

REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

Fort Bend County Engineering Department 301 Jackson Suite 401

301 Jackson Suite 401 Richmond, Texas 77469 281.633.7500 Permits@fortbendcountytx.gov

	Right of Way F	Permit		
	X Commercial D	riveway Permit		
	Permit No: 2018-22	483		
Applicant: Britan	nia Soccer Academy LLC			
Job Location Site:	3606 FM 723 , Rosenberg, TX 774	71		
Bond No.	Date of Bond:	Amount:	\$5,000.00	
Laying, Construction Roads, Streets, High Commissioners Cour Texas, of the Minute	came to make use of certain Fort Ber , Maintenance, and Repair of Buried ways, and Drainage Ditches in Fort Ber t of Fort Bend County, Texas," as pas s of the Commissioners Court of Fort apter 181, Vernon's Texas Statutes an	Cables, Conduits, and I end County, Texas, Und sed by the Commission Bend County, Texas, t	Pole Lines, In, Under, Across or A ler the Jurisdiction of the ners Court of Fort Bend County,	Along
grounds for jo 2. Written notic a. b.	eview by the Commissioners Court mob shutdown. es are required: 48 hours in advance of construction s When construction is completed and Administrator thru MyGovernmentO pires one (1) year from date of permi	start up, and ready for final inspect nline.org portal.	ion, submit notification to Perm	
notice of said above	August, 2018, Upon Motion of Comm OK (Jeo, duly put and purpose is hereby acknowledged by laced on record according to the regu	d carried, it is ORDEREI the Commissioners Co		t said
Signature By: County Engine	Eft.	Presented to Commis	ssioners Court and approved. 04-2018 Comm. Court No. 12 E	3
N/A By:	ict Engineer/Manager	By: Deputy	ers Court Whis	



PERMIT APPLICATION REVIEW FORM FOR CABLE, CONDUIT, AND POLE LINE ACTIVITY IN FORT BEND COUNTY

Fort Bend County Engineering Department 301 Jackson Suite 401

301 Jackson Suite 401 Richmond, Texas 77469 281.633.7500 Permits@fortbendcountytx.gov

Righ	nt of Way Permit	,g,,,g
X Com	nmercial Driveway F	Permit
Permit No	: 2018-22483	
		activity in Fort Bend County" and accompanying opriate regulations set by Commissioner's Court
(1) COMPLETE APPLICATION FORM:		
X a. Name of road, street, and/or	drainage ditch affec	cted.
x b. Vicinity map showing course	of directions	
x c. Plans and specifications		
(2) BOND:		
County Attorney, approval when applicable.	n	
Perpetual bond currently posted.	Bond No:	Amount:
Performance bond submitted.	Bond No:	Amount:
X Cashier's Check	Check No:	Amount: \$5,000.00
(3) DRAINAGE DISTRICT APPROVAL (WHE	N APPLICABLE):	Date
We have reviewed this project and agree it n	neets minimum req	uirements. 8/17/2018
Permit Administrator		Date

BBVA Compass



CHEQUE DE CAJA

FORT BEND COUNTY TO THE

ORDER OF

Paguese por este cheque a lo orden de

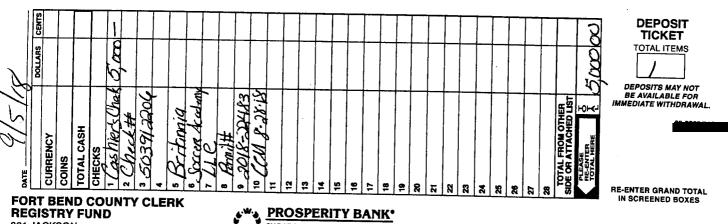
**** FIVE THOUSAND DOLLARS AND 00 CENTS ***

Remitter/Remitente: BRITAI Description/Descripción: BOND

BRITANNIA SOCCER ACA

Compass Bank Birmingham, AL 35233 Date/Fecha: 07/30/2018

AUTHORIZED SIGNATURE / FIRMA AUTORIZADA



301 JACKSON RICHMOND, TX 77469

SUGAR LAND BANKING CENTER
14060 SOUTHWEST FREEWAY • SUGAR LAND, TX 77478
281-269-7200 www.prosperitybankusa.com

\$

5,000.00

BBVA Compass

THIS DOCUMENT CONTAINS A TRUE WATERMARK - HOLD TO LIGHT TO VIEW / ESTE DOCUMENTO CONTIENE UNA MARCA DE AGUA VERDAD - TIENEN A LA LUZ PARA VER 🖺

503912206

CHEQUE DE CAJA

Date/Fecha: 07/30/2018

FORT BEND COUNTY PAY TO THE

ORDER OF Paguese por este cheque a lo orden de

*** FIVE THOUSAND DOLLARS AND 00 CENTS ***

Remitter/Remitente:

BRITANNIA SOCCER ACA

Description/Descripción: BOND

Drawee: Birmingham, AL 35233

AUTHORIZED SIGNATURE / FIRMA AUTORIZADA

****** \$5,000.00 ******



PRINT

Order Confirmation

Fort Bend County, Office of County Clerk

301 Jackson Street Richmond, TX 77469

TXCLASS

Order Date:

9/6/2018

Order Number:

Participant Name:

Fort Bend County, Office of County Clerk

Account Name:

CCM2018-

Account Number:

Authorized

Linda Willis

Transaction Type:

Contribution

Transaction Amount:

\$5,000.00

Bank Name:

PROSPERITY BANK

Bank Account No:

Payment Type:

ABA:

ease note you have made an ACH Contribution, these funds ll not be available for withdrawal until the following business

Payment Instructions:

Memo:

Email: dientservices@texasdass.com

Tel: (800) 707-6242 Fax: (855) 848-9910

www.texasclass.com

DEPOSIT

PERMIT#

2018-22483

STYLE:

Britannia Soccer Academy LLC

CCM2018-

NAME PUT INTO TEXAS CLASS AS:

22483BritanniaSoccerAc

TEXAS CLASS ACCOUNT NUMBER

TX-01-0465-3011

DEPOSIT AMOUNT:

\$5,000.00

DATE RECEIVED:

8/28/2018

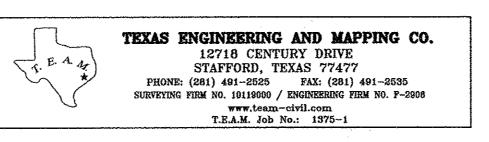
DATE TRANSFERRED TO TEXAS CLASS: 9/6/2018

BRITANNIA SOCCER PARK

LOCATED AT
3606 FM 723 RD
ROSENBERG, TEXAS 77471
(FORT BEND COUNTY)







ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP FOR FORT BEND COUNTY, TEXAS AND INCORPORATED AREAS, COMMUNITY PANEL NO. 48157-C-0235L EFFECTIVELY DATED APRIL 2, 2014, THIS PROPERTY LIES IN ZONE "AE", SPECIAL FLOOD HAZARD AREAS INUNDATED BY THE 1% ANNUAL CHANCE FLOOD EVENT WITH BASE FLOOD ELEVATIONS DETERMINED. THE BASE FLOOD ELEVATION FOR THIS SITE IS 93.0'.

OWNER INFORMATION: BRITTANIA SOCCER CLUB
OWNER CONTACT: DEREK WILLIAMS
ADDRESS: 6135 DRISCOLL PARK DRIVE RICHMOND TX 77407
PHONE: 281-802-4484
EMAIL: INFO@BRITANNIASOCCERCLUB.COM
PROJECT DATE: JULY, 2018

	INDEX OF DRAWINGS						
SHT. NO.	DESCRIPTION						
1	COVER SHEET						
2-3	COPY OF RECORDED PLAT						
4	TOPOGRAPHIC SURVEY (C-0)						
5	GRADING AND DRAINAGE (C-1)						
6	STORM SEWER & WATER LAYOUT (C-2)						
7	STORM SEWER CALCULATION TABLE (C-2A)						
8	PAVING JOINT LAYOUT (C-3)						
9	SWPPP LAYOUT (C-4)						
10	SWPPP NOTES & DETAILS (C-5)						
11	GENERAL NOTES & DETAILS (C-6)						
12	DIMENSION SITE PLAN (C-7)						
13	DRIVEWAY TRAFFIC CONTROL PLAN (C-8)						
14-25	CITY OF RICHMOND DETAILS (C-9 THRU C-20)						
26	DIMENSIONED FLOOR PLAN (A1-BY OTHERS)						
27	ELEVATION PLANS (A2-BY OTHERS)						
28	PLUMBING PLANS (P1-BY OTHERS)						
29	PLUMBING DETAILS (P2-BY OTHERS)						
30	ON SITE SEWAGE FACILITY PLOT PLAN (BY OTHERS)						
31	ON SITE SEWAGE FACILITY DETAILS (BY OTHERS)						

ENGINEER:	Rich of Stangle, MOE CRICHARD W. STOLLEIS, P.E.
DATE:	7/27//8
	NATURES ARE VOID IF CONSTRUCTION HAS NOT DO IN ONE (1) YEAR FROM DATE OF APPROVAL. A DEVELOPMENT COORDINATOR
	V '

KELLY I	R. KALUZA -CITY ENGINEER	DATE

SHEET NUMBER

1 OF 31

STATE OF TEXAS : COUNTY OF FORT BEND: We, Houston Heritage, LTD., acting by and through Lawrence K. Sillers, Secretary of Top Group, Inc., its general partner, and Lawrence K. Siller, Individual, hereinafter referred to as Owners of the 12.1784 acres shown hereon and described in the above and foregoing map of RIVERSIDE RANCH COMMERCIAL SEC TWO, do hereby make and establish said subdivision and development plan of said property according to all lines, dedications, restrictions, and notations on said map or plat and do hereby dedicate to the use of the public forever, all streets, alleys, parks, water courses, drains, easements, and public places shown thereon for the purposes and considerations therein expressed; and do hereby bind ourselves, our heirs, successors and assigns to warrant and forever defend the title to the land so dedicated. FURTHER, Owners have dedicated and by these presents do dedicate to the use of the public for public utility purposes forever unobstructed aerial easements. The aerial easements shall extend horizontally an additional eleven feet, six inches (11' 6") for ten feet (10' 0") perimeter ground easements or seven feet, six inches (7' 6") for fourteen feet (14' 0") perimeter ground easements or five feet, six inches (5' 6") for sixteen feet (16' 0") perimeter ground easements, from a plane sixteen feet (16' 0") above ground level upward, located adjacent to and adjaining said public utility easements that are designated with aerial easements (U.E. and A.E.) as indicated and depicted hereon, whereby the aerial easement totals twenty one feet, six inches (21' 6") in width. FURTHER, Owners have dedicated and by these presents do dedicate to the use of the public for public utility purposes forever unobstructed aerial easements. The aerial easements shall extend horizontally an additional ten feet (10' 0") for ten feet (10' 0") back—to—back ground easements or eight feet (8' 0") for fourteen feet (14' 0") back—to—back ground easements or seven feet (7' 0") for sixteen feet (16' 0") back—to—back ground easements, from a plane sixteen feet (16' 0") above ground level upward, located adjacent to both sides and adjoining said public utility easements that are designated with aerial easements (U.E. and A.E.) as indicated and depicted hereon, whereby the FURTHER, Owners do hereby covenant and agree that all of the property within the boundaries of this plat shall be restricted to prevent the drainage of any septic tank into any public or private street, road or alley or any drainage ditch, either directly or indirectly. FURTHER, Owners do hereby dedicate to the public a strip of land twenty (20' 0") feet wide on each side of the center line of any and all bayous, creeks, gullies, ravines, draws, sloughs, or other natural drainage courses located in said plot, as easements for drainage purposes, giving the City of Richmond, Fort Bend County, or any other governmental agency, the right to enter upon said easement at any times for the purpose of construction and maintenance of drainage facilities and structures. FURTHER, Owners do hereby covenant and agree that all of the property within the boundaries of this plat and adjacent to any drainage easement, ditch, gully, creek or natural drainage way is hereby restricted to keep such drainage ways and easements clear of fences, buildings, planting and other obstructions to the operations and maintenance of the drainage facility and that such abutting property shall not be permitted to drain directly into this easement except by means of an approved drainage structure. FURTHER, Owners do hereby acknowledge the receipt of the "Orders for Regulation of Outdoor Lighting in the Unincorported Areas of Fort Bend County, Texas," and do hereby covenant and agree and shall comply with this order as adopted by Fort Bend County Commissioners' Court on March 23, 2004, and any subsequent amendments.

IN TESTIMONY WHEREOF, Houston Heritage, LTD., has caused these presents to be signed by Lawrence K. Siller, Secretary of Top Group, Inc., its general partner, thereunto authorized, this 10 day of December . 201

Houston Heritage, LTD., a Texas Limited Partnership

Top Group, Inc., its general partner

BY: Lawrence K. Siller Secretary

STATE OF TEXAS: COUNTY OF FORT BEND

BEFORE ME, the undersigned authority, on this day personally appeared Lawrence K. Siller, Secretary of Top Group, Inc., general partner of Houston Heritage, LTD., 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 and herein stated, and as the act and deed of said limited partnership.

Notary Public in and for the State of Texas

My Commission Expires: 10/15/3019

Nancy Morales Notary Public,

There and this 1st day of Delense, 2011

STATE OF TEXAS COUNTY OF FORT BEND

BEFORE ME, the undersigned authority, on this day personally appeared Lawrence K. Siller, 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 and herein stated, and

as the act and deed of said individual.

Morales Notary Public in and for the State of Texas My Commission Expires: 10 15 2019

Nancy Morales Notary Public, State of Texas

Expires: 10/15/201

This Plat of RIVERSIDE RANCH COMMERCIAL SEC TWO approved on Section 5, 2017 by the City of Richmond Commission and signed this 5 day of

Laura Scarleto, City Secretary

NOTES: 2.) THE MINIMUM FINISHED SLAB ELEVATION SHALL BE 94.5 FEET ABOVE MEAN SEA LEVEL, OR 18 INCHES ABOVE NATURAL GROUND, WHICHEVER IS HIGHER. THE TOP OF SLAB ELEVATION AT ANY POINT ON THE PERIMETER OF THE SLAB SHALL NOT BE LESS THAN EIGHTEEN (18) INCHES ABOVE NATURAL GROUND. THE TOP OF SLAB ELEVATIONS SHALL BE NO LESS THAN 12" ABOVE EXTREME EVENT PONDING AND SHEET FLOW ELEVATIONS AS CALCULATED IN FUTURE SITE DESIGNS.

3.) BENCHMARK: NATIONAL GEODETIC SURVEY MARKER PID AW4693, DESIGNATED L 1212, IS A BENCHMARK DISK STAMPED "L 1212 1973" SET IN CONCRETE HEADWALL ON THE EAST SIDE OF FARM ROAD 723 APPROXIMATELY 4.05 MILES NORTH FROM ROSENBERG, TEXAS. ELEVATION=90.68"

1.) TEMPORARY BENCHMARK: BOX CUT ON THE NORTHWEST END OF A 24" RCP LOCATED NEAR THE SOUTHEAST CORNER OF THE SUBJECT TRACT, AS SHOWN HEREON.

5.) ALL OF THE PROPERTY SUBDIVIDED IN THE FOREGOING PLAT IS WITHIN THE LAMAR CONSOLIDATED INDEPENDENT SCHOOL DISTRICT, THE FORT BEND COUNTY DRAINAGE DISTRICT, THE CITY OF 6.) THE DRAINAGE SYSTEM FOR THIS SUBDIVISION WITHIN FORT BEND COUNTY IS DESIGNED IN ACCORDANCE WITH THE FORT BEND DRAINAGE CRITERIA MANUAL WHICH ALLOWS STREET PONDING WITH INTENSE RAINFALL EVENTS.

- 7.) ALL DRAINAGE EASEMENTS TO BE KEPT CLEAR OF FENCES, BUILDINGS, VEGETATION AND OTHER OBSTRUCTIONS TO THE OPERATION AND MAINTENANCE OF THE DRAINAGE FACILITY.
- 8.) ALL PROPERTY TO DRAIN INTO THE DRAINAGE EASEMENT ONLY THROUGH AN APPROVED DRAINAGE STRUCTURE.
- 9.) THIS PLAT LIES IN LIGHTING ZONE 3 (LZ3).

DRAWING INFO: Z: \job#\1070-2\dwg\1070-2_P3_R1.dwg DEC 01, 2017 11:18 AM

10.) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP FOR FORT BEND COUNTY, TEXAS AND INCORPORATED AREAS, COMMUNITY PANEL NO. 48157—C—0235L EFFECTIVELY DATED APRIL 2, 2014, THIS PROPERTY LIES IN ZONE "AE", SPECIAL FLOOD HAZARD AREAS INUNDATED BY THE 1% ANNUAL CHANCE FLOOD EVENT WITH BASE FLOOD ELEVATIONS DETERMINED. THE BASE FLOOD ELEVATION FOR THIS SITE IS 93.0'

- 11.) SUBJECT TO TERM, CONDITIONS, AND STIPULATIONS SET FORTH IN FORT BEND COUNTY CLERK'S FILE NO. 2014056162.
- 12.) RESERVE "A" SHOWN HEREON WAS SUBMITTED TO THE CITY OF RICHMOND FOR REVIEW ON JANUARY 7, 2013, FOR PLATTING REVIEW AND IS GRANDFATHERED FOR THE RULES IN PLACE AT THAT TIME. 13.) NO PIPELINE OR PIPELINE EASEMENTS APPEAR IN THE CITY PLANNING LETTER PREPARED BY CHARTER TITLE COMPANY AND NO ABOVE GROUND EVIDENCE WAS FOUND MARKING THE EXISTENCE OF ANY PIPELINES CROSSING THIS PLAT.
- 14.) . INDICATES A SET 5/8" IR W/ CAP STAMPED "TEAM 281-491-2525", UNLESS OTHERWISE NOTED

16.) SIDEWALKS SHALL BE BUILT OR CAUSED TO BE BUILT NOT LESS THAN 5 FEET IN WIDTH ON BOTH SIDES OF ALL DEDICATED RIGHTS-OF-WAY WITHIN SAID PLAT AND ON THE CONTIGUOUS RIGHT-OF-WAY OF ALL PERIMETER ROADS SURROUNDING SAID PLAT, IN ACCORDANCE WITH THE A.D.A.

7.) RESERVE "D" DEDICATED HEREON SHALL BE RESTRICTED TO DRAINAGE PURPOSES. MAINTENANCE OF RESERVE "D" SHALL BE THE RESPONSIBILITY OF HOUSTON HERITAGE, LTD., AND IT'S SUCCESSORS AND/OR ASSIGNS; HOWEVER, FORT BEND COUNTY RESERVES THE RIGHT TO MAINTAIN THIS RESERVE, IF NECESSARY. 18.) SIDEWALKS SHALL BE BUILT OR CAUSED TO BE BUILT PER THE CITY OF RICHMOND UNIFIED DEVELOPMENT CODE "UDC", PER SECTION 4.5.201, WITHIN ALL ROAD RIGHTS-OF-WAY DEDICATED TO THE PUBLIC.

19.) EACH RESERVE SHOWN HEREON MUST HAVE PLANS APPROVED BEFORE THE ISSUANCE OF ANY PERMIT IS GRANTED.

I, Gregory A. Schmidt, a Professional Engineer registered in the State of Texas, do hereby certify that this

Gregory A. Schmidt, P.E. Texas Registration No. 67293

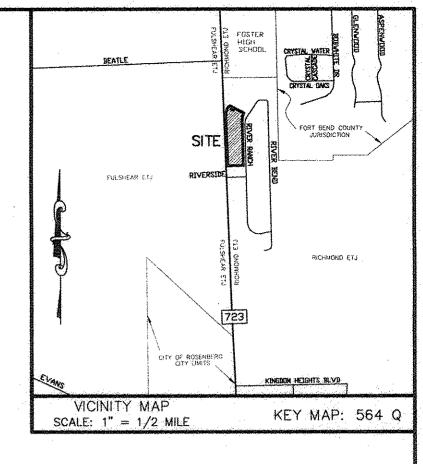


FOSTER/BRISCOE

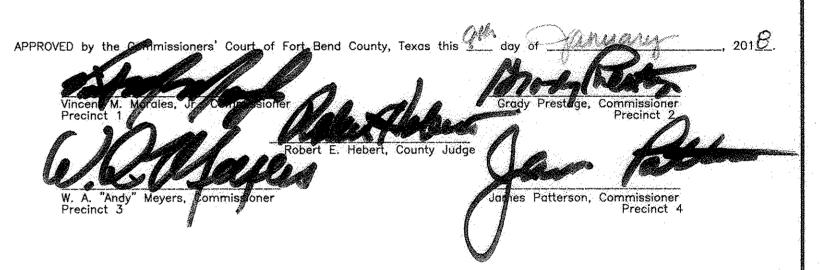
I, Brian Nesvadba, am authorized under the laws of the State of Texas to practice the profession of surveying and hereby certify that the above is true and correct; was prepared from an actual survey of the property made under my supervision on the ground; that all boundary corners, angle points, points of curvature and other points of reference have been marked with iron rods having an outside diameter of five-eights (5/8) inch and a length of not less than three (3) feet unless otherwise noted hereon; and that the plat boundary corners have been tied to the nearest street

Brian Nesvadba, R.P.L.S. Texas Registration No. 5776





I, Richard W. Stolleis, P.E., Fort Bend County Engineer, do hereby certify that the plat of this subdivision complies with all of the existing rules and regulations of this office as adopted by the Fort Bend County mmissioners' Court; however, no certification is hereby given as to the effect of drainage from this subdivision the intercepting drainage artery or parent stream or on any other area or subdivision within the watershed.



I. LAURA RICHARD, COUNTY CLERK IN AND FOR FORT BEND COUNTY, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION IN MY OFFICE ON THE PROPERTY OF AUTHENTICATION WAS FILED FOR RECORDATION FOR THE PROPERTY OF AUTHENTICATION FOR THE PROPERTY OF THE PROPER 2018, AT 2: 25 O'CLOCK F.M., IN PLAT NUMBER(S) 2018 0007 OF THE PLAT RECORDS OF SAID COUNTY. WITNESS MY HAND AND SEAL OF OFFICE, AT RICHMOND, TEXAS THE DAY AND DATE LAST ABOVE WRITTEN

FORT BEND COUNTY, TEXAS



2018003445



Jama Privard Laura Richard, County Clerk Fort Bend County Texas January 09, 2018 02:25:02 PM

FINAL PLAT OF

RIVERSIDE RANCH COMMERCIAL SEC TWO

1 BLOCK - 4 RESERVES - 0 LOTS

A SUBDIVISION OF 12.1784 ACRES IN THE WILLIAM ANDREWS SURVEY, ABSTRACT NO. 3, FORT BEND COUNTY, TEXAS

~ OWNERS ~

HOUSTON HERITAGE, LTD. AND LAWRENCE K. SILLER

5545 F.M. 359 Richmond, Texas 77406 PHONE: 281.342.5950

~ SURVEYOR/ENGINEER ~ TEXAS ENGINEERING AND MAPPING CO.

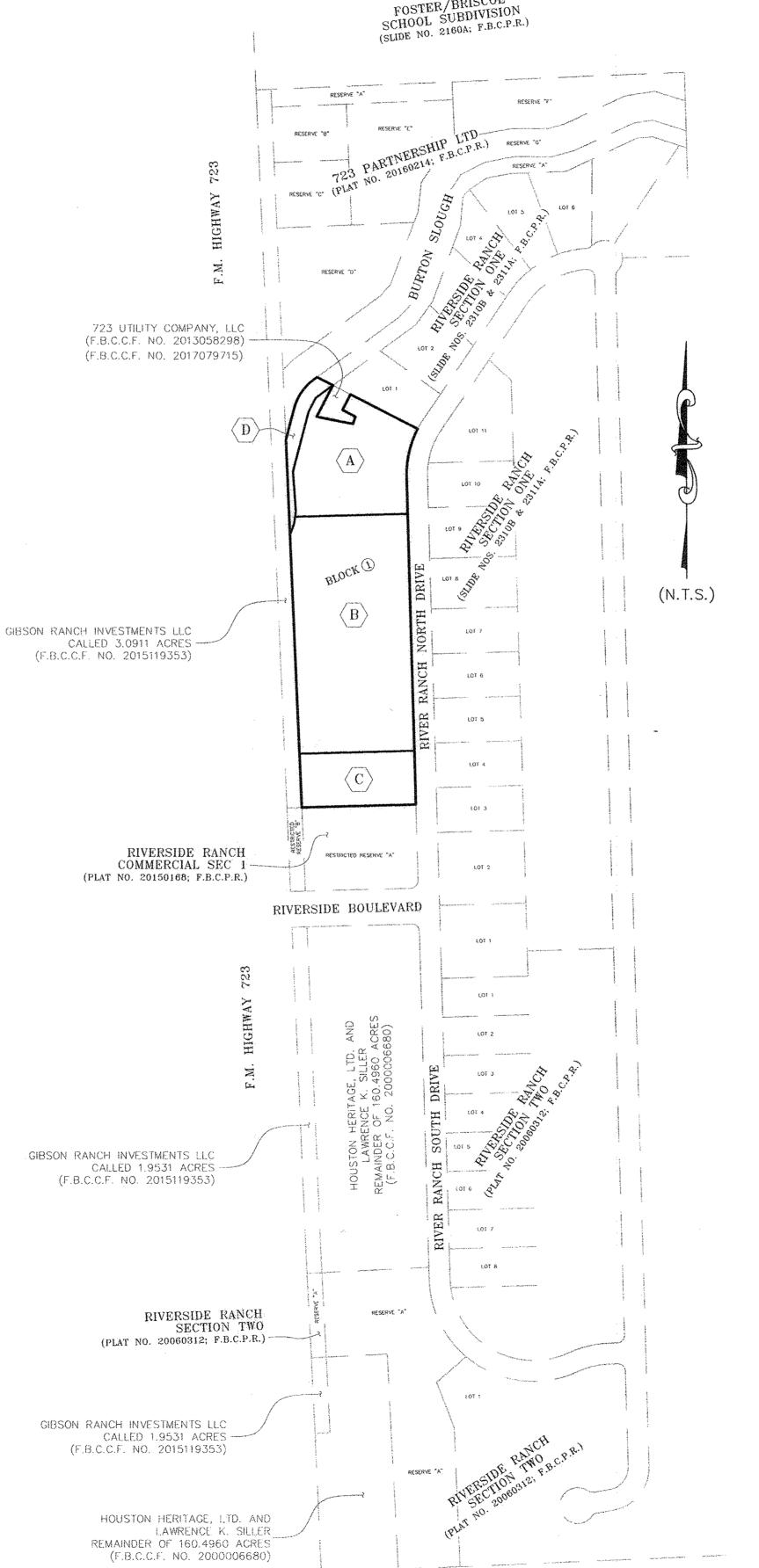


12718 Century Drive Stafford, Texas 77477 Brian Nesvadba, R.P.L.S. PHONE: 281.491.2525 FAX: 281.491.2535 SURVEYING FIRM NO. 10119000 / ENGINEERING FIRM NO. F-2906 www.team-civil.com

