



**CITY OF INVER GROVE HEIGHTS**

**AGENDA**

**CITY COUNCIL WORK SESSION**

**DECEMBER 4, 2017 6:00 PM**

**INVER GROVE HEIGHTS CITY HALL  
COUNCIL CHAMBERS**

**A. CALL TO ORDER – MAYOR TOURVILLE**

- 1. 2018 BUDGET**
- 2. SAC CREDIT/LOAN PROGRAM**
- 3. JOE ATKINS VARIOUS CITY/COUNTY INTERESTS**
- 4. COMMUNITY POLICING UPDATE**
- 5. RR QUIET ZONE**
- 6. DISCUSS REVISED LIST OF SALEABLE CITY PROPERTIES**

**B. ADJOURN**

## CITY OF INVER GROVE HEIGHTS

## REQUEST FOR COUNCIL ACTION

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**2018 Budgets – Final Review**

Meeting Date: December 4, 2017  
Item Type: Work Session  
Contact: Kristi Smith 651-450-2521  
Prepared by: Kristi Smith, Finance Director  
Reviewed by: Joe Lynch, City Administrator

**Fiscal/FTE Impact:**

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| <input type="checkbox"/>            | None                               |
| <input type="checkbox"/>            | Amount included in current budget  |
| <input type="checkbox"/>            | Budget amendment requested         |
| <input type="checkbox"/>            | FTE included in current complement |
| <input type="checkbox"/>            | New FTE requested – N/A            |
| <input checked="" type="checkbox"/> | Other – 2018 Budget                |

**PURPOSE/ACTION REQUESTED**

Final review of the 2018 Proposed Budgets.

**SUMMARY**

This is the final work session prior to the December 11<sup>th</sup> meeting where Council will be asked to adopt the 2018 budget resolutions. No changes have been made since the November work session. Included is the 1-page summary of General Fund Additions and the proposed resolutions that will be included on the December 11<sup>th</sup> Council agenda.

10/25/2017

|                      |           |
|----------------------|-----------|
| Above New Requests   | 338,300   |
| Contingency          | 100,000   |
| Additional PMP       | 550,000   |
| Additional Park Mntc | 125,000   |
| Total New Requests   | 1,113,300 |

**CITY OF INVER GROVE HEIGHTS  
DAKOTA COUNTY, MINNESOTA**

**RESOLUTION NO. \_\_\_\_\_**

**RESOLUTION ADOPTING THE FINAL 2018 BUDGETS**

**BE IT RESOLVED, BY THE CITY COUNCIL OF INVER GROVE HEIGHTS AS FOLLOWS:** The following final fund expenditure/expense budgets for the City of Inver Grove Heights for fiscal year 2018 are hereby approved:

|                                |              |
|--------------------------------|--------------|
| General Fund                   | \$22,465,200 |
| Recreation Fund                | 632,400      |
| Community Center Fund          | 4,310,800    |
| EDA Operations Fund            | 83,300       |
| Storm Water Fund               | 514,300      |
| Storm Water – NWA Fund         | 0            |
| ADA Fund                       | 52,000       |
| Water Fund                     | 3,419,600    |
| Water Rev Ref 2012A Fund       | 28,500       |
| Water Connection Fund          | 0            |
| Water System Improvements Fund | 0            |
| Water – NWA Fund               | 5,000        |
| Sewer Fund                     | 3,846,500    |
| GO Sewer Rev 2010A Fund        | 438,700      |
| GO Sewer Rev 2014B Fund        | 118,200      |
| GO Sewer Rev 2015B Fund        | 124,400      |
| GO Sewer Rev 2017A Fund        | 154,800      |
| Sewer Connection Fund          | 0            |
| Sewer – NWA Fund               | 5,000        |
| Golf Course Fund               | 1,776,500    |
| Risk Management Fund           | 1,023,400    |
| Central Equipment Fund         | 2,634,900    |
| Central Stores Fund            | 99,900       |
| City Facilities Fund           | 1,186,600    |
| Technology Fund                | 797,200      |

Adopted this 11<sup>th</sup> day of December, 2017, by the City Council of Inver Grove Heights.

Ayes:

Nays:

\_\_\_\_\_  
George Tourville, Mayor

ATTEST:

\_\_\_\_\_  
Michelle Tesser, City Clerk

**CITY OF INVER GROVE HEIGHTS  
DAKOTA COUNTY, MINNESOTA**

**RESOLUTION NO. \_\_\_\_\_**

**RESOLUTION ADOPTING THE FINAL TAX LEVIES FOR  
THE YEAR 2017, COLLECTIBLE IN 2018**

**BE IT RESOLVED, BY THE CITY COUNCIL OF INVER GROVE HEIGHTS AS  
FOLLOWS:** There is a final levy upon taxable property in the City of Inver Grove Heights for  
the year 2017, collectible in 2018, for the following purposes in the following amounts:

|                                                                      |              |                            |
|----------------------------------------------------------------------|--------------|----------------------------|
| General Operating Fund                                               |              | \$19,118,500               |
| Bond Retirement:                                                     |              |                            |
| City Share of Special Assessments                                    | 205,074      |                            |
| G.O. Improvement Bonds, 2014B                                        | 456,482      |                            |
| (Levy of \$392,046 plus shortfall of \$64,436)                       |              |                            |
| G.O. Capital Improvement Bonds, 2009A                                | 400,272      |                            |
| (Levy of \$600,272 less transfer from Closed Bond Fund of \$200,000) |              |                            |
| G.O. Improvement Bonds, 2010B                                        | 195,000      |                            |
| (Levy of \$285,684 less \$90,684 of funds available)                 |              |                            |
| G.O. Bonds, 2015A                                                    | 682,482      |                            |
| (Levy of \$637,068 plus shortfall of \$45,414)                       |              |                            |
| G.O. Bonds, 2017A                                                    | <u>1,887</u> |                            |
| Total Bond Retirement                                                |              | <u>1,941,197</u>           |
| Total Levy                                                           |              | <u><u>\$21,059,697</u></u> |

Adopted this 11<sup>th</sup> day of December, 2017, by the City Council of Inver Grove Heights.

Ayes:

Nays:

\_\_\_\_\_  
George Tourville, Mayor

ATTEST:

\_\_\_\_\_  
Michelle Tesser, City Clerk

**CITY OF INVER GROVE HEIGHTS  
DAKOTA COUNTY, MINNESOTA**

**RESOLUTION NO. \_\_\_\_\_**

**RESOLUTION ADOPTING THE FINAL WATERSHED  
MANAGEMENT TAXING DISTRICT TAX LEVY FOR  
THE YEAR 2017, COLLECTIBLE IN 2018**

**BE IT RESOLVED, BY THE CITY COUNCIL OF INVER GROVE HEIGHTS AS FOLLOWS:** There is a proposed special property tax levied upon the taxable property within the Watershed Management Taxing District (W.M.T.D.) in the City of Inver Grove Heights collectible in 2018 for the following purpose in the following amount:

***Bond Retirement***

|                                                 |          |
|-------------------------------------------------|----------|
| 70 <sup>th</sup> Street Reconstruction W.M.T.D. |          |
| Babcock Trail                                   | \$22,230 |
| South Grove                                     | 41,285   |
| 70 <sup>th</sup> Street                         | 15,879   |

Adopted this 11<sup>th</sup> day of December, 2017, by the City Council of Inver Grove Heights.

Ayes:

Nays:

\_\_\_\_\_  
George Tourville, Mayor

ATTEST:

\_\_\_\_\_  
Michelle Tesser, City Clerk

**CITY OF INVER GROVE HEIGHTS****POLICY FOR SEWER AVAILABILITY CHARGE (SAC) LOAN PROGRAM****PURPOSE**

The purpose of this policy is to establish and outline the terms and procedures of the City of Inver Grove Heights Sewer Availability Charge (SAC) Loan Program.

The Metropolitan Council's Sewer Availability Charge (SAC) and City of Inver Grove Heights sewer and water availability fees are due upfront with a business's building permit. In some cases, these fees may prevent business start-ups or existing businesses from expanding. To promote business development, the City of Inver Grove Heights may consider deferring sewer and water availability charges for businesses in need of a financing option. Approval for fee deferment will be determined on a case-by-case basis for each fee and/or a combination of fees. At any time, the City may discontinue the option to provide any assistance for these fees and approval is contingent upon funding.

**BACKGROUND**Metropolitan Council Sewer Availability Charge

The Sewer Availability Charge is one-time fee imposed by the Metropolitan Council when a residence or business first connects to the regional wastewater (sewer) system, or when a business changes their use of space resulting in an increase of wastewater flow. Once received, these fees are passed from the City of Inver Grove Heights to the Metropolitan Council to pay for the construction and maintenance of the metropolitan region's wastewater infrastructure.

All properties submitting a building permit in the metropolitan region receive a SAC determination. One SAC unit equals 274 gallons of maximum potential daily wastewater flow capacity. In 2017, each SAC unit cost \$2,485. A single-family residence has a SAC determination of one SAC unit, however, other property types may be evaluated higher after the SAC determination process. During this process, SAC units are calculated based on criteria specific to the building's use (such as a business's square footage or seating capacity) to identify the maximum potential wastewater flow created by activities at the location.

City Sewer and Water Connection Fees

The City Sewer and Water Connection fees are one-time fees imposed by the City of Inver Grove Heights when a residence or business first connects to the City's utility system. These fees are used to pay for the maintenance, repair, and replacement of the City's utility infrastructure. To calculate the fees, the City multiplies the base rate of sewer and water connection fees by the business's SAC determination.

### City Water Treatment Fee

The City Water Treatment fee is a one-time fee imposed by the City of Inver Grove Heights when a residence or business first connects to the City's water system. This fee is used to pay capital cost of the water treatment plant. To calculate the fee, the City multiplies the base rate of the water treatment fee by the business's SAC determination.

### **SAC DEFERRAL PROGRAM TERMS**

- Qualified applicants must meet the following criteria:
  - Applicant is not tax delinquent
  - No liens exist on the property
  - Applicant has proof of renewed licenses
  - Applicant's use of land is desirable and permitted by the City of Inver Grove Heights
- Deferrable fees:
- Maximum SAC units deferred per applicant:
- Maximum SAC units deferred citywide by the City of Inver Grove Heights:
- Minimum down payment:
- Maximum loan term:
- Interest rate:

### **APPLICATION PROCESS**

- 1) An application for sewer and water availability fee deferment must be submitted by the property owner(s), or the building tenant in conjunction with the owner(s) of the property.
- 2) Funds for this program are limited and shall be awarded to qualifying applicants on a first-come, first-serve basis.
- 3) City staff and/or the Economic Development Authority shall review the application materials and make a preliminary recommendation regarding the completeness of the application and whether the application meets the criteria outlined in this policy.
- 4) In the event that the City Council concurs with the recommendation above, the City Council may either deny or grant final approval of an interest-bearing loan that allows financing of sewer and water availability charges.
- 5) A "Deferred Payment Agreement" shall be executed between the eligible business, the property owner, and the City, and shall be recorded with Dakota County.

### **GENERAL TERMS AND CONDITIONS**

- The City reserves the right to determine and limit the amount of SAC credits that are applied for by any one applicant. This allows for the maximum utilization and benefit of the credits. Nothing herein shall imply or suggest that the City is under any obligation to provide incentives to any applicant.

- Any applicant who is not in good standing with the City, regarding the applicant qualifications listed above, will not be considered for this program.
- Requests specific to construction of single-family homes are not eligible under this program.
- If the benefitting building is sold within the period of the loan, the loan must be repaid. The EDA may consider alternatives to immediate repayment, including but not limited to transfer of the loan to a new owner or mutually agreeable loan repayment schedule.
- The City can deviate from this policy for projects that supersede the objectives identified herein.
- If payment in full is not received by the City of Inver Grove Heights by the date it is due, the City may certify the amount unpaid to the County auditor to be collected with real estate taxes in the next calendar year (Minn. Stat. 444.075).



# SAC Loan Program

Presented by Ally Hillstrom, City Government Intern

# Building Permit: MetCouncil SAC fee

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- ▲ MetCouncil Sewer Availability Charge (SAC)
  - One time fee included in building permit
    - Residence or business pays to connect to regional wastewater system for the first time
    - Expand wastewater flow
  - City pays funds to MetCouncil
  - Pays for construction and maintenance of regional wastewater pipes and treatment plants



# SAC Determination

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- ▲ Amount of MetCouncil SAC units based on “SAC determination”
- ▲ 1 SAC = maximum 274 gallons/day of wastewater flowing from property = \$2,485 (2017)
- ▲ Calculating SAC determination
  - Property related parameter
    - Gallons/day of wastewater
    - # of seats
    - Square footage
    - # of stations



# Building Permit: City Fees

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- ▲ 1 SAC = 274 gallons/day = \$2,485 (2017)
- ▲ Fees based on MetCouncil SAC determination
  - MetCouncil SAC fee = \$2,485
  - City Sewer Connection fee = \$450
  - City Water Connection fee = \$840
  - City Water Treatment Fee = \$730
- ▲ Additional building permit fees



# Impact on Small Businesses

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- ▲ Large unexpected fee
  - Water intensive businesses
- ▲ Existing SAC on property
  - Expansions
  - Change of use
  - New construction
- ▲ Due when permit is submitted
- ▲ Plus other building permit fees



# IGH – SAC Determinations

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- ▲ Metcouncil SAC = \$2,485
- ▲ City Sewer Connection = \$450
- ▲ City Water Connection = \$840
- ▲ Water Treatment = \$730

| Facility                         | SAC Determination | Metcouncil SAC | City Sewer | City Water | Water Treatment | Combined cost |
|----------------------------------|-------------------|----------------|------------|------------|-----------------|---------------|
| El Rincon<br>(replaced existing) | 1 SAC             | \$2,485        | \$450      | \$840      | \$730           | = \$4,505     |
| El Azteca<br>(outdoor seating)   | 2 SAC             | \$4,970        | \$900      | \$1,680    | \$1,460         | = \$9,010     |
| B52 (rooftop)                    | 3 SAC             | \$7,455        | \$1,350    | \$2,520    | \$2,190         | = \$13,515    |

# Deferral Program

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- ▲ Options for deferment
- ▲ Small commercial businesses
  - Concord/Cahill
  - Arbor Point
  - Upper 55/Blaine Ave/Bishop Ave



# Option 1: MetCouncil SAC Deferral Program

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- ▲ What fees: MetCouncil SAC
- ▲ Max SAC units: 25 units
- ▲ Min down payment requirement: 20% of SAC fee
- ▲ Max loan term: 10 years
- ▲ Interest rate: 2.19% (2017)
  - based on MCES average cost of debt



# Option 1: Active Cities

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## ▲ Dakota County

- Apple Valley, Hastings, Rosemount

## ▲ 13 others

## ▲ Interested/Participating Businesses

- Restaurants
- Café/studio
- Breweries
- American Legion
- Daycare
- Montessori School



# Option 2: City SAC Deferral Program

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- ▲ What fees:
  - MetCouncil SAC, City sewer connection, City water connection, Citywater treatment
- ▲ Max SAC units per property: 10 units (\$24,850)
- ▲ Max SAC loaned citywide: 50 units
- ▲ Minimum down payment: 10% of fees
- ▲ Max loan term: 5 years
- ▲ Interest rate: 1% above bonding rate (2.69% - 2017)
- ▲ Policy doesn't apply to NWA
- ▲ Licenses, no liens, no tax delinquencies



# Option 2: Active Cities

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- ▲ Anoka and Shakopee
- ▲ Hastings and Burnsville
  - Combination of MetCouncil and City Program



# Questions to answer and staff recommendations

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- ▲ Which deferral program: City program
- ▲ What interest rate: 1% above bonding
- ▲ Max loan term: 5 year
- ▲ Min down payment: 10% of fee
- ▲ Max deferral per applicant: 10 SAC
- ▲ Max SAC loaned citywide: 50 SAC
- ▲ What city fees should be included
  - MetCouncil SAC
  - Sewer Connection Fee
  - Water Connection Fee
  - Water Treatment Plant Fee



Item 3

No supporting documents received.



