SHADY SHORES TOWN COUNCIL
SPECIAL CALLED MEETING SESSION
JUNE 21, 2021; 7:00 PM
VIRTUAL/PHYSICAL MEETING
101 S.SHADY SHORES ROAD
SHADY SHORES, TX 76208

In response to the coronavirus pandemic, effective March 16, 2020, Texas Governor Abbott suspended certain Open Meeting rules to allow meetings of government bodies that are accessible to the public to decrease large groups of people from assembling. The suspension temporarily removes the requirement that government officials and members of the public be physically present at a meeting location.

TO VIEW THE MEETING LIVE
https://shadyshorestx.civicclerk.com/

MEETING LOG IN DIRECTIONS

1. Join Zoom Meeting
https://us02web.zoom.us/j/85294133980?pwd=MFJ3bFcxSXpZdjZRYU90VEpQd1RyUT09

Meeting ID: 852 9413 3980
Passcode: 473646
One tap mobile
+13462487799,,85294133980#,,,,*473646# US (Houston)
+16699006833,,85294133980#,,,,*473646# US (San Jose)

CALL TO ORDER

ROLL CALL
Establish a quorum.

PLEDGE ALLEGIANCE TO THE UNITED STATES FLAG AND THE TEXAS FLAG. (HONOR THE TEXAS FLAG; I PLEDGE ALLEGIANCE TO THEE, TEXAS, ONE STATE UNDER GOD, ONE AND INDIVISIBLE.)

REGULAR AGENDA ITEMS

1. Shahan Drainage Study Results- Receive a report from Binkley and Barfield relative to the Shahan Drainage study.
2. Interlocal Agreement Dobbs Road- Consider and Act on approval of an Interlocal Agreement with Lake Dallas and the City of Corinth to begin design work for improvements to Dobbs Road.
3. Budget Worksession- Conduct a worksession relative to road repairs and capital improvements for the 2021/2022 Fiscal Year Budget.
4. Consider and take action on a resolution of the Town Council of the Town of Shady Shores, Texas, directing publication of notice of intention to issue combination tax and revenue certificates of obligation; and resolving other matters relating to the subject.

EXECUTIVE SESSION:

Pursuant to the provisions of Chapter 551, Texas Government Code, Vernon's Texas Codes Annotated, The Town Council may hold a closed meeting.

FUTURE AGENDA ITEMS AND STAFF DIRECTION

ADJOURN

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The Town Council reserves the right to adjourn into closed session at any time during the course of this meeting to discuss any of the matters listed on this agenda, as authorized by Texas Government Code Section 551.071 (Consultation with Attorney), 551.072 (Deliberation about Real Property), 551.073 (Deliberation about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices), and 551.087 (Economic Development).

I, Cindy Aughinbaugh, Mayor of the Town of Shady Shores do hereby certify that the above notice of the Regular Town Council Meeting was posted on the bulletin board at the Community Center, 101 S. Shady Shores Road, Shady Shores, Texas on _______ Day of ________2021, at ______ ______.M.

____

Cindy Aughinbaugh, Mayor

SHADY SHORES
TEXAS

AGENDA MEMORANDUM

DATE: June 21, 2021

TO: Town Council

FROM: Wendy Withers, Town Administrator

SUBJECT: **Shahan Drainage Study Results- Receive a report from Binkley and Barfield relative to the Shahan Drainage study.**

BACKGROUND/INFORMATION:

Receive a report from the Town Engineering Firm of Binkley & Barfield regarding a Drainage Study that was done for the Shahan Addition and area of Shady Shores. Results of this study will be used to make future decisions on road and drainage improvements in the Shahan area.

FINANCIAL IMPLICATIONS:

RECOMMENDATION/ACTION DESIRED:

ATTACHMENTS/SUPPORTING DOCUMENTATION:

None

REVIEWED BY:

AGENDA MEMORANDUM

DATE: June 21, 2021

TO: Town Council

FROM: Wendy Withers, Town Administrator

SUBJECT: **Interlocal Agreement Dobbs Road- Consider and Act on approval of an Interlocal Agreement with Lake Dallas and the City of Corinth to begin design work for improvements to Dobbs Road.**

BACKGROUND/INFORMATION:

The Town of Shady Shores has been working with Lake Dallas and the City of Corinth to coordinate improvements to Dobbs Road, which is owned by all three municipalities. Earlier this year, a survey was done to determine existing right-of-way in the area. The new interlocal agreement authorizes Binkley and Barfield to begin design work to 30% of the total project so that proposed agreements can be discussed, modified and agreed to as needed before further design is completed.

FINANCIAL IMPLICATIONS:

Total cost of the 30% Design is $157,000
Cost to Shady Shores is $60,000

RECOMMENDATION/ACTION DESIRED:

Approve the interlocal agreement

ATTACHMENTS/SUPPORTING DOCUMENTATION:

1. Interlocal Agreement Dobbs Rd. Engineering. 30% Clean Copy
2. BBI Fee Summary - Dobbs 30%
3. BBI Labor Estimate - Dobbs 30%
4. BBI Scope of Services - Dobbs Road 30%

REVIEWED BY:

STATE OF TEXAS §
§
COUNTY OF DENTON §

Interlocal Cooperation Agreement for Dobbs Road Reconstruction Project Engineering

This Interlocal Cooperation Agreement for the Dobbs Road Reconstruction Project Engineering ("Agreement") is made and entered as of the Effective Date by and among the City of Lake Dallas ("Lake Dallas"), a Texas home rule municipality, the City of Corinth ("Corinth"), a Texas home rule municipality, and the Town of Shady Shores ("Shady Shores"), a Texas Type A General Law municipality. Lake Dallas, Corinth, and Shady Shores are sometimes referred to in this Agreement collectively as the "Parties" and individually as a "Party."

Recitals:

WHEREAS, a public road commonly referred to by the Parties as "Dobbs Road" is located within the incorporated limits of the Parties as well as Denton County Precinct #3; and Precinct #1.

WHEREAS, the Parties desire to determine the feasibility and estimated costs that would be incurred in performing a joint project involving the reconstruction and widening of Dobbs Road from its intersection with South Shady Shores Drive on the East to its intersection with Corinth Parkway on the West ("the Project"); and

WHEREAS the Texas Interlocal Cooperation Act (Chapter 791, Texas Govt. Code, as amended), authorizes Texas municipalities and other local governments to contract with one another to perform governmental functions and services, including all or part of a function or service in recreation, public health and welfare, and streets, roads, and drainage, engineering, and other governmental functions in which such local governments are mutually interested; and

WHEREAS, an important component of the cost of the Project is identifying concept design for the Project; and

WHEREAS, the Parties desire to engage the firm of Binkley & Barfield, Inc. ("("Engineers") to conduct the engineering services needed for the concept design of the Project to a 30% level, additional survey work, (the "Field Survey") and related services described in this Agreement; and

WHEREAS, the governing body of each of the Parties has determined the functions and services of the Parties set forth in this Agreement are governmental functions and services which each Party is authorized to perform and provide, and the terms, conditions and provisions of this Agreement are in support of and further the public health, safety welfare, and convenience of the citizens of each of the Parties and are in the public interest.

NOW, THEREFORE, for and in consideration of the above and foregoing recitals, the mutual benefits and obligations set forth herein, and other good and valuable consideration, the Parties agree as follows:

Section 1. Term/Termination. This Agreement shall be effective on the date when it bears the signatures, whether appearing on the same document or identical counterparts, of authorized representatives of all the Parties ("the Effective Date") and shall terminate when all obligations set forth in this Agreement have been performed and a copy of the work performed by Engineers delivered to the Parties. Any Party may terminate its participation in this Agreement not earlier than thirty (30) days after providing written notice to the other Parties; provided, however, a Party who exercises its right to terminate its participation in this Agreement pursuant to this Section 1 shall remain obligated pursuant to Section 3, below, to pay its portion of the costs for services provided pursuant to the Engineers Agreement (as defined below) through the effective date of such termination, which obligation shall survive the Party's termination of its participation in this Agreement.

Section 2. Scope of Work- Town of Shady Shores as Lead / Work Product.

(a) By signing this Agreement, Corinth and Lake Dallas hereby request and authorize Shady Shores, and Shady Shores agrees, to negotiate and enter into the Dobbs Road project pursuant to the existing engineering contract wherein Binkley and Barfield, Inc is the Town engineering firm for Shady Shores. Pursuant to the terms of that contract, Binkley & Barfield Inc. ("Engineers") will prepare design work to 30% of the finished design in order to view and make comments relevant to the proposed project. The Engineers agree, pursuant to their contract with Shady Shores (the "Engineers Agreement"), to provide the services described in and at fees and costs not to exceed those set forth in the attached Exhibits:

Exhibit A—Scope of Services

Exhibit B---Labor estimate

Exhibit C---Fee estimate

(b) Each Party agrees to cooperate and, to the extent reasonably necessary to facilitate Engineers' performance of the services described in the Engineers Agreement ,and provide such information to Engineer and the Town of Shady Shores as may be requested.

(c) Shady Shores agrees to act as the liaison and point of contact with Engineers. Any payments owed Engineers for services or work product pursuant to the Engineers Agreement shall be paid directly by the Town of Shady Shores from funds currently available to Shady Shores, and each Party agrees to pay its share to Shady Shores in accordance with Section 3, below.

(d) Shady Shores agrees to be primarily responsible for monitoring Engineers' work and for requiring Engineers' timely compliance with provisions of the Engineers Agreement.

(e) Each Party shall be entitled to receive a digital copy of the completed design. There shall be no additional charge to the Parties for such digital data which shall be provided in PDF and AutoCAD format.

Section 3. Consideration and Payment Obligations.

(a) Each Party agrees to pay its proportionate share of the costs of the Services provided by Engineer pursuant to the Engineers Agreement based upon the following allocation:

(1) Corinth: 31%

(2) Lake Dallas: 31%

(3) Shady Shores: 38%

(b) The total cost of the Services provided by Engineers pursuant to the "Engineers Agreement shall not exceed unless otherwise agreed in writing by the Parties.

(c) Corinth and Lake Dallas agree to pay Shady Shores their respective shares of the costs incurred pursuant to this Section 3 and the Engineering Agreement not later than fifteen (15) days after receipt of invoice from Shady Shores accompanied by a copy of the invoice received by Shady Shores from Engineers.

(d) The Parties agree the payments made hereunder by each Party for the Services and for the services provided by Shady Shores provide valid and sufficient consideration for the services rendered and payments made hereunder. The Parties further warrant and represent that, as of the Effective Date, the governing body of each of the Parties has appropriated and obligated current funds for the purpose of paying their respective financial obligations pursuant to this Agreement.

(e) Shady Shores shall use the funds received from Corinth and Lake Dallas pursuant to Section 3(c), above, solely to pay Surveyor for amounts due under the Engineers Agreement.

Section 4. Miscellaneous.

(a) *Payment from Current Revenues.* Each Party paying for the performance of the governmental functions and services described in this Agreement shall make those payments from current revenues available to the paying Party.

(b) *Notices.* Any notices or other communication required to be provided to a Party in this Agreement shall be in writing, addressed as provided hereinafter to the Party to whom the notice or other communication is given, and shall be either (i) delivered personally (hand-delivered), (ii) sent by United States certified mail, postage prepaid, return receipt requested, or (iii) placed in the custody of Federal Express Corporation or other nationally recognized carrier to be delivered overnight. Notice shall be deemed given when received if delivered personally; 72 hours after deposit in the United States mail if sent by mail; and twenty-four (24) hours after deposit if sent by Federal Express or other nationally recognized carrier to be delivered overnight.

Addresses for notices and/or other communications are as follows:

To Lake Dallas:

City of Lake Dallas, Texas
Attn: Mike Wilson
Interim City Manager
212 Main Street
Lake Dallas, Texas 75065

With Copy to:

Kevin B. Laughlin
Nichols, Jackson, Dillard, Hager & Smith, LLP
500 N. Akard, Suite 1800
Dallas, Texas 75201

To Corinth:

City of Corinth
Attn: Bob Hart, City Manager
3300 Corinth Parkway
Corinth, Texas 76208

With Copy to:

Patricia A. Adams
Messer, Fort & McDonald, PLLC
6731 Preston Road, Suite 200
Frisco, Texas 75034

To Shady Shores:

Town of Shady Shores
Attn: Wendy Withers, Town Manager
101 S Shady Shores Road
Shady Shores, Texas 76208

With Copy to:

James E. Shepherd
Shepherd Law Firm
1901 N. Central Expressway, Suite 200
Richardson, Texas 75080-3528

The addresses and persons to whose attention a notice or communication is sent may be changed by giving notice of such change in the manner herein provided for giving notice.

(c) *Governing Law, Venue.* This Agreement and performance hereunder shall be governed by and construed in accordance with the laws of the State of Texas, without regard to choice of laws rules of any jurisdiction. All suits, actions or legal proceedings between the Parties relating to this Agreement shall be maintained in the state courts of Denton County, Texas, which courts shall have exclusive jurisdiction for such purpose.

(d) *Responsibility.* To the extent allowed by law, and without waiving any immunity (governmental or otherwise) available to the Parties under Texas law, or any other defenses the Parties are able to assert under Texas law, each Party agrees to be responsible for its own negligent acts or omissions in the course of performance of this Agreement.

(e) *No Waiver of Immunity.* Notwithstanding any other provision of this Agreement, nothing in this Agreement shall or may be deemed to be, or shall or may be construed to be, a waiver or relinquishment of any immunity, defense, or tort limitation to which the Parties, their officials, officers, employees, representatives, and agents are or may be entitled, including, without limitation, any waiver of immunity to suit. By entering into this Agreement, the Parties do not create any obligations, express or implied, other than those set forth herein, and this Agreement shall not create any rights in any persons or entities who are not parties to this Agreement.

(e) *Relationship*. It is understood and agreed that the relationship among the Parties described in this Agreement is contractual in nature between independent Parties and does not constitute, and shall not be construed, as creating a partnership or joint venture relationship between the Parties. By entering into this Agreement, the Parties do not create any obligations, express or implied, other than those set forth herein, and this Agreement shall not create any rights in any individual or entity that is not a signatory hereto

(f) *Entire Agreement.* This Agreement represents the entire agreement between the Parties with respect to the subject matter covered by this Agreement. There is no other collateral, oral or written agreement between the parties that in any manner relates to the subject matter of this Agreement.

(g) *Exhibits; Recitals.* All exhibits to this Agreement are incorporated herein by reference for all purposes wherever reference is made to the same. The above and foregoing recitals to this Agreement are incorporated into and made a part of this Agreement for all purposes.

(h) *Amendment.* This Agreement may only be amended by written agreement of all of the Parties.

(i) *Headings; "Includes."* The section and subsection headings contained herein are for convenience only, shall not be used in interpretation of this Agreement, and are not intended to define or limit the scope of any provision of this Agreement. For purposes of this Agreement, "includes" and "including" are terms of enlargement and not of limitation or exclusive enumeration and use of the terms does not create a presumption that components not expressed are excluded.

(j) *Severability.* The sections, subsection, and all provisions and portions of this Agreement are severable, and if any section, subsection, or other provision or portion hereof is held by a court of competent jurisdiction to be illegal, invalid or unenforceable under present or future laws, such section, subsection, or other provision or portion shall be fully severable and this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable sections, subsection, or other provision or portion is not a part hereof, and the remaining sections, subsections, and other provisions and portions hereof shall remain in full force and effect.

(k) *Assignment.* No Party may assign, transfer, or otherwise convey this Agreement, or any of its rights, duties, or obligations hereunder, without the prior written consent of the other Parties.

(l) *Force Majeure.* No Party shall be liable to the other Parties for any failure, delay, or interruption in the performance of any of the terms, covenants, or conditions of this Agreement due to causes beyond the Party's respective control or because of applicable law, including, but not limited to, war, nuclear disaster, strikes, boycotts, labor disputes, embargoes, acts of God, acts of the public enemy, acts of superior governmental authority, floods, riots, rebellion, sabotage, terrorism, pandemics, or any other circumstance for which a Party is not legally responsible or which is not reasonably within its power to control (collectively "Force Majeure"); provided that such affected Party gives written notice of Force Majeure to the other Parties within ten (10) business days from the date that the affected Party has notice of the existence of the claimed inability to perform. The affected Party's obligation shall be suspended during the continuance of the inability then claimed, but for no longer period. To the extent possible, the Party shall endeavor to remove or overcome the inability claimed with reasonable dispatch.

(m) *Counterparts.* This Agreement may be executed in any number of identical counterparts, each of which shall be deemed an original and constitute one and the same instrument.

(n) *Authorized Signatories.* The person signing this Agreement on behalf of each Party has been properly authorized to sign this Agreement for that Party.

