



INVITATION TO BID AND INSTRUCTIONS TO BIDDERS

COR 13-07

**PEDESTRIAN CROSSING SAFETY IMPROVEMENTS
MELTON LAKE DRIVE**

BID OPENING

**February 21, 2013
2:00 p.m., Local Time**

**at the
Central Services Complex Materials Management Conference Room
City of Oak Ridge
100 Woodbury Lane
P. O. Box 1
Oak Ridge, Tennessee 37831-0001**

**Telephone: (865) 425-1819
Fax: (865) 482-8475
Attn: Lyn Majeski**

CITY OF OAK RIDGE, TENNESSEE
Invitation to Bid and Instructions to Bidders

COR 13-07

February 4, 2013

Project: Pedestrian Crossing Safety Improvements – Melton Lake Drive

Invitation

Bids will be received by the City of Oak Ridge until 2:00 p.m., local time, February 21, 2013, then publicly opened in the Central Services Complex Materials Management Conference Room at 100 Woodbury Lane, Oak Ridge, Tennessee, for furnishing all labor, materials, supplies, tools, and equipment necessary to perform all work and services described in the Contract attached hereto, in strict accordance with the terms and provisions of said Contract and any attachments thereto. (See attached Specifications – Rectangular Rapid-Flashing Beacon: RRFB-XL™ and Drawings prepared by Steven R. Byrd consisting of 5 Sheets)

All bids must be completed and submitted on the Bid Form provided. The bids shall be submitted on or before the time set for the opening of bids. Bids received after the time so set are late bids and will not be considered. Late bids, unmarked envelopes, and incorrectly marked envelopes will not be opened. Electronic bids are not accepted.

Discrepancies

Should the Bidder find any discrepancies in, or omission from, the bid documents, or should the Bidder be in doubt as to their meaning, the Bidder shall at once notify Lyn Majeski at (865) 425-1819 and obtain an interpretation or clarification prior to submitting a bid. Any interpretation or clarification given in accordance with this provision shall be in writing and will be distributed to all known Bidders. Only questions answered in writing will be binding. Oral and other interpretations or clarifications will be without legal effect. All questions must be submitted to Lyn Majeski no later than six (6) days prior to the bid opening date in order to give sufficient time for responses to be sent to all prospective bidders.

Prices

The Bidder shall submit unit bid price as specified on Bid Form. It is agreed that this bid document in its entirety is included in and made a part of the contract between the City and the successful Bidder.

Withdrawal of Bids

Bids may be withdrawn on written or telegraphic request received from Bidders prior to the time fixed for opening the bids.

Rejection of Bids

The City reserves the right to reject any and all bids when such rejection is in the interest of the City of Oak Ridge; to reject the bid of a Bidder who has previously failed to perform properly or complete on time jobs of a similar nature; to reject the bid of a Bidder who is not, in the opinion of the City, in a position to perform the Contract, and to reject the bid of a Bidder not submitted in accordance with this Invitation to Bid.

References

Upon request, each Bidder shall furnish references for whom work similar to that covered by the specifications herein was performed, the year in which such work was performed and the manner of its execution, and giving such other information as will tend to show the Bidder's ability to perform the required work.

Equipment

The Bidder shall have available under Bidder's control, tools and equipment of the type, character and amount required to complete the proposed work within the specified time. Each Bidder shall furnish a list of the tools and equipment proposed for use on the work if requested.

Personnel

Each Bidder shall have available or shall agree to have available under Bidder's control sufficient equipment and personnel to complete the proposed work within the specified time.

Method of Work

Upon request, each Bidder shall describe the method or methods to be used in the performance of the required work.

Bidders Interested in More than One Bid

A party who has quoted prices to a Bidder is not thereby disqualified from quoting prices to other Bidders or from submitting a bid directly for the work; however, more than one bid for the same work from an individual or entity under the same or different name will not be considered.

Bid Surety

Each bid shall be accompanied by a bid guarantee payable to the City in the amount of ten percent (10%) of the total bid amount. The form of the bid guarantee shall be a bid bond or other suitable instrument (i.e. cashier's check, certified check, or Letter of Credit). The bid guarantees of unsuccessful Bidders shall be return to them by the City within fifteen (15) consecutive calendar days after execution of the Contract.

Insurance

The successful Bidder will be required to maintain Worker's Compensation, Comprehensive General Liability, and Comprehensive Automobile Liability and Property Damage Insurance in accordance with the provisions of the Contract Documents. The City of Oak Ridge, Tennessee shall be named as an additional insured.

Drug-Free Workplace Affidavit Form

A Drug-Free Workplace Affidavit form is included in this bid package and must be submitted with the bid.

Award of Contract

The City will make the award as soon as practicable to the lowest responsible Bidder, price and other factors considered, provided it is reasonable and in the best interest of the City. The City reserves the right to award the contract to more than one bidder if in the best interest of the City. The successful Bidder(s) shall be required to execute the Contract attached hereto.

City Officers and Employees Not To Have Financial Interest

No contract shall be made with any officer or employee of the City or any firm or corporation in which any officer or employee of the City has financial interest.

Compliance with All Laws, Ordinances, Statutes, and Regulations

The Contractor shall comply with all federal, state, county and local laws, ordinances, statutes, and regulations. Pursuant to City Code § 5-413, the City may not accept bids from Bidders in default of any payment of any nature due to the City, including but not limited to taxes, licenses and fees.

DRAWINGS

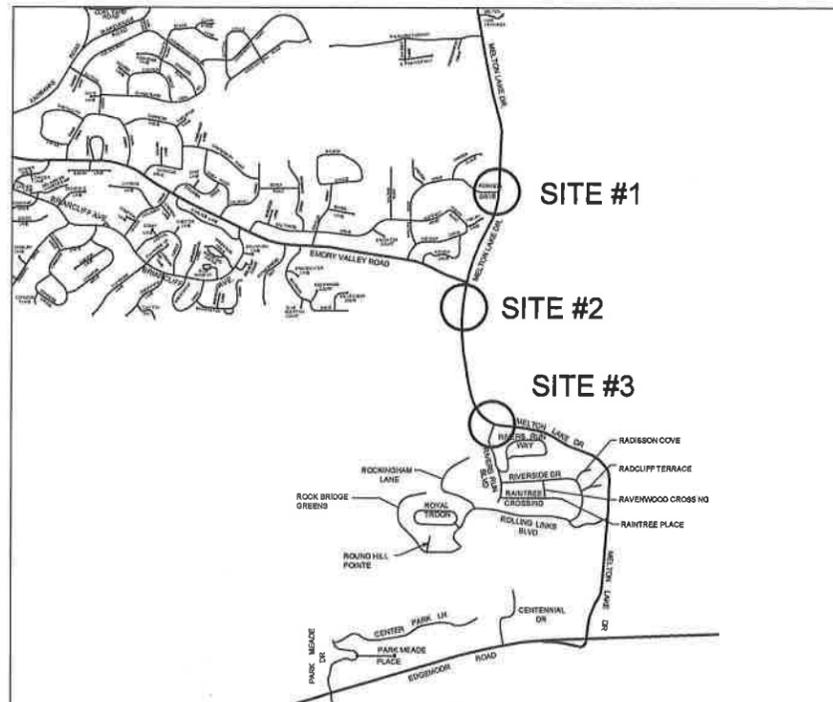
Attached is a set of Drawings consisting of five sheets.

CITY OF OAK RIDGE TENNESSEE

PEDESTRIAN CROSSING SAFETY IMPROVEMENTS MELTON LAKE DRIVE

DRAWING INDEX

- SHEET 1 COVER
- SHEET 2 DETAIL-FLASHING BEACON ASSEMBLY
- SHEET 2 GENERAL NOTES
- SHEET 2 ESTIMATED CONSTRUCTION QUANTITIES/NOTES
- SHEET 3 SITE #1 AMANDA DRIVE INTERSECTION
- SHEET 4 SITE #2 MELTON LAKE DRIVE
- SHEET 5 SITE #3 RIVERS RUN BLVD. INTERSECTION

