



**CITY OF FAIR OAKS RANCH
AGENDA – CITY COUNCIL REGULAR MEETING**

November 15, 2018, 6:30 PM
City Hall Council Chambers
7286 Dietz Elkhorn, Fair Oaks Ranch

I. OPEN MEETING

- A. Roll Call – Declaration of a Quorum
- B. Pledge of Allegiance.

II. CITIZENS and GUEST FORUM / PRESENTATIONS

To address the Council, please sign the Attendance Roster located on the table at the entrance of the Council Chamber. In accordance with the Open Meetings Act, Council may not discuss or take action on any item which has not been posted on the agenda.

- A. Citizens to be heard.

III. CONSENT AGENDA

All of the following items are considered to be routine by the City Council, there will be no separate discussion on these items and will be enacted with one motion. Items may be removed by any Council Member by making such request prior to a motion and vote.

- A. Approval of November 1, 2018 at 9:30 AM Regular City Council Meeting Minutes. Pgs. 3-5
- B. Approval of the Second Reading of an Ordinance amending the City's Master Fee Schedule. Pgs. 6-23

IV. DISCUSSION/CONSIDERATION ITEMS

- A. Consideration and possible action approving the October 26, 2016 Special City Council Meeting Minutes. Christina Picioccio, City Secretary Pgs. 24-25
- B. Presentation and discussion regarding the Master Drainage Plan. Ron Emmons, P.E., Public Works Director and CDM Smith Pgs. 26-82
- C. Consideration and possible action approving the Tree Preservation Plan for Front Gate Unit 4. Melissa Castro, Environmental Compliance Manager Pgs. 83-86
- D. Consideration and possible action approving the First Reading of an Ordinance adopting a Cross Connection Control and Backflow Prevention Program. Adrian Garcia, P.E., Mgr. of Engineering Services, Melissa Castro, Environmental Compliance Manager Pgs. 87-95
- E. Consideration and possible action authorizing the City Manager to sign an Online Backflow Management System Service Agreement with Vepo, LLC. Melissa Castro, Environmental Compliance Manager Pgs. 96-102
- F. Discussion and possible action on the first reading of an Ordinance providing for a reasonable limit on the amount of time to be spent without charge for repeat public information requestors. Tobin Maples, City Manager Pgs. 103-107

- G. Consideration and possible action regarding cancelling December 20, 2018 Council Meeting. Tobin Maples, City Manager Pg. 108
- H. Discussion and possible action authorizing the City Manager to execute an engagement letter with ABIP. Sarah Buckelew, Director of Finance Pgs. 109-124

V. REPORTS FROM STAFF / COMMITTEES / COUNCIL

A. None

VI. CONVENE INTO EXECUTIVE SESSION

Pursuant to Section 551.101 of the Open Meetings Act, Texas Gov't Code, a quorum of the governing body hereby convenes into closed session:

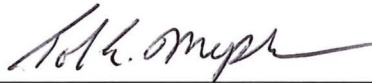
- A. 551.071 (Consultation with Attorney) - Cause No. 2018-CI-00202; the City of Fair Oaks Ranch, Texas vs Edward I. Hill, Robert E. Heckendorn, Craig M. Luitjen, Roger Fuentes, Wesley A. Pieper, Esther W. Hicks, William A. McDowell, Yolanda D. Ayala, PG Pfeiffer Ranches LLC, Maureen Pfeiffer Stevenson Family Trust.

VII. RECONVENE INTO OPEN SESSION

VIII. ADJOURNMENT

Requests for City topic needing additional information/research; or, potential consideration for a future agenda.

Signature of Agenda Approval: _____



I, Christina Picioccio, City Secretary, certify that the above Notice of Meeting was posted on the outside bulletin board at the Fair Oaks Ranch City Hall, 7286 Dietz Elkhorn, Fair Oaks Ranch, Texas, and on the city's website www.fairoaksranchtx.org, both places being convenient and readily accessible to the general public at all times. Said Notice was posted by 5:00 PM, November 12, 2018 and remained so posted continuously for at least 72 hours before said meeting was convened.

The Fair Oaks Ranch City Hall is wheelchair accessible at the side entrance of the building from the parking lot. Requests for special services must be received forty-eight (48) hours prior to the meeting time by calling the City Secretary's office at (210) 698-0900. Braille is not available. The City Council reserves the right to convene into Executive Session at any time regarding an issue on the agenda for which it is legally permissible; pursuant to *Texas Government Code* Chapter 551. Section 551.071 (Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices) and 551.087 (Economic Development).

**CITY OF FAIR OAKS RANCH
CITY COUNCIL MEETING MINUTES
November 1, 2018
7286 Dietz Elkhorn
Fair Oaks Ranch, TX 78015**

I. OPEN MEETING

A. Roll Call – Declaration of a Quorum

Present: Mayor Manitzas, Mayor Pro Tem Havard
Council Members: Elizondo, Koerner, Maxton, and Patel

Delayed: Council Member Hartpence

With a quorum present, Mayor Manitzas called the regular City Council meeting to order at 9:30 AM.

B. The Pledge of Allegiance was led by citizen, Rich Nichols.

Council Member Hartpence arrived at the meeting at 9:34 AM.

II. CITIZENS and GUEST FORUM / PRESENTATIONS

A. Mayor Manitzas presented a 15 year service award to Steven Fried, Water Quality Supervisor and a 5 year service award to Scott Davis, Building Codes Inspector.

B. Citizens to be heard

1. Jeremy Diller of HCDT spoke to Council of services his company could offer the City regarding property, and liability insurance, workers compensation and surety bond programs.

III. CONSENT AGENDA

A. Approval of October 18, 2018 Regular City Council Meeting Minutes.

B. Approval of Second Reading of an Ordinance amending Chapter 3, Building Regulations, Article 3.16 Board of Appeals Section 3.16.005 providing for an extension of the time between filing of an appeal to the Building Codes and the hearing; and Article 3.1 General Provision, Sections 3.01.002 and 3.01.006 clarifying the administrative review process.

C. Approval of Comal County Unit 15 (River Valley Unit 2) Preliminary Plat.

D. Approval of Mayor Manitzas' absence for the October 18, 2018 Council Meeting.

Council Member Patel requested that Item A be pulled from the Consent Agenda and placed in the Discussion/Consideration Items section.

MOTION: Made by Council Member Elizondo, seconded by Mayor Pro Tem Havard to approve the remaining consent agenda items as written.

VOTE: 7-0; Motion Passed.

IV. DISCUSSION/CONSIDERATION ITEMS

Council Member Patel requested that Consent Agenda Item A, October 18, 2018 Regular City Council Meeting Minutes, Item IV B Amended Motion be modified to read “ Amended Motion Made by Council Member Patel, seconded by Council Member Elizondo to strike the language “or at stated periodic meetings” in Sec 3.16.005 Notice of Meeting, *since there are no periodic meetings.*”

MOTION: Made by Council Member Elizondo, seconded by Council Member Patel to approve the minutes as amended.

VOTE: 7-0; Motion Passed.

A. Consideration and possible action re-appointing Bud Paulson to the Kendall Appraisal District Board of Directors, for a two-year term, beginning January 1, 2019.

MOTION: Made by Mayor Pro Tem Havard, seconded by Council Member Hartpence to approve the re-appointment of Mr. Bud Paulson to the Kendall Appraisal District Board of Directors, effective January 1, 2019 for a two year term.

VOTE: 7-0; Motion Passed.

B. Consideration and possible action approving the First Reading of an Ordinance adopting the City's Fee Schedule.

MOTION: Made by Council Member Elizondo, seconded by Council Member Maxton to approve the first reading of an Ordinance amending the City's Master Fee Schedule.

VOTE: 7-0; Motion Passed.

C. Discussion and possible action establishing a strategic planning team regarding the expansion of Ralph Fair Road.

City Manager Tobin Maples, seeking Council guidance and insight, recommended the creation of a strategic planning team consisting of 2-3 Council Members and 1-2 citizen volunteers to work with the Professional Consulting Services (Gateway Planning) to shape initiatives regarding the Expansion of Ralph Fair Road/FM 3351.

Council Members Koerner and Elizondo indicated interest in participating on the team and Council Member Patel offered to be an alternate. Mayor Pro Tem Havard recommended Michael Rey as a possible citizen volunteer due to his involvement on the Stakeholders Committee and Planning and Zoning Commission.

Council Member Koerner noted that regular updates will be provided to Council to keep remaining Council and citizens informed.

Council Member Patel left the meeting at 10:08 AM.

D. Discussion regarding Chapter 552 of the Texas Government Code.

Citing Section 552.275 of the Texas Government Code, City Manager Tobin Maples, sought insight and general direction regarding establishing reasonable limits on the amount of time personnel are required to spend producing public information without recovering costs attributable to multiple public information requests submitted by one individual.

Council directed staff to move forward with developing an Ordinance which will address this issue.

E. Consideration and possible action authorizing the City Manager to sign an amendment to the Professional Services Agreement with Gap Strategies.

MOTION: Made by Council Member Elizondo, seconded by Mayor Pro Tem Havard to approve an amendment to the Professional Services Contract with Gap Strategies in an amount not to exceed \$60,000.

VOTE: 6-0; Motion Passed.

V. REPORTS FROM STAFF / COMMITTEES / COUNCIL

None

VI. CONVENE INTO EXECUTIVE SESSION

City Council did not convene into closed session regarding:

A. Cause No. 2018-CI-00202; the City of Fair Oaks Ranch, Texas vs Edward I. Hill, Robert E. Heckendorn, Craig M. Luitjen, Roger Fuentes, Wesley A. Pieper, Esther W. Hicks, William A. McDowell, Yolanda D. Ayala, PG Pfeiffer Ranches LLC, Maureen Pfeiffer Stevenson Family Trust.

City Council convened into closed session at 10:47 AM regarding:

B. 551.074 (Personnel Matters) - The governing body hereby convenes into closed session regarding the annual evaluation of the City Manager and City Secretary

Council Member Koerner left the meeting at 11:30.

VII. RECONVENE INTO OPEN SESSION

Mayor Manitzas reconvened into open session at 12:10 PM. No action was taken.

VIII. ADJOURNMENT

Mayor adjourned the City Council meeting at 12:11 PM.

ATTEST:

Garry Manitzas, Mayor

Christina Picioccio, City Secretary



CITY COUNCIL CONSIDERATION ITEM
CITY OF FAIR OAKS RANCH, TEXAS
November 15, 2018

AGENDA TOPIC: Approval of the Second Reading of an Ordinance amending the City's Master Fee Schedule

DATE: November 15, 2018

DEPARTMENT: Administration

PRESENTED BY: Carole Vanzant, Assistant City Manager

INTRODUCTION/BACKGROUND:

The City of Fair Oaks Ranch funds its operations through many different revenue sources. One of the sources of revenue is fines and fees. The purpose of assessing fines and fees is to charge the recipient of the service directly for the cost of providing those services, rather than having the cost of those direct services subsidized by another revenue source. Some of these fines and fees include:

1. Inspection fees – charges related to the physical inspection of buildings, sites, etc.
2. License and permit fees – charges imposed to defray the cost incurred in processing applications for licenses and permits which authorize the holder to engage in a specific function or activity.
3. Penalty Fees and Fines – charges imposed for non-compliance with specific city requirements.
4. User fees – charges imposed for a service or a product that a business or individual receives for his/her personal, economic, or physical benefit.
5. Special service fees – charges for time and materials costs incurred by the City in the course of providing an extraordinary service.

Since the City's last revision of the fee schedule occurred in November 2002, staff performed an assessment on the current fee schedule to determine if fees being charged properly covered the cost of the service provided, if new fees are warranted, and if the current fees are reasonable.

City Council, on November 1, 2018, approved the first reading of an Ordinance amending the city's Master Fee Schedule. Tonight, if adopted, the Ordinance will go into effect January 2, 2019 to allow proper implementation processes and time.

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

1. Complies with the City's Financial Policy that a review of fees and charges is performed.
2. Ensures services associated with a user fee or charge, the direct and indirect costs of that service is offset, where possible.
3. Sets fees and rates to meet the fiscal and policy goals and objectives of the City.
4. Meets the desires of the City Council that fees be reasonable and equitable.

LONGTERM FINANCIAL & BUDGETARY IMPACT:

As the examination sought to rectify any undercharge in fees or non-charge for services by aligning fees with the cost of service more accurately or by creating fees to offset the cost of service, the amended Master Fee Schedule will assist staff and Council with long term financial planning. No negative impact to future budgets.

LEGAL ANALYSIS:

Ordinance was reviewed and approved as to form.

RECOMMENDATION/PROPOSED MOTION:

Consent Agenda - I move to approve an Ordinance amending the City's Master Fee Schedule.

AN ORDINANCE

OF THE CITY OF FAIR OAKS RANCH AMENDING APPENDIX A “MASTER FEE SCHEDULE” OF THE CODE OF ORDINANCES OF THE CITY OF FAIR OAKS RANCH, TEXAS; CONTAINING FINDINGS AND PROVISIONS RELATING TO THE SUBJECT; PROVIDING A REPEAL CAUSE; AND PROVIDING AN EFFECTIVE DATE

WHEREAS, a Master Fee Schedule, providing for fees assessed to cover the costs associated with the efficient operation of the City, was passed and approved in November 2002; and

WHEREAS, city staff, after performing a thorough review of the Master Fee Schedule, has provided recommendations to the Schedule for City Council consideration; and,

WHEREAS, the proposed cost recovery fees meet the desire that fees be reasonable and equitable; and,

WHEREAS, after careful consideration of the city’s current financial plan and of city services, the City Council of the City of Fair Oaks Ranch, Texas has determined amending the Master Fee Schedule is warranted.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FAIR OAKS RANCH, TEXAS THAT:

SECTION I. FINDINGS INCORPORATED.

The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

SECTION II. MASTER FEE SCHEDULE.

The “*Master Fee Schedule*” of the Code of Ordinances of the City of Fair Oaks Ranch, Texas is hereby amended to read in its entirety as set out in **Exhibit A**, which is attached and made a part of this ordinance.

SECTION III. REPEAL CLAUSE.

All ordinances or parts of ordinances in conflict with the terms of this ordinance are hereby repealed.

SECTION IV. SEVERABILITY.

If for any reason any section, paragraph, subsection, clause, phrase, word, or provision of this Ordinance shall be held invalid or unconstitutional by final judgment of a Court of competent jurisdiction it shall not affect any other section, paragraph, subsection, clause, phrase, work or provision of this Ordinance, for it is the definite intent of this City Council that every section, paragraph, subsection, clause, phrase, work, or provision hereof be given full force and effect for its purpose.

SECTION V. MEETING NOTICE.

The City Council officially finds, determines and declares that a sufficient written notice of the date, hour, place and subject of each meeting at which this Ordinance was discussed, considered or acted upon was given in the manner required by the Texas Open Meetings Act, as amended, and that each such meeting has been open to the public as required by law at all times during such discussion, consideration and action.

SECTION VI. EFFECTIVE DATE.

After its passage and approval, this ordinance shall take effect January 2, 2019.

PASSED and APPROVED on first reading this 1st day of November, 2018.

PASSED, APPROVED AND ADOPTED on second reading this 15th day of November, 2018.

Garry Manitzas, Mayor

ATTEST:

APPROVED AS TO FORM:

Christina Picioccio, City Secretary

Denton Navarro Rocha Bernal & Zech, P.C.,
City Attorney

MASTER FEE SCHEDULE - APPENDIX A OF THE CITY CODE OF ORDINANCES	
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ANIMAL CONTROL	
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Registration and Tag Fee:	
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Neutered/spayed dogs/cats	\$5.00
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Unneutered/spayed dogs/cats	\$10.00
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Replacement Tag	\$2.00
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Impound fee (per animal/per day):	
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First impoundment	\$30.00
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Second impoundment	\$50.00
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Third and subsequent impoundment, applies to animal impounded w/in 12-month calendar	\$75.00
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Owner Surrender	\$40.00
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Boarding Fee (per animal/per day)	\$15.00
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Residential quarantine (10 day period)	\$50.00
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BUILDING CODES	
Building permit/inspection (new home)	\$.52 per sq ft
Building permit/inspection (all others) based on project valuation:	
Less than \$1,000.00	\$25.00
\$1,000 - \$9,999.00	\$25.00 for the first \$1,000.00 plus \$6.75 for each additional thousand or fraction thereof to and including \$9,999.00
\$10,000 - \$24,999.00	\$85.75 for the first 10,000.00 plus \$6.25 for each additional thousand or fraction thereof to and including \$24,999.00
\$25,000 - \$49,999.00	\$179.50 for the first \$25,000.00 plus \$5.75 for each additional thousand or fraction thereof to and including \$49,999.00
\$50,000 - \$74,999.00	\$323.25 for the first \$50,000.00 plus \$5.25 for each additional thousand or fraction thereof to and including \$74,999.00
\$75,000 - \$99,999.00	\$454.50 for the first \$75,000.00 plus \$4.75 for each additional thousand or fraction thereof to and including \$99,999.00
\$100,000 - \$499,999.00	\$573.25 for the first \$100,000.00 plus \$4.25 for each additional thousand or fraction thereof to and including \$499,999.00
\$500,000 and over	\$2,273.25 for the first \$500,000 plus \$3.75 for each additional thousand or fraction thereof
Fence permit	\$50.00
Moving building permit including temporary structures	\$100.00
Demolition building permit	\$100.00
Extension of expired permit	50% of original permit fee (good for a 60-day period)
Administrative fee for cancellation of issued permit	10% of permit fee
Reinspection	\$50.00 (at the discretion of the inspector)
Contractor registration	\$75.00
Plan review (commercial only)	1/2 the cost of building permit fee
Flood Plain Development Permit	\$50.00

Penalty fees:	
Failure to Obtain Certificate of Occupancy prior to occupying	\$200.00
Failure to Obtain Permit prior to construction	Double of original permit fee
Board of Appeals (Building Codes)	\$75.00 (nonrefundable)

MISCELLANEOUS PERMITS	
Golf cart permit	\$20.00
Golf cart replacement permit sticker	\$5.00
Sign permit:	
Temporary signs (subdivision, banner, new business)	\$25.00
Permanent signs (subdivision, commercial)	\$100.00
Peddler's Permit:	
Application, per person	\$40.00
Issuance, per person	\$30.00
Food establishment permits - gross annual income of food establishment based on prior year food sales as shown by federal or state income reports/statements:	
\$0.00 - \$24,999.99	\$125.00
\$25,000 - \$49,999.99	\$150.00
\$50,000 - \$149,999.99	\$225.00
\$150,000 or more	\$325.00
Late fee assessment, per day	\$5.00
Convenience store/mini-marts selling pre-packaged food	\$125.00
Roadside vendor	\$125.00
Bed and Breakfast	\$125.00
Foster care	\$50.00
Child care center	\$100.00
Temporary event - 4 day event (paid prior to event)	\$30.00
Nonprofit organizations are exempt from paying fees but must comply with TAC rule 229.372c	

MISCELLANEOUS SERVICES	
Paper copies (up to 8 1/2 x 11) per page	\$0.50
Paper copies (8 1/2 x 14 and 11 x 17) per page	\$1.00
Paper copies (24 x 36 - 48" x 36") per page	\$10.00
Copies of public records through PIA request	As set forth by Texas Administrative Code Chapter 70
Copies of police offense and incident report	As set forth by Texas Administrative Code Chapter 70
Copies of accident or crash report	\$6.00
Faxes	
Sending local	\$3.00
Sending long distance	\$4.00
Receiving	\$3.00
Return check, ach, and/or credit card charge	\$35.00
Credit card service fee	2.5% of total charge
Non-resident fingerprinting service	\$10.00
Sign variance	\$100.00
Non-conforming sign removal and impound, per day	\$10.00

MUNICIPAL COURT	
Municipal court security fee	\$3.00
Municipal court technology fee	\$4.00
Municipal court time payment fee	\$25.00
Warrant processing fee	\$25.00

PUBLIC WORKS	
Service charge for city infrastructure damage repair caused by 3rd party, per hour:	
Mini-excavator	\$45 + personnel charge
Sweeper	\$55 + personnel charge
Skid Steer with attachment (sweeper, grapple, compactor)	\$55 + personnel charge
Backhoe	\$55 + personnel charge
Chipper	\$30 + personnel charge
Dump Truck	\$30 + personnnel charge
Crane Truck	\$30 + personnel charge
Service truck with tools	\$25 + personnel charge
Air Compressor	\$20 + personnel charge
Saw	\$15+ personnel charge
Jack	\$10 + personnel charge
Televising wastewater main	\$150 + personnel charge
Trailer Pump	\$30 + personnel charge
Pump, Water	\$15 + personnel charge
Pump, Sewer	\$15 + personnel charge
City sign repair	Actual Cost+ personnel charge
Personnel charge for service operations, per hour:	
Regular business hours (7:30 a.m. - 4:30 p.m., Monday-Friday)	\$35.00
After regular business hours	\$70.00
Right of Way Construction Permit	\$100.00
Failure to Obtain Permit	\$50.00

SUBDIVISION/LAND DEVELOPMENT REGULATIONS	
Vested rights verification letter	\$100.00
Zoning verification letter	\$100.00
Re-zoning application	\$600.00
Zoning Board of Adjustment variance/appeal application	\$300.00
Replat	\$600.00
Amending Plat - Administratively	\$250.00
Amending Plat - Public Hearing	\$600.00
Subdivision Plat (Includes Preliminary and Final)	\$600 + \$50 per lot
Vacation of Subdivision Plat	\$200.00
Development Plats	\$600 + \$50 per acre
Plat Extension	\$150.00
County Recordation Fees	Actual as determined by the County Clerk + federal mileage rate
Site Plan	\$100.00
Planned Unit Development Plan Review	\$600 + \$50 per acre
Planned Unit Development Amendment	\$600 + \$50 per acre
Specific Use Permit	\$600 + \$50 per acre
Traffic Impact Analysis Review Fee	Actual Cost of Consultant
Variance application to subdivison/development regulations	\$100.00

WASTEWATER CHARGES	
Wastewater Rates	
Service Availability	Based on the previous years service availability rate plus inflation factor
Wastewater Fees	
TCEQ	The annual TCEQ wastewater fee divided by number of service connections the month payment is made to TCEQ
Debt Service	The wastewater portion of the total debt payment (including principal and interest) in upcoming fiscal year divided by number of service connections.
Capital Reserve	The budget goal divided by number of service connections.
Impact Fee:	
Final Plat Approval between Dec 7, 1999 - Jan 15, 2004	\$1,028.00
Final Plat Approval between Jan 16, 2004 - Dec 13, 2014	\$1,006.95
Plat Recordation between Dec 14, 2014 - Current	\$1,550.00
Wastewater connection fee, per occurrence	\$700.00
Tap fee	Personnel Charge + material/equipment charge (see Public Works)
Inspection Fee - Private tap, per account	\$50.00
Service charge for city infrastructure damage repair caused by 3rd party, per hour:	Personnel Charge + material/equipment charge (see Public Works)

WATER CHARGES	
Tap fee, per account:	
3/4"	\$700.00
1"	\$700.00
Over 1"	Personnel Charge + material/equipment charge (see Public Works)
Meter Install, per account:	
3/4"	\$625.00
1"	\$800.00
Over 1"	Personnel Charge + material/equipment charge (see Public Works)
Inspection Fee - Private tap, per account	\$50.00
Disconnect fee, non-payment	\$75.00
Reconnect fee :	
Nonpayment (service performed 8:00 AM - 4:00 PM)	\$75.00
Customer Request (service performed 8:00 AM - 4:00 PM)	\$75.00
After hours service	\$150.00
Move Water Meter	Personnel Charge + material/equipment charge (see Public Works)
MXU Replacement due to customer damage	Personnel Charge + material cost
Meter Replacement due to customer damage	Personnel Charge + material cost
Water Hydrant:	
Water Hydrant Application Fee	\$30.00
Water Hydrant Hook Up and Disconnect	\$150.00
Monthly Maintenance	\$50.00

Personnel charge for service operations, per hour:	
Regular business hours (7:30 a.m. - 4:30 p.m., Monday-Friday)	\$35.00
After regular business hours	\$70.00
Service charge for city infrastructure damage repair caused by 3rd party, per hour:	Personnel Charge + material/equipment charge (see Public Works)
Application Fee	\$30.00
Late Charge	10%
Water Rates:	
Service availability:	
3/4" meter	\$26.48
1" meter	\$28.01
1 1/2" meter	\$41.02
2" meter	\$48.33
3" meter	\$62.94
4" meter	\$94.42
Tiered volume charges:	
Residential (cost per 1,000 gallons):	
0-6,000 gallons	Base Service Charge
6,001 gallons to 12,500 gallons	\$3.81
12,501 gallons to 25,000 gallons	\$4.76
25,001 gallons to 50,000 gallons	\$7.14
50,001 gallons to 75,000 gallons	\$10.72
75,0001 gallons to 100,000 gallons	\$16.07
Over 100,000 gallons	\$24.11

Commercial (cost per 1,000 gallons):	
0-6,000 gallons	Base Service Charge
6,001 gallons to 50,000 gallons	\$3.25
50,001 gallons to 100,000 gallons	\$4.87
100,001 gallons to 150,000 gallons	\$7.31
Over 150,000 gallons	\$10.97
Water Fees:	
Surface water	Cost of water distributed by GBRA calculated in dollars per thousand gallons times 6,000 gallons minimum and billed at 75%
Texas Commission on Environmental Quality	The annual TCEQ water fee divided by number of service connections the month payment is made to TCEQ
Trinity Glen Rose Groundwater Conservation District	The ration of total monthly water produced divided by total monthly water billed times the TGRGCD prevailing rate
Debt service	The water portion of the total bond payment (including principal and interest) in upcoming fiscal year divided by number of service connections as determined on June 1 annually
Capital reserve	The budget goal divided by number of service connections as determined on June 1 annually
Bulk water rates (per 1000 gallons):	
0 gallons to 75,000 gallons	\$5.65
75,001 gallons and over	\$6.30
Nonpotable water rates:	
0 gallons to 6,000 gallons	\$25.00
Tiered volume charges per 1,000 gallons:	
6,001 - 100,000 gallons	\$1.20
100,001 - 200,000 gallons	\$1.55
Each 1,000 gallons over 200,000 gallons	\$2.00

New lawn watering permit	\$25.00
Lawn watering variance	\$50.00
Variance from drought stage, non refundable	\$150.00
Drought surcharge rates	
Stage 1, moderate water shortage conditions - residential cost per 1,000 gallons:	
0-25,000 gallons	\$0.00
25,001-40,000 gallons	\$5.00
40,001-60,000 gallons	\$6.00
60,001-75,000 gallons	\$7.00
75,001-100,000 gallons	\$10.00
Over 100,000 gallons	\$12.50

Stage 2, severe water shortage conditions - residential cost per 1,000 gallons:	
0-18,000 gallons	\$0.00
18,001-25,000 gallons	\$5.00
25,001-40,000 gallons	\$7.50
40,001-60,000 gallons	\$10.00
60,001-75,000 gallons	\$15.00
75,001-100,000 gallons	\$20.00
Over 100,000 gallons	\$30.00
Stage 3, critical water shortage conditions - residential cost per 1,000 gallons:	
0-18,000 gallons	\$0.00
18,001-25,000 gallons	\$5.00
25,001-40,000 gallons	\$7.50
40,001-60,000 gallons	\$10.00
60,001-75,000 gallons	\$15.00
75,001-100,000 gallons	\$20.00
Over 100,000 gallons	\$30.00
Impact Fee:	
Final Plat Approval between Dec 7, 1999 - Jan 15, 2004	\$960.00
Final Plat Approval between Jan 16, 2004 - Dec 13, 2014	\$1,668.58
Plat Recordation between Dec 14, 2014 - Current	\$5,400.00



CITY COUNCIL CONSIDERATION ITEM

CITY OF FAIR OAKS RANCH, TEXAS

November 15, 2018

AGENDA TOPIC: Consideration and possible action approving the October 26, 2016 Special City Council Meeting Minutes

DATE: November 15, 2018

DEPARTMENT: Administration

PRESENTED BY: Christina Picioccio, City Secretary

INTRODUCTION/BACKGROUND:

On October 26, 2016, in accordance to a posted Notice of Meeting, the City Council held a Strategic Prioritization Planning Summit with C. William Nash of Endeavor Management to discuss the City of Fair Oaks Ranch Strategic Plan.

