

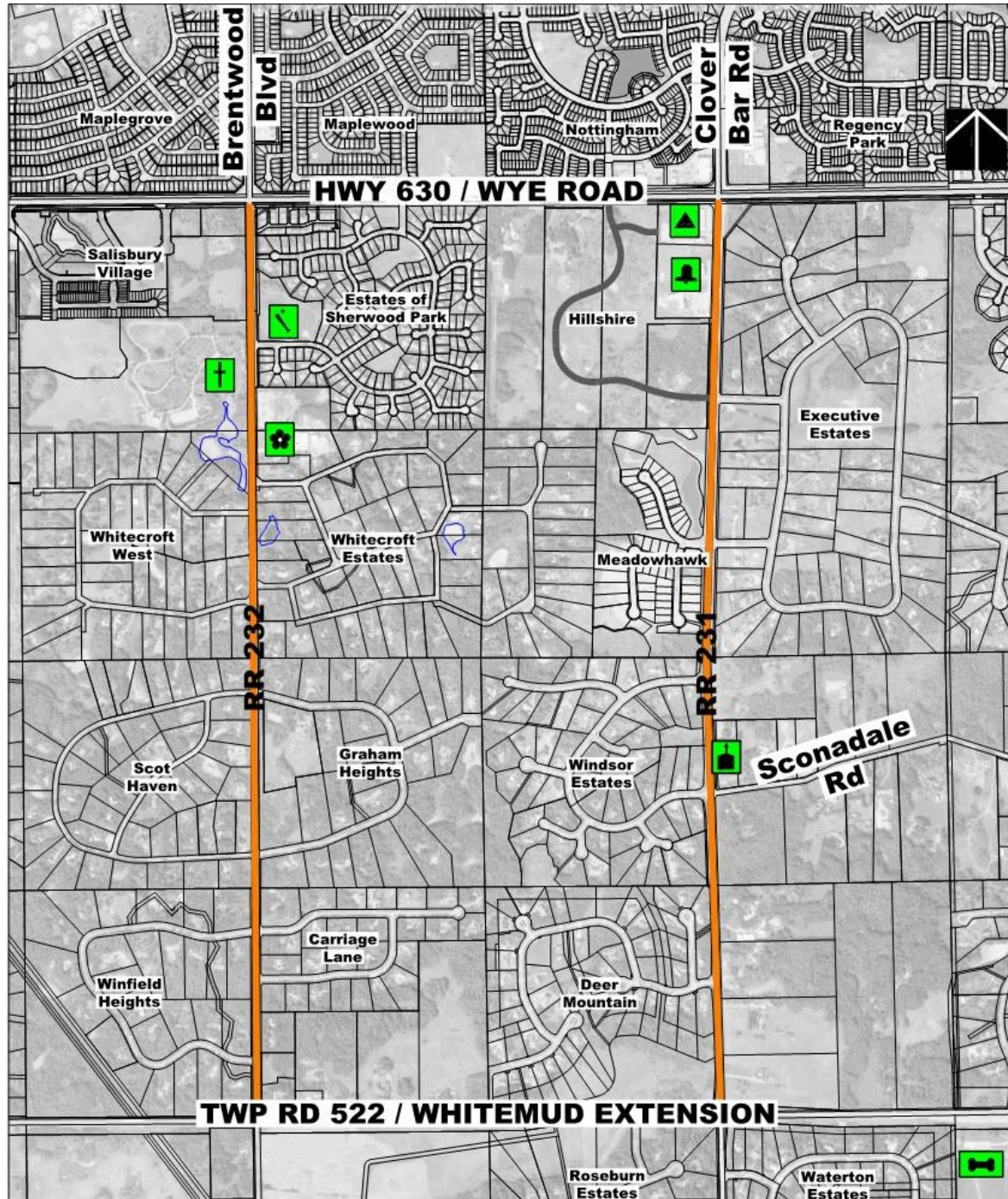
Range Road 231 & 232 Functional Planning Study

Priorities Committee

February 11, 2020

Transportation Planning and Engineering
ISL Engineering and Land Services Ltd.

