



CITY OF EAST GRAND RAPIDS

750 LAKESIDE DRIVE SE-EAST GRAND RAPIDS, MICHIGAN 49506

Traffic Control Order #62

Locations: Lake Drive and Bagley Avenue/San Lu Rae Drive and 750 Lakeside Drive.

Order: Placement of Rectangular Rapid Flashing Beacons (RRFBs) at noted pedestrian crossings.

Background: See Attachment A.

Design/Installation and Timing Programing:

Design:

MMUTCD and MUTCD 4E.08.04/05

F. At a mounting height of approximatcly 3.5 feet, but no more than 4 feet, above the sidewalk.

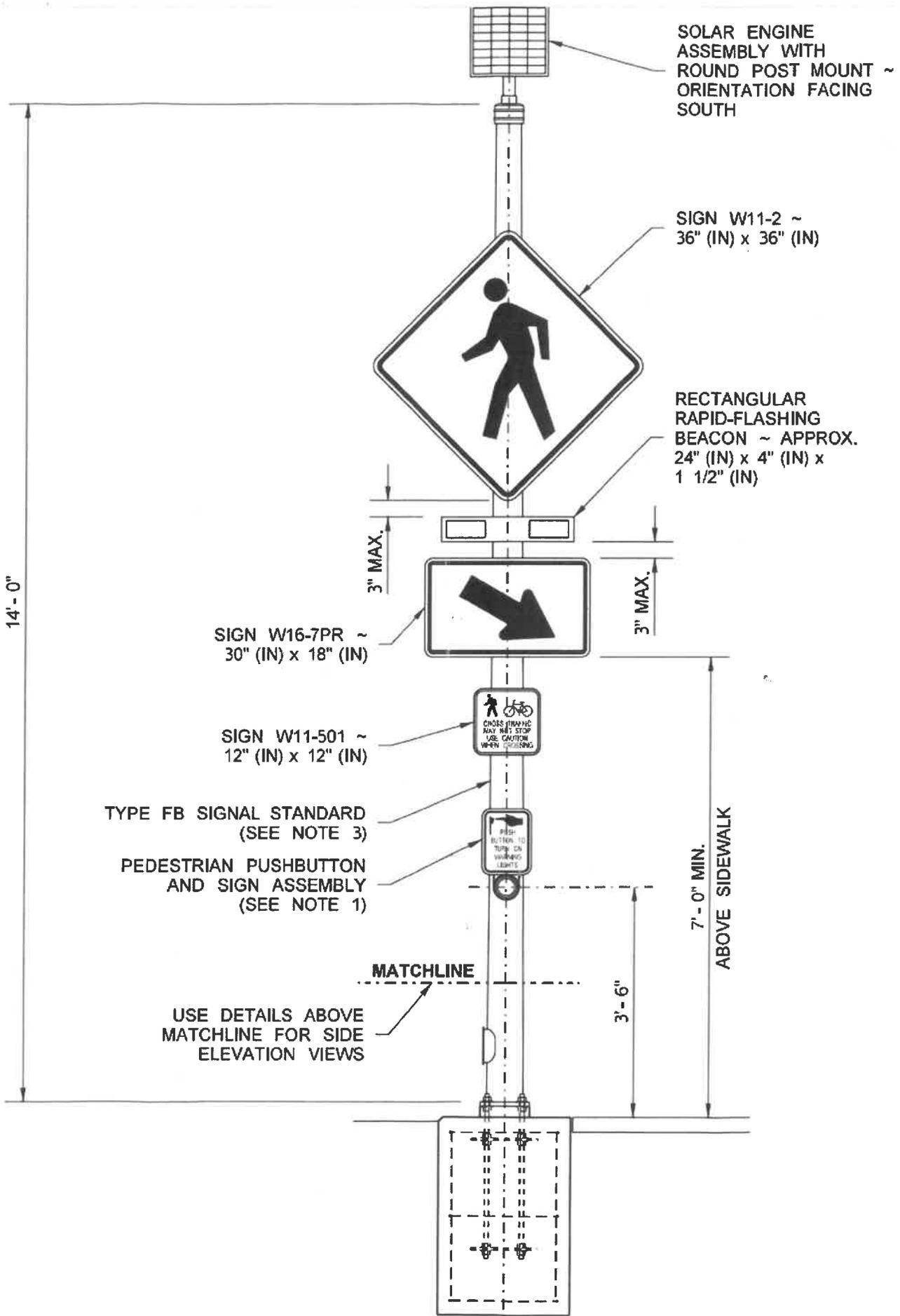
United States Access Board X02.5.1.2 Features

