



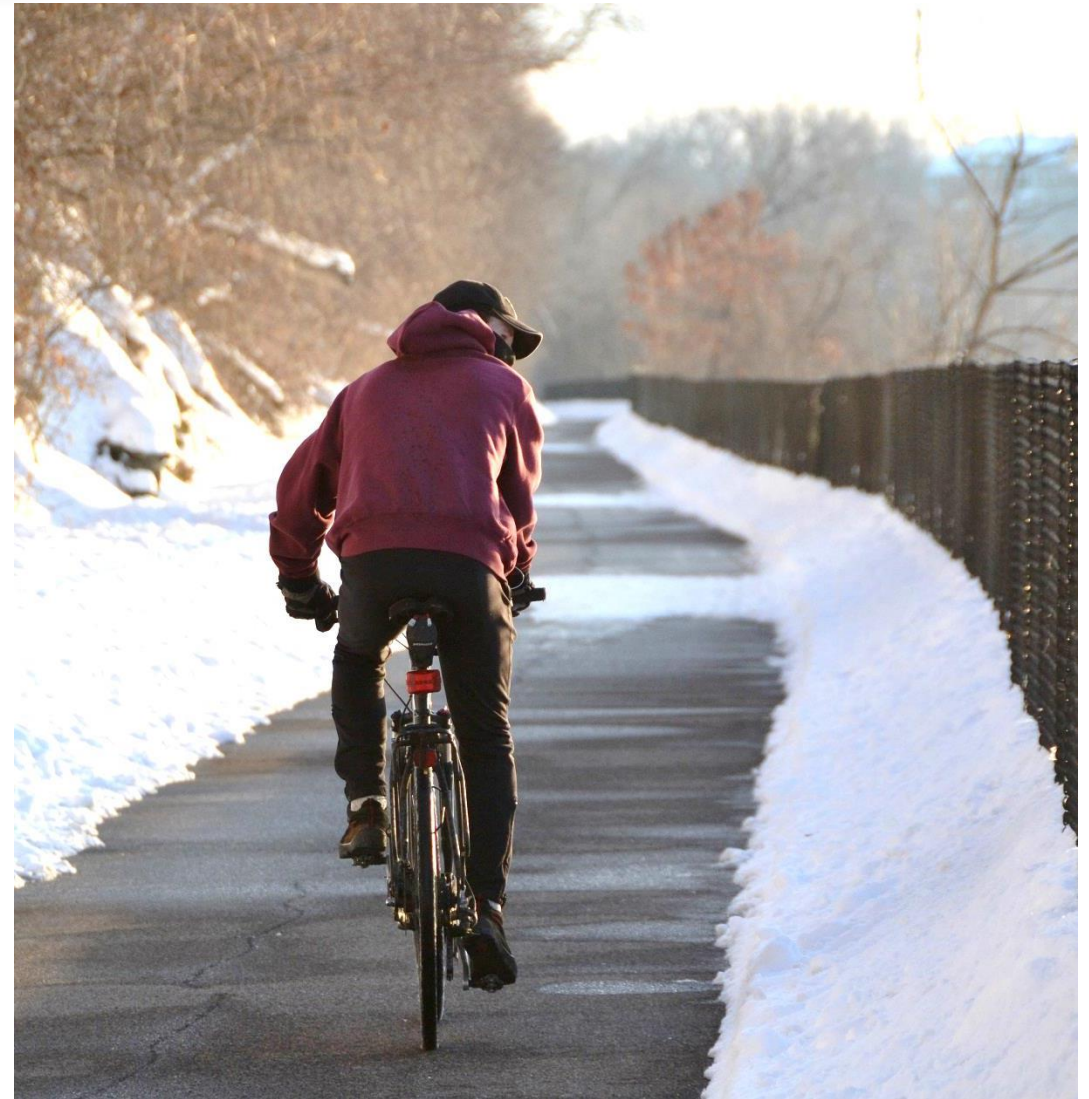
Planning Commission Update

February 22, 2018



AGENDA

1. Project purpose
2. Draft Bicycle and Pedestrian System
 - a) Gaps
 - b) Network
3. Next steps





Background

- 2030 Transportation Plan guides walking and biking investment
- Walking and biking is transportation for residents who do not drive
 - Age (too young or too old)
 - Ability to own a private vehicle
 - Health conditions
 - Personal choice

Dakota County Demographics

- 47,000 over age 65
- 125,000 + seniors in 2040
- 86,000 children 5-18
- 7,000 households without a car
- 3,000 people walk-bike to work
- 30,000 people below the poverty level



Project Scope

- Prioritize gaps and barriers
- Define future system
- Consider new facility types, such as on road bike lanes, on lower speed, lower volume roadways
- Recommend policies to support walking and biking





Plan Need

- Dakota County 2040 Comprehensive Plan update
- Dakota County 2040 Transportation Plan update (anticipated in 2019)





Variety of Users



Image used Pedbikeimages.org



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Draft Bicycle and Pedestrian Network

- Existing System
- Ped-Bike Demand and Gap Prioritization
- Planned Network
- RBTN