Study area and purpose

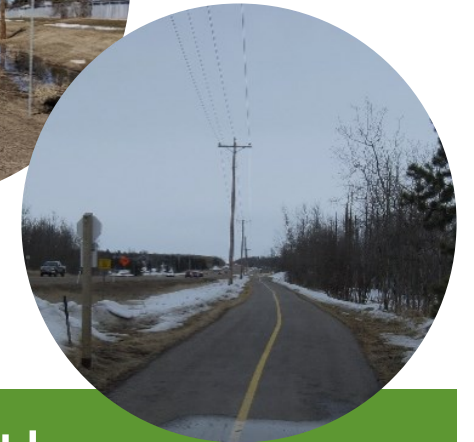


- vital connections to Strathcona County's residential and rural areas
- requires upgrades as growth in traffic and development take place
- study includes improvement recommendations for safety and traffic flow

Study outcomes

identified short and long-term requirements for:

- number of travel lanes
- intersection improvements
- speed limits
- multi-use trails
- drainage requirements
- right-of-way impacts



Construction timelines for the recommended improvements have been identified, depending on local growth rates and municipal budgets.

Engagement: background review

- adjacent property door-to-door visits: January 2018
- on-line survey: February – March 2018
- stakeholder meetings: February / March 2018
 - Alberta Transportation
 - Glenwood Memorial Gardens
 - Strathcona Christian Academy
 - Salisbury Greenhouse
 - Victory Baptist Church
- neighbourhood kitchen table meetings: April 2018
- public open house #1: May 10, 2018
 - 180 attendees



