

ATTACHMENT RFP

Request for Proposal

Notice is hereby given that **Decamil** will be accepting proposals for Real Time Arrival (RTA) Signage no later than **4:00 PM** Eastern Standard Time on Friday, **February 10, 2023**, for the work described herein.

RFP ISSUE DATE:	1/6/2023
RFP NUMBER:	RFP #001 – Real Time Arrival (RTA) Signage
PRE-BID MEETING	1/17/2023 – Call in info at back of this document – 2:00 PM EST
RFP DUE DATE:	2/10/2023
CONSTRUCTION MANAGER:	KC Streetcar Constructors (KCSC)
PROJECT:	CM@Risk Kansas City Streetcar Main Street Extension – Project No. 89022014-003 (Project)
OWNER:	City of Kansas City, MO (KCMO)
LOCATION:	Kansas City, MO

1. INTRODUCTION

The above stated Project runs from the existing streetcar terminus at Union Station on the north end, heading south along Main St. to 51st Street at UMKC. The system will consist of seven route miles of streetcar track with two single crossovers & one double crossover, 15 station stops, roadway & trackway drainage, earthwork, electrical & communications duct banks, five TPSS buildings and foundations, OCS foundations, street lighting, traffic signals, landscaping, sidewalk restoration, overhead catenary systems, traffic signage, and striping. The duration of the Project is expected to be from 2021 through 2025.

KCMO has elected to employ a Construction Manager at Risk (CM@Risk) contracting method for the construction of the Project. KC Streetcar Constructors (KCSC), the joint venture of Herzog Contracting Corp. and Stacy and Witbeck, Inc. have a long history with the CM@Risk type of contracting method. The CM@Risk contracting method allows KCMO and the Contractor to work together for the final design phases and deliver the Project within a Guaranteed Maximum Price (GMP). During construction, the CM@Risk contractor, their subcontractors, KCMO, designers, and stakeholders work together to avoid conflicts, extra costs, time delays, and unnecessary impacts to the public. As such, it will be expected of subcontractors on the Project to become part of the overall 'Team'. This means providing proposed solutions to conflicts, value-engineering for cost savings, and construction phasing alternatives.

KCSC selected Decamil to manufacture and install the shelters, canopies, and markers which will reside on each of the 15 Main Street Extension station stops and Plaza bus stop.

2. RFP SCOPE

General

All RTAs must be compatible with existing KCMO TransitMaster remote sign management system by Vontas. It is desired (not required) that each display assembly be UL listed. In general,

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an RTA consists of screens, necessary devices, and housing. The bid form contains an add alternate for the desired UL listing. Mounting brackets will be manufactured by others but closely coordinated with RTA sign supplier/subcontractor. All power and communications cables will be installed by others to each marker, canopy, or other location.

Furnish and Install Real Time Arrival (RTA) Signs – Main Street Extension

The supplier/subcontractor will be responsible for furnishing 23 RTAs for the new station markers, structural steel canopies or nearby OCS poles (all by others) at all Main Street Extension stop locations. RTA sign consists of screens, necessary devices, and housing. Proposer shall make proper connections and test and commission each sign.

Furnish and Install Real Time Arrival (RTA) Signs – Starter Line

The supplier/subcontractor will be responsible for furnishing 16 RTAs for the existing station markers on the Starter Line. Given the Starter Line is a system already in service, the RTAs must be retrofitted to the existing marker structures. Removal and salvage of existing RTAs will be by others and equipment will be returned to Owner for salvage. RTA sign consists of screens, necessary devices, and housing. Proposer shall make proper connections and test and commission each sign.

Furnish Real Time Arrival (RTA) Signs – Spares

The subcontractor will be responsible for furnishing eight (8) spare RTAs and delivering in appropriate shipping/storage crates to the KC Streetcar Maintenance Facility located at: E. Crichton “Kite” Singleton Yard (KC Streetcar VMF), 600 E. 3rd Street, Kansas City, MO 64106. RTA sign consists of screens, necessary devices, and housing.

