Cornelius Pass CAC
1-14-14 Agenda

5:40	Sign-in, light supper for CAC
6:00	Welcome and introductions
6:10	Project update
6:20	Emergency services & school transportation safety needs
6:50	Safety improvement evaluation framework

(continued)

Cornelius Pass CAC
1-14-14 Agenda

7:10	Hot spot prioritization
7:45	Public Comment
8:00	Safety improvement alternatives
8:25	Next steps and adjourn

Cornelius Pass Road Safety Improvements

Project Update

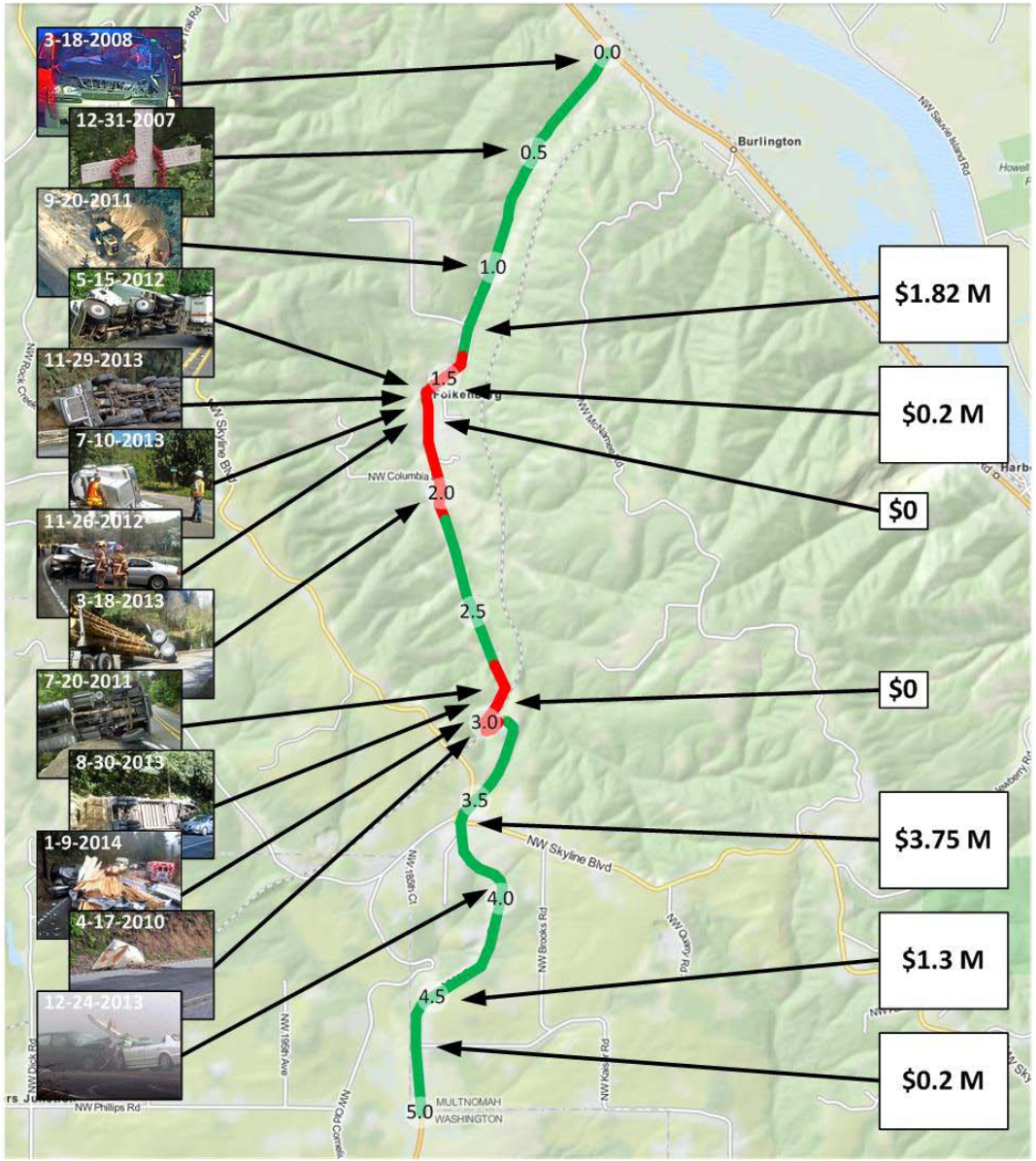
County activity	- Mike Pullen
- Recent crashes	
CAC member reports	- Neighbor meeting
Revised crash map	- Bruce Penney
Charter approval	- Vaughn Brown
Updated crash data	- Chris Link

