Rails-Next-to-Trails

A Methodology for Selecting Appropriate Safety Treatments at Complex Multi-Modal Intersections

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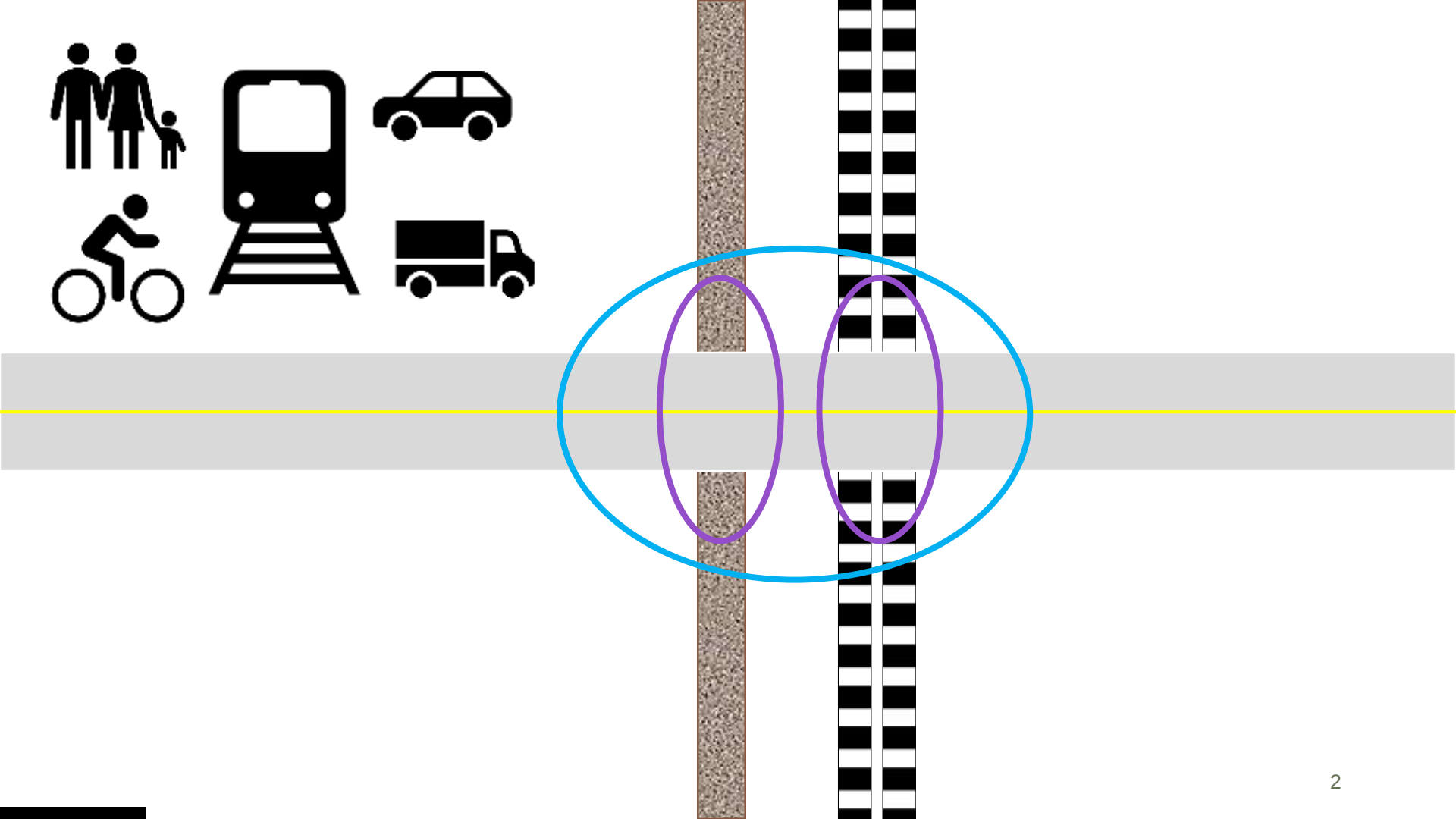
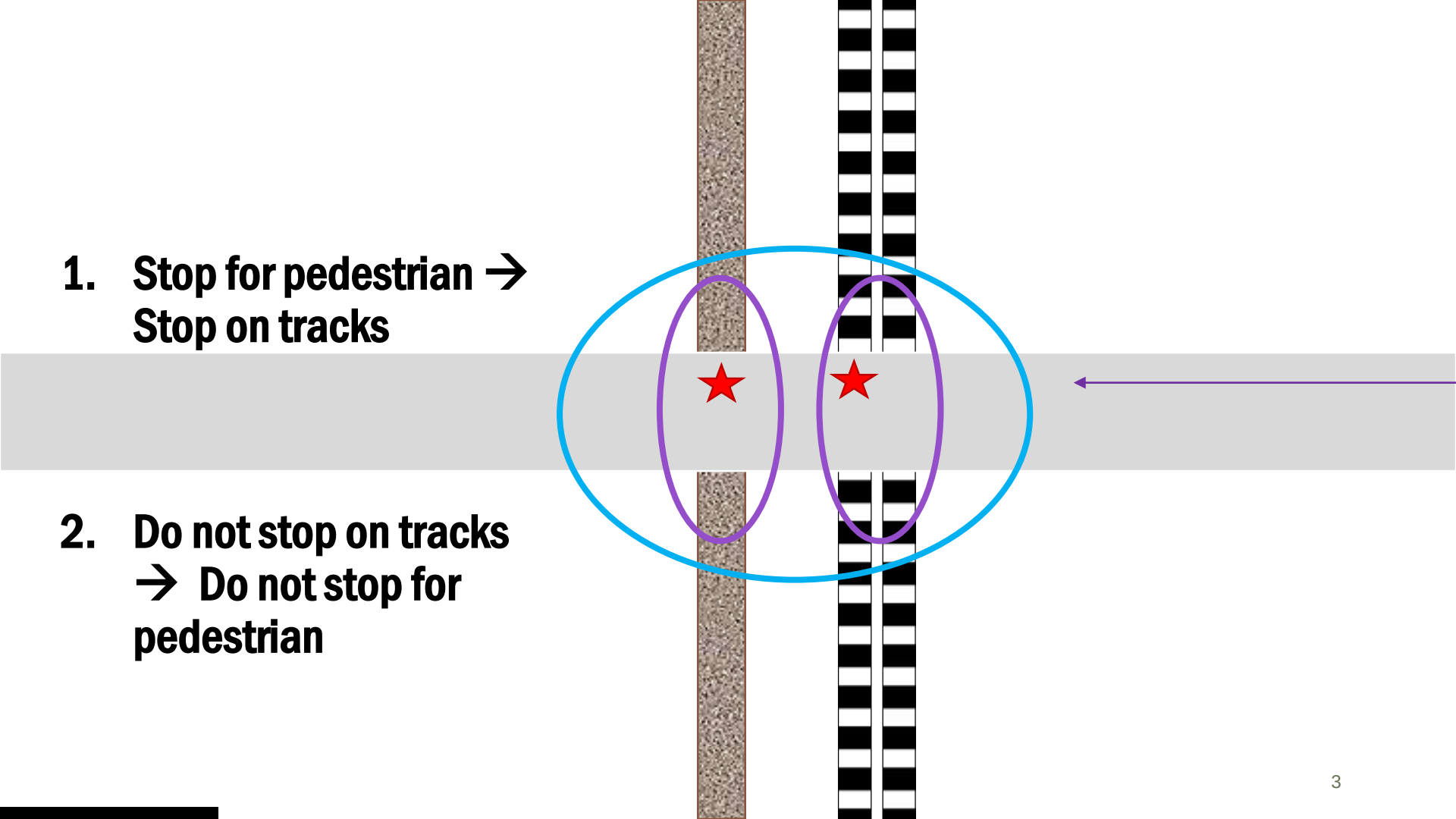


