Blanco Road: From Borgfeld Drive to Bexar/Comal County Line CSJ#0915-12-6018

City of San Antonio, Texas

Bexar County, Texas

EDWARDS AQUIFER PROTECTION PROGRAM ROADWAY APPLICATION

Prepared for:
Bexar County Public Works Department

Prepared by:





STV, Inc. 12500 San Pedro Ave., Suite 450 San Antonio, Texas 78216

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been carried-out by TxDOT pursuant to 23 U.S.C 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with 30 TAC 213.

Administrative Review

- Edwards Aquifer applications must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.
 - To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: http://www.tceq.texas.gov/field/eapp.
- 2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
- 3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
- 4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.
 - An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.
- 5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
- 6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

- 1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
- 2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

- clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.
- 3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
- 4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: Blanco Road from Borgfeld Drive to Bexar/Comal County Line					2. Regulated Entity No.: N/A					
3. Customer Name: Bexar County Public Department				e Works			4. Customer No.: 604240044			
5. Project Type: (Please circle/check one)	✓ New	Modification		Extension		Exception				
6. Plan Type: (Please circle/check one)	✓ WPAP CZP		SCS	UST	AST	EXP EXT		Technical Clarification	Optional Enhanced Measures	
7. Land Use: (Please circle/check one)	Residentia	esidential Non-residenti			dentia	ı <mark>l</mark>	8. Sit	e (acres):	35.79	
9. Application Fee:	\$6,500		10. Permanent			BMP(s):		Water Quality	STUs	
11. SCS (Linear Ft.):	N/A 12. AST/UST (N			ST (N	lo. Tanks):		Not known AST/UST			
13. County:	Bexar		14. V	Vater	shed:		Indian Creek-Cibolo Creek			

Application Distribution

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region									
County:	Hays	Travis	Williamson						
Original (1 req.)	_	_	_						
Region (1 req.)		_	_						
County(ies)	_		_						
Groundwater Conservation District(s)	Edwards Aquifer AuthorityBarton Springs/ Edwards AquiferHays TrinityPlum Creek	Barton Springs/ Edwards Aquifer	NA						
City(ies) Jurisdiction	AustinBudaDripping SpringsKyleMountain CitySan MarcosWimberleyWoodcreek	AustinBee CavePflugervilleRollingwoodRound RockSunset ValleyWest Lake Hills	AustinCedar ParkFlorenceGeorgetownJerrellLeanderLiberty HillPflugervilleRound Rock						

San Antonio Region										
County: Bexar Comal Kinney Medina										
Original (1 req.)	_X_		_		_					
Region (1 req.)	_X_	_			_					
County(ies)	_X_									
Groundwater Conservation District(s)	_X_ Edwards Aquifer Authority _X_Trinity-Glen Rose	Edwards Aquifer Authority	Kinney	EAA Medina	EAA Uvalde					
City(ies) Jurisdiction	Castle HillsFair Oaks RanchHelotesHill Country VillageHollywood Park _X_San Antonio (SAWS)Shavano Park	BulverdeFair Oaks RanchGarden RidgeNew BraunfelsSchertz	NA	San Antonio ETJ (SAWS)	NA					

	I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.								
Luba Esquivel									
Print Name of Customer/Authorized Agent									
limbon V. Esquivel	02/12/2025								
Signature of Customer/Authorized Agent	Date								

FOR TCEQ INTERNAL USE ONLY							
Date(s)Reviewed:	Da	Date Administratively Complete:					
Received From:	Co	Correct Number of Copies:					
Received By:	Di	Distribution Date:					
EAPP File Number:			Complex:				
Admin. Review(s) (No.):		. AR R	tounds:				
Delinquent Fees (Y/N):		Review Time Spent:					
Lat./Long. Verified:		S Cust					
Agent Authorization Complete/Notarized (Y/N):		e	Payable to TCEQ (Y/N):				
Core Data Form Complete (Y/N):		eck:	Signed (Y/N):				
Core Data Form Incomplete Nos.:		Less than 90 days old (Y/N):					

Edwards Aquifer Protection Program Roadway Application

Texas Commission on Environmental Quality

This application is intended only for projects which a major roadway is designed for construction, such as State highways, County roads, and City thoroughfares.

Designed for Regulated Activities on the Contributing Zone to the Edwards Aquifer in relation to 30 TAC §213.24, Regulated Activities on the Edwards Aquifer Recharge Zone, in relation to 30 TAC §213.5(b), Effective June 1, 1999.

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer.

The application was prepared by:

Print Name of Customer/Agent: Luba Esquivel

Date: <u>2/10/2025</u>

Signature of Customer/Agent:

Project Information

liubou V. Esquirel

1. Regulated Entity (Project) Name: Blanco Road from Borgfeld Drive to Bexar/Comal County Line

2. County: Bexar

3. Stream Basin(s): Cibolo Creek

4. Groundwater Conservation District (if applicable): Edwards Aquifer Authority

5. Customer (Applicant):

Contact Person: Reggie Fountain

Entity: <u>Alamo Regional Mobility Authority</u> Mailing Address: <u>1948 Probandt Street</u> City, State: <u>San Antonio, TX</u>Zip: <u>78214</u>

Telephone: 210-335-7071

Email Address: reggie.fountain@bexar.org

6.	Agent (Representative):
	Contact Person: <u>Luba Esquivel</u> Entity: <u>STV Inc.</u> Mailing Address: <u>12500 San Pedro Ave. Suite 450</u> City, State: <u>San Antonio, TX</u> Zip: <u>78216</u> Telephone: <u>210-798-2325</u> Email Address: <u>luba.esquivel@stvinc.com</u>
7.	Landowner of R.O.W. (Right of Way) Person or entity responsible for maintenance of water quality Best Management Practices (BMPs), if not applicant.
	Contact Person: Reggie Fountain Entity: Alamo Regional Mobility Authority Mailing Address: 1948 Probandt Street City, State: San Antonio, TX Zip: 78214 Telephone: 210-335-7071 Email Address: reggie.fountain@bexar.org
8.	The TCEQ must be able to inspect the project site or the application will be returned. Sufficient survey marking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of any regulated activities and the geologic or manmade features noted in the Geologic Assessment.
	Survey marking will be completed by this date: 7/17/2024
9.	Attachment A - Road Map. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.
10	Attachment B - USGS Quadrangle. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') is attached. The map(s) clearly show:
	Project site boundaries
	□ USGS Quadrangle Name(s)
	All drainage paths from site to surface waters
11.	This project extends into (Check all that apply):
	Recharge Zone (RZ)
	☐ Transition Zone (TZ) ☐ Zone not regulated by EAPP

narrative description of the proposed proje roughout the application and contains, at a
captured
phase]
Existing commercial site
Existing industrial site
Existing residential site
Other:
er Quality. A detailed description of all tached.
.3 will be used as fill material.
O.W. area <u>35.79</u> (ac.) x 100 = <u>65</u> % IC.
ng: <u>2</u>
N) <u>Y</u>

Site Plan Requirements

Items 18 - 28 must be included on the Site Plan.

18.	The Site Plan must have a minimum scale of 1" = 400'. Site Plan Scale: 1" = $\underline{100}$ '
19.	. 100-year floodplain boundaries: ☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled. The 100-year floodplain boundaries are based on the following specific (including date of material) source(s): ☐ No part of the project site is located within the 100-year floodplain.
20.	. A layout of the development with existing and finished contours at appropriate, but not greater than ten-foot contour intervals is shown. Sensitive features, lots, wells, buildings, roads, culverts, etc. are shown on the site plan.
21.	A figure (map) indicating all paths of drainage from the site to surface waters. Name all stream crossings: Meusebach Creek Drainage patterns and approximate slopes. There will be no discharge to surface waters.
22.	. Distinguish between areas of soil disturbance and areas which will not be disturbed.
23.	Show locations of major structural and nonstructural controls. These are the temporary and permanent best management practices. Include the following: Show design and location of any hazardous materials traps. Show design at outfalls of major control structures and conveyances. A description of the BMPs and measures that prevent pollutants from entering surface streams.
24.	Show locations of staging areas or project specific locations (PSL). Are they: Onsite, within project R.O.W. Offsite. Not yet determined. (Requires future authorization)
25.	. Show locations where soil stabilization practices are expected to occur.
26.	. Show surface waters (including wetlands).
27.	 Temporary aboveground storage tank facilities:
28.	. 🔀 Plan(s) also include:
	 Sidewalks ☐ Shared-use paths ☐ Related turn lanes ☐ Demolition plans ☐ Other improved areas:

Permanent Best Management Practices (BMPs)

Description of practices and measures that will be used after construction is completed.

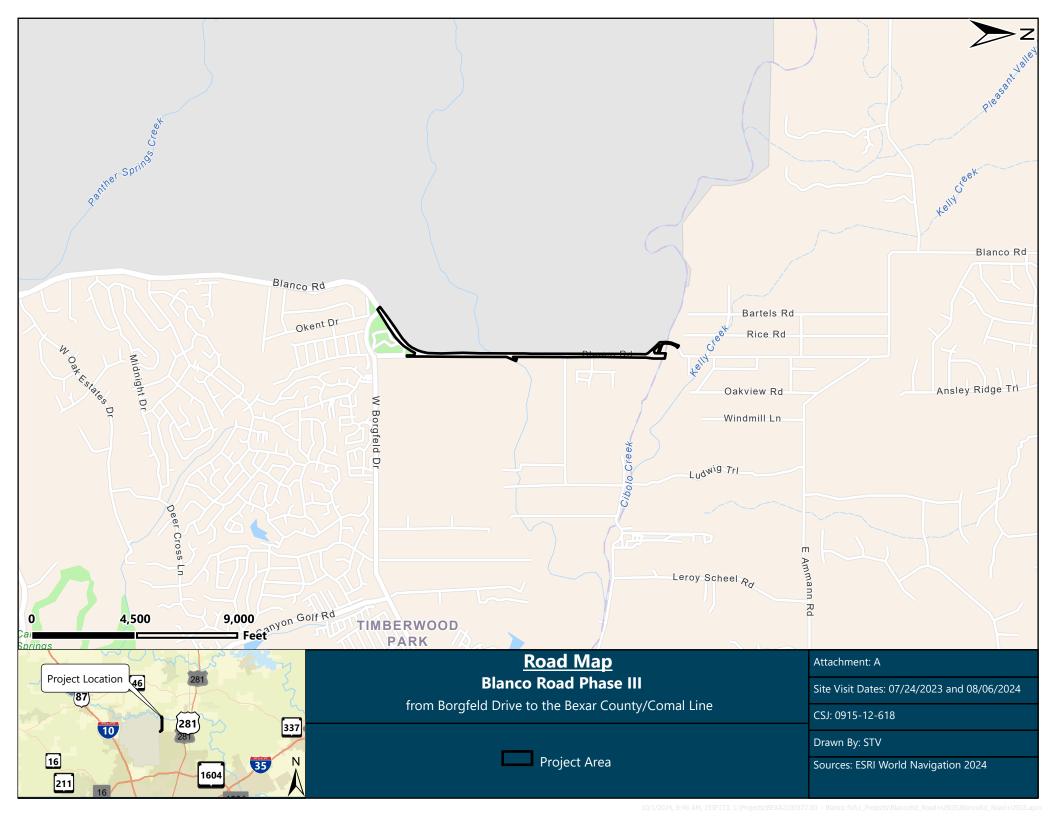
29. Permanent BMPs and measures have been of and maintained to ensure that 80% of the incretotal suspended solids (TSS) from the site cause quantities have been calculated in accordance vexecutive director.	mental increase in the annual mass loading of d by the regulated activity is removed. These
measures for this site. A technical guidance other than the TCE	GM) was used to design permanent BMPs and Q TGM was used to design permanent BMPs e citation for the technical guidance that was
30. Attachment E - BMPs for Upgradient (Offsit	te) Stormwater.
and flows across the site is attached. No surface water, groundwater or storm flows across the site, and an explanation Permanent BMPs or measures are not re-	nwater originates upgradient from the site nwater originates upgradient from the site and is attached. equired to prevent pollution of surface water, ates upgradient from the site and flows across
31. Attachment F - BMPs for On-site Stormwat	er.
surface water or groundwater that origing pollution caused by contaminated storm Permanent BMPs or measures are not re-	equired to prevent pollution of surface water or lows off the site, including pollution caused by
32. Attachment G - Construction Plans. Construction proposed permanent BMPs and measures have supervision of a Texas Licensed Professional Eng Construction plans for the proposed permanent all proposed structural plans and specifications,	been prepared by or under the direct gineer, and are signed, sealed, and dated. t BMPs and measures are attached and include
Major bridge cross-sections, and roadwa	ay plan and profiles
BMP plans and details	Design calculations
Erosion control	TCEQ Construction Notes
⊠ SW3P	EPIC, as necessary

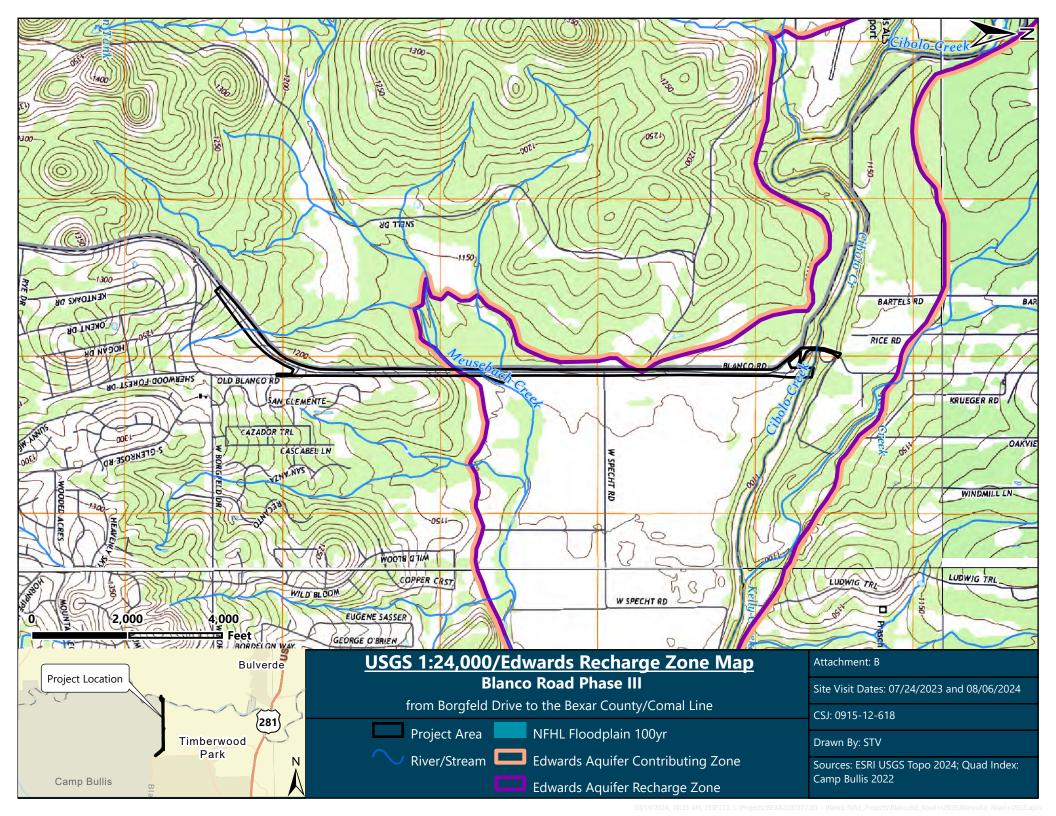
33.	Attachment H - Inspection, Maintenance, Repair and Retrofit Plan. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all the following:
	 ☑ Prepared and certified by the engineer designing the permanent BMPs and measures. ☑ Signed by the owner or responsible party. ☑ Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit. ☑ Contains a discussion of recordkeeping procedures.
34.	Attachment I - Pilot-Scale Field Testing Plan. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.
	□ N/A
35.	Attachment J - Measures for Minimizing Surface Stream Contamination. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows, and in-stream effects caused by the regulated activity which increase erosion or may result in water quality degradation.
	Include permanent spill measures used to contain hydrocarbons or hazardous substances by way of traps, or response contingencies.
36.	The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity.
	If the applicant intends to transfer responsibility, check the box below. Yes
	A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days.

Stormwater to be generated by the Proposed Project

Description of practices and measures that will be used during construction. 37. The site description, controls, maintenance, and inspection requirements for the Storm Water Pollution Prevention Plan (SWPPP or SW3P) developed under the Texas Pollutant Discharge Elimination System (TPDES) general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) & §213.5(b) of the technical report. The Temporary Stormwater Section (TCEQ-0602) is included with the application. $\overline{\square}$ The SWPPP (SW3P) will serve as the Temporary Stormwater Section (TCEQ-0602). 38. Attachment K - Volume and Character of Stormwater. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on area and type of impervious cover. Include the pre-construction runoff coefficient. Include the post-construction runoff coefficient. Administrative Information 39. X Submit one (1) original and one (1) copy of the application, plus one electronic copy as needed, for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ is required to distribute the additional copies to these jurisdictions. 40. The fee for the plan(s) is based on: The total R.O.W. (as in Item 17).

TxDOT roadway project.





EDWARDS AQUIFER PROTECTION PROGRAM ROADWAY APPLICATION TCEQ-20872 ATTACHMENT C – PROJECT DESCRIPTION

The Blanco Road Phase III project is being constructed by the Bexar County Public Works and is located 7 miles north of the N Loop 1604 in San Antonio, Texas. The southern limit of the proposed project will tie into the recently improved Blanco Road Phase II just North of intersection at Blanco Road and Borgfeld Drive while the northern limits will tie into Blanco Road just South of Bexar/Comal County Line.

The existing Blanco Road consists of 2-lane rural sections within the limits of the project. The total existing roadway width on Blanco Road between edges of pavement is 40-ft.

The proposed improvements include the widening of approximately 2.15 miles of Blanco Road from its existing two-lane section to a typical section that will provide added capacity, operational improvements, and necessary drainage improvements within an existing 120-ft. (typical) Right-of-Way ("ROW"). The project will consist of Hot Mix Asphalt Pavement, concrete curb and gutter, drainage and water quality improvements, grading and channel grading, topsoil work for final planting and seeding. There are existing culverts and ditches within the limits of the project.

Total site area is 35.79 acres. Existing impervious cover is 11.46 acres (27%) and the proposed impervious area is 23.24 acres (54%). The existing impervious cover is based on 1989 land use and development. The roadway did not change between 1989 and now.

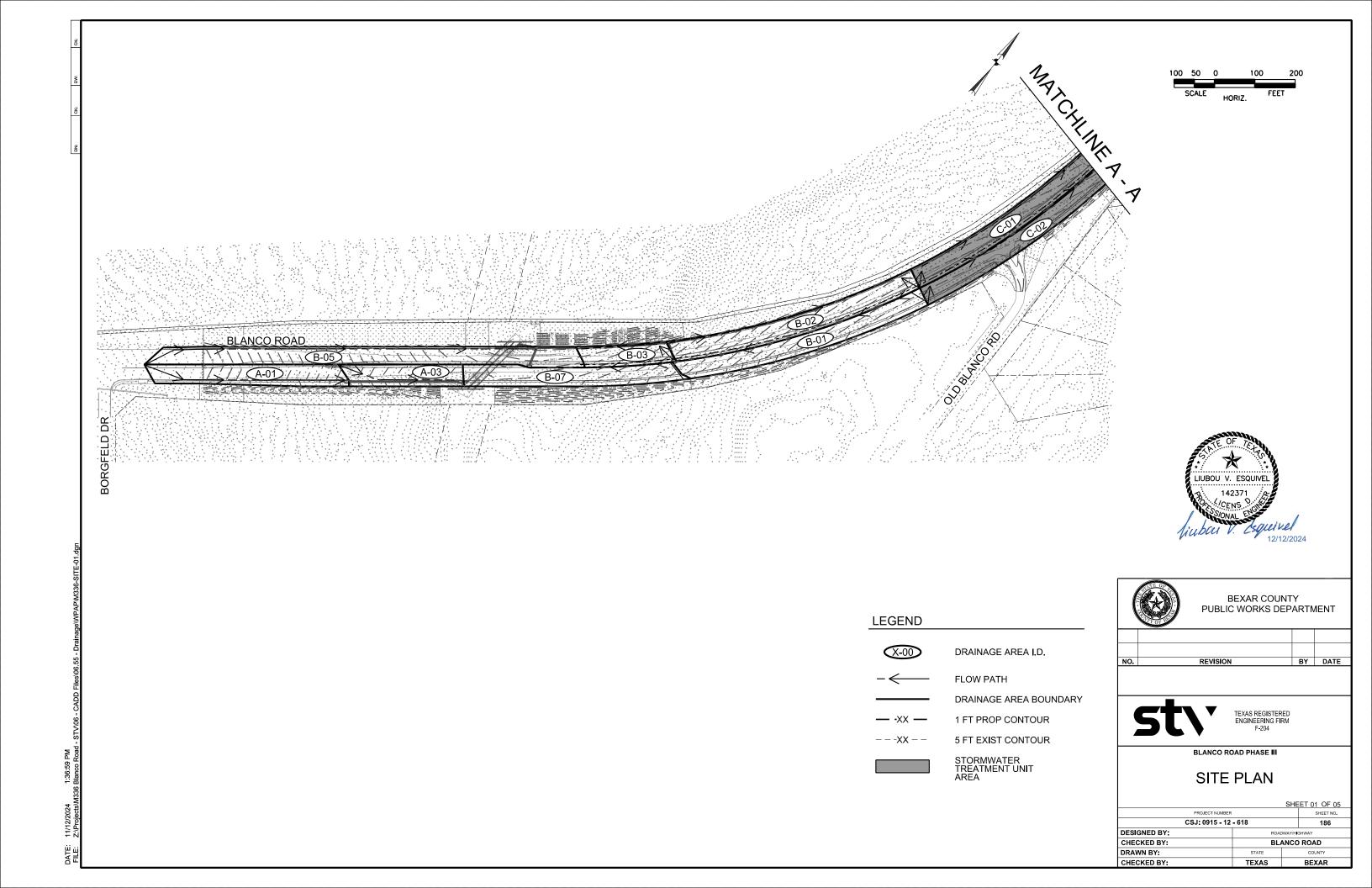
Permanent water quality treatment will be provided by mechanical filtration method utilizing Jelly Fish designed to treat 86% of the increase in TSS caused by the project. Offsite areas are included in the calculations and are shown on the Site Plans.

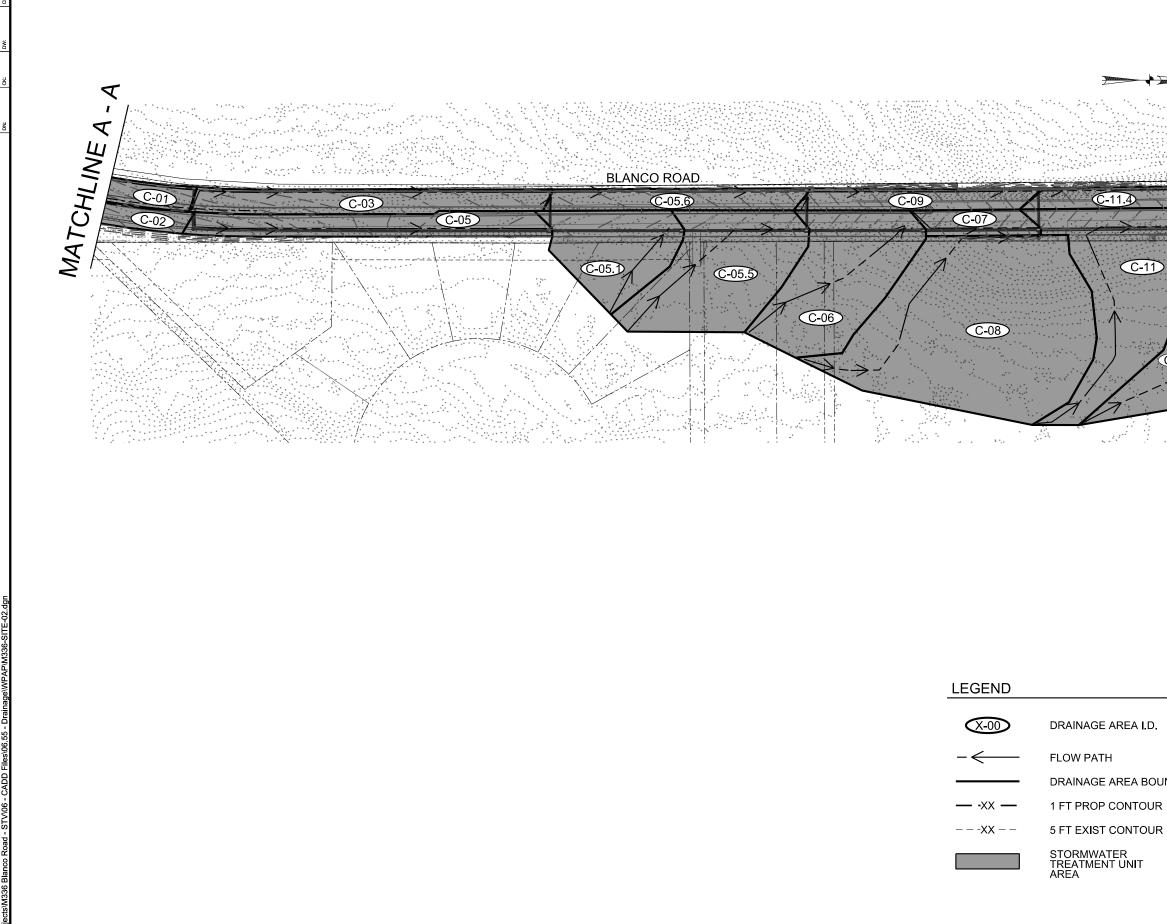
This project is located within the Edwards Aquifer, in both recharge and contributing zones.

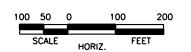
EDWARDS AQUIFER PROTECTION PROGRAM ROADWAY APPLICATION TCEQ-20872

ATTACHMENT D – FACTORS AFFECTING WATER QUALITY

- I. Major Soil Disturbing Activities Include:
 - a. Install erosion and sediment control BMPs down-slope of work area and initiate inspection and maintenance activities.
 - b. Begin phased construction with interim stabilization practices. Adjust erosion and sedimentation controls during construction to meet requirements and changing conditions and as directed/approved by the Environmental Compliance Inspector or Environmental Compliance Manager.
 - c. Major soil disturbing activities may include but are not limited to: right-of-way preparation, drill shafts, cut and/or fill, paving operations, final grading and placement of topsoil and the following:
 - Clearing and Grubbing
 - Placement of road base
 - Construction of retaining walls
 - Upgrading or replacing culverts or bridges
 - Utility Relocation
- II. Potential sources of contamination associated with the construction phase of this project that could affect storm water quality are listed as follows:
 - 1. Runoff and erosion of sediment and pollutants from exposed soil due to site preparation, including grading, excavation, trenching, drilling, boring and clearing vegetation.
 - 2. Oil and Grease from runoff pollutants associated with paving.
 - 3. Construction sewage leaks from sanitary facilities including portable bathrooms.
 - 4. Gasoline, engine coolant, transmission fluid, etc. from leaks or spills associated with vehicle use on site.
 - 5. Sediment and high pH runoff caused by concrete mixer washout.
 - 6. Construction product staging, storage, waste and litter.
 - 7. Fertilizer and pesticide used for landscaping.
 - 8. Building materials such as sealants leaked or spilled on site.
 - 9. TSS runoff loads from roadways.
- III. Potential sources of contamination associated with the operation phase of this project that could affect storm water quality are listed as follows:
 - 1. Surface water runoff form roadway pavement.
 - 2. TSS runoff loads from roadways.
 - 3. Runoff for fuel or hazardous material spills.
 - 4. Sewer lines and potential leaks. Lines within the project corridor are owned by San Antonio Water System (SAWS) will be submitted separately by SAWS for relocation of the sewer lines.









DRAINAGE AREA I.D.

FLOW PATH

DRAINAGE AREA BOUNDARY

1 FT PROP CONTOUR

STORMWATER TREATMENT UNIT AREA



 \mathbf{m}

 $\mathbf{\Omega}$

MATCHLINE

(C-11)

BEXAR COUNTY PUBLIC WORKS DEPARTMENT

BY DATE REVISION

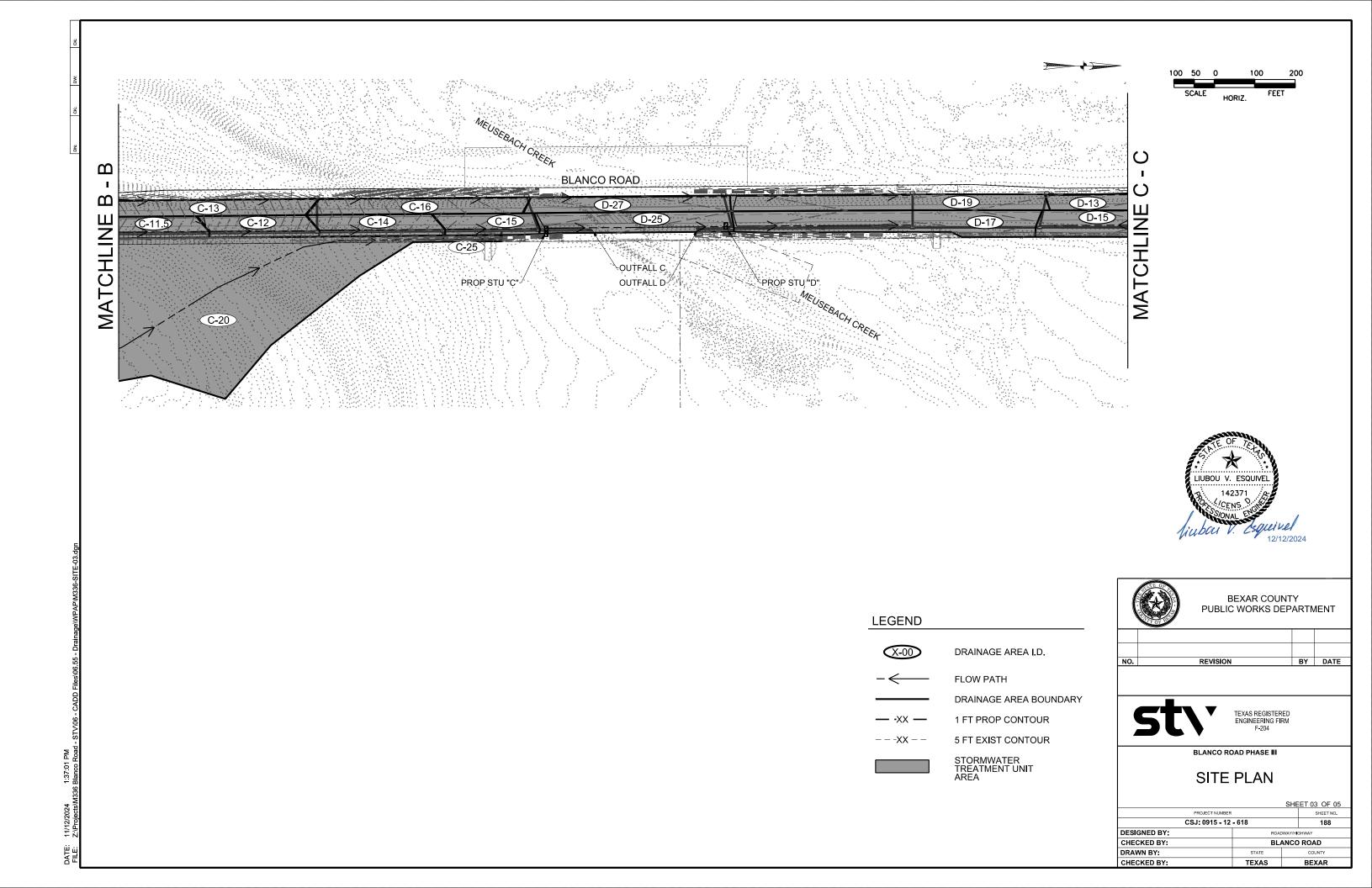


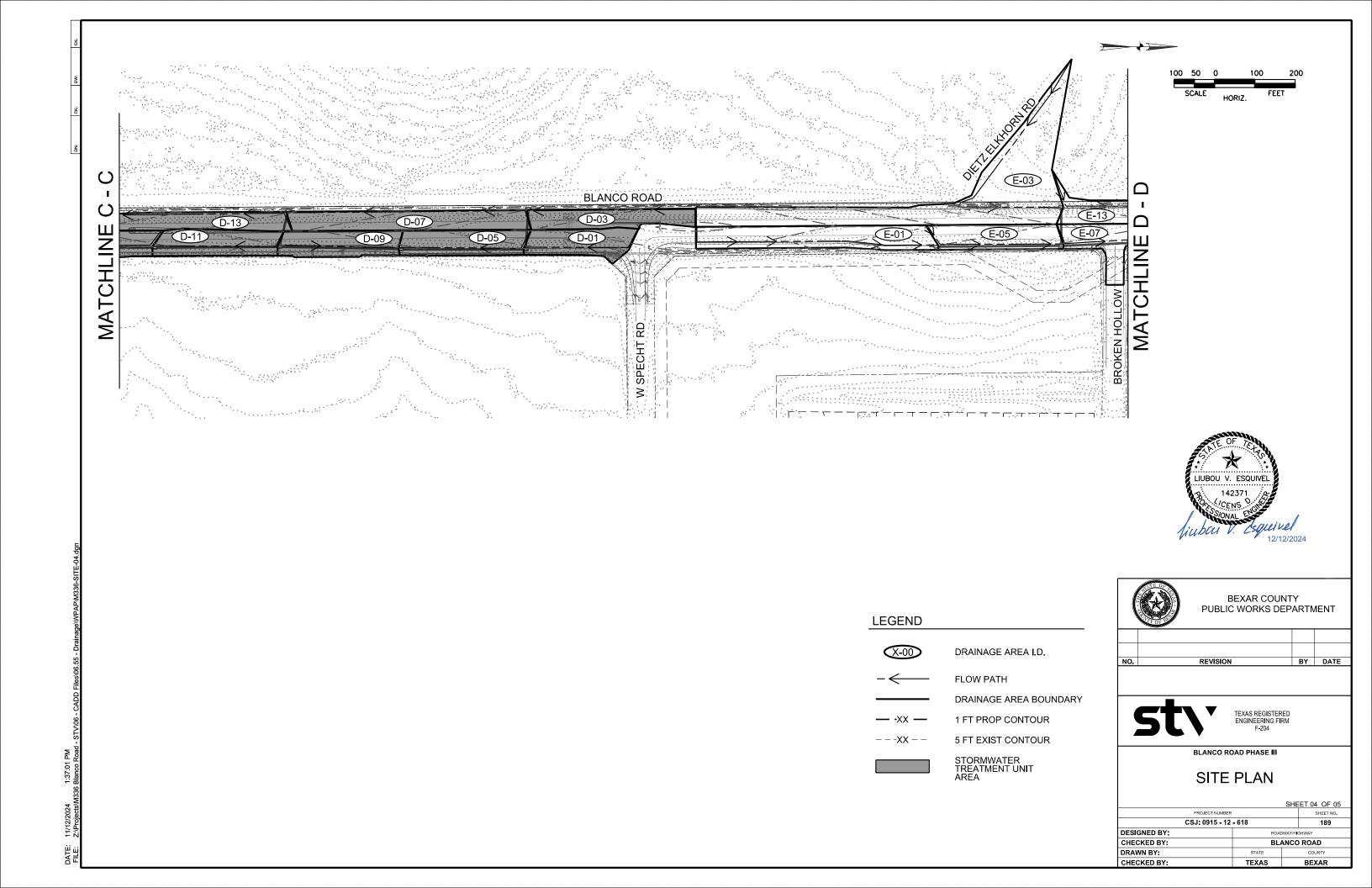
TEXAS REGISTERED ENGINEERING FIRM F-204

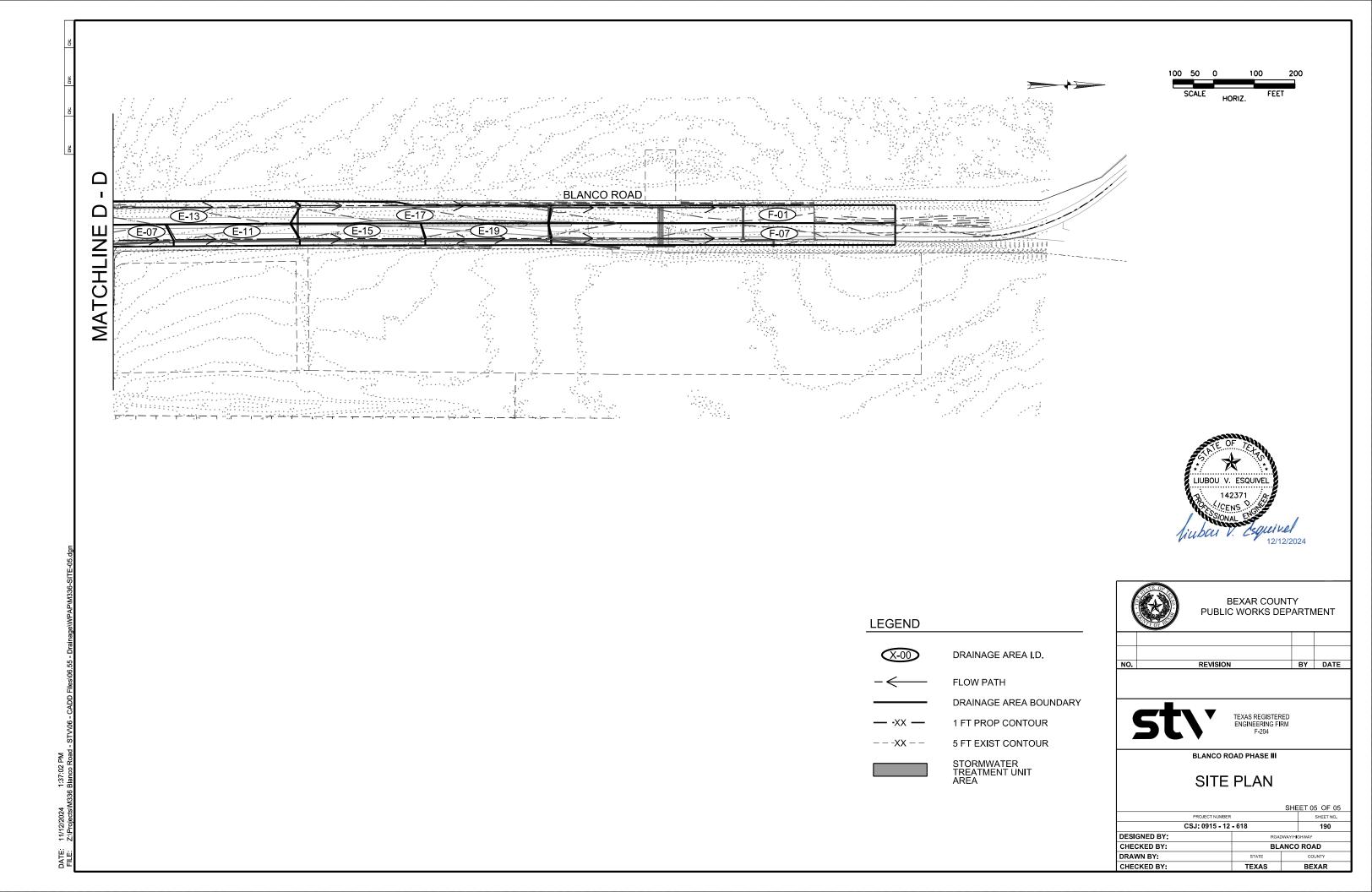
BLANCO ROAD PHASE III

SITE PLAN

SHEET 02 OF 09								
PROJECT NUMBER SHEET N								
CSJ: 0915 - 12		187						
DESIGNED BY:	SHWAY							
CHECKED BY:	BLANCO ROAD							
DRAWN BY:	STATE		COUNTY					
CHECKED BY:	TEXAS		BEXAR					







EDWARDS AQUIFER PROTECTION PROGRAM ROADWAY APPLICATION TCEQ-20872 ATTACHMENT E – BMPs FOR UPGRADIENT STORMWATER

All upgradient stormwater is collected in roadside ditches and existing systems, and diverted around the proposed impervious cover. Upgradient stormwater may still end up in systems with water quality units and treated prior to discharge into culverts and eventually offsite. In the permanent condition, all upgradient flow patterns will remain unchanged and TSS loading will not be increased. All on-site runoff affected by increased impervious cover will be treated fully before converging with upgradient stormwater.

EDWARDS AQUIFER PROTECTION PROGRAM ROADWAY APPLICATION TCEQ-20872 ATTACHMENT F – BMPs FOR ON-SITE STORMWATER

The proposed site development is required to remove at least 83% of the increase in total suspended solids (TSS) caused by the net increase in impervious cover at each outfall on the project site. In order to accomplish this all on-site stormwater will be treated by water quality treatment units installed in multiple locations on storm sewers within the limits of the project. The proposed stormwater treatment units will be contained in subgrade manholes. They will collect storm sewer flow in a splitter manhole which will divert the first flush of runoff into the treatment unit. Treated water will then return to the storm sewer system before discharge. The specific treatment units utilize the Jellyfish Filter System, it is detailed in Section 3.2 of the Edwards Aquifer Technical Guidance Manual, July 2005. Permanent BMPs have been sized according to the Edwards Aquifer TSS Removal Calculations Spreadsheet. Total TSS load increase calculations are included below in this Attachment.

BMP Name	Total Drainage area	Pre-develop impervious area	Post-develop impervious area	2. Post- develop fraction	2. Lm TSS (lbs) required	4. Total On- Site DA	4. Impervious Area	4. Lr TSS (lbs) max	5. Lr TSS (lbs) desired	5. Fraction	6. Offsite area	6. Offsite impervious area
	AC	AC	AC		LBS	AC	AC	LBS	LBS			
Basin A	0.92	0.58	0.82	0.89	196	0.92	0.82	733	660	0.9		
Basin B	3.54	1.71	2.69	0.76	800	3.41	2.69	2411	2170	0.9		
Basin C	22.21	3.78	7.47	0.34	3011	9.40	7.47	6695	6026	0.9	12.61	0.1
Basin D	7.24	2.72	6.09	0.84	2750	6.59	6.09	5443	4899	0.9		
Basin E	6.32	2.21	4.57	0.72	1926	6.32	4.57	4104	3694	0.9	0.93	
Basin F	2.6	0.46	1.59	0.61	922	1.92	1.59	1424	1282	0.9		
Total	42.86	11.46	23.24		9612							



EDWARDS AQUIFER PROTECTION PROGRAM ROADWAY APPLICATION TCEQ-20872 ATTACHMENT G – CONSTRUCTION PLANS

Submitted Construction Plan Sheets:

- Design Calculations
- TCEQ Construction Notes
- Roadway Plan and Profiles
- Drainage Plan and Profiles
- Water Quality Unit Details
- EPIC
- SWP3 Narrative
- SWP3 plans

Contech Engineered Solutions Calculations for Texas Commission on Environmental Quality TSS Removal Calculations

Project Name: Blanco Rd Phase 3
Date Prepared: 10/28/2024

1. The Required Load Reduction for the total project:

Calculations from RG-348

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

Pages 3-27 to 3-30

 $L_{\rm M\,TOTAL\,PROJECT} = \ Required\,TSS\ removal\ resulting\ from\ the\ proposed\ development = 80\%\ of\ increased\ load$

 A_N = Net increase in impervious area for the project

P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County = Total project area included in plan * = 42.86 acres Predevelopment impervious area within the limits of the plan * = 11.46 acres Total post-development impervious area within the limits of the plan* = 23.24 acres Total post-development impervious cover fraction * = 0.54 30 inches $L_{M TOTAL PROJECT} =$ 9612 lbs.

Number of drainage basins / outfalls areas leaving the plan area =

2. Drainage Basin Parameters (This information should be provided for each basin):

	C	Drainage Basin/Outfall Area No. =
acres	22.21	Total drainage basin/outfall area =
acres	3.78	Predevelopment impervious area within drainage basin/outfall area =
acres	7.47	Post-development impervious area within drainage basin/outfall area =
	0.34	Post-development impervious fraction within drainage basin/outfall area =
lhe	2011	I arming proprie

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **JF** abbreviation Removal efficiency = **86** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $LR = (BMP \text{ efficiency}) \times P \times (A_1 \times 34.6 + A_P \times 0.54)$

 A_{C} = Total On-Site drainage area in the BMP catchment area

 ${
m A_I}$ = Impervious area proposed in the BMP catchment area ${
m A_P}$ = Pervious area remaining in the BMP catchment area

 L_R = TSS Load removed from this catchment area by the proposed BMP

$A_C =$	9.40	acres
$A_I =$	7.47	acres
$A_P =$	1.93	acres
In =	660=	lhe

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{\text{MTHIS BASIN}} = \frac{6026}{\text{lbs}}$ lbs

$\underline{\textbf{6. Calculate Treated Flow required by the BMP Type for this drainage basin / outfall area.}\\$

Offsite area draining to BMP = O.10 acres acres

Rainfall Intensity = 1.10 inches per hour acres

Effective Area = 7.25 acres
Cartridge Length = 54 inches

Effective Area = 7.25 acres

Cartridge Length = 54 inche

Peak Treatment Flow Required = 8.04 cubic feet per second

7. Jellyfish

Designed as Required in RG-348 Section 3.2.22

Calculations from RG-348 Pages Section 3.2.22

Flow Through Jellyfish Size

Jellyfish Size for Flow-Based Configuration = (2)JFPD0811-21-5
Jellyfish Treatment Flow Rate = 8.38 cfs

LIUBOU V. ESQUIVEL

142371

142371

142371

15000 V. ESQUIVEL

.

Contech Engineered Solutions Calculations for Texas Commission on Environmental Quality TSS Removal Calculations

Project Name: Blanco Rd Phase 3
Date Prepared: 10/28/2024

1. The Required Load Reduction for the total project:

Calculations from RG-348

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

Pages 3-27 to 3-30

 $L_{\rm M\,TOTAL\,PROJECT} = \ Required\,TSS\ removal\ resulting\ from\ the\ proposed\ development = 80\%\ of\ increased\ load$

 A_N = Net increase in impervious area for the project

P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

	Bexar	County =
acres	42.86	Total project area included in plan * =
acres	11.46	Predevelopment impervious area within the limits of the plan * =
acres	23.24	Total post-development impervious area within the limits of the plan* =
	0.54	Total post-development impervious cover fraction * =
inches	30	P =
lbs.	9612	$L_{MTOTAL, PROJECT} =$

Number of drainage basins / outfalls areas leaving the plan area = 2

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. =	D	
Total drainage basin/outfall area =		acres
Predevelopment impervious area within drainage basin/outfall area =	2.72	acres
Post-development impervious area within drainage basin/outfall area =	6.09	acres
Post-development impervious fraction within drainage basin/outfall area =	0.84	
$L_{M THIS BASIN} =$	2750	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **JF** abbreviation Removal efficiency = **86** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $LR = (BMP \ efficiency) \ x \ P \ x \ (A_1 \ x \ 34.6 + A_P \ x \ 0.54)$

 A_{C} = Total On-Site drainage area in the BMP catchment area

 A_I = Impervious area proposed in the BMP catchment area

 A_P = Pervious area remaining in the BMP catchment area

 L_R = TSS Load removed from this catchment area by the proposed BMP

$A_C =$	6.59	acres
$A_I =$	6.09	acres
$A_P =$	0.50	acres
I.a. =	E449	lhe

${\bf 5.\,Calculate\,Fraction\,of\,Annual\,Runoff\,to\,Treat\,the\,drainage\,basin\,/\,outfall\,area}$

Desired $L_{M THIS BASIN} =$	4899	lbs.
E -	0.00	

$\underline{\textbf{6. Calculate Treated Flow required by the BMP Type for this drainage basin / outfall area.}\\$

Offsite area draining to BMP = Offsite impervious cover draining to BMP =	0.00 0.00	acres acres
Rainfall Intensity =	1.10	inches per hour
Effective Area =	5.50	acres
Cartridge Length =	54	inches

Peak Treatment Flow Required = 6.10 cubic feet per second

7. Jellyfish

Designed as Required in RG-348 Section 3.2.22

Calculations from RG-348 Pages Section 3.2.22

Flow Through Jellyfish Size

Vault

Jellyfish Size for Flow-Based Configuration = Jellyfish Treatment Flow Rate = 6.15 cfs

12/16/2024

Control: 0915-12-618

County: Bexar

Highway: Blanco Road

No extension of time or compensation payment will be granted for a delay or suspension of work caused by nesting swallows.

- Provide a non-intrusive back-up alarm system on all heavy equipment used in close proximity to residential areas. This item is subsidiary to various bid items.
- When a precast or cast-in-place concrete element is included in the plans, a precast concrete alternate may be submitted in accordance with "Standard Operating Procedure for Alternate Precast Proposal Submission" found online at https://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/publications/bridge.html#design. Acceptance or denial of an alternate is at the sole discretion of the Engineer. Impacts to the project schedule and any additional costs resulting from the use of alternates are the sole responsibility of the Contractor.
- Excavation within 5 feet of an existing CPS Energy pole will require pole bracing. Contact CPS Energy utility coordination to request pole bracing (Customer Engineering 210-353-4050). The estimated duration for the pole bracing process is approximately 10 to 15 weeks.

--Item 6--

- 6-1 Show the stockpile lot and/or sub lot numbers on all tickets for all materials.
- 6-2 Steel Wrapped or Asbestos Utility Lines:

Existing steel wrapped natural gas and/or asbestos cement (AC) water lines that will no longer be in service are usually abandoned in place (AIP). However, if any of these lines have to be removed for whatever reason (in the way of other construction, to make tie-ins, etc.), comply with Item 6.

If removal of AC water lines is included in the construction contract, then notify the Engineer of proposed dates of removal of the AC water lines in accordance to Item 6. Excavate to the top of the AC water line to allow a separate contractor hired by the State to remove the AC water line. The excavation for the AC water line removal is subsidiary to the work that created the need for the removal (excavation for structures, roadway, a new line, tie-ins, etc.).

6-3 The Buy America Material Classification Sheet is located at the below link.

https://www.txdot.gov/business/resources/materials/buy-america-material-classification-sheet.html for clarification on material categorization.

--Item 7--

7-1A The project's total disturbed area is 35.79 AC. The disturbed area in all project locations and Contractor project specific locations (PSL's), within 1/4 mile of the project limits, will further establish the authorization requirements for storm water discharges. The department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. Obtain any required authorization from the TCEQ for any PSL's on or off the ROW. When the total area disturbed on the project

and PSL's within 1/4 mile of the project exceeds 5 acres, provide a copy of the Contractor NOI for PSL's to the Engineer (to the appropriate MS4 operator when the project is on an off-state system route).

- Notify the Engineer of the disturbed acreage within one (1) mile of the project limits. Obtain authorization from the TCEQ for Contractor PSL's for construction support activities on or off ROW.
- 7-3B Roadway closures during the following key dates and/or special event are prohibited. See TCP Narrative for these dates.
- 7-4 Law Enforcement patrol vehicles must be marked as "Police".

TCEQ WPAP General Construction Notes:

- 1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
 - the name of the approved project;
 - the activity start date; and
 - the contact information of the prime contractor.
- 2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan (WPAP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.
- 3. If any sensitive feature(s) (caves, solution cavity, sink hole, etc.) is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. Construction activities may not be resumed until the TCEQ has reviewed and approved the appropriate protective measures in order to protect any sensitive feature and the Edwards Aquifer from potentially adverse impacts to water quality.
- 4. No temporary or permanent hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
- 5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the approved plans and manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.

General Notes General Notes 17C

Control: 0915-12-618

County: Bexar

Highway: Blanco Road

6. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.

- 7. Sediment must be removed from the sediment traps or sedimentation basins not later than TCEQ-0592 (Rev. July 15, 2015) Page 2 of 2 when it occupies 50% of the basin's design capacity.
- 8. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
- 9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
- 10. If portions of the site will have a temporary or permanent cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.
- 11. The following records shall be maintained and made available to the TCEQ upon request:
 - the dates when major grading activities occur;
 - the dates when construction activities temporarily or permanently cease on a portion of the site; and
 - the dates when stabilization measures are initiated.
- 12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:
 - A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
 - B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
 - C. any development of land previously identified as undeveloped in the original water pollution abatement plan

--Item 8--

- 8-1 Working days will be computed and charged in accordance with Article 8.3.1.1:5-Day work
- 8-2B A Special Provision to Item 8 for a delayed authorized date to begin work has been included in the contract. The reason for including the Special Provision is for material processing or contractor mobilization.
- 8-3 Create and maintain a Critical Path Method (CPM) schedule.
- 8-3A The CPM schedule shall be created and maintained using software fully compatible with Primavera Project Planner version P6 Professional R15.2.
- 8-5 Incentive using road-user cost or contract administration liquidated damage values and disincentive using road-user cost will be paid in accordance with special provision 008---006.

--Item 9--

9-1 When approved, provide uniformed, off-duty law enforcement officers with marked vehicles during work that requires a lane closure. The officer in marked vehicles shall be located as approved to monitor or direct traffic during the closure. The method used to direct traffic at signalized intersections shall be as approved. Additional officers and vehicles may be provided when approved or directed.

> Complete the daily tracking form provided by the department and submit invoices that agree with the tracking form for payment at the end of each month approved services were provided.

Show proof of certification by the Texas Commission on Law Enforcement Standards.

All law enforcement personnel used in Work Zone Traffic Control shall be trained for performing duties in work zones and are required to take "Safe and Effective Use of Law Enforcement Personnel in Work Zones" (Course #133119) which can be found online at the following site: www.nhi.fhwa.dot.gov

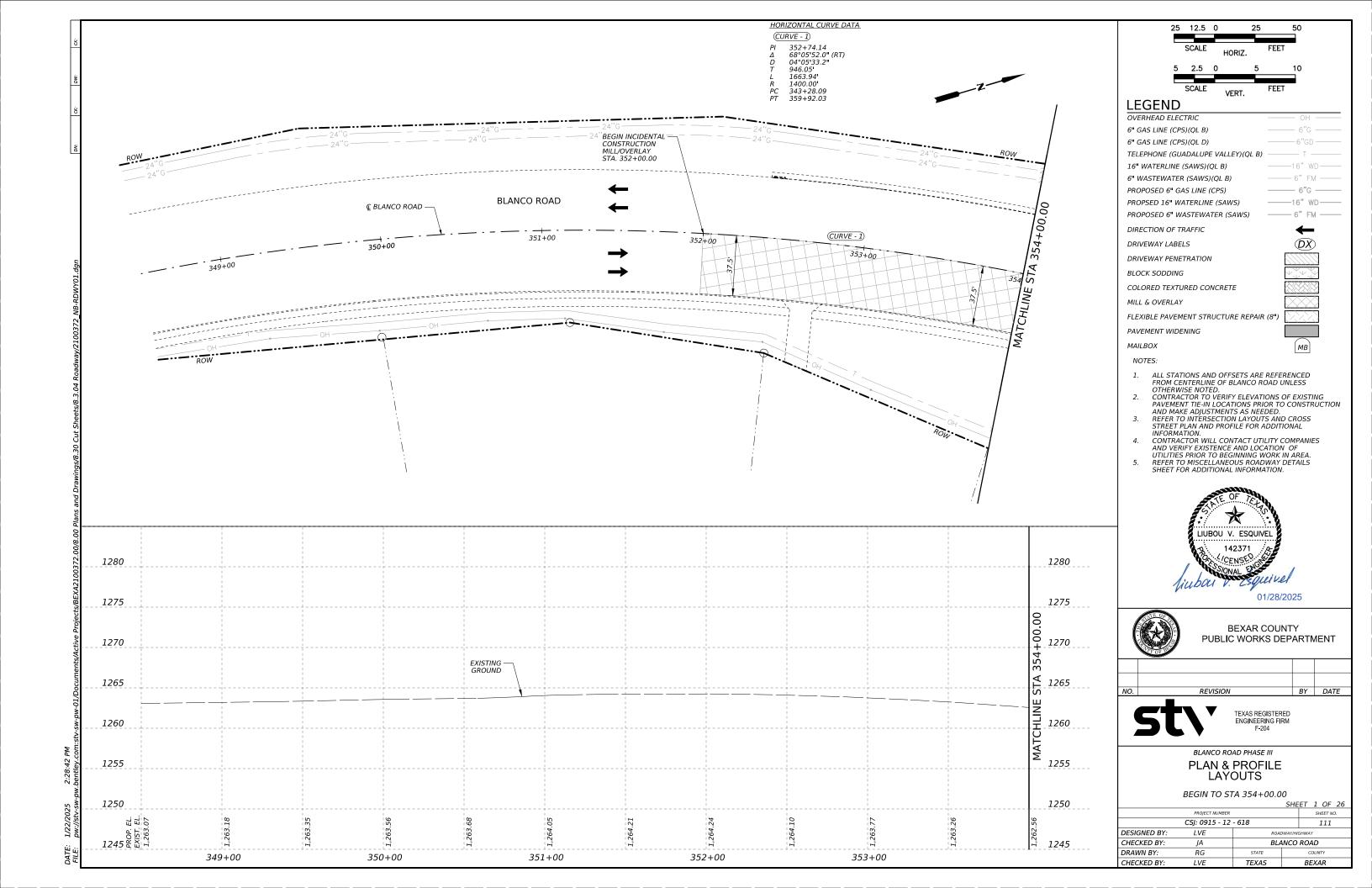
Certificates of completion should be available to all who finish the course. These should be kept by the officers to substantiate completion when reporting to the work site.