Cornelius Pass Road

rev 1-9-2014

Major Accident Sites vs. County 2013 Proposed Spending

Fatalities, Truck Rollovers, Chemical Spills and Road Closures for 2003-2014

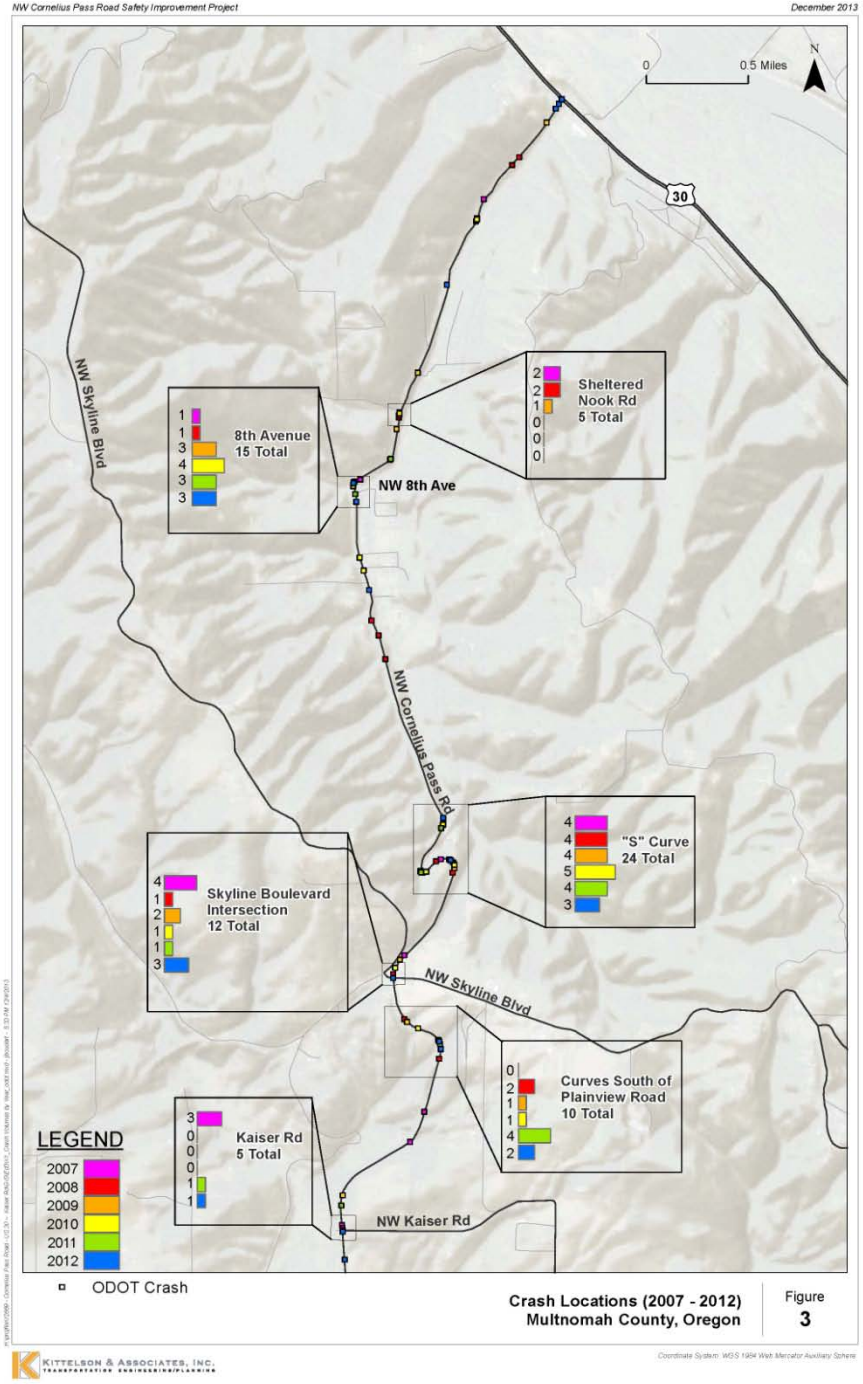


CAC member Bruce Penney's crash map

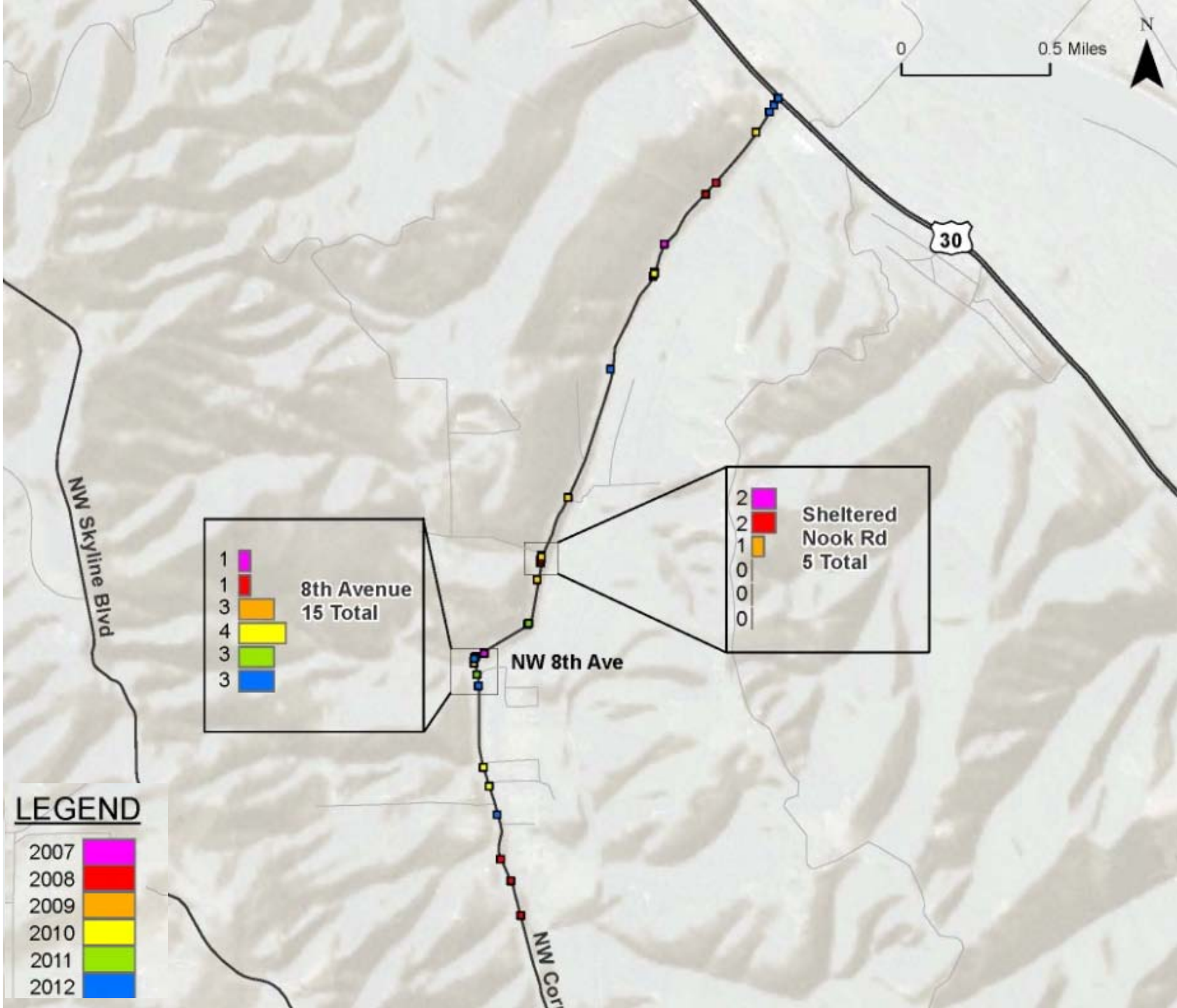
Crash Data Update

- ODOT Data - 100 total crashes (2007-2012)
  - Design team will use for benefit/cost analysis and other detailed analysis
- MCSO reports - 26 additional crashes
- TVF&R reports - 17 additional crashes
- PFD reports – 18 additional crashes
  - MCSO , TVF&R and PFD reporting is less precise and contains less info
  - Only used to gain understanding of overall magnitude and frequency of crashes

