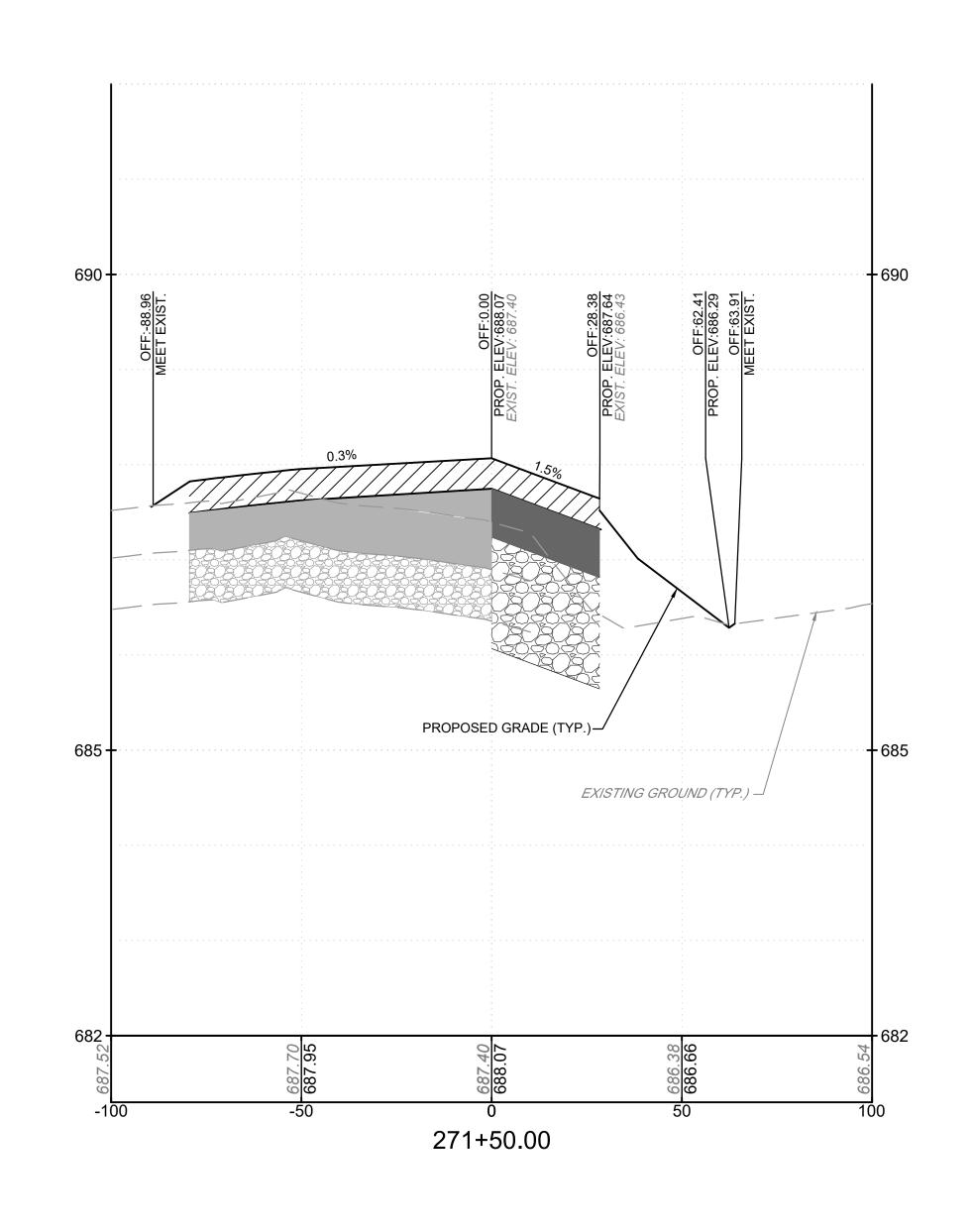














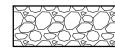
ASPHALT MIX SURFACE COURSE



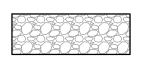
ASPHALT MIX BASE COURSE



EXISTING ASPHALT PAVEMENT



CRUSHED AGGREGATE BASE COURSE

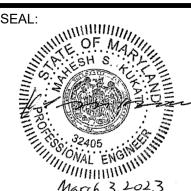


EXISTING CRUSHED AGGREGATE BASE COURSE

<u>LEGEND</u> 662.00 EXISTING GROUND ELEVATION PROPOSED GRADE ELEVATION

GRAPHIC SCALE VERTICAL GRAPHIC SCALE

AIRPORT DESIGN CONSULTANTS 6031 UNIVERSITY BLVD, SUITE 330 ELLICOTT CITY, MD 21043 TEL: 410.465.9600 FAX: 410.465.9602



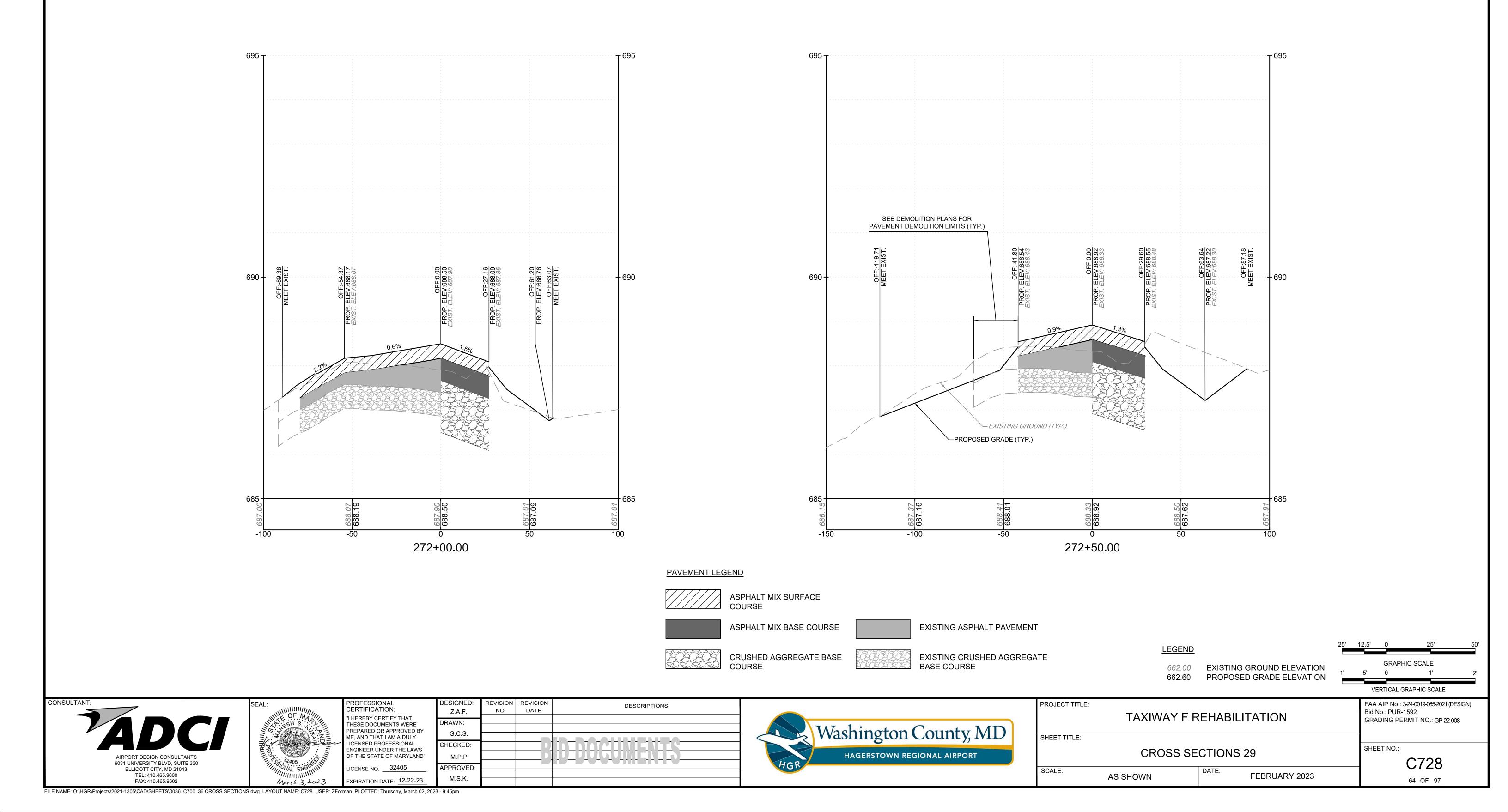
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

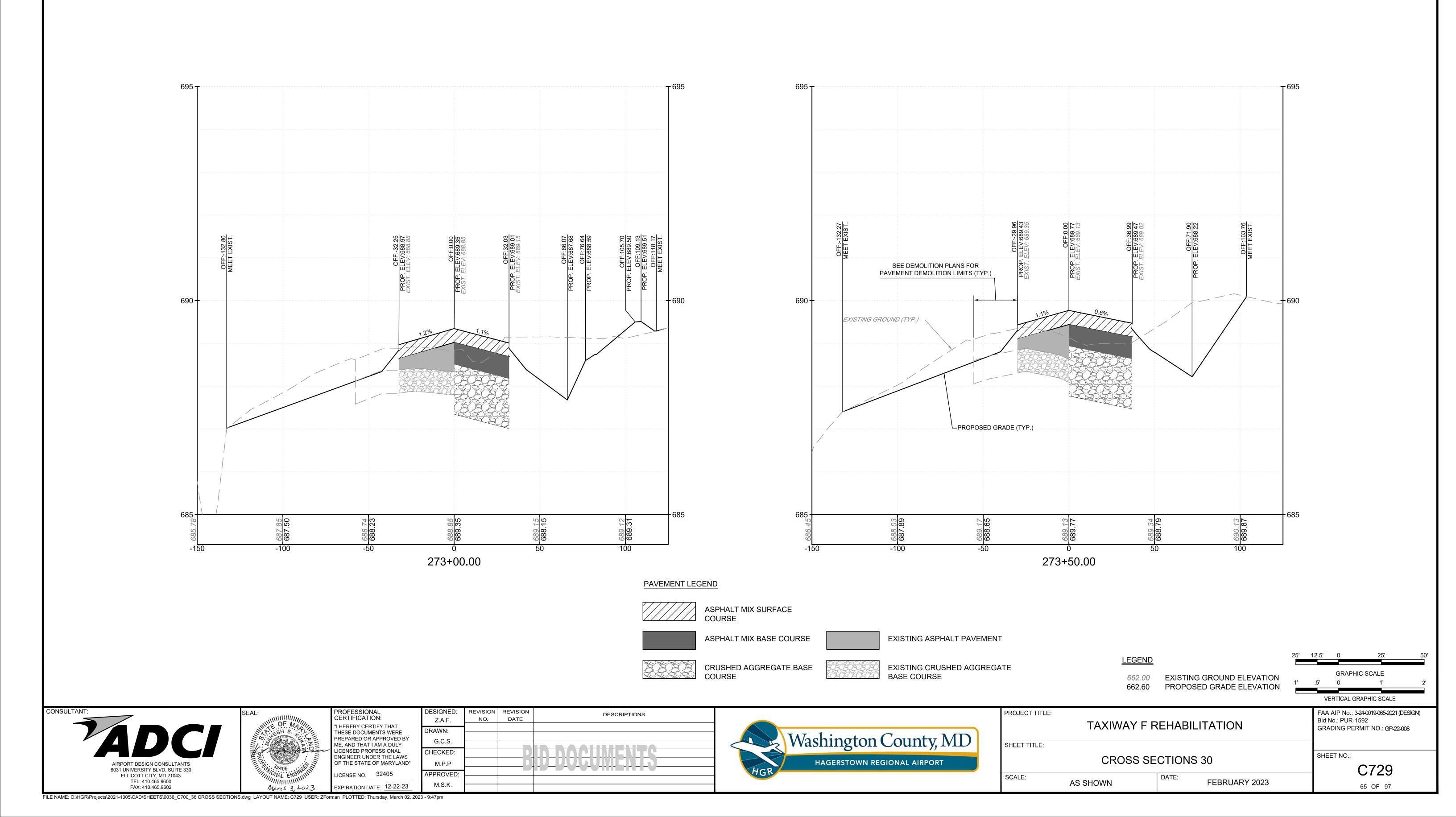
DESCRIPTIONS Z.A.F. CHECKED: M.P.P APPROVED: EXPIRATION DATE: 12-22-23

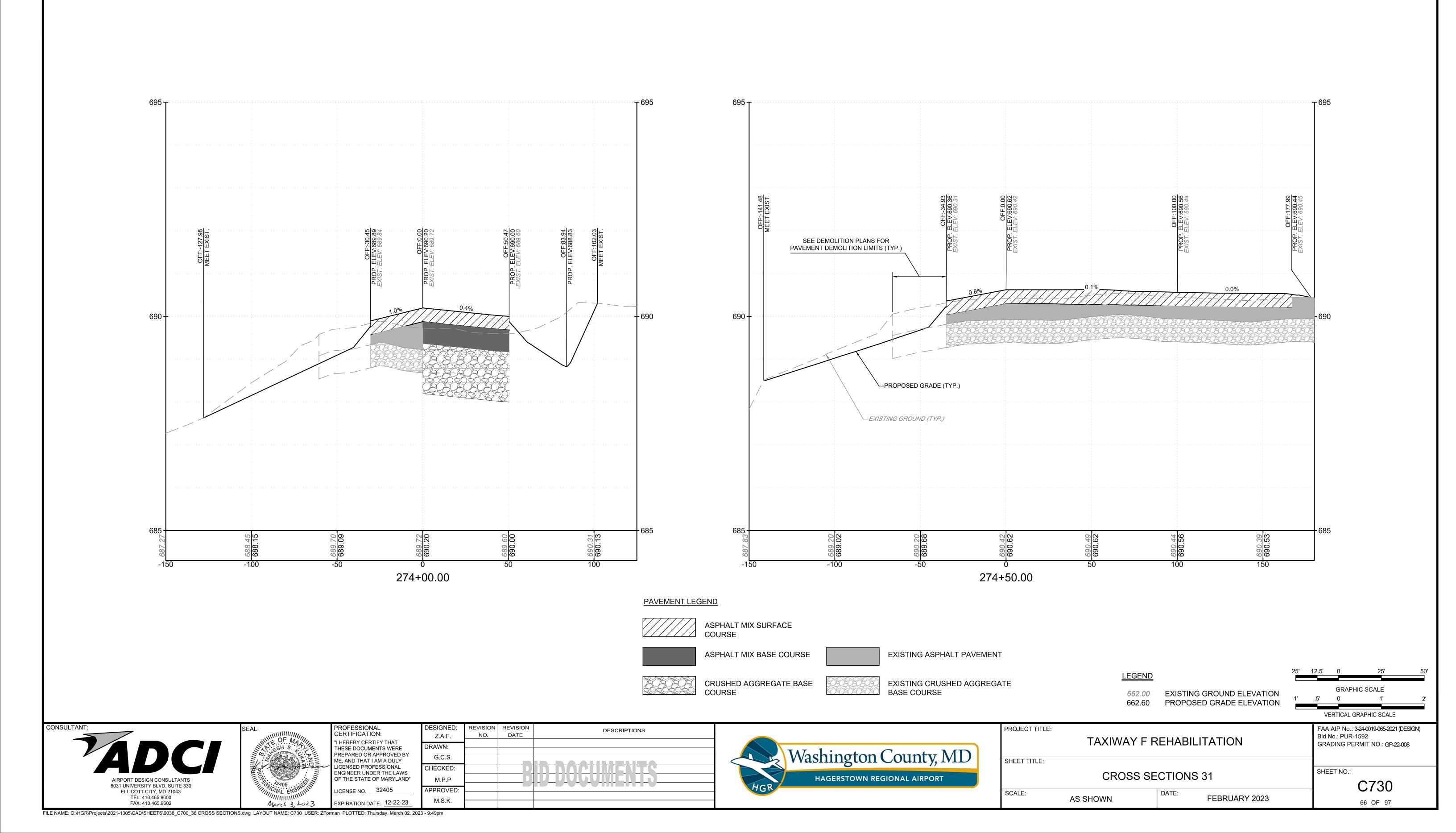


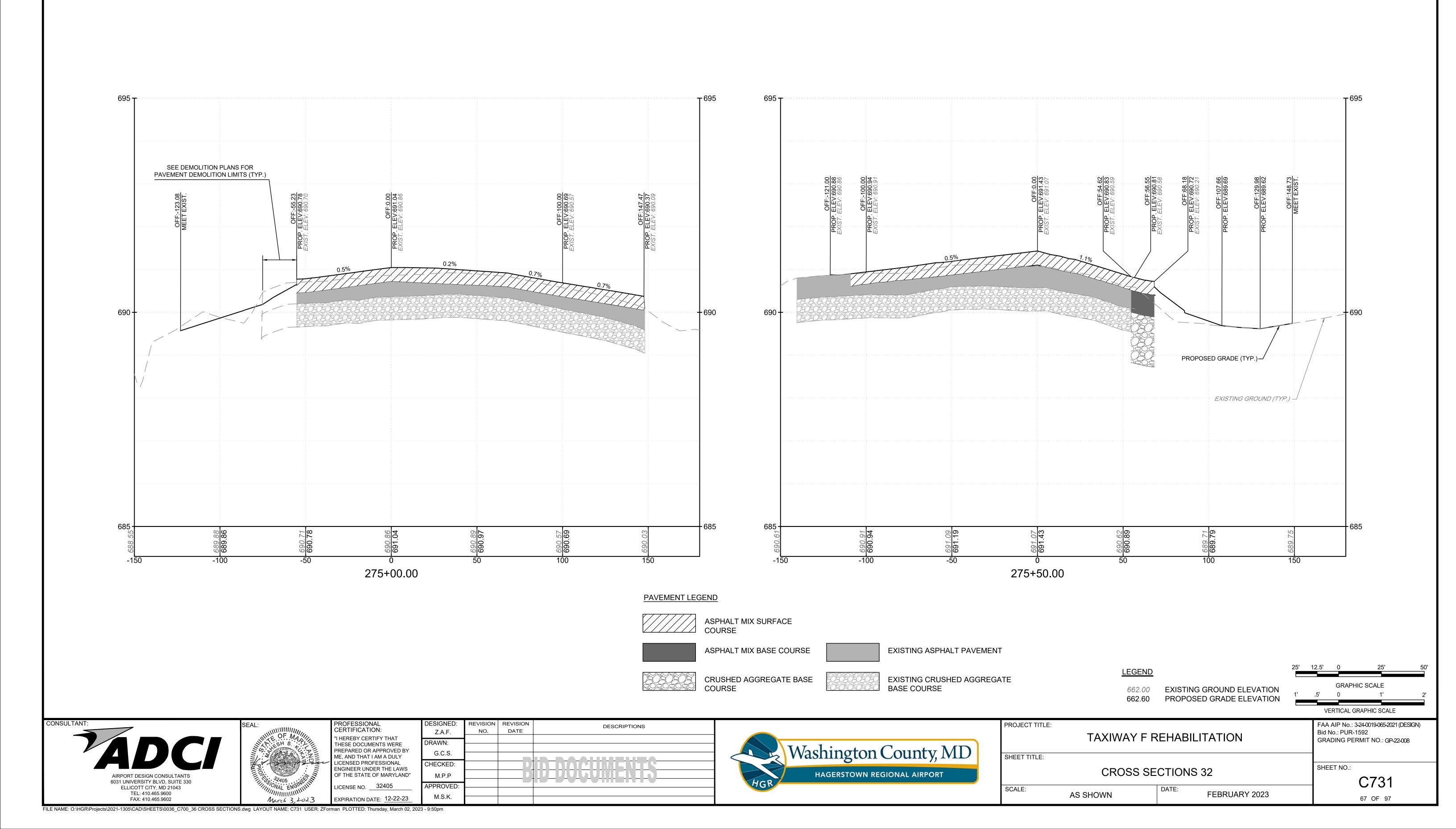
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DJECT TITLE:	TAXIWAY F R	EHABILITATION	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
ET TITLE:			
CROSS SECTIONS 28			SHEET NO.:
	CINOSS SE	CTIONS 20	C727
ALE:	AS SHOWN	DATE: FEBRUARY 2023	63 OF 97