Signatures on Following Pages

Exhibits A, B, and C attached.

Corinth Signature Page

SIGNED AND AGREED this ____ day of _________________________, 2021.

CITY OF CORINTH

By: ______________________________________
Bob Hart, City Manager

ATTEST:

____
Lana Wylie, Deputy City Secretary

APPROVED AS TO FORM:

____
Patricia A. Adams, City Attorney

Lake Dallas Signature Page

SIGNED AND AGREED this _____ day of ___________________________, 2021.

CITY OF LAKE DALLAS, TEXAS

By: ___________________________________
Mike Wilson. Interim City Manager

ATTEST:

____
Codi Delcambre, City Secretary

APPROVED AS TO FORM:

____
Kevin B. Laughlin, City Attorney

Shady Shores Signature Page

SIGNED AND AGREED this _____ day of __________________________, 2021.

TOWN OF SHADY SHORES, TEXAS

By: _________________________________
Cindy Aughinbaugh, Mayor

ATTEST:

____
Wendy Wiithers, Town Secretary

APPROVED AS TO FORM:

____
James E. Shepherd, Town Attorney

Binkley & Barfield, Inc
consulting engineers
Texas Registration Number F-257

Dobbs Road Reconstruction

City of Corinth, Lake Dallas & Shady Shores

Fee Summary

3/1/2021

Basic Services	Proposed Fee
Conceptual Design (30%)	$111,300.00
Sub-Total =	**$111,300.00**

Special Services	Proposed Fee
Field Survey	$15,300.00
Flood Study	$16,500.00
Traffic Counts and Forecasting	$3,000.00
Geotechnical Investigation/Pavement Design	$10,000.00
Sub-Total =	**$44,800.00**

Reimbursables	Proposed Fee
Reimbursabales (FEMA data, prints, plots, & delivery)	$1,000.00
Sub-Total =	**$1,000.00**

Total =	**$157,100.00**
Construction Cost Estimate =	**$5,109,357.00**
Basic Services	$111,300.00
Percent of Construction Cost =	2.18%
Contract Total =	$157,100.00
Percent of Construction Cost =	3.07%

Binkley & Barfield, Inc.
consulting engineers
Texas Registration Number F-257

Dobbs Road Reconstruction
City of Corinth, Lake Dallas & Shady Shores
Labor Estimate
3/1/2021

Current Rates	per Hour
Sr. Project Manager	$258.00
Project Manager	$200.00
Structural Engineer	$200.00
Project Engineer	$168.00
EIT	$129.00
Sr. CADD/Designer	$139.00
CADD/Designer	$126.00
Clerical/ Admin	$82.00

Field Survey	Total
	$15,000.00
Total	**$15,000.00**

Flood Study	Total
	$16,500.00
Total	**$16,500.00**

Traffic Forcasting	Total
	$3,000.00
Total	**$3,000.00**

Geotechnical Investigation/Pavement Design	Total
	$10,000.00
Total	**$10,000.00**

Conceptual Design (30%)	Sr. Project Manager	Project Manager	Project Engineer	EIT	Sr. CADD/Designer	CADD/Designer	Clerical/ Admin	Total
Design Conference	2		2					4
Project Meeting with City (4)	4							4
Progress Report (4)	8							8
Internal Design Team Meeting (4)	4		4	8	8		4	28
Prepare project schedule	2							2
Coordination with LCMUA	2		2					4
Coordinate with franchise utility companies				8				8
Investigate trail interconnectivity	2		2					4
Cover Sheet					8			8
Typical Sections	2				16			18
Plan & Profile sheets (8) (set up)					20			20
Set Horizontal Alignment					10			10
Incorporate City and Franchise Utilities				4	8			12
Site Visit/Field Verify Survey			8					8
Show Proposed Pavement Limits					30			30
Run Terrain Model & Show Existing Grades				12				12
Set Grades			45					45
Run Terrain Model & Show Proposed Grades					20			20
Label plan view call offs					40			40
Label plan view dimensions					40			40
Label profile call offs					40			40
Establish proposed right-of-way/easements	4		4		12			20
Create Drainage Area Map					40			40
Show existing drainage areas	2		18		18			38
Calculate capacity of existing system	2		12		20			34
Conceptual layout of proposed storm sewer system	4		40		40			84
Conceptual layout of cross drainage structure	4		16		24			44
Show and label existing water and sewer with material, type, age & size			4		8			12
Show LCMUA proposed alignments					16			16
QA/QC	8							8
Identify conflicts	4		4		4			12
Prepare decision log	4							4
Identify permitting requirements	4		4					8
Calculate quantities				20				20
Prepare cost estimate	4							4
Prepare submittal package	1				4			5
								0
								0
Sub-Total Hours	67	0	165	52	426	0	4	714
Rate	$258.00	$200.00	$168.00	$129.00	$139.00	$126.00	$82.00	
Sub-Total Manhour Cost	**$17,286.00**	**$0.00**	**$27,720.00**	**$6,708.00**	**$59,214.00**	**$0.00**	**$328.00**	**$111,256.00**

EXHIBIT A

BASIC ENGINEERING SERVICES
FOR
Dobbs Road Reconstruction Project
(Corinth Parkway to S. Shady Shoes Rd)

The scope of services for this project includes preparation of preliminary plans and construction cost estimate for roadway improvements on Dobbs Road from just east of Corinth Parkway westward to S. Shady Shores Road. The existing 2-lane asphalt roadway within these limits is proposed to be widened to a 3-lane concrete roadway generally matching the concrete paving section of Dobbs Road just east of Corinth Parkway. The project will include construction of sidewalk/trail along the corrido and concrete curb and gutter street pavement with an underground storm sewer system.

Alignments and ultimate corridor typical section shall be based on existing and planned right-of-way, including identifying proposed right-of-way/easements opportunities and constraints.

Also included in the scope is communication with Lake Cities Municipal Utility Authority (LCMUA) to determine and coordinate any upgrades planned or necessary for basic wet utility replacement to ensure subsurface infrastructure has an expected life span that exceeds the proposed pavement work will

BASIC Engineering Services includes Project Management, Conceptual Design, and Engineer's Opinion of Construction Cost.

I. PROJECT MANAGEMENT

ENGINEER will manage the work outlined in this scope to ensure efficient and effective use of ENGINEER's and CITY's time and resources. ENGINEER will manage change, communicate effectively, coordinate internally and externally as needed, and proactively address issues with the CITY's Project Manager and others as necessary to make progress on the work.

Team Management:

- Lead, manage and direct design team activities
- Ensure quality control is practiced in performance of the work
- Communicate internally among team members

- Allocate team resources

Communications and Reporting:

- Attend a pre-design project kickoff meeting with CITY staff to confirm and clarify scope, understand CITY objectives, and ensure economical and functional designs that meet CITY requirements

- Conduct and document monthly project update meetings with CITY Project Manager

- Conduct review meetings with the CITY at the end of each design phase.

- Conduct and document monthly design team meetings.

- Prepare and submit monthly invoices in the format acceptable to the CITY.

- Prepare and submit monthly progress reports.

- Prepare and submit baseline Project Schedule initially and Project Schedule updates.

- Coordinate with other agencies and entities as necessary for the design of the proposed infrastructure and provide and obtain information needed to prepare the design.

- With respect to coordination with permitting authorities, ENGINEER shall communicate with permitting authorities such that their regulatory requirements are appropriately reflected in the designs.

- Personnel and Vehicle Identification: When conducting site visits to the project location, the ENGINEER or any of its sub-consultants shall carry readily visible information identifying the name of the company and the company representative.

Assumptions:
- 4 Monthly Update/Coordination Meetings w/Project Manager
- 4 Internal Design Team Meetings
- 4 Monthly Progress Reports

Deliverables:
- Meeting summaries with action items
- Monthly invoices
- Monthly progress reports

- Project design schedule

II. CONCEPTUAL DESIGN (30%)

The Conceptual Design shall be submitted to CITY per the approved Project Schedule. The purpose of the conceptual design is for the ENGINEER to identify, develop, communicate through the defined deliverables, and recommend the design concept that successfully addresses the design problem, and to obtain the CITY's endorsement of this concept. ENGINEER will utilize concepts and criteria contained in the current CITY standards and Mater Thoroughfare Plans (Corinth, Lake Dallas, Shady Shores and Denton County) for conceptual planning and design including conceptual roadway corridor. Also included in this scope of work is the conceptual design of storm drainage improvements within the project limits. Also included in the scope is communication with Lake Cities Municipal Utility Authority (LCMUA) to determine and coordinate any upgrades planned or necessary for basic wet utility replacement to ensure subsurface infrastructure has an expected life span that exceeds the proposed pavement work will

ENGINEER will develop the conceptual design of the infrastructure

- In addition to data obtained from the CITY, ENGINEER will research and make efforts to obtain pertinent information to aid in coordination of the proposed improvements with any planned future improvements that may influence the project. ENGINEER will also identify and seek to obtain data for existing conditions that may impact the project including utilities, agencies (TxDOT), City Master Plans, and property ownership as available from the Tax Assessor's office.

- Prepare conceptual design plans. The documents will represent a 30% complete review set. The conceptual design plans will include:

    - Conceptual cover and index of sheets including project limits, area location map and beginning and end station limits.

    - Existing typical sections of the roadway to be constructed along with proposed typical sections which outline the proposed improvements. Typical sections shall include existing and proposed ROW, existing and proposed lane widths and direction arrows, existing and proposed curbs, sidewalks, and retaining walls.

    - Conceptual plan and profile sheets showing existing and proposed horizontal and vertical roadway alignments, existing and proposed ROW, existing and proposed easements, existing and proposed sidewalks and driveways, proposed lane dimensions and lane arrows, existing drainage structures, City-owned and franchise utilities.

- Confirm location, size and age of all LCMUA owned utilities.

- Confirm location of existing franchise utilities (Atmos Gas, Oncor, Verizon, Frontier, AT&T, etc.). Contact the utility companies regarding the location of their facilities (Level C & D SUE Services).

- Existing drainage area map showing existing storm drainage system layout including pipe sizes, inlets, junction structures and outfall locations within the project limits.

- Pre and post condition Drainage area map with supporting drainage computations.

- Conceptual storm drainage system layout identifying extents of the storm system expansion including locations of proposed inlets, junction structures and outfall locations within the project limits.

- Drainage structure analysis and conceptual layout for potential upgrade at Stream GS-1

- The ENGINEER's responsibility includes recommendations for drainage improvements of the existing system as deemed reasonable and consistent with CITY standards.

- Conceptual water sand sanitary sewer system improvements layout within the project limits (if/as provided by LCMUA)

- Conceptual sanitary sewer system improvements within the project limits.

- Transmittal letter including a summary of conflicts and know troublesome areas to be further addressed in subsequent plan sets

- The ENGINEER shall prepare a project decision log identifying resolutions to previously identified conflicts and design challenges.

- The ENGINEER shall prepare an opinion of probable construction cost and submit this opinion to the CITY.

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Assumptions:

- 4 sets of 22”x34” full sized plans will be delivered for the 30% design
- 4 sets of 11”x17” half sized plans will be delivered for the 30% design
- PDF files created from design CAD drawings will be digitally submitted to the City
- 1 Concept Design Review Meeting w/ City Staff and all stakeholders identified

Deliverables:

- Conceptual Design Package (hard copy and PDF format)

Exclusions:

  - General Notes Sheet
  - Project Control Sheet
  - Demolition Sheets
  - Intersection layout sheets
  - Storm drain plan and profile sheets
  - Preliminary water plans
  - Preliminary sanitary sewer plans
  - Preliminary erosion control plan and details
  - Preliminary signing, pavement marking layouts
  - Preliminary construction phasing layout
  - Roadway Cross Section Sheets.
  - Permitting
  - CLOMR/LOMR
  - Bid proposal
  - Special specifications
  - Construction phase services

EXHIBIT B

SPECIAL ENGINEERING SERVICES
FOR
Dobbs Road Reconstruction Project
(Corinth Parkway to S. Shady Shoes Rd)

The scope of work for SPECIAL Engineering Services involves Field Survey, Property Owner Survey Notice Letter, Traffic Counts and Forecasting, and Geotechnical Investigation/Pavement Design. The scope of work for the Special Engineering Services is more generally described as follows:

I. FLOOD STUDY

- Gather available information from Lake Dallas, Corinth, Shady Shores, Denton County, FEMA, and other pertinent agencies pertaining to computer models, construction plan documents, topographic and aerial data, and other documents pertaining to Stream GS-1.

- Limits of the flood study are from 500 feet downstream of Dobbs Road to 500 feet upstream of Dobbs Road. Since there are detailed studies for Stream GS-1. ENGINEER will obtain the data for hydrologic and hydraulic analysis and work maps.

- Review hydrologic analysis of the detailed studies secured from Lake Dallas, Corinth, Shady Shores, Denton County, FEMA and U.S. Corps of Engineers and utilize the drainage area maps and runoff calculations to create a fully developed condition hydrologic model.

- Develop a TR-20 or TR-55 hydrologic model for the 10-, 25-, 50-, and 100-year storm events utilizing the most accurate data available.

- Develop a "Corrected Effective" floodplain HEC-RAS computer model to reflect current LIDAR topographic survey and ground survey.

- Using the results of the model, delineate the 25 and 100-year floodplain boundary within the study limits.

- Generate a second floodplain computer model to reflect proposed conditions to determine which storm event (10-, 25-, 50- or 100-year) will safely pass through the proposed culvert(s) without overtopping Dobbs Road and result in no adverse impacts to the 100-year water surface elevations.

- Generate report to include the results of the computer models, plotted cross sections, and all other pertinent data required by governmental agencies Written narrative of the computer modeling techniques and results will also be included to demonstrate that there will be no adverse impacts from the new culvert crossing.

- No submittals will be made to FEMA for CLOMR or LOMR.

II. FIELD SURVEY

ENGINEER will perform an on the ground survey of the property under the direct supervision of a Registered Professional Land Surveyor to supplement the existing ROW survey performed by Baseline Corporation in December 2020 to generate a complete topographic design file for the project. Included in this item:

- Surveyor shall prepare right-of-entry letters and mail by Certified Mail, Return Receipt requested for all tracts identified within the project limits that by necessity will be entered upon in the course of this survey. The Surveyor shall coordinate the data to ensure that no private property shall be entered where right-of-entry has not been obtained.

- Topo in the front and side yards for 10’ from the Dobbs Road right-of-way, and topo, where possible, 10’ past fences or occupied right-of-way.

- Topo the Stream GS-1 drainage channel with cross sections every 50’ for 200’ from the edge of payment north and south, a minimum of 75 feet beyond west bank and 100 feet beyond east bank.

- Detail the storm and sanitary sewers including flowlines at manholes, inlets, outfalls.

- Contact Texas811 to request locates of all utilities within the project limits. Have them designated in the field. Identify utility markings and incorporate field locates into design survey.

- Submit a list of franchise utility companies with utilities in the area based on e-mail response from Texas811 request. All e-mails will be placed in a folder called “One Call” and provided to the client and have Texas811 mark utilities.

- Locate and tie, trees, bushes, retaining walls, and other above ground ancillary features within the right-of-way. Estimate caliper and tree type. Detailed tree survey is not required.

- Augment the existing base map from field survey in AutoCAD Civil 3D. CAD drawing to include features noted above.

Assumptions:

- Species names of trees not required

- Detailed tree survey not required
- Boundary survey not required
- Survey for SUE not required
- Construction staking not required

Deliverables:

- Field survey points and descriptions in AutoCAD format.
- Base map in AutoCAD format

III. TRAFFIC COUNTS AND FORECASTING

Traffic forecasting shall be obtained and provided to the Geotechnical Engineer as part of the analysis/recommendation for the proposed pavement section

- Secure recent 48-hr bi-directional traffic counts at two locations along Dobbs Rd within the project limits from City of Corinth

- Research and data collection on existing traffic studies/counts

- Traffic forecasting for 50-year pavement lifecycle for use in pavement section design/confirmation

Deliverables:

- Traffic Counts and Forecasting Summary

IV. GEOTECHNICAL INVESTIGATION/PAVEMENT DESIGN

This study will include the following evaluations:

- Subsurface soil, rock and groundwater conditions on the site to depths that would be significantly affected by pavement.

- Engineering characterization of the subsurface materials encountered.

- Concrete pavement sections for the planned roadway.

- The study will also include laboratory tests to evaluate the classification, gradation and certain physical characteristics of the subsurface soils.

- Recommendations regarding earthwork, including grading and excavation, backfilling and compaction, the treatment of in-place soils for the support of pavement, and possible construction problems reasonably to be expected.

- Exploration of the subsurface soil and/or rock conditions at the site by drilling six (6) test borings to a depth of 10 ft.