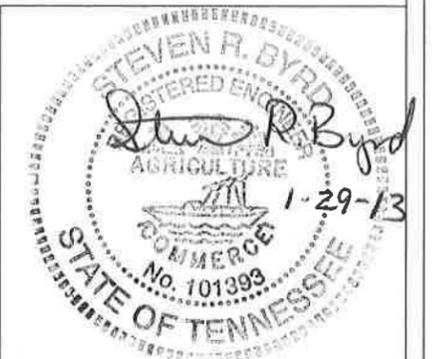


LOCATION MAP

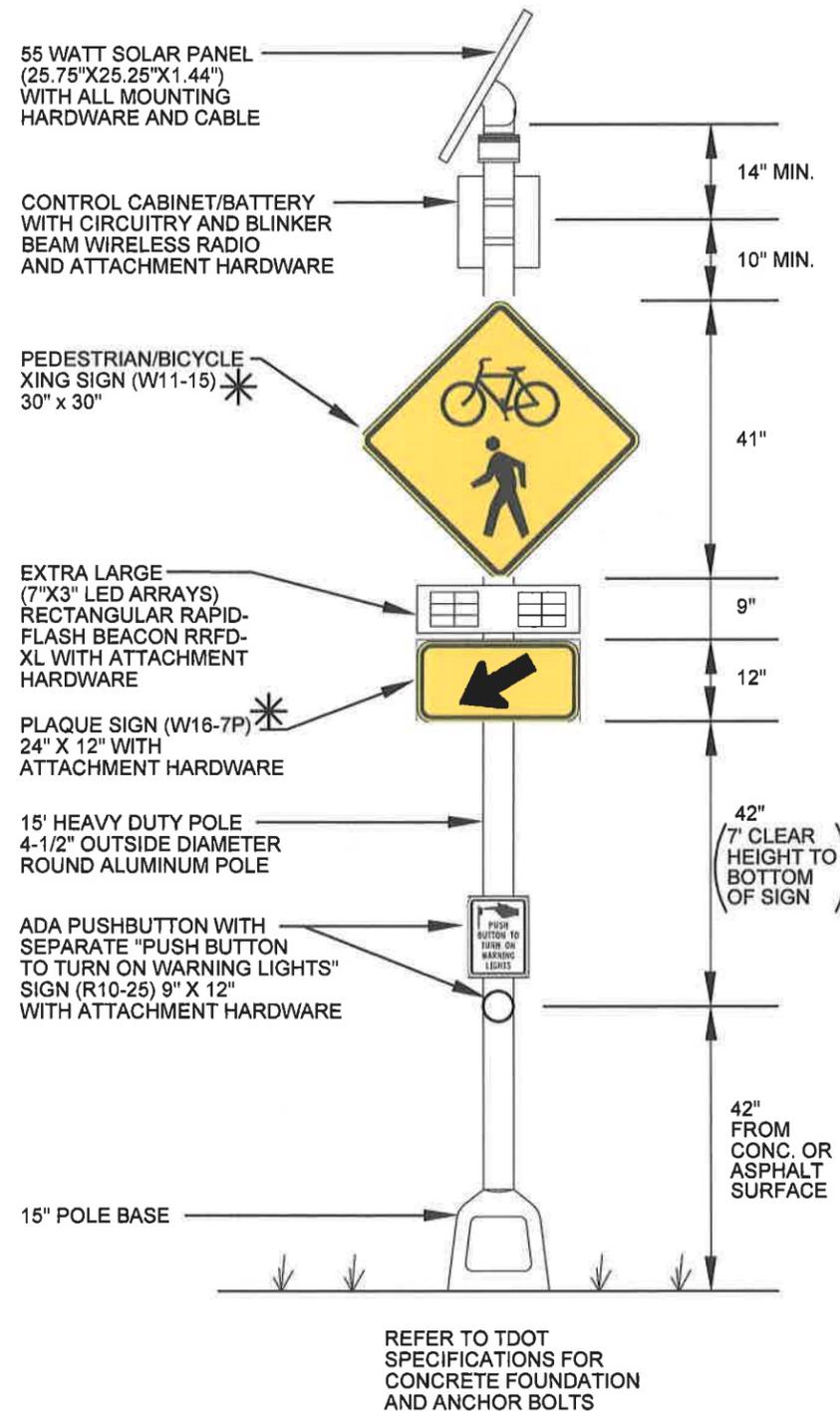
CITY MANAGER - MARK WATSON
PUBLIC WORKS DIRECTOR - GARY CINDER, P.E.
CITY ENGINEER - STEVE BYRD, P.E.

CITY OF OAK RIDGE, TN.
100 WOODBURY LANE
PHONE: (865) 425-1875

APPROVED FOR THE CITY OF OAK RIDGE



PEDESTRIAN SIGN - FLASHING BEACON ASSEMBLY



* A FLUORESCENT GREEN BACKGROUND COLOR FOR THIS SIGN OR PLAQUE.

GENERAL NOTES

- The work shall consist of installing pedestrian warning signs/posts, solar panels, rectangular rapid flashing beacons, pedestrian push buttons, pavement markings, concrete foundations, and work as specified in the attached materials and specifications documents and as listed in the bid schedule and plans.
- The Contractor shall be an approved Tennessee Department of Transportation contractor and have an IMSA Level II certified technician on-site during all construction and operation of devices
- The contractor shall schedule with the City a pre-construction field meeting at least one week in advance of start of construction. The contractor shall provide a construction phase schedule to show that the project will be completed within the time specified in the contract.
- Contractor shall complete project on a timely basis. It is expected that once work begins work will be continuously until project is complete.
- Contractor shall provide the City with minimum one day notice prior to any scheduled work. No work after 4:00 PM or on week-ends is permitted unless prior City approval.
- After work has been completed the contractor shall provide the City with equipment and specification manuals.
- The contractor shall submit all material specifications and shop drawings to the City Engineer for approval prior to ordering equipment (including, but not limited to, conduit, cable, solar panel, cabinet, flashing beacons push button, pole, pole base, attachments, brackets, anchors, signs and concrete).
- The attached documents for equipment brand and specifications are required for this project.
- The price for all work shall be inclusive to the bid items listed on the plans and bid notes. Payment of any unexpected work not shown on the plans or listed in the bid tab can be negotiated with the City.
- The price for all work necessary to complete the project that does not have a pay item in the bid item tab shall be included in the price for the listed bid items.
- Grading - all spoil material and construction debris to be disposed of off-site. Cost to be included in other bid items.
- Measures shall be undertaken to prevent sediments and debris off streets and trails. Cost to be included in other bid items.
- Seed and mulch any land disturbed areas as directed by the City. Cost to be included in other bid items.
- Traffic control measures shall be in accordance with the current editions of the "Manual on Uniform Traffic Control Devices".
- No road closures are permitted. Prior City approval is required for any lane closures.
- All existing signs and posts to be removed shall be delivered to the City of Oak Ridge Public Works Department sign shop. Coordinate delivery with the City Engineer. All foundations for existing removed signs/posts shall be removed four inches below ground, backfilled and seeded.
- The location of all proposed signs with beacons shall be staked and approved by the City prior to any field work.
- The location of utilities and underground structures shown on these plans are approximate only and not all have been shown. The installer shall coordinate with utility as required to identify, relocate, and protect features as necessary prior to any installation. Some utilities can be located by calling the Tennessee One call system, Inc. 1-800-351-1111.
- Prior to submitting a bid, the contractor will be solely responsible for contacting owners of all affected utilities in order to determine the extent to which utility relocations and/or adjustments will have upon the schedule of work for the project. While some work may be required around utility facilities that will remain in place, other utility facilities may need to be adjusted concurrently with the contractor's operations. Any additional cost will be included in the unit price bid for other items.
- The contractor shall provide all necessary protective measures to safeguard existing utilities from damage during construction of this project. In the event special equipment is required to work over and around the utilities, the contractor shall be required to furnish such equipment. The cost of protecting utilities from damage and furnishing special equipment shall be included in the price of other bid items. The cost of any damage to utility facilities shall be borne by the installer.
- All equipment shall meet National Electrical Manufacturer's Association standards.
- All signs shall meet MUTCD standards. All sign panels shall be full cube prismatic reflective sheeting (3M diamond grade series 4000 or approved equal).
- All bicycle/pedestrian warning signs and plaques shall have a fluorescent yellow green background color.
- Nothing in the general notes shall relieve the contractor from his responsibilities toward the safety and convenience of the general public and the residents along the proposed construction area.
- All pavement markings are to be thermoplastic and shall comply with applicable provisions of the TDOT Standard Specifications latest edition.
- Estimated construction quantities may be increased or decreased as directed by the Engineer.

ESTIMATED CONSTRUCTION QUANTITIES

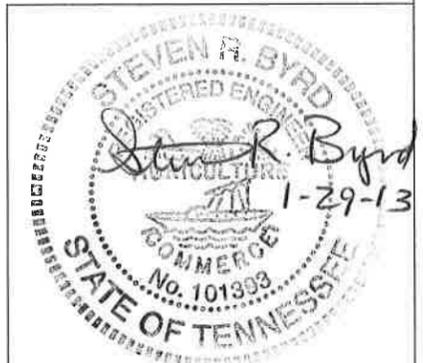
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	Mobilization	1	Lump Sum
2	Removal of structures, obstructions, signs, posts	1	Lump Sum
3	Pedestrian Flashing Beacon Assembly (See footnote 1)	6	Each
4	Pedestrian Flashing Beacon Assembly Spare Parts (See footnote 2)	1	Each
5	Pedestrian/Bicycle Xing Sign - W11-15 - 30" x 30" (See footnote 3)	6	Each
6	Pedestrian/Bicycle Xing Sign - W11-15 - 30" x 30" (See Footnote 4)	6	Each
7	Plaque Sign - W-16-7P - 24" x 12" (See footnote 3)	6	Each
8	Push Button to Turn On Warning Lights Sign - R10-25 - 9" x 12"	6	Each
9	TAPCO Heavy Duty Pole Package - 15 feet length (See footnote 5)	6	Each
10	4-Inch Round Aluminum Pole, Base and Cap - 4 feet length (See footnote 6)	1	Each
11	2 feet x 3 feet Concrete Pole Foundation (See footnote 7)	6	Each
12	2 feet x 2 feet Concrete Pole Foundation and four anchor bolts (See footnote 7)	1	Each
13	5' X 8' Concrete Apron (See footnote 8)	1	Lump Sum
14	1-Inch Minimum Schedule 40 PVC (See footnote 9)	25	Linear Feet
15	TAPCO Pushbutton Cable (See Footnote 10)	45	Linear Feet
16	Plastic Pavement Marking - 10 feet longitudinal crosswalk	126	Linear Feet
17	Traffic Control, Erosion Control, Clean Up	1	Lump Sum

Quantities may be increased or decreased by City Engineer

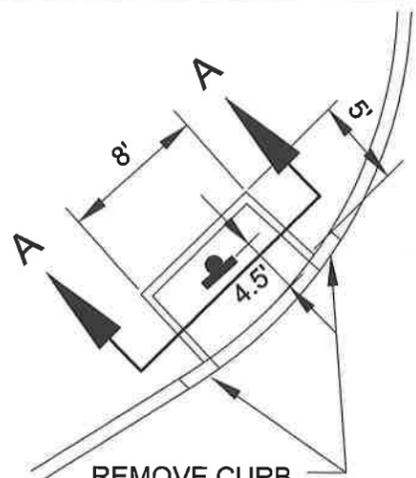
FOOTNOTES

- Bid price includes all parts and hardware necessary to construct a TAPCO activated Rectangular Rapid Flashing Beacon Assembly as shown in the plans and includes items listed below:
 - "55-watt solar panel (25.75" x 25.25" x 1.44") and mounting hardware
 - "Control Cabinet, including circuitry and BlinkerBeam Wireless Radio
 - "12 VDC Battery
 - "Extra Large (7" x 3" LED) Rectangular Rapid-Flash Beacon including all mounting hardware
 - "ADA Push Button
 - "Cables for full assembly: Solar, Pushbutton and LED
- Bid price includes spare parts for a complete TAPCO activated Rectangular Rapid Flashing Beacon as listed in footnote (1) above and shall be delivered to City Electric Department.
- Bid price includes all hardware for installation on the pole; prismatic reflective sheeting; fluorescent yellow green background color.
- Bid price includes the costs for signs, hardware and for changing signs out on the six existing advance warning signs as noted on the plans.
- Bid price includes all items in a TAPCO Heavy Duty Pole Package (15' pole, 4.5" OD, Schedule 40 Pole and Pole Base & 18" J-Bolts, Cap & Brackets for concrete foundation. Pole Base shall have locking set screws.
- See location at Amanda Drive on Sheet 3.
- See TDOT Standard Drawing Sheets T-SG-9A and T-SG-10 for foundation details.
- Bid Price includes 4"-base stone, 4"-inch concrete slab, curb and all works necessary to complete the apron. Foundation not included. Details shown on Sheet No. 3 at Amanda Drive.
- Detail shown on Sheet No. 3 at Amanda Drive.
- Detail shown on Sheet No. 3 at Amanda Drive; 25' of cable from push button to pole.

