Attachment A

Scope of Work: Detailed Sidewalk Condition Assessment

Section I – Scope of Work Description:

Roadway Asset Services, LLC (RAS) understands that the City of Carrollton desires to conduct a condition assessment of all City maintained sidewalks and pedestrian curb ramps. This scope of work defines network-level data collection, which covers approximately 700 linear miles of sidewalk and 8,400 pedestrian curb ramps within the City's public right-of-way. The RAS team retains a fleet of 13 sidewalk collection vehicles and can also lease additional units from strategic business partners (such as Cole & Associates) should capacity and collection timing require it. RAS will post-process GPS data and imagery/video photolog's to perform the attribute extraction and condition assessment as outlined in this scope of work.

The CONSULTANT (Roadway Asset Services, LLC.) shall provide the following services to the OWNER (City Carrollton, TX):

- Project Management and Status Meetings
- Project Initiation, Administration, & Existing Geodatabase Review
- GIS sidewalk linework adoption
- Missing sidewalks/ramp review using aerial photography
- Sidewalk Imagery Field Collection
- Sidewalk, Ramp, & Obstruction Attribution
- Quality Control Plan
- Onsite RAS Attribution Validation
- Sidewalk Condition Index (SCI) 0-100 Rating

Section II – Project Tasks and Deliverables:

Task 1 – Project Initiation, Sidewalk Centerline Review, & PM

1.1 Project Initiation

CONSULTANT will review the OWNER's existing sidewalk GIS inventory for use and adoption in this project. After an initial review, CONSULTANT will conduct the Kickoff Meeting to discuss the GIS files, requirements/considerations, deliverable formats, and additional data needed by CONSULTANT for preparation and project administration. During the kickoff meeting, CONSULTANT will review the scope with the OWNER's team by presenting a project schedule and fees, identify tasks and milestones, review the methodology utilized, review the detailed quality assurance/quality control (QA/QC) plan, suggest a schedule for biweekly progress meetings, and discuss goals for the project. In addition, team members will also determine a pilot area of approximately 1 to 2 miles for collection and review of all deliverables by OWNER Staff. CONSULTANT will also obtain a collection letter on City letterhead for field crew use and determine areas that require special timing for collection due to festivals or events.

Project communication protocol, documentation, accounting methodologies, and data format will be confirmed during the meeting.

1.2 Project Management

CONSULTANT will provide project management for the duration of the project, including data research and assessment as required, preparing progress and schedule updates. CONSULTANT will schedule bi-weekly meetings to ensure all stakeholders are informed on the project status.

1.3 Status Meetings & Updates

Status meetings will be conducted over the duration of the project, including coordinating and attending virtual meetings with OWNER.

Task 1 Deliverables:

1. The CONSULTANT will schedule a kick-off meeting, gain access to the sidewalk linework (GIS files), pedestrian curb ramp inventory, and deliver bi-weekly progress/schedule updates.

Task 2 – Sidewalk Inventory Adoption, Field Mapping, & Missing Sidewalk/Ramp

CONSULTANT will adopt and consume the OWNER's most current aerial imagery for the development of a missing sidewalk segment. While the CONSULTANT will be adopting the existing sidewalk inventory a review will be completed to identify potential missing sidewalks that may be required for survey yet do not exist in the OWNER's sidewalk GIS layer. The newly developed sidewalk inventory and pedestrian curb ramp inventory will be configured for loading within the CONSULTANT'S field routing and data processing software. Field collection route planning and load to the CONSULTANT's field mapping application for field crew's use with mobile survey vehicles, will be completed.