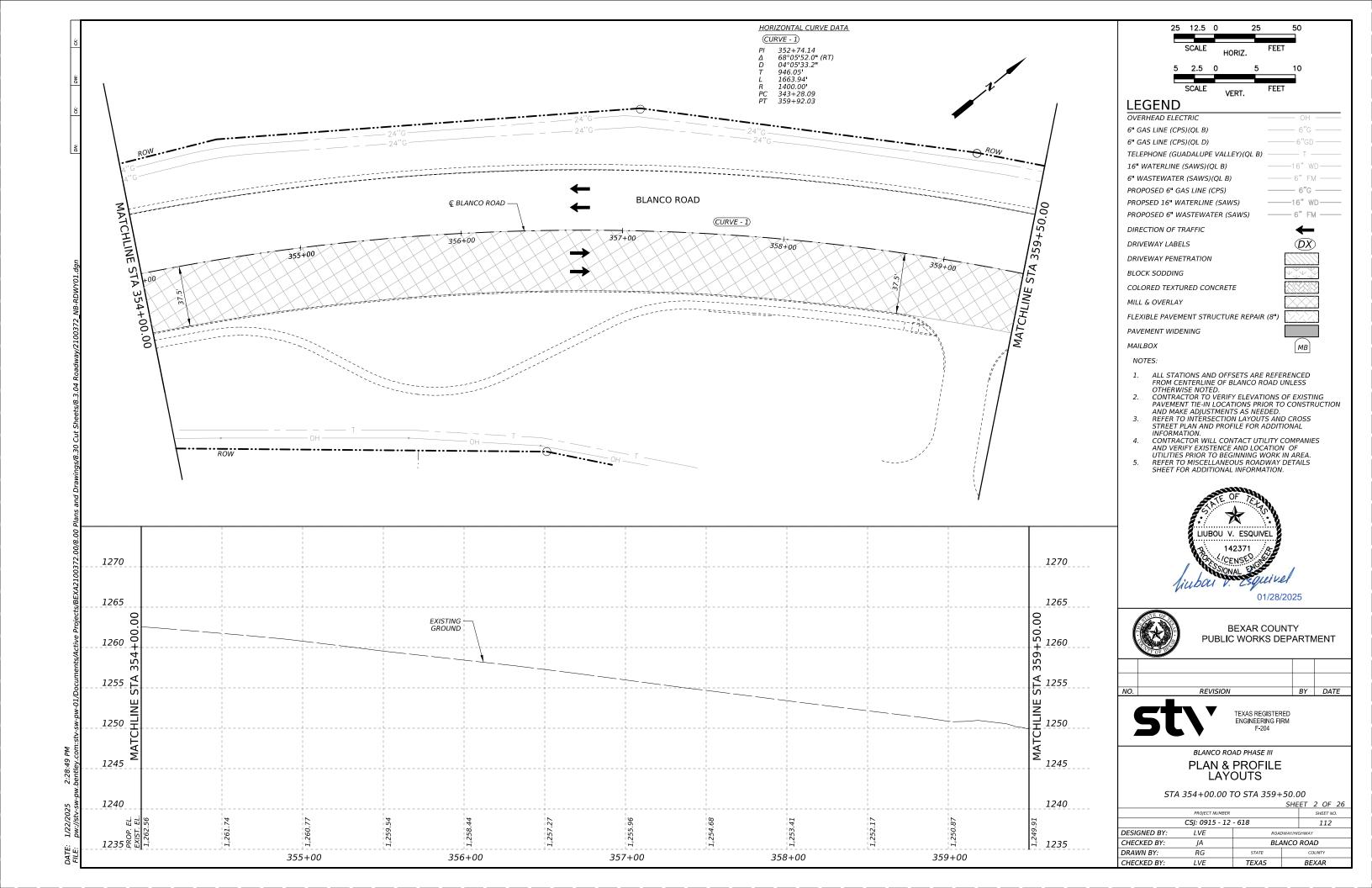
Minimums, scheduling fees, etc. will not be paid; TxDOT will consider paying cancellation fees on a case-by-case basis.

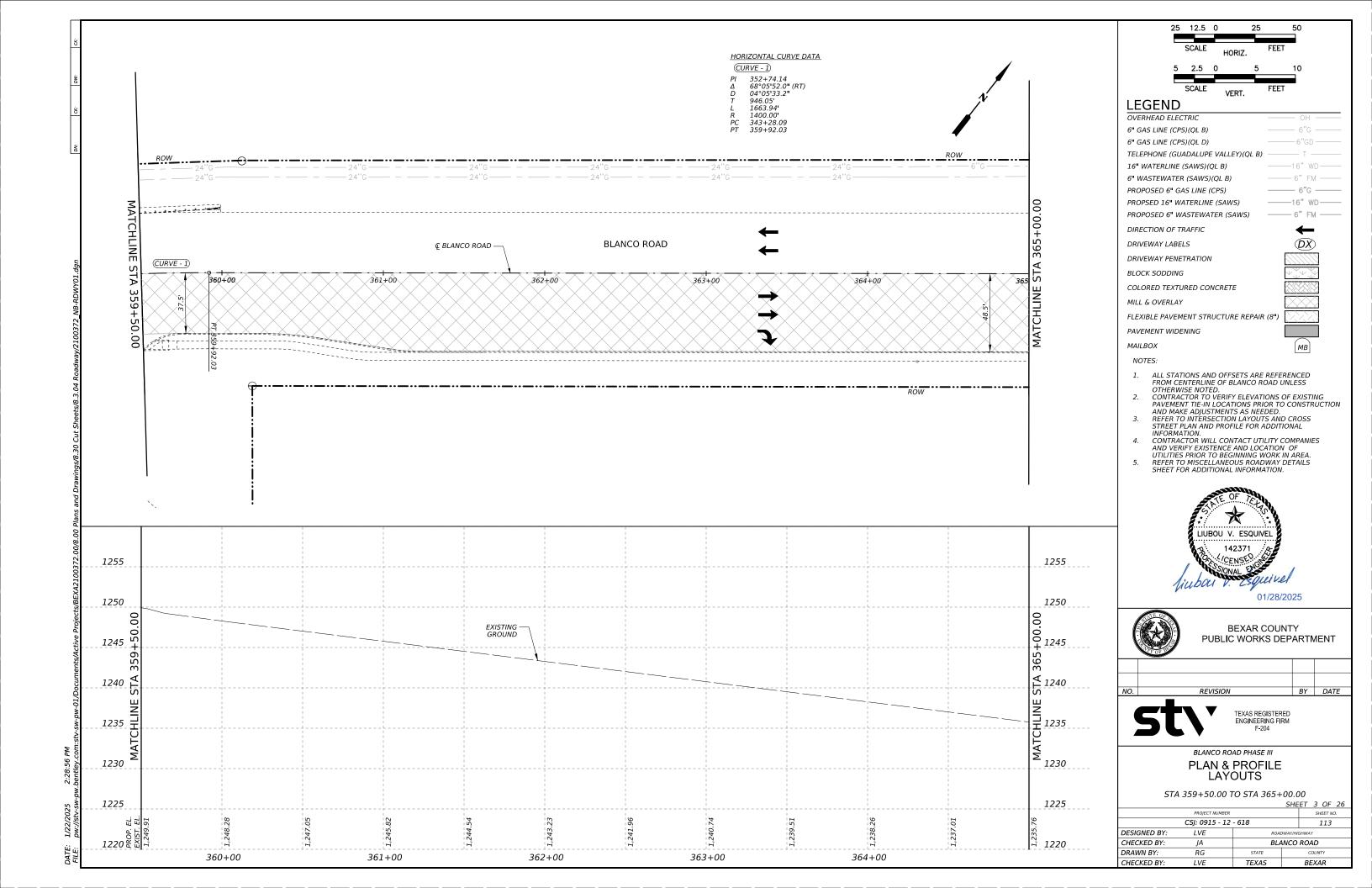
--Item 100--

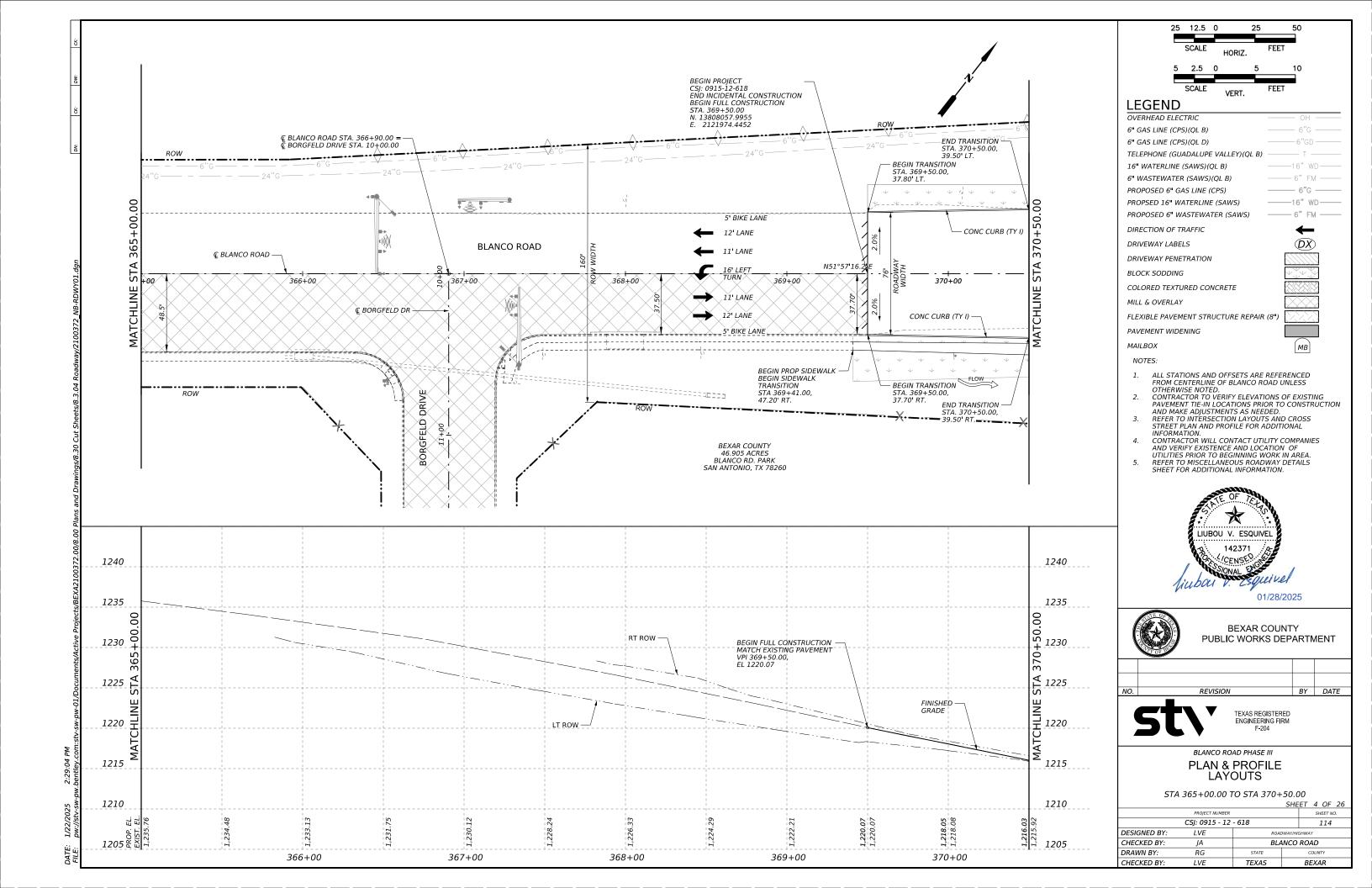
100-1 Trim and remove brush and trees within the stations noted in the plans and as needed for construction operations. Unless shown otherwise in the plans or a designated non-mow area, perform trimming or removal for areas to the ROW limits. Trim or remove to provide minimum of 5 ft. of horizontal clearance and 7 ft. of vertical clearance for the following: sidewalks, paths, guard fence, rails, signs, object markers, and structures. Trim to provide a minimum of 12 ft. vertical clearance under all trees.