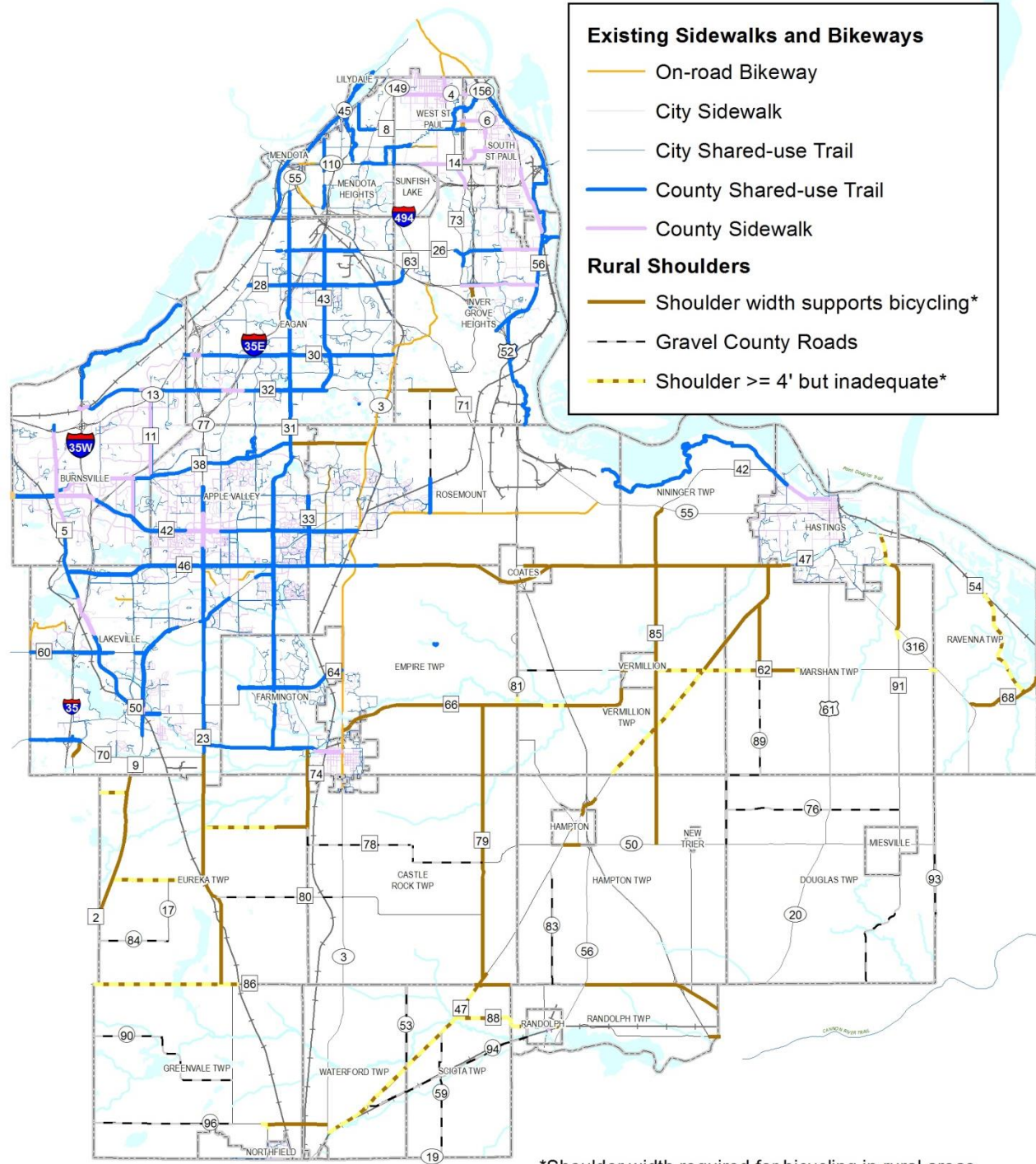
The County will integrate pedestrian and bicycling modes into the transportation system to provide for safe, timely, and efficient connections between communities, activity generators, and employment centers

Dakota County 2030 Transportation Plan



Existing System

- Off-road, multi use trails are current practice in urban/suburban contexts
 - Safe
 - Provide for both peds and bikes
 - Most comfortable for many people
- 350 miles of trails and sidewalks
- Bikeable shoulders in rural areas





Top Challenges

1. System continuity – filling the gaps
2. Barriers and crossings
3. On-road bicycle facilities
4. City / County cost share
5. Maintenance
6. Lighting
7. Support facilities
8. Other challenges???

Benches and trees would make walking better

There aren't a whole lot of sidewalks in Burnsville and sometimes we end up walking in the road

