

May 23, 2024 AVO 37449.004

Ms. Ramie Hammonds Development Services Director/Building Official City of Sanger 201 Bolivar Street P.O. Box 1729 Sanger, Texas 76266

Re: Sanger Retail Phase 1 - Review #1

Dear Ms. Hammonds,

Halff was requested by the City of Sanger to review the <u>Civil drawings</u> for the Belz Road Retail Addition Phase 1. The submittal was prepared by Clay Moore Engineering and was received on May 13, 2024.

We have completed our review and offer the following comments:

### **General Comments**

- 1. Please address comments on attached markups and provide annotated responses on markups. Please note, not all comments are written on letter since some comments are easier to show and explain on the markups. Please annotate markup with responses.
- 2. Please address drainage comments provided 4/3/24 and provide an updated flood study with the next construction plan submittal.

# **Beltz Road Retail Preliminary Plat**

1. Please address comments provided 4/3/24.

### **Beltz Road Retail Phase 1 Final Plat**

- 1. Final Plat approval is contingent upon approval of the preliminary plat.
- 2. Per the master thoroughfare plan, Kieth Rd is planned to be a collector street with a 60' ROW. Dedicate ROW for future street.
- 3. Show centerline of existing street. Dimensions from centerline to edges of existing and proposed right-of-way on both sides of the centerline 10.104(d)(10)(H).
- 4. Call out all setbacks.
- 5. Provide missing easements per the civil plans.
- 6. Reconcile differences between the plat drawing and metes and bounds description.

- 7. Fire lanes shall have a minimum interior turning radius of thirty (30) feet and exterior turning radius of fifty (50) feet Per Denton County Fire Code. Update mutual access easements throughout the plans to meet this requirement. Update throughout.
- 8. Add all applicable standard notation per ordinance 10.104(d)(10)(P)

### **Erosion Control Plan**

1. The construction entrance width specified in the plans does not meet the minimum requirements.

### **Dimension Control Plan**

1. Provide the Geotech report.

### **Grading Plan**

2. A minimum slope of 0.50% towards the outlet structure is required for all detention facilities. 10.106(d)(10)(C)

## **Drainage Area Map**

- 1. A revised flood study (comments returned April 3) is needed for a thorough drainage review. Pond calculations and WSEL are needed to cross check closed conduit calculations.
- 2. Areas to be plugged are shown to be entering a storm system. What happen in the interim condition?

### **Storm Drainage Plan**

- 1. An inlet is on a 4:1 Slope per the grading plan. Verify how this wye inlet will be efficient enough to pick up all the flow on that slope.
- 2. Show water and sewer crossings on the storm profiles.

### **Storm Drainage Profiles**

- 1. The HGL shall be equal to the 100-yr WSEL at the outfall. Recalculate throughout.
- 2. The maximum distance allowed between access manholes is exceeded per DCSRR. Reconcile throughout.
- 3. The hydraulic grade line shall in no case be closer to the surface of the ground or street than one (1) foot.
- 4. A 2' minimum of cover is desired for storm lines. Provide deload calcs specifications or provide an alternate class of RCP.
- 5. Public storm lines must be RCP per NCTCOG standards. (TYP) update throughout.

# **Storm Drainage Calculations**

- 1. Update calculations for RCP pipe.
- 2. Provide inlet calculations.

### Ms. Ramie Hammonds

Page 3 of 3

- 3. Dedicated detention/retention basins shall also include an additional one (1) foot of freeboard and two (2) feet of sediment storage. 10.106(d)(10)
- 4. Losses at manholes will need to be accounted for in the hydraulic calculations.
- 5. Provide missing pond data.
- 6. Resolve area discrepancy on line B.

## **Offsite Sewer Plan and Profiles**

1. Show all water and sewer crossings in the profile.

# **Utility Plan**

- 1. Verify if the water line to the north is existing or proposed.
- 2. Show all water and storm crossings in the sewer profiles.

# **Sanitary Sewer Profiles**

1. Show water crossings and how they will comply with TCEQ standards.

### **Standard Details**

1. Provide Storm outfall details.

# **Landscape Plans**

- 1. The landscaped area does not meet the zoning ordinance of 20%
- 2. Add a note specifying that the owner is responsible for landscape maintenance.

The Engineer shall revise the plans in accordance with the above comments and/or provide a written response that addresses each comment. If you have any questions or need additional information, please do not hesitate to call me at (214) 937-3928.

Sincerely,

Jamie Akomer, PE, PMP

HALFF ASSOCIATES, INC.

Firm No. 0312

Attachments: Plans markups

# CIVIL CONSTRUCTION PLANS FOR

# SANGER RETAIL CENTER

# PHASE 1

NWC INTERSTATE 35 AND CHAPMAN ROAD SANGER, TEXAS 75078

- 1. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181. GAS PROVIDER MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT 2. THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT
- RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION. 3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF THE POWER POLES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE REQUIRED AT THEIR EXPENSE TO PROVIDE ACCEPTABLE BRACING OF SPECIFIC UTILITIES POLES DURING THE CONSTRUCTION OF THIS PROJECT AND/OR PROVIDE AT THEIR EXPENSE FOR THE ELECTRIC PROVIDER TO PROVIDE BRACING. IN ADDITION IS CRITICAL THE CONTRACTOR WORK CLOSELY WITH THE ELECTRIC PROVIDER'S CONSTRUCTION FORMAN

FOR THE SAKE OF SAFETY TO ISOLATE AND/OR PROTECT CONTRACTOR FROM ENERGIZED ELECTRIC

# TRENCH EXCAVATION SAFETY PROTECTION:

CONDUCTORS ABOVE AREAS OF PROPOSED EXCAVATION.

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OF STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND TH ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS SYSTEM'S PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATION. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

Belz-Rd	8	elz Rd Miguelito's Mexisan 📢
Wetzra		Sanger Inn
er. RV		SITE
Chapman Ro	Chisholm Trail Elementary School	Red Bird Manor Minutes Away  Sonic Drive-In  Expect More  Expect More
F ₹	ė.	Holiday Inn Express & Sultes Denton - Sanger,  Dairy Queen Pecan St.  Pecan St.  Decan St.  Deca
	WHOFSE	Bolivar St Babe's Chicken Cherry St
e-Trail	**	Holt St Willow St 9 Willow St 9

**VICINITY MAP** 

MAY 2024

01	Sheet List Table	DI ( D (
Sheet #	Sheet Title	Plot Date
C-0	COVER SHEET	5/3/2024
	PRELIMINARY PLAT 1 OF 4	4/8/2024
	PRELIMINARY PLAT 2 OF 4	4/8/2024
	PRELIMINARY PLAT 3 OF 4	4/8/2024
	PRELIMINARY PLAT 4 OF 4	4/8/2024
C-1	GENERAL NOTES	5/3/2024
C-2	EROSION CONTROL PLAN COMMERCIAL	5/3/2024
C-3	EROSION CONTROL PLAN NORTH	5/3/2024
C-4	EROSION CONTROL PLAN CHAPMAN LOTS	5/3/2024
C-5	EROSION CONTROL DETAILS	5/3/2024
C-6	DEMOLITION PLAN	5/3/2024
C-7	DIMENSIONAL CONTROL PLAN COMMERCIAL	5/3/2024
C-8	DIMENSIONAL CONTROL PLAN NORTH	5/3/2024
C-9	DIMENSIONAL CONTROL PLAN CHAPMAN LOTS	5/3/2024
C-10	IH 35 TURN LANE ADDITION	5/3/2024
C-11	JOINTING PLAN COMMERCIAL	5/3/2024
C-12	GRADING PLAN COMMERCIAL	5/3/2024
C-13	GRADING PLAN NORTH	5/3/2024
C-14	GRADING PLAN CHAPMAN LOTS	5/3/2024
C-15	EXISTING DRAINAGE AREAS	5/3/2024
C-16	PROPOSED DRAINAGE AREAS	5/3/2024
C-17	STORM DRAINAGE PLAN COMMERCIAL	5/3/2024
C-18	STORM DRAINAGE PLAN NORTH	5/3/2024
C-19	STORM DRAINAGE PLAN CHAPMAN LOTS	5/3/2024
C-20	STORM DRAINAGE PROFILES	5/3/2024
C-21	STORM DRAINAGE PROFILES	5/3/2024
C-22	STORM DRAINAGE PROFILES	5/3/2024
C-23	STORM DRAINAGE CALCULATIONS	5/3/2024
C-24	OFF-SITE SEWER PLAN	5/3/2024
C-25	OFF-SITE SEWER PLAN	5/3/2024
C-26	OFF-SITE SEWER PROFILES	5/3/2024
C-27	UTILITY PLAN COMMERCIAL	5/3/2024
C-28	UTILITY PLAN NORTH	5/3/2024
C-29	SANITARY SEWER PROFILES	5/3/2024
C-30	CONSTRUCTION DETAILS 1	5/3/2024
C-31	CONSTRUCTION DETAILS 2	5/3/2024
C-32	CONSTRUCTION DETAILS 3	5/3/2024
C-33	CONSTRUCTION DETAILS 4	5/3/2024
	TXDOT DETAILS EROSION CONTROL	
	TXDOT DETAILS	
	TxDOT PED 18	
LP-0	OVERALL LANDSCAPE PLANTING	5/3/2024
LP-1	LANDSCAPE PLANTING 1	5/3/2024
LP-2	LANDSCAPE PLANTING 2	5/3/2024
LP-3	LANDSCAPE PLANTING 3	5/3/2024
LP-4	LANDSCAPE PLANTING 4	5/3/2024
LP-5	LANDSCAPE SPECIFICATIONS	5/3/2024
LP-6	LANDSCAPE DETAILS	5/3/2024

# **ENGINEER**



TEXAS REGISTRATION #14199 1903 CENTRAL DR. SUITE #406 BEDFORD, TX 76021 PH. 817.281.0572 FAX 817.281.0574 CONTACT: DREW DONOSKY, PE EMAIL: DREW@CLAYMOOREENG.COM

# **SURVEYOR**

EAGLE SURVEYING, LLC 210 SOUTH ELM STREET SUITE 104 **DENTON, TX. 76201** 940.222.3009 www.eaglesurveying.com TX FIRM # 10194177



ELEVATION: 688.33

#1 - TBM X-CUT IN CURB RADIUS BEING THE NORTHERN TIP OF THE SANGER WIST BOULEVARD LANDSCAPE ISLAND

N: 7183116.48

E: 2370950.39 ELEVATION: 698.05

> #2 - TBM X-CUT IN CONCRETE ISLAND LOCATED IN NORTHWEST CORNER OF JACK IN N: 7183117.63 E: 2371500.47



*	<b>EYAS811</b> .
K	now what's <b>below. Call</b> before you dig.

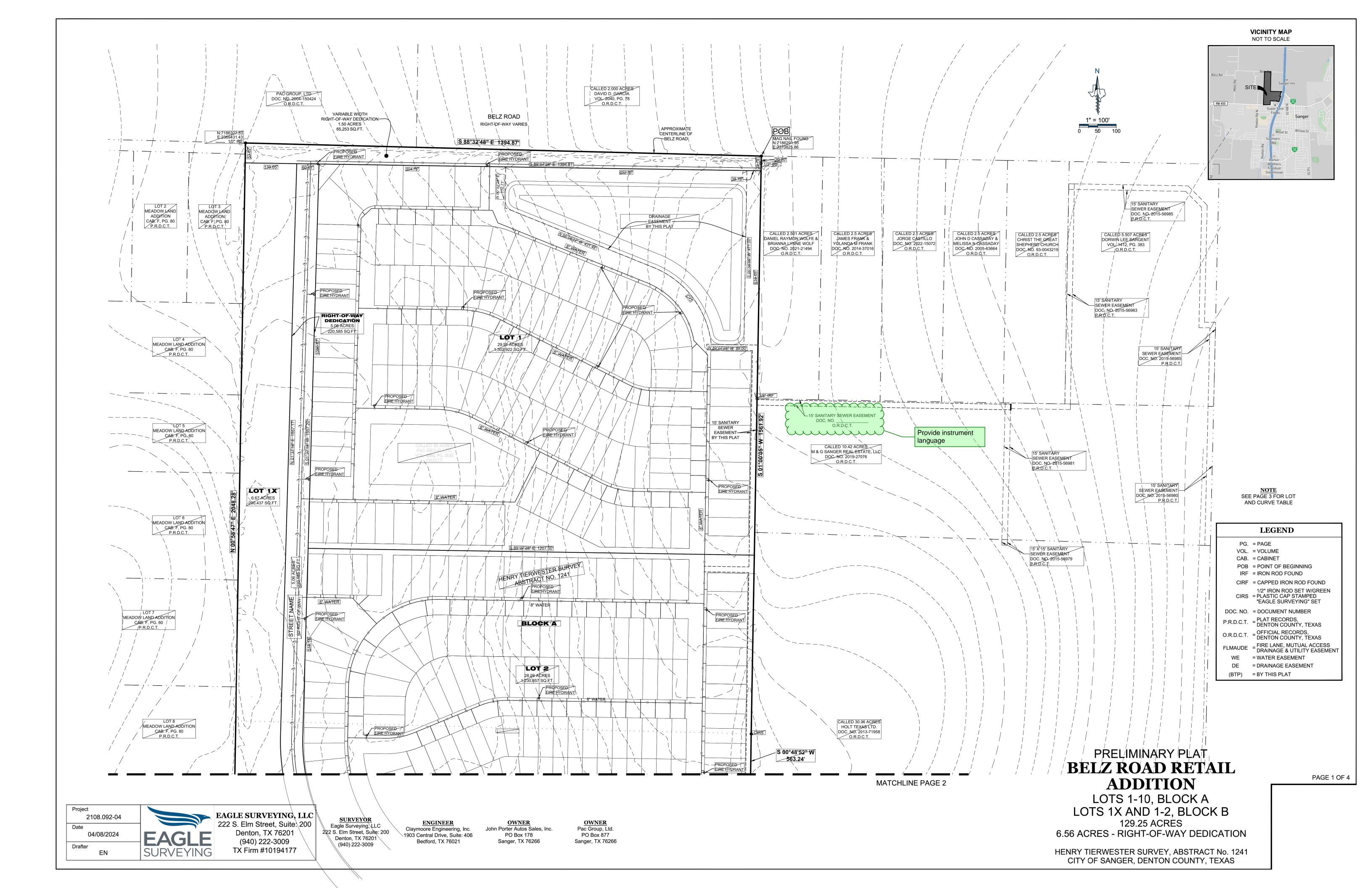
DESIGN:		AS
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CHECKED:		AS
DATE:		5/3/202
	SHEET	
	<b>C</b> -0	

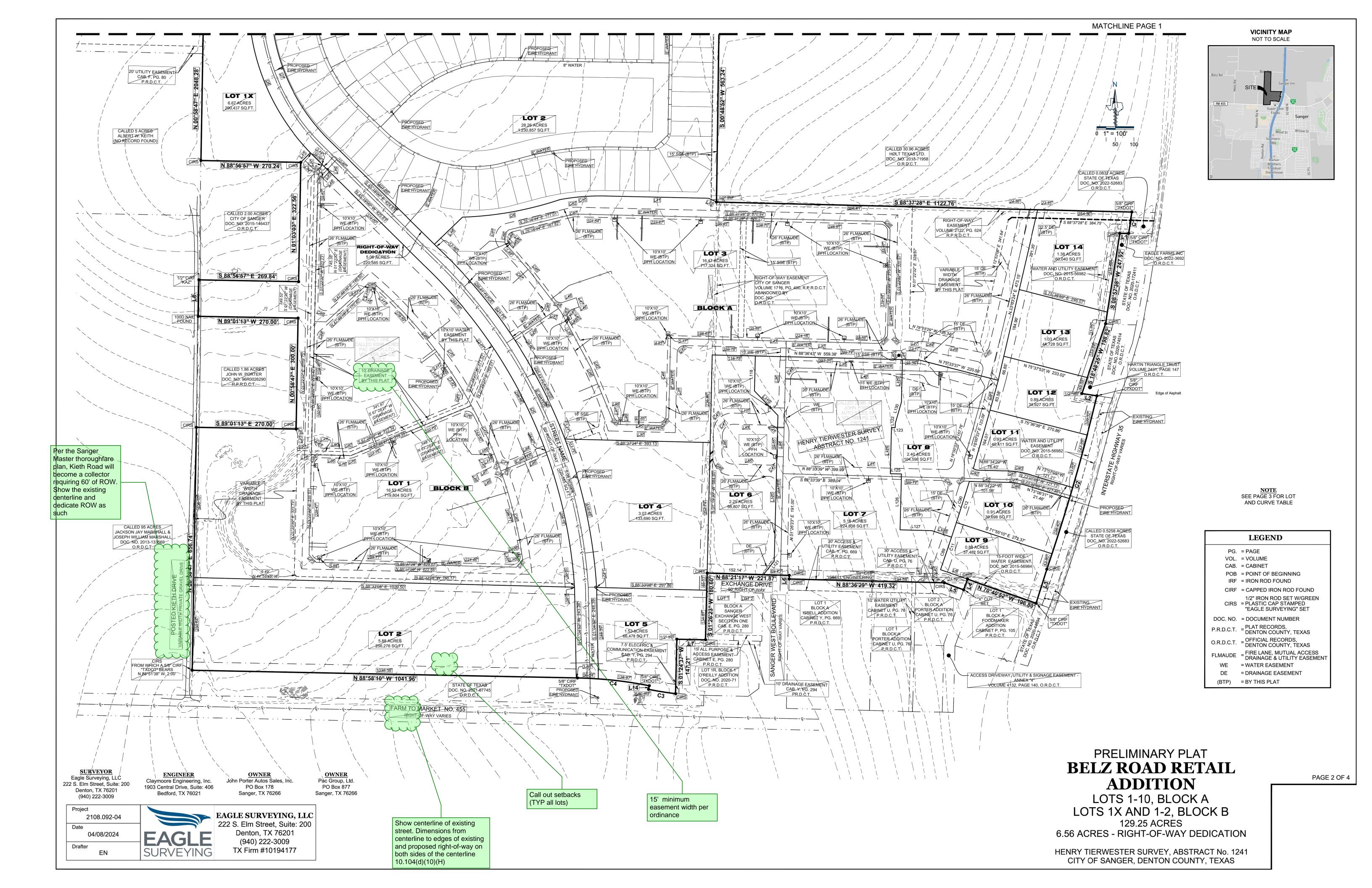
SHE

COVER

PRELIMINAR' FOR REVIEW ONLY ot for construction purpo:

No.125651 Date 5/3/202





CLIDVE	ADC LENGTH	CURVE		CHODD BEADING
CURVE C1	ARC LENGTH 58.33'	5310.00'	DELTA ANGLE 0°37'46"	CHORD BEARING S 08°15'52" W
C1 C2	487.92'	5310.00	5°15'53"	S 16°06'35" W
C3	73.69'	982.00'	4°17'59"	N 80°53'47" W
C4	195.59'	1108.00'	10°06'52"	N 83°48'12" W
C5	986.68'	1322.70'	42°44'26"	N 25°02'52" W
C6	462.88'	592.81'	44°44'14"	N 22°08'40" W
C7	414.91'	532.81'	44°37'00"	N 22°09'39" W
C8	1032.23'	1382.70'	42°46'24"	N 25°00'26" W
C9	268.88'	922.95'	16°41'32"	S 79°47'50" W
C10	120.72'	608.75'	11°21'45"	S 85°21'24" W
C11	134.48'	7327.89'	1°03'05"	N 18°29'19" E
C12	106.58'	7327.89'	0°50'00"	N 17°32'47" E
C13	274.22'	253.00'	62°06'05"	N 37°05'20" W
C14	22.31'	20.00'	63°54'40"	S 30°30'57" E
C15	15.26'	50.00'	17°29'27"	N 10°11'07" E
C16	25.72'	20.00'	73°41'04"	N 54°04'40" E
C17	53.90'	200.00'	15°26'32"	S 80°50'21" E
C18	20.94'	20.00'	60°00'00"	S 43°07'05" E
C19	20.94'	20.00'	60°00'00"	N 76°52'55" E
C21	20.94'	20.00'	60°00'00"	S 76°52'55" W
C22	27.15'	20.00'	77°46'09"	N 49°40'33" W
C23	9.54'	20.00'	27°19'02"	N 02°52'03" E
C24	31.87'	20.00'	91°18'36"	N 58°47'05" E
C25	31.48'	20.00'	90°11'27"	S 30°27'54" E
C26	63.52'	40.00'	90°59'07"	N 58°51'27" E
C27	30.83'	20.00'	88°19'09"	S 31°29'25" E
C28	31.42'	20.00'	89°59'58"	N 46°26'22" E
C29	36.98'	20.00'	105°56'30"	S 35°35'24" E
C30	24.78'	20.00'	70°59'13"	S 36°55'59" W
C31	31.79'	20.00'	91°04'15"	S 77°58'33" E
232	31.42'	20.00'	90°00'00"	S 46°22'32" W
C33	27.83'	10.00'	159°25'55"	N 01°26'55" E
C34	16.25'	40.00'	23°16'30"	N 87°11'52" W
C35	49.01'	60.00'	46°48'10"	S 82°36'28" W
C36	16.88'	30.00'	32°13'58"	S 75°19'22" W
C37	78.54'	50.00'	89°59'53"	S 46°26'27" W
C38	69.12'	44.00'	90°00'00"	S 43°33'37" E
C39	31.03'	17.02'	104°28'58"	S 40°32'51" E
C41	31.42'	20.00'	90°00'02"	S 43°33'36" E
C42	31.42'	20.00'	90°00'00"	S 46°26'23" W
C43	78.54'	50.00'	90°00'00"	S 46°26'23" W
C44	31.35'	20.00'	89°48'59"	N 46°32'00" E
C45	28.52'	50.00'	32°40'54"	N 75°06'03" E
C46	16.25'		•	N 81°20'09" E
C47	47.12'	20.62' 30.00'	45°09'06" 90°00'00"	N 46°26'23" E
			-	N 43°28'04" W
C49	39.35'	25.00'	90°11'09"	
C50	32.14'	20.00'	92°04'51"	N 10°26'54" E
C51	84.20'	40.00'	120°36'53"	N 15°58'17" E
C52	14.76'	56.00'	15°05'48"	N 83°49'38" E
C53	31.42'	20.00'	90°00'01"	S 43°37'27" E
C54	4.70'	26.00'	10°21'26"	S 83°26'45" E
C55	30.54'	20.00'	87°29'32"	N 57°59'12" E
C56	41.92'	20.00'	120°06'13"	N 16°13'37" E
C57	5.27'	20.00'	15°05'48"	N 83°49'38" E
C58	31.42'	20.00'	90°00'01"	S 43°37'27" E
C59	31.34'	20.11'	89°17'12"	S 46°43'57" W
260	31.45'	20.00'	90°06'26"	S 46°25'45" W
C61	24.40'	20.00'	69°54'05"	N 53°34'00" W
C62	291.14'	1257.71'	13°15'47"	N 25°14'51" W
C63	33.53'	20.00'	96°03'47"	N 23°20'38" E
C64	25.72'	20.00'	73°40'42"	N 71°47'07" W
265	193.87'	1252.92'	8°51'57"	N 39°23'31" W
C66	327.15'	1220.10'	15°21'47"	S 24°45'32" E
C67	186.20'	1220.10'	8°44'38"	N 39°57'50" W
268	31.57'	20.06'	90°09'14"	N 22°21'40" E
269	46.62'	20.00'	133°33'16"	N 65°24'06" W
270	615.23'	1246.10'	28°17'18"	N 35°36'57" W
C71	31.78'	20.00'	91°03'15"	N 66°59'56" W
C72	35.06'	20.00'	100°26'24"	S 41°09'20" W
C73	31.42'	20.00'	90°00'00"	N 43°37'28" W
C74	31.42'	20.00'	90°00'00"	N 46°22'32" E
C75	19.19'	46.00'	23°54'05"	N 79°25'29" E
C76	29.67'	20.00'	85°00'24"	S 70°01'21" E
	1100 051	1220.10'	6°03'36"	S 24°29'21" E
C77	129.05'	1220.10		
C77 C78 C79	30.37' 33.41'	20.00'	87°00'37"	S 22°02'46" W S 66°35'19" E

L1	N 89°38'41" W	23.94'
L2	S 81°33'29" E	41.31'
L3	S 17°29'05" W	96.51'
L4	S 20°05'13" W	30.70'
L5 L6	N 69°54'47" W N 01°13'52" E	55.48' 9.80'
L7	N 88°48'42" W	77.60'
L8	N 00°58'47" E	98.65'
L9	S 70°40'38" E	77.27'
L10	S 45°55'38" W	105.49'
L11	N 88°44'41" W	282.10'
L12 L13	N 64°19'30" W N 44°41'00" E	23.62' 36.47'
L14	N 11°15'13" E	10.00'
L15	N 88°35'02" W	38.00'
L16	N 88°38'12" W	107.11'
L17	S 88°38'12" E S 46°22'32" W	104.99'
L18	S 46°22'32" W	26.90'
L19	S 01°22'32" W	2.17' 7.46'
L20 L21 L22	S 01°22'32" W S 46°22'32" W	26.90'
L22	N 88°35'02" W	28.00'
L23 L24	N 01°22'32" E S 14°38'56" E	42.90'
L24	S 14°38'56" E	15.73'
L25	S 52°07'46" W	14.71'
L26 L27	N 56°29'20" E S 88°37'28" E	104.20' 73.98'
L28	S 78°16'02" E	135.18'
L29	N 56°29'20" E	104.77'
L30	N 88°31'02" W	181.15'
L31	S 01°22'32" W	215.85'
L32 L33	N 88°37'28" W N 78°16'02" W	659.59' 122.61'
L34	N 70°15'52" W	63.36'
L35	N 88°33'37" W	386.08'
L36	S 01°26'30" W	96.34'
L37	N 88°33'37" W	124.57'
L38	S 01°26'23" W	124.48'
L39	S 88°33'37" E S 01°26'23" W	101.00'
<u>L40</u> L41	S 18°29'41" W	186.00' 52.44'
L41	S 01°26'23" W	9.73'
L43	S 01°26'23" W N 88°37'27" W	567.31'
L44	S 01°22'32" W	215.77'
L45	N 88°31'02" W	102.45'
L46	N 71°22'32" E N 18°37'28" W	19.86' 26.00'
L47 L48	N 18°37'28" W S 71°22'32" W	26.00° 37.27'
L49	S 88°33'30" E	37.27
L50	S 74°41'12" E	56.89'
L51	N 88°33'39" W	398.44'
L52	N 01°37'31" E	209.33'
L53	S 88°33'37" E S 01°26'23" W	110.00'
L54 L55	N 88°21'26" W	68.00' 114.00'
L56	N 88°21'26" W N 01°26'23" E	68.00'
L57	N 01°26'23" E	16.57'
L58	N 14°11'16" W	45.69'
L59	N 01°26'23" E	186.00'
L60	S 88°33'39" E	399.04'
L61 L62	S 01°26'23" W N 01°26'23" E	16.76' 18.53'
L63	S 88°34'20" E	110.36'
L65	S 73°07'05" E	27.41'
L66	S 73°07'05" E	27.39'
L67	N 73°07'05" W	29.73'
<u>L68</u> L69	N 88°33'37" W N 10°47'28" W	81.72' 19.11'
L70	N 75°33'37" W	3.22'
L71	N 75°33'37" W	2.73'
L72	S 75°38'59" E	225.58'
L73	S 75°38'59" E	244.85'
L74 L75	N 01°22'32" E N 01°22'32" E	314.87' 314.87'
L76	N 71°06'36" E	96.20'
L77	N 08°37'47" E	48.31'
L78	N 08°37'47" E	29.11'
L79	N 71°06'36" E	104.89'
<u>L80</u> L81	N 01°22'32" E N 01°22'32" E	28.56' 28.56'
L82	N 42°27'21" E	44.60'
L83	N 42°27'21" E	26.36'
L84	S 67°28'27" W	93.41'
L85	N 67°28'27" E	95.09'
<u>L86</u> L87	S 88°37'28" E S 65°33'12" W	71.02' 37.76'
L88	S 22°31'33" E	25.99'
L89	N 65°36'04" E	33.58'
L90	S 88°37'28" E	71.02'
L91	S 58°52'37" W	8.10'
L92	N 31°07'23" W	10.00'
	N 58°52'37" E	
L93	N 58°52'37" E S 46°24'34" W	10.00' 8.19'
L93 L94 L95	S 46°24'34" W N 43°35'26" W	10.00' 8.19' 10.00'
L93 L94 L95 L96	S 46°24'34" W N 43°35'26" W N 46°24'34" E	10.00' 8.19' 10.00' 10.00'
L93 L94 L95 L96 L97	S 46°24'34" W N 43°35'26" W N 46°24'34" E S 01°28'58" W	10.00' 8.19' 10.00' 10.00' 9.34'
L93 L94 L95 L96 L97 L98	S 46°24'34" W N 43°35'26" W N 46°24'34" E S 01°28'58" W S 88°31'02" E	10.00' 8.19' 10.00' 10.00' 9.34' 10.00'
L93 L94 L95 L96 L97	S 46°24'34" W N 43°35'26" W N 46°24'34" E S 01°28'58" W S 88°31'02" E	10.00' 8.19' 10.00' 10.00' 9.34'
L93 L94 L95 L96 L97 L98 L99 L100	S 46°24'34" W N 43°35'26" W N 46°24'34" E S 01°28'58" W S 88°31'02" E S 01°28'58" W N 38°22'05" W S 51°37'55" W	10.00' 8.19' 10.00' 10.00' 9.34' 10.00' 10.00' 10.00'
L93 L94 L95 L96 L97 L98 L99 L100 L101 L102	S 46°24'34" W N 43°35'26" W N 46°24'34" E S 01°28'58" W S 88°31'02" E S 01°28'58" W N 38°22'05" W S 51°37'55" W S 38°22'05" E	10.00' 8.19' 10.00' 10.00' 9.34' 10.00' 10.00' 10.00' 10.00'
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L93 L94 L95 L96 L97 L98 L99 L100 L101 L102 L103	S 46°24'34" W N 43°35'26" W N 46°24'34" E S 01°28'58" W S 88°31'02" E S 01°28'58" W N 38°22'05" W S 51°37'55" W S 38°22'05" E N 89°05'34" W	10.00' 8.19' 10.00' 10.00' 9.34' 10.00' 10.00' 10.00' 10.00' 10.00' 10.00' 9.63'
L93 L94 L95 L96 L97 L98 L99 L100 L101 L102 L103 L104 L105 L106 L107	S 46°24'34" W N 43°35'26" W N 46°24'34" E S 01°28'58" W S 88°31'02" E S 01°28'58" W N 38°22'05" W S 51°37'55" W S 38°22'05" E N 89°05'34" W S 00°54'26" W S 89°05'34" E N 80°44'49" E S 09°15'11" E	10.00' 8.19' 10.00' 10.00' 9.34' 10.00' 10.00' 10.00' 10.00' 10.00' 10.00' 10.00' 10.00' 10.00' 10.00'
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# PRELIMINARY PLAT **BELZ ROAD RETAIL ADDITION**

PAGE 3 OF 4

LOTS 1-10, BLOCK A LOTS 1X AND 1-2, BLOCK B 129.25 ACRES 6.56 ACRES - RIGHT-OF-WAY DEDICATION

HENRY TIERWESTER SURVEY, ABSTRACT No. 1241 CITY OF SANGER, DENTON COUNTY, TEXAS

SURVEYOR
Eagle Surveying, LLC
222 S. Elm Street, Suite: 200 Denton, TX 76201

ΕN

Claymoore Engineering, Inc. 1903 Central Drive, Suite: 406 Bedford, TX 76021

<u>OWNER</u> John Porter Autos Sales, Inc. PO Box 178 Sanger, TX 76266

OWNER
Pac Group, Ltd.
PO Box 877
Sanger, TX 76266

(940) 222-3009 2108.092-04 Date 04/08/2024 Drafter

EAGLE SURVEYING, LLC 222 S. Elm Street, Suite: 200 Denton, TX 76201 (940) 222-3009 TX Firm #10194177

# GENERAL NOTES

1.) The purpose of this plat is to create thirteen (13) lots of record from three (3) unplatted tracts.

- 2.) This property is located in Non-Shaded Zone "X" as scaled from the F.E.M.A. Flood Insurance Rate Map dated April 18, 2011 and is located in Community Number 480786 as shown on Map Number 48121C0210G. The location of the Flood Zone is approximate, no vertical datum was collected at the time of the survey. For the exact Flood Zone designation, please contact 1-(877) FEMA MAP.
- **3.)** The grid coordinates shown on this plat are based on GPS observations utilizing the AllTerra RTK Network. North American Datum of 1983 (Adjustment Realization 2011).
- **4.)** Selling a portion of this addition by metes and bounds is a violation of City Ordinance and State Law, and is subject to fines and/or withholding of utilities and building permits.
- **5.)** All interior property corners are marked with a 1/2-inch iron rod with a green plastic cap stamped "EAGLE SURVEYING" unless noted otherwise.
- **6.)** The bearings shown on this plat are based on GPS observations utilizing the AllTerra RTK Network. North American Datum of 1983 (Adjustment Realization 2011).
- **7.)** The elevations shown on this plat are based on GPS observations utilizing the AllTerra RTK Network. North American Vertical Datum of 1988, (Geoid 12A).

8.) Building setbacks will be 20' from all lot lines.

9.) Lot to lot drainage shall not be allowed.

10.) Single-family lot layout shown hereon as schematic only.

# **CERTIFICATE OF SURVEYOR** STATE OF TEXAS **COUNTY OF DENTON** , MATTHEW RAABE, Registered Professional Land Surveyor, do hereby certify that this plat was prepared from an actual survey made on the ground and that the monuments shown hereon were found or placed with 1/2-inch iron rods with green plastic caps stamped "EAGLE SURVEYING" under my direction and supervision in accordance with the current provisions of the Texas Administrative Code and the Ordinances of the City of Sanger, Denton County, Texas. **PRELIMINARY** this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document Matthew Raabe, R.P.L.S. # 6402 STATE OF TEXAS COUNTY OF TARRANT BEFORE ME, the undersigned authority, on this day personally appeared MATTHEW RAABE, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated. GIVEN UNDER MY HAND AND SEAL OF THE OFFICE this \_\_\_\_\_ day of Notary Public in and for the State of Texas

# 2. TABLE 5.1 Residential Building Setback and Area Requirements

	Single Family Detached 40' Lots	Single Family Detached 50' Lots	Single Family Detached 70' Lots	Multifamily
Unit Count or DUA	200 Lots	84 Lots	12 Lots	20 DUA or 612 units
Min. Lot Area	4,400 SF	5,500 SF	7,700 SF	N/A
Min. Lot Width	40'	50'	70'	N/A
Min. Lot Depth	110'	110′	110′	N/A
Min. Front Setback	20'	20'	20'	20'
Min. Side Setback	5'	5′	5′	5'
Side Street Setback	10'	10"	10'	N/A
Min. Rear Setback	10' / 5' for rear garages	10' / 5' for rear garages	10' / 5' for rear garages	10'
Min. Dwelling Size	1300 SF	1500 SF	2000 SF	700 SF
Max. Lot Coverage	60%	60%	60%	75%
Max. Structure Height	2 Stories / 40'	2 Stories / 40'	2 Stories / 40'	3 Stories / 54'

# OWNER'S CERTIFICATE & DEDICATION

STATE OF TEXAS §
COUNTY OF DENTON §

WHEREAS, **JOHN PORTER AUTO SALES, INC.** and **PAC GROUP, LTD.**, are the owners of a 129.25 acre tract or parcel of land situated in the Henry Tierwester Survey, Abstract Number 1241 in Denton County, Texas and being all of a called 26.385 acre tract of land conveyed to John Porter Auto Sales, Inc. by Warranty Deed of record in Volume 1330, Page 277 of the Official Records of Denton County, Texas, and all of a called 61.598 acre tract of land conveyed to Pac Group LTD by Warranty Deed of record in Volume 4759, Page 632 of the Official Records of Denton County, Texas, and being more particularly described by metes and bounds as follows:

**BEGINNING**, at a MAG nail found at or near the centerline of Belz Road (variable width right-of-way), being in the south line of a called 2.000 acre tract of land conveyed to David D. Garcia by Deed of Trust of record in Volume 2020, Page 78 of the Official Records of Denton County, Texas, being the northwest corner of a called 2.501 acre tract of land conveyed to Daniel Raymond Wolfe and Brianna Lynne Wolfe by Warranty Deed with Vendor's Lien of record in Document Number 2021-21494 of the Official Records of Denton County, Texas and the northwest corner of said 50 acre tract;

THENCE, S01°00'05"W, along the west lines of said 2.501 acre tract, a called 10.42 acre tract of land conveyed M&G Sanger Real Estate LLC by Special Warranty Deed or record in Document Number 2019-27076 of the Official Records of Denton County, Texas, a called 30.96 acre tract of land conveyed to Holt Texas LTD by Warranty Deed of record in Document Number 2013-71958 of the Official Records of Denton County, Texas, being the common east line of said 50 acre tract and said, passing at a distance of 20.20' a 1/2" iron rod found, passing at a distance of 655.80 feet a 3/8" iron rod found, being the southwest corner of said 2.501 acre tract, continuing a total distance of 1561.92 feet to a 1/2" iron rod found, being the southwest corner of said 20.385 acre tract;

**THENCE**, S00°48'52"W, continuing along the west line of said 30.96 acre tract, being the common east line of said 61.598 acre tract, passing at a distance of 563.24 feet to a 1/2" iron rod found being the southwest corner of said 30.68 acre tract and the northwest corner of said 26.385 acre tract;

**THENCE**, S88°37'28"E, along the south line of said 30.96 acre tract, being the common north line of said 26.385 acre tract, a distance of 1122.76 feet to a 5/8" iron rod with pink plastic cap stamped "TXDOT" found in the west right-of-way line of Interstate Highway 35 (variable width right-of-way) and being the beginning of a non-tangent curve to the right, being the northwest corner of a called 0.0832 acre tract conveyed to the State of Texas by Judgement of Court in Absence of Objection of record in Document Number 2022-52683 of the Official Records of Denton County, Texas;

**THENCE**, in a southwesterly direction, along said non-tangent curve to the right and the west right-of-way line of Interstate Highway 35, having a radius of 5310.00 feet, a chord bearing of S08°15'52"W, a chord length of 58.33 feet, a delta angle of 00°37'46", an arc length of 58.33 feet to a 5/8" iron rod with pink plastic cap stamped "TXDOT" found at the end of said non-tangent curve to the right, being the southwest corner of said 0.0832 acre tract and the northeast corner of a tract of land conveyed to Eagle Farms Inc by General Warranty Deed of record in Document Number 2022-3692 of the Official Records of Denton County, Texas;

**THENCE**, along the common lines between said Eagle Farms tract and said 26.385 acre tract, the following two (2) courses and distances:

1. N89°38'41"W, a distance of 23.94 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the northwest corner of said Eagle Farms tract;

- 2. S08°57'38"W, a distance of 247.92 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the southwest corner of said Eagle Farms tract and the northwest corner of a tract of land conveyed to HartinTriangle Trust by Warranty Deed of record in Volume 2431, Page 17 of the Official Records of Denton County, Texas;
- THENCE, S18°48'25"W, along the west line of said Hartin Triangle Trust tract, being the common east line of said 26.385 acre tract, a distance of 198.82 feet to a 1/2" iron rod found, being the southwest corner of said Hartin Triangle Trust tract and an interior ell corner of said 26.385 acre tract;

