From: Brown, Rob

To: "Semenick, Stephen (BNSF)"; "Doyle, Weylin"; "Raezer, Connie"; Young, Betty (UTC); "Sullivan, Patrick"; "Jeff

Stewart (FRA)"

Cc: "McIntyre, Megan (BNSF)"; "Kevin Jeffers"; "Bryon Agan (DEA)"; Bieren, Chad RE: City of Kent Application to the FRA to Establish a Quiet Zone on the BNSF Mainline Subject:

Wednesday, April 3, 2019 4:05:42 PM Date: Attachments: BNSF FRA QZ Application -20190403 - All.pdf

All,

The attached application from the City of Kent to the FRA for approval to establish a quiet zone on the BNSF mainline will be mailed tomorrow. Attached is an electronic copy for your use. Please feel free to contact me if you have any questions or comments.

Best Regards,

-Rob

Rob Brown, P.E., Transportation Engineering Manager Transportation Engineering | Public Works Department 220 Fourth Avenue South, Kent, WA 98032 Phone 253-856-5571 |Cell 206-475-4945 RBrown@KentWA.gov

CITY OF KENT, WASHINGTON

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS E-MAIL

From: Brown, Rob

Sent: Saturday, March 30, 2019 12:21

To: Semenick, Stephen (BNSF) < Stephen.Semenick@BNSF.com>; 'Doyle, Weylin'

<weylin.doyle@soundtransit.org>; Raezer, Connie <RaezerC@wsdot.wa.gov>; Young, Betty (UTC)

<betty.young@utc.wa.gov>; 'Sullivan, Patrick' <Patrick.Sullivan@amtrak.com>

Cc: Jeff Stewart (FRA) <Jeffrey.P.Stewart@dot.gov>; McIntyre, Megan (BNSF)

<Megan.McIntyre@BNSF.com>; Kevin Jeffers <Kevin.Jeffers@deainc.com>; Bryon Agan (DEA)

<Bryon.Agan@deainc.com>; Bieren, Chad <CBieren@kentwa.gov>

Subject: City of Kent Application to the FRA to Establish a Quiet Zone on the BNSF Mainline

I wanted to give everyone an advanced courtesy notification that the city of Kent will be submitting an application to the FRA for approval to establish a New Quiet Zone on the BNSF mainline through the City per 49 CFR 222.39(b). We may be submitting the application as early as Wednesday, April 3rd. You will receive a copy of the application through certified mail. I will also send you an electronic copy in an email.

The application will have a 60-day comment period during which you may submit comments to the FRA. Information on how to submit comments to the FRA will be included in the copy of the application you will receive.

If our application to the FRA is successful, we will then petition the UTC to make the necessary grade crossing modifications to implement the New Quiet Zone.

Feel free to contact me if you have any questions. I will be out of the office between April 4th and April 8th, but I will be available before/after those days.

Records Management 04/04/19 09:08

COMMISSIO

Best Regards,

-Rob

Rob Brown, P.E., Transportation Engineering Manager Transportation Engineering | Public Works Department 220 Fourth Avenue South, Kent, WA 98032 Phone 253-856-5571 | Cell 206-475-4945 RBrown@KentWA.gov

CITY OF KENT, WASHINGTON

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PUBLIC WORKS ADMINISTRATION



Timothy J. LaPorte, P.E.
Public Works Director
400 West Gowe St
Kent, WA 98032
Fax: 253-856-6500

PHONE: 253-856-5500

April 4, 2019

Robert C. Lauby Associate Administrator for Railroad Safety Federal Railroad Administration Mail Stop 25 1200 New Jersey Avenue SE Washington, DC 20590

RE: Public Authority Application to FRA for Approval of the Establishment of a Quiet Zone on the BNSF Railway Mainline Crossings in Kent, Washington

Dear Mr. Lauby:

Please accept the attached application to the FRA for approval of a proposed New Quiet Zone on the BNSF Railway mainline in Kent, Washington. The City's request includes the eight (8) mainline grade crossings within the city limits. The proposed Quiet Zone includes a combination of supplemental safety measures and alternative safety measures.

Thank you for considering Kent's application. Please contact me if I can provide any additional information to aid in your decision making. I can be reached at 253-856-5571 or RBrown@KentWA.gov.

Sincerely,

Rob Brown, P.E.

Transportation Engineering Manager

Transportation Engineering | Public Works Department

220 Fourth Ave. So Kent, WA 98032

CC: Stephen Semenick, BNSF Railway Company

Patrick Sullivan, National Railroad Passenger Corporation (Amtrak)

Weylin Doyle, Central Puget Sound Regional Transit Authority (Sound Transit)

Betty Young, Utilities and Transportation Commission

Connie Raezer, Washington State Department of Transportation

Jeffery P. Stewart, Federal Railroad Administration

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Application for Approval of a Quiet Zone on the BNSF Railway Mainline Within Kent, Washington

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INTRODUCTION

The City of Kent, Washington is requesting approval to establish a New Quiet Zone on the BNSF Railway Company's mainline crossing within the city limits under 49 CFR 222.39(b) *Public Authority Application to FRA*. There are eight (8) affected highway grade crossings within the proposed New Quiet Zone, covering a distance of 3.40 miles. All crossings are public and are under the jurisdiction of the City of Kent.

Crossing Number	Railroad Milepost	USDOT Crossing ID Number	Street or Highway Name
1	14.190	085625H	S 212 Street
2	15.942	085629K	E James Street
3	16.179	085633A	E Smith Street
4	16.289	085636V	E Meeker Street
5	16.339	085637C	E Gowe Street
6	16.436	085639R	E Titus Street
7	16.557	085640K	Willis Street/
			State Route 516
8	17.090	085642Y	S 259 th Street

The new Quiet Zone would be in effect 24 hours per day, seven days per week, with the exception of emergency and other situations as described in 49 CFR 222.23.

Pursuant to 49 CFR 222.39(b)(3), a party receiving this Notice of Intent may submit information or comments about the proposed Quiet Zone to the FRA Associate Administrator for Railroad Safety during the 60-day comment period following the date of this letter.

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49 CFR 222.39(b)(1)(i) -CURRENT GRADE CROSSING INVENTORY FORMS FOR EACH CROSSING

Current grade crossing inventory forms are included in Appendix A. Crossings were reviewed, and new traffic counts were taken in February 2019. Updates to each Grade Crossing Inventory Form were submitted to the Washington State Utilities and Transportation Commission for transmittal to the Federal Railroad Administration.

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49 CFR 222.39(b)(1)(ii) - PRESENT SAFETY MEASURES FOR EACH CROSSING

All public highway grade crossings within the proposed New Quiet Zone are currently equipped with active warning systems, warning signs, and constant warning time train detection. Specific details about each crossing are provided below. Additional photos of each grade crossing are contained in Appendix B.

Crossing 1. U.S. DOT Crossing 085625H. S. 212th St





Image source: Google Street View

Image source: FRA GIS

S 212th St crosses three mainline tracks at this crossing. S 212th St is six traffic lanes, three in each direction. The curb lane in each direction is an HOV lane. There are ten-foot wide non-motorized crossings on each side of S 212th St. The posted speed limit is 40 mph. The average daily traffic volume is 27,691 vehicles with a 14% truck volume.

The intersection of S 212th St and 77th Ave S is located approximately 125 feet west of the crossing. The intersection is a "Tee" configuration with 77th Ave S intersecting S 212th St from the north. The intersection is controlled by a traffic signal. The traffic signal is interconnected to the railroad signal with simultaneous preemption. There are no driveways between 77th Ave S and the crossing. The nearest roadway access point to the east is a driveway on the south side of S 212th St approximately 285 feet from the crossing.

Median islands separating directional traffic are present at the crossing. The medians are constructed of mountable traffic curb capped with asphalt. The eastern median island extends approximately 35 feet to the east of the crossing gate. The western median island extends approximately 125 feet to the west of the crossing gate.

This railroad crossing has active grade crossing warning devices consisting of flashing lights and gates. The crossing has 16 pair of flashing lights, eight pair per direction. Each direction has two pair mounted on a gantry above the direction of traffic, two overhead pair mounted above the opposing direction of traffic, two post-mounted pair in the median, and one pair mounted on each side of the roadway.

The crossing has two-quadrant gates consisting of two crossing gates and one pedestrian gate per direction. Each vehicular direction has one crossing gate mounted in the median, one mounted on the side of the roadway, and one pedestrian gate.

The crossing has two pedestrian bells, one on each side of the roadway mounted above each pedestrian gate.

The crossing is equipped with constant warning time train detection devices and power out indicators.

Warning signs for the crossing consist of Grade Crossing (R15-1, Crossbuck) signs at the crossing and Grade Crossing Advanced Warning Signs (W10-1) in advance of the crossing. A Grade Crossing and Intersection Advanced Warning Sign (W10-4) sign is present on southbound 77th Ave S approaching S 212th St. The crossing also has one shoulder-mounted Do Not Stop On Tracks (R8-8) sign for each vehicular direction.

Grade Crossing Pavement Marking symbols are present in each vehicular lane approaching the crossing. Stop lines are located across the traffic lanes in advance of the vehicular gates.

Crossing 2. U.S. DOT Crossing 085629K. E James St







Image source: Google Street View

E James St crosses two mainline tracks at this crossing. E James St is four traffic lanes, two in each direction. There are sidewalks on the south side of E James St on either side of the crossing. There is also a sidewalk on the north side of E James St east of the crossing. The posted speed limit is 35 mph. The average daily traffic volume is 23,904 vehicles with a 6% truck volume. This crossing is located north of the Kent Station commuter rail station.

The intersection of E James St and Railroad Ave N is located approximately 130 feet east of the crossing. The intersection is a "Tee" configuration with Railroad Ave N intersecting E James St from the south. Railroad Ave N is stop controlled at E. James St and left turns from Railroad Ave N to E James St are prohibited through signing, a raised traffic island on the south side of the intersection, and a mountable median traffic curb. E James St intersects 1st Ave N to the west of the crossing. The intersection is an offset "Tee" configuration with the intersection of 1st Ave to the south being approximately 30 feet from the crossing. The intersection of E James and 1st Ave N to the north is approximately 15 feet from the crossing. Only right turns are permitted from either leg of 1st Ave N to E James St by signing and median curbing.

The channelization devices consisting of mountable median curbing with tubular markers are present on both sides of the crossing. To the east of the crossing, channelization devices extend from approximately 13 feet from the crossing gate to approximately 95 feet from the crossing gate. Mountable traffic curbing extends approximately an additional 185 feet to the east. To the west of the crossing, channelization devices extend approximately 3 feet from the crossing gate to approximately 40 feet from the crossing gate. Mountable traffic curbing extends approximately an additional 155 feet to the west where it connects to a raised traffic island.

This railroad crossing has active grade crossing warning devices consisting of flashing lights and gates. The crossing has 14 pair of flashing lights. There are six pair per direction on E James St. Each direction has two pair mounted on a gantry above the direction of traffic, two overhead pair mounted above the opposing direction of traffic, and one pair mounted on each side of the roadway. There is one pair of flashing side lights for northbound 1st Ave N post mounted at the crossing. There is one pair of flashing side lights southeast quadrant of the crossing directed parallel to the tracks to the south.

The crossing has two-quadrant gates consisting of one crossing gate per direction. Pedestrian gates are not present, but the crossing gates are behind the sidewalk in the southwest quadrant and shoulder in the northeast quadrant. The eastern crossing gate only extends to a distance of four feet from the roadway centerline.

The crossing has three pedestrian bells, one on each side of the roadway mounted above each crossing gate, and one mounted above the side lights in the southeast quadrant of the crossing.

The crossing is equipped with constant warning time train detection devices and power out indicators.

Warning signs for the crossing consist of Grade Crossing (R15-1, Crossbuck) signs at the crossing and Grade Crossing Advanced Warning Signs (W10-1) in advance of the crossing. A Grade Crossing and Intersection Advanced Warning Sign (W10-4) sign is present on northbound 1st Ave N approaching E James St. The crossing also has one shoulder-mounted Do Not Stop On Tracks (R8-8) sign for eastbound E James St.

Grade Crossing Pavement Marking symbols are present in each vehicular lane approaching the crossing. Stop lines are located across the traffic lanes in advance of the vehicular gates.

Crossing 3. U.S. DOT Crossing 085633A. E Smith St





Image source: FRA GIS Image source: Google Street View

E Smith St crosses two mainline tracks at this crossing. E Smith St is four traffic lanes, two in each direction. There are sidewalks on the both sides of E smith St at the crossing. The posted speed limit is 30 mph. The average daily traffic volume is 17,117 vehicles with a 4% truck volume. This crossing is located at the south end of the Kent Station commuter rail station.

The intersection of E Smith St and Railroad Ave N is located approximately 63 feet east of the crossing. The intersection is a standard four leg configuration. Railroad Ave N is stop controlled at E. Smith St. There are no turn restrictions at this intersection. E James St intersects 1st Ave N to the west of the crossing. The intersection is a "Tee" configuration with the intersection of 1st Ave to the north being approximately 17 feet from the crossing. Only right turns are permitted from southbound 1st Ave N to E Smith St by signing and median curbing. There are no roadway access points to E Smith St between 1st Ave N and Railroad Ave N.

The channelization devices consisting of mountable median curbing with tubular markers are present on both sides of the crossing. To the east of the crossing, channelization devices extend approximately from the crossing gate to approximately 80 feet east of the crossing gate. To the west of the crossing, channelization devices extend from approximately 10 feet inside of the crossing gate to approximately 40 feet from the crossing gate. A combination of raised traffic island and mountable curb extend more than 300 feet to the west.

This railroad crossing has active grade crossing warning devices consisting of flashing lights and gates. The crossing has 15 pair of flashing lights. There are six pair per direction on E Smith St. Each direction has two pair mounted on a gantry above the direction of traffic, two overhead pair mounted above the opposing direction of traffic, and one pair mounted on each side of the roadway. There is one pair of flashing side lights for northbound Railroad Ave N post mounted at the crossing. There is one pair of flashing side lights in the northwest quadrant of the crossing directed at the Kent Station rail platform. There is one pair of flashing side lights in the southwest quadrant of the crossing directed southbound 1st Ave S although left turns are prohibited from 1st Ave S.

The crossing has two-quadrant gates consisting of one crossing gate per direction. Pedestrian gates included in the southwest and northeast quadrants with the crossing gates. The eastern crossing gate only extends to a distance of four feet from the roadway centerline.

The crossing has three pedestrian bells, one on each side of the roadway mounted above each crossing gate, and one mounted above the side lights in the northwest quadrant of the crossing.

The crossing is equipped with constant warning time train detection devices and power out indicators.

Warning signs for the crossing consist of Grade Crossing (R15-1, Crossbuck) signs at the crossing and Grade Crossing Advanced Warning Signs (W10-1) in advance of the crossing. Grade Crossing and Intersection Advanced Warning Signs (W10-2) signs are present on northbound and southbound Railroad Ave N approaching E Smith St. The crossing also has shoulder-mounted Do Not Stop On Tracks (R8-8) signs on E Smith St approaching the crossing.

Grade Crossing Pavement Marking symbols are present in each vehicular lane approaching the crossing. Stop lines are located across the traffic lanes in advance of the vehicular gates.

Crossing 4. U.S. DOT Crossing 085636V. E Meeker St





Image source: Google Street View

E Meeker St crosses two mainline tracks at this crossing. E Meeker St is two traffic lanes, one in each direction. There are sidewalks approaching the crossing on both sides of the crossing on the north side of E Meeker and south side of E. Meeker approaching the crossing from the west side. There is a wide paved shoulder on the south side of E. Meeker east of the crossing. The posted speed limit is 25 mph. The average daily traffic volume is 4,139 vehicles with a 1% truck volume.

The intersection of E Meeker St and Railroad Ave is located approximately 105 feet east of the crossing. The intersection is a standard four leg configuration. Railroad Ave is stop controlled at E. Meeker St. There are no turn restrictions at this intersection. The E Meeker St intersects 1st Ave approximately 65 feet west of the crossing. The intersection is a standard four leg configuration. 1st Ave is stop controlled at E. Meeker St. There are no turn restrictions at this intersection. There are no roadway access points on the north side of E Meeker St between 1st Ave and Railroad Ave. There are no roadway access points on the south side of Meeker between 1st Ave and the crossing. There is access to the railroad bungalow adjacent to the crossing in the southeast quadrant. There also an access to a parking lot east of the crossing on the south side of E Meeker approximately 65 feet east of the crossing.

The channelization devices consisting of mountable median curbing with tubular markers are present on both sides of the crossing. To the east of the crossing, channelization devices extend approximately from the crossing gate to approximately 75 feet east of the crossing gate. To the west of the crossing, channelization devices extend from approximately the crossing gate to approximately 50 feet west of the crossing gate.

This railroad crossing has active grade crossing warning devices consisting of flashing lights and gates. The crossing has eight pair of flashing lights. There are four pair per direction on E Meeker St. Each direction has one pair mounted on a gantry above the direction of traffic, one overhead pair mounted above the opposing direction of traffic, and one pair mounted on each side of the roadway.

The crossing has two-quadrant gates consisting of one crossing gate per direction. Pedestrian gates are not present.

The crossing has two pedestrian bells, one on each side of the roadway mounted above each crossing gate.

The crossing is equipped with constant warning time train detection devices and power out indicators.

Warning signs for the crossing consist of Grade Crossing (R15-1, Crossbuck) signs at the crossing and Grade Crossing Advanced Warning Signs (W10-1) in advance of the crossing. Grade Crossing and Intersection Advanced Warning Signs (W10-2) signs are present on both northbound and southbound Railroad Ave and northbound and southbound 1st Ave approaching E Meeker St.

Grade Crossing Pavement Marking symbols are not present at this crossing. Stop lines are located across the traffic lanes in advance of the vehicular gates.

Crossing 5. U.S. DOT Crossing 085637C. E Gowe St



Image source: FRA GIS



Image source: Google Street View

E Gowe St crosses two mainline tracks at this crossing. E Gowe St is two traffic lanes, one in each direction. There are sidewalks on both sides of E Gowe St approaching the crossing from the west. There are wide paved shoulders on E Gowe St on the east side of the crossing. The posted speed limit is 25 mph. The average daily traffic volume is 4,099 vehicles with a 2% truck volume.

The intersection of E Gowe St and Railroad Ave is located approximately 90 feet east of the crossing. The intersection is a standard four leg configuration. Railroad Ave is stop controlled at E. Gowe St. There are no turn restrictions at this intersection. The E Gowe St intersects 1st Ave approximately 65 feet west of the crossing. The intersection is a standard four leg configuration. 1st Ave is stop controlled at E. Gowe St. There are no turn restrictions at this intersection. There are no roadway access points on west side of the crossing between 1st Ave and the crossing. East of the crossing on the north side there is access to the property just east of the crossing gate. East of the crossing on the south side there is a gated and locked access to BNSF property approximately 20 feet from the crossing. Further to the east there is an access to a parking lot approximately 45 feet east of the crossing.

The channelization devices consisting of mountable median curbing with tubular markers are present on both sides of the crossing. To the east of the crossing, channelization devices extend from approximately the crossing gate to approximately 75 feet east of the crossing gate. To the west of the crossing, channelization devices extend from approximately the crossing gate to approximately 45 feet west of the crossing gate.

This railroad crossing has active grade crossing warning devices consisting of flashing lights and gates. The crossing has eight pair of flashing lights. There are four pair per direction on E Gowe St. Each direction has one pair mounted on a gantry above the direction of traffic, one overhead pair mounted above the opposing direction of traffic, and one pair mounted on each side of the roadway.

The crossing has two-quadrant gates consisting of one crossing gate per direction. Pedestrian gates are not present.

The crossing has two pedestrian bells, one on each side of the roadway mounted above each crossing gate.

The crossing is equipped with constant warning time train detection devices and power out indicators.

Warning signs for the crossing consist of Grade Crossing (R15-1, Crossbuck) signs at the crossing and Grade Crossing Advanced Warning Signs (W10-1) in advance of the crossing. Grade Crossing and Intersection Advanced Warning Signs (W10-2) signs are present on both northbound and southbound Railroad Ave S and northbound and southbound 1st Ave S approaching E Gowe St.

Grade Crossing Pavement Marking symbols are not present at this crossing. Stop lines are located across the traffic lanes in advance of the vehicular gates.

Crossing 6. U.S. DOT Crossing 085639R. E Titus St





Image source: FRA GIS

Image source: Google Street View

E Titus St crosses two mainline tracks and one yard track at this crossing. The yard track is outside of crossing active warning device envelope. E Titus St is two traffic lanes, one in each direction. There are sidewalks on both sides of E Titus St approaching the crossing from the west. There are wide paved shoulders on E Titus St on the east side of the crossing with sidewalk segments near the Railroad Ave S intersection. The posted speed limit is 25 mph. The average daily traffic volume is 1,933 vehicles with a 1% truck volume.

The intersection of E Titus St and Railroad Ave is located approximately 95 feet east of the crossing gate and approximately 65 feet east of the stop line for westbound traffic on the east side of the yard track. The intersection is a standard four leg configuration. Railroad Ave is stop controlled at E. Titus St. There are no turn restrictions at this intersection. The E Titus St intersects 1st Ave approximately 80 feet west of the crossing. The intersection is a standard four leg configuration. 1st Ave is stop controlled at E. Titus St. There are no turn restrictions at this intersection. In the northwest quadrant there is an alley adjacent to the crossing. Access is restricted to right-in/right-out. In the southwest quadrant there is an illegal driveway adjacent to the crossing. In the southeast quadrant there is a driveway approximately 30 feet from the crossing and approximately 15 feet from the yard track that serves a small business. The former access points in the northeast quadrant have been closed by BNSF.

The channelization devices consisting of mountable median curbing with tubular markers are present on both sides of the crossing. To the east of the crossing, channelization devices extend from approximately the crossing gate to approximately 75 feet east of the crossing gate. To the west of the crossing, channelization devices extend from approximately the crossing gate to approximately 45 feet west of the crossing gate.

This railroad crossing has active grade crossing warning devices consisting of flashing lights and gates. The crossing has four pair of flashing lights. There are two pair per direction on E Meeker St, one pair mounted on each side of the roadway. As noted above, the yard track is located outside of these warning devices.

The crossing has two-quadrant gates consisting of one crossing gate per direction. Pedestrian gates are not present. The yard track is located outside of theses warning devices.

The crossing has two pedestrian bells, one on each side of the roadway mounted above each crossing gate.

The crossing is equipped with constant warning time train detection devices and power out indicators.

Warning signs for the crossing consist of Grade Crossing (R15-1, Crossbuck) signs at the crossing and Grade Crossing Advanced Warning Signs (W10-1) in advance of the crossing. Grade Crossing and Intersection Advanced Warning Signs (W10-2) signs are present on both northbound and southbound Railroad Ave S and northbound and southbound 1st Ave S approaching E Meeker St.

Grade Crossing Pavement Marking symbols are not present at this crossing. Stop lines are located across the traffic lanes in advance of the vehicular gates.

Crossing 7. U.S. DOT Crossing 085640K. E Willis St/SR 516





Image source: Google Street View

E Willis St crosses two mainline tracks at this crossing. E Willis St is four traffic lanes, two in each direction. There are sidewalks on the north side of E Willis St on either side of the crossing. There wide paved shoulders on the south side of E Willis St on both sides of the crossing. The posted speed limit is 30 mph. The average daily traffic volume is 16,807 vehicles with a 6% truck volume.

E. Willis intersects Railroad Ave S to the east. The intersection is an offset "Tee" configuration with the intersection of Railroad Ave S to the south being approximately 10 feet from the crossing. Only right turns are permitted from northbound Railroad Ave S through signing and channelization devices. The intersection of E Willis St and Railroad Ave S to the north is approximately 110 feet from the crossing. There are no turn restrictions at this intersection. There are no access points between the crossing and either Railroad Ave S intersection.

E Willis St intersects 1st Ave S to the west of the crossing. The intersection is an offset "Tee" configuration with the intersection of 1st Ave S to the south being approximately 23 feet from the crossing. Only right turns are permitted from northbound Railroad Ave S through signing and channelization devices. The intersection of E Willis St and 1st Ave S to the north is approximately 110 feet from the crossing. There are no turn restrictions at this intersection. There are no access points between the crossing and either 1st Ave S intersection.

The channelization devices consisting of mountable median curbing with tubular markers are present on both sides of the crossing. To the east of the crossing, channelization devices extend approximately from the crossing gate to approximately 75 feet from the crossing gate. To the west of the crossing, channelization devices also extend approximately from the crossing gate to approximately 75 feet from the crossing gate.

This railroad crossing has active grade crossing warning devices consisting of flashing lights and gates. The crossing has 14 pair of flashing lights. There are six pair per direction on E Willis St. Each direction has two pair mounted on a gantry above the direction of traffic, two overhead pair mounted above the opposing direction of traffic, and one pair mounted on each side of the roadway. There is one pair of flashing side lights for northbound 1st Ave N post mounted at the crossing on the south side and another pair for northbound 1st Ave N post mounted in the northeast quadrant.

The crossing has two-quadrant gates consisting of one crossing gate per direction. Pedestrian gates are not present.

The crossing has two pedestrian bells, one on each side of the roadway mounted above each crossing gate.

The crossing is equipped with constant warning time train detection devices and power out indicators.

Warning signs for the crossing consist of Grade Crossing (R15-1, Crossbuck) signs at the crossing and Grade Crossing Advanced Warning Signs (W10-1) in advance of the crossing. Grade Crossing and Intersection Advanced Warning Sign (W10-2) signs are present on southbound 1st Ave N and southbound Railroad Ave S approaching E Willis St. A Grade Crossing and Intersection Advanced Warning Sign (W10-4) sign is present on northbound 1st Ave S approaching Willis. The crossing also has one shoulder-mounted Do Not Stop On Tracks (R8-8) sign for westbound E James St.

Grade Crossing Pavement Marking symbols are present in each vehicular lane approaching the crossing. Stop lines are located across the traffic lanes in advance of the vehicular gates.

Crossing 8. U.S. DOT Crossing 085642Y. S 259th St



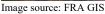




Image source: Google Street View

S 259th St crosses two mainline tracks at this crossing. S 259th St is two traffic lanes, one in each direction. There are no pedestrian accommodations at this crossing. The posted speed limit is 25 mph. The average daily traffic volume is 2,794 vehicles with a 6% truck volume.

The intersection of S 259th St and 1st Ave S is located approximately 40 feet west of the crossing. The intersection is a standard four leg configuration. 1st Ave S is stop controlled at S 259th St. There are no turn restrictions at this intersection. There are no roadway access points on west side of the crossing between 1st Ave and the crossing. East of the crossing on the north side there is an access to a commercial property approximately 185 feet east of the crossing. East of the crossing on the south side there is an access to a commercial property approximately 40 feet from the crossing.

No channelization devices are present at this crossing.

This railroad crossing has active grade crossing warning devices consisting of flashing lights and gates. The crossing has nine pair of flashing lights. There are four pair per direction on S 259th St. Each direction has one pair mounted on a gantry above the direction of traffic, one overhead pair mounted above the opposing direction of traffic, and one pair mounted on each side of the roadway. There is one additional pair of post mounted flashing lights in the southwest quadrant for traffic southbound on 1st Ave S.

The crossing has two-quadrant gates consisting of one crossing gate per direction. Pedestrian gates are not present.

