

## City of West Allis

### Symbiont Project # 21PS37150 Public Works Add-On

#### Scope of Services and Estimated Costs

##### Background

The following scope of services is based on ongoing efforts to support the City of West Allis Information Technology department implement GIS datasets and solutions specific to the City of West Allis Public Works Department priorities and organizational initiatives. For purposes of simplicity individual tasks and deliverables are organized by division.

##### Overall Scope of Services

Outlined below are anticipated tasks associated with GIS support services.

- Geodatabase enhancements and development
- **Feature Class (FC)** development, configuration, and population
- Feature/Map Service Creation
- **Web Map (WM)** configuration
- GIS viewer creation and updates
- Mobile GIS application Implementation and configuration using **Field Maps (FM)**
- **Dashboard (DB)** development
- Staff training
- Technical support and troubleshooting

##### Scope Initiatives

##### Initiative I: Building & Sign Division :

Signs, Event Setup	
Feature Class (FC) Development	<ul style="list-style-type: none"><li>• City will provide Symbiont with layer schema requirements<ul style="list-style-type: none"><li>○ Feature Class Fields, Domains, Etc.</li><li>○ Maintenance Tables</li></ul></li><li>• Symbiont will build <b>Sign, Event Setup</b> FCs per City specifications</li><li>• City will provide Symbiont with existing GIS layer and historic maintenance data (if either exists)<ul style="list-style-type: none"><li>○ Symbiont will load existing data and maintenance records into new FC</li></ul></li><li>• FCs will be loaded into City Enterprise GIS database</li><li>• FC templates will be configured for editing requirements</li><li>• FCs will be published as (Feature/Map Service)</li><li>• Symbiont will work with City staff to integrate the appropriate desktop/browser editing capabilities</li></ul>
Field Map (FM) Configuration	<ul style="list-style-type: none"><li>• Symbiont will configure <b>Sign, Event Setup</b> WM per City specifications to function properly in ESRI Field Maps</li></ul>

	<ul style="list-style-type: none"> <li>○ Integration of appropriate layer(s)</li> <li>○ Symbology, Labeling, Transparency, Etc.</li> <li>• Symbiont will configure <b>Sign, Event Setup</b> FM per City specifications <ul style="list-style-type: none"> <li>○ Form (Formatting, Input, Type, Required, Default values, Conditional Visibility)</li> </ul> </li> <li>• Symbiont will demo <b>Sign, Event Setup</b> FM to City; If required, additional modifications will be made per feedback from City Staff.</li> </ul>		
Dashboard (DB) Development	<ul style="list-style-type: none"> <li>• Symbiont will work collaboratively with City staff on defining the requirements of the <b>Sign, Event Setup</b> DBs; However, we anticipate scope may include configuration of <b>1-2 Sign, 1 Event Setup</b> specific DBs</li> <li>• A single WM will be configured for each DB</li> <li>• DB will be built using consistent branding and appearance</li> <li>• DB will be integrated with <b>Sign, Event Setup</b> FCs and may include integration of the following DB components <ul style="list-style-type: none"> <li>○ Header, Side panels</li> <li>○ Maps</li> <li>○ Serial Charts, Pie Charts</li> <li>○ Indicators, Gauge</li> <li>○ Lists, Details, Rich Text, Embedded content</li> <li>○ Supplemental GIS Content</li> </ul> </li> <li>• Symbiont will demo <b>Sign, Event Setup</b> DBs to City; If required, additional modifications will be made per feedback from City Staff.</li> <li>• Dashboards will be combined into a single <b>(Building &amp; Sign Division Dashboards App)</b> for simplified access.</li> </ul>		
Other	<ul style="list-style-type: none"> <li>• Content (Data, Apps, Solutions) will be delivered in consistent manner <ul style="list-style-type: none"> <li>○ Thumbnails, description, tags, etc.</li> </ul> </li> <li>• Future modifications and technical support will be provided on time and materials basis</li> <li>• Schedule TBD</li> </ul>		
Estimated Cost	Signs	\$4,700	
	Event Setup	\$5,800	
	<b>Total</b>	<b>\$10,500</b>	

