



PUBLIC WORKS COMMITTEE MEETING

MONDAY, APRIL 6, 2020 |

3rd committee meeting- 6:00 PM

The Committee will meet in City Hall Council Chambers, 5
East Butler Road, at 6 p.m.

Please note that members of the public may not attend this meeting in-person. The meeting will be available remotely through Collaborate Space. Please visit the City's website at <https://cityofmauldin.org/your-government/meeting-minutes-agendas/> to access the meeting via audio and videoconferencing. An archived video of the meeting will be available on the City's website within 24 hours of the conclusion of the meeting. You may also email comments about specific items on the agenda to City Clerk Cindy Miller at cmiller@mauldincitysc.com. Comments emailed about specific agenda items prior to 6:00 p.m. on Monday, April 6, 2020 will be read during the Public Comment segment of the meeting.



AGENDA

1. Call to Order
2. Public Comment
3. Reading and Approval of Minutes
 - a. Public Works Committee Meeting: March 2, 2020 (Pages 2-3)
4. Reports or Communications from City Officers
 - a. Department Reports
Public Works Director Matthew Fleahman
 - a. Stormwater Update (Page 4)

 - Budget Review
5. Unfinished Business- None
6. New Business
 - a. Authorization to Move Remaining Funds in Sanitation from Capital to Purchase/Maintain Carts (Page 5)
 - b. Pavement Management Services (Pages 6-21)
 - c. Authorization to Move Remaining Funds in Sewer from Capital to Utilities
 - d. Springfield Park Playground Agreement with Cunningham Recreation (Pages 23-36)
 - e. Brookbend Road
 - f. Sewer Rehabilitation Program (Pages 39-45)
7. Public Comment
8. Committee Concerns
9. Adjourn

Minutes
Public Works Committee
Monday, March 2, 2020
6:00 p.m.
1st committee meeting

Members present were Acting Chairman Mayor Terry Merritt, Committee members Carol King and Michael Reynolds. Public Works Director Matt Fleahman and City Administrator Brandon Madden were also present.

1. Call to Order- Mayor Merritt
2. Public Comment- None
3. Reading and Approval of Minutes

Public Works Committee Meeting: February 10, 2020

Councilwoman King made a motion to accept the minutes with Councilman Reynolds seconding. Mayor Merritt noted on page 4 section C, minutes need to be changed from it is to is it. With that change, the vote was unanimous (3-0).

4. Reports or Communications from City Officers
Department Reports

Public Works Director Matthew Fleahman
Budget Review

Matt reported on the sale of old equipment. There are a few items that are being relisted. Proceeds of \$47,000 have been received and will be deposited in the general fund.

City Administrator Madden reported the Springfield Park playground contract will come to committee next month. Asset inventory of streets will also be coming to committee.

5. Unfinished Business- None

6. New Business

- a. Motion to enter into Executive Session for the consideration of contractual matters involving Metro Connects as allowed by State Statute Section 30-4-70 (a)(2) (Page 10) (Pages 6-12)

Councilwoman King made a motion to go into executive session with Councilman Reynolds seconding. The vote was unanimous (3-0).

Mayor Merritt reconvened the meeting. Councilwoman King reported no decisions were made and no action taken.

b. Possible action on items discussed in executive session- None

7. Public Comment- None

8. Committee Concerns- Mayor Merritt asked if it would not be prudent to get Recreation Committee input on the Springfield Park equipment as well. This item could be placed on both the Recreation and Public Works committee agendas.

9. Adjourn- Mayor Merritt adjourned the meeting.

Respectfully Submitted,
Cindy Miller
Municipal Clerk

PUBLIC WORKS COMMITTEE AGENDA ITEM

MEETING DATE: April 6, 2020

AGENDA ITEM: 4a

TO: Public Works Committee

FROM: Public Works Director, Matthew Fleahman

SUBJECT: Storm Water - Update

REQUEST

Authorization is requested to set up a work session in May, to discuss options for Council to consider regarding Stormwater management in the City.

HISTORY/BACKGROUND

The City of Mauldin is a Co-Permittee in the Greenville County Stormwater permit. The City of Mauldin does not collect any fees associated with Stormwater management; however, they are routinely called upon to address issues with failing or improperly designed stormwater catchments.

ANALYSIS or STAFF FINDINGS

Public Works has put together information regarding options for the City Council to consider. This information pertains to permitting, program management, funding sources, financial liabilities and staffing.

TIMELINE

A work session is recommended for May 2020.

RECOMMENDATION

Staff recommends the Public Works Committee approve a work session for May to discuss Stormwater options.

PUBLIC WORKS COMMITTEE

AGENDA ITEM

MEETING DATE: April 6, 2020

AGENDA ITEM: 6a

TO: Public Works Committee

FROM: Public Works Director, Matthew Fleahman

SUBJECT: Authorization to Move Remaining Funds in Sanitation from Capital to Purchase/Maintain Carts.

REQUEST

Authorization is requested to transfer the remaining funds from the purchase of the side arm trash truck to budget line 432-264 "Purchase/Maintain Carts."

HISTORY/BACKGROUND

The City of Mauldin budgeted \$300,000 for the purchase of a new side arm loading trash truck. The final purchase price was \$271,186.57, leaving a total of \$28,813.43 available in the Sanitation Department.

The new side arm loading trash truck is not compatible with some of the cans currently used by residents. Public Works Staff planned the prospective routes for the new truck and counted the number of cans which will potentially be damaged during tipping operations. It was determined that a total of 738 cans within the weekly route of the new truck to be non-compatible.

Cans are purchased by residents and not provided for free from the City. Public Works would like to use the remaining funds from the Capital Purchase to invest in additional cans. If/when an older can is damaged by the new side arm loading trash truck, Public Works would like to replace the can at no cost to the resident. Door hangers have been ordered which summarize cart placement for service and the potential cart replacement by Public Works.

ANALYSIS or STAFF FINDINGS

The amount to be transferred from Budget line 432-970 to Budget line 432-264 is \$28,813.43.

TIMELINE

Should City Council approve, the budget revision will be addressed the next day.

RECOMMENDATION

Staff recommends the Public Works Committee and the City Council approve transfer the remaining funds (\$28,813.43) from the purchase of the side arm trash truck to budget line 432-264 for the purchase of more trash cans.

PUBLIC WORKS COMMITTEE

AGENDA ITEM

MEETING DATE: April 6, 2020

AGENDA ITEM: 6b

TO: Public Works Committee
FROM: City Administrator, Brandon Madden
SUBJECT: Pavement Management Services

REQUEST

Council is requested to approve the attached agreement for pavement management services with IMS Infrastructure Management Services (IMS)

HISTORY/BACKGROUND

The City of Mauldin budgeted \$35,000 for pavement asset management in its FY2020 budget in the Streets Division of the Public Works Department.

Greenville County issued a Request for Proposals (RFP) for pavement management services for FY2020 and selected IMS as its contractor. Via this agreement, the City will piggy-back off of the County's contract. The City of Greer is also using IMS, piggy backing off of the County's contract.

ANALYSIS

IMS will provide a network-level pavement condition assessment of paved streets located within the City. IMS collects all data in accordance with the U.S. Army Corps of Engineers data protocols, commonly referred to as ASTM D6433 (PAVER protocols).

IMS will mobilize the Laser RST to collect continuous pavement distress data on 100% of the of the City owned road network. The data will then be analyzed by IMS engineers and delivered in an interactive spreadsheet, Easy Street Analysis (ESA), which utilizes intuitive project development, integration of both roughness and roadway strength, user defined priority weighting factors, and cost benefit optimization using cost of deferral techniques. This ESA spreadsheet is included in the base scope with the pavement management analysis and hard copy report.

The assessment provided by the IMS will provide the City with objective data classifying the conditions of the City's road infrastructure. This will ultimately assist the City in implementing a comprehensive transportation program, allowing for the improvement of City roads based on needs. This means that the worst roads are improved first.

FINANCIAL IMPACT

The total cost for the attached agreement with IMS is \$34,916. Council budgeted \$35,000 for this expenditure.

RECOMMENDATION

Staff recommends Council approval of the agreement with IMS for pavement management services.

Proposal for Professional Services



IMS Infrastructure Management Services
8380 S. Kyrene Rd., Suite 101, Tempe, AZ 85284
Phone: (480) 839-4347 Fax: (480) 839-4348
www.imsanalysis.com

To: Brandon Madden, City Administrator

Date: March 9, 2020

From: Dan White, Client Services Manager

Project: City of Mauldin, SC

Subject: Pavement Management Services

Project No: N/A

Thank you for taking the time to review the pavement data collection services offered by IMS Infrastructure Management Services. IMS excels in pavement and asset management solutions and can provide a full suite of data collection and software implementation services. As an offering associated with the upcoming IMS project with Greenville County, IMS is pleased to offer a pavement management program implementation for the City of Mauldin, utilizing the same contract rates.

The City is interested in performing a network-level pavement condition assessment on approximately 82 centerline miles of paved streets located within the City. For this proposal, IMS will survey the entire network in a single, linear pass. Divided streets and streets with more than two lanes will be recommended for a survey pass in each direction. IMS collects all data in accordance with the U.S. Army Corps of Engineers data protocols, commonly referred to as ASTM D6433 (PAVER protocols).

As we understand, the City would be implementing a comprehensive pavement management program for the first time. IMS will mobilize the Laser RST to collect continuous pavement distress data on 100% of the network. The data will then be analyzed by IMS engineers and delivered in an interactive spreadsheet, Easy Street Analysis (ESA), which utilizes intuitive project development, integration of both roughness and roadway strength, user defined priority weighting factors, and cost benefit optimization using cost of deferral techniques. This ESA spreadsheet is included in the base scope with the pavement management analysis and report. IMS will also collect a sidewalk inventory and load this data and the pavement condition data to the IMSvue data viewer.

Our approach, and key service differentiator, is based on three, time proven fundamentals:

Answer the questions that are being asked – don't over-engineer the system or make it needlessly complicated. Databases and the application of technology are meant to simplify asset management.

Service and quality are paramount to success – the right blend of technically correct data, condition rating, and reporting will provide the agency with a long-term, stable solution. Service to the Client remains our top priority.

Local control and communications are key – it is important that all stakeholders understand the impacts of their decisions and have the system outputs react accordingly. We excel in making ourselves readily available.

Services we can offer the City of Mauldin include:

- Objective roadway performance data collection including a full suite of surface distresses.
- Right of way asset data collection including Nighttime Retro-reflectivity surveys.
- HD digital image and GPS coordinate data collection.
- An easy to use, user-friendly ESA spreadsheet for managing the street network.