First Article

The subcontractor will be responsible for furnishing one (1) first article sign with compatible mounting for Decamil to mount to their mounting bracket prior to fabricating the full inventory of signs

Add Alternates

The end user, KCMO, is seeking additional options to enhance the functionality and longevity of the Real Time Arrival component of the new and existing system. Please see the bid form and specification 13 13 60 Station Technology for these Add Alternates.

Assignment of Contract to Other Jurisdictions

The end user, KCMO, at their discretion may assign its rights under this Contract to another jurisdiction to possibly allow for more technological consistency across KCMO. Please see the bid form and specification 13 13 60 Station Technology for this “Piggyback” information.

Schedule

The work included herein will be performed:

- First Article (To be mounted and tested on a Starter Line Station Stop) – December 2023
- Starter Line RTAs – April 2024 – June 2024
- Main St Extension RTAs – July 2024 – December 2024

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To avoid lengthy exposure to the public (vandalism, damage, etc.), Bidder shall anticipate these units being installed near project substantial completion (December 2024), at which time the streetcar overhead contact wire may already be in place. Bidder may fabricate units at their discretion but must provide safe storage for the units until installation by Decamil. Bidder shall coordinate heavily with Decamil for these installations.

Liquidated Damages

While Decamil is ultimately responsible for the installation of the RTA signs, Decamil is held to contractual milestones from their general contractor, KCSC, via flow down provisions. The applicable contractual obligations Decamil and KCSC have with KCMO are as follows:

Milestone #4 – Project Substantial Completion – December 4, 2024 – Liquidated Damages = \$7,500 Per Day.

Milestone #5 – Project Final Completion – March 1, 2025 – Liquidated Damages = \$1,000 Per Day.

Bidder will also be bound to these milestones and respective liquidated damages to the extent of their involvement should a milestone be missed.

Warranty

The two-year warranty noted in bid item #007 is the minimum warranty and is in line with the Decamil and KCSC warranty. Any warranty claims during this timeframe will be coordinated through Decamil. Should an extended warranty be selected by KCMO, this extension will be assigned to KCMO for management and coordination directly with the supplier/subcontractor. Any warranty to commence after units are installed, tested, and accepted.

Lead Times

Bidder shall narrate the lead times associated with the RTAs and explain any possible supply chain issues. If bidder provides multiple options, the bidder shall narrate each of the options. Bidder should also provide a high-level schedule or bar chart visually showing how the above schedule will be met or beat.

Scope Narratives

Narratives are provided for Bidders' convenience and are general descriptions of the work. The narratives are not intended to replace or modify the scope of work shown in the drawings, specifications, and/or other referenced documents.

Drawings and Specifications

Bidders are responsible to review all drawings and specifications relevant to their scope of work. Below is a list of primary documents related to this scope of work but may not be inclusive of all documents required to bid this scope. All project drawings and specifications are provided with this invitation to bid and at <http://www.kcmoplanroom.org/>.

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Scope specific items:

- Drawings Vol. 1 – See attached reference drawings
- See attached reference specification section 13 13 60 – Station Technology

Reminder, the list above is intended to direct the Bidder toward applicable plans and specifications but may not be an all-inclusive list.

Safety

Safety is of the utmost importance. All employees are required to attend KCSC's Project Safety Orientation prior to entering the jobsite. In addition, all employees are required to wear the minimum Personal Protective Equipment (PPE) consisting of a hard hat, safety glasses, class 2 safety vest, and steel toed boots.

For the Starter Line portion of this scope, it should be noted that the line is an active Streetcar system with running streetcars, energized overhead lines, and energized station amenities. To perform work on this active system, the supplier/subcontractor will follow the track access protocols listed within the [Streetcar Regulations Manual](#).

