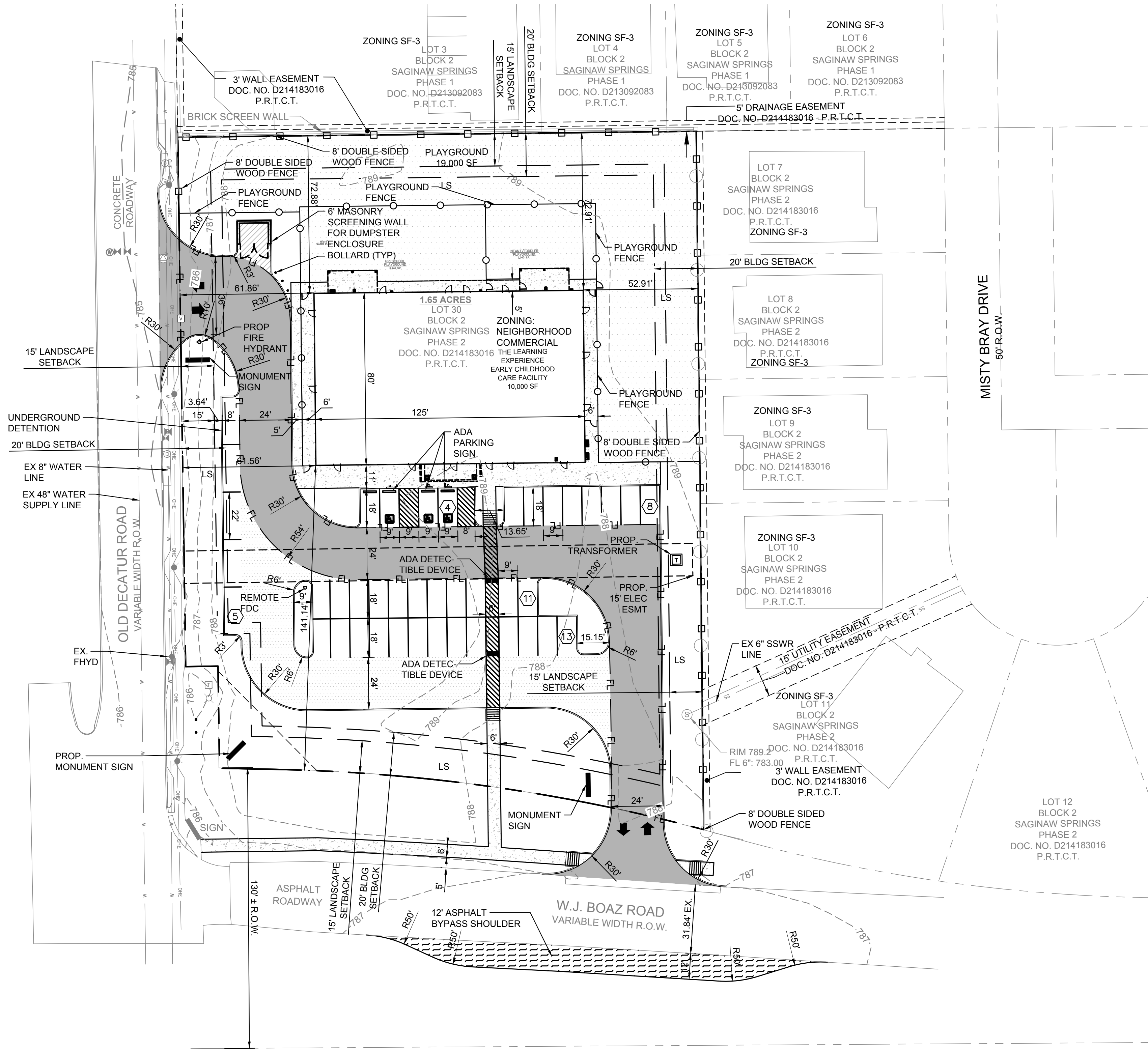
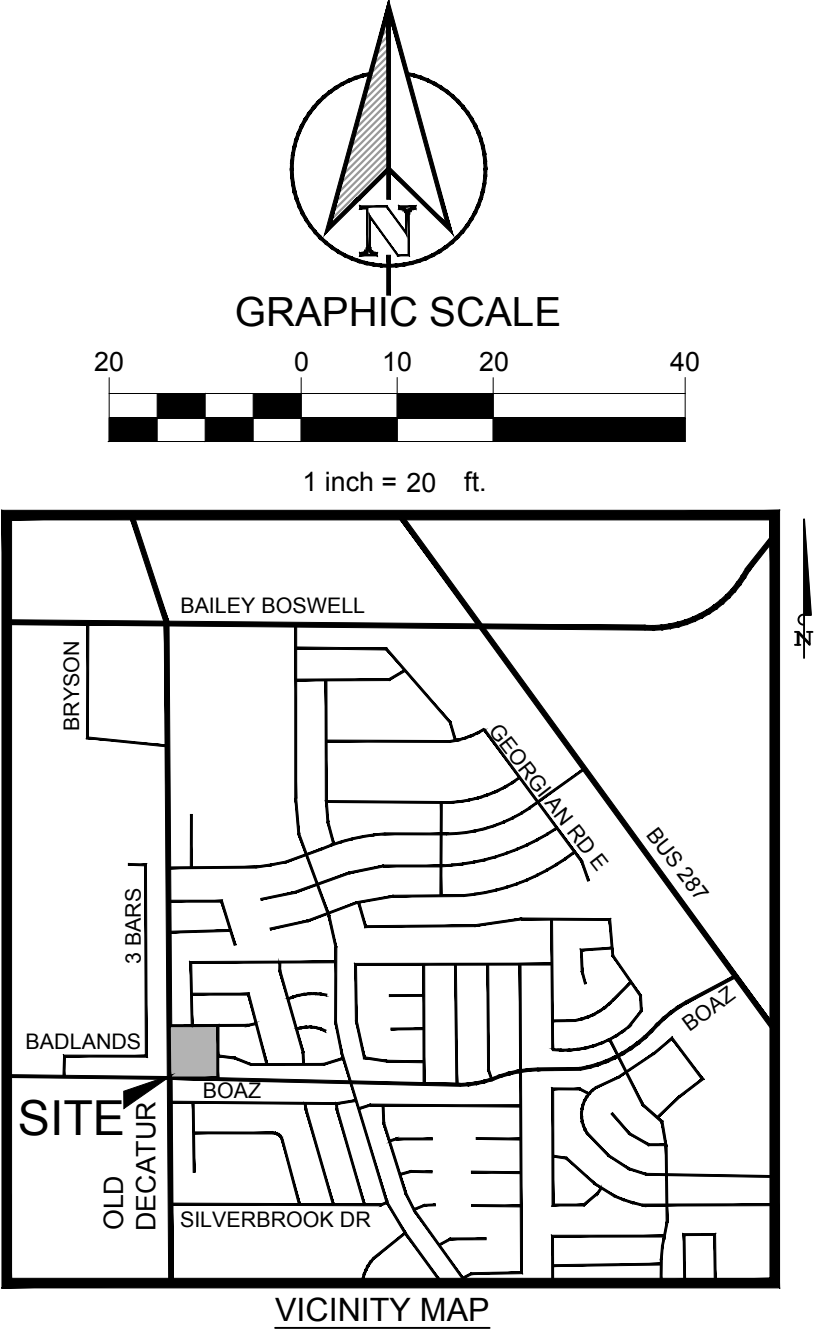