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COR PUBLIC WORKS
ENGINEERING/SRB/CBB
JANUARY 28, 2013 SHEET 2



REMOVE CURB
 CONCRETE SLAB FLUSH
 WITH ASPHALT
 2 FEET SAW CUT
 TAPER EACH END
 1.5% SLOPE TO STREET

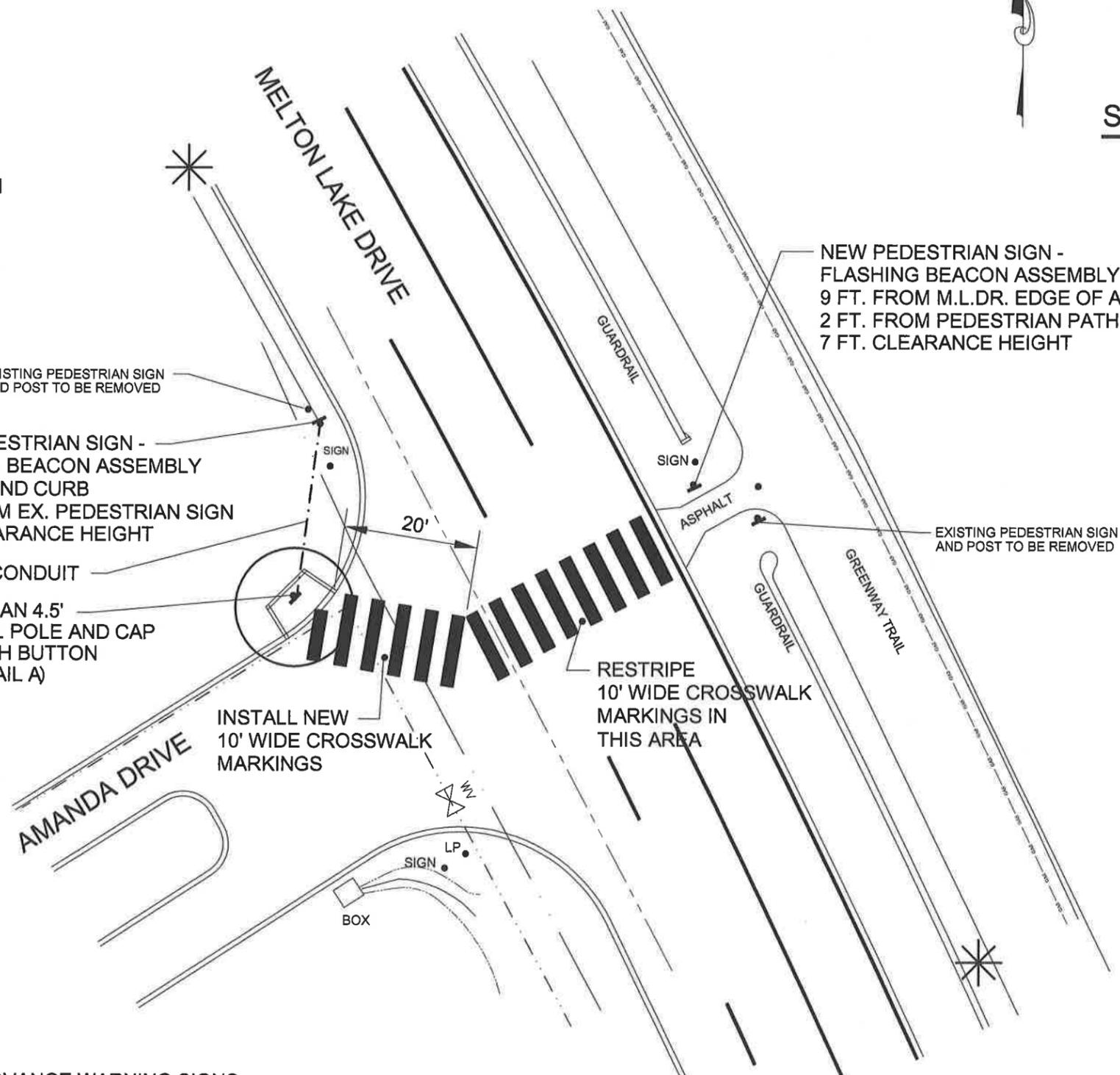
DETAIL A

EXISTING PEDESTRIAN SIGN
 AND POST TO BE REMOVED

NEW PEDESTRIAN SIGN -
 FLASHING BEACON ASSEMBLY
 3 FT. BEHIND CURB
 3 FT. FROM EX. PEDESTRIAN SIGN
 7 FT. CLEARANCE HEIGHT

1-1" MIN. CONDUIT

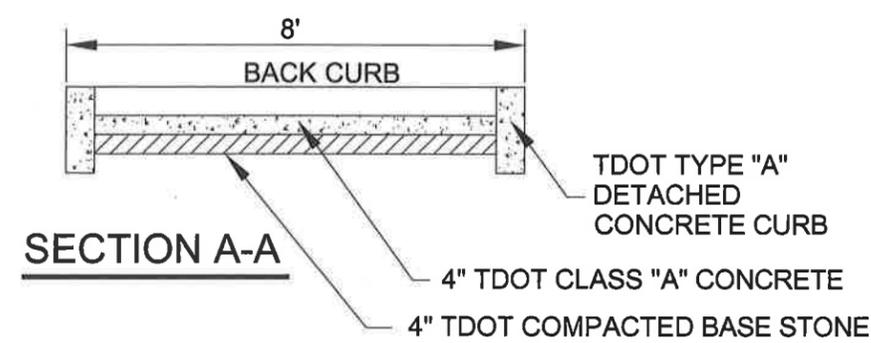
PEDESTRIAN 4.5'
 PEDESTAL POLE AND CAP
 WITH PUSH BUTTON
 (SEE DETAIL A)



INSTALL NEW
 10' WIDE CROSSWALK
 MARKINGS

RESTRIPE
 10' WIDE CROSSWALK
 MARKINGS IN
 THIS AREA

* EXISTING ADVANCE WARNING SIGNS
 TO BE CHANGED OUT TO NEW SIGN W11-15



SECTION A-A

LEGEND

- WATER MAIN
- UNDERGROUND ELECTRIC
- 1-1" MIN. CONDUIT
- COMMUNICATION LINE
- GAS MAIN

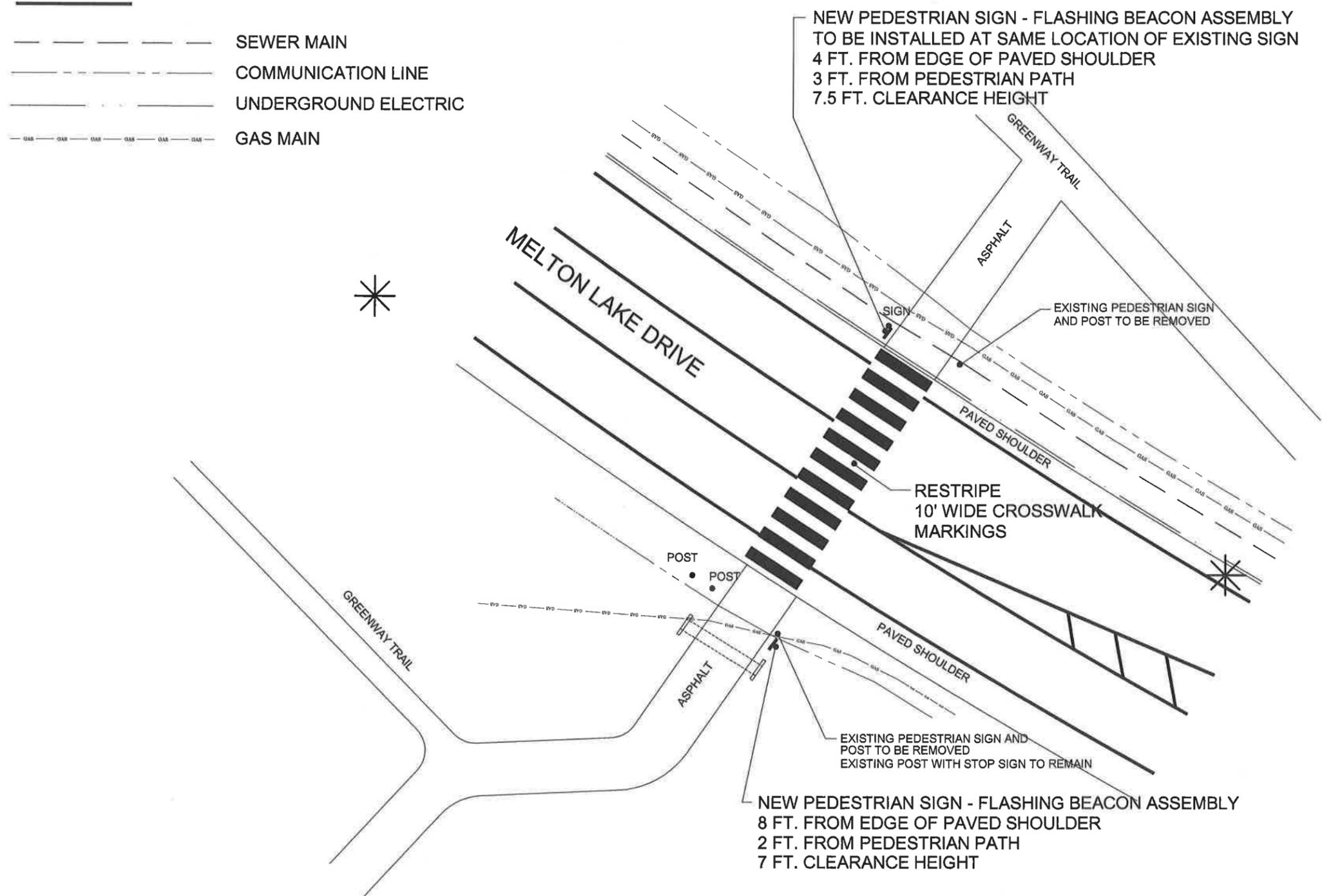
COR PUBLIC WORKS ENGINEERING\SRBICCB
 JANUARY 28, 2013 SHEET 3
 SCALE: 1"= 20'