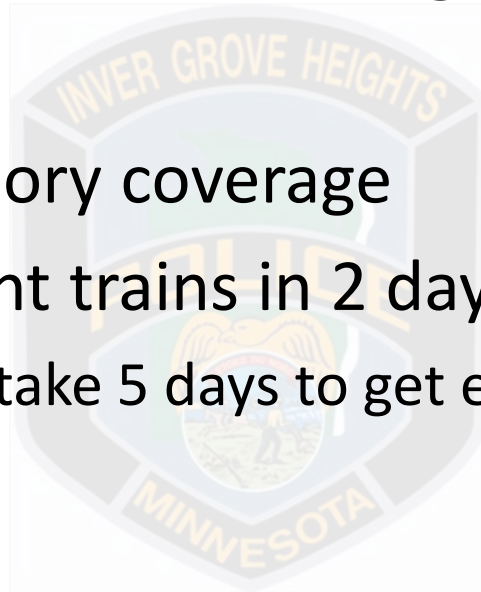
# Yearly Review of 12 Hour Shifts

Presented by: Sean Folmar, Interim Chief of Police

# 2017 Changes

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- ▲ 12 hour shift for Patrol and Sergeants
- ▲ Team Policing
- ▲ 24 hour Supervisory coverage
- ▲ Entire department trains in 2 days
  - Training used to take 5 days to get everyone through the training



# Positives

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- ▲ There are more officers working at any given time than ever before.
  - 6 patrol officers instead of 4 (before benefit time)
- ▲ Officer initiated productivity has increased.
  - Up 2500 for same period last year, 3700 vs. 1200
- ▲ Positive citizen observations and comments on officer visibility and presence is being received.
- ▲ Overall department morale has improved.
  - Officers like working in teams, they like having every other weekend off, and they work many less days than on 9 hour shifts.
- ▲ 24 hour supervision, every day of the year.
  - Each team has a sergeant they work with day in day out, this helps with getting to know their expectations and allows for better performance evaluation.



# Concerns

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## ▲ Patrol

- Vacation benefit time is not being used as in years past.
- 8 or 9 Pitman days coupled with 8 Holidays
  - Employees were allowed to select their days (Pitman days) throughout the year.
  - Because of the 16 or 17 days for Holiday and Pitman, very little vacation was used and is driving everyone closer to the 240 cap which is unsustainable.
  - For 2018, officers will select 1 day per month (except June, July, and August) which should spread out the time off and require the use of benefit time to take off longer stretches.

## ▲ Sergeants

- Vacation benefit time is not being used as in years past.
- Comp time will be eliminated for 2018
- 8 or 9 Pitman days coupled with 8 Holidays
  - Sergeants also were allowed to select their days and with Holidays created little use of vacation and they too are all very near the 240 cap which again is not sustainable.
  - For 2018, sergeants will be given 4 hours off every 2 weeks to keep from having to get full days off to reduce the 2080 work hours (see schedule on last page)



# Statistical comparison for 2016 and 2017

(dates below are 1-1 to 10-31 of each year)

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- ▲ Officer initiated activity comparison (dates below are 1-1 to 10-31 of each year)
  - For 2016---3,671
  - For 2017---8,959
- ▲ Calls for Service
  - For 2016---21,032
  - For 2017—27,631

# Summary

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- ▲ As you can see from this presentation there are positives that we will keep improving on. There are some concerns that have been raised and with a few adjustments, I feel those will become positives as well.
- ▲ The Patrol and Sergeants unions have signed an MOU for 2018 to continue the 12 hour shifts for another year. Bidding is almost complete for 2018.

# 12 Hour Shift Example



|         | Saturday | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
|---------|----------|--------|--------|---------|-----------|----------|--------|----------|--------|--------|---------|-----------|----------|--------|
| A Day   | 12       | 12     | off    | off     | 12        | 12       | off    | off      | off    | 8*     | 12      | off       | off      | 12     |
| A Night | 12       | 12     | off    | off     | 12        | 12       | off    | off      | off    | 8*     | 12      | off       | off      | 12     |
| A Admin | 12       | 12     | off    | off     | 12        | 12       | off    | off      | off    | 12     | 8*      | off       | off      | 12     |
| B Day   | off      | off    | 8*     | 12      | off       | off      | 12     | 12       | 12     | off    | off     | 12        | 12       | off    |
| B Night | off      | off    | 8*     | 12      | off       | off      | 12     | 12       | 12     | off    | off     | 12        | 12       | off    |
| B Admin | off      | off    | 12     | 8*      | off       | off      | 12     | 12       | 12     | off    | off     | 12        | 12       | off    |

For the 8 hour days:

\*Day shift off at 1300  
 \*Night shift in at 2100  
 Admin 0900-2100 to cover both  
 \*Admin works 0900-1700 next day



## CITY OF INVER GROVE HEIGHTS

## REQUEST FOR COUNCIL ACTION

**Railroad Quiet Zone**

Meeting Date: December 4, 2017  
Item Type: Work Session  
Contact: Thomas J. Link: 651-450-2546  
Prepared by: Tom Link, Director of Comm. Dev.  
Reviewed by: NA

*npl*

|                                     |
|-------------------------------------|
| <input type="checkbox"/>            |
| <input checked="" type="checkbox"/> |
| <input type="checkbox"/>            |
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| <input type="checkbox"/>            |

**Fiscal/FTE Impact:**

None  
Amount included in current budget  
Budget amendment requested  
FTE included in current complement  
New FTE requested – N/A  
Other (Revenue)

**PURPOSE/ACTION REQUESTED**

The City Council is to hear a presentation from Chris Ryan of SRF Consulting Group Inc. regarding the Quiet Zone Assessment, as attached.

**BACKGROUND**

The City Council approved the contract with SRF Consulting Group to perform the railroad quiet zone study. The Council also determined that all railroad crossings in the City, except for industrial crossings in the vicinity of 117<sup>th</sup> Street, should be included in the analysis. The work included collecting data, conducting a diagnostic meeting of each of the crossings with the affected railroads and other governmental agencies, analyzing improvement alternatives, and preparing conceptual plans and costs.

**RECOMMENDATION**

City Council is to hear a presentation from Chris Brian of SRF Consulting Group Inc. regarding the quiet zone assessment, as attached.

Enc: Quiet Zone Assessment

# Inver Grove Heights, MN Quiet Zone Assessment

*DRAFT*

City of Inver Grove Heights, Minnesota



November 2017

SRF No. 10329

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*H:\Projects\10000\10329\TP\Report\Inver Grove Heights Quiet Zone Assessment DRAFT Report 2017-11-29.docx*

# Introduction

The City of Inver Grove Heights, Minnesota (the City) is investigating options to improve the safety of at-grade highway-rail crossings and to minimize the impacts of train horn noise throughout the community. The Federal Railroad Administration's (FRA's) Train Horn Rule, issued in June 2005, offers an opportunity to accomplish this objective. The Train Horn Rule specifies the procedures and actions necessary to establish a train horn quiet zone for at-grade highway-rail crossings.

The City retained the services of SRF Consulting Group Inc. to conduct a Quiet Zone Assessment to identify the crossing improvements required for quiet zone implementation. This assessment evaluated five individual rail crossings along Union Pacific (UP) Railroad's Albert Lea subdivision and one crossing along Progressive Rail's Austin subdivision through the City. A map of the corridor with the locations of the proposed quiet zone crossings is shown in Figure 1. This report provides a summary of the assessment and includes proposed crossing improvement scenarios with planning level layouts and construction cost estimates for each crossing.

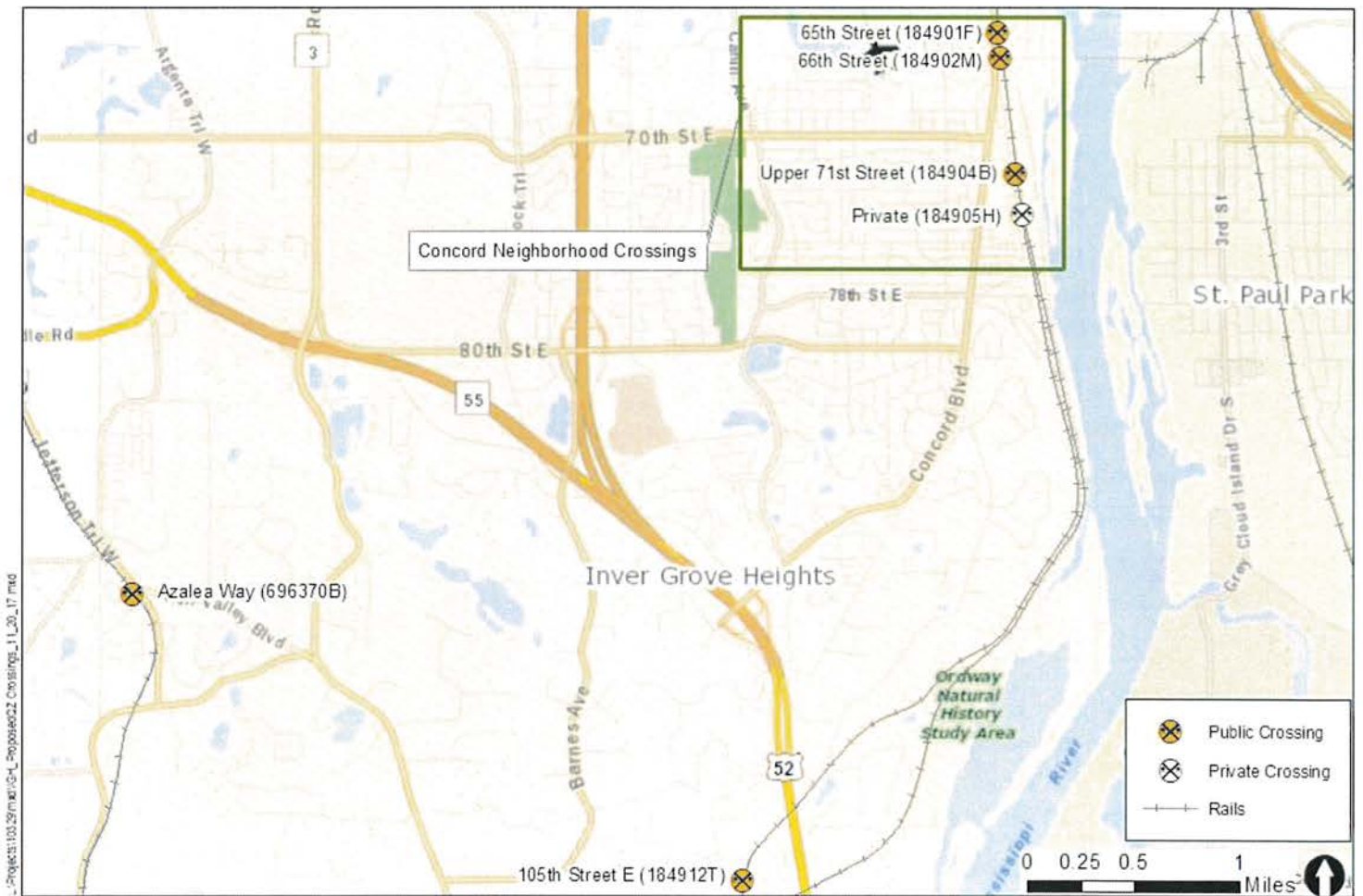
## Minimum Warning Device Requirements

At a minimum, each public crossing in a proposed quiet zone must be equipped with entry gates and flashing lights with power-out indicators as well as constant warning time (CWT) detectors where reasonably practical. Multiple crossings in Inver Grove Heights have recently been upgraded to meet these requirements or are programmed to have these upgrades completed within the next year. The presence of these minimum requirements is summarized in Table 1 below. Note that private crossings do not require the same minimum requirements as public crossings. The locations of these crossings are also shown in Figure 1 on the following page.

Table 1. Minimum Warning Devices

| Crossing Name                     | USDOT ID | ADT Year | ADT   | Gates            | Flashing Lights  | CWT Detection    |
|-----------------------------------|----------|----------|-------|------------------|------------------|------------------|
| <b>UP Crossings</b>               |          |          |       |                  |                  |                  |
| 65 <sup>th</sup> Street           | 184901F  | 2008     | 630   | Yes <sup>1</sup> | Yes <sup>1</sup> | Yes <sup>1</sup> |
| 66 <sup>th</sup> Street           | 184902M  | 2011     | 2,280 | Yes              | Yes              | Yes              |
| Upper 71 <sup>st</sup> Street     | 184904B  | 2009     | 675   | Yes              | Yes              | Yes              |
| Private                           | 184905H  | n/a      |       |                  |                  |                  |
| 105 <sup>th</sup> Street          | 184912T  |          |       | Yes              | Yes              | No               |
| <b>Progressive Rail Crossings</b> |          |          |       |                  |                  |                  |
| Azalea Way                        | 696370B  | 2011     | 675   | Yes              | Yes              | No               |

<sup>1</sup> Crossing signal upgrade programmed within the next year



## Proposed Quiet Zone Crossings

Inver Grove Heights, MN Quiet Zone Assessment

Figure 1

## Constant Warning Time

Constant Warning Time (CWT) is a type of train detection required by the FRA for all new QZ implementations. Simple train detection systems (e.g., motion sensors, track circuits) are designed to activate the crossing warning devices when they are triggered by a train a minimum of 20 seconds before the train enters the crossing. In cases where a train is approaching the crossing more slowly than usual, this warning time at the crossing will increase significantly. Motorists at the crossing may interpret the longer waiting time as a sign that the warning devices are malfunctioning and attempt to circumvent the gates. CWT addresses this issue by measuring the speed of the approaching train and adjusting the timing of the warning device activation to maintain consistent warning time durations.

## Quiet Zone Risk Calculations

The FRA evaluates potential quiet zones using a complex risk prediction and assessment calculation. The FRA's online Quiet Zone Calculator is used to calculate the risk index at each crossing. The risk calculations are based on a number of factors such as train volumes and speed, highway traffic volumes, crossing geometry, and crash history.

The FRA determines the viability of quiet zone implementation by comparing three risk index values:

- **QZRI** – The Quiet Zone Risk Index is the average of the risk index values for each crossing in a proposed quiet zone assuming train horns are not routinely sounded.
- **RIWH** – The Risk Index With Horns is the average of the risk index values for each crossing in a proposed quiet zone assuming no additional safety improvements and the routine sounding of horns. The RIWH typically represents the existing risk levels.
- **NSRT** – The Nationwide Significant Risk Threshold is the average risk level of all highway-rail crossings in the United States that are equipped with flashing lights and gates and at which locomotive horns are routinely sounded. The NSRT is recalculated annually to reflect existing risk trends. The current value of the NSRT is 14,723.

