

APPENDIX

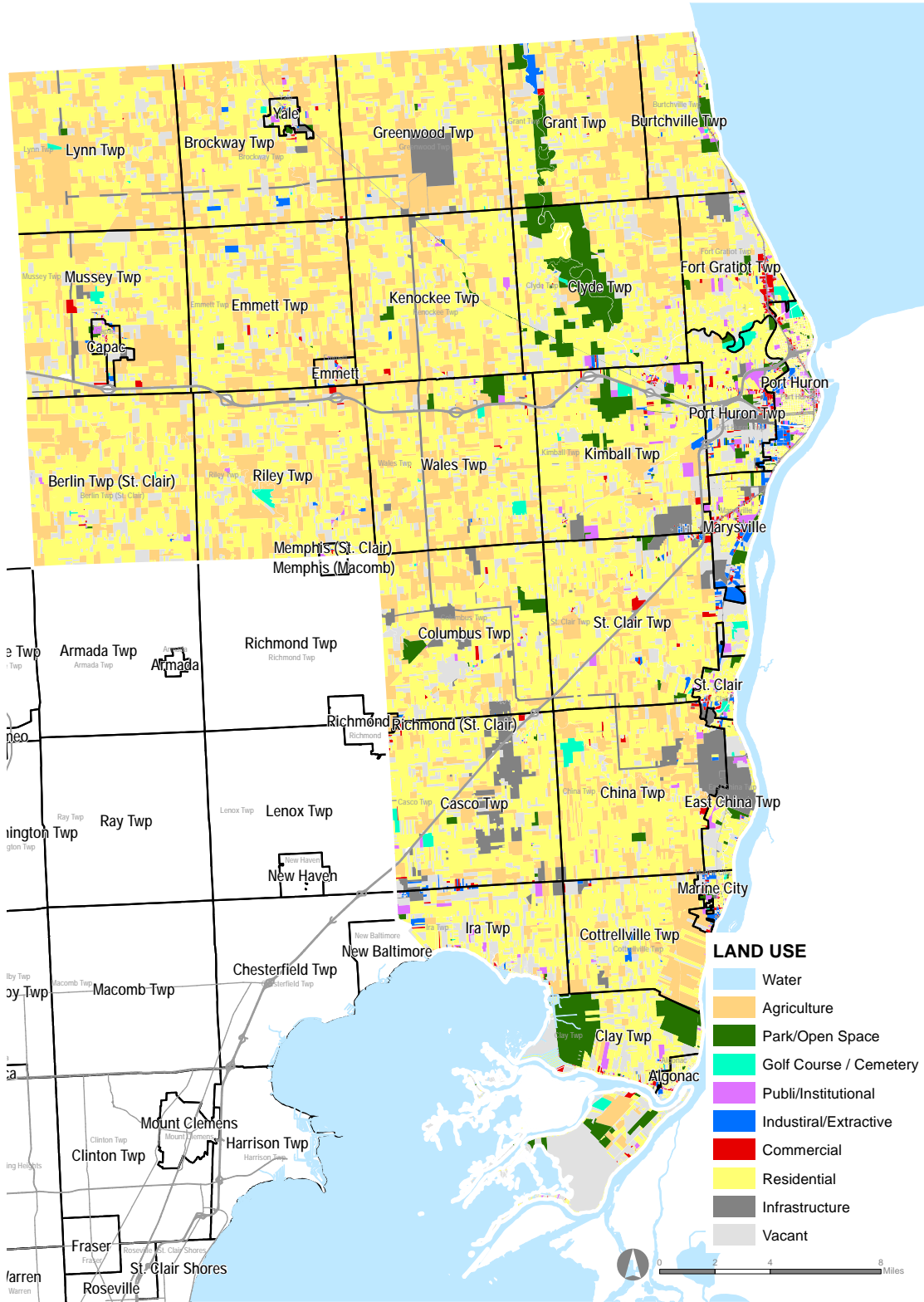
CONTEXT ANALYSIS

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The following maps explore land use, land cover, and demographic conditions across St. Clair County. This is intended to provide a brief characterization of the county and help set the stage for the gap identification and prioritization discussed later in this report.

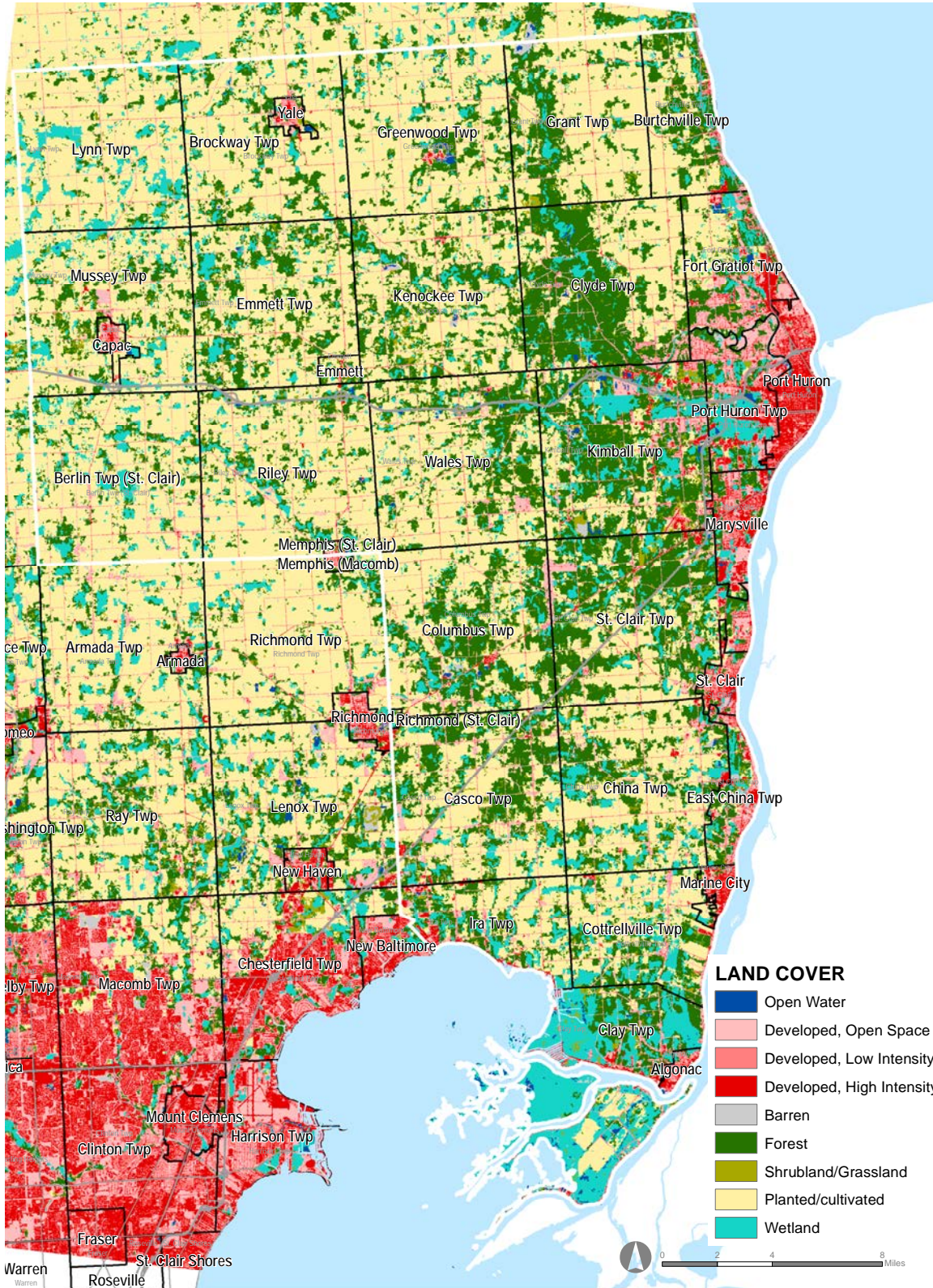
LAND USE PATTERNS

The majority of St. Clair County is rural with a matrix of agricultural and residential land uses. There are large areas of recreational lands, such as the Port Huron State Game Area or the St. John's Marsh State Wildlife Area in the southern end of the county. Industrial and commercial uses are primarily clustered in more urbanized areas along the St. Clair River.



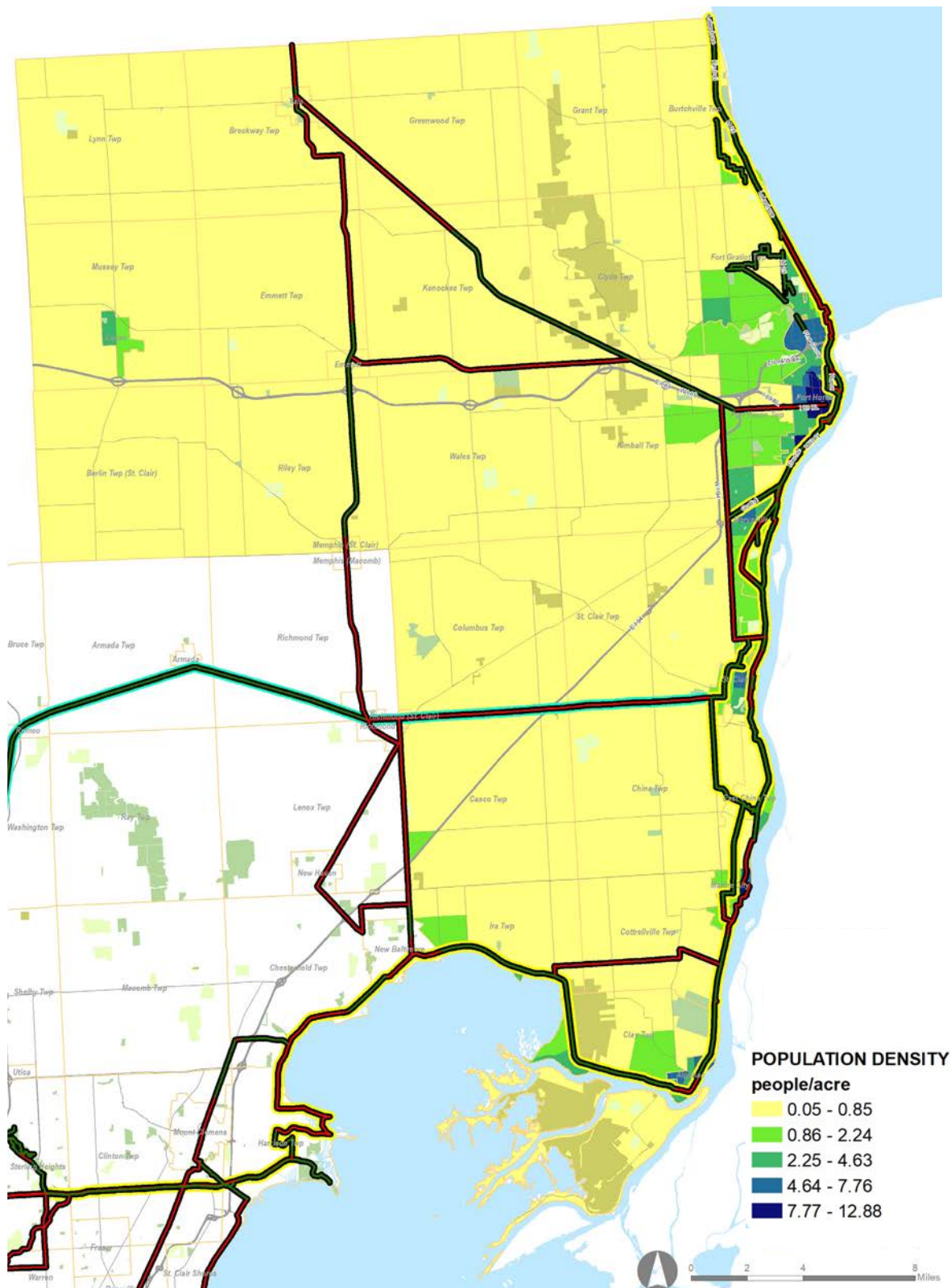
LAND COVER

Planted and cultivated lands dominate the county overall, although large woodlands and wetland complexes extent through much of the center of the county. Areas adjacent to the St. Clair River from Marine City north to Fort Gratiot Township reflect the predominant areas of developed (urbanized) land areas.



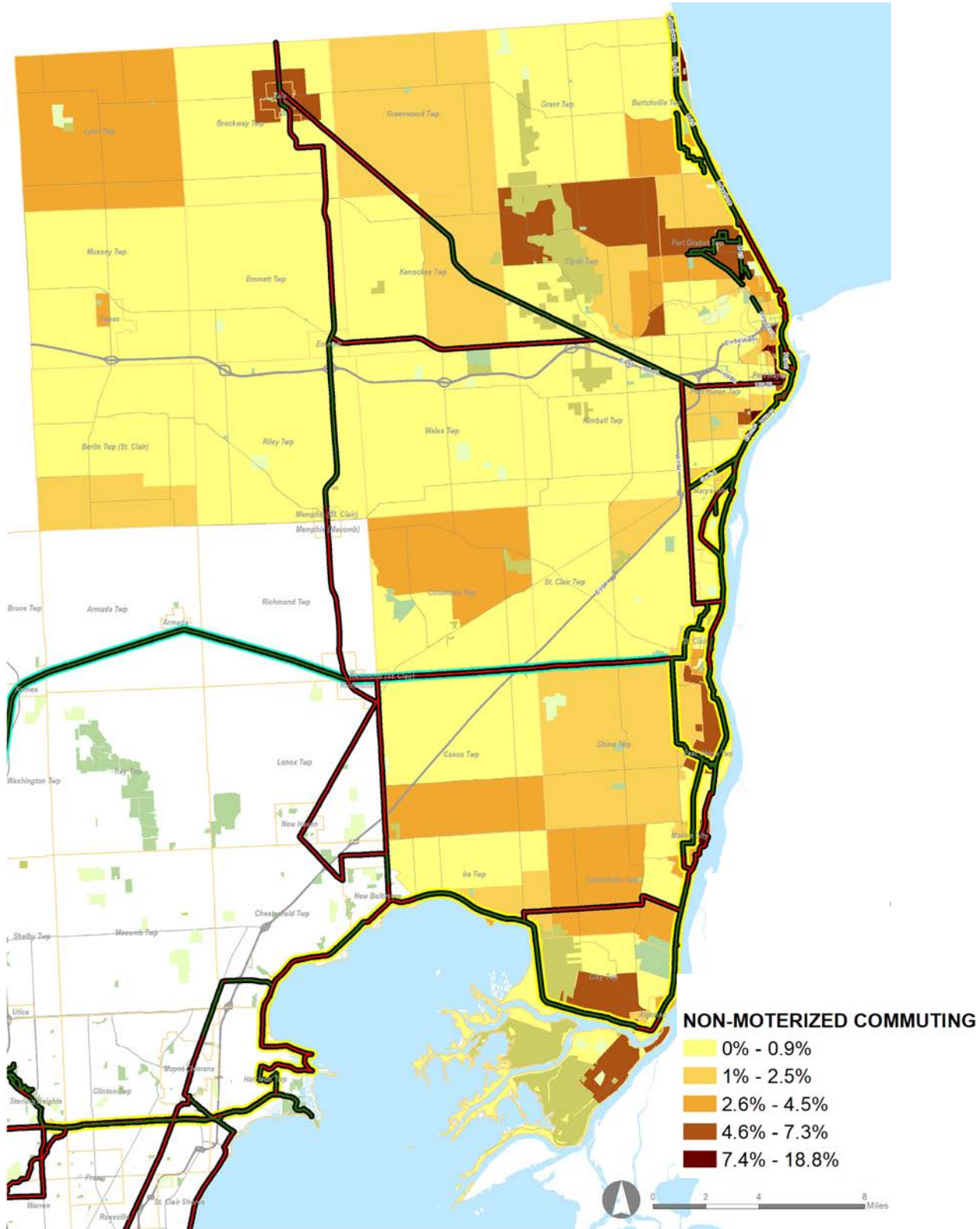
POPULATION DENSITY (2017 ACS CENSUS TRACTS)

Total population for the county estimated to be approximately 160,00 based on the 2017 American Community Survey (ACS) estimates. The population has been relatively stable across the county, with the 2010 Census reporting 163,040 people and the Long Range Transportation Plan (2014) projecting 167,621 by year 2045.



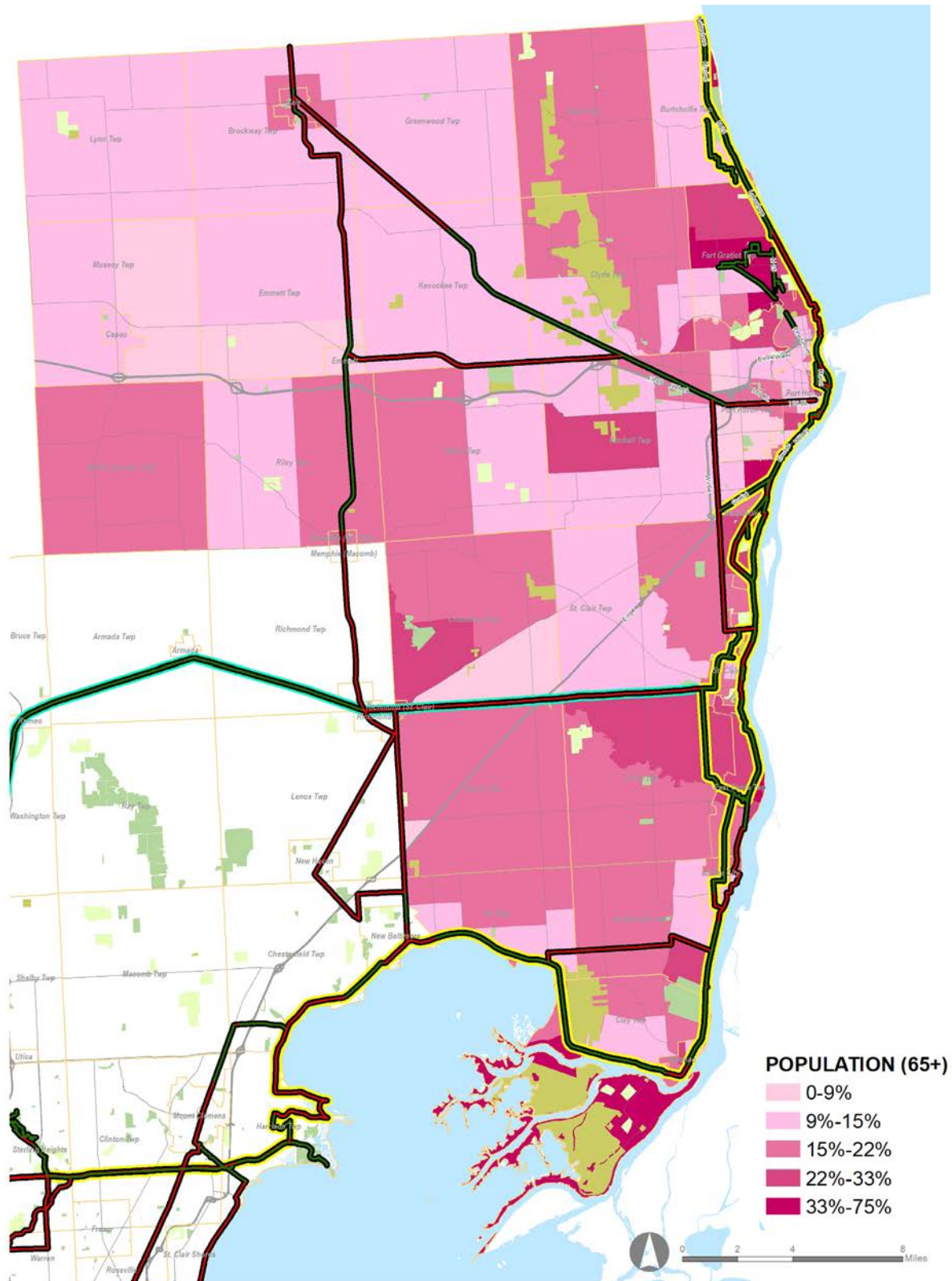
NON-MOTORIZED PATTERNS AND COMMUTING

Of the 69,204 commuting workers in St. Clair County (2017 ACS survey), 1,283 reported walking or biking to work as their primary means of commuting. This activity is primarily concentrated closer to the county's denser city and urbanized areas.



