

East Lake Elementary Parent-Teacher Organization Meeting

December 12, 2017



Meeting Objectives

- * Discuss Safety Concerns
- * Highway Safety in Dakota County
- * Share Traffic Engineering Principals
- * **Recognize Traffic Engineering Tradeoffs**
- * How 160th Street (County 46) & Diamond Path (County 33) Fits
- * Next Steps

160th St & Diamond Path Concerns We've Heard

- * Needs Traffic Signal (or Roundabout)
- * Difficulty Crossing 160th Street
- * Excessive speeds and trucks
- * Safety needs to be priority

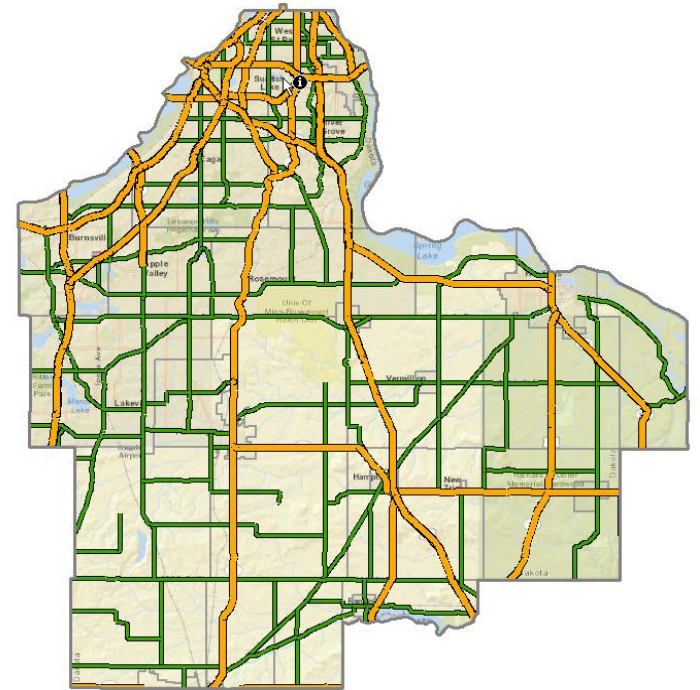
Highway Safety is our Top Priority

- * Transportation Plan Overarching Principal
- * County Highway Safety Plan
- * Toward Zero Death Initiative (4 “E” approach)
 - * Education
 - * Emergency Medical & Trauma Services
 - * Enforcement
 - * Engineering
 - + Everyone
- * County Board Strategic Measure