The QZRI for a proposed quiet zone is reduced through the implementation of FRA-approved Supplementary Safety Measures (SSMs) and/or Alternative Safety Measures (ASMs). A quiet zone may be implemented when SSMs and/or ASMs have been installed sufficient to bring the QZRI below either the RIWH or the NSRT. It is important to note that the QZRI and RIWH are measured as an average of the corridor as a whole rather than for individual crossings.

## Reducing Risk Below National Average

If the QZRI is reduced below the NSRT alone, the quiet zone may be implemented, but the FRA will conduct an annual risk review to ensure that the quiet zone improvements still comply with the Train Horn Rule and that the QZRI is still below the NSRT. If an annual review finds that the quiet zone no longer qualifies, the public authority is given three years to install additional improvements to bring the quiet zone back into compliance. While the

City has the option to implement a quiet zone by meeting the NSRT threshold, SRF encourages the City to consider alternative scenarios that will meet the RIWH threshold. By meeting the RIWH threshold, the City will avoid the annual risk review process while also making the corridor safer than the current conditions.

### **Reducing Risk Below Existing Levels**

If the QZRI is reduced below the RIWH using SSMs at every crossing, the quiet zone may be implemented and the City must provide an update to the FRA every five years stating that the safety measures implemented to achieve the quiet zone are still in place as proposed. If the QZRI is reduced below the RIWH without the use of SSMs at every crossing, this update to the FRA must be provided every three years.

### **Types of Crossing Improvements**

The FRA has pre-approved a variety of Supplementary Safety Measures (SSMs) to be used to improve safety at each crossing. These options and their corresponding risk reduction values are as follows:

- Closure or Grade Separation (100 percent risk reduction)
- Four-Quadrant Gates (77-82 percent risk reduction)
- Channelization Devices (e.g. Tuff Curb, Qwick Kurb) (75 percent risk reduction)
- Non-Traversable Medians (80 percent risk reduction)
- One-Way Street (82 percent risk reduction)

Examples of these improvements are shown on the following page.

Of these improvements, four quadrant gates and non-traversable medians are the most commonly used. Channelization devices are also frequently used in place of non-traversable medians where cost, narrow roadway width, or other roadway conditions must be considered. However, the channelization devices can be damaged by vehicles or during snow removal operations, necessitating ongoing monitoring and maintenance. Due to these factors, non-traversable medians were determined to be the most desirable crossing improvement option at most of the crossings in the corridor.

Non-traversable medians must meet minimum length requirements in order to be used for full risk reduction credit. The FRA mandates that medians and delineators must extend a minimum of 100 feet from the crossing gate arm. However, a 60-foot median is also acceptable if a longer median would interfere with either a public roadway or a commercial driveway. Medians that are shorter than these standards may still be used, but are considered Alternative Safety Measures (ASMs) and require the submittal of a Quiet Zone Application to the FRA. Risk reduction for reduced length medians is applied on a prorated basis. For example, if the proximity of intersections limits median lengths to 30 feet instead of the minimum 60 feet, the median will be considered half as effective.

In some cases, crossing improvements may be difficult or impossible due to the configuration of roadways, accesses, and other factors. However, the Train Horn Rule does not require improvements at every crossing in a quiet zone.



# Crossing Improvement Options

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As required by the Train Horn Rule, this assessment included an on-site diagnostic meeting with participation from key representatives from the City of Inver Grove Heights, the FRA, the Minnesota Department of Transportation (MnDOT), and Union Pacific (UP) Railroad. The diagnostic meeting was held on October 13th, 2017. The diagnostic meeting minutes are provided in Appendix A.

At each crossing, the diagnostic team evaluated the site conditions to evaluate potential safety issues and identify potential crossing improvements. A summary of the recommended improvements is included below. High-level aerial layouts of the improvements and construction cost estimates are also included on the following pages. The preliminary estimates were developed for each improvement option based on SRF's previous experience with quiet zone implementation. It should be noted that many of these costs may vary based on region, season, scope of construction activity, and other factors. The total estimated costs for each crossing have been rounded to the nearest \$5,000. Cost estimation worksheets are included in Appendix B.

## 65<sup>th</sup> Street (184901F)

The 65<sup>th</sup> Street crossing consists of one mainline track. The crossing is not equipped with gates, flashing lights, or CWT, but is scheduled for a full warning device upgrade by UP within the next year. To the west of the crossing, an intersection with Concord Boulevard begins approximately 25 feet from the nearest rail. There are no conflicting roadways or accesses east of the crossing within 100 feet of the crossing.

The Mississippi River Regional Trail (MRRT) crosses this crossing on the north side of the roadway. The diagnostic team recommended the installation of advance warning signage on the westbound trail approach.

### Option 1: ASM Medians

Install 20 feet of median to the west of the crossing. The location of Concord Boulevard to the west of the crossing prevents the installation of a longer median. Install 100 feet of median to the east of the crossing. To accommodate the addition of the medians while maintaining sufficient lane width, the roadway will need to be widened. Curb and gutter is also recommended on both sides of the roadway to better define the roadway edge. The layout for this option is shown in Figure 2. These improvements are estimated to cost \$65,000 and will result in a risk reduction of 53.3 percent.

Figure 2. 65<sup>th</sup> Street (184901F) Option 1



#### Option 2: No Additional Improvements

Under this option, no additional crossing improvements are proposed. Pursuing this option will leave the crossing with increased risk levels compared to the current levels.

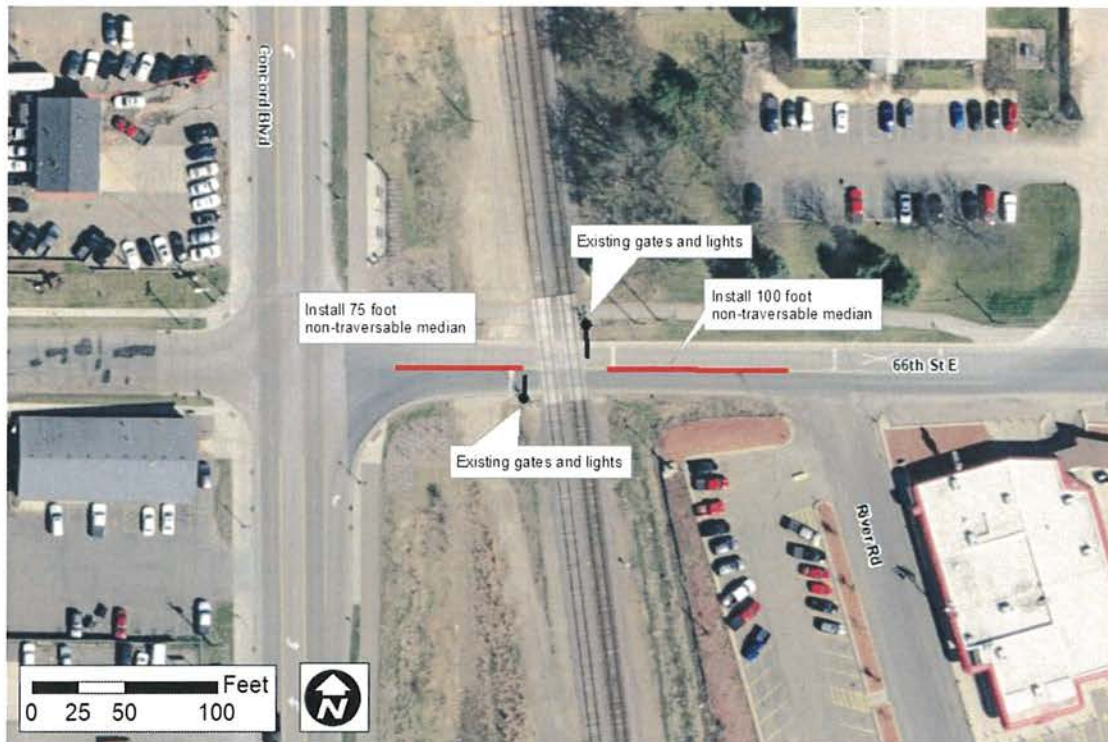
### 66th Street (184902M)

The 66th Street crossing consists of one mainline track and one siding track. The crossing has been recently equipped with gates, flashing lights, and CWT by UP. To the west of the crossing, an intersection with Concord Boulevard begins approximately 75 feet from the gate. To the east of the crossing there is an intersection with River Road on the south side of the roadway approximately 100 feet from the gate. A city pedestrian/bicycle trail crosses this crossing on the north side of the roadway.

#### Option 1: SSM Medians

Install 75 feet of median to the west of the crossing. The location of Concord Boulevard to the west of the crossing prevents the installation of a longer median. Install 100 feet of median to the east of the crossing. The layout for this option is shown in Figure 3. The improvements are estimated to cost \$25,000 and will result in a risk reduction of 80 percent.

Figure 3. 66th Street (184902M) Option 1



### Option 2: No Additional Improvements

Under this option, no additional crossing improvements are proposed. Pursuing this option will leave the crossing with increased risk levels compared to the current levels.

### Upper 71<sup>st</sup> Street (184904B)

The Upper 71st Street crossing consists of one mainline track and one siding track. The crossing has recently been equipped with gates, flashing lights, and CWT. To the west of the crossing, an intersection with Dickman Trail begins approximately 75 feet from the gate. There are no conflicting roadways or accesses east of the crossing within 100 feet of the gate.

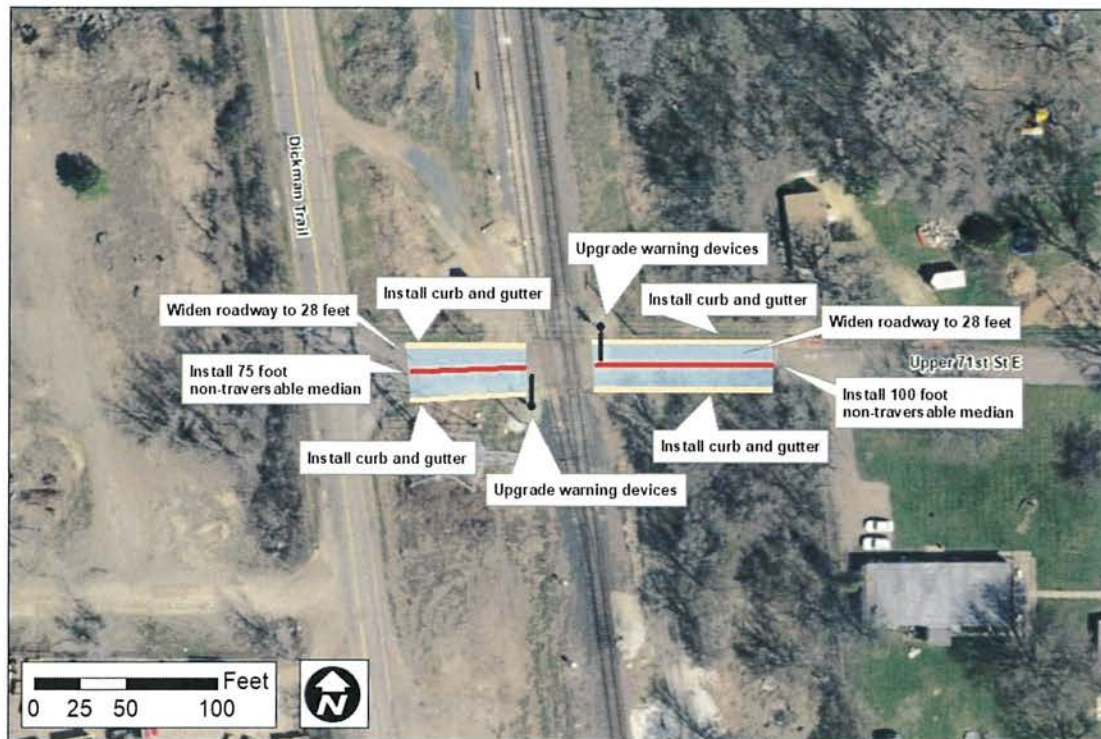
### Option 1: SSM Medians

Install 75 feet of median to the west of the crossing. The intersection with Dickman Trail prevents a longer median from being installed. Install 100 feet of median to the east of the crossing. To accommodate the addition of the medians while maintaining sufficient lane width, the roadway will need to be widened on each side of the crossing. Curb and gutter is also recommended on both sides of the roadway to better define the roadway edge.

The existing timber crossing surface will need to be upgraded to concrete panels and widened to accommodate the wider roadway. The final cost of this crossing surface upgrade will be determined by the railroad, but the initial high-level estimate provided by UP at the diagnostic meeting was \$100,000.

The improvements are estimated to cost \$245,000 and will result in a risk reduction of 80 percent. The layout for this option is shown in Figure 4.

Figure 4. Upper 71st Street (184904B) Option 1



## Option 2

Under this option, no additional crossing improvements are proposed. Pursuing this option will leave the crossing with increased risk levels compared to the current levels.

## Private Crossing (184905H)

This crossing consists of one mainline track and is currently equipped with stop signs. While the FRA does not require improvements at private crossings for the purpose of quiet zone implementation, it does mandate that they be reviewed by the diagnostic team for any outstanding safety or operational issues. Aside from the installation of “No Train Horn” signs if the quiet zone is implemented, the diagnostic team recommended no additional crossing improvements at this crossing.

## 105<sup>th</sup> Street E (184912T)

The 105th Street crossing consists of one mainline track. The crossing is equipped with gates and flashing lights, but not CWT. The installation of CWT at this crossing will require a full replacement of the signal system due to the age of the equipment. This upgrade is estimated to cost \$250,000. The roadway surface at this crossing is currently gravel. Any installation of median will require that the roadway be paved.

A UP rail signal control point is located south of the crossing. The control point is used signal when trains must stop and when it is safe to proceed down the track. Even if this crossing is included in a quiet zone, trains may sound their horn as part of standard train movement operations in the vicinity of this control point.

### Option 1

Install 30 feet of median to the west of the crossing. The entrance of Fly N Hy Kennel, a commercial access driveway, directly west of the crossing prevents a longer median from being installed. Install 100 feet of median to the east of the crossing. Widen the roadway to a width of 28 feet and install curb and gutter to better define the roadway edge. The improvements are estimated to cost \$460,000 and will result in a risk reduction of 60 percent. The layout for this option is shown in Figure 5.

Figure 5. 105<sup>th</sup> Street (184912T) Option 1



## Option 2

Under this option, no additional crossing improvements are proposed. Pursuing this option will leave the crossing with increased risk levels compared to the current levels. This option will still require the installation of upgraded warning devices at an estimated cost of \$250,000.