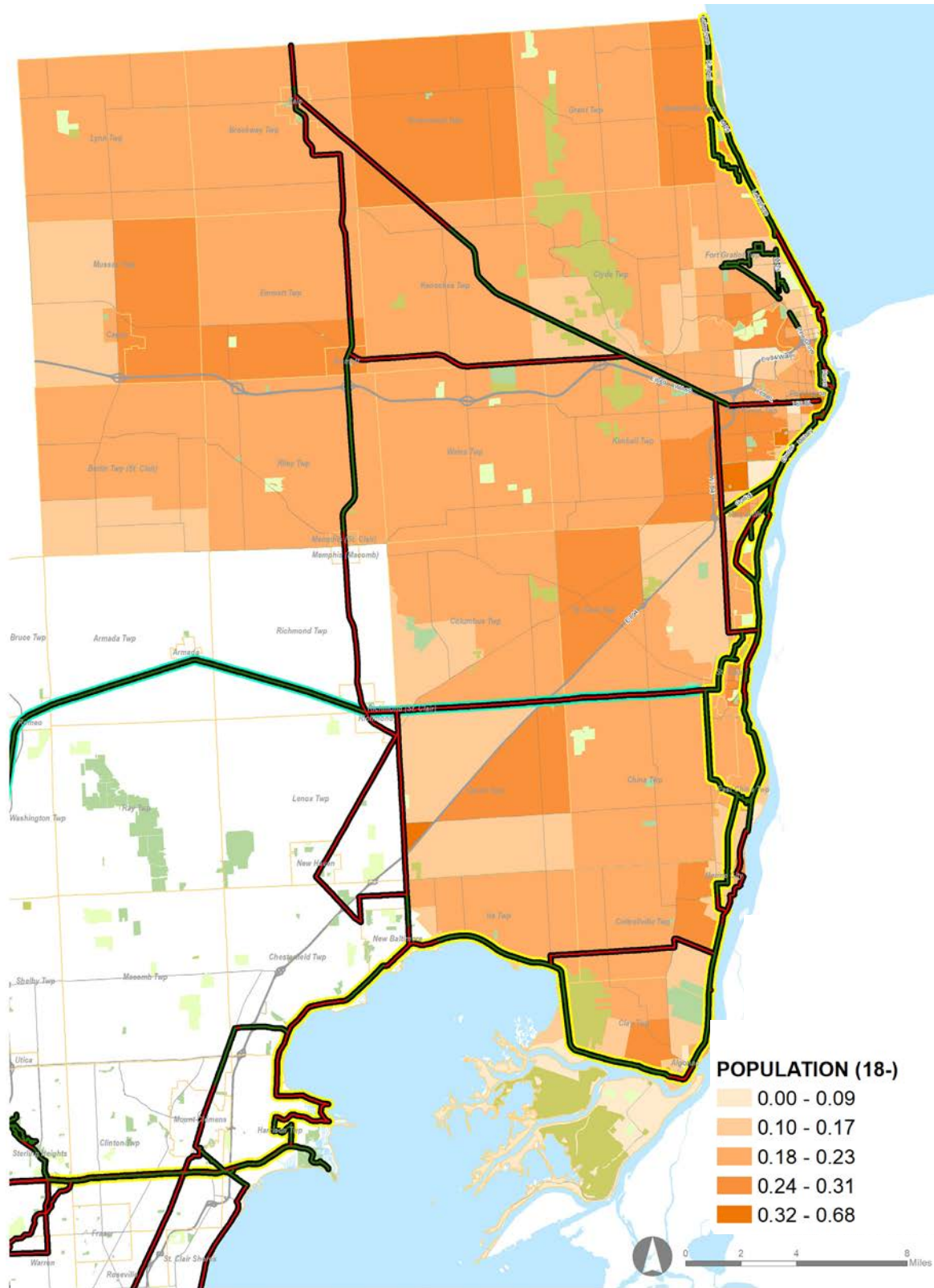
POPULATION 65 AND OLDER

The percentage of population aged 65 and older in St. Clair County was 14.5% in 2010, and this is projected to increase to 25% by 2040. This reflects a significant increase in older population brackets, and from a mobility and accessibility standpoint, underscores the attention that needs to be paid to providing safe, accessible alternatives to personal car use for county residents.



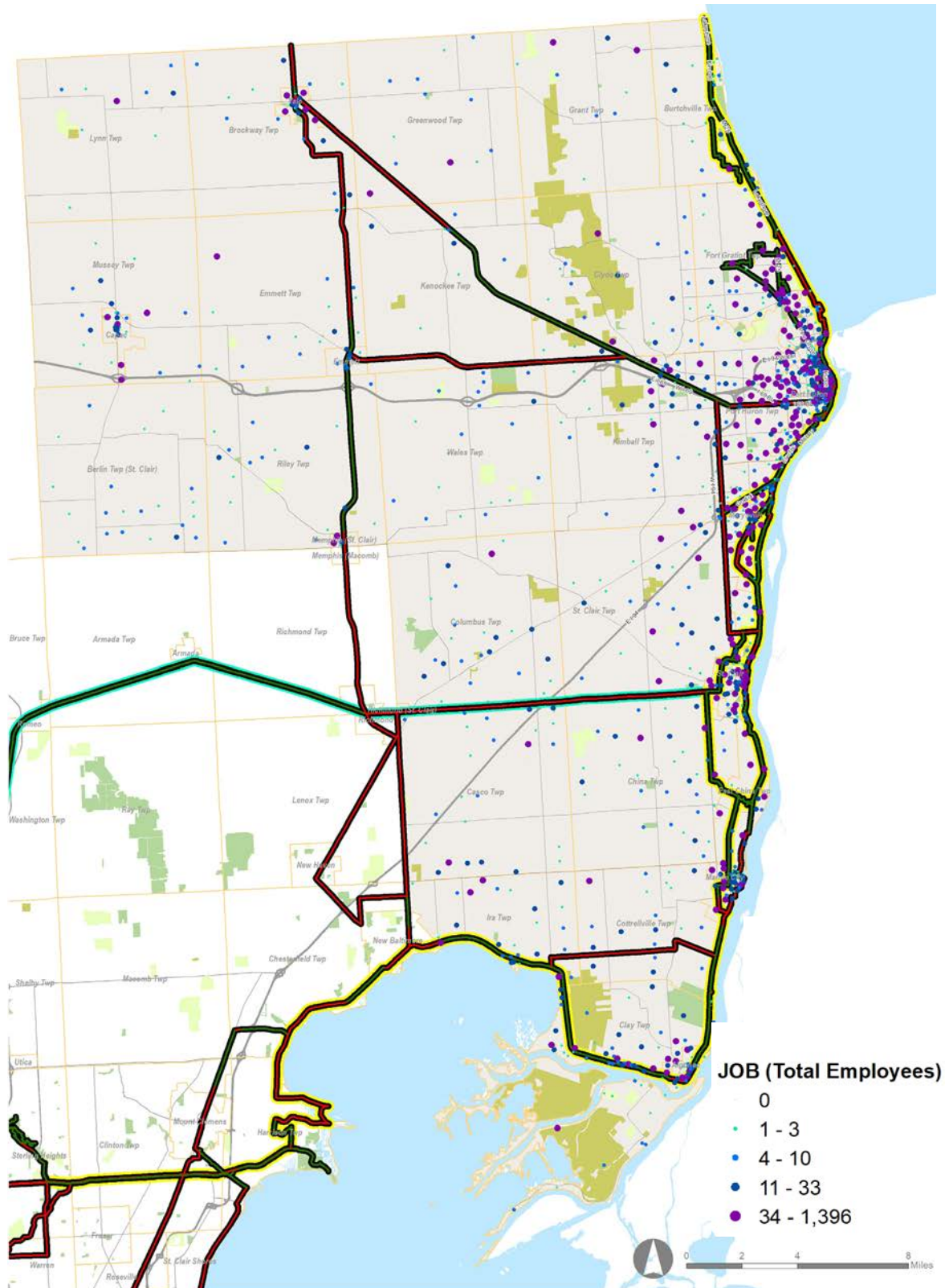
POPULATION UNDER 18

Youth population (under 18) totals approximately 31,400 or 19.6% of the total population (2017 ACS estimates). Similar to the population over 65, the mobility for those 18 and under include people below the legal driving age, who may rely more heavily on non-motorized travel for local trips.



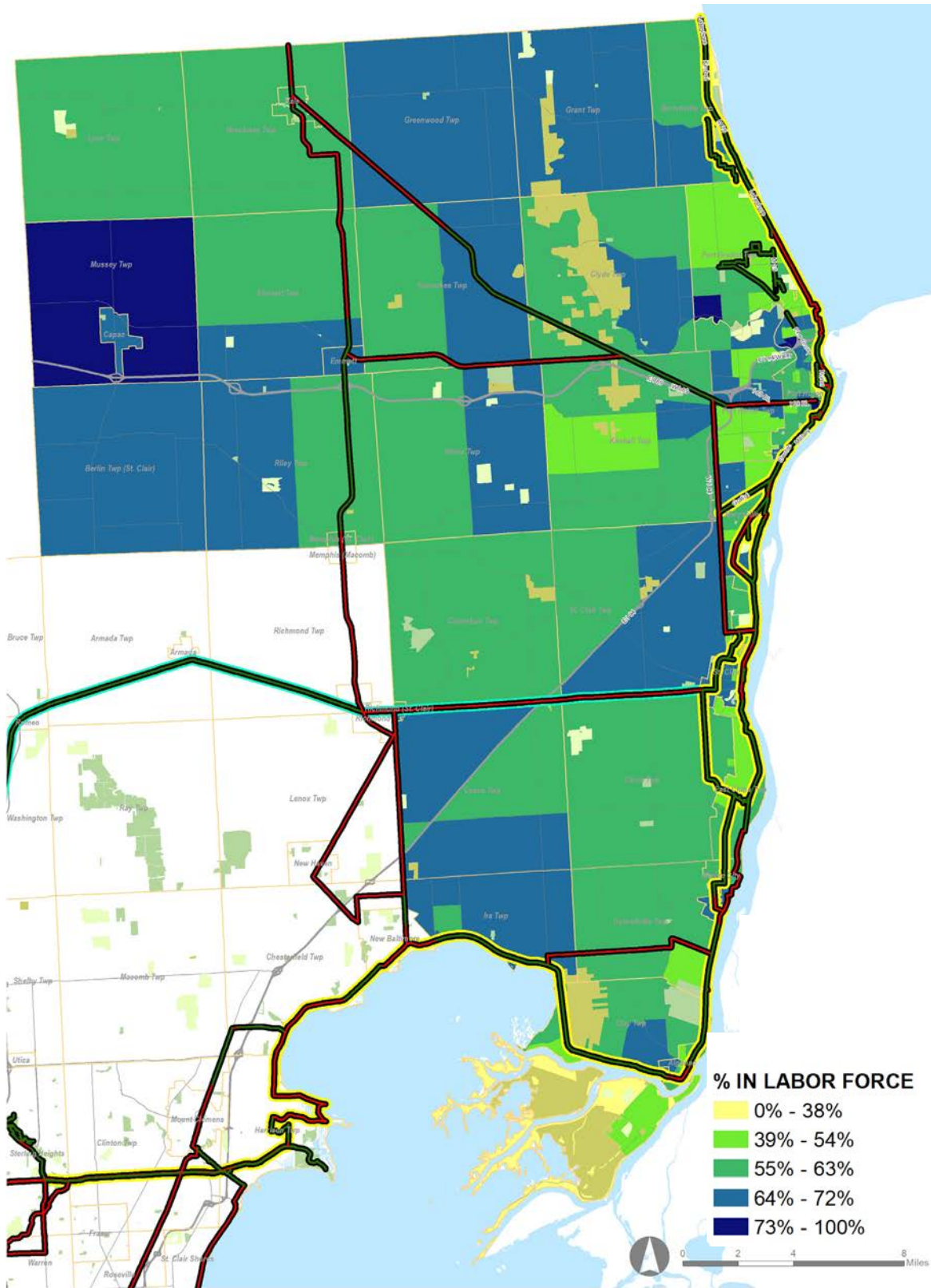
JOB DENSITY

US Bureau of Labor Statistics (BLS) data (on the map) identifies employment numbers by census block. The greatest concentration of jobs are within the denser city areas. The largest five employment sectors (2011-2012 averages) include food service, health care service, nursing and residential care, hospitals, and general merchandise.



LABOR FORCE RATE

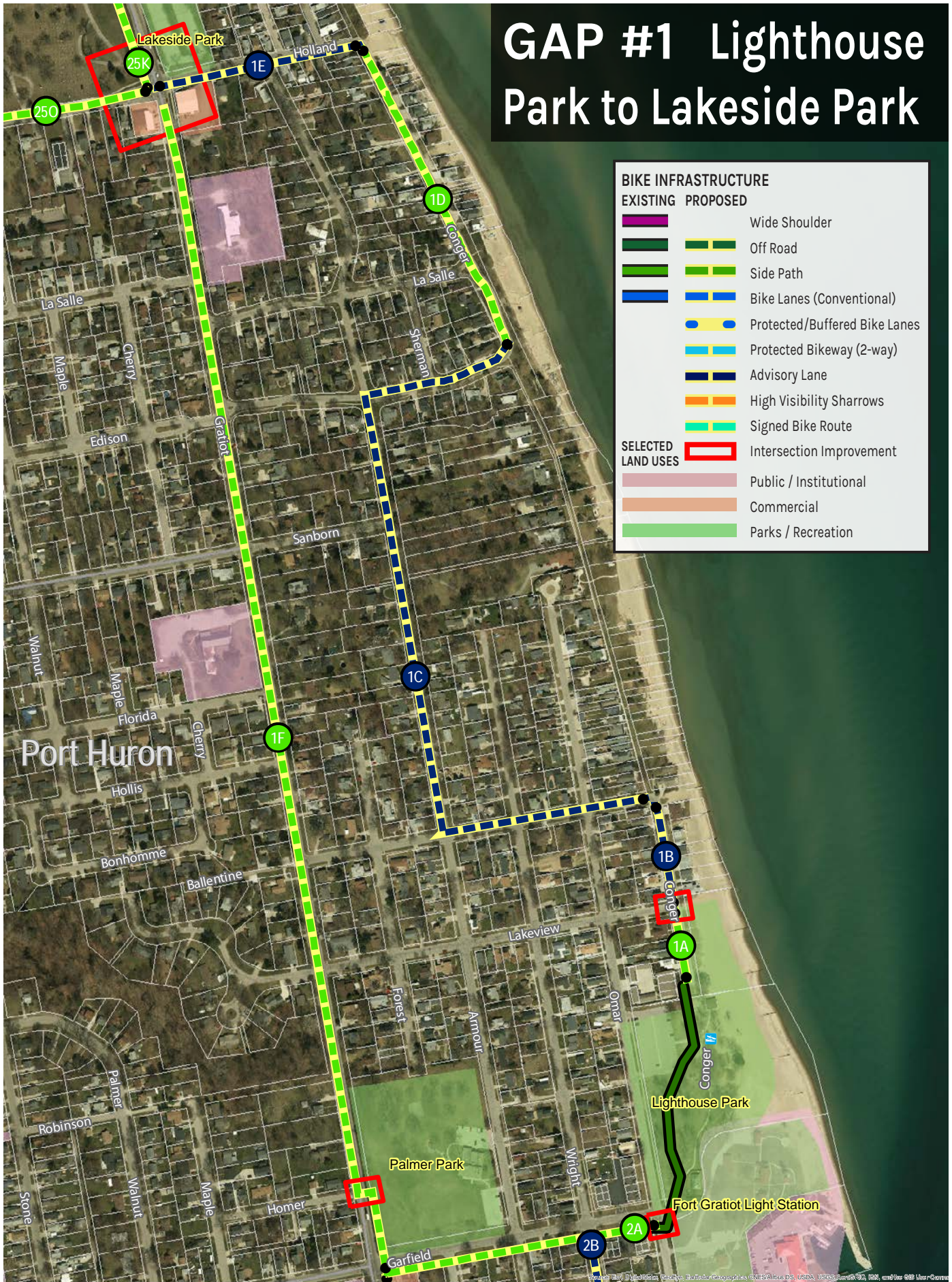
The labor force rate represents the portion of the total population that is available for work (which includes both employed and unemployed individuals). From the 2013-2017, St. Clair County's overall labor force participation rate was 60.5%.



APPENDIX

TRAIL SEGMENT DETAILS

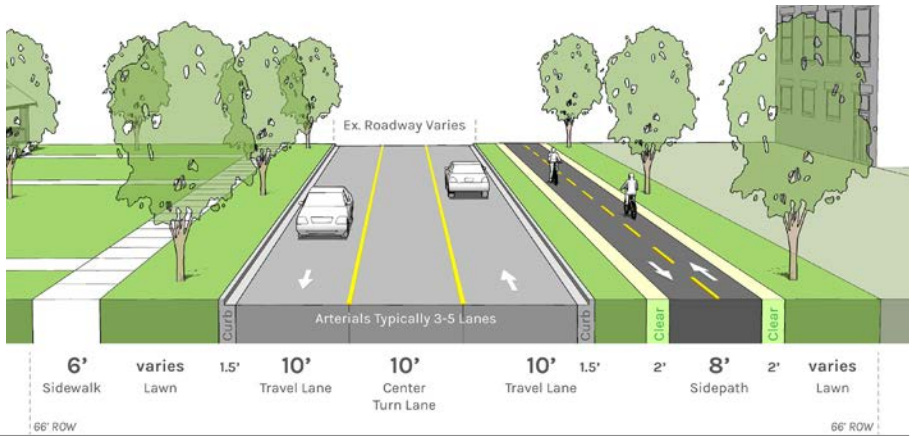
GAP #1 Lighthouse Park to Lakeside Park



1A 300 FEET

LIGHTHOUSE PARK TO CONGER & LAKEVIEW

City Owned



PROPOSED FACILITY

Sidepath

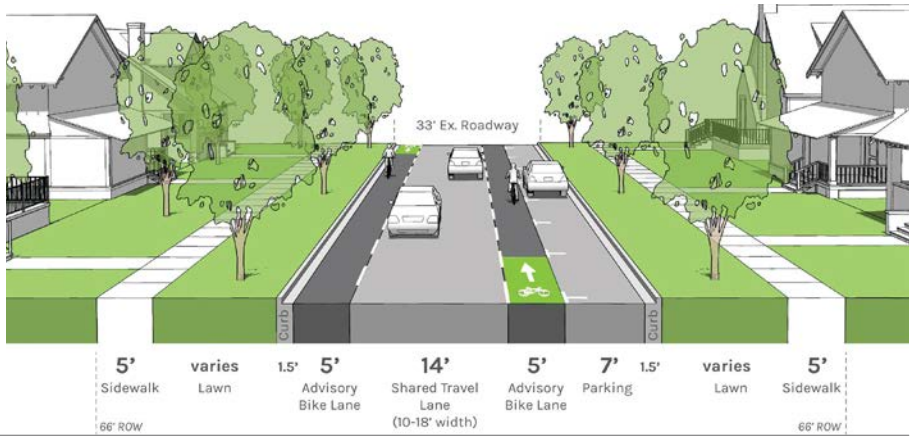
IMPLEMENTATION NOTES

Pave the shoulder beach side to create a clean sidepath edge.

1B 400 FEET

CONGER & LAKEVIEW TO CONGER & BALLENTINE

City Owned



PROPOSED FACILITY

Advisory lanes or slow road treatments

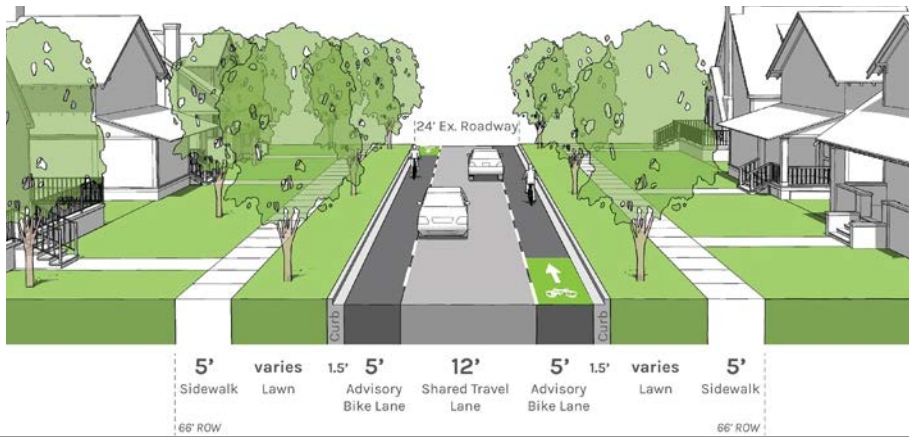
IMPLEMENTATION NOTES

Local street and public space between the roadway and the water edge. Route sidepath around the existing utility poles.