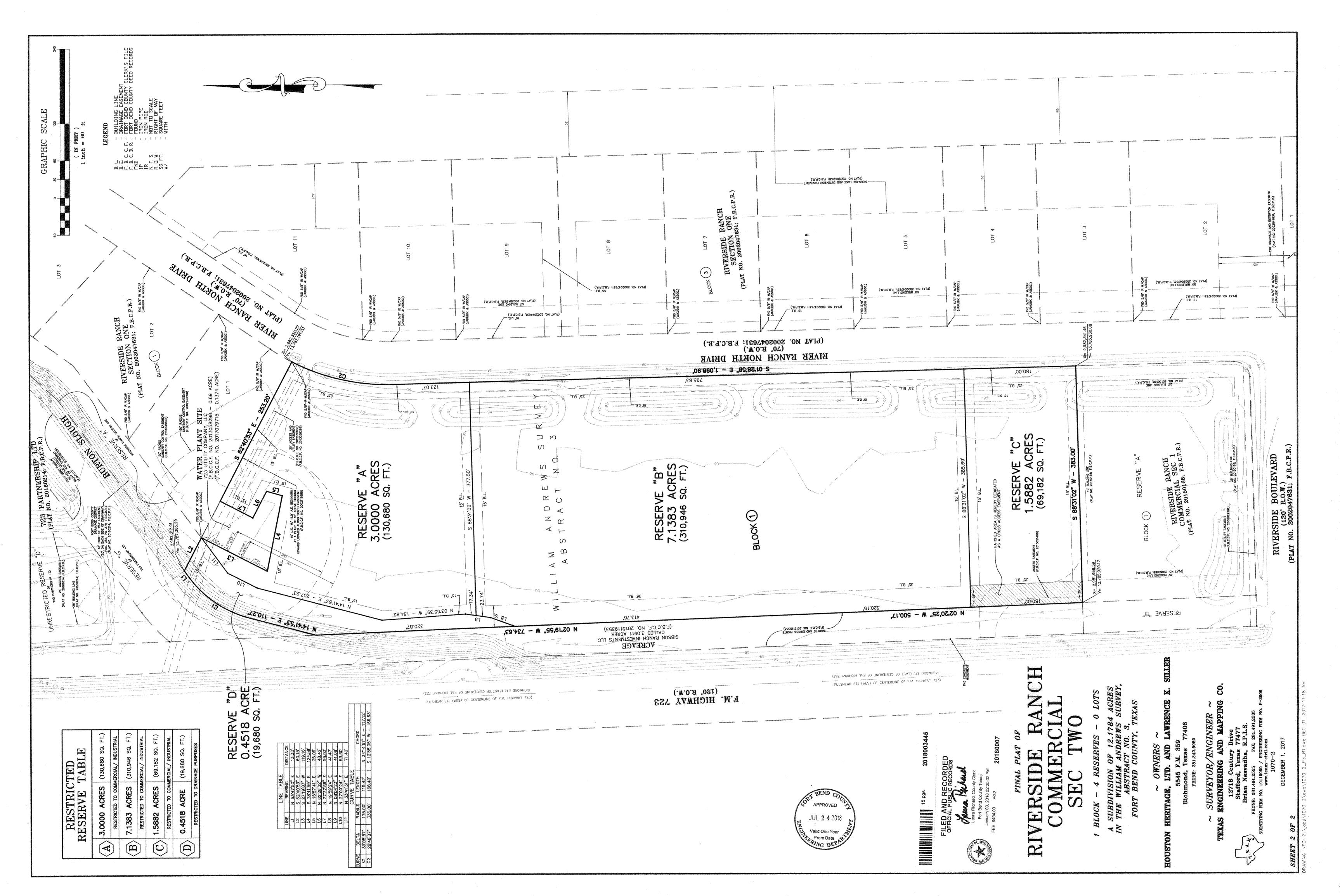
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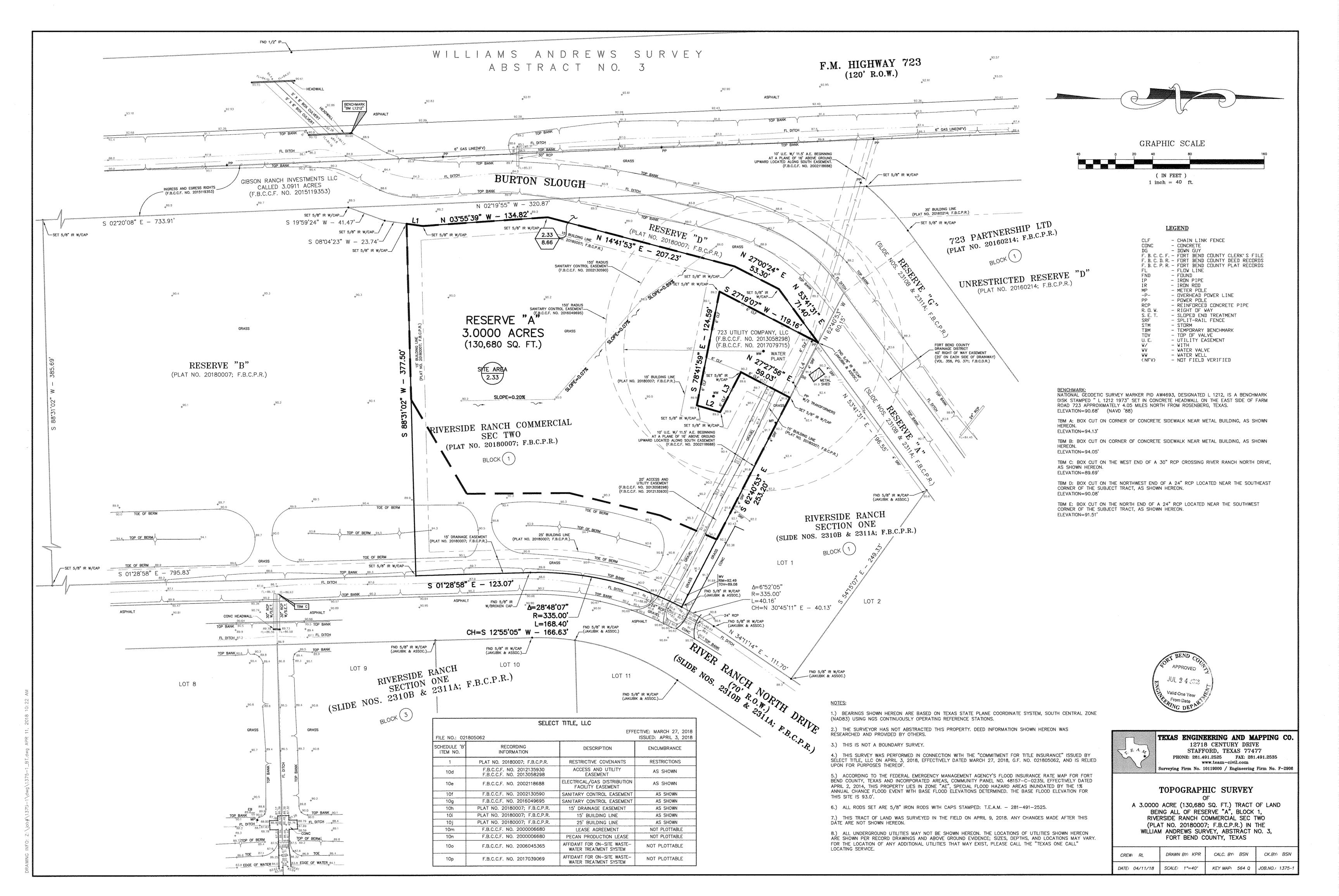
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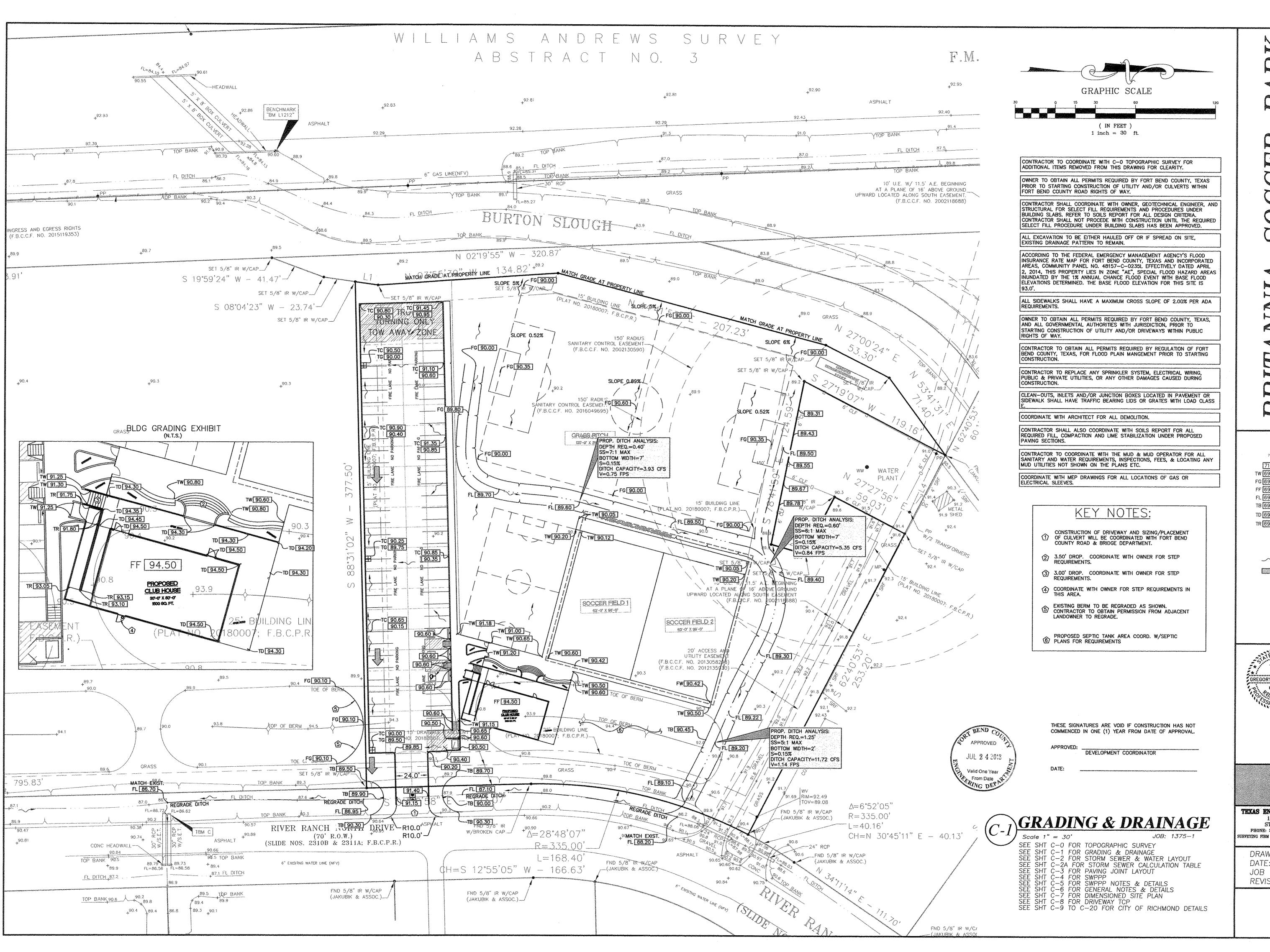
SHEET 1 OF 2



APPROVED JUL 2 4 2018 Valid One Year





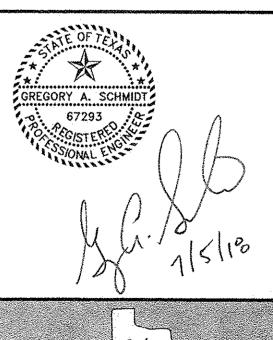


02 0 CO

LEGEND 70₂5 EXISTING ELEV. 71.20 TOP OF PAVEMENT TW 69.80 TOP OF WALK ELEV. FG 69.80 FINISHED GRADE ELEV. FF 69.80 FINISHED FLOOR ELEV. FLOW LINE ELEV. TOP OF BANK TD 69.80 TOP OF DECK TR 69.80 TOP OF RAMP

> E SQUARE GRATE INLET JUNCTION BOX

DRAINAGE FLOW 100 YR EVENT SHEET FLOW



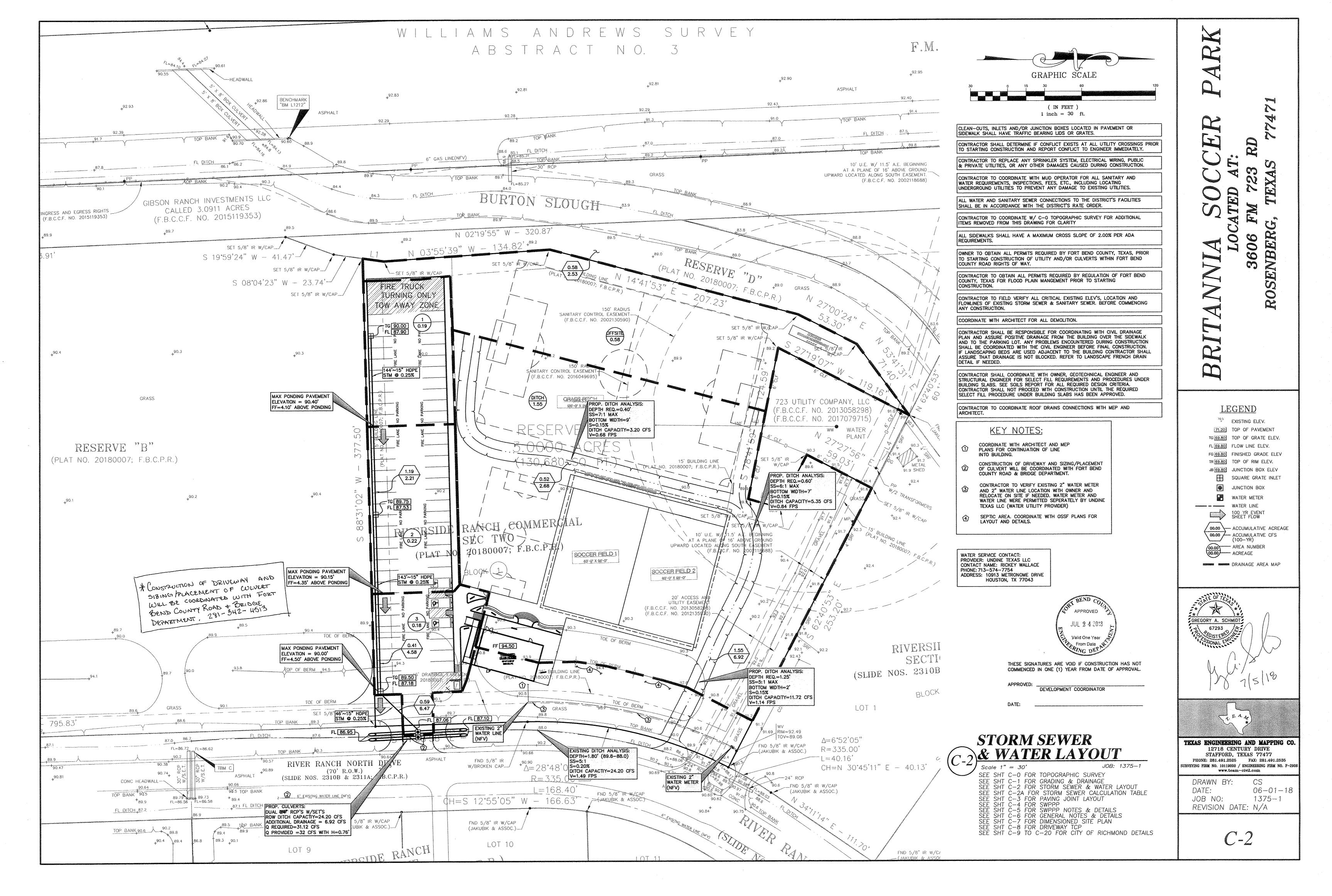
TEXAS ENGINEERING AND MAPPING CO. 12718 CENTURY DRIVE STAFFORD, TEXAS 77477 PHONE: 281.491.2525 FAX: 281.491.2535 Surveying firm no. 10119000 / Engineering firm no. F-290

CS

www.team-civil.com DRAWN BY: DATE:

06-01-18 1375-1 JOB NO: REVISION DATE: N/A

C-I



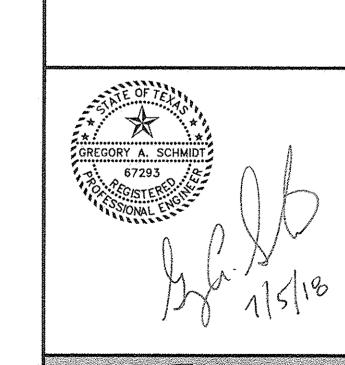
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THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN ONE (1) YEAR FROM DATE OF APPROVAL.

STORM SEWER CALCULATION TABLE

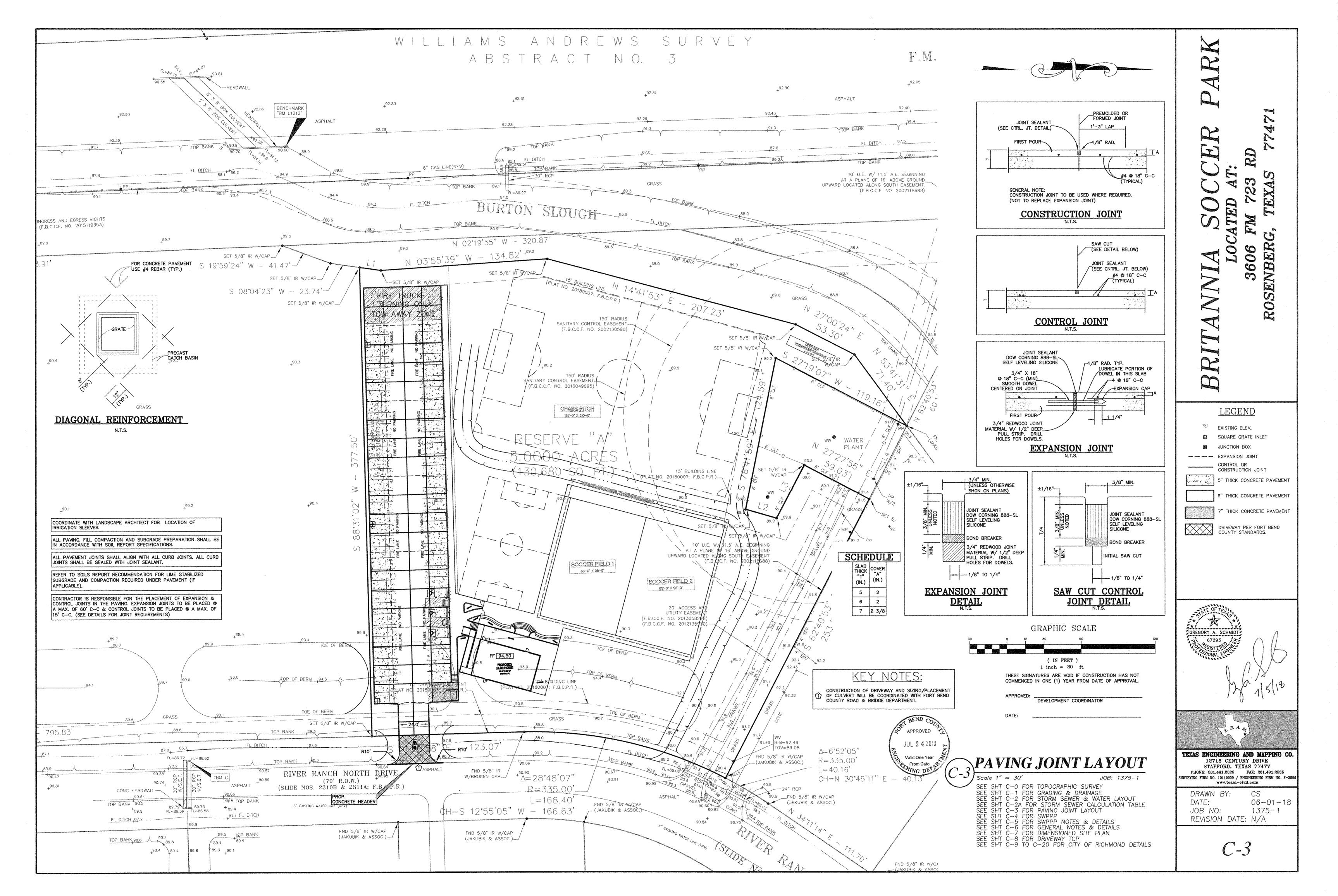
Scale 1" = 30' JOB: 1375-1 SEE SHT C-0 FOR TOPOGRAPHIC SURVEY
SEE SHT C-1 FOR GRADING & DRAINAGE
SEE SHT C-2 FOR STORM SEWER & WATER LAYOUT
SEE SHT C-2A FOR STORM SEWER CALCULATION TABLE
SEE SHT C-3 FOR PAVING JOINT LAYOUT
SEE SHT C-4 FOR SWPPP
SEE SHT C-5 FOR SWPPP NOTES & DETAILS
SEE SHT C-6 FOR GENERAL NOTES & DETAILS
SEE SHT C-7 FOR DIMENSIONED SITE PLAN
SEE SHT C-8 FOR DRIVEWAY TCP
SEE SHT C-9 TO C-20 FOR CITY OF RICHMOND DETAILS

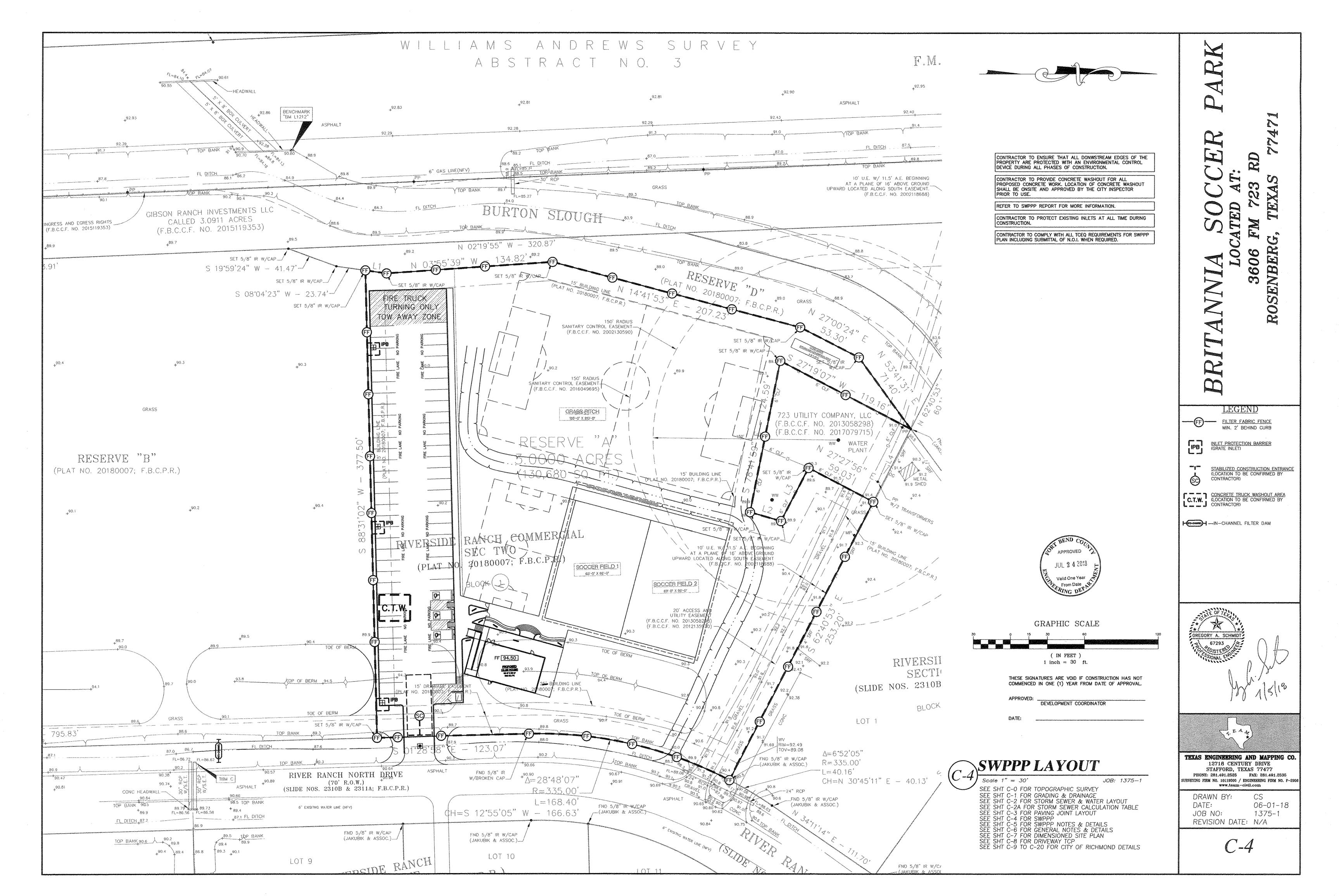


TEXAS ENGINEERING AND MAPPING CO. 12718 CENTURY DRIVE STAFFORD, TEXAS 77477 PHONE: 281.491.2525 FAX: 281.491.2535 SURVEYING FIRM NO. 10119000 / ENGINEERING FIRM NO. F-2906 www.team-civil.com

DRAWN BY: CS DATE: 06-01-18 JOB NO: 1375 - 1REVISION DATE: N/A

C-2A





1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE. 2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH. INCLUDING ALL POINTS OF INGRESS OR EGRESS.

3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT. 4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING

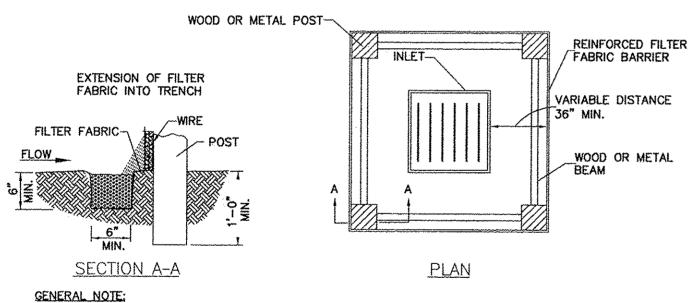
5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.

6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.

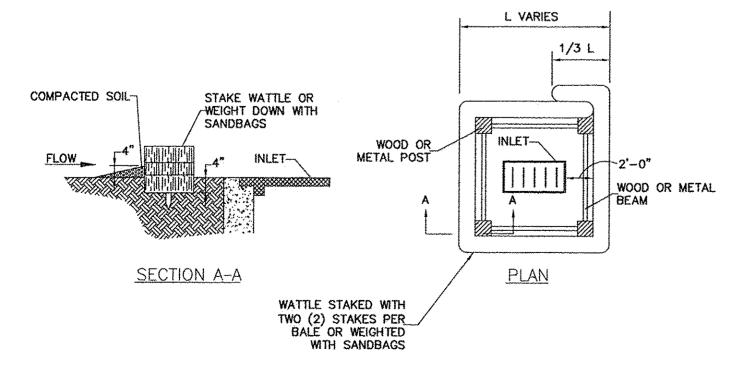
7. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE:
--CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE,
OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES. -WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES. -STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.

STABILIZED CONSTRUCTION ACCESS

SYMBOL (IF REQUIRED)



1. SEE REINFORCED FILTER FABRIC BARRIER DETAIL FOR REINFORCED FILTER FABRIC BARRIER REQUIREMENTS.

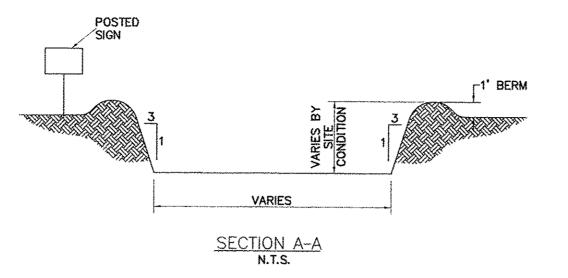


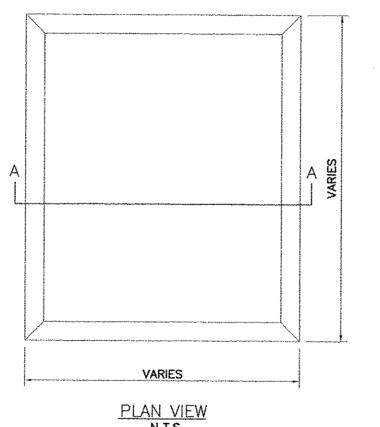
GENERAL NOTE:

1. TYPICALLY STRAW BALES ARE NOT RECOMMENDED FOR INLET PROTECTION BARRIERS.

INLET PROTECTION BARRIERS FOR STAGE I INLETS

SYMBOL





1. POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.

2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.