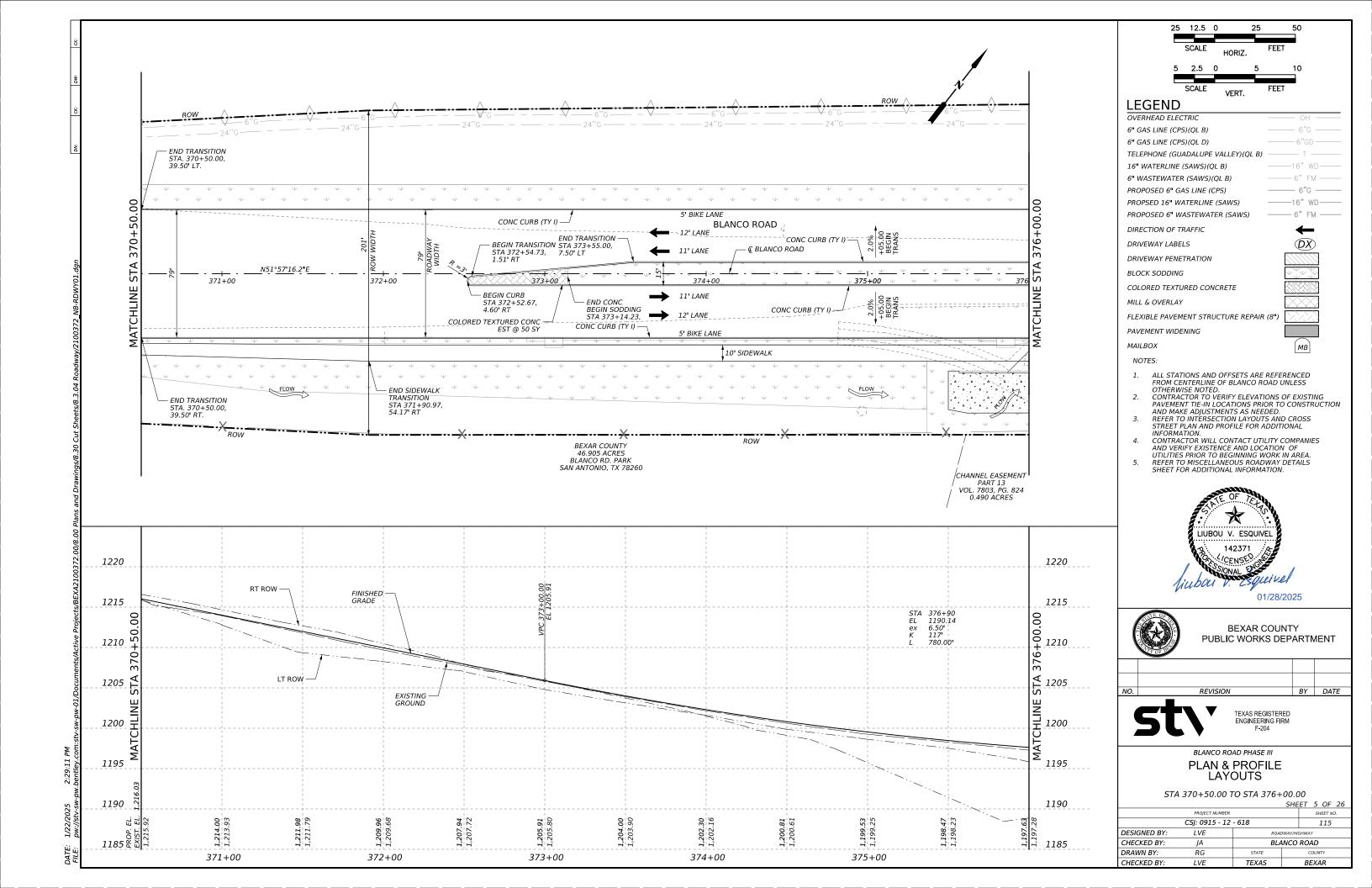
General Notes General Notes 17D

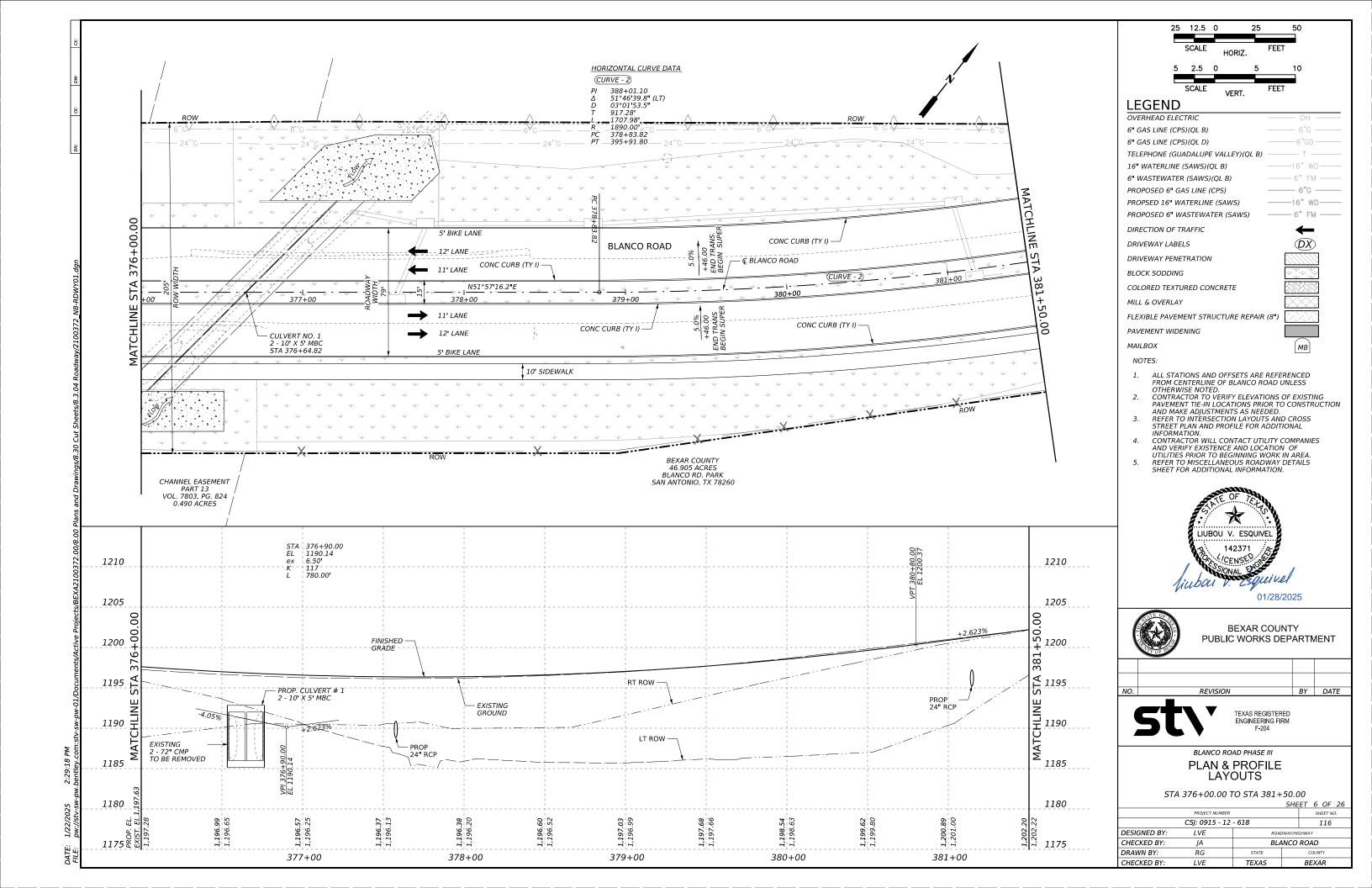


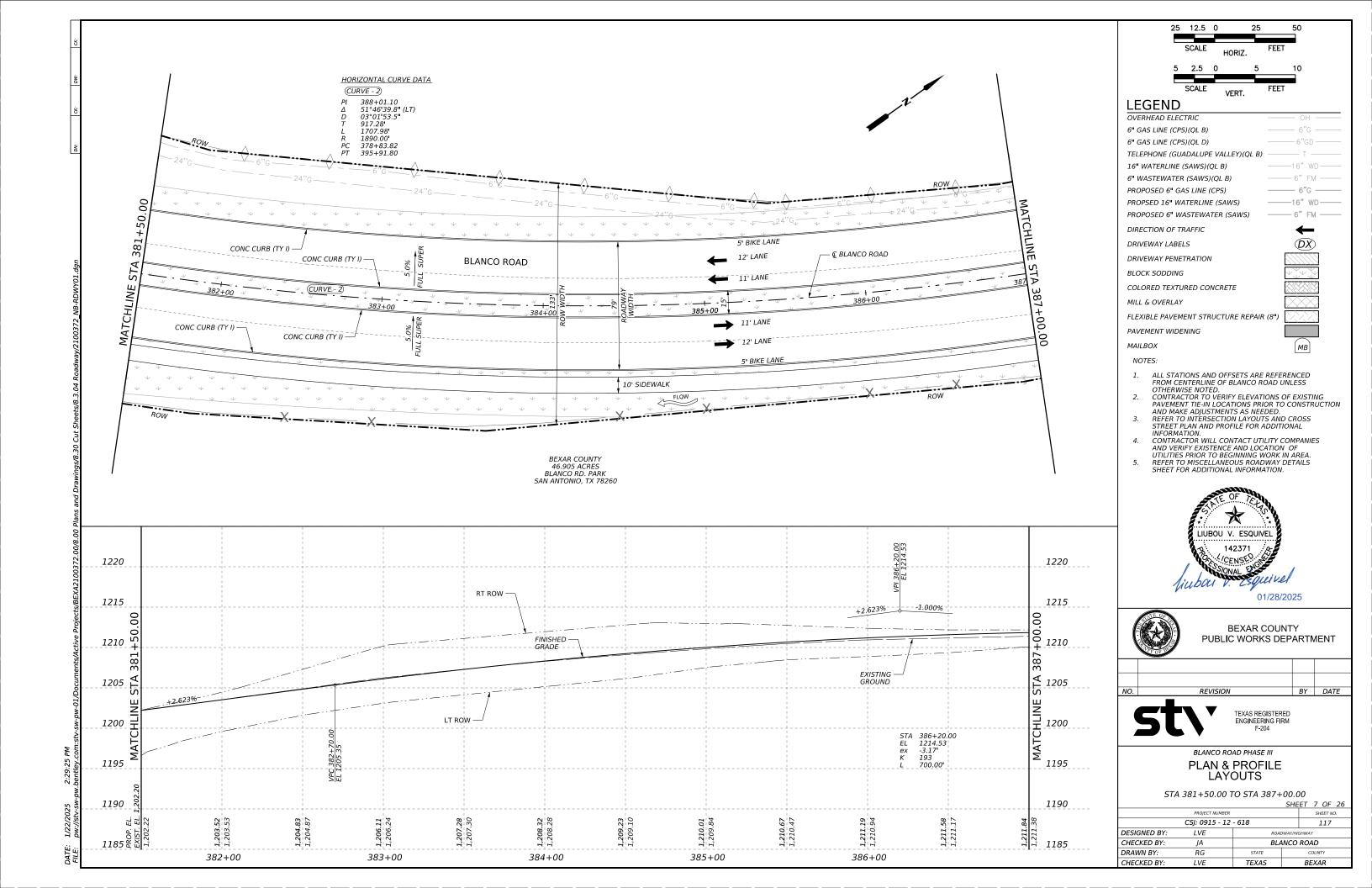


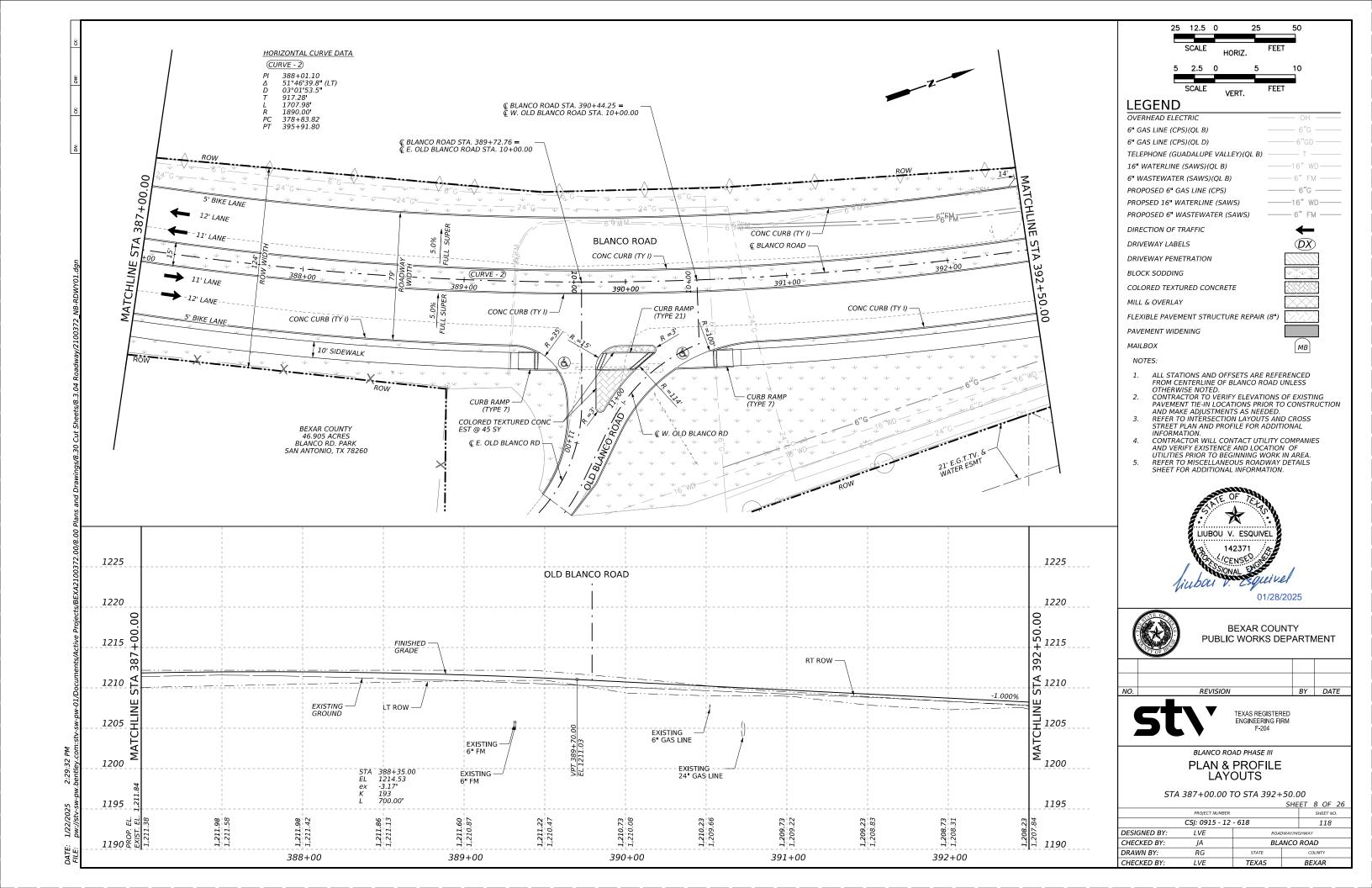


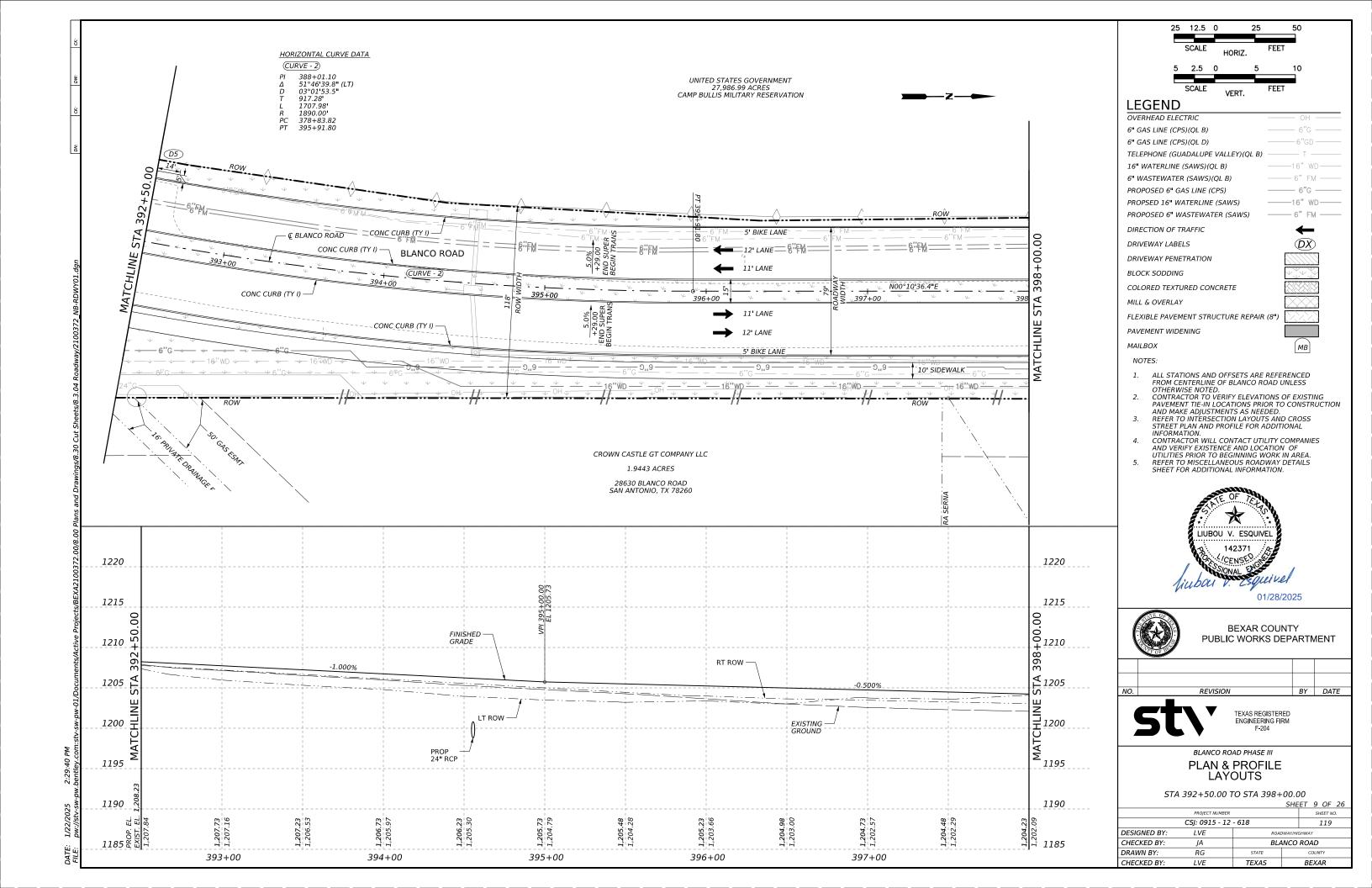


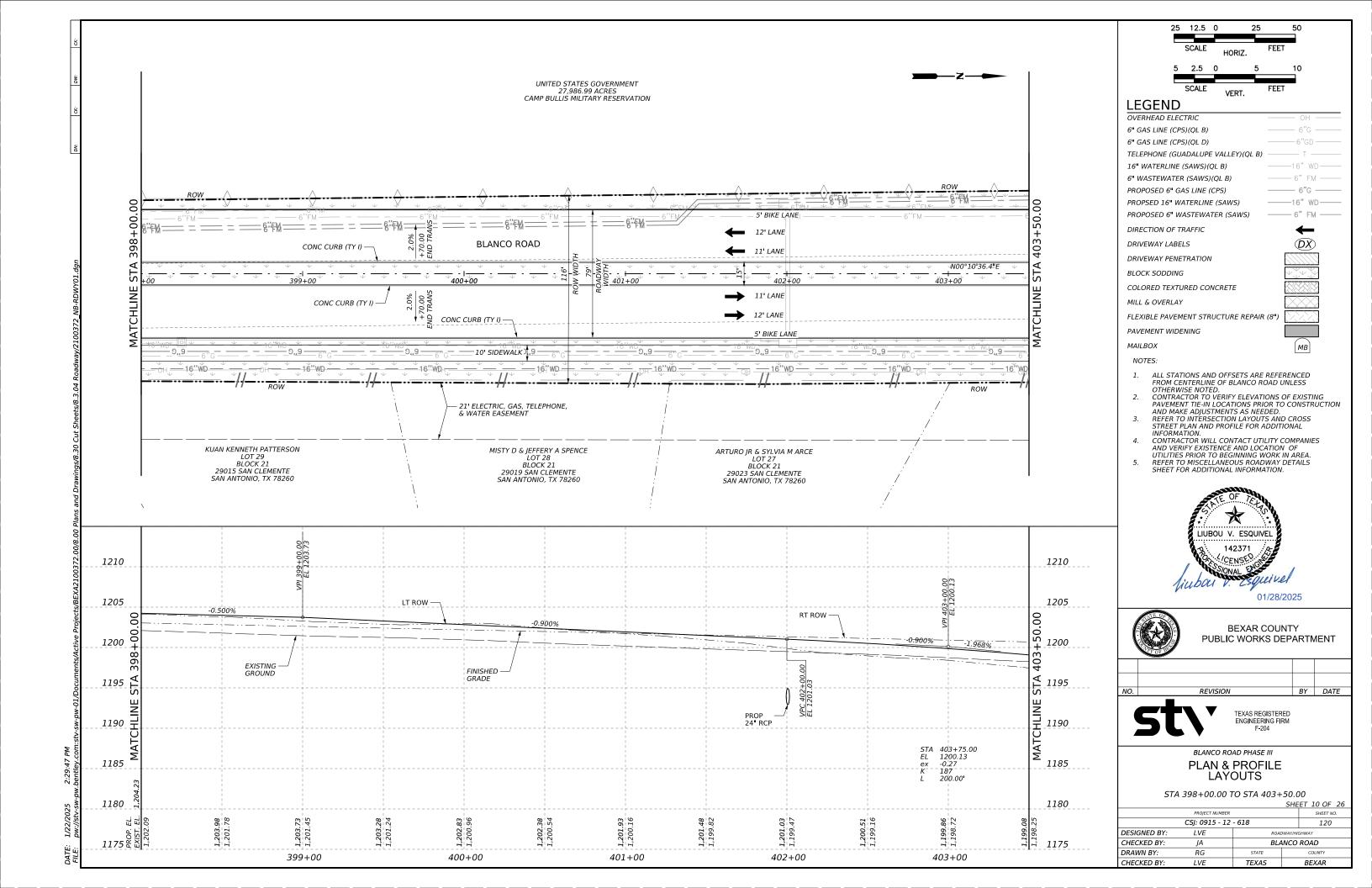


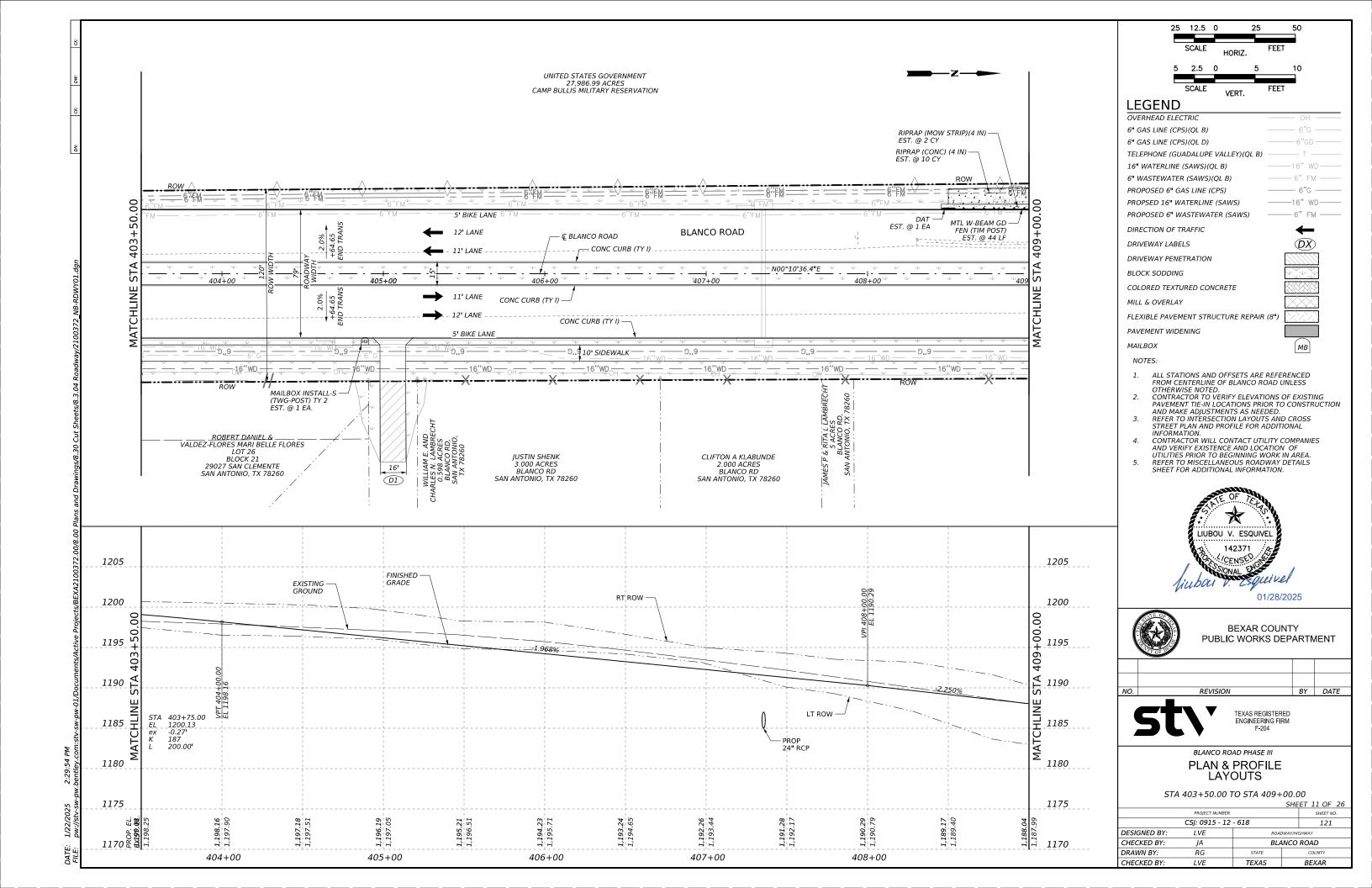


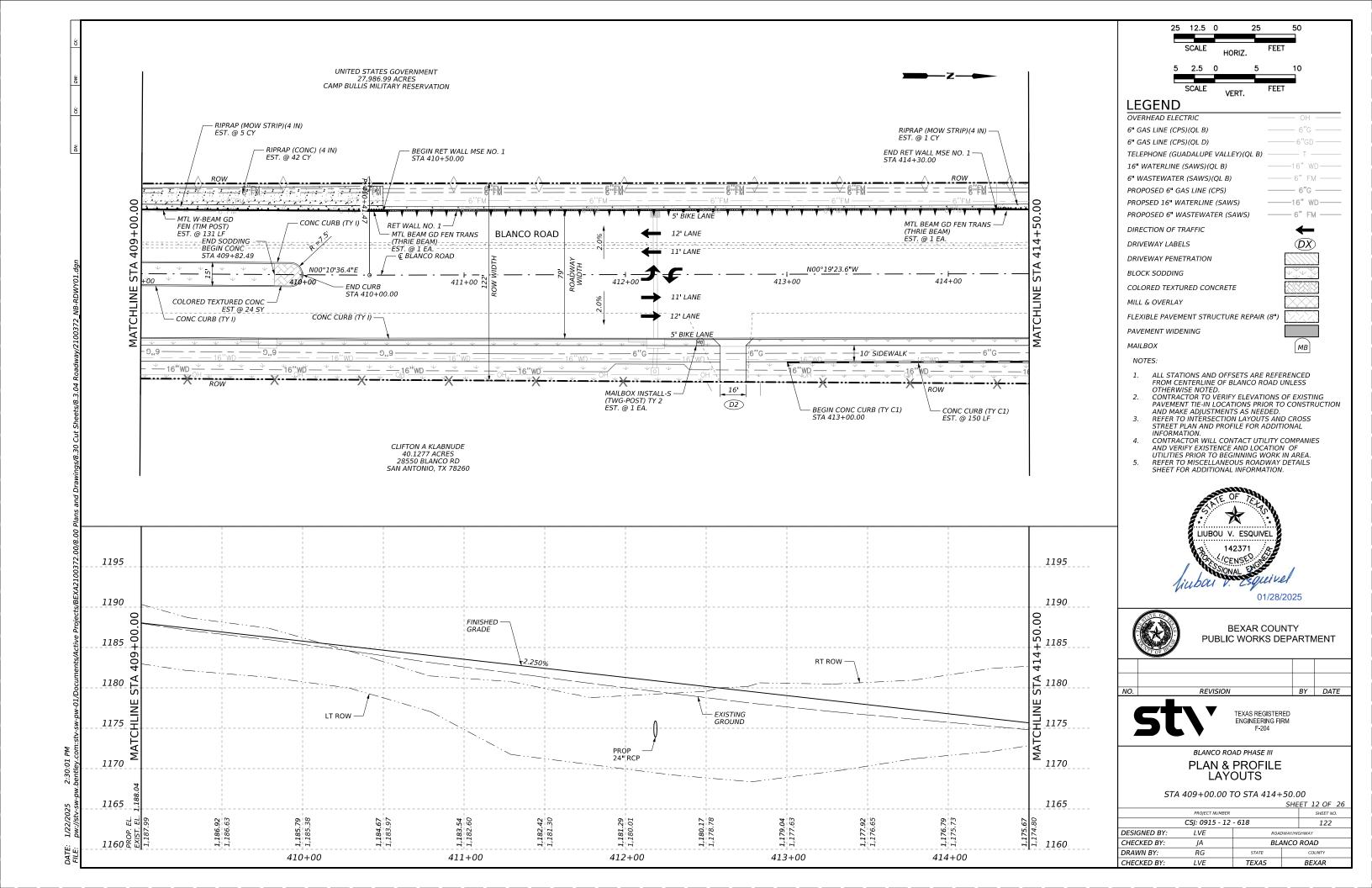


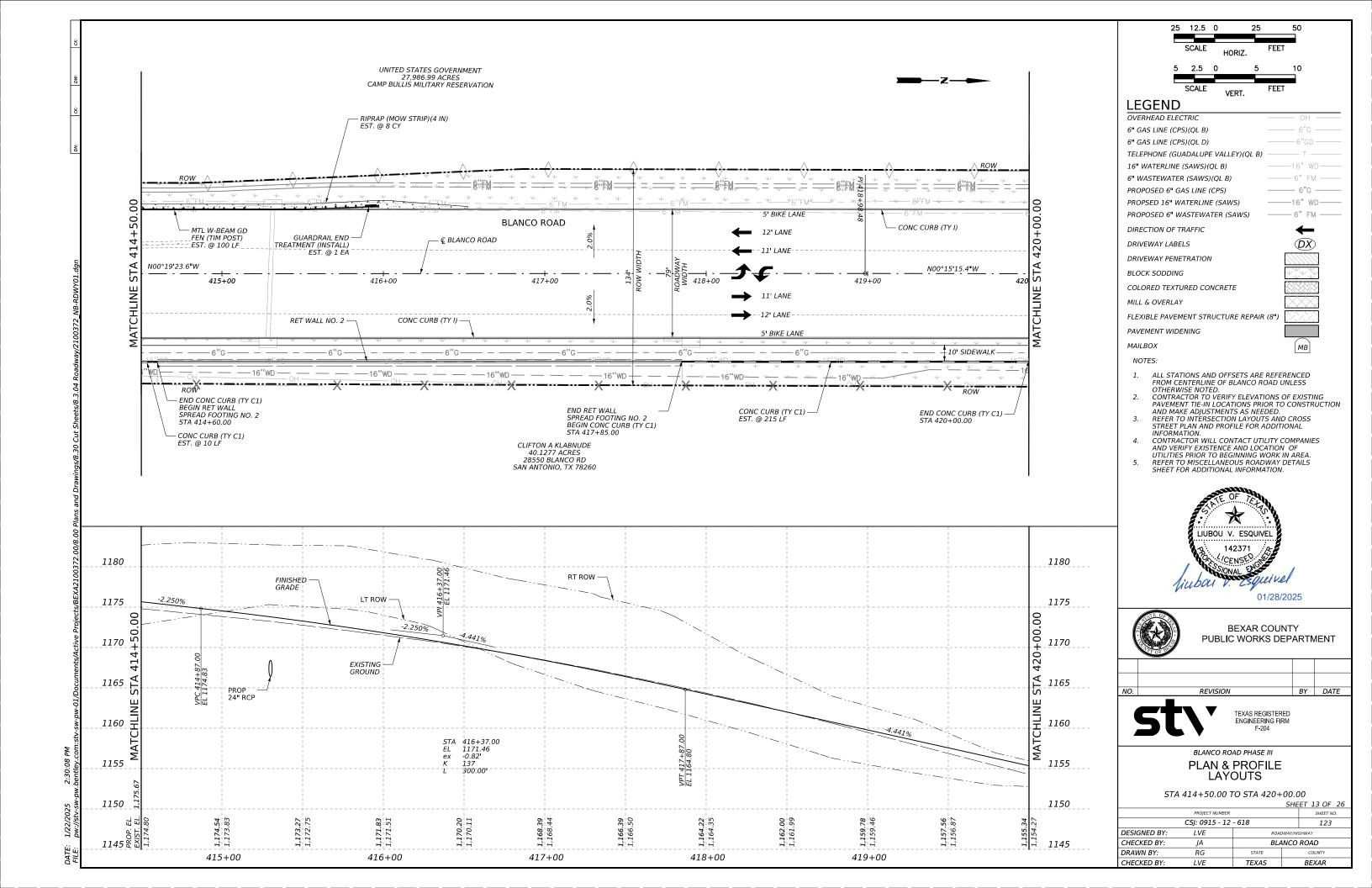


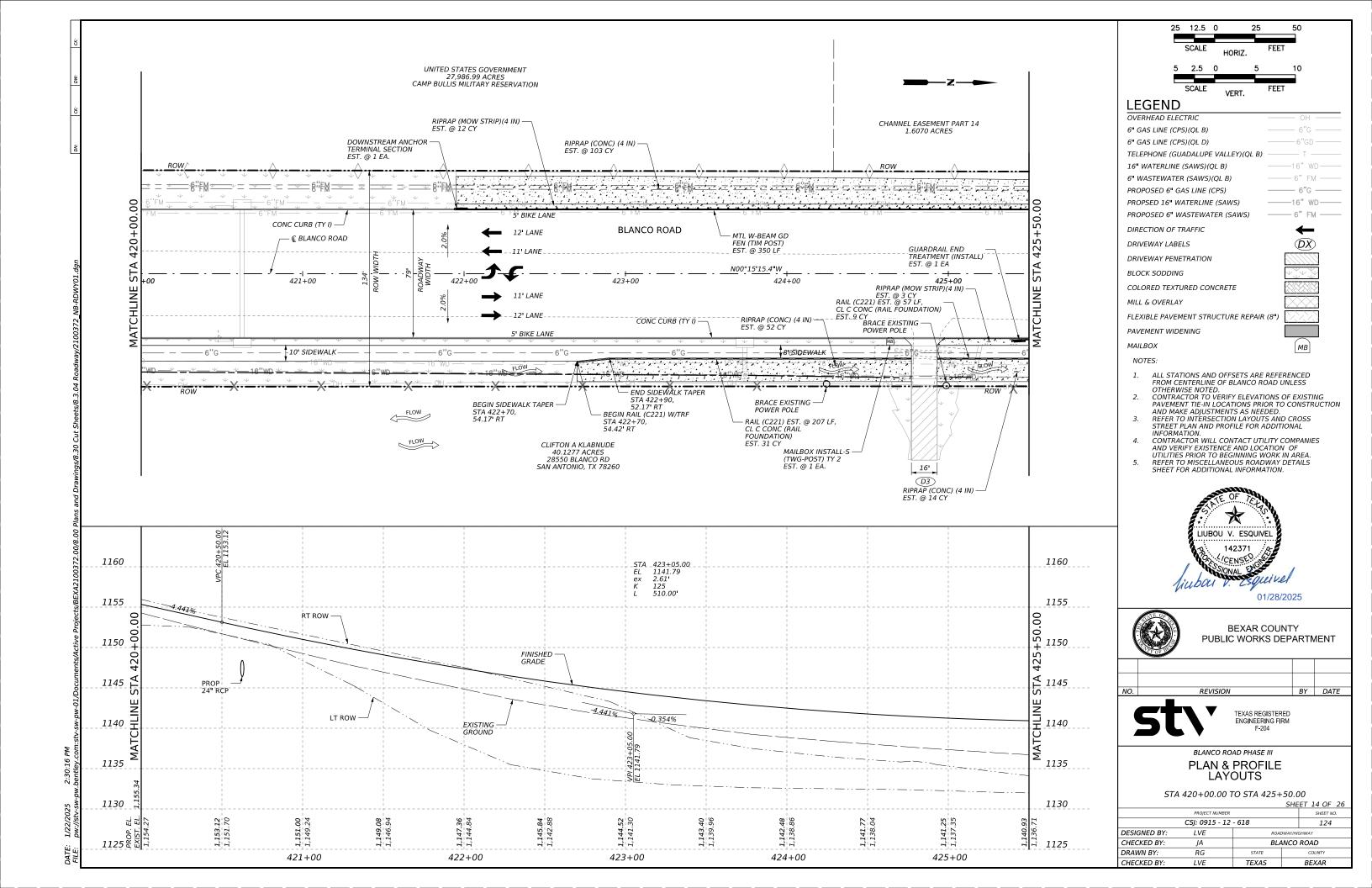


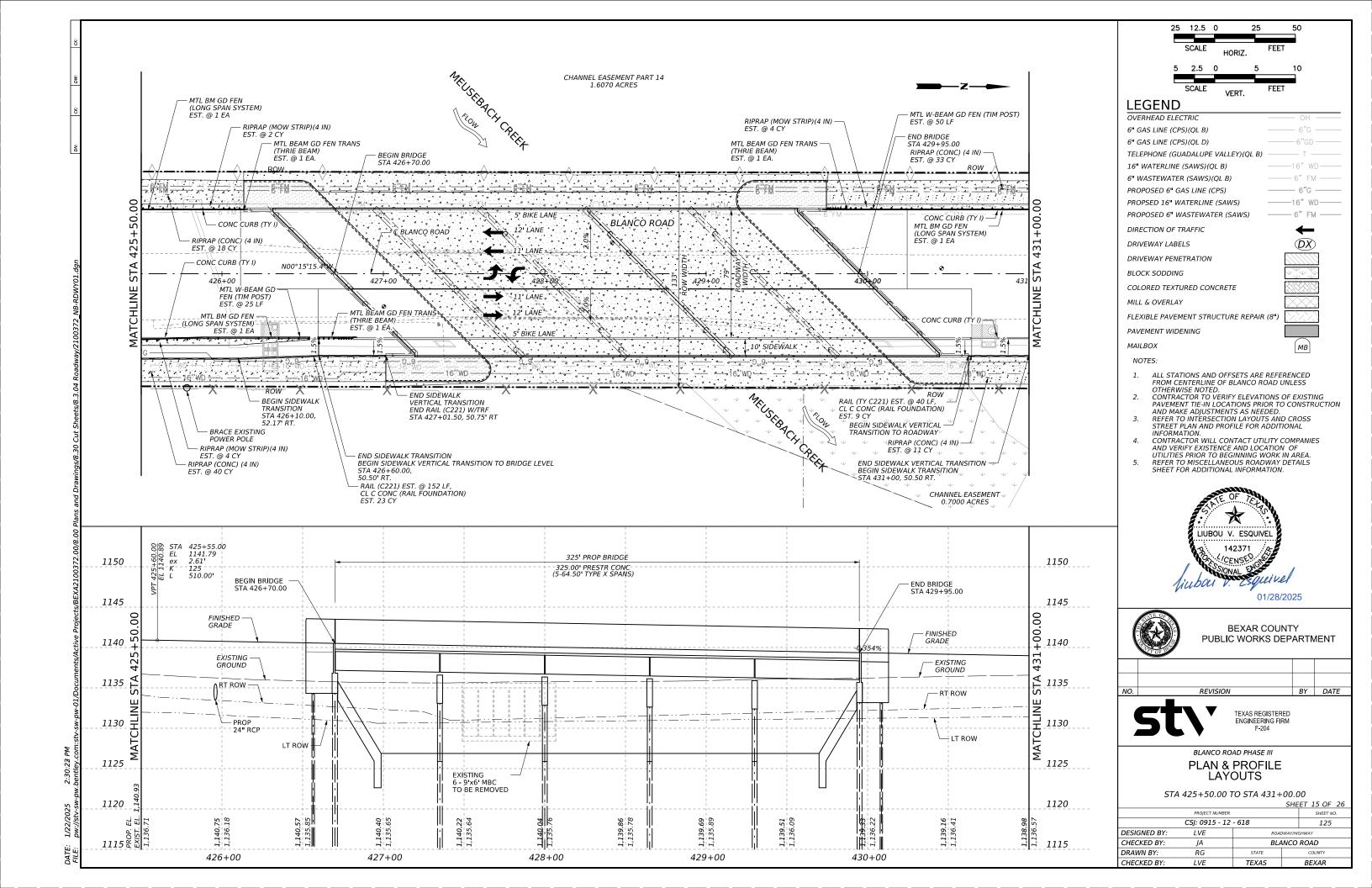


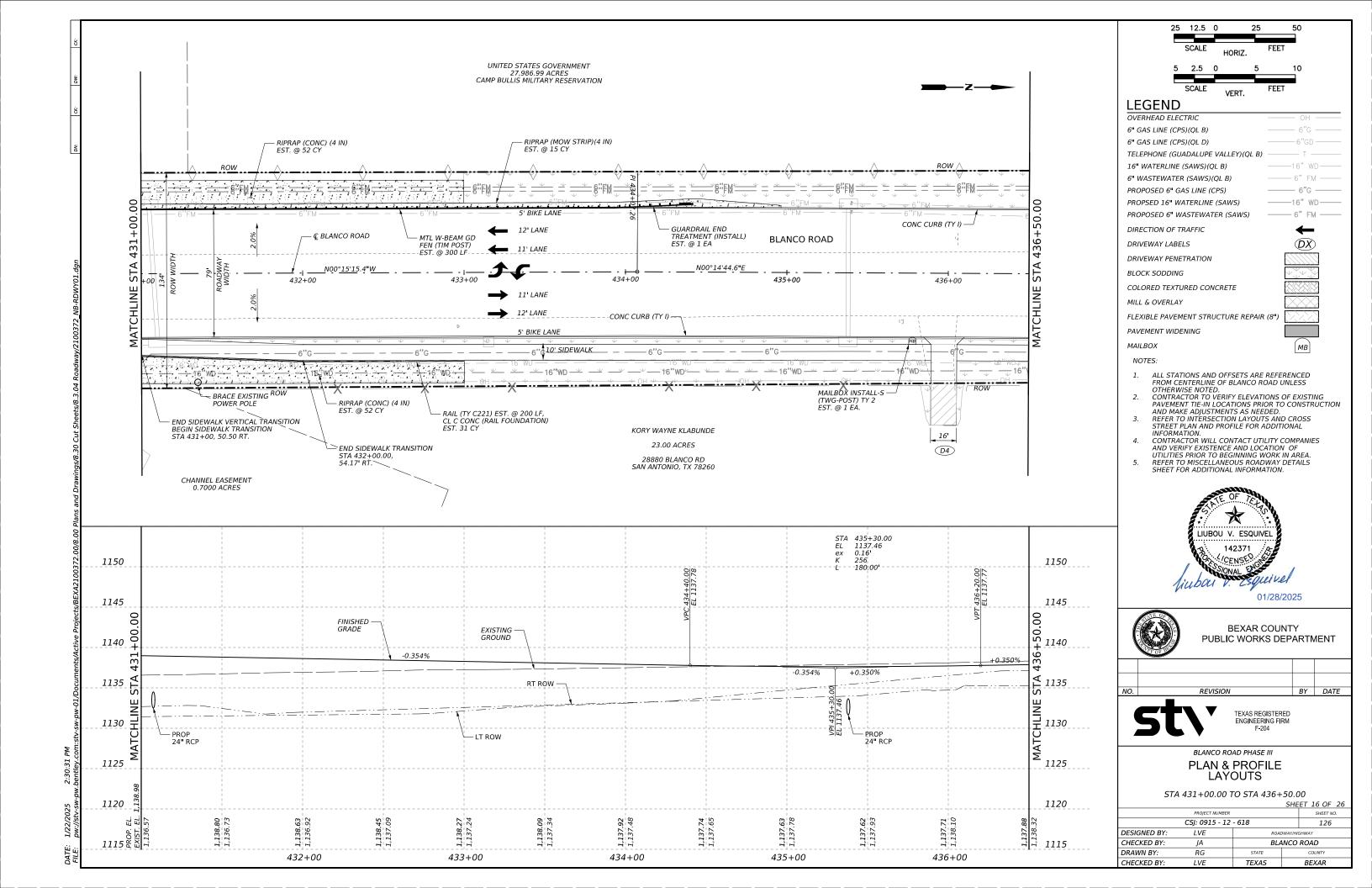


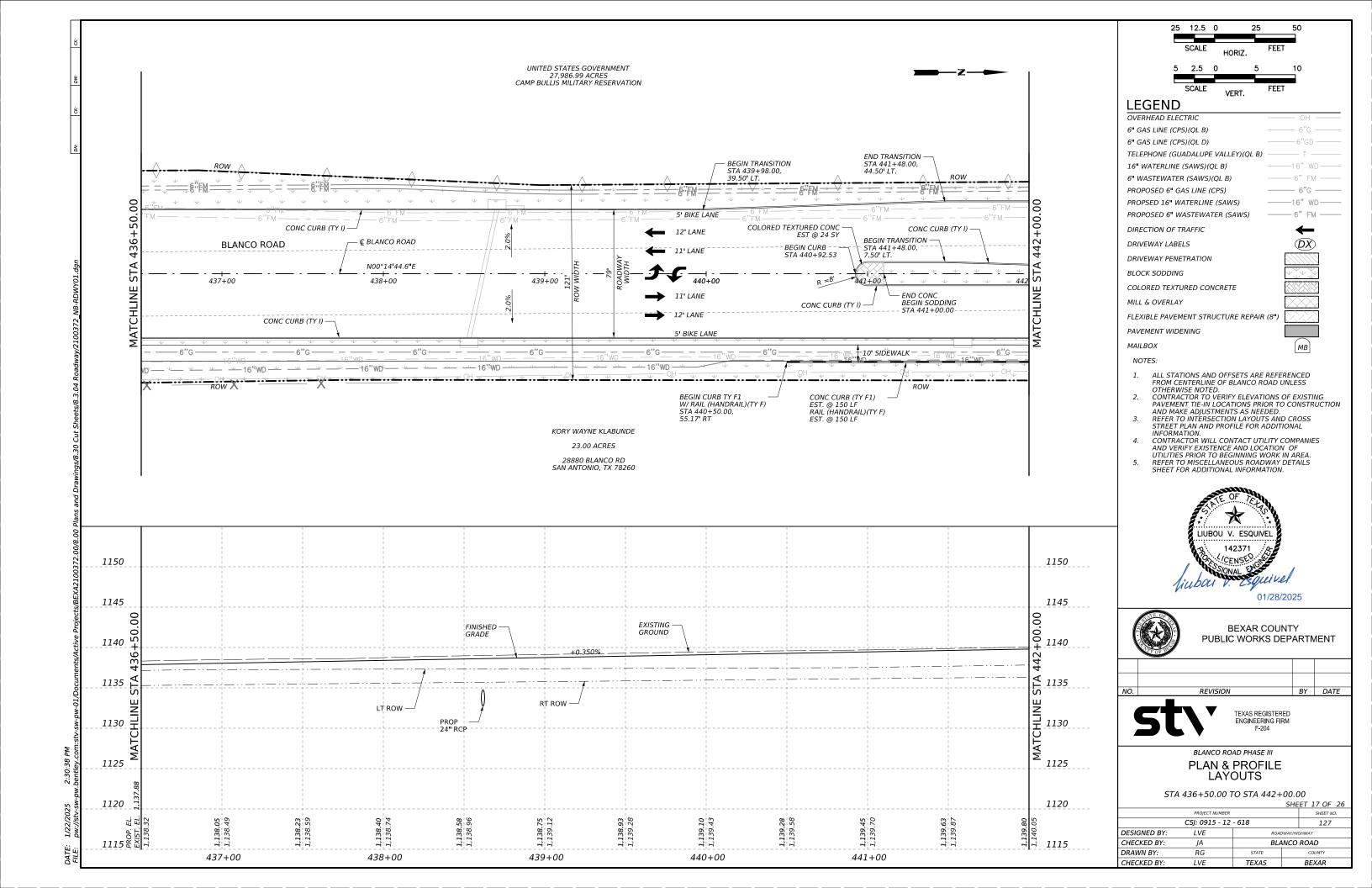


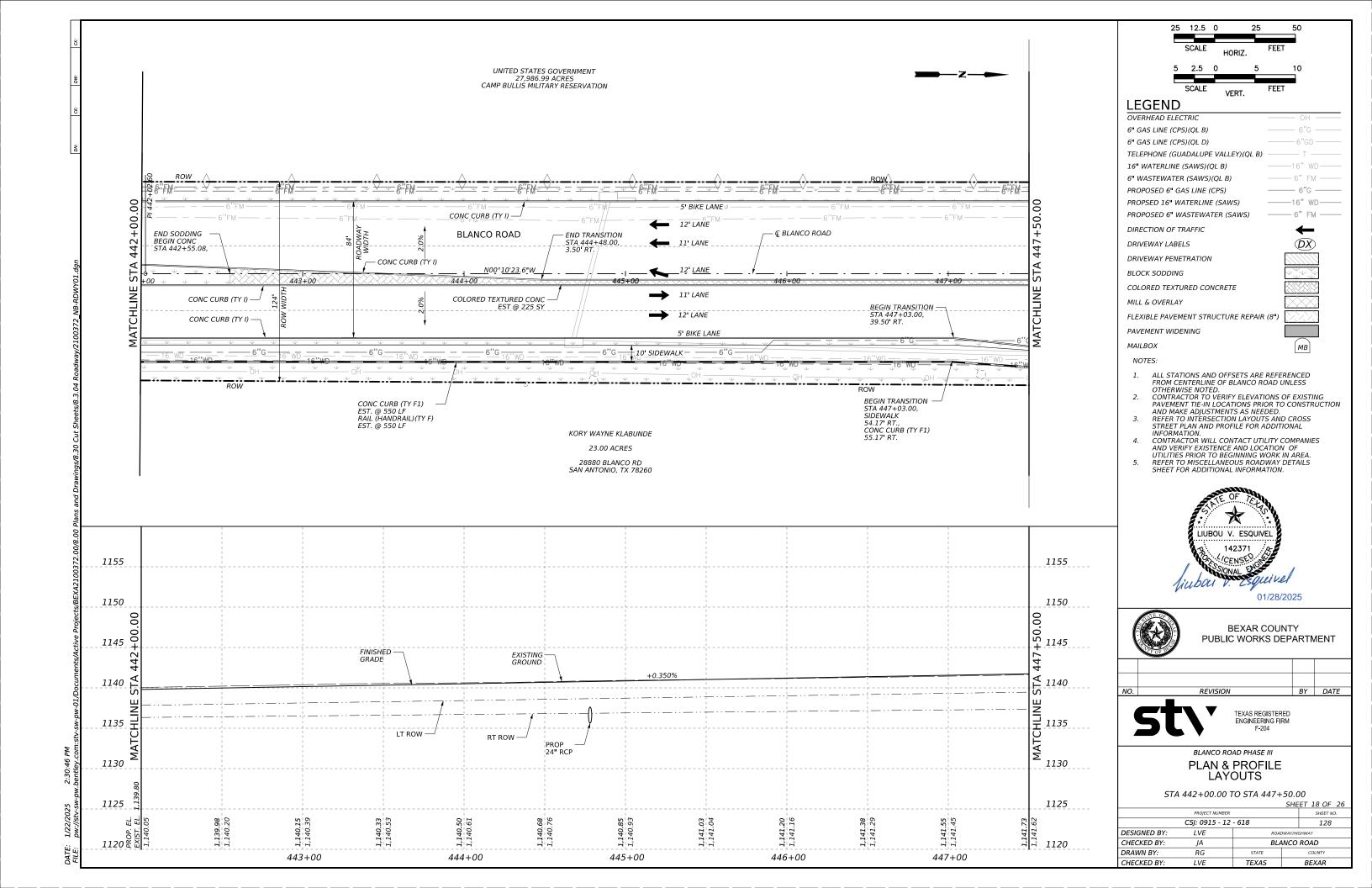


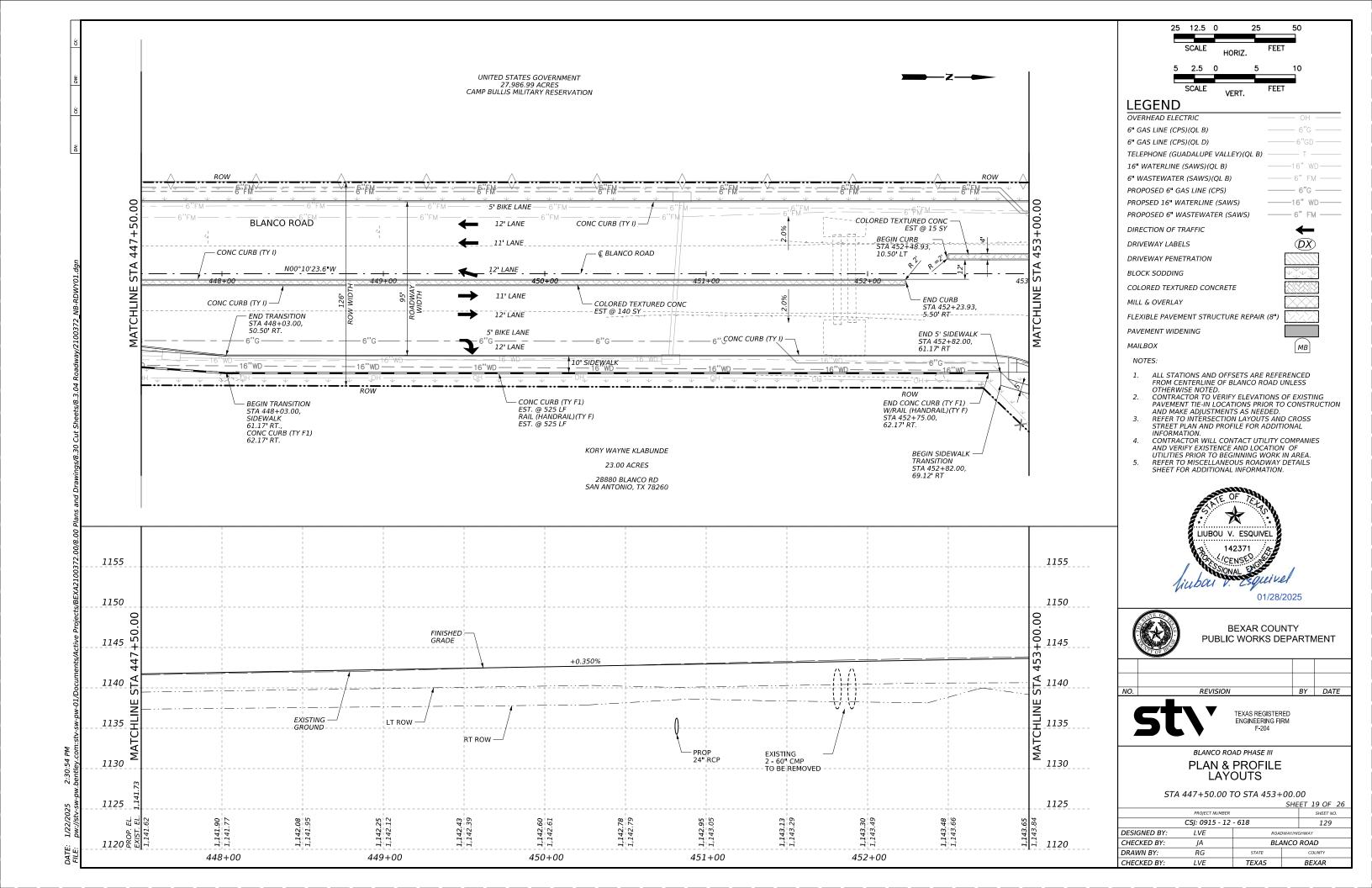


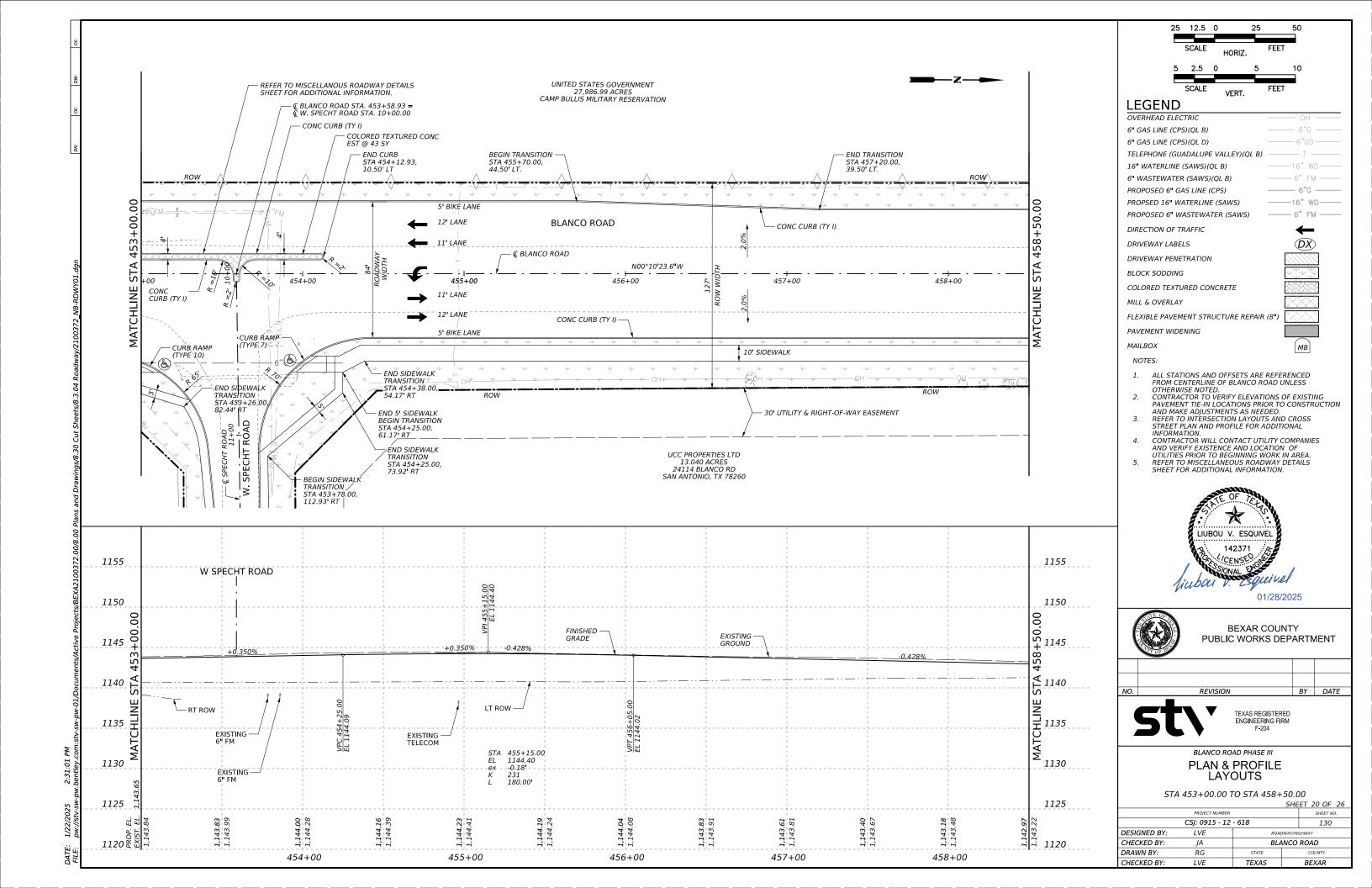


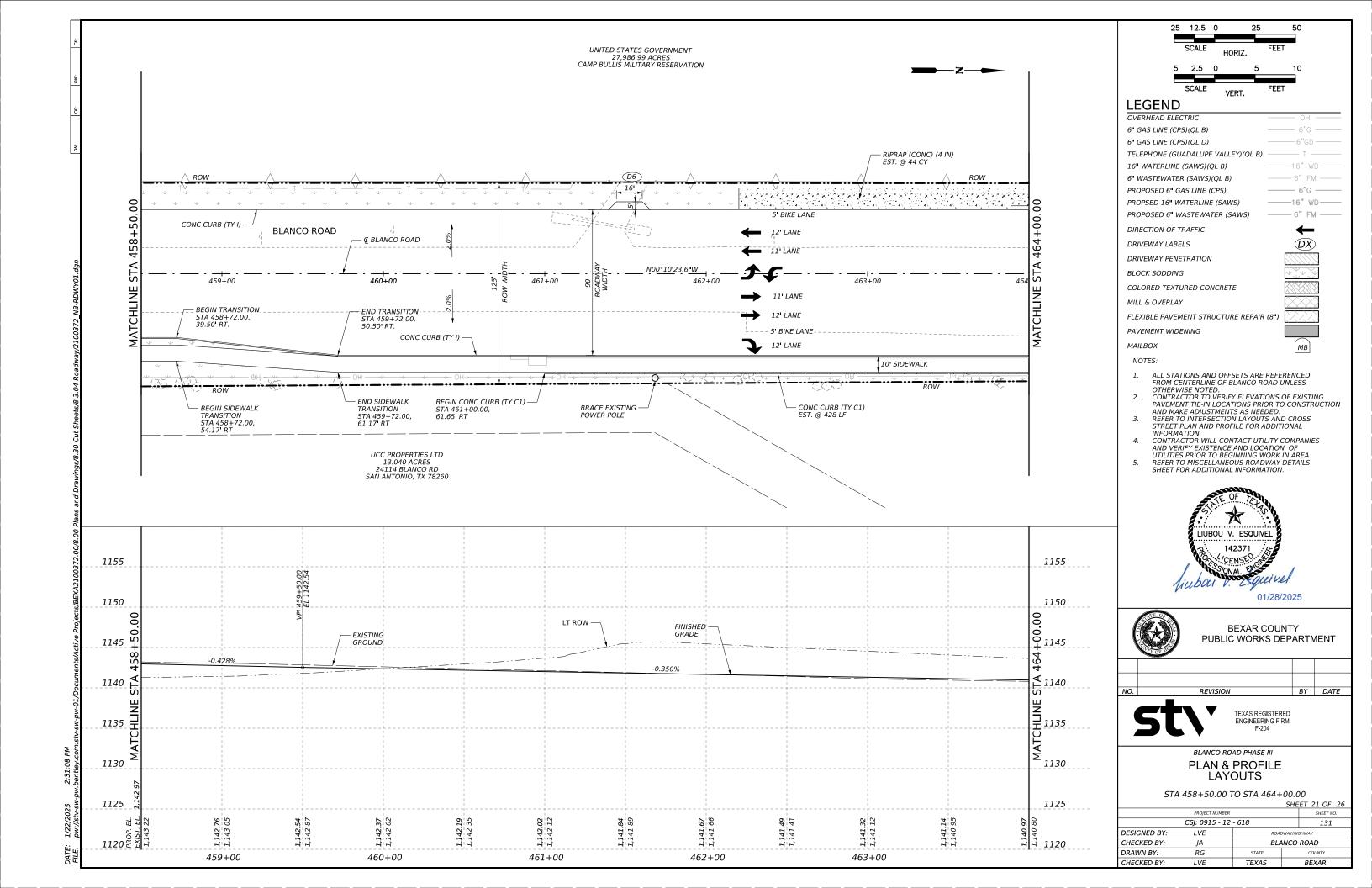


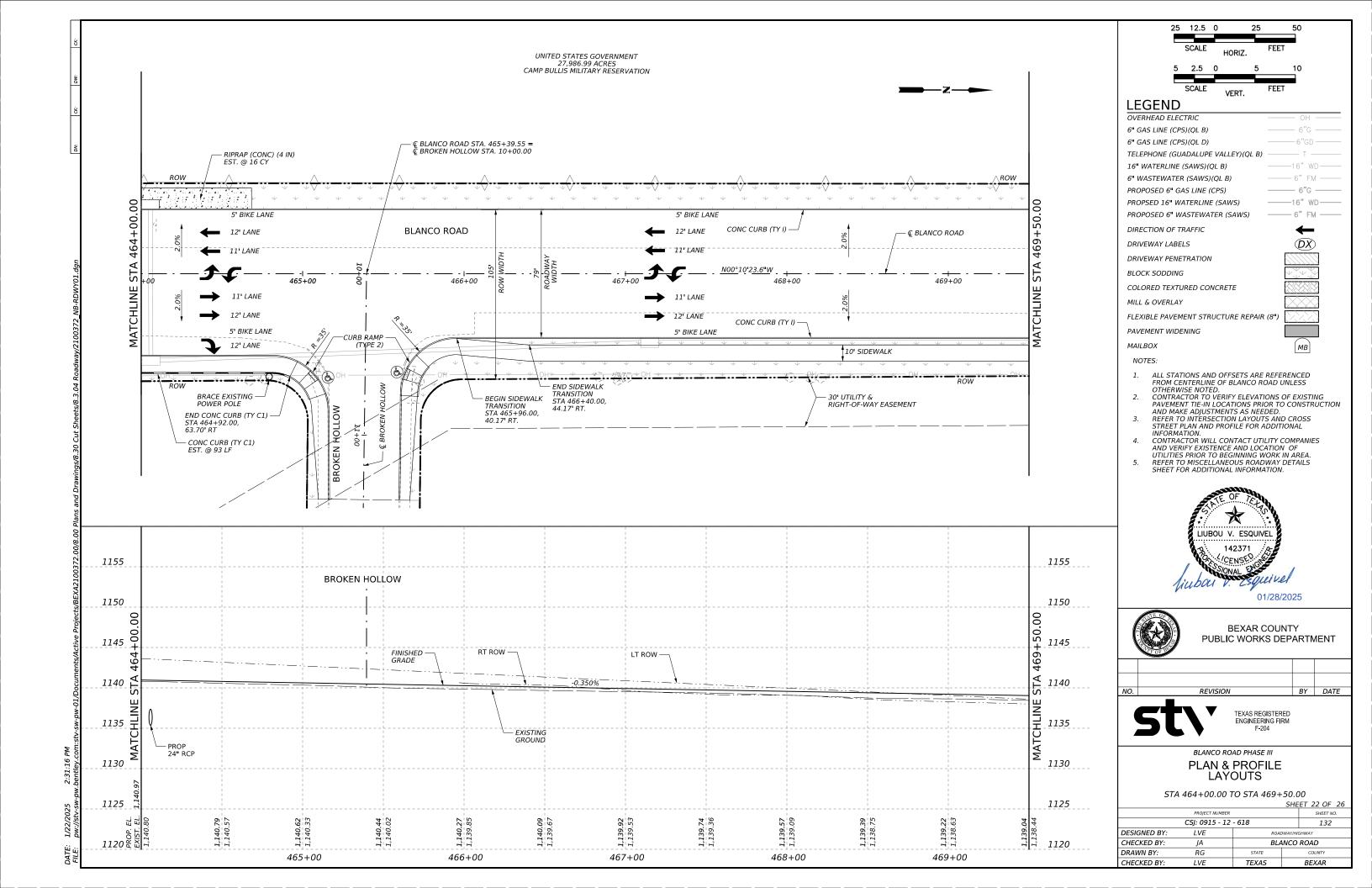


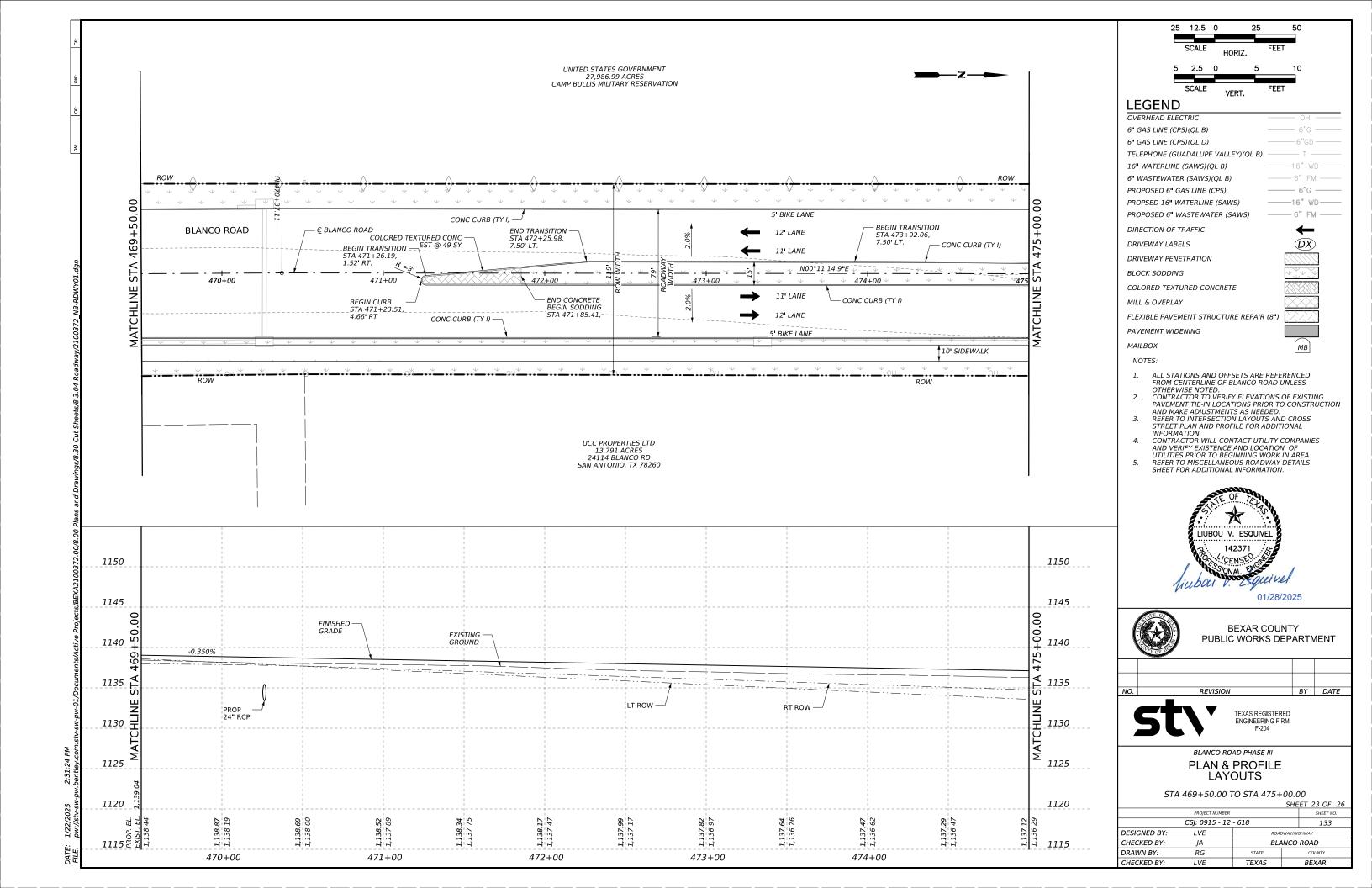


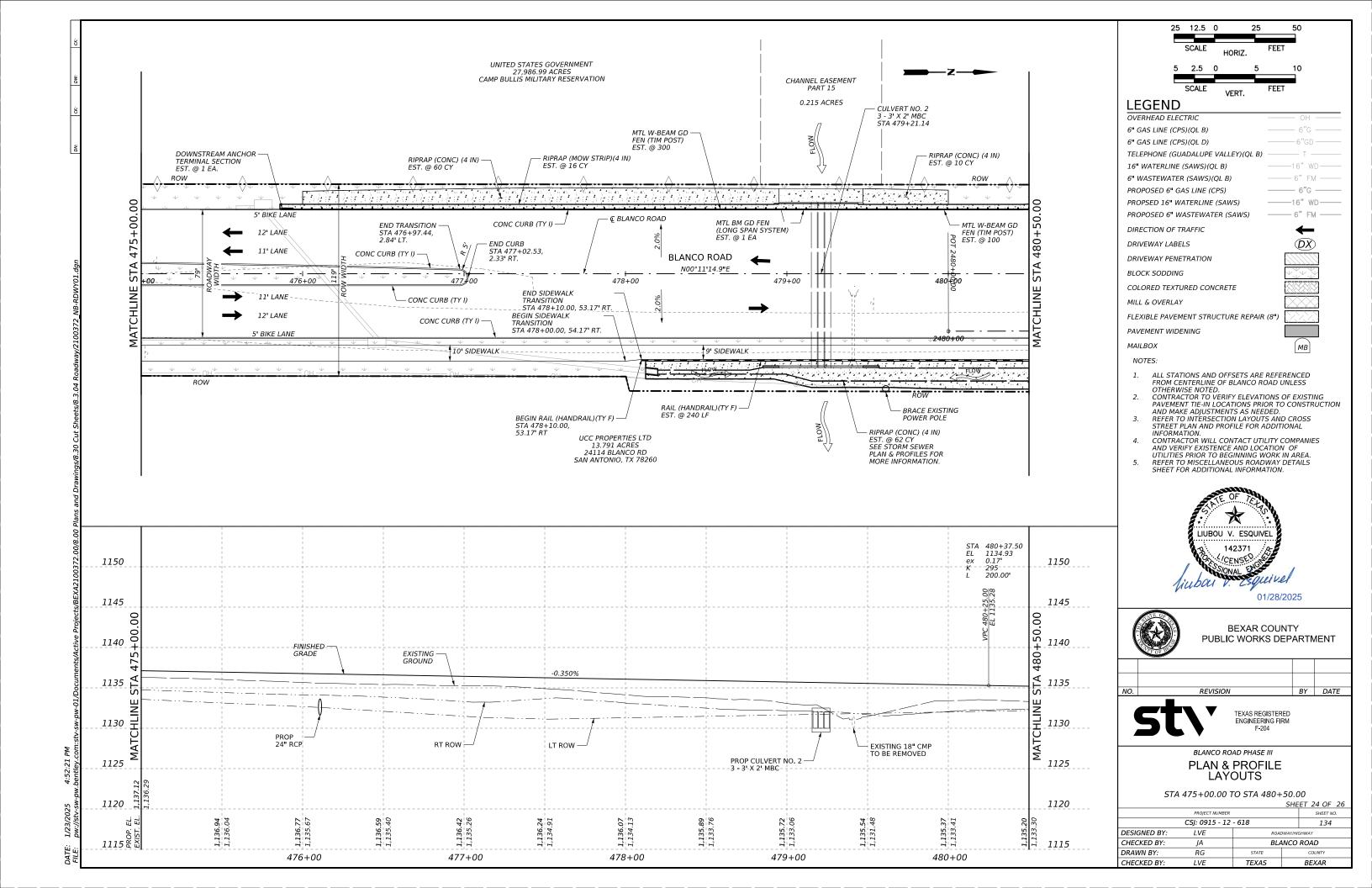


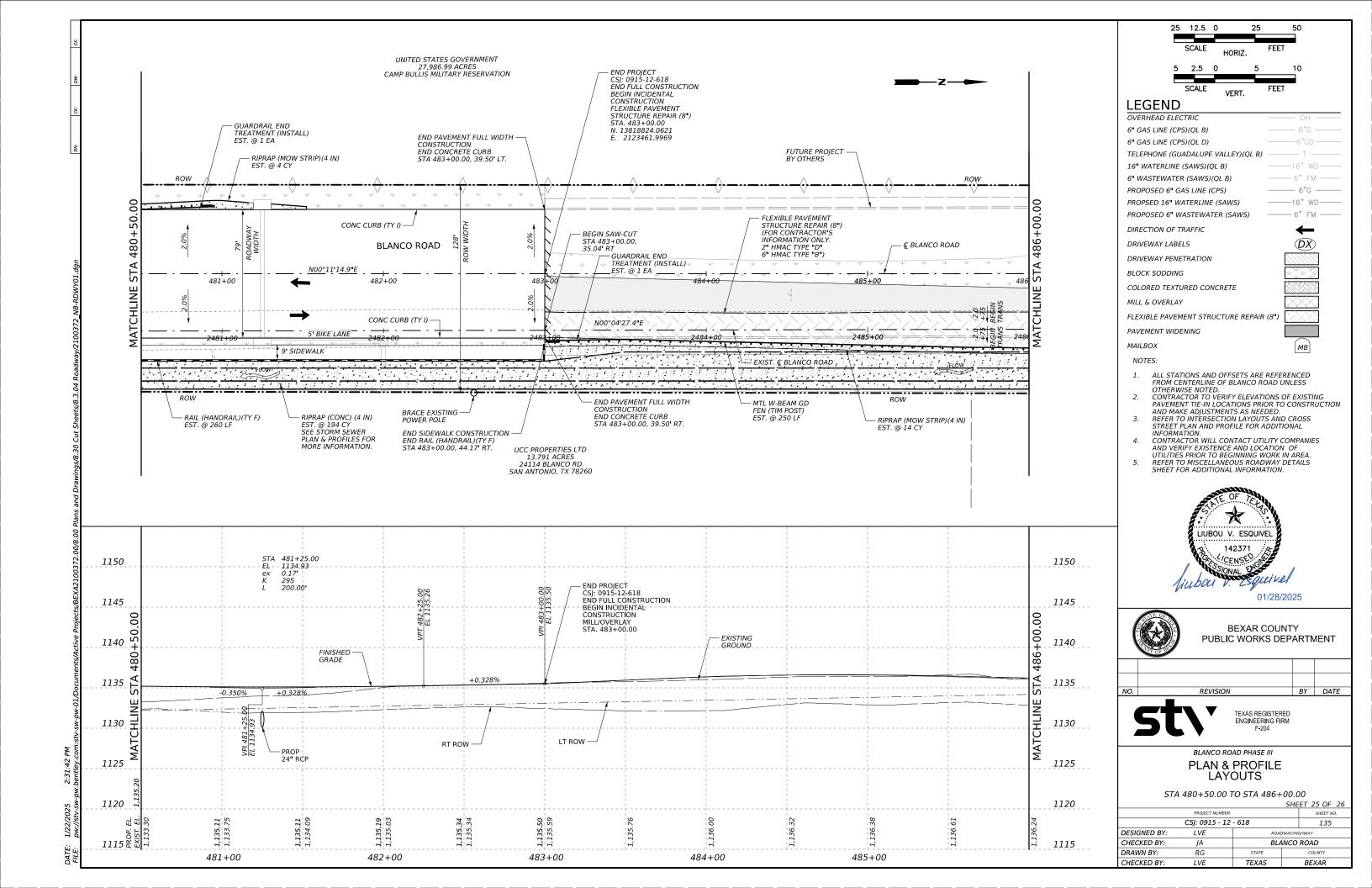


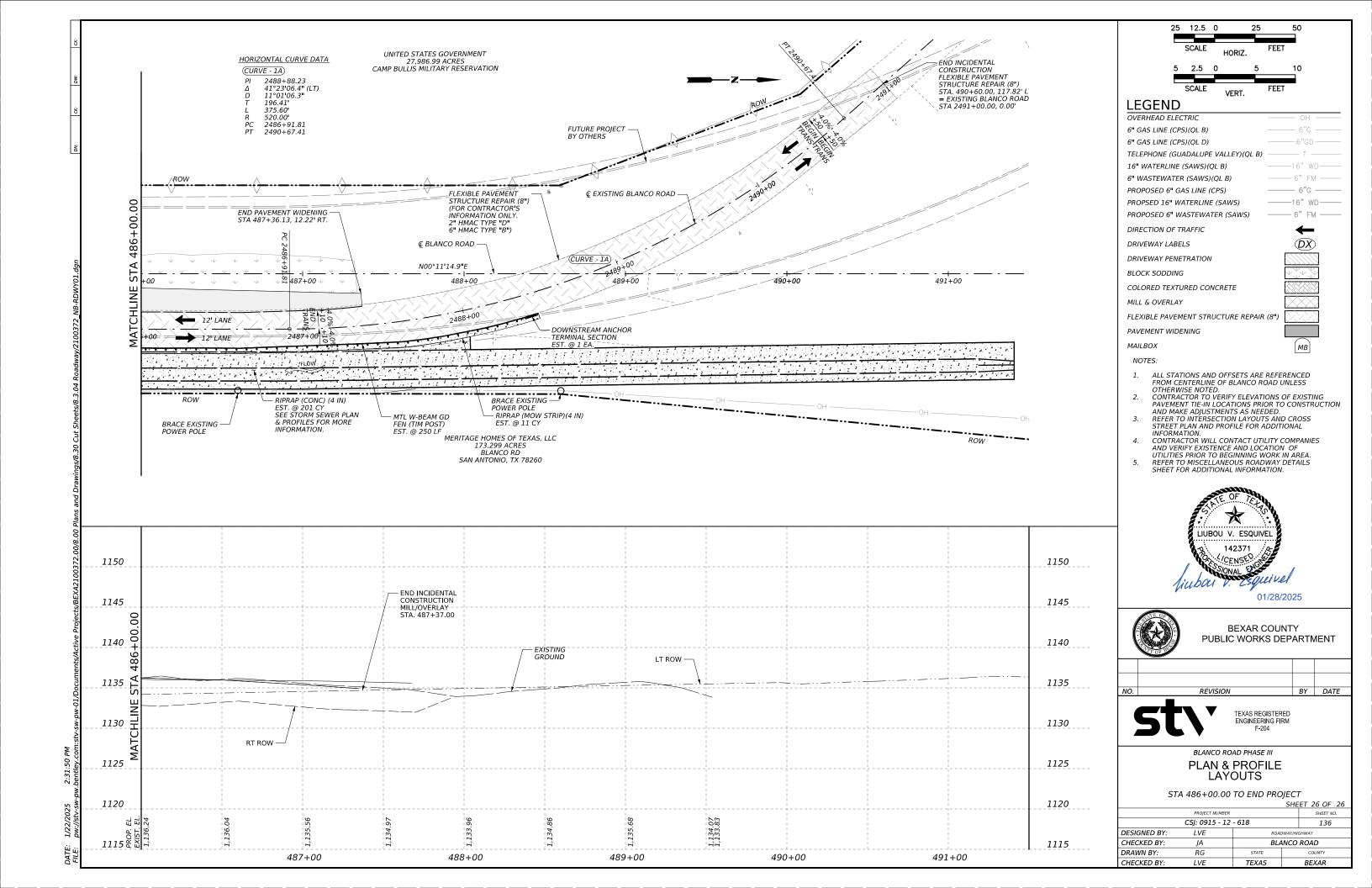


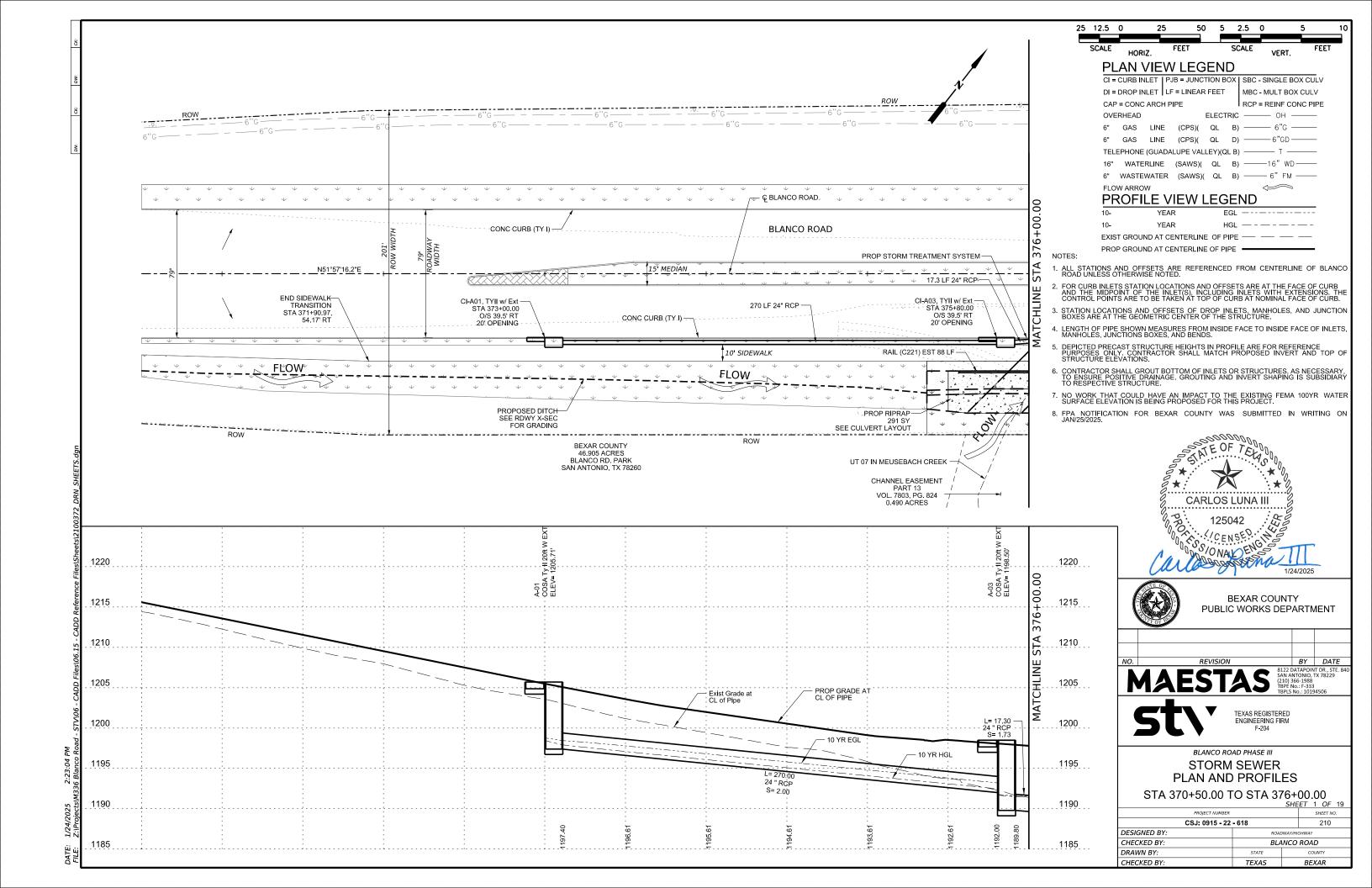


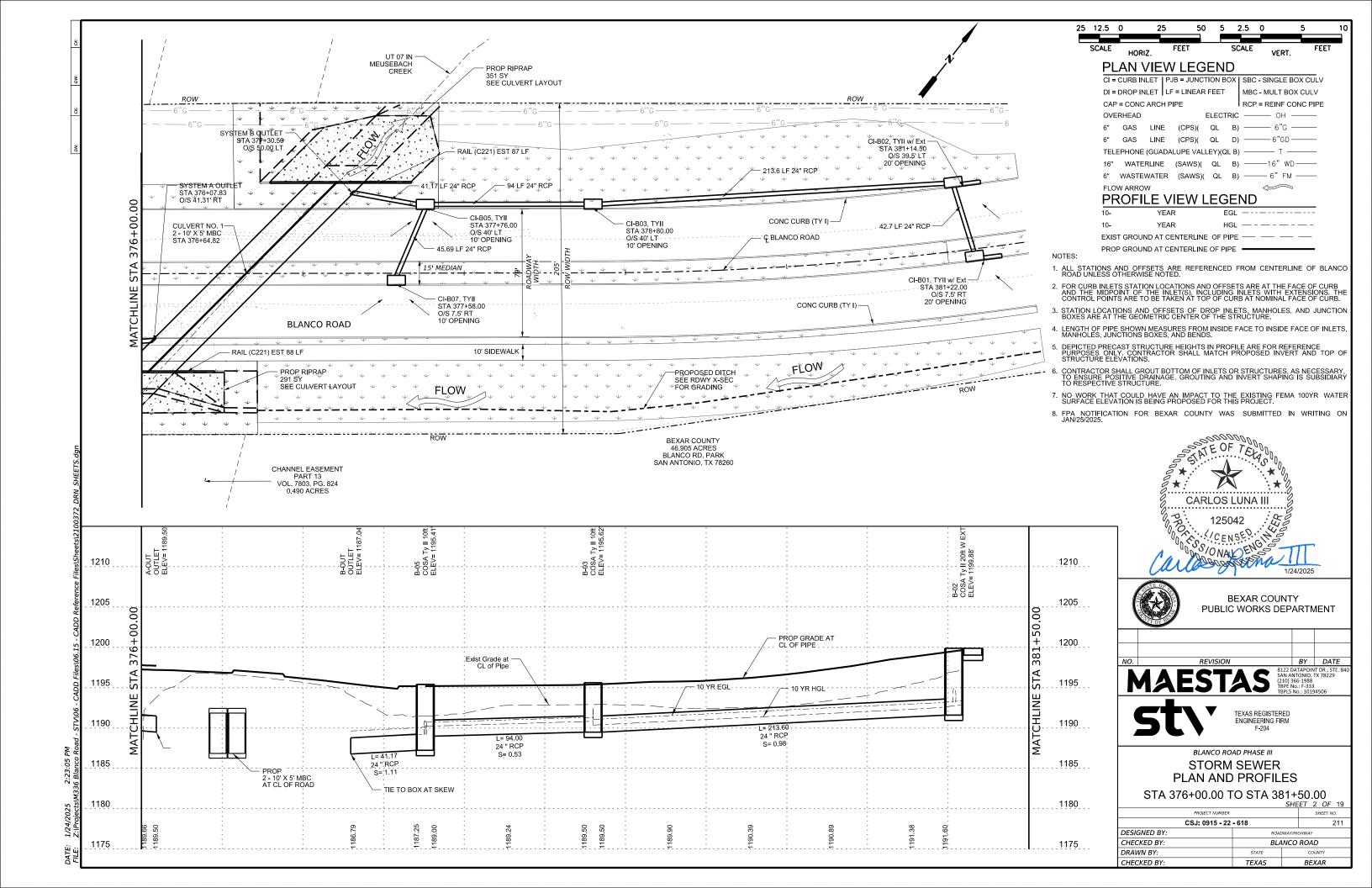


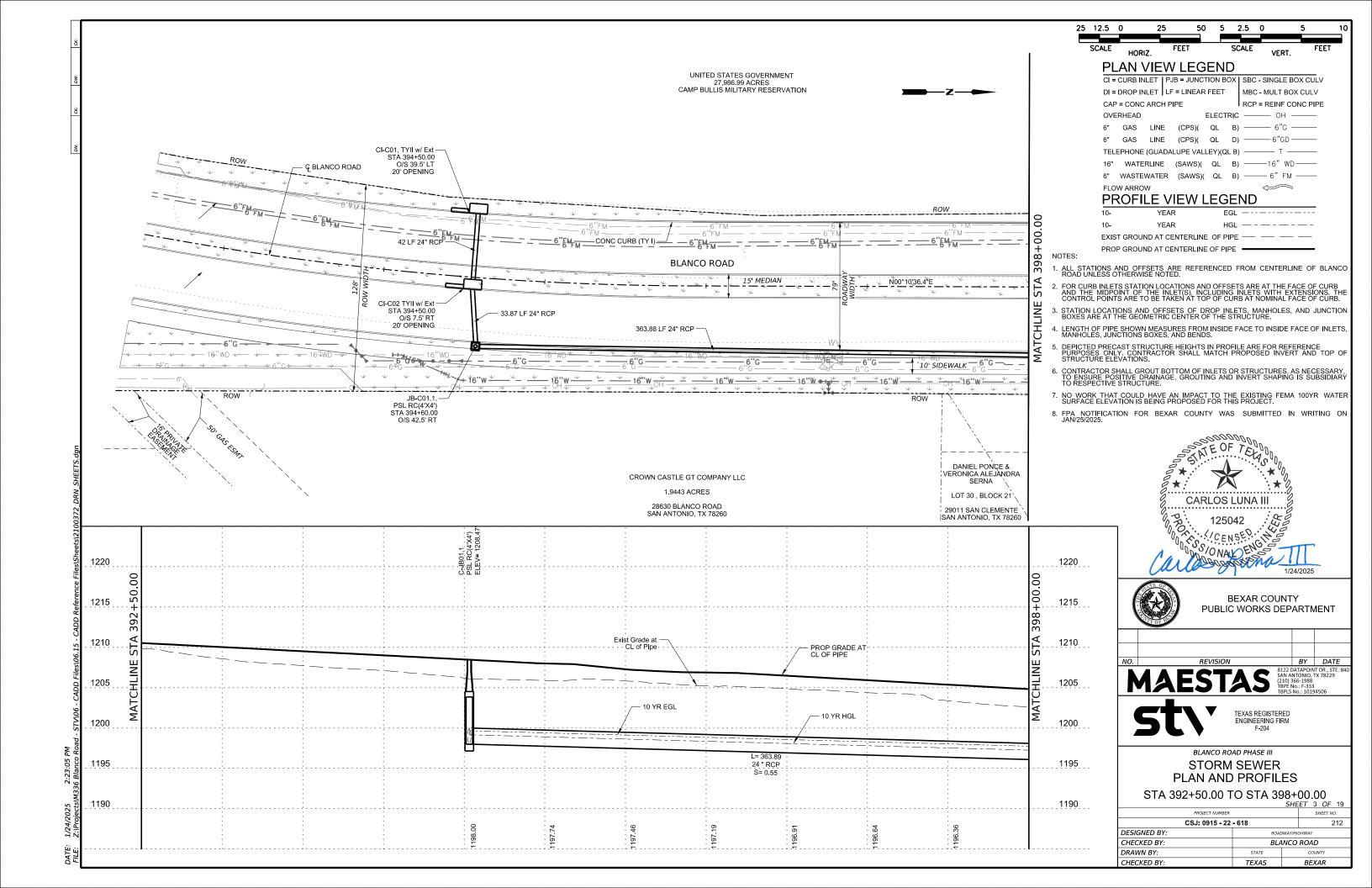


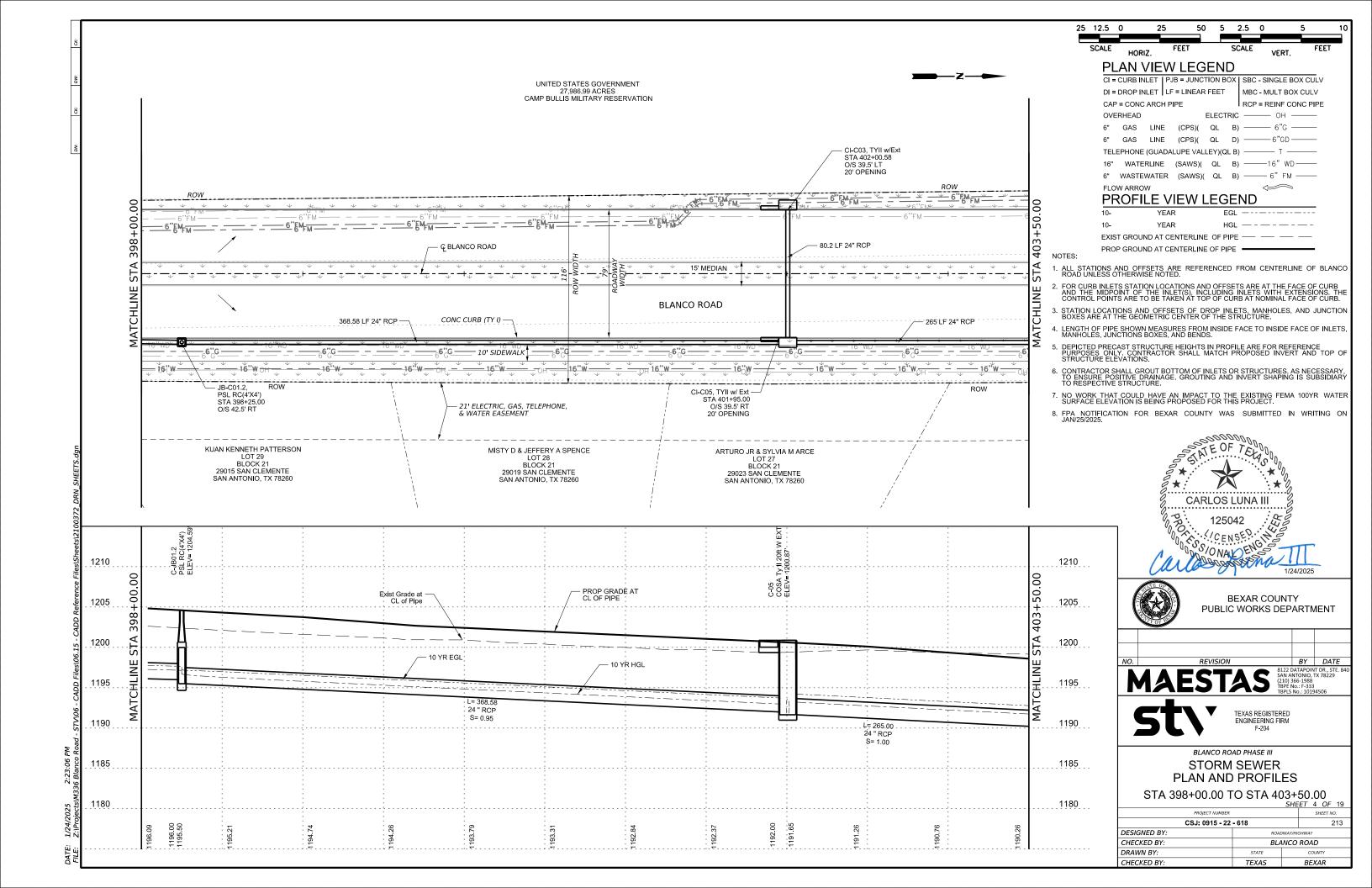


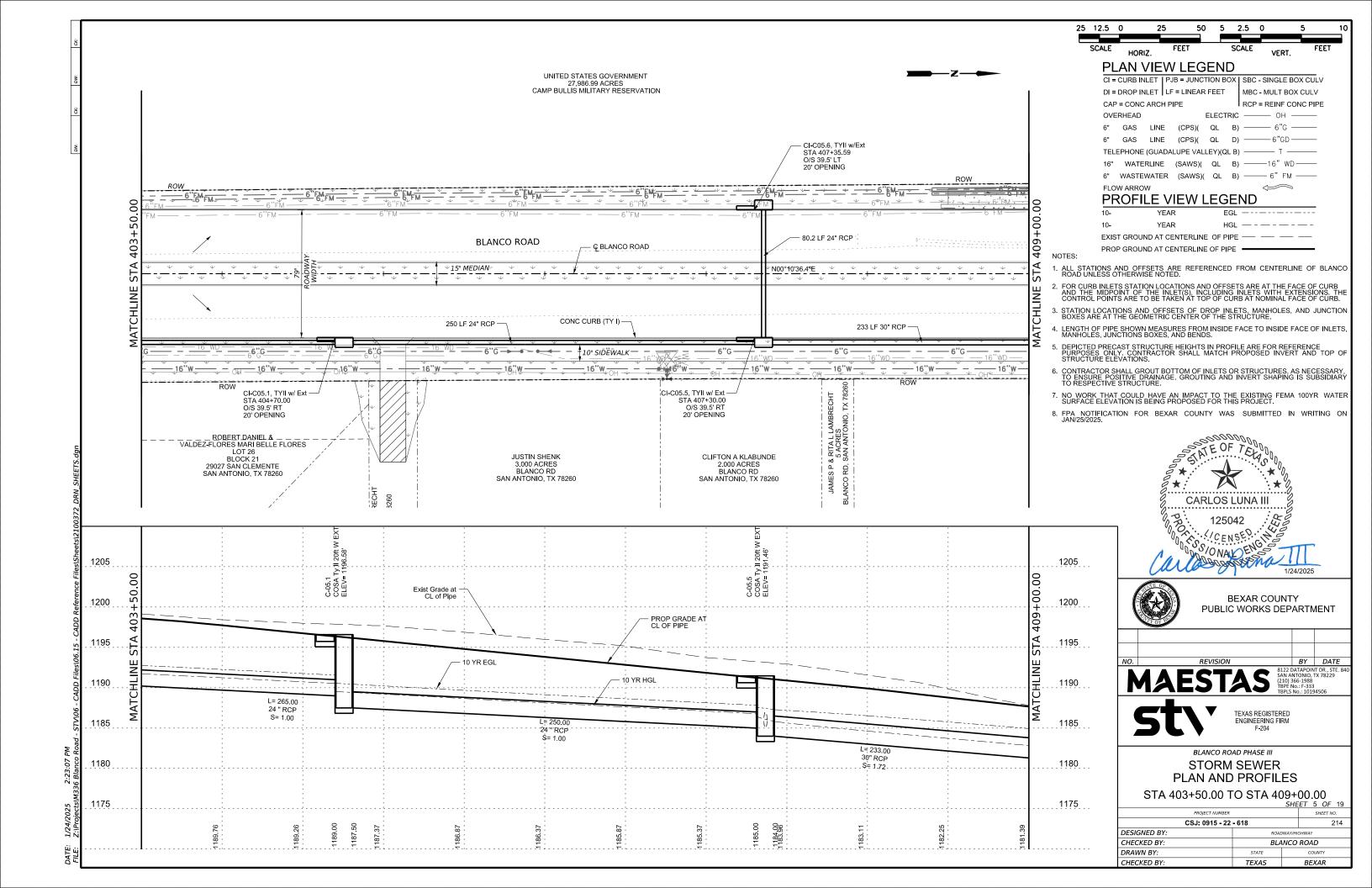


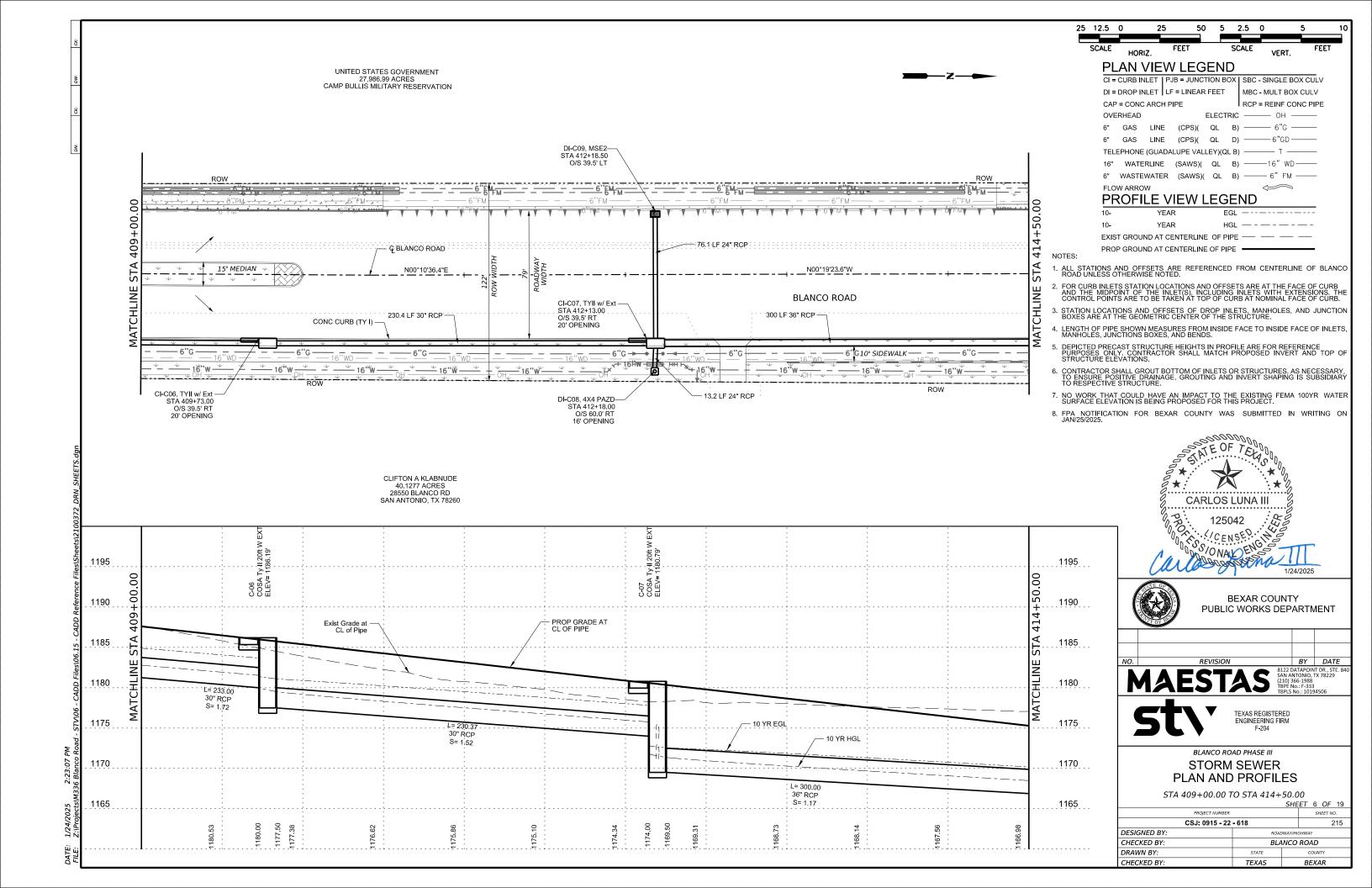


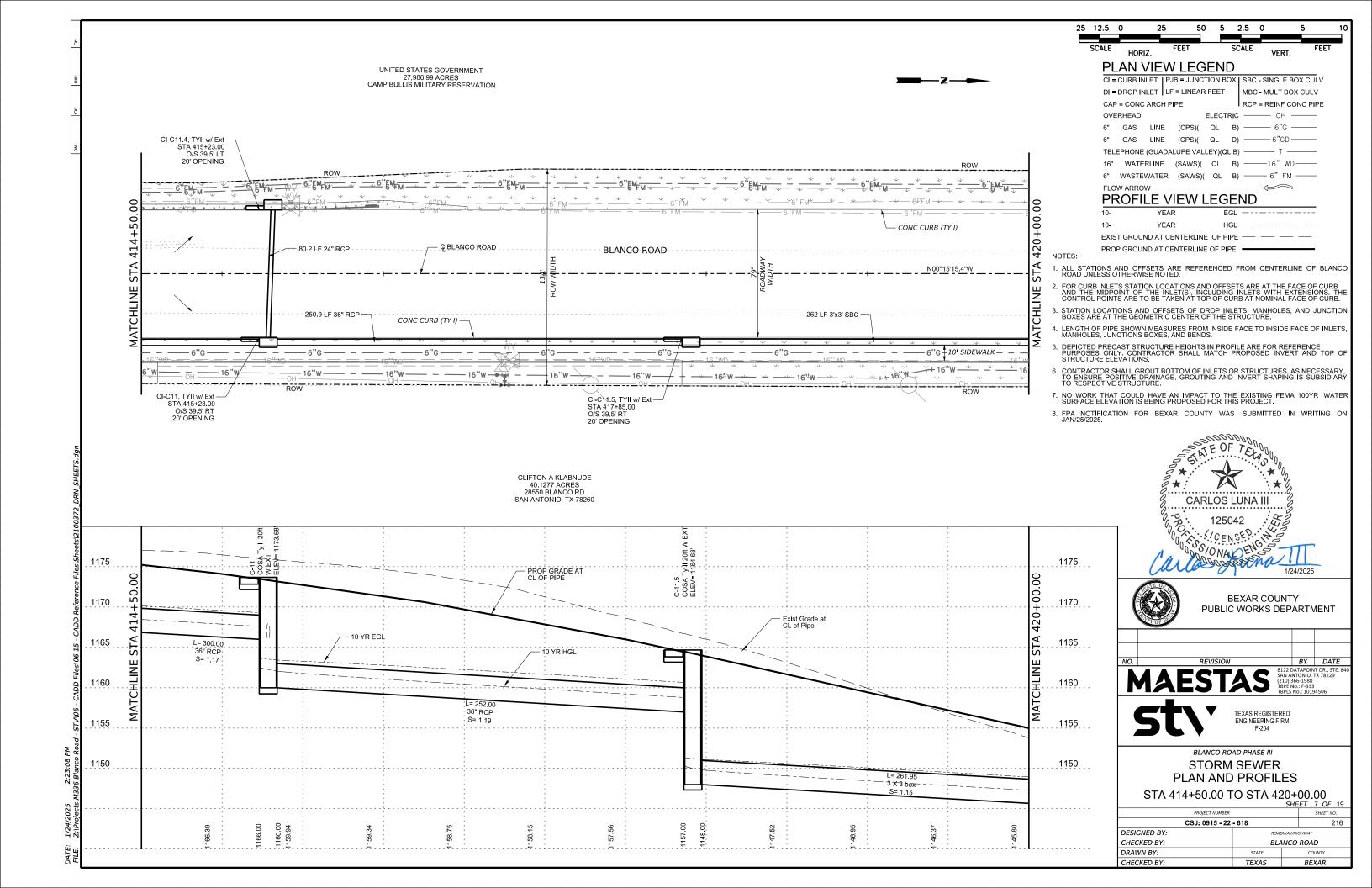


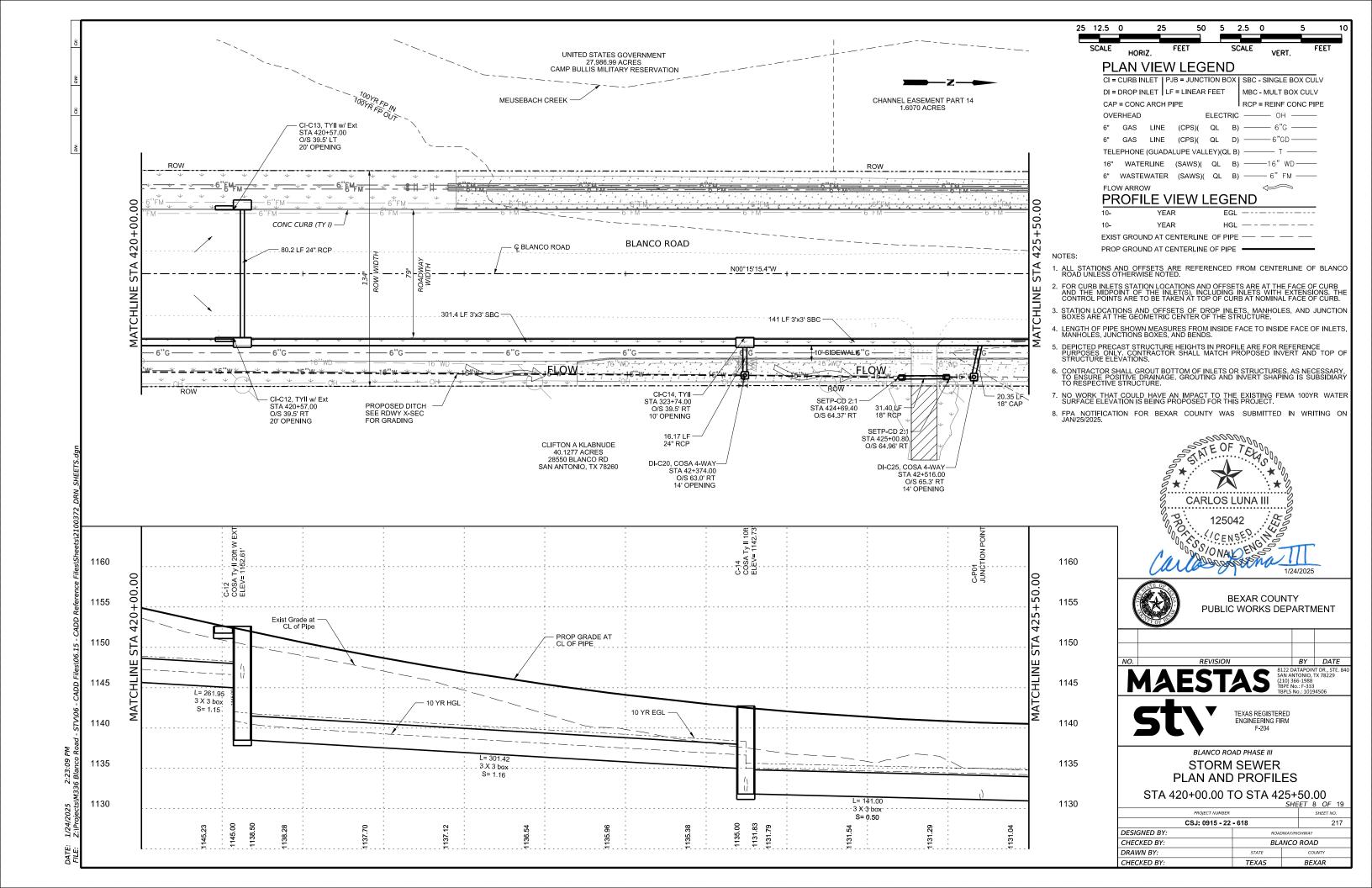


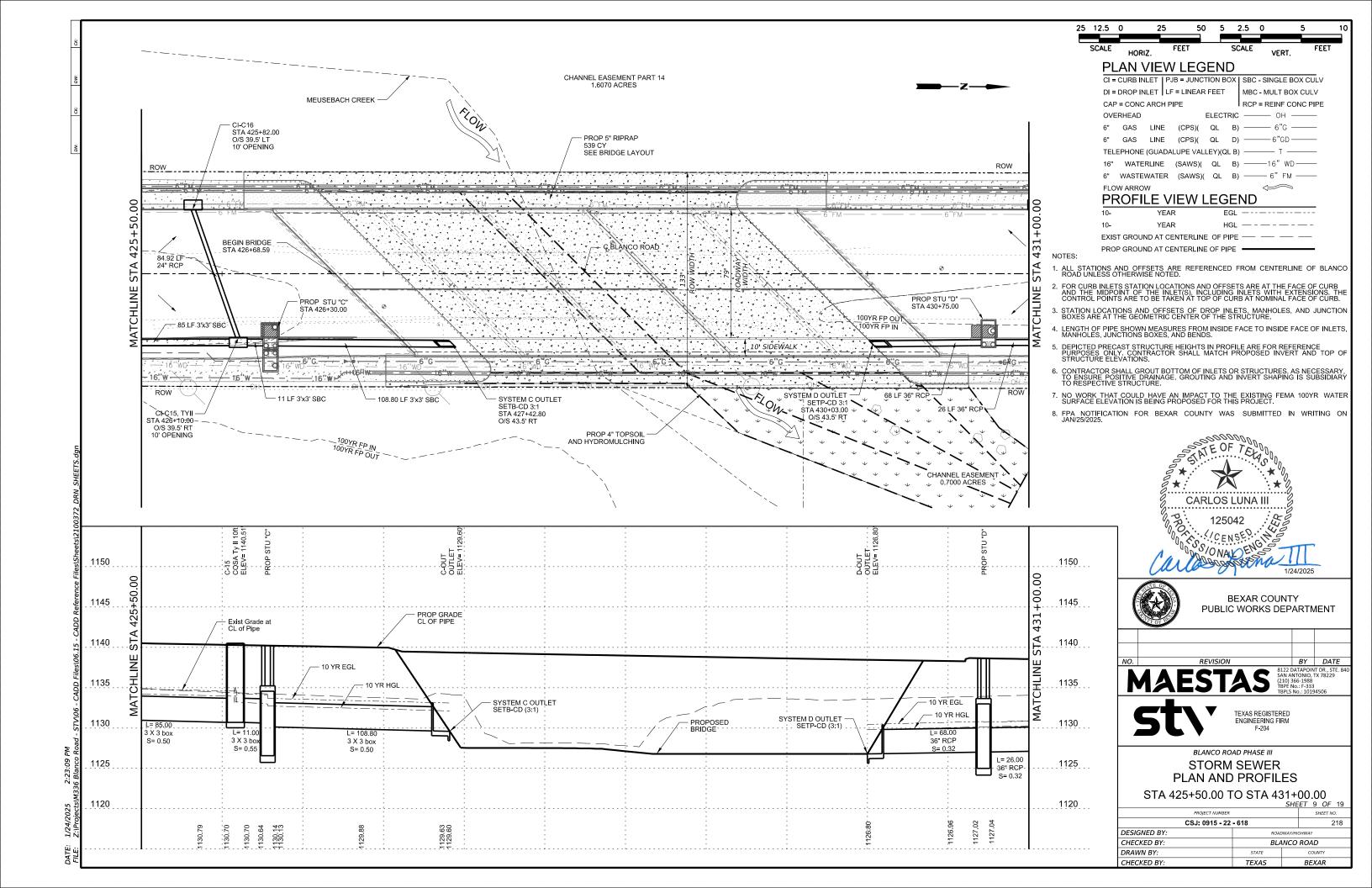


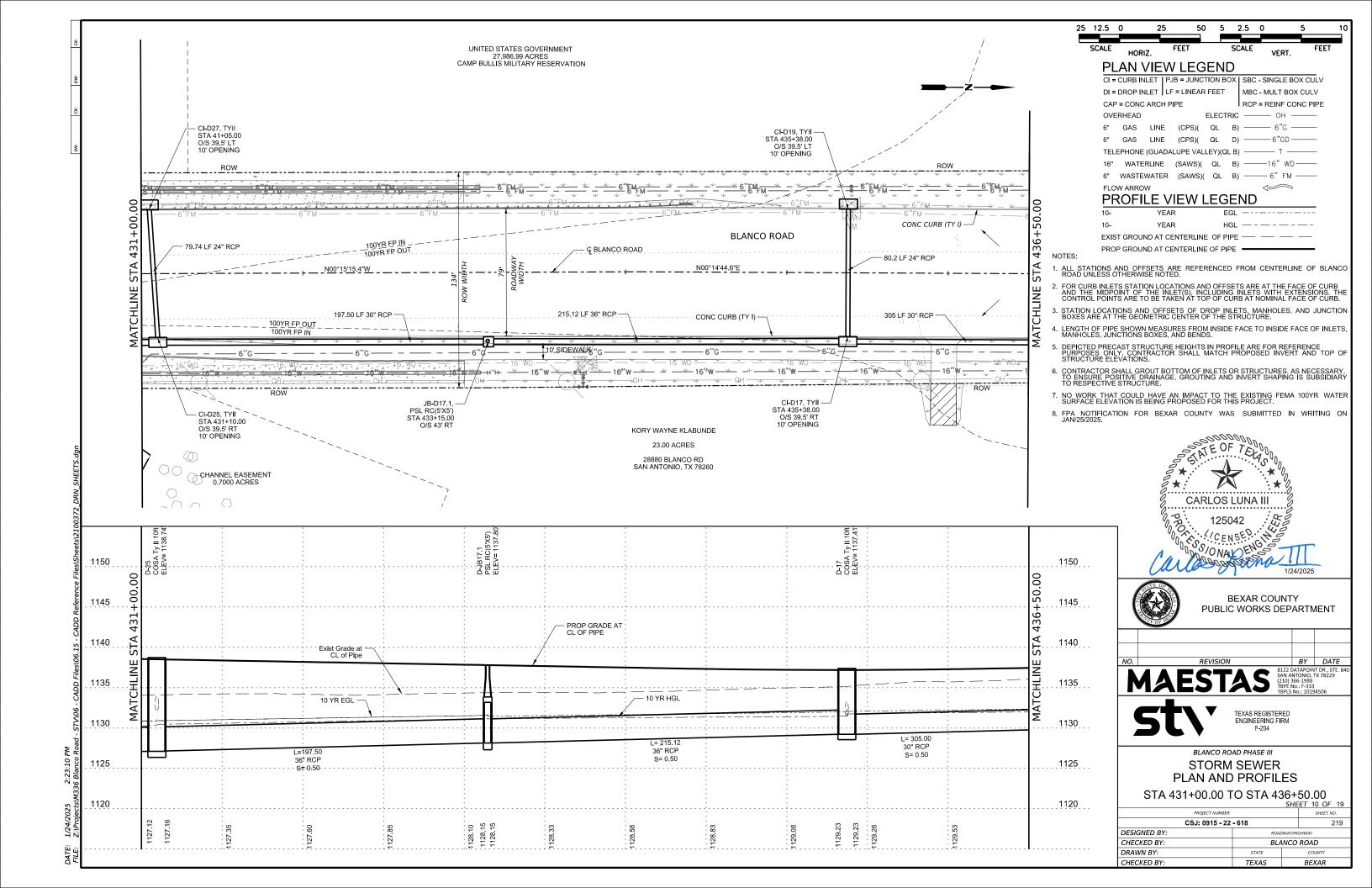


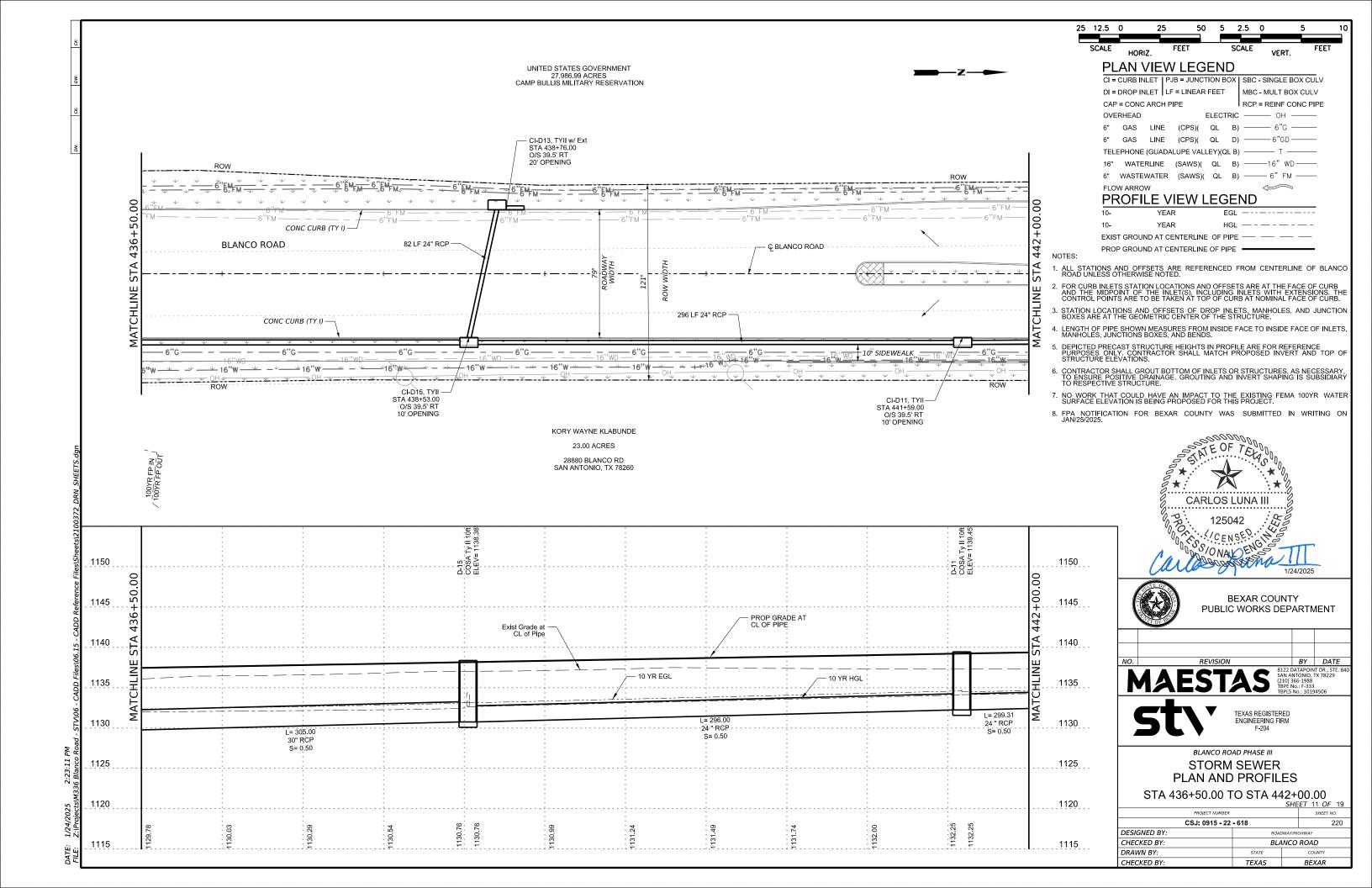


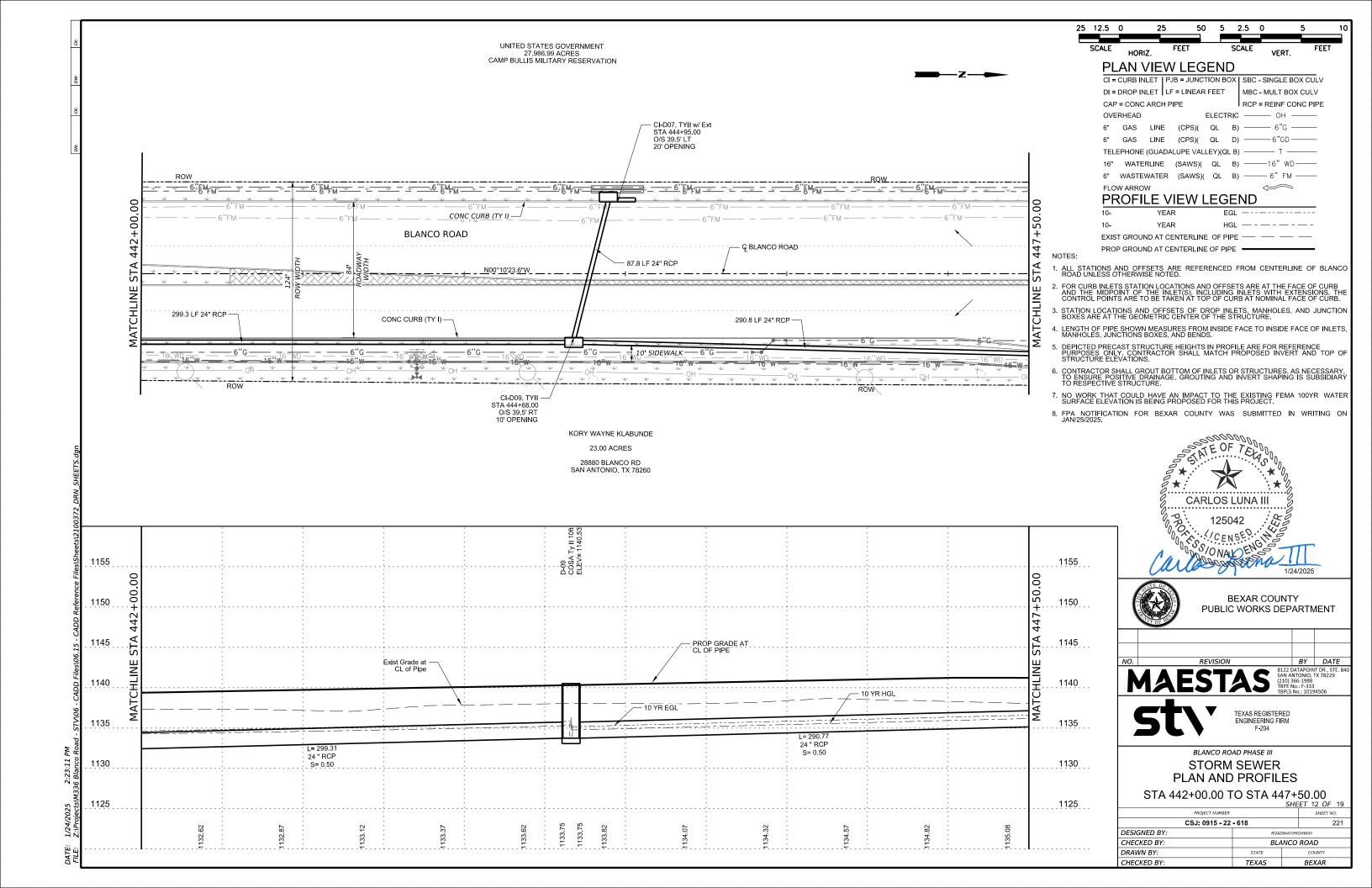


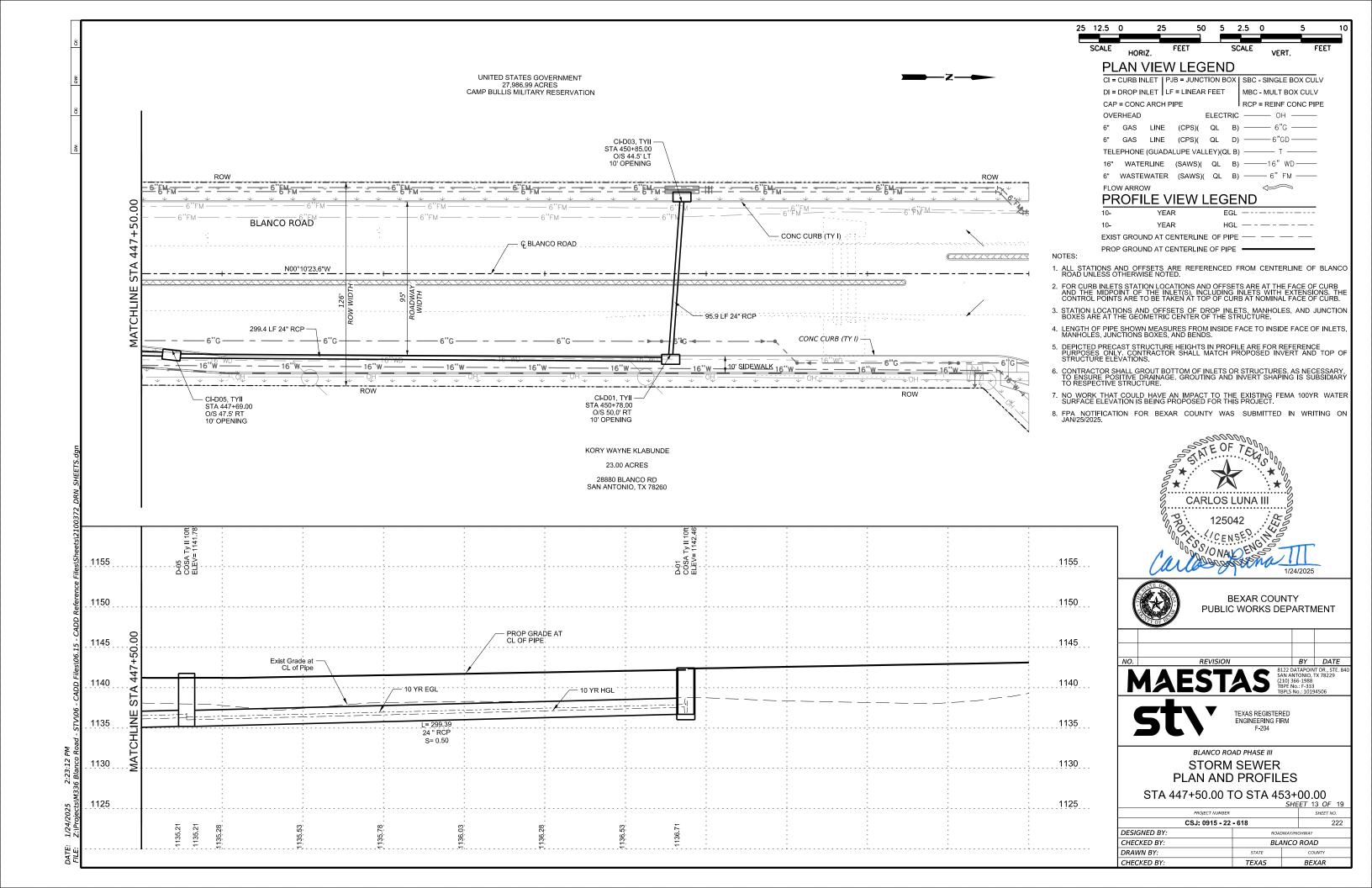


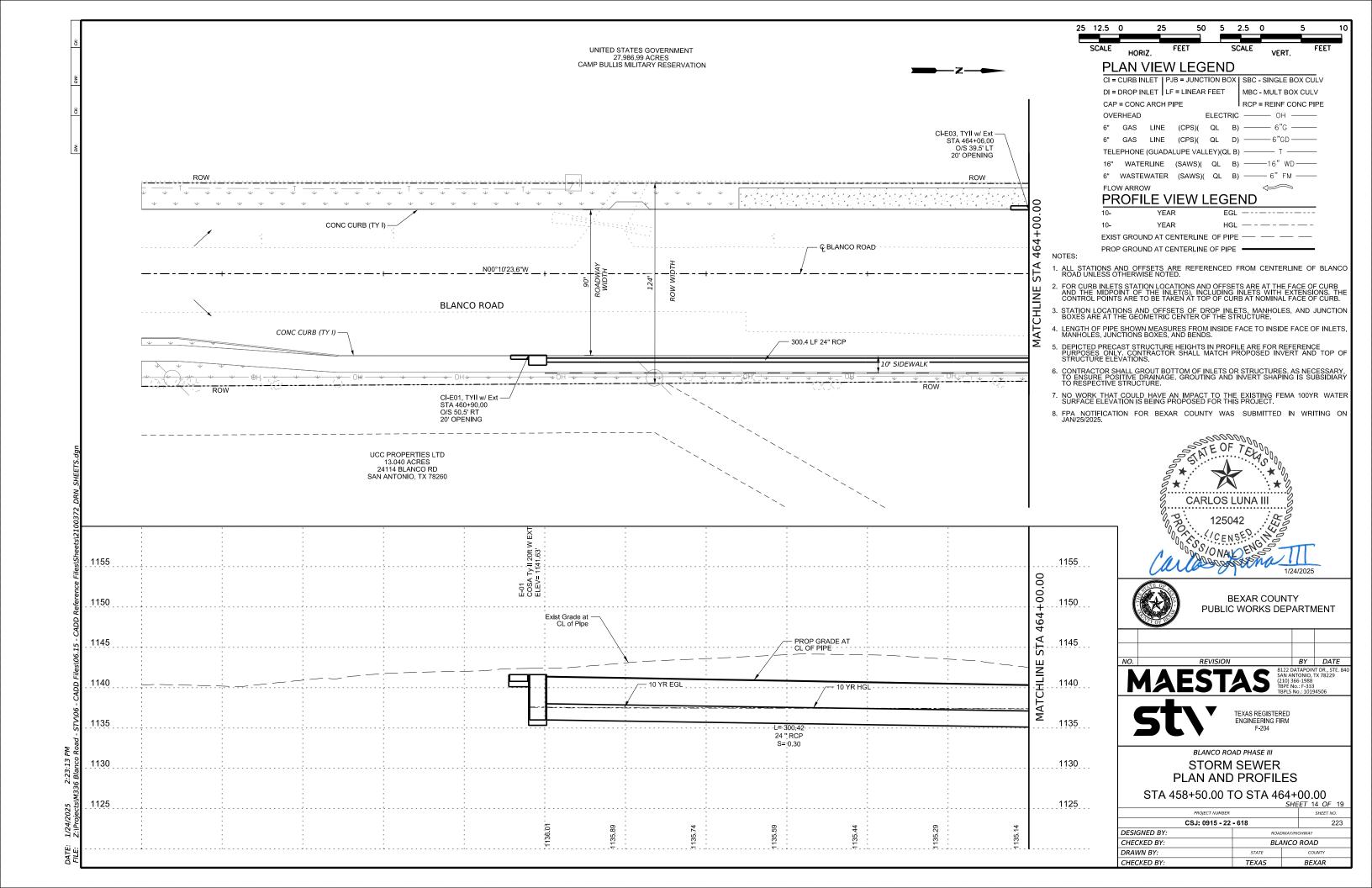


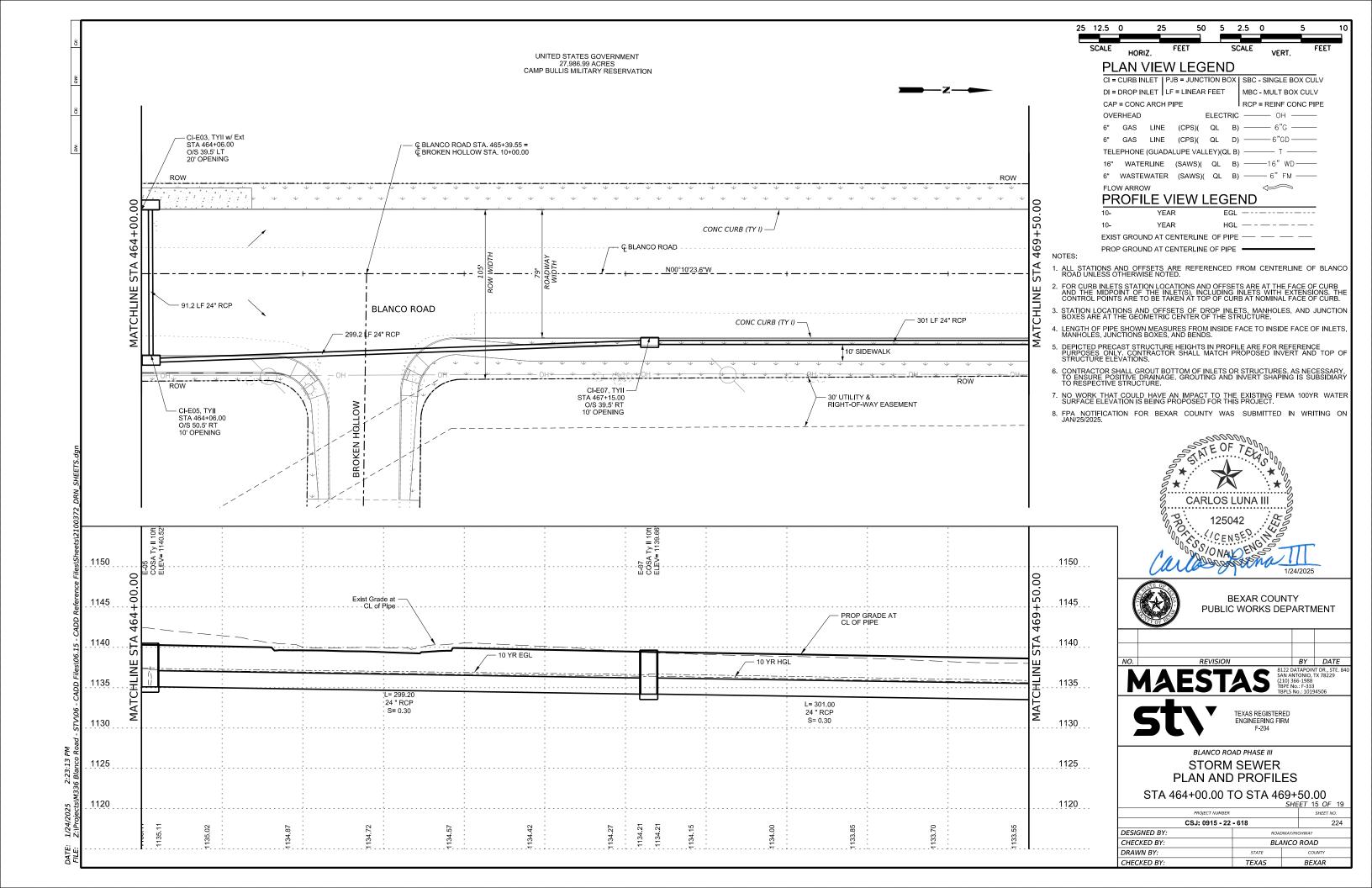


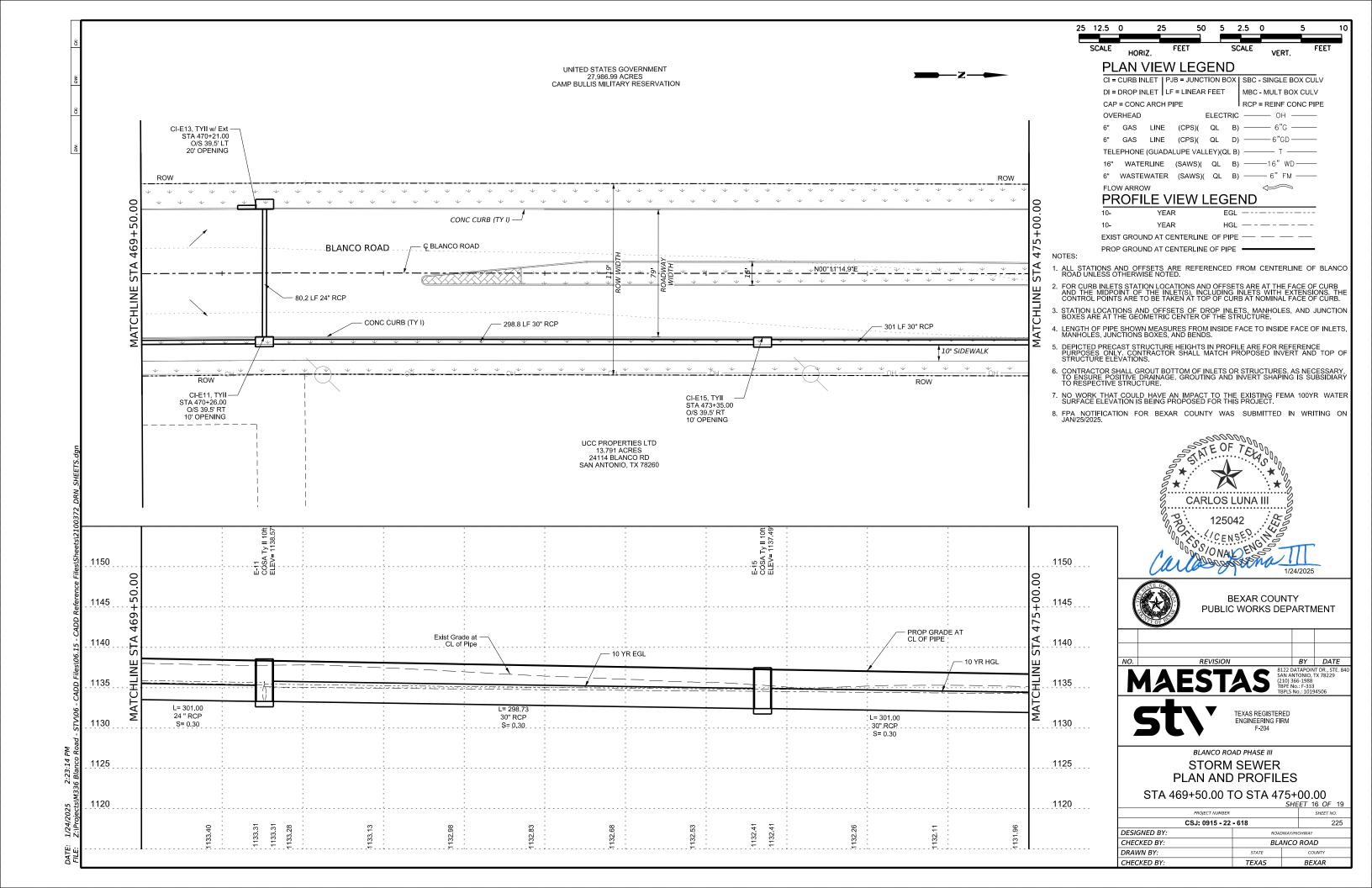


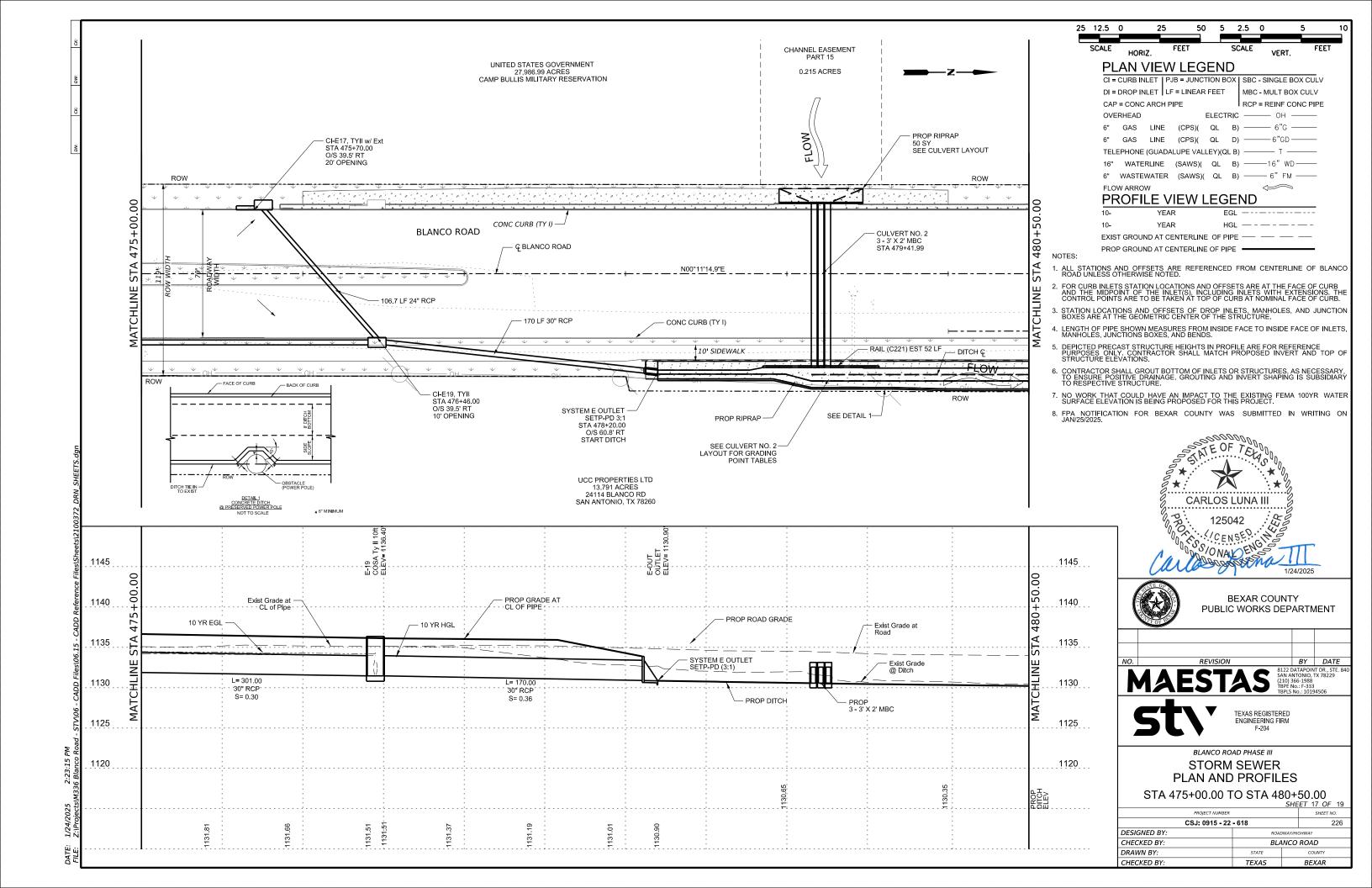


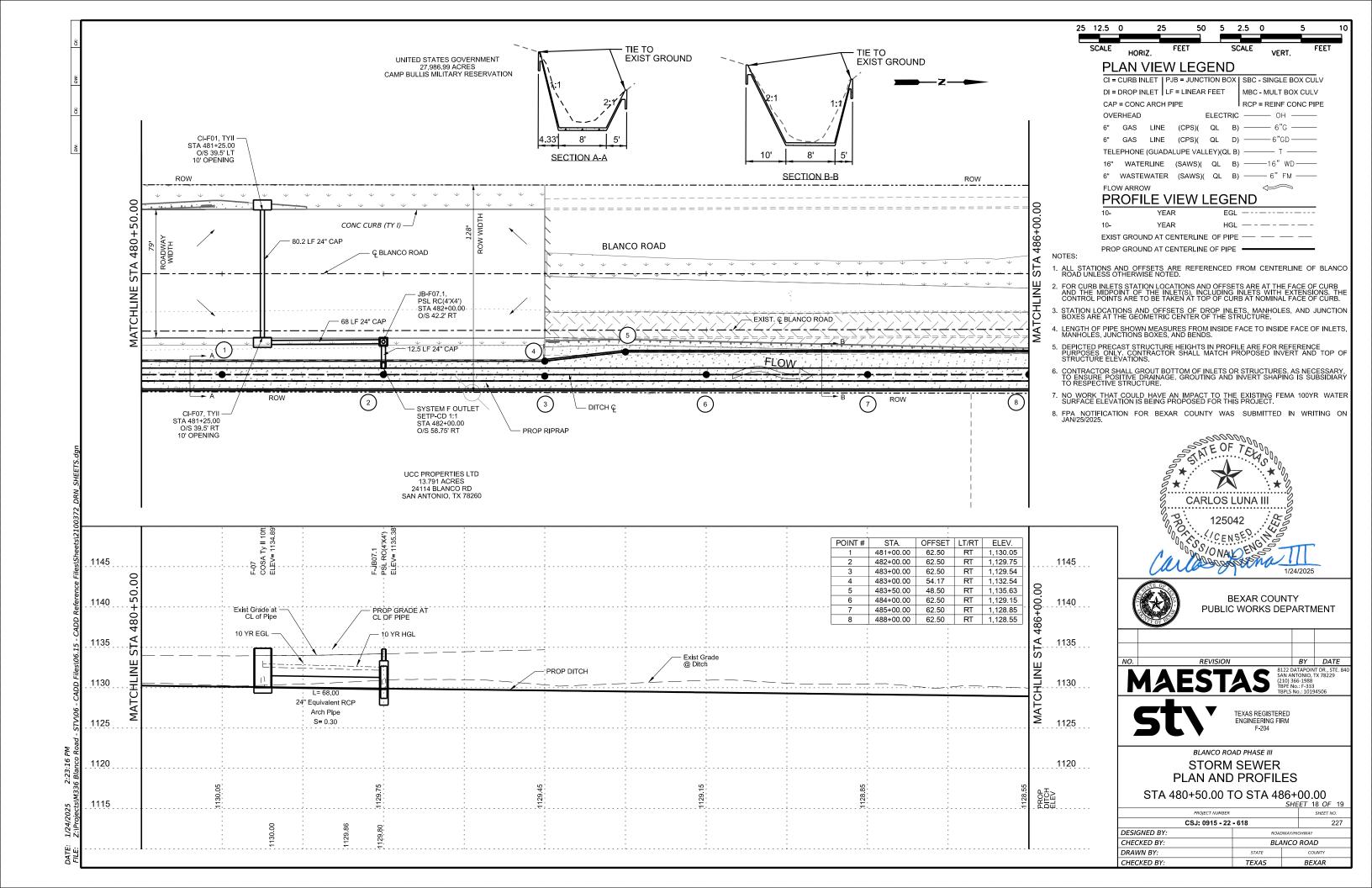


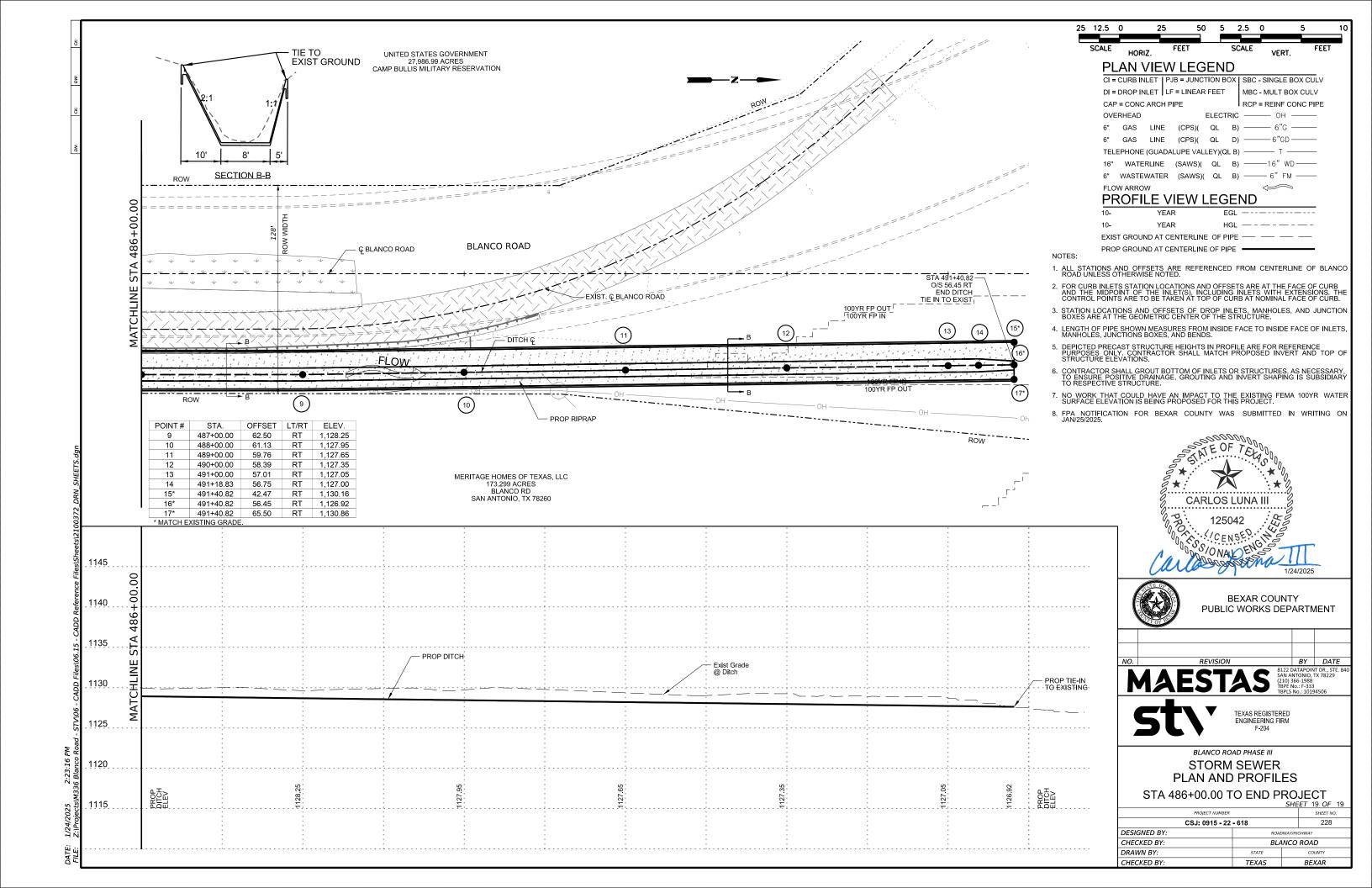


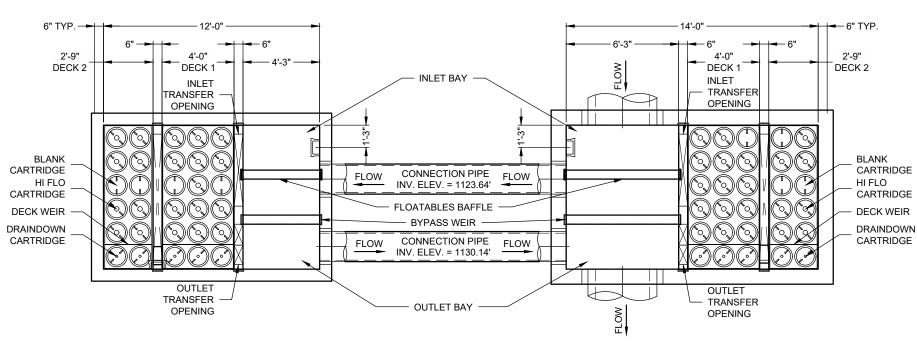












010 AND 015 IN PARALLEL **PLAN VIEW**

(TOP SLAB NOT SHOWN FOR CLARITY)

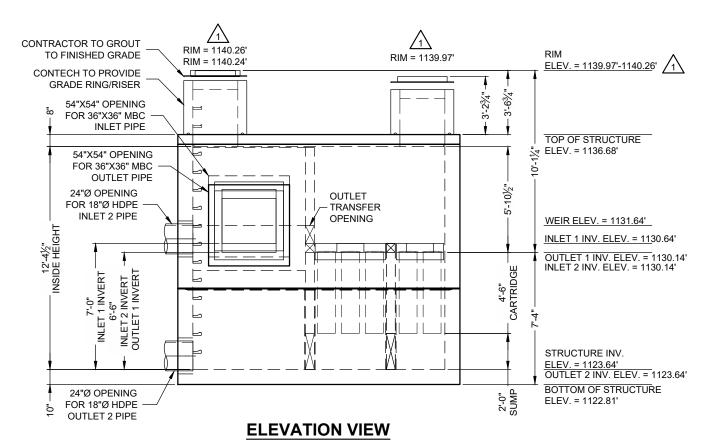


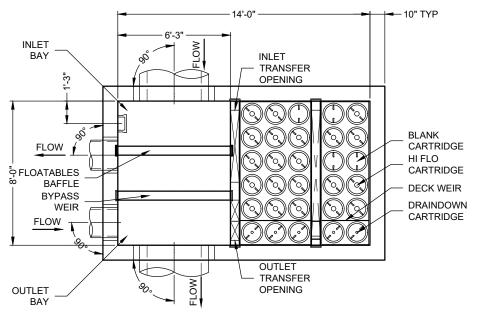


X 14' JELLYFISH* - 815166-010 BLANCO ROAD PHASE 3 SAN ANTONIO, TX SITE DESIGNATION: C × ×

Jellyfish Filter

•	
DATE:	
12/2	/2024
DESIGNED:	DRAWN:
RKD	KOL
CHECKED:	APPROVED:
RKD	RKD
PROJECT No.:	SEQUENCE No.:
815166	010
CUEET	-





PLAN VIEW

(TOP SLAB NOT SHOWN FOR CLARITY)

MATERIAL LIST - PROVIDED BY CONTECH

WINTERING EIGHT THOUBED BY GOTTEGIN			
COUNT	DESCRIPTION	INSTALLED BY	
21	54" HI-FLO CARTRIDGE (70 mm ORIFICE)	CONTECH	
5	54" DRAINDOWN CARTRIDGE (35 mm ORIFICE)	CONTECH	
4	CARTRIDGE BLANK (NO ORIFICE)	CONTECH	