Crash Data Update



Crash Data Update



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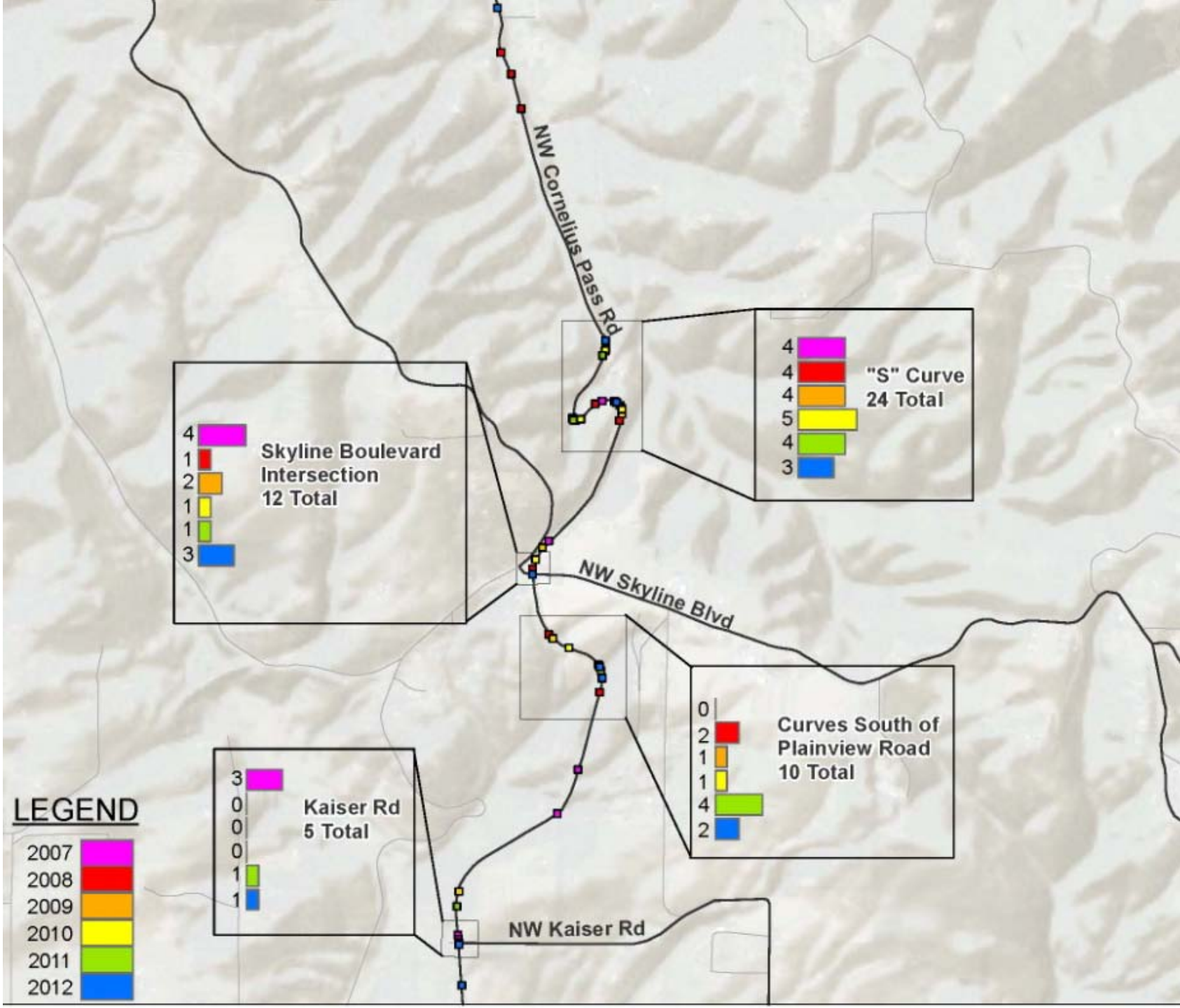
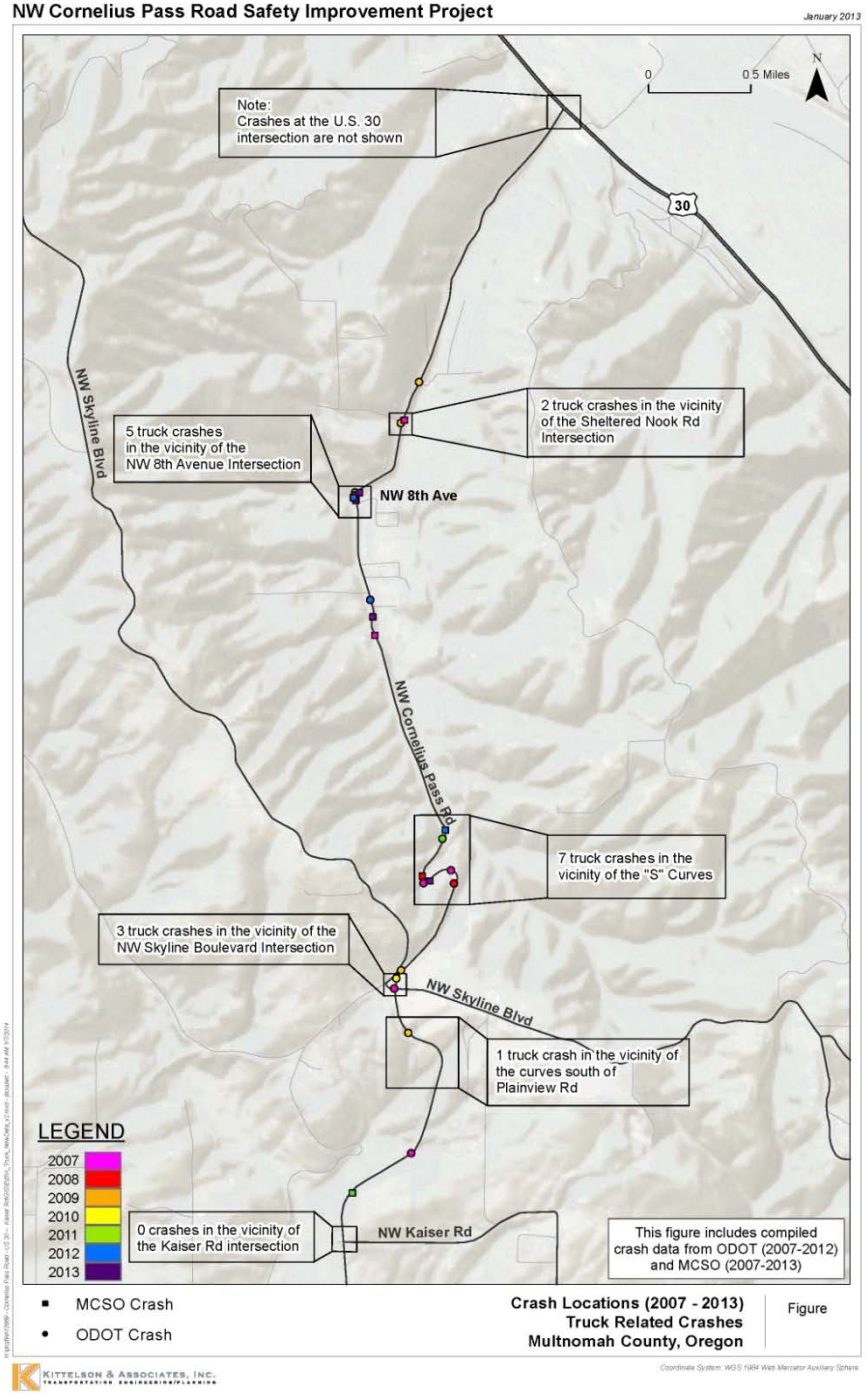


