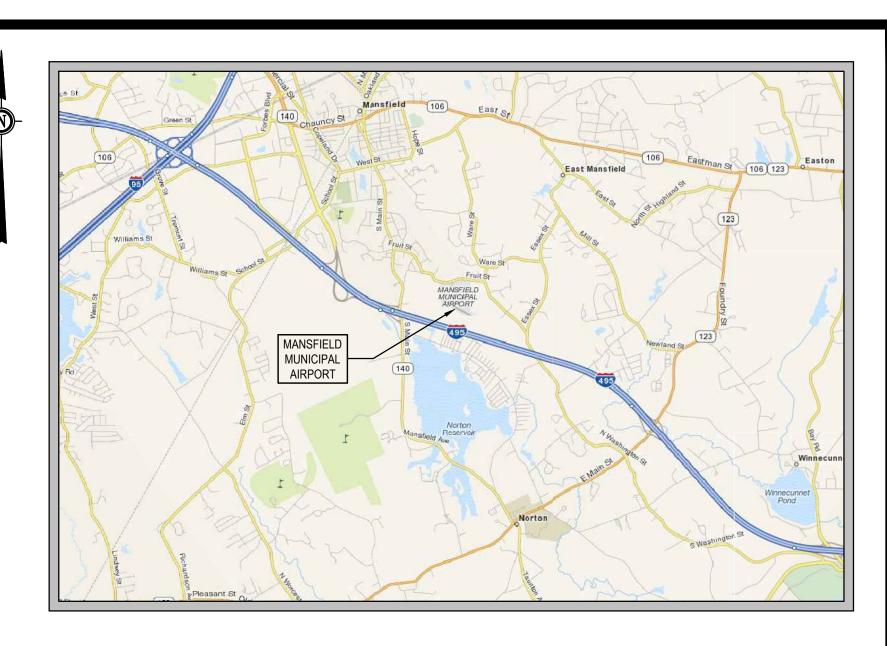


# TOWN OF MANSFIELD MASSACHUSETTS

# MANSFIELD MUNICIPAL AIRPORT



VICINITY MAP

RECONSTRUCT, MARK, LIGHT, AND SIGN RUNWAY 14-32 (APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A' (APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1', 'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALL NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS (REILS, PAPIS, AND PRIMARY WIND CONE)

AIP NO. 3-25-0028-0XX-2025

PLANS AND DETAILS VOLUME I OF III

MAY 2025

DESIGN STAND	DARDS
DESIGN AIRCRAFT	PIPER NAVAJO CHIEFTAIN PA-31-350
AIRPORT REFERENCE CODE (ARC)	B-I (SMALL)
TAXIWAY DESIGN GROUP (TDG)	TDG-1A
DESIGN LOAD	29,000 LBS (GROSS) SRE
RUNWAY 14-32 LENGTH	3,501 FT
RUNWAY 14-32 WIDTH	75 FT
RUNWAY SAFETY AREA (RSA) WIDTH	120 FT
RUNWAY OBJECT FREE AREA (ROFA) WIDTH	250 FT
NOMINAL TAXIWAY WIDTH	25 FT
NOMINAL TAXIWAY SAFETY AREA (TSA) WIDTH	49 FT
NOMINAL TAXIWAY OBJECT FREE AREA (TOFA) WIDTH	89 FT
RUNWAY 14 APPROACH TYPE	VISUAL
RUNWAY 32 APPROACH TYPE	NON-PRECISION

/N OF MANSFIELD, MASSACHUSETTS MANSFIELD MUNICIPAL AIRPORT
MR. JOEL BRANDWINE - CHAIR MANSFIELD AIRPORT COMMISSION
MR. KEVIN BULLOCK, AIRPORT MANAGER

#### ENGINEER'S STATEMENT REGARDING COMPLIANCE

MARK K. OTTARIANO, P.E. GALE ASSOCIATES, INC.

THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED TO THE BEST OF MY KNOWLEDGE AND BELIEF, IN ACCORDANCE WITH THE LIST OF CURRENT FAA ADVISORY CIRCULARS FOR AIP PROJECTS PROVIDED BY THE FAA IN A LETTER DATED NOVEMBER 17, 2022. KNOWN DEVIATIONS FROM FAA STANDARDS WERE APPROVED BY FAA IN LETTERS DATED NONE AND ARE DISCUSSED IN THE PROJECT ENGINEERING REPORT AND/OR OTHER OFFICIAL PROJECT DOCUMENTS.

MOL

DATE <u>May 28, 2025</u>



ITEM

DESCRIPTION

MAJOR ITEM QUANTITIES

QUANTITY

Connecticut | Florida | Maine | Maryland

Massachusetts | New Hampshire | Virginia

Gale Associates, Inc Engineers & Planners

PREPARED BY

6 Bedford Farms Drive, Suite 101 | Bedford, NH 03110 P 603.471.1887 F 603.471.1809 www.gainc.com

BID SET

#### AIRPORT OPERATIONS COORDINATOR

1. THE SPONSOR SHALL PROVIDE AN OPERATIONS COORDINATOR WHO SHALL HAVE THE AUTHORITY TO OPEN AND CLOSE FACILITIES, ISSUE AND CANCEL NOTAMS AND TO COORDINATE WITH AIRPORT USERS. FOR THE PURPOSES OF THIS PROJECT, THE AIRPORT MANAGER, MR. KEVIN BULLOCK, SHALL BE THE DESIGNATED AIRPORT OPERATIONS COORDINATOR. PHONE: 508-930-1121.

#### AIRPORT SECURITY

D

- THE CONTRACTOR SHALL COMPLY WITH ALL AIRPORT SECURITY REQUIREMENTS AS DIRECTED BY THE AIRPORT OPERATIONS COORDINATOR OR CSPP, WHICHEVER IS MORE STRINGENT.
- 2. NO CONTRACTOR OR CONTRACTOR'S PERSONNEL WILL BE ALLOWED TO OPERATE ANY VEHICLE WITHIN THE AIRPORT'S ACTIVE MOVEMENT AREAS WITHOUT PROPER TRAINING FROM THE AIRPORT OPERATIONS COORDINATOR. ANY PERSONNEL PERMITTED TO OPERATE VEHICLES SHALL BE COMPETENT AND TRAINED IN AIRFIELD DRIVING PRACTICES. DRIVERS WILL BE ASSIGNED A CALL SIGN FROM THE AIRPORT OPERATIONS COORDINATOR, AND SHALL MONITOR THE AIRPORT GROUND COMMUNICATIONS FREQUENCY (123.00MHZ) AT ALL TIMES.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING ACCESS TO AND FROM THE WORK AREAS AND ENSURING THAT AIRPORT SECURITY IS MAINTAINED AT ALL TIMES. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CONTROLLING ACCESS THROUGH AIRPORT GATES. NO GATE SHALL BE LEFT OPEN AND UNLOCKED UNLESS A GATE GUARD IS STATIONED AT THE GATE. FINES CAN BE IMPOSED FOR SECURITY VIOLATIONS AND INCURSIONS INTO ACTIVE AIRCRAFT OPERATION AREAS. THE CONTRACTOR SHALL PAY ALL FINES ASSESSED AGAINST THE AIRPORT DUE TO VIOLATIONS CAUSED BY THE CONTRACTOR, CONTRACTOR'S PERSONNEL, SUBCONTRACTORS, AND VENDORS.
- 4. PARKING OF PERSONAL VEHICLES SHALL BE IN DESIGNATED LOCATIONS ONLY. THE CONTRACTOR, AS A SUBSIDIARY OBLIGATION, SHALL PROVIDE ADEQUATE AND SAFE TRANSPORTATION FOR THEIR EMPLOYEES BETWEEN PARKING AREAS AND THE WORK SITE. DRIVERS OF WORK VEHICLES WILL BE INSTRUCTED THAT THEIR MOVEMENTS ARE CONFINED TO THE DESIGNATED HAULING AND ACCESS ROUTES AND WILL BE CAUTIONED THAT UNAUTHORIZED DEVIATIONS FROM THESE DESIGNATED ROUTES OR INCURSIONS INTO ACTIVE AIRCRAFT OPERATION AREAS MAY LEAD TO THEIR ARREST AND SUBSEQUENT PAYMENT OF FINES.
- 5. THE CONTRACTOR SHALL INSTRUCT SUPPLIERS REGARDING ACCESS PROCEDURES TO BE FOLLOWED WHILE DELIVERING MATERIALS TO THE SITE. THE CONTRACTOR SHALL DESIGNATE AN ESCORT FOR ALL DELIVERIES THAT HAS RECEIVED TRAINING ON AIRFIELD GROUND MOVEMENTS. THE ESCORT SHALL REMAIN WITH THE DELIVERY DRIVER/CREW FOR THE ENTIRE DELIVERY AND MAY NOT LEAVE THE DELIVERY DRIVER/CREW UNTIL THEY HAVE SAFELY BEEN ESCORTED OFF AIRPORT PROPERTY.
- 6. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND THE SPONSOR WITHIN TEN (10) DAYS AFTER SIGNING THE CONTRACT, AND PRIOR TO THE START OF WORK, A WRITTEN SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) DETAILING PRECAUTIONS THEY PROPOSE FOR THE CONTROL OF VEHICLE TRAFFIC INCLUDING FLAG PERSONS, SIGNS, BARRICADES, ESCORTS, AND ANY OTHER MEASURES PROPOSED. FOR MORE INFORMATION, SEE SPECIFICATION M-001. AFTER REVIEW AND COMMENT ON THE CONTRACTOR'S OPERATING PROCEDURES BY THE ENGINEER AND SPONSOR, THE CONTRACTOR SHALL FOLLOW THEM EXPLICITLY. THE SPONSOR MAY CLOSE ANY WORK AREA(S) ANY TIME THIS PLAN HAS BEEN VIOLATED. CLOSURE OF ANY WORK AREA(S) BY THE SPONSOR FOR THIS REASON SHALL NEITHER CONSTITUTE A VALID REASON FOR EXTENDING THE CONTRACT TIME, NOR SHALL IT BE GROUNDS FOR ANY CLAIM FOR ADDITIONAL COMPENSATION TO THE CONTRACTOR.
- 7. ALL SECURITY ARRANGEMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE AIRPORT OPERATIONS COORDINATOR.

#### **AIRCRAFT OPERATION AREAS**

- 1. IN GENERAL THE WORK ASSOCIATED WITH THIS PROJECT WILL REQUIRE THE CONTRACTOR TO BE INSIDE THE AIRCRAFT OPERATIONS AREA (AOA). THE AOA IS ANY AREA THAT THE AIRPORT USES FOR LANDING, TAKEOFF, OR SURFACE MANEUVERING OF AIRCRAFTS WHICH INCLUDES THE REQUIRED SAFETY AREAS.
- 2. THE CONTRACTOR SHALL KEEP THEIR PERSONNEL AND EQUIPMENT AT LEAST 125 FEET FROM THE CENTERLINE OF THE ACTIVE RUNWAY FOR THE TAKE-OFFS AND LANDINGS OF ALL AIRCRAFT AND AT LEAST 44.5 FEET FROM THE CENTERLINE OF ACTIVE TAXIWAYS AND APRONS FOR AIRCRAFT MOVEMENTS UNLESS THE SPONSOR GRANTS SPECIFIC PERMISSION. IN ADDITION, NO EQUIPMENT WILL BE ALLOWED TO PENETRATE ACTIVE TAXIWAY/TAXILANE RESTRICTED CONSTRUCTION AREAS AS SHOWN ON THE SAFETY PLANS. THE SPONSOR MAY GRANT ACCESS TO SPECIFIC AREAS UPON WRITTEN REQUEST, HOWEVER, NO EQUIPMENT MAY BE LEFT UNATTENDED AND UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE LEFT OVERNIGHT IN ANY LOCATION OTHER THAN THE SPECIFIED

#### OPEN TRENCHES AND EXCAVATIONS

STAGING AREAS.

- THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE ANY OPEN TRENCHES OR EXCAVATIONS WITHIN THE ACTIVE AIRCRAFT OPERATIONS AREAS OVERNIGHT, ON WEEKENDS, OR AT OTHER TIMES WHEN THE CONTRACTOR IS NOT PRESENT AT THE WORK SITE. WORK HOURS AVAILABLE TO THE CONTRACTOR ARE MONDAY-FRIDAY 0700-1700. WORK ON SATURDAY OR SUNDAY WILL NOT BE ALLOWED, PER M-001. ADDITIONAL HOURS MAY BE ALLOWED WITH THE APPROVAL OF THE SPONSOR. LOCAL WORK HOUR ORDINANCES SHALL ALSO APPLY. IN ADDITION, NO EXCAVATION EXCEEDING THREE (3) INCHES IN DEPTH SHALL BE LEFT OPEN WITHIN ANY ACTIVE AIRCRAFT OPERATION AREA UNLESS THE EXCAVATION IS COVERED WITH APPROVED STEEL PLATES. STEEL PLATES SHALL BE CAPABLE OF BEARING THE HEAVIEST AIRCRAFT/VEHICLE THAT MAY TAXI ACROSS THESE PLATES. THE CONTRACTOR SHALL KEEP THE LENGTH OF OPEN TRENCHES COVERED WITH STEEL PLATES TO A MINIMUM, BUT IN NO CASE SHALL THE LENGTH EXCEED 100 LINEAR FEET (100 FT). THE MAXIMUM ALLOWABLE TRENCH WIDTH COVERED BY A STEEL PLATE SHALL BE DETERMINED BY THE CONTRACTOR/STEEL PLATE MANUFACTURER TO ALLOW FOR SAFE PASSAGE OF THE HEAVIEST AIRCRAFT/VEHICLE THAT MAY TAXI ACROSS THESE PLATES.
- 2. ALL EXCAVATIONS, UNLESS COVERED BY STEEL PLATES, SHALL BE BACK FILLED,

COMPACTED, AND HAVE THE PAVEMENT REPAIRED WITH ENOUGH TIME TO CURE PRIOR TO REOPENING THE AREA TO AIRCRAFT OPERATIONS.

PRIOR TO THE END OF EACH WORK DAY, THE CONTRACTOR SHALL ENSURE THAT TURF AREAS WITHIN ANY AIRCRAFT OPERATION AREA ARE GRADED AWAY FROM PAVEMENTS AT A MAXIMUM SLOPE OF FIVE PERCENT (5%) AND SHALL BE LEFT IN SUCH CONDITION THAT IT WILL DRAIN READILY AND EFFECTIVELY AND WILL NOT POSE A HAZARD TO VEHICLES OR AIRCRAFT. NO PILES OF SOIL OR OTHER MATERIALS SHALL BE LEFT UNSPREAD. NO SHARP CHANGES IN GRADE WILL BE PERMITTED, AND ALL MATERIALS SHALL BE THOROUGHLY COMPACTED.

#### DISPOSAL OF SURPLUS AND UNSUITABLE WASTE MATERIALS

- ALL EXCAVATED OR GENERATED SURPLUS MATERIAL AND UNSUITABLE MATERIAL INCLUDING BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE, EXCAVATED MATERIALS, PIPES, STRUCTURES, AND OTHER WASTE MATERIALS SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY UNLESS SPECIFIC INSTRUCTIONS TO THE CONTRARY HAVE BEEN GIVEN TO THE CONTRACTOR BY THE SPONSOR/ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE DISPOSAL OF SURPLUS AND UNSUITABLE CONSTRUCTION MATERIALS OFF AIRPORT PROPERTY.
- 2. NO SEPARATE MEASUREMENT FOR PAYMENT WILL BE MADE FOR THE DISPOSAL; RATHER, IT SHALL BE CONSIDERED INCIDENTAL TO THE PAYMENT ITEM THAT GENERATES THE MATERIAL TO BE DISPOSED OF.
- 3. ANY CONTAMINATED SOIL SHALL BE CONSIDERED UNSUITABLE SURPLUS EXCAVATED MATERIAL AND SHALL BE LEGALLY DISPOSED OF OFF SITE. THE EXCAVATION, REMEDIATION AND DISPOSAL OF CONTAMINATED SOIL WILL BE PAID FOR BY CHANGE ORDER.
- 4. CONTRACTOR MUST FOLLOW MASSACHUSETTS CONTINGENCY PLANS AND 4. ANTI-DEGRADATION REQUIREMENTS FOR DISPOSAL OF EXCAVATED SOIL.

#### **UNDERGROUND UTILITIES AND CABLES**

- THE APPROXIMATE LOCATIONS OF KNOWN UTILITIES AND UNDERGROUND CABLES ARE SHOWN ON THE PLANS. PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE ALL WORK ON, AND IN THE VICINITY OF, THE UNDERGROUND UTILITIES AND CABLES WITH THE FOLLOWING AGENCIES AS APPROPRIATE:
- DIG SAFE AND INDICATED UTILITIES
- THE FAA AIRWAY FACILITIES SECTOR FIELD OFFICE
- TOWN OF MANSFIELD DEPARTMENT OF PUBLIC WORKS (WATER & SEWER)
- TOWN OF NORTON WATER/SEWER DEPARTMENT
- TOWN OF NORTON HIGHWAY DEPARTMENT
- TOWN OF MANSFIELD FIRE DEPARTMENT
- EVERSOURCE ENERGYMANSFIELD MUNICIPAL ELECTRIC
- COMCAST
- COMCASTVERIZON COMMUNICATIONS
- VERIZON
- MANSFIELD MUNICIPAL AIRPORT MAINTENANCE DEPARTMENT
- 2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES IN THE PROJECT AREA, NOT LIMITED TO THOSE LISTED ABOVE, AND ADJUSTING THEIR WORK METHODS TO AVOID AFFECTING THOSE UTILITIES.
- THE CONTRACTOR SHALL REPAIR, AT THEIR OWN EXPENSE, ANY UNDERGROUND OR OVERHEAD UTILITIES DAMAGED BY THEIR OPERATIONS AT NO ADDITIONAL COST TO THE SPONSOR. THIS INCLUDES DAMAGE DONE BY DRIVING EQUIPMENT OVER EXISTING UNDERGROUND CABLES OR UTILITIES. THE REPAIR OF NON-FAA OWNED UTILITIES SHALL BE INSPECTED AND APPROVED BY THE SPONSOR UNLESS IF THE UTILITIES ARE OWNED BY THE UTILITY COMPANIES ABOVE. THE REPAIR OF FAA CABLES SHALL BE INSPECTED AND APPROVED BY THE FAA.
- THE CONTRACTOR SHALL COMPLY WITH THE CURRENT VERSION OF THE DIG SAFE LAW.
  THE CONTRACTOR IS REQUIRED TO PRE-MARK THE CONSTRUCTION SITE AND GIVE NOTICE
  OF PLANNED DIGGING NEAR ANY UTILITY, CABLE OR OTHER INFRASTRUCTURE.
- THERE ARE ELECTRICAL, WATER, SEWER, DRAINAGE, AND OTHER UTILITIES KNOWN TO

EXIST IN THE PROJECT AREA. PARTICULAR CARE SHALL BE TAKEN TO AVOID THE FACILITIES.

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY TO PROTECT THE EXISTING UNDERGROUND UTILITIES AND CABLES THAT ARE TO REMAIN, AND TO MAKE ANY TEMPORARY CONNECTIONS NECESSARY TO MAINTAIN OPERATIONS OF THE UNDERGROUND UTILITIES AND CABLES THAT ARE IMPACTED UNTIL THE PERMANENT REPAIRS CAN BE MADE.

#### CONTRACTOR STAGING AND MATERIAL STORAGE AREA

- 1. THE LOCATION OF THE CONTRACTOR'S FIELD OFFICE AND THE STAGING AND MATERIAL STORAGE AREA ARE LOCATED AS SHOWN IN THE SAFETY AND PHASING PLANS. ANY ACTIVITIES IN THESE AREAS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
- THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT NEEDED FOR THE IMMEDIATE WORK ON HAND WITHIN THE WORK AREA(S) WITH THE APPROVAL OF THE AIRPORT OPERATIONS COORDINATOR. EQUIPMENT NOT IN USE, OR NOT BEING USED REGULARLY, SHALL BE RETURNED TO THE APPROPRIATE STAGING AREA. ALL EQUIPMENT BOOMS SHALL BE LOWERED AT THE CLOSE OF EACH DAY'S WORK OR WHEN STORED. ALL EQUIPMENT SHALL BE PARKED IN THE STAGING AREA(S) AT THE CLOSE OF WORK EACH DAY AND WHENEVER IT IS NOT IN USE OR NOT BEING REGULARLY USED.
- 3. THE CONTRACTOR (AND THEIR SUBCONTRACTORS) SHALL PROVIDE ALL NECESSARY TEMPORARY FENCING, GATES, OR OTHER MATERIALS TO PROTECT THEIR MATERIALS AND EQUIPMENT FROM PILFERAGE AND VANDALISM. THE SPONSOR WILL NOT BE RESPONSIBLE FOR VANDALIZED CONTRACTOR EQUIPMENT OR MATERIALS STORED ON AIRPORT PROPERTY.
- 4. ANY AREA OCCUPIED BY THE CONTRACTOR SHALL BE MAINTAINED IN A CLEAN AND ORDERLY CONDITION SATISFACTORY TO THE ENGINEER AND AIRPORT OPERATIONS COORDINATOR. PARTICULAR ATTENTION SHALL BE GIVEN TO THE ELIMINATION OF COMBUSTIBLE RUBBISH OR DEBRIS THAT HAS THE POTENTIAL OF BECOMING FOD. IN THESE AREAS, RUBBISH OR DEBRIS SHALL NOT BE LEFT EXPOSED OVERNIGHT OR DURING PERIODS OF WORK STOPPAGE.
- 5. AT THE COMPLETION OF THE CONTRACT, ALL CONTRACTOR'S AND SUBCONTRACTOR'S FACILITIES WILL BE REMOVED PROMPTLY AND IN A WORKMANLIKE MANNER. THE AREA SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER AND LEFT CLEAN AND FREE OF ALL DEBRIS OR SURPLUS MATERIAL AT NO ADDITIONAL COST TO THE SPONSOR. ALL WORK ASSOCIATED WITH THE CREATION, USE AND RESTORATION OF THE CONTRACTOR'S STAGING, VEHICLE PARKING, AND EQUIPMENT STORAGE AREAS SHALL BE INCIDENTAL TO THE PROJECT AND SHALL NOT BE MEASURED OR PAID FOR SEPARATELY.

#### WETLANDS

- DISTURBANCE OF WETLANDS IS A POTENTIAL VIOLATION OF FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID ANY UNAUTHORIZED DISTURBANCE OF WETLANDS AS PART OF THEIR WORK. THIS INCLUDES ANY DISCHARGE FROM CONSTRUCTION ACTIVITIES, DEWATERING, PUMPING, WASHING, AND ANY OTHER WORK WHICH MAY RESULT IN SEDIMENTATION. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL CLEARLY MARK ANY WETLANDS SHOWN ON THE PLANS WHICH ARE ADJACENT TO THE WORK AREA(S) WITH CONSTRUCTION FENCE, SILT FENCE, OR SIMILAR MEANS ACCEPTABLE TO THE ENGINEER. THE CONTRACTOR SHALL PAY ANY FINES ASSESSED AGAINST THE AIRPORT DUE TO VIOLATIONS CAUSED BY THE CONTRACTOR AND THEIR PERSONNEL, SUBCONTRACTORS, VENDORS, AND SUPPLIERS.
- 2. NO FUELING OR MAINTENANCE OF EQUIPMENT OR TOOLS WILL BE PERMITTED IN 1. WORK PERFORMED MUST COMPLY WITH ITEM M-002 ENVIRONMENTAL PERMITTING WETLANDS, WETLANDS BUFFERS, OR IN RIVERS PROTECTION BUFFERS.

#### SURVEY

1. TOPOGRAPHIC AND DETAIL INFORMATION WERE BASED UPON AN ON THE GROUND SURVEY PREFORMED BY MERRILL ENGINEERS AND LAND SURVEYORS DURING SEPTEMBER AND OCTOBER OF 2024. A PORTION OF BASE PLAN INFORMATION WAS ALSO COMPILED FROM EXISTING INFORMATION PROVIDED BY THE MANSFIELD MUNICIPAL AIRPORT.

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F	PER	MITS	3		

- I. WORK PERFORMED MUST COMPLY WITH ITEM M-002 ENVIRONMENTAL PERMITTING COMPLIANCE AND THE ORDER OF CONDITIONS DEP# 211-1018 ISSUED BY THE MANSFIELD CONSERVATION COMMISSION. REFER TO SECTION M-002 IN THE SPECIFICATIONS FOR ADDITIONAL DETAILS.
- 2. WORK PERFORMED MUST COMPLY WITH ITEM M-002 ENVIRONMENTAL PERMITTING COMPLIANCE AND THE ORDER OF CONDITIONS DEP# 250-1177 ISSUED BY THE NORTON CONSERVATION COMMISSION. REFER TO SECTION M-002 IN THE SPECIFICATIONS FOR ADDITIONAL DETAILS.
- 3. A STORMWATER MANAGEMENT REPORT WAS PREPARED BY GALE ASSOCIATES, INC. FOR THE MANSFIELD MUNICIPAL AIRPORT, DATED FEBRUARY 2025.

## ARRDE\/IATIONS

				ABI	BREVIATIONS				
ABND.	ABANDONED	DWG.	DRAWING	MASSDOT	MASSACHUSETTS DEPARTMENT	PSI	POUNDS PER SQUARE INCH	SPCD	SAFETY PLAN
AC	ACRE	EA.	EACH	AERONAUTICS	OF TRANSPORTATION	PT	POINT OF TANGENCY OR POINT		COMPLIANCE DOCUMENT
ADMIN.	ADMINISTRATION	EHH	ELECTRIC HANDHOLE	DIVISION	AERONAUTICS DIVISION	PVC	POLYVINYL CHLORIDE	SS	STAINLESS STEEL
AOA	AIRCRAFT OPERATIONS AREA	EHHLD	ELECTRIC HANDHOLE	MAX.	MAXIMUM	PVM'T	PAVEMENT	STA.	STATION
APPROX.	APPROXIMATE		LIGHT DUTY	MIN.	MINIMUM	REILS	RUNWAY END	SY	SQUARE YARD
ARFF	AIRCRAFT RESCUE &	EMH	ELECTRIC MANHOLE	MUTCD	MANUAL ON UNIFORM		IDENTIFIER LIGHTS	TEMP.	TEMPORARY
	FIRE FIGHTING	ENC	ENCASED		TRAFFIC CONTROL	REQ'D	REQUIRED	T/L	TAXILANE
ATO	AIR TRAFFIC ORGANIZATION	EOP	EDGE OF PAVEMENT	NAVAIDS	NAVIGATIONAL AIDS	RCP	REINFORCED	TOFA	TAXIWAY OBJECT
AWG	AMERICAN WIRE GAUGE	EXIST.	EXISTING	NO.	NUMBER		CONCRETE PIPE		FREE AREA
BIT.	BITUMINOUS	FAA	FEDERAL AVIATION	NOTAMS	NOTICE TO AIRMEN	RFA	RIVERFRONT AREA	TSA	TAXIWAY SAFETY AREA
BM	BENCH MARK		ADMINISTRATION	N.T.S.	NOT TO SCALE	RGS	RIGID GALVANIZED STEEL	TR	TRANSFORMER
BMPS	BEST MANAGEMENT PRACTICES	FOD	FOREIGN OBJECT DEBRIS	O.C.	ON CENTER	ROFA	RUNWAY OBJECT	T/W	TAXIWAY
C/B	CIRCUIT BREAKER	FT	FOOT	OFA	OBJECT FREE AREA		FREE AREA	(TYP.)	TYPICAL
СВ	CATCH BASIN	GFCI	GROUND FAULT	OFZ	OBJECT FREE ZONE	ROFZ	RUNWAY OBSTACLE	UGE	UNDERGROUND ELECTRIC
Œ.	CENTERLINE		CIRCUIT INTERRUPTER	O/H	OVERHEAD		FREE ZONE	UNENC	UNENCASED
CONC.	CONCRETE	GND	GROUND	P	PANEL	RSA	RUNWAY SAFETY AREA	US	UNITED STATES
CONFIG.	CONFIGURATION	IB	INFILTRATION BASIN	PAPI	PRECISION APPROACH	RT	RIGHT	VEG.	VEGETATED
CSPP	CONSTRUCTION SAFETY	JC	JUNCTION CAN		PATH INDICATOR	R/W	RUNWAY	V	VOLTS
	AND PHASING PLAN	LB	LEACHING BASIN	PC	POINT OF CURVATURE	S	SLOPE		
CY	CUBIC YARDS	LBS.	POUNDS	PCC	PORTLAND CONCRETE CEMENT	SCH.	SCHEDULE		
D	DISCONNECT	LF	LINEAR FOOT	PERF	PERFORATED	SF	SQUARE FOOT		
DIA.	DIAMETER	LT	LEFT	PROP.	PROPOSED				

# GALE

Gale Associates, Inc.

