

---

December 18, 2025

Jim Burton  
City Administrator - City of Woodcreek  
41 Champions Circle  
Woodcreek, TX 78676

**Re: City of Woodcreek – Brookhollow Pedestrian Bridge Feasibility Study Preliminary Letter**

Dear Mr. Burton,

The City of Woodcreek (CoW) tasked Freeland Turk Engineering Group, LLC (FTEG) to develop conceptual alignments of an approach trail and a pedestrian bridge at the Brookhollow Dr culvert crossing. CoW requested preliminary analysis of an additional option, which would be to modify Brookhollow to a one-lane two-way option. FTEG also evaluated an additional potential option to extend the existing culverts to accommodate pedestrian access. This letter summarizes preliminary analysis of conceptual options for pedestrian access at Brookhollow as requested by the City of Woodcreek (CoW), prior to proceeding with the Feasibility Report.

**Existing Conditions Summary**

The culvert crossing at Brookhollow Dr consists of two 12'x4' box culverts, with a pavement width of approximately 22'. There are headwalls with concrete riprap aprons on both the upstream and downstream ends. The City's Creekside Park is located at 28 Brookhollow, just southwest of the culvert crossing.

**Proposed Options Summary**

FTEG has reviewed and developed three options with budgetary costs, these are discussed below.

Option A – Prefabricated Pedestrian Bridge

The first option as noted in the task order scope of work, includes utilizing a prefabricated pedestrian bridge for access. This bridge would be located adjacent to Brookhollow and recommended to be installed on the South side. A conceptual exhibit is attached.

FTEG notes that CoW has expressed a desire to utilize their roadway funds for this project. It has been noted the pedestrian bridge should be attached to Brookhollow to allow for this funding option. If structurally attached, this would increase the cost significantly with the prefabricated bridge, however this could be explored further in the feasibility report if this option is selected. FTEG would recommend that if a form of "attachment" is required for the funding outside of the bridge being directly adjacent to the existing drainage structure and roadway, a non-structural loading attachment option be considered and reviewed for funding compliance. This non-

---

structural attachment is included as a separate additive line item in the preliminary budgetary number in the cost section below.

#### Option B – Brookhollow One-Lane Two-Way Modification

FTEG has reviewed the requested option to potentially modify Brookhollow at the culvert crossing to one-lane two-way vehicular traffic to accommodate pedestrians on the existing crossing structure and pavement width. It would initially be recommended for the pedestrian access to be located on the South side of Brookhollow to accommodate pedestrians to the park and limit crossings. A conceptual exhibit is attached.

This option is feasible, however FTEG has additional safety concerns with this option over the pedestrian bridge. Sight distance concerns appear to be limited, the area is fairly flat and visibility of oncoming vehicles should be adequate. However, a single lane with two-way traffic still increases the chance of a head on collision compared to a two-lane two-way system. A single lane also has the potential to limit emergency or residential access if there is a blockage in the roadway, however there are alternate routes through the City if the area was blocked. Another concern would be the increased potential for vehicle and pedestrian conflicts, with pedestrians adjacent to a single lane with two-way traffic.

For Option B FTEG would recommend several safety improvements to mitigate safety concerns. These would include significant advance signage, similar to what is shown in the concept exhibit. Additionally, FTEG would recommend delineation between pedestrians and the one-lane two-way section to protect pedestrians. A few concepts of delineation are included on XX, FTEG would recommend a raised physical delineation barrier when two-way traffic is directly adjacent to pedestrians since there is limited space for vehicular maneuvering.

An additional concern with this option would be the existing parking lot for Creekside Park. Dependent on which side of the street pedestrian access would be located on, the design would need to accommodate for the existing parking, and the existing parking may need to be adjusted. A budgetary line item has been added for this, this may include revising the existing guardrail next to the park, however this concept has not been refined with this conceptual design.

#### Option C – Culvert Extension

FTEG reviewed an additional option to potentially extend the existing box culvert crossing. This option assumes that since this area was not selected as part of the drainage master plan, these culverts are not anticipated to be improved or upsized in the near future. By extending the culverts, a sidewalk could be added on top of the culverts adjacent to the roadway.