1	JELLYFISH VAULT 18-CARTRIDGE DECK, STANDARD	CONTECH	
1	JELLYFISH VAULT 12-CARTRIDGE DECK, STANDARD	CONTECH	
1	JOINT SEALANT (BY PRECASTER)	CONTRACTOR	
2	30"Ø X 4" FRAME & COVER, EJ #41600483	CONTRACTOR	
1	24"Ø X 4" FRAME & COVER, EJ #41600389	CONTRACTOR	
3 PLCS.	GRADE RING/RISER	CONTRACTOR	
14	STEPS	CONTECH	
1	EPA LABEL	CONTECH	

SITE DESIGN DATA

-		
	WATER QUALITY FLOW RATE	8.04 CFS
	PEAK FLOW RATE	89.77 CFS
	RETURN PERIOD OF PEAK FLOW	100 YRS

- 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE
- 2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. WWW.ContechES.COM
- 3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- 4. STRUCTURE SHALL MEET AASHTO HS-20, ASSUMING EARTH COVER OF 0' 4', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
- 5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
- C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
- D. WHEN ACTIVATED PRIOR TO SITE STABILIZATION, CONTRACTOR TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION
- E. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ACCORDING TO THE PROVISIONS IN THE ACTIVATION CHECKLIST AND THE QUOTED SCOPE OF WORK. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (800) 338-1122

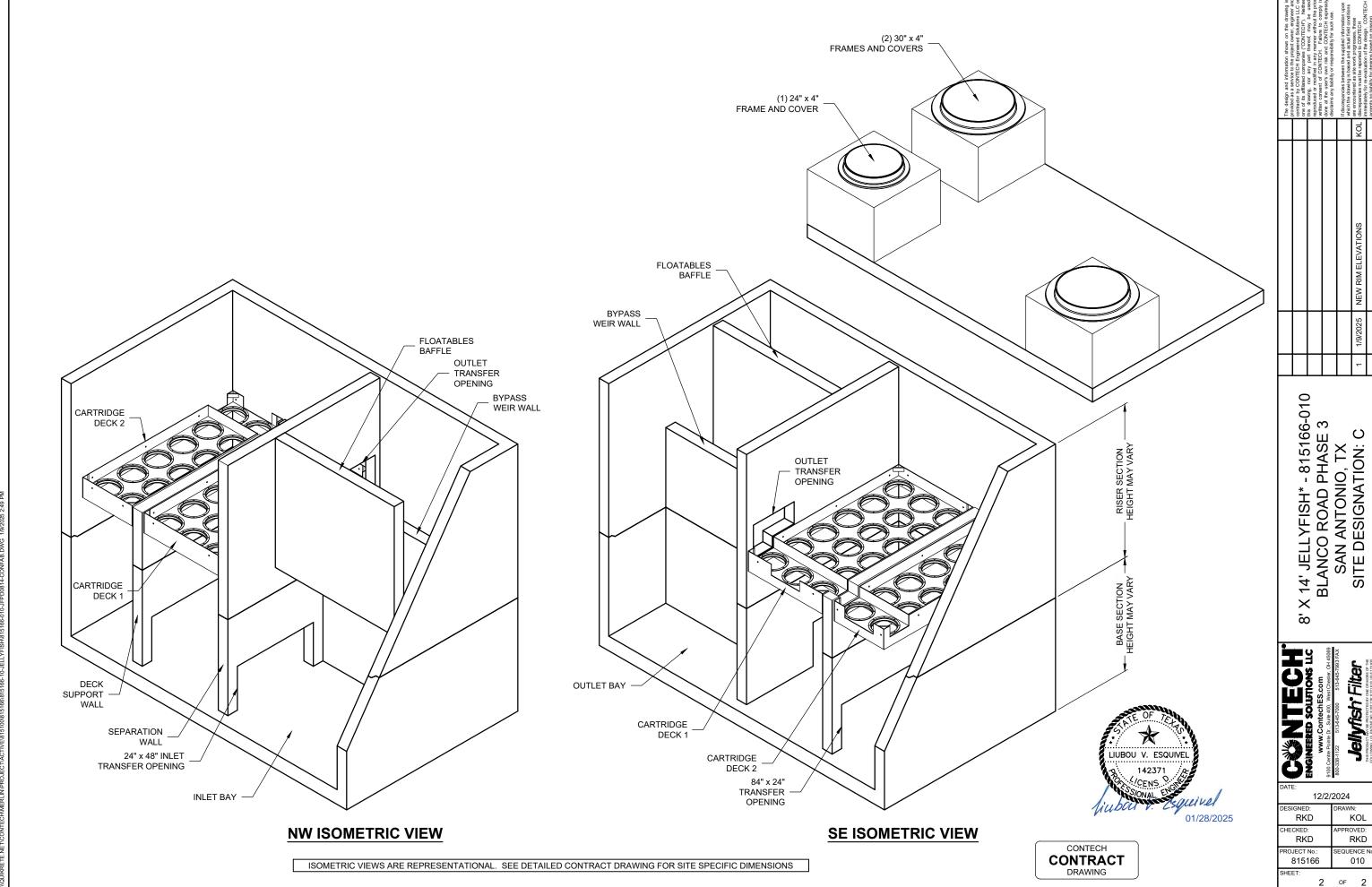
APPROXIMATE HEAVIEST PICK OF (5) PIECES = 52500 LBS.



5635 / 492043 LAYOUT 7 CLASS 3 X 14' JELLYFISH* - 815166-010 BLANCO ROAD PHASE 3 SAN ANTONIO, TX SITE DESIGNATION: C \times $\bar{\infty}$

lellyfish" Filter

12/2/2024 RKD KOL RKD RKD QUENCE No 815166 010 OF



Jellyfish Filter

RAWN: KOL

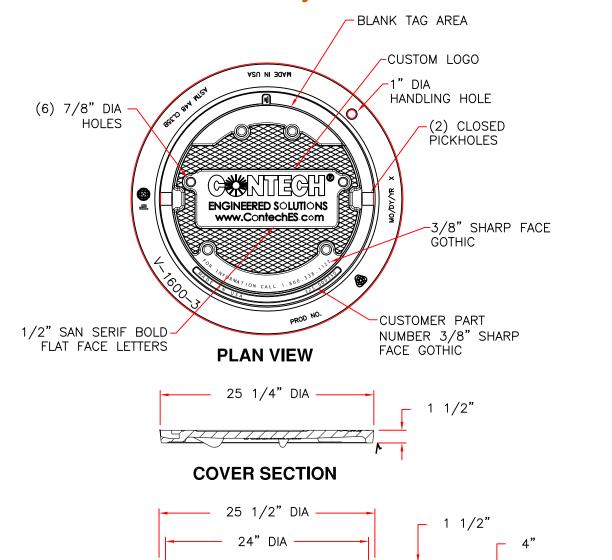
RKD

QUENCE No.

010

V1600-3 V1610-3 Assembly





1 1/2" -

25 1/2" DIA

32 1/8" DIA

RING SECTION

3/4"

LIUBOU V. ESQUIVEL

01/28/2025

Product Number 41600389

Design Features

-Materials Frame Gray Iron (CL35B) Cover Gray Iron (CL35B)

Heavy Duty
-Open Area
n/a
-Coating
Undipped

- √ Designates Machined Surface

Certification

-Design Load

- ASTM A48

-Country of Origin: USA

Major Components

41600310 41600374

Drawing Revision

05/02/2008 Designer: DEW 6/20/2017 Revised By: DAE

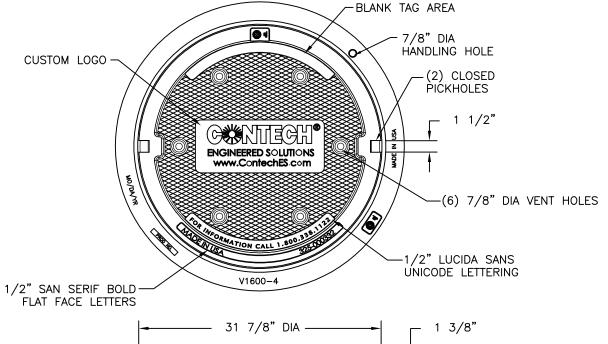
Disclaimer

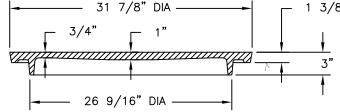
Weights (lbs./kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

CONFIDENTIAL: This drawing is the property of EJ GROUP, Inc., and embodies confidential information, registered marks, patents, trade secret information, and/or know how that is the property of EJ GROUP, Inc. Copyright © 2012 EJ GROUP, Inc. All rights reserved.