1C 0.6 MILES

CONGER & BALLENTINE TO CONGER & EDISON

City Owned



PROPOSED FACILITY

Advisory Lane (Narrow)

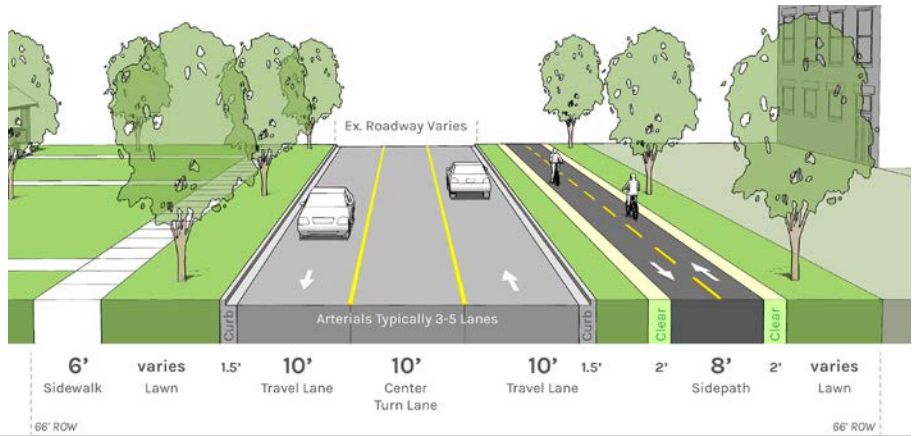
IMPLEMENTATION NOTES

Narrow (24') roadway. Remove parking and use advisory bike lanes

1D 1300 FEET

CONGER & EDISON TO CONGER & HOLLAND

City Owned



PROPOSED FACILITY

Sidepath

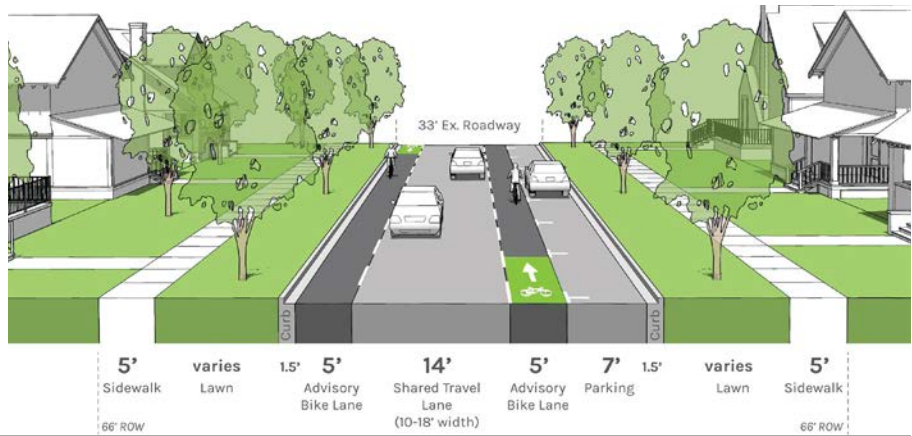
IMPLEMENTATION NOTES

Widen sidewalk on west side to side path

1E 800 FEET

CONGER & HOLLAND TO HOLLAND & GRATIOT

City Owned



PROPOSED FACILITY

Advisory Lanes

IMPLEMENTATION NOTES

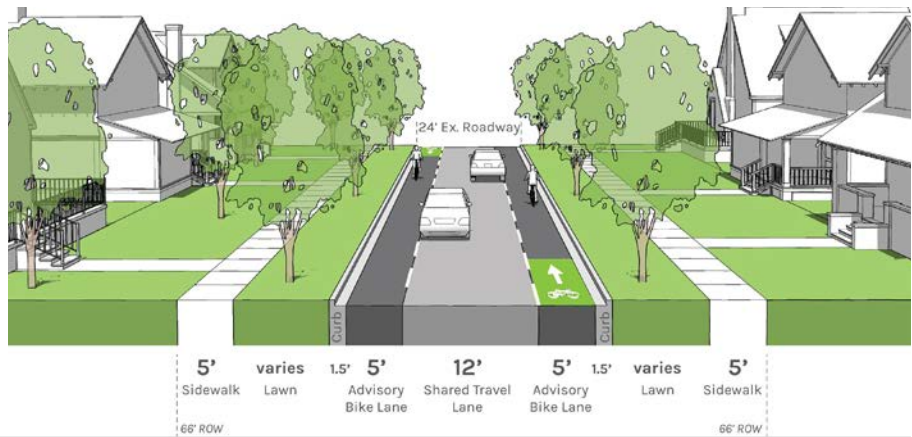
Advisory lanes. Create clear connection into the parking lot

1F 0.9 MILES

GRATIOT AVENUE (HOLLAND TO GARFIELD)

City Owned

AADT 7400



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Widen a sidewalk on WEST side into a sidepath.

GAP #2 Lighthouse Park to Thomas Edison

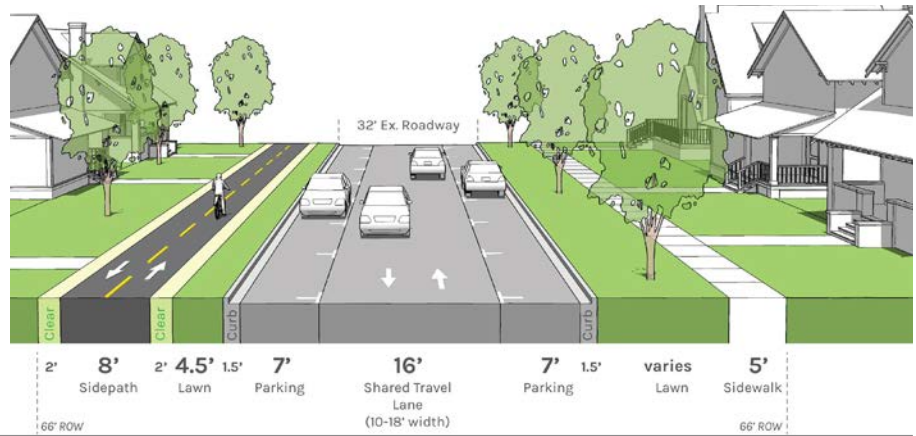


Sources: Esri, DigitalGlobe, GeoEye, Earthstar/GeoGraphics, © 2011 Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

2A 300 FEET

LIGHTHOUSE PARK TO GARFIELD & GRATIOT

City Owned



PROPOSED FACILITY

Sidepath

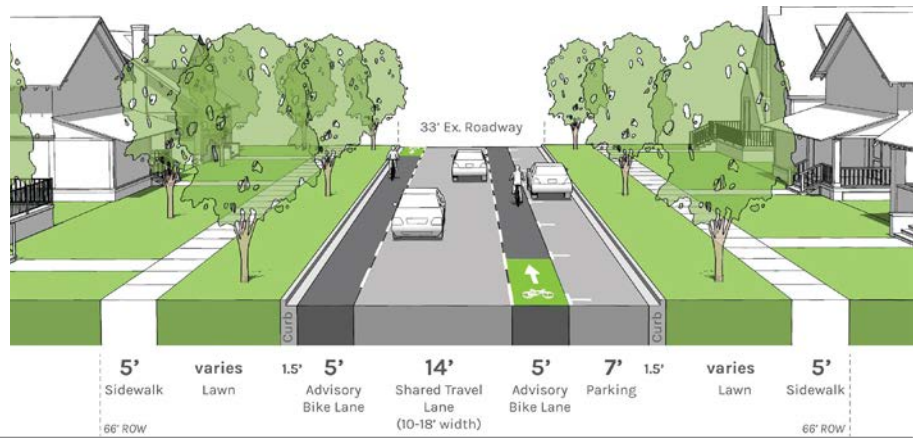
IMPLEMENTATION NOTES

Intersection improvements and widen sidewalk to sidepath. Wide setback

2B 0.3 MILE

GARFIELD & WRIGHT TO WRIGHT & CHURCH

City Owned



PROPOSED FACILITY

Advisory bike lane with parking on one-side

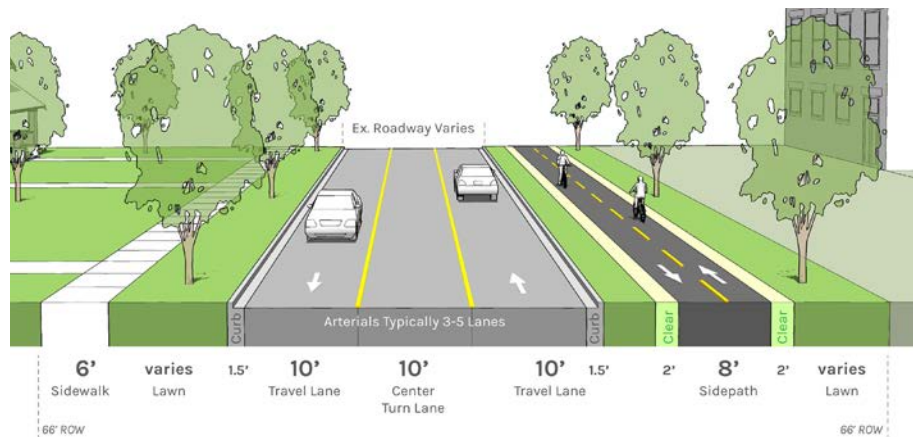
IMPLEMENTATION NOTES

Advisory bike lane with parking on one-side to remain Road 33' wide
8' - 5' - 15' - 5'

2C 400 FEET

WRIGHT & CHURCH TO THOMAS EDISON PARK

City Owned



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Transition to sidepath at intersection. May need private property ROW

2D

0.6 MILE

GARFIELD & GRATIOT TO THOMAS EDISON PARK

City Owned



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Gratiot Sidepaths with connections down Garfield and Elmwood. Widen existing sidewalks.

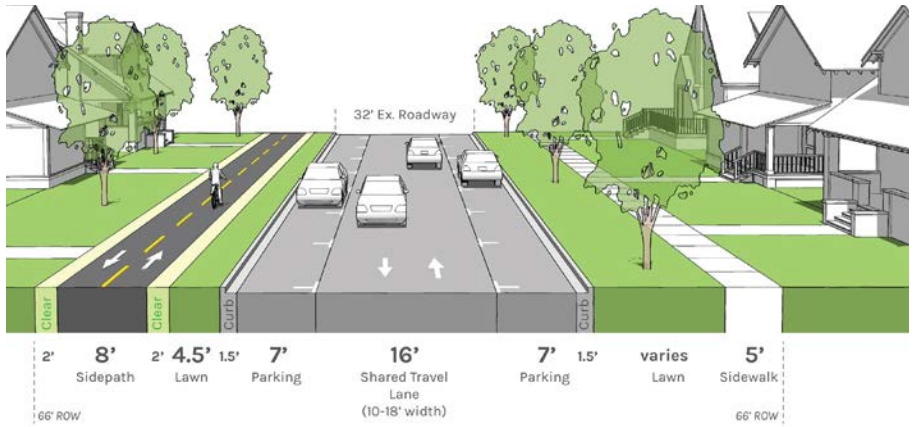
GAP #3 Pine Grove Park to Keifer Park



3A 200 FEET

BRIDGE TO BAY TRAIL TO MICHIGAN

City Owned



PROPOSED FACILITY

Sidepath

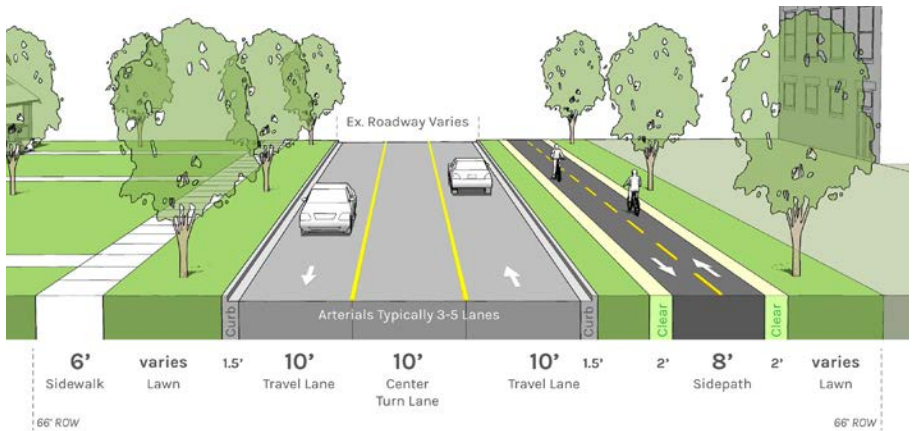
IMPLEMENTATION NOTES

Existing link, needs improvements

3B 900 FEET

MICHIGAN & KEARNEY TO MICHIGAN & LINCOLN

City Owned



PROPOSED FACILITY

Sidepath

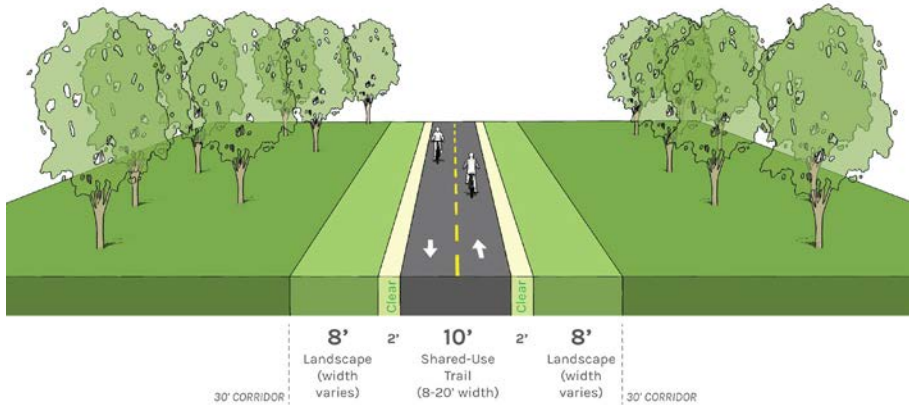
IMPLEMENTATION NOTES

Widen sidewalk into sidepath. Ample room

3C 400 FEET

GLENWOOD TO BEERS THROUGH KEIFER PARK

City Owned



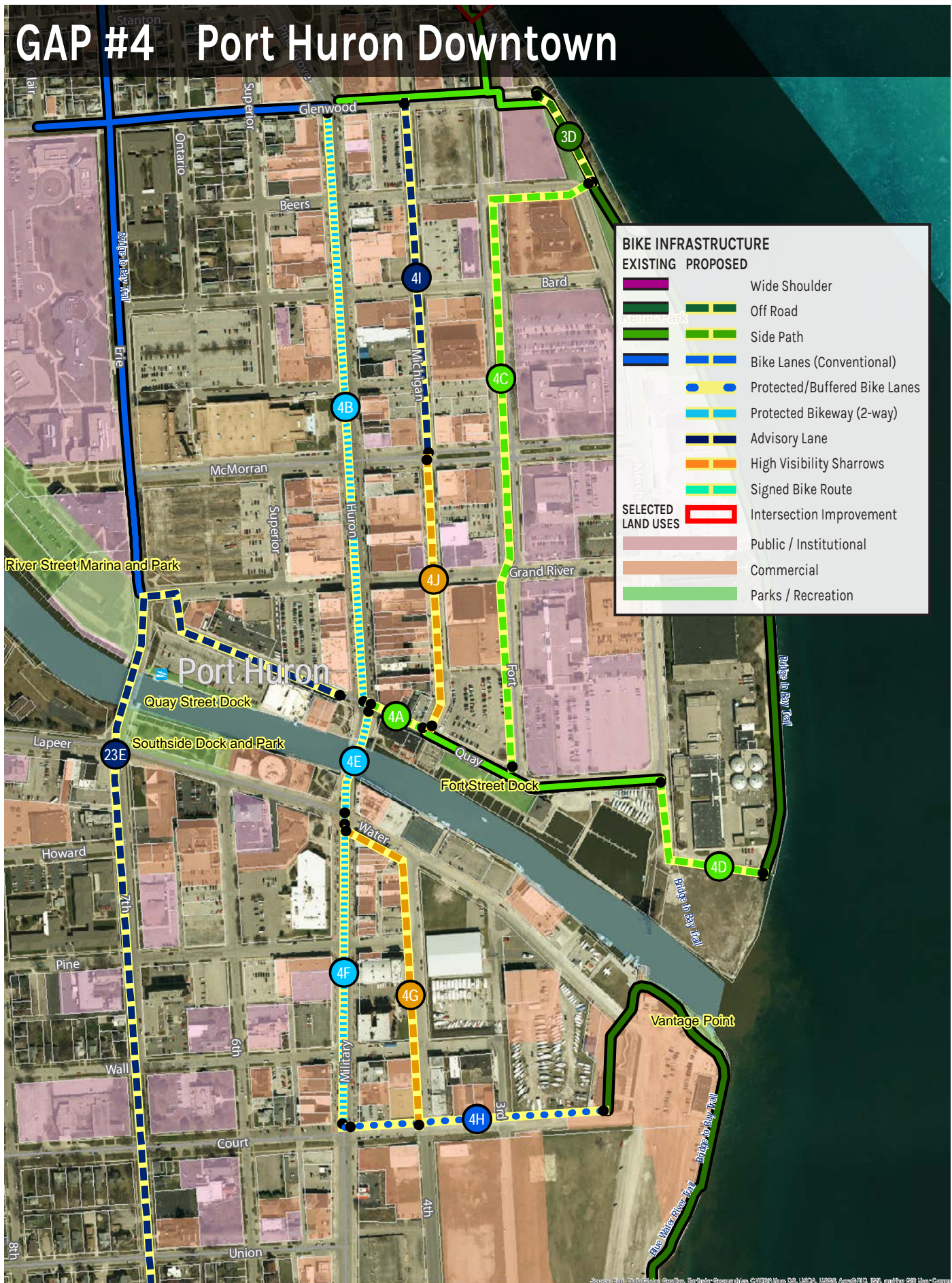
PROPOSED FACILITY

Off Road

IMPLEMENTATION NOTES

Sidewalk is too narrow. Widen into shared-use trail width (10')

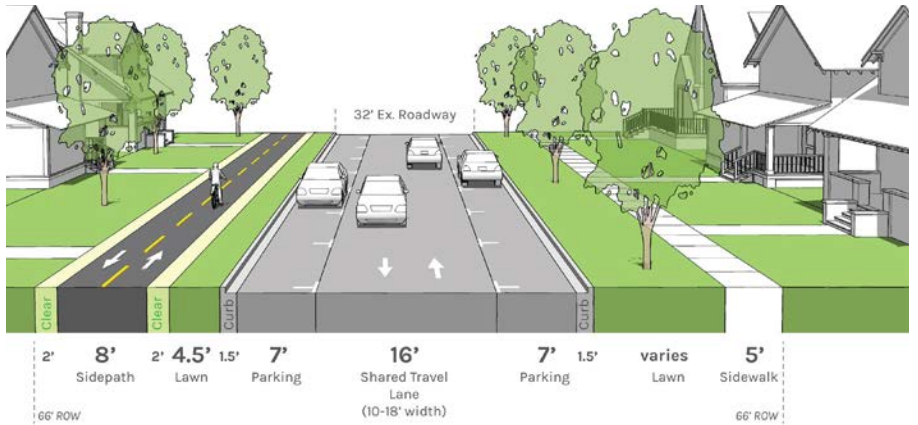
GAP #4 Port Huron Downtown



4A 300 FEET

QUAY STREET

City Owned



PROPOSED FACILITY

Sidepath

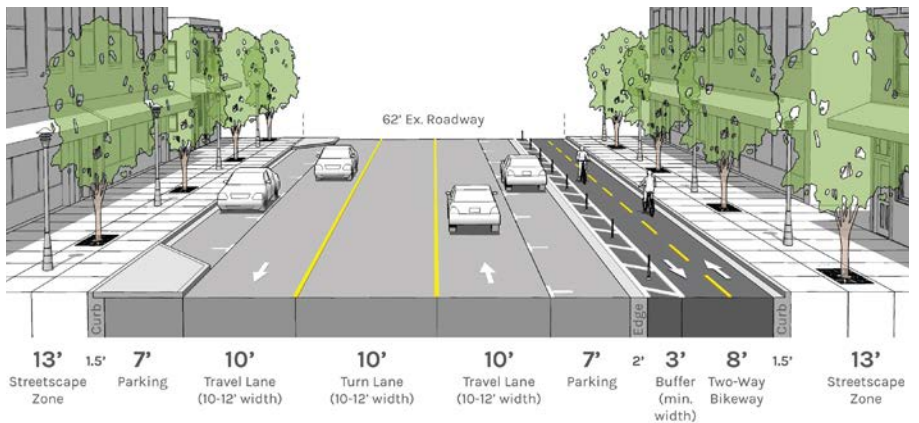
IMPLEMENTATION NOTES

Quay Street; Continue side path on South side. Narrow or eliminate a travel lane on Quay (1-way street)

4B 0.4 MILE

QUARY & HURON TO HURON & GLENWOOD

State owned



PROPOSED FACILITY

Protected Bikeway

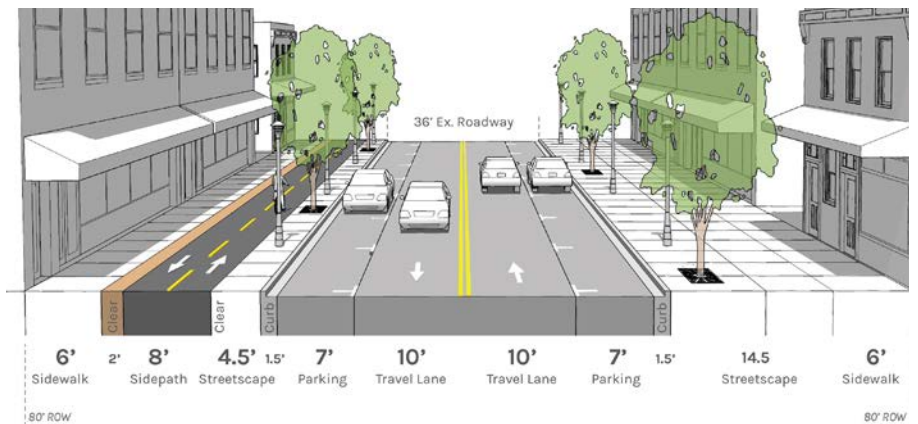
IMPLEMENTATION NOTES

Road diet opportunity. (5 to 3 lanes) 63' pavement curb-to-curb. Parking remains with 2-way bikeway on east side

4C 0.5 MILES

FORT STREET

City Owned



PROPOSED FACILITY

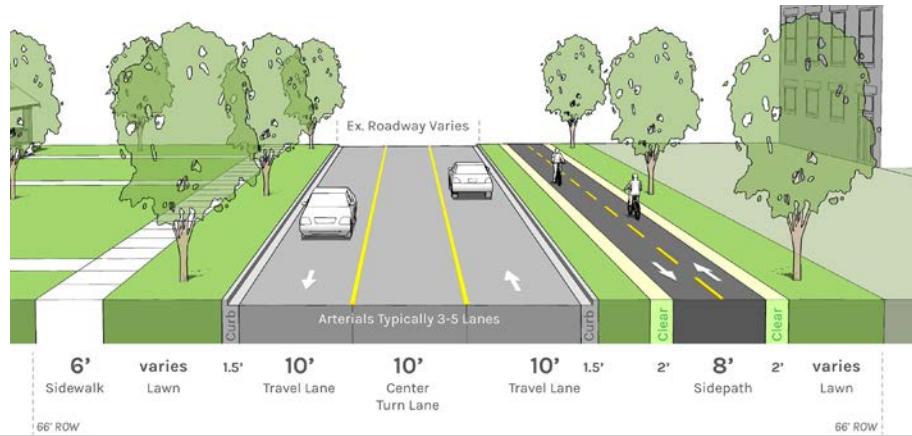
Sidepath

IMPLEMENTATION NOTES

Sidepath in median from Beers to Grand River. Transition to sidepath on West side of the street (remove parking).

