

GRAND PRAIRIE, TX
GRAND PRAIRIE MUNICIPAL AIRPORT
PERIMETER ROAD IMPROVEMENTS

TxDOT CSJ No. 2502GNDPR
KSA PROJECT No. 102266

ISSUED FOR BID

SEPTEMBER 2024

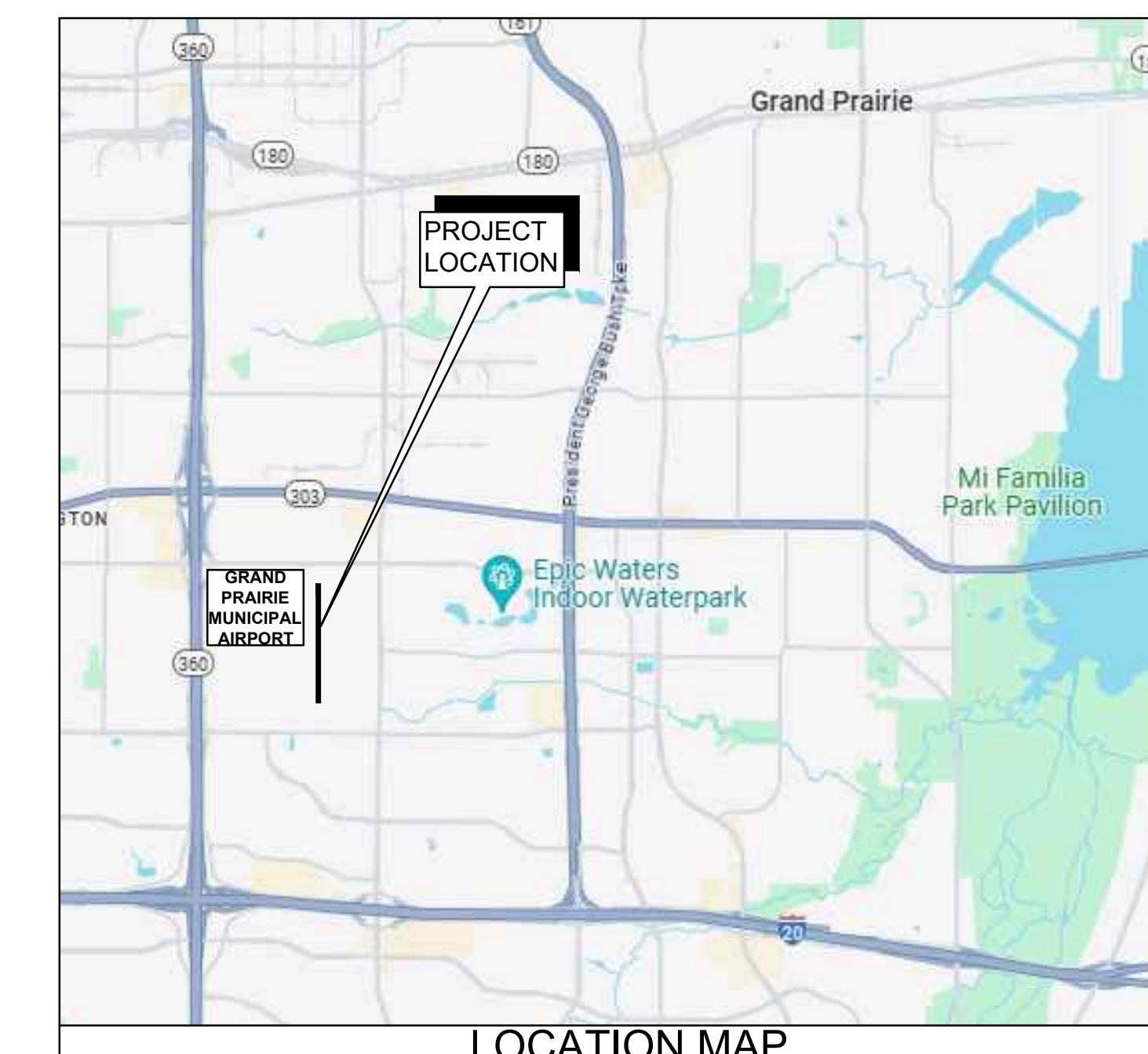
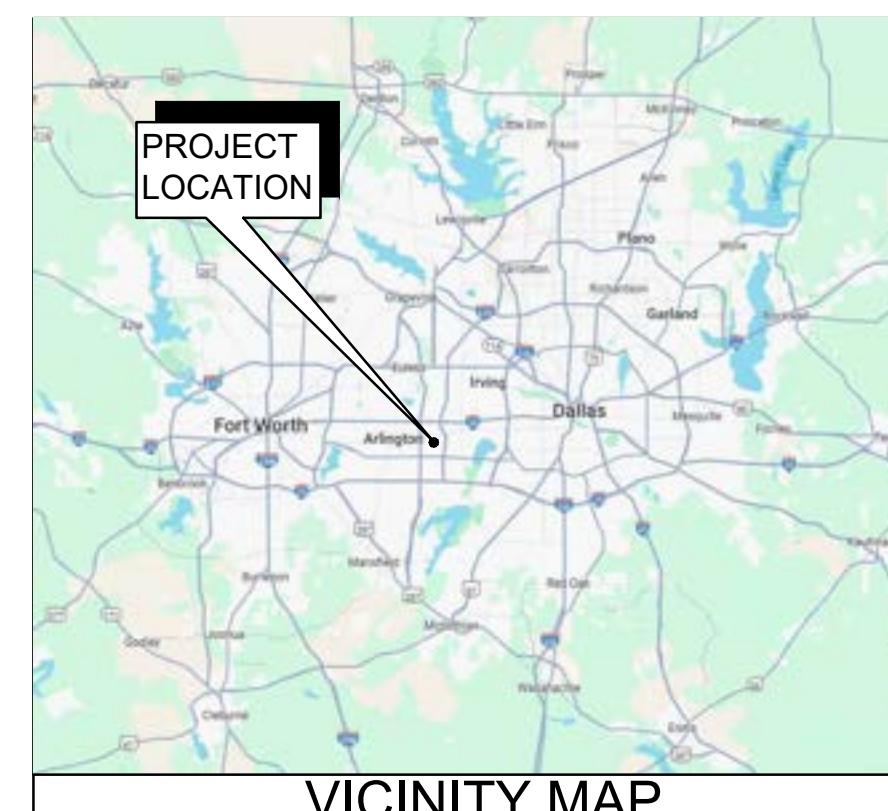
CITY OF GRAND PRAIRIE OFFICIALS

MAYOR
RON JENSON

CITY COUNCIL MEMBERS
JORJA CLEMSON
JACQUIN HEADEN
MIKE DEL BOSQUE
JOHN LOPEZ
TONY SHOTWELL
KURT JOHNSON
BESSYE ADAMS
JUNIOR EZEONU

CITY MANAGER
BILL HILLS

AIRPORT SYSTEM DIRECTOR
MARK DIVITA, CM

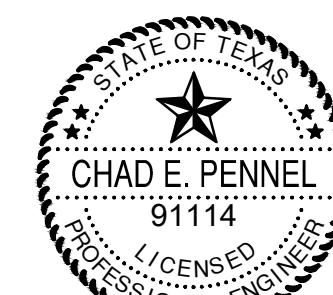


RECOMMENDED BY:

KSA

TBPE FIRM REGISTRATION No. F-1356

CHAD PENNEL, P.E.
PROJECT MANAGER



9/6/2024

KSA

www.ksaeng.com
T. 903.236.7700

SUMMARY OF QUANTITIES					
Base Bid: Construct 20' Wide Perimeter Road with Connecting Driveways					
Item	Spec.	Description	Units	Estimated	Actual
No.	No.	Description	Units	Quantity	Quantity
1.01	C-100	Contractor Quality Control Program (CQCP)	LS	1	
1.02	C-102-5.1a	Silt Fence	LF	2,521	
1.03	C-102-5.1b	Rock Construction Exit	EA	1	
1.04	C-102-5.1c	Inlet Protection	EA	4	
1.05	C-102-5.1d	Storm Water Pollution Prevention Plan (SWPPP)	LS	1	
1.06	C-105	Mobilization	LS	1	
1.07	P-101-5.1	Concrete Pavement Removal	SY	1,041	
1.08	P-101-5.2	Hot Mix Asphalt Pavement Removal	SY	3,704	
1.09	P-101-5.3	Sawcut of PCC Pavement	LF	173	
1.10	P-101-5.4	Sawcut of HMAC Pavement	LF	110	
1.11	P-101-5.5	Concrete Curb and Curb/Gutter Removal	LF	152	
1.12	P-152-4.1	Embankment in Place	CY	525	
1.13	P-152-4.2	Borrow Excavation	CY	435	
1.14	P-152-4.3	Unsuitable Subgrade Removal and Replacement	CY	94	
1.15	P-155-8.1	8" Lime-Treated Subgrade	SY	7,580	
1.16	P-155-8.2	Lime (8%)	TN	205	
1.17	D-754-5.1	Concrete Flume	SY	57	
1.18	T-901-5.1	Bonded Fiber Matrix Mulch Seeding	AC	2	
1.19	T-901-5.2	Temporary Cool Weather Seeding	AC	2	
1.20	T-905-5.1	Topsolling	CY	472	
1.21	TxDOT 168	Vegetative Watering	MG	316	
1.22	TxDOT 360	6" PCC Pavement	SY	6,383	
1.23	TxDOT 529	Concrete Curb	LF	156	
1.24	TxDOT 644	Remove Existing Sign Assembly	EA	3	
1.25	TxDOT 644	Install Sign Assembly - Speed Limit(R2-1-10), Single Side	EA	4	
1.26	TxDOT 644	Install Sign Assembly - Speed Limit (R2-1-10), Back to Back	EA	1	
1.27	TxDOT 666	White Pavement Markings (Reflectorized)	SF	67	
1.28	TxDOT 666	Yellow Pavement Markings (Reflectorized)	SF	1,143	
1.29	TxDOT 666	Black Pavement Markings (Non-Reflectorized)	SF	2,286	
1.30	KSA-109-3.1	Barricades and Markings	LS	1	
1.31	KSA-109-3.2	Preparation of Safety Plan Compliance Document	LS	1	
1.32	KSA-300-5.2	Remove and Reinstall Existing Wheel Stops	EA	10	
1.33	KSA-400-5.1	Speed Bumps	EA	4	
1.34	KSA-500-5.1	Bollards	EA	2	
1.35	KSA-600-5.1	Meter Box Cover	EA	1	
1.36	KSA-600-5.2	Sanitary Sewer Manhole Cover	EA	1	
1.37	KSA-600-5.3	Sanitary Sewer Manhole Riser Ring	EA	2	
1.38	KSA-700-5.1	Potholing	EA	15	
1.39	KSA-705-5.1	Remove and Relocate Fire Hydrant	EA	3	
1.40	KSA-705-5.2	Adjust Existing Fire Hydrant to Proposed Grade	EA	1	
1.41	KSA-706-5.1	Meter and Meter Box Relocation	EA	3	
1.42	KSA-802-5.1	Install Loop Detector for Existing Gate	LS	1	
Additive Alternate No. 1 - North Parking					
Item	Spec.	Description	Units	Estimated	Actual
No.	No.	Description	Units	Quantity	Quantity
A - 1.01	P-155-8.1	8" Lime-Treated Subgrade	SY	292	
A - 1.02	P-155-8.2	Lime (8%)	TN	8	
A - 1.03	TxDOT 360	6" PCC Pavement	SY	246	
A - 1.04	TxDOT 666	White Pavement Markings (Reflectorized)	SF	76	
A - 1.05	KSA-300-5.1	Concrete Wheel Stops	EA	8	
Additive Alternate No. 2 - South Parking					
Item	Spec.	Description	Units	Estimated	Actual
No.	No.	Description	Units	Quantity	Quantity
A - 2.01	P-155-8.1	8" Lime-Treated Subgrade	SY	580	
A - 2.02	P-155-8.2	Lime (8%)	TN	16	
A - 2.03	TxDOT 360	6" PCC Pavement	SY	534	
A - 2.04	TxDOT 666	White Pavement Markings (Reflectorized)	SF	152	
A - 2.05	KSA-300-5.1	Concrete Wheel Stops	EA	20	

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DRAWN BY:	JB
DESIGNED BY:	CP
LATEST REVISION:	9/6/2024
KSA JOB NO.:	102266
PROJECT NAME:	GRAND PRAIRIE MUNICIPAL AIRPORT PERIMETER ROAD IMPROVEMENTS GRAND PRAIRIE, TX
SEAL:	CHAD E. PENNEL LICENCED PROFESSIONAL ENGINEER TBPE Firm Registration No. F-1356 9/6/2024
MARK:	REVISED
DATE:	9/6/2024
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DATE:	
PROJECT TITLE:	PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX
SEAL:	STATE OF TEXAS CHAD E. PENNEL LICENCED PROFESSIONAL ENGINEER TBPE Firm Registration No. F-1356 9/6/2024
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AIRPORT SAFETY AND COMMUNICATION:			
1.	THE CONTRACTOR SHALL STRICTLY ADHERE TO ALL SECURITY POLICIES OF THE AIRPORT, INCLUDING ESCORTING PERSONNEL, BADGING AND ACCESS WITHIN THE SECURED AREAS OF THE AIRPORT. ACCESS OUTSIDE OF THE DEFINED CONSTRUCTION AREA IS STRICTLY PROHIBITED. SEE SHEETS C02 THROUGH C03, PHASING PLANS, FOR MORE DETAILS.	4.	ACCESS TO THE JOBSITE SHALL BE THROUGH DESIGNATED ROUTES ONLY AS SHOWN ON THE PLANS.
STOCKPILE AREA:		CONSTRUCTION/OPERATIONAL SAFETY:	
1.	STOCKPILE LOCATION MAY BE ADJUSTED IN THE FIELD AND COORDINATED WITH THE OWNER AND THE ENGINEER. STOCKPILE SHALL NOT CREATE ANY PONDING OF WATER OR ALTER DRAINAGE PATTERNS OF THE AIRPORT PROPERTY.	1.	THE CONTRACTOR SHALL NOT ALLOW EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, OR ANY PERSON UNDER CONTRACTOR CONTROL TO ENTER OR REMAIN IN ANY PART OF THE AIRPORT WHICH WOULD BE HAZARDOUS TO PERSONS OR TO AIRCRAFT OPERATIONS. WHENEVER AIRCRAFT OPERATIONS REQUIRE, THE OWNER MAY ORDER THE CONTRACTOR TO SUSPEND OPERATIONS, MOVE PERSONNEL, EQUIPMENT, AND MATERIALS TO A SAFE LOCATION AND STAND BY UNTIL AIRCRAFT USE IS COMPLETED.
GENERAL:		2.	ALL CONTRACTOR VEHICLES AND EQUIPMENT SHALL BE PARKED IN THE STAGING / STORAGE AREAS WHEN NOT IN USE. NO VEHICLES SHALL BE PARKED WITHIN AN AREA OF CLOSED RUNWAY PAVEMENT.
1.	ALL WORK WILL BE ACCOMPLISHED DURING NORMAL DAYTIME WORKING HOURS ONLY, OR AS APPROVED BY THE ENGINEER.	3.	ALL CONSTRUCTION SITE PERSONNEL SHALL WEAR HIGH-VISIBILITY WARNING GARMENTS AT ALL TIMES WHEN WORKING IN THE PROJECT AREA.
2.	THE CONTRACTOR'S PROJECT SUPERINTENDENT OR HIS DESIGNATED ASSISTANT MUST BE ON SITE DURING ALL WORK ACTIVITIES, INCLUDING THOSE BY SUBCONTRACTORS.	4.	THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL SAFETY DEVICES AS INDICATED ON THE PLANS OR AS DIRECTED BY THE OWNER OR ENGINEER.
3.	ALL CORRESPONDENCE WITH THE AIRPORT WILL BE MADE THROUGH THE RPR. THE RPR SHALL BE THE POINT OF CONTACT FOR THE CONTRACTOR ON ALL NOTAMS OR OTHER COMMUNICATION.	5.	THE CONTRACTOR SHALL KEEP WORK FREE FROM GROUND OR SURFACE WATER AT ALL TIMES. PROVIDE PUMPS OF ADEQUATE CAPACITY OR OTHER APPROVED METHOD TO REMOVE WATER FROM OPEN EXCAVATIONS IN SUCH A MANNER THAT IT WILL NOT INTERFERE WITH THE PROGRESS OF THE WORK OR THE PROPER PLACING OF OTHER WORK. THE COST OF DEWATERING EXCAVATIONS SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE PROJECT.
4.	DAMAGE TO EXISTING PAVEMENTS DUE TO MOVING, USAGE OF HEAVY EQUIPMENT, OR THE TRANSPORT OF MATERIALS TO OR ON THE SITE SHALL BE REPAIRED TO EQUAL OR BETTER QUALITY BY THE CONTRACTOR AT HIS OWN EXPENSE.	6.	THE CONTRACTOR SHALL SWEEP/VACUUM AIRFIELD PAVEMENT USED FOR HAULING FREQUENTLY TO KEEP PAVEMENT FREE OF LOOSE DEBRIS AT ALL TIMES, IN ACCORDANCE WITH THE CONTRACTOR'S FOD PLAN.
5.	CONSTRUCTION EQUIPMENT AND VEHICLES SHALL TRAVEL A MINIMUM AMOUNT ON NEWLY CONSTRUCTED PAVEMENTS SO THAT THE NEWLY CONSTRUCTED PAVEMENT AREAS WILL NOT BE DAMAGED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO THE NEWLY CONSTRUCTED PAVEMENTS AT THE CONTRACTOR'S EXPENSE. (ALL REPAIRS MUST BE MADE TO EQUAL OR BETTER QUALITY AND IN COMPLIANCE WITH THE AIRPORT MANAGEMENT, TXDOT, AND/OR FAA REQUIREMENTS - THE MOST STRICT OF WHICH WILL APPLY. ALL REPAIR AND REPLACEMENT COST SHALL BE AT THE EXPENSE OF THE CONTRACTOR.)	UTILITIES:	
6.	THE CONTRACTOR SHALL VIDEO AND/OR PHOTOGRAPH THE ENTIRE WORK AREA AFTER THE PRE-CONSTRUCTION MEETING AND PRIOR TO MOBILIZATION OF PERSONNEL AND EQUIPMENT. IN AREAS WHERE CONSTRUCTION EQUIPMENT CROSSES EXISTING PAVEMENTS, THE CONTRACTOR SHALL TAKE PICTURES AND/OR VIDEO OF THE PAVEMENT PRIOR TO COMMENCING OPERATIONS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER, AIRPORT MANAGEMENT, AND TXDOT AVIATION DIVISION WITH ONE COPY OF EACH OF THE PICTURE(S) AND/OR VIDEO(S) TAKEN. THIS DOCUMENTATION SHALL BE USED TO DETERMINE THE AMOUNT OF DAMAGE, IF ANY, CAUSED TO THE PAVEMENTS BY THE CONSTRUCTION EQUIPMENT CROSSINGS AND THE QUALITY OF CONSTRUCTION WHICH SHALL BE REQUIRED FOR THE REPAIRS.	1.	THE CONTRACTOR SHALL ANTICIPATE ALL UNDERGROUND OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO, WATER MAINS, GAS LINES, STORM AND SANITARY SEWERS, TELEPHONE OR ELECTRIC LIGHT OR POWER DUCTS, CONCRETE, AND DEBRIS. ANY SUCH LINES OR OBSTRUCTIONS INDICATED ON THE DRAWINGS SHOW ONLY THE APPROXIMATE LOCATIONS AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE OWNER AND ENGINEER HAVE ENDEAVORED IN THESE PLANS TO FAMILIARIZE THE CONTRACTOR WITH ALL KNOWN UTILITIES AND OBSTRUCTIONS, BUT THIS SHALL NOT RELIEVE THE CONTRACTOR FROM FULL RESPONSIBILITY IN ANTICIPATING ALL UNDERGROUND OBSTRUCTIONS WHETHER OR NOT SHOWN ON THE PLANS.
7.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO EXISTING FACILITIES NOT DESIGNATED FOR RECONSTRUCTION OR REPLACEMENT, AT THE CONTRACTOR'S EXPENSE.	2.	NOTIFY ALL UTILITY COMPANIES INVOLVED TO HAVE THEIR UTILITIES LOCATED AND MARKED IN THE FIELD. ALL UNDERGROUND UTILITIES SHALL THEN BE UNCOVERED TO VERIFY LOCATION AND ELEVATION BEFORE CONSTRUCTION BEGINS. COORDINATE WITH UTILITY OWNER IF UTILITY INSPECTOR MUST BE ON SITE WHEN LOCATING OR EXCAVATING NEAR UTILITIES.
8.	THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL HORIZONTAL AND VERTICAL CONSTRUCTION STAKING AS REQUIRED FOR THE PROJECT DEVELOPMENT.	3.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO AIRPORT FACILITIES (I.E. EXISTING PAVEMENTS, UNDERGROUND CABLES, LIGHTS, SIGNS, BUILDINGS, UTILITIES, PIPELINES, ETC.) ENCOUNTERED DURING CONSTRUCTION. ALL REPAIRS MUST BE MADE TO EQUAL OR BETTER QUALITY AND IN COMPLIANCE WITH THE AIRPORT MANAGEMENT, TXDOT, AND/OR FAA REQUIREMENTS - THE STRICTEST OF WHICH WILL APPLY. ALL REPAIR AND REPLACEMENT COST SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
9.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS OWN PROJECT OFFICE, TOILET FACILITIES AND OTHER NECESSARY BUILDINGS OR SHELTERS. THE AIRPORT WILL NOT PROVIDE FACILITIES TO THE CONTRACTOR DURING CONSTRUCTION. ALL FACILITIES AND SERVICES FOR THE CONSTRUCTION MANAGER AND HIS STAFF SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE PROJECT.	4.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING UP HIS OWN WATER SOURCES WITH THE CITY OF GRAND PRAIRIE. ALL CONSTRUCTION WATER WILL BE METERED BY THE CITY OWNED METERS AND ONLY THOSE METERS. THE CONTRACTOR WILL BE RESPONSIBLE FOR PAYING ALL RELATED FEES TO THE CITY.
10.	THE CONTRACTOR SHALL PROVIDE LOCKABLE AND SEPARATE OFFICE SPACE FOR THE RPR. SEE SPECIFICATION KSA-100 FOR RPR OFFICE REQUIREMENTS.	5.	THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, MAINTAIN IN PROPER WORKING ORDER AND WITHOUT INTERRUPTION OF SERVICE ALL EXISTING UTILITIES AND SERVICES WHICH MAY BE ENCOUNTERED IN THE WORK. WITH THE CONSENT OF THE ENGINEER AND UTILITY OWNER, SUCH SERVICE CONNECTIONS MAY BE TEMPORARILY INTERRUPTED TO PERMIT THE CONTRACTOR TO REMOVE DESIGNATED LINES OR TO MAKE TEMPORARY CHANGES IN THE LOCATIONS OF SERVICES. THE COST OF MAKING ANY CHANGES SHALL BE AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.
11.	NO SEPARATE PAYMENT SHALL BE MADE FOR THE CONSTRUCTION OFFICE TRAILER, INSTALLATION, MAINTENANCE, UTILITIES OR EQUIPMENT, BUT SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS FOR THE FIELD OFFICE.	6.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY REQUIRED PERMITS FROM THE CITY OF GRAND PRAIRIE, OR ANY OTHER GOVERNING AUTHORITY, BEFORE ANY UTILITY WORK CAN COMMENCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR COORDINATING CITY INSPECTIONS, AS NECESSARY, OF ANY UTILITY WORK THROUGHOUT THE PROJECT. THIS SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE PROJECT.
12.	THE CONTRACTOR SHALL MAINTAIN A CLEAN SAFE CONSTRUCTION WORK AREA. THE CONTRACTOR SHALL PERFORM CLEANUP OPERATIONS ON A DAILY BASIS.	ENVIRONMENTAL NOTES:	
13.	THE CONTRACTOR SHALL PROVIDE A MOTORIZED MECHANICAL SWEEPER, ALONG WITH A "FOREIGN OBJECT DEBRIS" (FOD) PLAN, PRIOR TO BEGINNING WORK. THE FOD PLAN AND DAILY ACTIVITIES SHALL BE COORDINATED WITH THE OWNER. THE FOD PLAN SHALL BE PRESENTED BY THE CONTRACTOR PRIOR TO INITIATION OF WORK. THE FOD PLAN IS SUBJECT TO APPROVAL BY THE OWNER.	1.	IN THE EVENT THAT UNANTICIPATED ARCHEOLOGICAL DEPOSITS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL CEASE AND THE TXDOT PROJECT MANAGER WILL CONTACT PROFESSIONAL ARCHEOLOGISTS TO INITIATE POST-REVIEW DISCOVERY PROCEDURES UNDER THE PROVISIONS OF 36 CFR 800.13.
14.	THE CONTRACTOR SHALL HAVE SUFFICIENT EQUIPMENT AND PERSONNEL ON SITE TO ACCOMPLISH EFFICIENT AND PROMPT CONSTRUCTION OF THE VARIOUS WORK ITEMS, INCLUDING WORK ON MORE THAN ONE WORK ITEM SIMULTANEOUSLY.	2.	THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND RESTRICTIONS FOR SERVICING AND MAINTAINING EQUIPMENT AND DISPOSAL OF USED LUBRICANTS, ETC., ACCORDING TO THE PERTINENT LAW AND REGULATIONS.
15.	CONSTRUCTION WORKERS WILL NOT BE ALLOWED TO ESTABLISH OVERNIGHT RESIDENCE ON THE PREMISES. ALL WORKERS SHALL LEAVE THE PREMISES AT THE END OF THEIR WORK PERIOD.	3.	IN THE EVENT THAT UNANTICIPATED HAZARDOUS MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL CEASE, AND THE ENGINEER AND TXDOT PROJECT MANAGER SHALL BE NOTIFIED.
16.	IT IS IMPERATIVE THAT A FIRM SUBGRADE BE MAINTAINED IN THE PAVEMENT CONSTRUCTION AREAS AT ALL TIMES. THE CONTRACTOR SHALL SHAPE THE SUBGRADE TO DRAIN AND SHALL PROVIDE, MAINTAIN, AND OPERATE PORTABLE PUMPS AS NECESSARY TO PREVENT THE PONDING OF WATER ON THE SUBGRADE OR BASE COURSE. PUMPING SHALL COMMENCE AS SOON AS POSSIBLE FOLLOWING THE COMPLETION OF A RAINSTORM.	4.	ANY HAZARDOUS WASTE SPILLS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND TXDOT PROJECT MANAGER.
17.	ANY WORK DESCRIBED IN THE PLANS OR SPECIFICATIONS THAT IS NOT PAID FOR DIRECTLY BY A SPECIFIC BID ITEM SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE PROJECT.	5.	MIGRATORY BIRD TREATY ACT: IF THERE IS A BURROWING OWL, ON THE NEST, AND THAT FEMALE DOES NOT LEAVE THE NEST WHEN APPROACHED, ASSUME THERE ARE EGGS OR CHICKS IN THE HOLE REGARDLESS OF THE TIME OF YEAR. NO WORK MAY OCCUR WITHIN 100 FEET OF AN ACTIVE NEST. THE ACTIVE NEST(S) MUST BE PROTECTED BY ORANGE MESH SAFETY FENCING.
18.	THE CONTRACTOR'S PROJECT SUPERINTENDENT SHALL PARTICIPATE IN A COORDINATION MEETING WITH AIRPORT MANAGEMENT, CONTROL TOWER PERSONNEL, AND RPR PRIOR TO COMMENCEMENT OF EACH PHASE.	6.	THE FEDERAL MIGRATORY BIRD TREATY ACT (MBTA) (16 USC §703-711), 50 CFR 10, AND FISH & GAME CODE §3503.5313, AND §3800, PROTECT MIGRATORY AND NONGAME BIRDS, THEIR OCCUPIED NESTS, AND THEIR EGGS. IN THE EVENT THAT MIGRATORY BIRDS ARE ENCOUNTERED ON SITE DURING PROJECT CONSTRUCTION FROM FEBRUARY 15 TO OCTOBER 1, THE SUPERINTENDENT WORKING ON THE PROJECT MUST TAKE REASONABLE CARE TO AVOID IMPACTS TO PROTECTED BIRDS, ACTIVE NESTS, EGGS AND/OR THE YOUNG. A PERSON THAT VIOLATES THE MBTA MAY BE HELD STRICTLY LIABLE FOR ACTIONS THAT RESULT IN UNPERMITTED TAKE. WHEN MIGRATORY BIRD NESTS ARE DISCOVERED WHICH MAY BE ADVERSELY AFFECTED BY CONSTRUCTION ACTIVITY, OR WHEN A BIRD IS FOUND INJURED OR KILLED AS A RESULT OF CONSTRUCTION ACTIVITY, IMMEDIATELY STOP WORK WITHIN 50 FEET OF THE NEST OR BIRD AND NOTIFY THE RPR/ENGINEER/ TXDOT ENVIRONMENTAL PLANNER.
19.	THE CONTRACTOR'S PROJECT SUPERINTENDENT SHALL PARTICIPATE IN A PAVING CONFERENCE TO BE HELD PRIOR TO PLACING THE TEST STRIP.	DEMOLITION NOTES:	
20.	THE CONTRACTOR'S PROJECT SUPERINTENDENT SHALL PARTICIPATE IN A PAVING CONFERENCE TO BE HELD PRIOR TO PLACING THE TEST STRIP.	1.	CONDITIONS OF THE PROJECT UPON COMPLETION OF THE JOB SHALL BE GOOD AS OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK, IN ADDITION TO THE WORK ITEMS LISTED.
21.	THE PROJECT SHALL BE FREE OF ANY CONTRACTOR STOCKPILE MATERIALS UPON COMPLETION OF THE JOB UNLESS OTHERWISE DIRECTED BY THE ENGINEER.	2.	UPON COMPLETION OF THE PROJECT, ALL HAUL ROUTES SHALL BE PROPERLY CLEANED TO PREVENT OBSTRUCTION AND/OR CAUSE INCONVENIENCE TO NORMAL REGULAR TRAFFIC. ALL

GENERAL NOTES**GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS**

DRAWN BY:	JB
DESIGNED BY:	CP
LATEST REVISION:	9/6/2024
KSA JOB NO:	102266

KSA
8864 Survey Dr.
McKinney, TX 75095
www.ksaeng.com



CHAD E. PENNER
9114
LICENCED PROFESSIONAL ENGINEER
TBPE Firm Registration No. F-1356
Sheet No.