The crossing has two pedestrian bells, one on each side of the roadway mounted above each crossing gate.

The crossing is equipped with constant warning time train detection devices and power out indicators.

Warning signs for the crossing consist of Grade Crossing (R15-1, Crossbuck) signs at the crossing and Grade Crossing Advanced Warning Signs (W10-1) in advance of the crossing. Grade Crossing and Intersection Advanced Warning Signs (W10-2) signs are present on both northbound and southbound 1st Ave S approaching S 259th St.

Grade Crossing Pavement Marking symbols are present in each vehicular lane approaching the crossing. Stop lines are located across the traffic lanes in advance of the vehicular gates.

49 CFR 222.39(b)(1)(iii) – DETAILED INFORMATION ABOUT DIAGNOSTIC TEAM REVIEW

A diagnostic team review of all eight crossings within the proposed New Quiet Zone was conducted on November 15, 2017. The final notes from the diagnostic team's review can be found in Appendix C.

The diagnostic team consisted of the members listed below.

BNSF Railway Company

Megan McIntyre, Assistant Director Public Projects
Stephan Semenick, Manager Public Projects - WA & B.C.
Ciano Hipol, Signal Supervisor - Seattle
Paul D. Robinson, Signal Supervisor - Vancouver
Lennie D. Facklam, Assistant Director Signal Design - Highway Crossings

City of Kent, Washington

Chad Bieren, City Engineer Kelly Peterson, Transportation Engineering Manager Rob Brown, Acting City Traffic Engineer

David Evans and Associates, consultants to the City Bryon Agan, Transportation Project Manager Kevin Jeffers, Rail Engineer

Federal Railroad Administration

Jeffery Stewart, Grade Crossing Inspector, Region 8

Washington State Utilities and Transportation Commission
Betty Young, Transportation Planning Specialist – Rail Safety
Bob Boston, Rail Program Specialist

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49 CFR 222.39(b)(1)(iv) – EFFORTS BY PUBLIC AUTHORITY TO ADDRESS COMMENTS SUBMITTED IN RESPONSE TO NOTICE OF INTENT

The City of Kent has attempted, in good faith, to address all of the issues and concerns that were submitted in response to the Notice of Intent. All the comments received and the City's responses to those comments are contained in Appendix D.

BNSF Railway Company is the company that is operating the public highway-rail grade crossings within the proposed New Quiet Zone.

The Washington State Department of Transportation is the State agency responsible for highway safety.

The Washington State Utilities and Transportation Commission is the State agency responsible for grade crossing safety.

The Notice of Intent was also sent to the Puget Sound Regional Transit Authority (dba Sound Transit), operators of the Sounder commuter rail, and Amtrak Corporation. Sound Transit returned one comment which is included in Appendix D.

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49 CFR 222.39(b)(1)(v) – DETAILED INFORMATION AS TO WHICH SAFETY IMPROVEMENTS ARE PROPOSED

Detailed information on the proposed safety measures at each crossing are detailed below. Proposed safety improvements are separated into three sections for each crossing, supplementary safety measures (SSMs), alternative safety measures (ASMs), and other grade crossing improvements.

Plans showing the proposed safety improvements at each crossing are included in Appendix E.

Crossing 1. U.S. DOT Crossing 085625H. S. 212th St

Supplementary Safety Measures (49 CFR 222 Appendix A)

Supplementary safety measures consisting of the existing gates and new channelization devices will be installed at this in compliance with 49 CFR 222 Appendix A (A)(3). The existing crossing currently has automatic gates and median islands consisting of mountable traffic curb capped with asphalt.

The existing median island to the east is approximately 45 feet long. It will be extended approximately 80 feet to east. Channelization devices in the form of tubular markers spaced 40 inches on-center will be installed on top of the median island. Channelization devices will extend approximately 120 feet east of the gate.

The existing median island to the west of the crossing currently extends approximately 135 feet west of the crossing. Channelization devices in the form of delineator posts spaced 40 inches on-center will be installed on top of the median island. Channelization devices will extend approximately 110 feet west of the gate.

Alternative Safety Measures (49 CFR 222 Appendix B)

No alternative safety measures are proposed at this crossing.

Additional Grade Crossing Modifications

No Train Horn (W10-9, W10-9P) signing will be installed on the approaches to the crossing and on southbound 77th Ave S under the existing advanced grade crossing warning sign when the proposed New Quiet Zone becomes effective. Look (R15-8) signs will be installed on non-motorized approaches that are not controlled by pedestrian gates in the northwest and southeast quadrants.

Dynamic envelope pavement markings will be installed at this crossing.

Detectable warning surfaces will be installed on the non-motorized approaches to the crossing in all four quadrants.

Crossing 2. U.S. DOT Crossing 085629K. E James St

Supplementary Safety Measures (49 CFR 222 Appendix A)

No supplementary safety measures are proposed at this crossing.

Alternative Safety Measures (49 CFR 222 Appendix B)

Alternative safety measures in the form of modified supplementary safety measures are proposed at this crossing. The existing gates with new channelization devices that do not meet the requirements of an SSM are proposed in accordance with 49 CFR 222 Appendix B(I). Channelization devices will be installed but there are intersections within 60 feet of the crossing. Calculations for the proposed effectiveness are included in Section VII of this document.

The existing channelization devices on both sides of the crossing will be replaced with new channelization devices. To the east, the new channelization devices will begin at the gate and extend approximately 110 feet to the east. On the west side, the new channelization devices will begin at the crossing gate and extended to a point approximately 110 feet west of the crossing gate. The west end of the new channelization devices will tie into the existing mountable traffic curb.

Additional Grade Crossing Modifications

No Train Horn (W10-9, W10-9P) signing will be installed on the approaches to the crossing and northbound 1st Ave S under the existing advanced grade crossing warning sign when the proposed New Quiet Zone becomes effective. Do Not Stop On Tracks (R8-8) signs will be installed approaching the crossing on both sides of the crossing. Look (R15-8) signs will be installed on non-motorized approaches that are not controlled by crossing gates in the northwest and southeast quadrants.

Dynamic envelope pavement markings will be installed at this crossing. The existing stop lines for the crossing will be relocated to be eight feet from the crossing gates.

Detectable warning surfaces will be installed on the sidewalk approaching the crossing in the southwest quadrant. Detectable warning surfaces will also be installed on the paved shoulders approaching the crossing in the other three quadrants.

Crossing 3. U.S. DOT Crossing 085633A. E Smith St

Supplementary Safety Measures (49 CFR 222 Appendix A)

No supplementary safety measures are proposed at this crossing.

Alternative Safety Measures (49 CFR 222 Appendix B)

Alternative safety measures in the form of modified supplementary safety measures are proposed at this crossing. The existing gates with new channelization devices that do not meet the requirements of an SSM are proposed in accordance with 49 CFR 222 Appendix B (I). Channelization devices will be installed but there are intersections within 60 feet of the crossing and the gate arm in the west side does not extend to within one foot of the channelization devices. Calculations for the proposed effectiveness are included in the next Section VII this document.

The existing channelization devices on both sides of the crossing will be replaced with new channelization devices. To the east, the new channelization devices will begin at the gate and extend approximately 95 feet to the east. On the west side, the new channelization devices will begin at the crossing gate and extended approximately 56 feet to the west of the crossing gate and tie into the existing raised traffic island. Channelization devices in the form of delineator posts spaced 40 inches on-center will be installed on top of the median island for approximately 54 feet creating approximately 110 feet of channelization devices.

Additional Grade Crossing Modifications

No Train Horn (W10-9, W10-9P) signing will be installed on the approaches to the crossing and on Railroad Ave S under the existing advanced grade crossing warning signs when the proposed New Quiet Zone becomes effective. Look (R15-8) signs will be installed on non-motorized approaches that are not controlled by crossing gates in the northwest and southeast quadrants.

The grade crossing pavement marking symbols east of the crossing will be relocated to a location approximately 250' west of the crossing. Dynamic envelope pavement markings will be installed at this crossing. The existing stop lines for the crossing will be relocated to be eight feet from the crossing gates.

Detectable warning surfaces will be installed on the sidewalk approaching the crossing in the southwest quadrant. Detectable warning surfaces will also be installed on the paved shoulders approaching the crossing in the other three quadrants.

Fencing will be installed on the west side of the railroad tracks between E Meeker St and E Smith St. to deter trespassing and pedestrian crossings between E Smith St and E Meeker St.

Crossing 4. U.S. DOT Crossing 085636V. E Meeker St

Supplementary Safety Measures (49 CFR 222 Appendix A)

Supplementary safety measures consisting of the existing gates and new channelization devices will be installed at this crossing in compliance with 49 CFR 222 Appendix A (A)(3). The existing crossing currently has automatic gates and channelization devices. The driveway access in the southeast quadrant to the BNSF signal control equipment will be closed. A traffic barrier curb will be installed in the southeast quadrant extending from the projection of the stop bar to a point 62 feet east of the crossing gate to formalize the existing driveway near Railroad Ave S.

To the east side, the channelization devices will be replaced and extended from the crossing gate to approximately 95 feet from the crossing gate.

To the west, the mounted channelization devices will be replaced and extended from the crossing gate to approximately 65 feet from the crossing gate.

Alternative Safety Measures (49 CFR 222 Appendix B)

No alternative safety measures are proposed at this crossing.

Additional Grade Crossing Modifications

The eastbound and westbound lanes approaching and through the crossing will be reduced from approximately 20 feet to 12 feet by installing edge lines and hachuring the shoulders.

No Train Horn (W10-9, W10-9P) signing will be installed on the approaches to the crossing and under the existing advanced grade crossing warning signs on the adjacent intersecting streets when the proposed New Quiet Zone becomes effective. Do Not Stop On Tracks (R8-8) signs will be installed on both approaches to the crossing. Look (R15-8) signs will be installed on non-motorized approaches in all four quadrants.

Dynamic envelope pavement markings will be installed at this crossing.

Detectable warning surfaces will be installed on the paved shoulders approaching the crossing in all four quadrants.

Fencing will be installed to deter pedestrian trespassing and pedestrian crossings between roadway crossings. A fence will be installed on the west side of the railroad tracks between E Gowe St and E Meeker St. A fence will also be installed on the west side of the railroad tracks between E Meeker St and E Smith St. A fence will be installed between E Meeker St and the BNSF depot building south of E. Meeker St on the east side of the railroad tracks.

Crossing 5. U.S. DOT Crossing 085637C. E Gowe St

Supplementary Safety Measures (49 CFR 222 Appendix A)

Supplementary safety measures consisting of the existing gates and new channelization devices will be installed at this in compliance with 49 CFR 222 Appendix A (A)(3). The existing crossing currently has automatic gates and channelization devices. BNSF has installed a gated access to the paved area on the east side of the tracks. The driveway access in the southeast quadrant will be closed. The driveway in the northeast quadrant will be relocated to 62 feet east of the crossing gate.

Alternative Safety Measures (49 CFR 222 Appendix B)

No alternative safety measures are proposed at this crossing.

Additional Grade Crossing Modifications

The eastbound and westbound lanes approaching and through the crossing will be reduced from approximately 20 feet to 12 feet by installing edge lines and hachuring the shoulders.

No Train Horn (W10-9, W10-9P) signing will be installed on the approaches to the crossing and under the existing advanced grade crossing warning signs on the adjacent intersecting streets when the proposed New Quiet Zone becomes effective. Do Not Stop On Tracks (R8-8) signs will be installed on both approaches to the crossing. Look (R15-8) signs will be installed on non-motorized approaches in all four quadrants.

Dynamic envelope pavement markings will be installed at this crossing. Pavement markings will be installed to direct pedestrians around the existing railroad signal equipment. The existing stop lines for the crossing will be relocated to be eight feet from the crossing gates.

Detectable warning surfaces will be installed on the paved shoulders approaching the crossing in all four quadrants.

A fence will be installed on the west side of the railroad tracks between E Titus St and E Gowe St. A fence will also be installed on the west side of the railroad tracks between E Gowe St and E Meeker St. A fence will be installed between E Gowe St and the BNSF depot building north of E. Gowe St on the east side of the railroad tracks.

Crossing 6. U.S. DOT Crossing 085639R. E Titus St

Supplementary Safety Measures (49 CFR 222 Appendix A)

No supplementary safety measures are proposed at this crossing.

Alternative Safety Measures (49 CFR 222 Appendix B)

No alternative safety measures are proposed at this crossing.

Additional Grade Crossing Modifications

The existing channelization devices on both sides of the crossing will be replaced with new channelization devices. To the east, the new channelization devices will begin at the gate and extend approximately 65 feet to the east. On the west side, the new channelization devices will begin at the crossing gate and extended approximately 72 to the west.

The eastbound and westbound lanes approaching and through the crossing will be reduced from approximately 20 feet to 12 feet by installing edge lines and hachuring the shoulders.

The illegal driveway access in the southwest quadrant will be closed.

No Train Horn (W10-9, W10-9P) signing will be installed on the approaches to the crossing and under the existing advanced grade crossing warning signs on the adjacent intersecting streets when the proposed New Quiet Zone becomes effective. Do Not Stop On Tracks (R8-8) signs will be installed on both approaches to the crossing. The yard track on the east side of the mainline is outside the crossing gates. A Stop Here on Red (R10-6a) sign will be installed on the eastbound approach prior to the yard track crossing. A Stop Here on Red (R10-6a) sign will also be installed on the westbound approach for consistency at the crossing. Look (R15-8) signs will be installed on non-motorized approaches in all four quadrants. A Right Turn Only (R3-5R) will be added at the commercial driveway in the southwest quadrant. A Right Turn Only (R3-5R) will be added at the alley in the northwest quadrant.

Dynamic envelope pavement markings will be installed at this crossing. Pavement markings will be installed to direct pedestrians around the existing railroad signal equipment.

Detectable warning surfaces will be installed on the paved shoulders approaching the crossing in all four quadrants.

A fence will be installed on the west side of the railroad tracks between E Titus St and E Gowe St.

Crossing 7. U.S. DOT Crossing 085640K. E Willis St/SR 516

Supplementary Safety Measures (49 CFR 222 Appendix A)

No supplementary safety measures are proposed at this crossing.

Alternative Safety Measures (49 CFR 222 Appendix B)

Alternative safety measures in the form of modified supplementary safety measures are proposed at this crossing. The existing gates and new channelization devices that do not meet the requirements of an SSM are proposed in accordance with 49 CFR 222 Appendix B(I). Channelization devices will be installed but there are intersections within 60 feet of the crossing. Calculations for the proposed effectiveness are included in Section VII of this document.

The existing channelization devices on both sides of the crossing will be replaced with new channelization devices. To the east, the new channelization devices will begin at the gate and extend approximately 100 feet to the east. On the west side, the new channelization devices will begin at the crossing gate and extended approximately 100 to the west.

Additional Grade Crossing Modifications

No Train Horn (W10-9, W10-9P) signing will be installed on the approaches to the crossing and under the existing advanced grade crossing warning signs on northbound and southbound 1st Ave S and on southbound Railroad Ave S when the proposed New Quiet Zone becomes effective. A Do Not Stop On Tracks (R8-8) sign will be installed on the east approaches to the crossing. Look (R15-8) signs will be installed on non-motorized approaches in all four quadrants.

The grade crossing pavement marking symbols west of the crossing will be relocated to a location approximately 250' west of the crossing. The grade crossing pavement marking symbols east of the crossing will be relocated to a location approximately 230' east of the crossing. Dynamic envelope pavement markings will be installed at this crossing. Pavement markings will be installed to direct pedestrians around the existing railroad signal equipment.

Detectable warning surfaces will be installed on the paved shoulders approaching the crossing in all four quadrants.

Crossing 8. U.S. DOT Crossing 085642Y. S 259th St

Supplementary Safety Measures (49 CFR 222 Appendix A)

No supplementary safety measures are proposed at this crossing.

Alternative Safety Measures (49 CFR 222 Appendix B)

No alternative safety measures are proposed at this crossing.

Additional Grade Crossing Modifications

New channelization devices will be installed east of the crossing. The new channelization devices will begin at the gate and extend approximately 110 feet to the east.

No Train Horn (W10-9, W10-9P) signing will be installed on the approaches to the crossing and under the existing advanced grade crossing warning signs on northbound and southbound 1st Ave when the proposed New Quiet Zone becomes effective. Do Not Stop On Tracks (R8-8) signs will be installed on both approaches to the crossing. Signs prohibiting commercial truck parking on the north side S 259th St will be installed

The grade crossing pavement marking symbol east of the crossing will be relocated to 100' east of the crossing. Dynamic envelope pavement markings will be installed at this crossing.

49 CFR 222.39(b)(1)(vi) – COMMITMENT TO IMPLEMENT THE PROPOSED SAFETY IMPROVEMENTS

If the New Quiet Zone is approved by the Federal Railroad Administration, the City of Kent, Washington will implement the safety and other improvements detailed in this application prior to the establishment of a New Quiet Zone.

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49 CFR 222.39(b)(1)(vii) – DEMONSTRATE THROUGH DATA AND ANALYSIS THAT THE PROPOSED IMPLEMENTATION OF THESE MEASURES WILL REDUCE THE QUIET ZONE RISK INDEX TO A LEVEL AT, OR BELOW, EITHER THE RISK INDEX WITH TRAIN HORNS OR THE NATIONWIDE SIGNIFICANT RISK THRESHOLD

49 CFR Part 222 allows a Quiet Zone to be established through several methods. This application is requesting approval to establish a Quiet Zone by reducing the Quiet Zone Risk Index (QZRI) to a level at, or below, the Risk Index with Horns (RIWH) through the use of supplementary safety measures (SSMs) and alternative safety measures (ASMs) in the form of modified SSMs.

SSMs will be installed at three grade crossings within the proposed New Quiet Zone. Gates are present at all crossings. Channelization devices meeting the requirements of 49 CFR 222.9 will be installed at Crossing 1 (085625H, S 212th St), Crossing 4 (085636V, E Meeker St), and Crossing 5 (085637C, E Gowe St). The effectiveness rate of this SSM is 0.75 per 49 CFR 222 Appendix A(A)(3).

ASMs/Modified SSMs

49 CFR 222 Appendix B allows ASMs in the form of modified SSMs to be used and an effectiveness rate to be calculated for each modified SSM. Kevin Jeffers from David Evans and Associates, acting on behalf of the City, discussed the methodology with Ron Ries, FRA Staff Director, Highway-Rail Crossing and Trespasser Programs Division, in July 2018.

Calculations for the modified SSM effectiveness rates are included in Appendix F.

Intersection Within 60 feet of the Crossing Effective Rate

The proposed modified SSMs are based on the gates and channelization devices SSM with an effectiveness rate of 0.75. The effectiveness of each SSM is based on each side of a crossing providing one half of the SSM effectiveness rate of 0.75, or a contribution of 0.375 per side. The reduction in effectiveness for each side is calculated based on the lowest contributing factor for that side. This provides a more conservative (numerically lower) effective rate for the modified SSM than calculating the effectiveness rate using each quadrant of the crossing where each quadrant would contribute one-fourth of the total effective rate.

For example, if a modified SSM consisting of gates and channelization is installed at a crossing, the effectiveness rate of the full SSM would be 0.75. Using the quadrant method, the effectiveness rate of each quadrant would contribute one-quarter of the total or an effectiveness rate of 0.1875 per quadrant. In this example it is assumed there is an intersection within 60 feet of the crossing in one quadrant and that driveway is shown to reduce the effectiveness of the modified SSM in that quadrant by 50%. Using the quadrant method, the overall crossing effectiveness rate would be one quadrant contributing 50% of 0.1875 and three quadrants contributing 0.1875. The calculated modified SSM effectiveness rate would be $0.66 (50\% \times 0.1875) + (3 \times 0.1875)$.

The same example would give a lower modified SSM effectiveness rate using the lowest controlling element per side method. Each side would contribute one half of the total 0.75, or 0.375 per side, of the crossing. Effectiveness reductions would be calculated for intersections on each side of the crossing. The lowest effectiveness for each side would then be used to calculate that side's contribution to the overall effectiveness rate. Using the example above, one side of the crossing would contribute an

0.1875 (50% * 0.375) and the other would contribute 0.375. The effectiveness rate for the modified SSM would be 0.56 (0.18+0.38).

The modified SSM effectiveness rate for gates and channelization devices for this application was calculated using the controlling element per side method. The percentage of effectiveness was calculated as the distance from the crossing gate to the start of the intersection divided by 60 feet, but not greater than 100%. Where there is more than one intersection on the same side of the crossing, the lesser distance of the two governed the calculation for the crossing. The effectiveness rate contribution of each side of the crossing was calculated and the two side are added together to yield the proposed modified SSM effectiveness rate for that crossing.

Gate Arm Length Effective Rate Adjustment

An adjustment for a gate arm not extending to within one foot of the channelization device or median was calculated based on the percentage of the actual length of the gate arm over the traveled way compared to the length the gate arm necessary to be to be within one foot from the channelization device, but not greater than 100%. These percentages where then applied to the effectiveness rates calculated for each side of the crossing and the results were added together.

Crossing 2. U.S. DOT Crossing 085629K. E James St

The intersection of 1st Avenue N and E James St is an offset "Tee" intersection west of the crossing. 1st Avenue N intersects E James St 15 feet from the crossing on the north side and 30 feet from the crossing on the south side. Railroad Ave N intersects E James St 130 feet east of the crossing.

The closer intersection was used to calculate the west side's effectiveness rate. The intersection to the north is 15 feet from the crossing and the required distance for the SSM is 60 feet. The west side's contributing percentage of 25% (15' / 60') multiplied by the west side's effectiveness rate contribution of 0.375 gives an effectiveness rate contribution of 0.094

The nearest intersection on the east side of the crossing is more than 60 feet from the crossing so the east side's effectiveness rate contribution is 0.375. The overall modified SSM effectiveness rate is the sum of the two sides at 0.47.

Crossing 3. U.S. DOT Crossing 085633A. E Smith St

The intersection of 1st Avenue N and E Smith St is a "Tee" intersection west of the crossing. 1st Avenue N intersects E James St 17 feet from the crossing on the north. Railroad Ave N intersects E Smith St 63 feet east of the crossing.

The north leg of 1st Avenue N is 17 feet from the crossing. The west side's contributing percentage of 28% (17' / 60') multiplied by the west side's effectiveness rate contribution of 0.375 gives an effectiveness rate contribution of 0.106.

The nearest intersection on the east side of the crossing is more than 60 feet from the crossing so the east side's effectiveness rate contribution is 0.375.

The gate on the east side of the crossing for westbound traffic ends four feet from the channelization devices. The gate covers 21 feet of the 24-foot traveled way. The gate on the west side for eastbound traffic is within one foot of the channelization devices. Following the methodology described above, the

percentage of the required gate length over the traveled way was calculated to be 87.5% (21' / 24'). The percentage of the west side's effectiveness rate is 100% because the gate extends over the traveled way.

The effectiveness rate adjustments were applied to the effectiveness rate contributions for each side of the crossing. The contributing effectiveness rate for the west side is 0.106 ($0.106 \times 100\%$ gate adjustment). The contributing effectiveness rate for the east side is 0.328 ($0.375 \times 87.5\%$ gate adjustment). The modified SSM effectiveness Rate is the sum of the east side and the west side at 0.43 (0.106 + 0.328).

Crossing 7. U.S. DOT Crossing 085640K. E Willis St/SR 516

The intersection of 1st Avenue N and E Willis St is an offset "Tee" intersection west of the crossing. 1st Avenue N intersects E Willis St 110 feet from the crossing on the north side and 10 feet from the crossing on the south side. Railroad Ave N intersects E Willis St 110 feet east of the crossing on the north side and 23 feet on the south side.

The closer intersection was used to calculate the west side's effectiveness rate. The southern intersection is 10 feet from the crossing and the required distance for the SSM is 60 feet. The west side's contributing percentage of 17% (10' / 60') multiplied by the west side's effectiveness rate contribution of 0.375 gives an effectiveness rate contribution of 0.063

The closer intersection was used to calculate the east side's effectiveness rate. The southern intersection is 23 feet from the crossing and the required distance for the SSM is 60 feet. The east side's contributing percentage of 38% (23' / 60') multiplied by the east side's effectiveness rate contribution of 0.375 gives an effectiveness rate contribution of 0.144

The overall modified SSM effectiveness rate is the sum of the two sides at 0.21.

Quiet Zone Risk Calculations

A spreadsheet with the Quiet Zone risk calculations is included in Appendix F.

Quiet Zone risk calculations were performed following the procedure in 49 CFR 222 Appendix C Section II subsection C *New Quiet Zone – Public Authority Application to FRA*. The risk index for each crossing and the Crossing Corridor Risk Index were calculated using the FRA's online Quiet Zone Calculator. The Corridor Crossing Risk Index is 140,077.33. This is also the Risk Index with Horns (RIWH). Specific crossing risk indices are shown in a spreadsheet in Appendix F.

The Initial Quiet Zone Risk Index was calculated by increasing by 66.8%. The initial Quiet Zone Risk Index was calculated to be 233,648.98.

The Quiet Zone Risk Index was reduced through SSMs at three crossings and ASMs/Modified SSMs at three crossings. Calculations are shown in the spreadsheet in Appendix F. Using the SSMs and ASMs/Modified SSMs described above, the Quiet Zone Risk Index is reduced to 134,553.50.

The Quiet Zone Risk Index is less than the Risk Index with Horns. If the risk reduction calculations for the ASMs/Modified SSMs are approved by the FRA the risk is sufficiently reduced to qualify for a New Quiet Zone.

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49 CFR 222.39(b)(3) – 60-DAY COMMENT PERIOD NOTIFICATION

The following parties will receive this notification in accordance with 49 CFR 222.39(b)(3):

1. Railroads operating over the highway-rail grade crossings:

Stephen Semenick

Manager Public Projects – WA & B.C. BNSF Railway Company 2454 Occidental Ave S, Suite 2D Seattle, WA 98134

Patrick Sullivan

Superintendent Operations National Railroad Passenger Corporation (Amtrak) 187 South Holgate Street Seattle, WA 98134

Weylin Doyle

Commuter Rail Transportation Superintendent Central Puget Sound Regional Transit Authority (DBA Sound Transit) 401 South Jackson Street Seattle, WA 98104

2. State agency responsible for highway and road safety:

Connie Raezer

WSDOT Railroad Liaison Development Division 310 Maple Park Avenue SE, 2B Mailstop 47329 Olympia, WA 98504-7329

3. State agency responsible for grade crossing safety:

Betty Young

Transportation Planning Specialist Utilities and Transportation Commission 1300 S Evergreen Park Drive SW Olympia, WA 98504

4. Federal Railroad Administration

Robert C. Lauby

Associate Administrator for Railroad Safety Federal Railroad Administration Mail Stop 25 1200 New Jersey Avenue SE Washington, DC 20590

Jeffrey P. Stewart

FRA Region 8 Grade Crossing Inspector Federal Railroad Administration 500 E. Broadway, Suite 240 Vancouver, WA 98660

Action Required:

In accordance with 49 CFR 222.39(b)(3)(iii), any party receiving this Application to the FRA to Establish a New Quiet Zone under 49 CFR 222.39(b) *Public Authority Application to the FRA*, may submit comments about the proposed New Quiet Zone to the Federal Railroad Administration Associate Administrator for Railroad Safety during the 60 days following the date of this Notice. The comment period will terminate if all parties either submit comments or signed statements indicating they do not have any comments.