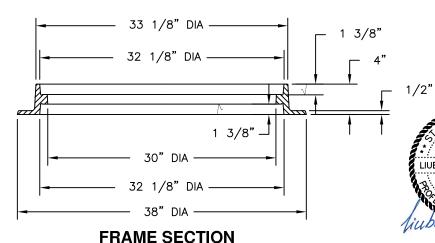
Contact

1810B4 V1600-4 Assembly





COVER SECTION





Product Number 41600483

Design Features

-Materials Cover Gray Iron (CL35B) Gray Iron (CL35B)

-Design Load

Heavy Duty

-Open Area n/a

-Coating

Undipped

- √ Designates Machined Surface

Certification

- ASTM A48

-Country of Origin: USA

Major Components

00180783 41600410

Drawing Revision

05/09/2007 Designer: SMH 6/26/2017 Revised By: DAE

Disclaimer

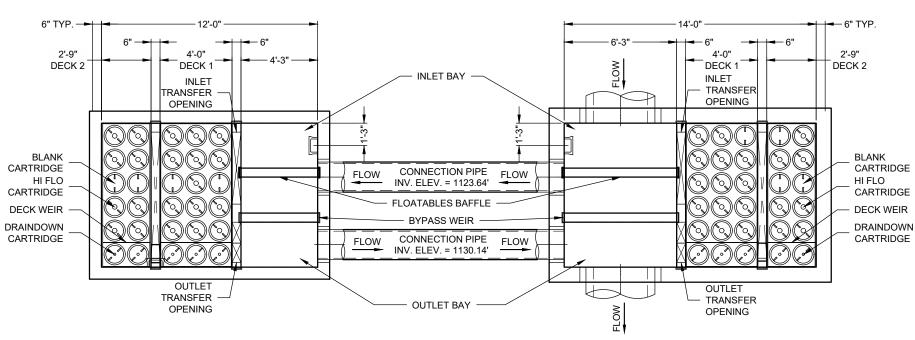
Weights (lbs./kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without

CONFIDENTIAL: This drawing is the property of EJ GROUP, Inc., and embodies confidential information, registered marks, patents, trade secret information, and/or know how that is the property of EJ GROUP, Inc. Copyright © 2012 EJ GROUP, Inc. All rights reserved.

Contact

LIUBOU V. ESQUIVEL

01/28/2025



010 AND 015 IN PARALLEL PLAN VIEW

(TOP SLAB NOT SHOWN FOR CLARITY)

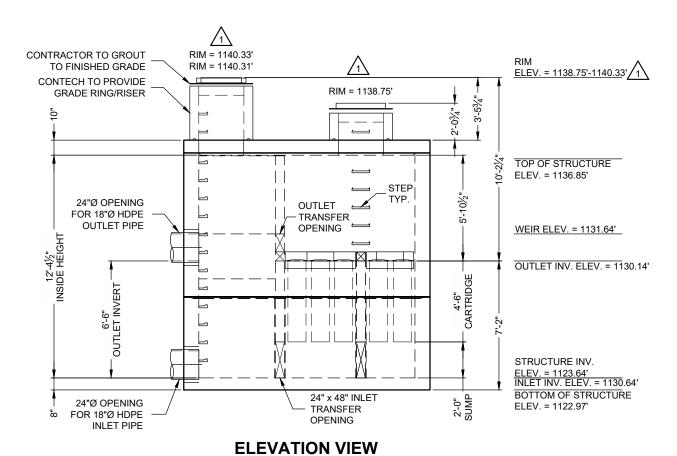


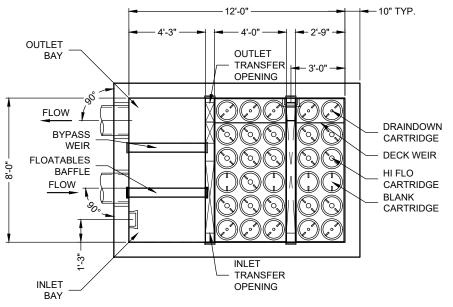


8' X 12' JELLYFISH* - 815166-015
BLANCO ROAD PHASE 3
SAN ANTONIO, TX
SITE DESIGNATION: C (PARALLEL)

TENETICONITECHMERUMPROJECTACTIVER15/100/815/168-15-JEILYEISHIDRAWINGS/815/168-015-JEPD0812-CONFAB DWG 1/14/2025 10:

1 OF 2





PLAN VIEW

(TOP SLAB NOT SHOWN FOR CLARITY)

MATERIAL LIST - PROVIDED BY CONTECH

MATERIAL LIST - PROVIDED BY CONTECH			
COUNT	DESCRIPTION	INSTALLED BY	
21	54" HI-FLO CARTRIDGE (70 mm ORIFICE)	CONTECH	
5	54" DRAINDOWN CARTRIDGE (35 mm ORIFICE)	CONTECH	
4	CARTRIDGE BLANK (NO ORIFICE)	CONTECH	
1	JELLYFISH VAULT 18-CARTRIDGE DECK, STANDARD	CONTECH	
1	JELLYFISH VAULT 12-CARTRIDGE DECK, STANDARD	CONTECH	
1	JOINT SEALANT (BY PRECASTER)	CONTRACTOR	
2	30"Ø X 4" FRAME & COVER, EJ #41600483	CONTRACTOR	
1	24"Ø X 4" FRAME & COVER, EJ #41600389	CONTRACTOR	
3 PLCS.	GRADE RING/RISER	CONTRACTOR	
20	STEPS	CONTECH	
1	EPA LABEL	CONTECH	

SITE DESIGN DATA

WATER QUALITY FLOW RATE	8.04 CFS
PEAK FLOW RATE	89.77 CFS
RETURN PERIOD OF PEAK FLOW	100 YRS

- 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- 2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. WWW.ContechES.COM
- 3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- 4. STRUCTURE SHALL MEET AASHTO HS-20, ASSUMING EARTH COVER OF 0' 4', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
- 5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
- C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
- D. WHEN ACTIVATED PRIOR TO SITE STABILIZATION, CONTRACTOR TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION
- E. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ACCORDING TO THE PROVISIONS IN THE ACTIVATION CHECKLIST AND THE QUOTED SCOPE OF WORK. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (800) 338-1122

APPROXIMATE HEAVIEST PICK OF (5) PIECES = 51000 LBS.

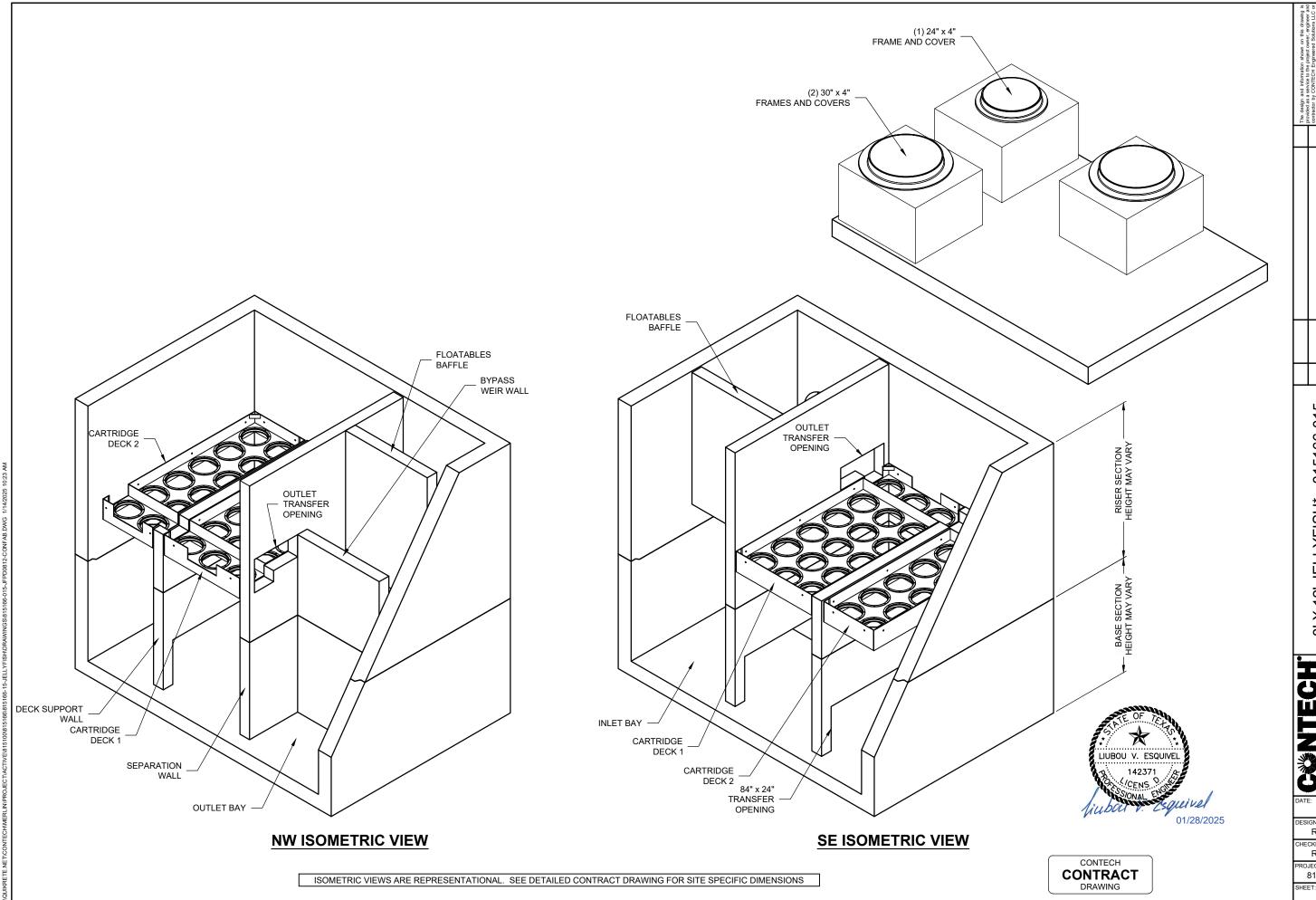


5635 / 492043 LAYOUT 7 CLASS 800 X 12' JELLYFISH* - 815166-015 BLANCO ROAD PHASE 3 SAN ANTONIO, TX E DESIGNATION: C (PARALLEL) SI $\bar{\infty}$

lellyfish" Filter

12/2/2024 RKD KOL RKD RKD 815166 015

or **2**



8' X 12' JELLYFISH* - 815166-015 BLANCO ROAD PHASE 3 SAN ANTONIO, TX SITE DESIGNATION: C (PARALLEL)

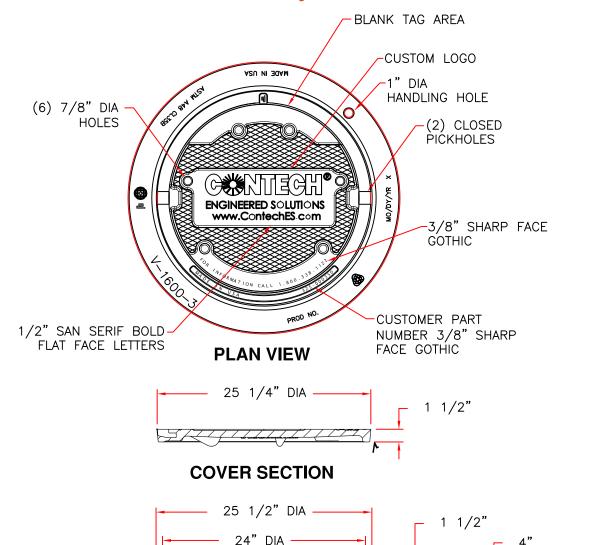
12/2/2024 RAWN: KOL RKD RKD RKD 815166 015

Jellyfish Filter

2 OF 2

V1600-3 V1610-3 Assembly





1 1/2" -

25 1/2" DIA

32 1/8" DIA

RING SECTION

3/4"

LIUBOU V. ESQUIVEL

01/28/2025

Product Number 41600389

Design Features

-Materials Frame Gray Iron (CL35B) Cover Gray Iron (CL35B)

 -Design Load Heavy Duty

-Open Área

open Area n/a

-Coating

Undipped

- √ Designates Machined Surface

Certification

- ASTM A48

-Country of Origin: USA

Major Components

41600310 41600374

Drawing Revision

05/02/2008 Designer: DEW 6/20/2017 Revised By: DAE

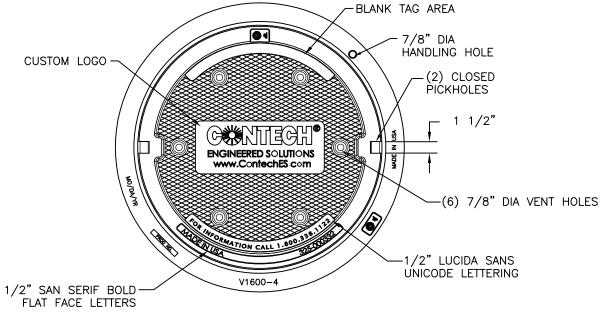
Disclaimer

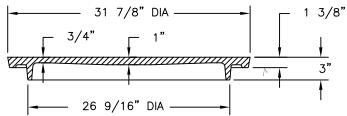
Weights (lbs./kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

CONFIDENTIAL: This drawing is the property of EJ GROUP, Inc., and embodies confidential information, registered marks, patents, trade secret information, and/or know how that is the property of EJ GROUP, Inc. Copyright © 2012 EJ GROUP, Inc. All rights reserved.

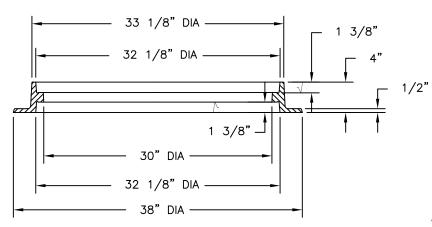
Contact

1810B4 V1600-4 Assembly





COVER SECTION







Product Number 41600483

Design Features

-Materials Cover Gray Iron (CL35B) Frame Gray Iron (CL35B)

-Design Load Heavy Duty

-Open Área

n/a

-Coating

Undipped

- √ Designates Machined Surface

Certification

- ASTM A48

-Country of Origin: USA

Major Components

00180783 41600410

Drawing Revision

05/09/2007 Designer: SMH 6/26/2017 Revised By: DAE

Disclaimer

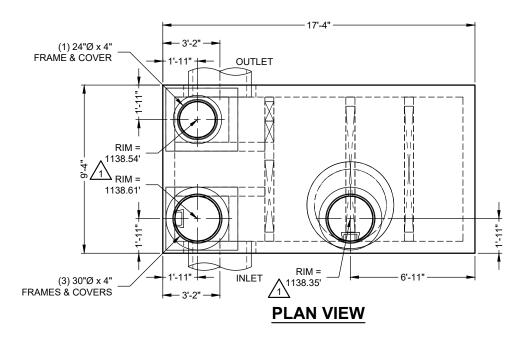
Weights (lbs./kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

CONFIDENTIAL: This drawing is the property of EJ GROUP, Inc., and embodies confidential information, registered marks, patents, trade secret information, and/or know how that is the property of EJ GROUP, Inc. Copyright © 2012 EJ GROUP, Inc. All rights reserved.

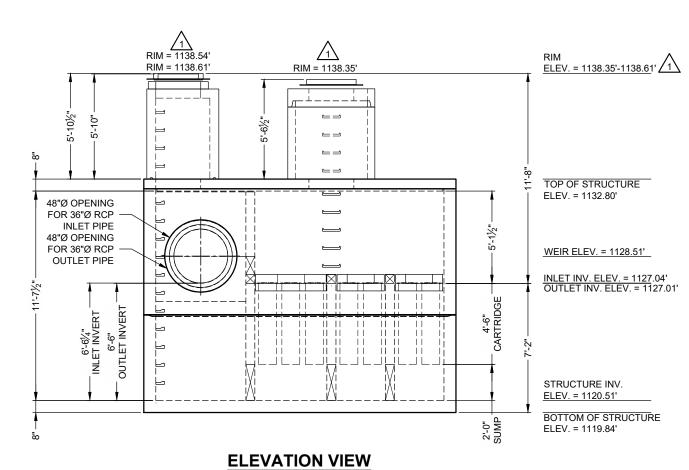
Contact

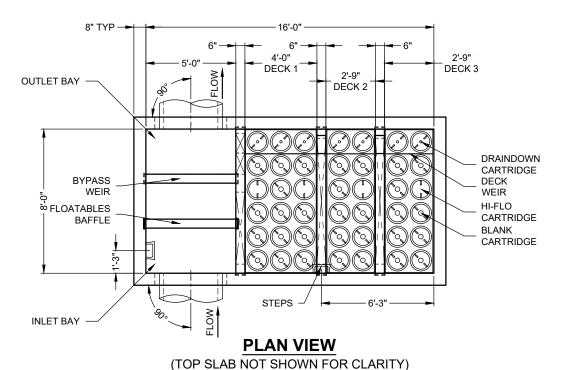
01/28/2025

LIUBOU V. ESQUIVEL









MATERIAL LIST - PROVIDED BY CONTECH

MATERIAL LIST - FROUDED BY CONTECT			
COUNT	DESCRIPTION	INSTALLED BY	
31	54" HI-FLO CARTRIDGE (70 mm ORIFICE)	CONTECH	
7	54" DRAINDOWN CARTRIDGE (35 mm ORIFICE)	CONTECH	
4	CARTRIDGE BLANK (NO ORIFICE)	CONTECH	
1	JELLYFISH VAULT 18-CARTRIDGE DECK, STANDARD	CONTECH	
2	JELLYFISH VAULT 12-CARTRIDGE DECK, STANDARD	CONTECH	
1	JOINT SEALANT (BY PRECASTER)	CONTRACTOR	
2	30"Ø X 4" FRAME & COVER, EJ #41600483	CONTRACTOR	
1	24"Ø X 4" FRAME & COVER, EJ #41600389	CONTRACTOR	
3 PLCS.	GRADE RING/RISER	CONTRACTOR	
24	STEPS	CONTECH	
1	EPA LABEL	CONTECH	

SITE DESIGN DATA

WATER QUALITY FLOW RATE	6.12 CFS
PEAK FLOW RATE	68.71 CFS
RETURN PERIOD OF PEAK FLOW	100 YRS

GENERAL NOTES:

- 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- 2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. WWW.ContechES.COM
- 3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- 4. STRUCTURE SHALL MEET AASHTO HS-20, ASSUMING EARTH COVER OF 0' 5.92', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
- 5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE
- C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
- D. WHEN ACTIVATED PRIOR TO SITE STABILIZATION, CONTRACTOR TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION
- E. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ACCORDING TO THE PROVISIONS IN THE ACTIVATION CHECKLIST AND THE QUOTED SCOPE OF WORK. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (800) 338-1122.

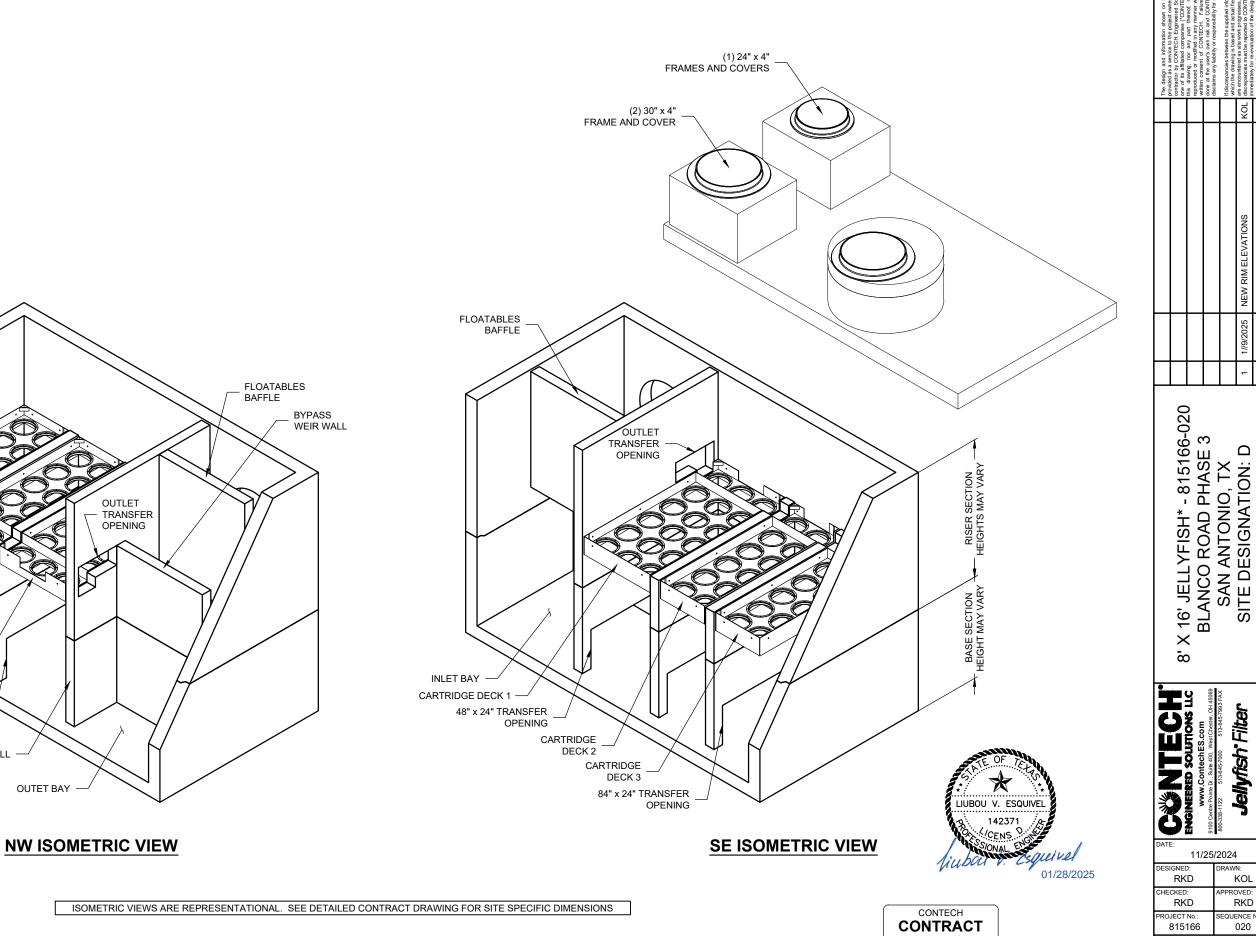
APPROXIMATE HEAVIEST PICK OF (5) PIECES = 53500 LBS



LAYOUT 7 CLASS 800 X 16' JELLYFISH* - 815166-020 BLANCO ROAD PHASE 3 SAN ANTONIO, TX SITE DESIGNATION: D \times $\bar{\infty}$ Jellyfish' Filter

DATE:	
11/25	/2024
DESIGNED:	DRAWN:
RKD	KOL
CHECKED:	APPROVED:
RKD	RKD
PROJECT No.:	SEQUENCE No.:
815166	020
SHEET:	-
1	OF 2

5635 / 492043



× ×

Jellyfish Filter

RAWN: KOL

RKD

020

2 OF 2

11/25/2024

DRAWING

CARTRIDGE DECK 3 CARTRIDGE DECK 2

DECK SUPPORT WALL

CARTRIDGE DECK 1

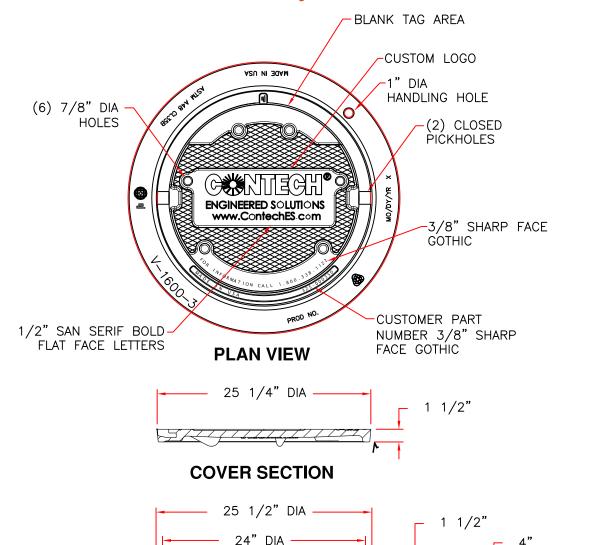
24" x 24" INLET TRANSFER OPENING

SEPARATION WALL

OUTET BAY

V1600-3 V1610-3 Assembly





1 1/2" -

25 1/2" DIA

32 1/8" DIA

RING SECTION

3/4"

LIUBOU V. ESQUIVEL

Product Number 41600389

Design Features

-Materials Frame Gray Iron (CL35B) Cover Gray Iron (CL35B)

 -Design Load Heavy Duty

-Open Area n/a

-Coating

Undipped

- √ Designates Machined Surface

Certification

- ASTM A48

-Country of Origin: USA

Major Components

41600310 41600374

Drawing Revision

05/02/2008 Designer: DEW 6/20/2017 Revised By: DAE

Disclaimer

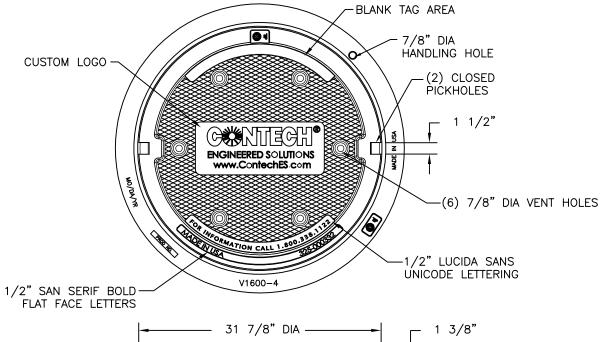
Weights (lbs./kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

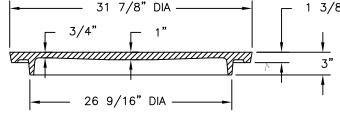
CONFIDENTIAL: This drawing is the property of EJ GROUP, Inc., and embodies confidential information, registered marks, patents, trade secret information, and/or know how that is the property of EJ GROUP, Inc. Copyright © 2012 EJ GROUP, Inc. All rights reserved.

Contact

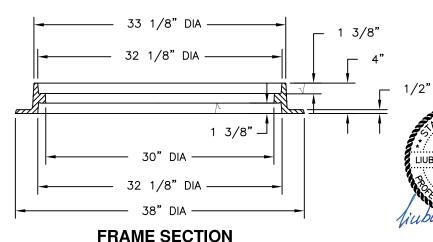
01/28/2025

1810B4 V1600-4 Assembly





COVER SECTION







Product Number 41600483

Design Features

-Materials Cover Gray Iron (CL35B) Frame Gray Iron (CL35B)

-Design Load Heavy Duty

-Open Área

n/a

-Coating

Undipped

- √ Designates Machined Surface

Certification

- ASTM A48

-Country of Origin: USA

Major Components

00180783 41600410

Drawing Revision

05/09/2007 Designer: SMH 6/26/2017 Revised By: DAE

Disclaimer

Weights (lbs./kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

CONFIDENTIAL: This drawing is the property of EJ GROUP, Inc., and embodies confidential information, registered marks, patents, trade secret information, and/or know how that is the property of EJ GROUP, Inc. Copyright © 2012 EJ GROUP, Inc. All rights reserved.

Contact

LIUBOU V. ESQUIVEL

01/28/2025

STORMWATER POLLUTION P	REVENTION-CLEAN WATER	ACT SECTION 402
Texas Pollutant Discharge El Discharge Permit or Construc or more acres distrubed soil erosion and sedimentation in	tion General Permit (CGP) r . Projects with any distur	equired for projects with 1
☐ No Action Required	Required Action	
accordance with TPDES Pe	ution by controlling erosion ermit TXR 150000. oter Pollution Prevention Pl	
 Post Construction Site Naccessible to the public Environmental Protection When Contractor project to 5 acres or more, Construction 	Notice (CSN) with SW3P inforce and Texas Commission on Endagency (EPA) or other inspecific locations (PSL's) tractor shall submit Notice	mation on or near the site, vironmental Quality (TCEQ), ectors. increase disturbed soil are
the Engineer. 5. NOI required: ∑Yes ☐No		
Note: If amount of soil dist	urbance changes, permit req	uirements may change.
	404 (USACE) Permit required for n any potential USACE juriso	filling, dredging,
The Contractor shall adher the following permit(s):	e to all of the terms and co	onditions associated with
☐ No Permit Required		
☐ Nationwide Permit (NWP)	14 - Pre-construction Notic	e (PCN) not Required
── Nationwide Permit 14 - F	PCN Required	
☐ Individual 404 Permit Re		
Other Nationwide Permit		
	·	
and check Best Management P	rs of the US permit applies ractices (BMPs) planned to (ect total suspended solids	control erosion,
1. MEUSEBACH CREEK - STA 42	8+00.00	
401 Best Management Pra	ctices: (Not applicable	if no USACE permit)
Erosion	Sedimentation	Post-Construction TSS
☐ Temporary Vegetation	Silt Fence	☐ Vegetative Filter Strips
☐ Blankets/Matting	⊠ Rock Berm	Retention/Irrigation Systems
Mulch	☐ Triangular Filter Dike	Extended Detention Basin
Sodding	Sand Bag Berm	Constructed Wetlands
☐ Interceptor Swale	Straw Bale Dike	Wet Basin
☐ Diversion Dike	Brush Berms	Erosion Control Compost
=	=	=
Erosion Control Compost	Erosion Control Compost	Mulch Filter Berm and Socks
☐ Mulch Filter Berm and Socks	Mulch Filter Berm and Socks	Compost Filter Berm and Socks
Compost Filter Berm and Socks	= '	
	Stone Outlet Sediment Traps	Sand Filter Systems
	Sediment Basins	Sedimentation Chambers
		☐ Grassy Swales

III. CULTURAL RESOURCES

Refer to TxDOT Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.

IV. VEGETATION RESOURCES

Preserve native vegetation to the extent practical. Contractor must adhere to Construction Specification Requirements Specs 162,164, 192, 193, 506, 730, 751, 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

No Action Required

Required Action

Action No.

- Limit the clearing of vegetation and topsoil to only the areas needed to accomplish the project or activity.
- V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS.

☐ No Action Required

Required Action

Action No.

- 1. MIGRATORY BIRD NESTS: Schedule construction activities as needed to meet the following requirements:
- A. Do not remove or destroy any active migratory bird nests (nests containing eggs and/or flightless birds) at any time of year. If there are any active nests, they shall not be removed until the nests become inactive.
- B. On/in structures, if there are any active nests, they shall not be removed until all nests become inactive. After inactive nests are removed and/or before nest activity begins, deterrent materials may be applied to the structures to prevent future nest building.
- 2. If during construction a void/karst feature is encountered, construction would immediatley cease and the County would be notified. The void would be evacuated in accordance with USFWS survey protocal and, if warranted, coordination with the USFWS would be initiated. No construction would be allowed in the vicinity of the void until approved by the County.
- 3. If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests.
- 4. If caves or sinkholes are discovered, cease work in the immediated area, and contact the Engineer immediately.
- 5. If a potential karst void is encountered during excavation activities, work within 50 feet of the feature will cease until an evaluation is completed. The feature will be evaluated for potential karst invertebrate habitat by a Professional Geoscientist or karst biologist holding an appropriate 10(a)(1) (A) permit following current USFWS karst survey guidelines. In the case where voids are detected for drilled shafts, potential karst invertebrate habitat will be assessed to the extent feasible using a downhole camera or other similar means. If the feature meets the USFWS criteria for potential karst habitat, then it will be evaluated for its biological significance by a karst biologist holding an appropriate 10(a)(1)(A) permit on a case-by-case basis. If the feature does not meet the criteria for potential karst habitat, then work will continue.

While a feature is being evaluated, the surface expression will be covered to minimize the influence of diurnal variations in surface temperature. Protection of the feature may include a wood cover, plastic sheeting, and/or blanket that is weighted down with rocks around the perimeter. During periods of high temperatures (>100° F), a piece of insulation will be added to the cover. Hazard fencing or barricades may be used to protect the area if there is a fall hazard, such as the case of an open shaft. Appropriate BMPs will be implemented to minimize surface runoff from entering the feature.

If a discovered feature is determined to be occupied or presumed occupied by a listed karst invertebrate, then TxDOT and Bexar County will proceed in such a manner as to minimize impacts to the feature. Occupation by a listed karst invertebrate will be presumed if potentially listed karst invertebrates collected during surveying are immature and cannot be identified to species. If it is possible within the needs of the project, the feature will be capped to preserve as much of the void space as possible. If work must continue at the feature, disturbance to the feature will be minimized but the details will be determined on a case-by-case basis following recommendations from both a permitted scientist and an engineer. When features are closed, they will be closed in a condition as similar as possible to pre-excavation condition regarding water and nutrient inflow and void volume, while protecting the feature from contaminated runoff.

Presence/absence surveys will not be conducted if surface conditions are unsafe to do so. Examples of unsafe conditions may include situations where: 1) the feature is in an active traffic land that would have to be closed for an extendedperiod to conduct the survey; 2) the excavation cannot be stabilized to make the feature safe to survey; or 3) surveys would cause the project to be significantly delayed. Reasons for not conducting the presence/absence surveys when a feature meets the Service $\frac{1}{2}$ s criteria for potential habitat shall be documented in writing and included in the biannual monitoring report. Occupation of any karst feature will be presumed if potentially listed karst invertebrates collected during surveying are immature or otherwise cannot be identified to species.

- 6. Most PSLs are anticipated to be located within Bexar County's ROW; however, PSLs may also occur outside of the project area if the contractor chooses. Storage of chemical substances will only occur in designated PSLs to prevent the material from running off or entering waterways. Environmental compliance for PSLs located outside of the project area lies with the contractor. TxDOT and Bexar County will notify the contractor of the possibility of listed species and habitat in the project areas and the specific requirements to avoid impacts or the need to consult with the Service.
- 7. The following General Conservation Measures shall be implemented to protect karst species during construction:
- A pre-construction meeting with employees and contractors will be held where TxDOI and Bexar County will provide specific instruction on the implementation of Bexar County's proposed conservation measures and will be documented in the Environmental Permits, Issues, & Commitments (EPIC) sheet and project general notes. At the pre-construction meeting, an information packet will be provided to staff and contractors to identify habitat for protected species and inform them of all applicable safety and legal requirements related to species habitat and protection.
- 3. The proposed project has been designed to minimize disturbance to bedrock, the depth of excavation, and the removal of subsurface limestone. Most of the construction will take place in the previously disturbed ROWs including the median areas between the main travel lanes.
- C. Appropriate BMPs to minimize construction phase erosion and sedimentation impacts will be incorporated into the proposed project and related notes and diagrams will be included in the required Texas Commission on Environmental Quality (TCEQ) permitting documents such as the Storm Woter Pollution Prevention Plan (SW3P) and construction plans. The SW3P will be prepared during the final design stages of the project. Erosion BMPs may include temporary vegetation, blanket/matting, mulch, sodding, interceptor swales, diversion dikes, mulch filter berms and socks. Sedimentation BMPs may include silt fences, rock berms, and triangular filter dikes.
- D. The contractor shall limit the clearing of vegetation and topsoil to only the areas needed to accomplish the project or activity.
- Bexar County shall provide an on-call construction monitor throughout ground disturbance activities to inspect and report voids encountered during construction in accordance with the reporting protocol.
- F. All disturbed areas will be re-vegetated according to TxDOT's standard practices for urban areas and the TCEQ Construction General Permit (CGP) to the extent practicable, in compliance with Executive Order 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping. Re-vegetation efforts would provide appropriate and sustainable cover to prevent erosion and siltation.
- G. For unavoidable impacts to previously undetected voids, Bexar County intend to mitigate through the Southern Edwards Plateau Habitot Conservation Plan (SEPHCP). Bexar County will contribute to the goals of the SEPHCP through payment based on the anticipated disturbance within the existing and proposed ROWs (approximately 38.15 acres). Bexar County will complete payment to the SEPHCP prior to the Start of construction for any unavoidable impacts to Madia Caye meshweaver, Government Canyon Bat Cave meshweaver, and two unnamed traglobitic beetles R. exilis and R. infernalis. The SEPHCP uses payments to secure preserves that aid in recovering listed species in Bexar County.
- If karst features are encountered during construction, a biannual monitoring report detailing the evaluation of potential karst surveys and the results of any presence/absence surveys performed will be provided to Service every January and June following the start of construction. The reports shall document the number and location of voids encountered and at what depth, a summary of the results of any karst invertebrate survey conducted, any observations made with a down-hole camera, a summary of the work actions completed during the reporting period, and what actions are anticipated in the next reporting period. A final report will be submitted after all construction activities are completed.



ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS

EPIC

LE: epic_2015-10-09_SAT.dgn	DN: Tx[TOC	ck: TxDOT	DW:	BW	ck: GAG
TxDOT OCTOBER 2015	CONT	SECT	JOB		HIC	HWAY
REVISIONS					BLANC	O ROAD
	DIST	COUNTY			SHEET NO.	
	SA		BEXA	₹		391

٧.	•	THREATENED, ENDANGERED SPECIES, ISTED SPECIES, CANDIDATE SPECIES
	☐ No Action Required	Required Action
Act	ion No.	
8. T	The following BMPs will be impleme	ented for state-listed species and SGCNs:
A	A. For the Western Burrowing Owl,	the following Bird BMPs would be implem

- A. For the Western Burrowing Owl, the following Bird BMPs would be implemented: Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed. Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season; avoid the removal of unoccupied, inactive nests, as practicable. Prevent the establishment of active nests during the nesting season on Bexar County owned and operated facilities and structures proposed for replacement or repair. Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.
- B. For the big brown bat, the tricolored bat, big free-tailed bat, and the cave myotis bat, the following Bat BMPs would be implemented: For activities that have the potential to impact structures, cliffs or caves, or trees; a qualified biologist will perform a habitat assessment and occupancy survey of the feature(s) with roost potential as early in the planning process as possible or within one year before project letting. For roosts where occupancy is strongly suspected but unconfirmed during the initial survey, revisit feature(s) at most four weeks prior to scheduled disturbance to confirm absence of bats. If bats are present or recent signs of occupation (i.e., piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction. Exclusion devices can be installed by a qualified individual between September 1 and March 31. Exclusion devices should be used for a minimum of seven days when minimum nighttime temperatures are above 50°F AND minimum daytime temperatures are above 70°F. Prior to exclusion, ensure that alternate roosting habitat is available in the immediate area. If no suitable roosting habitat is available in the immediate area. If no suitable roosting habitat is available in the immediate roost is recommended to replace the loss of an occupied roost. If alternate roost sites are not provided, bats may seek shelter in other inappropriate sites, such as buildings, in the surrounding area. If feature(s) used by bats are removed as a result of construction, replacement structures should incorporate bat-friendly design or artificial roosts should be constructed to replace these features, as practicable. Conversion of property containing cave or cliff features to transportation purposes should be constructed to replace these features, as practicable. Conversion of property containing cave or cliff features to transp
- C. For the Woodhouse's toad, the following Amphibian BMPs would be implemented: For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80 feet long in each direction, or whichever is the lesser of the two. For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overthangs. When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic wildlife through the water feature. Where feasible, biotechnical streambank stabilization methods using live native vegetation, or a combination of vegetative and structural materials should be used.
- D. For the Woodhouse's Toad, Texas garter snake, plateau spot-tailed earless lizard, Tamaulipan spot-tailed earless lizard, eastern box turtle, western box turtle, and slender glass lizard, the following Terrestrial Reptile BMPs would be implemented: Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable. For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling. Inform contractors that if reptiles are found on project site allow species to safely leave the project area. Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible. Contractors will be advised of pofential occurrence in the project area, and to avoid harming the species if encountered.
- E. For the Glass Mountain coral-root, plateau milkvine, tree dodder, bigflower cornsalad, low spurge, and turnip-root scurfpeo, the following Vegetation BMPs would be implemented: Minimize the amount of vegetation cleared. Removal of native vegetation, particularly mature native trees and shrubs should be avoided to the greatest extent practicable. Wherever practicable, impacted vegetation should be replaced with in-kind on-site replacement/restoration of native vegetation. To minimize adverse effects, activities should be planned to preserve mature trees, particularly acorn, nut or berry producing varieties. These types of vegetation have high value to wildlife as food and cover. It is strongly recommended that trees greater than 12 inches in dbh that are removed be replaced. TPWD's experience indicates that for ecologically effective replacement, a ratio of three trees for every one (3:1) lost should be provided to the extent practicable either on-site or off-site. Trees less than 12 inches dbh should be replaced at a 1:1 ratio. Replacement trees should be of equal or better wildlife quality than those removed and be regionally adapted native species. When trees are planted, a maintenance plan that ensures at least an 85 percent survival rate after three years should be developed for the replacement trees. The use of any non-native yegetation in landscaping and revegetation is discouraged. Locally adapted native species is recommended. Avoid vegetation clearing activities during the general bird nesting season, March through August, to minimize adverse impacts to birds.
- F. For eastern hog-nosed skunk, eastern spotted skunk, and white-nosed coati, the following BMPs would be implemented: Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

- G. Implement Water Quality BMPs should be implemented for multiple species and include:
- Minimize the use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks, bridge decks, or barges.
- When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
- iii. Wet-Bottomed detention ponds are recommended to benefit wildlife and downstream water quality. Consider potential wildlife-vehicle interactions when siting detention ponds.
- iv. Rubbish found near bridges on Bexar County ROW should be removed and disposed of properly to minimize the risk of pollution. Rubbish does not include brush piles or snags.
- H. Vegetation BMPs should be included:
- Minimize the amount of vegetation cleared. Removal of native vegetation, particularly mature native trees and shrubs should be avoided. Impacted vegetation should be replaced with in-kind onsite replacement/restoration of native vegetation.
- ii. To minimize adverse effects, activities should be planned to preserve mature trees, particularly acorn, nut or berry producing varieties. These types of vegetation have high value to wildlife as food and cover.
- iii. It is strongly recommended that trees greater than 12 inches in diameter at breast height (DBH) that are removed be replaced. TPWD's experience indicates that for ecologically effective replacement, a ratio of three trees for every one (3:1) lost should be provided to either on-site or off-site. Trees less than 12 inches DBH should be replaced at a 1:1 ratio
- iv. Replacement trees should be of equal or better wildlife quality than those removed and be regionally adapted native species.
- When trees are planted, a maintenance plan that ensures at least an 85 percent survival rate after three years should be developed for the replacement trees.
- vi. The use of any non-native vegetation in landscaping and revegetation is discouraged. Locally adapted native species should be used.
- vii.The use of seed mix that contains seeds from only regional ecotype native species is recommended.
- 9. The following BMPs will be implemented for state-listed species and SGCNs:
- A. Appropriate erosion and sedimentation controls would be utilized during construction to control the discharge of pollutants, in accordance with the Texas Commission on Environmental Quality Construction General Permit (TCEQ CGP) and Storm Water Pollution Prevention Plans (SWP3) developed for the proposed project.
- B. After construction, all disturbed areas will be stabilized and re-vegetated according to standard practices for urban areas and the TCEQ CGP to the extent practicable, in compliance with Executive Order 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping. Re-vegetation efforts would provide appropriate and sustainable cover to prevent erosion and siltation.

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used. Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act. Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the County Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the follwing are detected:

- * Dead or distressed vegetation (not identified as normal)
- Trash piles, drums, canister, barrels, etc.
- * Undesirable smells or odors
- * Evidence of leaching or seepage of substances

Hazardous Materials or Contamination Issues Specific to this Project:

No Action Re	quired	Required Ac	ction
Action No.			
oes the project in	avalva tha dama	ulition of a coor	hridaa?
Yes	_	rther action req	•

If "Yes", a pre- demolition notification must be submitted to the Texas Department of State Health Services. The contractor shall contact TxDOT's Project Engineer 25 calendar days prior to the demolition of the bridges(s) on the project to assist with the notification.

VII. OTHER ENVIRONMENTAL ISSUES

(inc	ludes	regional	issues	such	as	Edwards	Aquifer	District,	etc.)
\boxtimes	No Act	ion Requi	red] Requir	ed Actio	n	



ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS

EPIC

LE: epic_2015-10-09_SAT.dgn	DN: Tx[TOC	ck: TxDOT	DW:	BW	ck: GAG
TxDOT OCTOBER 2015	CONT	SECT	JOB		HIC	HWAY
REVISIONS					BLANC	O ROAD
	DIST		COUNTY			SHEET NO.
	SA		REXA	2		392

Λ	GENERAL	SITE	$D \Lambda T \Lambda$
Α.	GLINLINAL	\supset I \vdash	DATA

1. PROJECT LIMITS: From Wiseman Boulevard to Tamaron Pass

2. PROJECT SITE MAPS:

- * Project Latitude 29°42′43.44" N Project Longitude -98°30′50.36"W
- * Project Location Man. Shown on Title Sheet
- * Drainage Patterns: Shown on Drainage Area Map
- * Approx. Slopes Anticipated After Major Gradings and Areas of Soil Disturbance: Shown on Typical Sections
- * Major Controls and Locations of Stabilization Practices: Shown on SW3P Sheets
- * Project Specific Locations: Off-site waste, borrow, or storage areas are not part of this SW3P.
- * Surface Waters and Discharge Locations: Shown on Drainage and Culvert Layout Sheets
- 3. PROJECT DESCRIPTION: For work consisting of expanding from 2 to 4 lanes with continuous left turn lane.
- * Non-joint Bid Utilities are not part of this SW3P

4. FOR MAJOR SOIL DISTURBING ACTIVITIES SEQUENCE OF EVENTS:

- I. Install controls down-slope of work area and initiate inspection and maintenance activities.
- 2. Begin phased construction with interim stabilization practices. Adjust erosion and sedimentation controls during construction to meet requirements and changing conditions and as directed/ approved by the Engineer.
- 3. Major soil disturbing activities may include but are not limited to: right-of-way preparation, cut and/or fill to improve roadway profile, final grading and placement of topsoil and the following (if marked):

X	Place	ement	of	road	base

- _ Extensive ditch grading
- X Upgrading or replacing culverts or bridges
- X Temporary detour road(s) ____ Other:_

5. EXISTING AND PROPOSED CONDITIONS:

Description of existing vegetative cover:

Percentage of existing vegetative cover:

Existing vegetative cover: (mark one)

_X Thin and Patchy

____ None or minimal cover Description of soils: (Provide classification and description of soils)

Site Acreage: 35.79

Acreage disturbed: 35.79

____ Thick or uniformly established

Site runoff coefficient (pre-construction):

Site runoff coefficient (post-construction);

6. RECEIVING WATERS: (Mark all that apply)

____ A classified stream does not pass through project.

X A classified stream passes through project. Name <u>MEUSEBACH CREEK</u> Segment Number

Name of receiving waters that will receive discharges MEŬSEBACH CREEK from disturbed areas of the project: ___

Site is in a Municipal Separate Storm Sewer System (MS4). MS4 Operator (name): <u>SAWS</u>

B. BEST MANAGEMENT PRACTICES

General timing or sequence for implementation of BMPs shall be as required and/or as directed/approved by the Engineer to provide adequate controls. BMPs shown on plan sheets are to be considered "proposed" unless/until install date is shown. BMPs are to reduce sediments from road construction activities.

1.	SOIL STABILIZA	TION PRAC	TICES: (S	Select T =	Temporary	or P	=	Permonent.	ดร	ann I	icable)

SEEDING	PRESERVATION OF NATURAL RESOURCES
MULCHING (Hay or Straw)	FLEXIBLE CHANNEL LINER
BUFFER ZONES	RIGID CHANNEL LINER
PLANTING	SOIL RETENTION BLANKET
COMPOST/MULCH FILTER BERM	COMPOST MANUFACTURED TOPSOIL
P SODDING	OTHER: (Specify Practice)

2. STRUCTURAL PRACTICES: (Select T = Temporary or P = Permanent, as applicable)

T_	SILT	FENCES
	HAY [BALES

- _T_ ROCK FILTER DAMS
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR, OR PERIMETER SWALES DIVERSION DIKE AND SWALE COMBINATIONS
- PIPE SLOPE DRAINS
- PAVED FLUMES
- T 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: EROSION CONTROL LOG

3. STORM WATER MANAGEMENT:

The proposed facility was designed in consideration of hydraulic design standards to convey stormwater in a manner that is protective of public safety and property. The control of erosion from the facility is inherent to the design. Additional factors affecting post-construction stormwater at the project location include: (mark all that apply)

- X Existing or new vegetation provides natural filtration.
- ____ The design includes provisions for permanent erosion controls provided by strategically placed pervious and impervious surfaces.
- Project includes permanent sedimentation controls (other than arass).
- X Velocities do not require dissipation devices.
- ____ Velocity-dissipation devices included in the design.

Other	:	

4. NON-STORM WATER DISCHARGES:

Off-site discharges are prohibited except as follows:

- I. Discharges from fire fighting activities and/or fire hydrant flushings.
- 2. Vehicle, external building, and pavement wash water where detergents and soaps are not used and where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed).
- 3. Plain water used to control dust.
- 4. Plain water originating from potable water sources.
- 5. Uncontaminated groundwater, spring water or accumulated stormwater.
- 6. Foundation or footing drains where flows are not contaminated with process materials such as solvents.
- 7. Other: _

Concrete truck wash water discharges on the site should be prohibited or minimized. If allowed by the Engineer, they must be managed in a manner so as not to contaminate surface water. They must not be located in areas of concentrated flow. Concrete truck wash-out locations must be shown on the SW3P Layout and included in the inspections.

Hazardous material spill/leak shall be prevented or minimized. At a minimum, this includes asphalt products, fuels, oils, lubricants, solvents, paints, acids, concrete curing compounds and chemical additives for soil stabilization. BMPs shall be implemented to the storage areas of these products. All spills must be cleaned and disposed properly and reported to the Engineer. Report any release at or above the reportable quantity during a 24 hour period to the National Response Center at I-800-424-8802.

C. OTHER REQUIREMENTS & PRACTICES

1. MAINTENANCE:

All erosion and sediment controls shall be maintained in good working order. If a repair is necessary, it shall be performed before the next anticipated storm event but no later than 7 calendar days after the surrounding exposed ground has dried sufficiently to prevent further damage from equipment. If maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable. Disturbed areas on which construction activities have ceased, temporarily or permanently, shall be stabilized within 14 calendar days unless they are scheduled to and do resume within 21 calendar days. The areas adjacent to creeks and drainageways shall have priority followed by protecting storm sewer inlets.

2. INSPECTION:

For areas of the construction site that have not been finally stabilized, areas used for storage of materials, structural control measures, and locations where vehicles enter or exit the site, personnel provided by the permittee and familiar with the SW3P must inspect disturbed areas at least once every seven (7) calendar days. An Inspection and Maintenance Report shall be prepared for each inspection and the controls shall be revised on the SW3P within seven (7) calendar days following the inspection.

3. WASTE MATERIALS:

All non-hazardous municipal waste materials such as litter, rubbish, trash and garbage located on or originating from the project shall be collected and stored in a securely lidded metal dumpster. provided by the Contractor. The dumpster shall be emptied as necessary or as required by local regulation and the trash shall be hauled to a permitted disposal facility. The burying of non-hazardous municipal waste on the project shall not be permitted. Construction material waste sites, stockpiles and haul roads shall be constructed to minimize and control the amount of sediment that may enter receiving waters. Construction material waste sites shall not be located in any wetland, water body or stream bed. Construction staging areas and vehicle maintenance areas shall be constructed in a manner to minimize the runoff of pollutants.

4. OFFSITE VEHICLE TRACKING:

Off-site vehicle tracking of sediments and the generation of dust must be minimized. Excess sediments on road shall be removed on a regular basis as directed/approved by the Engineer.

5. OTHER:

See the EPIC sheet for additional environmental information.