For any installation, it should be noted that, in general, the station stops are extensions of the existing sidewalk and care shall be taken to protect the walking public through or around active work zones.

Quality

All Bidders are expected to comply with KCSC's Quality Assurance Plan (QAP). This QAP requires all suppliers, vendors, consultants, and subcontractors to produce quality products and records in accordance with the contract requirements and KCSC's QAP. Additionally, the selected supplier/subcontractor will provide and follow a QAP for the manufacturing and installation of the RTAs.

Temporary Traffic Control and Track Access

Subcontractor/supplier is not responsible for temporary traffic control on the Main Street Extension, nor is the subcontractor/supplier responsible for track access permitting. Employee in charge on site will be provided by others. Subcontractor/supplier shall issue requests to KCSC for traffic control or track access needs. Coordination for traffic control for the extension is through KCSC.

3. BUY AMERICA

The Project is federally funded. To the extent applicable to the project, the Contractor agrees to comply with 49 U.S.C. §5323 G), and FTA's Buy America Regulations, "Buy America Requirements," at 49 C.F.R. part 661 and any amendments thereto, which explains that Federal funds may not be obligated unless steel, iron, and manufactured products used in this project are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General Waivers are listed in 49 C.F.R. 661.7. **All Bidders must include an**

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appropriate notice of the Buy America provision (supplied in this package as **Attachment R17**) with their bid.

4. REQUESTS FOR INFORMATION

Any requests for clarifications, modifications, or RFIs shall be submitted by email to Decamil, attn: Cristian Parra at cparra@decamil.com and copy dockcsc@kcsbjv.com

All RFIs must be submitted no later than **1/27/2023 at 4:00 PM (EST)**, the RFI due date listed in section 7. Any clarifications, modifications, or corrections will be made by addendum only. Addenda will be issued by Decamil no later than two business days before the RFP due date. Decamil will not be obligated to respond to any RFIs received after the deadline, however, it may do so at its sole discretion.

5. RFP DOCUMENTS

The RFP documents consist of the following files, which will be shared with initial RFP invitation and <http://www.kcmoplanroom.org/> to bidders:

- Request for Proposal (RFP) (this document)
- Schedule of Bid Items
- Contract Documents (plans/specs)

Bidders are responsible for verifying plan dimensions and quantities as shown in the RFP drawings.

6. BONDING

Bidders are required to provide Payment and Performance equal to 100% of the contract value upon execution of a finalized agreement for construction of scopes of work outlined in this document. Cost estimate included in this proposal shall include Bidder's cost for these bonds (See Schedule of Bid Items, Attachment R1).

7. PROPOSAL SUBMITTAL PROCESS

The submitted proposal shall be reviewed on a best value basis. The end user, KCMO, seeks proposals that will meet the overall minimum requirements listed in the specifications, and those that exceed these requirements and expectations through creativity and possible new technology.

Proposer shall provide as the final deliverable:

a. Proposal document not exceeding 15 pages in length describing the following:

- Experience – Describe proposer's experience in the Visual Message Sign arena/industry,

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indicating at least five (5) years of experience in the field. Describe experience in the transit industry, as well as any experience related to tying into an active system. Provide a list of past projects, particularly those with field-proven installations of proposed signage. Please also provide references, particularly those related to field-proven installations of proposed signage.

- Products – Proposer shall cite makes and models of proposed equipment. Proposer shall provide cut sheets and/or shop drawings for proposed products (these product detail pages will not count toward page limit). Proposer shall also provide detail on conformance or deviations to technical specifications including verification of compatible mounting bracket requirements.
- Creativity – Given the specifications signify minimum standards, describe any products that could meet or exceed these minimum standards to enhance the functionality, productivity, maintenance, longevity, etc.
- Product Lead Times – Describe how bidder will achieve the scheduled installation dates outlined above, any supply chain issues, and describe the same for any options bidder may offer.
- Any other valuable information, options, recommendations, etc.
- Replacement Part Availability – Describe the availability of replacement parts in the event of future failure. Are primary components of the RTA readily available to the market? Could there be a problem with these replacement parts during the standard or extended warranty?

b. Bid Form

- Complete the attached bid form and send back along with proposal document. Note: bid form will not be counted toward the page limit mentioned above.

