PROPOSED CIVIL CONSTRUCTION PLANS **FOR**

ROCKWALL FRIENDSHIP BAPTIST CHURCH

GRADING, PAVING, DRAINAGE, AND UTILITIES

CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

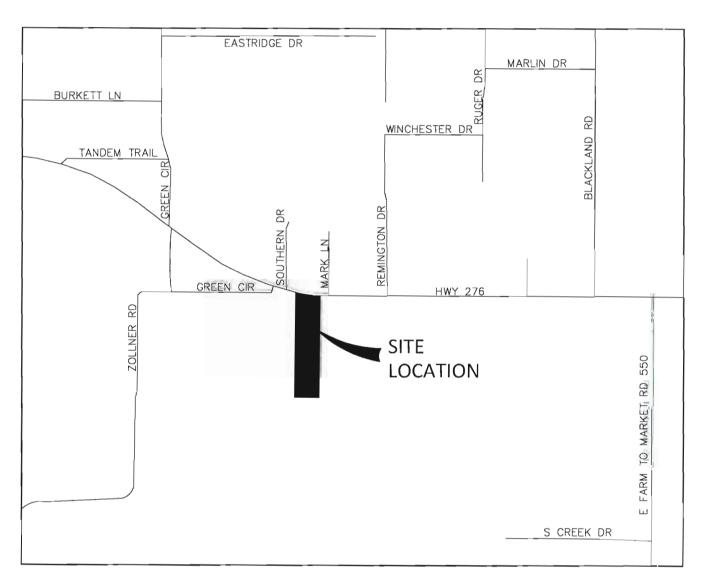
NOTES:

- 1. THE BOUNDARY LINES AND TOPOGRAPHY FOR THIS PROJECT ARE BASED ON A CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE CLIENT IN WRITING OF ANY DIFFERING CONDITIONS. THE ENGINEER HAS NOT VERIFIED THIS SURVEY AND IS TOPOGRAPHY.
- ANY OTHER PERSON OR ENTITY PERFORMING WORK OR SERVICES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR THE JOB SITE SAFETY OF
- 3. CITY OF ROCKWALL CONTROL MONUMENTS:
 - A. COR-19
 - BRASS DISK STAMPED "CITY OF ROCKWALL SURVEY MONUMENT" AT THE SOUTHWEST CORNER OF THE INTERSECTION OF FM 550 AND WESTVIEW DRIVE AT THE

 - BRASS DISK STAMPED "CITY OF ROCKWALL SURVEY END OF A CONCRETE HEADWALL.

DATE

FIRST SUBMITTAL: 04-28-2021 SECOND SUBMITTAL: 05-27-2021





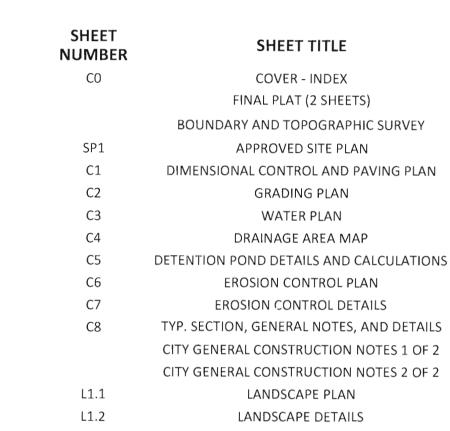
ROCKWALL FRIENDSHIP BAPTIST CHUBCH MR. SHANON THOMAS SENIOR PASTOR 5561 STATE HWY 276 ROYSE CITY, TX 75189 972-772-7520

TOMDEN ENGINEERING, L.L.P. 5815 MEADOWCREST DALLAS, TX 75230

(214) 679 - 1679

FIRM No. 19244 Thomas P. Jones, P.E.

tjones@tomden.com



CONSTRUCTION RECORD DOCUMENTATION

EACH REVISED SHEET IN THIS CONSTRUCTION RECORD SET SUPPLEMENTS THE ORIGINAL SHEETS AND SHALL BE USED FOR THE CONSTRUCTION OF THE REVISED INFORMATION ONLY. BINKLEY BARFIELD SHALL BE RESPONSIBLE FOR ALL OTHER DESIGN INFORMATION SHOWN.



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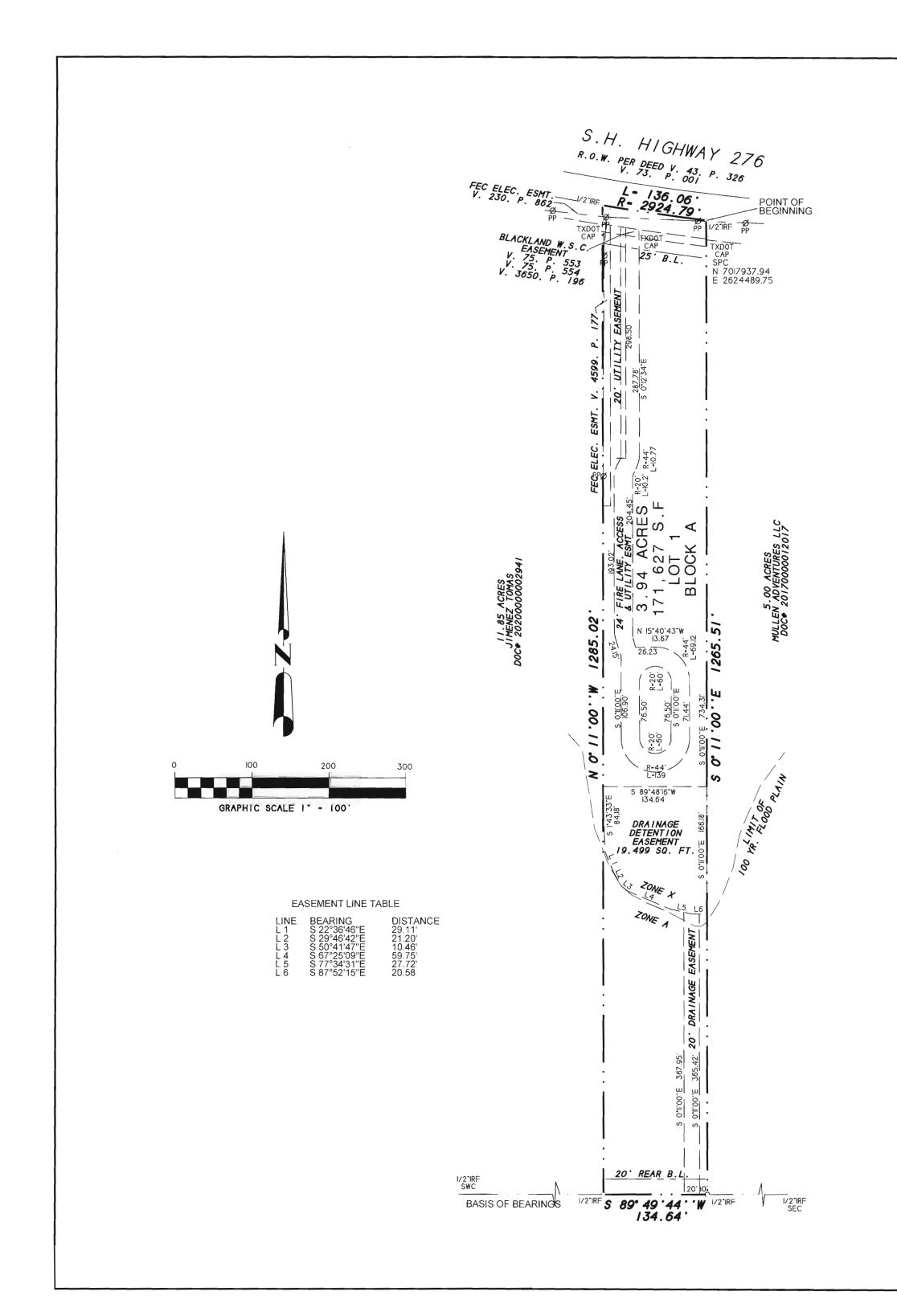
THOMAS P. JONES, P.E.

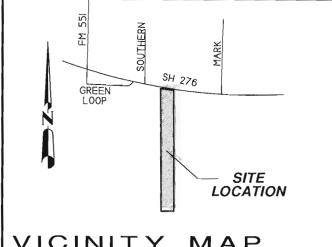
3.28.2023 DATE

Know what's below. Call before you dig.

THOMAS P. JONES, P.E.

PROJ. ASSOC.: TPJ DRAWN BY: MJD 03/13/2021





VICINITY MAP

NOTES

1) According to F.E.M.A. Flood Insurance Rate Map. Community Panel No. 48397C0065 L dated Sept. 26, 2008, this property lies in Zones A & X. Part of this property does appear to lie within a 100-year flood plain.

2) BEARING SOURCE: BASED ON MONUMENTS FOUND ON SOUTH BOUNDARY LINE OF PARENT TRACT PER RECORDED DEED IN VOL. 0084, PG. 266, R.P.R.R.C.T..

3) ALL 1/2" IRS ARE CAPPED WITH YELLOW PLASTIC CAPS "R.S.C.I. RPLS 5034."

4) Property owner shall be responsible for maintenance, repair, and replacement of drainage and detention systems on site.

FINAL PLAT

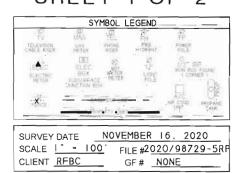
ROCKWALL FRIENDSHIP BAPTIST CHURCH ADDITION LOT 1, BLOCK A

CONTAINING A TOTAL OF 3.94 ACRES/171,627 S.F. (1 LOT)

J.H. BAILEY SURVEY, A-22 CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET 1 OF 2