4D**700 FEET****CONGER & EDISON TO
CONGER & HOLLAND**

City Owned

**PROPOSED FACILITY**

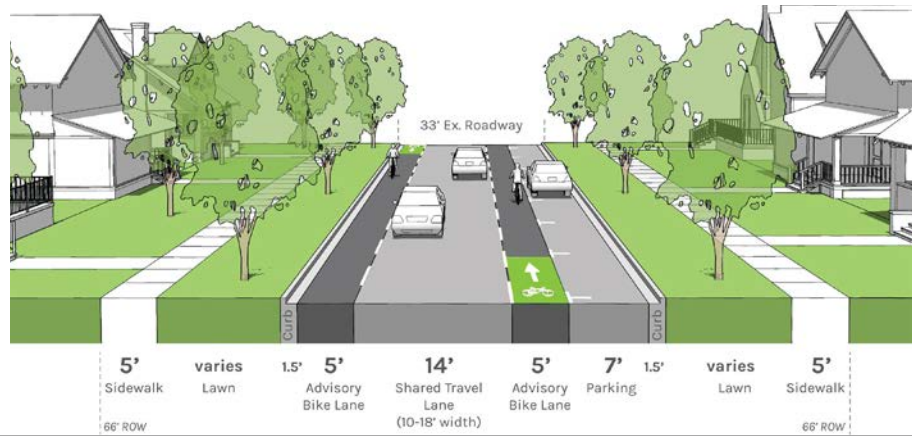
Sidepath

IMPLEMENTATION NOTES

Expand sidewalk into sidepath on the southside of the road

4E**400 FEET****CONGER & HOLLAND TO
HOLLAND & GRATIOT**

State owned

**PROPOSED FACILITY**

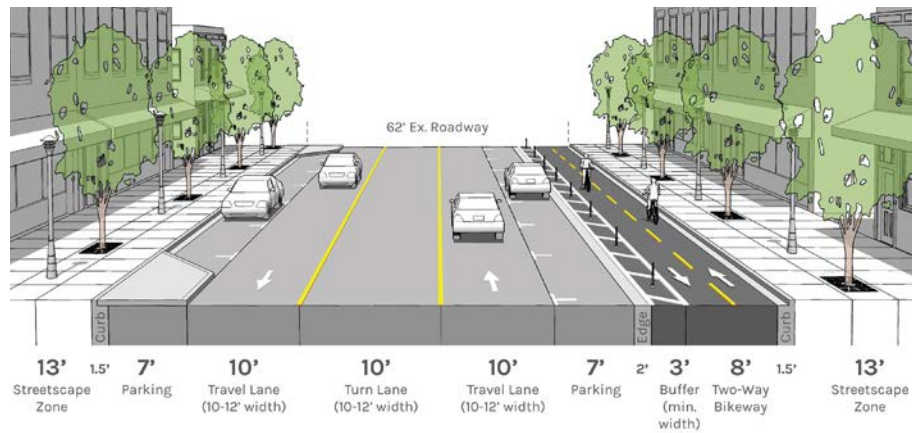
Protected Bikeway

IMPLEMENTATION NOTES

With road-diet, protected bikeway on east most lane

4F**1200 FEET****HOLLAND & GRATIOT TO
GRATIOT & GARFIELD**

State owned

**PROPOSED FACILITY**

Protected Bikeway

IMPLEMENTATION NOTES

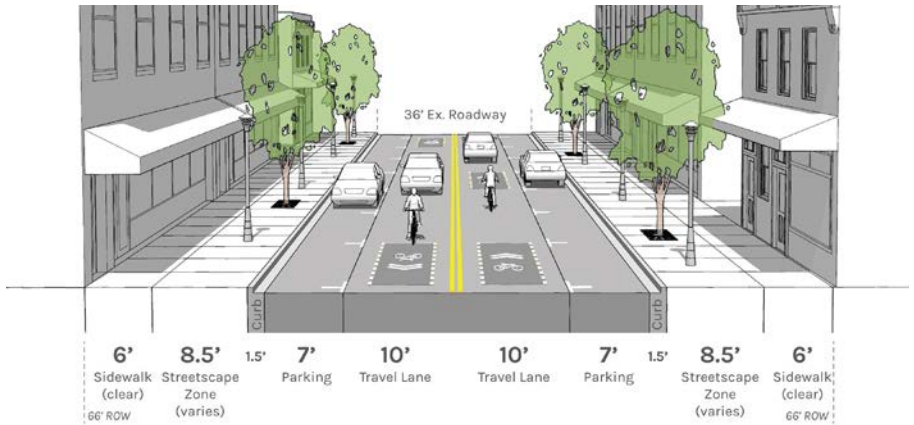
Road diet opportunity. (5 to 3 lanes) 63' pavement curb-to-curb.

Parking remains with 2-way bikeway on east side

4G 1300 FEET

BRIDGE TO BAY TRAIL TO MICHIGAN

City Owned



PROPOSED FACILITY

high visibility sharrows

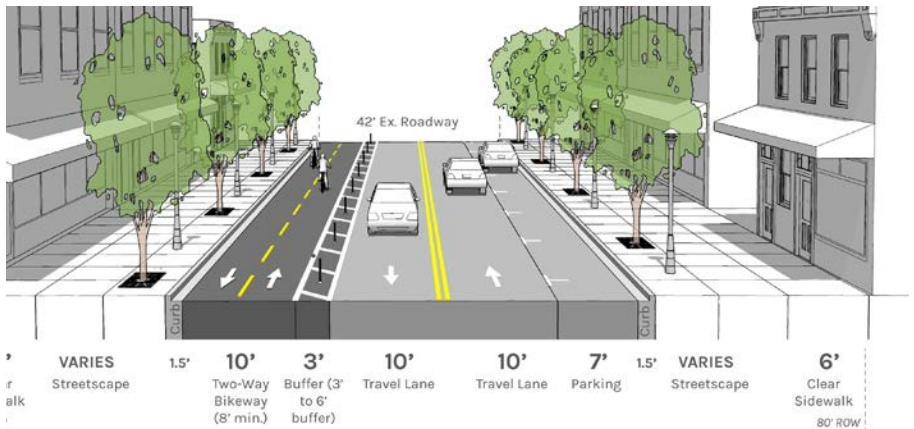
IMPLEMENTATION NOTES

Pending road re-construction. Add high visibility sharrows.

4H 1000 FEET

4TH STREET

City Owned



PROPOSED FACILITY

protected bikeway

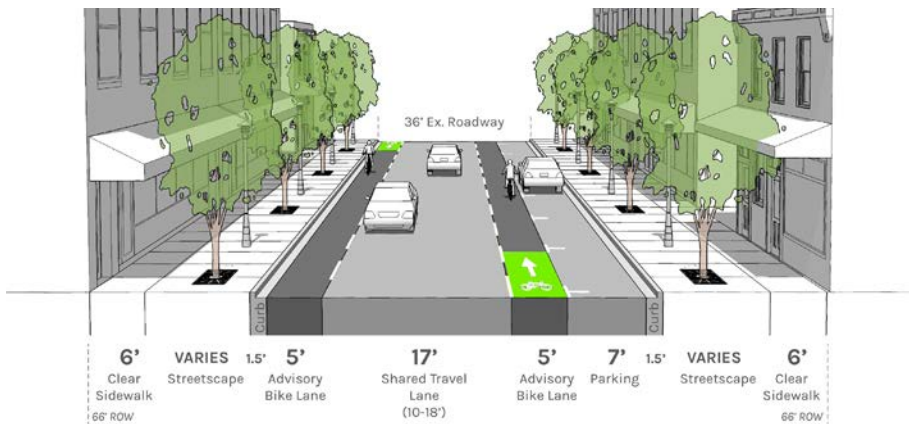
IMPLEMENTATION NOTES

Potential road diet or lane width reduction for protected bikeway

4I 0.3 MILES

MICHIGAN STREET

City Owned



PROPOSED FACILITY

Advisory Bike Lanes

IMPLEMENTATION NOTES

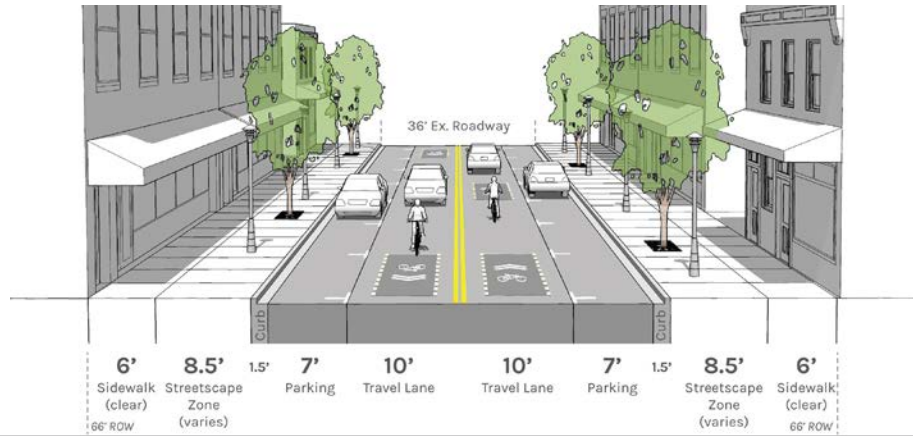
Low volume, no center line markings, commercial advisory street candidate w/ parking on one side

4J

1000 FEET

MICHIGAN STREET

City Owned



PROPOSED FACILITY

high visibility sharrows

IMPLEMENTATION NOTES

Road being reconstructed with no room for dedicated facilities. Consider adding high visibility sharrows

GAP #5 Blue Water River Walk to Electric

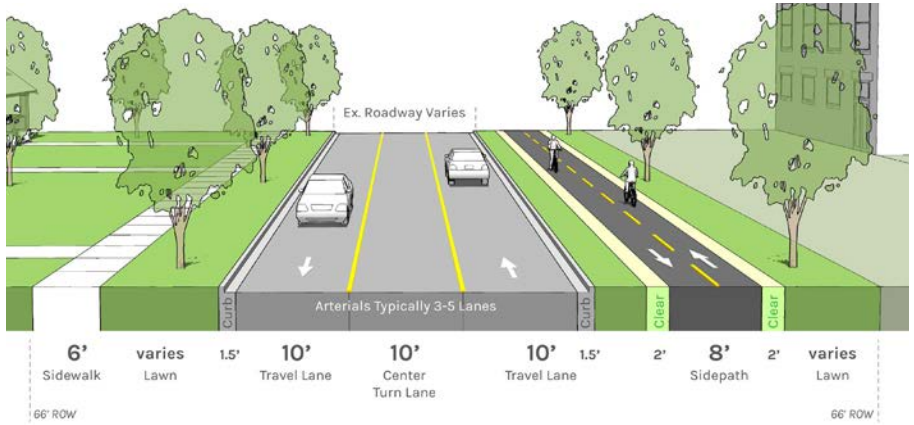


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/SI/USDA, USDA, USGS, AeroGRID, IGN, and the GIS User Comm

5A1 0.3 MILE

10TH STREET

City Owned



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

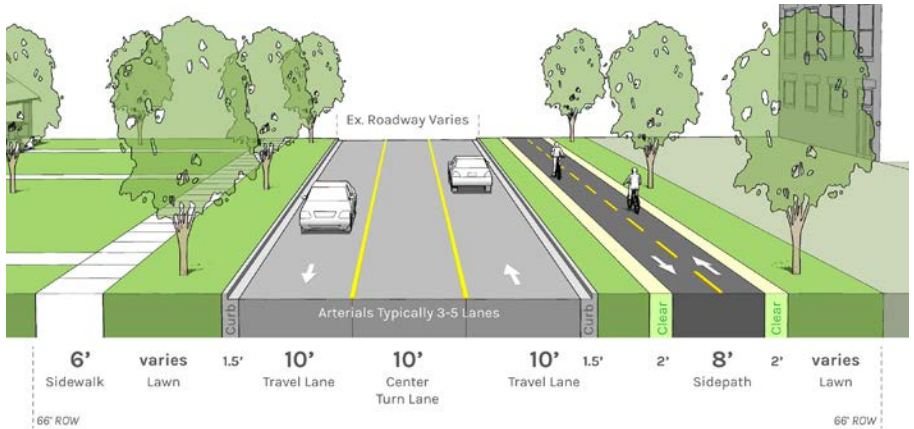
Existing sidepath - needs Improvement, in poor condition. Crossings need more visibility and improvements. Work in buffers via adjusting curbs if possible
Existing pavement ~46' wide at 4 travel lanes. Roadway only ~3,800 AADT

5A2 0.4 MILE

ELECTRIC AVENUE

State owned

AADT 4900



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Widen sidewalk on Military into sidepath. Connected to trail tunnel with ramp access point Existing pavement ~46' wide at 4 travel lanes. Roadway only ~3,800 AADT

GAP #6 Marysville Connections



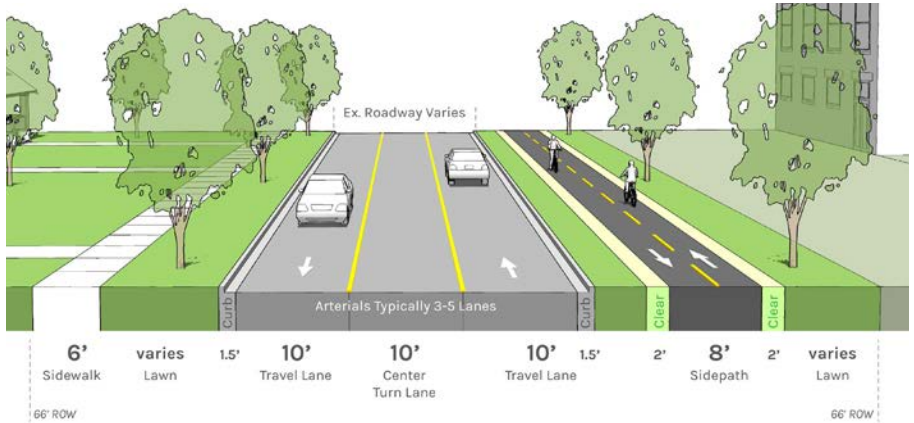
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/S/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Comm

6A 0.3 MILE

MUNICIPAL PARK TO HURON & RIVER

City Owned

AADT 1400



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Pickup / extend sidepath as needed along park edge.

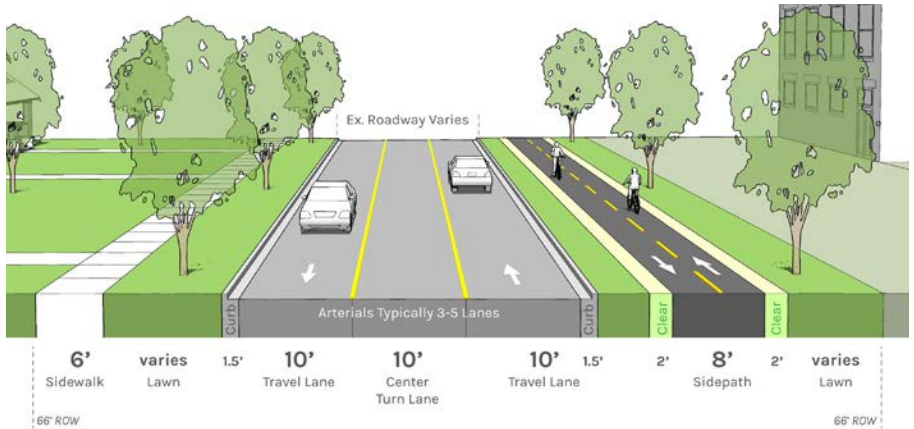
Improve crossing at Huron

6B 800 FEET

RIVER ROAD NEAR CHRYSLER BEACH

City Owned

AADT 1400



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Widen sidewalk on West side into a sidepath (too much conflict on east side).

Add new mid-block crossing.

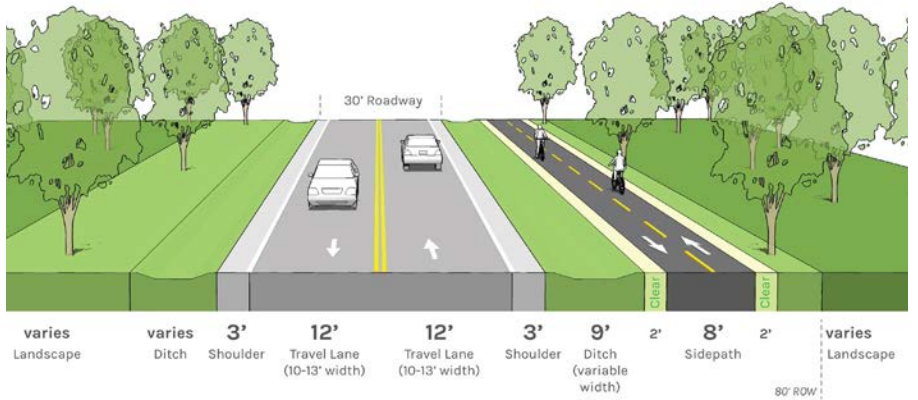
7A

2100 FEET

RIVERROAD BIKEWAY NORTH END

City Owned

AADT 800



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Widen shoulder on one side of the road to make space for a side path or in-road bikeway.

