



Misc. Contractor
Services/Professional Services

RFQ/CN _____

STA No. 1

Project Name: Roadway/Sidewalk Assessment

Contractor: Tetra Tech, Inc.

Village of Estero Contract No.: EC 2022-32

Village of Estero Account Number: 300-700-5416377

Brief Description: An engineering assessment of the existing Village of Estero maintained roadways, sidewalks, and associated infrastructure to evaluate the current conditions, identify needed corrective maintenance, and establish a roadway and sidewalk management planning tool for development of a capital improvement plan to ensure long term viability.

Total Fees: \$256,060 (NTE)

The Consultant shall perform the services outlined in the attached Exhibit A for the Fees identified therein, under the terms and conditions outlined in the above referenced Village of Estero Contract No. EC 2022-32.

Tetra Tech, Inc.

Village of Estero

By: 

By: _____

Name: Daniel M. Nelson

Name: Steve Sarkozy

Title: Vice President

Title: Village Manager

Date: 6/20/23

Date: _____

Attachment:
Exhibit A

EXHIBIT A
ROADWAY/SIDEWALK ASSESSMENT
STATEMENT OF WORK

A. Project Overview

is the Village of Estero currently owns and maintains approximately 26.3 miles of roadway comprised of the following:

- | | | | | |
|------------------------------------|---|------------------------------|---|-------------------------------------|
| Armada Court (792 ft) | • | Highlands Avenue (1,848 ft)* | • | Riverside Drive (1,373 ft) |
| Broadway E&W (12,778 ft)* | • | Lords Way Street (580 ft)* | • | Royal Palm Drive (1,214 ft) |
| Charing Cross Circle (3,274 ft) | • | Mederia Lane (686 ft) | • | Sandy lane (3,854 ft) |
| Coconut Drive (1,320 ft) | • | Palmetto Terrace (792 ft) | • | See See Street (1,161 ft) |
| Coconut Road (17,582 ft, 4-lane)* | • | Park Place (1,214 ft) | • | Spring Creek Road (2,904 ft) |
| Commons Way (580 ft) | • | Pine Tree Lane (2,164 ft) | • | Trailside Drive (2,166 ft) |
| Coralee Avenue (1,214 ft) | • | Poinciana Avenue (661 ft) | • | Via Coconut Point (14,362, 4-lane)* |
| Corkscrew Village Lane (500 ft)* | • | Porthole Court (792 ft) | • | Williams Road (13,200 ft)* |
| County Road (528 ft) | • | River Ranch Road (3,960 ft)* | | |
| Estero Parkway (9,504 ft, 4-lane)* | | | | |

* All or a portion of these roads have sidewalks either on one or both sides of the road.

Florida Gulf Coast University (FGCU) previously performed an assessment of the roads in 2016 as part of the roadway turnover by Lee County. The FGCU report has been utilized to identify and upgrade some of the roads in most need of repair. Estero desires to perform an updated, more comprehensive review and develop a pavement management system that will meet current and future needs and assist in forecasting and planning of future road maintenance. The plan shall review and consider roadway surface conditions, shoulder conditions, roadway signs and sidewalk/pathways within the accompanying right-of-ways (as applicable). Following completion of the initial evaluation and assessment, Estero desires for the roads to be prioritized for repair/preventative maintenance, and to be incorporated into GIS shape files.

To complete the proposed services, Estero has requested Tetra Tech’s assistance through the Miscellaneous Professional Services Contract EC 2022-32 dated June 1, 2022.

B. PROJECT TEAM

For this effort, ENGINEER will perform the proposed services in-house with assistance from WGI to perform data collection and from Streetlogix for condition assessment and asset management software assistance.

C. SCOPE OF SERVICES

The scope of services presented below is for the professional services requested to be performed by Tetra Tech (ENGINEER).

Task 1 – Right-of-Way and Pavement Management System Development

Upon authorization, ENGINEER will proceed with the development of a right-of-way and pavement management system for use in assisting Estero with documentation of history as well as to assist in planning for future maintenance. For this effort, ENGINEER recommends using Streetlogix, which is a GIS-based asset management system specializing in streets. Estero will be required to purchase Streetlogix for its use.

The following will be performed:

- a. Data Request –ENGINEER will submit a data request to the Village for information which may assist with performing the proposed services. It is understood that the Village may not have some data. The request is anticipated to include but not be limited to:
 - As-built documents
 - Geotechnical information (road cores, standard penetration tests, etc.)
 - Planned improvements
 - Any existing inventory of Village assets within the roadways (signs, traffic control, lighting, etc.)
- b. Inventory Development – For each road, using the data collected under Task 1.a, along with imagery from Google Earth, Lee County Property Appraiser (LeePa) data, and data collected according to the following scope, ENGINEER will develop a desk-top inventory to document:
 - Road Centerline lengths
 - Right-of-Way Width
 - Presence of curb-and-gutter, type
 - Construction History
 - As-built documentation (as applicable)
 - Materials of construction (asphalt, concrete, etc.)
 - Striping and Markings (painted and thermoplastic)
 - Bike paths (as applicable)
 - Right-of-way Attributes
 - Stormwater
 - Road Signs
 - Sidewalks
 - Landscaping
 - Shoulder
- c. Workshop No. 1 – Following completion of the Inventory Development, ENGINEER will schedule and hold a joint in-person/virtual workshop to review the inventory performed and the management system platform (Streetlogix). It is anticipated that the ENGINEER and WCI will be present in person with Streetlogix present virtually.
- d. Software Purchase – Following determination of the recommended software, Estero will proceed with purchase of software along with any training for Streetlogix. ENGINEER will participate in the training.

Notes:

1. Estero is responsible for purchase of the selected software along with any annual licensing or maintenance costs.

Task 2 – Automated Survey (Pavement)

For each road and associated right-of-way, ENGINEER will utilize WGI to perform the following evaluation for incorporation into the GIS-based Management System developed in Task 1:

- a. ENGINEER will utilize a vehicle mounted data collection system that includes: pavement inspection system, video inspection, Mobile LiDAR, and Pavement Laser Crack Measurement Data Systems (LCMS) to collect data needed to identify pavement distresses including cracks, ruts, patches, raveling, shoving, potholes, depressions, swelled areas, pavement markings and raised pavement markers (RPMs). The Mobile LiDAR will provide the basis for roadway asset inventory while the LCMS will provide data collection for pavement condition indexing (PCI). The Mobile LiDAR information will be collected in such a manner that with proper horizontal and vertical survey control, the data can be utilized for roadway design, drainage studies, flood hazard analysis (including first floor building elevations), etc.
- b. The collected data will be processed into a GIS integrated pavement management system with imagery and video to display the variations in roadway condition.
- c. Data collected will be analyzed under Task 8 – Condition Evaluation.