Sidewalk Inventory Development Sub-tasks:

- OWNER to provide access to the existing sidewalks inventory and available aerial photography. CONSULTANT will link all field data to the OWNER's existing sidewalk line features for eventual Sidewalk Condition Index (SCI) calculation.
- Sidewalk segmentation will be discussed with OWNER's staff prior to initiation and at this time the scope does not include modifying the existing segmentation geometry. New sidewalks found during the missing sidewalk review will be digitized on an intersection-to-intersection basis. If the OWNER wishes to modify the segmentation, the scope will need to be modified accordingly.
- CONSULTANT will develop a pedestrian curb ramp inventory during the field surveys. Only ramps within the survey extents (adjoining to a sidewalk) will be inventoried and rated. Field capture will include imagery for post processing as well as a geographic point location and a single running slope measurement of the ramp feature itself (no slope measurement on the flare or landing).
- CONSULTANT will not survey areas of the street centerline where sidewalks are not present. The OWNER's available aerial imagery will be used to identify where sidewalks are present and where they are not. The core objective is to utilize the existing sidewalk inventory for routing and if the OWNER can supply GIS sidewalk line work for any newly constructed sidewalks that do not exist in the current aerial imagery, those can be added to the scope of work for survey.

Task 2 Deliverables:

1. The CONSULTANT will adopt the OWNER's existing sidewalk feature class.
2. Missing sidewalks will be identified using the OWNER's available aerial photography.
3. CONSULTANT to configure the feature class for import into the field mapping and post-processing applications.

4. CONSULTANT to load the feature class into the field mapping and post-processing applications.
5. CONSULTANT and OWNER to confirm the field pilot locations for data verification.

Tasks 3 – Mobilization and Collect Sidewalk Network

3.1 Collect Sidewalk Network

CONSULTANT will mobilize a maximum of two (2) mobile data collection vehicles from the RAS fleet of 13 sidewalk vehicles or even lease additional equipment from our strategic business partner (Cole & Associates) depending on contract execution, timing, and capacity. The equipment will be utilized to acquire field imagery and IMU sensor data for the identification of sidewalk distress data and attributes in the post-processing phase of the scope. Sidewalk, ramp, and obstruction attribution will be performed in the field and verified using the high-definition video.

Mobile Data Collection Vehicle Technology Includes:

- Multiple cameras (minimum of forward and rear) for extraction, QC/QA and deliverable.
- Integrated IMU for roll/pitch/yaw raw measurements that will be post-processed into running/cross slope for sidewalks and ramps (physical ramp feature only).
- An integrated field map allows for GPS tracking by the operator and "fly-by" notes for any comments related to the field survey.

3.2 Quality Assurance and Quality Control and Field Verification

Quality Assurance Step #1 – Field Pilot Study

CONSULTANT to extract, process, and review sidewalk attribute data on a data set of approximately 1 to 2 miles with OWNER staff to ensure accuracy with the attribute definitions while completing full extraction network-wide. This Pilot Study will commence concurrently with the network-level survey tasks to ensure the timely completion of the project and reduce the need for multiple mobilizations.

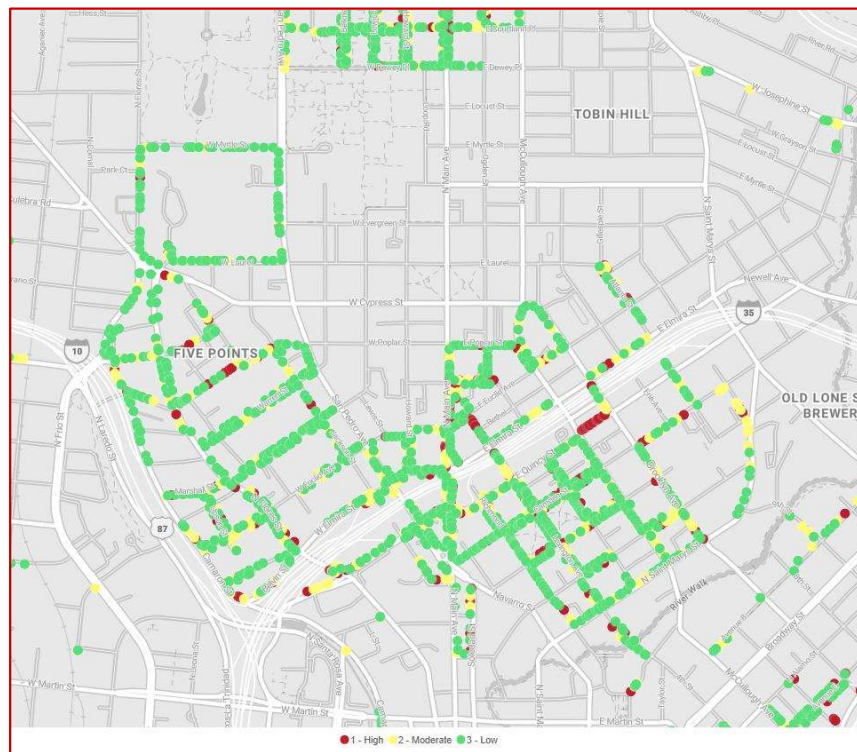*Quality Assurance Step #2 – Imagery & IMU Coverage Checks*