OWNER: ROCKWALL FRIENDSHIP BAPTIST CHURCH 5651 SH 276 ROCKWALL, TEXAS 75032



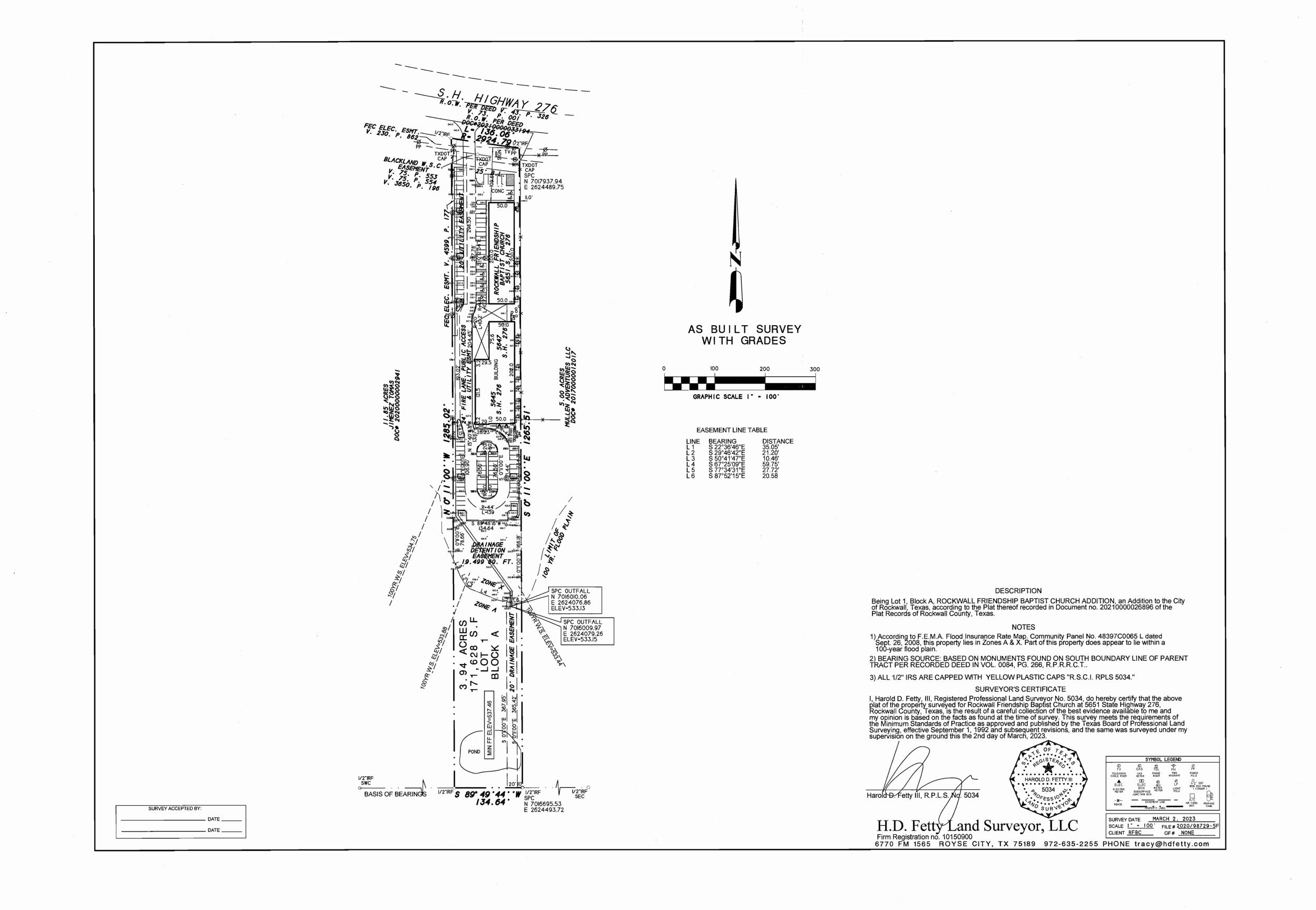
OWNER'S CERTIFICATE (Public Dedication) STATE OF TEXAS COUNTY OF ROCKWALL		
WHEREAS ROCKWALL FRIENDSHIP BAPTIST CHURCH, BEING THE OWNER OF A TRACT OF land in the County of Rockwall, State of Texas, said tract being described as follows:		
All that certain lot, tract or parcel of land situated in the J.H. BAILEY SURVEY, ABSTRACT NO. 22.		SURVEYOR'S CERTIFICATE
All that certain lot, tract or parcel of land situated in the J.H. BAILEY SURVEY, ABSTRACT NO. 22, Rockwall County, Texas, and being a part of that 47.10 acres tract of land as described in a Warranty deed from Billie Marie Peoples to Michael L. Peoples and Donnie B. Peoples, dated February 2, 1996 and being recorded in Volume 1084, Page 266 of the Real Property Records of Rockwall County, Texas, and being more particularly described as follows:		NOW, THEREFORE KNOW ALL MEN BY THESE PRESENTS: THAT I, Harold D. Fetty, III, R.P.L.S. No. 5034, do hereby certify that I prepared this plat from an actual and accurate survey of the land, and that the corner monuments shown thereon
BEGINNING at a 1/2" iron rod found for corner, said point being N. 89 deg. 50 min. 18 sec. W., 223.09 feet and along a curve to the right having a central angle of 06 deg. 34 min. 58 sec., a radius of 2924.79 feet, a chord of N. 86 deg. 32 min. 49 sec. W., 335.85 feet, and an arc distance of 336.03 feet from a 3/8" iron rod found at the Northeast corner of the above cited tract, said point being in the South right-of-way line of State Highway 276;		were properly placed under my personal supervision.
THENCE S. 00 deg. 11 min. 00 sec. E. parallel to the East line of said tract, a distance of 1265.51 feet to a 1/2" iron rod found with yellow plastic cap stamped "R.S.C.I. RPLS 5034" in the South line of said tract;		Harold D. Fetty, III Registered Professional Land Surveyor No. 5034
THENCE S. 89 deg. 49 min. 44 sec. W. along the South line of said tract, a distance of 134.64 feet to a 1/2" iron rod found with yellow plastic cap stamped "R.S.C.I. RPLS 5034" for corner;		AND SURVEYOR
THENCE N. 00 deg. 11 min. 00 sec. W. a distance of 1285.02 feet to a 1/2" iron rod found with yellow plastic cap stamped "R.S.C.I. RPLS 5034" for corner in the South right-of-way line of State Highway 276 and in the North boundary line of said 47.10 acres tract;		
THENCE in a Southeasterly direction along a curve to the left having a central angle of 02 deg. 39 min. 56 sec., a radius of 2924.79 feet, a chord of S. 81 deg. 55 min. 22 sec. E., 136.05 feet, along said right-of-way line an arc distance of 136.06 feet to the POINT OF BEGINNING and containing 171,628 square feet or 3.94 acres of land.		RECOMMENDED FOR FINAL APPROVAL
NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:		Diameter and Zanier Commission
STATE OF TEXAS COUNTY OF ROCKWALL		Planning and Zoning Commission Date
I the undersigned owner of the land shown on this plat, and designated herein as ROCKWALL FRIENDSHIP BAPTIST CHURCH ADDITION, LOT 1, BLOCK A, an Addition to the City of Rockwall, Texas, and whose name is subscribed hereto, hereby dedicate to the use of the public forever all streets, alleys, parks, water courses, drains, easements and public places thereon shown on the purpose and consideration therein expressed. I further certify that all other parties who have a mortgage or lien interest in ROCKWALL FRIENDSHIP BAPTIST CHURCH ADDITION, LOT 1, BLOCK A, have been notified and signed this plat.		
I understand and do hereby reserve the easement strips shown on this plat for the purposes stated and for the mutual use and accommodation of all utilities desiring to use or using same.		APPROVED I hereby certify that the above and foregoing plat of ROCKWALL FRIENDSHIP BAPTIST CHURCH ADDITION, LOT 1, BLOCK A, an addition to the City of Rockwall, Texas,
I also understand the following;		CHURCH ADDITION, LOT 1, BLOCK Å, an addition to the City of Rockwall, Texas, was approved by the City Council of the City of Rockwall on the day of,,
No buildings shall be constructed or placed upon, over, or across the utility easements as described herein.		This approval shall be invalid unless the approved plat for such addition is recorded in the office of the County Clerk of Rockwall, County, Texas, within one hundred eighty (180) days from said date of final approval.
2. Any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other growths or improvements which in any way endanger or interfere with construction, maintenance or efficiency of the eir respective system on any of these easement strips; and any public utility shall at all times have the right of ingress or egress to, from and upon the said easement strips for purpose of construction, reconstruction, inspecting, patrolling, maint aining, and either adding to or removing all or part of their respective system without the necessity of, at any time, procuring the permission of anyone.		Said addition shall be subject to all the requirements of the Subdivision Regulations of the City of Rockwall.
 The City of Rockwall will not be responsible for any claims of any nature resulting from or occasioned by the establishment of grade of streets in the subdivision. 		WITNESS OUR HANDS, this day of,,
 The developer and subdivision engineer shall bear total responsibility for storm drain improvements. 		
 The developer shall be responsible for the necessary facilities to provide drainage patterns and drainage controls such that properties within the drainage area are not adversely affected by storm drainage from the development. 		Mayor, City of Rockwall City Secretary City of Rockwall
6. No house dwelling unit, or other structure shall be constructed on any lot in this addition by the owner or any other person until the developer and/or owner has complied with all requirements of the Subdivision Regulations of the City of Roc kwall regarding improvements with respect to the entire block on the street or streets on which property abuts, including the actual installation of streets with the required base and paving, curb and gutter, water and sewer, drainage structures, storm structures, storm sewers, and alleys, all according to the specifications of the City of Rockwall; or		City Engineer Date
Until an escrow deposit, sufficient to pay for the cost of such improvements, as determined by the city's engineer and/or city administrator, computed on a private commercial rate basis, has been made with the city secretary, accompanied by an agreement signed by the developer and/or owner, authorizing the city to make such improvements at prevailing private commercial rates, or have the same made by a contractor and pay for the same out of the escrow deposit, should the developer an d/or owner fail or refuse to install the required improvements within the time stated in such written agreement, but in no case shall the City be obligated to make such improvements itself. Such deposit may be used by the owner and/or developer as p rogress payments as the work progresses in making such improvements by making certified requisitions to		
payments as the work progresses in making such improvements by making certified requisitions to the city secretary, supported by evidence of work done; or Until the developer and/or owner files a corporate surety bond with the city secretary in a sum		
Until the developer and/or owner files a corporate surety bond with the city secretary in a sum equal to the cost of such improvements for the designated area, guaranteeing the installation thereof within the time stated in the bond, which time shall be fixed by the city council of the City of Rockwall.		FINAL PLAT
 Property owner shall be responsible for maintenance, repair, and replacement of drainage and detention systems on site. 		ROCKWALL FRIENDSHIP
I further acknowledge that the dedications and/or exaction's made herein are proportional to the impact of the subdivision upon the public services required in order that the development will comport with the present and future growth needs of the City; I, my successors and assigns hereby waive any claim, damage, or cause of action that I may have as a result of the dedication of exaction's made herein.		BAPTIST CHURCH ADDITION LOT 1, BLOCK A
for ROCKWALL FRIENDSHIP BAPTIST CHURCH	NOTE: It shall be the policy of the City of Rockwall to withhold issuing building permits until all streets, water, sewer and storm drainage systems have been accepted by the City. The approval of a plat by the City does not constitute any representation, assurance or guarantee	CONTAINING A TOTAL OF 3.94 ACRES/171,627 S.F. (1 LOT)
STATE OF TEXAS	that any building within such plat shall be approved, authorized or permit therefore issued, as required under Ordinance 83-54.	J.H. BAILEY SURVEY, A-22
COUNTY OF ROCKWALL		CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS
Before me, the undersigned authority, on this day personally appearedknown 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 purpose and consideration therein stated.		SHEET 2 OF 2
Given upon my hand and seal of office thisday of,		OWNER: ROCKWALL FRIENDSHIP BAPTIST CHURCH 5651 SH 276
Notary Public in and for the State of Texas My Commission Expires:		R BOX 1 SH 270 R BOX WATER LIGHT TO THE PAIR PAIR CONTRACT TO THE PAIR PAIR PAIR PAIR PAIR PAIR PAIR PAIR

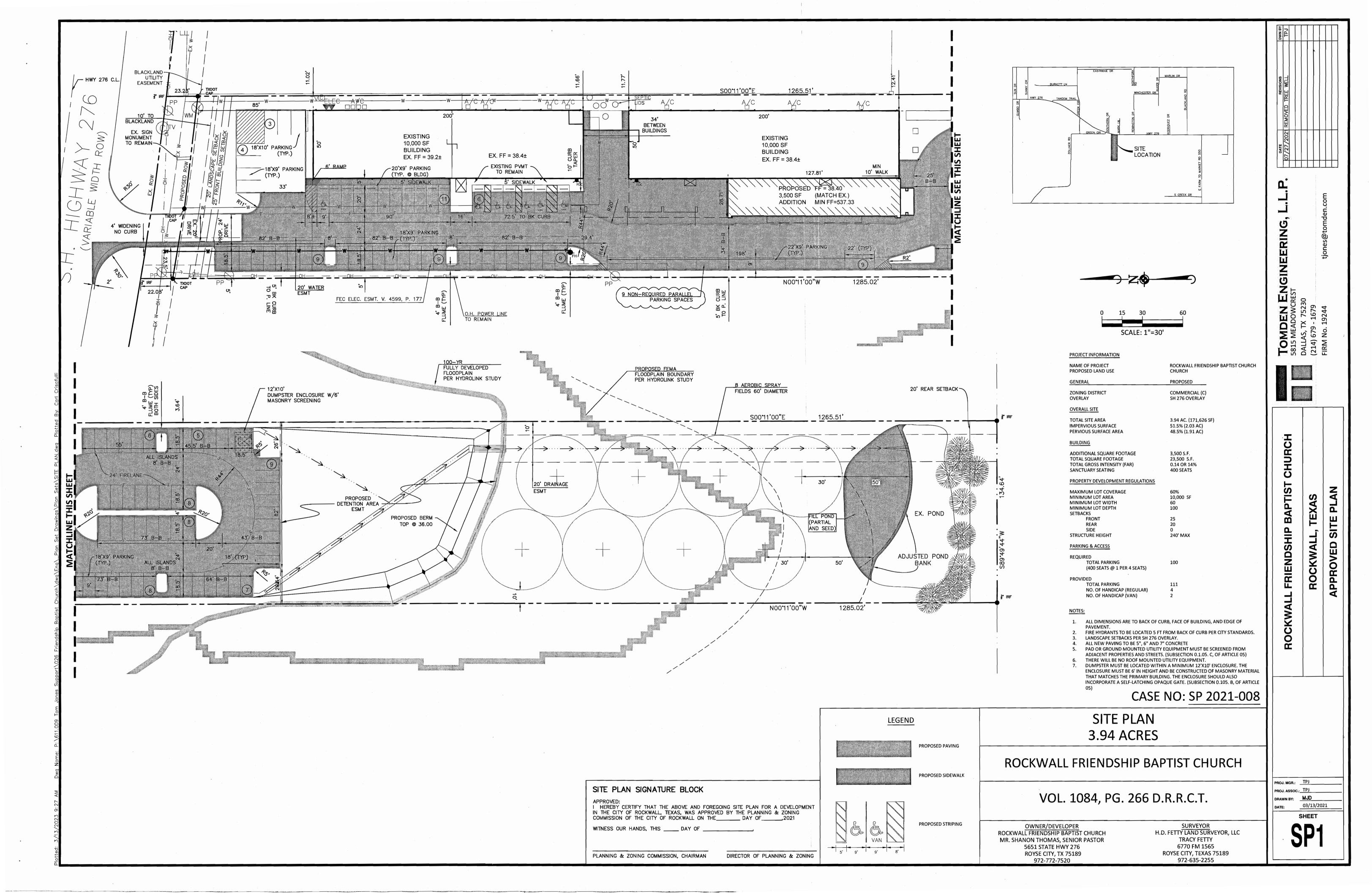
H.D. Fetty Land Surveyor, LLC

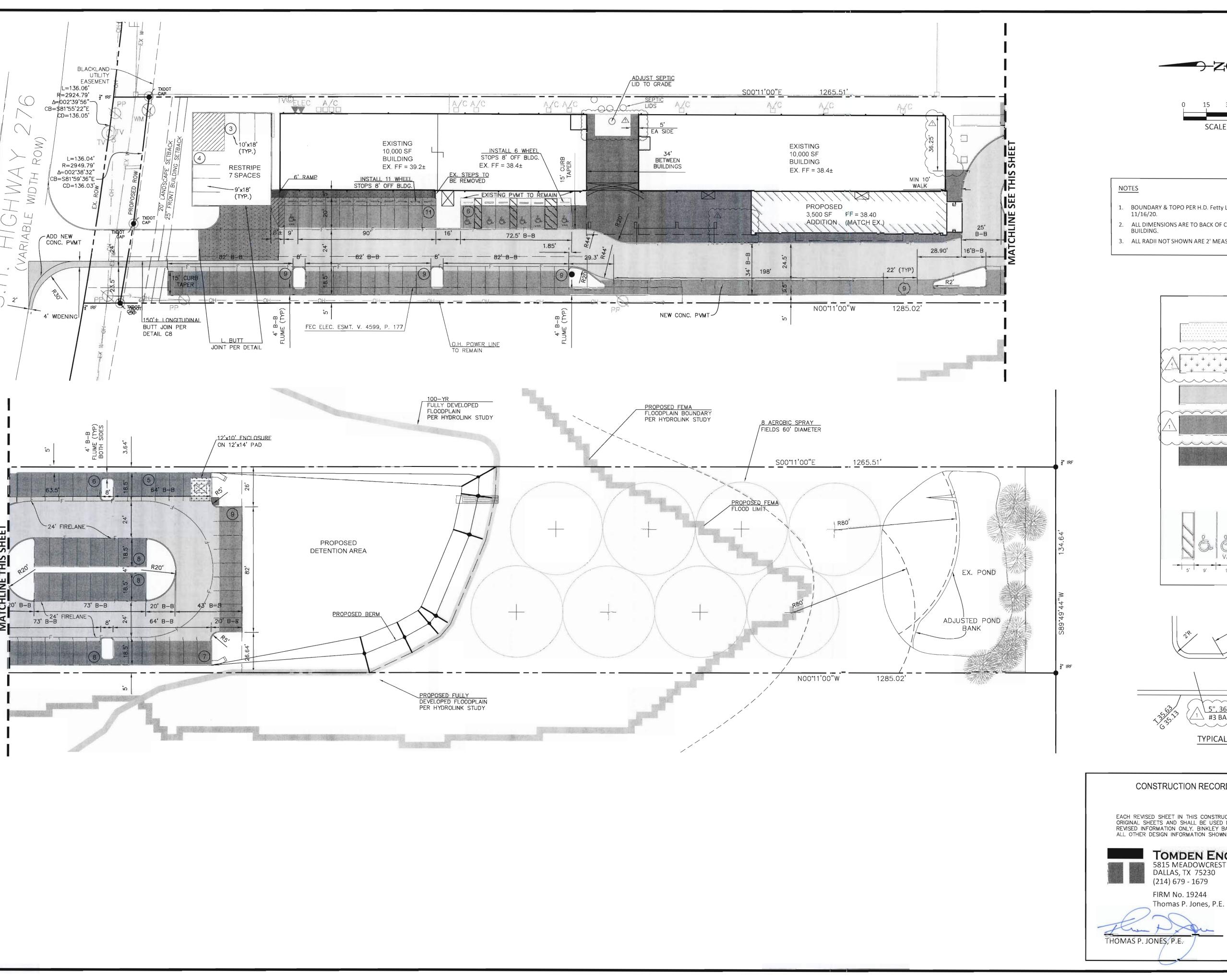
SURVEY DATE NOVEMBER 16. 2020
SCALE 1 - 100 FILE #2020/98729-5RP CLIENT RFBC GF # NONE

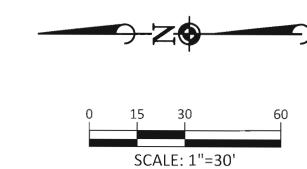
6770 FM 1565 ROYSE CITY, TX 75189 972-635-2255 PHONE tracy@hdfetty.com

CITY CASE NO. P2021-

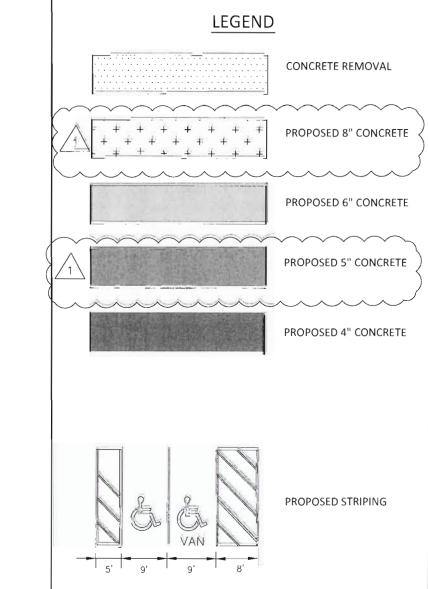


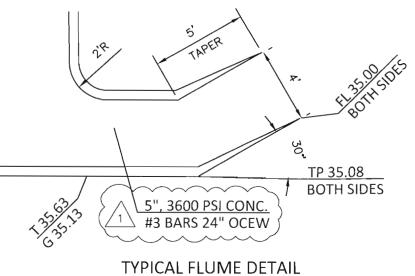






- 1. BOUNDARY & TOPO PER H.D. Fetty Land Surveyor, LLC DATED 8/31/2020 AND
- 2. ALL DIMENSIONS ARE TO BACK OF CURB, EDGE OF PAVEMENT AND FACE OF
- 3. ALL RADII NOT SHOWN ARE 2' MEASURED AT BACK OF CURB.