8. PROCUREMENT SCHEDULE

The procurement schedule for conducting the competition process, selection, and construction activities is shown below. The dates listed are subject to change at KCSC's discretion.

Issue Request for Proposal	1/6/2023
Pre-Bid (Virtual)	1/17/2023 – 2:00 PM EST
Last Day for RFIs	1/27/2023
RFI Responses Back to Bidders	2/3/2023
RFP Responses Due	2/10/2023
Anticipated Notice To Successful Bidder	2/24/2023
Anticipated Contract Award	3/10/2023
Overall Start (Includes product data submission)	March 2023
Overall Finish	December 2024

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9. SELECTION AND AWARD

The above proposal and pricing, is due on **2/10/2023 by 4:00 PM (EST)**, submitted to Decamil by email, Attn: Cristian Parra at cparra@decamil.com.

The successful offeror will be selected by a panel consisting of Decamil, KCMO project team, and KCSC. This is a Best Value Procurement. There will be no scoring or weighting criteria, however proposals will be evaluated based on meeting project requirements such as key interfaces-communications needs, integration with Vontas Transit Master, panel size, weight, etc. and overall pricing. Compliance with Technical Specifications carries equal weight to pricing.

Successful offeror will be notified upon selection by above panel. Unsuccessful offerors will also be notified with regrets. Decamil and/or KCMO project team reserves the right to request a BAFO.

10. PRE-BID INVITATION INFORMATION

Microsoft Teams meeting

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 226 065 435 089

Passcode: kLZ4MG

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[+1 816-406-3792,,389498930#](#) United States, Kansas City

Phone Conference ID: 389 498 930#

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****2:00 PM EST****

Bid Form - Schedule of Bid Items
RFP 001- RTA Signage

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Bid Item #	Description	Quantity	Unit of Measure	Unit Price	Total Price
Real Time Arrival Signs					
001	Furnish Real Time Arrival Sign (Screens, Devices, Housing,	39	EA	\$	\$
002	Delivery	39	EA	\$	\$
003	Spares - Real Time Arrival Sign (Screens, Devices, Housing,	8	EA	\$	\$
				Subtotal	\$
Project Development & Administration					
004	Project Development	1	LS	\$	\$
005	Project Administration	1	LS	\$	\$
006	Remote Management Enterprise Software (Installation and Training)	1	LS	\$	\$
007	Warranty - Two (2) Year OEM Parts & Labor (per sign)	47	EA	\$	\$
008	Licensing - one-time fee (per sign)	47	EA	\$	\$
009	Five (5) Year Annual software upgrade & maintenance fee - (per sign)	47	EA	\$	\$
				Subtotal	\$
Add Alternates					
010	Text to Speech Option (per sign)	47	EA	\$	\$
011	Extended Warranty Parts & Labor (per sign, years 3 - 5)	47	EA	\$	\$
012	Extended annual software upgrade & maintenance fee (per sign, years 6-9)	47	EA	\$	\$
013	UL Listed Assembly (Optional)	47	EA	\$	\$
				Subtotal	\$
014	100% Performance and Payment Bonds (Will be based upon final contract amount and will be paid per the invoiced amount from bonding company)	1	LS		\$
Total Not to Exceed					\$ -
Bid Item #	Description	Quantity	Unit of Measure	Unit Price	Total Price
Option Pricing (to be executed under separate piggyback contract if option is exercised)					
015	Real Time Arrival Sign (up to 10) (Screens, Devices, Housing,	1	EA	\$	\$
016	Delivery and Installation Real Time Arrival Sign	1	EA	\$	\$
017	Warranty - Two (2) Year OEM Parts & Labor (per sign)	1	EA	\$	\$
018	Licensing - one-time fee (per sign)	1	EA	\$	\$
019	Five (5) Year Annual software upgrade & maintenance fee - (per sign)	1	EA	\$	\$
020	Text to Speech Option (per sign)	1	EA	\$	\$
021	Extended Warranty Parts & Labor (per sign, years 3 - 5)	1	EA	\$	\$
022	Extended annual software upgrade & maintenance fee (per sign, years 6-9)	1	EA	\$	\$
Name - Print		Bidder's Authorized Representative		Signature	Date