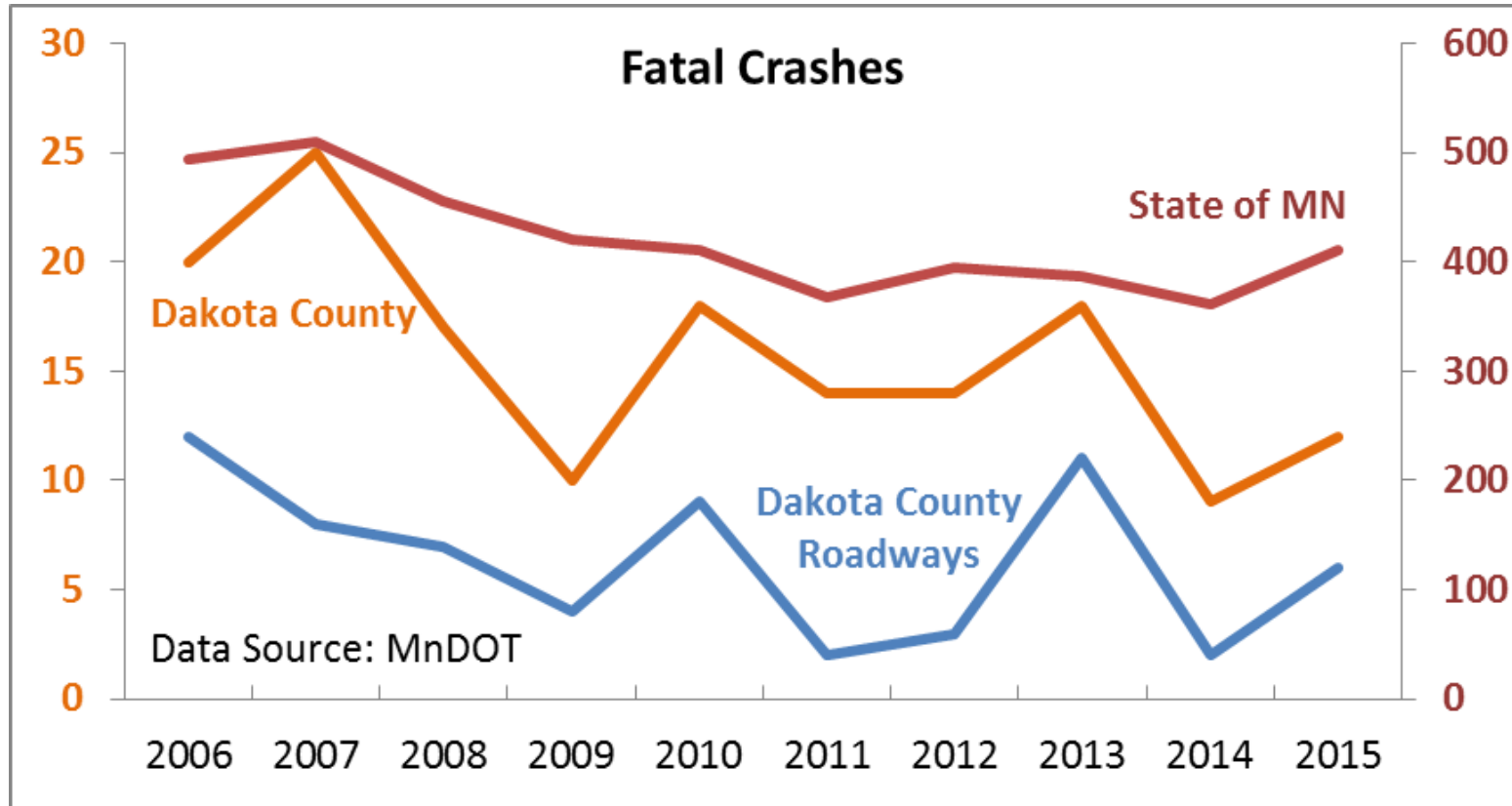
County Highway System

- * 424 Miles of Road
 - * Just under 1500 Intersections
 - * Side Street stop - 1300
 - * All Way Stop - 36
 - * Traffic Signal - 135
 - * Roundabout - 7
- * 160th Street (County 46)
 - Minor Arterial & Cross County Connection from I-35 to Hastings