**THENCE**, S81°33'29"E, along the south line of said Hartin Triangle Trust tract and a called 0.0135 acre tract of land conveyed to the State of Texas by Deed of record in Document Number 2020-74514 of the Official Records of Denton County, Texas, being the common east line of said 26.385 acre tract, a distance of 83.58 feet a 5/8" iron rod with pink plastic cap stamped "TXDOT" found in the west right-of-way line of Interstate Highway 35 and the beginning of a non-tangent curve to the right, being the southwest corner of said State of Texas tract and the northwest corner of a called 0.5258 acre tract of land conveyed to the State of Texas by Deed of record in Document Number 2022-52683 of the Official Records of Denton County;

THENCE, along the west right-of-way line of said Interstate Highway 35 and the west line of said 0.5258 acre tract, being the common east line of said 26.385 acre tract, the following two (2) courses and distances:

- 1. In a southwesterly direction and along said non-tangent curve to the right, having a radius of 5310.00 feet, a chord bearing of S16°06'35"W, a chord length of 487.75 feet, a delta angle of 05°15'53", an arc length of 487.92 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set at the end of said non-tangent curve to the left;
- 2. S17°29'05"W, a distance of 96.51 feet to a 5/8" iron rod with pink plastic cap stamped "TXDOT" found, being the southwest corner of said 0.5258 acre tract, the northwest corner of a called 0.1483 acre tract of land conveyed to the State of Texas by Deed of record in Document Number 2020-44894 of the Official Records of Denton County, Texas and the northeast corner of Lot 1, Block A, Foodmaker Addition, an addition to the City of Sanger, Denton County, Texas, according to the plat recorded in Cabinet P, Page 105 of the Plat Records of Denton County, Texas;

**THENCE**, N70°40'52"W, along the north lines of said Lot 1, Block A of said Foodmaker Addition and an Access Driveway, Utility & Signage Easement recorded in Document Number 98-R0061221 of the Official Records of Denton County, Texas, being the common south line of said 26.385 acre tract, a distance of 196.80 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;

THENCE, S20°05'13"W, along the west line of said Access Driveway, Utility & Signage Easement, being the common south line of said 26.385 acre tract, a distance of 30.70 feet to an X-cut set, being the northeast corner of Lot 2, Block A, Porter Addition, an addition to the City of Sanger, Denton County, Texas, according to the plat recorded in Cabinet U, Page 76 of the Plat Records of Denton County, Texas;

**THENCE**, along the north line of said Block A, Porter Addition, being the common south line if said 26.385 acre tract, the following two (2) courses and distances:

- 1. N69°54'47"W, a distance of 55.48 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the northwest corner of said Lot 2 and the northeast corner of Lot 1, Block A of said Porter Addition:
- 2. N88°36'29"W, a distance of 419.32 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the east right-of-way line of Sanger West Boulevard (50' right-of-way), being the northwest corner of said Lot 1:

THENCE, N01°13'52"E, along the east right-of-way line of said Sanger West Boulevard, being the common south line of said 26.385 acre tract, a distance of 9.80 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set at the intersection of the east right-of-way line of said Sanger West Boulevard and the north right-of-way line of Exchange Drive (50' right-of-way);

**THENCE**, N88°21'17"W, along the north right-of-way line of Exchange Drive, being the common south line of said 26.385 acre tract, a distance of 221.87 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the east line of said 61.598 acre tract, being the northwest terminus of said Exchange drive, being the southwest corner of said 26.385 acre tract;

**THENCE**, S01°26'23"W, along the west terminus of said Exchange Drive, the west line of Lot 1, Block A, Sanger Exchange West, Section One, an addition to the City of Sanger, Denton County, Texas, according to the plat recorded in Cabient E, Page 280 of the Plat Records of Denton County, Texas, being the common east line of said 61.598 acre tract, a distance of 180.60 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the north line of Lot 1R, Block 1, an addition to the City of Sanger, Denton County, Texas, according to the plat recorded in Document Number 2020-71 of the Plat Records of Denton County, Texas, being the southwest corner of said Lot 1;

**THENCE**, N88°48'42"W, along the north line of said Lot 1R, being the common south east line of said 61.598 acre tract, a distance of 77.60 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the northwest corner of said Lot 8;

**THENCE**, S01°24'37"W, along the west line of said Lot 1R, a distance of 147.21 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the north right-of-way line of F.M. Highway 455 (variable width right-of-way) and the beginning of a non-tangent curve to the right, being the southwest corner of said Lot 1R and the northwest corner of a called 2.0308 acre tract of land conveyed to the State of Texas by Judgement of record in Document Number 2021-67745 of the Official Records of Denton County, Texas;

THENCE, along the north right-of-way line of said F.M. Road 455, the following four (4) courses and distances:

- 1. In a northwesterly direction and along said non-tangent curve to the right, having a radius of 982.00 feet, a chord bearing of N80°53'47"W, a chord length of 73.68 feet, a delta angle of 04°17'59", an arc length of 73.69 feet to a 5/8" iron rod found at the end of said non-tangent curve to the right;
- 2. N11°15'13"E, a distance of 10.00 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set at the beginning of a non-tangent curve to the left;
- 3. In a northwesterly direction and along said non-tangent curve to the left, having a radius of 1108.00 feet, a chord bearing of N83°48'12"W, a chord length of 195.34 feet, a delta angle of 10°06'52", an arc length of 195.59 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set at the end of said non-tangent curve to the left;

4.N88°51'38"W, a distance of 1041.96 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the east line of a called 95 acre tract of land described as Tract 2, conveyed to Jackson Jay Marshall and Joseph William Marshall by Deed or record in Document Number 2013-133569 of the Official Records of Denton County, Texas;

THENCE, N00°58'47"E, along the east line of said 95 acre tract, being the common west line of said 61.598 acre tract, a distance of 656.74 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the southwest corner of a called 1.86 acre tract of land conveyed to John W. Porter by Warranty Deed of record in Document Number 96R0026290 of the Official Records of Denton County, Texas;

THENCE, along the common lines between said 1.86 acre tract and said 61.598 acre tract, the following three (3) courses and distances:

- 1. S89°01'13"E, a distance of 270.00 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the southeast corner of said 1.86 acre tract;
- 2. N00°58'47"E, a distance of 300.00 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the northeast corner of said 1.86 acre tract;
- 3. N89°01'13"W, a distance of 270.00 feet to a 100D nail found in the east line of said 95 acre tract, being the northwest corner of said 1.86 acre tract;

**THENCE**, N00°58'47"E, along the east line of said 95 acre tract, being the common east corner of said 61.598, a distance of 98.65 feet to a 1/2" iron rod with orange plastic cap stamped "KAZ" found, being the southwest corner of a called 2.00 acre tract of land conveyed to the City of Sanger by Warranty Deed of record in Document Number 2015-146437 of the Official Records of Denton County, Texas;

THENCE, along the common lines between said 2.00 acre tract and said 61.598 acre tract, the following three (3) courses and distances:

- 1. S88°56'57"E, a distance of 269.84 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the southeast corner of said 2.00 acre tract;
- 2. N01°03'03"E, a distance of 322.56 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set, being the northeast corner of said 2.00 acre tract;
- 3. N88°56'57"W, a distance of 270.24 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the east line of a called 5 acre tract conveyed to Albert W. Kieth per will (no record found, being the northwest corner of said 2.00 acre tract;

THENCE, N00°58'47"E, along the east lines of said 5 acre tract (no record found) and Meadow Lands Addition, an addition to the City of Sanger, Denton County, Texas according to the plat recorded in Cabinet F, Page 80 of the Plat Records of Denton County, Texas, being the common west lines of said 61.598 acre tract and said 50 acre tract, a distance of 2048.28 feet to a 1/2" iron rod found in or around the centerline of said Belz Road and the south line of a tract of land conveyed to PAC Group, Ltd. by Warranty Deed of record in Document Number 2004-150424 of the Official Records of Denton County, Texas, being the northwest corner of said 50 acre tract; THENCE, S88°32'48"E, along the apparent centerline of said Belz Road, the south lines of said PAC Group tract and said 2.000 acre tract, being the common north line of said 50 acre tract, a distance of 1394.87 feet to the POINT OF BEGINNING, containing 129.25 acre or 5,630,308 square feet, more or less.

# OWNER'S CERTIFICAT & DEDICATION, continued

STATE OF TEXAS §
COUNTY OF DENTON §

# NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, JOHN PORTER AUTO SALES, INC., does hereby adopt this plat, designating herein described property as BELZ ROAD RETAIL ADDITION, an addition to the City of Sanger, Denton County, Texas, and does hereby dedicate to public use forever all streets, alleys, parks, watercourses, drains, easements and public places thereon shown for the purpose and consideration therein expressed. No buildings, fences, trees, shrubs or other improvements or growths shall be constructed or placed upon, over or across the drainage and utility easements as shown. Said drainage and utility easements being hereby reserved for the mutual use and accommodation of all public utilities desiring to use same. All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of its respective system on the drainage and utility easement and all public utilities shall at all times have the full right of ingress and egress to or from and upon the said drainage and utility easements for the purpose of constructing, reconstructing, patrolling, maintaining and adding to or removing all or parts of its respective systems without the necessity at any time of procuring the permission of anyone.

3Y:	_	Date	_	
STATE OF TEXAS § COUNTY OF §				
BEFORE ME, the undersigned authorit name is subscribed to the foregoing ins expressed and in the capacity therein s	trument, and acknowledged t	eared o me that he executed the sar	, known to me to be the person me for the purposes and considerations th	whose ierein
GIVEN UNDER MY HAND AND SEAL	OF THE OFFICE this	_ day of	, 2024.	
Notary Public in and for the State of Te	xas			

### NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, PAC GROUP, LTD, does hereby adopt this plat, designating herein described property as BELZ ROAD RETAIL ADDITION, an addition to the City of Sanger, Denton County, Texas, and does hereby dedicate to public use forever all streets, alleys, parks, watercourses, drains, easements and public places thereon shown for the purpose and consideration therein expressed. No buildings, fences, trees, shrubs or other improvements or growths shall be constructed or placed upon, over or across the drainage and utility easements as shown said drainage and utility easements being hereby reserved for the mutual use and accommodation of all public utilities desiring to use same. All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of its respective system on the drainage and utility easement and all public utilities shall at all times have the full right of ingress and egress to or from and upon the said drainage and utility easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or parts of its respective systems without the necessity at any time of procuring the permission of anyone.

BY:		Date	
STATE OF TEXAS	§ §		
	e foregoing instrument, and		known to me to be the person whose same for the purposes and considerations thereir

Notary Public in and for the State of Texas

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE this \_\_\_\_\_ day of \_\_\_\_\_

OWNER: PAC GROUP, LTD

APPROVED AND ACCEPTED		
CITY OF SANGER DENTON COUNTY, TEXAS		
Thomas Muir Mayor, City of Sanger, Texas	Date	
ATTEST:		
Cheryl Price, City Secretary City of Sanger, Tx	Date	

PRELIMINARY PLAT
BELZ ROAD RETAIL
ADDITION

PAGE 4 OF 4

LOTS 1-10, BLOCK A LOTS 1X AND 1-2, BLOCK B 129.25 ACRES 6.56 ACRES - RIGHT-OF-WAY DEDICATION

HENRY TIERWESTER SURVEY, ABSTRACT No. 1241 CITY OF SANGER, DENTON COUNTY, TEXAS

Project
2108.092-04

Date
04/08/2024

Drafter
EN

EAGLE SURVEYING, LLC
222 S. Elm Street, Suite: 200
Denton, TX 76201
(940) 222-3009
TX Firm #10194177

SURVEYOR
Eagle Surveying, LLC
222 S. Elm Street, Suite: 200
Denton, TX 76201
(940) 222-3009

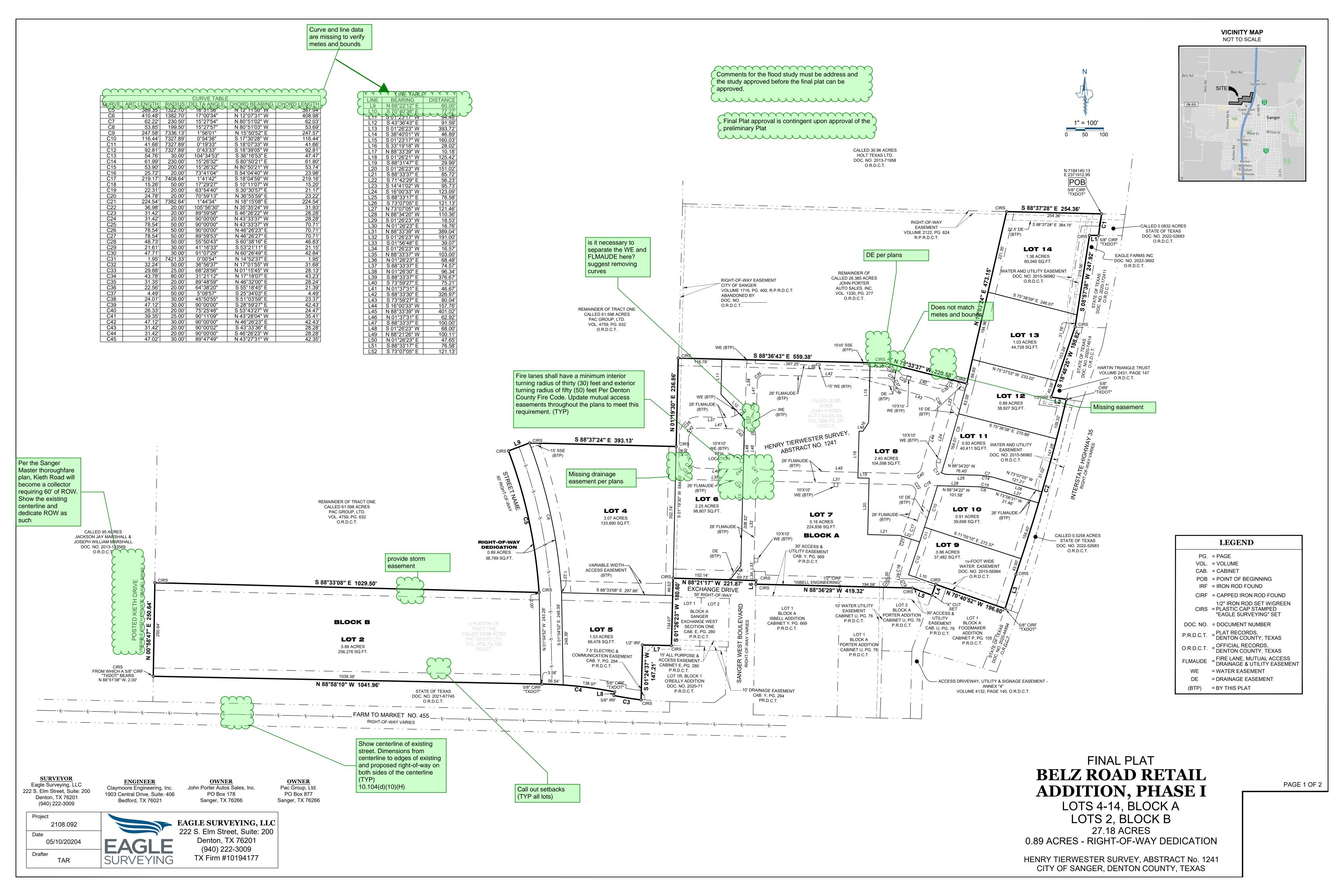
ENGINEER
Claymoore Engineering, Inc.
1903 Central Drive, Suite: 406
Bedford, TX 76021

OWNER

John Porter Autos Sales, Inc.
PO Box 178
Sanger, TX 76266

Pac Group, Ltd. PO Box 877 Sanger, TX 76266

OWNER



# **GENERAL NOTES**

**1.)** The purpose of this plat is to create twelve lots of record, dedicate easements, and dedicate right-of-way.

- 2.) This property is located in **Non-Shaded Zone "X"** as scaled from the F.E.M.A. Flood Insurance Rate Map dated April 18, 2011 and is located in Community Number 480786 as shown on Map Number 48121C0210G. The location of the Flood Zone is approximate, no vertical datum was collected at the time of the survey. For the exact Flood Zone designation, please contact 1-(877) FEMA MAP.
- **3.)** The grid coordinates shown on this plat are based on GPS observations utilizing the AllTerra RTK Network. North American Datum of 1983 (Adjustment Realization 2011).
- **4.)** Selling a portion of this addition by metes and bounds is a violation of City Ordinance and State Law, and is subject to fines and/or withholding of utilities and building permits.
- **5.)** All interior property corners are marked with a 1/2-inch iron rod with a green plastic cap stamped "EAGLE SURVEYING" unless noted otherwise.
- **6.)** The bearings shown on this plat are based on GPS observations utilizing the AllTerra RTK Network. North American Datum of 1983 (Adjustment Realization 2011).
- **7.)** The elevations shown on this plat are based on GPS observations utilizing the AllTerra RTK Network. North American Vertical Datum of 1988. (Geoid 12A).
- 8.) Building setbacks will be 20' from all lot lines.
- 9.) Lot to lot drainage shall not be allowed.

Notary Public in and for the State of Texas

- 0	
	CERTIFICATE OF SURVEYOR
	STATE OF TEXAS § COUNTY OF DENTON §
	I, <b>MATTHEW RAABE</b> , Registered Professional Land Surveyor, do hereby certify that this plat was prepared from an actual survey made on the ground and that the monuments shown hereon were found or placed with 1/2-inch iron rods with green plastic caps stamped "EAGLE SURVEYING" under my direction and supervision in accordance with the current provisions of the Texas Administrative Code and the Ordinances of the City of Sanger, Denton County, Texas.
	PRELIMINARY this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document
	Matthew Raabe, R.P.L.S. # 6402
	Date
	STATE OF TEXAS § COUNTY OF TARRANT §
	BEFORE ME, the undersigned authority, on this day personally appeared <b>MATTHEW RAABE</b> , known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.
	GIVEN UNDER MY HAND AND SEAL OF THE OFFICE this day of

# OWNER'S CERTIFICATE & DEDICATION

Add all applicable standard notation per ordinance

STATE OF TEXAS §
COUNTY OF DENTON §

SURVEYING" set;

WHEREAS, **JOHN PORTER AUTO SALES, INC.** and **PAC GROUP, LTD.** are the owner of 27.18 acres out of the Henry Tierwester Survey, Abstract Number 1241, situated in the City of Sanger, Denton County, Texas, being a portion of a called 26.385 acre tract of land conveyed to John Porter Auto Sales, Inc. by Warranty Deed of record in Volume 1330, Page 277 of the Official Records of Denton County, Texas, also being a portion of a called 61.598 acre tract of land conveyed to Pac Group, LTD. by Warranty Deed of record in Volume 4759, Page 632 of said Official Records, and being more particularly described by metes and bounds, as follows:

**BEGINNING**, at a 5/8" iron rod with cap stamped "TXDOT" found in the West right-of-way line of Interstate Highway 35, being in the South line of a called 30.96 acre tract of land conveyed to Holt Texas LTD. by deed of record in Document Number 2013-71958 of said Official Records, being the common North line of said 26.385 acre tract, being the Northwest corner of a called 0.0832 acre tract of land conveyed to State of Texas by deed of record in Document Number 2022-52683 of said Official Records, also being the beginning of a non-tangent curve to the right;

**THENCE**, along the West right-of-way line of Interstate Highway 35, being the common West line of said 0.0832 acre tract, along said non-tangent curve to the right, having a radius of 5310.00 feet, a chord bearing of S08°15'52"W, a chord length of 58.33 feet, a delta angle of 00°37'46", an arc length of 58.33 feet to the end of said curve to a 5/8" iron rod with cap stamped "TXDOT" found in the East line of said 26.385 acre tract, being the Southwest corner of said 0.0832 acre tract, also being the Northeast corner of a tract of land conveyed to Eagle Farms Inc. by deed of record in Document Number 2022-3692 of said Official Records;

**THENCE**, along the North and West lines of said Eagle Farms Inc. tract, being the common East line of said 26.385 acre tract, the following two (2) courses and distances:

1. N89°38'41"W, a distance of 23.94 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;

- 2. S08°57'38"W, a distance of 247.92 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set at the Southwest corner of said Eagle Farms Tract, also being the Northwest corner of a tract of land conveyed to Hartin Triangle Trust by deed of record in Volume 2431, Page 147 of said Official Records;
- **THENCE**, along the West and South lines of said Hartin Triangle Trust tract, being the common East line of said 26.385 acre tract, the following two (2) courses and distances:
- 1. S18°48'25"W, a distance of 198.82 feet to a 1/2" iron rod found;
- 2. S81°33'29"E, a distance of 41.31 feet 5/8" iron rod with cap stamped "TXDOT" found in the West right-of-way line of Interstate Highway 35, being the Northwest corner of a called 0.5258 acre tract, also being the beginning of a non-tangent curve to the right;

**THENCE**, along the West right-of-way line of Interstate Highway 35, being the common West line of said 0.5258 acre tract, the following two (2) courses and distances:

- 1. Along said non-tangent curve to the right, having a radius of 5310.00 feet, a chord bearing of S16°06'35"W, a chord length of 487.75 feet, a delta angle of 05°15'53", an arc length of 487.92 feet to the end of said curve to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;
- 2. S17°29'05"W, a distance of 96.51 feet to a 5/8" iron rod with cap stamped "TXDOT" found at the Southwest corner of said 0.5258 acre tract, being in the North line of Lot 1, Block A of Foodmaker Addition, a subdivision of record in Cabinet P, Page 105 of the Plat Records of Denton County, Texas;

of Lot 1, Block A of Foodmaker Addition, a subdivision of record in Cabinet P, Page 105 of the Plat Records of Denton County, Texas; **THENCE**, N70°40'52"W, in part the North line of said Lot 1, Block A of Foodmaker Addition, also being in part the North line of an Access Driveway, Utility and Signage Easement (Annex "4") of record in Volume 4132, Page 140 of said Official Records, a distance of 196.80 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE

**THENCE**, S20°05'13"W, along the West line of said Annex "4", a distance of 30.70 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set at the Northeast corner of Lot 2, Block A of Porter Addition, a subdivision of record in Cabinet U, Page 76 of said Plat Records;

**THENCE**, N69°54'47"W, along the North line of said Lot 2, Block A of Porter Addition. a distance of 55.48 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set:

**THENCE**, N88°36'29"W, in part along the North line of said Lot 2, Block A of Porter Addition, in part along the North line of Lot 1, Block A of said Porter Addition, also being in part the North line of Lot 1, Block A of Isbell Addition, a subdivision of record in Cabinet Y, Page 669 of said plat Records, a distance of 419.32 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the East right-of-way line of Sanger West Boulevard (a variable width right-of-way), being the Northwest

corner of said Lot 1, Block A of Isbell Addition;

THENCE, N01°13'52"E, along the East right-of-way line of Sanger West Boulevard, a distance of 9.80 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SUBVEYING" and at the intersection of the East right of way line of Explanar West Boulevard and the North right of way line of Explanar Priva (a 50 feet right of way).

SURVEYING" set at the intersection of the East right-of-way line of Sanger West Boulevard and the North right-of-way line of Exchange Drive (a 50 foot right-of-way); **THENCE**, N88°21'17"W, along the North right-of-way line of Exchange Drive, a distance of 221.87 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the East line of said 61.598 acre tract;

**THENCE**, S01°26'23"W, along the East line of said 61.598 acre tract, being in part along the West right-of-way line of Exchange Drive, being in part along the West line of Lot 1, Block A of Sanger Exchange West, Section One, a subdivision of record in Cabinet E, Page 280 of said Plat Records, a distance of 180.60 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the North line of Lot 1R, Block 1 of O'Reilly Addition, being the Southwest corner of said Lot 1, Block A of Sanger Exchange West Section One;

 $\textbf{THENCE}, \, \text{N88}^{\circ} \text{48'42"W}, \, \text{along the North line of said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{the North line of Said Lot 1R}, \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{a distance of 77.60 feet to} \, \, \text{a 1/2" iron rod found}; \, \text{a 1/2" iron rod$ 

**THENCE**, S01°24'37"W, along the West line of said Lot 1R, a distance of 147.21 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the North right-of-way line of Farm to Market 455, also being the North line of a tract of land conveyed to State of Texas by deed of record in Document Number 2021-67745 of said Official Records, being the Southwest corner of said Lot 1R, also being the beginning of a non-tangent curve to the right;

THENCE, along the North right-of-way line of Farm to Market 455, being the North line of said State of Texas tract, the following four (4) courses and distances:

- 1. Along said non-tangent curve to the right, having a radius of 982.00 feet, a chord bearing of N80°53'47"W, a chord length of 73.68 feet, a delta angle of 04°17'59", an arc length of 73.69 feet to the end of said curve to a 5/8" iron rod found;
- 2. N11°15'13"E, a distance of 10.00 feet to a 5/8" iron rod with cap stamped "TXDOT" found at the beginning of a non-tangent curve to the left;
- 3. Along said non-tangent curve to the left, having a radius of 1108.00 feet, a chord bearing of N83°48'12"W, a chord length of 195.34 feet, a delta angle of 10°06'52" an arc length of 195.59 feet to the point of tangency of said curve to a 5/8" iron rod with cap stamped "TXDOT" found;
- 4. N88°51'38"W, a distance of 1041.96 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the West line of said 61.598 acre tract, being the Past line of a called 95 acre tract of land conveyed to Jackson Jay Marshall and Joesph William Marshall by deed of record in Document Number 2013-133569 of said Official Records, being the Northwest corner of said State of Texas tract, from which a 5/8" iron rod with cap stamped "TXDOT" found bears

N88°51'38"W, a distance of 2.00 feet; **THENCE**, N00°58'47"E, along the East line of said 95 acre tract, being the common West line of said 61.598 acre tract, a distance of 250.64 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;

THENCE, over and across said 61.598 acre tract and said 26.385 acre tracts along the irregular North line hereof, the following eight (8) courses and distances:

- 1. S88°33'08"E, a distance of 1029.50 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set at the beginning of a non-tangent curve to
- 2. Along said non-tangent curve to the left, having a radius of 1322.70 feet, a chord bearing of N12°11'50"W, a chord length of 387.94 feet, a delta angle of
- 16°51'56", an arc length of 389.35 feet to the end of said curve to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;
- 3. N69°22'12"E, a distance of 60.00 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set; 4. S88°37'24"E, a distance of 393.13 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;
- 5. N01°19'30"E, a distance of 236.86 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;
- 6. S88°36'43"E, a distance of 559.38 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;
- 7. S75°33'37"E, a distance of 220.58 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set;
- 8. N13°03'24"E, a distance of 473.15 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the North line of said 26.385 acre tract, also being the South line of said 30.96 acre tract;

**THENCE**, S88°37′28″E, along the South line of said 30.96 acre tract, being the common North line of said 26.385 acre tract, a distance of 254.36 feet to the **POINT OF BEGINNING** and containing an area of 27.18 Acres, or (1,184,042 Square Feet) of land, more or less.

# **OWNER'S CERTIFICAT & DEDICATION, continued**

STATE OF TEXAS §
COUNTY OF DENTON §

# NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, JOHN PORTER AUTO SALES, INC., does hereby adopt this plat, designating herein described property as BELZ ROAD RETAIL ADDITION, PHASE I, an addition to the City of Sanger, Denton County, Texas, and does hereby dedicate to public use forever all streets, alleys, parks, watercourses, drains, easements and public places thereon shown for the purpose and consideration therein expressed. No buildings, fences, trees, shrubs or other improvements or growths shall be constructed or placed upon, over or across the drainage and utility easements as shown. Said drainage and utility easements being hereby reserved for the mutual use and accommodation of all public utilities desiring to use same. All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of its respective system on the drainage and utility easement and all public utilities shall at all times have the full right of ingress and egress to or from and upon the said drainage and utility easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or parts of its respective systems without the necessity at any time of procuring the permission of anyone.

OWNER: JOHN PORTER AUTO SALES, INC.

		Date	
STATE OF TEXAS	§		
COUNTY OF	§		
			, known to me to be the person whose the purposes and considerations therein
GIVEN UNDER MY HAND AN	D SEAL OF THE OFFICE this	_ day of	_, 2024.

Notary Public in and for the State of Texas

# NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, PAC GROUP, LTD, does hereby adopt this plat, designating herein described property as BELZ ROAD RETAIL ADDITION, PHASE I, an addition to the City of Sanger, Denton County, Texas, and does hereby dedicate to public use forever all streets, alleys, parks, watercourses, drains, easements and public places thereon shown for the purpose and consideration therein expressed. No buildings, fences, trees, shrubs or other improvements or growths shall be constructed or placed upon, over or across the drainage and utility easements as shown. Said drainage and utility easements being hereby reserved for the mutual use and accommodation of all public utilities desiring to use same. All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of its respective system on the drainage and utility easement and all public utilities shall at all times have the full right of ingress and egress to or from and upon the said drainage and utility easements for the purpose of constructing, inspecting, patrolling, maintaining and adding to or removing all or parts of its respective systems without the necessity at any time of procuring the permission of anyone.

OWNER: PAC GROUP, LTD
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		Date	
STATE OF TEXAS COUNTY OF	§ §		
	going instrument, and acknowledged to		, known to me to be the person whose he purposes and considerations therein
GIVEN UNDER MY HAND AND	O SEAL OF THE OFFICE this	day of	_, 2024.
Notary Public in and for the Sta	 te of Texas		

APPROVED AND ACCEPTED		
CITY OF SANGER DENTON COUNTY, TEXAS		
Thomas Muir Mayor, City of Sanger, Texas	Date	
ATTEST:		
Cheryl Price, City Secretary City of Sanger, Tx		

Does not match Plan

FINAL PLAT
BELZ ROAD RETAIL
ADDITION, PHASE I

LOTS 4-14, BLOCK A LOTS 2, BLOCK B 27.18 ACRES PAGE 2 OF 2

HENRY TIERWESTER SURVEY, ABSTRACT No. 1241 CITY OF SANGER, DENTON COUNTY, TEXAS

0.89 ACRES - RIGHT-OF-WAY DEDICATION

2108.092

Date

05/10/20204

Drafter

TAR

EAGLE SURVEYING, LLC
222 S. Elm Street, Suite: 200
Denton, TX 76201
(940) 222-3009
TX Firm #10194177

SURVEYOR
Eagle Surveying, LLC
222 S. Elm Street, Suite: 200
Denton, TX 76201
(940) 222-3009

ENGINEER
Claymoore Engineering, Inc.
1903 Central Drive, Suite: 406
Bedford, TX 76021

OWNER
John Porter Autos Sales, Inc.
PO Box 178
Sanger, TX 76266

OWNER
Pac Group, Ltd.
PO Box 877
Sanger, TX 76266

- 1. ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE CITY'S DESIGN STANDARDS. IF NO CITY STANDARD IS APPLICABLE, MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE "NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION"
- GOVERNMENTS STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION"

  2. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH ALL MATERIALS AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN
- 3. THE CONTRACTOR SHALL CONTACT ALL FRANCHISE UTILITY COMPANIES TO HAVE THEM LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION AND DEPTH OF ALL FRANCHISE UTILITY SERVICES AND ANY REQUIRED RELOCATION AND/OR EXTENSIONS. SERVICES SHOWN ON THE PLANS IF ANY ARE CONCEPTUAL

CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THIS PROJECT.

- 4. THE CONTRACTOR SHALL PROTECT ALL PUBLIC AND PRIVATE UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEANOUTS, VALVE BOXES, POWER POLES, SIGNS, FIRE HYDRANTS, ETC., MUST BE ADJUSTED TO PROPER GRADE BY THE CONTRACTOR PRIOR TO AND AFTER PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING CONSTRUCTION OF THE PAVING FOR THIS PROJECT.
- 5. BRACING OF UTILITY POLES MAY BE REQUIRED BY UTILITY COMPANIES WHEN TRENCHING OR EXCAVATION IS IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR. THERE IS NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE VARIOUS PAY ITEMS FOR INSTALLATION OF
- 6. THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE RECORDS AND ARE CONSIDERED APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL PRESERVE AND PROTECT PUBLIC UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE. THE ENGINEER SHALL BE NOTIFIED WHEN PROPOSED FACILITY GRADES CONFLICT WITH EXISTING UTILITY
- 7. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY, INCLUDING, BUT NOT LIMITED TO FENCES, WALLS, PAVEMENT, GRASS, TREES, AND LAWN SPRINKLER AND IRRIGATION SYSTEMS AT NO COST TO THE OWNER. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT (UNLESS OTHERWISE NOTED) AND IS NOT A SEPARATE PAY ITEM.
- 8. THE CONTRACTOR SHALL REMOVE SURPLUS MATERIAL FROM THE PROJECT AREA. THIS WORK SHALL BE SUBSIDIARY
- TO THE CONTRACT AND IS NOT A SEPARATE PAY ITEM.

  9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
- 10. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES A COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
- 11. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
- 12. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS SHALL BE SENT TO THE ARCHITECT, CIVIL ENGINEER, CONTRACTOR AND OWNER DIRECTLY FROM THE TESTING AGENCY.
- 13. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES AND/OR UTILITY SERVICE COMPANIES SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO BUILDING POSSESSION AND THE
- FINAL CONNECTION OF SERVICES.

  14. CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUM PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF
- IMPROVEMENTS.

  15. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY
- PRIOR TO COMMENCING WITH CONSTRUCTION.

  16. ALL HORIZONTAL DIMENSIONS GIVEN ARE TO FACE OF CURB AND TO PIPE CENTERLINES UNLESS OTHERWISE NOTED
- ON PLANS.

  17. THE CONTRACTOR IS DESCRIBED FOR COORDINATING RELOCATION AND INSTALLATION OF FRANCHISE LITHTIES.
- 17. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELOCATION AND INSTALLATION OF FRANCHISE UTILITIES NECESSARY FOR ON AND OFF SITE CONSTRUCTION. PAYMENT FOR RELOCATION AND INSTALLATION WILL BE
- NEGOTIATED ONCE IDENTIFIED.
- 18. ALL CUT OR FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE SHOWN.
- 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- 20.UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE CIVIL ENGINEER A COPY OF RECORD
- DRAWINGS IDENTIFYING ALL DEVIATIONS OR VARIATIONS FROM THE ORIGINAL PLANS.
  21.CONTRACTOR SHALL GIVE NOTICE TO ALL AFFECTED PARTIES AND ALL AUTHORIZED INSPECTORS,
- SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES OR RAILROADS AFFECTED BY HIS OPERATIONS, AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- 22.ALL "RECORD" DIMENSIONS SHALL CONFORM TO THE DESIGN DIMENSIONS PLUS OR MINUS 0.02 FEET. ALL "RECORD"
- SLOPES SHALL CONFORM TO THE DESIGNED SLOPES PLUS OR MINUS 0.005 FOOT/FOOT.

  23.CONTRACTOR SHALL CONTACT CITY BUILDING OFFICIAL TO LEARN OF ANY UNUSUAL CONSTRUCTION SEQUENCING REQUIREMENTS THAT THE CITY MAY REQUIRE. THE CONTRACTOR IS CAUTIONED THAT THIS AND PERHAPS OTHER SUCH REQUIREMENTS MAY EXIST AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND COMPLY WITH

# PAVING AND STRIPING NOTES

REQUIRED BENEATH ALL PAVING.

THFM

- THE REINFORCED PORTLAND CEMENT CONCRETE SHOULD HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,600 PSI AND A MINIMUM REINFORCING THAT SHOULD BE IN ACCORDANCE WITH ACCEPTED CODES AND SHALL STRICTLY ADHERE TO DETAILS INCLUDED IN THIS SET. A BASE SUB-GRADE PER THE GEOTECHNICAL REPORT IS
- 2. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN AGENCY, APPROVED BY THE OWNER, FOR TESTING MATERIALS. PROCUREMENT OF THE TESTING LABORATORY AND THE PAYMENT OF SUCH TESTING SERVICES SHALL BE MADE BY THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE, BY THE STANDARD TESTING PROCEDURES, THAT THE WORK CONSTRUCTED MEETS THE REQUIREMENTS OF THE CITY AND PROJECT SPECIFICATIONS.
- 3. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- 4. THE CONTRACTOR SHALL REVIEW LOCATION OF ALL TRAFFIC CONTROL DEVICES WITH THE OWNER PRIOR TO
- INSTALLATION.
  5. SEE M.E.P. PLANS FOR LOCATION OF PROPOSED SLEEVING AND CONDUITS.
- 6. ALL HANDICAP RAMPING, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO THE MOST RECENT VERSION OF THE AMERICANS WITH DISABILITIES ACT OF 1994 AND THE TEXAS ARCHITECTURAL BARRIERS ACT OF 1994, AND ALL ADDENDUMS OR UPDATES.
- 7. CONTRACTOR SHALL SUBMIT A PAVEMENT JOINTING PLAN TO THE ENGINEER AND OWNER PRIOR TO THE BEGINNING OF ANY CONCRETE PAVING WORK.
- 8. ANY EXISTING CONCRETE OR ASPHALT SHOWN TO BE REMOVED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR OFF SITE. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT AND IS NOT A SEPARATE PAY ITEM.
- CONSTRUCTION JOINTS SHALL BE REQUIRED AT INTERRUPTIONS OF PAVING OPERATIONS SUCH AS THOSE
  OCCURRING AT THE END OF THE DAY OR DUE TO WEATHER OR EQUIPMENT BREAKDOWN. PLACE AT LONGITUDINAL
  CONSTRUCTION OR ISOLATION JOINT LOCATIONS.
- 10. CONTRACTOR TO INSTALL CONSTRUCTION JOINTS IN CONCRETE PAVEMENT AT ALL PC'S AND AS CONVENIENT TO PHASING OF POURS. CONCRETE PAVEMENT TO BE CONSTRUCTED WITH ISOLATION JOINTS AROUND THE PERIMETER OF ANY BLOCK OUT IN PAVEMENT AND SAWED DUMMY JOINTS EVERY 12' IN BOTH DIRECTIONS.

  11. ALL JOINTS ARE TO CONTINUE THROUGH THE CURB.
- 12.RADIAL JOINTS SHALL BE NO SHORTER THAN 24".
- 13. ALL CONSTRUCTION JOINTS SHALL BE SAWED, CLEANED OF DEBRIS, BLOWN DRY AND IMMEDIATELY SEALED WITH HOT POURED RUBBER JOINT SEALING COMPOUND.

# STORM SEWER NOTES

- 1. CONTRACTOR SHALL FIELD VERIFY THE VERTICAL AND HORIZONTAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND CONSTRUCTION MANAGER IMMEDIATELY IF A CONFLICT IS DISCOVERED.
- 2. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF CURB INLETS, GRATE INLETS, AND ALL UTILITIES CROSSING THE STORM SEWER. FLOW LINES AND RIMS OF PROPOSED INLETS SHALL BE VERIFIED WITH THE PROPOSED GRADE PRIOR TO CONSTRUCTION.
- CAPPED AND MARKED 5.0 FEET OUTSIDE THE BUILDING UNTIL FINAL CONNECTIONS ARE MADE BY PLUMBING CONTRACTOR.

3. THE END OF ALL STORM SEWER LATERALS THAT CONNECT TO WORK BY PLUMBER SHALL BE TIGHTLY PLUGGED OR

- 4. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER.
- 5. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS.
- 6. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
- 7. EXISTING MANHOLE TOPS AND ALL OTHER DRAINAGE FACILITIES SHALL BE ADJUSTED AS REQUIRED TO MATCH FINAL GRADES AS SHOWN ON GRADING PLAN. NO SEPARATE PAY ITEM.
- 8. ALL RCP SHALL BE CLASS 3 OR APPROVED EQUAL.

OPERATIONAL CONTROL OF THE CONSTRUCTION.

# STORM SEWER DISCHARGE AUTHORIZATION

- 1. IF THE TOTAL DISTURBED AREA EXCEEDS ONE (1) ACRE A NOTICE OF INTENT (N.O.I.) SHALL BE SUBMITTED BY THE
- CONTRACTOR TO THE TCEQ NO LESS THAN 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

  2. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN A
- CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP.