This option would not improve the drainage at this crossing, as the existing culvert size would be maintained. This would require removing and reconstructing the guardrail and existing headwall structure. The culverts could be extended within the existing right-of-way, if no improvements are made to the downstream concrete riprap lining. The concrete lining the bottom, sides, and

top of the channel extends approximately 15-ft from the existing culvert. If the concrete lining is not extended with the culvert, additional erosion could potentially occur. FTEG has not fully evaluated this with this stage of conceptual design. The drainage flows in this area are very high and overtop the roadway in most storm events. FTEG would recommend further evaluation if this option were to be selected. The reduced concrete length could potentially be mitigated by adding rock or texturizing the concrete, however additional work outside of the right-of-way may be required.

### Conceptual Cost Analysis

A summary of the budgetary cost for each option is included below, and the full conceptual cost analysis is attached.

OPTION	DESCRIPTION	BUDGETARY COST (\$)
OPTION A	PEDESTRIAN BRIDGE	\$274,972
	ADDITIVE ATTACHMENT (NON-STRUCTURAL)	\$5,000
	TOTAL	\$279,972
OPTION B	BROOKHOLLOW ONE-LANE TWO-WAY	\$72,600
OPTION C	CULVERT EXTENSION	\$179,520

### Summary and Recommendation

FTEG notes that the drainage structure at Brookhollow was not selected to move forward as part of the final drainage master plan. If drainage improvements were to be completed, FTEG would recommend that as part of that design to extend the width to accommodate a pedestrian access path. However, the timeline for those drainage improvements does not appear to be within the near future.

FTEG notes that Option A is feasible and would have limited effects on the drainage in Hog Creek since the pedestrian bridge would be at the roadway elevation with no changes to the drainage structure. FTEG would not anticipate any potential work outside of the right-of-way with that option.

FTEG notes Option B is feasible, and although there are some safety concerns these could be partially mitigated with the improvements.

**FTEG would recommend Option C as a cost-effective approach that balances safety while providing pedestrian access outside the roadway.** This would require further evaluation but this option may require some work outside of the right-of-way.

---

We appreciate the opportunity to serve the City of Woodcreek. Should you have any questions or comments about this report, please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink that reads "Melanie Norris". The signature is written in a cursive, flowing style.

Melanie Norris, P.E.  
Project Manager

Attachments: Exhibits, Cost Estimate



Date: Nov 11, 2025, 1:56pm User ID: norri  
File: Z:\ENG - PBD\154 - City of Woodcreek\105 - Brookhollow Pedestrian Bridge Feasibility Study\TO 7 - CAD\Exhibits\154\_104-Opt\_A-001.dwg



