

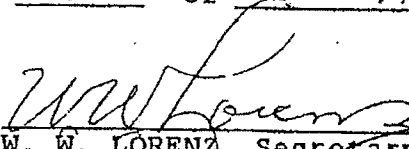
CERTIFICATE OF SECRETARY

SAN ANTONIO RIVER AUTHORITY

San Antonio, Bexar County, Texas

I hereby certify the above to be a duplicate original of the record in the matter of the adoption of Ordinance No. 0-805 and of the Ordinance as officially promulgated and on file in the Ordinance Book of this office, and I further certify that said Ordinance was adopted by the Members of said Board by Ten (10) affirmative votes, zero (0) negative votes, and Two (2) not voting, at a Regular Meeting of the Board of Directors of said Authority held on the 15th day of May, A. D., 1985, at San Antonio, Bexar County, Texas.

IN TESTIMONY WHEREOF, witness my hand and the official seal of the SAN ANTONIO RIVER AUTHORITY at San Antonio, Bexar County, Texas, on this the 15th of May, A. D. 1985.


W. W. LORENZ, Secretary

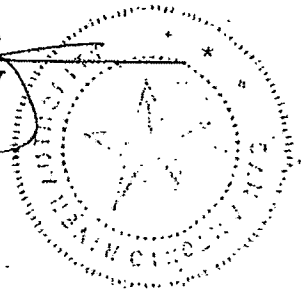


EXHIBIT C

Wholesale Customer Charge Schedule

1. Single Family Residential - For each single family residential unit connected to the Customer's local wastewater facilities, the Customer shall pay the following:

\$8.99 Fixed Charge plus \$4.81/1,000 gallons of Winter Average Water Consumption per month. The winter average water consumption is defined as the computed average of the monthly metered water consumption for three consecutive billing periods that fall wholly within the prior winter's season between November 15 and the following March 15. Where the account has not established a winter average, the Customer's representative winter average shall be used.

Fixed Charge - includes a payment for the debt of the system plus a computed capital replacement charge used to reduce the need for future system debt for capital projects.

Winter Average Water Consumption - This part of the charge based on winter average water consumption is waived when the unit is vacant.

2. All Other Users - For all other users, not single family residential units, connected to the Customer's local wastewater facilities, the Customer shall pay the following:

\$6.44/1,000 gallons of metered water consumption each month.

3. Regulatory Assessment Fee - The Texas Regulatory Assessment Fee of one-half of one percent as established by Ordinance No. O-955, passed and approved September 18, 1991, is hereby ratified, confirmed and carried forward.

EXHIBIT C
Schedule of Connection Fees (Impact Fees)

1. (Wholesale System Connection Fees (Impact Fees): Connection Fees (Impact Fees) for the River Authority's wholesale system are hereby established in the following multiples of one (1) Equivalent Dwelling Unit, which connection shall have a value of \$3,250. The required fee shall be computed by multiplying the value of one (1) Equivalent Dwelling Unit by the appropriate multiplier from the following list. Where the list is ambiguous or otherwise fails to properly cover a request for sewer connection, a connection fee (impact fee) consistent with those listed shall be established by mutual agreement of the River Authority and the wholesale Customer, and thereafter disclosed to the applicant.

TYPE OF CONNECTION	MULTIPLIER
Single family residence	1
Swimming pool	.2
Multi-family residential, including townhouses, condominiums, duplexes, etc. (per dwelling unit)	1
Apartments	.6
Hotels/motels with cooking facilities in room (per dwelling unit)	.6
Hotels/motels without cooking facilities in room (per dwelling unit)	.33
Trailer/mobile home parks (per trailer lot/space	1
Camper campgrounds (per camper site)	.33
Hospital (per design bed)	.66
Nursing/rest home (per design bed)	.33
School with showers (per design student)	.066
School without showers (per design student)	.05

	DIAMETER OF SERVICE LINE		
	4"	6"	8"
Service station	1X	2X	4X
Swimming pool (commercial)	1X	2X	4X
Office bldg. retail & convenience stores	1X	2X	4X
Bowling alley	1X	2X	4X
Theater, drive-in theater	1X	2X	4X

Factory, industry – see also paragraph 1(b) hereof	1X	2X	4X
Spectator stadium	1X	2X	4X
Church	1X	2X	4X
Restaurant	2X	4X	8X

2. Policy for Payment of Connection Fees (Impact Fees):

- (a) The Customer shall certify to the River Authority , on forms to be provided by the River Authority, the connection or connections that it desires to make to its local wastewater facilities. Simultaneously, the Customer shall tender to the River Authority its payment of all the connection fees (impact fees) for which certification has been made.
- (b) Upon acceptance of the Customer's certificate and payment, the River Authority shall issue its permit or permits to the Customer authorizing the making of the physical connection or connections.