Attached for your convenience is a form to facilitate your response. If you have any questions about this application or the proposed New Quiet Zone, please contact me directly.

Rob Brown, P.E.

Transportation Engineering Manager

Enclosure: City of Kent, Washington Application to the FRA

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Date:	
Return to:	Robert C. Lauby Associate Administrator for Railroad Safety Federal Railroad Administration Mail Stop 25 1200 New Jersey Avenue SE Washington, DC 20590
SUBJECT:	Kent Washington BNSF Mainline Quiet Zone Application to the FRA to Establish a Railroad Quiet Zone by Public Authority Designation Title 49 Code of Federal Regulations 222.39(b)(1)
We have receive following:	ved the City of Kent, Washington's application to the FRA dated April 4, 2019 and offer the
No Comn	nent Comment:
	
Signature	
From: (Please	Print)
Name	
Organization	
Address	

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Appendix A

Current Grade Crossing Inventory Forms

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DEPARTMENT OF TRANSPORTATION

Form. For private hip pedestrian station gr Parts I and II, and the	ghway-rade cros Submis n Inform	ail grade cross ssings), comple sion Information nation section.	ings, compete the Heaton section. For chang	lete the He ider, Parts I For grade-s es to existi	eader, Pa and II, eparate ng data,	arts I and and the S d highway , complet	II, a Subm /-rail e the	nd the Suission Info or pathwa Header,	ubmission Information formation section. Fo ay crossings (includin Part I Items 1-3, an	on section. For por Private pathway pedestrian standard the Submission	oublic pathway ay grade crossin tion crossings), on Information	plete the entire inventory grade crossings (including ngs, complete the Header, complete the Header, Part section, in addition to the denotes an optional field.	
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■ Public □ Pathway, Ped. □ RR Under □ Yes □ Intercity Passenger □ Shared Use Transit □ Less Than One Per Day													
□ Private □ Station, Ped. □ RR Over □ No □ Commuter □ Tourist/Other □ Number Per Day 21													
23. Type of Land Use	3. Type of Land Use												
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32.A. Narrative (Rai		<i>,</i>							larrative (State Use)	*			
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	Siding 0	Y	ard 0	Trai	nsit 0		Indi	ustry 0					
5. Train Detection (M		,,											
Constant Warr 6. Is Track Signaled?	ning Tim	e ⊔ Motion	Detection	□AFO □		☐ DC Event Rec			None		7 B Remote	Health Monitoring	
Yes No						Yes \square					7.B. Remote ☐ Yes	· ·	

A. Revision Date (N 03/27/2019	MM/DD/YYYY)					PAGE 2	2		c	D. Crossing Inve 85625H	entory Nun	n ber (7 c	char.)	
		P	art III:	Highway o	r Pathwa	y Traffic	с Со	ntrol De	vice Inf	ormation				
1. Are there	2. Types of Pa	ssive Traf	fic Contro	l Devices asso	ciated with	the Crossin	g							
Signs or Signals?	2.A. Crossbuc	k	2.B. STOP	Signs (R1-1)	2.C. YIELD	Signs (R1-2	,			Signs (Check a	ll that appl	y; includ	e coun	t) 🗆 None
¥ Yes □ No	Assemblies (c	ount) ((count))		(count)			■ W10-1 <u>4</u>			3 4 _1		V10-11 V10-12	·
2.E. Low Ground Cle	earance Sign	2.F. Pav	rement M	arkings	·		hann	elization		2.H. EXEMP		2.I. EN		(I-13)
(W10-5) \square Yes (count)	■ Stop	Lines	□Dvna	mic Envelor		-	edians oaches [☐ Median	(R15-3) □ Yes		Display Yes	/ed	
■ No	/		ing Symbo			□ One			□ None	I No		□ No		
2.J. Other MUTCD S	Signs	ĭ Ye	es 🗆 No					Crossing	2.L. LED	Enhanced Signs	(List types)		
Specify Type R8-8	}	Coun	t 2			Signs (if pri	vate)						
Specify Type		Coun	ıt			☐ Yes		No						
Specify Type			ıt						L					
3. Types of Train Ac 3.A. Gate Arms	3.B. Gate Con				specify cour evered (<i>or B</i>					t Mounted Flas	hing Lights		2 E	Total Count of
(count)	3.b. date con	nguration		Structures	•	riugeu) i ias	ııııg	Ligitt		f masts) 2		•		ning Light Pairs
6	2 Quad ■	☐ Full (E		Over Traffi	c Lane	2 🗷	Inca	ndescent		descent	□ LED			
Roadway 6 Pedestrian 2	☐ 3 Quad ☐ 4 Quad	Resistan Media		Not Over T	raffic Lane	0 🗆	LED		■ Back	ights Included	☐ Side Include	_	16	
	-	- Ivicuit			-		LLD		<u> </u>					
3.F. Installation Dat Active Warning Dev		v)] 3	B.G. Wayside H	orn				l l	. Highway Traff ssing	ic Signals C	ontrollin	-	3.I. Bells (count)
/_	` _	') Not Requ	irea i		alled on <i>(MI</i>	<i>Л</i> /ҮҮҮҮ)	/	/		es □ No			2	·
3.J. Non-Train Activ	e Warning		L	X No					3.K. Oth	er Flashing Ligh	ts or Warni	ing Devic	ces	
	IN No 3.K. Other Flashing Lights or Warning Devices Flagging/Flagman													
4.A. Does nearby House Intersection have	wy 4.B. Hwy Intercon	-	gnal 4	I.C. Hwy Traffic	Signal Pree	mption		Highway Tr		gnals	6. Highw (Check a	•	_	Devices
Traffic Signals?	_	nterconne	cted					1 163 🗀 1	NO		☐ Yes -			ecording
		raffic Signa		■ Simultaneou	ıs			orage Dista					Presen	ice Detection
▼ Yes □ No	□ For W	/arning Sig	gns L	Advance			_	op Line Dist			■ None			
1 Traffic Laura Curr	anian Dailanad		T £6: -			•		cteristics		a Chanata	1 1 C C C C	: III.		- d2 /Ctur-et
1. Traffic Lanes Cros		■ Two-v	way Traffic		Is Roadwa					wn a Street?	lights wi	thin app	rox. 50	ed? (Street) feet from
Number of Lanes		☐ Divide		wed) Installa	■ Yes	□ No)			Maria No Vidth * 40	nearest			□ No
☐ 1 Timber ☐ ☐ 8 Unconsolidate	2 Asphalt \square	3 Aspha	lt and Tim	ber 🗷 4 Co						ber 🗆 7 Me		2060		
6. Intersecting Roa						7. Sma	allest	Crossing An	ngle		8. Is Co	mmercia	al Powe	er Available? *
¥ Yes □ No	If Yes, Approxin	nato Dista	nco (faat)	125		□ 0°-	- 20°	□ 30°-	_ 50°	☑ 60° - 90°		I ¥ Yes	. r	□ No
163 110	п тез, дрргохп	nate Dista	nee (jeet)		V: Publi			nformati		<u> </u>		<u></u>	, _	<u> </u>
1. Highway System			2. Fu	inctional Classi						ossing on State	Highway	4.1	Highwa	ay Speed Limit
0 1,1,1					(0) Rural [¥ (1) Urba	n -		System	?	0 ,	40)	MPH
_ ` `	tate Highway Sy			1) Interstate 2) Other Freew	ave and Evn	☐ (5) Ma	jor C	ollector		■ No			Posted	I ☐ Statutory
	Nat Hwy Syster al AID, Not NHS		,	3) Other Princip	, .	,	nor C	ollector		r Referencing S	ystem (LRS	Route II	D) *	
☐ (08) Non-F				4) Minor Arteri	al	☐ (7) Loc	al			Лilepost *				
7. Annual Average Year <u>2019</u> AA	Daily Traffic <i>(A</i> DT 27691	ADT)	8. Estima 14	ted Percent Tru				oy School Bu Average Nur		ay 12	10. 🗷 Y	_	ncy Se □ No	rvices Route
Submi	ssion Infor	mation	- This in	formation i	s used for	administ	rati	ve purpos	ses and is	not availab	le on the	public	webs	site.
Submitted by				Organizat	ion					Phone			Date	
Public reporting but	rden for this inf	ormation	collection) minutes pe	er res	sponse, inclu	uding the t		ng instructi			existing data
sources, gathering a	and maintaining	the data	needed ar	nd completing	and reviewi	ng the colle	ction	of informat	tion. Acco	ding to the Pap	erwork Re	duction A	Act of :	1995, a federal
agency may not cor displays a currently	•	-		•			-	•	-					
other aspect of this											_	-		•
Washington, DC 20	590.													

DEPARTMENT OF TRANSPORTATION

Instructions for the inform. For private his pedestrian station grants I and II, and the I, and the Submission updated data fields. I	ighway-ra rade cros e Submiss on Inform	ail grade crossissings), complesion Information section.	ings, comp ete the Hea on section. For chang	plete the I ader, Part For grade ges to exis	Header ts I and e-separa isting da	r, Parts I and I II, and the S ated highway ata, complet	d II, ai Submi y-rail (e the	nd the Sulission Info or pathwa Header,	ubmission Information ormation section. Fo ay crossings (includin Part I Items 1-3, an	on section. For por Private pathway pedestrian stand the Submission	public path yay grade o ation crossi on Informa	hway gi crossing ings), co ation se	rade cros gs, comple omplete t ection, in	sings (including ete the Header, he Header, Part
A. Revision Date	l l	B. Reporting	· ·			on for Updat		, , ,	-,					Crossing
(<i>MM/DD/YYYY</i>) 03 / 27 / 2019		⊠ Railroad	□ Tra		⊠ Chan Data	O	New ssing		Closed	☐ No Train Traffic	☐ Quie Zone U		Invento	ory Number
		☐ State	□ Ot		□ Re-O	pen 🗆 🏻	Date ange C		Change in Primary	☐ Admin. Correction		P	085629	K
				Part I	: Loc				ion Informatio	n				
1. Primary Operating BNSF Railway Cor	mpany [l	d BNSF]				2. State WASH	INGT	ON		3. County KING				
4. City / Municipality	1			reet/Road MES ST	Name	& Block Nun	nber	I		6. Highway Ty	pe & No.			
□ Near KENT				eet/Road I					k Number)	<u>L</u>		·		
7. Do Other Railroad If Yes, Specify RR	s Operat	e a Separate 1	rack at Cro	ossing? L	⊿ Yes	L x No		Do Other I f Yes, Spec	Railroads Operate O cify RR ATK	ver Your Track a	at Crossing	ζ? <u>ΙΧ</u>Ι Υ	es ⊔ No)
9. Railroad Division of	or Region	ī	10. Railro	oad Subdiv	vision (or District		11. Bran	nch or Line Name		12. RR M	1ilepost 0015.		
□ None NORTH	HWEST		☐ None	SEAT	TTLE		_	☐ None	SEATTLE-VA	NC WA	(prefix)	!	!	 (suffix)
13. Line Segment			rest RR Tin	netable		15. Parent	RR (ij	f applicab	le)	16. Crossin	., , ,			
* 0051		Station KENT	*			■ N/A				□ N/A	BNSF			
17. Crossing Type														
I Highway I At Grade (if Private Crossing) I Freight □ Transit Train Count Per Day I Pathway, Ped. □ RR Under □ Yes Intercity Passenger □ Shared Use Transit □ Less Than One Per Day														
□ Private □ Station, Ped. □ RR Over □ No ☑ Commuter □ Tourist/Other ☑ Number Per Day 21 □														
23. Type of Land Use	3. Type of Land Use													
☐ Open Space	☐ Farm		sidential		ommerc		Indus		☐ Institutional	☐ Recreation	onal	□ RR `	Yard	
24. Is there an Adjac	ent cross	sing with a Sep	arate Nun	nber:		25. U	uiet 2	Zone (FR	RA provided)					
	-	vide Crossing N				No] 24 Hr [go Excused		stablishe		
26. HSR Corridor ID		27. Latif	tude in dec	imal degr	rees		28.	Longitud	e in decimal degrees	;		29. Lat/	/Long Sou	ırce
	_ X N/A	(WGS84	1 std: nn.n	ınnnnnn)	47.38	67047	(W	GS84 std:	-nnn.nnnnnnn) -122	2.2331250		☐ Actu	al 🗷 I	Estimated
30.A. Railroad Use	*								tate Use *					
30.B. Railroad Use	*							31.B. S	tate Use *					
30.C. Railroad Use	*							31.C. Si	tate Use *					
30.D. Railroad Use	*							31.D. S	tate Use *					
32.A. Narrative (Rai	ilroad Us	e) *						32.B. N	larrative (State Use)	*				
33. Emergency Notif	ication T	elephone No.	(posted)			ad Contact (7	ГеІерІ	hone No.)		35. State Con		phone I	Vo.)	
800-832-5452				81	7-352-		-			360-664-126	52			
	12 11				P	art II: Rai	iroa	d Infor	mation					
1. Estimated Number 1.A. Total Day Thru 1			ents otal Night	Thru Trair	nc 1	C. Total Swit	+chine	~ Trains	1.D. Total Transit	Trains	1.E. Che	ak if I oc	-c Than	
(6 AM to 6 PM) 32	ſdliis		to 6 AM)	Illifu iiaii		o.c. rotarswii	.Cliiiig	3 ITallis	0	Ifailis	One Mov	vement	ss rnan : Per Day is per wee	□ ek?
2. Year of Train Coun	t Data (Y	YYY)				in at Crossing	_	70					- F	
2013			ŀ	1		Timetable Sp eed Range Ov			9 nph) From 1	to_79				
4. Type and Count of	Tracks			J.D 1 F	icu. op.	sea name c	/Ci C.	0331116 (***	<i>pn</i> , 110					
	Siding 0		ard 0	T	ransit <u>(</u>	0	Indu	ustry 0						
5. Train Detection (M		,,	Detection		□ PT	C DC	□ o:	thor \square	None					
6. Is Track Signaled?		3 - INIOCION	Detection			A. Event Rec			None		7.B. Re	mote H	lealth Mo	nitoring
¥ Yes □ No					'"	☐ Yes ☐						Yes \square		

A. Revision Date (A 03/27/2019	MM/DD/YYYY)					P.	AGE 2			D. 08	Crossing Inve	ntory Nun	nber (7 c)	har.)	
	Part III: Highway or Pathway Traffic Control Device Information														
1. Are there	2. Types of Pa	ssive Traffi	c Contro	l Devices as	sociated	with the	Crossing								
Signs or Signals?	2.A. Crossbuck	2	B. STOP	Signs <i>(R1-1)</i>	2.C.	YIELD Sig	ns <i>(R1-2)</i>				igns (Check al	l that apply	y; include	cou	int) 🗆 None
¥ Yes □ No	Assemblies (co	ount) (d	ount)		(cour	nt)		■ W10-1 □ W10-2				}			
2.E. Low Ground Cl	earance Sign	2.F. Pave	ment Ma	arkings				nnelization			2.H. EXEMP	T Sign	2.I. ENS	_	n (I-13)
(W10-5) □ Yes (count	1	□ Chan I		□0.			-	Medians	□ N4=	al: a .a	(R15-3) □ Yes		Display	ed	
■ No	/	Stop L ☐ RR Xir			namic En one	velope		proaches pproach	☐ Me		□ res ■ No		□ No		
2.J. Other MUTCD S	Signs	■ Yes	□ No				2.K. Priva	ate Crossing	2.L	. LED Er	hanced Signs	(List types)		
Specify Type		Count					Jigiis (ij į	private							
Specify Type R8-8		Count	1				☐ Yes	□ No							
Specify Type	ativated Manain				a lanasifu		f on the day	ico fou all the		1					
3. Types of Train A	3.B. Gate Conf		it the Gr				<i>ged)</i> Flashii		_		Mounted Flas	hing Lights		3 F	. Total Count of
(count)	3.B. Gate Com	iguration			es (count		jeu) i iasiiii	ilg Ligitt			nasts) 2	illig Ligitis	1		shing Light Pairs
, ,	🗷 2 Quad	☐ Full (Ba	rrier)		affic Lane	· _	I In	candescent		Incande		□ LED			0 0
Roadway 2	☐ 3 Quad	Resistance				0			X	Back Lig	hts Included	Side		14	
Pedestrian 0	☐ 4 Quad	☐ Mediar			r Traffic L	ane <u>U</u>	🗆 LE	<u>-</u> D				Include			
3.F. Installation Dat			3	.G. Wayside	Horn						Highway Traffi	c Signals C	ontrollin	g	3.I. Bells
Active Warning Dev			ad	Yes Ir	stalled or	n <i>(MM/Y</i>	YYY)		_						. ,
	ctive Warning Devices: (MM/YYYY) Yes Installed on (MM/YYYY) Yes Installed on (MM/YYYY) Yes Installed on (MM/YYYY) 3														
	La Not negation 3														
4.A. Does nearby H	wy 4.B. Hwy	Traffic Sigr	al 4	.C. Hwy Tra	ffic Signal	l Preemp	tion	5. Highway 1	raffic	Pre-Sigr	nals	6. Highw	ay Monit	orin	g Devices
Intersection have	Interconr		1					☐ Yes 🗷	No			(Check al			December
Traffic Signals?		terconnect affic Signal		Simultan	POLIS			Storage Dist	ance *				-		Recording ence Detection
☐ Yes 🗷 No		arning Sigr		Advance	2043			Stop Line Dis				■ None			20000000
				ı	Part IV:	: Physi	cal Cha	racteristic	cs						
1. Traffic Lanes Cros					2. Is Roa	adway/P	athway	3. Does T	rack R	un Dow	n a Street?	4. Is Cro	ssing Illu	mina	ated? (Street
Number of Lanes	4		ay Traffic Traffic		Paved?	Yes l	□ No		□ Yes	×	No	lights wi			50 feet from \Box No
Number of Lanes 5. Crossing Surface 1 Timber	(on Main Track,	multiple t	pes allo	wed) Inst	allation D	ate * <i>(M</i>	M/YYYY) _			_ Wi	No dth * _40		Length *	75	
☐ 1 Timber ☐ ☐ 8 Unconsolidate	•	•			Concrete	e 🗆 5	Concrete	and Rubber	□ 6	Rubbe	er 🗆 7 Me	tal -			
6. Intersecting Roa	dway within 500	feet?					7. Smalle	est Crossing A	ngle			8. Is Co	mmercia	l Pov	wer Available? *
¥ Yes □ No	If Yes, Approxim	nate Distan	ce (feet)	15			□ 0° – 2	9° □ 30°	– 59°	X	60° - 90°		■ Yes		□ No
				Pa	rt V: Pı	ublic H	lighway	Informat	ion						
1. Highway System			2. Fu	nctional Cla	ssification	n of Road	at Crossir	ng	3.	Is Cros	sing on State I	Highway	4. F	ligh	way Speed Limit
- (a)					. ,		1) Urban		,	/stem?			35		MPH
, ,	tate Highway Sy: Nat Hwy Systen			.) Interstate !) Other Fre] (5) Majo	r Collector		Yes	Referencing S	ustam // DC		Poste	ed 🗆 Statutory
	al AID, Not NHS	1 (14115)) Other Prir	•	•	•	r Collector	5.	Linear	Kererencing S	ystem (LKS	Koute IL	<i>)</i>) "	
☐ (08) Non-F	ederal Aid		□ (4) Minor Art	erial		(7) Local			LRS Mi	lepost *				
7. Annual Average Year <u>2019</u> AA	Daily Traffic <i>(AF</i> DT 23904	(ADT) 8.		ed Percent	Trucks [%]	9. Reg	, ,	d by School B Average Nu		per Day	61	_ 10. _ X Y	_	ncy S No	ervices Route
Submi	ssion Inforr	nation -	This in	formatio	n is used	d for ac	lministra	itive purpo	ses a	nd is r	ot availabl	e on the	public	wel	osite.
Submitted by				Organi	zation						Phone		D	ate	
Public reporting bu															
sources, gathering a agency may not cor	_			•	_	_					• .				
displays a currently	•	-		-			-		-						
other aspect of this												_	-		
Washington, DC 20	590.														

DEPARTMENT OF TRANSPORTATION

Form. For private hig pedestrian station grants I and II, and the	shway-rai ade cross Submissi n Informa	I grade cross ings), complo on Information ation section.	ings, compete the Headon section. For chang	r. lete the He lder, Parts I For grade-se es to existi	eader, P I and II, eparate ng data	Parts I and and the Sed highway I, complet	II, a Subm /-rail e the	nd the Suission Info or pathwa Header,	bmission Information formation section. For any crossings (includin Part I Items 1-3, and	on section. For por Private pathway pedestrian stand the Submission	oublic pathway ay grade crossin tion crossings), on Information	plete the entire inventory grade crossings (including ngs, complete the Header, complete the Header, Part section, in addition to the denotes an optional field.
A. Revision Date	E	3. Reporting	Agency	C. F	Reason	for Updat	e (Se	lect only c	ne)			D. DOT Crossing
(<i>MM/DD/YYYY</i>) 03 / 27 / 2019		X Railroad	☐ Tra		Change		lew		Closed	☐ No Train	☐ Quiet	Inventory Number
00 /21 /2010	[☐ State	□ Ot	ner 🗆 I	ta Re-Ope	n 🗆 🛭	ssing Date Inge (Change in Primary perating RR	Traffic ☐ Admin. Correction	Zone Update	085633A
				Part I: I	Locati				ion Informatio			
1. Primary Operating BNSF Railway Con						2. State WASH				3. County KING		
4. City / Municipality				et/Road Na TH ST	ame &	Block Nun	nber			6. Highway Ty	pe & No.	
In □ Near KENT				et/Road Na	me)			_ * (Bloc	k Number)	L		
7. Do Other Railroads If Yes, Specify RR	Operate	a Separate		-		No			Railroads Operate O	ver Your Track a	at Crossing?	Yes 🗷 No
9. Railroad Division o	r Region		10. Railro	ad Subdivis	ion or [District	l	11. Brai	nch or Line Name		12. RR Milepo	
□ None NORTH	IWEST		□ None	SEATT	l F			☐ None	SEATTLE-VA	NC WA		6.179 nn.nnn) (suffix)
13. Line Segment	WEGT	14. Nea	rest RR Tim			5. Parent	RR (i				g Owner (if app	, , , , , ,
* 0051		Station KENT	*			₫ N/A	,,		,	□ N/A	BNSF	
17. Crossing Type 18. Crossing Purpose 19. Crossing Position 20. Public Access 21. Type of Train 22. Average Passenger ☐ Highway ☐ At Grade (if Private Crossing) ☐ Freight ☐ Transit Train Count Per Day												
[[[[[[[[[[[[[[[[[[[
, , ,												■ Number Per Day 21
23. Type of Land Use ☐ Open Space	☐ Farm	☐ Res	idential	I Comi	mercial		Indus	trial	☐ Institutional	☐ Recreation	nal 🗆 RI	R Yard
24. Is there an Adjace	ent Crossi	ng with a Se	parate Num	ber?		25. Q	uiet :	Zone (FR	A provided)			
☐ Yes ■ No If Y	os Drovi	do Crossina N	lumbor			l≝ No] 24 Hr	□ Dartial □ Chica	go Excused	Date Establis	had
26. HSR Corridor ID	res, Provi	de Crossing N 27. Lati		imal degree	 es	. LE INC			e in decimal degrees			nt/Long Source
	□ NI/A	(14/658)		4	7.3831	567	/14/	CC04 -+-4.	12	2.2330888		
30.A. Railroad Use	_ ⊠ N/A *	[(WG382	1 std: nn.nı	<i></i>			(00		-nnn.nnnnnnn) -12. tate Use *		Act	tual 🖪 Estimated
30.B. Railroad Use	*							31.B. S	tate Use *			
30.C. Railroad Use	ŧ							31.C. S	ate Use *			
30.D. Railroad Use	*							31.D. S	tate Use *			
32.A. Narrative (Rain	lroad Use) *						32.B. N	arrative (State Use)	*		
33. Emergency Notifi	cation Te	lephone No.	(posted)			Contact (7	ГеІері	hone No.)			tact (Telephone	? No.)
800-832-5452				817-	352-15					360-664-126)Z 	
					Par	t II: Rai	lroa	d Infor	mation			
1. Estimated Number 1.A. Total Day Thru T			ents otal Night 1	hru Trains	1.0	Total Swit	chine	Trains	1.D. Total Transit	Trains	1.E. Check if Lo	acc Than
(6 AM to 6 PM) 32	iaiiis		to 6 AM)	iliu Italiis	0	Total Swii	CHIHE	3 ITallis	0	Trains	One Movemen	nt Per Day
2. Year of Train Count	Data (YY	YY)		3. Speed o								
2013				3.A. Maxin) ph) From 1	to_79		
4. Type and Count of	Tracks			J.B. Typica	ar speed	a Natige U	ei Cľ	ussilig (M	<i>μπ</i> 110ΠΙ <u>'</u>	10 / 5	_	
	Siding 0	Y	ard 0	Trar	nsit_0		Indi	ustry 0				
5. Train Detection (M	ain Track	only)				_						
Constant Warn 6. Is Track Signaled?	ing Time	☐ Motion	Detection	□AFO□		☐ DC Event Rec			None		7 D Domot-	Health Monitoring
Yes □ No						Yes \square					7.B. Remote	

