Welcome!

Highways 169/41/78 Intersection Improvements

Bienvenidos!

Mejoras de Interseccion de Autopistas 169/41/78

Project Partners:
Asociados del Proyecto:

Scott | Louisville TOWNSHIP | Minnesota Department of Transportation | Jackson TOWNSHIP

Project Background and Goals

Background

Scott County and its partners are starting concept development for improvements at the intersection of Highways 169, 41 and 78. This intersection has long been recognized as being congested with traffic back-ups, crashes and delays for freight traffic. As traffic continues to grow on the highways and the area continues to develop, additional problems are anticipated.

Due to existing and future concerns about traffic safety and mobility, Scott County obtained funding to construct improvements for the intersection. In addition, the County Board has identified an interchange and supporting frontage road improvements as a top priority for the recently adopted Scott County transportation sales tax program. These new funding opportunities are now enabling the County and MnDOT to identify what improvements should be made. This project will identify the improvements that will ultimately be built.

This project is different from the study that MnDOT and its partners completed for a new Highway 41 regional river crossing, which is likely decades away from being constructed.

Goals

The intent of the project is to identify, evaluate and select improvements to be constructed in 2018. Project goals include the following:

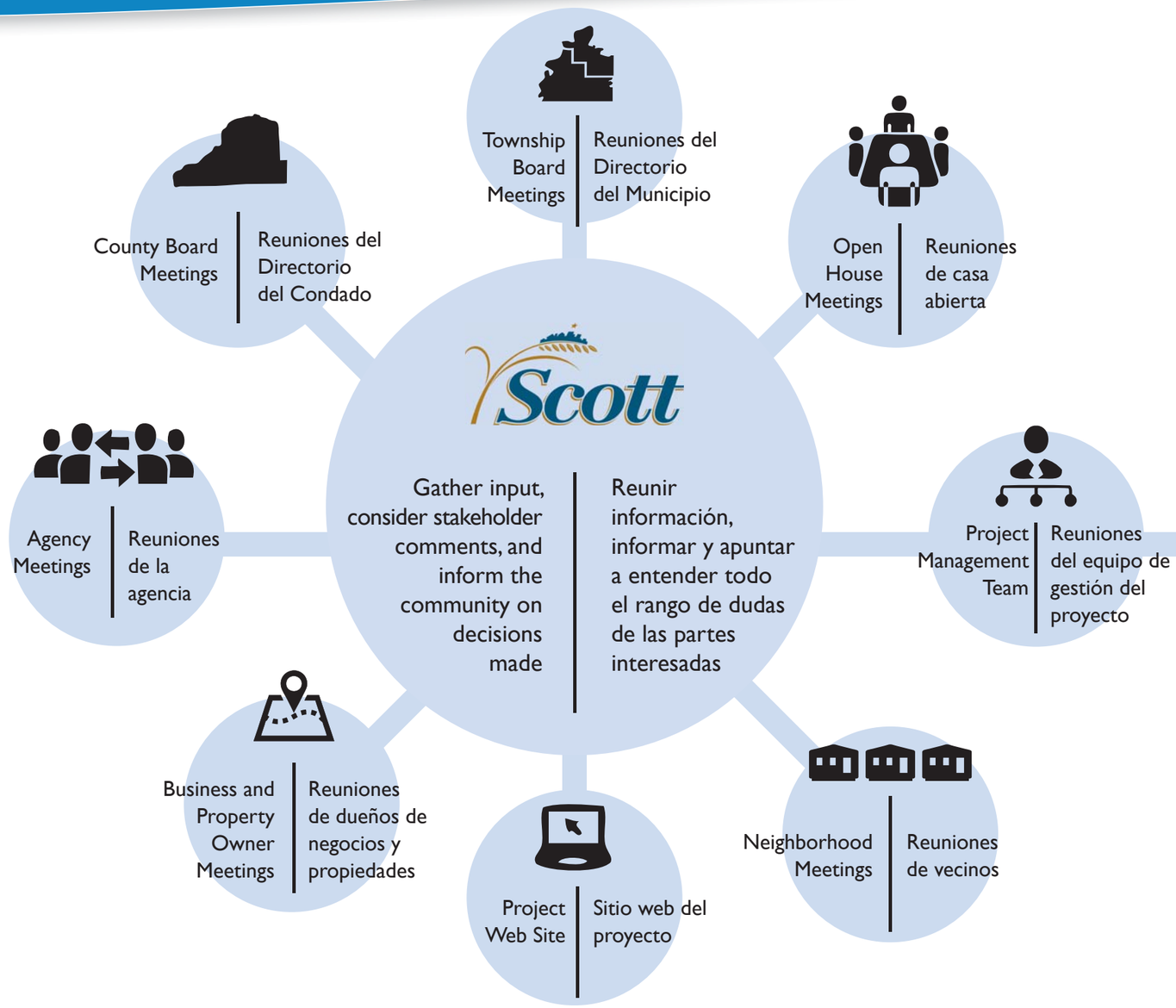
- Provide an inclusive public participation process
- Improve safety and traffic flow for travelers
- Implement part of a connected frontage road system to serve local residences and businesses
- Advance improvements that are consistent with other plans/do not prohibit other plans

Project Area | El Lugar del Proyecto

Highways 169/41/78
Intersection Improvements

Scott | Louisville TOWNSHIP | Minnesota Department of Transportation | Jackson TOWNSHIP

Public and Agency Participation Approach | Participación Pública y de la Agencia



Project Management Team: | Equipo de Gestión del Proyecto:

County:

- Andy Hingeveld, Transportation Planning
- Lisa Freese, Transportation Program Delivery
- Craig Jensen, Transportation Planning

Townships:

- Tom Weckman, Jackson Township
- John Weckman, Louisville Township

MnDOT:

- Jon Solberg, Area Manager
- Diane Langenbach, Area Engineer

Topics to be Studied | Temas a estudiar

Crashes – Safety

- Types of crashes
- Severity of crashes
- Crash location

Existing Traffic

- Type of traffic (trucks, commuter, etc.)
- Existing congestion at intersections
- Existing congestion on the main corridor
- Ability to access TH 169 from side streets and driveways
- Non-motorized traffic

Contamination

Wetlands

Environmental Justice

Future Traffic

- Future congestion at intersections
- Future congestion on the main corridor
- Ability to access TH 169 from side streets and driveways
- Non-motorized traffic

Noise

- Existing sound levels
- Future sound levels with no project
- Future sound levels with project

Property Impacts

Threatened and Endangered Species

Surface Waters and Drainage

Frontage Roads

Choques/Seguridad

- Tipo del choques
- Severidad del choque
- Lugar del accidente

Tráfico Existente

- Tipo de tráfico
- Congestión intersección existente
- La congestión camino existente
- Poder acceder a TH 169 desde las calles laterales y calzadas
- Tráfico no motorizado