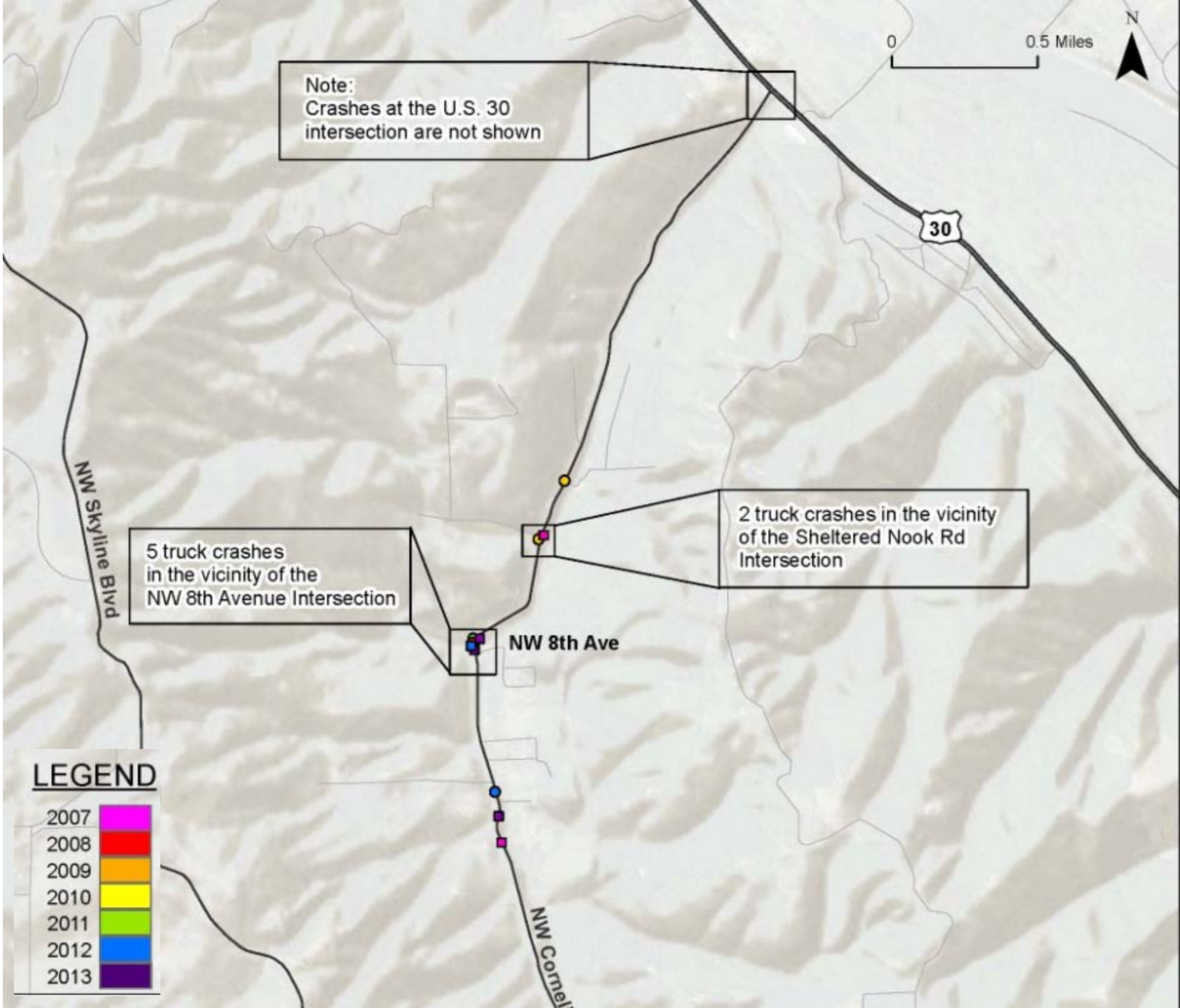
Truck Crashes

- Team developed figure showing truck crashes from 2007-2013
- Includes 2007-2012 ODOT data
- Includes 2007-2013 MCSO supplemental data
- Truck crashes occurring at higher frequencies at 8th Ave and S curves
- Additional crashes grouped at Skyline and Sheltered Nook