A. Revision Date (A 03/27/2019	MM/DD/YYYY)					P.	AGE 2			D. 08	Crossing Inve	ntory Num	nber (7 c)	har.)	
		Pai	t III: Hi	ighway	or Pat	hway	Traffic (Control D	evice						
1. Are there	2. Types of Pa	ssive Traffic	Control [Devices as	sociated	with the	Crossing								
Signs or Signals?	2.A. Crossbuck	2.6	. STOP Si	gns (R1-1)	2.C.	YIELD Sig	ns <i>(R1-2)</i>	2.D. Adva	nce Wa	arning S	igns (Check al	l that apply	y; include	cou	int) 🗆 None
¥ Yes □ No	Assemblies (co	ount) (co	unt)		(cou	nt)		■ W10-1 ■ W10-2				l			11
2.E. Low Ground Cl	earance Sign	2.F. Paver	nent Marl	kings			2.G. Cha	nnelization			2.H. EXEMP	T Sign	2.I. ENS	Sign	n (<i>I-13</i>)
(W10-5)	1	□ c						Medians			(R15-3)		Display	ed	
☐ Yes (count ■ No	/	Stop Lii RR Xing			namic En one	velope		proaches pproach	☐ Me		☐ Yes ■ No		☐ Yes ☐ No		
2.J. Other MUTCD S	Signs	■ Yes	□No					ate Crossing	2.L	. LED Er	hanced Signs	(List types,)		
Specify Type R8-8	.	Count	2				Signs (if	privatej							
Specify Type		Count					☐ Yes	□ No							
Specify Type															
3. Types of Train A			the Grad						_		NA El	h		2.5	Taral Carrat of
3.A. Gate Arms (count)	3.B. Gate Conf	iguration		3.C. Cant			<i>ged)</i> Flashi	ng Light			Mounted Flasi nasts) 2	hing Lights			. Total Count of shing Light Pairs
(county	■ 2 Quad	☐ Full (Bar	rier)	Over Tra	•		∡ Ir	candescent		Incande	,	 □ LED		1 10	Similing Engine i din S
Roadway 2	☐ 3 Quad	Resistance	,						X	Back Lig	hts Included	☐ Side	Lights	15	
Pedestrian 0	☐ 4 Quad	☐ Median	Gates	Not Ove	r Traffic L	.ane <u>0</u>	□ LI	ED				Include	ed		
3.F. Installation Dat	e of Current		3.G	. Wayside	Horn						Highway Traffi	c Signals Co	ontrollin	g	3.I. Bells
Active Warning Dev			. _	Yes In:	stalled o	n <i>(MM/Y</i>	YYY)			Cross	ing s I No				(count)
		Not Require	u	No		. ()	,			□ Ye:	S L X NO				3
3.J. Non-Train Activ ☐ Flagging/Flagma	0	perated Sigr	ials 🗆 W	/atchman	☐ Flood	lighting	■ None				Flashing Light S				
4.A. Does nearby H	wy 4.B. Hwy	Traffic Signa	I 4.C	C. Hwy Traf	fic Signal	Preemp	tion	5. Highway 1				6. Highwa			g Devices
Intersection have	Interconn	ection		-				□ Yes 🗷	No	_		(Check al			_
Traffic Signals?		terconnecte											-		Recording
☐ Yes 🗷 No		affic Signals arning Signs		Simultane Advance	ous			Storage Dist				□ Yes − ■ None		rese	ence Detection
	1 = 101 11	<u></u>			art IV	Physi	cal Cha	racteristic							
1. Traffic Lanes Cros	ssing Railroad	One-way	Traffic		2. Is Roa					un Dow	n a Street?	4. Is Cro	ssing Illu	mina	ated? (Street
		■ Two-way	/ Traffic		Paved?	•	•						thin appr	ox.	50 feet from
Number of Lanes 5. Crossing Surface 1 Timber	(on Main Track,	multiple ty	es allowe	<i>ed)</i> Insta	llation D	ate * (M	M/YYYY) _			Wi	No dth * _40		Length *		
☐ 1 Timber ☐ ☐ 8 Unconsolidate					Concrete	e 🗆 5	Concrete	and Rubber	□ 6	Rubbe	er 🗆 7 Me	tal -			
6. Intersecting Roa	dway within 500	feet?					7. Smalle	est Crossing A	ngle			8. Is Co	mmercia	l Pov	wer Available? *
Yes □ No	If Yes, Approxim	ate Distanc	e (feet) 1	7			□ 0°-2	9° □ 30°	– 59°	×	60° - 90°		¥ Yes		□ No
			<u> </u>	Pai	rt V: P	ublic H	lighway	Informat	ion						
1. Highway System			2. Fund	ctional Clas	sificatio	n of Road	at Crossii	ng	3.	Is Cros	sing on State I	Highway	4. F	ligh	way Speed Limit
_] (0) Rui		1) Urban		,	stem?	_		30		MPH
, ,	tate Highway Sy			Interstate				r Collector		Yes				Post	ed 🗆 Statutory
_	Nat Hwy System al AID, Not NHS	1 (NHS)	` '	Other Free Other Prin	,	•	•	r Collector	5.	Linear	Referencing S	ystem (<i>LRS</i>	Route IL) *	
■ (08) Non-F	· ·			Minor Arte	•		(7) Local	Concetor	6.	LRS Mi	lepost *				
7. Annual Average Year 2019 AA	Daily Traffic <i>(AA</i> DT 17117	<i>DT)</i> 8. 4	Estimated	d Percent ⁻	Γrucks _ %	9. Reg	, ,	d by School B Average Nu		per Day	61	10.	_	ncy S No	ervices Route
Submi	ssion Inforr	nation -	This info	ormation	is used	d for ac	lministra	ntive purpo	ses a	nd is r	ot availabl	e on the	public	wel	osite.
Submitted by				Organiz							Phone			ate	
Public reporting bu															
sources, gathering a agency may not cor	_			•	_	_					• .				
displays a currently	•	•				-	-		-						
other aspect of this												_	-		
Washington, DC 20			· .											-	

DEPARTMENT OF TRANSPORTATION

Form. For private hig pedestrian station gr Parts I and II, and the	ghway-ra ade cros Submiss n Inform	ail grade crossi sings), comple sion Informatic ation section.	ings, compete the Headon section. For chang	lete the Hea ader, Parts I a For grade-se es to existing	ader, Par and II, a parated g data,	rts I and and the S highway complete	l II, a Subm y-rail o	nd the Sulission Info or pathwa Header,	ubmission Information ormation section. Fo ay crossings (includin Part I Items 1-3, an	on section. For private pathw g pedestrian stand d the Submission	oublic pathway ay grade crossi tion crossings), on Information	nplete the entire inventory grade crossings (including ings, complete the Header, complete the Header, Part section, in addition to the denotes an optional field.		
A. Revision Date		B. Reporting A				•	•	lect only o	,			D. DOT Crossing		
(<i>MM/DD/YYYY</i>) 03 / 27 / 2019		■ Railroad	☐ Tra	ansit ⊠ Cl Data	hange ir		New ssing		Closed	☐ No Train Traffic	☐ Quiet Zone Update	Inventory Number		
<u> </u>	_	☐ State	□ Ot		e-Open		Date Inge C		Change in Primary	☐ Admin. Correction	Zone Opdate	085636V		
				Part I: L	ocatio				ion Informatio					
1. Primary Operating BNSF Railway Cor						2. State WASHI		ON		3. County KING				
4. City / Municipality	!			eet/Road Na EKER ST	me & Bl	ock Num	nber			6. Highway Ty	pe & No.			
□ Near KENT				et/Road Nam	 ne)			* (Bloc	k Number)	<u>L</u>				
7. Do Other Railroad	s Operat	e a Separate T	rack at Cro	ssing? 🗆 Ye	es 🗷 N	10			Railroads Operate O	ver Your Track a	t Crossing?	Yes 🗆 No		
If Yes, Specify RR						ļ	lt	f Yes, Spe	city RR ATK					
9. Railroad Division o	or Region		10. Railro	ad Subdivisio	on or Di	strict	Ь.	11. Brai	nch or Line Name		12. RR Milepo			
□ None NORTH	J\\/EQT			SEATTL	_				SEATTLE-VA	NC WA		16.289		
□ None NORTE 13. Line Segment	IVVEST	14. Nea	☐ None rest RR Tim			Parent	RR (i	\Box None f applicab			(prefix) (nn g Owner (if api	nn.nnn) (suffix)		
*		Station	*	ictus.c			MIX 19	Гиррпосс	<i>(C)</i>		() ()	onedoic,		
0051	10.0	KENT	10.6**	i Diti-		N/A	- 4		24 T of T	□ N/A	BNSF	22 A		
17. Crossing Type	■ Highway ■ At Grade (if Private Crossing) ■ Freight □ Transit Train Count Per Day													
■ Public	■ Public □ Pathway, Ped. □ RR Under □ Yes □ Intercity Passenger □ Shared Use Transit □ Less Than One Per Day													
☐ Private	☐ Private ☐ Station, Ped. ☐ RR Over ☐ No ☑ Commuter ☐ Tourist/Other ☑ Number Per Day 21 ☐ Station ☐ Stati													
23. Type of Land Use □ Open Space	! □ Farm	□Res	idential	I Comm	nercial		Indus	trial	☐ Institutional	☐ Recreation	nal □ R	R Yard		
24. Is there an Adjace					rereiar				RA provided)	necreation	illar 🗀 I			
							_	104			5 . 5			
☐ Yes ■ No If T	res, Prov	vide Crossing N		imal degrees		I ► No	_	24 Hr [∟ Partiai ∟ Cnica; le in decimal degrees	go Excused	Date Establis	at/Long Source		
201 11011 20111201 12				17	.38160	72		·	· ·			,g		
20 A Pailward Han	_X N/A	(WGS84	std: nn.nı	nnnnn) 47	.36160	12	(W		-nnn.nnnnnnn) -122 tate Use *	2.2330709	☐ Ac	tual 🖪 Estimated		
30.A. Railroad Use	•							31.A. S	tate use "					
30.B. Railroad Use	*							31.B. S	tate Use *					
30.C. Railroad Use	*								tate Use *					
30.D. Railroad Use									tate Use *					
32.A. Narrative (Rai		,							larrative (State Use)	T				
33. Emergency Notifi 800-832-5452	cation Te	elephone No.	(posted)		1road Co 52-154	•	Telepi	hone No.)		35. State Con	tact (Telephon 32	e No.)		
							luaa	d lofor	mation		·-			
1. Estimated Number	of Daily	Train Moyom	onts		Part	II: Kall	iroa	a intor	mation					
1.A. Total Day Thru T			otal Night 1	Thru Trains	1.C. T	otal Swit	tching	 Trains	1.D. Total Transit	Trains	1.E. Check if L	ess Than		
(6 AM to 6 PM) 32		l l	to 6 AM)		0			,	0		One Moveme			
2. Year of Train Coun	t Data (Y	YYY)		3. Speed of				70						
2013				3.A. Maxim					<i>aph)</i> From 1	to _79				
4. Type and Count of	Tracks			3121 Typical	ореса.	turige or		0001118 (111	<i>p.i.</i> ,					
	Siding 0		ard 0	Trans	sit 0		Indi	ustry 0						
5. Train Detection (M		,,	Datasiis		DTC	□ 56			Name					
Constant Warr 6. Is Track Signaled?		<u> </u>	Detection	□AFO □		□ DC vent Rec			None		7.B. Remote	e Health Monitoring		
Yes No						Yes \square					☐ Yes	•		

A. Revision Date (A 03/27/2019	ЛМ/DD/YYYY)					P	AGE 2			D. 085	Crossing Inve	ntory Nun	nber (7 c	har.)
			Part III	l: Highway	or Pat	hway	Traffic (Control De	vice	Info	rmation				
1. Are there	2. Types of Pa	ssive Tr	affic Con	trol Devices a	ssociated	with the	Crossing								
Signs or Signals?	2.A. Crossbuc			OP Signs (R1-1	-	_	gns <i>(R1-2)</i>			rning S	igns (Check al			е соц	<i>unt)</i> □ None
¥ Yes □ No	Assemblies (c)	ount)	(count) 0		(cou	nt)		■ W10-1 _4 ■ W10-2 4				}			11 12
2.E. Low Ground Cl (W10-5)	earance Sign	2.F. P	avement	Markings	l			nnelization Medians			2.H. EXEMP ¹ (R15-3)		2.I. ENS	_	n (<i>I-13</i>)
☐ Yes (count)		p Lines		ynamic En	velope	I All Ap	proaches [□ Med		☐ Yes ´		Yes	cu	
■ No 2.J. Other MUTCD S	lans		Xing Sym		lone		☐ One A		Non		■ No hanced Signs	/list tunos	□ No		
	3						Signs (if	ate Crossing orivate)	Z.L.	LED EI	manceu signs	(List types)		
Specify Type Specify Type			unt unt				☐ Yes	¬ N							
Specify Type			unt				□ Yes	⊒ NO							
3. Types of Train A	ctivated Warnir	ng Devic	es at the	Grade Crossi	ng (specify	count o	f each dev	ice for all that	apply	<i>'</i>)					
3.A. Gate Arms	3.B. Gate Con	figuratio	n				<i>ged)</i> Flashii	ng Light			Mounted Flash Masta) 2	hing Lights	5		Total Count of
(count)	■ 2 Quad	☐ Full	(Barrier)		res <i>(count</i> affic Lane	· _	🗷 In	candescent	,	int oj n ncande	/	 LED		Fla	ishing Light Pairs
Roadway 2	☐ 3 Quad	Resista	'								hts Included	☐ Side		8	
Pedestrian 0															
				3.G. Waysid	e Horn							c Signals C	ontrollin	g	
Active Warning Dev	, .	•	nuired	☐ Yes I	nstalled o	n <i>(MM/Y</i>	YYY)	_/	_	Cross	O				(count)
	J. Non-Train Active Warning □ Specify type □ Speci														
4.A. Does nearby H			Signal	4.C. Hwy Tra	affic Signa	l Preemp	otion	5. Highway Tr		re-Sigr	nals	•	•		g Devices
Intersection have Traffic Signals?	Intercon		nected					□ Yes 🗷 1	No			(Check a			Recording
ae s.ga.s.	☐ For Ti			☐ Simultar	neous			Storage Dista					-		ence Detection
☐ Yes 🗷 No	☐ For W	/arning S	Signs	☐ Advance				Stop Line Dist		* 		■ None	!		
						<u> </u>		racteristic							
1. Traffic Lanes Cros		■ Two	o-way Tra	ffic	Paved?	•	athway	3. Does Tr				lights wi	thin app	rox.	ated? (Street 50 feet from
Number of Lanes			ded Traff le types a				□ No M/YYYY)		Yes		No dth * 40	nearest			□ No
☐ 1 Timber ☐ ☐ 8 Unconsolidate	2 Asphalt \square	3 Asph	nalt and T	imber 🗵 4	Concrete			and Rubber		_					
6. Intersecting Roa	dway within 500) feet?					7. Smalle	st Crossing Ar	igle			8. Is Co	mmercia	al Po	wer Available? *
Yes □ No	If Yes, Approxin	nate Dis	tance <i>(fee</i>	_{et)} 65			□ 0° – 2°	9° □ 30°-	- 59°	X	60° - 90°		⊻ Yes	S	□ No
					art V: P	ublic H	lighway	Informati	on			1			
1. Highway System			2.	Functional Cl	assificatio	n of Road	d at Crossir	ıg	3.1	ls Cross	sing on State I	Highway			way Speed Limit
□ (01) Inters	tata Hisburay Cu	rstom.		(1) Interstate	□ (0) Rui		 Urban (5) Major 	Callactor		stem?	™ No		25	Post	MPH ed □ Statutory
	tate Highway Sy Nat Hwy Syster			(2) Other Fre				Collector			Referencing S	vstem (I R			ed 🗆 Statutory
☐ (03) Feder	al AID, Not NHS			(3) Other Pri	•			Collector				y 5 terri (12 / 10	- Houte h		
■ (08) Non-F		4 D.T.)		(4) Minor Ar			(7) Local	d b Cabaal D.		LK2 IVII	lepost *	10	F		Sandara Davita
7. Annual Average Year 2019 AA	DT 4139	ADI) 	8. ESTIN	nated Percent	%	9. Reg □ Yes		d by School Bu Average Nur		er Day	·	_ IO.	_	ncy s □ No	Services Route
Submi	ission Infor	matio	n - This	informatio	n is use	d for ac	dministra	tive purpos	es ar	nd is n	ot availabl	e on the	public	wei	bsite.
Submitted by				Organ	ization						Phone			Date	
Public reporting bu															
sources, gathering a agency may not cor	_			-	-	_									
displays a currently	valid OMB cont	rol num	ber. The	valid OMB co	ntrol num	ber for i	nformation	collection is 2	2130-0	017. S	end commen	ts regardin	g this bu	ırder	estimate or any
other aspect of this Washington, DC 20.		uding fo	r reducing	g this burden	to: Inform	nation Co	llection Of	ficer, Federal I	Railroa	ad Adm	ninistration, 12	200 New Je	ersey Ave	e. SE	, MS-25

DEPARTMENT OF TRANSPORTATION

Form. For private hip pedestrian station gr Parts I and II, and the	ghway-ra rade cros Submiss n Inform	ail grade cross ssings), comple sion Information nation section.	ings, compete the Heaton section. For chang	elete the Header, Parts I For grade-se es to existin	ader, Pa and II, a eparated ng data,	arts I and and the S I highway complet	l II, ai Submi y-rail o	nd the Sulission Info or pathwa Header,	abmission Information formation section. Fo ay crossings (including Part I Items 1-3, and	on section. For private pathw g pedestrian stand d the Submission	oublic pathway ay grade crossi ition crossings), on Information	nplete the entire inventory grade crossings (including ngs, complete the Header, complete the Header, Part section, in addition to the denotes an optional field.		
A. Revision Date		B. Reporting				•	•	lect only o	,			D. DOT Crossing		
(<i>MM/DD/YYYY</i>) 03 / 27 / 2019		■ Railroad	☐ Tra	ansit ⊠ C Data	Change ii		New ssing		Closed	☐ No Train Traffic	☐ Quiet Zone Update	Inventory Number		
<u>00 </u>	_	☐ State	□ Ot		a Re-Open		osing Date Inge C		Change in Primary	☐ Admin. Correction	zone opuate	085637C		
				Part I: L	ocatio				ion Informatio					
1. Primary Operating BNSF Railway Cor					\Box	2. State WASHI		ON		3. County KING				
4. City / Municipality	!			<mark>eet/Road Na</mark> WE ST	me & B	lock Nun	nber			6. Highway Ty	pe & No.			
□ Near KENT				et/Road Nan	 пе)			* (Bloc	k Number)	L				
7. Do Other Railroad	s Operat	e a Separate T	rack at Cro	ssing? 🗆 Y	es 🗷 N	No	8. [o Other I	Railroads Operate O	ver Your Track a	at Crossing?	Yes 🗆 No		
If Yes, Specify RR							If	f Yes, Spec	cify RR ATK					
9. Railroad Division o	or Region	<u></u>	, 10. Railro	ad Subdivisi	on or Di	istrict		11. Bran	nch or Line Name		12. RR Milepo	,		
					_							6.339		
- None	HWEST	14 Nee	☐ None	SEATTL		Davant		\square None f applicable			'' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	nn.nnn) (suffix)		
13. Line Segment *		Station	rest RR Tin	ietable	15.	. Parent i	KK (I)	<i>т аррисав</i> :	e)	16. Crossin	g Owner (if app	oncable)		
0051		KENT			_ 🗶	N/A				□ N/A	BNSF			
17. Crossing Type		ssing Purpose		ssing Positio		20. Public			21. Type of Train	□ -		22. Average Passenger		
🖬 Public	Image: Bubble state of the problem													
□ Private □ Station, Ped. □ RR Over □ No ■ Commuter □ Tourist/Other ■ Number Per Day 21														
23. Type of Land Use	3. Type of Land Use													
☐ Open Space 24. Is there an Adjace	☐ Farm		sidential	™ Comm	nercial	_	Indus		☐ Institutional A provided)	☐ Recreation	onal ⊔ R	R Yard		
24. IS there an Aujac	ent Cios	sing with a sep	Jarate Null	ibei:		23. Q	uiet 2	LOTTE (7 A.	n provided)					
	Yes, Prov	vide Crossing N				■ No	_] 24 Hr [•	go Excused	Date Establis			
26. HSR Corridor ID		27. Latit	tude in dec	imal degrees	S		28.	Longitud	e in decimal degrees	i	29. La	at/Long Source		
	■ N/A	(WGS84	1 std: nn.nı	nnnnnn) 47	7.38094	.82	(W	GS84 std:	-nnn.nnnnnnn) -122	2.2330630	□ Ac	tual 🗷 Estimated		
30.A. Railroad Use	*								tate Use *		·			
30.B. Railroad Use									tate Use *					
30.C. Railroad Use									tate Use *					
30.D. Railroad Use									tate Use *					
32.A. Narrative (Rai		•							arrative (State Use)	T				
33. Emergency Notifi 800-832-5452	cation T	elephone No.	(posted)		i lroad C o 352-154	•	[elepl	hone No.)		35. State Con 360-664-126	tact (Telephone 32	e No.)		
							lugg	d lefor	mation					
1. Estimated Number	of Daily	Train Movem	onts		Part	II: Kai	iroa	a intor	mation					
1.A. Total Day Thru T			otal Night 1	Thru Trains	1.C. T	Γotal Swit	tchine	 Trains	1.D. Total Transit	Trains	1.E. Check if L	ess Than		
(6 AM to 6 PM) 32			to 6 AM)		0			,	0		One Moveme			
2. Year of Train Coun	t Data (Y	YYY)		3. Speed of					,					
2013				3.A. Maxim					<i>ph)</i> From 1	to _79				
4. Type and Count of	Tracks			3.b. Typical	Speed	Narige O	/EI CI	OSSITIE (TIT	<i>pny</i> 110m					
	Siding 0_	Y	ard 0	Tran:	sit 0		Indı	ustry 0						
5. Train Detection (M		,,												
Constant Warr 6. Is Track Signaled?		e 🗌 Motion	Detection	□AFO □		DC Event Rec			None		7.D. Domoto	e Health Monitoring		
Yes \(\square\) No						Yes \square					7.B. Kelliote	_		

A. Revision Date (N 03/27/2019	MM/DD/YYYY)					P	AGE 2			D. 085	Crossing Inve	ntory Nun	n ber (7 c	har.)		
		Par	t III: Hi	ghway o	r Path	way [·]	Traffic (Control D	evic	e Infor	mation					
1. Are there	2. Types of Pa	ssive Traffic	Control D	evices asso	ciated w	vith the	Crossing									
Signs or Signals?	2.A. Crossbuck Assemblies (co	ount) (cou	_	gns <i>(R1-1)</i>	(count	_	ns <i>(R1-2)</i>	■ W10-1	2	/arning S	igns <i>(Check al</i>	l that appl			nt) 🗆 Noi	_
2.E. Low Ground Cle	2 earance Sign	2.F. Pavem	ent Mark	ings	0		2.G. Cha	■ W10-2 nnelization	4		☐ W10-4 2.H. EXEMP		2.I. EN:	V10-1 S Sigr		_
(W10-5) □ Yes (count)	■ Stop Lin	es	□Dvna	mic Enve	elope	Devices/		□м	edian	(R15-3) □ Yes		Display Yes	/ed		
■ No		☐ RR Xing		☐ None			☐ One A				■ No		\square No			
2.J. Other MUTCD S	Signs	☐ Yes	X No					nte Crossing	2.1	L. LED En	hanced Signs	(List types)			
Specify Type Specify Type							Signs (if									
Specify Type		Count _		_												
3. Types of Train A	ctivated Warnin	g Devices at	the Grad											1		
3.A. Gate Arms (count)	3.B. Gate Conf	figuration		3.C. Cantile Structures		or Bridg	<i>ied)</i> Flashii	ng Light			Mounted Flas nasts) 2	hing Lights	;		. Total Count shing Light Pa	
(Count)	■ 2 Quad	☐ Full (Barr	ier)	Over Traffi	. ,	2	⊠ In	candescent	١,	l Incande	,	 LED		FId	Siling Light Pa	2111
Roadway 2	☐ 3 Quad	Resistance	•				_		X	Back Lig	hts Included	☐ Side	Lights	8		
Pedestrian 0	☐ 4 Quad	☐ Median G	Gates	Not Over T	raffic La	ne <u>0</u>	🗆 LE	D				Include	ed			
3.F. Installation Dat			3.G	. Wayside H	orn						lighway Traffi	c Signals C	ontrollin	g	3.I. Bells	
Active Warning Dev	, ,	•	, _ ,	Yes Insta	alled on	(MM/Y	YYY)	/		Cross					(count)	
/	3.J. Non-Train Active Warning 3.K. Other Flashing Lights or Warning Devices															
3.J. Non-Train Active Warning □ Flagging/Flagman □Manually Operated Signals □ Watchman □ Floodlighting ■ None 3.K. Other Flashing Lights or Warning Devices Count 0 Specify type																
4.A. Does nearby H		_	4.C.	Hwy Traffic	Signal P	reemp	tion			Pre-Sign	nals	_	•		g Devices	
Intersection have Traffic Signals?	Interconr	nection nterconnected	4					□ Yes 🗷	No			(Check a			Recording	
Traffic Signals:		affic Signals		Simultaneou	ıs			Storage Dist	ance *	*					nce Detection	n
☐ Yes 🗷 No	☐ For W	arning Signs		Advance				Stop Line Dis	stance	e *		■ None	!			
				Pa	rt IV:	Physi	cal Cha	racteristic	CS							
1. Traffic Lanes Cros		■ Two-way	Traffic		Is Road aved?	•	•				n a Street?	lights wi	thin app	rox. 5	ited? (Street 60 feet from	
Number of Lanes		☐ Divided T		-/\ \ \ t - -	¥ Ye		□ No		□ Yes		No dth * 40	nearest i			□ No	
□ 1 Timber □ □ 8 Unconsolidate	2 Asphalt \square	3 Asphalt ar	nd Timbei	r 🗷 4 Co							er		Length	00		_
6. Intersecting Road	dway within 500) feet?					7. Smalle	st Crossing A	ngle			8. Is Co	mmercia	al Pov	ver Available?	? *
¥ Yes □ No	If Yes, Approxin	nata Distanca	(feet) 65	5			□ 0° – 2°	9° □ 30°	_ 50°	· 🔽	60° - 90°		I ¥ Yes		□ No	
163 🗀 110	п тез, дрргохіп	iate Distance	ijeet)		V: Pu	blic H		Informat			00 30		<u></u>	,		
1. Highway System			2. Func	tional Classi							sing on State I	Highway	4.1	Highv	vay Speed Lim	nit
							1) Urban	-0		System?			25		MPH	
	tate Highway Sy		٠,	nterstate			(5) Majo	Collector		□ Yes				Poste	ed 🗆 Statuto	ory
, ,	Nat Hwy Systen al AID, Not NHS	n (NHS)		Other Freew Other Princip	•	•	•	Collector	5	5. Linear I	Referencing S	ystem (LRS	Route I	D) *		
■ (08) Non-F	-			Minor Arteri			(7) Local	0000101	6	5. LRS Mil	lepost *					
7. Annual Average Year 2019 AA	Daily Traffic <i>(AA</i> DT <u>4099</u>	ADT) 8. E 02		Percent Tru	ucks %	9. Reg		d by School B Average Nu			3	10.	_	ncy S □ No	ervices Route	į
Submi	ssion Infor	mation - 7	his info	rmation i	s used	for aa	lministra	tive purpo	ses c	and is n	ot availabl	e on the	public	wek	site.	
Submitted by	unla m for the state of			Organizat		- 20 :			111		Phone	_ :_ : : : : : : : : : : : : : : : : :		Date	a autotic III	
Public reporting but sources, gathering a agency may not cor displays a currently other aspect of this Washington, DC 20	and maintaining nduct or sponsor valid OMB cont collection, inclu	the data nee r, and a perso rol number.	ded and on is not r The valid	completing a equired to, OMB contro	and revi nor shall ol numb	ewing t I a perse er for ir	he collecti on be subj nformation	on of informa ect to a pena collection is	ation. Ity for 2130	Accordi r failure t 1-0017. S	ng to the Pap to comply wit end commen	erwork Re h, a collect ts regardin	duction a tion of in g this bu	Act o form irden	f 1995, a fede ation unless i estimate or a	eral it