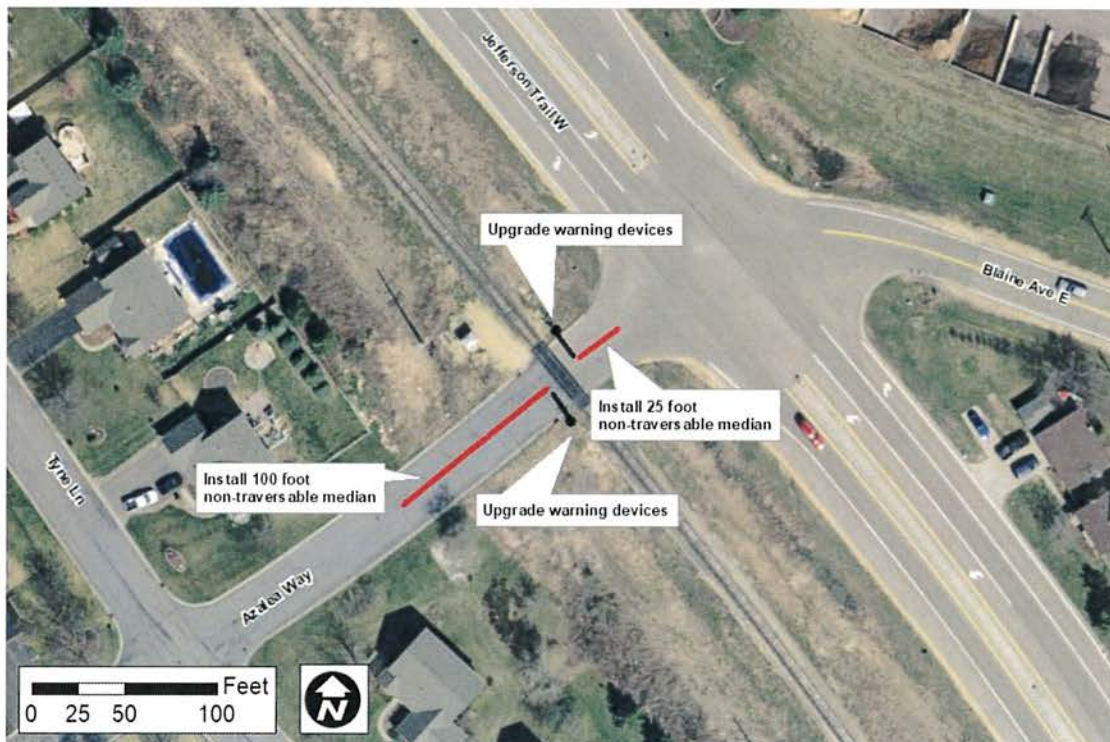
## Azalea Way (696370B)

The Azalea Way crossing consists of one mainline track. The crossing is equipped with gates and flashing lights, but not with CWT. The installation of CWT at this crossing will require a full replacement of the signal system due to the age of the equipment. This upgrade is estimated to cost \$250,000. To the east of the crossing an intersection with Jefferson Trail West begins approximately 27 feet from the gate. There are no conflicting roadways or accesses west of the crossing within 100 feet of the gate.

## Option 1

Install 100 feet of median to the west of the crossing. Install 25 feet of median to the east of the crossing. The intersection with Jefferson Trail West directly east of the crossing prevents a longer median from being installed. The improvements are estimated to cost \$270,000 and will result in a risk reduction of 56.7 percent. The layout for this option is shown in Figure 6.

Figure 6. Azalea Way (696370B) Option 1



## **Option 2**

Under this option, no additional crossing improvements are proposed. Pursuing this option will leave the crossing with increased risk levels compared to the current levels. This option will still require the installation of upgrade warning devices at an estimated cost of \$250,000.

# Crossing Improvement Scenarios

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Multiple crossing improvement scenarios are available to the City which would allow for the implementation of quiet zones at either the UP or Progressive Rail crossings. Using various combinations of the crossing improvements described in the previous section will allow for the City to bring the Quiet Zone Risk Index (QZRI) below either the Risk Index With Horns (RIWH) and/or the Nationwide Significant Risk Threshold (NSRT). Four improvement scenarios were developed for the crossings in the UP corridor and two improvement scenarios were developed for the crossing in the Progressive Rail corridor. High level construction cost estimation worksheets are included in Appendix B. Note that these estimates are rounded to the nearest \$5,000. Documentation of the quiet zone risk calculations is included in Appendix C.

## UP Improvement Scenarios

The key differentiating factors for the UP crossing improvement scenarios are the number of crossings at which additional improvements are implemented and whether the quiet zone includes the 105<sup>th</sup> Street crossing or is limited only to the Concord Neighborhood crossings. A summary of the estimated costs and risk calculations associated with each scenario is shown in Table 4.

### Scenario 1: Improvements at Every Crossing

Under this scenario, the 105<sup>th</sup> Street crossing is included with the four Concord Neighborhood crossings. Non-traversable median improvements are proposed as each crossing. This scenario would have the highest impact on safety, reducing the risk in the corridor from 4,372 to 2,125, but also carries the highest estimated cost at \$795,000.

### Scenario 2: Concord Only; Improvements at Every Crossing

This scenario uses the same improvements described in Scenario 1, with the exception that the 105<sup>th</sup> Street crossing is excluded from the proposed quiet zone. This scenario will have a similar effect on safety, reducing the risk from 4,811 to 2,154, but will cost significantly less at \$335,000.

### Scenario 3: Concord Only; Limited Improvements

Under this scenario, only the crossings at 65<sup>th</sup> Street and 66<sup>th</sup> Street are improved with medians. These two crossings can be treated much more cost effectively than the Upper 71<sup>st</sup> Street crossing, which will require the installation of a new crossing surface in addition to a widening and repaving of the roadway. These improvements will reduce the risk in the corridor from 4,811 to 4,173, meeting the RIWH threshold. The estimated cost of these improvements is \$90,000. **Due to the combination of cost-effective improvements and increased safety in the corridor, SRF recommends that the City consider using this set of improvements as the preferred scenario.**

### Scenario 4: Concord Only; No Additional Improvements

Under this scenario, no additional improvements are proposed aside from the standard “No Train Horn” signage. This scenario would result in risk levels in the corridor rising from 4,811 to 8,025. However, this is below the NSRT level of 14,723, and therefore is acceptable for quiet zone implementation per the Train Horn Rule requirements. A consideration for the City is that implementing a quiet zone under the NSRT threshold will require an annual risk re-assessment to confirm that the risk levels at the crossings are still below the NSRT. The NSRT is updated annually to reflect changes to national risk levels. Changes to train and/or traffic volumes as well as crashes at the crossings will affect the QZRI. SRF conducted a variety of sensitivity analyses to assess the potential for various inputs to change the QZRI. The results are summarized below in Table 2.

Table 2. UP Scenario 4 Sensitivity Analyses

| Incident                                                                                        | Effect on QZRI         | Quiet Zone Compliance |
|-------------------------------------------------------------------------------------------------|------------------------|-----------------------|
| Crash at 65 <sup>th</sup> Street                                                                | 8,025 → 12,414 (<NSRT) | In Compliance         |
| Crash at 65 <sup>th</sup> Street<br>+ Crash at 66 <sup>th</sup> Street                          | 8,025 → 19,198 (>NSRT) | Not in Compliance     |
| Doubling of train and traffic<br>volumes at all crossings                                       | 8,025 → 13,071 (<NSRT) | In Compliance         |
| Doubling of train and traffic<br>volumes at all crossings<br>+ Crash at 65 <sup>th</sup> Street | 8,025 → 20,873 (>NSRT) | Not in Compliance     |

## Progressive Rail Improvement Scenarios

With only one crossing included in this proposed quiet zone, the improvement options are limited to the installation of ASM medians or having no additional improvements. A summary of the estimated costs and risk calculations associated with each scenario is shown in Table 5.

### Scenario 1: ASM Medians

Under this scenario, the Azalea Way crossing is upgraded with new warning devices and is equipped with ASM non-traversable medians. This scenario would reduce the risk at this crossing from 2,886 to 2,086 and would cost an estimated \$270,000. The majority of this cost is associated with the required warning device upgrade. **Due to the increased safety at the crossing, SRF recommends that the City consider using this set of improvements as the preferred scenario.**

### Scenario 2: No Additional Improvements

Under this scenario, no additional improvements are proposed aside from the standard “No Train Horn” signage. This scenario would result in risk levels at the crossing rising from 2,886 to 4,814. However, this is below the NSRT level of 14,723, and therefore is acceptable for quiet zone implementation per the Train Horn Rule requirements. As with the proposed quiet zone in the UP corridor, the City should consider the potential impact of increased train and traffic volumes as well as the potential for crashes to impact the QZRI at this crossing. The sensitivity analyses completed for this crossing area summarized below in Table 3.

Table 3. Progressive Rail Scenario 2 Sensitivity Analyses

| Incident                                                             | Effect on QZRI         | Quiet Zone Compliance |
|----------------------------------------------------------------------|------------------------|-----------------------|
| Crash at Azalea                                                      | 4,814 → 14,443 (<NSRT) | In Compliance         |
| Doubling of train and traffic volumes at Azalea                      | 4,814 → 7,825 (<NSRT)  | In Compliance         |
| Doubling of train and traffic volumes at Azalea<br>+ Crash at Azalea | 4,814 → 23,474 (>NSRT) | Not in Compliance     |

Table 4. Improvement Scenario Summary (UP Corridor)

| Crossing Name                 | Scenario 1:<br>Improvements at<br>Every Crossing                                         | Scenario 2:<br>Concord Only; Improvements<br>at Every Crossing                       | Scenario 3:<br>Concord Only;<br>Limited Improvements | Scenario 4:<br>Concord Only;<br>No Additional Improvements |
|-------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------|
| 65 <sup>th</sup> Street       | 20' median west<br>100' median east<br>Widen roadway                                     | 20' median west<br>100' median east<br>Widen roadway                                 | 20' median west<br>100' median east<br>Widen roadway | No additional improvements                                 |
| 66 <sup>th</sup> Street       | 75' median west<br>100' median east                                                      | 75' median west<br>100' median east                                                  | 75' median west<br>100' median east                  | No additional improvements                                 |
| Upper 71 <sup>st</sup> Street | 75' median west<br>100' median east<br>Widen roadway<br>Reconstruct crossing surface     | 75' median west<br>100' median east<br>Widen roadway<br>Reconstruct crossing surface | No additional improvements                           | No additional improvements                                 |
| 105 <sup>th</sup> Street      | 30' median west<br>100' median east<br>Widen and pave roadway<br>Upgrade warning devices | Exclude from Quiet Zone                                                              | Exclude from Quiet Zone                              | Exclude from Quiet Zone                                    |
| Estimated Cost                | \$795,000                                                                                | \$335,000                                                                            | \$90,000                                             | \$0                                                        |
| NSRT                          | 14,723                                                                                   | 14,723                                                                               | 14,723                                               | 14,723                                                     |
| RIWH                          | 4,372                                                                                    | 4,811                                                                                | 4,811                                                | 4,811                                                      |
| QZRI                          | 2,125                                                                                    | 2,154                                                                                | 4,173                                                | 8,025                                                      |

Table 5. Improvement Scenario Summary (Progressive Rail)

| Crossing Name  | Scenario 1:<br>ASM Medians          | Scenario 2:<br>No Additional Improvements |
|----------------|-------------------------------------|-------------------------------------------|
| Azalea Way     | 100' median west<br>25' median east | No Additional Improvements                |
| Estimated Cost | \$270,000                           | \$250,000                                 |
| NSRT           | 14,723                              | 14,723                                    |
| RIWH           | 2,886                               | 2,886                                     |
| QZRI           | 2,086                               | 4,814                                     |

*Note: Quiet Zone Risk Index (QZRI) must be below either Nationwide Significant Risk Threshold (NSRT) or Risk Index With Horns (RIWH) to qualify for quiet zone implementation.*

## Next Steps and Implementation Timeline

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The next step for the City is to determine the preferred crossing improvement scenario. As noted previously, SRF recommends the use of Scenario 3 for the UP crossings and Scenario 1 for the Progressive Rail crossing. Each of these scenarios will result in increased safety in the corridor compared to existing levels. Once the appropriate crossing improvement options have been selected, there are several steps necessary to implement a quiet zone. A summary of these steps is summarized below:

1. **Notice of Intent:** The first step in the quiet zone implementation process is the submittal of a Quiet Zone Notice of Intent (NOI) to the FRA, UP, Progressive Rail, MnDOT, and any other applicable stakeholders. The NOI outlines the proposed crossing improvements the City intends to use to qualify for quiet zone implementation. All recipients of the NOI are allowed 60 days to provide comment.
2. **Quiet Zone Application:** Many of the proposed improvements described in this report include the use of Alternative Safety Measure (ASM) improvements. When ASM improvements are used, a Quiet Zone Application must be submitted to the FRA following the NOI 60-day comment period. The Application is subject to a minimum 60-day comment period for all stakeholders and must then be approved by the FRA. It is estimated that this process will take nine to twelve months to complete.
3. **Construct Improvements:** Once the Quiet Zone Application has been approved, the City may begin construction of the proposed crossing improvements. The City must also install advance warning signs and pavement markings conforming to the MUTCD standards, including the installation of “No Train Horn” signs to notify the public that train horns will no longer routinely sound at these crossings.
4. **Notice of Establishment:** Once the proposed improvements have been constructed, the City must then submit a Quiet Zone Notice of Establishment (NOE) to the FRA and all applicable stakeholders. The railroad must cease the routine sounding of horns 21 days after the submittal of this final notice.

After the quiet zone is implemented, the City will be required to provide updates to the FRA on a routine basis confirming that the improvements used to qualify for the quiet zone are still in place. If the quiet zone is established by installing SSMs at every crossing, the FRA requires a letter every five years confirming the continued presence of the SSM improvements. If the quiet zone is established without SSMs at every crossing a similar letter must be submitted to the FRA every three years. If the quiet zone is established by meeting only the NSRT threshold, FRA staff will complete an annual risk assessment to confirm that the quiet zone is still within the NSRT threshold and will notify the City of the results. If the NSRT threshold is no longer met, the City will have six months to develop an action plan for adding additional improvements to bring the quiet zone under the NSRT threshold and three years to install these improvements before the quiet zone is terminated.

## Appendix A: Diagnostic Meeting Minutes

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## **INVER GROVE HEIGHTS, MN QUIET ZONE DIAGNOSTIC MEETING**

### **MEETING MINUTES 9:00 A.M. October 13th, 2017**

#### **ATTENDEES:**

Tom Link, City of Inver Grove Heights  
Scott Thureen, City of Inver Grove Heights  
Chris Rice, MnDOT  
Tammy Wagner, FRA

Tom Domres, FRA  
John Venice, Union Pacific Railroad  
Chris Ryan, SRF Consulting Group  
Joe Lampe, SRF Consulting Group

**Note: These meeting minutes also include the comments and recommendations from a diagnostic meeting held on October 12, 2017 with Tom Link (City of Inver Grove Heights), Nik Shepard (Progressive Rail), and Chris Ryan (SRF Consulting Group).**

The diagnostic meeting participants, including representatives from the City of Inver Grove Heights, the Federal Railroad Administration (FRA), Union Pacific Rail (UPRR), and the Minnesota Department of Transportation (MnDOT) met at the Inver Grove Heights City Hall building to discuss the steps necessary to implement a quiet zone in the City of Inver Grove Heights under the FRA's Train Horn Rule. A copy of the sign-in sheet with contact information is provided as an attachment.

The meeting began with introductions and a brief project overview. The purpose of the meeting was to investigate and gather input on the various Supplemental Safety Measure (SSM) and Alternative Safety Measure (ASM) options available at each crossing in the proposed quiet zone. The quiet zone diagnostic meeting is also an opportunity to identify other concerns or issues related to the crossing such as safety, traffic operations, construction needs, etc.