Bid Form - Schedule of Bid Items
RFP 001- RTA Signage

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Inclusions/Exclusions:	
1	Work to be completed in accordance with the contract Issued for Construction (IFC) plan drawings and project specifications.
2	Pricing includes conformance with all requirements of the contract Issued for Construction (IFC) plan drawings and project specifications.
3	Installation by others. However heavy coordination between installer and supplier is required. Integration and testing by Supplier.
4	Payment to be made on actual quantities performed and approved by Decamil.
5	Furnish all labor, equipment, materials and supplies for the bid items listed herein and per the Prime Contract Documents and Specifications.
6	This project is a Buy America project following 49 CFR 661. Supplier will be required to provide all appropriate documentation required by the Buy America requirements including, but not limited to, Certificates of Compliance and Material Receiving Reports with delivery of all applicable materials. Materials are not to be used until all Buy America certifications are received.
7	Prevailing wages are applicable utilizing the Missouri Annual Wage Order at the time of bid submission for work completed on site
8	Certified Payroll shall be provided on a weekly basis when applicable.
9	This contract will be subject to a 5% retention until project close out.
10	Submittals, re-submittals, shop drawings, etc. per the contract documents shall be submitted in a timely matter so as not to negatively affect the project schedule. All communications, submittals, RFIs, etc. are to be sent electronically to the Contractor's appointed Engineer.
11	Compliance with KCSC Project QA/QC Plan.
12	Supplier's site specific safety plan and MSDS sheets for all products being used will be supplied before starting work with specified products.
13	Coordination between Supplier and other contractors to complete work in accordance with the Project Schedule.
14	Contract insurances including General Liability, Worker Compensation and Automobile per contract requirements.
15	All required bonds and insurance for the work prior to starting the work.
16	Attendance by project supervisors to coordination meetings with the City, Owner or Owners Representatives, or as required by KCSC.
17	Attendance by all employees working on the Project to monthly and weekly safety meetings and/or trainings.
18	Acceptance of and compliance with the KCSC safety program including completion of the project safety orientation for all employees and Suppliers prior to performing work on the project.
19	Includes cold weather or winter work, nights, weekends, etc. as required to complete the work.
20	Any portion of the work to be performed by lower tier subcontractors must be approved by the Contractor in writing prior to execution of the lower tier subcontractors.
21	Lower tier Suppliers are bound to the same contract requirements as the prime Supplier.
22	Supplier is responsible for 811 Utility Locates prior to starting work should installation require excavation.
23	Supplier is required to provide proof of progress, which may include, but is not limited to, reports of materials received and progress photography to substantiate progress billings.
24	Supplier is responsible for protecting in place any existing structure, utility, public property, etc. not affected by, or included within, the scope of this work. Any damages caused by the Supplier are the financial responsibility of the Supplier and must be repaired immediately or at a time agreed to between Supplier and Contractor. All damages must be reported to the Contractor immediately.
25	Personal/employee vehicles are not permitted within the work zones. Company vehicles within the work zone must be marked with company logos.
26	Private property, commercial parking lots, etc. are not to be used for storage, parking, work zone access, trucking, etc.
27	Pricing provided is inclusive of all hours worked, including overtime, night and weekend work, deliveries, plant/supply house opening fees, standby charges, etc.
28	The City (KCMO) reserves the right to select spare parts at their sole discretion.
Notes:	

Addendums:

The undersigned Bidder acknowledges receipt of the following addenda listed by number and date appearing on each addendum:

Addendum No. / Date

BUY AMERICA CERTIFICATION FORM

**For Steel or Manufactured Products
Other Than Rolling Stock**

Certificate of Compliance with Buy America Requirements

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(1), and the applicable regulations in 49 CFR part 661.