DEPARTMENT OF TRANSPORTATION

Instructions for the i	nitial rep	orting of the	following ty	pes of new c	r previo	ously ur	nrepo	orted cros	sings: For public high	hway-rail grade	crossings, c	complete the	entire inventory	
	• .	-	• .						ubmission Information				• ,	
		•		•	•				ormation section. For	•	, -	• .	•	
Parts I and II, and the								•			-			
 and the Submission updated data fields. 			_	_									in addition to the an optional field.	
A. Revision Date		B. Reporting		Ī				lect only o		loteu.	Ali dolei io		OT Crossing	
(MM/DD/YYYY)		Railroad	☐ Tran		ason for ange in	•	•	· _	Closed	☐ No Train	☐ Quiet		ntory Number	
03 / 27 / 2019		A Nami Jau	□ 11 u 11	Data	ilige iii		ssing	_	Closed	Traffic	Zone Upd		itory italiaci	
<u> </u>	I,	☐ State	☐ Othe		∩nen		_	Г	Change in Primary	Admin.	ZOIIC Opa	0856	30B	
	'	_ Juic		" """	Орсп		inge C		perating RR	Correction		0000	3913	
				Part I: Lo	cation				tion Information					
1. Primary Operating	Railroad					. State		991		3. County				
BNSF Railway Con				_		WASHI	NGT	ON		KING				
4. City / Municipality	,		5. Stree	et/Road Nam	ie & Blo	ock Num	nber			6. Highway Ty	pe & No.			
I In			TITUS					J			•			
□ Near KENT				t/Road Name	,				k Number)	<u>L</u>				
7. Do Other Railroad	s Operate	a Separate 7	Frack at Cros	sing? ☐ Yes	, ■ No)			Railroads Operate Ov	er Your Track	at Crossing?	■ Yes □	No	
If Yes, Specify RR							If	f Yes, Spe	cify RR ATK					
C. D. W. and District			10 2-11	10 1 11 12 12	- D:-1		Щ,	44 Due			12. 20.84%		,	
9. Railroad Division of	r Region		10. Raiiroad	d Subdivision	i or Dist	trict		11. Brai	nch or Line Name		12. RR Mile	e post 0016.436		
□ None NORTH	-IWEST		□ None	SEATTLE	:			☐ None	SEATTLE-VAN	NC WA	(prefix) (_ (suffix)	
13. Line Segment		14. Nei	arest RR Time			Parent I	RR (it	f applicab			ng Owner (if		(Sujjik)	
*		Station		table	13	arcii.	AIN 19	ирриса	ie)	10. 0.000	ig Owne. (1)	лррпсаыс,	ļ	
0051		KENT			⊠ N	/A				□ N/A	BNSF			
17. Crossing Type	18. Cros	ssing Purpose	19. Cros	sing Position			c Acce	ess	21. Type of Train			22. Aver	age Passenger	
☐ Highway ☐ At Grade (if Private Crossing) ☐ Freight ☐ Transit ☐ Train Count Per Day														
■ Public □ Pathway, Ped. □ RR Under □ Yes ■ Intercity Passenger □ Shared Use Transit □ Less Than One Per Day														
□ Private □ Station, Ped. □ RR Over □ No ☑ Commuter □ Tourist/Other ☑ Number Per Day 21														
23. Type of Land Use	3. Type of Land Use													
	☐ Farm		sidential	☑ Comme	rcial		Indus		☐ Institutional	☐ Recreation	nal L	☐ RR Yard		
24. Is there an Adjace	ent Cross	ing with a Se	parate Numb	er?	ļ	25. Q	uiet 2	Zone (FR	RA provided)					
☐ Yes ■ No If	Yes. Provi	ride Crossing N	Number		ļ	ĭ≅ No	,	24 Hr	☐ Partial ☐ Chicag	o Excused	Date Esta	hlished		
26. HSR Corridor ID	100,		itude in decin	nal degrees			_		e in decimal degrees			. Lat/Long S	ource	
				•	20775	^		•	J			, -		
	_ X N/A	(WGS84	4 std: nn.nnn	<u>ınnnn)</u> 41.3	3797750	U	(W		-nnn.nnnnnnn) ⁻¹²²	2330304		Actual [■ Estimated	
30.A. Railroad Use	*								tate Use *					
30.B. Railroad Use	*							31.B. S	tate Use *					
20 C. Pailroad Hea	*							21.0 6						
30.C. Railroad Use	•							31.C. 5	tate Use *					
30.D. Railroad Use	*						\dashv	31.D. S	tate Use *					
30.D. Namous 222								31.2 .	tate OSC					
32.A. Narrative (Rai	ilroad Use	2) *						32.B. N	larrative (State Use)	*				
· i		<u></u>							·					
33. Emergency Notifi	ication Te	lephone No.	(posted)	34. Railre	oad Cor	ntact (7	Teleph	hone No.)		35. State Con	tact (Teleph	ione No.)		
800-832-5452				817-352	2-1549	ı				360-664-126	32			
000 002 0402										300 00 7 120				
					Part I	I: Rail	roa	d Infor	mation					
1. Estimated Number														
1.A. Total Day Thru T	Trains		Total Night Th	ru Trains	1.C. To	tal Swit	ching	Trains	1.D. Total Transit	Trains		if Less Than	_	
(6 AM to 6 PM)			1 to 6 AM)		0							ment Per Da	•	
32	- : 00	32			0				0		How many	trains per w	eek?	
2. Year of Train Count	t Data (YY	$\gamma\gamma$		3. Speed of Ti				(mah) 7!	a					
2013				3.A. Maximur					 nph) From 1	to 79				
4. Type and Count of	Tracks			J.B. Typicai S	рееч по	ilige ov	/EI CI	055111g (111	pnj rioni	10	_			
4. Type and Count of	Hacks													
Main 2	Siding 0	Υ	_{ard} 1	Transit	t O		Indu	ustry 0						
5. Train Detection (M														
Constant Warr			ı Detection	□AFO □ P	rC □	DC	□ 01	ther \square	None					
6. Is Track Signaled?				-	7.A. Eve	ent Reco	order				7.B. Rem	ote Health N	1onitoring	
🗷 Yes 🗌 No					□ Y	'es □	No				☐ Yes	s 🗆 No		

A. Revision Date (N 03/27/2019	ЛМ/DD/YYYY)				PAGE 2 D. Crossing Inventory Number (7 char.) 085639R											
		P	art III: I	Highway o	r Path	way 1	Traffic (Control D	evice	Infor	mation					
1. Are there	2. Types of Pa	assive Traf	fic Contro	l Devices asso	ciated wi	ith the	Crossing									
Signs or Signals?	2.A. Crossbuck 2.B. STOP Signs (R1-1) 2.C. YIELD Sign									arning S				include count) None		
¥ Yes □ No	Assemblies (co		<i>(count)</i> O		(count) 0)		■ W10-1 ■ W10-2							11	
2.E. Low Ground Cle	earance Sign	2.F. Pav	vement Ma	rkings				nnelization			2.H. EXEMP					
(W10-5) □ Yos (count	1	Cton	1:	Dyns	!- Fnuo			'Medians	□ N4e	-1:	(R15-3) □ Yes	Displayed				
☐ Yes (count ■ No	/	Stop □ RR Xi	ines (ing Symbol		imic Enve e	lope		proaches Approach	☐ Me		⊔ Yes ⊠ No	□ No				
2.J. Other MUTCD S	igns		es 🗷 No					ate Crossing			hanced Signs	(List types				
Cassify Type		Cour	_4				Signs (if	private)					•			
Specify Type Specify Type		Cour	nt nt				□ Yes	□No								
Specify Type			nt													
3. Types of Train A																
3.A. Gate Arms	3.B. Gate Con	figuration		3.C. Cantile		or Bridg	<i>ed)</i> Flashii	ng Light			Mounted Flash nasts) 2	ning Lights			. Total Count of	
(count)	■ 2 Quad	☐ Full (B	Barrier)	Structures Over Traffi	. ,	0	□Ir	ncandescent	١,	<i>unt of n</i> Incande	/	 □ LED		Гіа	Flashing Light Pairs	
Roadway 2	☐ 3 Quad	Resistan	,				_				hts Included	☐ Side		4		
Pedestrian 0	☐ 4 Quad	☐ Media	an Gates	Not Over T	raffic Lan	ne <u>0</u>	_ 🗆 LE	ΞD				Include	ed	-		
3.F. Installation Dat	te of Current		3	.G. Wayside H	orn					3.H. F	lighway Traffi	c Signals C	ontrollin	g	3.I. Bells	
Active Warning Dev		•	_	Yes Insta	alled on /	(N/N/Y)	VVV)			Cross	O			(count)		
/		iirea i	I No	, ancu c					⊔ Yes	s I No				2		
3.J. Non-Train Active Warning ☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlightin							3.K. Other Flashing Lights or Warning Devi ing ■ None Count 0 Specify type						_			
4.A. Does nearby H	lwy 4.B. Hwy	c Signal Pi	reempt	tion	5. Highway T		Pre-Sigr	nals	_	•		g Devices				
Intersection have	Intercon	nection nterconne	-tod					□ Yes 🗷	No			(Check al			Denouding	
Traffic Signals?	ີ່ Simultaneoເ	115			Storage Dista	ance *				-		Recording ence Detection				
☐ Yes 🗷 No		raffic Signa Varning Sig	Advance				Storage Dist				■ None					
				Pa	rt IV: F	hysic	cal Cha	racteristic	CS							
1. Traffic Lanes Cros			vay Traffic way Traffic		2. Is Roadway/Pathway 3. Does Tr Paved?					un Dow	n a Street?		_		ated? (Street 50 feet from	
Number of Lanes	2	☐ Divide	ed Traffic		I¥ Yes □ No □						No	nearest i	rail) 🗷 Y	'es	□ No	
5. Crossing Surface											th * 65		Length *	65		
☐ 1 Timber ☐ ☐ 8 Unconsolidate					oncrete	□ 5	Concrete	and Rubber	□ 0	. Kubbe	r 🗆 7 Met	taı				
6. Intersecting Roa				(7. Smallest Crossing A							8. Is Co	mmercia	ıl Pov	wer Available? *	
¥ Yes □ No	If Yes, Approxin	∽ata Dicta	one (fapt)	65	□ 0° – 29° □ 30° ·					□	60° - 90°		✓ Yes □ No			
LA TES LING	П Тез, Аррголії	late Distai	ince (jeet) _		V· Puk	olic H		/ Informat			00 - 50		L= 1C.)	LI INO	
1. Highway System			2 511	nctional Classi			<u> </u>			Ic Cross	ing on State L	Highway	141	Jighy	way Speed Limit	
1. Highway System			2.101		(0) Rural			'5	3. Is Crossing on State System?			iigiiway	25		MPH	
	state Highway Sy	-) Interstate				r Collector		Yes				Poste	ed 🗆 Statutory	
, ,	· Nat Hwy Syster ·al AID, Not NHS			2) Other Freew 3) Other Princip	,		,	r Collector	5.	. Linear I	Referencing Sy	ystem (LRS	Route II	D) *		
■ (08) Non-F	•) Minor Arteri	•		(7) Local		6.	. LRS Mil	epost *					
7. Annual Average Year 2019 AA	Daily Traffic <i>(A)</i> DT 1933		8. Estimate 01	ed Percent Tru		9. Reg ■ Yes		d by School B Average Nu		per Day	1	10. ■ Y	_	ncy S No	ervices Route	
Submi	ission Infori	mation	- This in	formation i	s used f	for ad	ministro	ative purpo	ses a	nd is n	ot availabl	e on the	public	wel	osite.	
6 1 11											D.		_			
Submitted by				Organizat		- 20			حدثاء دا	4b a 4:	Phone	- !		oate		
Public reporting but sources, gathering a																
agency may not cor	nduct or sponso	or, and a pe	erson is not	t required to,	nor shall	a perso	on be subj	ject to a pena	Ity for	failure t	to comply with	h, a collect	ion of in	form	ation unless it	
displays a currently												_	-			
other aspect of this Washington, DC 20		Julia Julia	educing th	is burden to:	IIIIOIIIIat	JOH COI	rection Or	ncer, rederai	I Kalif U	au Aum	iinistration, 12	too ivew te	ersey Ave	e. SE,	IVI3-25	

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION OMB No. 2130-0017

Instructions for the i	nitial report	ing of the 1	following t	ypes of nev	v or p	reviously u	nrepo	rted cros	sings: For public hig	hway-rail grade	crossings, c	omplete the	e entire inventory		
Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including															
pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header,															
Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part															
I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.															
•	Note: For pri	vate crossir	ngs only, Pa							noted.	An asterisl		an optional field.		
A. Revision Date		Reporting A	• .	_		for Updat	, , ,	-,			OT Crossing				
(MM/DD/YYYY)	■ F	Railroad	☐ Tra		Change				Closed	□ No Train	☐ Quiet		Inventory Number		
03 / 27 / 2019			_	Dat			ssing	_	_	Traffic	Zone Upda				
		State	☐ Oth	ner 📗 🗆 I	Re-Ope				Change in Primary	\square Admin.		0856	40K		
							nge O		perating RR	Correction					
				Part I: I	Locat	tion and	Clas	ssificat	ion Informatio	n					
1. Primary Operating						2. State				3. County					
BNSF Railway Cor	mpany [BNS	SF]				WASHI	INGT	ON		KING					
4. City / Municipality	1			et/Road N		Block Nun	nber			6. Highway Ty	pe & No.				
SR516 WILLIS ST															
Near KENT (Street/Road Name) *(Block Number) FAP516															
7. Do Other Railroads Operate a Separate Track at Crossing?															
If Yes, Specify RR															
9. Railroad Division or Region 10. Railroad Subdivision or District 11. Branch or Line Name 12. RR Milepost												·			
9. Railroad Division of	or Region		10. Railro	ad Subdivis	ion or	District		11. Bra	nch or Line Name		12. RR Milepost 0016.557				
□ None NORTH	HWEST		□ None	SEATT	ΙF			□ None	SEATTLE-VA	NC WA		nnn.nnn)	_ (suffix)		
13. Line Segment		14 Noar	rest RR Tim			L5. Parent I	DD /if				g Owner (if a		(Sujjix)		
*		Station	*	ictable	-	LJ. Falenti	KK (IJ	иррпсиы	ie)	10. 0105511	ig Owner (i) c	ірріісивіє			
0051		KENT			Г	X N/A				□ N/A	BNSF				
17. Crossing Type	18. Crossin	ng Purpose	19. Cro	ssing Positi			c Acce	ss	21. Type of Train			22. Aver	age Passenger		
171 Crossing 17pc	sing Type														
■ Public											I Use Transit		han One Per Day		
■ Public															
23. Type of Land Use	23. Type of Land Use														
☐ Open Space ☐ Farm ☑ Residential ☐ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard															
24. Is there an Adjacent Crossing with a Separate Number? 25. Quiet Zone (FRA provided)															
	Yes, Provide					_ ■ No			•	go Excused	Date Estab	olished			
26. HSR Corridor ID		27. Latit	ude in dec	imal degree	es		28. 1	Longitud	e in decimal degrees		29.	Lat/Long S	ource		
				. 4	7.3777	7923			122	2.2329736					
20.4. D. II L. I	_X N/A	(WGS84	std: nn.nr	innnnn) '			(WG		-111111.1111111111111111111111111111111		L L.	Actual [■ Estimated		
30.A. Railroad Use	•							31.A. S	tate Use *						
30.B. Railroad Use	*							21 D C	tate Use *						
30.b. Kaliroad Ose								31.D. 3	tate use						
30.C. Railroad Use	*							31 C S	tate Use *						
Jo.c. Namoad Ose								31.0. 3	tate Ose						
30.D. Railroad Use	*							31.D. S	tate Use *						
Join Hamoud Osc								51.5. 5	tate osc						
32.A. Narrative (Rai	ilroad Use) *	:						32.B. N	larrative (State Use)	*					
<u></u>	ou u o o o,							0	arranto (otate ose)						
33. Emergency Notif	ication Teler	hone No. /	(posted)	34. Ra	ilroad	Contact (7	Teleph	one No.)		35. State Con	tact (Teleph	one No.)			
• .		'	,,			•		,			, ,				
800-832-5452				817-3	352-15	549				360-664-126	52				
					Pai	rt II: Rail	Iroac	d Infor	mation						
1. Estimated Number	r of Daily Trai	in Moveme	ntc			· · · · · · · · · · · · · · · · · · ·									
1.A. Total Day Thru T			otal Night 1	hru Trains	1.0	. Total Swit	ching	Trains	1.D. Total Transit	Trains	1.E. Check i	f Locc Than			
(6 AM to 6 PM)	i i ali i s		to 6 AM)	iliu ilaliis	1.0	Total Swit	criiiig	1101113	1.D. Total Transit	1141113	One Mover		v 🗆		
32		32	10 0 7 11117		0				0			trains per w	-		
2. Year of Train Coun	t Data (YYYY)		3. Speed o	f Train	at Crossing	7					tramo per ti			
		,		3.A. Maxin				mph) 79	9						
2013									ph) From 1	to 79					
4. Type and Count of	Tracks		ı	71: 00		<u> </u>		J (**	·						
								_							
Main <u>2</u>	Siding 0	Ya	ard 0	Tran	nsit 0		Indu	stry 0							
Main 2 5. Train Detection (M			ard 0	Trar	nsit 0		Indu	stry 0							
	lain Track on	ıly)				□ DC		,	None						

☐ Yes 🗷 No

☐ Yes ☐ No

☐ Yes ☐ No

A. Revision Date (N 03/27/2019	ЛМ/DD/YYYY)				PAGE 2 D. Crossing Inventory Number (7 char.) 085640K											
		F	art III:	Highway o	r Path	way	Traffic	Control D	evice							
1. Are there	2. Types of Pa	assive Tra	ffic Contro	ol Devices asso	ciated w	ith the	Crossing									
Signs or Signals?	2.A. Crossbuck 2.B. STOP Signs (R1-1) 2.C. YIELD Sign									arning S	igns <i>(Check all</i>	l that apply	y; include	<i>lude count)</i> ☐ None		
¥ Yes □ No	Assemblies (count) (count) (count) 2 0 0						■ W10-1				3	_	□ W10-11 □ W10-12			
2.E. Low Ground Cle	earance Sign	2.F. Pa	vement M	arkings			2.G. Cha	nnelization			2.H. EXEMP	T Sign 2.I. ENS Sign (I-13)				
(W10-5)	1	G CL		По				'Medians		12	(R15-3)	Displayed				
☐ Yes (count ☑ No	/	■ Stop	Cines Cing Symbo	,	imic Enve e	elope		proaches Approach			□ Yes ጃ No		☐ Yes ☐ No			
2.J. Other MUTCD S	Signs		es 🗆 No					ate Crossing			hanced Signs	(List types				
CC T P8-8	·	6	1				Signs (if	private)			J					
Specify Type R8-8 Specify Type		Cour	nt <u>1</u> nt				☐ Yes	□No								
Specify Type		Cour	nt				□ res	□ NO								
3. Types of Train Ad	ctivated Warnir	ng Device	s at the Gr	ade Crossing (specify c	ount o	f each dev	vice for all the	at app	ly)						
3.A. Gate Arms	3.B. Gate Con	figuration	ı	3.C. Cantile		or Bridg	<i>ed)</i> Flashi	ng Light			Mounted Flash	hing Lights			. Total Count of	
(count)	■ 2 Quad	☐ Full (I	Parrier)	Structures Over Traffi	. ,	2	I⊋ Ir	ncandescent	٠,	ount of n Incande	nasts) <u>2</u>	 		Fla	Flashing Light Pairs	
Roadway 2	☐ 3 Quad	Resistan	,	Overmann	.C Lane		_ '= ''	ICanuescent			hts Included	☐ LED Side Lights		14		
Pedestrian 0	☐ 4 Quad		an Gates	Not Over T	raffic Lar	ne <u>0</u>	_ □L	ED				Include	•	17		
3.F. Installation Dat	e of Current				lorn					3.H. F	lighway Traffi	c Signals C	ontrollin	g	3.I. Bells	
Active Warning Dev		Y)		•		10 40 A /\/		,		Cross	ing	0 0		6	(count)	
		Not Requ	iirea i	□ Yes Insta ≭ No	alled on ((IVIIVI/ Y	ΥΥΥ)	/		☐ Yes	s 🗷 No				2	
3.J. Non-Train Active Warning ☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting										K. Other	Flashing Light		_			
										Pre-Sign					g Devices	
Intersection have	Intercon			•	J			□ Yes 🗷		-		(Check al	Il that ap	ply)		
Traffic Signals?	☐ Simultaneou	Starage Dista								-		Recording ence Detection				
☐ Yes IX No	 ☐ Simultaneot ☐ Advance 	JS			Storage Dist Stop Line Di				☐ Yes =		Prese	ence Detection				
		Varning Si			rt IV: I	Physi	cal Cha	racteristi								
1. Traffic Lanes Cros	ssing Railroad	☐ One-v	vay Traffic				athway			Run Dow	n a Street?	4. Is Cro	ssing Illu	ımina	ated? (Street	
		■ Two-	way Traffic		Paved?						Al a	_			50 feet from	
Number of Lanes		☐ Divide		wed) Installa	Installation Date * (MM/YYYY)/						No _{dth} * 25	nearest i			□ No	
☐ 1 Timber ☐ ☐ 8 Unconsolidate	2 Asphalt \square	3 Aspha	lt and Tim	iber 🗵 4 Co							er 🗆 7 Me		LC1.0			
6. Intersecting Road	dway within 50	0 feet?			7. Smallest Crossing A							8. Is Co	mmercia	ıl Pov	ver Available? *	
	16.77 4	D'	(61)	10	□ 0° – 29° □ 30°						608 008		✓ Yes □ No			
¥ Yes □ No	If Yes, Approxin	nate Dista	nce (feet)		V: Dul	hlic U		y Informat		LX	60° - 90°		L x Yes	5	□ No	
4 High a Calass			12.5							1. 6	·'····································	l'ala		11-1-	Constitution in	
1. Highway System			2. Fu	ınctional Classi ☐	(0) Rural			ng		. is Cross ystem?	sing on State I	Hignway	30		vay Speed Limit MPH	
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	Nat Hwy Syster		,	2) Other Freew	,		,		5	. Linear I	Referencing Sy	ystem (LRS	Route II	D) *		
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7. Annual Average		ADT)		ted Percent Tru	ucks		ularly Use	ed by School E Average No			25		10. Emergency Services Route			
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DEPARTMENT OF TRANSPORTATION

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. A. Revision Date B. Reporting Agency C. Reason for Update (Select only one) D. DOT Crossing															
A. Revision Date		B. Reporting /	υ,			•	•	,	,				D. DOT Crossing		
(<i>MM/DD/YYYY</i>) 03 / 27 / 2019		■ Railroad	☐ Tra	insit 🗷 Ch	ange in			L	Closed	☐ No Train Traffic	☐ Quiet Zone Upda		rentory Number		
<u> </u>	_	□ State	□ Oth		-Open				Change in Primary perating RR	☐ Admin. Correction	ZUIIE Opa		5642Y		
Part I: Location and Classification Information															
1. Primary Operating BNSF Railway Cor						2. State WASHI	NGT	ON		3. County KING					
4. City / Municipality ☐ In	r			et/Road Nam 59TH STREE		ock Num	nber			6. Highway Ty	pe & No.				
™ Near KENT (Street/Road Name) * (Block Number) L															
7. Do Other Railroads Operate a Separate Track at Crossing?													⊒ No		
9. Railroad Division o	r Region		10. Railro	ad Subdivisio	n or Dis	trict		11. Braı	nch or Line Name		12. RR Mile				
□ None NORTH	IWEST		□ None	SEATTLE	<u>-</u>			☐ None	SEATTLE-VA	NC WA		0017.09			
13. Line Segment	IVVLOT	14. Nea	□ None rest RR Tim			Parent I	RR (i)	r ⊔ None f applicab			(prejix) (i	nnnn.nnn) applicable	1 ()) /		
* 0051		Station KENT	*				,,	• • •	,		,,				
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■ Public □ Private	11 1 <i>p</i> 11								Intercity Passeng ■ Commuter	•	r □ Shared Use Transit □ Less Than One □ Tourist/Other □ Number Per D				
23. Type of Land Use															
☐ Open Space	☐ Farm		idential	☑ Comme	ercial		ndus		☐ Institutional	☐ Recreation	nal 🗆	RR Yard			
24. Is there an Adjaco	ent Cross	ing with a Sep	arate Num	ber?		25. Q	uiet A	zone (FR	A provided)						
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30.C. Railroad Use	*							31.C. S	ate Use *						
30.D. Railroad Use	*							31.D. S	tate Use *						
32.A. Narrative (Rai	Iroad Use	?) *						32.B. N	arrative (State Use)	*					
33. Emergency Notifi	cation Te	lephone No.	(posted)			•	ГеІері	hone No.)		35. State Con	, ,	one No.)			
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1. Estimated Number 1.A. Total Day Thru T			ents otal Night T	hru Trains	1 C T	otal Swit	chine	Trains	1.D. Total Transit	Trains	1.E. Check i	if Loss Tha	<u> </u>		
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Constant Warr 6. Is Track Signaled?		□ IVIOLION	Detection	□AFO □ I		□ DC rent Reco			None		7.B. Rem	ote Health	Monitoring		
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A. Revision Date (NO) 03/27/2019	MM/DD/YYYY)					P.	AGE 2			D. 085	Crossing Inve	ntory Num	ber (7 cl	nar.)			
		Pa	rt III: I	Highway (or Pat	hway	Traffic (Control De	evice								
1. Are there 2. Types of Passive Traffic Control Devices associated with the Crossing																	
Signs or Signals?	2.A. Crossbucl	< 2	B. STOP	Signs (R1-1)							igns (Check al	that apply	ı; include	cou	nt) 🗆 None		
¥ Yes □ No	Assemblies (co	semblies (count) (count) 0					(count)								_ □ W10-11 □ W10-12		
2.E. Low Ground Cl	earance Sign	2.F. Pave		2.G. Cha	nnelization		2.H. EXEMPT Sign			2.I. ENS Sign (I-13)							
(W10-5)	1	G Class I	•				Devices/			dia	(R15-3)	Displayed					
☐ Yes (count ■ No	/	■ Stop L ■ RR Xir			amic En ne	velope	□ All Ap □ One A			☐ Median ☐ Yes ☑ None ☑ No			☐ Yes ☐ No				
2.J. Other MUTCD S	Signs	☐ Yes	X No					te Crossing	2.L	. LED En	hanced Signs	(List types))				
Specify Type		Count					Signs (if p	πναιε)									
Specify Type		Count					☐ Yes	□ No									
Specify Type					, ,,				<u>. </u>								
3. Types of Train A 3.A. Gate Arms			t the Gr				<i>f each dev</i> ged) Flashir				Mounted Flasl	ning Lights	1	2.5	Total Count of		
(count)	3.B. Gate Conf	ilguration		Structure			<i>jeu)</i> Fiasiiii	ig Ligiit			nasts) 2	iiiig Ligiits			. Total Count of shing Light Pairs		
, ,	2 Quad ■ 2 Quad	☐ Full (Bo	rrier)	Over Traf	•	` _	🗷 In	candescent		incande		□ LED					
Roadway 2	☐ 3 Quad	Resistance				0	_		X	Back Lig	hts Included	■ Side	_	9			
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3.F. Installation Dat			3	.G. Wayside	Horn						Highway Traffi	c Signals Co	ontrolling	3	3.I. Bells		
Active Warning Dev			ad [☐ Yes Ins	talled or	n <i>(MM/Y</i>	YYY)	/		Cross					(count)		
/											2						
3.J. Non-Train Active Warning □ S.K. Other Flashing Lights or Warning Devices □ Flagging/Flagman □ Manually Operated Signals □ Watchman □ Floodlighting ■ None □ Specify type □ Specify t																	
4.A. Does nearby Hwy 4.B. Hwy Traffic Signal 4.C. Hwy Traffic Signal Preemption 5. Highway Traffic Pre-Signals 6. Highway M										ay Monit	orin	g Devices					
Intersection have	Interconr		☐ Yes ☐ I							(Check al							
Traffic Signals? ■ Not Interconnected □ For Traffic Signals □ Simultar						aneous Storage Dista							Yes - Photo/Video Recording Yes - Vehicle Presence Detection				
☐ Yes IX No	Advance	9							■ None		1030	ince Detection					
				P	art IV:	Physi	cal Cha	racteristic	S								
1. Traffic Lanes Cro					2. Is Roa	adway/P	athway	3. Does T	rack R	un Dow	n a Street?	4. Is Cro	ssing Illui	mina	nted? (Street		
Number of Lanes	2	■ Two-w □ Divided	ay Traffic I Traffic	:	Paved? No Installation Date * (MM/YYYY) 4 Concrete					X	No dth * 25	lights wit nearest r			50 feet from □ No		
5. Crossing Surface	(on Main Track	, multiple t	pes allo	wed) Instal	ation D	ate * (M	M/YYYY) _			_ Wid			Length *	30			
☐ 1 Timber ☐ ☐ 8 Unconsolidate					Concrete	e ⊔ 5 	Concrete	and Rubber 	□ 6	Rubbe	er 🗆 7 Me	tal					
6. Intersecting Roadway within 500 feet?						7. Smallest Crossing A					ngle 8.				3. Is Commercial Power Available? *		
¥ Yes □ No	If Yes, Approxin	nate Distan	ce (feet)	40	□ 0° − 29° □ 30°					−59° 1 60° - 90°					¥ Yes □ No		
				Par	t V: Pı	ublic H	lighway	Informat	ion								
1. Highway System			2. Fu	nctional Class	ification	n of Road	at Crossir	g	3.	Is Cross	sing on State H	Highway	4. H	ighv	vay Speed Limit		
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, ,	tate Highway Sy Nat Hwy Systen			.) Interstate !) Other Free	wavs and] (5) Majoi swavs	Collector		Yes	Referencing Sv	ustam // DC		oste	ed 🗆 Statutory		
_	al AID, Not NHS	11 (14115)	,) Other Prince	,	•	•	Collector	5.	Linear	Kererencing S	ystem (LKS	Koute IL	"			
▼ (08) Non-F			□ (4) Minor Arte	rial		(7) Local			LRS Mi	lepost *						
7. Annual Average Year <u>2019</u> AA	Daily Traffic <i>(AA</i> DT 2794	,	Estimat 06	ed Percent T	rucks %	9. Reg	, ,	d by School B Average Nu		per Day	6	_ 10. _ □ Y	_	icy S No	ervices Route		
Submi	ssion Infor	mation -	This in	formation	is used	d for ac	lministra	tive purpo	ses a	nd is n	ot availabl	e on the	public	wel	osite.		
Submitted by				Organiza							Phone			ate			
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sources, gathering a agency may not con	_					_					• .						
displays a currently	•	-				-	-										
other aspect of this	collection, inclu												-		•		
Washington, DC 20	590.																