At the end of each data collection day, the CONSULTANT will confirm that field imagery and database attribution exists on all OWNER maintained sidewalks that were surveyed. If sidewalks are found to be missing imagery or attribution after this review, the GIS linework will be flagged for re-inspection prior to demobilization. The roll/pitch/yaw raw data will be confirmed to exist on all OWNER maintained sidewalks and ramps. If any sidewalk or ramp is missing readings from the IMU, it will be flagged for re-inspection.

Quality Assurance Step #3 – Independent Technician Review

The CONSULTANT will perform quality assurance and quality control on the completed dataset. This will include a technician/engineer review of up to 10% of the processed sidewalk imagery. If the review fails to identify systemic gaps in the inventory or attribution, QC will be completed. If the QC identifies gaps in the database attribution or systemic anomalies, additional QC will commence until the gaps are resolved.

Task 3 Deliverables:

1. Completion, delivery, and review of the 1 to 2-mile field pilot deliverables with OWNER Staff.
2. CONSULTANT implementation and execution of the 10% QC/QA review of attribution.

Task 4 – Sidewalk, Ramp, & Obstruction Attribution from HD Imagery

4.1 Data Dictionary

Fields used in the sidewalk, ramp, and obstruction feature class are discussed herein. The data dictionaries illustrated below were developed by the CONSULTANT and provided to the OWNER for scope of work development.

		Sidewalk	
Field Name	**Data Type**	**Responses**	**Definition**
RASSWID	Integer	Unique ID	Unique identifier for the asset
SW_GLOBALID	ESRI GUID	Unique ID	Stores the global asset ID from the GIS
StreetID	Integer	Unique ID	Stores the asset ID for the adjacent roadway
StreetName	Text	Variable	Name of predominant adjacent roadway
SCI	Integer	Calculated	The sidewalk condition index (0-100) calculated from distress rating matrix
ConstructionStyle	Text	Subtype	The primary method of construction/style of the sidewalk for the length being examined
		Mono Curb and Walk	The curb and sidewalk form one structure
		Stand Alone	There is no boulevard or curbing between the roadway structure and the sidewalk
		Boulevard Walk	The sidewalk has grass areas or landscaping on both sides
		Meandering	The sidewalk does not follow a straight line and may be both mono and boulevard
		Commercial	The sidewalk is very wide, reaching from the road to store-fronts or businesses
		Lead	The sidewalk is a short, perpendicular segment that connects the adjacent curb to the primary sidewalk
		Other	The sidewalk is some other type than those areas listed above
		No Sidewalk	County's legacy inventory shows sidewalk existence yet no sidewalk is present at this location
		N/A	Not Available, not rated
SurfaceType	Text	Subtype	The predominant construction material for the length of the sidewalk
		Concrete	The material used is concrete
		Stamped Concrete	The concrete surface has patterns impressed into it
		Exposed Aggregate	The concrete surface is exposed aggregate or combination of concrete and exposed aggregate
		Bricks or Pavers	The sidewalk is constructed of pavers or brick or a combination of pavers/brick and concrete
		Asphalt	The material used is asphalt
		Gravel	The material used is gravel, shale, or any crushed aggregate
		Other	The material is something other than those listed above
		No Sidewalk	County's legacy inventory shows sidewalk existence yet no sidewalk is present at this location
		N/A	Not Available, not rated
Width	Integer	Calculated	Measurement of sidewalk width in inches (+/- 6")
PassingSpace	Text	Subtype	Determines need for passing spaces based on the PROWAG sec. R302.3
		Not Needed	Sidewalk is at least 60 inches wide, or the length is less than 200 ft
		Sufficient	Adequately wide passing spaces are present at least every 200 ft
		Insufficient	No passing spaces are present, or inadequately wide, or spaced at an inadequate interval
		No Sidewalk	County's legacy inventory shows sidewalk existence yet no sidewalk is present at this location
		N/A	Not Available, not rated
CountVDModerate	Integer	Variable	Number of locations with moderate vertical discontinuities per segment
CountVDSevere	Integer	Variable	Number of locations with severe vertical discontinuities per segment
CountHDLow	Integer	Variable	Number of locations with low severity horizontal displacements per segment
CountHDModerate	Integer	Variable	Number of locations with moderate severity horizontal displacements per segment
CountHDSevere	Integer	Variable	Number of locations with severe severity horizontal displacements per segment
CountXSModerate	Integer	Variable	Number of locations with moderately excessive cross slope per segment
CountXSSevere	Integer	Variable	Number of locations with severly excessive cross slope per segment
CountGradeModerate	Integer	Variable	Number of locations with moderately excessive grade per segment
CountGradeSevere	Integer	Variable	Number of locations with severly excessive grade per segment
CountObsLow	Integer	Variable	Number of locations with minor obstructions per segment
CountObsModerate	Integer	Variable	Number of locations with moderate obstructions per segment
CountObsSevere	Integer	Variable	Number of locations with severe obstructions per segment
RRXPresence	Text	Subtype	Railroad crossing present along segment
		Yes	There is a railroad crossing present along the segment
		No	There is not a railroad crossing present along the segment
		No Sidewalk	County's legacy inventory shows sidewalk existence yet no sidewalk is present at this location
		N/A	Not Available, not rated
Length	Integer	Calculated	GIS length of sidewalk segment in feet
SurveyDate	Date	Variable	Data collection date
Comments	Text	Variable	General comments about the asset