Date: _____

Signature: _____

Company: _____

Name: _____

Title: _____

Certificate of Non-Compliance with Buy America Requirements

The bidder or offeror hereby certifies that it cannot meet the requirements of 49 U.S.C. 5323(j), but it may qualify for an exception to the requirements pursuant to 49 U.S.C. 5323(j)(2) as amended, and the applicable regulations in 49 CFR 661.7.

Date: _____

Signature: _____

Company: _____

Name: _____

Title: _____

Kansas City Streetcar - Real Time Arrival Signs

	Stop	Street	Platform	RTA Sign Quantity			New Mounting Bracket	Existing Mounting Bracket	Mounting type	Required Communication Capability		
				Main Street Extension	Starter Line	Spares				Primary Communications	Secondary Communications	Tertiary Communications
Main Street Extension	UMKC	51st & Brookside	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	UMKC	51st & Brookside	NB	1			1		side - Shelter frame Type II (Ref P313/3 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	UMKC	51st & Brookside	SB	1			1		side - Shelter frame Type II (Ref P313/3 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	UMKC	51st & Brookside	SB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Plaza	Ward & Main St.	SB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Plaza	Ward & Main St.	Bus-NB	1			1		side - RTA sign post (Ref A160 - sheet 583)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Plaza	Ward & Main St.	NB	1			1		side - OCS pole wrap (Ref P364 - sheet 570)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Plaza	Ward & Main St.	SB	1			1		side - OCS pole wrap (Ref P364 - sheet 570)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Plaza	Ward & Main St.	Bus-NB	1			1		side - RTA sign post (Ref A160 - sheet 583)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Plaza	Ward & Main St.	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Art Museums	45th Main St.	SB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Art Museums	45th Main St.	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Southmoreland	43rd & Main St.	SB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Southmoreland	43rd & Main St.	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Westport	39th & Main St.	SB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Westport	39th & Main St.	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Armour	Armour & Main St.	SB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Armour	Armour & Main St.	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Union Hill	31st & Main St.	SB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Union Hill	31st & Main St.	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	WWI Museum/Memorial	27th & Main St.	SB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	WWI Museum/Memorial	27th & Main St.	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
	Union Station	Pershing & Main St.	NB	1			1		side - Marker (Ref P371 - sheet 572)	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)
Starter Line	Union Station	Pershing & Main St.	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Crossroads	19th & Main St.	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Crossroads	19th & Main St.	NB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Kaufman Center	16th & Main St.	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Kaufman Center	16th & Main St.	NB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Power & Light	14th & Main St.	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Power & Light	14th & Main St.	NB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Metro Center	12th & Main St.	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Metro Center	12th & Main St.	NB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Library	9th & Main St.	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	Library	9th & Main St.	NB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	North Loop	7th & Main St.	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	North Loop	7th & Main St.	NB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	River Market West	4th & Delaware St	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	River Market North	3rd & Walnut	SB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
	City Market	5th St & Walnut	NB		1			1	side - Marker (Starter System)	UHF 450 MHz Analog Radio	Ethernet 100BASE-T	cellular capable (w/o SIM)
SPARES - recommended						8	8	8	side mount	Ethernet 100BASE-T	UHF 450 MHz Analog Radio	cellular capable (w/o SIM)

Totals -->	23	16	8	31	24
INSTALLED -->	23	16			
SPARES -->			8		
RTA SIGN, TOTAL--> 47					