County Strategic Measure

Review with the County Board Each Year



Traffic Engineering

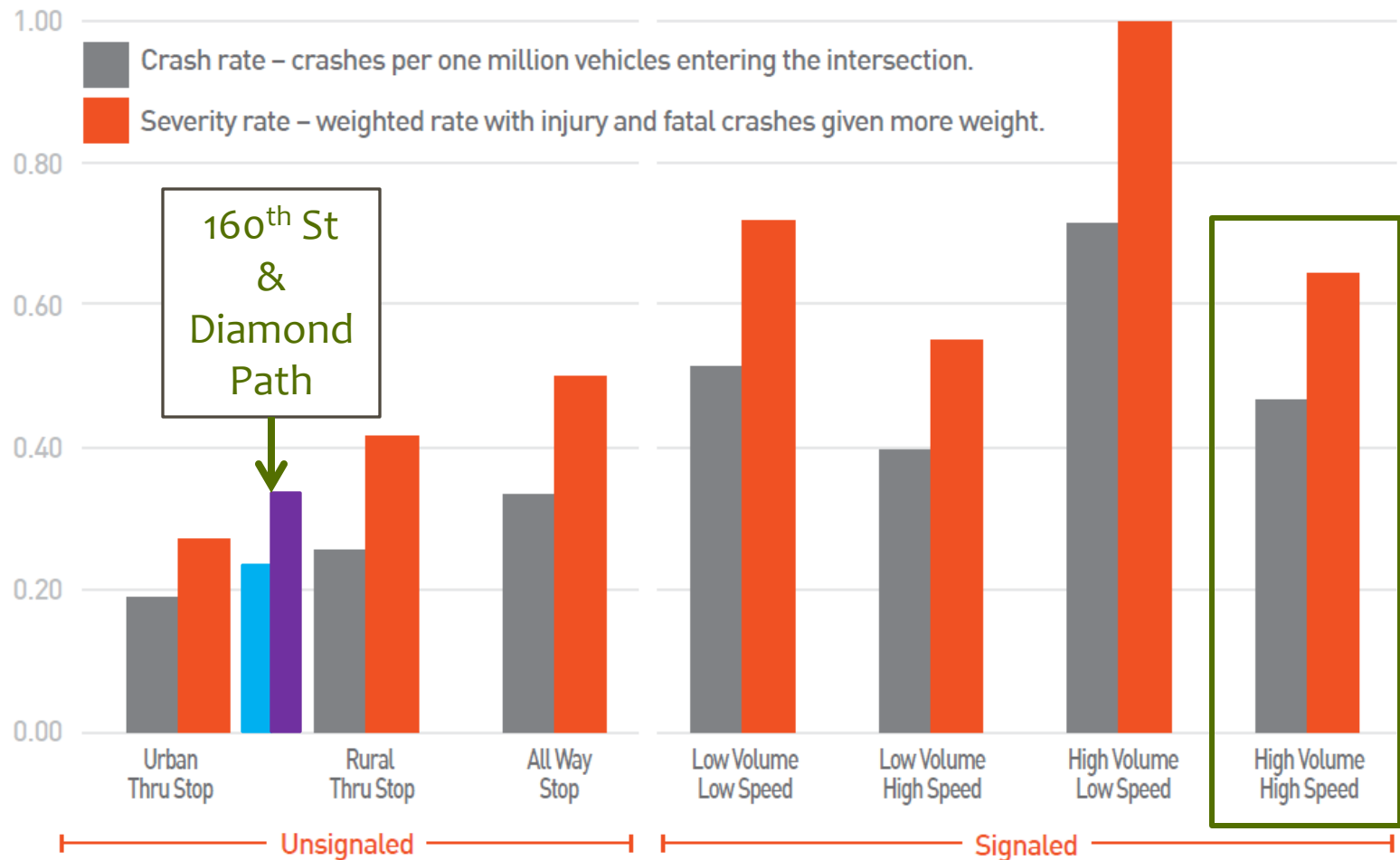
Traffic Engineering is Risk Management