3. Remedy for Failure to Pay Connection Fees (Impact Fees):

In the event that the Customer should permit a service line of any classification to be connected to its local wastewater facilities without payment of the appropriate connection fee (impact fee) to the River Authority , the River Authority shall be entitled to liquidated damages in the amount of One Hundred Dollars (\$100) for any such unpaid connection fee (impact fee) in addition to the appropriate fee itself.

4. Balance Due Policy:

Full payment of appropriate connection fees (impact fees) shall be made for all connections for which application is made on or after the date execution of the agreement. Where only a portion of the wastewater connection fee (impact fee) has previously been paid to secure conditional connection approval, the balance due shall be the difference between the amount paid and the connection fee (impact fee) in effect at the time the balance is paid.

LEGEND

- Sta
- City Limits
- Proposed Sewer Line
- 17' Canals
- Canals
- San Antonio
- Schertz



1 OF 1

DATE: 11/11/2014
 TIME: 10:26:41 AM
 USER: D. ZINK

PLAT NO.

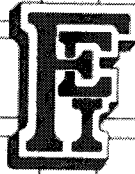
GRAYTOWN & SCENIC LAKE
 SARA SEWER SERVICE EXHIBIT
 BEXAR COUNTY

REVISIONS

ISSUE DATE

KFW
 ENGINEERS & SURVEYORS
 1101 N. GARDEN ST. SUITE 100
 SAN ANTONIO, TEXAS 78205
 (214) 521-1111

EXHIBIT B—ITEM 2
(LETTER FROM FORD ENGINEERING, INC.)
OF
THE CLARIFIED STAFF RESPONSE



FORD ENGINEERING, INC.

March 19, 2015

Mr. Louis C. Herrin III, P.E.
TCEQ - MC 148
P. O. Box 13087
Austin, Texas 78711-3087

Re: Chapter 217.6 Summary Transmittal Letter

Permittee: City of Schertz/ San Antonio River Authority
Permit Number: TXR05K745
Project Name: CCN Application
County(s): Bexar

Dear Mr. Herrin:

The City of Schertz has applied to amend their Sanitary Sewer CCN. The Public Utility Commission (PUC) has required that the City obtain approval by TCEQ of the preliminary engineering data that was submitted for the CCN application in order to approve the CCN amendment.

The preliminary report was prepared by Ford Engineering, Inc. and is attached. The area to be included in the CCN will be a joint use area with the San Antonio River Authority (SARA); the City supplying the collection system and the SARA providing trunklines and treatment.

The report and calculations, attached, which describe the project identified in this letter are in substantial compliance with all the requirements of Chapter 217.

If you have any questions regarding this project, please contact Mark B. Hill, P.E.; phone: 210-590-4777, fax: 210-590-4940.

Sincerely,

Mark B Hill, P.E.
Ford Engineering, Inc.



cc: Lynn Bumguardner, Region 13, San Antonio office
encl.



FORD ENGINEERING, INC.

February 24, 2015
Project 1124.86

Mr. Sam Willoughby
City of Schertz
Public Works Director
10 Commercial Place, Bldg 2
Schertz, Texas 78154

RE: Sanitary Sewer Master Plan – Salitrillo Sewershed

Mr. Willoughby,

Ford Engineering, Inc. prepared a preliminary sanitary sewer study in 2013 to determine appropriate sizing of sewer mains for master planned and capital improvements projects. Attached is an exhibit of the Salitrillo Sewershed and estimated sizes for sewer in that area; see Exhibit 1. The San Antonio River Authority (SARA) has completed segment 11 and 12 of the master planned Graytown Wastewater Collection System for the Salitrillo Sewershed within the City of Schertz, and has additional segments planned for the City of Schertz; see Exhibit 2.