6 BEDFORD FARMS DRIVE SUITE 101 BEDFORD, NH 03110 P 603.471.1887 F 603.471.1809

www.gainc.com

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**BID SET** 

RECONSTRUCT, MARK, LIGHT, AND SIGN RUNWAY14-3

(APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A'

(APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1'

'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALI

NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS

OWNER

MANSFIELD MUNICIPAL AIRPORT

NO. DATE DESCRIPTION

PROJECT NO. 777141

CADD FILE 777141-02-G12

DESIGNED BY JJS

DRAWN BY JJS

CHECKED BY MKO

DATE MAY 2025

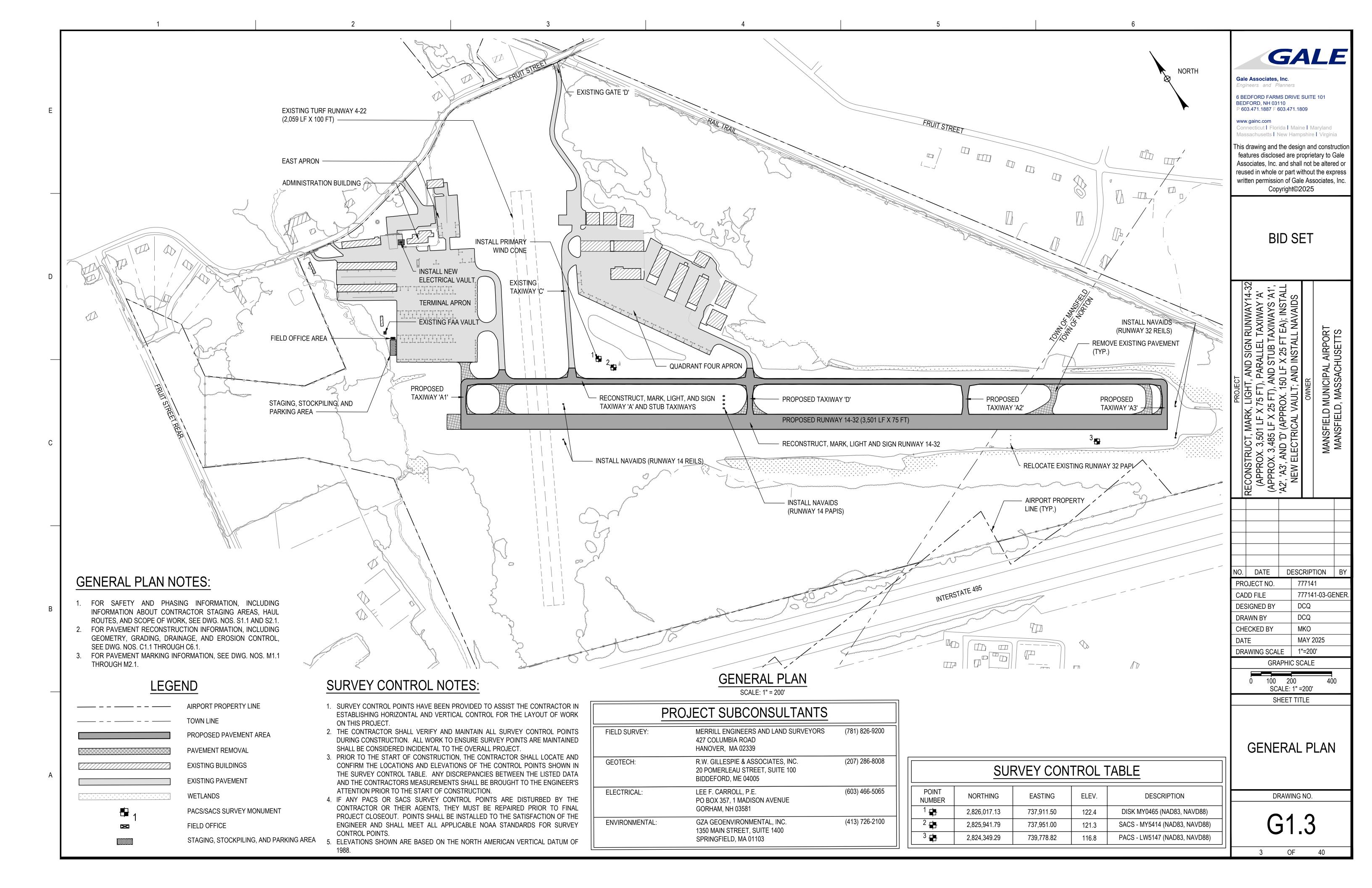
DRAWING SCALE N.T.S.

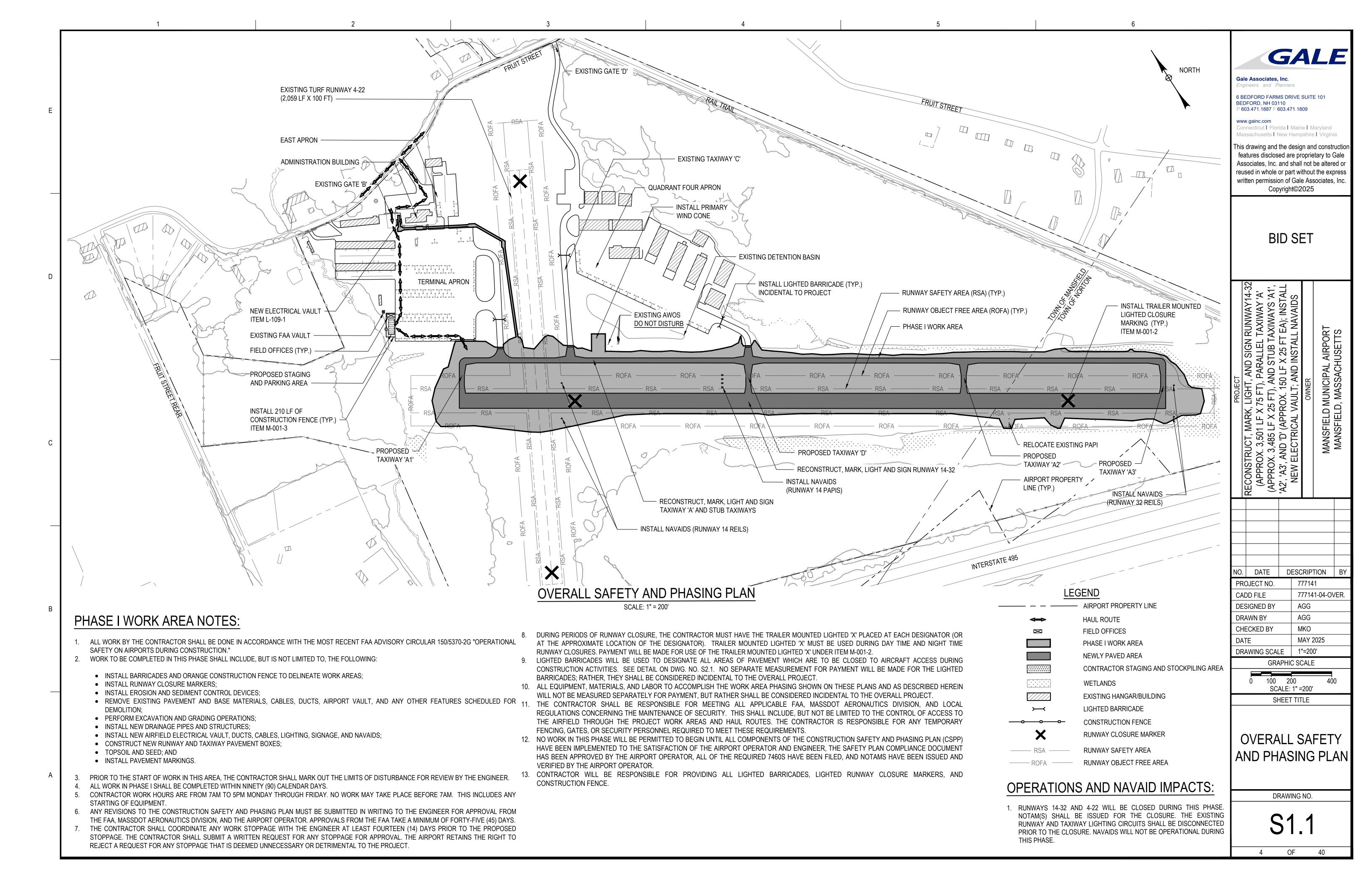
GRAPHIC SCALE

INDEX TO DRAWINGS,
GENERAL NOTES

AND
ABBREVIATIONS
DRAWING NO.

G1.2



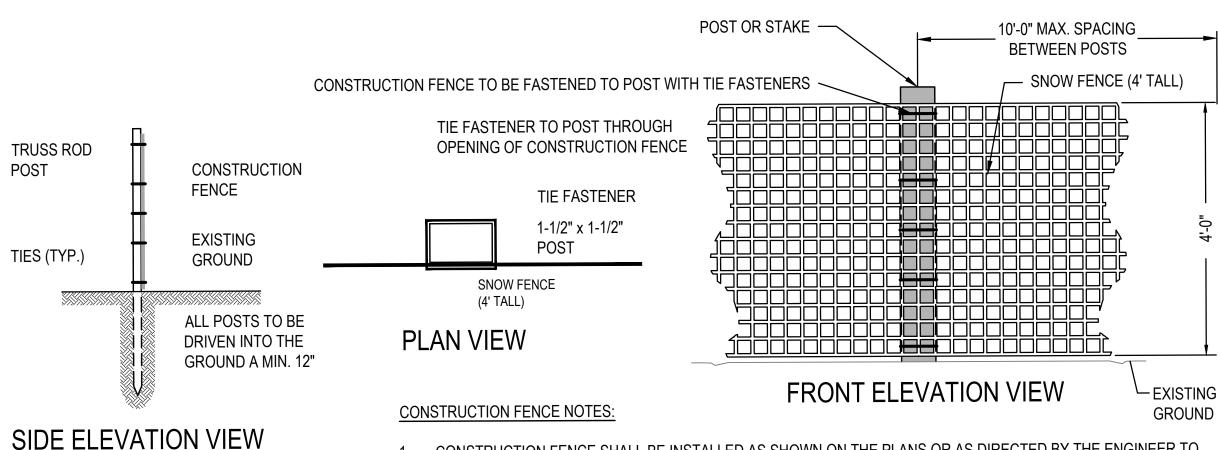


#### TYPICAL PLASTIC TYPE LIGHTED BARRICADE NOTES:

- 1. ALL NEW BARRICADES SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF FAA ADVISORY CIRCULAR 150/5370-2G ENTITLED "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
- 2. BARRICADES SHALL BE PLACED ALONG THE LIMITS OF THE PHASE OF WORK, AS SHOWN IN DWG. NO. S1.1 TO DELINEATE THE CONTRACTOR'S WORK AREAS.
- 3. PLASTIC TYPE LIGHTED BARRICADES SHALL BE ORANGE IN COLOR WITH SAFETY ORANGE AND WHITE STRIPED HI-INTENSITY RETRO-FLECTIVE TAPE ON EACH SIDE.
- 4. ALL BARRICADES SHALL BE CHECKED VISUALLY FOR SIGNS OF WEAR AND TEAR ON A WEEKLY BASIS AND REPLACED AS NEEDED.
- 5. ALL LIGHT FIXTURES SHALL BE VERIFIED OPERATIONAL BY THE CONTRACTOR ON A DAILY BASIS AND REPLACED AS NEEDED.
- 6. BARRICADES SHALL BE FILLED WITH WATER OR SAND. IF WATER IS USED, WATER LEVELS SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION. IF SAND IS USED, ANY SPILLAGE OF SAND SHALL BE IMMEDIATELY CLEANED FROM ALL AIRFIELD PAVEMENTS.
- 7. BARRICADES SHALL BE PLACED CONNECTED TO ONE ANOTHER WITH NO SPACING BETWEEN BARRICADES, OR AS DIRECTED BY THE ENGINEER.
- 8. ANY BARRICADES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT NO ADDITIONAL COST TO THE AIRPORT.
- 9. ALL BARRICADES SHOWN ON DWG. NO S1.1 ARE FOR DISPLAY PURPOSES ONLY AND DO NOT IN ANY WAY INDICATE THE NUMBER OF LIGHTED BARRICADES NEEDED FOR THE PROJECT.
- 10. NO SEPARATE MEASUREMENT FOR PAYMENT WILL BE MADE FOR THE CONSTRUCTION BARRICADES; RATHER, THEY SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT.

### TYPICAL PLASTIC TYPE LIGHTED BARRICADE DETAIL

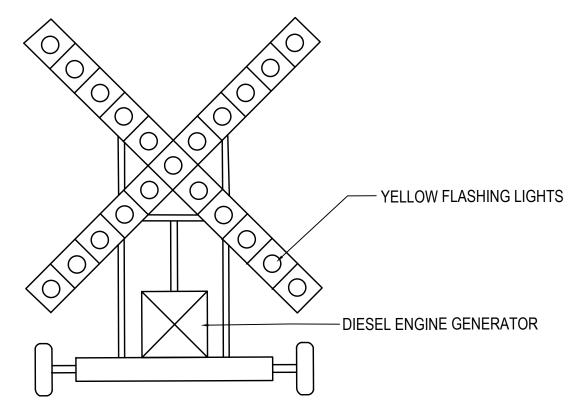
N.T.S.



- 1. CONSTRUCTION FENCE SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER TO DELINEATE LIMITS OF WORK FOR INDIVIDUAL PHASES OF THE PROJECT.
- 2. AT LEAST ONCE A WEEK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING ALL CONSTRUCTION FENCE. ANY DAMAGED SECTIONS OR SECTIONS REQUIRING MAINTENANCE SHALL BE FIXED IMMEDIATELY.
- 3. SEE SPECIFICATION SECTION M-001 FOR ADDITIONAL INFORMATION PERTAINING TO CONSTRUCTION FENCE.

# CONSTRUCTION FENCE DETAIL

N.T.S.



#### LIGHTED RUNWAY CLOSURE MARKER NOTES:

- 1. PORTABLE ELECTRIC LIGHTED RUNWAY CLOSURE MARKERS SHALL BE INSTALLED ON THE RUNWAY DESIGNATION MARKERS ON RUNWAY 14-32 AND 4-22.
- 2. ALL COSTS ASSOCIATED WITH COORDINATING WITH MANSFIELD MUNICIPAL AIRPORT, SUPPLYING, HAULING, PLACING, CONNECTIONS FOR POWER, MAINTAINING, AND FUELING OF THESE MARKERS SHALL BE INCIDENTAL TO ITEM M-001-2.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING LIGHTED RUNWAY CLOSURE MARKERS THROUGHOUT THE PROJECT. IF THE CONTRACTOR IS GOING TO BE OFF SITE, THE CONTRACTOR SHALL PROVIDE PERSONNEL TO CHECK THE OPERATION OF CLOSURE MARKERS DURING THESE PERIODS.
- 4. LIGHTED CLOSURE MARKER SHALL MEET THE CRITERIA IN ADVISORY CIRCULAR 150/5345-55A (OR AS REVISED).
- 5. THE CONTRACTOR WILL BE REQUIRED TO USE TRAILER MOUNTED LIGHTED CLOSURE MARKERS DURING DAYTIME AND OVERNIGHT RUNWAY SHUT-DOWNS.

### LIGHTED RUNWAY CLOSURE MARKER DETAIL

N.T.S

### HAUL ROUTE NOTES:

- 1. ACCESS TO THE PHASE OF WORK SHALL BE RESTRICTED TO THE THE DESIGNATED HAUL ROUTES SHOWN ON DWG. NO. S1.1. VEHICLES WILL BE PERMITTED TO TRAVEL IN THE CLOSED PORTIONS OF THE AIRCRAFT OPERATIONS AREA.
- THE CONTRACTOR IS PROHIBITED FROM CROSSING RUNWAYS, TAXIWAYS, OR APRONS WITH CONSTRUCTION EQUIPMENT WITHOUT PRIOR APPROVAL BY THE AIRPORT OPERATOR. AT APPROVED CROSSINGS THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING THE EXISTING PAVEMENT FROM DAMAGE. ALL PAVEMENT AREAS DAMAGED BY THE CONTRACTOR MUST BE REPAIRED TO FAA STANDARDS AND TO THE SATISFACTION OF THE OWNER AFTER ALL CONTRACT WORK HAS BEEN COMPLETED. NO MEASUREMENT FOR PAYMENT SHALL BE MADE FOR ANY REPAIRS TO EXISTING PAVEMENT SURFACES DAMAGED DURING CONSTRUCTION; RATHER, THIS WORK SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.
- 3. ALL PAVEMENTS DAMAGED BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED TO EQUAL OR BETTER THAN PRIOR CONDITIONS AND TO THE SATISFACTION OF THE ENGINEER. THE WORK MAY INCLUDE, BUT NOT BE LIMITED TO; SAW CUTTING AND REMOVING DAMAGED PAVEMENT, REPAIR OR REPLACEMENT OF BASE MATERIALS, TACK COATING OF EXISTING PAVEMENT EDGES, PLACEMENT OF HOT BITUMINOUS CONCRETE PAVEMENT MEETING CURRENT MASSDOT STANDARD HIGHWAY SPECIFICATIONS IF OUTSIDE THE AIRPORT FENCE AND ITEM P-401 ASPHALT MIX PAVEMENT INSIDE THE AIRPORT FENCE, AND REMARKING OF THE PAVEMENTS. REFER TO SPECIFICATION SECTION M-001 FOR MORE INFORMATION. THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT FOR PAYMENT WILL BE MADE
- 4. THE HAULING OF MATERIALS FROM STAGING AREAS TO THE WORK AREAS MUST BE ON THE DESIGNATED HAUL ROUTES SHOWN ON DWG. NO. S1.1.
- 5. THE SPEED LIMIT ON HAUL ROADS AND PAVEMENT WITHIN AIRPORT PROPERTY SHALL BE FIFTEEN MILES PER HOUR (15 MPH)
- 6. THE CONTRACTOR MUST ALWAYS MAINTAIN AIRPORT SECURITY BY ENSURING THAT ALL GATES BEING USED FOR CONTRACTOR ACCESS REMAIN LOCKED OR MONITORED AT ALL TIMES.
- 7. AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY.
- 8. STOP SIGNS (INCIDENTAL TO THE OVERALL PROJECT) MAY BE REQUIRED AT ANY LOCATION WHERE CONSTRUCTION VEHICLES CROSS ACTIVE TAXIWAYS OR APRONS. IF REQUIRED, THE LOCATION SHALL BE DETERMINED BY THE AIRPORT OPERATOR AND ENGINEER.
- 9. THE CONTRACTOR SHALL MAINTAIN CLEAN PAVED SURFACES, BOTH ON AND OFF AIRPORT PROPERTY, DURING CONSTRUCTION OF THE PROJECT. THE AIRPORT OPERATOR AND/OR THE ENGINEER RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO IMMEDIATELY CLEAN ANY PAVED SURFACES ADVERSELY AFFECTED BY CONSTRUCTION ACTIVITIES.
- 10. THE CONTRACTOR'S STAGING AREAS, PARKING AREAS, AND HAUL ROADS TO/FROM THE WORK AREAS SHALL BE CONSTRUCTED AND MAINTAINED FOR THE DURATION OF THE PROJECT IN A CLEAN AND STABLE CONDITION.
- 11. SEE SPECIFICATION SECTION M-001 FOR ADDITIONAL INFORMATION ON HAUL ROUTE REQUIREMENTS.

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**BID SET** 

RECONSTRUCT, MARK, LIGHT, AND SIGN RUNWAY14-32
(APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A'
(APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1',
'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALL
NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS

OWNER

MANSFIELD MUNICIPAL AIRPORT

NO. DATE DESCRIPTION B
PROJECT NO. 777141

CADD FILE 777141-05-SAFE
DESIGNED BY AGG
DRAWN BY AGG
CHECKED BY MKO
DATE MAY 2025

DRAWING SCALE N.T.S.

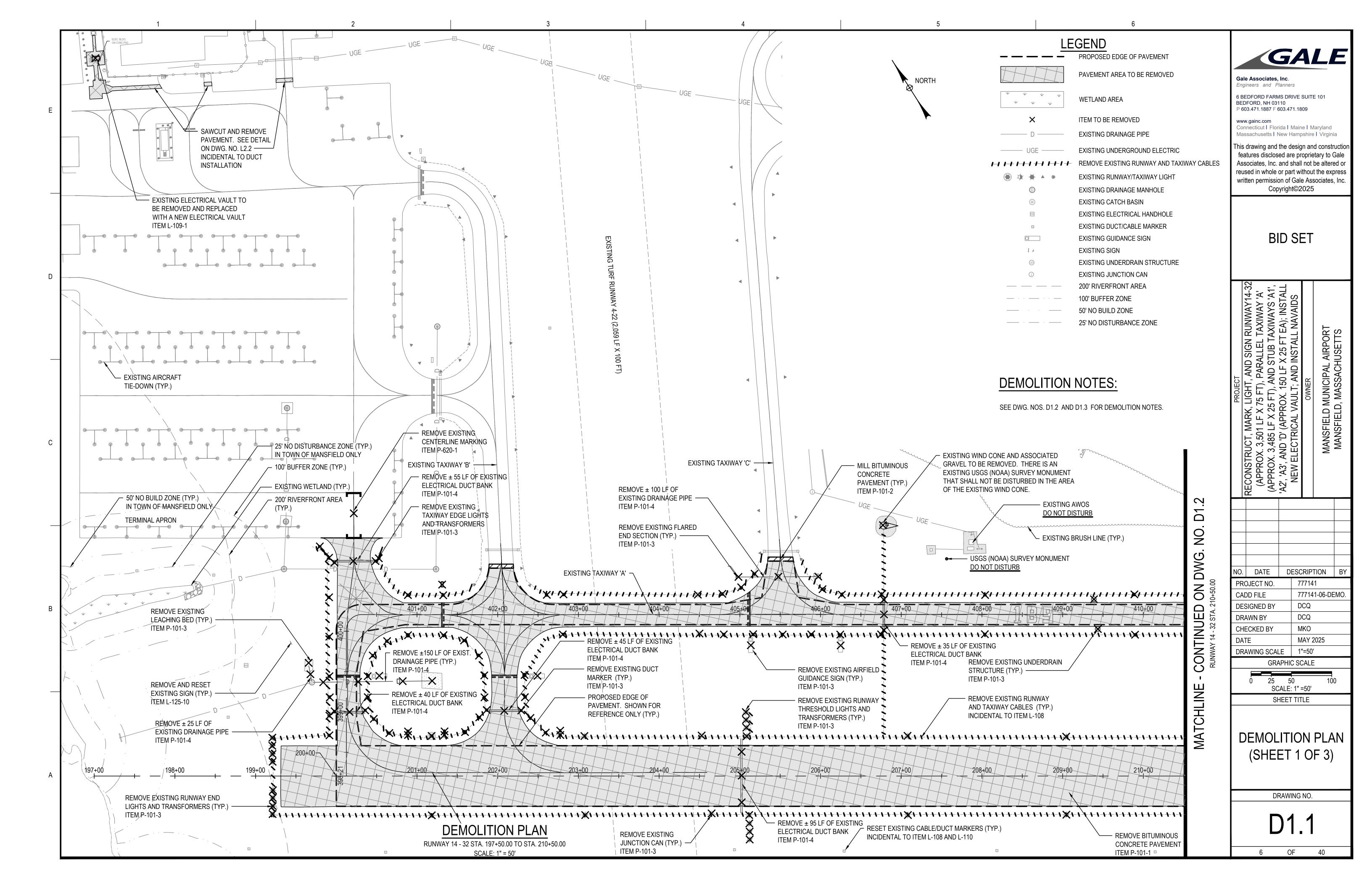
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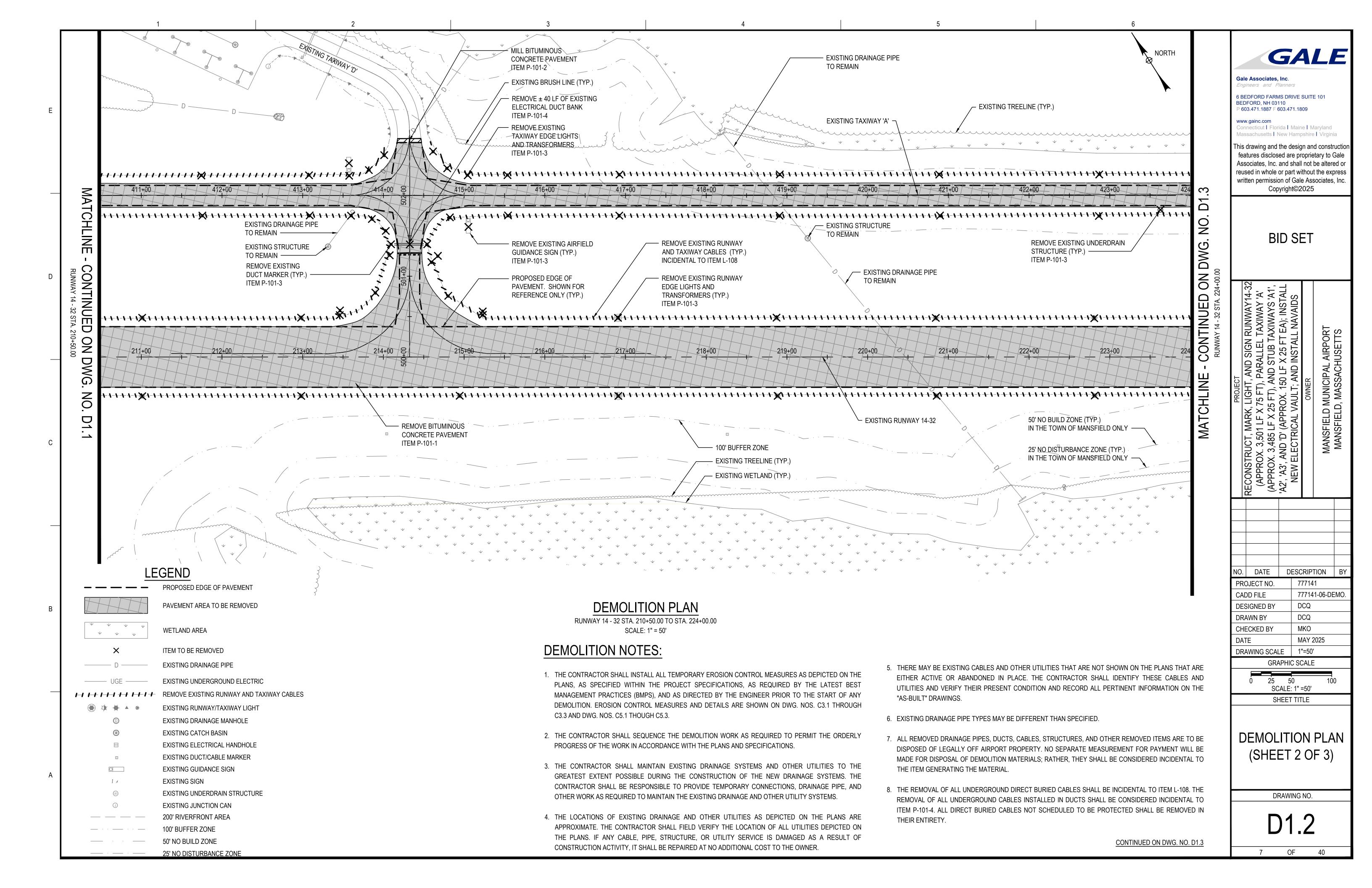
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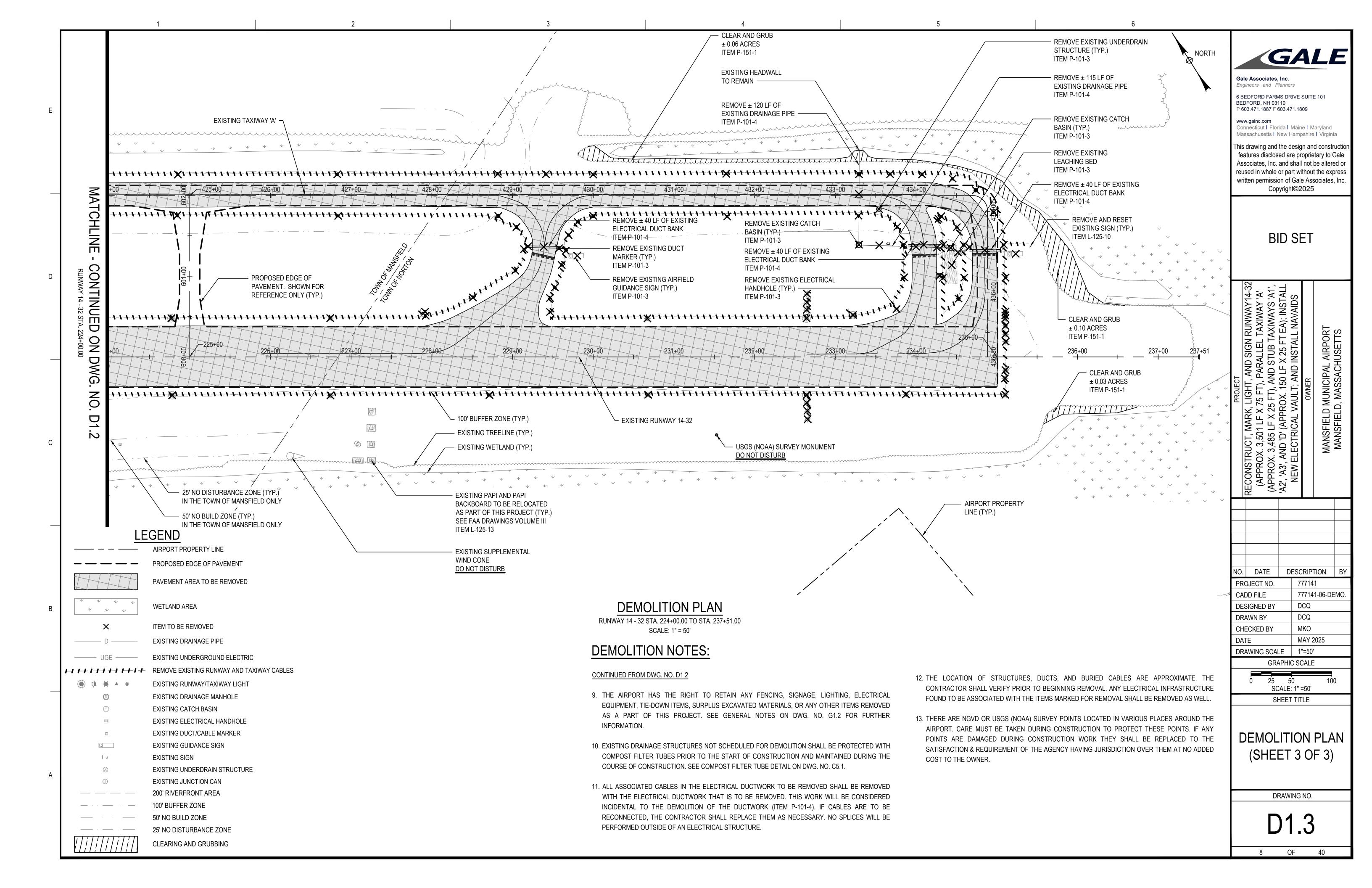
SAFETY AND PHASING DETAILS