The review included four public crossings (65<sup>th</sup> St, 66<sup>th</sup> St, Upper 71<sup>st</sup> St, and 150<sup>th</sup> St) and one private crossing located along UPRR's Albert Lea Subdivision, and one crossing (Azalea Way) located along Progressive Rail's Austin subdivision in the City of Inver Grove Heights. Informational packets distributed to the group included the following materials:

1. 8.5x11 aerial maps showing the layout of each crossing
2. United States Department of Transportation (USDOT) grade crossing inventory forms for each of the crossings
3. United States Department of Transportation (USDOT) accident history reports for the previous five years.
4. A blank evaluation sheet for the diagnostic team members to document the preferred SSM/ASM improvement options and other field notes

Once introductions were complete, Tammy Wagner (FRA) discussed the potential timeline for implementation of the quiet zone, noting the Notice of Intent (NOI) and its associated 60-day comment period, the approximately six- to nine-month review period for a Quiet Zone Application (if ASM improvements are used), and the 21-day period between the submittal of

the Notice of Establishment (NOE) and the actual establishment of the quiet zone. Tammy discussed the FRA's periodic recertification process wherein the City must document that the crossings still comply with the Train Horn Rule requirements. This process occurs once every one to five years depending on how the quiet zone is established. Tammy also reminded the group that a quiet zone prevents the *routine* sounding of horns, but horns may still be sounded in cases of emergency (vehicle, pedestrian, or animal on the tracks), in cases where construction or maintenance personnel are in close proximity to the track, or if the crossing warning devices are not functioning correctly.

John Venice (Union Pacific Railroad) followed with information on upgrades that have been made to certain crossings and the impacts that these changes have on quiet zone criteria and the status of each crossing. The crossings at 66<sup>th</sup> Street and Upper 71<sup>st</sup> Street have recently been upgraded with gates, flashing lights, and CWT detection. The crossing at 65<sup>th</sup> Street is scheduled for a similar upgrade within the next year.

Chris Ryan (SRF Consulting Group) proceeded with an overview of the SSM and ASM options available for each crossing in accordance with the Train Horn Rule, the overall costs and benefits of each option, and how recent upgrades to certain crossings fit into both options.

John Venice then gave a general safety briefing and code of conduct for crossing site visits. Attendees then headed to the field to visit the crossings and to conduct a diagnostic review and to discuss potential safety measure updates for the crossings in the proposed quiet zone.

A summary of the notes, discussion items, and recommended improvements for each crossing is provided in the tables on the following pages. General comments from the meeting that apply to all crossings are as follows:

- All crossings will need to be equipped with "No Train Horn" signs if a quiet zone is implemented. Other rail crossing signage and pavement markings consistent with the guidance in the Manual on Uniform Traffic Control Devices (MUTCD) are also required.
- Updated traffic volumes will need to be collected at the crossings if quiet zone implementation is pursued. The FRA prefers count within one year for local roads and within three years for state or county highways.
- John Venice confirmed that current average daily train volumes through the UPRR crossings are nine per day. Nik Shepard confirmed that current average daily train volumes through the Progressive Rail crossing is two per day.

The next steps of the quiet zone implementation process were also reviewed. Following the diagnostic meeting, the City will work to identify the appropriate crossing improvements at each crossing necessary to qualify for a quiet zone. If the quiet zone moves forward, a Notice of Intent will be submitted to all stakeholders providing an overview of the proposed improvements. This notice is subject to a 60-day comment period. If ASM crossing improvements are used, the FRA will require the submittal of a Quiet Zone Application. This application must be reviewed by the FRA's Railroad Safety Board and the processing time is currently estimated at six to nine months.

Construction of the improvements typically occurs following FRA approval of this application. Construction may occur prior to approval, but any modifications required by the FRA would need to be incorporated. Once the Quiet Zone Application is approved and the crossing improvements are installed, a Notice of Quiet Zone Establishment will be submitted to all stakeholders. The quiet zone will go into effect 21 days after this Notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                           |                                                    |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--|
| <b>65<sup>th</sup> Street</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                           | FRA Crossing ID: <b>184901F</b>                    |  |
| Crossing Improvement Options (Rank Top 3):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                           |                                                    |  |
| <b>SSMs:</b><br><input type="checkbox"/> 4-Quadrant Gate<br><input type="checkbox"/> Non-Traversable Medians<br><input type="checkbox"/> Channelized Delineators<br><input type="checkbox"/> Wayside Horns<br><input type="checkbox"/> Closure<br><input type="checkbox"/> One-Way Streets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>ASMs:</b><br><input type="checkbox"/> 3-Quadrant Gate<br><input checked="" type="checkbox"/> 1 Reduced Length Non-Traversable Medians<br><input type="checkbox"/> Reduced Length Channelized Delineators<br><input type="checkbox"/> Other (Describe): | <input checked="" type="checkbox"/> 2 No Treatment |  |
| <b>Notes:</b><br><br><p>This crossing is scheduled for a warning device upgrade (gates, flashing lights, CWT detection) by UPRR within the next year. The roadway width at this crossing is 42 feet to the west and 23 feet to the east. To the west of the crossing an intersection with Concord Boulevard begins approximately 25 feet from the nearest rail. There are no conflicting roadways or accesses east of the crossing within 100 feet of the crossing. The track at this crossing consists of one mainline track. The Mississippi River Regional Trail (MRRT) crosses this crossing on the north side of the roadway. Current pedestrian/bicycle counts are not known at this location, but are not required for quiet zone implementation.</p> <p>Full-length non-traversable medians are not possible to the west of the crossing due to the proximity of Concord Boulevard. The diagnostic team recommended the use of ASM reduced length medians with approximately 15-20 feet of median west of the crossing and a full 100 feet of median east of the crossing. The roadway east of the crossing will likely need to be widened to accommodate the median. The diagnostic team also recommended installing curb and gutter to better define the roadway edge. The City noted that the proposed median west of the crossing will likely encroach on Dakota County right-of-way. The City will need to coordinate with County on the implementation of this improvement.</p> <p>The diagnostic team recommended advanced warning signage for the MRRT trail. The team felt that no additional pedestrian warning devices were warranted.</p> |                                                                                                                                                                                                                                                           |                                                    |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                         |                                 |                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>66<sup>th</sup> Street</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                         | FRA Crossing ID: <b>184902M</b> |                                                                                                                                                                                                                                                                                                                          |
| Crossing Improvement Options (Rank Top 3):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                         |                                 |                                                                                                                                                                                                                                                                                                                          |
| <b>SSMs:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> 4-Quadrant Gate<br><input checked="" type="checkbox"/> 1 Non-Traversable Medians<br><input type="checkbox"/> Channelized Delineators<br><input type="checkbox"/> Wayside Horns<br><input type="checkbox"/> Closure<br><input type="checkbox"/> One-Way Streets | <b>ASMs:</b>                    | <input type="checkbox"/> 3-Quadrant Gate<br><input type="checkbox"/> Reduced Length Non-Traversable Medians<br><input type="checkbox"/> Reduced Length Channelized Delineators<br><input type="checkbox"/> Other (Describe):<br><div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                         |                                 | <input checked="" type="checkbox"/> 2 No Treatment                                                                                                                                                                                                                                                                       |
| <p><b>Notes:</b></p> <p>This crossing has recently been upgraded by UPRR with gates, flashing lights, and CWT detection. The roadway width at this crossing is 27 feet. To the west of the crossing an intersection with Concord Boulevard begins approximately 74 feet from the gate arm. There are no conflicting roadways or accesses east of the crossing within 100 feet of the gate. The track at this crossing consists of one mainline and one siding track. A city pedestrian/bicycle trail crosses this crossing on the north side of the roadway. Current pedestrian/bicycle counts are not known at this location.</p> <p>The diagnostic team recommended the use of SSM full-length medians with approximately 70-75 feet of median west of the crossing and a full 100 feet of median east of the crossing. The proposed median west of the crossing will likely encroach on Dakota County right-of-way. The City will need to coordinate with County on the implementation of this improvement.</p> <p>The diagnostic team recommended advanced warning signage for the city bicycle trail. The team felt that no additional pedestrian warning devices were warranted.</p> |                                                                                                                                                                                                                                                                                         |                                 |                                                                                                                                                                                                                                                                                                                          |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Upper 71<sup>st</sup> Street</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                               | FRA Crossing ID: <b>184904B</b>                                                                                                                      |
| Crossing Improvement Options (Rank Top 3):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
| <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">SSMs:</div> <div> <input type="checkbox"/> 4-Quadrant Gate<br/> <input checked="" type="checkbox"/> 1 Non-Traversable Medians<br/> <input type="checkbox"/> Channelized Delineators<br/> <input type="checkbox"/> Wayside Horns<br/> <input type="checkbox"/> Closure<br/> <input type="checkbox"/> One-Way Streets                 </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">ASMs:</div> <div> <input type="checkbox"/> 3-Quadrant Gate<br/> <input type="checkbox"/> Reduced Length Non-Traversable Medians<br/> <input type="checkbox"/> Reduced Length Channelized Delineators<br/> <input type="checkbox"/> Other (Describe):                 </div> </div> | <div style="display: flex; align-items: center; justify-content: center;"> <input checked="" type="checkbox"/> 2 No Treatment                 </div> |
| <p><b>Notes:</b></p> <p>This crossing has recently been upgraded by UPRR with gates, flashing lights, and CWT detection. The roadway width at this crossing is 19 feet. To the west of the crossing an intersection with Dickman Trail begins approximately 75 feet from the gate. There are no conflicting roadways or accesses east of the crossing within 100 feet of the gate. The track at this crossing consists of one mainline and one siding track.</p> <p>The diagnostic team recommended the use of SSM full-length medians with approximately 70-75 feet of median west of the crossing and a full 100 feet of median east of the crossing. The roadway on both sides of the crossing will need to be widened and resurfaced to accommodate the median. The diagnostic team also recommended installing curb and gutter to better define the roadway edge. The existing timber crossing surface will also need to be upgraded and widened to accommodate the wider roadway.</p> <p>The team felt that no additional pedestrian warning devices were warranted due to low pedestrian volumes.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Private</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                               | FRA Crossing ID: <b>184905H</b>                                                                                                                      |
| Crossing Improvement Options (Rank Top 3):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
| <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">SSMs:</div> <div> <input type="checkbox"/> 4-Quadrant Gate<br/> <input type="checkbox"/> Non-Traversable Medians<br/> <input type="checkbox"/> Channelized Delineators<br/> <input type="checkbox"/> Wayside Horns<br/> <input type="checkbox"/> Closure<br/> <input type="checkbox"/> One-Way Streets                 </div> </div>                                                                                                                                                                                                     | <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">ASMs:</div> <div> <input type="checkbox"/> 3-Quadrant Gate<br/> <input type="checkbox"/> Reduced Length Non-Traversable Medians<br/> <input type="checkbox"/> Reduced Length Channelized Delineators<br/> <input type="checkbox"/> Other (Describe):                 </div> </div> | <div style="display: flex; align-items: center; justify-content: center;"> <input checked="" type="checkbox"/> 1 No Treatment                 </div> |
| <p><b>Notes:</b></p> <p>While upgrades to private crossings are not required under the FRA's Train Horn Rule, they must be reviewed during the diagnostic meeting to identify any safety concerns and to recommend improvements. The crossing is currently equipped with stop signs. The diagnostic team recommended no additional crossing improvements at this location.</p> <p>Prior to quiet zone implementation, the City must contact the private crossing owner to update them on the diagnostic review notes and discussion items. The owner must also be included on any quiet zone documentation including the Notice of Intent, Quiet Zone Application, and Notice of Establishment.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                            |                                 |                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>105<sup>th</sup> Street E</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                            | FRA Crossing ID: <b>184912T</b> |                                                                                                                                                                                                                                                                                                              |
| Crossing Improvement Options (Rank Top 3):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                            |                                 |                                                                                                                                                                                                                                                                                                              |
| <b>SSMs:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/> 4-Quadrant Gate<br><input type="checkbox"/> Non-Traversable Medians<br><input type="checkbox"/> Channelized Delineators<br><input type="checkbox"/> Wayside Horns<br><input type="checkbox"/> Closure<br><input type="checkbox"/> One-Way Streets | <b>ASMs:</b>                    | <input type="checkbox"/> 3-Quadrant Gate<br><input checked="" type="checkbox"/> 1 Reduced Length Non-Traversable Medians<br><input type="checkbox"/> Reduced Length Channelized Delineators<br><input type="checkbox"/> Other (Describe):<br><br><div style="text-align: right;"><u>2</u> No Treatment</div> |
| <b>Notes:</b> <p>This crossing is equipped with gates and flashing lights, but not with CWT detection. The roadway width at this crossing is 23 feet. The roadway surface is unpaved. To the west of the crossing there is an intersection with the commercial access to Fly N Hy Kennel 39 feet from the gate. There are no conflicting roadways or accesses east of the crossing within 100 feet of the crossing. The track at this crossing consists of one mainline track. A UPRR rail signal control point is located south of the crossing. Here, even though the crossing may be located within a quiet zone, trains may blow three long horns as part of their standard train movement operations.</p> <p>Full-length non-traversable medians are not possible to the west of the crossing due to the proximity of Fly N Hy Kennel. The diagnostic team recommended the use of ASM reduced length medians with approximately 25-30 feet of median west of the crossing and a full 100 feet of median east of the crossing. The roadway on both sides of the crossing will need to be paved and potentially widened to accommodate the median. The diagnostic team also recommended installing curb and gutter to better define the roadway edge.</p> <p>The team felt that no additional pedestrian warning devices were warranted due to low pedestrian volumes.</p> |                                                                                                                                                                                                                                                                            |                                 |                                                                                                                                                                                                                                                                                                              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                            |                                 |                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Azalea Way</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                            | FRA Crossing ID: <b>696370B</b> |                                                                                                                                                                                                                                           |
| Crossing Improvement Options (Rank Top 3):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                            |                                 |                                                                                                                                                                                                                                           |
| <b>SSMs:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> 4-Quadrant Gate<br><input type="checkbox"/> Non-Traversable Medians<br><input type="checkbox"/> Channelized Delineators<br><input type="checkbox"/> Wayside Horns<br><input type="checkbox"/> Closure<br><input type="checkbox"/> One-Way Streets | <b>ASMs:</b>                    | <input type="checkbox"/> 3-Quadrant Gate<br><input checked="" type="checkbox"/> 1 Reduced Length Non-Traversable Medians<br><input type="checkbox"/> Reduced Length Channelized Delineators<br><input type="checkbox"/> Other (Describe): |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                            |                                 | <input checked="" type="checkbox"/> 2 No Treatment                                                                                                                                                                                        |
| <b>Notes:</b> <p>This crossing is equipped with gates and flashing lights, but not with CWT detection. The roadway width at this crossing is 29 feet. To the east of the crossing an intersection with Jefferson Trail W begins approximately 27 feet from the gate. There are no conflicting roadways or accesses west of the crossing within 100 feet. The track at this crossing consists of one mainline track.</p> <p>Full-length non-traversable medians are not possible to the east of the crossing due to the proximity of Jefferson Trail W. The diagnostic team recommended the use of ASM reduced length medians with approximately 20-25 feet of median east of the crossing and a full 100 feet of median west of the crossing</p> <p>The team felt that no additional pedestrian warning devices were warranted due to low pedestrian volumes.</p> |                                                                                                                                                                                                                                                                            |                                 |                                                                                                                                                                                                                                           |