Data Collection

IMS is unique to the industry, as an objective and repeatable data collection effort will be completed. The Laser RST, with Laser Crack Measurement System (LCMS2) technology, will be used to perform a surface condition assessment of all City streets. Instead of using the subjective feet on ground or windshield sampling method, the LCMS2 device collects automated 12-foot, 3D profiles continuously in the driven lane. This data is then aggregated at the section level (typically block-to-block) as the Pavement Condition Index or PCI score for the street segment.



GIS and Pavement Management Linkage

The role of GIS in pavement management cannot be overstated. It is a powerful tool that provides the capability to handle and present vast amounts of data in an efficient manner. IMS can provide a link between the City's GIS program and the pavement management data to enable the City to display and generate color-coded maps based upon existing pavement conditions, street rehabilitation plans or most of the data developed as a part of the pavement management program. An output of such a plot is illustrated in the adjacent image. IMS provides GIS based maps of the analysis results as well.



HD Digital Images and Right-of-Way Asset Data Collection

While the RST is traversing the roadway, up to 4 HD digital cameras can be mounted inside the RST to collect images of the pavement and right of way assets. The following views are typically captured; driver front (forward view), passenger front (ROW view), and driver rear (adjacent ROW view). All video is processed in-house and developed as an image library at roughly 15-foot intervals for use in QA/QC and for development of the right-of-way asset inventories.



LCMS2 Description and Distress Identification

The IMS fleet of pavement performance equipment includes seven Laser Road Surface Testers, four of which are outfitted with the LCMS2 technology. IMS also has access to two Dynaflect Devices and four Sidewalk Surface Testers (SST). *In conjunction with the Greenville County surveys*, we propose to use one LCMS2 enhanced Road Surface Tester (RST) coupled with HD digital imagery and GPS capabilities. The LCMS2 based RST, with its 2-sensor array is capable of collecting



a full suite of ASTM compliant pavement condition data complete with high accuracy GPS coordinates and multiple view HD digital images for both rigid and flexible pavements (in real time). The LCMS2 equipment provides three dimensional high-speed, mm-level scanning and pattern recognition analysis. Specialized data processing, using GIS as its backbone, allows the pavement data to be quickly checked for completeness and quality.

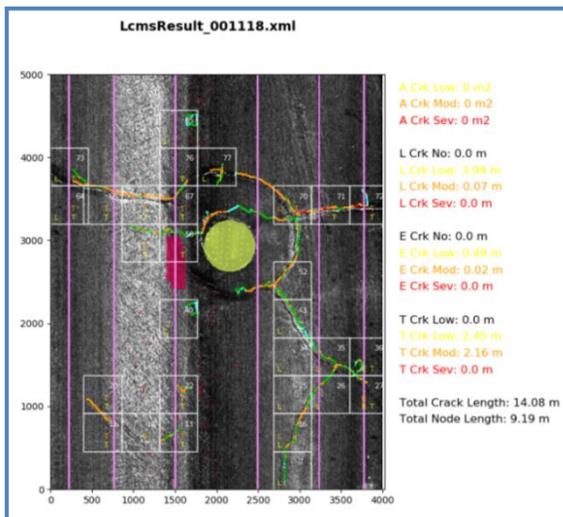
The main components of the LCMS-enhanced RST are:

- A 2-sensor, 3D LCMS array coupled with 2 IMU's (inertial measurement unit) are utilized to measure pavement roughness, rutting, cracking, potholes, bleeding, geometrics, and many other common ASTM D6433 surface distresses.
- Automated crack profiling and production of extent-severity based pavement distresses through the 3D crack profile software.
- Up to 4 HD digital cameras are mounted for forward, side, rear, and right-of-way views.
- Ability to collect dual wheel path roughness to International Roughness Index (IRI) standards using 3D profile technology.
- High accuracy Global Positioning System (GPS) receiver with OXTS inertial navigation for geolocating of pavement and asset information with excellent accuracy.
- Dual distance measuring instruments to measure linear distances to within +/- 0.5%.
- Built-in software and on-board processors to develop roadway inventories, time code integration, and system monitors.
- Integrated touchscreen event board used for capturing additional roadway attributes on the fly or even expanding the roadway distress data to be captured. The touchscreen is programmed with a mobile mapping device to ensure navigation and routing is as efficient as possible. All inputs can be programmed for acquisition using a standard extent and severity format.

The LCMS2 also automatically collects transverse cracking, block cracking, alligator cracking, longitudinal cracking, rutting, potholes, faulting, roughness, geometrics, and texture. The LCMS2 technology automatically detects cracks and minute variances in the pavement surface using a horizontal resolution of 1mm. Thus, the LCMS 2 greatly diminishes the subjective nature of PCI data collection performed by image-based surveys or even point lasers.

Collecting Objective Condition Data

The LCMS2 technology is one of the most technologically advanced devices available for pavement performance assessments. The 2 sensor array completes a 3D millimeter level scanning of the pavement surfaces that pass below the laser array. With a high speed 1 millimeter resolution, this means the LCMS2 device deploys a continuous scan of laser points (approximately 3,657) across a mere 12-foot of pavement, making it one of the most high resolution pavement laser scanners available. The onboard processing software then takes it a step further by analyzing pavement elevation (range & intensity) and automatically identifying cracking, rutting, roughness in the form of IRI, potholes, and bleeding.



While any engineering firm could deploy the LCMS2 equipment for data collection, processing the information for distress quantification requires a complete understanding of automated technologies, GIS mapping, and distress measurement protocols found in standards such as ASTM D6433. Simply reviewing the LCMS cracking vectors (colored cracks) with the human eyeball dilutes the objectivity of the equipment.

IMS engineers and technologists have developed a computerized processing application that automatically applies an 18"x18" grid to the LCMS downward images (FIS files) and uses pre-programmed geometric algorithms to classify and quantify distresses by type.

These automated processing routines result in an unparalleled level of objectivity and efficiency in distress pattern recognition analysis. The image above illustrates the quantity of several distresses as well as the presence of a manhole, which was automatically scrubbed from the dataset.

In addition to the auto quantification and classification of ASTM D6433 distresses, the LCMS2 device also operates as a Class I profile device that collects longitudinal profile (in the form of the International Roughness Index) and transverse profile (rutting) using advanced 3D profile laser scanning technology. The system is not subject to vehicle wander like other automated technologies and compensates for variation in driver ability. The processing software can calculate rutting width and depth following the ASHTO Taut Wire methodology. The white solid lines indicate there was no rutting in the left wheel path and that rutting was detected and measured in the right wheel path. Filters can also be applied to account for rehabilitation activity overlap, which can be as much as a ¼ inch depending on the application.



Cracking, Faulting, Texture, Bleeding, & Potholes – The RST allows IMS to conduct an objective crack survey, thus increasing the accuracy of an otherwise subjective manual survey. High-speed lasers and an on-board processing computer, accurately measure the surface profile of the road. Included in this profile are all cracks and faults as small as 1/8" (2 mm) wide that pass beneath the lasers. Processing software then reduces and filters this information to determine the *total number of cracks, crack width/depth, as well as the crack interval*, plus faulting information. From this information, quantified crack data can be determined at both the sample and summary intervals. Crack identification includes all cracking such as alligator, transverse, longitudinal, map, and edge cracking (where applicable).



The LCMS2 device is also capable of automatically collecting, identifying, and reporting supplemental distresses such as bleeding on asphalt roadways and potholes.

Rutting – The LCMS2 device collect continuous - transverse profile data at 1-millimeter resolution at highway speed. This configuration is far superior to other types of vehicles that utilize three lasers or sonic transducers to calculate “relative rutting”. Even five sensor units are extremely sensitive to driver error since it is essential in this case that the driver keep the data collection vehicle’s wheel exactly in the rutted wheel tracks (assuming that they fit).

The Taut wire method is used to calculate the rut depth in both the right and left wheel track on a continuous basis. Either the right or deeper of the two-wheel path ruts may be used for rut depth calculations with the average rut depth for that wheel path reported for each section. *Rut depth results, quantified by 3 - 4 severity thresholds (with break points at user-defined levels such as 0.25, 0.50 and 0.65 inches) and percentage of section will be provided for every segment.*

Roughness – International Roughness Index (IRI) data is calculated in real time from continuous longitudinal profile data collected by the van’s 3D profile device. Data is simultaneously obtained from three devices to determine the road profile; a pulse transducer-based distance-measuring instrument (DMI), high speed 3D laser sensors operating at 112 MHz, and an accelerometer in conformance with ASTM E 950. The RST unit conforms to a Class I profiling device and it can also “pause” over non-valid roadway sections such as localized maintenance activities, railroad crossings, or brick inlays and not affect the overall IRI value.

Distortions, Raveling, Patching, & Other Custom Attributes – While the LCMS2 automatically collects the majority of ASTM D6433 distresses, the RST platform can be configured to collect the remaining distresses (raveling, distortions, and patching) using the integrated DDCRS. By means of a touch screen based tablet computer, highly trained IMS technicians input changes in observed distress severities and extents, or identify specific roadway assets or attributes such as curb reveal or lip of gutter information. The DDCRS is integrated into the data flow through time code, GPS, DMI distance and inventory control. The data is then post processed in the office to generate extent quantities for each observed distress severity level throughout every surveyed road section.

**City of Mauldin
Pavement Management Program Update**

5-Year Analysis and Report: Easy Street Analysis (ESA) Spreadsheet

While the results of the survey will certainly be documented and provided back to the City in GIS format, the IMS engineering team will also develop a customized 5-year pavement analysis and report. While IMS is a leading expert with most 3rd party pavement management applications such as PAVER, we have engineered a simple, easy to use, Excel spreadsheet that utilizes the core metrics of any great pavement management system such as the ability to prioritize and optimize the multi-year plans. This is how we can introduce IRI, structural integrity, logical projects, custom priority weighting factors (PWF), and cost benefit techniques into a typical ASTM D6433 assignment.

The ESA spreadsheet will be programmed to develop a multi-year maintenance and rehabilitation plan using "cost of deferral" as a rehabilitation candidate selection constraint in an effort to introduce cost-benefit techniques into the City's pavement management plan. In addition, the ESA spreadsheet will have referenced deterioration curves for each functional classification, pavement type, and even pavement strength rating. The power of having the data in such an open architecture fashion allows the City to import data to enterprise asset management software in the future. The ESA spreadsheet will also contain a full suite of maintenance and rehabilitation techniques, unit rates, and associated PCI resets. The parameters of the analysis (Priority Weighting Factors) can also be modified and prioritized on the fly. This will allow the City's data to evolve with the priorities of elected officials and department staff. Programmed priority weighting factors include functional classification, pavement type, and pavement strength while actual candidate selection is based on the incremental cost of deferral.