- Three (3) of the borings will be drilled in the existing street and three (3) will be drilled just off the edge of the existing street.

- The existing asphalt pavement will be cored for the borings performed in the street.

- Traffic control for access to the boring location.

- At the completion of drilling operations, boreholes will be backfilled and plugged with soil cuttings, and any pavement that is penetrated will be patched with similar material.

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Deliverables:

- Geotechnical report summarizing analyses and recommendations for pavement section.

EXHIBIT C

SERVICES TO BE PROVIDED BY THE CITY
FOR
Dobbs Road Reconstruction Project
(Corinth Parkway to S. Shady Shoes Rd)

The CITY will provide the following services to the ENGINEER in the performance of the PROJECT upon request:

I. Provide any existing data the CITY has on file concerning the PROJECT, if available.

II. Provide any available As-Built plans for existing streets and drainage facilities, if available.

III. Assist in securing any available As-Built plans for existing water and sanitary sewer mains and plans for improvements from LCMUA.

IV. Assist the ENGINEER, as necessary, in obtaining any required data and information from TxDOT, FEMA, USACE, and/or other local utility companies.

V. Provide standard details and specifications in digital format.

VI. Assist the ENGINEER by requiring appropriate utility companies to expose underground utilities within the Right-of-Way, when required.

VII. Give prompt written notice to ENGINEER whenever CITY observes or otherwise becomes aware of any development that affects the scope or timing of the ENGINEER's services.

AGENDA MEMORANDUM

DATE: June 21, 2021

TO: Town Council

FROM: Wendy Withers, Town Administrator

SUBJECT: **Budget Worksession- Conduct a worksession relative to road repairs and capital improvements for the 2021/2022 Fiscal Year Budget.**

BACKGROUND/INFORMATION:

Conduct a worksession relative to the Proposed 2021/22 Fiscal Year Budget. Discuss roads and capital improvement projects.

FINANCIAL IMPLICATIONS:

RECOMMENDATION/ACTION DESIRED:

ATTACHMENTS/SUPPORTING DOCUMENTATION:

1. GLBudgetReport2_53 PM
2. Road and Drainage Improvements 11.2018
3. Capital Improvement Projects Proposed

REVIEWED BY:

Town of Shady Shores
Budget Report
2021 - 2022 Fiscal Year Working Budget

100 - General Fund	2021 Current	2021 Actual	2022 Requested
Revenue Summary			
Business & Franchise	124,000.00	127,924.00	140,000.00
Court Revenue	20,000.00	22,929.00	20,000.00
Fines, Fees & Forfeitures	50.00	0.00	50.00
Grants & Donations	4,000.00	3,497.00	3,500.00
Interest Income	14,000.00	4,462.00	6,000.00
Leases & Rents	150.00	75.00	150.00
Licenses & Permits	51,000.00	195,341.00	201,000.00
Not categorized	449,283.00	0.00	0.00
Other Revenue Sources	200.00	83.00	200.00
Property & Sales Tax	1,214,266.00	1,187,028.00	1,339,703.00
Sales & Receipts	500.00	736.00	500.00
Solid Waste Income	220,500.00	140,368.00	220,800.00
Revenue Totals	2,097,949.00	1,682,443.00	1,931,903.00
Expense Summary			
Community Programs & Donations	19,500.00	11,891.00	24,500.00
Contracted Services	105,546.00	92,850.00	111,556.00
Fees, Fines & Taxes	12,000.00	162,975.00	12,000.00
Grant Expense	0.00	0.00	0.00
Insurance Expense	6,000.00	4,935.00	6,000.00
Legal & Professional Fees	172,800.00	223,458.00	137,800.00
Not categorized	20,000.00	0.00	0.00
Office & Supplies	3,600.00	4,560.00	4,100.00
Other Expenses	29,055.00	0.00	0.00
Personnel/Payroll	231,300.00	149,363.00	254,462.00
Postage- Legal Advertising	5,000.00	3,581.00	5,000.00
Professional Expenses	1,700.00	2,286.00	2,200.00

Public Safety	581,648.00	408,709.00	758,543.00
			149242
Repairs & Maintenance	628,000.00	49,436.00	178,000.00
Solid Waste	200,000.00	151,506.00	200,000.00
Technology	62,200.00	47,084.00	62,200.00
Utilities	19,600.00	18,370.00	26,300.00
Expense Totals	2,097,949.00	1,331,004.00	1,931,903.00
NOI	0.00	351,439.00	0.00

Road & Drainage Improvements

PRESENTED BY
RICHARD A. ARVIZU, P.E., CFM
TOWN ENGINEER

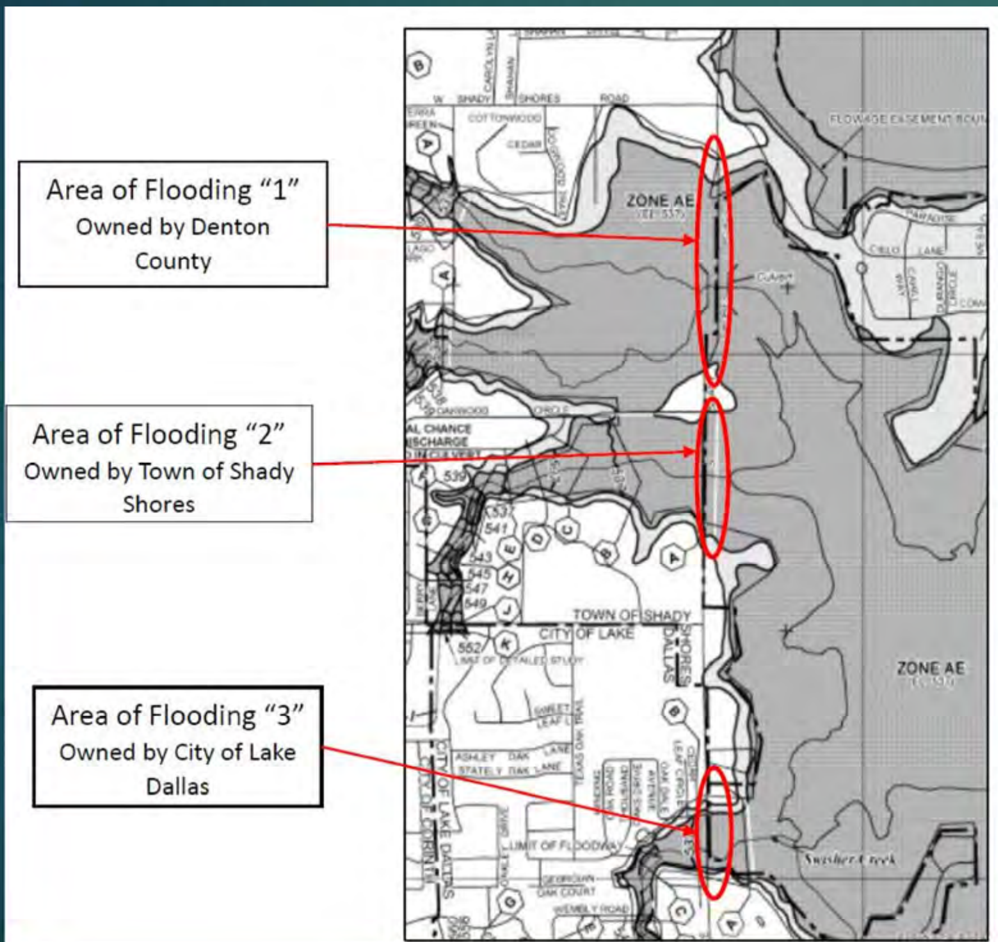
NOVEMBER 12, 2018

List of Potential Projects

- S. Shady Shores Rd Bridges Project
- Drainage Study – Shahan Addition
  - Shahan Addition Road Reconstruction & Drainage Improvements
  - Oberman Lane Paving & Drainage Improvements
- Shahan Lane Drainage Improvements
- 324 Dobbs Road Drainage Improvements
- 322 W. Shady Shores Rd Drainage Improvements
- Taylor Lane Drainage Improvements
- Shady Lane at 6th Street Drainage Improvements
- Meadowlark Culvert Replacement
- Cogburn Court Paving & Drainage Improvements
- Jay Street & Laura Street Paving & Drainage Improvements
- Oakwood Circle Drainage Improvements – Phase 1
- E. 6th Street Paving Improvements
- Eason Road Paving Improvements
- Fritz Lane Culvert Replacement

SHADY SHORES
TEXAS

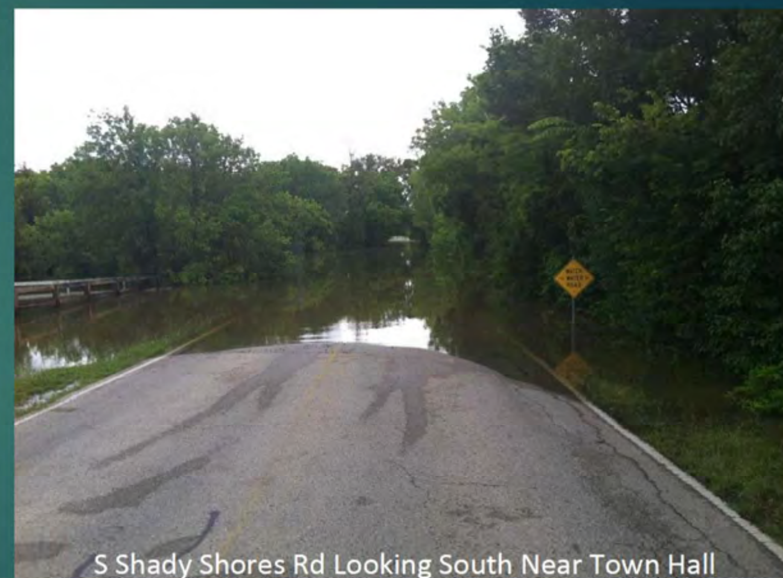
S. Shady Shores Road Bridges Project



- Raise S. Shady Shores Rd at three (3) locations to mitigate frequent road inundation
- Existing top of road elevation at at low points is about 527'
- Lake Lewisville 100-year water surface elevation is 537'
- Road inundated by as much as 10' of water
- Area "1" – between W. Shady Shores Rd and Oakwood Circle
- Area "2" - between Oakwood Circle and Dobbs Road
- Area "3" – between Parkside Lane and Silktree Ct

S. Shady Shores Road Bridges Project – Area "1"

S Shady Shores Rd at LCMUA Lift Station #7 Looking North towards Town Hall



S Shady Shores Rd Looking South Near Town Hall

S. Shady Shores Road Bridges Project – Area "2"

S Shady Shores Rd at Oakwood Circle Looking South

S Shady Shores Rd at Oakwood Circle Looking South

S. Shady Shores Road Bridges Project – Area "3"

S Shady Shores Rd at Parkside Looking South (Lake Dallas)

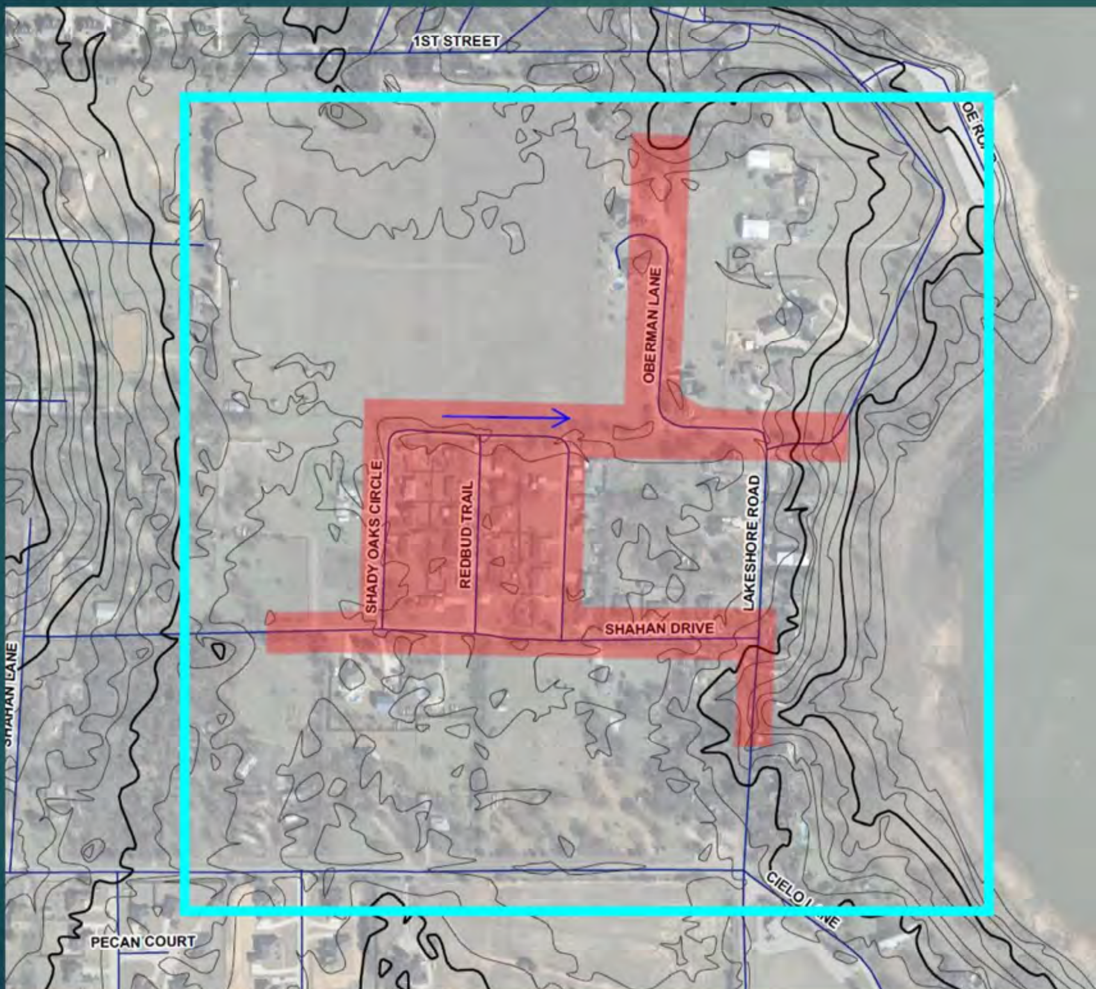
S. Shady Shores Road Bridges Project

- Cost Estimate
  - Construction $14 MM
  - Engineering $1.4 MM
  - Water/Sewer Relocations $2.8 MM
- Funding
  - Federal $10 MM
  - Denton County $4 MM
  - Town of Shady Shores $700 K
  - Lake Dallas $700 K

- Coordination
  - Denton County
  - Lake Dallas
  - FHWA/TxDOT
  - USACE
  - FEMA
  - LCMUA
  - Franchise Utility Companies

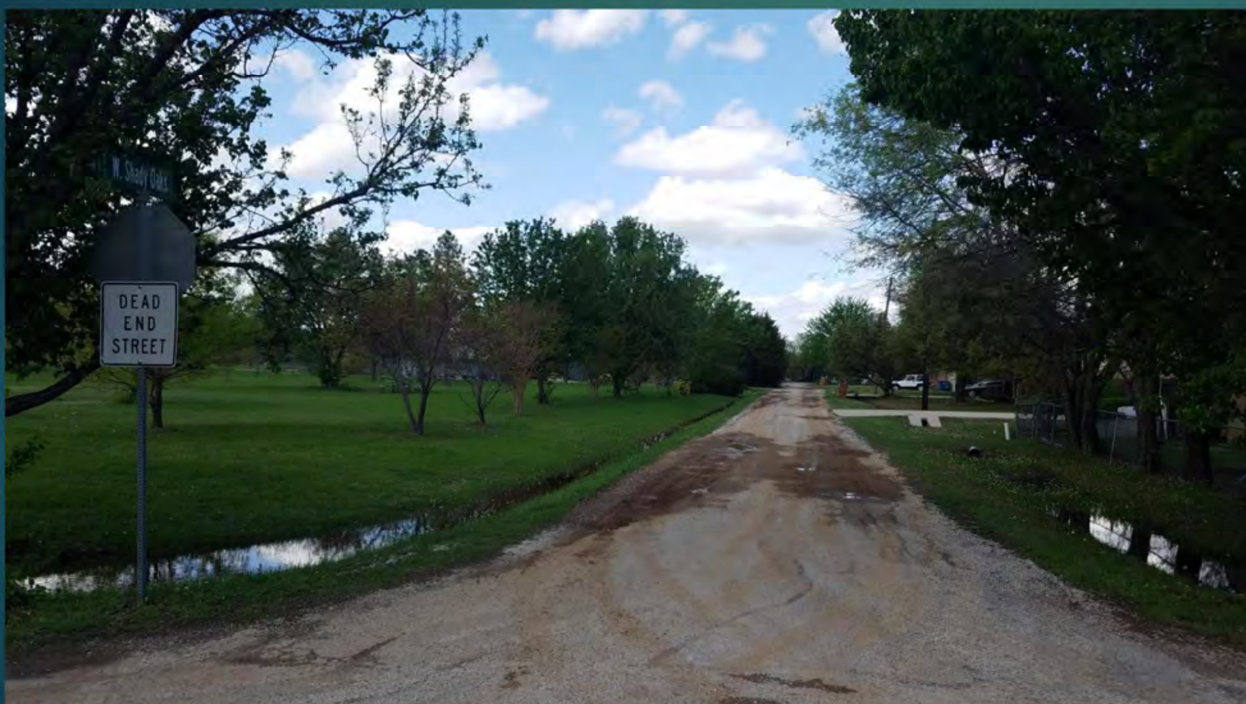
- Tentative Schedule
  - Dec 2018 - Inter Local Agreement
  - Jan 2019 - Request for Qualifications
  - Feb 2019 - Start PS&E
  - July 2020 – Environmental Clearance
  - Dec 2020 - Construction Procurement
  - Jan 2021 - Start Construction
  - Feb 2022 - Construction Complete