3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT

4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY. 5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.

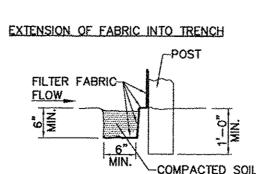
CONCRETE TRUCK WASHOUT AREA

1. SET POSTS AT REQUIRED SPACING AND DEPTH. EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS, " X 2" WOODEN POST OR EQUIVALENT

2. ATTACH FILTER FABRIC TO POSTS AND

INSTALL IT INTO THE TRENCH, BACKFILL THE

TRENCH AND COMPACT THE EXCAVATED SOIL.

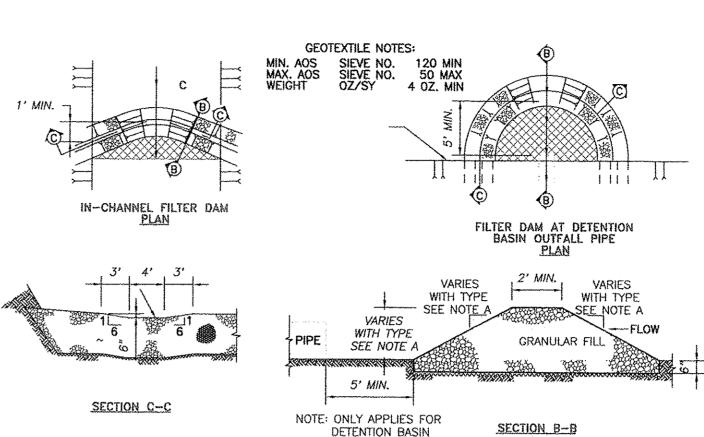


ALTERNATE V-TRENCH EXTENSION OF FABRIC INTO TRENCH

GENERAL NOTES:

1. SET POSTS AT 4-FEET MAXIMUM SPACING. IF FACTORY PRE ASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM. 2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT THE POST, FOLD TOGETHER, AND ATTACH TO THE POSTS. 3. REMOVE SEDIMENT DEPOSITS WHEN SILT DEPTH REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE,

FILTER FABRIC BARRIER



A. TYPES OF FILTER DAMS

PROTECTION. 1. TYPE 1 (NON-REINFORCED) a. HEIGHT - 18-24 INCHÉS. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.

b. TOP WIDTH - 2 FEET (MINIMUM)

c. SLOPES - 2:1 (MAXIMUM). 2. TYPE 2 (REINFORCED). a. HEIGHT - 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM. b. TOP WIDTH - 2 FEET (MINIMUM).

c. SLOPES - 2:1 (MAXIMUM). 3. TYPE 3 (REINFORCED) a. HEIGHT - 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM. b. TOP WIDTH - 2 FEET (MINIMUM).

c. SLOPES - 3:1 (MAXIMUM). 4. TYPE 4 (GABION) FROM EXISTING GROUND TO TOP OF FILTER DAM.

a. HEIGHT - 30 INCHES (MINIMUM). MEASURE VERTICALLY b. TOP WIDTH - 2 FEET (MINIMUM). 5. TYPE 5. AS SHOWN ON THE PLANS.

SECTION B-B

B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.

1. TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS. 2. PLACE GRANULAR FILL ON THE WIRE MESH TO HEIGHT AND

SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE a. 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4, b. 4-8 INCHES FOR ROCK FILTER DAM TYPE REFER TO GRANULAR FILL IN SPECIFICATION SECTION No. 02378

RIPRAP AND GRANULAR FILL. 3. FOLD WIRE MESH AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. 4. IN STREAMS: SECURE OR STAKE MESH TO STREAM BED

PRIOR TO AGGREGATE PLACEMENT. 5. SEE HCFCD SPECIFICATION SECTION NO. 02364-FILTER DAMS.
6. EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.

FILTER DAM

OUTFALL PIPE

RFD-TYPE) SYMBOL



THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN ONE (1) YEAR FROM DATE OF APPROVAL.

DEVELOPMENT COORDINATOR

DATE:



SEE SHT C-0 FOR TOPOGRAPHIC SURVEY SEE SHT C-1 FOR GRADING & DRAINAGE SEE SHT C-2 FOR STORM SEWER & WATER LAYOUT SEE SHT C-2A FOR STORM SEWER CALCULATION TABLE SEE SHT C-3 FOR PAVING JOINT LAYOUT SEE SHT C-4 FOR SWPPP SEE SHT C-5 FOR SWPPP NOTES & DETAILS SEE SHT C-6 FOR GENERAL NOTES & DETAILS

SHT C-7 FOR DIMENSIONED SITE PLAN SEE SHT C-8 FOR DRIVEWAY TCP SEE SHT C-9 TO C-20 FOR CITY OF RICHMOND DETAILS

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CO

LEGEND

TEXAS ENGINEERING AND MAPPING CO. 12718 CENTURY DRIVE STAFFORD, TEXAS 77477 PHONE: 281.491.2525 FAX: 281.491.2535 urveying firm no. 10119000 / Engineering firm no. F-2906 www.team-civil.com

CS DRAWN BY: DATE: 06-01-18 1375-1 JOB NO: REVISION DATE: N/A

. STORM SEWER PIPE SHALL BE ADS N-12 PIPE (CORRUGATED POLYETHYLENE PIPE) PER A.S.T.M. F-405, A.S.T.M. F-667, A.S.T.M. D-2321, AND AASHTO M-294. BEDDING, BACKFILLING, INSTALLATION OF PIPE, AND CONSTRUCTION OF APPURTENANCES SHALL BE IN ACCORDANCE WITH FORT BEND COUNTY, AND CITY OF RICHMOND, SPECIFICATIONS FOR SEWER CONSTRUCTION, INCLUDING ALL AMENDMENTS AND REVISIONS, THERETO.

2. WATER LINES SHALL BE PVC (POLY-VINYL CHLORIDE) PIPE CONFORMING TO A.W.W.A. C-900 PVC, CLASS 150 OR SCHEDULE 40 PVC OR PER FORT BEND COUNTY, AND CITY OF RICHMOND AND/OR DISTRICT REQUIREMENTS.

3. PVC PIPE BID IN THIS CONTRACT SHALL CONFORM TO THE MOST CURRENT A.W.W.A. AND A,S.T.M. REQUIREMENTS (INCLUDING A.S.T.M. D2412-PIPE STIFFNESS).

4. CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE AS REQUIRED BY THE DISTRICT.

5. ALL UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN AT THE APPROXIMATE LOCATIONS BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL FIELD DETERMINE THE EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION. HE SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND MAINTAIN THESE UNDERGROUND UTILITIES.

6. CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT ALL POINTS OF CROSSING TO DETERMINE IF CONFLICT EXISTS BEFORE COMMENCING ANY CONSTRUCTION. NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICT.

7. OWNER TO OBTAIN ALL PERMITS REQUIRED BY FORT COUNTY FOR CONSTRUCTION OF UTILITIES AND/OR CULVERTS WITHIN COUNTY ROAD RIGHT-OF-WAY.

8. CONTRACTOR TO OBTAIN ALL PERMITS BY REGULATION OF FORT BEND COUNTY, TEXAS FOR FLOOD PLAN MANAGEMENT.

9. ALL FILL COMPACTION AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH SOIL REPORT SPECIFICATIONS.

10. THE WORK AREA SHALL BE BARRICADED AND ILLUMINATED DURING DARKNESS AND PERIODS OF INACTIVITY. WHEN IN AN AREA OF DIRECT PUBLIC ACCESS.

11. CONTRACTOR SHALL PROVIDE SHEETING, SHORING, AND BRACING AS NECESSARY TO PROTECT WORKMEN AND EXISTING UTILITIES DURING ALL PHASES OF CONSTRUCTION.

12. UTILITIES ARE TO BE TAKEN WITHIN FIVE (5) FEET OF BUILDING. SEE PLUMBING SHEETS INDICATED FOR CONTINUATION OF SERVICE CONNECTIONS INTO BUILDING.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ALL

14. ALL FINISHED GRADES SHALL VARY UNIFORMLY BETWEEN FINISHED ELEVATIONS AS SHOWN. 15. CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY LINES.

16. CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED BY ALL GOVERNING AGENCIES.

17. CONTRACTOR TO COORDINATE WITH ARCHITECTS AND M.E.P. DRAWINGS FOR CONNECTION AND LOCATION OF ALL DOWN SPOUTS AND ALL PLUMBING UTILITIES.

18. OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL RELIANT ENERGY H.L.&P. AT 713-207-7777.

19. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS M.U.T.C.D. MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.

20. CAUTION: UNDERGROUND GAS FACILITIES ENTEX MAIN LINES (TO INCLUDE UNIT GAS TRANSMISSION, AND/OR INDUSTRIAL GAS SUPPLY CORPORATION WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 713-223-4567 OR 1-800-669-8344 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

* WHEN RELIANT ENERGY ENTEX PIPE LINE MARKINGS ARE NOT VISIBLE, CALL 713-967-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE

* WHEN EXCAVATING WITHIN EIGHTEEN (18) INCHES OF THE INDICATED LOCATION OF RELIANT ENERGY ENTEX FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING

NON-MECHANIZED EXCAVATING PROCEDURES. * WHEN RELIANT ENERGY ENTEX FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING. 21. AT&T TEXAS/SWBT UTILITIES MAY EXIST IN STREET RIGHT OF WAY. THE CONTRACTOR

SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

22. ALL EXISTING POWER POLES, LIGHT STANDARDS, SIGNS, ETC. WHICH AFFECT THE PROPOSED CONSTRUCTION, SHALL BE REMOVED AND/OR RELOCATED AS REQUIRED WHETHER SHOWN ON DRAWINGS OR NOT.

23. THE CONTRACTOR SHALL PROVIDE A TRENCH SAFETY SYSTEM TO MEET APPROPRIATE REQUIREMENTS ESTABLISHED IN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SAFETY & HEALTH REGULATIONS, 29 CFR 1926, SUBPART P - EXCAVATIONS, TRENCHING, AND SHORING, AND OSHA PROPOSED STANDARDS ON TRENCHING, EXCAVATION PUBLISHED IN VOLUME 52, NO. 72 OF THE FEDERAL REGISTER, APRIL 15, 1987, PAGES 12288-12339. SHOULD THE REFERENCED OSHA STANDARDS BE MODIFIED OR AMENDED, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.

24. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY.

25. GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES SHALL BE OBSERVED.

26. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.00% PER ADA REQUIREMENTS. 27. THE CONTRACTOR SHALL NOT MAKE ANY FIELD MODIFICATION WITHOUT THE APPROVAL OF THE ENGINEER, TEXAS ENGINEERING AND MAPPING CO., (281) 491-2525. THE APPROVAL MUST BE OBTAINED PRIOR TO RESUMING ANY CONSTRUCTION IN THE AFFECTED AREA.

FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING.

6. A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.

IMPROVEMENTS WITHIN COUNTY ROAD RIGHT OF WAYS.

FORT BEND COUNTY ENGINEERING

FORT BEND COUNTY

TO THE APPROVAL AND ACCEPTANCE OF IMPROVEMENTS IN SUBDIVISION AS CURRENTLY AMENDED.

8. ALL WEATHER ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.

ALL ROAD WIDTHS, CURB RADII AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB.

CONSTRUCTION-GENERAL NOTES

TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION OF ORTBENDCOUNTYTX.GOV

EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET.

0.D. + 12'GROUND MATCH EXISTING STANDARD BACKFILL (CEMENT STABILIZED SAND UNDER PAVEMENT)

TRENCH WIDTH

NATURAL

GENERAL NOTES:

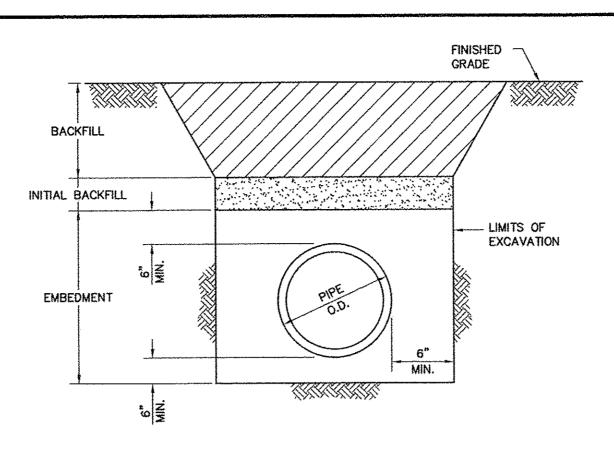
1. BACKFILL SHALL BE NATIVE SOIL, FREE OF DEBRIS, PLACED IN LIFTS OF EIGHT (8) INCHES OR LESS, COMPACTED TO 95% STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED UNDER PAVEMENT.

2. BACKFILL UNDER PAVEMENT AND PUBLIC STREETS SHALL BE CEMENT STABILIZED SAND (2.0 SACKS OF CEMENT PER CUBIC YARD OF SAND), COMPACTED TO 95% STANDARD PROCTOR DENSITY.

3. TRENCH SHORING, IN ACCORDANCE WITH OSHA, SHALL BE INSTALLED AS REQUIRED.

WATER MAIN BEDDING AND BACKFILL

N.T.S.



1. BACKFILL SHALL BE NATIVE SOIL, FREE OF DEBRIS, COMPACTED TO 95% STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED UNDER PAVEMENT.

2. INITIAL BACKFILL SHALL BE UNIFORMLY GRADED MATERIAL (MAXIMUM SIZE, 3" DIAMETER), PLACED IN 8" LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED UNDER PAVEMENT.

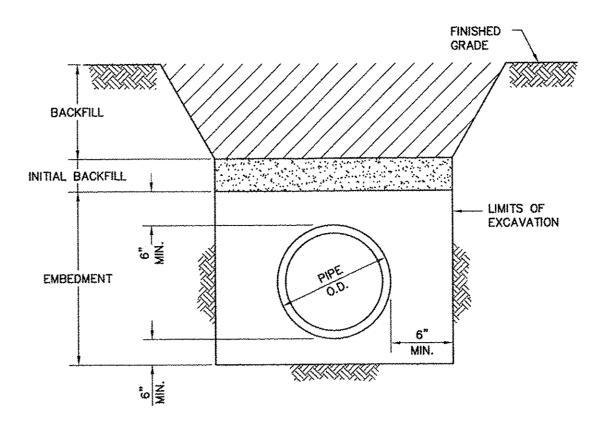
3. EMBEDMETN SHALL BE CEMENT STABILIZED SAND (2.0 SACKS PER CUBIC YARD) COMPACTED TO 95% STANDARD PROCTOR DENSITY.

4. UNDER PAVING OR WITHIN 3' OF PAVEMENT, THE INITIAL BACKFILL AND ALL BACKFILL UP TO THE PAVEMENT SUBGRADE SHALL BE CEMENT STABILIZED SAND (1.5 SACKS PER CUBIC YARD) COMPACTED TO 95% STANDARD PROCTOR DENSITY.

5. TRENCH SHORING IN ACCORDANCE WITH OSHA, SHALL BE INSTALLED WHERE

6. SOIL IN THE PIPE ZONE SHALL CONSIST OF NON-WATERBEARING, COHESIVE SOILS WITH A SHEAR STRENGTH OF 1000 PSF OR GREATER. WHEN WET SAND EXISTS IN THE PIPE ZONE, MODIFIED BEDDING SHALL BE INSTALLED.

STORM SEWER BEDDING AND BACKFILI



1. BACKFILL SHALL BE NATIVE SOIL, FREE OF DEBRIS, COMPACTED TO 95% STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED UNDER PAVEMENT.

2. INITIAL BACKFILL SHALL BE UNIFORMLY GRADED MATERIAL (MAXIMUM SIZE, 3" DIAMETER), PLACED IN 8" LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED UNDER PAVEMENT.

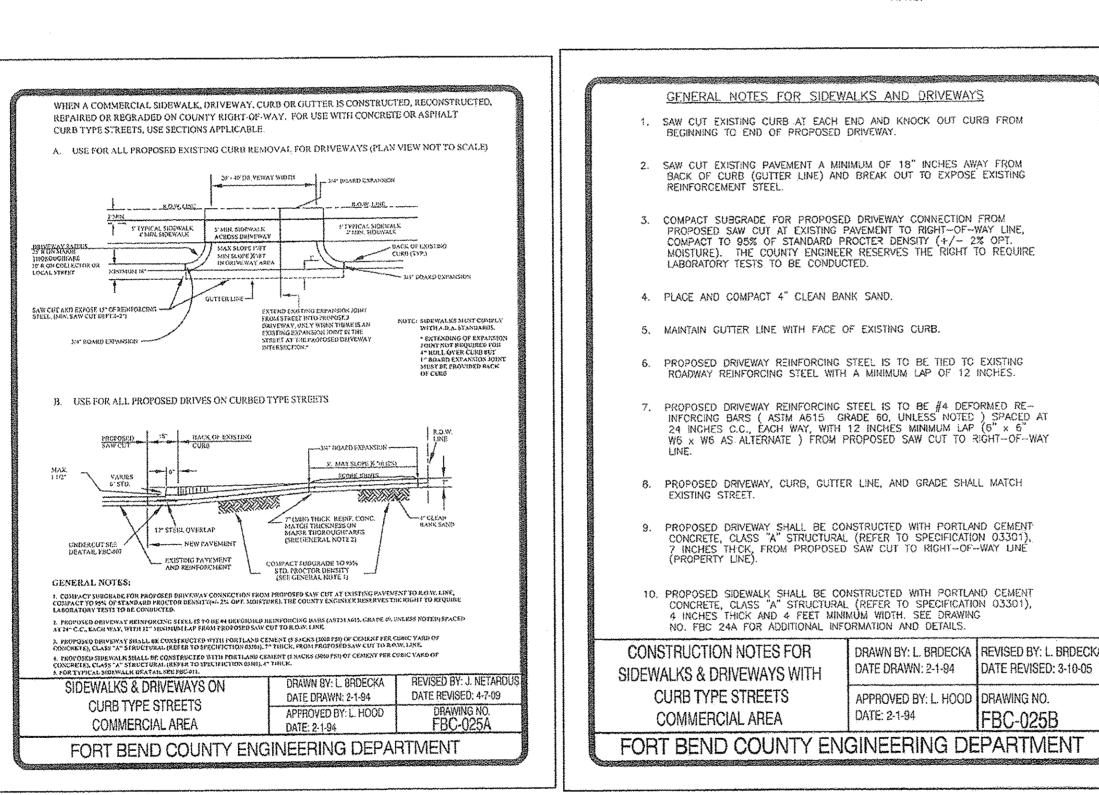
3. EMBEDMETN SHALL BE CEMENT STABILIZED SAND (1.5 SACKS PER CUBIC YARD) COMPACTED TO 95% STANDARD PROCTOR DENSITY.

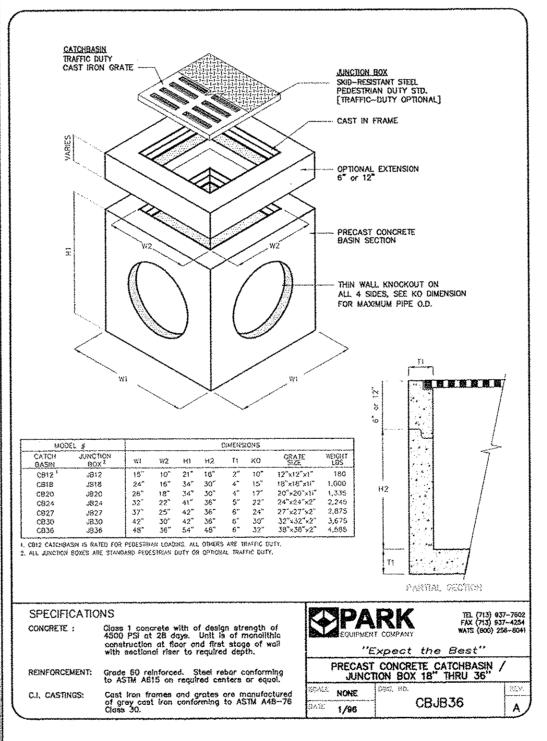
4. UNDER PAVING OR WITHIN 3' OF PAVEMENT, THE INITIAL BACKFILL AND ALL BACKFILL UP TO THE PAVEMENT SUBGRADE SHALL BE CEMENT STABILIZED SAND (1.5 SACKS PER CUBIC YARD) COMPACTED TO 95% STANDARD PROCTOR DENSITY.

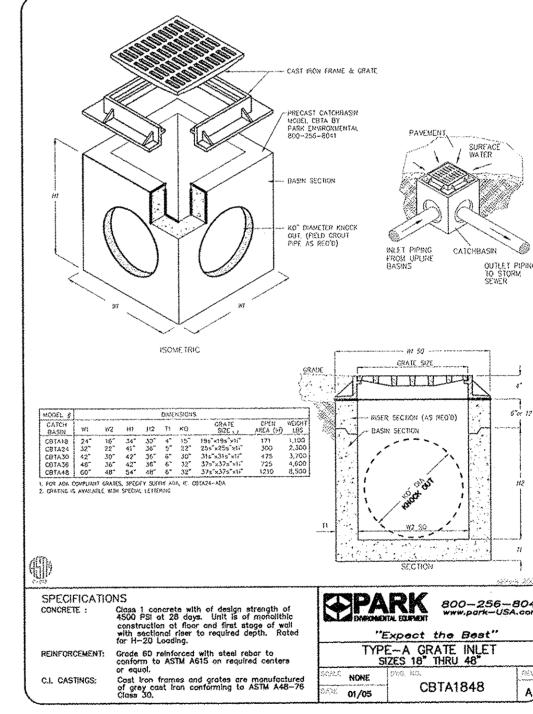
5. TRENCH SHORING IN ACCORDANCE WITH OSHA, SHALL BE INSTALLED WHERE

3. SOIL IN THE PIPE ZONE SHALL CONSIST OF NON-WATERBEARING, COHESIVE SOILS WITH A SHEAR STRENGTH OF 1000 PSF OR GREATER. WHEN WET SAND EXISTS IN THE PIPE ZONE, MODIFIED BEDDING SHALL BE INSTALLED.

SANITARY SEWER BEDDING AND BACKFILL







APPROVED JUL 2 4 2018 Valid One Year

THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN ONE (1) YEAR FROM DATE OF APPROVAL. DEVELOPMENT COORDINATOR

SEE SHT C-0 FOR TOPOGRAPHIC SURVEY

SEE SHT C-3 FOR PAVING JOINT LAYOUT SEE SHT C-4 FOR SWPPP

FE SHT C-5 FOR SWPPP NOTES & DETAILS SEE SHT C-6 FOR GENERAL NOTES & DETAILS SEE SHT C-7 FOR DIMENSIONED SITE PLAN

SEE SHT C-9 TO C-20 FOR CITY OF RICHMOND DETAILS

TEXAS ENGINEERING AND MAPPING CO. 12718 CENTURY DRIVE

STAFFORD, TEXAS 77477

PHONE: 281.491.2525 FAX: 281.491.2535

urveying firm no. 10119000 / Enginkering firm no. F-290

www.team-civil.com

DRAWN BY:

DATE:

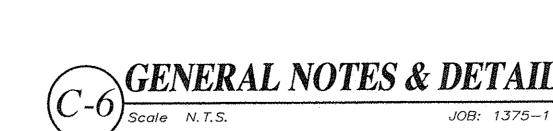
JOB NO:

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SEE SHT C-1 FOR GRADING & DRAINAGE SEE SHT C-2 FOR STORM SEWER & WATER LAYOUT SEE SHT C-2A FOR STORM SEWER CALCULATION TABLE

SEE SHT C-8 FOR DRIVEWAY TCP

REVISION DATE: N/A

X

GREGORY A. SCHMIDT

10. AT ALL INTERSECTION LOCATIONS, TYPE 7 RAMPS SHALL BE PLACE IN ACCORDANCE WITH TXDOT PED-12A STANDARD DETAIL SHEET. A.D.A.-HANDICAP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS. 11. CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS. 12. ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED. 13. GUIDELINES ARE SET FORTH IN THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". AS CURRENTLY AMENDED, SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING, AND WARNING DEVICES, ETC., DURING CONSTRUCTION -14. ALL R1-1 STOP SIGNS SHALL BE 30"X30" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. 15. STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BLADE W/REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWERCASE LETTERING WITH UPPERCASE LETTERS OF 6" MINIMUM AND LOWERCASE LETTER OF 4.5" MINIMUM. THE LETTERS SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE MOUNTED ON STOP SIGN POST.

CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOUR NOTICE

ALL PAVING IMPROVMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY "RULES, REGULATIONS AND REQUIREMENTS" RELATING

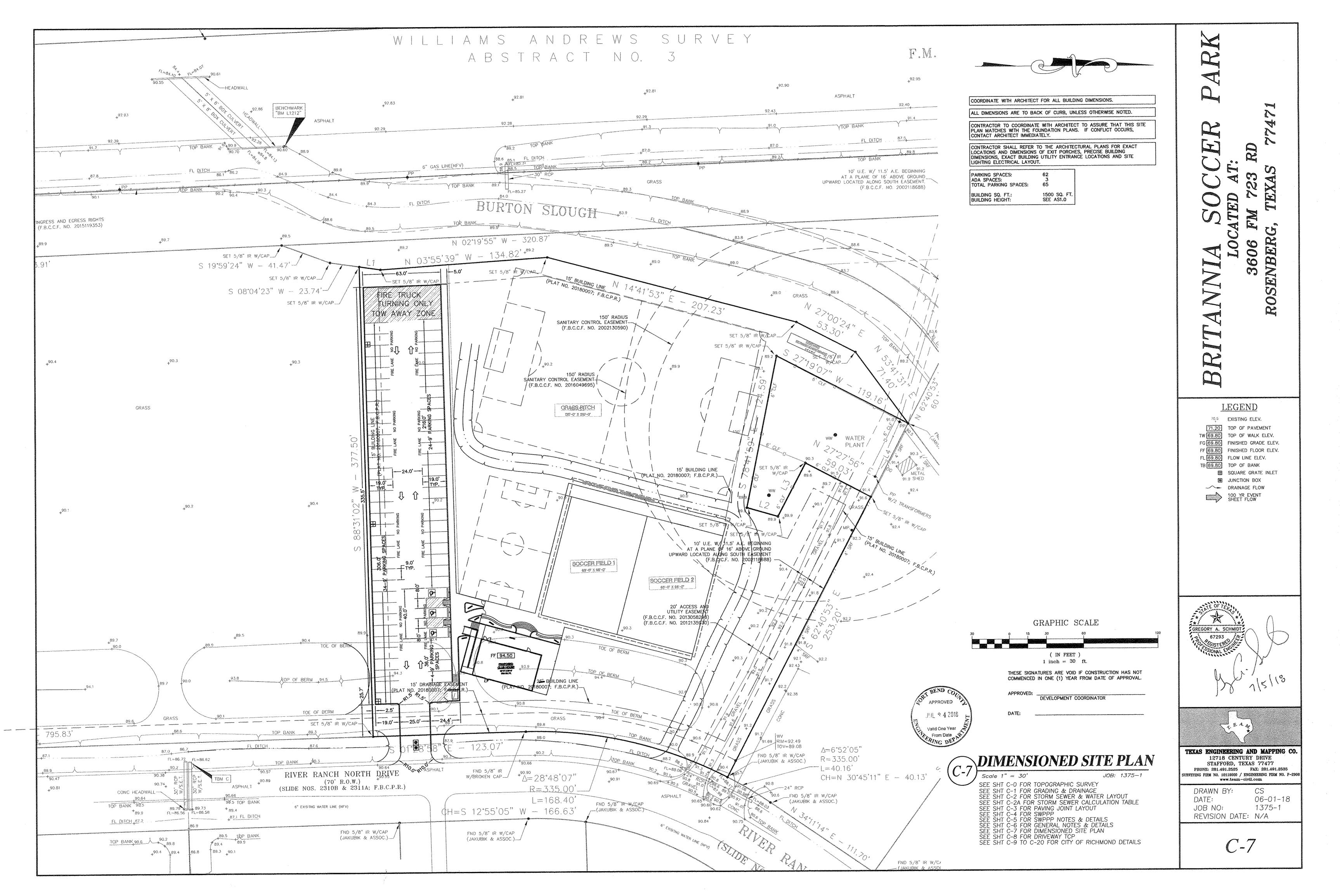
CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY

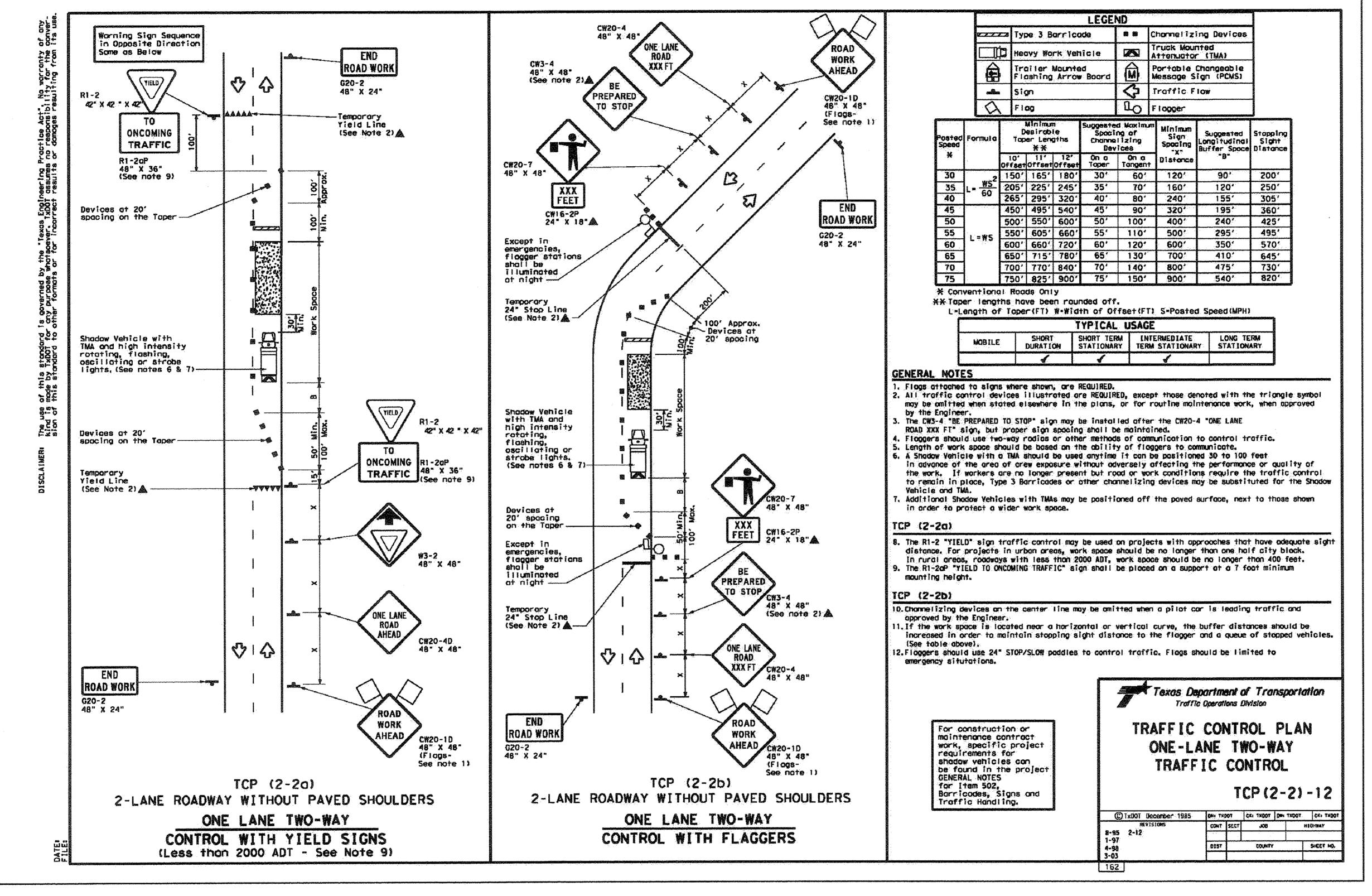
7. ALL CONCRETE PAVEMENT SHALL BE 5 1/2 SACK CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. TRANSVERSE

9. 4"X12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 5" REINFORCED

16. A BLUE DOUBLE REFLECTORIZED BUTTON SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12 INCHES OFF OF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT. 17. THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR REJECT ANY OF THE WORK AS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PRODUCT SHALL BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF IT OBLIGATIONS HEREUNDER.

NOTE: FORT BEND COUNTY NOTES SUPERSEDE ANY CONFLICTING NOTES.





APPROVED JUL 2 4 2018 Valid One Year From Date

THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN ONE (1) YEAR FROM DATE OF APPROVAL.

DEVELOPMENT COORDINATOR

DRIVEWAY TCP

JOB: 1375-1 SEE SHT C-O FOR TOPOGRAPHIC SURVEY SEE SHT C-0 FOR TOPOGRAPHIC SURVEY
SEE SHT C-1 FOR GRADING & DRAINAGE
SEE SHT C-2 FOR STORM SEWER & WATER LAYOUT
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SEE SHT C-8 FOR DRIVEWAY TCP
SEE SHT C-9 TO C-20 FOR CITY OF RICHMOND DETAILS

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TEXAS ENGINEERING AND MAPPING CO. 12718 CENTURY DRIVE STAFFORD, TEXAS 77477 PHONE: 281.491.2625 FAX: 281.491.2535 urveying firm no. 10119000 / Engineering firm no. F-2900 www.team-civil.com

CS DRAWN BY: 06-01-18 DATE: 1375-1 JOB NO: REVISION DATE: N/A

C-8

1) ALL UNLIFY SERVICE DINES ARE NOT SHOWN ON THE DRAWNOS CONSTRUCTION. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UTILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATIONS AND/OR DEPTHS, AND TO DETERMINE WHETHER ANY ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THESE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL DETERMINE IF ANY O THESE UTILITIES AND SHALL PRESERVE AND PROTECT ALL OF THESE UTILITIES SHOWN OR FOUND. IN CONFLICTS ARISE REGARDING PUBLIC UTILITIES, THE CONTRACTOR SHOULD HAMEDIATELY NOTIFY THE PROJECT CONTRACTOR'S EXPENSE.
3) TEXAS ONE CALL 1-800-245-4545 8) AT&T
4) CENTERPOINT ENERGY-GAS 281-342-8881 7) COMCAST
5) CENTERPOINT ENERGY-ELECTRIC 281-341-4930 8) CITY OF RICHMOND

) ALL LITELITY SERVICE LINES ARE NOT SHOWN ON THE DRAWINGS. CONTRACTORS SHALL ANTICIPATE THAT SUC

20. AI&I ILLEPHONE

1) THE CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF UTILITIES BY CALLING TEXAS ONE—CALL SYSTEM AT LEAST 72 HOURS BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE THE UNDERGROUND UTILITIES. 2) CONTRACTOR SHALL HAND DIG WITHIN ONE (1) FOOT OF AT&T UNDERGROUND CONDUIT OR CABLE SYSTEMS.

6-27. CENTERPOINT ENERGY (ELECTRIC)

1. OVERNEAD LINES EXIST ON THE PROPERTY AND APPROXIMATE LOCATIONS ARE SHOWN ON THE DRAWINGS.

1. CONTRACTOR SHALL VERIFY THEIR LOCATION PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH AND SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (8) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. CONTRACTOR IS LEGALLY RESPONSIBLE FOR SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW TO ARRAINGE FOR LINES TO BE TURNED OFF OR MOVED AND LOCATE EXISTING UNDERGROUND UTILITIES, CALL CENTERPOINT ENERGY AT LEAST 72 HOURS BEFORE COMMENCING WORK. 2. CONSTRUCTION THAT WILL REQUIRE EXCAVATION CLOSER THAN THREE (3) FEET TO CENTERPOINT FACILITIES SHALL BE BORED AND JACKED WITH THE WRITTEN APPROVAL FROM CENTERPOINT.

 CONTRACTOR SHALL HAND DIG WITHIN ONE (1) FOOT OF CENTERPOINT ENERGY UNDERCROUND CONDUIT OR AS OTHERWISE REQUIRED BY CENTERPOINT. G-28. CENTERPOINT ENERGY (GAS) CAUTION: UNDERGROUND GAS FACILITIES
LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WMERE
APPLICABLE) ARE SHOWN IN AM APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN OUR
SIGNATURE ON THESE PLANS GNLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES
NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE, THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING
COMMITTEE AT (713) 223-4657, 1-800-680-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO
HAVE MAIN AND SERVICE LINES FIELD LOCATED.

WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS. WHEN EXCAVATION WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MACHANIZED EXCAVATION PROCEDURES WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PEPING.
FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3552 OR (713) 207-4290

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, FLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-8248 OR (713) 207-5769 129. COMCAST — THE CONTRACTOR SHALL NOTIFY COMCAST AT LEAST 72 HOURS BEFORE COMMENCING WORK TO LOCATE EXISTING UNDERGROUND CABLE,

:- 30. ALL PIPE AND REINFORCEMENT STEEL SHALL BE KEPT FREE OF DIRT AND DEBRIS. ANY DAMAGE TO THE COATINGS OF THE VARIOUS MATERIALS MUST BE REPAIRED OR REPLACED BY THE CONTRACTOR WITH APPROVAL BY THE CITY. G-31. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE AND POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION. C-32. NO CONNECTIONS SHALL BE MADE TO THE EXISTING WATER LINES OR SANITARY SEWERS UNTIL ALL PROPOSED LINES HAVE GEEN THOROUGHLY CLEANED. TESTED AND APPROVED BY THE CITY.

6-33. CONTRACTOR SHALL VERIFY PUBLIC INFRASTRUCTURE, ALICAMENT, CENTERLINE CURVE DATA AND STATIONING WITH APPROVED SUBDIVISION PLAT AND APPROVED PLANS. 6-34, ALL BACKFILL (INCLUDING CEMENT STABILIZED SAND) SHALL BE PLACED IN LIFTS THAT DO NOT EXCEED 8" (LOOSE). SHALL BE COMPACTED TO 93% STANDARD PROCTOR DENSITY AND BE TESTED BY A CERTIFIED TESTING LABORATORY.

G-36. A CONSTRUCTION PROJECT THAT REQUIRES THE SWPPP, IT MUST BE INSTALLED BEFORE THE WORK BEGINS, IT MUST BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

G-37, CONTRACTOR SHALL CONTACT CITY PUBLIC WORKS DEPARTMENT IMMEDIATELY IF WET SAND CONDITIONS ARE ENCOUNTERED. NO BEDDING SHALL BE INSTALLED IN WET CONDITIONS, WHEN WELL POINTING OR IN WET SAND CONDITIONS, MAINTAIN GROUND WATER 1' (FT.) BELOW BOTTOM OF TRENCH FOR A MINIMUM OF 24 HOURS AFTER BEDDING AND BACKFILL IS IN PLACE.

G-38. IN THE EVENT OF CONFLICT BETWEEN THE CITY OF RICHMOND DETAIL SPECIFICATIONS, CONSTRUCTION NOTES, OR CITY OF RICHMOND PUBLIC INFRASTRUCTURE DESIGN MANUAL, OR THE MORE STRINGENT REQUIREMENTS WILL GOVERN.

WATER DISTRIBUTION NOTES

W-1. EXCEPT AS OTHERWISE REQUIRED, WATER MAINS FOUR INCHES (4") THROUGH TWELVE INCHES (12") SHALL BE AWWA C-900, AWWA C-909 CLASS 150, DR 18.

WATER MAINS LESS THAN 4 INCHES (4") DIAMETER SHALL BE PVC, ASTM 0-2241, SDR-21 (PR-200), WITH RUBBER CASKET JOINTS OR APPROVED EQUAL. ALL POTABLE WATER PIPE USED IN THE PROJECT MUST MEET THE REQUIREMENTS OF AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION STANDARD 61 (ANSI/NSF61). PIPE SHALL BE CERTIFIED TO CONFORM TO ANSI/NSF-61 AND SHALL BE MARKED 'NSF-PW'.

W-2 ALTERNATIVE WATER MAIN PIPE MATERIAL (WITH APPROVAL OF THE CITY):

A) STEEL ANWA C200, 150 PSI FOR LINES 4-INCHES TO 12-INCHES, 235 PSI FOR LINES GREATER THAN 12-INCHES, ALL PIPE COATINGS SHALL BE IN ACCORDANCE WITH AWAY C210, ALL NUTS AND BOLTS SHALL BE EPOXY COATED. B) DUCTILE IRON: AWWA C151 (ANSI A21.51) FOR LINES 4-INCHES TO 54-INCHES. PIPE SHALL BE LINED WITH POLYWRAP IN ACCORDANCE WITH AWWA C104 (ANSI A21.4).

W-J. INSTALLATION OF WATER MAINS SHALL BE IN ACCORDANCE WITH CURRENT AWWA APPROVED METHODS, STANDARDS AND MATERIALS, TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (T.C.E.Q.) REGULATIONS AND CITY STANDARDS, CODES AND ORDINANCES. W-4. ALL WATER MAINS SHALL HAVE A MINIMUM 3.5 FEET AND A MAXIMUM 5 FEET OF COVER WHEN CONSTRUCTED IN STREET RIGHTS-OF-WAY OR EASEMENTS, UNLESS APPROVED BY THE CITY.

W-5. FIRE HYDRANTS SHALL BE SET BEHIND BACK OF CURB AT APPROVED LOCATIONS. CENTER LINE OF FIRE HYDRANTS SHALL BE THREE (3) FEET FROM BACK OF CURB OF THE STREET UNLESS OTHERWISE REQUIRED IN THE PLANS. FIRE HYDRANTS SHALL BE INSTALLED A MINIMUM OF TEN (10) FEET FROM ALL SANITARY SEVERS AND APPURTENANCES. FIRE HYDRANTS SHALL BE LOCATED OPPOSITE PROPERTY LINES OR RIGHT-OF-WAY LINE EXTENSIONS, UNLESS OTHERWISE APPROVED BY THE CITY. W-6. CATE VALVES, FIRE HYDRANTS AND BLOWOFFS SHALL BE COUNTER-CLOCKWISE OPENING.

W-7. ALL FITTINGS, VALVES AND FIRE HYDRANTS SHALL BE CAST IRON MECHANICAL JOINT TYPE UNLESS APPROVED IN WRITING BY THE CITY. ALL MECHANICAL JOINTS SHALL BE INSTALLED WITH MECHANICAL RESTRAINED JOINTS (EBAA IRON, INC., SERIES 2000PV OR EQUAL). NIPPLES FROM FITTING TO FITTING AT GATE VALVES SHALL BE 18" IN LENGTH. W-9. THE CONTRACTOR SHALL PROVIDE FOR A MINIMUM OF SIX INCHES (6") CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS AND THENTY-FOUR INCHES (24") MINIMUM CLEARANCE AT SANITARY SEWER AND WATER LINE CROSSINGS. WATER LINES SHALL BE LOCATED AT A HIGHER ELEVATION THAN THE SEWER WHEREVER POSSIBLE. WHEN NOT POSSIBLE, T.C.E.Q., TRULES AND REGULATIONS FOR PUBBLIC WATER SYSTEMS", ARTICLE 290.44 WILL TAKE PRECEDENCE. IF A CONFLICT EXISTS, THE CONTRACTOR SHALL ADVISE THE DIRECTOR PUBBLIC WARKS AND WATER SUPERNITENDENT INMEDIATELY AND SHALL NOT CONTINUE FURTHER CONSTRUCTION WITHOUT CITY APPROVAL.

W-10. ABANDONMENT OF EXISTING WATER LINES SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH APPROVED PLANS OR WHEN APPROVAL FROM THE CITY PUBLIC WORKS DIRECTOR OR WATER SUPERINTENDENT IS OBTAINED IN WRITING.

W-11. TAPPING SLEEVE & VALVES ON THE EXISTING CITY WATER SYSTEM WILL BE INSTALLED BY A CITY APPROVED TAPPING CONTRACTOR. W-12. NO CONNECTION SHALL BE MADE TO ANY EXISTING WATER LINES UNTIL THE NEW WATER LINES HAVE BEEN THORROGOLLY STERLIZED, CLEANED AND TESTED AND FINAL APPROVAL FROM THE CITY'S AUTHORIZED AGENT HAS DEED ACTIVITY OF WATER OF WEIGHT AND THE CITY'S AUTHORIZED AGENT HAS DEED ACTIVITY OF WATER OF W-13, ALL VALVES AND HYDRANTS SHALL BE STORED SO THAT THEY ARE PROTECTED FROM FREEZING.

W-14 ALL PRESSURE PIPE INSTALLATIONS SHALL BE TESTED FOR LEAKAGE. TEST PRESSURE SHALL BE 1.5 TIMES THE MAXIMUM DESIGN PRESSURE OR 150 PSIG, WHICHEVER IS CREATER. THE TEST SHALL HAVE A MINIMUM DURATION OF FOUR HOURS AND SHALL BE OBSERVED BY THE AUTHORIZED REPRESENTATIVE OF THE CITY PUBLIC WORKS DEPARTMENT W-15. STERILIZATION OF NEW WATER LINES SHALL BE DONE IN ACCORDANCE WITH AWWA C-651, LATEST EDITION. A MINIMUM OF ONE SAMPLE PER 1000 FEET OF WATER MAIN OR ONE SAMPLE PER SEPARATION SECTION OF WATER MAIN SHALL BE COLLECTED. IF THE SAMPLES FALL TO MEET THE T.C.E.Q. DRINKING WATER STANDARD REQUIREMENTS, THE FLUSHING AND TESTING PROCESS SHALL BE REPEATED.

W-16, WATER UNES SHALL HAVE SAND EMBEDMENT TO TWELVE (12) INCHES ABOVE THE TOP OF PIPE. W-17. WATER LINE TRENCHES LINDER PAVEMENT OR WITHIN THREE (3) FEET FROM EDGE OF PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND (2 SACKS OF CEMENT PER TON OF SAND) FROM THE TOP OF THE EMBEDMENT TO THE BASE OF PROPOSED BASE OF PROPOSED PAVING SUBGRADE LESS 6 INCHES. W-18. ALL WATER LINE CONSTRUCTION CROSSING EXISTING ASPHALT AND/OR CONCRETE STREETS SHALL BE BORED AND JACKED, UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER AND THE CITY.

W-20, CONCRETE THRUST BLOCKING IS REQUIRED FOR ALL VALVES, FIRE HYDRANTS AND FITTINGS. W-21. A TRAC-HOE IS NOT A COMPACTOR, USE PROPER COMPACTING METHODS, SUCH AS, SHEEPSFOOT, JUMPING JACK, PLATE, ETC.,

SANITARY SEWER CONSTRUCTION NOTES 5-1. SANITARY SEWERS SHALL BE CONSTRUCTED ACCORDING TO THESE PLANS AND SPECIFICATIONS AND THE CITY AND THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (T.C.E.Q.) RULES AND REGULATIONS.

S-2. ALL MANHOLES SHALL BE PRECAST IN ACCORDANCE WITH DETAILS INCLUDING THE INTERIOR COATING. BRICK MANHOLES ARE NOT ALLOWED. ALL SANITARY MANHOLES SHALL BE INSTALLED WITH INFLOW PROTECTORS.

 POLYMNYL CHLORIDE (PVC), PIPE AND FITTINGS MEETING THE REQUIREMENTS OF ASTM 02241 (SDR 28; PR160). ASTM 01784, ASTM 03212 AND ASTM F477. FOR DEPTH LESS THAN A FEET AND GREATER THAN 20 FEET, DUCTLE IRON (D.I.P.). AWWA C-151, AWWA C-111. STANDARD CLASS 150, WITH BELL AND SPIGOT PUSH-ON
JOHTS, ALL PIPE SHALL HAVE AN INTERIOR POLYETHYLENE COATING OF 40-MILS AND AN EXTERIOR POLYETHYLENE
WRAP OF 8-MILS.

1. PVC. 4-INCH TO 12-INCH, AWWA C900, DR18, CLASS 150, ASTM D3139, ASTM F477. (GREEN COLOR) S-4. ALL D.L.P. SANITARY SEWER PIPES SHALL BE LINED WITH POLYWRAP AND INSTALLED WITH CATHODIC PROTECTION. S-5. THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT LEAST 24 HOURS PRIOR TO PRESSURE AND DEFLECTION TESTS ON ALL GRAVITY SANITARY SEWERS. ALL TESTS SHALL BE MONITORED BY AN AUTHORIZED AGENT OF THE CITY.

S-6. ALL GRAVITY SANITARY SEWER PIPE SHALL BE LOW PRESSURE AIR TESTED AND MANHOLES VACUUM TESTED IN ACCORDANCE WITH T.C.E.O. REQUIREMENTS. FORCE MAINS SHALL BE HYDROSTATIC TESTED AT A MINIMUM OF 150 PSL S-7. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID PIPE. THE CITY MAY REQUIRE SERVICE LEADS TO BE RANDOMLY TESTED. DEFLECTION TESTS SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCRED A DEFLECTION OF 5%. THE TEST SHALL BE CONDUCTED USING A MANDREL HAVING AN OUTSIDE DIAMETER OF THE AFFACE INSIDE DIAMETER OF THE PIPE. THE MANDREL SHALL HAVE A MINIMUM OF 9 RUNNERS WITH THE CONTACT LENGTH OF EACH RUNNER EQUAL TO OR GREATER THAN THE PIPE'S NOMINAL DIAMETER. THE TEST SHALL BE PERFORMED MITHOUT MECHANICAL PULLING DEVICES.

S-B. SANITARY SEWER MANHOLE RIMS, EXCEPT IN PAVED AREAS, SHALL BE SET 4-INCHES ABOVE PRISHED GRADE WITHIN STREET RIGHT-OF-WAY, AND G-INCHES ABOVE PRISHED LCT GRADES WITHIN EASEMENTS. CLEAN FILL MAY BE PLACED ADJUSTING THE MANHOLE AND GRADED AWAY FROM THE RIM FOR SURFACE WATER DRAINAGE.

5-9. SANITARY MANHOLES BELOW THE 100-YEAR FLOOD PLAIN (OR WHERE OTHERWISE REQUIRED) SHALL BE WATERPROOFEL USING A NEOPREME GASKET. ONLY STAINLESS STEEL SCREWS OR NUTS & BOLTS CAN BE USED TO HOLD DOWN THE COVER. A VENT PIPE EXTENDING ONE FOOT ABOVE THE FLOODPLAIN ELEVATION SHALL BE PROVIDED, UNLESS OTHERWISE APPROVED. 5-10. SANITARY UNES AND MANHOLES PARALLEL TO WATER UNES SHALL BE INSTALLED WITH AT LEAST A 9-FOOT HORIZONTAL SEPARATION (OUTSIDE TO OUTSIDE). SANITARY SEWERS INSTALLED CROSSING UNDER WATER MAIN SHALL COMPLY WITH I.C.E.Q. REQUIREMENTS.

S-11. ALL SANITARY SEWERS SHALL BE CONSTRUCTED ON A STRAIGHT ALIGNMENT AND ON A UNIFORM GRADE. GRANTY SEWERS SHALL BE CONSTRUCTED WITH THE PIPE BELL FACING UPSTREAM. ALL 6-INCH SANITARY SERVICE LEADS SHALL BE LAID WITH A MINIMUM GRADE OF 0.70% S-12. ALL SEWER LEADS AND STUBOUTS SHALL BE MARKED IN ACCORDANCE WITH THE DETAILS. THE CONTRACTOR SHA BE RESPONSIBLE FOR MAINTAINING THE MARKERS IN GOOD AND PLUMB CONDITION WITH A VERTICAL AUGMMENT. I DAMAGED, THE CONTRACTOR SHALL REPLACE THE MARKER.

S-13. ALL SEVER LINES (INCLUDING SERVICE LEADS) ENTERING A MANHOLE AT AN ELEVATION GREATER THAN 24-INCHES ABOVE THE MANHOLE INVERT MUST BE CONSTRUCTED WITH AN EXTERIOR DROP PIPE IN ACCORDANCE WITH THE DETAILS.

S-15, CONTRACTOR SHALL PROVIDE ADEQUATE CONCRETE THRUST BLOCKING AT ALL FORCE MAIN BENDS. S-18. AT ALL LOTS WHERE TOP OF PIPE IS GREATER THAN 8-FEET BELOW FINISHED GRADE, PROVIDE A 6-INCH SANTARY SEWER STACK OR RISER, STACKS AND RISERS SHALL BE EXTENDED TO WITHIN 6 FEET OF FINISHED GRADE. STACKS SHALL BE MARKED FOR LOCATION AS INDICATED ON THE DETAILS.

S-17, FORCE MAIN SHALL BE LAID WITH DETECTOR TAPE LAID AT 6" ABOVE THE PIPE. THE DETECTOR TAPE MUST BEAR TH LABEL "PRESSURIZED WASTEWATER" IN 1.5 INCH HIGH LETTERS, REPEATED CONTINUOUSLY, FOR THE ENTIRE LENGTH OF

STORM SEWER NOTES

ST-1. ALL STORM SEWERS SHALL MEET THE REQUIREMENTS OF THE CITY, FORT BEND COUNTY AND FORT BEND COUNTY DRAINAGE DISTRICT (WHEN APPLICABLE). ST-2. ALL STORM SEWER MANHOLE AND INLET COVERS SHALL BE LABELED "STORM SEWER" IN ACCORDANCE WITH THE

ST-3. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE, A.S.T.M. C-78, CLASS III (MINIMUM) INSTALLED. BEDDED AND BACKFILLED IN ACCORDANCE WITH THE CITY DETAILS AND FORT BEND COUNTY DRAINAGE DISTRICT CRITERIA, ALL REINFORCED CONCRETE PIPE 42-INCH DIAMETER AND GREATER SHALL HAVE WATER-TIGHT RUBBER CASKET JOHNS. CONTRACTOR MAY USE TAL-COAT OR EQUAL FOR PIPE JOINTS WITH PIPE LESS THAN 42° DIAMETER. ALL STORM SEWER SHALL BE BACKFILLED WITH SELECT FILL MATERIAL COMPACTED TO 95% STANDARD PROCTOR COMPACTION, ASTM D-688, IN ACCORDANCE WITH THE DETAILS. CONTRACTOR SHALL USE MECHANICAL ROLLER OR HECHANICAL TAMPER IN COMPACTING ALL BACKFILL FOR PROJECT. ST-4. ALL STORM SEWER STRUCTURES SUCH AS MANHOLES AND INLETS SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND, CEMENT STABILIZED SAND BACKFILL SHALL EXTEND A MINIMUM OF TWENTY-FOUR INCHES (24") FROM THE OUTSIDE WALL OF ALL STRUCTURES, (2 SACKS OF CEMENT PER TON OF SAND.)

ST-5. AREAS ADJACENT TO THE PAVEMENT SHALL BE CRADED TO POSITIVELY DRAIN TOWARD INLETS, CONCRETE CURB AND/OR ROAD DITCHES IF DISTURBED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE MATERIALS, LABOR AND EQUIPMENT TO PERFORM ALL GRADING OPERATIONS.