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Obstructions			
Field Name	Data Type	Responses	Definition
RASOBID	Integer	Unique ID	Unique identifier for the asset
RASSWID	Integer	Unique ID	The RAS identifier of the parent sidewalk segment
SW_GLOBALID	ESRI GUID	Global ID	Stores the parent sidewalk asset global ID
OBS_GLOBALID	ESRI GUID	Global ID	The global ID of the obstruction observation
StreetID	Integer	Unique ID	Stores the asset ID for the adjacent roadway
StreetName	Text	Variable	Name of predominant adjacent roadway
ObstructionType	Text	Subtype	Type of obstruction reducing width or clearance
		Sign Pole or Post	Any sign support
		Utility Box / Cabinet	Any type of utility such as a control box, cabinet or underground access
		Manhole	Any type of manhole cover protruding above surface of sidewalk
		Light Standard	Any street light standard, davit or pole
		Traffic Signal	Any traffic signal or ped head support, standard, davit or pole
		Power Pole	Any power pole, standard, davit or stay
		Street Furniture	Any bench, chair, bicycle rack, bench garbage receptacle, mailbox, basketball hoop or other fixture
		Bus Stop Shelter	Any type of bus stop shelter or shade structure
		Tree / Vegetation	Any type of tree or planting, including overhanging branches
		Guy Wire / Support	Any type of guy wire, suspension wire or support
		Grating	Any in-ground type of open grate that may trap a wheel - measure the clearance, not the grate
		Fire Hydrant	Any type of fire hydrant assembly
		Fence/Wall	Any type of fencing material
		Other	All other obstructions not listed above
ObstructionSeverity	Text	Subtype	The approximate impact of the obstruction to the overall sidewalk width or clearance
		Low	The obstruction impacts 20-30% of the pedestrian path of travel
		Moderate	The obstruction impacts 30-50% of the pedestrian path of travel
		Severe	The obstruction impacts >=50% of the pedestrian path of travel
SurveyDate	Date	Variable	Data collection date
ImageLink	Text	URL	Hyperlink to image of obstruction captured during data collection
Comments	Text	Variable	General comments about the asset