1. Stop for pedestrian → Stop on tracks

2. Do not stop on tracks → Do not stop for pedestrian



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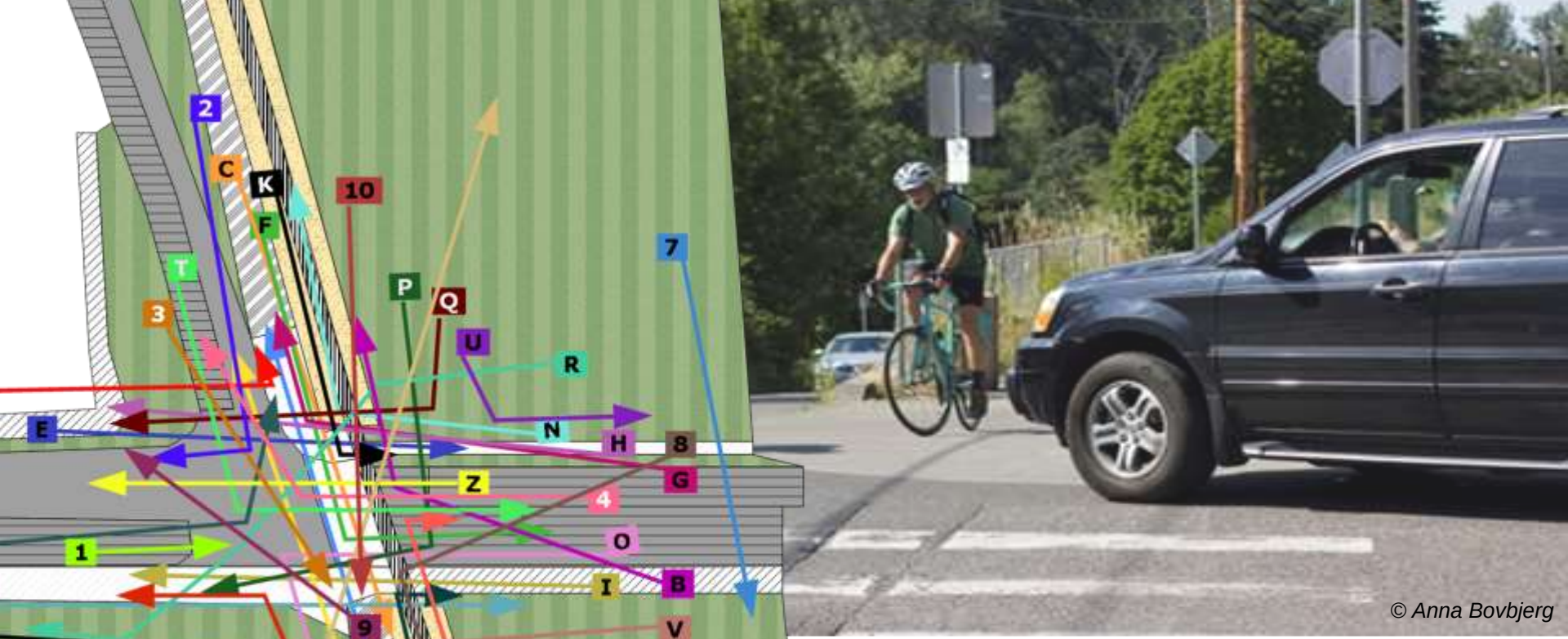
How do we create a guidebook to evaluate and improve this type of intersection?



Field Observations & Video Surveillance

Evaluation Criteria

- Unintentional Non-Compliance
- Cost
- Average Delay
- Sight Distance
- Illegal Behavior