The Texas Open Meetings Act only requires minutes of City Council meetings be kept; it doesn't address "approval" of minutes. City resolution on adopting city council meeting rules of procedures mandates Robert's Rules of Order be referred to for any matter or order or procedure of City Council meetings. Deferring to Robert's Rules of Order, it is the practice of the City that all open meeting minutes of the City Council be presented to City Council for approval.

In addition, Robert's Rules of Order provides that when city council votes to approve minutes, they are expressing their confidence in the veracity of the secretary, the actions of their colleagues, and the correctness of the minute's preparation process. Council members are not making a personal eyewitness statement that "they were there". The 11th edition specifically states:

"It should be noted that a member's absence from the meeting for which minutes are being approved does not prevent the member from participating in their correction or approval."

As staff finds no record of the October 26, 2016 special city council meeting minutes being presented to City Council, tonight's agenda item rectifies the oversight.

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

1. Complies with Texas Open Meetings Act and the City Council Meeting Rules of Procedures
2. Ensures historical record keeping of an open City Council meeting

LONGTERM FINANCIAL & BUDGETARY IMPACT:

N/A

LEGAL ANALYSIS:

City Attorney opined meeting minutes, pursuant to Texas Open Meetings Act, be kept

RECOMMENDATION/PROPOSED MOTION:

I move to approve the October 26, 2016 Special City Council Meeting Minutes.

**CITY OF FAIR OAKS RANCH
CITY COUNCIL SPECIAL MEETING MINUTES
October 26, 2016; 9:00 a.m.
7900 Fair Oaks Parkway, Fair Oaks Ranch, Texas**

I. ROLL CALL – DECLARATION OF QUORUM

Council Members Present: Mayor Manitzas, Mayor Pro Tem Schmidt, Alderman Elizondo, Alderman Hartpence, Alderwoman Havard, and Alderwoman Patel.
Staff Present: City Administrator Maples, Asst. City Administrator/Interim City Secretary Vanzant, Police Chief Rubin, Public Works Administrator Emmons, Interim Finance Officer Coones, HR Specialist Stahr, Public Works Executive Assistant Picioccio, Manager of Engineering Services Garcia, Public Works Superintendent Colunga, and Building Codes Official Earl

Having a quorum present, Mayor Manitzas called the Special City Council meeting to order at 9:00 a.m.

II. STRATEGIC PRIORITIZATION PLANNING SUMMIT

Meeting facilitator, C. William Nash - President and CEO of Endeavor Management, City Council members and Staff held a round table discussion on creating a framework to support how the City defines strategic goals and objectives, establishing a hierarchy of goals and objectives, and prioritizing the goals and objectives. Prior to concluding the meeting, a discussion on governance was held which included defining the different form of governments, policy vs operations, and the hiring/firing practices of department heads.

III. ADJOURNMENT

Meeting adjourned at 4:10 p.m.

Garry Manitzas, Mayor

ATTEST:

Christina Picioccio, City Secretary



CITY COUNCIL CONSIDERATION ITEM

CITY OF FAIR OAKS RANCH, TEXAS

November 15, 2018

AGENDA TOPIC: Presentation and discussion regarding the Master Drainage Plan

DATE: November 15, 2018

DEPARTMENT: Public Works Department

PRESENTED BY: Ron Emmons P.E., Public Works Director and CDM Smith

INTRODUCTION/BACKGROUND:

On February 16, 2017, City Council authorized staff to engage in Professional Services with CDM Smith to develop a Master Drainage Plan for drainage issues throughout the City. After several months of stakeholder workshops, input, review, and comprehensive analysis, staff is pleased to report that the Master Drainage Plan is complete and ready for adoption by City Council.

The CDM Smith team successfully compiled the City's drainage system inventory, performed a baseline drainage system evaluation, examined and determined level of service, identified solutions with a proposed prioritization, and developed a Capital Improvement Plan with some suggested funding sources.

The City took an approach to have key stakeholders, including City Council, involved with learning strategies for an effective drainage program. The concept is to have a format that the City can use going forward to manage all drainage issues in an objective manner. Stormwater can affect us all in so many ways and its importance to citizens is understandable as quality of life can be deeply impacted.

The Master Drainage Plan is a detailed effort to examine several key areas of the City where significant stormwater impacts had been experienced to properties. CDM Smith developed a model of these areas in order to examine and assess the drainage system. Ultimately, one major challenge involved an understanding that any level of service can be developed, but there is a cost component that limits a municipality effort to eliminate all stormwater issues. Therefore, policies will need updated to promote better development for the remainder of the City growth area.

Ultimately, a Capital Improvement Plan (CIP) was developed out of the forty-six (46) identified drainage areas. Each project site was examined using the developed model and a recommended solution was proposed. The costs are for construction only (meaning land acquisition, engineering, environmental impact studies, regulatory effects, etc. are not included) and conservative in nature to allow for any unknown contingency items that may occur with each project. Currently, the City only has the General Fund to pay for any of these recommended improvements. There are other options available, and should be examined further to assess the best direction for the City.

Stormwater flooding is an emotional event that can be rather devastating. And the solutions cannot be implemented soon enough to meet expectations of all involved. Each one of the 46 projects were subjected to a prioritization matrix that considered cost, public/private purpose, risk to public infrastructure, impact to homes, erosion potential, and water quality. The intent is

to organize the projects in an impartial manner that fairly and effectively manages the emotional component. These projects were then grouped into four priority phases. Note that this is the recommended implementation plan and priority adjustments could be considered based on several factors (such as grant availability, grouping projects in close proximity to one another, public/private partnerships, and so on).

Finally, the City Council should be commended for taking the initiative to move forward with the development of this Master Drainage Plan. Steps to improve drainage problems are seldom a one size fits all formula. Fortunately, this plan provides tools to move the City in a direction for improved overall flood management.

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

The Master Drainage Plan provides the City with a strategic plan to improve stormwater issues that occur during wet weather events at various locations throughout the City. The goal, as much as can be possible using public funds, is to move in a direction where funds can be appropriated to resolve these various stormwater issues. While no plan can eliminate all flooding circumstances, steps can be taken to successfully mitigate continuous issues.

LONG-TERM FINANCIAL & BUDGETARY IMPACT:

Adoption of the Master Drainage Plan will start the City on a path to pursue improvements for several stormwater issues. The plan itself does not commit funds to any project at this time; however, it does imply the City will move forward to define how it can fund projects. This effort should commence in the next couple of months following the adoption of the Master Drainage Plan as an appendix for the Unified Development Code.

LEGAL ANALYSIS:

N/A

RECOMMENDATION/PROPOSED MOTION:

Today's presentation on the Master Drainage Plan was to introduce the City Council to the results of the plan. The next step will be to formally adopt the plan for inclusion as an appendix with City's Unified Development Code, which will be accomplished by ordinance in an upcoming City Council meeting. City Council is encouraged to take time to review the full report and provide questions and feedback to Public Works Engineering staff.

CITY COUNCIL MEETING MASTER DRAINAGE PLAN



Master Drainage Plan & MS4 Assistance Services

November 2018

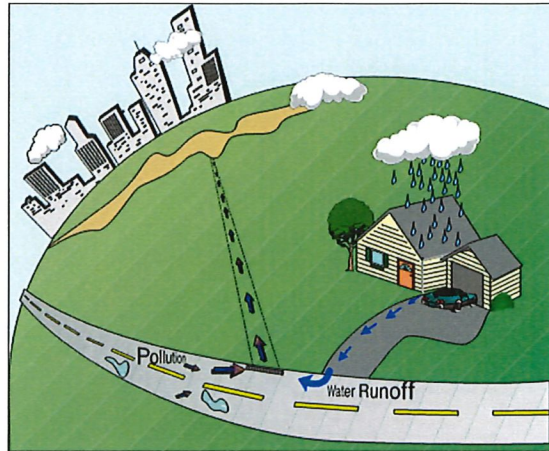
Agenda

1. Objectives
2. Process
 - a) Workshops
 - b) Survey Results
 - c) Address feedback
3. Capital Improvement Plan
 - a) Model
 - b) Targeted Drainage Projects
4. Next Steps



Why is Stormwater Important?

- Flood Management
- Infrastructure
- Quality of Life
- Water Quality
- Regulations



CDM
Smith

Drainage Master Plan - Objectives

1. Develop Model to assess Drainage System
 - a) Evaluate concerns
 - b) Assess and propose solutions
 - c) Future development tool
2. Define Level of Service for City
3. Policy Recommendations
4. CIP Recommendations
5. Funding Assessment

CDM
Smith

Stakeholder Process

Stakeholder Meetings and Surveys

- Five (5) stakeholder meetings held in 2017 and early 2018
 - Preliminary meetings covered stormwater system basics and education
 - Topics included:
 - Basic elements of stormwater system
 - Design tools
 - Policies governing development for stormwater system
 - Recommendations for policies and design criteria
 - Creation of a stormwater CIP
- Online surveys sent to stakeholders
 - Discussion in meetings focused on survey topics

Stakeholder Meetings Conclusions Addressed in Master Drainage Plan

1. Feedback from City Staff (coordination with Police Chief)
2. Priority Sites
 - Crossing near Meadow Creek Trail
 - Rolling Acres at Post Oak closes off part of City
3. Multi-impact projects
 - Projects modeled together
4. Prioritize projects that protect the most people
5. Account for home vs. yard or other outside area
6. Flexibility with project prioritization using final score
7. Benefits across the City



Survey Results

- | | <u>Responses:</u> |
|---|-------------------------------------|
| 1. Should all roads be passable during a 2-year (3.3 inch) storm event? | Most roads (64%)
All roads (29%) |
| 2. Should the level of service depend on the type of road? | Yes (86%) |
| 3. Should emergency roads be passable during the 100-yr storm event? | Yes (100%) |



Survey Results (cont.)

- | | <u>Responses:</u> |
|---|--------------------------|
| 4. What is the acceptable length of time for a road to be flooded? | Hours (93%)
Days (7%) |
| 5. Should the current stormwater system address future growth? | Yes (71%) |
| 6. Should the level of service requirements be greater for new development? | Yes (79%) |



Survey Results (public and private)

7. Should everyone fund the fixes to the existing storm drain system to achieve the selected level of service?



Responses:

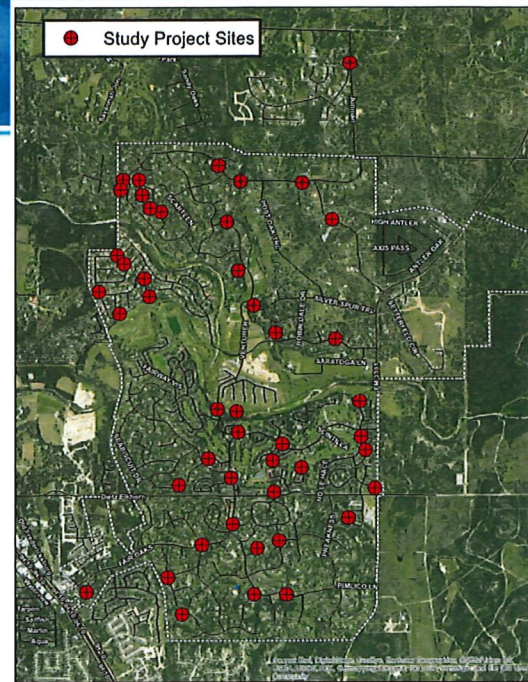
Yes, for all areas including private and public portions of the drainage system (21%)

Yes, for public infrastructure, but not for private (79%)



Project Prioritization

1. Flooding
2. Cost
3. Land Ownership
4. Risk to Public Infrastructure
5. Water Quality (tied)
5. Erosion (tied)



Funding Options

Which of the following funding sources (in addition to the existing general fund) should the City consider for Flood Control Projects (please check any that apply)?

Responses (Options Recommended by Majority):

- Stormwater Utility
- Bond Program
- Public-Private Partnerships
- Grant Funding (Federal and State)

Stakeholder Input Summary

- Roadways can be used as stormwater conveyance
 - Varying levels of service should be provided based on road type
 - Duration of flooding should be addressed
 - Account for future growth
- Requirements for new development should be more comprehensive than existing standards
 - Existing issues should be addressed with public funding
 - Projects should be prioritized according to set criteria
 - New funding sources to address existing stormwater issues should be pursued
- Addressing these issues will require revisions to the City's current stormwater policy
 - Master drainage plan includes recommendations

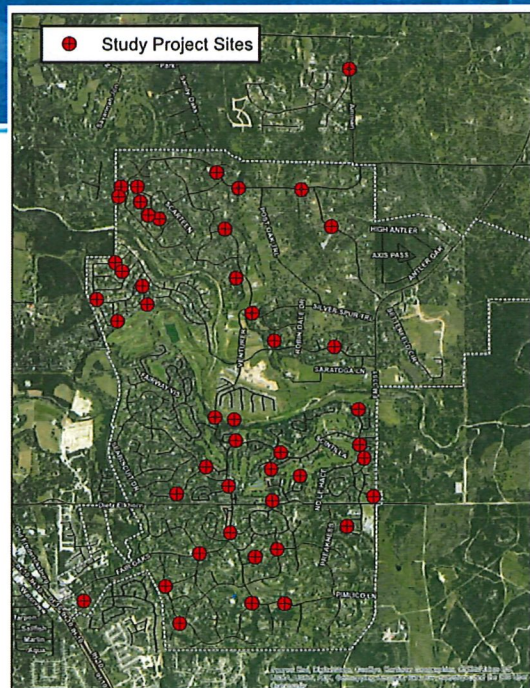
13



Drainage Issues Identified in Drainage Master Plan

- Forty six (46) sites representing a variety of stormwater issues
 - Ponding/Flooding
 - Major stream crossings
 - Erosion
 - Culvert backups
 - Inefficient or undesirable drainage paths
 - Runoff through backyards

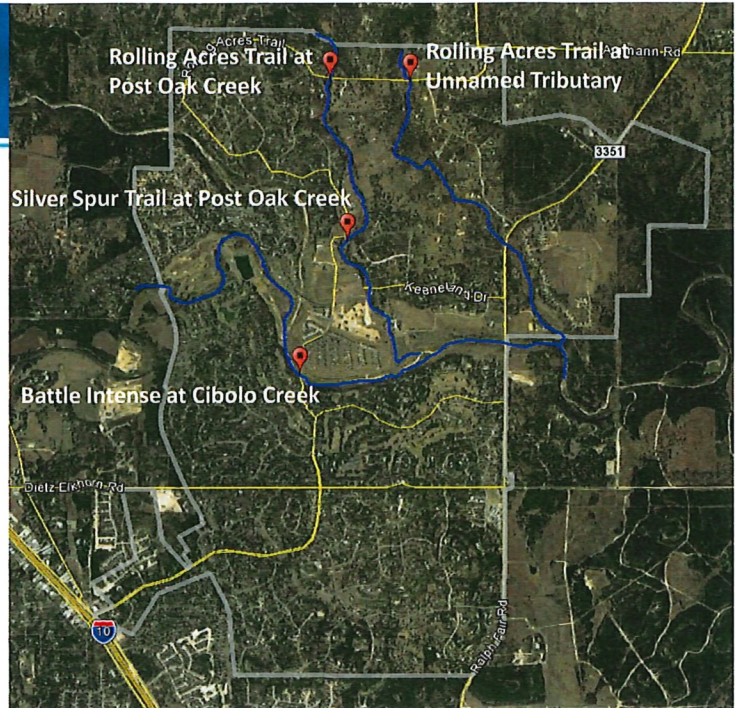
14



Project Development

Drainage Master Plan includes improvements for addressing flooding at all 46 sites

- Four low water crossings
- Remaining sites with a variety of stormwater-related issues



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Prioritizing Projects

Item	Weight	Score		Example Project Score
Estimated Cost				
Low	2	5		6
Medium		3		
High		1		
Source/Destination				
Public to Private	3	5		15
Public to Public		3		
Private to Public		2		
Private to Private		0		
Public Infrastructure at Risk?				
Yes - Large Effect	3	5		15
Yes - Small Effect		2		
No		0		
Number of Houses				
Number of Houses	1	Number of houses affected		1
Erosion Issue?				
Yes	0.5	5		2.5
No		0		
Green Infrastructure Applicable?				
Yes	0.5	5		2.5
No		0		

Total Score: 42

Example: Stream erosion through easement threatening nearby house and surrounding infrastructure

	Cost Range
Low Cost Estimate	< \$50,000
Medium Cost Estimate	\$50,000 - \$125,000
High Cost Estimate	> \$125,000



Prioritizing Projects - Results

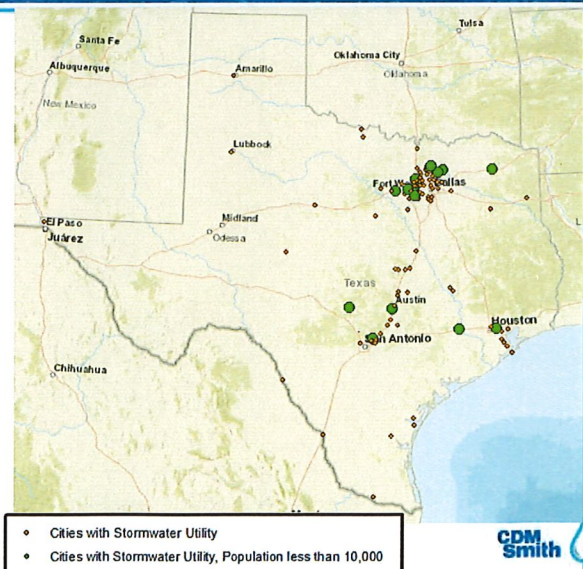
- Projects ranked by priority score and sorted into Prioritization Groups
 - 1 – Highest Priority
 - 4 – Lowest Priority

Prioritization Group (in order of importance)	Number of Projects
1	9
2	15
3	13
4	9



Potential Stormwater Program Funding – Stormwater Utility

- Commonly used funding mechanism in Texas
 - 109 total communities
 - Including many small communities (15 less than 10,000 in population)
- Provide dedicated revenues for stormwater needs
- Generally capable of funding an entire stormwater program, including administrative, flooding, and regulatory needs
- Provides an equitable, legally defensible way for citizens to pay into a service the City provides



Next Steps

Next Steps for Stormwater Management in Fair Oaks Ranch

- Adopt Master Drainage Plan
 - Appendix to Overall Comprehensive Plan
- Pursue a funding mechanism to address existing flooding issues
 - Additional options to evaluate include:
 - Stormwater Utility/Bond Program
 - Grant Funding (Federal and State)
 - Public-Private Partnerships
 - Address Priority 1 Projects
- Enact revised stormwater policies and drainage criteria

Master Drainage Plan Executive Summary

The City of Fair Oaks Ranch (COFOR) prepared a Master Drainage Plan to complement the development of a comprehensive plan called *The Future of Fair Oaks Ranch*, an overall plan to maintain the character and attractiveness of the City over the next decade. The Master Drainage Plan consists of two overlapping parts: drainage policy to address new development and capital improvement program (CIP) to resolve existing drainage issues, each of which are detailed in Technical Memoranda. This executive summary provides general information on both parts.

The Master Drainage Plan was supported through the collaborative discussion of alternatives with a stakeholder committee which included City Council members and key community leaders. Five workshops with the stakeholder committee were held discussing the project, drainage tools to be used, policy options, project prioritization and CIP results. To help identify the opinions of the stakeholder committee, surveys were conducted on two occasions related to level of service and CIP priorities.

Drainage Policy

The City of Fair Oaks Ranch currently plans and manages stormwater associated with new development projects under Chapter 10 of its City codes, entitled 'Subdivision Regulations.' This policy specifically addresses only new development projects. The current codes require that the development provide adequate drainage to protect others from flooding, integrate the development's drainage into the City's, prepare a drainage study, move drainage to the streets as long as the curb height is not exceeded and velocities are less than 10 feet per second, and that residential streets must have a 10-year storm capacity. While this code provides a foundation for the control of development, the Master Drainage Plan recommends more specific criteria and levels of service to protect existing drainage infrastructure and future growth. Recommendations include:

- The development should have a drainage system that prevents the 100-year storm event from entering buildings.
- For a development exceeding 1 acre in size, drainage systems should convey the 10-year storm event.
- The drainage capacity of the developed system depends on the type of the street with arterial roads carrying the 50-year storm event, collector roads carrying the 25-year storm event and residential roads carrying the 10-year storm event.
- Green infrastructure and detention are encouraged to mitigate excess impervious areas.
- Peak runoff rates should be assigned based on the storm event.
- The requirements for a drainage plan should be clarified.
- Redevelopment should be better defined.

- Drainage requirements should be defined in a Drainage Design Manual to clarify City code.

Capital Improvement Program

The City identified 46 different sites for which flooding or drainage issues have been experienced. Each of these sites were examined and categorized into “A”, “B” and “C” sites depending on the level of project assessment and consideration. “A” sites received the greatest scrutiny and targeted project development. “B” sites were provided more general project consideration and “C” sites received basic assessments. A computerized drainage model was prepared for the City using the Environmental Protection Agency’s Stormwater Management Model (SWMM) to consider the potential improvements to be experience with the implementation of CIP projects.

Remedial projects were identified for each of the sites and were ranked for priority based on criteria defined by the drainage master plan stakeholder group. The criteria, shown in **Table ES-1**, relate to costs, source/destination, public infrastructure impact, severity of flooding, erosion effects, and green infrastructure.

Four “A” sites were identified related to low water crossings. The sites at Rolling Acres Trail at Post Oak Creek and Silver Spur Trail at Post Oak Creek had the highest ranking. The other two “A” sites, Rolling Acres Trail at Unnamed Tributary and Battle Intense at Cibolo Creek, received much lower priority scores. Information provided for the “A” sites included a brief scope of work, cost breakdown, project timeline, engineering checklist, and benefit-cost analysis to support a potential Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program application.

Five “B” sites were analyzed and conceptual designs were suggested including project costs. Except for the Amman Road (Site 1) which was modeled in HEC-RAS, “B” sites were assessed using Geographic Information System (GIS) tools to develop conceptual designs and project potential costs.

Thirty-seven “C” sites were identified and analyzed using GIS tools to gain a better understanding of the causes of the drainage issues. Mitigation options were considered and a range of potential costs were defined.

Overall, the costs to construct “A”, “B” and “C” sites were estimated to be \$3.15 million, \$2.02 million and \$2.26 million, respectively, with the “A” sites having a more refined estimate than the “B” and “C” sites. The next step in the implementation of the drainage master plan CIP is

Table ES-1 - Stormwater CIP Prioritization Criteria

Item	Weight	Score
Estimated Cost		
Low	2	5
Medium		3
High		1
Source/Destination		
Public to Private	3	5
Public to Public		3
Private to Public		2
Private to Private		0
Public Infrastructure at Risk?		
Yes - Large Effect	3	5
Yes - Small Effect		2
No		0
Number of Houses		
Number of Houses	1	n
Erosion Issue?		
Yes	0.5	5
No		0
Green Infrastructure Applicable?		
Yes	0.5	5
No		0

the identification of funding options for the projects and development of a funding plan for the priority projects.



Memorandum

To: Ron Emmons, City of Fair Oaks Ranch, TX

From: CDM Smith

Date: October 9, 2017

Subject: Task 2.5 Policy Evaluation Related to Development

The City of Fair Oaks Ranch currently plans and manages stormwater constructed as part of new development projects under Chapter 10 of its City codes, entitled 'Subdivision Regulations.' This policy specifically addresses only new development projects. The purpose of this memorandum is to highlight current policies set forth in the Subdivision Regulations (as of May 1, 2017), summarize the policy's impact on stormwater planning and improvements, and provide recommendations for future stormwater policy options.

Section 10.03.002 of the City's code highlights two specific stormwater policies that the City shall consider when reviewing a new development:

- "Extension of public facilities and services to the property under the agreement should not compromise the city's ability to timely provide adequate public facilities to property inside the city or degrade environmental resources;
- Water quality impacts arising from the proposed development should be mitigated by measures provided in the development agreement."

The following key criteria support these policies currently in the Subdivision Regulations. Each criterion is evaluated with recommendations to modifications presented. It is recommended that the drainage requirements included in Section 10.03.002 be removed from the ordinance and placed in a new drainage criteria manual that would be developed to be consistent with the recommendations of this memorandum. This includes the items identified below. It is also recommended that the requirements of the ordinance be simplified such that it only requires the submittal of a drainage study in accordance with the requirements of the drainage manual for all new development and redevelopment.

Article V, Section 1. The developer shall "provide an adequate storm drainage system to protect each lot throughout the subdivision from flooding."

Evaluation:

The Subdivision Regulations do not define a measurable parameter or level of service for an adequate storm drainage system to protect a lot from flooding. The level of service definition for flooding is also not defined.

Recommendation:

It is recommended to add a specific levels of service subsection. Article V, Section 1 could be revised to read such as follows:

The developer shall provide a storm drainage system to meet a level of service as defined in this section. A storm drainage system shall be provided that is capable of conveying the peak discharge generated by the 100-yr storm. Note peak flows may be reduced by detention or other on-site storage. This conveyance may be enclosed or open, or a combination of both.

1. *Property not reserved or designed for conveying stormwater shall be protected from frequent inundation of the 10-yr storm as follows:*
 - a. *When the total drainage area is less than 2 acres, protection may be provided by following good lot grading practices, such as*
 - i. *clearly defining areas of disturbance and grading to protect and preserve natural and hydrologic features (natural soils, vegetation, hillsides, conservation areas, karst features, existing natural waterways, and wetlands), and*
 - ii. *minimize site grading and areas of disturbance and isolating areas where construction activities will occur*
 - or by one of the conveyances described below in item 1b.*
 - b. *When the total drainage area is 2 acres or more, one of the following conveyances must be used to convey the 10-yr storm:*
 - i. *Pipe system conveying the design storm;*
 - ii. *Engineered open channel;*
 - iii. *A street gutter when the velocity of stormwater during a 10-yr storm is less than 10 cfs;*
 - iv. *A natural stream.*
2. *Buildings shall be protected from the 100-yr storm by:*
 - a. *Providing a minimum of one-foot freeboard above the 100-yr storm stage, at any point along the drainage system, for openings in a building. For lakes and detention basins, the 100-yr storm stage will be the water surface of flow through the defined emergency spillway.*
 - b. *Flood-proofing a building below the 100-yr stormwater surface elevation plus one foot of freeboard in accordance with the current edition of the International Building Code or as required by the City.*

3. *Street Crossings. Concentrated flow shall be conveyed under streets (by roadway classification as detailed below in items a, b, and c). New and/or redevelopment of land that drains to a street crossing must evaluate the stormwater runoff impact to said crossing, and either improve the crossing to meet the standards set in this section or retain stormwater within the development site to pre-development conditions. These crossing may be bridges, culverts, or underground systems. Crossings will be designed to completely convey flood flows using streets as part of the stormwater conveyance system in accordance with the following criteria:*

- a. *Street Classification = Arterial; Minimum Design Storm Capacity = 50-yr*
- b. *Street Classification = Collector; Minimum Design Storm Capacity = 25-yr*
- c. *Street Classification = Residential; Minimum Design Storm Capacity = 10-yr*

Overflow depths for the 100-yr storm at the low point in the roadway crossing will be limited to 7 inches measured at the high point in the roadway cross section.

4. *Downstream impacts of increased impervious area resulting from development shall be mitigated through detention and/or green infrastructure. Peak runoff control shall be provided for the 100-yr, 10-yr, and 2-yr storms and volumetric and/or extended detention control of the annual mean storm event shall be provided. The maximum release rate from any development or redevelopment shall be as follows:*
 - a. *2-yr storm peak rate less than or equal to 0.5 cfs per site acre*
 - b. *10-yr storm peak rate less than or equal to 2.0 cfs per site acre*
 - c. *100-yr storm peak rate less than or equal to 3.0 cfs per site acre*
 - d. *Annual storm. 40-hour extended detention or other City approved green infrastructure.*

Article V, Section 1. "The system shall be integrated with the overall drainage system of the city."