Contaminación

Pantanos

Justicia Ambiental

Tráfico Futuro

- El futuro de la congestión en la intersección
- Futura congestión en las carreteras
- Poder acceder a TH 169 desde las calles laterales y calzadas
- Tráfico no motorizado

Ruido

- Los niveles de ruido existentes
- Futuros niveles de sonido con ningún proyecto
- Futuros niveles de sonido con proyecto

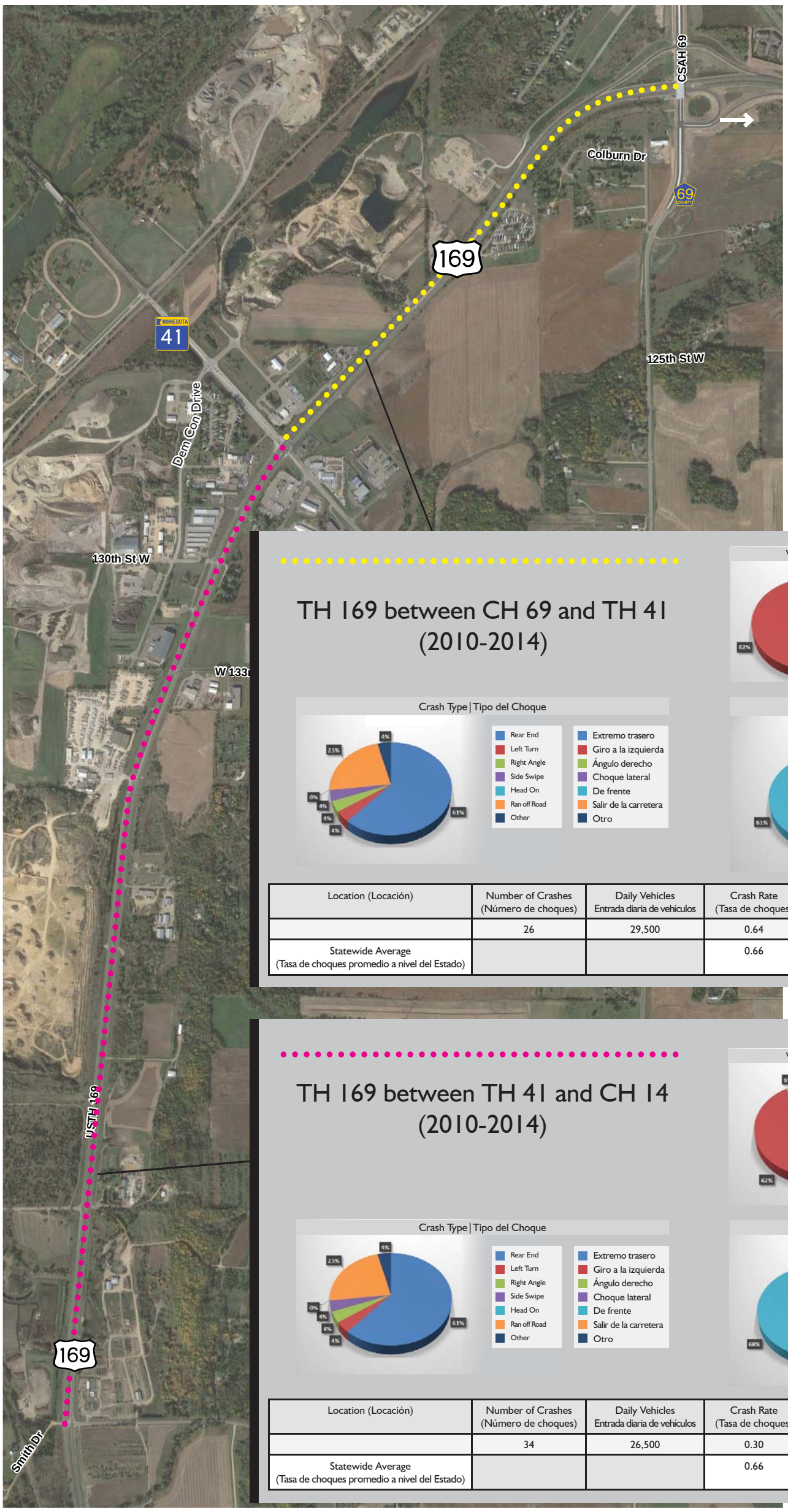
Impactos en la Propiedad

Especies Amenazadas y En Peligro

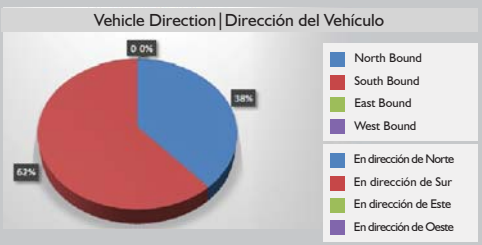
Agua Superficial y Drenaje

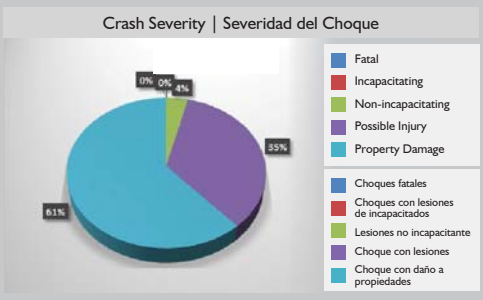
Conexiones de fachada el camino

Crashes - Segments | Choques - Segmentos



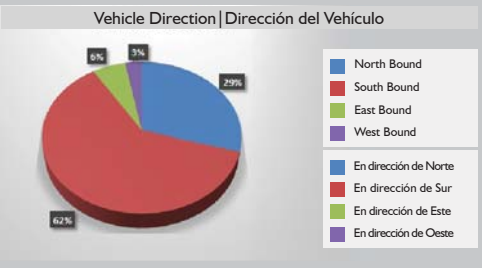
TH 169 between CH 69 and TH 41 (2010-2014)

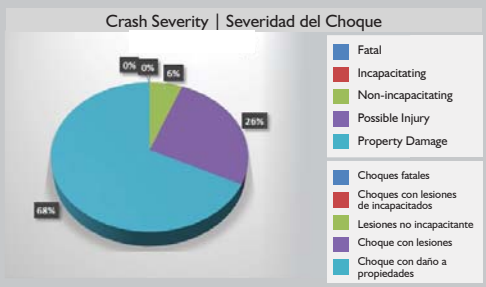




Location (Locación)	Number of Crashes (Número de choques)	Daily Vehicles Entrada diaria de vehículos	Crash Rate (Tasa de choques)	Severity Rate (Tasa de severidad)	Critical Crash Rate (Tasa de choques críticos)
	26	29,500	0.64	091	
Statewide Average (Tasa de choques promedio a nivel del Estado)			0.66	0.99	1.00

