

INFORMATION NOTE

Title: Key2Access Accessible Pedestrian Signal Update

Date Prepared: October 17, 2019

Report To: Inclusion Advisory Committee

Councillor and Role: Councillor Deanne Stapleton, Inclusion Champion

Ward: N/A

Issue: To provide an update regarding the Key2Access Accessible Pedestrian Signal installation.

Discussion – Background and Current Status:

Key2Access is wireless technology that allows people to cross roads without having to reach a button on a pole. Receivers and virtual beacons are easily installed within current infrastructure, adding a form of accessible pedestrian signal (APS) possibilities without significant additional wiring or pole realignment. Through internet of things (IoT) network services, receivers and beacons communicate with the user through a smart phone app or custom fob.

Individuals without a cell phone can avail of the CNIB's "Phone it Forward" program. This program provides low income individuals with a donated smart phone, technical training, discounted maintenance and a data support plan. For users who prefer the fob-based approach, the CNIB will have 10 available on site which will be distributed as a loan, on a first come, first served basis. Individuals wishing to purchase fobs, can do so online at CNIB or Key2Access for approximately \$102.

Currently, the City of St. John's has installed the Key2Access system at the following locations:

3 signalized intersections:

- 2 original locations:
 - Kenna's Hill and The Boulevard
 - Westerland Road and Prince Philip Drive
- An additional location was identified by a local business at Cowan Ave and Topsail Road. The Key2Access system has since been ordered, with installation costs to be covered by a local business. The City covered the cost of equipment which was subsidized by a federal grant. Total expenditure by the City for this was \$2,445.20 and was covered through the annual accessible pedestrian crossing program.

4 Cross Walks:

- CNIB Entrance and The Boulevard
- Kenna's Hill and Winter Ave

ST. JOHN'S

- Elizabeth Ave and Newton Road
- Elizabeth Ave and Freshwater Road

Each receiver and beacon are easily moved from one pole to another; therefore, if the intersection identified does not see a lot of users, same can be moved to another area of town.

On October 16th, 2019, the CNIB hosted a Key2Access training to demonstrate how this technology will improve the lives of persons living with disabilities, facilitated by Sophie Aladas, CEO, Key2Access.

The following stakeholders were present: City of St. John's, Councilor Deanne Stapleton, CNIB, Eastern School District and CODNL.

The Key2 Access representative discussed the Key2Access concept and user experience:

- the user will request to cross using the mobile app or fob
- user receives confirmation that a request has been made
- an audible signal will be triggered by the Key2Access system.
- audible signal will be heard coming from speaker above and at destination corner

The remainder of the training was an in depth look at how the fob and mobile app works.

Key Considerations/Implications:

1. Budget/Financial Implications:

No additional budget implications.

2. Partners or Other Stakeholders:

- a. Key2Access
- b. CNIB
- c. Inclusion Advisory Committee

3. Alignment with Strategic Directions/Adopted Plans:

- i. A City that Moves: Promoting healthy transportation and ensuring accessibility to places people want and need to go.
- ii. A Connected City: A city where people feel connected, have a sense of belonging and are engaged in community life.
- iii. An Effective City: A city that performs effectively.

4. Legal or Policy Implications:

n/a

5. Privacy Implications:

n/a

6. Engagement and Communications Considerations:

- i. A communications plan will need to be established to update residents on the pilot project, notify residents of the app and where to get a phone or fob.
- ii. Promotion through City of St. John's CNIB and other Inclusion Advisory Committee member organizations

7. Human Resource Implications:

8. Procurement Implications:

9. Information Technology Implications:

10. Other Implications:

Some of the locations where Key2Access has been installed present a flashing yellow light to drivers rather than the red light that is presented at a traffic control signal. The City is currently working with Key2Access to identify the best approach to an audible signal/message to present at locations with a flashing yellow light to ensure users are provided with the safest guidance possible. This work will inform future installations within the City as more APS locations (both traditional and Key2Access) are activated.

Conclusion/Next Steps: Should the proof of concept project prove sustainable, additional intersections can be considered. Those intersections with current APS equipment should remain, thus increasing accessible intersections in the City and ensuring fiscal responsibility.