Evaluation:

Currently, the Subdivision Regulations do not define the 'overall drainage system' for the City. This leaves the policy open to interpretation by both the applicant/developer and the City.

Recommendation:

It is recommended to define the terminology 'overall drainage system'. A suggestion for this definition is: *Any existing collection, conveyance, or storage stormwater infrastructure within the defined street right-of-way and/or existing platted easement, and drainage paths as defined by the City.*

Article V, Section 2. "...The drainage study shall provide the following information, for both existing and fully developed conditions:

- 1. The entire watershed drainage area(s), depicted on a 7.5 minute series U.S.G.S. map**
- 2. The drainage area(s) within the subdivision, depicted on a topographic map with two-foot contour intervals.**
- 3. Composite runoff factors.**
- 4. Times of concentration.**
- 5. Related rainfall intensity factors.**
- 6. 25- and 100-year flood flow quantities with the 100-year floodplain limits for the existing and fully developed watershed shown on the preliminary plat.**
- 7. Preliminary street grades sufficient to determine high points, low points, and direction of runoff flows.**
- 8. Proposed locations of inlets, storm sewers and culverts.**
- 9. Proposed routing of drainage ways.**
- 10. All proposed drainage easements, including width of easement and configuration of channel."**

Evaluation:

While the Subdivision Regulations do provide base requirements for a submittal, there is an opportunity to define some of the drainage study requirements more in-depth, providing consistent design parameters for the City and the development community.

Recommendation:

The following recommendations would provide clarity and consistency to this section of the Subdivision Regulations:

- Replace item (1) with defined drawing scales for use in the stormwater plans. For example:
 - Drainage Area Map (Onsite): 1 inch = 200 feet; Drainage Area Map (Entire Drainage Area): 1 inch = 1,000 feet
 - Plan: 1 inch = 20 feet
 - Profile (Vertical): 1 inch = 5 feet; Profiled (Horizontal): 1 inch = 20 feet
- Add the following to item (2). Identify and locate all existing and proposed drainage features. Show defined street right-of-way and/or existing platted easement, and drainage paths as defined by the City's most current hydrologic and hydraulic model. Also modify language to require both existing and proposed 2-foot contours.
- For items (3), (4), and (5) define what runoff factors, time of concentration criteria, and rainfall intensity factors should be used. This can be a reference to another community's criteria.

- Remove '25-year and 100-year flow quantities' from item (6). All flow calculations should be part of separate hydrologic and hydraulic tables submitted on the plan set.
- Add a requirement for a hydrologic table, hydraulic table, and storage and/or green infrastructure table that summarizes parameters and calculations. Another community's criteria can be referenced for these general requirements, or, the City may choose to develop these requirements.

Article V, Section 3, C. "Streets may be used for stormwater drainage only if the calculated stormwater flow does not exceed the height of the curb and the velocity does not exceed 10 feet per second."

Evaluation:

A more comprehensive level of service section can provide details on stormwater infrastructure options for meeting a defined storm event.

Recommendation:

See Recommendation for Article V, Section 1.

Article V, Section 3, C. "Residential streets and all other collector or arterial streets shall be designed on a basis of at least a 10-year storm frequency. Where streets are not capable of carrying stormwaters as required..., drainage channels or storm sewers shall be provided. Street width shall not be increased solely to accommodate drainage."

Evaluation:

A more comprehensive level of service section can provide details on stormwater infrastructure options for meeting a defined storm event.

Recommendation:

See Recommendation for Article V, Section 1.

Article IV, Section A, 2. "Surface drainage from private property shall be taken to streets, alleys, or drainage courses as quickly as possible and that drainage water from streets and alleys be taken to defined drainage courses as quickly as possible. Using streets and alleys as major drainage courses is not permitted."

Evaluation:

This section uses the terminology 'as quickly as possible'; however, with stormwater overland flow, attention needs to be focused on minimum grades away from buildings, and conveying stormwater in natural flow paths. 'Defined drainage course' and 'major drainage courses' are not defined, and left open to interpretation. Building permit plans showing grading for individual lots may assist in ensuring that the City's overall drainage system is retained.

Recommendation:

The following revised language is recommended in this section:

Private property shall maintain positive grades of at least 2% away from habitable structures towards lot lines. Surface drainage from private property shall be graded toward existing

collection, conveyance, or storage stormwater infrastructure within the defined street right-of-way and/or existing platted easement, and drainage paths as defined by the City's most current hydrologic and hydraulic model.

For the City to preserve natural drainage paths and ultimately protect the interests of private property owners, the following data is required on plot plans submitted as part of the building permit application process: existing and proposed contours; existing point elevations at all lot corners; proposed point elevations at all lot corners; existing stormwater collection, conveyance, or storage infrastructure; street right-of-way; existing and/or proposed platted easement; drainage paths as defined by the City's most current hydrologic and hydraulic model; low opening elevations for structure.

Additional Recommendations:

Defined Use on Public Projects

The Subdivision Regulations is most clearly written for implementation on development projects. There is an opportunity to clarify its use and/or reference on all projects within the City, providing the City drainage criteria on its own projects into the future. It is recommended to further investigate how policy could be incorporated to address linear projects within City right-of-way and easements, most specifically evaluating viable levels of service in the existing developed areas.

Beyond ETJ

A significant amount of stormwater drainage is conveyed through the City, making its way toward Cibolo Creek. However, the City can only control development characteristics within its boundaries. As the volume of this stormwater is directly tied to the impervious area, we recommend that the City initiate conversations with jurisdictions controlling stormwater runoff upstream of the City limits, in particular downstream impacts of the 100-yr, 10-yr, and 2-yr storm events. Other jurisdictions may be open to the City's review of development proposing significant addition of impervious area to the watershed.



Memorandum

To: Ron Emmons, P.E. – City of Fair Oaks Ranch, Texas

From: Tina Petersen, Ph.D., P.E.

Date: April 5, 2018

Subject: Summary of Stormwater Modeling Completed for Master Drainage Plan

As part of the Master Drainage Plan, a City-wide SWMM model was created to provide the following benefits:

- Quantify the level of service of the existing drainage system and help address existing issues
- Provide a technical basis for project development
- Support development stormwater policy evaluation

The SWMM model provided a high-level overview of the stormwater conveyance system throughout the City, which is primarily comprised of open channel ditches and culverts which convey flow under roadway crossings.

In addition, HEC-RAS modeling was completed for 5 low water crossings to provide additional detail at these locations.

Data Sources

Primary data sources used to develop the PCSWMM model were provided by the City of Fair Oaks Ranch, San Antonio River Authority (SARA), National Resources Conservation Survey (NRCS), and the United States Department of Agriculture (USDA). **Table 1** summarizes the data sources utilized.

Table 1 Data Sources

Dataset Description	Format	Source	Year of Publication
Survey of Soils for Bexar, Comal, Kendall County, TX	ESRI Shapefile	NRCS Soil Survey	2016
Land Use	ESRI GRID	USDA National Land Cover Dataset	2011
Imperviousness	ESRI GRID	USDA NLCD Percent Developed Imperviousness	2011
1-foot Elevation Contours	ESRI GRID	San Antonio River Authority	N/A
Existing Drainage Structures (partial list)	ESRI Geodatabase	City of Fair Oaks Ranch	2014
Parcels	ESRI Shapefile	City of Fair Oaks Ranch	N/A
City Limits and Streets	ESRI Shapefile	City of Fair Oaks Ranch	N/A
Precipitation	Rainfall Depth-Duration-Frequency	San Antonio Stormwater Design Criteria Manual (Section 5.5.2)	2016

SWMM Hydrology

The modeled area of the City of Fair Oaks Ranch has a total drainage area of approximately 7,973 acres. There are three inflow points to the model, including Post Oak Creek from the north, Balcones Creek from the west, and Cibolo Creek from the west. The development of a stormwater model using the US Environmental Protection Agency Stormwater Management Model (SWMM) to complete runoff calculations and evaluate the performance of the City's stormwater infrastructure are described in the following sections.

Subcatchments

The drainage area was subdivided into subcatchments using the PCSWMM tool "Subcatchment Delineation" based on the ground surface digital elevation model (DEM). This initial delineation was then further refined based on the layout of the stormwater conduits and the final 1,214 subcatchments are shown in **Attachment 1** in plan view, with subcatchment inputs and results also listed in tables in **Attachment 1**. Subcatchment areas ranged from 0.61 acres to 859 acres with an average subcatchment area of 6.6 acres. A naming convention was established for subcatchments as described in **Table 1**, and modeled basins, which were broken into smaller subcatchments, are shown in **Figure 1**.

Table 2 Subcatchment Naming Convention

Watershed	Abbreviation	Example Subcatchment Name
Cibolo Creek	CC	CC-XXX
Balcones Creek	BC	BC-XXX
Post Oak Creek	PO	PO-XXX
Unnamed Tributaries	UT#	UT4-XXX

Note: There were unnamed tributaries, and these were numbered as indicated by the "#" in the "UT#" abbreviation.

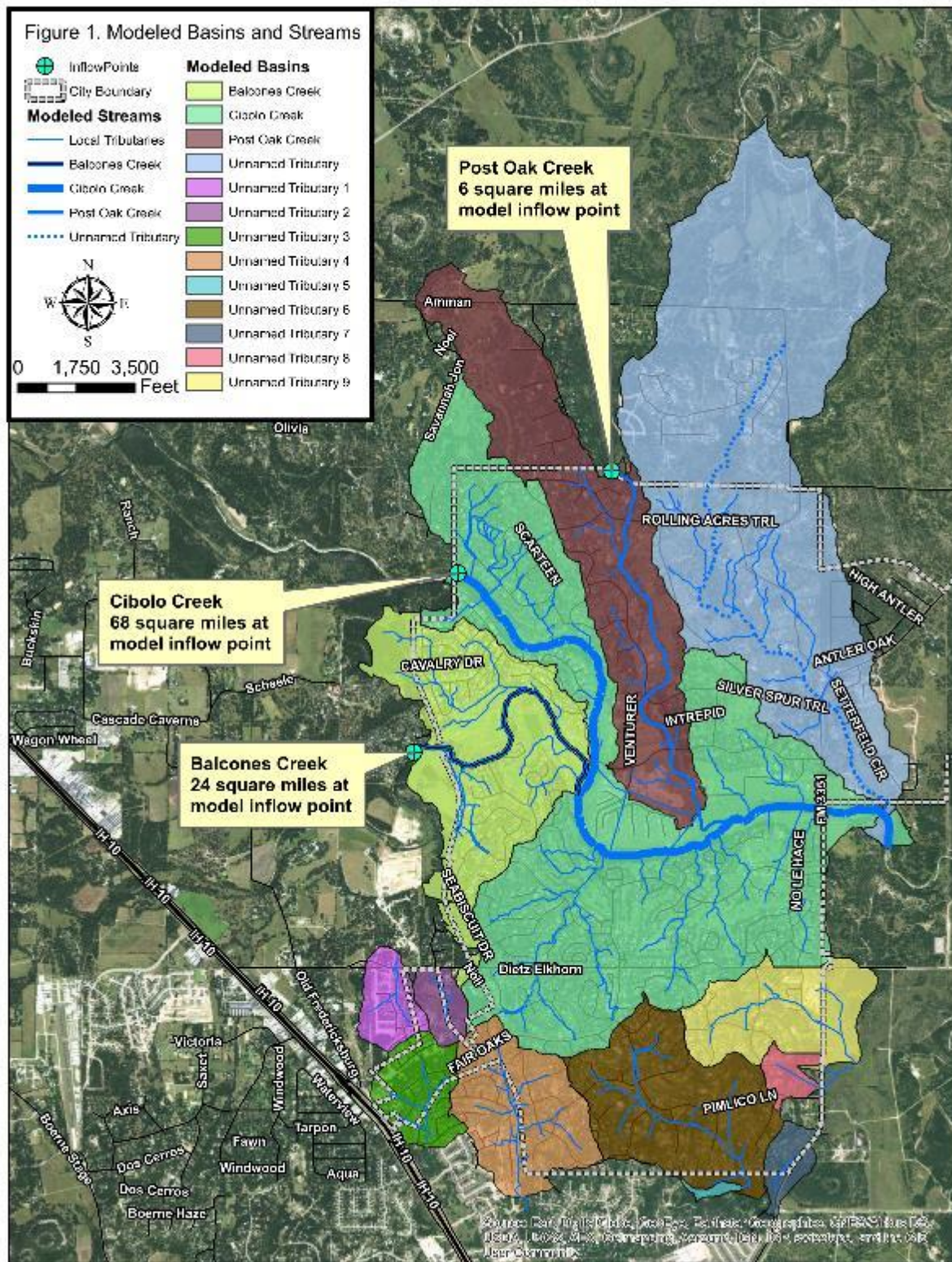


Figure 1 Modeled Subcatchments

Subcatchment Routing - Area, Slope, and Width

Runoff routing is calculated in SWMM by assuming a theoretical, rectangular shape for each subcatchment, where area is equal the acreage calculated using ArcGIS based on the subcatchment delineation. Each rectangular subcatchment is assigned a constant width to fully define its shape and the subcatchment is set to a constant slope. Flow across the subcatchment is assumed to be uniform and is calculated as nonlinear reservoir runoff according to the following equation:

$$Q = \frac{1.49}{n} W \times d^{5/3} \times s^{1/2}$$

where:

Q = discharge, in cubic feet per second

n = Manning's roughness coefficient

W = subcatchment width, in feet

d = depth of flow, in feet

s = subcatchment slope, in feet per feet

For the Fair Oaks Ranch model, subcatchment areas and widths were calculated by the PCSWMM "Subcatchment Delineation" tool. These flow paths represented the distance stormwater runoff travels to a subcatchment outlet and were determined based on the DEM and the subcatchment boundaries. Subcatchment slopes were also calculated by the PCSWMM "Subcatchment Delineation" tool.

The remaining input, flow depth, represents the depth of runoff accumulated for a given model time step. These depths were calculated by subtracting losses from rainfall, and losses were calculated as soil infiltration, as described in the following section.

Gross Impervious Area and Directly Connected Impervious Area (DCIA)

Until recently, SWMM accounted for impervious area within a subcatchment as directly connected impervious area (DCIA). DCIA is defined as the impervious area that drains directly to the storm conveyance system without encountering pervious area. An example of DCIA is an asphalt parking lot that drains to a storm sewer collection point, such as an area inlet.

More recent versions of SWMM allow for input of gross impervious area, a percentage of which can be routed through pervious area. An example of where this approach would be useful is a residential structure where half of the house is served by downspouts which drain to a turfed grass lawn, and the other half is served by downspouts which drain to the driveway. This situation would be input to SWMM by routing 50% of the structure's impervious area to pervious, while the other 50% would be accounted for as DCIA.

Gross impervious area was calculated based on the 2006 National Land Cover Database (NLCD). The NLCD impervious area raster product was inspected in ArcGIS against ESRI aerial photography obtained in 2016 to refine any areas which were not well-represented in the raw NLCD raster. The modified raster was then used to calculate gross impervious area for each subcatchment using the "Zonal Statistics" tool in ArcGIS.

DCIA was then calculated based on the road centerline shapefile provided by the City. This was done because the vast majority of the City is residential and DCIA in residential areas is primarily comprised of streets and driveways. The roads centerline was first buffered 20-feet away from the centerline to produce a 40-foot wide coverage, and the area of the roads centerline within each subcatchment was increased by 20% to account for driveways and other minor DCIAs and then divided by the total area of the subcatchment to derive a DCIA percentage.

For the majority of subcatchments, the DCIA percentage calculated was higher than the gross impervious area percentage. Where this was not the case, the gross impervious area percentage was input and the difference between DCIA percentage and gross impervious area was routed to pervious.

Soil Infiltration and Soils

The Modified Green Ampt infiltration model was used to determine the rainfall that does not become runoff, through infiltration to the soil and storage. The excess water volume that does become runoff was routed as overland flow before becoming concentrated in one the four creeks in the city. The Modified Green-Ampt model requires the following input parameters:

- Suction Head (inches)
- Conductivity (inches per hour)
- Initial Deficit (percent)

The NRCS soil survey identified fourteen soil types within the hydrologic boundary of the modeled area, as summarized in **Figure 2** for the NRCS soil survey over the modeled area.

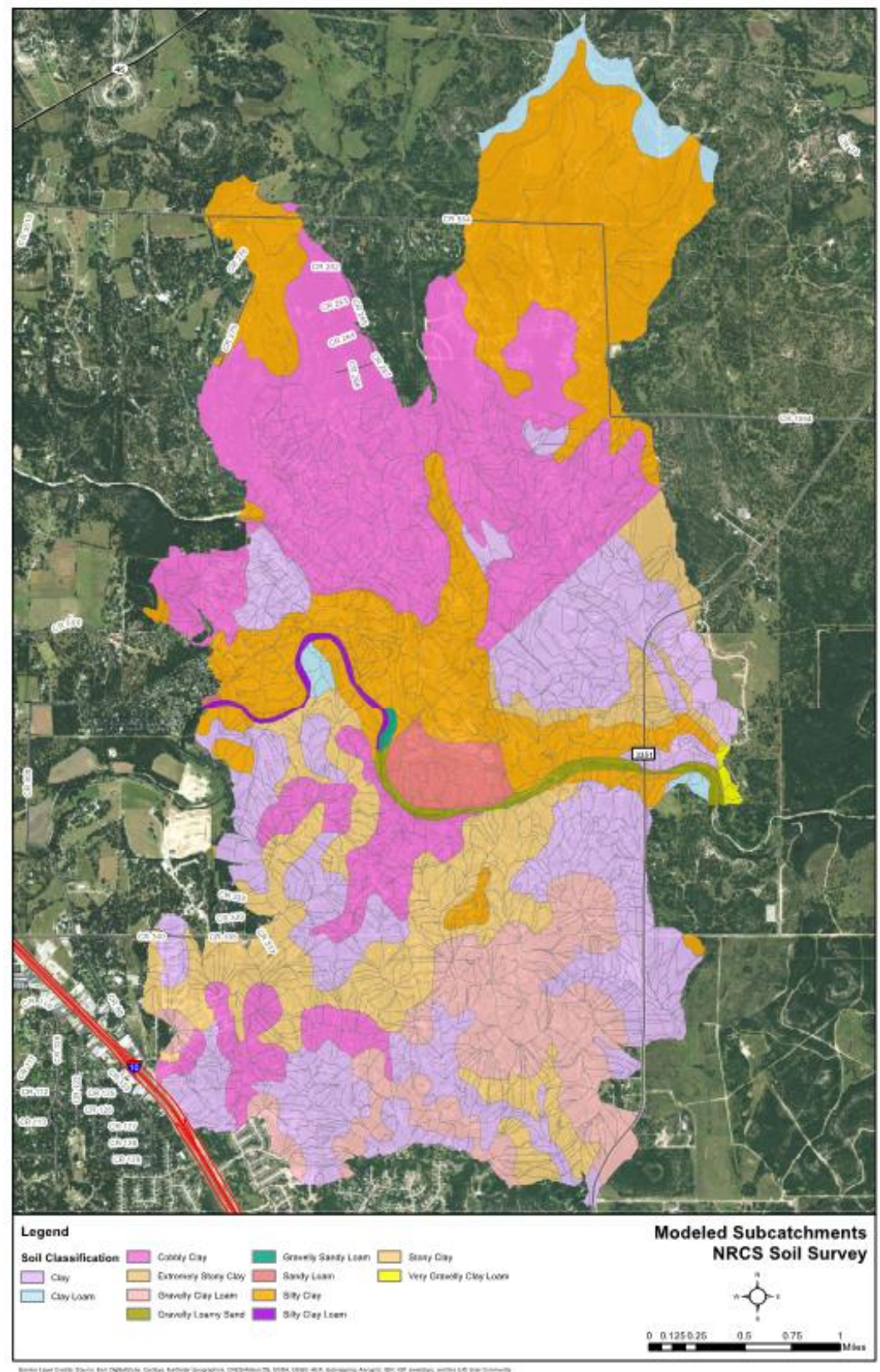


Figure 2 USDA Soil Classifications

Green-Ampt infiltration parameters for each of these soil classes were obtained from the technical paper “Green-Ampt Infiltration Parameters from Soils Data,” as summarized in **Table 3** (Rawls, et. al. 1983).

Approximately 0.5 acres within the study area did not have textures assigned by the USDA survey, and these were classified as pits/quarries, and these areas were assumed to be stony clay. In addition, where gravelly or cobbly soils were indicated, the minimum of the wetting front soil suction head listed in Rawls, et. al. (1983) were used.

Table 3 Green-Ampt Infiltration Parameters for Soil Classes within Modeled Area

Soil Texture Class	Wetting Front Soil Suction Head, inches	Hydraulic Conductivity, inches per hour	Initial Deficit, percent
Clay	12.6	0.01	0.21
Clay Loam	8.27	0.04	0.277
Cobbly Clay	2.52	0.01	0.21
Extremely Stony Clay	2.52	0.01	0.21
Gravelly Clay Loam	1.89	0.04	0.277
Gravelly Loam	0.52	0.13	0.347
Gravelly Loamy Sand	0.53	1.18	0.39
Gravelly Sandy Loam	1.05	0.43	0.368
N/A	2.52	0.01	0.21
Sandy Loam	4.33	0.43	0.368
Silty Clay	11.42	0.02	0.228
Silty Clay Loam	10.63	0.04	0.261
Stony Clay	2.52	0.01	0.21
Very Cobbly Clay	2.52	0.01	0.21
Very Gravelly Clay Loam	1.89	0.04	0.277

For each subcatchment, the values for wetting front soil suction head, hydraulic conductivity, and initial deficit were calculated based on weighted area of each of the different soil classes present within the subcatchment, and these inputs are listed in **Attachment 1**. The soil textures are widely dispersed throughout the study area. The upland areas are primarily rocky and clayey soils while lowlands and riparian areas tend to have more silt, sand and loam.

Rainfall

The rainfall events simulated were 24-hour, Type II SCS synthetic hydrographs and included the 2-, 10-, 25-, 50- and 100-year rainfall events. The depths (intensities) of these rainfall events were taken from the City of San Antonio Stormwater Design Criteria Manual for the different storm frequencies in the model. **Table 4** summarizes the rainfall depth from the Manual for each storm frequency that was modeled.

Table 4 Rainfall from City of San Antonio Stormwater Design Criteria Manual

Storm Frequency/Event	Rainfall (in)
2-year	4.0
5-year	5.4
10-year	6.0
25-year	7.3
50-year	9.0
100-year	10.0

SWMM Hydraulics

The primary conveyance mechanisms in Fair Oaks Ranch include a combination of overland sheet flow, curb and gutter, open channels, and culverts.

Model Parameters

Channel flow routing was completed using the dynamic wave method which uses continuity and the diffusion form of the momentum equation to calculate hydraulic grade line elevations. Required inputs for this method include conduit length, conduit slope, conduit geometry, conduit Manning's n, a cross section, and left and right overbank Manning's n values. The dynamic wave method is flexible, with the ability to account for channel storage, backwater, entrance/exit losses, flow reversal, and pressurized flow.

Conveyance System Structure

The hydraulic component of the model was created to represent the primary stormwater conveyance system in the City. The PCSWMM model inputs for the conveyance system include junctions, outfalls, conduits, weirs, and storage areas. Inputs for the junctions were developed based on the DEM. In cases where there was no information available, CDM Smith used other tools

and engineering judgement to create input parameters. **Attachment 1** includes tables of all the conveyance system elements in the model and their input parameters.

Junctions and Outfalls

Open channel junctions were input where significant changes in channel geometry occurred, at the intersection of conduits, and at the upstream and downstream endpoints of culverts. Rim elevations were estimated based on the ground surface DEM.

Outfall junctions were placed at the most downstream node for each continuously connected conduit system. Outfall elevations and invert elevations were added by CDM Smith based on the ground surface DEM. All outfalls were assumed free with no tailwater elevation.

All inputs for outfalls are listed in **Attachment 1**.

Conduits

There were five different conduit shapes included in the model; arch pipe, circular pipe, horizontal ellipse pipe, irregular conduit, rectangular closed pipe, and rectangular open (at the Ralph Fair Road crossing). Dimensions for these pipes were either available from city GIS data, were measured during field visits, or were estimated using aerial photography. Irregular conduits represent open channels and each has a manually entered cross section derived from the SARA ground elevation associated with them. The closed conduits each represent culverts, the majority of which are located at road crossings.

Summaries of the modeled conduit shapes and lengths are described in **Table 5**. All modeled conduits are shown in plan view in **Attachment 1**. Also included in **Attachment 1** are tables of conduit inputs and model results.

Table 5 Conduit Type and Length

Conduit Type	Length (ft)
Arch Pipe	842
Circular Pipe	13,564
Ellipse Pipe	467
Rectangular Closed Pipe	1,235
Irregular (Open Channel)	33,7090

Inputs for conduits include inlet and outlet junctions, inlet and outlet offsets, shape, dimensions, number of barrels, and Manning's n roughness coefficients. Closed conduits were assigned a roughness of 0.012 – 0.022 depending on the pipe material, as shown in **Table 6**.

Table 6 Conduit Material and Roughness

Material	Roughness
Corrugated Metal Pipe	0.022
Reinforced Concrete	0.012
Open Channel; Open, earthen-bottom culverts	0.03-0.05

Note: There are bridges in the model that were entered as large culverts; the roughness was entered according to the channel lining.

There are over 100 crossings of the open channels in the City. Where there was no information about open channel crossings, the conduit geometry was approximated using the elevation grid to estimate height and aerial imagery data to estimate width. Information that was available for nearby crossings was also considered when estimating geometry of open channel crossings.

Storage Areas and Weirs

A total of 15 storage area junctions were added to the model where ponds existed and where road embankments acted as impoundments for stormwater. Flow from these storage areas are routed downstream in the system either by culverts, dam spillways, or road overtopping, and these overflow elements were modeled as conduits or weirs, as appropriate.

HEC-RAS Hydraulics

In addition to the SWMM model, HEC-RAS was used to calculate water surfaces at five low water crossings which corresponded to all four of the “A” sites as described in the memorandum “Summary of Master Drainage Plan Activities” and one “B” site at the low water crossing at Amman Road. These sites are shown in **Figure 3**. HEC-RAS was used because it provides a higher level of detail for these crossings, and this higher level of detail was used to inform more detailed conceptual design at the “A” sites. The remaining site, Amman Road, was a “B” site but was also modeled using HEC-RAS for consistency with the other low water crossings.