  3. A COPY OF THE SWPPP, INCLUDING CONTRACTOR CERTIFICATIONS AND ANY REVISIONS, SHALL BE SUBMITTED TO THE
- CITY AND FILED WITH THE CONSTRUCTION PLANS, AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.

  4. A NOTICE OF TERMINATION (N.O.T.) SHALL BE SUBMITTED TO THE TCEQ BY THE CONTRACTOR WHEN THE SITE HAS 100% OF THE DISTURBED AREAS STABILIZED AND THE SITE NO LONGER HAS STORM WATER DISCHARGES ASSOCIATED

WITH INDUSTRIAL ACTIVITIES (CONSTRUCTION), OR THE N.O.T. PERMITTEE OR CO-PERMITTEE NO LONGER HOLDS

### WATER NOTE

- 1. EXISTING UTILITY DATA IS PROVIDED FOR INFORMATION ONLY. ALTHOUGH THIS DATA IS SHOWN AS ACCURATELY AS POSSIBLE, THE CONTRACTOR IS CAUTIONED THAT THE DEVELOPER AND THE ENGINEER NEITHER ASSUMES NOR IMPLIES ANY RESPONSIBILITY FOR THE ACCURACY OF THIS DATA.
- 2. THE CONTRACTOR IS TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. HORIZONTAL AND VERTICAL BLOCKING FOR WATER LINES HAS BEEN OMITTED FOR CLARITY. HOWEVER, BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY STANDARDS AND SPECIFICATIONS.
- 4. TRENCHES WHICH LAY OUTSIDE EXISTING OR FUTURE PAVEMENTS SHALL BE BACK FILLED ABOVE THE TOP OF THE EMBEDMENT WITH TYPE 'C' BACKFILL MATERIALS. WHEN TYPE 'C' BACKFILL MATERIAL IS NOT SUITABLE AND AT THE DIRECTION OF THE ENGINEER TYPE 'B' MATERIAL SHALL BE USED. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% PROCTOR DENSITY BY MEANS OF TAMPING ONLY. TRENCHES WHICH CROSS UNDER EXISTING OR FUTURE PAVEMENT SHALL BE BACK FILLED PER FIGURE 'A' WITH 95% PROCTOR STANDARD DENSITY OF -2, +4 OF OPTIMUM MOISTURE CONTENT.
- 5. TOP OF WATER LINES SHALL BE A MINIMUM OF 42" BELOW TOP OF CURB EXCEPT WHERE SHOWN OTHERWISE IN THESE PLANS
- 6. FIRE HYDRANTS SHALL BE A MINIMUM 3' BEHIND THE FACE OF THE CURB UNLESS OTHERWISE DIRECTED BY THE CITY. FIRE HYDRANTS AND VALVES AS SHOWN ON THESE PLANS ARE SYMBOLIC ONLY.
- 7. CORPORATION STOPS SHALL BE TESTED FOR FULL FLOW WHEN THE SYSTEM IS PRESSURE TESTED.
- 8. ALL NEW WATER MAINS SHALL BE FULLY PURGED.
- 9. ALL 6", 8", 10" & 12" WATER MAINS SHALL BE PVC AWWA C900, DR-14. ALL WATER MAINS USING POLY-WRAPPED DUCTILE IRON PIPE SHALL BE CLASS 51.
- 10.FITTINGS SHALL BE DUCTILE IRON AND MECHANICAL JOINT TYPE, WITH "COR-BLUE" BOLTS AND SHALL BE CLASS 250.

# SANITARY SEWER NOTE

- 1. EXISTING UTILITY DATA IS PROVIDED FOR INFORMATION ONLY. ALTHOUGH THIS DATA IS SHOWN AS ACCURATELY AS POSSIBLE, THE CONTRACTOR IS CAUTIONED THAT THE DEVELOPER AND THE ENGINEER NEITHER ASSUMES NOR IMPLIES ANY RESPONSIBILITY FOR THE ACCURACY OF THIS DATA.
- 2. THE CONTRACTOR IS TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. TRENCHES WHICH LIE OUTSIDE EXISTING PAVEMENTS SHALL BE BACKFILLED ABOVE THE TOP OF THE EMBEDMENT WITH TYPE "C" BACKFILL MATERIAL. WHEN TYPE "C" BACKFILL MATERIAL IS NOT SUITABLE AND AT THE DIRECTION OF THE ENGINEER, TYPE "B" MATERIAL SHALL BE USED. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% OF THE MAXIMUM DRY DENSITY BY MEANS OF TAMPING ONLY. TRENCHES THAT CROSS UNDER EXISTING OR FUTURE PAVEMENT SHALL BE BACKFILLED AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY WITH MOISTURE CONTENT-2 AND +4% OF OPTIMUM MOISTURE CONTENT.
- 4. TYPICAL LOCATION OF SANITARY SEWER PIPE SHALL BE A MINIMUM OF 4'-0" BELOW TOP OF CURB EXCEPT WHERE SHOWN OTHERWISE IN THESE PLANS.
- 5. ALL DUCTILE IRON SANITARY SEWER MAINS SHALL BE TESTED WITH STANDARD 5% DEFLECTION MANDREL.
- 6. ALL SANITARY SEWER LINES SHALL BE CAPPED WITH AN APPROPRIATE CAP AT THE END OF EACH WORKDAY.
- 7. WHEN EXISTING GRADES ARE LOWER THAN PROPOSED MAINS, THE FILL AREA OVER THE PIPE SHALL BE FILLED AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY TO THE PROPOSED FINISHED GRADE PRIOR TO INSTALLING ANY MAIN.
- 8. ALL SEWER SERVICES SHALL BE CONSTRUCTED OF SDR-35 PIPE.

# TRAFFIC CONTROL NOTES

- 1. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS TO THE OWNER, AT LEAST 48 HOURS PRIOR TO
- CONSTRUCTION ACTIVITY.
- 2. ALL TRAFFIC CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), LATEST VERSION.
- 3. THE CONTRACTOR SHALL COVER EXISTING SIGNS AND OBLITERATE EXISTING PAVEMENT MARKINGS THAT CONFLICT
- WITH THE INTENT OF THESE TRAFFIC CONTROL PLANS TO AVOID CONFUSION TO THE TRAVELING PUBLIC.
- 4. THE CONTRACTOR SHALL UNCOVER EXISTING SIGNS AND REPLACE PAVEMENT MARKINGS IN-KIND AS ORIGINALLY CONFIGURED AT THE END OF CONSTRUCTION OPERATIONS AND PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
- 5. ALL TEMPORARY SIGNS, BARRICADES, WARNING LIGHTS AND OTHER MISCELLANEOUS TRAFFIC CONTROL MEASURES SHALL BE REMOVED AND ORIGINAL TRAFFIC CONTROL MEASURES REPLACED AT THE END OF THE CONTRACTOR'S CONSTRUCTION OPERATIONS.
- 6. ACCESS TO THE ADJACENT SHOPPING AREA AND BUSINESS SHALL BE MAINTAINED AT ALL TIMES. ANY CLOSURE OF ACCESS LANES SHALL BE COORDINATED WITH THE OWNER OF THE SHOPPING AREA, TARRANT VISTA PARTNERS, LLC.

# **EROSION CONTROL NOTES**

- 1. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. THE CONTRACTOR SHALL USE SEDIMENT FILTERS OR OTHER MEASURES APPROVED BY THE ENGINEER AND CONSTRUCTION MANAGER TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM CLOGGING STORM SEWER PIPES OR PROPOSED OR EXISTING INLETS, OR FROM BEING TRANSPORTED TO ADJACENT PROPERTIES AND STREET RIGHT-OF-WAYS. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE AND SHALL REMAIN IN PLACE UNTIL FINAL GRADING AND PAVING IS COMPLETE AND PERMANENT SOIL STABILIZATION IS ACHIEVED.
- 2. CONSTRUCTION OPERATIONS SHALL BE MANAGED SO THAT AS MUCH OF THE SITE AS POSSIBLE IS LEFT COVERED WITH EXISTING TOPSOIL AND VEGETATION.
- 3. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH. THE AREAS SHALL THEN BE SEEDED (OR SODDED), IRRIGATED, AND MAINTAINED UNTIL PERMANENT STAND OF GRASS IS ACHIEVED WITH A MINIMUM OF 70% COVERAGE. UNLESS OTHERWISE NOTED, PRIVATE LAWN AREAS AND PARKWAYS IN FRONT OF PRIVATE LAWN AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLACED WITH BLOCK SOD SIMILAR TO THAT EXISTING.
- 4. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION TRAFFIC UTILIZES THE STABILIZED ENTRANCE AT ALL TIMES FOR INGRESS/EGRESS TO THE SITE.

# 5. CONSTRUCTION ENTRANCE:

- MINIMUM SIZE STONE: 5-INCHES DIAMETER
- THICKNESS: NOT LESS THAN 8-INCHES
- LENGTH: AS SHOWN ON PLAN
- WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS AND EGRESS
- MAINTENANCE REQUIREMENTS: AS NECESSARY TO PREVENT TRACKING OR FLOWING MUD INTO PUBLIC RIGHT-OF-WAY OR PARKING AREAS.
- 6. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON A PUBLIC ROADWAY SHALL BE REMOVED IMMEDIATELY. WHEN WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE TO A PUBLIC ROADWAY, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR TRACKING ONTO PUBLIC ROADS SHALL BE PAID BY THE CONTRACTOR.
- 7. CONTRACTOR IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE REQUIRED EROSION CONTROL DEVICES THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EROSION CONTROLS SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ACCUMULATED SILT IN ANY EROSION CONTROL DEVICE SHALL BE REMOVED AND SHALL BE DISTRIBUTED ON SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING ANY EROSION CONTROL DEVICE WHICH IS DISTURBED.
- 8. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL USE FILTER BARRIER (OR OTHER METHOD APPROVED BY THE ENGINEER AND CITY) AS REQUIRED TO PREVENT ADVERSE OFF SITE IMPACTS OR STORM WATER QUALITY FROM SILT AND CONSTRUCTION DEBRIS FLOWING ONTO ADJACENT PROPERTIES AS REQUIRED BY THE CITY.
- 9. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF CONSTRUCTION AND OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROTECT AND PRESERVE CONTROL POINTS AT ALL TIMES DURING THE COURSE OF THE PROJECT. THE GRADING CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
- 10. CONTRACTOR STAGING AREA TO BE AGREED UPON BY OWNER PRIOR TO BEGINNING CONSTRUCTION.
- 11. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY THE T.C.E.Q. OR THE GOVERNING CITY.

# GRADING NOTES

- 1. IF A GRADING PERMIT IS REQUIRED FROM THE CITY PRIOR TO STARTING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR OBTAINING PERMIT AND PAYING ALL ASSOCIATED FEES.
- 2. CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT HIS OWN EXPENSE.
- 3. ALL SPOT ELEVATIONS SHOWN ARE TO TOP OF PAVING SURFACE OR FINISHED EARTH GRADE UNLESS NOTED OTHERWISE.
- 4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM THE EXISTING AND PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS. CONTRACTOR ADJUSTMENTS TO SPOT GRADES TO MAINTAIN POSITIVE DRAINAGE IS ALLOWED WITH THE PRIOR APPROVAL OF THE ENGINEER. CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO PAVING IF ANY AREAS OF POOR DRAINAGE ARE ENCOUNTERED.
- 5. THE CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES WHICH ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
- 6. ALL EXISTING CONCRETE PAVING, CHANNEL IMPROVEMENTS, SIDEWALK, STRUCTURES AND CURB DEMOLITION SHALL BE REMOVED IN THEIR ENTIRETY AND DISPOSED OF BY THE CONTRACTOR, OFFSITE UNLESS OTHERWISE DIRECTED BY THE OWNER OR ENGINEER
- BY THE OWNER OR ENGINEER.

  7. ALL CLEARING, GRADING, COMPACTION AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE TO THE GEOTECHNICAL REPORT.
- GRADING CONTRACTOR TO COORDINATE WITH THE FRANCHISE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.
- THE CONTRACTOR SHALL CALCULATE HIS OWN EARTHWORK QUANTITIES AND USE TO DETERMINE HIS BID ACCORDINGLY.
   BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE HANDICAPPED ROUTES (PER A.D.A. & T.A.S)
- EXIST TO AND FROM EVERY DOOR. IN NO CASE SHALL HANDICAP RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A. AND T.A.S. COMPLIANCE ISSUES.

ENGINEERING PHONE 87 284 657

TEXAS REGISTRATION #14199

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CLAYMOORE ENGINEERING

ENGINEERING AND PLANNING CONSULTANTS
Engineer\_DREW\_DONOSKY
P.E. No.125651\_Date\_5/3/2024

SANGER MALOUF
DEVELOPMENT
RY TIERWESTER SURVEY
ABSTRACT NO. 1241
SANGER, TEXAS

No. DATE REVISION BY

RAL NOTE

DESIGN: ASD
DRAWN: DC
CHECKED: ASD
DATE: 5/3/2024

SHEET

CASE NO

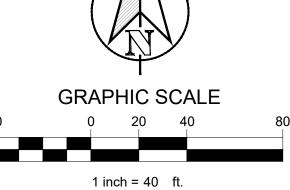
PLOTTED BY: DAN CAB PLOT DATE: 5/3/202/LOCATION: Z:\PROJE

# **EROSION CONTROL NOTES:**

EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS, IN CHANNELS, DRAINAGEWAYS OR BORROW DITCHES AT RISK OF CONTRACTOR.

CONTRACTOR SHALL REMAIN LIABLE FOR ANY DAMAGE CAUSED BY THE MEASURES, INCLUDING FLOODING DAMAGE, WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE. AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGEWAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.

SOD 4 FEET BEHIND BACK OF CURB, CURLEX (ONE ROLL WIDTH) WITH SEED BEHIND SOD, PERENNIAL SEED BEHIND CURLEX.



# FLOODPLAIN NOTE

THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X", AS SCALED FROM THE F.E.M.A. FLOOD INSURANCE RATE MAP DATED APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480786 AS SHOWN ON MAP NUMBER 48121C0210J. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE.

	LEGEND
$\Rightarrow$	DIRECTION OF FLOW
	EXISTING CONTOUR
	PROPOSED CONTOUR
	LIMITS OF CONSTRUCTION
— X—— (FB)	SILT FENCE
CE CE	CONSTRUCTION ENTRANCE
(IP)	INLET PROTECTION
cw	CONCRETE WASHOUT AREA

686 ———————————————————————————————————		EXISTING SWALE	EASEMENT DOC. NO. 2015-56982 O.R.D.C.T.	
OHE OHE X TO THE YEAR OHE YEAR OHE X TO THE YEAR OHE YEAR	FB FB		RIGHT-OF-WAY EASEMENT VOLUME-2122, PG. 624 R.P.R.D.C.T.  WATER AND UTILITY EASEMENT DOC. NO. 2015-56982 O.R.D.C.T.  STATE OF TEXAS DOC, NO. 2020-172411 ORD.C.T.  STATE OF TEXAS DOC, NO. 2020-172411 ORD.C.T.  STATE OF TEXAS DOC, NO. 2020-172411 ORD.C.T.  RD.C.T.	
24.37 ACRI 1,061,616 SQ. F	ES FT.	LOT 13 BLOCK A 1.03 AC FINISHED PAD UTILITY A ELECTRICAL EA	ASEMENT XX / /Y	

MATCH LINE SHEET C-2

Engineer DREW DONOSKY P.E. No.125651 Date 5/3/2024

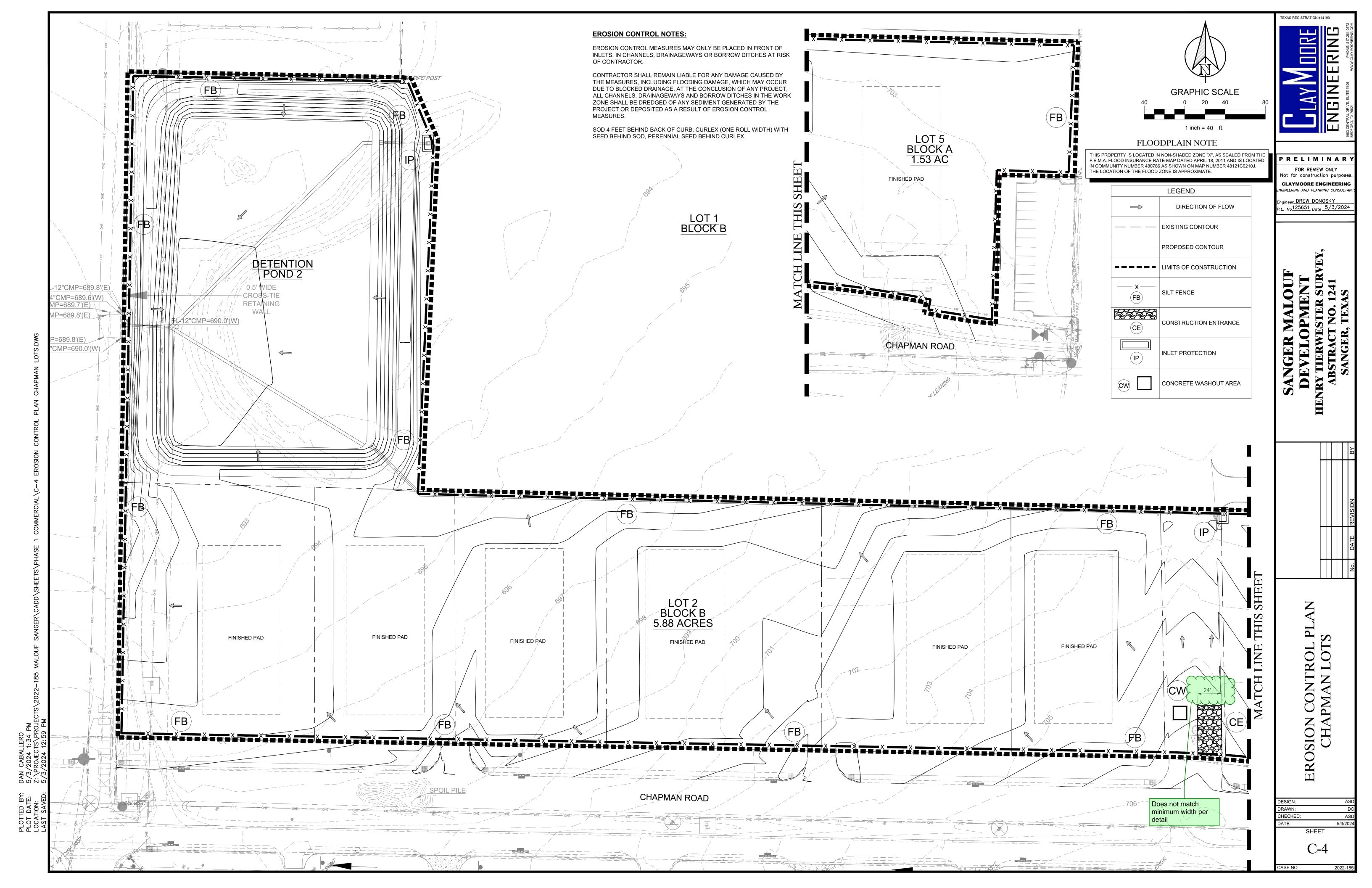
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TEXAS REGISTRATION #14199



- 3. IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT THE EROSION CONTROL PLAN WILL BE REQUIRED TO BE REVISED AND/OR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE.
- 4. IF OFF-SITE BORROW OR SPOILS SITES ARE USED IN CONJUNCTION WITH THIS PROJECT, THIS INFORMATION SHALL BE DISCLOSED AND SHOWN ON THE EROSION CONTROL PLAN. OFF-SITE BORROW AND SPOILS AREAS ARE CONSIDERED PART OF EROSION CONTROL REQUIREMENTS. THESE AREAS SHALL BE STABILIZED WITH GROUND COVER PRIOR TO FINAL APPROVAL OF THE PROJECT.
- 5. INSPECTIONS SHALL BE MADE WEEKLY AND AFTER RAIN STORM EVENTS TO INSURE THAT THE DEVICES ARE FUNCTIONING PROPERLY. WHEN SEDIMENT OR MUD HAS CLOGGED THE VOID SPACES BETWEEN STONES OR MUD IS BEING TRACKED ONTO A PUBLIC ROADWAY THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASH DOWN OPERATION HALL SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL OFF SITE SEDIMENTATION. PERIODIC RE-GRADING OR THE ADDITION OF NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFICIENCY OF THE INSTALLATION.
- 6. CONTRACTOR SHALL HAVE A COPY THE SWPPP ON SITE AT ALL TIMES.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTAL OF N.O.I., N.O.T. AND ANY ADDITIONAL INFORMATION REQUIRED BY THE E.P.A. CONTRACTOR SHALL COMPLY WITH ALL E.P.A. STORM WATER POLLUTION PREVENTION REQUIREMENTS.

# EROSION CONTROL SCHEDULE AND PHASING

THE PROJECT SHALL GENERALLY CONFORM TO THE FOLLOWING:

PHASE 1 - DEMOLITION/GRADING

A. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE, SILT FENCE, AND TREE PROTECTION FENCE ACCORDING TO THE APPROXIMATE LOCATION SHOWN ON GRADING AND EROSION CONTROL PLAN, NOTES, AND DETAIL SHEETS. B. BEGIN CLEARING AND GRADING OF SITE.

C. SEED AND REVEGETATE SLOPES WHERE SHOWN.

A. KEEP ALL STORM WATER POLLUTION PREVENTION MEASURES IN PLACE. B. INSTALL STORM DRAINS AS SPECIFIED ON PLAN SHEETS. C. INSTALL INLET PROTECTION.

PHASE 3 - PAVING A. KEEP ALL STORM WATER POLLUTION PREVENTION MEASURES IN PLACE. REMOVE AS NEEDED TO PAVE.

B. STABILIZE SUBGRADE.

C. PAVE PARKING LOT AND SIDEWALKS AS SPECIFIED ON PLAN SHEETS. D. REMOVE TEMPORARY CONSTRUCTION ENTRANCE.

E. MAINTAIN INLET PROTECTION.

PHASE 4 - LANDSCAPING AND SOIL STABILIZATION

A. REVEGETATE LOT AND PARKWAYS B. LANDSCAPE CONTRACTOR SHALL REVEGETATE ALL AREAS RESERVED FOR

LANDSCAPE VEGETATIVE COVERS.

C. REMOVE EROSION CONTROL DEVICES WHEN GROUND COVER ESTABLISHED.

B.M.P. MAINTENANCE SCHEDULE TEMPORARY STONE CONSTRUCTION ENTRANCE/EXIT:

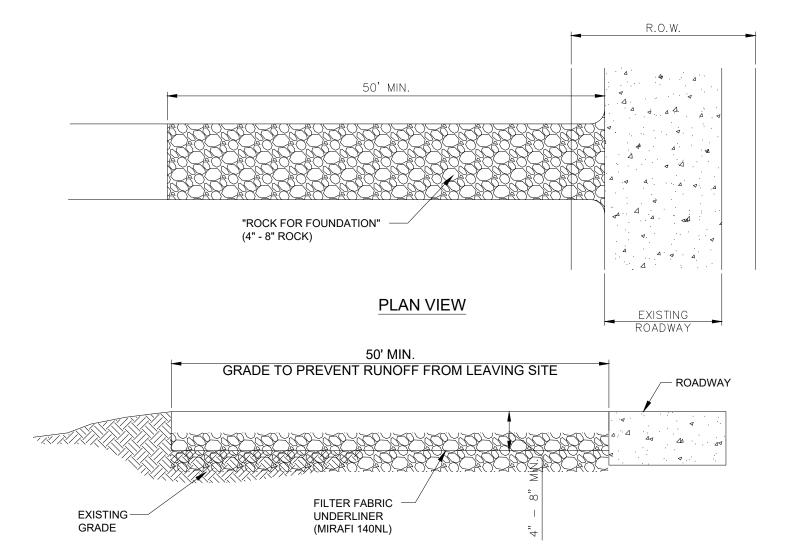
INSPECTIONS SHALL BE MADE WEEKLY AND AFTER RAIN STORM EVENTS TO ENSURE THAT THE FACILITY IS FUNCTIONING PROPERLY. AGGREGATE PAD SHALL BE WASHED DOWN OR REPLACED WHEN SEDIMENT OR MUD HAS CLOGGED THE VOID SPACES BETWEEN THE SONES OR MUD IS BEING TRACKED ONTO THE PUBLIC ROADWAY. RUNOFF FROM WASH DOWN OPERATION SHALL BE FILTERED THROUGH ANOTHER B.M.P. PRIOR TO DRAINING OFF-SITE.

SILT FENCE:

INSPECTIONS SHALL BE MADE WEEKLY AND AFTER RAIN STORM EVENTS. SEDIMENT SHALL BE REMOVED FROM BEHIND THE FENCE WHEN THE DEPTH OF SEDIMENT HAS BUILT UP TO ONE-THIRD THE HEIGHT OF THE FENCE ABOVE GRADE. FENCE SHALL BE INSPECTED FOR GAPS AT BASE. INSPECT SUPPORTING POSTS AND FILTER FABRIC. REPLACE IF REQUIRED.

INLET PROTECTION:

INSPECTIONS SHALL BE MADE WEEKLY AND AFTER RAIN STORM EVENTS TO ENSURE THAT THE DEVICE IS FUNCTIONING PROPERLY. SEDIMENT SHALL BE REMOVED FROM THE STORAGE AREA WHEN SEDIMENT DEPTH HAS BUILT UP TO ONE-HALF THE DESIGN DEPTH. IF DE-WATERING OF THE STORAGE VOLUME IS NOT OCCURRING, CLEAN OR REPLACE THE FILTER STONE SURROUNDING THE INLET. CLEAN THE STONE SURFACE THE FIRST FEW TIMES BY RAKING. REPEATED SEDIMENT BUILD-UP WILL REQUIRE FILTER STONE REPLACEMENT.



# CONSTRUCTION ENTRANCE NOTES:

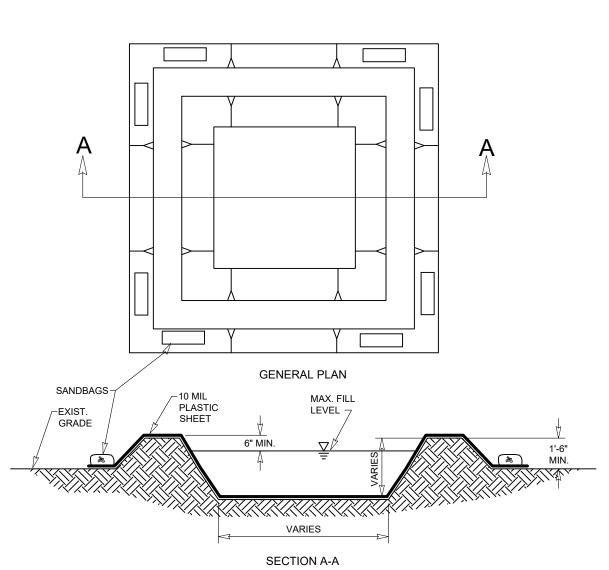
- 1. STONE SIZE 4" TO 8" INCHES (MIN) ROCK.
- 2. LENGTH AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
- 3. THICKNESS NOT LESS THAN 4 INCHES.
- 4. WIDTH NOT LESS THAN 25 FEET OF ALL POINTS OF INGRESS OR EGRESS.
- 5. WASHING WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.

**PROFILE** 

- MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY, MUST BE REMOVED IMMEDIATELY.
- 7. DRAINAGE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
- 8. CONTRACTOR TO COORDINATE EXACT LOCATION OF THIS DETAIL.

# CONSTRUCTION ENTRANCE





1. SET LENGTH AND WIDTH AS NECESSARY TO PROVIDE ADEQUATE

SPACE FOR WASHOUT ACTIVITIES. 2. IF RESTRICTED BY DEPTH DUE TO BELOW GRADE APPURTENANCES, PLACE EARTHEN BERMS AT SIDE.

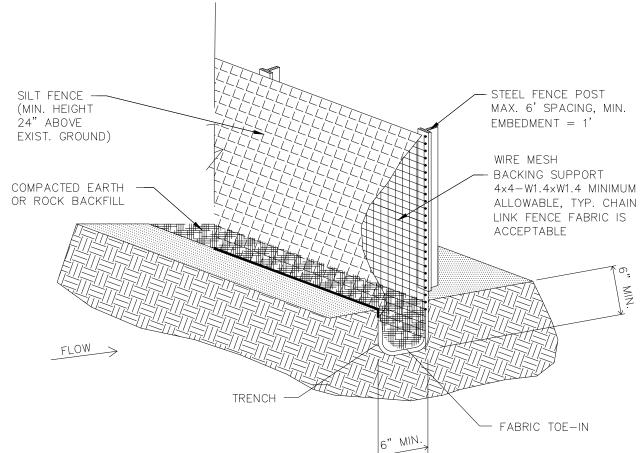
3. USE EXCAVATED MATERIAL TO CREATE EARTHEN BERMS SURROUNDING THE AREA TO BE DESIGNATED AS CONCRETE WASHOUT.

4. PLACE 10MIL OR GREATER PLASTIC SHEETING. 5. SECURE SHEETING ON OUTSIDE OF BERM AREA USING SAND BAGS OR

ROCK EQUIVALENT. 6. DISPOSE OF CONTENTS APPROPRIATELY.

# CONCRETE WASHOUT DETAIL



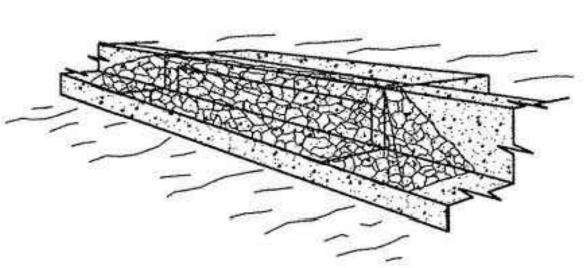


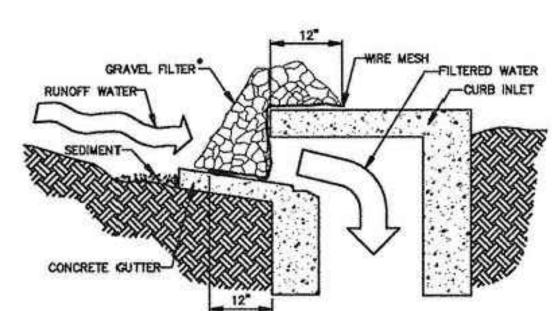
# SILT FENCE GENERAL NOTES

- 1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
- 2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEÉPING UNDER FENCE.
- 3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH
- 4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
- 5. INSPECTION SHALL BE MADE EVERY WEEK AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- 7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE-THIRD THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
- 8. NO STEEL POSTS SHALL BE SET WITHIN THE RIGHT-OF-WAY.

# CONSTRUCTION OF A FILTER BARRIER







# SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED

. GRAVEL SHALL BE 2"-3" STONE

# TEMPORARY GRAVEL CURB INLET SEDIMENT FILTER



TEXAS REGISTRATION #14199  $\triangleleft$ 

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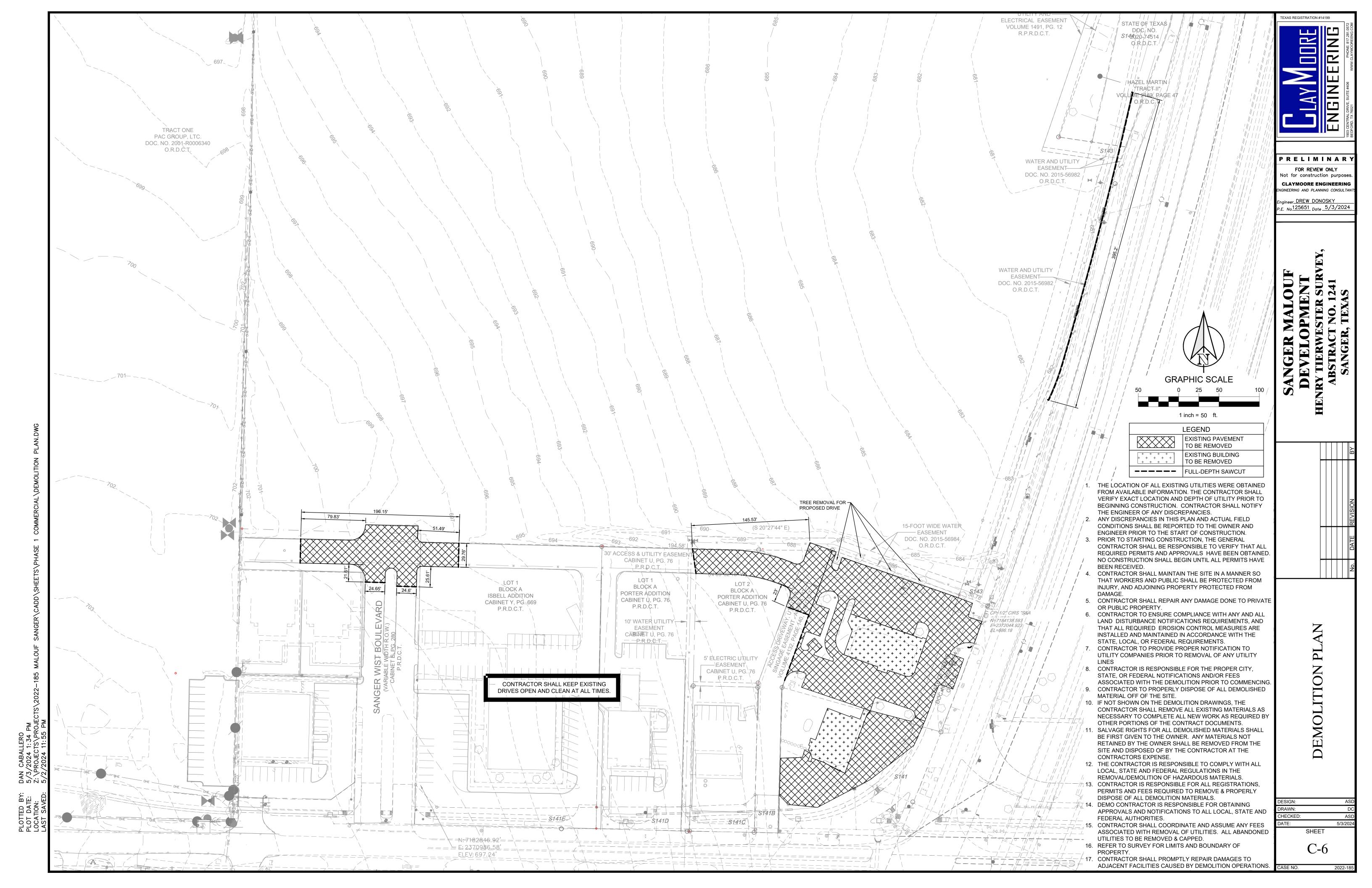
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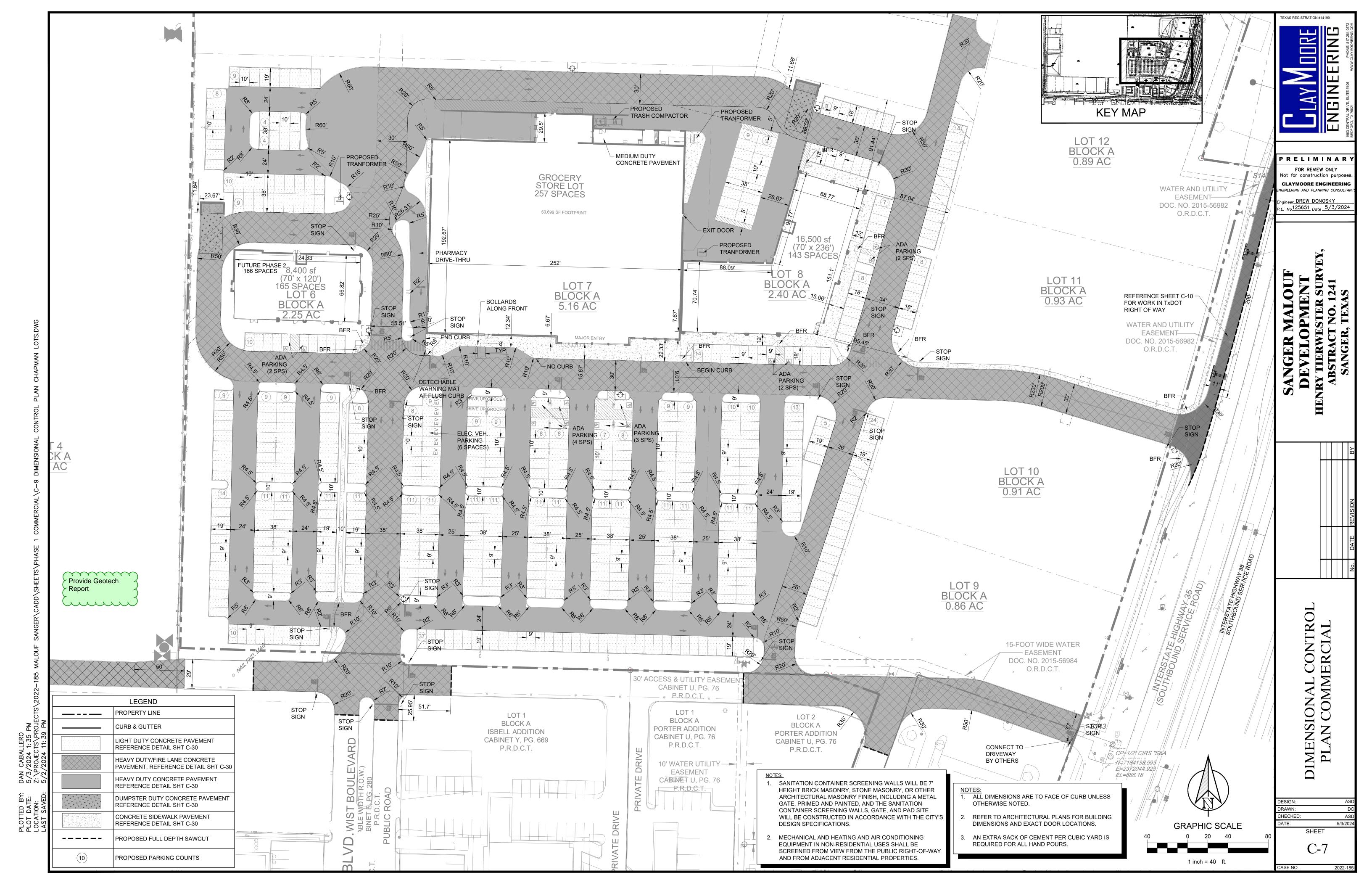
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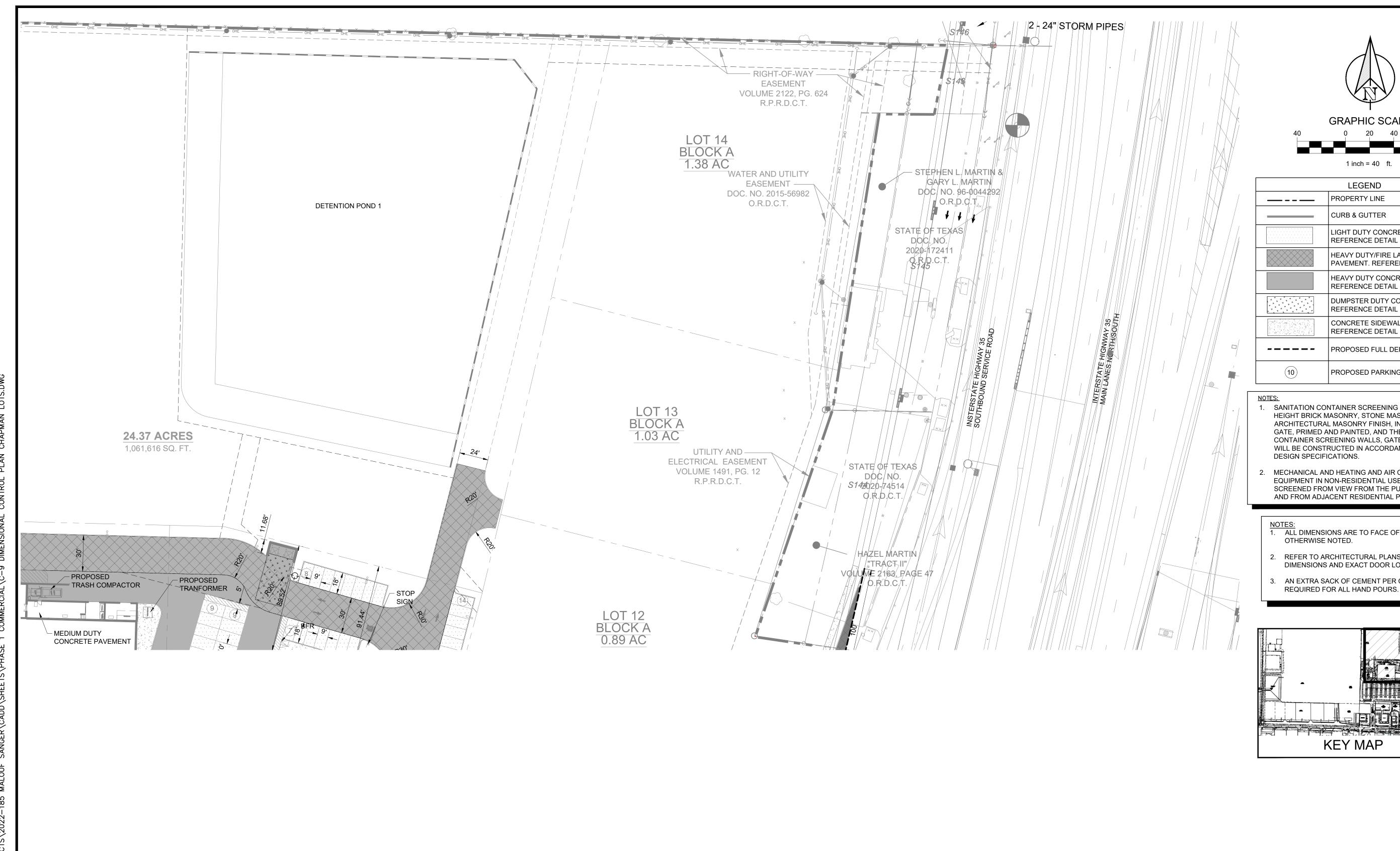
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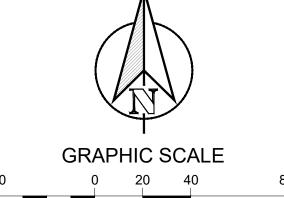
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PLOTTED BY: PLOT DATE: LOCATION: LAST SAVED:



1 inch = 40 ft.