Engagement: what we heard

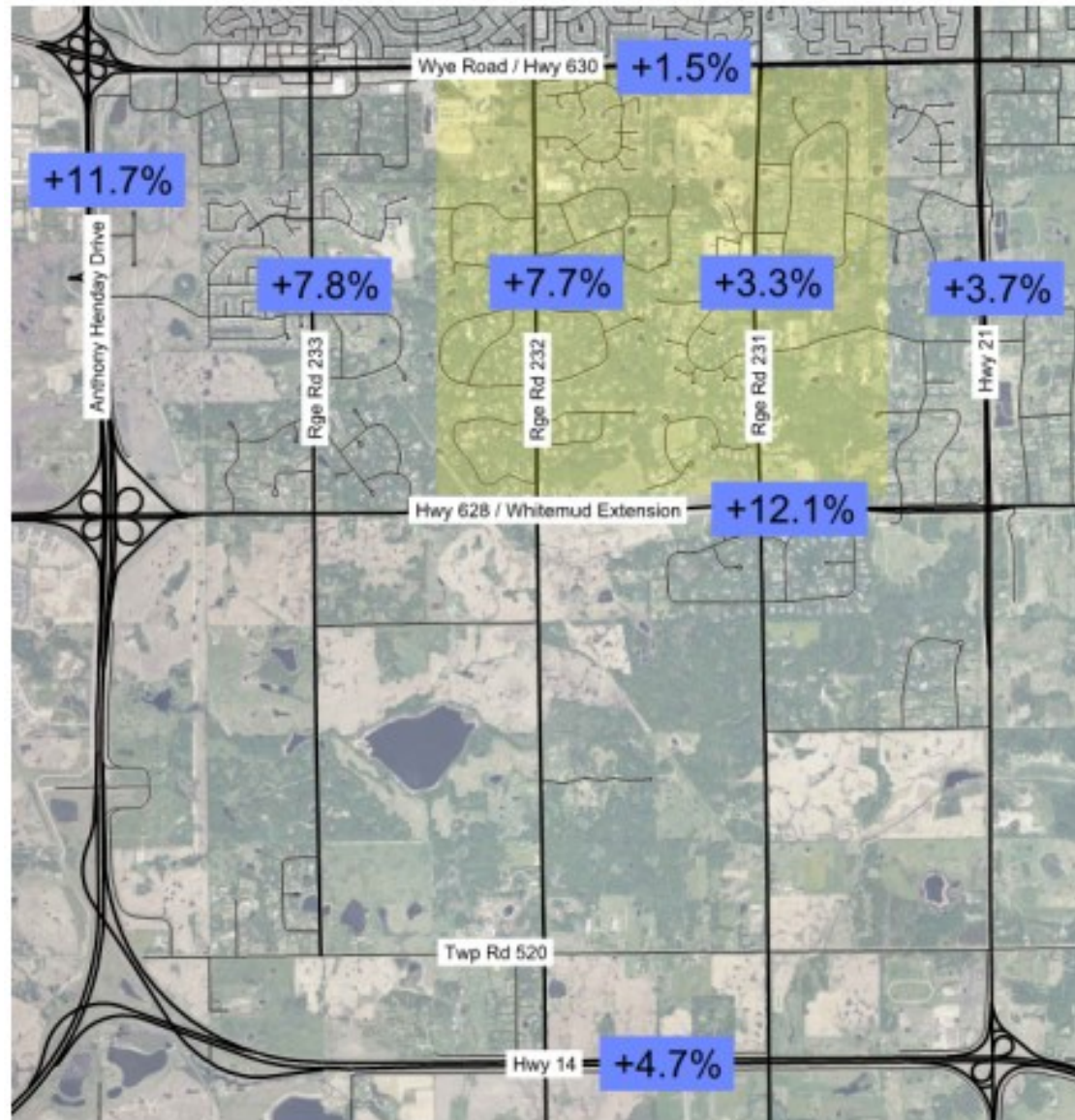
Likes

- two lane road
- low traffic volumes
- good access to Sherwood Park, Whitemud Drive, and Anthony Henday Drive
- paved
- rural setting

Dislikes

- posted speed limit is too high
- speeding
- sightline issues
- noise (particularly from large trucks and motorcycles)
- lack of sidewalks or trails
- narrow roadside shoulders
- congestion at the Christian Academy, before/after school
- localized flooding

Annual traffic growth patterns (2008-2017)



- continued volume growth over the last nine years
- construction along Anthony Henday Drive, Highway 21, Wye Road, and Highway 628 caused fluctuations

Operational challenges

(turns in and out of the subdivisions)






Range Road 231

- Elk Island Schools
- Strathcona County Christian Academy
- Future Hillshire / Executive Estates North
- Meadowhawk / Executive Estates South
- Windsor Estates South / Sconadale North
- Deer Mountain Trail / Sconadale South

Range Road 232

- Estates Drive / Glenwood north access

Roadway Improvements Reviewed

Criteria	 Roundabouts (similar to Range Road 233 at Balmoral Way / Clubhouse Drive)	 Signals	 Four-way stop	 Left & right turn bays	 Four Lanes
Safety	Removes conflict points, decreases probability of serious injuries and fatalities. Decreases travel speed.	Maintains conflict points and probability of serious injuries and fatalities. Lowers probability of high speed collision.	Maintains conflict points. Lowers probability of high speed collision.	Maintains conflict points. Increases probability of high speed collision.	Maintains conflict points. Increases probability of high speed collision.
Traffic Flow	Increases delay along the corridor. Decreases side street delay.	Increases delay along the corridor. Decreases side street delay.	Increases delay along the corridor. Decreases side street delay.	Improves corridor capacity. Does not decrease side street delay.	Improves corridor capacity. Does not decrease side street delay.
Pedestrian/Cyclist Accommodation	Clearly defined crosswalks	Protected walk phase	Clearly defined crosswalks	Increases crossing width	Increases crossing width
Land Impacts	Minimal	Minimal	None	Minimal	Significant
Relative Cost	\$\$\$	\$\$\$	\$	\$\$	\$\$\$\$\$
Next Steps	Improvement still being considered.	Improvement still being considered.	Improvement does not achieve project objectives in the long term and are no longer being considered.		