G03

Texas 811
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9/6/2024

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<p>I. COORDINATION</p> <p>A. Meetings</p> <ul style="list-style-type: none"> 1. Pre-Design Meeting A pre-design meeting was held prior to beginning the design phase. The meeting provided clarification the project scope and clarified design requirements for the proposed project. Attendees included the Airport staff, TxDOT staff and the Engineer. 2. Pre-Bid Meeting A pre-bid meeting in accordance with FAA AC 150/5370-12 will be held after advertisement and prior to bid opening. During the Pre-Bid Meeting, the Engineer will summarize key features of this design. Contractors will also be given an opportunity to ask project related questions. A basic outline of topics to be covered at this meeting include: <ol style="list-style-type: none"> 1. Project Overview 2. Proposal Requirements 3. Safety Plan Compliance 4. Site Tour 5. Questions and Answers 3. Pre-Construction Meeting A pre-construction meeting in accordance with FAA AC 150/5370-12 will be held prior to the issuance of the Notice to Proceed. The Airport Manager, TxDOT Representative, Engineer, Resident Project Representative (RPR), Prime Contractor and all Sub-Contractors will be required to attend the meeting. A basic outline of topics to be covered at this meeting include: <ol style="list-style-type: none"> 1. Project Overview 2. Construction Items 3. Safety 4. Labor Requirements 5. Civil Rights Requirements 6. Submittal of payment requests 4. Construction Progress Meetings Construction progress meeting will be held on a monthly basis throughout the duration of the project. The Airport Manager, the Prime Contractor, and the Resident Project Representative are required to attend every construction progress meeting. The Engineer, TxDOT staff and ATCT Manager will attend meetings as they see fit or as requested by the Airport. The following issues will be addressed at the meeting: <ol style="list-style-type: none"> 1. Operational Safety 2. Construction Progress 3. Project Coordination 4. Construction Issues 5. Administrative Issues 6. QA/QC Testing 7. NOTAM's 8. Other Issues 5. Additional Construction Meetings In addition to regularly scheduled construction progress meetings, special meetings will be held to address the following construction tasks. The Airport Manager, Engineer, RPR, Prime Contractor and any Sub-Contractor associated with performing work will be required to attend the meeting. <p>Grand Prairie Municipal Airport Surface Road Improvements Construction Safety and Phasing Plan</p>	<p>1. Pre-paving meeting prior to placement of bituminous and/or Portland cement concrete pavement</p> <p>B. Changes in the scope or duration at any of the project stages may require a revision to this CSPP and review and approval of the revised document by TxDOT.</p> <p>II. PHASING</p> <p>A. Construction phasing is as shown in the phasing plans included in Appendix A.</p> <p>B. Construction phasing details shall be as shown in the phasing drawings.</p> <p>C. Barricades or other traffic control devices required for each phase shall be in place prior to beginning the corresponding phase.</p> <p>D. Construction limits are outside of airfield pavement limits, but haul routes to reach each phase of construction will traverse across open portions of airfield pavement in the non-movement area. There will be no closures of airfield pavement during the project. Haul routes will impact a portion of the taxilane on the west side of the T-hangars and a connecting taxilay at the south end of the airfield.</p> <p>E. Coordination with the Airport is required prior to adjusting haul route either mid-phase or between phases. Airfield pavement used for hauling will be inspected continuously for FOD.</p> <p>III. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY</p> <p>A. Taxilanes and taxiways to be utilized as haul routes will require flagmen/escorts as identified in the phasing plans.</p> <p>B. No interruption of utilities is expected, other than to fire hydrants during relocation and water service to hangars during water meter relocations. The Contractor will be required to locate all utilities prior to construction. Any interruptions that are anticipated or that occur unexpectedly will be coordinated immediately with the Airport.</p> <p>C. Movement area boundary will be marked adjacent to haul routes.</p> <p>IV. PROTECTION OF NAVIGATIONAL AIDS (NAVAIDS)</p> <p>A. No NAVAID impacts are anticipated.</p> <p>V. CONTRACTOR ACCESS</p> <p>A. General Airport security is a vital part of the Contractor's responsibilities during the course of this project to ensure that all parties remain safe and the airport remains secure throughout the project.</p> <p>B. Airport Operations Area The Airport Operations Area (AOA) is defined as any portion of the Airport property normally secured against unauthorized entry. The AOA includes all areas specifically reserved for the operations of aircraft and aircraft support equipment and personnel. Generally, the AOA is defined as all paved and unpaved areas inside the airport perimeter fence and includes but is not limited to Aprons, Taxiways, Runways, and Runway and Taxiway Safety Areas. The Contractor shall not leave openings in the perimeter security fence at any time. No vehicle or equipment shall move within the AOA unless the vehicle is lighted or flagged for Day time activity and lighted for night time activity.</p> <p>C. Contractor's Entrance Gate The Contractor shall be responsible for all movement through the entrance gate being utilized for construction traffic. Only authorized personnel and vehicles shall be allowed to enter the AOA through the gate utilized by the Contractor. Pedestrian walkthroughs are not allowed through the vehicular</p> <p>Grand Prairie Municipal Airport Surface Road Improvements Construction Safety and Phasing Plan</p>	<p>gate. The Contractor shall ensure that the gate is closed after each authorized personnel. The gate may not be left open and unattended at any point during the construction duration. If a temporary gate is utilized, it must be equipped so it can be securely closed and locked to prevent access by animals and unauthorized people.</p> <p>If construction activities dictate that the Contractor's entrance gate to remain open, such as during hauling or paving operations, a full-time watch guard may be used to secure the gate, upon approval of the Airport.</p> <p>D. Contractor's Plant Site, Storage, and Office Area Temporary stockpiling of material will be allowed within the construction area for the corresponding phase under construction. Stockpiles in the construction area shall be removed on a daily basis. Stockpiles will be allowed in the Contractor staging area as shown in the construction drawings. Stockpiles shall be prominently marked and lighted during hours of restricted visibility or darkness. Stockpile heights shall be restricted to 12.5 feet. Stockpiled material that becomes a wildlife attractant or FOD hazard shall be removed or relocated to a location acceptable to the Owner.</p> <p>The Contractor will be responsible for maintenance and dust control of the areas for the duration of the project.</p> <p>E. Vehicle and Pedestrian Operations All Contractor personnel and vehicles shall remain within the construction area, along the designated haul route or within the limits of the staging area.</p> <p>All personal vehicles of Contractor personnel shall be parked at locations outside of the AOA. No personal vehicles will be allowed in the AOA. Construction equipment shall be parked in the contractor staging area or within the barricades of the Stage of work being performed. No vehicle shall be parked within 200 feet of the Runway 17/35 centerline.</p> <p>The haul route is shown in the construction drawings. The haul route shall be marked with signs. Contractor vehicles shall not deviate from the haul route shown without approval of the Owner. Vehicle drivers must confirm by personal observation that no aircraft is approaching their position when crossing areas of active aircraft operations.</p> <p>F. Two-Way Radio Communications The Contractor shall provide radio equipment (aviation band) to supervisory personnel, flagmen and the RPR. Radio contact must be maintained as directed by the Owner.</p> <p>VI. WILDLIFE MANAGEMENT</p> <p>A. Trash</p> <ol style="list-style-type: none"> 1. All trash shall be removed from the construction site daily. 2. Food scraps shall be disposed of in a closed container. <p>B. Standing Water</p> <ol style="list-style-type: none"> 1. Each construction area shall be shaped to allow drainage of surface water during each work operation and to prevent standing water. 2. If necessary, surface water shall be pumped immediately from each construction area. Standing water shall be removed within 24 hours. <p>C. Tall Grass and Seed</p> <p>Grand Prairie Municipal Airport Surface Road Improvements Construction Safety and Phasing Plan</p>
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CONSTRUCTION SAFETY PHASING PLAN I

SHEET NAME:

GRAND PRAIRIE MUNICIPAL AIRPORT PERIMETER ROAD IMPROVEMENTS

PROJECT NAME:

8864 Survey Dr.
McKinney, TX
T: 972-542-2995
www.ksaeng.com

9/6/2024

G04

<p>1. The seed mixture is compliant with the Airport's Wildlife Hazard Management Plan.</p> <p>2. The Airport will mow and maintain all areas outside of the construction work limits. The Contractor shall mow areas within the construction work limits. Grass will be kept to a maximum height of 12 inches.</p> <p>D. Fencing and Gating</p> <ol style="list-style-type: none"> 1. The Contractor shall equip temporary gates with locks to prevent access by animals and unauthorized people and maintain security during construction. The Contractor shall immediately report any damage to gates or fences to the Airport. The Contractor will be responsible for repairs to any gates or fences caused by negligence by the Contractor. <p>E. Wildlife Sightings</p> <ol style="list-style-type: none"> 1. The Contractor will immediately notify the Airport if any wildlife (i.e. dog, fox, coyote, deer, etc.) is encountered on the airfield. <p>VII. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT</p> <p>A. The perimeter of the construction site and haul routes should be continually monitored to ensure that no FOD is present.</p> <p>B. All excavated material, debris, etc. shall be cleaned from the site at least on a daily basis and more often if required by the RPR or Engineer. No material may be left in any area used by the Contractor in such a way that the material can be blown onto the movement area and cause a FOD hazard.</p> <p>C. Waste and loose materials capable of causing damage to aircraft, when present on or near active movement areas must be removed immediately.</p> <p>VIII. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT</p> <p>A. Ground vehicle fueling. If ground vehicle fueling occurs within the construction or staging areas, fuel tanks shall not be topped off and absorbent material shall be available for small spills.</p> <p>B. Any spills that occur on site shall be brought to the attention of the RPR and the Airport staff and cleaned up immediately. The Contractor shall also notify the RPR and Airport staff of any and all required remedial work required and follow appropriate methods for cleaning up the contaminated site.</p> <p>C. The Contractor should provide the RPR with a list of any hazardous materials being delivered to the construction area and maintain MSDS sheets for such materials on the airport site. Materials shall be stored on site for a minimal period of time prior to their use on the project. Transport and handling of hazardous materials on an airport requires special procedures. See AC 150/5320-15, Management of Airport Industrial Waste.</p> <p>D. While encountering of hazardous materials is not anticipated, the Contractor shall notify the Owner immediately of any material encountered that could be considered hazardous.</p> <p>IX. NOTIFICATION OF CONSTRUCTION ACTIVITIES</p> <p>A. Airports Contact List:</p> <table border="0"> <tr> <td>Grand Prairie Municipal Airport</td> <td>Phone: (972) 237-7591</td> </tr> <tr> <td>3116 S Great Southwest Parkway</td> <td>Grand Prairie, TX 75052</td> </tr> </table> <p>Grand Prairie Municipal Airport Surface Road Improvements Construction Safety and Phasing Plan</p>	Grand Prairie Municipal Airport	Phone: (972) 237-7591	3116 S Great Southwest Parkway	Grand Prairie, TX 75052	<p>• Mark Divita, C.M. – Airport Manager Mobile: _____ Email: mddivita@GPTX.org</p> <p>B. Consultants Contact List: KSA Engineering, Inc. 8864 Survey Dr., Suite 100 McKinney, Texas 75070 Phone: (972) 542-2995 Fax: (888) 224-9418 Resident Project Representative Mobile: _____ Email: _____</p> <p>• Chad Pennel, P.E. – Project Manager Mobile: (214) 390-8411 Email: cpennel@ksaeng.com Trevor Self, E.I.T. – Project Engineer Mobile: (820) 624-6333 Email: tsself@ksaeng.com</p> <p>C. Contractors Contact List: The Contractor shall list the names of individuals that will be responsible for specific items on the construction site. The names that are listed shall be given to the Sponsor as well as posted on a bulletin board on the project. The following are contacts and names that need to be identified:</p> <p>Contractor's Contact Information: Name: _____ Address: _____ Phone: _____ Fax: _____ Project Manager: _____ Cell Phone: _____ Project Superintendent: _____ Cell Phone: _____ 24-Hour Contact: _____ Cell Phone: _____ Safety Manager: _____ Cell Phone: _____ Subcontractor Superintendents: _____ Cell Phone: _____</p> <p>D. NOTAMS</p> <ol style="list-style-type: none"> 1. Airport management will issue all NOTAMs through the eNOTAM system. The Contractor shall coordinate closures a minimum of ninety-six hours (96) hours in advance to provide for timely initiation of NOTAMs. 2. The RPR will verify that all NOTAMs are published prior to permitting initiation of construction activities, including equipment and personnel access to the affected areas. <p>E. Emergency Notification Procedures</p> <ol style="list-style-type: none"> 1. In the event of an emergency, the Contractor shall immediately contact 911 and then the Airport. <p>F. Aircraft Rescue and Firefighting (ARFF) Notification</p> <ol style="list-style-type: none"> 1. During Airport Emergencies, all ARFF vehicles shall have the immediate right of way at all times and may traverse any and all of the known roadways thorough the airfield. The Contractor and his Sub-contractors shall immediately yield right-of-way to any and all Airport ARFF personnel and equipment. 2. The Owner and Engineer shall be notified in writing at least ninety-six (96) hours in advance of any emergency route, water line, or fire hydrant that will be out of service. <p>G. FAA Notification</p> <ol style="list-style-type: none"> 1. Contractor shall ensure that an airspace study is performed on any equipment with a height greater than 15 feet (i.e. cranes, plants, etc.) <p>Grand Prairie Municipal Airport Surface Road Improvements Construction Safety and Phasing Plan</p>	<p>2. All communication with the FAA Air Traffic Control Tower (ATCT) shall be directed through the Airport.</p> <p>X. INSPECTION REQUIREMENTS</p> <p>A. Daily Inspection</p> <ol style="list-style-type: none"> 1. The Contractor, RPR and Airport staff will perform onsite inspection throughout the project, with immediate remedy of any deficiencies, whether caused by negligence, oversight, or project scope change. 2. The Contractor will identify a Safety Manager that will be required to inspect on a daily basis, all barricades, flashers, and temporary threshold lighting and markings prior to work commencing and prior to leaving the work site. The Contractor will notify the RPR that all inspections have been completed. <p>B. Periodic Inspections</p> <ol style="list-style-type: none"> 1. The Airport staff, RPR and Contractor will inspect all closed areas prior to opening to air traffic operations. <p>XI. UNDERGROUND UTILITIES</p> <p>The locations of known underground utilities are shown in the construction plan set and are approximate in location.</p> <p>A. The Contractor must perform utility locates before construction begins to ensure uninterrupted operation of navigation aids and provide to the RPR and Airport staff documentation demonstrating the performance of the locates.</p> <p>B. The Contractor shall notify all utility companies involved to have their utilities located and marked in the field. All underground utilities shall then be uncovered to verify location and elevation before construction begins. The Contractor shall coordinate with the utility owner if the utility inspector must be on site when locating or excavating near utilities.</p> <p>C. If an existing utility is damaged during construction, the Airport, RPR and utility company shall be notified immediately.</p> <p>D. Any damaged facilities shall be replaced or repaired in accordance with FAA Specifications or as directed by the Construction Manager.</p> <p>XII. PENALTIES</p> <p>A. Construction Suspension</p> <p>The Contractor will immediately suspend all construction if and when a Contractor or Subcontractor employee enters the Air Operations Area outside of the designated work area. Construction may resume only when the discrepancy is corrected and training is completed to the satisfaction of the Airport staff.</p> <p>B. Expulsion of Non-Compliant Employees</p> <p>The Airport staff may permanently prohibit any Contractor personnel acting in violation of airport rules and regulation or who takes actions that are a hazard to aircraft operations from entering or working on airport property.</p> <p>XIII. SPECIAL CONDITIONS</p> <p>Grand Prairie Municipal Airport Surface Road Improvements Construction Safety and Phasing Plan</p>
Grand Prairie Municipal Airport	Phone: (972) 237-7591					
3116 S Great Southwest Parkway	Grand Prairie, TX 75052					

DRAWN BY:	JB	DESIGNED BY:	CP	LATEST REVISION:	9/6/2024	KSA JOB NO:	102866	DATE

PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE

MARK

REVISION

SHEET NO.

<p>A. Airport Emergencies</p> <ol style="list-style-type: none"> 1. Contractor shall monitor any weather conditions, aircraft emergencies, unexpected emergencies and other elements that may cause safety on the project to be jeopardized. 2. Airport staff will immediately clear all construction personnel of all runways and approach areas upon monitoring a distress call. 3. If an aircraft accident occurs, all construction personnel will immediately vacate the Air Operations Area until Airport Staff provide permission to resume access to the work area. <p>XIV. RUNWAY AND TAXIWAY VISUAL AIDS</p> <p>No impacts to runway and taxiway visual aids are anticipated.</p> <p>XV. MARKING AND SIGNS FOR ACCESS ROUTES</p> <p>The haul route shall be marked with signage as necessary to prevent vehicles from straying from the route. No temporary roadway markings will be required. Haul routes and other activities on the airport by the Contractor and Subcontractors shall be coordinated with and approved in advance by the Airport staff. Temporary traffic signs to delineate the haul route shall meet the MUTCD standards, including but not limited to the fragile and height requirements. The haul route is illustrated in the construction drawings.</p> <p>XVI. HAZARD MARKING AND LIGHTING</p> <p>A. Barricades</p> <p>Weighted cones shall be used to prevent construction personnel from entering taxilanes between T-hangars, adjacent to work areas. If construction personnel will be present in areas of work during times of darkness, cones shall be lighted with red lights. In addition, hazard markings and lighting shall be provided to identify open areas (manholes, trenches, open excavations, etc.) and stockpiled material.</p> <p>XVII. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS</p> <ul style="list-style-type: none"> A. Runway Safety Area (RSA) No construction activities or material stockpile shall occur within an active RSA. B. Runway Object Free Area (ROFA) No material stockpile shall occur within an active ROFA. The ROFA is 500 ft. C. Taxiway Object Free Area (TOFA) No construction activities or material stockpile shall occur within an active TOFA. The Taxiway A OFA width is 131 feet. D. Obstacle Free Zone (OFZ) No construction activities or material stockpile shall penetrate the OFZ. The Runway OFZ is 400 ft. wide. E. Runway approach/departure surface No construction activities or material stockpile shall penetrate the approach/departure surface. F. Open Trenches No open trenches will be permitted within an open RSA or TSA. The Contractor shall prominently mark any open trench or excavation at the construction site with lighted barricades. <p>Grand Prairie Municipal Airport Surface Road Improvements Construction Safety and Phasing Plan</p>	<p>7</p> <p>XVIII. OTHER LIMITATIONS ON CONSTRUCTION</p> <p>A. Prohibitions</p> <ol style="list-style-type: none"> 1. The use of equipment over 15-feet is prohibited unless the Contractor submits a 7460-1 determination letter. 2. The use of open flames is not allowed without approval of the owner. 3. The use of explosives is prohibited. <p>B. Restrictions</p> <ol style="list-style-type: none"> 1. Any construction suspension required during specific airport operations will be coordinated by the Engineer, Owner, and Contractor during construction. 2. Seasonal construction restrictions will be coordinated by the Engineer, Owner, and the Contractor during construction. <p>Grand Prairie Municipal Airport Surface Road Improvements Construction Safety and Phasing Plan</p>	<p>8</p>	<p>GRAND PRAIRIE MUNICIPAL AIRPORT PERIMETER ROAD IMPROVEMENTS GRAND PRAIRIE, TX</p> <p>KSA</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>DRAWN BY: JB</td> <td>DESIGNED BY: CP</td> <td>LATEST REVISION: 9/6/2024</td> </tr> <tr> <td>KS JOB NO.: 102266</td> <td colspan="2">PROJECT NAME:</td> </tr> </table> <p>STATE OF TEXAS CHAD E. PENNEL LIC# 1356 PROFESSIONAL ENGINEER TBPE Firm Registration No. F-1356 SEAL: 9/6/2024 SHEET NO. G05</p>	DRAWN BY: JB	DESIGNED BY: CP	LATEST REVISION: 9/6/2024	KS JOB NO.: 102266	PROJECT NAME:	
DRAWN BY: JB	DESIGNED BY: CP	LATEST REVISION: 9/6/2024							
KS JOB NO.: 102266	PROJECT NAME:								
<p>PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX</p> <p>MARK REVISION DATE</p>									

PROJECT LAYOUT

GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS

GRAND PRAIRIE, TX

SHEET NAME:

PROJECT NAME:

DRAWN BY:

JB

DESIGNED BY:

CP

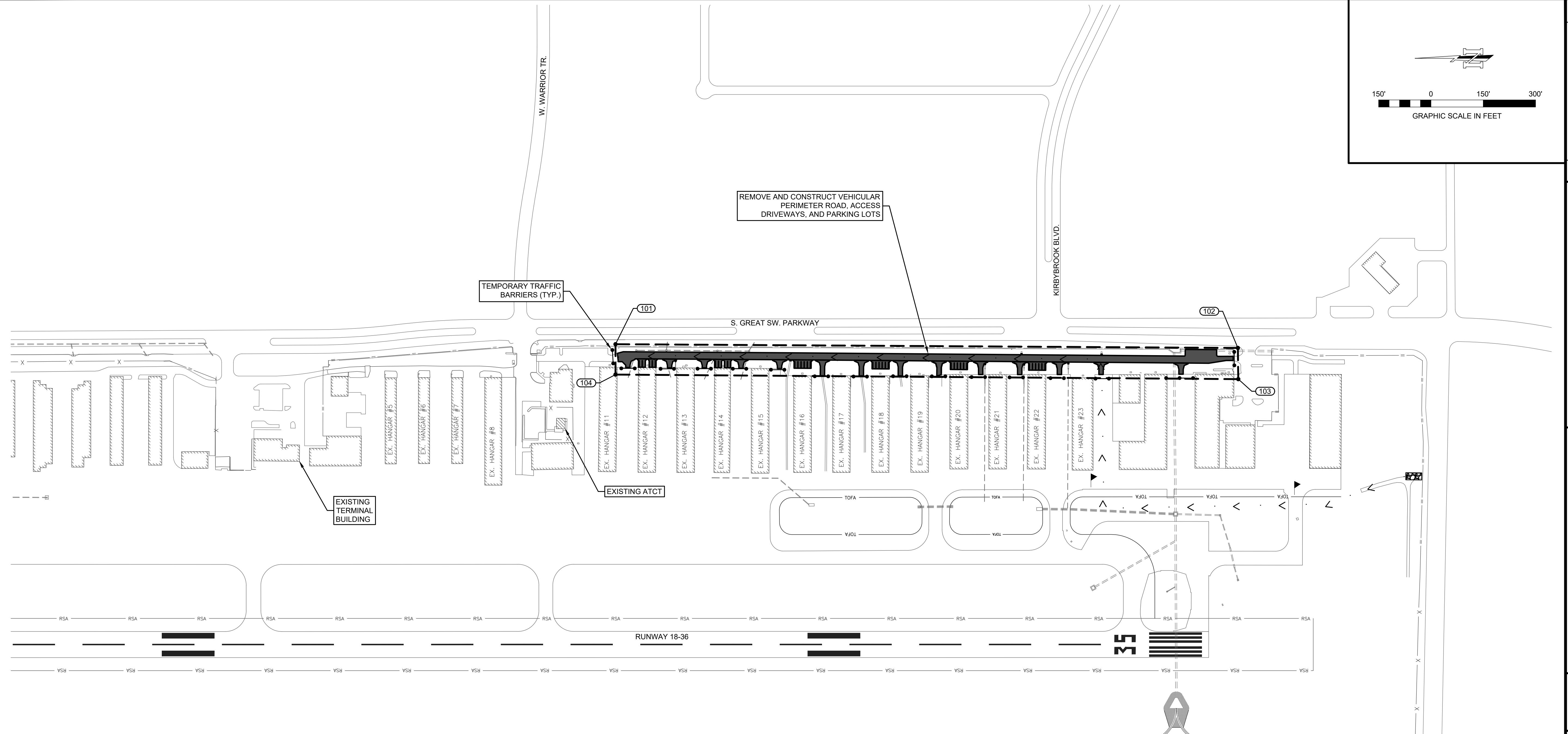
LATEST REVISION:

9/6/2024

KSA JOB NO:

102266

PROJECT NUMBER:



PHASE 1: RECONSTRUCT SOUTH SECTION OF VEHICULAR PERIMETER ROAD.

WORK DAYS FOR THIS PHASE- 99 CALENDAR DAYS

1. THIS PHASE DOES NOT REQUIRE RUNWAY OR TAXIWAY CLOSURES.
2. THE HAUL ROUTE WILL BE ON ACTIVE AIRFIELD PAVEMENT. EXTREME CAUTION SHALL BE USED ALONG THE HAUL ROUTE. TRUCK TRAFFIC SHALL ALWAYS YIELD TO AIRCRAFT.
3. PROVIDE FLAGMEN/ESCORT FOR ALL CROSSINGS OF ACTIVE AIRFIELD PAVEMENT. FLAGMEN/ESCORT SHALL BE IN RADIO CONTACT WITH THE TOWER.
4. MARK TAXIWAY OBJECT FREE AREA TO PREVENT INCURSIONS.
5. MARK HAUL ROUTE AND PLACE STOP SIGN OUTSIDE OF TAXIWAY OBJECT FREE AREA FOR ALL CROSSINGS OF AIRFIELD PAVEMENT.
6. PRIOR TO BEGINNING WORK IN THIS PHASE, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN, MATERIALS, AND MACHINERY WILL BE IN SPECIFIC CONSTRUCTION AREAS FOR THE DURATION OF THIS PHASE. NO RSA NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RUNWAY SAFETY AREA UNLESS TRANSITIONAL SURFACE IS ENCROACHED.
7. PERFORM UTILITY LOCATES.
8. INSTALL TRAFFIC CONTROL BARRICADES AS SHOWN FOR THIS PHASE.
9. INSTALL APPROPRIATE EROSION CONTROL DEVICES PRIOR TO BEGINNING SOIL DISTURBING ACTIVITIES. (SEE EROSION CONTROL SHEETS).

PHASE WORK LIMITS COORDINATE TABLE						
POINT NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV	DESCRIPTION
101	N32° 41' 52.61"	W97° 02' 38.83"	6939961.45	2416330.91	580.0	PHASE WORK LIMITS
102	N32° 41' 34.94"	W97° 02' 39.09"	6938176.26	2416334.02	569.0	PHASE WORK LIMITS
103	N32° 41' 34.94"	W97° 02' 40.13"	6938174.40	2416244.64	581.0	PHASE WORK LIMITS
104	N32° 41' 52.61"	W97° 02' 39.85"	6939960.77	2416243.74	565.0	PHASE WORK LIMITS

PHASING LEGEND	
	PHASE CONSTRUCTION
	PHASE DEMOLITION
	CONTRACTOR'S STAGING AREA
	CONSTRUCTION ENTRANCE
	COMPLETED WORK
	CONTRACTOR'S HAUL ROUTE
	TEMPORARY TRAFFIC BARRICADES
	FLAGMAN/ESCORT
	WORK LIMITS

NOTE:
CONTRACTOR SHALL FIELD VERIFY
LOCATIONS AND ELEVATIONS OF ALL
UTILITIES PRIOR TO ANY EXCAVATION
TAKING PLACE.



NOTE: PART OF A MULTIPHASE PROJECT

PHASING PLAN - PHASE 1

GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS
GRAND PRAIRIE, TX

PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX

DATE
MARK
REVISION
SHEET NAME:

DRAWN BY:
JB

DESIGNED BY:
CP

LATEST REVISION:
9/6/2024

KSA JOB NO.:
102266

PROJECT NAME:

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McKinney, TX 75070
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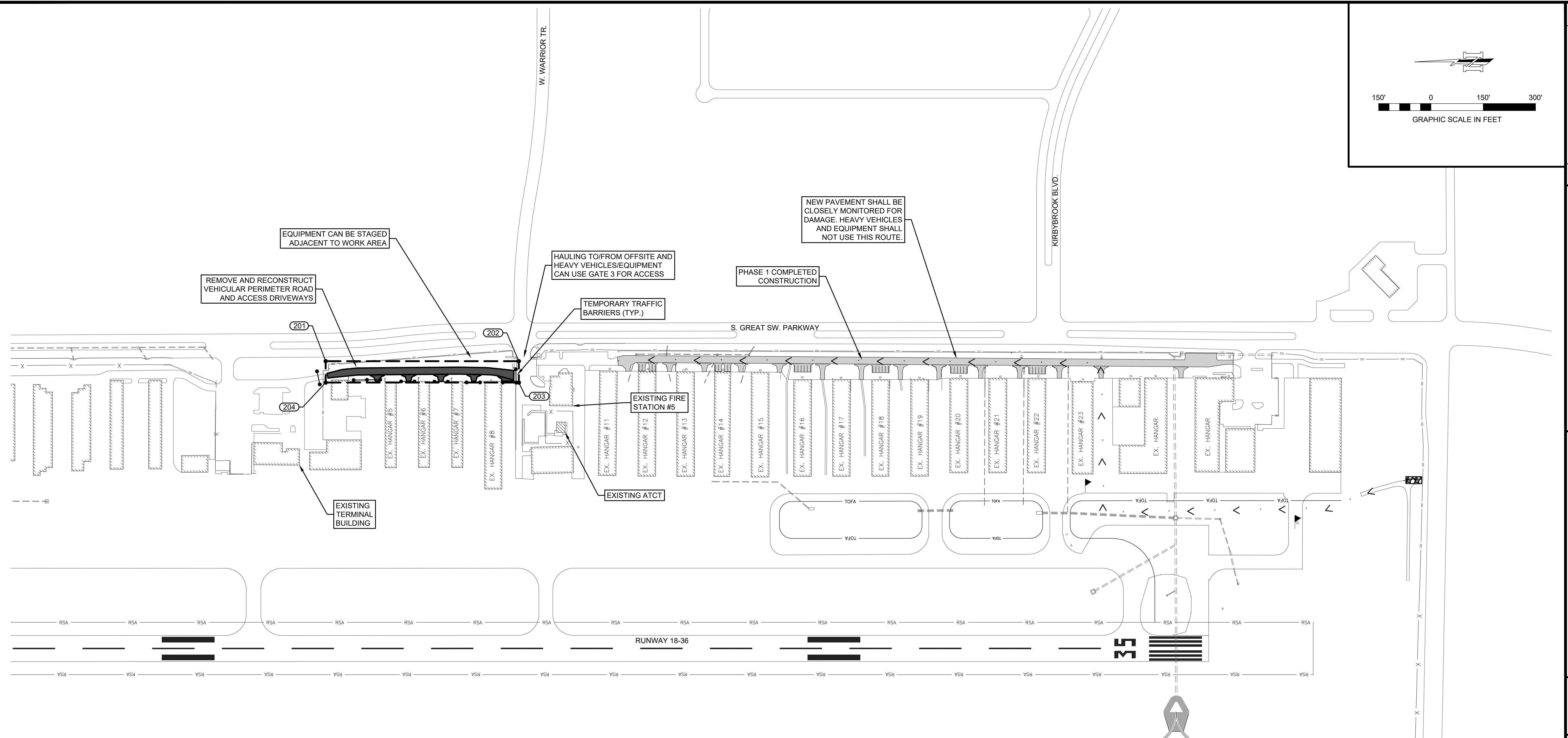


9/6/2024

SEAL:
TBPE Firm Registration No. F-1356

SHEET NO.:

C02



PHASE 2: RECONSTRUCT SOUTH SECTION OF VEHICULAR PERIMETER ROAD.

WORK DAYS FOR THIS PHASE- 52 CALENDAR DAYS

1. THIS PHASE DOES NOT REQUIRE RUNWAY OR TAXIWAY CLOSURES.
2. THE HAUL ROUTE WILL BE ON ACTIVE AIRFIELD PAVEMENT. EXTREME CAUTION SHALL BE USED ALONG THE HAUL ROUTE. TRUCK TRAFFIC SHALL ALWAYS YIELD TO AIRCRAFT.
3. PROVIDE FLAGMEN/ESCORT FOR ALL CROSSINGS OF ACTIVE AIRFIELD PAVEMENT. FLAGMEN/ESCORT SHALL BE IN RADIO CONTACT WITH THE TOWER.
4. MARK TAXIWAY OBJECT FREE AREA TO PREVENT INCURSIONS.
5. MARK HAUL ROUTE AND PLACE STOP SIGN OUTSIDE OF TAXIWAY OBJECT FREE AREA FOR ALL CROSSINGS OF AIRFIELD PAVEMENT.
6. PRIOR TO BEGINNING WORK IN THIS PHASE, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN, MATERIALS, AND MACHINERY WILL BE IN SPECIFIC CONSTRUCTION AREAS FOR THE DURATION OF THIS PHASE. NO RSA NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RUNWAY SAFETY AREA UNLESS TRANSITIONAL SURFACE IS ENCROACHED.
7. PERFORM UTILITY LOCATES.
8. INSTALL TRAFFIC CONTROL BARRICADES AS SHOWN FOR THIS PHASE.
9. INSTALL APPROPRIATE EROSION CONTROL DEVICES PRIOR TO BEGINNING SOIL DISTURBING ACTIVITIES. (SEE EROSION CONTROL SHEETS).

PHASE WORK LIMITS COORDINATE TABLE						
POINT NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV	DESCRIPTION
201	N32° 42' 00.84"	W97° 02' 39.22"	6940792.52	2416286.52	588.0	PHASE WORK LIMITS
202	N32° 41' 55.35"	W97° 02' 39.26"	6940238.49	2416290.83	584.0	PHASE WORK LIMITS
203	N32° 41' 55.36"	W97° 02' 39.98"	6940238.02	2416229.54	585.0	PHASE WORK LIMITS
204	N32° 42' 00.84"	W97° 02' 39.94"	6940792.05	2416225.23	588.0	PHASE WORK LIMITS

PHASING LEGEND	
	PHASE CONSTRUCTION
	PHASE DEMOLITION
	CONTRACTOR'S STAGING AREA
	CONSTRUCTION ENTRANCE
	COMPLETED WORK
	CONTRACTOR'S HAUL ROUTE
	TEMPORARY TRAFFIC BARRICADES
	FLAGMAN/ESCORT
	WORK LIMITS

NOTE:
CONTRACTOR SHALL FIELD VERIFY
LOCATIONS AND ELEVATIONS OF ALL
UTILITIES PRIOR TO ANY EXCAVATION
TAKING PLACE.