DMN/Statement of work

- d. Create a roadway grading system modeled after FDOT's system or another approved system.
- e. Grade the roadways using the approved system.
- f. Identify short-term roadway improvements and condition monitoring efforts based on the roadway grades.

Task 3 – Sidewalk Condition Survey

The following rights-of-way include sidewalks at the estimated lengths, with a total estimated length of approximately 19 miles:

- Broadway West – 7,650 lf (one side only)
- Coconut Road – 27,700 total lf (mixed one side and both sides)
- Corkscrew Village Lane – 90 lf (one side only)
- Estero Parkway – 19,008 total lf (both sides of road)
- Highlands Avenue – 890 lf (one side only)
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- River Ranch Road – 2,865 lf (one side only)
- Via Coconut Point – 28,728 total lf (both sides of road)
- Williams Road – 13,200 lf (one side only)

For those roads which include existing sidewalks, ENGINEER will perform the following:

- a. Field inventory public sidewalks (owned by Estero)
 - Location
 - Width
 - Length
 - Material of construction (Concrete, asphalt, brick pavers, etc.)
- b. Assess the condition of the public sidewalks
 - Erosion (proximity with or without undermining)
 - Cracking (nature and severity)
 - Drop-off hazards (conformance with FDOT Design Manual §222.4)
 - Gaps between panels (greater than 1/2-inch and excluding expansion joint material)
 - Areas of rough surfaces, spalling, exposed aggregate
 - Areas of ponding/settlement
 - Areas of uplift/root damage
- c. Review sidewalks and crosswalks for ADA compliance (4.7 of the Code of Federal Regulations 28 CFR Part 36)
 - Running slope (5% max., except for ramps)
 - Cross slope (2% max.)
 - Curb ramp configuration at intersections and midblock crossings (conformance with FDOT Standard Plans Index 522-002)
 - Driveway crossings (conformance with FDOT Standard Plans Index 522-003)
 - Trip hazards (i.e. vertical changes in level exceeding ¼" or beveled changes in level exceeding ½" or steeper than 1:2)
 - Sidewalk termination signage

Notes:

1. Depending on the conditions, field data collection may be either through the vehicle based Mobile LiDAR unit (while roadway data is being collected) or through a smaller Segway type unit equipped with similar technology.

Task 4 – Shoulder Condition Survey

For those roadways owned by Estero, ENGINEER will utilize data collected under Task 2, in addition to performing a visual inspection of the roadway shoulders to determine the condition and identify potential hazards and maintenance issues. ENGINEER will review both the outside and inside edges of pavement for divided roads (Coconut Road, Via Coconut Road and Estero Parkway). The following conditions will be identified:

- Ponding
- Washouts
- Grass overgrown onto road (Y/N)
- Paved shoulders (width and condition)
- Cross slope (positive drainage where applicable)
- Curbing (Y/N and condition)
- Shoulder drop-off depth (using American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide or similar)
- Vehicle ruts/off-tracking
- Erosion

Task 5 – Street Sign Survey

ENGINEER will utilize data collected under Task 2 along with visual inspections to perform the following to assist with inventory of the road signage along those roads owned by Estero:

- a. Capture all road sign locations for input into GIS based asset management/inventory system.
- b. Retroreflectivity of the road signs utilizing handheld retroreflectivity tool.
- c. Note the following related to the road signs:
 - Material of sign and post
 - Installation (compliance with FDOT Standard Plan Index 700-101)
 - Sign/post condition

Notes:

1. ENGINEER previously reviewed the signage and striping at the intersections of Williams Road & Via Coconut Road and Via Coconut Road & Pelican Colony Boulevard. The road signage recommendations associated with that effort will be incorporated into this study.
2. Retroreflectivity needs to be performed manually using a retroreflectometer.

Task 6 – Video Imagery

ENGINEER will provide copies of photos and videos collected in Tasks 2 through 5 to Estero. Photos and videos will be linked within the GIS-based asset management system (Streetlogix or similar platform) implemented in Task 1.

Task 7 – GIS Database Assistance

Following completion of the surveys performed in Tasks 2 through 5 and in conjunction with Task 1 (Right-of-Way and Pavement Management System), ENGINEER will input all data into Estero's GIS database and will provide additional support as outlined below:

- a. GIS Incorporation – Utilizing the selected software, ENGINEER will incorporate the data collected from Pavement Management System application into Estero's existing GIS and Information Technology system(s). Recognizing the software can be utilized for future work, the intent of this effort is to input historical data as collected within this task and does not include establishment of future work such as work orders, capital improvement projects, etc. (CIP assistance will be performed under Task 9.)

- b. GIS Workshop – Following incorporation of the data into Estero’s existing GIS system (with the purchased software), ENGINEER will hold a second workshop with Estero and its GIS staff (or consultant) to familiarize them with the information, the software and its capabilities. The software company will be invited to attend.
- c. As-Needed Assistance – Following completion of setting up the Right-of-Way and Pavement Management System into Estero’s existing GIS system, ENGINEER shall provide up to 100 hours of GIS assistance over a 12-month period.

Task 8 – Condition Evaluation

Following completion of the surveys performed in Tasks 2 through 5 and in conjunction with Task 1 (Right-of-Way and Pavement Management System), ENGINEER will perform a condition evaluation in accordance with ASTM International Standard D6433. To accomplish this, we will utilize Streetlogix or a similar platform (as identified in Task 1) to assist Estero in evaluating the condition of the infrastructure for immediate and future improvements. Streetlogix utilizes a Pavement Condition Index (PCI) to “rank” the condition of pavement using a 0-100 scale and including:

- 0-10 – Failed
- 10-25 – Serious
- 25-40 – Very Poor
- 40-55 – Poor
- 55-70 – Fair
- 70-85 – Satisfactory
- 85-100 – Good

The ranking system takes into consideration cracks, joints, depressions, rutting, swelled pavement, corrugation, weathering, railroad crossings and related features. Similar metrics will be developed to evaluate related right-of-way features to include:

- Pavement Markings
- Raised Pavement Markings (RPMs) – presence or absence
- Sidewalks – cracking, heaving, drop hazards, erosion, etc.
- Shoulders – drop, vehicle off-tracking, erosion, etc.
- Street signs – general condition, damage, reflectivity

Task 9 – Pavement Rehabilitation Plan

Once the condition evaluation has been completed, ENGINEER will develop a 5-year pavement rehabilitation plan for inclusion within Estero’s Capital Improvement Plan (CIP). As a part of this task, ENGINEER will develop estimated capital costs as well as life-cycle costs.