PLOTTED BY: LYNN ROWLAND
 PLOT DATE: 11/21/2019 7:06 PM
 LOCATION: Z:\PROJECTS\PROJECTS\2019-135 TLE SAGINAW\CADD\SHEETS\SP-1 SITE PLANDWG
 LAST SAVED: 11/21/2019 6:59 PM



SITE DATA TABLE	
SITE AREA (NET ROW TAKE)	1.64 AC (71,708 SF)
LEGAL DESCRIPTION	LOT 30, BLOCK 2, SAGINAW SPRINGS, PHASE 2
EXISTING ZONING	PLANNED DEVELOPMENT NEIGHBORHOOD COMMERCIAL
PROPOSED USE	DAYCARE/ NURSERY
PROPOSED BUILDING AREA	10,000 SF
PROPOSED BUILDING HEIGHT	25' - 4"
LOT COVERAGE	13.9%
FLOOR AREA RATIO	0.139 : 1
PERVIOUS AREA	33,113 SF
IMPERVIOUS AREA	38,595 SF
PERCENT IMPERVIOUS	53.8%



LEGEND	
	HEAVY DUTY CONCRETE PAVEMENT
	STANDARD DUTY CONCRETE PAVEMENT
	PROPOSED CONCRETE SIDEWALK
	PROPOSED DUMPSTER CONCRETE PAVING
	PROPOSED CONCRETE CURB AND GUTTER
	PROPERTY LINE
	FULL-DEPTH SAWCUT
	FIRE LANE
	EASEMENT LINE
	PLAYGROUND FENCE
	8' SCREENING FENCE
	PARKING COUNT

- STANDARD NOTES:**
- ALL SIGNAGE IS APPROVED VIA A SEPARATE PERMITTING PROCESS.
 - ALL MECHANICAL EQUIPMENT, DUMPSTERS, ROOFTOP UNITS, ETC. SHALL BE SCREENED IN COMPLIANCE WITH THE ZONING ORDINANCE.
 - ALL LIGHT SOURCES, INCLUDING WALL PACKS, LIGHT POLES, AND LIGHTS UNDERNEATH CANOPIES, SHALL BE RECESSED (i.e. FULL CUTOFFS) WITH NO DROP DOWN BULBS SO THAT ALL LIGHT SOURCES ARE SHIELDED AND NO LIGHT SOURCE IS OTHERWISE VISIBLE.
 - ANY ALTERATION TO THE SITE PLAN, INCLUDING BUILDING ELEVATION AND LANDSCAPE SUBSTITUTIONS, REQUIRE CITY OF SAGINAW APPROVAL THROUGH A REVISED PLAN.
 - RADI DIMENSIONS 3' UNLESS OTHERWISE STATED IN THIS DRAWING.
 - ALL PARKING STRIPING SHALL BE WHITE.

- ABBREVIATIONS DEFINITIONS:**
- F.L.: FIRELANE, ACCESS & UTILITY EASEMENT.
 - PROP.: PROPOSED
 - EX.: EXISTING
 - ESMT.: EASEMENT
 - LS.: LANDSCAPED AREA

PARKING DATA TABLE	
PARKING RATIO	DAYCARE/NURSERY 1/5 PUPILS (190 PUPILS)
PARKING REQUIRED	38 SPACES (3 ADA)
PARKING PROVIDED	41 SPACES (3 ADA)

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CONSULTANTS
Engineer: **CLAY CRISTY**
P.E. No. 109800 Date: 11/21/2019