Prepared by/Date:

Vanessa Bambrick, Inclusive Services Coordinator

Reviewed by/Date:

Garrett Donnaher, Manager – Transportation Engineering

Natalie Godden, Manager – Family & Leisure Services

Approved by/Date:

Jason Sinyard, Deputy City Manager – PERS

Tanya Haywood, Deputy City Manager – Community Services

Attachments:

Excerpt from Key2Access PowerPoint Presentation



& **KEY2ACCESS** present

St. John's Pilot Project

October 2019

What is Key2Access

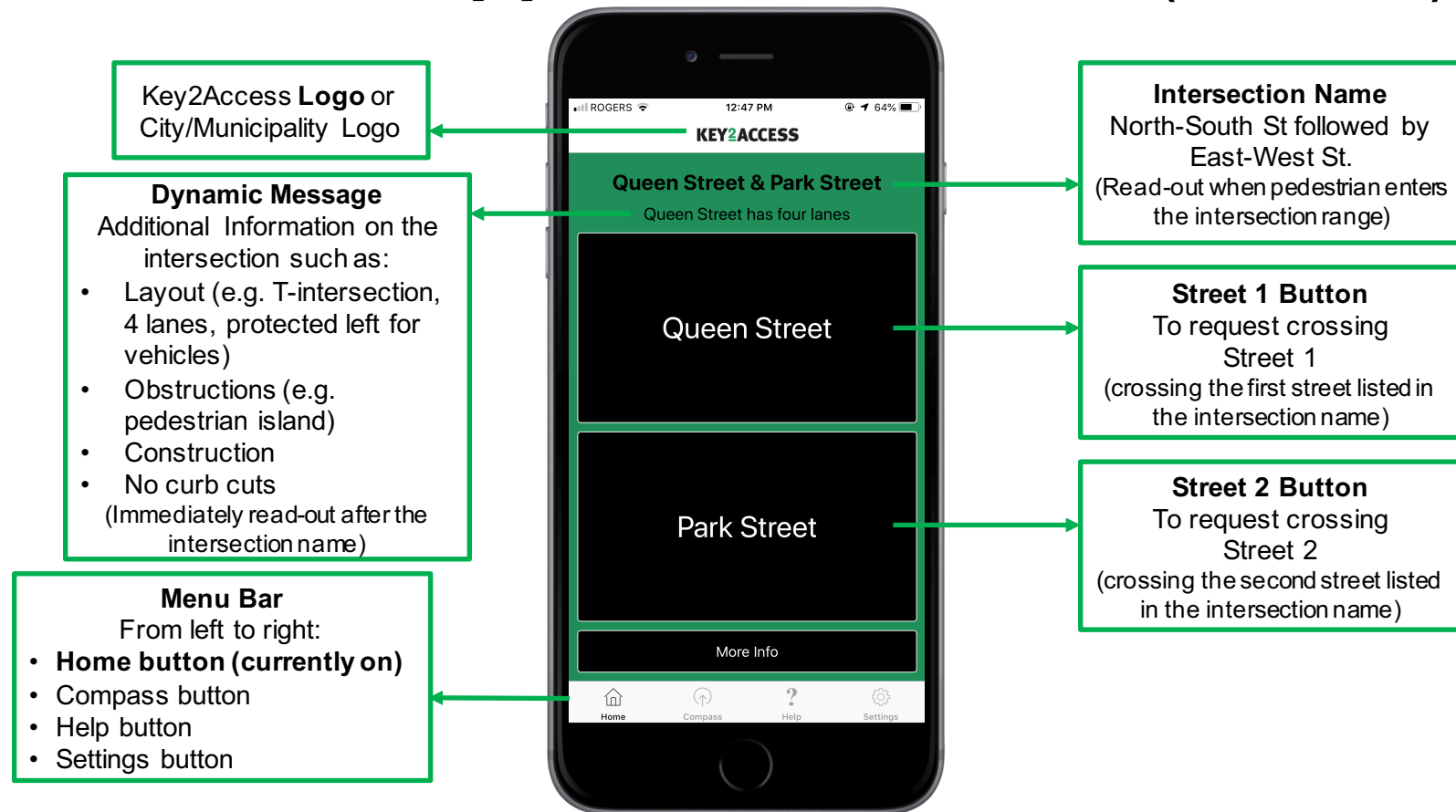
- Key2Access is a Canadian start-up that offers a truly accessible alternative for requesting pedestrian crossing at the intersection
- The Key2Access system puts the pedestrian push button in your hand with the **K2A Fob** or free **K2A Mobile App** and ensures an audible signal is always available for those who need it
- This wireless approach goes beyond just “requesting to cross” it will tell you the street names as well as any additional information that may improve one’s ability to cross safely