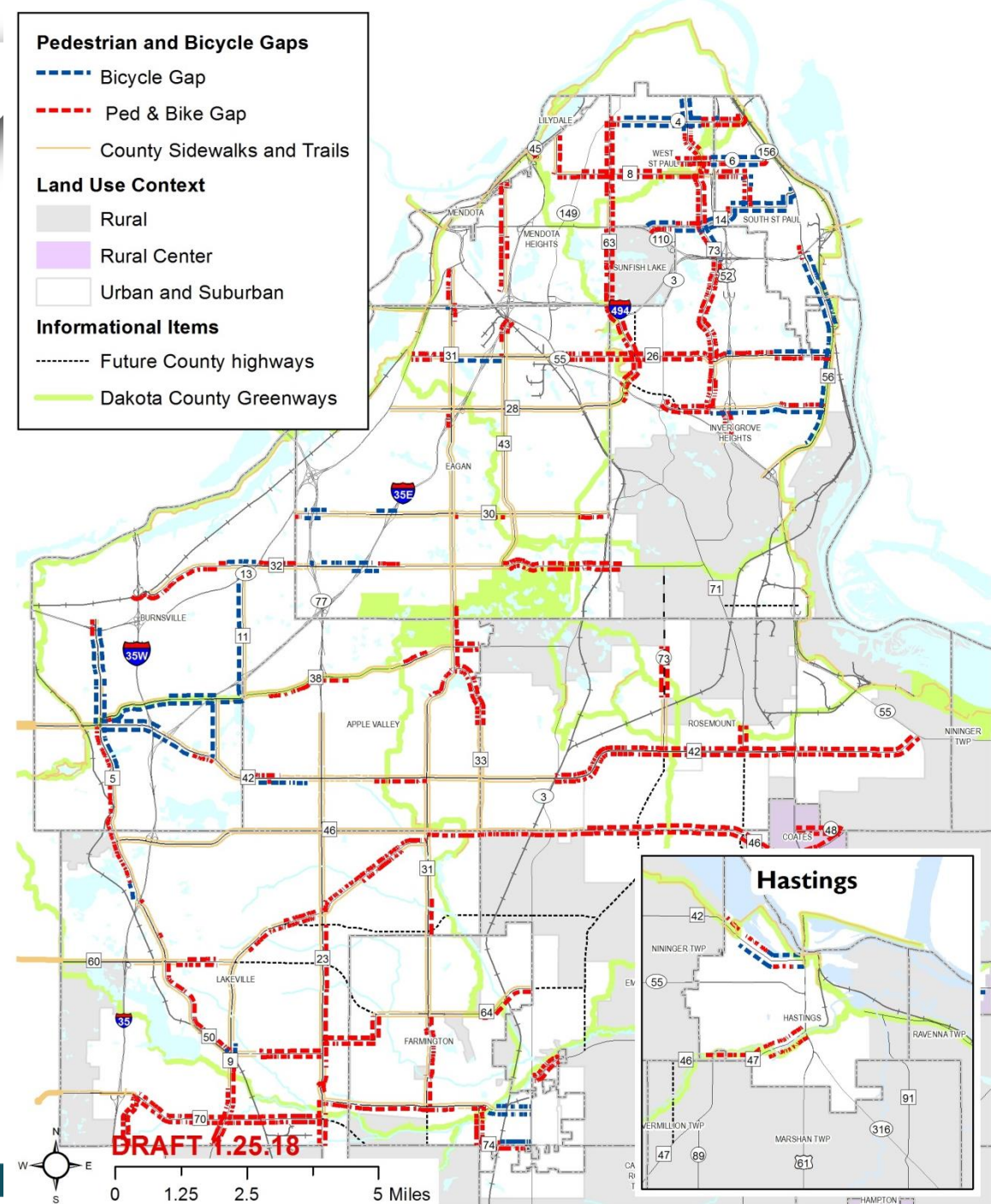
Would like to see better winter maintenance to make the system more functional year-round

Bikes should be separated from cars



Pedestrian and Bicycle Gaps

- 49 miles are pedestrian and bicycle gaps (no trail or sidewalk)
- 14 miles are bicycle gaps (sidewalk present)
- 34 miles do not have trails or sidewalks on either side of the road





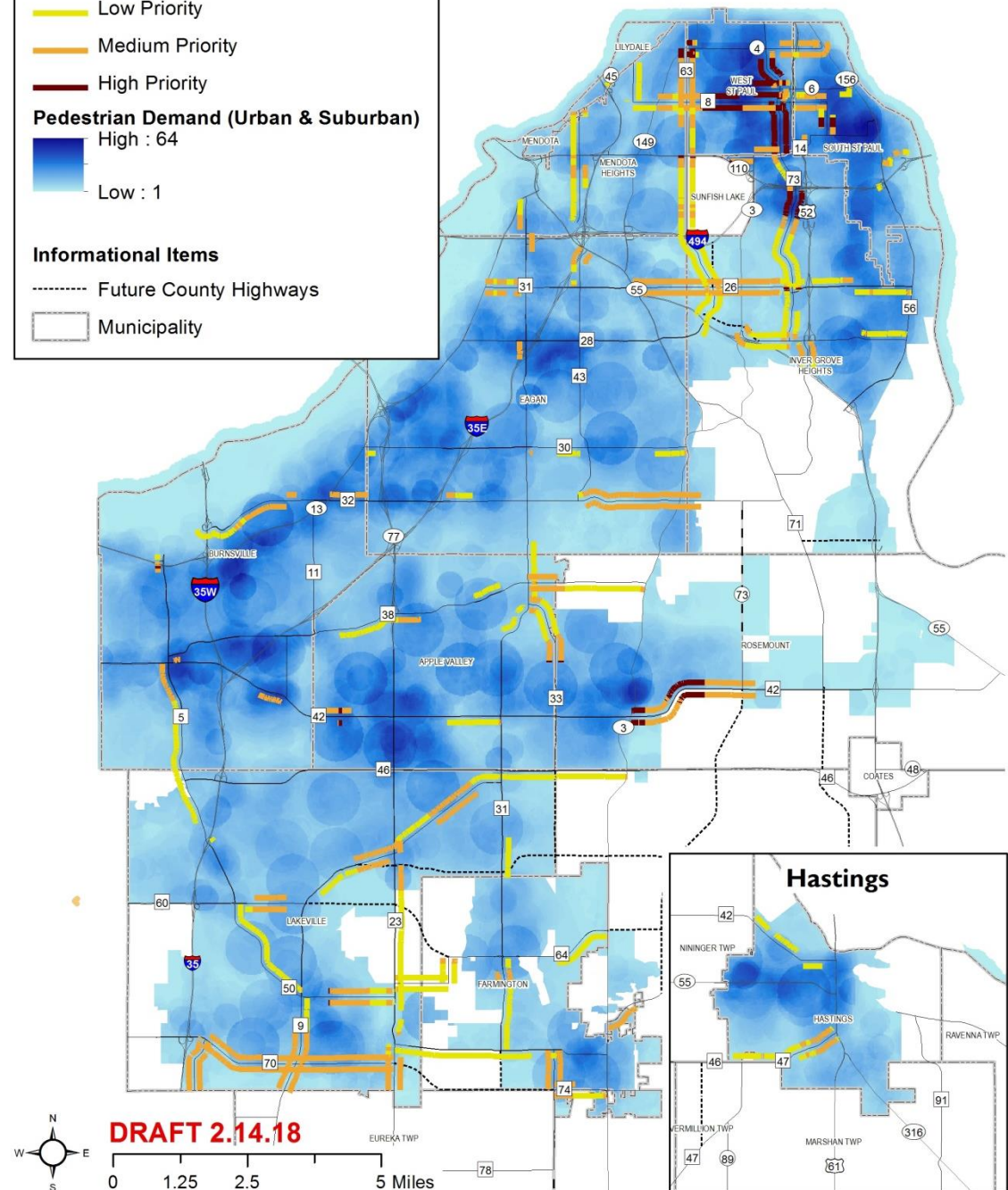
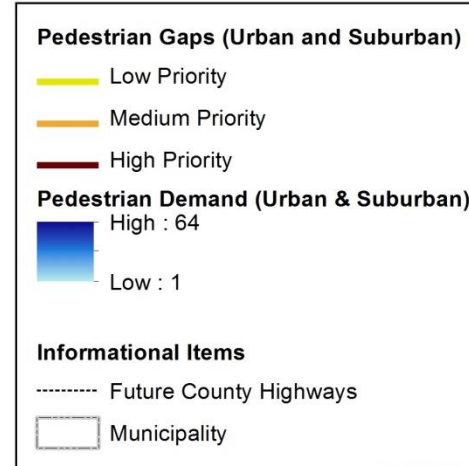
Gap prioritization