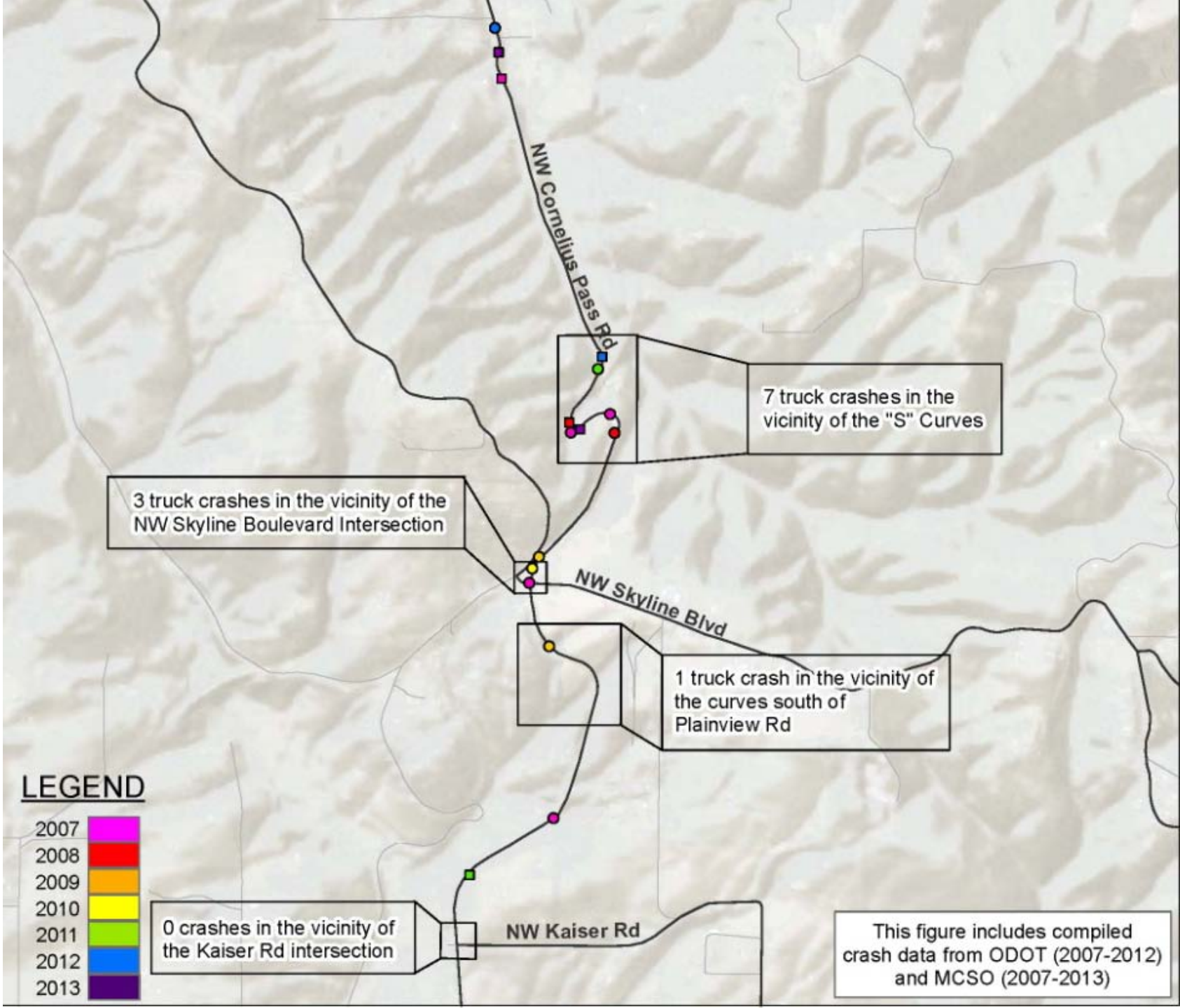
Truck Crashes



Truck Crashes



Truck Crashes



Safety Needs
Emergency Services and Schools

Multnomah County Sheriff

- Capt. Monte Reiser

Tualatin Valley Fire & Rescue

- Dept. Fire Marshal Drew DeBois

Portland Public Schools Transportation

- Read by Mike Pullen

Speed limits – Brian Vincent, MC Engineer

Portland
Public
Schools
Transportation

Project Area I - NW Skyline Blvd Intersection

There are three bus stops in this area on five routes within a one and a quarter hour time frame both AM and PM. The buses travel in all directions as shown by arrows. (See below for times)
AM stop times - 7:10, 7:11, 7:21, 8:02, 8:25 AM
PM stop times – 3:07, 3:12, 4:37, 4:48, 4:59, 5:12 PM

Portland
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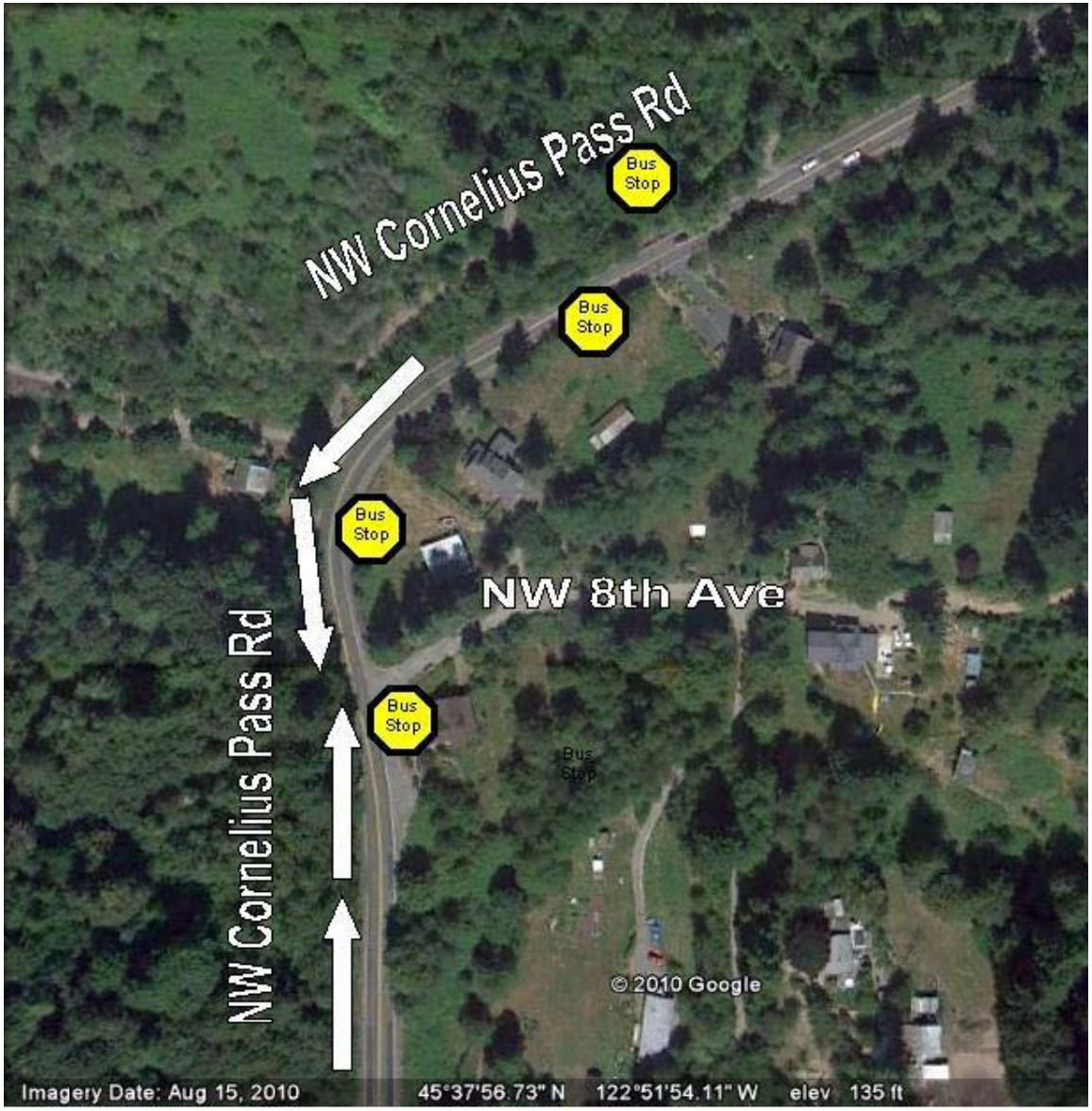
Transportation



Project Area F - NW 8th Ave Between Mile 1.4 and Mile 1.6

There are four bus stops in this area on one route and 2 runs twice a day. The bus travels in both directions as shown by arrows. (See below for times)

AM stop times - 7:37, 7:38, 7:39, 8:24 AM

PM stop times – 3:34, 3:44, 3:45, 3:48 PM

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Transportation

Project Area D - Sheltered Nook Road Intersection

There is not a bus stop at this intersection; however five different runs on different schedules *(see below for times)* use this intersection in order to access bus stops on NW Sheltered Nook Rd. The buses approach and depart from all directions as indicated by the arrows.

AM stop times - 7:29, 7:52
MD stop times - 10:56
PM stop time – 2:56, 5:20

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Public
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Transportation

Project Area F - Kaiser Road Intersection

There is not a bus stop at this intersection; however three different routes on different schedules (*see below for times*) use this intersection in order to access bus stops in the area. The buses approach and depart from directions indicated by arrows.

AM stop times – 7:10, 8:05, 8:25

PM stop times – 3:15, 4:40, 5:00

Selection Criteria

- Quantitative
  - What is the benefit/cost ratio of the suggested/ potential improvements?
  - If documented safety benefit information is not available for suggested/potential improvements, what is the reasonable anticipated benefit?
  - What is the confidence level of the anticipated benefit of the suggested/potential improvements?
  - Do the suggested/potential improvements fit within the project budget?