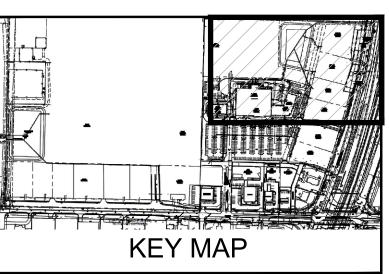
	LEGEND
	PROPERTY LINE
	CURB & GUTTER
	LIGHT DUTY CONCRETE PAVEMENT REFERENCE DETAIL SHT C-30
	HEAVY DUTY/FIRE LANE CONCRETE PAVEMENT. REFERENCE DETAIL SHT C-3
	HEAVY DUTY CONCRETE PAVEMENT REFERENCE DETAIL SHT C-30
* * * * * * * * * * * * * * * * * * *	DUMPSTER DUTY CONCRETE PAVEMENT REFERENCE DETAIL SHT C-30
	CONCRETE SIDEWALK PAVEMENT REFERENCE DETAIL SHT C-30
	PROPOSED FULL DEPTH SAWCUT
(10)	PROPOSED PARKING COUNTS

- 1. SANITATION CONTAINER SCREENING WALLS WILL BE 7 HEIGHT BRICK MASONRY, STONE MASONRY, OR OTHER ARCHITECTURAL MASONRY FINISH, INCLUDING A METAL GATE, PRIMED AND PAINTED, AND THE SANITATION CONTAINER SCREENING WALLS, GATE, AND PAD SITE WILL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S DESIGN SPECIFICATIONS.
- 2. MECHANICAL AND HEATING AND AIR CONDITIONING EQUIPMENT IN NON-RESIDENTIAL USES SHALL BE SCREENED FROM VIEW FROM THE PUBLIC RIGHT-OF-WAY AND FROM ADJACENT RESIDENTIAL PROPERTIES.

NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS

- 2. REFER TO ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND EXACT DOOR LOCATIONS.
- 3. AN EXTRA SACK OF CEMENT PER CUBIC YARD IS



TEXAS REGISTRATION #14199

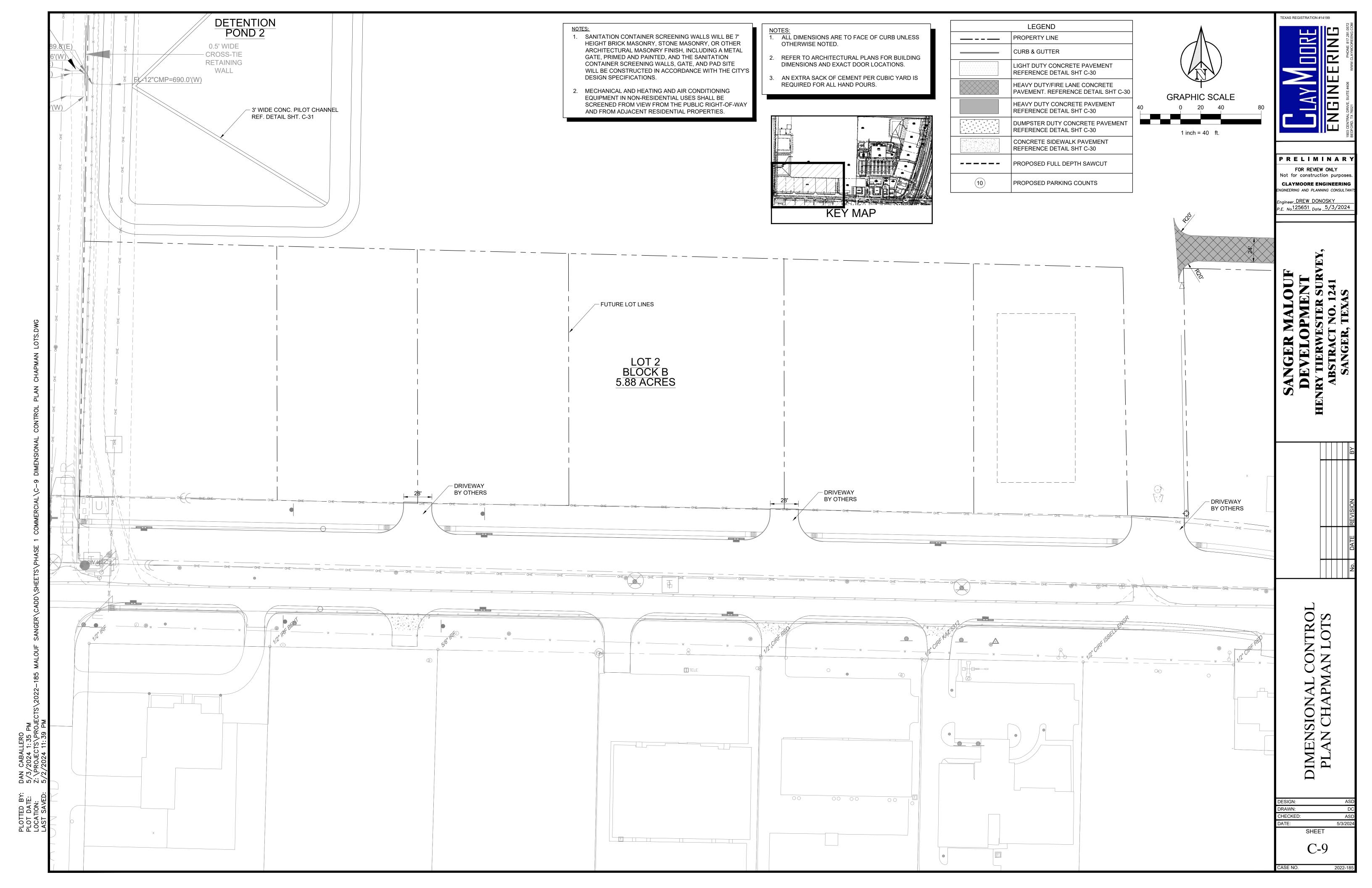
PRELIMINARY FOR REVIEW ONLY Not for construction purposes CLAYMOORE ENGINEERING Engineer DREW DONOSKY

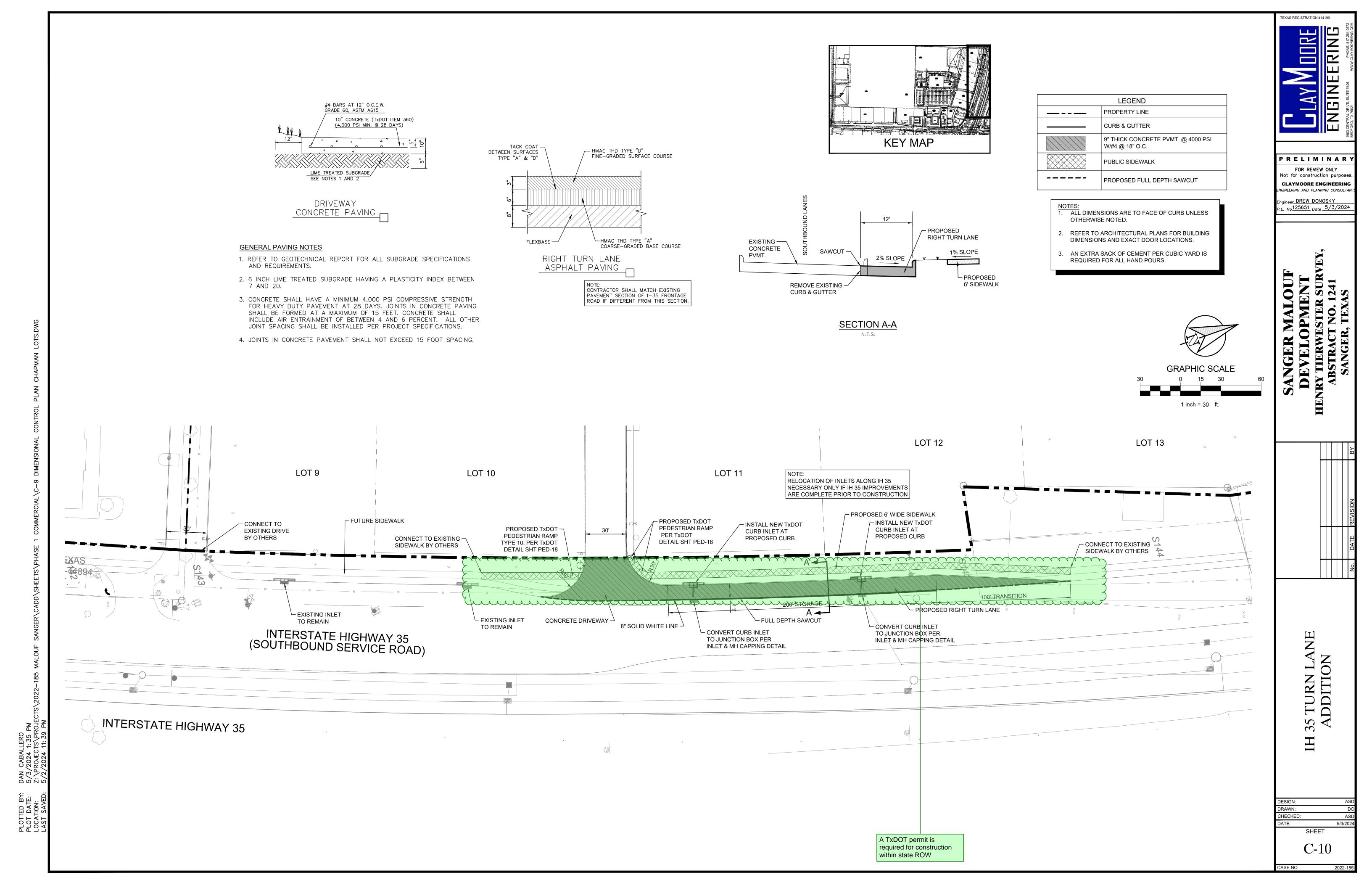
P.E. No.125651 Date 5/3/2024

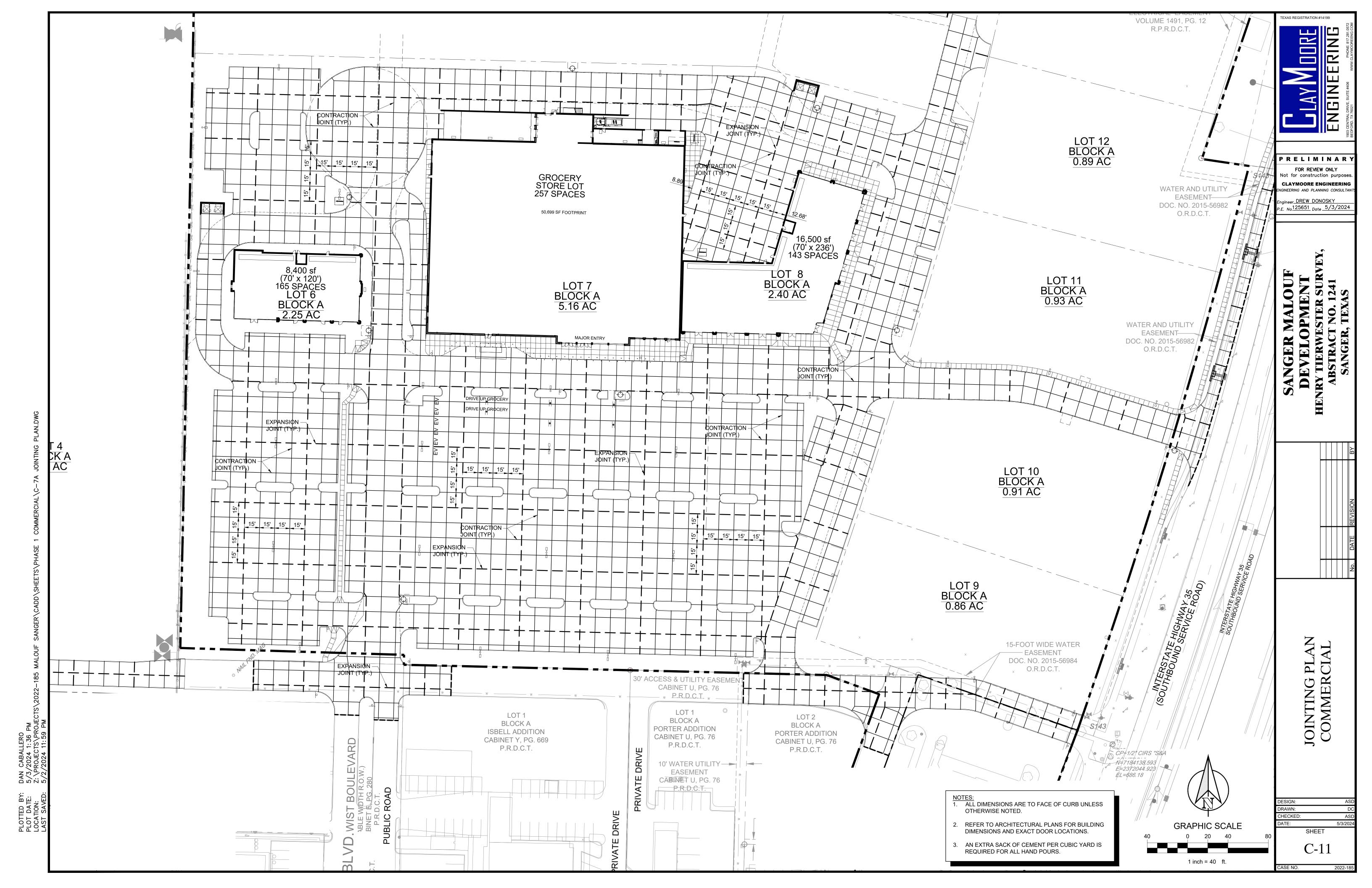
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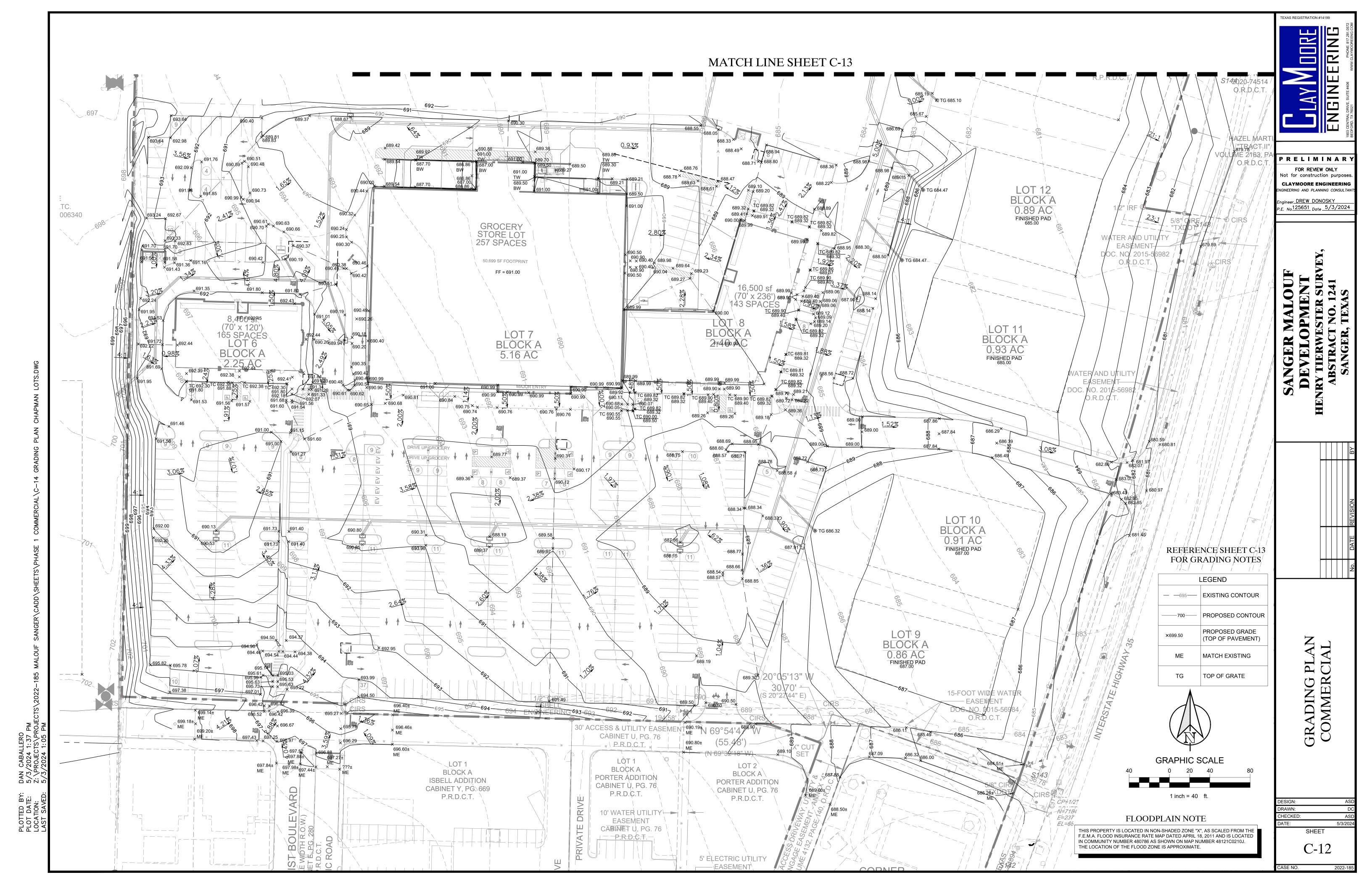
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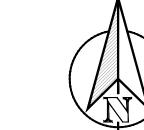






MATCH LINE SHEET C-12

UTILITY AND
ELECTRICAL EASEMEN
VOLUME 1491, PG 12
R.P.R.D.C.T<sub>I</sub>



1. ALL SPOT ELEVATIONS ARE TO TOP OF PAVING UNLESS OTHERWISE NOTED.

4. ALL CURB HEIGHTS ARE 6-INCHES UNLESS NOTED OTHERWISE.

2. EXISTING UTILITIES WERE OBTAINED FROM RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EXISTING UTILITIES AND NOTIFY THE ENGINEER FOR ANY DISCREPANCIES WITH THIS PLAN. 3. MAXIMUM SLOPE IN LANDSCAPE AREAS ARE NOT TO EXCEED 3:1; MIN EARTH GRADE IS 1.0%; MIN PAVING GRADE IS

STEPHEN L/MARTIN &

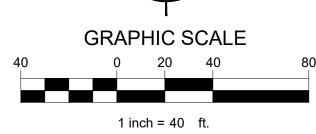
GARY L. MARTIN

DOC! NO. 96-0044292 O.R.D.G.T.

STATE OF TEXAS DOC! NO. \$142020-74514

HIGHWAY

INTERSTA



# FLOODPLAIN NOTE

THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X", AS SCALED FROM THE F.E.M.A. FLOOD INSURANCE RATE MAP DATED APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480786 AS SHOWN ON MAP NUMBER 48121C0210J. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE.

	LEGEND		
— —695— —	EXISTING CONTOUR		
700	PROPOSED CONTOUR		
×699.50	PROPOSED GRADE (TOP OF PAVEMENT)		
ME	MATCH EXISTING		
TG	TOP OF GRATE		

TEXAS REGISTRATION #14199

PRELIMINARY FOR REVIEW ONLY lot for construction purposes **CLAYMOORE ENGINEERING** NGINEERING AND PLANNING CONSULTAN

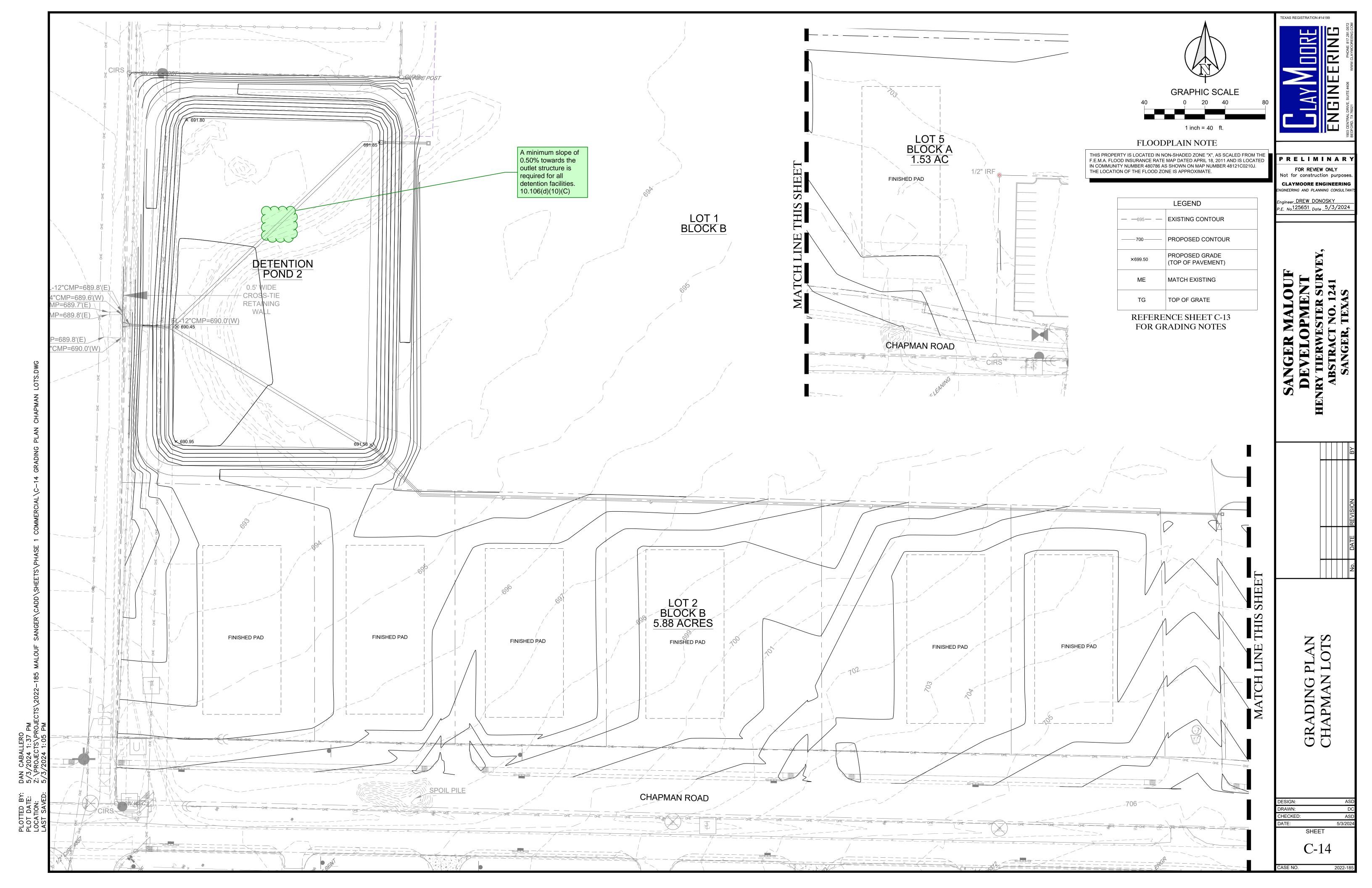
Ingineer DREW DONOSKY . No.125651 Date 5/3/2024

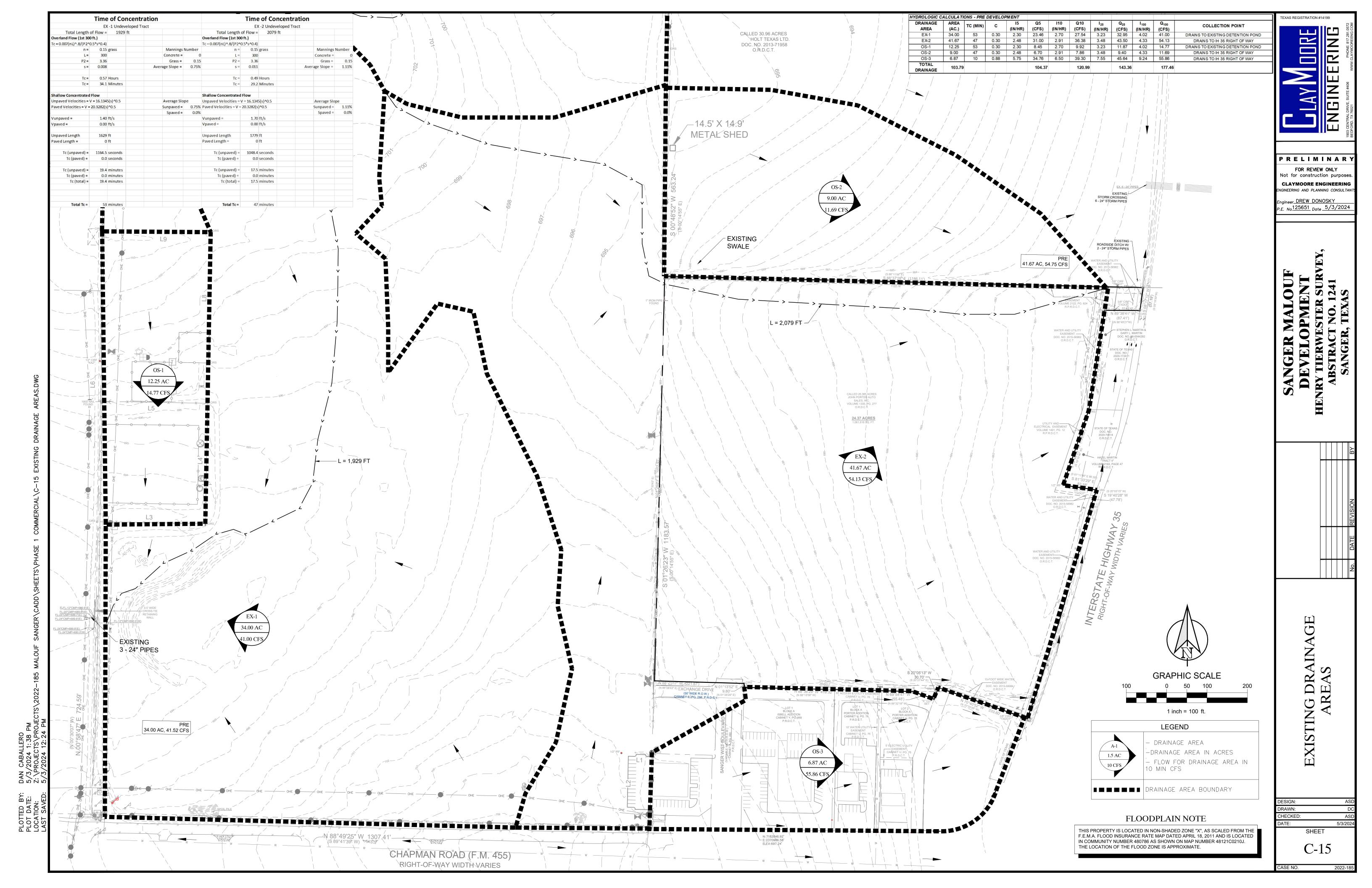
C-13

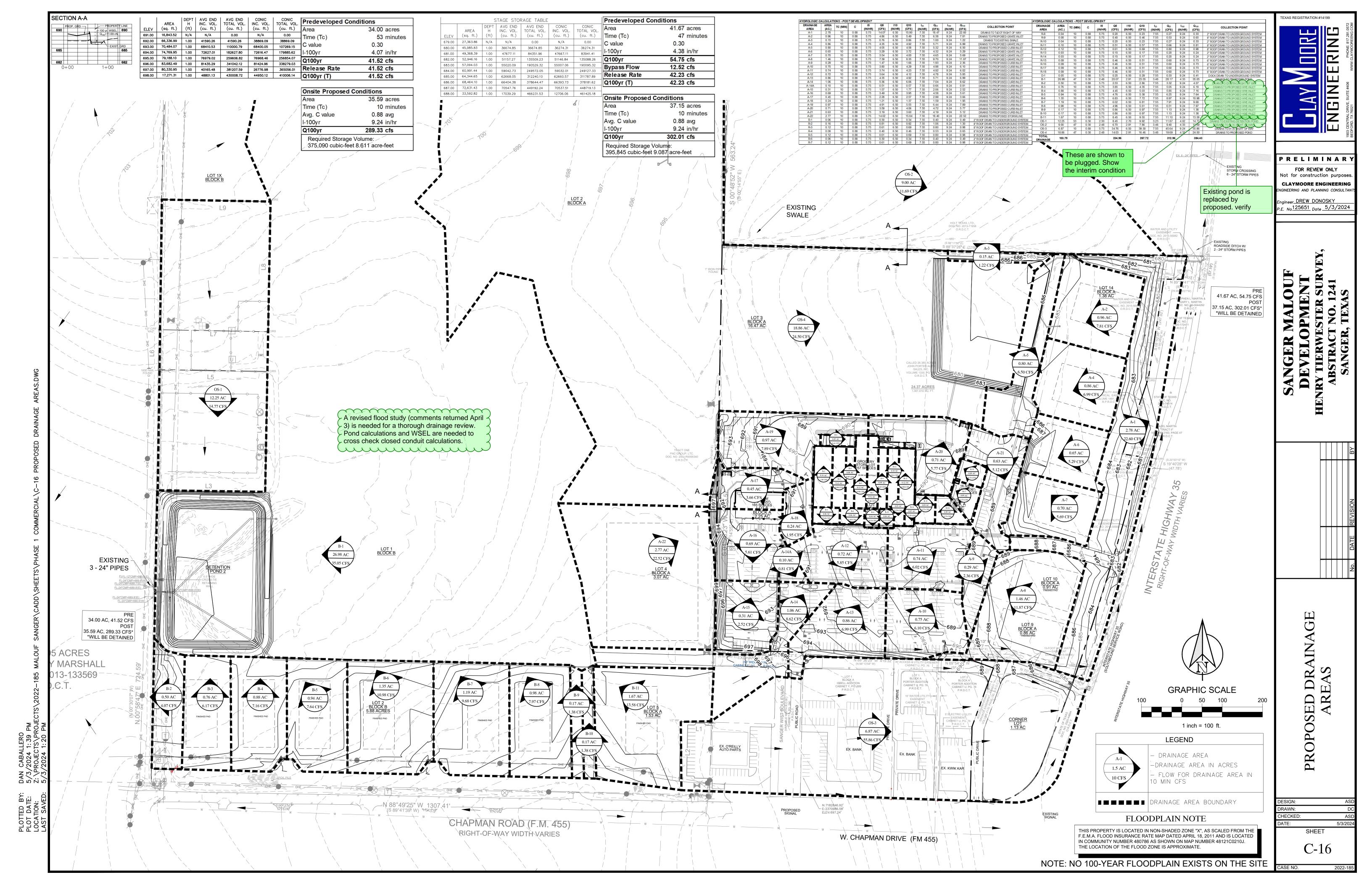
SHEET

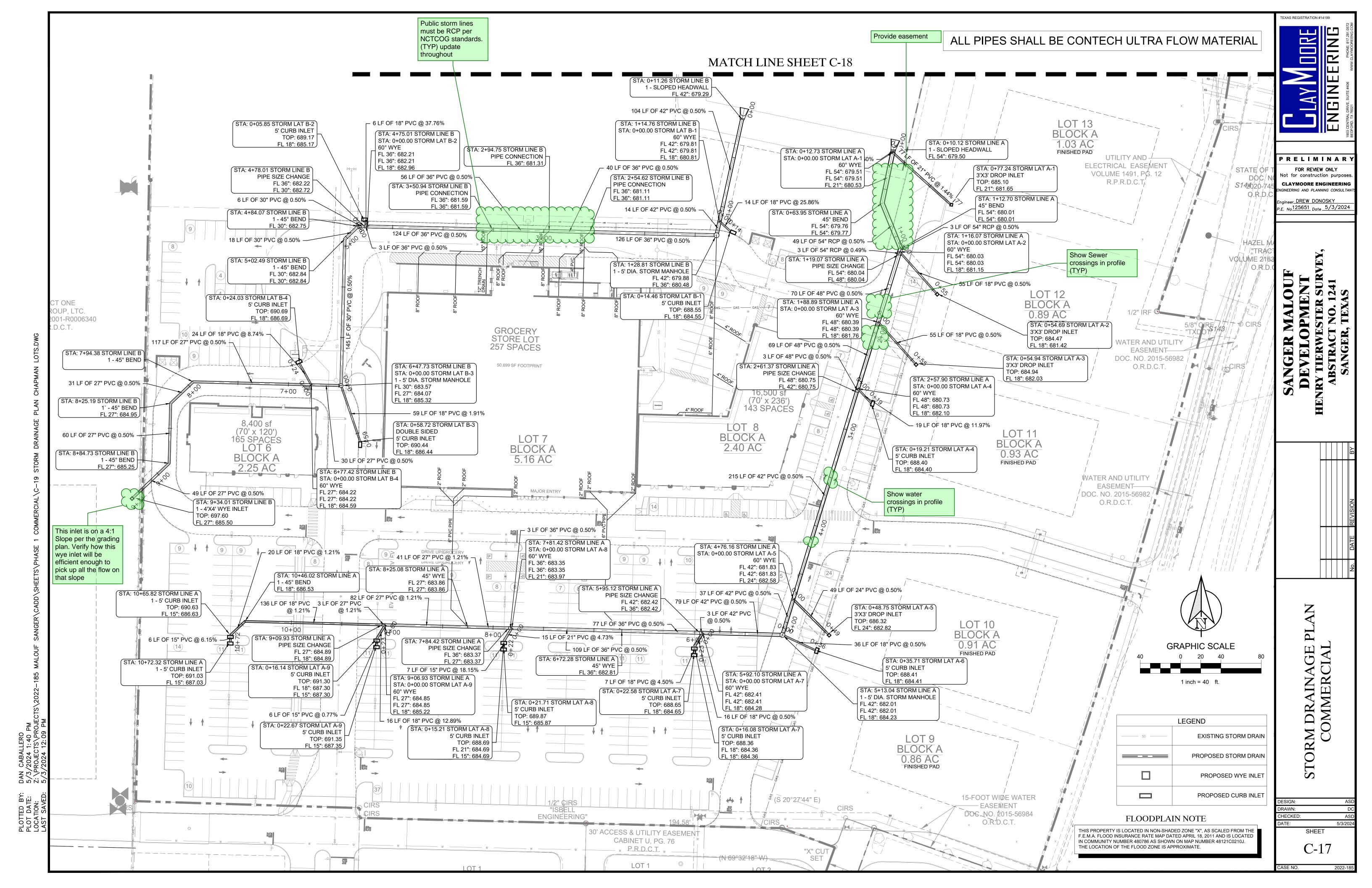
PLOTTED BY: PLOT DATE: LOCATION: LAST SAVED:

**24.37 ACRES** 1,061,616 SQ. FT.

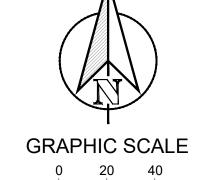


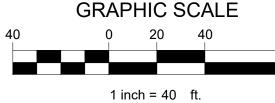






# ALL PIPES SHALL BE CONTECH ULTRA FLOW MATERIAL





# FLOODPLAIN NOTE

THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X", AS SCALED FROM THE F.E.M.A. FLOOD INSURANCE RATE MAP DATED APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480786 AS SHOWN ON MAP NUMBER 48121C0210J. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE.