1. Population density
2. Age - under 18 or over 65
3. Households without vehicles
4. Transit route
5. Part of Regional Bicycle Transportation Network
6. Employment density
7. Services/shopping proximity
8. School proximity
9. Traffic volume
10. Posted speed
11. Number of lanes
12. System continuity - presence of trails and sidewalks



Pedestrian Gaps

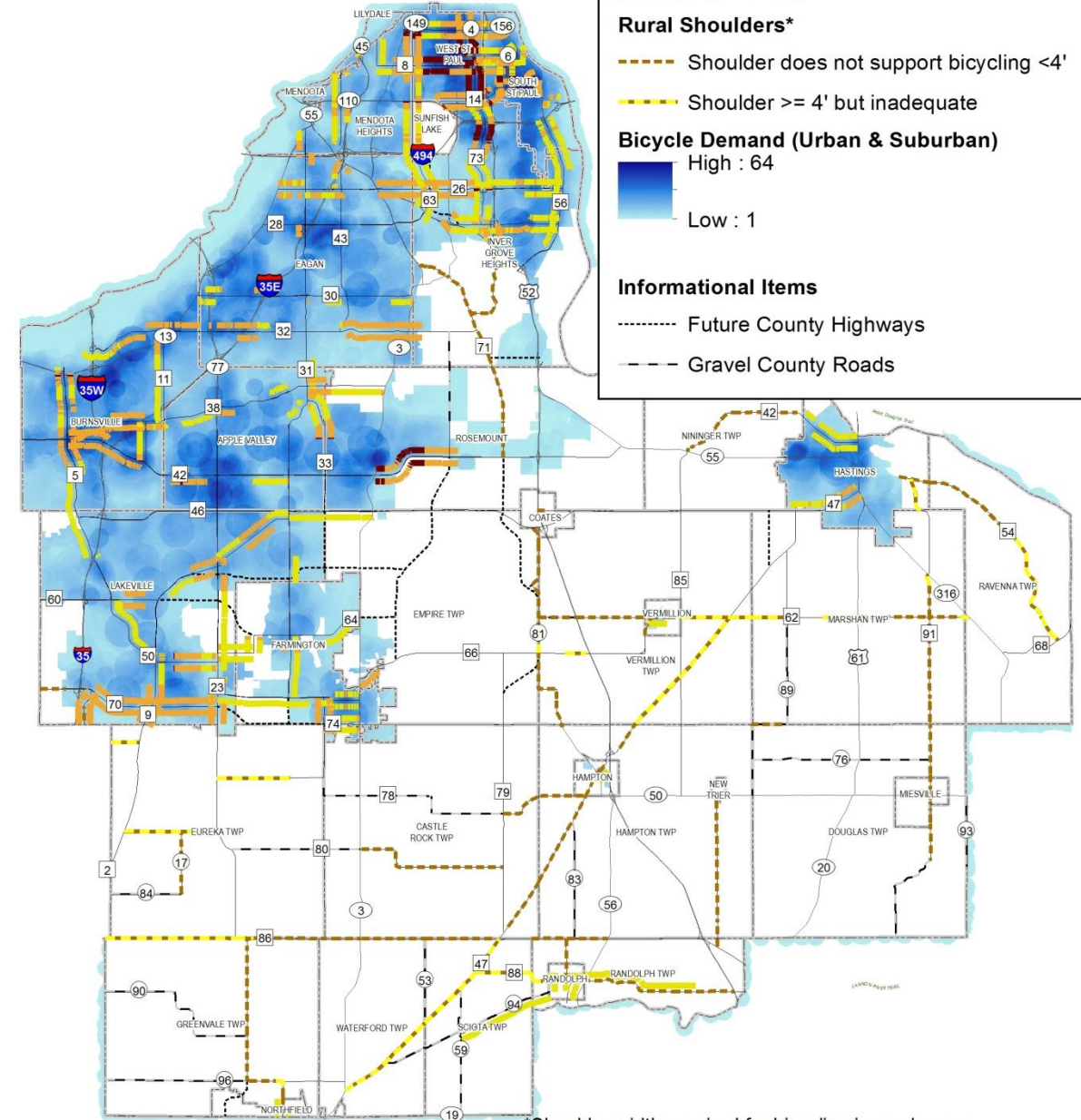
- 49 miles of pedestrian gaps in urban/suburban area (no trail or sidewalk)
- Highest priority gaps in the northern portion of the County