1"=5'



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TOMDEN ENGINEERING, L.L.P. 5815 MEADOWCREST

DALLAS, TX 75230 (214) 679 - 1679

FIRM No. 19244

tjones@tomden.com

3.28. 2023

DATE

THOMAS P. JONES, P.E.

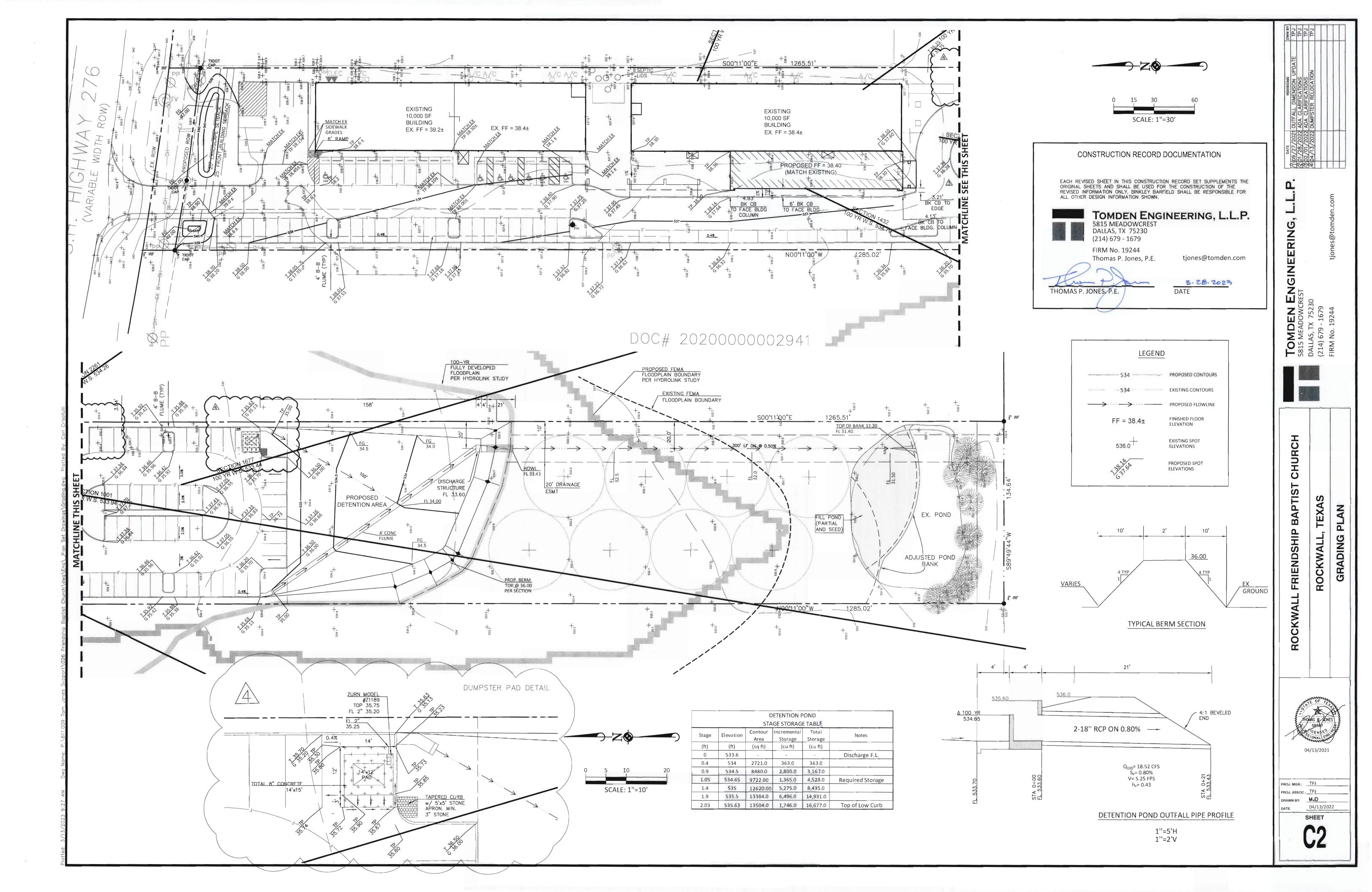
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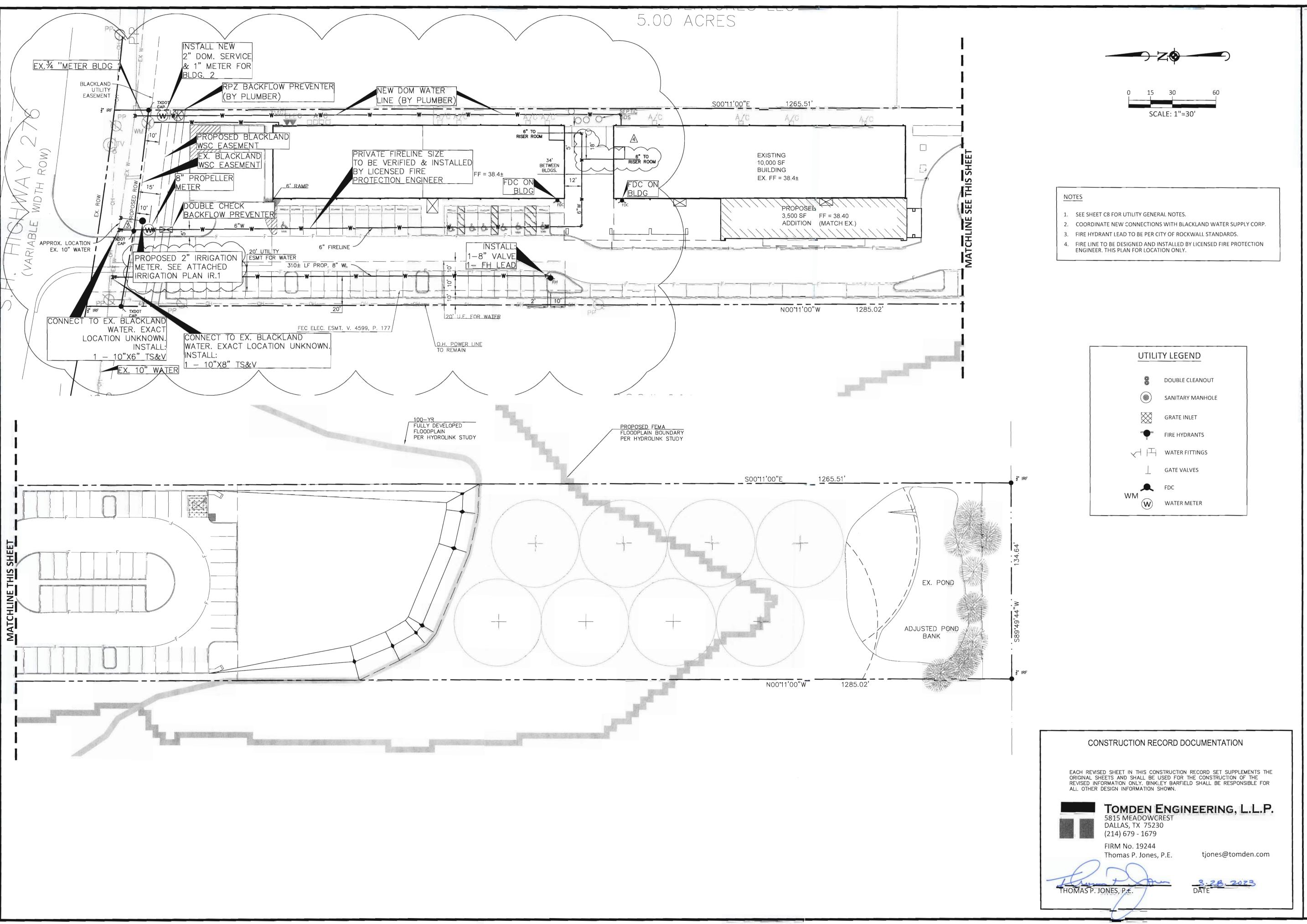
BAPTIST

AND CONTROL DIMENSIONAL

ROCKWALL FRIENDSHIP







REVISIONS
7/2021 UPDATED WATER PLAN PER BLACKLAN" " D.OR" IMENTS
7/2021 UPDATED WATER PLAN PER CITY OB...ME.T.
7/2022 ADDED 2" IRRI METER
7/2023 MOVED 6" RISER TO SOUTH BLDG.

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02/01/2022 SHEET

02/01/2022

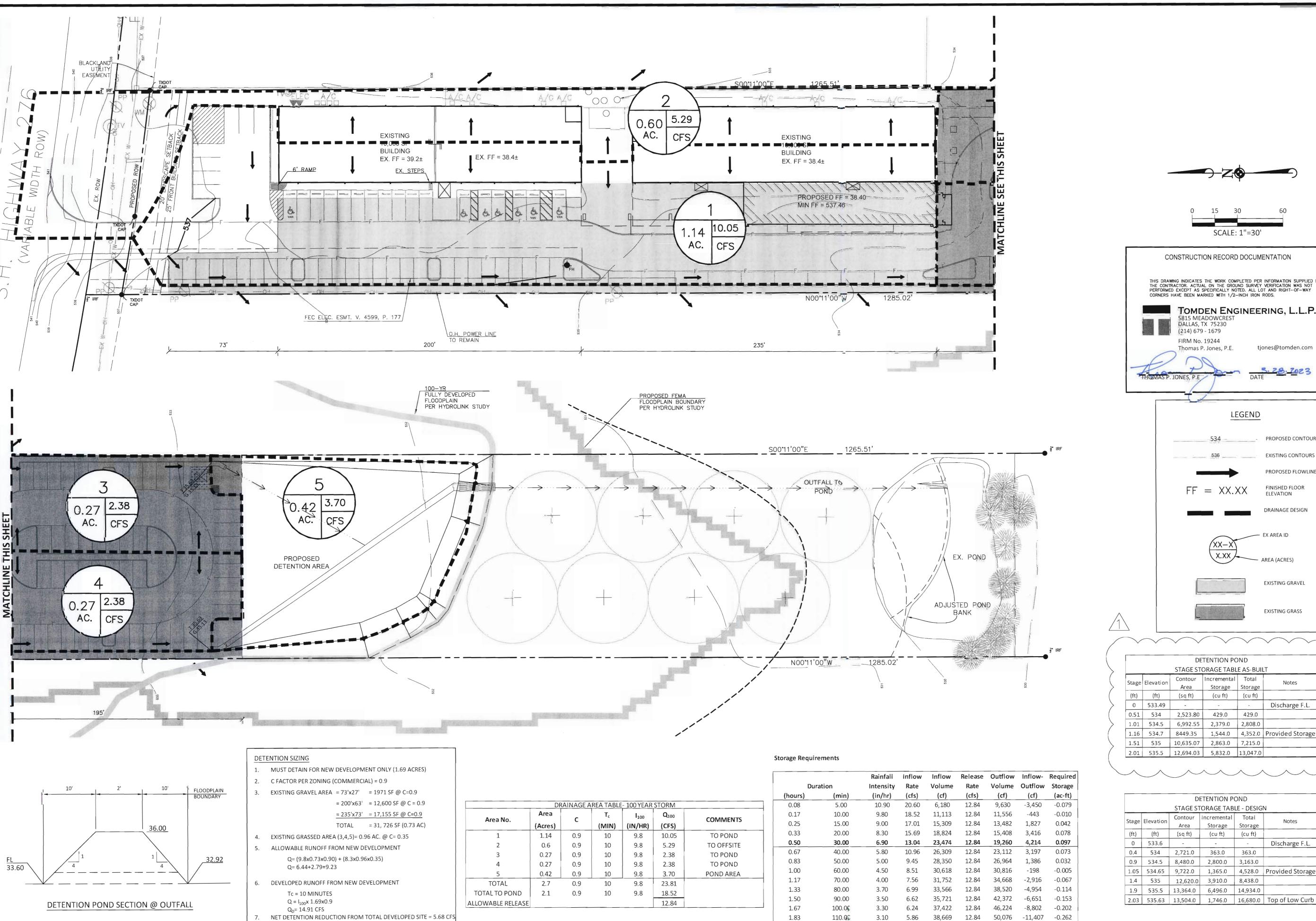
PROJ. MGR.: TPJ

PROJ. ASSOC .: TPJ

DRAWN BY: MJD

BAR

ROCKWALL, WATER PL





SCALE: 1"=30'

CONSTRUCTION RECORD DOCUMENTATION

THIS DRAWING INDICATES THE WORK COMPLETED PER INFORMATION SUPPLIED BY THE CONTRACTOR. ACTUAL ON THE GROUND SURVEY VERIFICATION WAS NOT PERFORMED EXCEPT AS SPECIFICALLY NOTED. ALL LOT AND RIGHT-OF-WAY CORNERS HAVE BEEN MARKED WITH 1/2-INCH IRON RODS.

TOMDEN ENGINEERING, L.L.P. 5815 MEADOWCREST DALLAS, TX 75230 (214) 679 - 1679

FIRM No. 19244

tjones@tomden.com Thomas P. Jones, P.E.

PROPOSED FLOWLINE

FINISHED FLOOR ELEVATION

DRAINAGE DESIGN

-- EX AREA ID

--- AREA (ACRES)

EXISTING GRAVEL

EXISTING GRASS

Discharge F.L.