Field Name	Data Type	Responses	Definition
Pedestrian Curb Ramps			
RID	Integer	Unique ID	Unique identifier for the asset
SWID	Integer	Unique ID	The SWID of the parent sidewalk segment
Street_Name	Text	Variable	Name of adjacent roadway
DetectableWarning	Text	Subtype	Determines presence and type of detectable warning feature
		Truncated Domes - Contrasting	The pedestrian ramp has a contrasting truncated dome plate
		Truncated Domes - Non-Contrasting	The pedestrian ramp has a non-contrasting truncated dome plate
		Texture	The pedestrian ramp has tinning or texturing at the entrance
		No Detectable Warning	The pedestrian ramp does not have a detectable warning feature
		N/A	Not Available, not rated
ObstructionsPresent	Text	Subtype	Confirms presence or lack of obstructions preventing or limiting pedestrian travel
		Yes	Obstructions were observed
		No	Obstructions were not observed
		N/A	Not Available, not rated
Running Slope	Text	Percentage Value	The measured running slope of the ramp run where applicable
Comments	Text	Variable	General comments about the asset
X	Double	Calculated	The longitude of the asset in desired coordinate system
Y	Double	Calculated	The latitude of the asset in desired coordinate system
Condition	Text	Subtype	The visual assessment of the surface condition of the ramp
		Good	Ramp appears to be in good condition
		Fair	Ramp appears to be in fair condition
		Poor	Ramp appears to be in poor condition
		N/A	Not Available, not rated
SurfaceType	Text	Subtype	The predominant construction material of the ramp
		Concrete	The material used is concrete
		Bricks or Pavers	The sidewalk is constructed of pavers or brick or a combination of pavers/brick and concrete
		Asphalt	The material used is asphalt
		N/A	Not Available, not rated
RampType	Text	Subtype	The predominant construction style of the ramp
		Perpendicular	The ramp entrance is perpendicular to the path of pedestrian travel
		Parallel	The ramp entrance is parallel to the pedestrian path of travel
		Blended	The ramp is part of a complex that lowers the level of the sidewalk to the grade of the street
		Cut-through	The feature is level and facilitates crossing through and island or median
		N/A	Not Available, not rated
RampOrientation	Text	Subtype	Assesses the alignment of the ramp with the crossing area
		Diagonal	The ramp serves two crossing directions and is not contained within the crossing area
		Aligned	The ramp entrance is perpendicular or parallel to the path of travel and contained within the crossing area
		Misaligned	The ramp entrance is perpendicular or parallel to the path of travel and *not* contained within the crossing area
		Directional	The ramp is oriented such that a straight line of travel is created with the receiving ramp
		N/A	Not Available, not rated
RampLocation	Text	Subtype	Where the ramp is located along a roadway
		Intersection	The ramp is located at an intersection
		Mid block	The ramp is located mid-block
		Island	The ramp is located on a traffic island or pedestrian refuge location
		Median	The ramp is located in a median
		N/A	Not Available, not rated
SignalizedIntersection	Text	Subtype	Confirms if ramp facilitates crossing through a signalized intersection
		Yes	The ramp serves a signalized intersection
		No	The ramp does not serve a signalized intersection
		N/A	Not Available, not rated
Crosswalk	Text	Subtype	Confirms if ramp is adjacent to a crosswalk
		Yes	The ramp is adjacent to a crosswalk
		No	The ramp is not adjacent to a crosswalk
		N/A	Not Available, not rated