	LEGEND		
SD	EXISTING STORM DRAIN		
	PROPOSED STORM DRAIN		
	PROPOSED WYE INLET		
	PROPOSED CURB INLET		

TEXAS REGISTRATION #14199

PRELIMINARY FOR REVIEW ONLY lot for construction purposes CLAYMOORE ENGINEERING NGINEERING AND PLANNING CONSULTAN

Engineer\_DREW\_DONOSKY P.E. No.125651 Date 5/3/2024

			L
			14

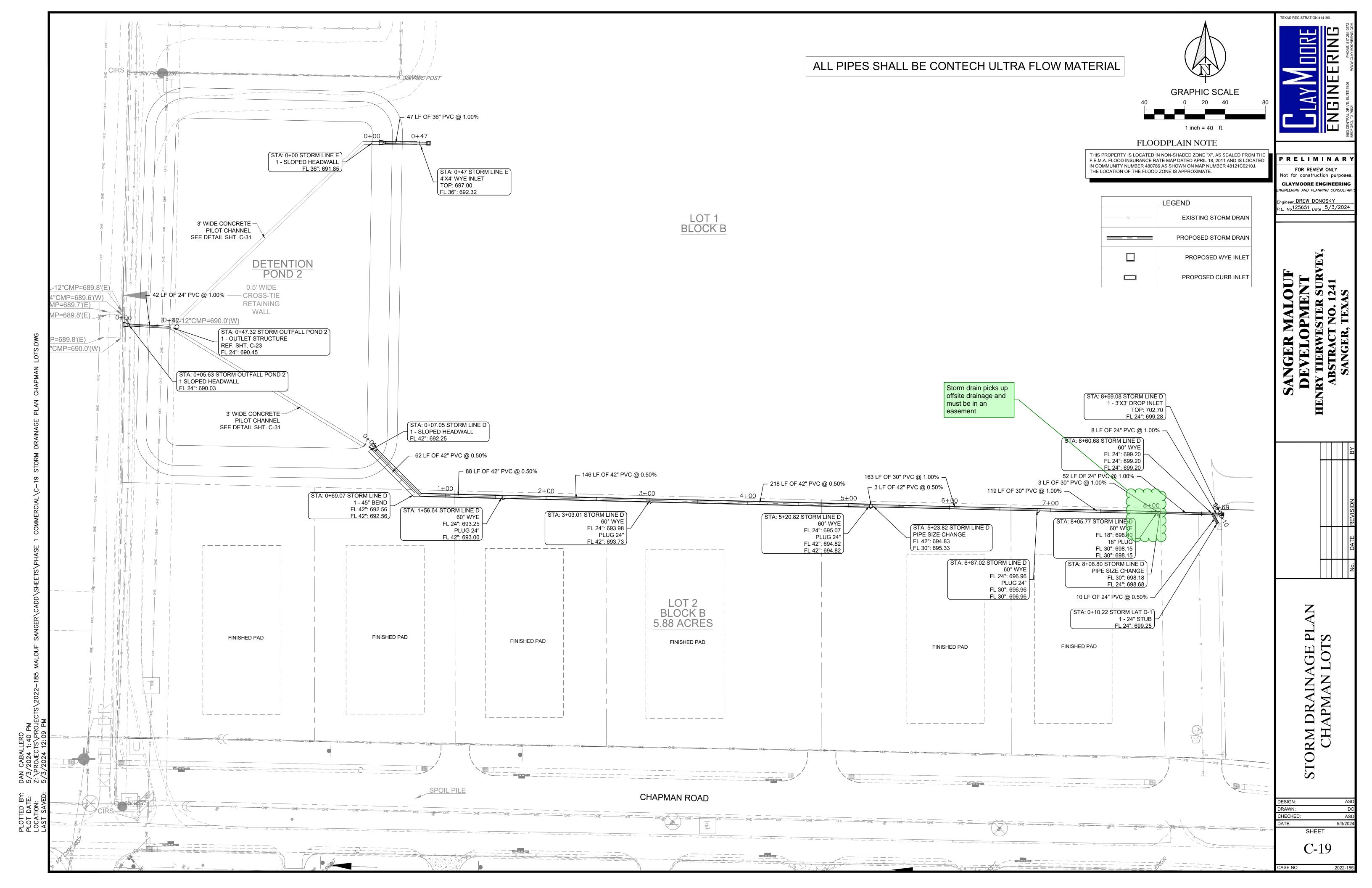
DESIGN:	ASD
DRAWN:	DC
CHECKED:	ASD
DATE:	5/3/2024
SHE	ET

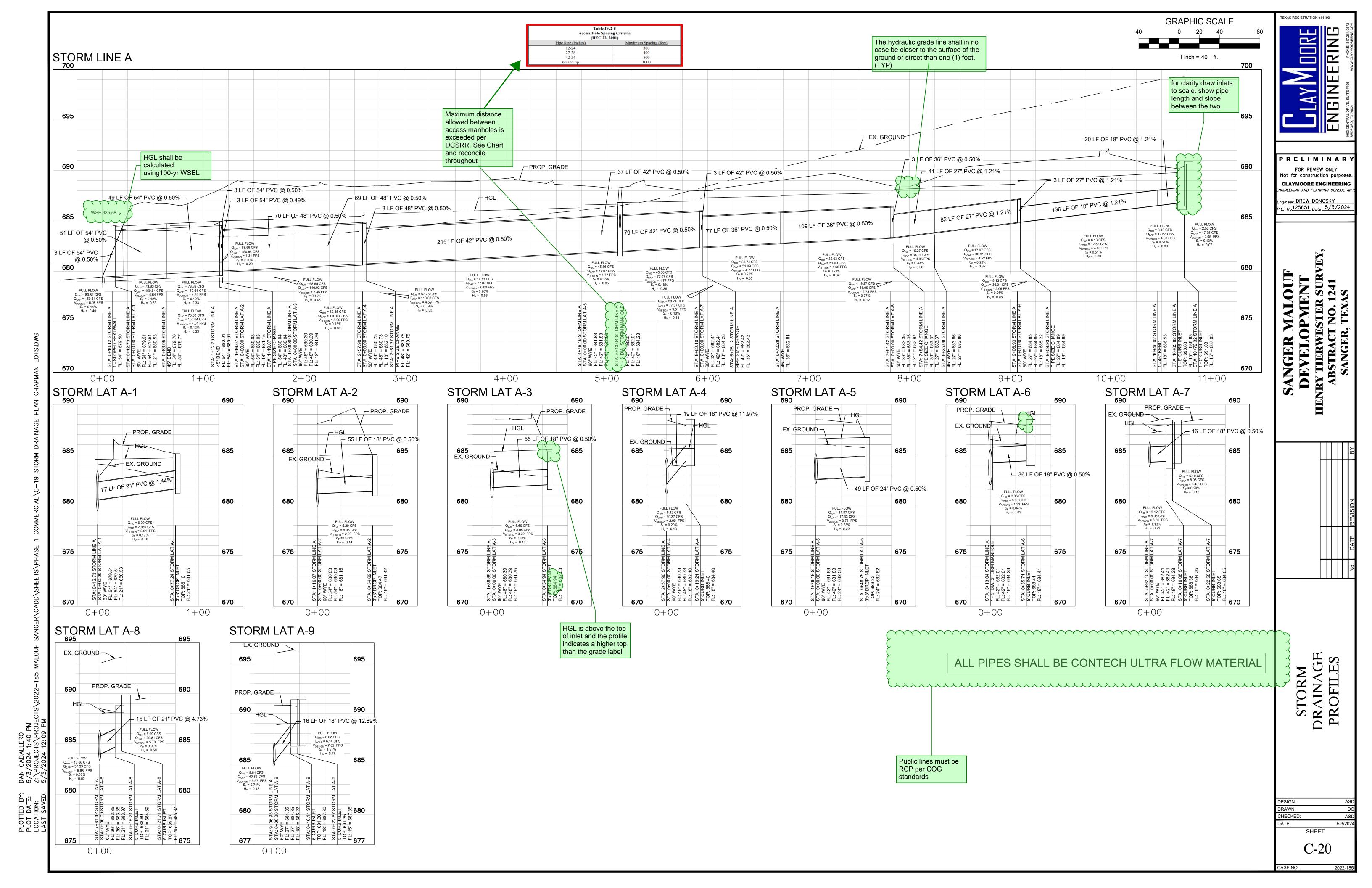
C-18

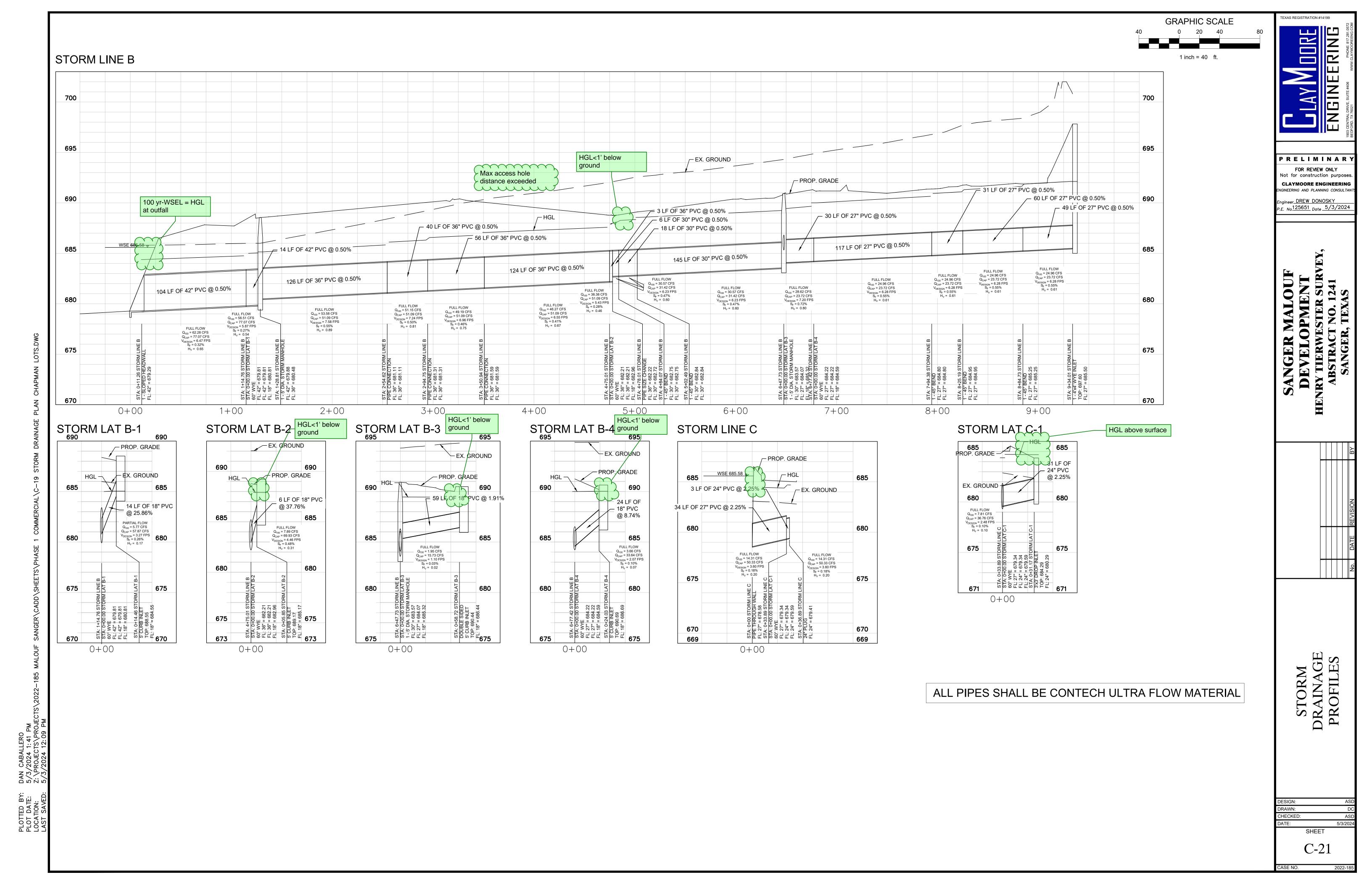
PLOTTED BY: PLOT DATE: LOCATION: LAST SAVED:

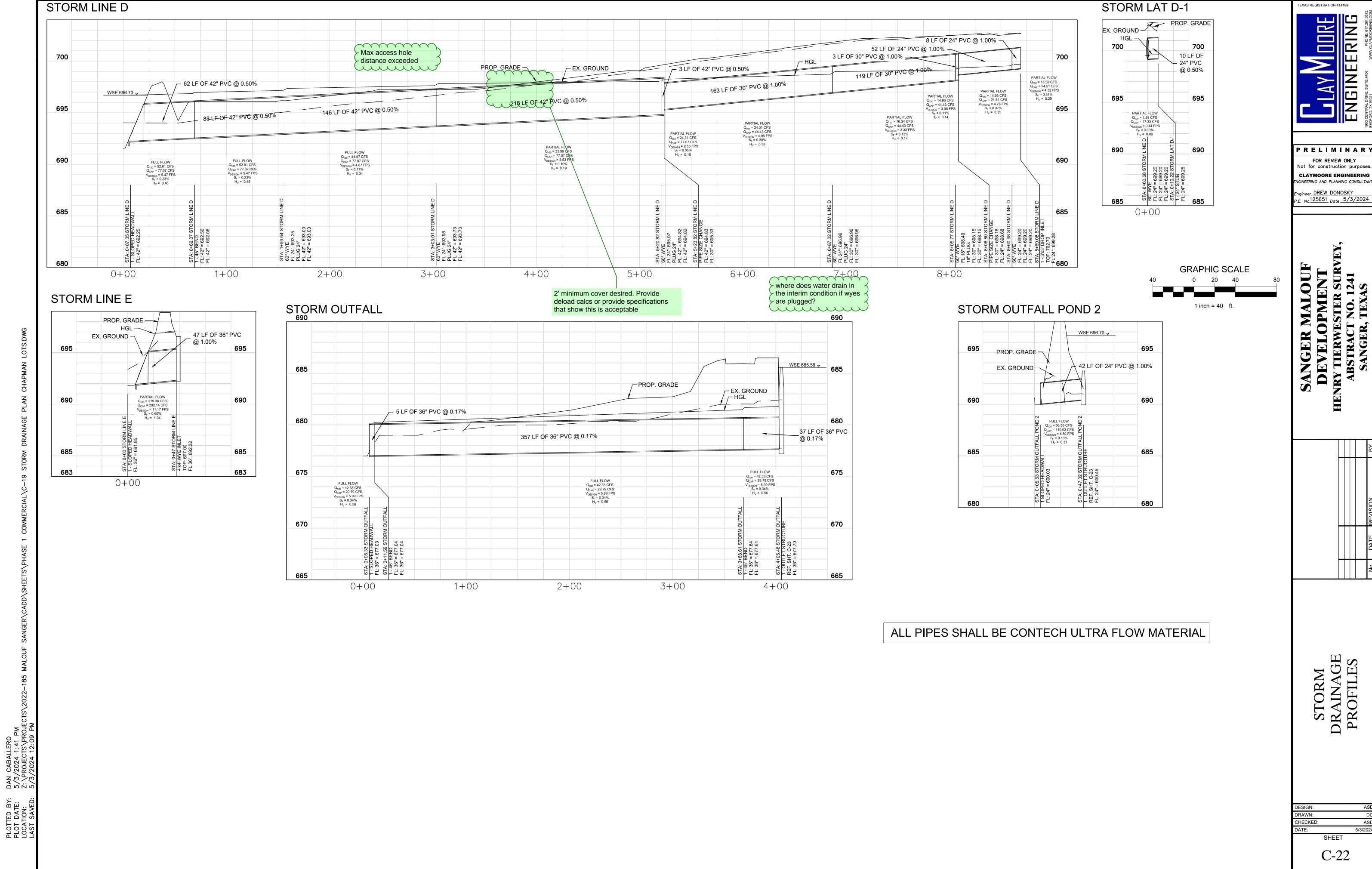
Must be RCP HOLT TEXAS, LTD., DOC. NO. 2013-71958 O.R.D.C.T. STA: 0+06.33 STORM OUTFALL 1 - SLOPED HEADWALL FL 36": 677.03 5 LF OF 36" PVC @ 0.17% -STA: 3+68.61 STORM OUTFAYL 1 - 45° BEND FL 36": 677.64 STA: 0+11.59 STORM OUTFALL 1 - 45° BEND FL 36": 677.04 FL 36": 677.04 5 FEHIGHWAY 357 LF OF 36" PVC @ 0.17% STA: 4+05.48 STORM OUTFALL 1 - OUTLET STRUCTURE REF. SHT. C-23 FL 36": 677.70 RIGHT-OF-WAY CONTRASEMENTO VOLUME 2122, PG. 624 R.P.R.D.C.T. LOT 14 BLOCK A 1.38 AC HVTERSTAT (N 88°4/9'21"W) ≥ - STEPHEN L. MARTIN & STA: 0+33.89 STORM LINE C STA: 0+00.00 STORM LAT C-1 60° WYE FL 27": 679.34 FL 24": 679.59 GARY L. MARTIN DOC, NO. 96-0044292 FINISHED PAD 0.R.D.Q.T. STA: 0+00 STORM LINE C PIPE THROUGH WALL FL 27": 678.58 – 31 LF OF 24" PVC @ 2.25% STATE OF TEXAS STA: 0+31.17 STORM LAT C-1 3'X3' DROP INLET TOP: 684.29 FL 24": 680.29 DOC. NO. 2020-172411 O.R.D.C.T. \$145 STA: 0+36.89 STORM LINE C 24" PLUG FL 24": 679.41 34 LF OF 27" PVC @ 2.25% 3 LF OF 24" PVC @ 2.25% -

MATCH LINE SHEET C-17









 $\cdots \cdots \cdots$ Losses at manholes will need to be calculated minim

Update for RCP

**Elevation Interpolation** Needed Volume Delta Volume -28902 Delta Elevation nterpolated Water Surf Elev 685.58

677.69 0 0.00

678.00 1962 0.05

679.00 36021 0.83

680.00 49368 1.13

681.00 52946 1.22

682.00 57094 1.31

uuu

1.00

**Elevation Interpolation** Needed Volume Delta Volume **Delta Elevation** #DIV/0! Interpolated Water Surf Elev #DIV/0!

**Elevation Interpolation** 157544.210 Needed Volume -267203 Delta Volume Delta Elevation nterpolated Water Surf Elev 682.10

Elevation Interpolation Needed Volume Delta Volume **Delta Elevation** Interpolated Water Surf Elev

119025.2699 -23725 -3.5 681.43

DETENTION POND SURFACE ELEVATION

100 YR WSE = 685.58

495295

RESTRICTED FLOW STAINLESS STEEL HARDWARE FASTNERS PROPOSED HEADWALL PROPOSED 36" PIPE RESTRICTOR PLATE -1/2" THICK STEEL PLATE BOLTED TO OUTSIDE FACE OF PROPOSED HEADWALL RESTRICTOR PLATE OPENING ≟ 20.34 IN. DIAMETER OPENING AREA 2.25 SF

RESTRICTOR PLATE DETAIL

POND 1 NOT TO SCALE

32.2 ft/s<sup>2</sup>

/ RESTRICTED FLOW

**Proposed Detention Pond Evaluation** 100 YEAR ORIFICE CALCULATION vation Difference | Incremental Volume (ft³) | Cumulative Volume (ft³) | Cumulative Volume (ac-Ft<sup>3</sup> per one hundred  $Q = C*A(2gh)^0$ **RESTRICTOR PLATE** 0.443 18992 19296 C = 0.8561991 1.423 Dia Orifice = 20.34 in Open Area 2.25 ft<sup>2</sup> 113148 2.598 51157 55020 168168 3.861 FL 36" = 677.69 227211 5.216 WSE = 684.38 62668 h= 7.54 Q = 42.23 cfs 66404 356283 424747

A revised flood study (comments returned April -- 3) is needed backcheck and support this information. minimum s

Elevation Interpolation Needed Volume -14093 Delta Volume **Delta Elevation** Interpolated Water Surf Elev

Elevation Interpolation Needed Volume 218294.3033 Delta Volume #DIV/0! Delta Elevation #DIV/0! Interpolated Water Surf Elev سس

TOP OF POND 697.00 17953 0.41 1FT FREEBOARD 697.70

TOP OF POND 698.00

Delta Volume #DIV/0! **Delta Elevation** Interpolated Water Surf Elev #DIV/0! ~ Elevation Interpolation 119025.2699 Needed Volume 119025 Delta Volume **Delta Elevation** - #DIV/0! #DIV/0! nterpolated Water Surf Elev

Elevation Interpolation

**Proposed Detention Pond Evaluation** 

**DETENTION POND SURFACE ELEVATION** 100 YR WSE = 696.70

> 187260 264202 341983

W

4.299

8.934

STAINLESS STEEL HARDWARE FASTNERS	RESTRICTED FLOW
A A A	
	PROPOSED HEADWALL
	PROPOSED 36" PIPE
	RESTRICTOR PLATE – 1/2" THICK STEEL PLATE BOLTED TO OUTSIDE FACE OF PROPOSED HEADWALL
4 4 4	RESTRICTOR PLATE OPENING 20.47 IN. DIAMETER OPENING

AREA 2.28 SF RESTRICTOR PLATE DETAIL

POND 2 NOT TO SCALE

per one hundredth		100 YEAR OR	RIFICE CALCULATION
84.2176		Q = C*A(2gh) <sup>0.5</sup>	
415.90255		RESTRICTOR PLATE	
AND A PROPERTY.		C =	0.85
684.1053		Dia Orifice =	20.47 in
726.2701		Open Area	2.28 ft <sup>2</sup>
769.42185		g =	32.2 ft/s <sup>2</sup>
777.80915		FL 36" =	690.45
472.0011		WSE =	696.70
472.0011		h=	7.10
		Q =	41.52 cfs

→ Dedicated detention/retention basins shall also  $\succ$  include an additional one (1) foot of freeboard and  $\cdot$ two (2) feet of sediment storage. ~ 10.106(d)(10) 

> Provide inlet calculations

 $\triangleleft$ FOR REVIEW ONLY

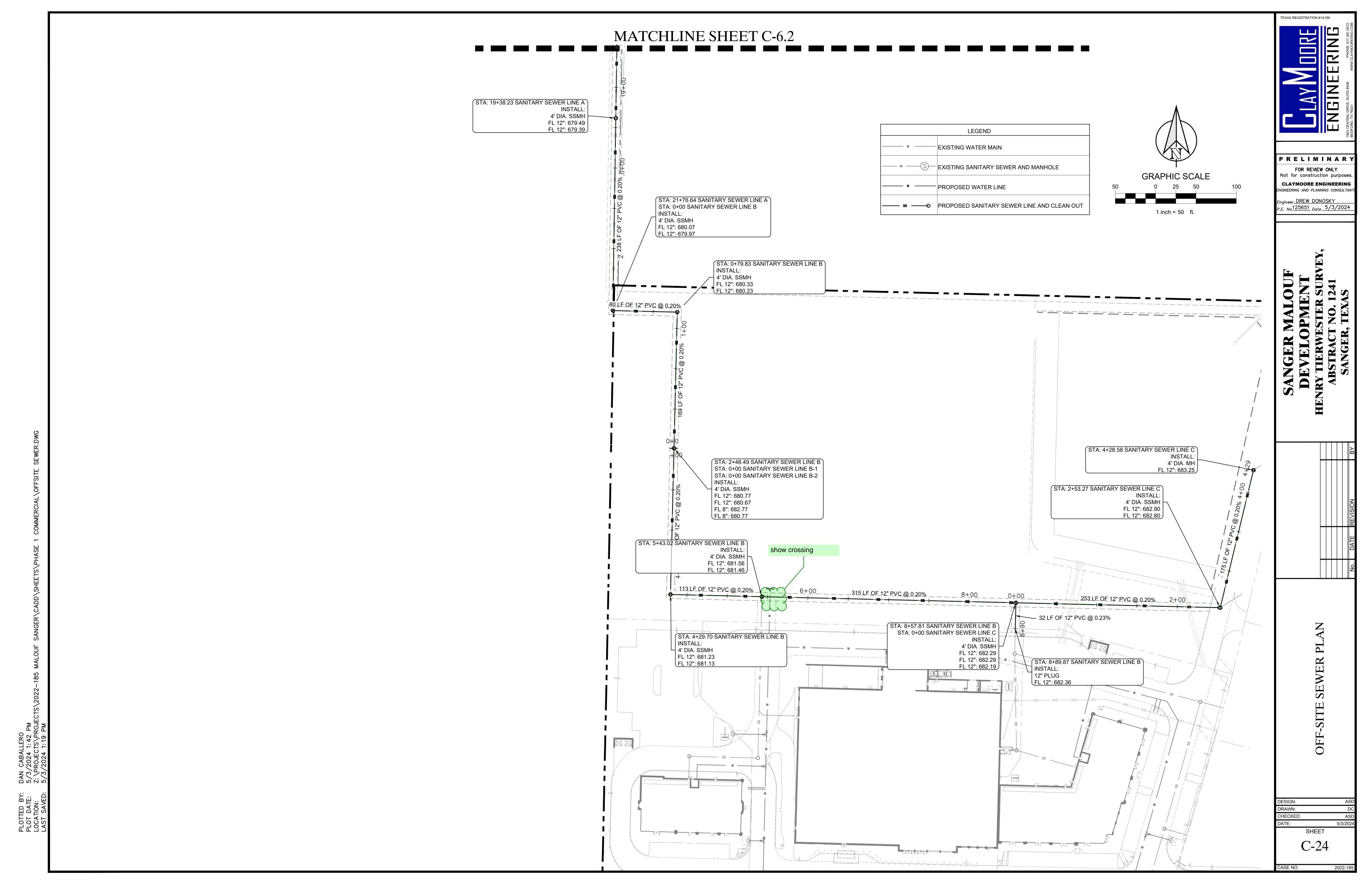
TEXAS REGISTRATION #14199

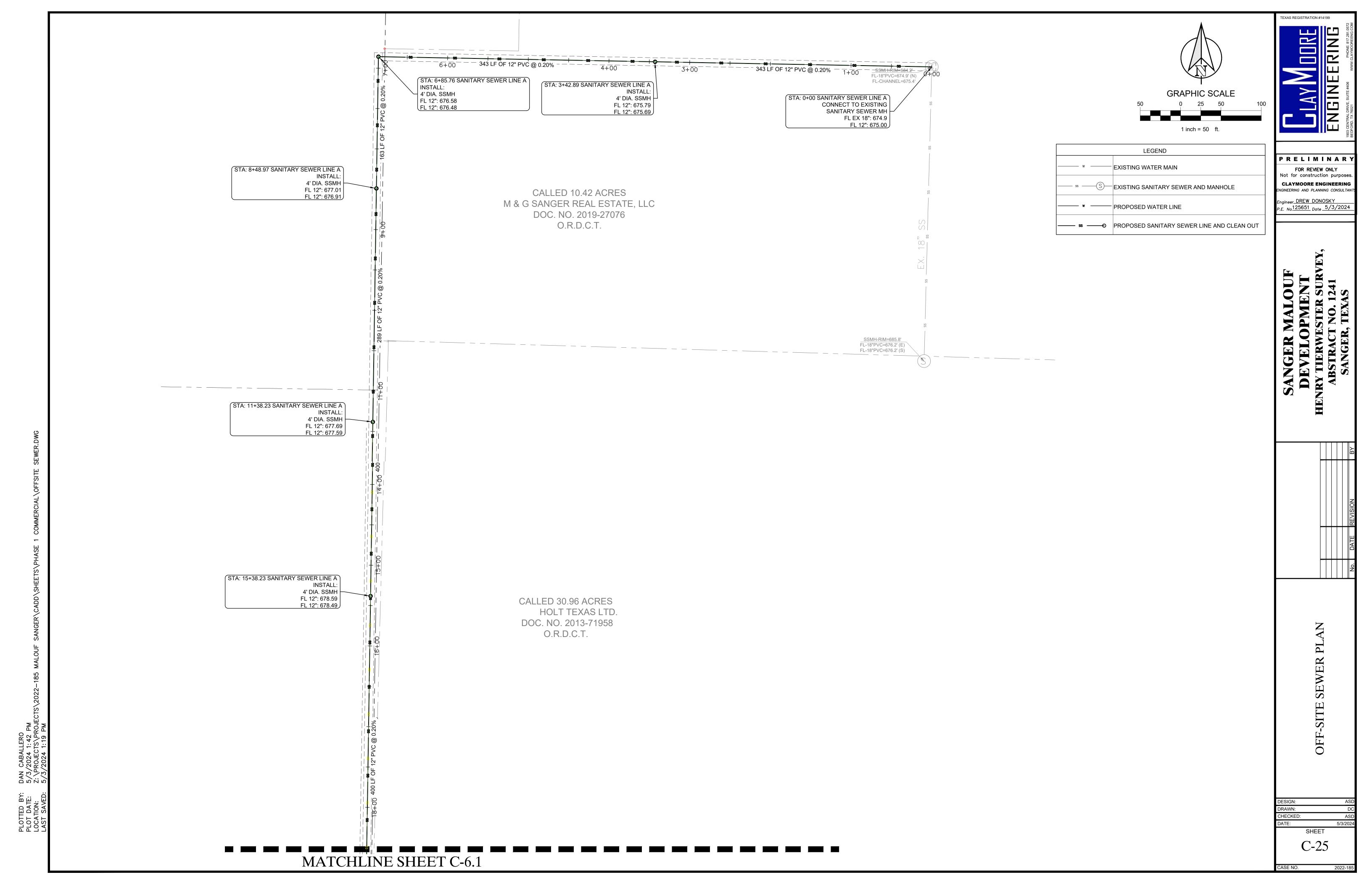
PRELIMINARY Not for construction purpose **CLAYMOORE ENGINEERING** ENGINEERING AND PLANNING CONSULTAI Engineer\_DREW\_DONOSKY

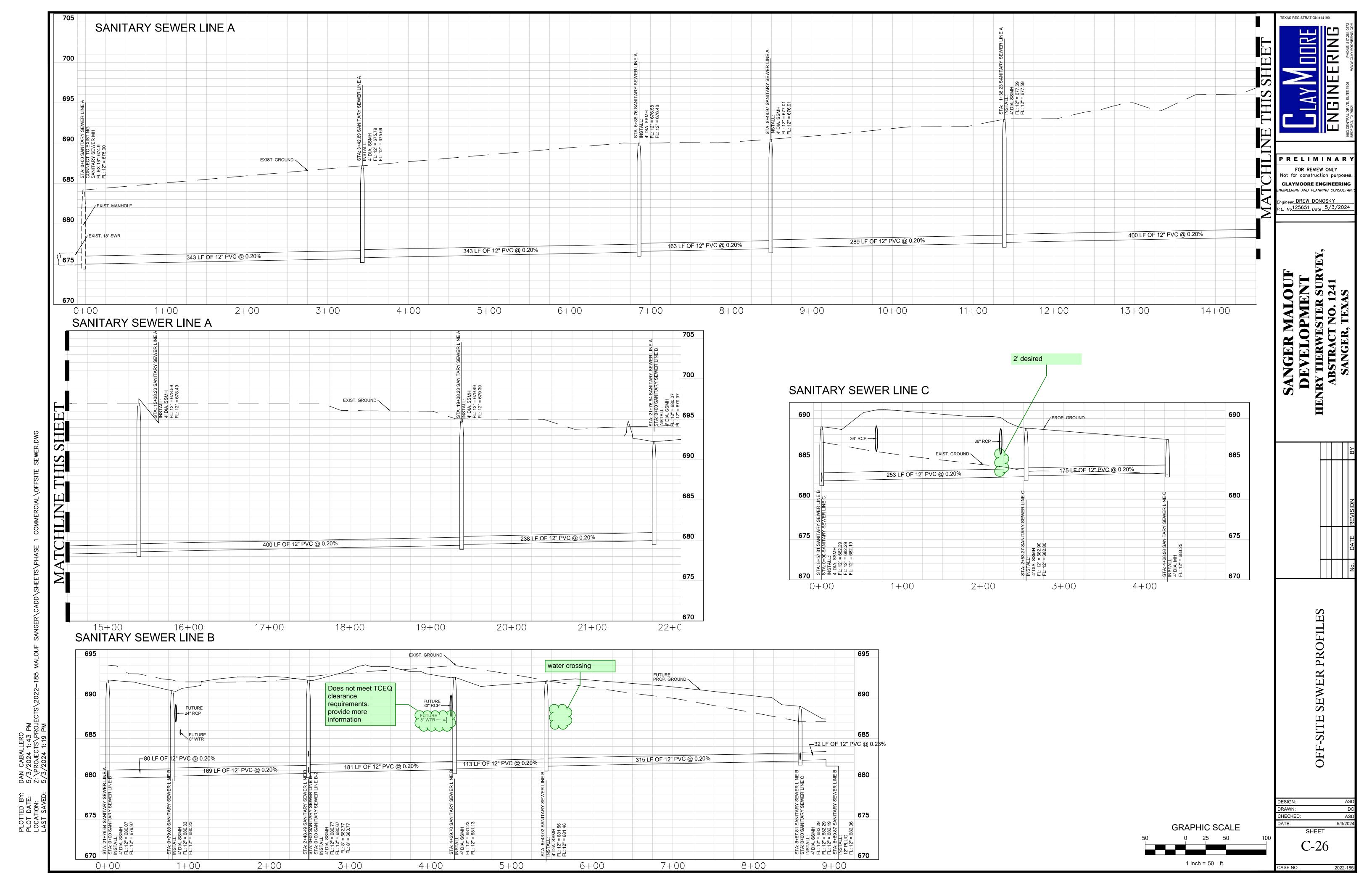
P.E. No.125651 Date 5/3/2024

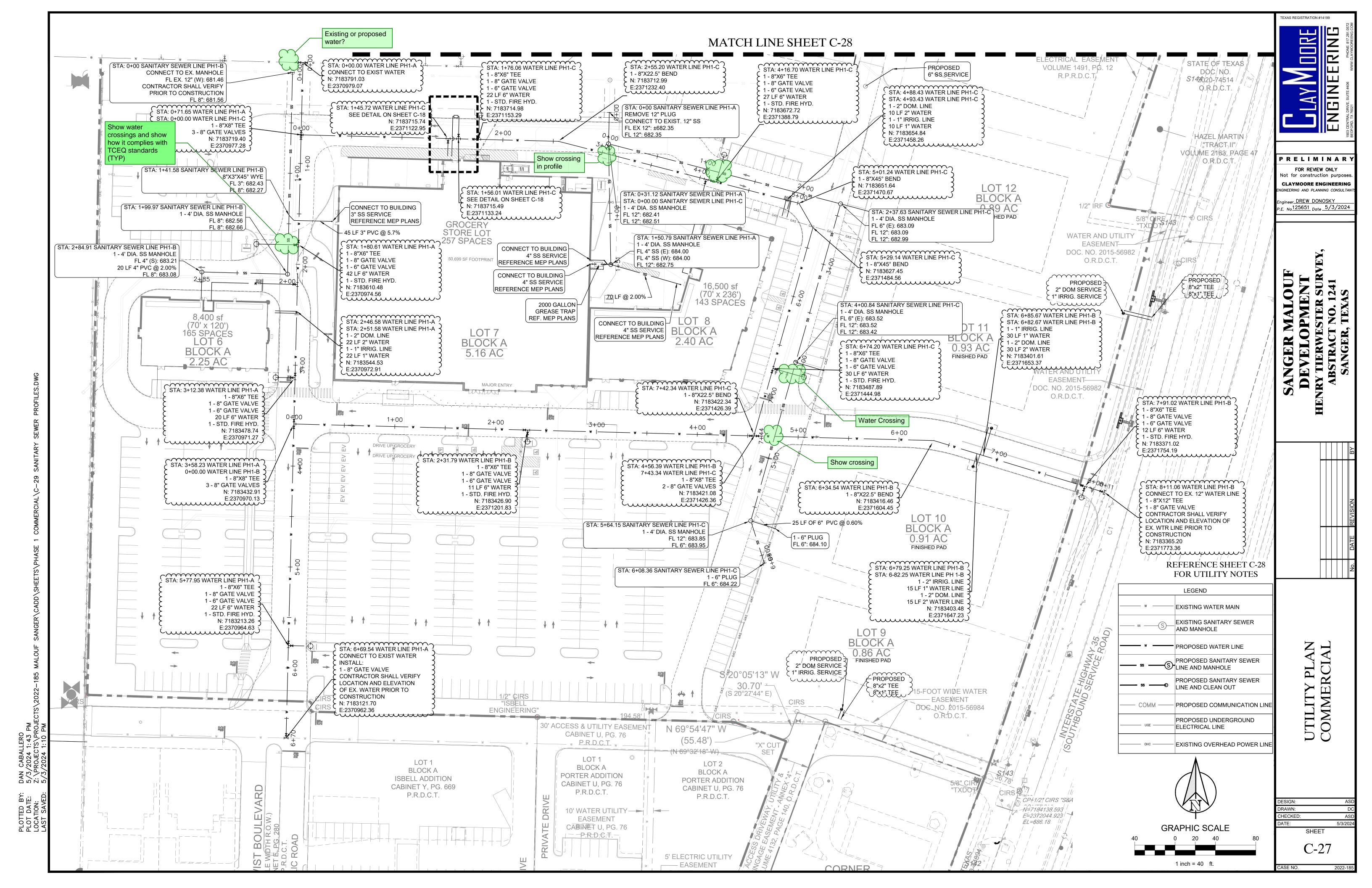
DE

CHECKED: SHEET









<u>NOTES</u> 1. CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY COMPANIES AND IRRIGATION PLANS TO DETERMINE QUANTITY, SIZE, AND LOCATION FOR ALL CONDUIT AND SLEEVING

REQUIRED TO SERVE BUILDING AND SITE. ALL CONDUIT AND SLEEVES SHALL BE INSTALLED PRIOR TO SUBGRADE PREPARATION AND PAVING.

CALLED 26.385 ACRES JOHN PORTER AUTO

SALES, INC.

VOLUME 1330, PG.\277

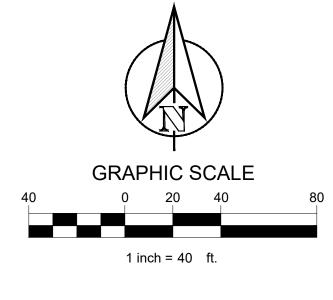
O.R.D.C.T.

**24.37 ACRES** 1,061,616 SQ. FT.

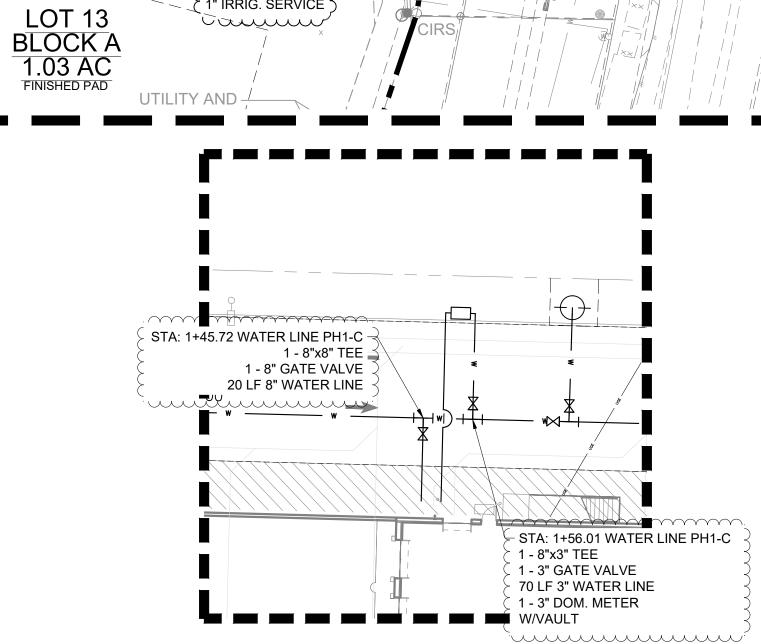
### FRANCHISE UTILITY NOTES:

- 1. THE GAS, ELECTRIC AND TELEPHONE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE LATEST INFORMATION AVAILABLE FROM THE RESPECTIVE FRANCHISE UTILITY COMPANIES. IT IS INTENDED FOR PURPOSES OF GENERAL BIDDING AND BASIC CLARITY. SPECIFIC JOB SITE CONDITIONS SHALL BE FIELD VERIFIED PER NOTES 2 THROUGH 4 BELOW. THE FRANCHISE UTILITY CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR SAID FIELD CONDITIONS AND ASSOCIATED REVISIONS REQUIRED BY THE RESPECTIVE UTILITY COMPANIES INVOLVED.
- 2. THE FRANCHISE UTILITY CONTRACTOR SHALL CONTACT THE RESPECTIVE FRANCHISE UTILITY COMPANIES, VERIFY ALL REQUIREMENTS AND EQUIPMENT, AND FURNISH AND INSTALL, INCLUDING BUT NOT LIMITED TO, ALL METERS, TRANSFORMERS, CONDUIT, CONCRETE PADS, TRENCHING, AND BACKFILL NECESSARY FOR PROPER INSTALLATION. FRANCHISE UTILITY CONTRACTOR SHALL ALSO PAY ALL FEES AND CHARGES INCURRED AND COORDINATE WITH OTHER FRANCHISE UTILITY COMPANIES.
- 3. THE FRANCHISE UTILITY CONTRACTOR SHALL FIELD VERIFY, IN THE PRESENCE OF THE RESPECTIVE UTILITY COMPANY REPRESENTATIVES, THE LOCATION OF ALL EXISTING AND COMPANIES TO PROVIDE NEW SERVICES AND/OR UPGRADE EXISTING SERVICES. NO ALLOWANCES WILL BE MADE FOR FRANCHISE UTILITY CONTRACTOR'S UNFAMILIARITY WITH THE EXISTING CONDITION, REQUIREMENTS OF THE NEW CONDITIONS, AND/OR FAILURE TO COORDINATE INSTALLATION.
- 4. CONTRACTOR SHALL VERIFY THAT METER AND TRANSFORMER LOCATIONS SHOWN MEET DESIGN CRITERIA BY FRANCHISE UTILITY COMPANIES FOR, BUT NOT LIMITED TO, THE OFFSET DISTANCE FROM FACE OF BUILDING.