## **Initiative II: Electrical Division :**

<b>Light Poles</b>	
Feature Class (FC) Development	<ul style="list-style-type: none"> <li>City will provide Symbiont with layer schema requirements               <ul style="list-style-type: none"> <li>Feature Class Fields, Domains, Etc.</li> <li>Maintenance Tables</li> </ul> </li> <li>Symbiont will update <b>Light Poles</b> FC per City</li> <li>City will provide Symbiont with existing GIS layer and historic maintenance data (if either exists)               <ul style="list-style-type: none"> <li>Symbiont will load existing data and maintenance records into new FC</li> </ul> </li> <li>FCs will be loaded into City Enterprise GIS database</li> <li>FC templates will be configured for editing requirements</li> <li>FCs will be published as (Feature/Map Service)</li> <li>Symbiont will work with City staff to integrate the appropriate desktop/browser editing capabilities</li> </ul>
Field Map (FM) Configuration	<ul style="list-style-type: none"> <li>Symbiont will configure/update <b>Light Pole</b> WM per City specifications to function properly in ESRI Field Maps               <ul style="list-style-type: none"> <li>Integration of appropriate layer(s)</li> <li>Symbology, Labeling, Transparency, Etc.</li> </ul> </li> <li>Symbiont will configure <b>Light Pole</b> FM per City specifications               <ul style="list-style-type: none"> <li>Form (Formatting, Input, Type, Required, Default values, Conditional Visibility)</li> </ul> </li> <li>Symbiont will demo <b>Light Pole</b> FM to City; If required, additional modifications will be made per feedback from City Staff.</li> </ul>
Dashboard (DB) Development	<ul style="list-style-type: none"> <li>Symbiont will work collaboratively with City staff on defining the requirements of the <b>Light Pole</b> DBs; However, we anticipate scope may include configuration of <b>1 Light Pole</b> specific DBs</li> <li>A single WM will be configured for each DB</li> <li>DB will be built using consistent branding and appearance</li> <li>DB will be integrated with <b>Light Pole</b>FCs and may include integration of the following DB components               <ul style="list-style-type: none"> <li>Header, Side panels</li> <li>Maps</li> <li>Serial Charts, Pie Charts</li> <li>Indicators, Gauge</li> <li>Lists, Details, Rich Text, Embedded content</li> <li>Supplemental GIS Content</li> </ul> </li> <li>Symbiont will demo <b>Light Pole</b> DBs to City; If required, additional modifications will be made per feedback from City Staff.</li> <li>Dashboards will be combined into a single <b>(Electrical Division App)</b> for simplified access.</li> </ul>
Other	<ul style="list-style-type: none"> <li>Content (Data, Apps, Solutions) will be delivered in consistent manner               <ul style="list-style-type: none"> <li>Thumbnails, description, tags, etc.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Future modifications and technical support will be provided on time and materials basis</li> <li>• Schedule TBD</li> </ul>	
Estimated Cost	Light Pole	\$4,700
	Total	\$4,700

