



AGENDA

City of Lucas Capital Improvements Advisory Committee

June 8, 2017

6:30 PM

City Hall - 665 Country Club Road – Lucas, Texas – 75002

Notice is hereby given that a City of Lucas Capital Improvements Advisory Committee meeting will be held on Thursday, June 8, 2017 at 6:30 pm at the Lucas City Hall, 665 Country Club Road, Lucas, Texas, 75002-7651 at which time the following agenda will be discussed.

Call to Order

- Roll Call
- Determination of Quorum
- Reminder to turn off or silence cell phones
- Pledge of Allegiance

Regular Agenda

1. Consider approval of the minutes of the May 11, 2017 Capital Improvement Advisory Committee meeting.
2. Consider approval of proposed changes to the City's Capital Improvement Plan as recommended by the Capital Improvement Advisory Committee.
3. Adjournment.

Certification

I hereby certify that the above notice was posted in accordance with the Texas Open Meetings Act on the bulletin board at Lucas City Hall, 665 Country Club Road, Lucas, TX 75002-7651 and on the City's website at www.lucastexas.us on or before 5:00 pm, June 2, 2017.

Stacy Henderson
City Secretary

In compliance with the American with Disabilities Act, the City of Lucas will provide for reasonable accommodations for persons attending public meetings at City Hall. Requests for accommodations or interpretive services should be directed to Stacy Henderson at 972-912-1211 or by email at shenderson@lucastexas.us at least 48 hours prior to the meeting.



City of Lucas Capital Improvement Advisory Committee Agenda Request

Requester: City Secretary Stacy Henderson

Agenda Item:

Consider approval of the minutes of the May 11, 2017 Capital Improvement Advisory Committee meeting.

Background Information:

NA

Attachments/Supporting Documentation:

1. May 11, 2017 Minutes

Budget/Financial Impact:

NA

Recommendation:

Staff recommends approval of the minutes of the May 11, 2017 Capital Improvement Advisory Committee meeting.

Motion:

I make a motion to approve the minutes of the May 11, 2017 Capital Improvement Advisory Committee meeting.



**City of Lucas
Capital Improvement Advisory Committee
Regular Meeting
May 11, 2017
6:30 PM**

City Hall – 665 Country Club Road – Lucas. Texas

MINUTES

Call to Order

Peggy Rusterholtz called the meeting to order at 6:30 pm.

Members Present:

Peggy Rusterholtz
David Keer
Andre Guillemaud
Scott Sperling
Joe Williams
Tim Johnson

Staff Present:

City Manager Joni Clarke
Development Services Director Joe Hilbourn
City Secretary Stacy Henderson

City Council Member:

Mayor Jim Olk

Members Absent:

Tommy Tolson
Rick Vanhorn, ETJ Representative

It was determined that a quorum was present. Everyone was reminded to turn off or silence cell phones and the Pledge of Allegiance was recited.

Regular Agenda

- 1. Elect a Chairman and Vice Chairman to preside over meetings of the Capital Improvement Advisory Committee.**

***MOTION:** A motion was made by Mr. Guillemaud, seconded by Mr. Williams to nominate Peggy Rusterholtz as Chairman and David Keer as Vice Chairman. The motion passed unanimously by a 6 to 0 vote.*

- 2. Discuss the City's Capital Improvement Plan, land use assumptions, and provide written feedback to the Development Services Director.**

Development Services Director Joe Hilbourn discussed the role and responsibility of the Advisory Committee noting that the Planning and Zoning Commission would serve in the capacity of the Advisory Committee as well. The Advisory Committee was required to include at least one representative of the real estate or development or building industry, which member Scott Sperling fulfills that qualification. Mr. Hilbourn also noted that a resident of the City's ETJ was included as a Committee member; however, to date, staff has not been able to reach this committee member.

The Committee discussed with City staff the criteria that should be used when evaluating the Capital Improvement Plan.

Mayor Olk informed the Committee that each project was given a priority status. He asked the Committee to review each project and evaluate the status to determine its level of importance. Mayor Olk also suggested that the Committee determine if any projects should be included in the plan that were not listed currently.

Mr. Hilbourn explained that once written recommendations had been received from the Committee and forwarded to the City Council for consideration, the City Council will review for final approval. The City will then contract with a consultant to review the impact fee calculations.

Chairman Rusterholtz asked the Committee to forward any comments to City staff by May 25 to be included for the June meeting.

3. Adjournment.

MOTION: *A motion was made by Mr. Williams, seconded by Mr. Johnson to adjourn the meeting at 6:56 pm. The motion passed unanimously by a 6 to 0 vote.*

Peggy Rusterholtz, Chairman

Stacy Henderson, City Secretary



City of Lucas

Capital Improvement Advisory Committee Agenda Request

Item No. 02

Requester: Development Services Director Joe Hilbourn

Agenda Item:

Consider approval of proposed changes to the City's Capital Improvement Plan as recommended by the Capital Improvement Advisory Committee.

Background Information:

Updates have been incorporated into the Capital Improvement Plan as recommended by the Capital Improvement Advisory Committee.

Once the Advisory Committee is satisfied with the Capital Improvement Plan, it will move forward for review by the City's Engineering Consultant to determine if the impact fees meet the City's future needs.

To date, steps 1 through 6 have been completed from the Capital Improvement Plan outline below. The following is representative of the Capital Improvement Plan process:

1. Planning and Zoning Commission reviews and makes recommendations to City Council. *(complete)*
2. City Council reviews and incorporates their recommendations. *(complete)*
3. Capital Improvement Advisory Committee is formed and meetings scheduled. *(complete)*
4. Capital Improvement Advisory Committee is provided with Land Use Assumptions and CIP.
5. Committee provides written recommendations to Development Services Director by agreed upon deadline.
6. Staff incorporates recommendations and places item on Committee agenda for review to finalize recommendations to City Council.
7. City Council evaluates recommendations and finalizes CIP.
8. City contract with a consultant to review the impact fee calculations.
9. Schedule public hearing.
10. Ordinance approving CIP with land use assumptions and impact fee is placed on City Council agenda.

The City's Code of Ordinances states the following regarding required procedures of the Capital Improvement Advisory Committee:

Code of Ordinances, Section 10.02.003 - Advisory committee states:

- (a) The capital improvements advisory committee (advisory committee) shall consist of the planning and zoning commission. If the advisory committee does not include at least one representative of the real estate, development or building industry who is not an employee



City of Lucas Capital Improvement Advisory Committee Agenda Request

or official of a political subdivision or governmental entity, the city council shall appoint at least one such representative as an ad hoc voting member of the advisory committee. If any impact fee is to be applied in the extraterritorial jurisdiction of the city, a representative from the area shall be appointed by the city council.

- (b) The advisory committee serves in an advisory capacity and is established to:
 - (1) Advise and assist in the adoption of land use assumptions;
 - (2) Review the capital improvements plan and file written comments;
 - (3) Monitor and evaluate implementation of the capital improvements plan;
 - (4) File semiannual reports with respect to the progress of the capital improvements plan and report to the city council any perceived inequities in implementing the plan or imposing the impact fee; and
 - (5) Advise the city staff and council of the need to update or revise the land use assumptions, capital improvements plan and impact fee.
- (c) All professional reports concerning the development and implementation of the capital improvements plan shall be made available to the advisory committee.
- (d) The advisory committee shall elect a chairperson to preside at its meetings and a vice-chairperson to serve in his absence. All meetings of the advisory committee shall be open to the public and posted at least 72 hours in advance. A majority of the membership of the advisory committee shall constitute a quorum.

Code of Ordinances, Section 10.02.004 - Periodic updates required states:

The land use assumptions and capital improvements plan upon which impact fees are based shall be updated at least every five years. The initial five-year period begins on the day the capital improvements plan was adopted, May 12, 1997. Alternatively, the city council may determine that no change to the land use assumptions, capital improvements plan, or impact fee is needed, pursuant to the provisions of section 395.075 of the Local Government Code.

The last review and update to the Capital Improvement Plan was conducted in 2011.

Attachments/Supporting Documentation:

- 1. Amended Capital Improvement Plan



City of Lucas Capital Improvement Advisory Committee Agenda Request

Budget/Financial Impact:

Depending on determination may impact the impact fee schedule.

Recommendation:

Staff recommends the Capital Improvement Plan be forwarded to the City's Engineering Consultant.

Motion:

I make a motion to approve/deny proposed changes to the City's Capital Improvement Plan and forward updates to the City's Engineering Consultant.

**CITY OF LUCAS
CAPITAL IMPROVEMENT PLAN (CIP)
2016-2030**

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CAPITAL IMPROVEMENT PLAN (CIP) POLICIES AND PROCEDURES

Introduction

The City of Lucas Capital Improvement Plan (CIP) is a valuable part of the community planning process. The CIP links local infrastructure investments with comprehensive plan goals, land use ordinances, and economic development efforts. The CIP bridges the gap between planning and spending as well as between the visions of the comprehensive plan and the fiscal realities of improving and expanding community facilities. The purpose of the CIP policy is to create a fair and consistent process outlining procedures for proposing, evaluating, and adopting capital projects creating long-term benefits.