Drainage Study – Shahan Addition



- For use in developing solutions to drain level, low lying areas in and around the Shahan Addition
- For use in ensuring road and drainage improvements to Oberman Lane accommodate any potential solution

Drainage Study – Shahan Addition



- Ponding water after storm event at W Shady Oaks Circle
- Typical W Shady Oaks Circle, E Shady Oaks Circle, Redbud Trail and Shahan Drive

Drainage Study – Shahan Addition

- Ponding water after storm event at 205 Redbud Trail
- Water drains only after a certain water level in the ditch is achieved causing yards to flood and water to enter garage during storm events
- Water in backyard, including from adjacent properties, does not drain to ditch
- Homes in area appear to be below the road elevation

Estimate of Project Cost

$65,000

- Survey area by conventional methods and/or aerial drone LiDAR
- Site investigation
- Development of drainage area maps
- Determine design flow rates
- Perform hydraulic modeling and/or calculations
- Recommend improvements

Shahan Addition Road Reconstruction & Drainage Improvements

- Shady Oaks Circle West, Redbud Trail and Shady Oaks Circle East
- Reconstruct Asphalt Roadway
- Drainage improvements – culverts and ditches

Shahan Addition Road Reconstruction & Drainage Improvements

- Include paving and drainage improvements along east-west portion of Shady Oaks Circle (currently grass and ponded ditch) to eliminate roadway dead end and convey drainage

Shahan Addition Road Reconstruction & Drainage Improvements

Estimate of Project Cost

$771,000

Item	Quantity	Unit	Description	Unit Price	Total
			Red Bud Trail		
1	1	LS	Mobilization (Max. 5% of Bid)	$8,000.00	$8,000.00
2	880	SY	2" HMAC Overlay Type D	$15.00	$13,200.00
3	880	SY	4" HMAC Overlay Type B	$20.00	$17,600.00
4	990	SY	6" Cement Stabilization @ 27 lbs/SY w/ 6" Removal	$20.00	$19,800.00
5	165	SY	Block Sodding	$10.00	$1,650.00
6	1	LS	Erosion Control	$750.00	$750.00
7	1	LS	Barricading & Traffic Control	$750.00	$750.00
8	1	LS	15% Contingency	$9,263.00	$9,263.00
			SUBTOTAL		**$71,013.00**
			Shady Oaks Cir (W)		
1	1	LS	Mobilization (Max. 5% of Bid)	$8,000.00	$8,000.00
2	916	SY	2" HMAC Overlay Type D	$15.00	$13,740.00
3	916	SY	4" HMAC Overlay Type B	$20.00	$18,320.00
4	1,031	SY	6" Cement Stabilization @ 27 lbs/SY w/ 6" Removal	$20.00	$20,620.00
5	172	SY	Block Sodding	$10.00	$1,720.00
6	1	LS	Erosion Control	$750.00	$750.00
7	1	LS	Barricading & Traffic Control	$750.00	$750.00
8	1	LS	15% Contingency	$9,585.00	$9,585.00
			SUBTOTAL		**$73,485.00**
			Shady Oaks Cir (E)		
1	1	LS	Mobilization (Max. 5% of Bid)	$8,000.00	$8,000.00
2	840	SY	2" HMAC Overlay Type D	$15.00	$12,600.00
3	840	SY	4" HMAC Overlay Type B	$20.00	$16,800.00
4	945	SY	6" Cement Stabilization @ 27 lbs/SY w/ 6" Removal	$20.00	$18,900.00
5	158	SY	Block Sodding	$10.00	$1,580.00
6	1	LS	Erosion Control	$750.00	$750.00
7	1	LS	Barricading & Traffic Control	$750.00	$750.00
8	1	LS	15% Contingency	$8,907.00	$8,907.00
			SUBTOTAL		**$68,287.00**
			TOTAL CONSTRUCTION (BASE BID)		**$212,785.00**

			Additive Alternate A (Pave East/West Portion of Shady Oaks Circle)		
A-1	1	LS	Mobilization (Max. 5% of Bid)	$8,000.00	$8,000.00
A-2	889	SY	2" HMAC Overlay Type D	$15.00	$13,335.00
A-3	889	SY	4" HMAC Overlay Type B	$20.00	$17,780.00
A-4	1,001	SY	6" Cement Stabilization @ 27 lbs/SY w/ 6" Removal	$20.00	$20,020.00
A-5	167	SY	Block Sodding	$10.00	$1,670.00
A-6	1	LS	Erosion Control	$1,000.00	$1,000.00
A-7	1	LS	Barricading & Traffic Control	$500.00	$500.00
A-8	1	LS	15% Contingency	$9,346.00	$9,346.00
			TOTAL ADDITIVE ALTERNATE A		**$71,651.00**
			Additive Alternate B (Drainage)		
B-1	38	EA	Remove & Replace Residential Concrete Driveway & Culvert	$5,000.00	$190,000.00
B-2	1,000	LF	Grade Ditch	$15.00	$15,000.00
B-3	2,900	LF	Re-Grade Ditch	$15.00	$43,500.00
B-4	225	CY	Fill Existing Ditch	$25.00	$5,625.00
B-5	1	LS	Clear Underbrush/Trees	$5,000.00	$5,000.00
B-6	4,475	SY	Block Sodding	$10.00	$44,750.00
B-7	210	LF	24" RCP (Roadway Culvert)	$150.00	$31,500.00
B-8	14	EA	Headwall	$2,500.00	$35,000.00
B-9	1,500	SF	Drainage Easement/ROW Acquisition	$10.00	$15,000.00
			TOTAL ADDITIVE ALTERNATE B		**$385,375.00**
			TOTAL CONSTRUCTION (BASE BID + ADD ALT A + ADD ALT B)		**$669,811.00**
			Construction Management		
	1	LS	Construction Management Services	$11,000.00	$11,000.00
			SUBTOTAL		**$11,000.00**
			Project Management		
	1	LS	Project Management Services	$5,000.00	$5,000.00
			SUBTOTAL		**$5,000.00**
			Special Services		
	1	LS	Surveying	$8,000.00	$8,000.00
	1	LS	Easement Documents	$5,000.00	$5,000.00
	1	LS	Geotechnical Investigation/Recommendation	$5,000.00	$5,000.00
			SUBTOTAL		**$18,000.00**
			Engineering		
	1	LS	Engineering	$65,000.00	$65,000.00
	1	LS	Prints, Plots & Delivery	$1,500.00	$1,500.00
			SUBTOTAL		**$66,500.00**
			TOTAL (Construction, Management, Testing & Engineering)		**$770,311.00**

Note: Does not included improvements to private property (rear yards, side swales, etc.)

Oberman Lane Paving & Drainage Improvements

- Drainage reported to not effectively flow along roadway ditches
- Regrade ditches and replace driveway culverts
- Reconstruction of asphalt roadway is recommended
- Improving cul-de-sac portion with Portland cement concrete paving is recommended

Oberman Lane Paving & Drainage Improvements

Estimate of Project Cost

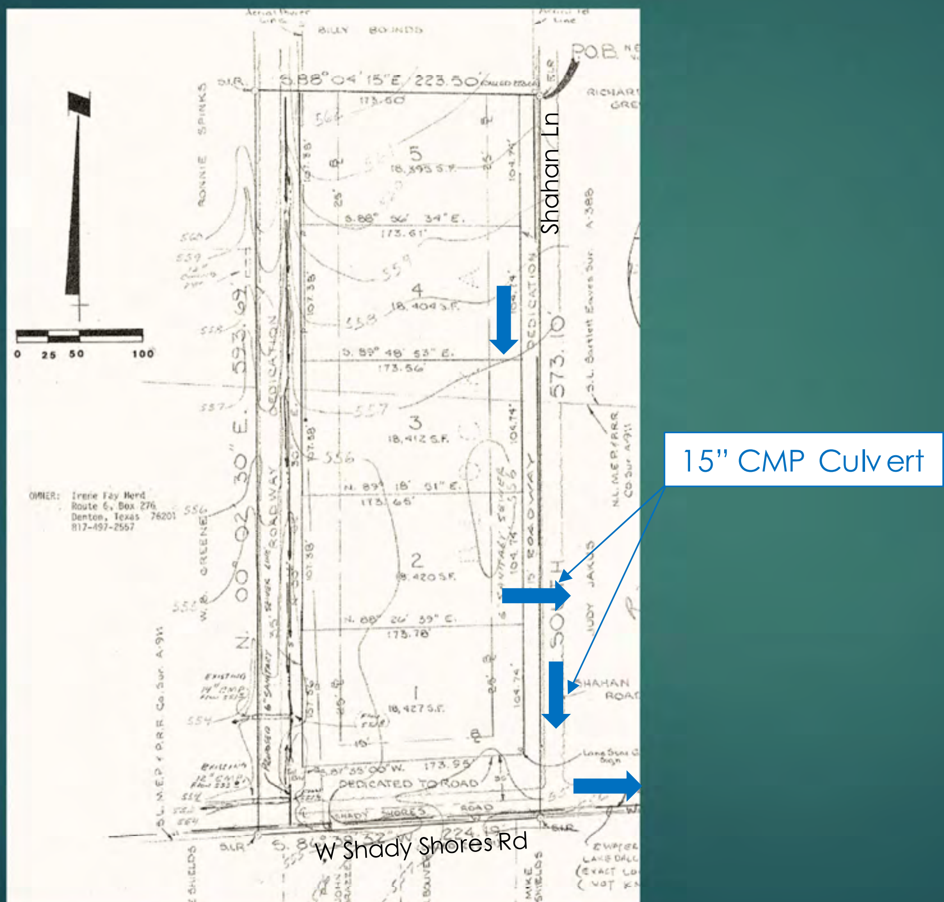
$405,000

Item	Quantity	Unit	Description	Unit Price	Total
			Base Bid (Oberman Lane-Approx. 970 LF w/ Cul-de-sac)		
1	1	LS	Mobilization (Max. 5% of Bid)	$10,000.00	$10,000.00
2	2,900	SY	2" HMAC Overlay Type D	$15.00	$43,500.00
3	2,900	SY	4" HMAC Overlay Type B	$20.00	$58,000.00
4	3,123	SY	6" Cement Stabilization @ 27 lbs/SY w/ 6" Removal	$20.00	$62,460.00
5	1	EA	Adjust Water Valve to Grade	$500.00	$500.00
6	1	EA	Adjust Manhole to Grade	$2,500.00	$2,500.00
7	2,223	SY	Block Sodding	$10.00	$22,230.00
8	1	LS	Erosion Control	$2,500.00	$2,500.00
9	1	AL	Irrigation Repair Allowance	$3,000.00	$3,000.00
10	1	LS	Barricading & Traffic Control	$1,500.00	$1,500.00
11	1	LS	15% Contingency	$30,929.00	$30,929.00
			TOTAL BASE BID		**$237,119.00**
			Additive Alternate A (Driveway Culverts and Ditch Grading, as Necessary)		
A-1	11	EA	Remove & Replace Residential Concrete Driveway & Culvert	$5,000.00	$55,000.00
A-4	2,000	LF	Grade Ditch	$15.00	$30,000.00
A-5	1,978	SY	Block Sodding	$10.00	$19,780.00
			TOTAL ADDITIVE ALTERNATE A		**$104,780.00**
			Additive Alternate B (Cul-de-sac Area in Concrete rather than Asphalt)		
B-1	1	LS	Additional Cost for 6" Concrete Cul-de-sac	$15,000.00	$15,000.00
			TOTAL ADDITIVE ALTERNATE B		**$15,000.00**
			Construction Management		
	1	LS	Construction Management Services	$6,500.00	$6,500.00
			SUBTOTAL		**$6,500.00**
			Project Management		
	1	LS	Project Management Services	$6,500.00	$6,500.00
			SUBTOTAL		**$6,500.00**
			Special Services		
	1	LS	Surveying	$6,000.00	$6,000.00
	1	LS	Geotechnical Investigation/Recommendation	$3,500.00	$3,500.00
			SUBTOTAL		**$9,500.00**
			Engineering		
	1	LS	Engineering	$25,000.00	$25,000.00
	1	LS	Prints, Plots & Delivery	$500.00	$500.00
			SUBTOTAL		**$25,500.00**
			TOTAL (Construction, Management, Testing & Engineering)		**$404,899.00**

Shahan Lane Drainage Improvements

- Backyards inundated with storm water during storm events
- Backyards appear to be 1 to 2 inches below fence line and top of ditch elevation
- Crushed pipe outlet at culvert crossing Shahan Lane

Shahan Lane Drainage Improvements



- Survey and analyze area
- Ditches (Shahan Ln and W Shady Shores Rd) may need to be re-graded and improved
- Culverts may need to be replaced and upsized
- Fences may need to be removed and replaced

Shahan Lane Drainage Improvements

Estimate of Project Cost

$93,000

Item	Unit	Quanity	Unit Price	Total
Construction				
Trimming Trees	LS	1	$4,000.00	$4,000.00
Remove Existing Driveway Culvert (1 Estimated)	LF	16	$10.00	$160.00
Remove Existing Roadway Culvert (1 Estimated)	LF	24	$10.00	$240.00
Remove & Replace Roadway Pavement	SY	12	$75.00	$900.00
Remove & Replace Concrete Driveway (incl. curb & headwall)	SY	30	$100.00	$3,000.00
Install 18" CMP Driveway Culvert (1 Estimated)	LF	20	$100.00	$2,000.00
Install 24" CMP Driveway Culvert (1 Estimated)	LF	20	$125.00	$2,500.00
Install 24" CMP Roadway Culvert (1 Estimated)	LF	24	$125.00	$3,000.00
Concete Headwalls (4 Estimated)	EA	4	$200.00	$800.00
Block Sodding	SY	973	$10.00	$9,730.00
Remove & Replace Ex. Fence (Wood)	LF	320	$35.00	$11,200.00
Remove & Replace Ex. Fence (Chain Link)	LF	205	$25.00	$5,125.00
Re-Grade Ditches	LF	875	$15.00	$13,125.00
Erosion Control	LS	1	$750.00	$750.00
Barricading & Traffic Control	LS	1	$1,000.00	$1,000.00
15% Construction Contingency	LS	1	$9,154.00	$9,154.00
Mobilization	LS	1	$3,500.00	$3,500.00
SUBTOTAL				**$70,184.00**
Construction Management				
Construction Management Services	LS	1	$1,850.00	$1,850.00
SUBTOTAL				**$1,850.00**
Project Management				
Project Management Services	LS	1	$1,850.00	$1,850.00
SUBTOTAL				**$1,850.00**
Special Services				
Surveying	LS	1	$6,500.00	$6,500.00
Construction Staking	LS	1	$1,500.00	$1,500.00
SUBTOTAL				**$8,000.00**
Engineering				
Engineering	LS	1	$10,000.00	$10,000.00
Preliminary Estimates	LS	1	$500.00	$500.00
Prints, Plots & Delivery	LS	1	$300.00	$300.00
SUBTOTAL				**$10,800.00**
TOTAL (Construction, Management, Surveying and Engineering)				**$92,684.00**

Notes:
1.) Agreements with property owners to grade into yards and remove & replace fences may be required.