Range Road 232 challenges

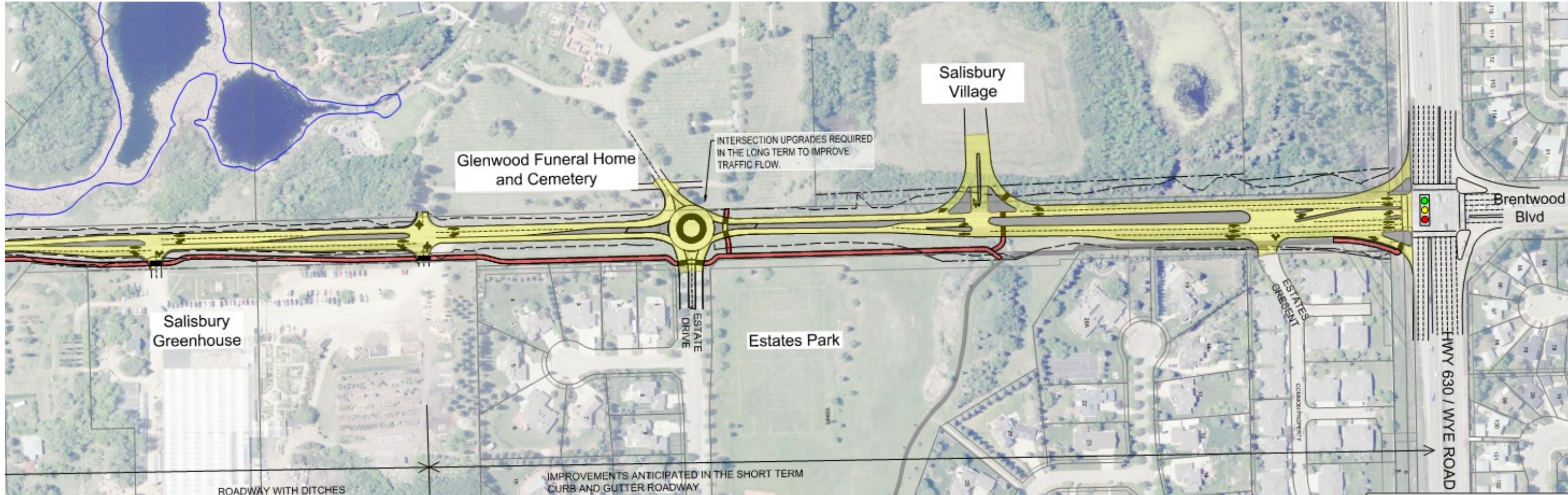
- Estate Drive / Glenwood Funeral Home & Cemetery intersection is currently off-set
 - this location will require some form of intersection control in the future
- Salisbury Greenhouse / Glenwood Funeral Home & Cemetery intersection is currently off-set
- adjacent intersections for Salisbury Village and Salisbury Greenhouse also need to be considered



Range Road 232 options

	Realign Estates Drive	Relocate Glenwood's Main Entrance	Work with Existing Entrances	T-intersections	New Access for Both Businesses
Glenwood Funeral Home and Cemetery	✓	✗	✓	✗	✗
Salisbury Greenhouse	✓	✓	✓	✗	✗
Comments		Glenwood's south driveway is not wide enough.		2 accesses are required for business operations.	Proposed access passes thru memorial garden.

Range Road 232 recommendations



Engagement: concept development

On October 17, 2018 Open House #2 and the on-line survey included information boards on:

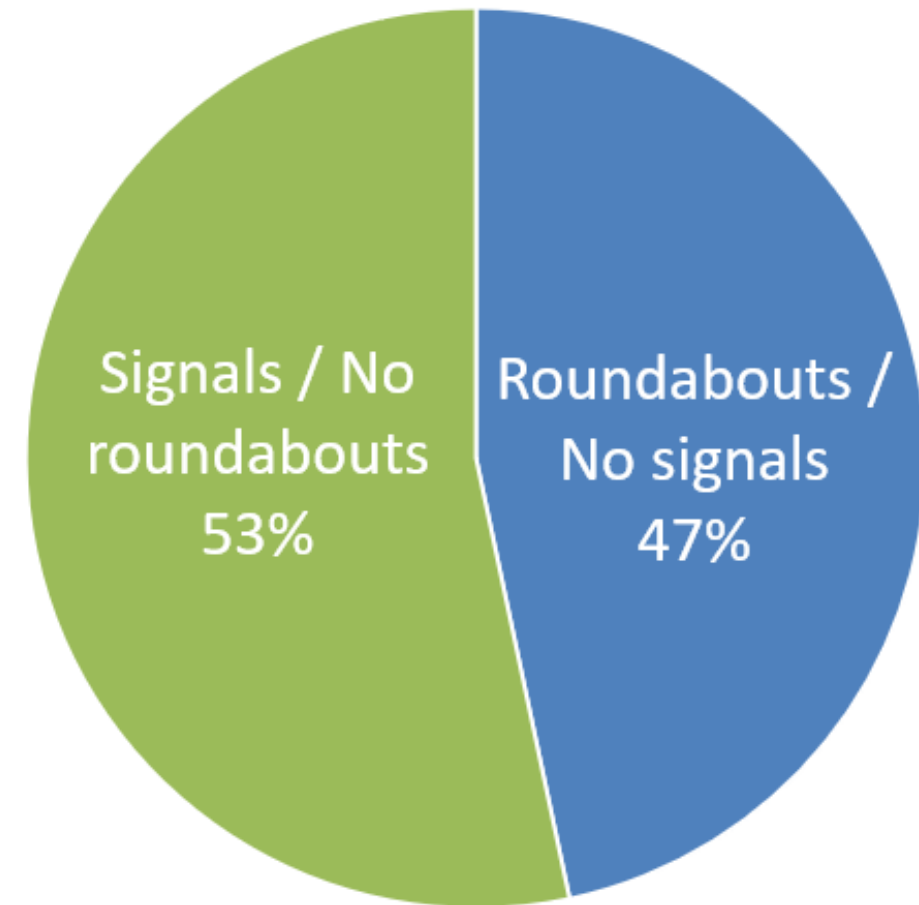
- what we heard
- intersection control options and options for Range Road 232
- 160 people attended