The CIP is a five-year planning document adopted by the City Council to plan for capital improvements related the City's street and drainage system, water system infrastructure and facilities. The CIP is not to be confused with the Capital Improvement Budget. The Capital Improvement Budget is prepared each year in conjunction with the annual Operating Budget. It generally includes only those projects from the first year of the CIP funded during the current year, and will address additional capital needs that are not included in the CIP, such as equipment and vehicles as recommended by the Vehicle Replacement Committee.

A capital project is defined as having a minimum cost of \$5,000 resulting in 1) the creation of a new fixed asset or 2) enhancement of an existing fixed asset.

Typically, the life expectancy of a capital project is 20 years, but it depends on the classification of the asset. Examples of capital projects include construction or expansion of public buildings, the acquisition of land for public use, planning, waterline/water system improvements, sewer mains as defined in the wastewater plan, engineering costs, and street and drainage construction. Example of an enhancement to a fixed asset would be reconstruction or reconditioning of streets.

Goals

1. Preserving public welfare and safety - Providing the basic services that ensure public welfare and safety is the fundamental responsibility of local government.
2. Anticipating the demands of growth - When related to the comprehensive plan, the capital improvement planning process works to anticipate investments in community facilities and infrastructure which are needed to serve or shape the pattern of growth and development.
3. Supporting economic development - Having sound fiscal health and high quality facilities and services are attractive to business and potential residents. New corporate investment and reinvestment in a community may be influenced by improvements that enhance the quality of life for their labor force. Private decisions that bring jobs to an area and new taxes to a community are based not only on availability of water and sewer, but also upon the quality of schools, public safety, recreational opportunities, and many other services. The City of Lucas has identified two areas for commercial development that are located on its peripheral boundaries to complement the high quality of life and not hinder or negatively impact it.

4. Developing a fair distribution of capital costs - The CIP process allows for public discussion of the preferred means of distributing capital costs over time. Funding strategies to consider include:
 - a. Annually, the City earmarks funds in the unrestricted fund balance to save for future projects.
 - b. Issuance of debt that is paid by both existing and future users of the facility.
 - c. User fees may be deemed more appropriate than property taxes.
 - d. Federal or state funds may also be available to help finance specific projects.

The CIP process can promote discussion of funding strategies.

5. Avoiding undue tax increases - Capital improvement planning is a means of avoiding the unpleasant surprise of expensive projects generating large property tax increases. While cost impacts cannot always be precisely determined in advance, the CIP fosters discussion of the distribution of the tax burden of new capital expenditures over time. A corollary benefit of fiscal stability and sound community facility planning can result in an improved bond rating.

Development Process

The CIP outlines the major utility infrastructure, streets and drainage, facilities, parks, and other improvements needed to serve the citizens, meet growth related needs, and comply with state and federal regulations.

Preparation - The Finance Director coordinates the annual update and adoption of the five-year CIP as a part of the annual budget process. The City Manager will lead the review and prioritization of capital projects for City Council consideration. The Finance Director, Public Works Director/City Engineer, Development Services Director, and the City Manager shall prioritize and rank projects according to the criteria listed in **the** project criteria section. The CIP includes all costs associated with the design, rights-of-way acquisition, and construction of a project, as well as the estimated operating and maintenance costs, which impacts future operating budgets. The following guidelines will be utilized in developing the CIP:

1. Solicit citizen participation in formulating the identification and prioritization of the CIP.
2. Identify capital improvements through system models, repair and maintenance records, and growth demands.
3. Prioritize CIP projects based on input from City staff from all **operational** areas related to each project and its effect on operations.

The CIP will be submitted to City Council for review, revision, and approval. It will be reviewed and revised annually to include updated information.

Control – All capital project expenditures must be appropriated in the capital budget. The Finance Director or City Manager must certify the availability of resources before any capital project contract is presented to the City Council for approval.

Financing Programs - Recognizing that long-term debt is usually a more expensive financing method, alternative financing sources will be explored before debt is issued. When debt is issued, it will be used to acquire major assets with expected **longevity** which equal or exceed the average **length** of the debt issue. Impact fees, assessments, pro-rata charges, or other fees may be used to

fund capital projects.

Reporting - Periodic financial reports will be prepared to enable the Department Directors to manage their capital budgets and to enable the Finance Department to monitor and control the budget as authorized. Capital project status reports will be presented to City Council.

Capital Improvement Plan (CIP) 2016-2020

Departments will include as part of their project proposal:

1. A Project Summary providing an overview and justification of the project.
2. A Fiscal Overview that includes estimated cost estimates and funding strategies that proposes funding options must be identified including:
 - a. Operating Revenues
 - b. Reserves and/or Debt
 - c. Grants
 - d. Partnerships with Other Organizations
 - e. Impact Fees
 - f. Developer Funded

Expense estimates must be identified in the section for design, site acquisition, construction, and estimated annual maintenance and operating cost impact based on the current estimated cost and values. To help manage cash flows, the financial plan must be complete to ascertain the impact on multiple fiscal years.

3. A Project Description section will provide additional project detail such as estimated linear feet, square feet or other applicable measurement, language that explains the overall need for the project as well as the benefit to the community.
4. Proposed Schedule identifying major milestones such as the design, bid, and construction phases.
5. Identification of the Project Manager.

Additional information may be requested by the City Manager and/or the members of the City Council.

Project Criteria

The evaluation of proposed capital projects will be in accordance with the following criteria:

1. Public Health, Safety, and Welfare - Projects improving the public health, safety, and welfare of the community will be rated with highest priority. Projects must demonstrate the benefit provided to the community and possible risks from not completing the project. Compliance with state and federal mandates fall under this category.
2. Quality of Life - Projects enhancing the quality of life enjoyed by citizens, such as equestrian and hiking trails throughout the city, will receive a high priority.

3. Funding - Funding availability considerations are included when ranking projects. Grants and funding partnerships are considered first followed by operating revenues, fund balance, and debt. Debt may be issued to fund capital projects after alternative funding sources are exhausted.
4. Economic Development - Projects enhancing and promoting the establishment of commercial business with the highest and best use for a parcel of land that is zoned commercial will be given the highest priority.

CIP Amendment

Amendments to the CIP effecting the current fiscal year must be recommended by the City Manager and approved by the City Council through a budget amendment. Amendments will be considered according to project scoring criteria as previously identified. Higher priority will be given to projects necessary for the public health, safety, and funding availability.

Any plan for the future must be based upon an estimate of certain characteristics. These characteristics may change and vary from time to time and when they do, the CIP should be updated. It may require that certain proposed improvements be implemented immediately or even delayed. Further, this plan is meant to be flexible. It is to be used as a tool to help establish a course of action.

CIP Project Prioritization

Using the criteria identified in the Project Criteria section of this document will assist staff and ultimately the elected officials in rating each project to facilitate prioritization.

There are various rating schemes available for establishing capital improvements priorities. The following set of standards are used as the evaluation method for the City:

- **High** – Essential capital improvements are projects which are activities needed to promote and/or protect the public welfare and safety. Projects classified under this category are projects of the highest priority.
- **Routine** – Necessary capital improvements are projects which are needed for the convenience and conservation of endangered resources, or for the completion of partially completed projects. Projects of this type include improvements which are considered necessary for a progressive growing community and for problems that do not negatively impact public welfare.
- **Low** – Desirable capital improvements are projects which protect property, replace obsolete facilities, reduce operating costs and add to the attractiveness of the community. Projects of this type are not considered high priority and may be delayed or removed from the CIP as funding changes. Conversely, these types of projects can be brought forth when budget surpluses or additional funding sources are identified.
- **Deferrable** capital improvements are projects of the lowest priority. These projects can be postponed or eliminated from the CIP because of cost, timing, or need.

CIP Street and Trail Project List (2016 – 2031)

CIP At-A-Glance

The CIP At-A-Glance is to be used as a quick reference guide that summarizes the CIP. It indicates the fiscal year in which the project is scheduled to begin, a project number for identification purposes, the recommended priority of implementation, the preliminary estimated costs for improvements and the anticipated sources of funding for the recommended capital improvement projects.

YEAR	PROJECT NO.	PRIORITY	PROJECT	ESTIMATED COST	SOURCE OF FUNDING
FY 2016-2017	1	High	Reverse Curve on Winningkoff Road	\$964,000	Impact Fees and Certificate of Obligation
	2	High	Stinson Road/W. Lucas Road Intersection	\$453,000	Impact Fees and Certificate of Obligation
	3	High	W. Lucas Road Reconstruction	\$1,500,000	Regional Toll Revenue (RTR), City of Lucas, and Collin County Bond
FY 2016-2017	4	Routine	Maintenance of Multiple Streets	\$750,000	City - General Fund
FY 2017-2018	5	High	Country Club Road/Estates Parkway Intersection	\$350,000	Certificate of Obligation
	6	High	Winningkoff Road from the Reverse Curve to Snider Lane	\$1,400,000	Certificate of Obligation
	7	Routine	Trailhead on E. Winningkoff Road	\$240,000	\$131,000 City and \$109,000 Collin County Park Board Grant
	8	Routine	Maintenance of Multiple Streets	\$750,000	City - General Fund
FY 2018-2019	9	High	Stinson Road from Parker Road to Bristol Park	\$2,267,000	Certificate of Obligation
	10	High	Blondy Jhune Road Reconstruction from west bridge to Winningkoff	\$2,700,000	Certificate of Obligation
	11 A	Low	A) Trail at Parker Road	\$80,000	\$ 16,000 City and \$ 64,000 Texas Parks Wildlife Department
	11 B		B) Trail at E. Winningkoff Road		
	12	Routine	Maintenance of Multiple Streets	\$750,000	City - General Fund
FY 2019-2020	13	High	Stinson Road from Bentwater Drive to reverse curve	\$2,000,000	Certificate of Obligation