Bicycle Gaps

- 63 miles of trail gaps in urban/suburban area
- Nearly 250 miles of paved roads in rural areas
- 45% have shoulders that support bicycling





Filling the gaps

BICYCLE AND PEDESTRIAN FACILITY CONTEXTUAL GUIDANCE				
PREFERRED FACILITIES	STREET CLASS	LAND USE	POSTED SPEED LIMIT	TRAFFIC VOLUMES
SIDEPATH/TRAIL ●●●●	COLLECTOR ARTERIAL	URBAN-SUBURBAN/ RURAL CENTERS	ALL	ALL
SIDEWALK* ●●●●	LOCAL COLLECTOR ARTERIAL	URBAN-SUBURBAN/ RURAL CENTERS	LOWER	ALL
SHOULDER ●●●●	COLLECTOR ARTERIAL	RURAL**	ALL	LOWER

LEGEND

SEPARATION	
●●●●	Minimal Separation
●●●●	Moderate Separation
●●●●	Good Separation
●●●●	High Separation

*On roadways with higher traffic volumes and speeds, a sidepath/trail can serve both walking and bicycling

**Shoulders can supplement sidepaths/trails in urban areas

Source: AASHTO Guide for the Development of Bicycle Facilities

- Trails are the standard in urban and suburban context
- Where not practical, consider:
 - Sidewalks
 - Alternate routes
 - On road facilities for cyclists
- Shoulders on rural construction and resurfacing projects



On-Road Bicycle Facilities

BICYCLE AND PEDESTRIAN FACILITY CONTEXTUAL GUIDANCE				
ON-STREET FACILITIES TO CONSIDER*	STREET CLASS	LAND USE	POSTED SPEED LIMIT	TRAFFIC VOLUMES
BIKE LANE 	COLLECTOR ARTERIAL	URBAN-SUBURBAN/RURAL CENTERS	LOWER	LOWER
BUFFER SEPARATED BIKE LANE 	COLLECTOR ARTERIAL	URBAN-SUBURBAN	LOWER	LOWER-MODERATE
BARRIER SEPARATED BIKE LANE 	COLLECTOR ARTERIAL	URBAN-SUBURBAN	LOWER-MODERATE	MODERATE

LEGEND

SEPARATION	
	Minimal Separation
	Moderate Separation
	Good Separation
	High Separation

*When preferred facilities are not practical and alternate routes are not practical.

Source: AASHTO Guide for the Development of Bicycle Facilities

- Consider the use of on-road bicycle facilities where all of the following conditions exist:
 - An off-road multiuse trail is not practical or feasible.
 - An alternate route is not available.
 - The on-road facility is part of an identified system.
 - State Aid Standards can be met.



Planned Pedestrian System *(draft)*

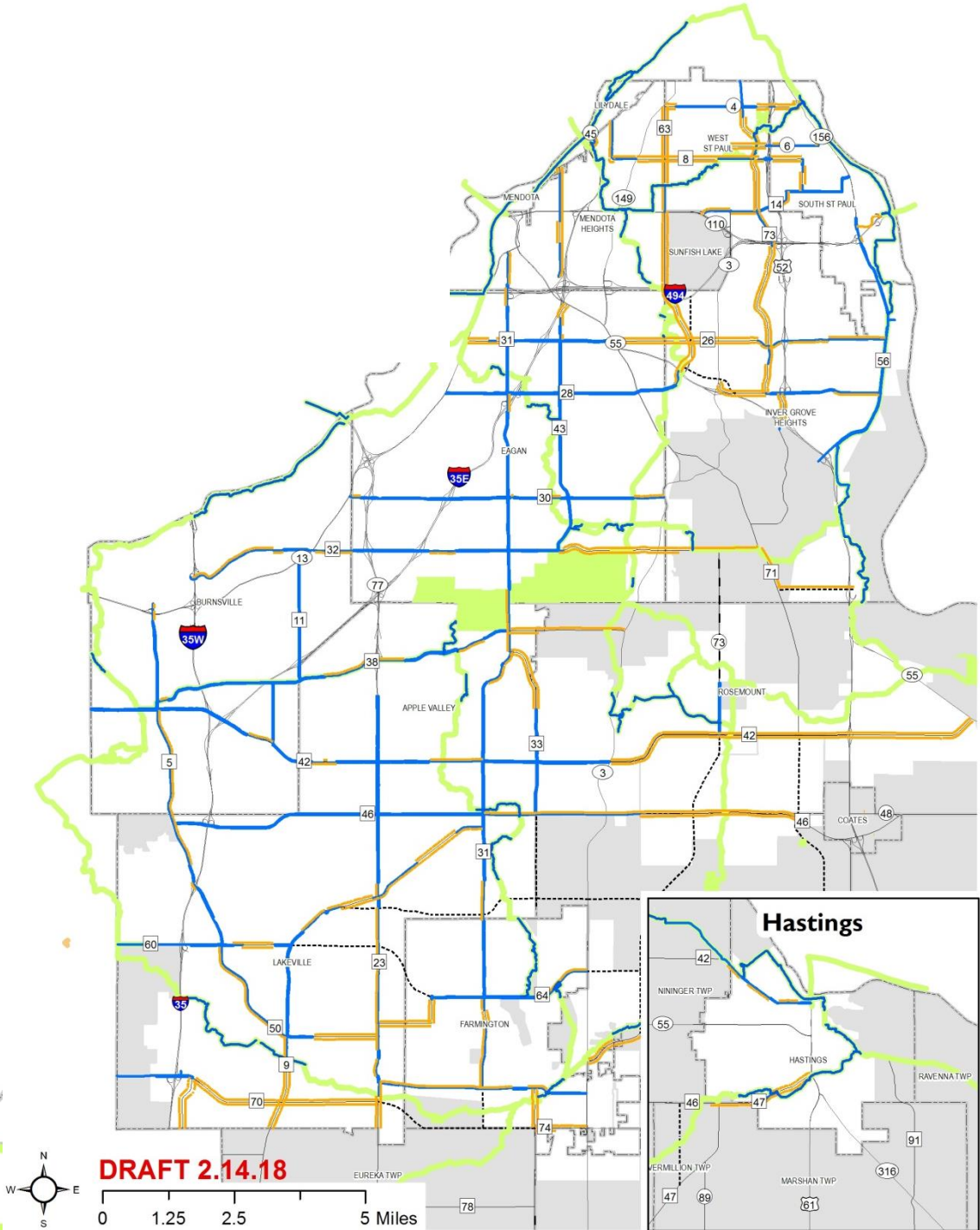
- Planned Shared-use Trail or Sidewalk
- Existing Shared-use Trail or Sidewalk
- Planned Dakota County Greenways