As seen in the image below, the analysis data in the spreadsheet is supplemented with many cells highlighted in yellow. The yellow highlighted cells simply indicate that they are "HOT" and can be modified by the end user. Two of the yellow cells shown below represent the Annual Budget and the Project ID. The Annual Budget cell can be modified with a new budget and the 5-year plan will automatically re-prioritize on the fly. While IMS will have already aggregated the City's segments (intersection-to-intersection) into viable projects (multiple segments strung together to form a logical project), the user has the ability to aggregate additional segments into a project or even remove a segment from a project without having to become an expert.

The screenshot displays the IMS Easy Street Analysis (ESA) spreadsheet. At the top, there's a 'Network Analysis Summary - Five Year Rehab Plan Development' section with a table showing 'Current PCI Date: 11/16/2017' and 'Analysis Start Date: 11/2016'. Below this is a 'Projects Payment Condition Summary' table. The main part of the spreadsheet is a large data table with columns: Segment ID, Agency ID, On Street, From Street, To Street, Functional Class, Pavement Type, Project ID, Project Description, Segment Length (ft), Project Cost, and various performance metrics. The interface includes various filters, buttons like 'Update PCI', 'Run LRA Profile', and 'Run Control', and a color-coded legend for project status (Yellow for 'Hot', Green for 'Not Hot').



ESA Functionality: Project Completion and PCI Overrides

The spreadsheet also allows the City to refresh the 5-year plan by entering the maintenance and rehabilitation work completed. As seen in the image below, the spreadsheet is supplemented with “PCI Override” functionality. When work is completed on a particular segment, the user simply inserts the override PCI value along with a date. The spreadsheet then removes the segment from the 5-year plan and updates all referenced network PCI averages.

Pavement Condition Summary

									Today:	3/30/2015
									Current Network PCI:	74
Surface Distress Index (SDI)	PCI:	76								
Roughness Index (RI)	Pavement Condition Index (PCI)	PCI Survey Date	Strength Rating	Condition Rating	Load Associated Deducts (LADD)	Non-Load Associated Deducts (NLAD)	PCI Override	PCI Override Date	Current PCI	
74	53	67	6/1/2014	MOD	Good	0	0		66	
55	63	57	6/1/2014	MOD	Fair	27	18		55	
70	63	68	6/1/2014	MOD	Good	19	10		66	

Other features of the IMS Easy Street Analysis spreadsheet are as follows:

- Red triangle tips that trigger a dialogue box explaining cell contents.
- Ability to add new road segments and attributes on the fly.
- Modifiable distress indices for Mauldin field inspections.
- Input work completed and override segment level PCI scores.
- Prioritize by neighborhoods, zones, or districts.
- Ability to modify project lengths – includes aggregating and splits.
- Commit projects and force “Must Do’s” or “Must Never Do”.
- Program varying annual budgets over a 5-year horizon.
- Commit a percentage of the budget to surface treatments if desired.
- Automated rehab plan prioritization and optimization.
- Macros that automatically sort and filter simple rehab and inventory lists.
- Ability to sync the spreadsheet with the Data Viewer though a .CSV file export.

While the spreadsheet is not meant to replace pavement management systems, it is an alternative for agencies that do not want to maintain the resources or staff to maintain a dedicated application. If a dedicated system is still desired, IMS will assess all other available 3rd party solutions. The ESA data integrates with GIS and is also easily exportable to be tied into PAVER, Lucity, Cartegraph, BeeHive, Cityworks or other software solutions.

**City of Mauldin
Pavement Management Program Update**

Additional Sample Images of the ESA Interactive Spreadsheet Functionality:

Running a budget model within ESA is as easy as typing in your annual budget each year for the next 5-years. After doing so the application will automatically run the model and develop an optimized 5-year rehabilitation plan that identifies the selected rehab candidates, their year of selection, and their cost.

Network Analysis Summary - Five Year Rehab Plan Development											
Current PCI Date: 9/11/2019		Annual Budget Increase (%/yr): 0.00		% of Budget Dedicated to Surface Treatments: 0.000							
Analysis Start Date: 1/1/2020 (MM/DD/YYYY)		Unit Rate Inflation (%/yr): 4.00		Restore PCI to This Date: 9/11/2019							
Program Year	Annual Budget (\$)	Calendar Year	Block Count	Annual Expenditure (\$)	Pavement Costs (\$)	Peripheral Concrete Costs (\$)	Miles (mi)	PCI	Backlog (%)		
Avg:	900,000	900	2019	763	11,017,050	10,328,490	688,560	70.1	72	4.6	Update PCI
1	900,000	2020	33	894,707	840,698	54,009	2.6	71			Restore \$ Formula
2	900,000	2021	30	897,743	806,515	91,228	2.7	72			Run 10X Profile
3	900,000	2022	28	898,363	830,775	67,588	2.7	72			Run Control Analysis
4	900,000	2023	26	898,909	860,797	38,112	2.5	72			Need Year Analysis
5	900,000	2024	27	890,205	783,339	106,866	2.1	71	3.6		
Totals:			144	4,479,927	4,122,124	357,803	12.7				



Create Inventory

Rehab Plan By Seg

Rehab Plan By Year

Projects are multiple segments/blocks that have been aggregated together to form a logical project within the pavement management system. While changing the limits or size of a project is often difficult in many pavement management applications, doing so in ESA is as simple as entering in a new "Project ID". Nothing more is necessary.

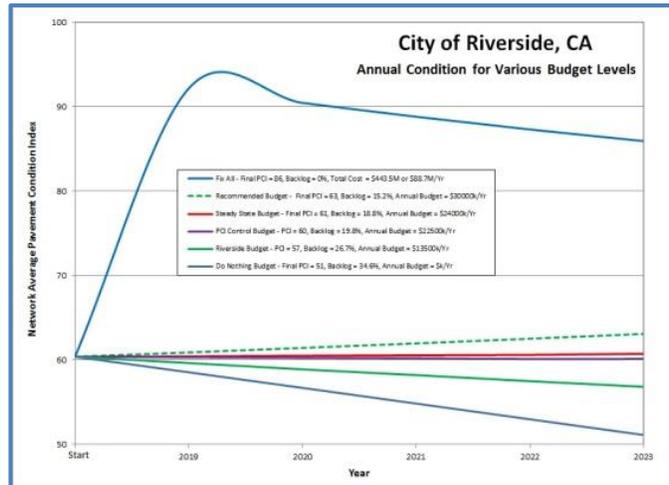
Projects Pavement Condition Summary (Based on PCI Aged to Current PCI Date)										
Project ID	Project Description	Project Block Count	Project Length (ft)	Project Area (yd2)	Project PCI (CPCI)	Project Cndtn Rating	Project Strength Code	Project FunCI Code	Project Pavetype Code	
3700	3700 - Village Rd + Others	11	4,268	15,672	83	V Good	2	3	1	
1360	1360 - Highland Dr + Others	3	1,418	4,001	56	Fair	2	3	1	
3440	3440 - Andover Rd + Others	5	2,680	21,801	80	V Good	2	1	2	
3700	3700 - Village Rd + Others	11	4,268	15,672	83	V Good	2	3	1	
1500	1500 - Minneha Ave + Others	4	1,341	5,228	80	V Good	2	2	1	
3820	3820 - Westview Cir + Others	2	1,490	4,444	53	Fair	2	3	1	

The ESA application is configured with the City's appropriate rehabilitation activities and represents a very comprehensive pavement management program in the form of an Excel Spreadsheet. A full demo of the ESA application can be scheduled with City staff if desired.

Report Development

An unlimited number of pavement maintenance and rehabilitation strategies can be defined within the IMS analysis. Various budget models are run, incorporating the City costs, performance curves, set points, filter criteria and rehab alternatives to identify the overall need in terms of rehab strategies and costs for the City’s road network, for today as well as year on year for the next 5 to 10 years.

The IMS approach allows you to input any number of “what if” budget scenarios and produce prioritized yearly rehab programs based on those funding levels over a 5-year analysis period. Typical budget scenarios include Budget \$/Year, Unlimited Budget \$, “Do Nothing” Budget, and a Target PCI Budget.



Key Information Provided in the 5-Year Report

- *Street ownership and inventory/attribute report*
- *Present condition ranking* – detailed and summary condition data including; Good/Fair/Poor, Load Associated Distresses (LAD), Non-LAD, and Project reviews of each street in the network, as well as the network as a whole.
- *Fix all budget analysis* – this identifies the upper limit of spending by rehabilitating all streets assuming unlimited funding.
- *Do nothing analysis* – this identifies the effects of not performing roadway rehabilitation projects.
- *Steady state rehabilitation life cycle analysis* – this identifies the minimum amount of rehabilitation that must be completed in order to maintain the existing level of service over 3, 5, or 10 years.
- *PCI & funding levels* – what funding will be necessary to maintain a PCI of 65, 70, & 75.
- *Plus or minus 50% and other additional runs* – additional budget runs are completed at rates of +50% and -50% of the suggested steady state analysis. Up to 7 budget scenarios will be run.
- *Integration of capital projects and Master Plans* – ongoing and proposed projects that affect roadway rehabilitation planning will be incorporated into the analysis.
- *Draft 5-year rehabilitation and prioritized paving plans* – based on need, available budget and level of service constraints; a minimum of three budget runs will be completed.
- *Final prioritized paving plan* – incorporating feedback from stakeholder departments and utilities, complete with budget and level of service constraints.

An IMS pavement management program is comprehensive, from the data collection process to the delivery of a council presentation and ensures that the City of Mauldin will have the capability to utilize the pavement condition data for the implementation of real-world maintenance and construction programs.