All sizing was based on ultimate development within the city limits based on the Future Land Use Plan developed for the City of Schertz Comprehensive Land Plans as adopted in July 2013, Ordinance 13-S-21; see Exhibit 3.

Land Uses were ascribed a comparable living unit equivalent, based on the following criteria: the City requires all new development to be connected to a public sanitary sewer system, anticipated growth projected in the Comprehensive Land Use Plan, and the Table 1, below.

Table 1 Future Land Use and Living Unit Equivalent

LU Code	LU Description	Peaking Factor	LUE/AC	l/l (gpd) per AC
1	Neighborhood	3	3.25	700
2	Estate Neighborhood	3	1.5	700
3	Highway Commercial	3	1	1000
4	Campus Commercial	3	1	1000
5	Mixed Use Core	3	4	850
6	Light Industrial	3	1	1000
7	School	3	4	750
8	Ag-conservation	3	0.2	140
9	Open Park	0	0	0
10	Floodplain	0	0	0
11	Air Installation Impact	0	0	0
12	Air Installation Comp	0	0	0
13	Transition	3	1	1000

The calculation of sewer flow is per acre. One living unit equivalent (LUE) is equal 245 gallons be day for the Average Daily flow. The Peak Dry Weather flow is increases the Average by a factor of three (3). The Peak Wet Weather flow is the Peak Dry with an addition of infiltration and inflow, based on acreage per Table 1.

Table 2 Calculated Sewer Flow

SEWERSHED SALTRILLO CRK						Total Sewage Flow	3,962,096.4
SS_ID	LANDUSE DESCRIPTION	AREA	LUE/ACR E	LUE	Average, gpd	Peak Dry, gpd	Peak Wet, gpd
60		142.3		94.3	23,107.6	69,322.8	118,839.6
	Highway Commercial	10.3	1	10.3	2,527.6	7,582.8	
	Estate Neighborhood	56.0	1.5	84.0	20,580.0	61,740.0	
	Floodplain	76.0	0	0.0	0.0	0.0	
61		300.2		381.6	93,491.7	280,475.0	459,033.7
	Highway Commercial	0.9	1	0.9	220.2	660.5	
	Air Installation Impact	11.5	0	0.0	0.0	0.0	
	Estate Neighborhood	253.8	1.5	380.7	93,271.5	279,814.5	
	Floodplain	34.0	0	0.0	0.0	0.0	
62		261.0		269.8	66,052.0	198,156.0	361,196.0
	Highway Commercial	46.2	1	46.2	11,319.0	33,957.0	
	Estate Neighborhood	133.2	1.5	199.8	48,951.0	146,853.0	
	Transition	23.6	1	23.6	5,782.0	17,346.0	
	Floodplain	58.0	0	0.0	0.0	0.0	
63		658.5		811.2	198,737.7	596,213.1	1,129,471.0
	Highway Commercial	73.1	1	73.1	17,909.5	53,728.5	
	Campus Commercial	147.5	1	147.5	36,137.5	108,412.5	
	Estate Neighborhood	347.4	1.5	521.1	127,667.8	383,003.3	
	Transition	69.5	1	69.5	17,022.9	51,068.7	
	Floodplain	21.0	0	0.0	0.0	0.0	
64		419.1		313.7	76,844.3	230,532.8	376,902.8
	Estate Neighborhood	209.1	1.5	313.7	76,844.3	230,532.8	
	Floodplain	210.0	0	0.0	0.0	0.0	
65		354.5		346.7	84,929.3	254,787.8	416,557.8
	Air Installation Impact	1.4	0	0.0	0.0	0.0	
	Estate Neighborhood	231.1	1.5	346.7	84,929.3	254,787.8	
	Floodplain	122.0	0	0.0	0.0	0.0	
66		652.4		784.5	192,210.4	576,631.2	971,358.0
	Highway Commercial	10.7	1	10.7	2,628.0	7,883.9	
	Ag-conservation	19.4	0.2	3.9	951.7	2,855.0	
	Air Installation Impact	64.3	0	0.0	0.0	0.0	
	Estate Neighborhood	485.8	1.5	728.7	178,531.5	535,594.5	
	Transition	41.2	1	41.2	10,099.2	30,297.7	
	Floodplain	31.0	0	0.0	0.0	0.0	
67		274.9		110.7	27,109.9	81,329.7	128,737.6
	Ag-conservation	0.1	0.2	0.0	3.9	11.8	
	Air Installation Impact	213.0	0	0.0	0.0	0.0	
	Campus Commercial	30.0	1	30.0	7,359.0	22,076.9	
	Neighborhood	24.8	3.25	80.6	19,747.0	59,241.0	
	Floodplain	7.0	0	0.0	0.0	0.0	