TLE SAGINAW
OLD DECATUR RD. AND WJ BOAZ RD
SAGINAW, TEXAS

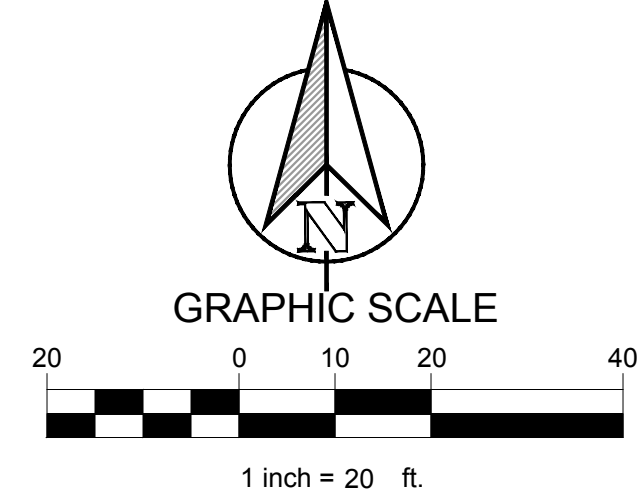
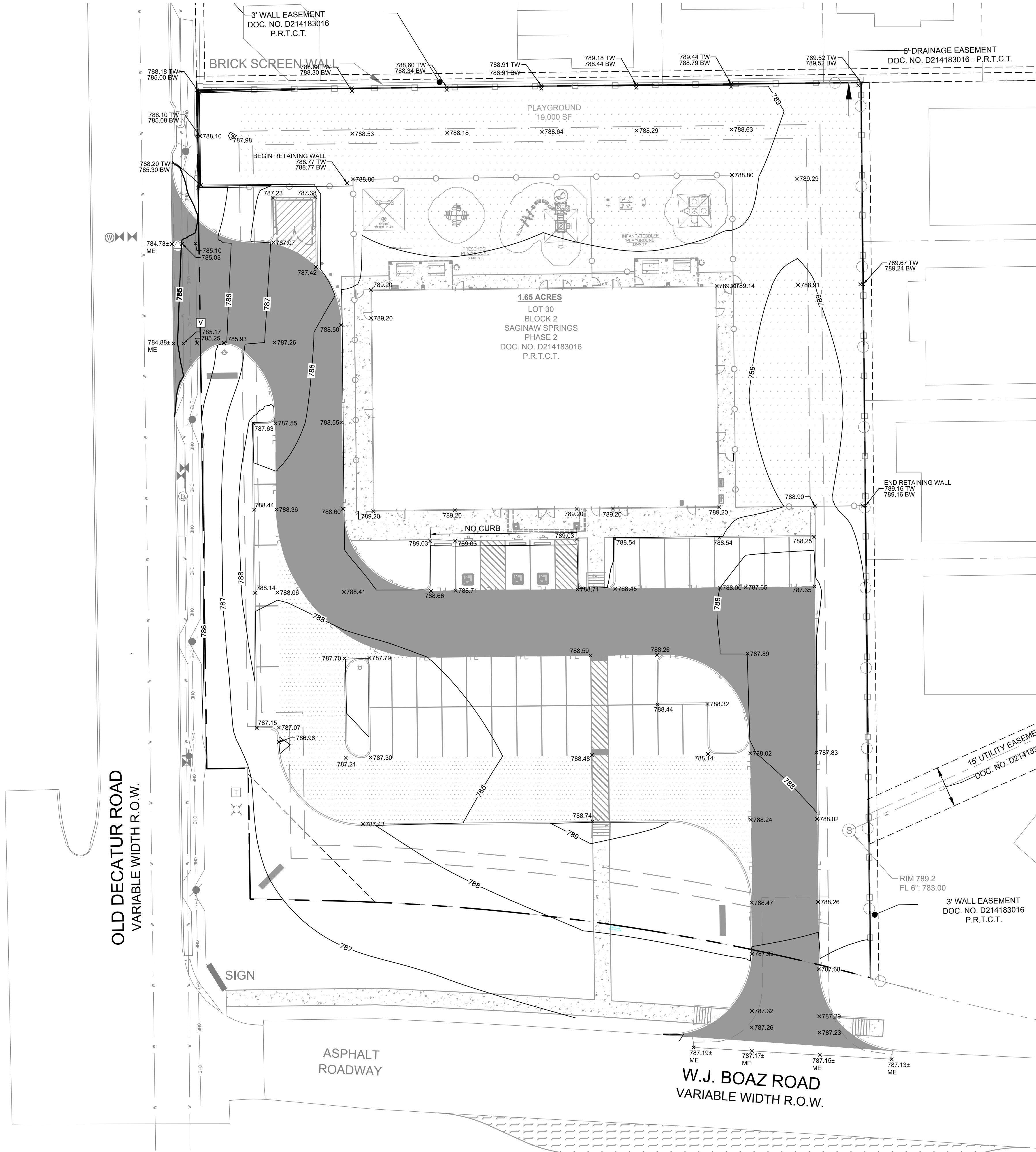
No.	DATE	REVISION	BY

SITE PLAN

SP-1

DESIGN: LRR
DRAWN: LRR
CHECKED: CLC
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File No. 2019-135

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 LOCATION: Z:\PROJECTS\PROJECTS\2019-135 TLE SAGINAW\CADD\SHEETS\C-5 GRADING PLAN.DWG
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LEGEND	
— 100 —	EXISTING CONTOUR
— 100 —	PROPOSED CONTOUR
x699.50	PROPOSED GRADE (TOP OF PAVEMENT)
ME	MATCH EXISTING
TC	TOP OF CURB
TG	TOP OF INLET
BW	BACK OF WALL
TW	TOP OF WALL
---	RIDGE LINE

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 CONSULTANTS
 Engineer: **CLAY CRISTY**
 P.E. No. 109800 Date: **11/21/2019**