ST-6. CONTRACTOR SHALL ADJUST EXISTING WATER LINE MAINS AND WATER LINE SERVICES IN CONFLICT WITH A STORM SERFE. CONTRACTOR SHALL COORDINATE THE DISRUPTION OF WATER SERVICE DURING THE WATER LINE LOWERING OPERATION WITH THE CITY PUBLIC WORKS DEPARTMENT.

ST-7, ADJUST ALL STORM SEWER MANHOLE COVERS TO MATCH FINISHED GRADE ELEVATIONS. ST-8. ALL PRECAST CONCRETE STRUCTURES SHALL BE REINFORCED AND SHALL BE DESIGNED TO WITHSTAND AASHTO H-20 LOADINGS.

ST-9. ALTERNATIVE STORM SEWER PIPE NATERIAL (WITH APPROVAL OF THE CITY):

A) STEEL: AWWA C200, 150 PSI FOR LINES 4-INCHES TO 12-INCHES, 235 PSI FOR LINES GREATER THAN 12-INCHES.

ALL PIPE COATINGS SHALL BE IN ACCORDANCE WITH AWWA C210, ALL NUTS AND BOLTS SHALL BE EPOXY COATED. B) DUCTILE IRON: AWMA C151 (ANSI A21.51) FOR UNES 4-INCHES TO 54-INCHES. PIPE SHALL BE LINED WITH POLYWRAP IN ACCORDANCE WITH AWWA C104 (ANSI A21.4).

STREET AND PAVING CONSTRUCTION NOTES

P-1. ALL PAYING SHALL BE CONSTRUCTED WITH THE PLANS AND SPECIFICATIONS AND CITY REQUIREMENTS. P-2. THE CONTRACTOR SHALL NOTIFY CITY PUBLIC WORKS DEPARTMENT AT LEAST 24 HOURS PRIOR TO ANY AND ALL SUBGRADE TESTING AND CONCRETE POURS. P-3, ALL TEMPORARY AND PERMANENT SIGNAGE MUST COMPLY WITH THE LATEST REVISION OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

P-4. CONTRACTOR SHALL PROTECT ALL LITLITIES, SIDEWALKS, PAVEMENT, ETC. AND SHALL REPAIR OR REPLACE ANY FACILITIES DAMAGED DURING PAYING OR GRADING OPERATIONS. P-5, EXISTING PAVEMENTS, CURBS, SIDEWALKS DRIVEWAYS, ETC., DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO THE CITY STANDARDS. P-6, ALL DISTURBED AREAS WITHIN STREET RIGHT-OF-WAY AND EASEMENTS NOT COVERED BY PAVEMENT OR STRUCTURE SHALL BE HYDRO-MULCHED AND WATERED UNTIL VEGETATION ESTABLISHMENT.

P-7. AREAS TO BE FILLED SHALL BE CLEARED AND GRUBBED, SCARIFIED AND COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY (+/- 2% OF OPTIMUM MOISTURE) PER ASTM D-628, TO A DEPTH OF 6" PRIOR TO FILL PLACEMENT. FELL MATERIAL SHALL BE PLACED IN MAXIMUM B' THICK LIFTS (MEASURED LOOSE) AND COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY (+/- 2% OF OPTIMUM MOISTURE) PER ASTM D-698. FILL SHALL BE CLEAN EARTH AND BE FREE FROM TRASH, VEGETATION AND LARGE STONES. TEST REPORTS INDICATING COMPLIANCE WITH DENSITY REQUIREMENTS SHALL BE SUBMITTED TO THE CITY PRIOR TO PLACEMENT OF PAYEMENT.

P-8. THE SUBGRADE IS TO BE SCARIFIED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY (+/- 2% OF CPTIMUM MOISTURE) PER ASTM 0-698. THE SUBGRADE SHALL BE STABBLZED TO 8" DEPTH WITH A MINIMUM EIGHT PERCENT (8%) LIME BY WEIGHT OR AS REQUIRED TO ACHIEVE A STABBLZED SOR P.I. OF 20 OR LESS. UME REQUIREDMENTS SUBGRADE SHALL EXTEND A MINIMUM OF 2-FEET BEHIND THE BACK OF ALL CURB AND BEYOND THE EDGE. OF PAVEMENT. P-8, TESTING OF FILL SUBGRADE AND PAVEMENT TO DOCUMENT COMPLIANCE WITH THE CITY REQUIREMENTS SHALL BE COMPLETED BY A CERTIFIED (REFERENCE: THE ASSOCIATION FOR LABORATORY ACCREDITATION) TESTING LABORATORY APPROVED BY THE CITY. A COPY OF ALL YEST RESULTS SHALL BE SUBMITTED TO THE CITY PUBLIC WORKS

P-10. ALL INTERSECTION EDGE RETURN RADII SHALL BE 25 FEET ON LOCAL RESIDENTIAL AND MINOR COLLECTOR STREETS.
ALL CIL-DE-SAC RETURN RADII SHALL BE 3.5 FEET UNLESS NOTED OTHERWISE. MINIMUM GRADES AT INTERSECTIONS
AND IN CUL-DE-SACS SHALL BE 1.00% MINIMUM CRADE ON CURB AND GUTTER STREETS SHALL BE 0.30%.

P-11, PAVING JOINTS (TRANSVERSE AND LONGITUDINAL) SHALL BE IN ACCORDANCE WITH THE DETAILS. P-12. WHEN A THICKER PAVEMENT ROADWAY INTERSECTS WITH A THINNER PAVEMENT ROADWAY, THE THICKER PAVEMENT SHALL BE CONSTRUCTED FOR THE ENTIRE INTERSECTION TO THE CURB RETURNS ON ALL INTERSECTING STREETS. P-13, WHERE PROPOSED PAVEMENT IS TO CONNECT TO EXISTING CONCRETE PAVEMENT, THE CONNECTION SHALL BE COMPLETED IN ACCORDANCE WITH THE PAVEMENT UNDERCUT DETAIL.

P-14. SIDEWALKS SHALL BE LOCATED AS SHOWN ON THE PLANS. SIDEWALK RAMP CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (T.A.S.) AND CITY REQUIREMENTS. P-15. ALL INTERSECTIONS SHALL BE CONSTRUCTED WITH SIDEWALK RAMPS IN ACCORDANCE WITH THE TEXAS ACCESSIBILITY STANDARDS, THE AMERICAN DISABILITIES ACT AND THE CITY REQUIREMENTS. P-16. CONCRETE SHALL CONTAIN A MANMUM 5-1/2 SACKS OF FORTLAND CEMENT PER CUBIC YARD OF CONCRETE WITH A MINIMUM 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4 NICHES AND AN AIR CONTENT OF 4.5 PERCENT. AIR ENTRAINMENT ADMIXTURES SHALL CONFORM TO ASTM C260. FLYASH IS NOT ALLOWED.

P-17. CONCRETE PAVEMENT THICKNESSES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS. REINFORCING STEEL SHALL CONFORM TO ASTM A-515, GRADE 60. A MINIMUM OF 18" LAPS ON ALTERNATE STEEL BARS SHALL BE PROVIDED. ALL REINFORCING STEEL SHALL BE SECURELY TIED AND SUPPORTED WITH BAR CHAIRS IN ACCORDANCE WITH ACI STANDARDS. ALL RE-BAR TO BE 100% TIED, OVERLAPS WILL BE DOUBLE TIED. SPACING FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

1. 7" CONCRETE PAVEMENT - §4 BAR ON 18" CENTER EACH WAY.

2. 6" CONCRETE PAVEMENT AND DRIVEWAYS - \$4 BAR ON 18" CENTER EACH WAY. 3. Sicewalks and congrete slope pavement — Minimum 4—1/2" Thick congrete — #3 Bar on 24" center each way. (2% cross slope Maximum)
WHE WESH IS NOT ALLOWED IN SIDEWALKS OR STREETS WITHIN THE CITY OF RICHMOND OR ITS ETJ. P-18. CONCRETE SHALL NOT BE PLACED WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES FAHRENHEIT AND FALLING. CONCRETE MAY BE PLACED IF THE AMBIENT TEMPERATURE IS 35 DEGREES AND RISING. CONTRACTOR SHALL PROVIDE AN APPROVED COVERING MATERIAL (COTTON MATS, POLYETHYLENE SHEETING, ETC.) IN THE EVENT TEMPERATURE SHOULD FALL BELOW 32 DEGREES FAHRENHEIT WITHIN 72 HOURS OF PLACING CONCRETE. NO SALT OR OTHER CHEMICALS SHALL BE ADDED TO CONCRETE TO PREVENT FREEZING. NO CONCRETE SHALL BE PLACED WHEN THE MIXTURE TEMPERATURE IS ABOVE 95 DEGREES FAHRENHEIT. CONCRETE SHALL BE PLACED WITHIN 60 MINUTES OF THE BATCH TIME.

P-19. ALL CONCRETE PLACED SHALL BE UNIFORMLY SPRAYED WITH A MEMBRANE CURING COMPOUND (TXDOT DMS-4850, TYPE 2, WHITE). CURING COMPOUND SHALL BE APPLIED IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS. P-20, CONCRETE SAMPLES: CYLINDERS (SET OF 4), SLUMP AND AIR ENTRAINMENT TESTS ARE REQUIRED FOR EACH 100 CUBIC YARDS AND EACH FRACTION THEREOF. A MINIMUM OF ONE SET OF SAMPLES IS REQUIRED PER CONCRETE POUR, THE CITY RESERVES THE RIGHT TO REQUEST ADDITIONAL TESTS. P-21. FINISHED PAVEMENT SHALL HAVE CORE SAMPLES TAKEN EVERY 750 LINEAR FEET (750"), STAGGERED ACROSS THE ROADWAY CROSS-SECTION, AND IN EVERY CUL-DE-SAC, ADDITIONAL CORE SAMPLES MAY BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER. THESE CORE SAMPLES SHALL BE TESTED TO INSURE THAT THE PAVEMENT THICKNESS MEETS THE REQUIRED PROJECT THICKNESS.

P-22. PROPER TESTING AND LABORATORY DOCUMENTATION IS REQUIRED. FAILURE TO MEET THE MINIMUM PAVEMENT REQUIREMENTS WILL RESULT IN THE REJECTION OF PAVEMENT. IMMEDIATE REMOVAL AND REPLACEMENT OF SUBSTANDARD PAVEMENT SECTIONS WILL BE NECESSARY TO SATISFY THESE REQUIREMENTS. P-23, CRACKS 1/16 INCH OR LARGER ARE NOT ACCEPTABLE IN NEW PAVEMENT. CRACKS 1/16 INCH OR LESS WILL BE ADDRESSED AN INDIVIDUAL BASIS, SUBJECT TO APPROVAL OR REJECTION.

P-24. STREET NAME SIGNS SHALL BE LOCATED AT ALL INTERSECTIONS. CONTRACTOR SHALL VERIEY STREET MAME WITH RECORDED PLAT. STOP SIGNS AND OTHER TRAFFIC SONAGE SHALL BE PLACED IN ACCORDANCE WITH THE PLANS AND THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

P-25. A DOUBLE-REFLECTORIZED BLUE TRAFFIC PAVEMENT MARKER SHALL BE PLACED ONE FOOT OFFSET OF THE PAVEMENT CENTERINE ON FIRE HYDRANT SIDE, AT ALL FIRE HYDRANT LOCATIONS, BY THE PAVING CONTRACTOR. FIRE HYDRANTS LOCATED AT INTERSECTIONS SHALL HAVE A MARKER PLACED ON EACH STREET,

P-26, ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED, PERMANENT PREFABRICATED PAVEMENT MARKINGS MEETING THE MINIMUM REQUIREMENTS OF T-DOT, DMS-8240, TYPE A OR B, (NSTALLED IN ACCORDANCE WITH T-DOT STANDARD SPECIFICATION ITEM 668, CENTERLINE PAVEMENT MARKINGS, STOP BARS AND MISCELLANEOUS MARKINGS SHALL HAVE A MINIMUM THICKNESS OF 90 MILS. LANE DELINEATION AND ROAD EDGE MAYEMENT MARKINGS SHALL HAVE A MINIMUM THICKNESS OF 60 MILS. ALL PAVEMENT MARKINGS SHALL BE INSTALLED WITH DOUBLE ADHESIVE AS REQUIRED BY THE CITY. OUTSIDE THE CITY (IN THE ETJ) COMPLY WITH FORT BEND COUNTY REQUIREMENTS.

P-27. ALL DRIVEWAYS SHALL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES. P-28. CONCRETE MIX DESIGN SHALL BE SENT TO THE CITY FOR APPROVAL WITH A MINIMUM OF 72 HOURS BEFORE THE FIRST CONCRETE POUR. P-29, VEHICLES OF ALL TYPES ARE PROHIBITED FROM DRIVING ON NEW PAVEMENTS THREE (3) DAYS AFTER THE PLACING OF CONCRETE AND UNTIL THE CONCRETE HAS REACHED A MINIMUM OF 3500 PSI.

P-30. THE SUBGRADE SURFACE SHALL BE SUGOTH AND IN CONFORMITY WITH LINES & GRADES ON THE PLANS. WHEN THE SUBGRADE FAILS TO MEET DENSITY REQUIREMENTS OR SHOULD IT LOSE THE REQUIRED STABILITY, DENSITY, OR FINISH, IT SHALL BE REWORKED IN ACCORDANCE WITH TADOT SUBARTICLE 260.4: (7) "REWORKING A SECTION", WHICH MAY REQUIRE AN ADDITIONAL 25% OF THE SPECIFIED LIME AMOUNT.

P-31, FLOODING OF THE STREETS SHALL OCCUR 24 HOURS PRIOR TO THE INITIAL INSPECTION. P-32. SUBGRADE DENSITIES SHALL BE RETAKEN IN THE EVENT OF A 1 INCH (1") OR GREATER RAINFALL OR IN THE EVENT THE ANBIENT AIR TEMPERATURE FALLS BELOW 32 DEGREES FAHRENHEIT FOR GREATER THAN THREE HOURS. SUBGRADE DENSITIES SHALL BE RETAKEN IF CONCRETE HAS NOT BEEN PLACED WITHIN 14 CALENDAR DAYS FROM FINAL COMPACTION.

SPECIAL NOTES

SN-1. BEFORE THE INTIAL WALK-THROUGH IS SCHEDULED, SN-2. NEGATIVE BACTERIOLOGICAL RESULTS FOR PUBLIC WATER LINES BUST BE SUBMITTED TO PUBLIC WORKS. SN-3. SATISFACTORY MANDREL, HYDROSTATIC, SANITARY, AND THE MANHOLE VACLUM TEST, MUST BE COMPLETED. SN-4. THE STORM SYSTEM MUST BE COMPLETELY CLEANED FOR A LAMP INSPECTION BEFORE OR THE DAY OF THE WALK-THROUGH FOR ACCEPTANCE.

SN-5. THE MANHOLES, GRATES, VALVES AND HYDRANTS PROPERLY ADJUSTED/PAINTED TO THE CITY OF RICHMOND'S COLOR

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES

This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. Construction for public water systems must always, at a minimum, meet TCEQ's "Rules and Regulations for Public Water Systems.

An appointed engineer shall notify in writing the local TCEQ's Regional Office wher construction will start. Please keep in mind that upon completion of the water work: project, the engineer or owner shall notify the commission's Water Supply Division, In writing, as to its completion and attest to the fact that the work has been completed essentially according to the pions and change orders on file with the commission as required in 30 TAC §290.39(h)(3).

All newly installed pipes and related products must conform to American National Standards institute/National Sanitation Foundation (ANSI/NSF) Standard 61-G and must be certified by an organization accredited by ANSI, as required by 30 TAC \$290.44(a)(1).

4. Plastic pipe for use in public water systems must bear the National Sonitation Foundation Seal of Approval (NSF pw-G) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less, as required by 30 TAC \$290.44(a)(2).

5. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply, as required by 30 TAC \$290.44(a)(3). 6. Water transmission and distribution lines shoil be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface, as required by 30 TAC \$290.44(a)(4).

7. Pursuant to 30 TAC \$290.44(a)(5), the hydrostatic leokage rate shall not exceed the amount allowed or recommended by the most current AWNA formulas for PVC pipe, cost iron and ductile iron pipe. Include the formulas in the notes on the plans. o The hydrostatic leakage rate for polyvinyl chlaride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC \$290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

Q = the quantity of makeup water in gallons per hour.

L = the length of the pipe section being tested, in feet,
D = the naminal diameter of the pipe in inches, and
P = the average test pressure during the hydrostatic test in pounds per square inchange.

o The hydrostatic leakage rate for ductile fron (DI) pipe and appurtenences shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

L = the quantity of makeup water in gallons per hour, S = the length of the pipe section being tested, in feet, D = the nominal diameter of the pipe in inches, and P = the average test pressure during the hydrostotic test in counds per square

8. Projects constructed on or after January 4, 2014 must comply with changes to the Safe Drinking Water Act that reduce the maximum allowable lead content of pipes; pipe fittings, plumbing fittings, and fixtures to 0.25 percent. 9. The system must be designed to mointain a minimum pressure of 35 psi at all points within the distribution network at flow rates of at least 1.5 gallons per minute per connection. When the system is intended to provide firefighting capability, it must also be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions as required by 30 TAC \$230.44(d).

10. The contractor shall install appropriate air release devices in the distribution system at all points where topography or other factors may create air locks in the lines. All vent openings to the atmosphere shall be covered with 18-mesh or finar, corresion resistant screening material or an acceptable equivalent as required by 30 TAC \$290.44(d)(1). 11. Pursuant to 30 TAC \$290.44(d)(4), accurate water meters shall be provided. Service connections and meter locations should be shown on the plans. 12. Pursuant to 30 TAC \$290.44(d)(5), sufficient valves and biowaffs to make repairs. The engineering report shall establish criteria for this design. 13. Pursuant to 30 TAC §290.44(d)(6), the system shall be designed to afford effective circulation of water with a minimum of dead ends. All dead—end mains shall be provided with acceptable flush valves and discharge piping. All dead—end lines less than two inches in diameter will not require flush valves if they end at a customer service. Where dead ends are necessary as a stage in the growth of the system, they shall be located and arranged to ultimately connect the ends to provide circulation.

14. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes and septic tank drainfields, if this distance cannot be maintained, the contractor must immediately natify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet 30 TAC \$290.44(e)(1-

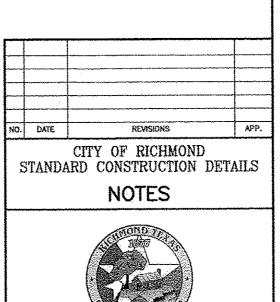
15. Pursuant to 30 TAC \$290.44(e)(5), the separation distance from a potable waterline to a wastewater main or lateral manhole or aleganut shall be a minimum of plan feet. Where wastewater mean or interest manners or cleanout sings be a minimum of hine teet. Where the nine-foot separation distance cannot be achieved, the potable waterine shall be encosed in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at five-foot intervals with spacers or be filled to the springline with washed sond. The encosement pipe shall be centered on the crossing and bath ends seeled with cement grout or manufactured sections.

16. Pursuant to 30 TAC \$290.44(aV6), fire hydronis shall not be installed within nine feet vertically or horizontally of any wastowater line, wastewater lateral, or wastowater service line regardless of construction. 17. Pursuant to 30 TAC \$290.44(e)(7), suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any title or concrete wastewater main.

wastewater lateral, or wastewater service line.

18. Pursuant to 30 TAC \$290.44(e)(8), waterlines shall not be installed closer than ten feet to septic tank drainfields. 19. Pursuant to 39 TAC \$290.44(f)(1), the contractor shall not place the pipe in water or where it can be flooded with water or sawage during its storage or installation. 20. Pursuant to 30 TAC \$290.44(f)(2), when waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the water main shall be installed in a separate waterlight pipe encasement. Valves must be provided an each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested.

21. The contractor shall disinfect the new water mains in accordance with AWWA Standard C-651 and then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed water line will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer, in accordance with 30 tas 500 AUC \$10.00 feet.





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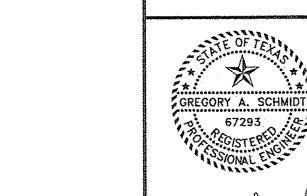
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CITY OF RICHMOND DETAILS R1 JOB: 1375-1

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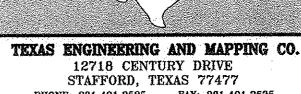
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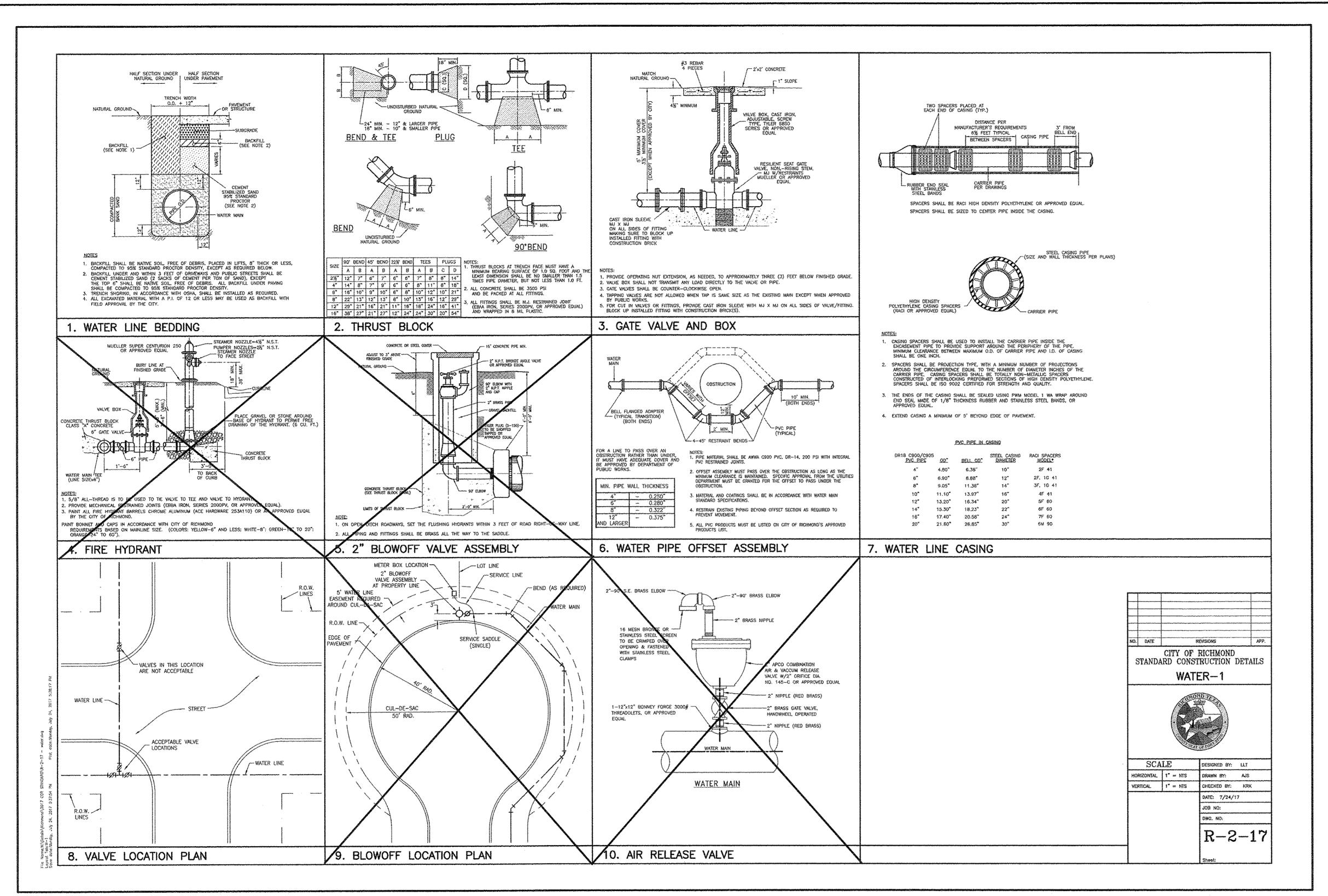
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> > C-9CITY OF RICHMOND DETAILS R1



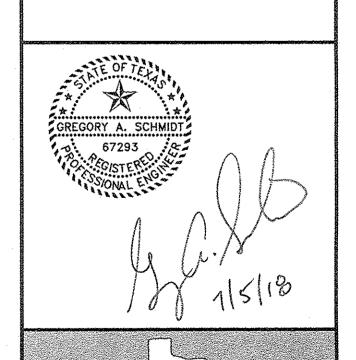


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CITY OF RICHMOND DETAILS R2

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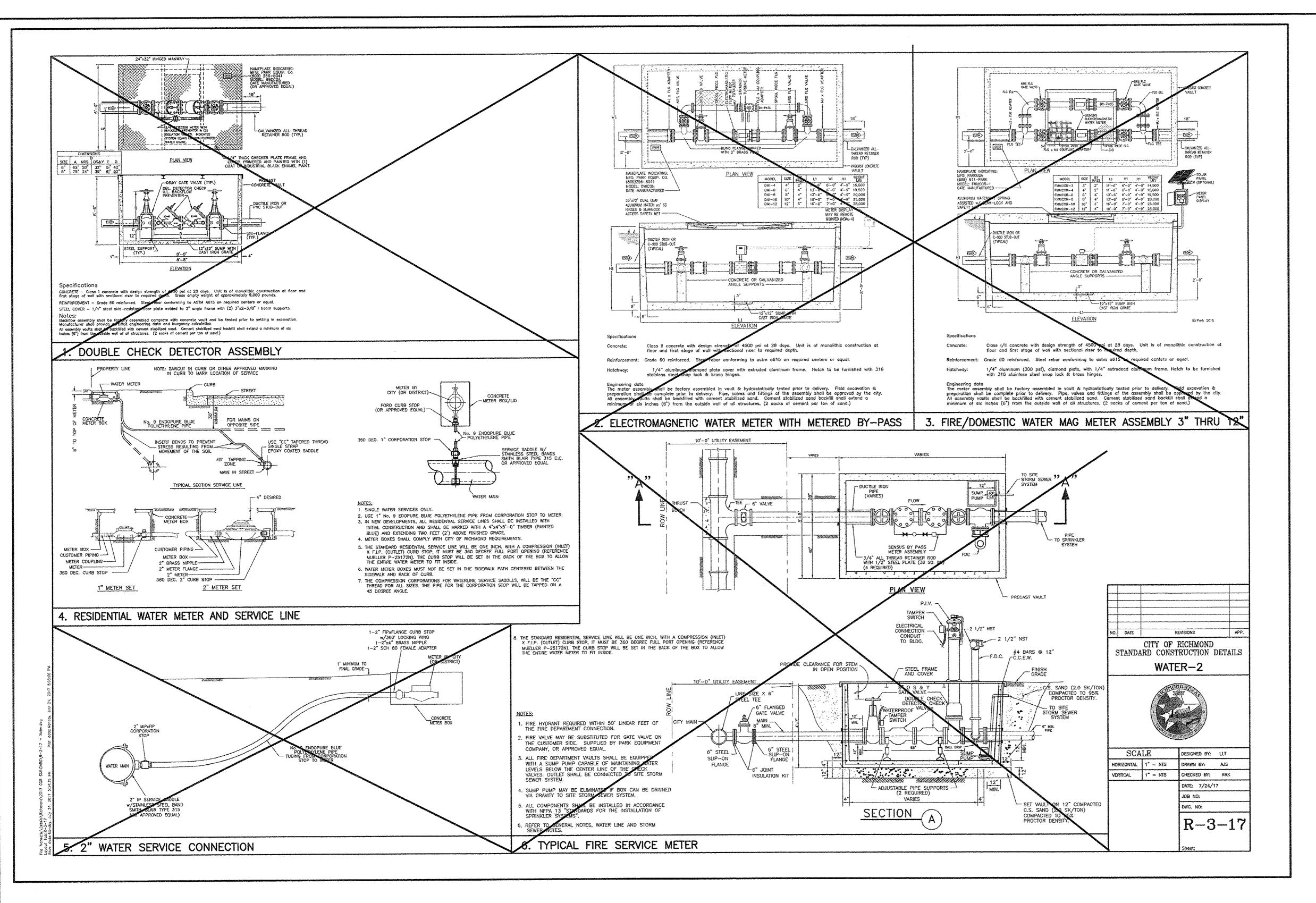


