

TRAIN HORNS RAILROAD QUIET ZONE UPDATE

Eugene City Council

October 8, 2014

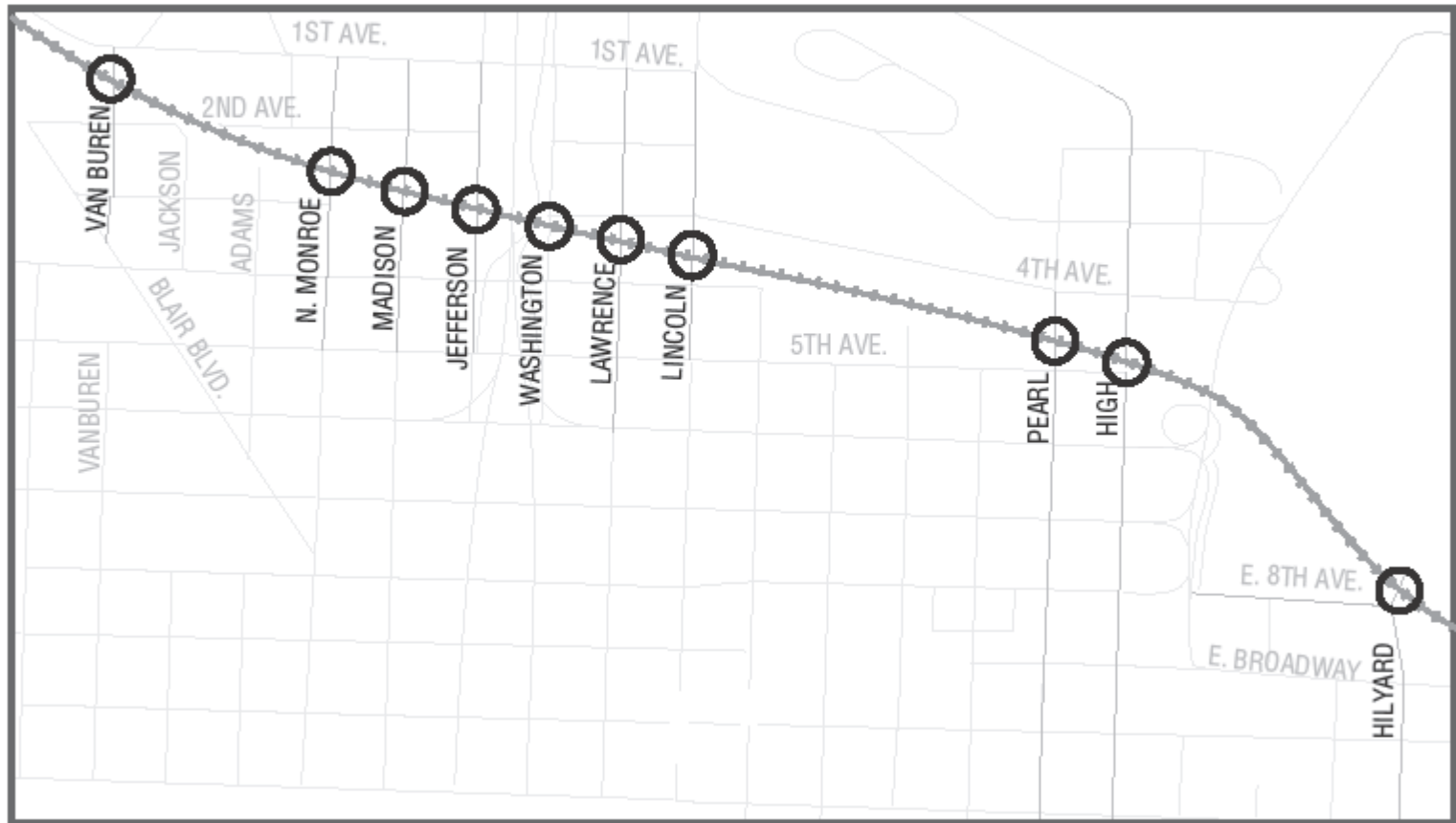
What is a Quiet Zone?

- Federal Rules require sounding horns as a safety measure
 - Proven history
 - Baseline for risk analysis
- The rules allow for alternative methods for achieving the same or better level of safety
- Community livability, safety and funding are local issues,

Cont.

- Federal funding was not available,
- Must be half mile long,
- Horns will still be blown at engineer's discretion for emergencies or objects on the track,
- Must be re-certified by the Federal Railroad Administration on a periodic basis.