- * All Traffic Control has crash risk
- * Driver error – Factor in Engineering Decision Making

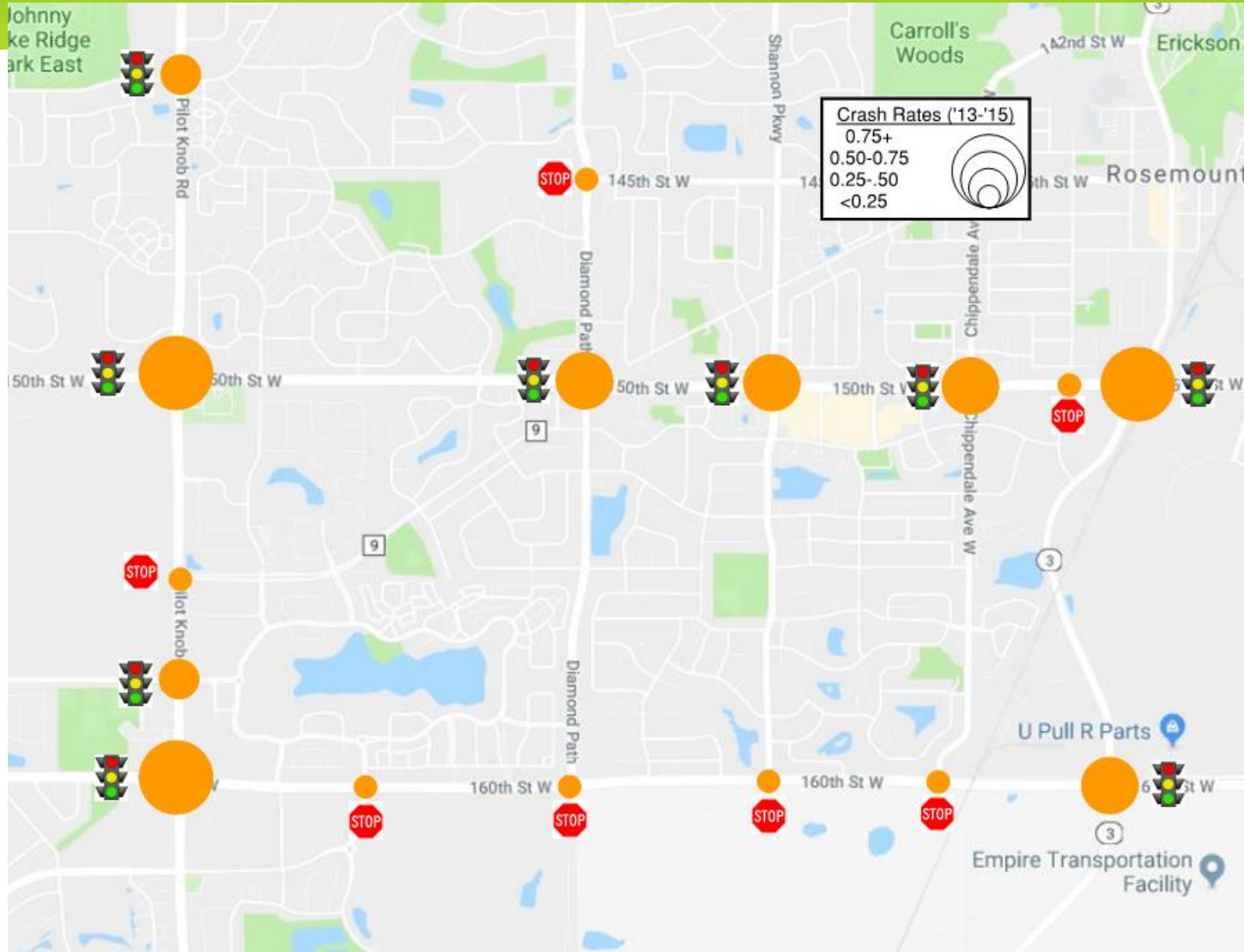
Consider traffic control tradeoffs to minimize risk