LEGEND

/XX-XT

DETENTION POND

STAGE STORAGE TABLE AS-BUILT

DETENTION POND

STAGE STORAGE TABLE - DESIGN

Area Storage Storage

PROPOSED CONTOURS EXISTING CONTOURS

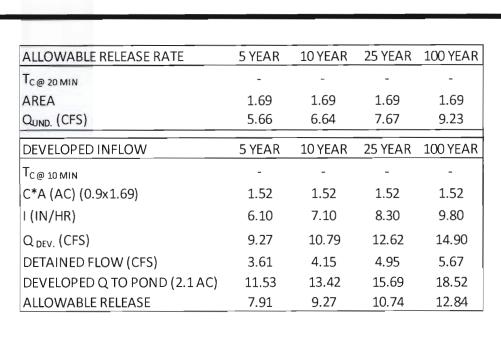
TOMDEN ENGINE5815 MEADOWCREST
DALLAS, TX 75230
(214) 679 - 1679
FIRM No. 19244

AS BAF ROCKWALL,

DRAWN BY: MJD 03/13/2021

PROJ. MGR.: TPJ

			Kaiman	IIIIIOW	IIIIIOW	release	Outilow	IIIIIOW-	Required
	Du	uration	Intensity	Rate	Volume	Rate	Volume	Outflow	Storage
	(hours)	(min)	(in/hr)	(cfs)	(cf)	(cfs)	(cf)	(cf)	(ac-ft)
	0.08	5.00	10.90	20.60	6,180	12.84	9,630	-3,450	-0.079
	0.17	10.00	9.80	18.52	11,113	12.84	11,556	-443	-0.010
1	0.25	15.00	9.00	17.01	15,309	12.84	13,482	1,827	0.042
1	0.33	20.00	8.30	15.69	18,824	12.84	15,408	3,416	0.078
	0.50	30.00	6.90	13.04	23,474	12.84	19,260	4,214	0.097
	0.67	40.00	5.80	10.96	26,309	12.84	23,112	3,197	0.073
	0.83	50.00	5.00	9.45	28,350	12.84	26,964	1,386	0.032
	1.00	60.00	4.50	8.51	30,618	12.84	30,816	-198	-0.005
1	1.17	70.00	4.00	7.56	31,752	12.84	34,668	-2,916	-0.067
	1.33	80.00	3.70	6.99	33,566	12.84	38,520	-4,954	-0.114
	1.50	90.00	3.50	6.62	35,721	12.84	42,372	-6,651	-0.153
	1.67	100.0€	3.30	6.24	37,422	12.84	46,224	-8,802	-0.202
	1.83	110.00	3.10	5.86	38,669	12.84	50,076	-11,407	-0.262
	2.00	120.00	2.90	5.48	39,463	12.84	53,928	-14,465	-0.332
	2.50	150.00	2.30	4.35	39,123	12.84	65,484	-26,361	-0.605



STORAGE VOLUME REQUIRED - 5 YEAR STORM

		Rainfall	Inflow	Inflow	Release	Outflow	Inflow-	Required
Durat	tion	Intensity	Rate	Volume	Rate	Volume	Outflow	Storage
(hours)	(min)	(in/hr)	(cfs)	(cf)	(cfs)	(cf)	(cf)	(ac-ft)
0.17	10.00	6.10	11.53	6,917	7.91	7,119	-202	-0.005
0.25	15.00	5.50	10.40	9,356	7.91	8,306	1,050	0.024
0.33	20.00	4.90	9.26	11,113	7.91	9,492	1,621	0.037
0.50	30.00	4.10	7.75	_13,948	7.91	11,865	2,083	0.048
0.67	40.00	3.40	6.43	15,422	7.91	14,238	1,184	0.027
0.83	50.00	2.80	5.29	15,876	7.91	16,611	-735	-0.017
1.00	60.00	2.60	4.91	17,690	7.91	18,984	-1,294	-0.030
1.17	70.00	2.40	4.54	19,051	7.91	21,357	-2,306	-0.053
1.33	80.00	2.30	4.35	20,866	7.91	23,730	-2,864	-0.066
1.50	90.00	2.10	3.97	21,433	7.91	26,103	-4,670	-0.107
1.67	100.00	1.90	3.59	21,546	7.91	28,476	-6,930	-0.159
1.83	110.00	1.80	3.40	22,453	7.91	30,849	-8,396	-0.193

5 YEAR WSEL

		DE	TENTION PON	ID	
		STAGE ST	ORAGE TABLI	E 5-YEAR	
Stage	Elevation	Contour Area	Incremental Storage	Total Storage	Notes
(ft)	(ft)	(sq ft)	(cu ft)	(cu ft)	
0	533.6	-	-	-	Discharge F.L.
0.4	534	2,721.0	363.0	363.0	
0.71	534.31	-	-	2,083.0	Provided Storage
0.9	534.5	8,480.0	2,800.0	3,163.0	
1.4	535	12,620.0	5,275.0	8,438.0	
1.9	535.5	13,364.0	6,496.0	14,934.0	
2.03	535.63	13,504.0	1,746.0	16,680.0	Top of Low Curb

CTODACE VOLUME DECLUDED DE VEAD CTODM

STORAGE V	<u>OLUME R</u>	EQUIRED -	- 25 YEA	RSTORM	<u>1 </u>			
		Rainfall	Inflow	Inflow	Release	Outflow	Inflow-	Required
Durat	ion	Intensity	Rate	Volume	Rate	Volume	Outflow	Storage
(hours)	(min)	(in/hr)	(cfs)	(cf)	(cfs)	(cf)	(cf)	(ac-ft)
0.17	10.00	8.30	15.69	9,412	10.74	9,666	-254	-0.006
0.25	15.00	7.50	14.18	12,758	10.74	11,277	1,481	0.034
0.33	20.00	6.60	12.47	14,969	10.74	12,888	2,081	0.048
0.50	30.00	5.50	10.40	18,711	10.74	16,110	2,601	0.060
0.67	40.00	4.60	8.69	20,866	10.74	19,332	1,534	0.035
0.83	50.00	4.00	7.56	22,680	10.74	22,554	126	0.003
1.00	60.00	3.50	6.62	23,814	10.74	25,776	-1,962	-0.045
1.17	70.00	3.30	6.24	26,195	10.74	28,998	-2,803	-0.064
1.33	80.00	3.10	5.86	28,123	10.74	32,220	-4,097	-0.094
1.50	90.00	2.90	5.48	29,597	10.74	35,442	-5,845	-0.134
1.67	100.00	2.70	5.10	30,618	10.74	38,664	-8,046	-0.185
1.83	110.00	2.50	4.73	31,185	10.74	41,886	-10,701	-0.246

25 YEAR WSEL

		DE.	TENTION PON	ID	
		STAGE ST	ORAGE TABLE	25-YEAR	
Stage	Elevation	Contour Area	Incremental Storage	Total Storage	Notes
(ft)	(ft)	(sq ft)	(cu ft)	(cu ft)	
0	533.6	-	-	-	Discharge F.L.
0.4	534	2,721.0	363.0	363.0	
0.8	534.4	-	-	2,601.0	Provided Storage
0.9	534.5	8,480.0	2,800.0	3,163.0	
1.4	535	12,620.0	5,275.0	8,438.0	
1.9	535.5	13,364.0	6,496.0	14,934.0	
2.03	535.63	13,504.0	1,746.0	16,680.0	Top of Low Curb

AREA 1,3,4,5 = 2.1 ACRES CA=0.9x2.10=1.89

 $INFLOW = T_C \times Q_P \times 60$ OUTFLOW = $0.5 \times (T_C + 20) \times Q_A \times 60$

STORAGE VOLUME REQUIRED - 10 YEAR STORM

7.10

6.50

5.90

3.50

3.00

2.60

2.50

2.40

2.20

DETENTION POND STAGE STORAGE TABLE 10-YEAR

13.42

9.07

5.67

4.73

4.54

4.16

Storage Storage

(cu ft) (cu ft)

363.0 363.0

2,800.0 3,163.0

5,275.0 8,438.0

6,496.0 14,934.0

15.69

5.48

1,746.0 16,680.0

18,824

2,425.0

12.84

8,051

16,330

19,845

20,412

23,587

25,515

9.27

9.27

9.27

9.27

9.27

9.27

27,216 9.27 33,372

Notes

Discharge F.L.

Provided Storage

Top of Low Curb

Duration

10.00

15.00

20.00

30.00

40.00

50.00

60.00

70.00

80.00

90.00

100.00

110.00

Elevation | Contour Area

(sq ft)

2,721.0

8,480.0

12,620.0

13,504.0

(ft)

533.6

534

534.37

534.5

535

2.03 535.63

Duration

0.17

0.25

0.33

0.50

0.67

0.83

1.00

1.17

1.33

1.50

1.67

1.83

Stage

(ft)

0.4

0.85

0.9

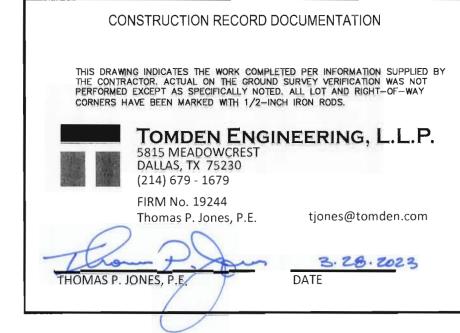
1.4

0.08 0.17

0.25 0.33

***** 0.50

10 YEAR WSEL



Release Outflow Inflow- Required

9,734

13,905

19,467

22,248

27,810

30,591

27,443 9.27 36,153 -8,710 -0.200

Outflow

-292

1,323

2,257

2,425

378

-1,836

-4,223

-5,076

-6,156

-0.007

0.030

0.052

0.056

0.009

-0.042

-0.141

4.00 feet Weir Length 0.71 feet Weir Depth 534.31 feet 5 YR WSEL 7.39 cfs Q=3.087LH^3/2 7.39 cfs Total 5 YR 10 YEAR WEIR FLOW

5 YEAR WEIR FLOW

Flowline Elevation

Flowline Elevation

Weir Length

Weir Depth

10 YR WSEL

Total 10 YR

Q=3.087LH^3/2

24" LONG #4 BARS @ -12" OC MIN 12" LAP

(BOTH SIDES)

OUTFALL DESIGN CALCULATIONS

Orifice Height 25 YR WSEL Q=3.087LH³/2 Total 25 YR

Orifice Length 4.00 feet Orifice Height 0.8 feet 100 YR WSEL 534.4 feet 8.84 cfs Q=3.087LH^3/2 Total 100 YR 8.84 cfs

#4 BARS @

12" O.C.E.W.

- #3 BARS @

TAPERED WING WALLS

12" O.C.E.W.

EL. 533.70

533.6 feet

534.5 feet Flowline Elevation 4.00 feet 1.05 feet 534.65 feet 13.29 cfs 13.29 cfs

100 YEAR WEIR FLOW

OVERFLOW

25 YEAR WEIR FLOW

Flowline Elevation

Orifice Length

EMERGENCY OVERFLOW TO PASS = 18.52 CFS (ELEVATION 534.65) CURB OVERFLOW 535.63 BERM OVERFLOW 536.00 $Q = 3.087 Ly^{3/2}$

L = 10 FTy = 0.98 ET

Q = 29.94 CFS

533.6 feet

4.00 feet

0.77 feet

534.37 feet

8.34 cfs

8.34 cfs

533.6 feet

4.0' APRON EL. 535.60 EL. 534.65 2-18" RCP ON 0.80% FL 533.60

SECTION B - B

#3 BARS @ -

18" O.C.E.W.

1"=1'

STORAGE VOLUME REQUIRED - 100 YEAR STORM 6.90 13.04 23,474 12.84 19,260 4,214 0.097 39,463 12.84 53,928 -14,465 -0.332 4.35 39,123 12.84 65,484 -26,361 -0.605

* TOTAL STORAGE CAPACITY REQUIRED: 4,213.70 CU FT 100 YEAR WSEL

30.00

STAGE STORAGE TABLE - DESIGN								
Stage	Elevation	Contour Area	Incremental Storage	Total Storage	Notes			
(ft)	(ft)	(sq ft)	(cu ft)	(cu ft)				
0	533.6	-	-	-	Discharge F.L.			
0.4	534	2,721.0	363.0	363.0				
0.9	534.5	8,480.0	2,800.0	3,163.0				
* 1.05	534.65	9,722.0	1,365.0	4,528.0	Provided Storage			
1.4	535	12,620.0	3,910.0	8,438.0				
1.9	535.5	13,364.0	6,496.0	14,934.0				
2.03	535.63	13,504.0	1,746.0	16,680.0	Top of Low Curb			

RELEASE SUMMARY TABLE

STORM (YR)	DETAINED FLOW (CFS)	ALLOWED DISCHARGE (CFS)	ACTUAL DISCHARGE (CFS)
5	3.62	7.91	7.39
10	4.15	9.27	8.34
25	4.95	10.74	8.84
100	5.68	12.84	13.29

48" I.D. EL. 534.65 (100-YR) $\nabla 34.37 \quad \nabla 34.40 \quad \nabla 34.65$ EL. 534.40 (25-YR) EL. 534.37 (10-YR) EL. 534.31(5-YR) EL. 533.60

EMERGENCY OUTFALL CAPACITY CALCULATIONS

OF SLOPE CAPACITY EXCEEDS (IN) PIPES (IN/IN) (CFS) 18.52 18 2 0.008 18.78 OUTFALL STRUCTURE

OUTFALL STRUCTURE DETAIL

1"=1 '

SECTION A - A 1"=1'

ENGINEE CREST

[OMDEN]
815 MEADOWCF
ALLAS, TX 7523(
214) 679 - 1679
IRM No. 19244

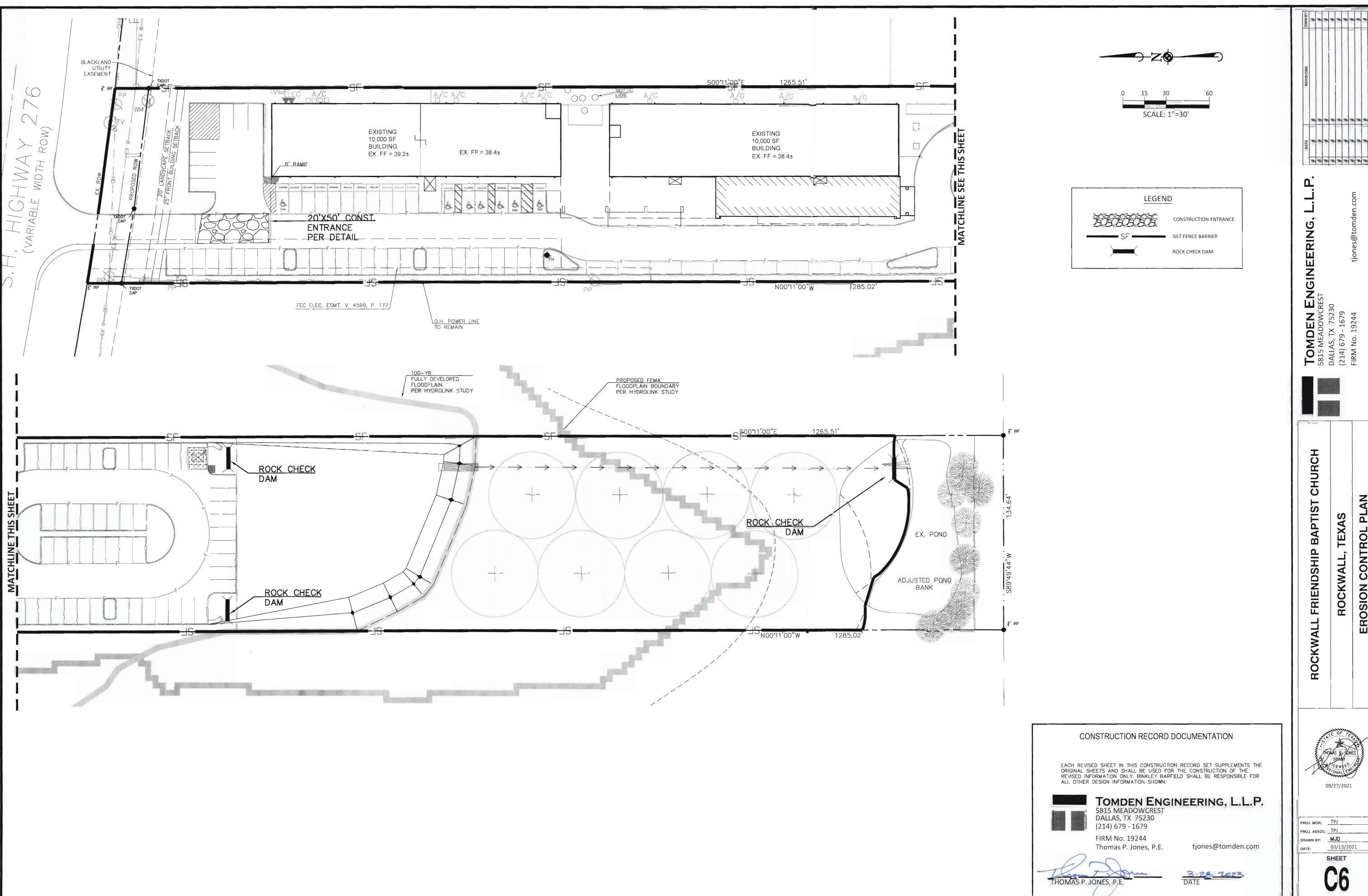


CHURCH PTIST

TIONS

POND DETAILS AN

PROJ. MGR.: TPJ 04/29/2022



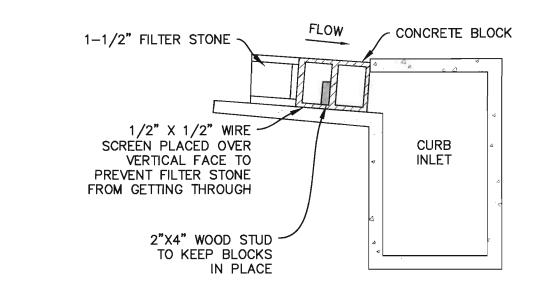
TOMDEN ENGINEERING
5815 MEADOWCREST
DALLAS, TX 75230
(214) 679 - 1679
FIRM No. 19244 tjones@tom