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LEGEND

- SEWER MAIN
- - - - - COMMUNICATION LINE
- _____ UNDERGROUND ELECTRIC
- GAS MAIN



* EXISTING ADVANCE WARNING SIGNS
TO BE CHANGED OUT TO NEW SIGN W11-15

NEW PEDESTRIAN SIGN - FLASHING BEACON ASSEMBLY
TO BE INSTALLED AT SAME LOCATION OF EXISTING SIGN
4 FT. FROM EDGE OF PAVED SHOULDER
3 FT. FROM PEDESTRIAN PATH
7.5 FT. CLEARANCE HEIGHT

EXISTING PEDESTRIAN SIGN
AND POST TO BE REMOVED

RESTRIPE
10' WIDE CROSSWALK
MARKINGS

EXISTING PEDESTRIAN SIGN AND
POST TO BE REMOVED
EXISTING POST WITH STOP SIGN TO REMAIN

NEW PEDESTRIAN SIGN - FLASHING BEACON ASSEMBLY
8 FT. FROM EDGE OF PAVED SHOULDER
2 FT. FROM PEDESTRIAN PATH
7 FT. CLEARANCE HEIGHT

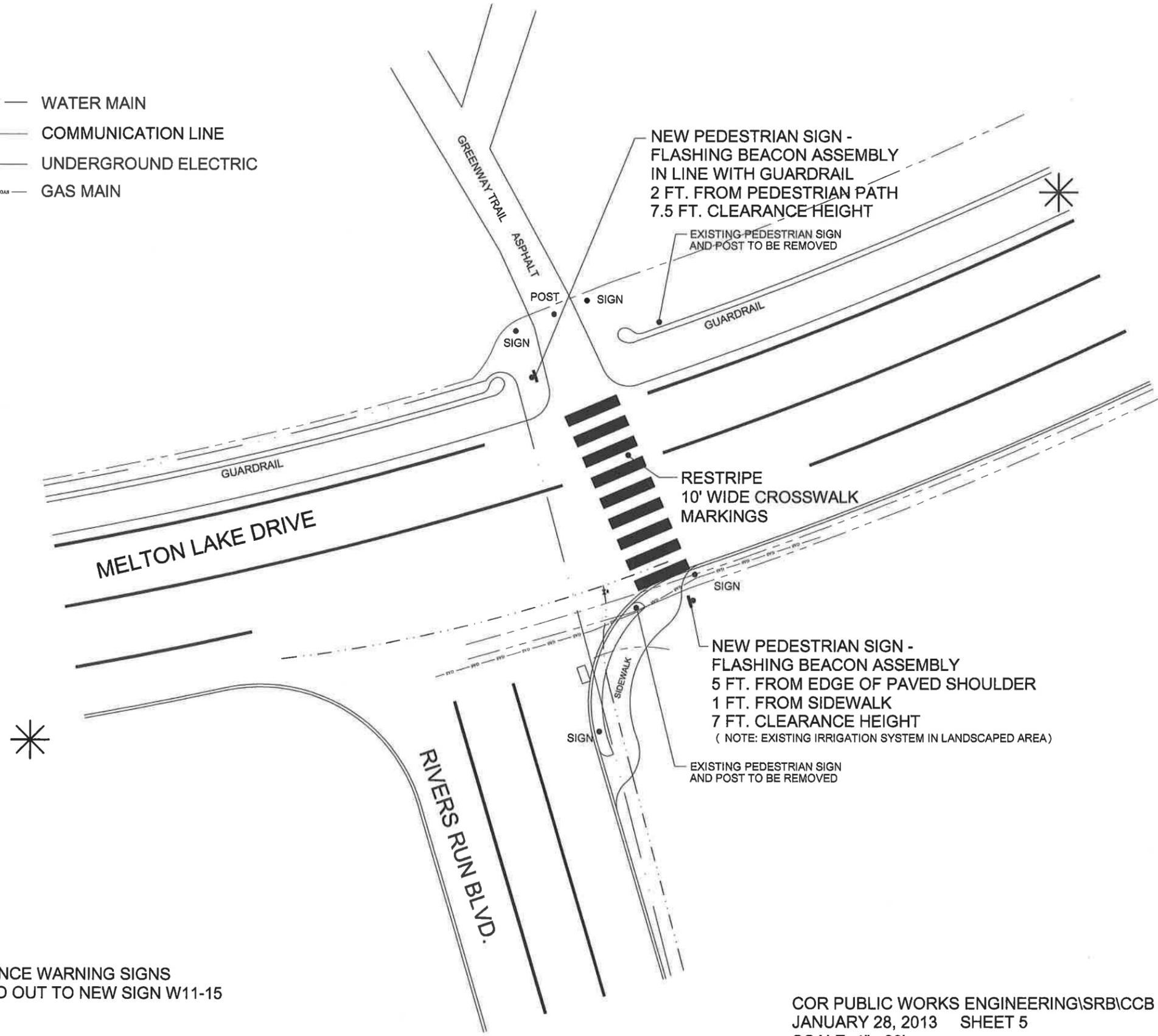
APPROVED FOR THE CITY OF OAK RIDGE



COR PUBLIC WORKS ENGINEERING\SRB\CCB
JANUARY 28, 2013 SHEET 4
SCALE: 1"= 20'

LEGEND

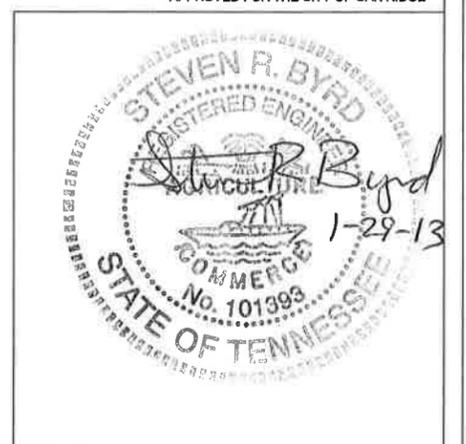
- WATER MAIN
- COMMUNICATION LINE
- UNDERGROUND ELECTRIC
- GAS MAIN



✱ EXISTING ADVANCE WARNING SIGNS TO BE CHANGED OUT TO NEW SIGN W11-15

COR PUBLIC WORKS ENGINEERING/SRBICCB
 JANUARY 28, 2013 SHEET 5
 SCALE: 1"= 20'