2040 Land Use Context

- Rural
- Urban and Suburban

Informational Items

- Future County Highways
- Gravel County Roads

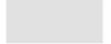




Planned Bicycle System *(draft)*

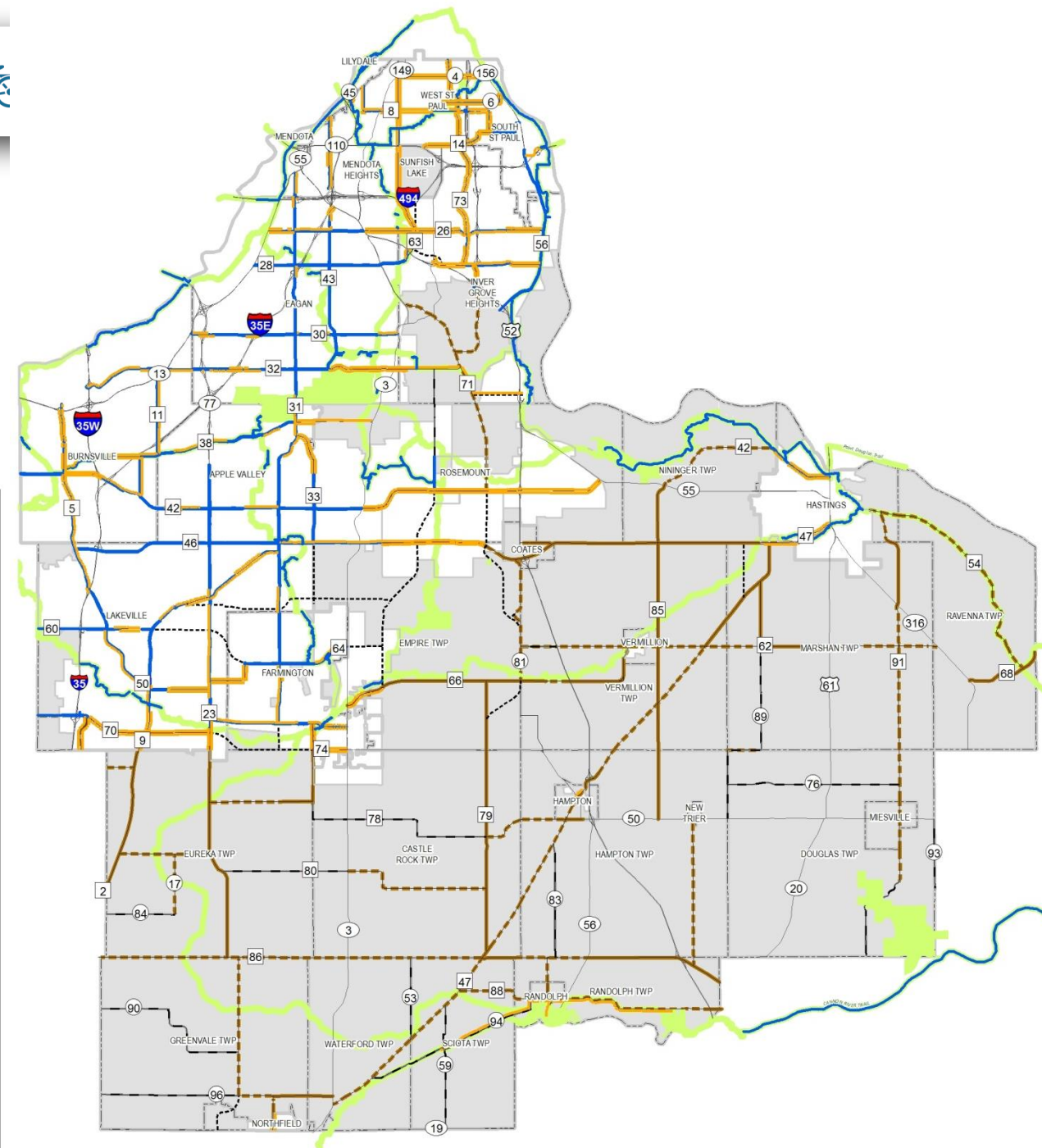
-  Existing Shared-use Trail
-  Planned Bikeway
-  Planned Dakota County Greenways
-  Rural Shoulders*
-  Existing bicycle supportive shoulder
-  Planned bicycle supportive shoulder