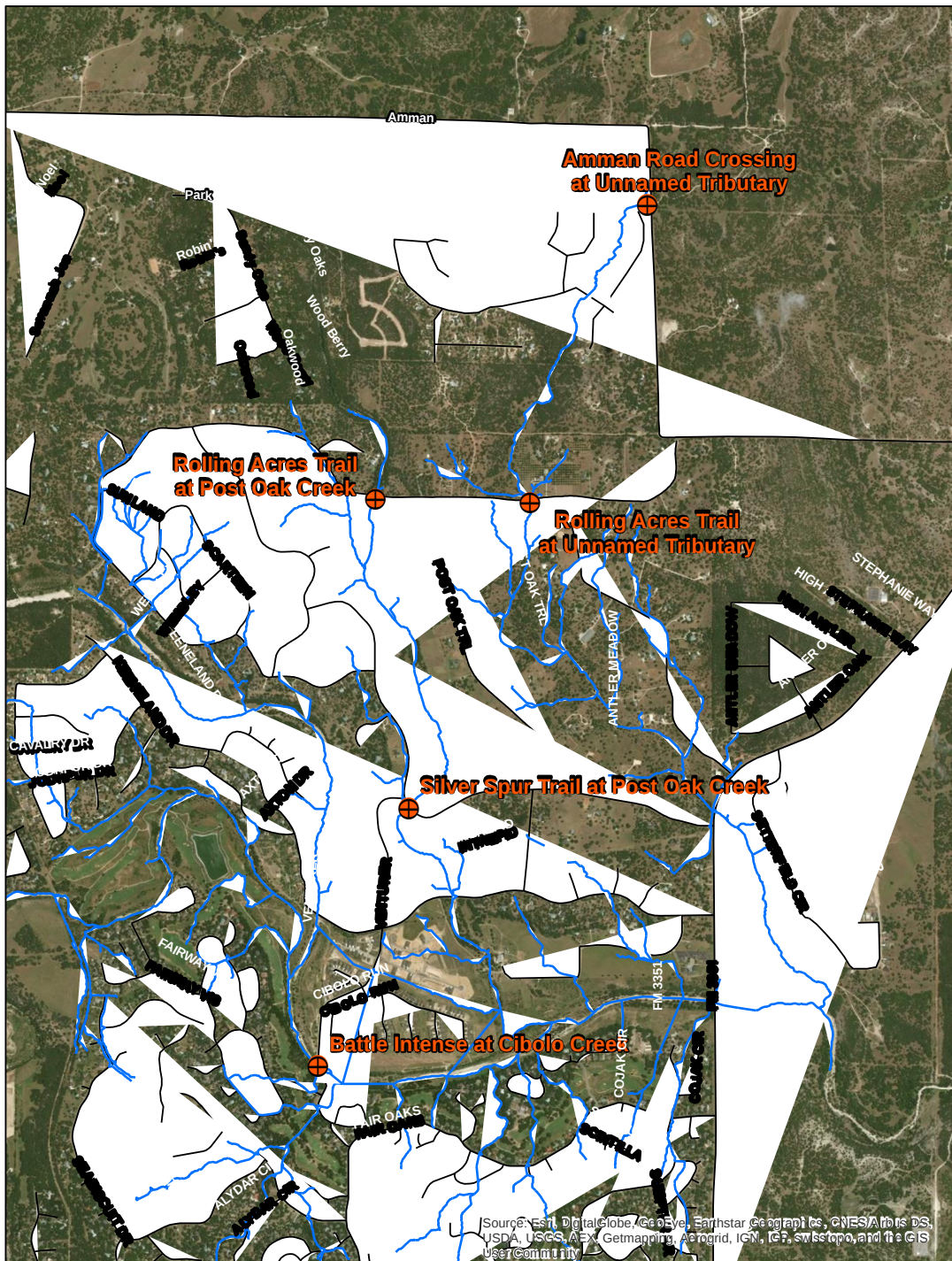


Figure 3 Low Water Crossings Modeled in HEC-RAS

All HEC-RAS models, except for the Battle Intense at Cibolo Creek model, were developed based on the ground surface DEM. The model used for Battle Intense at Cibolo Creek was the effective FEMA model, which was truncated for this effort. The cross-section layout of each model is shown in **Figures 4 through 8**.

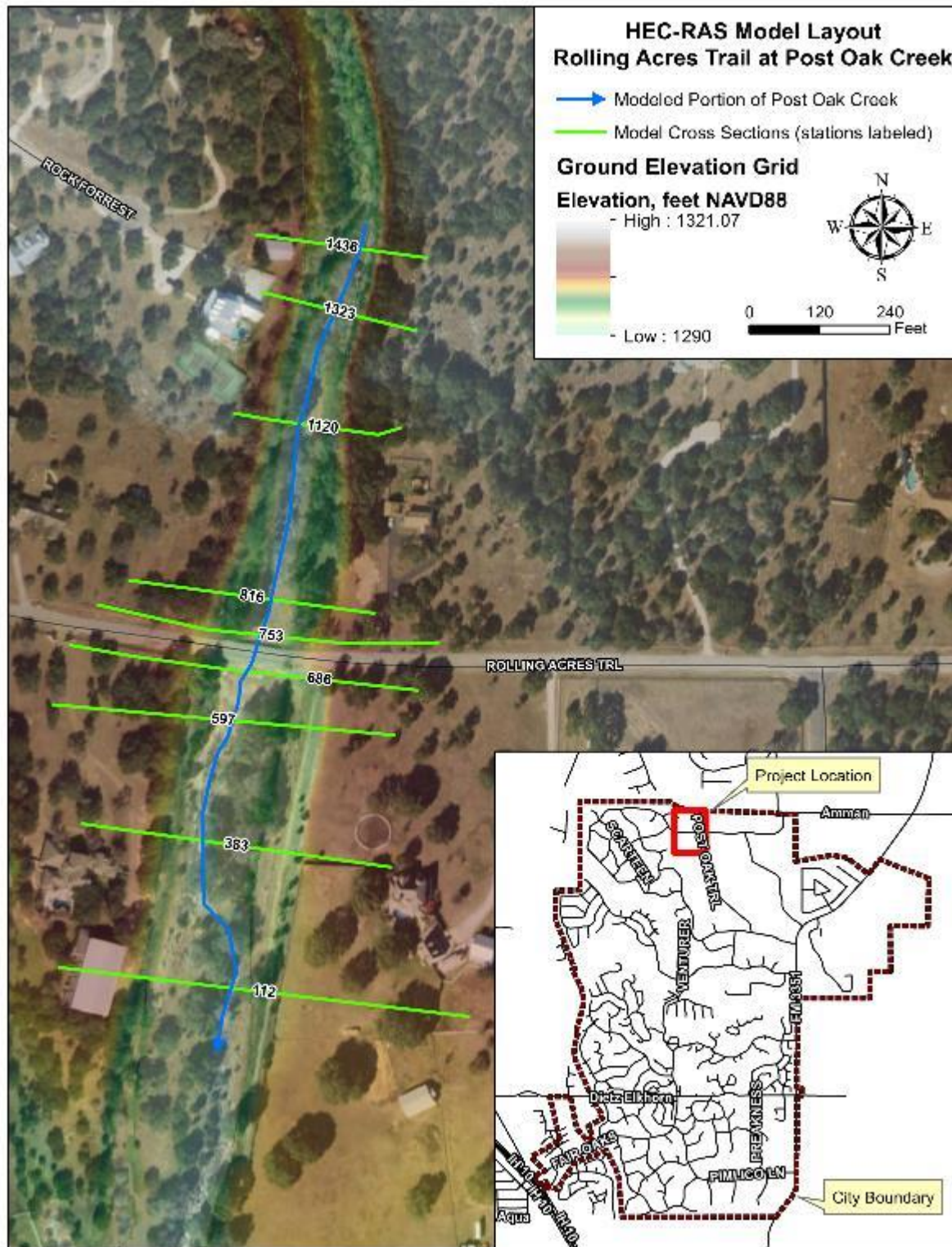


Figure 4 Rolling Acres Trail at Post Oak Creek – HEC-RAS Cross Section Layout

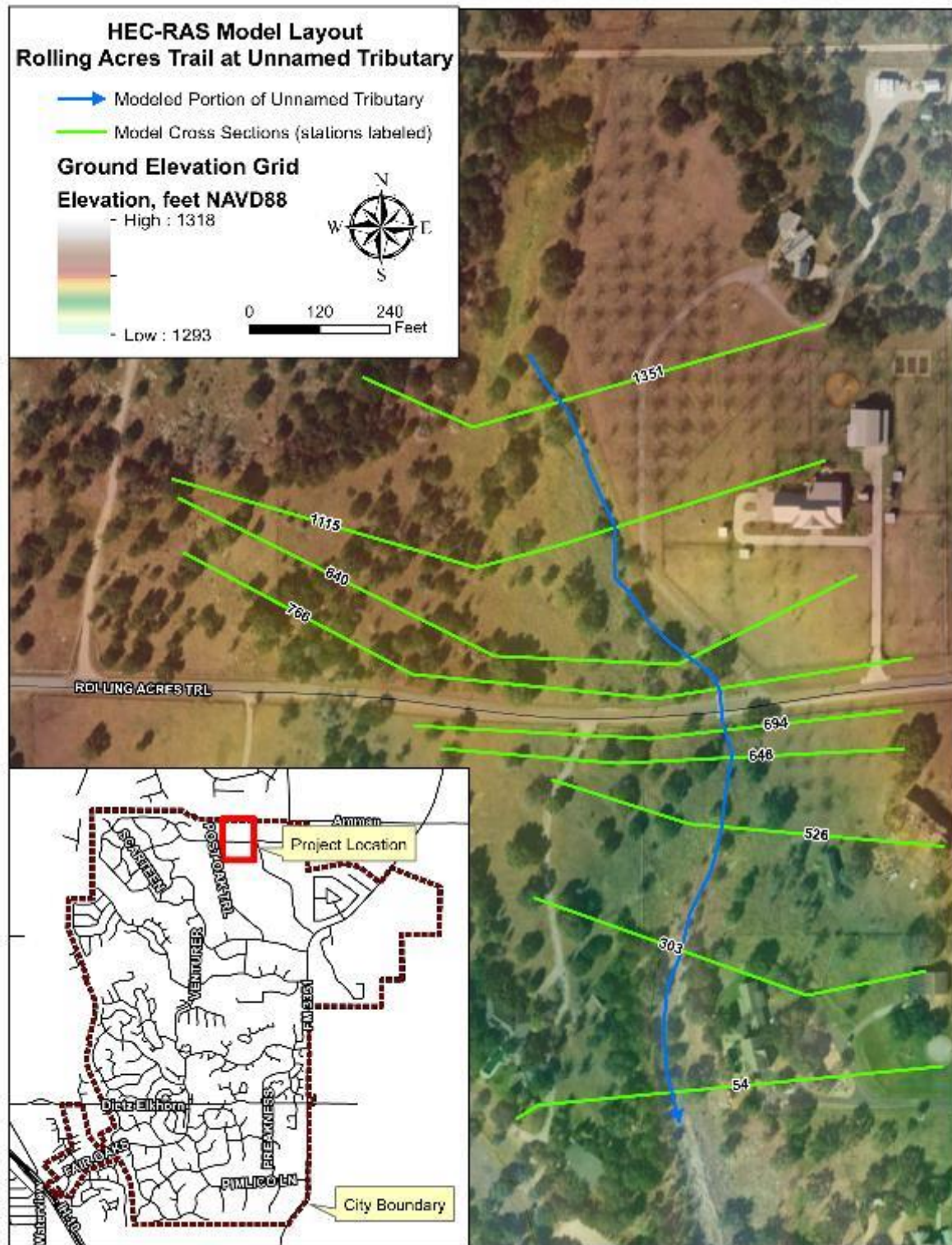


Figure 5 Rolling Acres Trail at Unnamed Tributary – HEC-RAS Cross Section Layout

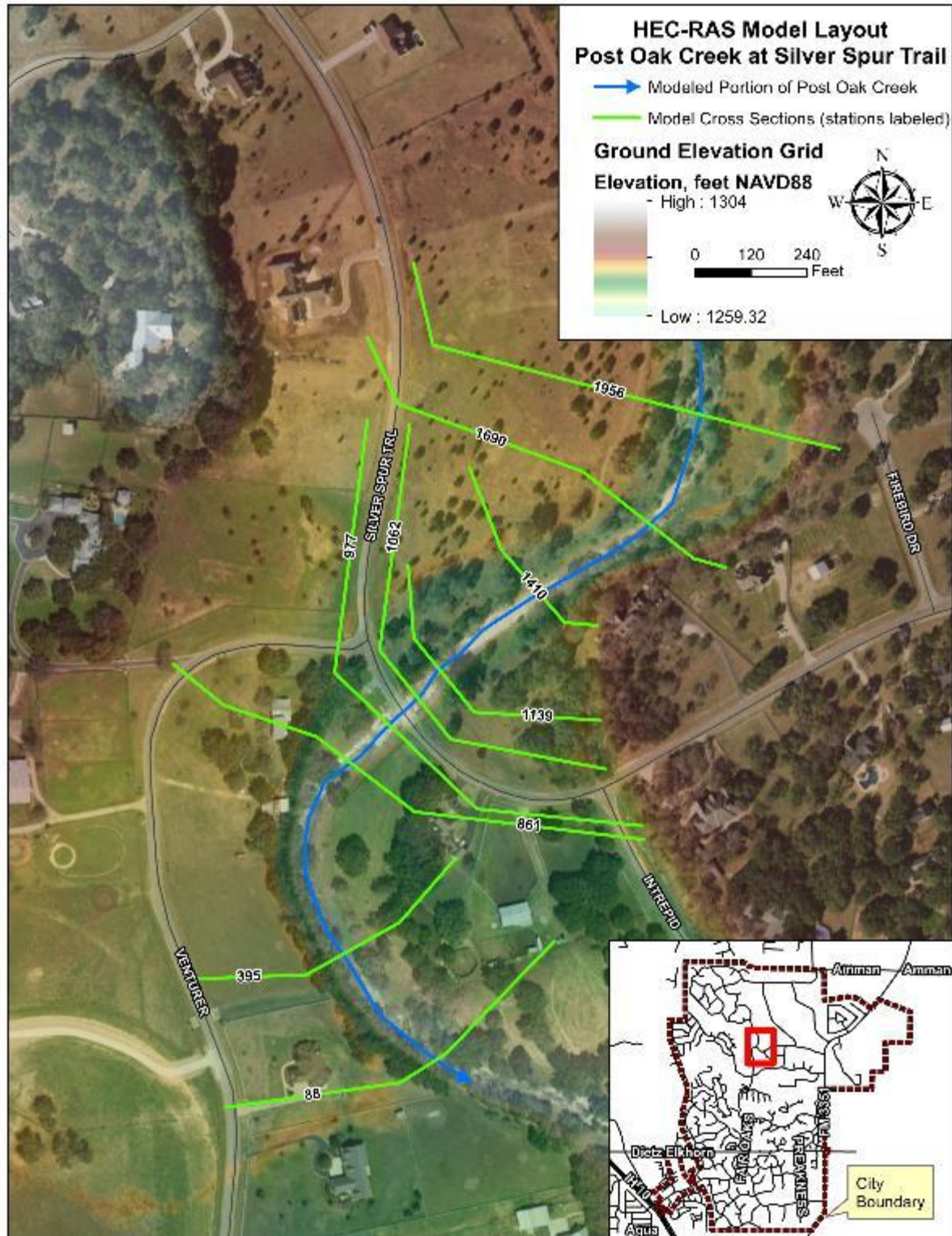


Figure 6 Silver Spur Trail at Post Oak Creek – HEC-RAS Cross Section Layout

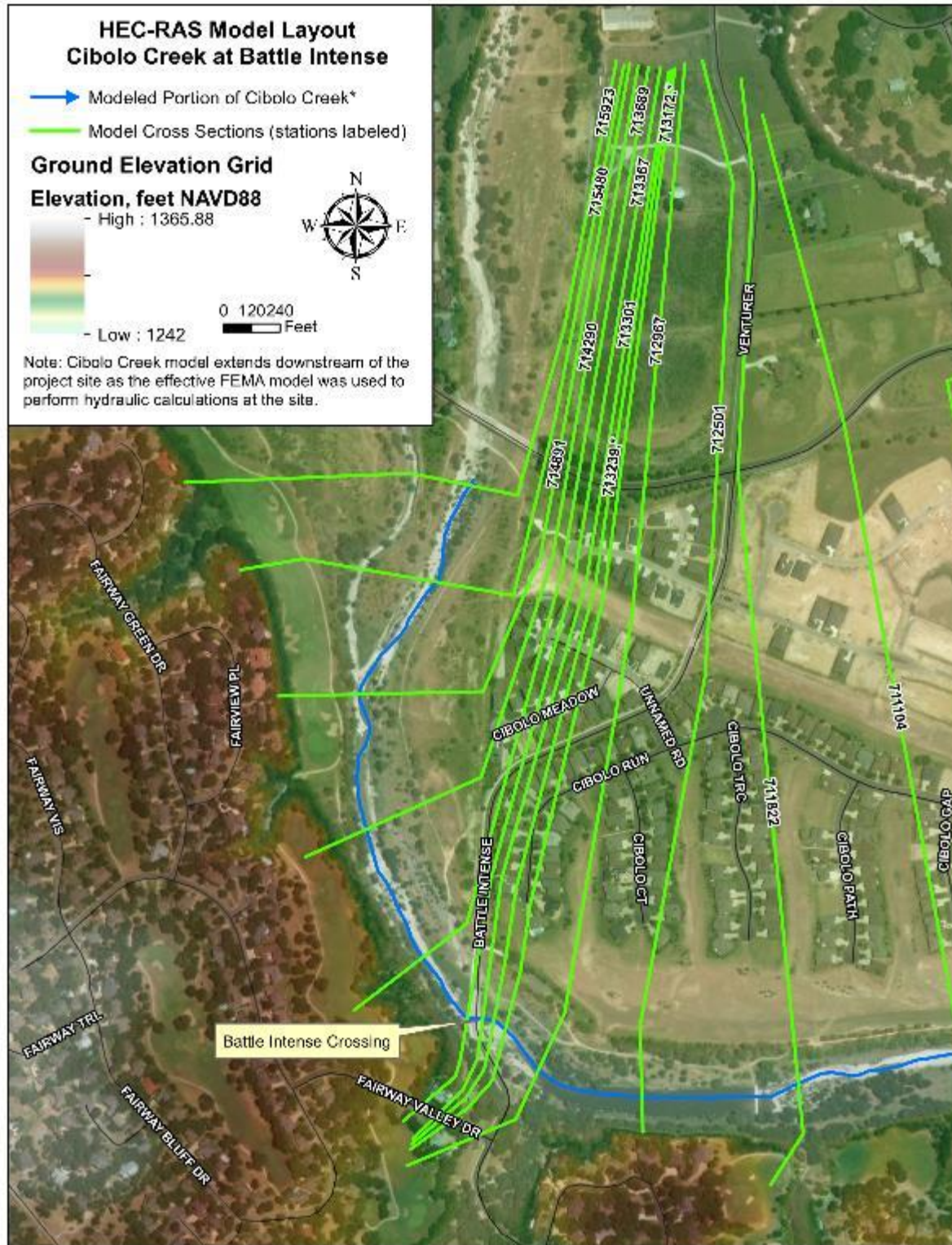


Figure 7 Battle Intense at Cibolo Creek – HEC-RAS Cross Section Layout

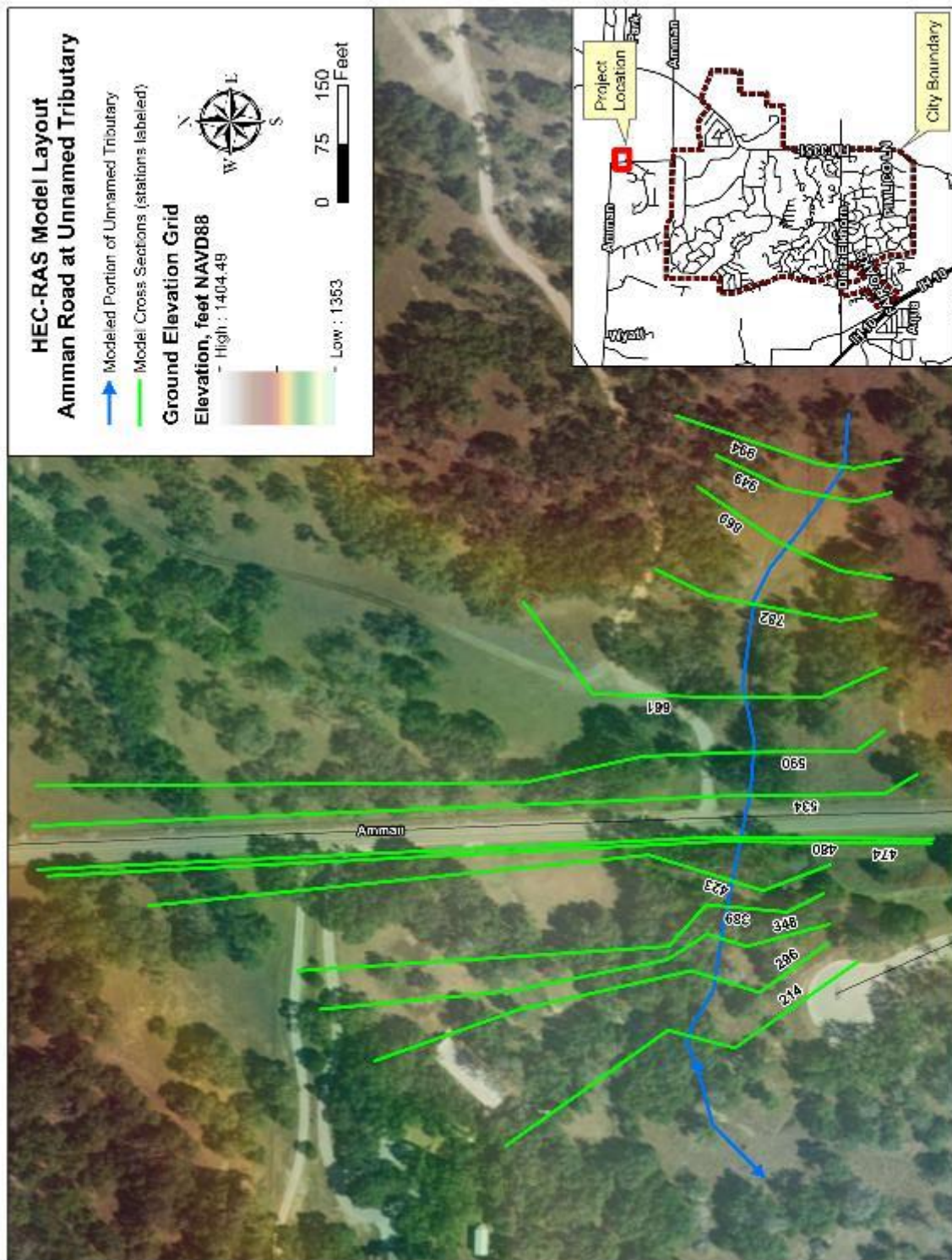


Figure 8 Amman Road at Unnamed Tributary – HEC-RAS Cross Section Layout

The flows for each model were input from the SWMM model except at Battle Intense, where FEMA flows were input. Flows input to the models are listed in **Table 7**.

Table 7 Flows Input to HEC-RAS Models

Site	Peak Flow at Crossing Input to HEC-RAS					
	2-year	5-year	10-year	25-year	50-year	100-year
Rolling Acres Trail at Post Oak Creek	399.9	2,309.4	4,038.7	5,842.7	7,100.8	8,296.5
Rolling Acres Trail at Unnamed Tributary	28.7	79.7	170.4	425.3	876.4	1,175.9
Silver Spur Trail at Post Oak Creek	405.2	2,433	4,167.2	6,109	7,412.7	8,623.3
Battle Intense at Cibolo Creek	2,091	16,247	31,320	-*	70,638	108,677
Amman Road Crossing at Unnamed Tributary	81.9	261.6	362.4	588.5	935.4	1,147.3

* - Cibolo Creek flows were taken from the effective FEMA model, and a 25-year flow was not available

Manning's 'n' values were assigned based on land use as determined using aerial photography. Downstream boundary conditions were input as normal depth for all model except Battle Intense at Cibolo Creek, which requires an estimate of the slope of the energy grade line. This slope was assumed to be equivalent to the slope of the main channel and was measured from the ground surface DEM. For Battle Intense at Cibolo Creek, known water surfaces were used as input to the effective FEMA model.

Existing conditions were developed based on available information at the crossings, including the ground surface DEM, information on the existing culverts, and data gathered during site visits. Proposed conditions modeling included development of two alternatives to increase conveyance and reduce the risk that crossings are inundated at the four "A" sites (the Rolling Acres Trail, Silver Spur, and Battle Intense Crossings) and one alternative at the "B" site (Amman Road Crossing). These improvements were shown to provide between a 2- and 25-year level of service at each crossing, where level of service is defined as the largest event which can be safely conveyed beneath the roadway without overtopping the roadway.

Project alternatives evaluated are summarized in **Table 8**.

Table 8 Existing Conditions and Alternatives Developed at Low Water Crossings

Site	Existing Drainage Infrastructure at Crossing	Alternative 1	Alternative 2
Rolling Acres Trail at Post Oak Creek	4 – 48-inch corrugated metal pipe (CMP) culverts	8 – 48-inch CMP culverts	Slab Bridge
Rolling Acres Trail at Unnamed Tributary	6 – 15-inch CMP culverts	12 – 15-inch CMP culverts	Slab Bridge
Silver Spur Trail at Post Oak Creek	4 – 94-inch by 63-inch arch CMP culverts	Slab Bridge	4 – 94-inch by 63-inch arch CMP culverts with 2 – 96-inch by 63-inch arch CMP culverts

Site	Existing Drainage Infrastructure at Crossing	Alternative 1	Alternative 2
Battle Intense at Cibolo Creek	4 – 60-inch by 36-inch reinforced concrete box culverts	Slab Bridge with a 2-year level of service	Slab Bridge with a 5-year level of service
Amman Road Crossing at Unnamed Tributary	2 – 18-inch CMP culvert	Slab Bridge	–*

* The Amman Road crossing was a “B” site, and only one alternative was developed for “B” sites

Existing conditions and proposed conditions results at these crossings are illustrated in cross section view in **Attachment 1**.

Conclusions and Recommendations

The stormwater model created for Fair Oaks Ranch provides a high-level, comprehensive overview of the performance of the City’s stormwater drainage system. For this study, the modeling was used to provide information to develop stormwater next steps for capital improvement projects to address existing stormwater issues, as described in the memorandum “Summary of Master Drainage Plan Activities”.

It is recommended that the City continue to maintain the models that were created, using them as a tool to:

- Help develop conceptual design for “B” and “C” sites, which were analyzed at a high level to provide next steps. These next steps should be refined, and the modeling can be used as a tool to develop conceptual project design efficiently.
- Regulate development by analyzing the impacts of proposed improvements. The impacts of proposed changes to impervious area and/or to watercourses can be quickly estimated by changing these parameters in the SWMM model.
- Support development of stormwater policy. For instance, the City-wide SWMM model could be used to evaluate the impacts of policy proposal, or consequences of not enacting policy proposals.



Memorandum

To: Ron Emmons, P.E. – City of Fair Oaks Ranch, Texas

From: Gian C. Villarreal, PE, CPSWQ, CFM

Date: November 7, 2018

Subject: Summary of Master Drainage Plan Activities

This memorandum summarizes development of stormwater capital improvement projects (CIPs) for the City of Fair Oaks Ranch. These projects were developed for 46 sites with known drainage issues, which were provided by the City as summarized in **Attachment 1**. Project development is described in the following subsections.

Master Drainage Plan / CIP

The stormwater CIP projects were first analyzed by conducting a field visit to each site to provide an initial engineering evaluation of the issue, and a computer stormwater model was used to support project development at each site. Each site was then analyzed in further detail according to the following site classifications:

- Four "A" sites were analyzed to provide detailed, targeted project development. These sites included the low water crossings at sites shown in **Figure 1**. Two project alternatives, comprised of a culvert option and a bridge option, were developed at each low water crossing using the HEC-RAS models and presented to the City and the stakeholders. Ultimately the City and stakeholder group decided that each crossing should be upgraded to a bridge crossing which would provide a minimum of a 10-year level of service. Cost estimates for each of these sites were also developed.



Figure 1. Low Water Crossings Analyzed

- Five "B" site analyses were completed to provide general, targeted stormwater project development. Except for Site 1, which is a low water crossing on Amman Road and was modeled in HEC-RAS, these sites were analyzed in ArcGIS to develop conceptual design of a project to mitigate the identified flooding issue, and the proposed projects are presented as one-page figures with project elements illustrated. Conceptual opinions of project cost for each of these sites was also developed, and these are provided with figures showing conceptual project design in **Attachment 2**.
- Thirty seven "C" sites were analyzed to provide a basic stormwater assessment. These sites were analyzed in ArcGIS to develop a basic understanding of causes of the existing stormwater issue

and potential paths forward at each site. A range of potential costs for each of these sites was also developed. The results of this analysis are summarized in a spreadsheet included in **Attachment 2**.