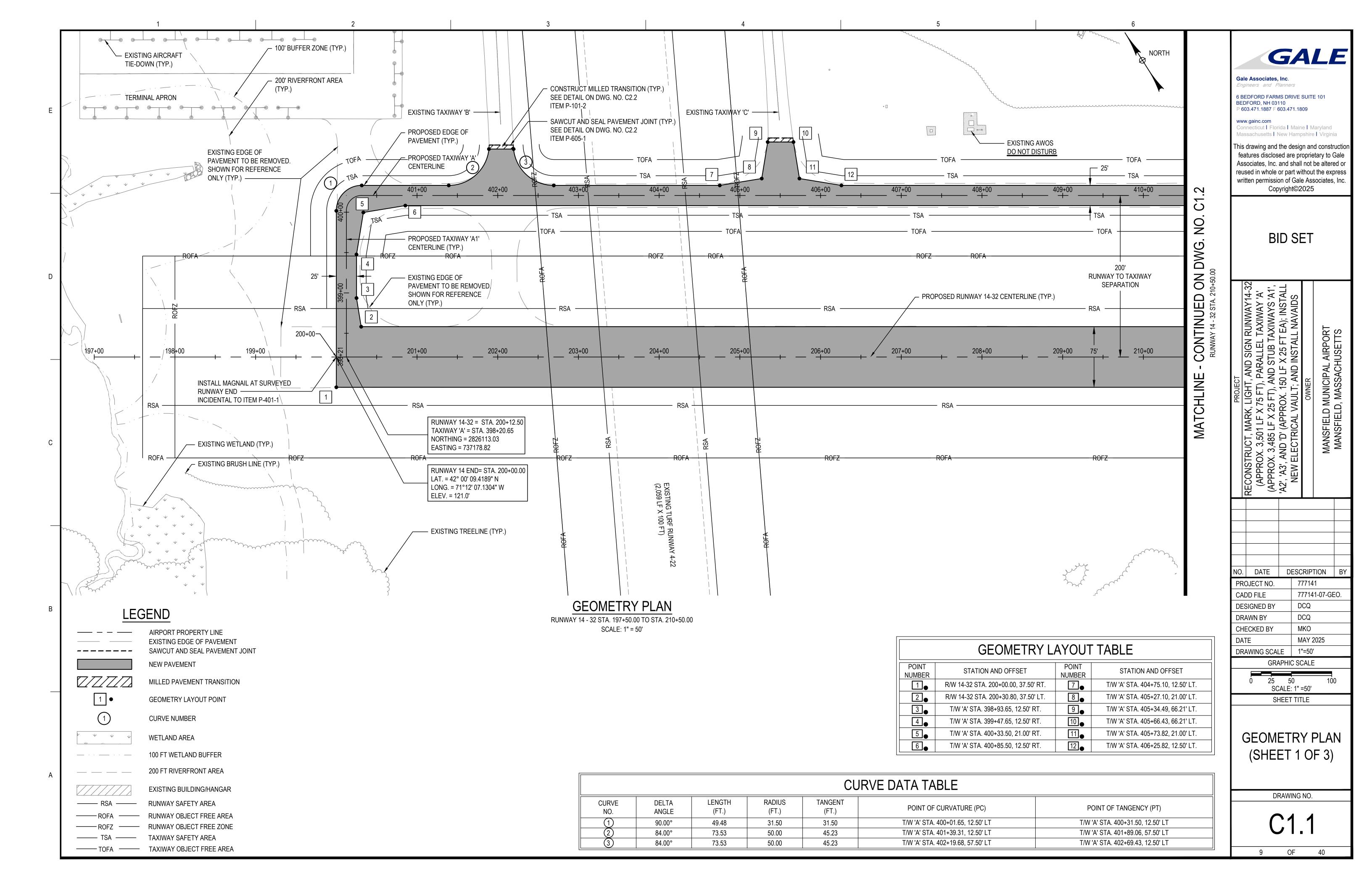
DRAWING NO.

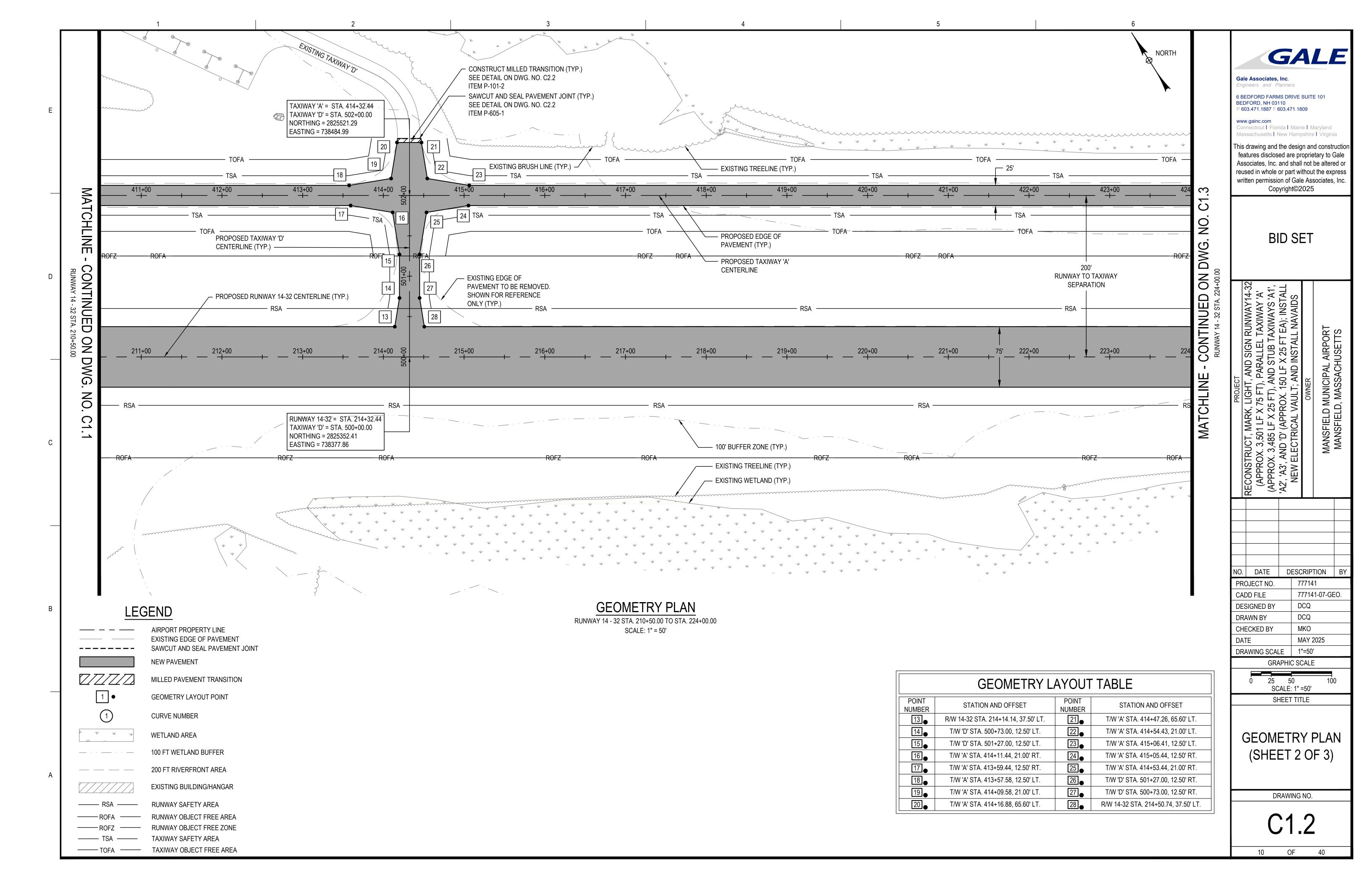
S2.1

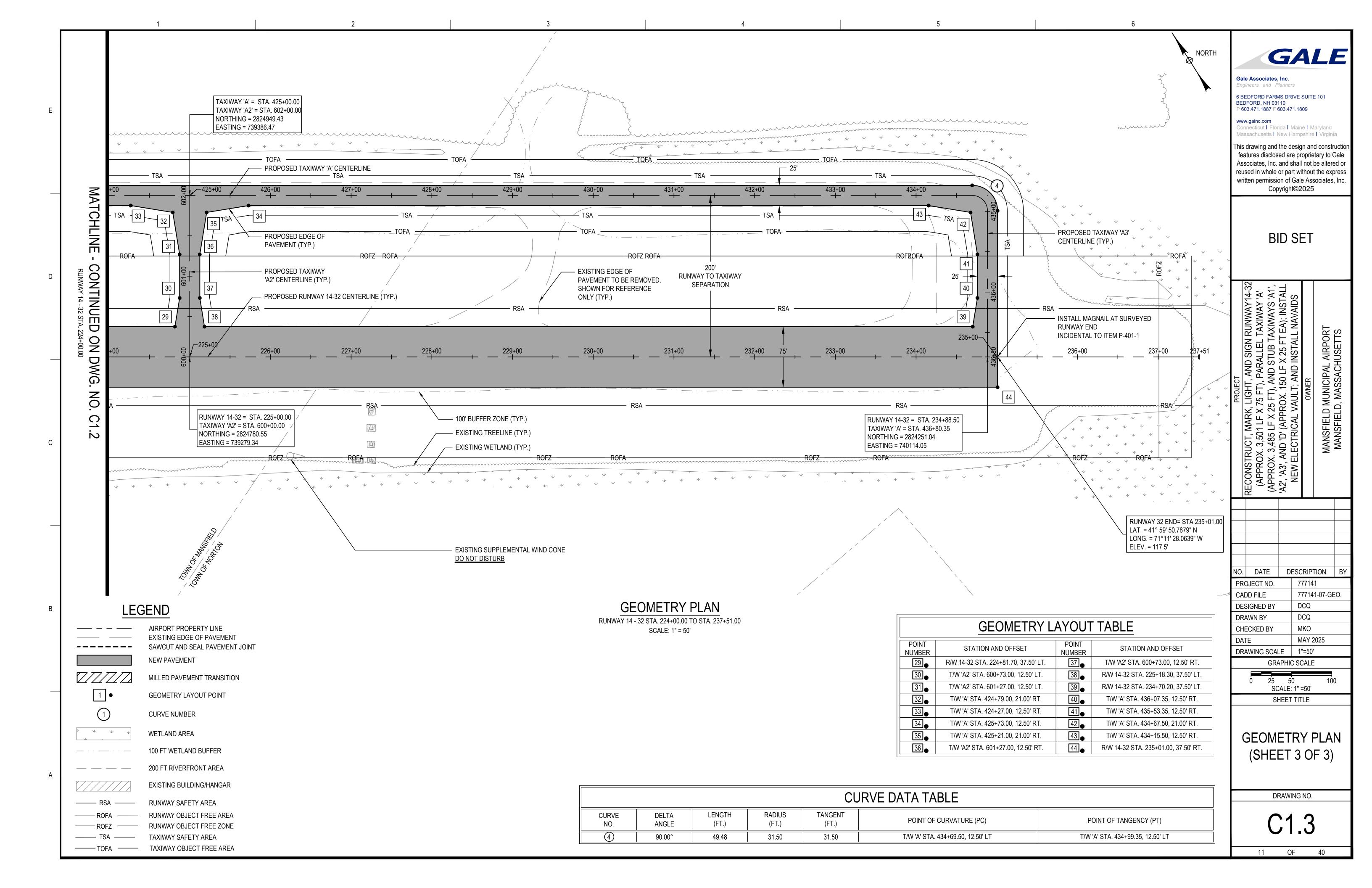


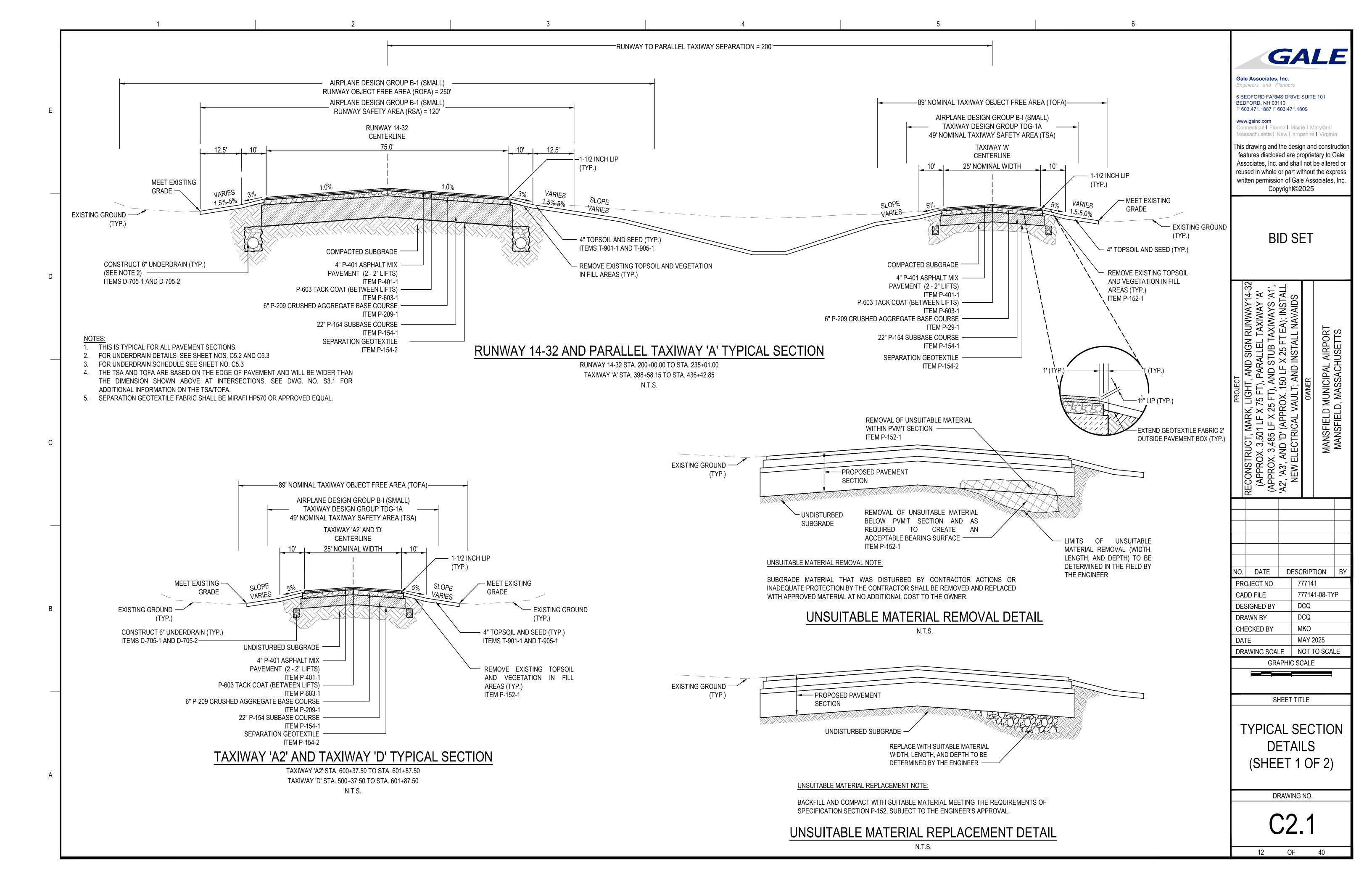












3/4" (± 1/8") PLACE JOINT SEALANT SAWCUT PAVEMENT JOINT  $\frac{3}{4}$ " WIDE BY  $\frac{3}{4}$ " BETWEEN NEW BIT. CONC. DEEP PRIOR TO PLACING JOINT SEALANT — AND EXISTING PAVEMENT **INCIDENTAL TO ITEM P-605-1** ITEM P-605-1 EXISTING BIT. CONC. NEW PÁVEMENT / 3/4" (± 1/8") CREATE SQUARE EDGE PRIOR TO PLACING TACK COAT ENTIRE EXISTING NEW PAVEMENT BY SAWCUTTING EXISTING EDGE PRIOR TO PAVING PAVEMENT TO FULL DEPTH ITEM P-603-1 INCIDENTAL TO ITEM P-401-1

SAWCUT AND SEAL DETAIL

N.T.S.

- MILL AND OVERLAY — SAWCUT EDGE PRIOR TO PAVING TO CREATE A STRAIGHT, TRUE, AND SMOOTH EDGE. AFTER PAVING, TYPICAL COLD PLANE OR MILL PAVEMENT 2" DEEP CONSTRUCT SAWED CONTROL SECTION ITEM P-101-2 JOINT (SAWCUT & SEAL) —— SEE DETAIL ON THIS SHEET **EXISTING BITUMINOUS** CONCRETE PAVEMENT BASE CONTROL TO TACK GEOTEXTILE FABRIC (TYP.) — TACK COAT EXPOSED EDGES AND SURFACES 2" BIT. CONC. PAVEMENT ITEM P-603-1 ITEM P-401-1

MILL AND OVERLAY DETAIL

N.T.S.

SAWCUT EXISTING PAVEMENT FOR ITS FULL
DEPTH JUST PRIOR TO PLACING NEW PAVEMENT,
TO CREATE SQUARE EDGE. TACK COAT EXISTING
PAVEMENT EDGE PRIOR TO PAVING.
INCIDENTAL TO ITEM P-401-1

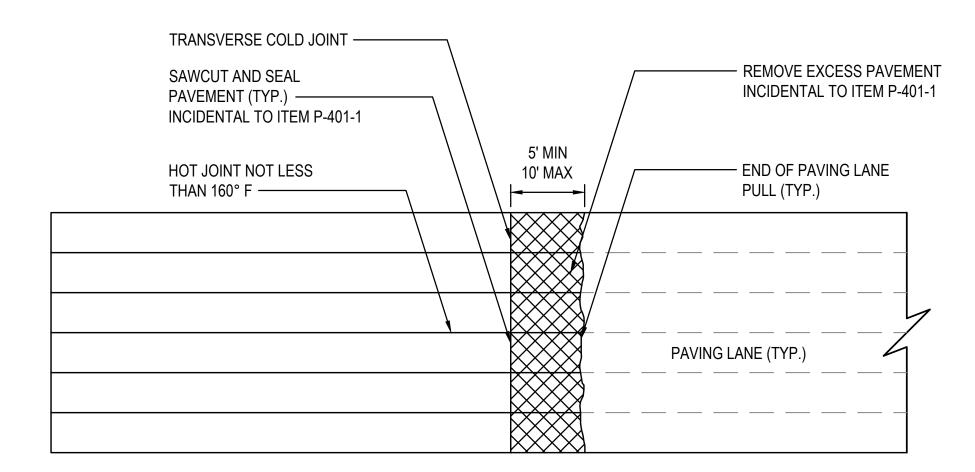
EXISTING BITUMINOUS
CONCRETE PAVEMENT

BASE COURSE AND SUBBASE
COURSE AS REQUIRED

48" MIN

SAWED CONTROL JOINT DETAIL

N.T.S.



#### TRANSVERSE COLD JOINT NOTES:

- 1. CONTRACTOR SHALL SUBMIT A LAYDOWN PLAN AS PART OF THE SHOP DRAWING PROCESS.
- 2. SAW AND SEAL SHALL BE ON BOTH THE FIRST AND SECOND LIFT.

### TRANSVERSE COLD JOINT DETAIL

N.T.S

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**BID SET** 

(APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A'
(APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAY'A'
'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALL
NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS

OWNER

MANSFIELD MUNICIPAL AIRPORT

NO. DATE DESCRIPTION B
PROJECT NO. 777141

CADD FILE 777141-08-TYP
DESIGNED BY DCQ
DRAWN BY DCQ
CHECKED BY MKO
DATE MAY 2025

DRAWING SCALE

GRAPHIC SCALE

SHEET TITLE

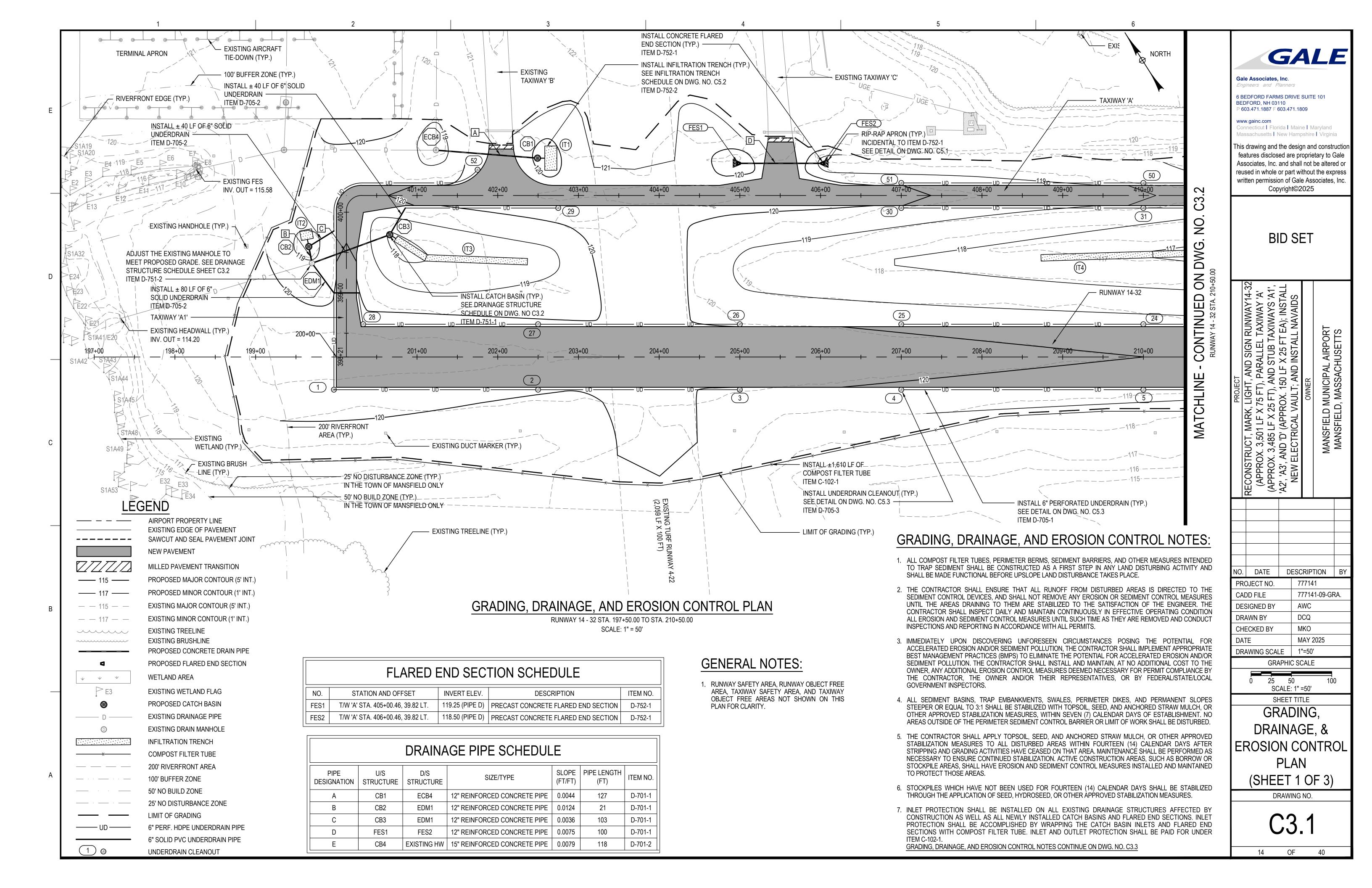
TYPICAL SECTION

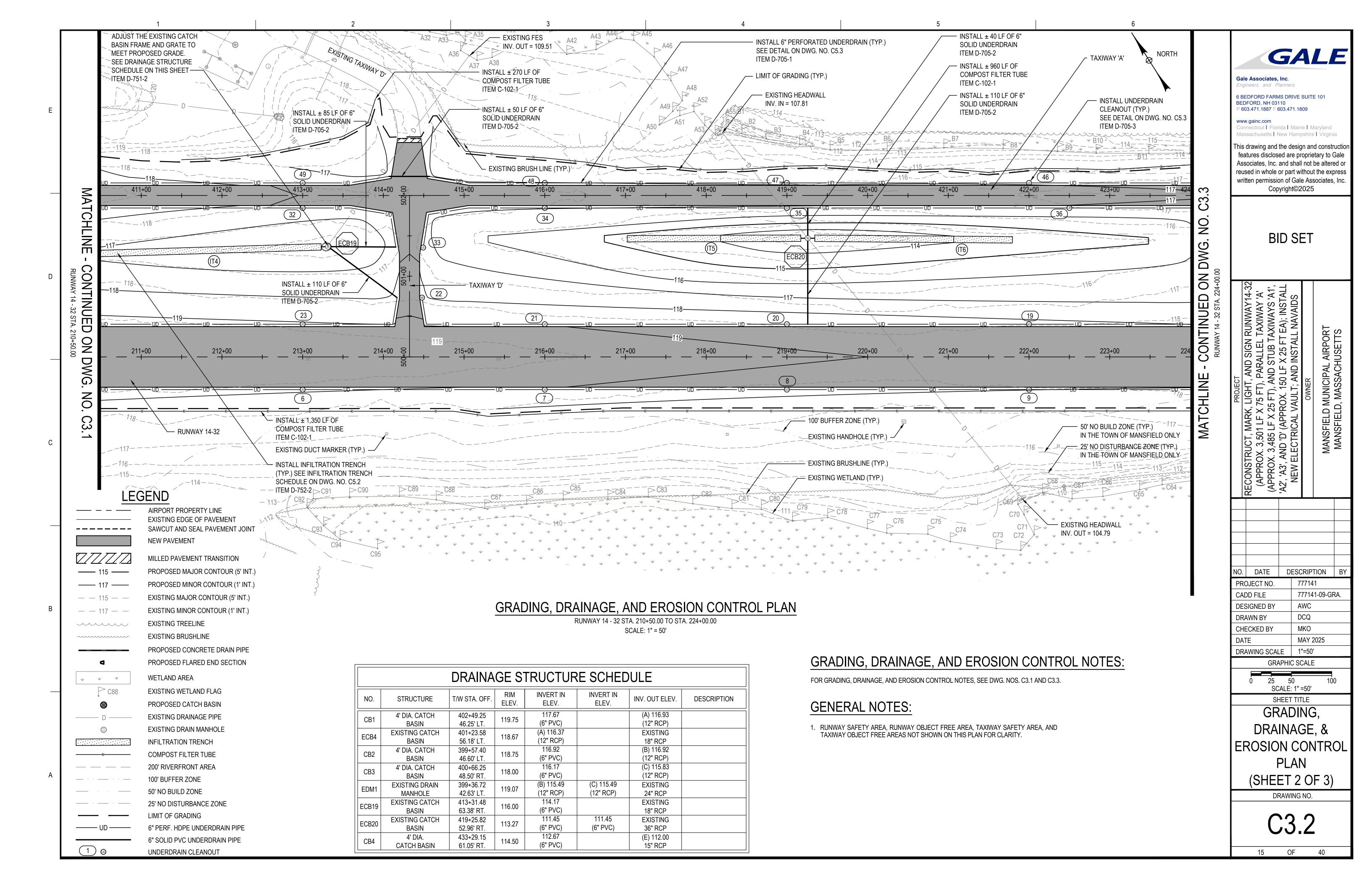
DETAILS

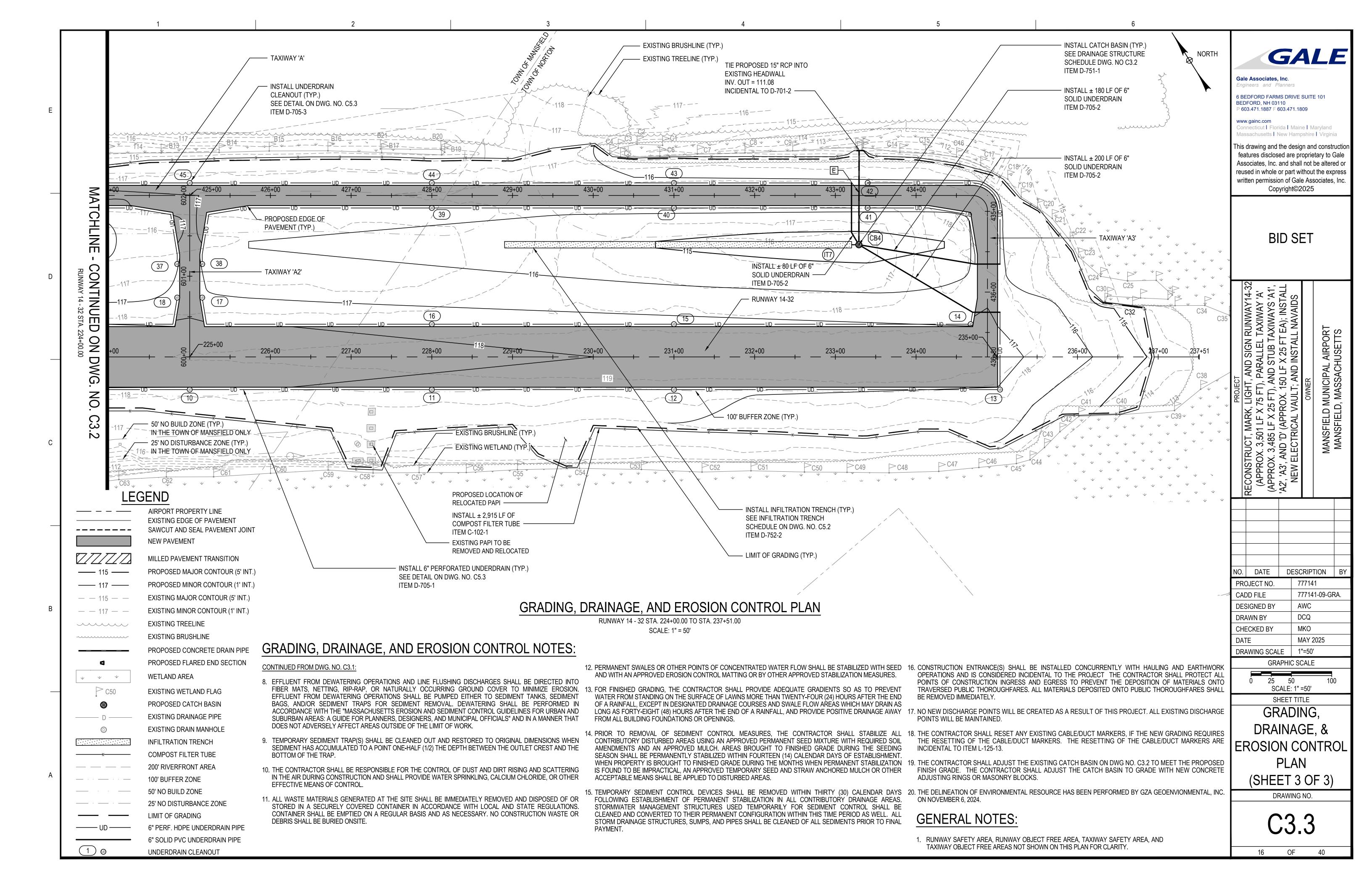
(SHEET 2 OF 2)

DRAWING NO.

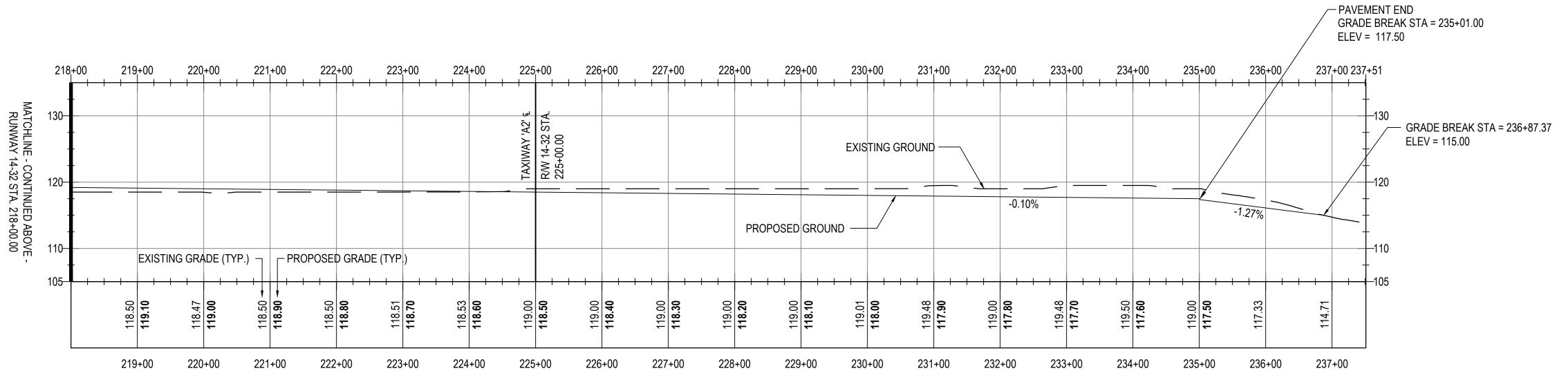
C2.2





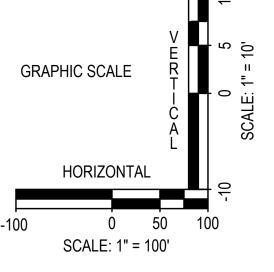


PAVEMENT START GRADE BREAK STA = 200+00.00 ELEV = 121.00 — 206,+00 207,+00 211,+00 212+00 213,+00 216,+00 202,+00 208,+00 203,+00 205,+00 GRADE BREAK STA = 198+75.00 ELEV = 120.79 — 130-<del>-</del>130 PROPOSED GROUND — - CONTINU 14-32 STA. **∖**-0.10% <del>-</del>120 120--0.07% 00 EXI\$TING GROUND ELECTRICAL DUCT BANK (TYP.) SEE DWG. NO. L1.1 FOR 110-DUCT BANK INFORMATION EXISTING GRADE (TYP.) PROPOSED GRADE (TYP.) 119.51 **119.90** 119.00 **119.40** 8 2 119. **120**. 200+00 199+00 209+00 198+00 201+00 202+00 203+00 205+00 206+00 207+00 208+00 210+00 212+00 213+00 215+00 216+00 217+00 204+00 211+00 214+00 **RUNWAY 14-32 CENTERLINE PROFILE** SCALE: AS SHOWN RUNWAY 14-32 STA. 197+50.00 TO STA. 218+00.00



#### RUNWAY 14-32 CENTERLINE PROFILE

SCALE: AS SHOWN RUNWAY 14-32 STA. 218+00.00 TO STA. 237+40.02



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**BID SET** 

RECONSTRUCT, MARK, LIGHT, AND SIGN RUNWAY14-32 (APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A' (APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1', 'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALL NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS

OWNER

MANSFIELD MUNICIPAL AIRPORT

MANSFIELD, MASSACHUSETTS

NO. DATE DESCRIPTION BY
PROJECT NO. 777141

CADD FILE 777141-10-PROF.
DESIGNED BY AWC
DRAWN BY AWC
CHECKED BY MKO
DATE MAY 2025

DRAWING SCALE AS SHOWN

GRAPHIC SCALE

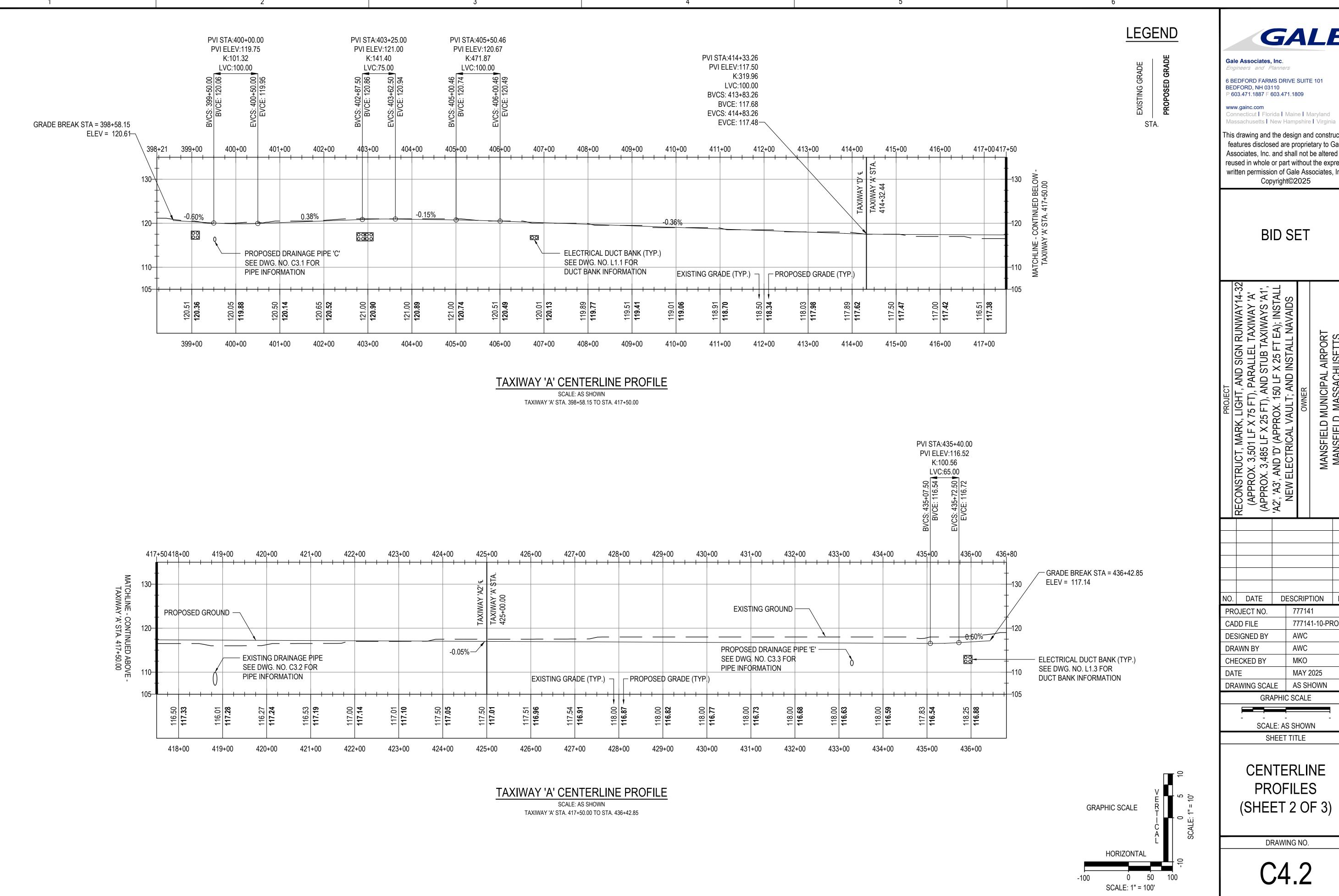
SCALE: AS SHOWN

SHEET TITLE

CENTERLINE PROFILES (SHEET 1 OF 3)

DRAWING NO.

C4.1



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**BID SET** 

MANSFIELD MUNICIPAL AIRPORT MANSFIELD, MASSACHUSETTS

DESCRIPTION 777141 777141-10-PROF. AWC

AWC MKO MAY 2025 DRAWING SCALE | AS SHOWN

> SCALE: AS SHOWN SHEET TITLE

CENTERLINE **PROFILES** (SHEET 2 OF 3)

DRAWING NO.

LEGEND

EXISTING GRADE

GIVADE ED GRADE

PROPOSED G

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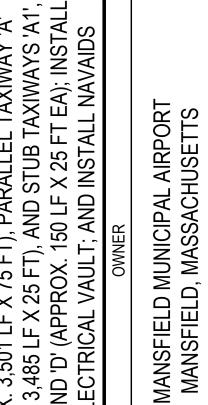
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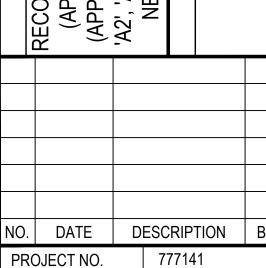
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GALE

**BID SET** 





PROJECT NO. 777141

CADD FILE 777141-10-PROF.

DESIGNED BY AWC

DRAWN BY AWC

CHECKED BY MKO

DATE MAY 2025

DRAWING SCALE AS SHOWN

GRAPHIC SCALE

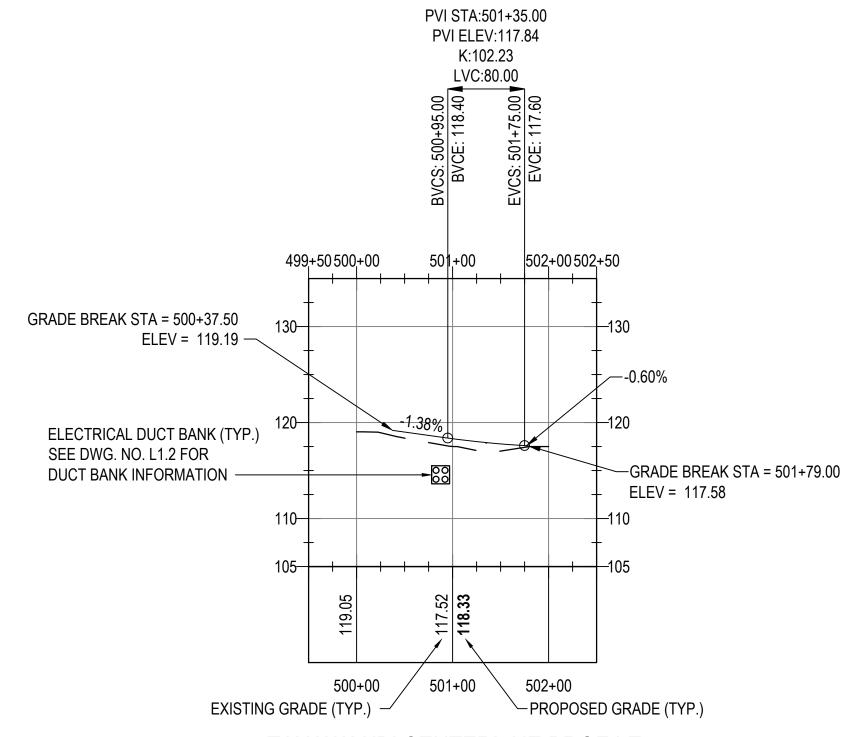
SCALE: AS SHOWN
SHEET TITLE

CENTERLINE PROFILES (SHEET 3 OF 3)

DRAWING NO.

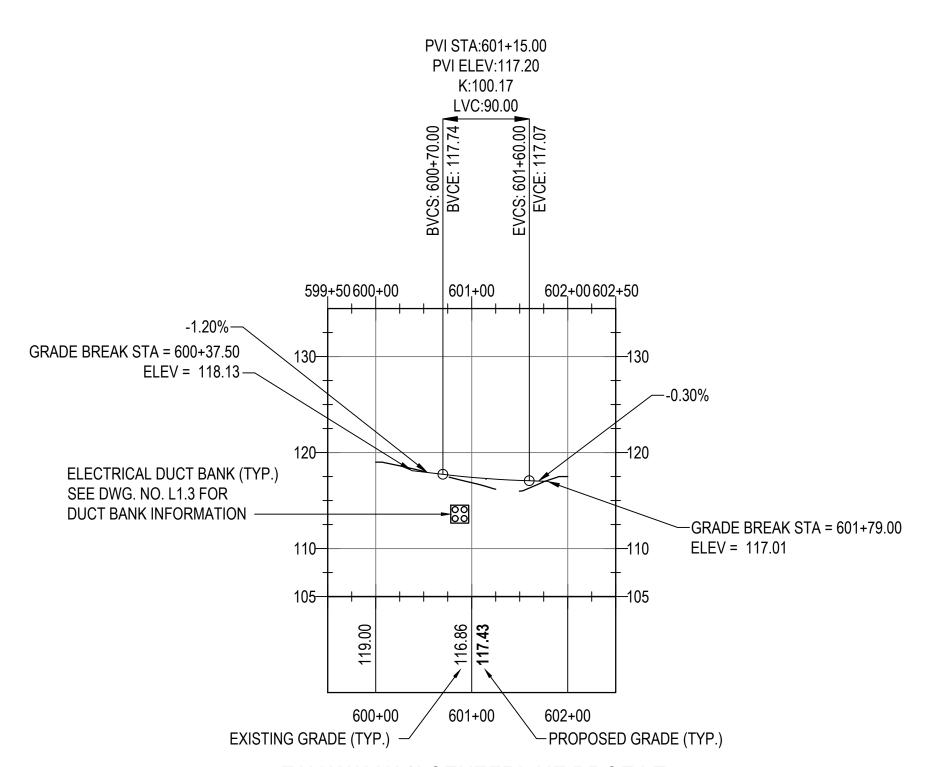
C4.3

19 OF 40



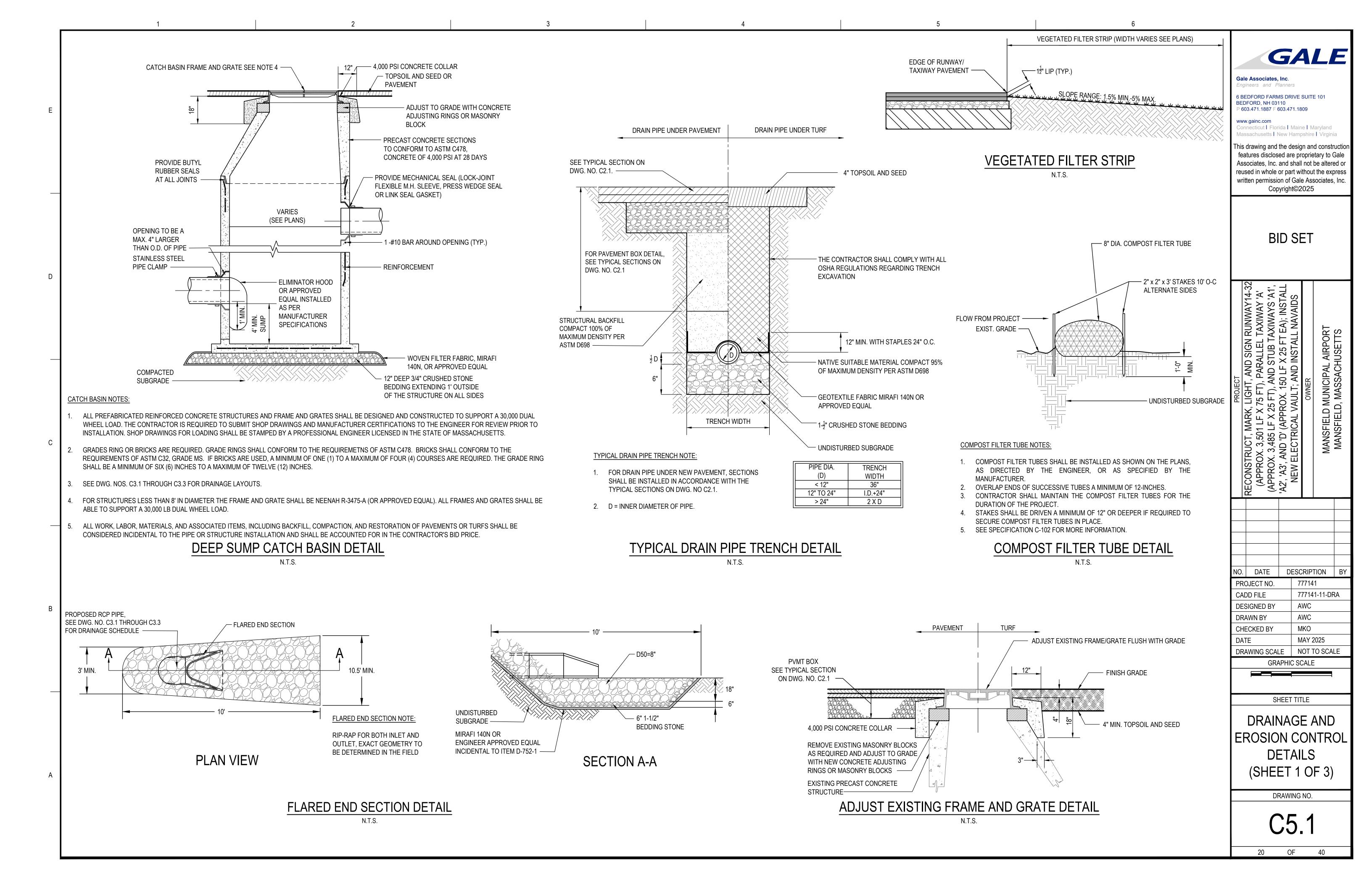
TAXIWAY 'D' CENTERLINE PROFILE

SCALE: AS SHOWN TAXIWAY 'D' STA. 500+37.50 TO STA. 501+79.00



### TAXIWAY 'A2' CENTERLINE PROFILE

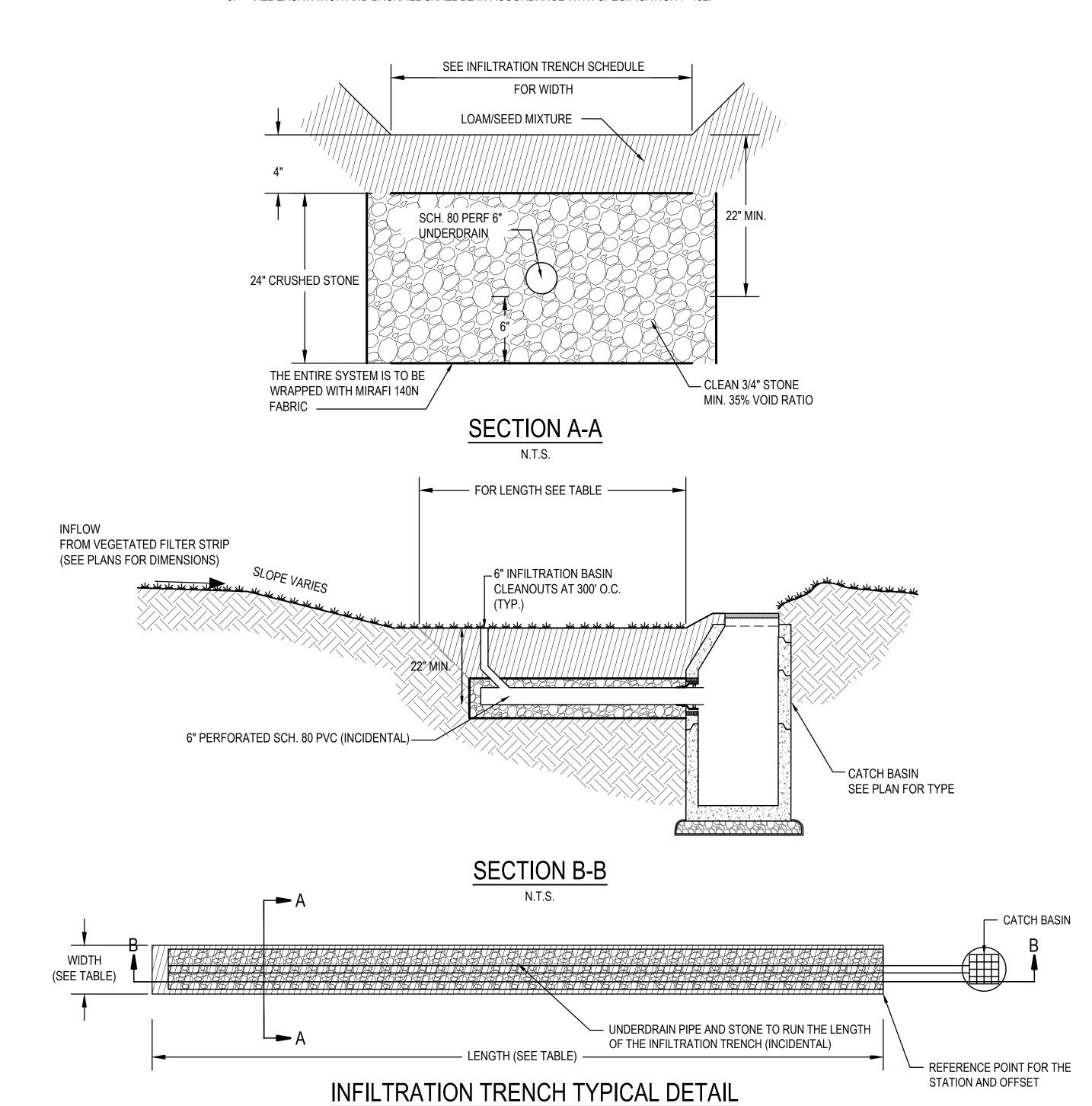
SCALE: AS SHOWN TAXIWAY 'D' STA. 600+37.50 TO STA. 601+79.00

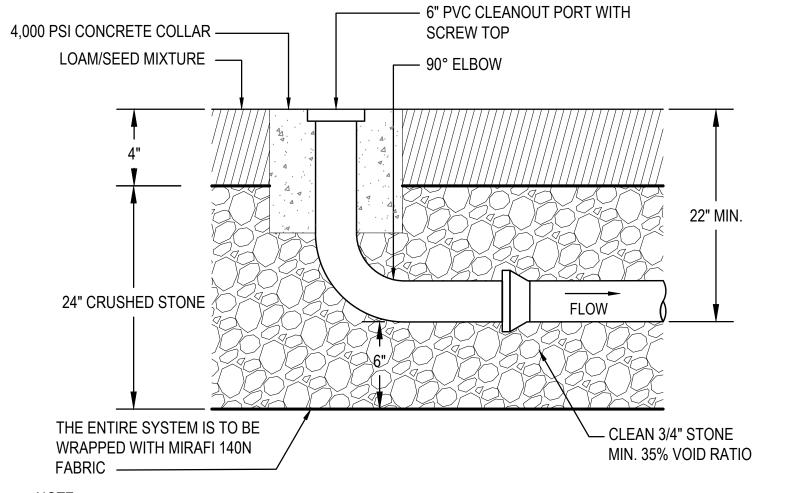


	INFILTRATION TRENCH SCHEDULE									
NO. LENGTH WIDTH ELEVATION OF BOTTOM STRUCTURE NO. STATION/OFFSET										
IT1	15'	30'	117.17	PR-CB-1	TW 'A' 402+58.25/31.25' LT					
IT2	12'	15'	116.42	PR-CB-2	TW 'A' 399+67.65/41.00' LT					
IT3	170'	8'	115.67	PR-CB-3	RW 14-32 100+71.70/143.25' LT					
IT4	450'	8'	113.67	EX-CB-19	RW 14-32 213+23.00/132.35' LT					
IT5	215'	8'	110.94	EX-CB-20	RW 14-32 219+17.25/143.00' LT					
IT6	245'	8'	110.95	EX-CB-20	RW 14-32 219+34.40/143.00' LT					
IT7	430'	8'	112.17	PR-CB-4	RW 14-32 233+20.15/135.00' LT					

#### NOTES:

- 1. INFILTRATION TRENCHES SHALL BE PAID FOR UNDER PAY ITEM D-752-2, SEE ITEM D-752 FOR MORE INFORMATION.
- 2. STATION AND OFFSET TAKEN FROM THE RUNWAY AND TAXIWAY A BASELINE.
- 3. ALL EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH SPECIFICATION P-152.