Task 10 – Evaluation Report

Upon completion of Tasks 1 through 9, ENGINEER will repair a summary report to include the following:

- Discussion of the methodology for data collection and analysis
 - Roadway Surface:
 - Pavement Inspection Output
 - Recommendations
 - Shoulders:
 - Shoulder inventory
 - Recommendations
 - Street signs:
 - Street sign inventory
 - Recommendations
- DMN/Statement of work

Following completion of a DRAFT report, a PDF submittal will be provided to Estero for review and comment. Upon receipt of comments, a review meeting will be held, followed by incorporation and submittal of the FINAL report to Estero.


D. SCHEDULE

Task No.	Task	Days from Notice to Proceed
1	Right-of-Way and Pavement Management System Development	60
2	Automated Survey	60
3	Sidewalk Condition Survey	60
4	Shoulder Condition Survey	60
5	Street Sign Survey	60
6	Video Imagery	90
7	GIS Database Assistance	365
8	Condition Evaluation	120
9	Pavement Rehabilitation Plan	135
10	Evaluation Report	175

E. COMPENSATION

Proposed fee breakdown is summarized below. The basis of payment is time and materials:

Task No.	Task	Fee
1	Right-of-Way and Pavement Management System Development	\$12,125
2	Automated Survey	\$51,528
3	Sidewalk Condition Survey	\$38,850
4	Shoulder Condition Survey	\$15,621
5	Street Sign Survey	\$32,710
6	Video Imagery	\$5,148
7	GIS Database Assistance	\$15,888
8	Condition Evaluation	\$42,771
9	Pavement Rehabilitation Plan	\$6,310
10	Evaluation Report	\$33,610
	Expenses	\$1,500
	TOTAL	\$256,060

 Price Proposal		Labor Plan							Price Summary / Totals				
Roadway/Sidewalk Assessment <i>Assessment of roadway and sidewalk conditions for planning</i>		7 Resources							Task Pricing Totals			256,060	
		Bill Rate >	280.00	255.00	120.00	175.00	230.00	100.00	115.00				
Submitted to: Village of Estero (Attn: Robert Wiley)									Total Price			256,060	
Contract Type: T&M									Pricing by Resource				
									Labor	Subs	ODCs	Task Pricing Totals	
Project Phases / Tasks		Total Labor Hrs	Program Manager (D Nelson)	Sr Project Manager (E Fey)	Engineer 2 (D Brady)	Sr GIS Application Developer (A Montalvo)	Sr Engineer 1 (M Thatcher)	Project Administrator (R Tobin)	CAD Designer (S Cyr)				
		879	28	147	352	224	48	32	48	146,525	108,035	1,500	256,060
1 - R/W Pavement Management System Development		31	4	9	4	14	-	-	-	6,345	5,780	-	12,125
Data Request		8		2	4	2				1,340			1,340
Inventory Development		6		2		4				1,210	5,780		6,990
Workshop No. 1		12	4	4		4				2,840			2,840
Software Purchase Assistance		5		1		4				955			955
2 - Automated Survey (Pavement)		114	-	14	32	54	14	-	-	20,080	31,448	-	51,528
Mobile LiDAR Data Collection		6		2		4				1,210	31,448		32,658
GIS Processing		18		2		16				3,310			3,310
Roadway Grading System Development		22		2		20				4,010			4,010
Roadway Grading		34		4	12	10	8			6,050			6,050
Condition Assessment/Short-Term Improvements		34		4	20	4	6			5,500			5,500
3 - Sidewalk Condition Survey		102	2	28	64	-	8	-	-	17,220	21,630	-	38,850
Field Inventory		2		2						510	21,630		22,140
Condition Assessment		60		16	40		4			9,800			9,800
ADA Compliance Review		40	2	10	24		4			6,910			6,910
4 - Shoulder Condition Survey		54	4	10	40	-	-	-	-	8,470	7,151	-	15,621
Condition review based on Task 2 data collected		54	4	10	40					8,470	7,151		15,621
5 - Street Sign Survey		28	-	8	10	10	-	-	-	4,990	27,720	-	32,710
Road Sign Location Verification		24		4	10	10				3,970			3,970
Field Data Collection Using Handheld Device		4		4						1,020	27,720		28,740
6 - Video Imagery		12	-	2	-	10	-	-	-	2,260	2,888	-	5,148
Incorporate Video Data from Mobile LiDAR		12		2		10				2,260	2,888		5,148
7 - GIS Database Assistance		70	4	12	-	54	-	-	-	13,630	2,258	-	15,888
Incorporate Data into GIS		14		4		10				2,770			2,770
GIS Workshop		12	4	4		4				2,840			2,840
Provide As-Needed GIS Assistance		44		4		40				8,020	2,258		10,278
8 - Condition Evaluation		208	6	26	116	44	16	-	-	33,610	9,161	-	42,771
WGI Evaluation Assistance		2		2						510	9,161		9,671
Streelogix Evaluation of Roadways Based on Collected Data		48		4	20	20	4			7,840			7,840
Condition Ranking		158	6	20	96	24	12	-	-	25,260	-	-	25,260
Roadways		32	2	4	20	4	2			5,140			5,140
Sidewalks		32	2	4	20	4	2			5,140			5,140
Pavement Markings		18		2	10	4	2			2,870			2,870
Raised Pavement Markings		18		2	10	4	2			2,870			2,870
Street Signs		32	2	4	20	4	2			5,140			5,140
Right-of-Ways		26		4	16	4	2			4,100			4,100
9 - Pavement Rehabilitation Plan		38	2	6	20	4	4	2	-	6,310	-	-	6,310
5-Year Plan Development		38	2	6	20	4	4	2		6,310			6,310

10 - Evaluation Report	222	6	32	66	34	6	30	48	33,610	-	-	33,610
Draft Report	138	2	20	40	20	4	20	32	20,560			20,560
Meeting with Village to Review Draft	8	2	2	2	2				1,660			1,660
Finalize Report	76	2	10	24	12	2	10	16	11,390			11,390
Other Direct Costs	-	-	-	-	-	-	-	-	-	-	1,500	1,500
Expenses	-										1,500	1,500
Totals	879	28	147	352	224	48	32	48	146,525	108,035	1,500	256,060



January 24, 2023

Danny Nelson, Vice President
Tetra Tech
10600 Chevrolet Way, Suite 102
Estero, FL 33928
danny.nelson@tetrattech.com

Re: Village of Estero Roadway/Sidewalk Assessment

Dear Mr. Nelson,

WGI, Inc. (WGI) is pleased to provide this proposed estimate to Tetra Tech Name (CLIENT) for professional services on the above-referenced project. Our scope of services and corresponding fees are detailed below based upon our meetings related to division of the overall scope of services. We understand the services provided herein will be contracted as a subconsultant to Tetra Tech under your existing Village of Estero’s Continuing Services Contract.

SCOPE OF SERVICES

GEOSPATIAL SERVICES

WGI will perform services in accordance with the statement of work defined in Exhibit A of this document with the following exceptions detailed under each task and which are redacted in the attached exhibit.