324 Dobbs Road Drainage Improvements

- Grate inlet along Dobbs Road drainage ditch
- Rain events tend to clog inlet with leaves, mud and debris
- Ditch water backs up and overtops sidewalk (route to school)

324 Dobbs Road Drainage Improvements

- Undermining of sidewalk

324 Dobbs Road Drainage Improvements

- West bank of channel has eroded to within close proximity of 324 Dobbs Rd fence line
- Backyard encroaches into 100-Year FEMA Floodplain

Estimate of Project Cost

$43,000

Item	Quantity	Unit	Description	Unit Price	Total
			324 Dobbs Road Drainage Improvements		
1	1	LS	Mobilization	$1,500.00	$1,500.00
2	70	LF	Regrade Existing Ditch	$15.00	$1,050.00
3	2	EA	Clean Existing Culvert	$500.00	$1,000.00
4	1	EA	Remove Exisitng Grate Inlet	$500.00	$500.00
5	1	LS	Flowable Fill	$3,000.00	$3,000.00
6	1	EA	Drop Inlet or Safety End Treatment (incl connect. to ex. pipe)	$7,500.00	$7,500.00
7	112	SY	Block Sodding	$10.00	$1,120.00
8	36	CY	Stone Riprap (Common) (18") (Dry) (For Channel)	$200.00	$7,200.00
9	1	LS	Barricading & Traffic Control	$1,500.00	$1,500.00
10	1	LS	15% Contingency	$3,656.00	$3,656.00
			TOTAL (CONSTRUCTION)		**$28,026.00**
			Construction Management		
	1	LS	Construction Management Services	$1,500.00	$1,500.00
			SUBTOTAL		**$1,500.00**
			Project Management		
	1	LS	Project Management Services	$1,000.00	$1,000.00
			SUBTOTAL		**$1,000.00**
			Special Services		
	1	LS	Surveying	$4,000.00	$5,000.00
			SUBTOTAL		**$5,000.00**
			Engineering		
	1	LS	Engineering	$6,500.00	$7,000.00
	1	LS	Prints, Plots & Delivery	$250.00	$250.00
			SUBTOTAL		**$7,250.00**
			TOTAL (Construction, Management, Testing & Engineering)		**$42,776.00**

1.) Assumes no coordination with FEMA
2.) Floodplain Development Permit May Be Required (Town)

322 W. Shady Shores Rd Drainage Improvements

- 24" driveway culvert is undersized
- Stormwater reported to overtop driveway (not road) in large storm events
- Roadway ditch immediately downstream of culvert experiences erosion/wash out due to high velocities

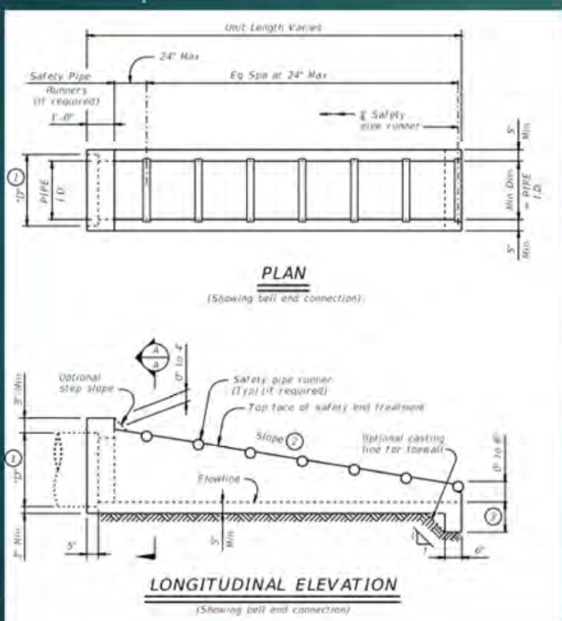
Estimate of
Project Cost

Alt 1
$14,000
Erosion
Protection

Item	Unit	Quanity	Unit Price	Total
322 W. Shady Shores Rd Drainage Improvements - Alt 1 - (Erosion Protection)				
Concrete Flume (25' long, 4' bottom, 2:1 side slopes, 6" thick with large rock) or Tied Concrete Block Mat (Flexamat or Approved Other)	SY	50	$100.00	$5,000.00
Remove & Replace Stacked Masonry Wall/Pad	LS	1	$500.00	$500.00
Re-Grade Ditch	LF	50	$15.00	$750.00
Block Sodding	SY	34	$10.00	$340.00
15% Construction Contingency	LS	1	$1,101.00	$1,101.00
Mobilization (Max. 5% of Bid)	LS	1	$750.00	$750.00
SUBTOTAL				**$8,441.00**
Construction Management				
Construction Management Services	LS	1	$500.00	$500.00
SUBTOTAL				**$500.00**
Project Management				
Project Management Services	LS	1	$500.00	$500.00
SUBTOTAL				**$500.00**
Special Services				
Construction Staking	LS	1	$1,500.00	$1,500.00
SUBTOTAL				**$1,500.00**
Engineering				
Engineering	LS	1	$2,500.00	$2,500.00
Preliminary Estimates	LS	1	$500.00	$500.00
Prints, Plots & Delivery	LS	1	$100.00	$100.00
SUBTOTAL				**$3,100.00**
TOTAL (Construction, Management, Surveying and Engineering)				**$14,041.00**

Estimate of Project Cost

Alt 2
$58,000
Culvert Improvements

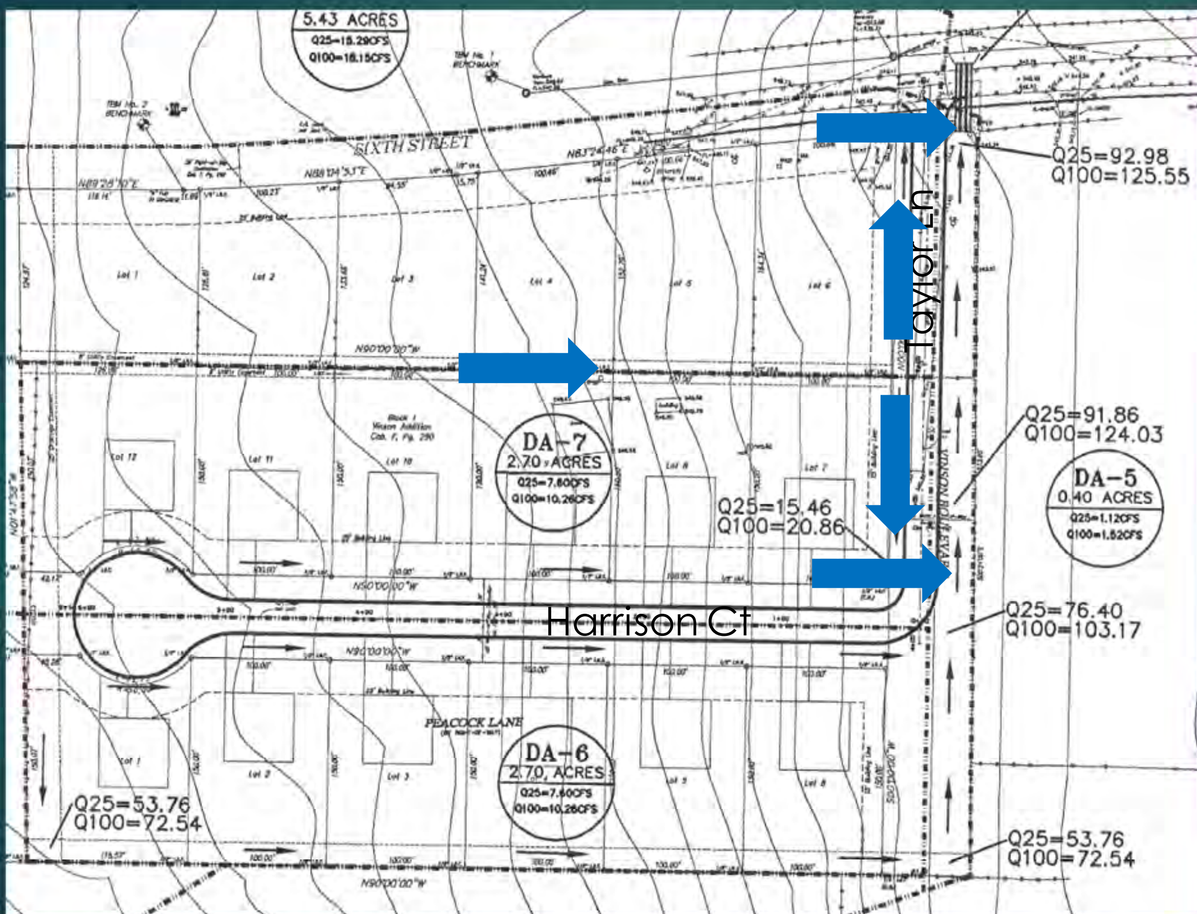


Item	Unit	Quanity	Unit Price	Total
322 W. Shady Shores Rd Drainage Improvements - Alt 2				
Concrete Flume or Tied Concrete Block Mat	SY	120	$100.00	$12,000.00
Remove & Replace Ex. Conc. Driveway	SY	45	100	$4,500.00
Remove & Replace Stacked Masonry Wall/Pad	LS	1	$500.00	$500.00
Remove Ex. 24" RCP Driveway Culvert	LF	20	$25.00	$500.00
Re-Grade Ditch	LF	100	$15.00	$1,500.00
Install 24" RCP Driveway Culvert (3 parallel culverts)	LF	66	$150.00	$9,900.00
Precast Safety End Treatment - Parallel - Ty II	EA	6	$1,500.00	$9,000.00
Block Sodding	SY	67	$10.00	$670.00
15% Construction Contingency	LS	1	$6,123.00	$6,123.00
Mobilization (Max. 5% of Bid)	LS	1	$2,250.00	$2,250.00
SUBTOTAL				**$46,943.00**
Construction Management				
Construction Management Services	LS	1	$750.00	$750.00
SUBTOTAL				**$750.00**
Project Management				
Project Management Services	LS	1	$750.00	$750.00
SUBTOTAL				**$750.00**
Special Services				
Surveying	LS	1	$2,500.00	$2,500.00
SUBTOTAL				**$2,500.00**
Engineering				
Engineering	LS	1	$6,250.00	$6,250.00
Preliminary Estimates	LS	1	$500.00	$500.00
Prints, Plots & Delivery	LS	1	$100.00	$100.00
SUBTOTAL				**$6,850.00**
TOTAL (Construction, Management, Surveying and Engineering)				**$57,793.00**

Taylor Lane Drainage Improvements

- Drainage issue along ditch on west side of Taylor Lane
- Drainage from offsite and properties in the Vinson Addition flows across the yards between 6th Street and Harrison Ct and into the ditch
- Recommend re-grading of ditch and trimming of trees
- Additive Alternate - Recommend analysis of drainage in area and potential upgrading of existing 21" culverts across Taylor Lane

Taylor Lane Drainage Improvements



- Per record drawings drainage in west Taylor Lane ditch is intended to flow north to the 21" cross culvert under Taylor Lane at 6th Street **and** south to the 21" cross culvert under Taylor Lane at Harrison Ct

Taylor Lane Drainage Ditch Improvements

Estimate of Project Cost

Re-Grade
$12,000

Add Alt
$48,000

Item	Quantity	Unit	Description	Unit Price	Total
			Taylor Lane Ditch Improvements		
1	1	LS	Trim Trees	$1,500.00	$1,500.00
2	300	LF	Re-Grade Ditch	$15.00	$4,500.00
3	1	LS	15% Contingency	$900.00	$900.00
			TOTAL		**$6,900.00**
			Construction Management		
	1	LS	Construction Management Services	$750.00	$750.00
			SUBTOTAL		**$750.00**
			Project Management		
	1	LS	Project Management Services	$750.00	$750.00
			SUBTOTAL		**$750.00**
			Special Services		
	1	LS	Surveying	$2,000.00	$2,000.00
			SUBTOTAL		**$2,000.00**
			Engineering		
	1	LS	Engineering	$1,500.00	$1,500.00
	1	LS	Prints, Plots & Delivery	$100.00	$100.00
			SUBTOTAL		**$1,600.00**
			TOTAL (Construction, Management, Surveying & Engineering)		**$12,000.00**

Item	Quantity	Unit	Description	Unit Price	Total
			Taylor Lane Ditch Improvements - Additive Alternate		
A-1	1	LS	Mobilization (Max. 5% of Bid)	$1,500.00	$1,500.00
A-2	60	LF	Remove 21" RCP (2 locations)	$25.00	$1,500.00
A-3	60	LF	Install 24" RCP (2 locations)	$150.00	$9,000.00
A-4	3	EA	Headwall	$2,000.00	$6,000.00
A-5	1	EA	Connect to Ex. 36" Culvert	$1,500.00	$1,500.00
A-6	43	SY	Remove & Replace Asphalt Pavement	$125.00	$5,375.00
A-7	1	EA	Remove & Replace Conc. Driveway & Culvert	$5,000.00	$5,000.00
A-8	1	LS	15% Contingency	$3,731.00	$3,731.00
			TOTAL		**$33,606.00**
			Construction Management		
	1	LS	Construction Management Services	$1,000.00	$1,000.00
			SUBTOTAL		**$1,000.00**
			Project Management		
	1	LS	Project Management Services	$1,000.00	$1,000.00
			SUBTOTAL		**$1,000.00**
			Special Services		
	1	LS	Surveying	$4,000.00	$4,000.00
			SUBTOTAL		**$4,000.00**
			Engineering		
	1	LS	Engineering	$8,000.00	$8,000.00
	1	LS	Prints, Plots & Delivery	$150.00	$150.00
			SUBTOTAL		**$8,150.00**
			TOTAL (Construction, Management, Surveying & Engineering)		**$47,756.00**

Shady Lane at 6th Street Drainage Improvements

- Existing 12" CMP culvert crossing under Shady Lane at W 6th St is damaged and is not carrying flow
- Culvert ends appear to be crossed and crushed by vehicles turning to/from Shady Lane
- Another 12" CMP culvert is buried parallel to and immediately south of newer culvert
- Upstream ditch along W. 6th St is silted in

Shady Lane at 6th Street Drainage Improvements

Upstream (south) side

Downstream (north) side

- Existing 72" (estimated) steel pipe culvert crossing under W. 6th St. west (downstream) of Shady Lane culvert
- Culvert is crushed and silted in
- Within FEMA 100-Year Floodplain

Shady Lane at 6th Street Drainage Improvements

Estimate of Project Cost

Base
$48,000

Add Alt
$148,000

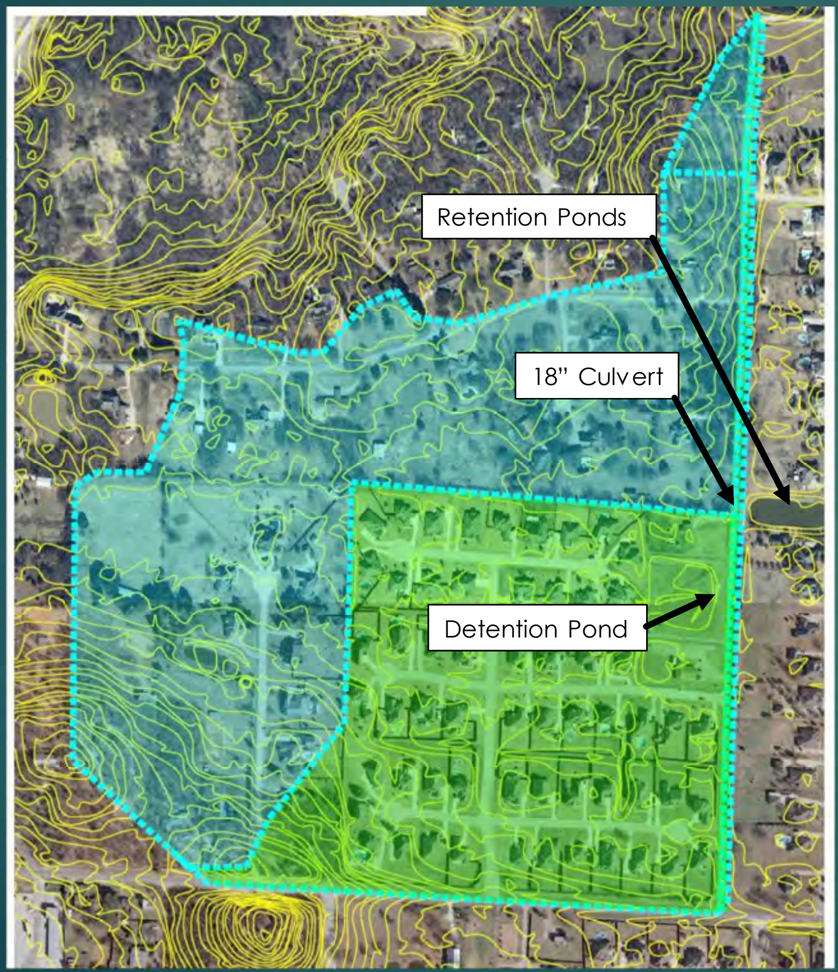
Item	Quantity	Unit	Description	Unit Price	Total
			Shady Lane Drainage Improvements		
1	1	LS	Mobilization	$1,500.00	$1,500.00
2	200	LF	Re-Grade Ditch	$15.00	$3,000.00
3	30	LF	Remove Ex. 12" CMP	$25.00	$750.00
4	1	EA	Remove & Reset Ex. Sign	$500.00	$500.00
5	2	EA	Remove Ex. Tree	$1,000.00	$2,000.00
6	76	LF	Install 18" RCP	$125.00	$9,500.00
7	6	EA	Install Headwalls	$2,000.00	$12,000.00
8	100	SY	Flexible Base (6") (for drwy & street paving)	$15.00	$1,500.00
9	178	SY	Block Sodding	$10.00	$1,780.00
10	1	LS	15% Contingency	$4,880.00	$4,880.00
			TOTAL		**$37,410.00**
			Construction Management		
	1	LS	Construction Management Services	$800.00	$800.00
			SUBTOTAL		**$800.00**
			Project Management		
	1	LS	Project Management Services	$800.00	$800.00
			SUBTOTAL		**$800.00**
			Special Services		
	1	LS	Surveying	$3,000.00	$3,000.00
			SUBTOTAL		**$3,000.00**
			Engineering		
	1	LS	Engineering	$5,000.00	$5,000.00
	1	LS	Prints, Plots & Delivery	$100.00	$100.00
			SUBTOTAL		**$5,100.00**
			TOTAL (Construction, Management, Surveying & Engineering)		**$47,110.00**