TLE SAGINAW
OLD DECATUR RD. AND WJ BOAZ RD
SAGINAW, TEXAS

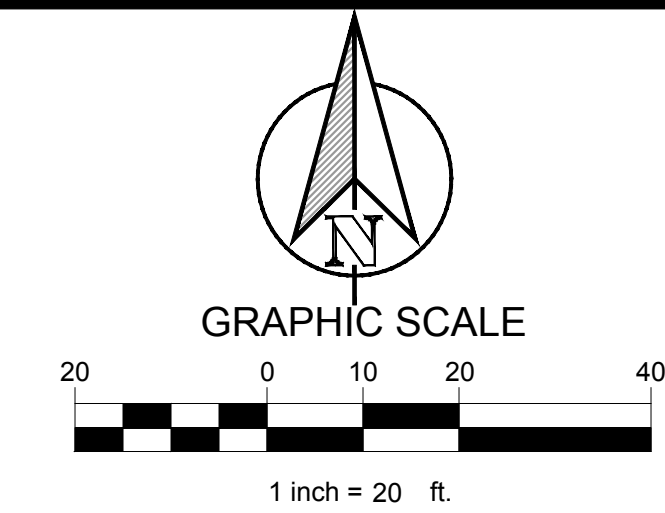
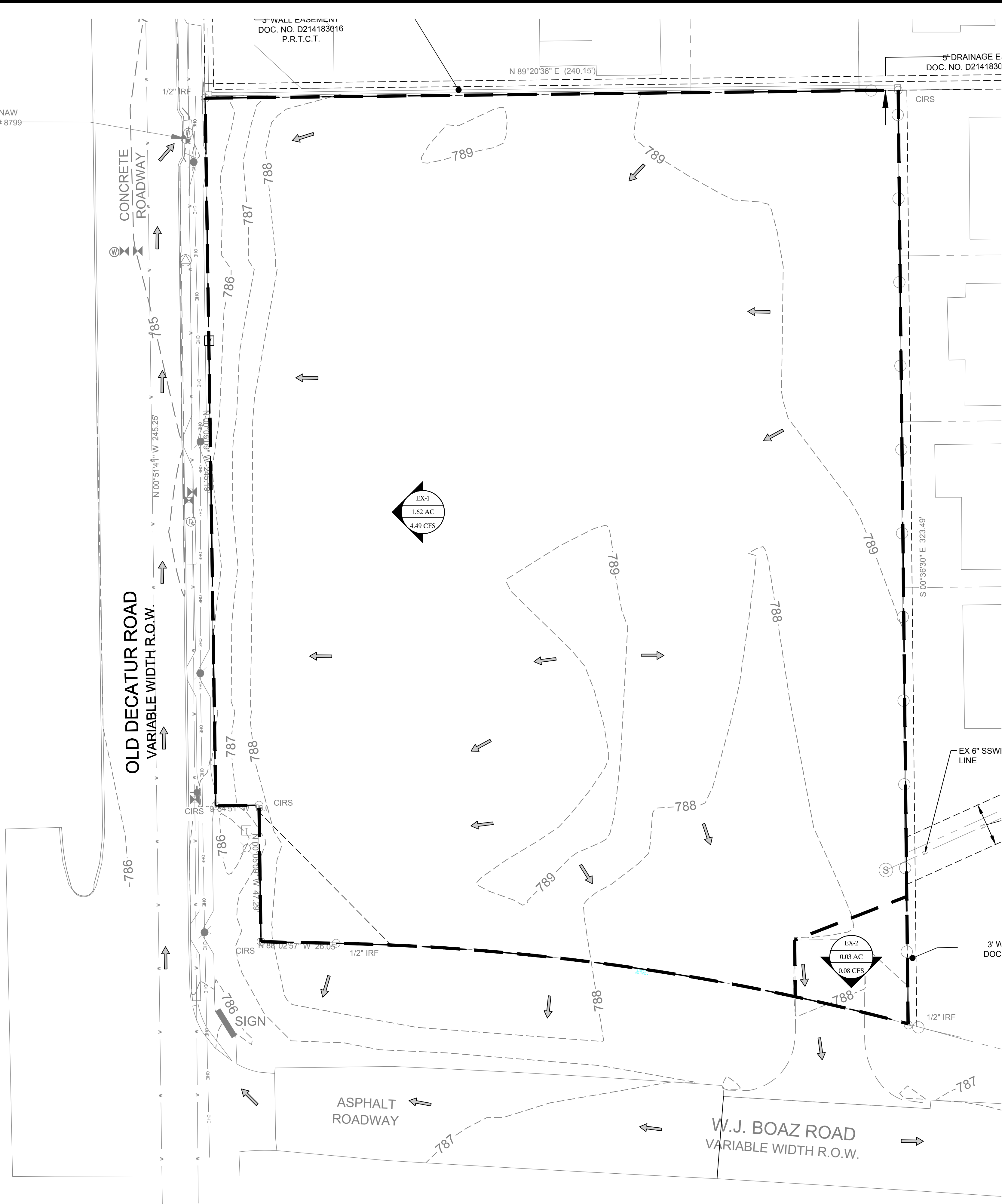
No.	DATE	REVISION	BY

GRADING PLAN

DESIGN:	LRR
DRAWN:	LRR
CHECKED:	CLC
DATE:	11/21/2019
SHEET	
C-5	
File No.	2019-135

PLOTTED BY: LYNN ROWLAND
 PLOT DATE: 11/21/2019 7:08 PM
 LOCATION: Z:\PROJECTS\PROJECTS\2019-135 TLE SAGINAW\CADD\SHEETS\C-6 EXISTING DRAINAGE AREA MAP.DWG
 LAST SAVED: 11/21/2019 7:03 PM

CITY OF SAGINAW
 MONUMENT # 8799



LEGEND	
	- DRAINAGE AREA
	- DRAINAGE AREA IN ACRES
	- FLOW FOR DRAINAGE AREA IN CFS
	DIRECTION OF FLOW
	DRAINAGE AREA BOUNDARY

FLOODPLAIN NOTE
 ACCORDING TO MAP NO. 48439C0160K, DATED SEPTEMBER 25, 2019 OF THE NATIONAL FLOOD INSURANCE PROGRAM MAP, FLOOD INSURANCE RATE MAP OF CITY OF SAGINAW, TEXAS, FEDERAL EMERGENCY MANAGEMENT AGENCY, FEDERAL INSURANCE ADMINISTRATION, THIS PROPERTY IS WITHIN ZONE "X" (UNSHADED) AND IS NOT WITHIN A SPECIAL FLOOD HAZARD AREA. IF THIS SITE IS NOT WITHIN AN IDENTIFIED SPECIAL FLOOD HAZARD AREA, THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

HYDROLOGIC CALCULATIONS - PRE DEVELOPED CONDITIONS										
DRAINAGE AREA	AREA (AC.)	C	Tc (min)	I ₁₀ (IN/HR)	Q ₁₀ (CFS)	I ₂₅ (IN/HR)	Q ₂₅ (CFS)	I ₁₀₀ (IN/HR)	Q ₁₀₀ (CFS)	REMARKS
EX-1	1.62	0.30	10.0	6.50	3.16	7.55	3.67	9.24	4.49	SHEET FLOWS TO OLD DECATUR RD
EX-2	0.03	0.30	10.0	6.50	0.06	7.55	0.07	9.24	0.08	SHEET FLOWS TO BOAZ RD
TOTAL DRAINAGE	1.65				3.22		3.74		4.57	