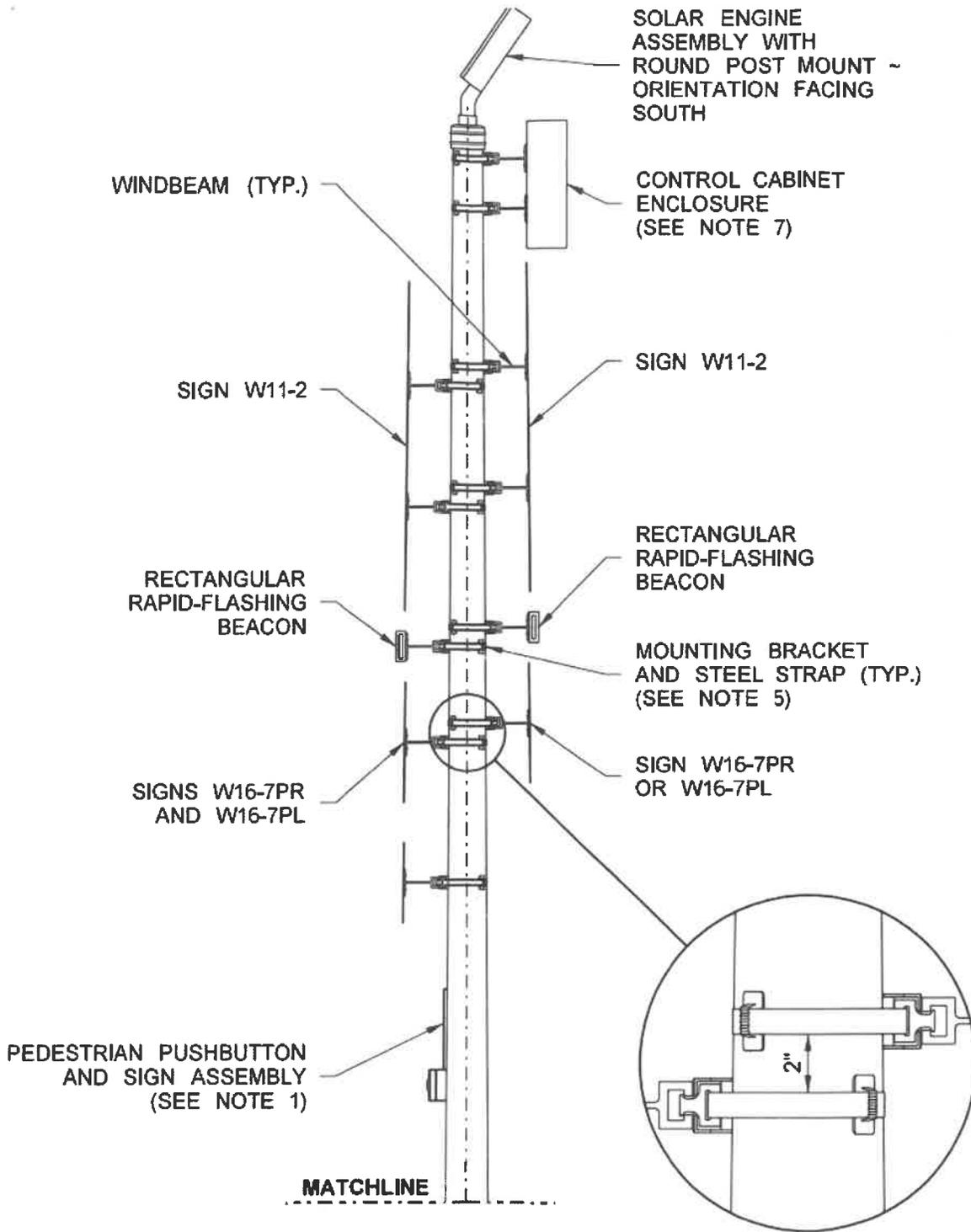
(D) Mounting height. The centerline of the push button shall be mounted 42 inches (1070mm) above the clear ground space for approach.

Also see diagrams/illustrations in subsequent pages below.

Timing:

At the crossing location, including the bulb-out, Lake Drive is 30 feet wide. FHWA guidance on timing is to utilize MUTCD 4E.06. This is the same method for calculating crossing times for pedestrian signals at traffic signal locations. Utilizing 3.5 feet per second would require approximately 10 seconds as a minimum. Factoring in some time for perception, reaction, eye contact and to start walking the engineers recommended and set timing is for 20 seconds.





SIDE ELEVATION VIEW
BI-DIRECTIONAL CONFIGURATION
DETAILS

NOTES

1. PEDESTRIAN PUSHBUTTON AND SIGN ASSEMBLY - MAY BE SEPARATE PARTS. USE 9" (IN) X 12" (IN) R10-25 SIGN IN ACCORDANCE WITH 2009 MUTCD. SIGN MAY INCLUDE INTEGRATED WARNING LIGHTS.
2. SEE STANDARD PLAN J-21.10 FOR SIGNAL STANDARD FOUNDATION WITH FIXED BASE AND SLIP BASE DETAILS.
3. SEE STANDARD PLAN J-21.16 FOR SIGNAL STANDARD DETAILS NOT SHOWN.
4. SEE STANDARD PLAN J-21.17, DETAIL C FOR WIRING DETAILS NOT SHOWN.
5. SEE STANDARD PLAN G-30.10 FOR SIGN INSTALLATION ON SIGNAL STANDARD DETAILS.
6. TERMINATE RRFB CONNECTIONS PER MANUFACTURER'S RECOMMENDATION.