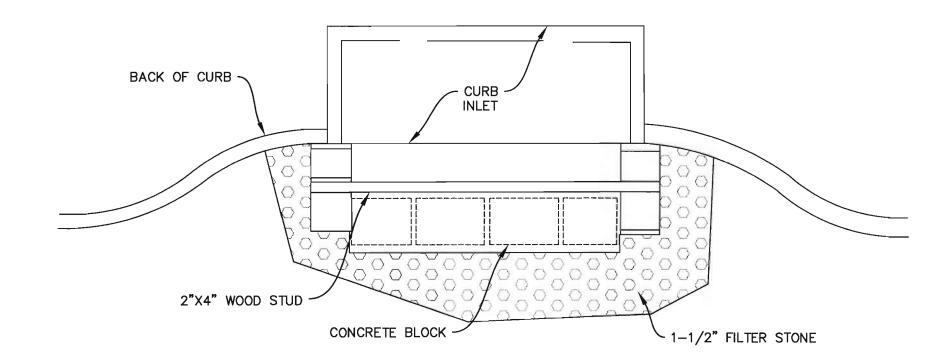


CONTROL EROSION

PROJ. MGR.: TPJ PROJ. ASSOC.: TPJ___ DRAWN BY: MJD 03/13/2021

STABILIZED CONSTRUCTION ENTRANCE NOT TO SCALE

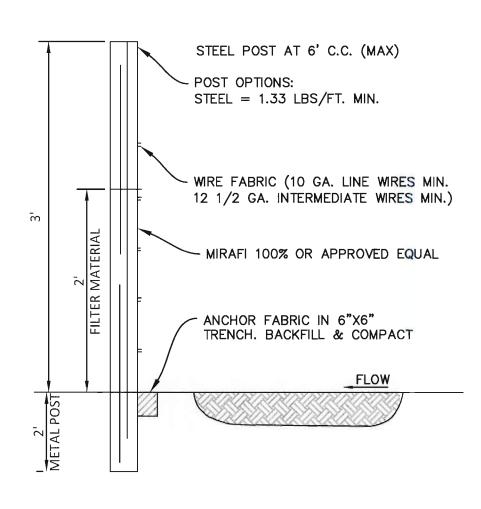


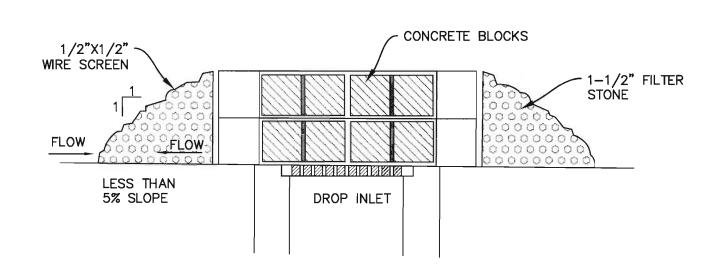


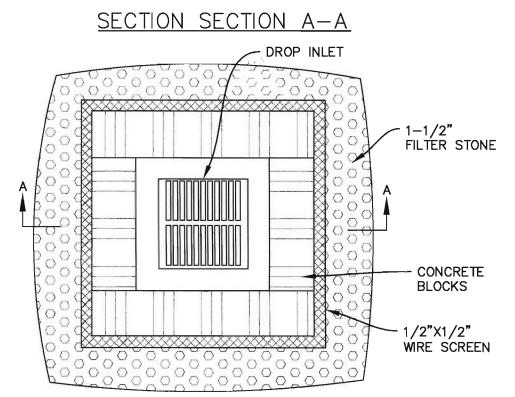
SECTION SECTION

<u>PLAN VIEW</u> NOTE: P2 INLET FILTERS ARE REQUIRED WHEN STREETS OR PAVEMENT ARE OPEN TO VEHICULAR TRAFFIC. SEDIMENT BARRIERS ARE NOT ALLOWED ON OPEN THROUGHFARES.

INLET PROTECTION NOT TO SCALE

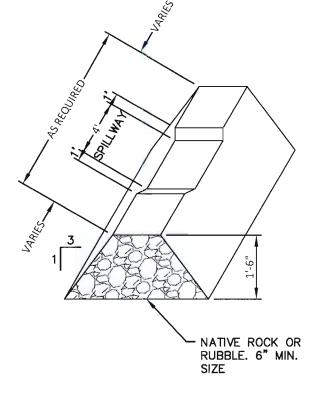






NOT TO SCALE

PLAN_VIEW



1. USE ONLY OPEN GRADED ROCK 4-8 INCHES IN DIAMETER FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK 3-5 INCHES IN DIAMETER FOR OTHER CONDITIONS.

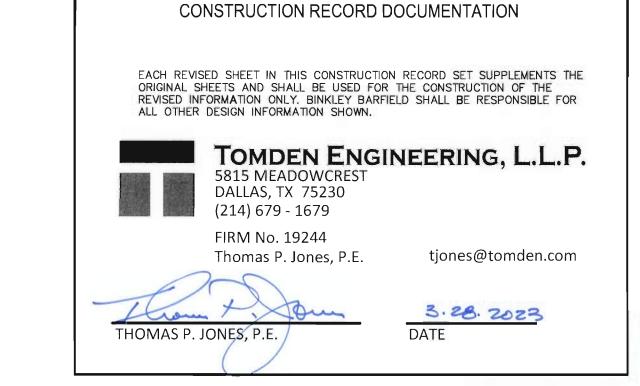
2. ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAX. OPENING OF 1 INCH AND A MIN. WIRE SIZE OF 20 GAUGE AND SHALL BE BURIED IN A TRENCH APPROX.3 TO 4 INCHES DEEP. 3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH

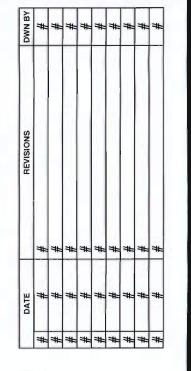
RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASH OUT, CONSTRUCTION TRAFFIC DAMAGE, 4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE

SILT SHALL BE REMOVED AND DISPOSED OR PROPERLY.

5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER. 6. ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN

PERIMETER PROTECTION.





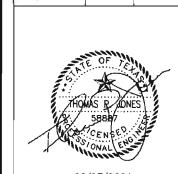
TOMDEN ENGINEERING, L
5815 MEADOWCREST
DALLAS, TX 75230
(214) 679 - 1679
FIRM No. 19244
tjones@tomden



CHURCH **BAPTIST**

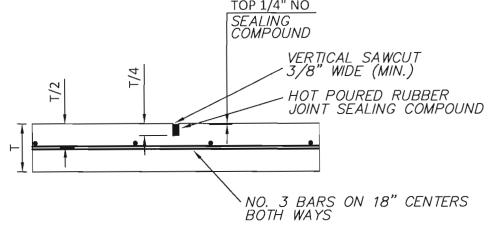
CONTROL ROCKWALL,

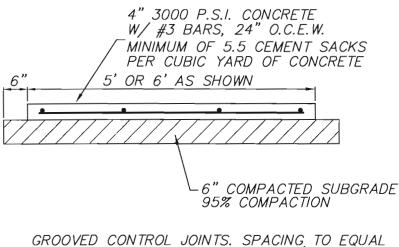
EROSION ROCKWALL



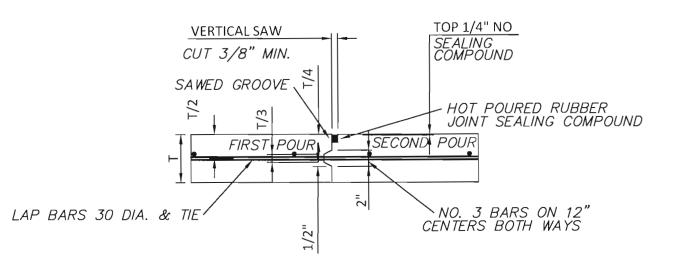
PROJ. MGR.: TPJ PROJ. ASSOC.: TPJ DRAWN BY: MJD 03/13/2021 DATE: SHEET

EXPANSION JOINT DETAIL 1"=1'

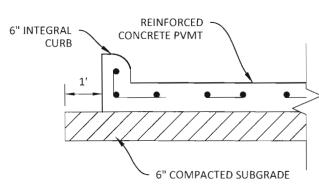




SIDEWALK WIDTH. EXP. JOINTS @ 48' MAX SPACING AND @ INTERSECTIONS.



CONSTRUCTION JOINT DETAIL



PAVEMENT SECTION

FOR FIRELANE & DRIVE AISLES

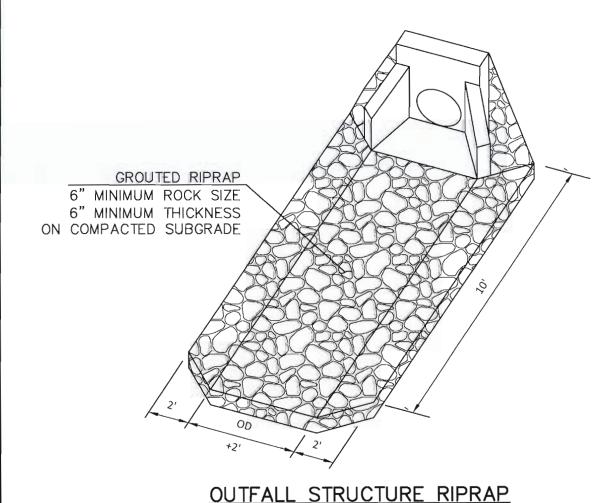
6" 3600 PSI, 6.5 SACK PVMT 6" LIME STAB SUBGRADE #3 BARS 24" OCEW

FOR DUMPSTER PAD

8" 4,000 PSI, 6.5 SACK PVMT 6" LIME STAB SUBGRADE #4 BARS 18" OCEW

FOR PARKING AREAS

5" 3,600 PSI, 5.5 SACK MIN PVMT 6" COMPACTED SUBGRADE #3 BARS 24" OCEW



24" LUBRICATED SMOOTH NO. 6 DOWEL BAR HOT POURED RUBBER JOINT SEALING COMPOUND TOP 1/4" NO SEALING COMPOUND 1'-3" MIN. DOWEL SPACED ON ONE (1) FOOT CENTER TO CENTER, NOTES: T = PAVEMENT 6" OFF TIE BARS

- 1. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
- 2. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
- 3. DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.

LONGITUDINAL BUTT JOINT

GENERAL NOTES

- 1. No parking of Contractor's equipment or employees is allowed except on the project site or in designated Contractor yard areas.
- 2. Perimeter control points and a local Benchmark shall be provided. All other construction staking shall be provided by the Contractor. Contractor shall protect and maintain control
- 3. All inspections, testing and cost thereof will be provided by the Owner through an independent testing company or the City.
- 4. All areas outside of the project site which are disturbed by the Contractor's activities shall be restored to its original condition and seeded or repaved as required.
- 5. Contractor shall coordinate his work with other contractors and (or) public/private utility companies which may be working in the area.
- 6. Barricades and warning signs shall be installed as required by the City, or the Engineer. Construction and Placement shall conform to the Texas Manual on Uniform Traffic Control Devices, latest edition.
- 7. Temporary job—site trailers and storage areas must comply with current City requirements. 8. Existing utilities, appurtenances and improvements shall be protected or removed as noted.
- Contractor shall repair or replace any damages. 9. Where grade changes are proposed at existing utility appurtenances, Contractor shall adjust such
- appurtenances as required. 10. Water for Contractor is available adjacent to the site. Hydrant meter, backflow and double check
- 11. Contractor yard and storage areas must be approved by the Owner. No employee or equipment parking shall be allowed anywhere else at any time.
- 12. Contractor shall secure and pay for all permits, fees, and licenses necessary for the execution
- 13. Contractor shall comply with all applicable local, state & federal laws and ordinances. 14. Contractor shall maintain record drawings which shall be reviewed by the Owner prior to each monthly pay application review.
- 15. Contractor shall comply with the SWPPP prepared as part of this project and any other conditions required by the Texas General Permit, the EPA or the City regarding erosion control.
- 16. All materials used in construction shall have a vendor's certified test report. Submittals shall be delivered to the Engineer before permission will be granted for use of the material. In the event additional tests are required, they shall be performed by an approved independent testing laboratory and shall be paid for by the Contractor.
- 17. All haul roads and access routes and the location of all staging, stockpile and storage areas shall be subject to the approval of the Engineer. The Contractor shall be responsible for maintaining and repairing all roads and other facilities used during construction. Upon completion of the project all existing roads shall be left in a condition equal to that at the time the Contractor commences work on this project. 18. The location and dimensions shown on the plans relative to existing utilities are based on the best
- information available. It shall be the Contractor's responsibility to verify locations of adjacent and/or conflicting utilities sufficiently in advance of construction in order that he may negotiate such adjustments as necessary in the construction process to provide adequate clearances. The contractor shall take all necessary precautions in order to protect all services encountered. 19. Per Texas House Bill 1569, effective as of September 1, 1989, it shall be the responsibility of the
- Construction Contractor to provide and maintain a viable trench safety system at all times during construction activities. Bid items for trench excavation safety protection are included in the 20. The Contractor shall fully comply with all Local, State and Federal Laws, including all codes,
- ordinances and regulations applicable to this contract and the work to be done thereunder, which exist or which may be enacted later by governmental bodies having jurisdiction or authority for 21. All work which has been rejected or condemned shall be repaired, or if it cannot be repaired
- shall be immediately removed from the work site. 22. The Contractor shall, at all times, keep the site of the work and adjacent premises as free from material, debris and rubbish as is practicable and shall remove same from any portion of the site if, in the opinion of the Owner, such material, debris or rubbish constitutes a nuisance or is

satisfactorily, it shall be removed and replaced at the Contractor's expense. Defective materials

23. The Contractor shall make a final clean-up of all parts of the work before acceptance by the Developer. This clean-up shall include removal of all objectionable materials and, in general, preparing the site of the work in an orderly appearance.