YEAR	PROJECT NO.	PRIORITY	PROJECT	ESTIMATED COST	SOURCE OF FUNDING
	14	Routine	Maintenance of Multiple Streets	\$750,000	City - General Fund
FY 2020- 2021	15	High	Winningkoff Rd from E. Lucas Road to the Reverse Curve	\$1,900,000	Certificate of Obligation
	16	Routine	Maintenance of Multiple Streets	\$750,000	City - General Fund
	17 A	Low	A) Trail along Estates Parkway	\$40,000	City and Possible State's Grants
	17 B		B) Trail along Allison Ln		
	17 C		C) Trail along W. Lucas Road		
	17 D		D) Trail along Stinson Road		
	17 E		E) Trail along Powerline and Flood Plain		
	18 A	Low	A) Trail along Blondy Jhune Road	\$200,000	City and Possible State Grants
	18 B		B) Trail from Winningkoff Road to Trinity Trail		
		19	Low	Trail Head near the intersection of Southview Drive and Osage Lane	\$264,000
FY 2021- 2026	20	Routine	Maintenance of Multiple Streets (5 years @ \$787,500/year)	\$3,937,500	City - General Fund
FY 2026- 2031	21	Routine	Maintenance of Multiple Streets (5 years @ \$826,875/year)	\$4,134,375	City - General Fund

WINNINGKOFF ROAD REVERSE CURVE

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2016-2017	1	Roadway	Winningkoff Road Reverse Curve	High

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$ 964,000	Certificate of Obligation

PROJECT DESCRIPTION

Replace existing asphalt pavement with concrete pavement. The eastern curve will be designed to accommodate a school bus and an auto passing in opposite directions. The western curve will be replaced with a three-way stop sign controlled intersection at Forestview Drive. The pavement shall consist of concrete pavement in straight sections. The project length is approximately 0.5 miles.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2017	2018

PROJECT MANAGER: Public Works Director/City Engineer

STINSON ROAD/W. LUCAS ROAD INTERSECTION

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2016-2017	2	Roadways	Stinson Road/W. Lucas Road Intersection	High

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$453,000	Certificates of Obligation

PROJECT DESCRIPTION

Provide for two northbound Stinson Road lanes: one left turn and one right turn. Add W. Lucas Road westbound to southbound left turn lane and transition. Improve drainage along the W. Lucas Road.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2017	2019

PROJECT MANAGER: Public Works Director/City Engineer

W. LUCAS ROAD RECONSTRUCTION

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2016-2017	3	Roadways	W. Lucas Road Reconstruction	High

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$1,500,000	Regional Toll Revenue (RTR), City of Lucas General Fund, and Collin County Bond

PROJECT DESCRIPTION

Widen W. Lucas Road from Willow Springs School to Middleton Drive by adding a center, left turn lane. The project length is approximately 2.5 miles.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2017	2019

PROJECT MANAGER: Public Works Director/City Engineer

MAINTENANCE OF MULTIPLE STREETS

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2016-2017	4	Roadways	Maintenance of Multiple Streets	Routine

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$750,000	City – General Fund

PROJECT DESCRIPTION

Each year, roads require proper maintenance to provide reliable mobility at minimal cost.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2017	2017

PROJECT MANAGER: Public Works Director/City Engineer

COUNTRY CLUB ROAD/ESTATES PARKWAY INTERSECTION IMPROVEMENTS				
PROJECT SUMMARY				
Fiscal Year	Project No.	Category	Project	Priority
2017-2018	5	Roadways	Country Club Road/Estates Parkway Intersection Improvements	High
FISCAL OVERVIEW				
Estimated Cost		Source of Funding		
\$350,000		Certificate of Obligation		
PROJECT DESCRIPTION				
Add a free right turn lane from eastbound Estates Parkway to southbound Country Club Road, and add a left turn lane from northbound Country Club Road to westbound Estates Parkway.				
PROJECT SCHEDULE				
Project Begin Year			Project Completion Year	
2017			2020	
PROJECT MANAGER: Public Works Director/City Engineer				

WINNINGKOFF ROAD FROM THE REVERSE CURVE TO SNIDER LANE

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2017-2018	6	Roadways	Winningkoff Road from the Reverse Curve to Snider Lane	High

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$1,400,000	Certificates of Obligation

PROJECT DESCRIPTION

Reconstruct 0.55 miles of Winningkoff Road with concrete pavement and improve drainage.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2020

PROJECT MANAGER: Public Works Director/City Engineer

TRAILHEAD ON E. WINNINGKOFF ROAD

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2016-2021	7	Trails	Trailhead on E. Winningkoff Road	Routine

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$240,000	\$131,000 City - \$109,000 Collin County Parks and Open Space Grant

PROJECT DESCRIPTION

Trailhead on E. Winningkoff Road will be constructed during 2016-2017 fiscal year. Trailhead provides parking for a number of vehicles and will contain a bulletin board or kiosk for trail information.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2017	2018

PROJECT MANAGER: Development Services Director

MAINTENANCE OF MULTIPLE STREETS

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2017-2018	8	Roadways	Maintenance of Multiple Streets	Necessary

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$750,000	City – General Fund

PROJECT DESCRIPTION

Each year, roads require proper maintenance to provide reliable mobility at minimal cost.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2018

PROJECT MANAGER: Public Works Director/City Engineer

STINSON ROAD FROM PARKER ROAD TO BRISTOL PARK

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2018-2019	9	Roadways	Stinson Road from Parker Road to Bristol Park	Necessary

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$2,267,000	Certificates of Obligation

PROJECT DESCRIPTION

This project extends from Parker Road (FM 2514) to south of the Muddy Creek Bridge, and it is about a mile long. It does not include the Muddy Creek Bridge. This is a straight and flat roadway with a planned four-way intersection at Highland Drive. The pavement could be a combination of both asphalt and concrete.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2020

PROJECT MANAGER: Public Works Director/City Engineer

BLONDY JHUNE ROAD RECONSTRUCTION

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2018-2019	10	Roadways	Blondy Jhune Road Reconstruction from the west bridge to Winningkoff Road	High

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$2,700,000	Certificates of Obligation

PROJECT DESCRIPTION

Blondy Jhune Road extending from Country Club Road on the west to Winningkoff Road on the east. This project starts 3,300 feet east of Country Club Road on the east side of the west Blondy Jhune Bridge. The pavement could be a combination of both asphalt and concrete. High priority will be given to protect the tree canopy along the roadway. The project length is about a mile long.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2020

PROJECT MANAGER: Public Works Director/City Engineer

**A) TRAIL AT PARKER ROAD
B) TRAIL AT E. WINNINGKOFF ROAD**

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2016-2021	11	Trails	A) Trail at Parker Road B) Trail at E. Winningkoff Road	Desirable

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$80,000	\$16,000 City - \$64,000 Texas Parks and Wildlife Grant

PROJECT DESCRIPTION

Trail will be constructed from W. Lucas Road to Parker Road and from E. Winningkoff Road to Trinity Trail. **Construction includes** staking of trail route, removal of rocks, trees and bushes, removal and clearance of vegetation and grading the trail bed on slopes etc.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2019

PROJECT MANAGER: Development Services Director

MAINTENANCE OF MULTIPLE STREETS

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2018-2019	12	Roadways	Maintenance of Multiple Streets	Routine

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$750,000	City – General Fund

PROJECT DESCRIPTION

Each year, roads require proper maintenance to provide reliable mobility at minimal cost.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2019	2019

PROJECT MANAGER: Public Works Director/City Engineer

STINSON ROAD FROM BENTWATER DRIVE TO THE REVERSE CURVE				
Fiscal Year	Project No.	Category	Project	Priority
2019-2020	13	Roadways	Stinson Road from Bentwater Drive to the Reverse Curve	High
FISCAL OVERVIEW				
Estimated Cost		Source of Funding		
\$2,000,000		Certificate of Obligation		
PROJECT DESCRIPTION				
This project extends from north of the Muddy Creek Bridge for about 0.66 miles to the reverse curve at 405 Stinson Road. It does not include the Muddy Creek Bridge. This is a straight and flat roadway with no planned four-way intersections. The pavement could be a combination of both asphalt and concrete.				
PROJECT SCHEDULE				
Project Begin Year			Project Completion Year	
2019			2021	
PROJECT MANAGER: Public Works Director/City Engineer				

MAINTENANCE OF MULTIPLE STREETS

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2019-2020	14	Roadways	Maintenance of Multiple Streets	Routine

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$750,000	City – General Fund

PROJECT DESCRIPTION

Each year, roads require proper maintenance to provide reliable mobility at minimal cost.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2020	2020

PROJECT MANAGER: Public Works Director/City Engineer

WINNINGKOFF ROAD (SOUTH PORTION)

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2020-2021	15	Roadways	Winningkoff Road from E. Lucas Road to the Reverse Curve	High

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$1,900,000	Certificate of Obligation

PROJECT DESCRIPTION

South portion of Winningkoff Road, extending from E. Lucas Road on the south to the beginning of Winningkoff Road reverse curve to the north. The project length is about 0.6 miles and pavement width has not been determined. A new culvert 800 feet north of E. Lucas Road will be part of this project.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2020	2022