2040 Land Use Context

-  Rural
-  Urban and Suburban

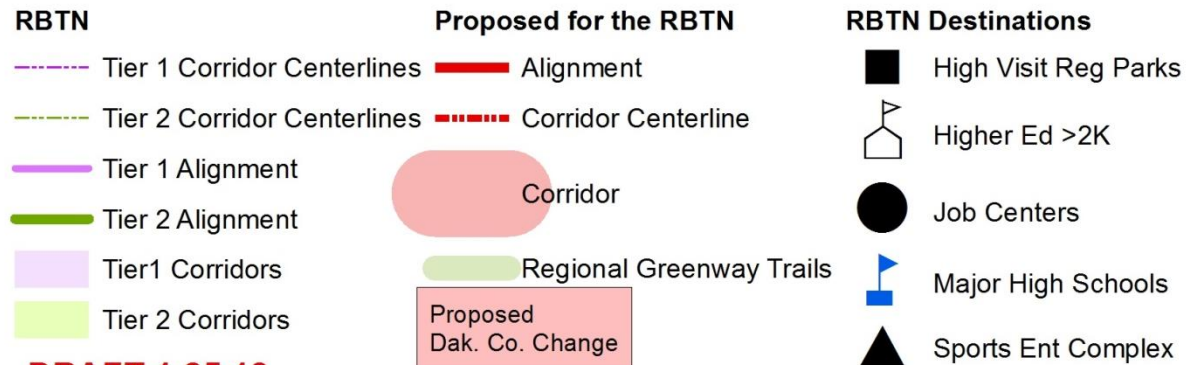
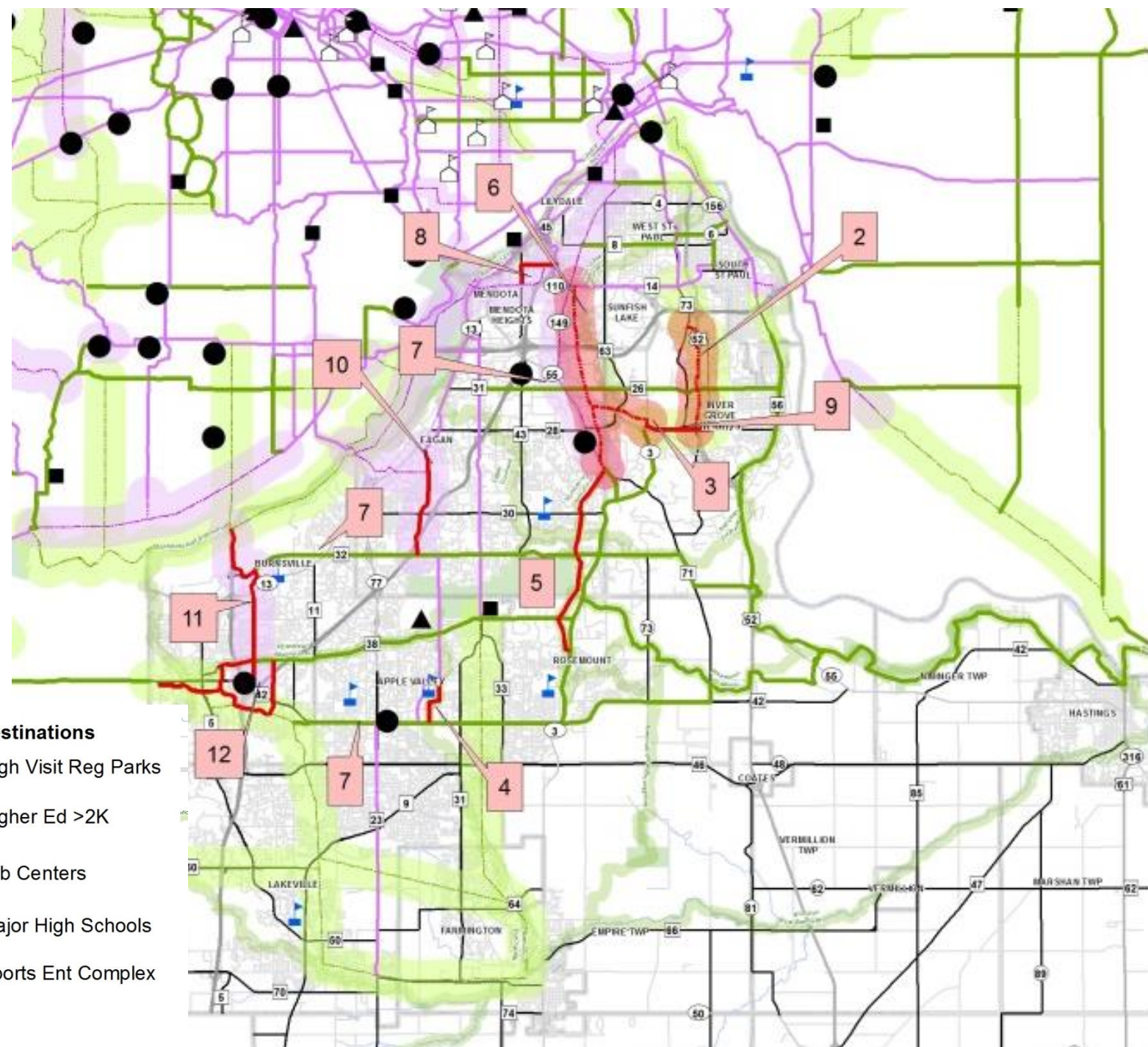
Informational Items