Sidewalk and ROW Asset Inventories

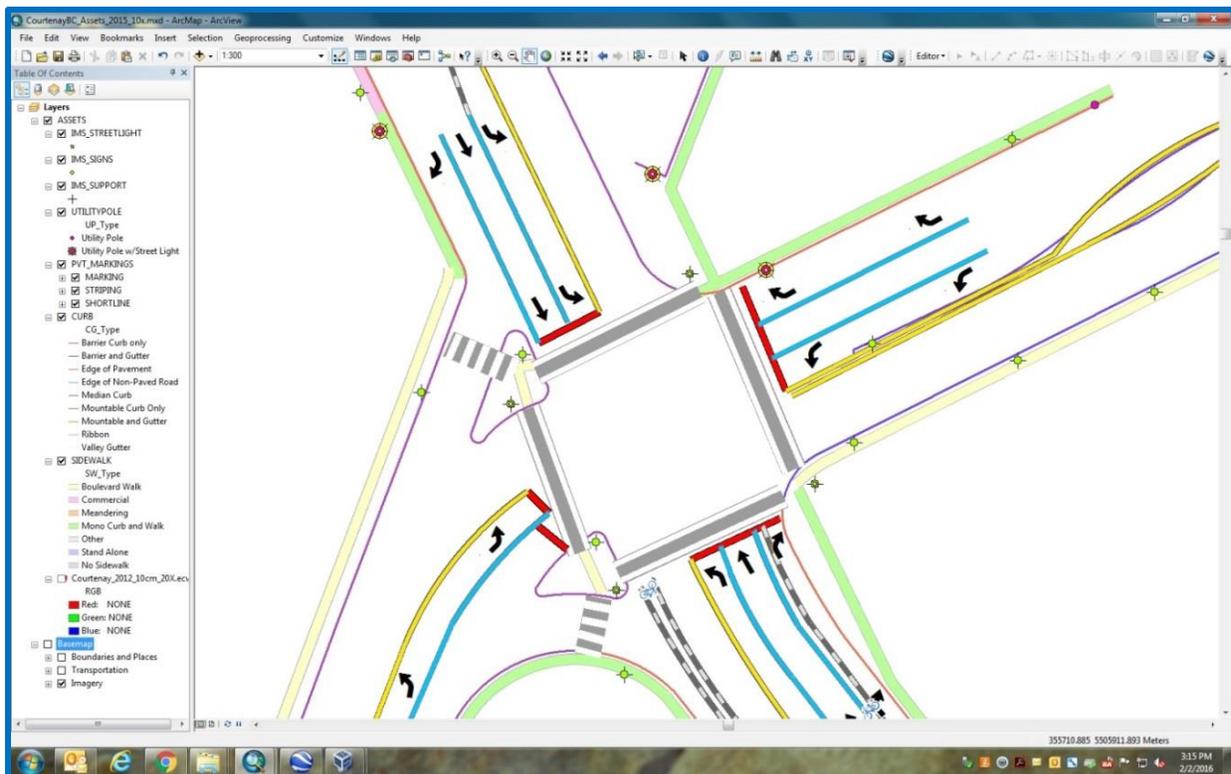
The versatility of the Laser RST is also seen in its ability to perform detailed right-of-way asset inventories for municipal agencies. IMS can develop the condition assessment and inventory information for the City's sidewalks, ADA ramps, curb and gutter, signs, lights, and many more assets. The ROW asset attributes are developed using multi-camera RST images and the GIS line work is developed within an ESRI environment. The base scope includes a sidewalk inventory. The end deliverable is a comprehensive asset inventory that is delivered in a personal geodatabase format and workable in GIS or via Google Earth.



As an example, standard IMS sidewalk attributes are:

- Street segment ID & unique asset ID
- Type, Condition (3 Tier), Material, Obstructions, Width, Position, Location
- Shape length, Start X/Y Coordinates, End X/Y Coordinates, and comments.

Below is an GIS image of a recent sidewalk, ramp, signs, pavement markings/striping, curb and gutter, and light post inventory that IMS completed for a municipal agency. The inventory was provided as a personal geodatabase, Google Earth KMZ file, and was loaded to their asset management application.



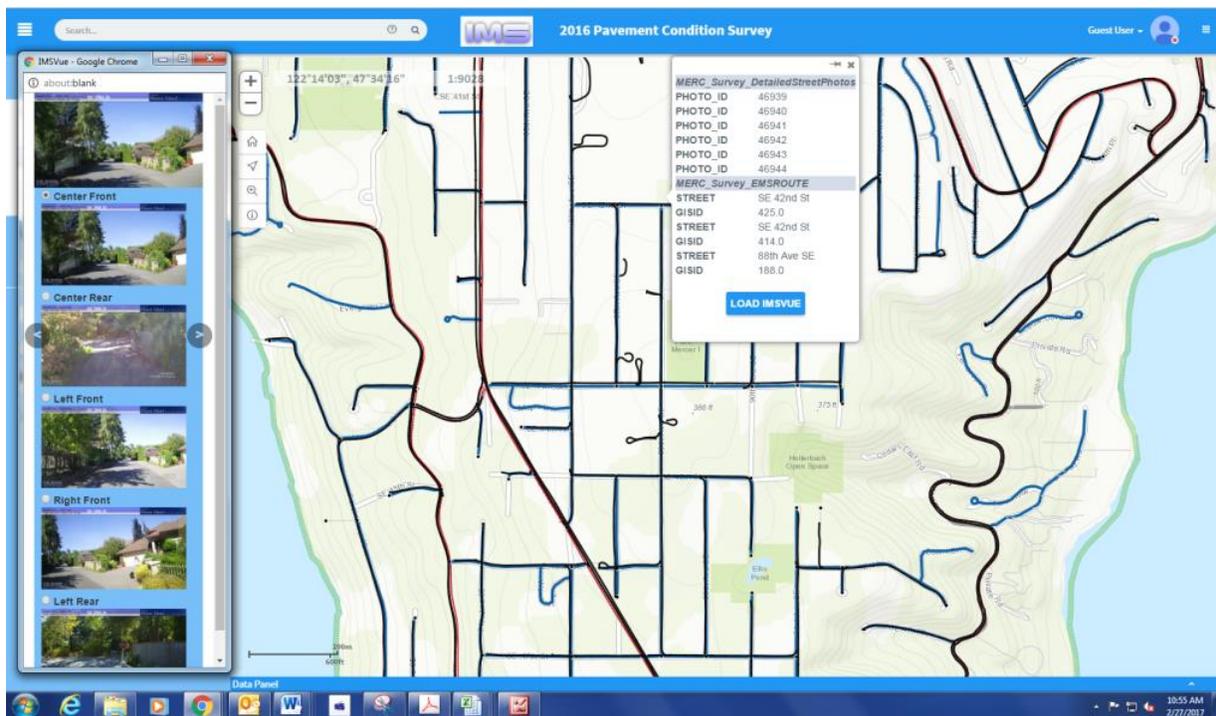
IMSVue: Web-Based Data Viewer

While IMS delivers all data in industry standard formats such as Excel Spreadsheets, Access, SQL, shape files, geodatabases, and even Google Earth KMZ files prior to the ESA delivery, we recognize that City staff may need access to data and imagery in an effort to review and validate the results and for reference to assets or quick condition look-ups. For this reason, the IMS team built an easy to use and intuitive data viewer that is used to house all data collected and reported by the IMS team.

IMSVue is a purpose built lightweight web based data viewing application. The IMS videologger would allow Mauldin staff easy access to all pavement condition data, analysis results, sidewalk inventories, and road imagery from a single browser based location that nearly anyone with access can use. As a recent example, the City of Pearland, Texas decided to implement the viewer as a part of the scope of services because they knew asset management software would not be selected for at least 2-3 years. This option gave them easy access to the data from a single location while maintaining an industry standard format for future asset management integration purposes.

IMSVue is a browser-based GIS image and data-viewing tool that is based in HTML 5. It is compatible with Chrome, Edge and Firefox and therefore will run in the Windows 10, 8, 7, Vista, and XP environments. While this solution could be hosted on an Intranet provided the City has a web and GIS server, the IMS team will host the viewer on our servers as a part of the implementation.

There are no license restrictions, only a one-time fee to set-up and configure for Mauldin use. Since IMS will be hosting the application and keeping it live 24/7, an annual maintenance fee will apply after year 2. The annual maintenance fee will give the City 24 hour access, remote hosting, seamless updates/upgrades, and ongoing support in the use of the viewer. The viewer is populated and installed to view pavement condition, right of way asset inventories, roadway images, and can be expanded to include historical data. The program is essentially a full-service data viewing application.



**City of Mauldin
Pavement Management Program Update**

Proposed Budget: Pavement Management Program

The detailed budget presented below is based on the IMS work plan and deliverables. This budget is based directly from the 2019 Greenville County bid and contract, which was competitively awarded to IMS and is currently open. The base scope of services includes pavement data collection, GIS linkage, data formatting and the development of a multi-year management plan and report.

This scope and budget represents a realistic budget to complete the work, and we are confident we can maintain an on-time, on-budget approach to the assignment.

City of Mauldin, SC - 2020 Piggyback Proposal					
Task	Activity	Quant	Units	Unit Rate	Total
Project Initiation					
1	Project Initiation & Kick-off Meeting	1	LS	\$0.00	\$0.00
2	Network Referencing & Survey Map Prep (*)	1	LS	\$2,000.00	\$2,000.00
3	GIS Linkage & Routing Plan (*)	1	LS	\$1,000.00	\$1,000.00
Field Surveys - Roadways					
4	LCMS2 Mobilization/Calibration	1	LS	\$500.00	\$500.00
5	LCMS2 Pavement Data Collection	82	T-Mi	\$70.00	\$5,740.00
Data Management					
6	Pavement Data QA/QC, Processing & Formatting (*)	1	LS	\$3,000.00	\$3,000.00
7	Pavement Analysis, Budget Development, and 5-Year Report	1	LS	\$7,500.00	\$7,500.00
8	Right of Way Assets Data Collection (RST Setup, GPS & Camera Config.)	82	T-Mi	\$10.00	\$820.00
9	Sidewalk Inventory and Condition Database Development	82	T-Mi	\$50.00	\$4,100.00
10	Delivery of Digital Images @ 10' Intervals (Forward View)	82	T-Mi	\$10.00	\$820.00
11	IMSVue Web-hosted Data and Image Viewer (includes Tech Support)	1	LS	\$7,000.00	\$7,000.00
12	Project Management	1	LS	\$2,436.00	\$2,436.00
2020 Pavement Management Program Total:					\$34,916.00

(*) Note that **Task Numbers 2, 3, and 6** have been converted from **T-Mi to LS** as represented in the Greenville County contract to reflect a minimum staff effort to complete the project. These rates still come in well below the Greenville County contract rates.