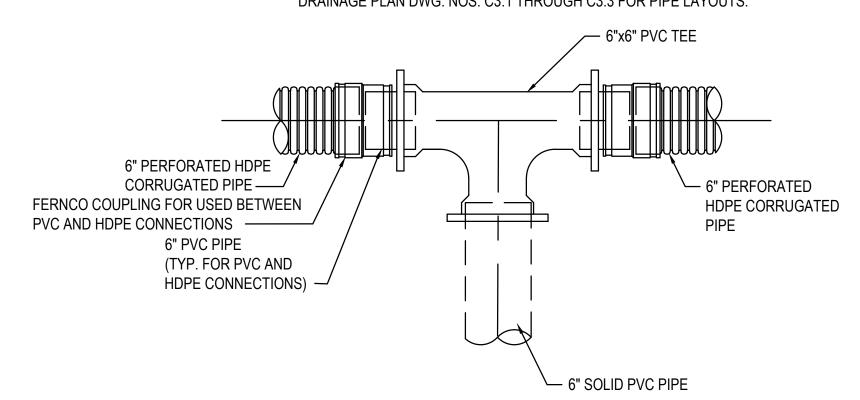
<u> DTE:</u>

1. THE CLEAN OUT WITHIN THE INFILTRATION TRENCH SHALL BE INCIDENTAL TO ITEM D-752-2.

# INFILTRATION TRENCH CLEANOUT DETAIL

NOTES:

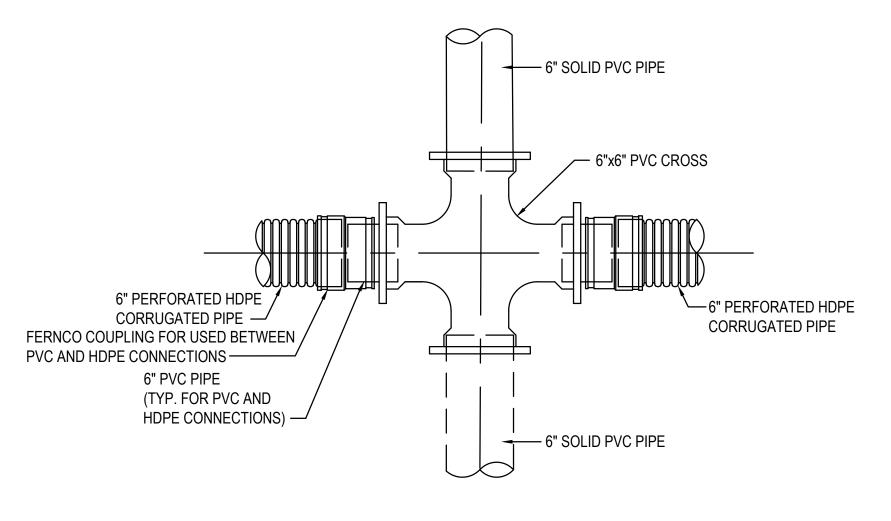
1. POSITION OF SOLID PIPE AND HDPE PIPE VARIES. SEE GRADING AND DRAINAGE PLAN DWG. NOS. C3.1 THROUGH C3.3 FOR PIPE LAYOUTS.



# UNDERDRAIN TEE FITTING DETAIL

#### NOTES:

1. POSITION OF SOLID PIPE AND HDPE PIPE VARIES. SEE GRADING AND DRAINAGE PLAN DWG. NOS. C3.1 THROUGH C3.3 FOR PIPE LAYOUTS.



# UNDERDRAIN CROSS FITTING DETAIL

N.T.S.

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**BID SET** 

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(APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1',
'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALL
NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS

OWNER

MANSFIELD MUNICIPAL AIRPORT

MANSFIELD MASSACHIISFTTS

NO. DATE DESCRIPTION BY
PROJECT NO. 777141

CADD FILE 777141-11-DRA

DESIGNED BY AWC

DRAWN BY AWC

CHECKED BY MKO

DATE MAY 2025

DRAWING SCALE NOT TO SCALE

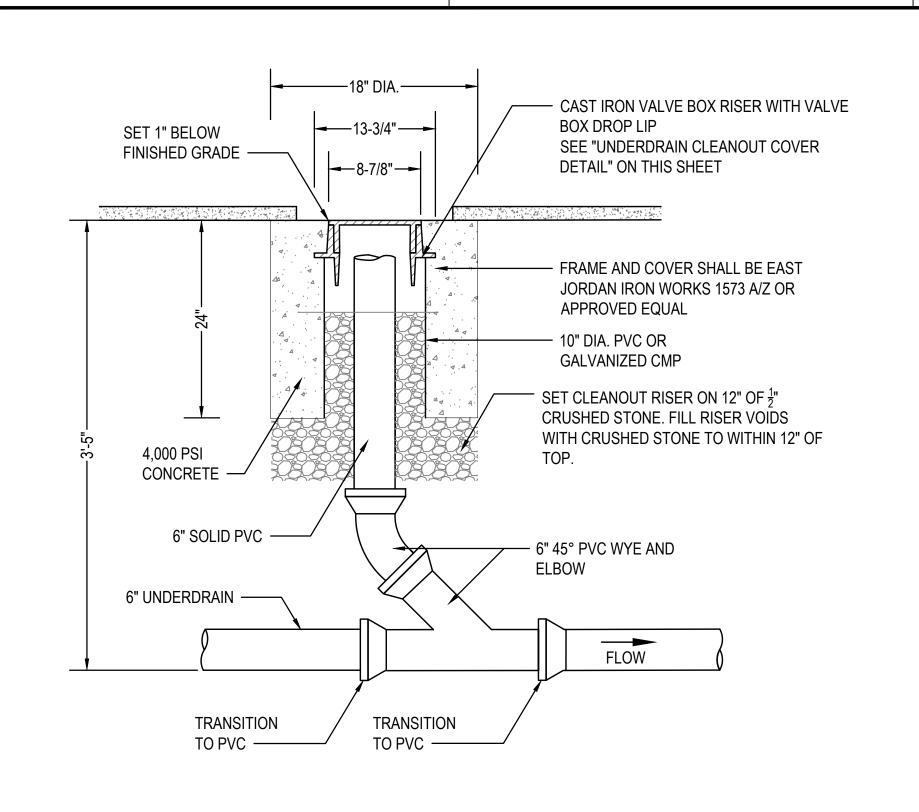
GRAPHIC SCALE

SHEET TITLE

DRAINAGE AND
EROSION CONTROL
DETAILS
(SHEET 2 OF 3)

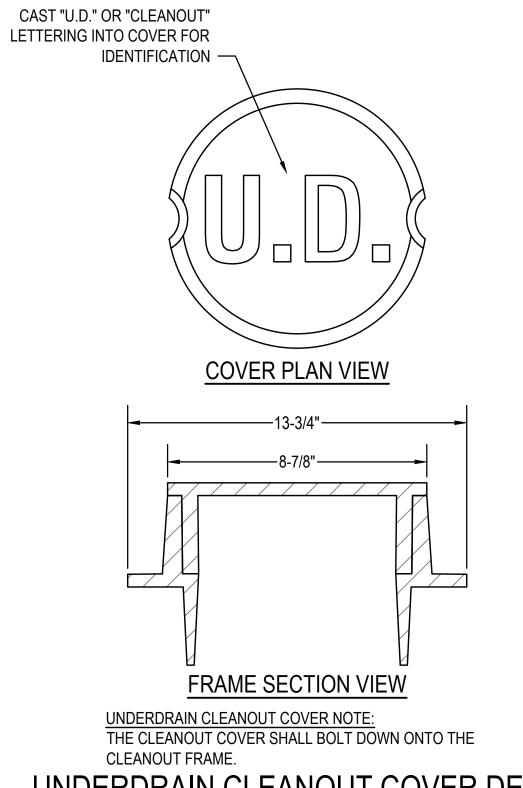
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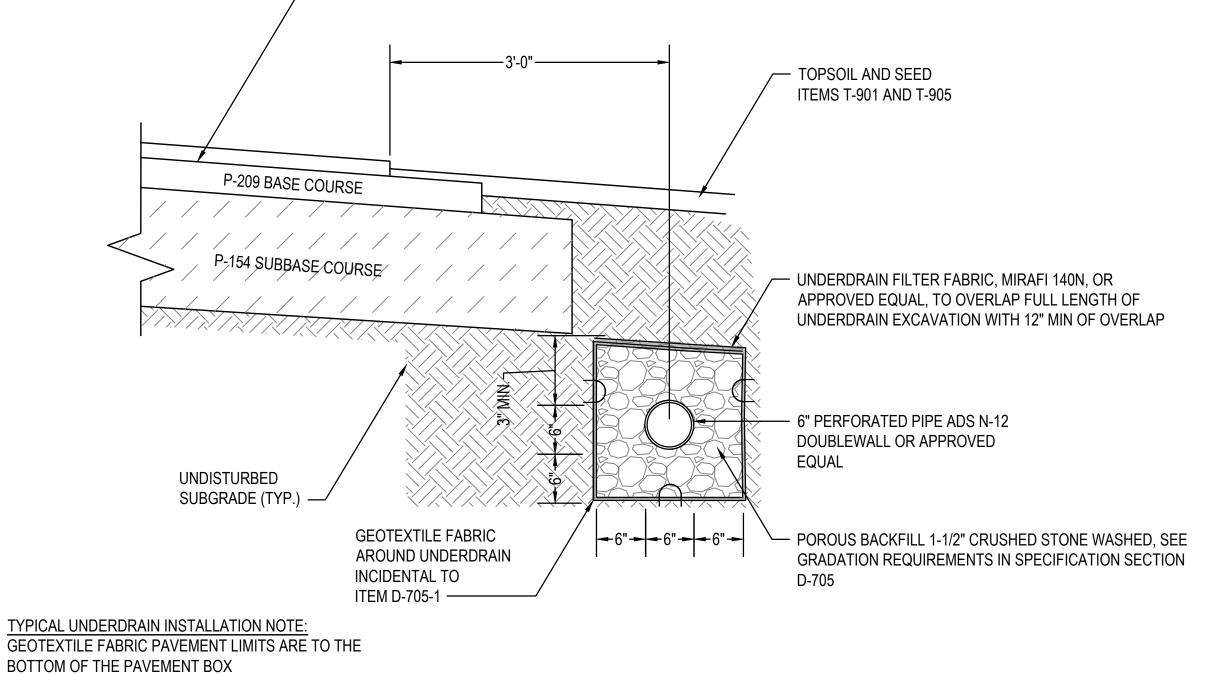
C5.2



UNDERDRAIN CLEANOUT DETAIL

N.T.S.





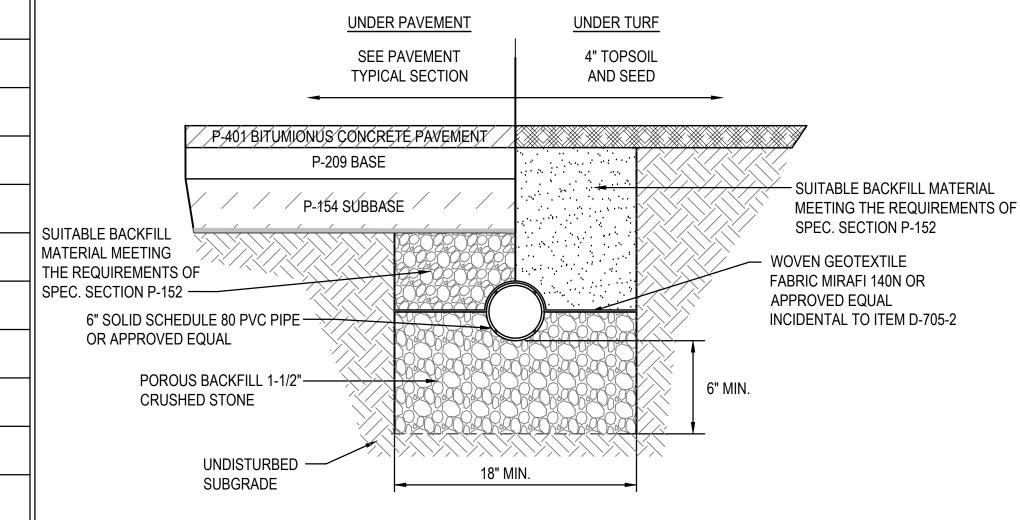
- P-401 BITUMINOUS CONCRETE PAVEMENT

TYPICAL UNDERDRAIN INSTALLATION DETAIL - UNDER TURF

N.T.S.

UNDERDRAIN CLEANOUT COVER DETAIL N.T.S.

						UNDERDRAIN (	CLEANC	OUT SCH	IEDULE					
CLEANOUT	STATION AND OFFSET	RIM	INVERT	PAY ITEM NO.	CLEANOUT	RUNWAY STATION OFFSET	RIM	INVERT	PAY ITEM NO.	CLEANOUT	TAXIWAY STATION OFFSET	RIM	INVERT	PAY ITEM NO.
1	R/W 14-32, STA 199+97.00, 40.50 RT	120.46	116.10	D-705-4	19	R/W 14-32, STA 222+00.00, 40.50 LT	118.21	114.40	D-705-4	37	T/W 'A2', STA 601+15.00, 15.50 LT	116.91	113.91	D-705-4
2	R/W 14-32, STA 202+50.00, 40.50 RT	120.16	116.50	D-705-4	20	R/W 14-32, STA 219+00.00, 40.50 LT	118.51	115.51	D-705-4	38	T/W 'A2', STA 601+15.00, 15.50 RT	116.91	113.91	D-705-4
3	R/W 14-32, STA 205+00.00, 40.50 RT	119.91	117.00	D-705-4	21	R/W 14-32, STA 216+00.00, 40.50 LT	118.81	115.81	D-705-4	39	T/W 'A', STA 428+00.00, 15.50 RT	116.47	113.47	D-705-4
4	R/W 14-32, STA 207+00.00, 40.50 RT	119.71	116.71	D-705-4	22	T/W 'D', STA 500+73.48, 15.50 RT	118.30	115.55	D-705-4	40	T/W 'A', STA 431+00.00, 15.50 RT	116.33	113.33	D-705-4
5	R/W 14-32, STA 210+00.00, 40.50 RT	119.41	116.41	D-705-4	23	R/W 14-32, STA 213+00.00, 40.50 LT	119.11	116.11	D-705-4	41	T/W 'A', STA 433+40.00, 15.50 RT	116.22	113.22	D-705-4
6	R/W 14-32, STA 213+00.00, 40.50 RT	119.11	116.11	D-705-4	24	R/W 14-32, STA 210+00.00, 40.50 LT	119.41	116.41	D-705-4	42	T/W 'A', STA 433+40.00, 15.50 LT	116.22	113.22	D-705-4
7	R/W 14-32, STA 216+00.00, 40.50 RT	118.81	115.81	D-705-4	25	R/W 14-32, STA 207+00.00, 40.50 LT	119.71	116.71	D-705-4	43	T/W 'A', STA 431+00.00, 15.50 LT	116.33	113.33	D-705-4
8	R/W 14-32, STA 219+00.00, 40.50 RT	118.51	115.51	D-705-4	26	R/W 14-32, STA 205+00.00, 40.50 LT	119.91	117.00	D-705-4	44	T/W 'A', STA 428+00.00, 15.50 LT	116.47	113.47	D-705-4
9	R/W 14-32, STA 222+00.00, 40.50 RT	118.21	115.21	D-705-4	27	R/W 14-32, STA 202+50.00, 40.50 LT	120.16	116.50	D-705-4	45	T/W 'A', STA 425+00.00, 15.50 LT	116.61	113.61	D-705-4
10	R/W 14-32, STA 225+00.00, 40.50 RT	117.91	114.91	D-705-4	28	R/W 14-32, STA 200+33.35, 40.50 LT	120.40	116.15	D-705-4	46	T/W 'A', STA 422+00.00, 15.50 LT	116.74	113.74	D-705-4
11	R/W 14-32, STA 228+00.00, 40.50 RT	117.61	114.61	D-705-4	29	T/W 'A', STA 402+75.00, 15.50 RT	120.47	117.47	D-705-4	47	T/W 'A', STA 419+00.00, 15.50 LT	116.88	113.88	D-705-4
12	R/W 14-32, STA 231+00.00, 40.50 RT	117.31	114.31	D-705-4	30	T/W 'A', STA 407+00.00, 15.50 RT	119.73	116.73	D-705-4	48	T/W 'A', STA 416+00.00, 15.50 LT	117.02	114.02	D-705-4
13	R/W 14-32, STA 235+04.00, 40.50 RT	116.89	113.89	D-705-4	31	T/W 'A', STA 410+00.00, 15.50 RT	118.66	115.66	D-705-4	49	T/W 'A', STA 413+00.00, 15.50 LT	117.58	114.58	D-705-4
14	R/W 14-32, STA 234+67.65, 40.50 LT	117.01	114.01	D-705-4	32	T/W 'A', STA 413+00.00, 15.50 RT	117.58	114.58	D-705-4	50	T/W 'A', STA 410+00.00, 15.50 LT	118.66	115.66	D-705-4
15	R/W 14-32, STA 231+00.00, 40.50 LT	117.31	114.31	D-705-4	33	T/W 'D', STA 501+35.45, 16.92 RT	117.51	114.51	D-705-4	51	T/W 'A', STA 407+00.00, 15.50 LT	119.73	116.73	D-705-4
16	R/W 14-32, STA 228+00.00, 40.50 LT	117.61	114.61	D-705-4	34	T/W 'A', STA 416+00.00, 15.50 RT	117.02	114.02	D-705-4	52	T/W 'A', STA 401+75.00, 31.92 LT	120.50	117.50	D-705-4
17	T/W 'A2', STA 600+73.48, 15.50 RT	117.30	114.75	D-705-4	35	T/W 'A', STA 419+00.00, 15.50 RT	116.88	113.50	D-705-4					
18	T/W 'A2', STA 600+73.48, 15.50 LT	117.30	114.65	D-705-4	36	T/W 'A', STA 422+50.00, 15.50 RT	116.92	113.50	D-705-4					



TYPICAL SOLID UNDERDRAIN PIPE TRENCH DETAIL NOTE:

CONTRACTOR SHALL SHORE TRENCH SIDES AND DEWATER WHEN REQUIRED.

TYPICAL SOLID UNDERDRAIN PIPE TRENCH DETAIL

GALE Engineers and Planners

Gale Associates, Inc.

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**BID SET** 

MANSFIELD MUNICIPAL AIRPORT MANSFIELD, MASSACHUSETTS

DESCRIPTION NO. DATE PROJECT NO. 777141 777141-11-DRA

CADD FILE AWC **DESIGNED BY** AWC DRAWN BY MKO CHECKED BY MAY 2025 DRAWING SCALE NOT TO SCALE

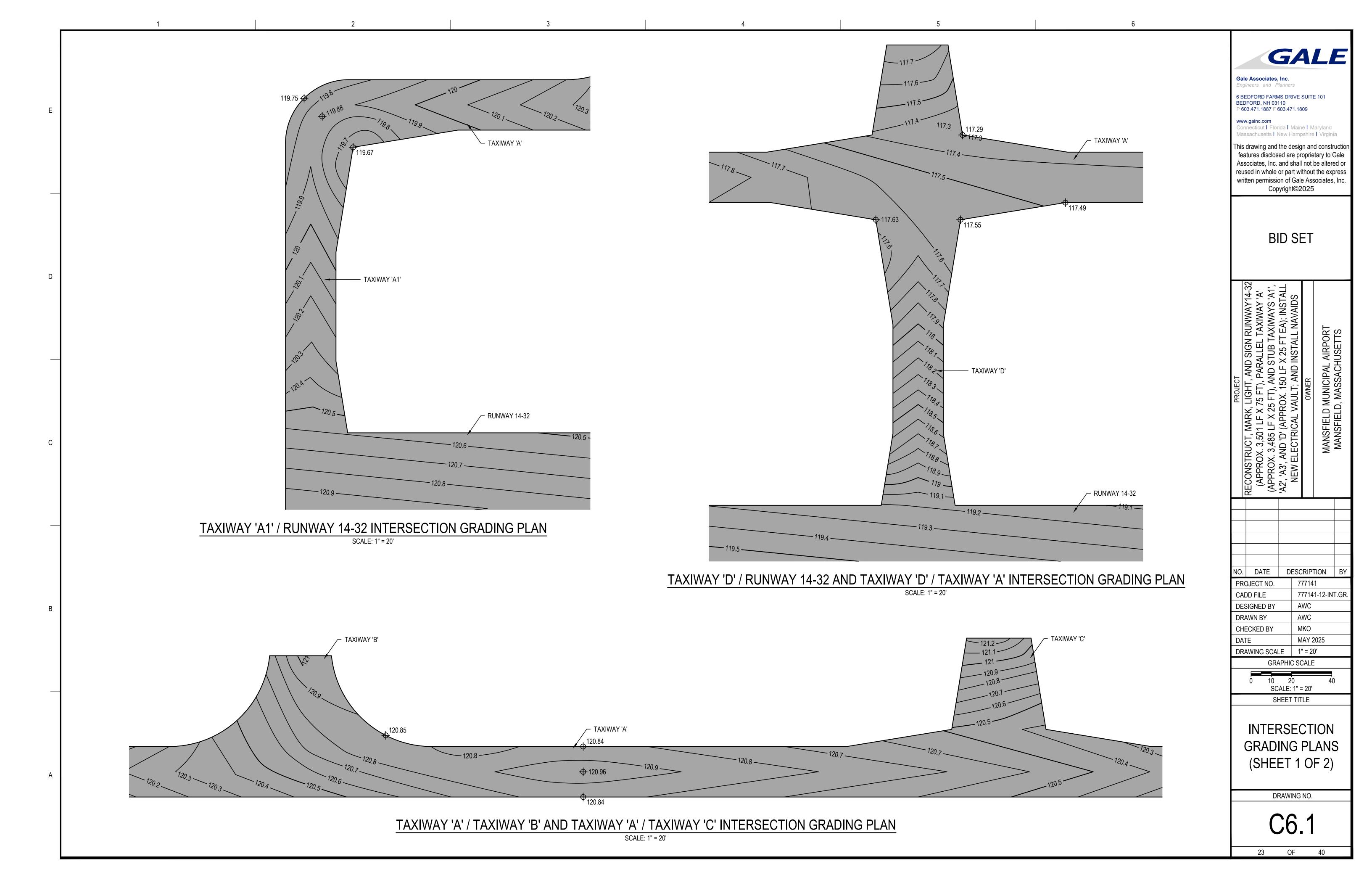
> GRAPHIC SCALE

> > SHEET TITLE

DRAINAGE AND EROSION CONTROL **DETAILS** (SHEET 3 OF 3)

DRAWING NO.

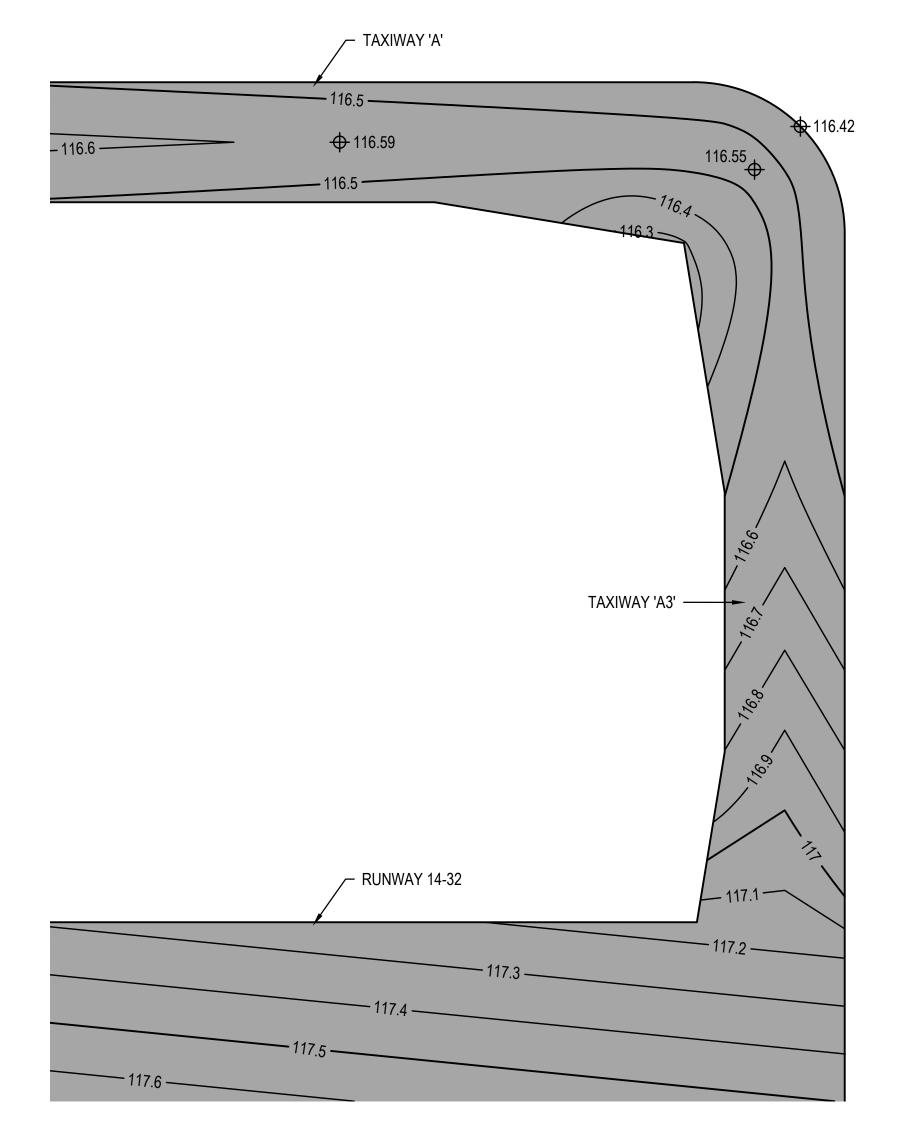
C5.3



← TAXIWAY 'A' - Taxiway 'A2' - RUNWAY 14-32

TAXIWAY 'A2' / RUNWAY 14-32 AND TAXIWAY 'A2' / TAXIWAY 'A' INTERSECTION GRADING PLAN

SCALE: 1" = 20'



TAXIWAY 'A3' / RUNWAY 14-32 INTERSECTION GRADING PLAN

SCALE: 1" = 20'

GALE

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Engineers and Planners

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**BID SET** 

MANSFIELD MUNICIPAL AIRPORT MANSFIELD, MASSACHUSETTS
OWNER
NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS
'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALL
(APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1',
(APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A'

NO.	DATE	D	DESCRIPTION			
PROJECT NO.			777141			
CAE	DD FILE	777141-12-IN <sup>-</sup>	T.G			
DESIGNED BY			AWC			
DRAWN BY			AWC			
CHECKED BY			MKO			
DATE			MAY 2025			
DRAWING SCALE			AS SHOWN			