TH 169 between TH 41 and CH 14 (2010-2014)





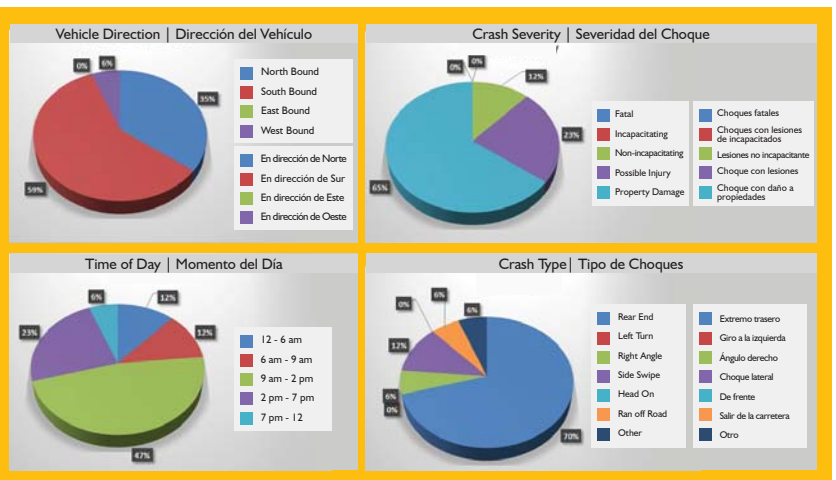
Location (Locación)	Number of Crashes (Número de choques)	Daily Vehicles Entrada diaria de vehículos	Crash Rate (Tasa de choques)	Severity Rate (Tasa de severidad)	Critical Crash Rate (Tasa de choques críticos)
	34	26,500	0.30	0.41	
Statewide Average (Tasa de choques promedio a nivel del Estado)			0.66	0.99	0.86

Crashes - Intersections | Choques - Intersección

- Crash Rate Above Statewide Average
- Tasa de Accidentes Superior a la Media Estatal

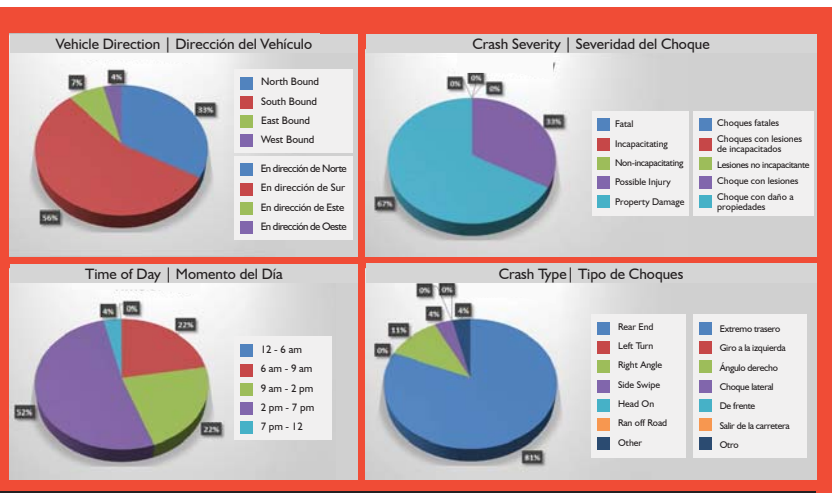
- Crash Rate Above Critical Crash Rate
- Tasa de Accidentes por Encima de Tasa de Accidentes Crítica

TH 41 and Frontage/ Rail Crossing (2010-2014)



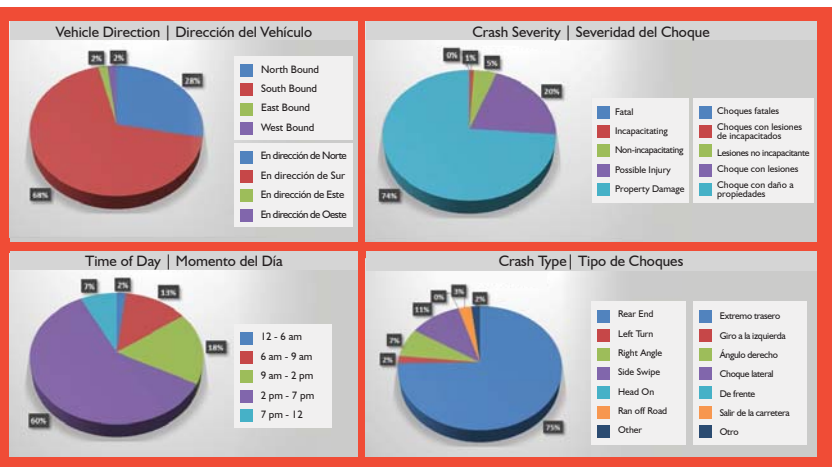
Location (Locación)	Number of Crashes (Número de choques)	Crash Rate (Tasa de choques)	Severity Rate (Tasa de severidad)	Critical Crash Rate (Tasa de choques críticos)
	17	0.49	0.72	
Statewide Average (Tasa de choques promedio a nivel del Estado)		0.26	0.42	0.5

TH 41 and Dem Con Drive (2010-2014)



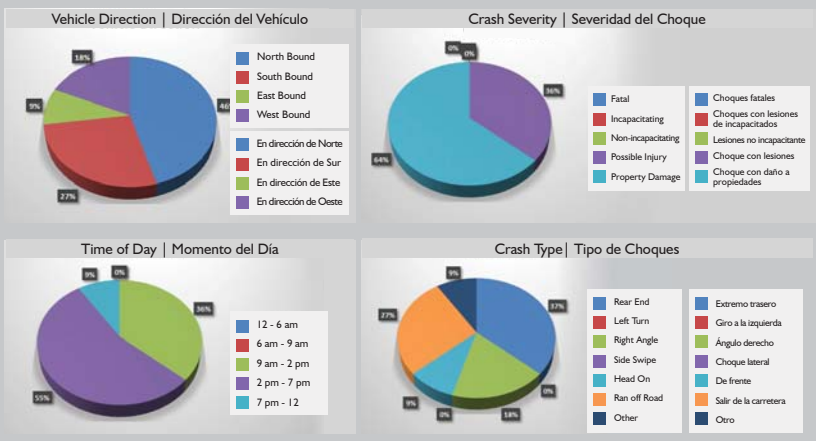
Location (Locación)	Number of Crashes (Número de choques)	Crash Rate (Tasa de choques)	Severity Rate (Tasa de severidad)	Critical Crash Rate (Tasa de choques críticos)
	27	0.78	1.04	
Statewide Average (Tasa de choques promedio a nivel del Estado)		0.41	0.59	0.71

TH 169 and TH 41 (2010-2014)