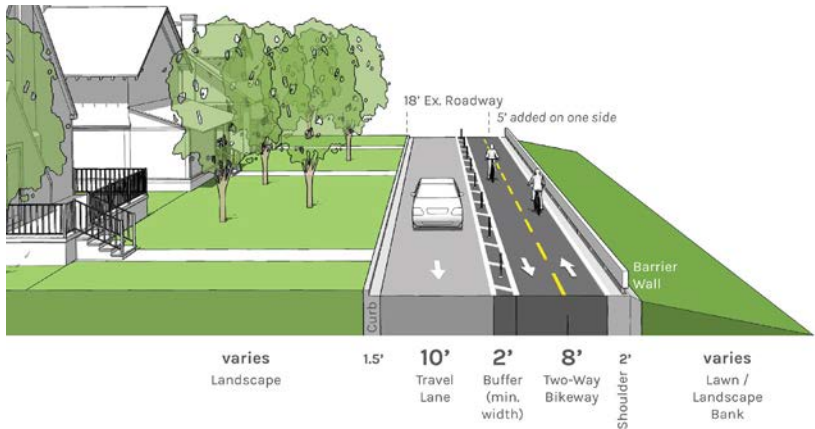
7B

0.5 MILE

RIVER ROAD (DAVIS TO MACK)

City Owned

AADT 800



PROPOSED FACILITY

Protected Bikeway

IMPLEMENTATION NOTES

Reconfigure with 10' travel lane, 2' buffer, 8' sidepath (extend shoulder pavement east 4')

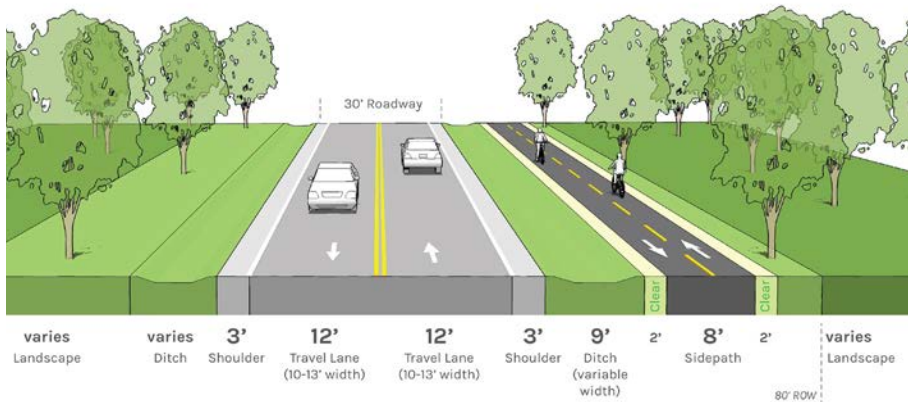
7C

0.3 MILES

RIVER ROAD TO RIVER & DAVIS

County owned

AADT 300



PROPOSED FACILITY

Sidepath

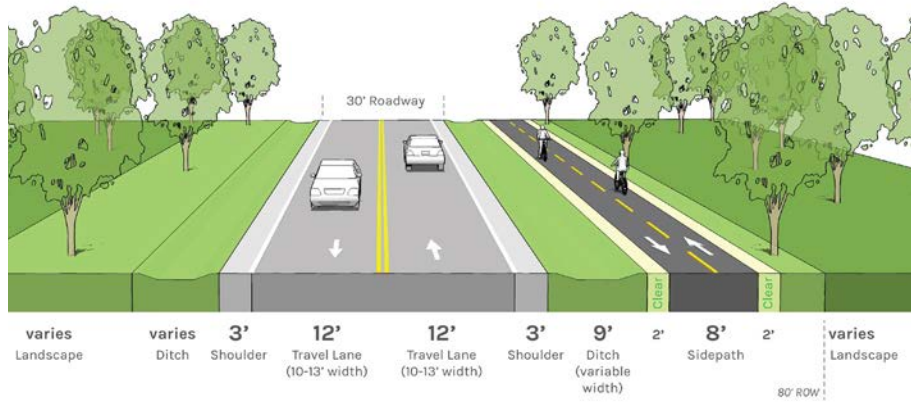
IMPLEMENTATION NOTES

Add a sidepath

7D**0.4 MILE****DAVIS ROAD**

County owned

AADT 300

**PROPOSED FACILITY**

Sidepath

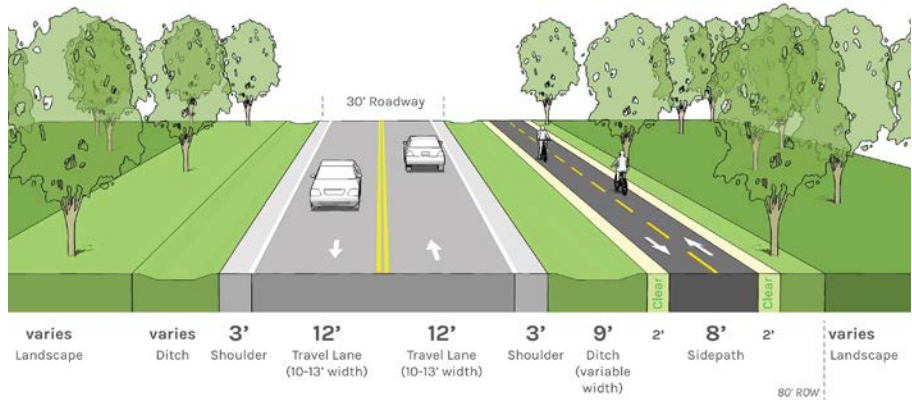
IMPLEMENTATION NOTES

Widen sidewalk on west side to side path. A conceptual budget of \$404,513 for design, engineering and construction was prepared for this segment in 2017.

7E**1.5 MILE****BUSHA HIGHWAY**

State owned

AADT 9900

**PROPOSED FACILITY**

Sidepath

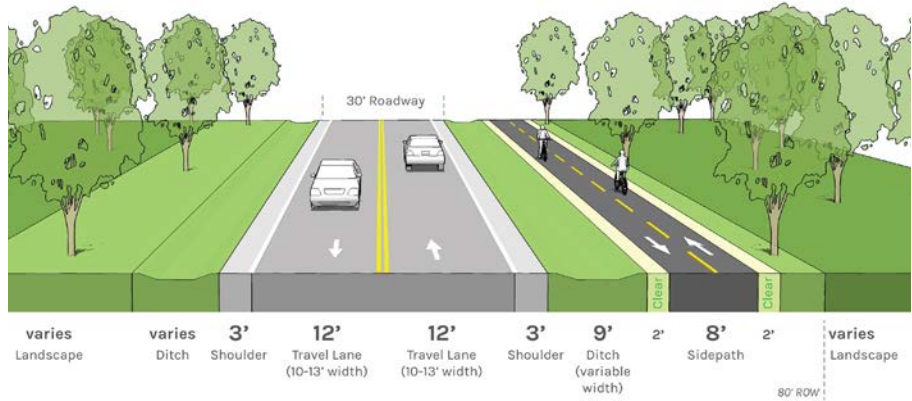
IMPLEMENTATION NOTES

Local street and public space between the roadway and the water edge. Route sidepath around the existing utility poles.

7F**0.6 MILES****CUTTLE ROAD**

City Owned

AADT 1300

**PROPOSED FACILITY**

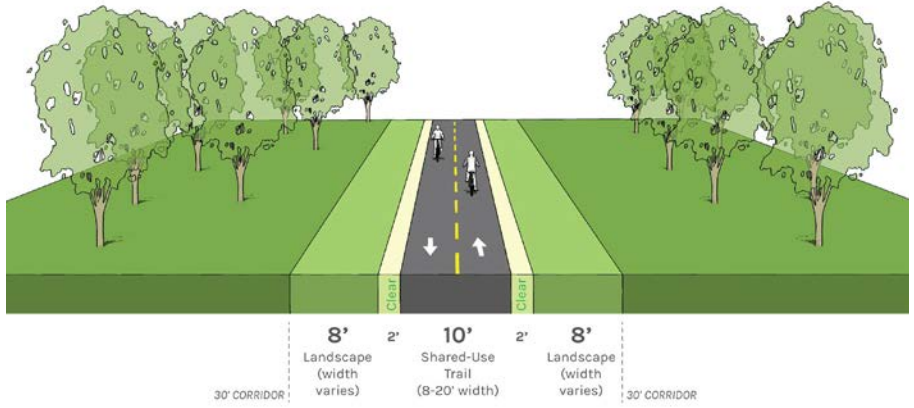
Sidepath

IMPLEMENTATION NOTES

Narrow (24') roadway. Remove parking and use advisory bike lanes

MICHIGAN TO MUNICIPAL PARK

City Owned



PROPOSED FACILITY

Off Road

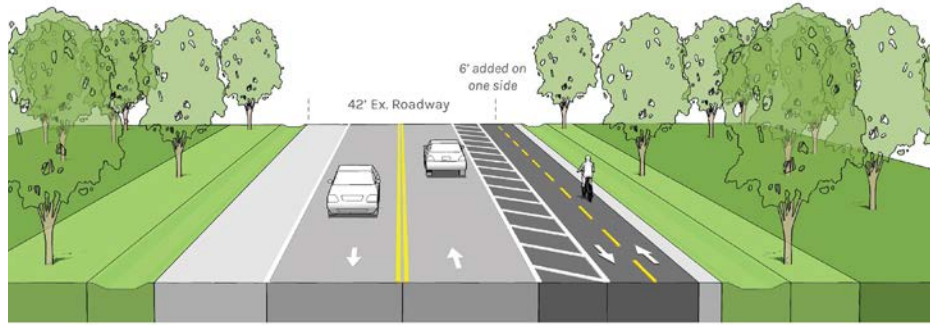
IMPLEMENTATION NOTES

Sidewalk is too narrow. Widen into shared-use trail width (10')

8A 0.6 MILES

YANKEE ROAD

City Owned



varies Ditch or landscape	10' Shoulder	12' Travel Lane (10-13' width)	12' Travel Lane (10-13' width)	6' Buffer (3-6' width)	8' Two-Way Bikeway	2' Shoulder	varies Ditch or landscape
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PROPOSED FACILITY

Signed Bike Route

IMPLEMENTATION NOTES

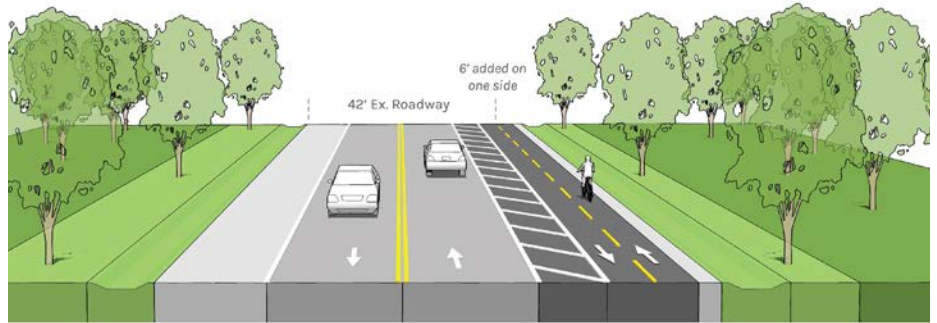
recent repaving. Revisit sidepath connection and/or wider shoulders in the future.

9A 0.5 MILE

RIVER ROAD (YANKEE TO N. RIVERSIDE DR)

State owned

AADT 6900



varies Ditch or landscape	10' Shoulder	12' Travel Lane (10-13' width)	12' Travel Lane (10-13' width)	6' Buffer (3-6' width)	8' Two-Way Bikeway	2' Shoulder	varies Ditch or landscape
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PROPOSED FACILITY

Protected Bikeway

IMPLEMENTATION NOTES

Existing 2-lane road with very wide paved shoulders (42' wide pavement width) Widen shoulder on west side into sidepath / buffered trail

9B 1.0 MILES

RIVER ROAD TO RIVERSIDE AVENUE

State owned

AADT 12300



2'	8'	2'	3.5'	1.5'	5'	3'	10'	10'	10'	3'	5'	1.5'	varies	5'
Clear	Optional Sidepath	Clear	Lawn	Bike Lane	Buffer	Travel Lane	Turn Lane	Travel Lane	Travel Lane	Buffer	Bike Lane	Clear	Lawn	Sidewalk

PROPOSED FACILITY

Sidepath

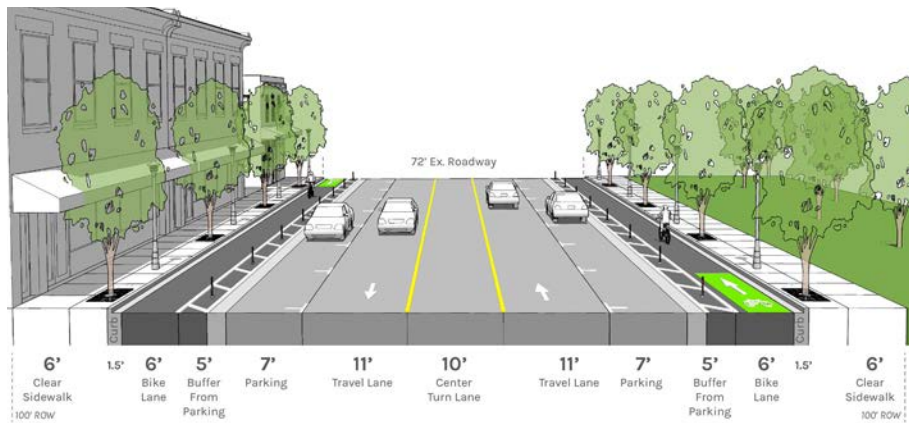
IMPLEMENTATION NOTES

Planned road diet (4 > 3 lane) with conventional bike lanes. Widen western sidewalk into sidepath (8' wide) off back of curb.

9C**0.5 MILE****RIVERSIDE AVE (VINE TO CLINTON)**

State owned

AADT 11000

**PROPOSED FACILITY**

Advisory Lane

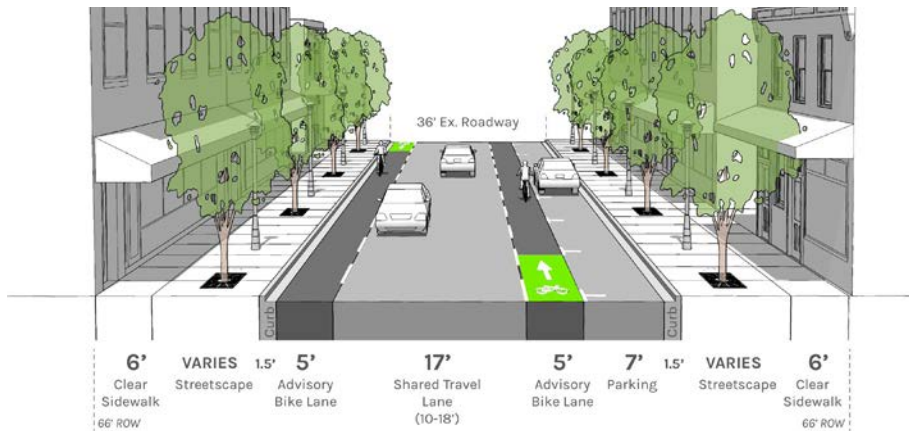
IMPLEMENTATION NOTES

Planned road diet (4 > 3 lane) with conventional bike lanes. Cross over Riverside and widen sidewalk on east side into a sidepath or use existing boardwalk (needs major improvements)

9D**0.7 MILE****RIVERSIDE / OAKLAND**

State owned

AADT 8500

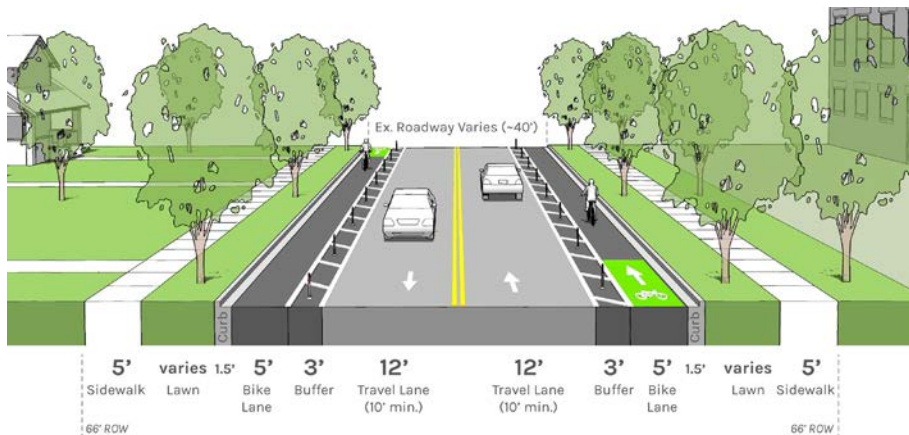
**PROPOSED FACILITY**

Advisory Lane

IMPLEMENTATION NOTES**9E****0.4 MILE****OAKLAND AVE (PALMER TO HATHAWAY)**

State owned

AADT 8500

**PROPOSED FACILITY**

Advisory Lane

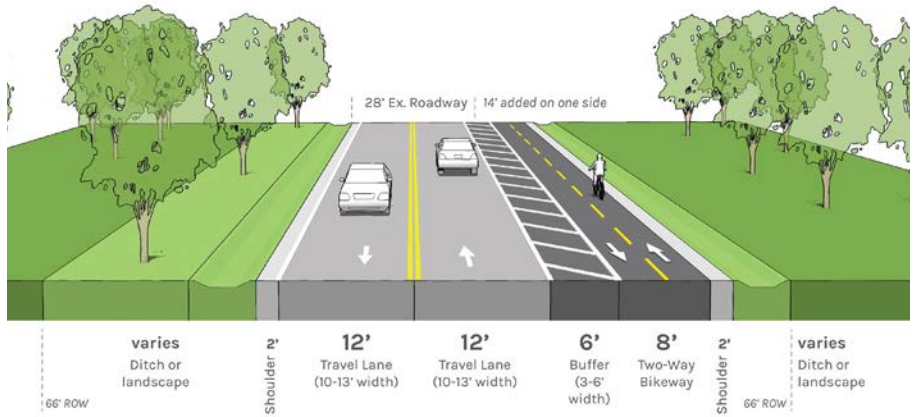
IMPLEMENTATION NOTES

Existing wide shoulders - repave and mark as dedicated bike lanes. Add bike buffers where existing shoulder is wider than 5'

9F 0.4 MILE

RIVER ROAD (HATHAWAY TO BREE)

County owned
AADT 8500



PROPOSED FACILITY

Protected Bikeway

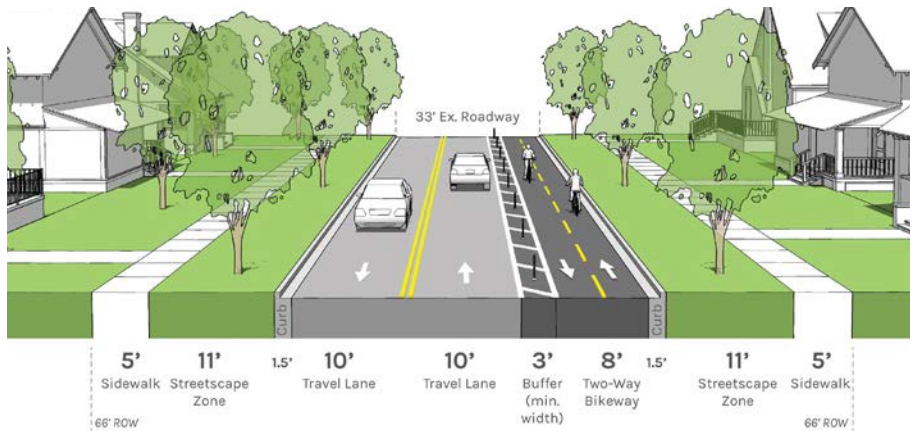
IMPLEMENTATION NOTES

Widen shoulder on west side into a protected bikeway or side path if space can be secured.