Task 1: Roadway Inventory	\$ 5,505.00
Exceptions: Tasks 1a, 1c, and 1d	
Task 2: Data Collection	
Exceptions: Task 2f	
Task 3: Sidewalks	\$20,600.00
Task 4: Shoulders	\$ 6,810.00
Task 5: Signs	\$26,400.00
Task 6: Video Imagery	\$ 2,750.00
Task 7: GIS Database	\$ 2,150.00
Task 8: Condition Evaluation	\$ 8,725.00

Notes:

- Project datum will be based on the State Plane Coordinate System, Florida West Zone (NAD83).
- Vertical datum will be based on the North American Vertical Datum of 1988 (NAVD 88).
- No software will be purchased on behalf of the Village of Estero.
- Attendance at on-site meetings are not included in the estimation.
- WGI will coordinate appropriate data delivery standards sufficient for import into Streetlogix software environment.

BASIS OF THIS PROPOSAL

This proposal is based on the following:

1. The proposal was developed with the benefit of the Draft Statement of Work for Roadway and Sidewalk Assessment as provided by Tetra Tech. Any changes to the aforementioned scope of work may affect the proposed fixed fee.

INFORMATION REQUIRED

The following additional information will be required to begin services on this project:

1. AutoCAD, GIS or other digital files depicting roadway centerlines;
2. Any existing roadway assets within the Village's GIS;
3. Recent, planned, or on-going pavement project locations and scope of rehabilitation.

Any additional optional services requested by CLIENT will be provided for a fixed fee to be negotiated once a scope of service is defined.

We appreciate the opportunity to be of service to Tetra Tech.

Respectfully submitted,
WGI, Inc.



Sandor Laszlo, PE
Senior Operations Manager
Emerging Technology



Stephen J. Clancy, PSM, GISP
Vice President
Geomatics

EXHIBIT A

ROADWAY/SIDEWALK ASSESSMENT

STATEMENT OF WORK

A. Project Overview

Following incorporation, some of the localized public roads were transferred to the Village of Estero (Estero) by Lee County. In all there is approximately 26.3 miles of roadway comprised of the following:

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 - Cracking (nature and severity)
 - Drop-off hazards (conformance with FDOT Design Manual §222.4)
 - Gaps between panels (greater than 1/2-inch and excluding expansion joint material)
 - Areas of rough surfaces, spalling, exposed aggregate
 - Areas of ponding/settlement
 - Areas of uplift/root damage
- c. Review sidewalks and crosswalks for ADA compliance (4.7 of the Code of Federal Regulations 28 CFR Part 36)
 - Running slope (5% max., except for ramps)
 - Cross slope (2% max.)
 - Curb ramp configuration at intersections and midblock crossings (conformance with FDOT Standard Plans Index 522-002)
 - Driveway crossings (conformance with FDOT Standard Plans Index 522-003)
 - Trip hazards (i.e. vertical changes in level exceeding 1/4" or beveled changes in level exceeding 1/2" or steeper than 1:2)
 - Sidewalk termination signage

Notes:

1. Depending on the conditions, filed data collection may be either through the vehicle based Mobile LiDAR unit (while roadway data is being collected) or through a smaller Segway type unit equipped with similar technology.

Task 4 – Shoulder Condition Survey

For those roadways owned by Estero, ENGINEER will utilize data collected under Task 2, in addition to performing a visual inspections of the roadway shoulders to determine the condition and identify potential hazards and maintenance issues. ENGINEER will review both the outside and inside edges of pavement for divided roads (Coconut Road, Via Coconut Road and Estero Parkway). The following conditions will be identified:

- Ponding
- Washouts
- Grass overgrown onto road (Y/N)
- Paved shoulders (width and condition)

- Cross slope (positive drainage where applicable)
- Curbing (Y/N and condition)
- Shoulder drop-off depth (using American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide or similar)
- Vehicle ruts/off-tracking
- Erosion

Task 5 – Street Sign Survey

ENGINEER will utilize data collected under task 2 along with visual inspections to perform the following to assist with inventory the road signage along those roads owned by Estero:

- a. Capture all road sign locations for input into GIS based asset management/inventory system.
- b. Develop a platform for the Village to utilize a handheld unit to record retroreflectivity of the road signs
- c. Note the following related to the road signs:
 - Material of sign and post
 - Installation (compliance with FDOT Standard Plan Index 700-101)
 - Sign/post condition

Notes:

1. ENGINEER previously reviewed the signage and striping at the intersections of Williams Road & Via Coconut Road and Via Coconut Road & Pelican Colony Boulevard. The road signage recommendations associated with that effort will be incorporated into this study.
2. Retroreflectivity needs to be performed manually using a retroreflectometer. In order to perform this task, an inventory of signs would need to be developed. As development of this inventory would be performed as part of this task, and given the fact that Estero is still in the recovery stage from Hurricane Ian (which would impact the ability to prepare an accurate inventory or to perform retroreflectivity testing), this task will need to be deferred to a future authorization.

Task 6 – Video Imagery

ENGINEER will provide copies of photos and videos collected in Tasks 2 through 5 to Estero. Photos and videos will be linked within the GIS-based asset management system (Streetlogix or similar platform) implemented in Task 1.

Task 7 – GIS Database Assistance

Following completion of the surveys performed in Tasks 2 through 5 and in conjunction with Task 1 (Right-of-Way and Pavement Management System), ENGINEER will input all data into Estero's GIS database and will provide additional support as outlined below:

- a. GIS Incorporation – Utilizing the selected software, ENGINEER will incorporate the data collected Pavement Management System application into Estero's existing GIS and Information Technology system(s). Recognizing the software can be utilized for future work, the intent of this effort is to input historical data as collected within this task and does not include establishment of future work such as work orders, capital improvement projects, etc.
- b. GIS Workshop – Following incorporation of the data into Estero's existing GIS system (with the purchased software), ENGINEER will hold a second workshop with Estero and its GIS staff (or consultant) to familiarize them with the information, the software and its capabilities. The software company will be invited to attend.

- c. As-Needed Assistance – Following completion of setting up the Right-of-Way and Pavement Management System into Estero’s existing GIS system, ENGINEER shall provide up to 100 hours of GIS assistance over a 12-month period.