The Key2Access User Experience

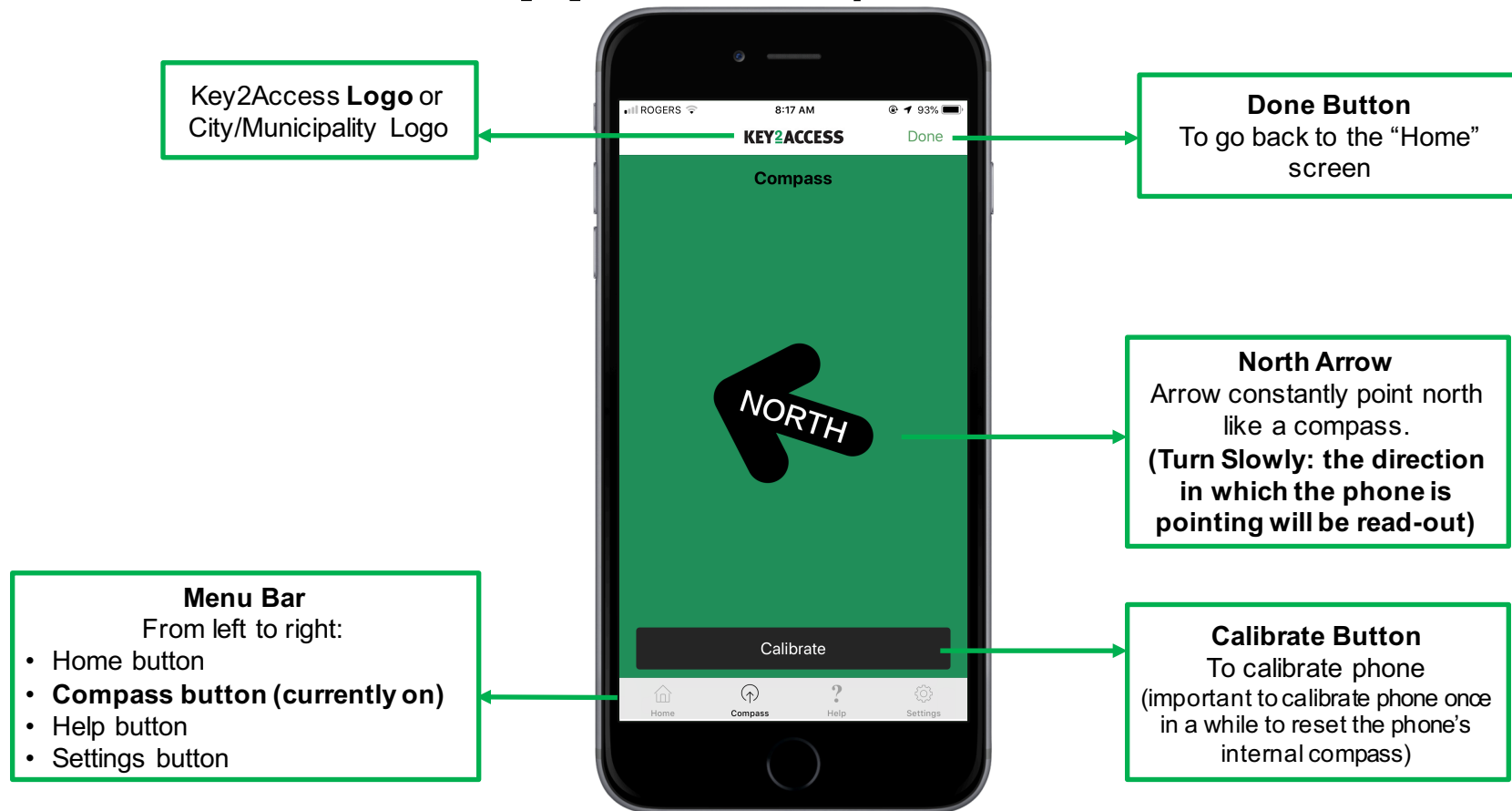
1. User positions themselves with the crosswalk in a way that enables them to take your first step when they hear the audible signal.
2. User requests to cross using a Key2Access user device (K2A Mobile App or K2A Fob).
3. User receives confirmation that the request has been made
4. When it is time to cross, an audible signal will be triggered by the Key2Access system.
The audible signal will be heard coming from a speaker above as well as from a speaker located at your destination corner.