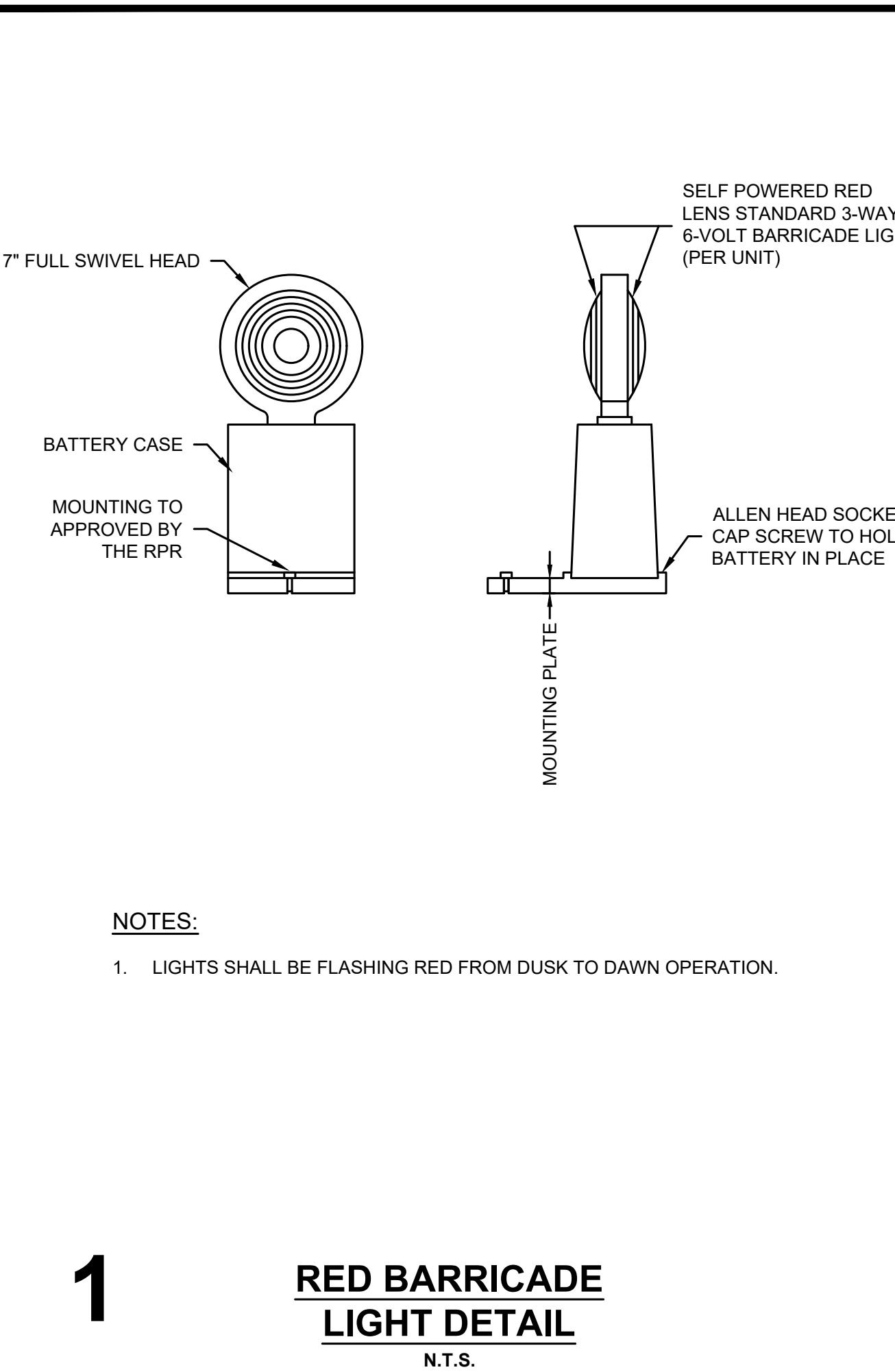


NOTE: PART OF A MULTIPHASE PROJECT

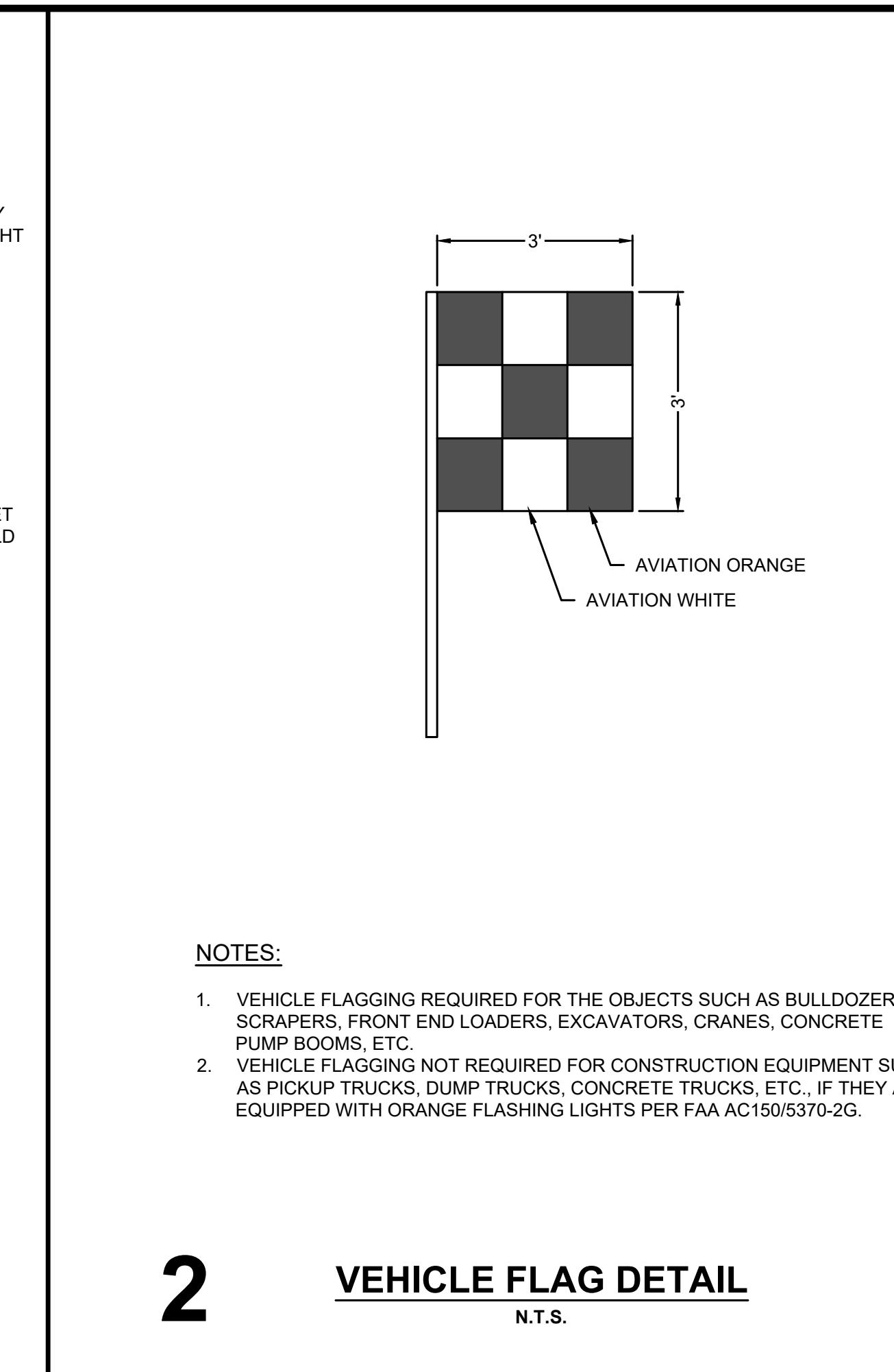
PHASING PLAN - PHASE 2

GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS
GRAND PRAIRIE, TX

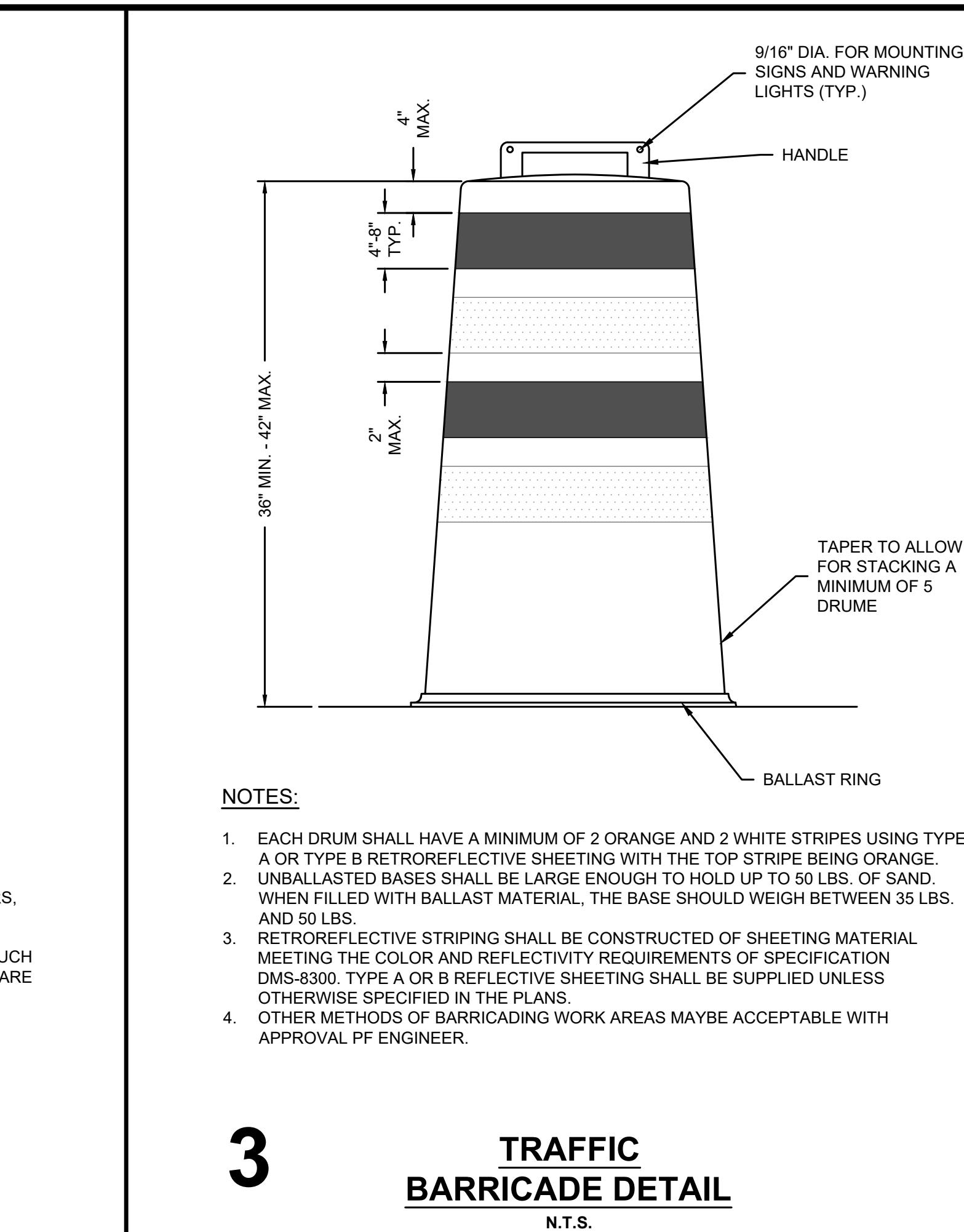
PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX
MARK: _____
REVISION: _____
DATE: _____



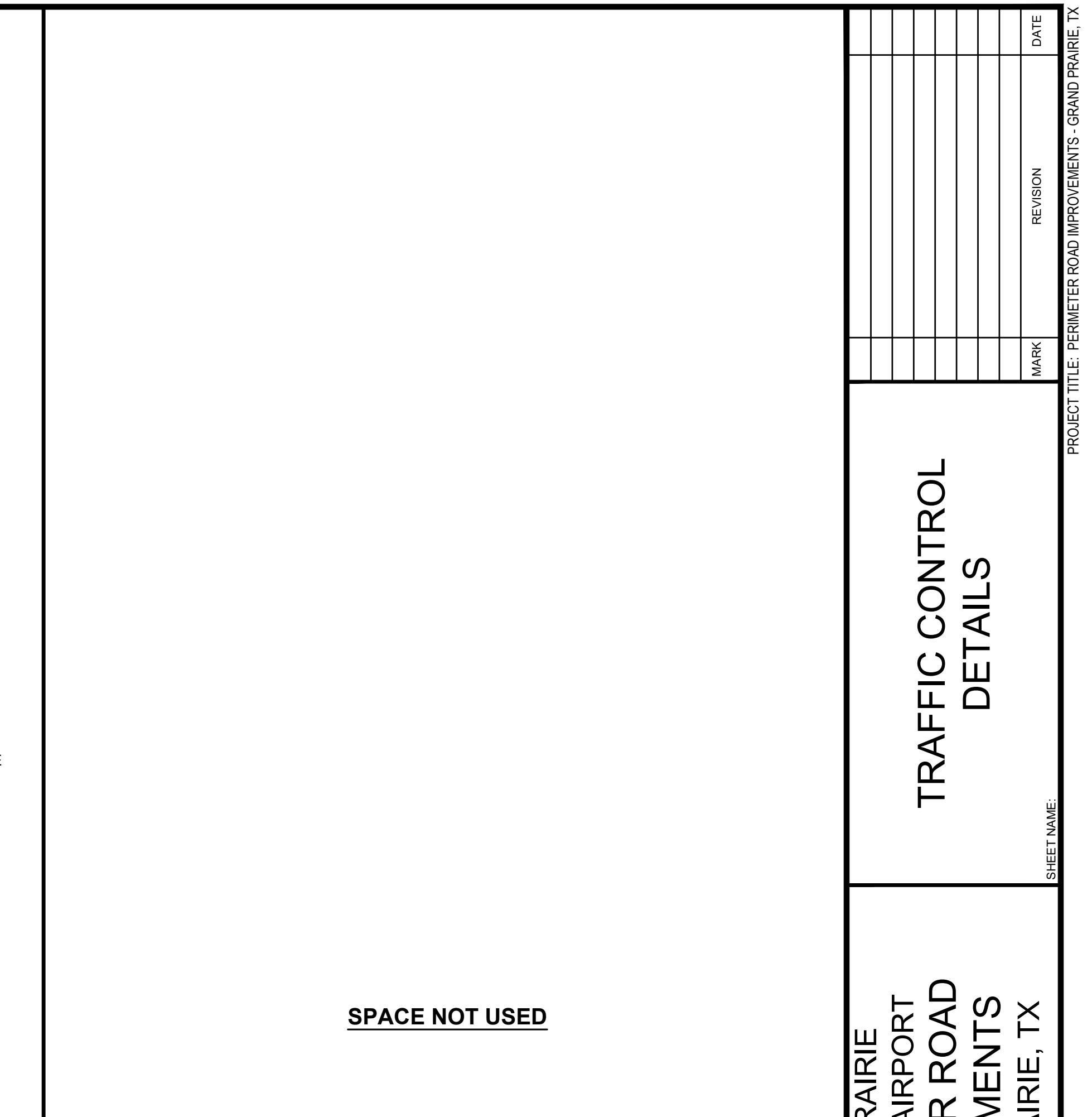
1 **RED BARRICADE
LIGHT DETAIL**
N.T.S.



2 **VEHICLE FLAG DETAIL**
N.T.S.



3 **TRAFFIC
BARRICADE DETAIL**
N.T.S.



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SPACE NOT USED

SPACE NOT USED

SPACE NOT USED

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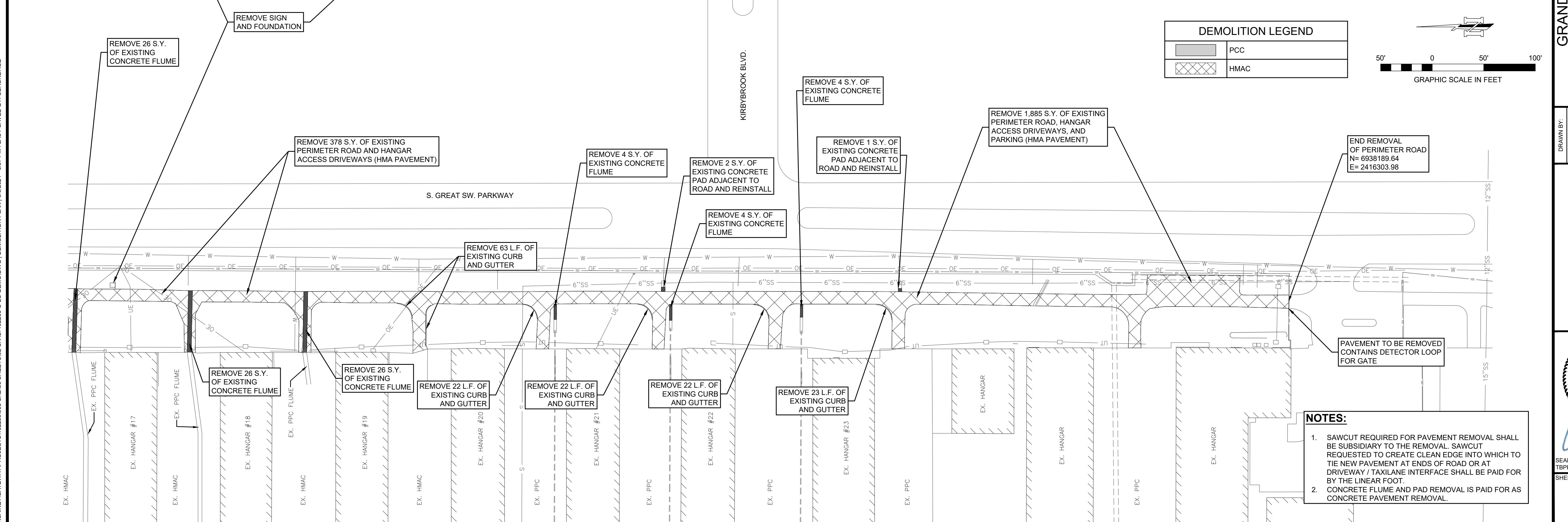
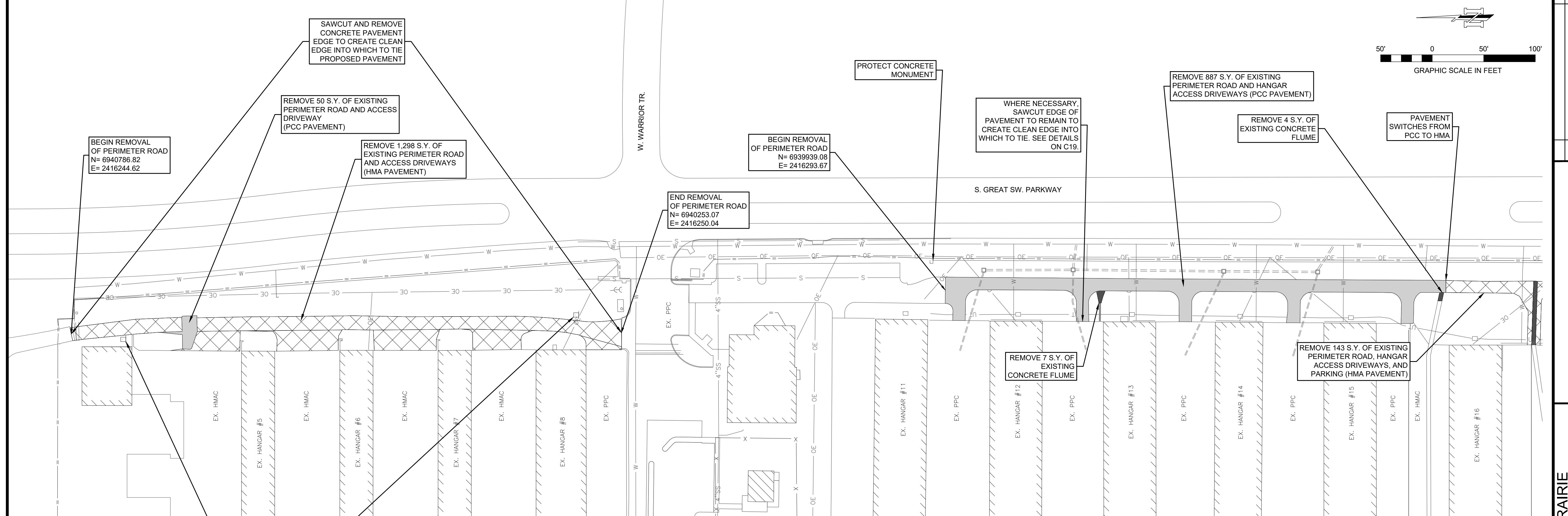
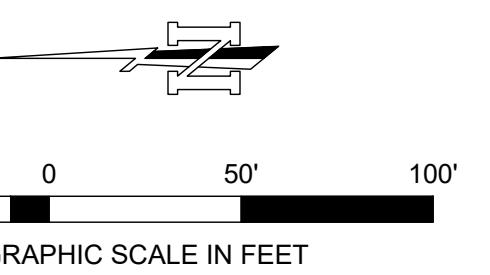
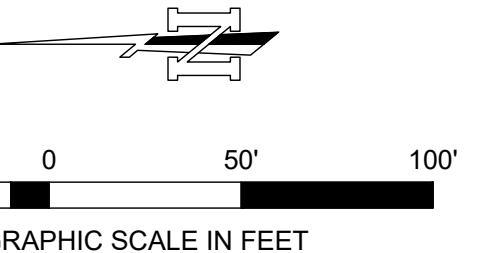
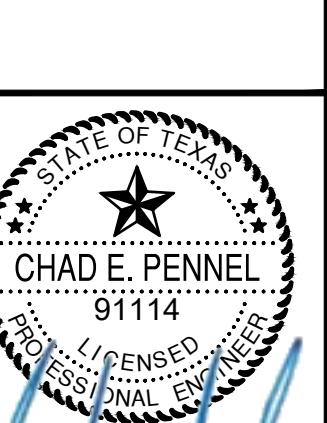
DEMOLITION PLAN

GRAND PRAIRIE MUNICIPAL AIRPORT PERIMETER ROAD IMPROVEMENTS GRAND PRAIRIE, TX

SHEET NAME:

PROJECT NAME:

SHEET NUMBER:

**KSA**

9/6/2024

C05

SEAL:

TBPE Firm Registration No. F-1356

SHEET NO.

9/6/2024

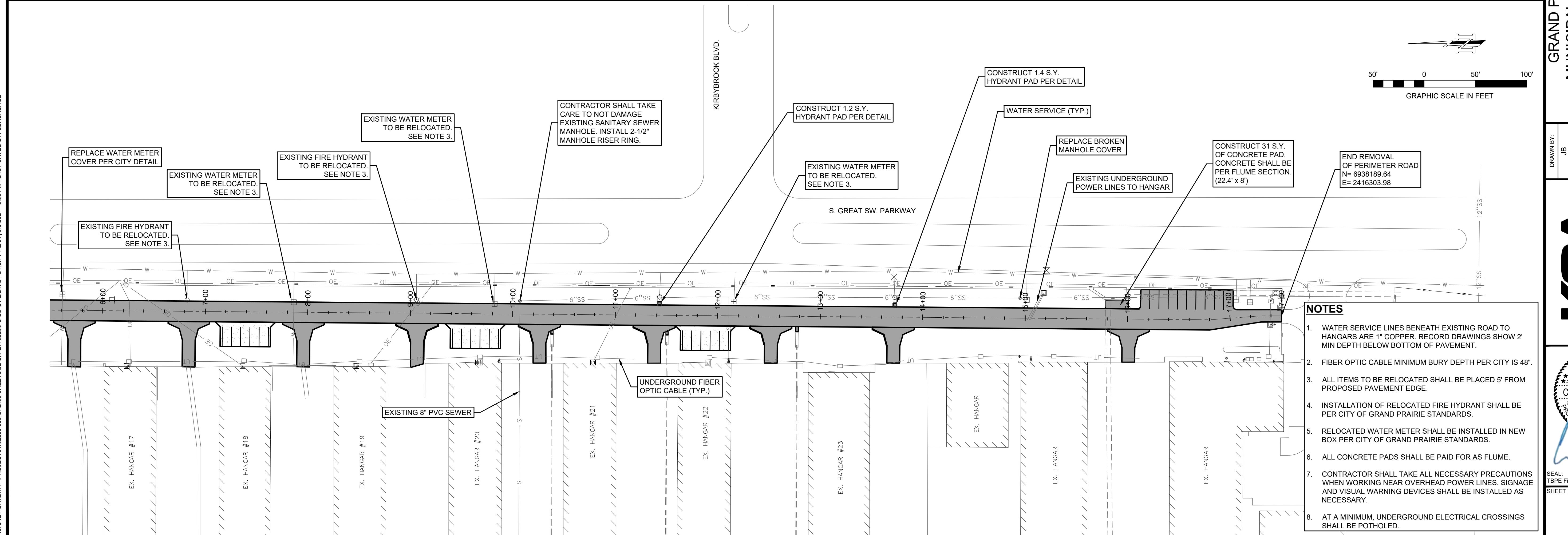
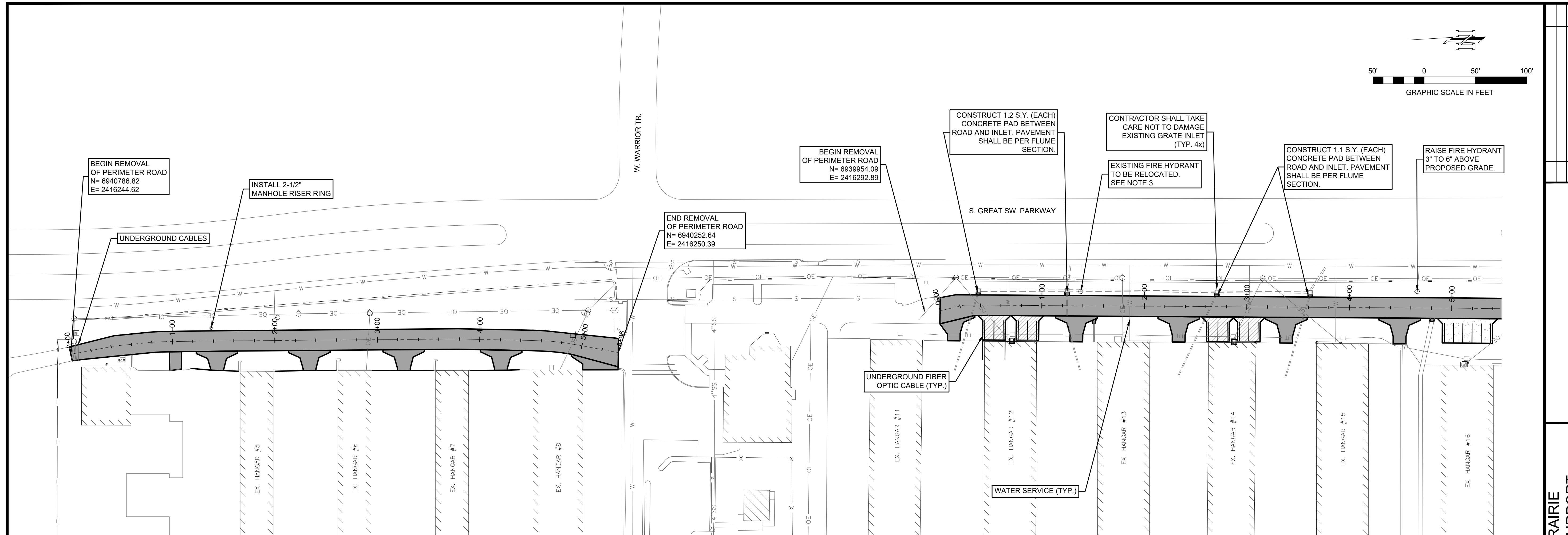
UTILITY PLAN

GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS
GRAND PRAIRIE, TX

STATE OF TEXAS
CHAD E. PENNEL
91114
LICENSED PROFESSIONAL ENGINEER

SEAL:
TBPE Firm Registration No. F-1356
9/6/2024

C06



WATER DETAILS II

SHEET NAME:

GRAND PRAIRIE MUNICIPAL AIRPORT PERIMETER ROAD IMPROVEMENTS GRAND PRAIRIE, TX

PROJECT NAME:

FILE NUMBER:

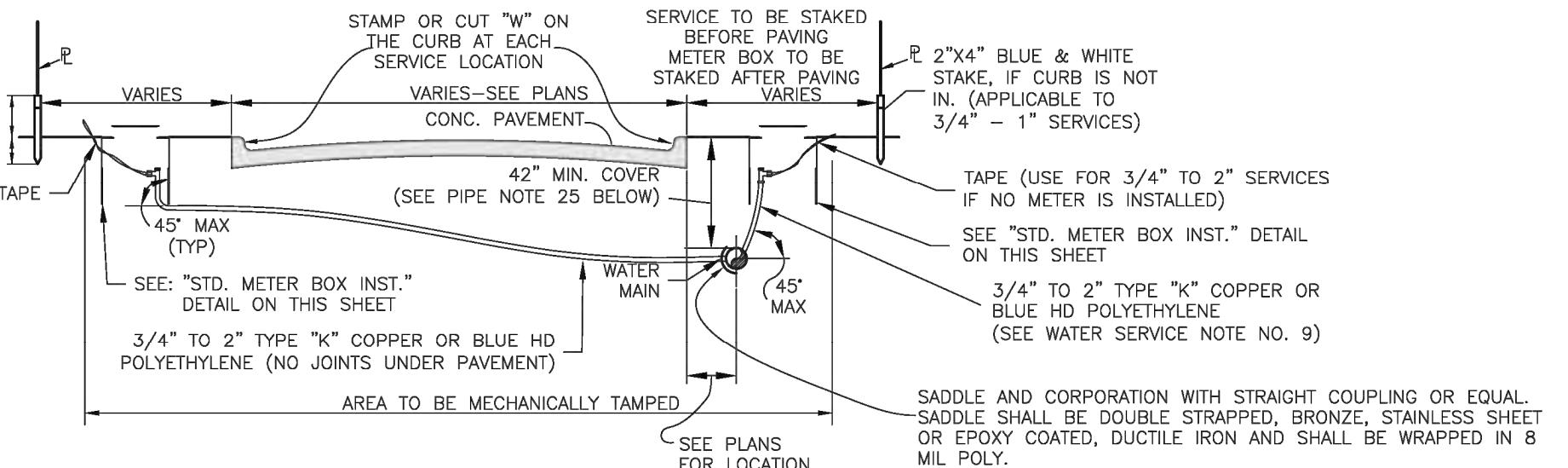
DR.

DRAWN BY:
JB
DESIGNED BY:
CP
LATEST REVISION:
9/6/2024
KSA JOB NO.:
102266



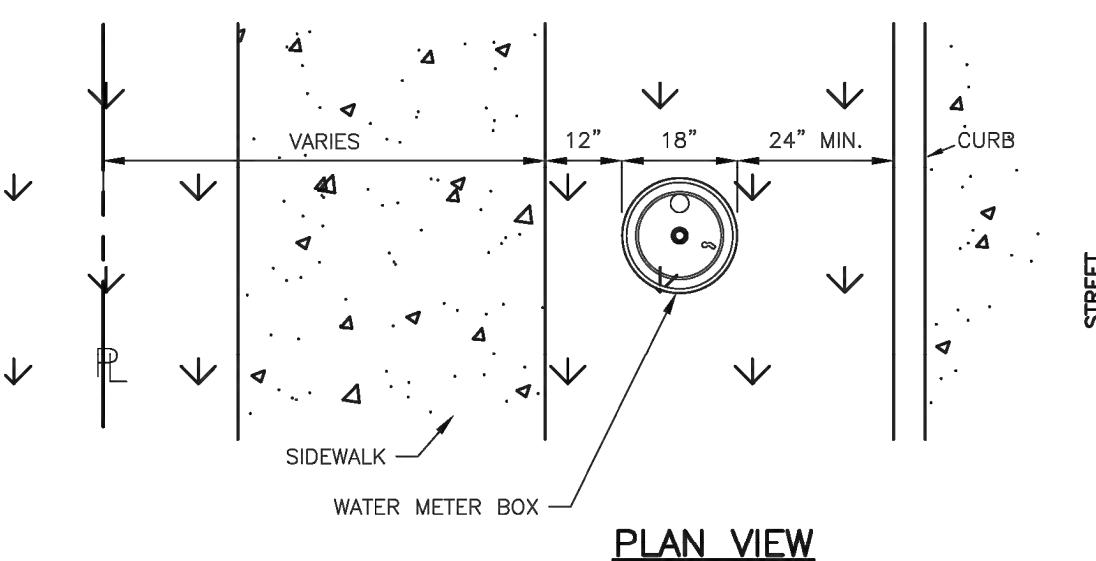
CHAD E. PENNEL
91114
LICENSED PROFESSIONAL ENGINEER
TBPE Firm Registration No. F-1356
SEAL: SHEET NO.

9/6/2024
C08

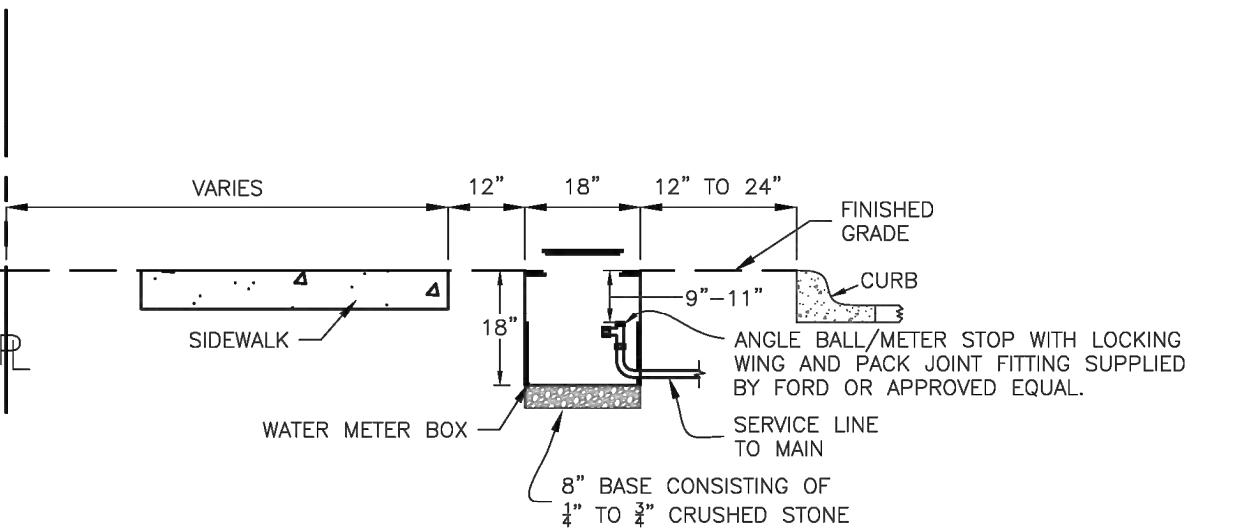


**3/4" - 2" WATER SERVICE DETAIL
(N.T.S.)**

- WATER SERVICE NOTES:
- ALL WATER FITTINGS SHALL BE DOMESTIC PRODUCTS.
 - ALL PROPERTY CORNERS SHALL BE STAKED WITH IRON RODS PRIOR TO THE INSTALLATION OF ANY WATER SERVICES. THE LOCATIONS OF THE SERVICE SHALL BE STAKED ACCORDING TO THE PLANS.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL THE CORPORATION, WATER SERVICE PIPE, CUT-OFF ANGLE VALVE, THE CONNECTOR PIPE, AND METER BOX AS PER THE DETAILS ON THIS SHEET.
 - DIRECT TAPS ARE NOT ALLOWED, SADDLES SHALL BE USED.
 - CUTTER FOR TAPS TO BE OF THE DOUBLE SLOTTED TYPE.
 - TAPS SHALL HAVE BRASS OR STAINLESS STEEL SADDLES WITH A MINIMUM WIDTH OF 2" TO PROVIDE FULL SUPPORT AND SHALL BE CLOW VEGA 3407 & 3408, ROMAC 101-N & 102-N OR APPROVED EQUAL.
 - ALL SERVICE TAPS LARGER THAN 2" SHALL BE MADE USING TAPPING TEES WITH RESILIENT WEDGE GATE VALVE IN BOX OR APPROVED EQUAL.
 - 3/4" TO 2" TAPS SHALL BE A MINIMUM OF 1' APART WITH TAPS NO CLOSER THAN 1' FROM THE END OF THE PIPE.
 - HOUSE SERVICES ON COMMON LOT LINES SHALL BE 1" WITH BULLHEAD. ALL OTHERS SHALL BE 3/4".
 - 3/4" THROUGH 2" WATER SERVICES SHALL BE:
 - A. TYPE "K" SOFT DRAWN COPPER OR.
 - B. BLUE HD POLYETHYLENE TUBING PER AWWA C901 OR C904 PE SERVICE LINE WITH COMPRESSION COUPLING NUT AND INTERNAL STIFFENER DESIGNED FOR PE CONNECTION (ASTM F1948).
 - CONTRACTOR MAY USE EITHER FLARED OR COMPRESSION BRASS FITTINGS WITH RESTRAINED UNIONS. (USE FORD OR MUELLER "Q" COUPLING OR APPROVED EQUAL)
 - NO SIDE WATER SERVICES SHALL BE PERMITTED UNDER PAVEMENT UNLESS APPROVED BY THE CITY ENGINEER.
 - CONTRACTOR SHALL USE A 3 PART UNION COPPER TO COPPER, MUELLER H-15405 COMPRESSION FITTING WITH RESTRAINED UNION, OR EQUAL WHERE SPLICES ARE PERMITTED. ADDITIONALLY, STIFFENERS WILL BE REQUIRED FOR BLUE HD POLYETHYLENE SERVICES.
 - USE 3/4" OR 1" CORPORATION, MUELLER H-15008 COMPRESSION CORPORATION, OR EQUAL.
 - USE 3/4" X 3/4" X 1" BULLHEAD TEE MUELLER H-15381 COMPRESSION FITTING, OR EQUAL.