APPROVED FOR THE CITY OF OAK RIDGE



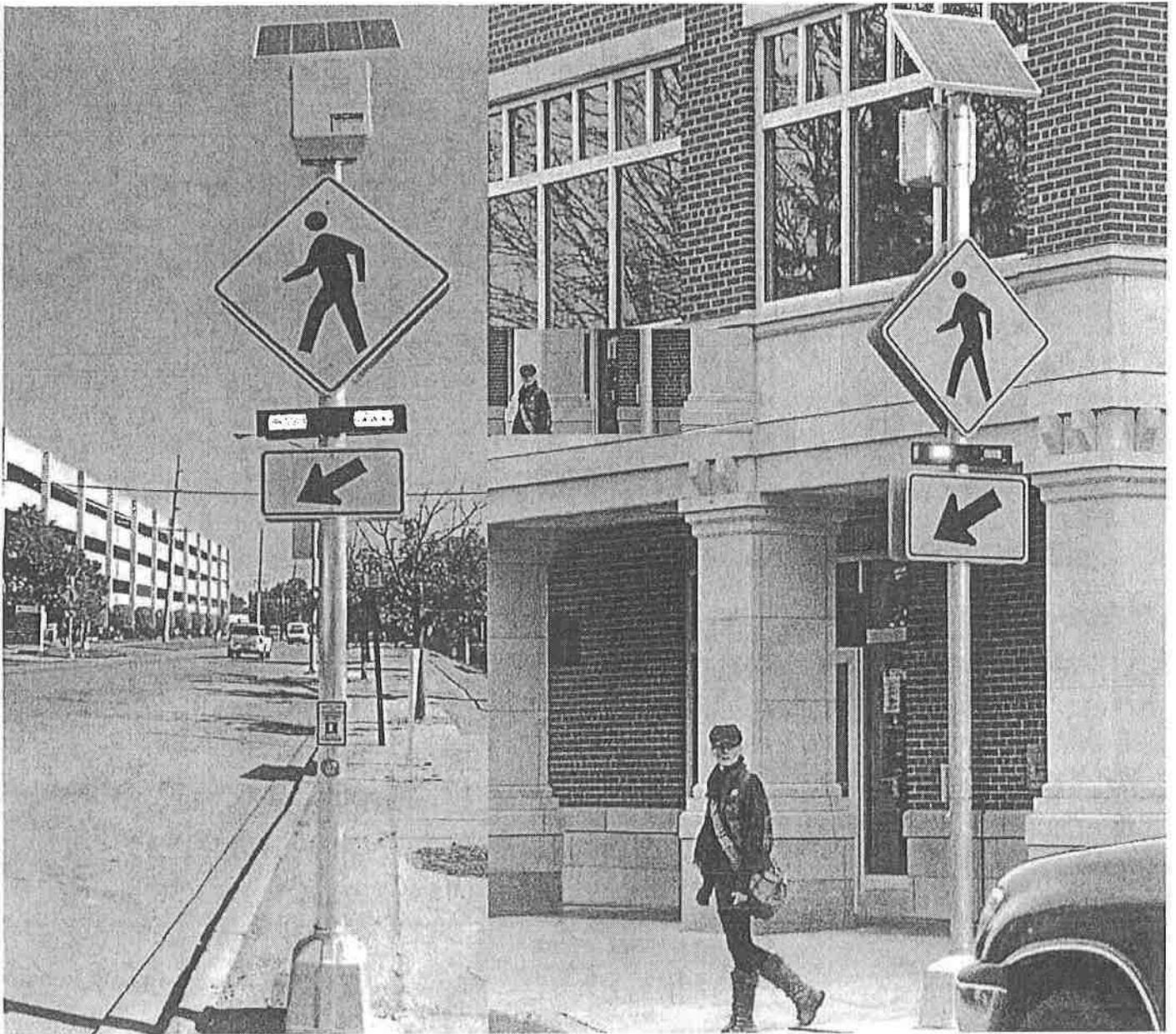
SPECIFICATIONS

Attached is a seven page document from Traffic & Parking Control Company, Inc. on Rectangular Rapid-Flashing Beacon: RRFB-XL™.

Rectangular Rapid-Flashing Beacon: RRFB-XL[™]

Solar Powered, Extra Large LED Arrays

User Guide



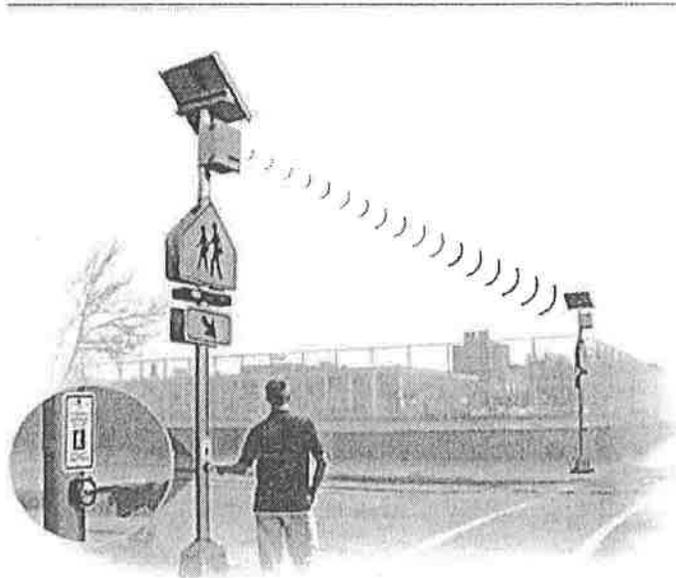


The business of safety since 1956



Rectangular Rapid Flash Beacon (RRFB)

TAPCO's pedestrian activated RRFB systems have produced 80% to 90% driver compliance in yielding to pedestrians at high-risk uncontrolled crossings. When activated, the LED arrays flash an FHWA specified, alternating 'wig-wag' pattern. 5' x 7' mounted LED arrays flash concurrently to advise pedestrians that the units are flashing. This is the highest yielding rate of all devices not featuring a red display, and up to 5 times greater than standard round beacons. RRFBs cost less than other devices with similar vehicular yield rates.



Features & Advantages

- Driver yielding rates of 80%*
- Wireless, synchronized LEDs
- Solar-powered, eco-friendly
- Easy installation, maintenance free
- Web-based monitoring/alert option
- LED Indicators for pedestrians
- More effective than round beacons

Recommended applications

- School Crossings
- Pedestrian Crossings
- Roundabout Crossings
- High-Speed and multi-lane crossings

*80% reduction to yield to pedestrian traffic!**

RRFB-XL System

The Xtra-Large 7" x 3" LED arrays on the RRFB-XL provide greater visibility than standard RRFB, exceeding Federal specifications. The increased conspicuity is ideal for multi-lane and higher-speed roadways.

RRFB Standard System

The Standard Size RRFB features 5" x 2" LED arrays Federal specifications as stated in FHWA Memorandum

System details

[tapco_rrfb_standard.pdf](#) | file size: 1.9mb

LEGAL USE; INSTRUCTIONS; WARNING, CAUTION AND NOTES

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All rights reserved. This notice applies to all copyrighted material included with this product, including but not limited to this manual and software embodied within the product. This User Guide is intended for the sole use of the persons to whom it was provided, and any unauthorized distribution of the manual or dispersal of its contents is strictly forbidden. This manual may not be reproduced in whole or in part by any means whatsoever without the express written permission of TAPCO.

These instructions are for guidance only. Please read and fully understand them before proceeding. They are not to be construed as engineering-approved documents. You should consult a licensed professional engineer for approval of your site and erection plans.

Warning, Caution and Note statements

Warning, Caution and Note statements are used throughout this guide to emphasize important and critical information. Read these statements prior to assembly to help ensure safety and to prevent product damage. The statements are defined below.

WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION
Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Used to notify you about information on installation, operation, programming or maintenance that is important but not hazard-related.

For Technical Support
• Phone 866-753-6255
• Email blinkertech@tapconet.com

USE OF THIS GUIDE; PRODUCT RECORD

Thank you for your purchase of TAPCO-made products

The solar-powered Extra-Large Rectangular Rapid Flashing Beacon, RRFB-XL™, from TAPCO represents the latest technology in the field of LED-enhanced traffic control, and is designed to provide you with years of trouble-free service.

Please take a few moments to record the model and serial numbers below, and keep this document in a safe place for future reference.

MODEL NAME: RRFB-XL™ Solar Powered Beacon Assembly
SERIAL NUMBER: _____
DATE OF PURCHASE: _____
OPTIONS PURCHASED: _____
INSTALLATION LOCATION: _____
OTHER NOTES: _____





PARTS LIST AND RECOMMENDED TOOLS

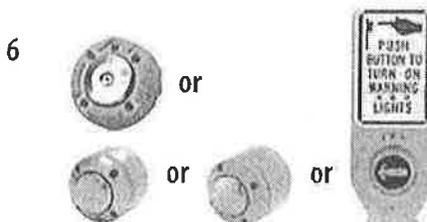
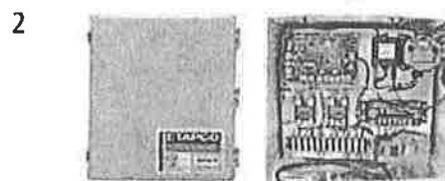
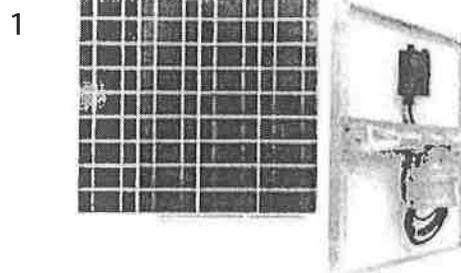
NOTE: Please examine all parts before assembly and installation.
Contact TAPCO immediately if anything is missing or damaged.

Parts List (per assembly)

1. 55-watt solar panel, bracket and cable
2. Control Cabinet, including circuitry and BlinkerBeam® Wireless Radio
3. 12VDC battery
4. Extra-Large Rectangular Rapid Flash Beacon: RRFB-XL
5. RRFB Mounting Hardware, including U-bolt, nuts and washers
6. Pushbutton: Can be one of several models
7. Cables: Solar, Pushbutton and LED

Recommended Tools & Safety Gear

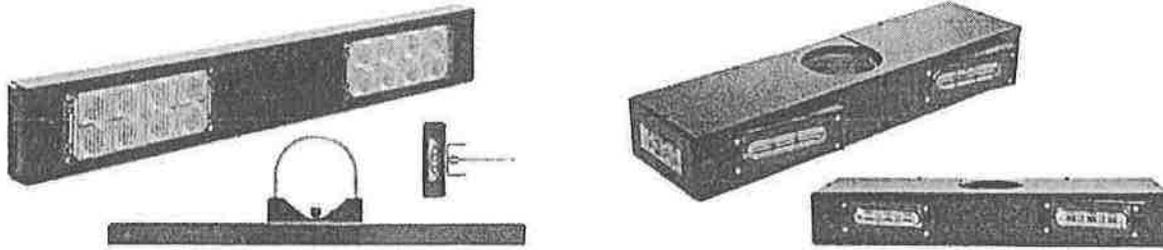
- Tape Measure
- Pole Strap Wrench
- Electric Hand-held Drill, preferably corded with side handle
- Metallic Hole Saws: 1½" and 1¼" arbor bits
- Hole Reamer (to remove drilling burs)
- Electrician's Fish tape
- Philips Head Screw Driver
- Open/Box Wrench: 9/16"
- Socket, Deep Socket: 9/16"
- Ratchet/Driver and Extension
- Wire Stripper/Terminal Crimper
- Gloves and Safety Glasses
- Protective Clothing and Devices



Battery Safety

CAUTION

Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face, protect your eyes and provide ventilation. Batteries contain sulfuric acid which burns skin, eyes and clothing. Disconnect the battery and solar panel before removing or replacing any electrical components.