- * Assess traffic conditions
- * Traffic Control Change does not necessarily improve safety

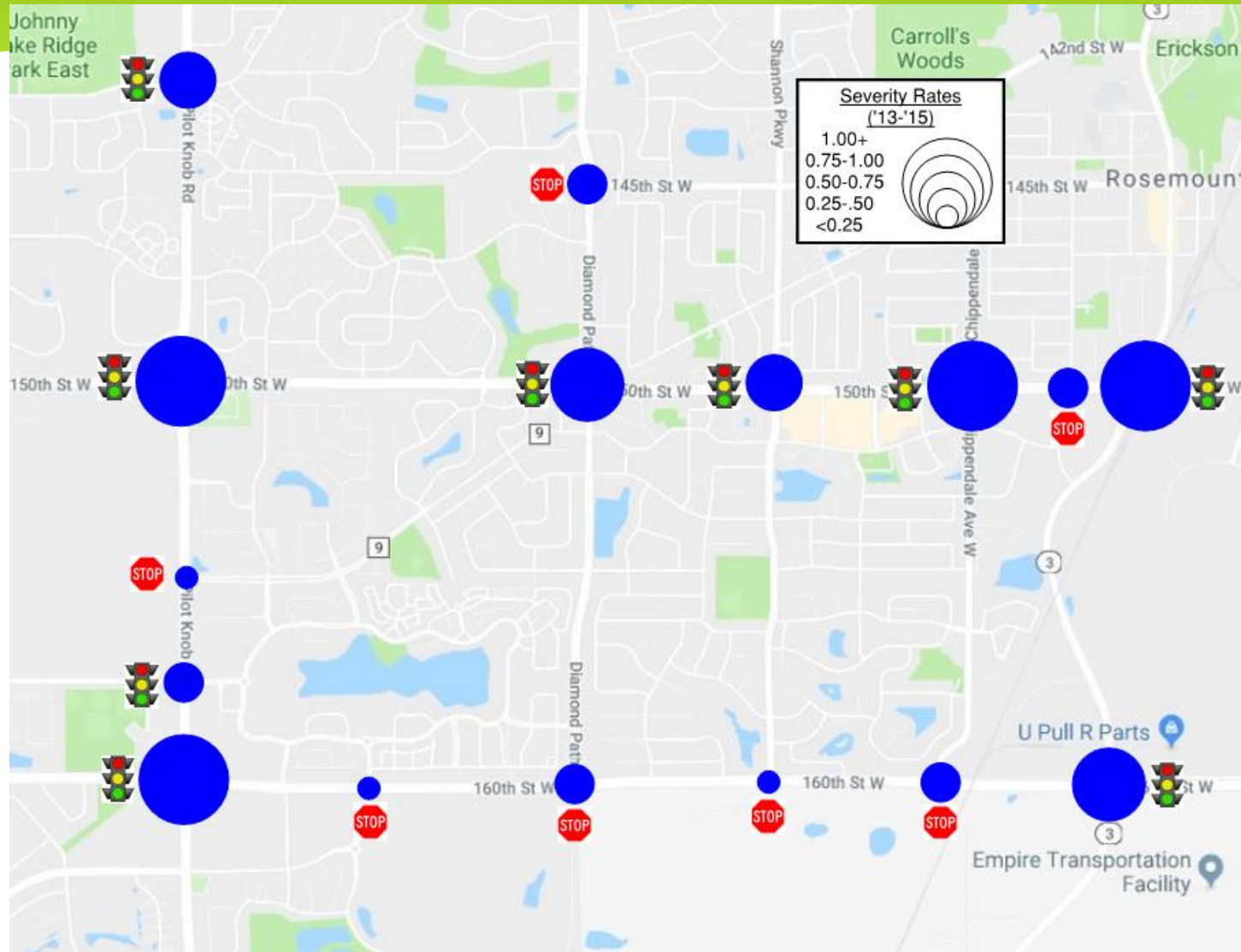
Crash Data By Traffic Control



Crash Rates – Area Intersections



Severity Rates – Area Intersections



Traffic Engineering Tradeoffs

Speed Limits

- * Used to reduce variability in vehicle speeds
- * Speed Limits are established through Statute
 - * Defines speeds for certain roadway types
 - * Establishes process for MnDOT to determine all other speeds by speed study
- * Most people drive what is comfortable
- * Lowering the posted speed limit rarely slows traffic or reduces crashes
- * Improperly set speed limits decrease safety
- * Speed study request has merit after development



Traffic Control Options

Traffic Control Options for 160th Street

- * Side Street Stop – Current
- * Signal

Options not considered due to highly unbalanced volumes

- * All Way Stop
- * Roundabout

Traffic Control Tradeoffs

Side Stop

Used for

- * Unbalanced approach traffic
- * Maintain through road mobility
- * Lowest average crash and severity rates

Drawbacks

- * Side streets rely on gaps
- * Side street delay
- * Crash risk increases with traffic volumes



Traffic Signal

Used for

- * Consistently high volumes of traffic
- * Collector or arterial routes

Drawbacks

- * Additional decision making
- * Increased risk of crashes compared to other traffic control
- * Can create delay
- * Rarely improve safety

Traffic Engineering Review

Engineering Study Process

- * Field Review
- * Crash/Safety Review
 - * Typically 3 or more years of data to establish trends
- * Traffic Volume/Delay Review
 - * Evaluate various traffic control based on standard criteria
 - * Typically look at 8 hour needs
- * Comparison Systemwide

What We Saw: 160th/Diamond Path

Prior to School Opening

- * Traffic volumes counted
- * Future Volume estimated
- * No existing safety issues
- * Signal not justified, even with projected school volumes included
- * Close proximity to median openings for U-Turns
- * Pedestrian tunnel

What We Saw: 160th/Diamond Path

After School Opening

- * Traffic Volumes counted again (Signal not justified)
- * Intersection observed multiple times
 - * Traffic on Diamond Path peaks before and after school
 - * Long delays for left turning and through vehicles
 - * Many vehicles turn right and make a U-turn
 - * School traffic largely gone 15 minutes after dismissal

160th Street and Diamond Path Options

Traffic Signal:

- * Increased crash and injury risk
- * Increased delay for all traffic, except for 15 minutes before/after school
- * Assigned time to cross roadway

Side Stop:

- * Lowest risk of crashes and injuries
- * Lowest amount of overall delay for Diamond Path
- * Some queuing and uncomfortable delay during parts of the peak hours and school drop off / dismissal
- * Requires Diamond Path to wait for gap in traffic

Future Considerations

162nd Street connection to be constructed in 2018

- * Will provide more options to/from school other than 160th Street/Diamond Path intersection
- * Together with more development in the area, we will need to continue to monitor changing traffic conditions

Diamond Path (Future County 33) will extend to the south to connect with 170th Street

- * No timeline defined. Likely when development occurs on the east side of Diamond Path (Empire Township)

Next Steps

- * **Consider speed study**
- * **Continue to monitor intersection and corridor**



Discussion

Pilot Knob Road

31

160th Street

Elmhurst Lane

162nd Street

Eagleview Lane

46

Dunfield Dr

Dryden Rd

162nd Street

Diamond Path