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CITY OF RICHMOND DETAILS R2



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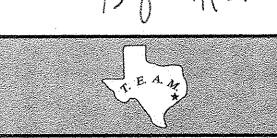
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SEE SHT C-6 FOR GENERAL NOTES & DETAILS
SEE SHT C-7 FOR DIMENSIONED SITE PLAN

SEE SHT C-9 TO C-20 FOR CITY OF RICHMOND DETAILS

SEE SHT C-8 FOR DRIVEWAY TCP

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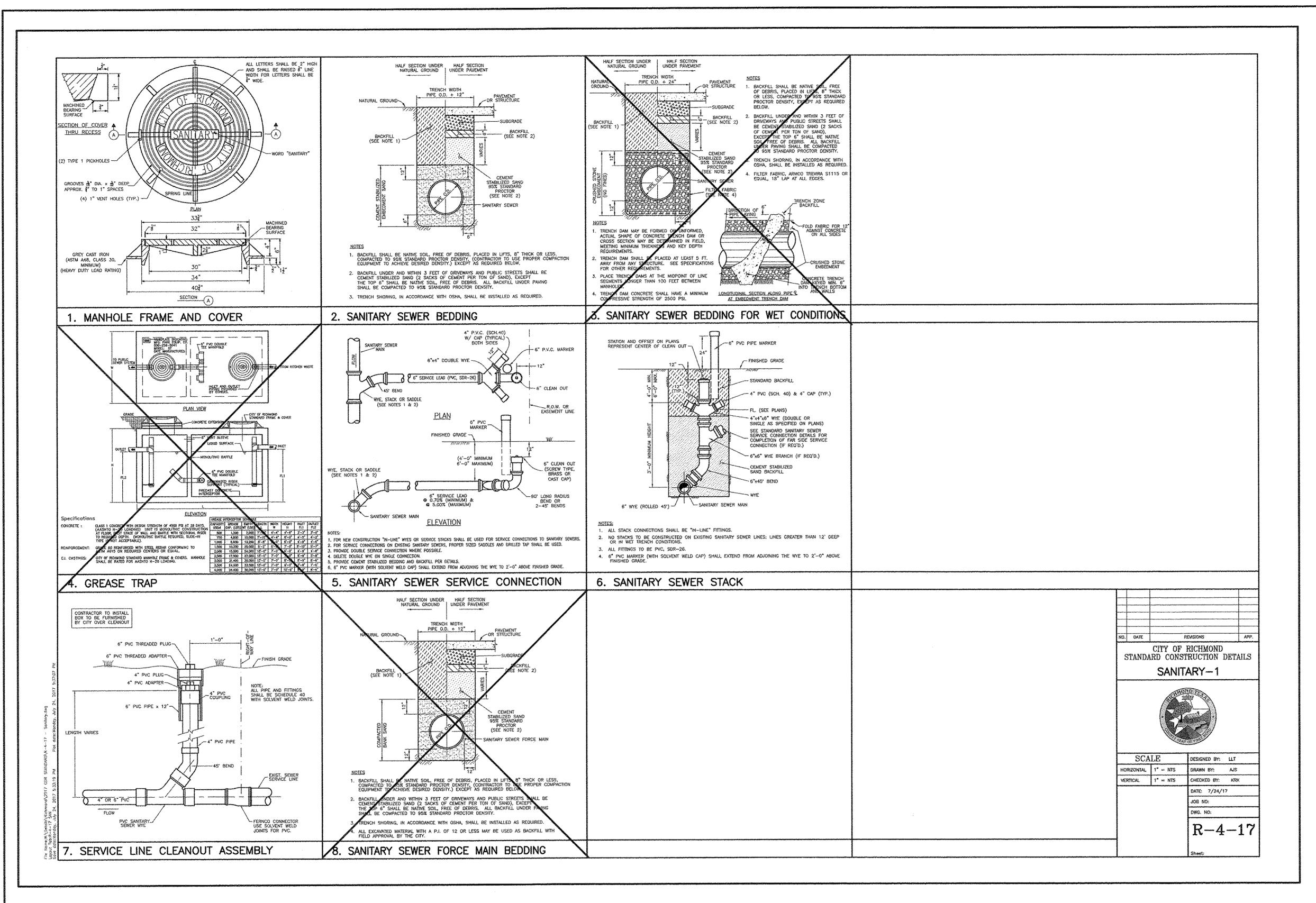
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> CITY OF RICHMOND DETAILS R3



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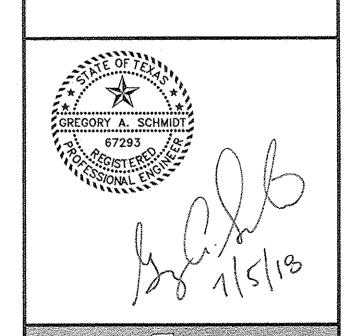
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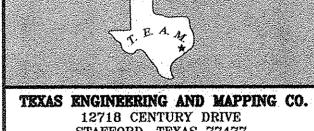
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CITY OF
2) RICHMOND DETAILS R4

JOB: 1375-1

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SEE SHT C-1 FOR GRADING & DRAINAGE
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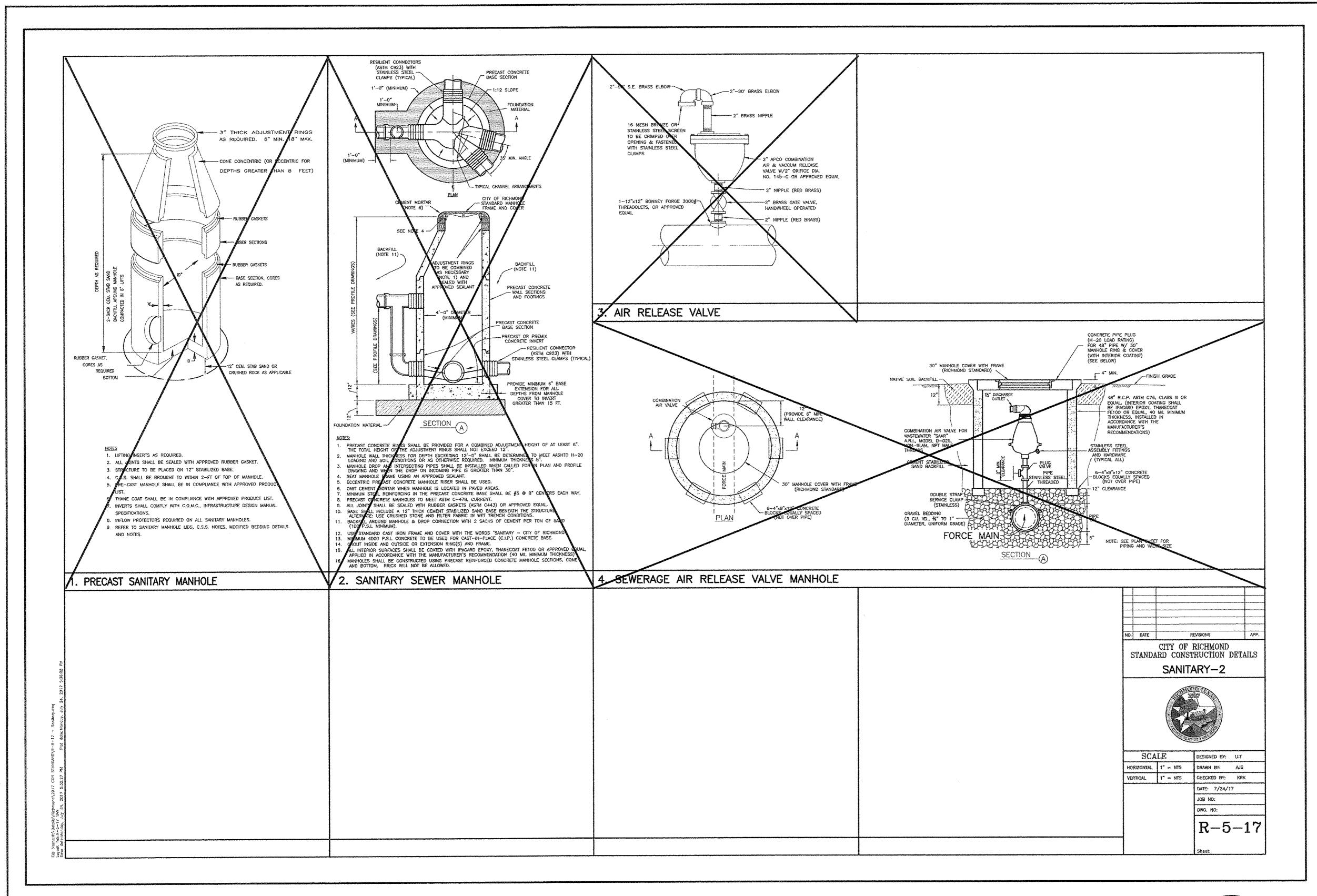


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CITY OF RICHMOND
DETAILS R4



GREGORY A. SCHMIDT

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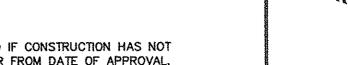
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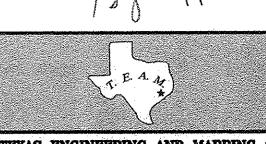
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CITY OF
RICHMOND DETAILS R5

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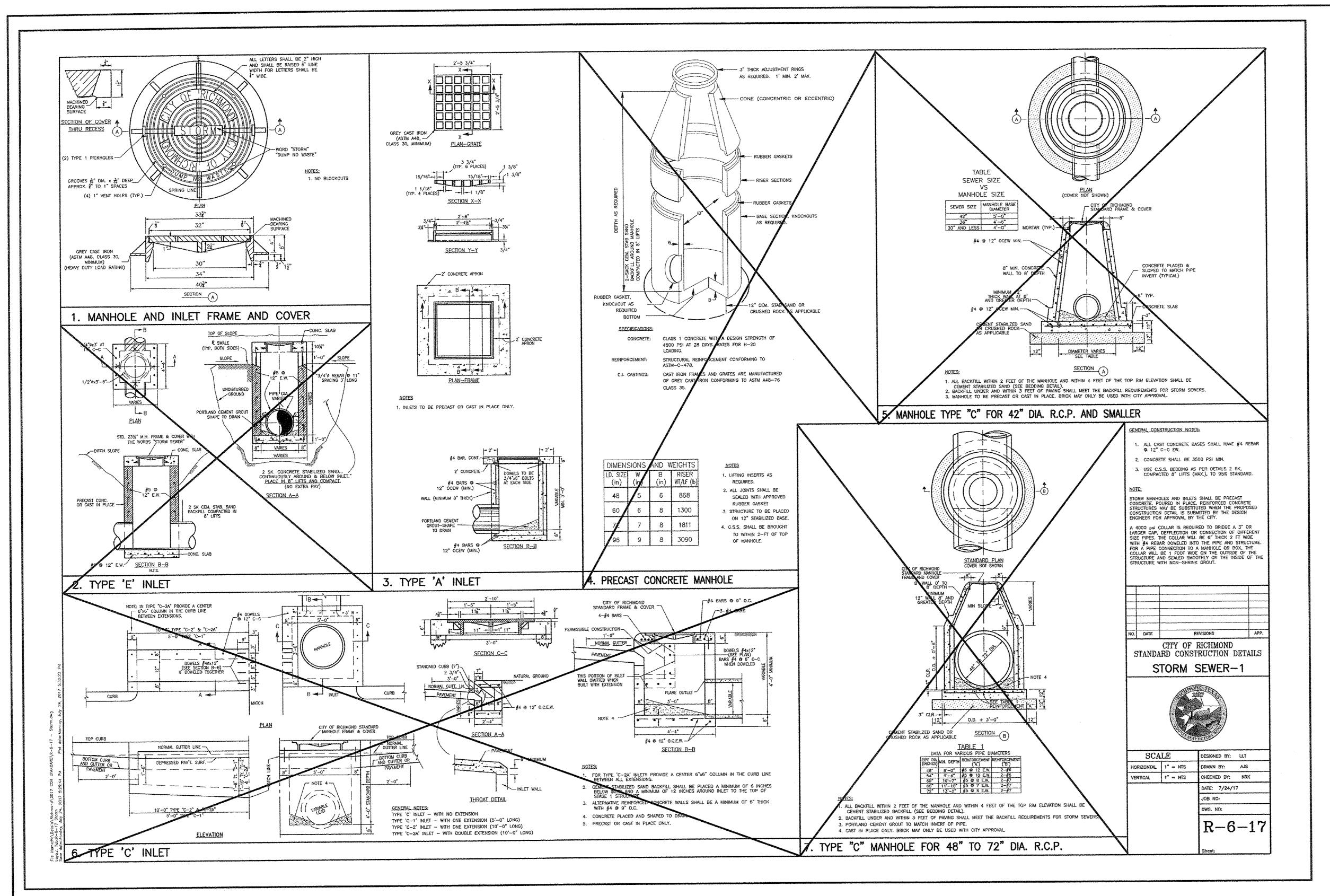


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REVISION DATE: N/A

C-13
CITY OF RICHMOND
DETAILS R5



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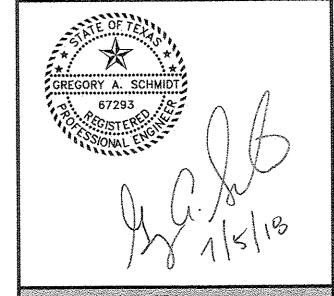
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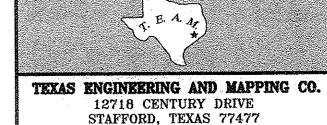
CITY OF
RICHMOND DETAILS R6
JOB: 1375-1

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SEE SHT C-8 FOR DRIVEWAY TCP



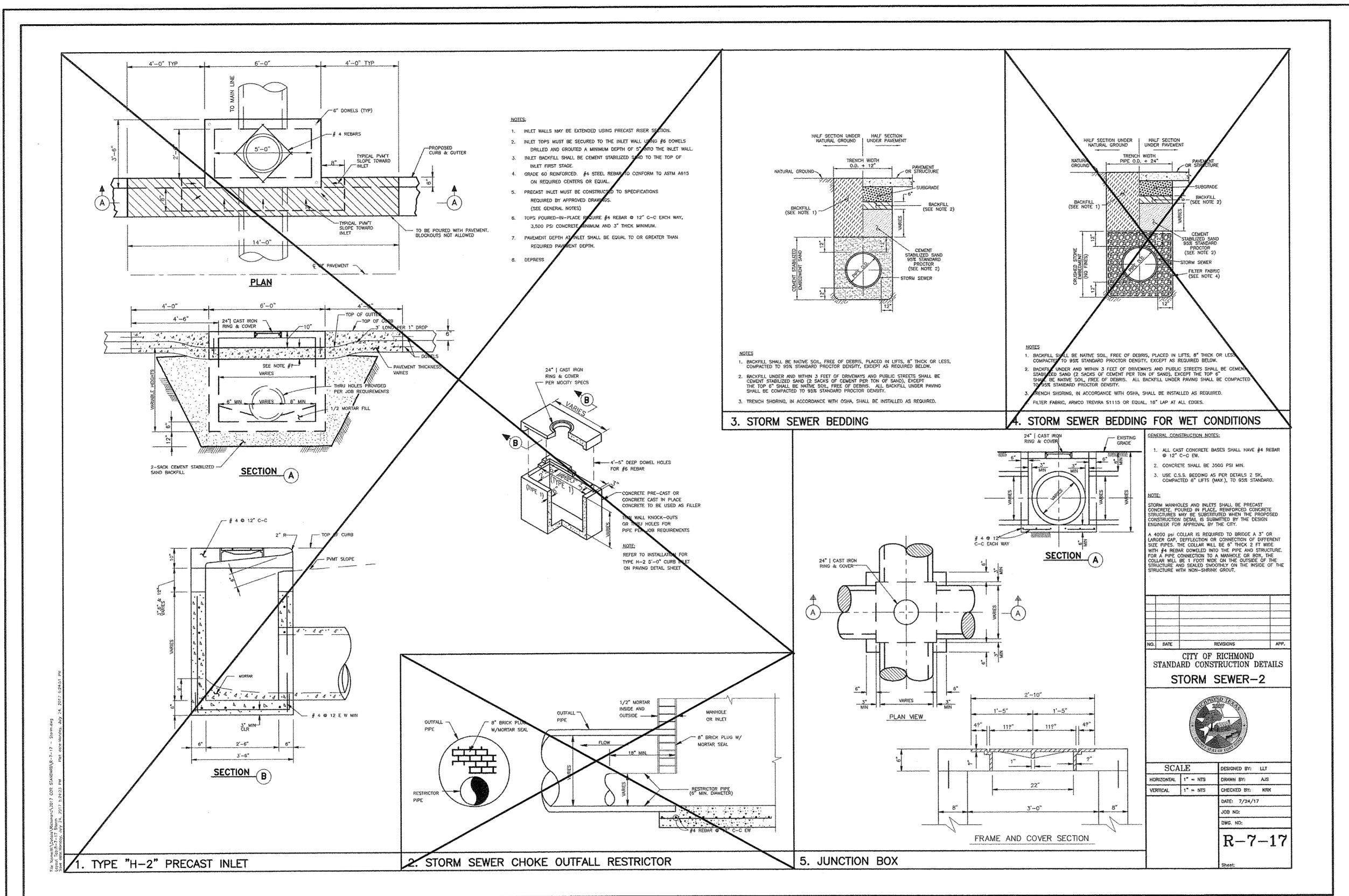


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CITY OF RICHMOND
DETAILS R6



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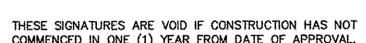
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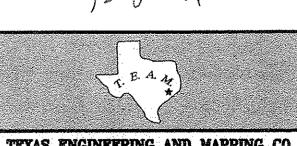
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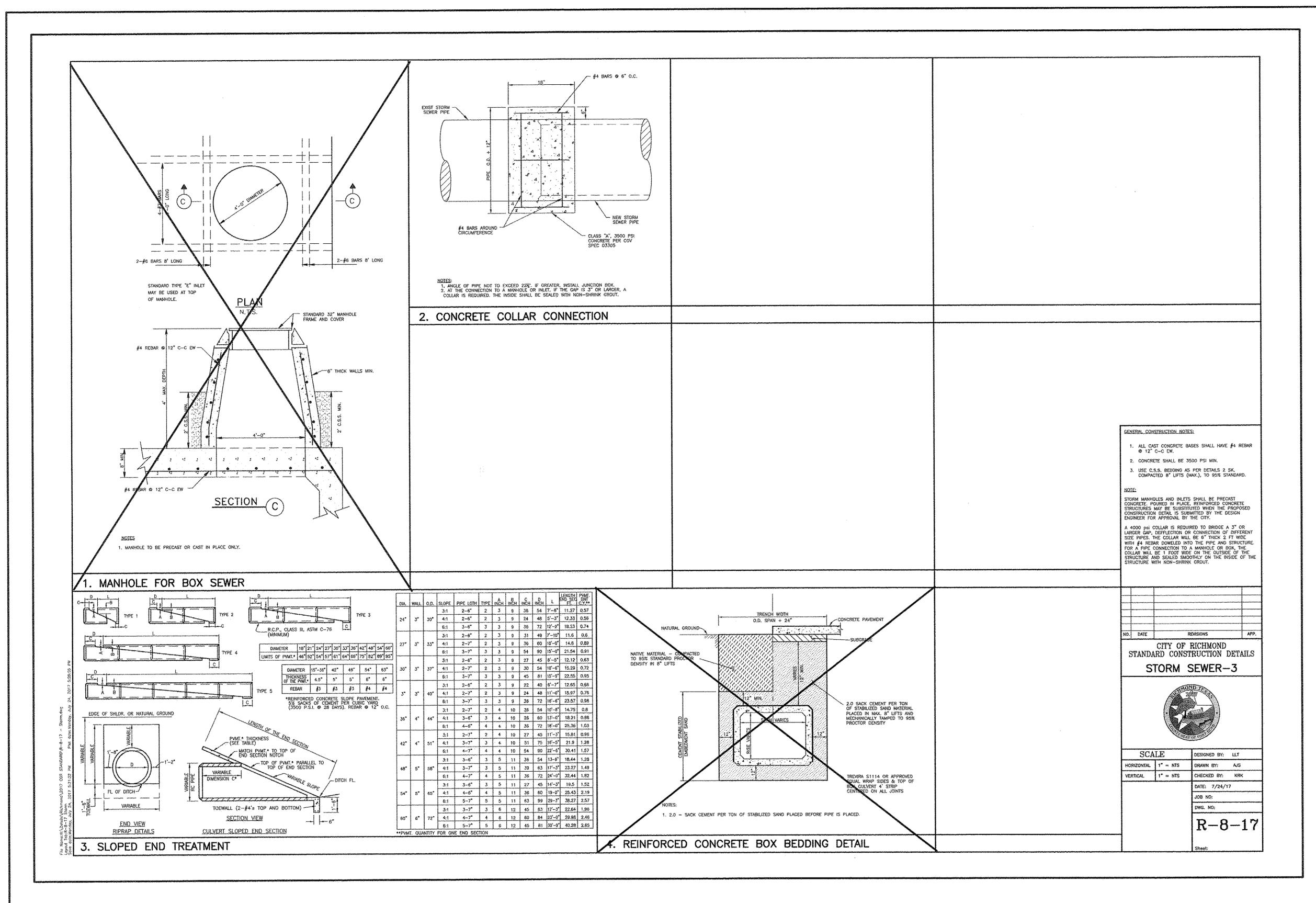
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> CITY OF RICHMOND DETAILS R8

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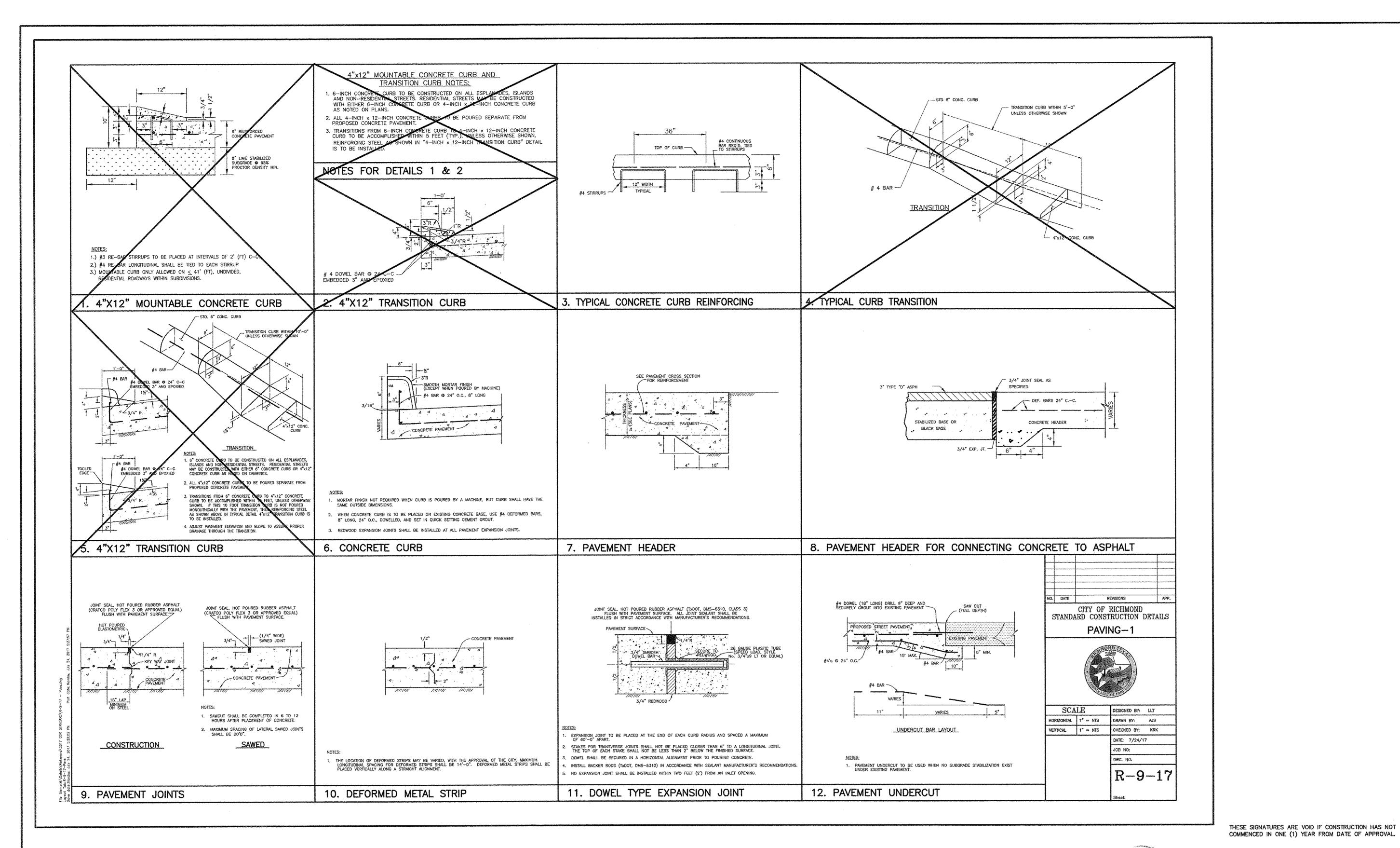
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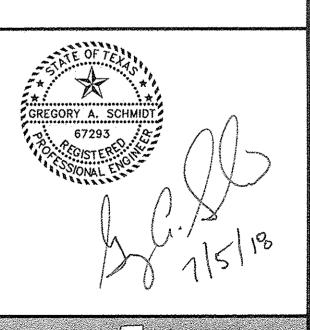
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CITY OF RICHMOND DETAILS R9