	LEGEND					
w	EXISTING WATER MAIN					
ssS)	EXISTING SANITARY SEWER AND MANHOLE					
w	PROPOSED WATER LINE					
ss	PROPOSED SANITARY SEWER LINE AND MANHOLE					
sso	PROPOSED SANITARY SEWER LINE AND CLEAN OUT					
COMM	PROPOSED COMMUNICATION LINE					
	PROPOSED UNDERGROUND ELECTRICAL LINE					
	EXISTING OVERHEAD POWER LINE					



EASEMENT DOC. NO. 2015-56982 O.R.D.C.T. EASEMENT VOLUME 2122, PG. 624 R.P.R.D.C.T. (N 88°49'21"W) STEPHEN L./ MARTIN &// WATER AND UTILITY GARY L. MARTIN EASEMENT DOC! NO. 96-0044292 FINISHED PADDOC. NO. 2015-56982 (1) STATE OF TEXAS DOC. NO. 2020-172411 PROPOSED > 2" DOM SERVICE ? PROPOSED 8"x2" TEE 8"X1" TEE INTERSTATI † 1" IRRIG. SERVICE ; /8"x2" TEE (8"X1" TEE



**LQT 14 BLOCK A** 

1.38 AC

PROPOSED 6" SS SERVICE

MATCH LINE SHEET C-27

O.R.D.C.T.

Jumm

,~~~~~

2" DOM SERVICE 1" IRRIG. SERVICE

PROPOSED :

DETAIL OF BUILDING **CONNECTION SHEET C-27**  CHECKED: SHEET

C-28

TEXAS REGISTRATION #14199

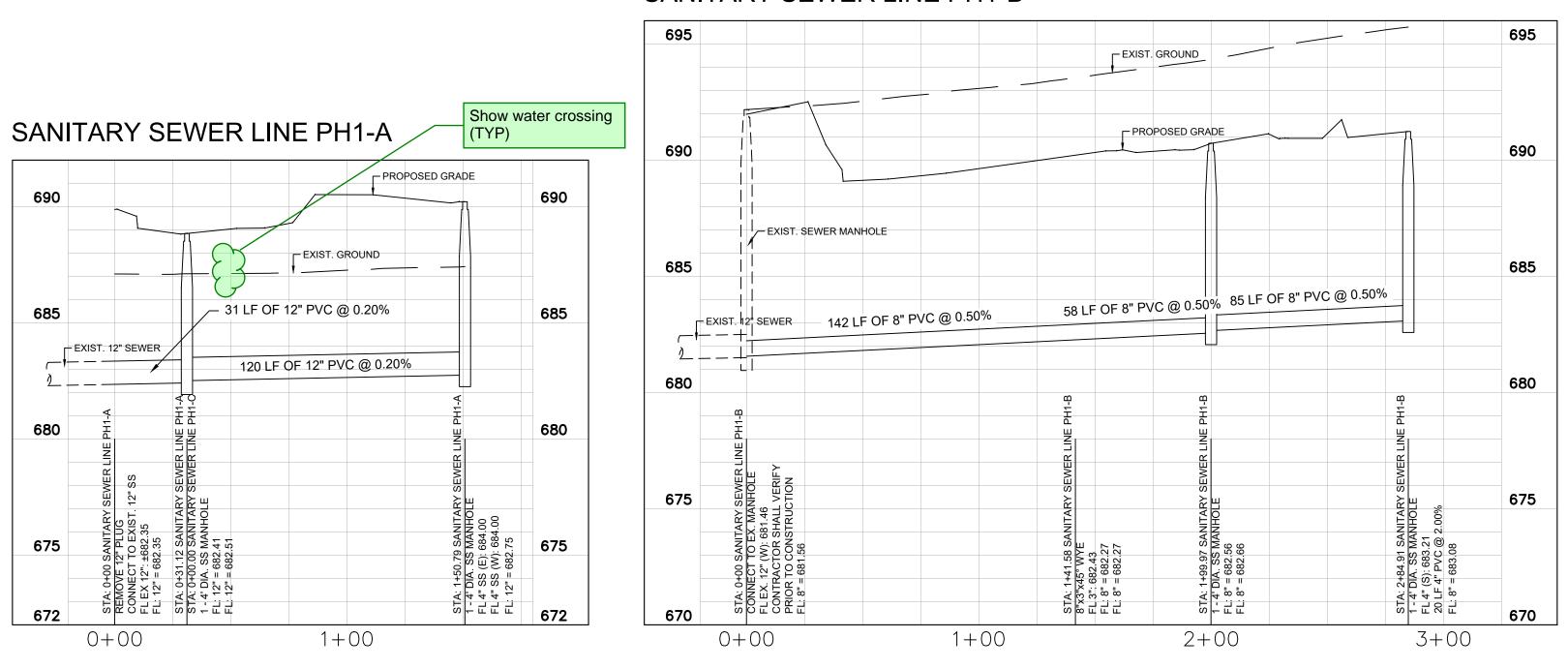
PRELIMINARY

FOR REVIEW ONLY

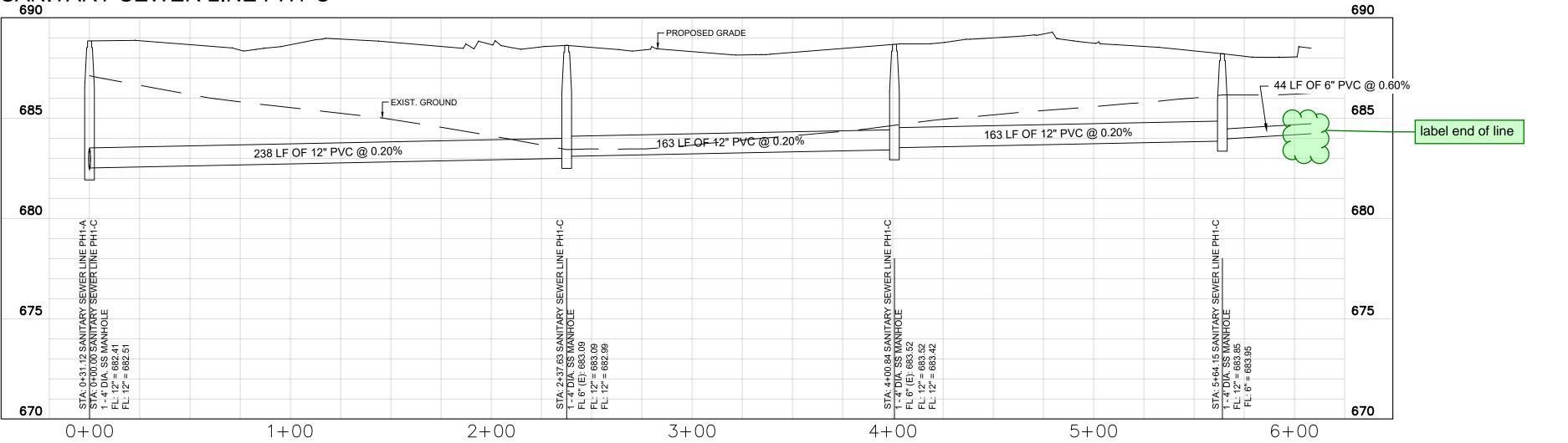
Not for construction purpose **CLAYMOORE ENGINEERING** 

Ingineer DREW DONOSKY E. No.125651 Date 5/3/2024

# SANITARY SEWER LINE PH1-B







PRELIMINARY FOR REVIEW ONLY

TEXAS REGISTRATION #14199

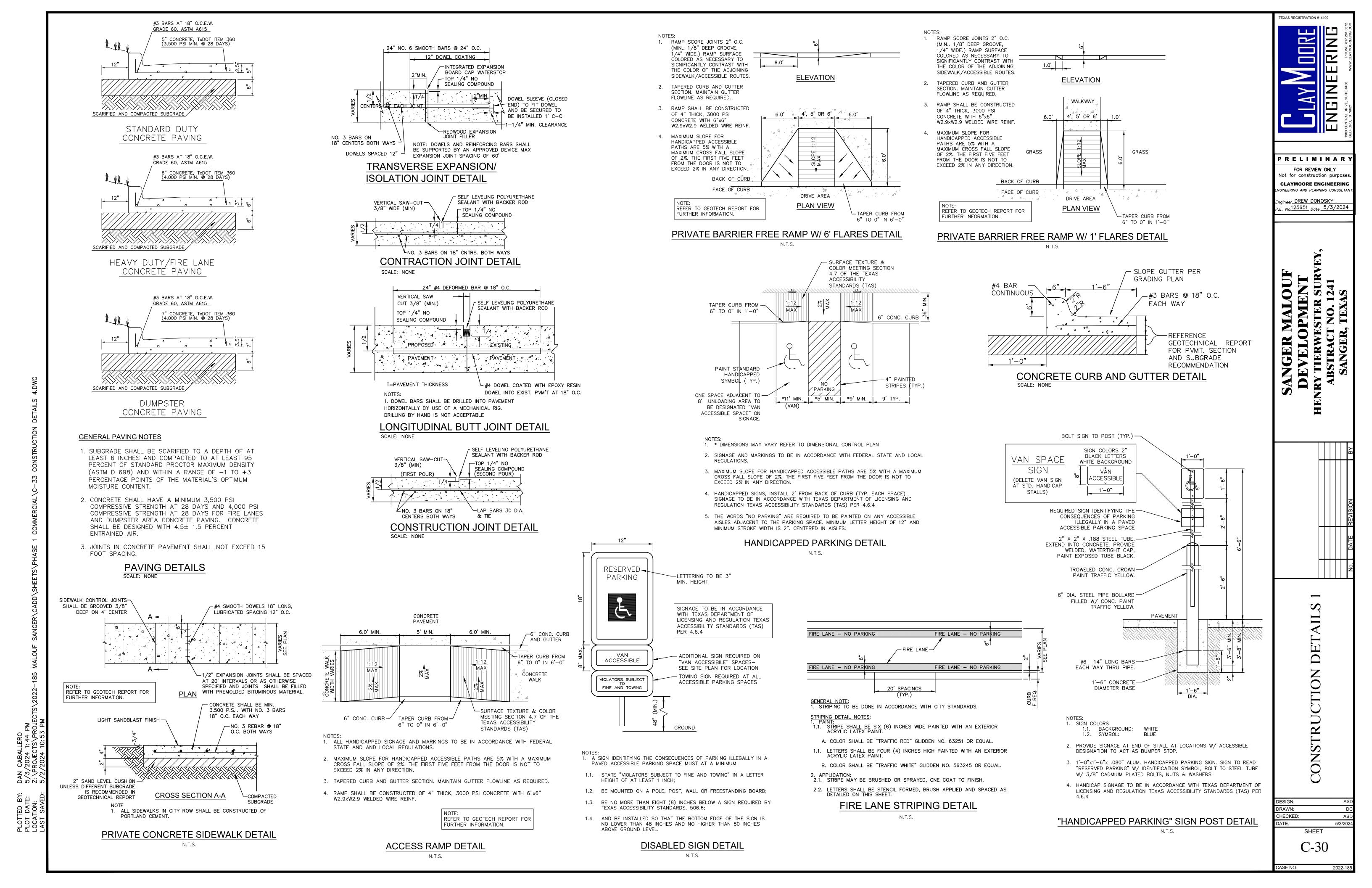
LIAY MODRE ENGINEERING

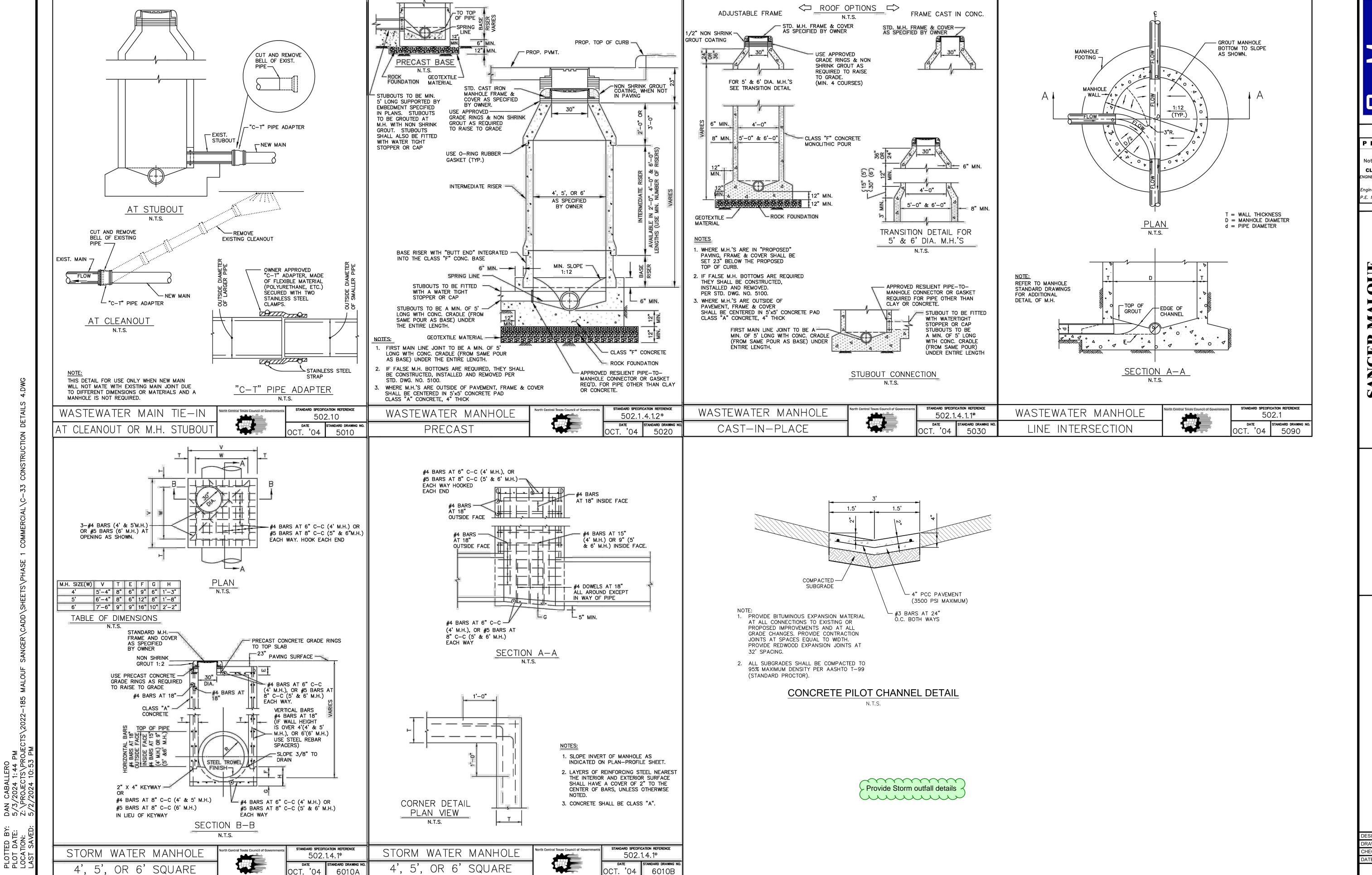
Engineer DREW DONOSKY P.E. No.125651 Date 5/3/2024

SHEET

C-29

PLOTTED BY: PLOT DATE: LOCATION: LAST SAVED:





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GINEERING **I** Z

TEXAS REGISTRATION #14199

PRELIMINAR FOR REVIEW ONLY Not for construction purpose

**CLAYMOORE ENGINEERING** NGINEERING AND PLANNING CONSULTA ngineer DREW DONOSKY <sub>E. No.</sub>125651 <sub>Date</sub> 5/3/2024

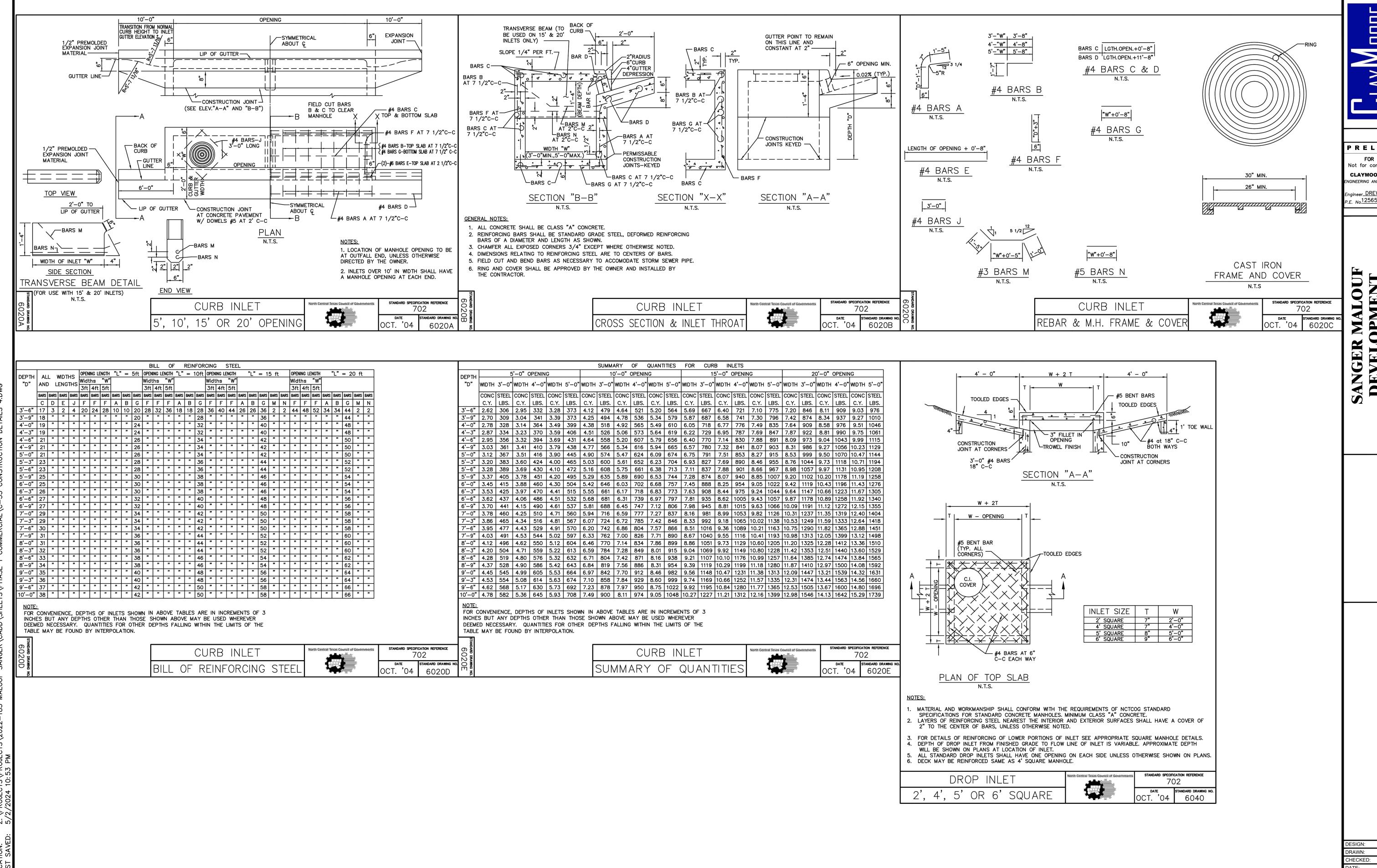
STRACT NO. 1241
TEXAS DE

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DET TIO CONSTR

CHECKED: SHEET C-31

CASE NO.



ENGINE #406

PHONE: 847.281.05

EXAS REGISTRATION #14199

FOR REVIEW ONLY
Not for construction purpose
CLAYMOORE ENGINEERING
IGINEERING AND PLANNING CONSULTA
Ingineer\_DREW\_DONOSKY

F\_No.125651\_Date\_5/3/2024

gineer\_DREW\_DONOSKY

No.125651 Date 5/3/2024

SANGER MALOUF
DEVELOPMENT
ENRY TIERWESTER SURVE
ABSTRACT NO. 1241

No. DATE REVISION BY

NSTRUCTION DETAILS

 SIGN:
 ASD

 AWN:
 DC

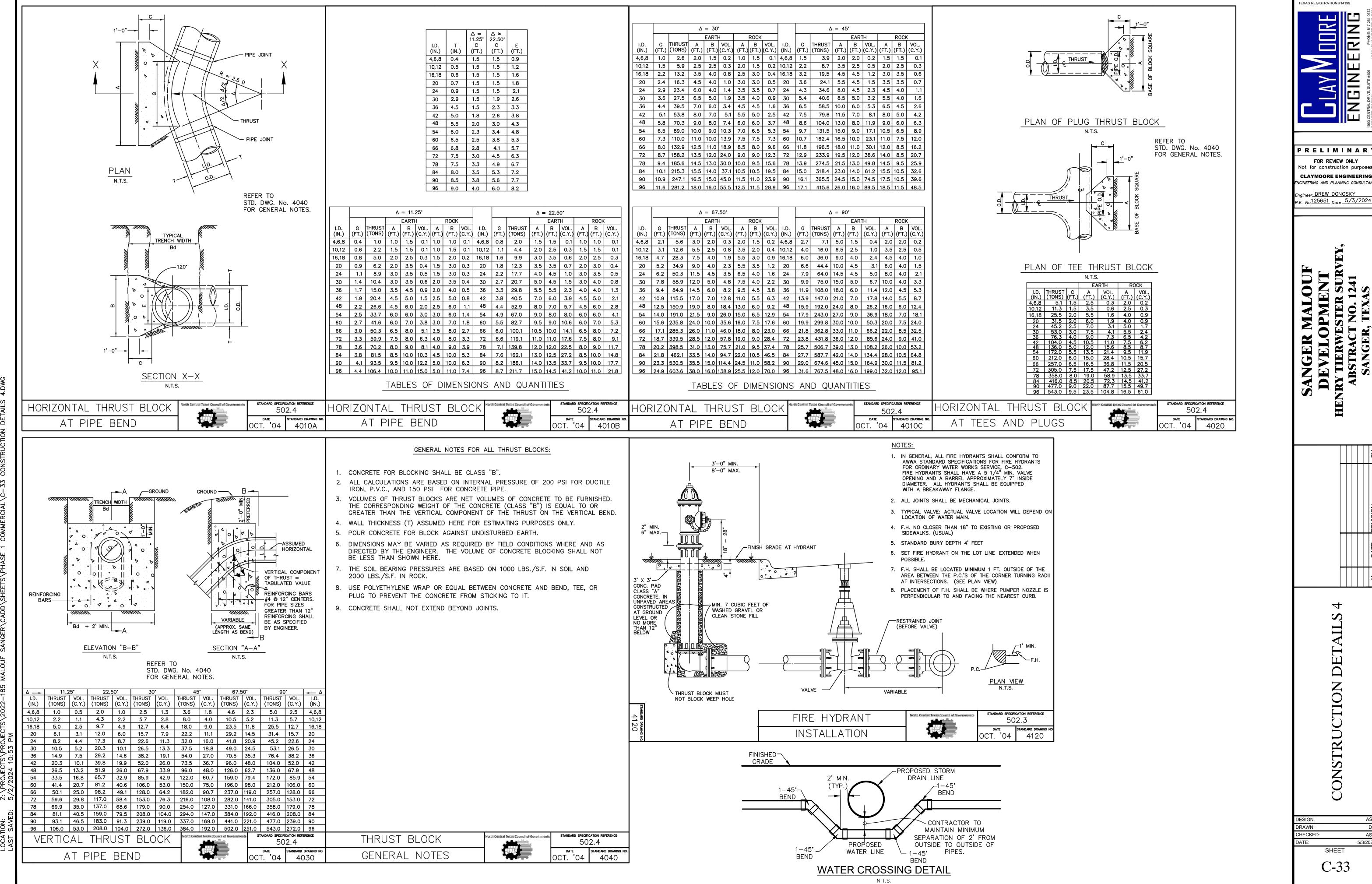
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 5/3/2024

 SHEET

C-32

CASE NO.



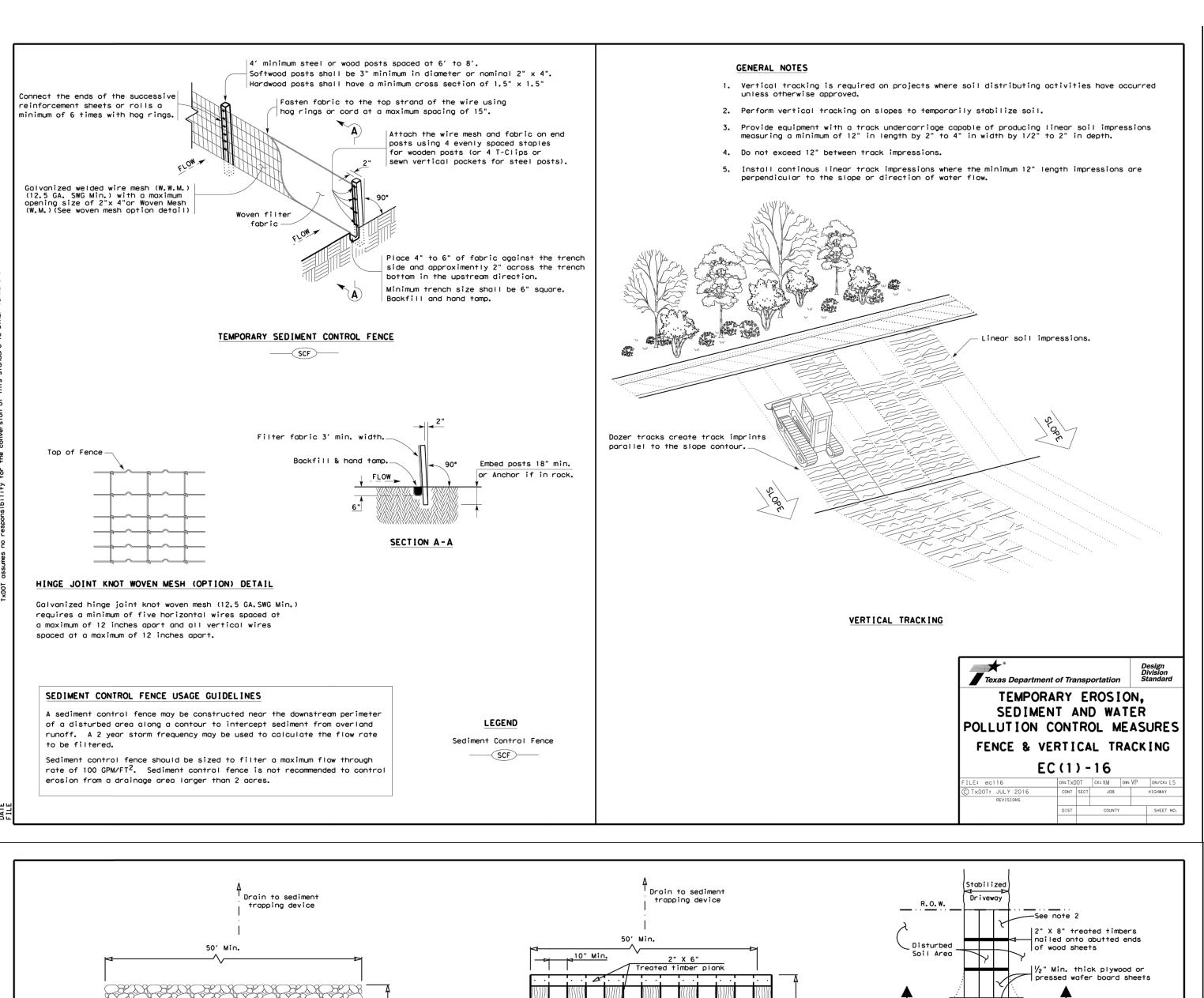
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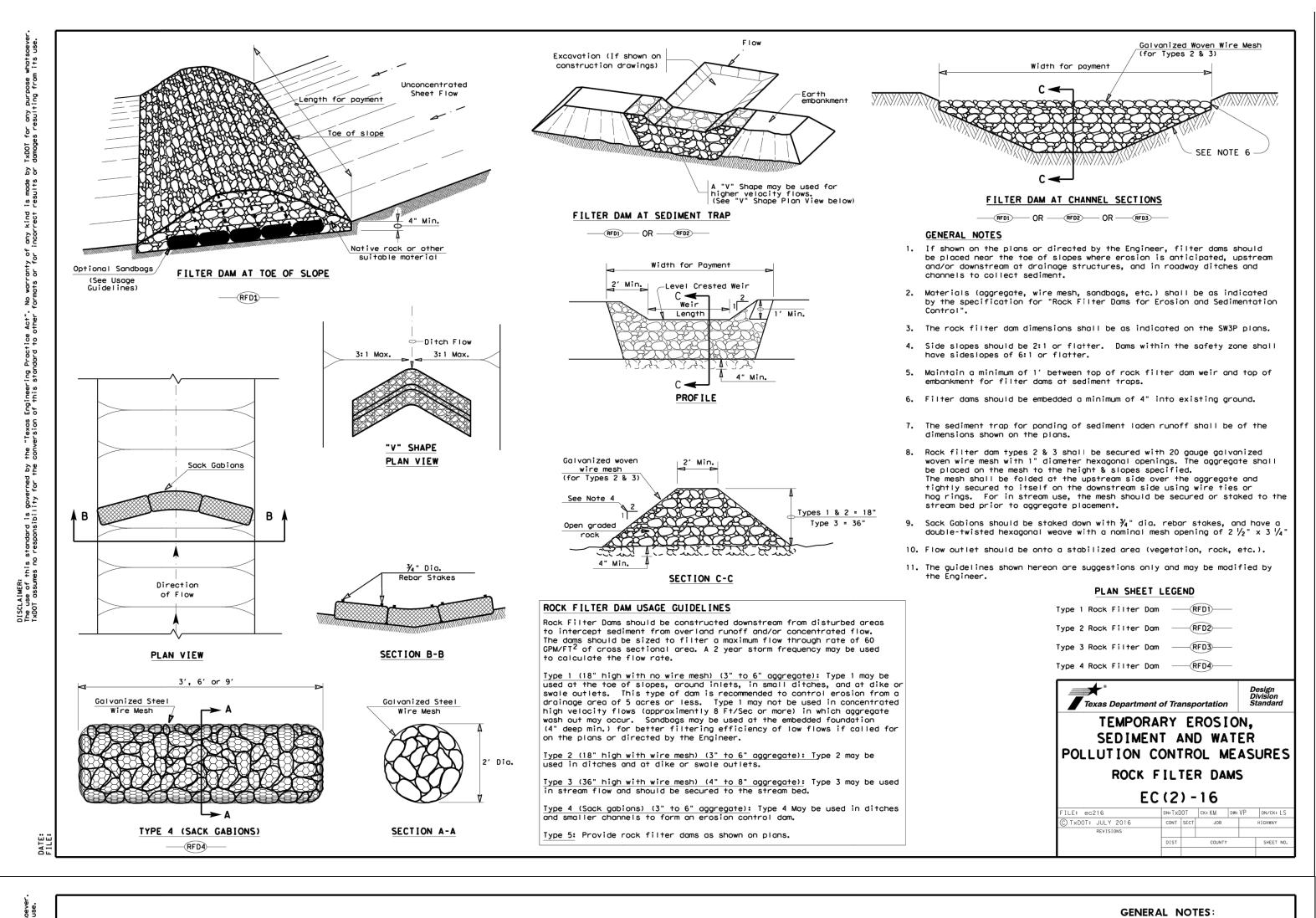
SYCADDYSHEETS/BHASE 1 COMMERCIALYC-33 CONSTRICTION DETAILS 4 DWG

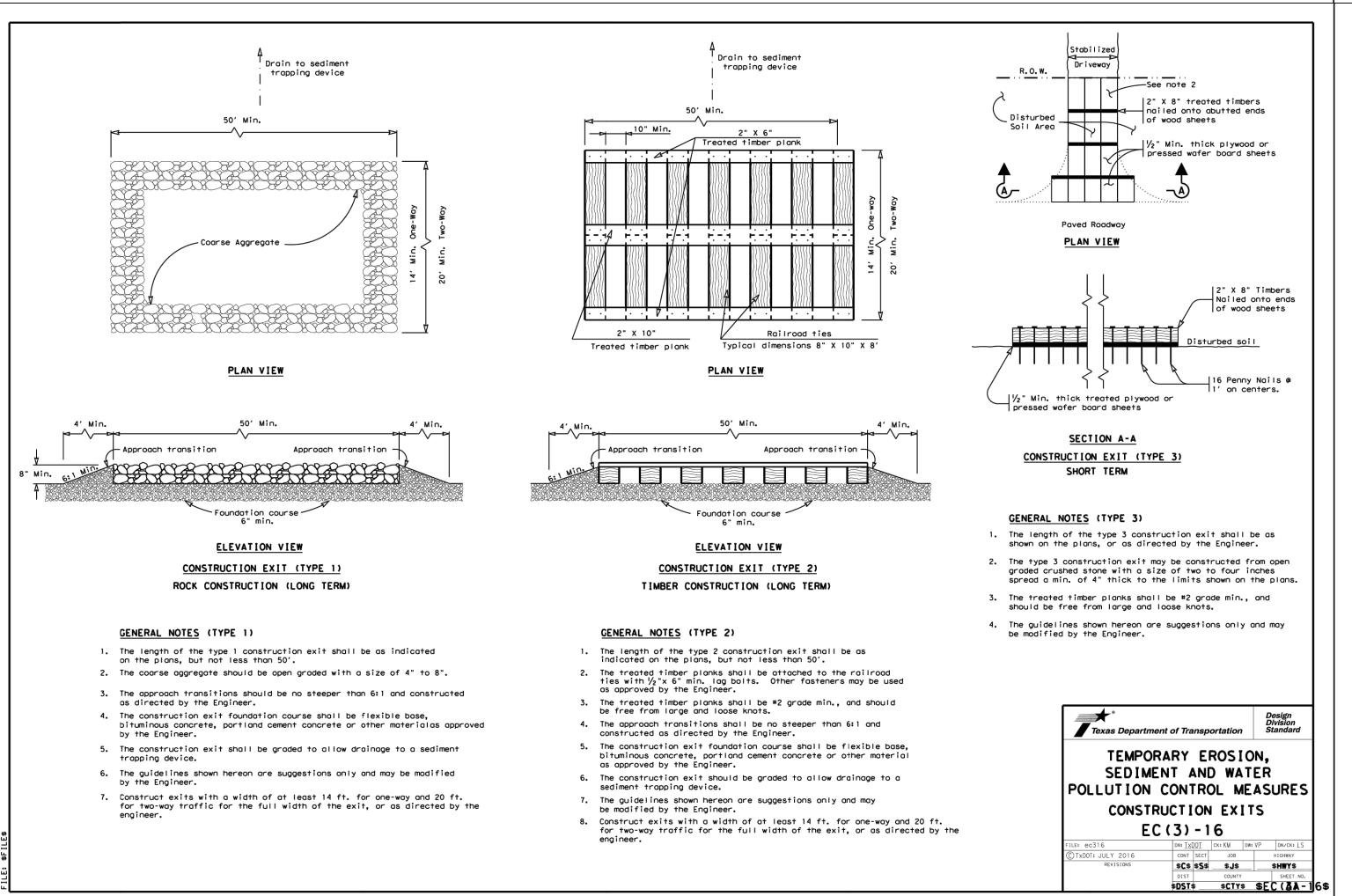
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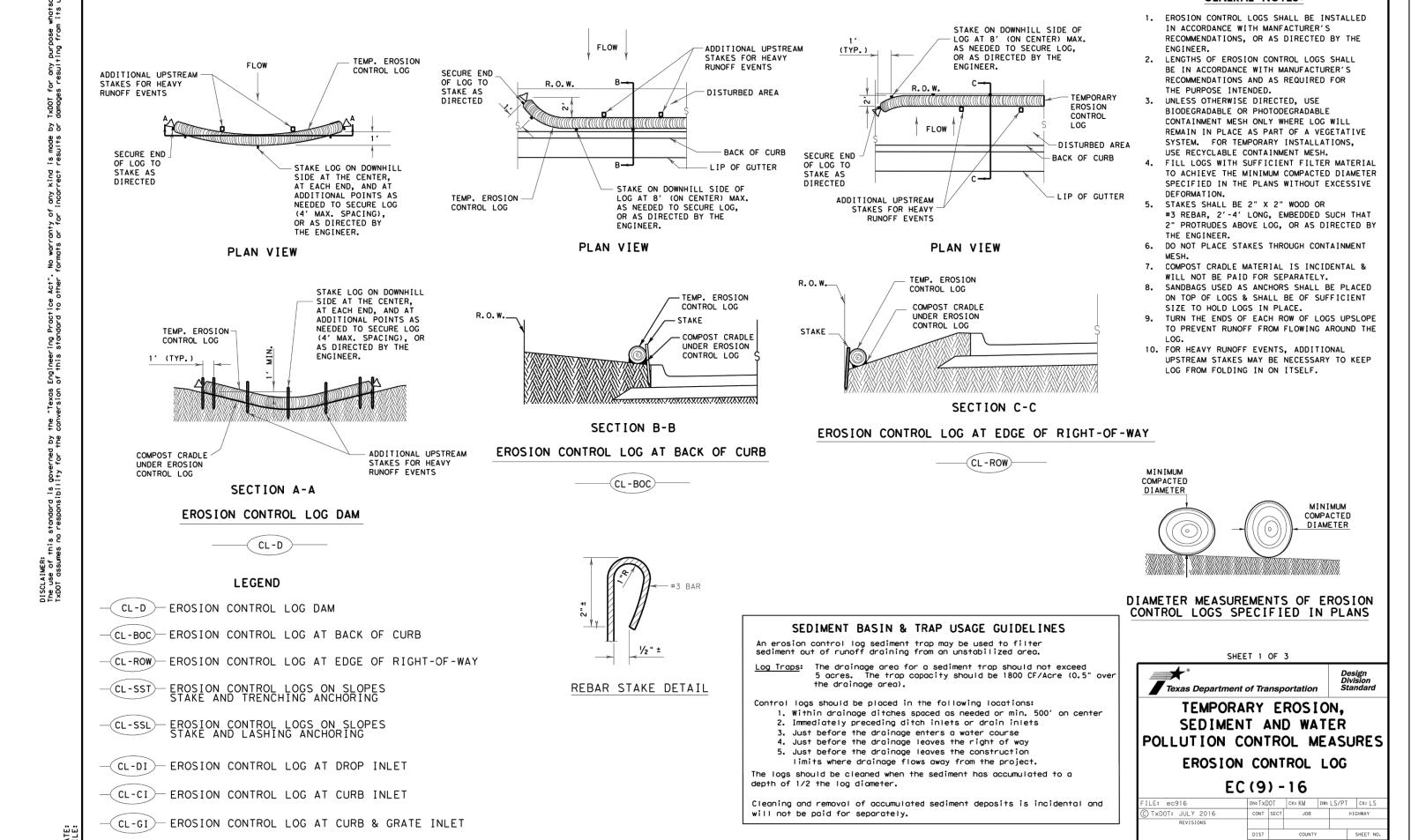
BY: DAN CABALLERO
TE: 5/3/2024 1:45 PM