Location (Locación)	Number of Crashes (Número de choques)	Crash Rate (Tasa de choques)	Severity Rate (Tasa de severidad)	Critical Crash Rate (Tasa de choques críticos)
	107	1.46	1.94	
Statewide Average (Tasa de choques promedio a nivel del Estado)		0.41	0.59	0.62

TH 169 and CH 14 (150th Street) (2010-2014)



Location (Locación)	Number of Crashes (Número de choques)	Crash Rate (Tasa de choques)	Severity Rate (Tasa de severidad)	Critical Crash Rate (Tasa de choques críticos)
	11	0.21	0.28	
Statewide Average (Tasa de choques promedio a nivel del Estado)		0.26	0.42	0.45

Highways 169/41/78 Intersection Improvements

Scott | Louisville TOWNSHIP | Minnesota Department of Transportation | Jackson TOWNSHIP

Existing Geometry and Traffic Control | Geometría existente y control de tráfico

- Four lanes
- Three lanes
- Two lanes

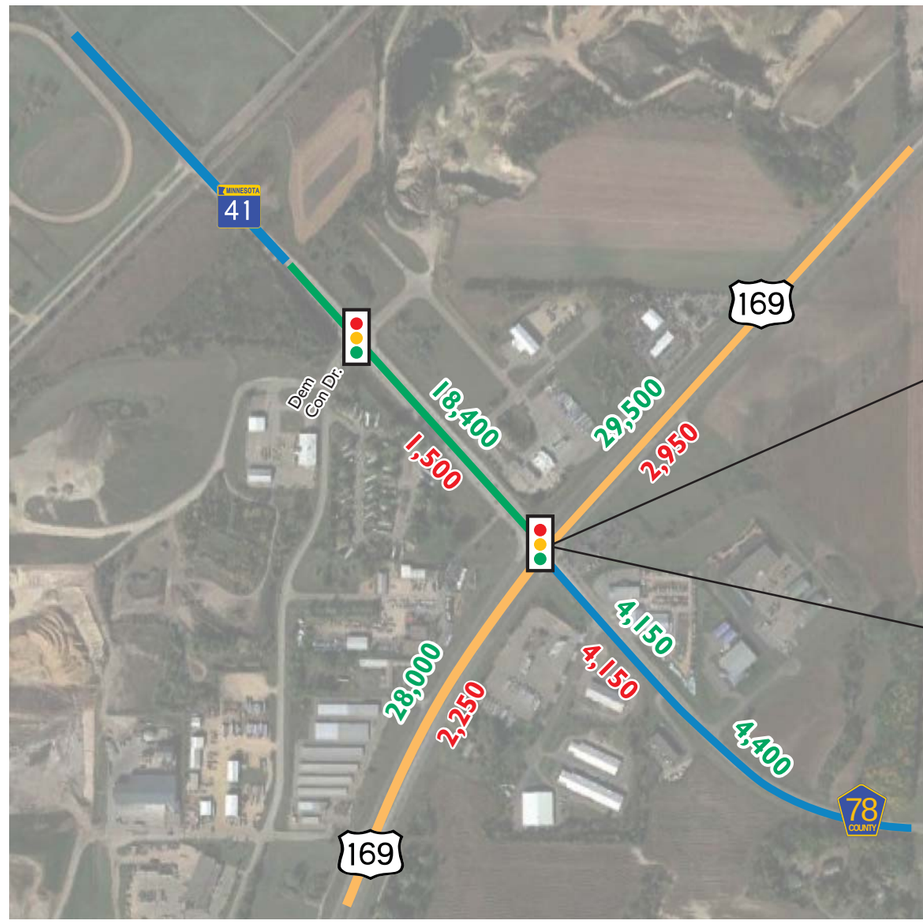
Truck traffic

Daily traffic

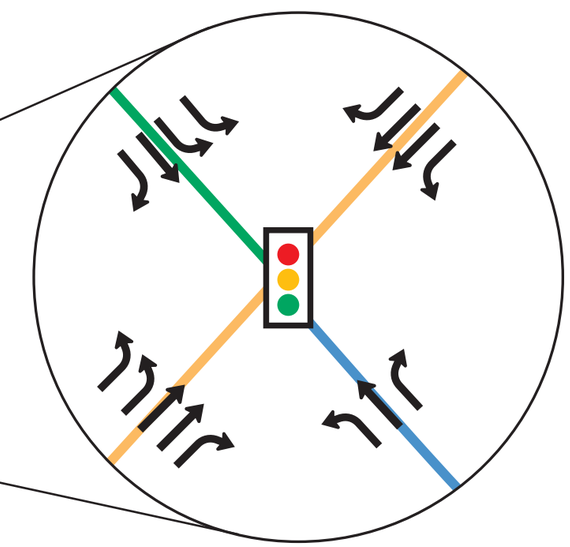
- Cuatro carriles
- Tres carriles
- Dos carriles