Treatment Catalog

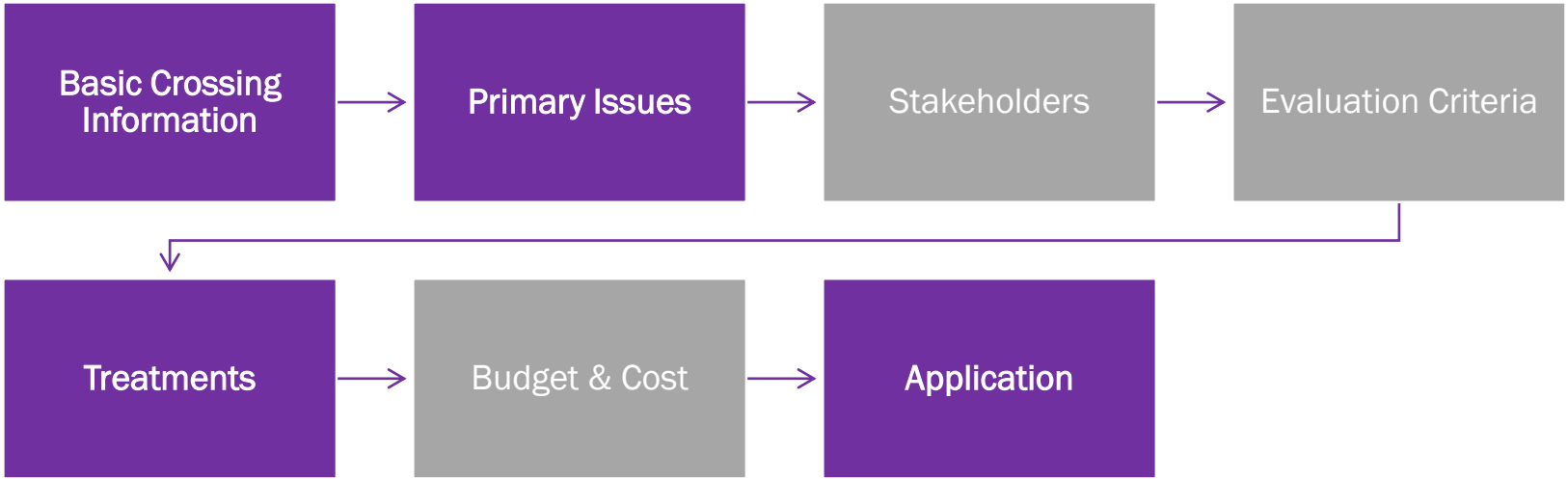
The Built Environment

Lack of Path User Information

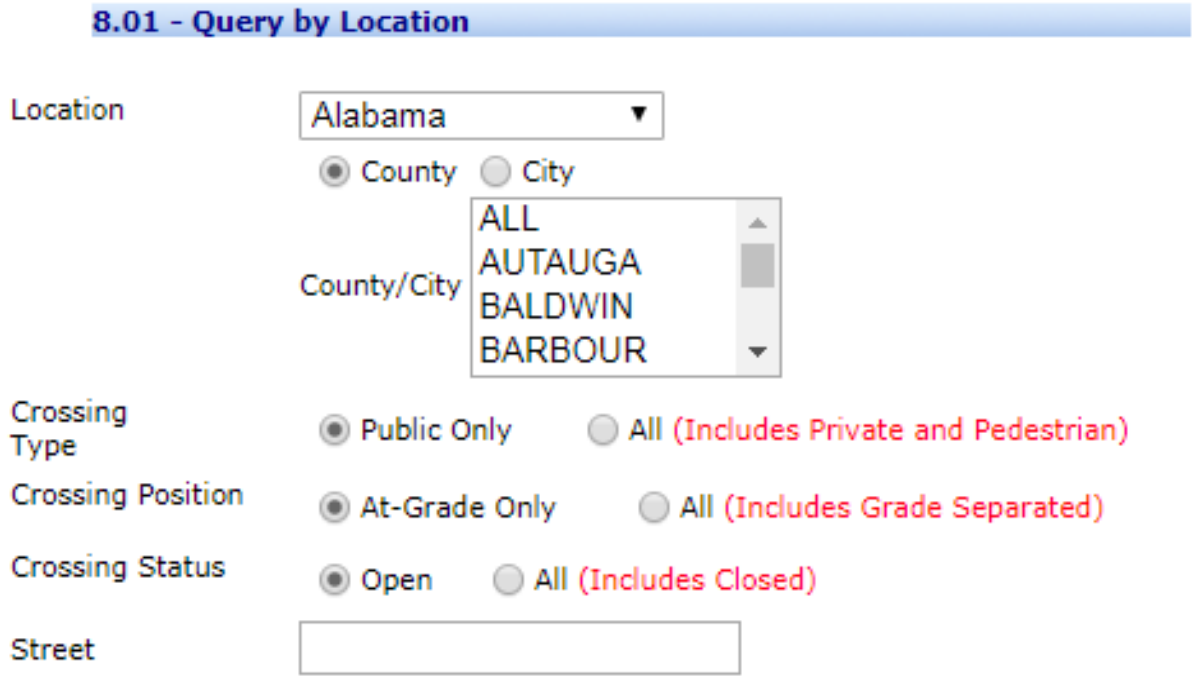