- 1. Install silt fence and provide on-going maintenance. 2. Maintain and protect ordinary and topsoil stockpiles.
- 3. All grade tolerances 0.1 foot. 4. Perform additional fine grading around paving as required to meet finished grades
- indicated on the plans.
- 5. Place topsoil in landscape islands (4-inch minimum depth).
- 6. Fine grade interior landscape areas and islands to provide smooth finish with 4%
- minimum grade for positive drainage unless otherwise indicated on the plans. 7. Regrade perimeter landscape areas as necessary.
- 8. Excess ordinary excavation shall be removed from the site.
- 9. Excess topsoil shall be removed from the site. 10. All fill shall be compacted using a sheep's foot roller and to 95% std. density.
- 11. 75%-80% of all disturbed areas shall have a minimum 1" stand of grass established prior to engineering
- 12. The detention system(s) shall be fully installed and functioning per approved plan prior to any installation of paving. The sides and bottom to have either sod or anchored seeded curlex installed in detention systems prior to paving.

PAVING NOTES

- 1. All work shall conform to these plans and contract documents and to the latest edition of the North Central Texas Council of Governments Standards Specifications for Public Works Construction (COG) as amended by the contract documents and the City. 5th Edition
- 2. All paving dimensions are measured to back of curb and edge of pavement.
- 3. All curb radii are as shown on the plans or typical details. 4. Boundary monuments have been set by others. Contractor shall verify their existence and accuracy prior to construction. Advise the engineer immediately of any discrepancies.
- 5. Contractor shall provide all staking. 6. Coordinates may be provided to assist the Contractor and his surveyor. Should any discrepancy
- arise between the coordinates and the intent of the layout or plan, Contractor shall immediately inform the Engineer. Verify that coordinates and dimensions match during layout prior to construction
- 7. Pavement strength, thickness and reinforcing shall meet or exceed the plan, details, and City Standards.
- 8. Concrete mix shall be 6 sack for machine pour and 6 1/2 sack for hand pours. 9. Pavement subgrade shall be proof-rolled and any soft or pumping areas shall be excavated and recompacted prior to paving. All fill material to be compacted with a sheepsfoot roller.
- 10. Where proposed pavement abuts existing pavement, provide machine drilled and epoxy set #3 bars on 24-inch centers, minimum 1-foot penetration, 24-inches long.
- 11. Sawcut new pavement as soon as practical when concrete can support equipment and provide a neat
- 12. All joints shall be continuous through the curb. 13. Saw all construction joints, clean and immediately seal.
- 14. All structures (inlet, light poles, etc.) shall be isolated from the pavement with full depth expansion material.
- 15. No sand under pavement.

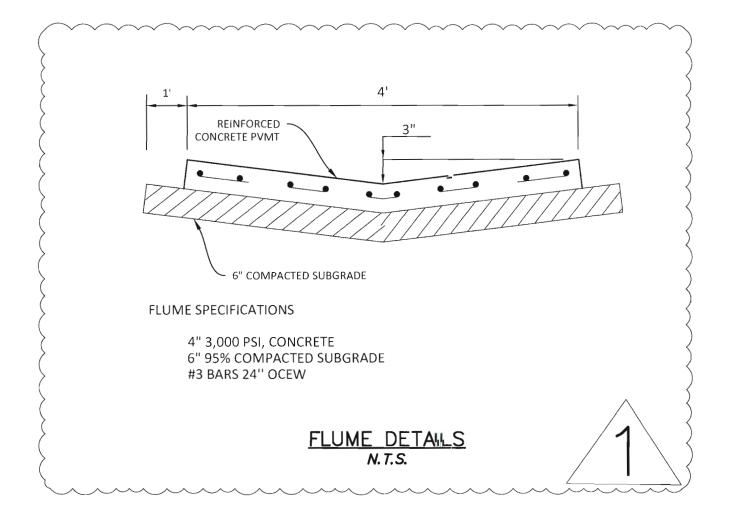
DRAINAGE NOTES

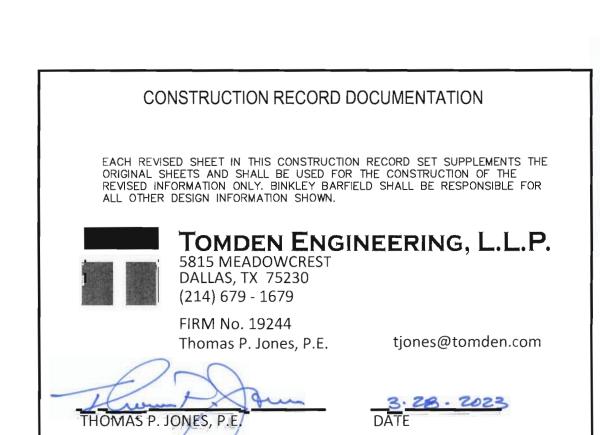
- 1. Contractor shall comply with the requirements of the City and shall coordinate with same when connecting to their systems.
- 2. Existing storm sewer and utility data is provided for information only from the best available plan records. Contractor shall verify their location and elevation prior to construction.
- 3. Contractor is responsible for any repairs required to existing utilities due to his activities.
- 4. Contractor shall comply with Texas House Bill 1569 and provide his own Trench Safety
- System design. 5. All storm sewer pipe shall be as follows:
- Diameter < 60" RCP ASTM C-76, Class III 6. Concrete pipe joints to be sealed with Ramneck or equal.
- 7. All connections shall be watertight. Grout connections at structures.
- 8. Storm sewer inlets may be pre-cast or cast-in-place. Throat depths and openings shall meet
- 9. Adjust all appurtenances (inlets, manholes, cleanouts, etc.) to final grade.

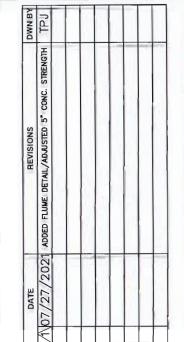
UTILITY NOTES

- 1. Contractor shall comply with the requirements of the City and shall coordinate with same
- when connecting to their systems. 2. Existing storm sewer and utility data is provided for information only from the best available
- plan records. Contractor shall verify their location and elevation prior to construction. 3. For all construction projects in which trench excavation will exceed five feet (5') the Contractor shall provide detailed plans and specifications for adequate safety systems that meet OSHA
- 4. If there is less than 2' of clearance between the storm and sanitary sewer services, the sanitary sewer services will need to be concrete encased.
- 5. Contractor shall coordinate installation of utilities in such a manner as to avoid conflicts and to
- assure proper depths are achieved. 6. The Contractor shall, on all utilities, coordinate inspection and testing with the appropriate
- authorities prior to backfilling trenches. 7. Notify all utility companies at least 48 hours in advance of any site construction.
- 8. Coordinate with other Contractors installing gas, electric and telephone services. 9. Install Blue EMS disks on the waterline at 300ft intervals and every change in direction, service and
- 10. Install Green EMS disks on the sanitary sewer line at every manhole, cleanout, and service. Waterline shall be AWWA C900 PVC Pipe, DR 14 PC305 (blue in color). 12. All water and sanitary sewer work designated as "private" in this set of plans shall be installed in accordance with the international plumbing code, permitted and inspected by the city building
- inspection department and installed by a licensed plumber. 13. All manholes to be Ravenlined or approved equal.

SEE ATTACHED CITY GENERAL CONSTRUCTION NOTES SHEETS 1&2







AS, 67 No

SIN



S BA

ROCKWALL

PROJ. MGR.: TPJ PROJ. ASSOC.: TPJ DRAWN BY: MJD

03/13/2021 SHEET

GENERAL ITEMS

- . All construction shall conform to the requirements set forth in the City of Rockwall's Engineering Department's "Standards of Design and Construction" and the "Standard Specifications for Public Works Construction" by the North Texas Central Council of Governments, 5th edition amended by the City of Rockwall. The CONTRACTOR shall reference the latest City of Rockwall standard details provided in the Rockwall Engineering Departments "Standards of Design and Construction" manual for details not provided in these plans. The CONTRACTOR shall possess one set of the NCTCOG Standard Specifications and Details and the City of Rockwall's "Standards of Design and Construction" manual on the project site at all times
- 2. Where any conflicting notes, details or specifications occur in the plans the City of Rockwall General Construction Notes, Standards, Details and Specifications shall govern unless detail or specification is more strict.
- 3. The City of Rockwall Engineering Departments "Standards of Design and Construction" can be found online at: http://www.rockwall.com/engr.asp
- 4. All communication between the City and the CONTRACTOR shall be through the Engineering Construction Inspector and City Engineer or designated representative only. It is the responsibility of the CONTRACTOR to contact the appropriate department for inspections that do not fall under this approved engineering plan set.
- Prior to construction, CONTRACTOR shall have in their possession all necessary permits, plans, licenses, etc.
- 6. The CONTRACTOR shall have at least one original stamped and signed set of approved engineering plans and specifications on-site and in their possession at all times. A stop work order will be issued if items are not on-site. Copies of the approved plans will not be substituted for the required original "approved plans to be on-site".
- 7. All material submittals, concrete batch designs and shop drawings required for City review and approval shall be submitted by the CONTRACTOR to the City sufficiently in advance of scheduled construction to allow no less than 10 business days for review and response by the City.
- 8. All site dimensions are referenced to the face of curb or edge of pavement unless otherwise noted.
- 9. The City requires ten (10%) percent-two (2) year maintenance bond for paving, paving improvements, water systems, wastewater systems, storm sewer systems including detention systems, and associated fixtures and structures which are located within the right-of-ways or defined easements. The two (2) year maintenance bond is to state "from date of City acceptance" as the starting time.
- 10. A review of the site shall be conducted at twenty (20) months into the two (2) year maintenance period. The design engineer or their designated representative and the CONTRACTOR shall be present to walk the site with the City of Rockwall Engineering Inspection personnel.

EROSION CONTROL & VEGETATION

- 1. The CONTRACTOR or developer shall be responsible, as the entity exercising operational control, for all permitting as required by the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ). This includes, but is not limited to, preparation of the Storm Water Pollution Prevention Plan (SWPPP), the Construction Site Notice (CSN), the Notice of Intent (NOI), the Notice of Termination (NOT) and any Notice of Change (NOC) and is required to pay all associated fees
- 2. Erosion control devices as shown on the erosion control plan for the project shall be installed prior to the start of land disturbing activities.
- 3. All erosion control devices are to be installed in accordance with the approved plans, specifications and Storm Water Pollution Prevention Plan (SWPPP) for the project. Erosion control devices shall be placed and in working order prior to start of construction. Changes are to be reviewed and approved by the design engineer and the City of Rockwall prior to implementation.
- 4. If the Erosion Control Plans and Storm Water Pollution Prevention Plan (SWPPP) as approved cannot appropriately control erosion and off-site sedimentation from the project, the erosion control plan and/or the SWPPP is required to be revised and any changes reported to the Texas Commission on Environmental Quality (TCEQ), when applicable.
- 5. All erosion control devices shall be inspected weekly by the CONTRACTOR and after all major rain events, or more frequently as dictated in the project Storm Water Pollution Prevention Plan (SWPPP). CONTRACTOR shall provide copies of inspection's reports to the engineering inspection after each inspection.
- 6. The CONTRACTOR shall not dispose of waste and any materials into streams, waterways or floodplains. The CONTRACTOR shall secure all excavation at the end of each day and dispose of all excess materials.
- 7. CONTRACTOR shall take all available precautions to control dust. CONTRACTOR shall control dust by sprinkling water or other means as approved by the City Engineer.
- 8. CONTRACTOR shall establish grass and maintain the seeded area, including watering, until a "Permanent Stand of Grass" is obtained at which time the project will be accepted by the City. A "Stand of Grass" (not winter rye or weeds) shall consist of 75% to 80% coverage of all disturbed areas and a minimum of one-inch (1") in height as determined by the City. No bare spots will be allowed. Re-seeding will be required in all washed areas and areas that don't grow.
- 9. All City right-of-ways shall be sodded if disturbed. No artificial grass is allowed in any City right-of-way and/or easements.
- 10. All adjacent streets/alleys shall be kept clean at all times
- 11. CONTRACTOR shall keep construction site clean at all times, immediately contain all debris and trash, all debris and trash shall be removed at the end of each work day, and all vegetation on the construction site 10-inches or taller in height must be cut immediately.
- 12. Suspension of all construction activities for the project will be enforced by the City if any erosion control requirements are not meet. Work may commence after deficiency has been rectified.
- 13. During construction of the project, all soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. The CONTRACTOR is responsible for the temporary protection and permanent stabilization of all soil stockpiles on-site as well as borrow areas and soil intentionally transported from the project site.
- 14. Where construction vehicles access routes intersect paved or public roads/alleys, construction entrances shall be installed to minimize the transport of sediment by vehicular tracking onto paved surfaces. Where sediment is transferred onto paved or public surfaces, the surface shall be immediately cleaned. Sediment shall be

- removed from the surface by shoveling or sweeping and transported to a sediment disposal area. Pavement washing shall be allowed only after sediment is removed in this manner.
- 15. All drainage inlets shall be protected from siltation, ineffective or unmaintained protection devices shall be immediately replaced and the inlet and storm system cleaned. Flushing is not an acceptable method of cleaning.
- 16. During all dewatering operations, water shall be pumped into an approved filtering device prior to discharge into a receiving outlet.