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 CONSULTANTS
 Engineer: CLAY CRISTY
 P.E. No. 109800 Date: 11/21/2019

TLE SAGINAW
OLD DECATUR RD. AND WJ BOAZ RD
SAGINAW, TEXAS

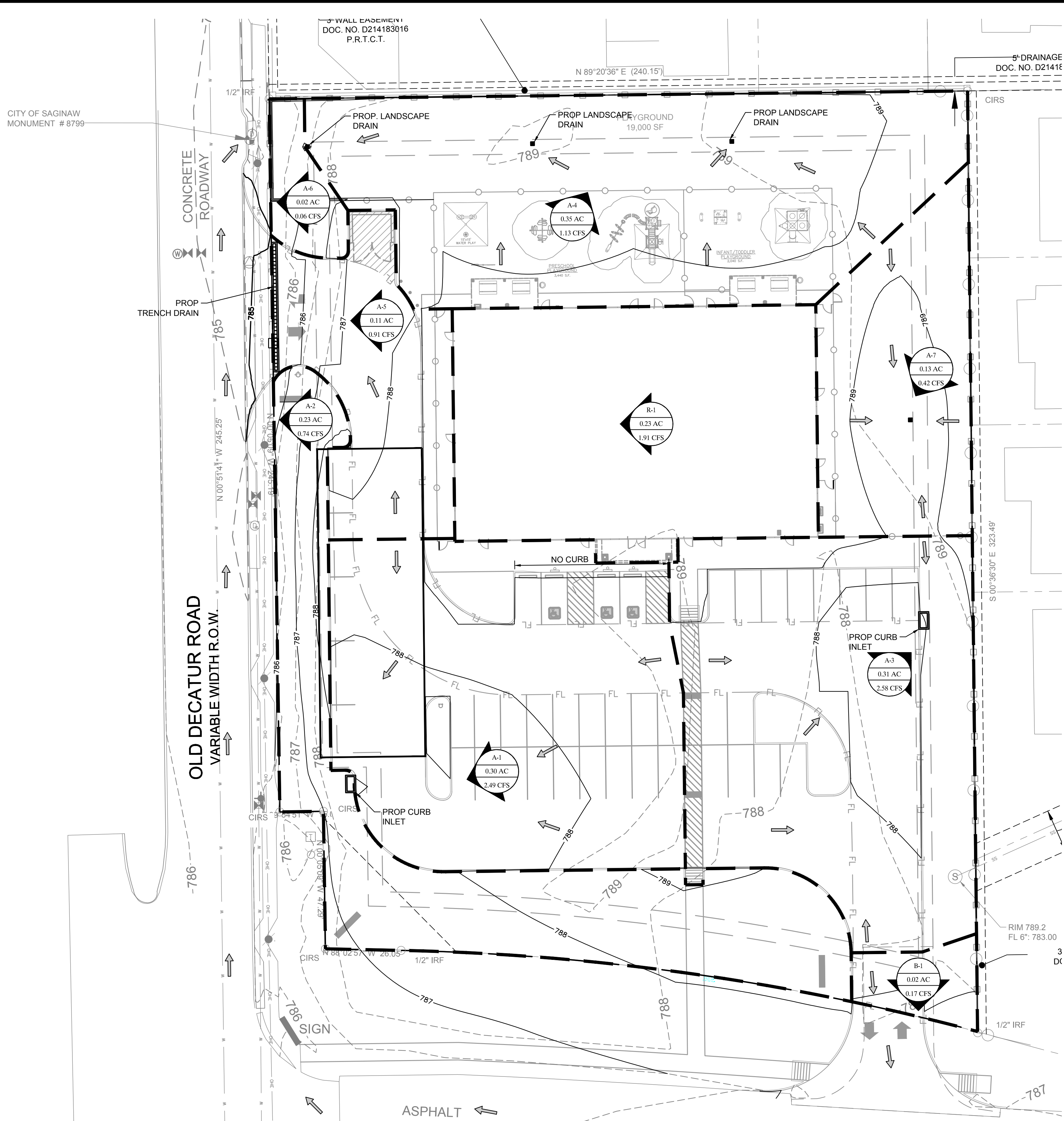
No.	DATE	REVISION	BY

EXISTING DRAINAGE AREA MAP

DESIGN: LRR
 DRAWN: LRR
 CHECKED: CLC
 DATE: 11/21/2019
 SHEET
C-6

File No. 2019-135

PLOTTED BY: LYNN ROWLAND
 PLOT DATE: 11/21/2019 7:06 PM
 LOCATION: Z:\PROJECTS\PROJECTS\2019-135 TLE SAGINAW\CADD\SHEETS\C-7 PROPOSED DRAINAGE AREA MAP.DWG
 LAST SAVED: 11/21/2019 7:05 PM



Drainage / Detention Calculations (100 YEAR EVENT)
 Modified Rational Method

Required Storage Volume 16,394 cubic-feet
 0.239 acre-feet
 Provided Storage Volume 10,407 cubic-feet
 0.239 acre-feet

Onsite Existing Conditions
 Area 1.62 acres
 Time (Tc) 10 minutes
 C value 0.30
 I-100yr 9.24 in/hr
 Q100yr 4.49 cfs
 Q100yr 0.81 cfs
 Q100yr 5.49 cfs
 Q100yr 0.00 cfs
 Q100yr 4.68 cfs
 Q100yr (T) 4.68 cfs

Onsite Existing Flow
 bypass
 Flow to Old Decatur Per Record Drawings
 Offsite Flow Passing Thru Pond
 Total Detention Pond Release Rate
 Proposed Release Rate