**W11-501
(12" x 12")**

PEDESTRIAN SYMBOL HEIGHT - 4" (IN)
BICYCLE SYMBOL HEIGHT - 3" (IN)
LETTERS - 1" C
LEGEND - BLACK
BACKGROUND - YELLOW

Submitted by: Doug La Fave, Department of Public Works
City Commission: Approved March 1, 2021 (Previously 2019)
Installation Completed: RRFB at Lake and Bagley/San Lu Rae 2019, RRFB at 750 Lakeside Drive
Date: 3-19-21

Distribution: City Clerk
Public Works
Public Safety



EAST GRAND RAPIDS

750 LAKESIDE DRIVE SE • EAST GRAND RAPIDS, MICHIGAN 49506

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DOUG LAFAVE
ASSISTANT CITY MANAGER

MEMORANDUM

TO: Honorable Mayor and City Commissioners
FROM: Doug La Fave, Assistant City Manager
DATE: 2/3/2021

RE: Rectangular Rapid Flashing Beacons (RRFBs)-Pilot Update and Addition Authorization Request

Action Requested: The City Commission consider extending the pilot installation of the RRFB at Lake Drive and Bagley Avenue/San Lu Rae Drive for one-year and consider the addition to the pilot program an installation at the crosswalk between the Community Center and EGRPS athletic facilities as recommended by City traffic engineering consultant Chris Zull, PE from Progressive AE.

Background: In 2018 the City conducted an extensive study of all crosswalks adjacent to all six schools. As a result traffic control order #53 was approved and all recommendations were implemented. In the fall of 2018 the City approved a policy and approved traffic control order #54 for the use of in-street school crosswalk signs (R-1-6b) at midblock school crossing locations adjacent to school buildings. In summer of 2019 the City hired additional crossing guards for the high school and middle school crossing locations to supplement crossing guards that previously existed at all elementary school locations.

The City also approved a “pilot” installation of a Rectangular Rapid Flashing Beacon (RRFB) at the end of 2019 at the Lake Drive and Bagley Avenue/San Lu Rae Drive crosswalk adjacent to the East Grand Rapids High School. RRFBs are used to supplement warning signs at uncontrolled intersections or mid-block crosswalks. RRFBs feature flashing, high-intensity LEDs that alert motorists that pedestrians are using the crosswalk. Studies have shown that RRFBs can significantly increase driver yielding behavior. Though the standards noted in the current Michigan Manual on Uniform Traffic Control Devices (MMUTCD) were not met for an RRFB installation, the City did approve the installation and a pilot period of one-year to see how the RRFB may or may not be effective with “engineering judgement” from a licensed traffic engineer, which the City has obtained. With the impact of COVID-19 the primary source of pedestrian activity generated from EGRPS this past spring and fall did not provide for typical conditions for evaluation and therefore consideration for a policy was also not able to be completed.

The FY 20/21 budget was approved with an allocation of \$5,000 for the installation of another RRFB in the City. Since additional time is needed to collect data and to create a policy from that data, staff would also like to add an additional location for an overall extended pilot period of one-year for both locations a reviewed and recommended by traffic engineering consultants.

Purchase of the RRFB kit would come from the existing major streets traffic services budget and be purchased in accordance with the City Purchasing Policy with the amount being under the \$5,000 purchasing threshold which can be authorized by the City Manager.

This has been reviewed and determined to be in order by the Infrastructure Committee.

REVIEWED & APPROVED FOR SUBMISSION:

Shea Charles, City Manager



February 16, 2021

Mr. Doug LaFave
City of East Grand Rapids
750 Lakeside Drive SE
East Grand Rapids, MI 49506

Re: Rectangular Rapid Flashing Beacons (RRFBs) Pilot Program – Additional Locations

Dear Mr. LaFave,

East Grand Rapids has a history of promoting quality of life and encouraging a safe and walkable community. As such, a rectangular rapid flashing beacon (RRFB) was installed in late 2019 at the intersection of Lake Drive and Bagley Avenue/San Lu Rae Drive. This installation was approved as a pilot project to observe its effectiveness and community acceptance. Feedback and experiences to date have been primarily positive. However, COVID-19 has significantly impacted traditional school and transportation patterns over the last year. Therefore, it is difficult to conclude what the results would be under traditional school and transportation patterns. It is recommended that these installations be properly evaluated under typical conditions before concluding about their effectiveness.

It became apparent during the summer of 2020 through the COVID-19 pandemic that active transportation and outdoor activities increased in popularity. To complement the popularity of these mobility choices an expansion of the RRFB pilot program is being considered. Several locations were reviewed and found to be suitable candidates for installation. Given budget constraints and the current pilot status of the RRFB program, one additional location was recommended for installation.

The crosswalk between the Community Center and the East Grand Rapids Public Schools Athletic Facilities is an excellent location for another pilot installation. The high-profile nature of this crosswalk, its midblock location, strong pedestrian desire lines, volume of users, and large number of vehicles traveling through this area will allow for significant public exposure and opportunity for use. Similar to the Lake Drive installation, it is recommended that this pilot installation be evaluated under traditional school and transportation patterns.

Sincerely,

Christopher E. Zull PE
Practice Leader

CEZ/rmf
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