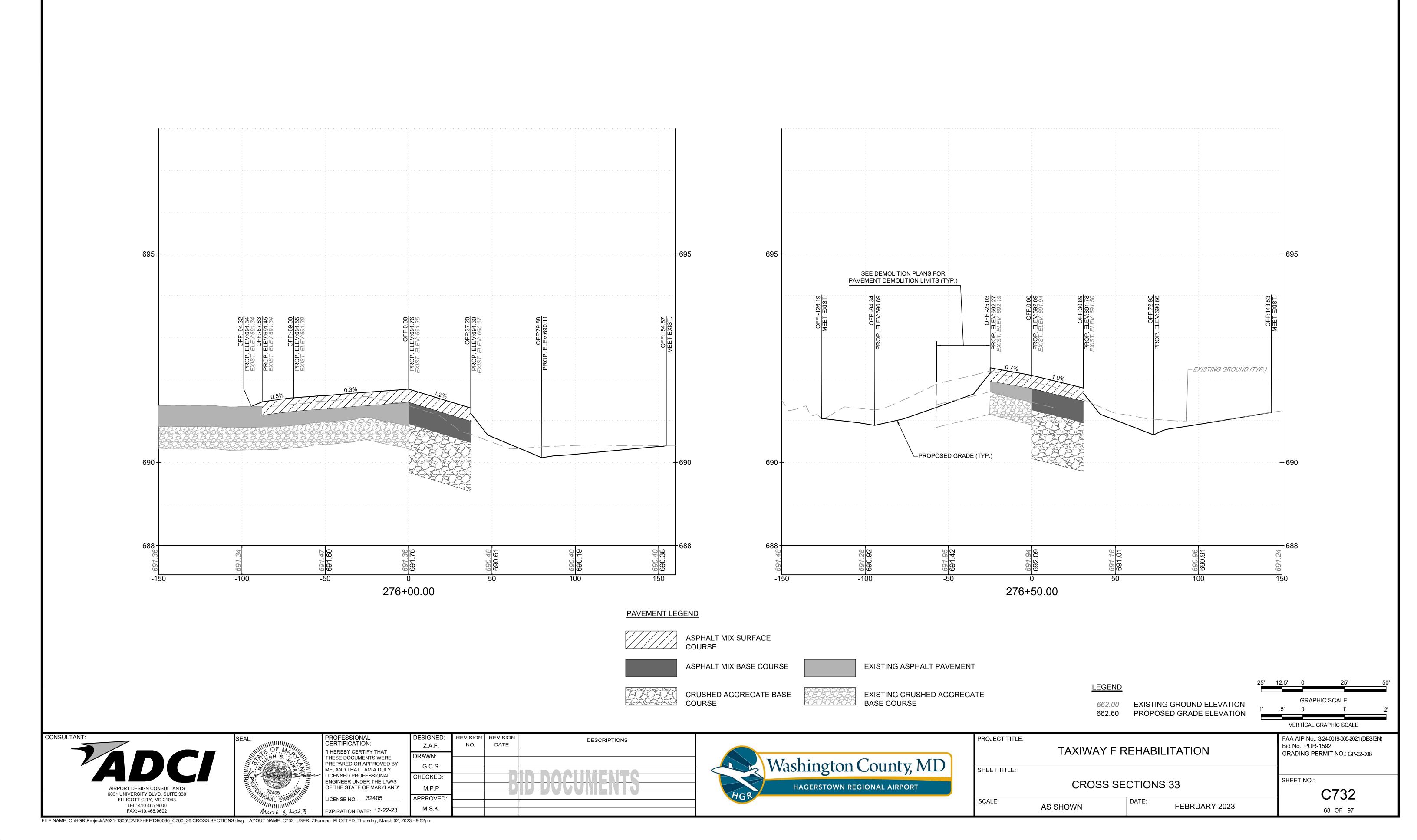
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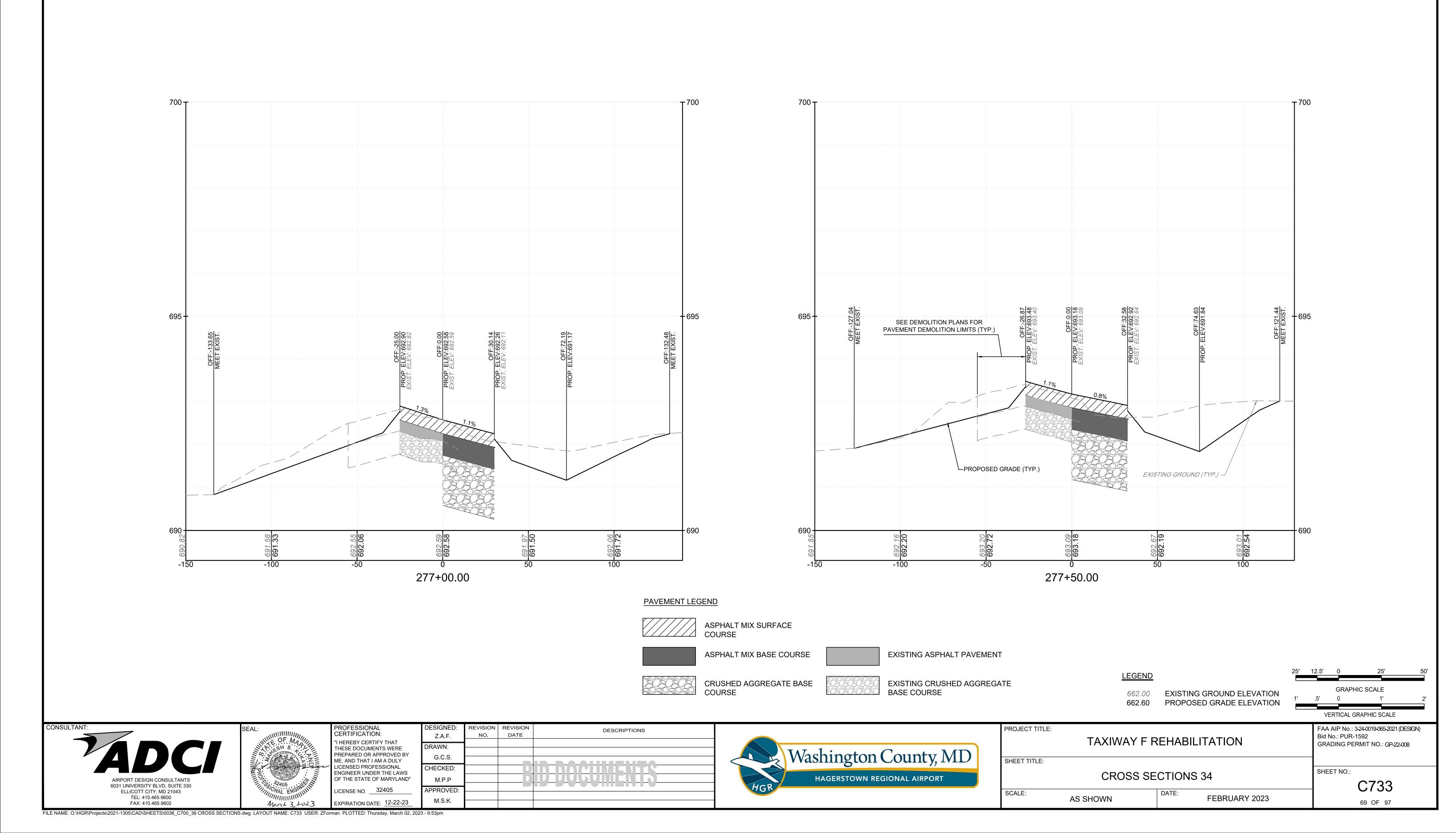


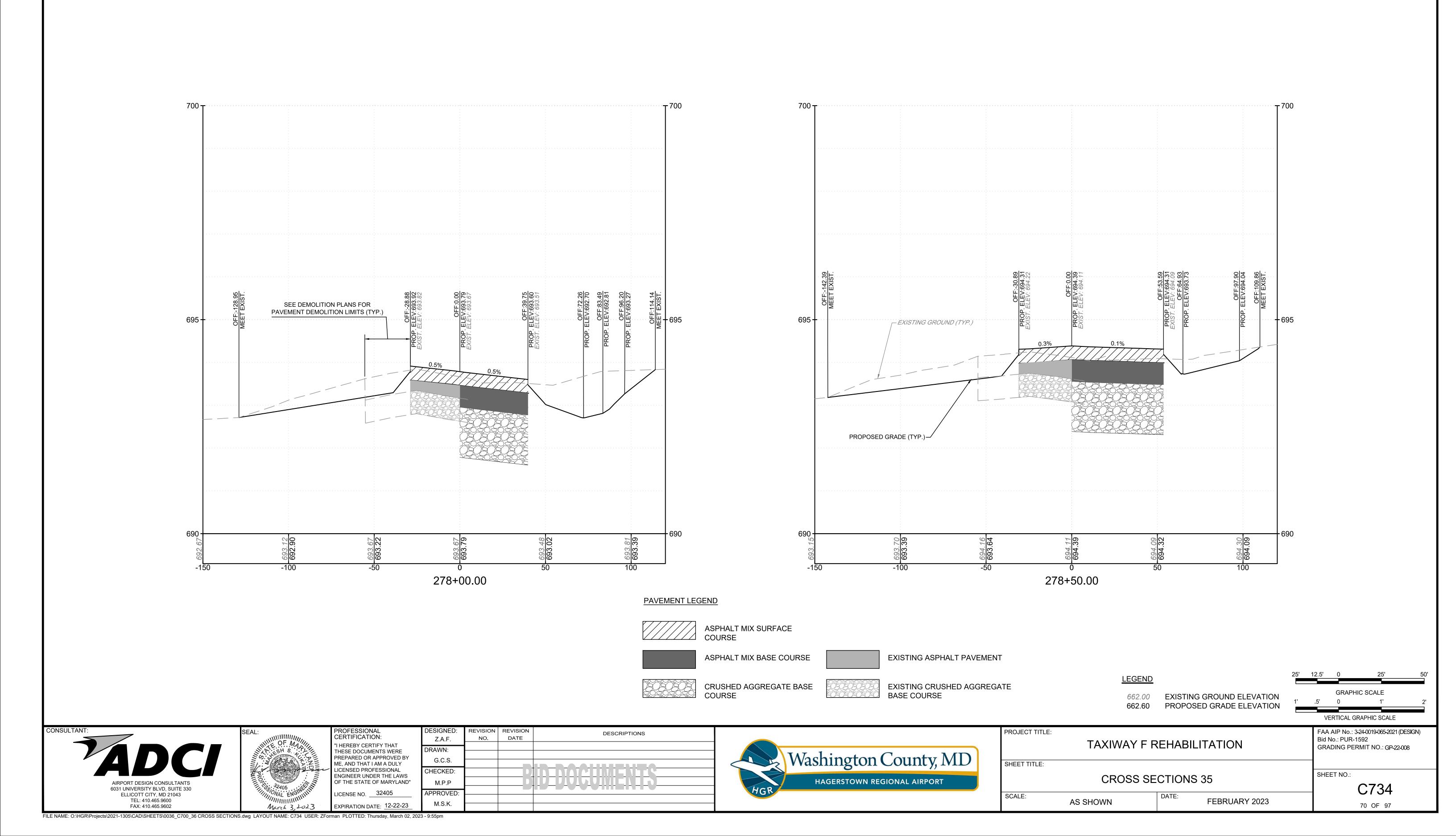


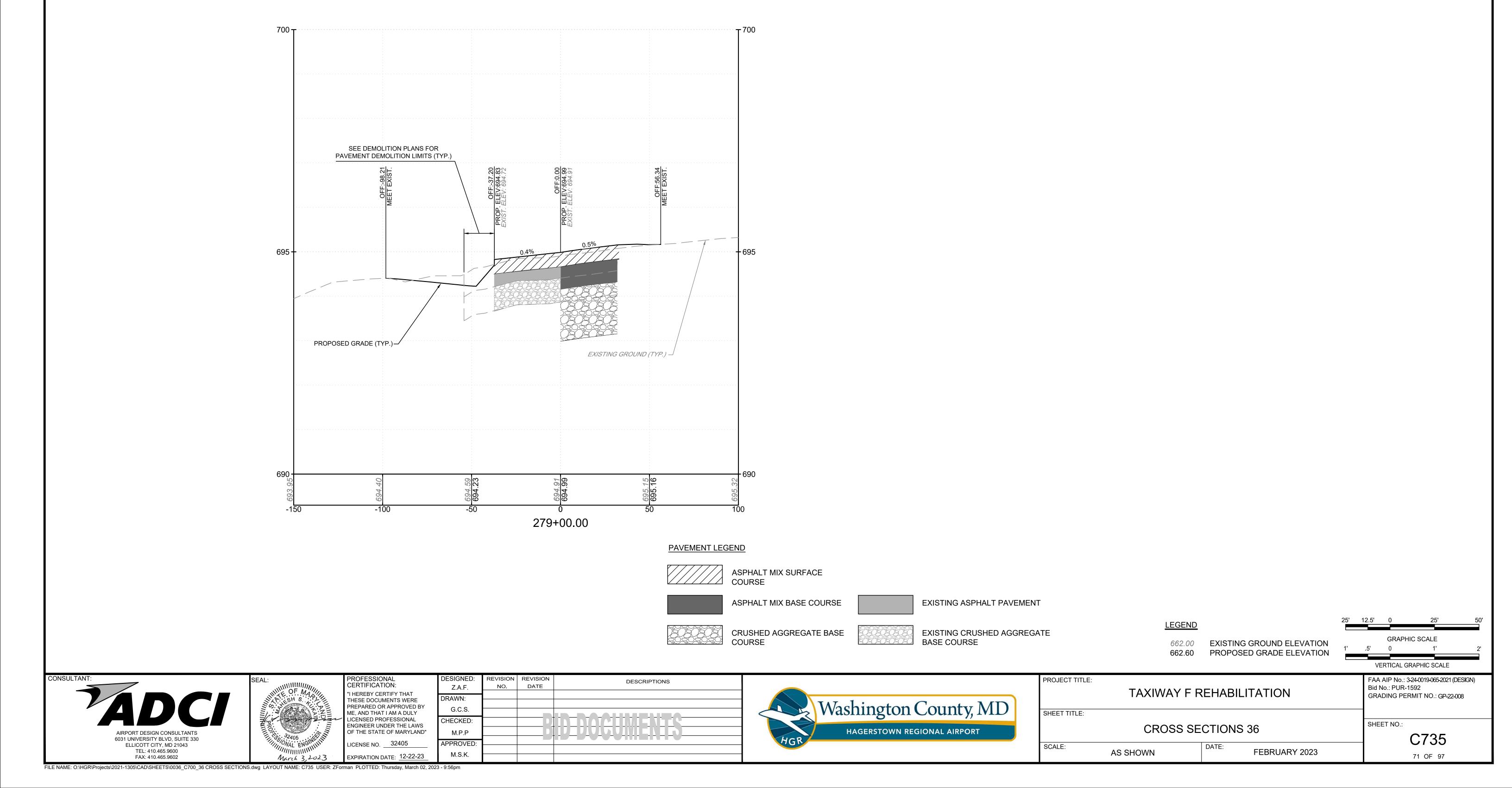












GENERAL NOTES:

- 1. CONSTRUCTION AND MAINTENANCE BY OTHERS MAY OCCUR CONCURRENTLY AND IN THE VICINITY OF CONSTRUCTION ASSOCIATED WITH THIS PROJECT. COORDINATE OPERATIONS WITH OTHER CONTRACTORS AND COOPERATE WITH THE MAINTENANCE CREWS WHEN WORKING ON THE PROJECT.
- 2. TWO WEEKS PRIOR TO REMOVAL OF EXISTING CABLES OR EXCAVATING IN AREA OF EXISTING UNDERGROUND CONDUITS. MEET WITH AIRPORT OPERATIONS AND THE ENGINEER TO DETERMINE TAXIWAY OR RUNWAY CLOSURE TIMES AND DURATIONS. ARRANGE FOR APPROPRIATE PERSONNEL TO BE ON SITE DURING WORK ON ELECTRICAL CABLES. IDENTIFY AND MARK ALL AIRFIELD LIGHTING CABLES PRIOR TO ANY WORK.
- 3. PROVIDE NYLON PULL ROPE IN ALL NEW EMPTY CONDUITS.
- 4. PATCH PAVEMENT AFFECTED BY DUCT SYSTEM OR CONDUIT INSTALLATION. SEE PAVEMENT DETAILS SHEET C220 FOR APPROPRIATE DETAILS
- 5. THOROUGHLY INSPECT THE SITE PRIOR TO CONSTRUCTION TO VERIFY EXISTING CONDITIONS AND PROVIDE NECESSARY STAKES OUT OF LINE AND GRADE FOR CONDUIT FOR THE ENGINEER'S APPROVAL PRIOR TO EXCAVATION.
- 6. STAKE OUT EACH LIGHT BASE, MANHOLE, SIGN FOUNDATION, AND OTHER ITEMS FOR THE ENGINEER'S APPROVAL PRIOR TO EXCAVATION. VERIFY EQUIPMENT LOCATIONS WITH DETAILS IN THESE CONTRACT DOCUMENTS.
- 7. IN THE EVENT ANY OBSTRUCTIONS AND/OR UTILITIES NOT SHOWN ON THE PLANS ARE ENCOUNTERED DURING CONSTRUCTION, STOP WORK AND NOTIFY ENGINEER PRIOR TO PROCEEDING WITH WORK. BE PREPARED TO SUBMIT TO THE ENGINEER, IN WRITING. CONSTRUCTION ALTERNATIVES TO SUPPORT A REMEDY TO OBSTRUCTIONS OR CONFLICTS.
- 8. LOCATE ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATIONS.
- 9. CONTRACTOR TO FIELD VERIFY MANHOLE/HANDHOLE GROUNDING.
- 10. LOCATE, SUPPORT, AND PROTECT EXISTING UTILITIES WITH NECESSARY COORDINATION. DAMAGE TO EXISTING FACILITIES PIPING, CONDUIT, DUCT, ELECTRICAL EQUIPMENT AND RELATED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL EXPENSE.
- 11. DRAWINGS AND LOCATION OF EQUIPMENT MAY NOT BE TO SCALE. THE LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND REQUIRE COORDINATION WITH ALL OTHER TRADES AND FIELD VERIFICATION OF EXISTING CONDITIONS. VERIFICATION WILL INCLUDE, BUT NOT BE LIMITED TO, OPENING ENCLOSURES TO VERIFY CONTENTS, TEST PITS, COORDINATION WITH ON SITE ELECTRICAL MAINTENANCE PERSONNEL AND ALL OTHER MEANS AND METHODS NECESSARY.
- 12. ROUTING OF CONDUIT IS DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW ALL REQUIRED OFFSETS AND DETAILS.
- 13. BRING TO THE ATTENTION OF THE ENGINEER AND THE AIRPORT ALL CONFLICTS PRIOR TO PERFORMING EXCAVATION AND INSTALLATION OPTIONS.
- 14. CONSTRUCTION LIMITS VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. CONSTRUCTION, STORAGE AND STOCKPILING LIMITS ARE FURTHER DEFINED IN THESE CONTRACT DOCUMENTS.
- 15. PERFORM LOCKOUT/TAGOUT PROCEDURES IN ACCORDANCE WITH OSHA STANDARD 29 CFR 1910.147 PRIOR TO PERFORMING WORK ON ELECTRICAL CIRCUITS.
- 16. ELECTRICAL WORK SHOWN IN THESE DRAWINGS MUST CONFORM TO THE NEC (LATEST EDITION) AND ANY FEDERAL AND LOCAL STANDARD PRACTICES. IN THE CASE OF OVER LAP. THE MOST STRINGENT WILL APPLY.
- 17. PROTECTION OF AND REPAIR TO EXISTING CABLES VERIFY THE LOCATION OF EXISTING AIRPORT UNDERGROUND CABLES THAT ARE SHOWN ON THE PLANS. IF AIRPORT CABLES ARE DAMAGED, REPAIRS MUST BE DONE IN ACCORDANCE WITH AIRPORT AND FAA REQUIREMENTS. PERFORM REPAIRS IN THE PRESENCE OF AN AIRPORT REPRESENTATIVE. THE AIRPORT MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR IS RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.
- 18. VERIFY AND ADJUST FIXTURES, EQUIPMENT AND STRUCTURE LOCATIONS AND ELEVATIONS QUOTED IN THESE DOCUMENTS TO AVOID UNFORESEEN OBSTRUCTION AND TO COMPLY WITH ALL REQUIREMENTS OF THE FAA.

- 19. REMOVE ALL CONDUCTORS FROM SINGLE DUCT OR MULTI DUCT SYSTEM WHERE CABLE IS INDICATED TO BE REMOVED FROM DUCTS. THE LINEAR FOOT QUANTITY OF CABLE TO BE REMOVED IS THE QUANTITY OF ALL CABLE REMOVED FROM EITHER A SINGLE OR MULTIPLE DUCT SYSTEM.
- 20. EXISTING UNDERGROUND WIRING EXISTS THROUGHOUT THE CONSTRUCTION AREA. WIRING MAY BECOME ENTANGLED IN TRENCHERS OR SIMILAR EXCAVATING EQUIPMENT. MODIFY TRENCHING METHODS AT NO ADDITIONAL CHARGE TO THE CONTRACT TO ENSURE EFFECTIVE AND EFFICIENT TRENCHING OPERATIONS. EXCAVATION METHODS THAT ACCOMMODATE STRIKING AND UNEARTHING UNDER GROUND CABLE SYSTEMS DESIGNATED TO BE ABANDONED OR REMOVED MUST BE EMPLOYED.
- 21. REMOVE AND DISPOSE OF ABANDONED AND TO BE ABANDONED CABLES THAT HAVE BEEN UNEARTHED BY EXCAVATION. DISPOSE OF OFF SITE IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS.
- 22. CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT EXISTING AIRFIELD EQUIPMENT TO REMAIN THAT MAY BE IN THE AREA OF CONSTRUCTION.
- 23. CONTRACTOR TO FIELD VERIFY MANHOLE/HANDHOLE GROUNDING.
- 24. ALL EXISTING CIRCUITS TO BE MEGGERED AND RESULTS TURNED OVER TO CMI/OWNER. PRIOR TO WORKING ON THE CIRCUITRY.
- 25. ALL NEW/EXISTING CONDUITS TO BE PROVIDED WITH IPEC PVC PLUGS ALONG WITH NYLON ROPE IN MANHOLE DUCTS.
- 26. WHEN LOCATING SUB UTILITIES PROVIDE LOCATION/DEPTH/SIZE/TYPE OF UTILITY FOUND.
- 27. ALL GROUND RODS/COUNTERPOISE TO BE CAD-WELDED PER FAA-STD-019F.
- 28. ALL ELECTRICAL WORK WITHIN THE TOFA AND RSA WILL ONLY OCCUR WITHIN THE CLOSURES OF THE ASSOCIATED TAXIWAY AND RUNWAY.

ELECTRICAL SCOPE OF WORK:

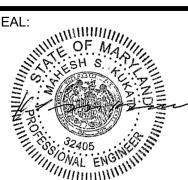
- REMOVE EXISTING ELEVATED TAXIWAY F EDGE LIGHTING, LIGHT BASES, TRANSFORMERS. FOUNDATIONS, CONDUIT, DUCT BANK, HAND-HOLES, AND MANHOLES AFFECTED BY CONSTRUCTION.
- 2. REMOVE EXISTING SIGNS AND FOUNDATIONS AFFECTED BY CONSTRUCTION.
- 3. PROVIDE NEW LIGHT EMITTING DIODE (LED) TAXIWAY EDGE LIGHTS AND ASSOCIATED LIGHTING ACCESSORIES.
- 4. PROVIDE NEW LED AIRFIELD GUIDANCE SIGNS, TRANSFORMERS AND FOUNDATIONS.
- INSTALL NEW CONDUIT, DUCTBANKS, FOR NEW AND FUTURE AIRFIELD EQUIPMENT WIRING.
- 6. RE-INSTALL EXISTING MANHOLES/HANDHOLES AND EXISTING LIGHT BASES AS IDENTIFIED ON PLANS.
- INSTALL NEW WIRING IN NEW AND EXISTING CONDUIT TO SUPPORT NEW AIRFIELD LIGHTING.