PLAN VIEW

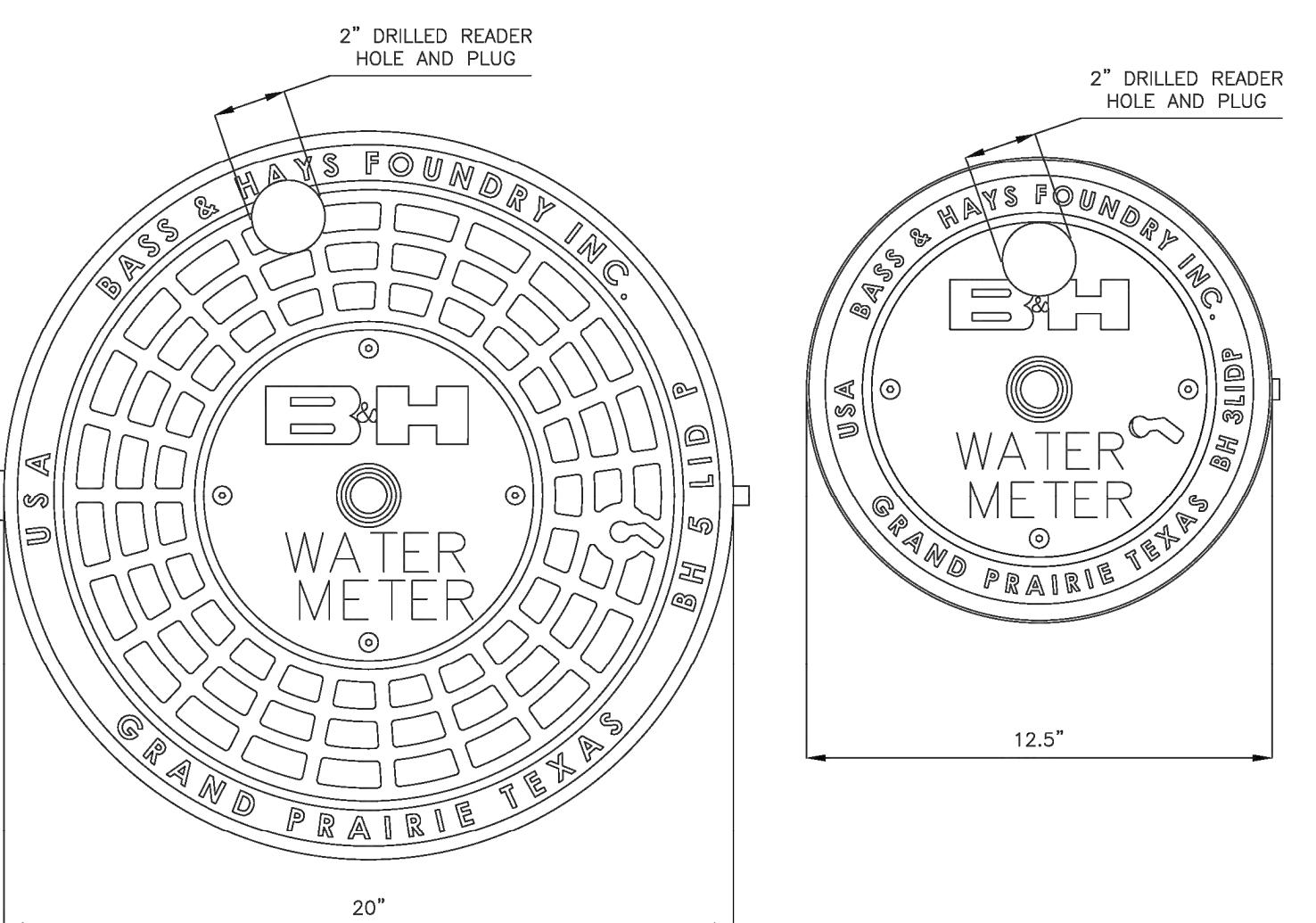


PROFILE VIEW

METER BOX TO ACCOMMODATE SERVICE & HOUSE LINE
METER BOX NOTES:
1. METER BOX SHALL NOT BE PLACED IN THE SIDEWALK, DRIVEWAY OR OTHER PAVED AREA.
2. METER BOX SPECS:
a. FOR 5/8" TO 1" METERS, USE 18"X18" PLASTIC METER BOX WITH CAST IRON RING AND PLASTIC LID. SEE NOTE 16 IN WATER SERVICE NOTES FOR SPECIFICATIONS.
b. FOR 1-1/2" & 2" METERS USE DFW 2818-IPLCIR-ITRON BOX AND LID OR APPROVED EQUAL.
c. REMOVE EX SERVICE FROM METER BOX WHEN INSTALLING NEW SERVICE.

LAY LENGTHS FOR METERS	
METER SIZE	LAYING LENGTH
5/8" X 3/4"	7-1/2"
1"	11"
1-1/2"	1' 1-1/4"
2"	1' 5-1/4"

**STANDARD METER BOX
INSTALLATION DETAIL (N.T.S.)**

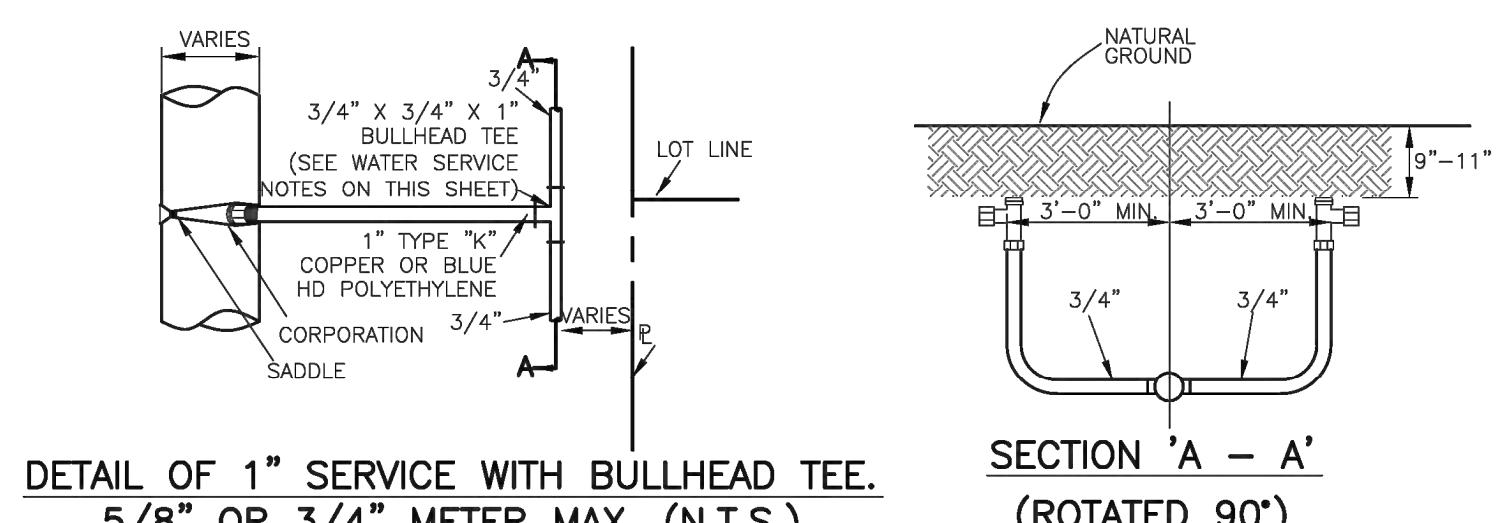


**BASS & HAYS 5LIDP 7
METER LID DETAIL ***

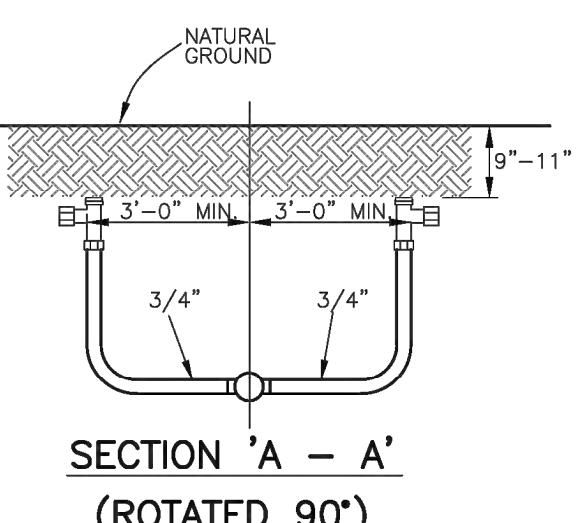
* OR APPROVED EQUAL

**BASS & HAYS 3LIDP 7
METER LID DETAIL ***

4	<input type="checkbox"/>					
3	<input type="checkbox"/>					
2	<input type="checkbox"/>					
1	<input type="checkbox"/>					
No. <input type="checkbox"/>	Description					
Revisions						
CERTIFICATION: THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS HEREUPON. I, THE SIGNATOR, ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.						
WATER 2 OF 2						
STANDARD DETAILS						
<i>Grand Prairie</i> TEXAS ENGINEERING						
DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	R.A.K.	JAN. 2021	N.T.S.		



**DETAIL OF 1" SERVICE WITH BULLHEAD TEE.
5/8" OR 3/4" METER MAX. (N.T.S.)**



**SECTION 'A - A'
(ROTATED 90")**

PIPE EMBEDMENT DETAILS

GRAND PRAIRIE MUNICIPAL AIRPORT PERIMETER ROAD IMPROVEMENTS GRAND PRAIRIE, TX

SHEET NAME:

PROJECT NAME:

SEAL: TBPE Firm Registration No. F-1356
SHEET NO. 9/6/2024

KSA

8864 Surveyor Dr.
McKinney, TX 75070
www.ksaeng.com



9/11/14
9/6/2024

SEAL: TBPE Firm Registration No. F-1356
SHEET NO. 9/6/2024

9/6/2024

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GENERAL NOTES:

- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF GRAND PRAIRIE, WHICH HAS ALSO ADOPTED THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 100, ARLINGTON, TEXAS 76001-3530. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKSDFWFO.COM
- B. FLEXIBLE BASE MATERIAL SHALL BE TYPE "A" GRADE 1 PER TxDOT ITEM 247 AND NCTCOG ITEM 301.5
- C. MODIFIED FLOWABLE FILL (REFER TO N.C.T.C.O.G. ITEM 504.2.3.3): MODIFIED FLOWABLE BACKFILL AREA OF POSSIBLE FUTURE EXCAVATION SUCH AS UTILITY INSTALLATIONS SHALL CONSIST OF A MIXTURE OF NATIVE SOILS OR MANUFACTURED MATERIALS, CEMENT AND/OR FLY ASH, AIR-ENTRAINING MATERIAL AND WATER WHICH PRODUCES A MATERIAL WITH UNCONFINED COMPRESSIVE STRENGTH OF BETWEEN 50-PSI AND 150-PSI (4 TO 13 KG/CM²) AFTER 28 DAYS. MODIFIED FLOWABLE BACKFILL MAY BE USED IN ANY EXCAVATION CLOSING OUT UTILITY EMBODIMENTS. ANY MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH A PLASTICITY INDEX OF <12 AND WITH 100% PASSING A ½ IN. SIEVE. THE FLOWABLE MIXTURE SHALL BE MIXED IN A PUG MIL, CONCRETE MIXER, OR TRANSIT MIXER AND SHALL HAVE A MINIMUM SLUMP OF 5 IN. (13 CM). FLOWABLE MIXTURE MUST BE ALLOWED TO SET PRIOR TO THE PLACEMENT OF ANY OVERLAY MATERIAL. REFER TO N.C.T.C.O.G. ITEM 504.2.3.3 FOR ADDITIONAL INFORMATION.
- D. FRANCHISE UTILITIES: FLOWABLE BACKFILL MAY BE USED IN PLACE OF FLEXIBLE BASE OR FLOWABLE BACKFILL BY FRANCHISE UTILITIES FOR LIMITED STREET REPAIRS WITH INSPECTOR APPROVAL.
- E. THE CONTRACTOR WILL BE REQUIRED TO RESTORE ANY PAVEMENT MARKINGS AND BUTTONS DAMAGED OR REMOVED IN THE PAVEMENT REMOVAL AND REPLACEMENT WORK UNLESS OTHERWISE PROVIDED FOR IN THE PLANS AND SPECIFICATIONS. SUCH COST SHALL BE CONSIDERED SUBORDINARY TO THE CONTRACT PAY TERMS.

SPECIFIC NOTES:

1. FULL-DEPTH SAWCUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT PRIOR TO OPENING THE DITCH IN ORDER TO ENSURE A NEAT STRAIGHT EDGE.
2. REQUIRED EMBODIMENT MATERIAL SHALL EXTEND TO 6 INCHES ABOVE PIPE.
3. MODIFIED FLOWABLE BACKFILL MAY BE USED IN PLACE OF FLEXIBLE BASE MATERIAL.
4. 6" OF CONCRETE REPAIR SHALL MATCH EXISTING PAVING JOINT OR 8" MINIMUM, WHICHEVER IS GREATER.
5. REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.
6. RECOMMENDED WIDTHS OF VARIOUS TRENCHES DEPEND ON DEPTH AND SOIL MATERIAL. PAVEMENT REPAIRS SHOULD BE CARRIED TO THE EXISTING PAVING JOINT WHERE FINAL SAW CUT IS WITHIN 3' OR LESS OF EXISTING JOINT.
7. MECHANICALLY TAMP NATIVE MATERIAL (6" CLODS OR SMALLER IN 6"-8" LIFTS) TO 95% OF THE MAXIMUM DRY DENSITY DETERMINED BY THE STD. PROCTOR TEST, ASTM D692-04, OR TxDOT 303.2.12.1.1.
8. CONCRETE FOR PAVING REPAIRS SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
9. ALL REINFORCING STEEL SHALL BE DETAILED AS PLACED IN ACI 318-11, ACI 318-15, AND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
10. THE CONTRACTOR SHALL USE A LIQUID MEMBRANE-FORMING CURING COMPOUND PER N.C.T.C.O.G. ITEM 303.2.12.1.1.
11. STORM DRAIN PIPES AND CULVERTS WITH SLOPES EXCEEDING 10% SHALL BE BACKFILLED WITH FLOWABLE FILL MATERIAL BETWEEN SPRING LINE AND 6" (INCHES) ABOVE THE STORM DRAIN PIPE.
12. FLEXIBLE BASE MATERIAL SHALL BE TYPE "A" GRADE 1 IN ACCORDANCE WITH TxDOT STANDARD SPECIFICATIONS ITEM 247 LATEST REVISION.

1. □ ADDED FLEXIBLE BASE NOTE
No. □ Description
Date

2. □ Revisions

3. □ CERTIFICATION:
THIS CITY OF GRAND PRAIRIE
STANDARD DETAIL SHEET IS
AUTHORIZED FOR USE IN THIS
PROJECT BY THE ENGINEER
WHOSE SEAL APPEARS ON THIS
SHEET. THIS ENGINEER IS ALSO
CERTIFYING THAT THE CONTENT
OF THE DETAILS AND NOTES ON
THIS SHEET HAVE NOT BEEN ALTERED
FROM THOSE RECEIVED FROM THE
CITY OF GRAND PRAIRIE.

4. □ DRAWN BY: JB
5. □ DESIGNED BY: CP
6. □ LATEST REVISION: 9/6/2024
7. □ KSA JOB #: 102266

8. □ PROJECT NAME:

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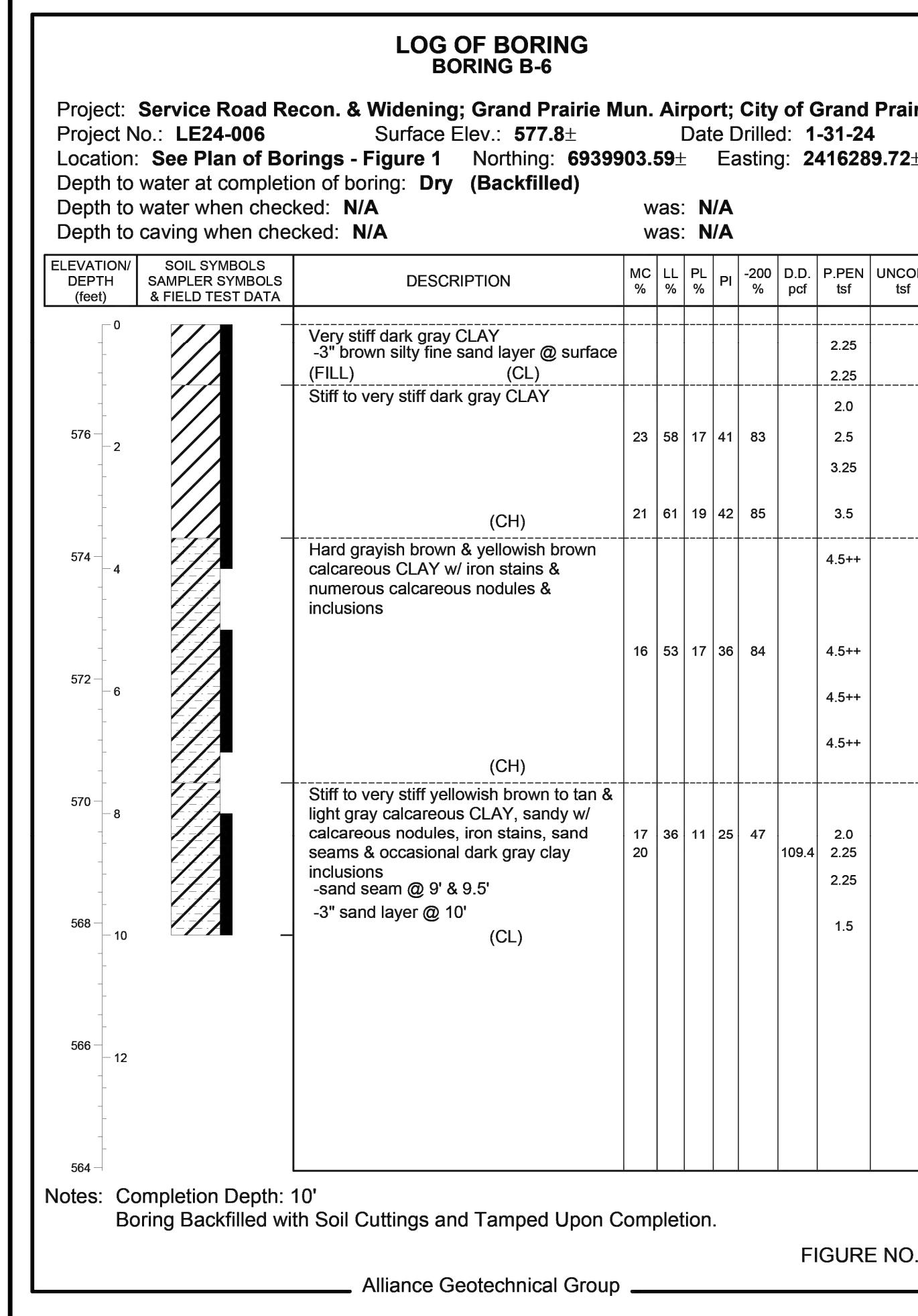
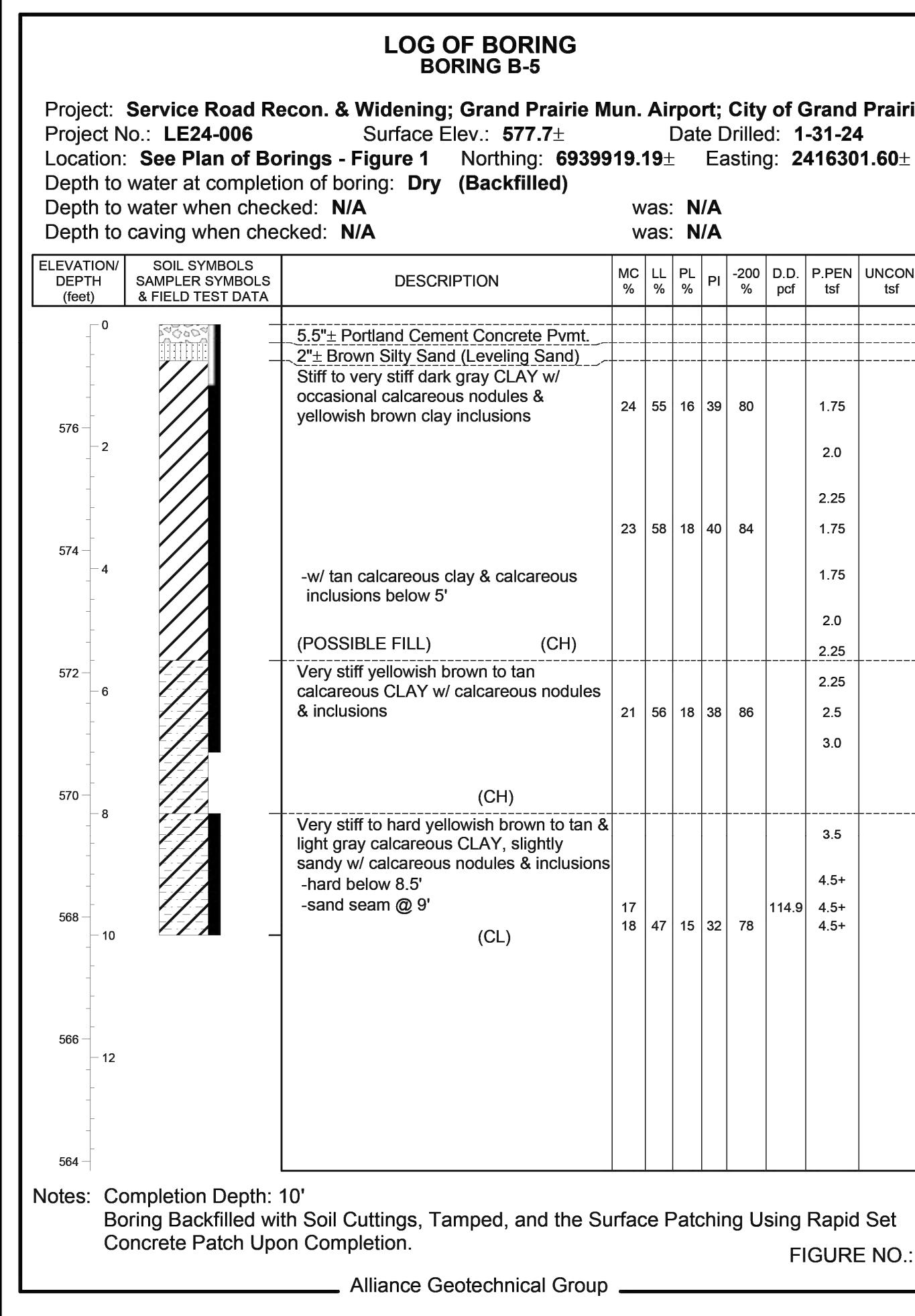
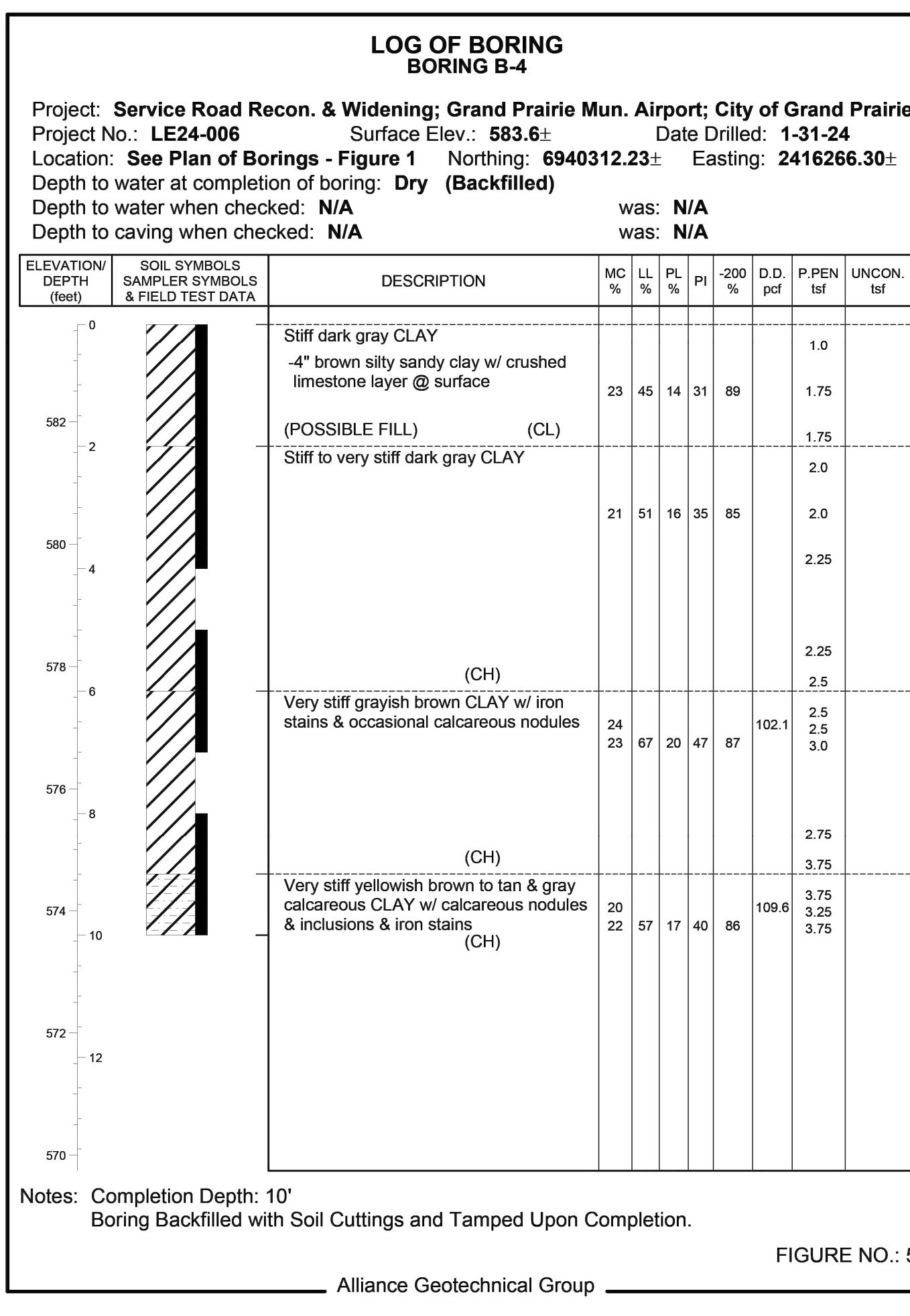
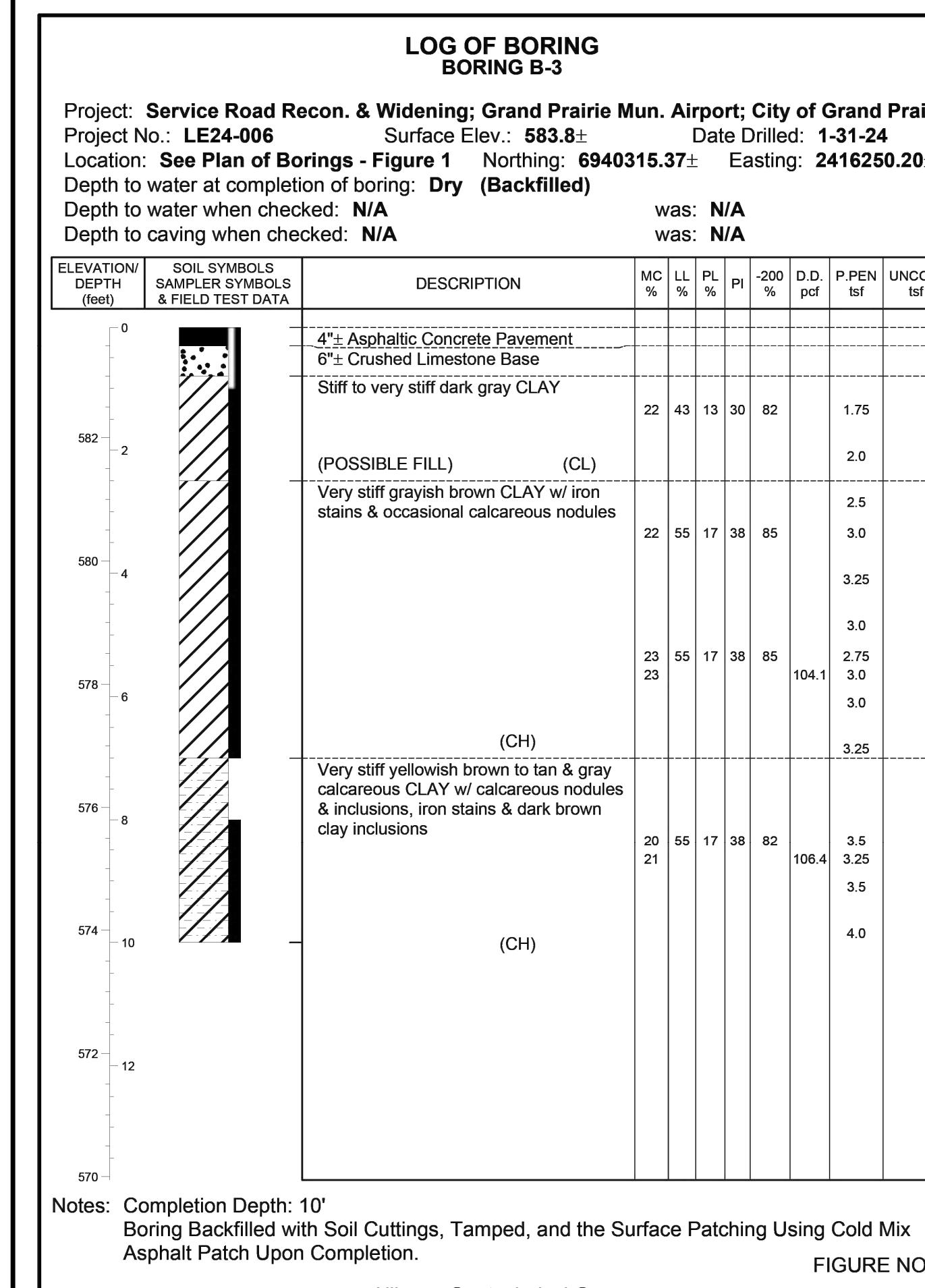
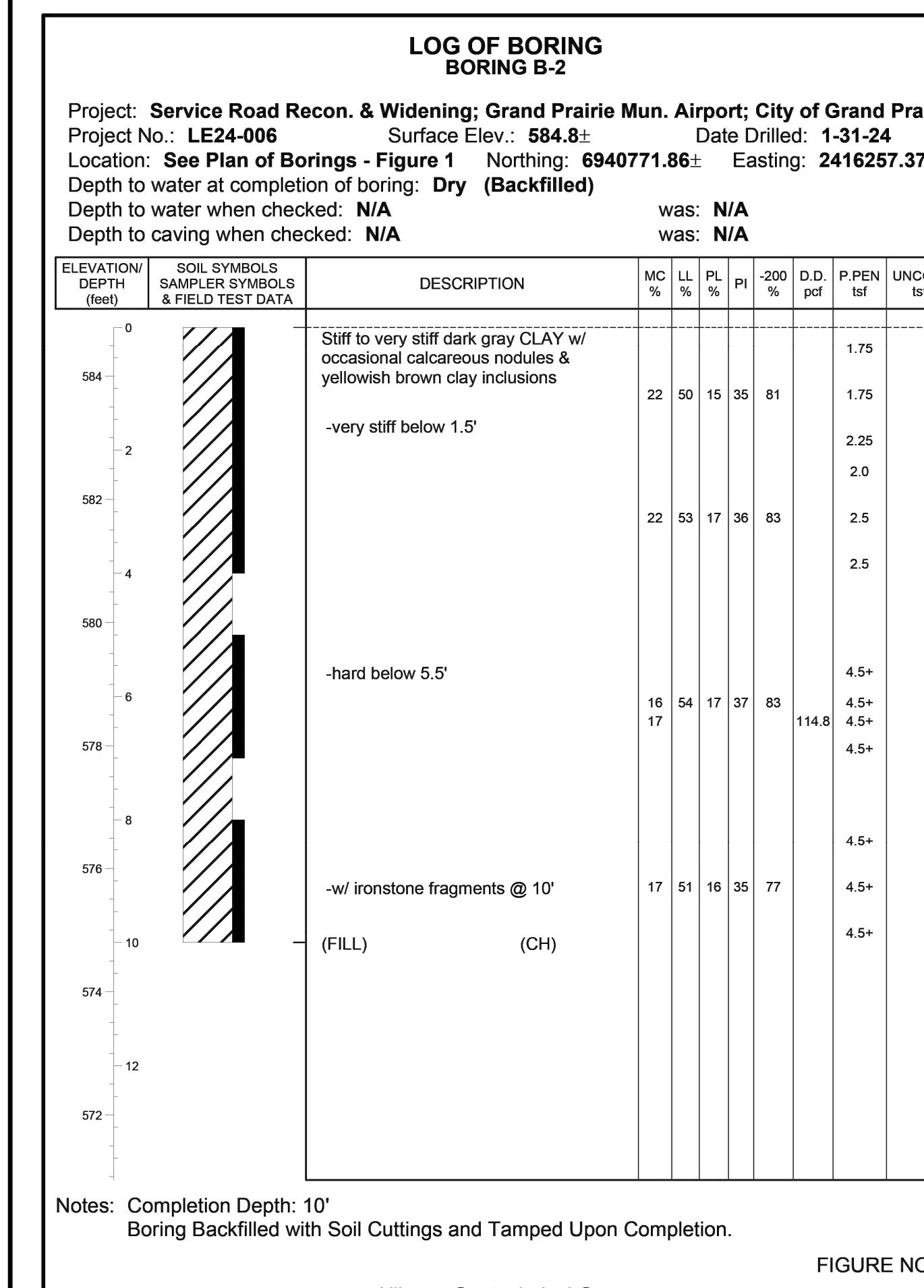
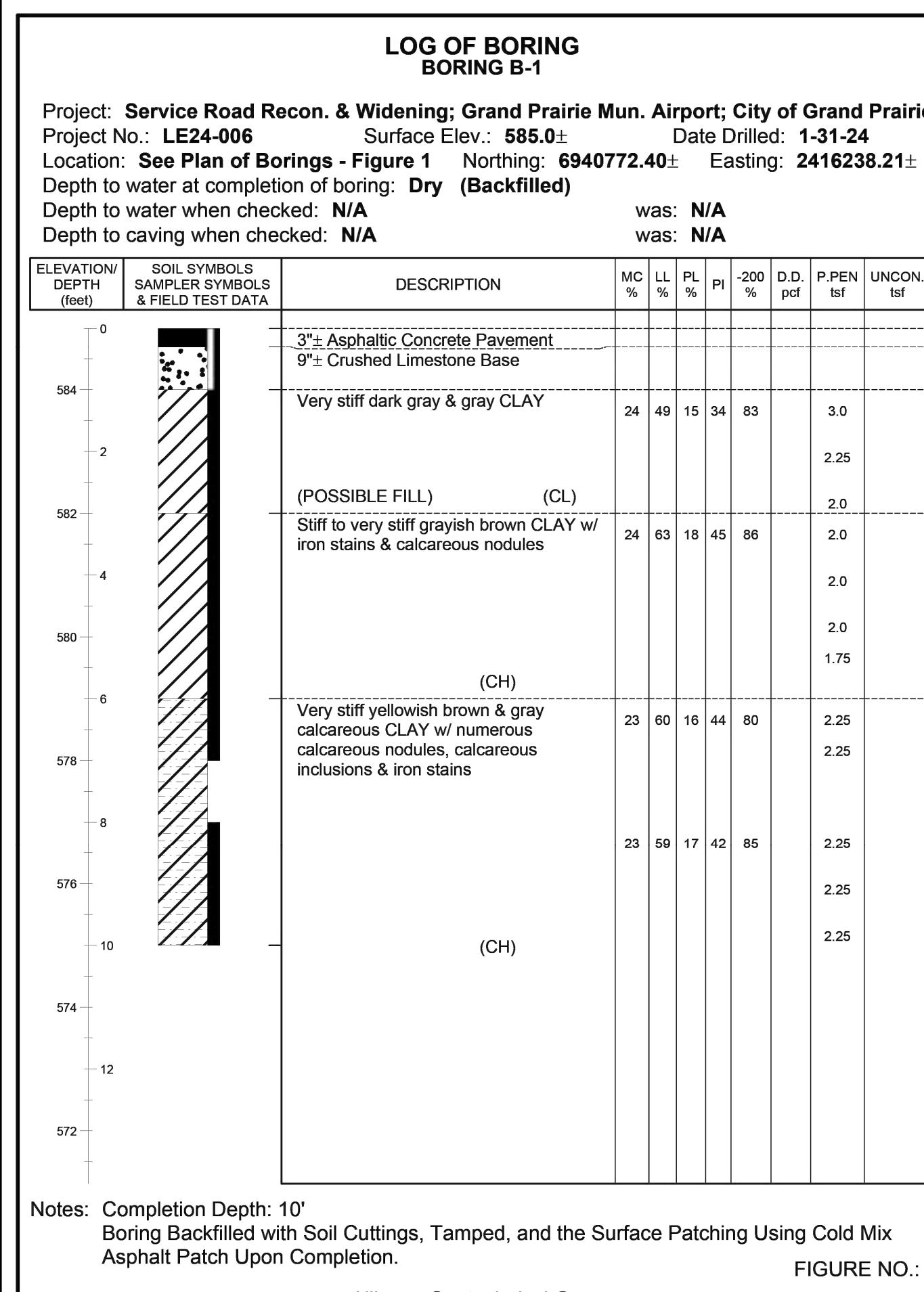
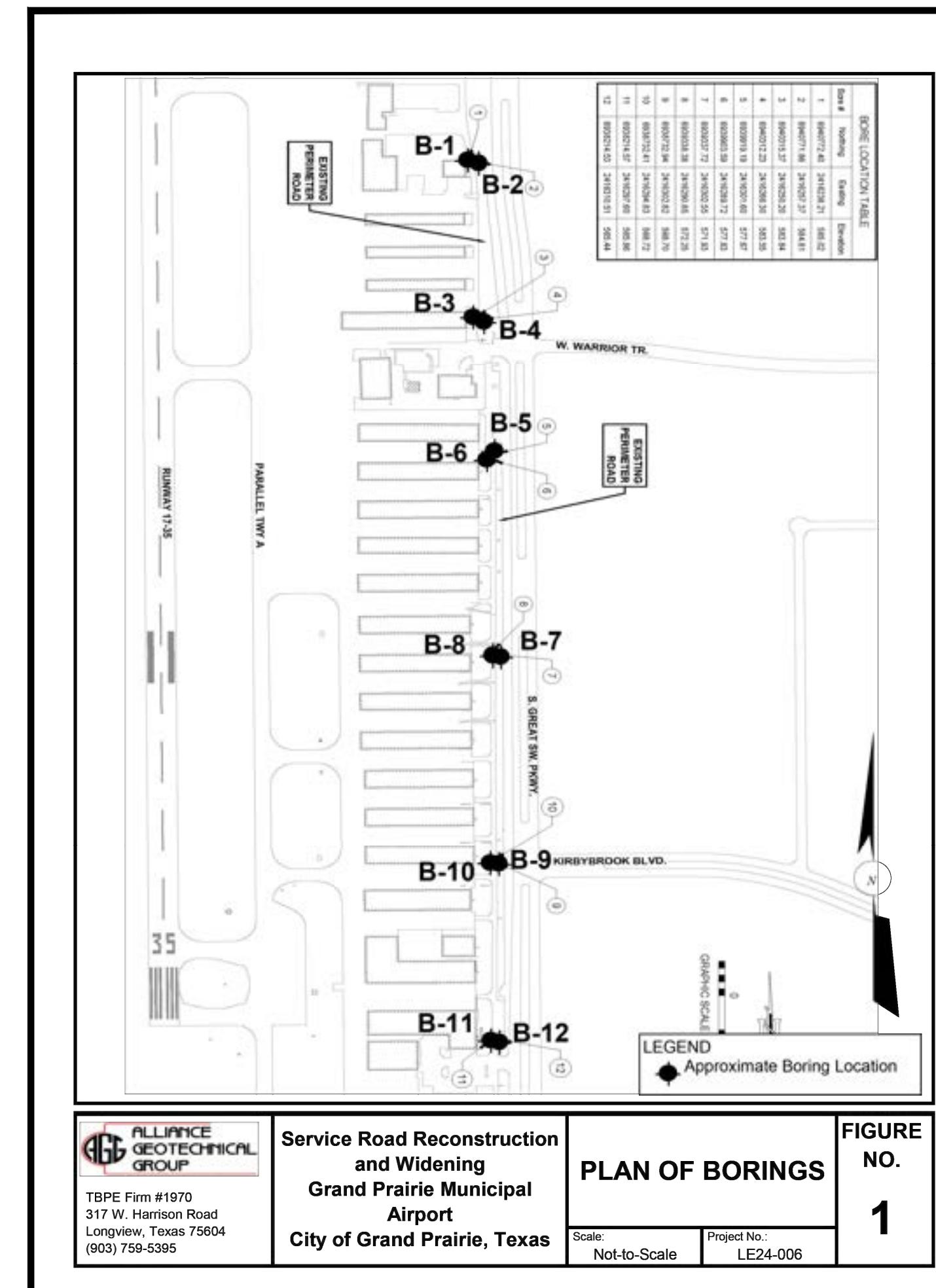
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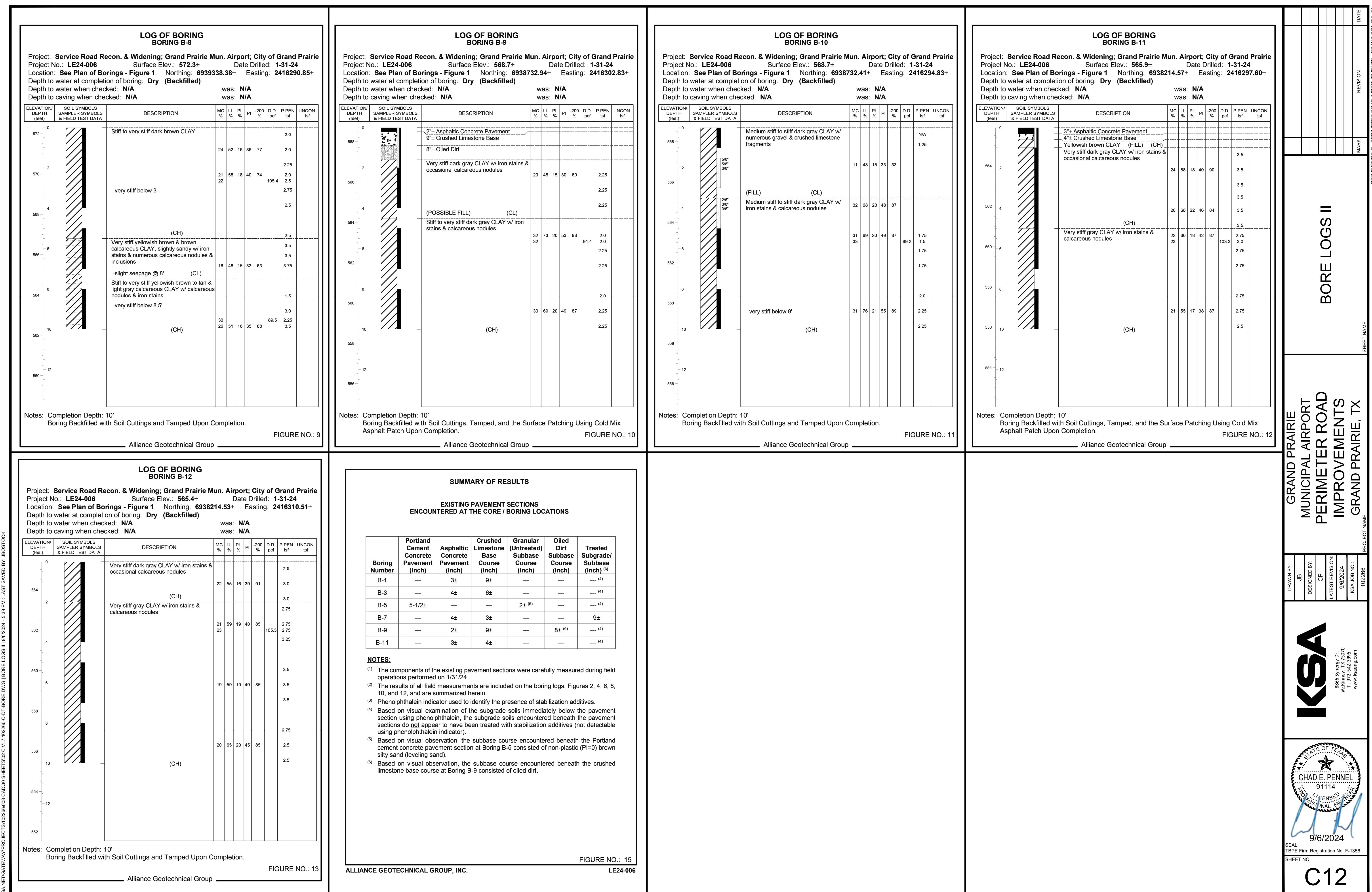
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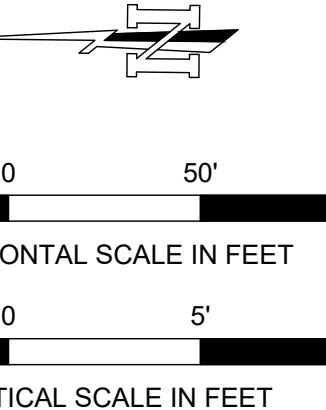
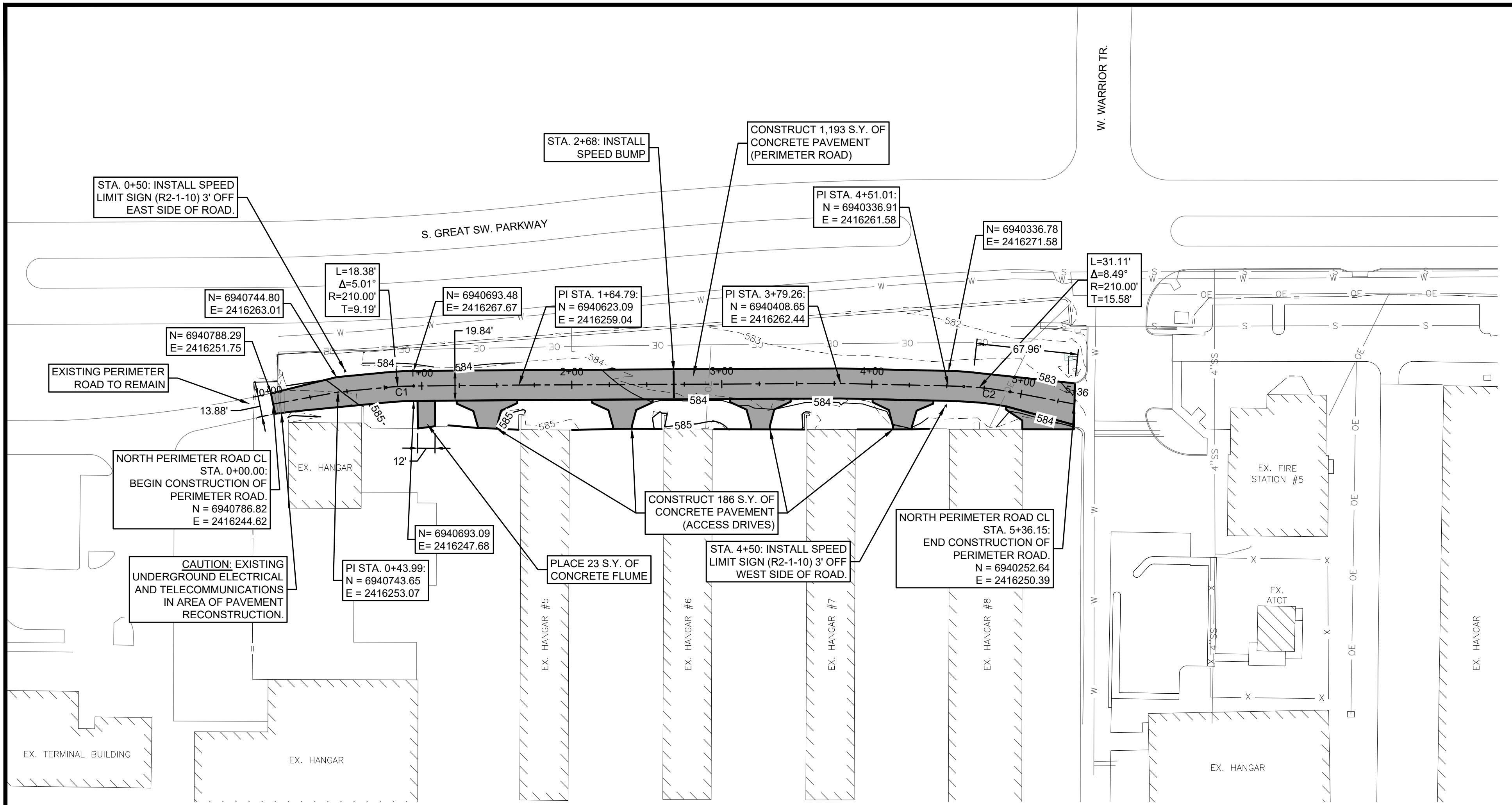
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ES:

THE CONTRACTOR SHALL MATCH THE EXISTING PAVEMENT ELEVATIONS ALONG EACH HANGAR ACCESS TAXILANE WHEN CONSTRUCTING DRIVEWAYS.

PLACE 6" WIDE YELLOW REFLECTORIZED PAINT STRIPE (WITH 6" BLACK OUTLINE ON EACH SIDE) ALONG THE ENTIRE LENGTH OF THE CENTERLINE OF ROAD.

SEE SHEET C18-C20 FOR DRIVEWAYS DETAIL.

CAUTION: EXISTING UTILITIES ARE LOCATED IN AND AROUND THE AREA OF THE PERIMETER ROAD RECONSTRUCTION, INCLUDING BUT NOT LIMITED TO WATER SERVICES AND STRUCTURES, SANITARY SEWER SERVICES AND STRUCTURES, STORM DRAINAGE PIPES AND STRUCTURES, UNDERGROUND/OVERHEAD POWER LINES, AND GAS SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO EXISTING UTILITIES (UNDERGROUND OR OVERHEAD) THAT ARE NOT SHOWN ON THESE PLANS TO BE REMOVED AND/OR RELOCATED DUE TO THE REPLACEMENT OF THE PERIMETER ROAD PAVEMENT. ALL DAMAGES SHALL BE PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT OR THE CLIENT.



LEGEND

MARK	DESCRIPTION
— W —	EXISTING WATER LINE
— S —	EXISTING SEWER LINE
— - - - -	EXISTING DRAINAGE PIPE
— UT —	EXISTING UNDERGROUND PHONE LINE
— OE —	EXISTING OVERHEAD POWER LINE
— UE —	EXISTING UNDERGROUND POWER LINE
— = —	EXISTING PERIMETER FENCE
	EXISTING HANGAR
	PROPOSED PAVEMENT

XCAVATION/EMBANKMENT NOTES:

- IT IS THE INTENT OF THE GRADING PLAN TO BE USED AS A GUIDE TO ENSURE THAT NO AREAS POND WATER UPON COMPLETION OF THE PROJECT. ANY AREAS OF PONDING WATER AFTER THE COMPLETION OF PAVEMENT CONSTRUCTION SHALL BE SAWCUT AND REPAIRED TO ELIMINATE THE PONDING AREAS. NO DIRECT PAY.

NO MODIFICATION TO THE QUANTITIES OR PRICE WILL BE MADE FOR DIFFERENCES BETWEEN ACTUAL QUANTITIES AND THE ENGINEER'S ESTIMATED QUANTITIES SHOWN BELOW. QUANTITIES ARE PLAN QUANTITIES ONLY.

NORTH PERIMETER:

EXCAVATION= 25 CY
EMBANKMENT= 219 CY

THE QUANTITY OF EXCAVATION IS NOT ADEQUATE FOR REQUIRED EMBANKMENT. OBTAIN BORROW EXCAVATION FROM PRIMARY LOCATION SHOWN ON C01. IF ADEQUATE MATERIAL IS NOT AVAILABLE AT PRIMARY, USE SECONDARY BORROW AREA..

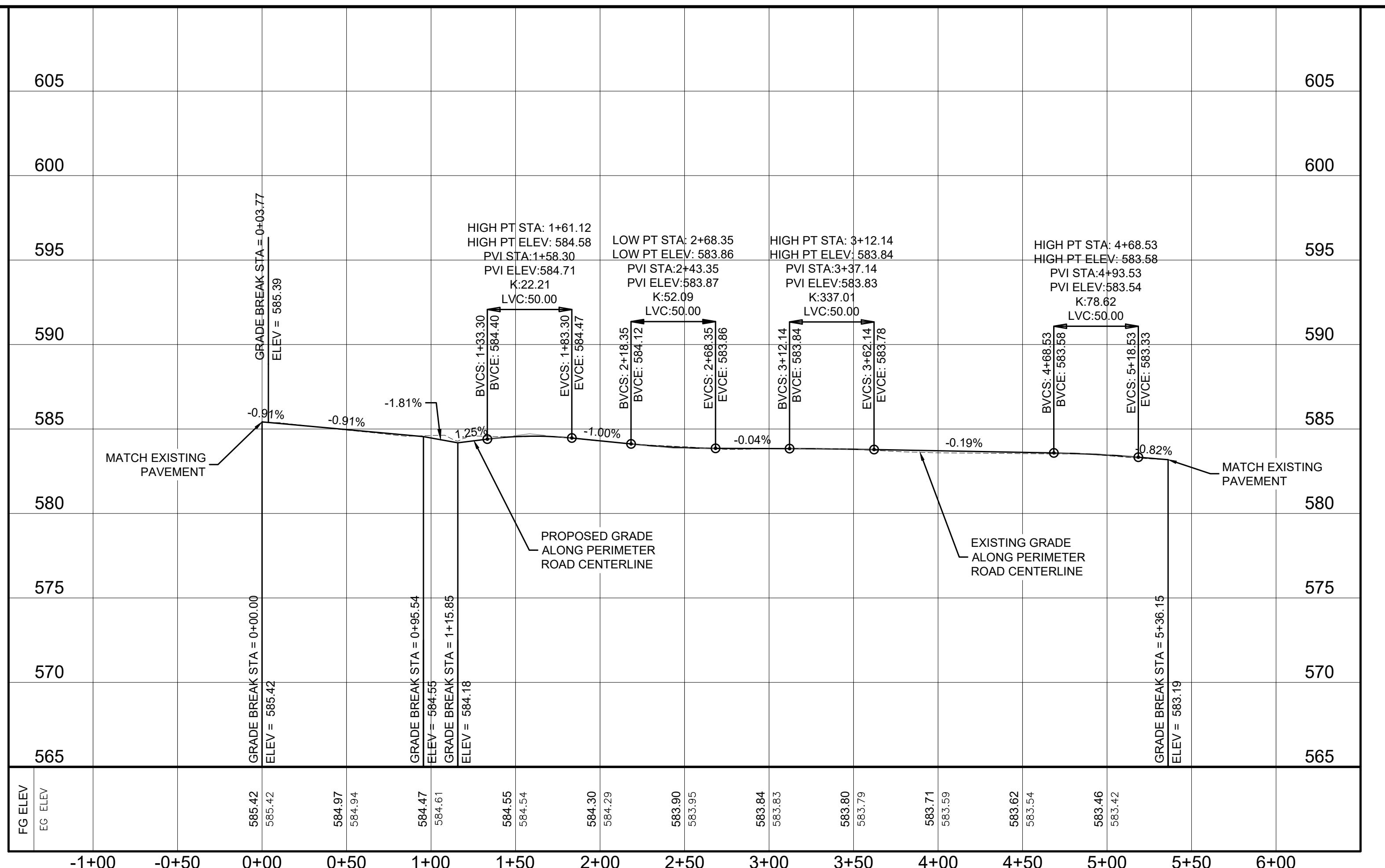
EXISTING CONTOURS INDICATE THE SURFACE OF EXISTING GROUND. PROPOSED CONTOURS INDICATE FINAL GRADES AT TOP OF THE PROPOSED FINAL GRADE. QUANTITIES FOR EXCAVATION AND EMBANKMENT ARE CALCULATED BY COMPARING EXISTING SURVEY DATA (EXISTING CONTOURS) TO THE FINAL EARTHWORK DESIGN GRADES (TOP OF SUBGRADE), AFTER PAVEMENT REMOVAL.

THE CONTRACTOR SHALL REMOVE NON-PLASTIC MATERIALS FROM THE SUBGRADE SOILS PRIOR TO BEGINNING SUBGRADE SOIL STABILIZATION OPERATIONS.

ALL UNSUITABLE EXCAVATED MATERIAL SHALL BE HAULED OFF-SITE. EXISTING STORM SEWERS AND INLETS LOCATED WITHIN THE LIMITS OF GRADING SHALL BE PROTECTED TO THE GREATEST EXTENT PRACTICAL. WHERE EXISTING PIPES AND/OR INLETS ARE DAMAGED DUE TO CONSTRUCTION ACTIVITIES, THE DAMAGED MATERIAL SHALL BE REMOVED AND REPLACED AT THE NEAREST JOINT, OR PRACTICAL POINT, AS DETERMINED BY THE ENGINEER. IF THE JOINTS ARE GROUTED, SAWCUTTING MAY BE REQUIRED. ONCE REMOVED, THE CONTRACTOR SHALL DISPOSE OF THE DAMAGED PIPE OFFSITE AND SHALL REPLACE THE DAMAGED PIPE AT NO ADDITIONAL COST TO THE OWNER.

ALL SUITABLE EXCESS EXCAVATED MATERIAL SHALL BE SPREAD EVENLY IN AREAS ON THE AIRPORT AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF ALL UTILITIES PRIOR TO ANY EXCAVATION TAKING PLACE.

ROCKS 2" OR LARGER ON THE SURFACE OF THE GRADED AREA SHALL BE RAKED UP AND DISPOSED OF.



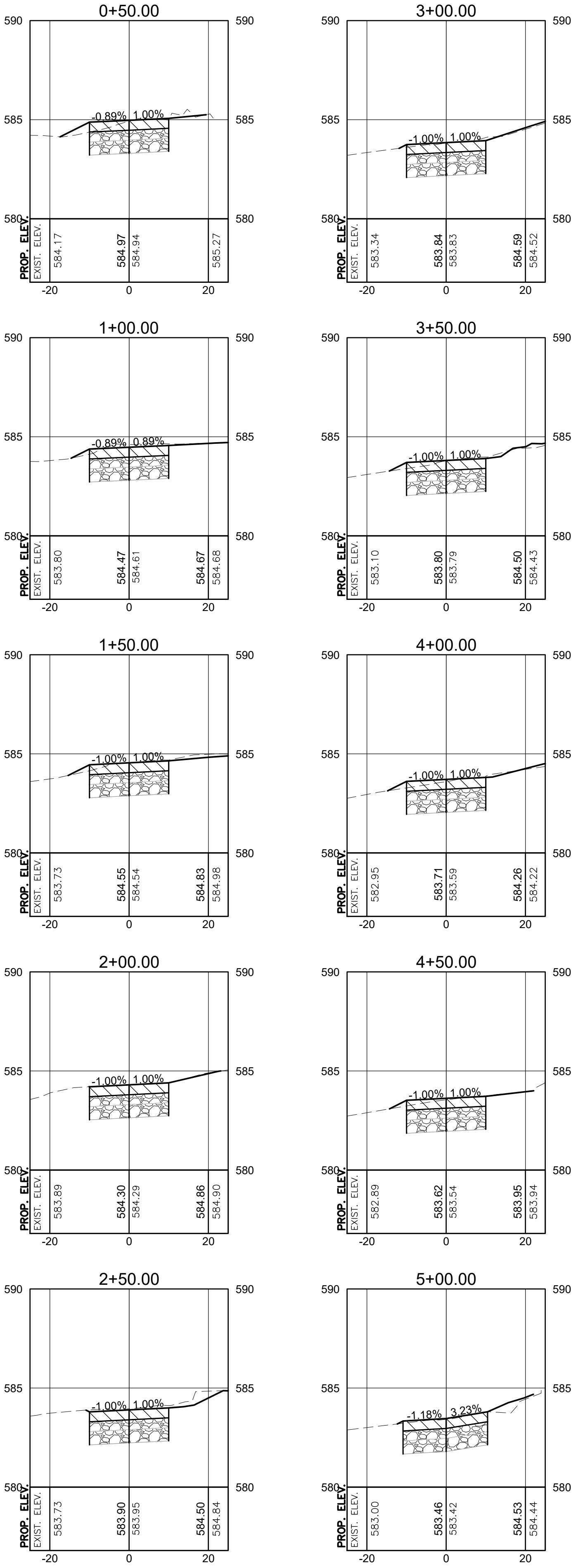
A circular Texas state seal for a professional engineer. The outer ring contains the words "STATE OF TEXAS" at the top and "PROFESSIONAL ENGINEER" at the bottom. The inner circle features a five-pointed star in the center, surrounded by a dotted line. Below the star, the name "CHAD E. PENNEL" is printed in capital letters. To the left of the name is the number "91114". Above the name, the word "LICENSED" is printed in capital letters.

9/6/2024

E Firm Registration No. F-1356
ET NO.

C13

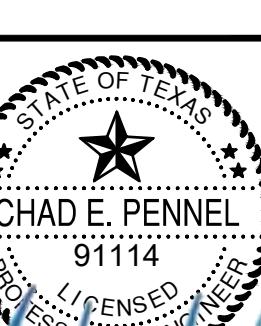
Page 1 of 1



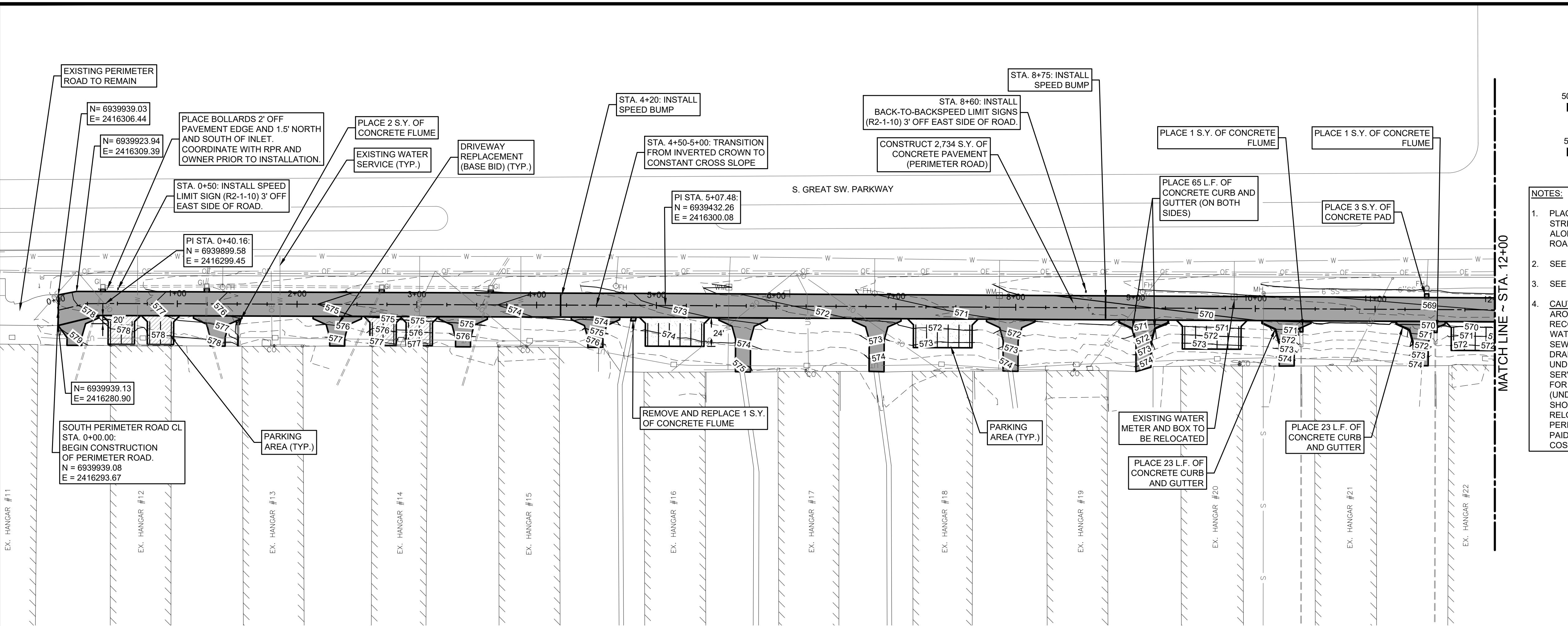
NORTH PERIMETER ROAD CROSS SECTIONS

**GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS
GRAND PRAIRIE, TX**

KSA



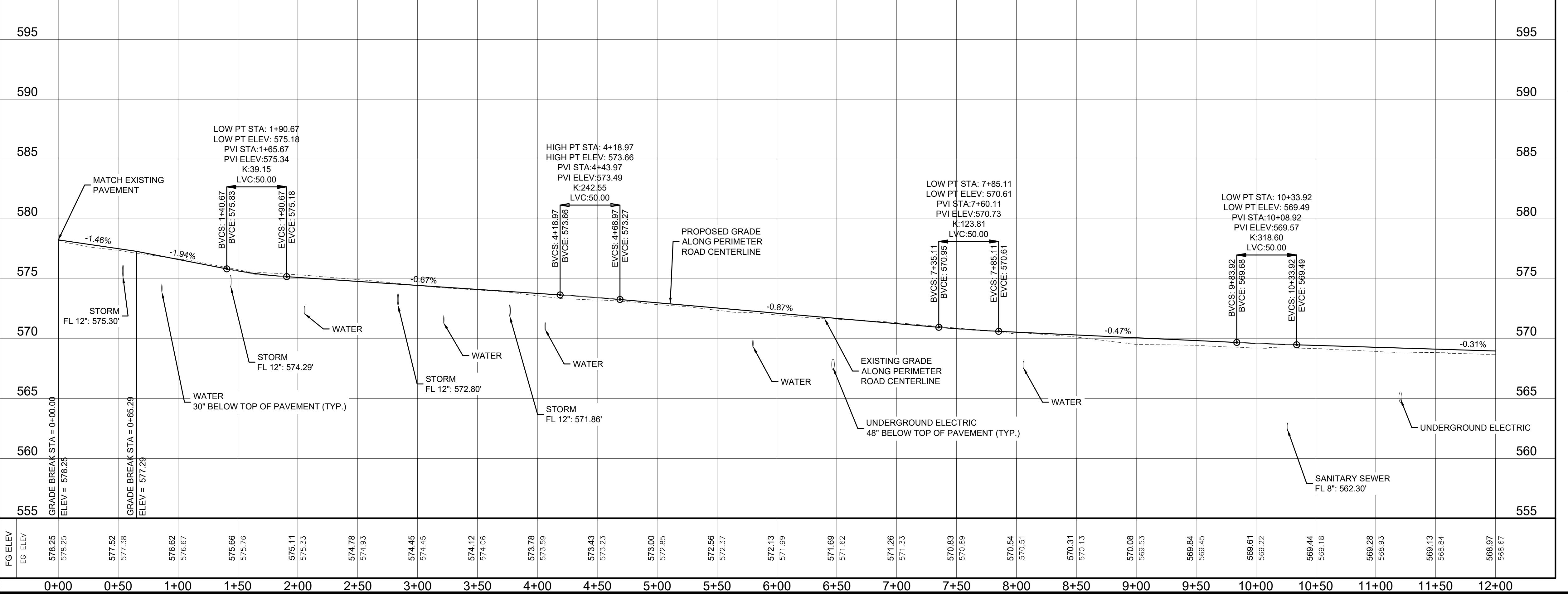
9/6/2024
C14



LEGEND	
MARK	DESCRIPTION
W	EXISTING WATER LINE
S	EXISTING SEWER LINE
—	EXISTING DRAINAGE PIPE
UT	EXISTING UNDERGROUND PHONE LINE
OE	EXISTING OVERHEAD POWER LINE
UE	EXISTING UNDERGROUND POWER LINE
=	EXISTING PERIMETER FENCE
▨	EXISTING HANGAR
■	PROPOSED PAVEMENT