Selection Criteria

- Qualitative
  - Is supplemental non-ODOT crash data (MCSO, TVF&R, PFD) consistent with the ODOT data? If not, what affect might this have on the suggested/potential improvements?
  - Do suggested/potential improvements address the types of crashes (i.e. trucks) observed at each location?
  - Are the suggested/potential improvements for each hot spot in proportion to the number of crashes and overall priority with respect to other hot spots?
  - Do suggested/potential improvements address existing substandard elements?

Selection Criteria

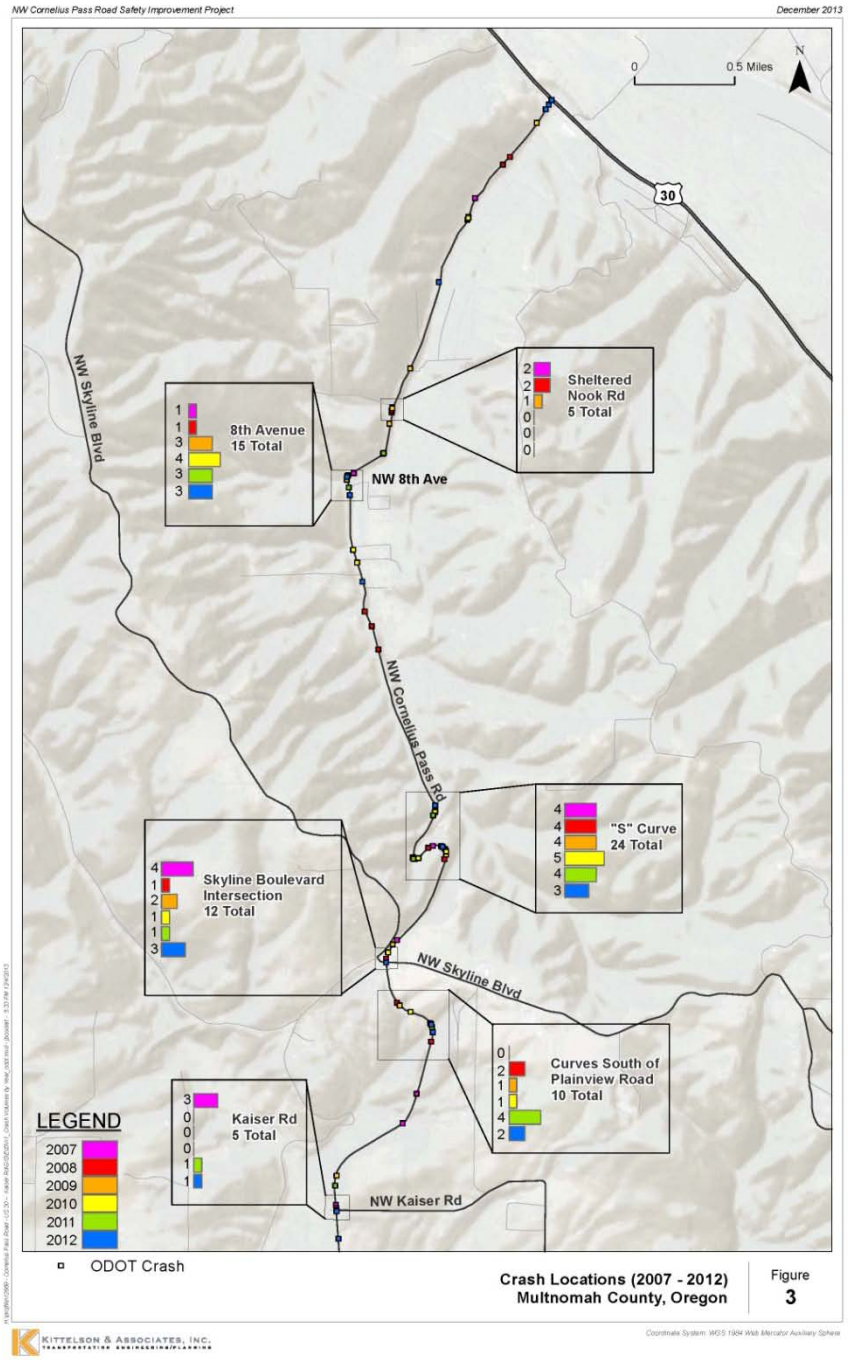
- Qualitative cont.
  - Do suggested/potential improvements have the potential for adverse effects to safety, property owners (including right-of-way impacts), the environment or other factors?
  - Do the suggested/potential improvements fit within the context of the corridor?
  - Do the suggested/potential improvements reflect the priorities expressed by the CAC?
  - Are there additional benefits (such as capacity) associated with the suggested/potential improvements?

Hot Spot Prioritization

CAC prioritization exercise

- Led by

Vaughn Brown



Prioritization Exercise

Compare each of the hot spots in terms of which is more important, critical or consequential in improving safety on Cornelius Pass Road. Circle your choice in each of the following pairs:

1. Sheltered Nook

2. 8th Avenue

3. S Curves

4. Skyline Intersection

5. Plainview Road Curves

6. Kaiser Road

1 vs. 2	1 vs. 3	1 vs. 4	1 vs. 5	1 vs. 6
2 vs. 3	2 vs. 4	2 vs. 5	2 vs. 6	
3 vs. 4	3 vs. 5	3 vs. 6		
4 vs. 5	4 vs. 6			
5 vs. 6				

Number of: **1's _____** **2's _____** **3's _____** **4's _____** **5's _____** **6's _____**

Public Comment

Safety Improvement Alternatives - Sheltered Nook

- Left Turn Lane Installation
  - $1,800,000
- Sight Distance and Vertical Curve Improvement
  - $560,000

Safety Improvement Alternatives - 8th Ave

- Signing improvements and clearing for sight distance (within R/W)
  - $30,000
- Signing, additional clearing (beyond R/W) and shoulder widening
  - $120,000
- Minor curve realignment with shoulder widening (30 MPH)
  - $490,000
- Major curve realignment with shoulder widening(35 MPH)
  - $800,000 to $1,380,000

Safety Improvement Alternatives - "S" Curves – Tunnel Curves

- Overhead signing
  - $170,000
- Overhead signing, striping for truck off-tracking, drainage, and minor shoulder widening
  - $250,000
- Overhead signing, striping for truck off-tracking, drainage, cross slope correction and minor realignment between "S" curves
  - $770,000