Lack of Driver Information

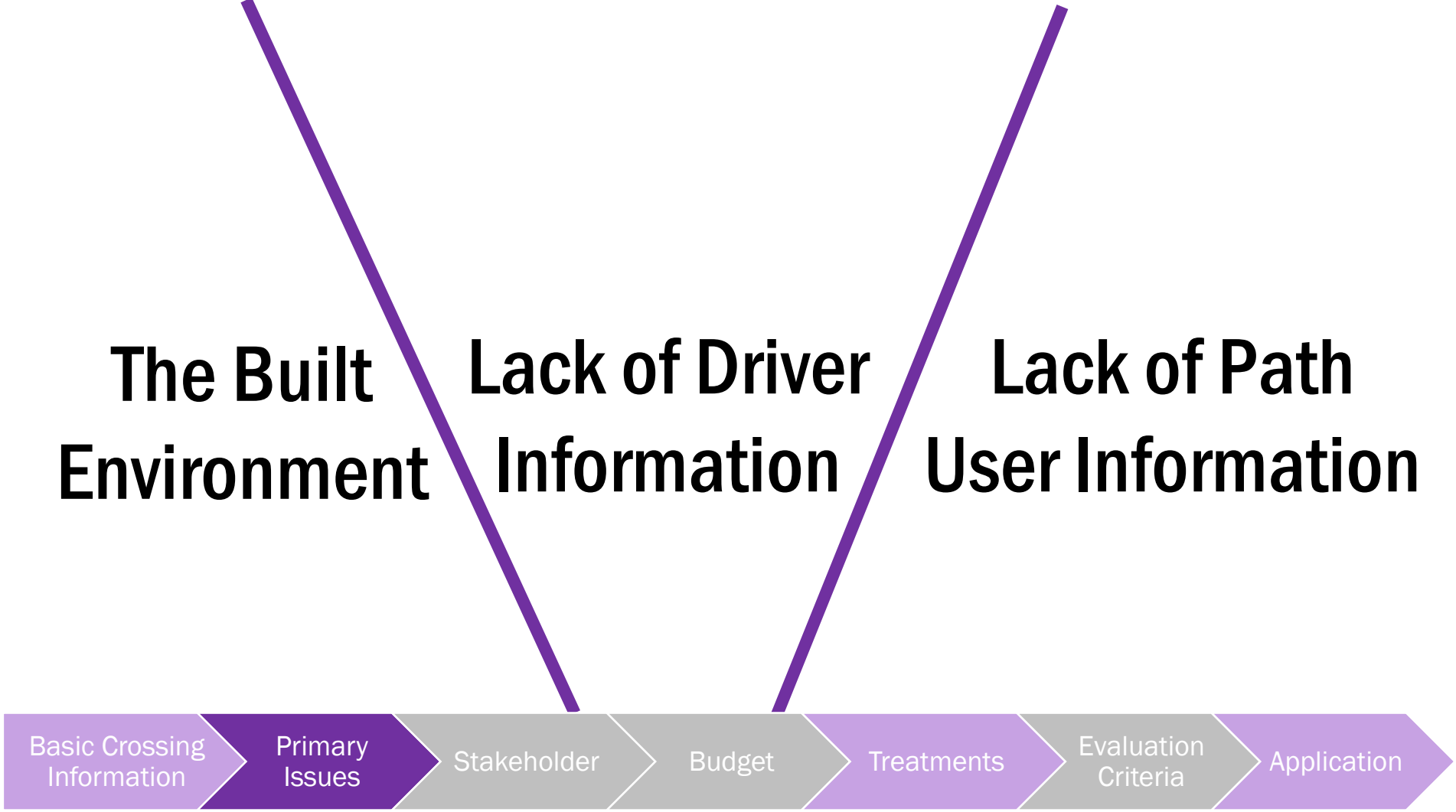
Identify Primary Issues

The Guidebook A Pragmatic, User-Friendly Tool for Selecting Appropriate Treatments