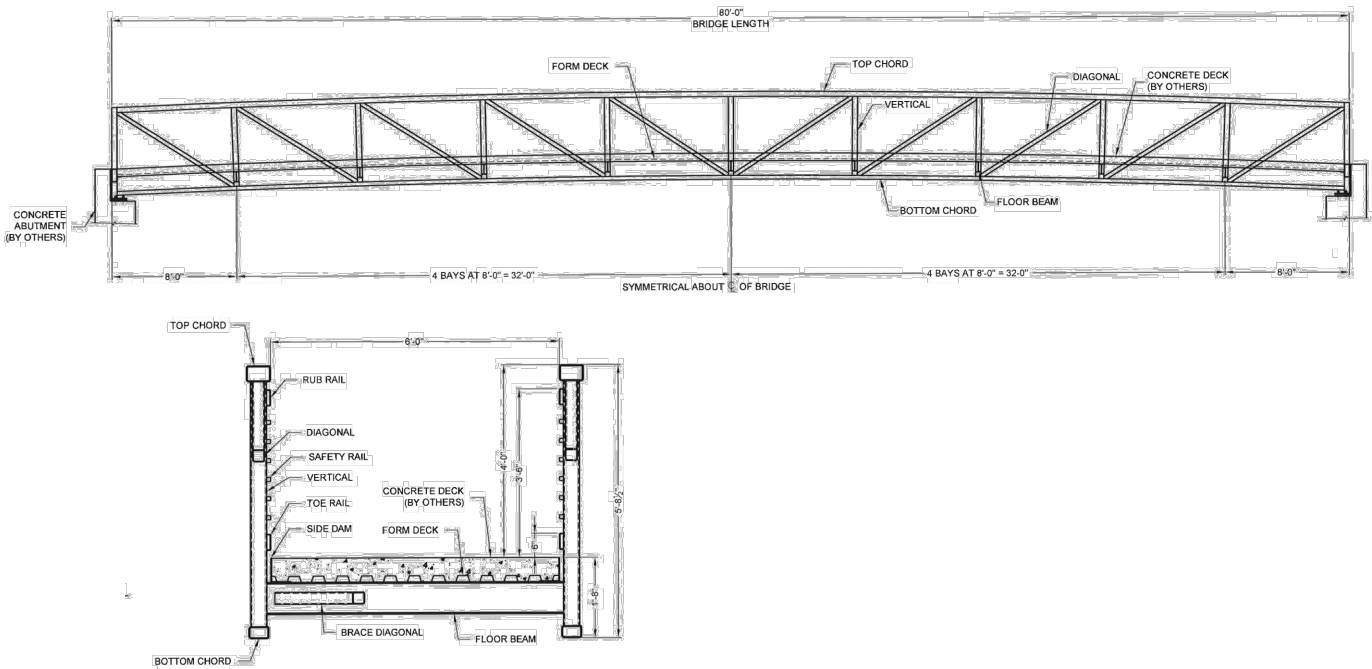
LEGEND



WALKING TRAIL



PEDESTRIAN BRIDGE



PRELIMINARY ENGINEERING DETAILS



PHOTO EXAMPLE



18830 FORTY SIX PKWY. BLDG 2, STE B (830) 438-0329  
SPRING BRANCH, TX 76070 TBPE FIRM F-21047

THIS DOCUMENT IS  
RELEASED FOR THE  
PURPOSE OF REVIEW ONLY  
BY MELANIE NORRIS, P.E.  
LICENSE No. 140721  
November 11, 2025  
THIS DOCUMENT IS NOT TO  
BE USED FOR  
CONSTRUCTION BIDDING,  
OR PERMITTING PURPOSES

BROOKHOLLOW PEDESTRIAN BRIDGE  
FEASIBILITY STUDY  
OPT A - BRIDGE

JOB: 154\_105

DATE: XX

DRAWN: MN PM: MN

DESIGN: DM:

PEER: OTHER:

REVISIONS:

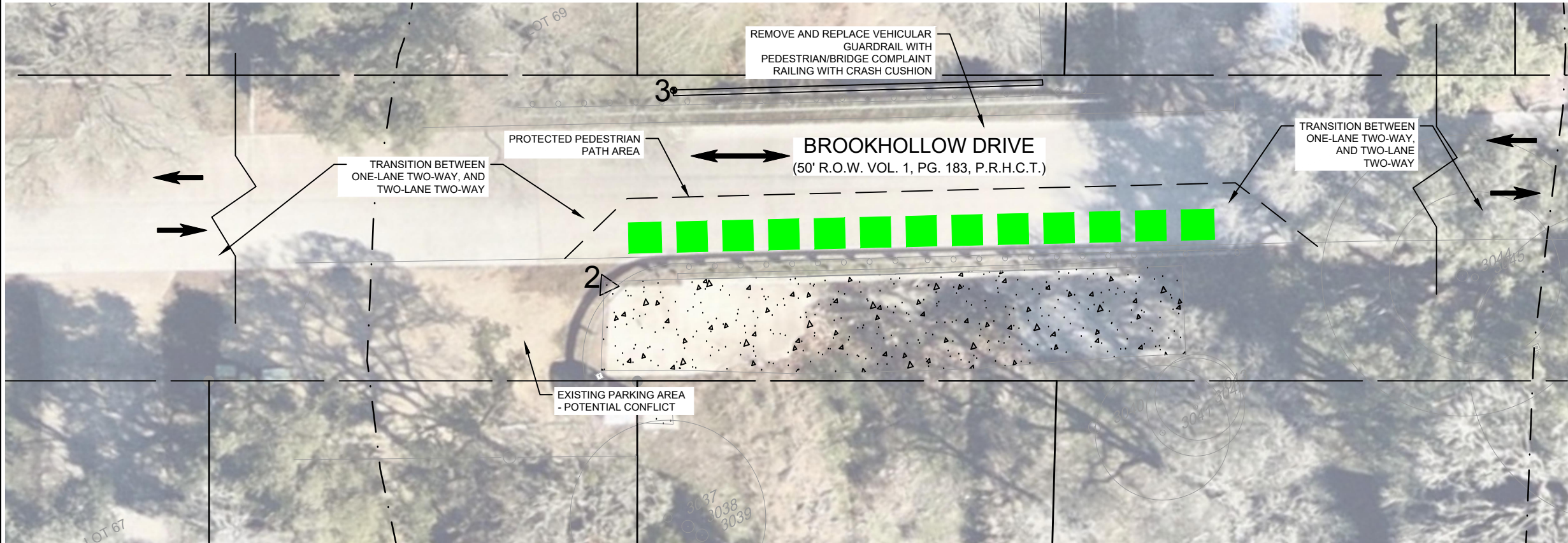
DELTA DESCRIPTION

SHEET:

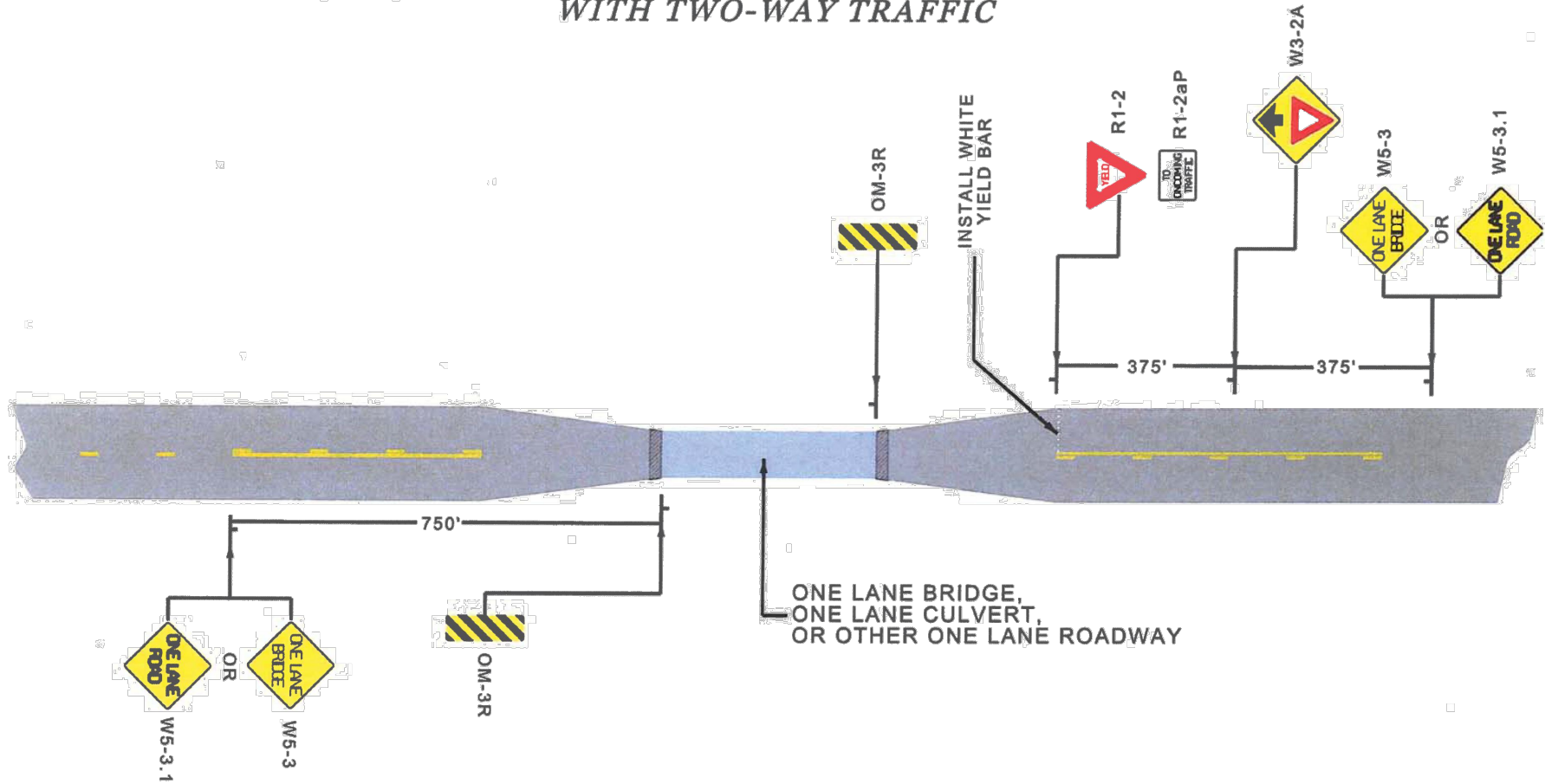
EX



Date: Dec 10, 2025, 12:37pm User ID: norri  
File: Z:\ENG - PHD\154 - City of Woodcreek\105 - Brookhollow Pedestrian Bridge Feasibility Study\TO 7 - CAD\Exhibit\154\_104-Opt\_B-001.dwg