Deliverables developed for four sites (Sites 11, 26, 34, and 49) which can be used as a starting point to develop a FEMA Hazard Mitigation Grant Program application. These sites were chosen for deliverables tailored to assist with a FEMA grant based on their potential to be competitive for these grants. The deliverables included in **Attachment 2** and consisted of:

- A brief project scope of work, with alternatives defined when available from the drainage issue site analyses;
- A project cost breakdown as developed in the drainage issue site analyses;
- A project timeline, currently defined to be within the 3 years allowed by FEMA;
- An engineering checklist, which is required by the Texas Department of Public Safety for a FEMA grant application;
- A benefit-cost analysis cover sheet, which is required by the Texas Department of Public Safety for a FEMA grant application;
- A benefit-cost analysis report, created using version 5.3 of FEMA's BCA toolkit software. The flood module was used in the software, and flooding depths at affected buildings were developed for existing conditions based on the modeling and input for each property. It was assumed that no flooding would occur at these buildings under post-project conditions. Building replacement values were developed using CostWorks 2018, building square footages were input based on measurements from aerial photography, and finished floor elevations were estimated based on the ground surface DEM.
- Project cost was estimated based on home buyouts, which provided a higher project cost than the estimated costs to construct the projects for each site. Home buyouts represent an extreme case where no project is implemented, and should a project cost more than the cost of acquiring and demolishing homes affected by the flooding, then the City should consider buying the homes as a viable option.

The results of the benefit cost analysis are summarized in **Table 1**. Because all projects had a passing benefit cost ratio over 1, and because the project costs were estimated based on buyouts and are therefore elevated, it appears there is good potential for these sites to qualify for FEMA Hazard Mitigation Grant funding.

Table 1. Preliminary Benefit Cost Ratio Results

Site	Estimated Benefit Cost Ratio
11	3.46
26	3.67
34	6.92
49	6.75

All sites were prioritized using the criteria in **Table 2**, and these criteria were developed in coordination with the stakeholders.

Table 2. Stormwater CIP Prioritization Criteria

Item	Weight	Score
Estimated Cost		
Low	2	5
Medium		3
High		1
Source/Destination		
Public to Private	3	5
Public to Public		3
Private to Public		2
Private to Private		0
Public Infrastructure at Risk?		
Yes - Large Effect	3	5
Yes - Small Effect		2
No		0
Number of Parcels Affected		
Number of Parcels	1	Number of Parcels
Erosion Issue?		
Yes	0.5	5
No		0
Green Infrastructure Applicable?		
Yes	0.5	5
No		0

The prioritization factors were defined as follows:

- **Estimated Cost** assigns a higher score for projects which have a lower cost estimate. These scores were developed based on the potential cost range a project falls within as estimated in **Table 3**.

Table 3. Estimated Cost Project Cost Ranges for Prioritization

Scenario	Low End	High End
Low Cost Estimate	\$6,000	\$50,000
Medium Cost Estimate	\$50,000	\$125,000
High Cost Estimate	\$125,000	\$250,000

- **Source/Destination** indicates the source and destination of stormwater (i.e. a public subdivision or a private one). If stormwater is generated in a public property and it causes an issue in a private subdivision, then the highest score is assigned for this factor. If it is generated from a private property and causes an issue in a private property, then it receives the lowest score.
- **Public Infrastructure at Risk** indicates if the stormwater issue has the potential to damage public infrastructure. CIPs which address a threat to public infrastructure are assigned a higher score.
- **Number of Parcels Affected** assigns a score that is the total of all parcels which have experienced stormwater concerns caused by the issue identified at CIP site.
- **Erosion Issue** assigns a score of 5 if the stormwater issue at a CIP site causes erosion that would be mitigated by the proposed CIP and indicates a measure of a project's benefit to water quality.
- **Green Infrastructure Applicable** further indicates the potential water quality benefit that a CIP could provide by giving a higher score if green infrastructure could be implemented as part of the project.

Table 4 below summarizes the results of the rankings. Costs for each project are summarized in **Attachment 2**.

Table 4. Ranked Stormwater CIP Projects

Issue Number	Site Type	Address	Description	Next Steps / Proposed Project	Score
5	A	7820 Rolling Acres Trail	Low water crossing. Road Closure gate is deployed at this crossing during large storm events.	-^	47
17	A	7840 Silver Spur Trail	Runoff collects from the north side of the city and passes this point before passing under Keeneland then to the Cibolo Creek. Post Oak Creek low water crossing.	-^	47
34	C	29010 Tivoli Way	Large amount of runoff from Windermere crosses Fair Oaks Parkway and is intercepted by homes. This issue contains 100% design plans from the Road Bond Project	* Utilize existing stormwater infrastructure by regrading the roadway to slope towards existing inlets and open channels on the north and south side of Windermere Dr on the east side of Fair Oaks Parkway. New curb installed along the west side of Fair Oaks Parkway (across the street from Windermere Dr.) to convey water towards stormwater inlet would also improve collection. This approach would likely increase flows conveyed downstream and these increases would need to be accounted for as part of any project. * Alternately, expand the open channel on the west side of Fair Oaks Parkway in the existing flow path and regrade the right of way to drain to the channel which conveys flow beneath the fence to Tivoli Way. Note: A project to mitigate flooding at this location was already developed, and this may provide a more detailed path forward.	45.5
25	C	7715 Fair Oaks Parkway	Great amount of runoff passes under Fair Oaks PKWY and is causing erosion through the easement. This area was surveyed during the Terra Vista retaining wall project	* Regrade the channel and install erosion control measures, such as riprap or turf reinforced mat, to protect channel.	42

Table 4. Ranked Stormwater CIP Projects

Issue Number	Site Type	Address	Description	Next Steps / Proposed Project	Score
36	C	8410 Noble Lark Dr	Runoff flows in a channel next to the ROW and has caused erosion in this area	* Regrade the channel and install erosion control measures, such as riprap or turf reinforced mat, to protect channel. * Repair the eroded foundation of the culvert headwall.	42
32	C	29314 Sumpter Drive	Runoff flows from Nooner's Store and is intercepted by the homes across Ralph Fair Road. Severe slope accelerates runoff towards homes.	* Add a swale to the west side of Ralph Fair Rd to handle runoff coming from Nooners parking lot. This swale could be routed through a culvert south of Dietz Elkhorn and detained in the open field area of Fair Oaks Ranch Elementary and ultimately routed south and tied in with the conduit drainage located on the east end of Fair Oaks Ranch Elementary. * Define existing outfall structure located on the west side of the Nooner's Store parking lot to catch runoff from parking lot as well as the already existing channel to handle runoff from the Nooner's Store parking lot so it more effectively carries runoff to existing channels	40.5
37	C	7967 Turf Paradise Lane	Large amount of runoff sheet flows down the street and across properties.	* Investigate the capacities of driveway culverts to see if they cause water to back up and flow into yards. Based on the model results, it is expected that these will be hydraulic constrictions contributing to uncontrolled stormwater flow, and that replacing them with adequately sized culverts will mitigate the issue.	40
30	C	7900 Fair Oaks PKWY	Large amount of runoff flows from country club parking lot across Fair Oaks PKWY. Runoff jumps curb and flows through fences into backyard	* The new wall may represent a solution which mitigates stormwater from passing into the backyards mentioned in this complaint, however this may cause new stormwater issues down Oakview Pass where the runoff is now routed	31
48	C	28207 Kempton Circle	Large amount of runoff is intercepted by wall around house and is causing erosion and exposing irrigation pipe.	* Regrade the channel to keep stormwater from encroaching on the property. Slightly widening and deepening the channel reduced velocities in the model.	31
29	C	8531 Alydar Circle	Water flows over the natural channel that is located within a platted drainage easement. Banks have been eroded due to large runoff flows	* Regrade the channel to restore its shape and remove steep side slopes, remove any sediment buildup, install riprap or turf reinforced mat in areas experiencing high velocities/erosion potential	30

Table 4. Ranked Stormwater CIP Projects

Issue Number	Site Type	Address	Description	Next Steps / Proposed Project	Score
35	B	-^	-^	* Line channel with erosion control, such as rip rap or turf reinforced mat	29.5
15	C	8622 Delta Dawn	Erosion is caused by runoff coming from Jophpur and is in close proximity to the city's lift station	* Potential options include reinforcing the channel using erosion control mats or rip rap to mitigate against erosion, or widen the channel to reduce velocities.	29.5
16	C	30817 Man O War	Runoff drains around this property and one side contains a platted easement. Drainage flows over the channel in the easement and backs up into front and back yards	* Increase conveyance by excavating the channel the be deeper and/or wider. * Decrease flows in the channel by constructing a detention pond on the upstream side of Man O War Drive. This would require easement acquisition.	29.5
2	C	8472 Rolling Acres Trail	Drainage backs up in culverts that pass under driveway. Large amount of runoff flows across the property towards Cibolo Creek.	* Increase the diameter of the driveway culverts for the properties on the west side of Rolling Acres Rd. May require addressing the culverts in the site as well as 6-8 downstream culverts to prevent perpetuating issues downstream before this channel is routed out to Cibolo Creek. Current driveway culvert geometry in this site is a 3.17'x2' horizontal ellipse. In the model, increasing the size to 3.75'x2.41' did not have a substantial effect in reducing out of bank flow (using 10 year event)(A 3X6 concrete box culvert did not result in significant improvements either). * Develop a detention project on the northeast corner of the intersection of Rolling Acres Trail and Sunland to address flows from this site (which flows across the road during large events) as well as westward drainage from Sunland. This may require an easement from property owner.	29

Table 4. Ranked Stormwater CIP Projects

Issue Number	Site Type	Address	Description	Next Steps / Proposed Project	Score
8	C	31789 Sunland	A natural recharge zone takes a large amount of runoff during storm events	* Acquire a drainage easement to the west of this property to route flow to the sinkhole and away from it when it becomes filled. This would require continuous routing along Scarteen southward towards Cibolo Creek. * Construct a drainage ditch on the south side of Sunland to route flow west towards Rolling Acres and its existing right of way drainage ditch	28.5
38	C	7626 Rocking Horse Ln	Large amount of flow goes across street and ponds in front yard of the property	*Construct a channel in the right of way to intercept runoff from Rocking Horse Lane and convey this flow east along Secretariat Lane to an already existing channel at the intersection of Secretariat Lane and Dapper Dan Drive.	28.5
44	C	31988 Scarteen	Runoff from Sky Blue Ridge runs down road and heads in direction of home	* Increase the capacities of the roadside channels by regrading them to have a more define flow path with larger widths and depths.	28.5
46	C	7644 Pimlico Lane	Large amount of runoff moves through property toward Salado Creek	* Construct a new channel along the south side of Pimlico Lane from Steeplechase Lane to Aqueduct Lane. This channel would convey flow east to the west side of Aqueduct Lane, where a channel would be constructed to convey flow south to Salado Creek.	28.5
4	C	8040 Rolling Acres Trail	The drainage does not have positive flow in one direction as it crosses Rolling Acres Trail at multiple points	* Build a drainage ditch to capture stormwater as it exits the upstream culvert and route to the culvert at the downstream end of the property. This should prevent the city's stormwater from flowing on the property. Will require the construction of a driveway culvert.	28
42	C	7740 Pimlico Lane	Large amount of runoff moves through the HOA park and towards the Salado Creek	* Regrade the channel to deepen it one foot and increase the size of the culvert from a 4-foot corrugated metal pipe to 5.5 foot diameter corrugated metal pipe to provide a 10-year level of service.	27.5
9	C	31521 Silver Spur Trail	A large amount of runoff flows between the properties before making its way toward Post Oak Creek.	* Construct a drainage ditch along Silver Spur Trail which conveys flow to Post Oak Creek south of the intersection of Silver Spur Trail and Venturer.	27

Table 4. Ranked Stormwater CIP Projects

Issue Number	Site Type	Address	Description	Next Steps / Proposed Project	Score
45	C	8816 Jodphur	Runoff flows from outside of the city and accumulates near this lot. The City installed a drainage improvement in this area.	* Recent improvements may have been sufficient to alleviate this issue.	27
1	B	—	—	* Replace current road with concrete bridge elevated above flood stage.	26
56	C	29707 High Eschelon	Drainage from road collects and faster than the drainage easement can move it	* Regrade the drainage channel and clear it of vegetation and debris.	26
52	C	29755 No Le Haze	Runoff from No Le Haze culminates at the end of the cul de sac before making its way to Cibolo Creek. Large amounts of erosion and silt exists	* Acquire an easement which runs north from the cul de sac and construct a channel to convey flow north to Cibolo Creek.	24.5
53	C	32030 Scarteen	City installed berms and swales have eroded and silted over time. Flooding occurs in driveway and has come close to entering home.	*Regrade the channel on the east side of Scarteen to convey flow more efficiently and replace the driveway culvert with a larger culvert to increase conveyance.	24.5
27	C	29358 Duberry Ridge	Runoff flows from the street into the front yard of the property	* Obtain a drainage easement between two of the properties. Construct curb cut and route runoff through easement onto golf course	22
41	C	8426 Triple Crown	Large amount of runoff flows down ROW and through a platted easement. Culvert is undersized and backs up/becomes obstructed	*Increase the capacity of the culvert and provide proper maintenance to prevent clogging of the culvert. Increasing the size to a 2.417 ft x 3.75 ft provides conveyance for a 10-year event.	22
43	C	8312 Triple Crown	Large amount of runoff moves down Rocking Horse Ln towards the south of the city	*A culvert and channel can be constructed along the south side of Triple Crown and the west side of Rocking Horse Lane in the right of way to help catch flow running down the street before it can cause an issue on private property.	22

Table 4. Ranked Stormwater CIP Projects

Issue Number	Site Type	Address	Description	Next Steps / Proposed Project	Score
26	C	47 Falls Terrace	Large amounts of runoff flows through backyards. Floodplain was revised and further encroaches into properties in this gated subdivision	* Increase conveyance by excavating the channel the be deeper and/or wider to mitigate flooding from FEMA floodplain. * Install erosion control measures, such as riprap or turf reinforced mat, to protect channel and slow velocities.	21
3	C	31872 Sunland	Large amount of runoff from Burnt Cedar flows through the property towards Rolling Acres Trail	* Widen the channel to reduce the flow velocity. The channel is relatively shallow, thus deepening the channel may be an option but downstream effects should be further investigated. (Widening the channel approx. 15 ft did not significantly change the Water Surface Elevation (WSE) but did decrease the velocity by about 35% for the 10 year event) * Reinforce the channel and convey flow more efficiently by lining it with concrete. This option would likely result in increased flows downstream which could be mitigated by the detention project proposed for Site 2. * Increase road surface elevation to prevent overtopping of Burnt Cedar Rd. This could cause backups onto properties. * Site #8 is a sinkhole and to mitigate this issue a culvert could be constructed to convey flow beneath Sunland. This would require acquisition of a drainage easement to route the flow to the sink hole.	19.5
28	C	29534 No Le Haze Drive	A drainage channel exists on the rear property lines in this area. The city does not have an easement and this channel backs up and floods backyards due to fence blockages	* Expand ditch to increase conveyance	17.5
6	A	7420 Rolling Acres Trail	Low water crossing moves toward home on Meadow Creek Trail. Road closure gate is deployed at this crossing during large storm events.	-^	17
49	B	-^	-^	* Increase the height of the berm. Add fill and grade it to 3:1 slope on either side. * Excavate channel down to increase its capacity to convey flow and lower water surface elevation	17

Table 4. Ranked Stormwater CIP Projects

Issue Number	Site Type	Address	Description	Next Steps / Proposed Project	Score
23	A	8402 Battle Intense	Battle Intense is often shut down during large rain events. Debris collects and damages this low water crossing.	—	17
40	C	28337 Leslie Pfeiffer Dr.	Runoff flows through a 20' platted drainage easement and is intercepted by fences running across them. This issue is examined in the 2009 Costello Report	*The channel running underneath the fence can be deepened so debris is less likely to catch on the fence and cause the channel to backup. Deepening the channel a foot and widening it to 15-feet wide should greatly reduce instances of debris from catching in the fence as the model calculated that the 10-year event would be contained within its banks. Proactive management and cleaning of the fence and channel should greatly improve conveyance and prevent the channel from backing-up.	16
60	C	Cibolob Trails Common Area	Ponding occurs in this common area located in the floodplain.	*Construct culverts to drain through the trail embankment at low points.	15
12	C	31104 Furtoso Way	A large amount of runoff flows through front and backyard of the property towards the platted recharge features at the corner of Calvary Dr. and Furtoso Way	* Acquire a drainage easement in the rear of the properties and install a drainage ditch to route flow to Calvary Dr.	14.5
10	C	31520 Meadow Creek Trail	A large amount of ponding occurs in this area. Drainage does not pass the road efficiently.	* Install culvert under Meadow Creek Trail on the northwest side of the driveway of this address. * Increase conveyance of the drainage ditch along the north side of Meadow Creek Trail (increase culvert size, widen drainage ditches)	14
19	C	7660 Intrepid Drive	Runoff makes its way through a platted easement to the rear of the property. From there it enters an undersized culvert that passes below the HOA trail. This culvert backs up and water ponds in the area.	* Increase culvert size to three 3-foot diameter corrugated metal pipe culverts reduced the upstream flooding by approximately 50% in the model.	12
58	B	—	—	—	11

Table 4. Ranked Stormwater CIP Projects

Issue Number	Site Type	Address	Description	Next Steps / Proposed Project	Score
7	C	8524 Rolling Acres Trail	A natural drainage feature is located in backyard. A large amount of runoff flows across the property towards Cibolo Creek.	* Acquire a drainage easement on the north boundary of this property to intercept flow and route it south behind the houses on the affected properties.	9.5
13	C	8609 Delta Dawn Lane	A large amount of runoff from Jodphur makes its way into the backyard of the property. Runoff from Keeneland makes its way into the front yard	* Improve conveyance of the existing drainage easement through the backyard. * A 45 ft wide channel can handle the 100 yr event with a 1 ft. depth of flow	7
20	C	30621 Sweetridge Circle	Water ponds in this natural low area. Residence maintains a curb around property which exacerbates the issue.	Potential solutions include: * Install a culvert or drain in the low area and a curb cut to drain the ponded area onto Keeneland * Obtain an easement on the west end of the property to route flow down to the curb & gutter on Keeneland.	7
47	C	29636 No Le Haze	Runoff from neighboring backyard does not have a clear path towards the street. During large rain events, water accumulates in garage	Capture stormwater at Saddleback Circle and route it to the west in a controlled channel.	7
11	B	_^	_^	_^	6.5

^ "A" and "B" Sites are more fully described in Attachment 3 materials pertaining to these sites, and partial information on these sites was included in this table to provide a comprehensive ranking of all stormwater CIP projects.

Figure 2 below illustrates the cumulative budget required to fund projects in their order of priority. Costs for each project shown in this chart represent the average of the "Low Cost" and "High Cost" columns in the Attachment 3 spreadsheet digital deliverable "Attach3_Fair Oaks Ranch – C Sites Spreadsheet Deliverable & CIP Prioritization.xlsx", Columns AB and AC on tab "C Sites and Ranking". This chart illustrates the cost to implement these stormwater CIP projects over a certain timespan. For instance, the total cost to implement all projects is estimated in this chart to be \$7.42 million, and this figure could be used to plan a funding source over a 50 year timespan. Note that this list includes construction of all "A" sites, which may not be necessary if emergency access to all part of the City can be restored by strategic implementation of the "A" site projects.

It should be noted that as more details on these projects are obtained, and as City priorities for these projects change, the prioritization of these projects may change over time, and therefore the funds required to implement this stormwater CIP may vary.

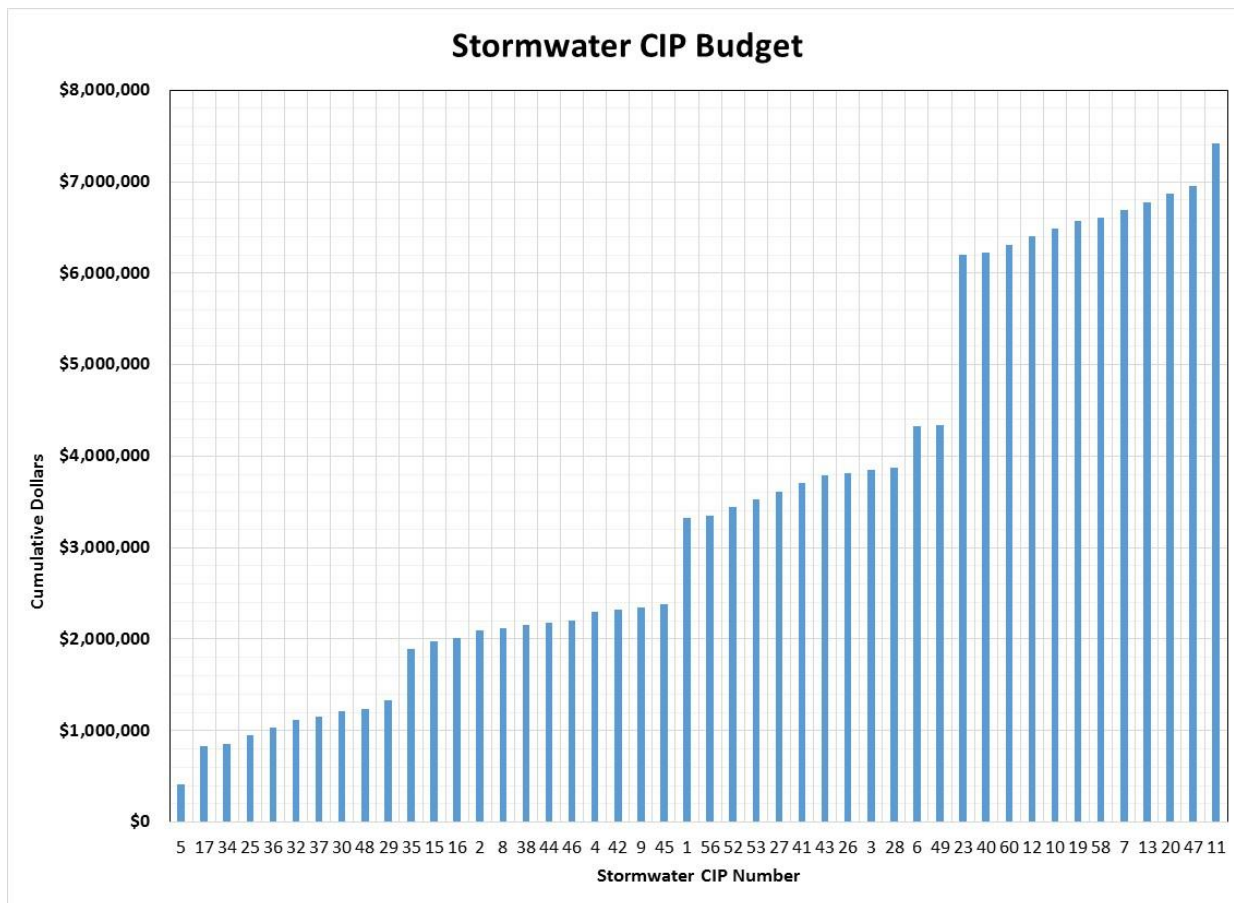


Figure 2. Stormwater CIP Budget

Conclusions / Next Steps

This memorandum and the attached deliverables provide a basis for the City to move forward with addressing its stormwater issues. The detailed improvements recommended for the “A” sites provide a high-level, conceptual design that can be refined using the HEC-RAS models created to produce a final design to be implemented at each site. The evaluations and next steps provided for “B” and “C” sites can be refined to produce a conceptual design and a detailed cost estimate at each location using the SWMM model.

All stormwater CIP projects (“A”, “B”, and “C” sites) were ranked according to the criteria outlined in the “Master Drainage Plan / CIP” section of this memo, and because this was delivered as a digital spreadsheet, the City can refine project prioritizations as more information becomes available.

Overall, the costs to construct “A”, “B” and “C” sites were estimated to be \$3.15 million, \$2.02 million and \$2.26 million, respectively. The “B” and “C” site cost estimates were developed with less detail than the “A” sites, where more detailed analyses were completed, and thus have a much higher range of potential costs. As individual “B” and “C” site projects move forward, conceptual design will be completed and a more detailed cost estimate can be developed at that time.

As a next step, the City should evaluate funding options for these proposed projects. The City currently funds stormwater improvements from its general fund, and because there is no dedicated fund to address stormwater issues in the City, it is recommended that other stormwater funding options be explored. Such options can include ad valorem property taxes, which are assessed based on a percentage of property value, sales taxes, or public enterprise funds (such as a stormwater utility). These options should be studied by the City in conversation with public stakeholders to establish a comprehensive path forward for stormwater funding that is based on community consensus and addresses the stormwater issues the City faces.



CITY COUNCIL CONSIDERATION ITEM

CITY OF FAIR OAKS RANCH, TEXAS

November 15, 2018

AGENDA TOPIC: Consideration and possible action approving the Tree Preservation Plan for Front Gate Unit 4

DATE: November 15, 2018

DEPARTMENT: Public Works

PRESENTED BY: Melissa Castro, Environmental Compliance Manager

INTRODUCTION/BACKGROUND:

In October 2018, a preliminary plat, establishing Front Gate Unit 4, was submitted to the Public Works Department by Vickrey and Associates, Inc. This preliminary plat consists of 21.94 acres of residential development.

Regarding the submission of a preliminary plat, Article II, Section 1 (C, 13) of the City's subdivision ordinance states, "The submittal shall conform to the requirements of Article III, Section 6 of this ordinance." This section contains a requirement by the Tree and Habitat Protection ordinance which states: "City Council approval is required prior to removal of any tree which is twenty-four inches (24") caliper in size or larger (heritage tree). The tree caliper is to be measured at 4-1/2 feet above the ground."

The submitted Tree Preservation Plan shows the removal of six (6) trees meeting the definition of a heritage tree. To mitigate, eighteen (18) trees with a caliper of at least two and one half - inches (2.5") will be planted. The applicant has been informed that the heritage trees will require City Council approval prior to removal.

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

Article III Section 6(A) of the subdivision ordinance states:

"It shall be unlawful for any person to remove, destroy, or cause the removal or destruction of any tree which is nine - inches (9") caliper in size or larger (protected tree) and which is located on an undeveloped tract of land within the city limits or extraterritorial jurisdiction (ETJ) without submitting a Tree Removal and Preservation Plan with the preliminary plat. City Council approval is required prior to removal of any tree which is twenty-four inches (24") caliper in size or larger (heritage tree). The tree caliper is to be measured at 4-1/2 feet above the ground."

Furthermore, item "D" of the same section states the following:

"The Public Works Department shall review and recommend approval of the Plan if:

1. The tree(s) is located within ten feet of the perimeter of, the proposed building footprint, the area over a septic tank, areas necessary for site access, or within areas designated for the construction or installation of public facilities such as streets or utilities or,

2. The application demonstrates that the denial of the request for tree removal will effect a hardship prohibiting the development of the property in otherwise compliance with the regulations of the City of Fair Oaks Ranch; and,
3. The application demonstrates that three (3) trees with a caliper of at least two and one half - inches (2.5") will be planted on the site or at another approved location for each tree removed that has a caliper of twenty-four - inches (24") or larger (heritage tree)."