### **Initiative III: Forestry Division :**

Trees, Turf Areas	
Feature Class (FC) Development	<ul style="list-style-type: none"> <li>• City will provide Symbiont with layer schema requirements <ul style="list-style-type: none"> <li>○ Feature Class Fields, Domains, Etc.</li> <li>○ Maintenance Tables</li> </ul> </li> <li>• Symbiont will build <b>Turf Areas</b> FCs per City specifications</li> <li>• Symbiont will update <b>Trees</b> FC per City</li> <li>• City will provide Symbiont with existing GIS layer and historic maintenance data (if either exists) <ul style="list-style-type: none"> <li>○ Symbiont will load existing data and maintenance records into new FC</li> </ul> </li> <li>• FCs will be loaded into City Enterprise GIS database</li> <li>• FC templates will be configured for editing requirements</li> <li>• FCs will be published as (Feature/Map Service)</li> <li>• Symbiont will work with City staff to integrate the appropriate desktop/browser editing capabilities</li> </ul>
Field Map (FM) Configuration	<ul style="list-style-type: none"> <li>• Symbiont will configure/update <b>Trees, Turf Areas Beds</b> WM per City specifications to function properly in ESRI Field Maps <ul style="list-style-type: none"> <li>○ Integration of appropriate layer(s)</li> <li>○ Symbology, Labeling, Transparency, Etc.</li> </ul> </li> <li>• Symbiont will configure <b>Trees, Turf Areas</b> FM per City specifications <ul style="list-style-type: none"> <li>○ Form (Formatting, Input, Type, Required, Default values, Conditional Visibility)</li> </ul> </li> <li>• Symbiont will demo <b>Trees, Turf Areas</b> FM to City; If required, additional modifications will be made per feedback from City Staff.</li> </ul>
Dashboard (DB) Development	<ul style="list-style-type: none"> <li>• Symbiont will work collaboratively with City staff on defining the requirements of the <b>Trees, Turf Areas</b>; However, we anticipate scope may include configuration of <b>2-3 Trees, 1 Turf Areas</b>, specific DBs</li> <li>• A single WM will be configured for each DB</li> <li>• DB will be built using consistent branding and appearance</li> <li>• DB will be integrated with <b>Trees, Turf Areas</b> FCs and may include integration of the following DB components <ul style="list-style-type: none"> <li>○ Header, Side panels</li> <li>○ Maps</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Serial Charts, Pie Charts</li> <li>○ Indicators, Gauge</li> <li>○ Lists, Details, Rich Text, Embedded content</li> <li>○ Supplemental GIS Content</li> <li>● Symbiont will demo <b>Trees, Turf Areas</b> DBs to City; If required, additional modifications will be made per feedback from City Staff.</li> <li>● Dashboards will be combined into a single <b>(Forestry Division App)</b> for simplified access.</li> </ul>		
Other	<ul style="list-style-type: none"> <li>● Content (Data, Apps, Solutions) will be delivered in consistent manner <ul style="list-style-type: none"> <li>○ Thumbnails, description, tags, etc.</li> </ul> </li> <li>● Future modifications and technical support will be provided on time and materials basis</li> <li>● Schedule TBD</li> </ul>		
Estimated Cost	Trees	\$5,600	
	Turf Areas	\$5,100	
	<b>Total</b>	<b>\$10,600</b>	

## Initiative IV: Streets Division :

Road Maintenance	
Feature Class (FC) Development	<ul style="list-style-type: none"> <li>● City will provide Symbiont with layer schema requirements <ul style="list-style-type: none"> <li>○ Feature Class Fields, Domains, Etc.</li> <li>○ Maintenance Tables</li> </ul> </li> <li>● Symbiont will build <b>Road Maintenance</b> FCs per City specifications</li> <li>● City will provide Symbiont with existing GIS layer and historic maintenance data (if either exists) <ul style="list-style-type: none"> <li>○ Symbiont will load existing data and maintenance records into new FC</li> </ul> </li> <li>● FCs will be loaded into City Enterprise GIS database</li> <li>● FC templates will be configured for editing requirements</li> <li>● FCs will be published as (Feature/Map Service)</li> <li>● Symbiont will work with City staff to integrate the appropriate desktop/browser editing capabilities</li> </ul>
Field Map (FM) Configuration	<ul style="list-style-type: none"> <li>● Symbiont will configure/update <b>Road Maintenance</b> WM per City specifications to function properly in ESRI Field Maps <ul style="list-style-type: none"> <li>○ Integration of appropriate layer(s)</li> <li>○ Symbology, Labeling, Transparency, Etc.</li> </ul> </li> <li>● Symbiont will configure <b>Road Maintenance</b> FM per City specifications <ul style="list-style-type: none"> <li>○ Form (Formatting, Input, Type, Required, Default values, Conditional Visibility)</li> </ul> </li> <li>● Symbiont will demo <b>Road Maintenance</b> FM to City; If required, additional modifications will be made per feedback from City Staff.</li> </ul>