Appendix B

Grade Crossing Photos

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085625H S 212TH ST



Looking east from 77th Ave S



Looking west



Looking east



Looking west



Looking east



Looking west

085629K E JAMES ST



Looking east. 1st Ave N is to the right.



Looking west



Looking east from 1st Ave N.



Looking west



Looking north at 1st Ave N



Looking east. 1st Ave N to the right

085633A E SMITH ST



Looking east.



Looking west from Railroad Ave N



Looking east from south side



Looking west



Looking east from north side



Looking west from north side

085636V E MEEKER ST



Looking east





Looking east



Looking west



Looking east



Looking west

085637C E GOWE ST



Looking east from 1st Ave S



Looking west from Railroad Ave S



Looking east



Looking west



Looking north



Looking west

085639R E TITUS ST



Looking east



Looking west from Railroad Avenue S



Looking northeast from 1st Avenue S



Looking west



Looking north from yard track



Looking north from west side of crossing

085640K E WILLIS ST (SR 516)



Looking east from south side.



Looking west from south side.



Looking north west



Looking northwest from 1st Avenue S



Looking southeast at 1st Avenue S



Looking southwest at Railroad Avenue S

085642Y S 259TH ST



Looking east



Looking east from 1st Avenue S



Looking south



Looking west



Appendix C

Final Diagnostic Team Notes

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Diagnostic Site Visit Field Notes - Final

BNSF Main Line Crossings in Kent, WA

November 15, 2017

The group met at the City of Kent's office at 8:30 on November 15, 2017. Attendees included:

Jeff Stewart, FRA
Ciano Hipol, BNSF
Paul D. Robinson, BNSF
Lennie D. Facklam, BNSF
Stephan Semenick, BNSF
Megan McIntyre, BNSF
Kelly Peterson, City of Kent

Chad Bieren, City of Kent Rob Brown, City of Kent Bob Boston, UTC Betty Young, UTC Bryon Agan, DEA for City Kevin Jeffers DEA for City

After a safety briefing and introductions, the purpose of the Diagnostic was described as the first step in establishing a Quiet Zone using identified funding for improvements. Using the Federal Railroad Administration (FRA) Quiet Zone (QZ) calculator, David Evans and Associates (DEA) determined that risks could be reduced sufficiently with improvements at South Smith Street, but all agree suggested improvements at each of the eight BNSF main line crossings outlined below within the City should be reviewed and may be implemented, where feasible

BNSF noted that the American Railway Engineering and Maintenance of Way Association (AREMA) guidance on interconnection has changed since 2013. The current preemption times for several of the crossings are too short .{City of Kent later confirmed that only S 212th currently has preemption in place and the downtown signals are not interconnected.} Malfunctions of the gates have been observed and are being corrected by BNSF. It was noted that when Sounder commuter trains stop at the station between Smith and James, both crossings stay activated until the train departs, a situation that cannot be changed until BNSF upgrades its system. BNSF implemented the planned changes shortly after diagnostics review meeting.

BNSF has concerns with several of the crossings in the proposed quiet zone that have queuing issues that result in vehicles backed up across BNSF tracks from downstream traffic signals. There are Smith Street interconnect circuits in BNSF bungalow. BNSF believes they requested this from the agency long ago and the agency has yet to connect it at the traffic signal. BNSF recommends that the City work with them for interconnect at all locations where queuing is an issue prior to implementation of Quiet Zone.

With the passage of ST3, Sound Transit (ST) is planning to extend station platforms and build a parking garage east of the tracks south of James Street, between Central Ave and the BNSF railroad, which could change pedestrian use of the James Street crossing. In November 2017, the ST Board

Page 1

November 15, 2017

approved this location for the garage. Additional pedestrian access improvements will be constructed as part of the Sound Transit project.

Several of the crossings reviewed have driveways within 60 feet of the crossing gate, at these locations, mountable medians with channelization devices are not fully compliant as Supplemental Safety Measures but the requirements for their use can be adjusted to qualify as an Alternative Safety Measure (ASM) with FRA approval. If designers utilize ASM(s) to upgrade crossing safety at one or more crossing within the QZ, the City will need to submit application for approval to the FRA in accordance with 49 CFR 222.39 (b).

Parking on BNSF property between the Titus and Gowe Street crossings is close to the tracks and BNSF feels it encourages trespassing across the tracks. Trespassing also occurs approximately 1,800 feet north of James, south of the SR 167 overpass. It is assumed the pedestrians are walking across the tracks from 1st Ave. N. through an unfenced commercial property to gain access to Central Ave.

Existing medians at Willis, Titus, Gowe, Meeker Smith and James Street are all mountable with channelization devices. The City prefers mountable medians to accommodate emergency vehicles responding to emergency calls. BNSF prefers non-mountable medians with vertical curbs, as mountable medians are easier to drive over and the channelization devices could require additional maintenance compared to the vertical face curbs. FRA rules recognize both types as reducing risks at crossings.

The group adjourned and reconvened in the field. A safety briefing was performed at each location and each person wore appropriate personal protective equipment including orange reflective vest, hardhat, safety glasses, and steel-toed boots.

The following lists observations at each crossing and notes the improvements discussed and what the group either agreed needed to be done or what should be further analyzed. Observations of illegal behaviors by drivers and pedestrians are also noted.

1. S 259th St; USDOT 085642Y

- a. Once the Quiet Zone is approved by the FRA, install W10-9 (No Train Horn) sign on both sides of the crossing and possibly on both 1st Avenue South approaches, per MUTCD.
- Install W10-2 (Parallel Railroad Crossing) signs on both 1st Avenue South approaches to South 259th Street advising motorists of the grade crossing immediately east of 1st Ave South
- c. Install mountable median curb with channelization for approximately 100 feet east of the crossing gate arms.
- d. Investigate the potential closure of the driveway in the SE quadrant. Coordination with the Fire Dept. will be required. If complete closure is not possible, then a partial closure to the length of the median will be implemented through the installation of mountable median curbing with channelization.
- e. Add signage and enforce no truck parking in the NE quadrant to improve visibility of the flashing lights.

Page 2

November 15, 2017

- f. Move the advance warning pavement markings on the east side to align with the W10-1 sign.
- g. BNSF is concerned with the visibility of these lights related to vegetation and utility poles. BNSF suggests relocated lights. City will review options to increase visibility of lights.

Other items discussed:

- The addition of wayside horns, which was tabled in favor of the medians.
- Moving the light cantilevers closer to the roadway edge, which was tabled in favor of restricting parking.
- Placement of mountable median with channelization devises was discussed on the
 west side of the crossing, but a truck turning left from SB 1st Ave. South showed this
 this would restrict these movements. The City will not restrict this turn, so they will
 not install this median. Per Kevin Jeffers "When I ran the calculator, I assumed no
 median on either side here and the risk was such that the entire area qualified."
- Placement of channelization approximately 30' west crossing arms, however a semi was observed driving over this area.
- City will seek funding to upgrade the lights to LED's 18 lights in place at this time.
 UTC Comment: UTC staff believes this is a high priority and should occur prior to, or as a part of, the implementation of a QZ.

2. Willis (SR 516); 085640K

- a. Once the Quiet Zone is approved by the FRA, install W10-9 (No Train Horn) sign on both sides of the crossing and possibly on 1st Avenue South, southern approach, and Railroad Avenue, northern approach, per MUTCD.
- b. Install W10-4 (Parallel Railroad Crossing (T)) signs on 1st Avenue South, southern approach, advising motorists of the grade crossing immediately east of 1st Avenue South if intersections are within 100' of crossing.
- c. Add R8-8 (Do Not Stop on Tracks) sign to the west for eastbound traffic.
- d. Replace the existing mountable median curb with channelization on Willis St with new mountable median curb with channelization delineators at 80" typical spacing through adjacent street intersections with Railroad Ave and 1st Ave South. Also, consider extending the median closer to the tracks, if clearance allows. Medians must extend to be at least within 1 foot of the gate and will be a minimum of the preferred 100 feet or longer as allowed by geometric constraints and as presented during UTC Petition Process. BNSF Prefers non-mountable medians so that drivers can't cross over the medians and drive around the lowered railroad gates.
- e. Improve maintenance of the channelization paddles on the median curbs, by replacing missing paddles.

Page 3

November 15, 2017

- f. Move the advance warning pavement markings on the west side back to align with the W10-1 sign.
- g. Renew the stop lines.
- h. Remove the south-facing light in the NE quadrant, if required for the QZ.
- i. To deter illegal left turns from Railroad Avenue in the SE quadrant, add channelization (length to be minimum of 1 car length or longer as determined by geometric constraints and as presented in UTC Petition Process) at the Railroad Avenue roadway centerline up to the unmarked crosswalk at Willis St. The use of a "pork chop" island was discussed but could not be made large enough to meet design standards. Extending the median curb in Willis Street closer to the tracks (see Item d above) also addresses this concern.
- j. Install tactile warning strips on existing sidewalks on the north and shoulders to the south.
- k. Install R15-8 (LOOK with arrows) signs to alert pedestrians of all four non-gated approaches and to look in both directions for trains at the crossing.
- I. Define the pedestrian paths using paint behind the gates and cantilever bases.

Other items discussed:

The locations of the gate and cantilever bases appear to be too close to the traveled way, which is delineated by the white shoulder stripe to the south; the shoulder stripe is missing on the north side of Willis. The wind guard for the gates extends over the traveled way. The City will examine MUTCD (8C-01) and will advise if they determine this is warranted for the QZ. Per BNSF, the crossing gate assemblies, including the wind guards, should be relocated away from the traveled way. The addition of curbing adjacent to auto traffic was also discussed and but may not be feasible without narrowing the roadway. BNSF will measure the gate arms in relation to the traveled way. City to determine if it is too close and next steps.

BNSF thought that the road had been widened closer to the railroad equipment. The City noted that the roadway has not been altered since the late 1960s or early 1970s.

BNSF stated the preemption time for the signal at Central is not long enough to address the queuing over the tracks that occurs. *{City of Kent later confirmed that only S 212th currently has preemption in place}* This has been studied by BNSF but, to BNSF's knowledge, no action by the City to increase the clearing time has occurred Queuing over the tracks was said to have been observed by BNSF. The City needs to assess this concern by reviewing BNSF's previous study which addresses queuing without increasing the clearing time.

Vehicles speeds appear to be higher than the posted 30 MPH. The City will consider traffic calming, such as lighted signs that detect and display vehicle speeds.

Page 4

Two illegal vehicle movements were observed. A northbound truck made a left turn from 1st Ave S to westbound Wills St against the no left turn restriction; the City will consider no trucks being permitted on 1st Ave S. between Crow St and Willis St. A car made a U-turn on the tracks from WB Willis to EB Willis to enter Railroad Ave south of Willis St. Extending the median closer to the tracks will help address this issue.

Seek funding to upgrade the lights to LED's if required for the QZ. There are 28 lights in place at this time. UTC Comment: UTC staff believes this is a high priority and should occur prior to, or as a part of, the implementation of a QZ Kent will seek grant funding that will be separate from the QZ.

3. S Titus St; 085639R

- a. Once the Quiet Zone is approved by the FRA, install W10-9 (No Train Horn) signs on both sides of the crossing and possibly on both of the 1st Avenue South and Railroad Avenue approaches, per MUTCD.
- b. Install W10-2 (Grade Crossing and Intersection) signs on the 1st Avenue South and Railroad Avenue South approaches to Titus Street if intersections are within 100' of crossing.
- c. Move the R15-1 (Crossbucks) sign to be in line with the WB stop bar and add a R8-10 (Stop Here When Flashing) sign below it.
- d. Replace the existing mountable median curb with channelization on both approaches to the crossing with new mountable median curb with channelization delineators at 80" typical spacing to adjacent marked crosswalks at the intersections with Railroad Ave and 1st Ave S will be a minimum of 60' long (preferred 100') or longer as allowed be geometric constraints and as presented during UTC Petition Process. BNSF Prefers nonmountable medians so that drivers can't cross over the medians and drive around the lowered railroad gates.
- e. Add a section of mountable median curb with channelization between the industrial spur track and the eastern main track to the points allowed by track clearances. BNSF suggests farther discussions with Kent and UTC to determine if this should be implemented or not.
- f. Install R3-5R (Right Turn Only) sign and add curbing for the southeast quadrant driveway to deter illegal left turns out of the driveway.
- g. Close the illegal driveway between the industrial spur track and the east main track. BNSF will review property rights along this area and close the driveway between the industrial spur track and the east main track, if possible.
- h. Eliminate parking along the east side of the main tracks between Titus and Gowe Streets. BNSF has reviewed property rights along this area and is blocking off parking area now.

Page 5

November 15, 2017

- Block or remove the potentially illegal driveway in the SW quadrant with curbing, analyze effectiveness and consider concrete blocks or barriers behind the sidewalk, if needed.
- j. Construct a fence along the west side of the main tracks to deter trespassing between Titus and Gowe Streets. Note that BNSF fiber and signal cables are in the area near the guardrail so BNSF's locations service (not just the typical One-call services) should be contacted at least 48 hours before digging.
- k. Install tactile warning strips on the existing shoulders in all four quadrants.
- I. Install R15-8 (LOOK with Arrows) signs to alert pedestrians at all four non-gated approaches to look for trains at the crossing.
- m. Define the pedestrian paths using paint behind the gates and cantilever bases in the SW and NE quadrants.
- n. Improve maintenance of the channelization paddles on the median curbs, by replacing missing paddles.

Other items discussed:

Closing the crossing was discussed. The City's police use this as a direct access to Central for emergency response from the police headquarters located approximately 3 blocks to the west. The City is not considering a closure at this time.

Relocation of the lights at the gate to the east to encompass the industrial spur track was discussed, but was tabled in favor of moving the R15-1 sign and adding the R8-10 sign.

The addition of a fence along the east side of the main tracks was discussed and was tabled in favor of eliminating parking on this side of the tracks and the addition of the fence on the west side of the tracks between Titus and Willis.

Two illegal trespassing incidents were observed to the north between Titus and Gowe Streets. Installation of fencing on the west side and the elimination of parking to the east of the main track will reduce trespassing.

The City will seek funding to upgrade the lights to LED's, if required for the QZ. There are 8 lights in place at this time. UTC Comment: UTC staff believes this is a high priority and should occur prior to, or as a part of, the implementation of a QZ.

4. S Gowe St; 085637C

a. Once the Quiet Zone is approved by the FRA, install W10-9 (No Train Horn) signs on both sides of the crossing and possibly on both 1st Avenue South and Railroad Avenue approaches, per MUTCD.

Page 6

November 15, 2017

- b. Install W10-2 (Grade Crossing and Intersection) signs on 1st Avenue South and Railroad Avenue South approaches to Gowe Street if intersections are within 100' of crossing..
- c. Add R8-8 (Do Not Stop on Tracks) signs for both EB and WB traffic.
- d. Replace the existing mountable median curb with channelization on both approaches to the crossing with new mountable median curb with channelization delineators at 80" typical spacing on both approaches to the crossing to adjacent marked crosswalks at the intersections with Railroad Ave and 1st Ave will be a minimum of 60' long (preferred 100') or longer as allowed be geometric constraints and as presented during UTC Petition Process. BNSF Prefers non-mountable medians so that drivers can't cross over the medians and drive around the lowered railroad gates.
- e. Close the western-most driveway in the SE quadrant
- f. The City will investigate closing the driveway in the SE quadrant that is farther to the east of the crossing near Railroad Ave S.
- g. Eliminate parking along the east side of the main tracks between Titus and Gowe Street. BNSF has review property rights along this area and is completing work now.
- h. Construct a fence along with west side of the main tracks, at the back of the existing W-beam guardrail to deter trespassing between Titus and Gowe Streets. Note that BNSF fiber and signal cables are in the area near the guardrail so BNSF's locations service (not just the typical One-call services) should be contacted at least 48 hours before digging.
- i. Construct a fence along the west side of the main tracks within the park property to deter trespassing between Gowe and Meeker Streets. Note that BNSF fiber and signal cables are in the area so BNSF's locations service (not just the typical One-call services) should be contacted at least 48 hours before digging.
- j. Remove the asphalt concrete pavement that links the shoulder to the BNSF work area behind the old station building to deter trespassing to the north if required as a part of the O7
- k. Construct a fence in the NE quadrant form the Gowe ROW, north to the corner of the BNSF building to deter trespassing to the north if required by the QZ. Length to be coordinated with BNSF and included the QZ Process.
- I. Install tactile warning strips on existing shoulders.
- m. Install R15-8(LOOK with Arrows) signs to alert pedestrians at all four non-gated approaches to look for trains at the crossing.
- n. Define the pedestrian paths with paint behind the gates and cantilever bases in the SW and NE quads. BNSF Comment: "To Kent: Was adding "do not stop on tracks" signs included?"
- o. Improve maintenance of the channelization paddles on the median curbs, by replacing missing paddles.

Other items discussed:

Closing of the driveway in the NE quadrant was discussed. BNSF preferred to keep it open for their use at this time.

Page 7

Adding a section of median between the two main tracks was discussed, but City maintenance within that area was a concern, thus it was tabled.

The locations of the gate and cantilever bases appear to be too close to the traveled way, which is delineated by the white shoulder stripe to the south; the shoulder stripe is missing to the north. The wind guard for the gates appear to extend over the traveled way. The City will work with BNSF to restripe the lanes to narrow them and provide more distance between the edge of traveled way and gates.

The addition of curb, gutter and sidewalk closer to the beginning of the crossing limits was an apparent recommendation from the diagnostic report circulated in 2015. This is no longer being proposed by the City and needs to be documented in the resulting report for the diagnostic analysis.

BNSF feels the city needs to assess queuing concerns by reviewing BNSF's previous study. BNSF has stated that they feel the City's preemption does not have sufficient time at this location, amongst others.

Closure of the crossing or changing the tracking patterns to force one-way traffic at this and other downtown crossings was discussed. The City is not open to closure or creating one-way streets at this time.

Queuing of WB traffic from 1st Avenue South was observed after a train cleared and a vehicle attempted a left turn from westbound Gowe Street to southbound 1st Avenue.

City to seek funding to upgrade the lights to LED's if required for the QZ. There are currently 16 lights in place at this time. UTC Comment: UTC staff believes this is a high priority and should occur prior to, or as a part of, the implementation of a QZ.

5. S Meeker St; 085636V

- a. Once Quiet Zone is approved by the FRA, install W10-9 (No Train Horn) sign on both sides of the crossing and possibly on both 1st Avenue South and Railroad Avenue approaches, per MUTCD.
- b. Install W10-2 (Grade Crossing and Intersection) signs on 1st Avenue South and Railroad Avenue South approaches to Meeker Street if intersections are within 100' of crossing.
- c. Add R8-8 (Do Not Stop on Tracks) signs for both EB and WB traffic.
- d. Replace the existing mountable median curb with channelization with new mountable median curb with channelization delineators at 80" typical spacing to marked crosswalks at the intersections with Railroad Ave and 1st Ave will be a minimum of 60'

Page 8

November 15, 2017

long(preferred 100') or longer as allowed be geometric constraints and as presented during UTC Petition Process. BNSF Prefers non-mountable medians so that drivers can't cross over the medians and drive around the lowered railroad gates.

- e. Construct a fence along the west side of the main tracks within the park properties both and north and south of the street to deter trespassing. Note that BNSF fiber and signal cables are in the area so BNSF's locations service (not just the typical One-call services) should be contacted at least 48 hours before digging. Fence location and length and will be coordinate with BNSF.
- f. Construct a fence in the SE quadrant from the Meeker St ROW south to the corner of the BNSF building to deter trespassing to the south if required by the QZ. Fence location and length and will be coordinate with BNSF.
- g. Install concrete barrier or blocks in the SE quadrant on BNSF property in the area of the signal bungalow to stop unauthorized left turns out of the BNSF property.
- h. Install tactile warning strips on existing shoulders.
- i. Install R15-8 (LOOK with Arrows) signs to alert pedestrians on the non-gated sides of the approaches to look for trains at the crossing.
- j. Trim large tree west of the tracks in the SW quadrant to allow adequate visibility of the railroad crossing signal flashing lights for the eastbound approach to the crossing.
- k. Improve maintenance of the channelization paddles on the median curbs, by replacing missing paddles.

Other items discussed:

The lights were observed to be already upgraded with LED's.

The locations of the gate and cantilever bases appear to be too close to the traveled way, which is delineated by the white shoulder stripe to the south; the shoulder strip is missing to the north. The wind guard for the gates may extend over the traveled way. The City will work with BNSF to restripe the lanes to narrow them and provide more distance between the edge of traveled way and gates. BNSF would like to work with City now to get this work completed.

The addition of curb, gutter and sidewalk closer to the beginning of the crossing limits was an apparent recommendation from the diagnostic report circulated in 2015. These are no longer being proposed by the City and needs to be documented in the diagnostic analysis report.

The City needs to assess queuing concerns by reviewing BNSF's previous study. BNSF has stated that the City's preemption does not have sufficient time at this location, amongst others.

Page 9

November 15, 2017

Closure of the crossing or changing the tracking patterns to force one-way traffic at this and other downtown crossings was discussed. The City is not open to closure or creating one-way streets at this time.

Trespassing between Meeker and Smith Streets was observed with the violators walking north from one crossing to the other.

6. S Smith St; 085633A

- a. Once quiet Zone is approved by FRA, install W10-9 (No Train Horn) sign on both sides of the crossing and possibly on both Railroad Avenue approaches, per MUTCD.
- b. Install W10-2 (Grade Crossing and Intersection) signs on Railroad Avenue South approaches to Smith Street if intersections are within 100' of crossing.
- c. Replace R8-8 (Do Not Stop on Tracks) signs for both EB and WB traffic with larger, more reflective signs.
- d. Refresh the pavement markings, including the stop lines.
- e. Replace the existing mountable median curb with channelization with new mountable median curb with channelization delineators at 80" typical spacing on east side of tracks and will be a minimum of 60' long (preferred 100') or longer as allowed be geometric constraints and as presented during UTC Petition Process. BNSF Prefers non-mountable medians so that drivers can't cross over the medians and drive around the lowered railroad gates.
- f. Replace the existing mountable median curb with channelization delineators at 80" typical spacing with new on the west side of the tracks, extend to the existing C-curb island, and add channelization devises (i.e. "candle sticks") to a point at least 100' from the crossing gate. BNSF Prefers non-mountable medians so that drivers can't cross over the medians and drive around the lowered railroad gates.
- g. Construct a fence along the west side of the main tracks within the park properties to the south of the street to deter trespassing. This should roughly align with the SW pedestrian gate at the sidewalk. Note that BNSF fiber and signal cables are in the area so BNSF's locations service (not just the typical One-call services) should be contacted at least 48 hours before digging. Fence length and location will be coordinate with BNSF.
- h. Consider and evaluate the addition of pedestrian gate and flashing lights in the SE quadrant to block the sidewalk. This was recommended by the diagnostics team.
- i. Consider and evaluate the addition of pedestrian gate in the NW quadrant between the tracks and ST ramp from the platform keeping the existing flashing lights that face north. BNSF measured the distance from the existing west main track and believes this can be done without violating statutory clearance.
- j. If gates are not added in the SE and NW quadrants, install R15-8 (LOOK with Arrows) signs to alert pedestrians on the non-gated sides of the approaches to look for trains at the crossing. This was recommended by the diagnostics team and per BNSF if this not

Page 10

November 15, 2017

installed then a Side Light Assembly needs to be installed on existing device for the sidewalk.

- k. Install tactile warning strips for the pedestrian crossings on sidewalks where not already installed.
- Extend or supplement the pedestrian railing in the NE quadrant from the ST passenger platform to deter pedestrians from cutting between the gate and the railing keeping pedestrians on the paved sidewalk.
- m. Improve maintenance of the channelization paddles on the median curbs, by replacing missing paddles.

Other items discussed:

Narrowing or rerouting the ST ramp from the platform in the NW quadrant to increase space for a pedestrian gates was discussed, but this would require acquiring ROW from the private owner. Similarly, adding a gate that blocks the ramp would also require ROW and is less desirable. Per BNSF, one of these options needs to be investigated farther and coordinated with BNSF as challenging property acquisition does not eliminate these options.

The gate in the NE quadrant is about 4' short of reaching the center of the roadway. BNSF believes it complies with FRA CFR 234 by covering 90% of the crossing roadway. If this issue needs to be addressed for the QZ, BNSF would also request the existing "scissor" pedestrian gate be removed from the roadway gate mechanism and an independent pedestrian gate with its own post and foundation be installed. The City will examine MUTCD (8C-01) and advise if they believe this is warranted for the QZ. City will determine if Implementation of I above affects the need for a pedestrian gate.