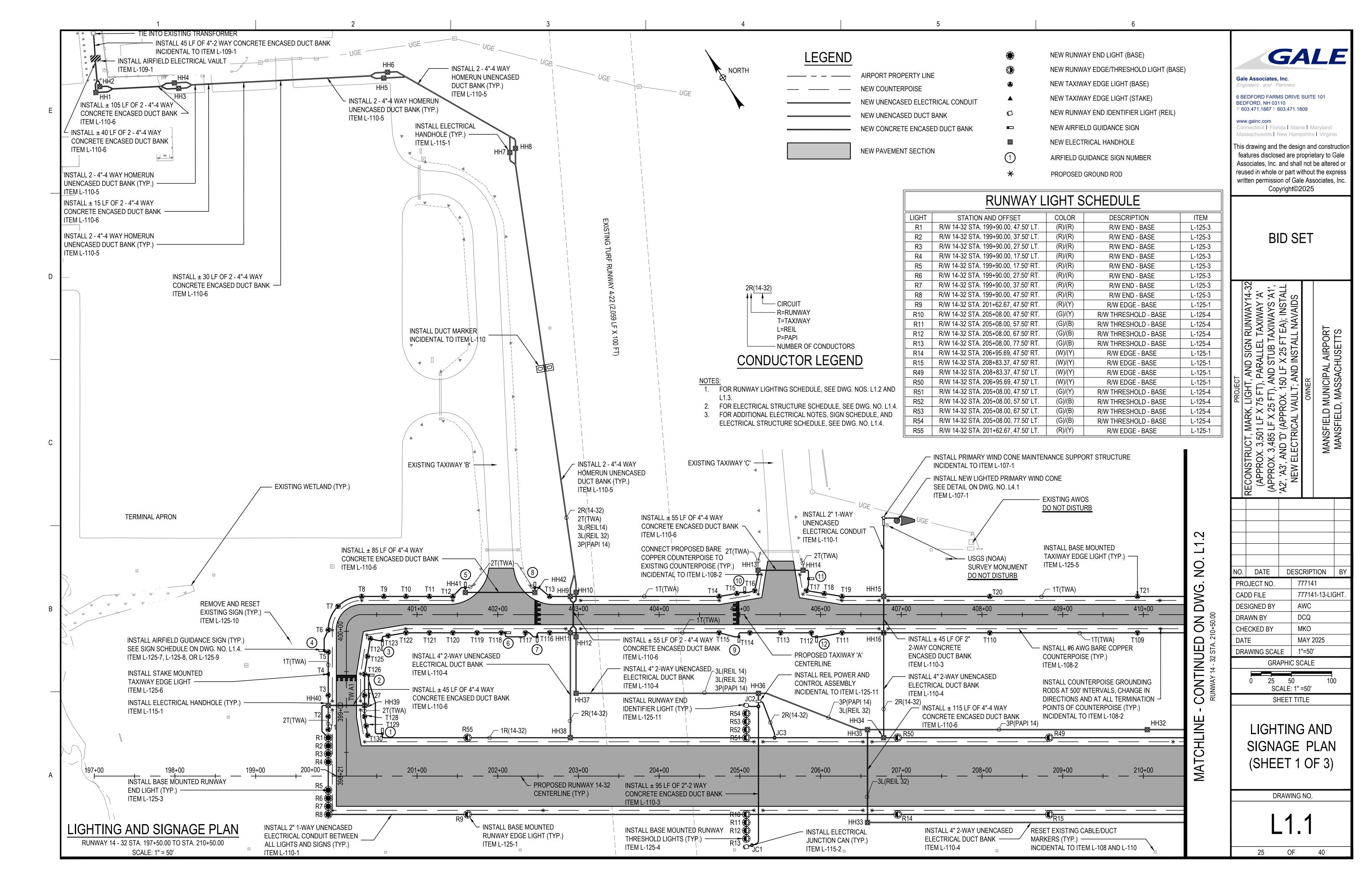
	GRAPHIC SCA	LE

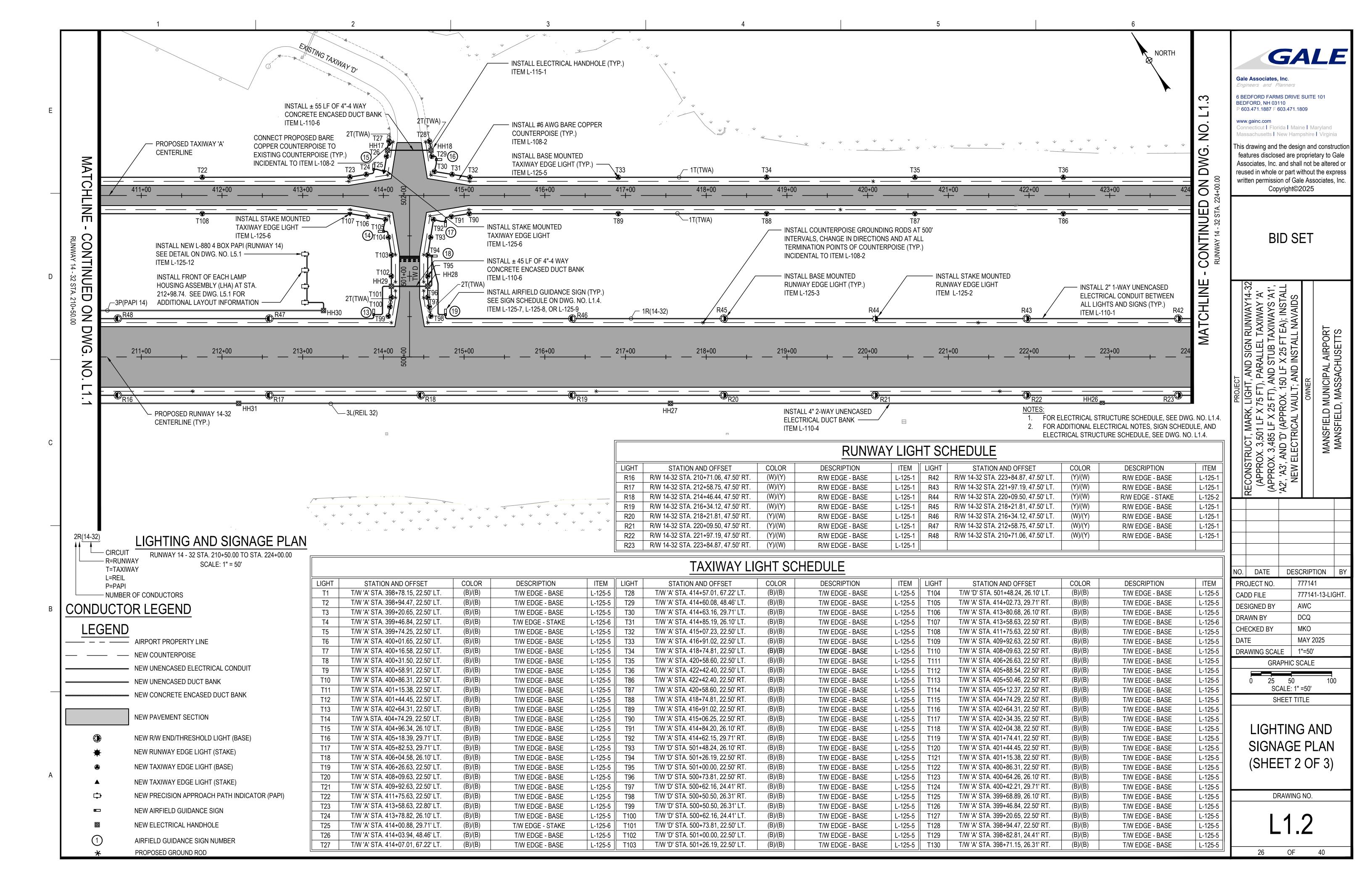
SCALE: AS SHOWN
SHEET TITLE

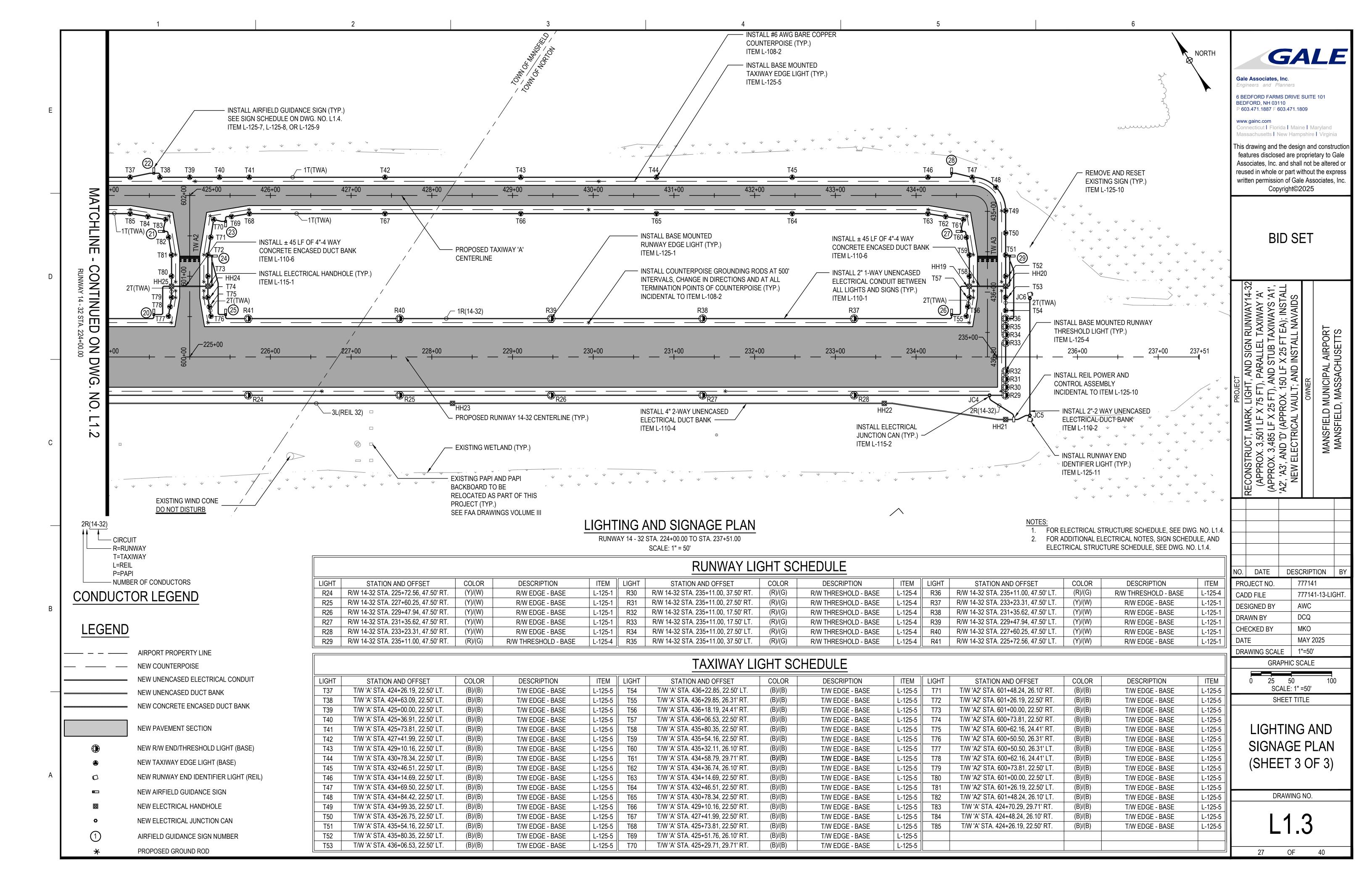
INTERSECTION GRADING PLANS (SHEET 2 OF 2)

DRAWING NO.

C6.2







				AIRFIELD (	GUIDANG	CE SIGN	SCHEE	DULE			
SIGN TAG NUMBER	CIRCUIT	SIDE A (THIS EDGE TOWARD €)	SIDE B (THIS EDGE TOWARD €)	CORNER OF SIGN CLOSEST TO EDGE OF PAVEMENT	ITEM NO.	SIGN TAG NUMBER	CIRCUIT	SIDE A (THIS EDGE TOWARD €)	SIDE B (THIS EDGE TOWARD €)	CORNER OF SIGN CLOSEST TO EDGE OF PAVEMENT	ITEM NO.
1	R/W	(BLK)	A1 → (BLK/Y)	R/W 14-32 STA. 200+57.00, 52.50' LT.	L-125-7	16	T/W	D ←A→ LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 414+65.59, 44.50' LT.	L-125-9
2	R/W	A1 14 LT: (Y/BLK) RT: (W/R)	T: (BLK/Y) RT: (Y/BLK)	T/W 'A' STA. 399+45.65, 27.50' RT.	L-125-9	(17)	T/W	A ←D→ LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 414+76.94, 32.16' RT.	L-125-9
3	T/W	←A1A LT: (BLK/Y) RT: (Y/BLK)	(BLK)	T/W 'A' STA. 400+57.00, 32.16' RT.	L-125-8	(18)	R/W	D 32-14 LT: (Y/BLK) RT: (W/R)	T: (BLK/Y) RT: (Y/BLK)	T/W 'D' STA. 501+25.00, 27.50' RT.	L-125-9
4	T/W	A1A  LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 399+76.15, 27.50' LT.	L-125-8	(19)	R/W	(BLK)	(BLK/Y)	R/W 14-32 STA. 214+76.94, 52.50' LT.	L-125-7
5	T/W	←B A LT: (BLK/Y) RT: (Y/BLK)	(BLK)	T/W 'A' STA. 401+59.88, 33.50' LT.	L-125-8	20)	R/W	←A2 (BLK/Y)	(BLK)	R/W 14-32 STA. 224+55.50, 52.50' LT.	L-125-7
6	T/W	B ←A→ LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 402+09.38, 22.50' RT.	L-125-9	21)	T/W	A2 — A — LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 424+67.84, 44.50' RT.	L-125-9
7	T/W	A B→ LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 402+48.88, 27.50' RT.	L-125-8	22	T/W	A A2  LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 424+55.50, 27.50' LT.	L-125-8
8	T/W	A 22-4 LT: (Y/BLK) RT: (W/R)	<b>E = = A</b> LT: (BLK/Y)  RT: (Y/BLK)		L-125-9	<u>3</u>	T/W	←A2 A LT: (BLK/Y) RT: (Y/BLK)	(BLK)	T/W 'A' STA. 425+44.50, 32.16' RT.	L-125-8
9	T/W	A 4-22 LT: (Y/BLK) RT: (W/R)	<b>E = = A</b> LT: (BLK/Y)  RT: (Y/BLK)	T/W 'A' STA. 404+98.80, 27.50' RT.	L-125-9	24	R/W	A2 32-14 LT: (Y/BLK) RT: (W/R)	<b>E = =</b> A2 LT: (BLK/Y) RT: (Y/BLK)	T/W 'A2' STA. 601+25.00, 27.50' RT.	L-125-9
10	T/W	C A LT: (BLK/Y) RT: (Y/BLK)	(BLK)	T/W 'A' STA. 405+05.96, 27.54' LT.	L-125-8	25)	R/W	(BLK)	A2→ (BLK/Y)	R/W 14-32 STA. 225+44.50, 52.50' LT.	L-125-7
11)	T/W	C ←A→ LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 405+84.97, 44.50' LT.	L-125-9	26	R/W	←A3 (BLK/Y)	(BLK)	R/W 14-32 STA. 234+44.00, 52.50' LT.	L-125-7
12	T/W	A C → LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 405+94.96, 27.50' RT.	L-125-8	27	T/W	←A A3 LT: (BLK/Y) RT: (Y/BLK)	(BLK)	T/W 'A' STA. 435+24.85, 32.16' RT.	L-125-8
(3)	R/W	(BLK/Y)	(BLK)	R/W 14-32 STA. 213+87.94, 52.50' LT.	L-125-7	<b>(38)</b>	T/W	A A3 → LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 434+44.00, 27.50' LT.	L-125-8
14)	T/W	D ←A→ LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 414+00.28, 44.50' RT.	L-125-9	29	R/W	A3 32 LT: (Y/BLK) RT: (W/R)	<b>E = = </b> A3 LT: (BLK/Y) RT: (Y/BLK)	T/W 'A' STA. 435+55.35, 27.50' LT.	L-125-9
15)	T/W	A ←D→ LT: (Y/BLK) RT: (BLK/Y)	(BLK)	T/W 'A' STA. 413+87.94, 32.46' LT.	L-125-9						
SIGN COLOR	KEY: (R) - RE[	)   (BLK) - BLACK   (Y) - YELLOW   (W) -	WHITE LETTER COLOR —	→ (BLK/Y) ← BACKG	ROUND COLOR		1	,		•	

		ELECTRICA	AL STRU	JCTURE S	SCHEDULE		
STRUCTURE NUMBER	TYPE	STATION AND OFFSET	ITEM	STRUCTURE NUMBER	TYPE	STATION AND OFFSET	ITEM
HH1	HANDHOLE	R/W 14-32 STA. 197+01.99, 846.71' LT.	L-115-1	HH25	HANDHOLE	T/W 'A2' STA. 600+87.49, 22.50' LT.	L-115-1
HH2	HANDHOLE	R/W 14-32 STA. 197+06.76, 853.96' LT.	L-115-1	HH26	HANDHOLE	R/W 14-32 STA. 222+90.69, 57.50' RT.	L-115-1
HH3	HANDHOLE	R/W 14-32 STA. 198+04.71, 851.86' LT.	L-115-1	HH27	HANDHOLE	R/W 14-32 STA. 217+55.69, 57.50' RT.	L-115-1
HH4	HANDHOLE	R/W 14-32 STA. 197+99.36, 858.60' LT.	L-115-1	HH28	HANDHOLE	T/W 'D' STA. 500+87.49, 22.50' RT.	L-115-1
HH5	HANDHOLE	R/W 14-32 STA. 200+58.76, 864.59' LT.	L-115-1	HH29	HANDHOLE	T/W 'D' STA. 500+87.49, 22.50' LT.	L-115-1
HH6	HANDHOLE	R/W 14-32 STA. 200+63.41, 871.83' LT.	L-115-1	HH30	HANDHOLE	R/W 14-32 STA. 213+25.89, 57.50' LT.	L-115-1
HH7	HANDHOLE	R/W 14-32 STA. 202+15.00, 772.50' LT.	L-115-1	HH31	HANDHOLE	R/W 14-32 STA. 212+20.69, 57.50' RT.	L-115-
HH8	HANDHOLE	R/W 14-32 STA. 202+22.00, 777.50' LT.	L-115-1	HH32	HANDHOLE	R/W 14-32 STA. 210+04.79, 57.50' LT.	L-115-
HH9	HANDHOLE	T/W 'A' STA. 402+90.00, 22.50' LT.	L-115-1	HH33	HANDHOLE	R/W 14-32 STA. 206+58.15, 57.50' RT.	L-115-
HH10	HANDHOLE	T/W 'A' STA. 402+97.00, 27.50' LT.	L-115-1	HH34	HANDHOLE	R/W 14-32 STA. 206+78.15, 47.50' LT.	L-115-
HH11	HANDHOLE	T/W 'A' STA. 402+90.00, 22.50' RT.	L-115-1	HH35	HANDHOLE	R/W 14-32 STA. 206+58.15, 57.50' LT.	L-115-
HH12	HANDHOLE	T/W 'A' STA. 402+97.00, 27.50' RT.	L-115-1	HH36	HANDHOLE	R/W 14-32 STA. 205+23.00, 102.50' LT.	L-115-2
HH13	HANDHOLE	T/W 'A' STA. 405+22.52, 55.00' LT.	L-115-1	HH37	HANDHOLE	R/W 14-32 STA. 202+97.00, 102.50' LT.	L-115-
HH14	HANDHOLE	T/W 'A' STA. 405+78.39, 55.00' LT.	L-115-1	HH38	HANDHOLE	R/W 14-32 STA. 202+90.00, 47.50' LT.	L-115-
HH15	HANDHOLE	T/W 'A' STA. 406+78.15, 22.50' LT.	L-115-1	HH39	HANDHOLE	T/W 'A' STA. 399+08.15, 22.50' RT.	L-115-
HH16	HANDHOLE	T/W 'A' STA. 406+78.15, 22.50' RT.	L-115-1	HH40	HANDHOLE	T/W 'A' STA. 399+08.15, 22.50' LT.	L-115-
HH17	HANDHOLE	T/W 'A' STA. 414+05.17, 56.00' LT.	L-115-1	HH41	HANDHOLE	T/W 'A' STA. 401+59.88, 27.43' LT.	L-115-
HH18	HANDHOLE	T/W 'A' STA. 414+58.93, 56.00' LT.	L-115-1	HH42	HANDHOLE	T/W 'A' STA. 402+45.96, 27.43' LT.	L-115-
HH19	HANDHOLE	T/W 'A' STA. 435+92.85, 22.50' RT.	L-115-1	JC1	JUNCTION CAN	R/W 14-32 STA. 205+14.94, 85.64' RT.	L-115-2
HH20	HANDHOLE	T/W 'A' STA. 435+92.85, 22.50' LT.	L-115-1	JC2	JUNCTION CAN	R/W 14-32 STA. 205+23.00, 86.21' LT.	L-115-
HH21	HANDHOLE	R/W 14-32 STA. 235+11.00, 77.50' RT.	L-115-1	JC3	JUNCTION CAN	R/W 14-32 STA. 205+43.00, 47.50' LT.	L-115-
HH22	HANDHOLE	R/W 14-32 STA. 233+60.69, 57.50' RT.	L-115-1	JC4	JUNCTION CAN	R/W 14-32 STA. 234+91.00, 47.50' RT.	L-115-
HH23	HANDHOLE	R/W 14-32 STA. 228+25.69, 57.50' RT.	L-115-1	JC5	JUNCTION CAN	R/W 14-32 STA. 235+41.00, 72.50' RT.	L-115-
HH24	HANDHOLE	T/W 'A2' STA. 600+87.49, 22.50' RT.	L-115-1	JC6	JUNCTION CAN	R/W 14-32 STA. 235+41.00, 72.50' LT.	L-115-2

### **ELECTRICAL NOTES:**

- 1. FOR TAXIWAY LIGHTING SCHEDULE, SEE DWG. NOS. L1.2 AND L1.3.
- 2. FOR RUNWAY LIGHTING SCHEDULE, SEE DWG. NOS. L1.1 THROUGH L1.3.
- 3. ALL RUNWAY AND TAXIWAY LIGHTING CABLE SHALL BE #8, 5kV, TYPE C, L-824 CABLE.
- 4. ALL CONDUIT, WIRING, AND ELECTRICAL EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LATEST N.E.C., N.F.P.A. AND ANY OTHER APPLICABLE LOCAL REGULATIONS.
- 5. PROPOSED CONDUITS, FIXTURES, CABLES, DUCTS, AND OUTLETS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATION AND METHOD OF SUPPORT SHALL BE DETERMINED IN THE FIELD.
- 6. THE LOCATIONS SHOWN FOR ALL EXISTING CABLES ARE APPROXIMATE. THE CONTRACTOR SHALL USE EXTREME CAUTION AT ALL TIMES TO AVOID DAMAGING EXISTING CABLES THAT ARE NOT SLATED FOR DEMOLITION. ALL CABLES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THERE MAY BE EXISTING CABLES THAT ARE NOT SHOWN ON THESE PLANS THAT ARE EITHER ACTIVE OR ABANDONED IN PLACE. THE CONTRACTOR SHALL LOCATE AND IDENTIFY THESE CABLES AND VERIFY THEIR CONDITION. THE CONTRACTOR SHALL RECORD ALL PERTINENT INFORMATION ON THE "AS-BUILT" DRAWINGS.
- 7. THE LOCATION OF EXISTING STRUCTURES ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD-LOCATE THE EXISTING STRUCTURES. IF THE LAYOUT OF NEW EQUIPMENT IS ALTERED TO TIE INTO EXISTING STRUCTURES WHERE CALLED FOR IN THE PLANS, THE CHANGES SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- 8. THE CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS IN GRADE TO SET SIGNS LEVEL AND AT THE CORRECT ELEVATION, AS DIRECTED BY THE ENGINEER. THE AREA SHALL BE GRADED TO DRAIN AND A MAXIMUM GRADE OF 3% SHALL BE PERMITTED. THIS WORK IN CONSIDERED INCIDENTAL TO THE INSTALLATION OF AIRFIELD GUIDANCE SIGNS.
- 9. THE CONTRACTOR SHALL LAY OUT AND MARK THE PROPOSED LOCATION OF ALL NEW FIXTURES, CABLES, AND RELATED EQUIPMENT FOR REVIEW BY THE ENGINEER PRIOR TO CONSTRUCTION.
- 10. NO SPLICES SHALL BE PERMITTED IN ANY LOCATION OUTSIDE A JUNCTION CAN, LIGHT BASE, SIGN BASE, OR ELECTRICAL HANDHOLE. IF A CABLE IS DAMAGED BY THE CONTRACTOR IT SHALL BE REPAIRED COMPLETELY BETWEEN THE TWO NEAREST STRUCTURES.
- 11. ALL FIELD CONNECTIONS SHALL BE WATER TIGHT ACCORDING TO THE CONTRACT SPECIFICATIONS. ALL L-823 CONNECTIONS SHALL BE SEALED WITH HEAT SHRINK KITS, RUBBER TAPE, AND PLASTIC TABLE AS DETAILED ON THE CONTRACT DRAWINGS.
- 12. CONTRACTOR SHALL TIE NEW TAXIWAY COUNTERPOISE WIRE INTO EXISTING TAXIWAY COUNTERPOISE CIRCUITS AT THE TAXIWAY/TAXIWAY INTERSECTIONS.
- 13. FOR LIGHTING AND ELECTRICAL DETAILS, SEE DWG. NOS. L2.1 THROUGH L6.2.
- 14. NO COUNTERPOISE SHALL BE INSTALLED ABOVE DUCT CROSSINGS UNDER PAVEMENT.
- 15. ANY EXISTING FACILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.

GALE

Gale Associates, Inc.
Engineers and Planners

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Massachusetts I New Hampshire I Virginia

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**BID SET** 

— RECONSTRUCT, MARK, LIGHT, AND SIGN RUNWAY14-32
(APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A'
(APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1',
NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS
OWNER
MANSFIELD MUNICIPAL AIRPORT
MANSFIELD, MASSACHUSETTS

PROJECT NO.	777141
CADD FILE	777141-13-LIGHT.
DESIGNED BY	AWC
DRAWN BY	DCQ
CHECKED BY	MKO
DATE	MAY 2025
DRAWING SCALE	N.T.S.