Distress Points			
Field Name	**Data Type**	**Responses**	**Definition**
RASDISID	Integer	Unique ID	Unique identifier for the asset
RASSWID	Integer	Unique ID	The RAS identifier of the parent sidewalk segment
SW_GLOBALID	ESRI GUID	Global ID	Stores the parent sidewalk asset global ID
DIS_GLOBALID	ESRI GUID	Global ID	The global ID of the distress observation
StreetID	Integer	Unique ID	Stores the asset ID for the adjacent roadway
StreetName	Text	Variable	Name of predominant adjacent roadway
DistressName	Text	Subtype	The type of observed distress
		Vertical Discontinuity	Distresses that occur vertically, to include faulting, sag/heaving, etc
		Horizontal Discontinuity	Distresses that occur horizontally, to include cracking, joint spalling, shattering, etc
		Excessive Grade	Locations along a segment where the running slope exceeds recommended thresholds
		Excessive Cross Slope	Locations along a segment where the cross slope exceeds recommended thresholds
DistressSeverity	Text	Subtype	The severity of the observed distress
		Low (horizonal discontinuities only)	· Horizonal discontinuities that are visible, but not open
		Moderate	· Horizonal discontinuities that have opened slightly and are potential tripping hazards · Vertical discontinuities approximately 1/4" to 1/2" tall that are potential tripping hazards · 2-8% cross slopes · >5-10% grade
		Severe	· Horizonal discontinuities that have opened significantly and are likely tripping hazards · Vertical discontinuities approximately >1/2" tall that are likely tripping hazards · >8% cross slopes · >10% grade
DistressDeduct	Double	Calculated	The deduct value of the distress as determined by type and severity in rating matrix
ImageLink	Text	URL	Hyperlink to image of distress captured during data collection
Notes:			
a.		Distresses are rated individually and tagged with an XY	
b.		A single Sidewalk Condition Index (SCI) score will be calculated from the distress points per segment (this is an RAS activity)	
c.		For most categories, low severity distress are not captured or rated (too much data with zero action)	

Task 4 Deliverables:

1. CONSULTANT will deliver a sidewalk, ramp, & obstruction inventory with the attributes identified in the referenced data dictionary and the assumptions defined above. Deliverable will be a GIS file geodatabase to OWNER.
2. An image of the sidewalk distress, ramp, & obstruction inventory will be included as a hyperlink in the geodatabase.

Task 5 – Sidewalk Data Processing & SCI Calculation

5.1 Condition Scoring Matrix

The scoring system for each sidewalk segment will be developed in collaboration with OWNER Staff to ensure distress deducts are applied appropriately to the density of distresses present. The OWNER's matrix will be developed using the distress information identified in this scope of work (vertical discontinuities, horizontal discontinuities, obstructions, running slope, and cross slope). The image below is simply an example of the matrix CONSULTANT will develop in conjunction with OWNER's input.

Sidewalk Condition Index				
Segment 300001				
Slab Count	43			
Distress	Slab Count	Panel Density (0-100)	Weight Factor	Deduct
Horizontal Separation Low	0	0.00	10	0.0
Horizonal Separation Moderate	2	4.65	50	2.3
Horizontal Separation Severe	1	2.33	100	2.3
Vertical Displacement Low	0	0.00	100	0.0
Vertical Displacement Moderate	0	0.00	150	0.0
Vertical Displacement Severe	0	0.00	500	0.0
Obstructions	0	0.00	100	0.0
			Total Deducts	4.7
			Sidewalk Condition Index	95.3

TASK 5 Deliverables:

1. CONSULTANT will calculate a Sidewalk Condition Index (SCI) for each sidewalk segment.
2. The math behind the SCI calculations will be developed in consultation with OWNER.
3. All algorithms will be available to the OWNER.
4. An ESRI File Geodatabase containing feature classes for:
   o Sidewalks: a polyline feature class representing the sidewalks collected with the CONSULTANT data dictionary.
   o Obstructions: a point feature class representing obstructions observed during the sidewalk collection utilizing the CONSULTANT data dictionary.
   o Ramps: a point feature class representing curb ramps collected utilizing the CONSULTANT data dictionary.
   o Distress Points: a point feature class representing distresses observed during the sidewalk collection utilizing the CONSULTANT data dictionary.
      ▪ Distresses to include locations of detected vertical and horizontal gaps, run slope, and cross slope.
5. ArcGIS source and processed results data:
   o Collected pedestrian curb ramp pictures as Jpg files
   o Collected video as MPG files

Section III – Fee Schedule

CONSULTANT team members have managed, provided asset digitization, asset attribution, performed QA/QC, and developed sidewalk feature classes on numerous projects. The CONSULTANT fee structure for this assignment can be found below with itemized tasks to illustrate the full scope of this project. The rates are derived directly from our cooperative contact published via HGACBuy. CONSULTANT is a subconsultant to H2O Partners on the HGAC contract.

Total Project Fee: $597,700

The fee schedule is included on the following page.