10A 0.7 MILE

CLINTON (CARNEY TO 6TH)

City Owned
AADT 6200



PROPOSED FACILITY

Protected Bikeway

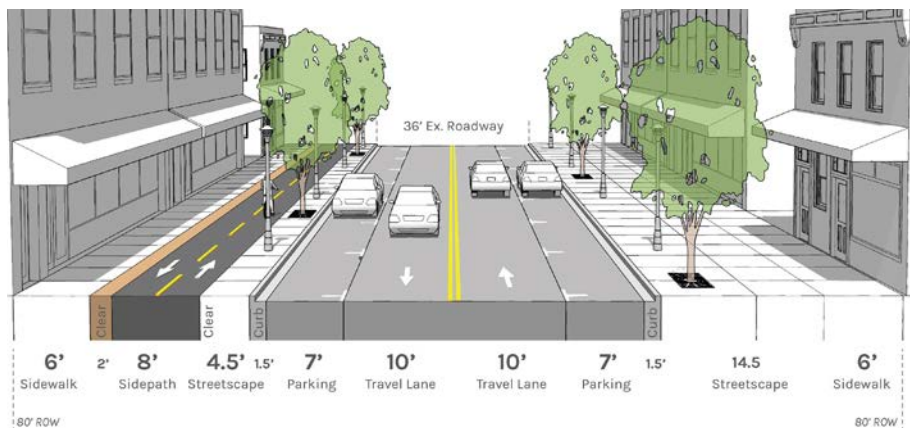
IMPLEMENTATION NOTES

Wide 2-lane road (34-feet no parking) Add protected bikeway on North side

10B 1300 FEET

CLINTON & 6TH TO RIVERSIDE

City Owned
AADT 6200



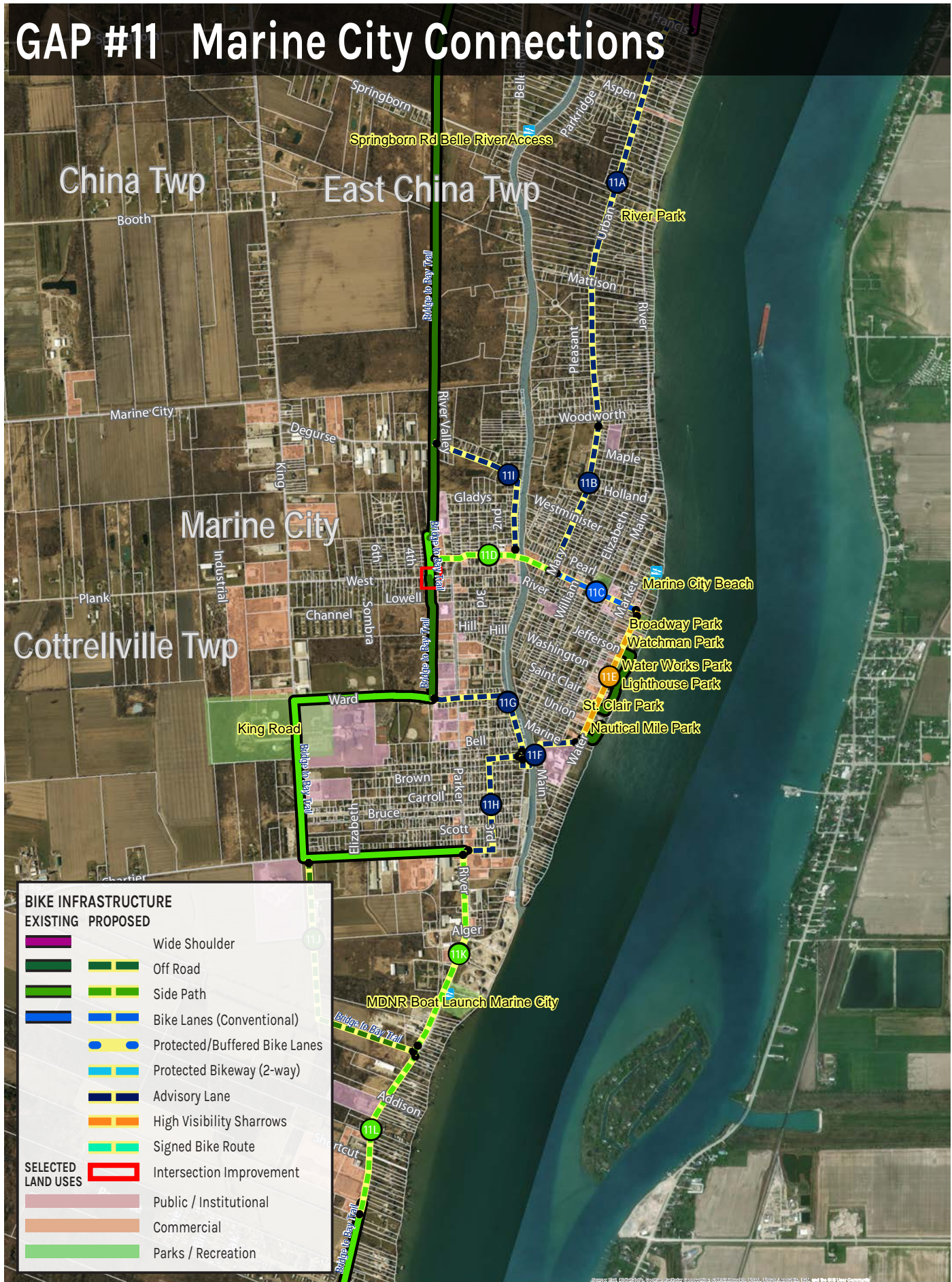
PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Transition bikeway into a wide sidewalk / sidepath on the north side. Intersection improvements at Riverside.

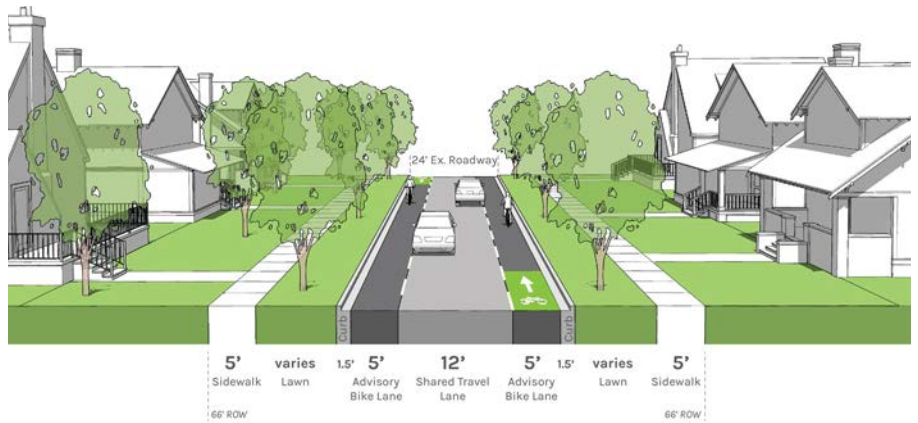
GAP #11 Marine City Connections



11A 1.2 MILE

URBAN & FRANCIS TO MARY & WOODWORTH

City Owned

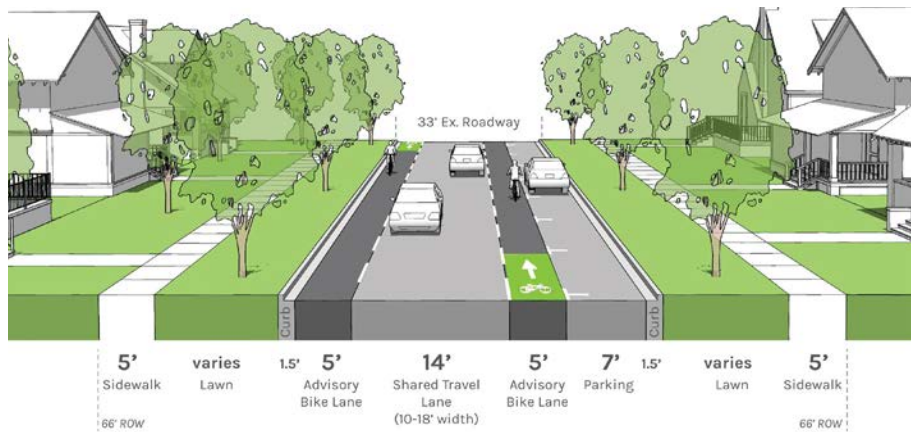


PROPOSED FACILITY	IMPLEMENTATION NOTES
Advisory Lane	Part of existing US Bike Route 20. 20' pavement. Add advisory bikes lane markings 5' - 10' - 5'

11B 0.4 MILE

MARY & WOODWORTH TO BROADWAY

City Owned

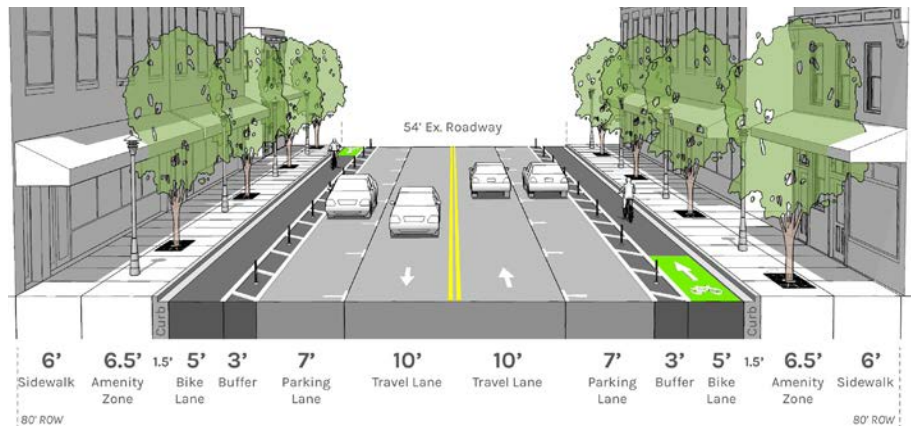


PROPOSED FACILITY	IMPLEMENTATION NOTES
Advisory Lane	Part of existing US Bike Route 20 32' pavement. Add advisory bikes lane markings with parking on one side 8' - 6' - 12' - 6'

11C 0.3 MILE

MARY & BROADWAY TO BROADWAY & WATER

City Owned

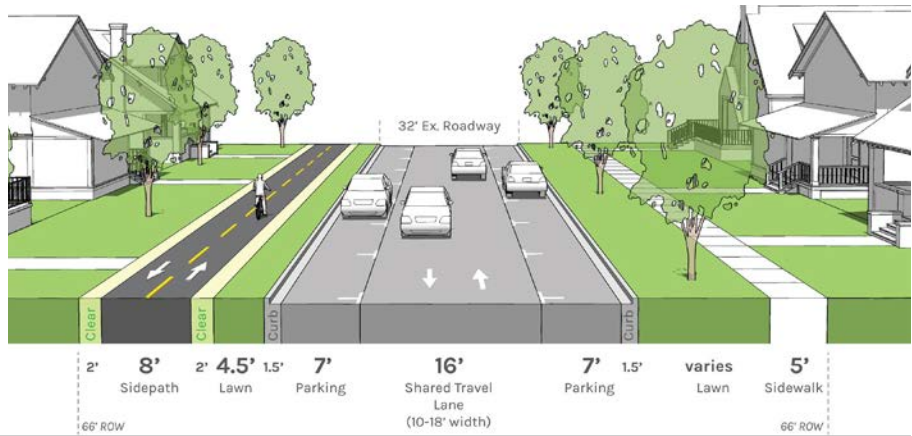


PROPOSED FACILITY	IMPLEMENTATION NOTES
Bike Lane	Part of the US Bike Route 20 Existing ~52-54' pavement. w/o center lane or median Has some on-street parking Expand existing sidewalk as a side path. Add conventional bike lanes + high visibility sharrows in-road for more confident riders

11D 0.4 MILE

MARY & BROADWAY TO FAIRBANKS & BUTLER

City Owned



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

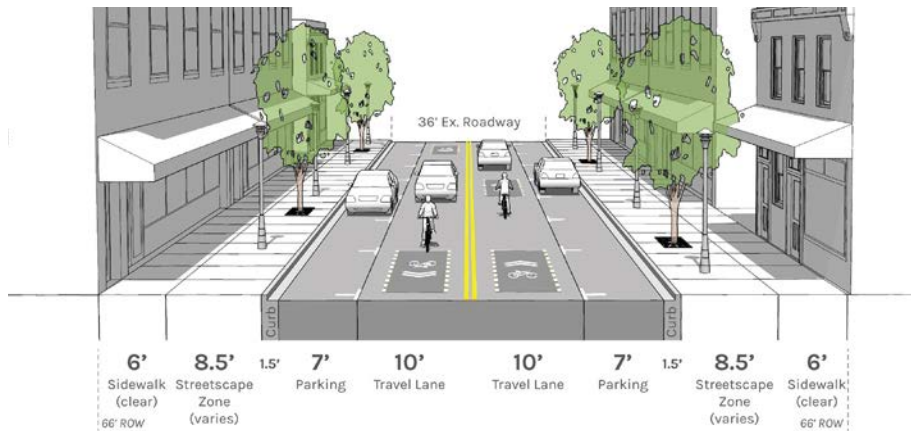
Widen sidewalk to sidepath on north side of Fairbanks. Cross to southside on Frederick St. and connect to existing trail.

11E 0.4 MILE

BROADWAY & WATER TO WATER & BRIDGE

City Owned

AADT 2800



PROPOSED FACILITY

high visibility sharrows

IMPLEMENTATION NOTES

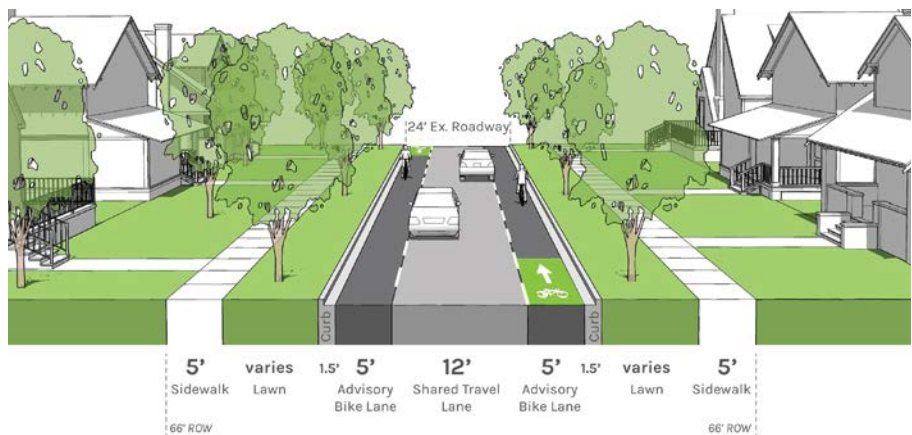
Commercial shared street. High visibility sharrow markings in the road. Other riders to use existing sidewalks

11F 1200 FEET

WATER & BRIDGE TO MAIN & BROWN

City Owned

Existing wide shoulders - repave and mark as dedicated bike lanes. Add bike buffers where existing shoulder is wider than 5'



PROPOSED FACILITY

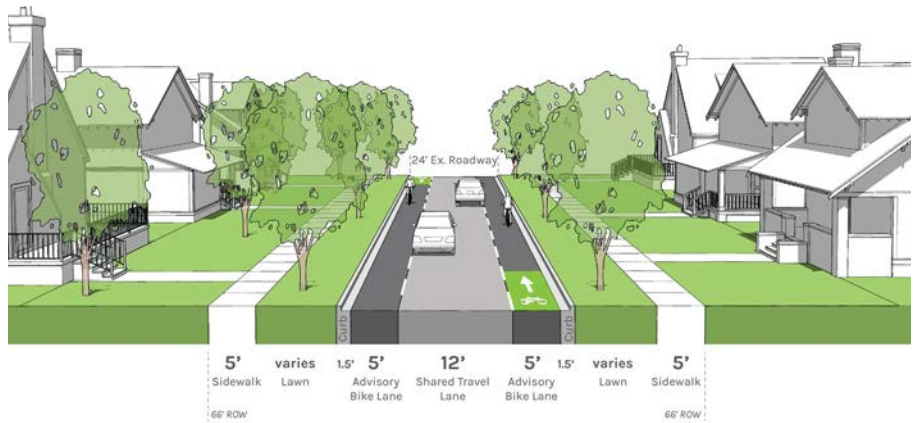
Advisory Lane

IMPLEMENTATION NOTES

Advisory Bike lanes + high visibility sharrow

11G**0.4 MILE****S. BELLE RIVER AVE & WARD**

City Owned

**PROPOSED FACILITY**

Advisory Lane

IMPLEMENTATION NOTES

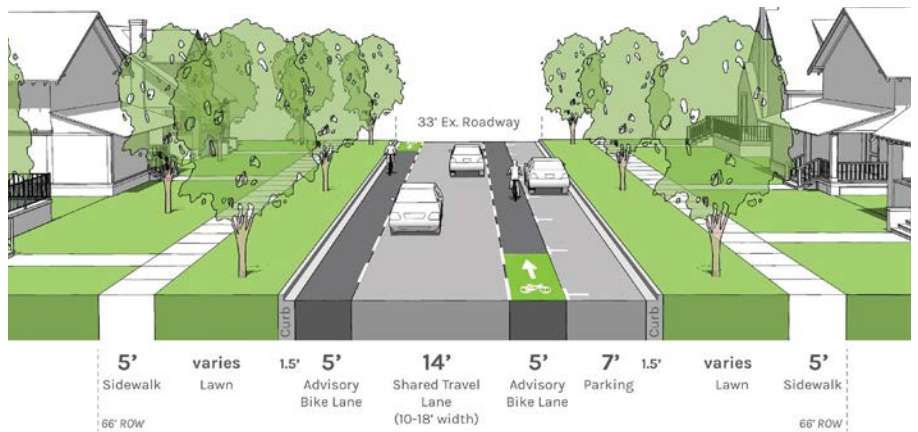
22' Roadway

Add advisory lanes

11H**0.4 MILE****BROWN / 3RD / CHARTIER**

City Owned

AADT 1900

**PROPOSED FACILITY**

Advisory Lane

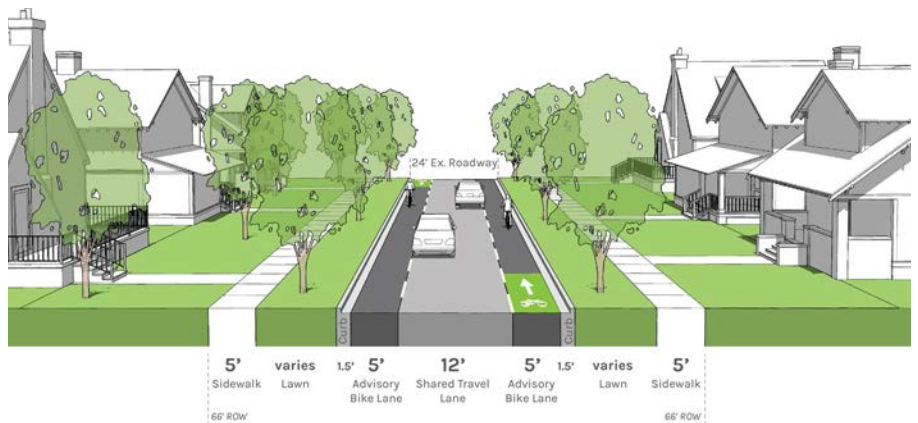
IMPLEMENTATION NOTES

Add advisory bike lanes ~33' wide roadway with parking on one side.

11I**0.5 MILE****N. BELLE RIVER / DEGURSE**

City Owned AADT 3000

Existing wide shoulders - repave and mark as dedicated bike lanes. Add bike buffers where existing shoulder is wider than 5'

**PROPOSED FACILITY**

Advisory Lane

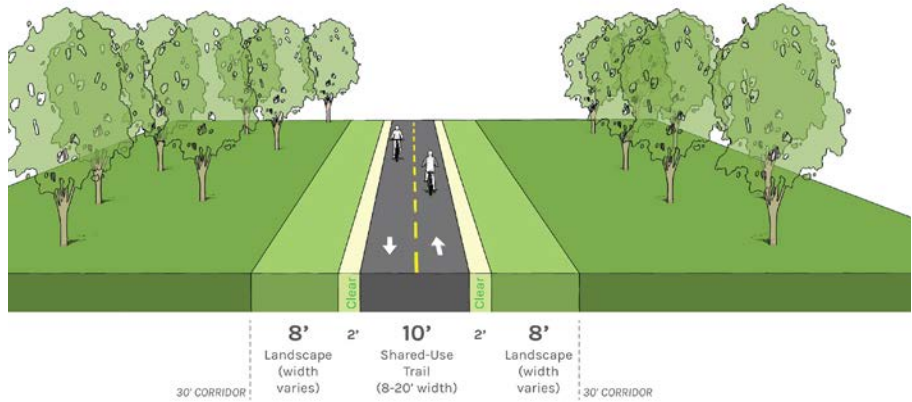
IMPLEMENTATION NOTES

Add advisory bike lanes

24' and 32' wide roadways respectively.

11J**0.7 MILES****CHARTIER TO PARKER**

City Owned

**PROPOSED FACILITY**

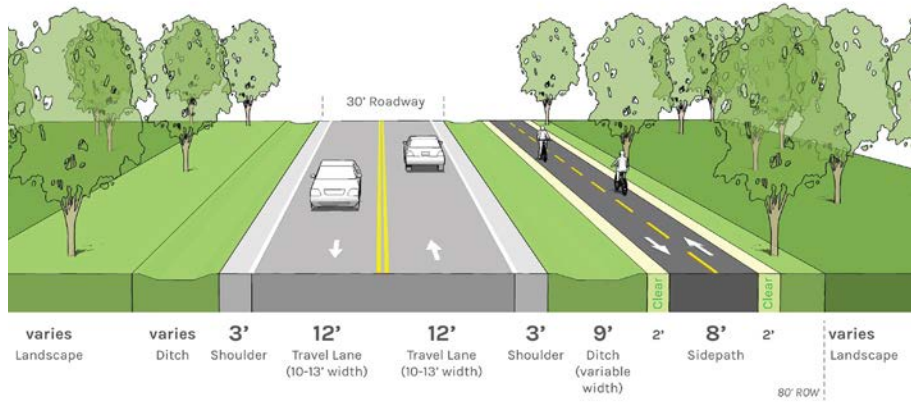
Off Road

IMPLEMENTATION NOTES

Planned off-street trail connection.

11K**0.6 MILE****PARKER STREET**

State owned

**PROPOSED FACILITY**

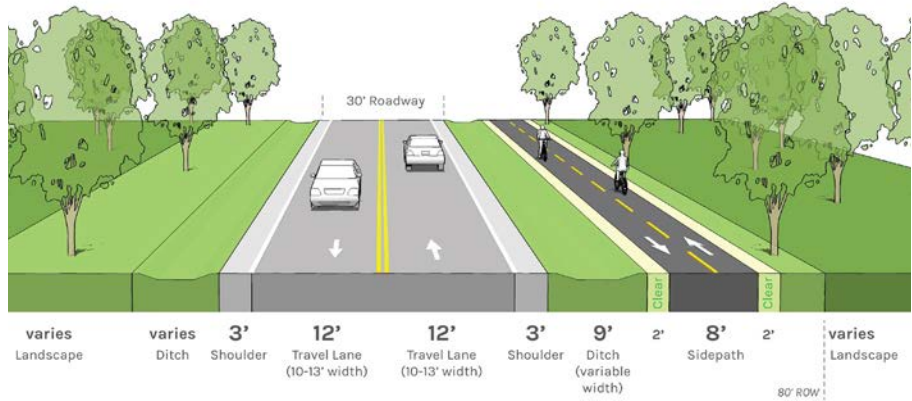
Sidepath

IMPLEMENTATION NOTES

Widen and extend existing sidewalk into sidepath. Plenty of width throughout.