NO. DATE DESCRIPTION

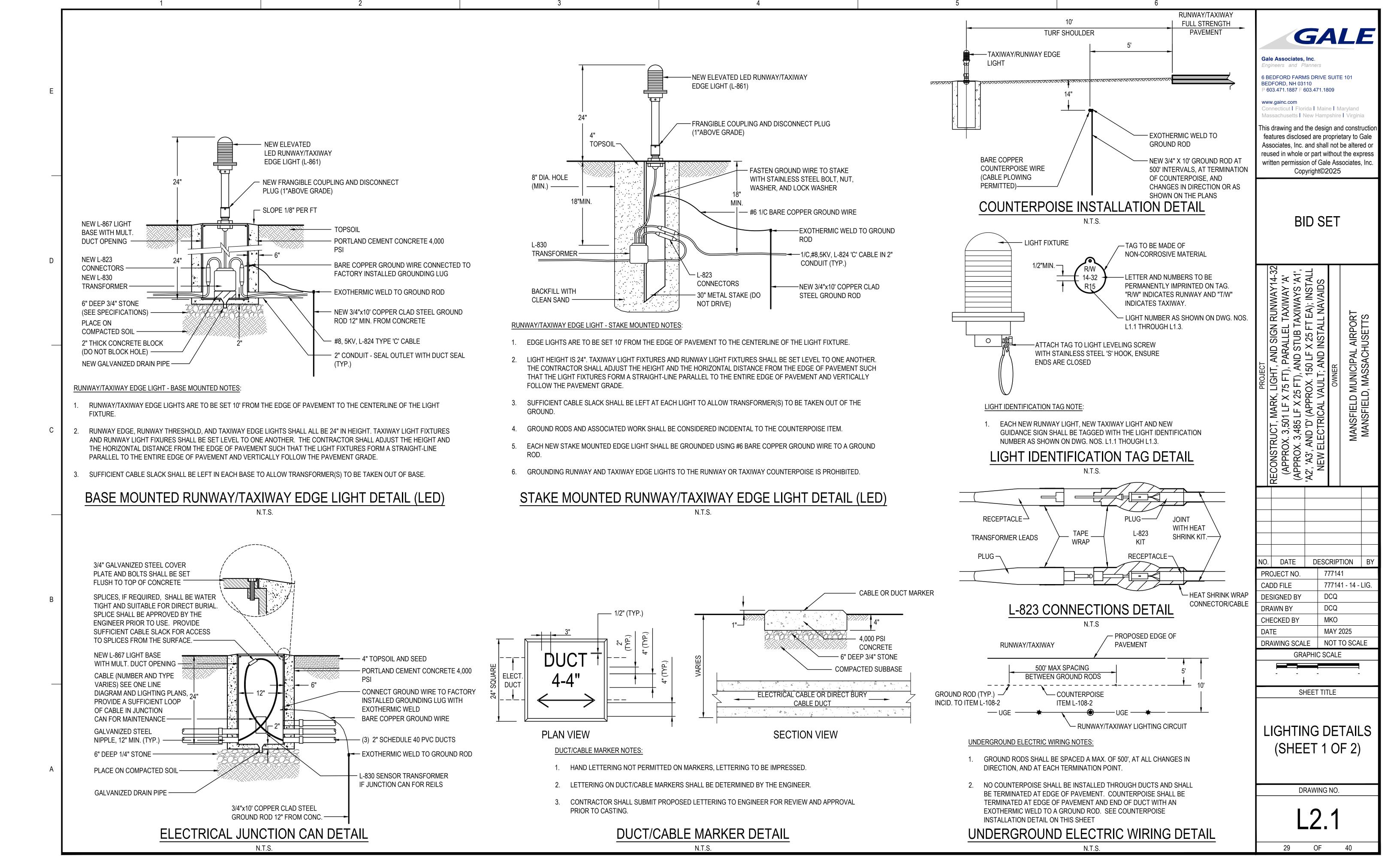
**GRAPHIC SCALE** 

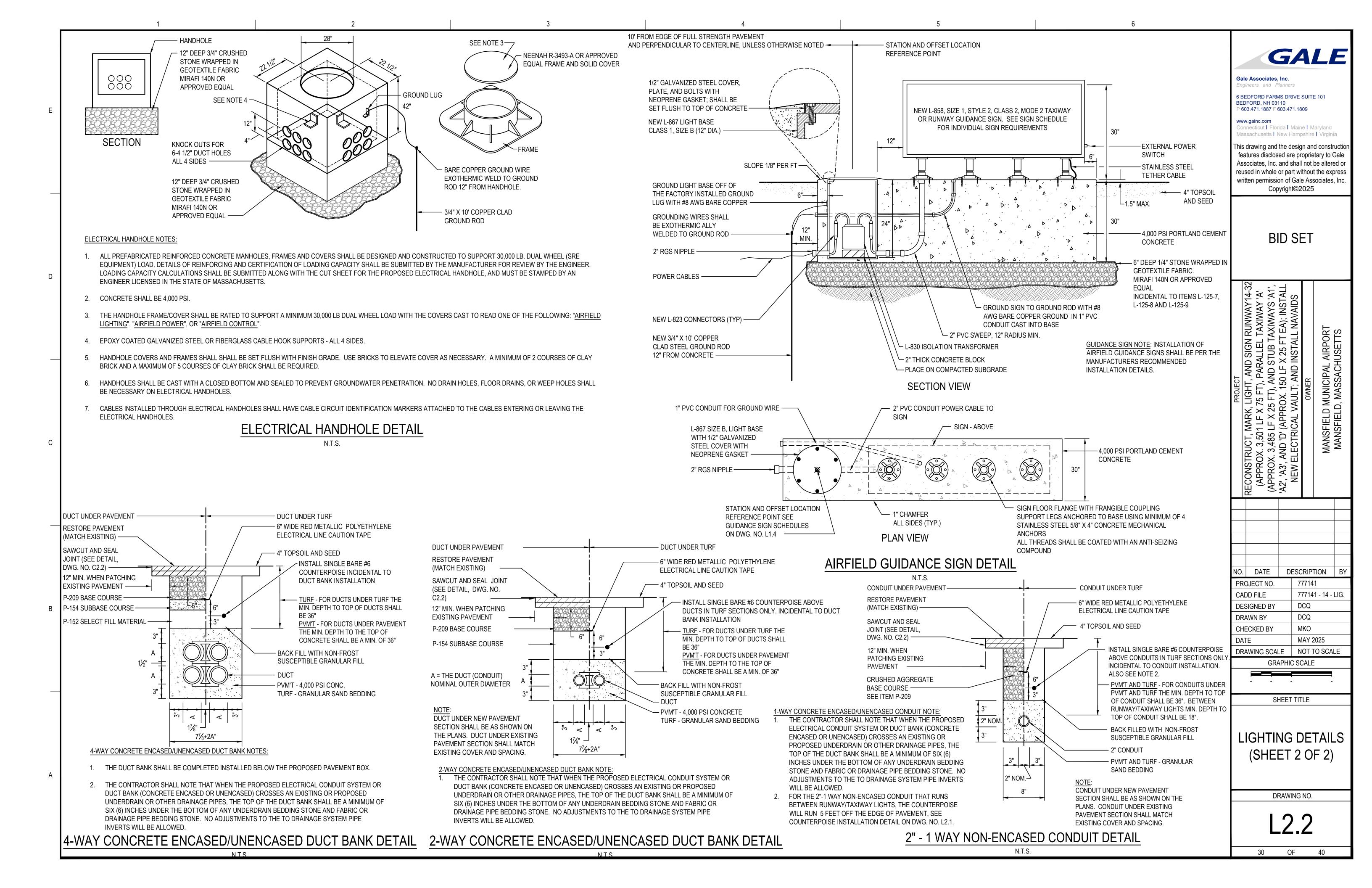
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SHEET TITLE

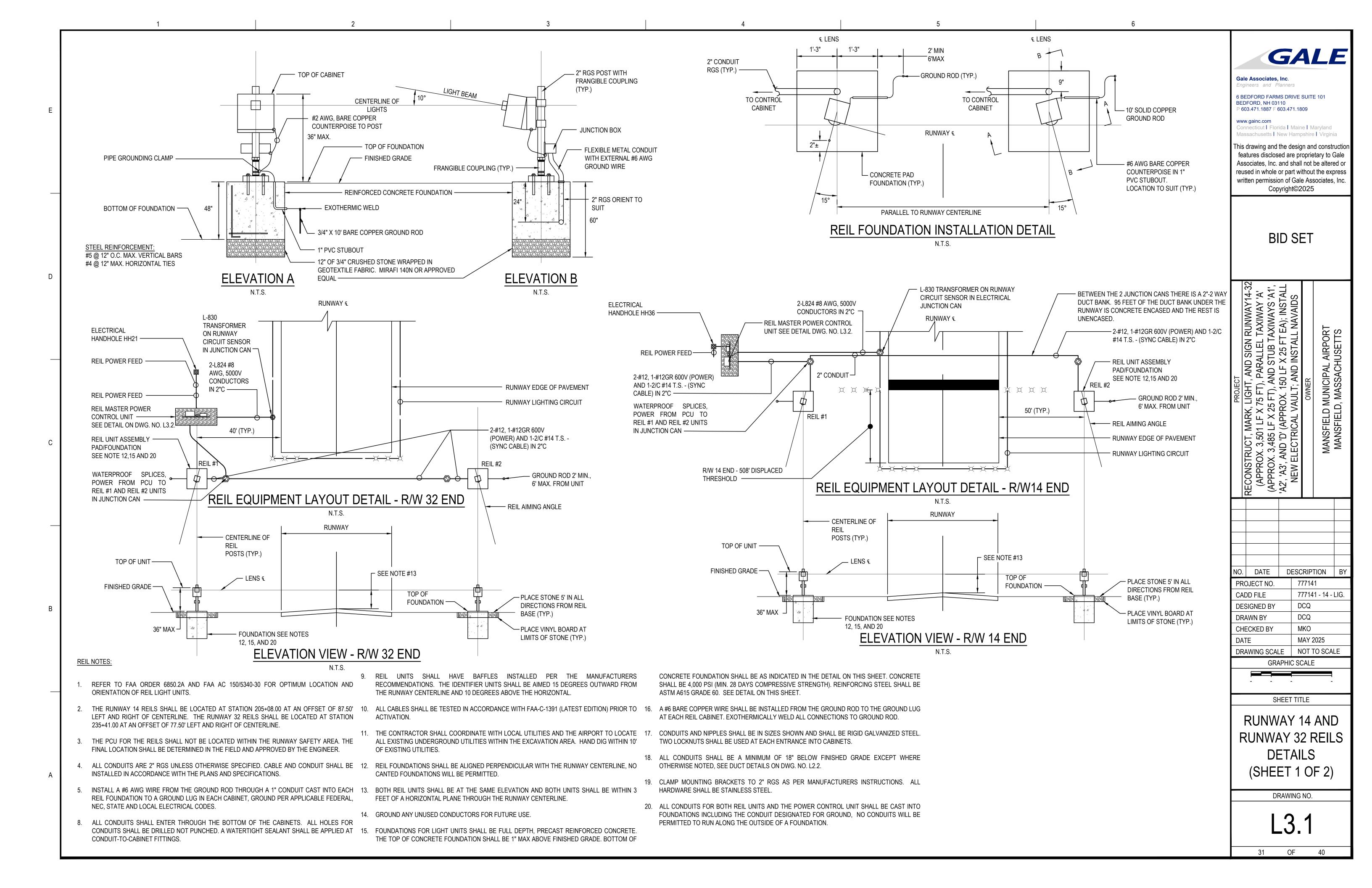
ELECTRICAL NOTES
AND SCHEDULES

DRAWING NO.

L1.4







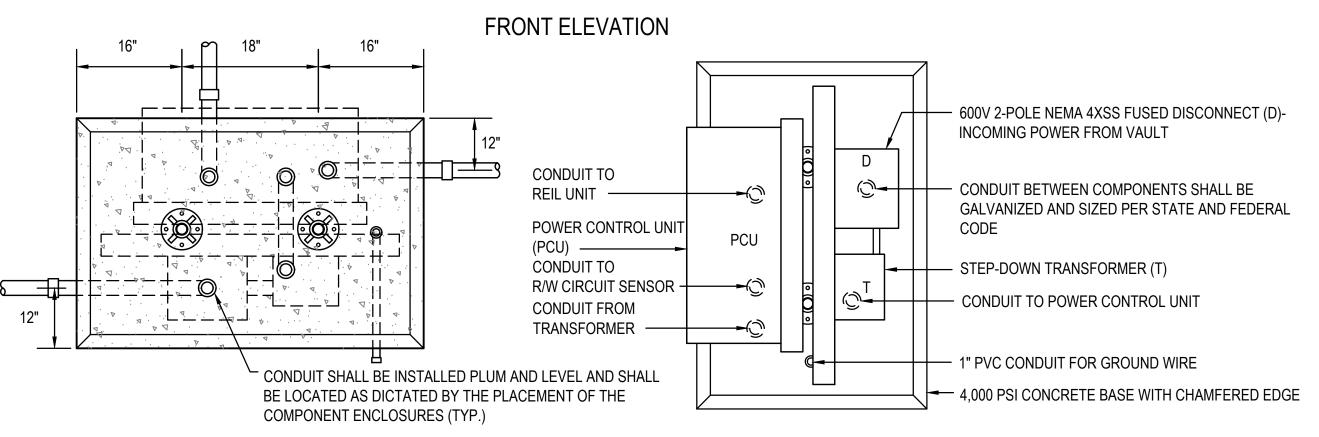
GALVANIZED STEEL NIPPLE 12"

INSTALL VINYL BOARD FRAME AROUND ALL CRUSHED STONE AREAS (TYP.)

6" DEEP 3/4" CRUSHED STONE A MIN. 5' ON ALL SIDES NON-WOVEN FABRIC

2" RGS LEG (2 EACH)

CONCRETE PAVERS TO ADJUST HEIGHT

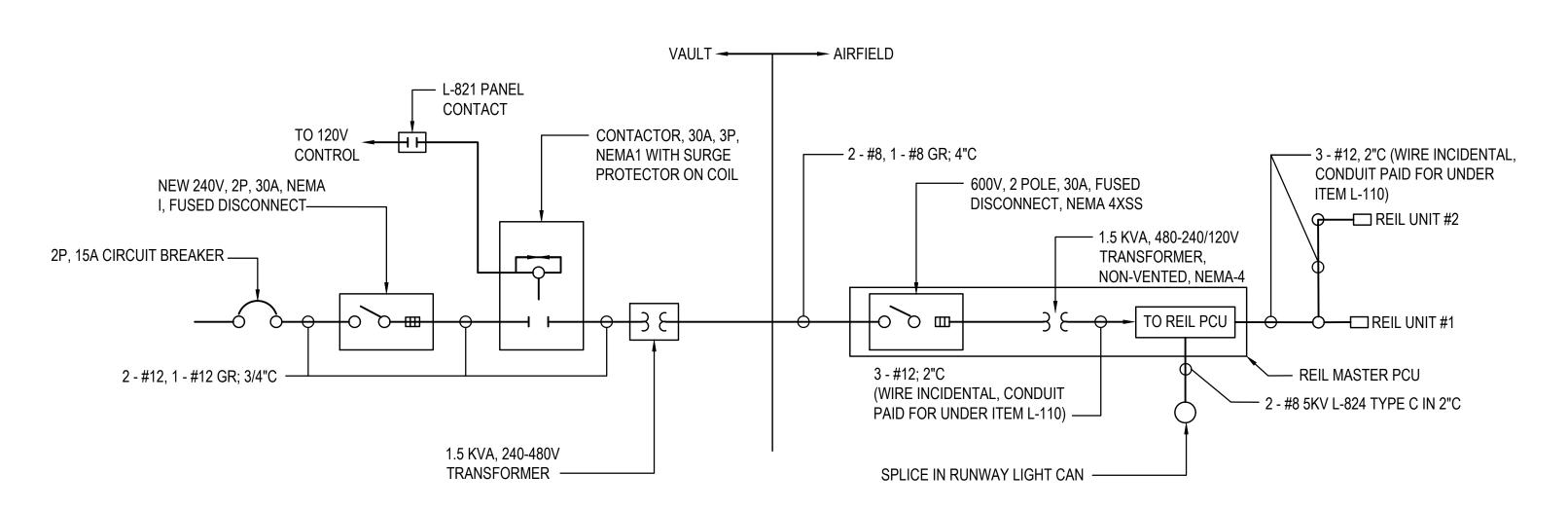


FOUNDATION PLAN VIEW

PCU PLAN VIEW

## REIL MASTER POWER CONTROL UNIT

N.T.S



NOTE: EXPANSION FITTINGS, GROUNDS, ETC. NOT INDICATED BUT TO BE PROVIDED WHERE REQUIRED BY CODE. SYNC. WIRES BETWEEN REIL UNITS NOT NOTED.

# TYPICAL REIL POWER INTERCONNECTION DIAGRAM (2 REQUIRED)

N.T.S.

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**BID SET** 

	MANSFIELD MUNICIPAL AIRPORT MANSFIELD, MASSACHUSETTS
	OWNER
	NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS
ب	'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALL
	(APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1',
	(APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A'
1	

).	DATE	D	ESCRIPTION	В
R	DJECT NO.		777141	
Α[	DD FILE		777141 - 14 -	LIG
ES	SIGNED BY		DCQ	
R/	AWN BY		DCQ	
HE	ECKED BY		MKO	
A٦	ΓE		MAY 2025	

GRAPHIC SCALE

DRAWING SCALE NOT TO SCALE

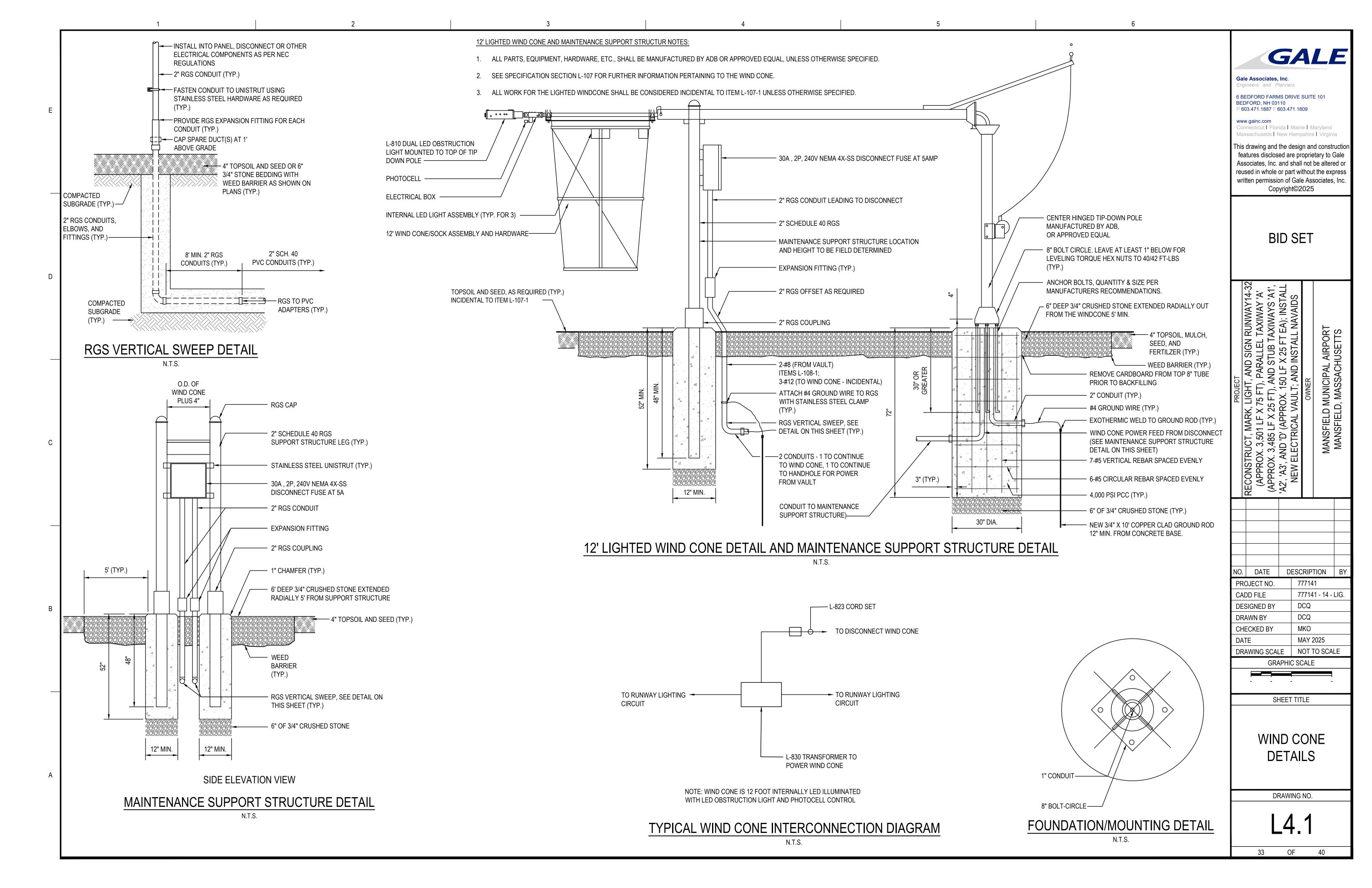
SHEET TITLE

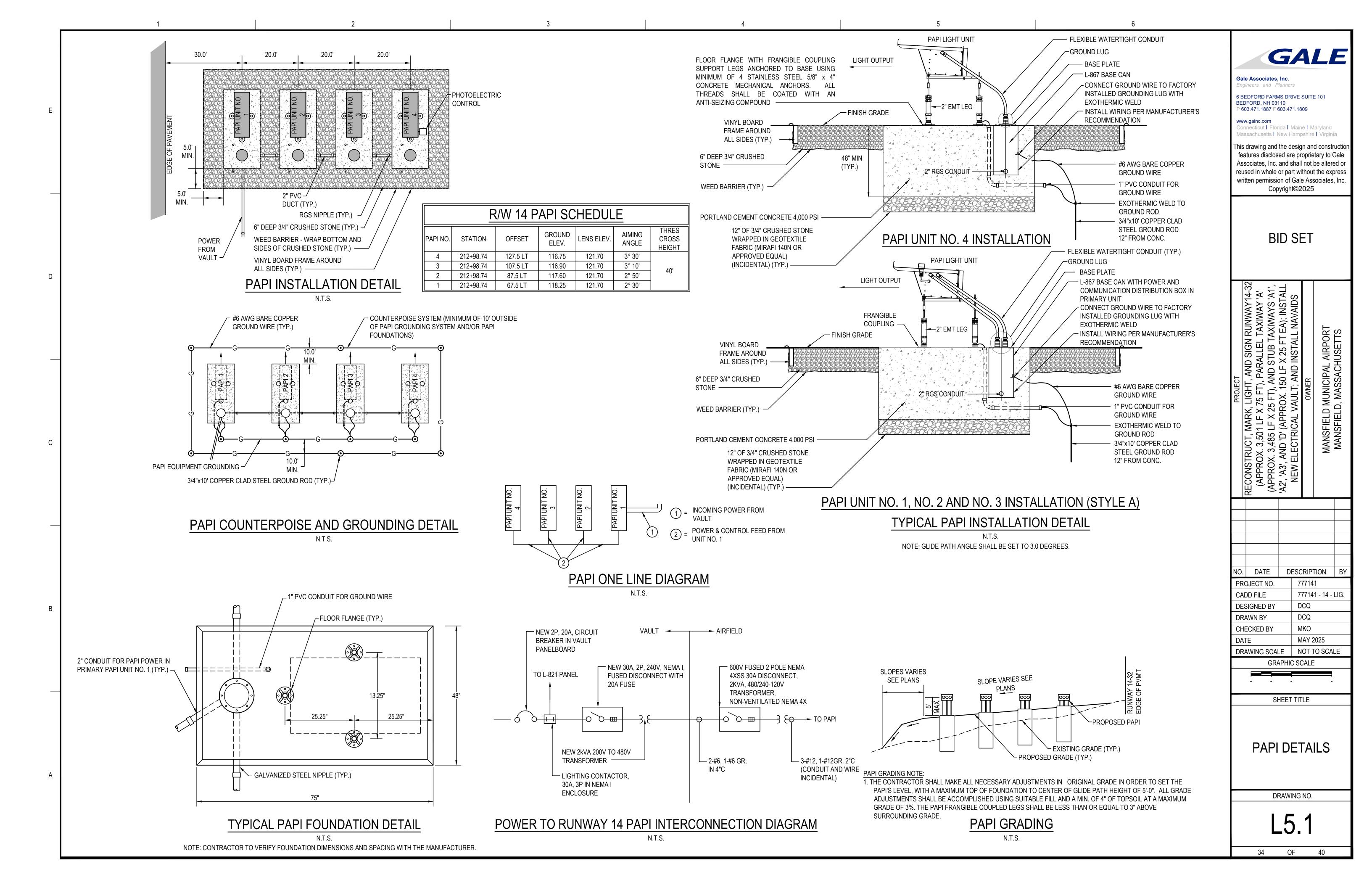
RUNWAY 14 AND RUNWAY 32 REILS DETAILS

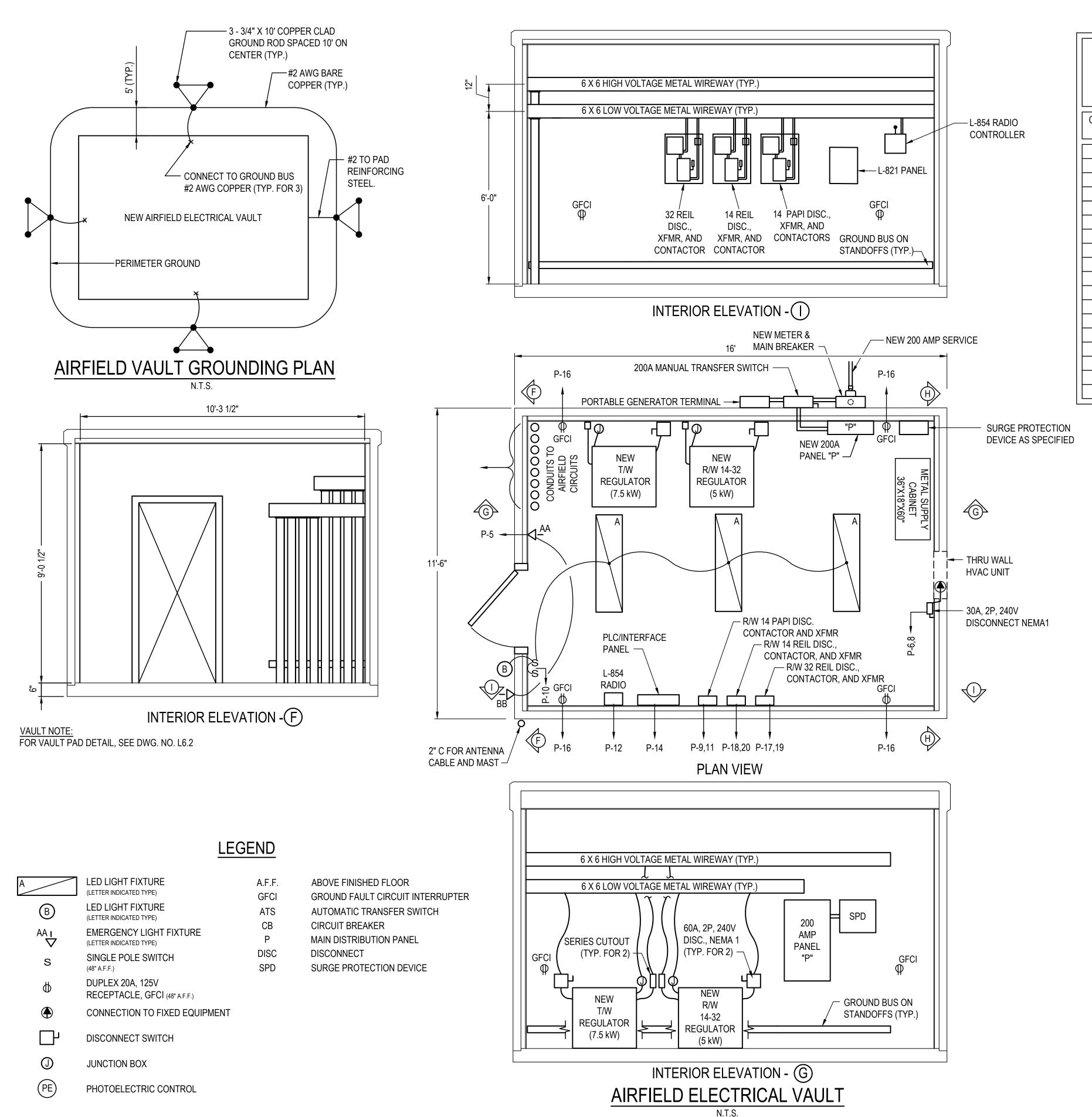
(SHEET 2 OF 2)

DRAWING NO.