PROJECT MANAGER: Public Works Director/City Engineer

MAINTENANCE OF MULTIPLE STREETS

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2020-2021	16	Roadways	Maintenance of Multiple Streets	Routine

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$750,000	City – General Fund

PROJECT DESCRIPTION

Each year, roads require proper maintenance to provide reliable mobility at minimal cost.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2021	2021

PROJECT MANAGER: Public Works Director/City Engineer

- A) TRAIL ALONG ESTATES PARKWAY
- B) TRAIL ALONG ALLISON LANE
- C) TRAIL ALONG W. LUCAS ROAD
- D) TRAIL ALONG STINSON ROAD
- E) TRAIL ALONG POWERLINE AND FLOODPLAIN

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2021-2026	17	Trails	A) Trail along Estates Parkway B) Trail along Allison Lane C) Trail along W. Lucas Road D) Trail along Stinson Road E) Trail along Powerline and Floodplain	Desirable

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$40,000	City funding and State Grants

PROJECT DESCRIPTION

Trails will be constructed at multiple locations in Lucas. The routes planned for the trail include from Estates Parkway to Country Club Road, trail along the W. Lucas Road, from W Lucas Road along Allison Lane to Estates Parkway. Trails on the southern part of Lucas include the trail along the power line and the flood plain and trail from powerline to north along Stinson Road. Few of the important steps that will be carried out during construction are staking of trail route, removal of rocks, trees and bushes, removal clearance of vegetation and grading the trail bed on slopes.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2025	2026

PROJECT MANAGER: **Development Services Director**

**A) TRAIL ALONG BLONDY JHUNE ROAD
B) TRAIL FROM WINNINGKOFF ROAD TO TRINITY TRAIL**

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2021-2026	18	Trails	A) Trail along Blondy Jhune Road B) Trail from Winningkoff Road to Trinity Trail	Desirable

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$200,000	City and State Grants

PROJECT DESCRIPTION

Trail will be constructed from Country Club Road to Winningkoff Road along Blondy Jhune Road, and from Winningkoff Road to Trinity Trail along the flood plain. Construction includes staking of trail route, removal of rocks, trees and bushes, removal/clearance of vegetation and grading the trail bed on slopes etc. Bridges over creeks on Blondy Jhune may be required.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2025	2026

PROJECT MANAGER: Development Services Director

**TRAILHEAD NEAR THE INTERSECTION
OF SOUTHVIEW DRIVE AND OSAGE LANE**

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2021-2026	19	Trails	Trailhead near the intersection of Southview Drive and Osage Lane	Desirable

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$264,000	City funding and Collin County Grants

PROJECT DESCRIPTION

Trailhead near the intersection of Southview Drive and Osage Lane. ~~will be constructed during the fiscal year.~~ Trailhead provides parking ~~for a number of~~ vehicles and will contain a bulletin board or kiosk for trail information.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2025	2026

PROJECT MANAGER: ~~Development Services Director~~

MAINTENANCE OF MULTIPLE STREETS

PROJECT SUMMARY

Fiscal Year	Project No.	Category	Project	Priority
2021-2026	20	Roadways	Maintenance of Multiple Streets	Necessary

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$787,500 (per year)	City – General Fund

PROJECT DESCRIPTION

Each year, roads require proper maintenance to provide reliable mobility at minimal cost.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2021-2025	2022-2026

PROJECT MANAGER: Public Works Director/City Engineer

MAINTENANCE OF MULTIPLE ROADWAYS				
PROJECT SUMMARY				
Fiscal Year	Project No.	Category	Project	Priority
2026-2031	21	Roadways	Maintenance of Multiple Roadways	Necessary
FISCAL OVERVIEW				
Estimated Cost		Source of Funding		
\$826,875 (per year)		City – General Fund		
PROJECT DESCRIPTION				
Each year, roads require proper maintenance to provide reliable mobility at minimal cost.				
PROJECT SCHEDULE				
Project Begin Year			Project Completion Year	
2026-2030			2027-2031	
PROJECT MANAGER: Public Works Director/City Engineer				

CIP Water System Project List (2016 – 2030)

CIP Water System Project List 2016 – 2020

City of Lucas Water System Capital Improvement Plan Projects		
<i>These numbers were estimated and generated by BW2 Engineers in September 2016</i>		
<u>Notes:</u>	1. Does not include any cost for right-of-way, easement, or property acquisition.	
	2. Does not include any costs for permitting, mitigation, or construction testing and inspection.	
FY 2016-2017		
Engineering Priority	Project	Estimated Cost
1A	Parker Road 12-Inch water line Phase 1-1 (from Stinson Road to Enchanted Way) --This project is needed to improve infrastructure and to accommodate the TxDOT Parker Road widening requiring Lucas to abandon an existing six-inch waterline along Parker Road. Funding Source: 21-8210-490-120 Begin in 2016 -- Complete in 2017	\$ 150,000
2A	Parker Rd 8-Inch water line Phase 2 (from Shepherds Creek Drive to Santa Fe Trail) --This project is needed to improve infrastructure and to accommodate the TxDOT Parker Road widening which is causing Lucas to abandon an existing six-inch waterline along Parker Road. Funding Source: 21-8210-490-122 Begin in 2016 -- Complete in 2017	\$ 36,004
3A	Wiltshire Court to the North Pump Station 8-Inch water line Connection -- This will allow the ground storage at the North Pump Station to be filled by the upper pressure plane eliminating water service to seven homes. Funding Source: 21-8210-490-125 Begin in 2016 -- Complete in 2017	\$ 21,000
4A	New 500,000 Gallon Water Tower at the North Pump Station or behind City Hall -- This will allow for the elimination of the lower pressure plane to balance the water system and improve pressure throughout the city. Funding Source: 21-8210-490-125 Begin in 2016 -- Complete in 2018	\$ 201,000
5A	System Pressure Reducing Valves (PRVs) -- These PRVs will be required when the lower pressure plane is eliminated. Funding Source: 21-8210-490-125 Begin in 2017 -- Complete in 2020	\$ 120,000
6	25 Dead End Waterline Automatic Flushing Valves (AFVs) and looping of dead end water lines -- The location of these AFVs will be installed where looping of the waterlines is not practical. Funding Source: 21-8210-490-123 Begin in 2016 -- Complete in 2017	\$ 400,000

7A	Automatic Meter Reading (AMR) System with New replacing Water Meters throughout the city. Funding Source: 21-8210-490-104 Begin in 2017 -- Complete in 2020	\$ 250,000
FY 2016-2017 Subtotal		\$ 1,178,004
FY 2017-2018		
Engineering Priority	Project	Estimated Cost
1B	Parker Road 12-Inch water line Phase 1-1 (from Stinson Road to Enchanted Way) -- This project is needed to improve infrastructure and to accommodate the TxDOT Parker Road widening requiring Lucas to abandon an existing six-inch waterline along Parker Road. Funding Source: 21-8210-490-120 Begin in 2016 -- Complete in 2017	\$ 142,037
2B	Parker Rd 8-Inch water line Phase 2 (from Shepherds Creek Drive to Santa Fe Trail) -- This project is needed to improve infrastructure and to accommodate the TxDOT Parker Road widening requirinnng Lucas to abandon an existing six-inch waterline along Parker Road. Funding Source: 21-8210-490-122 Begin in 2016 -- Complete in 2017	\$ 290,000
3B	Wiltshire Court to the North Pump Station 8-Inch water line Connection -- This will allow the ground storage at the North Pump Station to be filled by the upper pressure plane. Funding Source: 21-8210-490-125 Begin in 2016 -- Complete in 2017	\$ 77,237
4B	New 500,000 Gallon Water Tower at the North Pump Station or behind City Hall -- This will allow for the elimination of the lower pressure plane to balance the water system and improve water pressure throughout the city. Funding Source: 21-8210-490-125 Begin in 2016 -- Complete in 2018	\$ 1,295,880
5B	System Pressure Reducing Valves (PRVs) -- These PRVs will be required when the lower pressure plane is eliminated. Funding Source: 21-8210-490-125 Begin in 2017 -- Complete in 2020	\$ 120,000
7B	Automatic Meter Reading (AMR) System with replacing Water Meters throughout city. Funding Source: 21-8210-490-104 Begin in 2017 -- Complete in 2020	\$ 250,000
8A	Loop Dead End Lines -- The location to be determined. Funding Source: TBD Begin in 2016 -- Complete in 2020	\$ 100,000
FY 2017-2018 Subtotal		\$ 2,275,154
FY 2018-2019		
Engineering Priority	Project	Estimated Cost