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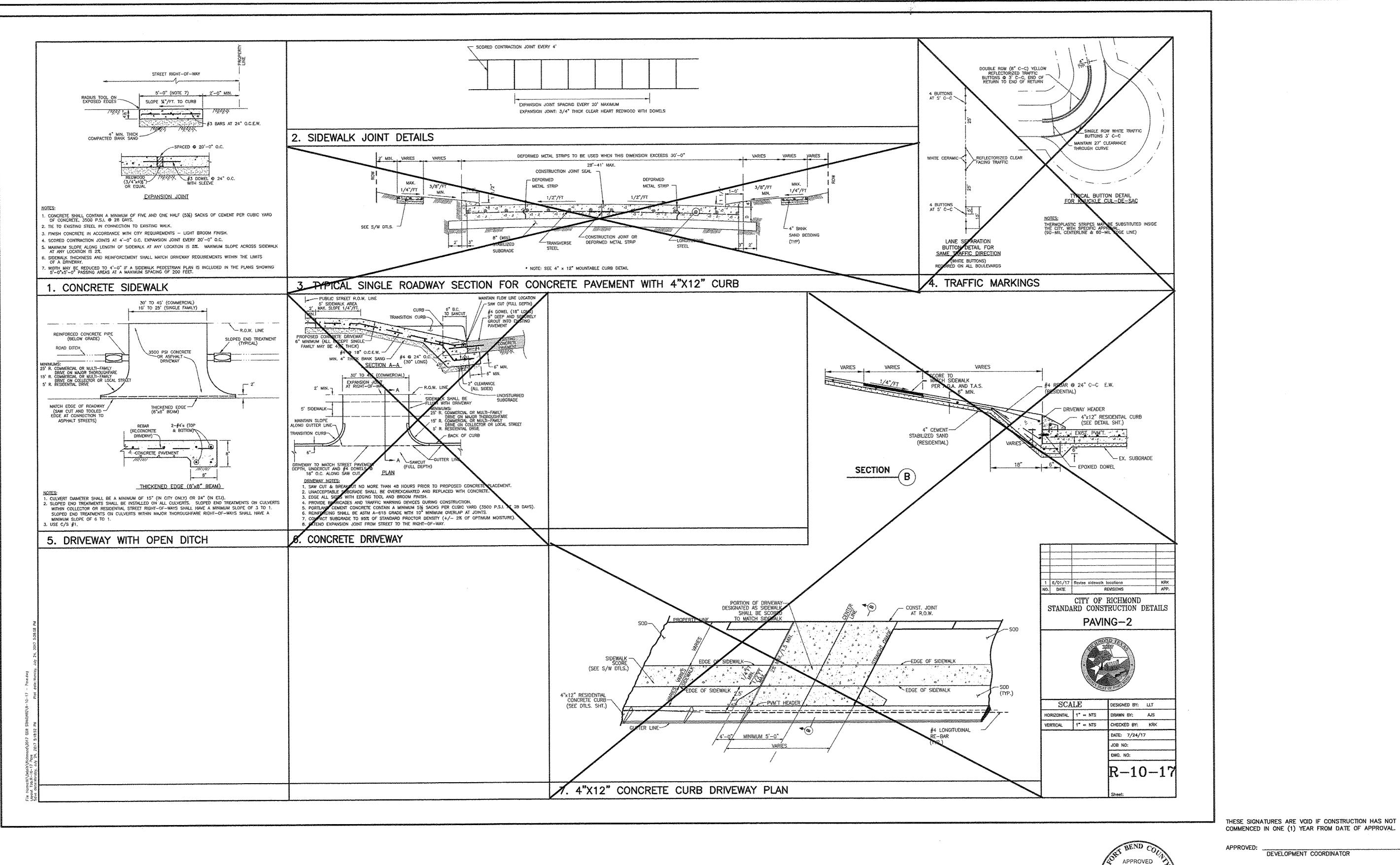
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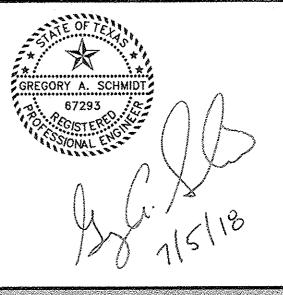
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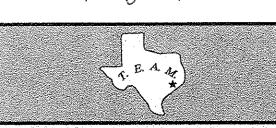
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> C-17CITY OF RICHMOND DETAILS R9



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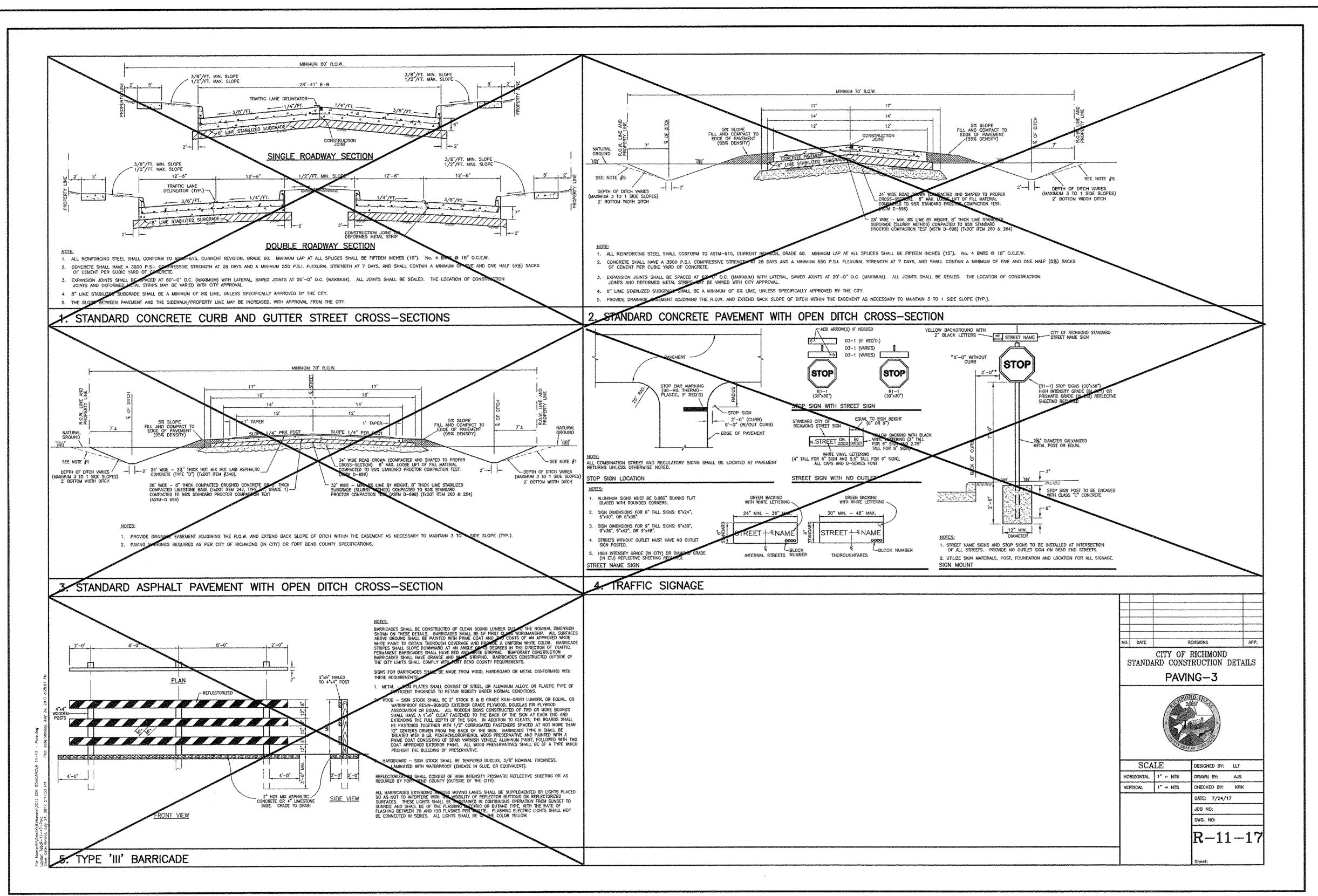
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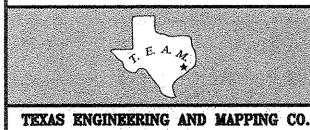
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12718 CENTURY DRIVE STAFFORD, TEXAS 77477 PHONE: 281.491.2525 FAX: 281.491.2535 SURVEYING FIRM NO. 10119000 / ENGINEERING FIRM NO. F-290

www.team-civil.com DRAWN BY: CS 06-01-18 DATE: 1375-1 JOB NO: REVISION DATE: N/A

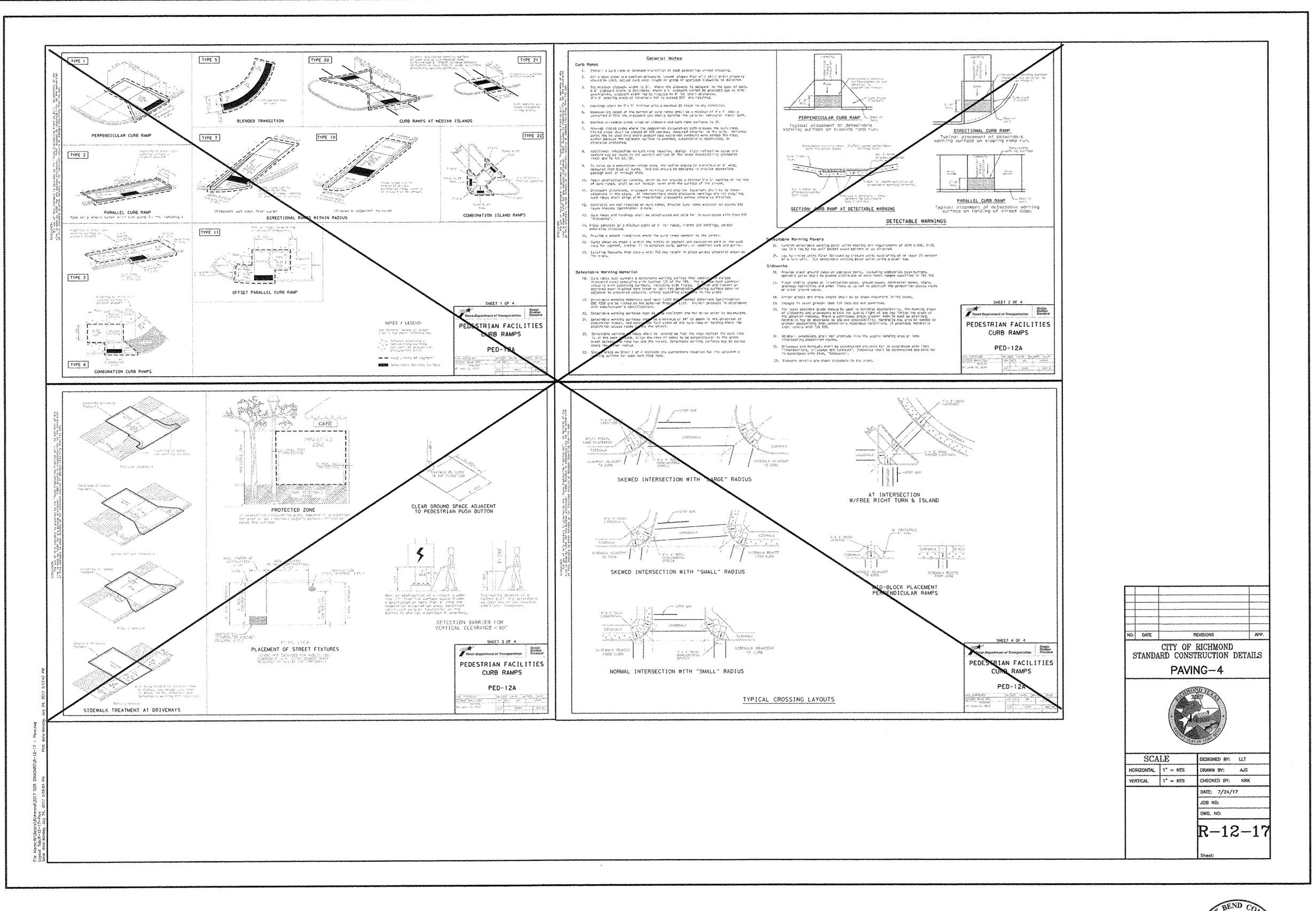
CITY OF RICHMOND DETAILS R11

GREGORY A. SCHMIDT

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THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN ONE (1) YEAR FROM DATE OF APPROVAL.

DEVELOPMENT COORDINATOR

DATE:

APPROVED

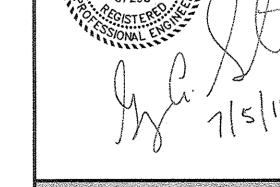
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Valid One Year

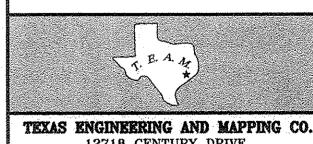
From Date

CITY OF RICHMOND DETAILS R12

SEE SHT C-0 FOR TOPOGRAPHIC SURVEY
SEE SHT C-1 FOR GRADING & DRAINAGE
SEE SHT C-2 FOR STORM SEWER & WATER LAYOUT
SEE SHT C-2A FOR STORM SEWER CALCULATION TABLE
SEE SHT C-3 FOR PAVING JOINT LAYOUT
SEE SHT C-4 FOR SWPPP
SEE SHT C-5 FOR SWPPP NOTES & DETAILS
SEE SHT C-6 FOR GENERAL NOTES & DETAILS
SEE SHT C-7 FOR DIMENSIONED SITE PLAN
SEE SHT C-8 FOR DRIVEWAY TCP
SEE SHT C-9 TO C-20 FOR CITY OF RICHMOND DETAILS



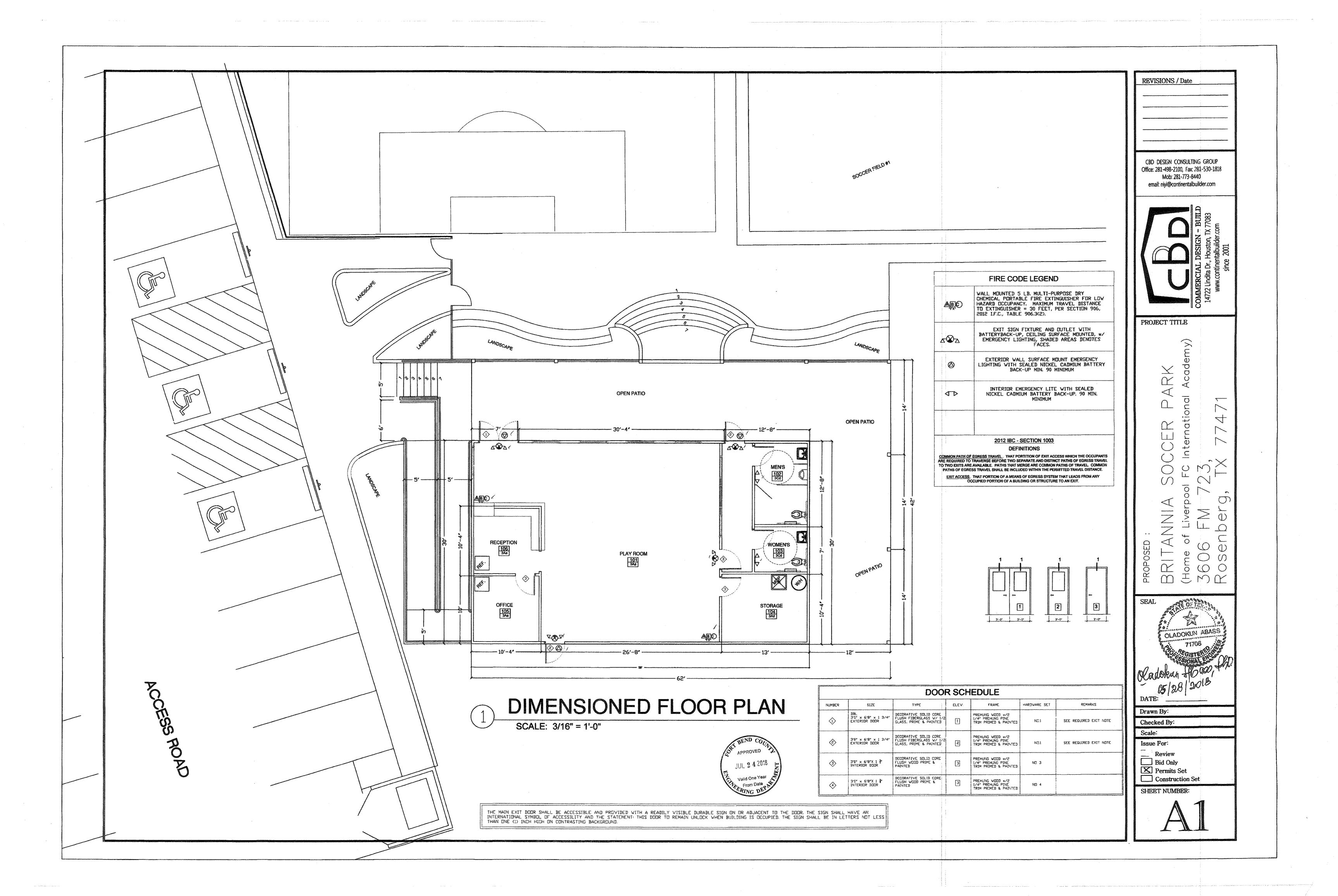
GREGORY A. SCHMIDT

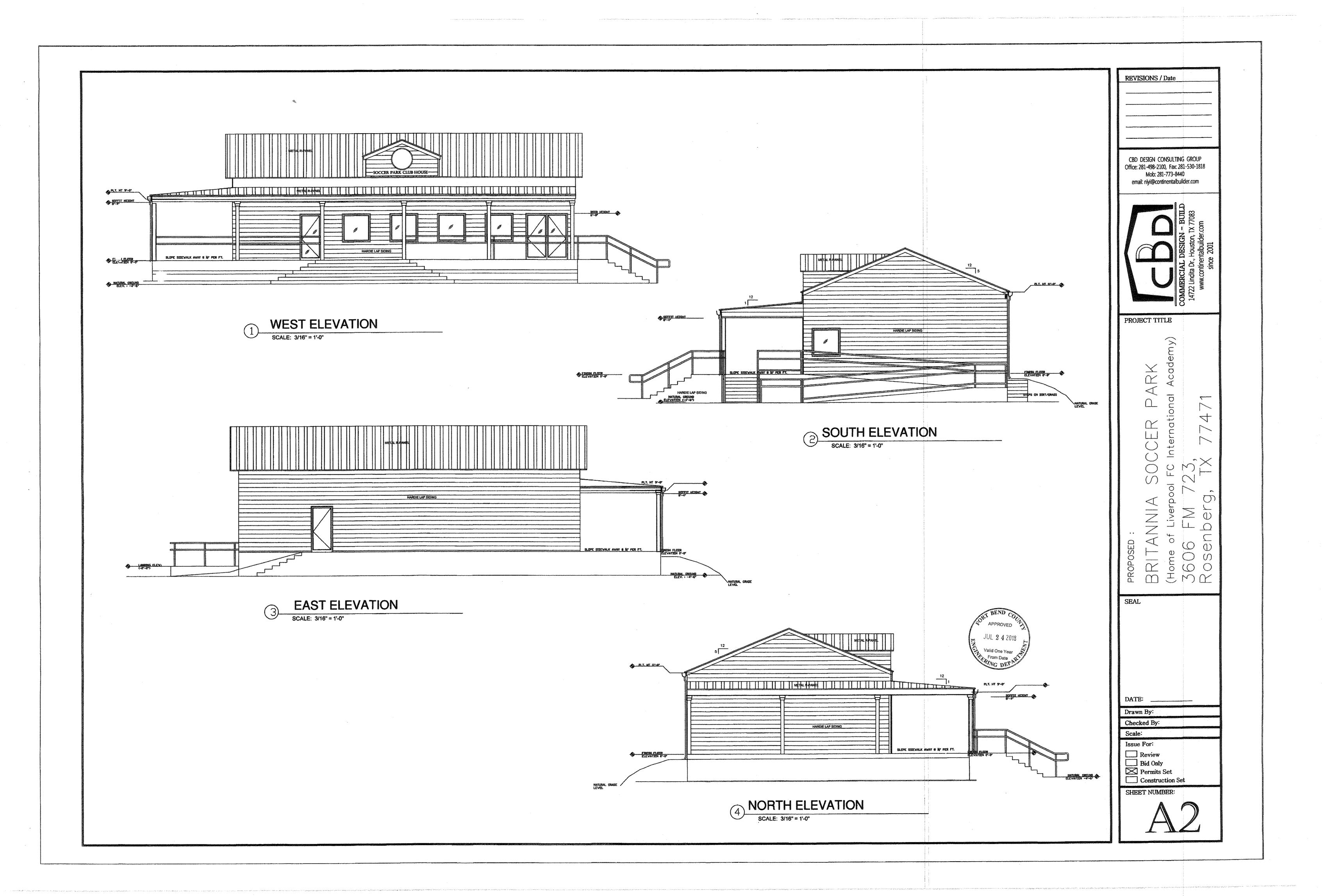


TEXAS ENGINEERING AND MAPPING CO.
12718 CENTURY DRIVE
STAFFORD, TEXAS 77477
PHONE: 281.491.2525 FAX: 281.491.2535
SURVEYING FIRM NO. 10119000 / ENGINEERING FIRM NO. F-2906

DRAWN BY: CS
DATE: 06-01-18
JOB NO: 1375-1
REVISION DATE: N/A

C-20
CITY OF RICHMOND
DETAILS R12





GENERAL PLUMBING NOTES:

1. ALL PLUMBING WORK SHALL COMPLY WITH NATIONAL LOCAL AND STATE PLUMBING AND HEALTH CODES LATEST EDITION
PER THE ADMINISTRATIVE PROCEDURE AND TEXAS REGISTER ACT (APTRA)

2. ARTICLE 652-13a, SECTION 337. 252, DESIGN STANDARDS

(a) A PERSON MAY NOT SELL, OFFER FOR SALE, DISTRIBUTE, OR IMPORT INTO THIS STATE A PLUMBING FIXTURE FOR USE IN THIS STATE UNLESS THE PLUMBING FIXTURES MEETS THE WATER SAVING PERFORMANCE STANDARD PROVIDED BY SUBSECTION (b) OF THIS SECTION AND THE PLUMBING FIXTURE IS LISTED SECTION 332.253 OF THIS TITLE (RELATED TO PLUMBING FIXTURE LIST).

(b) THE WATER SAVING PERFORMANCE STANDARDS FOR A PLUMBING FIXTURE THOSE ESTABLISHED BY THE AMERICAN NATIONAL STANDARD INSTITUTE (ANSI), CURRENT REVISION, OR THE FOLLOWING STANDARDS, WHICH EVER ARE THE MORE RESTRICTIVE. THE MAXIMUM FLOW OF WATER USING ANSI TESTING PROCEDURES:

(1) SINK OR LAVATORY FAUCET OR A FAUCET AERATOR - 2.20 GAL/MIN.

© 60 PSI
 (2) SHOWER HEAD 2.75 GAL/MIN. © 80 PSI
 THE MAXIMUM VOLUME OF WATER PER FLUSH USING ANSI TESTING PROCEDURES:

(3) URINAL AND ASSOCIATED FLUSH VALVE - 1.00 GAL / FLUSH
(4) TANK TYPE WATER CLOSET - 1.60 GAL / FLUSH
(5) WATER CLOSET THAT EMPLOYS A FLUSHOMETER - 2.00 GAL / FLUSH

(6) ALL DRIVING FOUNTAINS SHALL BE OPERATED BY A SELF CLOSING VALVE

3. COORDINATE PLUMBING PLAN WITH ARCHITECTURAL, STRUCTURAL,

M HANICAL, ELECTRICAL AND SITE PLANS.

4. PROVIDE UNIONS AT WATER HEATER AND WERE REQUIRED.

5. PROVIDE BACK FL/ PREVENTERS AT HOSE BIBS, AND SINKS

6. ALL WATER AND GAS ROUGH - INS SHALL BE TERMINATED WITH

SHUT OFF VALVES BEFORE CONNECTION WITH EQUIPMENT AND FIXTURES

BELOW SLAB WATER - TYPE "K" COPPER SLEEVED THROUGH SLAB
ABOVE SLAB WATER - CPVC
WASTE AND VENT LINES - (P.V.C.) SCHEDULE 40

PROVIDED BY THR OWNER FOR THIS PROJECT.

8. WATER SUPPLIES TO EACH FIXTURE SHALL BE PROVIDED WITH AIR CHAMBERS OF SUFFICIENT SIZE TO PREVENT WATER HAMMER.

9. PLUMBING CONTRACTOR SHALL PAY ALL FEES, COST OF PERMITS AND PRO RATA COST THAT PLIES TO HIS WORK.

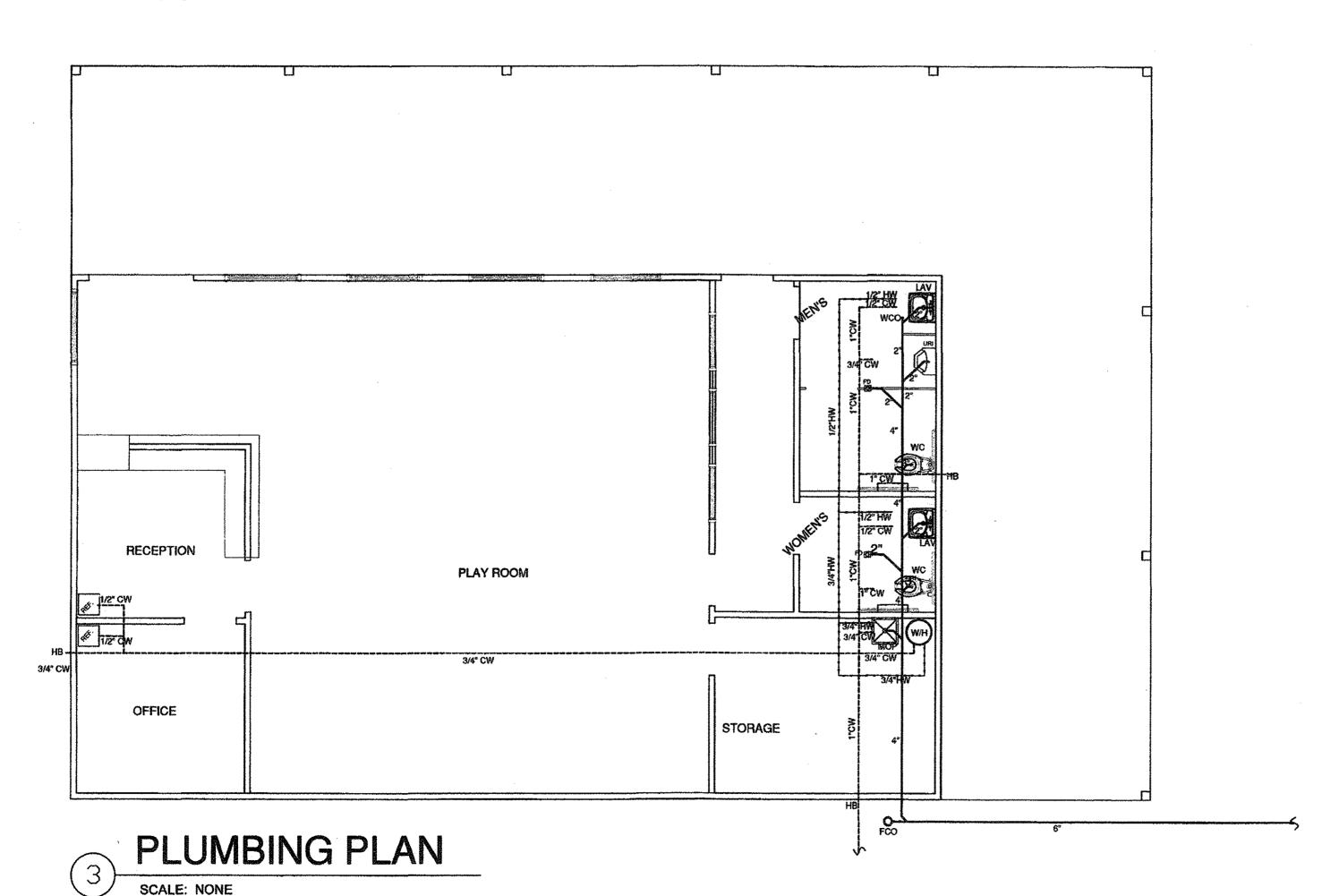
10. PLUMBING CONTRACTOR SHALL INSTALL FIXTURES AND EQUIPMENT

11. ALL WATER LINES ABOVE FLOOR ARE TO BE INSULATED. COLD WATER LINES FOR CONDENSATION CONTROL, HOT WATER LINES TO PREVENT HEAT LOSS, PROVIDE INSULATION RINGS ON ALL RISERS TO PREVENT BONDING OF SLAB TO PIPE AND ALLOW MOVEMENT.