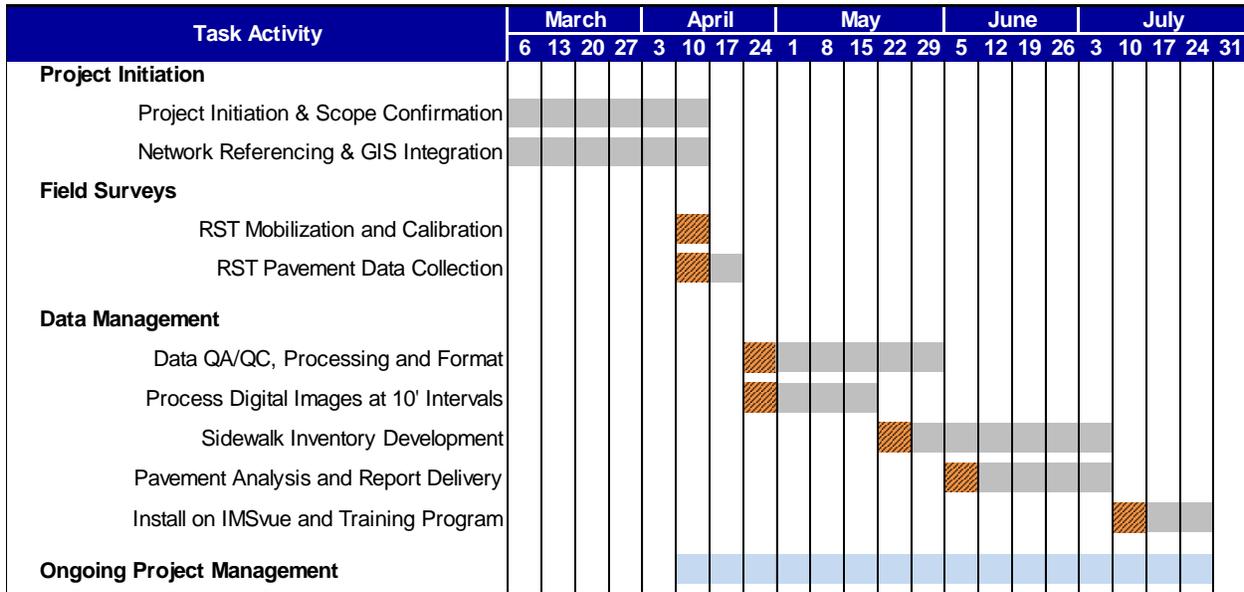
Other Scope Items Included In Greenville County Contract

13	Delivery of Digital Images @ 10' Intervals (Additional Views)	82	T-Mi	\$10.00	\$820.00
14	Dynalect Mobilization/Calibration	1	LS	\$2,500.00	\$2,500.00
15	Deflection Testing and Subgrade Strength Analysis Incorporation	82	T-Mi	\$135.00	\$11,070.00
16	Delivery of 3D Scan Imagery	82	T-Mi	\$8.00	\$656.00
17	Additional ROW Asset Inventories	90	T-Mi	\$10.00	\$900.00
	a. ADA Ramp Inventory & Compliance/Condition Database Development	82	T-Mi	\$60.00	\$4,920.00
	b. Curb & Gutter Inventory and Condition Database Development	82	T-Mi	\$50.00	\$4,100.00
	c. Street Lights Inventory and Condition Database Development	82	T-Mi	\$45.00	\$3,690.00
	d. Markings & Striping Inventory and Condition Database Development	82	T-Mi	\$65.00	\$5,330.00
	e. Sign & Support Inventory and Condition Database Development	82	T-Mi	\$100.00	\$8,200.00
18	Additional Hard Copies of the Final Report (>3 Sets Included)	1	EA	\$175.00	\$175.00
19	Additional or Specialty Maps for Reporting (Beyond Typical 2 Sets)	1	EA	\$150.00	\$150.00
20	GIS Creation Services	24	HR	\$175.00	\$4,200.00
21	Council Presentation	1	LS	\$3,500.00	\$3,500.00

**City of Mauldin
Pavement Management Program Update**

Proposed Budget: Pavement Management Program

The proposed schedule below has been developed in conjunction with the Greenville County data collection project. Upon completion of the field surveys in the County, IMS would mobilize to collect data in Mauldin. The RST field surveys are expected to progress at a conservative rate of 25 to 35 miles per day. Field surveys usually proceed at 5.5 to 6 days per week depending on weather, congestion, and statutory holidays. Elapsed time for the Mauldin field surveys is estimated at 1 week of testing.



 This represents float for weather or additional effort requirements

Thank you for your consideration of IMS as a viable solution to your pavement management needs and we will strive to become an asset and extension of the City of Mauldin staff and team. If any questions arise please do not hesitate to contact me at (847) 481-6322 or dwhite@imsanalysis.com.

Sincerely,

IMS Infrastructure Management Services



Dan White
Client Services Manager

Project Approval: City of Mauldin, SC (Greenville County Piggyback)

This proposal is submitted in duplicate with each copy being considered as an original. All prices are based on the unit rates from the Greenville County contract, executed in December 2019. Acceptance is constituted by signing and returning one copy to our office.

Base Pavement Management Services (please check off selected services)

2020 Pavement Management Program **\$34,916**

Optional Services (please check off selected services)

<input type="checkbox"/>	_____	\$ _____
<input type="checkbox"/>	_____	\$ _____
<input type="checkbox"/>	_____	\$ _____
<input type="checkbox"/>	_____	\$ _____
<input type="checkbox"/>	_____	\$ _____
<input type="checkbox"/>	_____	\$ _____

Final Accepted Proposal Price: _____

ACCEPTED:

By: _____

Title: _____

Date: _____

Public Works Committee

AGENDA ITEM

MEETING DATE: April 6, 2020

AGENDA ITEM: 6d

TO: Public Works Committee

FROM: City Administrator, Brandon Madden

SUBJECT: Springfield Park Playground Agreement with Cunningham Recreation

REQUEST

The Public Works Committee is requested to approve an agreement with Cunningham Recreation for the purchase and installation of a playgrounds and surfaces at Springfield Park, and funding for the installation of fencing around the playgrounds.

HISTORY/BACKGROUND

In the Council approved FY2020 budget, \$300,000 in the City's Capital Improvement Plan was appropriated for the purchase and installation of a new playground and surface at Springfield Park. Attached is a rendering of the current playgrounds and surfaces at Springfield Park.

ANALYSIS / STAFF FINDINGS

On January 27, 2020 staff issued a solicitation for Request for Proposals (RFP) for the purchase and installation of a playgrounds and surfaces at Springfield Park. The solicitation closed on February 26, 2020. The City received RFPs from Cunningham Recreation, Bliss Products, Churchich, and Darrs. An internal review Committee evaluated the bids and selected Cunningham Recreation as the lowest and most responsive bidder at a cost of \$268,896 for both playgrounds.

Given that this purchase is for a budgeted item and the bid awarded is for less than or equal to the budget, no additional formal Council approval is needed. However, Council approval is requested for the agreement with Cunningham Recreation.

Also, the Committee is requested to consider an additional item as a component of this project:

- **Installation of a fence around both playgrounds**

Per the request of the Councilor Black as Chair of the Recreation Committee, adding fencing around both playgrounds will provide uniformity with the City's other playgrounds, as the playgrounds at City Park, Sunset Park and the playgrounds along City Center Dr. all have or will have fencing. Based on quotes obtained by staff, the total cost for the fencing will not exceed \$6,500.

FINANCIAL IMPACT

The cost of Cunningham Recreation bid is \$268,896.

The cost of the fencing is \$6,500.

A breakdown of the total cost for all of the aforementioned items is detailed in the table below:

Total Cost Breakdown	
Item	Cost
Cunningham Recreation Bid	\$268,896
Fencing	\$6,500
Total	\$275,369
Total Amount of Funding Approved by Council for this Project	\$300,000
Remaining Balance	\$24,631

RECOMMENDATION

The City recommends approval of the following:

1. Agreement with Cunningham Recreation for the purchase and installation of playgrounds and surfaces for Springfield Park.
2. The purchase and installation of fencing for the playgrounds at a not to exceed cost of \$6,500.

The total cost of all of the aforementioned items is \$278,296 which is \$24,631 less than the Council approved budget of \$300,000 for this project.

ATTACHMENTS

Current Playground and Surface at Springfield Park
Agreement
Playground and Surface Renderings



Public Works Committee Meeting



Public Works Committee Meeting



Public Works Committee Meeting





GameTime c/o Cunningham Recreation
 PO Box 240981
 Charlotte, NC 28224
 800.438.2780
 704.525.7356 FAX

02/21/2020
 Quote #150229-01-03

City of Mauldin - Springfield Park RFP - Option 2 (Turf Surfacing)

Mauldin Parks and Recreation
 Attn: Joe Lanahan
 204 Hyde Circle
 Mauldin, SC 29662
 Phone: 864-335-4850
 Jlanahan@mauldinrecreation.com

Ship to Zip 29662

Quantity	Part #	Description	Unit Price	Amount
Upper Playground Space (Ages 2-5)				
1	RDU	GameTime - Powerscape/Xscape Modular Structure for Ages 2-5 (per drawing)	\$29,402.00	\$29,402.00
		(1) 26094 -- Triangular Shroud		
		(1) 3240 -- Sensory Ring		
		(1) 3267 -- Sensory Ring Color Wheel		
		(1) 90854 -- Equilateral Shade Canopy		
		(1) 3903 -- Hypentic Wheel 12" 2S		
		(1) 91364 -- Sensory Wave Panel w/ chimes		
		(1) 91137 -- Entryway - 3D		
		(1) 36002 -- Abc Climbing Wall		
		(1) 36030 -- Single Link Cross Beam Powerscape Plus		
		(2) 80001 -- 49"Tri Punched Steel Deck		
		(1) 80656 -- Access Attachment 3'& 4'		
		(1) 91031 -- 3'-0" Transfer Platform (3D)		
		(1) 80082 -- Slide Transfer		
		(1) 90507 -- 2'-6"/3' Rumble & Roll Zip Slide		
		(1) 91035 -- 2'-0" Transfer System (3D)		
		(1) 36082 -- Free Standing X-Pod Step		
		(1) 90266 -- 8' Upright, Alum		
		(2) G90262 -- 4' Upright, Galv		
		(2) 90267 -- 9' Upright, Alum		
		(1) G90269 -- 11' Upright, Galv		
		(2) G90268 -- 10' Upright, Galv		
1	FWR-T-IG	Freenotes - Turquoise Flower (with Inground Mount Kit)	\$1,104.00	\$1,104.00
1	FWR-I-IG	Freenotes - Indigo Flower (with Inground Mount Kit)	\$1,204.00	\$1,204.00
1	FWR-O-IG	Freenotes - Orange Flower (with Inground Mount Kit)	\$1,104.00	\$1,104.00
1	FWR-Y-IG	Freenotes - Yellow Flower (with Inground Mount Kit)	\$1,204.00	\$1,204.00



GameTime c/o Cunningham Recreation
 PO Box 240981
 Charlotte, NC 28224
 800.438.2780
 704.525.7356 FAX

02/21/2020
 Quote #150229-01-03

City of Mauldin - Springfield Park RFP - Option 2 (Turf Surfacing)