LONGTERM FINANCIAL & BUDGETARY IMPACT:

N/A

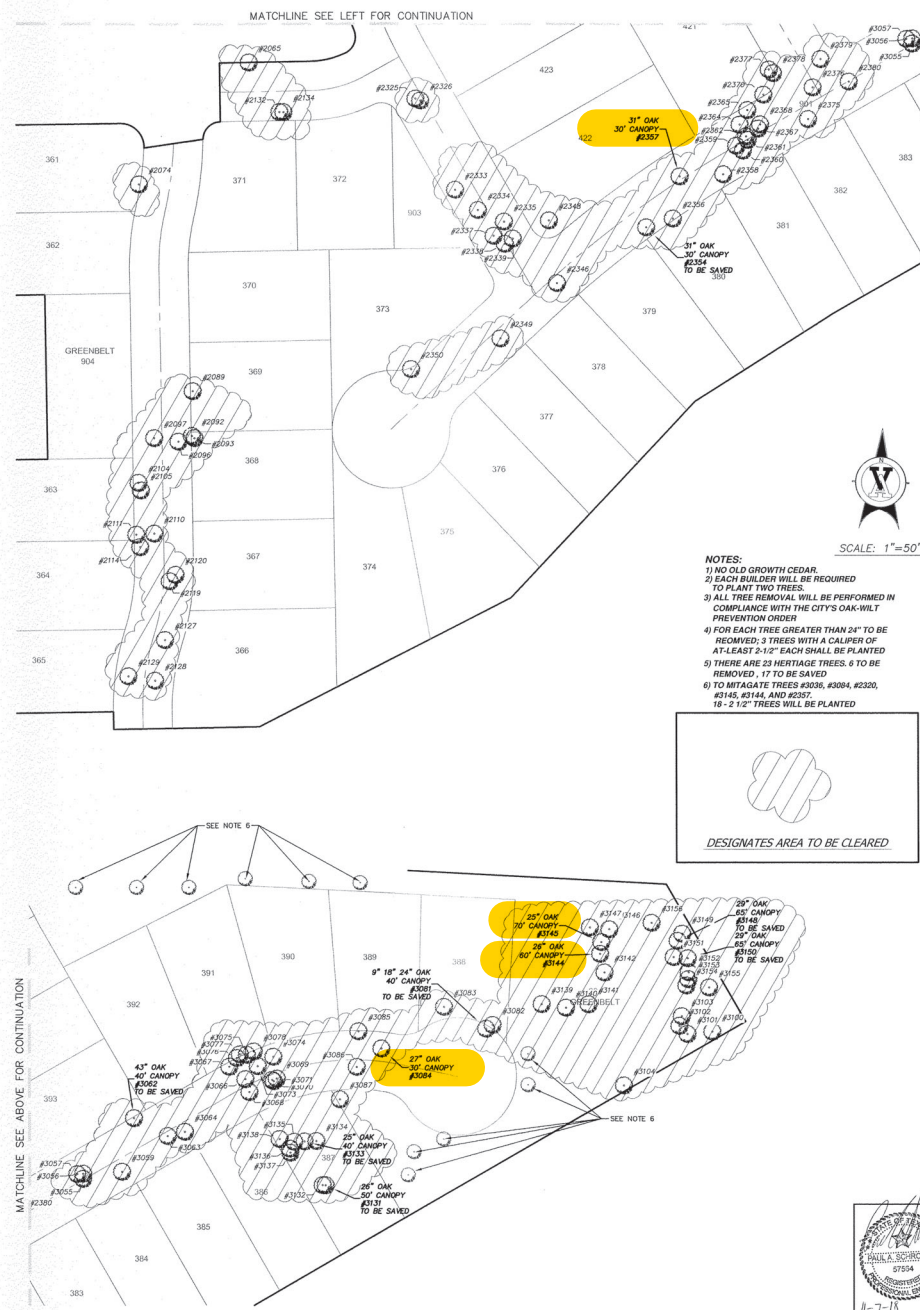
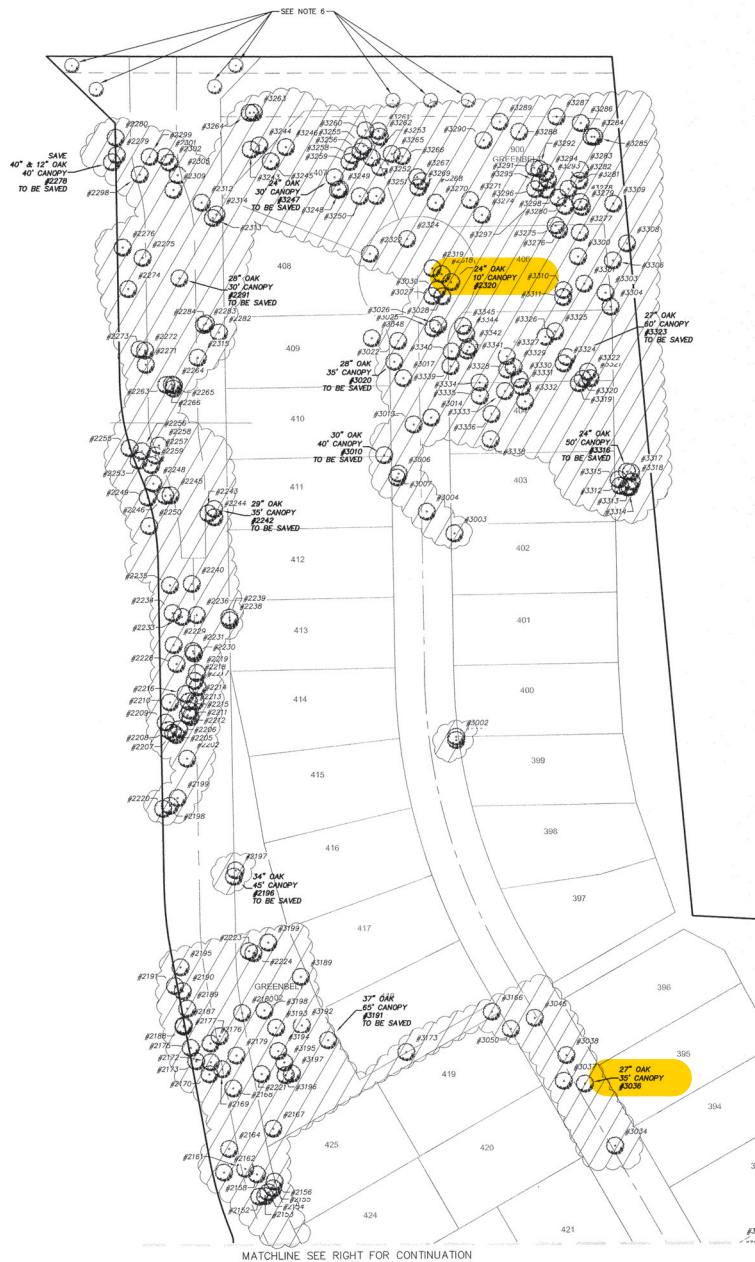
LEGAL ANALYSIS:

N/A

RECOMMENDATION/PROPOSED MOTION:

I move to approve the Tree Preservation Plan for the proposed subdivision of Front Gate Unit 4.

DATE: OCT 2017
 DRAWN BY: FC
 CHECKED BY: PAS
 APPROVED BY: PAS



VICKREY & ASSOCIATES, INC.	
CONSULTING ENGINEERS	
CIVIL • ENVIRONMENTAL • SURVEY	
12340 Country Parkway San Antonio, TX 78216	
Phone: (214) 481-1100 Fax: (214) 481-1101	
Email: info@vickrey.com	
DATE: OCT 2017	
Vertical Scale: 1"=40'	
Horizontal Scale: 1"=50'	
SHEET 1 OF 2	
PROJECT NO. 2704-004	
TREE PLAN	
FRONT GATE UNIT 4	
FAIR OAKS RANCH, TEXAS	

Point #	DESCRIPTION	CANOPY
2065	14" OAK	20' CANOPY
2074	9" OAK	20' CANOPY
2089	11" OAK	20' CANOPY
2092	10" OAK	25' CANOPY
2093	9" UNKNOWN	9" UNKNOWN
2096	11" OAK	25' CANOPY
2097	9" OAK	15' CANOPY
2104	10" OAK	15' CANOPY
2105	9" OAK	15' CANOPY
2110	15" OAK	20' CANOPY
2111	10" OAK	30' CANOPY
2114	9" OAK	15' CANOPY
2119	11" OAK	20' CANOPY
2120	10" OAK	20' CANOPY
2127	16" OAK	25' CANOPY
2128	16" OAK	30' CANOPY
2129	9" OAK	15' CANOPY
2132	17" OAK	30' CANOPY
2134	9" OAK	25' CANOPY
2152	9" OAK	25' CANOPY
2153	9" OAK	40' CANOPY
2154	10" OAK	30' CANOPY
2155	13" OAK	35' CANOPY
2156	12" OAK	40' CANOPY
2158	13" HACK	20' CANOPY
2161	9" OAK	30' CANOPY
2162	10" OAK	20' CANOPY
2164	9" OAK	25' CANOPY
2167	9" OAK	15' CANOPY
2168	21" OAK	40' CANOPY
2169	10" OAK	20' CANOPY
2170	13" OAK	20' CANOPY
2172	9" HACK	15' CANOPY
2173	12" OAK	20' CANOPY
2175	9" OAK	15' CANOPY
2176	10" OAK	20' CANOPY
2177	9" OAK	20' CANOPY
2179	18" OAK	30' CANOPY
2180	21" OAK	40' CANOPY
2187	14" OAK	20' CANOPY
2188	14" OAK	20' CANOPY
2189	9" OAK	15' CANOPY
2190	12" OAK	25' CANOPY
2191	11" OAK	25' CANOPY
2195	9" OAK	15' CANOPY
2196	34" OAK	45' CANOPY
2197	10" OAK	15' CANOPY
2198	10" OAK	20' CANOPY
2199	18" OAK	25' CANOPY
2202	15" OAK	20' CANOPY

Point #	DESCRIPTION	CANOPY
2205	10" HACK	25' CANOPY
2206	13" OAK	25' CANOPY
2207	16" OAK	25' CANOPY
2208	11" OAK	20' CANOPY
2209	11" OAK	20' CANOPY
2210	10" OAK	20' CANOPY
2211	9" HACK	15' CANOPY
2212	12" OAK	30' CANOPY
2213	15" OAK	35' CANOPY
2214	10" OAK	30' CANOPY
2215	10" OAK	20' CANOPY
2216	10" OAK	25' CANOPY
2217	18" ELM	35' CANOPY
2218	13" OAK	30' CANOPY
2219	11" OAK	20' CANOPY
2220	18" OAK	30' CANOPY
2221	16" OAK	20' CANOPY
2223	15" OAK	20' CANOPY
2224	10" OAK	15' CANOPY
2228	10" OAK	20' CANOPY
2229	11" OAK	25' CANOPY
2230	14" OAK	30' CANOPY
2231	9" OAK	25' CANOPY
2233	11" OAK	20' CANOPY
2234	11" OAK	25' CANOPY
2235	13" OAK	20' CANOPY
2236	13" OAK	30' CANOPY
2238	16" OAK	25' CANOPY
2239	11" OAK	15' CANOPY
2240	13" OAK	30' CANOPY
2242	29" OAK	35' CANOPY
2243	11" ASH	15' CANOPY
2244	11" ASH	20' CANOPY
2245	10" OAK	20' CANOPY
2246	9" OAK	15' CANOPY
2248	11" OAK	30' CANOPY
2249	10" OAK	25' CANOPY
2250	19" OAK	35' CANOPY
2253	9" OAK	15' CANOPY
2255	10" OAK	20' CANOPY
2256	9" OAK	15' CANOPY
2257	11" OAK	20' CANOPY
2258	11" OAK	20' CANOPY
2259	10" OAK	15' CANOPY
2263	9" OAK	15' CANOPY
2264	10" OAK	15' CANOPY
2265	10" OAK	20' CANOPY
2266	12" OAK	25' CANOPY
2271	9" OAK	15' CANOPY
2272	10" OAK	15' CANOPY

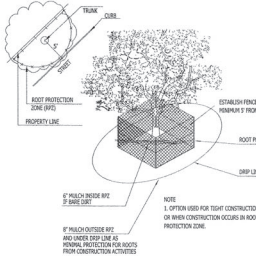
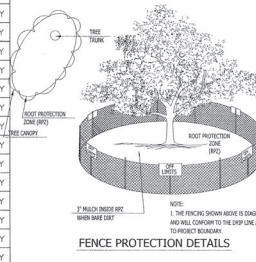
Point #	DESCRIPTION	CANOPY
2273	11" HCK	15' CANOPY
2274	15" OAK	25' CANOPY
2275	13" OAK	30' CANOPY
2276	15" OAK	30' CANOPY
2278	40" & 12" OAK	40' CANOPY
2279	9" OAK	30' CANOPY
2280	18" OAK	20' CANOPY
2282	12" OAK	30' CANOPY
2283	20" OAK	20' CANOPY
2284	12" OAK	20' CANOPY
2291	28" OAK	30' CANOPY
2298	11" OAK	30' CANOPY
2299	13" OAK	25' CANOPY
2301	23" OAK	30' CANOPY
2302	10" OAK	20' CANOPY
2305	14" OAK	30' CANOPY
2309	10" OAK	20' CANOPY
2312	12" OAK	25' CANOPY
2313	23" OAK	40' CANOPY
2314	9" OAK	20' CANOPY
2315	16" OAK	40' CANOPY
2318	11" OAK	25' CANOPY
2319	11" HACK	20' CANOPY
2320	24" OAK	10' CANOPY
2322	19" OAK	20' CANOPY
2324	14" OAK	20' CANOPY
2325	9" OAK	20' CANOPY
2326	15" OAK	10' CANOPY
2333	9" OAK	20' CANOPY
2334	21" OAK	25' CANOPY
2335	21" OAK	30' CANOPY
2337	9" OAK	15' CANOPY
2338	10" OAK	20' CANOPY
2339	10" OAK	30' CANOPY
2346	9" OAK	40' CANOPY
2348	9" OAK	20' CANOPY
2349	13" OAK	30' CANOPY
2350	9" OAK	20' CANOPY
2354	31" OAK	30' CANOPY
2356	16" OAK	40' CANOPY
2357	31" OAK	30' CANOPY
2358	15" OAK	20' CANOPY
2359	10" OAK	20' CANOPY
2360	10" OAK	20' CANOPY
2361	9" OAK	20' CANOPY
2362	10" OAK	20' CANOPY
2364	9" OAK	20' CANOPY
2365	21" OAK	40' CANOPY
2367	9" OAK	20' CANOPY
2368	9" OAK	20' CANOPY

Point #	DESCRIPTION	CANOPY
2370	9" OAK	20' CANOPY
2375	21" OAK	35' CANOPY
2376	20" OAK	35' CANOPY
2377	18" OAK	35' CANOPY
2378	17" OAK	35' CANOPY
2379	18" OAK	35' CANOPY
2380	20" OAK	35' CANOPY
3001	11" OAK	30' CANOPY
3002	9" ASHJUN	20' CANOPY
3003	16" ASHJUN	30' CANOPY
3004	11" OAK	20' CANOPY
3006	11" OAK	20' CANOPY
3007	11" HACK	20' CANOPY
3010	30" OAK	40' CANOPY
3013	19" OAK	25' CANOPY
3014	17" OAK	30' CANOPY
3017	11" HACK	25' CANOPY
3020	28" OAK	35' CANOPY
3022	9" OAK	15' CANOPY
3025	9" OAK	20' CANOPY
3026	9" OAK	20' CANOPY
3027	10" OAK	20' CANOPY
3028	13" OAK	25' CANOPY
3030	11" OAK	20' CANOPY
3034	20" OAK	30' CANOPY
3036	27" OAK	35' CANOPY
3037	18" OAK	35' CANOPY
3038	10" OAK	25' CANOPY
3046	11" OAK	20' CANOPY
3050	10" OAK	20' CANOPY
3055	11" OAK	20' CANOPY
3056	13" OAK	20' CANOPY
3057	13" OAK	20' CANOPY
3059	10" OAK	15' CANOPY
3062	43" OAK	40' CANOPY
3063	18" OAK	45' CANOPY
3064	9" OAK	20' CANOPY
3066	9" OAK	25' CANOPY
3067	12" ASHJUN	30' CANOPY
3068	11" OAK	35' CANOPY
3069	12" OAK	25' CANOPY
3070	9" OAK	30' CANOPY
3071	10" OAK	30' CANOPY
3073	10" OAK	20' CANOPY
3074	23" OAK	35' CANOPY
3075	15" ASHJUN	25' CANOPY
3076	11" OAK	20' CANOPY
3077	10" OAK	15' CANOPY
3078	10" & 10" ASHJUN	20' CANOPY
3081	9" 18" 24" OAK	40' CANOPY

Point #	DESCRIPTION	CANOPY
3082	12" 12" OAK	30' CANOPY
3083	15" OAK	25' CANOPY
3084	27" OAK	30' CANOPY
3085	9" 12" 14" ASHJUN	30' CANOPY
3086	11" ASHJUN	25' CANOPY
3087	14" OAK	25' CANOPY
3100	13" OAK	40' CANOPY
3101	17" 20" OAK	60' CANOPY
3102	20" OAK	40' CANOPY
3103	18" OAK	40' CANOPY
3104	21" OAK	50' CANOPY
3131	26" OAK	50' CANOPY
3132	13" OAK	40' CANOPY
3133	25" OAK	40' CANOPY
3134	9" CDR	20' CANOPY
3135	23" OAK	50' CANOPY
3136	9" OAK	20' CANOPY
3137	11" OAK	25' CANOPY
3138	9" OAK	20' CANOPY
3139	10" CDR	15' CANOPY
3140	17" OAK	40' CANOPY
3141	16" HCK	30' CANOPY
3142	22" 10" OAK	60' CANOPY
3144	26" OAK	60' CANOPY
3145	25" OAK	70' CANOPY
3146	13" OAK	45' CANOPY
3147	13" 9" 15" CDR	30' CANOPY
3148	29" OAK	65' CANOPY
3149	9" HCK	65' CANOPY
3150	29" OAK	65' CANOPY
3151	TR 8 HCK 20	20' CANOPY
3152	18" OAK	60' CANOPY
3153	11" HCK	20' CANOPY
3154	10" OAK	20' CANOPY
3155	TR 8 OAK 20	20' CANOPY
3156	14" CDR	20' CANOPY
3166	11" OAK	25' CANOPY
3173	10" OAK	25' CANOPY
3189	12" 15" OAK	35' CANOPY
3191	37" OAK	65' CANOPY
3192	14" OAK	30' CANOPY
3193	12" OAK	20' CANOPY
3194	11" OAK	20' CANOPY
3195	9" OAK	15' CANOPY
3196	9" OAK	15' CANOPY
3197	12" OAK	15' CANOPY
3198	12" OAK	20' CANOPY
3199	12" OAK	20' CANOPY
3243	16" 12" OAK	30' CANOPY
3244	12" CDR	15' CANOPY

Point #	DESCRIPTION	CANOPY
3245	12" OAK	20' CANOPY
3246	18" OAK	30' CANOPY
3247	24" OAK	30' CANOPY
3248	11" OAK	20' CANOPY
3249	10" OAK	15' CANOPY
3250	10" ELM	15' CANOPY
3251	19" OAK	20' CANOPY
3252	9" OAK	20' CANOPY
3253	9" OAK	15' CANOPY
3255	9" OAK	20' CANOPY
3256	9" OAK	20' CANOPY
3258	9" OAK	15' CANOPY
3259	10" OAK	25' CANOPY
3260	12" OAK	35' CANOPY
3261	13" OAK	35' CANOPY
3262	9" 9" OAK	30' CANOPY
3263	10" OAK	15' CANOPY
3264	13" OAK	15' CANOPY
3265	9" OAK	15' CANOPY
3266	12" OAK	25' CANOPY
3267	13" OAK	30' CANOPY
3268	16" OAK	40' CANOPY
3269	9" OAK	15' CANOPY
3270	13" OAK	15' CANOPY
3271	17" OAK	40' CANOPY
3274	17" OAK	50' CANOPY
3275	15" OAK	40' CANOPY
3276	10" OAK	25' CANOPY
3277	14" OAK	30' CANOPY
3278	11" OAK	20' CANOPY
3279	13" OAK	30' CANOPY
3280	11" OAK	30' CANOPY
3281	13" OAK	30' CANOPY
3282	12" OAK	30' CANOPY
3283	13" OAK	25' CANOPY
3284	11" HCK	25' CANOPY
3285	23" OAK	60' CANOPY
3286	17" OAK	35' CANOPY
3287	10" OAK	15' CANOPY
3288	11" OAK	15' CANOPY
3289	12" OAK	15' CANOPY
3290	9" OAK	15' CANOPY
3291	15" OAK	30' CANOPY
3292	15" OAK	30' CANOPY
3293	16" OAK	35' CANOPY
3294	11" OAK	35' CANOPY
3295	13" OAK	25' CANOPY
3296	11" OAK	30' CANOPY
3297	9" OAK	30' CANOPY
3298	14" OAK	30' CANOPY

Point #	DESCRIPTION	CANOPY
3300	13" 12" 11" OAK	60' CANOPY
3301	10" OAK	20' CANOPY
3303	10" OAK	20' CANOPY
3304	9" OAK	15' CANOPY
3306	9" OAK	15' CANOPY
3308	14" 10" 9" 9" CDR	25' CANOPY
3309	10" OAK	15' CANOPY
3310	13" OAK	25' CANOPY
3311	14" OAK	30' CANOPY
3312	19" OAK	30' CANOPY
3313	9" HCK	20' CANOPY
3314	TR 8 BLUE CONDOLIA	20' CANOPY
3315	17" OAK	30' CANOPY
3316	24" OAK	50' CANOPY
3317	10" HCK	15' CANOPY
3318	16" OAK	15' CANOPY
3319	9" OAK	15' CANOPY
3320	11" OAK	20' CANOPY
3321	11" OAK	20' CANOPY
3322	9" OAK	20' CANOPY
3323	27" OAK	60' CANOPY
3324	19" OAK	20' CANOPY
3325	13" OAK	30' CANOPY
3326	10" OAK	25' CANOPY
3327	13" OAK	20' CANOPY
3328	11" CDR	20' CANOPY
3329	12" OAK	20' CANOPY
3330	15" OAK	30' CANOPY
3331	14" OAK	20' CANOPY
3332	13" OAK	15' CANOPY
3333	9" OAK	15' CANOPY
3334	10" OAK	20' CANOPY
3335	10" OAK	20' CANOPY
3336	15" OAK	30' CANOPY
3338	10" OAK	20' CANOPY
3339	10" OAK	20' CANOPY
3340	11" OAK	15' CANOPY
3341	11" OAK	30' CANOPY
3342	9" OAK	15' CANOPY
3344	12" OAK	25' CANOPY
3345	10" OAK	35' CANOPY
3348	11" OAK	15' CANOPY



FENCE PROTECTION DETAILS



CITY COUNCIL CONSIDERATION ITEM

CITY OF FAIR OAKS RANCH, TEXAS

November 15, 2018

AGENDA TOPIC: Consideration and possible action approving the First Reading of an Ordinance adopting a Cross-Connection Control and Backflow Prevention Program

DATE: November 15, 2018

DEPARTMENT: Public Works

PRESENTED BY: Melissa Castro, Environmental Compliance Manager

INTRODUCTION/BACKGROUND:

Backflow is defined as the undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into a public water system. This situation can introduce pollutants and contaminants which can then present a health hazard to the customers that utilize the potable water supply.

The City of Fair Oaks Ranch currently relies on the City Council adopted International Plumbing Code as the primary means of cross-connection control and backflow prevention. In an effort to formalize the City's program, the Public Works Department delivered presentations to City Council on August 2, 2018 and October 18, 2018.

The proposed ordinance adopts a cross-connection control and backflow prevention program that will protect the City's public water system from the possibility of contamination or pollution, and will allow the City to comply with Title 30 of the Texas Administrative Code, Chapter 290, Subchapter D: Rules and Regulations for Public Water Systems which requires that all public water systems maintain a cross-connection control program. Highlights of the proposed ordinance include testing requirements for all backflow prevention assemblies at the time of installation, repair, relocation, replacement, and annually thereafter; requirements for City-registered backflow prevention assembly testers; customer service inspections, which allow for the identification and prevention of cross-connections and contaminant hazards; and formalized enforcement options.

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

The Texas Commission on Environmental Quality requires all public water systems to maintain a cross-connection control program that protects the distribution system delivering drinking water to homes and businesses.

The proposed Cross-Connection Control and Backflow Prevention Program will proactively protect the City's public water system.

LONGTERM FINANCIAL & BUDGETARY IMPACT:

City staff will be capable of delivering this program with the help of a third-party company that will handle the administrative tasks.

LEGAL ANALYSIS:

Approved as to form.

RECOMMENDATION/PROPOSED MOTION:

I move to approve the First Reading of an Ordinance adopting a Cross-Connection Control and Backflow Prevention Program.

AN ORDINANCE

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FAIR OAKS RANCH ESTABLISHING A CROSS-CONNECTON CONTROL AND BACKFLOW PREVENTION PROGRAM FOR THE CITY OF FAIR OAKS RANCH; PROVIDING FOR SEVERABILITY AND REPEAL CLAUSES; PROVIDING FOR A PENALTY NOT EXCEEDING \$2000 PER VIOLATION PER DAY FOR NONCOMPLIANCE; AND PROVIDING FOR AN EFFECTIVE DATE OF FEBRUARY 1, 2019.

WHEREAS, the City of Fair Oaks Ranch (the "City") seeks to protect its public water system from the possibility of contamination or pollution by isolating contaminants or pollutants that could backflow into the public water system;

WHEREAS, the City seeks to provide for the maintenance of a continuing program of cross-connection control and backflow prevention that will systemically and effectively prevent the contamination or pollution of the City's public water system; and

WHEREAS, the City seeks to comply with Title 30 of the Texas Administrative Code, Chapter 290, Subchapter D: Rules and Regulations for Public Water Systems which prohibits public water systems from connecting to an actual or potential contaminant hazard without first protecting the potable water supply.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FAIR OAKS RANCH, TEXAS:

That the City Council hereby adopts a Cross-Connection Control and Backflow Prevention Program for the City of Fair Oaks Ranch, Texas.

(a) Purpose.

- (1) Protect the City's public water system from the possibility of contamination or pollution by isolating contaminants or pollutants that could backflow into the public water system;
- (2) Provide for the maintenance of a continuing program of cross-connection control and backflow prevention which will systematically and effectively prevent the contamination or pollution of the City's public water system; and
- (3) Comply with Title 30 of the Texas Administrative Code, Chapter 290, Subchapter D: Rules and Regulations for Public Water Systems which prohibits public water systems from connecting to an actual or potential contaminant hazard without first protecting the potable water supply.

(b) Definitions.

For the purposes of this program, the following definitions shall apply unless the context of their usage clearly indicates otherwise:

Air gap. The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water to a tank, fixture, receptor, sink, or other assembly and the flood level rim of the receptacle. The vertical, physical separation must be at least twice the diameter of the water supply outlet; in no case less than three (3) inches.

Auxiliary water supply. Any water source or supply other than the City's public water system that may be available to the customer or on the customer's property, including, but not limited to, ground water, surface waters, a water supply from another public water system, or used waters.

Backflow. The undesirable reversal of flow of water or mixtures of water and other liquids, gases, or other substances into the public water system.

Backflow prevention assembly or assembly. Any assembly used to prevent backflow into a public water system. The type of assembly used is based on the existing or potential degree of health hazard and backflow condition.

City. City of Fair Oaks Ranch, Texas

Contamination. The presence of any foreign substance (organic, inorganic, radiological, or biological) in water which tends to degrade its quality so as to constitute a health hazard.

Cross-connection. A physical connection between a public water system and either another supply of unknown or questionable quality, any source which may contain contaminating or polluting substances, or any source of water treated to a lesser degree in the treatment process.

Customer. Any person, individual, partnership, company, corporation, association, organization or other legal entity receiving water supplied by Fair Oaks Ranch Utilities.

Customer service inspection. An inspection for the purpose of identifying and preventing cross-connections and/or actual or potential contaminant hazards.

Non-potable water. Water that is not suitable for human consumption.

Pollution. The presence of any foreign substance in water which tends to degrade its quality so as to constitute a non-health hazard or impair the usefulness of the water.

Public water system. A system for the provision of water to the public as defined in Title 30 of the Texas Administrative Code, Chapter 290.

Recognized backflow prevention assembly tester. A person who is licensed by the Texas Commission on Environmental Quality to test backflow prevention assemblies and registered with the City, in accordance with the City's policies and procedures.

Reduced-pressure principle backflow prevention assembly. An assembly containing two independently acting approved check valves together with a hydraulically operating mechanically independent pressure differential relief valve located between the two check valves and below the first check valve.