Task 8 – Condition Evaluation

Following completion of the surveys performed in Tasks 2 through 5 and in conjunction with Task 1 (Right-of-Way and Pavement Management System), ENGINEER will perform a condition evaluation in accordance with ASTM International Standard D6433. To accomplish this, we will utilize Streetlogix or a similar platform (as identified in Task 1) to assist Estero in evaluating the condition of the infrastructure for immediate and future improvements. Streetlogix utilizes a Pavement Condition Index (PCI) to “rank” the condition of pavement using a 0-100 scale and including:

- 0-10 – Failed
- 10-25 – Serious
- 25-40 – Very Poor
- 40-55 – Poor
- 55-70 – Fair
- 70-85 – Satisfactory
- 85-100 – Good

The ranking system takes into consideration cracks, joints, depressions, rutting, swelled pavement, corrugation, weathering, railroad crossings and related features. Similar metrics will be developed to evaluate related right-of-way features to include:

- Pavement Markings
- Raised Pavement Markings (RPMs) – presence or absence
- Sidewalks – cracking, heaving, drop hazards, erosion, etc.
- Shoulders – drop, vehicle off-tracking, erosion, etc.
- Street signs – general condition, damage, reflectivity

Task 9 – Pavement Rehabilitation Plan

~~Once the condition evaluation has been completed, ENGINEER will develop a 5-year pavement rehabilitation plan for inclusion within Estero’s Capital Improvement Plan (CIP). As a part of this task, ENGINEER will develop estimated capital costs as well as life-cycle costs.~~

Task 10 – Evaluation Report

~~Upon completion of Tasks 1 through 9, ENGINEER will repair a summary report to include the following:~~

- ~~• Discussion of the methodology for data collection and analysis~~
- ~~• Roadway Surface:
 - ~~○ Pavement Inspection Output~~
 - ~~○ Recommendations~~~~
- ~~• Shoulders:
 - ~~○ Shoulder inventory~~
 - ~~○ Recommendations~~~~
- ~~• Street signs:
 - ~~○ Street sign inventory~~
 - ~~○ Recommendations~~~~



Asset Management Software Proposal

Tetra Tech on behalf of Estero, FL

May 10, 2023

**Proposal for Tetra Tech on behalf of
Estero, FL**

Prepared for:

Danny Nelson

Vice President

Tetra Tech on behalf of Estero, FL

Prepared by:

Streetlogix

603 Salem Street

Wakefield, MA 01880

617.399.8236

TABLE OF CONTENTS

1. ABOUT US	5
2. OUR TEAM	6
3. ASSET MANAGEMENT SOFTWARE	7
4. WORK ORDER MANAGEMENT SYSTEM	8
5. CITIZEN ENGAGEMENT APP	9
6. PRICING OVERVIEW	10
APPENDIX A – SCOPE OF WORK AND DELIVERABLES	12
APPENDIX B – OUR CLIENTS	14

Asset Management Software Proposal
Esteros, FL

May 10, 2023

Danny Nelson
Tetra Tech on Behalf of Esteros, FL
10600 Chevrolet Way, Ste 102
Esteros, FL 33928

We are pleased to submit this proposal to Esteros, FL for the Streetlogix asset management software. More than 200 communities in North America are currently using our powerful asset management software to prioritize maintenance and repair projects, create capital improvement plans, estimate budget requirements and secure funding. Municipalities worldwide are faced with aging infrastructure and limited budget resources to repair and maintain them. Today with the help of AI and advanced analytics, your municipality can start to maximize the value of your data.

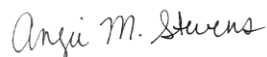
Streetlogix's web-based apps are designed as easy-to-use asset/work order management platforms to save you a considerable amount of time and money. We strongly believe Streetlogix is the most user-friendly software on the market. Additionally, by leveraging the latest techniques in data management, Streetlogix can generate a capital improvement plan, running over 4,000 iterations of various combinations in only a few seconds and then selecting the most optimized plan.

Below are the highlights of Streetlogix features:

- Powerful Decision-Making Tools
- User-Friendly Dashboards
- GIS Visualization – Esri Integration
- Mobile Applications included in the Work Order Solution
- Unlimited Number of Users
- Management and Dispatching of Resources
- Integration of GIS and Transportation Module
- 360° Imagery Viewer & Imagery Support

On behalf of the team at Streetlogix, we are pleased to submit this proposal for your review and look forward to meeting with you soon to discuss any questions you may have.

Yours truly,



Angie Stevens
Channel Sales Manager

1. ABOUT US

At Streetlogix, we come to work each day because we want to solve our clients' biggest problems when it comes to managing their street assets.

Throughout the history of business, people have used data to make more informed decisions. Streetlogix enables exactly this for our municipal clients.

Municipalities no longer have to spend months working within complicated excel spreadsheets. Now, they can leverage the power of AI to improve their decision-making abilities with a few clicks of the mouse.

This all came about as a result of a 2009 groundbreaking project at Northeastern University that received more than \$18 million in funding over a 5-year period. This stamp of approval was due to the power of the project to end localized pavement inspections and enable continuous network-wide health monitoring of roadways.

We embrace progress. In 2018, we launched Streetlogix. This extensively customizable, web-based GIS asset management software has changed the landscape for municipalities. Municipalities can now optimize their budget within a user-friendly GIS environment. The system provides objective information on the current state of their infrastructure and makes maintenance and repair recommendations, including the prioritization of roadway projects. Using unprecedented data visualization and budget optimization tools, our clients have been creating defensible data-driven Capital Improvement Plans while successfully justifying their budgeting requests.

Streetlogix has grown to service over 200 customers throughout the US and Canada. With a team of 50+ professionals stationed throughout the country, we continue to expand and grow, bringing on new clients all over North America. The company continues to innovate, introducing new software tools for Work Order Management and Citizen Engagement solutions to better manage and maintain critical infrastructure assets. As our customers' needs evolve, so do our services and resources.

The most important thing you need to know about Streetlogix is our data-driven approach. It will change the way you monitor your street assets – for the better and for the future.



2. OUR TEAM



the University of Missouri – Columbia.

Angie Stevens – Channel Sales Manager – Angie is responsible for developing and executing Streetlogix’s Partnership Program. Her primary goal is to build relationships with our partners and understand their needs. Angie provides project governance, customer on-boarding and enablement, and implements business strategies to drive and help the partners’ customers realize the full potential of their Streetlogix investment. She has a long history in developing channel relationships to create wins for her organizations, its partners, and most importantly its customers. Previously, Angie was a Channel Sales Manager at Cartegraph, as well as a Strategic Partner Account Manager at 360training and QuickStart. She received her B.A. in English from



Chris Hahn – Director of Customer Success – Chris works closely with our customers throughout their implementation of Streetlogix and on-going customer care, helping to ensure that clients reach their goals for integrating asset management technologies to enhance their operations. Chris brings over 16 years of progressive experience in the software industry, most recently focusing on municipal enterprise level software solutions. Chris is primarily responsible for streamlining business operations, using his vast experience to ensure that consistent delivery and client satisfaction are the cornerstones of our customer’s experience. Using his business analyst background, Chris is well positioned to understand customers’ needs and goals to help tailor solutions that optimize their operations and workflows.