Tráfico de camiones

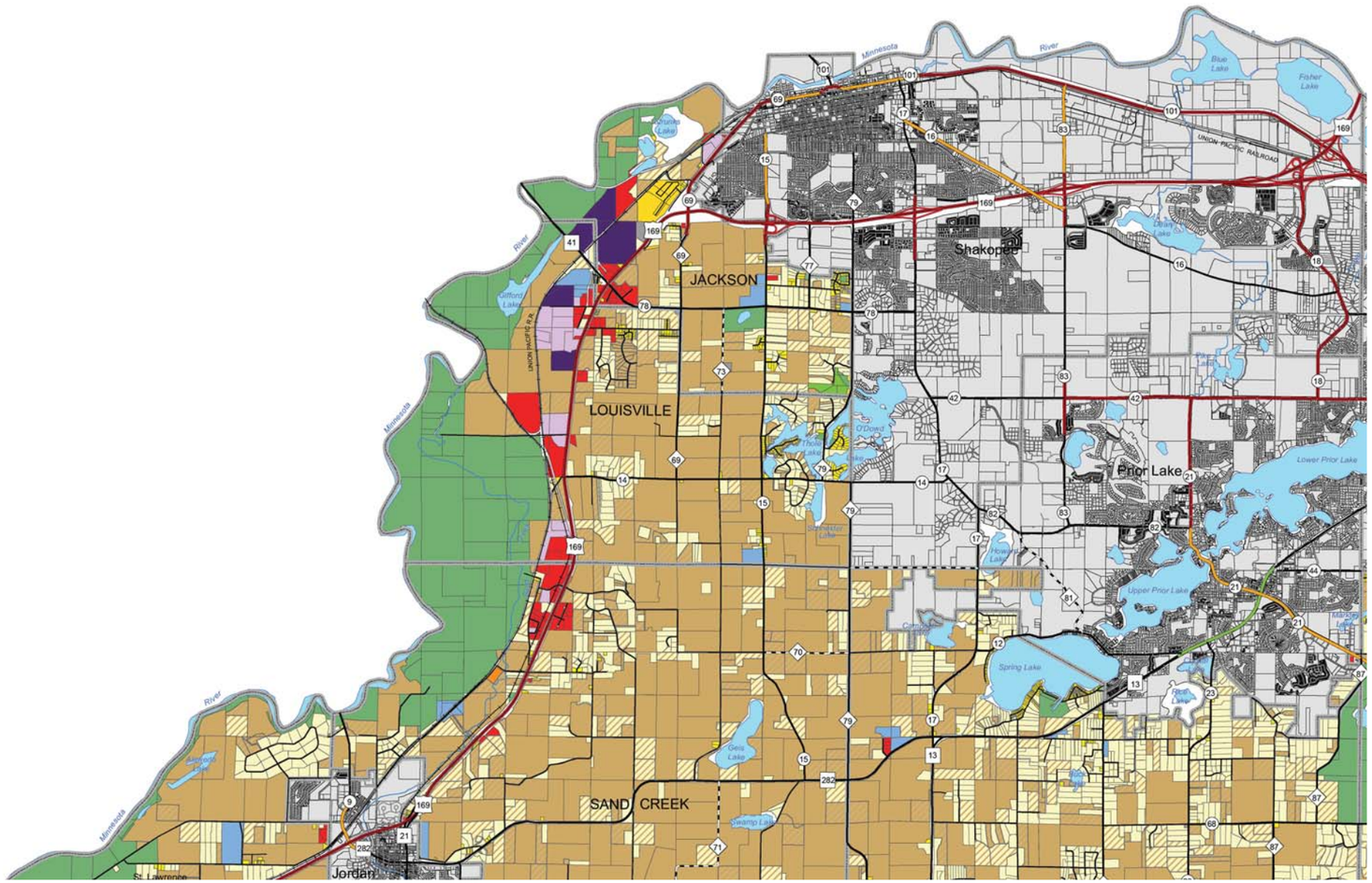
Tráfico diario



Turning Movements at Intersection: | Movimientos de intersección girando:



Land Use - Existing | Uso Existente de las Tierras



Scott County Township Existing Landuse Inventory (2005)

Residential
- Single Family (Under 2 Acres)
- Single Family / Farmstead (2 - 15 Acres)
- Single Family / Farmstead (15 - 40 Acres)
- Mobile Home
- Multi-Family Residential

Non-Residential
- Commercial
- Industrial
- Extraction - Mining
- Utilities (Communication Towers, Substations, Etc.)

Agricultural / Undeveloped
- Agricultural / Undeveloped

Public / Institutional
- Institutional (Includes Public & Private Institutional Uses)
- Municipalities

Park & Open Space
- Parks/Open Space (includes Federal, State, County & Township Land)

Uso Existente de las Tierras del Condado de Scott (2005)

Residencial
- Sola Residencial Familia
- Única Granja de la Familia (2-5 Hectáreas)
- Única Granja de la Familia (15-40 Hectáreas)
- La Caravana
- Multifamiliar

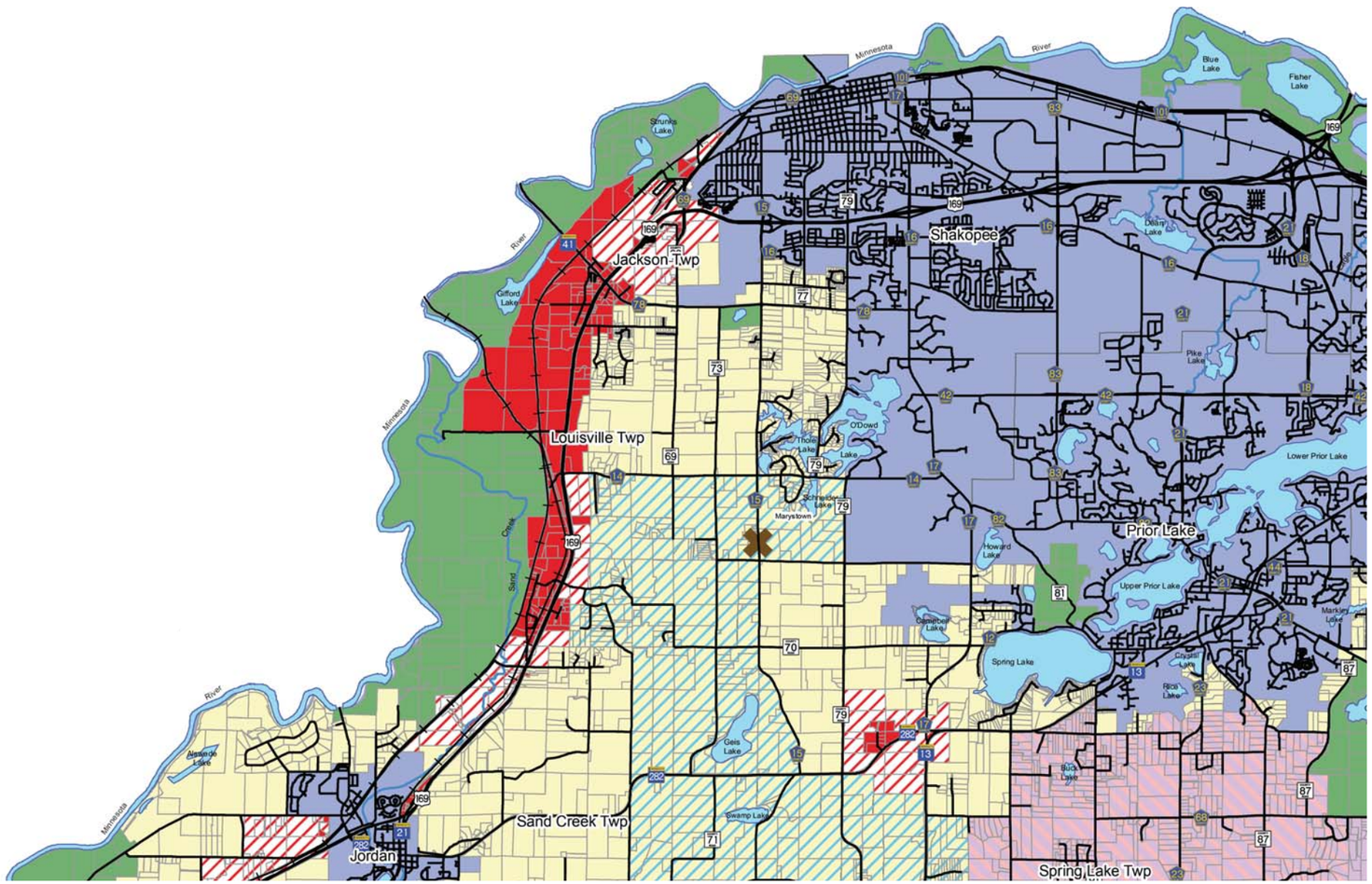
No Residencial
- Comercial
- Industrial
- La minería
- Servicios básicos

Agricultura/sin desarrollar
- Agricultura/sin desarrollar

Pública/ Institucional
- Institucional
- Ciudades

Parque/Espacio Abierto
- Parque/Espacio Abierto

Land Use - Future | Uso Futuro de Tierras



Land Use Categories

- Agricultural Preservation
- Agricultural Transition
- Municipalities
- Commercial Reserve
- Commercial/Industrial
- Park/Open Space
- Rural Residential Growth
- Rural Residential Growth Staged
- Rural Residential Reserve
- Urban Expansion
- Urban Transition
- Hamlet/Town Center
- Roads
- Lakes
- Rivers & Streams

*Note for Rural Residential Growth - Staged: This area is guided for higher rural residential densities (i.e. 1 per 2 1/2 acres) once a detailed planning process has occured that addresses the cumulative impacts the change in density will have on natural resources, transportation, and storm water management.