Service connection. The point of delivery up to and including water meters through which the public water system provides water to the customer.

(c) General.

- (1) No water service connection shall be made to any establishment where an actual or potential contaminant hazard exists unless the City's public water system is protected in accordance with the Texas Commission on Environmental Quality Rules and Regulations for Public Water Systems and this Ordinance.
- (2) The Texas Commission on Environmental Quality Rules and Regulations referred to herein shall mean those in effect at the effective date of this Ordinance and any other subsequent approved amendments, or those made effective by any successor regulatory agency of the state.

(d) Designation of program coordinator. The program coordinator shall be designated by the City Manager or his/her designee. It shall be the coordinator's responsibility to implement the provisions of this Ordinance and other appropriate sections pertaining to cross-connection control and backflow prevention. The coordinator is authorized and directed to develop such policies and procedures that are reasonably necessary to provide for the effective and efficient implementation of this Ordinance.

(e) Right-of-way encroachment.

- (1) No person shall install or maintain a backflow prevention assembly upon or within any City right-of-way unless authorized by the City Manager or his/her designee, provided as follows:
 - (A) The City retains the right to approve the location, height, depth of enclosure, and other requisites of the assembly prior to its installation.
 - (B) All applicable permits and inspections required by the City's Building Codes Department shall be obtained.
 - (C) The assembly shall be installed in accordance with the manufacturer's instructions and the American Water Works Association's Recommended Practice for Backflow Prevention and Cross-Connection Control ("Manual M14"). Any assembly or portion of an assembly that extends above ground shall be located no closer than eighteen (18) inches to the face of the curb or edge of pavement.
 - (D) The City shall not be liable for any damage to a backflow prevention assembly installed in any City right-of-way.
 - (E) A customer shall, at the request of the City and at the customer's expense, relocate a backflow prevention assembly which encroaches upon a City right-of-way when such relocation is necessary for street or utility construction or repairs for purposes of public safety.
 - (F) A person commits an offense if, after receiving a written notice from the City, he or she fails to relocate a backflow prevention assembly located in or upon a City right-of-way.

(f) Multiple connections. Any property requiring multiple service connections for adequacy of supply and/or fire protection will require installation of a backflow prevention assembly on

each of the service lines where a cross-connection hazard exists. The type of assembly will be determined by the existing or potential degree of health hazard and backflow condition.

(g) Backflow prevention assembly installation, testing, and maintenance.

- (1) All backflow prevention assemblies, including, but not limited to, assemblies which are installed on irrigation systems, shall be tested and certified to be operating within specifications upon installation and annually thereafter by a recognized backflow prevention assembly tester. Test and maintenance reports shall be submitted, in accordance with the City's policies and procedures, within ten (10) business days of the test.
- (2) All backflow prevention assemblies, including, but not limited to, assemblies which are installed on irrigation systems, shall be tested and certified to be operating within specifications upon repair, relocation, or replacement by a recognized backflow prevention assembly tester. Test and maintenance reports shall be submitted, in accordance with the City's policies and procedures, within ten (10) business days of the test.
- (3) All records related to backflow prevention assembly installation, testing, and maintenance shall be maintained by the customer for a minimum of three (3) years, and made available upon request by the City.
- (4) All backflow prevention assemblies shall be installed and tested in accordance with the manufacturer's instructions, Manual M14, or the University of Southern California's Manual of Cross-Connection Control.
- (5) The City shall not be liable for any damage to a backflow prevention assembly that occurs during testing.
- (6) No backflow prevention assembly shall be removed from use, relocated, or other assembly substituted without the approval of the City.
- (7) All backflow prevention assemblies installed after the effective date of this Ordinance shall be installed in a manner designed to facilitate ease of inspection, testing, and records examination by the City. Any currently installed backflow prevention assemblies, which are located in inaccessible locations or where the tester is subject to physical danger, based on the judgement of the City Manager or his/her designee, shall be relocated at the expense of the customer.
- (8) Test gauges used for backflow prevention assembly testing shall be calibrated on an annual-basis in accordance with Manual M14, current edition, or the University of Southern California's Manual of Cross-Connection Control, current edition.
- (9) All backflow prevention assembly testers operating within the City shall be licensed in accordance with all applicable regulations of the Texas Commission on Environmental Quality, and registered with the City. To complete registration, the backflow prevention assembly tester shall provide proof of the following items:
 - (A) Texas Commission on Environmental Quality license;
 - (B) Calibration of testing equipment; and

(C) General liability insurance policy in the amount of at least \$300,000.

(10) Revocation of Registration

(A) A backflow prevention assembly tester's registration may be reviewed and revoked by the City if it is determined that the tester has:

- i. Falsely, incompletely, or inaccurately reported test and maintenance reports;
- ii. Used improper testing procedures; or
- iii. Created a threat to public health or the environment.

(B) A backflow prevention assembly tester whose registration is revoked under this subsection may appeal the revocation of the permit pursuant to Sec. 13.06.008 (entitled "appeal procedure") of the City Code of Ordinances.

(11) The City will maintain a current list of recognized backflow prevention assembly testers, which will be made available upon request.

(h) Cost of compliance. The cost of complying with this Ordinance shall be the responsibility of the customer. These costs include but are not limited to purchasing, installation, testing, and repair of the assembly.

(i) Landscape irrigation systems. All applicable permits and inspections required by the City's Building Codes Department shall be obtained for all landscape irrigation system installations. Installations must comply with the City's current plumbing code and water conservation plan.

(j) Fire-hydrant protection. A reduced-pressure principle backflow prevention assembly shall be the minimum protection for fire-hydrant water meters that are being used for a temporary water supply during any construction activity or other uses which would pose a potential hazard to the public water system. It is the responsibility of the customer engaging in the use of a fire-hydrant water meter to abide by the conditions of this Ordinance.

(k) Rainwater harvesting systems. Any customer who has a cross-connection between the City's public water system and a rainwater harvesting system shall install an air gap to prevent non-potable water from entering the public water system. All piping that contains non-potable water shall be clearly labeled ("NON-POTABLE WATER").

(l) Customer service inspections.

(1) A customer service inspection shall be completed prior to Fair Oaks Ranch Utilities providing continuous water service to all new construction, or on any existing service connection when the City has reason to believe that cross-connections and/or actual or potential contaminant hazards exist.

(2) Only individuals with the following credentials shall be recognized as capable of conducting a customer service inspection:

(A) Plumbing inspectors and water-supply-protection specialists that have been licensed by the Texas State Board of Plumbing Examiners; or

- (B) Customer service inspectors that hold a current license issued by the Texas Commission on Environmental Quality.
- (3) The customer service inspection must certify that:
 - (A) No direct connection between the City's public water system and a potential source of contamination exists. Potential sources of contamination shall be isolated from the public water system by a properly installed air gap or an appropriate backflow prevention assembly;
 - (B) No cross-connection between the public water system and an auxiliary water supply exists. A properly installed air gap shall be maintained between the public water system and an auxiliary water supply; and
 - (C) No connection exists which allows water to be returned to the public water system.
- (m) Right of entry. The City may enter a customer's property to gain access to a cross-connection, backflow prevention assembly, or piping for the purpose of determining compliance with this Ordinance. The City's right of entry is a condition of a customer's water service. If right of entry is denied by a customer or access is unreasonably delayed, the City may pursue any remedy allowed under this Ordinance or the law.
- (n) Repeal. All ordinances that are in conflict with the provisions of this Ordinance are hereby repealed, and all other ordinances of the City not in conflict with the provisions of this Ordinance shall remain in full force and effect.
- (o) Severability. The phrases, clauses, sentences, paragraphs, and sections of this Ordinance are severable and, if any phrase, clause, sentence, paragraph, or section of this Ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Ordinance.
- (p) Enforcement. If a customer fails to comply with any terms of this Ordinance, the City may, upon due notice to the customer, pursue any or all of the following actions:
 - (1) Based on the judgement of the City Manager or his/her designee, discontinue water service to the property where such violations occur. Services discontinued under such circumstances shall be restored only upon compliance with this Ordinance; payment of disconnection and reconnection charges, as set forth in Appendix A of the Code of Ordinances; and any other costs incurred by the City in discontinuing service.
 - (2) Enforce violations of this Ordinance as Class C misdemeanors. Proof of a culpable mental state is not required for conviction of an offense under this Ordinance. Upon conviction, any person violating this Ordinance is punishable by a fine not exceeding two thousand dollars (\$2,000). Each day that one or more of the provisions in this Ordinance is violated shall constitute a separate offense.
 - (3) Enforce this Ordinance by injunction, declaratory relief, or other action at law or in equity.

(q) Effective date. This Ordinance shall take effect February 1, 2019 and after publication as required by law and City Charter.

PASSED and APPROVED on first reading this the 15th day of November, 2018.

PASSED, APPROVED and ADOPTED on second reading this the 6th day of December, 2018.

Garry Manitzas, Mayor

ATTEST:

APPROVED AS TO FORM:

Christina Picioccio, City Secretary

Denton Navarro Rocha Bernal & Zech, P.C.,
City Attorney



CITY COUNCIL CONSIDERATION ITEM

CITY OF FAIR OAKS RANCH, TEXAS

November 15, 2018

AGENDA TOPIC: Consideration and possible action authorizing the City Manager to sign an Online Backflow Management System Service Agreement with Vepo, LLC

DATE: November 15, 2018

DEPARTMENT: Public Works

PRESENTED BY: Melissa Castro, Environmental Compliance Manager

INTRODUCTION/BACKGROUND:

The Online Backflow Management System of Vepo, LLC is a complete system for the tracking and reporting of backflow prevention assemblies. The program provides the online tools necessary to quickly and easily enter backflow test and maintenance reports.

Benefits to the City include, but are not limited to:

- Three renewal letters are printed and mailed by Vepo personnel;
- Test and maintenance reports are automatically verified for accuracy;
- Data is kept secure and confidential at all times;
- All fees are paid by the Backflow Prevention Assembly Tester ("BPAT");
- BPAT license is verified by Vepo personnel;
- General liability insurance is verified by Vepo personnel;
- Test gauge certifications are verified by Vepo personnel;
- The City can easily search all reports within their CCN jurisdiction; and
- The system allows for multi-user access by City personnel and BPAT personnel.

The system is currently in operation in 30 other areas including Buda, Canyon Lake, Midland, Odessa, San Angelo, Conroe, The Woodlands, Southlake, and Georgetown.

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

The Online Backflow Management System is available to insure the potable water supply is protected with proper backflow prevention assembly testing.

LONGTERM FINANCIAL & BUDGETARY IMPACT:

The Online Backflow Management System is offered to the City of Fair Oaks Ranch at no charge, with all fees paid by the backflow prevention assembly tester.

LEGAL ANALYSIS:

Approved as to form.

RECOMMENDATION/PROPOSED MOTION:

I move to authorize the City Manager to sign the Online Backflow Management System Service Agreement with Vepo, LLC.

ONLINE BACKFLOW & CSI MANAGEMENT SYSTEM SERVICE AGREEMENT

This Service Agreement (this “Agreement”) is entered into effective as of the latest countersigned date appearing below by and between the City of Fair Oaks Ranch (“the City”), and Vepo, LLC, a Texas limited liability company (“Vepo”). Each of the City and Vepo are a “Party” or “Parties”.

RECITALS

WHEREAS, the City has determined it is in the City’s best interest to engage a professional service provider for the services described herein; and

WHEREAS, the Parties have read and understood the terms and provisions set forth in this Agreement and have been afforded a reasonable opportunity to review this Agreement with their respective legal counsel;

NOW, THEREFORE, in consideration of the premises, mutual promises, covenants, obligations and benefits herein contained, the City and Vepo agree as follows:

I. SERVICES

Section 1.01. Services. Vepo shall provide a secured Internet based system allowing Backflow Prevention Assembly Testers (BPAT) to input Texas Commission on Environmental Quality (TCEQ) approved backflow Test and Maintenance (T&M) Reports, and Customer Service Inspectors (CSI) to enter TCEQ approved Customer Service Inspection Certificates, herein referred to as the "Online Backflow & CSI Management System" and make the information and reports available for review by the City at their discretion.

II. DATA

Section 2.01. Data. Data is defined as the electronic information provided by BPAT and required by the TCEQ for the submittal of backflow T&M Reports and/or CSI Certificates collected by Vepo’s Online Backflow & CSI Management System.

Section 2.02. Ownership. Vepo hereby assigns, without any requirement of further consideration, all right, title, or interest Vepo may have to the Data, including any copyrights or other intellectual property rights to the same. Subject to the provisions of this Agreement, the City hereby grants to Vepo a non-exclusive, non-transferable, right to internally use the Data for the sole purpose of enabling Vepo to develop, test, and support the Online Backflow & CSI Management System.

Section 2.03. Authorized Access to Data. Vepo will maintain a record of those persons in the employment of Vepo who have authorized access to the Data, and shall ensure all authorized persons maintain confidentiality and permissible use of the Data. Third party BPAT and CSI’s will be able to access the Data by account number only.

Section 2.04. Confidentiality and Other Uses of Data. Vepo shall not make use of the Data for any commercial purpose other than as outlined herein or subsequently approved by the City, whether to the benefit of Vepo or a third party.

Section 2.05. Export. Vepo acknowledges that the Data is solely owned by the City and Vepo will arrange for export of the Data to an SQL server, or to an FTP site or Cloud location in either a Microsoft Access database format or comma separated values (CSV) based on an agreed upon schedule.

III. FEES AND TERM

Section 3.01. Fees. Vepo offers the use of the Online Backflow & CSI Management System to the City at no cost to the City and the City shall not be liable to Vepo for any costs or fees. All fees will be paid directly to Vepo by the BPAT and/or the CSI.

Section 3.02. Term. The service shall begin on the countersignature date hereof and shall remain in effect for three (3) years thereafter unless terminated at the discretion of either Party by providing the other Party sixty (60) days' notice or otherwise sooner terminated as provided under this Agreement.

IV. GENERAL CONDITIONS

Section 4.01. Vepo's Duties. Vepo covenants with the City to furnish its best skill and judgment in providing the Services for the City. Vepo agrees to furnish efficient business administration and superintendence and to use its best efforts to furnish at all times an adequate supply of workmen, materials and equipment to perform the Services in the most expeditious and economical manner. Vepo agrees to exercise reasonable diligence in performing the Services, using the degree of care and skill that a prudent person in the same or similar profession would use.

Section 4.02. Relationship of the City and Vepo. Vepo has been authorized by the City for the sole purpose and to the extent set forth in this Agreement. It is understood and agreed that all work so done by Vepo shall meet with the City's reasonable approval, but that the detailed manner and method of performing the Services shall be under the control of Vepo. Vepo's relationship to the City during the term of this Agreement is that of an independent contractor. The relationship between the City and Vepo is not exclusive.

Section 4.03. Insurance and Indemnification. Vepo shall maintain the insurance coverage outlined hereinbelow throughout the term of this Agreement. Certified copies of each policy shall be furnished to the City upon the City's request. Vepo shall not violate or knowingly permit to be violated any condition of the insurance policies. Cancellation or expiration of any of said insurance policies shall not preclude the City from recovery thereunder for any liability arising under this Agreement. The duty to provide insurance coverage is independent of the defense and indemnity obligations set forth in this Section 4.03 of this Agreement. Promptly after signing of this Agreement and thereafter upon the City's request, or the renewal, or the replacement of each required policy of insurance under this Agreement, Vepo shall provide the City with certificates of insurance and required endorsements under this Agreement.

Vepo's commercial general liability policy shall name the City as an additional insured for claims caused in whole or in part by Vepo's acts or omissions during Vepo's Services, and shall specify that it acts as primary insurance and that no insurance effected by the City shall be called upon to cover a loss under the policy so procured or caused to be procured by the City.

Vepo shall obtain the following insurance from companies having a Best's rating of B+/VII or better and licensed to transact business in the State of Texas:

- A. Commercial General Liability Insurance with limits not less than:
 - a. \$2,000,000 general aggregate limit
 - b. \$1,000,000 each occurrence, combined single limit
- B. Professional Liability Insurance with limits not less than \$1,000,000. This insurance shall have an effective date prior to the beginning of any work under this Agreement, with coverage of an extended reporting period of two years after the completion of any work done by Vepo under this Agreement, in the event that such policy expires, is cancelled, or not renewed during any term of this Agreement.
- C. Workers Compensation. If required by applicable law, Vepo shall maintain workers compensation insurance, in statutory form. The employer's liability insurance shall have limits of not less than \$1,000,000 per accident or occurrence and in the aggregate.

VEPO SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE CITY, ITS DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, AND AFFILIATES ("INDEMNIFIED PARTY") FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, OR CAUSES OF ACTION (AND ALL LOSSES, LIABILITIES, EXPENSES, AND JUDGMENTS INCURRED IN CONNECTION THEREWITH, INCLUDING ATTORNEYS' FEES AND EXPENSES, COURT COSTS, AND OTHER EXPENSES INCURRED IN ENFORCING THIS INDEMNITY PROVISION) BROUGHT BY ANY THIRD PARTY, BASED UPON, OR IN CONNECTION WITH, RESULTING FROM, OR ARISING OUT OF, THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF VEPO'S AUTHORIZED AGENTS. ANY INDEMNIFIED PARTY SHALL GIVE PROMPT NOTICE TO VEPO OF ANY CLAIM OR OF THE COMMENCEMENT OF ANY PROCEEDING AGAINST THE INDEMNIFIED PARTY BROUGHT BY ANY THIRD PARTY WITH RESPECT TO WHICH SUCH INDEMNIFIED PARTY SEEKS INDEMNIFICATION PURSUANT HERETO. THIS SECTION SHALL NOT AFFECT ANY OTHER REMEDIES EITHER PARTY MAY HAVE UNDER THIS AGREEMENT.

The indemnity and insurance provisions set forth in this Section 4.03 shall survive the expiration or termination of this Agreement for a period of one (1) year.

Section 4.04. Termination. Upon a breach of this Agreement, either Party may terminate this Agreement upon thirty (30) days written notice to the other Party. The City and Vepo do not waive any other remedy allowed under Texas law. Vepo shall be entitled to payment for all outstanding amounts owed and for all Services performed during such thirty (30) day post-termination notice period.

Section 4.05. Breach. Subject to the termination provisions of Section 4.04, any failure by a Party to comply with any of its material obligations contained herein shall constitute a material breach and shall entitle the Party not in breach (“Non-Breaching Party”) to give to the Party in breach (“Breaching Party”) written notice specifying the nature of the breach. Such notice shall require the Breaching Party to make good or otherwise cure such breach. If such breach is not cured within 30 days after the receipt of notice (or, if such default cannot be cured within such 30-day period, and the Breaching Party does not commence actions to cure such breach within such period and thereafter diligently continue such actions and cure such breach within 60 days after the receipt of such notice), then the Non-Breaching Party shall be entitled, without prejudice to any of the other rights conferred on it by this Agreement, to terminate this Agreement upon written notice to the Breaching Party.

Section 4.06. Notice. Notice provided for in this Agreement shall be sent by certified mail, return receipt requested, or nationally recognized overnight courier with postage thereon fully prepaid, to the addresses designated for the parties on the last page of this Agreement.

Section 4.07. Agreement Controls. To the extent that there is any inconsistency between the provisions of this Agreement and any attachments or exhibits hereto, the terms of this Agreement shall control.

Section 4.08. Modifications. This Agreement shall be subject to amendment, change or modification only with the prior mutual written consent of both Parties.

Section 4.09. Force Majeure. In the event either Party to this Agreement is rendered unable, wholly or in part, by force majeure including an act of God; strikes; lockouts, or other industrial disturbances; acts of the public enemy; orders of any kind of superior government of the United States or the State of Texas or any civil or military authority (other than a Party to this Agreement); insurrections; riots; epidemics; landslides; lightning; earthquakes; fires; hurricanes; storms; floods; droughts; arrests; civil disturbances; explosions; or other inability similar to those enumerated; to carry out its obligations under this Agreement, it is agreed that Party shall give written notice of such act to the other Party as soon as possible after the occurrence of the cause relied on and shall, thereafter, be relieved of its obligations, so far as they are affected by such act, during the continuance of any inability so caused, but for no longer.

Section 4.10. Agreement Subject to Applicable Law. This Agreement and the obligations of the parties hereunder are subject to all rules, regulations and laws which may be applicable by the United States, the State of Texas or any other regulatory agency having jurisdiction.

Section 4.11. Governing Law. This Agreement is governed in accordance with the laws of the State of Texas and shall be enforceable in any of the courts of competent jurisdiction in Bexar County, Texas.

Section 4.12. Waiver. No waiver or waivers of any breach or default by a Party hereto of any term, covenant or condition or liability hereunder of performance by the other Party of any duty or obligation hereunder will be deemed a waiver thereof in the future, nor will any such waiver or waivers be deemed or construed to be a waiver of subsequent breaches or defaults of any kind, character or description, under any circumstances.

Section 4.13. Intended Beneficiaries. This Agreement is for the sole and exclusive benefit of the City and Vepo and will not be construed to confer any benefit upon any other third party.

Section 4.14. Severability. The provisions of this Agreement are severable, and if any provision or part of this Agreement or the application thereof to any person or circumstance is ever held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Agreement and the application of such provision or part of this Agreement to other persons or circumstances will not be affected hereby.

Section 4.15. Authority. The City and Vepo represent and warrant that each have the right and capacity to enter into this Agreement and fully perform all obligations hereunder.

Section 4.16. Entirety of Agreement: This Agreement and any exhibits attached hereto contain the entire understanding between the Parties and supersede any prior understanding or written or oral agreements between them respecting this subject matter. There are no representations, agreements, or understandings, oral or written, between the Parties relating to the subject matter of this Agreement not fully expressed in this Agreement.

Section 4.17 Section Headings. Section Headings are for reference purposes only and shall not affect the interpretation or meaning of this Agreement.

Section 4.18 Signatures. This Agreement may be signed in any number of counterparts, in original or scanned formats, with the same effect as if the signatures thereon were original and upon the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in multiple copies, each of equal dignity, as of the date set forth on the first page hereof.

The City of Fair Oaks Ranch:

Vepo, LLC:

Printed Name: _____

John S. DeCell

Date Signed: _____

Date Signed: _____

Mailing Address:

Mailing Address:
Vepo, LLC
25740 Century Oaks Blvd.
Hockley, Texas 77447



CITY COUNCIL CONSIDERATION ITEM
CITY OF FAIR OAKS RANCH, TEXAS
November 15, 2018

AGENDA TOPIC: Discussion and possible action on the first reading of an Ordinance providing for a reasonable limit on the amount of time to be spent without charge for repeat public information requestors

DATE: November 15, 2018

DEPARTMENT: Administration

PRESENTED BY: Carole Vanzant, Assistant City Manager and Christina Picioccio, City Secretary

INTRODUCTION/BACKGROUND:

At the November 1st City Council meeting, a discussion between the City Council, City Attorney and staff was held on Section 552.275 of the Texas Government Code (Public Information Act) authorizing a governmental body to establish a reasonable monthly and yearly limit on the amount of time that personnel are required to spend producing public information to a requestor without recovering its costs attributable to the personnel time related to that requestor. At the completion of the discussion, City Council authorized staff to work with the City Attorney in developing an ordinance establishing allowable reasonable time limits on the amount of time to be spent without charge for repeat public information requestors.

The purpose of this agenda item is to provide City Council with an ordinance for their consideration adopting a policy, pursuant to Section 552.275, establishing the reasonable limit at not less than 36 hours per requestor during the 12-month period that corresponds with the City's fiscal year and a monthly time limit not less than 15 hours for a requestor in a one-month period.

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

1. Provides a method of maximizing the city's human and financial resources while striking a reasonable balance with the obligation of the city to make available public information.
2. Complies with the provisions set forth in Government Code 552.275.

LONGTERM FINANCIAL & BUDGETARY IMPACT:

Capturing attributable personnel costs.

LEGAL ANALYSIS:

Ordinance was reviewed and approved as to form.

RECOMMENDATION/PROPOSED MOTION:

I move to approve the first reading of an Ordinance establishing a reasonable monthly and yearly limit on the amount of time to be spent without charge for repeat public information requestors.

AN ORDINANCE

OF THE CITY OF FAIR OAKS RANCH PROVIDING FOR A REASONABLE LIMIT ON THE AMOUNT OF TIME TO BE SPENT WITHOUT CHARGE FOR REPEAT PUBLIC INFORMATION REQUESTORS; REQUIRING PAYMENT FOR TIME AND EXPENDITURES INCURRED BEYOND THIS LIMIT; PROVIDING FOR EXCEPTIONS; PROVIDING FOR AN OPEN MEETINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Texas Public Information Act (Texas Gov't Code Chapter 552, or "the Act" herein) gives the public the right to request access to government information; and,

WHEREAS, the Act authorizes the governmental body to charge and to require payments from requestors before complying with certain requests for production of public information or for copies of public information; and,

WHEREAS, in 2017, the Texas Legislature, in recognition of the fact that a municipality may expend significant resources in responding to requests for public information without recovering its costs, amended Section 552.275 of the Act, which authorizes the governmental body of a municipality to establish reasonable monthly and yearly limits on the amount of time that personnel of the governmental body are required to spend producing public information for inspection or duplication by a requestor, or providing copies of public information to a requestor, without recovering its costs attributable to that personnel time; and,

WHEREAS, Section 552.275 of the Act provides that a yearly time limit established may not be less than 36 hours for a requestor during the 12-month period that corresponds to the fiscal year of the governmental body, and a monthly time period may not be less than 15 hours for a requestor for a one-month period; and authorizes a municipality to require requestors exceeding those time limits to pay for the municipality's costs before the city will process the request if the city has sent a written cost estimate; and,

WHEREAS, the City Council desires to adopt a policy in this regard to provide a method of maximizing its human and financial resources while striking a reasonable balance with the obligation of the City to make available public information, and has determined that 36 hours is a reasonable yearly time limit and 15 hours is a reasonable monthly limit to be imposed under Section 552.275.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FAIR OAKS RANCH, TEXAS:

SECTION I. – FINDINGS INCORPORATED

The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

SECTION II. – POLICY ADOPTION

That the City Council of the City of Fair Oaks Ranch hereby adopts the following:

Definitions:

Public Information: All information that is written, produced, collected, assembled, or maintained under a law or ordinance or in connection with the transaction of official city business by the City Council or by any employee of the City. It also includes data the City owns or has a right of access to but was prepared or stored by a third party. The definition of “public information” applies to and includes to any electronic communication created, transmitted, received or maintained on any device. This term shall be construed in accordance with the provisions of the Act as set forth in Tex. Gov’t Code Chapter 552, as may be amended.

Requestor: A person who submits a written request to the City of Fair Oaks Ranch for inspection or copies of public information.

Policy:

Section 1.

That in accordance with Section 552.275, the City Council establishes an annual time limit of 36 hours and a monthly time limit of 15 hours as the amount of time that employees are required to devote without charge to produce public information for inspection or duplication, or providing copies of public information to any one requestor. This annual time limit shall apply to each twelve (12) month period commencing each fiscal year beginning on October 1, 2018, effective with the date of adoption of this ordinance.

Section 2.

- A. That the City Secretary or the City Secretary’s designee shall provide the requestor with a written statement of the amount of personnel time spent complying with each request and the cumulative amount of time spent complying with requests from that requestor during the applicable twelve month period. The time spent preparing the written statement of total time spent may not be included.
- B. When the time spent on responding to a particular requestor’s requests equals or exceeds the time limit imposed by Section 1, the City Secretary or the City Secretary’s designee shall provide the requestor with a written estimate of the total cost, including materials, personnel time, and overhead expenses necessary to comply with the request, even if the requestor intends to only inspect the documents. The estimate must be provided on or before the tenth (10th) day after the date on which the public information was requested. The amount of the cost shall be established by rules prescribed by the attorney general.
- C. If the City Secretary or the City Secretary’s designee determines that additional time is required to prepare the written estimate of costs required by Section 2(B) and provides the requestor with a written statement of that determination, the City Secretary or the City Secretary’s designee must provide the written estimate of costs required by Section 2(B) as soon as practicable, but on or before the 10th day after the date the City provides the written statement that additional time is required.