The gate in the SW quadrant has a "scissor" pedestrian gate, similar to the NE gate. BNSF proposes this be removed from the roadway gate mechanism and an independent pedestrian gate be installed with its own post and foundation.

The city needs to assess queuing concerns by reviewing BNSF's previous study. BNSF has stated they feel that the City' preemption does not have sufficient time at this location.

Closure of the crossing or changing the tracking patterns to force one-way traffic at this and other downtown crossings was discussed. The City is not open to closure or creating one-way streets at this time.

Trespassing between Meeker and Smith Streets was observed with violators walking north from one crossing to the other.

BNSF will to remove bent sign along tracks.

Page 11

The City will seek funding to upgrade the lights to LED's if required for the QZ. There are currently over 30 lights in place at this time. UTC Comment: UTC staff believes this is a high priority and should occur prior to, or as a part of, the implementation of a QZ.

7. S James St; 085629K

- a. Once Quiet Zone is approved by the FRA, install W10-9 (No Train Horn) sign on both sides of the crossing and possibly on the southern 1st Avenue S approach, per MUTCD.
- b. Install W10-2 (Grade Crossing and Intersection) signs on Railroad Avenue South approaches to James Street if intersections are within 100' of crossing.
- c. Install W10-4 (Parallel Railroad Crossing (T)) on the northbound 1st Avenue South approach to James Street if intersection is within 100' of crossing.
- d. Add R8-8 (Do Not Stop on Tracks) signs for both EB and WB traffic.
- e. Refresh the shoulder pavement markings.
- f. Replace the existing mountable median curb with channelization delineators at 80" typical spacing with new both sides of tracks and extend them to be at least 100 feet from the crossing gates. BNSF Prefers non-mountable medians so that drivers can't cross over the medians and drive around the lowered railroad gates.
- g. Turn the south facing flashing light located in the SE quadrant to face east and add a R15-2P "2 Tracks" sign.
- h. Install tactile warning strips for pedestrian crossings on existing shoulders.
- i. Install R15-8 ("LOOK" with arrows) signs to alert pedestrians on the non-gated sides of the approaches to LOOK for trains at the crossing.
- j. Add a curb along the north edge of the traveled way to better protect the warning devices
- k. Add a fence along the eastern RR ROW line, about 1,800 feet north of the crossing, where trespassing has been observed. Fence location and length will be coordinated with BNSF.
- I. Improve maintenance of the channelization paddles on the median curbs, by replacing missing paddles.

Other items discussed:

Constructing a fence along east side of the main tracks on BNSF property to the south end of the station platform to deter trespassing, along with adding barriers behind the sidewalk in the SE quadrant with No Trespassing signs in BNSF ROW was discussed. If a fence is constructed, consider adding a paved path on the east side of the fence to further discourage trespassing. This was tabled until ST plans their improvements that will add parking to the east. BNSF Believes barricades and fencing needs to be installed as part of the QZ treatment. BNSF may consider deferring the paved walkway east of the

Page 12

November 15, 2017

fence to the ST project. Megan to investigate BNSF ROW limits and barricading BNSF property in SE quadrant.

Pedestrian gates in SE quadrant was discussed. This was tabled this until ST plans their improvements that will add parking to the east.

On north side of James Street, west of the grade crossing, rebuilding the shoulder to be a minimum of 4' wide was discussed, but it was measured while on site and found to be more than 48" and sufficient.

The City will assess queuing concerns by reviewing BNSF's previous study. UTC Comment (at queuing issues): Consider installing dynamic envelope striping at the crossing to alert drivers where they should not stop when in a queue.

Where the trespassing is known, about 1,800 feet north of the crossing, BNSF will consider adding more No Trespassing signs.

Observed trespassers along the east side of the tracks walking north from the station area.

City to seek funding to upgrade the lights to LED's if required for the QZ. There are currently 30 lights in place at this time. UTC Comment: UTC staff believes this is a high priority and should occur prior to, or as a part of, the implementation of a QZ

8. S 212th St; 085625H

- Once the Quiet Zone is approved by FRA, install W10-9 (No Train Horn) sign on both sides of the crossing and possibly on the northern 1st Avenue South approach, per MUTCD.
- b. Install W10-4 (Parallel Railroad Crossing (T)) on the northbound 77th Avenue South approach to 212th Street if intersections are within 100' of crossing.
- c. Replace R8-8 (Do Not Stop on Tracks) signs for both EB and WB traffic with larger, more reflective signs.
- d. Install delineators at 80" typical spacing to the west approach along the south side of the existing mountable island and to the east approach along the north side of the existing mountable island and will be a minimum of 60' long (preferred 100') or longer as allowed be geometric constraints and as presented during UTC Petition Process. BNSF Prefers non-mountable medians so that drivers can't cross over the medians and drive around the lowered railroad gates.
- e. Install median with delineators along north side of turn lane past the existing island to create 100' mountable median with channelization devises measured from the EB gate.

Page 13

November 15, 2017

- f. Refresh the stop lines on the east and west approaches.
- g. Install R15-8 (LOOK with Arrows) signs to alert pedestrians on the non-gated SE quad to look for trains at the crossing.
- h. Install tactile warning strips for pedestrian crossings on existing sidewalks.

Other items discussed:

Discussed taller barriers in the center islands to better protect the median gates from wayward traffic. There were two incidents where the gates were hit by out-of-control vehicles last summer and one where a vehicle hit the bungalow. This was tabled until future grant funding can be secured. BNSF signal engineering is opposed to tabling this issue.

The preemption time for the signals at 77th Ave South may not be long enough to meet current guidance upgrade to the traffic signal. The City needs to assess this concern with the BNSF. (Outside of the QZ limits.) BNSF requests City of Kent to work with them in early 2018 to address this preemption along with other crossing preemptions.

BNSF would also prefer that the existing "scissor" pedestrian gates in the SW and NE quadrants be removed from the roadway gate mechanism. While all agreed that the pedestrian gates do not appear to be required, the City prefers to undertake any change outside of the QZ process. An alternative option is to remove the pedestrian gate arm.

Appendix D

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Crossing ID	Organization Sound Transit	Comment QUESTION: What is the timing of establishing a quiet zone through the City of Kent on BNSF Railway?	Lity or kent kesponse If our application is approved by the FRA, we believe the Quiet Zone will be
			implemented between one and three years from the time NOI is issued.
ΙΙ	Washington State Department of Transportation	No comments.	Thank you for reviewing the NOI.
A	Washington State Utilities and Transportation Commission	LED light upgrades: Staff strongly recommends that, in addition to the proposed upgrades, all crossing signals be upgraded to LEDs prior to quiet zone establishment. Staff acknowledges that these upgrades are outside of the quiet zone requirements; however, the absence of a train horn only increases the need for railroad warning devices to be seen, and Staff believes these upgrades would improve visibility of the crossing signals for motor vehicles and pedestrians.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED. An inquiry has been made with BNSF to discuss the upgrade process and costs.
All	Washington State Utilities and Transportation Commission	Vehicle queuing/traffic signal preemption: At the Nov. 2017 onsite meeting, Staff observed vehicles queuing over several crossings while drivers were waiting for nearby traffic signals. Only the S. 212th crossing currently has traffic signal preemption in place. Based on a 2011 study prepared for BNSF by Campbell Technology Corporation, the simultaneous preemption at the S. 212th crossing does not provide enough time for a design vehicle to clear the track during a worst-case scenario. Staff acknowledges that . this is outside of the quiet zone requirements; however, Staff recommends that the traffic signal preemption issue at S. 212th be addressed as soon as possible to prevent vehicle/train collisions. In addition, if there is vehicle queuing at other crossings located within 200 feet of a traffic signal, the crossings should be evaluated for preemption.	The City has concerns about the impacts to traffic with preemption and the possible safety implications to the overall system is preemption is implemented in the downtown area. The City and BNSF have begun to discuss the level of effort that would be necessary to interconnect the railroad and traffic signals in the downtown area. The track clearance green time adjustement, the removal of the pedestrian recall on 77th Ave S, and the removal of pedestrian walk recall on coordinated phases at the S 212th St and 77th Ave S intersection have been changed as recommended in BNSF's 2011 study. In additon, the annual preemption testing recommended in the repoty has also been implemented.
085625H S 212th St	BNSF	Non-mountable medians strongly preferred to the proposed mountable medians with delineators.	Thank you for the comment. Mountable curb with vertical channelization elements meet the requirements for an SSM and is also the basis for an ASM based on a modidied SSM while also providing better access for EMS response. The City acknowledges, and accepts, that there will be increased maintenance requirements with mountable curb and vertical channelization.
085625Н S 212th St	BNSF	Taller barriers at the center islands to better protect median signal gate arms are recommended. Two previously incidents where vehicles struck the signal equipment.	As discussed during the diagnostic, taller barriers present a design challenge due the the roadway design speed and clear zone requirements.
085625Н S 212th St	BNSF	Installation of LED lights for all signals strongly recommended.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED.
085625H S 212th St	BNSF	The 2011 study prepared for BNSF by Campbell Technology Corporation identified the simultaneous preemption currently in place does not provide enough time for a design vehicle to clear the track. It is strongly recommended that the City addresses the queuing concerns at this location.	This is something the City is evaluating.
085629K E James St	BNSF	Non-mountable medians strongly preferred to the proposed mountable medians with delineators.	Thank you for the comment. Mountable curb with vertical channelization elements meet the requirements for an SSM and is also the basis for an ASM based on a modidied SSM while also providing better access for EMS response. The City acknowledges, and accepts, that there will be increased maintenance requirements with mountable curb and vertical channelization.
085629K E James St	BNSF	City previously proposed addition of a fence along the eastern ROW line, approximately 1,800' north of the crossing where pedestrian trespassing has been observed. Please confirm this will be installed.	Confirmed. The referenced tresspass fence will be installed prior to the establishment of a New Quiet Zone.

Crossing ID	Organization	Comment	City of Kent Response
085629K E James St	BNSF	Crossing currently has significant vehicle queues. BNSF previously issued a study which recommended interconnection at the crossing, but the City has not addressed BNSF's concerns to date.	The City has concerns about the effects of signal preemption on traffic operations and the overall impacts to traffic in the area of the railroad crossings in downtown. The BNSF study did not address traffic issues and the related safety concerns related to traffic. However, we have initiated communications with BNSF to discuss further. To reduce the risk of vehicle queuing on the tracks the City is proposing additional signing (Do Not Stop On Tracks (R8-8)) and dynamic envelope pavement markings.
085629K E James St	BNSF	Installation of LED lights for all signals strongly recommended.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED.
085633A E Smith St	BNSF	Non-mountable medians strongly preferred to the proposed mountable medians with delineators.	Thank you for the comment. Mountable curb with vertical channelization elements meet the requirements for an SSM and is also the basis for an engineered ASM while also providing better access for EMS response. The City acknowledges, and accepts, that there will be increased maintenance requirements with mountable curb and vertical channelization.
085633A E Smith St	BNSF	City previously proposed addition of a fence along the eastern ROW line to deter pedestrian trespassing. Please confirm the fence installation.	Confirmed. Additional pedestain railing will we installed in the northeast quadrant to deter pedestriance from walking around the back of the crossing gate from the platform.
085633A E Smith St	BNSF	Crossing currently has significant vehicle queues. BNSF previously issued a study which recommended interconnection at the crossing, but the City has not addressed BNSF's concerns to date.	The City has concerns about the effects of signal preemption on traffic operations and the overall impacts to traffic in the area of the railroad crossings in downtown. The BNSF study did not address traffic issues and the related safety concerns related to traffic. However, we have initiated communications with BNSF to discuss further. To reduce the risk of vehicle queuing on the tracks the City is proposing additional signing (Do Not Stop On Tracks (R8-8)) and dynamic envelope pavement markings.
085633A E Smith St	BNSF	Installation of LED lights for all signals strongly recommended.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED.
085636V E Meeker St	BNSF	Non-mountable medians strongly preferred to the proposed mountable medians with delineators.	Thank you for the comment. Mountable curb with vertical channelization elements meet the requirements for an SSM and is also the basis for an ASM based on a modidied SSM while also providing better access for EMS response. The City acknowledges, and accepts, that there will be increased maintenance requirements with mountable curb and vertical channelization.
085636V E Meeker St	BNSF	East median proposed at 98'. Preferred length is 100' or greater.	We agree that 100 feet or greater is preferrable but 98 feet is the distance from the crossing gate to the crosswalk on the west side of the intersection of Railroad Ave S.
085636V E Meeker St	BNSF	City previously proposed addition of fence along the west side of the mainline within park properties both Confirmed. A new fence will be installed on the west side of the mainline between north and south of the street to deter pedestrian trespassing. Please confirm the fence installation. Smith and Meeker and also between Meeker and Gowe.	Confirmed. A new fence will be installed on the west side of the mainline between Smith and Meeker and also between Meeker and Gowe.

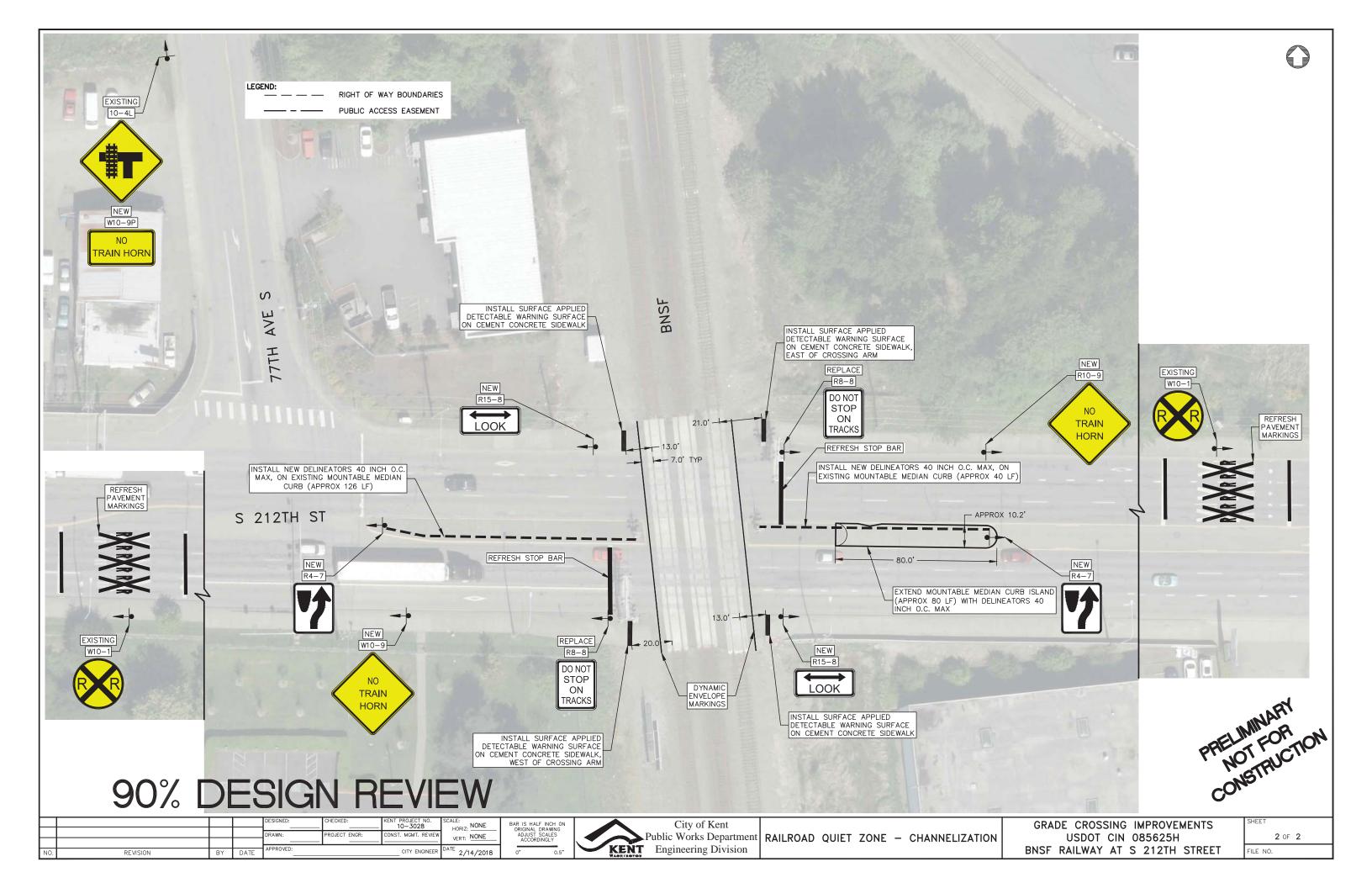
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Underwer St.	Urganization BNSF	Crossing currently has significant vehicle queues. BNSF previously issued a study which recommended interconnection at the crossing, but the City has not addressed BNSF's concerns to date.	We have not observed significant vehicle queuing at the Meeker St crossing. Queuing would better be characterized as occasional. The nearest signalized intersection is over 400 feet to the east. We will discuss interconnecting the the traffic signal to the east with BNSF. To reduce the risk of vehicle queuing on the tracks the City is proposing additional signing (Do Not Stop On Tracks (R8-8)) and dynamic envelope pavement markings.
085636V E Meeker St	BNSF	Installation of LED lights for all signals strongly recommended.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED.
085637C E Gowe St	BNSF	Non-mountable medians strongly preferred to the proposed mountable medians with delineators.	Thank you for the comment. Mountable curb with vertical channelization elements meet the requirements for an SSM and is also the basis for an ASM based on a modidied SSM while also providing better access for EMS response. The City acknowledges, and accepts, that there will be increased maintenance requirements with mountable curb and vertical channelization.
085637C E Gowe St	BNSF	East median proposed at 98'. Preferred length is 100' or greater.	The current design proposes approximately 100 of median channelization.
085637C E Gowe St	BNSF	City previously proposed addition of fence along the west side of the mainline within park properties both north and south of the street to deter pedestrian trespassing. Please confirm the fence installation.	ig the west side of the mainline within park properties both Confirmed. A new fence will be installed on the west side of the mainline between an trespassing. Please confirm the fence installation. Meeker and Gowe and between Gowe and Titus.
085637C E Gowe St	BNSF	Installation of LED lights for all signals strongly recommended.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED.
085637C E Gowe St	BNSF	Crossing currently has significant vehicle queues. BNSF previously issued a study which recommended interconnection at the crossing, but the City has not addressed BNSF's concerns to date.	We have not observed significant vehicle queuing at Gowe St crossing. Queuing would better be characterized as occasional. The nearest signalized intersection is over 400 feet to the east and this is a low-volume street. We will discuss interconnecting the the traffic signal to the east with BNSF. To reduce the risk of vehicle queuing on the tracks the City is proposing additional signing (Do Not Stop On Tracks (R8-8)) and dynamic envelope pavement markings.
085639R E Titus St	BNSF	Non-mountable medians strongly preferred to the proposed mountable medians with delineators.	Thank you for the comment. Mountable curb with vertical channelization elements meet the requirements for an SSM and is also the basis for an ASM based on a modidied SSM while also providing better access for EMS response. The City acknowledges, and accepts, that there will be increased maintenance requirements with mountable curb and vertical channelization.
085639R E Titus St	BNSF	Please confirm ASM applications for the center medians will be submitted to and reviewed by the FRA.	Confirmed. All ASMs will be submitted to the FRA for review and approval.
085639R E Titus St	BNSF	Please be aware that the spur track adjacent to this crossing will not be a part of the quiet zone, and as a Thank you. We are aware of this. This was discussed during the diagnostic. result the train horn will be sounded when trains occupy the crossing.	hank you. We are aware of this. This was discussed during the diagnostic.
085639R E Titus St	BNSF	City previously proposed addition of fence along the west side of the mainline between Titus and Gowe to Confirmed. A new fence will be installed on the west side of the mainline between deter pedestrian trespassing. Please confirm the fence installation.	Confirmed. A new fence will be installed on the west side of the mainline between Gowe and Titus.
085639R E Titus St	BNSF	Installation of LED lights for all signals strongly recommended.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED.

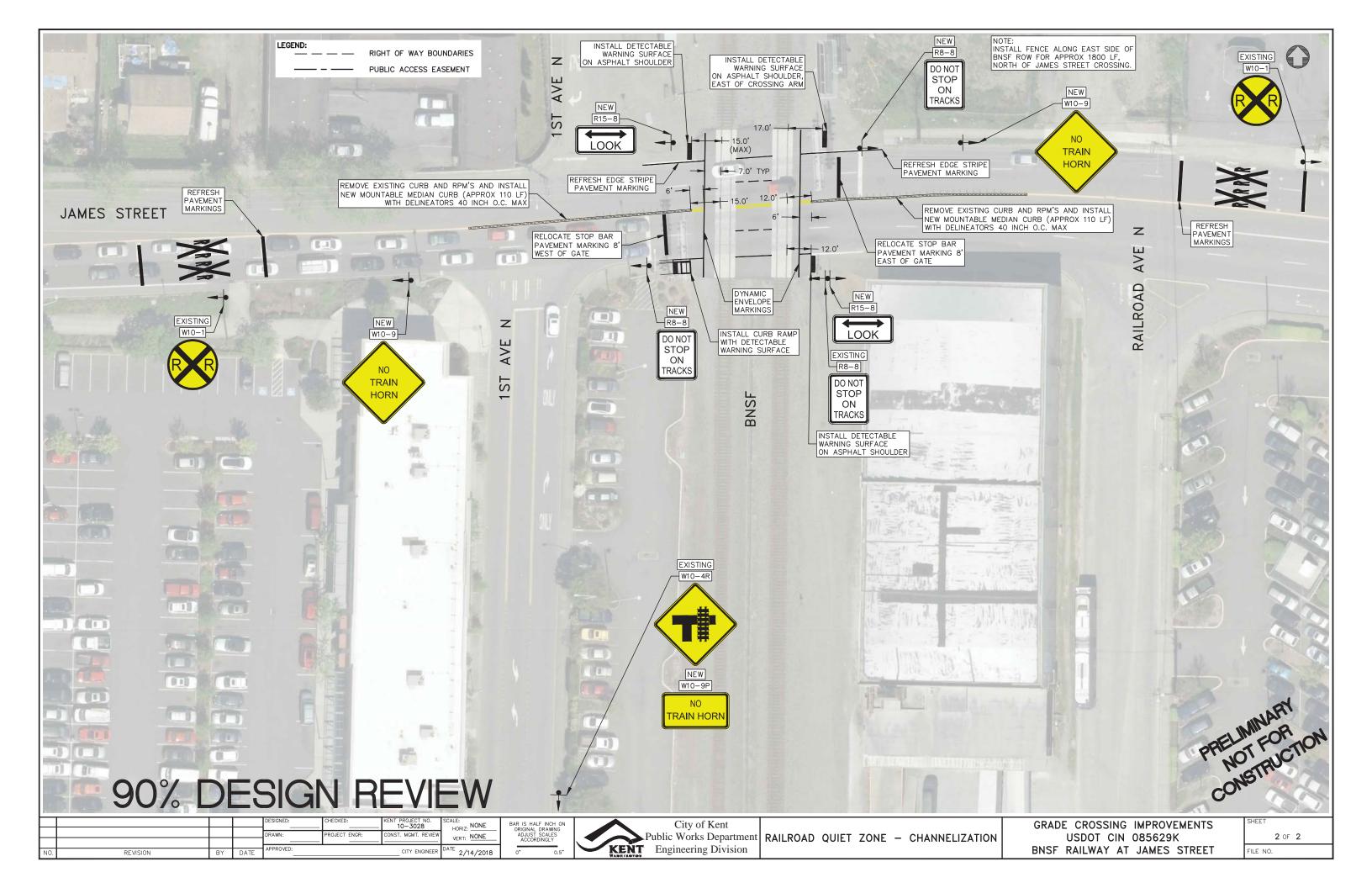
Crossing ID 085640K E Willis St State Route 516	Organization BNSF	Comment Non-mountable medians strongly preferred to the proposed mountable medians with delineators.	Thank you for the comment. Mountable curb with vertical channelization elements meet the requirements for an SSM and is also the basis for an ASM based on a modidied SSM while also providing better access for EMS response. The City arknowledges, and acrearly that there will be increased maintenance requirements.
)			with mountable curb and vertical channelization.
085640K E Willis St State Route 516	BNSF	Crossing currently has significant vehicle queues. BNSF previously issued a study which recommended interconnection at the crossing, but the City has not addressed BNSF's concerns to date.	The City has concerns about the effects of signal preemption on traffic operations and the overall impacts to traffic in the area of the railroad crossings in downtown. The BNSF study did not address traffic issues and the related safety concerns related to traffic. However, we have initiated communications with BNSF to discuss further.
			To reduce the risk of vehicle queuing on the tracks the City is proposing additionaldynamic pavement markings at each crossing.
085640K E Willis St State Route 516	BNSF	Please confirm ASM applications for the center medians will be submitted to and reviewed by the FRA.	Confirmed. All ASMs will be submitted to the FRA for review and approval.
085640K E Willis St State Route 516	BNSF	Installation of LED lights for all signals strongly recommended.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED.
085640K E Willis St State Route 516	Washington State Utilities and Transportation Commission	Washington State Staff recommends ensuring that the removal and replacement of the existing median Utilities and barrier/channelization is close enough to tracks to deter illegal left turns from Railroad Ave. in the SE Transportation quadrant, as discussed in the Nov. 2017 onsite meeting notes. Commission	The current design proposes approximately 100 of median channelization east of the crossing. This will extend approximately 60 feet east of the intersection in the southeast quadrant.
085642Y S 259th St	BNSF	Non-mountable medians strongly preferred to the proposed mountable medians with delineators.	Thank you for the comment. Mountable curb with vertical channelization elements meet the requirements for an SSM and is also the basis for an ASM based on a modidied SSM while also providing better access for EMS response. The City acknowledges, and accepts, that there will be increased maintenance requirements with mountable curb and vertical channelization.
085642Y S 259th St	BNSF	Center median strongly recommended on west side of crossing, currently only proposed on east side of crossing.	The industrian area and truck traffic on 1st Ave S north of 259th makes median channelization impossible. S 259th St is a low-volume street with good visibiliy from the west side.
085642Y S 259th St	BNSF	Truck entrance in NE quadrant can cause vehicle queuing on tracks while trucks maneuver into storage facility. The City needs to address these concerns with traffic control plans.	The the west edge of the commercial driveway in the northeast quadrant is approximately 190 feet from the crossing. There is a reasonable amount of storage between the crossing and the driveway. The business served by that driveway is relatively small so truck volumes are low.
085642Y S 259th St	BNSF	Please confirm ASM applications for the center medians will be submitted to and reviewed by the FRA.	Confirmed. All ASMs will be submitted to the FRA for review and approval.
085642Y S 259th St	BNSF	Installation of LED lights for all signals strongly recommended.	The City will look for grants and funding opportunities to pursue upgrading the signals to LED.