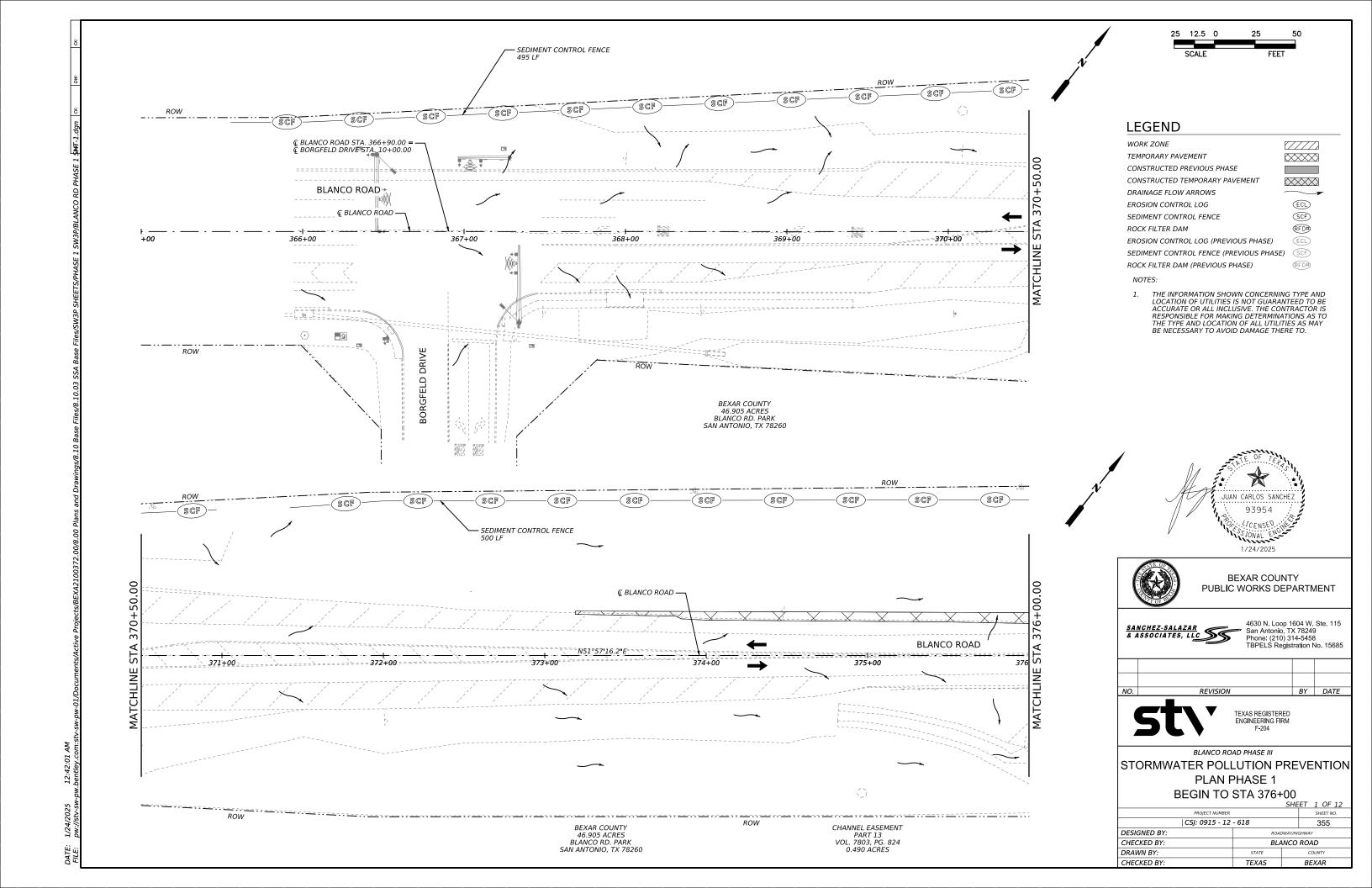
Texas Department of Transportation

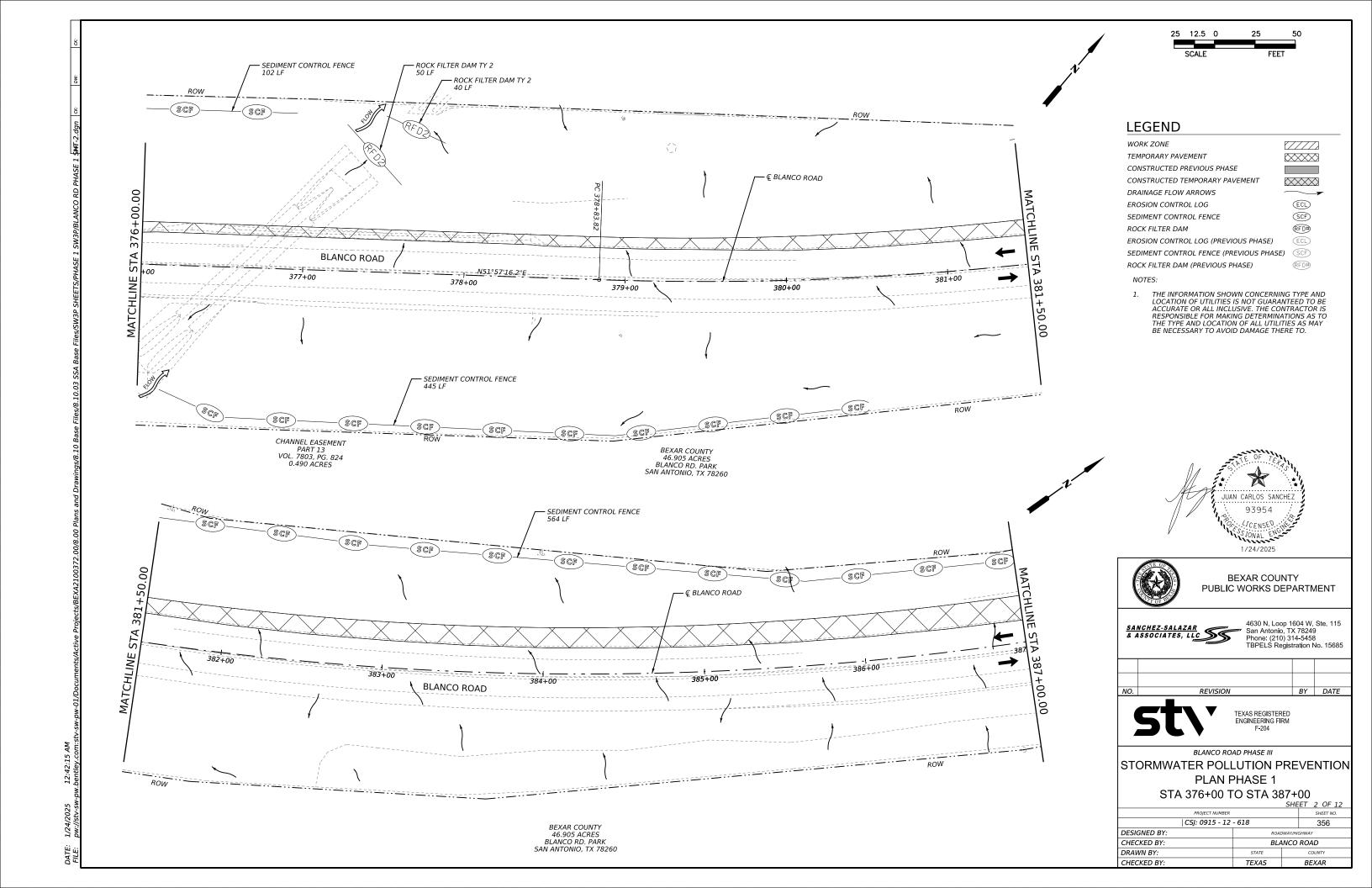


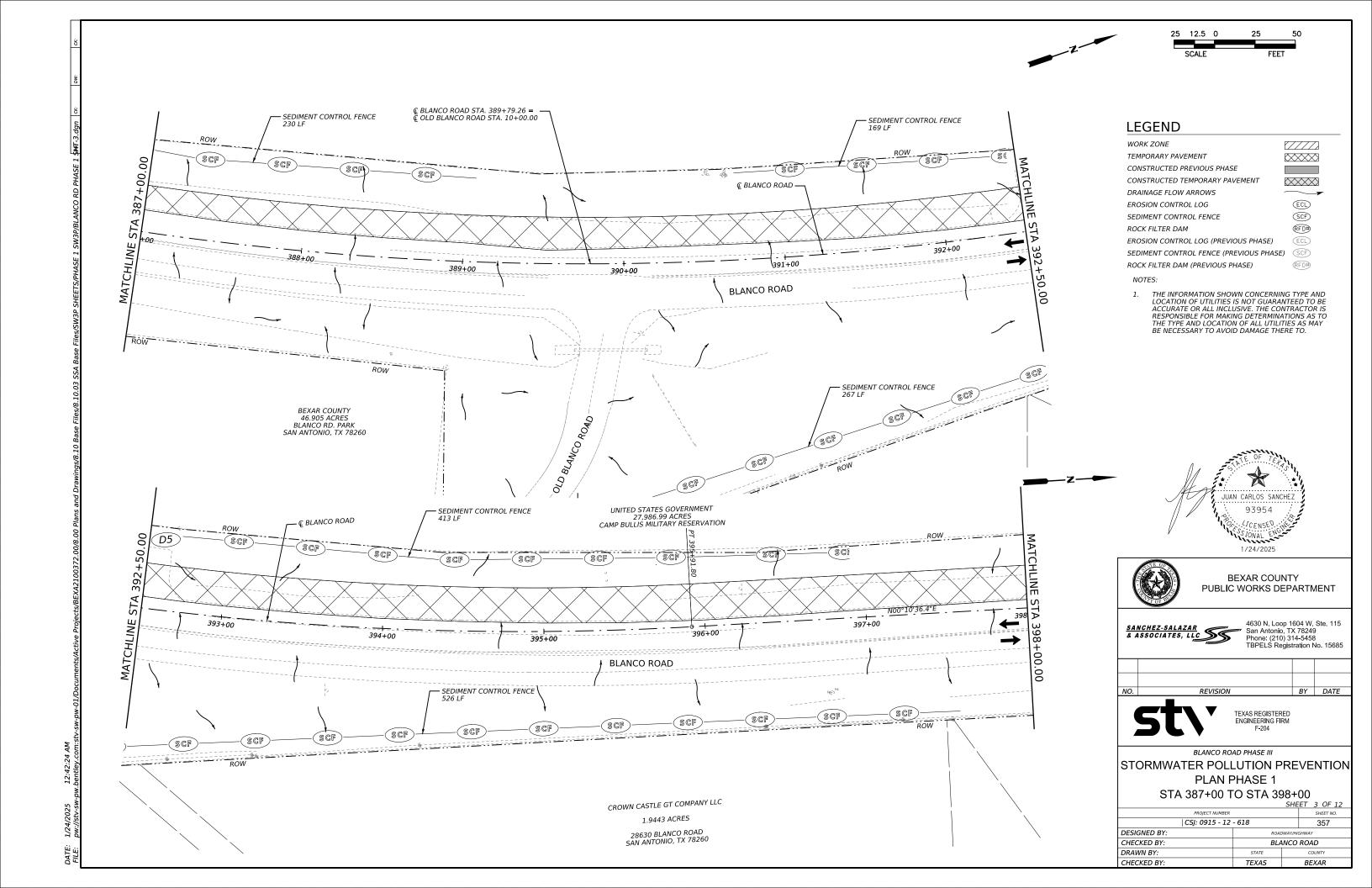
STORM WATER POLLUTION PREVENTION PLAN (SW3P

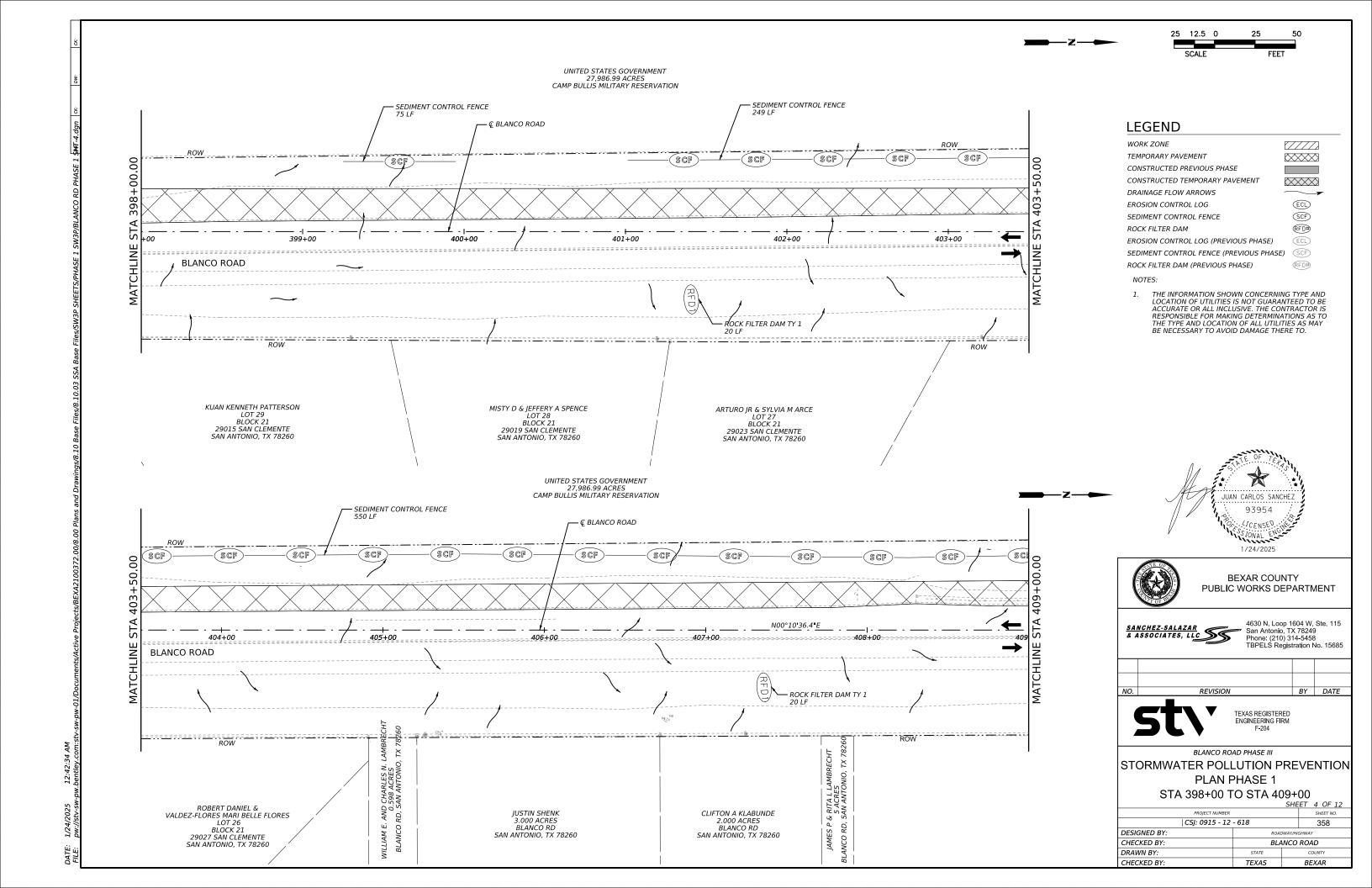
HIGHWAY FEDERAL AID PROJECT NO. 6 BLANCO STATE DISTRIC TEXAS SAT BEXAR SHEET CONTROL SECTION JOB