Section 3

- A. After the City Secretary or the City Secretary’s designee has provided the requestor with the written estimate of costs under Section 2, the requestor may respond within ten (10) days of receiving the estimate by submitting a written statement in which the requestor commits to pay the lessor of:

1. the actual costs incurred in complying with the requestor's request, including the cost of materials, and personnel time and overhead; or
 2. the amount stated in the written statement provided.
- B. If the requestor fails or refuses to submit the written statement of commitment to pay, the requestor shall be considered to have withdrawn the requestor's pending request for public information.

Section 4.

That any time spent complying with a request in the name of a minor is to be included in the calculation of the cumulative amount of time spent complying with a request for public information by a parent, guardian, or other person who has control of the minor under a court order and with whom the minor resides, unless that parent, guardian or other person establishes that another person submitted that request in the name of the minor.

Section 5.

- A. This Policy does not apply if the requestor is an individual who, for a substantial portion of the individual's livelihood or for substantial financial gain, gathers, compiles, prepares, collects, photographs, records, writes, edits, reports, investigates, processes, or publishes news or information for and is seeking the information for:
1. a radio or television broadcast station that holds a license issued by the Federal Communications Commission; or
 2. a newspaper that is qualified under Section 2051.044 of the Texas Gov't Code to publish legal notices or is a free newspaper of general circulation and that is published at least once a week and available and of interest to the general public in connection with the dissemination of news; or
 3. A newspaper of general circulation that is published on the Internet by a news medium engaged in the business of disseminating news or information to the general public; or
 4. A magazine that is published at least once a week or on the Internet by a news medium engaged in the business of disseminating news or information to the general public.
- B. This policy does not apply if the requestor is a representative of a publicly funded legal services organization that is exempt from federal income taxation under Section 501(a), Internal Revenue Code of 1986, as amended, by being listed as an exempt entity under Section 501(c)(3) of that code.
- C. This Policy does not apply if the requestor is an elected official of the United States, this state, or a political subdivision of this state.
- D. This Policy does not apply to any other requestors that are specifically exempted by Section 552.275 of the Act, as may be amended.
- E. This Policy does not replace or supersede other sections of the Act and does not preclude the City from charging for cost of labor in response to a request for copies or a request for inspection for which a charge is authorized under another section of the Act. The limit established in this policy applies to all requestors equally except as exempted by the Act

Accountability:

The Office of the City Secretary will maintain and enforce this policy. It shall be the City Secretary's responsibility to enforce the policy equally to all requestors except as exempted by the Act, to provide detailed statements, and to maintain a record of the cumulative amount of time each requestor has accrued towards the established limit per fiscal year. The City Secretary is hereby expressly authorized to implement additional policies and procedures relative to the handling of requests for public information that are not consistent with the Act and this policy.

SECTION III. – PROPER NOTICE & MEETING

The City Council of the City of Fair Oaks Ranch hereby officially finds and determines that a sufficient written notice of the date, hour, place and subject of this City Council meeting was posted at a place convenient to the public at the City Hall of the City for the time required by law preceding these meetings as required by Chapter 551, Texas Gov't Code; and that these meetings have been open to the public as required by law at all times during which this Ordinance and the subject matter thereof has been discussed, considered, and formally acted upon. The City Council further ratifies, approves, and confirms such written notice and the contents and posting thereof.

SECTION IV. – EFFECTIVE DATE

That this Ordinance shall become effective upon its adoption.

PASSED AND APPROVED on first reading this 15th day of November, 2018.

PASSED, APPROVED, AND ADOPTED on second and final reading this 6th day of December, 2018.

Garry Manitzas, Mayor

ATTEST:

APPROVED AS TO FORM:

Christina Picioccio, City Secretary

Denton Navarro Rocha Bernal & Zech, P.C.,
City Attorney



CITY COUNCIL CONSIDERATION ITEM
CITY OF FAIR OAKS RANCH, TEXAS
November 15, 2018

AGENDA TOPIC: Consideration and possible action regarding cancelling the December 20, 2018 Council Meeting.

START/END DATE: December 20, 2017

DEPARTMENT: Administration

PRESENTED BY: Tobin Maples, City Manager

INTRODUCTION/BACKGROUND:

Resolution 2017-01 regarding the City Council Meeting Rules of Procedure indicates that City Council shall meet in regular session on each first Thursday in each calendar month beginning at 9:30 AM and the third Thursday in each calendar month beginning at 6:30 PM unless postponed or cancelled for valid reason(s). The City Council, by a majority vote, may reschedule any regular meeting. With this in mind and upon numerous requests from council due to the upcoming holiday season, staff suggests cancelling the December 20, 2018 Council Meeting,

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

N/A

LONGTERM FINANCIAL & BUDGETARY IMPACT:

N/A

LEGAL ANALYSIS:

N/A

RECOMMENDATION/PROPOSED MOTION:

I move to approve cancelling the December 20, 2018 Council Meeting.



CITY COUNCIL CONSIDERATION ITEM

CITY OF FAIR OAKS RANCH, TEXAS

November 15, 2018

AGENDA TOPIC: Discussion and possible action authorizing the City Manager to sign a Professional Services Agreement for Internal Control Services with ABIP, P.C.

DATE: November 15, 2019

DEPARTMENT: Finance

PRESENTED BY: Sarah Buckelew

INTRODUCTION/BACKGROUND:

The City Council has stated that Financial Integrity is a top priority in the City's Strategic Plan over the next several years. An effective internal control framework is an essential part of the financial integrity of an organization. The recent audit identified significant deficiencies in the internal control of the City. To address this risk, an outside audit firm will be hired to design and implement a comprehensive internal control framework.

POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:

In this last year, the scope of the financial audit has been expanded from prior years to include a more comprehensive analysis of the City's financial internal controls.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A significant deficiency is a deficiency, or combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

The auditors identified certain deficiencies in internal control that are considered significant, and others that are not considered significant or material but still warrant communication to the City's governance and management.

These findings will serve as guidelines for the City as it strives to place a greater focus on risk mitigation.

LONG-TERM FINANCIAL & BUDGETARY IMPACT:

The fees for the Internal Control Services, \$47,000, are included in the FY 2018-19 Budget. The scope of the services have been expanded to include training, which has resulted in an increase in fees over what was initially budgeted. To address this budget overrun of \$2,685, staff will reduce expenditures in the forensic accounting study budgeted for FY 2018-19.

On-going maintenance costs of the internal control framework include annual assessments to be performed by ABIP at the cost of \$14,685. The on-going assessments would not begin until FY 19-20.

LEGAL ANALYSIS:

Legal review has been performed, and acceptance of the engagement is subject to ABIP's acceptance of the City's standard services agreement in addition to the attached scope of services.

Texas law specifically exempts contracts for professional services from competitive bidding, when the professional service is intellectual or mental rather than physical. Based on this, it is recommended that the City contract with our existing audit firm ABIP, P.C. for the internal control services. To maintain independence, the engagement will be managed out of the Houston office of ABIP, and by a partner that is different than our audit engagement partner.

RECOMMENDATION/PROPOSED MOTION:

I move to authorize the City Manager to sign the Professional Services Agreement ("Engagement Letter") with ABIP, P.C. for FY 2018-19 internal control services at a cost of \$49,685.

City of Fair Oaks Ranch
Proposal for Internal Control Framework
Amendment
Date Prepared: 10/24/2018

Andrew T. Barbe, MBA CPA CGMA
Partner, Advisory

Doria Hamdan, CPA
Manager, Advisory

www.abipadvisors.com
(713) 954-2002



CLIENT **FOCUSED.** RELATIONSHIP **DRIVEN.**

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1. EXECUTIVE SUMMARY

At the City of Fair Oaks Ranch, you need an accounting firm that understands and knows the challenges and opportunities you face in your industry. You also want to work with professionals who share your same commitment to quality service and are dedicated to building a long-term, responsive relationship with your company.

With **abip**, you get advisory services from senior professionals who focus on multiple industries. You also experience a collaborative culture, have direct access to top technical resources, and receive straightforward, proactive communication delivered through a centralized, committed and knowledgeable client service team. In addition to addressing your immediate advisory needs, **abip** is ready to leverage our resources and capabilities to support your organization's specific requirements as well as partnering with you in developing strategies for growth and sustainability.

This proposal presents a briefing about our firm and provided services, and outlines our understanding of the areas of specific interest to you, your challenges, and requirements and addresses how **abip** will meet your service needs.

2. COMPANY BRIEFING

2.1 INTRODUCTION

abip is a full-service accounting firm, providing year-round guidance and services with offices in Houston and San Antonio. **abip** has the experience of big firms providing professionals focused and personalized attention to its manageable client base. We help clients focus on their goals and obstacles while providing support to help them navigate through different stages of their lifecycle. Our professionals take the time to understand your operations and design a strategy unique to those needs. As advisors, we deliver a variety of assurance, tax, accounting and specialized solutions that provide clients with the information and guidance necessary to successfully manage their businesses.

We are client focused and relationship driven. Our services are based on 3 pillars:

- Collaboration: Providing a proactive and open exchange of ideas to manage your needs
- Analysis: Identifying and tracking key performance indicators that impact success
- Strategy: Creating and helping execute the blueprint to achieve your goals

2.2 PHILOSOPHY

At **abip**, our philosophy is to provide financial solutions for small to medium size organizations. We understand the importance of being an advisory firm that takes the initiative when the need is there, but we also consider ourselves to be your trusted advisor year-round, not just during the audit and tax return preparation. This service philosophy sets us apart from other firms. Our team provides every element you need, priced at a reasonable, fair fee with partner involvement.

- **Risk Management.** While a larger firm may have a more extensive list of clients, that also means a larger number of clients they must fit into their busy schedule. **abip** has the experience of big firms while maintaining a manageable client base. You will receive personal attention to

support your leadership team, maintain compliance with laws and regulations and minimize risk.

- **Trust & Direction.** Our team invests in our client's success. We understand we have an obligation to supply ideas and advice that will assist in day-to-day operations beyond the typical advisory and accounting services. We enjoy providing the unexpected, extra advice that can make a significant difference with clients.
- **Partner & Manager Interaction.** Our team communicates often during engagements and provides suggestions to refine processes and make it easier for clients to stay focused on the core needs of their organization. With **abip**, you get involved, responsive and accessible partners and managers who deliver quality service and extensive industry experience.
- **Client Focused Solutions.** We build relationships and provide year-round support to help clients plan for their future. Our professionals meet with you regularly to assess operations, set goals and measure success.

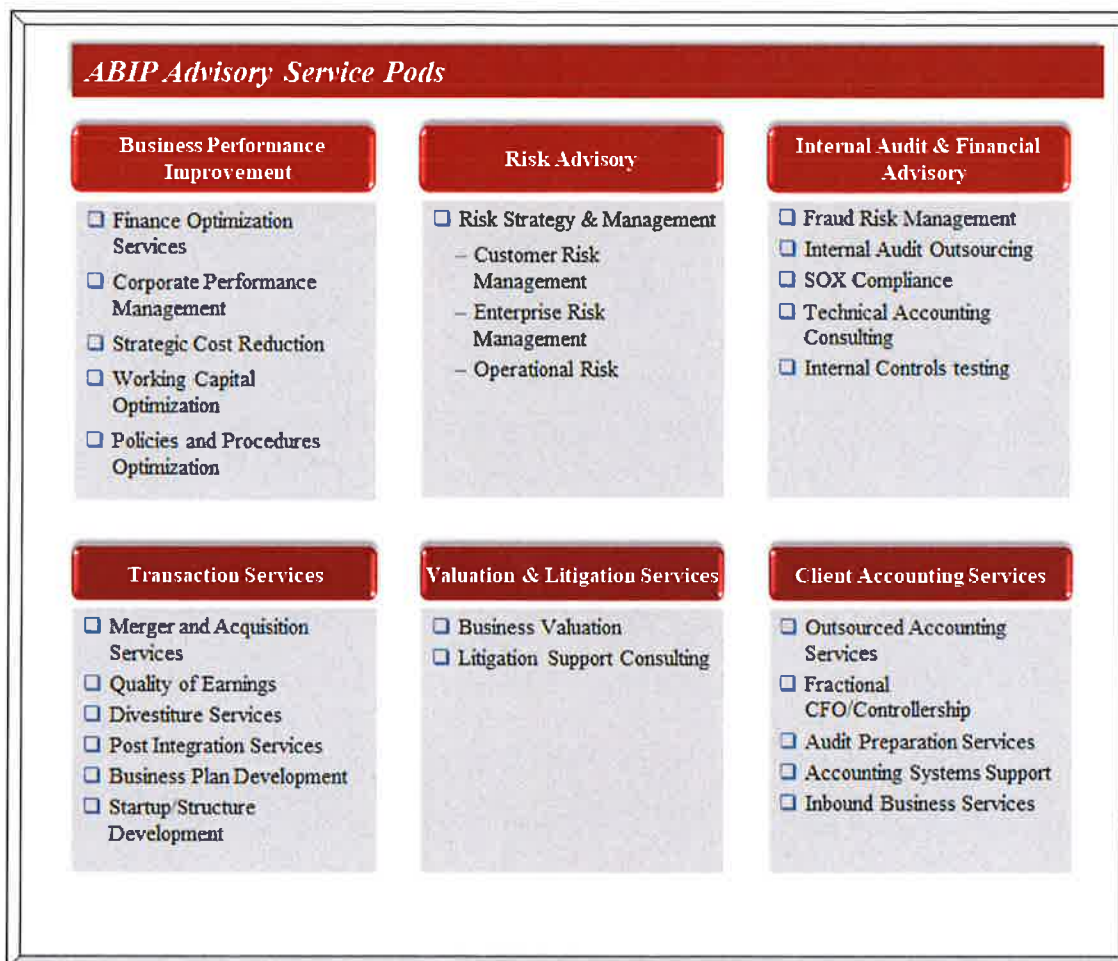
2.3 INTEGRATED SERVICES

■ Client Advisory Services

The core function we provide our clients with is accurate information, proactive planning and a relationship from an accounting firm that understands their business and what is important to their specific goals and obstacles.

abip provides the outlet to let you look at your business with a fresh set of eyes. Our experience with a broad variety of businesses and industries empowers us to give you professional valuable perspective. We share the best practices and ideas we have learned over the years to help you look ahead and implement your plans to ensure a successful future.

abip Client Advisory offers the below services:



■ Additional Critical Services

We at **abip** know how important it is for an organization to have professional advisors who have a broad understanding of their organization and operations and the ability to provide perspective, consultancies and services that are integrated and add value in multiple aspects of operations.

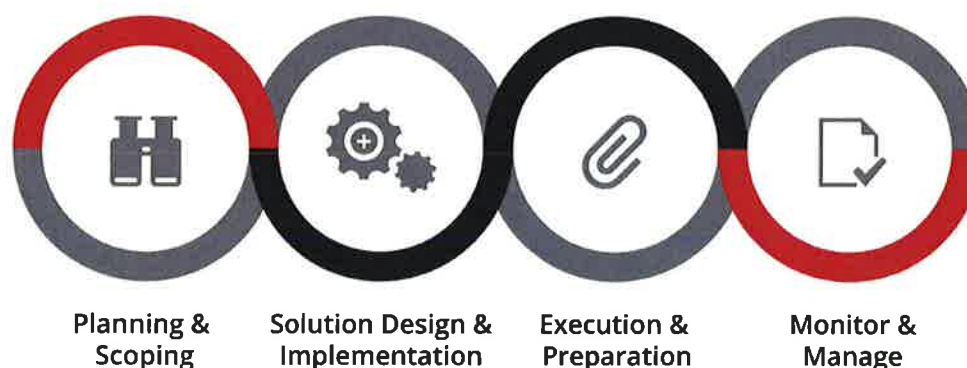
With its team of professionals and highly experienced members, **abip** has the abilities to provide you as well with assistance in your accounting, auditing and tax related matters as listed below. Assurance & Reporting

- Audits, Reviews & Compilations
- Employee Benefit Plan Audits (ERISA)
- Agreed Upon Procedures
- Internal Controls
- Organizational Tax Matters
 - Income Tax Planning & Compliance
 - International Tax Issues
 - Tax Projections
 - Local, Multi-State & Federal Tax Support
 - R&D Credits & Tax Incentives

- Cost Segregation
- Personal Tax Services
 - Personal Tax Planning & Preparation
 - Tax Impact of Stock Options & Investments
 - College & Retirement Planning
 - Estate Plans, Trusts, Gifting & Philanthropic Strategies
- Client Accounting Services
 - Outsourcing Accounting Functions
 - CFO|Controller Leadership
 - Bill Payment & Cash Flow Planning
 - General Ledger Entries
 - Account Reconciliations
 - Financial Statement Compilation
 - Managing Key Performance Indicators (KPIs)
 - Audit Preparation Assistance
 - Permanent or Interim Support

2.4 APPROACH

Our work approach is divided into four stages:



Our goal is to properly plan and scope our work, begin to determine appropriate solution design and execute accordingly. No two companies are alike but our expertise and experience across multiple industries and our knowledge of best practices enables us to work closely with you to meet engagement objectives. We want developed processes and procedures to be repeatable and sustainable. The ability to monitor and manage effectively gives you the vehicle with which to drive effectiveness and efficiency. Ultimately, this gives your Company the tools and the transparency it needs to optimize performance and support growth and profitability.

2.5 COMPANY PROFESSIONALS

abip has a highly qualified and committed team of professionals highly trained in regulations and processes to ensure compliance and accuracy and to provide proactive thinking to help our clients with forecasting and goal achievement.

The extensive business know-how and best practices in the field of client accounting and advisory services are reflected in every single interaction with our qualified, competent and experienced team members. With proven methodologies, excellent track record, and zero learning curves, our customers benefit from faster and successful effective engagements.

2.6 CLIENTS

Our clients vary from emerging entities just getting established, to larger organizations with complex needs. Each client has different challenges and their own definition of what is valuable to them.

We provide support for:

- Privately Held Businesses
- high-net-worth individuals
- Family Legacy Offices/Businesses
- Start-ups
- Non-Profit Organizations
- In-bound Business Entities
- government agencies

2.7 AFFILIATIONS

Our affiliations include:

- Member of CPAConnect; 29,000 accounting, tax and assurance professionals in over 100 countries.
- Member of IR Global; the world's leading legal, accountancy and financial advisors.
- Texas Society of Certified Public Accountants
- American Institute of Certified Public Accountants

3. PROPOSED SERVICES AS AMENDED

3.1 UNDERSTANDING OF YOUR REQUIREMENTS

Based on the received communications, the purpose of the request for proposal is building an internal control framework for the city's operations, and implementing and training the city's staff.

3.2 SCOPE OF WORK

Based on your requirements and discussions, we will perform the following services based on the scope:

- I. **Steering Committee and Audit Committee set up and meetings**
- II. **Familiarizations & training on used software:**
 - Incode software for:
 - ✓ Overview of the system
 1. Preparation of Court (tickets and fees collections and dismissal recording)
 2. Accounts Payable
 3. Cash Disbursements
 4. Bank Reconciliations and GL reporting
 5. HR
 6. Payroll (fully managed internally)
 7. Procurement
 8. Equipment and Consumables
 - Iworks software
 - Several different systems
 - 9. Inventory
 - 10. Utility billing & Receivables
- III. **Understanding/ familiarization with the Information Technology environment**
- IV. **Reviewing Cash Receipts and System Access Controls Matrix already established & adjustment changes if needed**
- V. **Build the internal control framework : Meetings/walkthroughs documentation (walkthroughs+ missing control areas +risks + recommendations)**
 1. Preparation of Court (tickets and fees collections and dismissal recording)
 2. Accounts Payable
 3. Cash Disbursements
 4. Bank Reconciliations and GL reporting
 5. Receivables, (including billing)
 6. Procurement,
 7. HR,

8. Payroll (fully managed internally)
9. Equipment and Consumables (assets management (additions, in, out) capital assets, and inventory; adding a classification of "sensitive" assets that don't meet capitalization threshold (computers, weapons, etc.).
10. IT

VI. Deliverables:

- ✓ Internal Control Framework Documentation (walkthroughs +policies and procedure) As depicted in Exhibit 1
- ✓ Internal controls testing (excel file) Format to be agreed with Fair Oaks Ranch at start of documentation phase

VII. Internal control framework discussion with management and clearance

- ✓ 8 Business Operational areas
- ✓ Payroll & HR
- ✓ IT

VIII. Implementation :

- Meetings with control owners to go over the policy and explanation of each internal control framework document; what is expected of them:
 - ✓ 8 Business Operational areas
 - ✓ Payroll & HR
 - ✓ IT
- Overall staff training: what are internal controls, importance and why they would be helpful
 - ✓ 8 Business Operational areas
 - ✓ Payroll & HR
 - ✓ IT

IX. Post Implementation Review :

- Review of all implemented processes and controls to ensure appropriate adherence to policies and procedures as well as provide additional enhancement to the internal control framework as needed:
 - ✓ 8 Business Operational areas
 - ✓ Payroll & HR
 - ✓ IT

Annual internal control review:

- **Planning & testing documentation**
 - ✓ 9 Business operational areas
 - ✓ IT
- **Reporting**

4. METHODOLOGY

4.1 APPROACH

Upon deployment, our team will conduct meetings and collect information/documents in order to determine the most appropriate accounting and reporting needs, diagnose root causes of issues, create improvement plans that are in line with your Company's objectives and effectively work as your Trusted Advisor.

In general, our work approach is as follows:

- (i) Planning and scoping
- (ii) Solution design and implementation
- (iii) Execution and preparation
- (iv) Monitoring and Managing

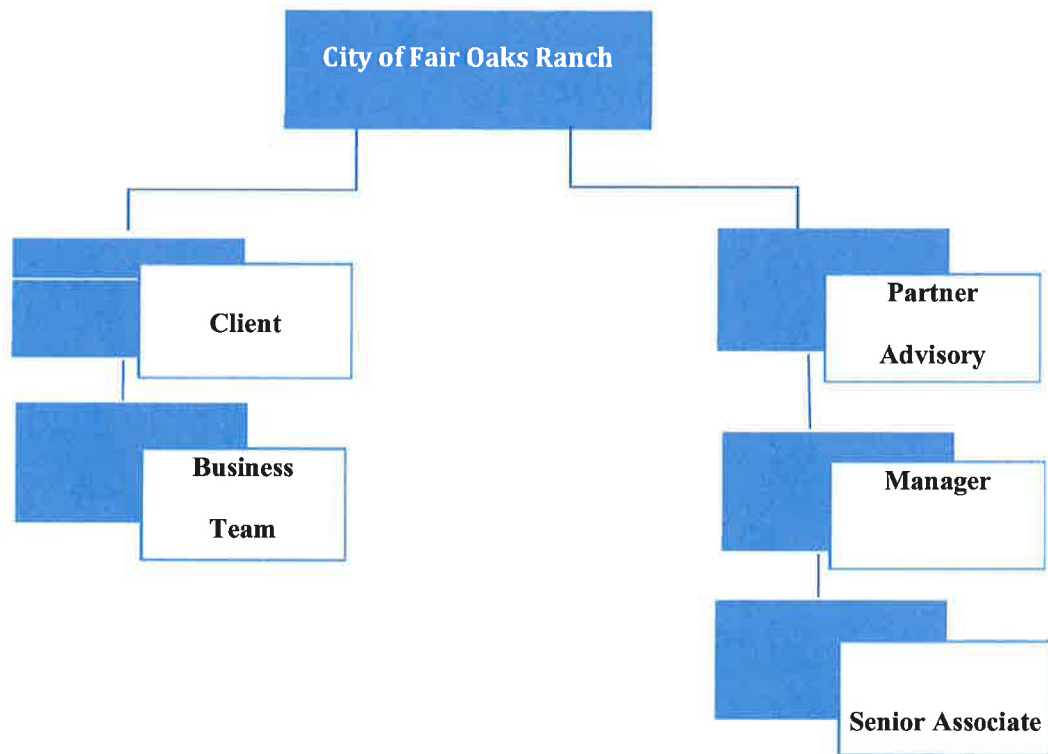
Our flexibility in approach allows us to be proactive and respond timely while at the same time provide you with the guidance you need.

While the primary focus of this proposal is Client Advisory Services, we know that is important to you that your professional advisors have the ability to provide you with consultancies and value in multiple aspects of your organization. **abip** has the abilities to provide you with additional assistance in your accounting, auditing and tax related matters as well.

4.2 TEAM STRUCTURE

The engagement team's structure is highlighted below.

Our policy is to keep the same assigned team on your engagement. This allows us to develop a deeper relationship and add more value to your organization.

TEAM STRUCTURE DIAGRAM

Andrew T. Barbe, MBA CPA CGMA | Partner

Andrew T. Barbe, MBA CPA CGMA, is a partner ABIP, with over 20 years of experience in private and public accounting. Andrew leads the firm's client advisory services group and provides advisory services focused on corporate performance optimization, valuation, litigation support, and risk management support. His experience includes privately held and publicly traded companies, technology, financial institutions, healthcare, industrial services, and professional services. Additionally, he is fluent in the energy and utilities fields as well and has significant experience working with private equity groups. Andrew's primary focus is helping entities strategically grow their business and develop high-performing processes while also managing their reporting, operational and filing requirements. He helps them stay focused on their critical success factors and monitor their key performance indicators.

Doria Hamdan | Manager

Doria Hamdan, MBA CPA, is a manager at ABIP, with over 20 years of experience in private and public accounting. Doria is a professional leader with expertise in all facets of auditing, internal controls testing, financial management, complex financial analysis, and planning with multilingual skills and global experience. Skilled in leading projects and collaborating with cross-functional teams to achieve business and financial objectives. Extensively experienced in handling internal controls testing and documentations and enhancing operational processes for increasing efficiency and profitability.

Additional Staff

As and when needed, we will also provide additional staff members in the field. These personnel will be supervised by Doria Hamdan, Manager. Arrangements with your management will be done ahead of time for these additional staff.

4.3 TIMETABLE

Services can start at an agreed time as soon as an engagement letter has been executed by both parties.

4.4 CRITICAL SUCCESS FACTORS

We recognize the value of your time and are cognizant of the fact that your key personnel involved in the engagement have other duties and responsibilities. However, their availability for meetings, provision of needed information, and replying to queries is a critical success factor for the engagement. We assume that you will make sure that this risk is mitigated and will arrange for timely cooperation and response.

To maximize efficiency and minimize fees, we will request your assistance in preparing certain documents to be used during the engagement, we will provide a list of needed items well in advance of the fieldwork.

4.5 CHANGEOVER, ADDITIONS TO SERVICES

Changes or additional requirements to those identified during our meeting and depicted above under the requirements section can be discussed and added to this proposal; separate communication will need to be made with **abip** for the related details and steps forward.

5. FINANCIAL PROPOSAL

Our fees structure is either fixed cost based on estimated hours (one-time fee), or variable cost (based on hours estimate) or a mixture of both depending on the type of services.

Our standard fees depend primarily on the time necessary to perform the work as described in the Scope of Work Section 3.2 and the billing rate for the professionals assigned.

Please refer to the below for the fees

Estimated Fees	Total US\$
Onetime fee for the building, implementation and training on internal control framework (fees are on a “not to exceed” basis)	\$49,865
Total recurring professional time fees for annual internal control review and testing (fees are on a “not to exceed” basis)	\$13,350

Additional resources- if required -will be charged at the following rates:

Advisory professional fees - hourly	
Partner	\$350-\$375
Senior Manager	\$250-\$290
Manager	\$200-\$235
Supervisor	\$160-\$190
Senior Associate	\$120-\$150
Associate	\$100-\$130

Billing will be made on bi-weekly basis.

Client will reimburse out of pocket expenses including mileage which are included in the not to exceed fees noted above. This will be charged on biweekly basis at end of each month.

6. STEPS FORWARD

Thank you for allowing **abip** the opportunity to provide you with our services and we looking forward to coordinating with you.



Andrew T. Barbe, MBA, CPA, CGMA

abip | CPAs and Advisors

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