Quantity	Part #	Description	Unit Price	Amount
1	161292	GameTime - Wear Mat 44"x48" Lower Playground Swing Area (Ages 2-5 and 5-12)	\$239.00	\$239.00
1	10847	GameTime - Ada Two-Place Swing F/S, 5" Od	\$2,000.00	\$2,000.00
1	10848	GameTime - Ada Two-Place Swing Add-A-Bay, 5" Od	\$1,202.00	\$1,202.00
2	8918	GameTime - Belt Seat Pkg 5"Od(8918)	\$257.00	\$514.00
2	8914	GameTime - Encl Tot Seat 5"Od(8914)	\$320.00	\$640.00
2	161292	GameTime - Wear Mat 44"x48"	\$239.00	\$478.00
Lower Playground Area (Ages 5-12)				
1	RDU	GameTime - Powerscape/Ionix Modular Structure for Ages 5-12 (per drawing)	\$87,536.00	\$87,536.00
		(1) 90853 -- Quadratic Shade Canopy		
		(1) 91210 -- Climber Entryway - 3D		
		(1) 90854 -- Equilateral Shade Canopy		
		(1) 80924 -- Double Seat		
		(1) 4842 -- Echo Chamber Ass'Y		
		(1) 80931 -- Single Gizmo Panel		
		(1) 90834 -- 3-in-a-Row Game Gadget (crw thru)Ab Dk		
		(1) 91208 -- Climber Entryway - Guardrail		
		(1) 91209 -- Climber Entryway - Barrier		
		(1) 91488 -- Vertical Wiggle Climber 6'-6'6"		
		(1) 80082 -- Slide Transfer		
		(1) 90510 -- 6' Dueling Wave Zip Slide, Std Dk		
		(1) 6233 -- Pod (2'-0")		
		(1) 90025 -- 1'-0" Transfer System W/ Guardrail		
		(2) 80001 -- 49"Tri Punched Steel Deck		
		(1) 91523 -- Ripple Pass		
		(1) 32106 -- Helix Tower w/Spiral 8'		
		(14) 32009 -- Hex Topper		
		(2) 32000 -- Vessel (1-Way)		
		(4) 32023 -- Hex Pod Step (2')		
		(4) 32022 -- Hex Pod Step (1')		
		(1) 32021 -- Jungle Vine Link		
		(1) 32034 -- Tron Climber (Socket @ 90)		
		(1) 90655 -- Pod Climber		
		(1) 91137 -- Entryway - 3D		



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02/21/2020
 Quote #150229-01-03

City of Mauldin - Springfield Park RFP - Option 2 (Turf Surfacing)

Quantity	Part #	Description	Unit Price	Amount
		(1) 91031 -- 3'-0" Transfer Platform (3D)		
		(1) 90503 -- 2'-6"/3' Single Wave Zip Slide		
		(1) 80000 -- 49" Sq Punched Steel Deck		
		(1) 90268 -- 10' Upright, Alum		
		(2) G90268 -- 10' Upright, Galv		
		(2) G90262 -- 4' Upright, Galv		
		(1) G90272 -- 14' Upright, Galv		
		(2) G90271 -- 13' Upright, Galv		
		(1) G90269 -- 11' Upright, Galv		
		(3) G90270 -- 12' Upright, Galv		
1	3205	GameTime - Spinning Sensory Wave Seat	\$1,132.00	\$1,132.00
2	161292	GameTime - Wear Mat 44"x48"	\$239.00	\$478.00
		Site Work		
1	INSTALL	MISC - Removal and Disposal- - Removal and disposal of approximately 580 square feet of asphalt pathway leading from parking lot to small shelter in lower playground space.	\$1,928.00	\$1,928.00
1	INSTALL	MISC - Excavation of Upper Playground Space- - Installer will excavate inside concrete curbing of upper playground space, approximately 8" down from the top of the curb. Spoils to be disposed of off-site.	\$2,530.00	\$2,530.00
1	INSTALL	MISC - Installation of Concrete Pathways- - Provision and installation of concrete pathway to replace existing asphalt pathway from parking lot to small shelter in lower playground space (new pathway to be approximately 60' long by 6' wide/360 square feet. - Provision and installation of concrete pathway from existing asphalt foot path between lower and upper playground spaces to the upper playground space (approximately 40' long by 6' wide/240 square feet). Installer will make a cut in existing concrete curbing on upper playground space to allow for ADA access.	\$6,507.00	\$6,507.00
1	INSTALL	MISC - Drainage for Upper and Lower Playground Spaces- - Provision and installation of drainage systems for upper playground and both spaces of lower playground space. Installer will dig 8-12" below clean sub surface and install up to 50 ft. of collection drain, which will pipe away to run off the outside of the surrounding sidewalk.	\$6,507.00	\$6,507.00
1	INSTALL	MISC - Provision and Installation of Concrete Curbs- - Provision and installation of a total of 356 linear feet of 8" tall concrete curbing. 146 linear feet to border the lower playground area containing swings, 210 linear feet to border the lower playground area containing the 5-12 play structure.	\$10,844.00	\$10,844.00
5000	TURF	GT-Impax - Synthetic Turf Safety Surfacing (per square foot)- Pricing includes: - Provision and installation of 5000 s.f. of synthetic turf (50 oz. turf with envirofill) and 2" pad. - Provision and installation of a 4" crushed stone subbase. - Freight, provision of dumpster, and site security. *To be installed in upper playground area, lower playground area, and lower swing area.	\$17.28	\$86,400.00
1	178749	GameTime - Owner's Kit	\$58.00	\$58.00



GameTime c/o Cunningham Recreation
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02/21/2020
 Quote #150229-01-03

City of Mauldin - Springfield Park RFP - Option 2 (Turf Surfacing)

Quantity	Part #	Description	Unit Price	Amount
1	RFP	MISC - Request For Proposal		
1	INSP	Playground Guardian - Low Frequency Safety Inspection- - Performed by a CPSI using Park Protector software with report of findings.	\$500.00	\$500.00
1	BONDS	MISC - Performance and Payment Bonds	\$7,532.00	\$7,532.00
			Sub Total	\$251,043.00
			Freight	\$4,971.71
			Tax	\$12,881.70
			Total	\$268,896.41

Comments

*Site must be clear, level, free of obstructions, and accessible.

*Customer is responsible for removal and disposal of all existing playground equipment.

*No borders are being quoted for upper playground space, and existing concrete curbing shall remain on site.

GAMETIME - TERMS & CONDITIONS:

- **PRICING:** Pricing is subject to change. Request updated pricing when purchasing from quotes more than 30 days old.
- **TERMS OF SALE:** For equipment & material purchases, Net 30 days from date of invoice for governmental agencies and those with approved credit. All others, full payment for equipment, taxes and freight up front. Balance for services & materials due upon completion or as otherwise negotiated upon credit application review. Pre-payment may be required for equipment orders totaling less than \$5,000. Payment by VISA, MasterCard, or AMEX is accepted. Checks should be made payable to Playcore Wisconsin, Inc. d/b/a GameTime unless otherwise directed.
- **CREDIT APPLICATION:** Required for all non-governmental agencies and those entities who have not purchased from GameTime within the previous twelve calendar months.
- **FINANCE CHARGE:** A 1.5% monthly finance charge (or maximum permitted by law) will be added to all invoices over 30 days past due.
- **CASH WITH ORDER DISCOUNT:** Orders for GameTime equipment paid in full at time of order via check or electronic funds transfer (EFT) are eligible for a 3% cash-with-order (CWO) discount.
- **ORDERS:** All orders shall be in writing by purchase order, signed quotation or similar documentation. Purchase orders must be made out to Playcore Wisconsin, Inc. d/b/a GameTime.
- **FREIGHT CHARGES:** Shipments shall be F.O.B. destination. Freight charges prepaid and added separately.
- **SHIPMENT:** Standard Lead time is 4-6 weeks after receipt and acceptance of purchase order, credit application, color selections and approved drawings or submittals.
- **PACKAGING:** All goods shall be packaged in accordance with acceptable commercial practices and marked to preclude confusion during unloading and handling.
- **RECEIPT OF GOODS:** Customer shall coordinate, receive, unload, inspect and provide written acceptance of shipment. Any damage to packaging or equipment must be noted when signing delivery ticket. If damages are noted, receiver must submit a claim to Cunningham Recreation within 15 Days. Receiver is also responsible for taking inventory of the shipment and reporting any concealed damage or discrepancy in quantities received within 60 days of receipt.
- **RETURNS:** Returns are only available on shipments delivered within the last 60 days. A 25% (min.) restocking fee will be deducted from any credit due. Customer is responsible for all packaging & shipping charges. Credit is based on condition of items upon return. All returns must be in unused and merchantable condition. GameTime reserves the right to deduct costs associated with restoring returned goods to merchantable condition. Uprights & custom products cannot be returned.
- **TAXES:** Sales tax is shown as a separate line item when included. A copy of your tax exemption certificate must be submitted at time of order or taxes will be added to your invoice.



GameTime c/o Cunningham Recreation
PO Box 240981
Charlotte, NC 28224
800.438.2780
704.525.7356 FAX

02/21/2020
Quote #150229-01-03

City of Mauldin - Springfield Park RFP - Option 2 (Turf Surfacing)

INSTALLATION CONDITIONS:

- **ACCESS:** Site should be clear, level and allow for unrestricted access of trucks and machinery.
- **STORAGE:** Customer is responsible for providing a secure location to off-load and store the equipment during the installation process. Once equipment has delivered to the site, the owner is responsible should theft or vandalism occur unless other arrangements are made and noted on the quotation.
- **FOOTER EXCAVATION:** Installation pricing is based on footer excavation through earth/soil only. Customer shall be responsible for unknown conditions such as buried utilities (public & private), tree stumps, rock, or any concealed materials or conditions that may result in additional labor or materials cost.
- **UTILITIES:** Installer will contact Miss Utility to locate all public utilities prior to layout and excavation of any footer holes. Owner is responsible for locating any private utilities.
- **ADDITIONAL COSTS:** Pricing is based on a single mobilization for installation unless otherwise noted. Price includes ONLY what is stated in this quotation. If additional site work or specialized equipment is required, pricing is subject to change.

ACCEPTANCE OF QUOTATION:

Acceptance of this proposal indicates your agreement to the terms and conditions stated herein.