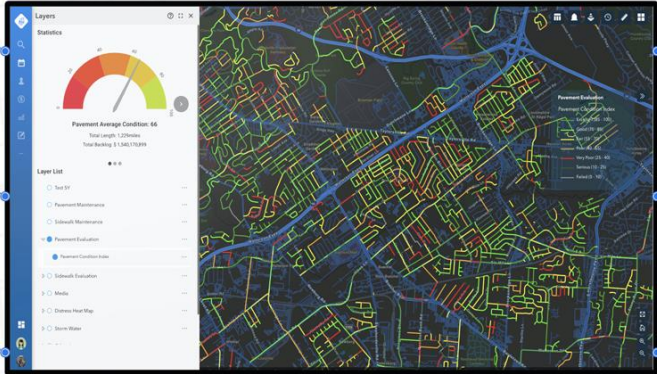


Ozzy Amin – Customer Success Manager - Ozzy brings years of specialized experience in propelling client success and curating top of the line customer experiences to the Streetlogix application. He is the main point of contact for all customers after their implementation and onboarding period. Ozzy merits his success on how well his clients grow and how far they succeed. He holds a high aptitude for providing fast solutions and creating effective strategies with concrete results that allow clients to accurately achieve their goals. With a bachelor’s degree from the University of British Columbia in Interdisciplinary Studies and a focus on Creative Writing, Ozzy uses his unique set of communication skills to create tailored experiences that go beyond industry standards.

3. ASSET MANAGEMENT SOFTWARE

Streetlogix is a cloud-based mapping, analysis, and decision-making tool for the public sector. Use it to create maps, analyze data and plan road repairs, sidewalk projects, and right-of-way budgeting decisions. Your data and maps are stored in a secure and private infrastructure and can be configured to meet your mapping and IT requirements.

Key Features:



Powerful Decision-Making Tools

User-Friendly Dashboard

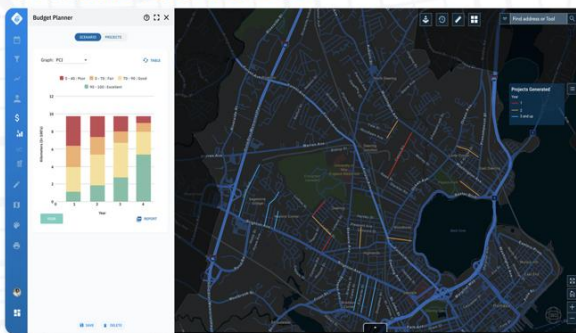
Editing Capabilities

360° Video & Imagery Support

Web-Based

esri Partner Network

OPTIMIZE YOUR BUDGET



BUILD DECISION TREES



SOFTWARE INTEGRATION

Streetlogix uses a RESTful API to integrate with your other asset management, accounting, or financial systems and ensures a seamless information flow between different systems.

4. WORK ORDER MANAGEMENT SYSTEM

Streetlogix's **Work Order Management System** brings greater organization, efficiency, and accountability to your task management planning, allowing you to effectively schedule, track and manage all work orders, as well as monitor work order performance metrics in a centralized dashboard. Plus, you can track and complete work orders in the field using our app on your mobile device.

Work Order Key Features:

Unlimited Users/Departments

Resource Management

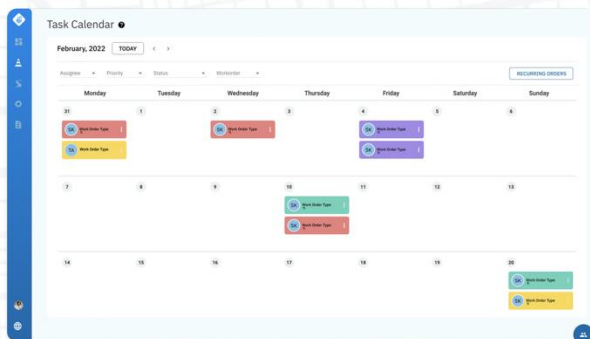
Cloud Hosted
amazon web services

Web - Based

esri Partner Network

User-Friendly Smartphone App

TASK CALENDAR

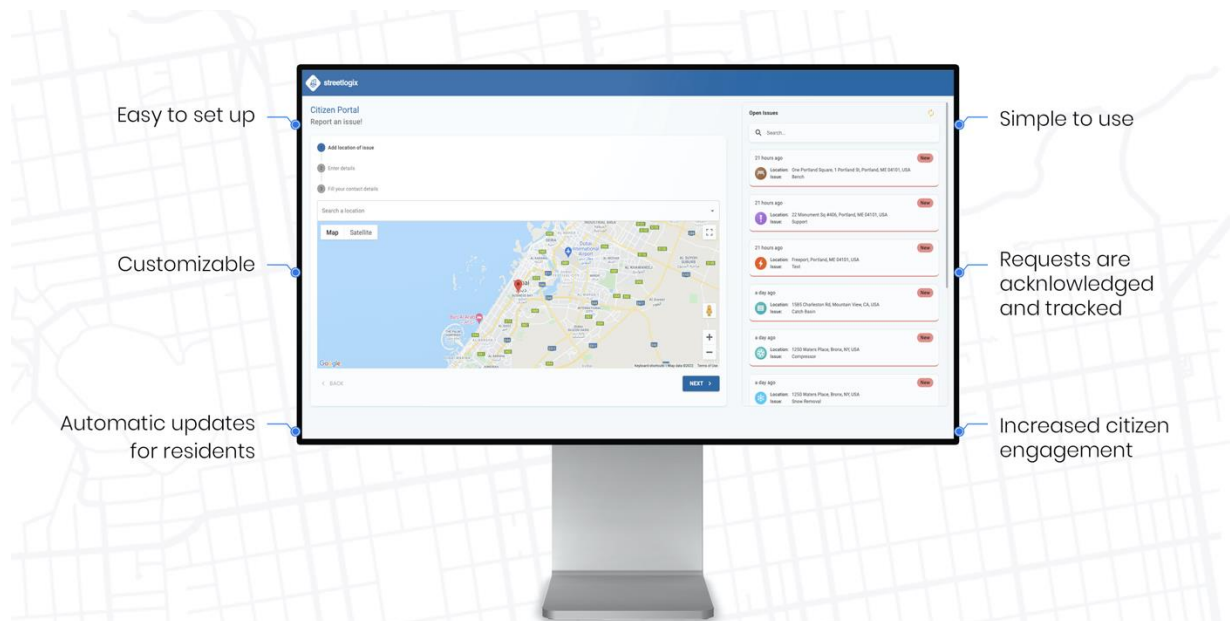


MOBILE APPLICATION



5. CITIZEN ENGAGEMENT APP


Streetlogix's **Citizen Engagement App** empowers your residents to submit service requests while enabling you to easily monitor the submissions. Our 311 application ensures your residents that each request is heard, acknowledged and tracked. It is simple to use, easy to set up, and allows automatic updates for residents on efforts to keep their community functioning. Streetlogix Citizen Engagement app helps you build a collaborative, transparent and stronger community.