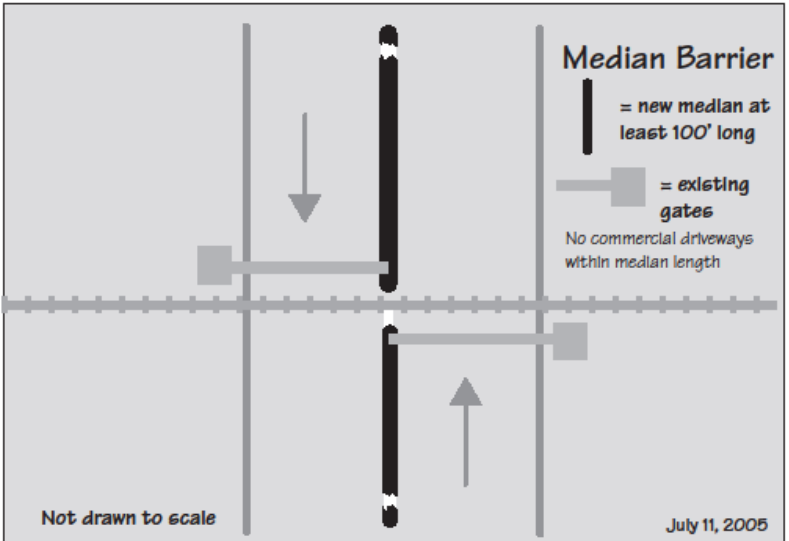
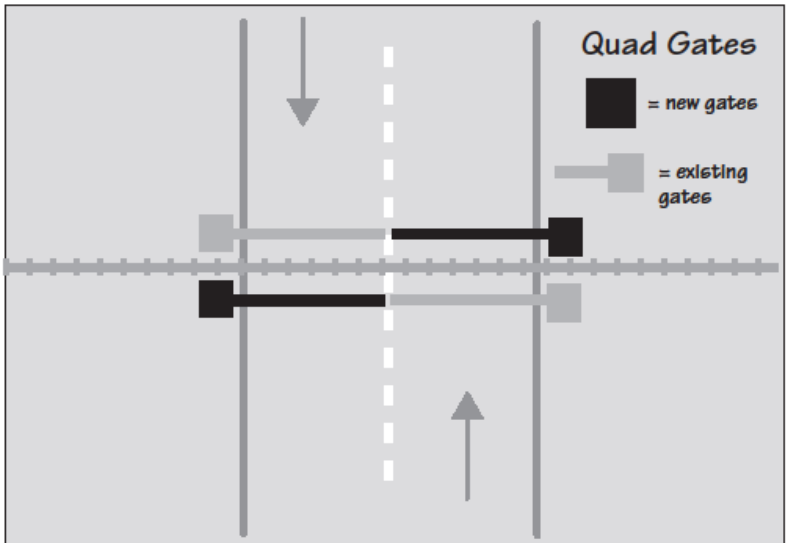
Railroad Crossings in Downtown Eugene Area