K2A Mobile APP

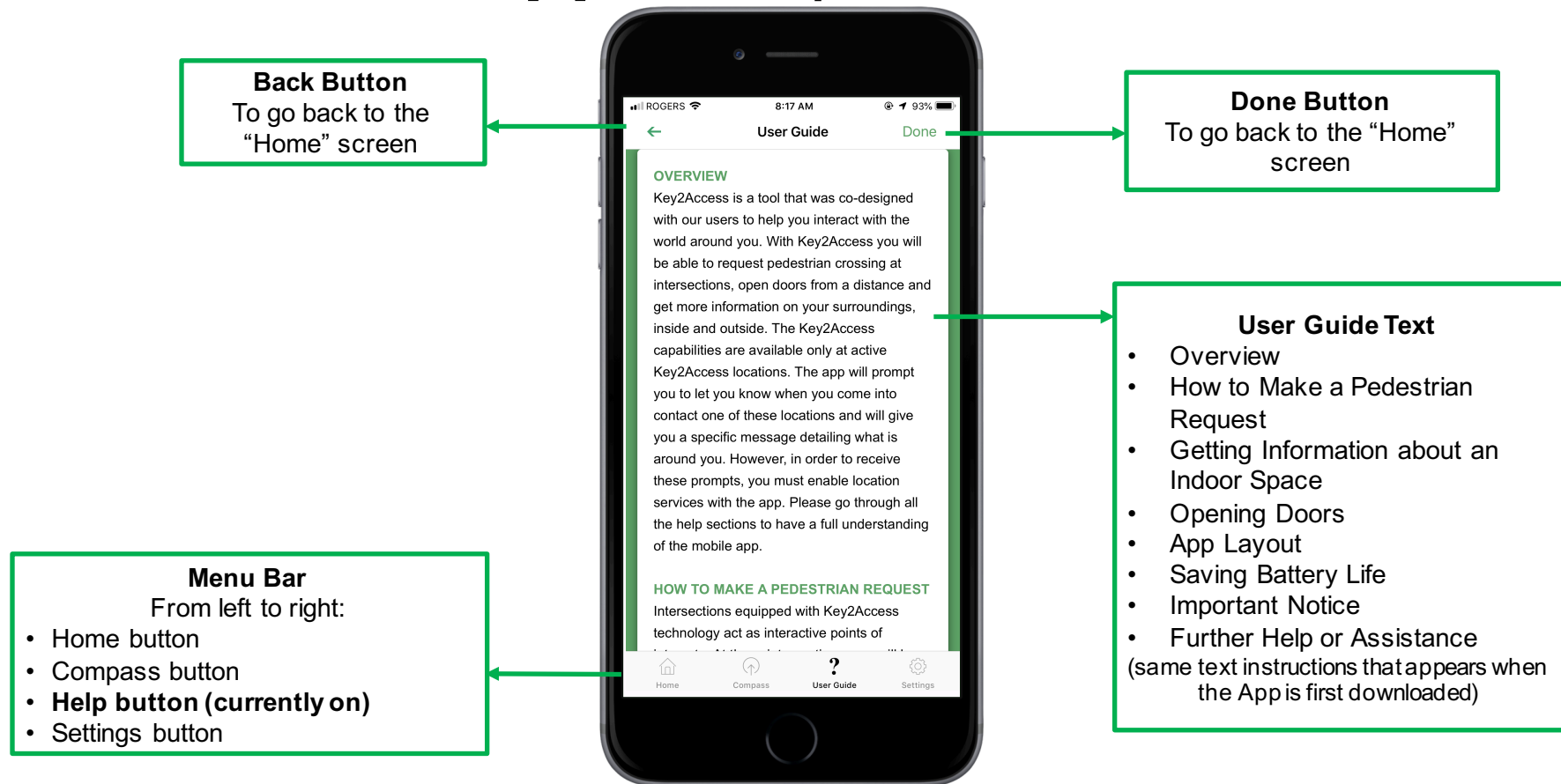
K2A Mobile App: “Home” Screen (Default)