132





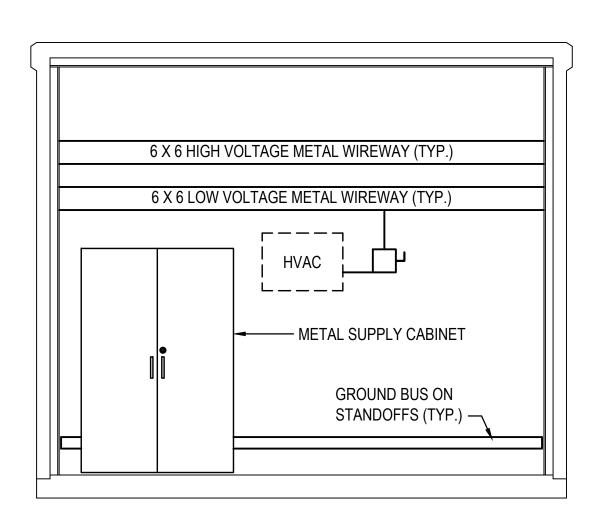


### PANEL "P" CIRCUIT SCHEDULE

SURFACE MOUNTED (NEW VAULT), 200 AMP CIRCUIT BREAKER 240/120 VOLT, 1 PHASE, 3 WIRE, 60 HERTZ

CIRCUIT NO.	BREAKER	NO. POLES	DESCRIPTION	LOAD (kVA)
1,3	**	2	SURGE PROTECTION DEVICE (SPD)	-
2,4	40*	2	RUNWAY 14-32 REGULATOR	5.0
5,7	60*	2	TAXIWAY REGULATOR	7.5
6,8	30	2	VAULT HVAC UNIT	5.0
9,11	20*	2	RUNWAY PAPI 14	1.0
10	20*	1	VAULT LIGHTS	0.4
12	20*	1	RADIO CONTROLLER	1.0
13	20	1	SPARE	-
14	20*	1	CONTROLS / PLC INTERFACE / L-821 PANEL	0.8
15	20	1	SPARE	-
16	20	1	VAULT RECEPTACLES	0.8
17,19	15*	2	RUNWAY 32 REILS	0.25
18,20	15*	2	RUNWAY 14 REILS	0.25
21, 23	15	2	SPARE	-
22,24	15	2	SPARE	-
25-30	20	1	SPARE	-
31-33	15	1	SPARE	-
33-42	-	1	SPACE FOR FUTURE	-

- \* PROVIDE HANDLE LOCK ON CIRCUITS
- \*\* PROVIDE RATING PER SPD MANUFACTURER RECOMMENDATIONS EST. = ESTIMATED



INTERIOR ELEVATION - (H)

VAULT LIGHTING FIXTURE/MOUNTING SCHEDULE				
TYPE	MAKE/MODEL	LAMPING	MOUNTING	
А	LITHONIA XVML L48 5000LM MVOLT 40K 80CRI	LED	CEILING SURFACE	
В	RAB SLIM18/PC	LED	WALL BELOW EAVE	
AA	LITHONIA ELM4-TH-H	8 WATT HALOGEN	WALL 12" BELOW CEILING	
BB	LITHONIA ELA-H0812 WITH VANDAL SHIELD	8 WATT HALOGEN	WALL BELOW EAVE	

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**BID SET** 

RECONSTRUCT, MARK, LIGHT, AND SIGN RUNWAY14-32
(APPROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A'
(APPROX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A1',
'A2', 'A3', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTALL
NEW ELECTRICAL VAULT; AND INSTALL NAVAIDS

OWNER

MANSFIELD MUNICIPAL AIRPORT

MANSFIELD, MASSACHUSETTS

NO. DATE DESCRIPTION BY
PROJECT NO. 777141

CADD FILE 777141 - 14 - LIG.
DESIGNED BY DCQ

DRAWN BY DCQ

CHECKED BY MKO

DATE MAY 2025

DRAWING SCALE NOT TO SCALE

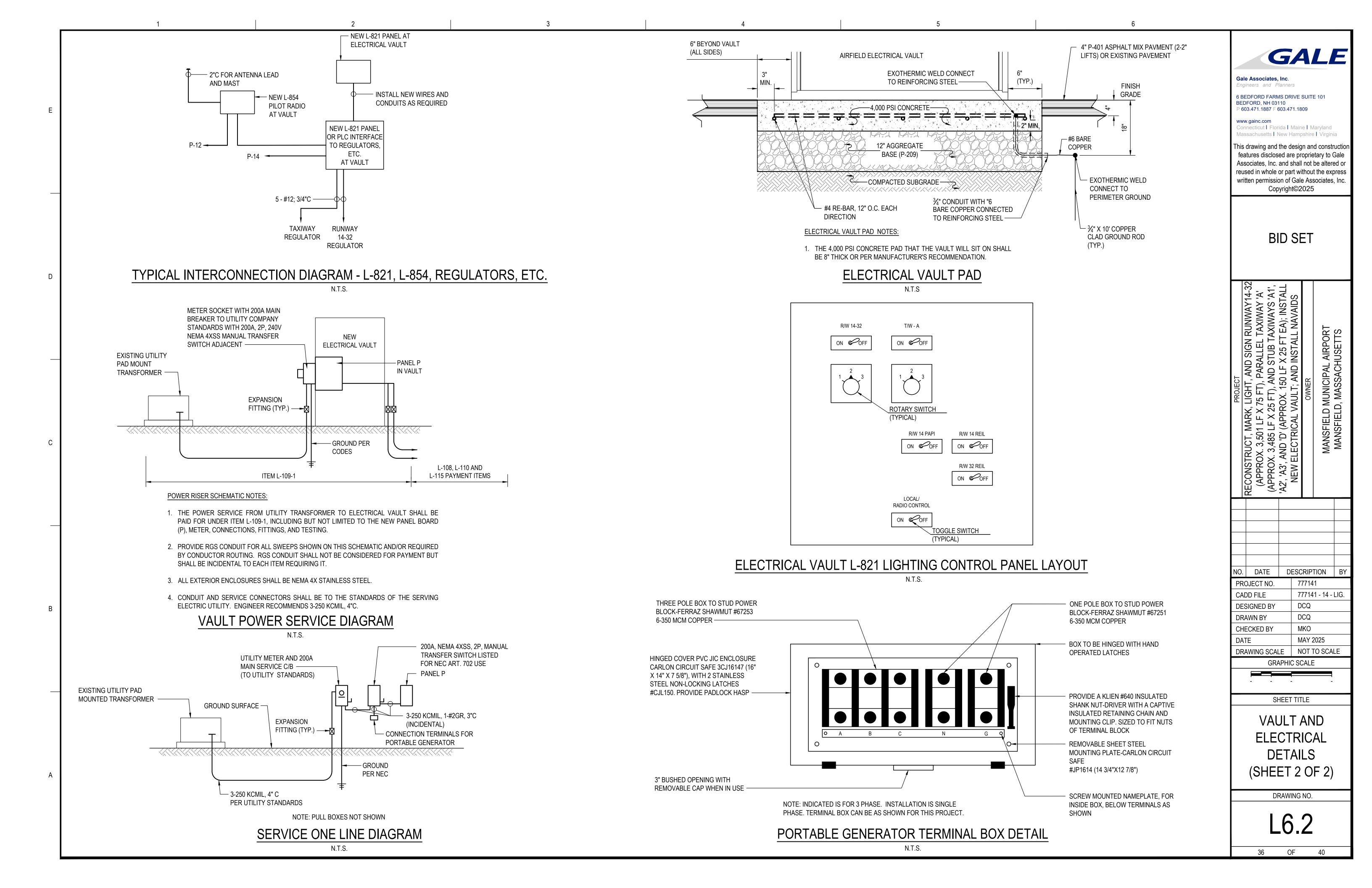
GRAPHIC SCALE

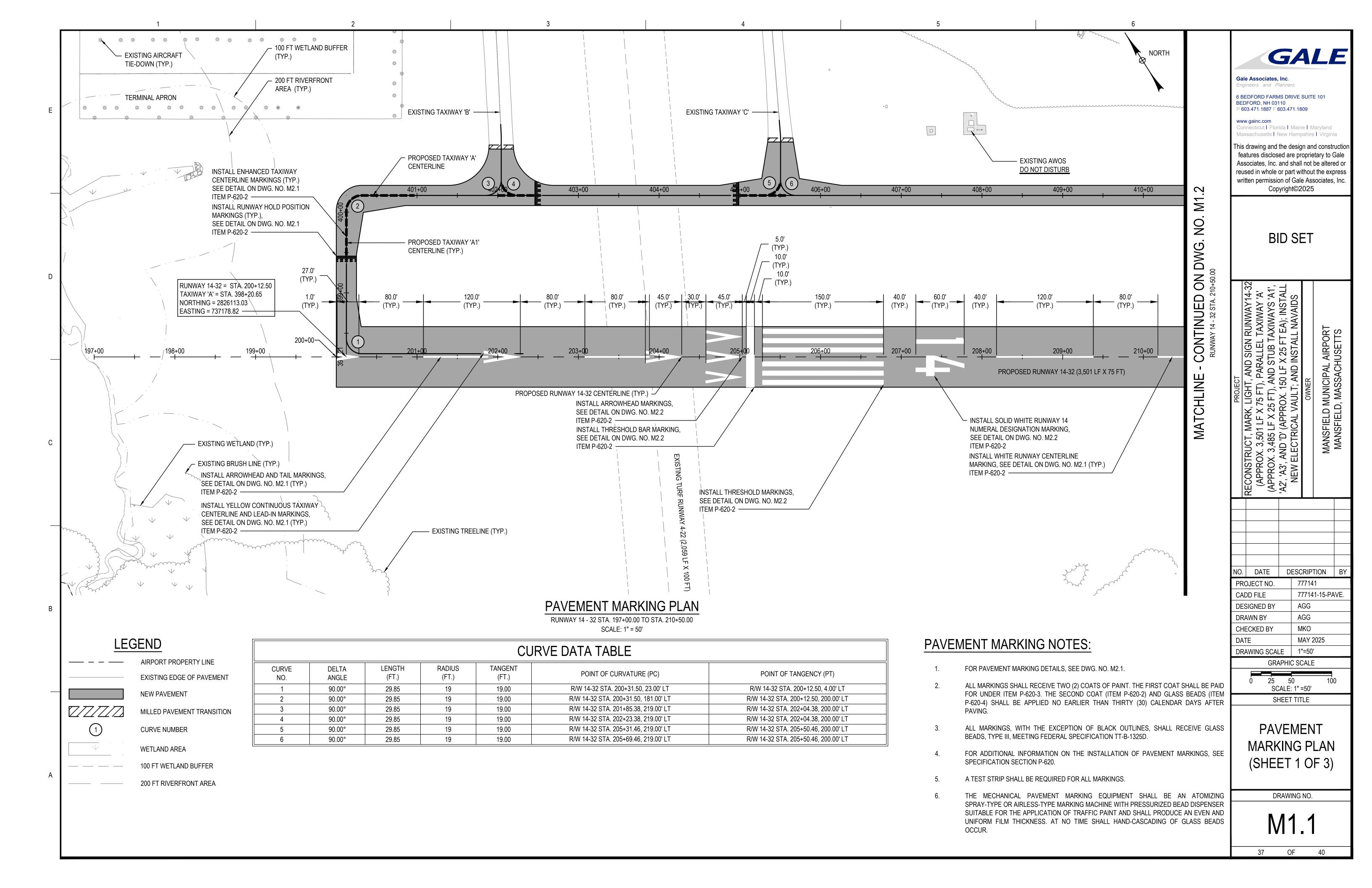
SHEET TITLE

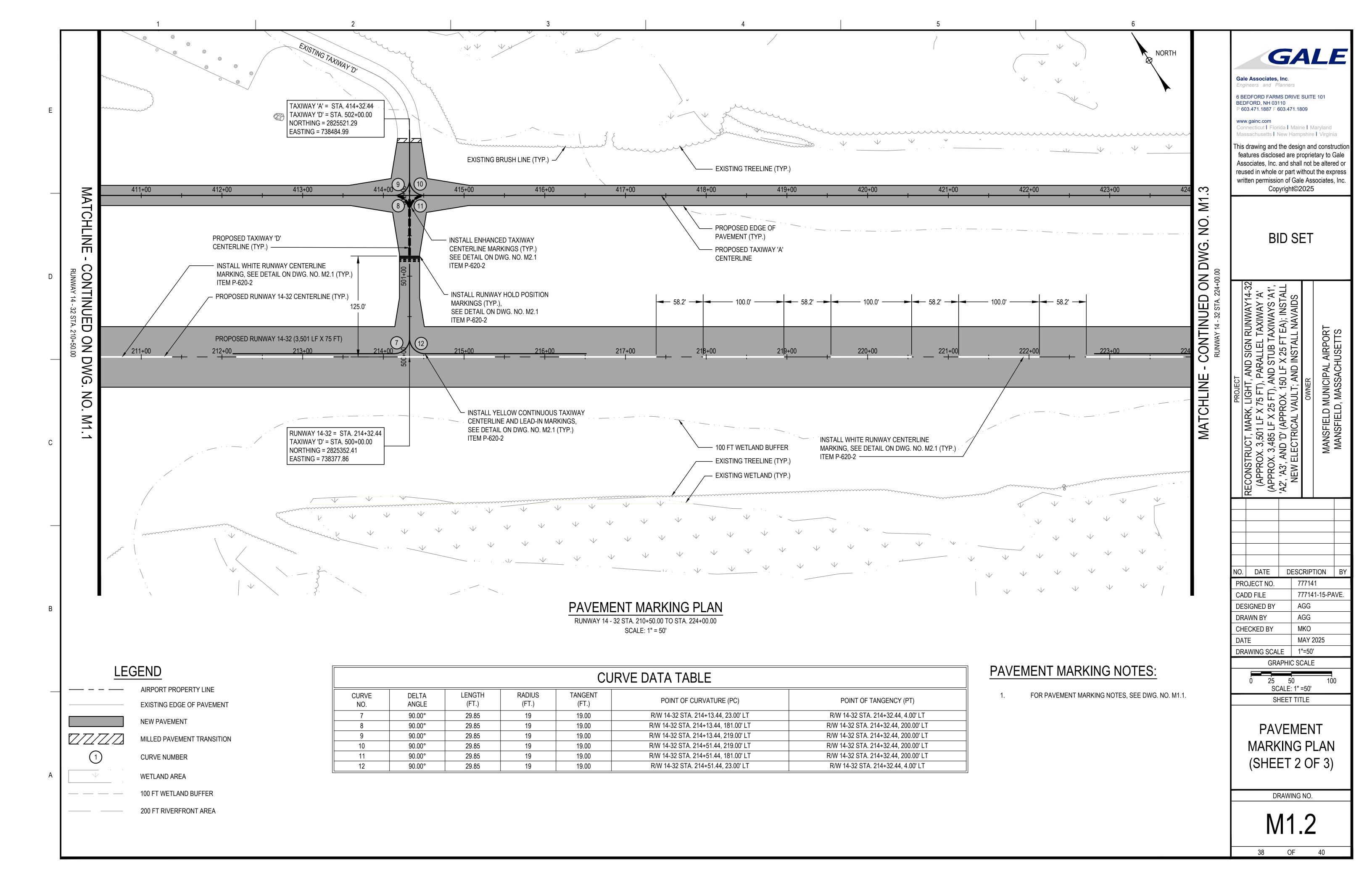
VAULT AND
ELECTRICAL
DETAILS
(SHEET 1 OF 2)

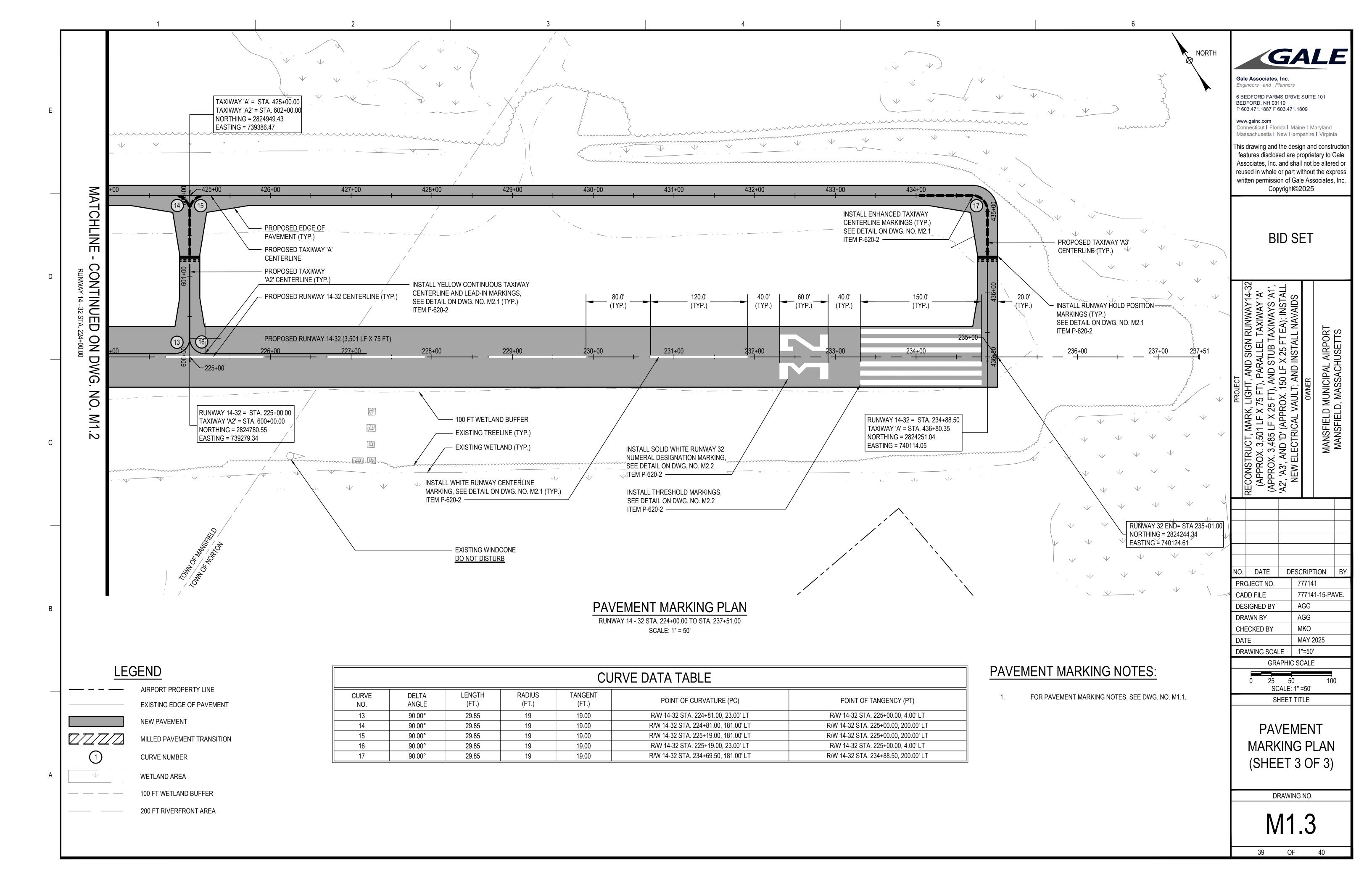
DRAWING NO.

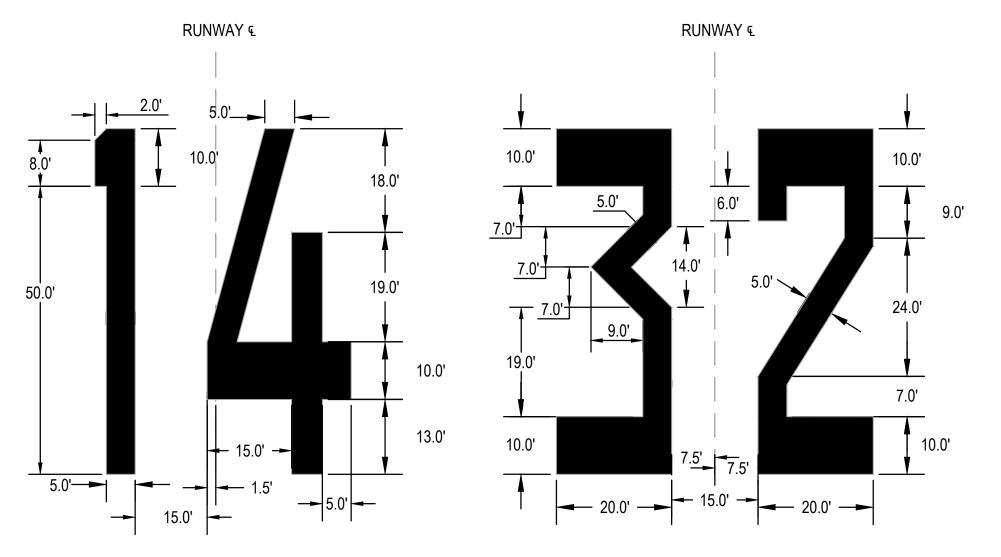
L6.1







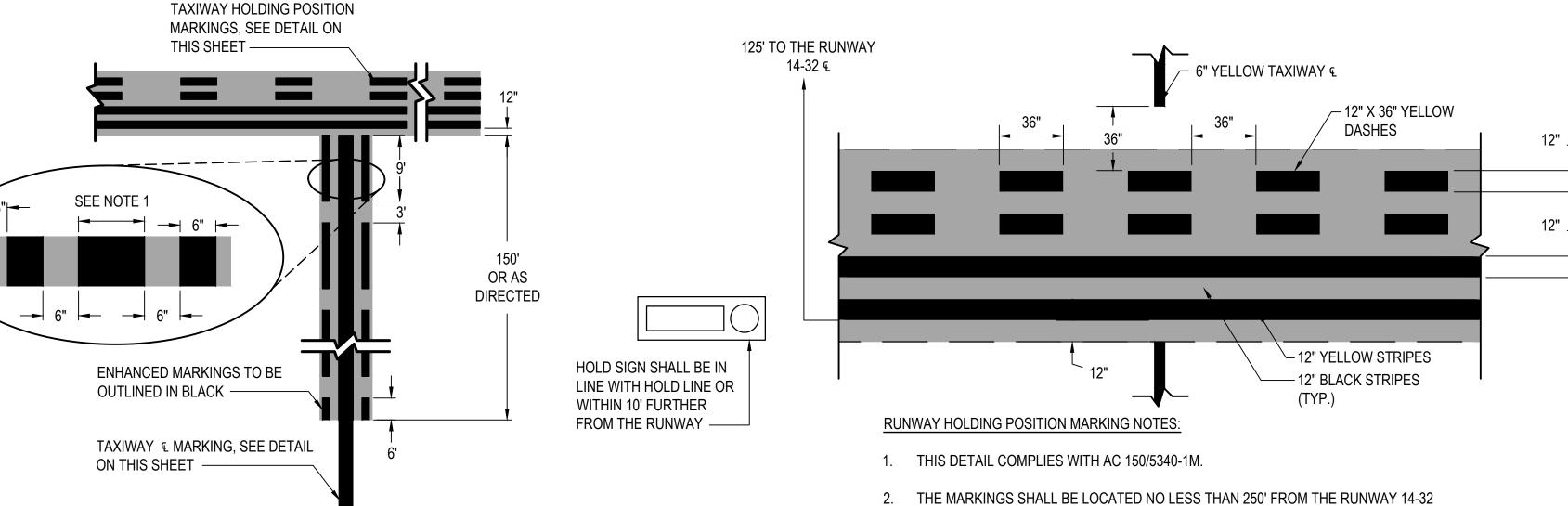




#### RUNWAY NUMERAL MARKING NOTES:

- 1. ALL CHARACTERS HAVE THE FOLLOWING CHARACTERISTICS UNLESS OTHERWISE SPECIFIED:
  - 60' HIGH
  - 20' WIDE
  - VERTICAL STROKE OF 5'
  - HORIZONTAL STROKE OF 10'
- DIAGONAL STROKE OF 5'
- 2. ALL RUNWAY NUMERALS SHALL RECEIVE A 6" BLACK OUTLINE AROUND THE PERIMETER AND ANY INSIDE OPENINGS.

# RUNWAY NUMERAL MARKING DETAIL



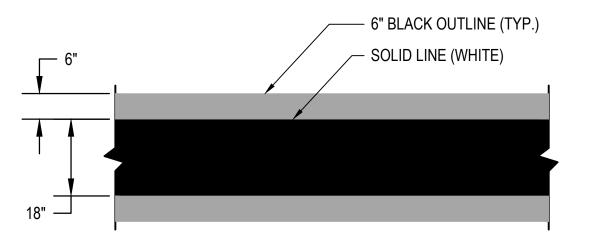
CENTERLINE.

TO PAINTING.

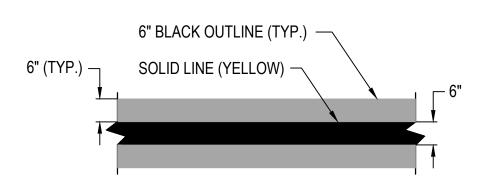
- ENHANCED TAXIWAY CENTERLINE MARKINGS NOTES:
- 1. REGARDLESS OF € WIDTH, THE DASHED LINES PROVIDED BY THE ENHANCEMENTS WILL ALWAYS BE 6 INCHES IN WIDTH.
- 2. OUTLINE ENHANCED TAXIWAY CENTERLINE IN BLACK.
- 3. HOLD LINES MARKED ON RUNWAYS SHALL NOT HAVE ENHANCED MARKINGS.
- 4. NO YELLOW PAINT SHALL BE APPLIED OVER BLACK PAINT.

# ENHANCED TAXIWAY CENTERLINE MARKINGS DETAIL

N.T.S.



# RUNWAY CENTERLINE MARKING DETAIL N.T.S.



# TAXIWAY CENTERLINE MARKING DETAIL

3. THE CONTRACTOR SHALL HAVE THE LAYOUT APPROVED BY THE ENGINEER PRIOR

RUNWAY HOLDING POSITION MARKING DETAIL

4. 12" BLACK OUTLINE AROUND ALL HOLD POSITION MARKINGS.

# RUNWAY/TAXIWAY INTERSECTION MARKING DETAIL N.T.S.

· 6" YELLOW T/W

LEAD-IN LINE

6" WIDE YELLOW T/W OR

T/L CENTERLINE

36" (EDGE TO EDGE)

-RUNWAY CENTERLINE MARKING

- POINT OF TANGENCY

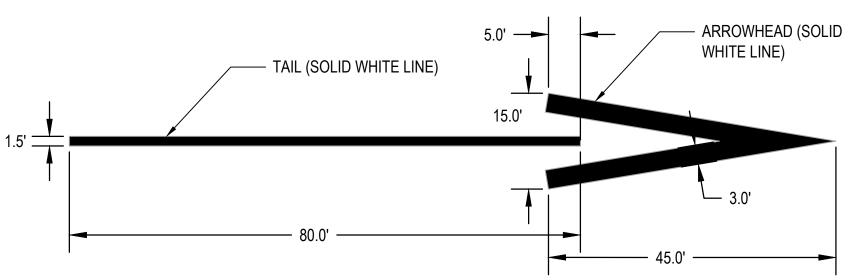
150' DISTANCE TO RUNWAY

© FROM MARKING EDGE ON
AIRCRAFT HOLDING SIDE

−18" WHITE R/W Ç

YELLOW RUNWAY HOLDING POSITION

MARKINGS SEE DETAIL ON THIS SHEET



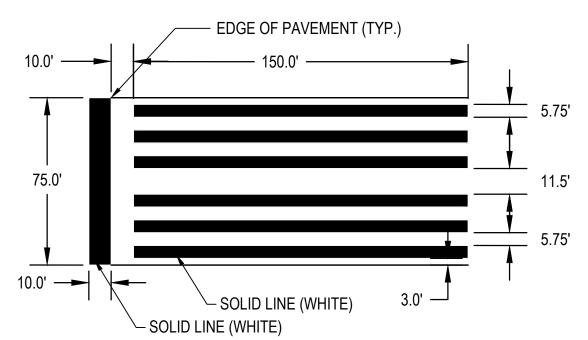
EDGE OF PAVEMENT

# ARROWHEAD AND TAIL MARKING DETAIL

W. 10 . 10 = = 0

#### ARROWHEAD AND TAIL MARKING NOTES:

- 1. THIS DETAIL COMPLIES WITH AC 150/5340-1M.
- 2. THE CONTRACTOR SHALL HAVE THE LAYOUT APPROVED BY THE ENGINEER PRIOR TO PAINTING.
- 3. 6" BLACK OUTLINE AROUND ALL ARROWHEAD AND TAIL MARKINGS.



### THRESHOLD BAR AND THRESHOLD MARKINGS DETAIL

N.1.S.

#### THRESHOLD BAR AND THRESHOLD MARKING NOTES:

- 1. THIS DETAIL COMPLIES WITH AC 150/5340-1M.
- 2. THE CONTRACTOR SHALL HAVE THE LAYOUT APPROVED BY THE ENGINEER PRIOR TO PAINTING
- 3. 6" BLACK OUTLINE AROUND ALL THRESHOLD BAR AND THRESHOLD MARKINGS.

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**BID SET** 

STRUCT, MARK, LIGHT, AND SIGN RUNWAY14
ROX. 3,501 LF X 75 FT), PARALLEL TAXIWAY 'A
OX. 3,485 LF X 25 FT), AND STUB TAXIWAYS 'A
S', AND 'D' (APPROX. 150 LF X 25 FT EA); INSTA
V ELECTRICAL VAULT; AND INSTALL NAVAIDS

OWNER

MANSFIELD MUNICIPAL AIRPORT

NO. DATE DESCRIPTION BY
PROJECT NO. 777141

CADD FILE 777141-16-PAVE.
DESIGNED BY AGG
DRAWN BY AGG
CHECKED BY MKO

DRAWING SCALE

GRAPHIC SCALE

MAY 2025

SHEET TITLE

PAVEMENT MARKING DETAILS

DRAWING NO.

M2.1