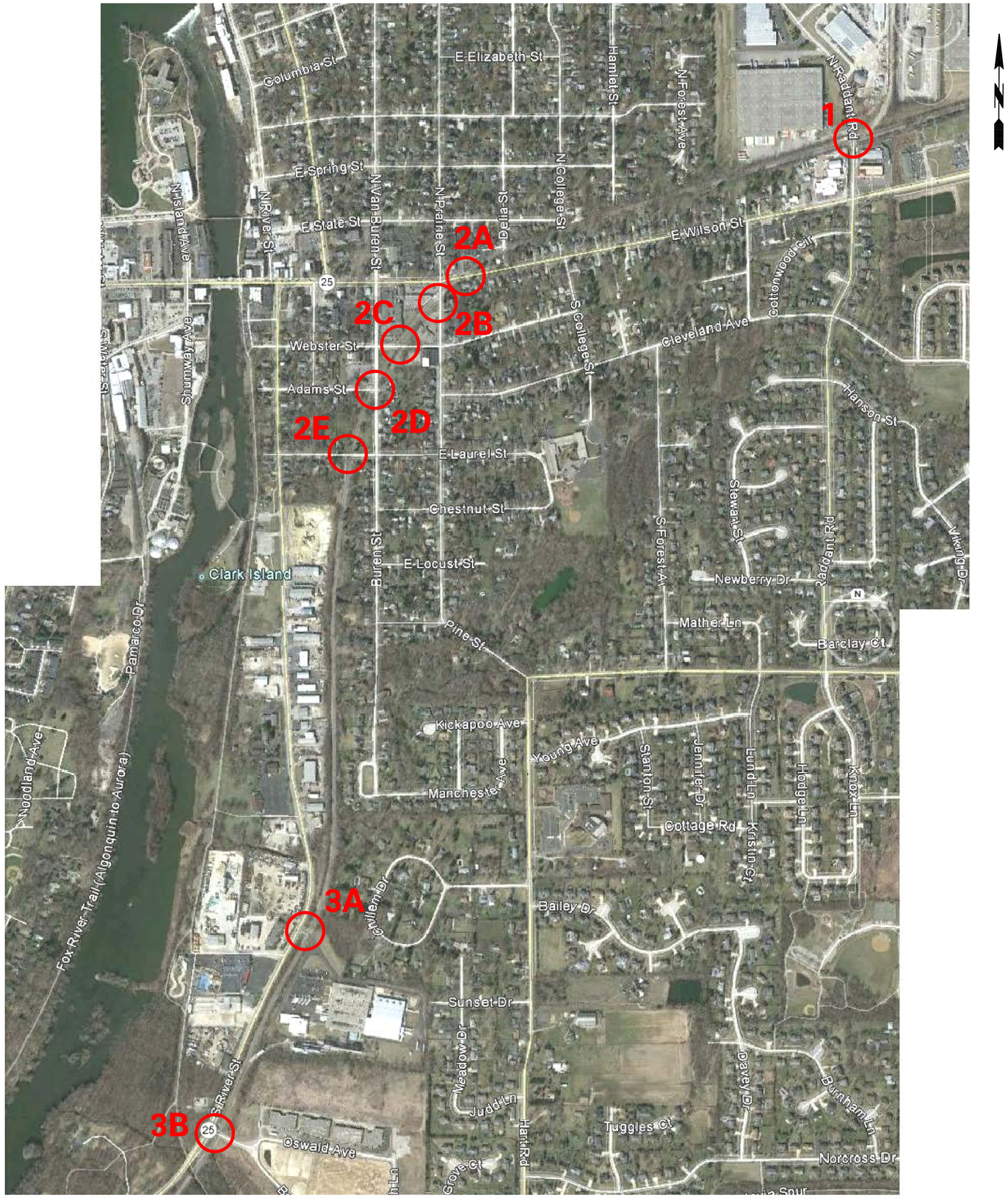
BNSF RAILWAY SPUR QUIET ZONE STUDY

FOR THE CITY OF BATAVIA, ILLINOIS

September 2012

REPORT PREPARED BY:
REMPE–SHARPE
CONSULTING ENGINEERS



PROPOSED QUIET ZONE 1

1. N. RADDANT ROAD
   M.P 7.12
   DOT BN069706S

PROPOSED QUIET ZONE 2

2A. E. WILSON ST.
M.P. 6.49
DOT 069705H

2B. N. PRAIRIE ST.
M.P. 6.47
DOT 069704D

2C. WEBSTER ST.
M.P. 6.34
DOT 069703W

2D. ADAMS ST.
M.P. 6.27
DOT 069701H

2E. E. LAUREL ST.
M.P. 6.18
DOT 069700B

PROPOSED QUIET ZONE 3

3A. AMCOR (PRIVATE ENTR.)
DOT 069699J

3B. BOND DRIVE
M.P. 5.23
DOT 069698C

PURPOSE of the QUIET ZONE STUDY:

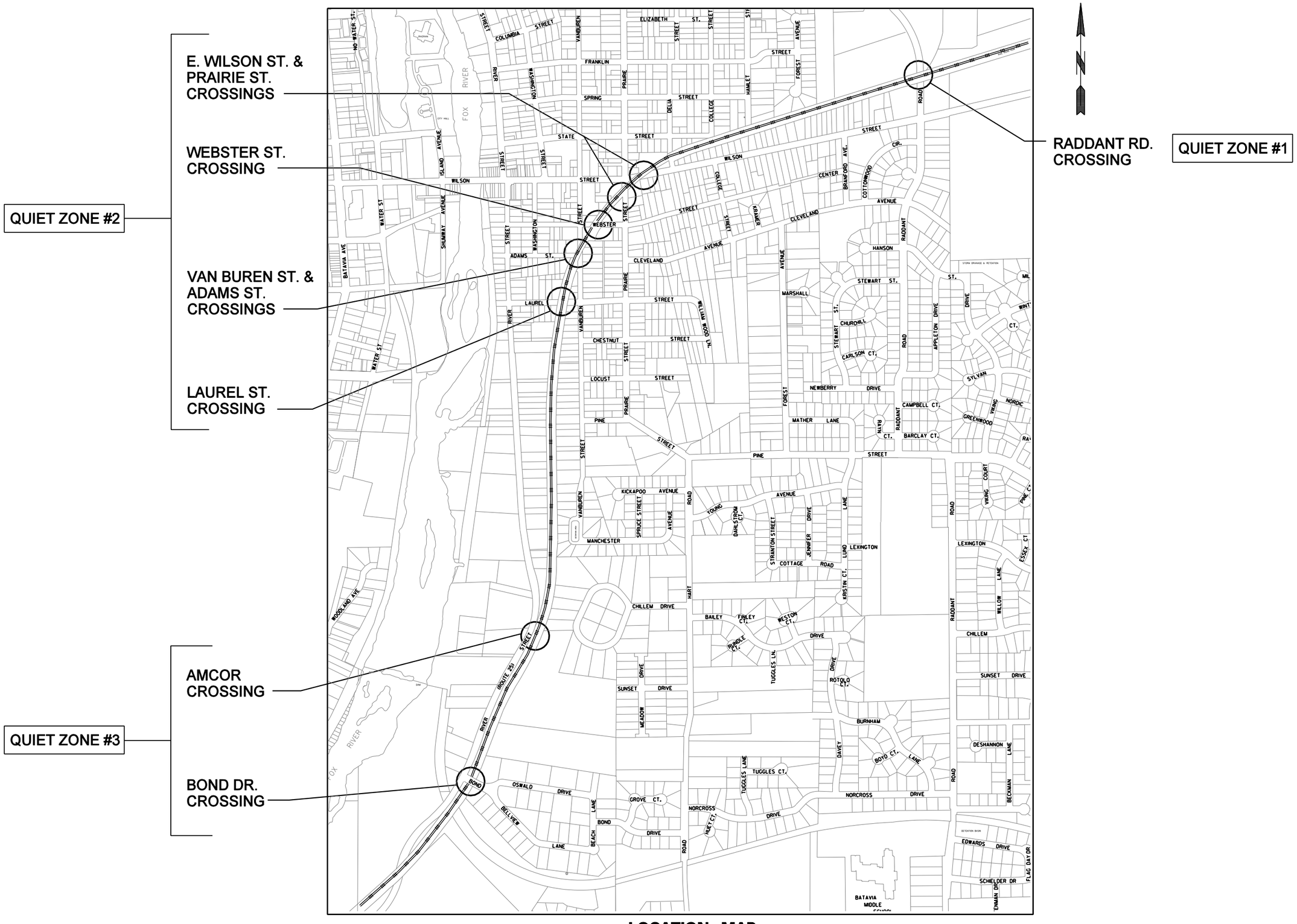
To determine the requirements for reducing train horn noise (Quiet Zone) along BNSF Railway spur track which runs through the east side of the City. This potential Quiet Zone involves eight (8) existing grade crossings that commence at Bond Drive to the south and terminate at Raddant Road at the northerly end, AND