Complete work order integration



6. PRICING OVERVIEW

STREETLOGIX SOFTWARE MODULE PRICING					
 streetlogix MODULES	POPULATION	ANNUAL LICENSE	ANNUAL DATA	IMPLEMENTATION FEE	TOTALS
ASSET MANAGEMENT	37,522	\$7,500	\$1,000	\$6,000	\$14,500

Annex

APPENDIX A – SCOPE OF WORK AND DELIVERABLES

ASSET MANAGEMENT MODULE

DATA VISUALIZATION AND ANALYTICS

Roads

Municipal staff will be given access to Streetlogix, our GIS web-based application, in order to view and analyze all collected survey data in addition to data from other sources to assist in decision making.

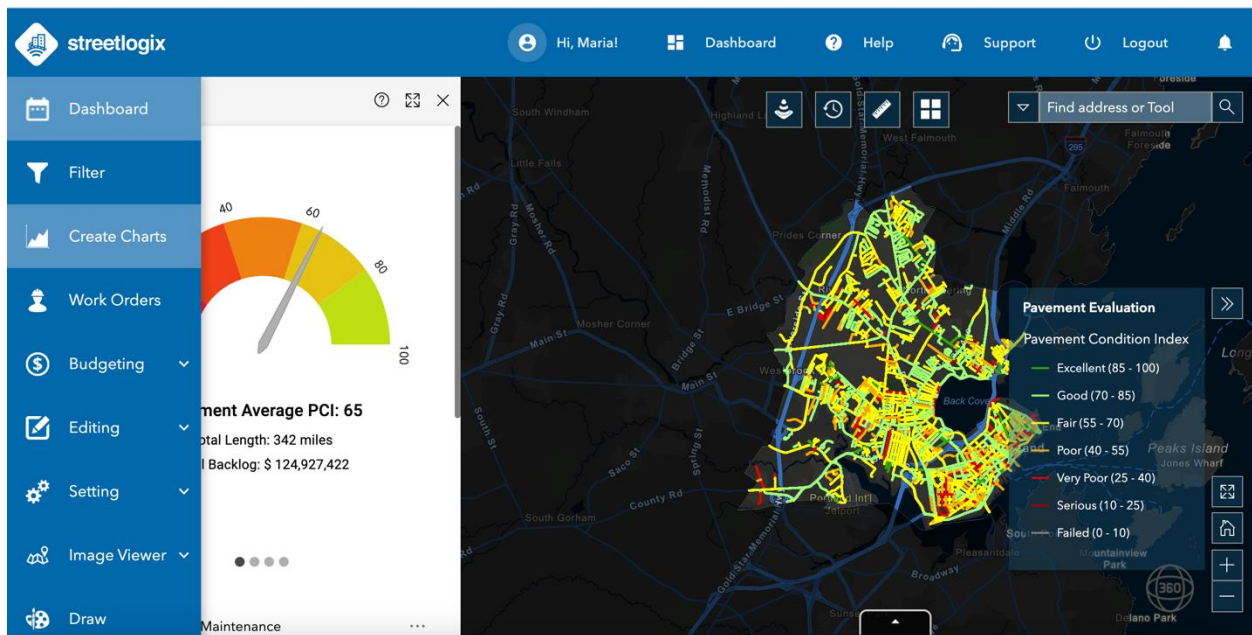
This provides staff an easy-to-use tool to quickly review PCI results, distress data and imagery along with pavement history and other data that the city wants to be integrated. All data is hosted in the cloud, allowing users to login from anywhere on any computer to view the results. Streetlogix has many data import and export features making it compatible with most asset management platforms. Streetlogix provides powerful data visualization and management tools including 360 viewer and extensive charts and dashboards (examples below).

Sidewalks

Municipalities are given access to our GIS web-based application, Streetlogix, in order to view and analyze all collected survey data in addition to data from other sources to assist in decision making.

This provides clients an easy-to-use tool to quickly review sidewalk condition results, distresses and sidewalk images. All data is hosted in the cloud allowing users to login from anywhere on any computer to view the results. Streetlogix has many data import and export features making it compatible with any existing GIS solution. Streetlogix provides powerful data visualization and management tools including image viewer and extensive charts and dashboards (examples below).

Portal view: Overall stats, available layers and PCI



MAINTENANCE PLANNING

Roads

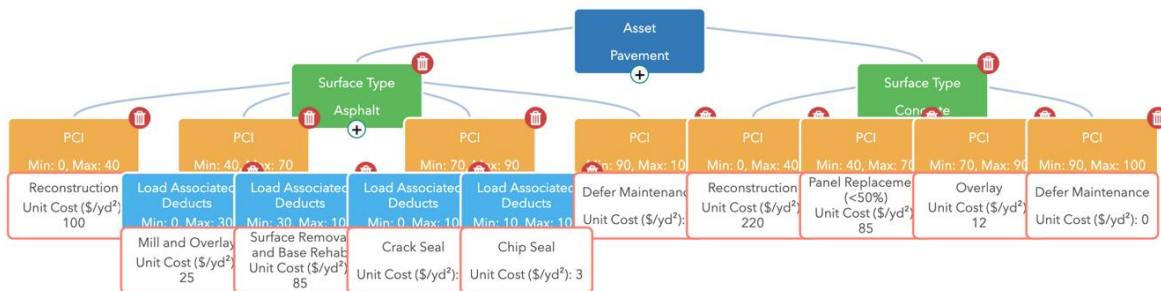
Once the inventory condition database and GIS web-app have been finalized, the work on implementing the pavement management side of the software begins. While pavement condition indicators are concerned with the current condition of the network, the management side of the process concerns itself with the analysis of condition, prediction of future condition, generation of maintenance options and pavement management scenarios. At this stage, the Client's preferred repair methods and associated costs are used to customize our road management modules. The results are compiled and reported to the client in our Streetlogix software and as a pdf document.

Our decision-trees are highly customizable and we work with staff to tailor it to ensure our AI will provide the necessary maintenance and repair suggestions. All decision trees & underlying data will be editable by staff.