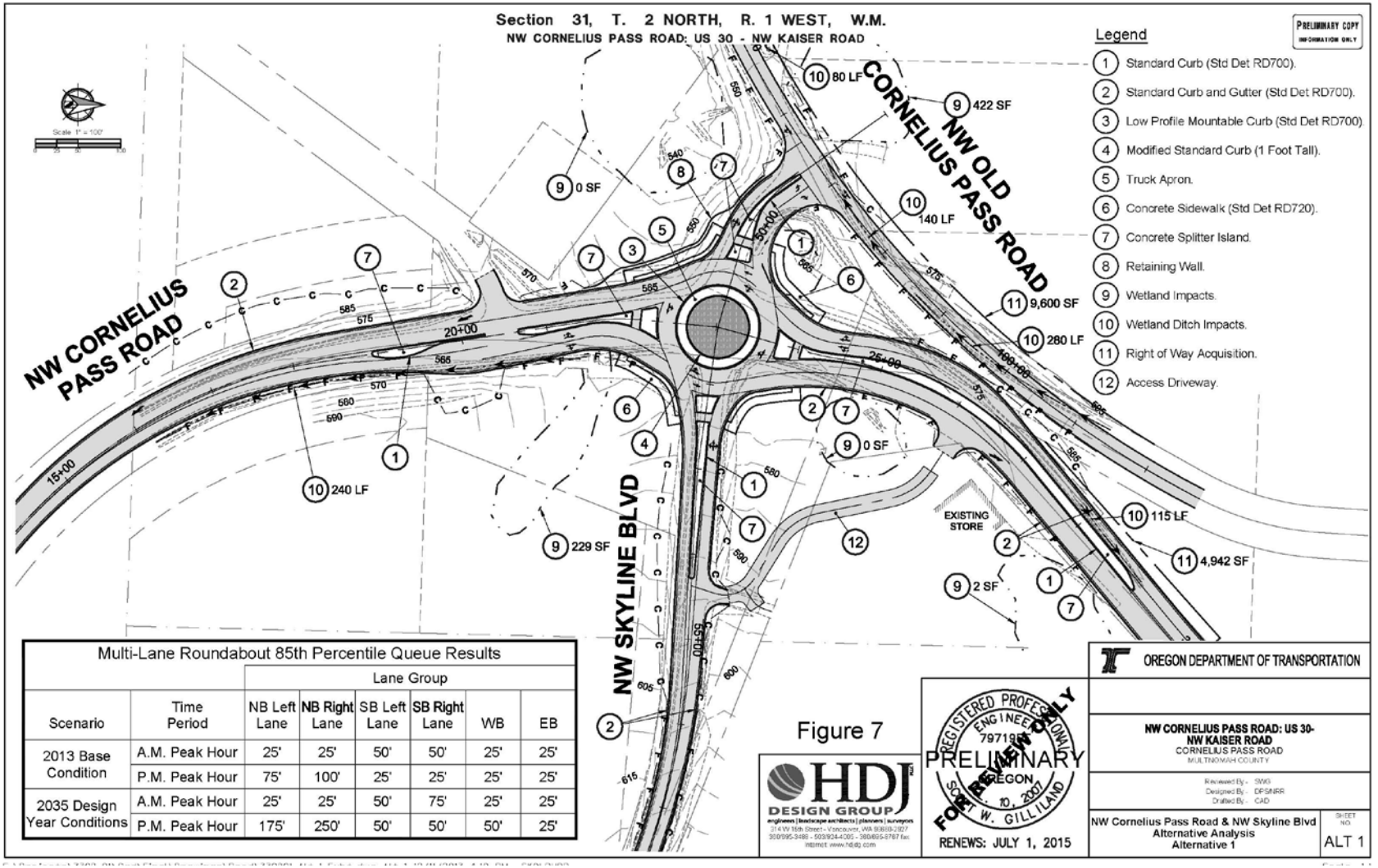
Safety Improvement Alternatives - "S" Curves – Boyd's Lower Driveway

- Improved curve signing, roadside barrier and shoulder widening on outside of curve
  - $340,000
- Improved curve signing, excavation to improve sight distance and shoulder widening on inside of curve
  - $550,000 to $960,000

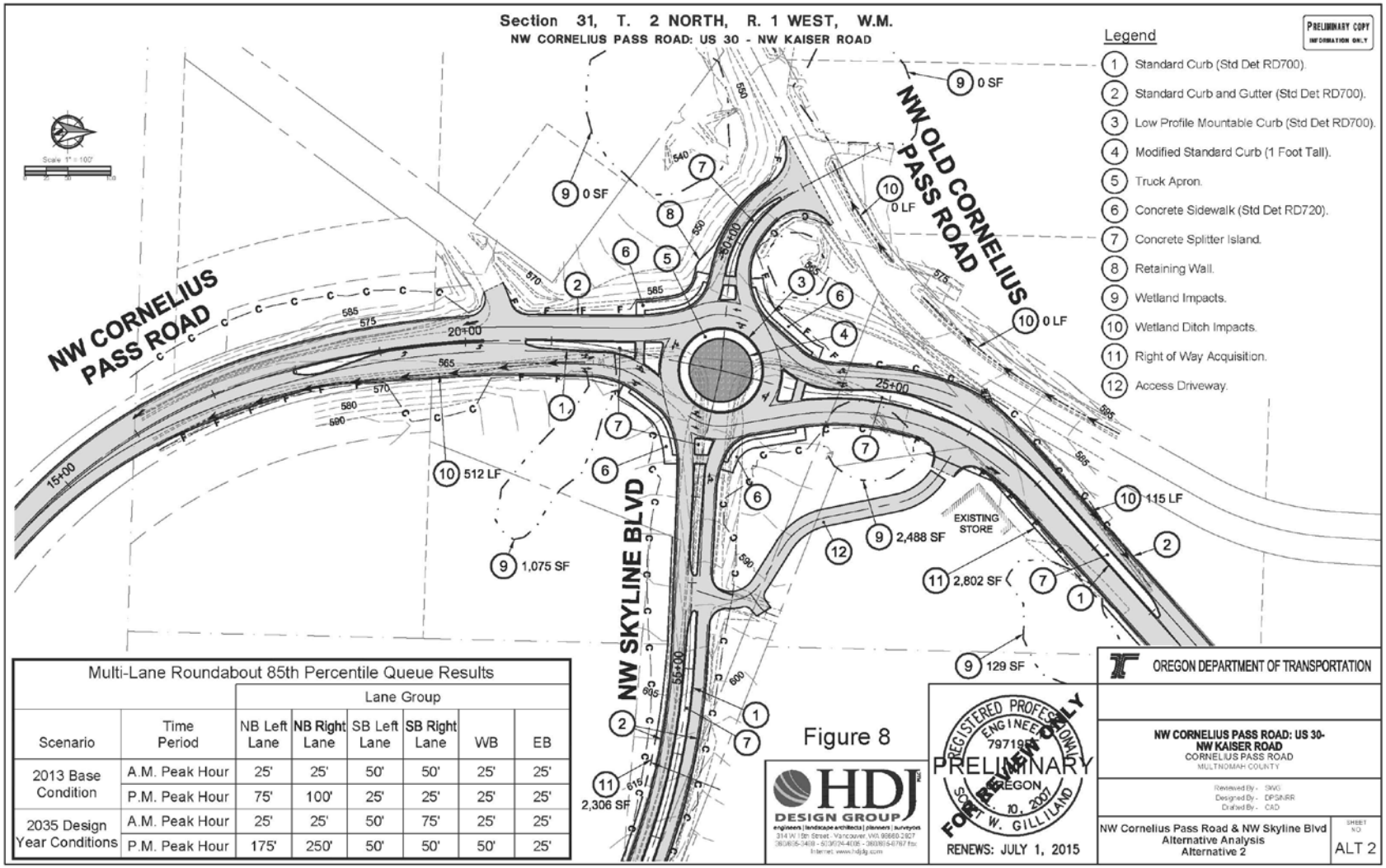
Safety Improvement Alternatives - Skyline Blvd