To work in cooperation with the BNSF Railway Company to determine the type of Quiet Zone upgrades and improvements, such as Supplemental Safety Measures (SSMs) or Alternative Safety Measures (ASMs), that will be needed at each individual crossing, AND

To develop conceptual cost estimates for upgrades and improvements to be constructed both in the BNSF right–of–way and the City roadways, AND

To determine the steps most likely to be taken to be approved for the Quiet Zone(s) from the Federal Railroad Administration, AND

To research and estimate available grant funds for the Quiet Zone Improvements.



LOCATION MAP

NOT TO SCALE

TRAIN HORN FINAL RULE:

The Federal Railroad Administration (FRA) published the Final Rule on the Use of Locomotive Horns at Highway–Rail Grade Crossings (Train Horn Rule) in the Federal Register on April 27, 2005. The rule became effective June 24, 2005 and was amended on August 17, 2006. The Rule requires railroads to sound horns at all public grade crossings in the United States. The Rule was amended in 2006 to include time–based locomotive horn sounding requirements.

SIMPLY STATED:
A QUIET ZONE DOES NOT GUARANTEE THAT THE TRAIN HORN WILL NOT SOUND. IN FACT, IT MUST BE SOUNDED IN EMERGENCY SITUATIONS, INCLEMENT WEATHER, POWER OUTAGES, SIGNAL FAILURE, PRESENCE OF WORKERS OR TRESPASSERS, ETC. A LOCOMOTIVE OPERATOR WHO DOES NOT SOUND HIS HORN, RESULTING IN AN ACCIDENT, CAN BE HEAVILY FINED.

The Train Horn Rule specifically addresses design elements such as the type of warning devices, vehicular approaches, signage, signal circuitry and type of power indicators for new quiet zones.

QUIET ZONE BASIC REQUIREMENTS:

The FRA provides a process in the Train Horn Rule to maintain existing quiet zones and establish new quiet zones. Communities such as the City of Batavia are able to establish new quiet zones using a defined process approved by the FRA.

A Quiet Zone may be established if:

One or more SSMs (Supplemental Safety Measures) are in place at all crossings in the Zone.

If the Quiet Zone Risk Index (QZRI) is at or below the:

- Nationwide Significant Risk Threshold (NSRT), OR
- The Risk Index with Horns (RIWH)

THE FRA WILL CALCULATE THE QZRI AND DETERMINE WHETHER OR NOT A QUIET ZONE IS FEASIBLE. THE NSRT WILL BE AFFECTED BY PROPOSED SSMs (and ASMs), WHICH IN TURN WILL AFFECT THE RESULTANT QZRI.

APPLICABLE DEFINITIONS:

Active warning devices. Flashers, lights and gates.

Alternative Safety Measure (ASM): A safety system or procedure provided by the appropriate traffic control authority which, after individual review and analysis, is determined by the FRA to be an effective substitute for the locomotive horn at specific crossings.

ASMs include:
Modified SSMs (see definition)
Programmatic law enforcement
Programmatic education
Photo enforcement

Commercial Access: driveways used for commercial access within 60 feet of the gate arms will need to be closed or relocated for the medians to qualify as an SSM and receive the full risk reduction credit. Partial risk reduction credit may be given for shorter medians.

Constant Warning Time (CWT) circuits (where practical). CWT is a type of train detection that adjusts the start of the warning sequence based on the speed of an approaching train.

Diagnostic Team: A group of qualified or specially-trained individuals assembled to make objective expert judgments about physical and or operating conditions at highway-rail crossings. In the context of this rule, a diagnostic team assesses grade crossing safety requirements according to safety management principles.

Four-Quadrant Gate: Train-activated warning gates that, when lowered, fully block highway traffic from entering the crossing. Gates lower across both approach and departure lanes on both sides of the crossing.

Intermediate Quiet Zone: a quiet zone that was established after October 9, 1996, but before December 18, 2003.

Minimum Length Requirement. The Train Horn Rule requires that new quiet zones are a minimum of a half-mile in length.

Modified SSM: An SSM that has in some way been adjusted to accommodate unique circumstances existing at a specific crossing and no longer conforms to the SSM requirements. Modified SSMs are considered ASMs. An example would be traffic channelization devices that due to a nearby intersection are only 45 feet in length instead of the required 60 feet.

Non-engineering ASM: A consistent and systematic program of traffic law enforcement, public education programs, or a combination thereof, that produces a measurable reduction of risk at quiet zone grade crossings.

NSRT: The Nationwide Significant Risk Threshold, is the average Risk Index of all public, gated crossings in the nation at which train horns are sounded.

Partial Quiet Zones: quiet zones where the train horn is silenced for only a portion of the day, typically between the hours of 10 p.m. and 7 a.m.

Power-Out Indicators on Signal Cabins. The power out indicator is a signal that indicates to the railroad and/or emergency personnel that there is power at the crossing.

Pre-Rule (Whistle Ban) Quiet Zone: a quiet zone that was established before October 9, 1996, and in place by December 18, 2003.

Private Highway-Rail (Grade) Crossing: A location where a private roadway crosses railroad tracks at grade.

Public Highway-Rail (Grade) Crossing: A location where a public highway, road, or street crosses railroad tracks at grade. For this rule, this includes crossings where a public authority maintains the roadway on at least one side of the crossing.

Quiet Zone: A quiet zone is a section of a rail line that contains one or more consecutive public crossings at which locomotive horns are not routinely sounded. This rule provides the requirements that must be met in order to qualify for a quiet zone. For example, New Quiet Zones must be at least one-half mile in length.