Dashboard (DB) Development	<ul style="list-style-type: none"> <li>Symbiont will work collaboratively with City staff on defining the requirements of the <b>Road Maintenance</b> DBs; However, we anticipate scope may include configuration of <b>Road Maintenance</b> specific DBs</li> <li>A single WM will be configured for each DB</li> <li>DB will be built using consistent branding and appearance</li> <li>DB will be integrated with <b>Road Maintenance</b> FCs and may include integration of the following DB components <ul style="list-style-type: none"> <li>Header, Side panels</li> <li>Maps</li> <li>Serial Charts, Pie Charts</li> <li>Indicators, Gauge</li> <li>Lists, Details, Rich Text, Embedded content</li> <li>Supplemental GIS Content</li> </ul> </li> <li>Symbiont will demo <b>Road Maintenance</b> DBs to City; If required, additional modifications will be made per feedback from City Staff.</li> <li>Dashboards will be combined into a single (<b>Streets Division App</b>) for simplified access.</li> </ul>		
Other	<ul style="list-style-type: none"> <li>Content (Data, Apps, Solutions) will be delivered in consistent manner <ul style="list-style-type: none"> <li>Thumbnails, description, tags, etc.</li> </ul> </li> <li>Future modifications and technical support will be provided on time and materials basis</li> <li>Schedule TBD</li> </ul>		
Estimated Cost	Road Maintenance	\$8,600	
	<b>Total</b>	<b>\$8,600</b>	

## **Initiative V: Sanitation Division :**

Routes	
Feature Class (FC) Development	<ul style="list-style-type: none"> <li>City will provide Symbiont with layer schema requirements <ul style="list-style-type: none"> <li>Feature Class Fields, Domains, Etc.</li> <li>Maintenance Tables</li> </ul> </li> <li>Symbiont will build <b>Routes</b> FCs per City specifications</li> <li>City will provide Symbiont with existing GIS layer and historic maintenance data (if either exists) <ul style="list-style-type: none"> <li>Symbiont will load existing data and maintenance records into new FC</li> </ul> </li> <li>FCs will be loaded into City Enterprise GIS database</li> <li>FC templates will be configured for editing requirements</li> <li>FCs will be published as (Feature/Map Service)</li> <li>Symbiont will work with City staff to integrate the appropriate desktop/browser editing capabilities</li> </ul>
Field Map (FM) Configuration	<ul style="list-style-type: none"> <li>Symbiont will configure/update <b>Routes</b> WM per City specifications to function properly in ESRI Field Maps <ul style="list-style-type: none"> <li>Integration of appropriate layer(s)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Symbology, Labeling, Transparency, Etc.</li> <li>• Symbiont will <b>Routes</b> FM per City specifications <ul style="list-style-type: none"> <li>○ Form (Formatting, Input, Type, Required, Default values, Conditional Visibility)</li> </ul> </li> <li>• Symbiont will demo <b>Routes</b> FM to City; If required, additional modifications will be made per feedback from City Staff.</li> </ul>		
Dashboard (DB) Development	<ul style="list-style-type: none"> <li>• Symbiont will work collaboratively with City staff on defining the requirements of the <b>Routes</b> DBs; However, we anticipate scope may include configuration of <b>1-Routes</b> specific DBs</li> <li>• A single WM will be configured for each DB</li> <li>• DB will be built using consistent branding and appearance</li> <li>• DB will be integrated with <b>Routes</b> FCs and may include integration of the following DB components <ul style="list-style-type: none"> <li>○ Header, Side panels</li> <li>○ Maps</li> <li>○ Serial Charts, Pie Charts</li> <li>○ Indicators, Gauge</li> <li>○ Lists, Details, Rich Text, Embedded content</li> <li>○ Supplemental GIS Content</li> </ul> </li> <li>• Symbiont will demo <b>Routes</b> DBs to City; If required, additional modifications will be made per feedback from City Staff.</li> <li>• Dashboards will be combined into a single <b>(Sanitary Division App)</b> for simplified access.</li> </ul>		
Other	<ul style="list-style-type: none"> <li>• Content (Data, Apps, Solutions) will be delivered in consistent manner <ul style="list-style-type: none"> <li>○ Thumbnails, description, tags, etc.</li> </ul> </li> <li>• Future modifications and technical support will be provided on time and materials basis</li> <li>• Schedule TBD</li> </ul>		
Estimated Cost	Routes	\$8,600	
	<b>Total</b>	<b>\$8,600</b>	

#### Summary of Estimated Cost/Division

Division	Estimated Cost
Building and Sign	\$10,500
Electrical	\$4,700
Forestry	\$10,600
Streets	\$8,600
Sanitation	\$8,600
<b>Total</b>	<b>\$43,000</b>