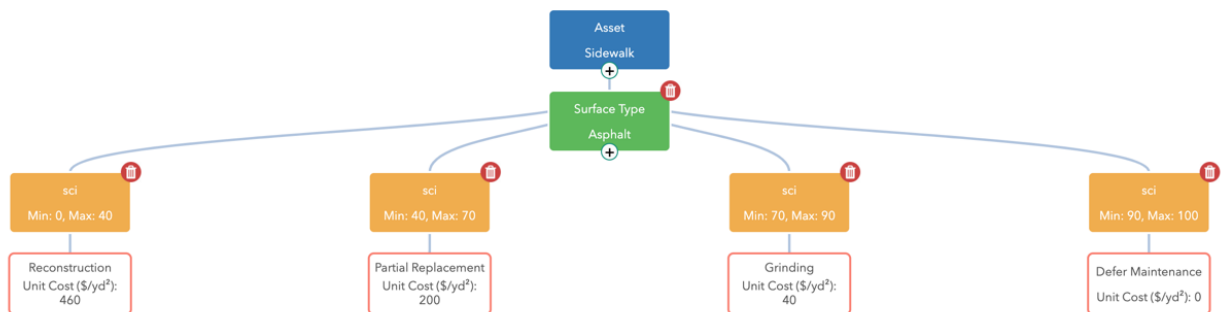
Sidewalks

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Roads:



Sidewalks:



APPENDIX B – OUR CLIENTS



City of Keller, TX



City of Atlanta, GA



City of Gainesville, FL



City of Wilmington, NC



Tippecanoe County, IN



City of Louisville, KY



City of Pleasant Grove, UT



Montgomery County, TN



City of Kilgore, TX



Blount County, TN



City of Spokane Valley, WA



Town of Erie, CO



City of Brentwood, TN



It's real.

City of Seguin, TX



City of Sidney, OH



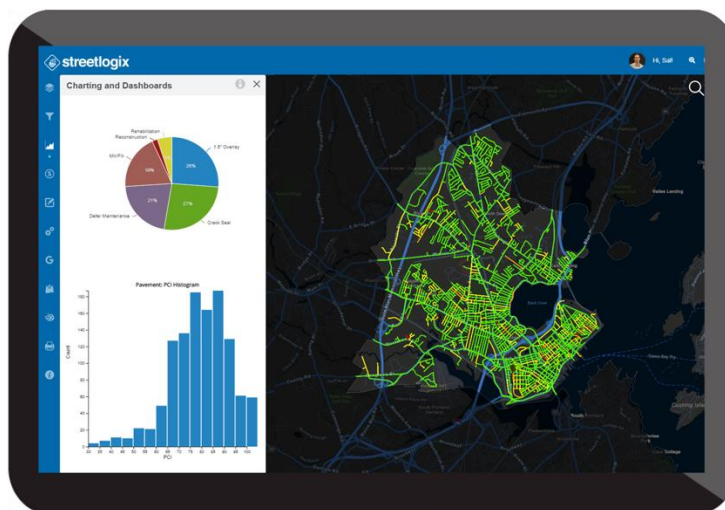
City of Hillsboro, OR



City of Portland, ME



City of La Vista, NE



CASE STUDY:

City of Portland leverages Asset Management Software to perform data-driven budget planning and prioritize roadway projects

With a population of about 66,500, Portland is Maine's largest city and a buzzing tourist destination. The historic coastal city is known for its 19th century architecture, active waterfront and amazing food.

The Challenge

Like many communities throughout the United States, Portland faced limited staff time, resources, and labor-intensive procedures to manage and process incoming city-wide roadway data. The City searched for a new, innovative and automated approach to analyze road conditions, as well as other city-owned assets within the right of way.

Among various capabilities, the solution had to allow City Staff to:

- track and maintain many of their assets within the right of way;
- view the City's right of way assets on one accessible platform and;
- integrate asset management tools and applications into current workflows and procedures.

The Solution

To fulfill its asset management needs, the City of Portland selected Streetlogix, a highly customizable, web-based asset management software that enables municipalities to optimize road budgets within a user-friendly GIS environment. The software allows users to view the current state of their infrastructure and makes maintenance and repair recommendations, including prioritizing roadway projects. Streetlogix's intuitive analysis and decision-making tools improve decision making, estimate budget requirements and create capital improvement plans to optimize every dollar invested. Streetlogix is an ESRI Partner and integrates seamlessly with all ArcGIS products.

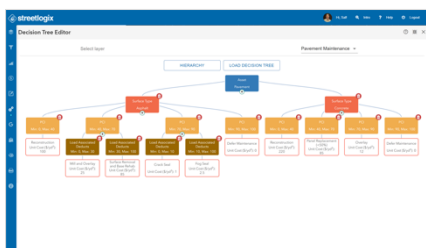
With Streetlogix, City Staff has gained a better understanding and knowledge of the City's assets and where to target roadwork investment.

“Streetlogix’s platform allowed for a seamless transition and integration of Portland’s existing databases and schemas, while providing fewer intensive procedures in maintaining and updating copious amounts of data within the platform, and further integrating asset management processes and procedures into everyday work,” explained Christopher Branch, Portland’s Director of Public Works.

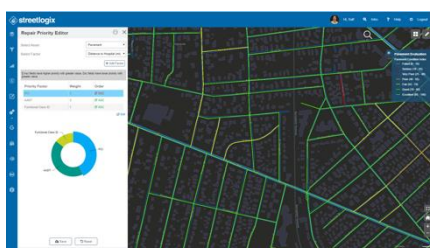
Staff is now able to interactively share, edit, and view right-of-way assets and historic right-of-way datasets on a common platform, as well as perform budget planning and estimate future maintenance and repair costs.

“Streetlogix has enabled the City of Portland to target spending by using the information to identify the streets, sidewalks, and other assets, that will give us the ‘best bang for the buck’”.

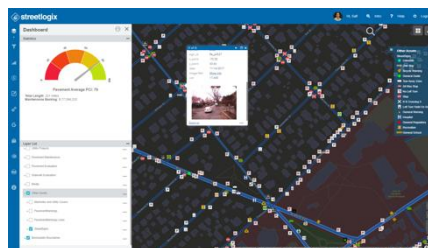
Christopher Branch
Director of Public Works
City of Portland, ME



Decision Trees



Priority Editor



Other Assets - Street Signs

The Benefit

“Streetlogix’s budget planning and estimator tools have brought value to the City by closely monitoring and prioritizing its current and future work,” continued Branch. Whether it’s conducting a reconstruction of a sidewalk or doing a mill and fill on a particular segment of road, these tools have provided the ability to further manage transportation and construction projects city-wide.

The software’s charting and dashboards widget has been extremely informative and most popular to Portland’s users. This widget has allowed Portland to bring a clear illustration of the data being represented in Streetlogix while providing additional information that can be passed on to city leaders and decision-makers.

City Staff has also benefitted from the interactive web viewer, its powerful visualizations of data and its capabilities to extract and download various amounts of data in a variety of formats. “This has enabled the City to target spending by using the information in Streetlogix to identify the streets, sidewalks, and other assets, that will give us the “best bang for the buck’,” added Branch. Furthermore, it has proven to be a critical tool in explaining to elected officials the condition of these assets and allow them to make data-based decisions on how to invest in road infrastructure.