Quiet Zone Risk Index: The average risk index for all public crossings in a proposed quiet zone taking into consideration the increased risk caused by the absence of train horns and any decrease in risk attributable to the use of SSMs or ASMs.

Relevant collision: A highway-rail crossing collision that FRA believes could be prevented by sounding the train horn. Excludes collisions with motor vehicles resulting from failure of an active grade crossing warning system; collisions in which there is no driver in the motor vehicle; and collisions where the highway vehicle struck the side of the train beyond the fourth locomotive unit or rail car.

Risk Index: The predicted cost to society of casualties that are expected to result from collisions at an individual crossing.

Supplementary Safety Measure (SSM): SSMs are engineering improvements, which when installed at crossings within a quiet zone, would reduce the risk of a collision at the crossing. SSMs are installed to reduce the risk level either to the level that would have existed if the train horn were sounded (compensating for the lack of the train horn) or to a level below the Nationwide Significant Risk Threshold.

Approved SSMs include:
Four quadrant gates.
Medians or channelization devices at gated crossings.
One-way streets equipped with gates that fully block the street.
Temporary crossing closure (i.e., nighttime closure).
Permanent crossing closure

Wayside Horn or Directional Horn or Automated Horn System: A stationary horn located at a highway-rail grade crossing that is designed to provide audible warning to oncoming motorists when a train is approaching. The horn is controlled by the same track circuits that operate the automatic warning devices at the crossing. Wayside horn usually mounted on gantry at grade crossing, pointed at pedestrian and vehicular traffic. 90 to 100 db @ 100 ft.

3 NEW QUIET ZONES TO BE APPLIED FOR:

There are 8 crossings involved in this study. Due to the minimum length requirement (half–mile), 3 quiet zones will need to be applied for:

QUIET ZONE #1:
RADDANT ROAD

QUIET ZONE #2:
WILSON–PRAIRIE, WEBSTER, VAN BUREN–ADAMS, LAUREL ST.

QUIET ZONE #3:
AMCOR, BOND DR.

PROBABLE STEPS TO CREATE QUIET ZONE(S):

ESTIMATED TIME 24 MONTHS

ESTIMATED TIME 18 MONTHS

1. SECURE FUNDING
2. NOTICE OF INTENT TO CREATE NEW QUIET ZONE(S)
3. SECURE AGREEMENTS WITH BNSF AND FRA
4. DIAGNOSTIC TEAM RESEARCH AND DESIGN OF SSMs
5. ICC APPROVAL TO PROCEED
6. IDOT APPROVAL TO PROCEED IF MFT FUNDS ARE TO BE USED
7. CONSTRUCTION, INSPECTIONS, FIELD REPORTS
8. UPDATE FRA INVENTORY REPORTS & MAPS
9. FOLLOW–UP EVALUATION STUDY

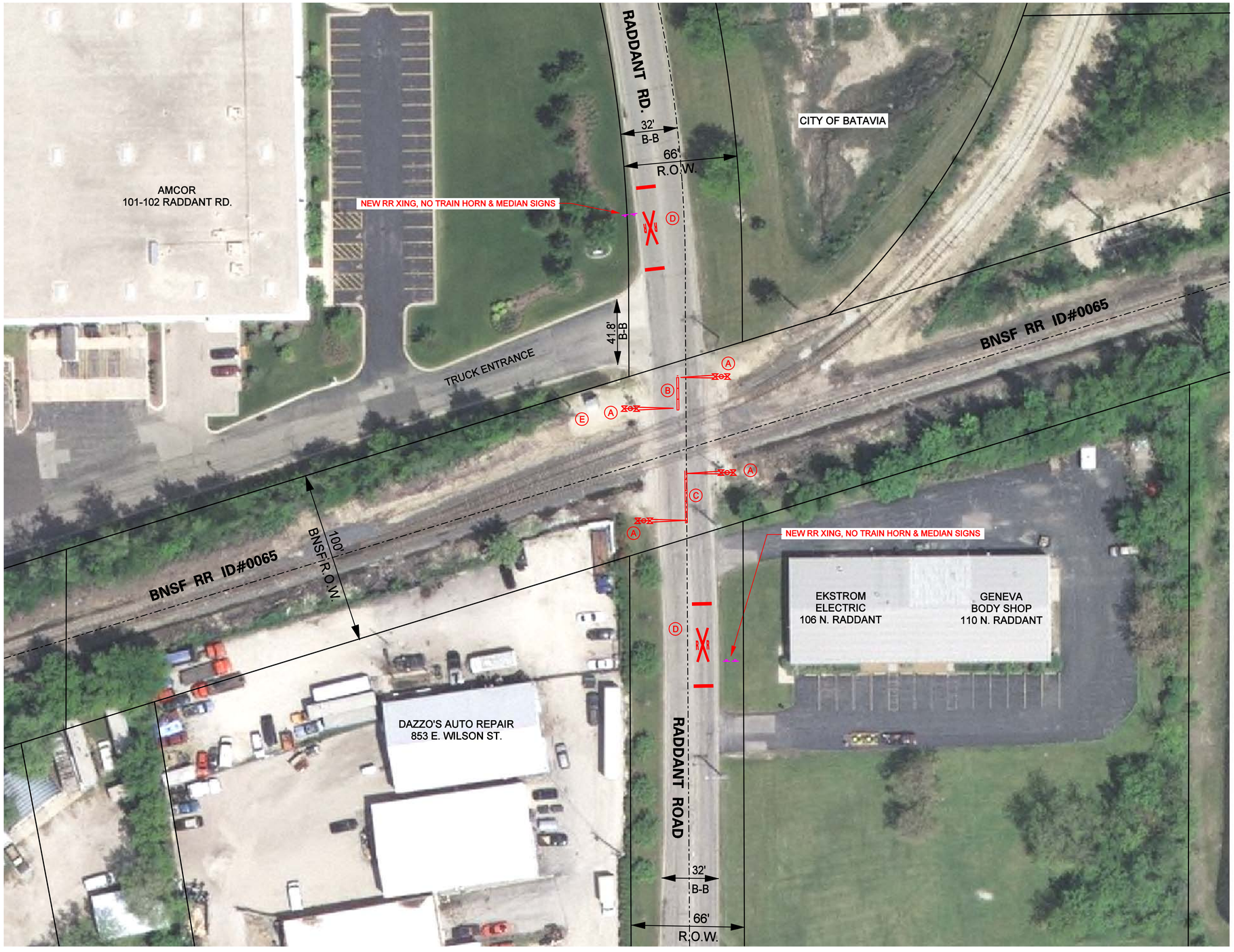


PHOTO No. 1
LOOKING NORTH

PHOTO No. 2
LOOKING SOUTH

PHOTO No. 3
LOOKING SOUTH

LEGEND:

R.O.W. = RIGHT OF WAY

B-B. = BACK OF CURB TO BACK OF CURB (ALL CURBS ARE IDOT TYPE B-6.12 U.N.O.)

BNSF = BNSF RAILWAY COMPANY

F.R.A. = FEDERAL RAILROAD ADMINSTRATION DIV. OF U.S. D.O.T.