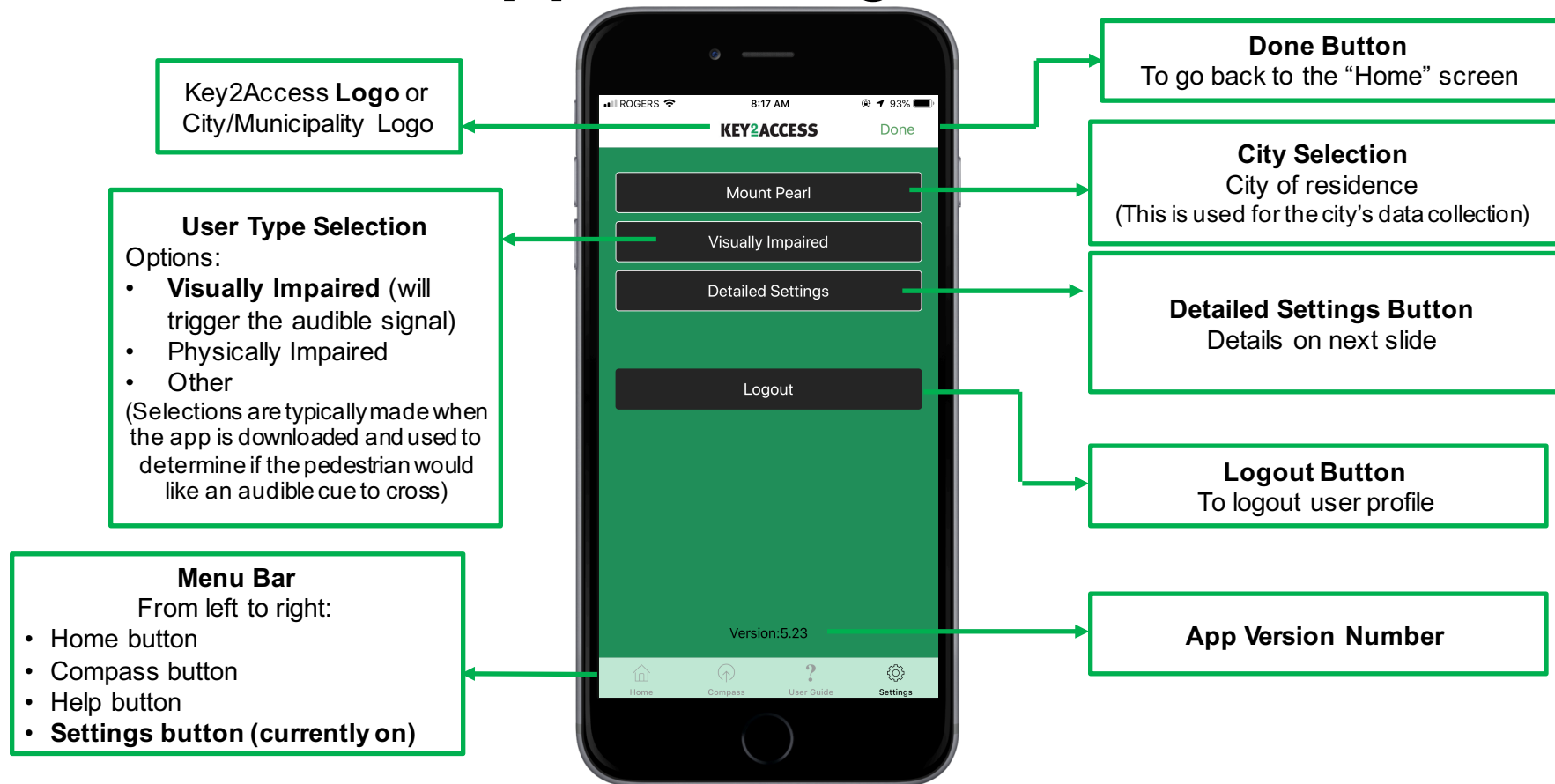
K2A Mobile App: “Compass” Screen



K2A Mobile App: “Help” Screen

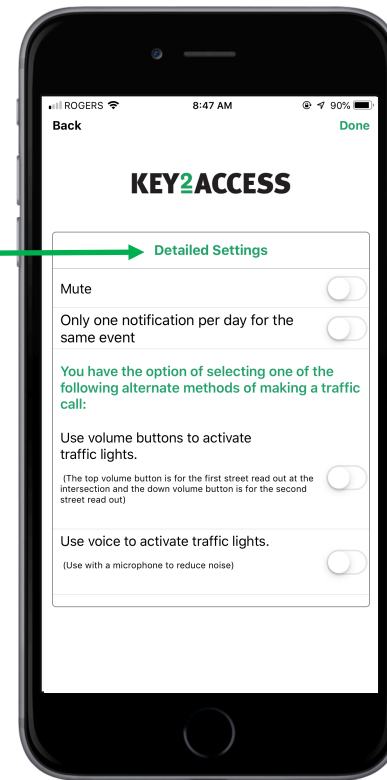


K2A Mobile App: “Settings” Screen



K2A Mobile App: Download and set up

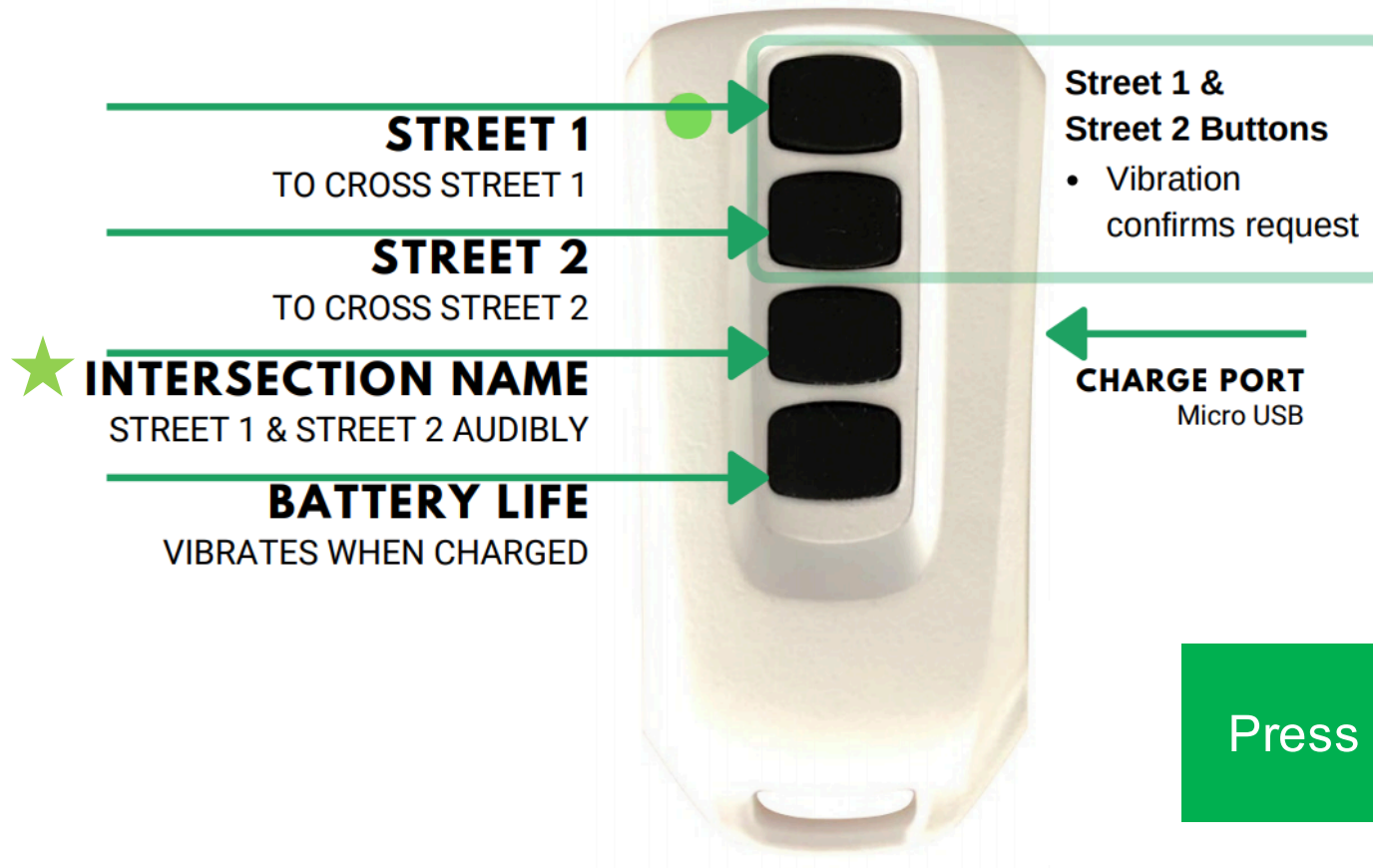
1. Select User Type
2. Select City
3. Select Detailed Settings
 - Mute
(automatic read-out of intersection name and dynamic message)
 - Only one notification per day for the same event
 - Methods for requesting a crossing
 - Volume Buttons
 - Voice Activation



Available on Apple and Android Smart Phones

Key2Access FOB

K2A Fob: How does it work?



Key2Access Project Sites

K2A Projects in Newfoundland

ST. JOHN'S

3 signalized intersections

- Kenna's Hill & The Boulevard
- Westerland Rd & Prince Philip Dr
- Cowan Ave & Topsail Rd

4 crosswalks

- CNIB Entrance & The Blvd
- Kenna's Hill & Winter Ave
- Elizabeth Ave & Newtown Rd
- Elizabeth Ave & Freshwater Rd

MOUNT PEARL

3 signalized intersections

- Commonwealth Ave & Topsail Rd
- Commonwealth Ave & Ruth Ave
- Commonwealth Ave & Centennial St

2 stop sign intersections (virtual beacon)

- Commonwealth Ave & Glendale Ave
- Commonwealth Ave & St Davids Ave

PARADISE

3 signalized intersections

- Paradise Rd & Topsail Rd
- Karwood Dr & Topsail Rd
- Carlisle Dr & Topsail Rd

3 stop sign intersections (virtual beacon)