Categorías Uso de la Tierra

- Agricultura Preservation
- Agricultura
- Ciudades
- Reserva Comercial
- Comercial/Industrial
- El Parque/Espacio Abierto
- Crecimiento residencial rural
- Crecimiento residencial rural
- Reserva residencial rural
- Expansión urbana
- Transición urbana
- Aldea/centro de la localidad
- Carretera
- Lago
- Rio

Funding and Planned Projects

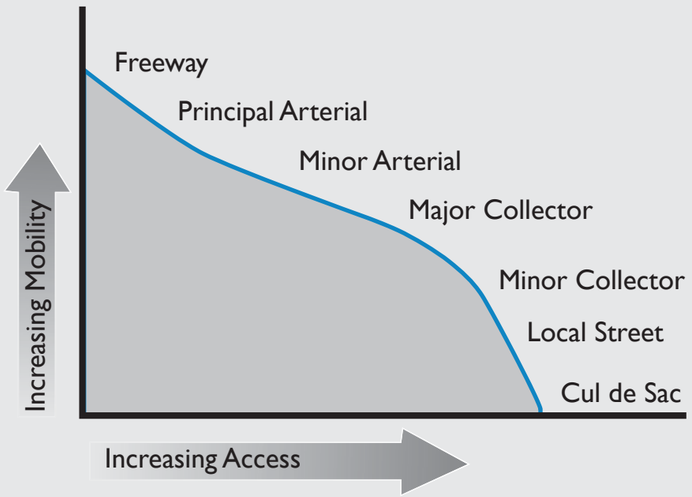
Proyectos planificados y de recaudación

Scott County was awarded $7.5 million in federal funding for improvements at the intersection of Highways 169, 41 and 78. The Scott County Board of Commissioners also identified an interchange and supporting frontage road improvements as a top priority for the recently adopted Scott County transportation sales tax program. Additional funding will be sought through competitive transportation grant opportunities and from project partner MnDOT for the remaining construction costs.

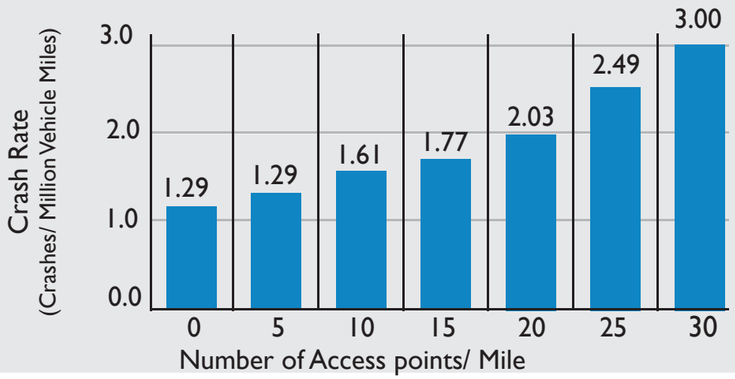
El Condado de Scott obtuvo $7.5 millones en fondos federales para mejoras en la intersección de las Autopistas 169, 41 y 78. El Directorio de Comisionarios del Condado de Scott también identificó mejoras del intercambiador y camino de fachada de apoyo como una prioridad principal para el reciente adoptado programa de impuesto de ventas por transporte del Condado de Scott. Se buscarán fondos adicionales a través de competitivas oportunidades de becas de transporte y del socio del proyecto MnDOT para los costos restantes de construcción.

Access Management

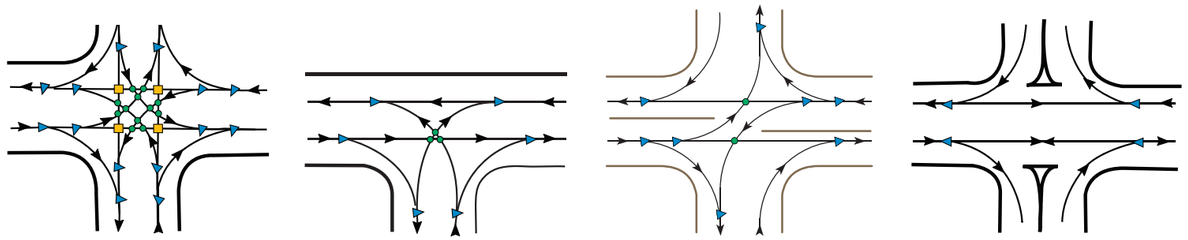
Access/ Mobility Relationship



Access/ Crash Relationship



Intersection Conflict Points



Full Access | "T" Access | 3/4 Access | Right In/Out Access

	Crossing ▬	Turning ●	Merge/ Diverge ▶	Total	Typical Crash Rate (crashes per mil entering vehicles)
Full Access +	4	12	16	32	0.3(1)
"T Access" T	0	3	6	9	0.3(2)
3/4 Access	0	2	8	10	0.2(3)
Right In/Out Access	0	0	4	4	0.1(3)

Intersections (2 of 8) Source: 2008 MnDOT Traffic Safety Fundamental Handbook
(1) 2004-2006 Minnesota TIS Crash Data
(2) Estimated based on Publication FHWA-RD-91-048
(3) Estimated based on limited sample of MnDOT Data

Access Management | Gestión de acceso

Scott County Access Spacing Guidelines

County Highway 78	Principal Arterial (future)
Private Residential (3 or less driveways)	Not Permitted
Commercial Driveways or Private Streets	Not Permitted
Local Streets	Not Permitted
Collector Streets	1 Mile Full Access 3/4 or Right in/Right out at 1/2 Mile (urban)
Minor Artierial	1 Mile Full Access

MnDOT Access Spacing Guidelines

Highway 169	Non-Interstate Freeways
Primary Full-Movement Intersection	Interchange Access Only
Secondary Intersection	Interchange Access Only

Highway 41	Principal Arterials (Urban/Urbanizing)
Primary Full-Movement Intersection	1/2 Mile
Secondary Intersection	1/4 Mile
Signal Spacing	1/2 Mile

Interim Spacing for Non-Interstate Freeways

- All at-grade intersections should be considered interim.
- The desirable spacing between an at-grade intersection and the merge point of the closest ramp should be a minimum of one-half mile.
- If one-half mile cannot be attained, a shorter spacing may be considered if analysis shows that the shorter distance would not create unacceptable weaving operations.
- The spacing between two at-grade, full-movement intersections should be one mile.