-  Future County Highways
-  Gravel County Roads



Regional Bicycle Transportation Network

- County will continue to work improve pedestrian and bicycle facilities on the RBTN



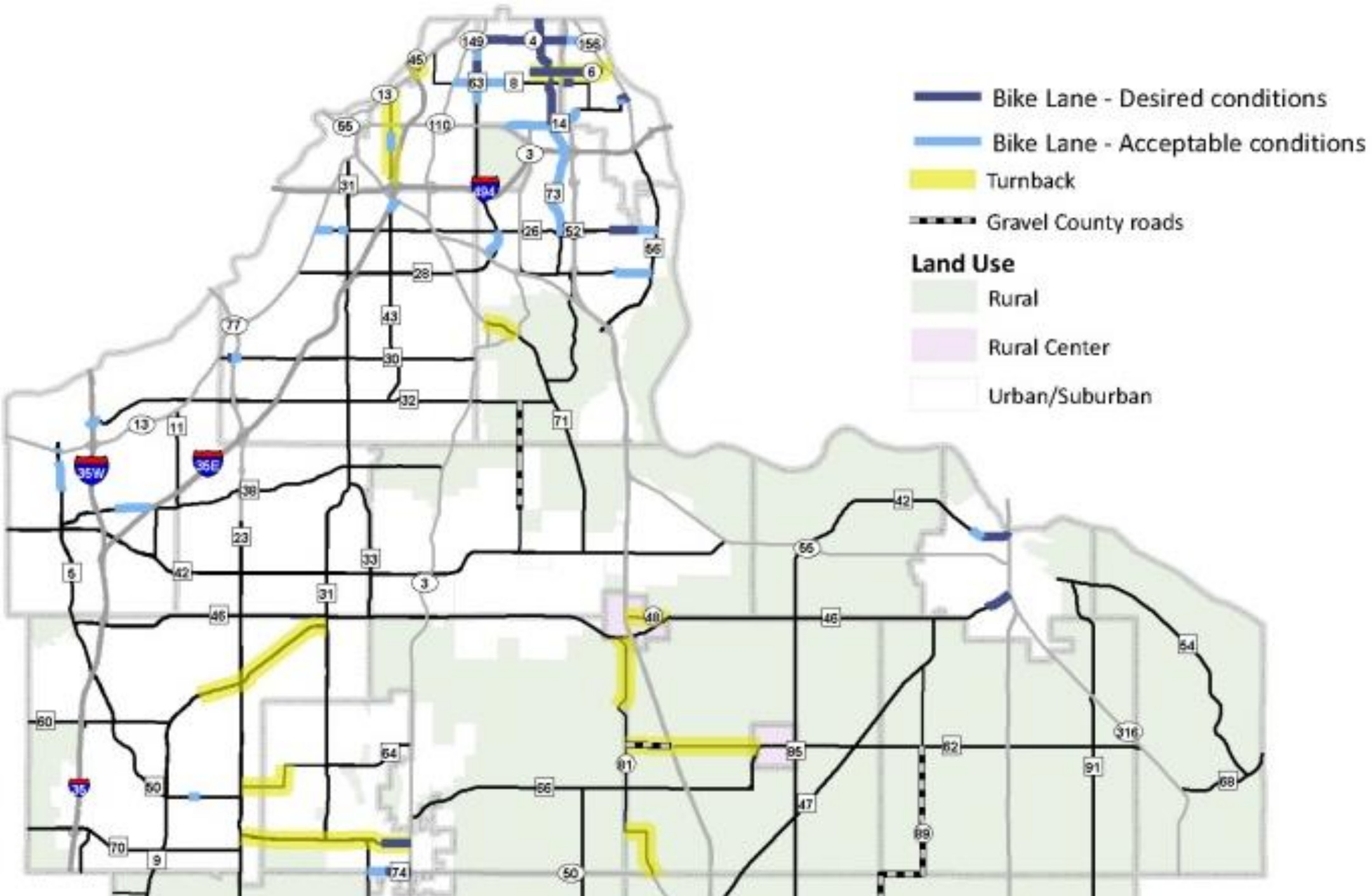
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NEXT STEPS

- March: Planning Commission Update - *review best practices, strategies, policies recommended for consideration as part of the 2040 comprehensive plan update*
- April: Physical Development Committee of the Whole Update
- May: Prepare Draft Plan

QUESTIONS?





Bike Lanes

- A portion of the roadway or shoulder designated for exclusive or preferential use by bicycles
- Identified by pavement markings (and sometimes signs)
- Suitable for roadways with speeds 35 mph or lower: 29 miles (7%) of Dakota County highways





Buffered Bike Lanes

- Bike lane separated from automobile traffic by buffer pavement markings
- Provides greater comfort on higher speed or traffic roadways: up to 40 mph and 25,000 ADT
- Feel safer to people biking than standard bike lanes*
- 55 miles (13%) of County highways are 40 mph or less

*Portland State University, Center for Transportation Studies. (2011). [Evaluation of Innovative Bicycle Facilities: SW Broadway Cycle Track & SW Stark/Oak Street Buffered Bike Lanes FINAL REPORT](#).





Separated Bike Lanes

- Vertical element separates bike lane from automobile lane(s)
 - On-street parking
 - Barrier median or planters
 - Barrier curb
 - Bollards
- Often accompanied by exclusive bicycle traffic control devices (signals)
- Suitable for roads with higher traffic volumes but constraints to constructing an off-street path