PROPOSED SSMs & MODIFIED SSMs:

NOTE:
GATES & SIGNALS TO BE DESIGNED & CONSTRUCTED BY BNSF RAILWAY.
ALL OTHER ITEMS TO BE INSTALLED BY THE CITY OF BATAVIA PER PLANS APPROVED BY I.C.C., F.R.A. AND BNSF RAILWAY.

- (A) 4-QUADRANT GATES
- (B) 20 LF MODULAR LANE SEPARATOR CURB SYSTEM
- (C) 35 LF MODULAR LANE SEPARATOR CURB SYSTEM
- (D) ROADWAY PAVT. MARKING & CENTERLINE RE-STRIPING
- (E) CWT WITH NEW CONDUIT & CIRCUITRY

CROSSING DATA

DOT 069706S
M.P. 7.12
ADT = 4100

DAILY TRAIN COUNT = 4
TRAIN SPEED = 0-20 MPH

CROSSING DATA AS NOTED IS BASED UPON F.R.A. INVENTORY REPORTS, CURRENT IDOT ADT MAPS AND BNSF MARKERS AT THE CROSSING SHOWN

RADDANT RD. CROSSING

BT-610

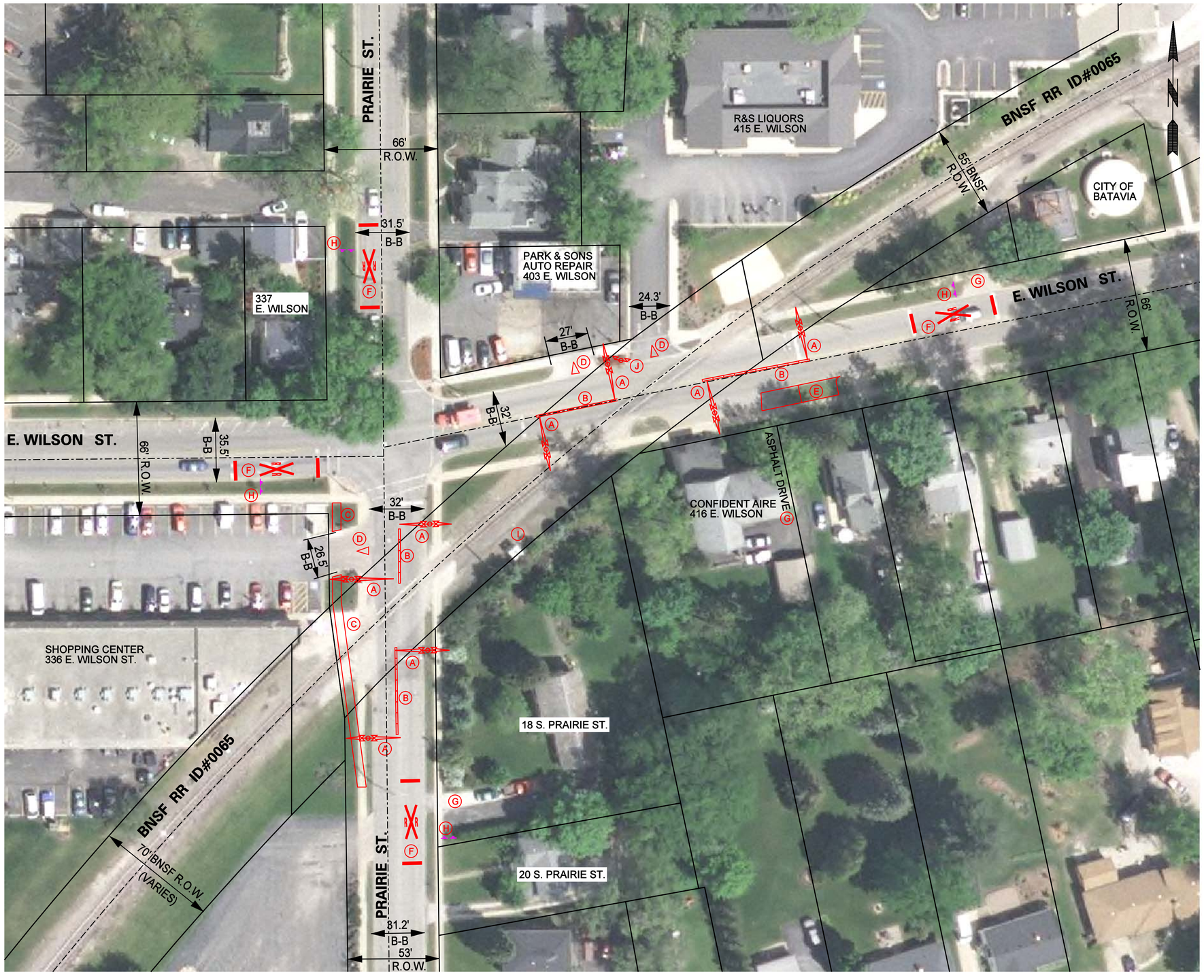


PHOTO No. 1
E. WILSON ST. LOOKING WEST TOWARD PRAIRIE ST.

PHOTO No. 2
E. WILSON ST. LOOKING EAST FROM PRAIRIE ST.

PHOTO No. 3
E. WILSON ST. CROSSING LOOKING NORTH

PHOTO No. 4
PRAIRIE ST. LOOKING NORTH TOWARD E. WILSON ST.

PHOTO No. 5
PRAIRIE ST. LOOKING SOUTH FROM E. WILSON ST.

PHOTO No. 6
PRAIRIE ST. LOOKING SOUTH TOWARD E. WILSON ST.

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PROPOSED SSMs & MODIFIED SSMs:

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- (A) 4-QUADRANT GATES WITH PED. GATES
- (B) MODULAR LANE SEPARATOR CURB SYSTEM
- (C) RE-ROUTE SIDEWALK
- (D) MAKE DRIVEWAY RIGHT-IN & RIGHT-OUT WITH MEDIANS AND SIGNS
- (E) RELOCATE PARKING STALLS
- (F) ROADWAY PAVT. MKG. & CENTERLINE RE-STRIPING
- (G) DRIVEWAY TO REMAIN
- (H) NEW RR XING, NO TRAIN HORN & MEDIAN SIGNS
- (I) CWT WITH NEW CONDUIT & CIRCUITRY
- (J) FLASHING LIGHT SIGNAL

E. WILSON ST. CROSSING DATA

DOT 069705H
M.P. 6.49

ADT = 8400

PRAIRIE ST. CROSSING DATA

DOT 069704D
M.P. 6.47

ADT = 6200

DAILY TRAIN COUNT = 4
TRAIN SPEED = 0-20 MPH

CROSSING DATA AS NOTED IS BASED UPON F.R.A. INVENTORY REPORTS, CURRENT IDOT ADT MAPS AND BNSF MARKERS AT THE CROSSING SHOWN