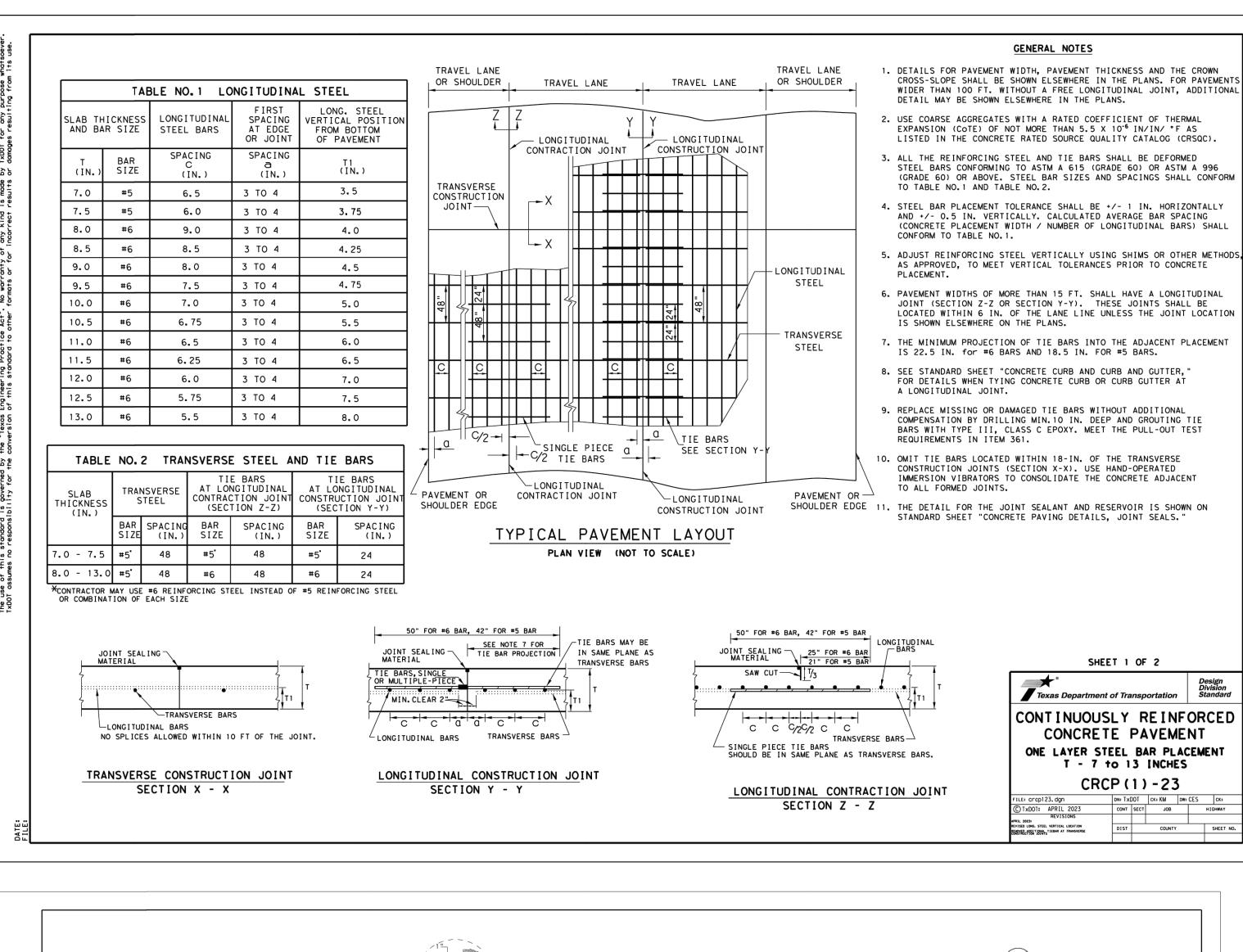
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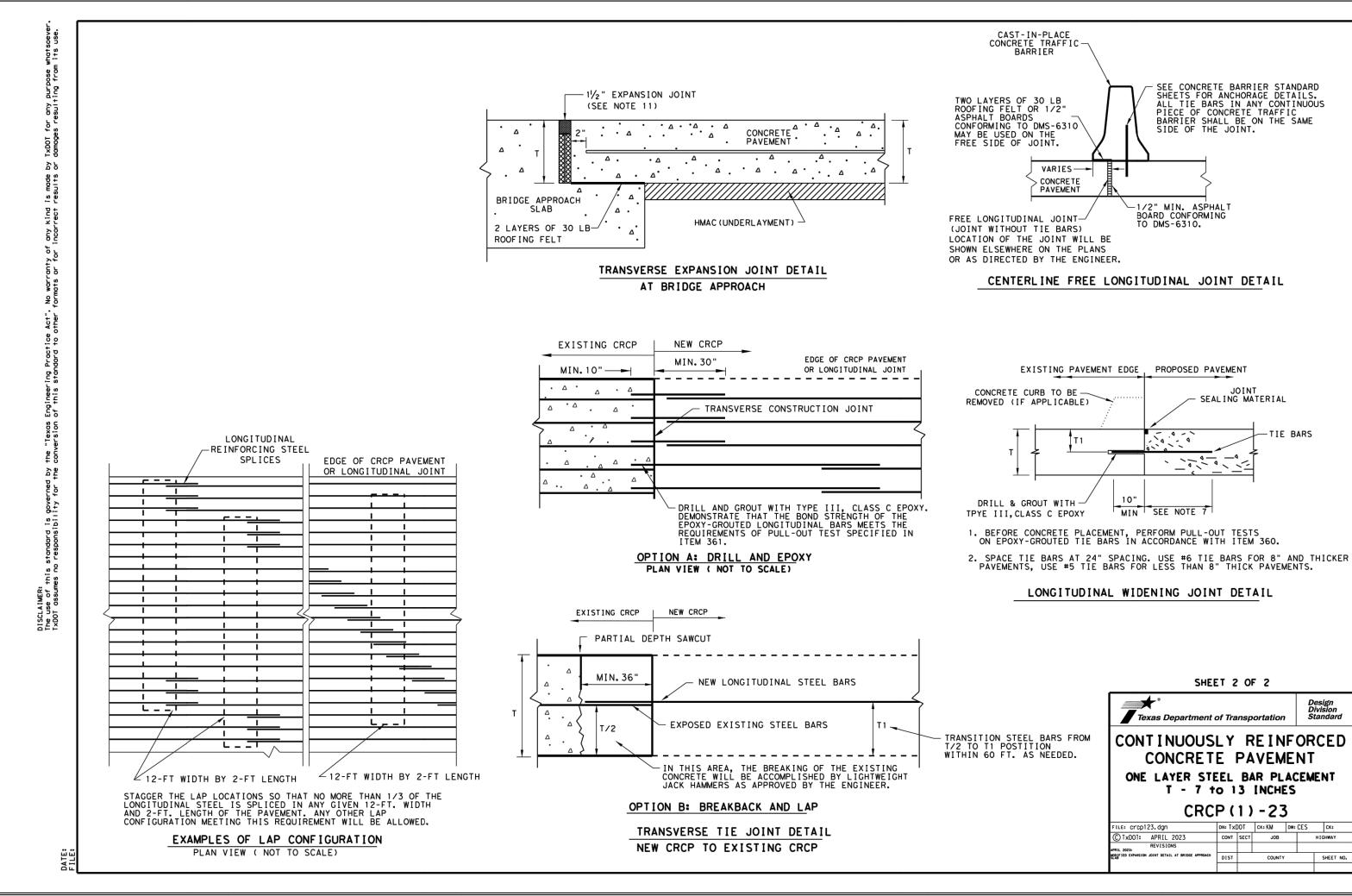


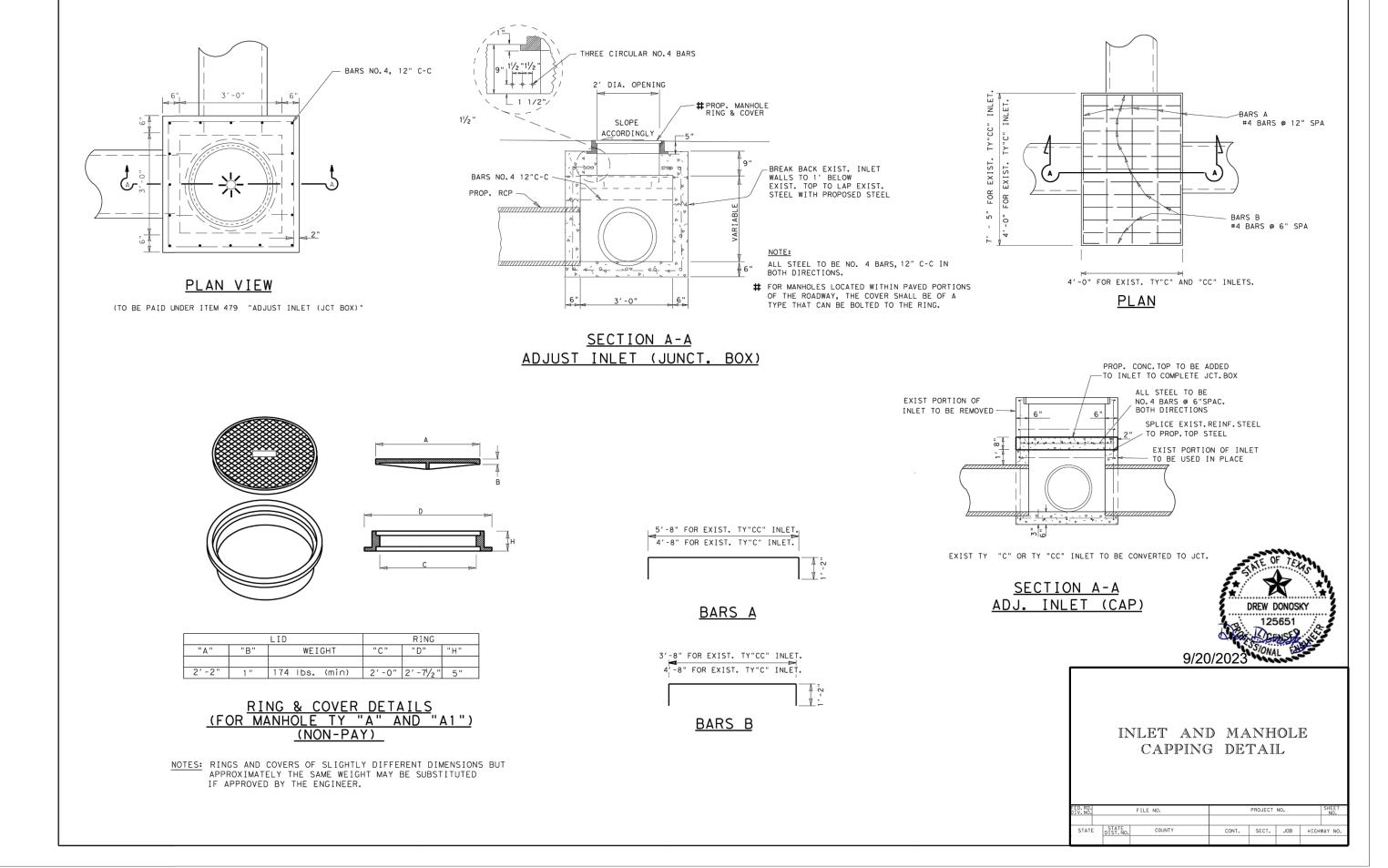


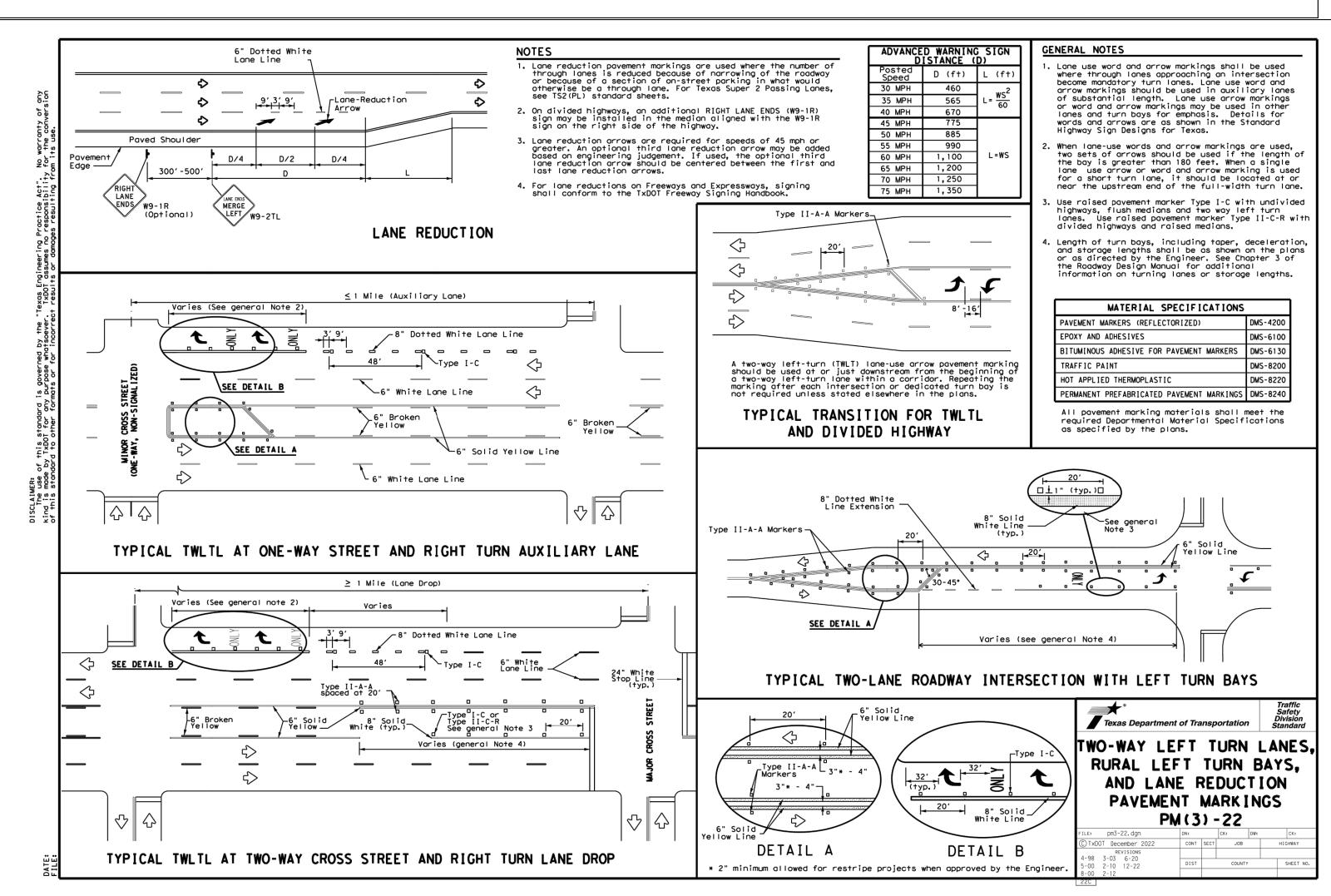


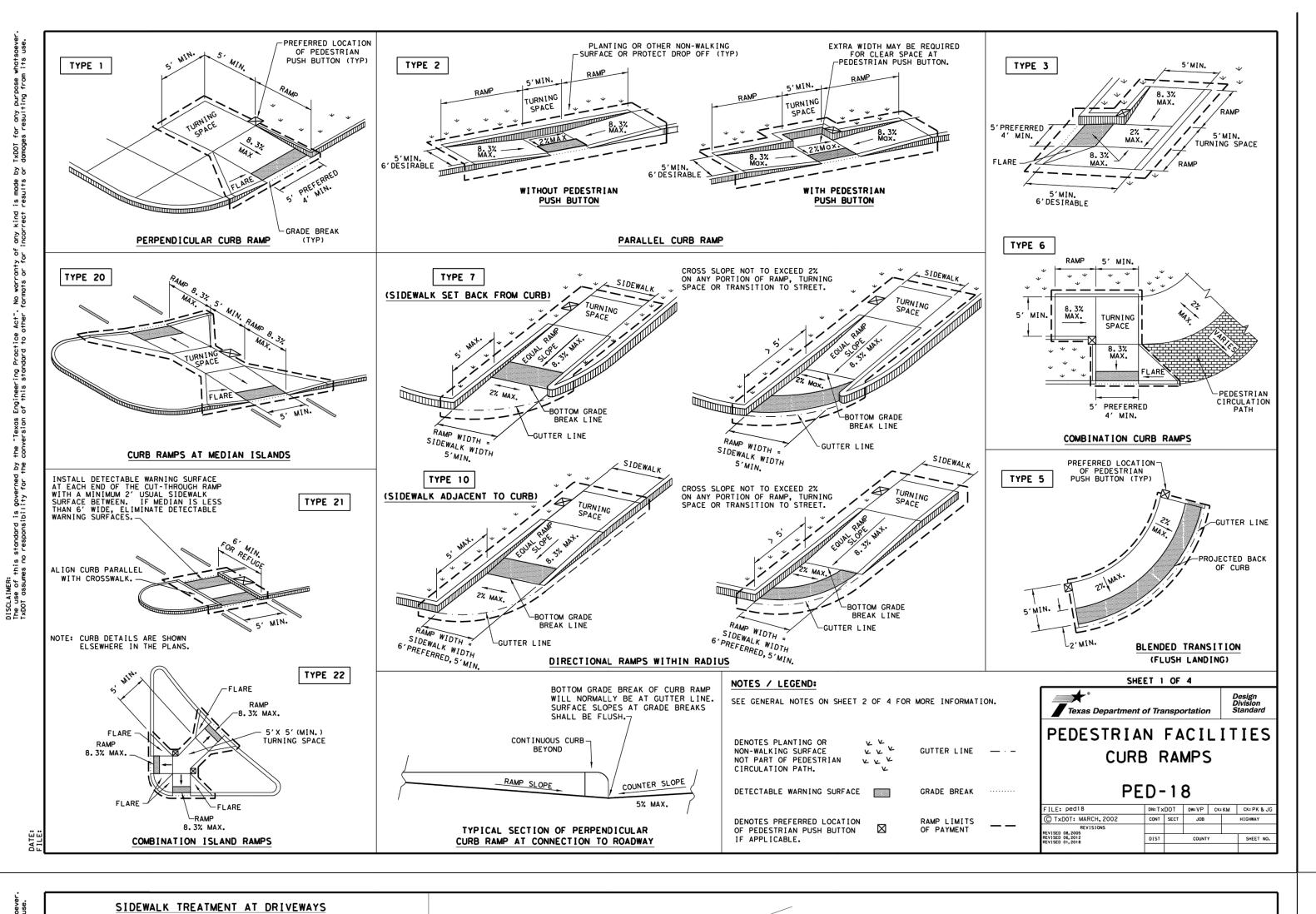


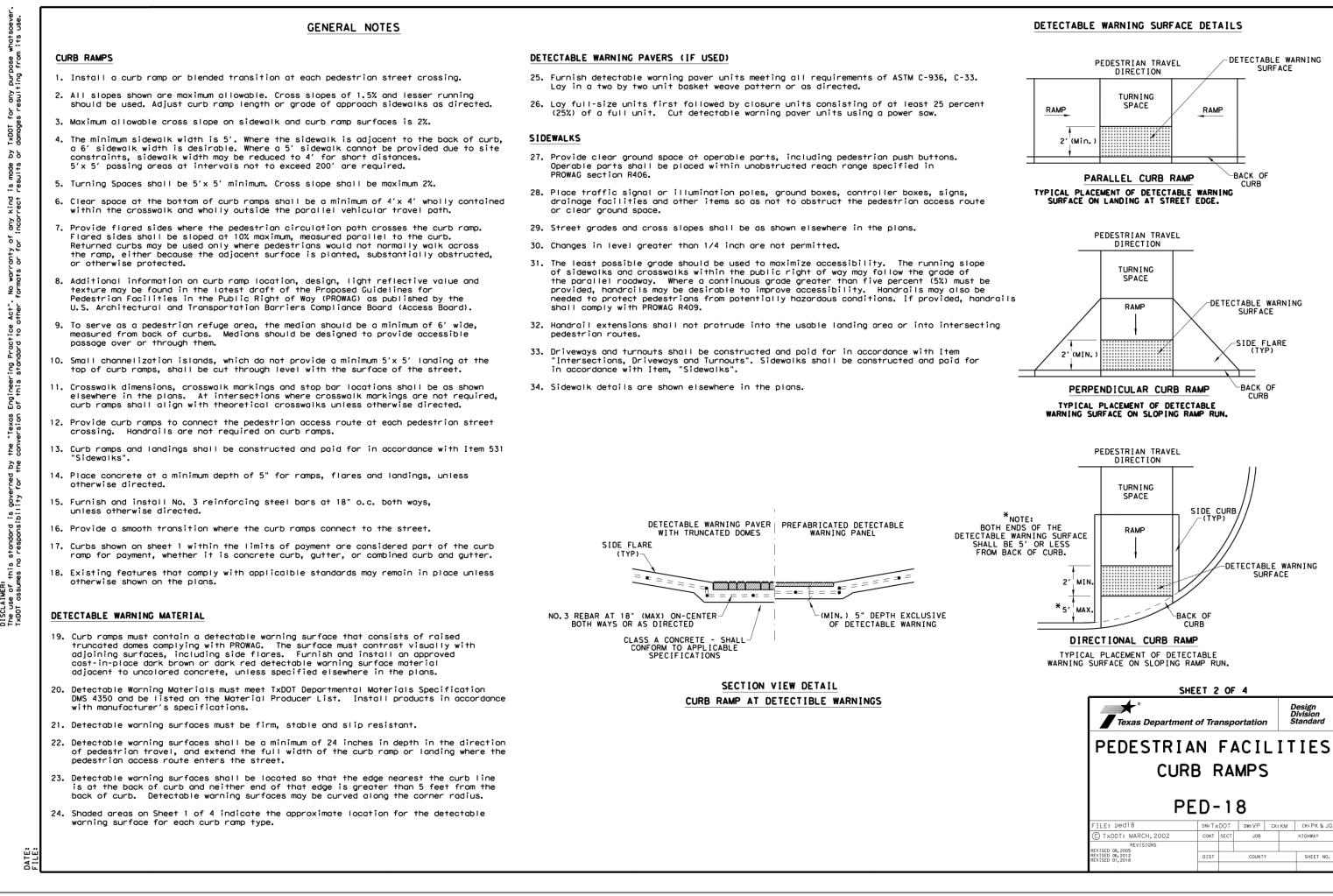


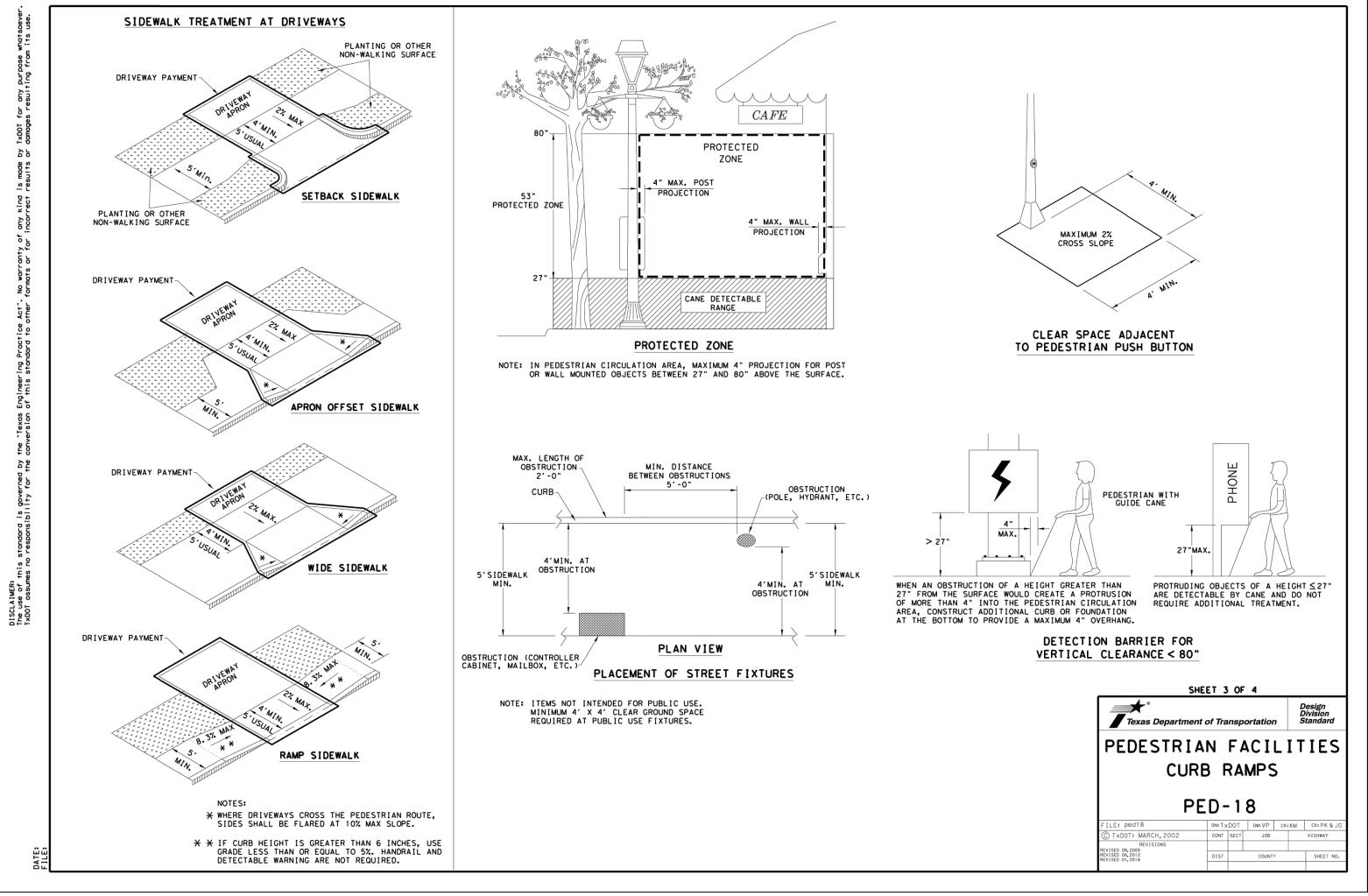


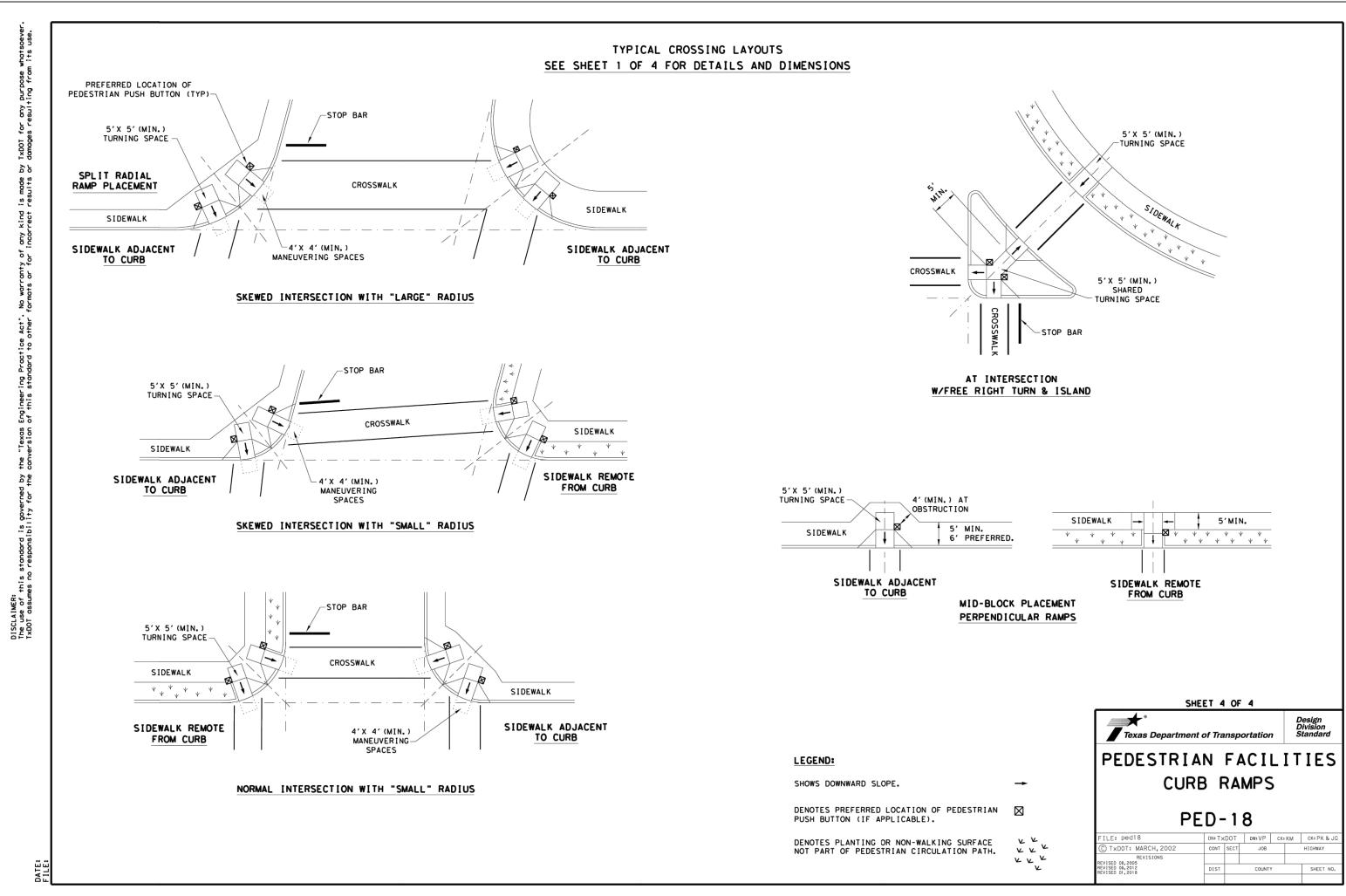


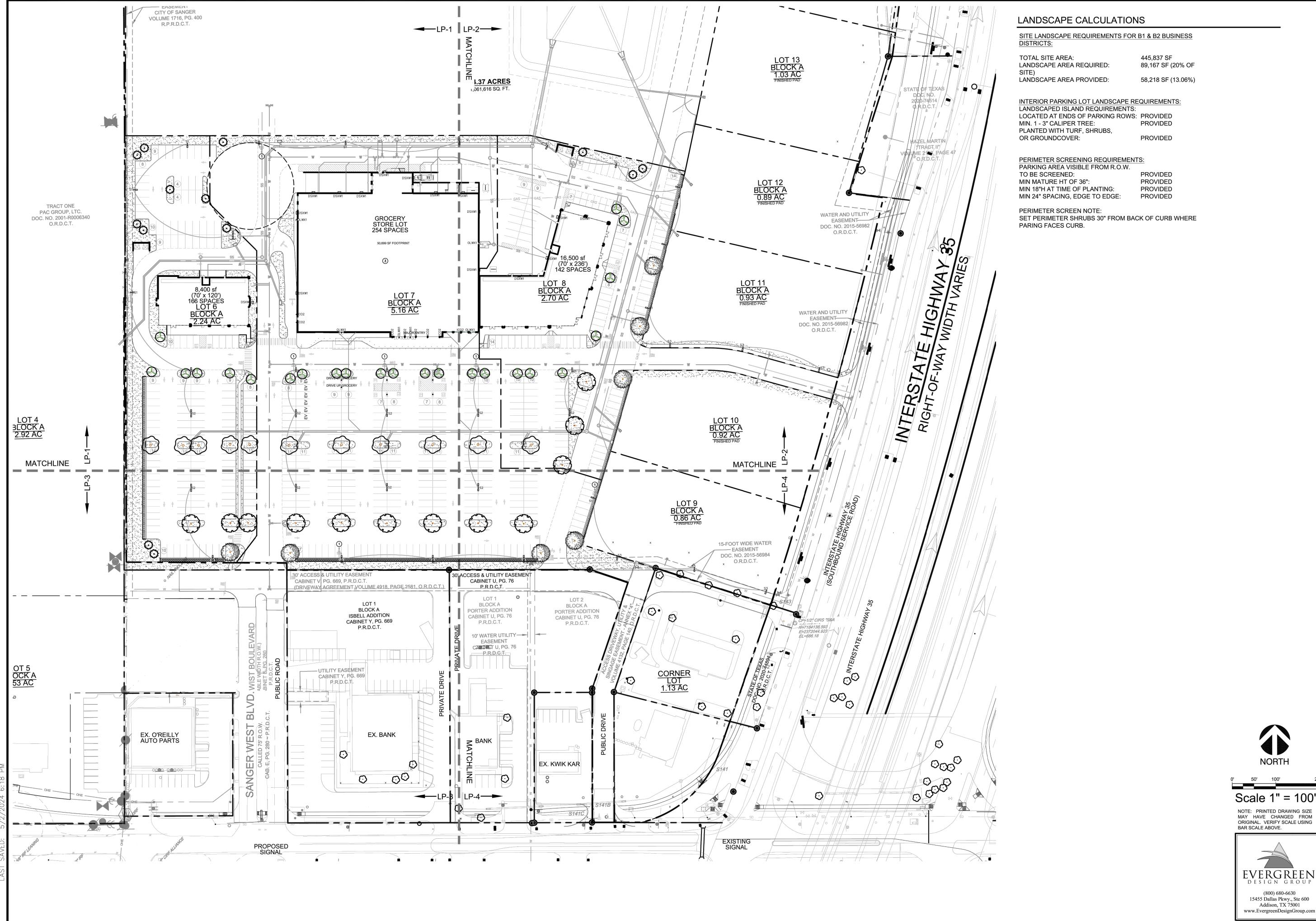












DEVELOPMENT RY TIERWESTER SUR

SANGER

EXAS REGISTRATION #14199

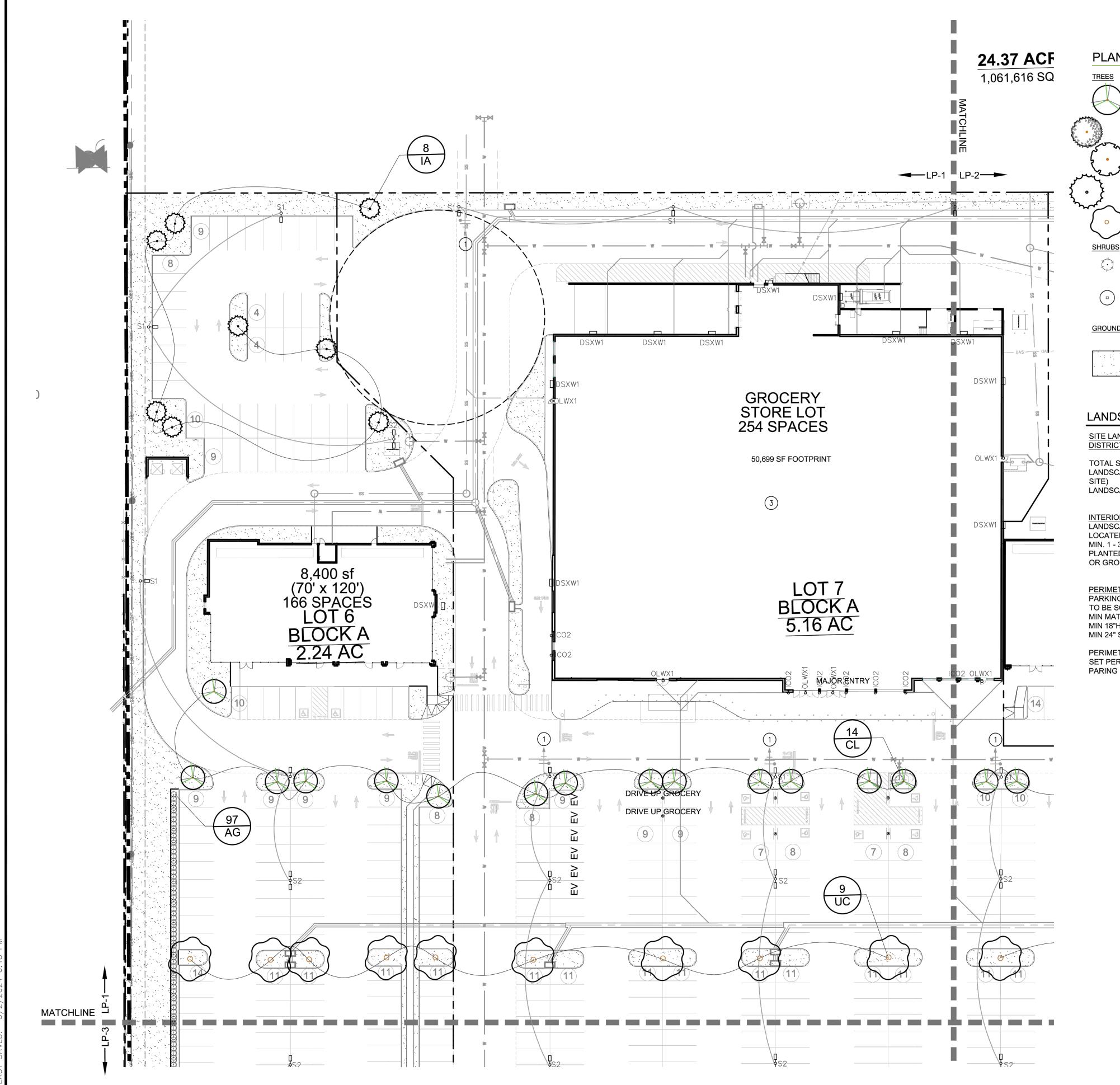
LIAY WIDDRE ENGINE

Scale 1" = 100'

NOTE: PRINTED DRAWING SIZE MAY HAVE CHANGED FROM ORIGINAL. VERIFY SCALE USING BAR SCALE ABOVE.