Directrices de espacio de acceso del Condado de Scott

Autopista 78	Arteria principal "(futuro)"
Caminos de acceso residenciales (tres o menos entradas de vehículos)	No Permitido
Caminos de acceso comerciales	No Permitido
Carretera local	No Permitido
Recolector	1 milla acceso completo ¾ o derecho en/derecho de salida a ½ milla
Arteria menor	1 milla acceso completo

Directrices de espacio de acceso MnDOT

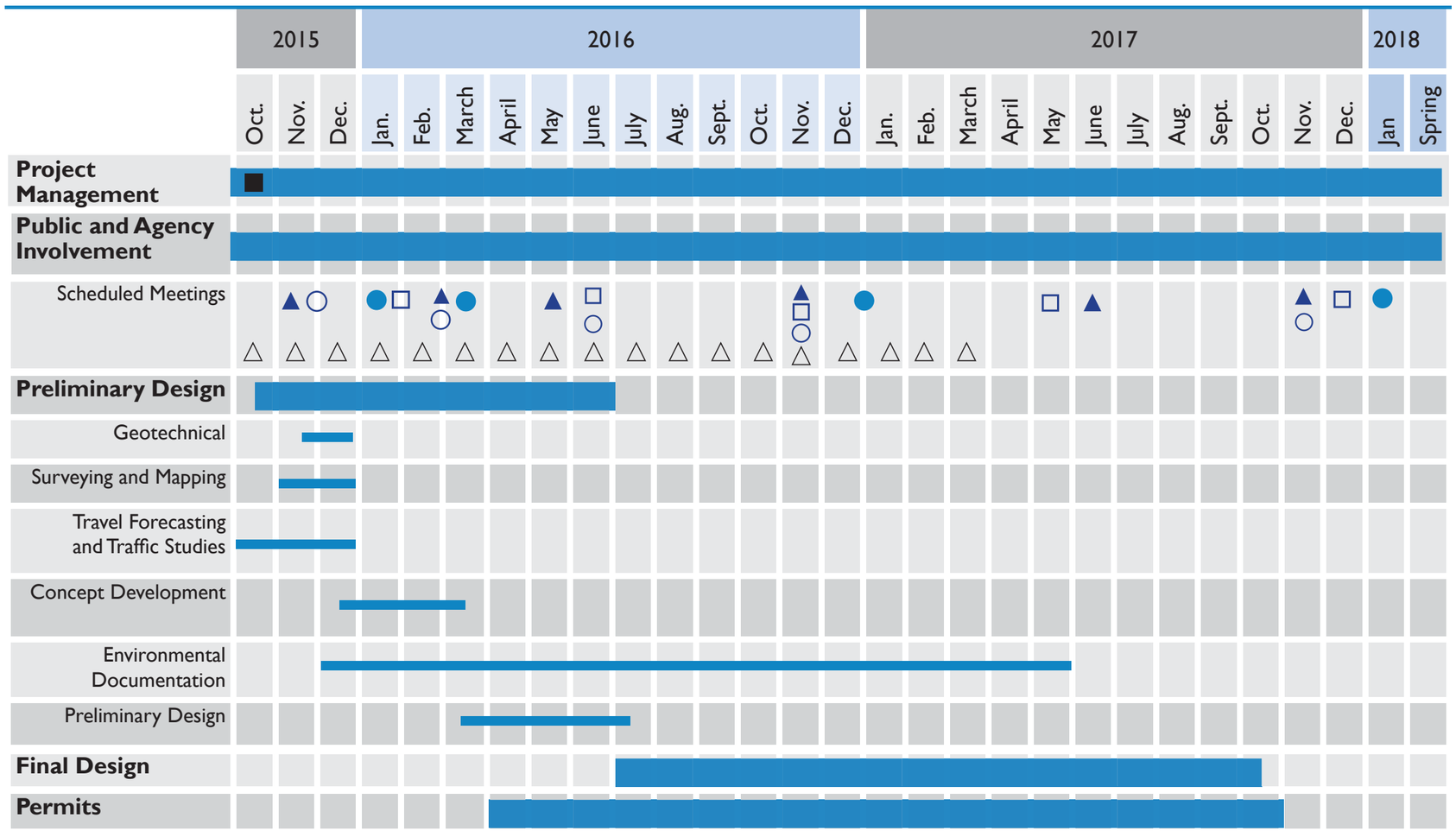
Autopista 169	Autopistas no Interestatales
Intersección primaria de movimiento completo	Acceso solamente de intercambiadores
Intersección secundaria	Acceso solamente de intercambiadores

Autopista 41	Arteria Principal (Urbano)
Primary Full-Movement Intersection	1/2 milla
Intersección secundaria	1/4 milla
Espaciamiento de señales	1/2 milla

Separación Provisional para Autopistas no Interestatales

- Todas las intersecciones en grado se deben considerar provisionales
- La separación deseable entre una intersección en grado y el punto de unión de la rampa más cercana debe ser mínimo de media milla
- Si no se puede alcanzar media milla, se debe considerar un menor espacio si el análisis muestra que la distancia más corta no creará operaciones de tejido inaceptables.
- La separación entre dos intersecciones en grado con total movimiento debe ser una milla.

Project Schedule



■ = Project kick-off meeting

● = Open house meeting

□ = County/town board meeting

△ = Project Management Team meeting

▲ = Property/business owner meeting

○ = Neighborhood meeting

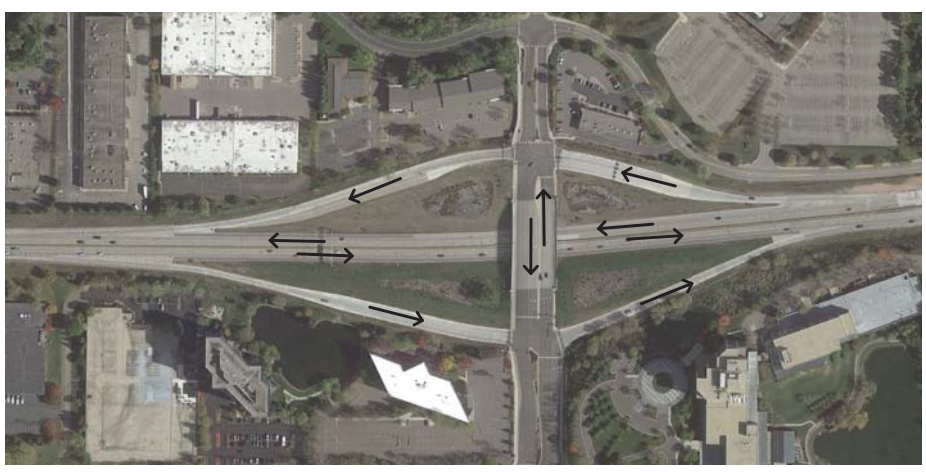
What Improvements Do You Want? | ¿Qué mejoras Es Lo Que Quieres?