- Sunvalley Dr & Topsail Rd
- Shelby St & Topsail Rd
- Elizabeth Dr & Topsail Rd

Map: St. John's



Signalized Intersection



Flashing Crosswalk

Map: Mount Pearl



Signalized Intersection



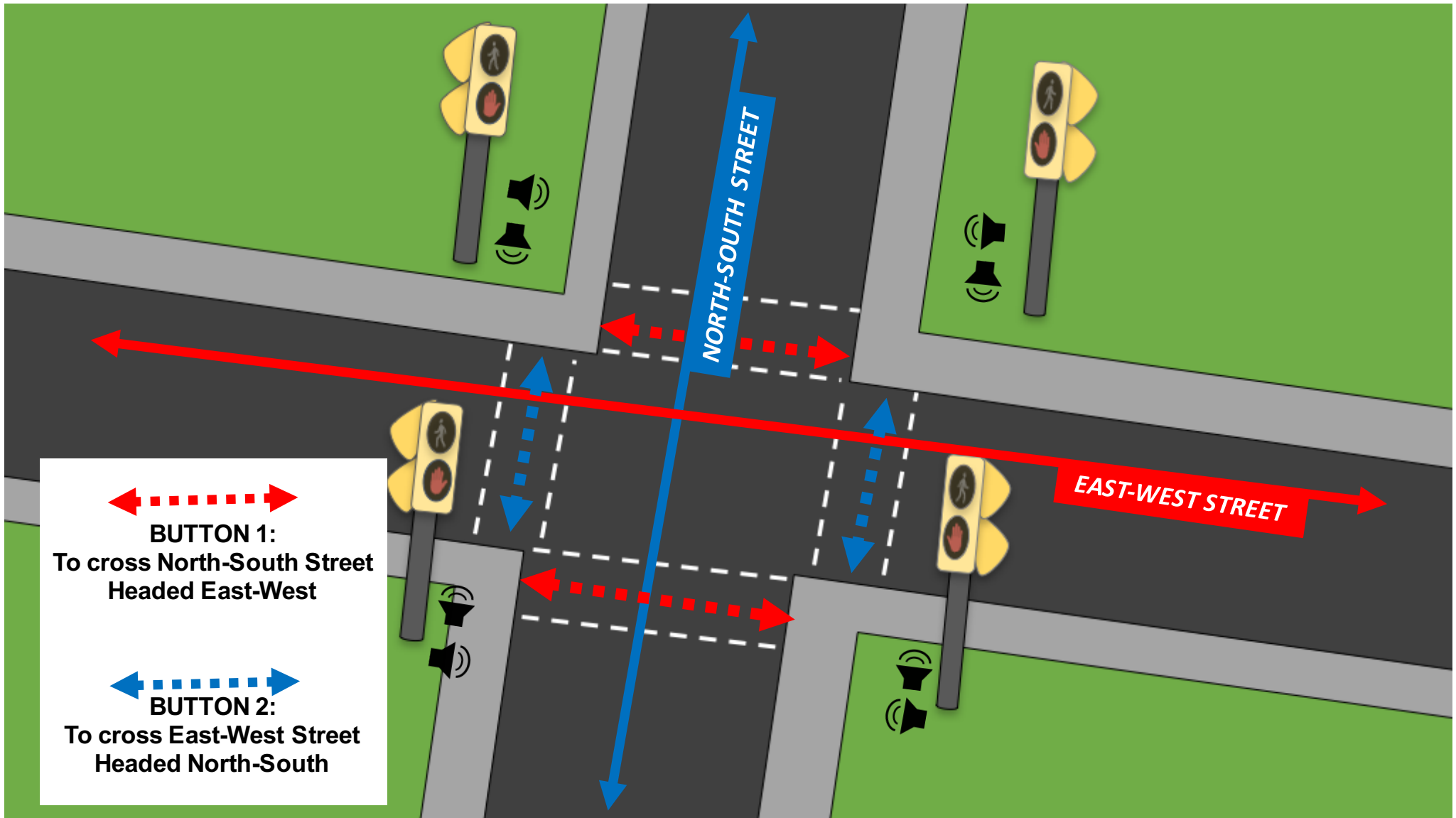
Stop Sign Intersection



Stop Sign Intersection

Important considerations

- One Button and all audible signals will be triggered
- Audible triggered for both crossings of the same direction
- Pedestrians should always focus on Orientation & Mobility training and use the audible signal coming from the speaker above as the cue to cross
- **K2A at Flashing Crosswalks:**
Activates the flash warning for vehicles
- **K2A at Stop Sign Intersections:**
Communicates key information about the intersection



BUTTON 1:
To cross North-South Street
Headed East-West



BUTTON 2:
To cross East-West Street
Headed North-South

Next steps

- Not publically announced yet. Please keep the information private until the official launch of the project.
- Official launch is scheduled for November.