TRAFFIC CONTROL

- 1. All new Detouring or Traffic Control Plans are required to be submitted to the City for review and approval a minimum of 21 calendar days prior to planned day of implementation.
- When the normal function of the roadway is suspended through closure of any portion of the right-of-way, temporary construction work zone traffic control devices shall be installed to effectively guide the motoring public through the area. Consideration for road user safety, worker safety, and the efficiency of road user flow is an integral element of every traffic control zone.
- 4. All traffic control plans shall be prepared and submitted to the Engineering Department in accordance with the standards identified in Part VI of the most recent edition of the TMUTCD. Lane closures will not occur on roadways without an approval from the Rockwall Engineering Department and an approved traffic control plan. Traffic control plans shall be required on all roadways as determined by the City Engineer or the designated representative.
- 4. All traffic control plans must be prepared, signed, and sealed by an individual that is licensed as a professional engineer in the State of Texas. All traffic control plans and copies of work zone certification must be submitted for review and approval a minimum of three (3) weeks prior to the anticipated temporary traffic control.
- 5. The CONTRACTOR executing the traffic control plan shall notify all affected property owners two (2) weeks prior to any the closures in writing and verbally.
- 6. Any deviation from an approved traffic control plan must be reviewed by the City Engineer or the designated representative. If an approved traffic control plan is not adhered to, the CONTRACTOR will first receive a verbal warning and be required to correct the problem immediately. If the deviation is not corrected, all construction work will be suspended, the lane closure will be removed, and the roadway opened to traffic.
- . All temporary traffic control devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time at the end of the workday, all temporary traffic control devices that are no longer appropriate shall be removed or covered. The first violation of this provision will result in a verbal warning to the construction foreman. Subsequent violations will result in suspension of all work at the job site for a minimum of 48 hours. All contractors working on City funded projects will be charged one working day for each 24 hour closure.
- . Lane closures on any major or minor arterial will not be permitted between the hours of 6:00 am to 9:00 am and 3:30 pm to 7:00 pm. Where lane closures are needed in a school area, they will not be permitted during peak hours of 7:00 am 9:00 am and 3:00 pm to 5:00 pm. Closures may be adjusted according to the actual start-finish times of the actual school with approval by the City Engineer. The first violation of this provision will result in a verbal warning to the construction foreman. Subsequent violations will result in suspension of all work at the job site for a minimum of 48 hours. All contractors working on City funded projects will be charged one working day for each 24 hour closure of a roadway whether they are working or not.
- 9. No traffic signs shall be taken down without permission from the City.
- 10. No street/roadway will be allowed to be fully closed.

UTILITY LINE LOCATES

- It is the CONTRACTOR's responsibility to notify utility companies to arrange for utility locates at least 48 hours prior to beginning construction. The completeness and accuracy of the utility data shown on the plans is not guaranteed by the design engineer or the City. The CONTRACTOR is responsible for verifying the depth and location of existing underground utilities proper to excavating, trenching, or drilling and shall be required to take any precautionary measures to protect all lines shown and .or any other underground utilities not on record or not shown on the plans.
- 2. The CONTRACTOR shall be responsible for damages to utilities
- 3. CONTRACTOR shall adjust all City of Rockwall utilities to the final grades.
- 4. All utilities shall be placed underground.
- contractor shall be responsible for the protection of all existing main lines and service lines crossed or exposed by construction operations. Where existing mains or service lines are cut, broken or damaged, the CONTRACTOR shall immediately make repairs to or replace the entire service line with same type of original construction or better. The City of Rockwall can and will intervene to restore service if deemed necessary and charge the CONTRACTOR for labor, equipment, material and loss of water if repairs aren't made in a timely manner by the CONTRACTOR.
- The City of Rockwall (City utilities) is not part of the Dig Tess or Texas one Call 811 line locate system. All City of Rockwall utility line locates are to be scheduled with the City of Rockwall Service Center. 972-771-7730. A 48-hour advance notice is required for all non-emergency line locates.
- 7. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
 - a. No more than 500 linear feet of trench may be opened at one time.
 - b. Material used for backfilling trenches shall be properly compacted to 95% standard density in order to minimize erosion, settlement, and promote stabilization that the geotechnical engineer recommends.c. Applicable safety regulations shall be complied with.
- 11. This plan details pipes up to 5 feet from the building. Refer to the building plans for building connections. CONTRACTOR shall supply and install pipe adapters as necessary.
- 12. All underground lines shall be installed, inspected, and approved prior to backfilling.
- 13. All concrete encasement shall have a minimum of 28 days compressive strength at 3,000 psi (min. 5.5 sack mix).

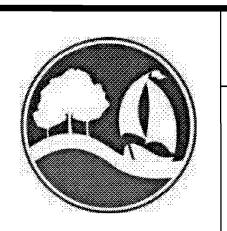
WATER LINE NOTES

- 1. The CONTRACTOR shall maintain existing water service at all times during construction.
- 2. Proposed water lines shall be AWWA C900-16 PVC Pipe (blue in color) for all sizes, DR 14 (PC 305) for pipeline sizes 12-inch and smaller, and DR 18 (PC 235) for 14-inch and larger water pipelines unless otherwise shown on water plan and profiles sheets. Proposed water lines shall be constructed with minimum cover of 4 feet for 6-inch through 8-inch, 5 feet for 12-inch through 18-inch and 6 feet for 20-inch and larger.
- 3. Proposed water line embedment shall be NCTCOG Class 'B-3' as amended by the City of Rockwall's engineering standards of design and construction manual.
- CONTRACTOR shall coordinate the shutting down of all water lines with the City of Rockwall Engineering Inspector and Water Department. The City shall operate all water valves. Allow 5 business days from the date of notice to allow City personnel time to schedule a shut down. Two additional days are required for the CONTRACTOR to notify residents in writing of the shut down after the impacted area has been identified. Water shut downs impacting businesses during their normal operation hours is not allowed. CONTRACTOR is required to coordinate with the Rockwall Fire Department regarding any fire watch requirements as well as any costs incurred when the loss of fire protection to a structure occurs.
- CONTRACTOR shall furnish and install gaskets on water lines between all dissimilar metals and at valves (both existing and proposed).
- 6. All fire hydrants and valves removed and salvaged shall be returned to the City of Rockwall Municipal Service Center.
- 7. Blue EMS pads shall be installed at every change in direction, valve, curb stop and service tap on the proposed water line and every 250'.
- 8. All water valve hardware and valve extensions, bolts, nuts and washers shall be 316 stainless steel.
- 9. All fire hydrants bolts, nuts and washers that are buried shall be 316 stainless steel.
- 10. Abandoned water lines to remain in place shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product. Valves to be abandoned in place shall have any extensions and the valve box removed and shall be capped in concrete.
- 11. All fire hydrants will have a minimum of 5 feet of clearance around the appurtenance including but not limited to parking spaces and landscaping.
- 12. All joints are to be megalug joints with thrust blocking.
- 13. Water and sewer mains shall be kept 10 feet apart (parallel) or when crossing 2 feet vertical clearance.
- 14. CONTRACTOR shall maintain a minimum of 4 feet of cover on all water lines.
- 15. All domestic and irrigation services are required to have a testable backflow device with a double check valve installed per the City of Rockwall regulations at the property line and shown on plans.

WASTEWATER LINE NOTES

- 1. The CONTRACTOR shall maintain existing wastewater service at all times during construction.
- 2. Wastewater line for 4-inch through 15-inch shall be Green PVC SDR 35 (ASTM D3034) [less 10 ft cover] and SDR 26 (ASTM D3034) [10 ft or more cover]. For 18-inch and lager wastewater line shall be Green PVC PS 46 (ASTM F679) [less 10 ft cover] and PS 115 (ASTM F679) [10 ft or more cover]. No services will be allowed on a sanitary sewer line deeper than 10 feet.
- 3. Proposed wastewater line embedment shall be NCTCOG Class 'H' as amended by the City of Rockwall's public works standard design and construction manual.
- 4. Green EMS pads shall be installed at every 250', manhole, clean out and service lateral on proposed wastewater lines.
- 5. CONTRACTOR shall CCTV all existing wastewater lines that are to be abandoned to ensure that all laterals are accounted for and transferred to proposed wastewater lines prior to abandonment.
- 6. All abandoned wastewater and force main lines shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product
- abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product.

 7. Existing manholes and cleanouts not specifically called to be relocated shall be adjusted to match final grades.
- 8. All wastewater pipes and public services shall be inspected by photographic means (television and DVD) prior to final acceptance and after franchise utilities are installed. The CONTRACTOR shall furnish a DVD to the Engineering Construction Inspector for review. Pipes shall be cleaned prior to TV inspection of the pipes. Any sags, open joints, cracked pipes, etc. shall be repaired or removed by the CONTRACTOR at the CONTRACTOR's expense. A television survey will be performed as part of the final testing in the twentieth (20th) month of the maintenance period.
- 9. All manholes (public or private) shall be fitted with inflow prevention. The inflow prevention shall conform to the measures called out in standard detail R-5031.
- 10. All new or existing manholes being modified shall have corrosion protection being Raven Liner 405 epoxy coating, ConShield, or approved equal. Consheild must have terracotta color dye mixed in the precast and cast-in-place concrete. Where connections to existing manholes are made the CONTRACTOR shall rehab manhole as necessary and install a 125 mil thick coating of Raven Liner 405 or approved equal.
- 11. All new or existing manholes that are to be placed in pavement shall be fitted with a sealed (gasketed) rim and cover to prevent inflow.
- 12. If an existing wastewater main or trunk line is called out to be replaced in place a wastewater bypassing pump plan shall be required and submitted to the Engineering Construction Inspector and City Engineer for approval prior to implementation. Bypass pump shall be fitted with an auto dialer and conform to the City's Noise Ordinance. Plan shall be to the City sufficiently in advance of scheduled construction to allow no less than 10 business days for review and response by the City.
- 13. CONTRACTOR shall maintain a minimum of 4 feet of cover on all wastewater lines.



GENERAL CONSTRUCTION NOTES Sheet 1 of 2

October 2020

CITY OF ROCKWALL ENGINEERING DEPARTMENT

385 S. Goliad Rockwall, Texas 75087 P (972) 771-7746 F (972) 771-7748

DEMOLITION, REMOVAL, DISPOSAL AND EXCAVATION NOTES

- 1. All pavements to be removed and replaced shall be saw cut to full depth along neat squared lines shown in the plans.
- 2. Proposed concrete pavement shall be constructed with longitudinal butt construction joints at all connections to existing concrete pavement.
- 3. All public concrete pavement to be removed and replaced shall be full panel replacement, 1-inch thicker and on top of 6-inch thick compacted flexbase.
- 4. No excess excavated material shall be deposited in low areas or along natural drainage ways without written permission from the affected property owner and the City of Rockwall. No excess excavation shall be deposited in the City Limits without a permit from the City of Rockwall. If the CONTRACTOR places excess materials in these areas without written permission, the CONTRACTOR will be responsible for all damages resulting from such fill and shall remove the material at their own cost.

PAVING AND GRADING

- 1. All detention systems are to be installed and verified for design compliance along with the associated storm sewer and outflow structures, prior to the start of any paving operations (including building foundations). Erosion protection shall be placed at the pond outflow structures, silt fence along the perimeter of the pond along with any of the associated erosion BMPs noted on the erosion control plan, and the sides and bottom of the detention system shall have either sod or anchored seeded curlex installed prior to any concrete placement.
- 2. All paving roadway, driveways, fire lanes, drive-isles, parking, dumpster pads, etc. sections shall have a minimum thickness, strength, reinforcement, joint type, joint spacing and subgrade treatment shall at a minimum conform to the City standards of Design and Construction and table below.

Stroot/Poyoment Type	Minimum Thickness	Streng th 28-	Minimum Cement (sacks / CY)		Steel Reinforcement	
Street/Pavement Type	(inches)			Hand Placed	Bar #	Spacing (O.C.E.W.)
Arterial	10"	3,600	6.0	6.5	#4 bars	18"
Collector	8"	3,600	6.0	6.5	#4 bars	18"
Residential	6"	3,600	6.0	6.5	#3 bars	24"
Alley	7"-5"-7"	3,600	6.0	6.5	#3 bars	24"
Fire Lane	6"	3,600	6.0	6.5	#3 bars	24"
Driveways	6"	3,600	6.0	6.5	#3 bars	24"
Barrier Free Ramps	6"	3,600	N/A	6.5	#3 bars	24"
Sidewalks	4"	3,000	N/A	5.5	#3 bars	24"
Parking Lot/Drive Aisles	5"	3,000	5.0	5.5	#3 bars	24"
Dumpster Pads	7"	3,600	6.0	6.5	#3 bars	24"

- 3. Reinforcing steel shall be tied (100%). Reinforcing steel shall be set on plastic chairs. Bar laps shall be minimum 30 diameters. Sawed transverse dummy joints shall be spaced every 15 feet or 1.25 time longitudinal butt joint spacing whichever is less. Sawing shall occur within 5 to 12 hours after the pour, including sealing. Otherwise, the section shall be removed and longitudinal butt joint constructed.
- 4. No sand shall be allowed under any paving.
- 5. All concrete mix design shall be submitted to the City for review and approval prior to placement.
- 6. Fly ash may be used in concrete pavement locations provided that the maximum cement reduction does not exceed 20% by weight per C.Y. of concrete. The fly ash replacement shall be 1.25 lbs. per 1.0 lb. cement reduction.
- 7. All curb and gutter shall be integral (monolithic) with the pavement.
- 8. All fill shall be compacted by sheep's foot roller to a minimum 95% standard proctor. Maximum loose lift for compaction shall be 8 inches. All lifts shall be tested for density by an independent laboratory. All laboratory compaction reports shall be submitted to the City Engineering Construction Inspector once results are received. All reports will be required prior to final acceptance.
- 9. All concrete compression tests and soil compaction/density tests are required to be submitted to the City's Engineering Inspector immediately upon results.
- 10. All proposed sidewalks shall include barrier free ramps at intersecting streets, alleys, etc. Barrier free ramps (truncated dome plate in Colonial or brick red color) shall meet current City and ADA requirements and be approved by the Texas Department of Licensing and Regulation (TDLR).
- 11. All public sidewalks shall be doweled into pavement where it abuts curbs and driveways. Expansion joint material shall be used at these locations.
- 12. All connection of proposed concrete pavement to existing concrete pavement shall include a longitudinal butt joint as the load transfer device. All longitudinal butt joints shall be clean, straight and smooth (not jagged in appearance)
- 13. Cracks formed in concrete pavement shall be repaired or removed by the CONTRACTOR at the City's discretion. CONTRACTOR shall replace existing concrete curbs, sidewalk, paving, a gutters as indicated on the plans and as necessary to connect to the existing infrastructure, including any damage caused by the CONTRACTOR.
- 14. All residential lots will require individual grading plans submitted during the building permit process that correspond with the engineered grading and drainage area plans.
- 15. Approval of this plan is not an authorization to grade adjacent properties when the plans or field conditions warrant off-site grading. Written permission must be obtained and signed from the affected property owner(s) and temporary construction easements may be required. The written permission shall be provided to the City as verification of approval by the adjacent property owner(s). Violation of this requirement will result in suspension of all work at the job site until issue has been rectified.
- 16. All cut or fill slopes of non-paved areas shall be a maximum of 4:1 and minimum of 1%.
- 17. CONTRACTOR agrees to repair any damage to property and the public right-of-way in accordance with the City Standards of Design and Construction.
- 18. CONTRACTOR shall protect all monuments, iron pins/rods, and property corners during construction.
- 19. CONTRACTOR shall ensure positive drainage so that runoff will drain by gravity flow to new or existing drainage inlets or sheet flow per these approved plans.