11L**0.5 MILES****RIVER ROAD**

State owned

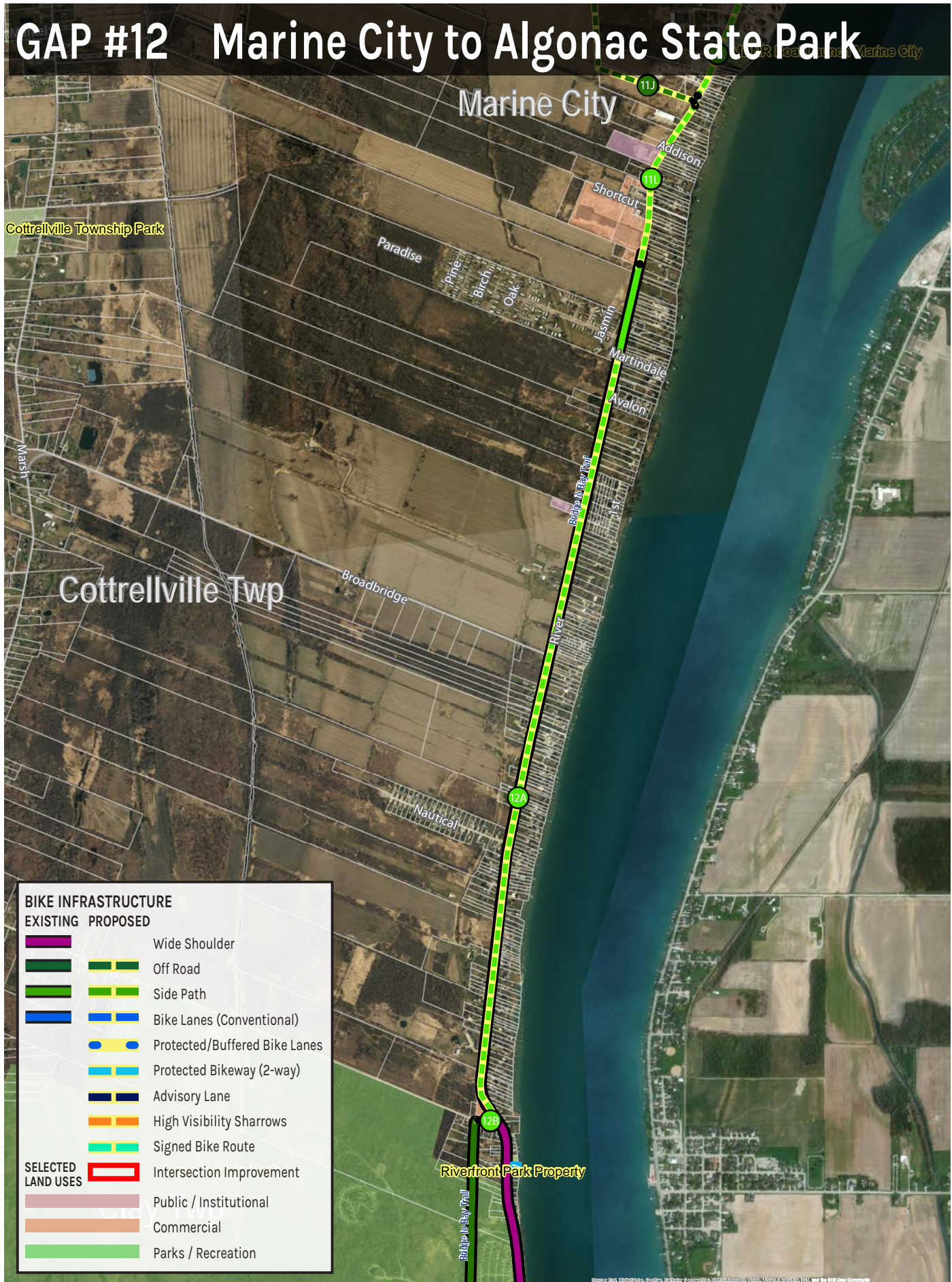
**PROPOSED FACILITY**

Sidepath

IMPLEMENTATION NOTES

Widen and extend existing sidewalk into sidepath

GAP #12 Marine City to Algonac State Park

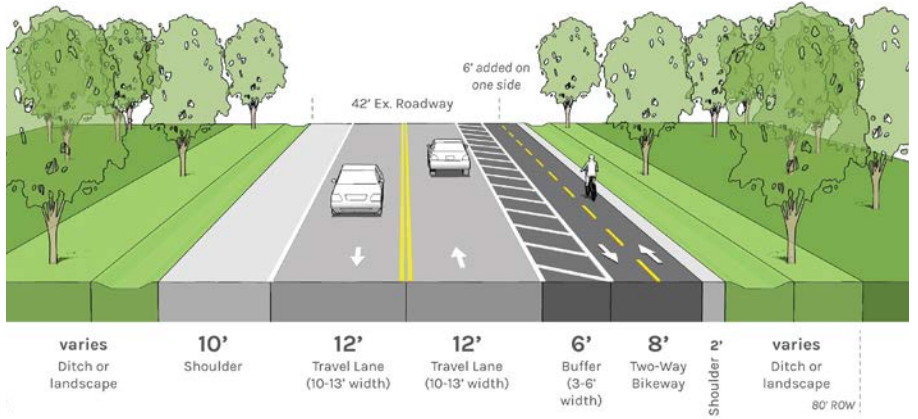


12A 2.2 MILE

RIVER & MARTINDALE TO RIVER & ROBERTS

State owned

AADT 500



PROPOSED FACILITY

Protected Bikelane / Sidepath

IMPLEMENTATION NOTES

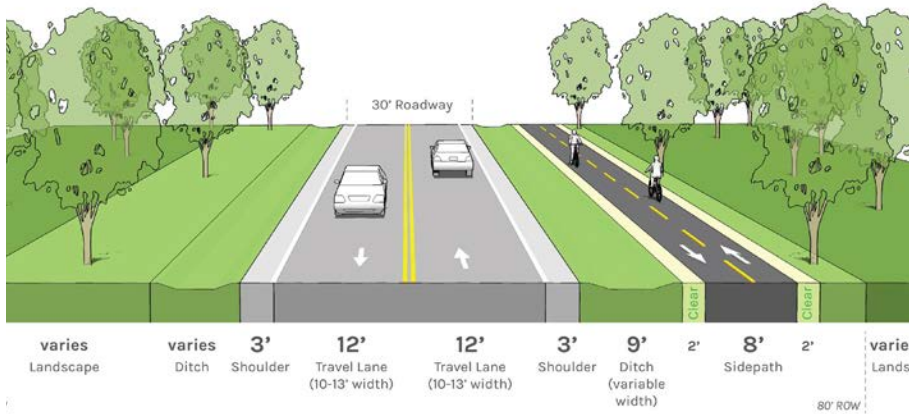
Existing wide shoulder. Widen further on west side into protected bikeway / buffered sidepath

12B 400 FEET

ROBERTS CONNECTION TO EXISTING TRAIL

State owned

AADT 500



PROPOSED FACILITY

Sidepath

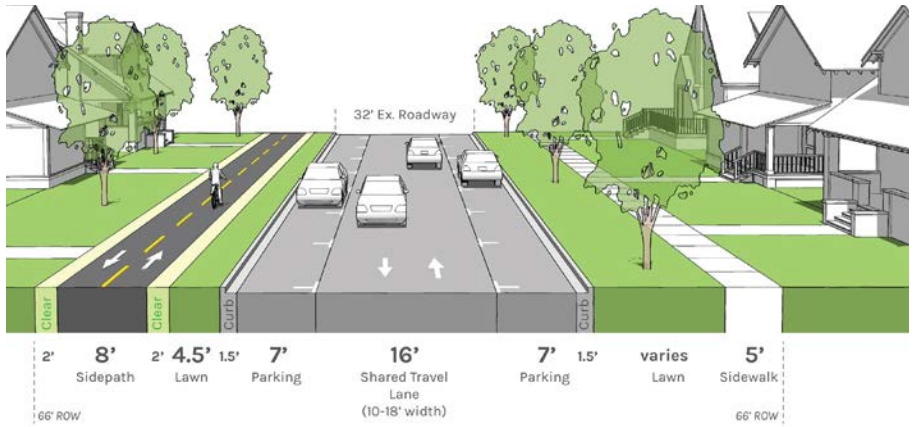
IMPLEMENTATION NOTES

Connection to existing trail Sidepath at edge of roadway in front of general store
Add mid-block crossing to existing trail.

13A 1300 FEET

**MICHIGAN STREET
(SHERWOOD TO CENTER)**

City Owned



PROPOSED FACILITY

Sidewalk

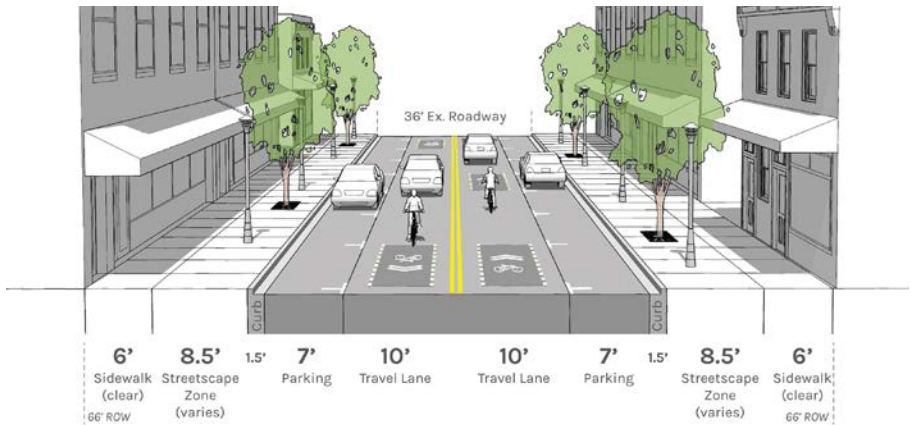
IMPLEMENTATION NOTES

Existing wide shoulder. Widen further on west side into protected bikeway / buffered sidewalk

13B 800 FEET

MICHIGAN STREET (CENTER TO DIXIE)

City Owned



PROPOSED FACILITY

high visibility sharrows

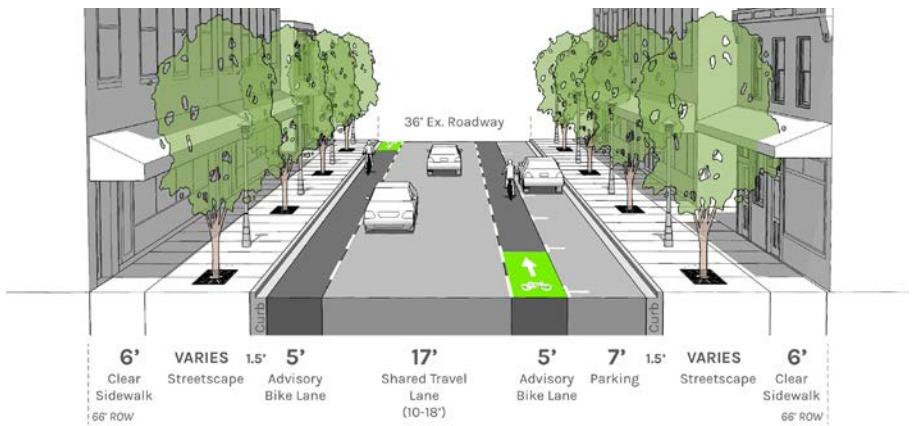
IMPLEMENTATION NOTES

High viz sharrows. Very narrow residential slow street

13C 0.4 MILES

MICHIGAN STREET (DIXIE TO SMITH)

City Owned



PROPOSED FACILITY

Advisory Bike Lanes

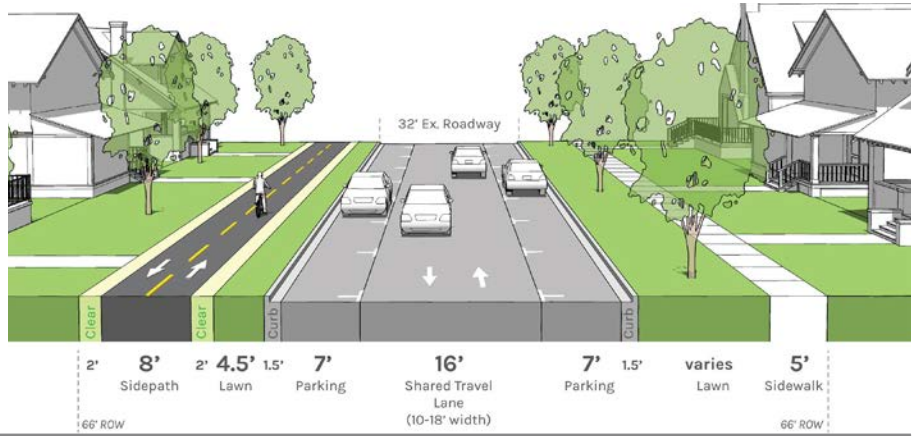
IMPLEMENTATION NOTES

Roadway 24-28' wide. Advisory lanes with parking on one side where width allow

13D 300 FEET

SMITH FIELD PARK TO SAINT CLAIR RIVER

City Owned



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

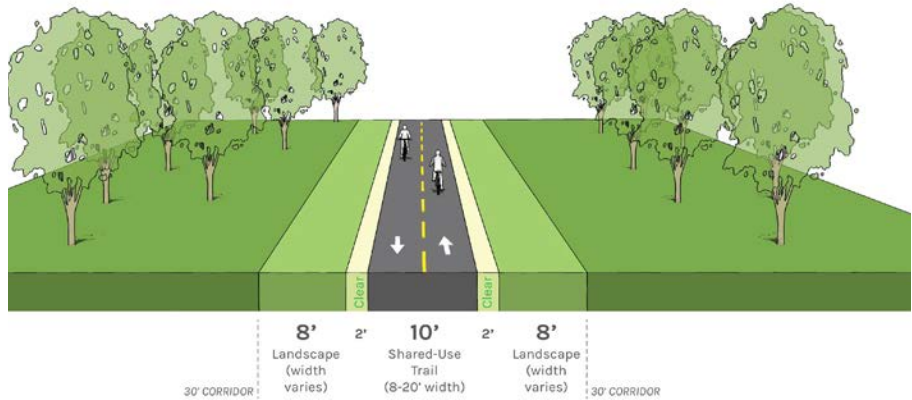
Intersection improvement. Establish sidepath on the south side

13E 0.5 MILES

ST CLAIR RIVER TO LIBERTY

State owned

AADT 6200



PROPOSED FACILITY

Off Road

IMPLEMENTATION NOTES

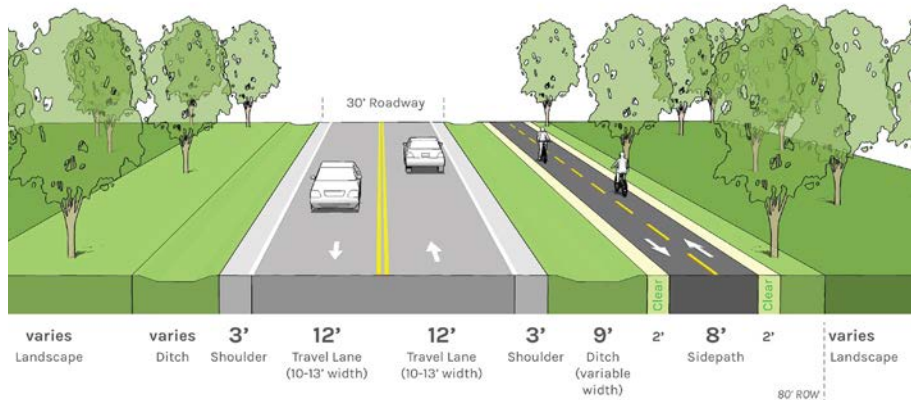
Utilize existing boardwalk trail with improvements. Or establish a new sidepath in the park space

13F 0.8 MILES

POINTE TREMBLE ROAD

State owned

AADT 11800



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Widen + expand sidewalk on the north / west side of the street into side path. Southside has more obstructions.

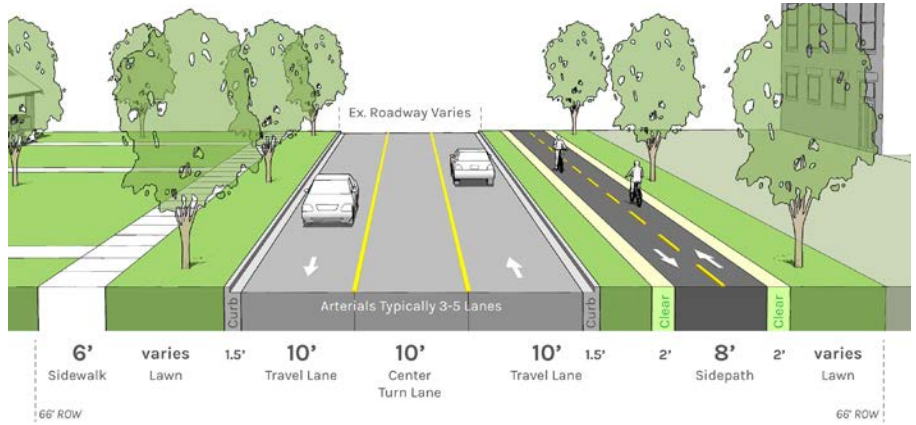
GAP #14 Algonac to New Baltimore



14A 3.1 MILE

POINTE TREMBLE ROAD

State owned
AADT 11800

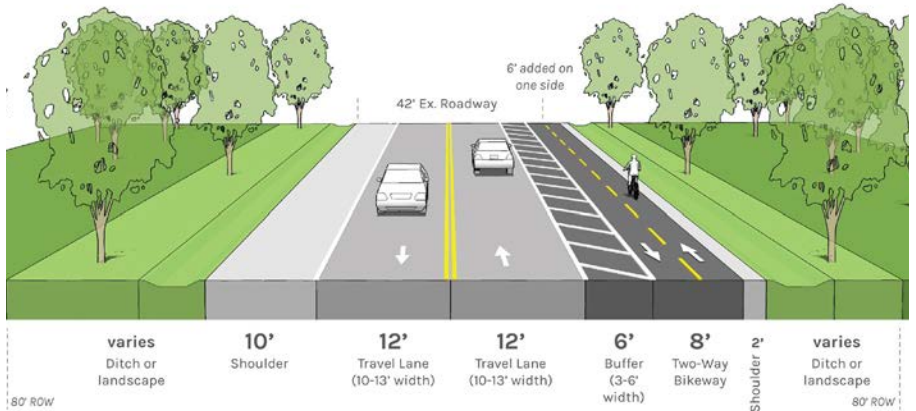


PROPOSED FACILITY	IMPLEMENTATION NOTES
Sidepath	Expand sidewalk on the north side into a shared use path and fill in sidewalk gaps

14B 3.8 MILE

DYKE ROAD

State owned
AADT 11800

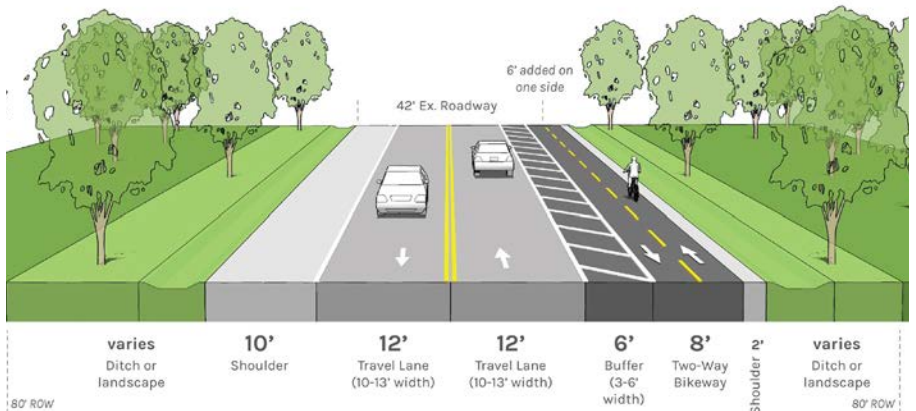


PROPOSED FACILITY	IMPLEMENTATION NOTES
Protected Bikeway	Transition sidepath to the south / west side of the road. Established a buffered sidepath / trail.