Estimated sewer main sizing for the collection by the City of Schertz is based on the contributing sewage values above and upon the minimum slopes and full flow capacities allowed by the Texas Commission on Environmental Quality; see Table 3.

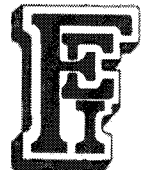


Table 3 Allowable Sewer Main Diameter Calculations

Pipe, in	1.49/n	a	p	Rh	Min S (ft/ft)	Max S (ft/ft)	Min V fps	Max V fps	Max Q, Min Slope gpd	Max Q, Max Slope gpd
6	114.6	0.20	1.57	0.12	0.005	0.1235	2.0	10.0	255,132.09	1,267,983.36
8	114.6	0.35	2.10	0.17	0.0033	0.084	2.0	10.0	452,800.46	2,284,491.42
10	114.6	0.54	2.61	0.21	0.0025	0.0623	2.0	10.0	698,133.82	3,485,079.55
12	114.6	0.79	3.14	0.25	0.0024	0.048	2.2	9.9	1,124,956.65	5,030,959.07
15	114.6	1.23	3.93	0.31	0.0024	0.0362	2.6	10.0	2,041,199.82	7,927,462.30
18	114.6	1.77	4.71	0.37	0.0024	0.0283	2.9	10.0	3,321,233.79	11,404,783.49
21	114.6	2.40	5.50	0.44	0.0024	0.023	3.2	10.0	5,012,419.10	15,516,925.45
24	114.6	3.14	6.28	0.50	0.0024	0.0193	3.5	10.0	7,159,552.45	20,302,938.94
27	114.6	3.97	7.07	0.56	0.0024	0.0165	3.8	10.0	9,805,350.21	25,709,845.16
30	114.6	4.91	7.85	0.62	0.0024	0.0143	4.1	10.0	12,990,791.41	31,710,128.90
33	114.6	5.94	8.64	0.69	0.0024	0.0126	4.4	10.0	16,755,372.17	38,391,380.64
36	114.6	7.07	9.42	0.75	0.0024	0.0112	4.6	10.0	21,137,301.22	45,661,789.43

Anticipated sewer mains are shown in the attached Exhibit 1. The exhibit is for planning uses only, and actual alignments, and sewage capacities may vary based on development of the area.

This summarizes the preliminary study and calculations for the sanitary sewer master planning study for the Salitrillo Creek. Should there be any questions, please don't hesitate to contact me at 210-590-4777.