**TYPICAL FOR SIGNING OF  
ONE LANE BRIDGES, CULVERTS,  
OR OTHER ONE LANE ROADWAY SECTIONS  
WITH TWO-WAY TRAFFIC**



**DELINEATOR POSTS**

1.5 ft. additional width; \$15k-\$30k per lane-mile

PROTECTION LEVEL	+	+	+	+	+
INSTALLATION COST	\$	\$	\$	\$	\$
DURABILITY	👁	👁	👁	👁	👁
AESTHETICS	👁	👁	👁	👁	👁



**LINEAR BARRIERS**

6 in. additional width; \$25k-\$75k per lane-mile

PROTECTION LEVEL	+	+	+	+	+
INSTALLATION COST	\$	\$	\$	\$	\$
DURABILITY	👁	👁	👁	👁	👁
AESTHETICS	👁	👁	👁	👁	👁



**12" PRECAST CURB**

1.5 ft. additional width; \$400k-\$600k per lane-mile

PROTECTION LEVEL	+	+	+	+	+
INSTALLATION COST	\$	\$	\$	\$	\$
DURABILITY	👁	👁	👁	👁	👁
AESTHETICS	👁	👁	👁	👁	👁



Date: Dec 18, 2025, 3:00pm User ID: norri  
File: Z:\ENG - PBD\154 - City of Woodcreek\105 - Brookhollow Pedestrian Bridge Feasibility Study\TO 7 - CAD\Exhibits\154\_104-PT\_C-001.dwg

I.C.T.

LOT 69

EXISTING CULVERT

BROOKHOLLOW DRIVE  
(50' R.O.W. VOL. 1, PG. 183, P.R.H.C.T.)

(2) 4' TALL x 12' WIDE  
BOX CULVERT

±8-FT CULVERT  
EXTENSION

COURT  
, P.R.H.C.T.)

LEGEND

WALKING TRAIL

CONCRETE RIPRAP

0 10 20  
SCALE: 1"= 20'

Freeland Turk

18830 FORTY SIX PKWY, BLDG 2, STE B (830) 438-0329  
SPRING BRANCH, TX 78070 TBPE FIRM F-21047

THIS DOCUMENT IS  
RELEASED FOR THE  
PURPOSE OF REVIEW ONLY  
BY MELANIE NORRIS, P.E.  
LICENSE No. 140721  
December 18, 2025  
THIS DOCUMENT IS NOT TO  
BE USED FOR  
CONSTRUCTION BIDDING,  
OR PERMITTING PURPOSES

BROOKHOLLOW PEDESTRIAN BRIDGE

FEASIBILITY STUDY

OPT C - CULVERT EXTENSION

JOB: 154\_105

DATE: XX

DRAWN: MN

PM: MN

DESIGN: DM

OTHER:

PEER:

REVISIONS:

DELTA DESCRIPTION

SHEET:

EX



NEW BRIDGE/PEDESTRIAN RAILING TO  
BE INSTALLED

POTENTIAL MITIGATION REQUIRED FOR  
REMOVAL OF EXISTING CONCRETE  
RIPRAP PROTECTION LENGTH



FREELAND TURK ENGINEERING GROUP, LLC  
18830 FORTY SIX PKWY, BLDG 2 STE B  
SPRING BRANCH, TX 78070

FIRM F-21047

830-377-4555

PROJECT CITY OF WOODCREEK - BROOKHOLLOW PEDESTRIAN BRIDGE - OPT A

DATE 12/18/2025

**OPINION OF PROBABLE COSTS**

TXDOT SPEC	BID CODE	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL
500	6001	MOBILIZATION	LS	1	10%	\$21,210.00
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	1	\$5,000.00	\$5,000.00
SUBTOTAL						\$26,210.00

**IMPROVEMENTS**

		80' X 5' PEDESTRIAN BRIDGE	LS	1	\$ 134,500.00	\$134,500.00
		CONCRETE ABUTMENT	LS	1	\$ 35,100.00	\$35,100.00
		FOUNDATION	LS	1	\$ 30,500.00	\$30,500.00
		CONCRETE SIDEWALK	SF	200	\$ 25.00	\$5,000.00
		PEDESTRIAN GATE	EA	1	\$ 1,000.00	\$1,000.00
		MISC DEMO FOR PEDESTRIAN IMPROVEMENTS	LS	1	\$ 1,000.00	\$1,000.00
SUBTOTAL						\$207,100.00