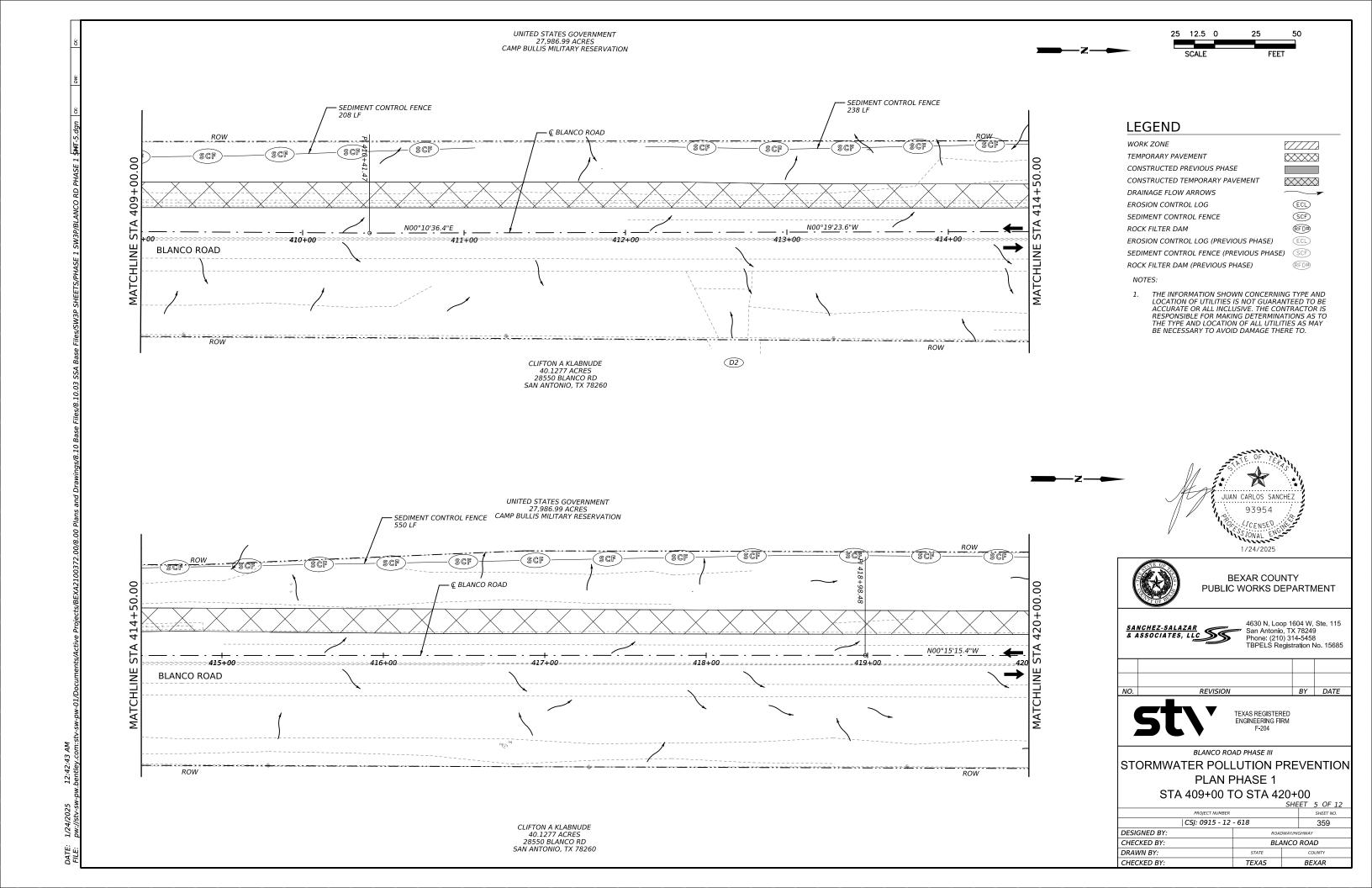
REVISION DATE: 10/12

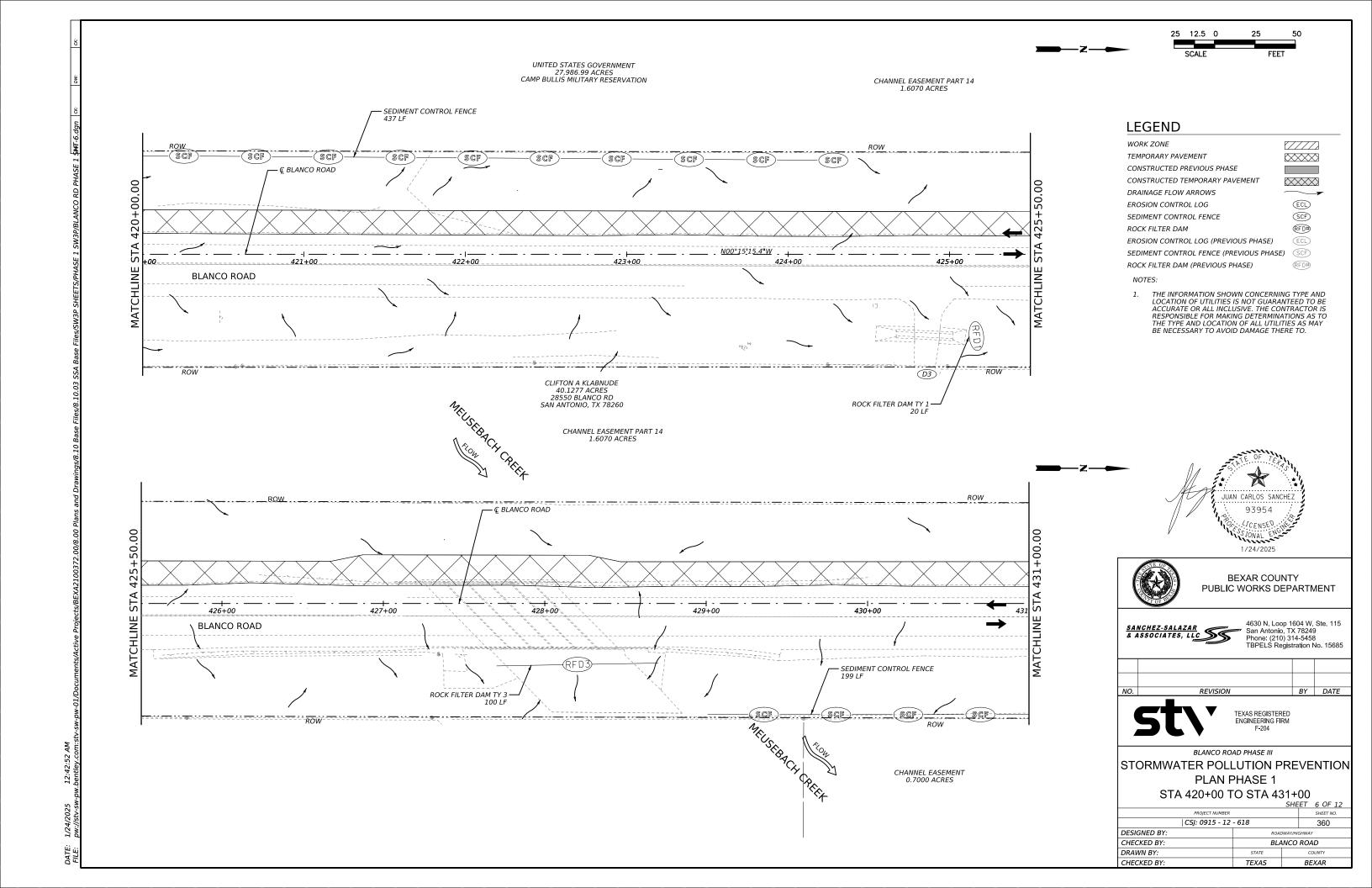


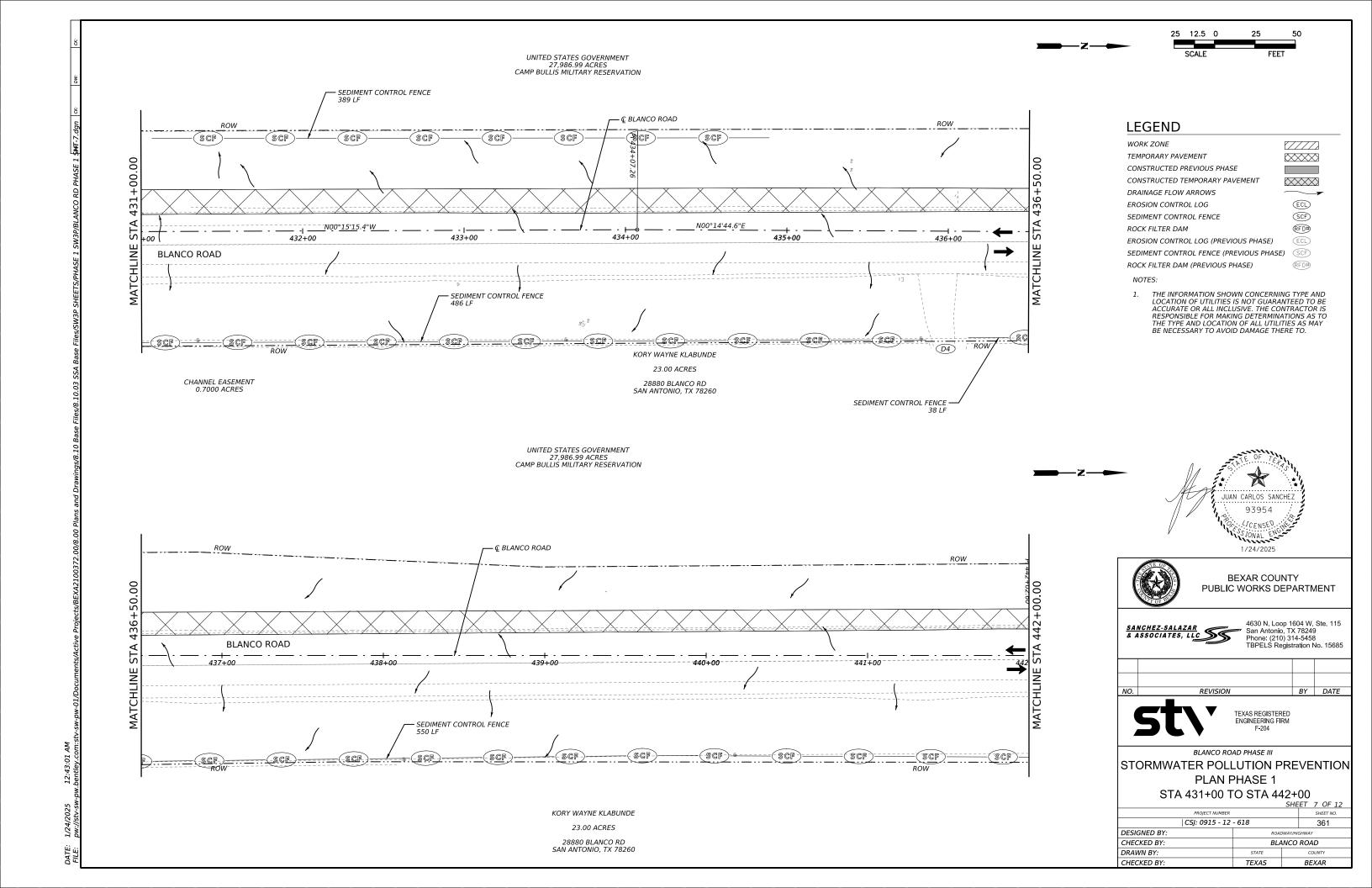


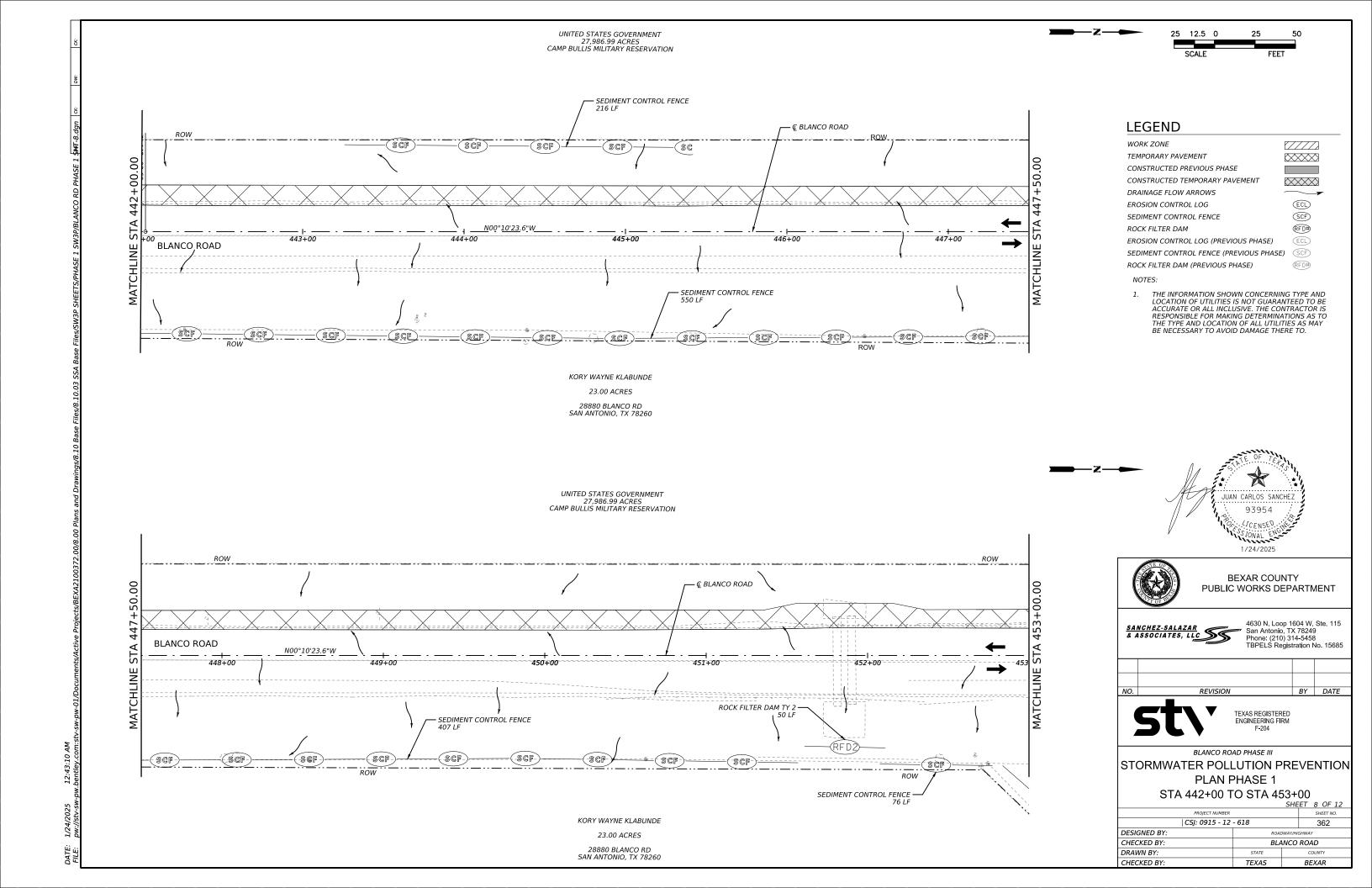


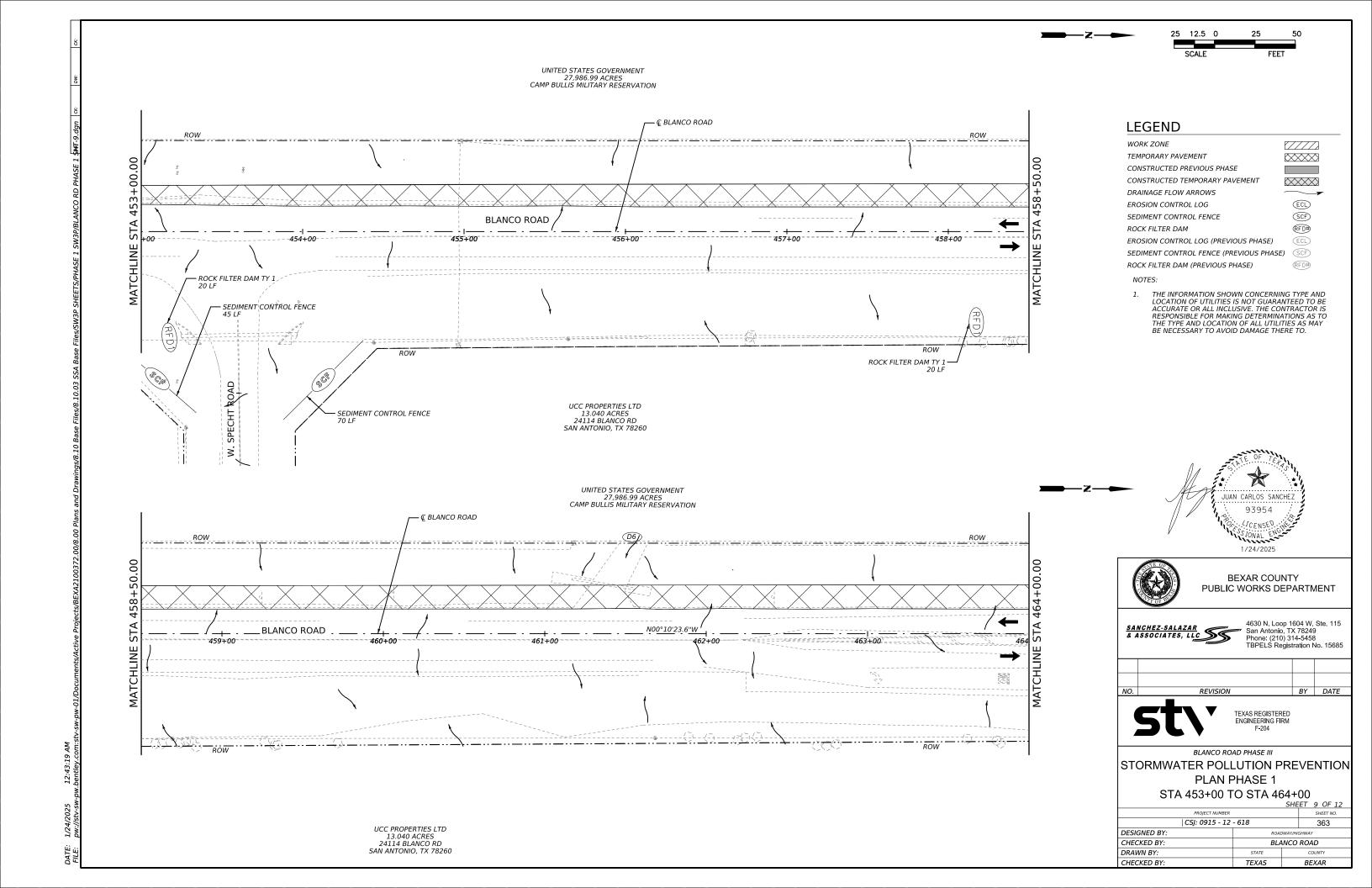


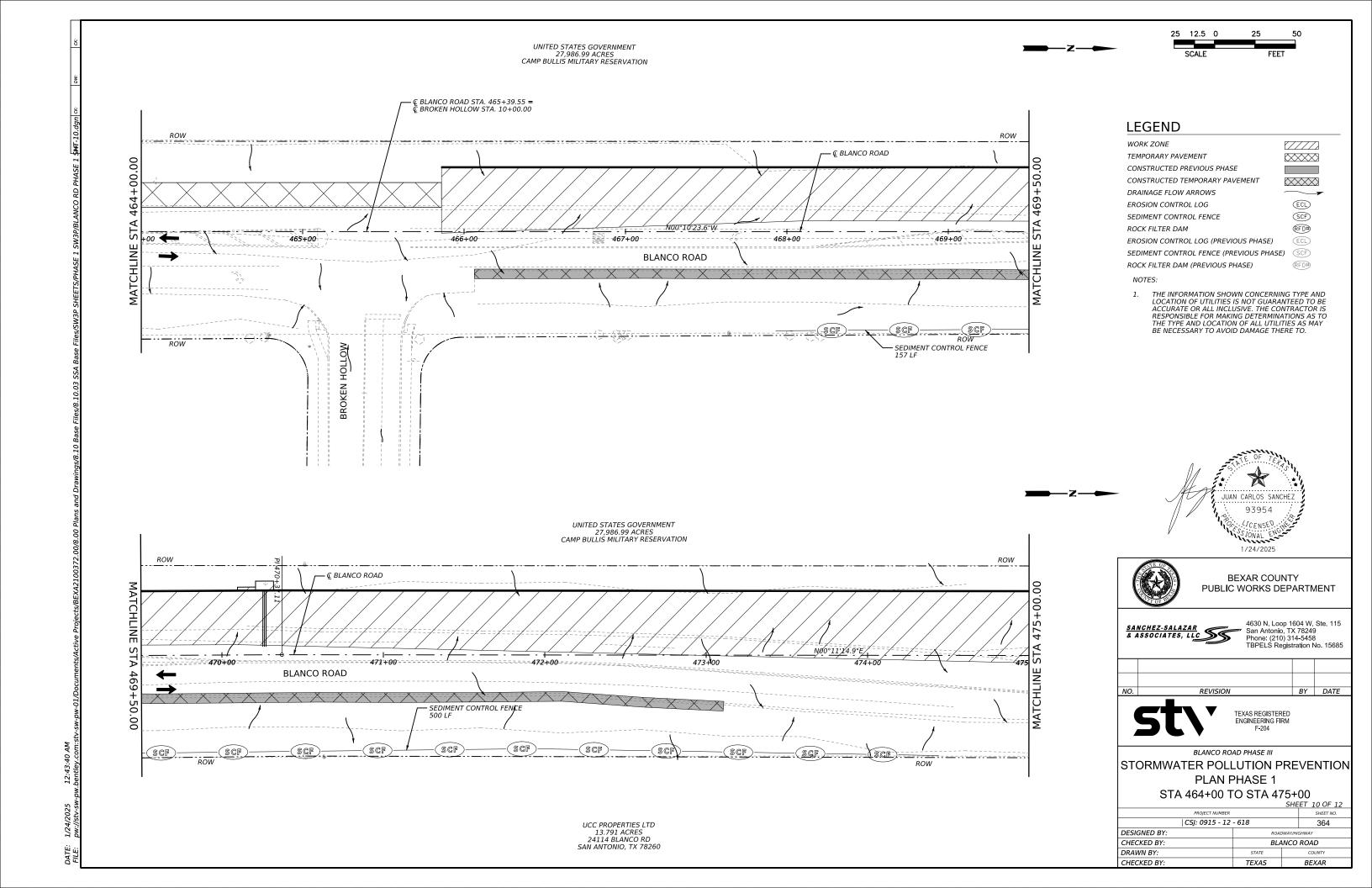


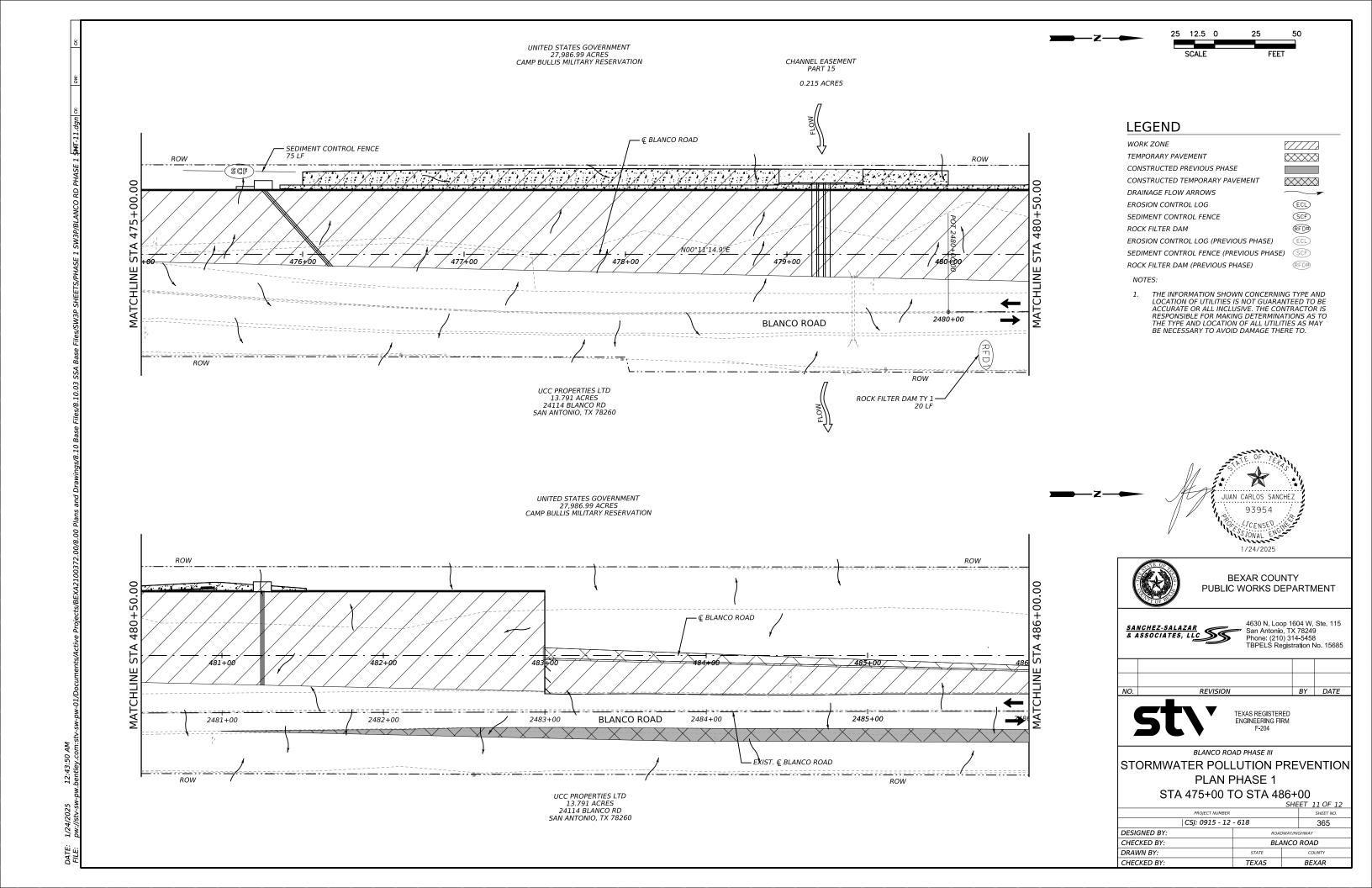


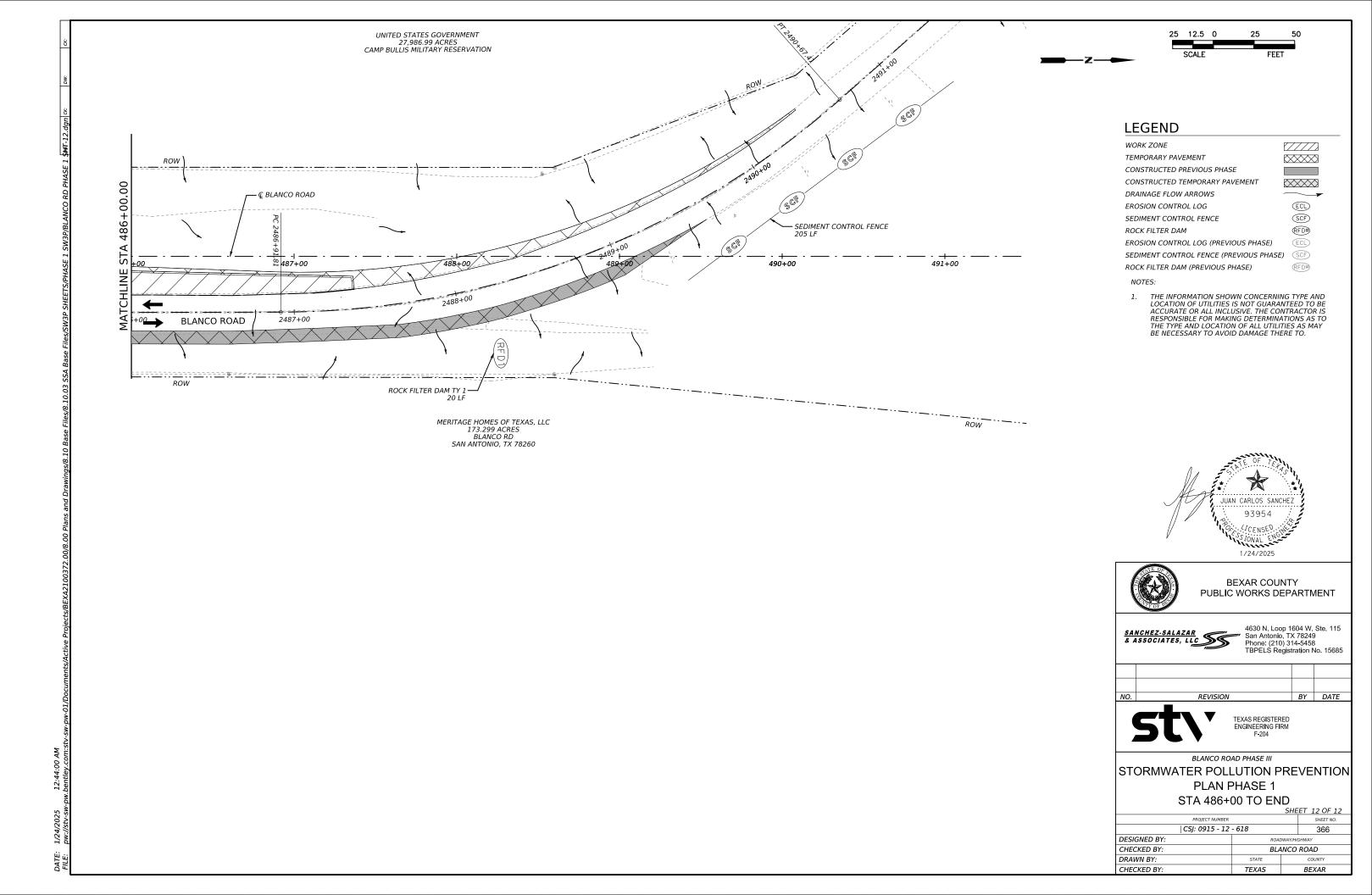


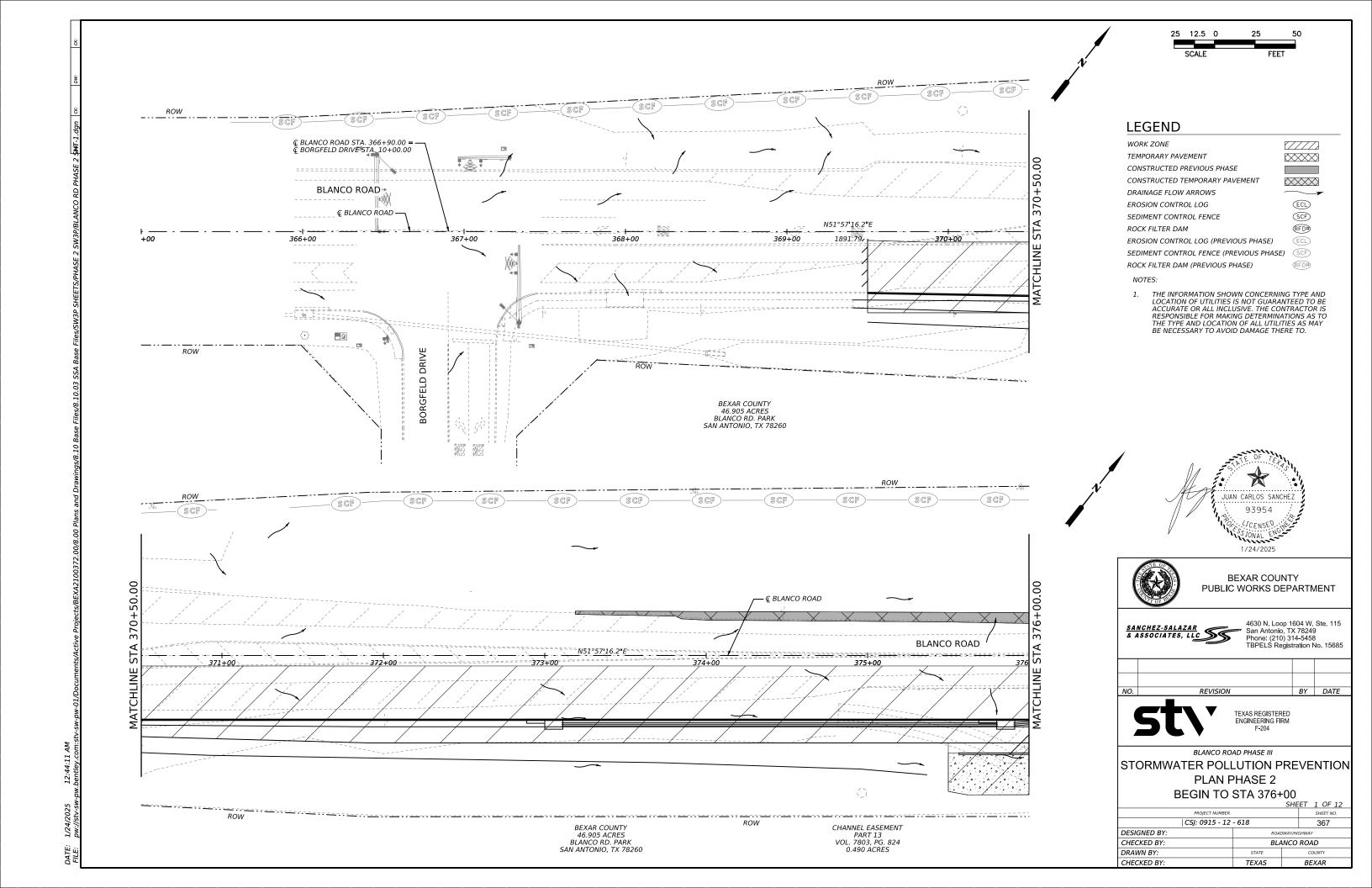


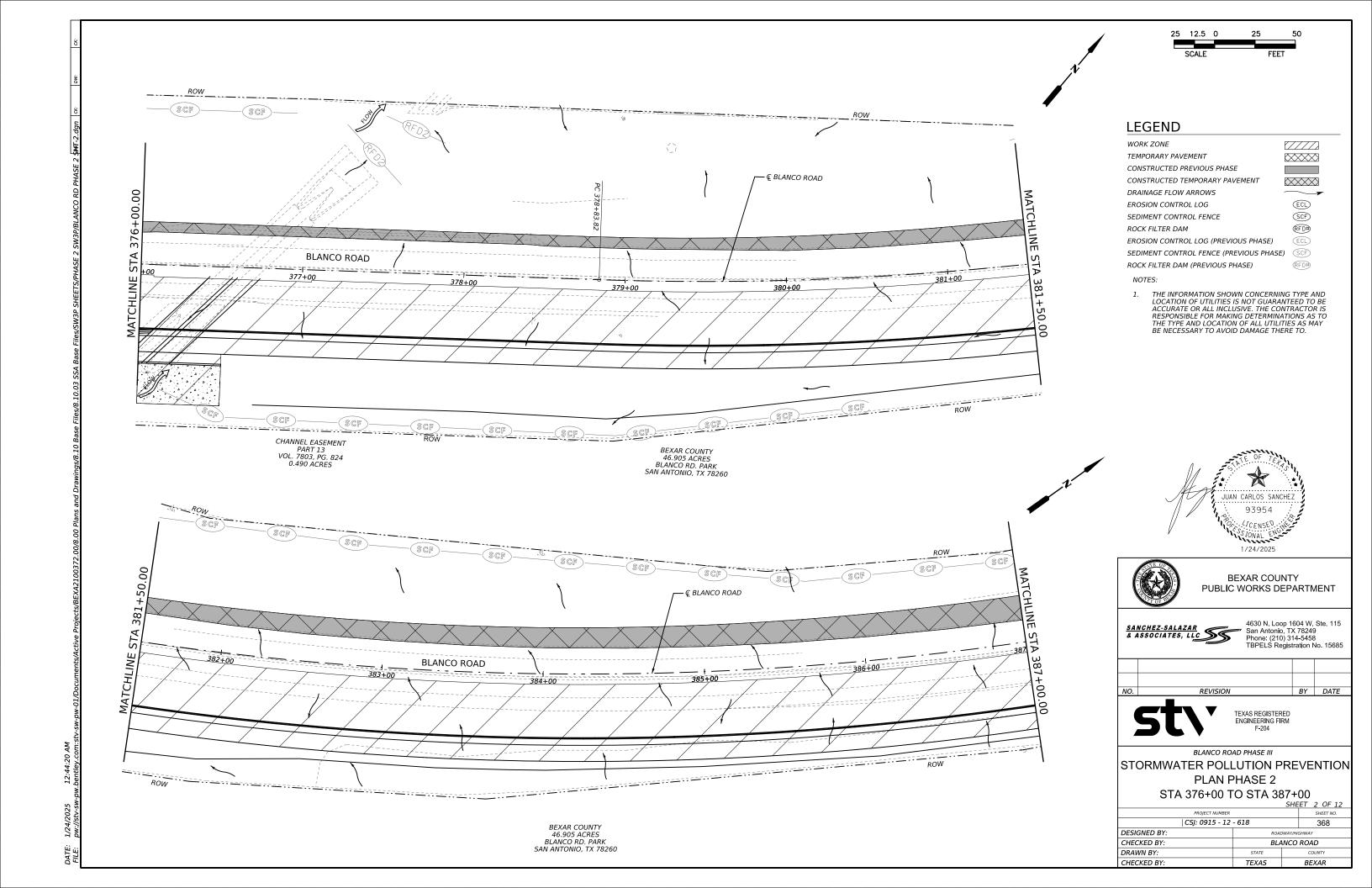


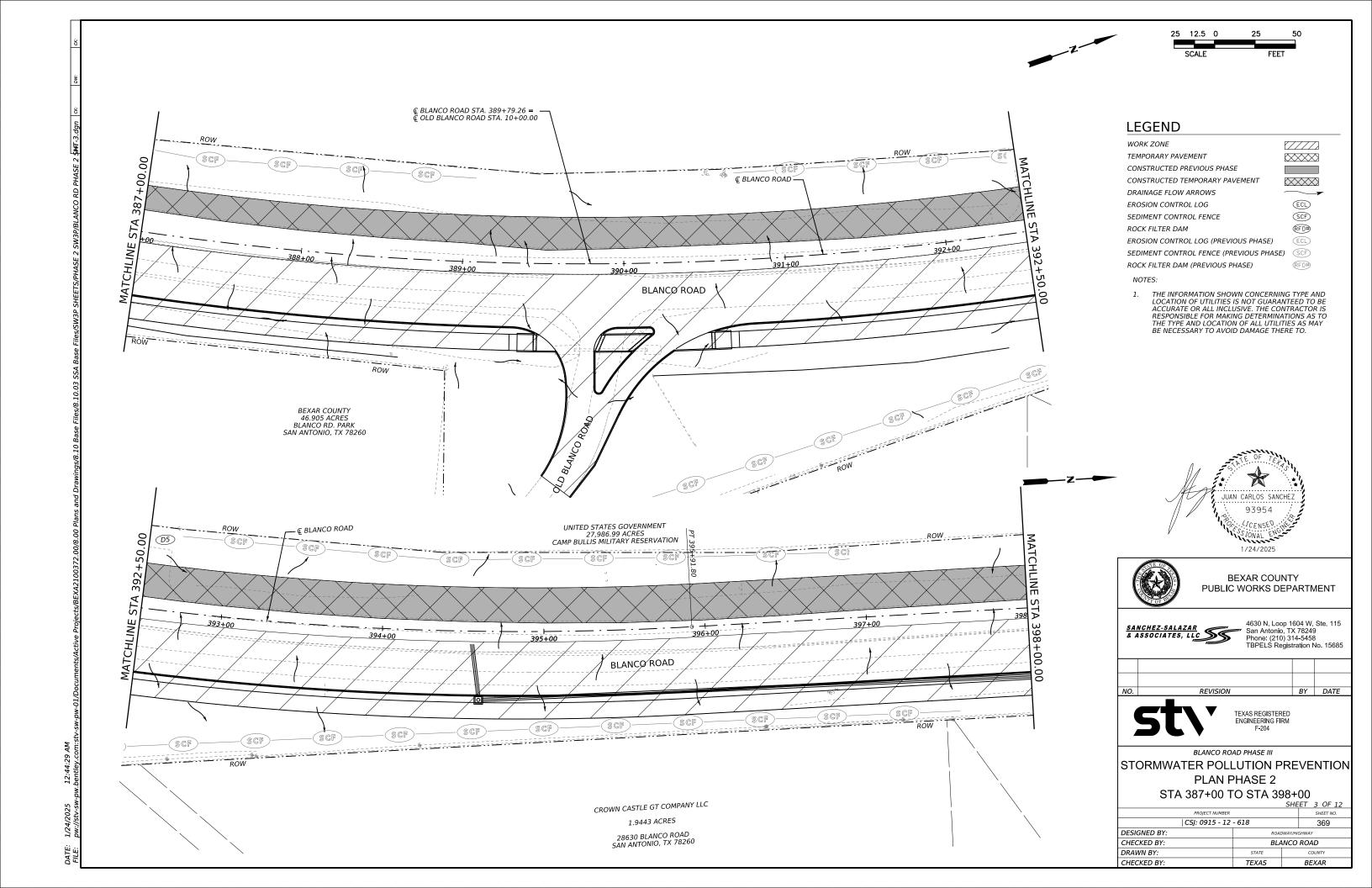


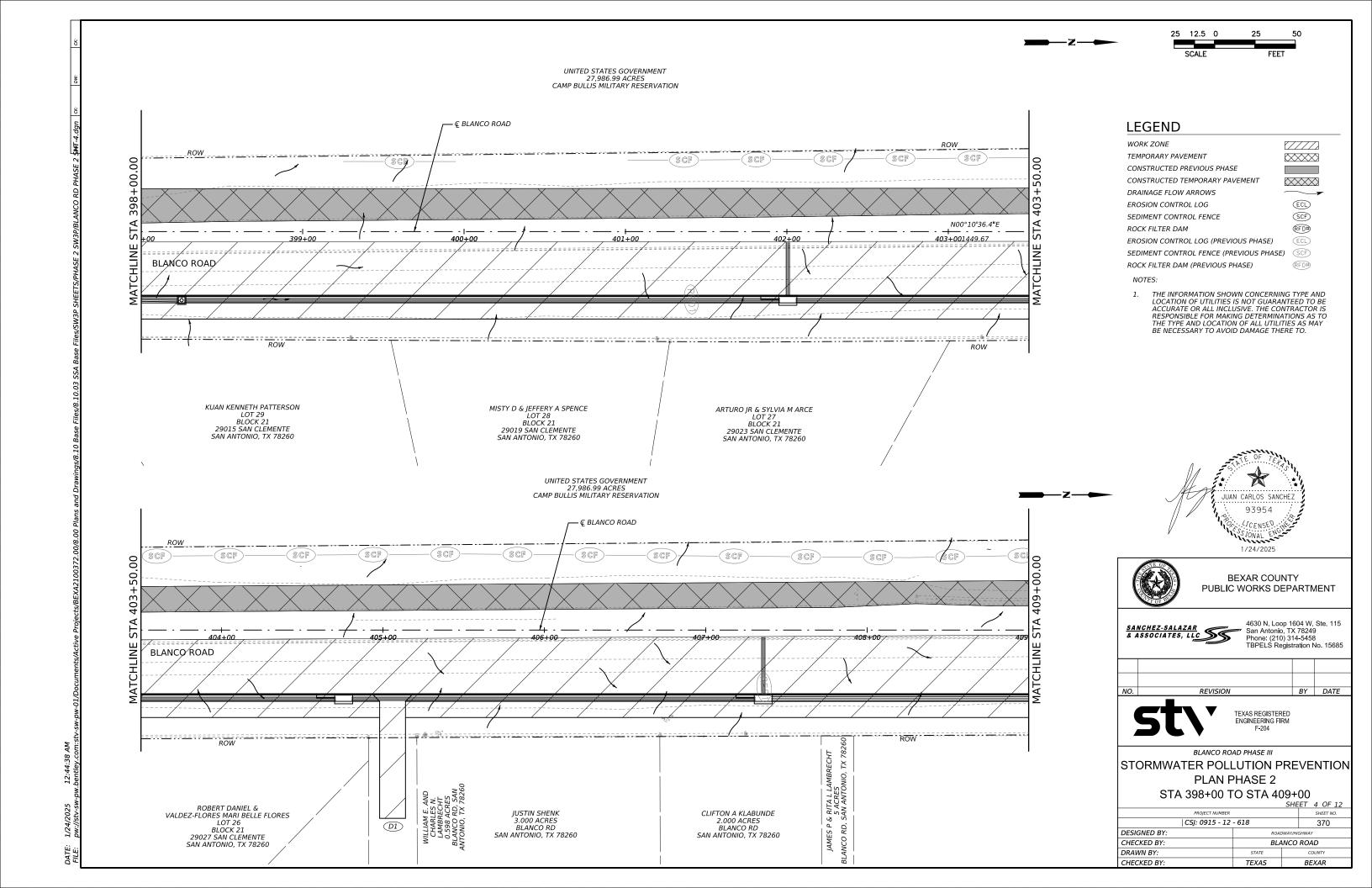


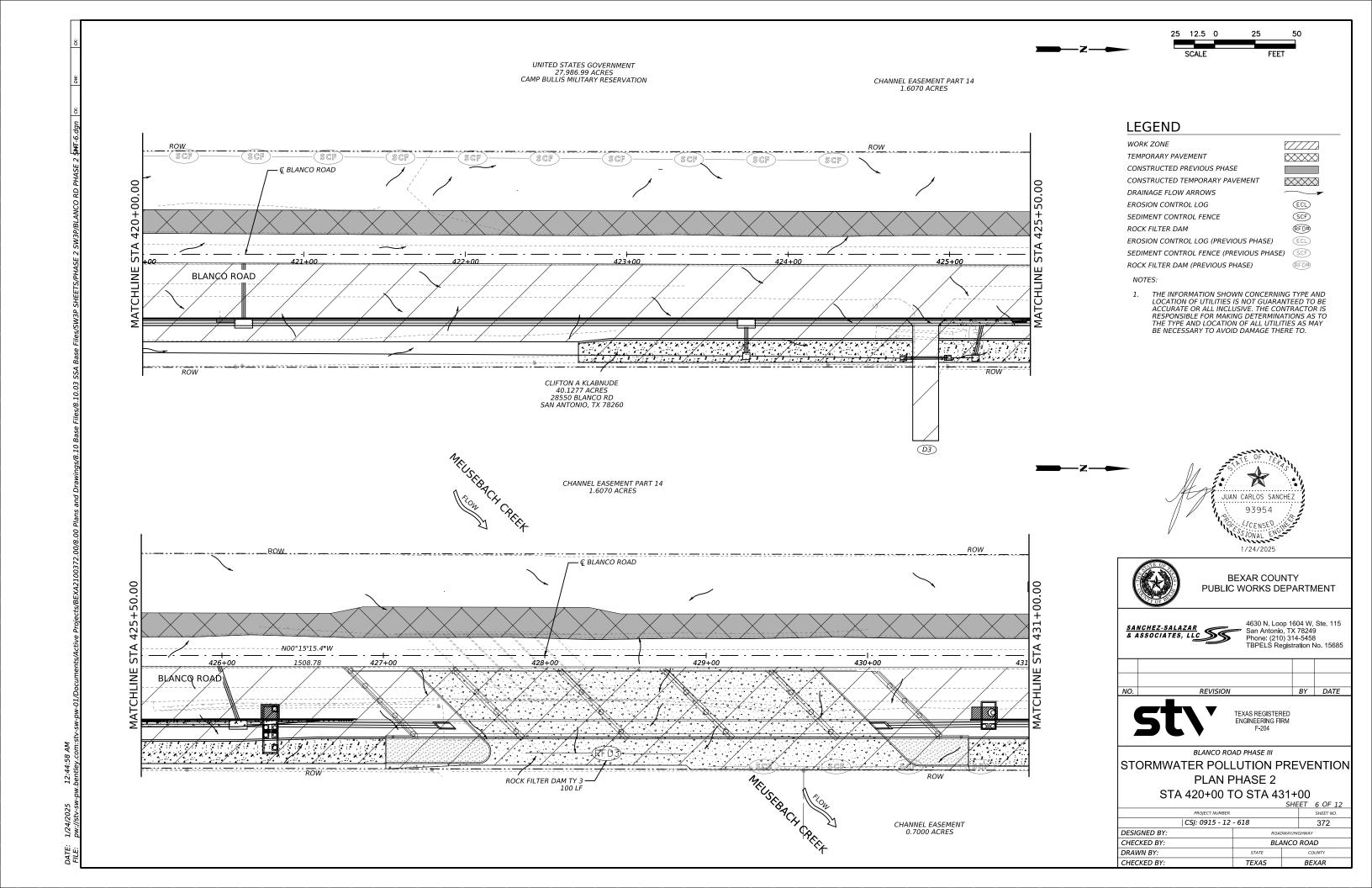


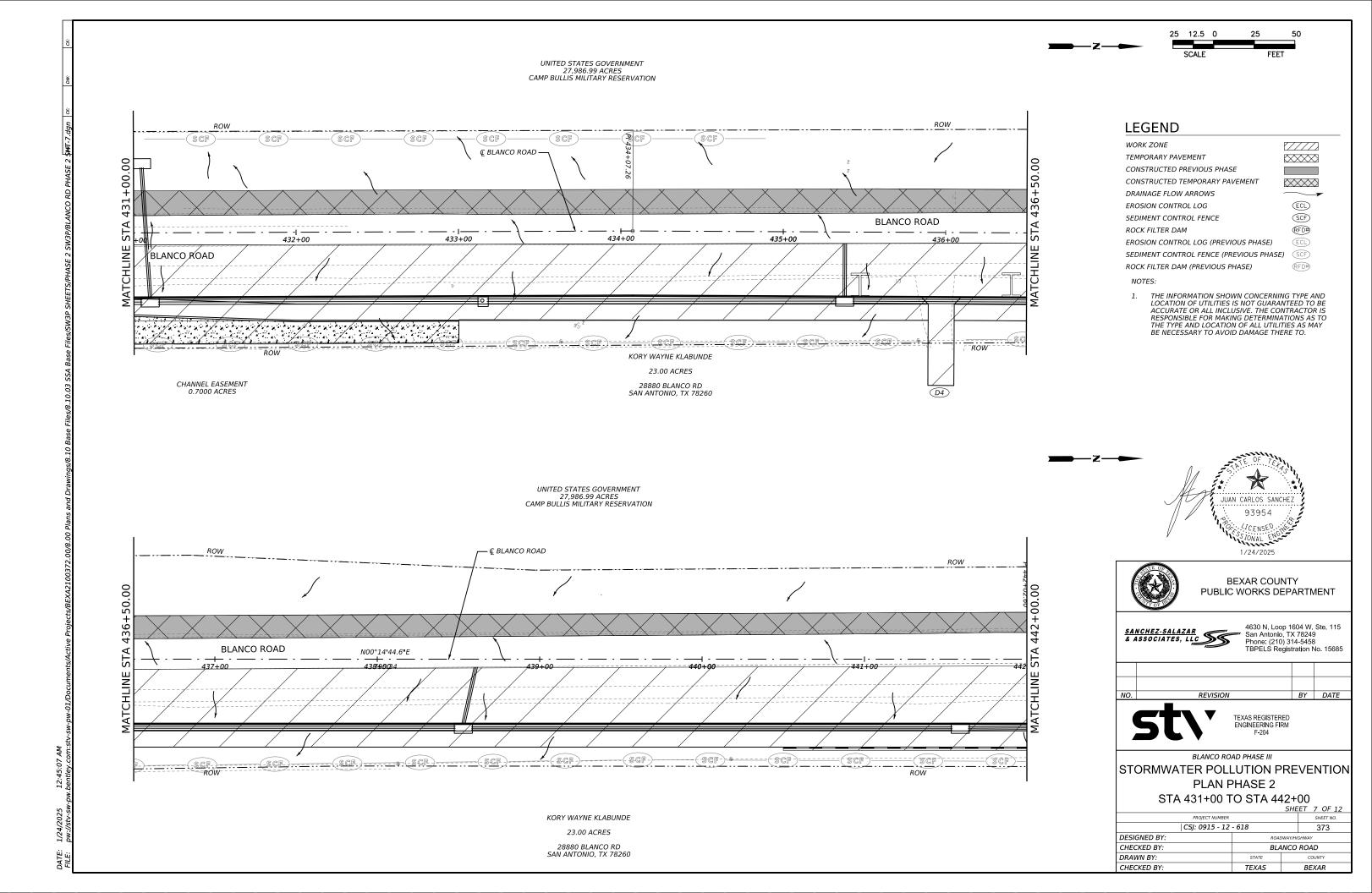


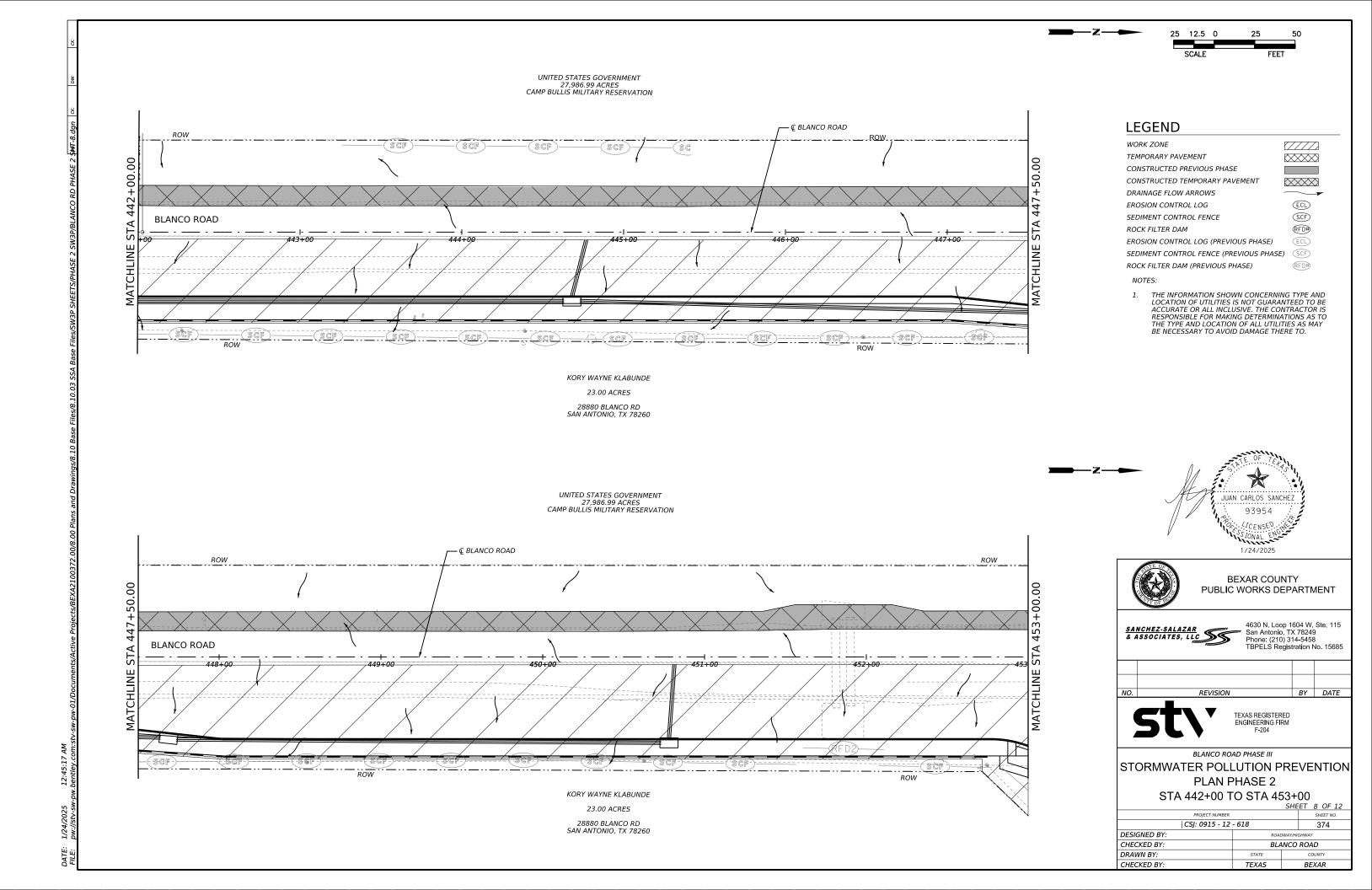


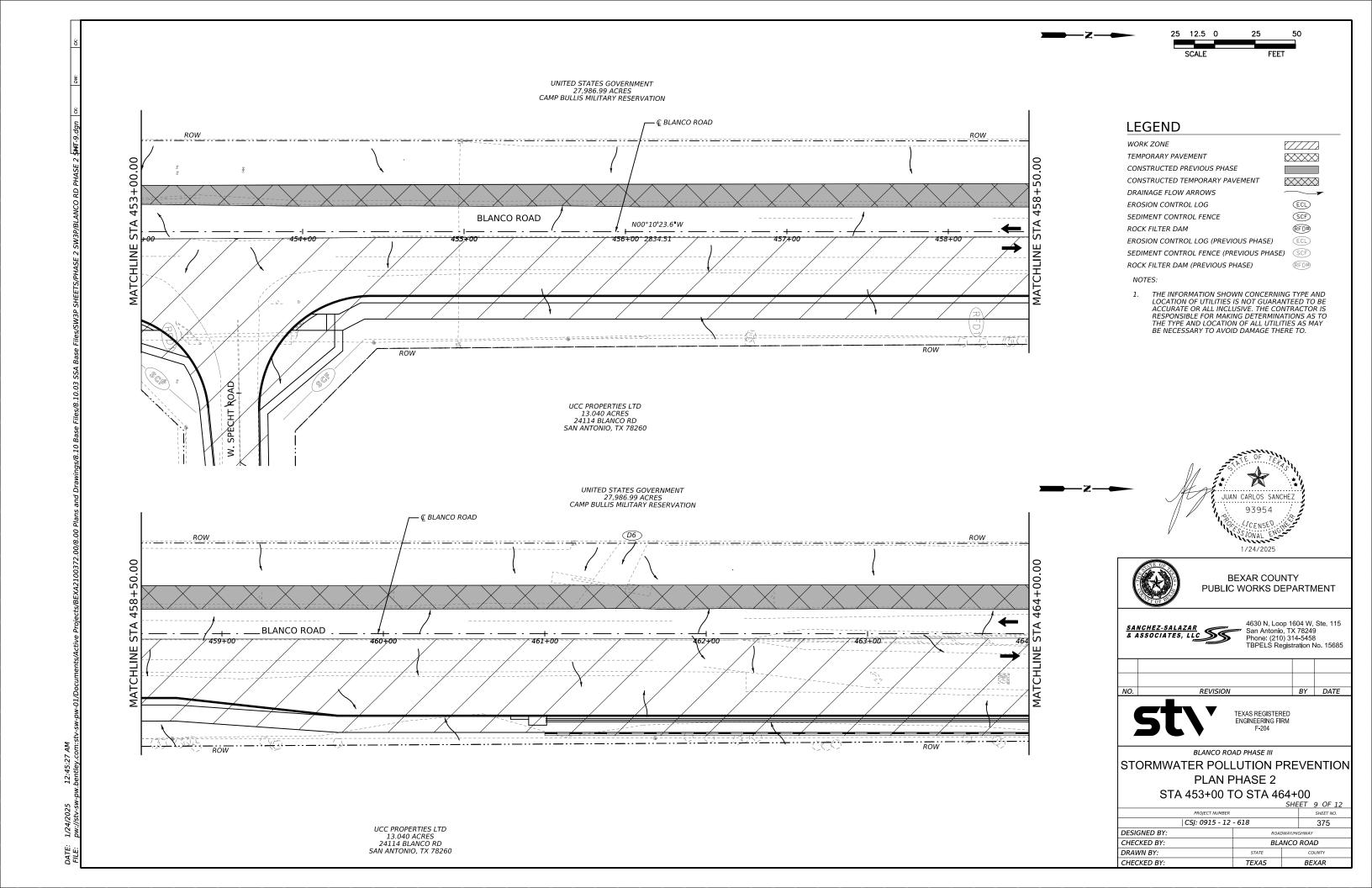


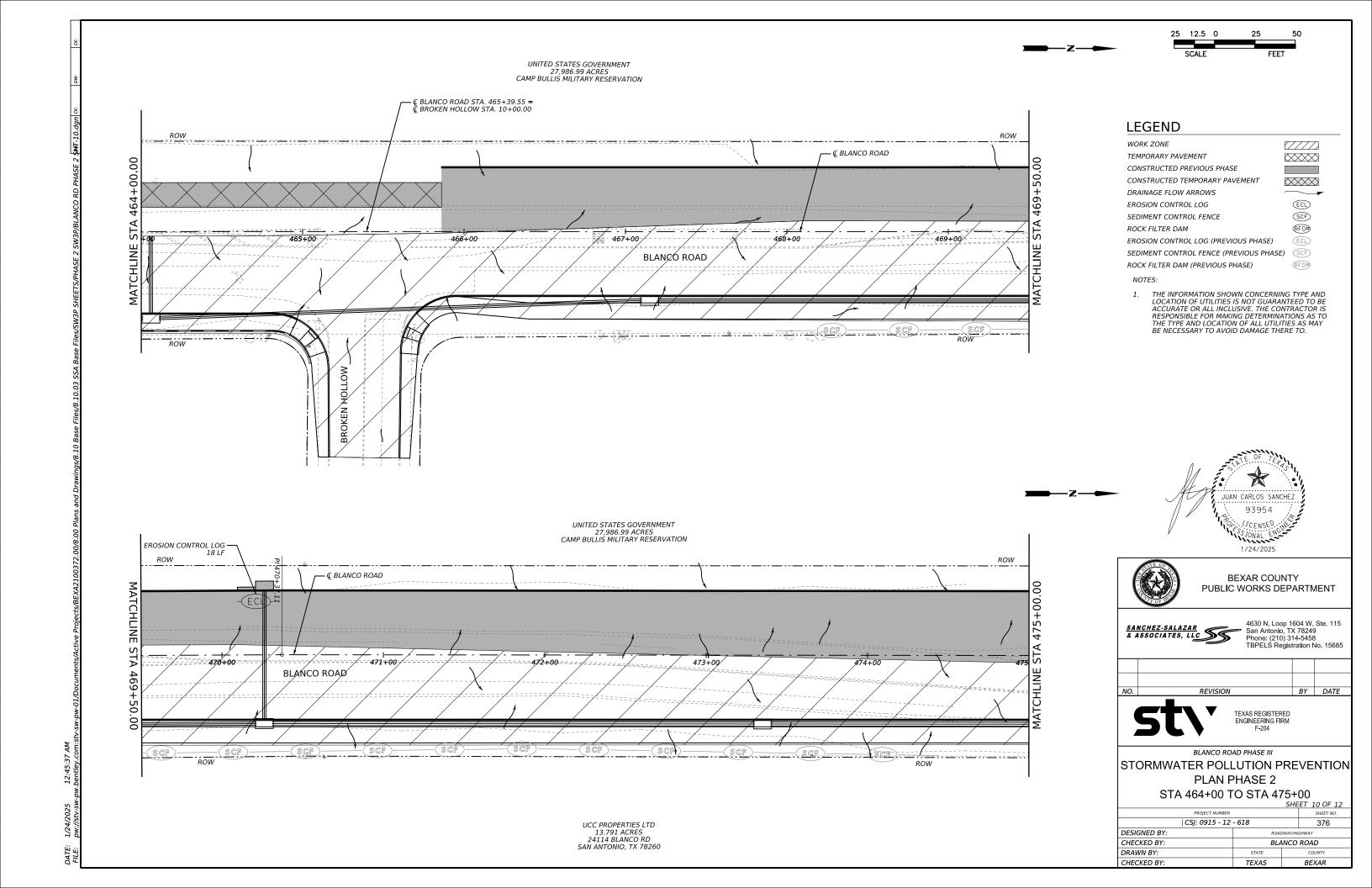


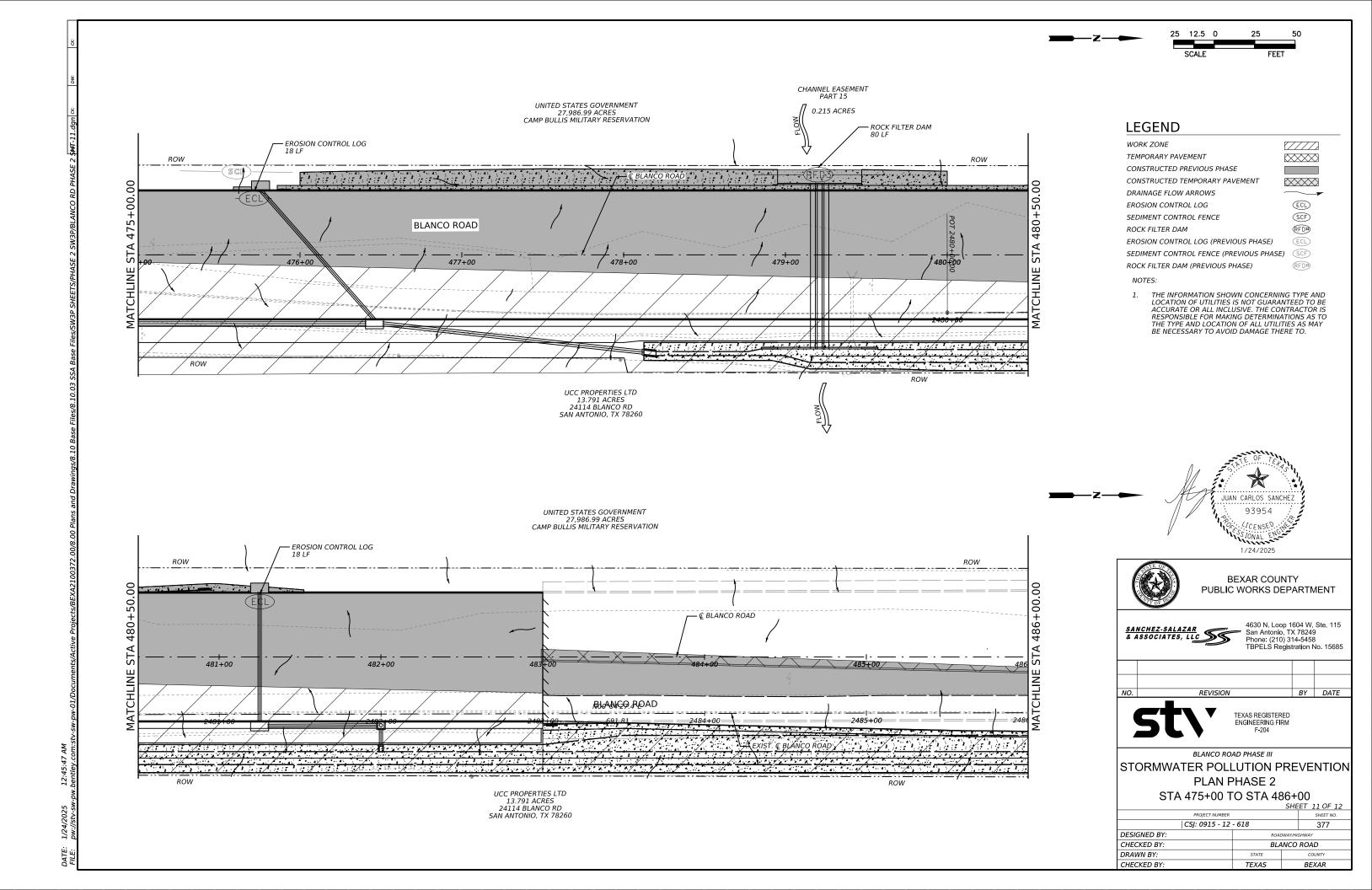


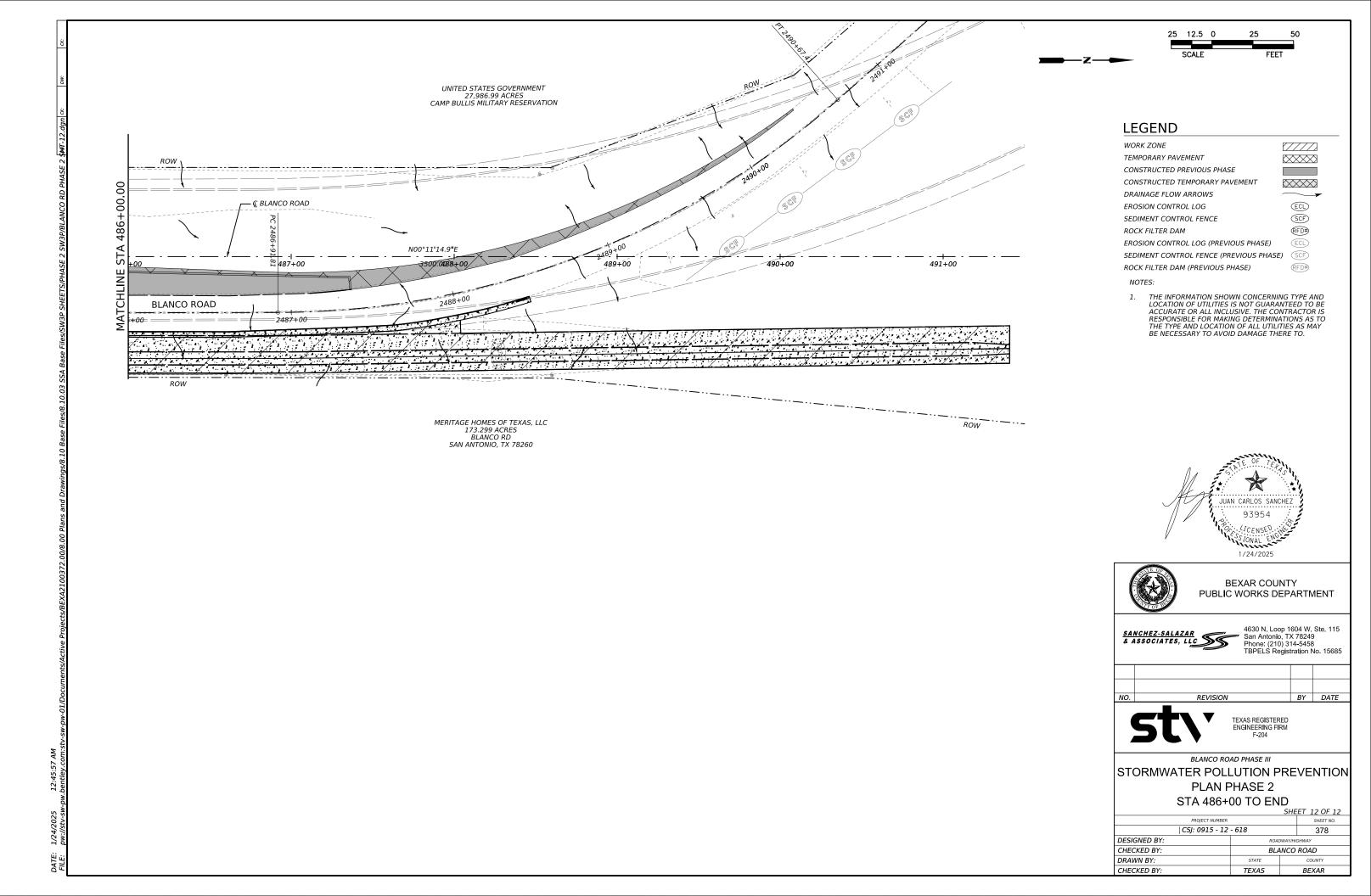


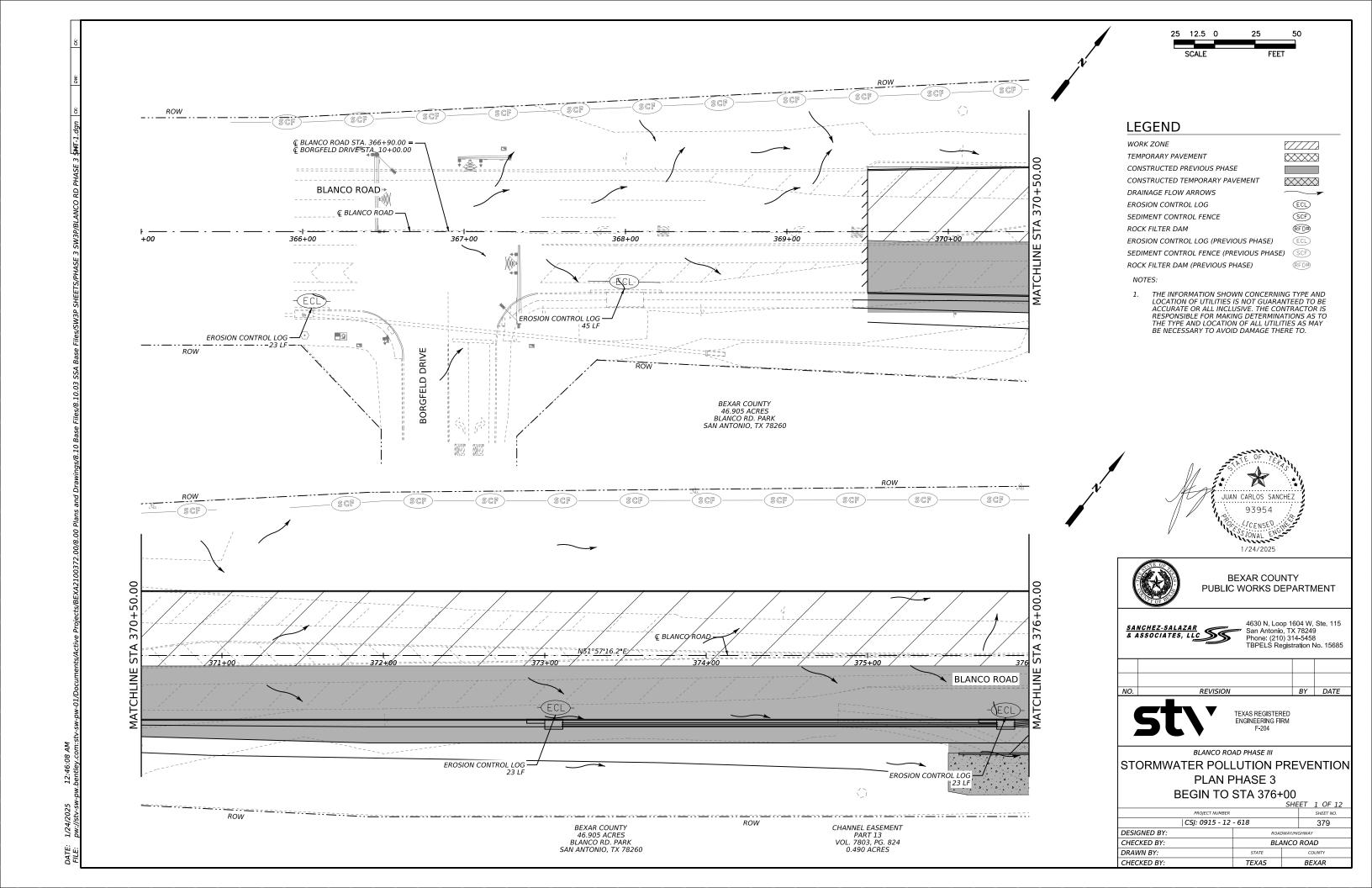


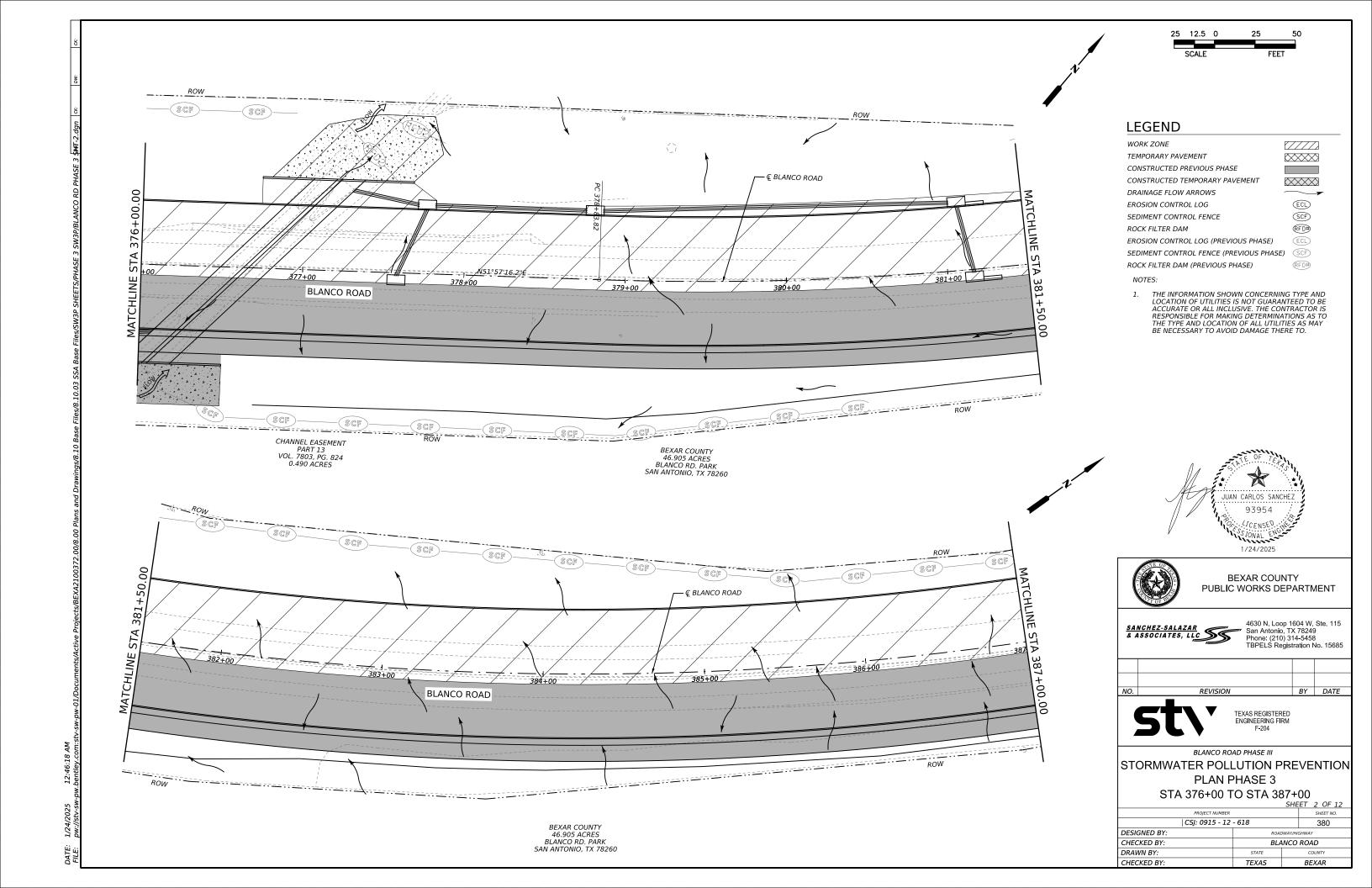


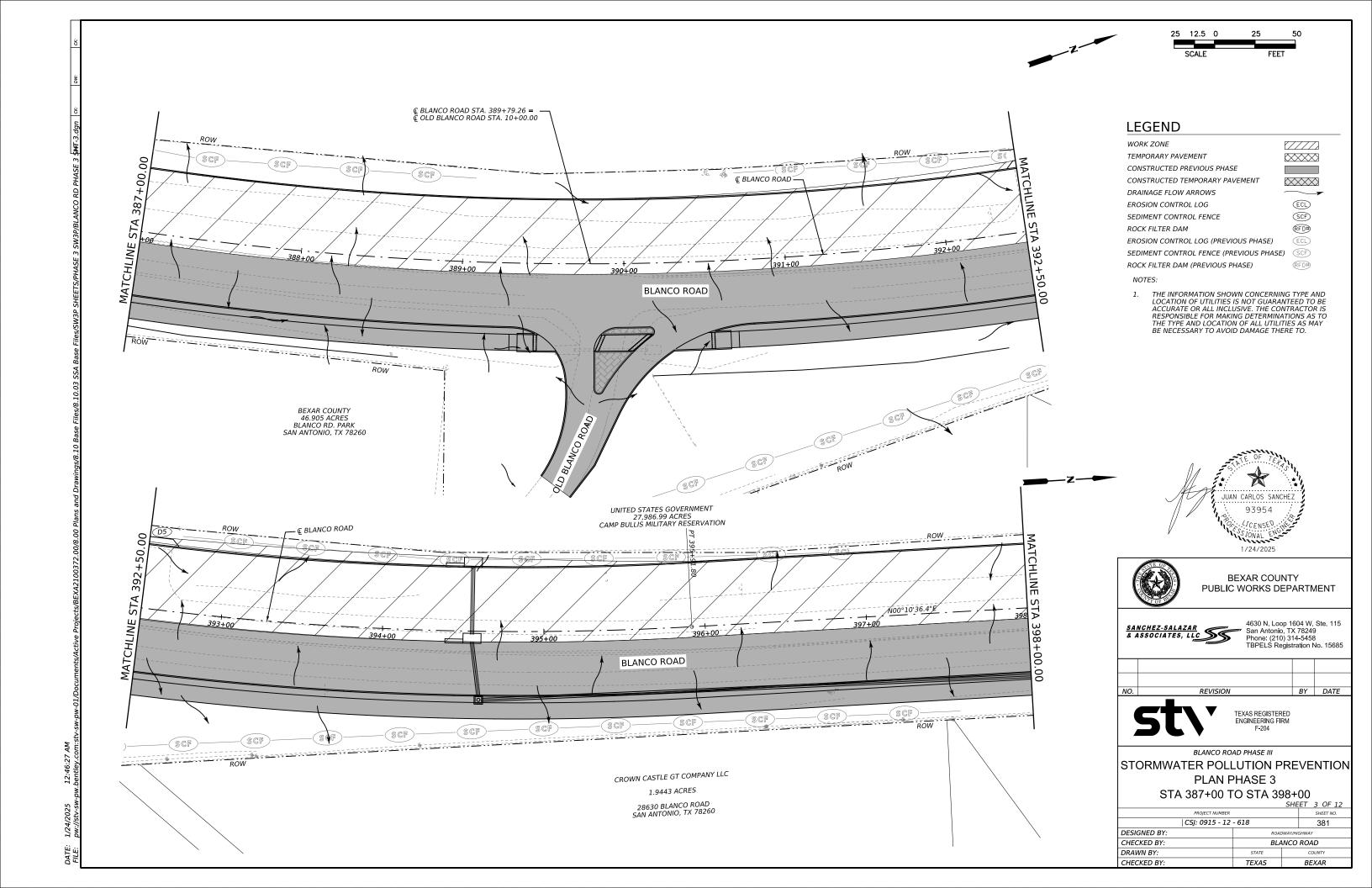


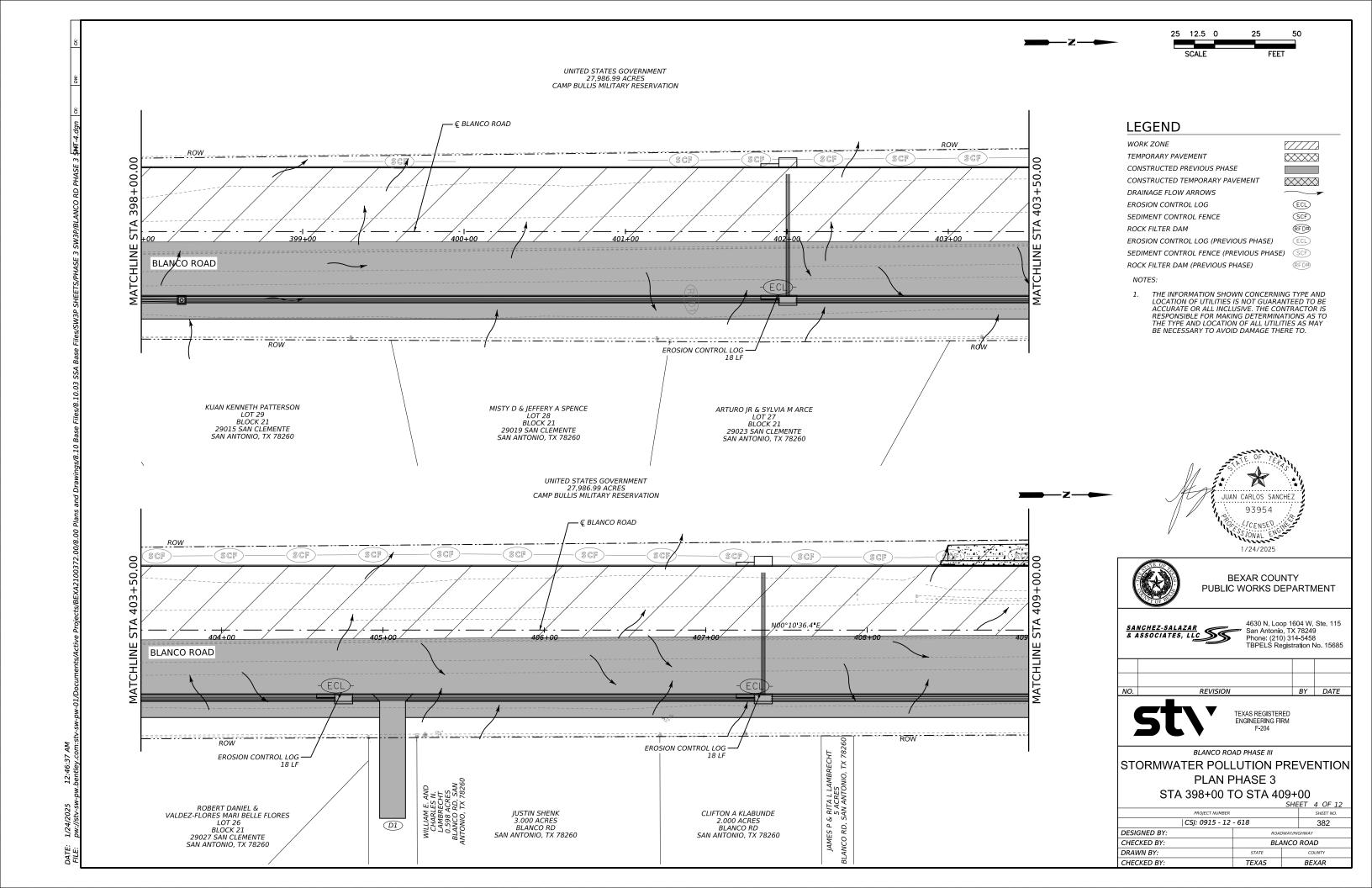


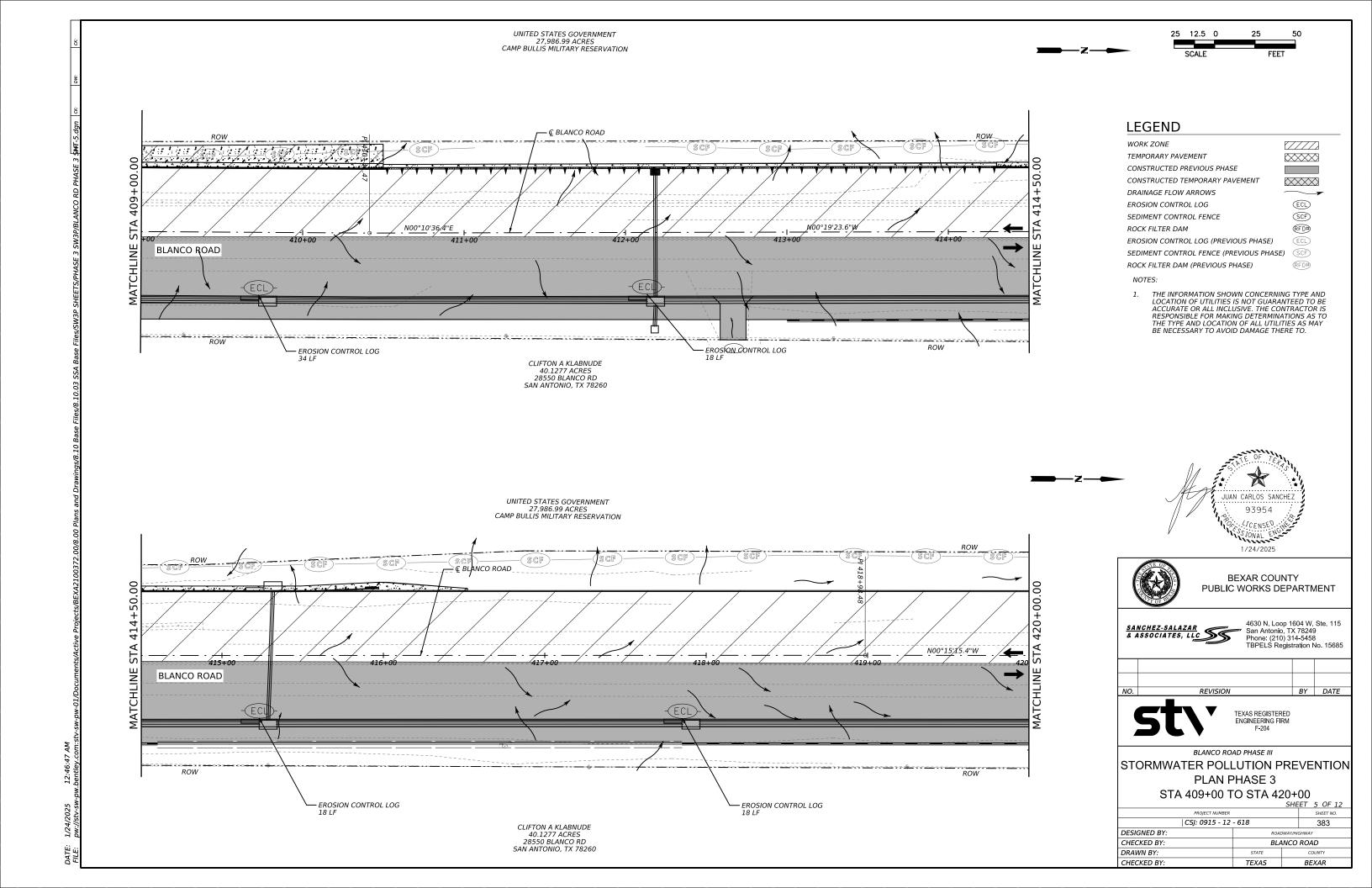


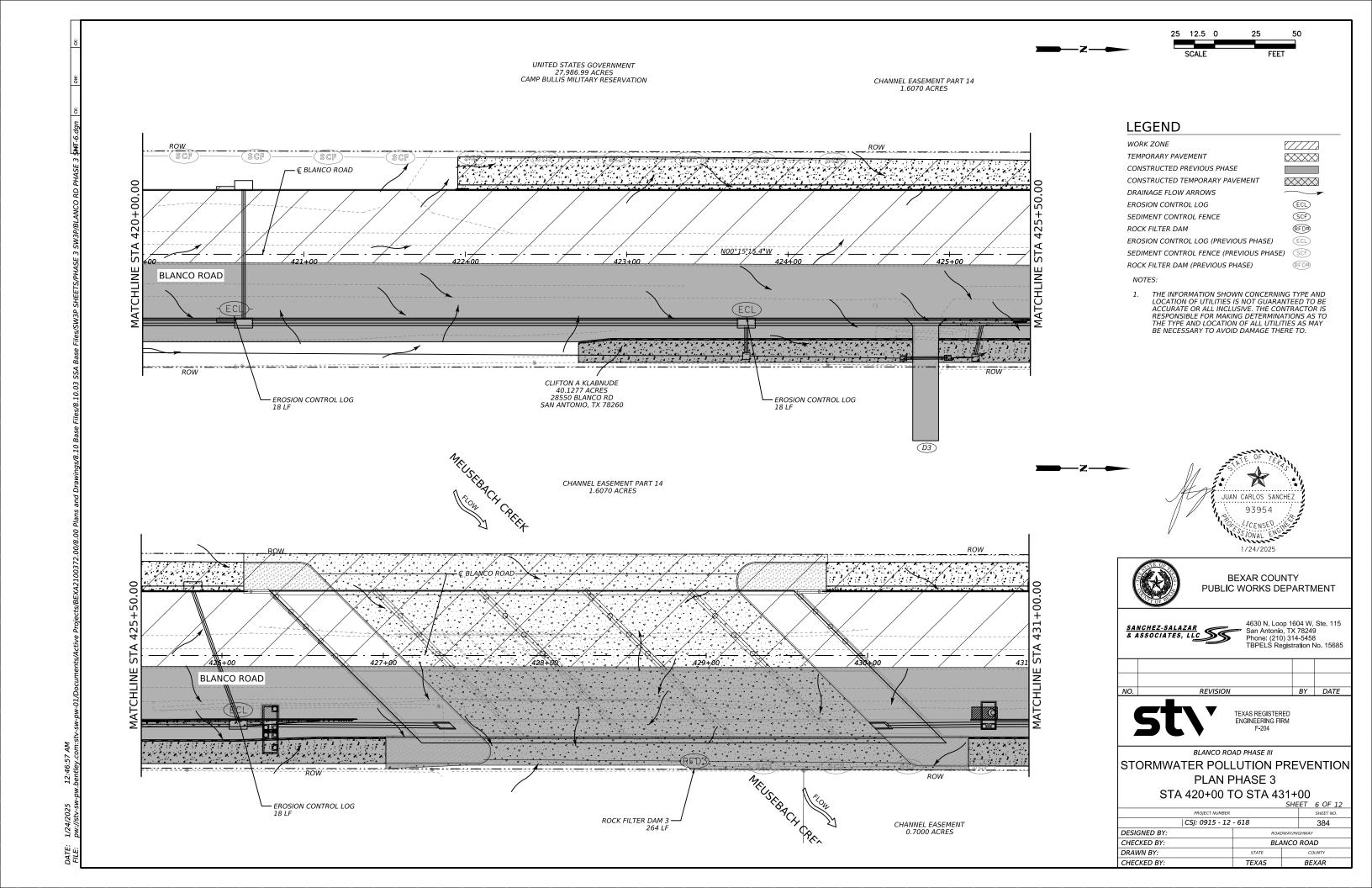


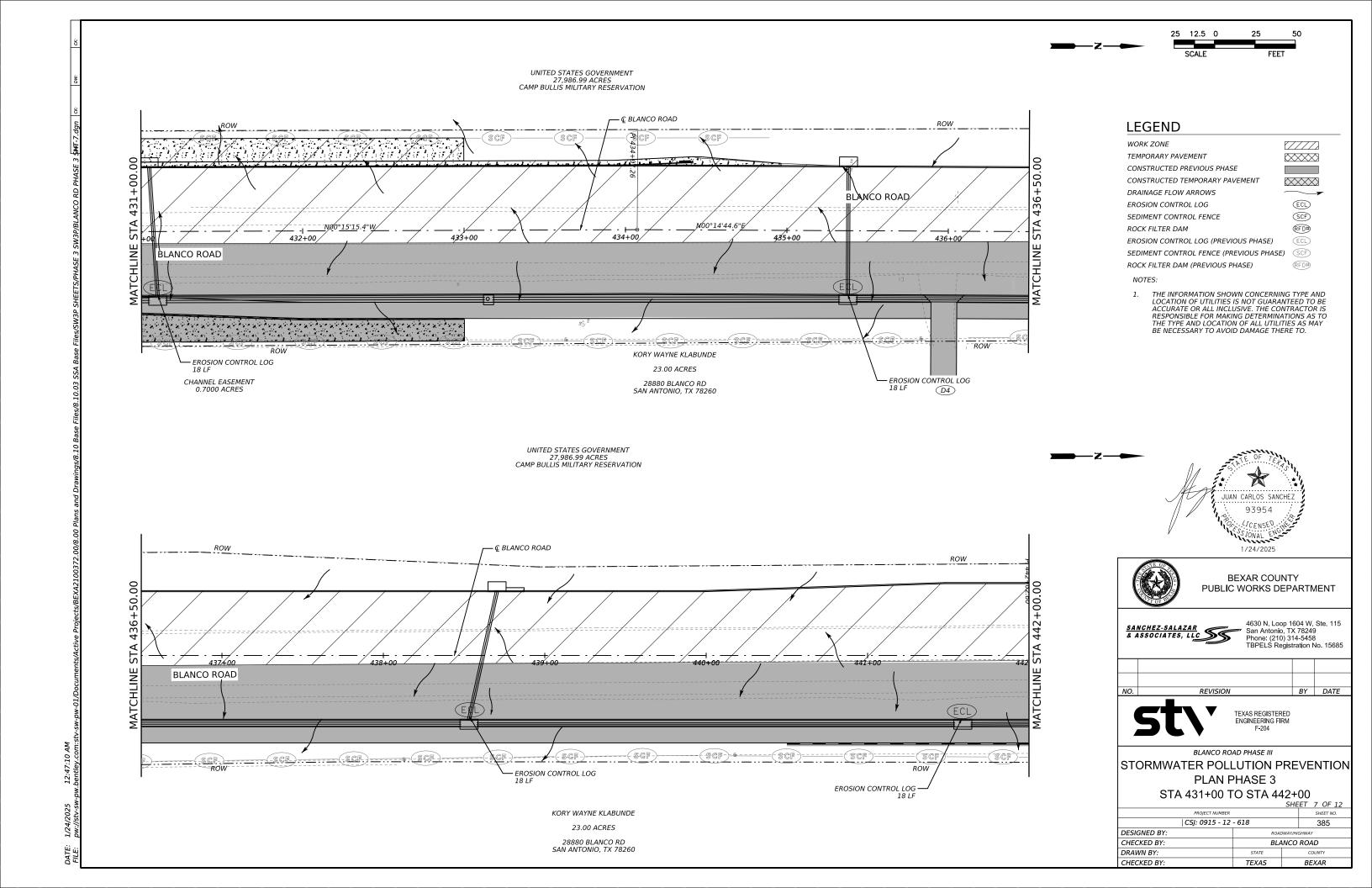


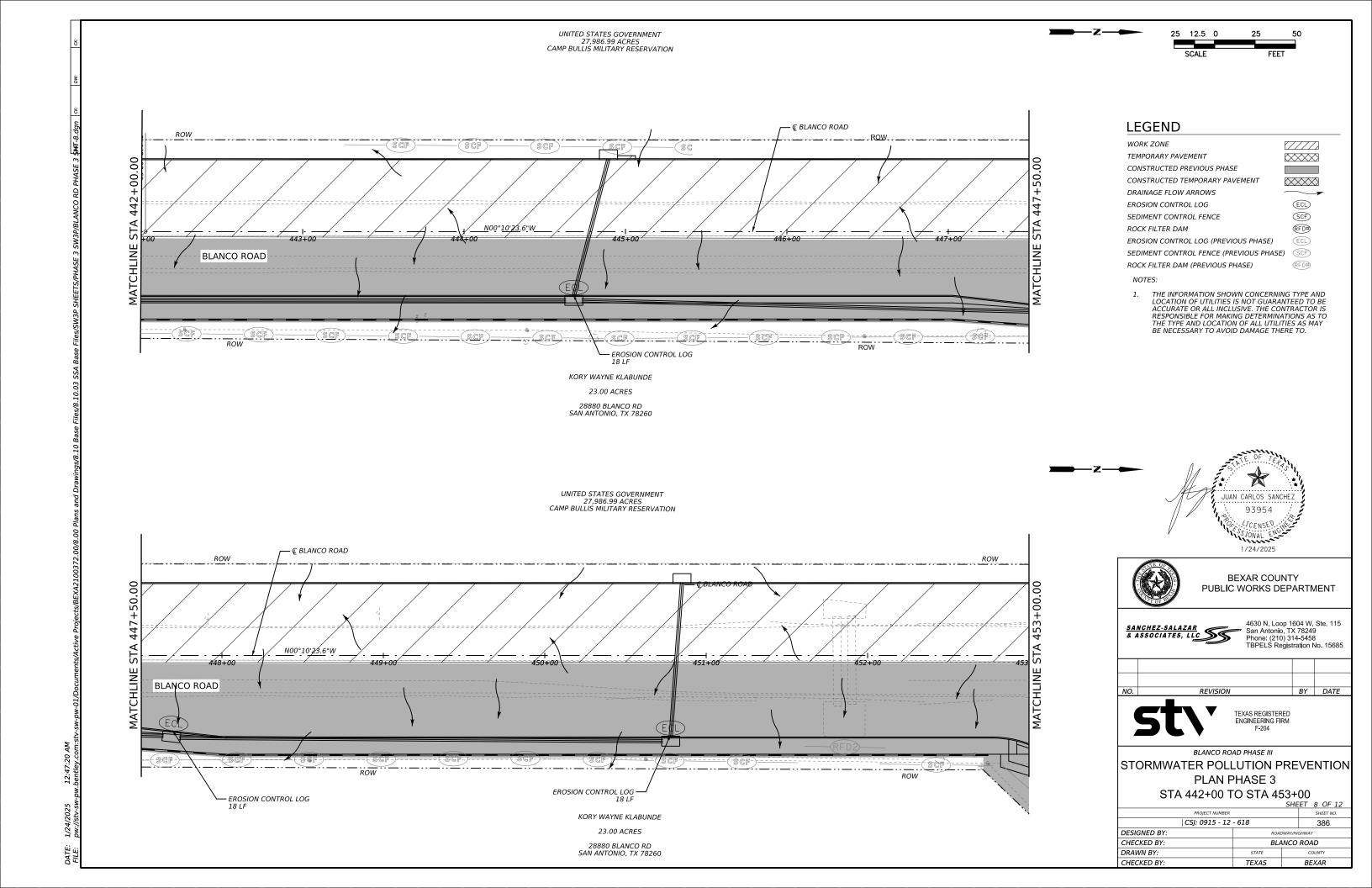


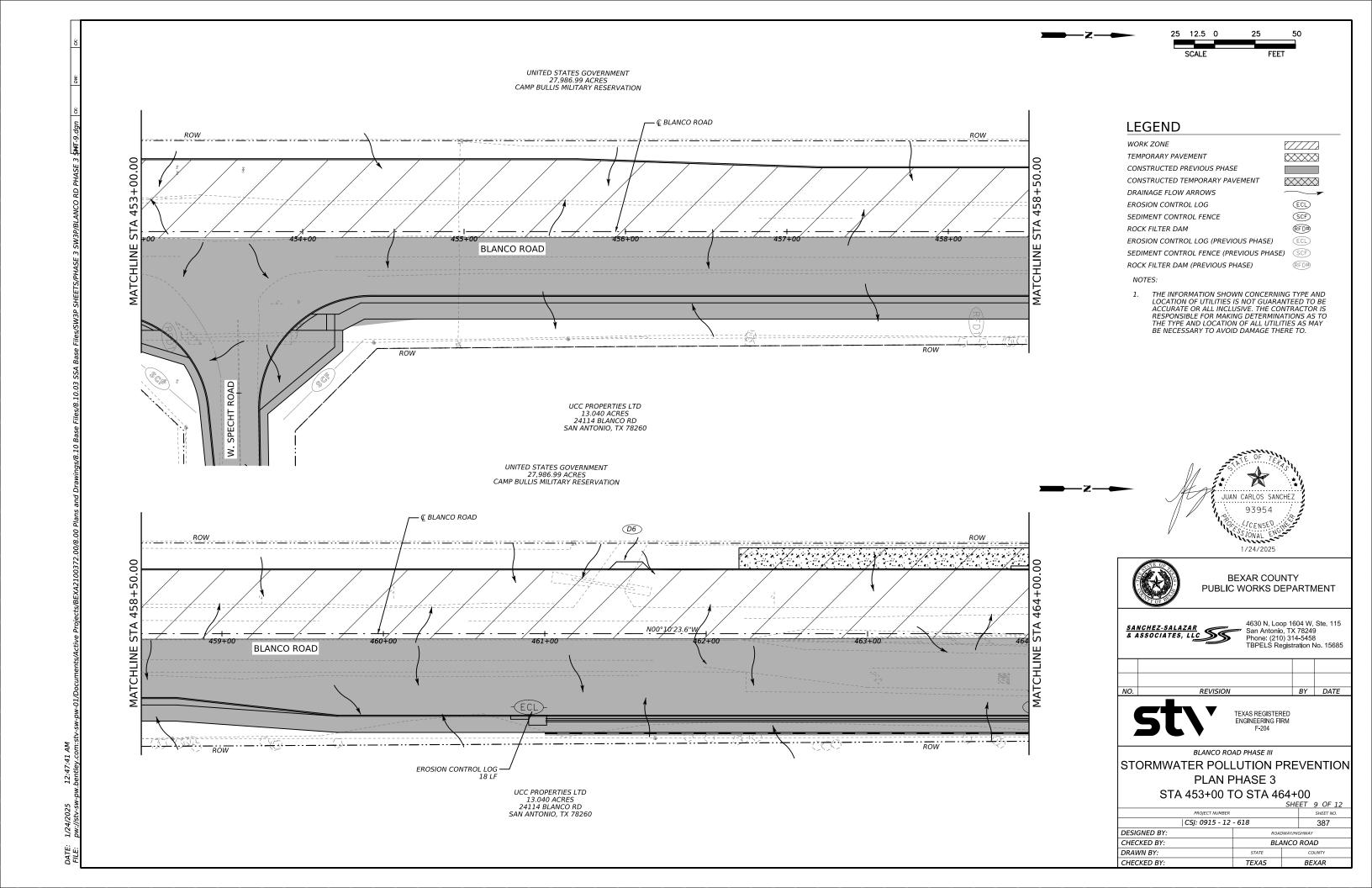


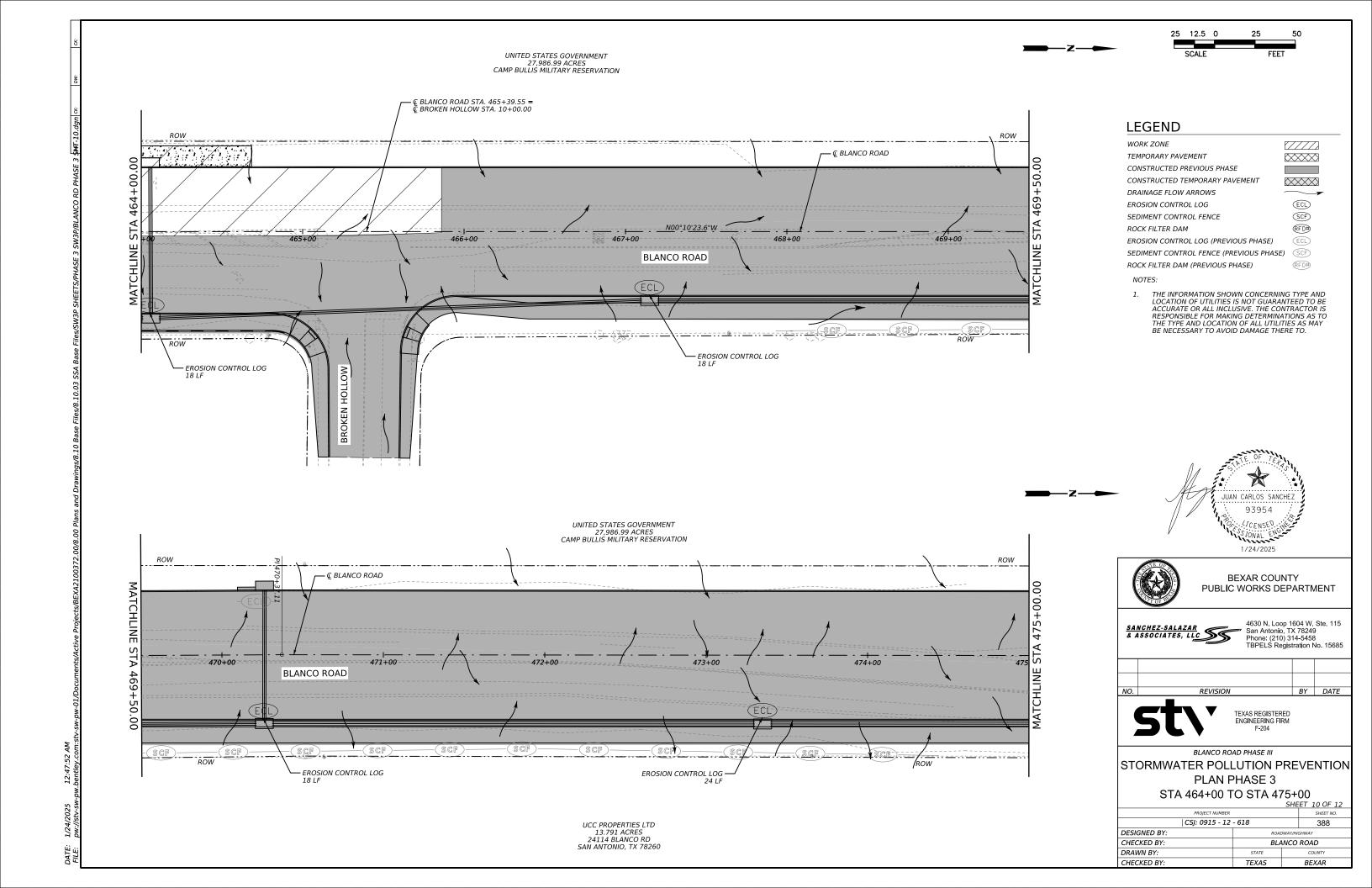


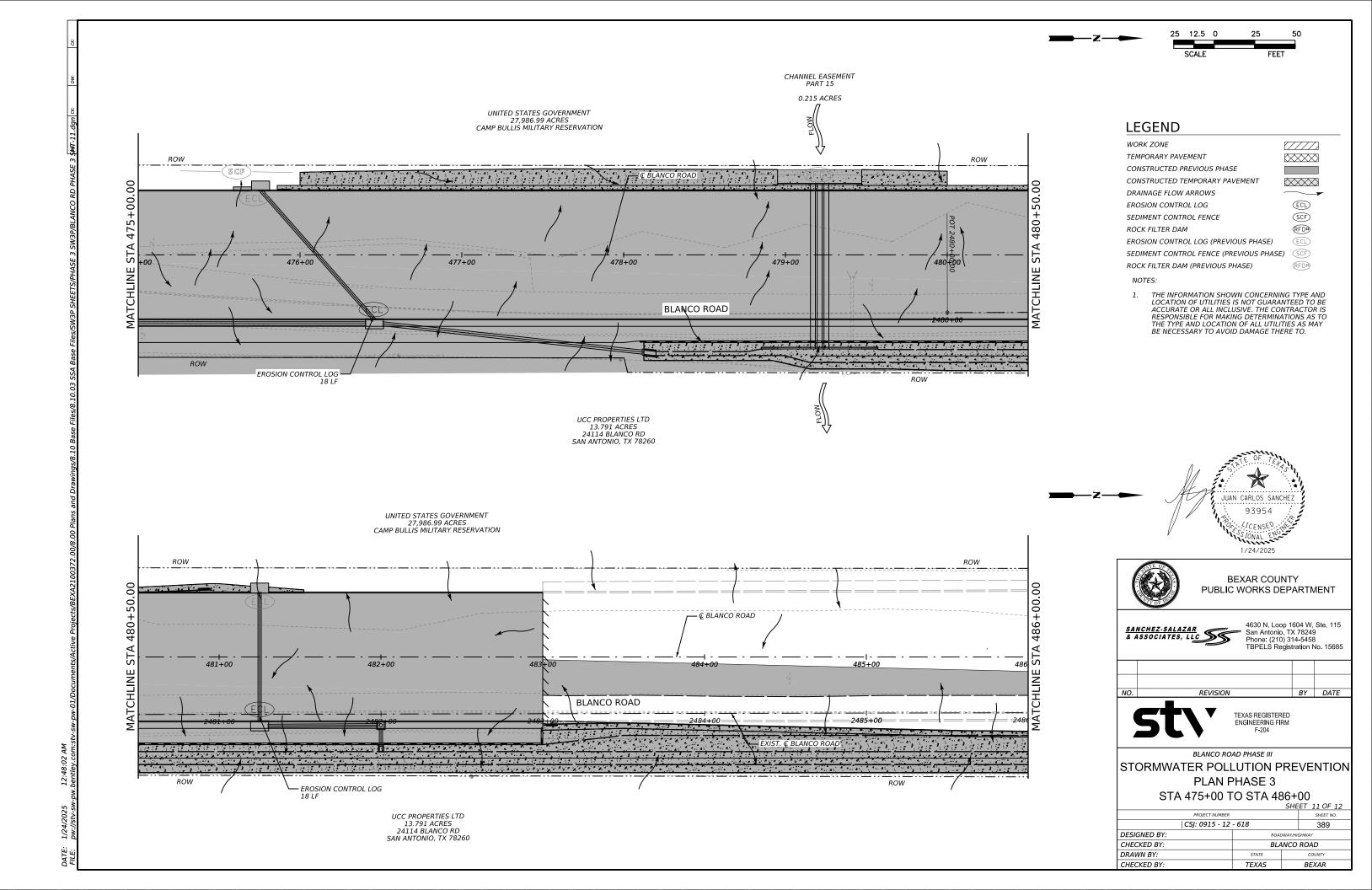


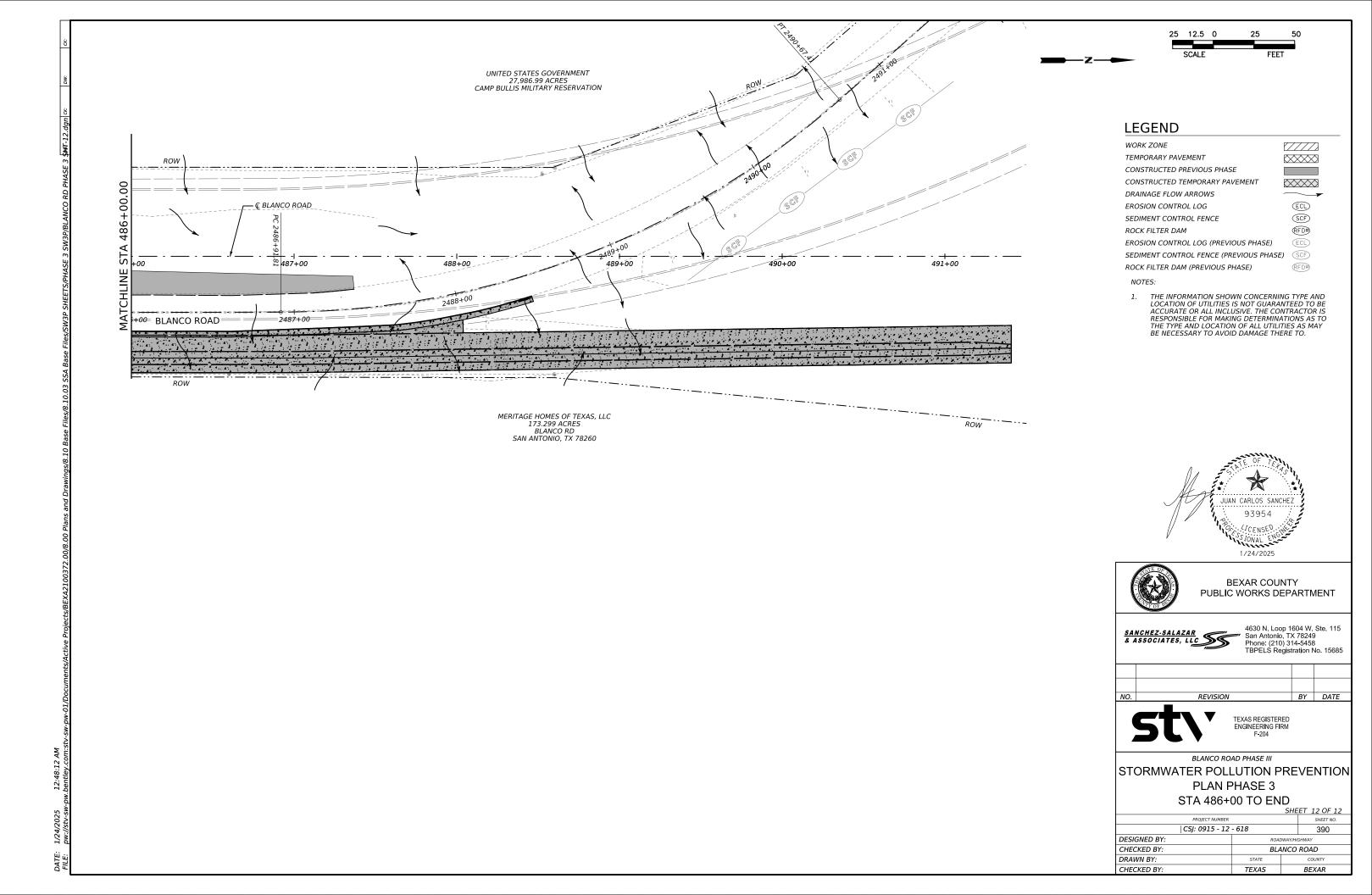












EDWARDS AQUIFER PROTECTION PROGRAM ROADWAY APPLICATION TCEQ-20872

ATTACHMENT H – INSPECTION, MAINTENANCE, REPAIR AND RETROFIT

PROJECT NAME: Blanco Road Phase III from Borgfeld Drive to Bexar/Comal County Line

CITY, STATE, ZIP: San Antonio, Texas 78260

CSJ: 0915-12-618

BMP maintenance operations should be performed on a regular basis as outlined below and as required to ensure that the BMPs and measures are constructed and functioning as designed. Operations must also be performed as required to maintain site aesthetics, vegetation, BMP access, and debris removal. After a Texas licensed professional engineer has certified that the permanent BMPs and measures were constructed as designed and submitted certification to the TCEQ regional office, the maintenance schedule as outlined below will commence.