- 2-Lane Roundabout – Alternative 1
  - $5,300,000
- 2-Lane Roundabout – Alternative 2
  - $4,600,000
- Signalized Intersection
  - $3,700,000 - $5,400,000

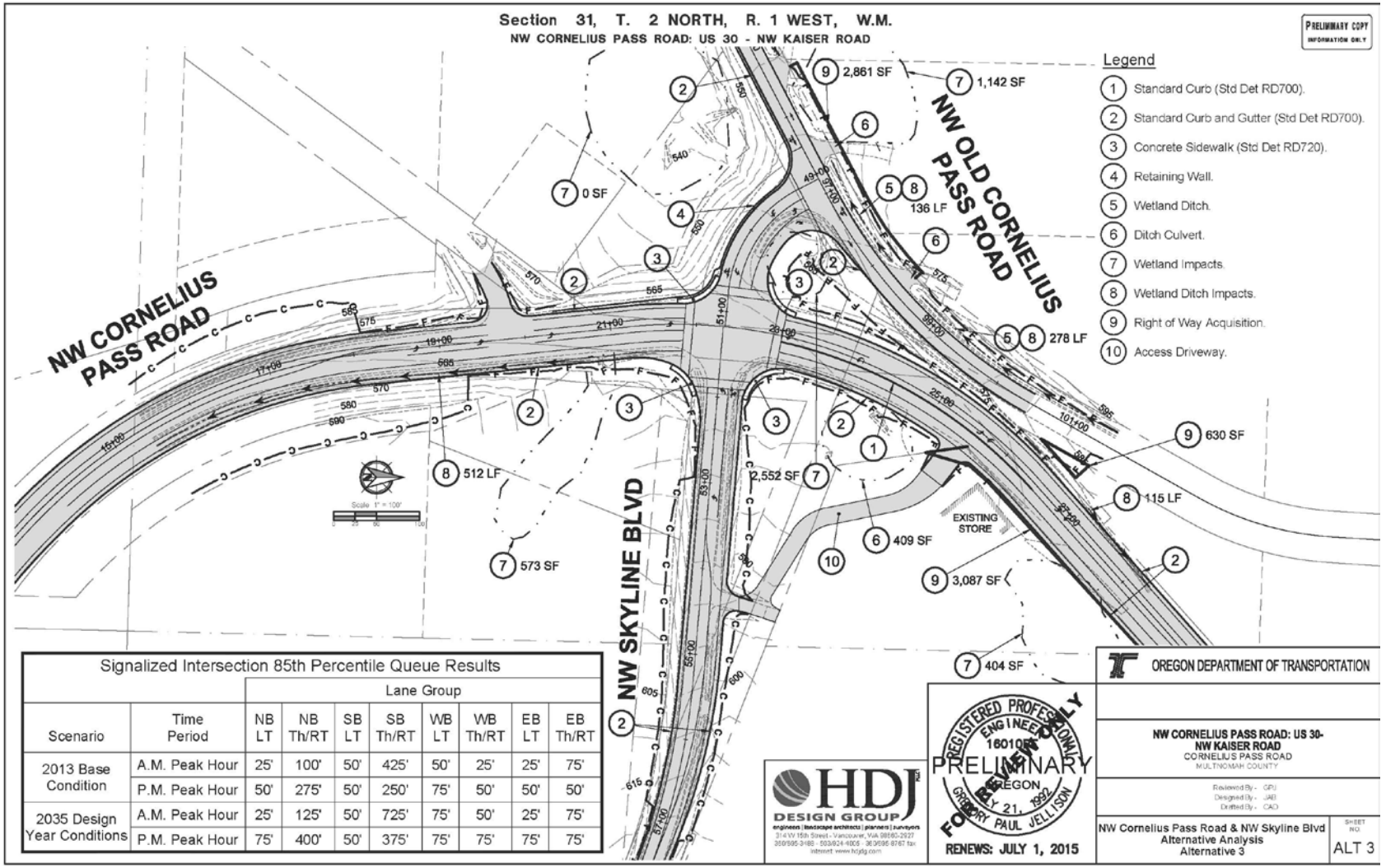
Safety Improvement Alternatives - Skyline Blvd



Safety Improvement Alternatives - Skyline Blvd



Safety Improvement Alternatives - Skyline Blvd



Signalized Intersection 85th Percentile Queue Results

Scenario	Time Period	Lane Group							
		NB LT	NB Th/RT	SB LT	SB Th/RT	WB LT	WB Th/RT	EB LT	EB Th/RT
2013 Base Condition	A.M. Peak Hour	25'	100'	50'	425'	50'	25'	25'	75'
	P.M. Peak Hour	50'	275'	50'	250'	75'	50'	50'	50'
2035 Design Year Conditions	A.M. Peak Hour	25'	125'	50'	725'	75'	50'	25'	75'
	P.M. Peak Hour	75'	400'	50'	375'	75'	75'	75'	75'

Safety Improvement Alternatives - Curves South of Plainview

- Improved curve signing and clearing for sight distance
  - $30,000
- Improved curve signing, shoulder widening and guardrail upgrades
  - $400,000
- Curve realignment (40 mph) and shoulder widening
  - $1,300,000

Safety Improvement Alternatives - Kaiser Road

- Improved signing and clearing for sight distance
  - $10,000
- Vehicle-activated flashing beacon (similar to Sheltered Nook)
  - $40,000
- Right turn lane installation
  - $200,000

Safety Improvement Alternatives - Corridor Improvements

- Corridor wide signing upgrades
  - $270,000
- Vehicle pullouts – pave 10 existing wide gravel areas; assumes no earthwork, wall or guardrail:
  - $100,000 ($10K/each)
- Slow moving vehicle turnouts - NB and SB directions; 500 foot length, assumes significant cut/fill, widening and R/W impacts
  - Up to $1 Million ($500K/each)
- Climbing lanes – NB and SB direction; 1 mile each
  - Up to $14 Million ($7 M/each)

Safety Improvement Alternatives - Corridor Improvements cont.

- Corridor wide roadway delineation:

Reflective pavement markers	o $5,000
Delineators	o $10,000
Durable striping	o $300,000

- Corridor wide clear zone upgrades
  - o $300,000+
- Illumination at key cluster locations
  - o $460,000
- Wildlife crossings
  - o Cost TBD (site specific)
- Grouped mailboxes
  - o Cost TBD (need input from USPS)

Questions & Discussion

Next Meetings

- Open House (February 18, 6:30 pm)
- CAC Meeting #3 (March 18, 6 pm)

  (both at Skyline School Gym)