**ADDITIVE IMPROVEMENTS**

		NON-STRUCTURAL BRIDGE "ATTACHMENT" TO BROOKHOLLOW	LS	1	\$ 5,000.00	\$5,000.00
SUBTOTAL						\$5,000.00

\*This opinion of probable cost is based on best unit costs available at the time of this estimate.  
Construction pricing is very volatile and actual construction bids may vary.

CONSTRUCTION SUBTOTAL	\$233,310.00
CONST. CONTINGENCY (20%)	\$46,662.00
<b>GRAND TOTAL</b>	<b>\$279,972.00</b>



PROJECT CITY OF WOODCREEK - BROOKHOLLOW BRIDGE - ONE-LANE TWO-WAY - OPTION B

DATE 12/18/2025

**OPINION OF PROBABLE COSTS**

TXDOT SPEC	BID CODE	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL
500	6001	MOBILIZATION	LS	1	10%	\$5,500.00
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	1	\$5,000.00	\$5,000.00
SUBTOTAL						\$10,500.00

**IMPROVEMENTS**

		DELINEATORS - FLEXIBLE	LF	600	\$ 10.00	\$6,000.00
		DELINEATORS - RIGID	LF	150	\$ 50.00	\$7,500.00
		STRIPING	LS	1	\$ 5,000.00	\$5,000.00
		SIGNAGE	EA	10	\$ 1,000.00	\$10,000.00
		GUARDRAIL/PARKING MODIFICATION BUDGETARY	LS	1	\$ 20,000.00	\$20,000.00
		CONCRETE SIDEWALK	SF	200	\$ 25.00	\$5,000.00
		PEDESTRIAN GATE	EA	1	\$ 1,000.00	\$1,000.00
		MISC DEMO/PEDESTRIAN IMPROVEMENTS	LS	1	\$ 1,500.00	\$1,500.00
SUBTOTAL						\$50,000.00

\*This opinion of probable cost is based on best unit costs available at the time of this estimate.  
Construction pricing is very volatile and actual construction bids may vary.

CONSTRUCTION SUBTOTAL	\$60,500.00
CONST. CONTINGENCY (20%)	\$12,100.00
<b>GRAND TOTAL</b>	<b>\$72,600.00</b>

PROJECT CITY OF WOODCREEK - BROOKHOLLOW BRIDGE - CULVERT EXTENSION - OPTION C

DATE 12/18/2025

**OPINION OF PROBABLE COSTS**

TXDOT SPEC	BID CODE	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL
500	6001	MOBILIZATION	LS	1	10%	\$13,600.00
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	1	\$5,000.00	\$5,000.00
SUBTOTAL						\$18,600.00

**IMPROVEMENTS**

		REMOVE P.C. CONCRETE WALL	LF	70	\$ 100.00	\$7,000.00
		REMOVE BRIDGE AND CULVERT RAILING	LF	70	\$ 50.00	\$3,500.00
		CONCRETE BOX CULVERT EXTENSIONS, 12' X 4'	LF	16	\$ 2,500.00	\$40,000.00
		HEADWALL (PW-1)(HW = 7FT)	EA	1	\$ 30,000.00	\$30,000.00
		BRIDGE/PEDESTRIAN RAIL AND CRASH CUSHIONS	LS	1	\$ 30,000.00	\$30,000.00
		CONCRETE RIPRAP MITIGATION	LS	1	\$ 10,000.00	\$10,000.00
		CONCRETE SIDEWALK	SF	600	\$ 25.00	\$15,000.00
		PEDESTRIAN GATE	EA	1	\$ 1,000.00	\$1,000.00
		MISC DEMO/PEDESTRIAN IMPROVEMENTS	LS	1	\$ 1,500.00	\$1,500.00
SUBTOTAL						\$131,000.00

\*This opinion of probable cost is based on best unit costs available at the time of this estimate.  
Construction pricing is very volatile and actual construction bids may vary.

CONSTRUCTION SUBTOTAL	\$149,600.00
CONST. CONTINGENCY (20%)	\$29,920.00
<b>GRAND TOTAL</b>	<b>\$179,520.00</b>