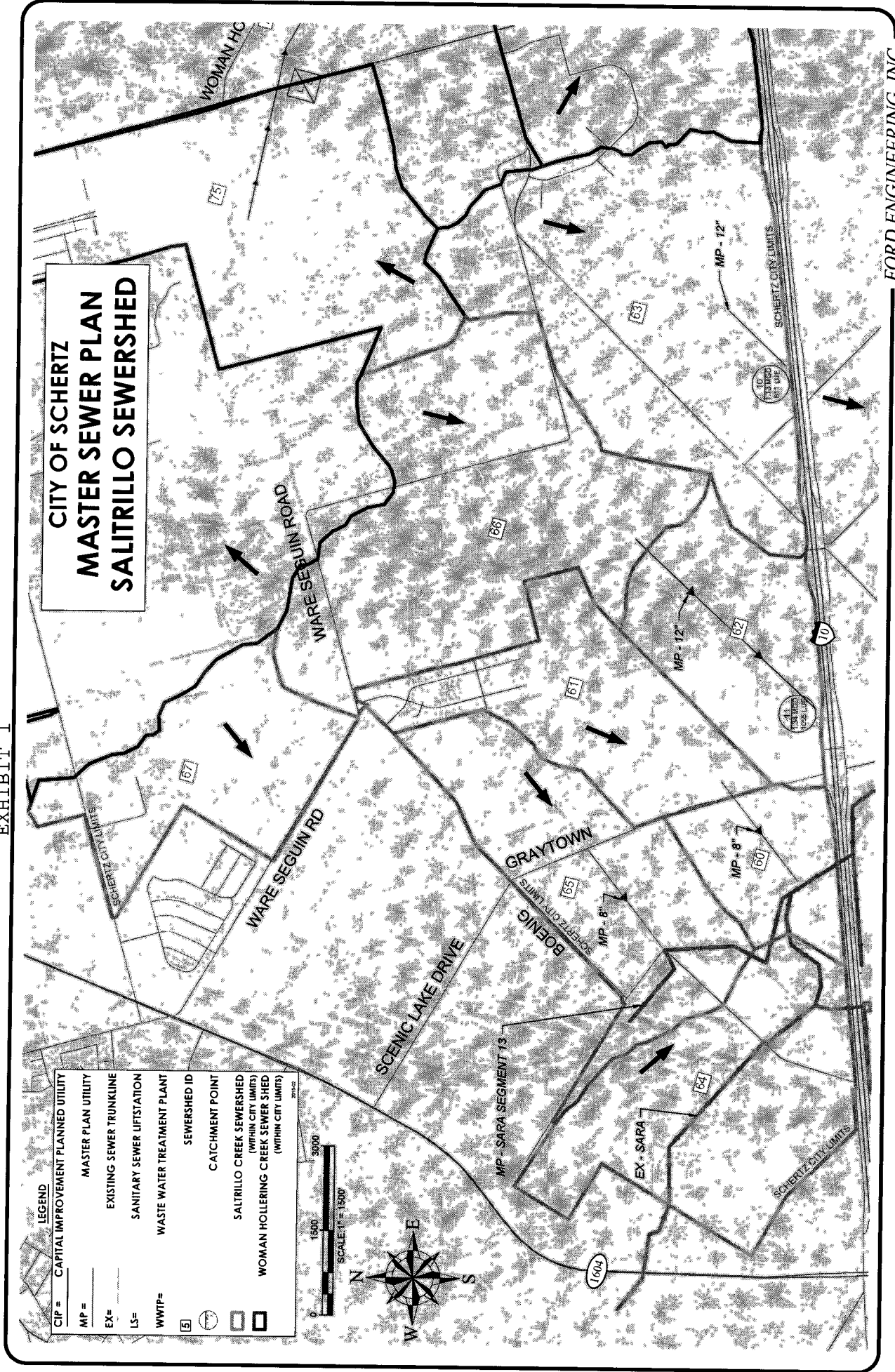
Sincerely,



Mark B Hill, P.E.
Ford Engineering, Inc.