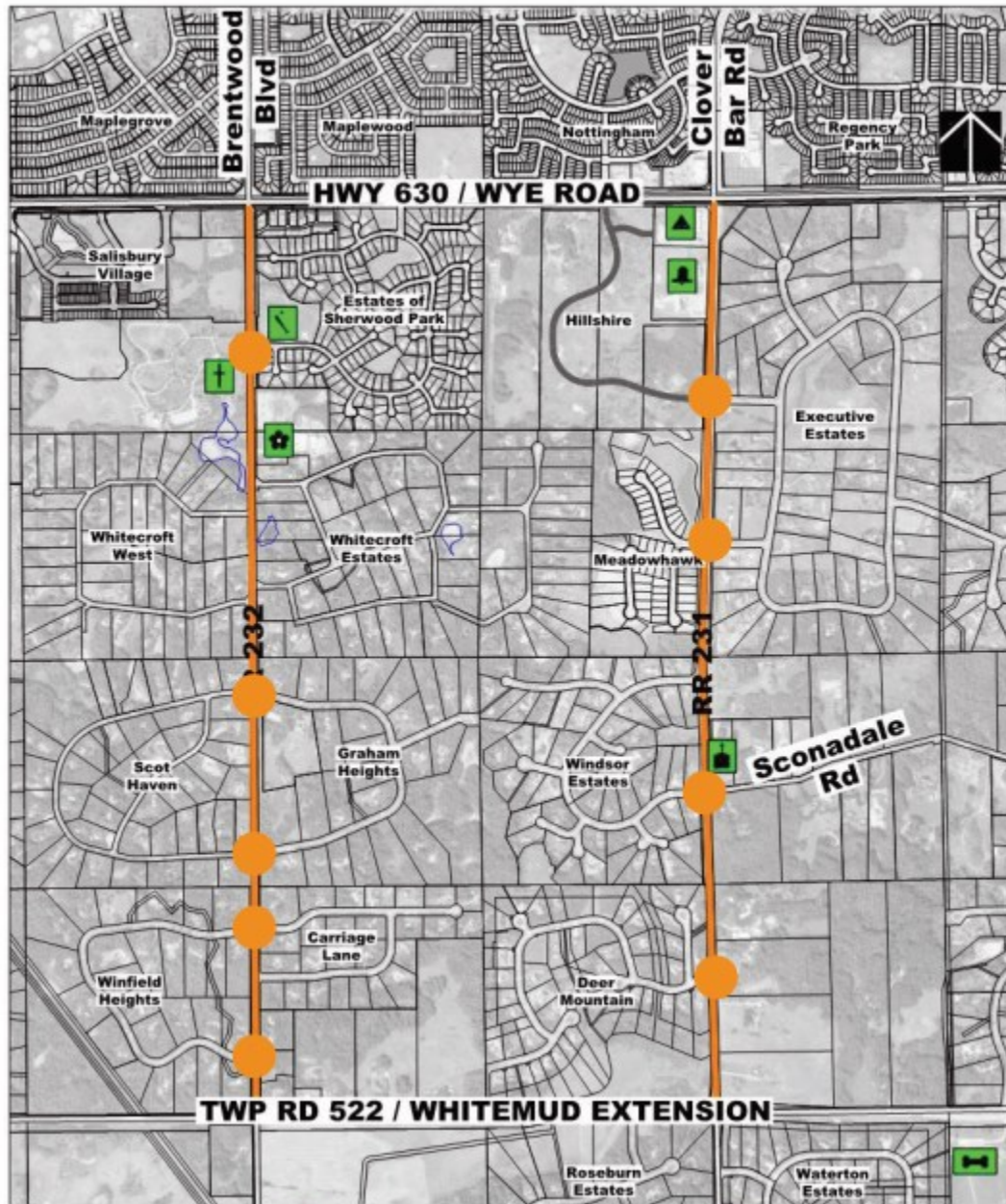
Engagement: what we heard

- require controlled intersections
- solution for control was divided
- not supportive of working with the existing entrances for Glenwood and Salisbury based on the proposed signal

Intersection Control



Roundabouts are recommended

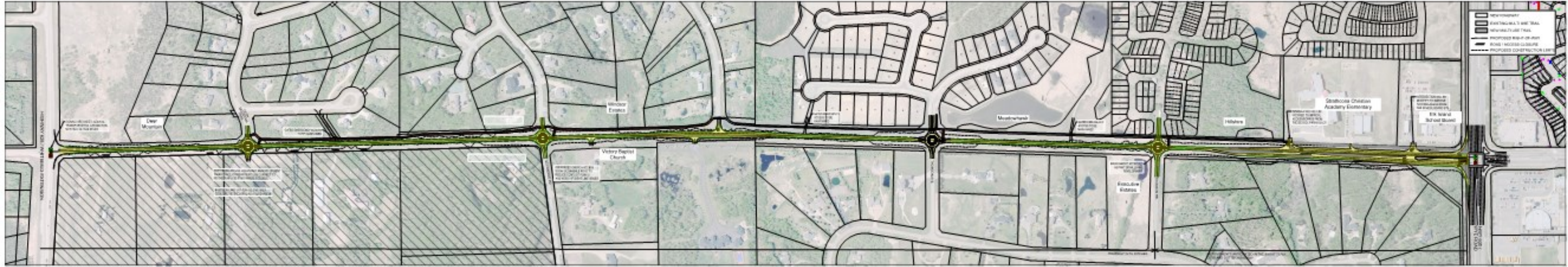


- improve the minor road levels of service
- force drivers to slow down
- significantly reduce collision frequency and severity
- reduce pedestrian crossing distances
- reduce vehicle idling times
- have low maintenance costs
- have a long life span
- are consistent with adjacent corridor initiatives