E. WILSON ST. AND PRAIRIE ST. CROSSING

BT-610

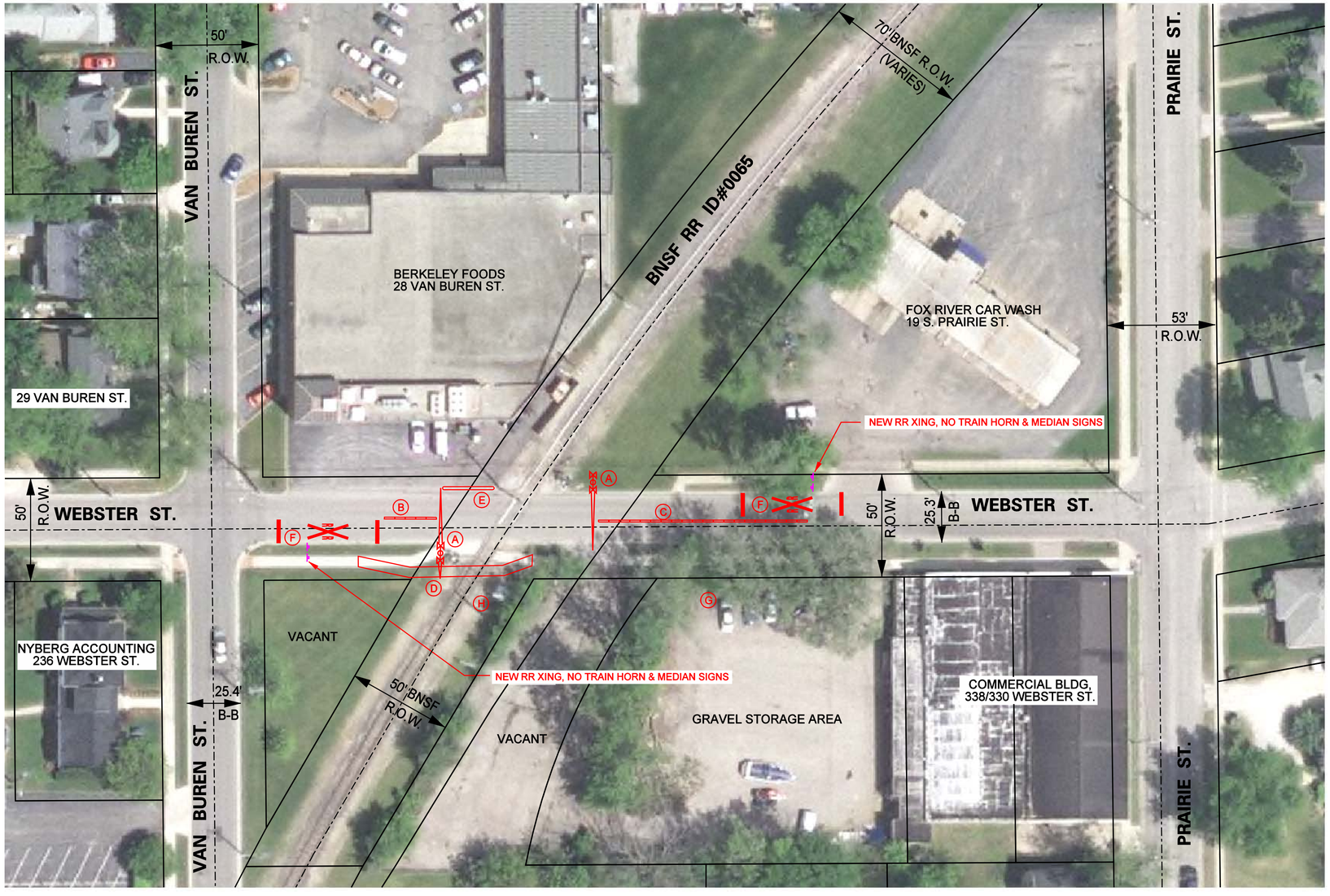

PHOTO No. 1
WEBSTER ST. LOOKING WEST
FROM PRAIRIE ST.

PHOTO No. 2
WEBSTER ST. LOOKING NORTHEAST
AT CROSSING

PHOTO No. 3
WEBSTER ST. LOOKING EAST
FROM VAN BUREN ST.

PHOTO No. 4
LOOKING SOUTHWEST
TOWARD WEBSTER ST.

LEGEND:

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PROPOSED SSMs & MODIFIED SSMs:

NOTE:
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ALL OTHER ITEMS TO BE INSTALLED BY THE CITY OF BATAVIA PER PLANS APPROVED BY I.C.C., F.R.A. AND BNSF RAILWAY.

- (A) NEW SIGNALS WITH 28' GATES & PED. GATE (W. SIDE)
- (B) 20 LF MODULAR LANE SEPARATOR CURB SYSTEM
- (C) 100 LF MODULAR LANE SEPARATOR CURB SYSTEM
- (D) RE-ROUTE SIDEWALK TO CLEAR GATES
- (E) 1.5 FT. WIDE BARRIER MEDIAN
- (F) ROADWAY PAVT. MARKING
- (G) RELOCATE DRIVEWAY OR MAKE RIGHT-IN & RIGHT-OUT
- (H) CWT WITH NEW CONDUIT & CIRCUITRY

CROSSING DATA

DOT 09703W
M.P. 6.34

ADT = 109

DAILY TRAIN COUNT = 4
TRAIN SPEED = 0-20 MPH

CROSSING DATA AS NOTED IS BASED UPON F.R.A. INVENTORY REPORTS, CURRENT IDOT ADT MAPS AND BNSF MARKERS AT THE CROSSING SHOWN