## **Appendix B: Preliminary Construction Cost Estimates**

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| Item                                                      | Units | Unit Cost     | 65th Street |              | 66th Street |              | Upper 71st Street |               | 105th Street |               | Azalea Way |               |
|-----------------------------------------------------------|-------|---------------|-------------|--------------|-------------|--------------|-------------------|---------------|--------------|---------------|------------|---------------|
|                                                           |       |               | Quantity    | Item Cost    | Quantity    | Item Cost    | Quantity          | Item Cost     | Quantity     | Item Cost     | Quantity   | Item Cost     |
| Mobilization (~10% of Roadway Costs)                      | LS    | Varies        | 1           | \$ 5,000.00  | 1           | \$ 2,000.00  | 1                 | \$ 18,000.00  | 1            | \$ 15,500.00  | 1          | \$ 1,500.00   |
| Remove Pavement                                           | SY    | \$ 21.00      | 280         | \$ 5,880.00  | 80          | \$ 1,680.00  | 415               | \$ 8,715.00   | 0            | \$ -          | 56         | \$ 1,176.00   |
| Sawcut Pavement                                           | LF    | \$ 4.50       | 48          | \$ 216.00    | 366         | \$ 1,647.00  | 80                | \$ 360.00     | 0            | \$ -          | 266        | \$ 1,197.00   |
| Excavation (8")                                           | SY    | \$ 15.00      | 342         | \$ 5,130.00  | 80          | \$ 1,200.00  | 610               | \$ 9,150.00   | 470          | \$ 7,050.00   | 56         | \$ 840.00     |
| Aggregate Base (CV) Class 5 (8")                          | SY    | \$ 15.00      | 342         | \$ 5,130.00  | 80          | \$ 1,200.00  | 610               | \$ 9,150.00   | 470          | \$ 7,050.00   | 56         | \$ 840.00     |
| Bituminous Pavement (6")                                  | SY    | \$ 40.00      | 342         | \$ 13,680.00 | 0           | \$ -         | 610               | \$ 24,400.00  | 470          | \$ 18,800.00  | 0          | \$ -          |
| Concrete Curb & Gutter Design B618                        | LF    | \$ 30.00      | 220         | \$ 6,600.00  | 0           | \$ -         | 400               | \$ 12,000.00  | 300          | \$ 9,000.00   | 0          | \$ -          |
| Concrete Median (8" high, 4' wide)                        | SY    | \$ 160.00     | 55          | \$ 8,800.00  | 80          | \$ 12,800.00 | 80                | \$ 12,800.00  | 58           | \$ 9,280.00   | 56         | \$ 8,960.00   |
| Crossing Surface Upgrade                                  | LS    | \$ 100,000.00 | 0           | \$ -         | 0           | \$ -         | 1                 | \$ 100,000.00 | 1            | \$ 100,000.00 | 0          | \$ -          |
| Warning Device Upgrade                                    | LS    | \$ 250,000.00 | 0           | \$ -         | 0           | \$ -         | 0                 | \$ -          | 1            | \$ 250,000.00 | 1          | \$ 250,000.00 |
| <b>Subtotal</b>                                           |       |               |             | \$ 50,436.00 |             | \$ 20,527.00 |                   | \$ 194,575.00 |              | \$ 416,680.00 |            | \$ 264,513.00 |
| <b>Contingency (25%, Excludes Warning Device Upgrade)</b> |       |               |             | \$ 12,609.00 |             | \$ 5,131.75  |                   | \$ 48,643.75  |              | \$ 41,670.00  |            | \$ 3,628.25   |
| <b>TOTAL (Rounded to Nearest \$5,000)</b>                 |       |               |             | \$ 65,000    |             | \$ 25,000    |                   | \$ 245,000    |              | \$ 460,000    |            | \$ 270,000    |

Note: These estimates are intended for high-level planning purposes only and do not represent detailed construction cost estimates.

| UP         | Total Cost | Included Improvements         |
|------------|------------|-------------------------------|
| Scenario 1 | \$ 795,000 | 65th, 66th, Upper 71st, 105th |
| Scenario 2 | \$ 335,000 | 65th, 66th, Upper 71st        |
| Scenario 3 | \$ 90,000  | 65th, 66th                    |
| Scenario 4 | \$ -       | n/a                           |

#### Progressive Rail

|            |            |                               |
|------------|------------|-------------------------------|
| Scenario 1 | \$ 270,000 | Azalea Way (all improvements) |
| Scenario 2 | \$ 250,000 | Warning Device Upgrade Only   |

# Appendix C: Quiet Zone Risk Calculations

---

# UP Quiet Zone Calculator Inputs

| 184901F 65TH ST E                                    | 184902M 66TH ST E                                    |
|------------------------------------------------------|------------------------------------------------------|
| <b>Present warn device:</b> <b>Stop Signs</b>        | <b>Present warn device:</b> <b>Gates</b>             |
| <b>Number of highway vehicles per day:</b> 630       | <b>Number of highway vehicles per day:</b> 2280      |
| <b>Total trains:</b> 9                               | <b>Total trains:</b> 10                              |
| <b>Day through trains :</b> 5                        | <b>Day through trains :</b> 5                        |
| <b>Total Switching Trains :</b> 0                    | <b>Total Switching Trains :</b> 0                    |
| <b>Number of main tracks:</b> 1                      | <b>Number of main tracks:</b> 0                      |
| <b>Number of other tracks:</b> 0                     | <b>Number of other tracks:</b> 1                     |
| <b>Urban(U.)/Rural(R.):</b> U.Local                  | <b>Urban(U.)/Rural(R.):</b> U.Minor Arterial         |
| <b>Highways paved:</b> Yes                           | <b>Highways paved:</b> Yes                           |
| <b>Maximum timetable speed mph:</b> 25               | <b>Maximum timetable speed mph:</b> 10               |
| <b>Number of highway lanes:</b> 2                    | <b>Number of highway lanes:</b> 2                    |
| <b>Number of years accident data:</b> 5              | <b>Number of years accident data:</b> 5              |
| <b>Number of accidents in accident data years:</b> 0 | <b>Number of accidents in accident data years:</b> 0 |
| <b>Wayside horn:</b> No                              | <b>Wayside horn:</b> No                              |
| <b>Pre-Existing SSM:</b> No                          | <b>Pre-Existing SSM:</b> No                          |

| 184904B UPPER 71ST STREET                            | 184912T 105 ST E                                     |
|------------------------------------------------------|------------------------------------------------------|
| <b>Present warn device:</b> <b>Gates</b>             | <b>Present warn device:</b> <b>Flashing Lights</b>   |
| <b>Number of highway vehicles per day:</b> 675       | <b>Number of highway vehicles per day:</b> 250       |
| <b>Total trains:</b> 9                               | <b>Total trains:</b> 6                               |
| <b>Day through trains :</b> 5                        | <b>Day through trains :</b> 3                        |
| <b>Total Switching Trains :</b> 0                    | <b>Total Switching Trains :</b> 0                    |
| <b>Number of main tracks:</b> 0                      | <b>Number of main tracks:</b> 1                      |
| <b>Number of other tracks:</b> 1                     | <b>Number of other tracks:</b> 0                     |
| <b>Urban(U.)/Rural(R.):</b> U.Local                  | <b>Urban(U.)/Rural(R.):</b> U.Local                  |
| <b>Highways paved:</b> Yes                           | <b>Highways paved:</b> No                            |
| <b>Maximum timetable speed mph:</b> 10               | <b>Maximum timetable speed mph:</b> 20               |
| <b>Number of highway lanes:</b> 2                    | <b>Number of highway lanes:</b> 2                    |
| <b>Number of years accident data:</b> 5              | <b>Number of years accident data:</b> 5              |
| <b>Number of accidents in accident data years:</b> 0 | <b>Number of accidents in accident data years:</b> 0 |
| <b>Wayside horn:</b> No                              | <b>Wayside horn:</b> No                              |
| <b>Pre-Existing SSM:</b> No                          | <b>Pre-Existing SSM:</b> No                          |

Print This Page

Home | Help | Contact | logoff [cryan@srfconsulting.com](mailto:cryan@srfconsulting.com)

Cancel

Change Scenario: IGH CONCOR\_51310

Continue

Create New Zone

Manage Existing Zones

Log Off

| Crossing | Street            | Traffic | Warning Device | Pre-SSM | SSM | Risk      |        |
|----------|-------------------|---------|----------------|---------|-----|-----------|--------|
| 184901F  | 65TH ST E         | 630     | Gates          | 0       | 0   | 6,173.36  | MODIFY |
| 184902M  | 66TH ST E         | 2280    | Gates          | 0       | 0   | 10,586.25 | MODIFY |
| 184904B  | UPPER 71ST STREET | 675     | Gates          | 0       | 0   | 7,315.74  | MODIFY |
| 184912T  | 105 ST E          | 250     | Gates          | 0       | 0   | 5,095.14  | MODIFY |

**Step by Step Instructions:**

**Step 1:** To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the [MODIFY](#) Button

**Step 2:** Select proposed warning device or SSM. Then click the [UPDATE](#) button. To generate a spreadsheet of the values on this page, click on [ASM](#) button—This spreadsheet can then be used for ASM calculations.

**Step 3:** Repeat Step (2) until the [SELECT](#) button is shown at the bottom right side of this page. Note that the [SELECT](#) button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

**Step 4:** To save the scenario and continue, click the [SELECT](#) button

\* Only Public At Grade Crossings are listed.

Click for [Supplementary Safety Measures \[SSM\]](#)

Click for ASM spreadsheet: [ASM](#) \* Note: The use of ASMs requires an application to and approval from the FRA.

**Summary**

|                                        |                  |
|----------------------------------------|------------------|
| Proposed Quiet Zone:                   | IGH Concord      |
| Type:                                  | New 24-hour QZ   |
| Scenario:                              | IGH CONCOR_51310 |
| Estimated Total Cost:                  | \$0.00           |
| Nationwide Significant Risk Threshold: | 14723 .00        |
| Risk Index with Horns:                 | 4372.08          |
| Quiet Zone Risk Index:                 | 7292.62          |
| <a href="#">Select</a>                 |                  |

### UP Scenario 1: Improvements at Every Crossing

| Crossing          | Street                            | Warning Device | SSM | PreSSM | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                          | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-SSMs | Eff. of New ASM | Final Risk Index |
|-------------------|-----------------------------------|----------------|-----|--------|---------------|-----------------|-----------------|-------------------------------|-----------------|-------------|-----------------|-----------------|------------------|
| 184901F           | 65TH ST E                         | Gates          | 0   | 0      | 6,173         | -               | -               | 3,701                         | 3,701           | 0           | 3,701           | 0.533           | 2,881            |
| 184902M           | 66TH ST E                         | Gates          | 0   | 0      | 10,586        | -               | -               | 6,347                         | 6,347           | 0           | 6,347           | 0.800           | 2,117            |
| 184904B           | UPPER 71ST STREET                 | Gates          | 0   | 0      | 7,316         | -               | -               | 4,386                         | 4,386           | 0           | 4,386           | 0.800           | 1,463            |
| 184912T           | 105 ST E                          | Gates          | 0   | 0      | 5,095         | -               | -               | 3,055                         | 3,055           | 0           | 3,055           | 0.600           | 2,038            |
| Average           |                                   |                |     |        | 7,293         |                 |                 | 4,372                         | 4,372           |             | 4,372           |                 | 2,125            |
|                   |                                   |                |     |        |               |                 |                 |                               |                 |             |                 |                 |                  |
| Crossing          | Improvements                      |                |     |        |               |                 |                 | Effectiveness Calculation     |                 |             |                 | NSRT            | 14,723           |
| 65TH ST E         | 20' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(20/60, 100/100) |                 |             |                 | RIWH            | 4,372            |
| 66TH ST E         | 75' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(75/75, 100/100) |                 |             |                 | QZRI            | 2,125            |
| UPPER 71ST STREET | 75' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(75/75, 100/100) |                 |             |                 |                 |                  |
| 105 ST E          | 30' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(30/60, 100/100) |                 |             |                 |                 |                  |

### UP Scenario 2: Concord Only; Improvements at Every Crossing

| Crossing          | Street                            | Warning Device | SSM | PreSSM | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                          | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-SSMs | Eff. of New ASM | Final Risk Index |
|-------------------|-----------------------------------|----------------|-----|--------|---------------|-----------------|-----------------|-------------------------------|-----------------|-------------|-----------------|-----------------|------------------|
| 184901F           | 65TH ST E                         | Gates          | 0   | 0      | 6,173         | -               | -               | 3,701                         | 3,701           | 0           | 3,701           | 0.533           | 2,881            |
| 184902M           | 66TH ST E                         | Gates          | 0   | 0      | 10,586        | -               | -               | 6,347                         | 6,347           | 0           | 6,347           | 0.800           | 2,117            |
| 184904B           | UPPER 71ST STREET                 | Gates          | 0   | 0      | 7,316         | -               | -               | 4,386                         | 4,386           | 0           | 4,386           | 0.800           | 1,463            |
| Average           |                                   |                |     |        | 8,025         |                 |                 | 4,811                         | 4,811           |             | 4,811           |                 | 2,154            |
|                   |                                   |                |     |        |               |                 |                 |                               |                 |             |                 |                 |                  |
| Crossing          | Improvements                      |                |     |        |               |                 |                 | Effectiveness Calculation     |                 |             |                 | NSRT            | 14,723           |
| 65TH ST E         | 20' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(20/60, 100/100) |                 |             |                 | RIWH            | 4,811            |
| 66TH ST E         | 75' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(75/75, 100/100) |                 |             |                 | QZRI            | 2,154            |
| UPPER 71ST STREET | 75' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(75/75, 100/100) |                 |             |                 |                 |                  |

### UP Scenario 3: Concord Only; Limited Improvements

| Crossing          | Street                            | Warning Device | SSM | PreSSM | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                          | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-SSMs | Eff. of New ASM | Final Risk Index |
|-------------------|-----------------------------------|----------------|-----|--------|---------------|-----------------|-----------------|-------------------------------|-----------------|-------------|-----------------|-----------------|------------------|
| 184901F           | 65TH ST E                         | Gates          | 0   | 0      | 6,173         | -               | -               | 3,701                         | 3,701           | 0           | 3,701           | 0.500           | 3,087            |
| 184902M           | 66TH ST E                         | Gates          | 0   | 0      | 10,586        | -               | -               | 6,347                         | 6,347           | 0           | 6,347           | 0.800           | 2,117            |
| 184904B           | UPPER 71ST STREET                 | Gates          | 0   | 0      | 7,316         | -               | -               | 4,386                         | 4,386           | 0           | 4,386           | 0.000           | 7,316            |
| Average           |                                   |                |     |        | 8,025         |                 |                 | 4,811                         | 4,811           |             | 4,811           |                 | 4,173            |
|                   |                                   |                |     |        |               |                 |                 |                               |                 |             |                 |                 |                  |
| Crossing          | Improvements                      |                |     |        |               |                 |                 | Effectiveness Calculation     |                 |             |                 | NSRT            | 14,723           |
| 65TH ST E         | 20' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(20/60, 100/100) |                 |             |                 | RIWH            | 4,811            |
| 66TH ST E         | 75' median west; 100' median east |                |     |        |               |                 |                 | 0.8 * AVERAGE(75/75, 100/100) |                 |             |                 | QZRI            | 4,173            |
| UPPER 71ST STREET | none                              |                |     |        |               |                 |                 | n/a                           |                 |             |                 |                 |                  |