* "An Analysis of the Efficacy of Rectangular-shaped Rapid-Flash LED Beacons to Increase Yielding to Pedestrians Using Crosswalks on Multilane Roadways in the City of St. Petersburg, FL", Center for Education and Research in Safety ([view report](#))



See TAPCO's Rectangular Rapid Flash Beacon in action

This video of TAPCO's Rectangular Rapid Flash Beacon demonstrates the RRFB in different situations and time of day.

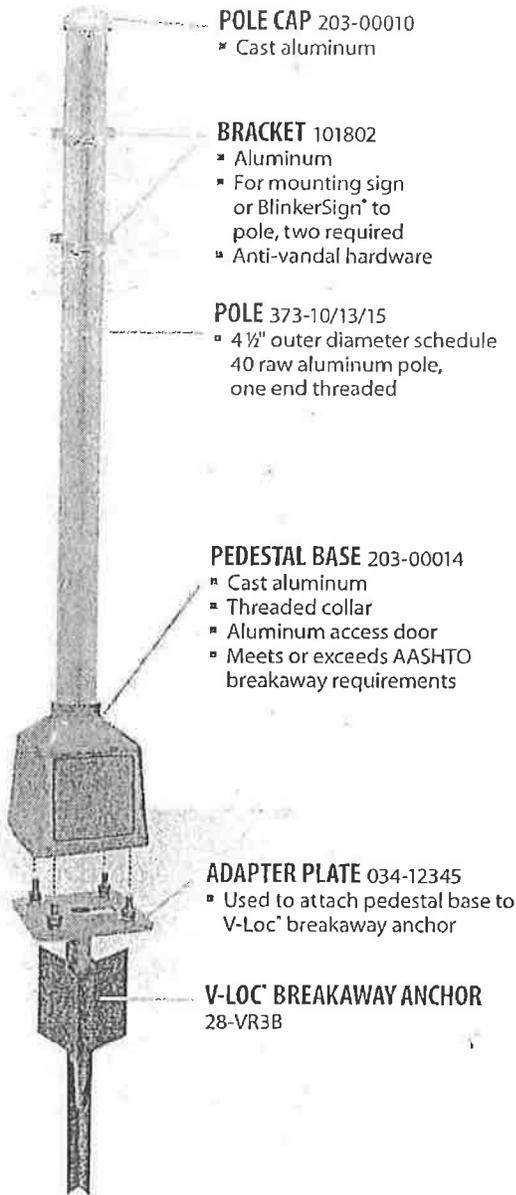
[Watch video »](#)

Standard Specifications

MUTCD Approval, Optional Use of RRFB	Interim FHWA Approval Memorandum (1A-11)
Housing	Powder coated aluminum
LED Modules (2 per direction)	6 amber LED array, - 5" x 2" (Standard RRFB) or 3" x 7" (RRFB-XL), SAE J595 certified
Flash Pattern	Meets 2-4-1 FHWA regulations
Mounting Hardware (enclosed)	Stainless steel u-bolts for 4" to 4 1/2" O.D. pole
Housing	NEMA 4 rated fiberglass cabinet with lockable clasps
Solar Panel (25.75" x 25.25" x 1.4375")	55 watt solar panel set at 40° or 60°. Conforms to IP-67. Includes aluminum mounting bracket for 4" to 4 1/2" O.D. pole.
Batteries one per assembly)	12V, 40AH Sealed Gel battery requires no periodic watering. Sealed construction eliminates corrosive acid fumes and spills.
Battery Lifespan	3-5 years
Autonomy	Up to 30 days without sun
Control Circuit	IP-67 NEMA rated enclosure, dustproof and waterproof in water up to 3' for 30 minutes
Frequency	900 MHz FHSS
Range	Up to 3 miles with optional external antennas. For system separation over 900', a site survey is recommended for optimal performance.
Radio	Operates on 900 MHz frequency hopping spread spectrum network. Operating range from 3.6vdc to 15vdc
Programmability	Up to 50 systems in one network
Push-button Activation	ADA pushbutton, typical (<120 millisecond) [1] RS232 Communications Port Programming via Windows basic software: Optional wireless cellular or internet programming

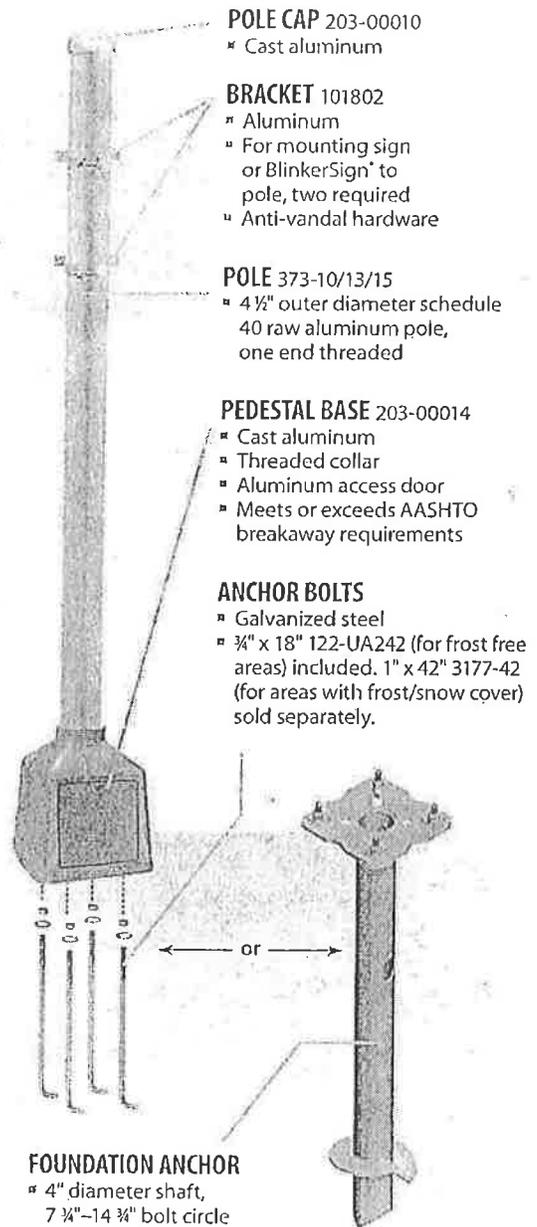
HEAVY DUTY

Pole Packages



HEAVY DUTY

Pole Packages



Heavy Duty Double Breakaway Pole Packages With V-Loc™ Breakaway Anchor

A double breakaway system for large signage, BlinkerSign®, and BlinkerBeacon™. Soil installation.

10' heavy duty pole package, V-Loc™ breakaway anchor	2180-00220
13' heavy duty pole package, V-Loc™ breakaway anchor	2180-00221
15' heavy duty pole package, V-Loc™ breakaway anchor	2180-00222

Heavy Duty Breakaway Pole Packages

For large hard wired or solar systems. Breakaway compliant. Poured concrete foundation (anchor bolts) or soil installation (foundation anchor).

10' heavy duty pole package, anchor bolts (for concrete)	107889
13' heavy duty pole package, anchor bolts (for concrete)	101919
15' heavy duty pole package, anchor bolts (for concrete)	101920
10' heavy duty pole package, foundation anchor (for soil)	109351
13' heavy duty pole package, foundation anchor (for soil)	109352
15' heavy duty pole package, foundation anchor (for soil)	109353

Sign Substrate (30" or 36" signs) .080" Highway grade aluminum

Reflective Sheeting 3M™ DG3 with anti-graffiti overlay

Hardware Zinc-plated steel anti-vandal fasteners for signs and RRFB units

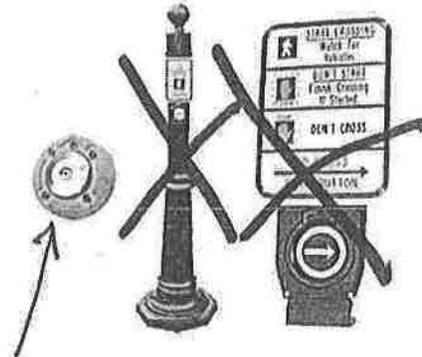
Multiple units in one system will flash in synchronized patterns to avoid light noise of system operation. Ideal for multiple units flashing in the same direction, without the need for wiring.

DISCLAIMER: These specifications are for the blinker / beacon system only and doesn't include the specifications for the add-on smart activations. Specifications are subject to change without notice. For additional specifications and details, please contact us!



Push Button

- Activated with less than 2 lbs force
- Provides two-tone audible confirmation as well as visual confirmation
- Cannot be jammed or stuck in "on" position
- Wind, hail and vibrations have no effect
- Superior grade pre-treatment and powder coat
- Stainless steel button cap
- Meets ADA, MUTCD and TAC requirements
- Transient protection that meets and exceeds NEMA specifications



SIGN MOUNTED ABOVE BUTTON

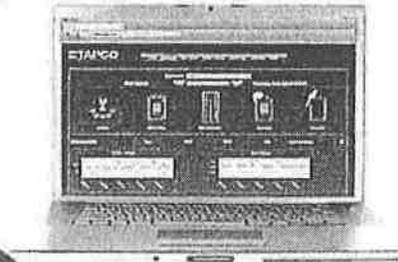
Pushbutton Bollard User Guide

[PB_BOLL_guide_120817.pdf](#) | file size: 967kb



BlinkLink™ Web-based Traffic Device Monitor & Control Software System

Monitor BlinkerSign® and other ITS device status from any web-enabled computer. Comprehensive management of all device settings, schedules and messages. Real-time information allows you to respond immediately to changing situations.