Item	Quantity	Unit	Description	Unit Price	Total
			Shady Lane Drainage Improvements - Additive Alternate 1		
1	1	LS	Mobilization	$4,500.00	$4,500.00
2	100	LF	Re-Grade Ditch	$15.00	$1,500.00
3	35	LF	Remove Ex. 72" CMP	$35.00	$1,225.00
4	35	EA	Install 7' x 4' Conc. Box Culvert	$400.00	$14,000.00
5	2	EA	Install Wingwalls	$10,000.00	$20,000.00
6	139	LF	Remove & Replace Asphalt Paving	$100.00	$13,900.00
7	50	LF	Metal Beam Guard Fence	$50.00	$2,500.00
8	4	EA	Guard Rail End Treatment	$2,500.00	$10,000.00
9	112	SY	Flex Base for Shoulders (10")	$30.00	$3,360.00
10	1	LS	Traffic Control	$3,000.00	$3,000.00
11	1	LS	Erosion Control	$3,000.00	$3,000.00
12	25	SY	Concrete Rip Rap	$100.00	$2,500.00
13	1	LS	15% Contingency	$11,923.00	$11,923.00
			TOTAL		**$91,408.00**
			Construction Management		
	1	LS	Construction Management Services	$2,200.00	$2,200.00
			SUBTOTAL		**$2,200.00**
			Project Management		
	1	LS	Project Management Services	$2,200.00	$2,200.00
			SUBTOTAL		**$2,200.00**
			Special Services		
	1	LS	FEMA Study & Coordination	$30,000.00	$30,000.00
	1	LS	Surveying	$6,000.00	$6,000.00
			SUBTOTAL		**$36,000.00**
			Engineering		
	1	LS	Engineering	$15,000.00	$15,000.00
	1	LS	Prints, Plots & Delivery	$200.00	$200.00
			SUBTOTAL		**$15,200.00**
			TOTAL (Construction, Management, Surveying & Engineering)		**$147,008.00**

Meadowlark Lane Culvert Replacement

- Existing 18" CMP culvert crossing Meadowlark Lane is undersized
- Existing 18" CMP is set too high in relation to area upstream
- Water backs up and ponds on property at 311 Meadowlark Lane

Meadowlark Lane Culvert Replacement



- The 18" culvert is not sized to adequately convey drainage area (blue)
- Culvert outfalls to The Lakes of Shady Shores retention ponds
- The Orchards drainage area (green) drains to the retention ponds through a separate 60" storm sewer pipe
- The Orchards includes a detention pond
- The Lakes of Shady Shores retention ponds were designed to accommodate full flow from upstream

Meadowlark Lane Culvert Replacement

Estimate of Project Cost

$137,000

Item	Unit	Quanity	Unit Price	Total
Meadowlark Lane Culvert Replacement				
Remove & Replace Roadway Pavement	SY	60	$75.00	$4,500.00
Remove Existing Roadway Culvert	LF	20	$25.00	$500.00
Earthwork and Haul off	CY	400	$25.00	$10,000.00
Install (3) 36" RCP Culverts	LF	180	$180.00	$32,400.00
Install Stone Rip Rap	CY	18	$200.00	$3,600.00
Concete Headwalls	EA	2	$7,000.00	$14,000.00
Tree Removal	LS	1	$2,500.00	$2,500.00
Block Sodding	SY	1400	$10.00	$14,000.00
Grade Ditches	LF	100	$15.00	$1,500.00
Metal Beam Guard Fence	LF	12	$50.00	$600.00
Downstream Anchor Terminal	EA	1	$750.00	$750.00
Single Guardrail Terminal (Wood Post)	EA	1	$2,500.00	$2,500.00
Remove & Replace Wire Fence	LF	20	$25.00	$500.00
Erosion Control	LS	1	$1,500.00	$1,500.00
Barricading & Traffic Control	LS	1	$2,500.00	$2,500.00
15% Construction Contingency	LS	1	$14,227.00	$14,227.00
Mobilization	LS	1	$3,500.00	$3,500.00
SUBTOTAL				**$109,077.00**
Construction Management				
Construction Management Services	LS	1	$2,400.00	$2,500.00
SUBTOTAL				**$2,500.00**
Project Management				
Project Management Services	LS	1	$2,400.00	$2,500.00
SUBTOTAL				**$2,500.00**
Special Services				
Topographic Design Survey	LS	1	$6,000.00	$6,000.00
SUBTOTAL				**$6,000.00**
Engineering				
Engineering	LS	1	$15,000.00	$15,000.00
Preliminary Estimates	LS	1	$1,000.00	$1,000.00
Prints, Plots & Delivery	LS	1	$250.00	$500.00
SUBTOTAL				**$16,500.00**
TOTAL (Construction, Management, Surveying and Engineering)				**$136,577.00**

Notes:

1.) Agreements with property owners to grade onto their front yards may be required.

2.) Estimate does not include any required relocation of LCMUA water line and appurtencnaces.

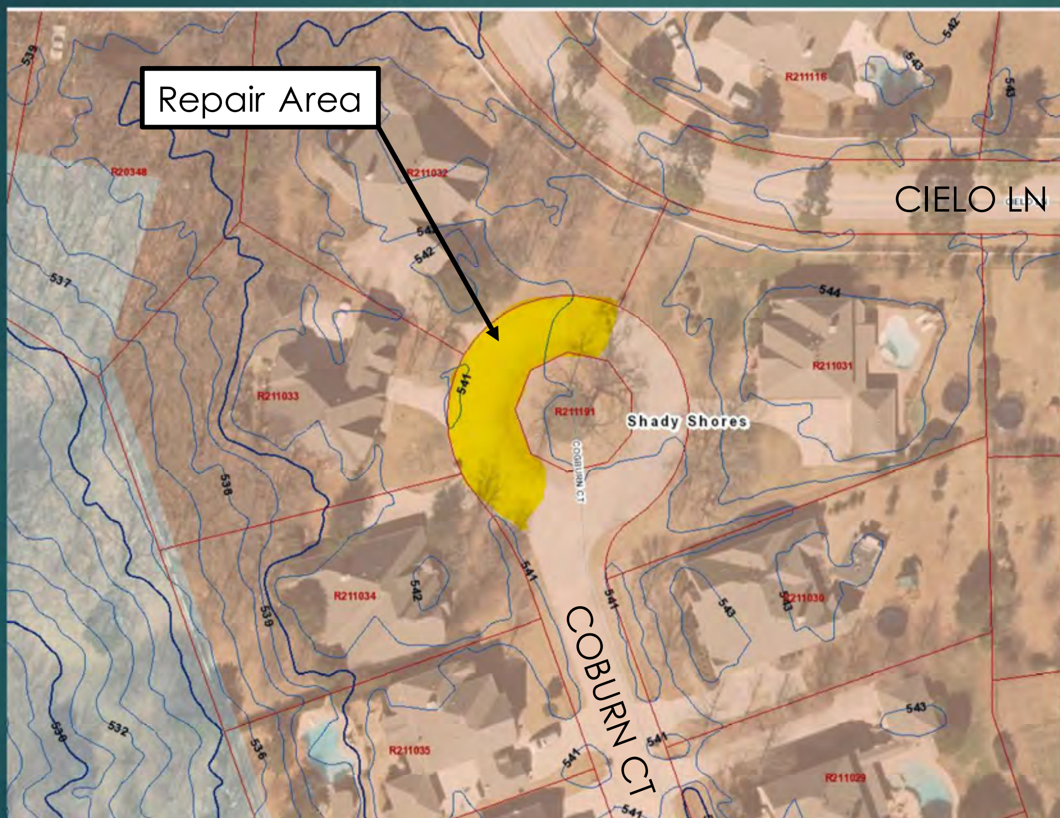
3.) Estimate does not include any required franchise utility relocations

4.) Agreement with The Lakes of Shady Shores for any culvert work beyond existing easement may be required.

Cogburn Court Paving &Drainage Improvements

- Excessive cracks in concrete pavement
- Sunken pavement
- Ponding water

Cogburn Court Paving &Drainage Improvements



- Full concrete panel replacement
- Approximately 160 linear feet by 30-foot wide
- Driveway approach replacement
- Swale grading

Cogburn Court Paving & Drainage Improvements

Estimate of Project Cost

$160,000

Item	Quantity	Unit	Description	Unit Price	Total
			Cogburn Court Paving & Drainage Improvements		
1	1	LS	Mobilization (Max. 5% of Bid)	$7,000.00	$7,000.00
2	534	SY	Remove & Replace Reinf. Conc. Street Pavement (HES)	$140.00	$74,760.00
3	534	SY	6" Crushed Recycled Concrete Flex Base	$40.00	$21,360.00
4	89	SY	Remove & Replace Reinf. Conc.Driveway (HES)	$115.00	$10,235.00
5	280	EA	Grade Swlae	$15.00	$4,200.00
7	187	SY	Block Sodding	$10.00	$1,870.00
8	1	LS	Erosion Control	$1,000.00	$1,000.00
9	1	LS	Barricading & Traffic Control	$1,000.00	$1,000.00
10	1	LS	15% Contingency	$18,214.00	$18,214.00
			TOTAL		**$139,639.00**
			Construction Management		
	1	LS	Construction Management Services	$2,500.00	$2,500.00
			SUBTOTAL		**$2,500.00**
			Project Management		
	1	LS	Project Management Services	$2,500.00	$2,500.00
			SUBTOTAL		**$2,500.00**
			Special Services		
	1	LS	Surveying	$4,000.00	$4,000.00
			SUBTOTAL		**$4,000.00**
			Engineering		
	1	LS	Engineering	$10,000.00	$10,000.00
	1	LS	Prints, Plots & Delivery	$500.00	$500.00
			SUBTOTAL		**$10,500.00**
			TOTAL (Construction, Management, Testing & Engineering)		**$159,139.00**

Jay Street & Laura Street Paving & Drainage Improvements

- Existing gravel roads
- Insufficient drainage capacity in the road rights-of-way
- Drainage sheet flows across properties and roads
- Narrow roads

Jay Street & Laura Street Paving & Drainage Improvements

- Improve roadways
- Improve drainage
- Potential need for drainage easements

Jay Street & Laura Street Paving & Drainage Improvements

Estimate of Project Cost

$441,000

Item	Unit	Quanity	Unit Price	Total
Jay Street & Laura Street Paving & Drainage Improvements				
Unclassfied Street Excavation	CY	471	$25.00	$11,775.00
Remove Tree	EA	4	$1,000.00	$4,000.00
6" Reinforced Concrete Street Pavement w/ Monolithic Curb	SY	1195	$90.00	$107,550.00
6" Flexible Base (Under Pavement)	SY	1412	$40.00	$56,480.00
6" Flexible Base (Shoulder)	SY	652	$40.00	$26,080.00
Adjust MH/WV to Grade	EA	4	$1,000.00	$4,000.00
Remove & Replace Concrete Driveway	SY	112	$100.00	$11,200.00
Inlet	SY	4	$5,000.00	$20,000.00
24" RCP	LF	240	$150.00	$36,000.00
Concete Headwalls	EA	2	$2,000.00	$4,000.00
Erosion Control	LS	1	$5,000.00	$5,000.00
Barricading & Traffic Control	LS	1	$2,000.00	$2,000.00
15% Construction Contingency	LS	1	$45,462.00	$45,462.00
Mobilization (Max. 5% of Bid)	LS	1	$15,000.00	$15,000.00
SUBTOTAL				**$348,547.00**
Construction Management				
Construction Management Services	LS	1	$8,000.00	$8,000.00
SUBTOTAL				**$8,000.00**
Project Management				
Project Management Services	LS	1	$8,000.00	$8,000.00
SUBTOTAL				**$8,000.00**
Special Services				
Surveying	LS	1	$16,000.00	$16,000.00
Easement Exhibits (4 estimated)	EA	4	$3,000.00	$12,000.00
Getotechincal Testing	LS	1	$6,000.00	$6,000.00
SUBTOTAL				**$34,000.00**
Engineering				
Engineering	LS	1	$40,000.00	$40,000.00
Preliminary Estimates	LS	1	$1,000.00	$1,000.00
Prints, Plots & Delivery	LS	1	$500.00	$500.00
SUBTOTAL				**$41,500.00**
TOTAL (Construction, Management, Surveying and Engineering)				**$440,047.00**

Notes:
1.) Power pole relocation may be necessary
2.) Drainage items are based on potential drainage option. Analysis after survey may necessitate a revised solution.

Oakwood Circle Drainage Improvements – Phase 1

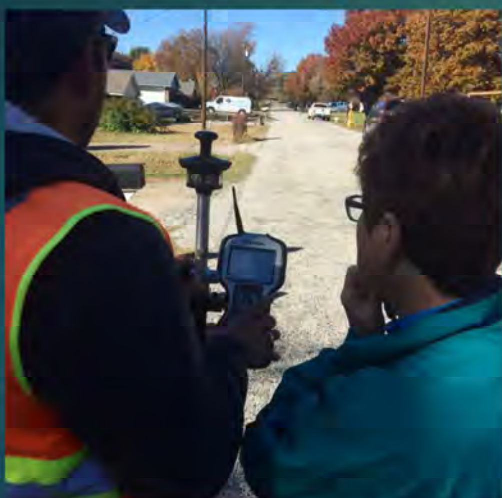
- Existing driveway culverts in area set at incorrect elevations and/or grades
- One ditch is filled in and replaced with a buried undersized pipe
- Driveway railroad tie retaining wall at 414 Oakwood Circle encroaches slightly into drainage easement.

Oakwood Circle Drainage Improvements – Phase 1

- Survey and analysis conducted in 2016
- Developed project cost estimate for Phase 1- Between 410 and 420 Oakwood Circle
- Phase 1 includes replacement of up to six (6) driveway culverts, re-grading ditches, upsizing roadway culvert, constructing concrete flume in drainage easement
- Will improve overall drainage in area
- Additional analysis and potential improvements needed upstream as part of Phase 2

Estimate of Project Cost

$140,000



Item	Unit	Quanity	Unit Price	Total
Oakwood Circle Drainage Improvements - Ph 1				
Remove & Replace Concrete Driveway (6 Estimated) (Includes curb/headwall)	SY	180	$100.00	$18,000.00
Remove Exsting Driveway Culvert (6 Estimated)	LF	144	$15.00	$2,160.00
Remove & Replace Lead Walk Culvert	LF	7	$85.00	$595.00
Remove & Replace Roadway Pavement	SY	22	$75.00	$1,650.00
Install 24" CMP Driveway Culvert (6 Estimated)	LF	180	$100.00	$18,000.00
Install 27" RCP Culvert (1 Estimated)	LF	35	$125.00	$4,375.00
Concete Headwalls (2 Estimated)	EA	2	$2,000.00	$4,000.00
Concrete Flume	SY	173	$100.00	$17,300.00
Install Stone Ripap	CY	8	$250.00	$2,000.00
Remove & Replace Mailbox	EA	6	$500.00	$3,000.00
Block Sodding	SY	689	$10.00	$6,890.00
Re-Grade Ditches	LF	360	$15.00	$5,400.00
Off-Site Excavation and Grading of Ditch to Drain	LS	1	$5,000.00	$5,000.00
Erosion Control	LS	1	$1,500.00	$1,500.00
Barricading & Traffic Control	LS	1	$1,500.00	$1,500.00
15% Construction Contingency	LS	1	$14,455.00	$14,455.00
Mobilization (Max. 5% of Bid)	LS	1	$5,000.00	$5,000.00
SUBTOTAL				**$110,825.00**
Construction Management				
Construction Management Services	LS	1	$4,000.00	$4,000.00
SUBTOTAL				**$4,000.00**
Project Management				
Project Management Services	LS	1	$2,500.00	$2,500.00
SUBTOTAL				**$2,500.00**
Special Services				
Construction Staking	LS	1	$2,500.00	$2,500.00
SUBTOTAL				**$2,500.00**
Engineering				
Engineering	LS	1	$16,000.00	$18,000.00
Preliminary Estimates	LS	1	$1,000.00	$1,000.00
Prints, Plots & Delivery	LS	1	$500.00	$500.00
SUBTOTAL				**$19,500.00**
TOTAL (Construction, Management, Surveying and Engineering)				**$139,325.00**

Notes:

1.) Coordination with Lake Dallas ISD will be required for construction activity/approval.