Developed Runoff

Runoff per Storm Event - Developed

Time (min.)	I-100yr	C	Area (ac)	Runoff (cfs)
10	9.24	0.90	1.62	13.48
15	7.98	0.90	1.62	11.63
20	7.05	0.90	1.62	10.27
30	5.75	0.90	1.62	8.40
35	5.30	0.90	1.62	7.72
40	4.91	0.90	1.62	7.16
50	4.30	0.90	1.62	6.27
60	3.84	0.90	1.62	5.60
70	3.48	0.90	1.62	5.07
80	3.19	0.90	1.62	4.65
90	2.95	0.90	1.62	4.30
100	2.74	0.90	1.62	4.00
110	2.57	0.90	1.62	3.75
120	2.42	0.90	1.62	3.53

Inflow per Storm Event

Storm Event Runoff	Inflow (ft³/s)
10	13.48
15	11.63
20	10.27
30	8.40
35	7.72
40	7.16
50	6.27
60	5.60
70	5.07
80	4.65
90	4.30
100	4.00
110	3.75
120	3.53

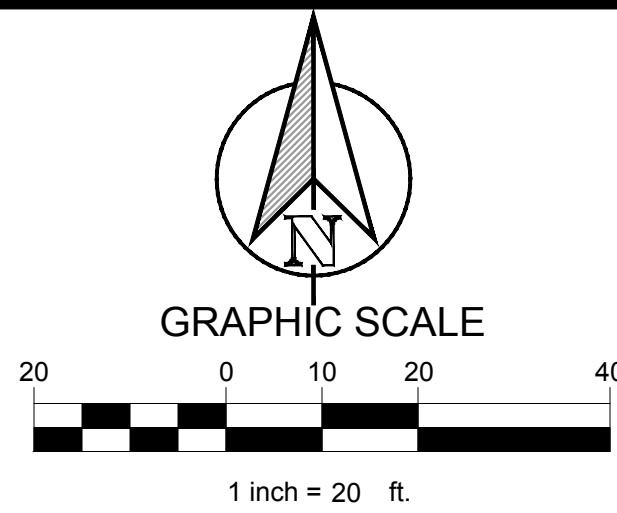
Max Allowable Outflow per Storm Event

Storm	Time	Release	Outflow (ft³/s)
10	20	4.68	2,808
15	25	4.68	3,510
20	30	4.68	4,212
30	40	4.68	5,616
35	45	4.68	6,318
40	50	4.68	7,020
50	60	4.68	8,424
60	70	4.68	9,828
70	80	4.68	11,232
80	90	4.68	12,636
90	100	4.68	14,040
100	110	4.68	15,444
110	120	4.68	16,848
120	130	4.68	18,252
130	140	4.68	19,656
140	150	4.68	21,060

Detention Volume Required

Storm	Inflow	Outflow	Storage (ft³)	Storage (acre-ft)
10	8,087	2,808	5,279	0.121
15	10,466	3,510	6,956	0.160
20	12,327	4,212	8,115	0.186
30	15,122	5,616	9,506	0.218
35	16,222	6,318	9,904	0.227
40	17,187	7,020	10,167	0.233
50	18,818	8,424	10,394	0.236
60	20,164	9,828	10,336	0.237
70	21,311	11,232	10,079	0.231
80	22,310	12,636	9,674	0.222
90	23,196	14,040	9,156	0.210
100	23,993	15,444	8,549	0.196
110	24,717	16,848	7,869	0.181

HYDROLOGIC CALCULATIONS - POST DEVELOPED CONDITIONS									
DRAINAGE AREA	AREA (AC.)	C	Tc (min)	Tc (HRS)	Q10 (CFS)	I100 (IN/HRS)	Q25 (CFS)	I100 (CFS)	REMARKS
A-1	0.30	0.90	10.0	6.50	1.76	7.55	2.24	9.24	2.49 SHEET FLOWS TO CURB INLET
A-2	0.21	0.35	10.0	6.50	0.48	7.55	0.61	9.24	0.68 SHEET FLOW TO OLD DECATUR RD
A-3	0.31	0.90	10.0	6.50	1.81	7.55	2.32	9.24	2.58 SHEET FLOWS TO CURB INLET
A-4	0.32	0.35	10.0	6.50	0.73	7.55	0.93	9.24	1.03 SHEET FLOWS TO LANDSCAPE DRAINS
A-5	0.11	0.90	10.0	6.50	0.64	7.55	0.82	9.24	0.91 SHEET FLOWS TO TRENCH DRAIN
A-6	0.02	0.35	10.0	6.50	0.05	7.55	0.06	9.24	0.06 SHEET FLOWS TO OLD DECATUR RD
A-7	0.13	0.35	10.0	6.50	0.30	7.55	0.38	9.24	0.42 SHEET FLOWS TO LANDSCAPE DRAINS
B-1	0.02	0.90	10.0	6.50	0.12	7.55	0.15	9.24	0.17 SHEET FLOW TO BOAZ RD
R-1	0.23	0.90	10.0	6.50	1.35	7.55	1.72	9.24	1.91 ROOF DRAINS TO LINE A
ON SITE	1.65				7.22		9.23	10.27	
TOTAL DRAINAGE	1.65				7.22		9.23	10.27	



LEGEND	
	— DRAINAGE AREA
	— DRAINAGE AREA IN ACRES
	— FLOW FOR DRAINAGE AREA IN CFS
	DIRECTION OF FLOW
	DRAINAGE AREA BOUNDARY

FLOODPLAIN NOTE

ACCORDING TO MAP NO. 48439C0160K, DATED SEPTEMBER 25, 2019 OF THE NATIONAL FLOOD INSURANCE PROGRAM MAP, FLOOD INSURANCE RATE MAP OF CITY OF SAGINAW, TEXAS, FEDERAL EMERGENCY MANAGEMENT AGENCY, FEDERAL INSURANCE ADMINISTRATION, THIS PROPERTY IS WITHIN ZONE "X" (UNSHADE) AND IS NOT WITHIN A SPECIAL FLOOD HAZARD AREA. IF THIS SITE IS NOT WITHIN AN IDENTIFIED SPECIAL FLOOD HAZARD AREA, THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE ON RARE OCCASIONS. GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