DRAINAGE / STORM SEWER NOTES

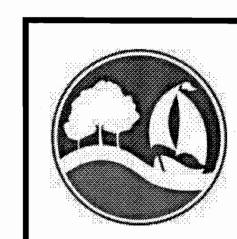
- 1. The CONTRACTOR shall maintain drainage at all times during construction. Ponding of water in streets, drives, trenches, etc. will not be allowed. Existing drainage ways shall not be blocked or removed unless explicitly stated in the plans or written approval is given by the City.
- 2. All structural concrete shall be 4200 psi compressive strength at 28 days minimum 7.0 sack mix, air entrained, unless noted otherwise. Fly ash shall not be allowed in any structural concrete.
- 3. Proposed storm sewer embedment shall be NCTCOG Class 'B' as amended by the City of Rockwall's Engineering Department Standards of Design and Construction Manual.
- 4. All public storm pipe shall be a minimum of 18-inch reinforced concrete pipe (RCP), Class III, unless otherwise noted.
- 5. All storm pipe entering structures shall be grouted to assure connection at the structure is watertight.
- 6. All storm structures shall have a smooth uniform poured mortar invert from invert in to invert out.
- 7. All storm sewer manholes in paved areas shall be flush with the paving grade, and shall have traffic bearing ring and covers.
- 8. All storm sewer pipes and laterals shall be inspected by photographic means (television and DVD) prior to final acceptance and after franchise utilities are installed. The CONTRACTOR shall furnish a DVD to the Engineering Construction Inspector for review. Pipes shall be cleaned prior to TV inspection of the pipes. Any sags, open joints, cracked pipes, etc. shall be repaired or removed by the CONTRACTOR at the CONTRACTOR's expense. A television survey will be performed as part of the final testing in the twentieth (20th) month of the maintenance period.

RETAINING WALLS

- All retaining walls, regardless of height, will be reviewed and approved by the City Engineering Department
 All retaining walls (including foundation stem walls), regardless of height, will be constructed of rock/stone/brick or rock/stone/brick faced. No smooth concrete walls are allowed. Wall materials shall be the same for all walls on the project.
- 3. All portions, including footings, tie-backs, and drainage backfill, of the wall shall be on-site and not encroach into any public easements or right-of-way. The entire wall shall be in one lot and shall not be installed along a lot line.
- 4. All walls 3 feet and taller will be designed and signed/sealed by a registered professional engineer in the State of Texas. The wall design engineer is required to inspect the wall construction and supply a signed/sealed letter of wall construction compliance to the City of Rockwall along with wall as-builts prior to City Engineering acceptance.
- 5. No walls are allowed in detention easements. A variance to allow retaining walls in a detention easement will require approval by the Planning and Zoning Commission with appeals being heard by the City Council.

FINAL ACCEPTANCE AND RECORD DRWINGS/AS-BUILTS

- Final Acceptance shall occur when all the items on the Checklist for Final Acceptance have been completed and signed-off by the City. An example of the checklist for final acceptance has been included in the Appendix of the Standards of Design and Construction. Items on the checklist for final acceptance will vary per project and additional items not shown on the check list may be required.
- 2. After improvements have been constructed, the developer shall be responsible for providing to the City "As Built" or "Record Drawings". The Design Engineer shall furnish all digital files of the project formatted in Auto Cad 14, or 2000 format or newer and Adobe Acrobat (.pdf) format with a CD-ROM disk or flash drive. The disk or drive shall include a full set of plans along with any landscaping, wall plans, and details sheets.
- 3. Submit 1-set of printed drawings of the "Record Drawings" containing copies of all sheets to the Engineering Construction Inspector for the project. The printed sheets will be reviewed by the inspector PRIOR to producing the "Record Drawing" digital files on disk or flash drive. This will allow any revisions to be addressed prior to producing the digital files.
- 4. Record Drawing Disk drawings shall have the Design Engineers seal, signature and must be stamped and dated as "Record Drawings" or "As Built Drawings" on all sheets.
- 5. The City of Rockwall will not accept any Record Drawing disk drawings which include a disclaimer. A disclaimer shall not directly or indirectly state or indicate that the design engineer or the design engineer's surveyor/surveyors did not verify grades after construction, or that the Record Drawings were based solely on information provided by the construction contractor/contractors. Any Record Drawings which include like or similar disclaimer verbiage will not be accepted by the City of Rockwall.
- 6. Example of Acceptable Disclaimer: "To the best of our knowledge ABC Engineering, Inc., hereby states that this plan is As-Built. This information provided is based on surveying at the site and information provided by the contractor."



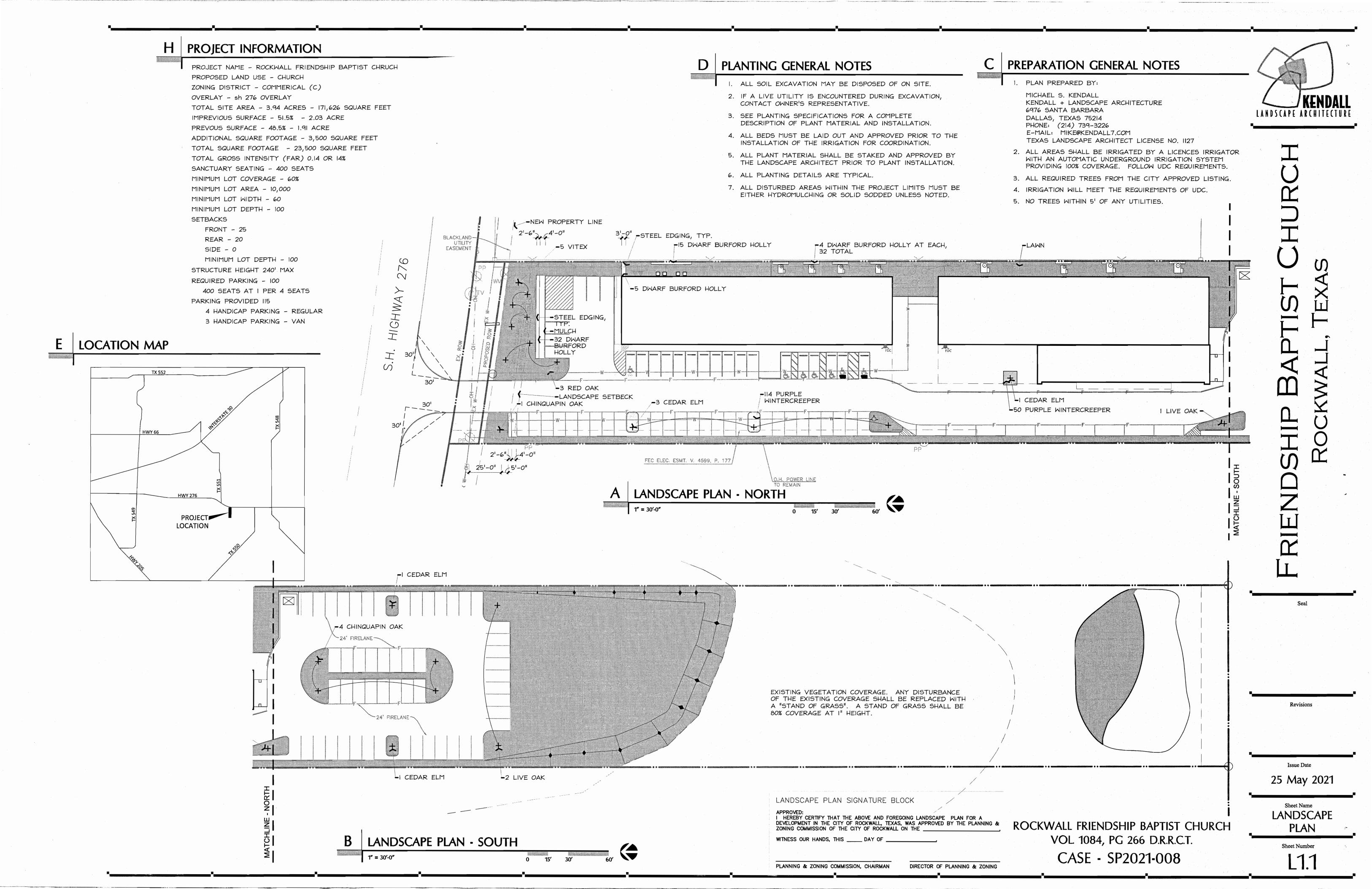
GENERAL CONSTRUCTION NOTES Sheet 2 of 2

October 2020

CITY OF ROCKWALL ENGINEERING DEPARTMENT

385 S. Goliad Rockwall, Texas 75087

P (972) 771-7746 F (972) 771-7748



1. 15' landscape buffer

3. Residential Adjacency

1 tree per 50' linear feet

5. Parking lot landscaping

7. SH 270 Overlay District

2 x'S ROOT BALL IF TREE IS PLANTED IN LAWN AREA

Planting at Buffer

6' masonry fencing

4. Buffer landscaping

5% required

6. Open space

F1 Zoning

Mandatory Provisions

Provided.

Provided.

2. Screening of off-street loading areas

n/a

136

75,000 *.05

171,626 *.08

136 / 50

136 / 25

/50

3 3" caliper trees required

3 3" caliper trees provided

3 4" caliper trees required 4 4" caliper trees provided

5 Accent Trees required 5 Accent Trees provided

EXCAVATE TREE PIT

2 x'S DIAMETER OF

EXISTING SOIL-

1/2" = 1'-0"

ROOT BALL, TYPICAL-

3,750 required area

4,228 provided area

13,730 square feet required

74,052 square feet provided

QUERCUS VIRGINIANA ULMUS CRASSIFOLIA

ORNAMENTAL TREES

CYNDON SOLID SOD OR HYDROMULCH BERMUDA

-TREE - REF. PLANTING PLAN

-CROWN OF ROOT BALL TO BE

1/2 TOP OF BURLAP AND CUT

MULCH. DO NOT COVER ROOT

TREE WELL AT EDGE OF FINISH

SCARIFY THE EDGE OF THE TREE

-PLANTING MEDIA - COMPACTED

IN 9" LIFTS AS SPECIFIED IN

SECTION "TREE PLANTING"

FLARE.

GRADE.

PLANTING PIT

-ROOT BALL

I" ABOVE FINISH GRADE, REMOVE

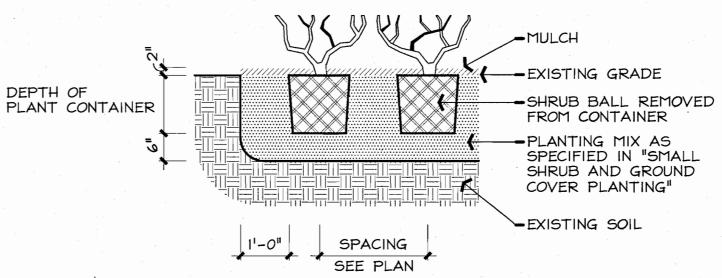
=3" THICK MULCH LAYER BY 3' DIA.

ALL WIRE STRAPS, EXPOSE FLARE.

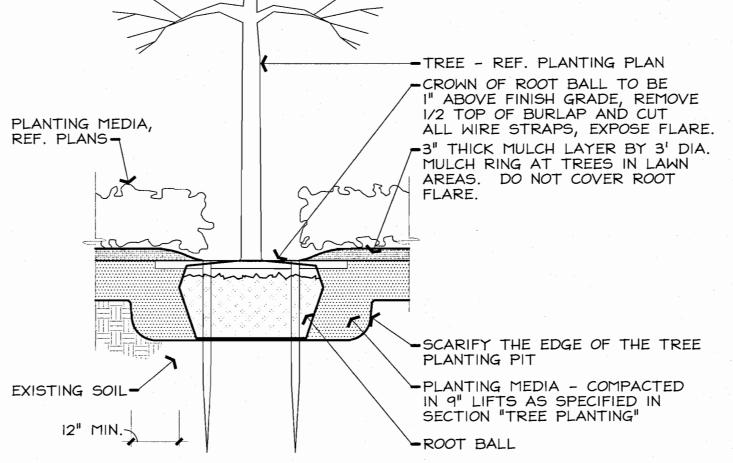
DESCRIPTION QUANTITY BOTANIC NAME COMMON NAME SIZE LARGE TREES QUERCUS PHELLOS CHINQUAPIN OAK 100 GALLON CONTAINER, 4"-4 1/2" CALIPER, 9' - 10' HEIGHT, 5'-6' SPREAD SINGLE STRAIGHT LEADER. QUERCUS SHUMARDII SHUMARD RED OAK 100 GALLON CONTAINER, 4"-4 1/2" CALIPER, 9' - 10' HEIGHT, 5'-6' SPREAD SINGLE STRAIGHT LEADER. LIVE OAK 100 GALLON CONTAINER, 4"-4 1/2" CALIPER, 9' - 10' HEIGHT, 5'-6' SPREAD SINGLE STRAIGHT LEADER. 100 GALLON CONTAINER, 4"-4 1/2" CALIPER, 9' - 10' HEIGHT, 5'-6' SPREAD SINGLE STRAIGHT LEADER. CEDAR ELM VITEX AGNUS-CASTUS VITEX 65 GALLON CONTAINER, 3"-3 1/2" CALIPER, 7' - 8' HEIGHT, 5'-7' SPREAD MULTI-TRUNK - 3 CANES MAXIMUM SHRUBS ILEX CRENATA BURFORDII NANA 5 GALLON 24" ON CENTER 84 DWARF BURFORD HOLLY GROUNDCOVER / PERINNEL 162 18" ON CENTER EUONYMUS COLORATA PURPLE WINTERCREEPER 1 GALLON LAWN

> -MULCH SET POT AT GRADE -POTTED GROUNDCOVER PLANT PLANTING MIX AS SPECIFIED IN "SMALL SHRUE AND GROUNDCOVE PLANTING" SEE PLANTING LIST FOR PLANT SPACING -SUBGRADE

GROUNDCOVER PLANTING - SECTION 1 1/2" = 1'-0"



SHRUB PLANTING - SECTION 1/2" = 1'-0"



-PLANT ROW -- SPACING: SEE PLANT TYPICAL TRIANGULAR SPACING

	PLANT	SPACING - I	PLAN		
•	1/2" = 1'-0"			0	***************************************
_					

ROCKWALL FRIENDSHIP BAPTIST CHURCH

∕=2 1/2" UNFINISHED DRYWALL -2" x 2" x 4' UNTREATED LUMBER CROSS MEMBER. NOTE: CROSS MEMBER TO BE ORIENTED PARALLEL TO NORTH/ SOUTH BEARING AND SHALL BE PROPORTIONAL IN LENGTH TO ROOT BALL (4' MIN.) SET TIGHT TO TOP OF ROOT BALL. TREE - REF. PLANTING PLAN -ROOT BALL -2" x 2" x 4' UNTREATED LUMBER STAKE WITH 18" TAPER. SET TIGHT TO ROOT BALL. -LIMITS OF EXCAVATION PIT

TYPICAL TREE STAKING - PLAN

1/2" = 1'-0"

TREE PLANTING IN LAWN - SECTION

TREE PLANTING IN PLANTER - SECTION 1/2" = 1'-0"

6 April 2021

LANDSCAPE **DETAILS**

VOL 1084, PG 266 D.R.R.C.T. Sheet Number

- PLANT CENTER

LIST ON PLAN OR

SECTION "PLANT LIST"

LANDSCAPE PLAN SIGNATURE BLOCK

WITNESS OUR HANDS, THIS _____ DAY OF .

PLANNING & ZONING COMMISSION, CHAIRMAN

I HEREBY CERTIFY THAT THE ABOVE AND FOREGOING LANDSCAPE PLAN FOR A DEVELOPMENT IN THE CITY OF ROCKWALL, TEXAS, WAS APPROVED BY THE PLANNING & ZONING COMMISSION OF THE CITY OF ROCKWALL ON THE

DIRECTOR OF PLANNING & ZONING

CASE - SP2021-008

S

LANDSCAPE ARCHITECTURE