7C	Automatic Meter Reading (AMR) System replacing Water Meters throughout city. Funding Source: 21-8210-490-104 Begin in 2017 -- Complete in 2020	\$ 148,785
8B	Loop Dead End Lines -- The locations are to be determined. Funding Source: TBD Begin in 2016 -- Complete in 2020	\$ 100,000
9	Restore aging, existing pumps at the North Pump Station Funding Source: 21-8210-490-125 Begin in 2018 -- Complete in 2019	\$ 153,821
10	Parker Road Four-Inch water line Temporary Phase 3T (from Santa Fe Trail to Stinson Road) -- This project is needed to accommodate the TxDOT Parker Road widening requiring Lucas to abandon an existing six-inch waterline along Parker Road between Santa Fe Trail and Stinson Road. The four-inch line will provide temporary, minimal service to three residential properties: Waxler, McCreery, and Craft. When the properties along Parker Road develop, the four-inch line would be replaced by the developer with a 12-inch line. Funding Source: 21-8210-490-126 Begin in 2018 -- Complete in 2019	\$ 132,919
11	Add new pump house at the North Pump Station with three 500 GPM pumps -- This will provide redundancy to move water from the ground storage tanks to the new water tower in Priority 4. Funding Source: 21-8210-490-125 Begin in 2018 -- Complete in 2019	\$ 432,575
12	From Rollingwood Circle to Choice Lane to Lakeview Drive Six-Inch Waterline -- This project will improve water quality and fire protection to 97 homes. Funding Source: TBD Begin in 2018 -- Complete in 2019	\$ 432,165
13	Part 1 -- From Edgefield Lane to W. Lucas Road Six-Inch Waterline Part 2 -- From Cedar Bend Trail to E. Lucas Road Six-Inch Waterline This project will improve water quality and fire protection to 32 homes. Funding Source: TBD Begin in 2018 -- Complete in 2019	\$ 113,530
14	Part 1 -- From Country Club Road to Graham Lane to Rock Ridge Court to Rock Ridge Road Eight-Inch and Six-Inch Waterline Part 2 -- From Glenbrook Circle to Country Club Road Six-Inch Waterline This project will improve water quality and fire protection to 30 homes. Funding Source: TBD Begin in 2018 -- Complete in 2019	\$ 571,775
FY 2018-2019 Subtotal		\$ 2,185,570
FY 2019-2020		

Engineering Priority	Project	Estimated Cost
8C	Loop Dead End Lines -- The locations are to be determined. Funding Source: TBD Begin in 2016 -- Complete in 2020	\$ 100,000
15	Snider Lane Eight-Inch water line (from Shady Lane to Sterling Brown Lane) -- This project is required for Lakeview Downs subdivision. Fire hydrants to be added and will improve water quality on the east side of Lucas. Funding Source: TBD Begin in 2019 -- Complete in 2020	\$ 594,549
16	Glencove Circle and Crestview Circle Six-Inch Extensions to Brockdale Park Road 8-Inch -- This project will improve water quality and fire protection to 15 homes and add fire hydrants to the area. Funding Source: TBD Begin in 2019 -- Complete in 2020	\$ 224,255
17	From Stinson Road to Hickory Hill Street to Brookhaven Drive Eight-Inch Waterline -- This project will improve water quality and fire protection and add fire hydrants to 12 homes. Funding Source: TBD Begin in 2019 -- Complete in 2020	\$ 226,383
18	Manor Lane Eight-Inch Waterline -- This will replace an undersized four-inch line, add fire hydrants, and improve the water looping between Estelle Lane and Winningkoff Road. Funding Source: TBD Begin in 2019 -- Complete in 2020	\$ 313,951
19	From Estates Parkway to Rock Ridge Road to Fairbrook Circle Eight-Inch and 12-Inch Waterline -- This will replace an existing six-inch waterline and bring Fairbrook Circle into the Lucas Waterworks System. Funding Source: TBD Begin in 2019 -- Complete in 2020	\$ 491,953
20	Repaint 200,000 Gallon McGarity Ground Storage Tank Funding Source: TBD Begin in 2019 -- Complete in 2020	\$ 150,150
21	From Enchanted Way to Brookhaven Drive Eight-Inch Waterline -- This project will improve water quality and fire protection to 23 homes. Funding Source: TBD Begin in 2019 -- Complete in 2020	\$ 203,262
22	From Rock Ridge Road to Lovejoy High School Eight-Inch Waterline -- This project improves the looping on the west side of the city and at the high school. Funding Source: TBD Begin in 2019 -- Complete in 2020	\$ 56,773
FY 2019-2020 Subtotal		\$ 2,361,276

FY 2016-2020 Total	\$ 8,500,004
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FY 2021 to 2025		Estimated Cost
8D	Loop Dead End Water Lines	\$ 500,000
23	950,000 Gallon McGarity Ground Storage Tank	\$1,279,093
24	Shiloh Dr/Toole Dr 6-Inch water line and Braeburn 8-Inch water line (Dead End Fix)	\$ 190,546
25	Parker Rd 12-Inch water line Phase 3 from Santa Fe Trl to Stinson Rd	\$ 353,184
26	Fairbrook Cr 8-Inch water line (Dead End Fix)	\$ 256,453
27	Lewis Ln/Shepherds Creek Dr/Green Acres Ln 8-Inch water line	\$ 300,113
28	Angel Pkwy/McGarity Ln/Estates Pkwy 8-Inch water line and 12-Inch water line	\$ 425,539
29	Ingram Ln/McGarity Ln/W Lucas Rd 6-Inch water line and 12-Inch water line	\$ 836,217
30	Estates Rd 8-Inch water line	\$ 232,014
31	Chisholm Trl/Caman Park Dr and Turnberry Ln/Highland Dr 8-Inch water line (Dead End Fixes)	\$ 322,203
32	Stinson Rd/Enchanted Wy 8-Inch water line	\$ 142,278
33	Stinson Rd/E Lucas Rd 8-Inch water line	\$ 147,827
34	Rock Creek Estates 6-Inch water line	\$ 175,610
35	Stinson Rd 12-Inch water line Connector	\$ 39,189
36	Repaint 750,000 Gallon N Pump Station Ground Storage Tank	\$ 409,303
37	Repaint 350,000 Gallon McGarity Ground Storage Tank	\$ 228,690
38	Parker Rd 12-Inch water line Phase 1-2, Parker Rd to Brookhaven Dr 8-Inch water line	\$ 835,239
39	Loop Dead End Waterlines	\$ 400,000
	2021 to 2025 Total	\$6,573,498
FY 2026 to 2030		
40	Need to replace 500,000 Gallon McGarity Water Tower	\$1,372,140
41	Rock Ridge Rd 12-Inch water line from Fairbrook Cr to Exchange Pkwy	\$ 224,712
42	Lakeview Downs and Trinity Park 6-Inch water line 8-Inch Loop	\$1,135,688
43	Forest Grove Rd/Horseman Dr/Orr Rd 6-Inch water line and 8-Inch water line	\$ 867,422
44	Orr Rd (North) 8-Inch water line	\$ 426,327
45	PR 5252 6-Inch water line	\$ 93,486
46	Repaint 500,000 Gallon N Pump Station Ground Storage Tank	\$ 297,124
	2026 to 2030 Total	\$4,416,899

	2016 to 2030 Grand Total	\$19,490,401

**PARKER ROAD PHASE 1 – SECTION 1
12-INCH WATER LINE**

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2016-2017	1	Water	12-inch water line replacement

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$292,037	21-8210-490-120

PROJECT DESCRIPTION

This project is need to improve infrastructure and to accommodate the TxDOT Parker Road widening requiring Lucas to abandon an existing six-inch waterline along Parker Road.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2016	2017

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$11,500.00	\$11,500
Traffic Control/ Construction Signing	1	\$3,000.00	\$3,000
Erosion Control	1	\$5,000.00	\$5,000
Trench Safety	2,115	\$1.50	\$3,173
Furnish & install 12" PVC, including Class "B" embedment	2,100	\$60.00	\$126,000
Furnish & install 12" PVC, by bore and jacking	25	\$320.00	\$8,000
Furnish & install 8" PVC, including Class "B" embedment	15	\$42.00	\$630
Furnish & install 8" PVC, by bore and jacking	25	\$280.00	\$7,000
Furnish & install 12" Bend	1	\$8,000.00	\$8,000
Furnish & install 8" Bend	1	\$800.00	\$800
Furnish & install 12" Tee	4	\$1,200.00	\$4,800
Furnish & install 12" Valve	5	\$1,500.00	\$7,500
Furnish & install 8" Valve	1	\$500.00	\$500
Furnish & install 12"x8" Reducer	1	\$1,200.00	\$1,200
Furnish & install Fire Hydrant, lead and 6" valve	3	\$4,000.00	\$12,000
Connections to Existing Water Lines	1	\$8,000.00	\$8,000
Cut and Plug Existing Water Lines	1	\$2,000.00	\$2,000
Remove Existing Fire Hydrant and Return to City	2	\$500.00	\$1,000
Furnish & install Water Service Connection	16	\$1,500.00	\$24,000
Block Sod	500	\$7.00	\$3,500
Seeding	3,000	\$1.25	\$3,750
Construction Contingency (10%)	1	\$25,342	\$25,342
Engineering/Surveying Services (10%)	1	\$25,342	\$25,342
	Total:		\$292,037

PARKER ROAD EIGHT-INCH WATER LINE

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2016-2017	2	Water	Lewis Lane/Parker Road 8-inch replacement water line

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$326,004	21-8210-490-122

PROJECT DESCRIPTION

This project is need to improve infrastructure and to accommodate the TxDOT Parker Road widening requiring Lucas to abandon an existing six-inch waterline along Parker Road.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2016	2017