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 CONSULTANTS
 ENGINEER: CLAY CRISTY
 P.E. No. 109800 Date: 11/21/2019

TLE SAGINAW
 OLD DECATUR RD. AND WJ BOAZ RD
 SAGINAW, TEXAS

No.	DATE	REVISION	BY

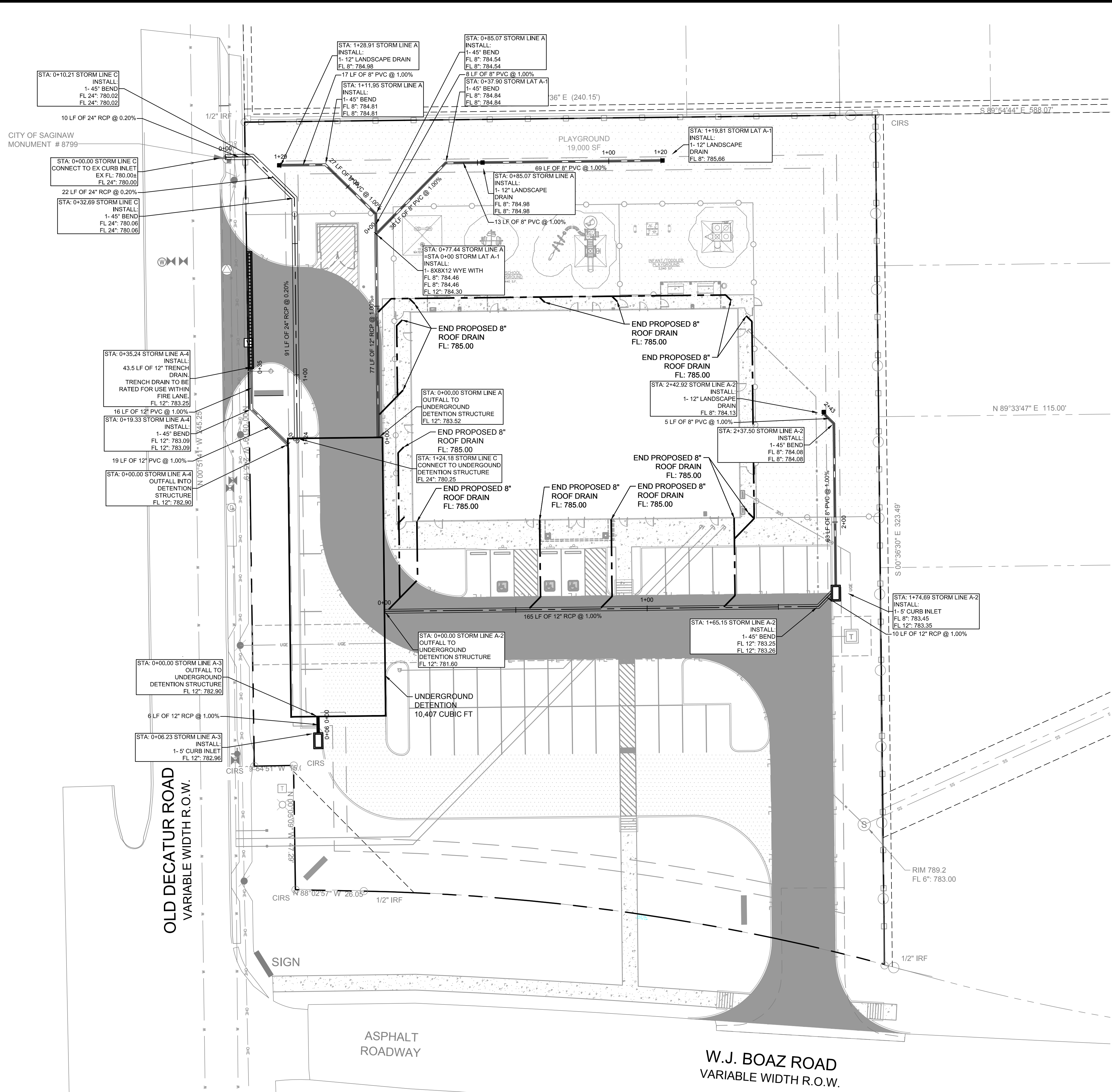
PROPOSED DRAINAGE AREA
 MAP

DESIGN: LRR
 DRAWN: LRR
 CHECKED: CLC
 DATE: 11/21/2019

SHEET

C-7

PLOTTED BY: LYNN ROWLAND
 PLOT DATE: 11/21/2019 7:19 PM
 LOCATION: Z:\PROJECTS\PROJECTS\2019-135 TLE SAGINAW\CADD\SHEETS\C-8 STORM DRAIN PLAN.DWG
 LAST SAVED: 11/21/2019 5:54 PM



GRAPHIC SCALE

1 inch = 20 ft.