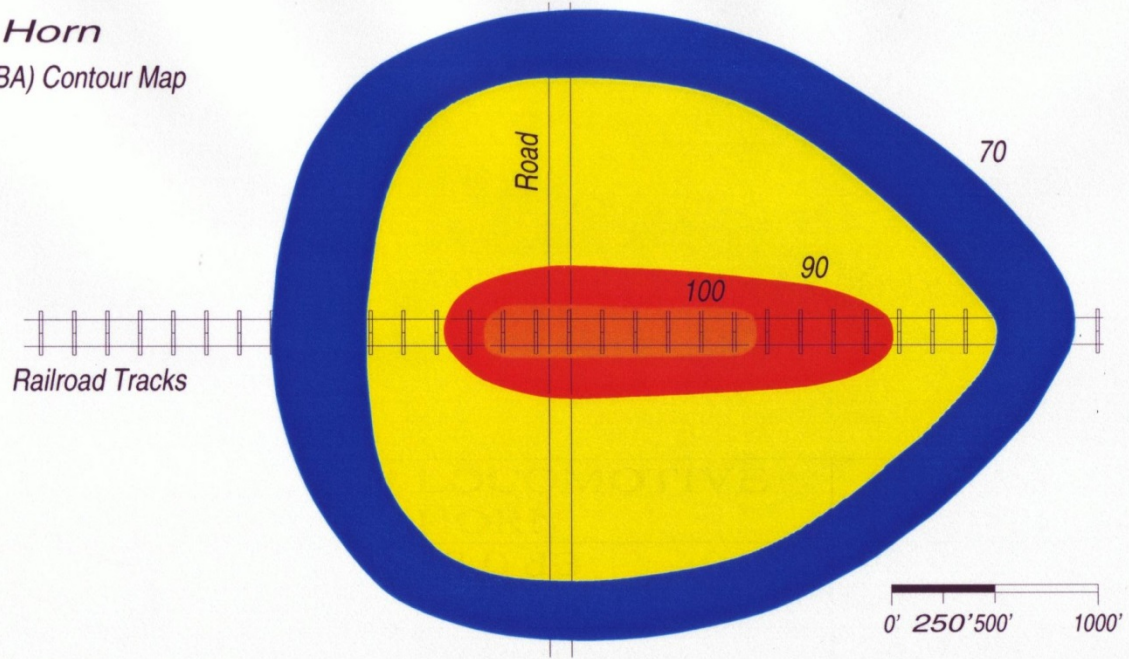
July 11, 2005

Supplemental Safety Measures

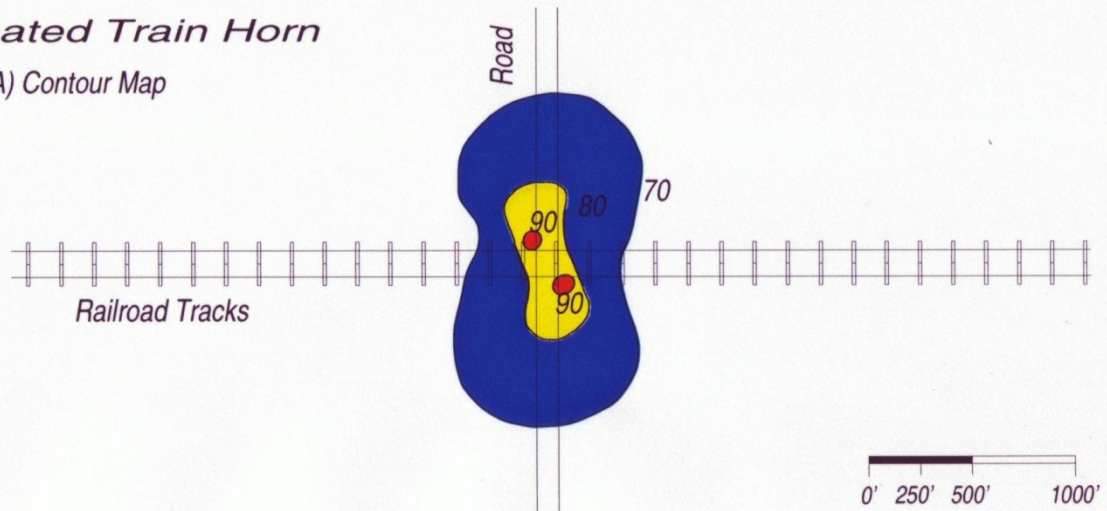
- Median Islands
- Non-traversable barriers
- Conversion of two-way street to one-way
- Quad gates
- Complete closure of the crossing
- Wayside horns



Train Horn
Decibel (dBA) Contour Map



Automated Train Horn
Decibel (dBA) Contour Map



FRA Risk Analysis Index

- Statistical, non-dimensional, relative rating for risk
- National Threshold
- Local experience
- Volume of cars, trains and crashes are included
- Each SSM has different affect

Multiple Options

2014 UPDATE	EXISTING CONDITIONS				
	CURRENT RISK				
Van Buren	16974	Median			Quad-gates
Monroe	48111		Quad gates		Quad-gates
Madison	14269				Quad-gates
Jefferson	14181	One Way			Quad-gates
Washington	21293	One Way	One Way	One Way	Quad-gates
Lawrence	16225	Median	Median		Quad-gates
Lincoln	15098			Close	Quad gates
Pearl	20726				Quad-gates
High	65767	Quad gates	Quad gates	Quad gates	Quad-gates
8th and Hilyard	46857	quad gates	Quad gates	Quad gates	Quad-gates
Risk Index		13715	12539	12566	6430
Estimated Cost		\$3,000,000	\$3,500,000	\$2,400,000	\$10,000,000
Current FRA Risk Index with horns approximately = 16762					
Current Nationwide signifdicant Risk Index = 14347					
All Risk Index numbers are approximate and subject to change.					

Options

2007 UPDATE								
	No Closure	No closure	Close One A	Close One B	Close Two	Close Five	Gate All	
Crossing	A	B	C	D	E	F	G	
Van Buren	Median	Median	Median	Median	Median	Median	Median	Quad-gates
Monroe						Close		Quad-gates
Madison			Close		Close	Close		Quad-gates
Jefferson	One-way	One way	One Way	One Way	One-way	Close		Quad-gates
Washington	One-way	One way	One Way	One Way	One-way			Quad-gates
Lawrence	One-way	Median	Median	Median	Median	Close		Quad-gates
Lincoln	One-way			Close	Close	Close		Quad-gates
Pearl								Quad-gates
High	Quad-gates	Quad gates	Quad gates	Quad gates	Quad-gates	Quad-gates		Quad-gates
8th and Hilyard								
Risk Index	10615	12225	10606	10419	8748	8590	5695	
Estimated Cost	\$900,000	\$800,000	\$700,000	\$700,000	\$725,000	\$760,000	\$3.700,000	
Current FRA Risk Index with horns approximately = 14849								
All Risk Index numbers are approximate and subject to change.								

Salem QZ

- 10 Crossings
- Estimated at \$1.2 Million
- Actual cost \$2.6 Million
- Used all 'low cost SSM', No quad gates
- Funded by Pavement Bond measure
- Tested wayside horns
- Phase 2 will add two crossings, one quad gate, Estimated at \$1.5 million

Eugene history

- City Council presentations in 2005, 2006 and 2008
- Public outreach tested support for street crossing closure and conversion to 2 way street, and found little support
- Current council direction (2008) is to seek funding for Quiet Zone with all quad gates.

Lessons learned

- Previous cost estimates are very low
 - Quad gates “\$1,000,000 each plus \$9,000 annual maintenance”
- Construction will include ADA compliance
 - Salem averaged \$260,000 per crossing
- Using local funding, jurisdictions are getting Quiet Zones

Questions?