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$12,850.00	\$12,850
Traffic Control/ Construction Signing	1	\$2,000.00	\$2,000
Erosion Control	1	\$4,000.00	\$4,000
Trench Safety	3,500	\$1.50	\$5,250
Furnish & install 8" PVC, including Class "B" embedment	3,500	\$42.00	\$147,000
Furnish & install 8" PVC, by bore and jacking	80	\$280.00	\$22,400
Furnish & install 8" PVC, by wet bore	100	\$90.00	\$9,000
Furnish & install 8" PVC Creek Crossing, by bore and jacking	50	\$330.00	\$16,500
Furnish & install 8" Bend	1	\$4,050.00	\$4,050
Furnish & install 8" Valve	4	\$500.00	\$2,000
Furnish & install Fire Hydrant, including lead and 6" valve	4	\$4,000.00	\$16,000
Connections to Existing Water Lines	1	\$4,000.00	\$4,000
Block Sod	2,500	\$7.00	\$17,500
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	5,500	\$1.25	\$6,875
Construction Contingency (10%)	1	\$28,290	\$28,290
Engineering/Surveying Services (10%)	1	\$28,290	\$28,290
	Total:		\$326,004

WILTSHIRE COURT EIGHT-INCH WATER LINE CONNECTION

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2016-2017	3	Water	Wiltshire Court 8-inch water line connection

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$98,237	21-8210-490-123

PROJECT DESCRIPTION

This will allow the ground storage at the North Pump Station to be filled by the upper pressure plane **eliminating** water service to seven homes.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2016	2017

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$3,850.00	\$3,850
Traffic Control/ Construction Signing	1	\$500.00	\$500
Erosion Control	1	\$2,550.00	\$2,550
Trench Safety	975	\$1.50	\$1,463
Furnish & install 8" PVC, including Class "B" embedment	975	\$42.00	\$40,950
Furnish & install 8" PVC, by wet bore	120	\$90.00	\$10,800
Furnish & install 8" Bend	1	\$4,300.00	\$4,300
Furnish & install 8" Valve	2	\$500.00	\$1,000
Furnish & install Fire Hydrant, including lead and 6" valve	1	\$4,000.00	\$4,000
Connections to Existing Water Lines	1	\$5,000.00	\$5,000
Block Sod	700	\$7.00	\$4,900
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	1,500	\$1.25	\$1,875
Construction Contingency (10%)	1	\$8,525	\$8,525
Engineering/Surveying Services (10%)	1	\$8,525	\$8,525
	Total:		\$98,237

500,000 GALLON WATER TOWER AT NORTH PUMP STATION

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2016-2018	4	Water	500,000-gallon elevated storage tank at North Pump Station

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$1,496,880	21-8210-490-125

PROJECT DESCRIPTION

Provide new elevated storage tank. This will allow for the elimination of the lower pressure plane.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2016	2018

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$60,000.00	\$60,000
Traffic Control/ Construction Signing	1	\$1,000.00	\$1,000
Erosion Control	1	\$4,000.00	\$4,000
Furnish & install 500,000 Gallon Elevated Storage Tank	1	\$1,100,000.00	\$1,100,000
Furnish & install Yard Piping/Valving	1	\$20,000.00	\$20,000
Furnish & install Electrical	1	\$45,000.00	\$45,000
Furnish & install Tank Piping/Valving	1	\$20,000.00	\$20,000
Site Work	1	\$5,000.00	\$5,000
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	4,000	\$1.25	\$5,000
Construction Contingency (10%)	1	\$118,440	\$118,440
Engineering/Surveying/Geotechnical Services (8%)	1	\$118,440	\$118,440
	Total:		\$1,496,880

SYSTEM PRESSURE REDUCING VALVES

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2017-2020	5	Water	System pressure reducing valves

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$240,000	21-8210-490-125

PROJECT DESCRIPTION

These PRVs are needed when the lower pressure plane is eliminated.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2017	2020

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Furnish separate cost of product and cost to Install Residential Pressure Reducing Valve	1,200	\$200.00	\$240,000
Total:			\$240,000

DEAD END WATER LINE AUTOMATIC FLUSHING VALVES

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2016-2018	6	Water	Dead end water line automatic flushing valves and loops

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$100,000	21-8210-490-123

PROJECT DESCRIPTION

The location of these AFVs will be installed where looping of the waterlines is not practical.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2016	2016

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Furnish separate cost of product and cost to Install Automatic Flushing Valve	25	\$4,000.00	\$60,000
Install dead end loops at locations to be determined			\$340,000
	Total:		\$400,000

AMR SYSTEM WITH NEW WATER METERS

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2017-2020	7	Water	AMR System with new water meters

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$1,182,430	21-8210-490-104

PROJECT DESCRIPTION

AMR System with new water meters

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2017	2020

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Annual Hosting and Maintenance Costs	5	\$23,785	\$118,925
	Total:		\$748,785

LOOP DEAD END WATER LINES

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2016-2018	8	Water	Loop dead end water lines

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$800,000	TBD

PROJECT DESCRIPTION

Loop dead end water lines to enhance the water system.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2017	2022

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Install dead end loops at locations to be determined			\$800,000
	Total:		\$800,000

RESTORE AGING EXISTING PUMPS AT NORTH PUMP STATION

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2018-2019	9	Water	Restore existing pumps at North Pump Station

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$153,821	TBD

PROJECT DESCRIPTION

Restore aging existing pumps at North Pump Station

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2019

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$6,500.00	\$6,500
Restore Existing Pump Station	1	\$120,000.00	\$120,000
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	500	\$1.25	\$625
Construction Contingency (10%)	1	\$13,348	\$13,348
Engineering/Surveying Services (10%)	1	\$13,348	\$13,348
	Total:		\$153,821

**PARKER ROAD 4-INCH TEMPORARY PHASE 3T
(FROM SANTA FE TRAIL TO STINSON ROAD)**

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2018-2019	10	Water	Parker Road 4-inch temporary water line Phase 3T (from Santa Fe to Stinson Road)

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$132,919	TBD

PROJECT DESCRIPTION

This project is needed to accommodate the TxDOT Parker Road widening **requiring** Lucas to abandon an existing six-inch waterline along Parker Road between Santa Fe Trail and Stinson Road. The four-inch line will provide temporary, minimal service to three residential properties: Waxler, McCreery, and Craft. When the properties along Parker Road develop, the four-inch line would be replaced by the developer with a 12-inch line.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2019

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$2,000.00	\$2,000
Erosion Control	1	\$1,000.00	\$1,000
Trench Safety	500	\$1.50	\$750
Furnish & install 4" PVC	2,500	\$30.00	\$75,000
Furnish & install 4" PVC, by bore	100	\$200.00	\$20,000
Furnish & install 4" Valve	1	\$100.00	\$100
Connections to Existing Water Lines	1	\$1,000.00	\$1,000
Cut and Plug Existing Water Lines	1	\$4,000.00	\$4,000
Furnish & install Water Service Connection	4	\$1,500.00	\$6,000
Construction Contingency (10%)	1	\$11,534	\$11,534
Engineering/Surveying Services (10%)	1	\$11,534	\$11,534
Total:			\$132,919

PUMP STATION WITH THREE PUMPS AT NORTH PUMP STATION			
PROJECT SUMMARY			
Fiscal Year	Engineering Priority No.	Category	Project
2018-2019	11	Water	Pump Station with three pumps at North Pump Station
FISCAL OVERVIEW			
Estimated Cost		Source of Funding	
\$432,575		TBD	
PROJECT DESCRIPTION			
This will provide redundancy to move water from the ground storage tanks to the new water tower in Priority 4.			
PROJECT SCHEDULE			
Project Begin Year		Project Completion Year	
2018		2019	
PROJECT DETAILS:			
Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$17,000.00	\$17,000
Erosion Control	1	\$3,000.00	\$3,000
Furnish & install Pumps	3	\$20,000.00	\$60,000
Furnish & construct Pump Building	1	\$120,000.00	\$120,000
Furnish & install Pipes and Valves	1	\$50,000.00	\$50,000
Furnish & install Electrical	1	\$100,000.00	\$100,000
Site Work	1	\$5,000.00	\$5,000
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	2,000	\$1.25	\$2,500
Construction Contingency (10%)	1	\$37,537	\$37,537
Engineering/Surveying/Geotechnical Services (10%)	1	\$37,537	\$37,537
Total:			\$432,575

**SIX INCH WATER LINE FROM ROLLINGWOOD CIRCLE TO CHOICE LANE
TO LAKEVIEW DRIVE**

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2018-2019	12	Water	Six-inch waterline from Rollingwood Circle to Choice Lane to Lakeview Drive

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$432,165	TBD

PROJECT DESCRIPTION

This project will improve water quality and fire protection for 97 homes.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2019

