

Rainier Valley At-Grade Crossing Update

Rider Experience & Operations Committee

3/7/24

Why we're here

- Background
- Program update
- Next steps



Background

Rainier Valley corridor

- Service opened in 2009.
- Approximately 4.5 miles of semi-exclusive right of way.
- 3 at-grade stations – Columbia City, Othello, Rainier Beach.
- 27 at-grade crossings, including 9 pedestrian-only crossings.



Program priorities

- Reduce collisions and near misses with trains, vehicles and pedestrians.
- Provide a consistent and safe passenger experience system-wide.
- Support reliable service, mitigate impacts to operational performance.
- Increase community perception of safety of Sound Transit's service.
- Build positive, proactive relationships with surrounding communities that foster trust.
- Increase ease of access within the immediate community.
- Increase accessibility of the Sound Transit network for all.

Community Engagement

Phase 1 Community Engagement Summary (Winter 2022)

- Reached out to over 30 community-based organizations.
- 13 organizations and community leaders responded.
- Circulated a survey created by the Accessibility Services Division.
- Surveyed Link operators.
- Partnership Agreement signed with SDOT August 2022.

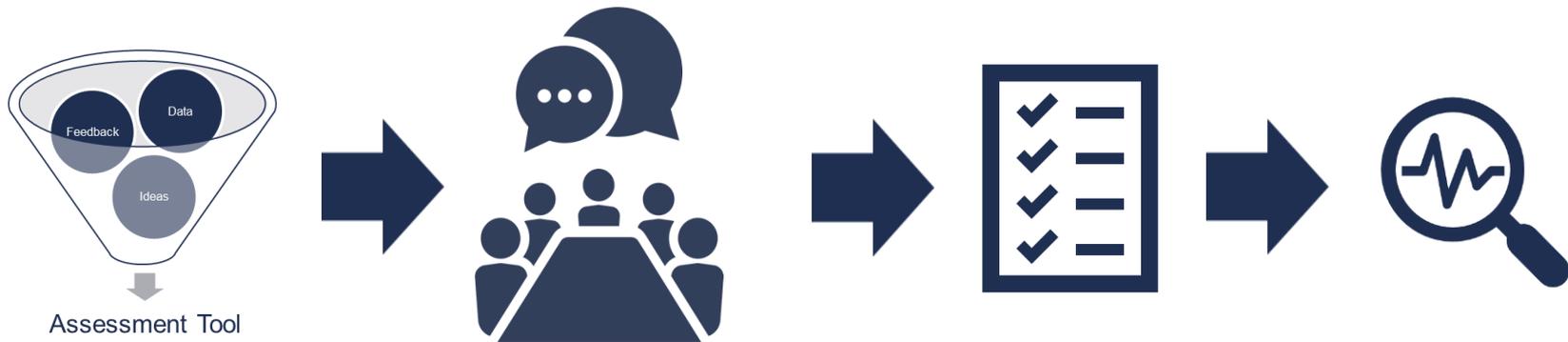
Phase 2 Community Engagement (2023 – present)

- Continue to engage and maintain established relationships.
- Share internal efforts underway to address community concerns.
- Utilize Equitable Engagement Toolkit.

Screening safety enhancement ideas

Evaluation process overview

1. Collect all safety enhancement ideas.
2. Team research and discussion.
3. Prioritize efforts based on screening.
4. Further research / planning.