### UP Scenario 4: Concord Only; No Additional Improvements

| Crossing          | Street            | Warning Device | SSM | PreSSM | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                      | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-SSMs | Eff. of New ASM | Final Risk Index |
|-------------------|-------------------|----------------|-----|--------|---------------|-----------------|-----------------|---------------------------|-----------------|-------------|-----------------|-----------------|------------------|
| 184901F           | 65TH ST E         | Gates          | 0   | 0      | 6,173         | -               | -               | 3,701                     | 3,701           | 0           | 3,701           | 0.000           | 6,173            |
| 184902M           | 66TH ST E         | Gates          | 0   | 0      | 10,586        | -               | -               | 6,347                     | 6,347           | 0           | 6,347           | 0.000           | 10,586           |
| 184904B           | UPPER 71ST STREET | Gates          | 0   | 0      | 7,316         | -               | -               | 4,386                     | 4,386           | 0           | 4,386           | 0.000           | 7,316            |
| Average           |                   |                |     |        | 8,025         |                 |                 | 4,811                     | 4,811           |             | 4,811           |                 | 8,025            |
|                   |                   |                |     |        |               |                 |                 |                           |                 |             |                 |                 |                  |
| Crossing          | Improvements      |                |     |        |               |                 |                 | Effectiveness Calculation |                 |             |                 | NSRT            | 14,723           |
| 65TH ST E         | none              |                |     |        |               |                 |                 | n/a                       |                 |             |                 | RIWH            | 4,811            |
| 66TH ST E         | none              |                |     |        |               |                 |                 | n/a                       |                 |             |                 | QZRI            | 8,025            |
| UPPER 71ST STREET | none              |                |     |        |               |                 |                 | n/a                       |                 |             |                 |                 |                  |

# UP Quiet Zone Calculator Inputs (Assuming Doubling Train/Traffic Volumes)

| 184901F 65TH ST E                                                            | 184902M 66TH ST E                                                                      |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Crossing Updated!</b>                                                     |                                                                                        |
| <b>Stop Signs</b><br>Present warn device: <input type="text" value="Gates"/> | Present warn device: <input type="text" value="Gates"/>                                |
| Number of highway vehicles per day: 630 <input type="text" value="1280"/>    | Number of highway vehicles per day: 2280 <input type="text" value="4580"/>             |
| Total trains: 9 <input type="text" value="18"/>                              | Total trains: 10 <input type="text" value="18"/>                                       |
| Day through trains : 5 <input type="text" value="10"/>                       | Day through trains : 5 <input type="text" value="10"/>                                 |
| Total Switching Trains : 0 <input type="text" value="0"/>                    | Total Switching Trains : 0 <input type="text" value="0"/>                              |
| Number of main tracks: 1 <input type="text" value="1"/>                      | Number of main tracks: 0 <input type="text" value="0"/>                                |
| Number of other tracks: 0 <input type="text" value="0"/>                     | Number of other tracks: 1 <input type="text" value="1"/>                               |
| Urban(U.)/Rural(R.): U.Local <input type="text" value="U.Local"/>            | U.Minor<br>Urban(U.)/Rural(R.): Arterial <input type="text" value="U.Minor Arterial"/> |
| Highways paved: Yes <input type="text" value="Yes"/>                         | Highways paved: Yes <input type="text" value="Yes"/>                                   |
| Maximum timetable speed mph: 25 <input type="text" value="25"/>              | Maximum timetable speed mph: 10 <input type="text" value="10"/>                        |
| Number of highway lanes: 2 <input type="text" value="2"/>                    | Number of highway lanes: 2 <input type="text" value="2"/>                              |
| Number of years accident data: 5 <input type="text" value="5"/>              | Number of years accident data: 5 <input type="text" value="5"/>                        |
| Number of accidents in accident data years: 0 <input type="text" value="0"/> | Number of accidents in accident data years: 0 <input type="text" value="0"/>           |
| Wayside horn: <input type="text" value="No"/>                                | Wayside horn: <input type="text" value="No"/>                                          |
| <u>Pre-Existing SSM:</u> <input type="text" value="No"/>                     | <u>Pre-Existing SSM:</u> <input type="text" value="No"/>                               |

| 184904B UPPER 71ST STREET                                                    |
|------------------------------------------------------------------------------|
| <b>Stop Signs</b><br>Present warn device: <input type="text" value="Gates"/> |
| Number of highway vehicles per day: 675 <input type="text" value="1350"/>    |
| Total trains: 9 <input type="text" value="18"/>                              |
| Day through trains : 5 <input type="text" value="10"/>                       |
| Total Switching Trains : 0 <input type="text" value="0"/>                    |
| Number of main tracks: 0 <input type="text" value="0"/>                      |
| Number of other tracks: 1 <input type="text" value="1"/>                     |
| Urban(U.)/Rural(R.): U.Local <input type="text" value="U.Local"/>            |
| Highways paved: Yes <input type="text" value="Yes"/>                         |
| Maximum timetable speed mph: 10 <input type="text" value="10"/>              |
| Number of highway lanes: 2 <input type="text" value="2"/>                    |
| Number of years accident data: 5 <input type="text" value="5"/>              |
| Number of accidents in accident data years: 0 <input type="text" value="0"/> |
| Wayside horn: <input type="text" value="No"/>                                |
| <u>Pre-Existing SSM:</u> <input type="text" value="No"/>                     |

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Change Scenario: IGH CONCOR\_51423 ▼

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Manage Existing Zones  
Log Off

| Crossing | Street            | Traffic | Warning Device | Pre-SSM | SSM | Risk      |        |
|----------|-------------------|---------|----------------|---------|-----|-----------|--------|
| 184901F  | 65TH ST E         | 1260    | Gates          | 0       | 0   | 11,703.33 | MODIFY |
| 184902M  | 66TH ST E         | 4560    | Gates          | 0       | 0   | 15,791.39 | MODIFY |
| 184904B  | UPPER 71ST STREET | 1350    | Gates          | 0       | 0   | 11,718.79 | MODIFY |

Step by Step Instructions:

**Step 1:** To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the MODIFY Button

**Step 2:** Select proposed warning device or SSM. Then click the UPDATE button.To generate a spreadsheet of the values on this page, click on ASM button—This spreadsheet can then be used for ASM calculations.

**Step 3:** Repeat Step (2) until the SELECT button is shown at the bottom right side of this page. Note that the SELECT button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

**Step 4:** To save the scenario and continue, click the SELECT button

\* Only Public At Grade Crossings are listed.  
**Click** for Supplementary Safety Measures [SSM]  
**Click** for ASM spreadsheet: **ASM** \* Note:The use of ASMs requires an application to and approval from the FRA.

| Summary                                |                      |
|----------------------------------------|----------------------|
| Proposed Quiet Zone:                   | IGH Concord Doubling |
| Type:                                  | New 24-hour QZ       |
| Scenario:                              | IGH CONCOR_51423     |
| Estimated Total Cost:                  | \$0.00               |
| Nationwide Significant Risk Threshold: | 14723 .00            |
| Risk Index with Horns:                 | 7836.43              |
| Quiet Zone Risk Index:                 | 13071.17             |
| Select                                 |                      |

| UP Scenario 4 Sensitivity Analysis: Assuming Crash at 65th |                   |                           |     |        |               |                        |                       |        |                     |             |                     |                    |                  |
|------------------------------------------------------------|-------------------|---------------------------|-----|--------|---------------|------------------------|-----------------------|--------|---------------------|-------------|---------------------|--------------------|------------------|
| Crossing                                                   | Street            | WarningD<br>evice         | SSM | PreSSM | Baseline Risk | Eff. of<br>Pre-<br>SSM | Eff. of<br>new<br>SSM | RIWH   | RIWH w/Pre-<br>SSMs | Pre-ASM eff | RIWH w/Pre-<br>ASMs | Eff. of New<br>ASM | Final Risk Index |
| 184901F                                                    | 65TH ST E         | Gates                     | 0   | 0      | 18,520        | -                      | -                     | 11,103 | 11,103              | 0           | 11,103              | 0.000              | 18,520           |
| 184902M                                                    | 66TH ST E         | Gates                     | 0   | 0      | 10,586        | -                      | -                     | 6,347  | 6,347               | 0           | 6,347               | 0.000              | 10,586           |
| 184904B                                                    | UPPER 71ST STREET | Gates                     | 0   | 0      | 7,316         | -                      | -                     | 4,386  | 4,386               | 0           | 4,386               | 0.000              | 7,316            |
| Average                                                    |                   |                           |     |        | 12,141        | 7,279                  |                       |        | 7,279               | 7,279       |                     |                    | 12,141           |
| Crossing                                                   | Improvements      | Effectiveness Calculation |     |        |               |                        |                       | NSRT   |                     | 14,723      |                     |                    |                  |
| 65TH ST E                                                  | none              | n/a                       |     |        |               |                        |                       | RIWH   |                     | 7,279       |                     |                    |                  |
| 66TH ST E                                                  | none              | n/a                       |     |        |               |                        |                       | QZRI   |                     | 12,141      |                     |                    |                  |
| UPPER 71ST STREET                                          | none              | n/a                       |     |        |               |                        |                       |        |                     |             |                     |                    |                  |

| UP Scenario 4 Sensitivity Analysis: Assuming Crash at 65th and 66th |                   |                |                           |        |               |                 |                 |        |                 |             |                 |                 |                  |
|---------------------------------------------------------------------|-------------------|----------------|---------------------------|--------|---------------|-----------------|-----------------|--------|-----------------|-------------|-----------------|-----------------|------------------|
| Crossing                                                            | Street            | Warning Device | SSM                       | PreSSM | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH   | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-ASMs | Eff. of New ASM | Final Risk Index |
| 184901F                                                             | 65TH ST E         | Gates          | 0                         | 0      | 18,520        | -               | -               | 11,103 | 11,103          | 0           | 11,103          | 0.000           | 18,520           |
| 184902M                                                             | 66TH ST E         | Gates          | 0                         | 0      | 31,759        | -               | -               | 19,040 | 19,040          | 0           | 19,040          | 0.000           | 31,759           |
| 184904B                                                             | UPPER 71ST STREET | Gates          | 0                         | 0      | 7,316         | -               | -               | 4,386  | 4,386           | 0           | 4,386           | 0.000           | 7,316            |
| Average                                                             |                   |                |                           |        | 19,198        | 11,510          |                 |        | 11,510          | 11,510      |                 |                 | 19,198           |
| Crossing                                                            | Improvements      |                | Effectiveness Calculation |        |               |                 |                 |        | NSRT            |             | 14,723          |                 |                  |
| 65TH ST E                                                           | none              |                | n/a                       |        |               |                 |                 |        | RIWH            |             | 11,510          |                 |                  |
| 66TH ST E                                                           | none              |                | n/a                       |        |               |                 |                 |        | QZRI            |             | 19,198          |                 |                  |
| UPPER 71ST STREET                                                   | none              |                | n/a                       |        |               |                 |                 |        |                 |             |                 |                 |                  |

| UP Scenario 4 Sensitivity Analysis: Assuming Doubling of Train and Traffic Volumes |                   |              |     |        |               |         |         |                           |                 |             |                 |                 |                  |
|------------------------------------------------------------------------------------|-------------------|--------------|-----|--------|---------------|---------|---------|---------------------------|-----------------|-------------|-----------------|-----------------|------------------|
| Crossing                                                                           | Street            | WarningD     |     |        |               | Eff. of | Eff. of | RIWH                      | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-ASMs | Eff. of New ASM | Final Risk Index |
|                                                                                    |                   | evice        | SSM | PreSSM | Baseline Risk | Pre-SSM | new SSM |                           |                 |             |                 |                 |                  |
| 184901F                                                                            | 65TH ST E         | Gates        | 0   | 0      | 11,703        | -       | -       | 7,016                     | 7,016           | 0           | 7,016           | 0.000           | 11,703           |
| 184902M                                                                            | 66TH ST E         | Gates        | 0   | 0      | 15,791        | -       | -       | 9,467                     | 9,467           | 0           | 9,467           | 0.000           | 15,791           |
| 184904B                                                                            | UPPER 71ST STREET | Gates        | 0   | 0      | 11,719        | -       | -       | 7,026                     | 7,026           | 0           | 7,026           | 0.000           | 11,719           |
| Average                                                                            |                   |              |     |        | 13,071        |         |         | 7,836                     | 7,836           |             | 7,836           |                 | 13,071           |
| Crossing                                                                           |                   | Improvements |     |        |               |         |         | Effectiveness Calculation |                 |             |                 | NSRT            | 14,723           |
| 65TH ST E                                                                          |                   | none         |     |        |               |         |         | n/a                       |                 |             |                 | RIWH            | 7,836            |
| 66TH ST E                                                                          |                   | none         |     |        |               |         |         | n/a                       |                 |             |                 | QZRI            | 13,071           |
| UPPER 71ST STREET                                                                  |                   | none         |     |        |               |         |         | n/a                       |                 |             |                 |                 |                  |

| UP Scenario 4 Sensitivity Analysis: Assuming Doubling of Train and Traffic Volumes and Crash at 65th |                   |                |                           |        |               |                 |                 |        |                 |             |                 |                 |                  |
|------------------------------------------------------------------------------------------------------|-------------------|----------------|---------------------------|--------|---------------|-----------------|-----------------|--------|-----------------|-------------|-----------------|-----------------|------------------|
| Crossing                                                                                             | Street            | Warning Device | SSM                       | PreSSM | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH   | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-ASMs | Eff. of New ASM | Final Risk Index |
| 184901F                                                                                              | 65TH ST E         | Gates          | 0                         | 0      | 35,110        | -               | -               | 21,049 | 21,049          | 0           | 21,049          | 0.000           | 35,110           |
| 184902M                                                                                              | 66TH ST E         | Gates          | 0                         | 0      | 15,791        | -               | -               | 9,467  | 9,467           | 0           | 9,467           | 0.000           | 15,791           |
| 184904B                                                                                              | UPPER 71ST STREET | Gates          | 0                         | 0      | 11,719        | -               | -               | 7,026  | 7,026           | 0           | 7,026           | 0.000           | 11,719           |
| Average                                                                                              |                   |                |                           |        | 20,873        |                 |                 | 12,514 | 12,514          |             | 12,514          |                 | 20,873           |
| Crossing                                                                                             | Improvements      |                | Effectiveness Calculation |        |               |                 |                 |        | NSRT            | 14,723      |                 |                 |                  |
| 65TH ST E                                                                                            | none              |                | n/a                       |        |               |                 |                 |        | RIWH            | 12,514      |                 |                 |                  |
| 66TH ST E                                                                                            | none              |                | n/a                       |        |               |                 |                 |        | QZRI            | 20,873      |                 |                 |                  |
| UPPER 71ST STREET                                                                                    | none              |                | n/a                       |        |               |                 |                 |        |                 |             |                 |                 |                  |

## Progressive Rail Quiet Zone Calculator Inputs

| Default Inputs                                | Assuming Doubling Train/Traffic Volumes         |
|-----------------------------------------------|-------------------------------------------------|
| 696370B AZALEA WAY                            |                                                 |
| Present warn device: Gates                    | Crossing Updated!<br>Present warn device: Gates |
| Number of highway vehicles per day: 000675    | Number of highway vehicles per day: 000675      |
| Total trains: 2                               | Total trains: 2                                 |
| Day through trains : 2                        | Day through trains : 2                          |
| Total Switching Trains : 0                    | Total Switching Trains : 0                      |
| Number of main tracks: 1                      | Number of main tracks: 1                        |
| Number of other tracks: 0                     | Number of other tracks: 0                       |
| Urban(U.)/Rural(R.): U.Local                  | Urban(U.)/Rural(R.): U.Local                    |
| Highways paved: Yes                           | Highways paved: Yes                             |
| Maximum timetable speed mph: 10               | Maximum timetable speed mph: 10                 |
| Number of highway lanes: 2                    | Number of highway lanes: 2                      |
| Number of years accident data: 5              | Number of years accident data: 5                |
| Number of accidents in accident data years: 0 | Number of accidents in accident data years: 0   |
| Wayside horn:                                 | Wayside horn:                                   |
| <u>Pre-Existing SSM:</u>                      | <u>Pre-Existing SSM:</u>                        |

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Change Scenario: AZALEA\_51421

Continue

Create New Zone

| Crossing | Street     | Traffic | Warning Device | Pre-SSM | SSM | Risk     |        |
|----------|------------|---------|----------------|---------|-----|----------|--------|
| 696370B  | AZALEA WAY | 675     | Gates          | 0       | 0   | 4,814.18 | MODIFY |

Manage Existing Zones

Log Off

\* Only Public At Grade Crossings are listed.