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds and Insurance	1	\$17,250.00	\$17,250
All Traffic Control, Barricading and Signing Measures	1	\$7,500.00	\$7,500
Temporary erosion control	1	\$8,500.00	\$8,500
Cut and Plug Existing 2" Water Line	3	\$450.00	\$1,350
Cut and Plug Existing 8" Water Line	1	\$500.00	\$500
Furnish and Install Trench Safety system	4550	\$1.75	\$7,963
Cut Out and Remove Existing 8" Water Line as needed	1	\$2,250.00	\$2,250
Cut Out and Remove Existing Reducer and 2" Water Line	3	\$1,500.00	\$4,500
Connect to Existing 6" Water Line	1	\$500.00	\$500
Furnish and Install 6" 11.25 Degree Bend	4	\$675.00	\$2,700
Furnish and Install 6" 90 Degree Bend	7	\$650.00	\$4,550
Furnish and Install 6"x6" Tee	1	\$1,000.00	\$1,000
Furnish and Install 6" Gate Valve	4	\$1,500.00	\$6,000
Furnish and Install Fire Hydrant, Valve and Riser	4	\$3,750.00	\$15,000
Furnish and Install 6" waterline w/Class "B" Embedment	4550	\$ 45.00	\$204,750
Furnish & Install 6" DR-18 w/14" Steel by Boring and Jacking	180	\$ 275.00	\$49,500
Furnish and Install Long Service Water Line	1	\$ 1,250.00	\$1,250
Furnish and Install Short Service Water Line	8	\$ 800.00	\$6,400
Furnish and Install Service Line Over 250 LF	2	\$ 5,000.00	\$10,000
Furnish and Place Block Sodding	1150	\$ 7.00	\$8,050
Furnish and Place Grass Seed	2500	\$ 1.25	\$3,125
Construction Contingency (10%)	1	\$36,263.75	\$36,264
Engineering/Surveying/Geotechnical Services (10%)	1	\$36,263.75	\$36,264
Total:			\$432,165

EDGEFIELD LANE/W. LUCAS ROAD 6 INCH WATER LINE LOOP

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2018-2019	13	Water	Edgefield Lane/W. Lucas Road 6-inch water line loop

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$113,530	TBD

PROJECT DESCRIPTION

This project will improve water quality and fire protection to 32 homes.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2019

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Edgefield Ln./West Lucas Road 6" Water Line Loop			
Mobilization, Bonds and Insurance	1	\$3,150.00	\$3,150
All Traffic Control, Barricading and Signing Measures	1	\$2,000.00	\$2,000
Temporary erosion control including operational control of SW3P	1	\$4,000.00	\$4,000
Cut and Plug Existing 2" Water Line	1	\$450.00	\$450
Furnish and Install Trench Safety system, design and implementation	535	\$1.75	\$936
Cut Out and Remove Existing 12" Water Line as needed, Furnish and Install 12"x6" Tee	2	\$2,750.00	\$5,500
Cut Out and Remove Existing 6" Water Line as needed, Furnish and Install 6"x6" Tee	1	\$1,850.00	\$1,850
Connect to Existing 6" Water Line	1	\$500.00	\$500
Furnish and Install 6" Gate Valve	2	\$1,500.00	\$3,000
Furnish and Install Fire Hydrant, Including 6" Gate Valve and Riser	1	\$3,750.00	\$3,750
Furnish and Install 6" AWWA C900 DR-18 w/Class "B" Embedment	535	\$45.00	\$24,075
Furnish and Install 6" AWWA C900 DR-18 w/14" Steel Casing by Boring and Jacking	50	\$275.00	\$13,750
Furnish and Install Long Service Water Line	2	\$1,250.00	\$2,500
Furnish and Place Block Sodding, including all Fertilization and Watering Until Established	100	\$7.00	\$700

Furnish and Place Grass Seed, including all Fertilization and Watering Until Established	280	\$1.25	\$350
	Edgefield Subtotal:		\$66,511
Cedar Bend/East Lucas Road 6" Water Line Loop			
Mobilization, Bonds and Insurance	1	\$1,350.00	\$1,350
All Traffic Control, Barricading and Signing Measures	1	\$ 5,000.00	\$5,000
Temporary erosion control including operational control of SW3P	1	\$ 1,000.00	\$1,000
Furnish and Install Trench Safety system, design and implementation	105	\$ 1.75	\$184
Cut Out and Remove Existing 12" Water Line as needed, Furnish and Install 12"x6" Tee	1	\$ 2,750.00	\$2,750
Connect to Existing 6" Water Line	1	\$ 500.00	\$500
Furnish and Install 6" Gate Valve	1	\$ 1,500.00	\$1,500
Furnish and Install 6" AWWA C900 DR-18 w/Class "B" Embedment	105	\$ 45.00	\$4,725
Furnish and Install 6" AWWA C900 DR-18 w/14" Steel Casing by Boring and Jacking	40	\$ 275.00	\$11,000
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	70	\$1.25	\$88
	Cedar Bend Trail Subtotal:		\$28,096
	Project Subtotal:		\$94,608
Construction Contingency (10%)	1	\$9,461.00	\$9,461
Engineering/Surveying/Geotechnical Services (10%)	1	\$9,461.00	\$9,461
	Total:		\$113,530

GRAHAM LANE/ROCK RIDGE COURT 6 INCH/8 INCH WATER LINE LOOP

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2018-2019	14	Water	Graham Lane/Rock Ridge Court 6 inch/8-inch water line loop

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$571,775	TBD

PROJECT DESCRIPTION

This project will improve water quality and fire protection to 30 homes.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2019

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$22,500.00	\$22,500
Traffic Control/ Construction Signing	1	\$2,000.00	\$2,000
Erosion Control	1	\$13,000.00	\$13,000
Trench Safety	5,230	\$1.50	\$7,845
Furnish & install 6" PVC, including Class "B" embedment	3,115	\$35.00	\$109,025
Furnish & install 6" PVC, by bore and jacking	80	\$260.00	\$20,800
Furnish & install 6" PVC, by wet bore	185	\$75.00	\$13,875
Furnish & install 8" PVC, including Class "B" embedment	2,115	\$42.00	\$88,830
Furnish & install 8" PVC, by bore and jacking	90	\$280.00	\$25,200
Furnish & install 8" PVC, by wet bore	100	\$90.00	\$9,000
Furnish & install 6" Bend	1	\$2,250.00	\$2,250
Furnish & install 8" Bend	1	\$1,085.00	\$1,085
Furnish & install 6" Valve	1	\$400.00	\$400
Furnish & install 8" Valve	4	\$500.00	\$2,000
Furnish & install 8"x6" reducer	1	\$700.00	\$700
Connections to Existing Water Lines	1	\$10,000.00	\$10,000
Furnish & install Fire Hydrant, including lead and 6" valve	9	\$4,000.00	\$36,000
Cut and Plug Existing Water Lines	1	\$4,500.00	\$4,500
Remove Existing Fire Hydrant and Return to City	2	\$500.00	\$1,000
Furnish & install Water Service Connection	28	\$1,500.00	\$42,000
Block Sod	8,000	\$7.00	\$56,000
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	3,625	\$1.25	\$4,531
Construction Contingency (10%)	1	\$49,617	\$49,617
Engineering/Surveying Services (10%)	1	\$49,617	\$49,617

		Total:	\$571,775
SNIDER LANE 8 INCH REPLACEMENT WATER LINE			
PROJECT SUMMARY			
Fiscal Year	Engineering Priority No.	Category	Project
2019-2020	15	Water	Snider Lane 8-inch water line replacement
FISCAL OVERVIEW			
Estimated Cost		Source of Funding	
\$594,549		TBD	
PROJECT DESCRIPTION			
This project is need as part of the Lakeview Downs subdivision, add fire hydrants, and will improve water quality on the east side of Lucas.			
PROJECT SCHEDULE			
Project Begin Year		Project Completion Year	
2019		2020	
PROJECT DETAILS:			
Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$23,500.00	\$23,500
Traffic Control/ Construction Signing	1	\$6,500.00	\$6,500
Erosion Control	1	\$15,000.00	\$15,000
Trench Safety	6,075	\$1.50	\$9,113
Furnish & install 8" PVC, including Class "B" embedment	6,075	\$42.00	\$255,150
Furnish & install 8" PVC, by bore and jacking	80	\$280.00	\$22,400
Furnish & install 8" PVC Creek Crossing, by bore and jacking	50	\$330.00	\$16,500
Furnish & install 8" PVC, by wet bore	270	\$90.00	\$24,300
Furnish & install 8" Bend	1	\$3,150.00	\$3,150
Furnish & install 8" Tee	1	\$900.00	\$900
Furnish & install 8" Valve	7	\$500.00	\$3,500
Furnish & install Fire Hydrant, including lead and 6" valve	13	\$4,000.00	\$52,000
Connections to Existing Water Lines	1	\$4,000.00	\$4,000
Cut and Plug Existing Water Lines	1	\$2,225.00	\$2,225
Furnish & install Water Service Connection	20	\$1,500.00	\$30,000
Remove Existing Fire Hydrant and Return to City	1	\$500.00	\$500
Block Sod	1,000	\$7.00	\$7,000
Seeding	12,500	\$1.25	\$15,625
Construction Contingency (10%)	1	\$51,593	\$51,593
Engineering/Surveying Services (10%)	1	\$51,593	\$51,593
		Total:	\$594,549

GLENCOVE CIRCLE/CRESTVIEW CIRCLE 6 INCH WATER LINE LOOP

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2018-2019	16	Water	Glencove Circle/Crestview Circle 6-inch water line loop

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$224,255	TBD

PROJECT DESCRIPTION

This project will improve water quality and fire protection to 15 homes and add fire hydrants to the area.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2018	2019