Assumptions:
- Data collection must be performed when the sidewalks are free of leaves, standing water, and debris.
  - If significant leaf or debris impacts the daily production, collection may need to be scheduled after such events.
    - Should annual leaf drop impact the completion of the survey, the remaining network collection will need to pause until the leaves are removed from sidewalks. We expect minimal delays due to leaves in Carrollton when compared to other RAS clients across the Country.
  - Field production can only commence when daily temperatures are between 45-degrees Fahrenheit and 100-degrees Fahrenheit. Should winter or summer temperatures prevent at least 6 hours of daily production, the collection may need to be postponed until favorable weather returns.
    - The operators are completely exposed to the elements, and this is a safety procedure put in place for the protection of our field crews.
- GIS is to be provided to the CONSULTANT upon receipt of Notice to Proceed
- Data will only be collected on the existing sidewalks identified in the OWNER's centerline layer and those sidewalks approved by OWNER staff upon completion of the CONSULTANT identification of missing sidewalks using the OWNER's available aerial photography.
  - The ramp inventory will be developed only along the survey (sidewalk) routes.
- It is possible that a safety escort or presence may be required in certain areas of the OWNER. If safety for the field crew becomes a concern, CONSULTANT will discuss mitigation options with OWNER. Traffic control or safety escorts have not been scoped as a part of this assignment.

HGACBuy	**CONTRACT PRICING WORKSHEET** For Catalog & Price Sheet Type Purchases	**Contract No.:**	**HP08-25**	**Date Prepared:**	7/24/2025

> *This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents __MUST__ be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.*

Buying Agency:	City of Carrollton, Texas	Contractor:	Roadway Asset Services, LLC
Contact Person:	Kirk Iverson	Prepared By:	Bart Williamson
Phone:	972-466-3482	Phone:	210-837-5249
Fax:		Fax:	
Email:	Kirk.Iverson@cityofcarrollton.com	Email:	bwilliamson@roadwayassetservices.com

Catalog / Price Sheet Name:	HP08-25_Response_Price_List_Form (RAS)_JUN25
General Description of Product:	**Pavement & Asset Management Services**

A. Catalog / Price Sheet Items being purchased - Itemize Below - Attach Additional Sheet If Necessary

Quan	Description	Unit Pr	Total
1	Centerline Identification (lump sum)	$ 1,950.00	$ 1,950.00
1	Field Setup and GPS Creation (lump sum)	$ 5,500.00	$ 5,500.00
700	PROWAGon Mobilization and Data Collection (Sidewalk Miles)	$ 350.00	$245,000.00
700	PROWAGon Enhanced Sidewalk Distress Identification/Attribution (Sidewalk Miles)	$ 150.00	$105,000.00
700	PROWAGon Enhanced Ramp Condition Assessment/Attribution (Sidewalk Miles)	$ 151.00	$105,700.00
700	PROWAGon Sidewalk Condition Rating and Index (SCI) Development (Sidewalk Miles)	$ 99.00	$ 69,300.00
120	Senior GIS Analyst (Hours)	$ 150.00	$ 18,000.00
80	Project Manager (Hours)	$ 200.00	$ 16,000.00
		Total From Other Sheets, If Any:	
RAS will bill lump sum based on percent complete for each task item		**Subtotal A:**	$566,450.00

B. Unpublished Options, Accessory or Service Items - Itemize Below - Attach Additional Sheet If Necessary
(Note: Unpublished Items are any which were not submitted and priced in contractor's bid.)

Quan	Description	Unit Pr	Total
1	Virtual Validation Pilot (Lump Sum)	$ 16,500.00	$ 16,500.00
1	Missing Sidewalk Review and Analysis (Lump Sum)	$ 14,750.00	$ 14,750.00
			$ -
			$ -
		Total From Other Sheets, If Any:	
		Subtotal B:	$ 31,250.00

Check: Total cost of Unpublished Options (B) cannot exceed 25% of the total of the Base Unit Price plus Published Options (A+B).	**For this transaction the percentage is:**	6%

C. Other Allowances, Discounts, Trade-Ins, Freight, Make Ready or Miscellaneous Charges

Subtotal C:	$ -

Delivery Date:	**D. Total Purchase Price (A+B+C):**	$597,700.00

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