Click for Supplementary Safety Measures [SSM]

Click for ASM spreadsheet: **ASM** \* Note: The use of ASMs requires an application to and approval from the FRA.

Step by Step Instructions:

**Step 1:** To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the MODIFY Button

**Step 2:** Select proposed warning device or SSM. Then click the UPDATE button. To generate a spreadsheet of the values on this page, click on ASM button—This spreadsheet can then be used for ASM calculations.

**Step 3:** Repeat Step (2) until the SELECT button is shown at the bottom right side of this page. Note that the SELECT button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

**Step 4:** To save the scenario and continue, click the SELECT button

| Summary                                |                |
|----------------------------------------|----------------|
| Proposed Quiet Zone:                   | AZALEA         |
| Type:                                  | New 24-hour QZ |
| Scenario:                              | AZALEA_51421   |
| Estimated Total Cost:                  | \$0.00         |
| Nationwide Significant Risk Threshold: | 14723 .00      |
| Risk Index with Horns:                 | 2886.2         |
| Quiet Zone Risk Index:                 | 4814.18        |
| Select                                 |                |

Cancel

Change Scenario: AZALEA DOU\_51424

Continue

Create New Zone

| Crossing | Street     | Traffic | Warning Device | Pre-SSM | SSM | Risk     |        |
|----------|------------|---------|----------------|---------|-----|----------|--------|
| 696370B  | AZALEA WAY | 1350    | Gates          | 0       | 0   | 7,824.73 | MODIFY |

Manage Existing Zones

Log Off

\* Only Public At Grade Crossings are listed.  
Click for [Supplementary Safety Measures \[SSM\]](#)  
Click for ASM spreadsheet: **ASM** \* Note: The use of  
ASMs requires an application to and approval from the  
FRA.

Step by Step Instructions:

**Step 1:** To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the [MODIFY](#) Button

**Step 2:** Select proposed warning device or SSM. Then click the [UPDATE](#) button. To generate a spreadsheet of the values on this page, click on [ASM](#) button—This spreadsheet can then be used for ASM calculations.

**Step 3:** Repeat Step (2) until the [SELECT](#) button is shown at the bottom right side of this page. Note that the [SELECT](#) button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

**Step 4:** To save the scenario and continue, click the [SELECT](#) button

| Summary                                |                  |
|----------------------------------------|------------------|
| Proposed Quiet Zone:                   | Azalea Doubling  |
| Type:                                  | New 24-hour QZ   |
| Scenario:                              | AZALEA DOU_51424 |
| Estimated Total Cost:                  | \$0.00           |
| Nationwide Significant Risk Threshold: | 14723 .00        |
| Risk Index with Horns:                 | 4691.08          |
| Quiet Zone Risk Index:                 | 7824.73          |
| <div>Select</div>                      |                  |

| Progressive Rail Scenario 1: ASM Medians |            |                                     |     |         |               |                 |                 |                               |                 |             |                 |                 |                  |
|------------------------------------------|------------|-------------------------------------|-----|---------|---------------|-----------------|-----------------|-------------------------------|-----------------|-------------|-----------------|-----------------|------------------|
| Crossing                                 | Street     | Warning Device                      | SSM | PreSSM  | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                          | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-ASMs | Eff. of New ASM | Final Risk Index |
| 696370B                                  | AZALEA WAY | Gates                               | 0   | 0       | 4,814         | -               | -               | 2,886                         | 2,886           | 0           | 2,886           | 0.567           | 2,086            |
|                                          |            |                                     |     | Average | 4,814         |                 |                 | 2,886                         | 2,886           |             | 2,886           |                 | 2,086            |
|                                          |            | Improvements                        |     |         |               |                 |                 | Effectiveness Calculation     |                 |             |                 | NSRT            | 14,723           |
|                                          | Crossing   | 100' medians west; 25' medians east |     |         |               |                 |                 | 0.8 * AVERAGE(100/100, 25/60) |                 |             |                 | RIWH            | 2,886            |
|                                          | 65TH ST E  |                                     |     |         |               |                 |                 |                               |                 |             |                 | QZRI            | 2,086            |

| Progressive Rail Scenario 2: No Additional Improvements |                       |                      |     |         |               |                 |                 |                                  |                 |             |                 |                      |                          |
|---------------------------------------------------------|-----------------------|----------------------|-----|---------|---------------|-----------------|-----------------|----------------------------------|-----------------|-------------|-----------------|----------------------|--------------------------|
| Crossing                                                | Street                | Warning Device       | SSM | Pre-SSM | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                             | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-ASMs | Eff. of New ASM      | Final Risk Index         |
| 696370B                                                 | AZALEA WAY            | Gates                | 0   | 0       | 4,814         | -               | -               | 2,886                            | 2,886           | 0           | 2,886           | 0.000                | 4,814                    |
|                                                         |                       |                      |     | Average | 4,814         |                 |                 | 2,886                            | 2,886           |             | 2,886           |                      | 4,814                    |
|                                                         | Crossing<br>65TH ST E | Improvements<br>none |     |         |               |                 |                 | Effectiveness Calculation<br>n/a |                 |             |                 | NSRT<br>RIWH<br>QZRI | 14,723<br>2,886<br>4,814 |

| Progressive Rail Scenario 2 Sensitivity Analysis: Crash at Azalea |                    |                   |     |         |               |                 |                 |                               |                 |             |                 |                      |                           |
|-------------------------------------------------------------------|--------------------|-------------------|-----|---------|---------------|-----------------|-----------------|-------------------------------|-----------------|-------------|-----------------|----------------------|---------------------------|
| Crossing                                                          | Street             | Warning Device    | SSM | Pre-SSM | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                          | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-ASMs | Eff. of New ASM      | Final Risk Index          |
| 696370B                                                           | AZALEA WAY         | Gates             | 0   | 0       | 14,443        | -               | -               | 8,659                         | 8,659           | 0           | 8,659           | 0.000                | 14,443                    |
|                                                                   |                    |                   |     | Average | 14,443        |                 |                 | 8,659                         | 8,659           |             | 8,659           |                      | 14,443                    |
|                                                                   | Crossing 65TH ST E | Improvements none |     |         |               |                 |                 | Effectiveness Calculation n/a |                 |             |                 | NSRT<br>RIWH<br>QZRI | 14,723<br>8,659<br>14,443 |

| Progressive Rail Scenario 2 Sensitivity Analysis: Train and Traffic Volumes Doubling |            |                |     |         |               |                 |                 |                           |                 |             |                 |                 |                  |
|--------------------------------------------------------------------------------------|------------|----------------|-----|---------|---------------|-----------------|-----------------|---------------------------|-----------------|-------------|-----------------|-----------------|------------------|
| Crossing                                                                             | Street     | Warning Device | SSM | PreSSM  | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                      | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-ASMs | Eff. of New ASM | Final Risk Index |
| 696370B                                                                              | AZALEA WAY | Gates          | 0   | 0       | 7,825         | -               | -               | 4,691                     | 4,691           | 0           | 4,691           | 0.000           | 7,825            |
|                                                                                      |            |                |     | Average | 7,825         |                 |                 | 4,691                     | 4,691           |             | 4,691           |                 | 7,825            |
|                                                                                      | Crossing   | Improvements   |     |         |               |                 |                 | Effectiveness Calculation |                 |             |                 | NSRT            | 14,723           |
|                                                                                      | 65TH ST E  | none           |     |         |               |                 |                 | n/a                       |                 |             |                 | RIWH            | 4,691            |
|                                                                                      |            |                |     |         |               |                 |                 |                           |                 |             |                 | QZRI            | 7,825            |

| Progressive Rail Scenario 2 Sensitivity Analysis: Train and Traffic Volumes Doubling and Crash at Azalea |                    |                   |     |         |               |                 |                 |                               |                 |             |                 |                      |                            |
|----------------------------------------------------------------------------------------------------------|--------------------|-------------------|-----|---------|---------------|-----------------|-----------------|-------------------------------|-----------------|-------------|-----------------|----------------------|----------------------------|
| Crossing                                                                                                 | Street             | Warning Device    | SSM | PreSSM  | Baseline Risk | Eff. of Pre-SSM | Eff. of new SSM | RIWH                          | RIWH w/Pre-SSMs | Pre-ASM eff | RIWH w/Pre-ASMs | Eff. of New ASM      | Final Risk Index           |
| 696370B                                                                                                  | AZALEA WAY         | Gates             | 0   | 0       | 23,474        | -               | -               | 14,073                        | 14,073          | 0           | 14,073          | 0.000                | 23,474                     |
|                                                                                                          |                    |                   |     | Average | 23,474        |                 |                 | 14,073                        | 14,073          |             | 14,073          |                      | 23,474                     |
|                                                                                                          | Crossing 65TH ST E | Improvements none |     |         |               |                 |                 | Effectiveness Calculation n/a |                 |             |                 | NSRT<br>RIWH<br>QZRI | 14,723<br>14,073<br>23,474 |

**CITY OF INVER GROVE HEIGHTS**

**REQUEST FOR COUNCIL ACTION**

**Discuss the Revised List of Saleable City Properties**

Meeting Date: December 4, 2017  
 Item Type: Work Session  
 Prepared by: Carrie Isaacson, Admin Services Coordinator  
 Contact: Joe Lynch, City Administrator  
 Reviewed by: Joe Lynch, City Administrator

**Fiscal/FTE Impact:**

|                                     |                                    |
|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> | None                               |
| <input type="checkbox"/>            | Amount included in current budget  |
| <input type="checkbox"/>            | Budget amendment requested         |
| <input type="checkbox"/>            | FTE included in current complement |
| <input type="checkbox"/>            | New FTE requested – N/A            |
| <input type="checkbox"/>            | Other                              |

**PURPOSE/ACTION REQUESTED:**

Present the revised list of properties owned by the city for consideration and adoption to commit to selling all properties on the list.

**SUMMARY:**

At the August 22, 2016 meeting, Council approved a list of the most saleable city-owned properties to be placed on the market for bid. In the past year, we have purchased a slum blight property, which was demolished in order to market the land for sale as a single-family development lot . The city has also sold one existing lot, which was also purchased for single-family development. During that time, the list of saleable properties has also grown to include park land properties, such as Marcott Woods and River Heights.

As discussed previously, the city must decide if Council is committed to getting these on the tax roll and receiving revenue to offset costs for services in the city, or if they should be marked and improved to be a part of our park system, complete with parking spots, bathrooms and park signs.

A current list of the saleable properties is included.

## SALEABLE CITY-OWNED PROPERTY

| City Owned Parcel | Location / Address                                             | PID #           | Land Value  | Funding Source         | Zoning Type              | Disclosures                                                                                                                                                      |
|-------------------|----------------------------------------------------------------|-----------------|-------------|------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                 | 8195 Babcock Trail (W of VMCC)                                 | 20-01700-03-010 | \$184,600   | EDA                    | Agricultural             | For Commercial Development                                                                                                                                       |
| 2                 | Blaine & Upper 55th                                            | 20-14175-00-010 | \$28,900    | Unknown                | Planned Unit Development | Too small (0.18A / 7700)                                                                                                                                         |
| 3                 | 2399 53 <sup>rd</sup> Street E off Blaine                      | 20-41300-02-080 | \$38,100    | Unknown                | Commercial PUD           | Should be sold to commercial developer (in TIF 4-1 District) Expires in 2019                                                                                     |
| 4                 | 52 <sup>nd</sup> Street E off Blaine & Bishop                  | 20-41300-02-030 | \$48,200    | Unknown                | Commercial PUD           | Should be sold to commercial developer (in TIF 4-1 District) Expires in 2019                                                                                     |
| 5                 | Upper 55 <sup>th</sup> & 9 <sup>th</sup> Ave S (SSP)           | 20-03410-51-012 | \$18,100    | Unknown                | Public Institutional     | In TIF 4-1 District / Expires in 2019                                                                                                                            |
| 6                 | Gisch Property / River Road (N & S of Upper 71 <sup>st</sup> ) | 20-01100-40-010 | \$37,500    | Unknown                | Limited Industrial       | Too narrow (2.28A / Former RR Row 60'W)                                                                                                                          |
| 7a                | Inverwood Golf Course (Parcel 1)                               | 20-00800-01-013 | \$500,000   | EDA & HCF              | Public Institutional     | Golf Course Property                                                                                                                                             |
| 7b                | Inverwood Golf Course (Parcel 2)                               | 20-00800-01-014 | \$1,000,000 |                        |                          |                                                                                                                                                                  |
| 8                 | Marcott Woods                                                  | 20-47521-03-030 | \$389,000   | Unknown                | Public Institutional     | Requires proper drainage and storm water easements / Engineering wants ponds to control storm water runoff / Surrounding properties to be sold.                  |
| 9                 | Ernster Park                                                   | 20-01100-52-062 | \$14,900    | Unknown                | Public Institutional     | Potential for future park use/adjacent to park, could be "added" since it doesn't have access (0.47A)                                                            |
| 10a               | River Heights (Falcon Ridge – 3 Parcels)                       | 20-25700-01-010 | \$480,000   | Unknown                | Public Institutional     | Retain for parkland (7.50A) / land value of each lot approx.. \$160,000                                                                                          |
| 10b               |                                                                | 20-25700-01-020 |             |                        |                          |                                                                                                                                                                  |
| 10c               |                                                                | 20-25700-01-030 |             |                        |                          |                                                                                                                                                                  |
| 11                | 5039 Brent Avenue                                              | 20-30300-01-050 | \$45,400    | Capital Equipment Fund | Residential              | No multiple family development – single family only (10-20 year restriction) – Currently in the appraisal process.                                               |
| 12                | Dreher Park                                                    | 20-71156-02-170 | \$8,000     | Unknown                | Public Institutional     | Utility pipe takes away ability to build on land, unless an easement is created. Potential use could be for public recreational purposes (ex: basketball court). |

## SALEABLE CITY-OWNED PROPERTY

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|    |                                                    |                 |           |         |                                         |                                                                                                                                                                                                                                                                                                                             |
|----|----------------------------------------------------|-----------------|-----------|---------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13 | 6639 Concord Blvd Property                         | 20-43250-00-080 | \$250,100 | Unknown | Commercial<br>-Preferred<br>Residential | The city is currently acquiring from property owners; appraisal is in progress.                                                                                                                                                                                                                                             |
| 14 | McGroarty Park (former Gun Club property)          | 20-00400-26-010 | \$48,300  | Unknown | Public<br>Institutional                 | 15-acre parcel (of that, 2.5 acres was recently sold to AmericInn Hotel for expansion purposes).                                                                                                                                                                                                                            |
| 15 | "Pinkville" Properties (88 lots) near Albavar Path | 20-03100-56-670 | \$149,600 | Unknown | Residential                             | Out of 177 properties in this development, the city owns 88 parcels (land value of each lot approx. \$1,700), all of which were not approved to be platted. However, Dakota County recorded them as platted in error. The city will not sell properties unless a developer agrees to purchase all 88 lots at the same time. |