DESIGN: CHECKED:



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CAL.	CONT.	SIZE
	CL	23	Chilopsis linearis Desert Willow	3" Cal.	Cont.	8' Min HT
	QM	7	Quercus muehlenbergii Chinkapin Oak	3" Cal.	Cont.	12`-14` HT
were and	QS	12	Quercus shumardii Shumard Oak	3" Cal.	Cont.	12`-14` HT
<b>4.</b>	IA	13	llex attenuata 'Savannah' Savannah Holly	3" Cal.	Cont.	12`-14` HT
·	UC	11	Ulmus crassifolia Cedar Elm	3" Cal.	Cont.	12`-14` HT
SHRUBS	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	CONTAINER	SPACING	SIZE
$\bigcirc$	AG	264	Abelia grandiflora Glossy Abelia	5 gal	30" OC	18" Min.
	MP	161	Myrica pusilla Dwarf Wax Myrtle	5 gal	30" OC	18" Min.
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	SIZE
	СТ	51,665 sf	Cynodon dactylon `Tif 419` Bermuda Grass	Sod	Solid Cover	rage

# LANDSCAPE CALCULATIONS

SITE LANDSCAPE REQUIREMENTS FOR B1 & B2 BUSINESS DISTRICTS:

TOTAL SITE AREA: LANDSCAPE AREA REQUIRED: 445,837 SF 89,167 SF (20% OF LANDSCAPE AREA PROVIDED: 58,218 SF (13.06%)

INTERIOR PARKING LOT LANDSCAPE REQUIREMENTS: LANDSCAPED ISLAND REQUIREMENTS: LOCATED AT ENDS OF PARKING ROWS: PROVIDED PROVIDED MIN. 1 - 3" CALIPER TREE: PLANTED WITH TURF, SHRUBS, OR GROUNDCOVER: PROVIDED

PERIMETER SCREENING REQUIREMENTS: PARKING AREA VISIBLE FROM R.O.W. TO BE SCREENED: PROVIDED PROVIDED MIN MATURE HT OF 36": PROVIDED MIN 18"H AT TIME OF PLANTING: MIN 24" SPACING, EDGE TO EDGE: PROVIDED

PERIMETER SCREEN NOTE: SET PERIMETER SHRUBS 30" FROM BACK OF CURB WHERE PARING FACES CURB.



Scale 1" = 30'

NOTE: PRINTED DRAWING SIZE MAY HAVE CHANGED FROM ORIGINAL. VERIFY SCALE USING BAR SCALE ABOVE.



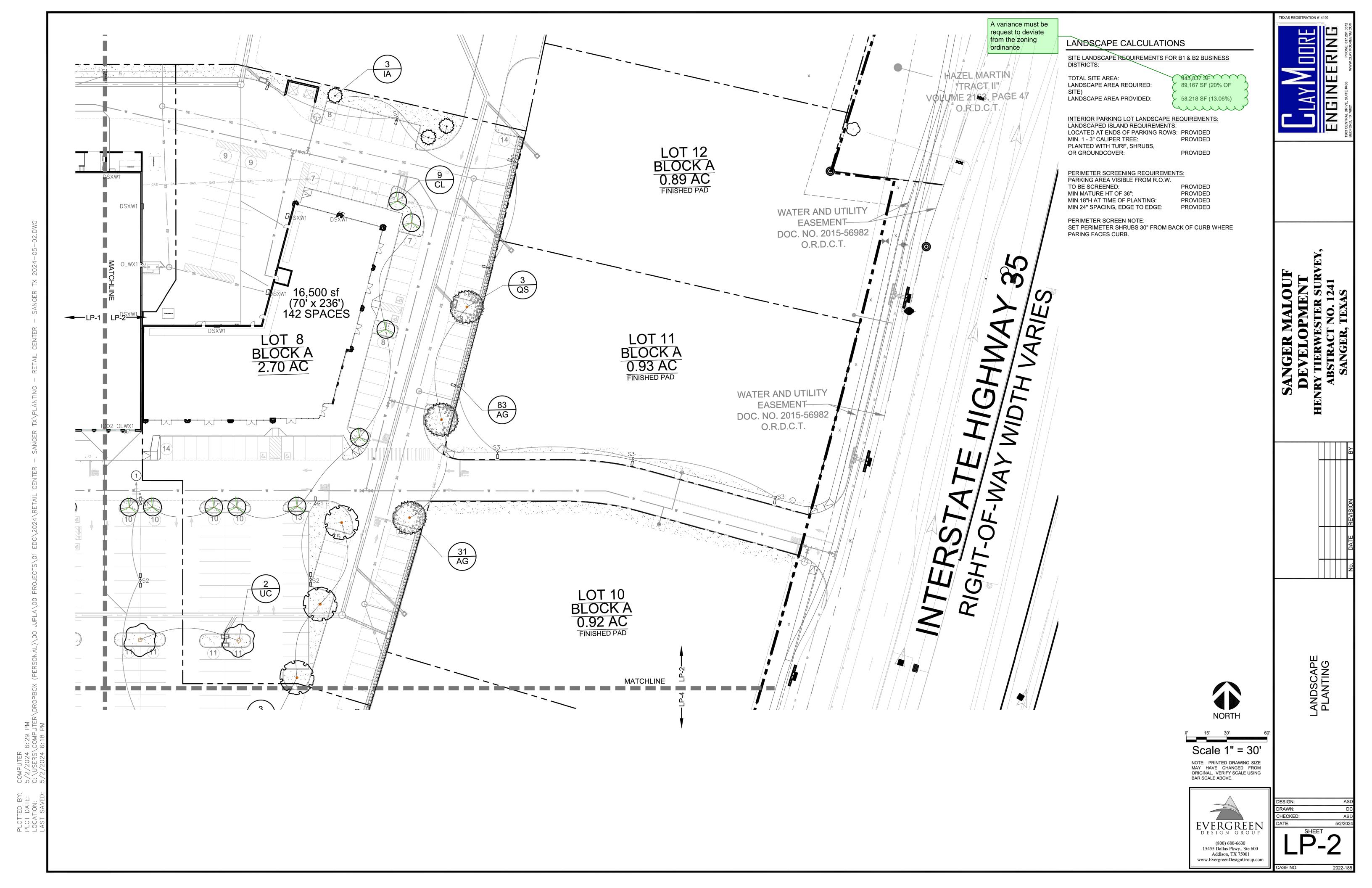


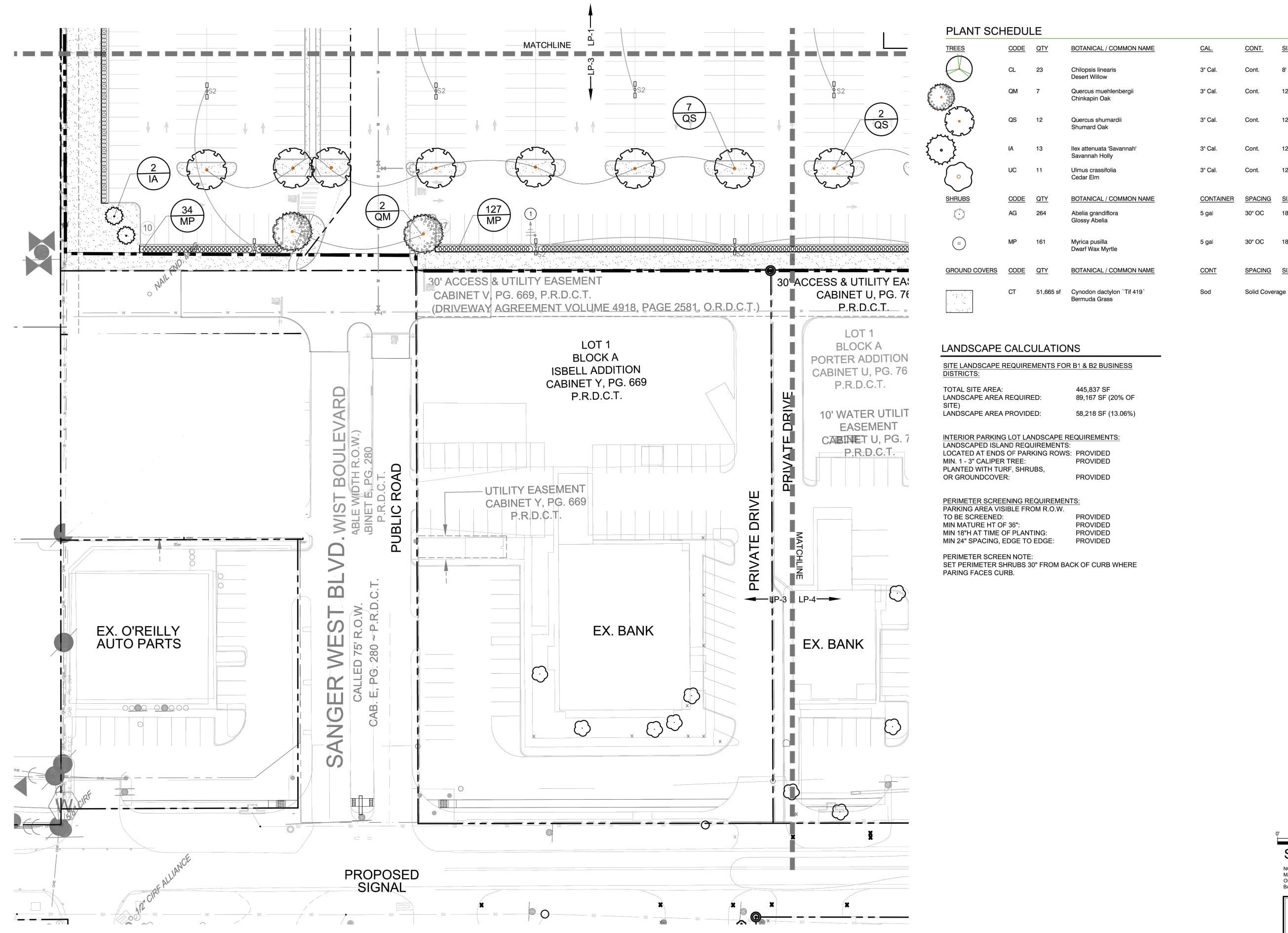
LANDSCAPE PLANTING

EXAS REGISTRATION #14199

SANGER

LIAYIVIOURE





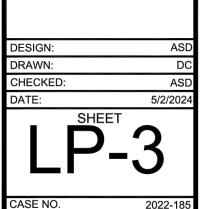
CONT. SIZE 8' Min HT 12`-14` HT Cont. Cont. 12`-14` HT 12`-14` HT 12`-14` HT SPACING SIZE 18" Min. 30" OC SPACING SIZE





NOTE: PRINTED DRAWING SIZE MAY HAVE CHANGED FROM ORIGINAL. VERIFY SCALE USING BAR SCALE ABOVE.



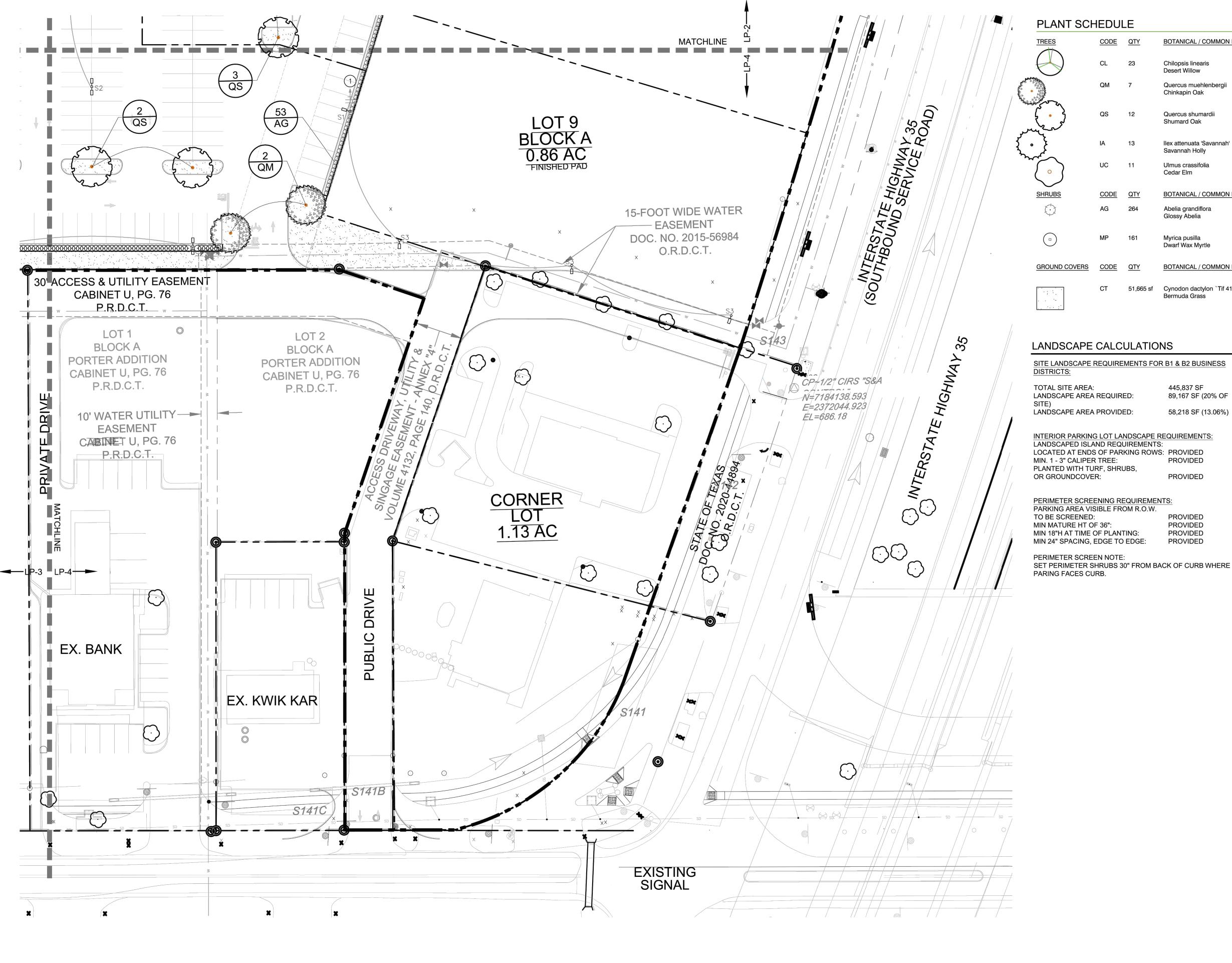


LANDSCAPE PLANTING

EXAS REGISTRATION #14199

SANGER

LIAYIVIOURE



PLANT SCHEDULE

CODE QTY BOTANICAL / COMMON NAME CONT. Chilopsis linearis 8' Min HT Desert Willow QM 12`-14` HT Quercus muehlenbergii Chinkapin Oak QS 12`-14` HT Quercus shumardii Shumard Oak Ilex attenuata 'Savannah' 12`-14` HT Savannah Holly 12`-14` HT Ulmus crassifolia Cedar Elm CODE **BOTANICAL / COMMON NAME** SPACING SIZE 30" OC 18" Min. Abelia grandiflora Glossy Abelia Myrica pusilla 30" OC 18" Min. Dwarf Wax Myrtle **BOTANICAL / COMMON NAME** SPACING SIZE Cynodon dactylon `Tif 419` Solid Coverage Bermuda Grass

## LANDSCAPE CALCULATIONS

SITE LANDSCAPE REQUIREMENTS FOR B1 & B2 BUSINESS

445,837 SF 89,167 SF (20% OF LANDSCAPE AREA REQUIRED: LANDSCAPE AREA PROVIDED: 58,218 SF (13.06%)

INTERIOR PARKING LOT LANDSCAPE REQUIREMENTS: LANDSCAPED ISLAND REQUIREMENTS: LOCATED AT ENDS OF PARKING ROWS: PROVIDED MIN. 1 - 3" CALIPER TREE: PROVIDED PLANTED WITH TURF, SHRUBS, PROVIDED

PERIMETER SCREENING REQUIREMENTS: PARKING AREA VISIBLE FROM R.O.W. PROVIDED MIN MATURE HT OF 36": PROVIDED

PROVIDED MIN 24" SPACING, EDGE TO EDGE: PROVIDED PERIMETER SCREEN NOTE:



Scale 1" = 30'

NOTE: PRINTED DRAWING SIZE MAY HAVE CHANGED FROM ORIGINAL. VERIFY SCALE USING BAR SCALE ABOVE.





LIAY WIDORE ENGINE

EXAS REGISTRATION #14199

SANGER

LANDSCAPE PLANTING

PLANT SCHEDULE									
TREES	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	CAL.	CONT.	SIZE			
	CL	23	Chilopsis linearis Desert Willow	3" Cal.	Cont.	8' Min HT			
	QM	7	Quercus muehlenbergii Chinkapin Oak	3" Cal.	Cont.	12`-14` HT			
mary a	QS	12	Quercus shumardii Shumard Oak	3" Cal.	Cont.	12`-14` HT			
• }	IA	13	llex attenuata 'Savannah' Savannah Holly	3" Cal.	Cont.	12`-14` HT			
°	UC	11	Ulmus crassifolia Cedar Elm	3" Cal.	Cont.	12`-14` HT			
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONTAINER	SPACING	SIZE			
$\bigcirc$	AG	264	Abelia grandiflora Glossy Abelia	5 gal	30" OC	18" Min.			
	MP	161	Myrica pusilla Dwarf Wax Myrtle	5 gal	30" OC	18" Min.			
GROUND COVERS	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	CONT	SPACING	SIZE			
	СТ	51,665 sf	Cynodon dactylon `Tif 419` Bermuda Grass	Sod	Solid Cover	age			

### LANDSCAPE CALCULATIONS

SITE LANDSCAPE REQUIREMENTS FOR B1 & B2 BUSINESS DISTRICTS:

TOTAL SITE AREA:

445,837 SF 89,167 SF (20% OF

LANDSCAPE AREA REQUIRED:

LANDSCAPE AREA PROVIDED: 58,218 SF (13.06%)

INTERIOR PARKING LOT LANDSCAPE REQUIREMENTS:

LANDSCAPED ISLAND REQUIREMENTS:

LOCATED AT ENDS OF PARKING ROWS: PROVIDED

MIN. 1 - 3" CALIPER TREE: PLANTED WITH TURF, SHRUBS,

OR GROUNDCOVER: PROVIDED

#### PERIMETER SCREENING REQUIREMENTS:

PARKING AREA VISIBLE FROM R.O.W. TO BE SCREENED: PROVIDED MIN MATURE HT OF 36": PROVIDED

MIN 18"H AT TIME OF PLANTING: PROVIDED MIN 24" SPACING, EDGE TO EDGE: PROVIDED

PARING FACES CURB.

PERIMETER SCREEN NOTE: SET PERIMETER SHRUBS 30" FROM BACK OF CURB WHERE

# **GENERAL GRADING AND PLANTING NOTES**

- BY SUBMITTING A PROPOSAL FOR THE LANDSCAPE PLANTING SCOPE OF WORK, THE CONTRACTOR CONFIRMS THAT HE HAS READ, AND WILL COMPLY WITH, THE ASSOCIATED NOTES, SPECIFICATIONS, AND DETAILS WITH THIS PROJECT.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE NOTED TO REMAIN).
- 3. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.
  - BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
  - CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND
  - ELIMINATE PONDING POTENTIAL. c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED. TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE
  - ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
  - ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING
  - PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND
- 4. ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE LANDSCAPE ARCHITECT OR DESIGNER PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES; PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE
  - PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUNDCOVER PATTERNS) SHALL TAKE PRECEDENCE. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. IF SOME OF THE
- PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING (VIA PROPER CHANNELS). THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE REPRESENTATIVE PHOTOS OF ALL PLANTS PROPOSED FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE LANDSCAPE ARCHITECT AND THE OWNER/OWNER'S REPRESENTATIVE TO INSPECT. AND APPROVE OR REJECT. ALL PLANTS DELIVERED TO THE
- JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS. THE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A HEALTHY CONDITION FOR 90 DAYS AFTER ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START OF THE MAINTENANCE PERIOD. AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD.

SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS. Add note specifying that owner is responsible for all maintenance of landscaping

# IRRIGATION CONCEPT

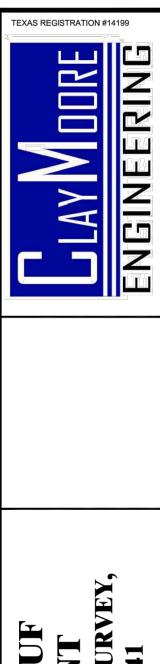
- 1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL BY THE TIME OF FINAL INSPECTION. THE ENTIRE IRRIGATION SYSTEM SHALL BE INSTALLED BY A LICENSED AND QUALIFIED IRRIGATION CONTRACTOR.
- 2. THE IRRIGATION SYSTEM WILL OPERATE ON POTABLE WATER, AND THE SYSTEM WILL HAVE APPROPRIATE BACKFLOW PREVENTION DEVICES INSTALLED TO PREVENT CONTAMINATION OF THE POTABLE SOURCE.
- 3. ALL NON-TURF PLANTED AREAS SHALL BE DRIP IRRIGATED. SODDED AND SEEDED AREAS SHALL BE IRRIGATED WITH SPRAY OR ROTOR HEADS AT 100% HEAD-TO-HEAD COVERAGE.
- 4. ALL PLANTS SHARING SIMILAR HYDROZONE CHARACTERISTICS SHALL BE PLACED ON A VALVE DEDICATED TO PROVIDE THE NECESSARY WATER REQUIREMENTS SPECIFIC TO THAT HYDROZONE.
- 5. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED, TO THE MAXIMUM EXTENT POSSIBLE, TO CONSERVE WATER BY USING THE FOLLOWING DEVICES AND SYSTEMS: MATCHED PRECIPITATION RATE TECHNOLOGY ON ROTOR AND SPRAY HEADS (WHEREVER POSSIBLE), RAIN SENSORS, AND MULTI-PROGRAM COMPUTERIZED IRRIGATION CONTROLLERS FEATURING SENSORY INPUT CAPABILITIES.

### ROOT BARRIERS

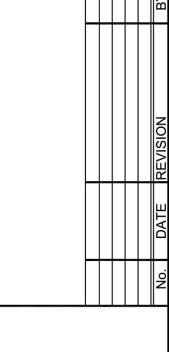
THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

# **MULCHES**

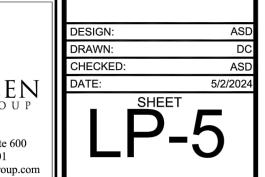
AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 3" THICK LAYER OF 1-1/2" SHREDDED WOOD MULCH. NATURAL (UNDYED). OVER LANDSCAPE FABRIC IN ALL PLANTING AREAS (EXCEPT FOR TURF AND SEEDED AREAS). CONTRACTOR SHALL SUBMIT SAMPLES OF ALL MULCHES TO LANDSCAPE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO CONSTRUCTION. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED (SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE "GENERAL GRADING AND PLANTING NOTES" AND SPECIFICATIONS).











A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES. THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID NURSERY AND FLORAL CERTIFICATE ISSUED BY THE TEXAS DEPARTMENT OF AGRICULTURE, AS WELL AS OPERATE UNDER A COMMERCIAL PESTICIDE APPLICATOR LICENSE ISSUED BY EITHER THE TEXAS DEPARTMENT OF AGRICULTURE OR THE TEXAS STRUCTURAL PEST

THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID CONTRACTOR'S LICENSE ISSUED BY THE APPROPRIATE B. SCOPE OF WORK

WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, NSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN ON THE LANDSCAPE

2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND

THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK.

#### PRODUCTS

A. ALL MANUFACTURED PRODUCTS SHALL BE NEW. B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:

> FURNISH NURSERY-GROWN PLANTS COMPLYING WITH ANSI Z60.1-2014. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE. AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMACTIC CONDITIONS.

ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS. AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED

TREES MAY BE PLANTED FROM CONTAINERS OR BALLED-AND-BURLAPPED (B&B), UNLESS SPECIFIED ON THE PLANTING LEGEND. BARE-ROOT TREES ARE NOT ACCEPTABLE.

ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTBLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL.

ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS VILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE

THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL. WHERE CALIPER MEASUREMENTS ARE USED, THE CALIPER SHALL BE CALCULATED AS ONE-HALF

OF THE SUM OF THE CALIPER OF THE THREE LARGEST TRUNKS. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.

C. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD.

D. SEED: PROVIDE BLEND OF SPECIES AND VARIETIES AS NOTED ON THE PLANS, WITH MAXIMUM PERCENTAGES OF PURITY, GERMINATION, AND MINIMUM PERCENTAGE OF WEED SEED AS INDICATED ON PLANS. EACH BAG OF SEED SHALL BE ACCOMPANIED BY A TAG FROM THE SUPPLIER INDICATING THE COMPOSITION OF THE SEED. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN ½ INCH, FOREIGN MATTER, PLANTS,

COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT: 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE: SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENS/M: NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC

TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED. G. PLANTING MIX FOR POTS: AN EQUAL PART MIXTURE OF TOPSOIL, SAND AND COMPOST. INCORPORATE "GELSCAPE", AS MADE BY AMEREQ, INC., (800) 832-8788, AT THE RATE OF 3 LB, PER CUBIC YARD OF PLANTING MIX. H. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED

SOIL-TESTING AGENCY (SEE BELOW). PALM MAINTENANCE SPIKES: AS MANUFACTURED BY THE LUTZ CORP, (800) 203-7740, OR APPROVED EQUAL. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP

TREE STAKING AND GUYING STAKES: 6' LONG GREEN METAL T-POSTS.

DRESSING OF TREES AND SHRUBS

GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH

STRAP CHAFING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE. STEEL EDGING: PROFESSIONAL STEEL EDGING, 14 GAUGE THICK X 4 INCHES WIDE, FACTORY PAINTED DARK GREEN.

ACCEPTABLE MANUFACTURERS INCLUDE COL-MET OR APPROVED EQUAL. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST. SOIL TESTING:

AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY. EACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL. TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS

b. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT.

THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES. d. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEED, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE

REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR

LONG-TERM MAINTENANCE THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER NCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.

FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:

NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F. PREPLANT TURF FERTILIZER (10-20-10 OR SIMILAR, SLOW RELEASE, ORGANIC) - 15 LBS PER 1,000 S.F. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE

TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:

NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F. 12-12-12 FERTILIZER (OR SIMILAR, ORGANIC, SLOW RELEASE) - 10 LBS. PER CU. YD. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE

DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.

IRON SULPHATE - 2 LBS. PER CU. YD. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS. a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED

INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION. b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL

THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH

GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS,

GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER. ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO

B. SUBMITTALS

THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SAMPLES, IF REQUIRED, TO THE LANDSCAPE ARCHITECT, AND RECEIVE APPROVAL IN WRITING FOR SUCH SUBMITTALS BEFORE WORK COMMENCES. SUBMITTALS SHALL INCLUDE PHOTOS OF PLANTS WITH A RULER OR MEASURING STICK FOR SCALE. PHOTOS OR SAMPLES OF ANY REQUIRED MULCHES. AND SOIL TEST RESULTS AND PREPARATION RECOMMENDATIONS FROM THE TESTING LAB (INCLUDING COMPOST AND FERTILIZER RATES AND TYPES, AND OTHER

AMENDMENTS FOR TREE/SHRUB, TURF, AND SEED AREAS AS MAY BE APPROPRIATE). SUBMITTALS SHALL ALSO INCLUDE MANUFACTURER CUT SHEETS FOR PLANTING ACCESSORIES SUCH AS

TREE STAKES AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY). WHERE MULTIPLE ITEMS ARE SHOWN ON A PAGE, THE CONTRACTOR SHALL CLEARLY INDICATE THE ITEM BEING CONSIDERED.

C. GENERAL PLANTING REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.

EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES, APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE. TRENCHING NEAR EXISTING TREES:

CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).

ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH

ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT

USE ANY SORT OF SEALERS OR WOUND PAINTS. TREE PLANTING TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO TO FOUR INCHES. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE

ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE. FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE

INSTALL THE TREE ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES ABOVE THE SURROUNDING GRADE.

BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS AND COMPOSITION IN THE ON-SITE SOIL.

TREES SHALL NOT BE STAKED UNLESS LOCAL CONDITIONS (SUCH AS HEAVY WINDS OR SLOPES) REQUIRE STAKES TO KEEP TREES UPRIGHT. SHOULD STAKING BE REQUIRED, THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUMS LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION. SHOULD ANY TREES FALL OR LEAN, THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN THE TREE, OR REPLACE IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES: TWO STAKES PER TREE

THREE STAKES PER TREE TREES OVER 4" CALIPER GUY AS NEEDED

MULTI-TRUNK TREES THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS NEEDED TO STABILIZE THE TREE

#15 CONT. - 24" BOX TREES TWO STAKES PER TREE THREE STAKES PER TREE 36"-48" BOX TREES **OVER 48" BOX TREES GUY AS NEEDED** 

THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS NEEDED MULTI-TRUNK TREES TO STABILIZE THE TREE UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE. COVER THE

INTERIOR OF THE TREE RING WITH THE WEED BARRIER CLOTH AND TOPDRESS WITH MULCH (TYPE AND DEPTH PER PLANS) D. SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL THE

PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS. INSTALL THE WEED BARRIER CLOTH, OVERLAPPING IT AT THE ENDS. UTILIZE STEEL STAPLES TO KEEP THE WEED BARRIER CLOTH IN PLACE. WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS,

COVERING THE ENTIRE PLANTING AREA. SOD VARIETY TO BE AS SPECIFIED ON THE LANDSCAPE PLAN.

LAY SOD WITHIN 24 HOURS FROM THE TIME OF STRIPPING. DO NOT LAY IF THE GROUND IS FROZEN. LAY THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS -DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. ROLL THE SOD TO ENSURE GOOD CONTACT OF THE SOD'S ROOT SYSTEM WITH THE SOIL UNDERNEATH.

WATER THE SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING TO OBTAIN AT LEAST SIX INCHES OF PENETRATION INTO THE SOIL BELOW THE SOD.

TURF HYDROMULCH MIX (PER 1,000 SF) SHALL BE AS FOLLOWS:

WINTER MIX (OCTOBER 1 - MARCH 31) 50# CELLULOSE FIBER MULCH 2# UNHULLED BERMUDA SEED

HULLED BERMUDA SEED

ANNUAL RYE SEED 15# 15-15-15 WATER SOLUBLE FERTILIZER SUMMER MIX (APRIL 1 - SEPTEMBER 30) 50# CELLULOSE FIBER MULCH

15# 15-15-15 WATER SOLUBLE FERTILIZER SEED HYDROMULCH MIX (PER 1,000 SF) SHALL BE AS FOLLOWS:

GENERAL 50# CELLULOSE FIBER MULCH

15# 15-15-15 WATER SOLUBLE FERTILIZER SEED RATE PER LEGEND

G. DRILL SEEDING 1. ALL SEED SHALL BE DRILL SEEDED AT THE RATES SHOWN ON THE PLANS, WITH A HYDROMULCH MIX APPLIED AFTER SEEDING

THE HYDROMULCH MIX (PER 1,000 SF) SHALL BE AS FOLLOWS: 50# CELLULOSE FIBER MULCH

15# 15-15-15 WATER SOLUBLE FERTILIZER 4# ORGANIC BINDER INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING AREAS AND TREE

DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE AND WITHIN 24" OF HABITABLE STRUCTURES, EXCEPT AS MAY BE NOTED ON THESE PLANS. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF WALL.

DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.

INSPECTION AND ACCEPTANCE UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE

SATISFACTION WITHIN 24 HOURS. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.

LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S

K. LANDSCAPE MAINTENANCE THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTING OF PLANTS THAT HAVE SETTLED. MOWING AND AERATION OF LAWNS. WEEDING. RESEEDING AREAS WHICH HAVE NOT GERMINATED WELL. TREATING FOR INSECTS AND DISEASES, REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE

LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF PLANTS AT NO ADDITIONAL COST TO THE OWNER. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:

THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES

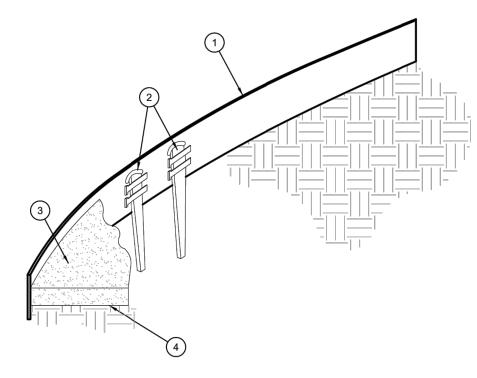
BEFORE FIRST MOWING. HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE

AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED OR RESEEDED (AS APPROPRIATE)

PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED. WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDED/HYDROMULCHED AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY

CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.

AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD. THE LANDSCAPE



(1) ROLLED-TOP STEEL EDGING PER PLANS.

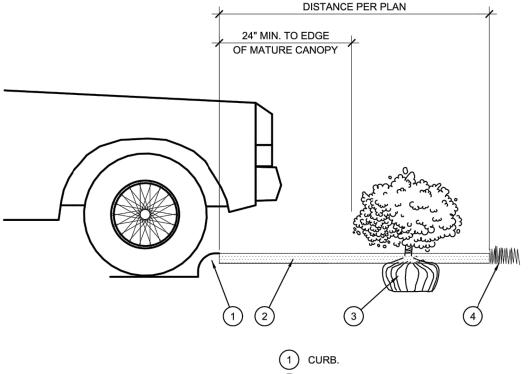
(2) TAPERED STEEL STAKES.

(3) MULCH, TYPE AND DEPTH PER PLANS.

(4) FINISH GRADE.

INSTALL EDGING SO THAT STAKES WILL BE ON INSIDE OF PLANTING BED. BOTTOM OF EDGING SHALL BE BURIED A MINIMUM OF 1" BELOW FINISH GRADE. 3) TOP OF MULCH SHALL BE 1" LOWER THAN TOP OF EDGING.

STEEL EDGING



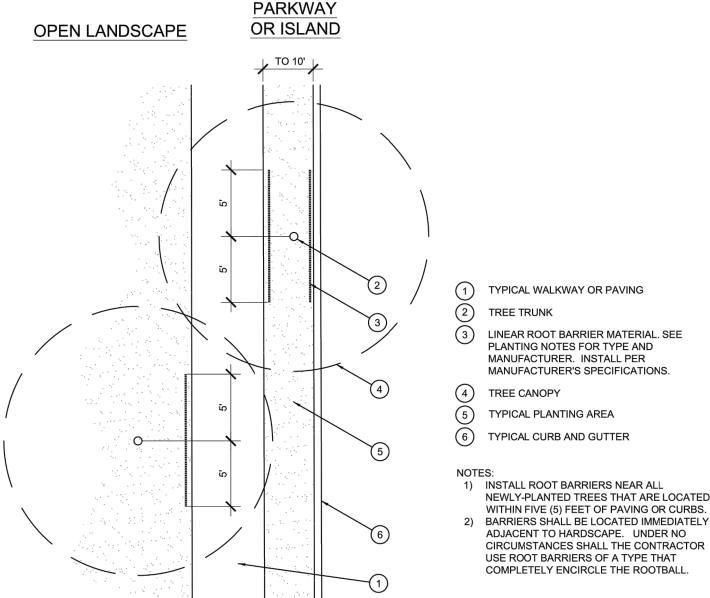
(2) MULCH LAYER.

(3) PLANT

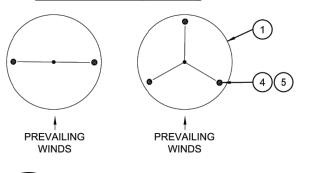
(4) TURF (WHERE SHOWN ON PLAN)

PLANTING AT PARKING AREA

ROOT BARRIER - PLAN VIEW



CONIFEROUS NON-CONIFEROUS 3X ROOTBALL DIA STAKING EXAMPLES (PLAN VIEW)



TREE PLANTING

SCALE: NOT TO SCALE

SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT COVERS THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 2"-4" ABOVE FINISH GRADE.

(1) TREE CANOPY.

(6) TRUNK FLARE.

(8) FINISH GRADE.

(13) FINISH GRADE.

(9) ROOT BALL.

 $\binom{2}{1}$  CINCH-TIES (24" BOX/2" CAL. TREES AND SMALLER) OR 12 GAUGE GALVANIZED WIRE WITH NYLON TREE

JUST ABOVE LOWEST MAJOR BRANCHES.

(3) 24" X 3/4" P.V.C. MARKERS OVER WIRES.

18" MIN. INTO UNDISTURBED SOIL.

PLACE MULCH WITHIN 6" OF TRUNK.

(10) BACKFILL. AMEND AND FERTILIZE ONLY AS

RECOMMENDED IN SOIL FERTILITY ANALYSIS.

UNDISTURBED SOIL.

(11) UNDISTURBED NATIVE SOIL.

(12) 4" HIGH EARTHEN WATERING BASIN.

STRAPS AT TREE AND STAKE (36" BOX/2.5" CAL. TREES

AND LARGER). SECURE TIES OR STRAPS TO TRUNK

(4) GREEN STEEL T-POSTS. EXTEND POSTS 12" MIN. INTO

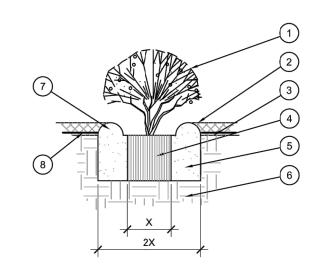
TREE (MIN.). BURY OUTSIDE OF PLANTING PIT AND

(5) PRESSURE-TREATED WOOD DEADMAN, TWO PER

(7) MULCH, TYPE AND DEPTH PER PLANS. DO NOT

3. FOR B&B TREES, CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE, CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN HOLE, REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE AS MUCH BURLAP FROM AROUND ROOTBALL AS IS PRACTICAL REMOVE ALL NURSERY STAKES AFTER PLANTING. 5. FOR TREES 36" BOX/2.5" CAL. AND LARGER, USE THREE STAKES OR

DEADMEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE. 6. STAKING SHALL BE TIGHT ENOUGH TO PREVENT TRUNK FROM BENDING, BUT LOOSE ENOUGH TO ALLOW SOME TRUNK MOVEMENT



( 1 ) SHRUB, PERENNIAL, OR ORNAMENTAL GRASS

(2) MULCH, TYPE AND DEPTH PER PLANS. PLACE NO MORE THAN 1" OF MULCH WITHIN 6" OF PLANT CENTER.

(3) FINISH GRADE.

(4) ROOT BALL.

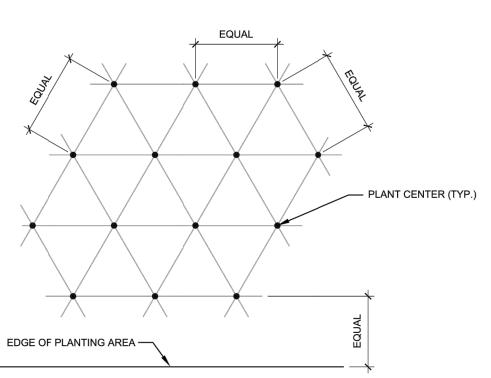
(5) BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS

(6) UNDISTURBED NATIVE SOIL

(7) 3" HIGH EARTHEN WATERING BASIN.

(8) WEED FABRIC UNDER MULCH.

SHRUB AND PERENNIAL PLANTING SCALE: NTS



NOTE: ALL PLANTS SHALL BE PLANTED AT EQUAL TRIANGULAR SPACING (EXCEPT WHERE SHOWN ON PLANS AS INFORMAL GROUPINGS). REFER TO PLANT LEGEND FOR SPACING DISTANCE BETWEEN PLANTS.

1) STEP 1: DETERMINE TOTAL PLANTS FOR THE AREA WITH THE FOLLOWING FORMULA: TOTAL AREA / AREA DIVIDER = TOTAL PLANTS

**EXAMPLE:** PLANTS AT 18" O.C. IN 100 SF PLANTING AREA, 40 LF PERIMETER

STEP 2: 51 PLANTS - (40 LF / 1.95 = 21 PLANTS) = 30 PLANTS TOTAL

0.39 0.87

2) STEP 2: SUBTRACT THE ROW (S) OF PLANTS THAT WOULD OCCUR AT THE EDGE OF THE PLANTED AREA WITH THE FOLLOWING FORMULA: TOTAL PERIMETER LENGTH / PLANT SPACING = TOTAL PLANT SUBTRACTION

PLANT SPACING

STEP 1: 100 SF/1.95 = 51 PLANTS



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ALOUF DE