DEMOLITION GENERAL NOTES:

SCALE:

- 1. PRIOR TO REMOVAL OF ANY WIRING OR CONDUIT SYSTEM, VERIFY WIRING IS INACTIVE AND MAKE PROVISIONS TO RE-ROUTE AND RE-ESTABLISH ACTIVE CIRCUITRY USING NECESSARY, TEMPORARY WIRING. REMOVE TEMPORARY WIRING PRIOR TO PROJECT COMPLETION. COORDINATE EFFORTS ASSOCIATED WITH TEMPORARY WIRING WITH THE AIRPORT AND THE ENGINEER.
- 2. PRIOR TO CONSTRUCTION AND PRIOR TO REMOVAL OF ANY AIRFIELD ELECTRICAL FIXTURE. COMPONENT. ETC. EVALUATE THE CONDITION OF THE ITEMS TO BE RE-INSTALLED OR ITEMS TO BE TURNED OVER TO OWNER AND REPORT IN WRITING, ANY DAMAGE TO THE ENGINEER PRIOR TO ITS REMOVAL. REPAIR OR REPLACE EQUIPMENT DAMAGED AFTER REMOVAL OF THE ITEM.
- 3. DISPOSE OFF SITE, EQUIPMENT AND OTHER ITEMS REMOVED AND NOT INTENDED FOR RE-INSTALLATION OR DELIVERY TO THE AIRPORT.
- 4. STORE AND PROTECT ANY FIXTURES OR EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE AIRPORT OR TO BE REMOVED AND RE-INSTALLED DURING CONSTRUICTION.
- 5. DELIVER ITEMS TO BE SALVAGED AND TURNED OVER TO OWNER TO A LOCATION ON AIRPORT AND SPECIFIED BY THE OWNER.
- 6. LIGHT BASE(S) FOUNDATIONS, CONDUIT AND OTHER EQUIPMENT REMOVAL ITEMS REMOVED IN PAVEMENT DEMOLITION AREA OR GRADED AREA SHALL BE CONSIDERED INCIDENTAL TO PAVEMENT DEMOLITION WORK OR GRADING WORK UNLESS OTHERWISE DIRECTED ON PLANS.
- WHILE IN ACCORDANCE WITH SPECIFICATIONS BACKFILL. COMPACT AND RESTORE TURF IN AREAS WHERE ELECTRICAL EQUIPMENT IS REMOVED.
- 8. DOCUMENT THE CONDITION OF EXISTING AIRFIELD ELECTRICAL EQUIPMENT TO REMAIN IN PLACE. PRIOR TO CONSTRUCTION. PROVIDE AN EXISTING CONDITIONS REPORT. COMPLETE WITH PHOTOS TO THE ENGINEER.





March 3,2023

ROFESSIONAL CERTIFICATION:

"I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

EXPIRATION DATE: 12-22-23

DESCRIPTIONS NO. DATE D.A.B. D.A.B. CHECKED: M.P.P APPROVED



PROJECT TITLE:
TAXIWAY F REHABILITATION
SHEET TITLE: LIGHTING AND SIGNAGE GENERAL NOTES

N/A

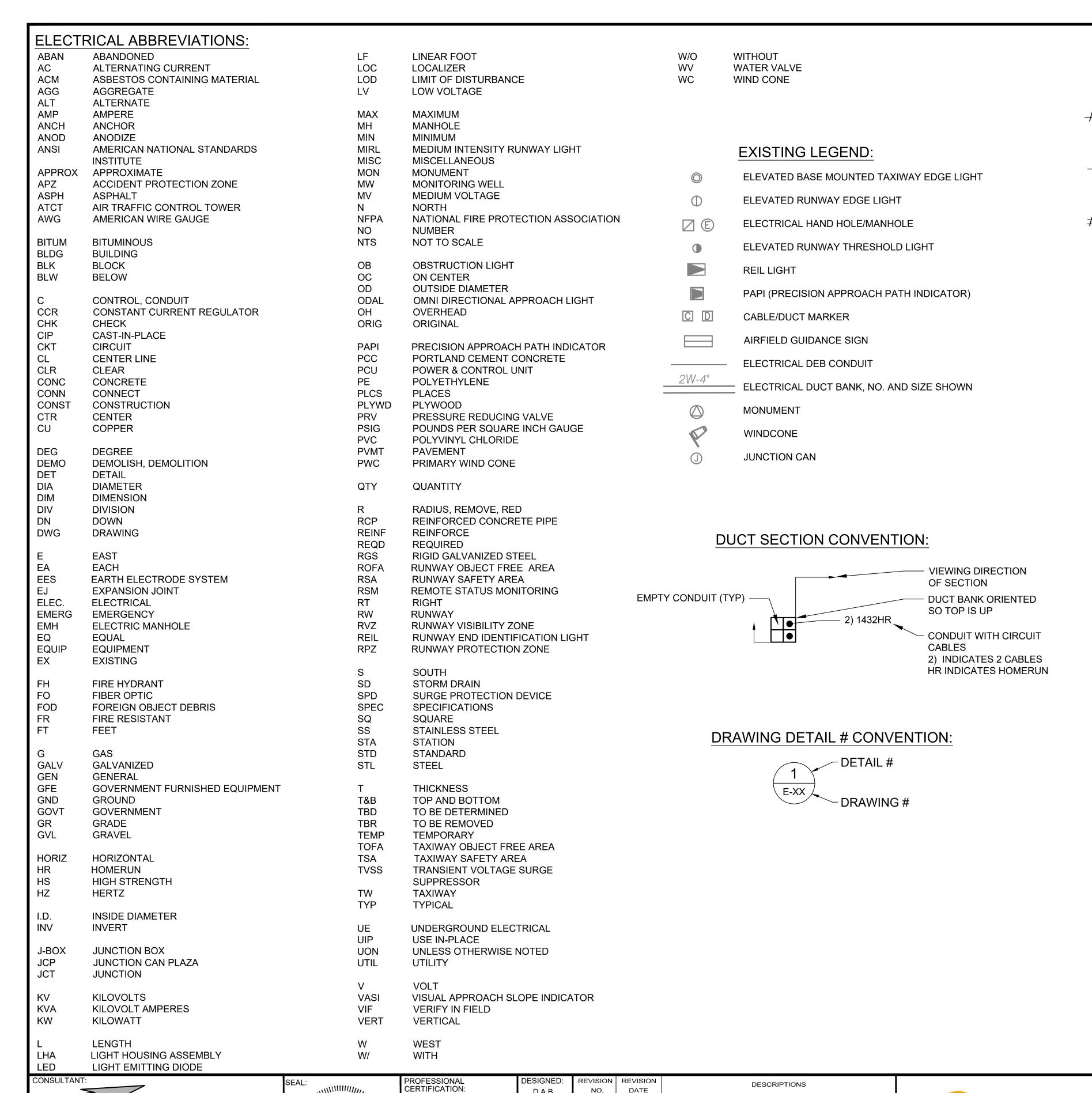
DATE:

FEBRUARY 2023

FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008 SHEET NO.:

E001

72 OF 97



D.A.B.

D.A.B.

CHECKED:

M.P.P

APPROVED

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ME. AND THAT I AM A DULY LICENSED PROFESSIONAL

ENGINEER UNDER THE LAWS

OF THE STATE OF MARYLAND"

LICENSE NO. 32405

DEMOLITION LEGEND: PROPOSED LEGEND: 4W-4" SAND ENCASED DUCT, SIZED AND NO. OF EXISTING UNDERGROUND CABLES REMOVED CONDUITS ARE INDICATED FROM CONDUIT, CONDUIT TO BE REUSED 2W-4" CONCRETE ENCASED DUCT, SIZED AND NO. OF '/'INDICATES REMOVAL OF CABLES CONDUITS ARE INDICATED 2-INCH SCH 40-PVC CONCRETE ENCASED -X----X----X1 EXISTING 1W-2" UNDERGROUND CONDUIT CONDUIT IN EXISTING PAVED AREA WITH 1-#6 AND CABLE TO BE REMOVED. '] ' INDICATES COUNTERPOISE WIRE ABOVE CONDUIT. CALL 2) TW F LIMIT OF REMOVAL OUT INDICATES NO. OF 1- #8, 5KV, L-824 TYPE C 2W-4" CABLES AND CIRCUIT IDENTIFIER UNLESS EXISTING MULTI DUCT SYSTEM, CABLE TO BE OTHERWISE INDICATED ON PLANS REMOVED. NUMBER AND SIZE OF DUCTS 2-INCH SCH 40-PVC CONDUIT UNDERGROUND SHOWN, '/' INDICATES REMOVAL OF CABLES, CONDUIT IN EXISTING GRASS AREA WITH 1#6 **DUCT SYSTEM TO REMAIN** COUNTERPOISE WIRE ABOVE CONDUIT. CALL ⊚^{RE} OUT INDICATES NO. OF 1-#8, 5KV, L-824 TYPE C REMOVE EXISTING ELEVATED BASE MOUNTED CABLES AND CIRCUIT IDENTIFIER UNLESS TAXIWAY EDGE FIXTURE AND TRANSFORMER. OTHERWISE INDICATED ON PLANS BASE TO REMAIN IN PLACE RE=REMOVE FIXTURE AND REUSE BASE X-X L-86IT(L) NEW OMNI DIRECTIONAL ELEVATED TAXIWAY EDGE LIGHT ON NEW BASE, LIGHT NO. REMOVE EXISTING ELEVATED BASE MOUNTED INDICATED TAXIWAY EDGE FIXTURE, TRANSFORMER AND X-X O_{NE} BASE COMPLETE L-86IT(L) OMNI DIRECTIONAL ELEVATED TAXIWAY EDGE LIGHT WITH NEW ISOLATION EXISTING ELECTRICAL MANHOLE TO BE TRANSFORMER INSTALLED ON EXISTING BASE, REMOVED COMPLETE. LIGHT NO. INDICATED NE=NEW FIXTURE ON EXISTING BASE EXISTING HANDHOLE TO BE REMOVED, COMPLETE L-858(L) NEW AIRFIELD GUIDANCE SIGN. SIGN NO. AND SIDE ARE INDICATED (E) [EXISTING MANHOLE/HANDHOLE TO REMAIN NEW 4X4X4. 3X3X4 MANHOLE/HANDHOLE -

REMOVE EXISTING AIRFIELD GUIDANCE SIGN,

REMOVE EXISTING AIRFIELD GUIDANCE SIGN

STORE FOR RE-INSTALLATION, REMOVE

FOUNDATION COMPLETE

SCALE:

GUIDANCE SIGN FOUNDATION COMPLETE



RE

ROJECT TITLE:	TAXIWAY F REHABILITATION	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
HEET TITLE:		
	LIGHTING AND SIGNAGE LEGEND AND	SHEET NO.:

NO.: E002 73 OF 97

EXPIRATION DATE: 12-22-23 FAX: 410.465.9602 March 3,2023 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0072_E001_2_GENERAL NOTES AND ABBREVIATIONS.dwg LAYOUT NAME: E002 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 10:01pm

6031 UNIVERSITY BLVD. SUITE 330

ELLICOTT CITY, MD 21043

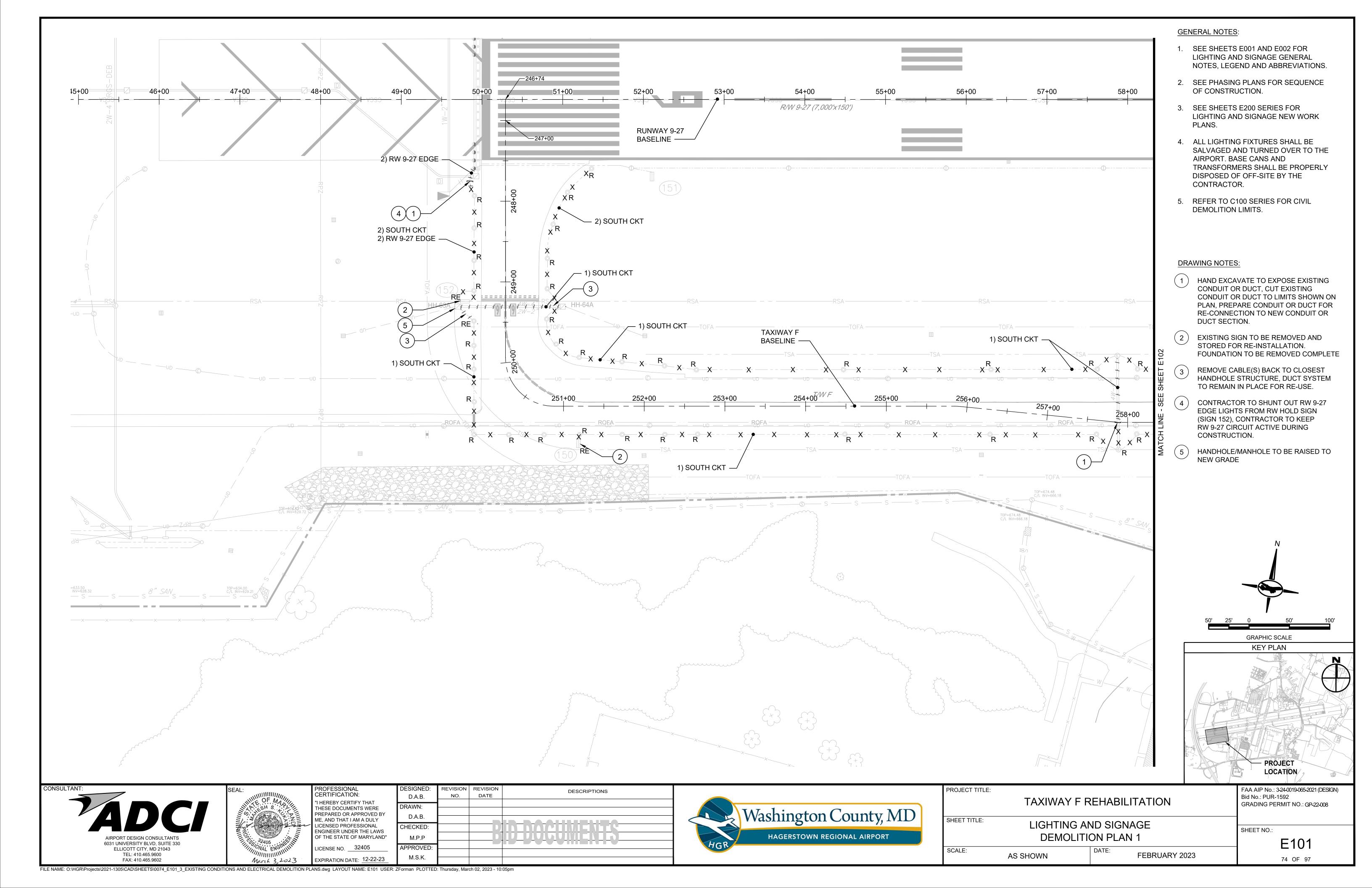
TEL: 410.465.9600

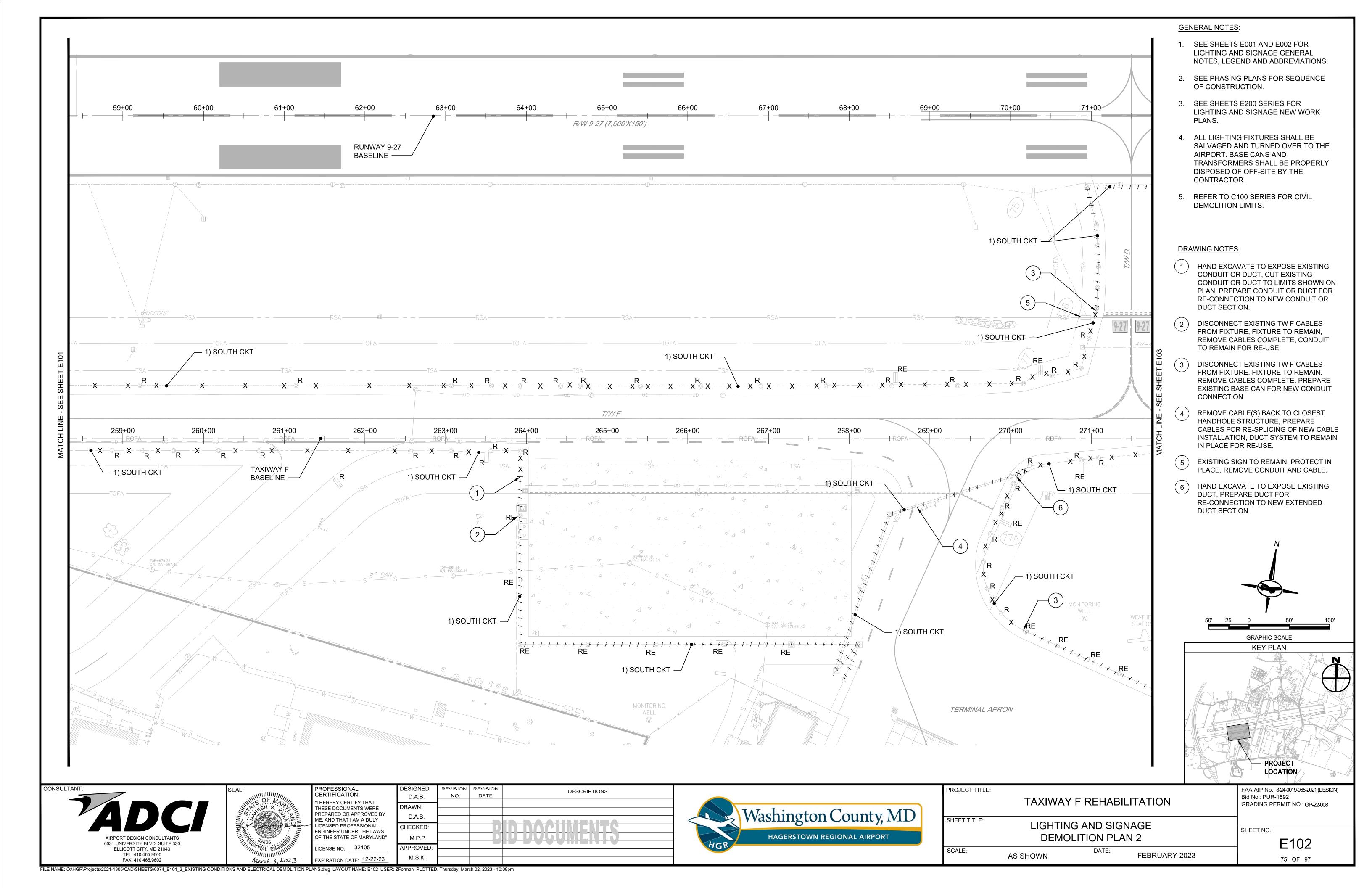
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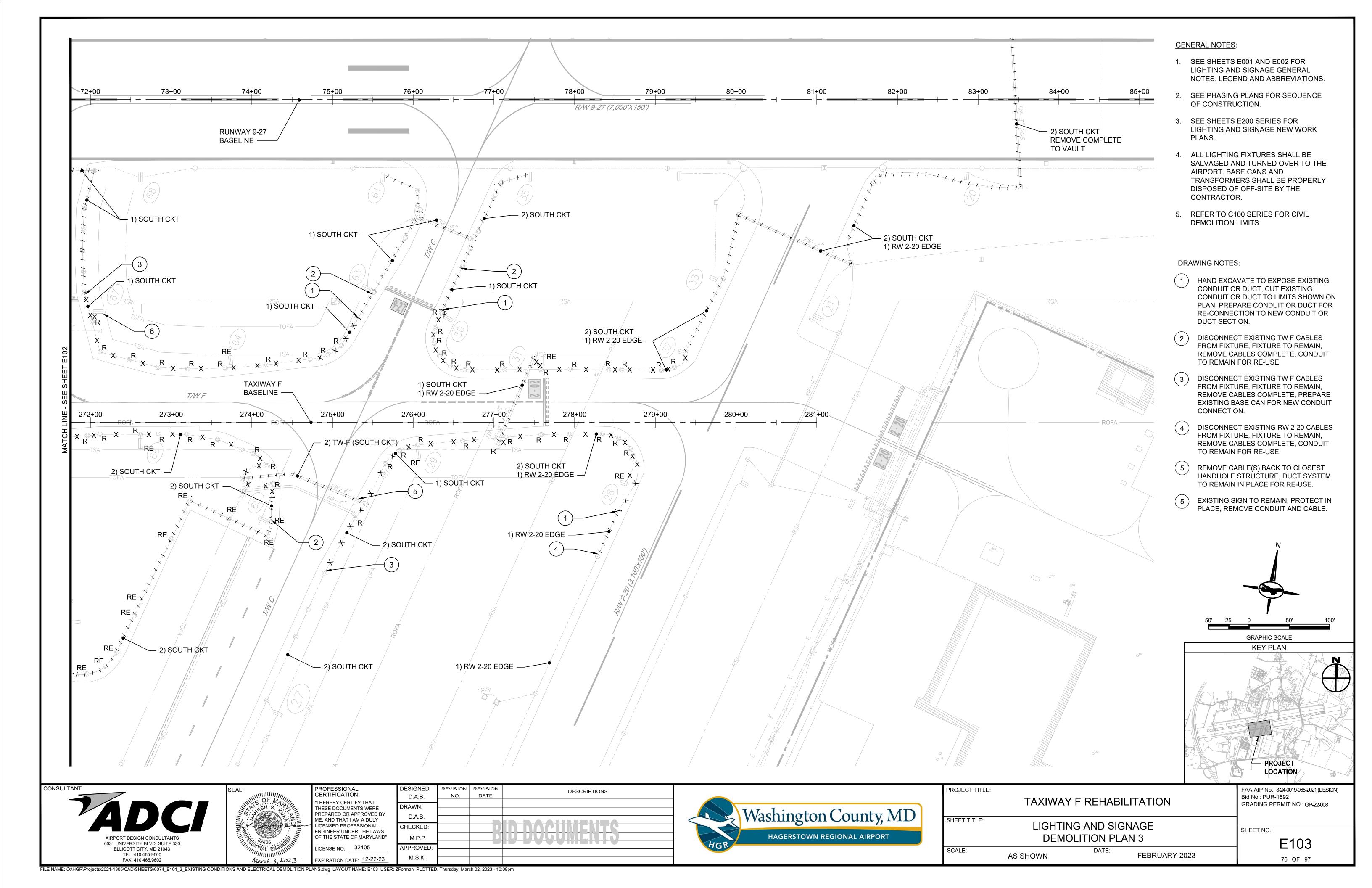
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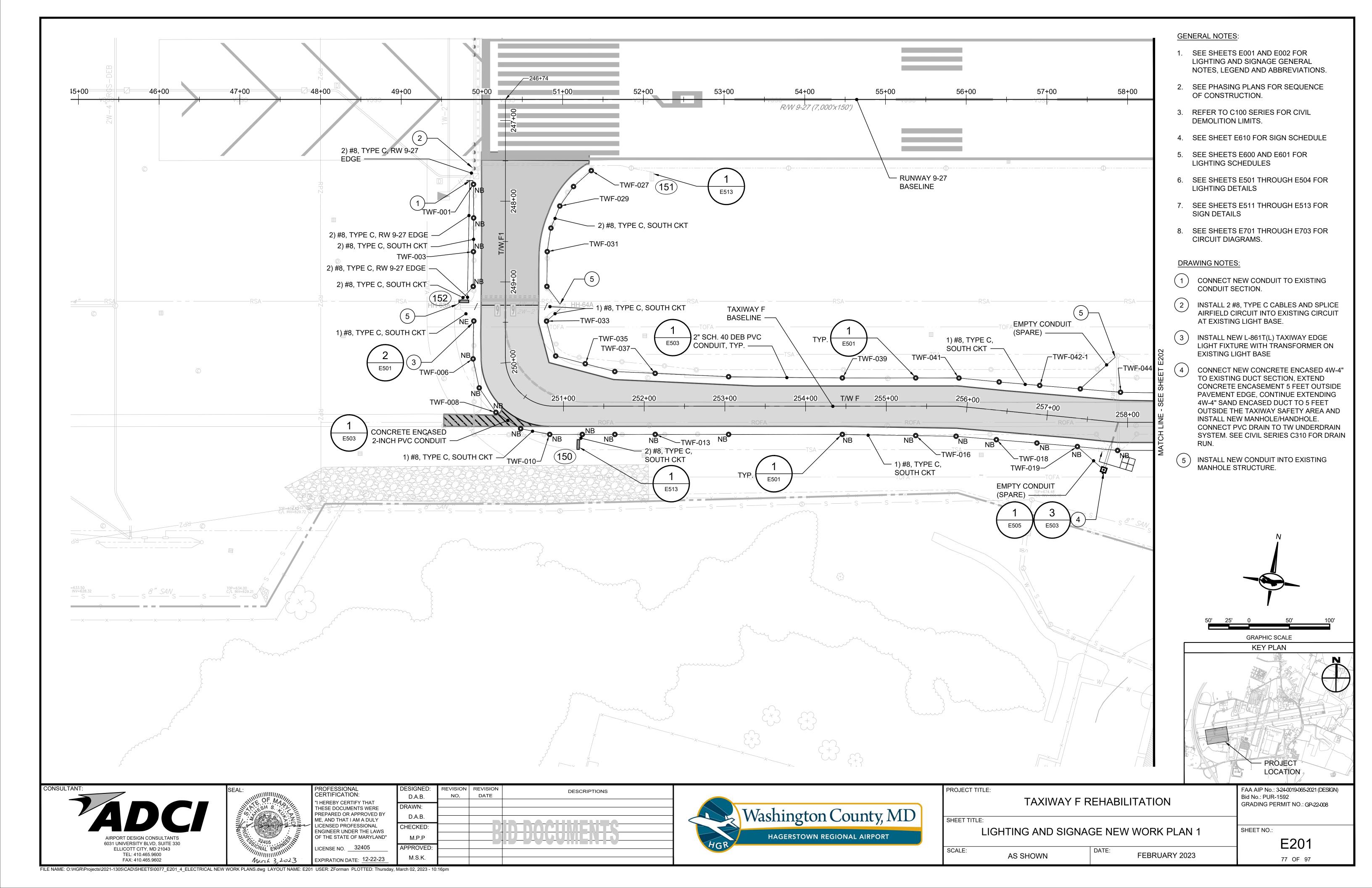
AIRCRAFT LOADED