Safety enhancement ideas

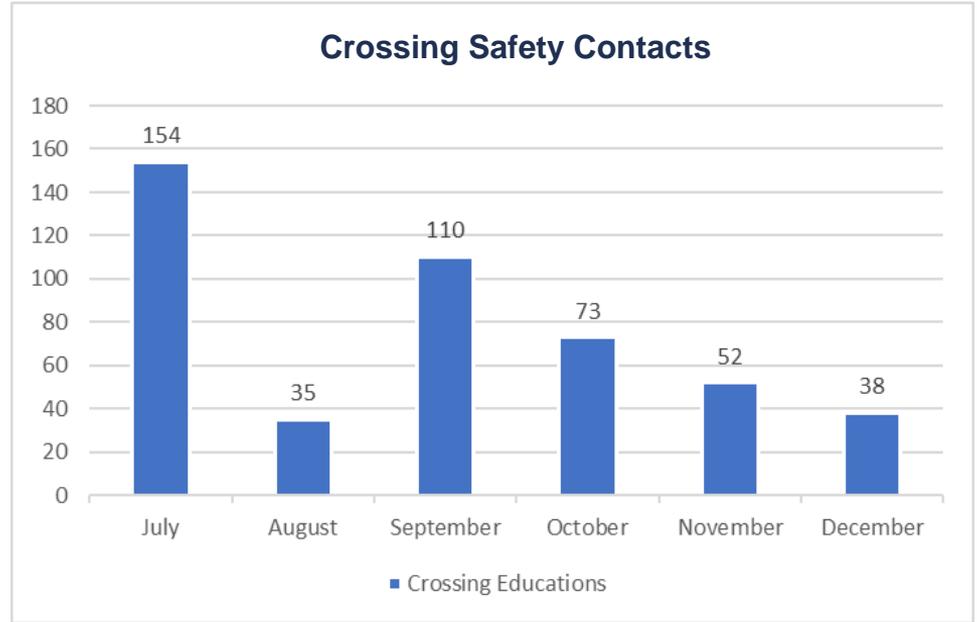
| Administrative Controls | | Engineering Controls | | Roadway Redesign |
|--|--|---|---|---|
| <p>Safety Education</p> <ul style="list-style-type: none"> ✓ 5 Core Safety Messages ✓ Safety campaigns with partners ✓ Safety education campaigns ✓ Engagement activities ✓ Outreach and training on specific mitigations <p>Encouragement</p> <ul style="list-style-type: none"> ✓ Rainier Area Security Emphasis Team • Crossing guards • Using red light cameras to mail education materials | <p>Operations Procedures</p> <ul style="list-style-type: none"> • 10 MPH Station Approach Pilot • Audible warning signage for operators • Training emphasis • Speed adjustments | <p>Audible</p> <ul style="list-style-type: none"> • Enhance wayside bells • Localized audible announcements <p>Visual</p> <ul style="list-style-type: none"> ✓ Updated MUTCD static signage ✓ Dynamic no left turn warning signs ✓ Dynamic “Another Train Coming” warning signs ✓ Retroreflective tape around signal heads (SDOT) ✓ Refreshed pavement markings • Paint to visually emphasize trackway • In pavement lights <p>Physical Infrastructure</p> <ul style="list-style-type: none"> • Pedestrian gates at station locations • Channelization / fencing • Left turn vehicle gates only, similar to parking garage-style gates | <p>Technology</p> <ul style="list-style-type: none"> ✓ Leading pedestrian intervals (SDOT) • Traffic signal reprioritization pilot • Video Analytics • V2X • Touchless pedestrian push buttons • Smarter traffic signal controller • Signal system battery backup • ROW detection <p>Vehicle</p> <ul style="list-style-type: none"> ✓ Adjust LRV bell volume • Wig-wag headlights | <ul style="list-style-type: none"> • Consolidate crossings • Eliminate crossings • Grade separate • Full corridor quad gates and flashers • 2 Phase crossing • Larger pedestrian refuge areas • Other traffic calming measures |

Program update

Safety education



Encouragement



Data is through 12/24/2023

Completed Engineering projects

Sound Transit

- Adjust LRV bell volume.

Seattle Dept. of Transportation

- Leading pedestrian intervals.
- Retroreflective tape around signal heads.

Partnership

- LOOK Pavement markings.
- RxR Pavement markings in left turn pockets.
- Refreshed all crosswalk and lane line markings.
- Updated static signs.
- Upgraded no left turn dynamic warning sign.
- Upgraded Another Train Coming dynamic warning sign.