2.) Agreements with property owners to grade onto front yards may be required.

E. 6TH Street Paving Improvements (Lakeshore Road to Jones Street)

- Deteriorated asphalt or chip seal road
- Reconstruct to Town standard of 6" asphalt on 6" treated subgrade
- +/- 200 Linear Feet
- E. 6th Street east of Jones St is gravel

E. 6th St. Paving Improvements

Estimate of Project Cost

$49,000

Item	Quantity	Unit	Description	Unit Price	Total
			E. 6th Street Reconstruction		
1	1	LS	Mobilization (Max. 5% of Bid)	$1,750.00	$1,750.00
2	356	SY	2" HMAC Overlay Type D	$15.00	$5,340.00
3	356	SY	4" HMAC Overlay Type B	$20.00	$7,120.00
4	400	SY	6" Cement Stabilization @ 27 lbs/SY w/ 6" Removal	$20.00	$8,000.00
5	1	EA	Adjust Water Valve to Grade	$500.00	$500.00
6	1	LS	Erosion Control	$1,500.00	$1,500.00
7	1	LS	Barricading & Traffic Control	$2,000.00	$2,000.00
8	1	LS	15% Contingency	$3,932.00	$3,932.00
			TOTAL		**$30,142.00**
			Construction Management		
	1	LS	Construction Management Services	$1,000.00	$1,000.00
			SUBTOTAL		**$1,000.00**
			Project Management		
	1	LS	Project Management Services	$1,000.00	$1,000.00
			SUBTOTAL		**$1,000.00**
			Special Services		
	1	LS	Surveying	$4,000.00	$4,000.00
	1	LS	Geotechnical Investigation/Recommendation	$3,500.00	$4,000.00
			SUBTOTAL		**$8,000.00**
			Engineering		
	1	LS	Engineering	$8,000.00	$8,000.00
	1	LS	Prints, Plots & Delivery	$500.00	$500.00
			SUBTOTAL		**$8,500.00**
			TOTAL (Construction, Management, Testing & Engineering)		**$48,642.00**

Eason Road Paving Improvements

- Approximately 16-foot wide roadway
- Existing chip seal with pothole repairs
- HVAA emergency access, cemetery access, residential access
- 1,310 linear feet
- 35 linear feet (HVAA)

Eason Road Paving Improvements

- Alternate 1 - Full reconstruction to Town standard of 6" asphalt on 6" treated subgrade
- Alternate 2 – 2-course chip seal
- Recommend including 35 LF of roadway connection to HVAA past gate

Eason Road Paving Improvements

Estimate of Project Cost

Alt 1
$215,000
Reconstruction

Alt 2
$51,000
Chip Seal

Item	Quantity	Unit	Description	Unit Price	Total
			Eason Road - Alternate 1 - Reconstruction		
1-1	1	LS	Mobilization (Max. 5% of Bid)	$8,000.00	$8,000.00
1-2	2,392	SY	2" HMAC Overlay Type D	$15.00	$35,880.00
1-3	2,392	SY	4" HMAC Overlay Type B	$20.00	$47,840.00
1-4	2,690	SY	6" Cement Stabilization @ 27 lbs/SY w/ 6" Removal	$20.00	$53,800.00
1-5	1	EA	Adjust Water Valve to Grade	$500.00	$500.00
1-6	1	LS	Erosion Control	$1,500.00	$1,500.00
1-7	1	LS	Barricading & Traffic Control	$2,000.00	$2,000.00
1-8	1	LS	15% Contingency	$22,428.00	$22,428.00
			TOTAL		**$171,948.00**
			Construction Management		
	1	LS	Construction Management Services	$4,000.00	$4,000.00
			SUBTOTAL		**$4,000.00**
			Project Management		
	1	LS	Project Management Services	$4,000.00	$4,000.00
			SUBTOTAL		**$4,000.00**
			Special Services		
	1	LS	Surveying	$9,000.00	$9,000.00
	1	LS	Geotechnical Investigation/Recommendation	$5,000.00	$5,000.00
			SUBTOTAL		**$14,000.00**
			Engineering		
	1	LS	Engineering	$20,000.00	$20,000.00
	1	LS	Prints, Plots & Delivery	$500.00	$500.00
			SUBTOTAL		**$20,500.00**
			TOTAL (Construction, Management, Testing & Engineering)		**$214,448.00**

Note: Includes 35 LF of Roadway to Connect to HVAA

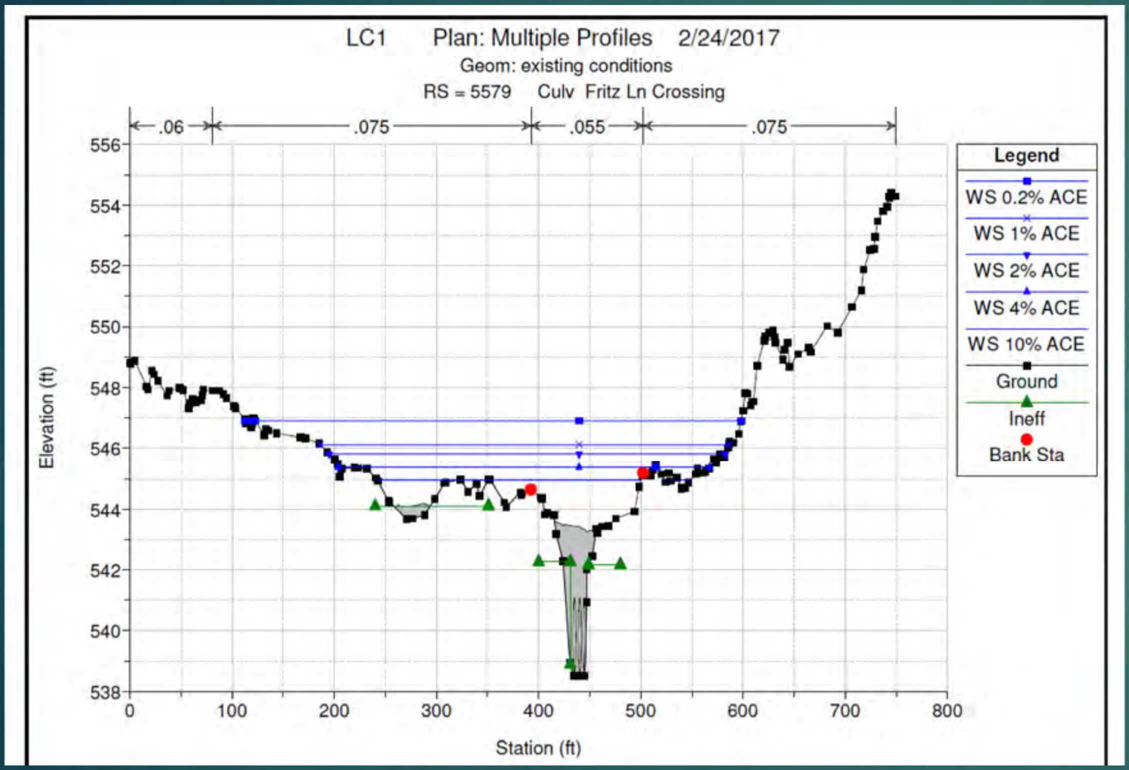
Item	Quantity	Unit	Description	Unit Price	Total
			Eason Road - Alternate 2 - Chip Seal		
2-1	1	LS	Mobilization (Max. 5% of Bid)	$2,000.00	$2,000.00
2-2	2,330	SY	2-Course Asphalt Surface Treatment - Chip Seal	$12.50	$29,125.00
2-3	20	TONS	Asphalt Leveling Course	$180.00	$3,600.00
2-4	1	LS	Preparation of Roadway	$1,500.00	$1,500.00
2-5	1	LS	15% Contingency	$5,434.00	$5,434.00
			TOTAL		**$41,659.00**
			Construction Management		
	1	LS	Construction Management Services	$1,500.00	$1,500.00
			SUBTOTAL		**$1,500.00**
			Project Management		
	1	LS	Project Management Services	$1,500.00	$1,500.00
			SUBTOTAL		**$1,500.00**
			Engineering		
	1	LS	Engineering	$6,000.00	$6,000.00
	1	LS	Prints, Plots & Delivery	$250.00	$250.00
			SUBTOTAL		**$6,250.00**
			TOTAL (Construction, Management & Engineering)		**$50,909.00**

Note: Includes 35 LF of Roadway to Connect to HVAA

Fritz Lane Culvert Replacement

- Existing culverts are undersized
- Roadway overtops in 100-year storm event and others
- Repair made to existing three (3) 30" culverts in May 2017
- Cleaning debris (tree limbs, etc.) as needed from upstream openings is recommended after storm events

Fritz Lane Culvert Replacement



Existing Conditions

- 100-Year Flow Rate = 1710 CFS
- 100-Year WSEL= 546.23
- Top of road +/- 543.5

(Per Halff Associates – LC-1 Hydraulic Modeling Data from the Lynchburg Creek Flood Risk Identification Project dated 3-1-17)

Fritz Lane Culvert Replacement

Estimate of Project Cost

$850,000

Sample 60-foot Long Single Span Bridge in Collin County

- A 90-foot long three-span bridge is estimated to convey flow and provide 2 feet of freeboard
- Requires the roadway to be elevated
- Feasibility due to adjacent driveways and other limitations needs to be analyzed
- Drainage easements may be required

Road & Drainage Improvements

Estimate of Project Costs Summary

Item	Total	Additive Total	Alternate Total	Potential Grouping Totals
Road & Drainage Projects Cost Summary				
S. Shady Shores Rd. Bridges Project	$350,000			
Drainage Study - Shahan Addition	$65,000			
324 Dobbs Road Drainage Improvements	$43,000			
322 W. Shady Shores Rd Drainage Improvements	$58,000		$14,000	
Taylor Lane Drainage Improvements	$48,000	$12,000		
Shady Lane at 6th Street Drainage Improvements	$48,000	$148,000		$772,000
S. Shady Shores Rd. Bridges Project	$350,000			
Shahan Addition Road Reconstruction & Drainage Improvements	$771,000			$1,121,000
Oberman Lane Paving & Drainage Improvements	$405,000			
Shahan Lane Drainage Improvements	$93,000			
Meadowlark Culvert Replacement	$137,000			
Cogburn Court Pavement Repair	$160,000			$795,000
Jay Street & Lara Street Paving & Drainage Improvements	$441,000			
Oakwood Circle Drainage Improvements	$140,000			
E. 6th Street Paving Improvements	$49,000			
Eason Road Paving Improvements	$215,000		$51,000	$845,000
Fritz Lane Culvert Replacement	$850,000			$850,000
TOTAL	**$4,223,000**	$160,000	$65,000	$4,383,000

Binkley & Barfield consulting engineers

Town of Shady Shores
Road & Drainage Projects
Cost and Timeline Summary

Year	Project	Engineering Fee (Estimated)	Construction Cost (Estimated)	Total (Estimated)	Design Time from Notice to Proceed (Estimated)	Comments
1st Sale	Shahan Addition Road & Drainage Improvements	$106,650.00	$711,000.00	$817,650	9 months	Pre-Requisite: completion of *Drainage Study - Shahan Addition*
	Shady Lane at 6th Street Drainage Improvements	$64,000.00	$134,000.00	$198,000	8 months	Includes FEMA coordination
	Fritz Lane Asphalt Roadway Repair	$0.00	$136,000.00	$136,000	3 months	Reconstruct asphalt pavement within limits of 100-year floodplain. Maintain existing roadway elevation.
	Shahan Lane Drainage Improvements	$21,000.00	$76,000.00	$97,000	3 months	
	Cogburn Court Pavement Repair	$0.00	$149,000.00	$149,000	3 months	
	E. 6th Street Paving Improvements	$17,500.00	$34,000.00	$51,500	2 months	To be paired with *Lakeshore Rd - N End of FEMA Repair north to Oberman Lane*
	Lakeshore Rd - N End of FEMA Repair north to Oberman Lane	$0.00	$121,000.00	$121,000	2 months	
	Oberman Lane Paving & Drainage Improvements	$60,000.00	$400,000.00	$460,000	6 months	Pre-Requisite: completion of *Drainage Study - Shahan Addition*
	Eason Road Paving Improvements	$0.00	$51,000.00	$51,000	3 months	
	Total	**$269,150.00**	**$1,812,000.00**	**$2,081,150**		
2nd Sale	Jay Street & Lara Street Paving & Drainage Improvements	$90,000.00	$394,000.00	$484,000	9 months	Drainage easement acquisition anticipated
	Meadowlark Culvert Replacement	$28,000.00	$130,000.00	$158,000	3 months	
	Fritz Lane Culvert Replacement (set aside funds)	$75,000.00		$75,000		
	Total	**$0.00**	**$524,000.00**	**$717,000**		
	Fritz Lane Culvert Replacement (set aside funds)		$225,000.00	$225,000		
	Total	**$0.00**	**$225,000.00**	**$225,000**		
	Fritz Lane Culvert Replacement (set aside funds)		$500,000.00	$500,000		
	Total	**$0.00**	**$500,000.00**	**$500,000**		
	Fritz Lane Culvert Replacement		$460,000.00	$460,000	12 months	Drainage easements anticipated and coordination with FEMA
	Total	**$193,000.00**	**$2,958,000.00**	**$3,151,000**		
	TOTAL			**$5,232,150**		

Additional Projects for Consideration

	W Shady Shores Rd - Swisher to S Shady Shores Rd	TBD	TBD	TBD	12 months	Half the roadway is owned and maintained by Corinth. Potential concrete curb & gutter with underground stom sewer, shared use trail/ sidewalk, and shared left turn lane

Notes:
1.) Costs include 3% compunded rate for increasing construction costs after Year 1 (2020)
2.) Project costs based on recommended option
3.) Engineering fee includes engineering, surveying, geotechnical services, project management, prints, plots and deliveries
4.) Construction costs do not include Construction Management or Inspection estimated at 2.5% and 4% of construction costs, repsectively
5.) Does not include Taylor Lane Drainage Improvements which may be (TBD) performed by Public Works contractor to correct 209 Harrison Court issues

Potential for Denton County assistance (bond funds). Construciton costs may be covered or reduced.

AGENDA MEMORANDUM

DATE: June 21, 2021

TO: Town Council

FROM: Wendy Withers, Town Administrator

SUBJECT: **Consider and take action on a resolution of the Town Council of the Town of Shady Shores, Texas, directing publication of notice of intention to issue combination tax and revenue certificates of obligation; and resolving other matters relating to the subject.**

BACKGROUND/INFORMATION:

Consider and act on approval of a resolution directing publication and notice of intention to issue combination tax and revenue certificates of obligation; and resolving other matters relating to this subject.

Councilmembers discussed the use of Certificates of Obligation to complete much needed road repairs and capital improvement projects on timely basis. Discussions were held at the June 1, 2021 Special Called Meeting and the June 14, 2021 Regular Town Council Meeting.

The resolution states the Council's intent to issue the Certificates but does not bind the council to issue bonds should it choose not to authorize the sale. Council is proposing an intial sale of 2,100,000 with an additional 3,000,000 in approximately 3-4 years. The payoff period for the bonds has been projected for a ten year period. Final decisions may be based on interest rates available at the time of sale.

FINANCIAL IMPLICATIONS:

Council is proposing the creation of a Interest and Sinking Fund Rate to pay for the sale of the bonds while lowering the Maintenance and Operation Rate to maintain a similar tax rate and minimize additional cost to the voter.

RECOMMENDATION/ACTION DESIRED:

Approve the Resolution.