12. ALL SLEEVES PENETRATING HEATED TO NON-HEATED AREAS SHALL BE PROPERLY INSULATED AND SEALED TO PREVENT LOSS AND SEEPAGE

13. PURGE ALL WATER BEFORE CONNECTION

PLUME	BING	FIXTURE SO	CHEDULE	
MARK	QTY	FIXTURE	MANUFACTURER	REMARKS
WC	1	WATER CLOSET	MOEN INCORP. OR EQ	HANDICAP STANDARD
LAV	1	LAVATORY SINK	STAINLESS STEEL	ELONGATED WALL MOUNTED
FD	1	FLOOR DRAIN	MOEN INCORP. OR EQ	6" NICKEL BRONZE STRAINER TYPE "B" DEEP SEAL "P" TRAP AND TRAP PRIMER
TP	1	TRAP PRIMER	PRECISION PLUMBING PRODUCTS OR EQ	AUTOMATIC TRAP PRIMER VALVE & BACK FLOW PRESENTER 2 OUTLET DIST. W/MOUNTING BRACKET
WH	1	WATER HEATER	RHEEM OR EQ	20 GALLON, HIGH EFFICIENCY ELECTRIC
МОР	MOP 1 MOP SINK		RHEEM OR EQ	18"X18" FLOOR MOUNTED PLASTIC TYPE



IMPORTANT NOTES:

A. THE SUBJECT TRACT IS LOCATED WITHIN THE BOUNDARIES OF FORT BEND COUNTY XXX WATER SUPPLY DISTRICT X

B. THE CONTRACTOR IS TO CONTACT BOTH THE DISTRICT'S OPERATOR & ENGINEER 48HRS IN ADVANCE OF MOBILIZING TO THE SITE:

ENGINEER: XXXXXXX, INC., 1234 XYZ RD. HOUSTON, TX 77000 281-000-000

ONLY THE DISTRICT OPERATOR IS AUTHORISED TO OPERATE THE DISTRICT WATER DISTRIBUTION FACILITIES.

. THE DISTRICT OPERATOR WILL FURNISH & INSTALL ALL METERS AND MAKE ALL TAPS IN ACCORDANCE WITH THE DISTRICT'S RATE ORDER.

E. THE CONTRACTOR WILL FURNISH & INSTALL ALL BACKFLOW PREVENTERS.

. THE DISTRICT OPERATOR IS TO INSPECT WATER UTILITIES PRIOR TO PLACEMENT OF ANY BACKFILL MATERIAL.

PROPOSED WATER USAGE UTILIZING THE CITY OF HOUSTON SERVICE EQUIVALENCY TABLE:

1. PROPOSED BUSINESS AREA = WIDTH x DEPTH x COH SERVICE EQUIVALENT
[27'X30' + 10'X10'] X 0.000281 = 0.256 SERVICE UNITS

2. PROPOSED OFFICE AREA SPACE = 10'X10' X 0.000237 = 0.237 SERVICE UNITS

TOTAL SERVICE UNITS

REQUIRED = 0.493 SERVICE UNITS

CBD DESIGN CONSULTING GROUP
Office: 281-498-2100, Fax: 281-530-1818
 Mob: 281-773-8440
email: nivi@continentalbuilder.com

PROJECT TITLE

PROJECT TITLE

PROJECT TITLE

PROJECT TITLE

OWW.continentalbuilder.com

REVISIONS / Date

(Home of Liverpool FC Internationo 3606 FM 723, Rosenberg, TX 7747

SEAL

DATE:

Drawn By: Checked By:

Scale:

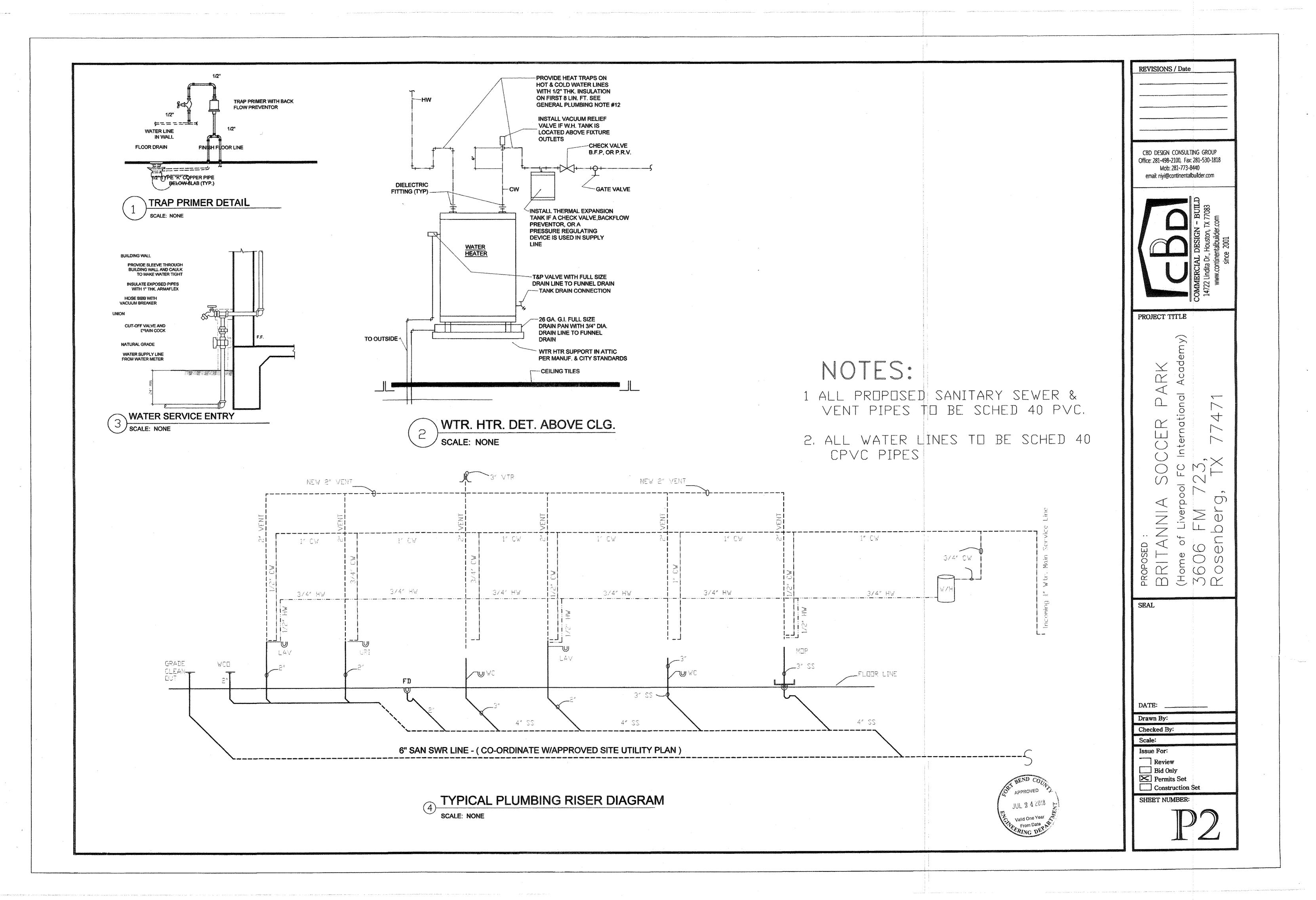
Issue For:

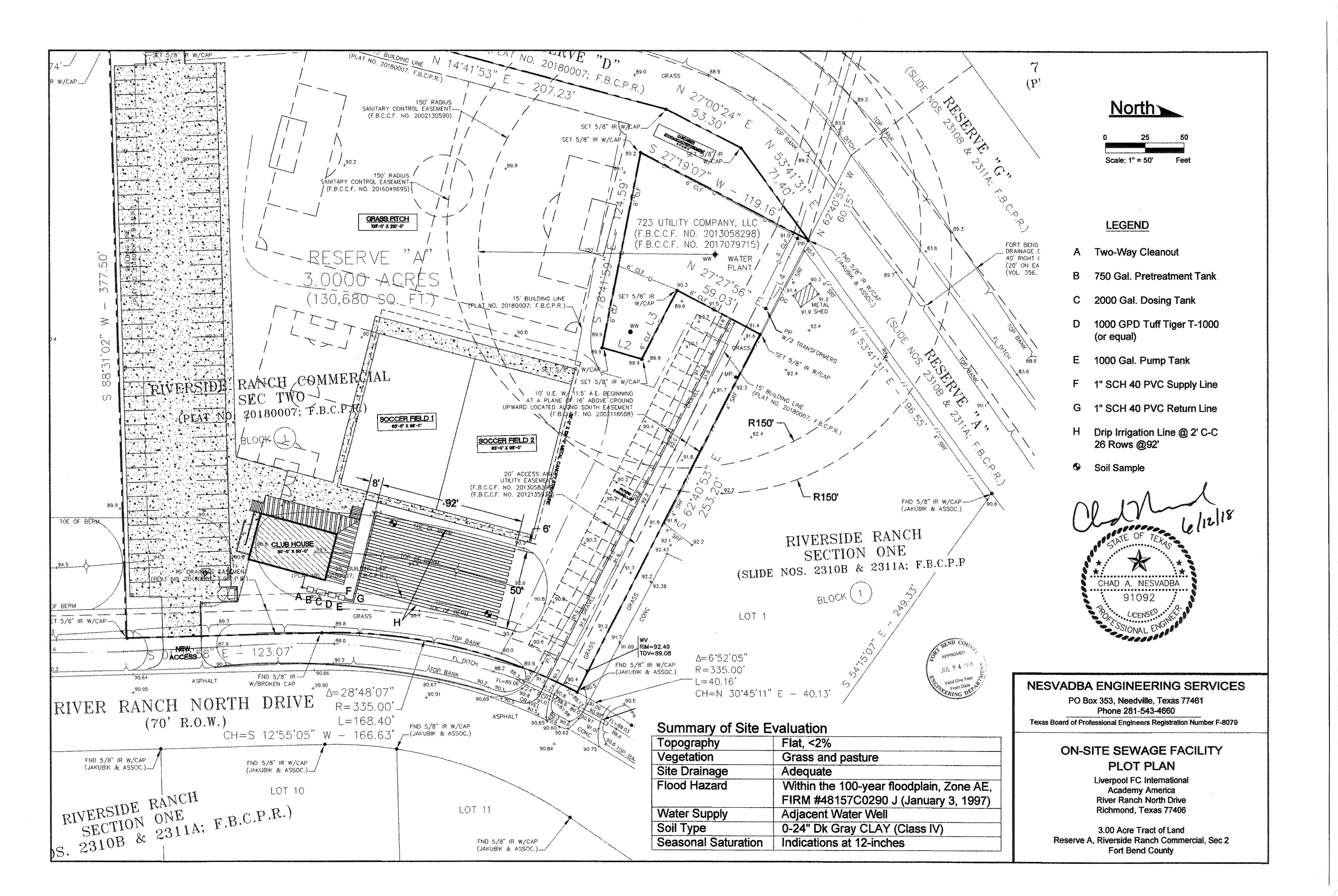
Review

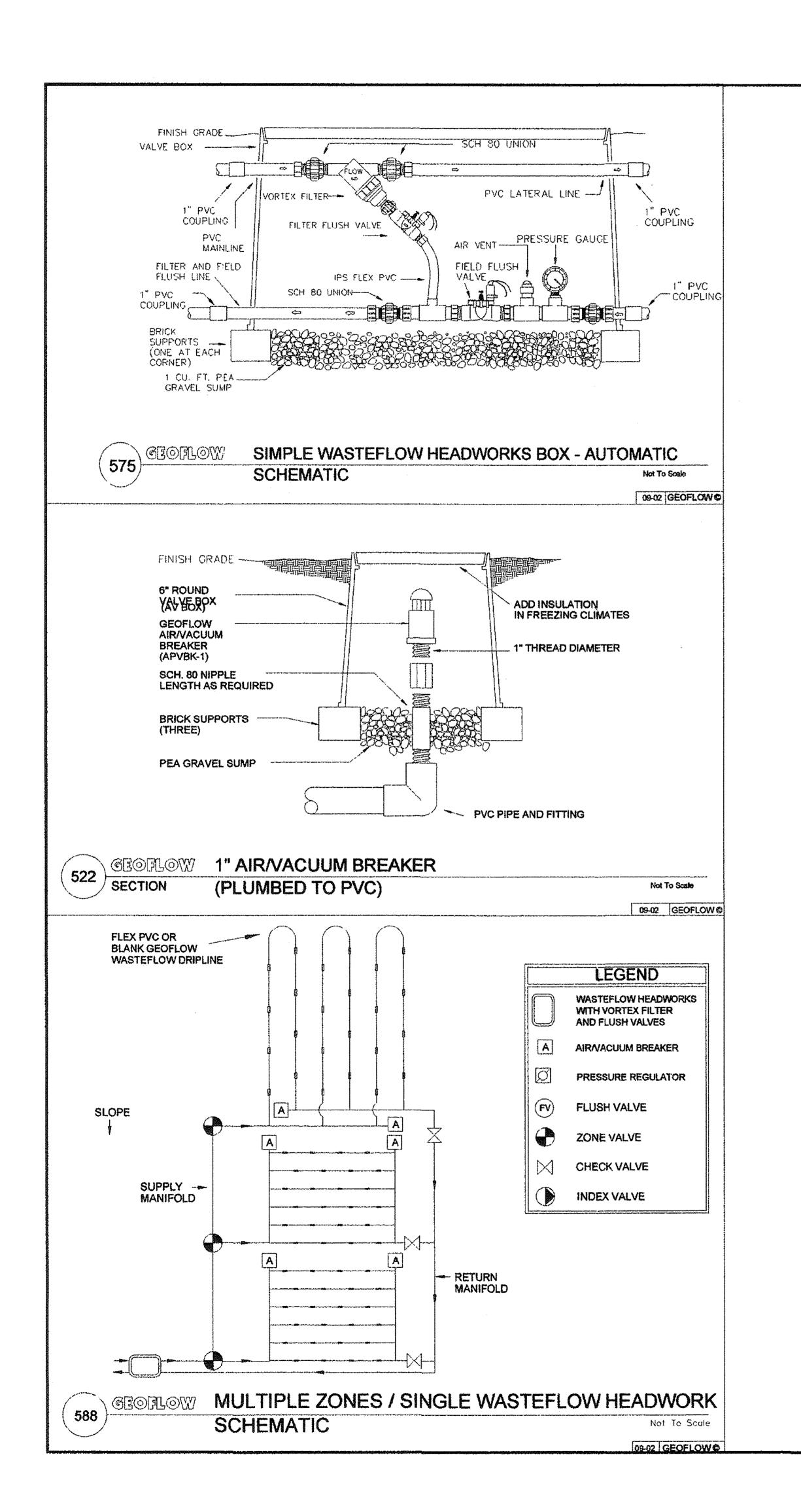
Permits Set
Construction Set

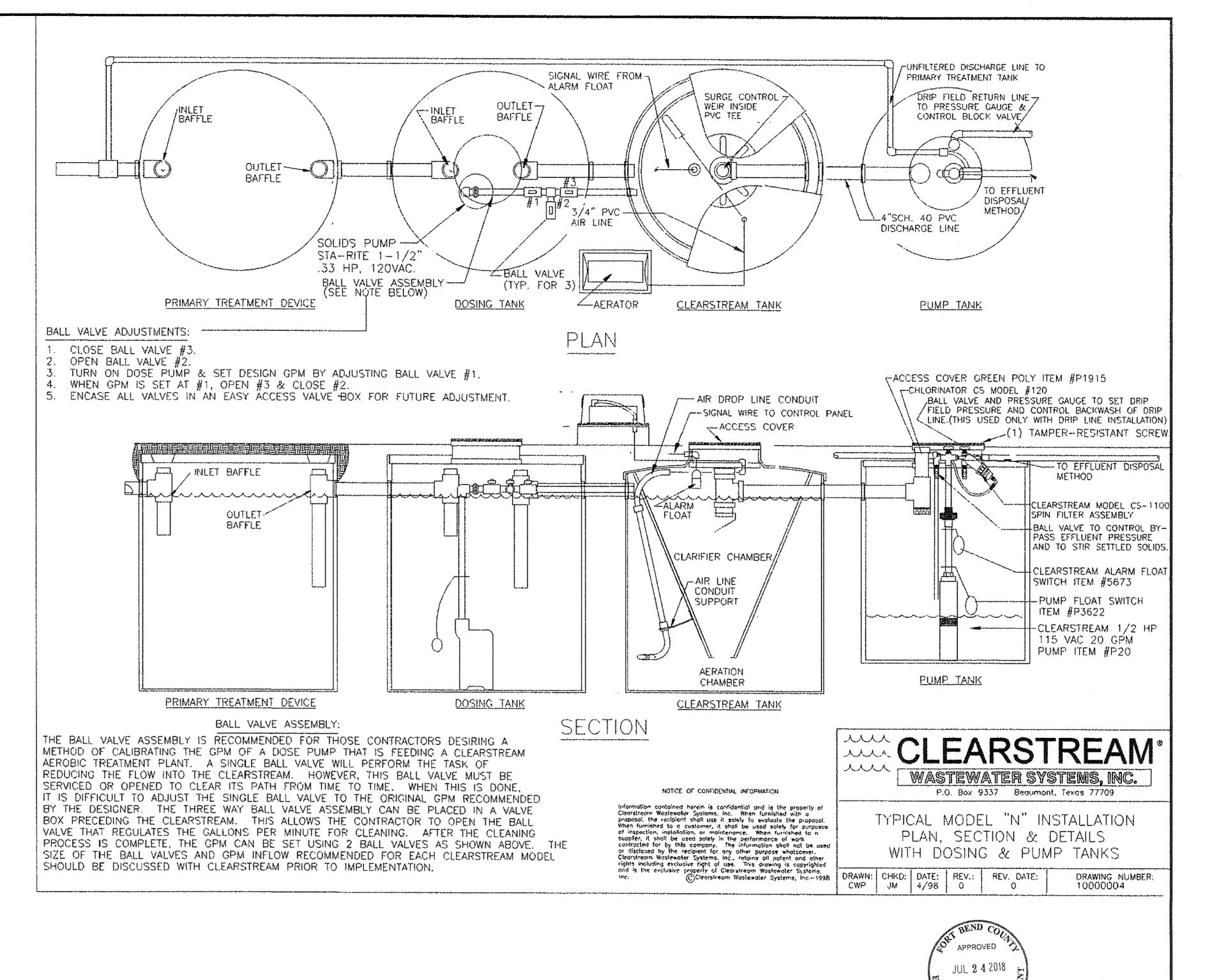
SHEET NUMBER:













NESVADBA ENGINEERING SERVICES

Valid One Year

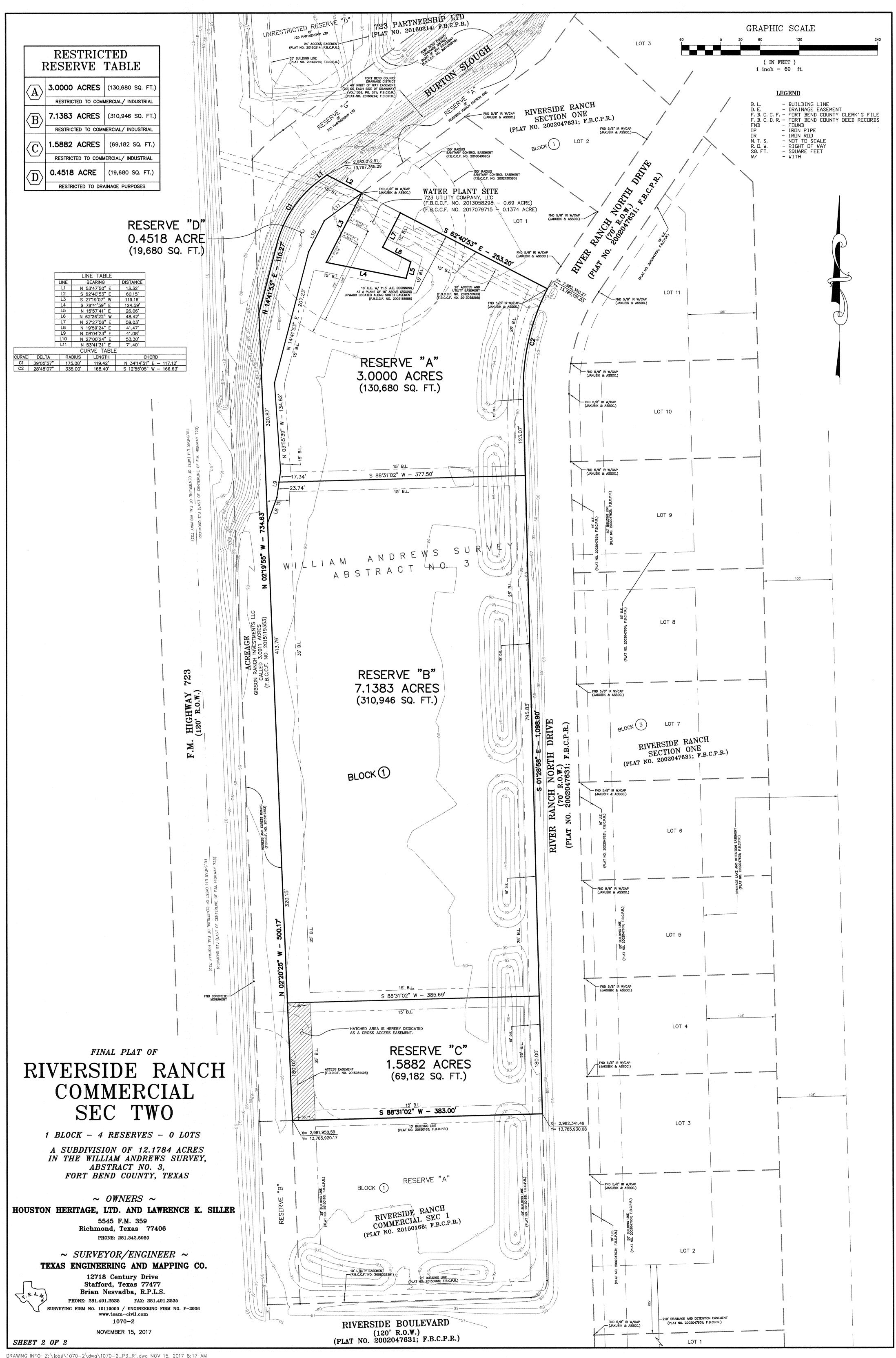
PO Box 353, Needville, Texas 77461 Phone 281-543-4660

Texas Board of Professional Engineers Registration Number F-8079

ON-SITE SEWAGE FACILITY DETAILS

Academy America
River Ranch North Drive
Richmond, Texas 77406

3.00 Acre Tract of Land
Reserve A, Riverside Ranch Commercial, Sec 2
Fort Bend County



DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency **ELEVATION CERTIFICATE**

IMPORTANT: FOLLOW THE INSTRUCTIONS ON PAGES 9-16 OMB Control Number: 1660-0008 Expiration: 11/30/2018

Copy all pages of this Elevation Certificate and all attachments for (1) community	y official, (2) insura			
SECTION A - PROPERTY INFORMATION		FORM INSURA	NCE COMPAN	IY USE
A1. Building Owner's Name Britannia Soccer Academy LLC		Policy Number:		
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or Box No.3606 FM 723 Road	P.O. Route and	Company NAIC Number:	;	
City Rosenberg	State Tx		Zip Code 77	7471
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Leg Reserve "A", Block 1, Riverside Ranch Commercial Sec Two (Plat No. 2018				
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, e	tc.)Non-Residenti	ial		
A5. Latitude/Longitude: Lat. 29°36'57.2"N Long. 95°48'36.7"W Hor		○ NAD 1927	● NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being us	sed to obtain flood		(911112)	
A7. Building Diagram Number 1B				
A8. For a building with a crawlspace or enclosure(s):	A9. For a build	ling with an attach	ed garage:	
a) Square footage of crawlspace or enclosure(s) N/A sq ft		age of attached ga		on ft
b) Number of permanent flood openings in the N/A	N. A. CO. CO.	permanent flood or		sq ft
crawlspace or enclosure(s) within 1.0 foot above adjacent grade		ed garage within		
c) Total net area of flood openings in A8.b N/A sq in	c) Total net are	ea of flood opening	gs in A9.b N/A	sq in
d) Engineered flood openings? Yes No	d) Engineered	flood openings?	○Yes ●	No
SECTION B - FLOOD INSURANCE RAT	E MAP (FIRM) IN	NFORMATION		
B1. NFIP Community Name & Community Number B2. Cour Fort Bend County - 480228 B2. Fort Bend	nty Name d County		В	3. State Tx
101==0000=	nel Effective/ B8.	. Flood Zone(s)	B9. Base Floor	
April 2, 2014	Date		(Zone AO, depth 93.0	use base flood
B10. Indicate the source of the Base Flood Elevation (BFE) data or base floo	od depth entered i	n Item B9:		
● FIS Profile ← FIRM ← Community Determined ← Other/Source:				
B11. Indicate elevation datum used for BFE in Item B9:	NAVD 1988 (Other/Source:		
B12. Is the building located in a Coastal Barrier Resources System (CBRS) a	area or Otherwise	Protected Area (0	OPA)? OYes	. ● No
Designation Date: CBRS COPA		()		(3.110
SECTION C - BUILDING ELEVATION INFO	RMATION (SUR	VEY REQUIRED)		
C1. Building elevations are based on: Construction Drawings* Building	ilding Under Cons	struction*	Finished Const	ruction
C2. Elevations - Zones A1 - A30, AE, AH, A (with BFE), VE, V1 - V30, V (with Complete Items C2.a -h below according to the building diagram specified in * A new Elevation Certificate will be required when construction of the building	Item A7. In Puert			AR/AO.
	ertical Datum: NA			
Indicate elevation datum used for the elevations in items a) through h) below Other/Source:	. () NGVD 1929	● NAVD 1988		
Datum used for building elevations must be the same as that used for the BF	E.		Check the mea	surement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	94.5		• feet	○ meters
b) Top of the next higher floor	N/A	-	(feet	meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	-	○ feet	meters
d) Attached garage (top of slab)	N/A	-	○ feet	○ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	N/A	-	○ feet	meters
f) Lowest adjacent (finished) grade next to building (LAG)	90.0		• feet	meters
g) Highest adjacent (finished) grade next to building (HAG)	94.5	-	• feet	○ meters
 h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support 	90.0	-	• feet	C meters

ELEVATION CERTIFICATE

OMB Control Number: 1660-0008 Expiration: 11/30/2018

3606 FM 723 Road Rosenberg Tx 7747

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Were latitude and longitude in Section A provided by a licensed land surveyor? Check here if attachments. Yes (No Certifier's Name License Number Brian Nesvadba Title Company Name V.P. - Survey Dept. Texas Engineering And Mapping Co. Address City State Zip Code 12718 Century Drive Stafford 77477 Τx Signature Date Telephone August 2, 2018 +1 (281) 491-2525 Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner. Comments (including type of equipment and location, per C2(e), if applicable)" Benchmark: National geodetic survey marker PID AW4693, designated L 1212, is a benchmark disk stamped "L 1212 1973" set in concrete headwall on the east side of Farm Road 723 approximately 4.05 miles north from Rosenberg, Texas. Elevation = 90.68' (NAVD '88) Signature SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE) For Zones AO and A (without BFE), complete Items E1 -E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1 -E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters. E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG). a) Top of bottom floor (including basement, crawlspace, above or below the HAG. or enclosure) is b) Top of bottom floor (including basement, crawlspace, above or below the LAG. or enclosure) is E2. For Building Diagrams 6 -9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8 -9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _ feet feet above or below the HAG. E3. Attached garage (top of slab) is above or below the HAG. E4. Top of platform of machinery and /or equipment servicing the building is above or below the HAG. E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? C Yes C No C Unknown. The local official must certify this information in Section G. SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge. Property Owner or Owner's Authorized Representative's Name: Address City ZIP Code State Signature Date Telephone Comments

Check here if attachments.