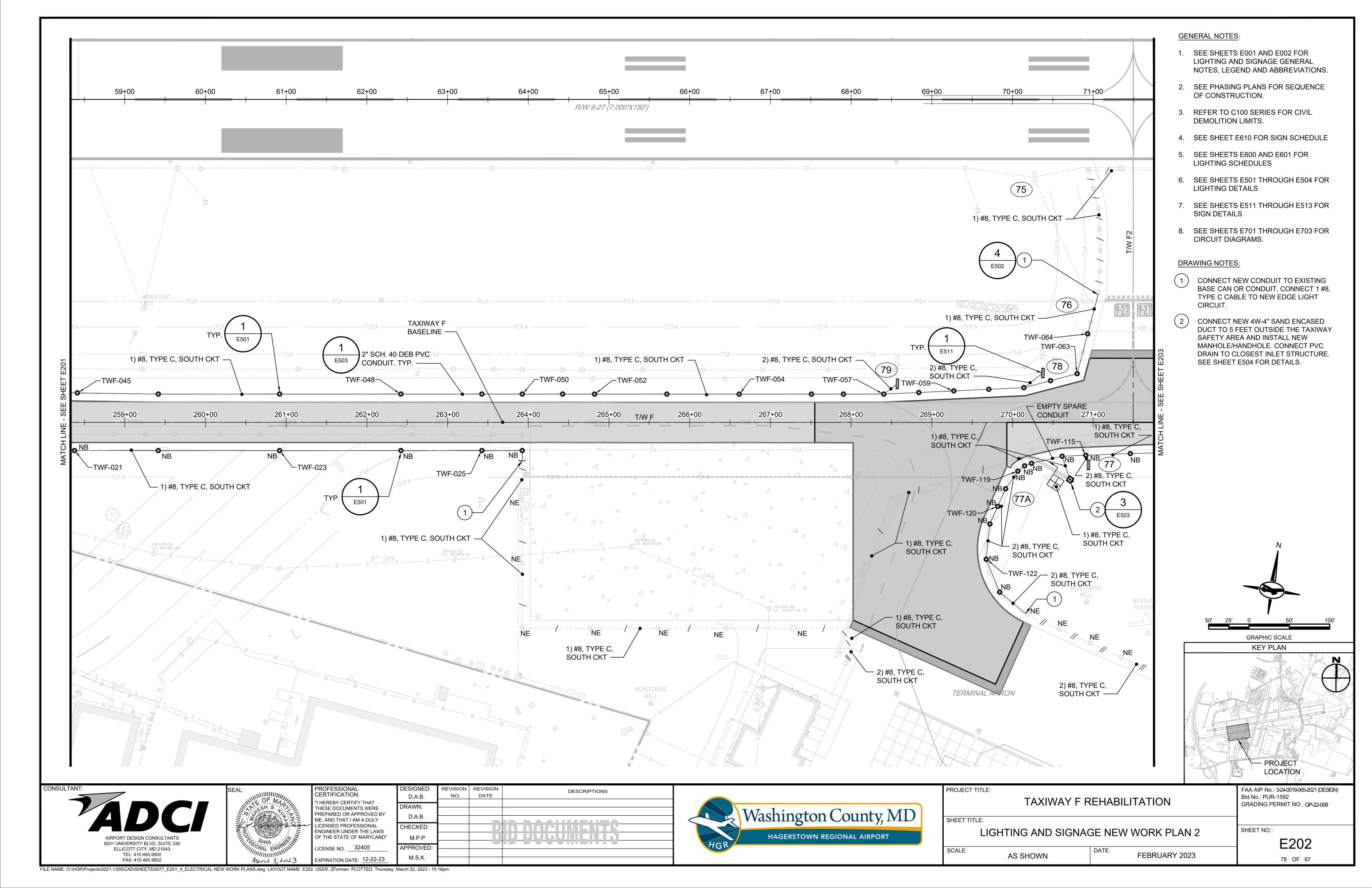
FEBRUARY 2023 N/A

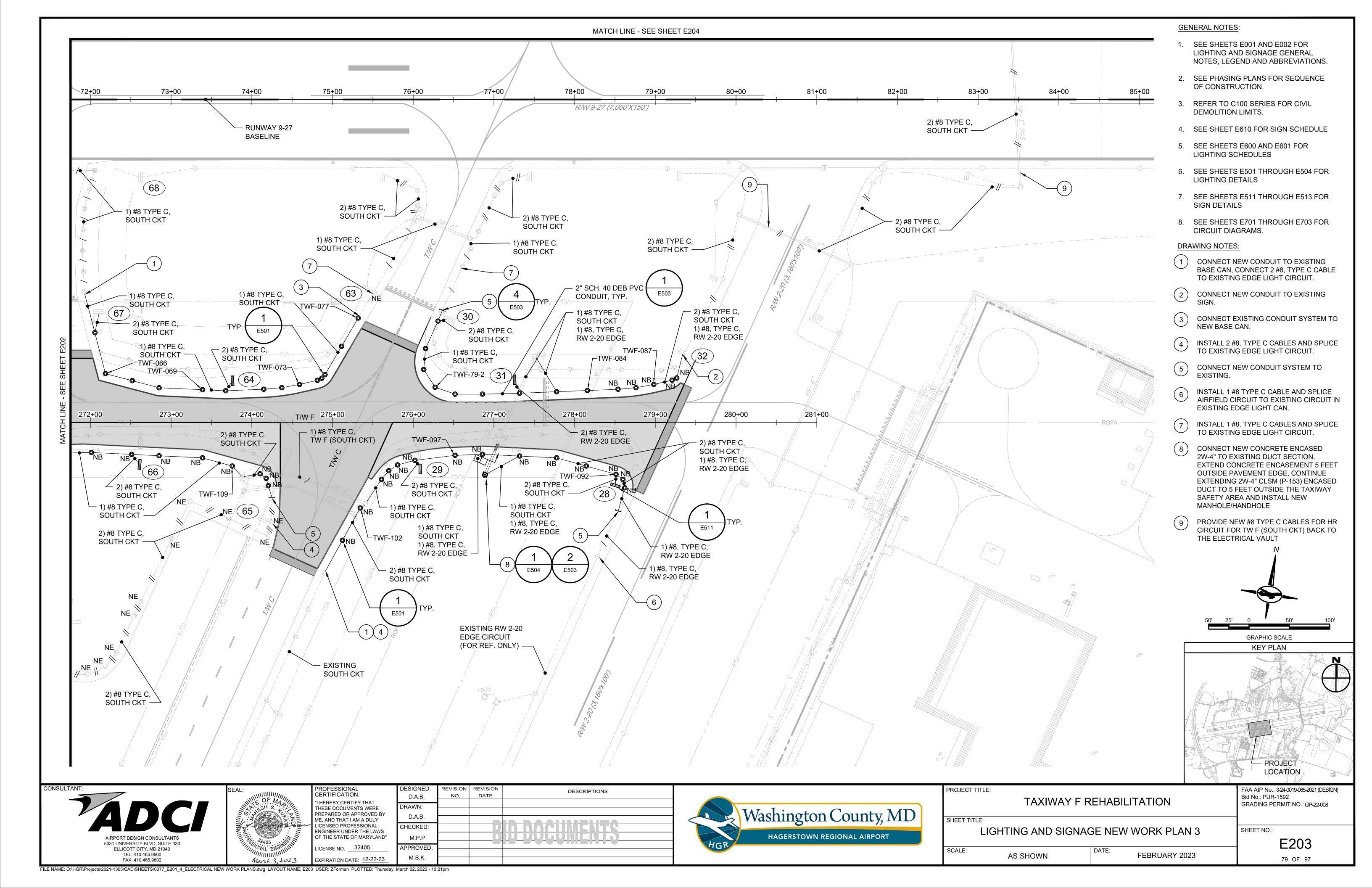


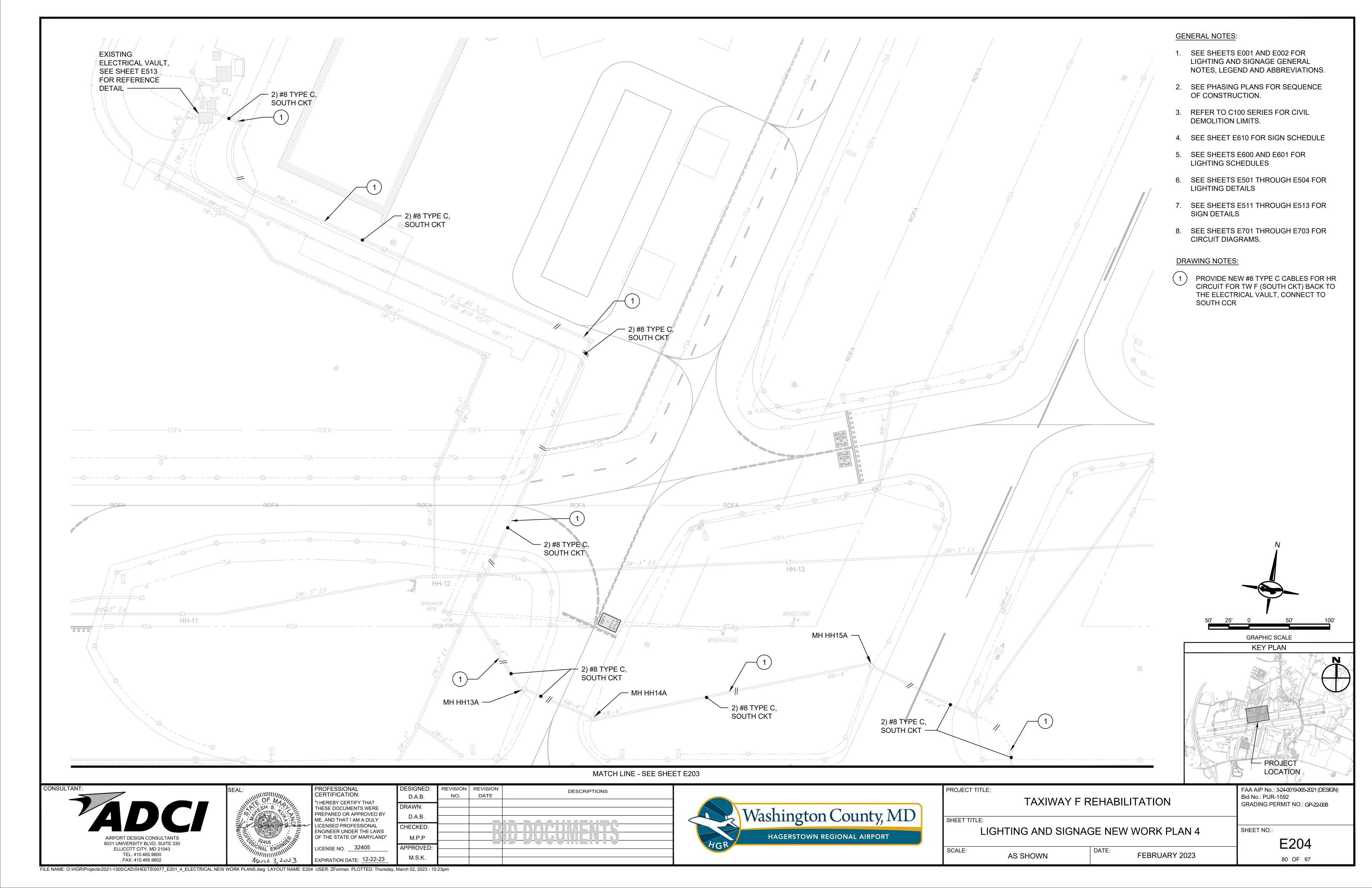


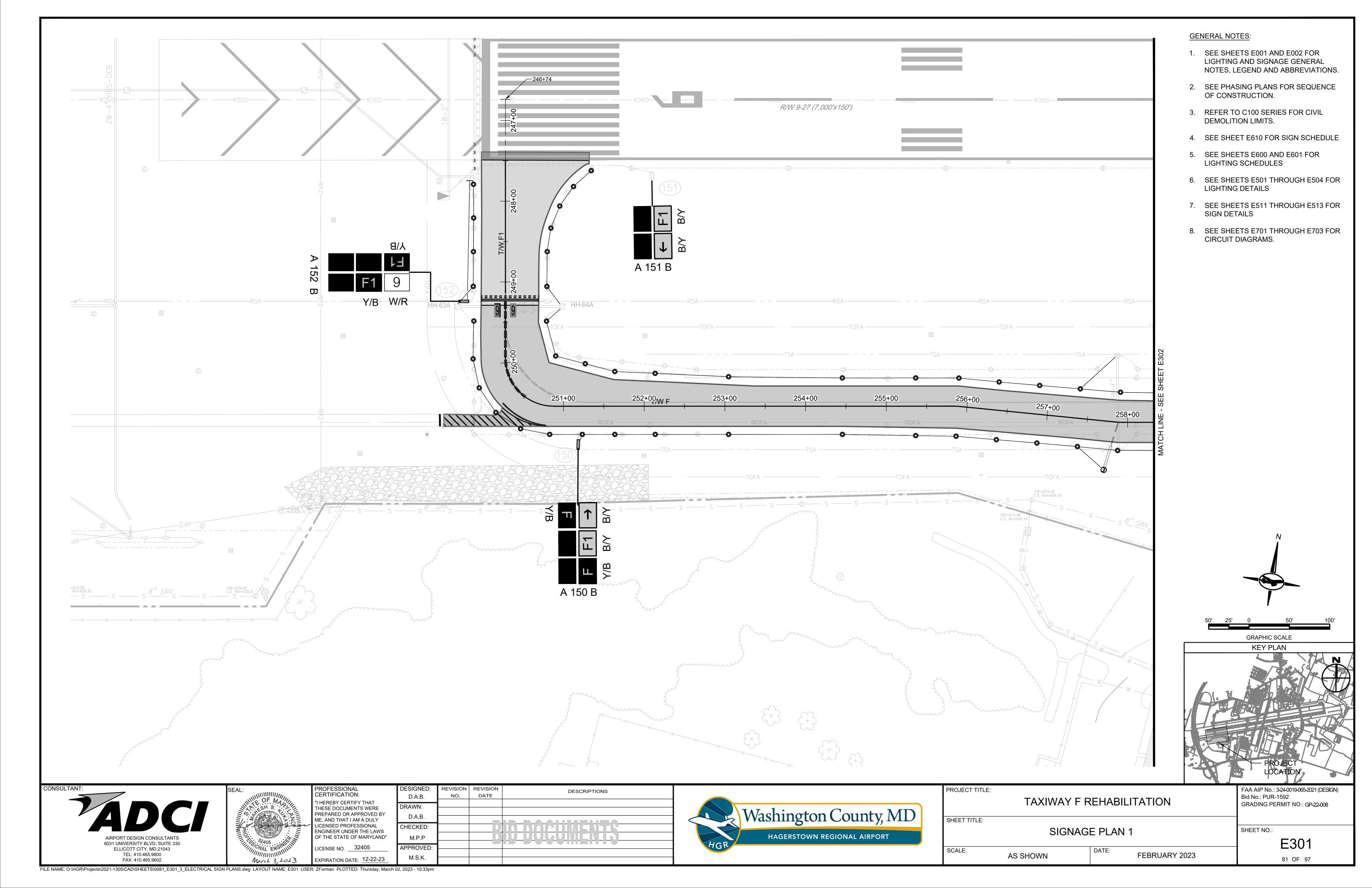


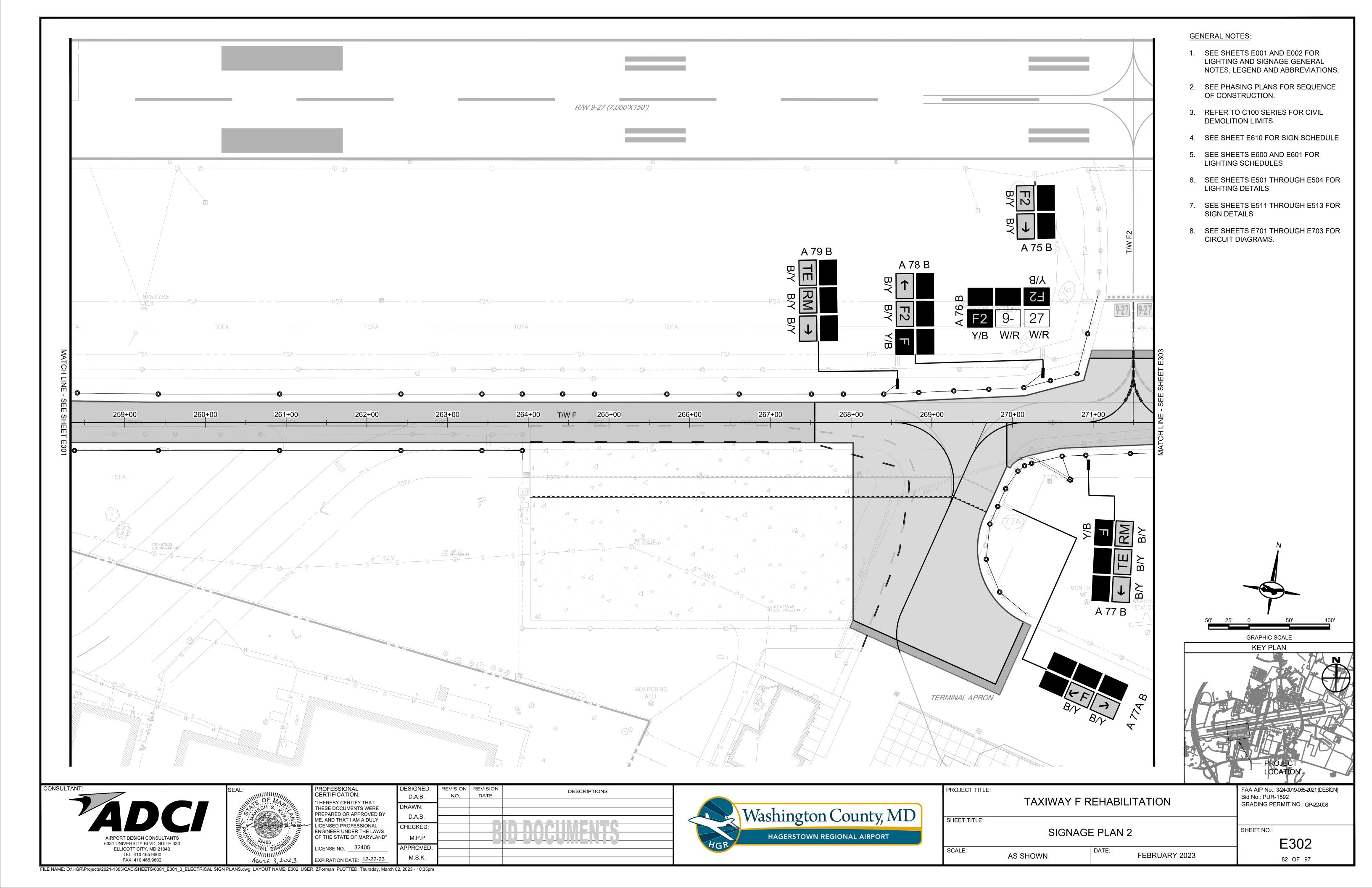


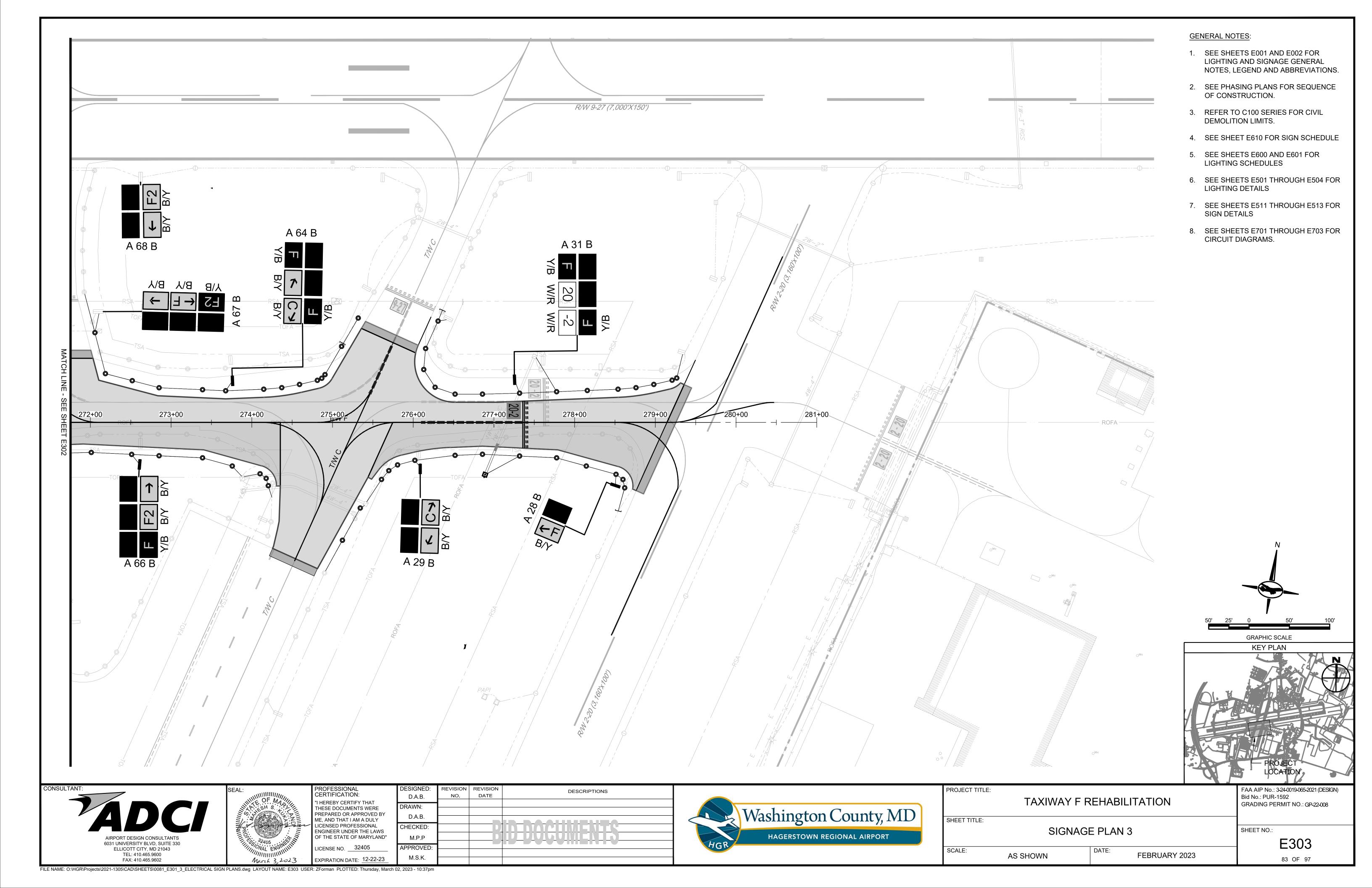


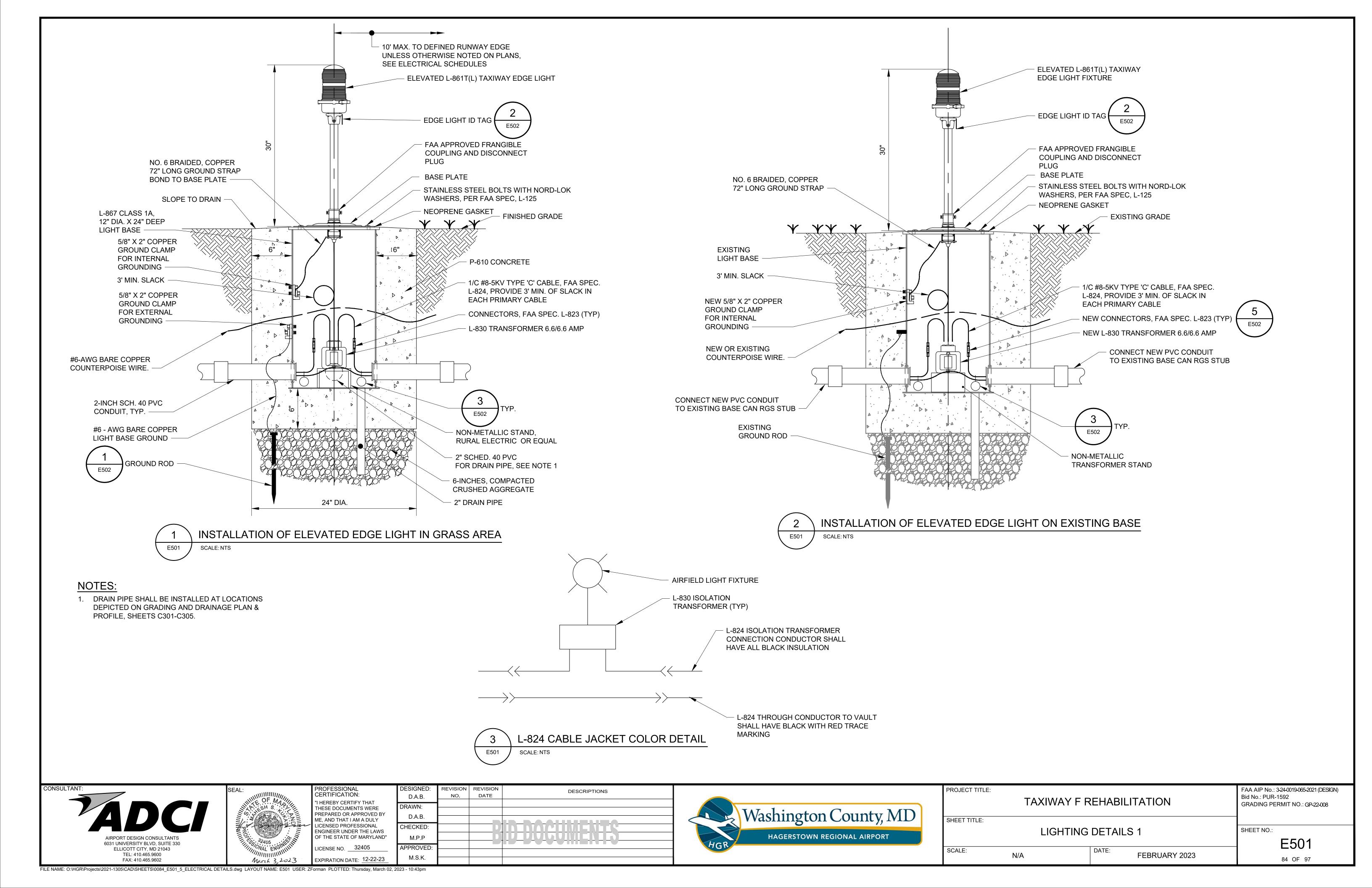


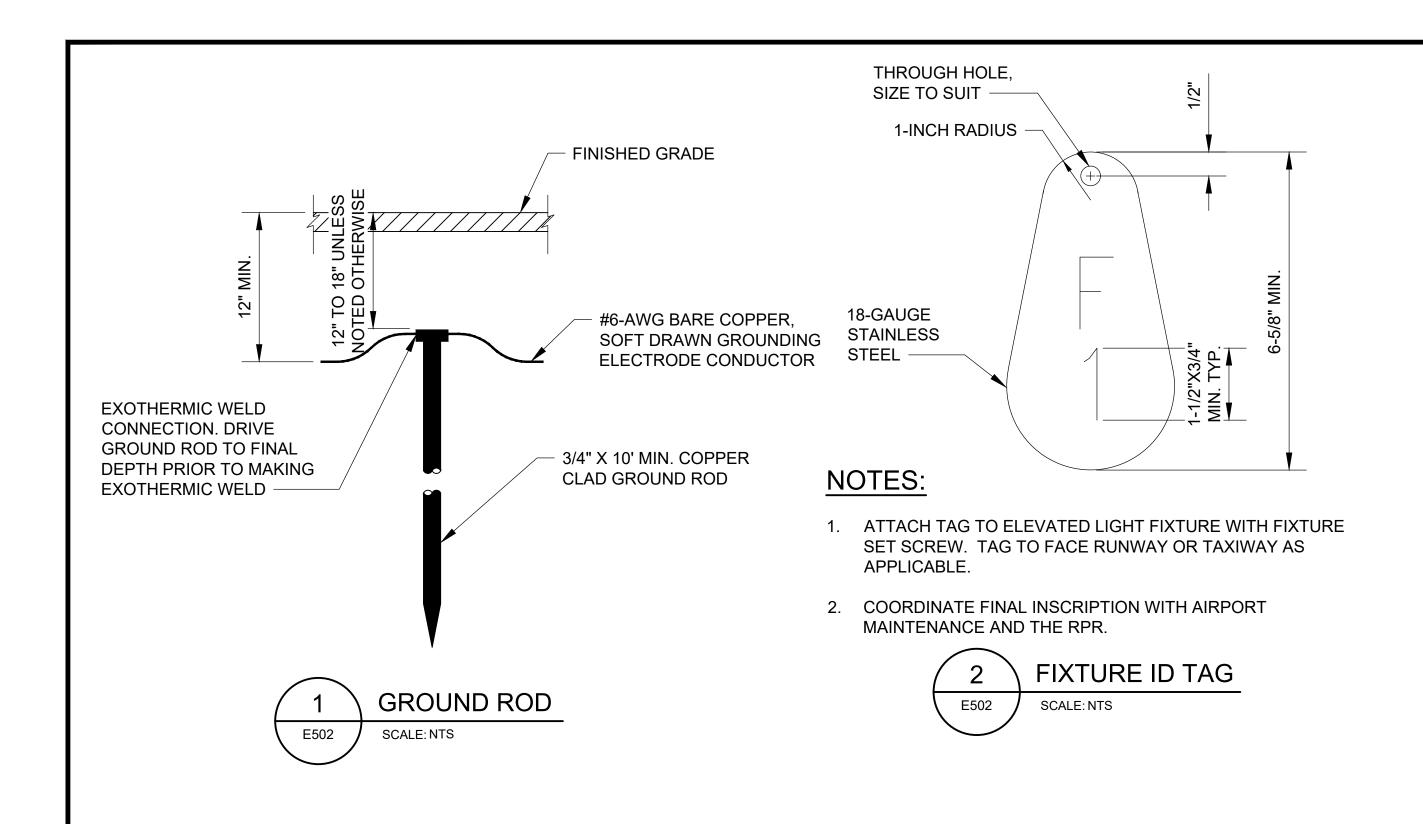


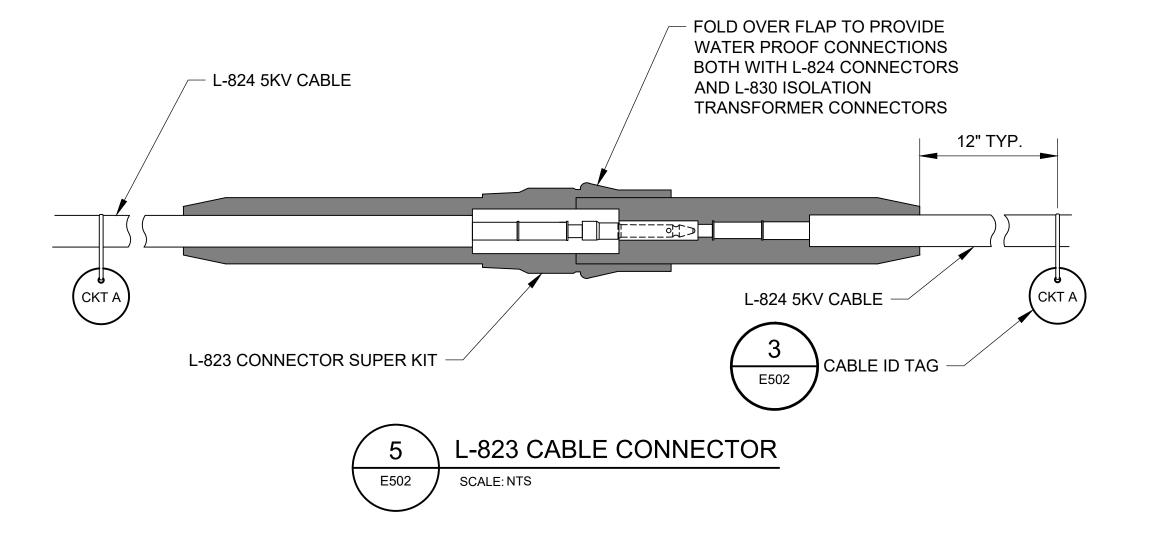


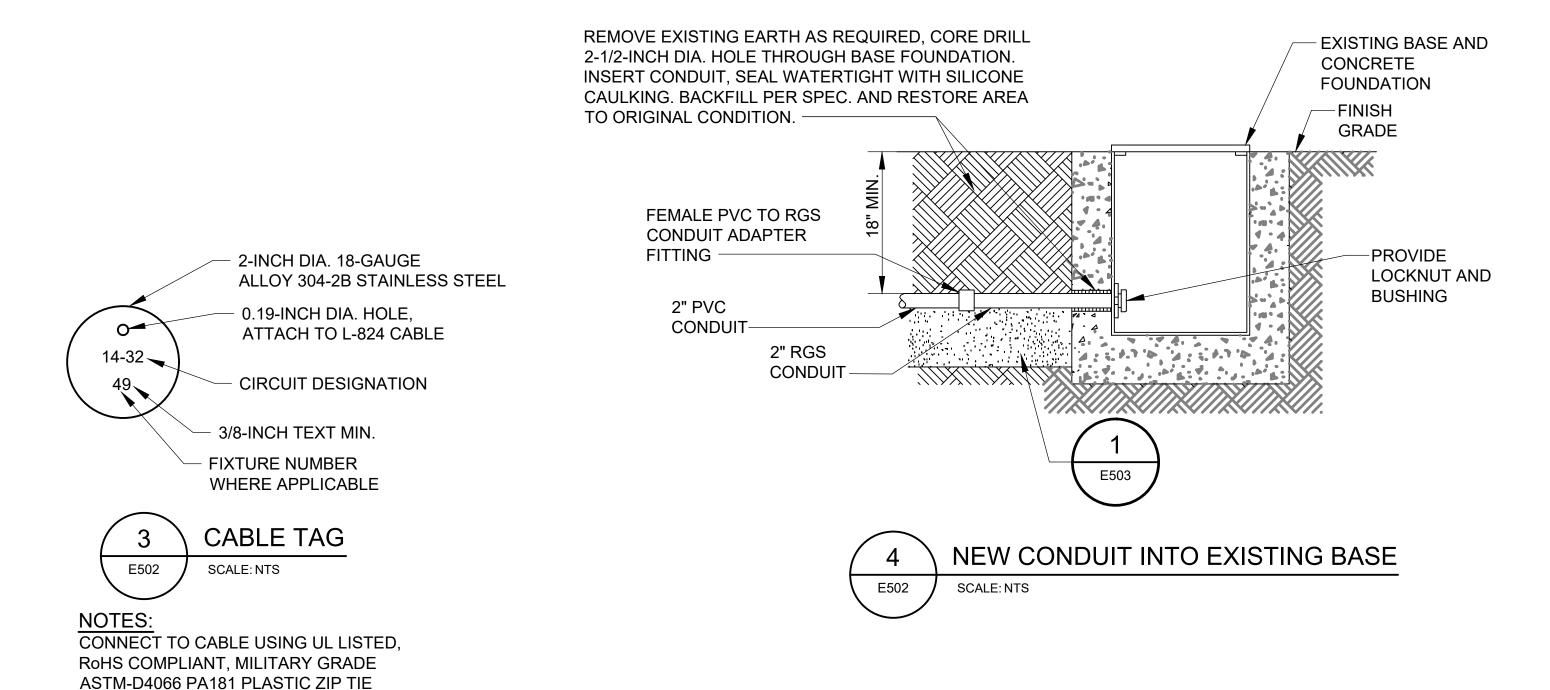


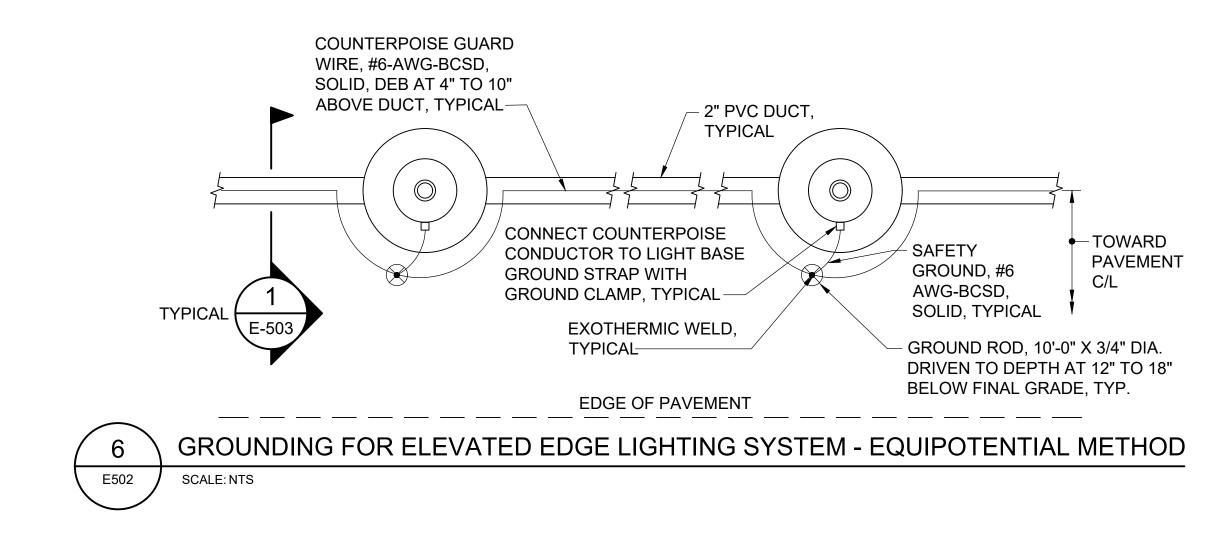




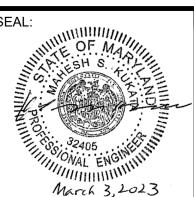












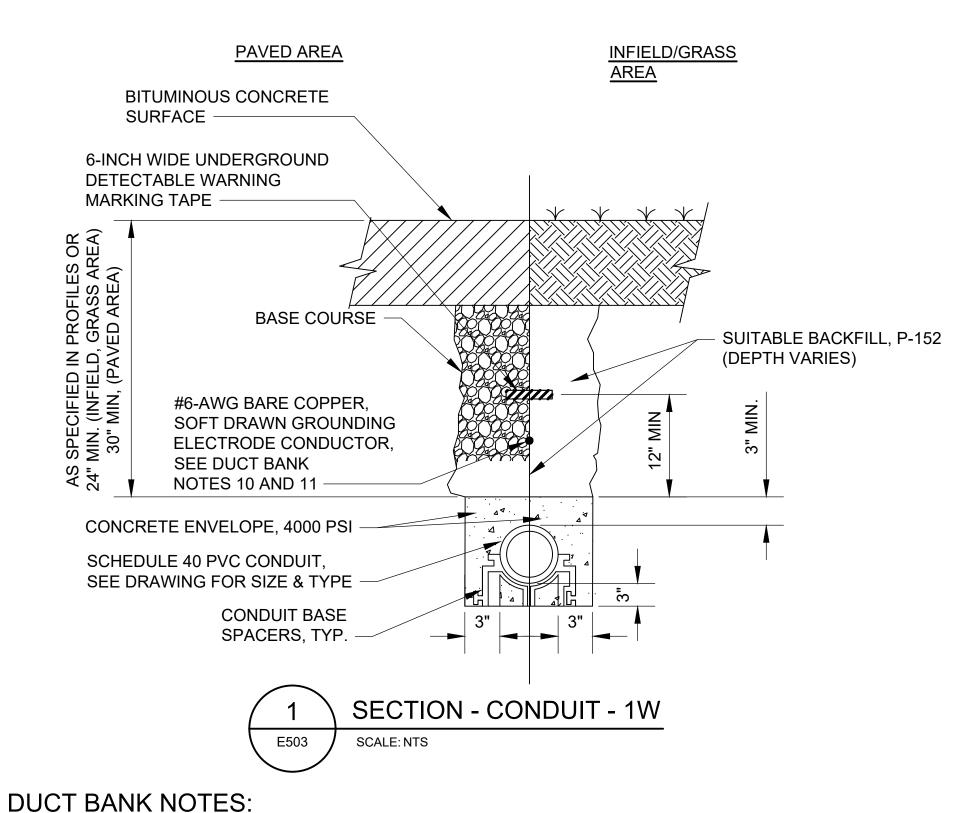
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

EXPIRATION DATE: 12-22-23

DESCRIPTIONS DATE D.A.B. D.A.B. CHECKED: I DUGUMENTR M.P.P APPROVED: FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0084_E501_5_ELECTRICAL DETAILS.dwg LAYOUT NAME: E502 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 10:45pm



PROJECT TITLE:	TAXIWAY F	ATION	FAA AIP No.: 3-24-0019-065-2021 (DESIGN Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
SHEET TITLE:				
	LIGHTING	G DETAILS 2		SHEET NO.:
				E502
SCALE:	NI/A	DATE:	EDDLIADY 0000	L302
	N/A	F	EBRUARY 2023	85 OF 97



1. MINIMUM EARTH COVER OVER COMPLETED THE CONTRACT, SHALL INSTALL A DUCT BANK CONCRETE ENVELOPE SHALL BE REPLACEMENT FOR EACH FAILED DUCT.