ATTACHMENTS/SUPPORTING DOCUMENTATION:

1. Certified Notice Resolution
2. Shady Shores Tax Impact Analysis V3 - 06.21.21
3. Shady Shores Draft Timeline Denton Record Chronicle_
4. Shady Shores Draft Timeline Dallas Morning News_

REVIEWED BY:

CERTIFICATE FOR RESOLUTION

THE STATE OF TEXAS §
COUNTY OF DENTON §
TOWN OF SHADY SHORES §

We, the undersigned officers of the Town of Shady Shores, Texas (the "Town"), hereby certify as follows:

1. The Town Council of the Town (the "Town Council") convened in SPECIAL MEETING ON THE 21ST DAY OF JUNE, 2021 (the "Meeting"), and the roll was called of the duly constituted officers and members of the Town Council, to-wit:

Cindy Aughinbaugh, Mayor	Tom Newell, Mayor Pro-Tem
Matthew Haines	Mike Nowels
Jack Nelson	Charles Grimes

Wendy Withers, Town Administrator

and all of such persons were present except, __________________, thus constituting a quorum. Whereupon, among other business, the following was transacted at the Meeting: a written

> A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF SHADY SHORES, TEXAS, DIRECTING PUBLICATION OF NOTICE OF INTENTION TO ISSUE COMBINATION TAX AND REVENUE CERTIFICATES OF OBLIGATION; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT

was duly introduced for the consideration of the Town Council and read in full (the "Resolution"). It was then duly moved and seconded that the Resolution be adopted; and, after due discussion, the motion, carrying with it the adoption of the Resolution, prevailed and carried with all members present voting "AYE" except the following:

NOES: ___ ABSTAIN: ___

2. That a true, full, and correct copy of the Resolution adopted at the Meeting is attached to and follows this Certificate; that the Resolution has been duly recorded in the Town Council's minutes of the Meeting; that the above and foregoing paragraph is a true, full, and correct excerpt from the Town Council's minutes of the Meeting pertaining to the adoption of the Resolution, that the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Town Council as indicated therein; that each of the officers and members of the Town Council was duly and sufficiently notified officially and personally, in advance, of the time, place, and purpose of the Meeting, and that the Resolution would be introduced and considered for adoption at the Meeting, and each of such officers and members consented, in advance, to the holding of the Meeting for such purpose; and that the Meeting was open to the public, and public notice of the time, place, and purpose of the Meeting was given, all as required by Chapter 551, Texas Government Code.

3. That the Mayor of said Town has approved and hereby approves the aforesaid Resolution; that the Mayor and the Town Secretary of said Town have duly signed said Resolution; and that the Mayor and the Town Secretary of said Town hereby declare that their signing of this Certificate shall constitute the signing of the attached and following copy of said Resolution for all purposes.

SIGNED AND SEALED this June 21, 2021.

Town Secretary	Mayor

[TOWN SEAL]

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF SHADY SHORES, TEXAS, DIRECTING PUBLICATION OF NOTICE OF INTENTION TO ISSUE COMBINATION TAX AND REVENUE CERTIFICATES OF OBLIGATION; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT.

WHEREAS, the Town of Shady Shores expects to pay expenditures in connection with the design, planning, acquisition and construction of the projects described in Exhibit A to this Resolution prior to the issuance of the Certificates of Obligation hereinafter described; and

WHEREAS, the Town Council hereby finds, considers and declares that the reimbursement of the payment by the Town of such expenditures will be appropriate and consistent with the lawful objectives of the Town and, as such, chooses to declare its intention, in accordance with the provisions of Section 1.150-2 of the U.S. Treasury Regulations, to reimburse itself for such payments at such time as it issues the hereinafter described Certificates of Obligation; and

WHEREAS, it is hereby officially found and determined that the meeting at which this Resolution was considered was open to the public, and public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF SHADY SHORES, TEXAS:

Section 1. Attached hereto and marked "Exhibit A" is a form of notice, the form and substance of which are hereby passed and approved.

Section 2. The Town Secretary shall cause said notice to be published in substantially the form attached hereto, in a newspaper, as defined by Subchapter C, Chapter 2051, Texas Government Code, of general circulation in the area of said Town, once a week for two consecutive weeks, with the date of the first publication to be before the forty-fight (45^{th}) day before the date tentatively set for the passage of the ordinance authorizing the issuance of the certificates, and, if the Town maintains an Internet website, continuously on the Town's website for at least forty-five (45) days before the date tentatively set for the passage of the ordinance authorizing the issuance of the certificates.

Section 3. The facilities and improvements to be financed with proceeds from the proposed Certificates of Obligation are to be used for the purposes described in the attached Notice of Intention.

Section 4. All costs to be reimbursed pursuant to this Resolution will be capital expenditures; the proposed Certificates of Obligation shall be issued within eighteen (18) months of the later of (i) the date the expenditures are paid or (ii) the date on which the property, with respect to which such expenditures were made, is placed in service; and the foregoing notwithstanding, the Certificates of Obligation will not be issued pursuant to this Resolution on a date that is more than three years after the date any expenditure which is to be reimbursed is paid.

Section 5. This Resolution shall be effective immediately upon adoption.

EXHIBIT A

**NOTICE OF INTENTION TO ISSUE
CERTIFICATES OF OBLIGATION
OF THE TOWN OF SHADY SHORES, TEXAS**

NOTICE IS HEREBY GIVEN that the Town Council of the Town of Shady Shores, Texas, at its meeting to commence at 7:00 P.M. on August 19, 2021, at its regular meeting place at 101 S Shady Shores Road, Shady Shores, Texas (in the event Town Council will be unable to meet at this address, the Town will post information on its website for attending the meeting be telephone, teleconference, or other electronic means), tentatively proposes to adopt an ordinance authorizing the issuance of interest bearing certificates of obligation, in one or more series, in an amount not to exceed $2,100,000 for paying all or a portion of the Town's contractual obligations incurred in connection with (i) constructing, reconstructing and improving streets, roads, and sidewalks, including related drainage, utility relocation, signalization, landscaping, lighting and signage; (ii) acquiring, constructing, installing and equipping improvements to the Town's stormwater and drainage system, and the acquisition of land and interest in land as necessary therefore; and (iii) legal, fiscal and engineering fees in connection with such projects. The Town proposes to provide for the payment of such certificates of obligation from the levy and collection of ad valorem taxes in the Town as provided by law and from a limited pledge of surplus revenues of the Town's solid waste disposal system, remaining after payment of all operation and maintenance expenses thereof, and all debt service, reserve, and other requirements in connection with all of the Town's revenue bonds or other obligations (now or hereafter outstanding), which are payable from all or any part of the net revenues of the Town's solid waste disposal system. The certificates of obligation are to be issued, and this notice is given, under and pursuant to the provisions of Subchapter C of Chapter 271, Texas Local Government Code, as amended.

In accordance with the provisions of Texas Local Government Code, Subchapter C of Chapter 271, as amended ("Chapter 271"), the following information has been provided by the Town: (i) the principal amount of all outstanding debt obligations of the Town is $0.00; (ii) the current combined principal and interest required to pay all outstanding debt obligations of the Town on time and in full is $0.00; (iii) the maximum principal amount of the certificates of obligation to be authorized is $2,100,000; (iv) the estimated combined principal and interest required to pay the certificates of obligation to be authorized on time and in full is $324,600; (v) the maximum interest rate for the certificates may not exceed the maximum legal interest rate; and (vi) the maximum maturity date of the certificates of obligation to be authorized is February 15, 2037.

TOWN OF SHADY SHORES, TEXAS

Schedule 1 - 6.21.2021

Town of Shady Shores, Texas

Tax Rate Impact Analysis

$2,000,000 Single-Issuance Proceeds - 10 Year Repayment; No TAV Growth

A	B	C	D	E	F
			Preliminary		
	Taxable		$2,000,000 - Series 2021 [(1)]		
	Assessed		Sep 2021 - 3.00%	Calculated	
FYE	Valuation	Growth	Debt Service	I&S Tax Rate[(2)]	FYE
2021	$ 347,029,326		$ -	-	2021
2022	347,029,326	0.00%	240,745	0.0723	2022
2023	347,029,326	0.00%	239,375	0.0719	2023
2024	347,029,326	0.00%	243,675	0.0731	2024
2025	347,029,326	0.00%	242,750	0.0729	2025
2026	347,029,326	0.00%	241,675	0.0725	2026
2027	347,029,326	0.00%	240,450	0.0722	2027
2028	347,029,326	0.00%	239,075	0.0718	2028
2029	347,029,326	0.00%	242,475	0.0728	2029
2030	347,029,326	0.00%	240,650	0.0722	2030
2031	347,029,326	0.00%	243,600	0.0731	2031
2032	347,029,326	0.00%			2032
2033	347,029,326	0.00%			2033
2034	347,029,326	0.00%			2034
2035	347,029,326	0.00%			2035
2036	347,029,326	0.00%			2036
2037	347,029,326	0.00%			2037
2038	347,029,326	0.00%			2038
2039	347,029,326	0.00%			2039
			$ 2,414,470		

(1) Includes costs of issuances.

Maximum: $ 0.0731

(2) Tax collection percentage: 96%.

HilltopSecurities
A Hilltop Holdings Company.

Schedule 1a - 6.21.2021

Town of Shady Shores, Texas

Tax Rate Impact Analysis

$5,000,000 Multi-Issuance Proceeds - 10 Year Repayment; No TAV Growth

A	B	C	D	E	F	G	H
			Preliminary	Preliminary			
	Taxable		$2,000,000 - Series 2021 (1)	$3,000,000 - Series 2024 (1)			
	Assessed		Sep 2021 - 3.00%	Aug 2024 - 3.45%	Aggregate	Calculated	
FYE	Valuation	Growth	Debt Service	Debt Service	Debt Service	I&S Tax Rate(2)	FYE
2021	$ 347,029,326		$ -		$ -	-	2021
2022	347,029,326	0.00%	240,745		240,745	0.0723	2022
2023	347,029,326	0.00%	239,375		239,375	0.0719	2023
2024	347,029,326	0.00%	243,675	$ -	243,675	0.0731	2024
2025	347,029,326	0.00%	242,750	366,983	609,733	0.1830	2025
2026	347,029,326	0.00%	241,675	368,581	610,256	0.1832	2026
2027	347,029,326	0.00%	240,450	368,921	609,371	0.1829	2027
2028	347,029,326	0.00%	239,075	368,916	607,991	0.1825	2028
2029	347,029,326	0.00%	242,475	368,566	611,041	0.1834	2029
2030	347,029,326	0.00%	240,650	367,871	608,521	0.1827	2030
2031	347,029,326	0.00%	243,600	366,831	610,431	0.1832	2031
2032	347,029,326	0.00%		370,360	370,360	0.1112	2032
2033	347,029,326	0.00%		368,458	368,458	0.1106	2033
2034	347,029,326	0.00%		366,210	366,210	0.1099	2034
2035	347,029,326	0.00%					2035
2036	347,029,326	0.00%					2036
2037	347,029,326	0.00%					2037
2038	347,029,326	0.00%					2038
2039	347,029,326	0.00%					2039
			$ 2,414,470	$ 3,681,698	$ 6,096,168		
					Maximum:	$ 0.1834	

(1) Includes costs of issuances.

(2) Tax collection percentage: 96%.

HilltopSecurities
A Hilltop Holdings Company.

Schedule 2 - 6.21.2021

Town of Shady Shores, Texas

Tax Rate Impact Analysis

$2,000,000 Single-Issuance Proceeds - 10 Year Repayment; With TAV Growth

A	B	C	D	E	F
			Preliminary		
	Taxable		$2,000,000 - Series 2021 [1]		
	Assessed		Sep 2021 - 3.00%	Calculated	
FYE	Valuation	Growth	Debt Service	I&S Tax Rate[2]	FYE
2021	$ 347,029,326		$ -	-	2021
2022	365,540,452	5.33%	240,745	0.0686	2022
2023	385,038,992	5.33%	239,375	0.0648	2023
2024	405,577,617	5.33%	243,675	0.0626	2024
2025	427,211,807	5.33%	242,750	0.0592	2025
2026	450,000,000	5.33%	241,675	0.0559	2026
2027	459,000,000	2.00%	240,450	0.0546	2027
2028	468,180,000	2.00%	239,075	0.0532	2028
2029	472,861,800	1.00%	242,475	0.0534	2029
2030	477,590,418	1.00%	240,650	0.0525	2030
2031	477,590,418	0.00%	243,600	0.0531	2031
2032	477,590,418	0.00%			2032
2033	477,590,418	0.00%			2033
2034	477,590,418	0.00%			2034
2035	477,590,418	0.00%			2035
2036	477,590,418	0.00%			2036
2037	477,590,418	0.00%			2037
2038	477,590,418	0.00%			2038
2039	477,590,418	0.00%			2039
			$ 2,414,470		

(1) Includes costs of issuances.

(2) Tax collection percentage: 96%.

Maximum: $ 0.0686

HilltopSecurities
A Hilltop Holdings Company.

Schedule 2a - 6.21.2021

Town of Shady Shores, Texas

Tax Rate Impact Analysis

$5,000,000 Multi-Issuance Proceeds - 10 Year Repayment; With TAV Growth

A	B	C	D	E	F	G	H
			Preliminary	Preliminary			
	Taxable		$2,000,000 - Series 2021 [1]	$3,000,000 - Series 2024 [1]			
	Assessed		Sep 2021 - 3.00%	Aug 2024 - 3.45%	Aggregate	Calculated	
FYE	Valuation	Growth	Debt Service	Debt Service	Debt Service	I&S Tax Rate[2]	FYE
2021	$ 347,029,326		$ -		$ -	-	2021
2022	365,540,452	5.33%	240,745		240,745	0.0686	2022
2023	385,038,992	5.33%	239,375		239,375	0.0648	2023
2024	405,577,617	5.33%	243,675	$ -	243,675	0.0626	2024
2025	427,211,807	5.33%	242,750	366,983	609,733	0.1487	2025
2026	450,000,000	5.33%	241,675	368,581	610,256	0.1413	2026
2027	459,000,000	2.00%	240,450	368,921	609,371	0.1383	2027
2028	468,180,000	2.00%	239,075	368,916	607,991	0.1353	2028
2029	472,861,800	1.00%	242,475	368,566	611,041	0.1346	2029
2030	477,590,418	1.00%	240,650	367,871	608,521	0.1327	2030
2031	477,590,418	0.00%	243,600	366,831	610,431	0.1331	2031
2032	477,590,418	0.00%		370,360	370,360	0.0808	2032
2033	477,590,418	0.00%		368,458	368,458	0.0804	2033
2034	477,590,418	0.00%		366,210	366,210	0.0799	2034
2035	477,590,418	0.00%					2035
2036	477,590,418	0.00%					2036
2037	477,590,418	0.00%					2037
2038	477,590,418	0.00%					2038
2039	477,590,418	0.00%					2039
			$ 2,414,470	$ 3,681,698	$ 6,096,168		
					Maximum:	$ 0.1487	

(1) Includes costs of issuances.

(2) Tax collection percentage: 96%.

HilltopSecurities
A Hilltop Holdings Company

June 2021						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

July 2021						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

August 2021						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

September 2021						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Shady Shores, Texas

PRELIMINARY TIMETABLE OF EVENTS

Issuance of Certificates of Obligation, Series 2021

Monday, 6/21	**Town Council special meeting to consider a Resolution authorizing Notice of Intent to issue Certificates of Obligation**
Sunday, 6/27 Sunday, 7/4	First publication of Notice of Intent to issue Certificates of Obligation, and posting of Notice on Town website, to occur at least 46 days prior to authorization of issuance. Second publication of Notice of Intent one week later.
Thursday, 7/29	Distribute term sheets to prospective purchasing banks
Thursday, 8/12	Receive bids from potential purchasers and determine final project size
Thursday, 8/19	**Town Council special meeting to consider action authorizing issuance of Certificates of Obligation and approving sale**
Wednesday, 9/15	Closing; receipt of funds

**Assumes issuance through private placement*

June 2021						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

July 2021						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

August 2021						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

September 2021						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Shady Shores, Texas

PRELIMINARY TIMETABLE OF EVENTS

Issuance of Certificates of Obligation, Series 2021

Monday, 6/21	**Town Council special meeting to consider a Resolution authorizing Notice of Intent to issue Certificates of Obligation**
Thursday, 6/24 Thursday, 7/1	First publication of Notice of Intent to issue Certificates of Obligation, and posting of Notice on Town website, to occur at least 46 days prior to authorization of issuance. Second publication of Notice of Intent one week later.
Tuesday, 7/20	Distribute term sheets to prospective purchasing banks
Tuesday, 8/3	Receive bids from potential purchasers and determine final project size
Monday, 8/9	**Town Council regular meeting to consider action authorizing issuance of Certificates of Obligation and approving sale**
Wednesday, 9/15	Closing; receipt of funds

**Assumes issuance through private placement*