Accepted By (printed): _____ Title: _____

Telephone: _____ Fax: _____

P.O. Number: _____ Date: _____

Purchase Amount: **\$268,896.41**

SALES TAX EXEMPTION CERTIFICATE #: _____

(PLEASE PROVIDE A COPY OF CERTIFICATE)

Salesperson's Signature

Customer Signature



GameTime c/o Cunningham Recreation
PO Box 240981
Charlotte, NC 28224
800.438.2780
704.525.7356 FAX

02/21/2020
Quote #150229-01-03

City of Mauldin - Springfield Park RFP - Option 2 (Turf Surfacing)

BILLING INFORMATION:

Bill to: _____

Contact: _____

Address: _____

Address: _____

City, State: _____ Zip: _____

Tel: _____ Fax: _____

E-mail: _____

SHIPPING INFORMATION (IF DIFFERENT FROM ABOVE):

Ship to: _____

Contact: _____

Address: _____

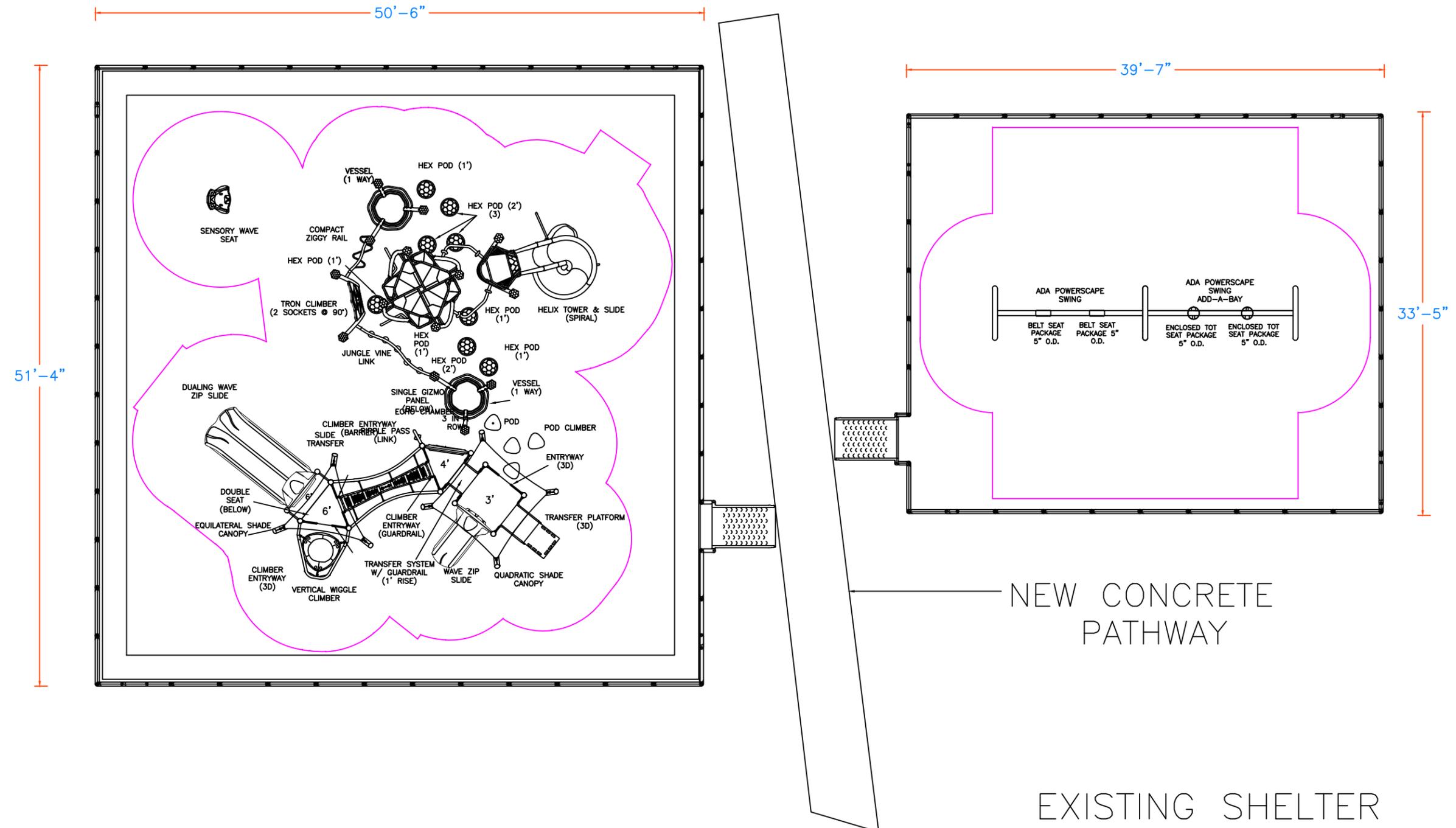
Address: _____

City, State: _____ Zip: _____

Tel: _____ Fax: _____

E-mail: _____

PARKING LOT



GameTime
 A PLAYCORE Company
 150 PlayCore Drive SE
 Fort Payne, AL 35967
 www.gametime.com



Mauldin Parks and Recreation
 Lower Playground (w/ Pathway)
 Mauldin, SC
 Representative
 Cunningham Recreation

This play equipment is recommended for children ages 2-5 or 5-12

Minimum Area Required:
 Scale: NTS
 This drawing can be scaled only when in an 11" x 17" format

IMPORTANT: Soft resilient surfacing should be placed in the use zones of all equipment, as specified for each type of equipment, and at depths to meet the critical fall heights as specified by the U.S. consumer Product Safety Commission, ASTM standard F 1487 and Canadian Standard CAN/CSA-Z-614

Drawn By: LO
 Date: 04/02/2020
 Drawing Name: Lower Playground w/ Pathway

Springfield Park - Lower Playground (5-12) Mauldin, SC

Design • Build • PLAY!



Alternate View

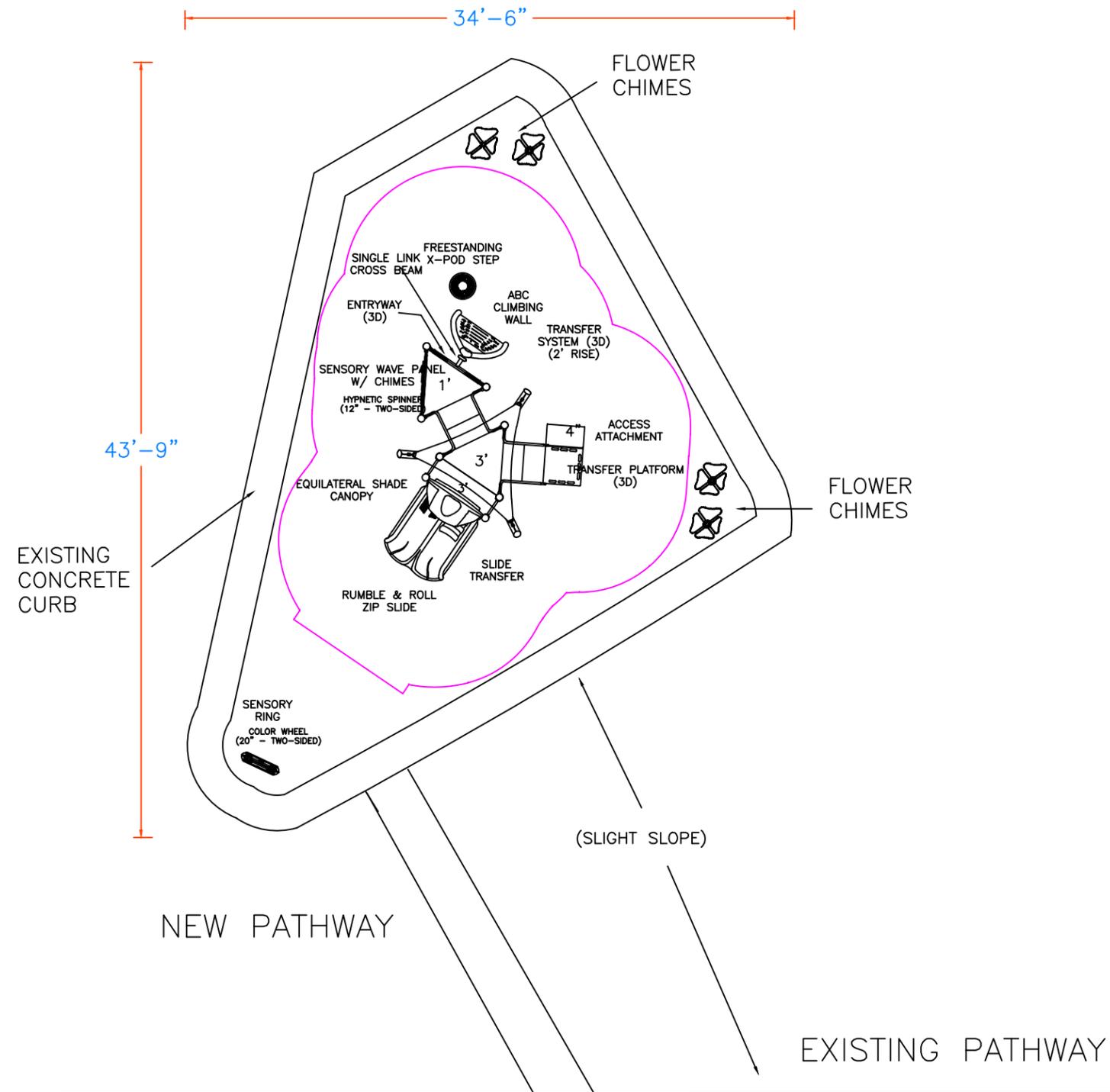


*Equipment has been rendered in the "Malibu" palette.

Springfield Park - Swings (Lower Playground Space) Mauldin, SC



*Swing frame rendered with bronze posts.



A PLAYCORE Company

150 PlayCore Drive SE
Fort Payne, AL 35967
www.gametime.com



Mauldin Parks and Recreation
Springfield Park - Upper Playground (w/ Path)
Mauldin, SC

Representative
Cunningham Recreation

This play equipment is recommended for children ages
2-5

Minimum Area Required:

Scale: NTS

This drawing can be scaled only when in an 11" x 17" format

IMPORTANT: Soft resilient surfacing should be placed in the use zones of all equipment, as specified for each type of equipment, and at depths to meet the critical fall heights as specified by the U.S. consumer Product Safety Commission, ASTM standard F 1487 and Canadian Standard CAN/CSA-Z-614

Drawn By:
LO

Date:
04/02/2020

Drawing Name:
2- 5 with Pathway

Springfield Park - Upper Playground (2-5) Mauldin, SC

Design • Build • PLAY!



*Equipment has been rendered in the "Malibu" palette.

Public Works Committee

AGENDA ITEM

MEETING DATE: April 6,

2020 AGENDA ITEM: 6f

TO: Public Works Committee
FROM: Public Works Director Matthew Fleahman
SUBJECT: Sewer Rehabilitation Program

REQUEST

The Public Works Committee is requested to approve an amendment to the agreement dated March 17, 2015 between the City of Mauldin and Frazier Engineering, P.A.

HISTORY/BACKGROUND

In the Council approved FY2020 budget, \$250,000 in the Sewer Division of the Public Works Department for sewer rehabilitation.

ANALYSIS / STAFF FINDINGS

The City of Mauldin (City) and Frazier Engineering (Engineer) entered into an Agreement dated March 15, 2015 for Engineering-Construction Management Services related to the City's Sewer Rehabilitation Program. Amending the contract to allow for the Engineer to provide general engineering services related to the City's overall rehabilitation program and providing design and construction management services for the City's sewer rehabilitation construction projects.