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$9,000.00	\$9,000
Traffic Control/ Construction Signing	1	\$1,000.00	\$1,000
Erosion Control	1	\$5,100.00	\$5,100
Trench Safety	1,965	\$1.50	\$2,948
Furnish & install 6" PVC, including Class "B" embedment	1,965	\$35.00	\$68,775
Furnish & install 6" PVC, by bore and jacking	40	\$260.00	\$10,400
Furnish & install 6" PVC, by wet bore	180	\$75.00	\$13,500
Furnish & install 6" Bend	1	\$2,500.00	\$2,500
Furnish & install 6" Valve	2	\$400.00	\$800
Furnish & install Fire Hydrant, including lead and 6" valve	4	\$4,000.00	\$16,000
Connections to Existing Water Lines	1	\$7,750.00	\$7,750
Cut and Plug Existing Water Lines	1	\$4,000.00	\$4,000
Furnish & install Water Service Connection	14	\$1,500.00	\$21,000
Block Sod	3,000	\$7.00	\$21,000
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	1,375	\$1.25	\$1,719
Construction Contingency (10%)	1	\$19,382	\$19,382
Engineering/Surveying Services (10%)	1	\$19,382	\$19,382
	Total:		\$224,255

HICKORY HILL 8 INCH WATER LINE LOOP

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2019-2020	17	Water	Hickory Hill 8-inch water line loop

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$226,383	TBD

PROJECT DESCRIPTION

This project will improve water quality and fire protection to 12 homes.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2019	2020

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$9,000.00	\$9,000
Traffic Control/ Construction Signing	1	\$1,000.00	\$1,000
Erosion Control	1	\$5,300.00	\$5,300
Trench Safety	2,120	\$1.50	\$3,180
Furnish & install 8" PVC, including Class "B" embedment	2,120	\$42.00	\$89,040
Furnish & install 8" PVC, by bore and jacking	40	\$280.00	\$11,200
Furnish & install 8" PVC, by wet bore	100	\$90.00	\$9,000
Furnish & install 8" Bend	1	\$1,500.00	\$1,500
Furnish & install 8" Valve	3	\$500.00	\$1,500
Connections to Existing Water Lines	1	\$5,000.00	\$5,000
Furnish & install Fire Hydrant, including lead and 6" valve	2	\$4,000.00	\$8,000
Cut and Plug Existing Water Lines	1	\$1,800.00	\$1,800
Furnish & install Water Service Connection	12	\$1,500.00	\$18,000
Remove Existing Fire Hydrant and Return to City	2	\$500.00	\$1,000
Block Sod	3,015	\$7.00	\$21,105
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	1,175	\$1.25	\$1,469
Construction Contingency (10%)	1	\$19,645	\$19,645
Engineering/Surveying Services (10%)	1	\$19,645	\$19,645
	Total:		\$226,383

MANOR LANE 8 INCH REPLACEMENT WATER LINE

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2019-2020	18	Water	Manor Lane 8-inch water line replacement

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$313,951	TBD

PROJECT DESCRIPTION

This will eliminate an undersized four-inch line, add fire hydrants, and improve the water looping between Estelle Lane and Winningkoff Road.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2019	2020

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$12,500.00	\$12,500
Traffic Control/ Construction Signing	1	\$3,150.00	\$3,150
Erosion Control	1	\$7,500.00	\$7,500
Trench Safety	3,010	\$1.50	\$4,515
Furnish & install 8" PVC, including Class "B" embedment	3,010	\$42.00	\$126,420
Furnish & install 8" PVC, by bore and jacking	40	\$280.00	\$11,200
Furnish & install 8" PVC, by wet bore	115	\$90.00	\$10,350
Furnish & install 8" Bend	1	\$1,500.00	\$1,500
Furnish & install 8" Valve	3	\$500.00	\$1,500
Connections to Existing Water Lines	1	\$6,250.00	\$6,250
Furnish & install Fire Hydrant, including lead and 6" valve	6	\$4,000.00	\$24,000
Cut and Plug Existing Water Lines	1	\$2,000.00	\$2,000
Furnish & install Water Service Connection	6	\$1,500.00	\$9,000
Remove Existing Fire Hydrant and Return to City	5	\$500.00	\$2,500
Block Sod	5,025	\$7.00	\$35,175
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	1,675	\$1.25	\$2,094
Construction Contingency (10%)	1	\$27,148	\$27,148
Engineering/Surveying Services (10%)	1	\$27,148	\$27,148
Total:			\$313,951

**ESTATES PARKWAY/ROCK RIDGE ROAD 8 INCH/12 INCH REPLACEMENT
WATER LINE**

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2019-2020	19	Water	Estates Parkway/Rock Ridge Road 8 inch/12-inch water line replacement

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$491,953	TBD

PROJECT DESCRIPTION

This project will improve water quality and fire protection to 23 homes.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2019	2020

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$19,500.00	\$19,500
Traffic Control/ Construction Signing	1	\$5,000.00	\$5,000
Erosion Control	1	\$10,400.00	\$10,400
Trench Safety	4,165	\$1.50	\$6,248
Furnish & install 8" PVC, including Class "B" embedment	925	\$42.00	\$38,850
Furnish & install 8" PVC, by wet bore	100	\$90.00	\$9,000
Furnish & install 12" PVC, including Class "B" embedment	3,240	\$60.00	\$194,400
Furnish & install 12" PVC, by bore and jacking	40	\$320.00	\$12,800
Furnish & install 12" PVC, by wet bore	120	\$130.00	\$15,600
Furnish & install 12" Bend	1	\$3,000.00	\$3,000
Furnish & install 12" Tee	1	\$1,250.00	\$1,250
Furnish & install 8" Valve	5	\$500.00	\$2,500
Furnish & install 12" Valve	1	\$1,500.00	\$1,500
Furnish & install Fire Hydrant, including lead and 6" valve	9	\$4,000.00	\$36,000
Connections to Existing Water Lines	1	\$5,000.00	\$5,000
Cut and Plug Existing Water Lines	1	\$2,250.00	\$2,250
Furnish & install Water Service Connection	14	\$1,500.00	\$21,000
Remove Existing Fire Hydrant and Return to City	6	\$500.00	\$3,000
Block Sod	1,325	\$7.00	\$9,275
Seeding	8,000	\$1.25	\$10,000
Construction Contingency (10%)	1	\$42,690	\$42,690
Engineering/Surveying Services (10%)	1	\$42,690	\$42,690
	Total:		\$491,953

REPAINT 200,000-GALLON GROUND STORAGE TANK AT MCGARITY PUMP STATION

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2019-2020	20	Water	Repaint 200,000-gallon ground storage tank at McGarity Pump Station

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$150,150	TBD

PROJECT DESCRIPTION

Repaint 200,000-gallon ground storage tank at McGarity Pump Station

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2019	2020

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$8,000.00	\$8,000
Repaint existing 200,000-gallon ground storage tank	1	\$120,000.00	\$120,000
Disinfect Tank	1	\$2,000.00	\$2,000
Construction Contingency (10%)	1	\$13,430.00	\$13,430
Engineering/Surveying Services (5%)	1	\$6,730	\$6,730
	Total:		\$150,150

ENCHANTED WAY/BROOKHAVEN DRIVE 8 INCH WATER LINE LOOP

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2019-2020	21	Water	Enchanted Way/Brookhaven Drive 8-inch water line loop

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$203,262	TBD

PROJECT DESCRIPTION

This project will improve water quality and fire protection to 23 homes.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2019	2020

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$8,000.00	\$8,000
Traffic Control/ Construction Signing	1	\$500.00	\$500
Erosion Control	1	\$1,400.00	\$1,400
Trench Safety	3,235	\$1.50	\$4,853
Furnish & install 8" PVC, including Class "B" embedment	3,235	\$42.00	\$135,870
Furnish & install Fire Hydrant, including lead and 6" valve	1	\$4,000.00	\$4,000
Connections to Existing Water Lines	1	\$3,500.00	\$3,500
Block Sod	150	\$7.00	\$1,050
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	7,050	\$1.25	\$8,813
Construction Contingency (10%)	1	\$17,638	\$17,638
Engineering/Surveying Services (10%)	1	\$17,638	\$17,638
	Total:		\$203,262

ROCK RIDGE ROAD/LOVEJOY HIGH SCHOOL 8 INCH WATER LINE LOOP

PROJECT SUMMARY

Fiscal Year	Engineering Priority No.	Category	Project
2019-2020	22	Water	Rock Ridge Road/Lovejoy High School 8-inch water line loop

FISCAL OVERVIEW

Estimated Cost	Source of Funding
\$56,773	TBD

PROJECT DESCRIPTION

This project improves the looping on the west side of the city and improves water quality and fire protection at the high school.

PROJECT SCHEDULE

Project Begin Year	Project Completion Year
2019	2020

PROJECT DETAILS:

Description	Est. Quantity	Unit Cost	Cost
Mobilization, Bonds, Insurance	1	\$2,250.00	\$2,250
Traffic Control/ Construction Signing	1	\$1,000.00	\$1,000
Erosion Control	1	\$1,800.00	\$1,800
Trench Safety	770	\$1.50	\$1,155
Furnish & install 8" PVC, including Class "B" embedment	770	\$42.00	\$32,340
Furnish & install 8" Bend	1	\$750.00	\$750
Connections to Existing Water Lines	1	\$5,500.00	\$5,500
Furnish and Place Grass Seed, Including all Fertilization and Watering Until Established	1,700	\$1.25	\$2,125
Construction Contingency (10%)	1	\$4,927	\$4,927
Engineering/Surveying Services (10%)	1	\$4,927	\$4,927
	Total:		\$56,773

<u>Notes:</u>	1. Does not include any cost for right-of-way, easement, or property acquisition.
	2. Does not include any costs for permitting, mitigation, or construction testing and inspection.