WEBSTER ST. CROSSING

BT-610

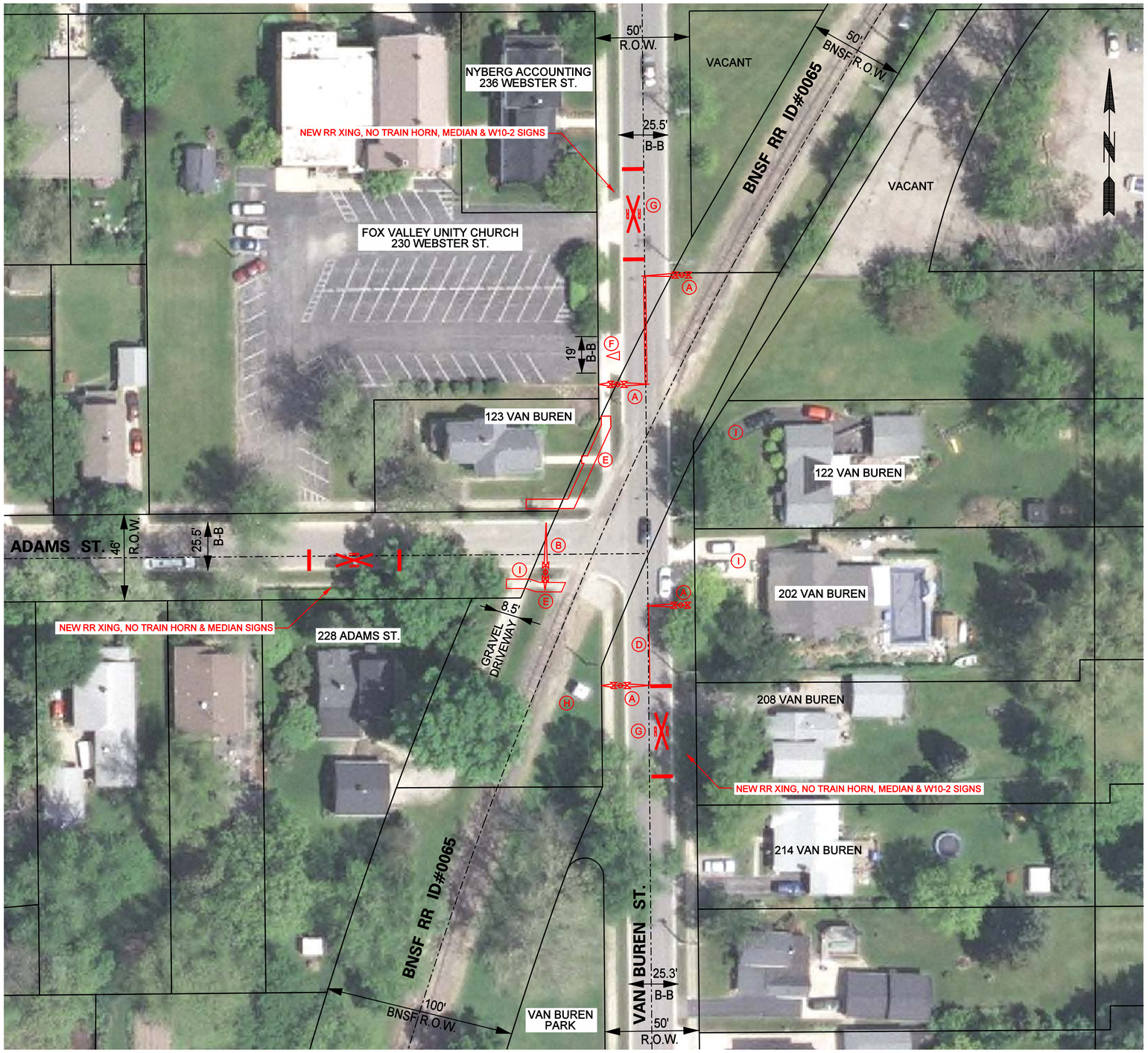

PHOTO No. 1
VAN BUREN ST. LOOKING SOUTH TOWARD WEBSTER ST.

PHOTO No. 2
VAN BUREN ST. CROSSING LOOKING SOUTHWEST

PHOTO No. 3
VAN BUREN ST. LOOKING NORTH FROM WEBSTER ST.

PHOTO No. 2
ADAMS ST. CROSSING LOOKING WEST FROM VAN BUREN ST.

PHOTO No. 5
VAN BUREN ST. LOOKING NORTH FROM WEBSTER ST.

PHOTO No. 4
ADAMS ST. CROSSING LOOKING NORTHEAST

LEGEND:

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PROPOSED SSMs & MODIFIED SSMs:

- (A) 4-QUADRANT GATES & PED. GATES (W. SIDE)
- (B) NEW SIGNAL WITH 28' GATE & PED. GATE
- (C) 55 LF MODULAR LANE SEPARATOR CURB SYSTEM
- (D) 45 LF MODULAR LANE SEPARATOR CURB SYSTEM
- (E) RE-ROUTE SIDEWALKS
- (F) MAKE DRIVEWAY RIGHT-IN & RIGHT-OUT WITH MEDIANS AND SIGNS
- (G) ROADWAY PAVT. MARKING
- (H) CWT WITH NEW CONDUIT & CIRCUITRY
- (I) DRIVEWAYS TO REMAIN

NOTES:

1. GATES & SIGNALS TO BE DESIGNED & CONSTRUCTED BY BNSF RAILWAY. ALL OTHER ITEMS TO BE INSTALLED BY THE CITY OF BATAVIA PER PLANS APPROVED BY I.C.C., F.R.A. AND BNSF RAILWAY.
2. SIGNALS AND GATES ON VAN BUREN ST. SOUTH OF ADAMS ST. WILL REQUIRE AN AGREEMENT BETWEEN THE CITY AND BNSF

VAN BUREN ST. CROSSING DATA

DOT 069705H
M.P. (NOT AVAILABLE)
ADT = 1900

ADAMS ST. CROSSING DATA

DOT 069702P
M.P. 6.27
ADT = 59

DAILY TRAIN COUNT = 4
TRAIN SPEED = 0-20 MPH

CROSSING DATA AS NOTED IS BASED UPON F.R.A. INVENTORY REPORTS, CURRENT IDOT ADT MAPS AND BNSF MARKERS AT THE CROSSING SHOWN