KSA


C15

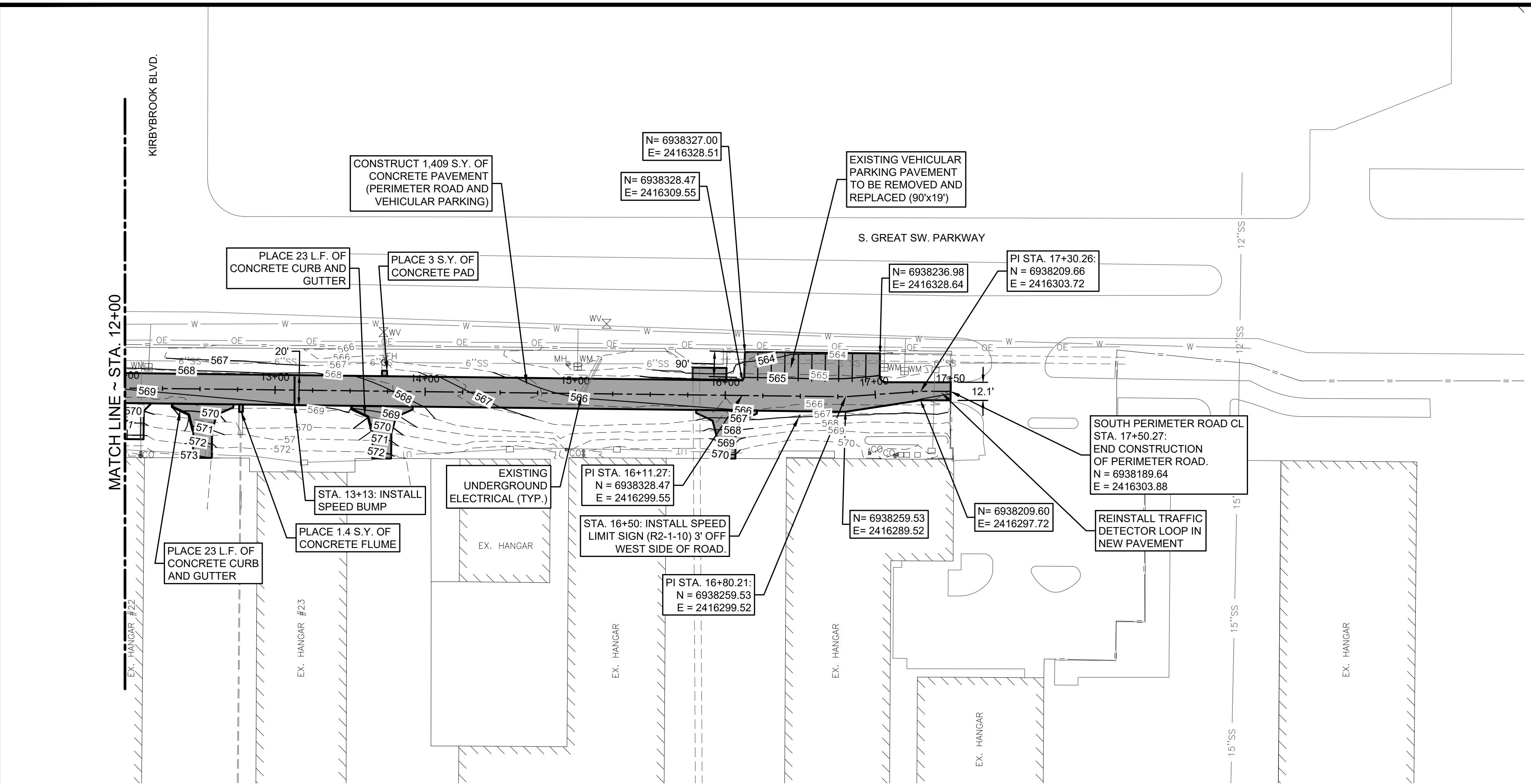


SOUTH PERIMETER ROAD PLAN-PROFILE
STA. 0+00 TO 13+00

PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX

MARK: REVISION DATE: DATE

MARK: SHEET NAME: SHEET NUMBER: C15



LEGEND	
MARK	DESCRIPTION
W	EXISTING WATER LINE
S	EXISTING SEWER LINE
D	EXISTING DRAINAGE PIPE
U	EXISTING UNDERGROUND PHONE LINE
OE	EXISTING OVERHEAD POWER LINE
UE	EXISTING UNDERGROUND POWER LINE
=	EXISTING PERIMETER FENCE
▨	EXISTING HANGAR
▨	PROPOSED PAVEMENT

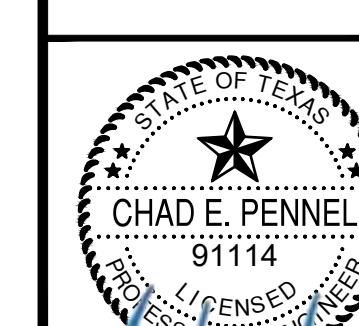
- NOTES:**
- PLACE 6" WIDE YELLOW REFLECTORIZED PAINT STRIPE (WITH 6" BLACK OUTLINE ON EACH SIDE) ALONG THE ENTIRE LENGTH OF THE CENTERLINE OF ROAD.
 - SEE SHEET C18-C20 FOR DRIVEWAY DETAIL.
 - CAUTION: EXISTING UTILITIES ARE LOCATED IN AND AROUND THE AREA OF THE PERIMETER ROAD RECONSTRUCTION, INCLUDING BUT NOT LIMITED TO WATER SERVICES AND STRUCTURES, SANITARY SEWER SERVICES AND STRUCTURES, STORM DRAINAGE PIPES AND STRUCTURES, UNDERGROUND/OVERHEAD POWER LINES, AND GAS SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO EXISTING UTILITIES (UNDERGROUND OR OVERHEAD) THAT ARE NOT SHOWN ON THESE PLANS TO BE REMOVED AND/OR RELOCATED DUE TO THE REPLACEMENT OF THE PERIMETER ROAD PAVEMENT. ALL DAMAGES SHALL BE PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT OR THE CLIENT.

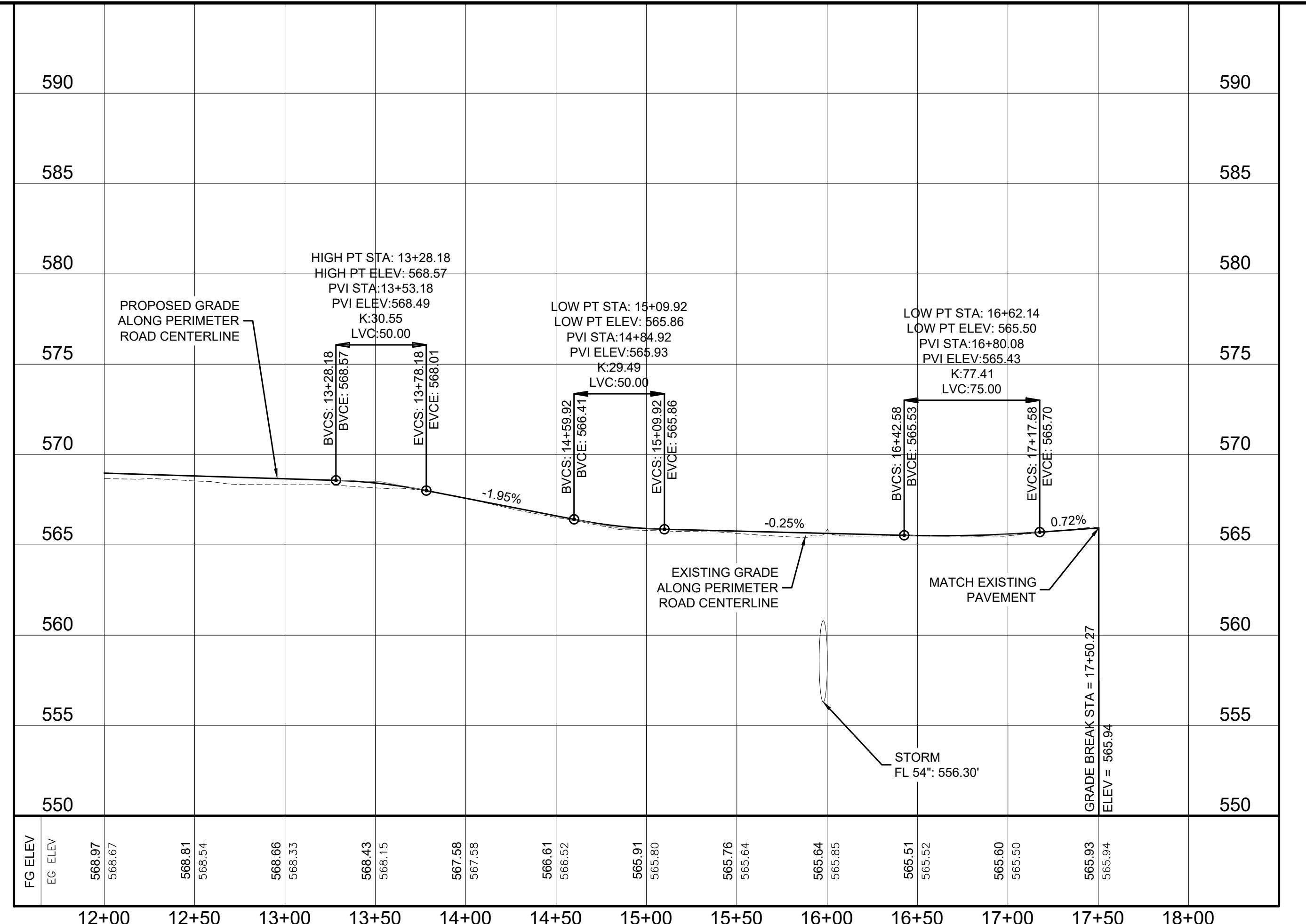
Know what's below.
Call before you dig.

SOUTH PERIMETER ROAD PLAN-PROFILE STA. 13+00 TO 18+00

SHEET NAME:

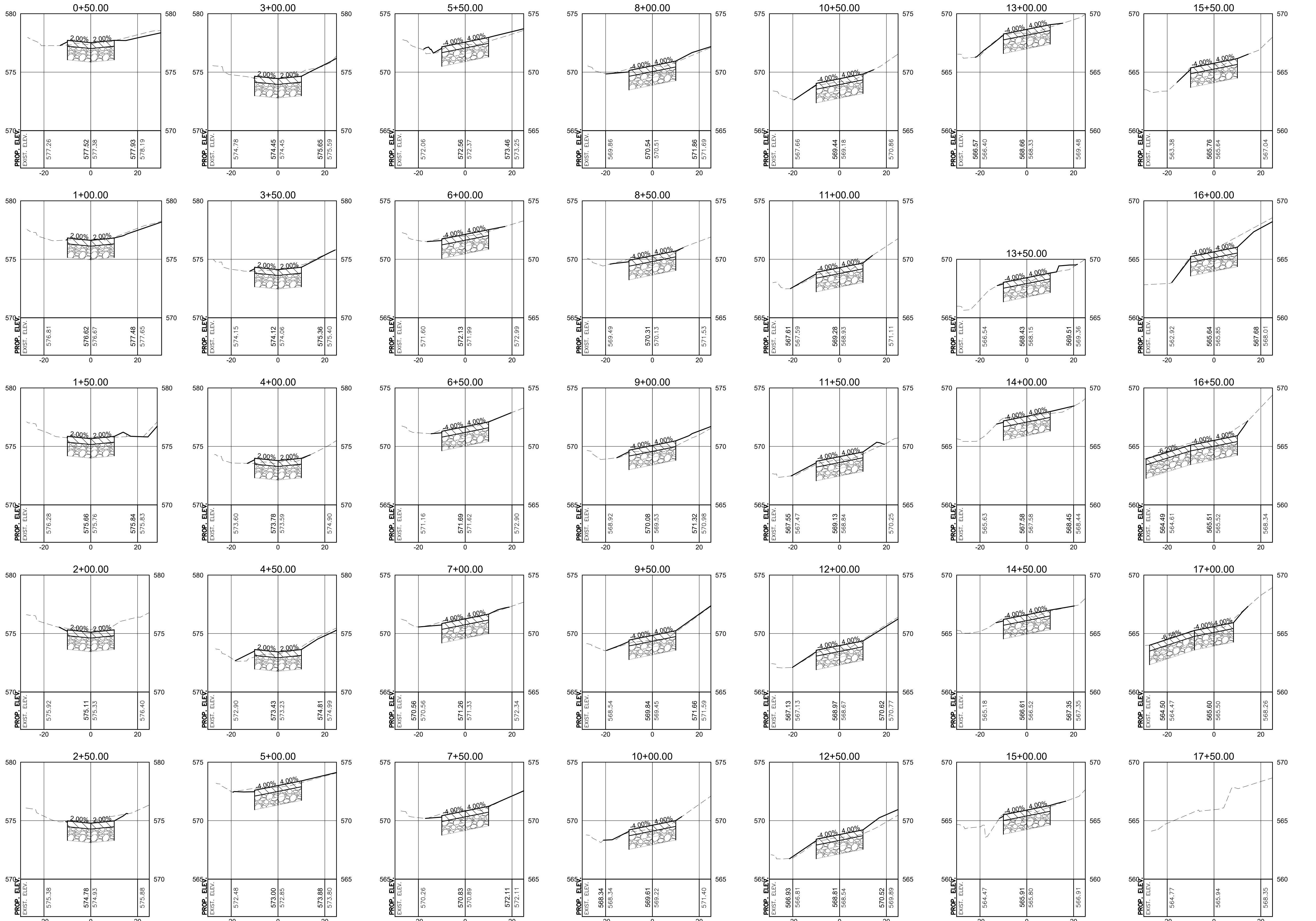
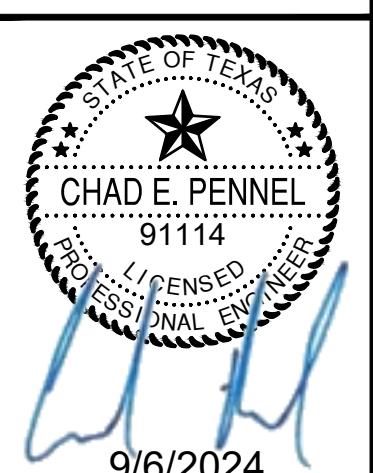
PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX

KSA
 8864 Surveyor Dr.
 McKinney, TX 75070
 www.ksaeng.com

 STATE OF TEXAS
 CHAD E. PENNER
 91114
 LICENSED PROFESSIONAL ENGINEER
 9/6/2024

 SEAL:
 TBPE Firm Registration No. F-1356
 SHEET NO. C16

EXCAVATION/EMBANKMENT NOTES:

- IT IS THE INTENT OF THE GRADING PLAN TO BE USED AS A GUIDE TO ENSURE THAT NO AREAS POND WATER UPON COMPLETION OF THE PROJECT. ANY AREAS OF PONDING WATER AFTER THE COMPLETION OF PAVEMENT CONSTRUCTION SHALL BE SAWCUT AND REPAIRED TO ELIMINATE THE PONDING AREAS. NO DIRECT PAY.
- NO MODIFICATION TO THE QUANTITIES OR PRICE WILL BE MADE FOR DIFFERENCES BETWEEN ACTUAL QUANTITIES AND THE ENGINEER'S ESTIMATED QUANTITIES SHOWN BELOW. QUANTITIES ARE PLAN QUANTITIES ONLY.
- SOUTH PERIMETER:**
EXCAVATION= 252 CY
EMBANKMENT= 306 CY
- THE QUANTITY OF EXCAVATION IS NOT ADEQUATE FOR REQUIRED EMBANKMENT. OBTAIN BORROW EXCAVATION FROM PRIMARY LOCATION SHOWN ON C01. IF ADEQUATE MATERIAL IS NOT AVAILABLE AT PRIMARY, USE SECONDARY BORROW AREA. EXISTING CONTOURS INDICATE THE SURFACE OF EXISTING GROUND.
- PROPOSED CONTOURS INDICATE FINAL GRADES AT TOP OF THE PROPOSED FINAL GRADE. QUANTITIES FOR EXCAVATION AND EMBANKMENT ARE CALCULATED BY COMPARING EXISTING SURVEY DATA (EXISTING CONTOURS) TO THE FINAL EARTHWORK DESIGN GRADES (TOP OF SUBGRADE), AFTER PAVEMENT REMOVAL.
- THE CONTRACTOR SHALL REMOVE NON-PLASTIC MATERIALS FROM THE SUBGRADE SOILS PRIOR TO BEGINNING SUBGRADE SOIL STABILIZATION OPERATIONS.
- ALL UNSUITABLE EXCAVATED MATERIAL SHALL BE HAULED OFF-SITE. EXISTING STORM SEWERS AND INLETS LOCATED WITHIN THE LIMITS OF GRADING SHALL BE PROTECTED TO THE GREATEST EXTENT PRACTICAL. WHERE EXISTING PIPES AND/OR INLETS ARE DAMAGED DUE TO CONSTRUCTION ACTIVITIES, THE DAMAGED MATERIAL SHALL BE REMOVED AND REPLACED AT THE NEAREST JOINT, OR PRACTICAL POINT, AS DETERMINED BY THE ENGINEER. IF THE JOINTS ARE GROUTED, SAWCUTTING MAY BE REQUIRED. ONCE REMOVED, THE CONTRACTOR SHALL DISPOSE OF THE DAMAGED PIPE OFF-SITE AND SHALL REPLACE THE DAMAGED PIPE AT NO ADDITIONAL COST TO THE OWNER.
- ALL SUITABLE EXCESS EXCAVATED MATERIAL SHALL BE SPREAD EVENLY IN AREAS ON THE AIRPORT AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF ALL UTILITIES PRIOR TO ANY EXCAVATION TAKING PLACE. ROCKS 2" OR LARGER ON THE SURFACE OF THE GRADED AREA SHALL BE RAKED UP AND DISPOSED OF.