LEGEND

- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- PROPOSED CURB INLET
- PROPOSED LANDSCAPE DRAIN

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CONSULTANTS

Engineer: **CLAY CRISTY**
P.E. No. 109800 Date: 11/21/2019

TLE SAGINAW
OLD DECATUR RD. AND WJ BOAZ RD
SAGINAW, TEXAS

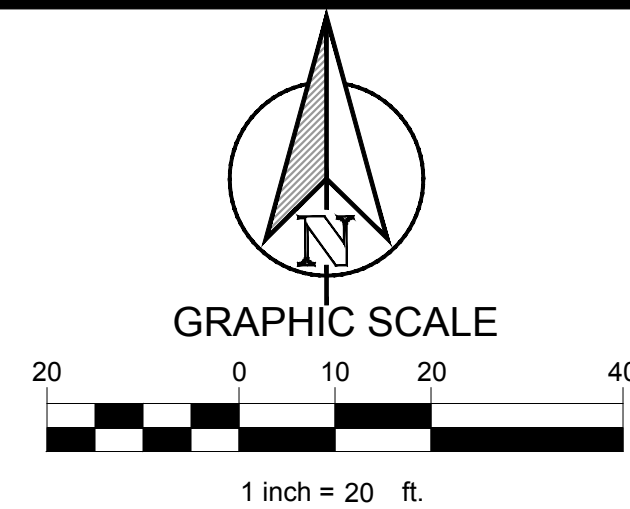
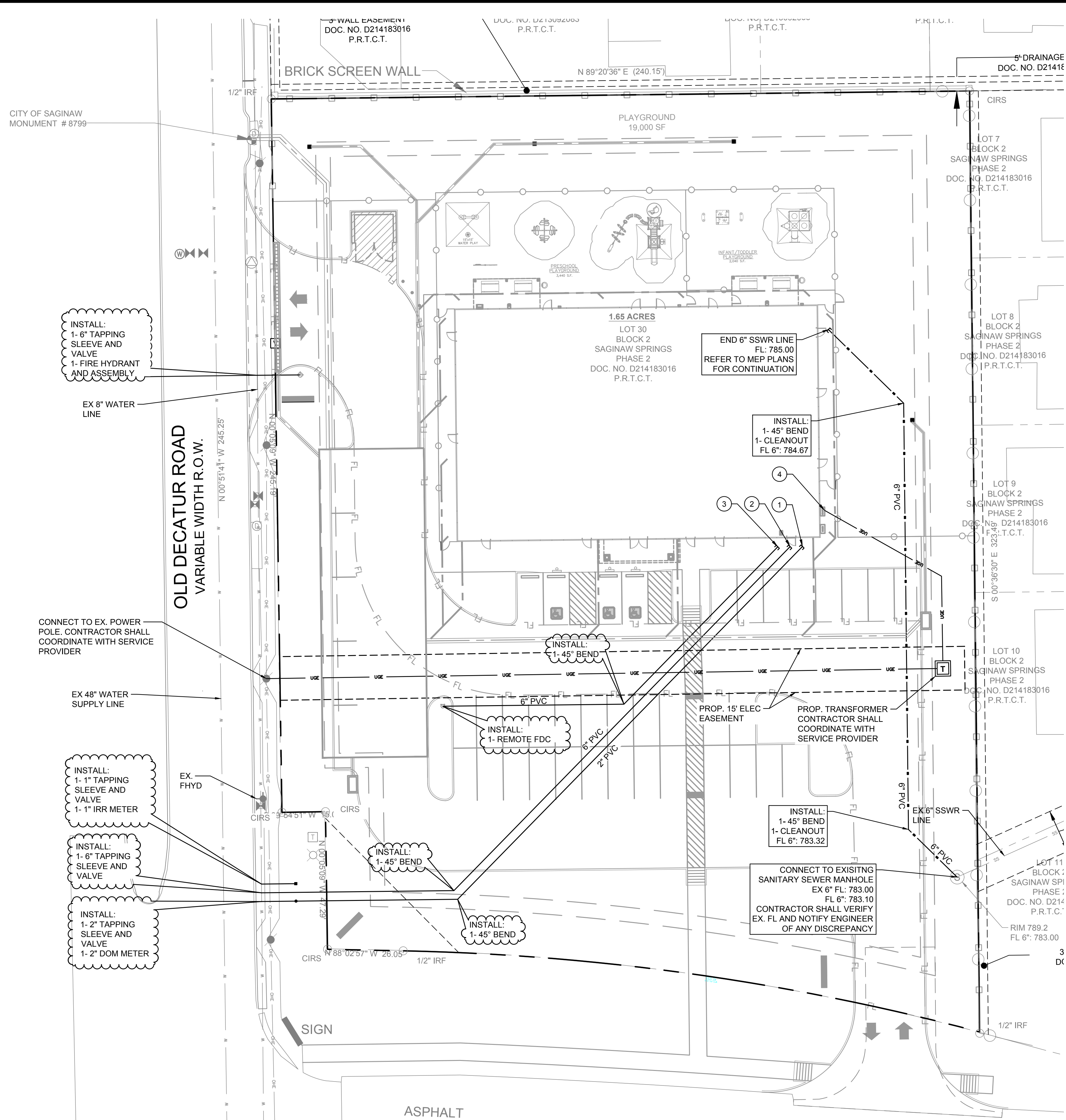
No.	DATE	REVISION	BY

STORM DRAIN PLAN

C-8

DESIGN:	LRR
DRAWN:	LRR
CHECKED:	CLC
DATE:	11/21/2019
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C-8	
File No.	2019-135

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LOCATION: Z:\PROJECTS\PROJECTS\2019-135 TLE SAGINAW\CADD\SHEETS\C-9 UTILITY PLAN.DWG
LAST SAVED: 11/21/2019 4:24 PM



LEGEND	
W	EXISTING WATER MAIN
SS	EXISTING SANITARY SEWER AND MANHOLE
	PROPOSED WATER LINE
SS	PROPOSED SANITARY SEWER LINE AND CLEAN OUT
USE	PROPOSED UNDERGROUND ELECTRIC

CONSTRUCTION SCHEDULE	
1	END PROP. 2" DOM WATER LINE. REFER TO MEP PLAN FOR CONTINUATION
2	END PROP. 6" FIRE LINE. REFER TO MEP PLAN FOR CONTINUATION
3	END PROP. 6" FDC WATER LINE. REFER TO MEP PLAN FOR CONTINUATION
4	END PROP. ELECTRIC SERVICE LINE REFER TO MEP PLAN FOR CONTINUATION

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Engineer: CLAY CRISTY
P.E. No. 109800 Date: 11/21/2019

**TLE SAGINAW
OLD DECATUR RD. AND WJ BOAZ RD
SAGINAW, TEXAS**

No.	DATE	REVISION	BY

UTILITY PLAN

DESIGN:	LRR
DRAWN:	LRR
CHECKED:	CLC
DATE:	11/21/2019

SHEET

C-9