[Learn More »](#)

BlinkLink™ Web-based Traffic Device Monitor & Control

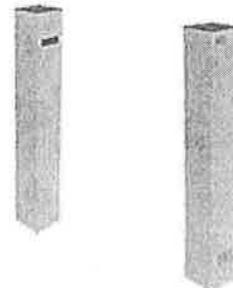
[IWS-blinklink.pdf](#) | file size: 1.9mb



Wireless Bollard

Pedestrians and bicyclists can passively trigger flashing BlinkerSign® LED signs, in-pavement LEDs, beacon warning systems and other ITS devices. Actuators are housed in anodized aluminum cabinets that can be secured to concrete or asphalt.

- Install virtually anywhere, utilizing wireless control if needed
- Designed to interface with ITS devices
- Dependable, precise control with minimal maintenance
- Battery operated: no grid wiring required
- No trenching or concrete cutting required



Bid Submittal Instructions

Pursuant to Tennessee Code Annotated § 62-6-119, each bid must be submitted in an opaque sealed envelope marked and addressed on the outside as follows:

From: Bidder's Name
Bidder's Address
*General Contractor's State of Tennessee License Number
*Bidder's License Date of Registration
*Bidder's License Category or Classification
*Bidder's License Expiration Date

*If bid equals or exceeds \$25,000, include this information if a contractor's license is required for this project per the State of Tennessee's Contractors Licensing Board. (The same information must also be provided for major subcontractors.)

To:	<u>In Person or By Overnight Delivery</u>	<u>Regular Mail</u>
	Attn: Lyn Majeski Finance Department City of Oak Ridge 100 Woodbury Lane Oak Ridge, TN 37830	Attn: Lyn Majeski Finance Department City of Oak Ridge P.O. Box 1 Oak Ridge, TN 37831-0001

If the bid is submitted by mail rather than hand-delivery, the sealed envelope containing the bid must be enclosed in another envelope addressed as stated above. Bids submitted by mail should indicate on the outside envelope, lower left corner, the following: "Sealed bid for COR 13-07: Pedestrian Crossing Safety Improvements – Melton Lake Drive to be opened February 21, 2013 at 2:00 p.m. local time" to ensure the bid is delivered to the appropriate person at the City in a timely fashion. Late bids are not accepted and will not be opened.

COR 13-07 BID FORM

Project: Pedestrian Crossing Safety Improvements – Melton Lake Drive

In compliance with the Invitation for Bids, dated February 4, 2013, the undersigned Bidder:

* a corporation organized and existing under the laws of the State of: _____

* a partnership consisting of: _____

*an individual trading as: _____

(*fill in as appropriate)

of the City of _____ in the State of _____ agrees that if this bid is accepted as hereinafter provided, it will furnish all labor, materials, supplies, tools, and equipment necessary to perform all work and services described in the Invitation for Bid and Instructions to Bidders, in strict accordance with the terms and provisions of the Contract attached thereto.

If written Notice of Award is received, the Bidder agrees to furnish to the City of Oak Ridge, within ten (10) working days after receipt of said Notice of Award, the Completion and Performance Bond; Labor and Material Bond or other suitable securities; and required insurance certificates naming the City of Oak Ridge as an additional insured.

Bidder acknowledges receipt the following addenda:

Bidder understands that the City reserves the right to reject any or all bids and to waive any informality in the bidding.

Bidder agrees that this bid shall be good for a period of ninety (90) days from the date of opening.

ESTIMATED CONSTRUCTION QUANTITIES					
ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mobilization	1	Lump Sum		
2	Removal of structures, obstructions, signs, posts	1	Lump Sum		
3	Pedestrian Flashing Beacon Assembly (See footnote 1)	6	Each		
4	Pedestrian Flashing Beacon Assembly Spare Parts (See footnote 2)	1	Each		
5	Pedestrian/Bicycle Xing Sign - W11-15 - 30" x 30" (See footnote 3)	6	Each		
6	Pedestrian/Bicycle Xing Sign - W11-15 - 30" x 30" (See footnote 4)	6	Each		
7	Plaque Sign - W-16-7P - 24" x 12" (See footnote 3)	6	Each		
8	Push Button to Turn On Warning Lights Sign - R10-25 - 9" x 12"	6	Each		
9	TAPCO Heavy Duty Pole Package - 15' length (See footnote 5)	6	Each		
10	4" Round Aluminum Pole, Base and Cap - 4' length (See footnote 6)	1	Each		
11	2' x 3' Concrete Pole Foundation (See footnote 7)	6	Each		
12	2' x 2' Concrete Pole Foundation and 4 anchor bolts (See footnote 7)	1	Each		
13	5' x 8' Concrete Apron (See footnote 8)	1	Lump Sum		
14	1" Minimum Schedule 40 PVC (See footnote 9)	25	Linear Feet		
15	TAPCO Pushbutton Cable (See footnote 10)	45	Linear Feet		
16	Plastic Pavement Marking - 10' longitudinal crosswalk	126	Linear Feet		
17	Traffic Control, Erosion Control, Clean Up	1	Lump Sum		
	NOTE: Quantities may be increased or decreased by the City Engineer			TOTAL	

Total Bid Price (from previous page)

Pedestrian Crossing Safety Improvements
Melton Lake Drive Project

\$ _____

_____ Dollars and _____ Cents

Bidder attests that no officers or employees of the City of Oak Ridge are members of, or have financial interest in, the business submitting this bid.

By: _____
Signature

Telephone #: _____

Name: _____

Fax # _____

Title: _____

Email: _____

Business
Name: _____

Date: _____

Mailing
Address: _____

Physical
Address: _____

Tax ID Number: _____

NOTE: In accordance with the Invitation to Bid, the following attachments are required: a Bid Bond in the amount of ten percent (10%) of the total bid price and the Drug Free Workplace Affidavit.

BID BOND

COR 13-07

KNOW ALL MEN BY THESE PRESENTS,

That we, _____,
(hereinafter called the "Principal"), as Principal, and the _____, of
_____ a

corporation duly organized under the laws of the State of _____

(hereinafter called the "Surety"), as Surety, are held and firmly bound unto the City of Oak Ridge, Tennessee, (hereinafter called the "Obligee"), as Obligee, in the sum of ten percent (10%) of the bid price for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for:

_____.

NOW THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the Invitation to Bid and Instructions to Bidders with good and sufficient surety for the faithful performance of such contract, or in the event of the failure of the Principal to enter such contract and give such bond, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this _____ day of _____ A.D. 2013.

IN THE PRESENCE OF:

_____(Seal)
Principal

Witness

Title

Witness

_____(Seal)
Surety

Title

DRUG-FREE WORKPLACE AFFIDAVIT

STATE OF _____)
)
COUNTY OF _____)

The undersigned principal officer of _____, an employer of five (5) or more employees, contracting with the City of Oak Ridge, Tennessee, to provide construction services, hereby states under oath as follows:

- 1. That the undersigned is a principal officer of _____ (hereinafter referred to as the "Company") and is duly authorized to execute this Affidavit on behalf of the Company.
- 2. The Company submits this Affidavit pursuant to Tennessee Code Annotated § 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services or who is awarded a contract to provide construction services to the state or local government to submit an affidavit stating that such employer has a drug-free workplace program that complies with Title 50, Chapter 9 of the Tennessee Code.
- 3. The Company is in compliance with Tennessee Code Annotated § 50-9-113.

Further affiant saith not.

Principal Officer

State of _____)
)ss.
County of _____)

Before me personally appeared _____ with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence) and who acknowledged that such person executed the foregoing affidavit for the purposes therein contained.

Witness my hand and official seal this _____ day of _____, 2013.

Notary Public

My Commission Expires: _____.

CONTRACT

COR 13-07

THIS CONTRACT entered into this _____ day of _____, 2013, by and between the CITY OF OAK RIDGE, TENNESSEE, a municipal corporation, hereinafter called the "City," and _____, a _____, hereinafter called the "Contractor."

WITNESSETH

In consideration of the mutual promises of the parties hereto, the parties do hereby agree as follows:

ARTICLE 1 – Scope of This Contract

The work to be done consists of furnishing all labor, materials, supplies, tools, equipment and other incidentals necessary to perform all work and services required for the Pedestrian Crossing Safety Improvement at Melton Lake Drive Project in accordance with the attached Specifications and Drawings. The Project generally consists of labor and material to install signs, poles, solar panels, cabinets, push buttons, flashing beacons, and concrete foundations at three (3) locations on Melton Lake Drive. All work performed under this Contract shall be in strict accordance with the terms and provisions of this Contract, the Scope of Work, and the bid of the Contractor, all attached hereto and incorporated herein by reference.

In performance of this Contract, the Contractor binds himself to the City to comply fully with all provisions, undertakings, and obligations hereinafter set forth.

ARTICLE 2 – Term

This Contract shall become effective upon its execution and shall continue in full force and effect through June 30, 2013. Work shall be completed within sixty (60) days after the Contractor's receipt of a written Notice to Proceed, unless an alternate schedule is approved by the parties in writing. Steve Byrd is the City's contact for this project and can be reached at (865) 425-1807 or sbyrd@oakridgetn.gov.

ARTICLE 3 – Changes

- A. City may, by written order, and without notice to the Sureties, make changes in the specifications of this Contract within the general scope thereof. If any such changes cause an increase or decrease in the scope of this Contract or in the time required for its performance, an equitable adjustment shall be made and this Contract shall be modified in writing accordingly.
- B. Should the Contractor encounter conditions materially different from those shown in the specifications, the City shall be notified in writing immediately of such conditions before they are disturbed. The City shall thereupon promptly investigate the conditions and if it finds that they do so materially differ from those specified, this Contract shall be modified to provide for any increase or decrease of cost and difference in time resulting from the conditions so found.
- C. Except as otherwise herein provided, no charge for any extra work or material will be allotted unless the same has been approved in writing by the City, and the price stated.