C16

**KSA**

SEAL: TBPE Firm Registration No. F-1356

SHEET NO. 9/6/2024

C17

GRAND PRAIRIE MUNICIPAL AIRPORT PERIMETER ROAD IMPROVEMENTS GRAND PRAIRIE, TX

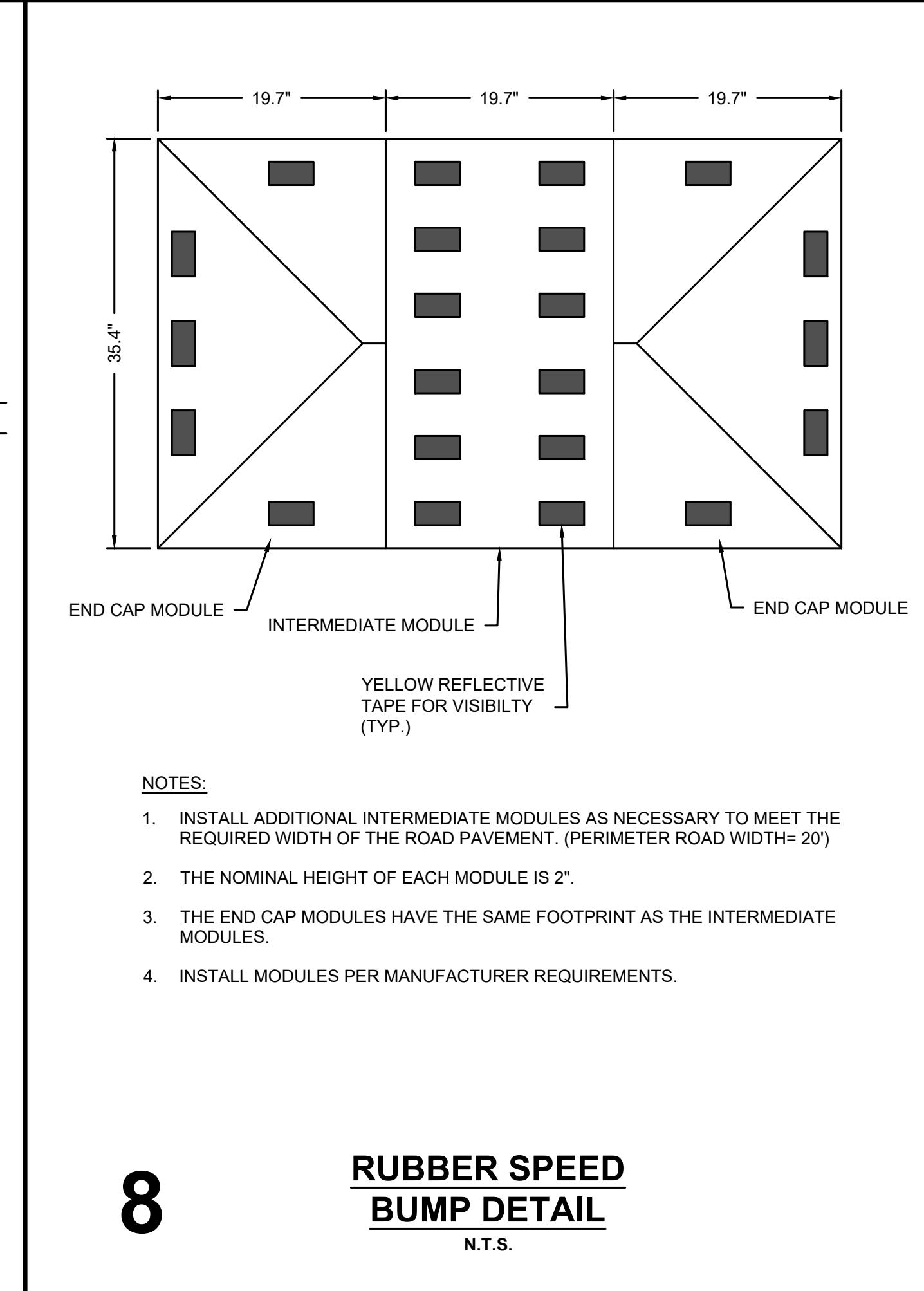
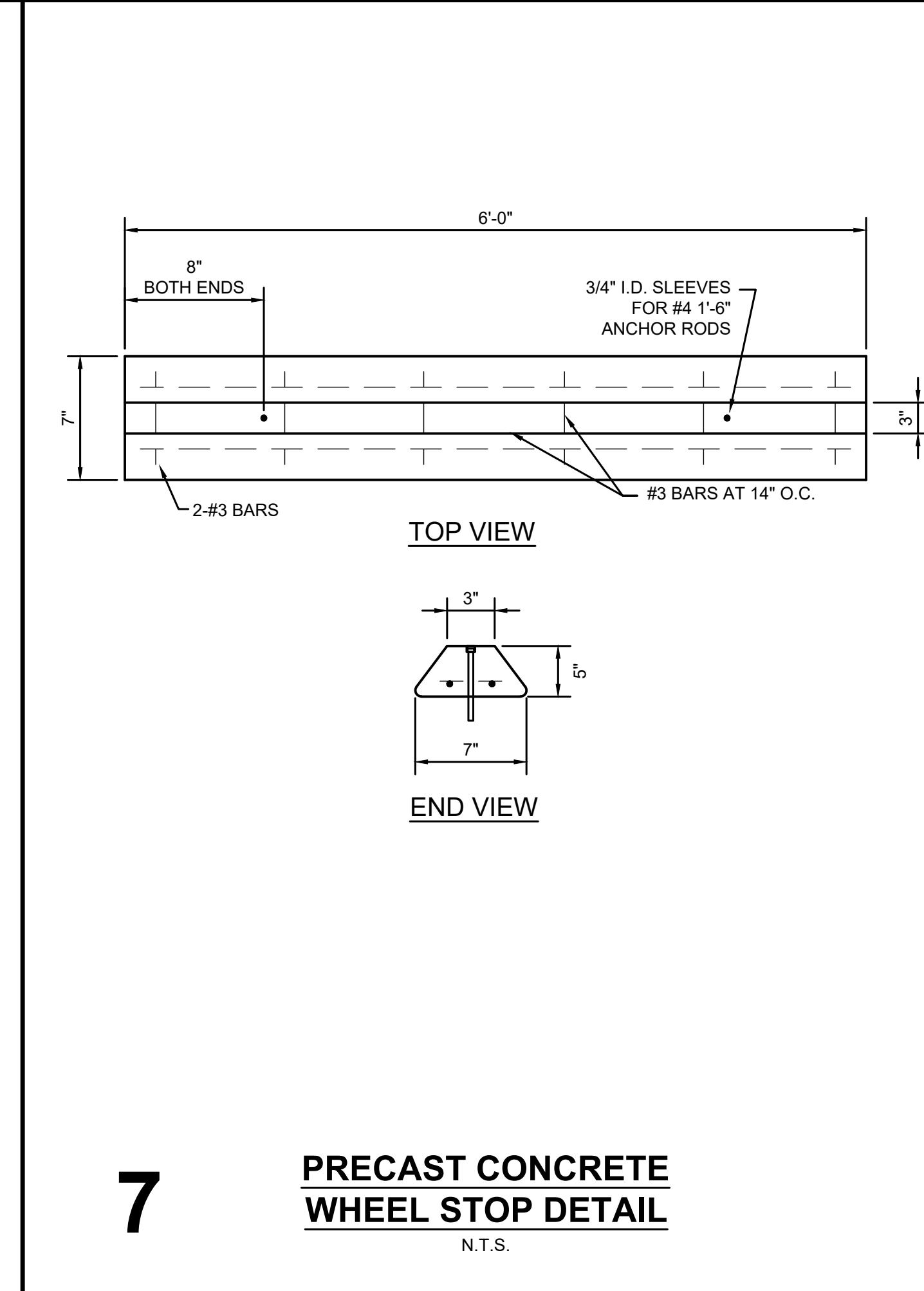
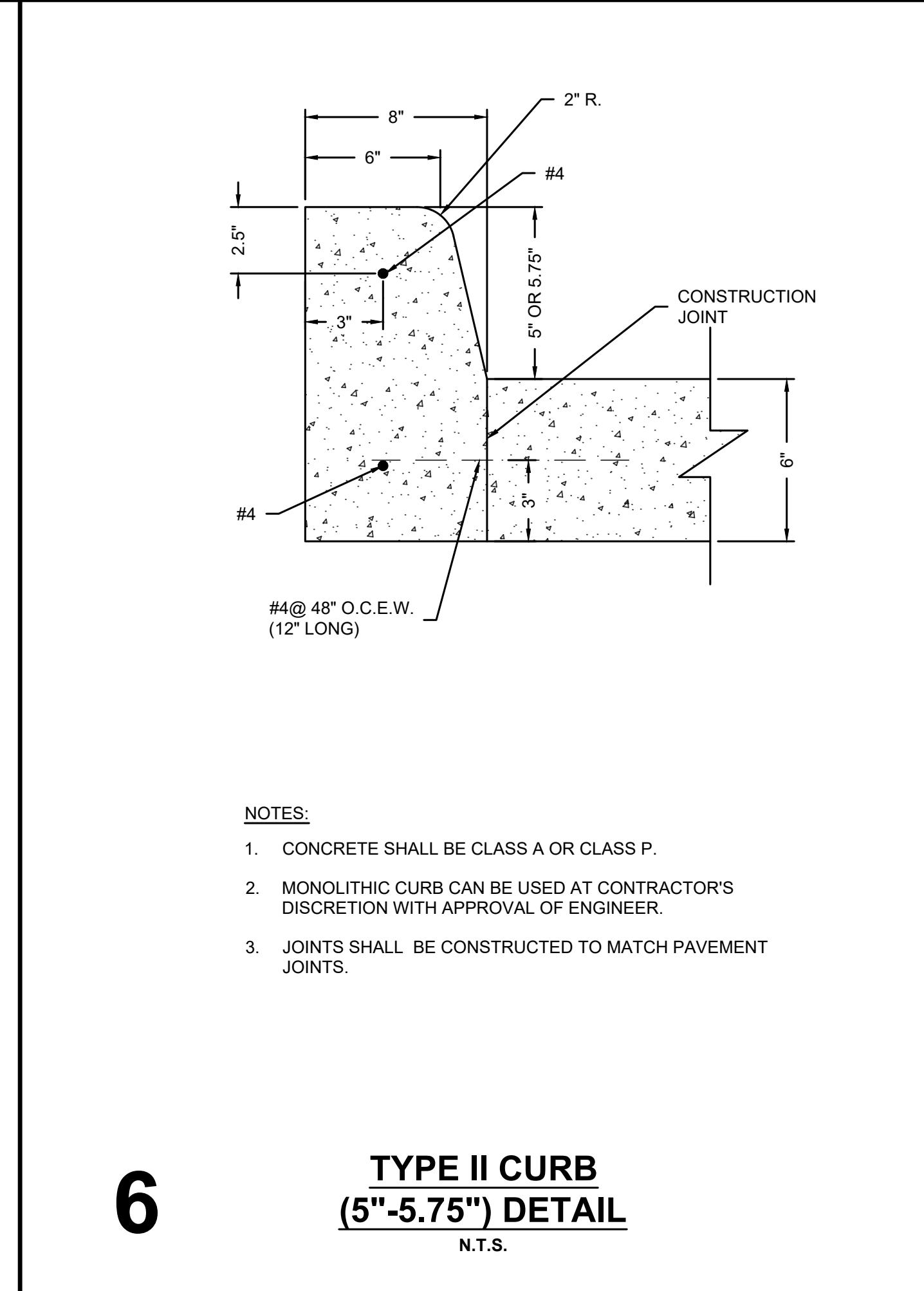
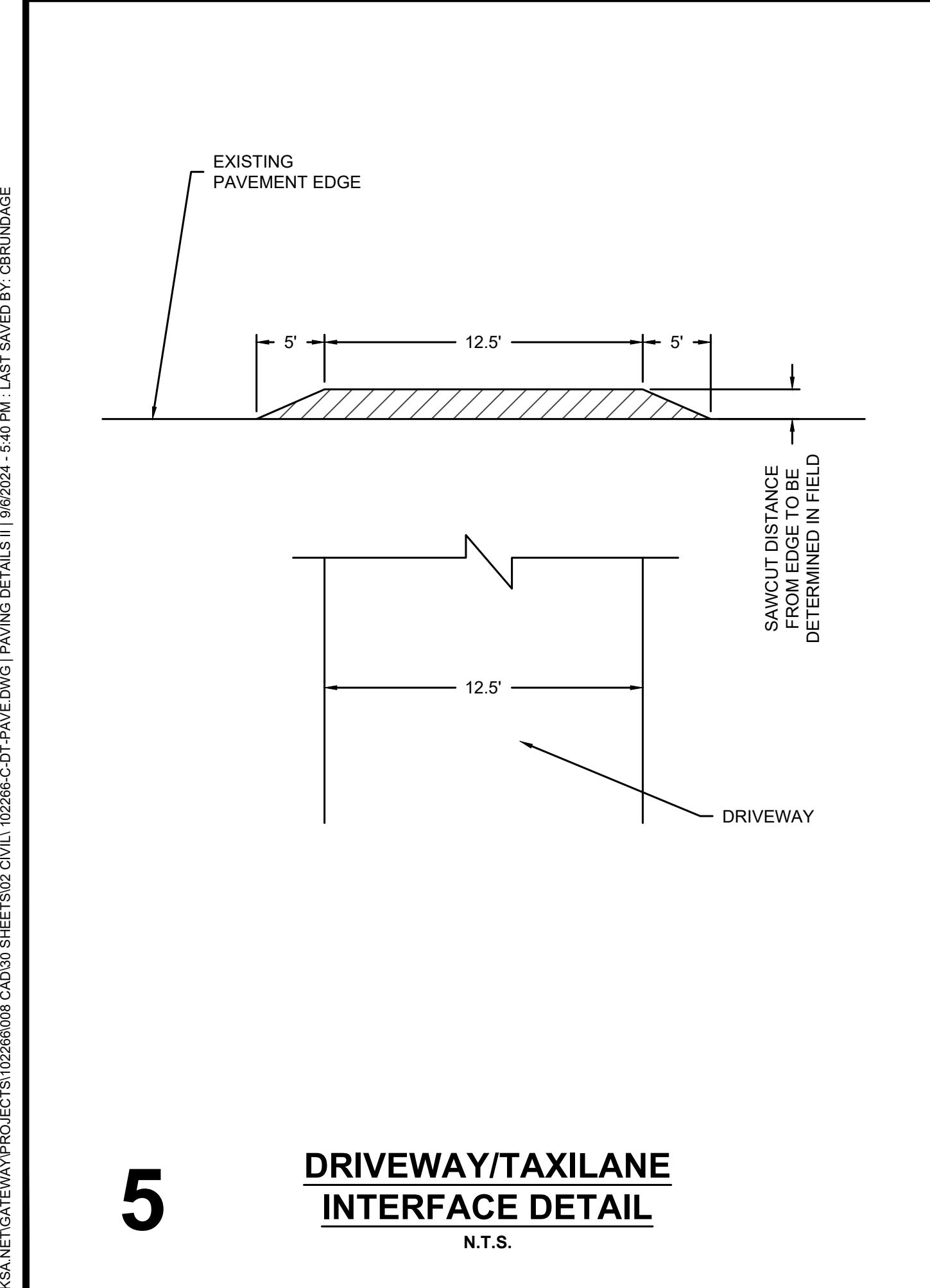
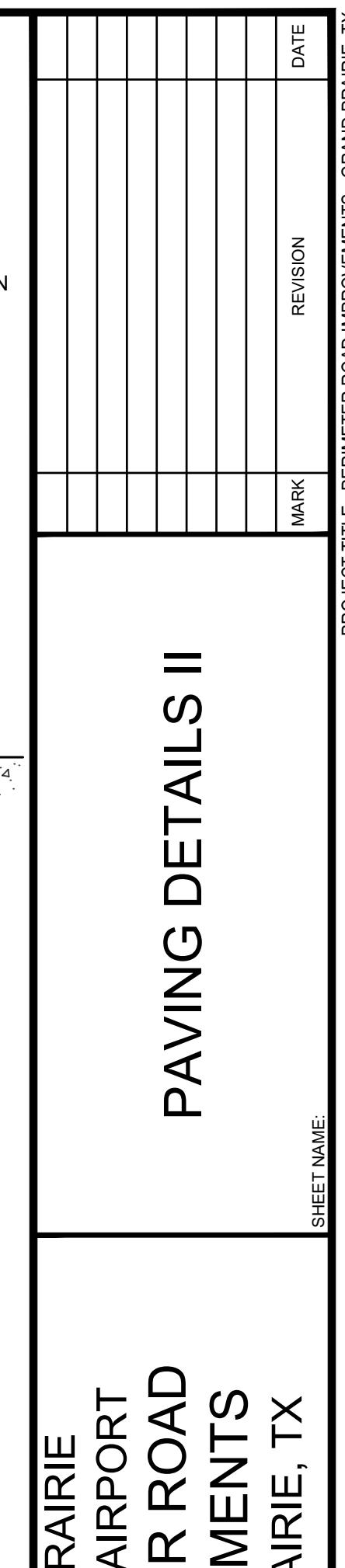
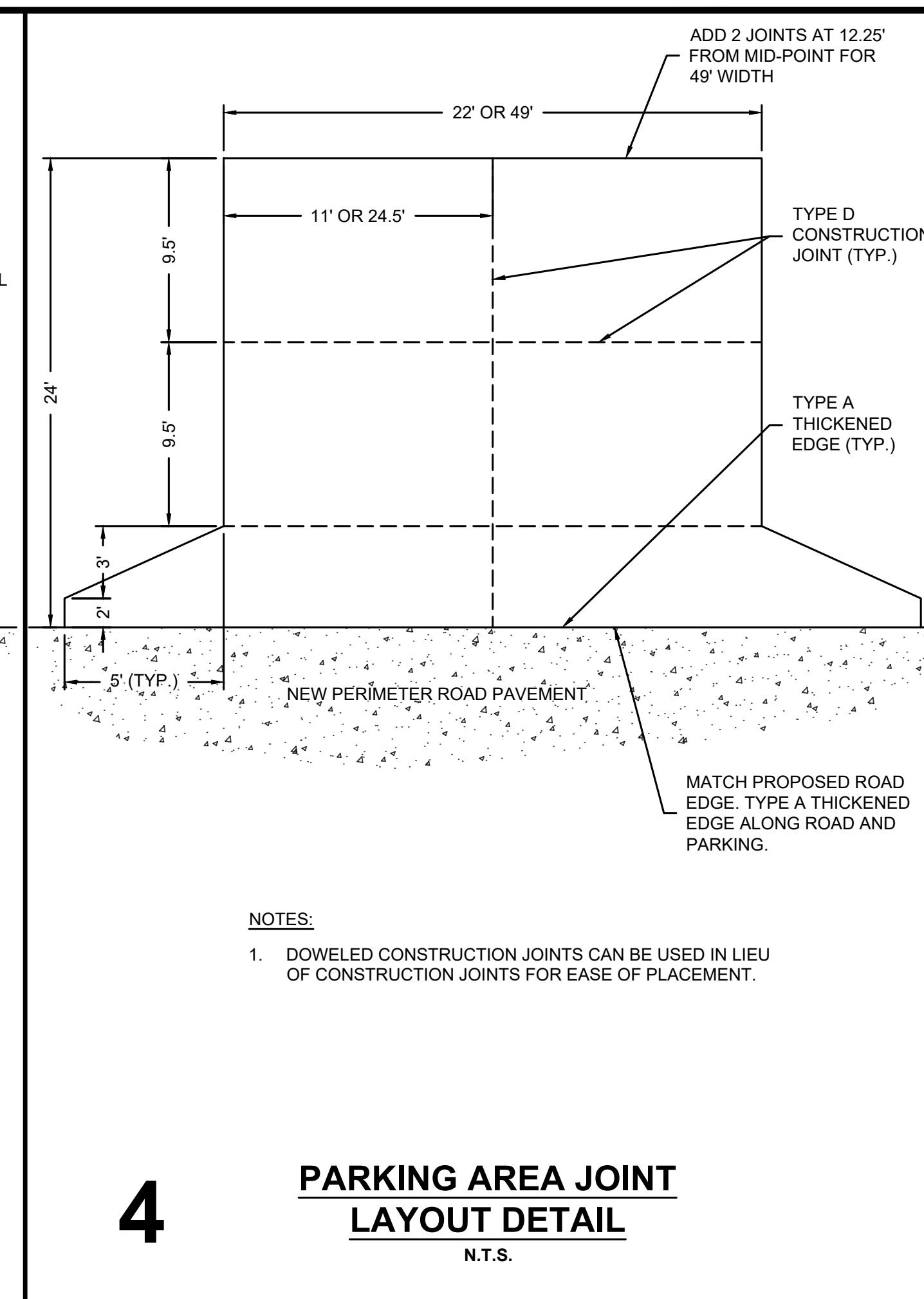
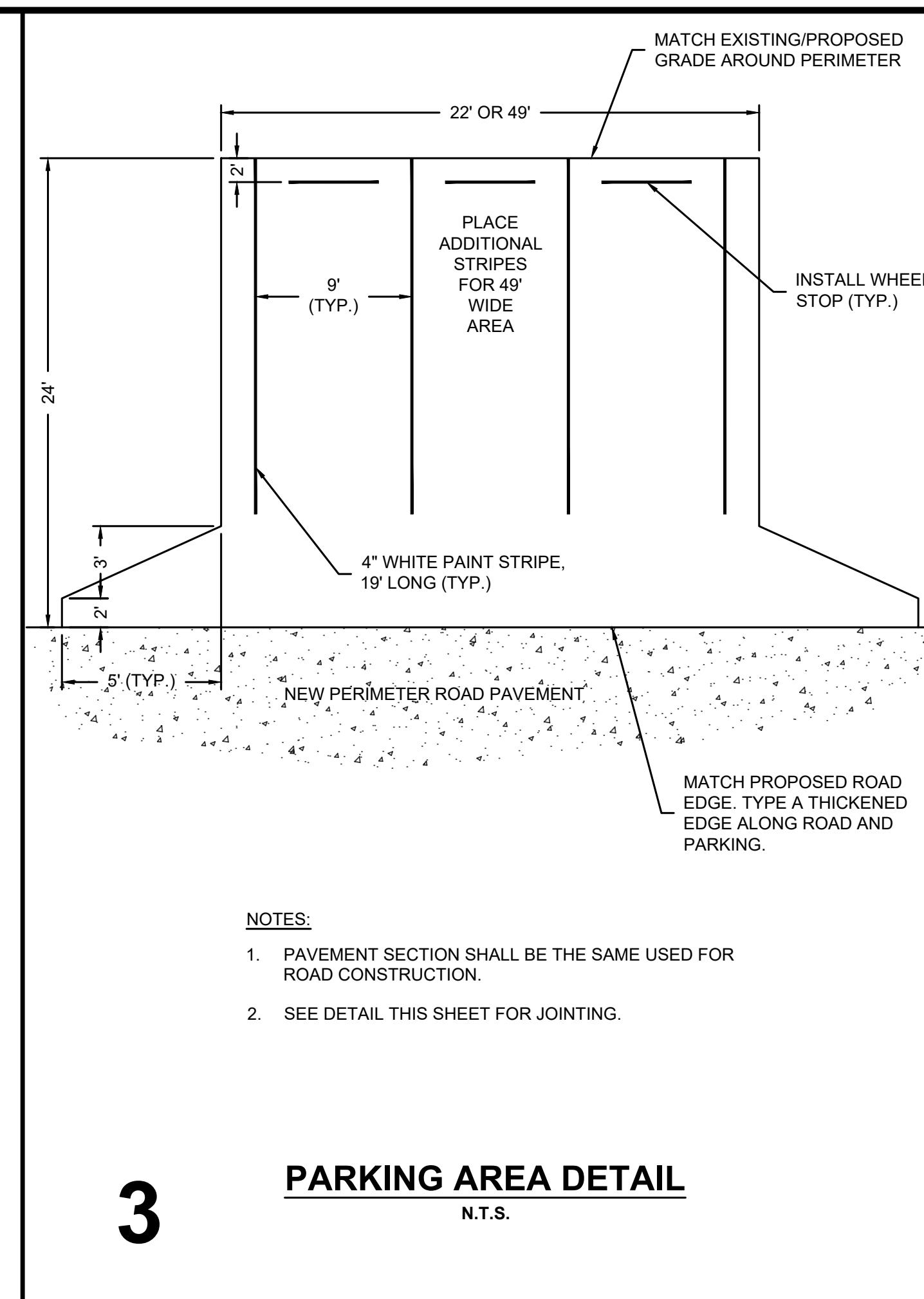
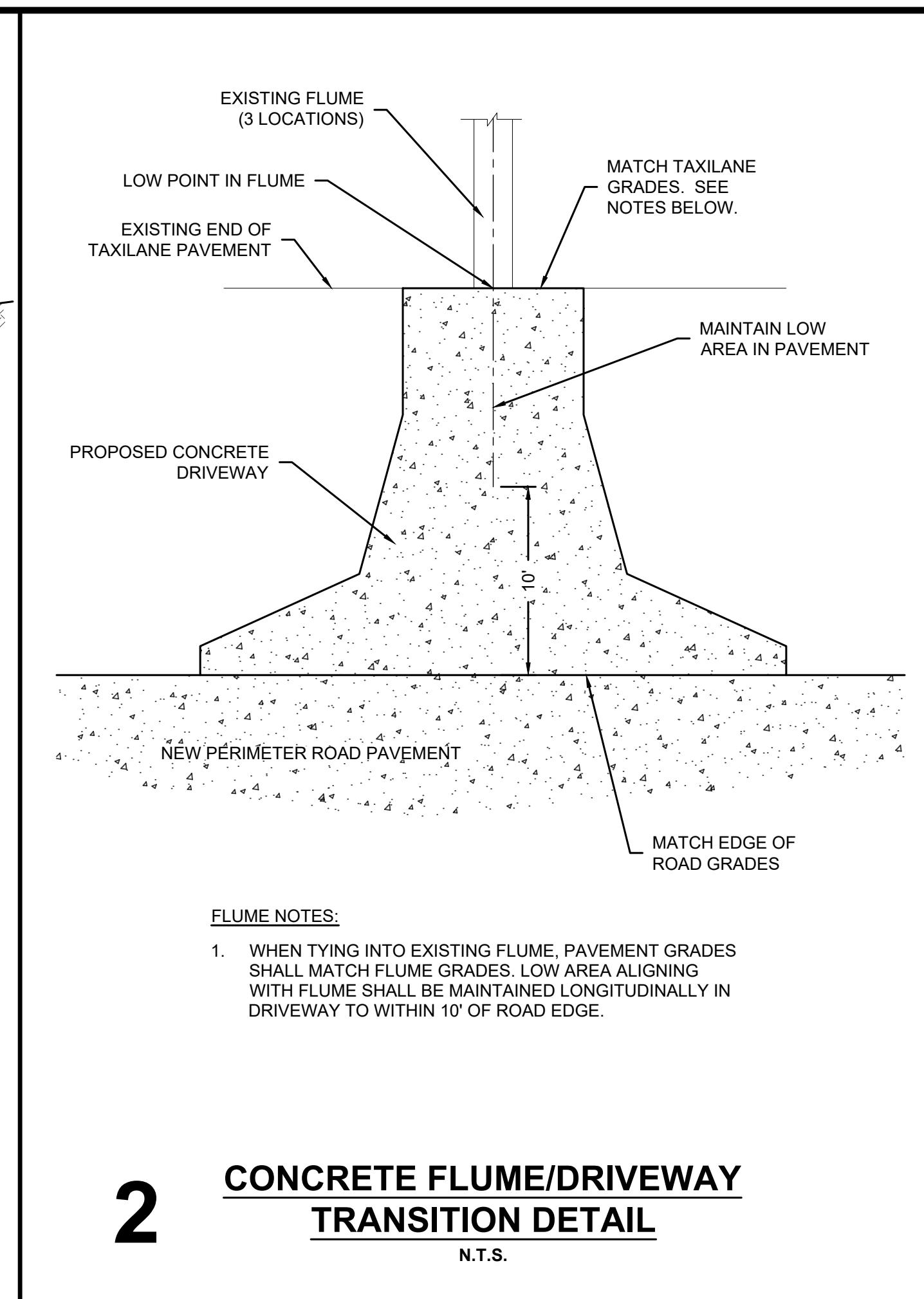
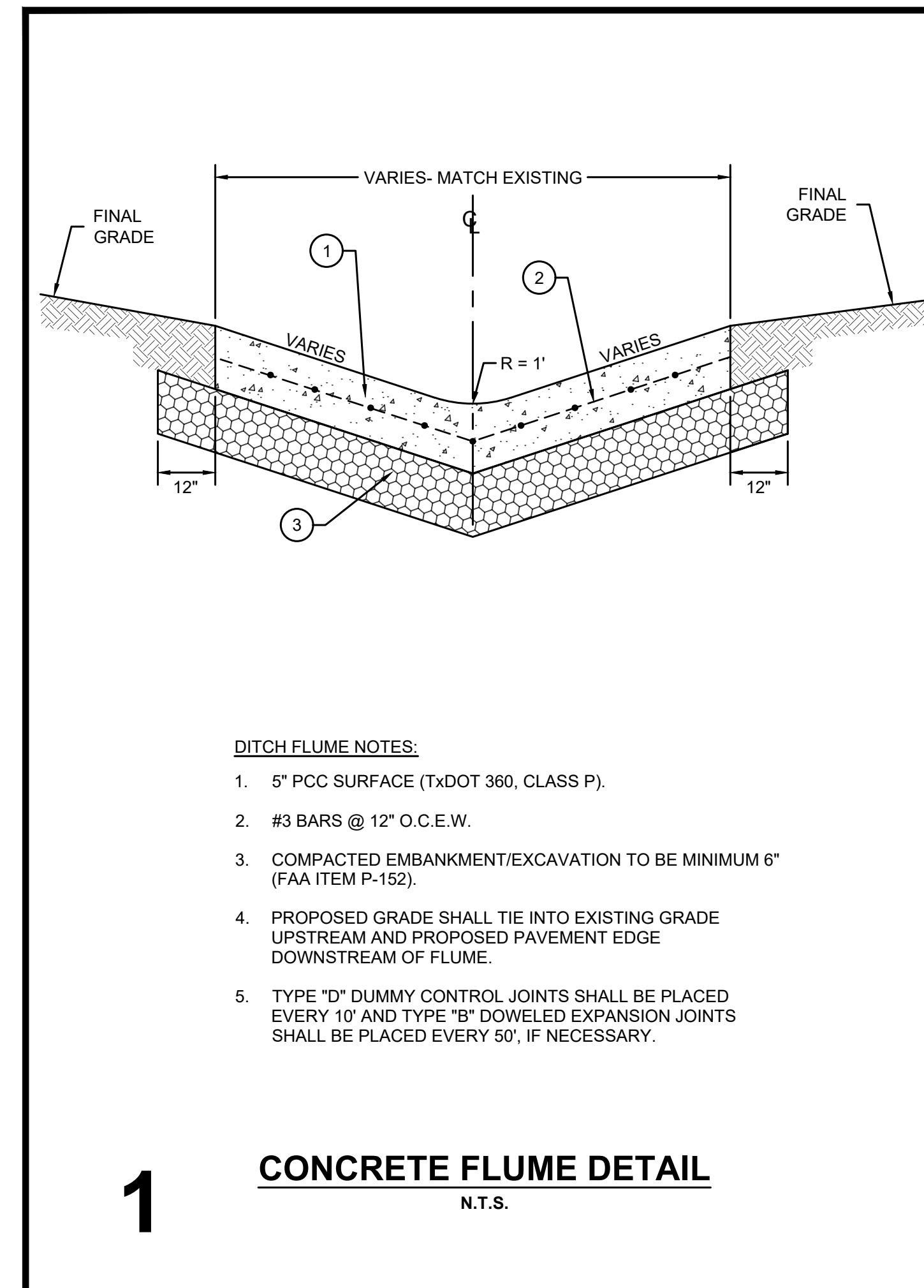
SOUTH PERIMETER ROAD CROSS SECTIONS

PROJECT TITLE:	PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX
MARK:	
REVISION:	
DATE:	

DATE

PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX

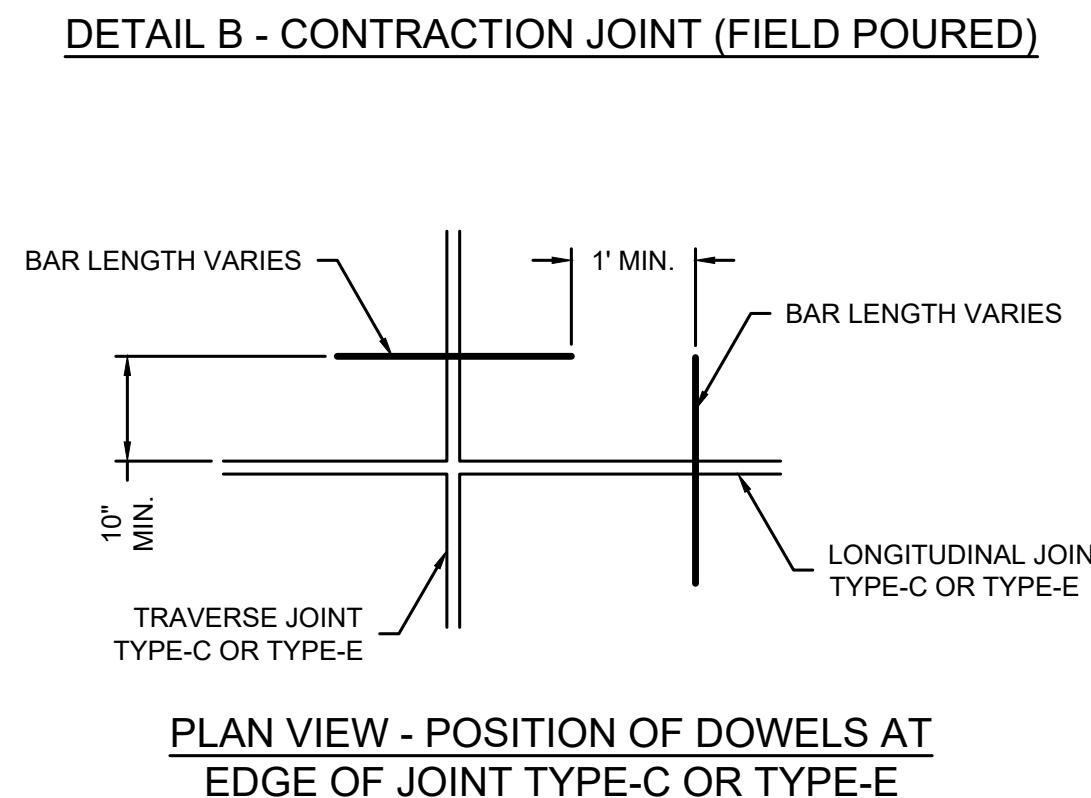
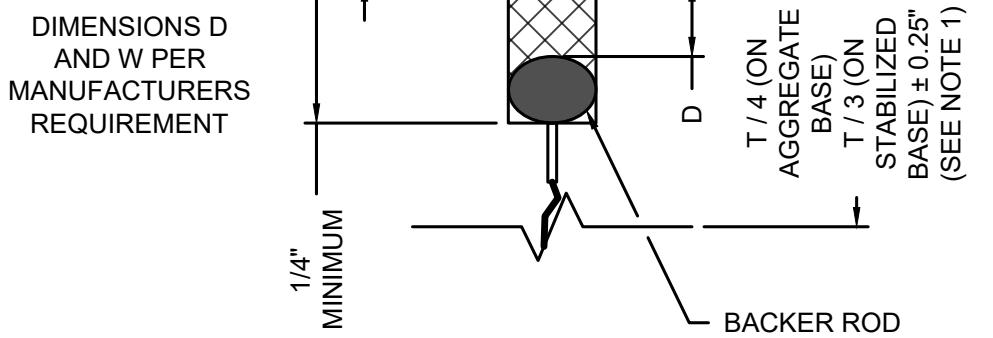
DATE



1

RIGID PAVEMENT JOINT DETAILS

N.T.S.

**DETAIL A - ISOLATION JOINT****DETAIL B - CONTRACTION JOINT (FIELD POURLED)**

RIGID PAVEMENT JOINT NOTES:

1. INITIAL SAW CUT T/6 TO T/5 (MINIMUM 1") WHEN USING EARLY ENTRY SAW.
2. FIELD POURED SEALANT RESERVOIR SIZED TO PROVIDE PROPER SHAPE FACTOR, DEPTH (D); WIDTH (W) BASE UPON SEALANT MANUFACTURER REQUIREMENTS. TYPICALLY HOT POUR SEALANTS REQUIRE A 1:1 SHAPE FACTOR AND SILICON SEALANTS A 1:2 SHAPE FACTOR. FOR INDIVIDUAL PROJECTS REFER TO SEALANT MANUFACTURER'S RECOMMENDATIONS.
3. HOLD ALL SEALANTS DOWN 3/8" ON GROOVED RW.
4. ALL JOINTS WHERE SEALANT IS APPLIED SHALL BE BEVELED AT THE TOP.

5

TYPE-D DUMMY CONTRACTION JOINT DETAIL

N.T.S.

DIMENSIONS AND SPACING OF STEEL DOWELS			
SLAB THICKNESS	DIAMETER	LENGTH	SPACING
5"-7"	3/4"	18 in.	12 in.
7.5"-12"	1"	18 in.	12 in.
12.5"-16"	1 1/4"	20 in.	15 in.
16.5"-20"	1 1/2"	20 in.	18 in.
20.5"-24"	2"	24 in.	18 in.

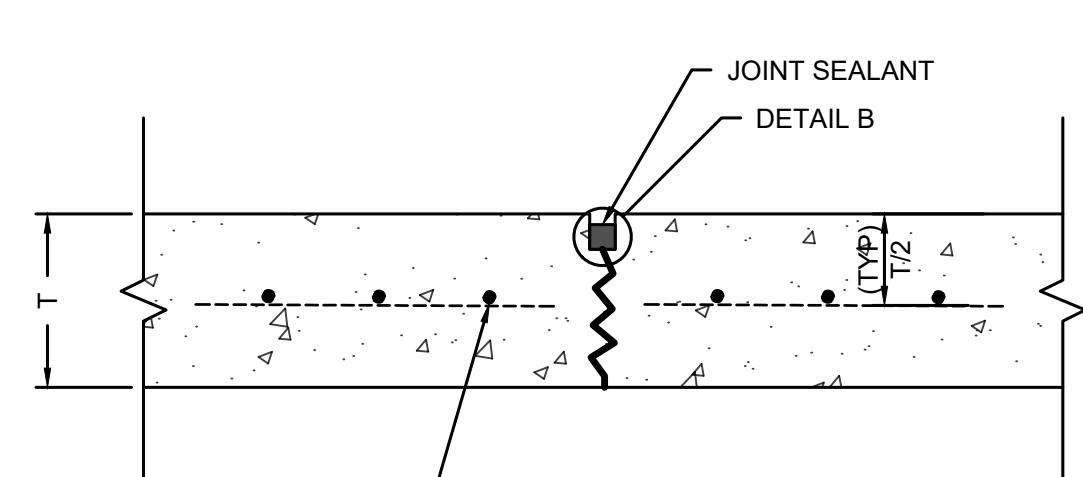
MAXIMUM JOINT SPACING (WITHOUT STABILIZED SUBBASE)	
SLAB THICKNESS	JOINT SPACING
6" OR LESS	12'-6"
6.5"-9"	15'-0"
>9"	20'-0"

MAXIMUM JOINT SPACING (WITH STABILIZED SUBBASE)	
SLAB THICKNESS	JOINT SPACING
8"-10"	12'-6"
10.5"-13"	15'-0"
13.5"-16"	17'-6"
>16"	20'-0"

NOTES:

1. DOWEL BARS SHALL BE PLAIN STEEL BARS CONFORMING TO ASTM A615.
2. BEFORE DELIVERY TO THE CONSTRUCTION SITE, ALL DOWEL BARS SHALL BE EPOXY COATED PER ASTM A1078, WITH A CURED COATING THICKNESS GREATER THAN 10 MILS.
3. TIE BARS SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615. BARS DESIGNATED AS GRADE 60 IN ASTM A615 OR ASTM A706 SHALL BE USED FOR CONSTRUCTION REQUIRING BENT BARS.

2 **PCC DOWEL BAR SIZE AND
JOINT SPACING TABLES**
N.T.S.

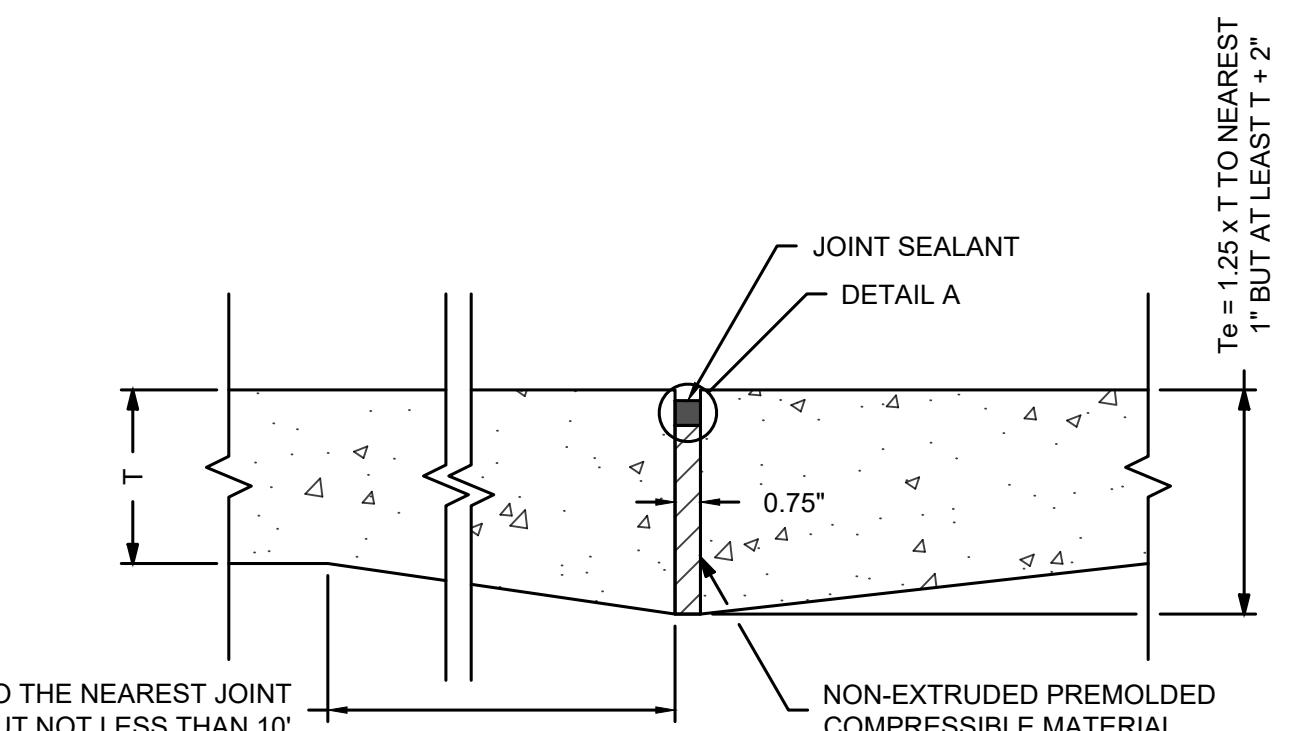
**PLAN VIEW - POSITION OF DOWELS AT
EDGE OF JOINT TYPE-C OR TYPE-E**

TYPE-D DUMMY CONTRACTION JOINT NOTE:
GROOVE MUST BE FORMED BY SAWING

6

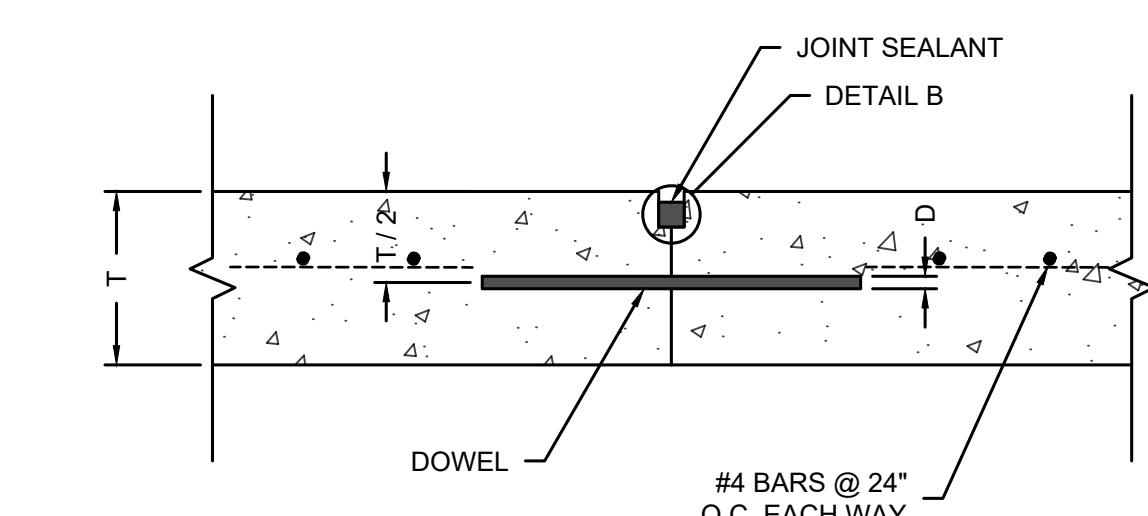
TYPE-E DOWELED CONSTRUCTION JOINT DETAIL

N.T.S.



**TYPE-A THICKENED EDGE
ISOLATION JOINT NOTE:**
GROOVE MUST BE FORMED BY SAWING

3 **TYPE-A THICKENED EDGE
ISOLATION JOINT DETAIL**
N.T.S.

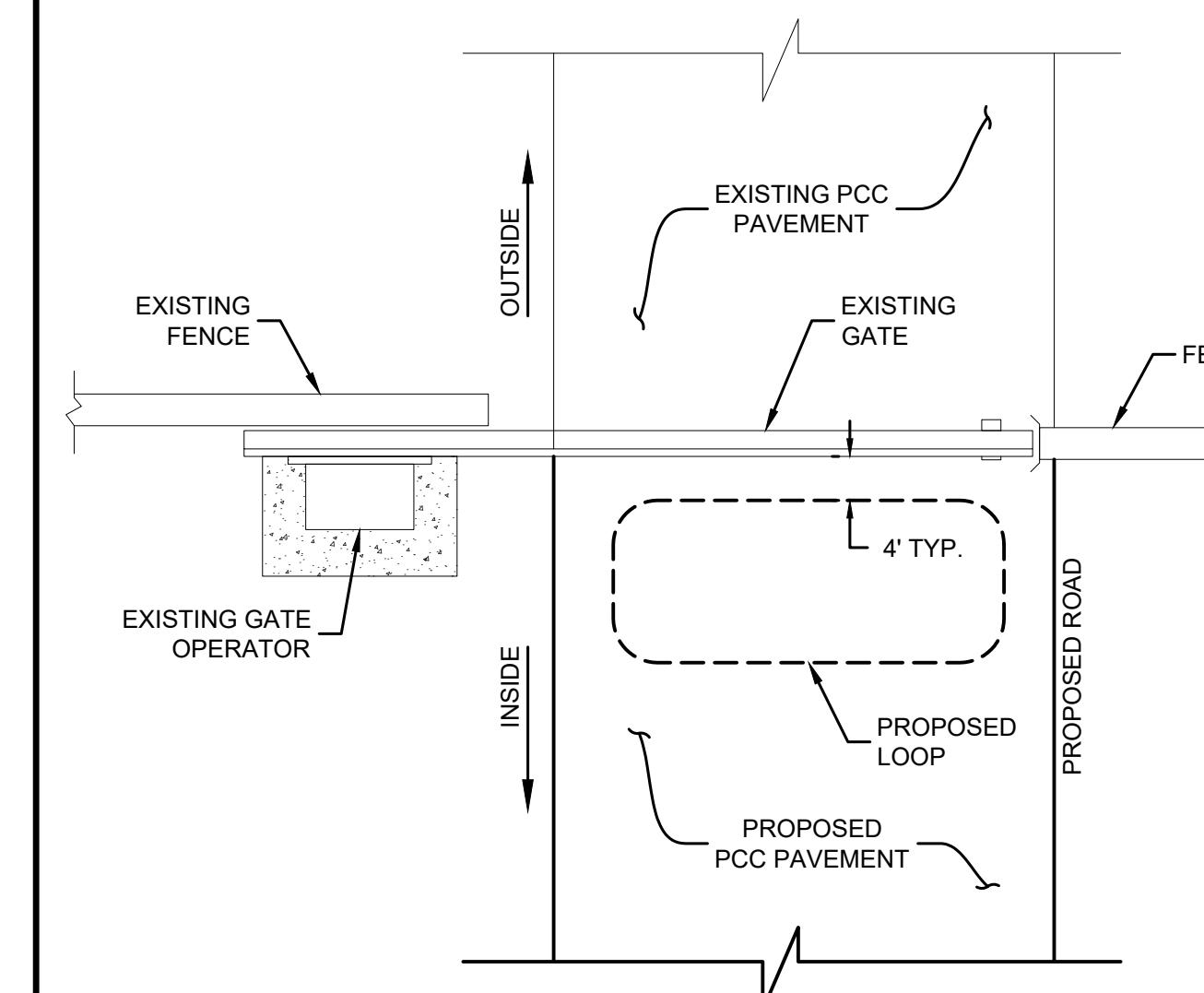


TYPE-E DOWELED CONSTRUCTION JOINT NOTE:
GROOVE MUST BE FORMED BY SAWING

7

GATE LOOP DETECTOR DETAIL

N.T.S.