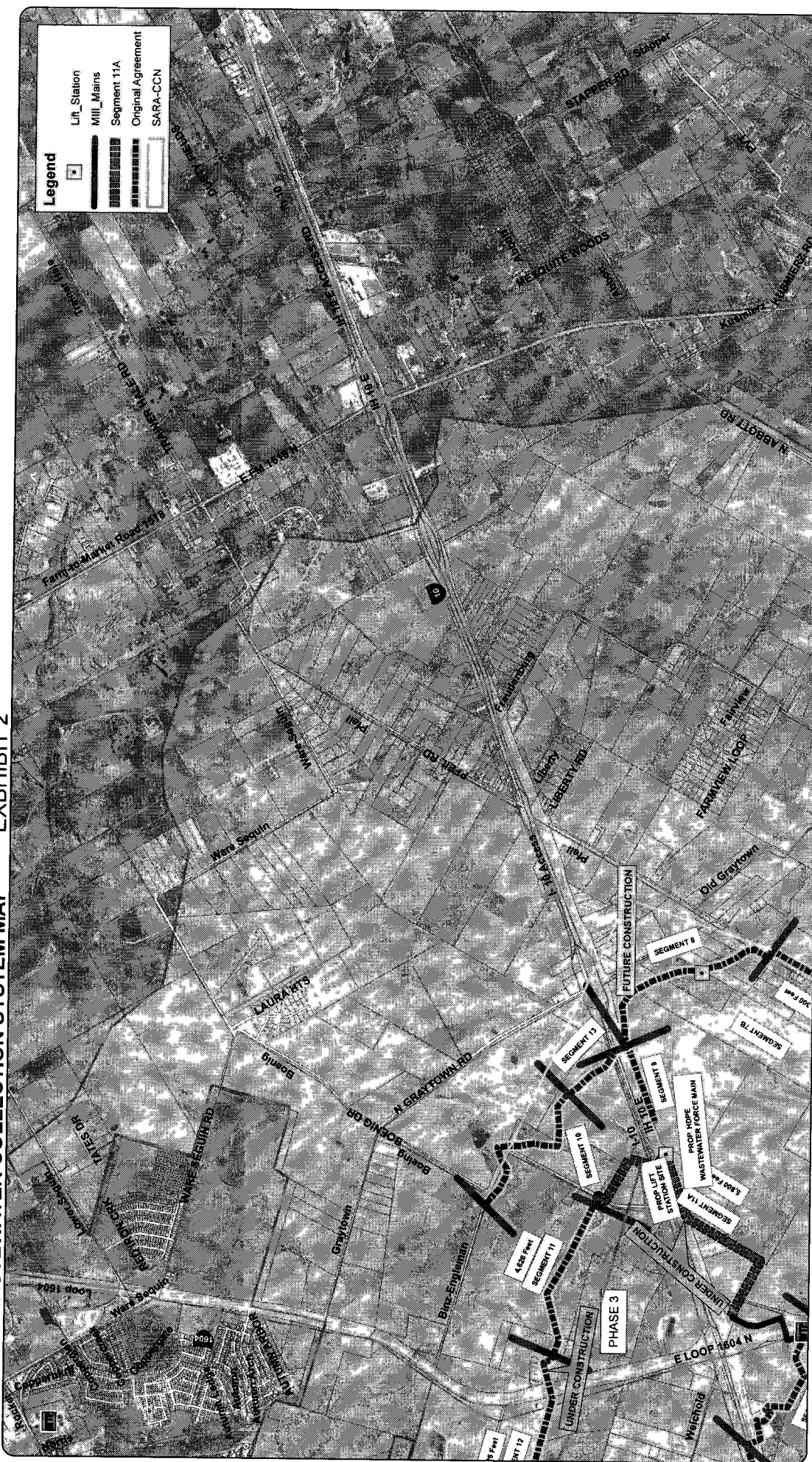


EXHIBIT 1



GRAYTOWN WASTEWATER COLLECTION SYSTEM MAP

EXHIBIT 2



Disclaimer:
The QAS material included with this transmittal is made available as a public service. The maps and/or data are to be used for reference purposes only. The data herein shall be used and relied upon only at the user's sole risk, and the user agrees to indemnify and hold harmless the San Antonio River Authority, its officers and employees from any liability arising out of the use of the data or information provided. If there are any questions about the use of the data or appropriateness of this data, please email qas@sa.gov or call 210.207.2626.

[illegible]