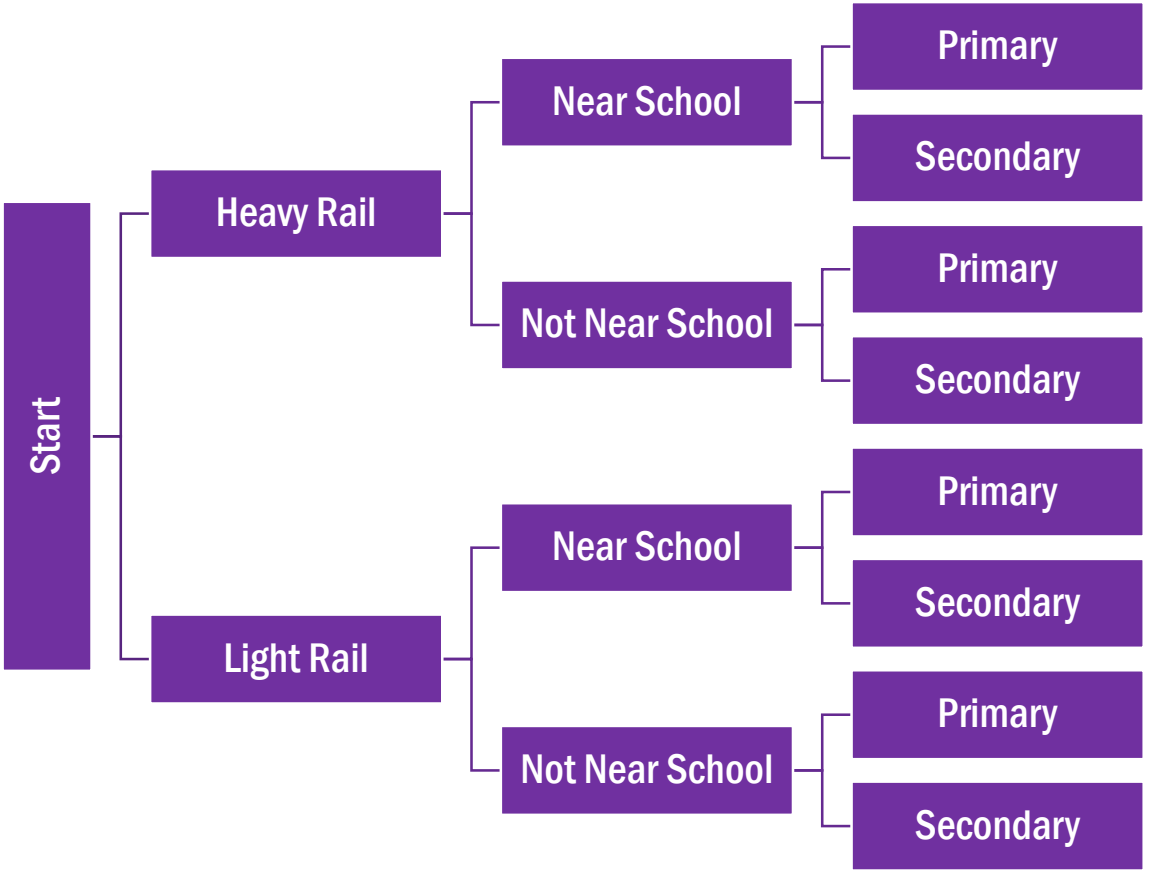


Examine Existing Crossing and Path Data




The Built Environment
Lack of Driver Information
Lack of Path User Information
Basic Crossing Information
Primary Issues
Stakeholder
Budget
Treatments
Evaluation Criteria
Application

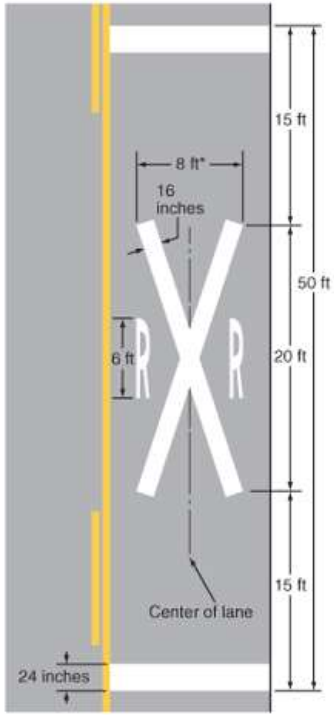
Determine Treatments



Sample Application
SE Spokane St
Portland, OR

STOP

RAIL ROAD CROSSING


15 ft
8 ft*
16 inches
50 ft
6 ft
R
R
20 ft
15 ft
Center of lane
24 inches

R
R

	2016/07/07 8am-9am	2016/07/06 5.15pm-6.15pm	2016/07/06 3.23pm-4.38pm
Vehicles	136	281	**439**
Pedestrians	55	68	**54**
Bikes	154	305	**250**
Trains	0	0	**0**

Identify Primary Issues

1. Location of the Stop Line
2. Path User Speed
3. Non-Compliance
4. Negotiation

CROSSINGS NOT NEAR SCHOOLS

Primary Issue	Primary Recommendation	Secondary Recommendation(s)
The Built Environment		
☒ Stop Line	☒ Move Stop Line Closer to Railroad Tracks	☒ Raised Crosswalk
Lack of Path User Information		
☒ Speed	☒ Speed Treatment	☐ Add Signage
☒ Non-Compliance	☒ Obstructions or ☐ Variable Signs	Refer to Insufficient Crossing Infrastructure
Lack of Driver Information		
☒ Negotiation	☒ Dynamic Enveloping and ☒ Conflict Paint	☐ Signage or ☐ Traffic Lights

SE Oak

Questions?

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