Technology projects in progress

SMART Grant

- Video analytics.
- Touchless pedestrian push buttons.
- Vehicle to everything (V2X) communications.
- Smart technology traffic signals.
- Signal system battery backup.



Technology projects in progress

Signal Reprioritization Pilot

- Change how the signal system prioritizes Line 1 service through the corridor.
- Goal of reducing pedestrian wait time and N/S left turning vehicle wait time.
- Phased Pilot
 - Non-Revenue Service (March 3)
 - Weekend (TBD)
 - Tuesday – Thursday (TBD)



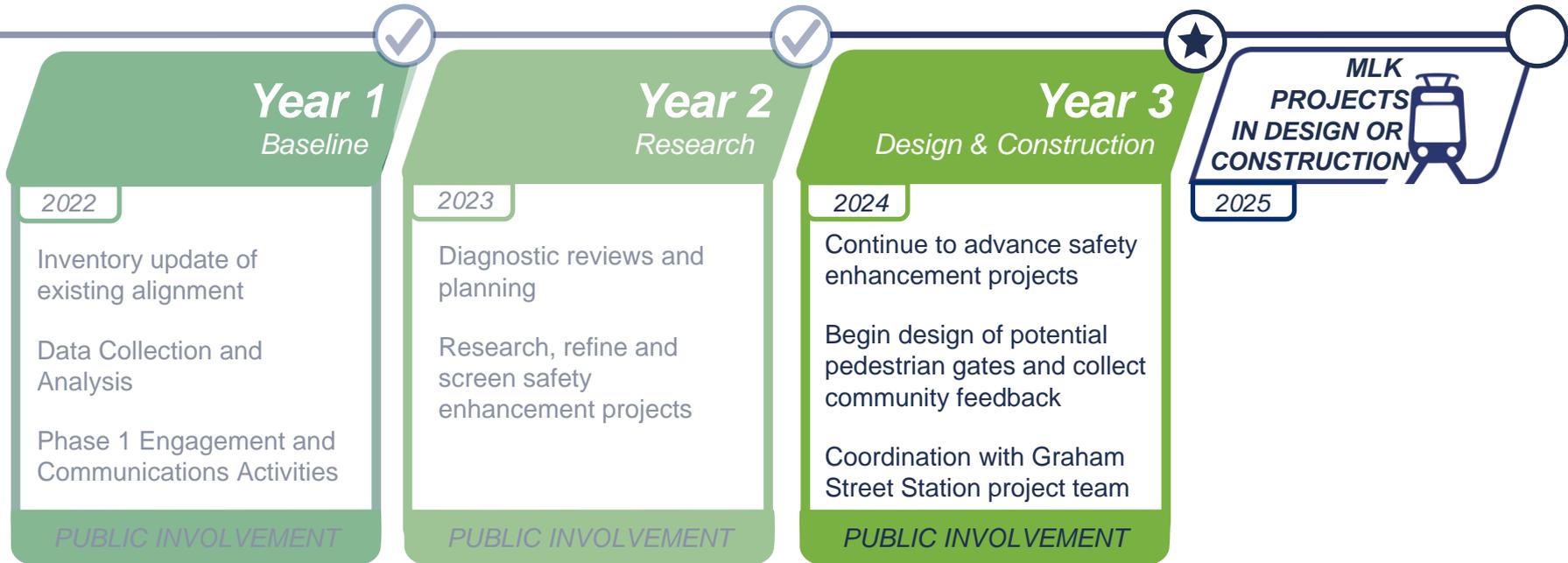
Exploring pedestrian gates at stations



- Phase I community engagement with community-based organizations and accessibility and operator surveys.
- Screen and refine safety enhancement ideas.
- Safety analyses and 30% design.
- Community engagement (including online open house, surveys, email and text notifications and briefings to community-based organizations).
- Report back to the Board on findings, community feedback and next steps.

Next steps

MLK safety enhancements



Thank you



 [soundtransit.org](https://www.soundtransit.org)