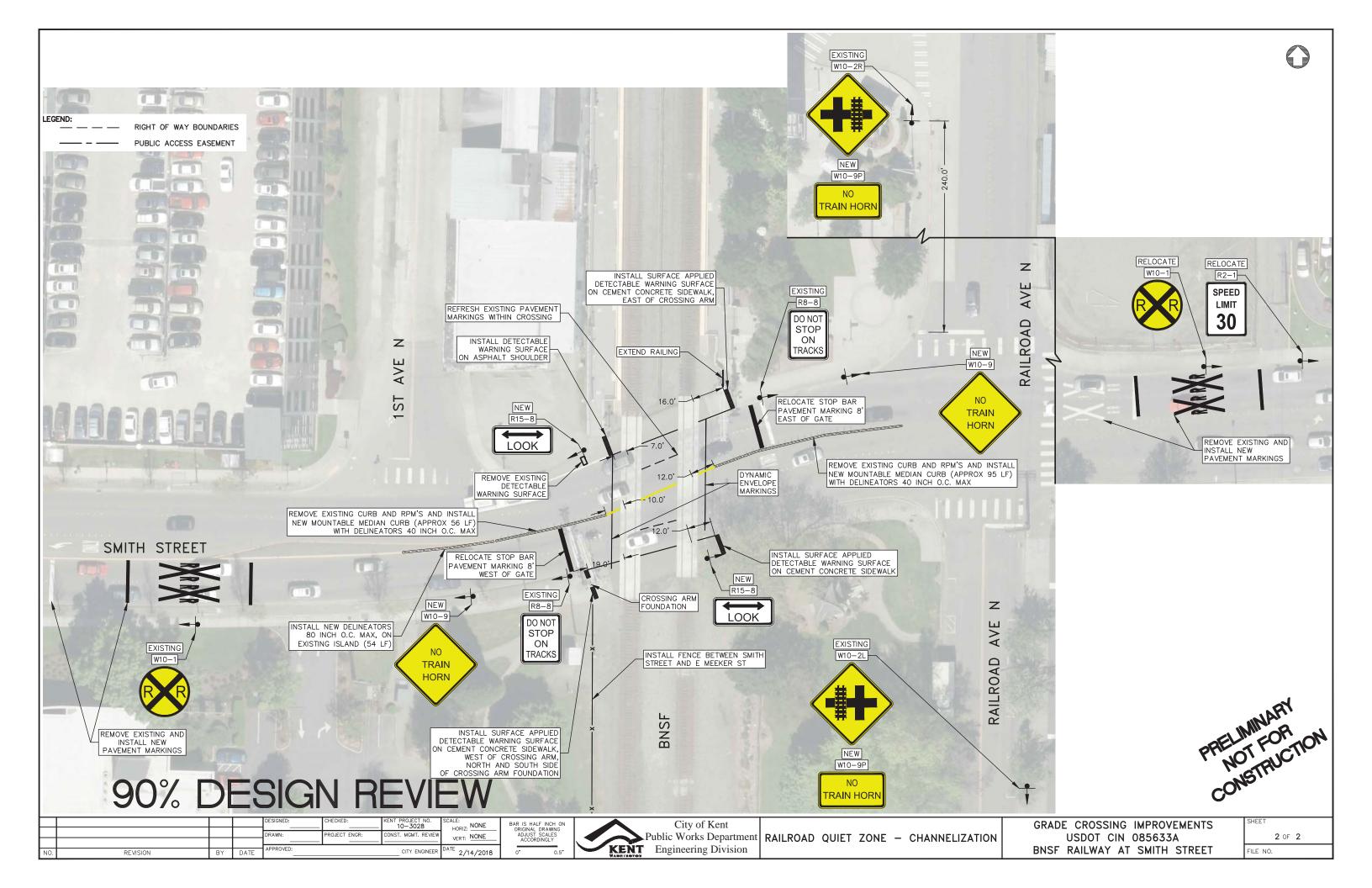
Appendix E

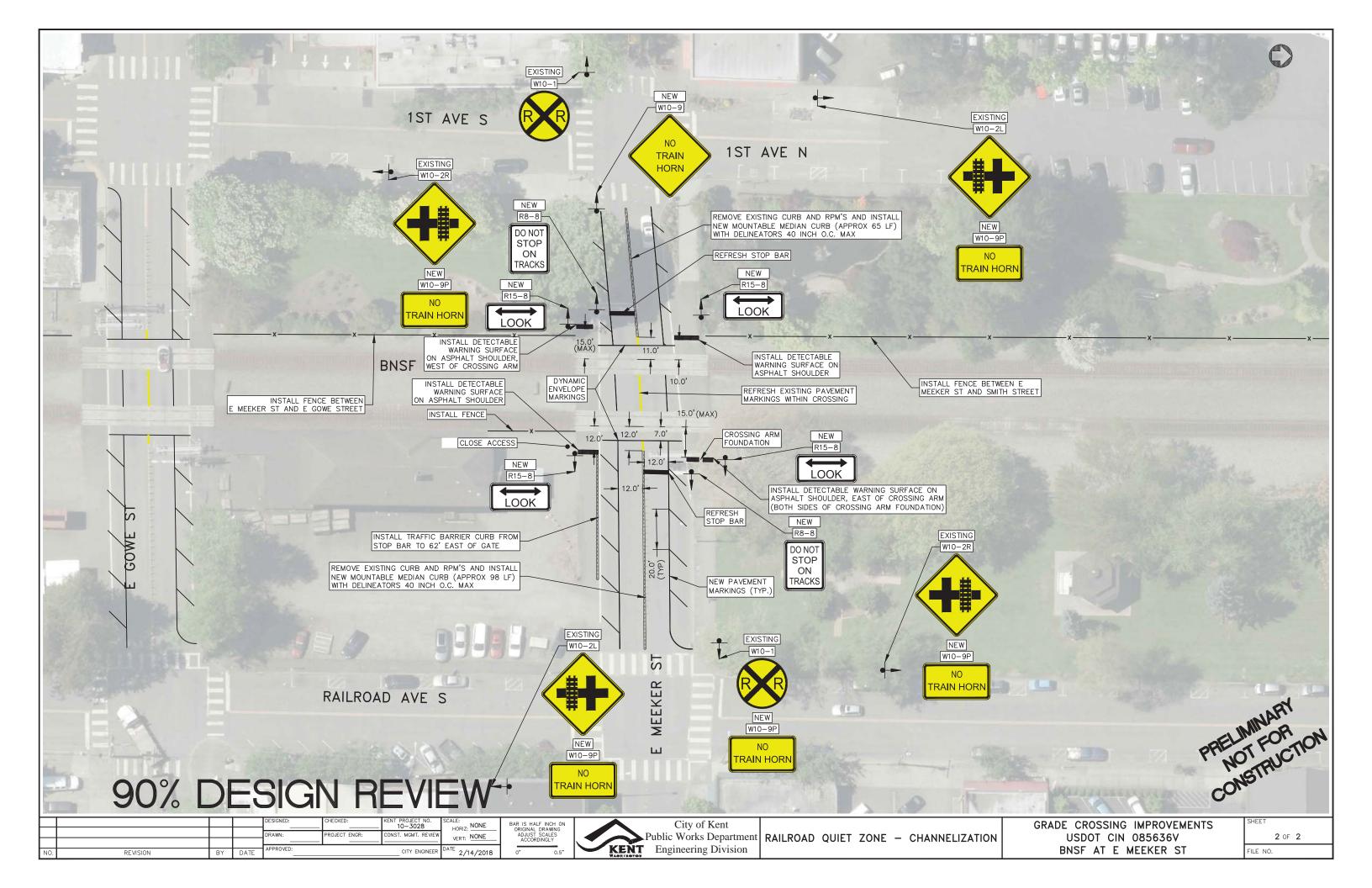
Grade Crossing Modification Plans

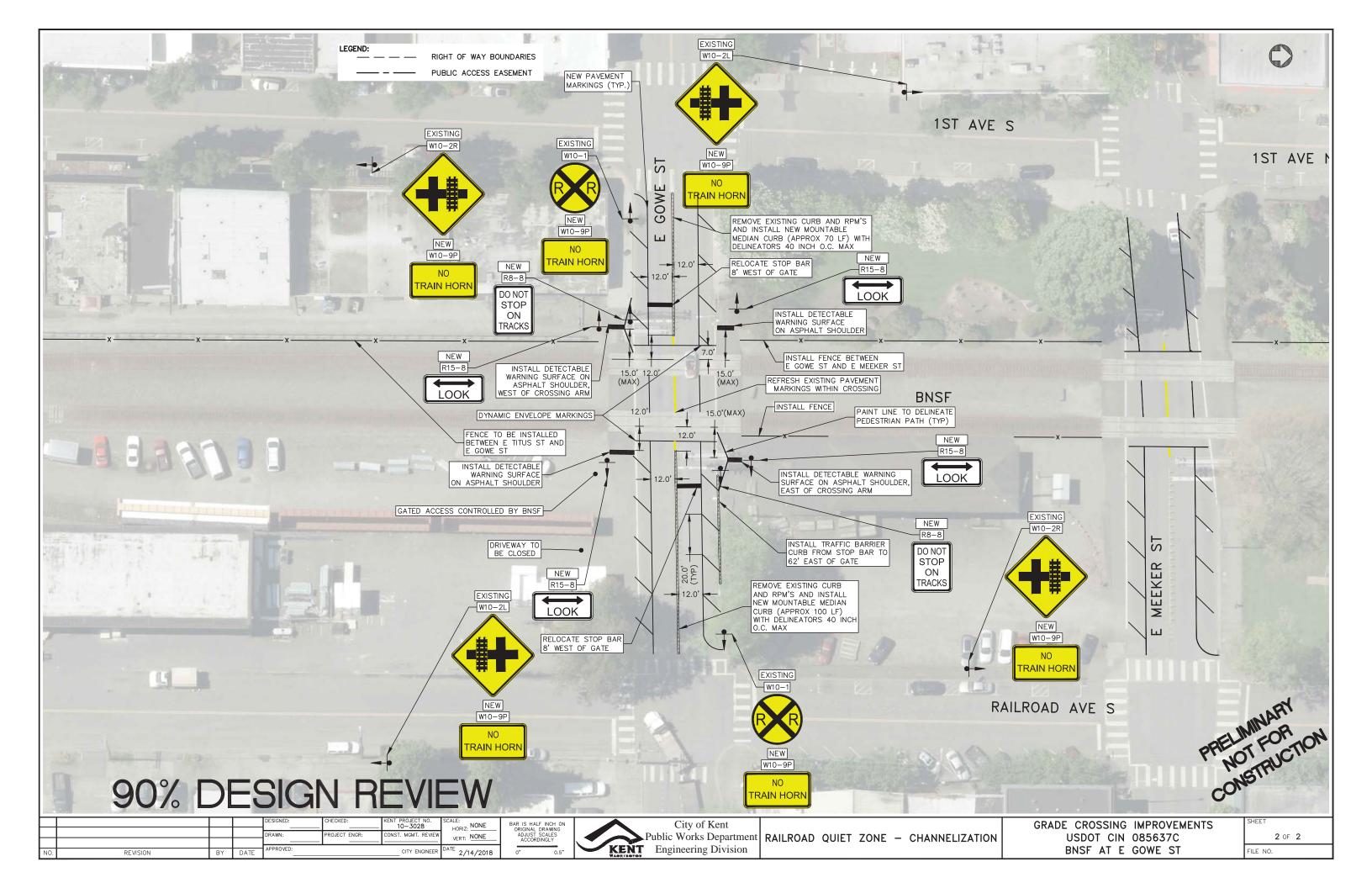
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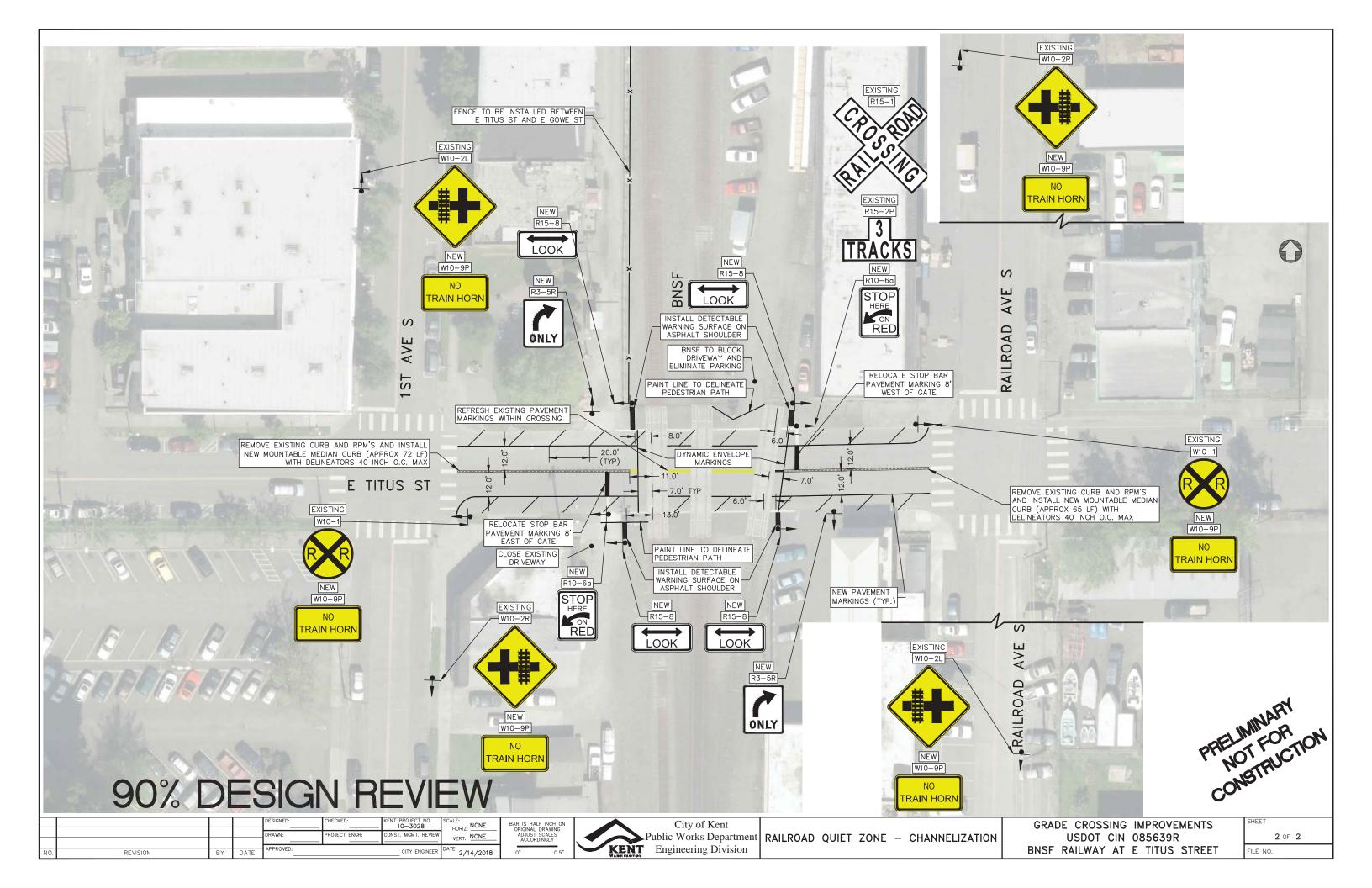


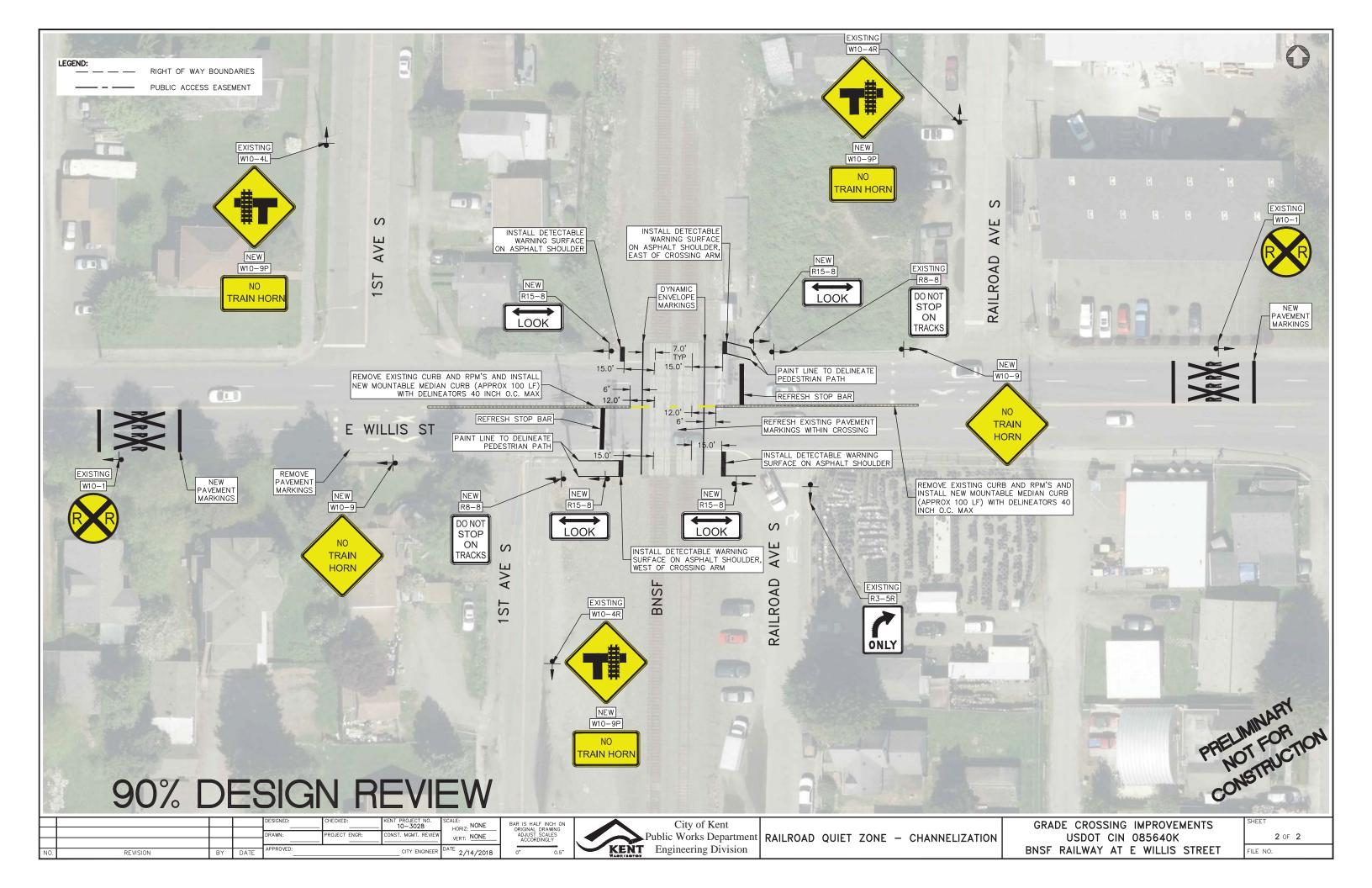


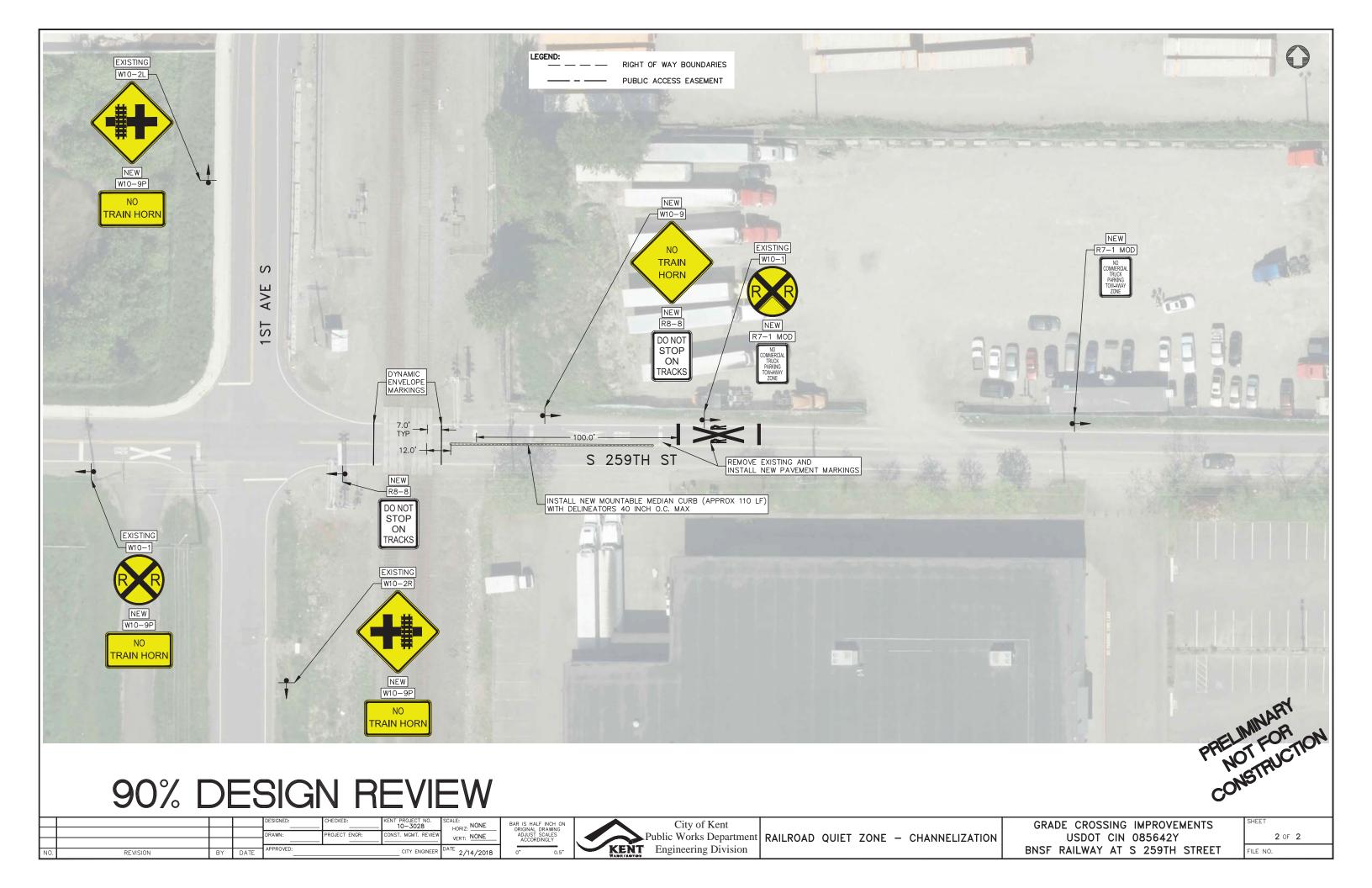












Appendix F

Modified SSM Calculations

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FRA Quiet Zone Risk Indices
Road Authority: City of Kent, WA
FRA Online Calculator Scenario: KENT BNSF_54689

Railroad: BNSF Railway Company

Date: March 31, 2019

Modified SSM Description			259,617.13 Channelization devices > 60' long with NW intersection 15' from crossing.	Channelization devices >60' with NW intersect. 17' from crossing; WB gate arm 4' from C/L roadway				242,034.04 Channelization devices > 60' long with SW intersection 10' from crossing. SE intersection 23' from crossing.		134,553.50 Quiet Zone Risk Index (QZRI)
Quiet Zone Risk Index	Step 5	42,030.33	259,617.13	174,997.43	23,864.18	56,166.69	190,834.10	242,034.04	86,884.09	134,553.50
ASM / Modified SSM Effectiveness	Step 5a	1	0.47	0.43	-	-	-	0.21	-	
SSM Effectiveness Rate	Step 5	0.75	1	1	0.75	0.75	1	1	1	
Initial Quiet Zone Risk Index w/o Horns (+66.8%)	Step 4	168,121.33	489,843.64	307,013.03	95,456.70	224,666.76	190,834.10	306,372.20	86,884.09	233,648.98
Base Risk Index (w/ Horns)	Step 2	100,792.16	293,671.25	184,060.57	57,228.24	134,692.30	114,408.93	183,676.38	52,088.78	140,077.33
Pre SSM		0	0	0	0	0	0	0	0	orns:
SSM		12	0	0	12	12	0	0	0	with h
Warning Device	on II (C)	Gates	Gates	Gates	Gates	Gates	Gates	Gates	Gates	Risk Index
Street	49CFR222 Appendix C Section II (C)	S 212TH STREET	JAMES ST	SMITH ST	MEEKER ST	GOWE ST	TITUS ST	SR516 WILLIS ST	S 259TH STREET	Crossing Corridor Risk Index/Risk Index with Horns:
US DOT Crossing	49CFR2	085625Н	085629K	085633A	085636V	0856370	085639R	085640K	085642Y	ossing Corri
Crossing	1	Н	2	3	4	5	9	7	8	Crc

140,077.33 Nationwide Significant Risk Threshold (NSRT): Risk Index with Horns (RIWH):

14,723.00

134,553.50 Yes

Quiet Zone Risk Index (QZRI): QZ Risk Reduction Qualifies for Quiet Zone (Yes/No):

Date: March 31, 2019

	Minimum SSM-Allowed Median by Rule	60 f	t.			
	SSM Effectiveness Rate by Rule	0.75				
	SSM Effectiveness per Side	0.375				
					SSM	Resulting
			Min SSM	Percent	Effectiveness	Effectiveness
			Allowed	Provided	per Side	Rate
West side	EB Gate to Start of NW Intersection (1st Ave N) (ft.)	110	60	100%	0.375	0.375
	EB Gate to Start of SW Intersection (1st Ave N) (ft.)	10	60	17%	0.375	0.063
	Controlling Effectivness for West Side					0.063
					SSM	Resulting
			Min SSM	Percent	Effectiveness	Effectiveness
			Allowed	Provided	per Side	Rate
East side	WB Gate to Start of NE Intersection (Railiroad Ave N) (ft.)	110	60	100%	0.375	0.375
	WB Gate to Start of SE Intersection (Railroad Ave N) (ft.)	23	60	38%	0.375	0.144
	Controlling Effectivness for East Side					0.144

SSM No.	SSM Description	SSM Effectivness Rate
0	No SSM	0.00
1	Temporary Closure of a Public Highway-Rail Grade Crossing	1.00
2	Permanent Closure of a Public Highway-Rail Grade Crossing	1.00
3	Grade Separation of a Public Highway-Rail Grade Crossing	1.00
4	Four-Quadrant Gates Upgrade from Two Quadrant gates, No Vehicle Presence Detection	0.82
5	Four-Quadrant Gates Upgrade from Two Quadrant Gates, with medians and no Vehicle Presence Detection	0.92
6	Four-Quadrant Gates Upgrade from Two Quadrant Gates, with Vehicle Presence Detection	0.77
7	Four-Quadrant Gates Upgrade from Two Quadrant Gates, with medians and Vehicle Presence Detection	0.92
8	Four-Quadrant Gates New Installation, No Vehicle Presence Detection	0.82
9	Four-Quadrant Gates New Installation with medians and no Vehicle Presence Detection	0.92
10	Four-Quadrant Gates New Installation with Vehicle Presence Detection	0.77
11	Four-Quadrant Gates New Installation with medians and Vehicle Presence Detection	0.92
12	Mountable medians with Reflective Traffic Channelization Devices	0.75
13	Non-Traversable Curb Medians with or without Channelization Devices	0.80
14	One-Way Streets with Gates	0.82