General recommendations

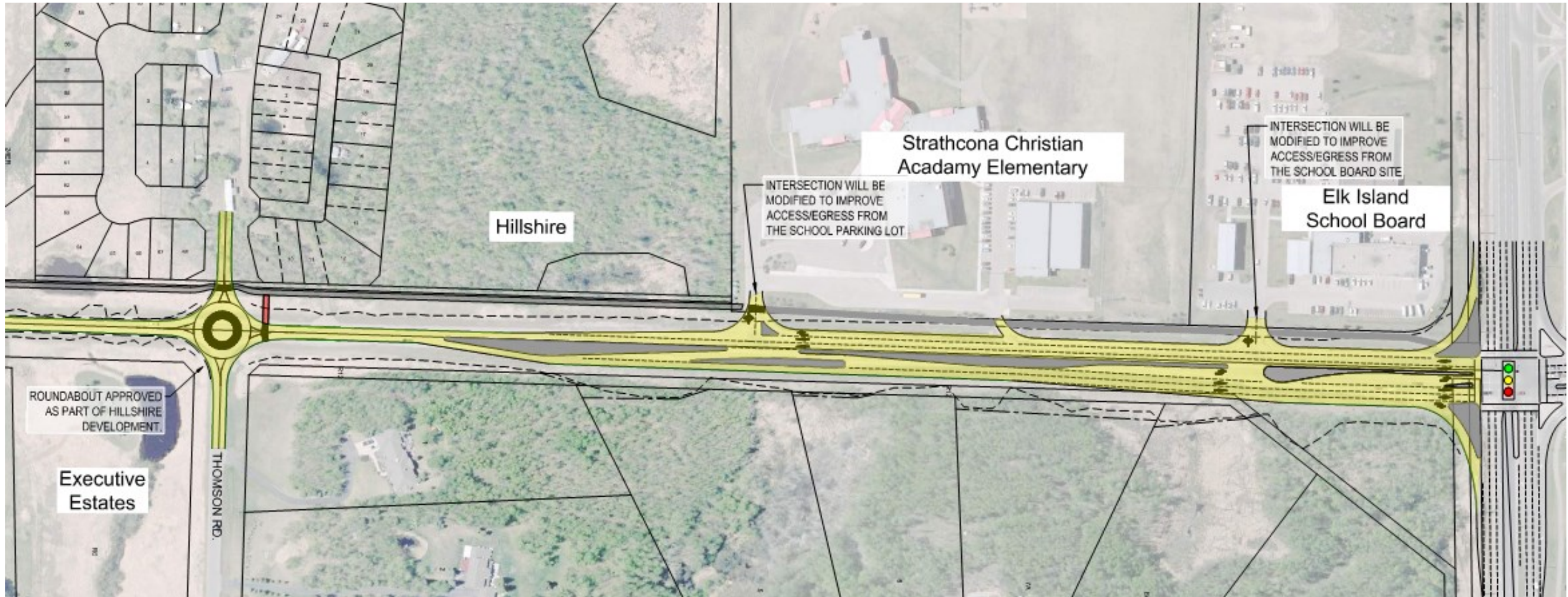
speed limit changes	as roundabouts are constructed, speeds will be reduced to 60 km/hr as required
drainage requirements	curb and gutter will be added to roadways on northern sections of the range roads
property requirements	where property impacts are anticipated, individual landowners will be consulted as required
active mode accommodation	multi-use trails are recommended along each corridor on one side of the roadway
other improvements	shoulders are being added and ditches will be modified

Range Road 231 recommendations



- 231 roundabouts:
 - Future Hillshire / Executive Estates North
 - Meadowhawk / Executive Estates South
 - Windsor Estates South / Sconadale North
 - Deer Mountain Trail / Sconadale South
- multi-use trail on the west side of the roadway
- future access proposed across from Deer Mountain Trail
- Victory Baptist Church access to be relocated

Range Road 231 recommendations



Range Road 232 recommendations



- 232 roundabouts:
 - South Haven / Graham Heights North
 - South Haven / Graham Heights South
 - Winfield Heights North / Edelweiss Avenue
 - Winfield Heights South / Carriage Lane North
- multi-use trail on the east side of the roadway
- future access proposed across from Winfield Heights
- six local accesses to be relocated

Engagement: presenting the preferred plan

Open House #3 boards included information on:

- what we heard
- background review and concept development phases
- recommendations

Participants seemed to be satisfied with the overall engagement process and were able to see how the project recommendations were developed.



Project summary

- Range Roads 231 and 232 will require upgrades to ensure safety and accommodate traffic flow
- roundabouts are recommended at key intersections to accommodate access in and out of subdivisions
- multi-use trails are recommended on both corridors to promote active modes of transportation
- improvements along both corridors is anticipated to begin at the north end and progress to the south - timing of construction will be reviewed as growth and development occurs
- cost estimates are identified in the report



Questions?