General:

- 1. Records and diaries will be kept for maintenance activities listed and performed by TxDOT and contractors. All records must be retained for a period of not less than five (5) years.
- 2. Maintenance and contracted personnel may oversee minor repairs. Major repairs or retrofits must be overseen by Bexar County.

Stormwater Treatment Unit:

- 1. Post-construction inspection is required prior to putting the unit into service.
- It is recommended that stormwater treatment units be inspected on a quarterly basis for the
 first year of operation. The rate at which each system collects pollutants will often depend more
 on site activities than the size or type of unit. For example, watershed construction activities, or
 heavy winter sanding will cause sediments to accumulate at a more rapid rate.
- 3. After the first year, maintenance personnel will have a better understanding of the operational characteristics of the unit and subsequent inspections can be reduced if warranted. At a minimum, maintenance should be performed twice annually during project BMP inspections when feasible. At least one of the inspections should occur following a rainfall event to observe system operations.
- 4. In the event of an oil, fuel, or other chemical spill, an inspection is required.
- 5. All exposed site areas should be stabilized to minimize sediment loads in unit and runoff from non-stabilized construction areas should be routed around the unit and treated separately.
- 6. With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, filters, cartridges, etc.) must be identified and repaired immediately. Cracks, voids and undermining should be patched/filled to prevent growth in cracks and joints that can cause structural damage. Repair or replace any components that are inoperative.

- Maintenance should be conducted by professional vacuum cleaning service providers with
 experience in confined space entry procedures and the maintenance of underground tanks,
 sewers, or catch basins.
 - a. Every 12 months, filter cartridges should be tested for adequate flow rate and cleaned, recommissioned, or replaced as necessary.
 - b. A manual backflush must be performed on one of the drain down cartridges using the unit's backflush pipe. If time required to drain 14 gallons exceeds 15 seconds, it is recommended to perform a manual backflush on each cartridge. If drain down time exceeds 15 seconds after manual backflush, then cartridge must be replaced.
- 8. Filters/Cartridge should be replaced once every three years, if inspection of the removed filters/cartridges indicates that their life expectancy exceeds three years, a modified maintenance plan should be provided to TCEQ specifying the new replacement schedule. Filter/Cartridges may initially require annual replacement due to sediment load from construction activities. Cartridge replacement also may be required in the event of a chemical or hazardous material spill or due to excessive sediment loading from site erosion or extreme storms.
- 9. Check and verify that the BMP facility site(s) are secure at least once per month. Any site found to be insecure should be made secure immediately.
- 10. Standing water within vaults may become a location of mosquito breeding. The facility should be evaluated at least twice a year to determine if mosquito control is needed.

Maintenance Contact

The Maintenance Supervisor may be contracted for questions or concerns that pertain to the maintenance of this facility after it is completed and operating. The current maintenance supervisor is named below. The Maintenance Supervisor may be contacted at the following location:

Responsible Party for Maintenance: Name: Reggie Fountain, P.E.

Title: Project Manager

Email: reggie.fountain@bexar.org

Phone: 210.335.7071

Signature of Responsible Party:

EDWARDS AQUIFER PROTECTION PROGRAM ROADWAY APPLICATION TCEQ-20872

ATTACHMENT K – VOLUME AND CHARACTER OF STORMWATER

The post construction peak project runoff for the Blanco Road Phase III Project will be increased, when compared to the pre-construction peak runoff. The post-construction runoff C factor will increase from 0.552 to 0.708 due to the proposed pavement increasing the impervious area within the project right of way. The following stormwater runoff estimates were calculated using the Rational Method. The calculations are based on the areas are included in Permanent Stormwater Section Attachment F, Construction Plans: Drainage Area Maps. Areas at the beginning of the project were originally included and treated in the Blanco Phase II design. Due to the cost, the BMPs were eliminated, and are included as part of the Blanco Road Phase III. Area delineations are shown for Existing and Proposed conditions and are included in the table below.

OUTFALLS	TOTAL AREA (AC)	EXISTING IMPERVIOUS (AC)	PROPOSED IMPERVIOUS (AC)
Α	0.92	0.58	0.89
В	3.54	1.71	2.69
С	22.21	3.78	7.47
D	7.24	2.72	6.09
E	6.32	2.21	4.57
F	2.60	0.46	1.59
TOTAL	42.86	11.46	23.24

The character of stormwater is expected to change from pre- to post-construction, as the area gets developed. Potential sources of contamination will be from sediment, debris, and chemicals generated on site by activities related to grading, paving, storm sewer and culvert construction and utility relocations. These potential contaminants are explained in more detail in Attachment A above. Runoff from the proposed project will be conveyed through storm sewer and/or roadside ditches to culverts creek leaving the site. Two Stormwater Treatment Jellyfish units will be installed by the bridge at outfalls C and D, to treat the required total suspended solids from the project. By overtreating in 2 locations, we eliminate the need for treatment in 4 others per the guidance with states that the flow though type devices must treat at least 1.1"/hr or F value of at least 0.9. Permanent Stormwater Quality Units will ensure the required TSS load removal. All disturbed areas will be re-vegetated or stabilized at the completion of the project; therefore, no significant degradation of stormwater quality is anticipated as a result of the project. An impact analysis was also performed for the overall hydrologic and hydraulic impacts of the project, that includes onsite and offsite flows.

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Philip Pearce, P.G. Telephone: 210.877.2847 Fax: 210.877.2848 Date: 11/19/2024 Representing: SWCA Environmental Consultants (TBPG Firm Registration #50159) (Name of Company and TBPG or TBPE registration number) Signature of Geologist:

Regulated Entity Name: Blanco Road from Borgfeld Drive to Bexar/Comal County Line

Droject Information

P	oject information		STAIR
1.	Date(s) Geologic Assessment was performed: 7/2	0/2023; 10/17/2024	
2.	Type of Project:		Philip C
3.	WPAP SCS Location of Project:	AST UST	Geo.
	Recharge Zone		(Att

	Contributing Zone within the Transition Zone										
4.	Attachment A - Geologic Assessment Table. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.										
5.	Hydrologi 55, Apper	c Soil Gro ndix A, Soi	ups* (Urban Hydro I Conservation Ser	ology for Small Warvice, 1986). If the	e below and uses the SCS atersheds, Technical Release No. ere is more than one soil type on the side of the second						
	ble 1 - Soil U aracteristics				Group Definitions (Abbreviated) Soils having a high infiltration						
	Soil Name	Group*	Thickness(feet)	В.	rate when thoroughly wetted. Soils having a moderate infiltration rate when thoroughly						
-	. / (cacimient				wetted.						
				С.	Soils having a slow infiltration						
				5	rate when thoroughly wetted.						
				D.	Soils having a very slow infiltration rate when thoroughly wetted.						
6.	members	, and thick stratigra	knesses is attached phic column. Othe	d. The outcroppin	column showing formations, g unit, if present, should be at the most unit should be at the top of						
7.											
8.			e Geologic Map(s) Plan. The minimu	_	ic Map must be the same scale as						
	Site Geolo	ogic Map S	n Scale: 1" = <u>200</u> ' Scale: 1" = <u>200</u> ' e (if more than 1 so	oil type): 1" = <u>2,00</u>	<u>00</u> '						
9.	Method of co	llecting p	ositional data:								
		_	System (GPS) tech lease describe me		ction:						
10.	The proje	ct site and	l boundaries are c	learly shown and	labeled on the Site Geologic Map.						
11.	Surface ge	eologic un	its are shown and	labeled on the Sit	te Geologic Map.						

12. 🔀	Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
	Geologic or manmade features were not discovered on the project site during the field investigation.
13. 🔀	The Recharge Zone boundary is shown and labeled, if appropriate.
	known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If plicable, the information must agree with Item No. 20 of the WPAP Application Section.
	There are (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.) The wells are not in use and have been properly abandoned. The wells are not in use and will be properly abandoned. The wells are in use and comply with 16 TAC Chapter 76. There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

Table 1 – Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness (feet)
BrD: Brackett gravelly clay loam, 3 to 12 percent slopes	D	0.5-1.67
Ca: Anhalt clay, 0 to 2 percent slopes	D	1.67-3.33
CrD: Comfort-Rock outcrop complex, 1 to 8 percent slopes	D	0.33-1.67
LvB: Lewisville silty clay, 1 to 3 percent slopes	В	1.67-6.67
Or: Orife soils, moist, 0 to 3 percent slopes, frequently flooded	Α	6.67
RUD: Rumple-Comfort, rubbly association, 1 to 8 percent slopes	D	1.67-3.33
TaB: Eckrant cobbly clay, 1 to 8 percent slopes	D	0.33-1.67
Tc: Tinn clay, 0 to 1 percent slopes, occasionally flooded	D	6.67
VcB: Sunev clay loam, 1 to 3 percent slopes	В	2.75-6

^{*} Soil Group Definitions (Abbreviated)

- A. Soils having a high infiltration rate when thoroughly wetted.
- B. Soils having a moderate infiltration rate when thoroughly wetted.
- C. Soils having a slow infiltration rate when thoroughly wetted.
- D. Soils having a very slow infiltration rate when thoroughly wetted.

ATTACHMENT A

Geologic Assessment Table

GEOLO	GIC ASSES	SMENT TA	ABLE				PRO	OJE	CT NAM	1E:	BLAN	ICO RC	AD P	HASE III						
LOCATION							FEATURE CHARACTERISTICS								EVALUATION PHYSICAL SETTING				L SETTING	
1A	1B *	1C*	2A	2B	3		4		5	5A	6	7	8A	8B	9	1	10	1	1	12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIME	NSIONS	(FEET)	TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENS	ITIVITY		ENT AREA RES)	TOPOGRAPHY
						Х	Υ	Z		10						<40	<u>>40</u>	<1.6	<u>>1.6</u>	
BR-01	29.74233	-98.51282	0	5	Kgrl	6	5	-	N39E	Χ	2	0.03	V,F	5	20	Χ		Χ		Streambed
BR-02	29.72392	-98.51299	F	20	Kgru	-	-	-	N45E	Х	-	-	F	5	35	Χ		Χ		Streambed
																				

* DATUM: NAD83

2A TYPE	TYPE	2B POINTS
С	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
0	Other natural bedrock features	5
МВ	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

ſ	8A INFILLING								
	N	None, exposed bedrock							
	С	Coarse - cobbles, breakdown, sand, gravel							

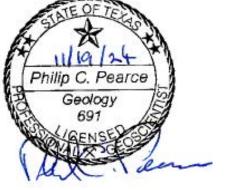
Loose or soft mud or soil, organics, leaves, sticks, dark colors Fines, compacted clay-rich sediment, soil profile, gray or red colors

V Vegetation. Give details in narrative descriptionFS Flowstone, cements, cave deposits

12 TOPOGRAPHY

Other materials

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed



I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

D:0 C.	ear	

Date 11/19/2024

Sheet 1 of 1

TCEQ-0585-Table (Rev. 10-01-04)

ATTACHMENT B

Stratigraphic Column

Stratigraphic Column

Hydrogeologic Subdivision		Gr	oup, Forma	Thickness (feet)		
	I			Georgetown F	Formation (Kgt)	2-20
	II			(Kep)	Cyclic and marine members, undivided	80-90
	III		Edwards Group	Person Formation (Kep)	Leached and collapsed members, undivided	70-90
Lower Cretaceous	IV	Edwards Aquifer		Person	Regional dense member	20-24
Lower (V			tion (Kek)	Grainstone member	50-60
	VI				Kirschberg evaporite member	50-60
	VII			Kainer Formation (Kek)	Dolomitic member	110 -130
	VIII				Basal nodular member	50-60
	Lower confining unit		Upper member	r of the Glen R	220	
			Lower membe	r of the Glen F	160	

Modified from Stein and Ozuna, 1995

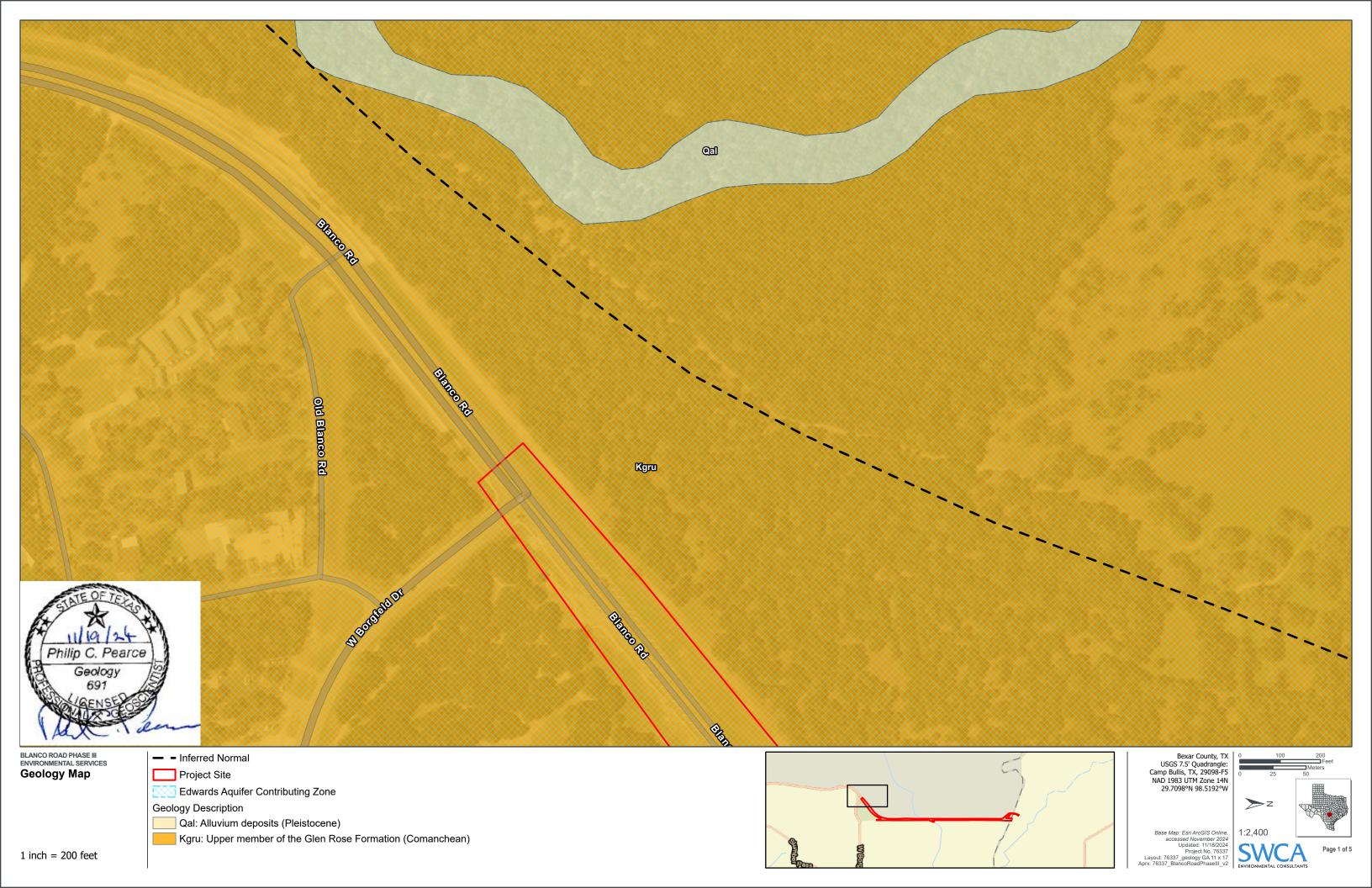
ATTACHMENT C

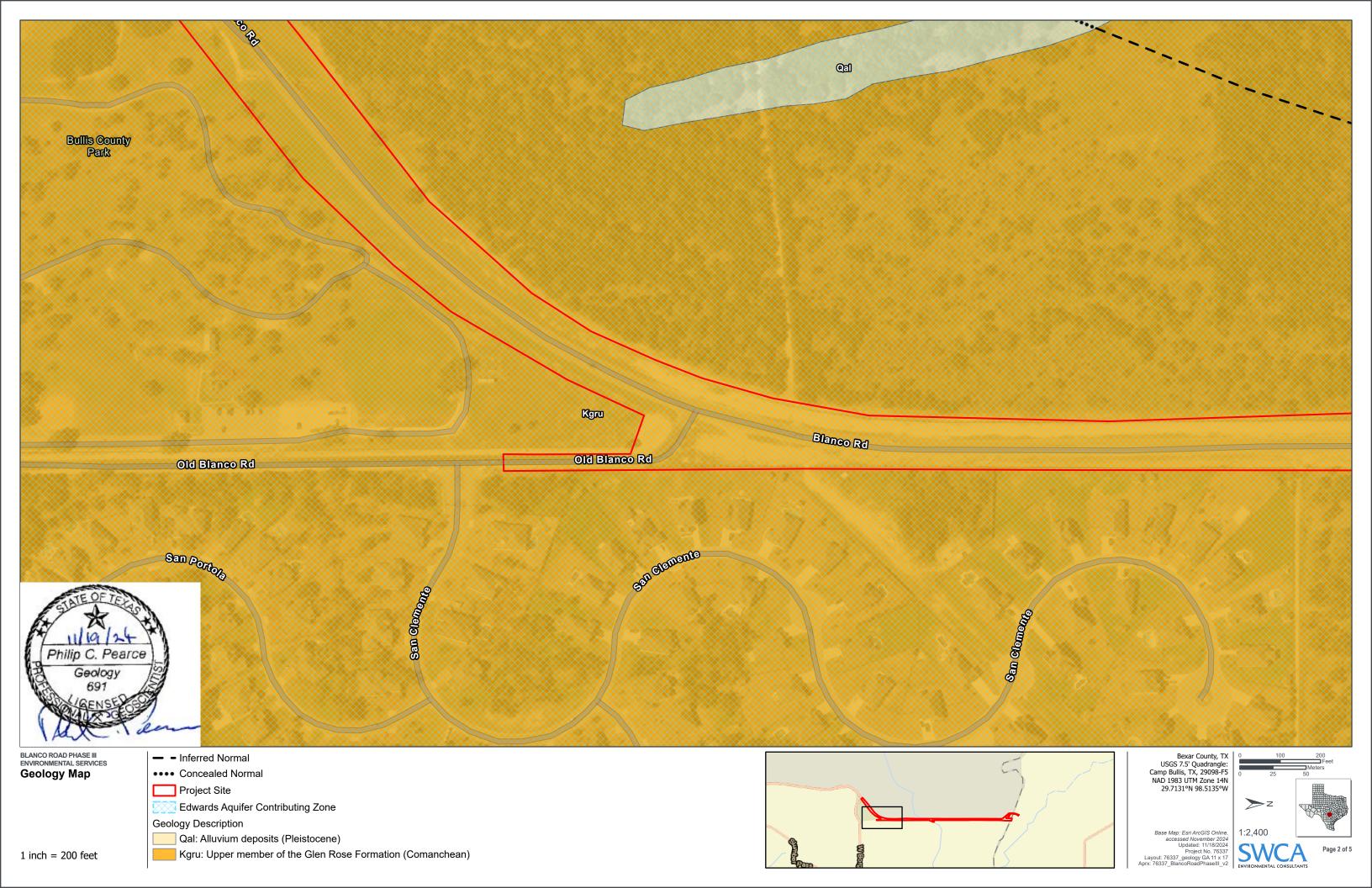
Narrative Description of Geology

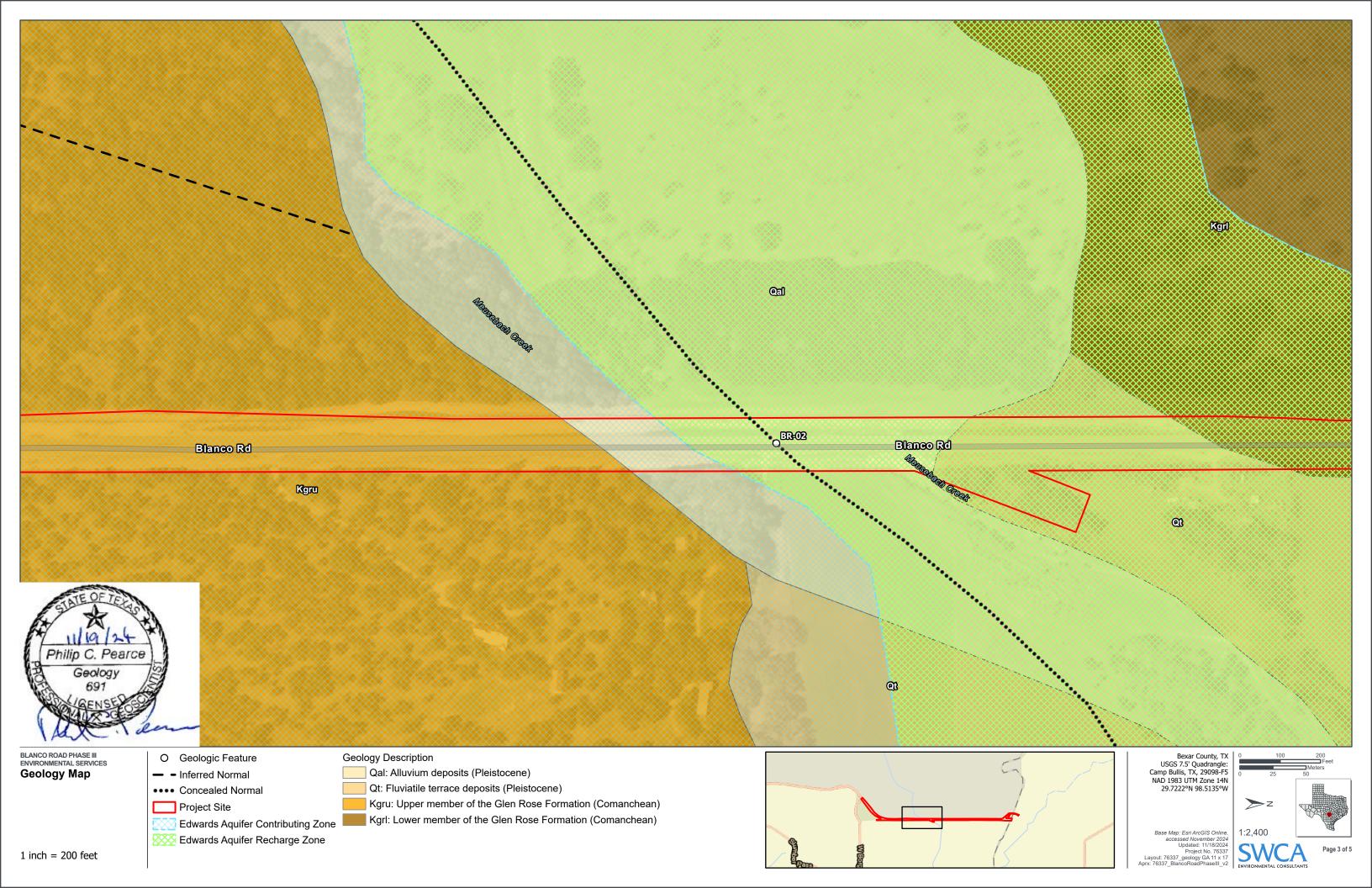
Please refer to section 3.2 of this report for geologic narrative description.

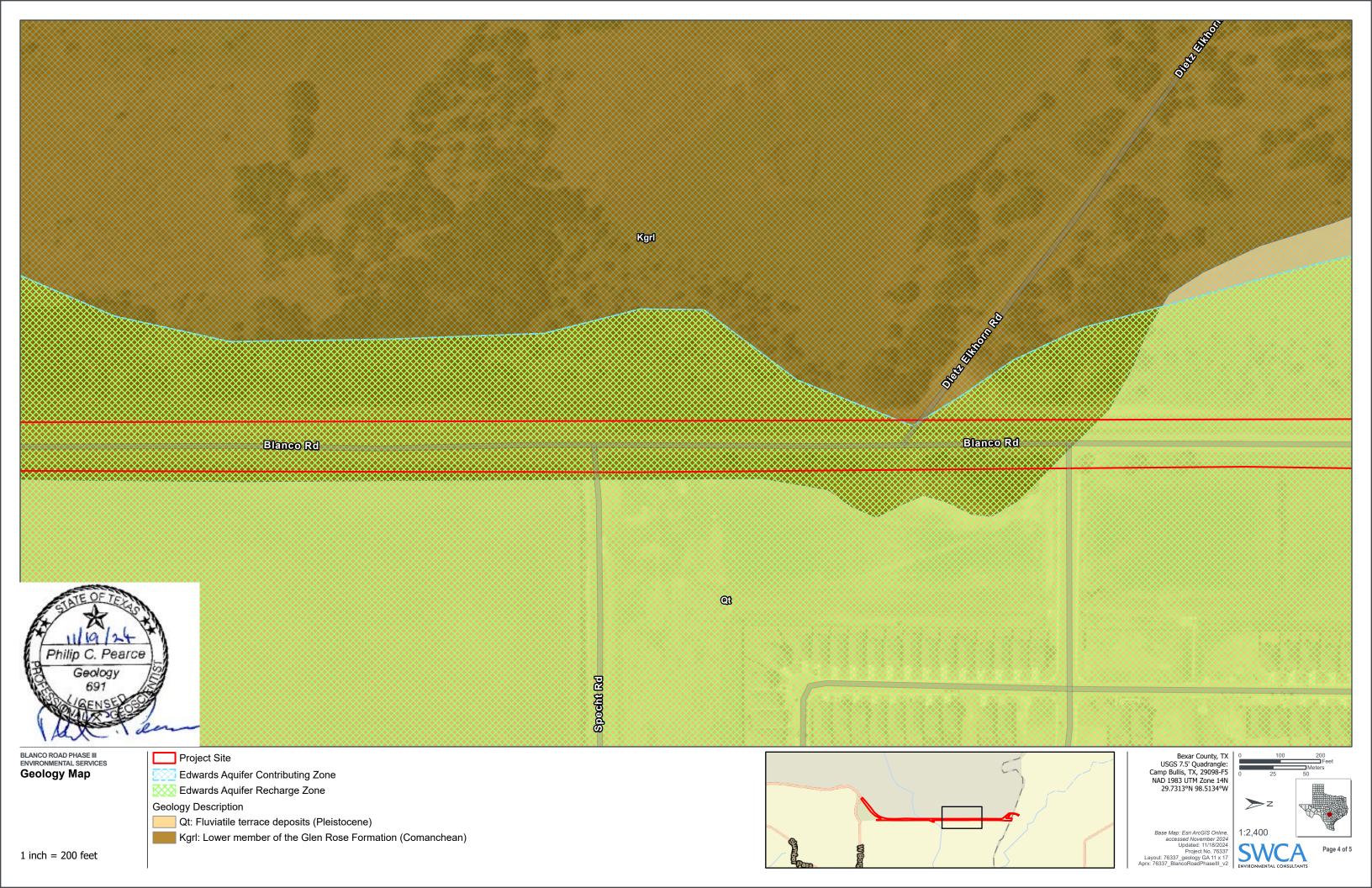
ATTACHMENT D

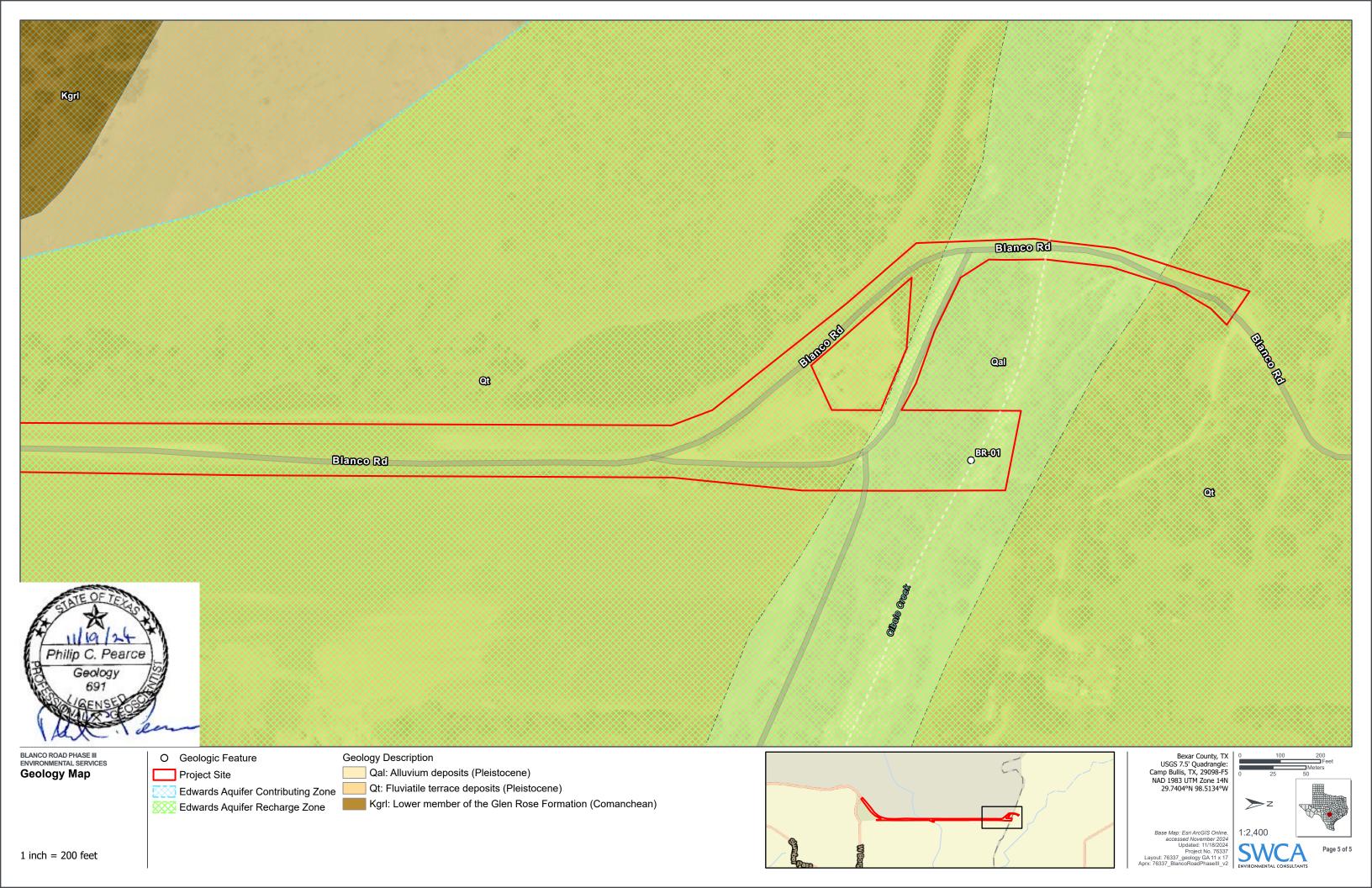
Site Geologic Map











Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This Temporary Stormwater Section is hereby submitted for TCEQ review and executive director approval. The application was prepared by:		
Print Name of Customer/Agent: <u>Luba Esquivel</u>		
Date: <u>2/10/2025</u>		
Signature of Customer/Agent:		
finbon V. Esquivel		
Regulated Entity Name: Blanco Road from Borgfeld Drive to Bexar/Comal County Line		
Project Information		
Potential Sources of Contamination		
Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.		
1. Fuels for construction equipment and hazardous substances which will be used during construction:		
☐ The following fuels and/or hazardous substances will be stored on the site:		
These fuels and/or hazardous substances will be stored in:		
Aboveground storage tanks with a cumulative storage capacity of less than 25 gallons will be stored on the site for less than one (1) year.		

	 Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year. Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
	$igthered{igwedge}$ Fuels and hazardous substances will not be stored on the site.
2.	Attachment A - Spill Response Actions. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
3.	Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
4.	Attachment B - Potential Sources of Contamination. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.
S	equence of Construction
5.	Attachment C - Sequence of Major Activities. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
	 For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given. For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
6.	Name the receiving water(s) at or near the site which will be disturbed or which will

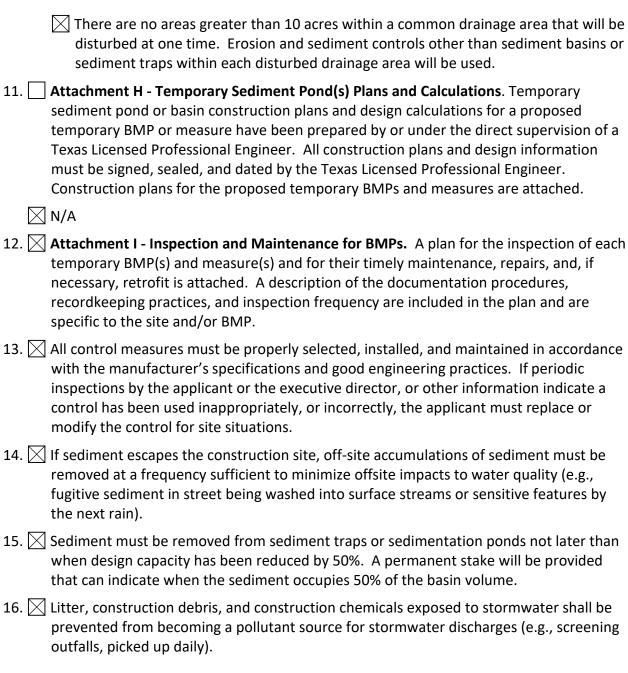
Temporary Best Management Practices (TBMPs)

receive discharges from disturbed areas of the project: Cibolo Creek

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. Attachment D – Temporary Best Management Practices and Measures. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

	A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.
	A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
	A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
	A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8.	The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
	Attachment E - Request to Temporarily Seal a Feature. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
	There will be no temporary sealing of naturally-occurring sensitive features on the site.
9.	Attachment F - Structural Practices. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10.	Attachment G - Drainage Area Map. A drainage area map supporting the following requirements is attached:
	For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
	For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
	For areas that will have more than 10 acres within a common drainage area
	disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.
	There are no areas greater than 10 acres within a common drainage area that will be
	disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.



Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices. A schedule of the interim and permanent soil stabilization practices for the site is attached.

- 18. Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 19. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

- 20. All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
- 21. If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
- 22. Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

TEMPORARY STORMWATER SECTION TCEQ-0602 ATTACHMENT A – SPILL RESPONSE ACTIONS

The spill response plan for the Project will adhere to the Texas Administrative Code Table 30, Part 1, Chapter 327, which is included below, and adhere to all applicable local, state, and federal regulations and TxDOT Standard Specifications and Guidelines. All spill response actions will follow TCEQ's "Spill Rule" and the items stated in this attachment.

Preventative measures include minimizing or eliminating use of construction equipment within sensitive areas and removing all construction materials used as soon as work schedules permit. Also, no equipment or materials staging, or storage will be permitted in the floodplains.

In the event of hazardous materials spill, the safety of onsite personnel is the most important consideration. Once the safety of personnel is secured, the second priority becomes minimizing and controlling the spill. The spill response plan will remain in effect throughout both the construction and operation phases of the Project.

TEMPORARY STORMWATER SECTION TCEQ-0602

ATTACHMENT B - POTENTIAL SOURCES OF CONTAMINATION

The following are potential sources of contamination:

- Fuel Spills (Diesel, Gasoline, etc.) from equipment refuel operations
- Hydraulic Leaks (Potential leaks from construction equipment), and construction vehicle tracking onto roads
- Automotive spills and oil leaks
- Liquid emulsified asphalt (from paving and priming operations)
- Sediment, dirt, airborne dust, and dirty water from grading, construction equipment, water trucks and haul trucks during construction.
- Portable Toilet overflows/spills
- Litter generated during the construction process
- De-watering from drill shafts, excavations

The primary stormwater contaminant expected during the construction process, is entrained solids from disturbed soils. Disturbed soils result from:

- Preparation of ROW
- Roadway embankment grading and ditch grading
- Bridge construction including drill shafts
- Trenching for storm sewer, culvert and utility construction
- Excavation
- Placement of road base
- Imported soil for fill and top-soil
- Removal of existing roadway, utilities and bridge structures

The entrained solids in runoff during the construction phase will be largely detained by proposed temporary BMPs such as sediment control fence, rock filter dams, inlet protection, and erosion control logs. The use and placement of these facilities are outlined in the project SW3P in Permanent Stormwater Section Attachment F, Construction Plans.

The cleanup and containment of any fuels, hydraulic fluids, hydrocarbons, or other hazardous substances released onsite will be the responsibility of the contractor. Spill response actions are included in Temporary Stormwater Section Attachment A, Spill Response Actions.

TEMPORARY STORMWATER SECTION TCEQ-0602 ATTACHMENT C – SEQUENCE OF MAJOR ACTIVITIES

Install temporary erosion control measures and BMPs. BMPs to be inspected and maintained per TCEQ and WPAP requirements.

Prepare ROW, including clearing and grubbing, demolition, and any initial grading and excavation.

Construct temporary pavement as detailed in the Traffic Control Plan.

Construct roadway, storm sewer, joint bid utilities (gas/water/wastewater), and permanent BMPs including Stormwater Quality Units, retaining walls and bridges making minor adjustments to temporary BMPS as needed; apply temporary seeding as needed.

Place topsoil and permanent seeding.

After the establishment of vegetation, remove all temporary erosion control measures and reseed any areas disturbed by their removal after the establishment of vegetation.

TEMPORARY STORMWATER SECTION TCEQ-0602

ATTACHMENT D – TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

a. A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

All offsite runoff that originates upgradient from the project will be captured in the project and treated in the same manner that the onsite runoff will be treated.

b. A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

BMPs for onsite flows will prevent first flush of runoff discharging to surface streams, geologic features, and the aquifer by filtering the runoff. When appropriate, temporary seeding will be used to stabilize areas during construction to reduce the amount of pollutants from erosion during storm events. Construction phasing will reduce risk of erosion by limiting and protecting the area of disturbance from construction vehicles and equipment traversing the site. The following measures have been outlined in the SW3P narrative:

- 1. Erosion Control Logs (ECL) or gravel filled bags will be placed around the inlets within the work zone to prevent sediment runoff into storm sewer systems.
- 2. Additional BMPs (sediment control fences, Type 2 Rock Filter Dams or erosion control logs) will be placed as field conditions require.
- 3. For ditch check dams, install temporary sediment control fence in ditches, unless conditions warrant hay bales or rock filter dams.
- 5. Each element of drainage system is maintained in its proper function by cleaning, clearing and/or emptying as appropriate from the point at which water drains from travel way to the outfall or drainage way.
- 6. Sweeping or vacuum truck operations will be used at the end of the day as necessary to prevent sediment runoff into storm sewer systems.
 - c. A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

Temporary BMP's will be placed anywhere runoff from the project site may flow towards any sensitive features and creeks. Temporary BMP's will be placed such that no runoff will leave the site without first being treated by a BMP. Sediment Control Fence will be used along the downstream side of the project to minimize the amount of sediment leaving the construction area. Weekly scheduled inspections will be conducted to ensure collection on the fences is removed and properly disposed. In areas of concentrated flow, rock filter dams will be used to minimize the amount of sediment entering the

aquifer. Regularly scheduled inspections will be conducted to clear sediment from the rock filter dams. Construction exits will minimize the tracking of pollutants by construction equipment. Interceptor swales will be placed where water needs to be kept in a limited area. Sodding areas will be done as soon as vegetation can be established.

d. A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally occurring sensitive features identified in either TNRCC inspections, or during excavation, blasting, or construction.

If a naturally occurring sensitive feature is discovered, the following steps be taken.

- 1) The flow patterns to the feature shall be observed.
- 2) If any corrective action is necessary, the temporary BMP's will be modified or altered to maintain flow to the feature.

A general note has been included in the construction plans to notify the contractor that work would occur in the Edwards Aquifer Recharge Zone.

TEMPORARY STORMWATER SECTION TCEQ-0602 ATTACHMENT F – STRUCTURAL PRACTICES

The TCEQ general guidelines included in Section 1.2 to Section 1.4 of RG-348 must be followed for installation and maintenance of temporary structural erosion and sediment control BMPs. The following practices will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site:

- Silt Fences
- Rock Berms
- Rock Bedding at Construction Exit
- Erosion Control Logs

TEMPORARY STORMWATER SECTION TCEQ-0602 ATTACHMENT G – DRAINAGE AREA MAP

See Site Plans.

TEMPORARY STORMWATER SECTION TCEQ-0602 ATTACHMENT I – INSPECTION AND MAINTENANCE FOR BMPs

All erosion and sediment control measures will be maintained in effective operating condition by following the project maintenance procedures. The general maintenance and inspection requirements are included in the SW3P included in Permanent Stormwater Section Attachment F, Construction Plans. In addition to the ROW inspections, adjacent areas are also required to be visibly inspected for evidence of project-related impacts.

TEMPORARY STORMWATER SECTION TCEQ-0602

ATTACHMENT J – SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

Soil Stabilization Practices

• Permanent Sodding, or Seeding

Other: Refer to project EPIC sheets for areas of avoidance or minimized disturbance activity.

Interim Soil Stabilization:

Interim stabilization measures will be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of the site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by the seasonal arid conditions, stabilizations measures shall be initiated as soon as practicable. Records will be kept at the site to document dates when:

- Major grading activities occur;
- Construction activities temporarily cease;
- Construction activities permanently cease;
- Stabilization measures are initiated.

Permanent Soil Stabilization:

Permanent stabilization measures will be initiated as soon as practicably in portions of the site where construction activities have been substantially completed. In areas experiencing droughts where the initiation of stabilization measures is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

Agent Authorization Form

For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I	Reggie Fountain, P.E.	
	Print Name	
	Project Manager	,
	Title - Owner/President/Other	
of	Bexar County Corporation/Partnership/Entity Name	,,
have authorized	Luba Esquivel Print Name of Agent/Engineer	
of	STV, Inc.	
	Print Name of Firm	

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

- 1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
- 2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
- 3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
- 4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
- 5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

12/17/24 Date

THE STATE OF <u>Texas</u> §

County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared <u>Reggie Fountain</u> known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 17th day of December, 2024.

DACIA U. GARZA
Notary Public, State of Texas
Comm. Expires 10-05-2026
Notary ID 2996949

Dacia U Douze

Dacia U. Garza
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 10-05- 2026

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated	d Entity: <u>Blanco Road from I</u>	Borgfeld Drive to Bexar	/Comal County
<u>Line</u> Regulated Entity Location: <u>Sa</u>	un Antonio TV		
Name of Customer: Bexar Co		ont	
Contact Person: Reggie Foun		ne: <u>210.335.7071</u>	
Customer Reference Number			
Regulated Entity Reference N Austin Regional Office (3373	· · · · · · · · · · · · · · · · · · ·		
Hays	, Travis	Пw	illiamson
San Antonio Regional Office	—	··	
⊠ Bexar	Medina	Пυν	valde
Comal	Kinney		
Application fees must be paid	d by check, certified check.	or money order, pavab	le to the Texas
Commission on Environmen	-		
form must be submitted wit	•	•	•
Austin Regional Office	\boxtimes s	San Antonio Regional C	Office
Mailed to: TCEQ - Cashier	=	Overnight Delivery to:	
Revenues Section		12100 Park 35 Circle	
Mail Code 214		Building A, 3rd Floor	
P.O. Box 13088		Austin, TX 78753	
Austin, TX 78711-3088		512)239-0357	
Site Location (Check All That	: Apply):		
🔀 Recharge Zone	Contributing Zone	Transi	tion Zone
Туре ој	f Plan	Size	Fee Due
Water Pollution Abatement I	Plan, Contributing Zone		
Plan: One Single Family Resid	lential Dwelling	Acres	\$
Water Pollution Abatement I	Plan, Contributing Zone		
Plan: Multiple Single Family F	Residential and Parks	Acres	\$
Water Pollution Abatement I	Plan, Contributing Zone		
Plan: Non-residential		35.79 Acres	\$ 6,500
Sewage Collection System		L.F.	\$
Lift Stations without sewer li	nes	Acres	\$
Underground or Abovegroun	d Storage Tank Facility	Tanks	\$

Signature:

Each \$

Each \$

Each \$

Piping System(s)(only)

Extension of Time

Exception

Date:	

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Contributing Zone Flans and Floatineations	Project Area in	
Project	Acres	Fee
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional,	< 1	\$3,000
multi-family residential, schools, and other sites	1 < 5	\$4,000
where regulated activities will occur)	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

Project	Cost per Linear Foot	Minimum Fee- Maximum Fee
Sewage Collection Systems	\$0.50	\$650 - \$6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	Cost per Tank or Piping System	Minimum Fee- Maximum Fee
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee

Project	Fee
Extension of Time Request	\$150



TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for	Submissi	on (If other is checked	please describe	e in space pr	rovided.)						
New Pern	nit, Registra	ation or Authorization	(Core Data Forn	n should be s	submitted	d with the p	rogra	am application.)			
☐ Renewal (Core Data Form should be submitted with the renewal form) ☐ Other											
2. Customer Reference Number (if issued)				Follow this li	link to sea	rch 3.	3. Regulated Entity Reference Number (if issue				ssued)
CN 604240044				for CN or RN Central R	N number Registry**		RN				
SECTIO	N II:	Customer	Inform	<u>nation</u>	<u>1</u>						
4. General Customer Information 5. Effective Date for Customer Inform						Informati	on U	Jpdates (mm/dd/	уууу)		
New Custon	mer	<u></u>	pdate to Custor	mer Informa	ition		hang	ge in Regulated Ent	ity Owne	ership	
☐Change in Lo	egal Name	(Verifiable with the Te	as Secretary of	State or Tex	kas Compt	roller of Pu	blic A	Accounts)			
The Custome	r Name su	ıbmitted here may l	be updated at	utomatical	lly based	on what	is cui	rrent and active	with th	ne Texas Seci	retary of State
(SOS) or Texa	s Comptro	oller of Public Accou	nts (CPA).								
6. Customer	Legal Nam	ne (If an individual, pri	nt last name fir	st: eg: Doe, J	John)			If new Customer,	enter pre	evious Custom	er below:
Bexar County P	Bexar County Public Works Department										
7. TX SOS/CPA Filing Number 8. TX State Ta				Гах ID (11 d	ligits)			9. Federal Tax ID (9 digits) 10. DUNS Number (if applicable)			Number (if
11. Type of Customer: Corporation Individual Partnership: General Li							eral 🔲 Limited				
Government: [City 🛛	County Federal	Local State	Other		☐ Sol	Sole Proprietorship				
Government: City County Federal Local State Other Sole Proprietorship Other: 12. Number of Employees 13. Independently Owned and Operated?											
0-20											
14. Customer	r Role (Pro	posed or Actual) – as i	t relates to the	Regulated Er	ntity listed	d on this for	m. Pi	lease check one of	the follo	wing	
Owner Occupation	al Licensee	Operator Responsible Pa	_	ner & Opera /CP/BSA App				Other:			
Reggie Fountain											
15. Mailing	1948 Pro	1948 Probandt Street									
Address:	City San Antonio			State	TX	ZIP		78214 ZIP + 4			
16. Country I	l Vlailing In	formation (if outside	USA)			17. E-Mai	l Add	dress (if applicable	2)		
						reggie.four	itain(@bexar.org			
18 Telephon	a Numbai	•	1	9 Fytensic	on or Cod	do		20 Fay N	umher	(if annlicable)	

TCEQ-10400 (11/22) Page 1 of 3

(210) 335-6230

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity" is selected, a new permit application is also required.)										
☑ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information										
The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).										
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)										
Blanco Road from Borgfeld D	rive to Bexar	and Comal Coun	ty Line							
23. Street Address of the Regulated Entity:										
(No PO Boxes)	City		State		7	ZIP			ZIP + 4	
24. County	Bexar		L	l			ı	L		
		If no Stre	eet Address is _l	rovided,	fields 25-2	28 are re	quired.			
25. Description to Physical Location:	Project site begins at Blanco Road and Borgfeld Drive and extends north along the existing Blanco Road corridor to just before the Bexar and Comal County Line.									
26. Nearest City State Nearest ZIP Code										
San Antonio TX 78260										
Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).										
_	-	-	-			a Stanaa	7u3. (U	eocoung of the	e Pnysicai	Address may be
_	es where no	-	-		racy).	gitude (W			-98.5177	
27. Latitude (N) In Decima Degrees	es where no	ne have been p	-		racy).	gitude (W				
27. Latitude (N) In Decima Degrees 29	es where no al: Minutes	29.709059 42	Seconds 32.61	gain accu	28. Lon	gitude (W		Minutes	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees	Minutes 30.	29.709059	Seconds 32.61	gain accu	28. Lon	gitude (W	V) In De	Minutes	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees 29 29. Primary SIC Code	Minutes 30.	29.709059 42 Secondary SIC	Seconds 32.61	gain accu	28. Long Degrees Primary I	gitude (W	V) In De	Minutes 31 32. Secon	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees 29 29. Primary SIC Code	Minutes 30.	29.709059 42 Secondary SIC	Seconds 32.61	31. (5 c	Degrees Primary I	gitude (W 98 NAICS Co	V) In De	Minutes 31 32. Secon	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees 29 29. Primary SIC Code (4 digits)	Minutes 30.	29.709059 42 Secondary SIC	Seconds 32.61	31. (5 c	Degrees Primary I	gitude (W 98 NAICS Co	V) In De	Minutes 31 32. Secon	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees 29 29. Primary SIC Code (4 digits) 33. What is the Primary B	Minutes 30.	29.709059 42 Secondary SIC ligits)	Seconds 32.61	31. (5 c	Degrees Primary I	gitude (W 98 NAICS Co	V) In De	Minutes 31 32. Secon	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees 29 29. Primary SIC Code (4 digits) 33. What is the Primary B Roadway for travel	Minutes 30. (4 d	29.709059 42 Secondary SIC ligits)	Seconds 32.61	31. (5 c	Degrees Primary I	gitude (W 98 NAICS Co	V) In De	Minutes 31 32. Secon	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees 29 29. Primary SIC Code (4 digits) 33. What is the Primary B	Minutes 30. (4 d	29.709059 42 Secondary SIC ligits) this entity? (L	Seconds 32.61	31. (5 c	Degrees Primary I or 6 digits)	gitude (W 98 NAICS Co	V) In De	Minutes 31 32. Secon (5 or 6 digi	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees 29 29. Primary SIC Code (4 digits) 33. What is the Primary B Roadway for travel	Minutes 30. (4 december of the series of th	29.709059 42 Secondary SIC ligits) this entity? (L	Seconds 32.61 Code Seconds State	31. (5 c	Degrees Primary I or 6 digits)	98 NAICS Co	de	Minutes 31 32. Secon (5 or 6 digi	-98.5177	Seconds 4.04
27. Latitude (N) In Decima Degrees 29 29. Primary SIC Code (4 digits) 33. What is the Primary B Roadway for travel 34. Mailing Address:	Minutes 30. (4 december of the series of th	29.709059 42 Secondary SIC ligits) this entity? (Ligits) untain andt Street San Antonio	Seconds 32.61 Code Seconds State	31. (5 c	Degrees Primary I or 6 digits)	98 NAICS Co	/) In De	Minutes 31 32. Secon (5 or 6 digi	-98.5177 Indary NAI its)	Seconds 4.04

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

TCEQ-10400 (11/22) Page 2 of 3

☐ Dam Safety	Districts	⊠ Edwards Aquifer		Emissions Inventory Air	☐ Industrial Hazardous Waste			
Municipal Solid Waste	New Source Review Air	OSSF		Petroleum Storage Tank	□ PWS			
Sludge	Storm Water	☐ Title V Air		Tires	Used Oil			
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agricult	ure 🔲	Water Rights	Other:			
SECTION IV: Preparer Information								
40 Names Lube Section			Ad Title	Budget Frederic				

40. Name:	Luba Esquivel			41. Title:	Project Engineer
42. Telephone	Number	43. Ext./Code	44. Fax Number	45. E-Mail <i>A</i>	Address
(210) 798-2325			(210)494-8286	luba.esquive	@stvinc.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	STV Inc.	Job Title:	Project En	gineer	
Name (In Print):	Luba Esquivel		Phone:	(210) 798- 2325	
Signature:	finbar V. Esquivel		Date:	2/12/2025	

TCEQ-10400 (11/22) Page 3 of 3