EXHIBIT 3

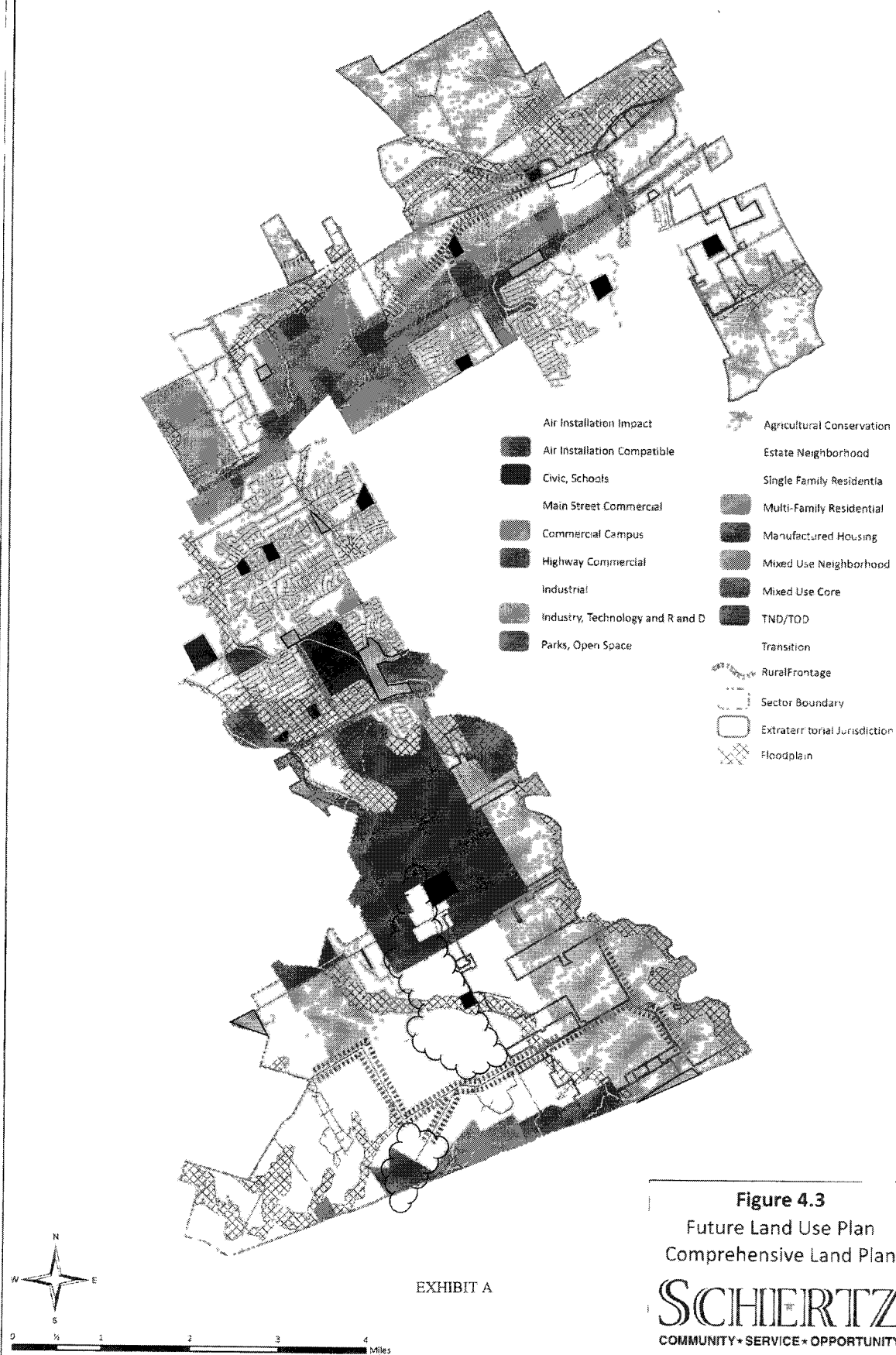


EXHIBIT C—ITEM 2
(CERTIFIED RETURN RECEIPT CONFIRMING TCEQ SUBMISSION)
OF
THE CLARIFIED STAFF RESPONSE

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Louis C. Hermin III, PE
TCEQ - MC148
P.O. Box 13087
Austin, TX 78711-3087

2 7012 3460 0001 9897 3691

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

C. Signature

X

☐ Agent☐ Address

D. Is delivery address different from item A? Yes

If YES, enter delivery address below:

TRASS/C
MAR 23 2015

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-095

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

City of Schertz
Public Works Dept.
10 Commercial Plt# 2
Schertz, TX 78154

Attn: Cindy Raleigh



EXHIBIT D—ITEM 3
(LIST OF NEIGHBORING ENTITIES AND RELATED MAP)
OF
THE CLARIFIED STAFF RESPONSE

List of Neighboring Entities within 2 Miles of Proposed Sewer Service Area

1. San Antonio Water System
2. Cibolo Creek Municipal Authority
3. Green Valley Special Utility District
4. San Antonio River Authority
5. East Central Special Utility District