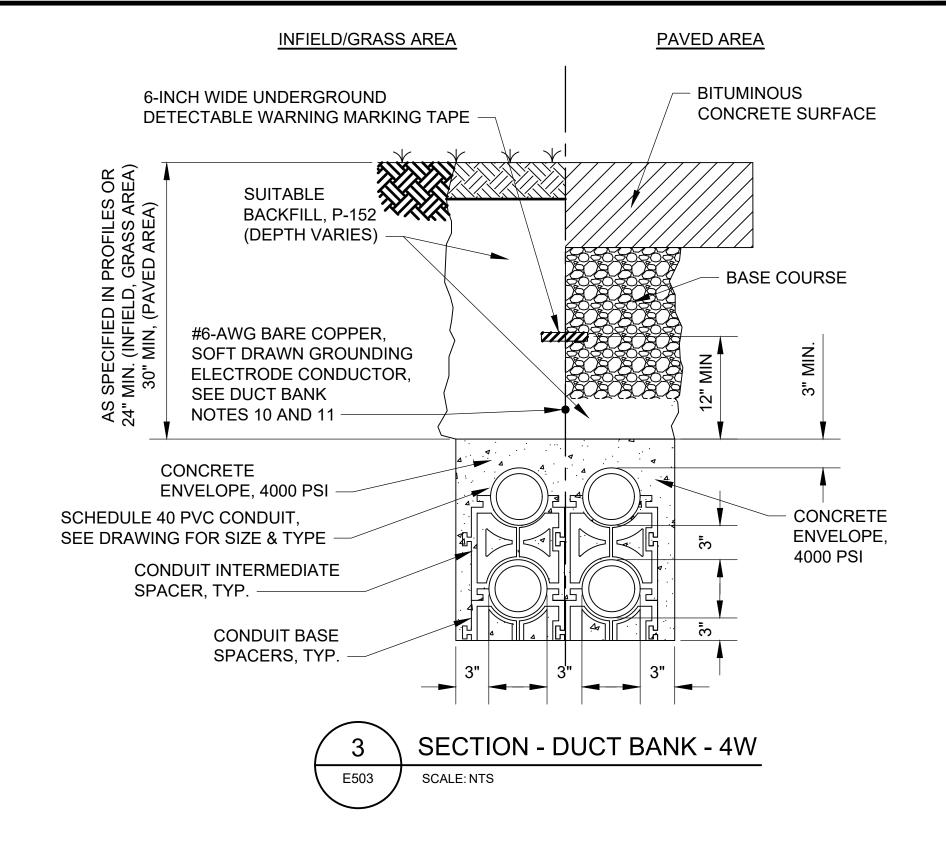
- AFTER THE MANDRILL HAS BEEN DRAWN THROUGH THE DUCTS AND BEFORE ANY CABLES ARE DRAWN INTO THE DUCTS, A DUCT BRUSH AND SWAB SHALL BE PULLED THROUGH EACH DUCT TO INSURE THAT THE DUCT INTERIOR IS CLEAN. REPLACE DUCT PLUGS IN THE ENDS OF UNUSED DUCTS.
- INSTALL RAYCHEM RAYFLAT DUCT SEALING SYSTEM OR AN APPROVED EQUAL WITHIN DUCTS ENTERING AND LEAVING THE NEW MANHOLE AND/OR HANDHOLE. THE CONTRACTOR IS RESPONSIBLE FOR SEALING ALL DUCTS, BOTH PERMANENTLY AND TEMPORARILY AFTER EACH MANHOLE AND/OR HANDHOLE OR LIGHT BASE IS CLEANED.
- CONTRACTOR SHALL USE MANUFACTURED ELBOWS FOR STUB-UPS AT EQUIPMENT AND AT BUILDING ENTRANCES. USE MANUFACTURED LONG SWEEP BENDS WITH A MINIMUM RADIUS OF 5-FEET HORIZONTALLY AND VERTICALLY AT OTHER PLACES.
- COUNTERPOISE WIRE SHALL BE INSTALLED 8 INCHES MINIMUM ABOVE CONDUIT. THE HEIGHT OF THE COUNTERPOISE SHALL BE CALCULATED TO ENSURE THE CONDUIT TO BE PROTECTED ARE WITHIN A 45 DEGREE ZONE OF PROTECTION BELOW THE COUNTERPOISE.
- 11. WHERE ENCOUNTERED, EXISTING COUNTERPOISE SHALL BE BONDED TO NEW COUNTERPOISE.
- 12. GLUE TO BE COMPATIBLE PER PIPE MANUFACTURER'S RECOMMENDATIONS.
- 13. ALL CONDUITS TO BE SCHEDULE 40 OR 80 AS PER SPEC BELL END, MINIMUM 10' LENGTHS.

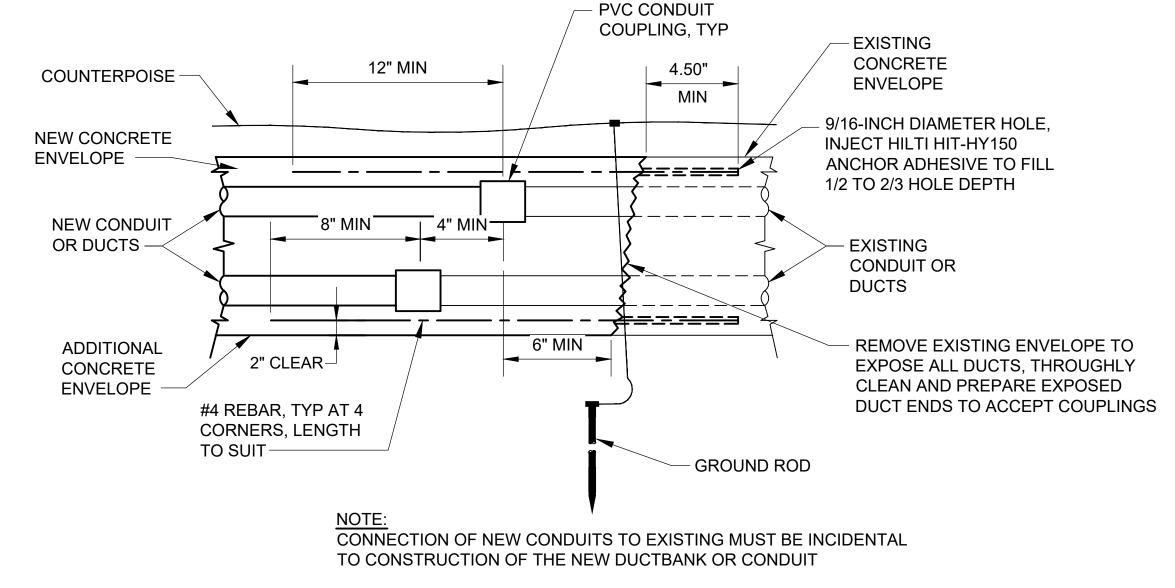
6-INCH WIDE UNDERGROUND DETECTABLE WARNING MARKING TAPE -- BITUMINOUS **CONCRETE SURFACE** #6-AWG BARE COPPER, SOFT DRAWN GROUNDING ELECTRODE CONDUCTOR, SEE DUCT BANK SPECIFIED IN FIMIN. (INFIELD, 030" MIN, (PAVE NOTES 10 AND 11 **BASE COURSE SUITABLE** BACKFILL, P-152 (DEPTH VARIES) CONCRETE ENVELOPE, 4000 PSI SCHEDULE 40 PVC CONDUIT CONCRETE SEE DRAWING FOR SIZE & TYPE ENVELOPE, **CONDUIT BASE** 4000 PSI SPACERS, TYP. **SECTION - DUCT BANK - 2W** E503 SCALE: NTS

PAVED AREA

INFIELD/GRASS AREA

14. INSTALL A PULL ROPE (1800-POUND MIN. TENSILE STRENGTH) IN EACH CONDUIT TO EACH STRUCTURE AND TERMINAL END. PROVIDE 10' SLACK AT EACH.





NEW DUCT CONNECTED TO EXISTING E503 SCALE: NTS

CONSULTANT 6031 UNIVERSITY BLVD. SUITE 330 ELLICOTT CITY, MD 21043

NOT LESS THAN 24-INCHES.

CLUSTER OF JOINTS ALIGN.

THE END SPACERS.

2. THE DUCT BANK SHALL BE ASSEMBLED WITH

PLANES SO THAT NO TWO JOINTS IN THE

FOR TEN-FOOT LENGTHS OF DUCT, DUCT

SPACER ASSEMBLIES SHALL BE PLACED AT

2'-6" ON EITHER SIDE OF THE MID-POINT OF

EACH JOINT CLUSTER. FOR TWENTY-FOOT

LENGTHS OF DUCT, IN ADDITION TO DUCT

SPACER ASSEMBLIES BEING PLACED 2'-6"

CLUSTER AT EACH END, INSTALL SPACER

ASSEMBLIES AT 5'-0" INTERVALS BETWEEN

DURING DUCT BANK CONCRETE ENVELOPE

PLASTIC DUCT PLUGS TO PREVENT SOIL.

BE CLOSED WITH PULL TAB EQUIPPED

PUSH-IN POLYVINYL CHLORIDE (PVC)

5. DURING THE CONCRETE POUR, PROTECT

TO FALL DIRECTLY ONTO THE DUCTS.

INSTEAD, FLOW THE CONCRETE ONTO A

WOODEN PLANK OR PLYWOOD SHEET AND THEN SPREAD THE CONCRETE INTO PLACE.

VIBRATE TO REMOVE EXCESS AIR, BUT DO NOT PERMIT THE CONCRETE VIBRATOR TO

TRADE SIZE DIAMETER OF THE DUCT SHALL

BE DRAWN THROUGH EACH DUCT TO INSURE

COME INTO CONTACT WITH THE DUCTS.

COMPLETE, A VERIFICATION MANDRILL 12-INCHES LONG AND NOT MORE THAN 1/4-INCH DIAMETER SMALLER THAN THE

THAT DUCT HAS NOT BEEN DEFORMED.

WHEREVER A DUCT IS FOUND NOT TO BE

ABLE TO PASS THE MANDRILL TEST, THE CONTRACTOR, AT NO ADDITIONAL COST TO

TEL: 410.465.9600

FAX: 410.465.9602

6. AFTER DUCT BANK INSTALLATION IS

WATER OR CONCRETE ENTRY.

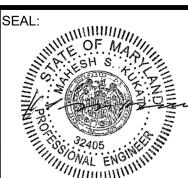
INSTALLATION, DUCT ASSEMBLY ENDS SHALL

THE DUCTS; DO NOT PERMIT THE CONCRETE

FROM THE MID-POINT OF THE JOINT

3-INCHES IN THE HORIZONTAL AND VERTICAL

THE JOINTS STAGGERED BY AT LEAST



March 3,2023

PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

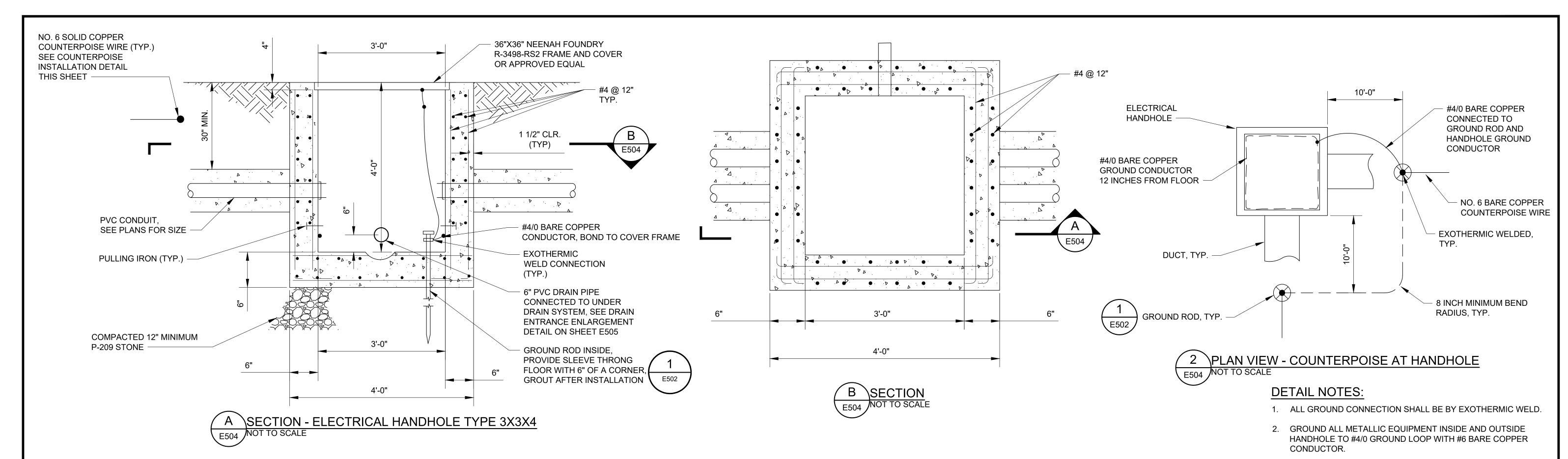
DATE NO. D.A.B. D.A.B. CHECKED: J JUUGUNIEN IR PPROVED EXPIRATION DATE: 12-22-23 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0084_E501_5_ELECTRICAL DETAILS.dwg LAYOUT NAME: E503 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 10:47pm

DESCRIPTIONS

EVISION | REVISION



PROJECT TITLE: FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 TAXIWAY F REHABILITATION GRADING PERMIT NO.: GP-22-008 SHEET TITLE: LIGHTING DETAILS 3 SHEET NO.: E503 SCALE: N/A FEBRUARY 2023 86 OF 97



NOTES:

- 1. MANHOLE IS DESIGNED FOR 757-300ER SERIES AIRCRAFT LOADING.
- 2. MANHOLES SHOWN SHALL BE PRECAST WITH NORMAL WEIGHT CONCRETE OF 5000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
- 3. REINFORCEMENT SHALL CONFORM TO ASTM A615 GRADE 60.
- 4. SEE ELECTRICAL DRAWINGS FOR MANHOLE LOCATIONS AND CONDUIT ORIENTATION.
- 5. PROVIDE 6" DRAIN PIPE IN EACH STRUCTURE, FOR ROUTING SEE ELECTRICAL DRAWINGS. DRAIN PIPE SHALL MAINTAIN A MINIMUM 0.25% SLOPE.



- #4 BAR @ 12" #4 BAR (TYP) #6 BAR (TYP.) -

CIRCULAR COLLAR PLAN

NOTE: PROVIDE TWO-PIECE COLLAR FOR TALLER SECTIONS IF **NECESSARY FOR HANDLING**

RECTANGULAR COLLAR PLAN

NOTE: PROVIDE TWO-PIECE COLLAR FOR TALLER SECTIONS IF **NECESSARY FOR HANDLING**

#4 @ 12" STIRRUPS DRILL AND EPOXY GROUT (4) #6 DOWELS INTO TOP SLAB AND WALLS EMBEDDED 9 INCHES MIN. VARIES, TO BE VERIFIED IN THE FIELD **\DETAIL - SECTION** NOT TO SCALE

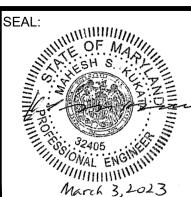
3. BOND ALL CABLE SHIELDS TO #4/0 GROUND LOOP WITH #6 BARE

4. APPLY EXPANDABLE FOAM DUCT SEALANT AT ALL OPENINGS.

COPPER CONDUCTOR.

\DETAIL - PRECAST COLLAR NOT TO SCALE



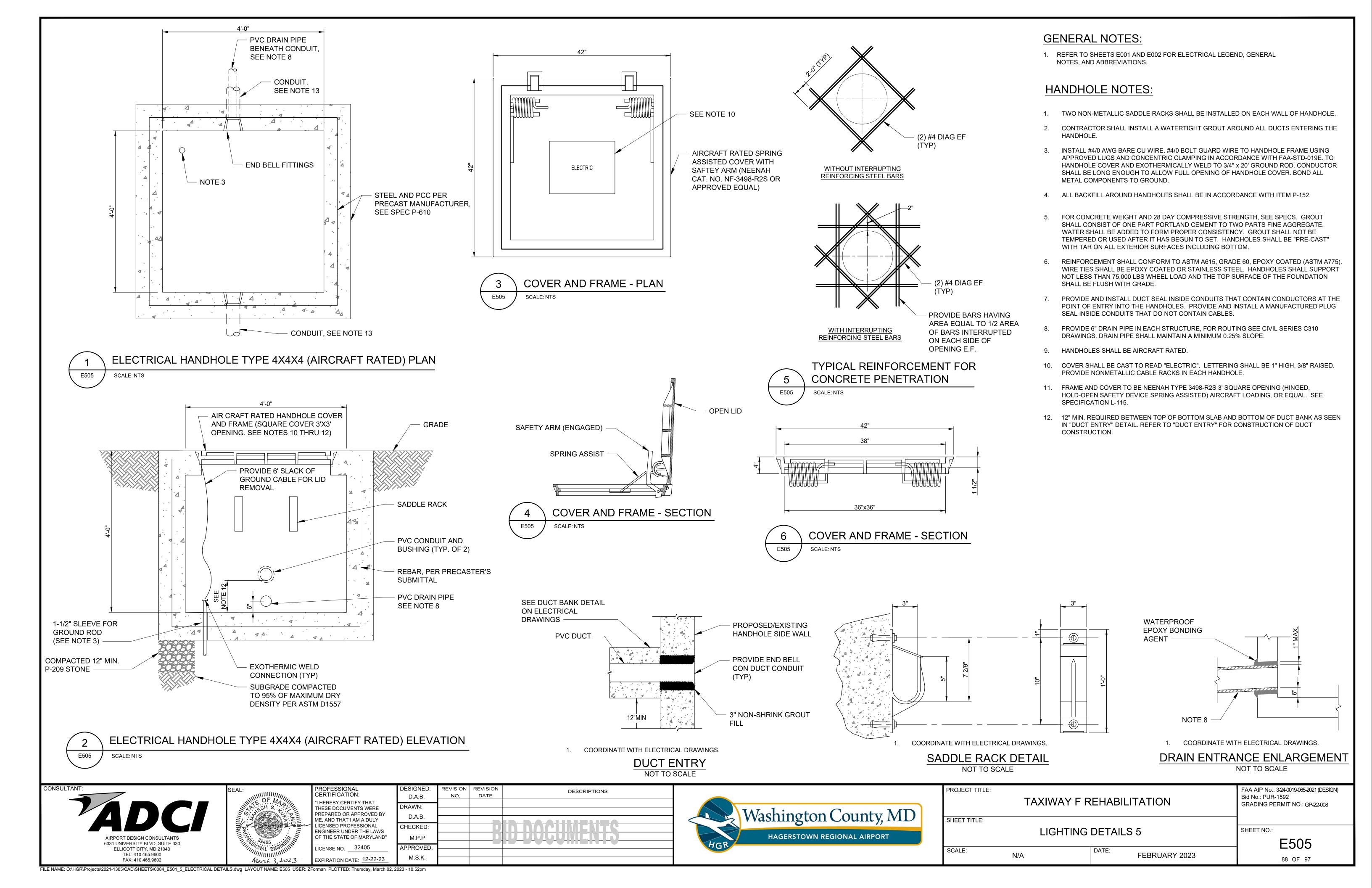


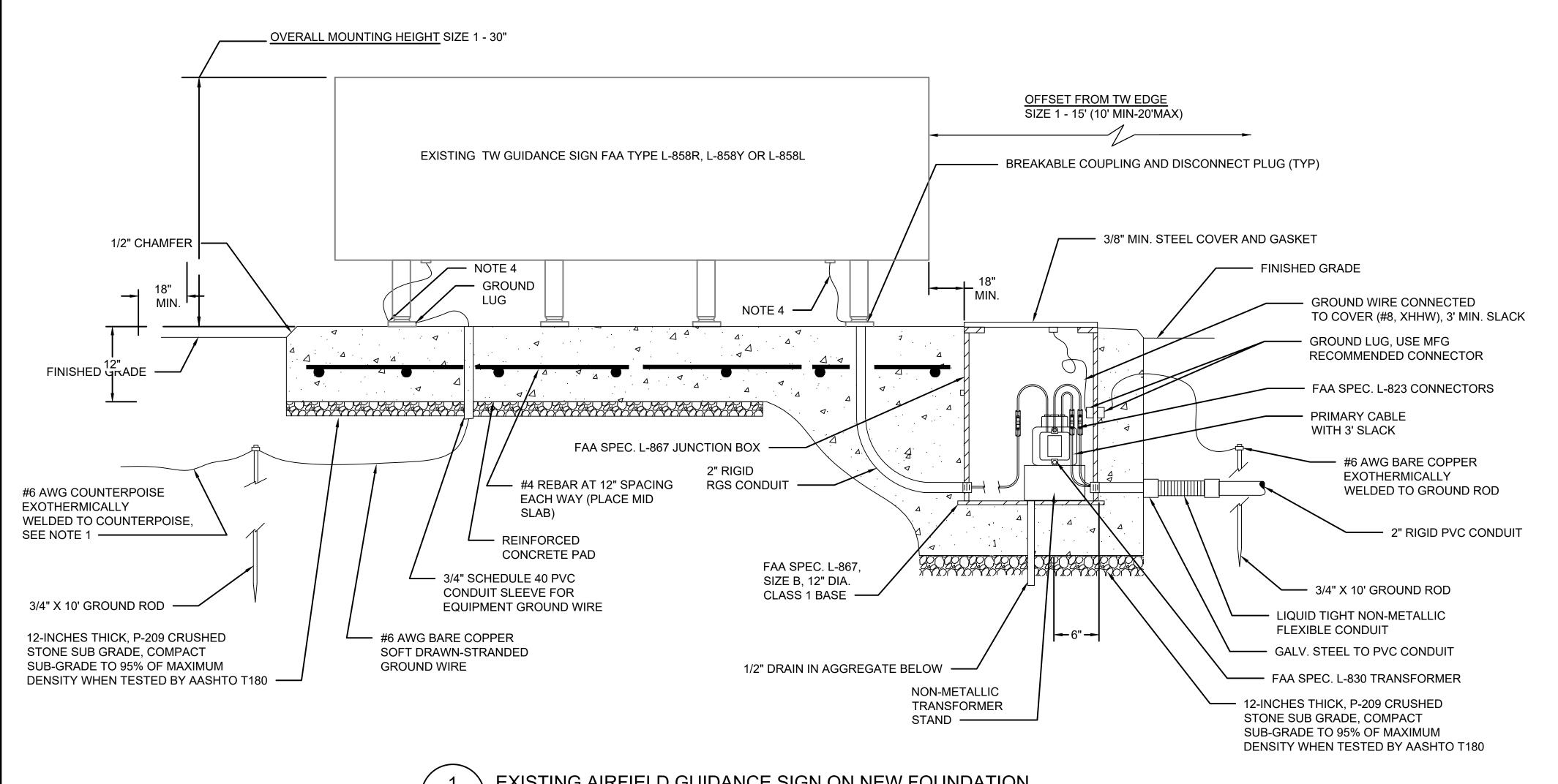
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

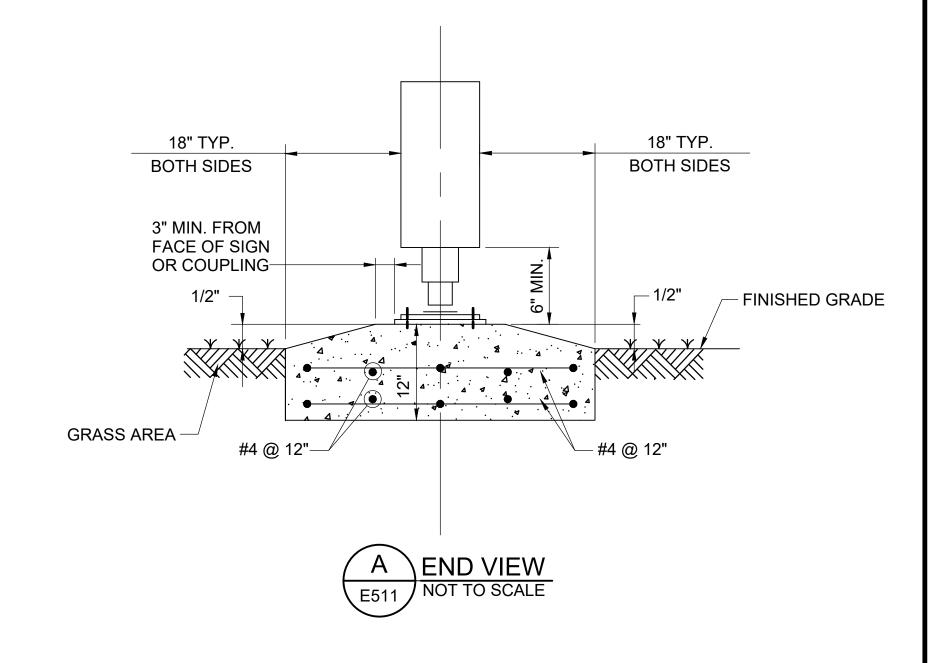
DESCRIPTIONS DATE NO. D.A.B. D.A.B. CHECKED: M.P.P APPROVED: EXPIRATION DATE: 12-22-23 FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0084_E501_5_ELECTRICAL DETAILS.dwg LAYOUT NAME: E504 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 10:49pm



PROJECT TITLE:	TAXIWAY F F	REHABILITATION	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
SHEET TITLE:	LIGHTING	DETAILS 4	SHEET NO.: E504
SCALE:	N/A	DATE: FEBRUARY 2023	87 OF 97







1 E511

EXISTING AIRFIELD GUIDANCE SIGN ON NEW FOUNDATION

SCALE: NTS

NOTES:

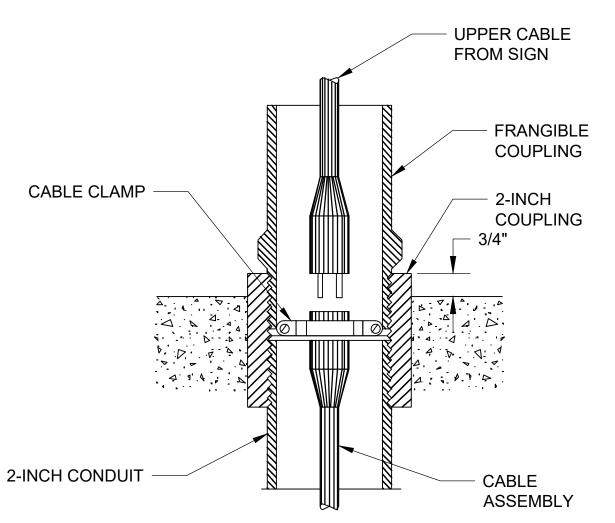
- 1. DO NOT CONNECT COUNTERPOISE ABOVE CONDUIT LEADING TO SIGN TO THE BASE. CONNECT COUNTERPOISE TO SEPARATE GROUND ROD.
- 2. FOUNDATION: THICKNESS = 12"

 WIDTH = MIN. 3'. PROVIDE 18" CLEAR ON ALL SIDES OF SIGN.