The amendment will authorize the Engineer to implement the Project to prioritize the required manhole rehabilitation and perform the rehabilitation work. Staff is requesting that Council approve the amendment – see attached amendment.

FINANCIAL IMPACT

The cost associated with this item will not exceed the budgeted amount of \$250,000.

RECOMMENDATION

Staff recommends approval of the amendment.

ATTACHMENTS

Amendment to the contract

EXHIBIT D
AMENDMENT No. 1 TO THE AGREEMENT DATED MARCH 17, 2015
BETWEEN
THE CITY OF MAULDIN AND FRAZIER ENGINEERING, P.A.

Engineering - Construction Management Services related to the City's Sewer Rehabilitation Program

Project Background

The City of Mauldin (City) and Frazier Engineering (Engineer) entered into an Agreement dated March 15, 2015 for Engineering-Construction Management Services related to the City's Sewer Rehabilitation Program. The Scope of Work included in the Agreement included providing general engineering services related to the City's overall rehabilitation program and providing design and construction management services for the City's sewer rehabilitation construction projects.

The Engineer provided design and construction management for the City's 2015 Sewer Bond Project and has provided continuous, ongoing engineering services to the City related to the City's overall sewer evaluation and rehabilitation program, including program review meetings, master planning, sewer system evaluation surveys (such as smoke testing and manhole inspections), flow monitoring, and coordination with ReWa including developing the City's yearly annual report and presentation to ReWa. This Amendment No. 1 adds additional services to the Agreement so the work can continue.

Scope of Work added by Amendment No. 1

The City has approximately \$225,000 to \$250,000 budgeted for manhole rehabilitation. The Project is identified herein as the 2020 Mauldin Manhole Rehabilitation Project (the Project). This Amendment No. 1 will authorize the Engineer to implement the Project to prioritize the required manhole rehabilitation and perform the rehabilitation work to include the following services:

- Design and Construction Management Services for the Project will be provided under this Amendment No. 1. The Engineer will review the available manhole inspections and list of known manhole defects, will review the remaining manhole rehabilitation work from the previous 2015 Sewer Bond Project, and will meet with the City to review their manhole repair backlog and list of priorities.

The Engineer will then develop Manhole Rehabilitation Work Orders to identify the work to be performed with estimated costs. The costs will be monitored continuously to ensure the City's budget is not exceeded. The Engineer will inspect the manhole rehabilitation work in the field as the work is performed to confirm it meets the Engineer's specifications and standards and to verify the work is acceptable for payment. The Engineer will bill for work performed at the standard hourly rates below:

Project Manager = \$140 per hour
Senior Engineer = \$130 per hour
Construction Inspector = \$95 per hour
Mileage Rate = \$0.575 per mile (current IRS rate)
Expenses = at cost

- Manhole Rehabilitation Work: Manhole rehabilitation work will be performed based on the Manhole Rehabilitation Work Orders issued by the Engineer. The rehabilitation work may include any of the rehabilitation work items included on the attached 2020 Mauldin Manhole Rehab Project – Unit Price Schedule. All work will be performed in accordance with the Engineer’s standard specifications and details for this work including those utilized for completion of the City’s 2015 Sewer Bond Project. All manhole rehabilitation work will be performed by Central Carolina Underground, Inc. (CCU) of Statesville, North Carolina. CCU has performed sewer and manhole rehabilitation work on the Engineer’s projects since 2002 and is highly capable and experienced to perform all work included in this Project.

The work will be paid based on the actual work completed at the unit prices listed on the attached 2020 Mauldin Manhole Rehab Project – Unit Price Schedule. The work and final quantities will be determined by the Engineer as issued on the aforementioned Manhole Rehabilitation Work Orders. The Engineer will inspect the work as it is being performed to confirm it meets the Engineer’s specifications and standards and to verify the work is acceptable for payment.

Compensation

This Amendment No. 1 establishes an upper limit amount of \$250,000 with the final amount to be determined by the City based on their final budget and available funds. The final budget/upper limit amount will include payment for the Engineering and Construction Management Services plus the Manhole Rehabilitation Work. The City will notify the Engineer of the final upper limit amount (if it changes from \$250,000), and the Engineer will continuously monitor the work being performed under this Project so that the budget is not exceeded. All work will be paid at the hourly rates and unit prices as previously defined herein.

Project Schedule

The Engineer and CCU are both fully operational during the current COVID-19 crisis. The Engineer will begin providing services for this Project immediately upon authorization. CCU is available to begin immediately when the first manhole rehabilitation work order is issued, pending any delays out of their control due to the COVID-19 virus (such as lack of hotels to accommodate their out-of-town crews). The work will continue diligently with the hope of utilizing the City’s budget by June 30, 2020.

IN WITNESS WHEREOF, the parties hereto have caused their names to be set as of the day and year first below written.

City of Mauldin

Frazier Engineering, P.A.

By: _____

By: Aaron M. Frazier

Printed: _____

Printed: Aaron M. Frazier, P.E.

Title: _____

Title: President

Date: _____

Date: 4/1/2020

Attachment: 2020 Mauldin Manhole Rehab Project – Unit Price Schedule (2 Pages)

**2020 MAULDIN MANHOLE REHAB PROJECT
UNIT PRICE SCHEDULE**

For furnishing all new materials, labor and equipment that may be incidental to and for the construction of sanitary sewer facilities as specified and outlined below:

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE
1	FOR INSTALLING 1" THICK CEMENTITIOUS MORTAR ON EXISTING MANHOLE WALLS & BENCHES, AS SPECIFIED AND IN ACCORDANCE WITH DETAIL SS-13, ANY LOCATION, COMPLETE IN PLACE.			
A.	IN EXISTING 4-FOOT-DIAMETER MANHOLES			
1)	STANDARD MATERIAL	1	VF	\$155.00
B.	IN EXISTING 5-FOOT-DIAMETER MANHOLES			
1)	STANDARD MATERIAL	1	VF	\$170.00
2	FOR RESETTING EXISTING FRAMES AND COVERS AS SPECIFIED, INCLUDING COMPLETE RESTORATION OF PAVED OR UNPAVED AREAS AS SPECIFIED AND IN ACCORDANCE WITH DETAIL SS-10A, COMPLETE IN PLACE.			
A.	MANHOLES IN PAVED AREAS	1	EA	\$1,050.00
B.	MANHOLES IN UNPAVED AREAS	1	EA	\$400.00
3	FOR REPLACING EXISTING MANHOLE FRAMES AND COVERS WITH NEW 24-INCH-DIAMETER CAM-LOCK WATERTIGHT FRAMES AND COVERS, AS SPECIFIED, INCLUDING COMPLETE RESTORATION OF PAVED OR UNPAVED AREAS AS SPECIFIED AND IN ACCORDANCE WITH DETAIL SS-10A, COMPLETE IN PLACE.			
A.	WATERTIGHT COVERS IN PAVED AREAS	1	EA	\$1,250.00
B.	WATERTIGHT COVERS IN UNPAVED AREAS	1	EA	\$1,050.00
4	FOR REPLACING EXISTING MANHOLE FRAMES AND COVERS WITH NEW 24-INCH-DIAMETER SOLID FRAMES AND COVERS (NO VENT HOLES OR PENETRATING PICK HOLES), AS SPECIFIED, INCLUDING COMPLETE RESTORATION OF PAVED OR UNPAVED AREAS AS SPECIFIED AND IN ACCORDANCE WITH DETAIL SS-10A, COMPLETE IN PLACE.			
A.	SOLID COVERS IN PAVED AREAS	1	EA	\$1,100.00
B.	SOLID COVERS IN UNPAVED AREAS	1	EA	\$850.00
5	FOR RAISING EXISTING MANHOLE COVERS WITH BRICKS OR CONCRETE GRADE RINGS, HEIGHT OF ADJUSTMENT AS NOTED, AS SPECIFIED, INCLUDING COMPLETE RESTORATION OF PAVED OR UNPAVED AREAS AS SPECIFIED AND IN ACCORDANCE WITH DETAIL SS-10A, COMPLETE IN PLACE.			
A.	MANHOLES IN PAVED AREAS			
1)	0 TO 1 VERTICAL FOOT	1	EA	\$1,050.00
2)	GREATER THAN 1 VERTICAL FOOT, PAYMENT FOR EACH FOOT OVER 1 VERTICAL FOOT, ADD TO ITEM 5(A)(1) ABOVE	1	VF	\$580.00
B.	MANHOLES IN UNPAVED AREAS			
1)	0 TO 1 VERTICAL FOOT	1	EA	\$500.00
2)	GREATER THAN 1 VERTICAL FOOT, PAYMENT FOR EACH FOOT OVER 1 VERTICAL FOOT, ADD TO ITEM 5(B)(1) ABOVE	1	VF	\$300.00

**2020 MAULDIN MANHOLE REHAB PROJECT
UNIT PRICE SCHEDULE**

For furnishing all new materials, labor and equipment that may be incidental to and for the construction of sanitary sewer facilities as specified and outlined below:

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE
6	FOR BUILDING CONCRETE SLIDES IN MANHOLES FOR EXISTING SERVICE LATERALS AND INCOMING SEWERS AS SPECIFIED ON THE DRAWINGS AND/OR WHERE DIRECTED BY THE ENGINEER IN ACCORDANCE WITH DETAIL SS-7A, ANY CONFIGURATION, INCLUDING BYPASS PUMPING, COMPLETE IN PLACE.			
A.	6" OR LESS (INVERT OF PIPE TO BENCH)	1	EA	\$275.00
B.	6" TO 12" (INVERT OF PIPE TO BENCH)	1	EA	\$375.00
C.	12" TO 24" (INVERT OF PIPE TO BENCH)	1	EA	\$650.00
7	FOR REBUILDING EXISTING MANHOLE BENCHES AND INVERT CHANNELS, ANY CONFIGURATION, INCLUDING BYPASS PUMPING, AS SPECIFIED, COMPLETE IN PLACE PER DETAIL SS-7.			
A.	IN EXIST 4-FOOT-DIAMETER MANHOLES	1	EA	\$425.00
B.	IN EXIST 5-FOOT-DIAMETER MANHOLES	1	EA	\$550.00
8	FOR PLUGGING EXISTING ABANDONED/INACTIVE SEWERS CONNECTING TO MANHOLES, PIPE DIAMETER AS NOTED, AS SPECIFIED, COMPLETE IN PLACE.			
A.	EXIST 4-INCH TO 8-INCH-DIAMETER SEWERS	1	EA	\$100.00
B.	EXIST 10-INCH TO 15-INCH-DIAMETER SEWERS	1	EA	\$125.00