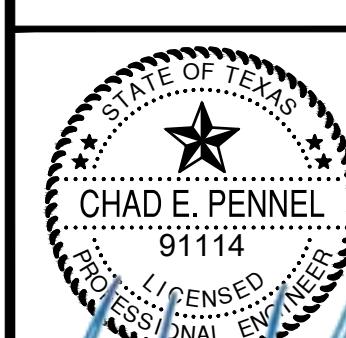


- NOTES:**
1. CONTRACTOR SHALL PLACE PROPOSED LOOP IN SAME LOCATION AS EXISTING LOOP. NOTE LOCATION PRIOR TO DEMOLITION OF PAVEMENT.
 2. PLACE NEW LEAD-IN LINE IN NEW CONDUIT AND NEW LOOP IN PAVEMENT SAWCUT.

C20

KSA

8864 Surveyor Dr.
McKinney, TX 75070
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CHAD E. PENNER
PROFESSIONAL ENGINEER
F-1356
9/6/2024

SEAL:
TBPE Firm Registration No. F-1356

SHEET NO.

DATE

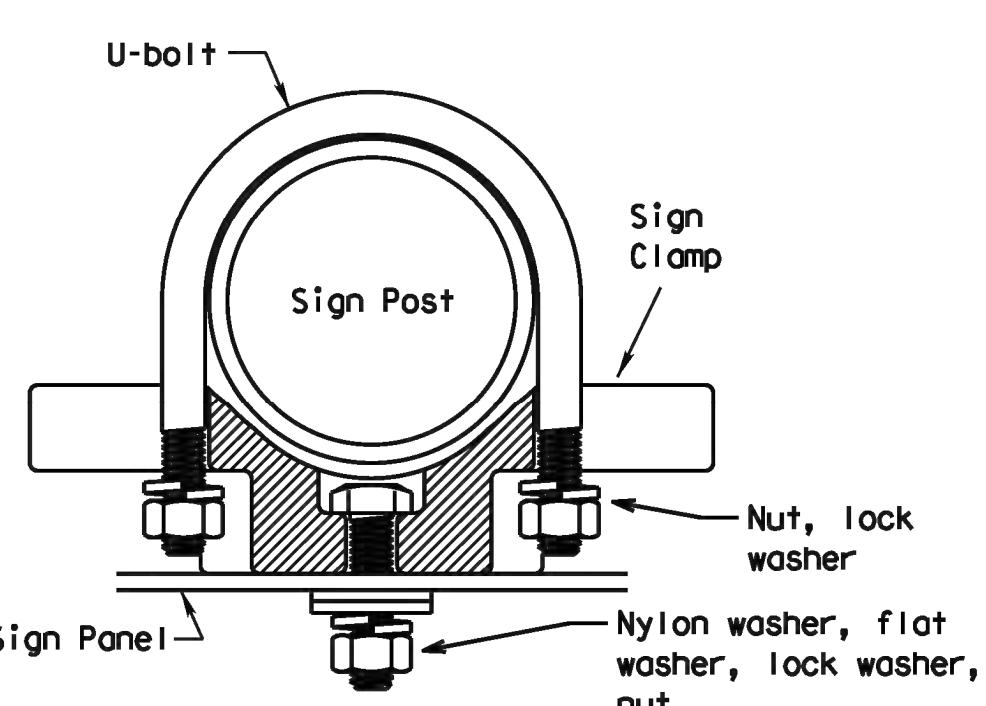
PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX

SHEET NAME:
PCC JOINTING DETAILS

**GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS
GRAND PRAIRIE, TX**

TYPICAL SIGN ATTACHMENT DETAIL

Single Signs

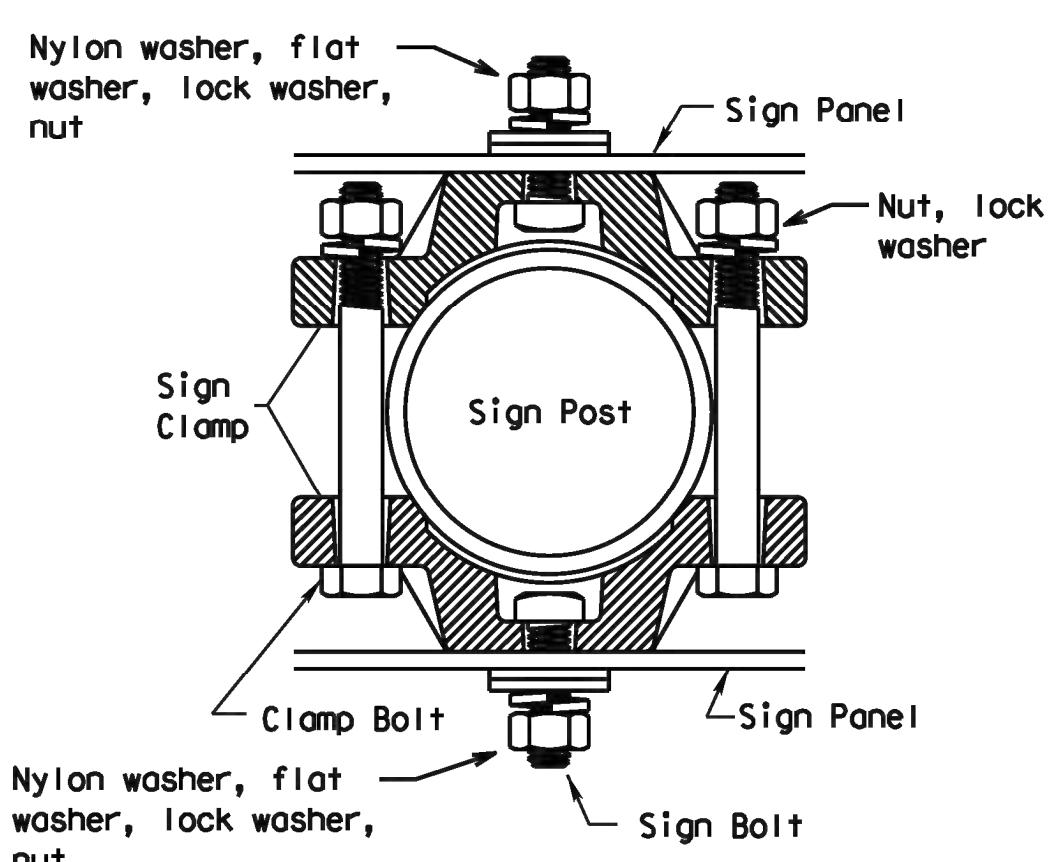


Bolts used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

When two sign clamps are used to mount signs back-to-back, use a 5/16-18 UNC galvanized hex head per ASTM A307 with nut and helical-spring lock washer. The approximate bolt lengths for various post sizes and sign clamp types are given in the table at right. The bolt length may need to be adjusted depending upon field conditions.

Sign clamps may be either the specific size clamp or the universal clamp.

Back-to-Back Signs



Pipe Diameter	Approximate Bolt Length	
	Specific Clamp	Universal Clamp
2" nominal	3"	3 or 3 1/2"
2 1/2" nominal	3 or 3 1/2"	3 1/2 or 4"
3" nominal	3 1/2 or 4"	4 1/2"

NOTE

There are various devices approved for the Triangular Slipbase System. Please reference the Material Producer List for approved slip base systems. http://www.txdot.gov/business/producer_list.htm The devices shall be installed per manufacturers' recommendations. Installation procedures shall be provided to the Engineer by Contractor.

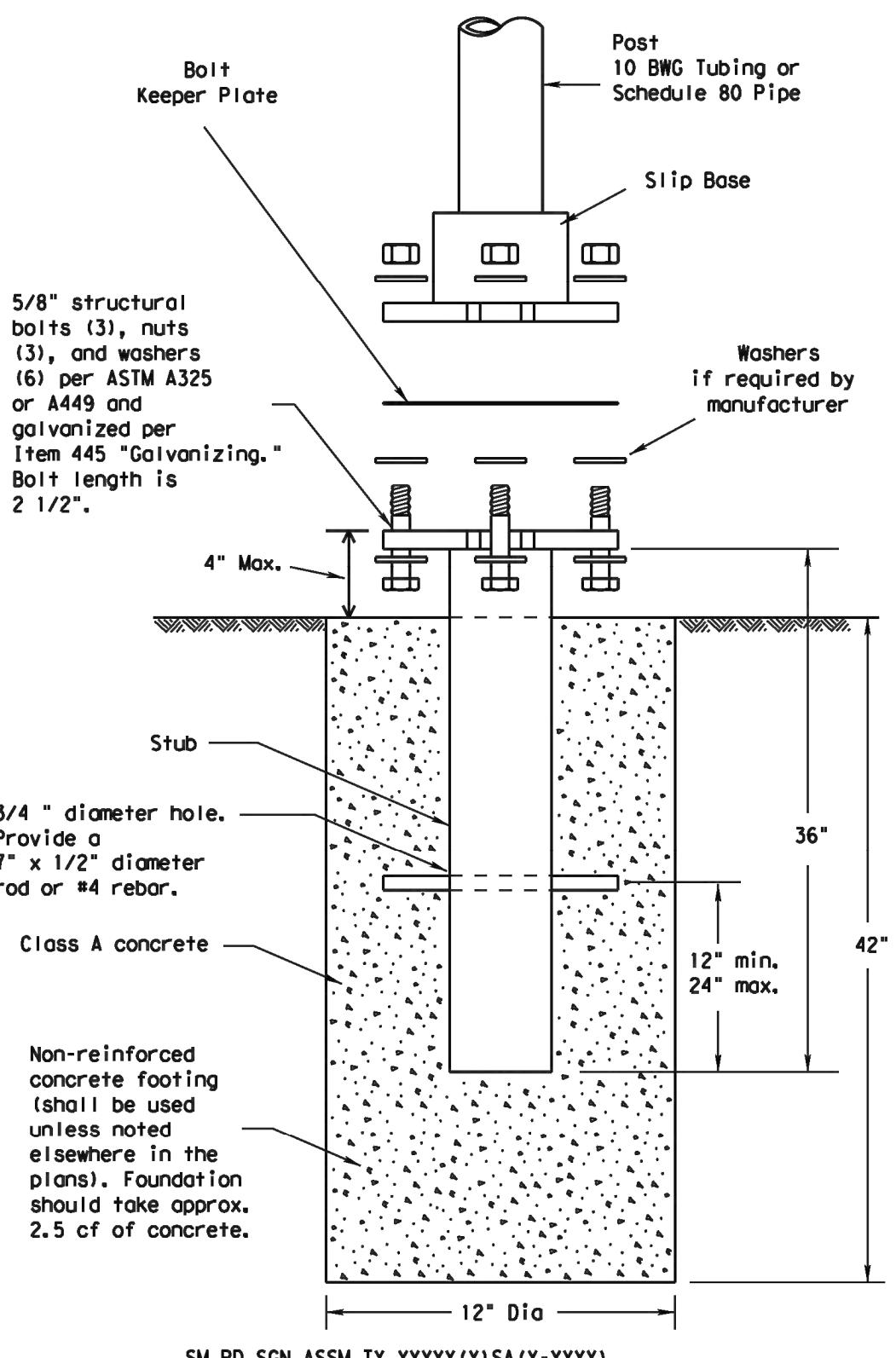
SIGN DETAILS

GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS
GRAND PRAIRIE, TX

PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX

DATE: _____
REVISION: _____
MARK: _____

SHEET NAME: _____



TRIANGULAR SLIPBASE INSTALLATION DETAIL

N.T.S.

1

TYPICAL SIGN ATTACHMENT DETAIL

N.T.S.

2

SPACE NOT USED

SPACE NOT USED

SPACE NOT USED

SPACE NOT USED

KSA



STATE OF TEXAS
CHAD E. PENNER
LICENCED PROFESSIONAL ENGINEER
TBPE Firm Registration No. F-1356
SEAL: _____
SHEET NO. _____

C21

SITE DESCRIPTION

PROJECT LIMITS:
Grand Prairie Municipal Airport

PROJECT DESCRIPTION:
Reconstruction of existing perimeter road along the southeast side of the airport with concrete pavement.

MAJOR SOIL DISTURBING ACTIVITIES:
Excavation and embankment in areas along the perimeter road replacement.

TOTAL PROJECT AREA: 11.5 ac. ±

TOTAL AREA TO BE DISTURBED: 3.4 ac. ±

WEIGHTED RUNOFF COEFFICIENT
(AFTER CONSTRUCTION): 0.85

EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER:

Clayey soils with mixed grasses and weeds. Approximate percentage of existing vegetation cover is 65%.

NAME OF RECEIVING WATERS:
Kirby Creek to Mountain Creek Lake**EROSION AND SEDIMENT CONTROLS****SOIL STABILIZATION PRACTICES:**

- TEMPORARY SEEDING
- PERMANENT PLANTING, SODDING, OR SEEDING
- MULCHING (BONDED FIBER MATRIX)
- SOIL RETENTION BLANKET
- BUFFER ZONES
- PRESERVATION OF NATURAL RESOURCES

OTHER:**STRUCTURAL PRACTICES:**

- SILT FENCES
- HAY BALES
- ROCK BERMS (ROCK FILTER DAMS)
- DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- DIVERSION DIKE AND SWALE COMBINATIONS
- PIPE SLOPE DRAINS
- PAVED FLUMES
- ROCK BEDDING AT CONSTRUCTION EXIT
- TIMBER MATTING AT CONSTRUCTION EXIT
- CHANNEL LINERS
- SEDIMENT TRAPS
- SEDIMENT BASINS
- STORM INLET SEDIMENT TRAP
- STONE OUTLET STRUCTURES
- CURBS AND GUTTERS
- STORM SEWERS
- VELOCITY CONTROL DEVICES

OTHER:**NARRATIVE - SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:**

Erosion and sediment control shall be installed prior to grading work. Once installed, these devices will be maintained during the duration of the project. Erosion and sediment controls will be removed when directed by the Engineer.

STORM WATER MANAGEMENT:

Existing storm sewers and drainage ditches will be used to remove water from the site. Storm water from the site will flow through filter fabric fences to filter sediment from storm water runoff before it leaves the site. New drainage structures will be installed as to not alter existing drainage patterns.

OTHER EROSION AND SEDIMENT CONTROLS:**MAINTENANCE:**

All erosion and sediment controls will be maintained in good working order. If a repair is necessary it shall be done within 7 calendar days after the surrounding ground has dried sufficiently to prevent damage from heavy equipment.

INSPECTION:

Inspection of all erosion and sediment controls will be performed by the contractor every 7 days or after a half-inch or greater rain has been recorded on a rain gauge located at the project site. An inspection report will be made for each inspection. Controls shall be revised based on inspection reports.

WASTE MATERIALS:

All collected waste materials will be stored in secured containers for legal disposal. No construction waste material will be buried on site.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING):

Potential hazardous wastes include fuel, paints, acids, solvents, asphalts, and other items needed for construction. All spills will be reported immediately to the engineer.

SANITARY WASTE:

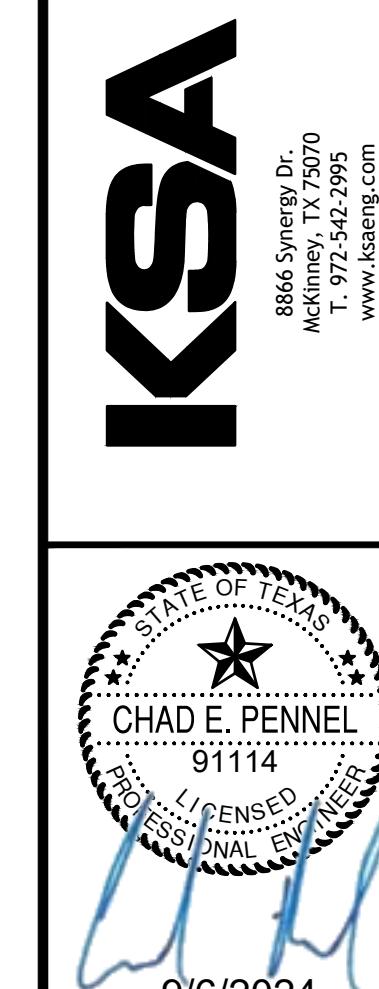
The contractor will provide temporary restroom facilities for employees. The provider of the facilities will legally dispose of sanitary waste.

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- EXCESS DIRT ON ROAD REMOVED DAILY
- STABILIZED CONSTRUCTION EXIT

OTHER:**REMARKS:**

Contractor shall keep the SWPPP document and all reports at the site throughout the duration of the project. Disposal areas, stockpiles, and haul routes shall be constructed to minimize and control erosion and sediment deposits.



SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

C22

STORMWATER POLLUTION PREVENTION PLAN

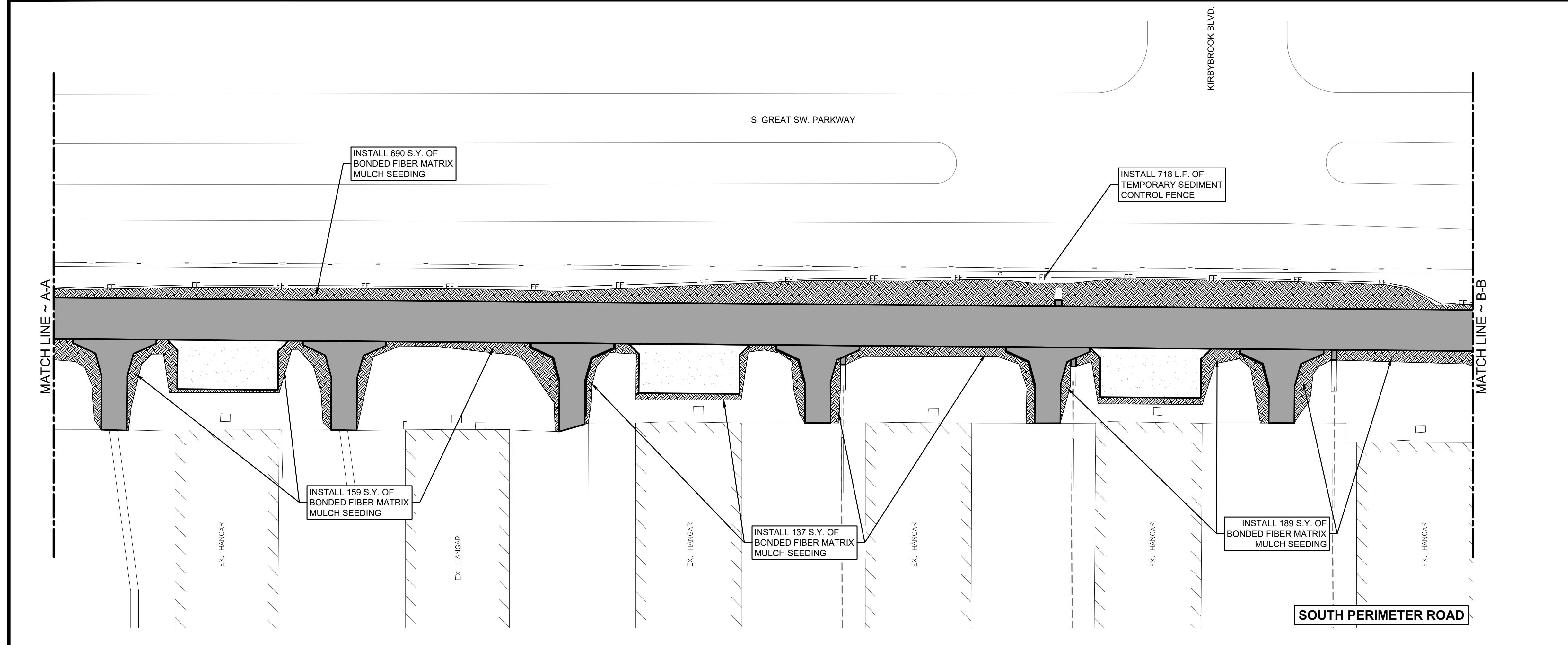
GRAND PRAIRIE
MUNICIPAL AIRPORT
PERIMETER ROAD
IMPROVEMENTS
GRAND PRAIRIE, TX

DRAWN BY:	JB
DESIGNED BY:	CP
LATEST REVISION:	9/6/2024
KSA JOB NO.:	102266
PROJECT NAME:	VKSANETGATEWAY/PROJECTS/10286008/CA030 SHEETS/02 CIVIL/10286-C-D-EROS.DWG

MARK	REVISION	DATE

PROJECT TITLE: PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX

SHEET NAME:



LEGEND	
	PAVEMENT CONSTRUCTION
	EXISTING HANGAR/BUILDING
	BONDED FIBER MATRIX MULCH SEEDINGDING
	INLET PROTECTION
	TEMPORARY SEDIMENT CONTROL FENCE
	EXISTING CONTOURS (1' INTERVAL)
	PROPOSED CONTOURS (1' INTERVALS)
	EXISTING STORM PIPE
	EXISTING FENCE
	EXISTING OVERHEAD POWER

NOTE:
CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF ALL UTILITIES PRIOR TO ANY EXCAVATION TAKING PLACE.

- NOTES:
1. UNLESS OTHERWISE NOTED, ALL EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE PART OF THE BASE BID SCHEDULE.
 2. SEE SHEET C13 AND C15-C16 FOR GRADING LAYOUTS.
 3. SEE SHEET C25 FOR EROSION CONTROL DETAILS.
 4. CONTRACTOR SHALL INSTALL TEMPORARY SEDIMENT CONTROL FENCE IN FRONT OF UPSTREAM INLETS OF EACH STORM PIPE, PREVENTING CLOGGING AND CARRYING OF SOIL DOWNSTREAM.
 5. CONTRACTOR SHALL WATER ALL DISTURBED AREAS TO LIMIT DUST AT THE DIRECTION OF THE RPR AT NO DIRECT COST.
 6. THE EXACT LOCATION(S) OF TEMPORARY SEDIMENT CONTROL FENCE SHALL BE DETERMINED IN ACCORDANCE WITH THE PROJECT SPECIFIC STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS. THE TEMPORARY SEDIMENT CONTROL FENCE SHALL BE INSTALLED AND MAINTAINED AS SPECIFIED. ANY LOCATIONS OF THE TEMPORARY SEDIMENT CONTROL FENCE SHOWN ON THE PLANS ARE APPROXIMATE ONLY. PAYMENT SHALL BE MADE BASED ON THE PRICE AS LISTED IN THE BID PROPOSAL AND THE ORIGINAL LINEAR FEET OF MATERIAL INSTALLED. PAYMENT SHALL NOT BE MADE FOR REPLACEMENT FENCE REQUIRED FOR REPAIR OR MAINTENANCE. THE TEMPORARY SEDIMENT CONTROL FENCE SHALL BE MAINTAINED IN PROPER CONDITION AT ALL TIMES DURING THE PROJECT. THE COST OF REPAIRING THE TEMPORARY SEDIMENT CONTROL FENCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

7. EROSION CONTROLS SHALL BE INSPECTED AT A MINIMUM OF EVERY SEVEN (7) DAYS AND AFTER RAINS OF 0.5 INCHES OR GREATER.
8. TOPSOIL REPLACEMENT IS REQUIRED IN ALL DISTURBED AREAS. TOPSOIL SHALL BE CONSIDERED THE TOP FOUR (4) INCHES OF EXCAVATION. TOPSOIL SHALL BE KEPT SEPARATE FROM GENERAL EXCAVATED MATERIAL. IN CULTIVATED AREAS, ROCK FROM THE EXCAVATION SHALL NOT BE INCLUDED IN THE TOP FOUR (4) INCHES OF TOPSOIL BACKFILL. ALL AREAS OF BACKFILL OR EXCAVATION SHALL BE BROUGHT TO WITHIN FOUR (4) INCHES OF FINAL GRADE AND BROUGHT TO FINAL GRADE WITH COMPAKTED TOPSOIL.

9. IMMEDIATELY UPON COMPLETION OF FINAL GRADING, ALL DISTURBED AREAS SHALL BE VEGETATED IN ACCORDANCE WITH THE EROSION CONTROL PLAN.

10. REMOVE EROSION CONTROL DEVICES AS DIRECTED ONCE GRASS IS ESTABLISHED TO 70% DENSITY ON 100% OF THE COVERED AREA, AS COMPARED TO SURROUNDING AREAS.

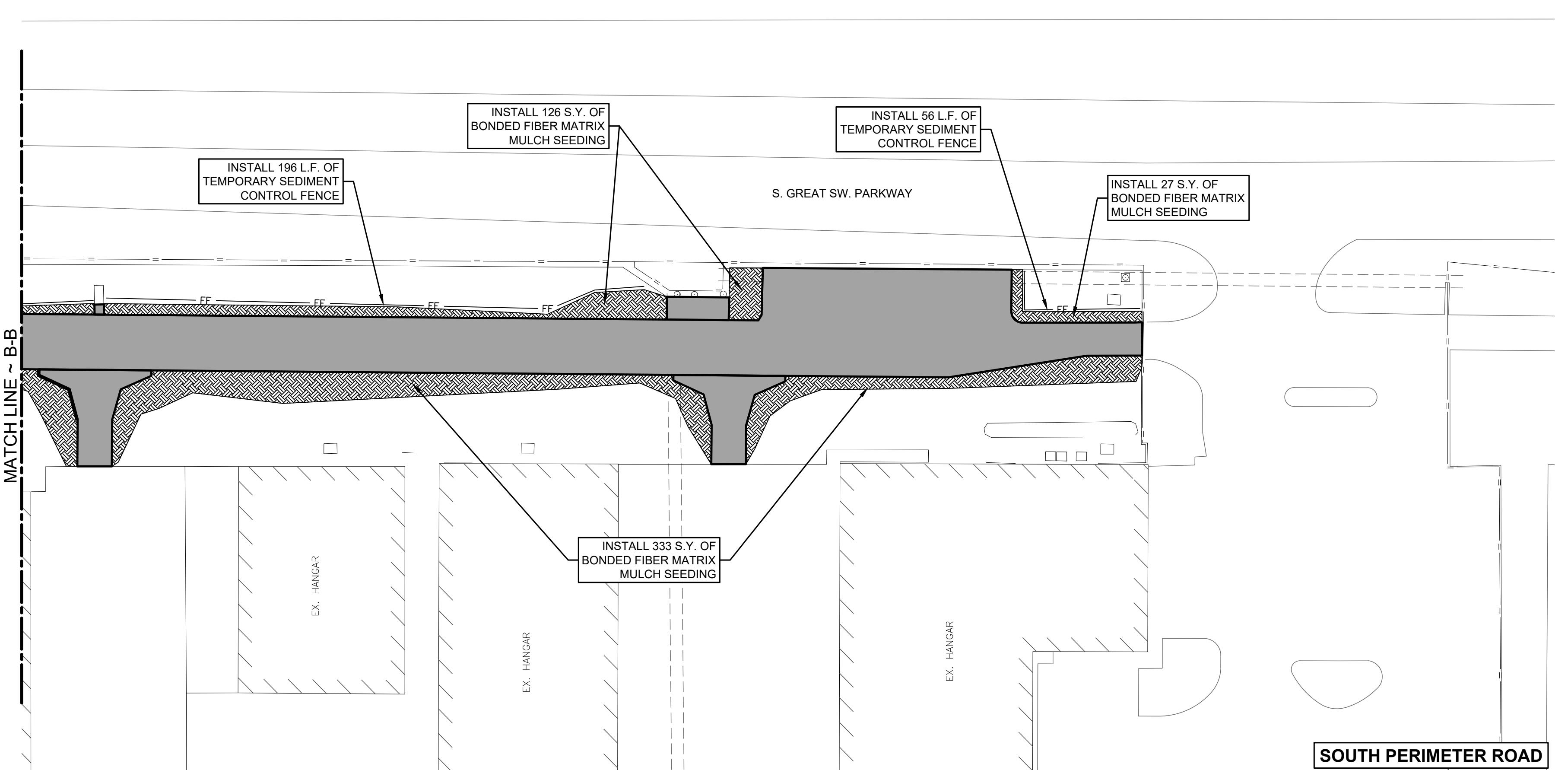
EROSION CONTROL NOTES:

FERTILIZER

1. FERTILIZER WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE SUBSIDARY TO THE OTHER BID ITEMS.
2. WATERING OPERATIONS FOR WARM SEASON GRASSES SHALL BE DELAYED UNTIL SOIL TEMPERATURE EXCEEDS 70 DEGREES F.
3. PROVIDE EVEN SPRAY PATTERNS THAT DO NOT DISTURB SEED BED AND/OR, DISLODGE SEED FROM SEED BED.
4. WATER WILL BE EVENLY DISTRIBUTED OVER ENTIRE AREA(S) DESIGNATED FOR SEEDING AND/OR BONDED FIBER MATRIX MULCH SEEDING.
5. IF 1/4 INCH OR MORE OF RAINFALL OCCURS ON SITE ON ANY GIVEN WORKING DAY, NO VEGETATIVE WATERING WILL BE NEEDED ON THAT WORKING DAY (NOTE: 1/4 INCH RAIN EQUALS 7000 GALLONS OF WATER PER ACRE).
6. SHOULD THE CONTRACTOR FAIL TO APPLY THE SPECIFIED AMOUNT OF WATER WITHIN THE TIME ALLOWED, ANY SEED OR BONDED FIBER MATRIX MULCH SEEDING IN POOR CONDITION WILL BE REPLACED, FERTILIZED, AND WATERED AT THE CONTRACTOR'S EXPENSE.
7. NO WATERING SHALL OCCUR BETWEEN THE HOURS OF 1:00 PM AND 8:00 PM WHEN DAYTIME TEMPERATURES EXCEED 95 DEGREES.
8. AFTER INITIAL ESTABLISHMENT PERIOD, PROVIDE INTERMITTENT WATERING (APPROX. 1" WEEK) TO NEWLY ESTABLISHED SEED OR BONDED FIBER MATRIX MULCH SEEDING DURING SUMMER MONTHS UNTIL END OF CONTRACT.
9. ALL WATERING EQUIPMENT WILL HAVE A METERING DEVICE.

BONDED FIBER MATRIX MULCH SEEDINGDING FOR EROSION CONTROL

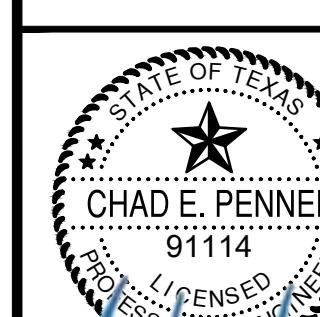
1. ALL BONDED FIBER MATRIX MULCH SEEDING (BLOCKS OR ROLLS) WILL BE PLACED WITHIN 24 HOURS OF DELIVERY TO THE SITE.
2. BONDED FIBER MATRIX MULCH SEEDING BLOCKS WILL BE PLACED FIRMLY AGAINST ADJACENT BONDED FIBER MATRIX MULCH SEEDING BLOCKS WITH JOINTS ALTERNATING ON EACH ROW TO PREVENT ALL JOINTS FROM LINING UP.
3. BONDED FIBER MATRIX MULCH SEEDING 4' WIDE SHALL BE PLACED AROUND ALL GRATE INLETS, AND SHALL BE PLACED 8' WIDE IN PROPOSED CHANNEL FLOWLINE AND OUTER BOTTOM EDGE OF SLOPE.



EROSION CONTROL PLAN II

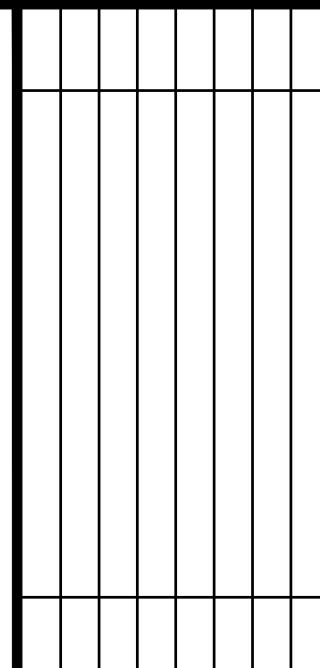
GRAND PRAIRIE MUNICIPAL AIRPORT PERIMETER ROAD IMPROVEMENTS GRAND PRAIRIE, TX

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SEAL:
TBPE Firm Registration No. F-1356
C24

PROJECT TITLE:	PERIMETER ROAD IMPROVEMENTS - GRAND PRAIRIE, TX
DRAWN BY:	JB
DESIGNED BY:	CP
LATEST REVISION:	9/6/2024
KS JOB NO.:	102866
PROJECT NAME:	



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