 SLOPE FOUNDATION SURFACE TO DRAIN AWAY FROM SIGN, APPROX. 2% (1/4" / FT)
- 3. MAXIMUM OVERALL SIGN LENGTH: SIZE 1 120"
- 4. PROVIDE TETHERS, MINIMUM 2 PER SIGN.

DETAIL NOTES:

- 1. CONCRETE "SHALL BE CONFORMED TO ITEM P-610 STRUCTURAL PORTLAND CONCRETE
- 2. REINFORCING SHALL CONFORM TO ASTM A-615, GRADE 60.
- 3. COORDINATE REVISED GUIDANCE SIGN LOCATION WHERE OBSTRUCTIONS PROHIBITING PROPER INSTALLATION EXIST. OBSTRUCTIONS INCLUDE BUT ARE NOT LIMITED TO DRAINAGE DITCHES, DRAINAGE STRUCTURES, AND AIRFIELD ELECTRICAL EQUIPMENT FINAL GUIDANCE SIGN LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION REFER TO SIGN SCHEDULE FOR RECOMMENDED STATION AND OFFSET.
- 4. NON-METALLIC TRANSFORMER STAND. RURAL ELECTRIC OR EQUAL.

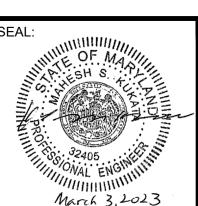


2 GUIDAI
E511 SCALE: NTS

GUIDANCE SIGN FRANGIBLE COUPLING CONNECTION

AIRPORT DESIGN CONSULTANTS
6031 UNIVERSITY BLVD, SUITE 330
ELLICOTT CITY, MD 21043
TEL: 410.465.9600

FAX: 410.465.9602



FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0089_E511_ELECTRICAL SIGN DETAILS.dwg LAYOUT NAME: E511 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 10:57pm

PROFESSIONAL
CERTIFICATION:

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THESE DOCUMENTS WERE
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ME, AND THAT I AM A DULY
LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND"

LICENSE NO. 32405

EXPIRATION DATE: 12-22-23

DESIGNED:
D.A.B.

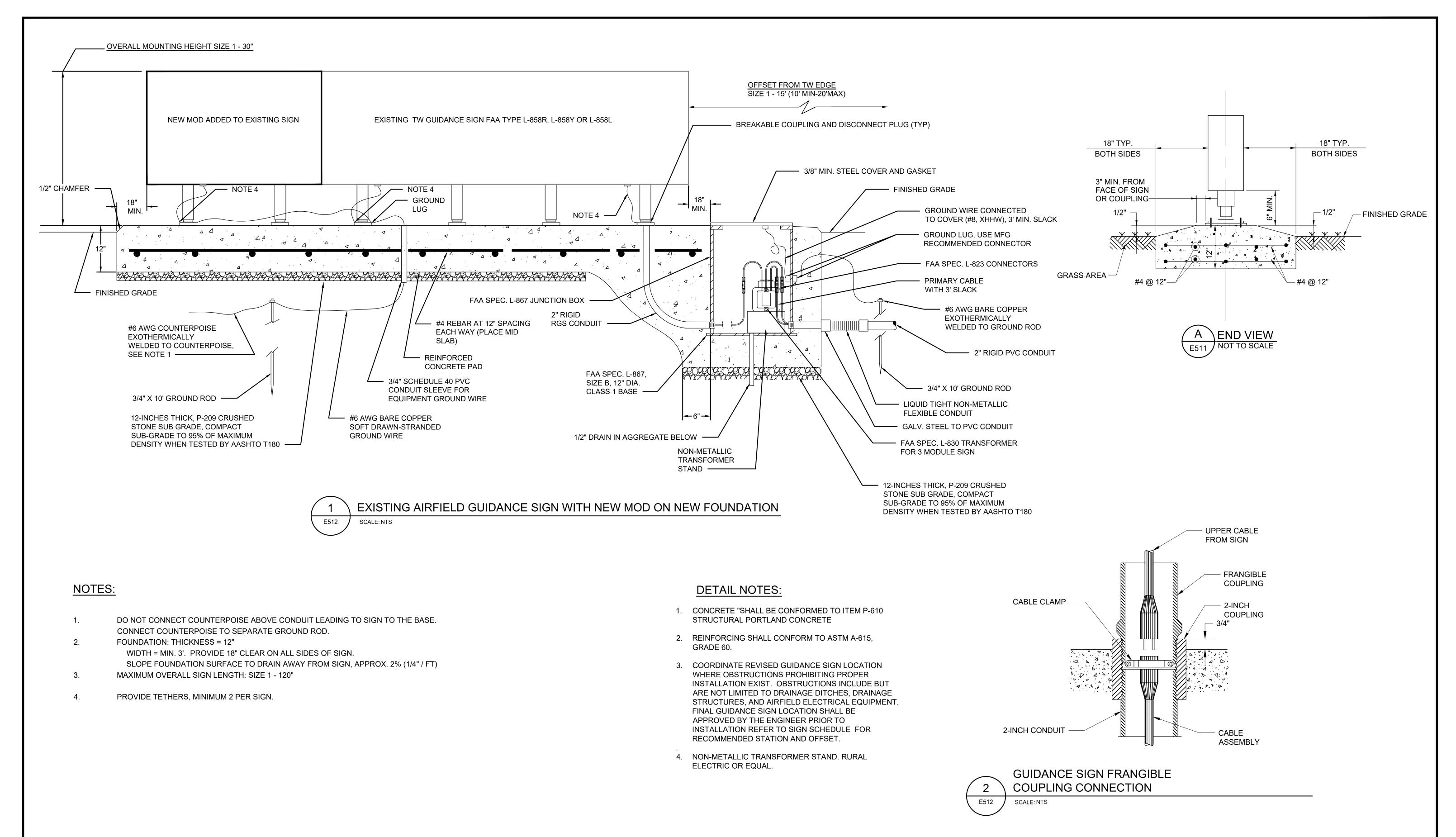
DRAWN:
D.A.B.

CHECKED:
M.P.P

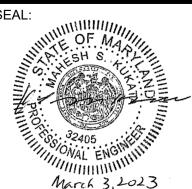
APPROVED:
M.S.K.



ROJECT TITLE:	TAXIWAY F R	EHABILITA	ATION	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008
HEET TITLE:				
	ELECTRICAL S	SIGN DETA	AIL 1	SHEET NO.:
				E511
CALE:	N/A	DATE: F	EBRUARY 2023	
	. 4//	'	25.13, 11.1 2320	89 OF 97







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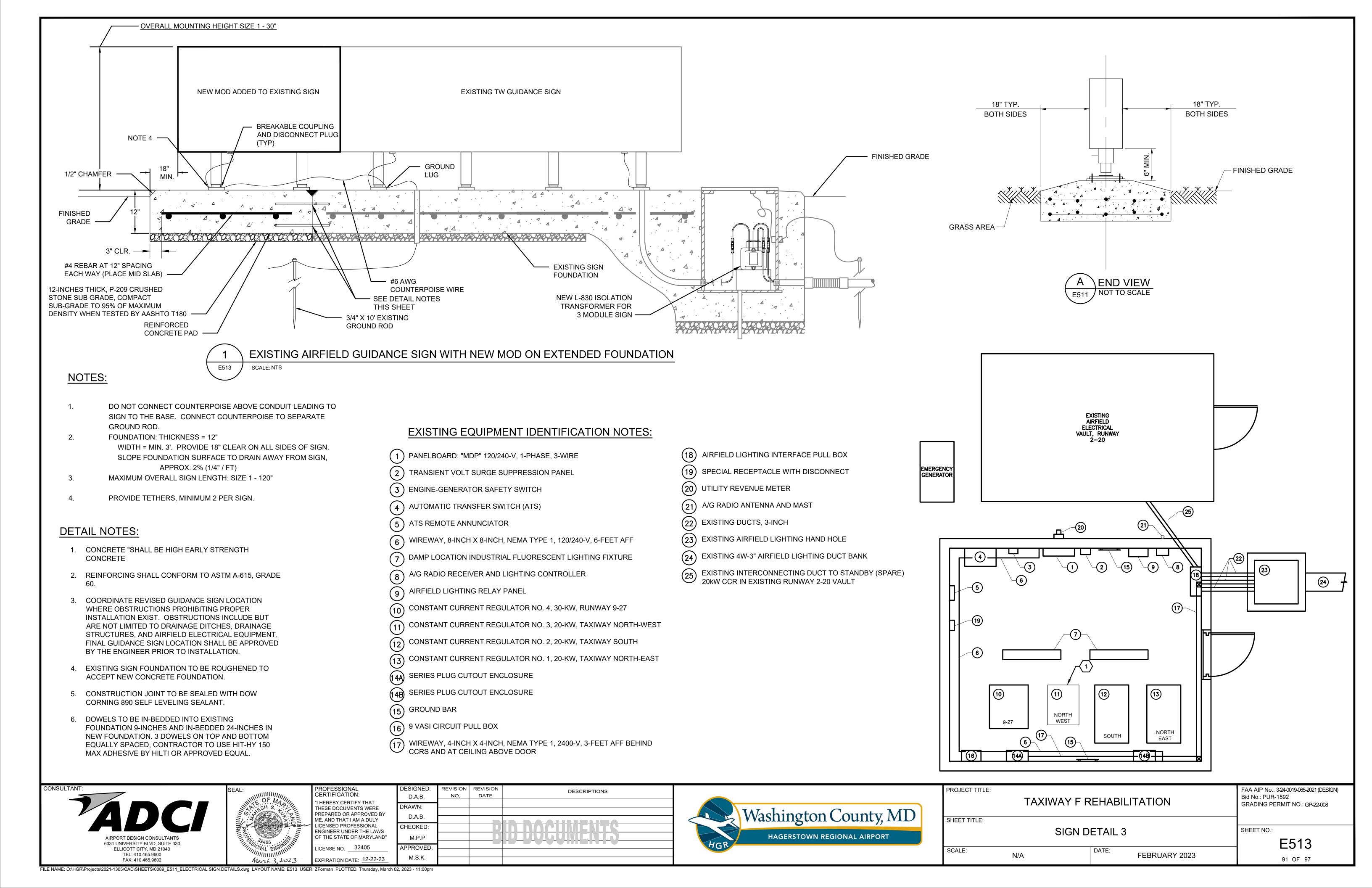
EXPIRATION DATE: 12-22-23

THESE DOCUMENTS WERE PREPARED OR APPROVED BY ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND"

DESCRIPTIONS DATE NO. D.A.B. D.A.B. CHECKED: J DUGUMENTR M.P.P APPROVED: FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0089_E511_ELECTRICAL SIGN DETAILS.dwg LAYOUT NAME: E512 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 10:59pm



FAA AIP No.: 3-24-0019-065-2021 (DESIGN) PROJECT TITLE: Bid No.: PUR-1592 TAXIWAY F REHABILITATION GRADING PERMIT NO.: GP-22-008 SHEET TITLE: SIGN DETAIL 2 SHEET NO.: E512 SCALE: N/A FEBRUARY 2023 90 OF 97



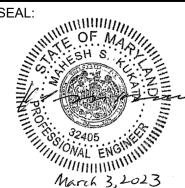
					ELEVATED TA	XIWAY EDGE L	IGHT (TW-F)	
FIXTURE NUMBER	BASELINE:	STATION	OFFSET	FIXTURE	LENS COLOR	CIRCUIT	DRAWING REFERENCE	NOTE:
TWF-001	TW F	247+79.10	39.58R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-002	TW F	248+20.75	39.46R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-003	TW F	248+62.52	39.66R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-004	TW F	249+05.53	39.96R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-005	TW F	249+48.38	39.17R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON EXISTING BASE CAN
TWF-006	TW F	249+94.74	40.15R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-007	TW F	250+16.90	39.76R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-008	TW F	250+39.23	38.68R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-009	TW F	250+61.85	37.07R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-010	TW F	250+84.89	35.14R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-011	TW F	251+23.33	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 4 HUB BASE CA
TWF-012	TW F	251+63.67	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-013	TW F	252+13.67	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-014	TW F	253+04.60	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-015	TW F	254+45.56	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C.
TWF-016	TW F	255+36.46	36.44R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-017	TW F	255+88.35	37.21R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C.
TWF-018	TW F	256+40.22	36.46R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C.
TWF-018-1	TW F	256+90.63	35.66R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-019	TW F	257+41.02	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 4 HUB BASE C

					ELEVATED	TAXIWAY EDG	E LIGHT (TW-F)	
FIXTURE NUMBER	BASELINE:	STATION	OFFSET	FIXTURE	LENS COLOR	CIRCUIT	DRAWING REFERENCE	NOTE:
TWF-020	TW F	257+89.32	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-021	TW F	258+37.64	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-022	TW F	259+41.50	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-023	TW F	260+91.83	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-024	TW F	262+42.17	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-025	TW F	263+42.51	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-026	TW F	263+92.50	35.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-027	TW F	247+62.13	106.29L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-028	TW F	247+81.80	84.28L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-029	TW F	248+05.96	67.32L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-030	TW F	248+33.34	56.28L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-031	TW F	248+62.51	51.74L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-032	TW F	249+05.52	51.30L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-033	TW F	249+48.54	50.86L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-034	TW F	250+90.33	62.19L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-035	TW F	251+26.99	52.57L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-036	TW F	251+63.65	42.94L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-037	TW F	252+13.65	40.66L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-038	TW F	253+04.60	36.50L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-039	TW F	254+45.56	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN

					ELEVATEL) TAXIWAY EDG	ELIGHT (TVV-F)	
FIXTURE NUMBER	BASELINE:	STATION	OFFSET	FIXTURE	LENS COLOR	CIRCUIT	DRAWING REFERENCE	NOTE:
TWF-040	TW F	255+36.45	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-041	TW F	255+88.32	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-042	TW F	256+36.63	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-042-1	TW F	256+87.06	35.66L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-043	TW F	257+37.43	36.46L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 4 HUB BASE CAN
TWF-044	TW F	257+89.31	37.21L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-045	TW F	258+41.19	36.44L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-046	TW F	259+41.50	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-047	TW F	260+91.82	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-048	TW F	262+42.16	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E201	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-049	TW F	263+42.50	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-050	TW F	263+92.50	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-051	TW F	264+42.50	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-052	TW F	264+82.08	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-053	TW F	265+71.66	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-054	TW F	266+61.24	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-055	TW F	267+50.83	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-056	TW F	267+90.41	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-057	TW F	268+40.41	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 4 HUB BASE CAN
TWF-058	TW F	268+83.81	36.99L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN

					ELEVATED) TAXIWAY EDG	E LIGHT (TW-F)	
FIXTURE NUMBER	BASELINE:	STATION	OFFSET	FIXTURE	LENS COLOR	CIRCUIT	DRAWING REFERENCE	NOTE:
TWF-059	TW F	269+27.16	38.97L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-060	TW F	269+70.62	40.96L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-061	TW F	270+14.02	42.94L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 4 HUB BASE CAN
TWF-062	TW F	270+47.02	51.60L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-063	TW F	270+80.03	60.27L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-064	TW F	270+93.10	109.64L	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-065	TW F	272+05.55	111.12L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 4 HUB BASE CAN
TWF-066	TW F	272+18.59	60.39L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-067	TW F	272+51.82	51.67L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-068	TW F	272+85.05	42.94L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-069	TW F	273+38.93	40.46L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-070	TW F	273+67.57	39.15L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 4 HUB BASE CAN
TWF-071	TW F	274+14.76	41.05L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-072	TW F	274+37.06	42.99L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-073	TW F	274+59.08	47.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-074	TW F	274+81.12	52.09L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-075	TW F	274+86.63	54.62L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-076	TW F	274+90.69	59.12L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-076-1	TW F	275+11.25	94.19L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN
TWF-077	TW F	275+31.85	129.24L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CAN





"I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL

PROFESSIONAL CERTIFICATION: ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

DESCRIPTIONS D.A.B. D.A.B. CHECKED: DIDEDUCUMENTO M.P.P APPROVED:



PROJECT TITLE: TAXIWAY F REHABILITATION	F <i>A</i> Bio GF
SHEET TITLE:	
LIGHT SCHEDULES 1	Sŀ

FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008

SHEET NO.:

SCALE: FEBRUARY 2023 AS SHOWN

E600 92 OF 97

FIXTURE NUMBER	BASELINE:	STATION	OFFSET	FIXTURE	LENS COLOR	CIRCUIT	DRAWING REFERENCE	NOTE:
TWF-078	TW F	276+30.72	125.51L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 4 HUB BASE CA
TWF-079	TW F	276+15.34	91.47L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CA
TWF-79-1	TW F	276+12.94	65.47L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CA
TWF-79-2	TW F	276+27.11	43.53L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CA
TWF-080	TW F	276+51.79	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CA
TWF-081	TW F	276+85.76	35.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CA
TWF-082	TW F	277+31.70	36.14L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 4 HUB BASE CA
TWF-083	TW F	277+77.64	37.99L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 4 HUB BASE CA
TWF-084	TW F	278+15.67	39.52L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON RE-INSTALLED EXISTING 2 HUB BASE CA
TWF-085	TW F	278+53.71	41.05L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-086	TW F	278+76.00	42.99L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON NEW EXISTING 2 HUB BASE CAN
TWF-087	TW F	278+98.03	47.00L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-088	TW F	279+20.74	52.25L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-089	TW F	279+26.48	54.94L	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-090	TW F	278+62.01	81.07R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-091	TW F	278+59.80	70.62R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-092	TW F	278+51.20	64.30R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-093	TW F	278+14.43	54.12R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-094	TW F	277+77.66	43.93R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN
TWF-095	TW F	277+31.71	41.70R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CAN

				ELE	EVATED TAXIWA	AY EDGE LIGHT	(TW-F)	
FIXTURE NUMBER	BASELINE:	STATION	OFFSET	FIXTURE	LENS COLOR	CIRCUIT	DRAWING REFERENCE	NOTE:
TWF-118	TW F	270+14.94	53.89R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-119	TW F	270+06.59	60.47R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-119-1	TW F	269+91.39	82.24R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 4 HUB BASE CAN
TWF-120	TW F	269+81.63	104.09R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 4 HUB BASE CAN
TWF-121	TW F	269+71.88	125.93R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-122	TW F	269+67.40	169.62R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-123	TW F	269+84.07	210.24R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN

FIXTURE NUMBER	BASELINE:	STATION	OFFSET	FIXTURE	LENS COLOR	CIRCUIT	DRAWING REFERENCE	NOTE:
TWF-096	TW F	276+85.77	39.46R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-097	TW F	276+51.80	40.83R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE CA
TWF-098	TW F	276+01.99	47.00R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON NEW 4 HUB BASE CAN
TWF-099	TW F	275+80.57	52.69R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-100	TW F	275+69.77	59.78R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-101	TW F	275+60.67	70.68R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-102	TW F	275+34.32	106.05R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-103	TW F	275+12.21	146.03R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-106	TW F	274+20.37	78.45R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-107	TW F	274+17.70	69.35R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-108	TW F	274+10.14	63.63R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE INSTALLED ON NEW 2 HUB BASE C
TWF-109	TW F	273+75.72	54.12R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-110	TW F	273+38.93	43.93R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-111	TW F	272+85.06	41.33R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-112	TW F	272+51.06	39.66R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON NEW 4 HUB BASE CAN
TWF-113	TW F	272+01.05	37.23R	L-861T(L)	BLUE	TWF SOUTH CKT	E203	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-114	TW F	271+45.89	38.59R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN
TWF-115	TW F	270+90.71	40.78R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 4 HUB BASE CAN
TWF-116	TW F	270+61.40	41.96R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 4 HUB BASE CAN
TWF-117	TW F	270+23.61	50.69R	L-861T(L)	BLUE	TWF SOUTH CKT	E202	NEW L-861T(L) FIXTURE ON NEW 2 HUB BASE CAN

NOTES

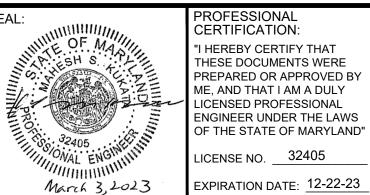
NEW PRE-CAST 4X4 MANHOLE

NEW PRE-CAST 4X4 MANHOLE

NEW PRE-CAST 3X3 MANHOLE

TAXIWAY F MANHOLE/HANDHOLE SCHEDULE								
FIXTURE I.D.	BASE LINE	STATION	OFFSET	DRAWING REFERENCE				
TWF-MH-001	TW F	257+76.32	60.466R	E201	NEW			
TWF-MH-002	TW F	270+71.33	70.864R	E202	NEW			
TWF-MH-003	TW F	276+89.02	64.723R	E203	NEW			





PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

DESCRIPTIONS D.A.B. D.A.B. ID-DACHMENTS CHECKED: DIDEDICATIVIEDES M.P.P APPROVED: FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0090_E600_2_ELECTRICAL LIGHT SCHEDULES.dwg LAYOUT NAME: E601 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 11:07pm



PROJECT TITLE:	TAXIWAY F R	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008	
SHEET TITLE:			
	LIGHT SCH	SHEET NO.:	
			E601
SCALE:	A C CLIO/A/NI	DATE: FEBRUARY 2023	
	AS SHOWN	FEBRUART 2023	93 OF 97

				PROPOS	SED SIGN S	CHEDUL	Ε			
SIGN#	CIRCUIT	LEGEND	BASELINE	STATION	OFFSET	SIGN SIZE	SIGN STYLE	PAY ITEM	ORIGINAL EQUIPMENT MANUFACTURER (OEM)	SHEET NUMBER
28	RW 2-20	m F B/Y	TW F	278+57.07	R 80.32	1	2	L-125-5.7	LUMACURVE INCANDESCENT	E303
29	TW F	B/Y B/Y □	TW F	276+08.65	R 50.67	1	2	L-125-5.8	ADB	E303
31	RW 2-20	B/A	TW F	277+25.83	L 45.92	1	2	L-125-5.8	LUMACURVE INCANDESCENT	E303
64	TW F	B/X E F Y/B B/Y B/Y	TW F	273+76.37	L 44.52	1	2	L-125-5.8	ADB	E303
66	TW F	F F2 → m Y/B B/Y B/Y	TW F	272+61.55	R 45.20	1	2	L-125-5.8	LUMACURVE LED	E303
67	TW F	A/B B/A B/A □ LS ← L → □ A	TW F	272+03.47	L 137.21	1	2	L-125-5.5	LUMACURVE LED	E303
68	RW 9-27	F2 □ B/Y B/Y	TW F	272+62.23	L 310.07	1	2	L-125-5.6	LUMACURVE LED	E303
75	RW 9-27	F2 → < B/Y B/Y	TW F	270+27.39	L 310.67	1	2	L-125-5.6	LUMACURVE LED	E302
76	RW 9-27	F2 9- 27 < Y/B W/R	TW F	270+99.48	L 150.00	1	2	L-125-5.5	LUMACURVE LED	E302
77	TW F	### ### ### ### ### #### #### ########	TW F	270+94.13	R 45.64	1	2	L-125-5.9	LUMACURVE LED	E302

REFERENCE INFORMATION FROM A/C 150/5345-44K "SPECIFICATION FOR RUNWAY AND TAXIWAY SIGNS"

SIGN SIZE 1 = 18 INCH PANEL WITH A 12 INCH CHARACTER SIGN SIZE 2 = 24 INCH PANEL WITH A 15 INCH CHARACTER SIGN SIZE 5 = 30 INCH PANEL WITH A 25 INCH CHARACTER

SIGN STYLE 2 = POWERED FROM A SERIES LIGHTING CIRCUIT OF 4.8 TO 6.6A

SIGN STYLE 4 = UNLIGHTED

CLASS 2 = OPERATION FROM -40 DEGREES F TO 131 DEGREES F ENVIRONMENT

MODE 2 = MUST WITHSTAND WIND LOADS OF 200 MPH

	SIGN#	CIRCUIT	LEGEND	BASELINE	STATION	OFFSET	SIGN SIZE	SIGN STYLE	PAY ITEM	ORIGINAL EQUIPMENT MANUFACTURER (OEM)	SHEET NUMBER
	77A	TW F	F B/Y B/Y □	TW F	270+00.40	R 107.57	1	2	L-125-5.5	LUMACURVE LED	E302
	78	TW F	← F2 F [∞] B/Y B/Y B/B	TW F	270+37.44	L 54.26	1	2	L-125-5.8	LUMACURVE LED	E302
	79	TW F	$ \begin{array}{c cccc} \hline TE & RM & \rightarrow & \text{m} \\ \hline B/Y & B/Y & B/Y \end{array} $	TW F	268+57.15	L 40.78	1	2	L-125-5.7	LUMACURVE INCANDESCENT	E302
	150	TW F	F F1 → m Y/B B/Y B/Y	TW F	251+18.61	R 40.54	1	2	L-125-5.11	LUMACURVE HALOGEN	E301
	151	RW 9-27	F1 m B/Y B/Y	TW F	247+63.87	L 181.48	1	2	L-125-5.11	LUMACURVE HALOGEN	E301
	152	RW 9-27	F1 9 m Y/B W/R	TW F	249+24.07	R 44.64	1	2	L-125-5.10	LUMACURVE HALOGEN	E301
<u>G</u>	GENERAL NOTES:										

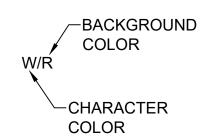
PROPOSED SIGN SCHEDULE

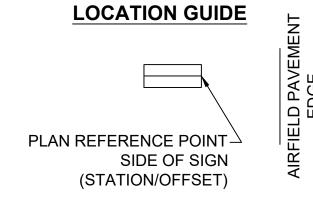
- REFER TO LIGHTING AND SIGNAGE DEMOLITION PLANS FOR INFORMATION ON SIGN REMOVAL.
- 2. A SIGN FACE IS DEFINED AS A SEQUENCE OF NUMBERS, LETTERS, ARROWS, OR "BLANKS" ON ONE OR MORE MESSAGE PANELS COVERING ONE SIDE OF A SIGN WHICH CONVEY A MESSAGE. A BLANK PANEL IS AN ALL BLACK PANEL.
- 3. WHEN FACING SIDE 'A' (REFER TO SIGN SCHEDULE) THE POWER ENTRY INTO THE SIGN SHALL BE THROUGH THE LEG CLOSES TO THE JUNCTION CAN.
- 4. GUIDANCE SIGNS SHALL BE INSTALLED AT A PERPENDICULAR DISTANCE OF 15-FEET FROM THE DEFINED TAXIWAY EDGE TO NEAR SIDE OF SIGN AS INDICATED USING STATION/OFFSET LOCATIONS IN THE SIGN SCHEDULE.
- 5. 'LOCATION' ON THE SIGN SCHEDULE ARE TO ASSIST THE CONTRACTOR IN DETERMINING THE GENERAL AREA FOR WHICH THE SIGN WOULD BE PLACED. VARYING FROM THE 'LOCATION' BY MORE THEN 3-FEET SHALL REQUIRE COORDINATION AND APPROVAL BY THE ENGINEER.
- 6. IMMEDIATELY AFTER A NEW GUIDANCE SIGN IS INSTALLED, OR WORK ON AN EXISTING T/W BEGINS SIGNS SHALL BE COVERED. THE COVER SHALL BE SECURED TO THE SIGN WITH CORD, OR OTHER SUITABLE MEANS. COVER MATERIAL SHALL BE SECURED TO THE SIGN AND WITHSTAND MOVEMENT AND UNVEILING BY WIND OR 200 MPH JET BLAST. ANY SHIFTING OR MOVEMENT OF THE COVER SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR. COVERS SHALL BE REMOVED AFTER APPLICATION OF FINAL PAVEMENT MARKINGS AND IMMEDIATELY PRIOR TO OPENING OF THE CORRESPONDING TAXIWAY. GUIDANCE SIGN COVERS SHALL BE BLACK, HIGH DENSITY POLYETHYLENE (HPDE) SHEETING, MINIMUM 10 MIL. COVERS SHALL BE EQUIPPED WITH EYELETS TO ACCOMMODATE ROPE FOR SECURING THE COVER SIGNS. COST OF SIGN COVERS SHALL BE INCIDENTAL APPLICABLE SIGN ITEM. SIGNS SHALL BE COVERED AS REQUIRED TO ACCOMODATE AIRPORT OPERATION AND CONSTRUCTION PHASING.
- 7. REFER TO SHEET SERIES E101 FOR EXSITING SIGN LOCATIONS.

8. REFER TO SHEET SERIES E201 FOR NEW SIGN LOCATIONS.

SIGN COLOR LEGEND

W = WHITE R = REDB = BLACK Y = YELLOW





SIGN LEGEND A AND B SIDES (REFERENCED ON E300 SERIES PLANS AND SIGN SCHEDULE) -LEGEND SIDES A AND B





FILE NAME: O:\HGR\Projects\2021-1305\CAD\SHEETS\0092_E610_SIGNAGE SCHEDULE.dwg LAYOUT NAME: E610 USER: ZForman PLOTTED: Thursday, March 02, 2023 - 11:12pm

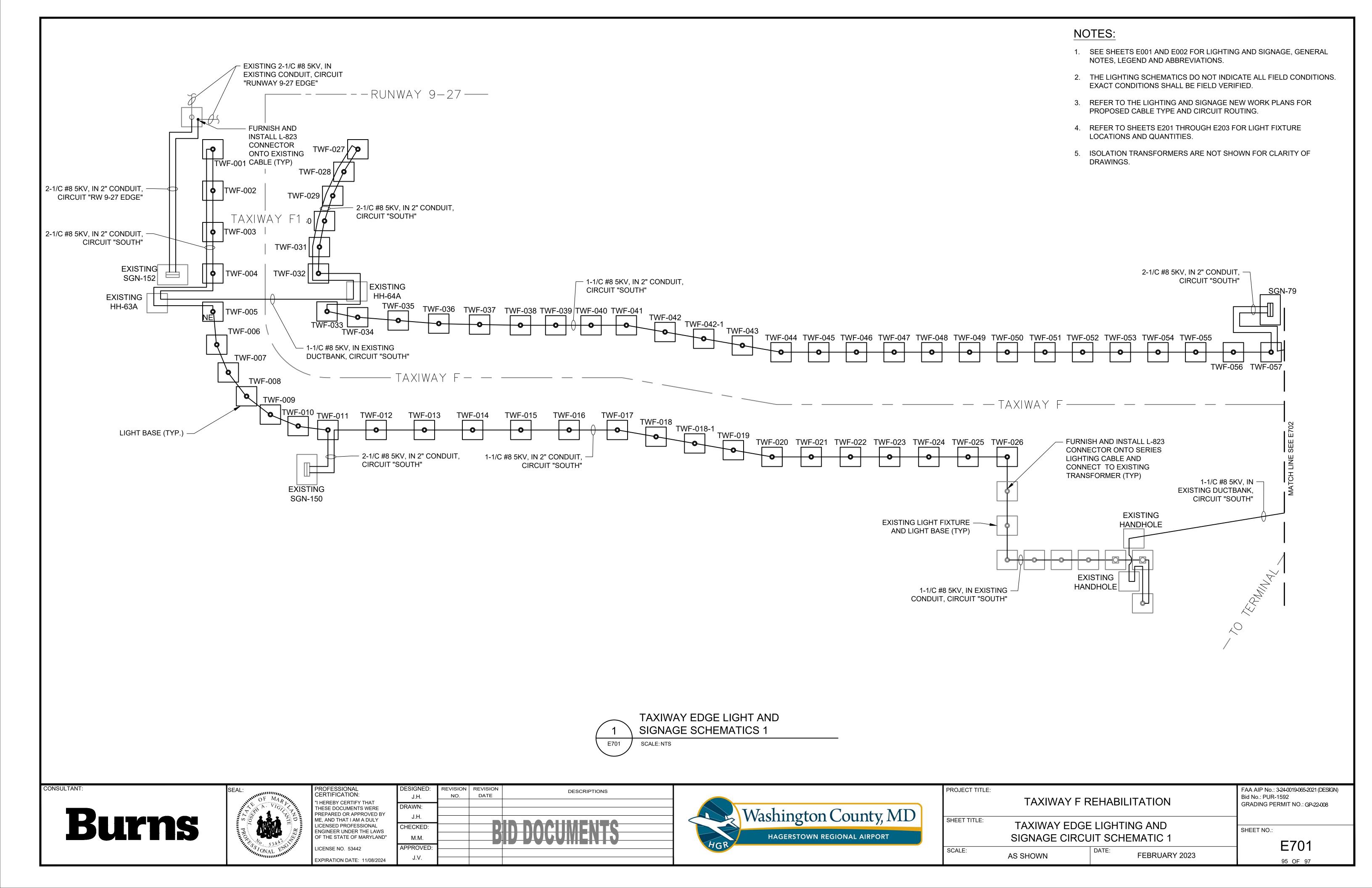
PROFESSIONAL CERTIFICATION: "I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND" LICENSE NO. 32405

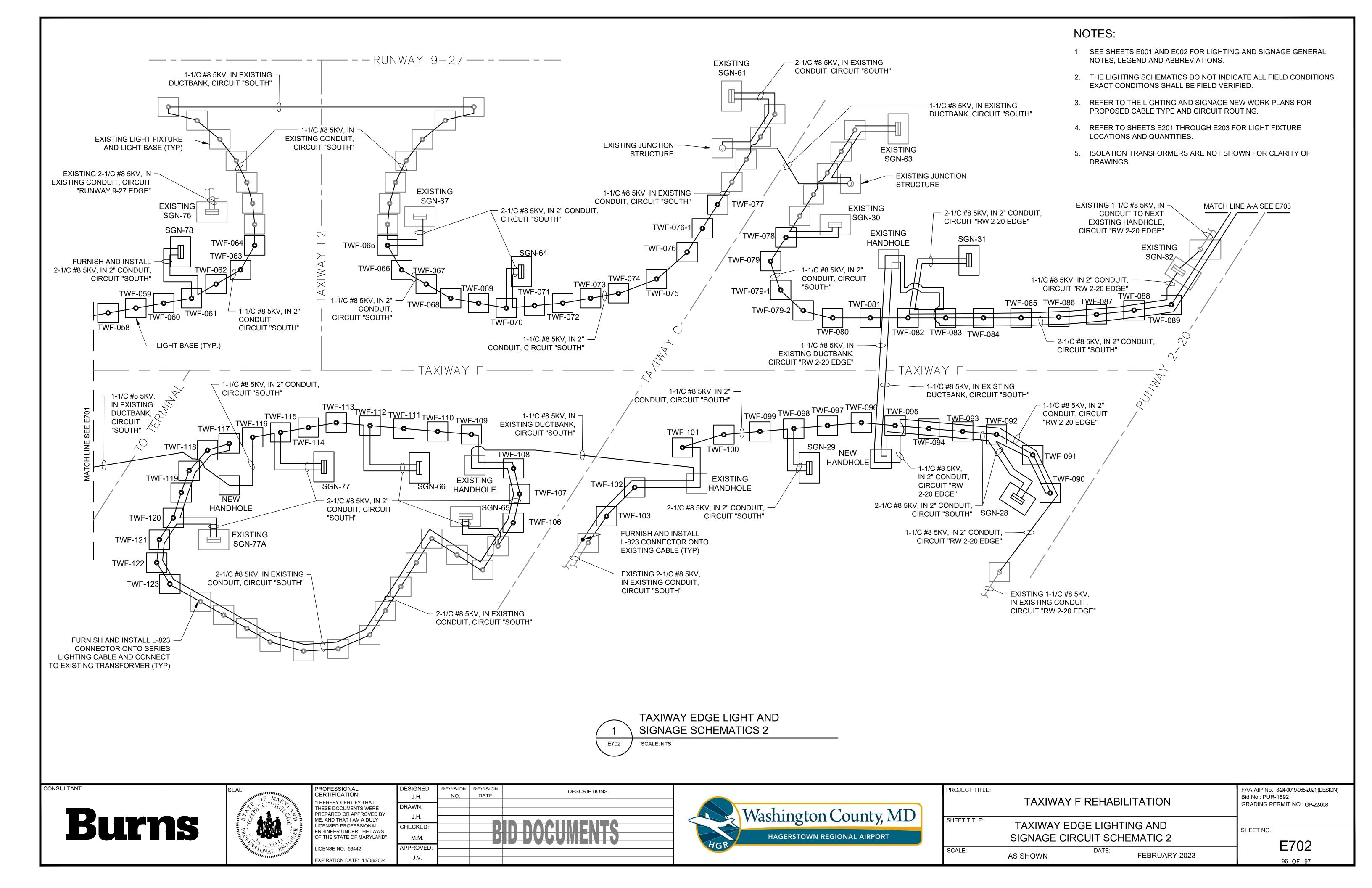
EXPIRATION DATE: 12-22-23

DESCRIPTIONS DATE D.A.B. D.A.B. CHECKED: J DUGUMENTR M.P.P APPROVED:



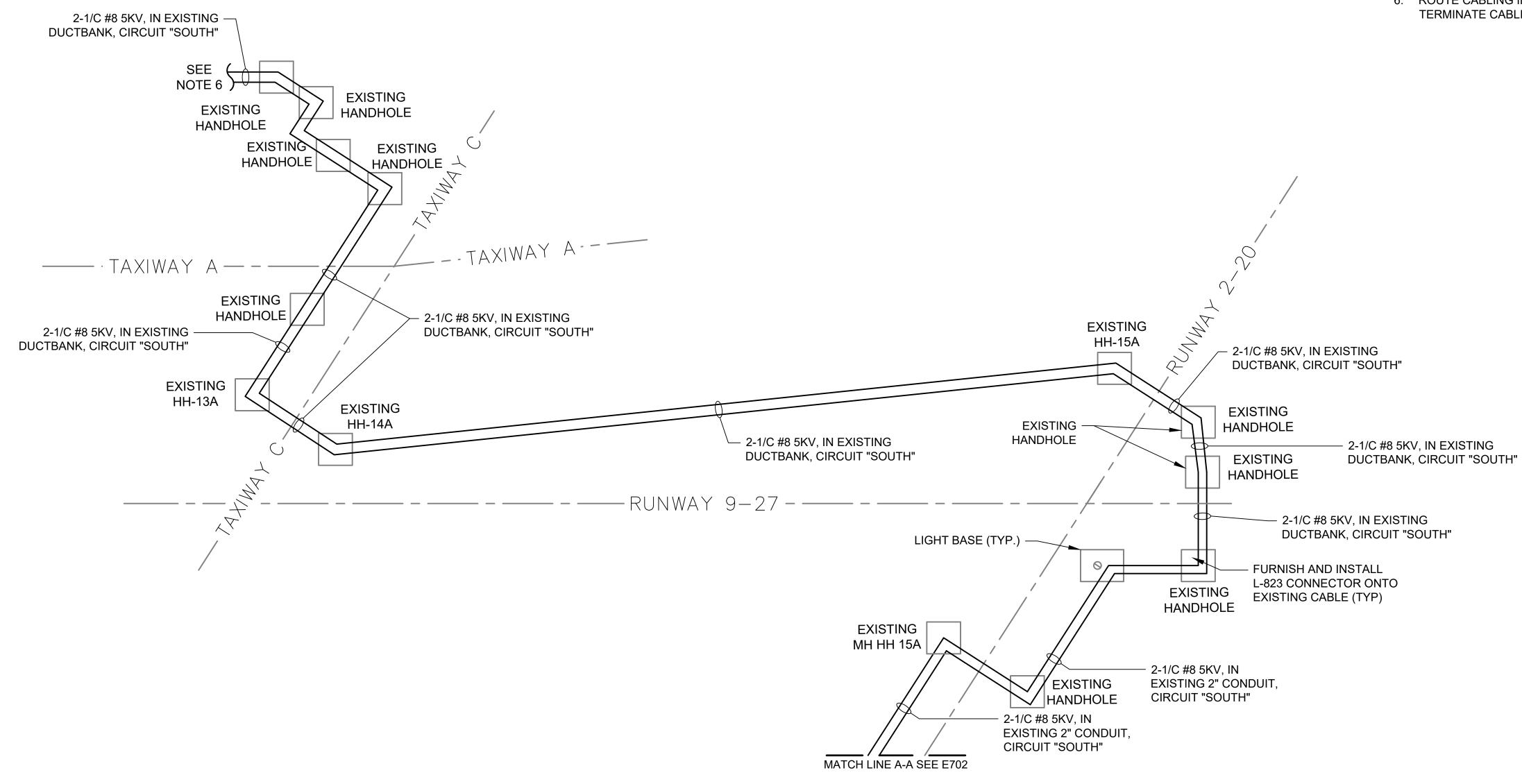
PROJECT TITLE:	FAA AIP No.: 3-24-0019-065-2021 (DESIGN) Bid No.: PUR-1592 GRADING PERMIT NO.: GP-22-008		
SHEET TITLE:	SIGN SC	SHEET NO.: E610	
SCALE:	AS SHOWN	DATE: FEBRUARY 2023	94 OF 97

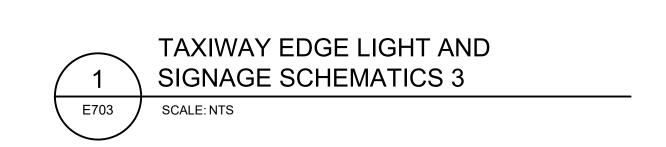




NOTES:

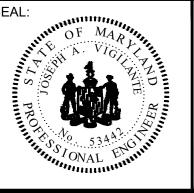
- 1. SEE SHEETS E001 AND E002 FOR LIGHTING AND SIGNAGE GENERAL NOTES, LEGEND AND ABBREVIATIONS.
- 2. THE LIGHTING SCHEMATICS DO NOT INDICATE ALL FIELD CONDITIONS. EXACT CONDITIONS SHALL BE FIELD VERIFIED.
- 3. REFER TO THE LIGHTING AND SIGNAGE NEW WORK PLANS FOR PROPOSED CABLE TYPE AND CIRCUIT ROUTING.
- 4. REFER TO SHEETS E201 THROUGH E203 FOR LIGHT FIXTURE LOCATIONS AND QUANTITIES.
- 5. ISOLATION TRANSFORMERS ARE NOT SHOWN FOR CLARITY OF DRAWINGS.
- 6. ROUTE CABLING INTO AIRFILED LIGHTING VAULT PER DRAWING E203. TERMINATE CABLING AT EXISTING CONSTANT CURRENT REGULATOR.





CONSULTANT:

Burns



PROFESSIONAL CERTIFICATION:	DESIGNED: J.H.	REVISION NO.	REVISION DATE	DESCRIPTIONS
"I HEREBY CERTIFY THAT	DRAWN:			
THESE DOCUMENTS WERE PREPARED OR APPROVED BY				
ME, AND THAT I AM A DULY	J.H.			
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS	CHECKED:		D	IN MACHIMENITO
OF THE STATE OF MARYLAND"	M.M.			
LICENSE NO. 53442	APPROVED:			
EIGENGE NO. 33442				
EXPIRATION DATE: 11/08/2024	J.V.			



ROJECT TITLE.	TAXIWAY F F	TAXIWAY F REHABILITATION					
SHEET TITLE:		TAXIWAY EDGE LIGHTING AND SIGNAGE CIRCUIT SCHEMATIC 3					
SCALE:	4.0.011014/11	DATE:	EEDDLIADV 2002				

AS SHOWN

FEBRUARY 2023

FAA AIP No.: 3-24-0019-065-2021 (DESIGN) No.: PUR-1592 ADING PERMIT NO.: GP-22-008

ET NO.:

E703 97 OF 97