Examples Only – Not the Only Options
Others? Otro?

Single Point Interchange
Richfield, MN

Intercambiador
Richfield, MN

Tight Diamond Interchange
Minnetonka, MN

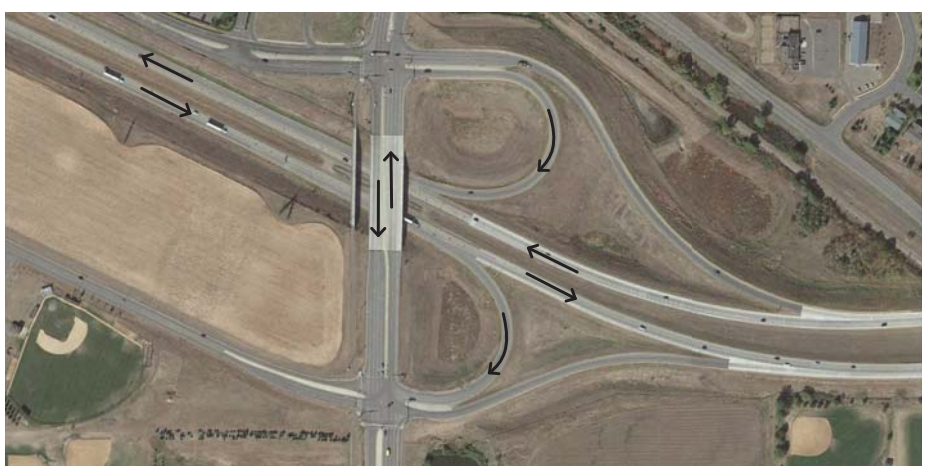


Intercambiador
Minnetonka, MN

Diverging Diamond Interchange
Bloomington, MN

Intercambiador
Bloomington, MN

Folded Interchange
Monticello, MN



Intercambiador
Monticello, MN

Continuous Flow/Displaced Left-Turn Intersection
Salt Lake City, UT

Intersección
Salt Lake City, UT

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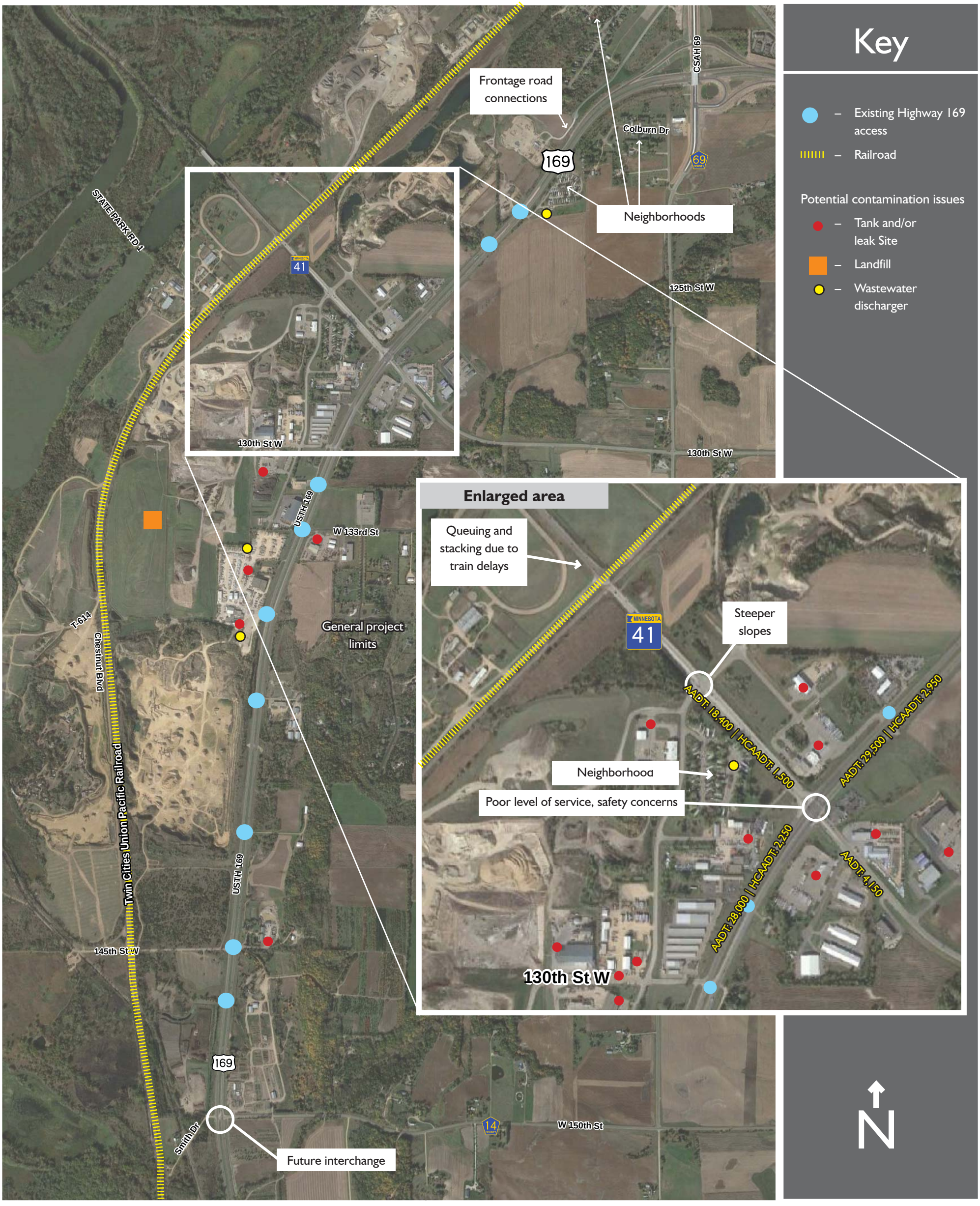

General Project Issues:

- Frontage road connections
- Business owner engagement
- Safety
- Traffic operations and queuing
- Truck traffic
- Lack of supporting road network
- Business access
- Overhead utilities
- Understanding of future river crossing location
- Stormwater management
- Traffic during construction
- Right of way
- A number of businesses clustered around the Highways 169/41/78 intersection are considered small to minimal generators of hazardous waste