ADAMS ST. AND VAN BUREN ST. CROSSINGS

BT-610

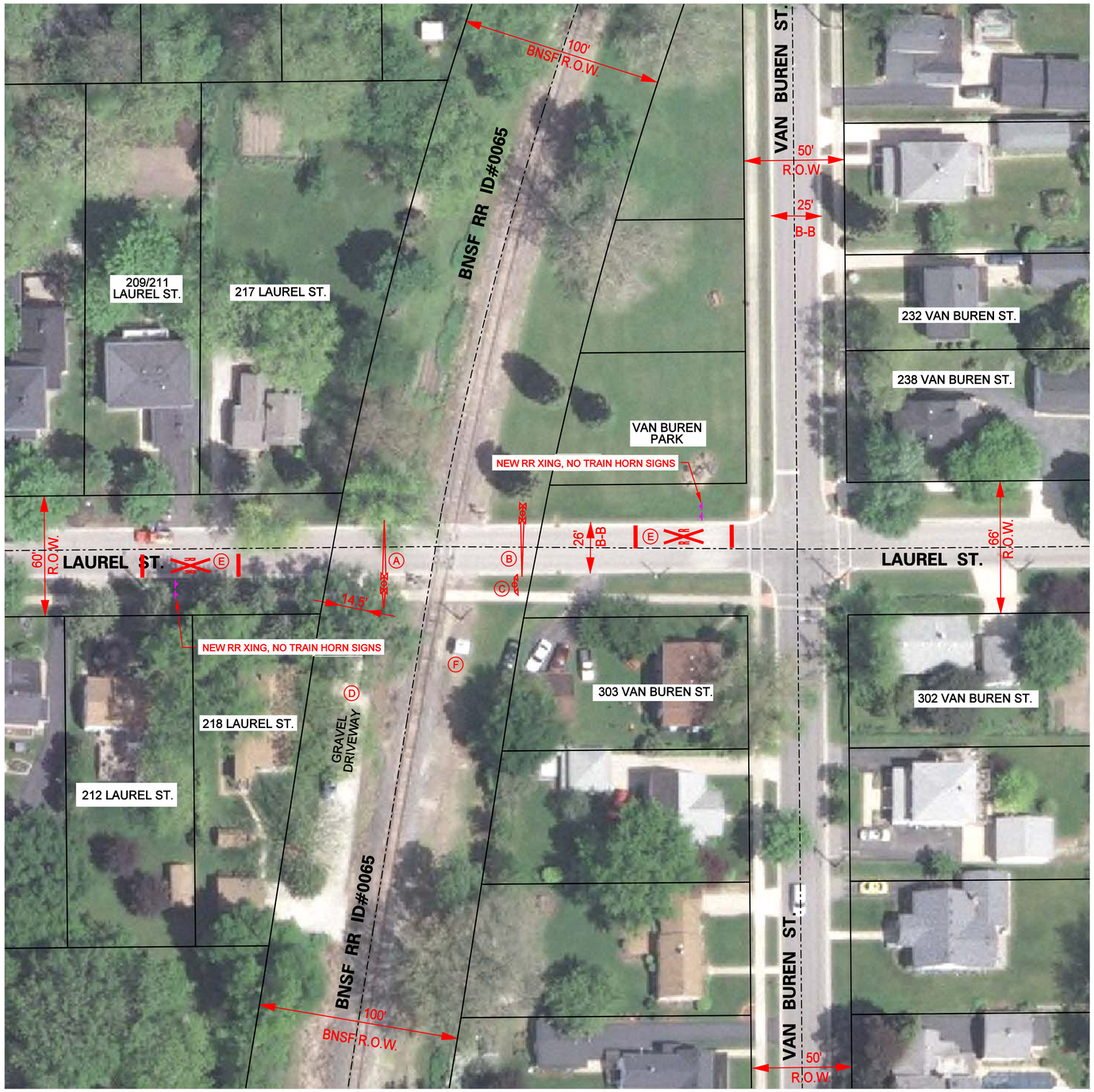

PHOTO No. 1
LAUREL ST. LOOKING SOUTHWEST

PHOTO No. 2
LAUREL ST. LOOKING WEST
AT CROSSING

PHOTO No. 3
LAUREL ST. LOOKING EAST

PHOTO No. 4
LAUREL ST. LOOKING EAST

LEGEND:

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PROPOSED SSMs & MODIFIED SSMs:

- (A) NEW SIGNAL WITH 28' GATE & PED. GATE
- (B) NEW SIGNAL WITH 28' GATE
- (C) PEDESTRIAN FLASHING LIGHT SIGNAL
- (D) DRIVEWAY TO REMAIN
- (E) ROADWAY PAVT. MARKING
- (F) CWT WITH NEW CONDUIT & CIRCUITRY

NOTE:
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CROSSING DATA

DOT 069700B
M.P. 6.18

ADT = 109

DAILY TRAIN COUNT = 4
TRAIN SPEED = 0-20 MPH

CROSSING DATA AS NOTED IS BASED UPON F.R.A. INVENTORY REPORTS, CURRENT IDOT ADT MAPS AND BNSF MARKERS AT THE CROSSING SHOWN

LAUREL ST. CROSSING

BT-610

PHOTO No. 1
LOOKING NORTHEAST FROM S. RIVER ST.

PHOTO No. 2
LOOKING WEST TOWARD S. RIVER ST.

PHOTO No. 3
LOOKING WEST TOWARD S. RIVER ST.

PHOTO No. 4
AT CROSSING LOOKING SOUTH

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IT IS HIGHLY UNLIKELY THAT A QUIET ZONE WILL BE FEASIBLE AT THIS CROSSING:

- PROXIMITY TO HIGHWAY DOES NOT ALLOW FOR MOTOR VEHICLE STACKING
- MEDIANS DIFFICULT WITH EXISTING GEOMETRICS
- INDUSTRIAL TRUCK TRAFFIC WITH TIGHT TURNING RADII

CROSSING DATA

DOT 069699J
M.P. 5.43

ADT = NOT AVAILABLE

DAILY TRAIN COUNT = 4
TRAIN SPEED = 0-20 MPH

CROSSING DATA AS NOTED IS BASED UPON F.R.A. INVENTORY REPORTS, CURRENT IDOT ADT MAPS AND BNSF MARKERS AT THE CROSSING SHOWN

AMCOR (PRIVATE) CROSSING

BT-610

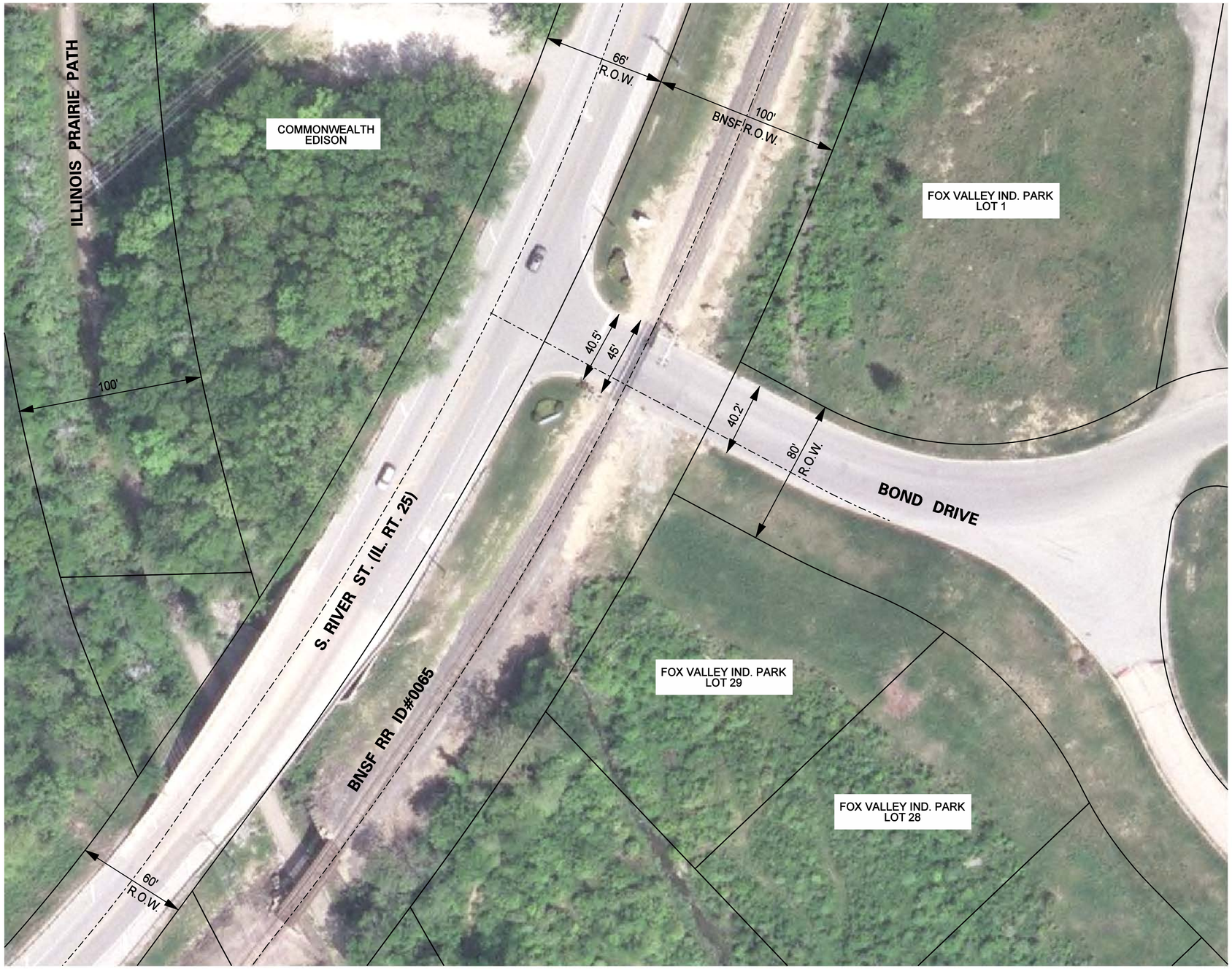

PHOTO No. 1
LOOKING WEST TOWARD S. RIVER ST.

PHOTO No. 2
LOOKING NORTH AT CROSSING

PHOTO No. 3
LOOKING NOTHEAST FROM S. RIVER ST.