ARTICLE 4 – Inspections and Defective Work

All workmanship and services shall be subject to inspections, examinations and tests by the City at any and all times during the performance of this Contract. The City shall have the right to reject defective workmanship and to require correction. Rejected workmanship shall be satisfactorily corrected without charge therefore. If the Contractor fails to proceed at once to correct such defective workmanship, the City may proceed with such corrective work and the Contractor shall be liable for all direct cost occasioned in the performance therefore.

This provision does not negate, modify or replace any warranties contained elsewhere in this Contract. This provision shall survive the termination or suspension of this Contract.

Neither payment nor any provisions in the Contract document shall relieve the Contractor of responsibility for faulty materials or defective workmanship. The City shall give notice of observed defects with reasonable promptness. The deterioration due to ordinary use and normal wear is excepted from this guarantee.

The Contractor shall reimburse the City for the cost of damage, if any, as well as the cost of replacing defective materials or workmanship. If replacements are not made within ten (10) days after notice is given of such defect in workmanship, or thirty (30) days in case of materials, then the City shall have the right to make replacements and charge the cost of same to Contractor or the Contractor's surety.

ARTICLE 5 – Site Investigation

The Contractor represents that it has visited the site and determined the nature of the work and the difficulties and facilities attending execution of the work, and all other matters, which can in any way affect the work under this Contract.

ARTICLE 6 – Delays, Damages

If the Contractor refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in Article 2, or fails to complete the work within such time, the City may terminate this Contract. In such event, the City may take over the work and prosecute the same to completion by contract or otherwise, and the Contractor shall be liable to the City for any excess cost occasioned thereby. If this Contract is so terminated, the City may take possession of and utilize in completing the work such materials, appliances, tools and equipment as may be on the site of the work and necessary therefore.

ARTICLE 7 – Payment

As consideration for performing all work and services set forth in this Contract, and as full consideration thereof, the City agrees to pay the Contractor \$_____ in accordance with the bid sheet of the Contractor which is incorporated by reference into this Contract. Payment shall be made within thirty (30) days of satisfactory completion of the work.

ARTICLE 8 – Final Payment

Upon completion of the work and services covered by this Contract and before final payment, the Contractor must furnish evidence to satisfy the City that all suppliers of materials used and all labor and other employees working for the Contractor pursuant to this Contract have been fully paid. Upon final payment, the City is to be released from all liability whatsoever growing out of this Contract.

ARTICLE 9 – Indemnification by Contractor

To the fullest extent permitted by all applicable laws and regulations, the Contractor hereby agrees to protect, indemnify and hold harmless the City and their consultants, agents and employees from and against any and all claims, loss, expense, damage, charges and costs direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professional and court costs), collectively referred to as "claims," for injury to or death of persons and injury to or destruction of property suffered or alleged to have been suffered as a result of any act or omission on the part of the Contractor, any of the Contractor's subcontractors, anyone for whose acts any of them may be liable, or others whose services are engaged by the Contractor or anyone directly or indirectly employed or controlled by either of them in the course of the performance of the work provided for in the Contract, except such injury, destruction or death as may be caused by the sole negligence or fault of the City.

When the City submits notice, the Contractor shall promptly defend any aforementioned action. In any and all claims against the City or any of their consultants, agents or employees by any employee of the Contractor, any of the Contractor's subcontractors, anyone for whose acts any of them may be liable, or others whose services are engaged by the Contractor or anyone directly or indirectly employed or controlled by either of them in the course of the performance of the work provided for in the Contract, the indemnification obligation described herein shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts. The limits of insurance required in this Contract shall not limit the Contractor's obligations under this article.

The terms of this article shall survive the termination or suspension of this Contract.

ARTICLE 10 – Rate of Progress

Notwithstanding any other provisions in this Contract, the Contractor shall furnish sufficient labor, materials, supplies, tools, and equipment, and shall work such hours, including overtime, Sundays, and/or Holidays, as may be necessary to carry out the work in accordance with the approved schedules for its completion not later than the respective times allowed for completion set forth in these Contract Documents. Should the Contractor refuse or fail to comply with its obligations set forth in the preceding sentence after receipt of any written directive or request by the City that the Contractor furnish additional labor, materials, supplies, tools, and equipment, and/or work additional hours, including overtime, Sundays, and/or Holidays, the City may terminate the Contractor's right to proceed with the whole or any part of the work under this Contract.

ARTICLE 11 – Compliance with All Laws, Ordinances, Statutes, and Regulations

The Contractor shall comply with all federal, state, county and local laws, ordinances, statutes, and regulations.

ARTICLE 12 – Insurance

The Contractor shall at all times during the Contract maintain in full force and effect Comprehensive General Liability, Workers' Compensation and Property Damage Insurance in the amounts set forth below and naming the City of Oak Ridge, Tennessee as an *additional insured*.

The Contractor shall maintain policies providing the following insurance protection, each policy containing a requirement that, in the event of change or cancellation, thirty (30) days' prior written notice be sent by mail to the City. Certificates of Insurance describing the coverage shall be furnished by the Contractor and shall contain the following express obligation:

"This is to certify that the policies of insurance described herein have been issued to the insured for whom this certificate is issued and are in force at this time. In the event of cancellation or material change in a policy affecting the certificate holder, thirty (30) days' prior written notice will be given the certificate holder."

1. Comprehensive General Liability:

Bodily Injury	\$300,000	each occurrence
	\$700,000	aggregate
Property Damage	\$100,000	each occurrence
Or Combined Single Limit of	\$1,000,000	
2. Workers' Compensation and Employer's Liability as provided for in applicable statutes.
3. Comprehensive Automobile Liability (Including all owned, non-owned and hired vehicles)

Bodily Injury	\$300,000	each person
	\$700,000	each occurrence
Property Damage	\$100,000	each occurrence
Or Combined Single Limit of	\$1,000,000	

The Contractor may purchase at its own expense such additional or other insurance protection as it may deem necessary. Maintenance of the required minimum insurance protection does not relieve the Contractor of responsibility for any losses not covered by the above-required policies.

Before commencement of work hereunder, the Contractor agrees to furnish to the City of Oak Ridge (Legal Department, P.O. Box 1, Oak Ridge, Tennessee 37831-0001) a Certificate of Insurance or other evidence satisfactory to the City to the effect that such insurance has been procured and is in force.

ARTICLE 13 – Permits and Licenses

The Contractor shall obtain, at the Contractor's expense, all permits, licenses and bonds required by law or ordinance and maintain the same in full force and effect.

ARTICLE 14 – Subcontracting and Assignment

- A. The Contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors.
- B. The Contractor shall not award, assign, transfer or pledge any work to any subcontractor without prior written approval of the City, which approval will not be given until the Contractor submits to the city a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the City may require.
- C. The Contractor shall be as fully responsible to the City for the acts and omissions of subcontractors, and of persons either directly or indirectly employed by said subcontractors, as the Contractor is for the acts and omissions of persons directly employed by the Contractor.

- D. The Contractor shall make a condition of all subcontracts and/or cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the City may exercise over the Contractor under any provision of the Contract Documents.
- E. Nothing contained in this Contract shall create any contractual relation between any subcontractor and the City.

ARTICLE 15 – Superintendence by the Contractor

The Contractor shall give its personal superintendence to the work or have a competent foreman or superintendent satisfactory to the City on the site at all times during the progress of the work, with authority to act on behalf of the Contractor.

ARTICLE 16 – Termination

Notwithstanding any other provisions in this Contract, the Contractor shall furnish all labor, materials, supplies, tools and equipment necessary to perform the work and services within allowed times for completion as set forth in these Contract Documents. Should the Contractor refuse or fail to comply with its obligations, or in the event the Contractor shall violate any of the provisions of this Contract, or the quality or quantity of the work performed is, in the judgment of the City, below standard and therefore unsatisfactory, the City shall have the right to cancel this Contract upon thirty (30) days written notice to the Contractor and to complete the work undertaken by the Contractor without incurring any liability to the Contractor except to pay the Contractor the fair value to the City of the work satisfactorily performed by the Contractor.

ARTICLE 17 – Termination of Contract for Cause

If, through any cause, the Contractor shall fail to fulfill in timely and proper manner the obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the Contractor under this Contract shall, at the option of the City, become the City's property and the Contractor shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of the Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of set-off until such time as the exact amount of damages due the City from the Contractor is determined.

ARTICLE 18 – Anti-Discrimination

The Contractor, in performing the work or furnishing the services covered by this Contract, shall not discriminate against any person because of race, creed, color, national origin, age, sex, sexual orientation, disability, religion or other legally protected status. The City of Oak Ridge encourages the utilization of minority and women-owned businesses in its contracting and subcontracting projects and the Contractor is encouraged to actively solicit the participation of these businesses. The Contractor shall inform all of its subcontractors and vendors providing work or services under this Contract of this

requirement and shall ensure compliance therewith.

ARTICLE 19 – Personnel

- A. The Contractor represents that it has, or will, secure at the Contractor's expense, all personnel required to perform the work and services outlined in this Contract. Such personnel shall not be employees of or have any contractual relationship with the City.
- B. All of the services required hereunder will be performed by the Contractor or under the Contractor's supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state and local laws to perform such services.

ARTICLE 20 – Reports and Information

At such times and in such forms as the City may require, the Contractor shall furnish to the City such periodic reports as are requested by the City pertaining to the work and services covered by this Contract, the costs and obligations incurred or to be incurred in connection herewith, and any other matters covered by this Contract. The City can audit the Contractor's and the Contractor's subcontractors' financial records pertaining to this project.

ARTICLE 21 – Governing Law

This Contract is governed by the laws of the State of Tennessee.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first above written, the City of Oak Ridge, by its City Manager, by authority duly given.

APPROVED AS TO FORM AND LEGALITY:

CITY OF OAK RIDGE, TENNESSEE

City Attorney

City Manager

(CONTRACTOR)

Signature

(Printed or Typed Name and Title)

Attachments: Specifications
Bid Documents
Contractor's Bid