PHOTO No. 4
LOOKING NORTH AT INTERSECTION

LEGEND:

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IT IS HIGHLY UNLIKELY THAT A QUIET ZONE WILL BE FEASIBLE AT THIS CROSSING:

- PROXIMITY TO HIGHWAY DOES NOT ALLOW FOR MOTOR VEHICLE STACKING
- MEDIANS DIFFICULT WITH EXISTING GEOMETRICS WEST OF TRACKS

CROSSING DATA

DOT 0690698C
M.P. 5.23

ADT = 950

DAILY TRAIN COUNT = 4
TRAIN SPEED = 0-20 MPH

CROSSING DATA AS NOTED IS BASED UPON F.R.A. INVENTORY REPORTS, CURRENT IDOT ADT MAPS AND BNSF MARKERS AT THE CROSSING SHOWN

BOND DRIVE CROSSING

BT-610

CONTACT INFORMATION:

CONTACT INFORMATION:

City of Batavia
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Batavia, IL 60510
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nbasquin@cityofbatavia.net
Bill McGrath, City Administrator 630-454-2000

U.S.D.O.T. Federal Railroad Administration (FRA)
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Chicago, IL 60606
Tammy Wagner, Regional Crossing and Trespasser Mgr. 312-353-6203
Tammy.wagner@dot.gov

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Benjamin Steinkamp 763-782-3495
benjamin.steinkamp@BNSF.com

Illinois Commerce Commission (ICC)
Transportation Bureau / Rail Safety Section
527 East Capitol Ave.
Springfield, IL 62701
Brain Velacruz
217-785-7404

Rempe-Sharpe & Assoc.
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Geneva, IL 60134
James J. Bibby 630-232-0827 x12
jbibby@rsaengr.com
David B. Erickson 630-232-0827 x30
derickson@rsaengr.com

CONCEPTUAL COST ESTIMATE
BNSF RAILWAY SPUR QUIET ZONE QUIET ZONE
BATAVIA, ILLINOIS

'E: 9/10/2012

BY: DBE BT-610

NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
A. RADDANT ROAD CROSSING					
A1	4-Quadrant Gates & CWT System	1.0	LSUM	$500,000.00	$ 500,000.00
A2	Modular Lane Separator Curb System	55.0	LF	$70.00	$ 3,850.00
A3	Pavement Marking	2.0	LSUM	$650.00	$ 1,300.00
A4	Centerline Re-Striping	200.0	LF	$2.50	$ 500.00
A5	Signs & Posts	6.0	EA	$250.00	$ 1,500.00
A6	Temp. Traffic Control & R.R. Flagger	1.0	LSUM	$10,000.00	$ 10,000.00
			SUBTOTAL	**$**	**517,150.00**
B. E. WILSON ST. & PRAIRIE ST. CROSSING					
B1	4-Quadrant Gates & CWT System	2.0	LSUM	$500,000.00	$ 1,000,000.00
B2	Flashing Light Signal	1.0	LSUM	$50,000.00	$ 50,000.00
B3	Remove & Replace Sidewalk	1.0	LSUM	$7,500.00	$ 7,500.00
B4	Conc. Slab Remove & Rep., Incl. Medians, Asphalt & Curb Repl.	1.0	LSUM	$21,500.00	$ 21,500.00
B5	Modular Lane Separator Curb System	200.0	LF	$70.00	$ 14,000.00
B6	Pavement Marking	4.0	LSUM	$650.00	$ 2,600.00
B7	Centerline Re-Striping	200.0	LF	$2.50	$ 500.00
B8	Signs & Posts	15.0	EA	$250.00	$ 3,750.00
B9	Temp. Traffic Control & R.R. Flagger	1.0	LSUM	$15,000.00	$ 15,000.00
			SUBTOTAL	**$**	**1,114,850.00**
C. WEBSTER ST. CROSSING					
C1	28 FT. Gates & CWT System	2.0	LSUM	$350,000.00	$ 700,000.00
C2	Modular Lane Separator Curb System	130.0	LF	$70.00	$ 9,100.00
C3	Pavement Marking	2.0	LSUM	$650.00	$ 1,300.00
C4	Remove & Replace Sidewalk	1.0	LSUM	$3,500.00	$ 3,500.00
C5	Install Concrete Barrier Median	1.0	LSUM	$1,850.00	$ 1,850.00
C6	Relocate Gravel Driveway	1.0	LSUM	$1,500.00	$ 1,500.00
C7	Signs & Posts	6.0	EA	$250.00	$ 1,500.00
C8	Temp. Traffic Control & R.R. Flagger	1.0	LSUM	$6,000.00	$ 6,000.00
			SUBTOTAL	**$**	**724,750.00**
D. VAN BUREN ST. & ADAMS ST. CROSSING					
D1	4-Quadrant Gates & CWT System	1.0	LSUM	$500,000.00	$ 500,000.00
D2	28 FT. Gate & CWT System	1.0	LSUM	$50,000.00	$ 50,000.00
D3	Modular Lane Separator Curb System	100.0	LF	$70.00	$ 7,000.00
D4	Pavement Marking	2.0	LSUM	$650.00	$ 1,300.00
D5	Remove & Replace Sidewalk	1.0	LSUM	$3,500.00	$ 3,500.00
D6	Make Driveway Right-in / Right-out	1.0	LSUM	$4,000.00	$ 4,000.00
D7	Relocate Gravel Driveway	1.0	LSUM	$1,500.00	$ 1,500.00
D8	Signs & Posts	11.0	EA	$250.00	$ 2,750.00
D9	Temp. Traffic Control & R.R. Flagger	1.0	LSUM	$8,000.00	$ 8,000.00
			SUBTOTAL	**$**	**578,050.00**
E. LAUREL ST. CROSSING					
E1	28 FT. Gates & CWT System	2.0	LSUM	$350,000.00	$ 700,000.00
E2	Flashing Light Signal	1.0	LSUM	$50,000.00	$ 50,000.00
E4	Pavement Marking	3.0	LSUM	$650.00	$ 1,950.00
E8	Signs & Posts	6.0	EA	$250.00	$ 1,500.00
E9	Temp. Traffic Control & R.R. Flagger	1.0	LSUM	$6,000.00	$ 6,000.00
			SUBTOTAL	**$**	**759,450.00**
			SUBTOTAL		**$3,694,250.00**
			10% CONTINGENCY		**$369,425.00**
			TOTAL		**$4,063,675.00**

BT-610

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ACTION	NAME
Design	--
Drawn	D.B.E.
Checked	--

No.	Date	Revisions	By

CLIENT: CITY OF BATAVIA
100 N. ISLAND AVE.
BATAVIA, IL 60510-1930
Ph. 630-454-2000

REMPE-SHARPE
CONSULTING ENGINEERS
IL P.D.F. LICENSE NO. 184-000895
324 WEST STATE STREET – GENEVA, ILLINOIS 60134
Telephone (630) 232-0827 – Fax (630) 232-1629

PROJECT: RAILROAD CROSSING QUIET ZONE STUDY

SHEET TITLE: CONTACT INFO AND CONCEPTUAL COST ESTIMATE

SCALE: N.T.S.

PROJECT NO.: BT-610

DATE: SEPT. 2012

SHEET No. ___ Of ___