14C 5.4 MILE

DIXIE HIGHWAY

State owned
AADT 18600



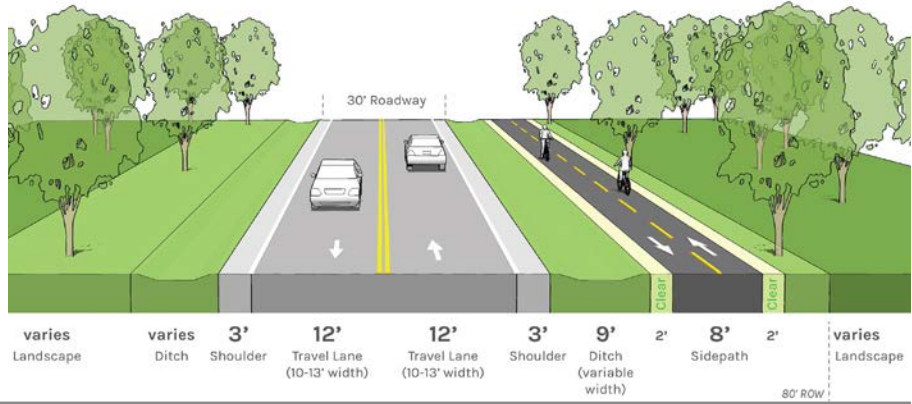
PROPOSED FACILITY	IMPLEMENTATION NOTES
Protected Bikeway	Transition sidepath / buffered trail to the north side of the road way

14D

0.6 MILE

DIXIE HIGHWAY TO IRA TOWNSHIP PARK

County owned



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

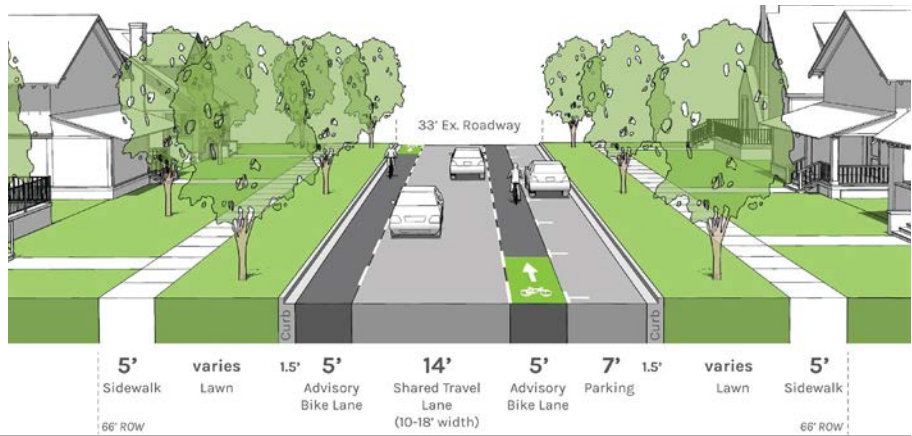
New sidepath connection to Ira township municipal center / park

14E

0.5 MILE

DIXIE HIGHWAY TO WATERWORKS PARK

County owned



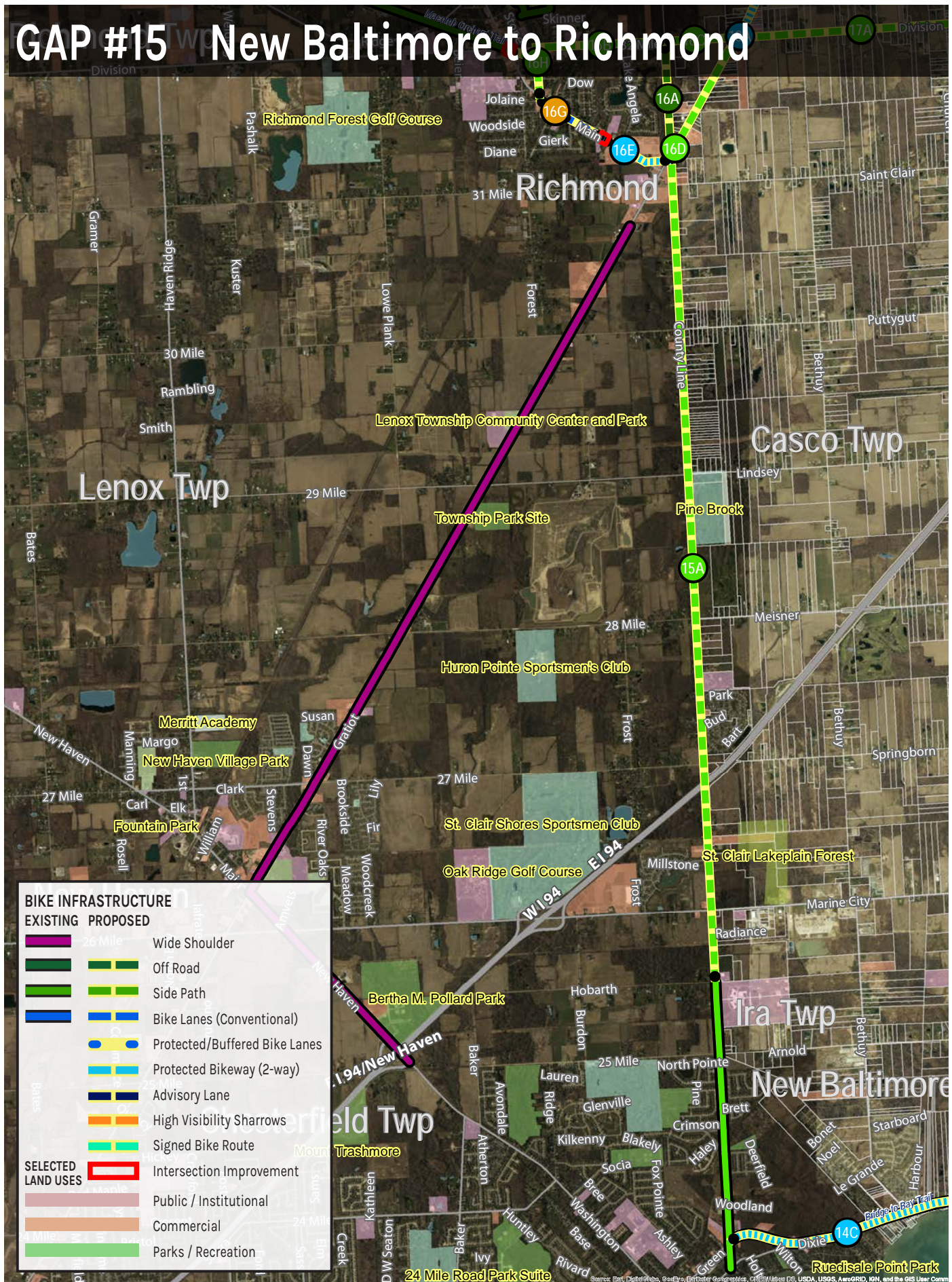
PROPOSED FACILITY

Signed Bike Route

IMPLEMENTATION NOTES

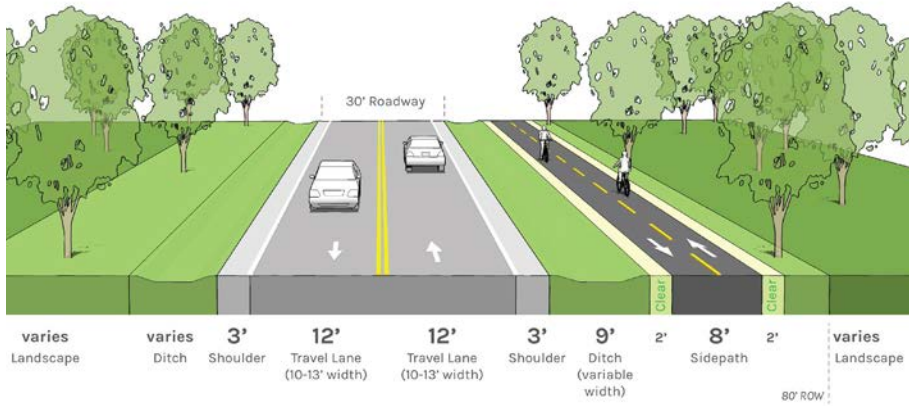
Signed route connection down Long Island Couy / Water Works Drive to Water Works Park.

GAP #15 New Baltimore to Richmond



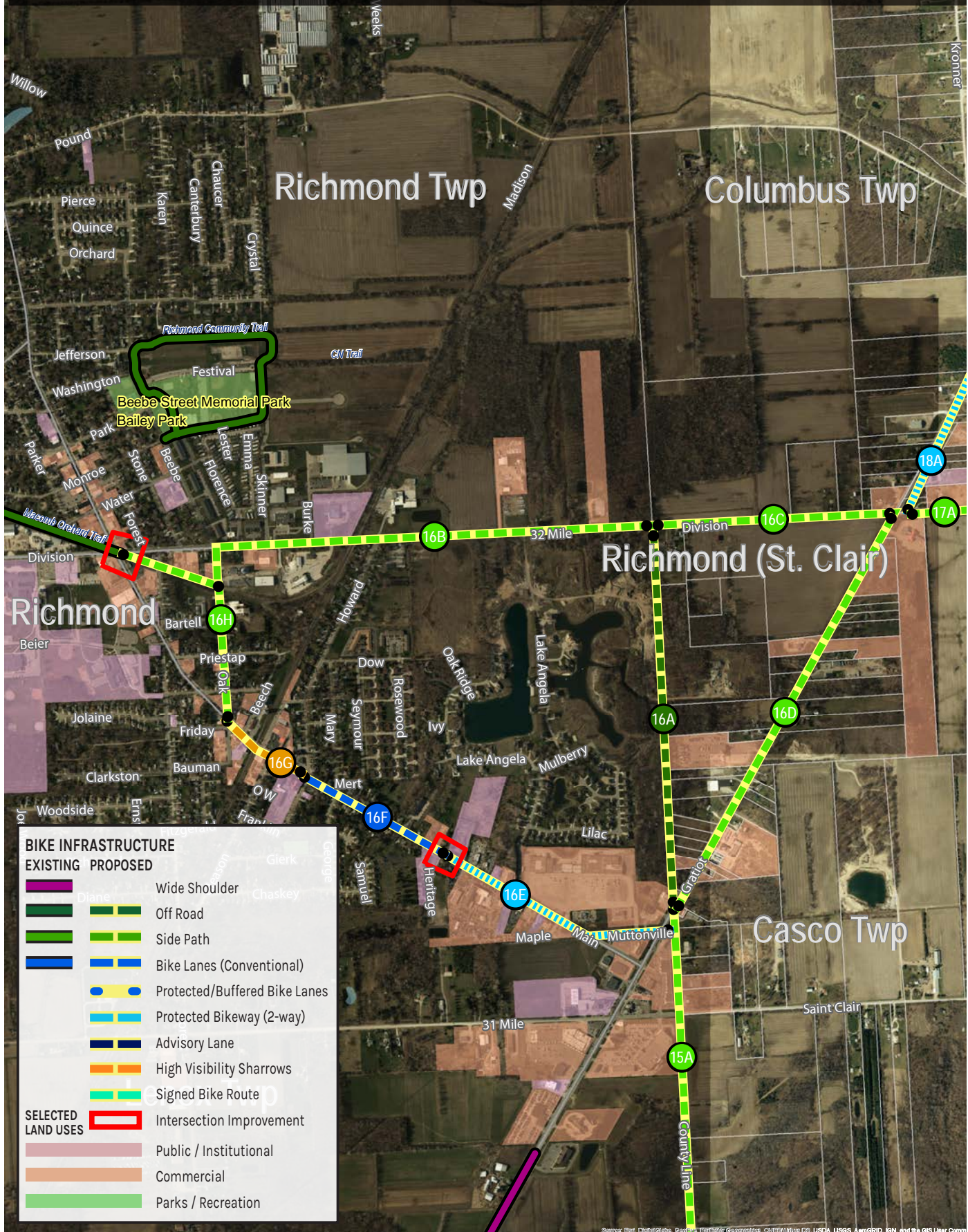
COUNTY LINE ROAD

County Owned
AADT 7000



PROPOSED FACILITY	IMPLEMENTATION NOTES
Sidepath	100-foot existing ROW w/ 2-lane road 5,000 - 7,000 AADT Extend sidepath on east side of the road

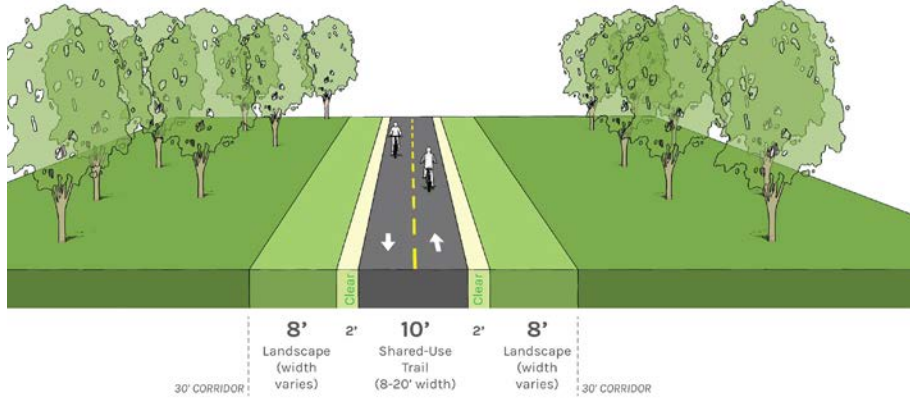
GAP #16 Richmond Connectors



16A 0.8 MILES

GRATIOT & COUNTY LINE TO 32 MILE * DIVISION

City Owned



PROPOSED FACILITY

Off Road

IMPLEMENTATION NOTES

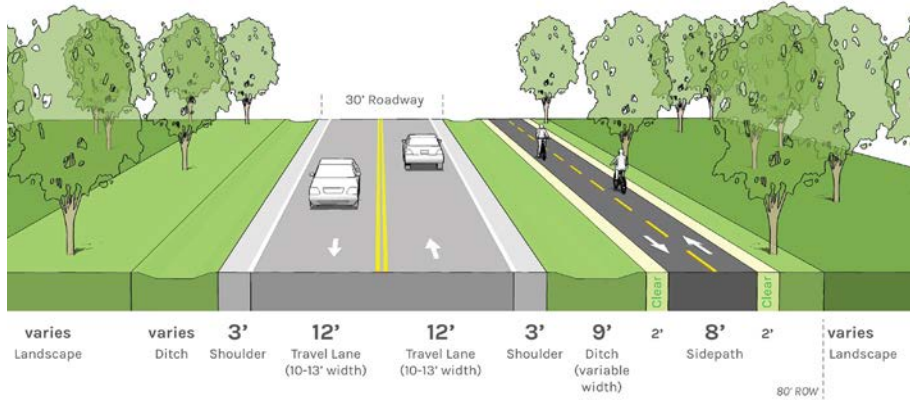
Planned off-street trail connection. Aligned with a major watermain easement.

16B 1.2 MILE

DIVISION (OAK TO COUNTY LINE)

County Owned

AADT 6500



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

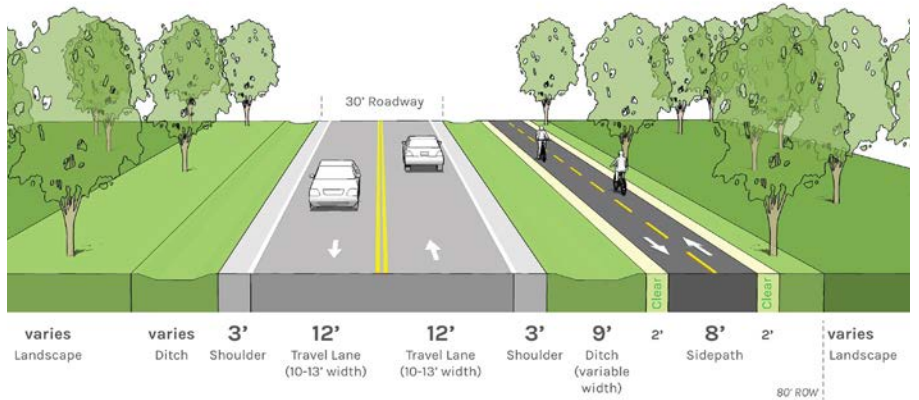
Planned Richmond sidepath extension on the Southside

16C 0.5 MILES

DIVISION (COUNTY LINE TO GRATIOT)

County Owned

AADT 6500



PROPOSED FACILITY

Sidepath

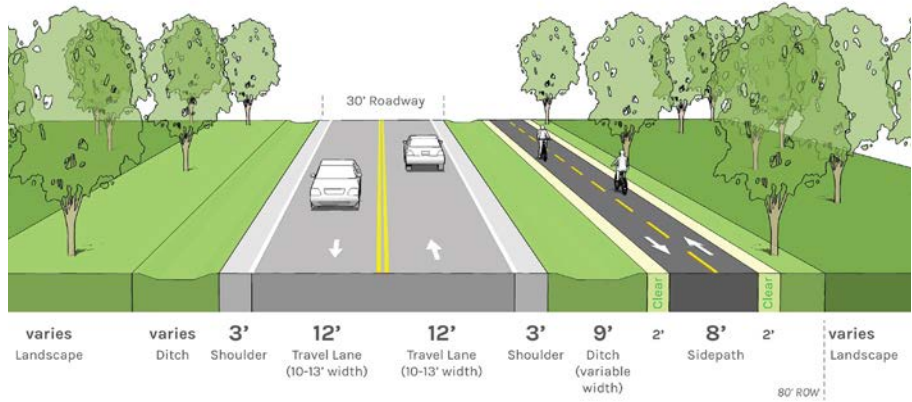
IMPLEMENTATION NOTES

Planned Richmond sidepath extension on the Southside

16D 0.9 MILE

GRATIOT AVE (DIVISION & COUNTRY LINE)

County Owned
AADT 7700



PROPOSED FACILITY

Sidepath

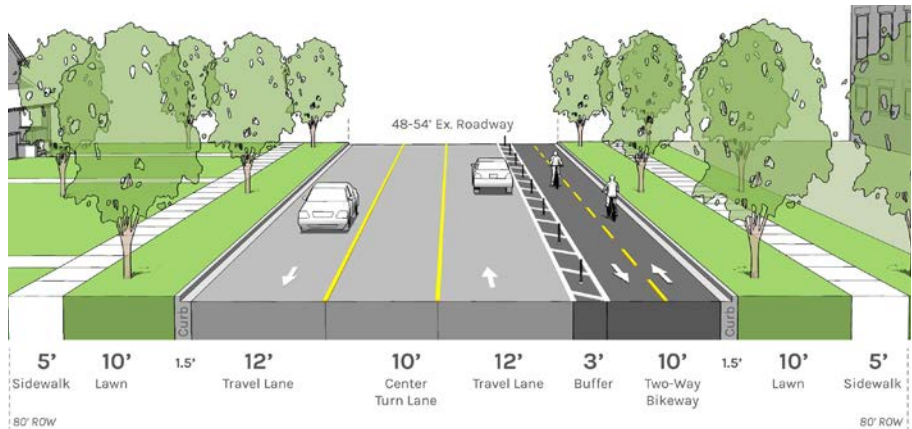
IMPLEMENTATION NOTES

Proposed bike lanes from prior plan. Currently has wide, semi-paved shoulders
7,700 AADT PROPOSE: Sidepath Alternative: Wider shoulder on the south/east side, expand paving to ~14' shoulder for a buffered trail

16E 0.5 MILE

MAIN STREET TO COUNTRY LINE

State Owned. Road Diet planned (4-lane ends at Palmer) to add bike lanes



PROPOSED FACILITY

Protected bikeway

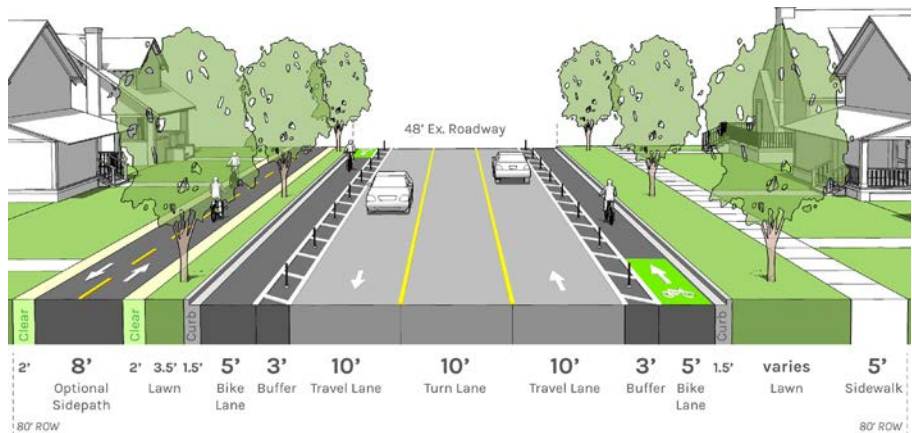
IMPLEMENTATION NOTES

Typically 2-lanes, wide. Opportunity to rebuild north-side of roadway to have a sidepath or bikeway

16F 0.4 MILE

MAIN STREET TO HOWARD STREET

City Owned



PROPOSED FACILITY

Bike Lane

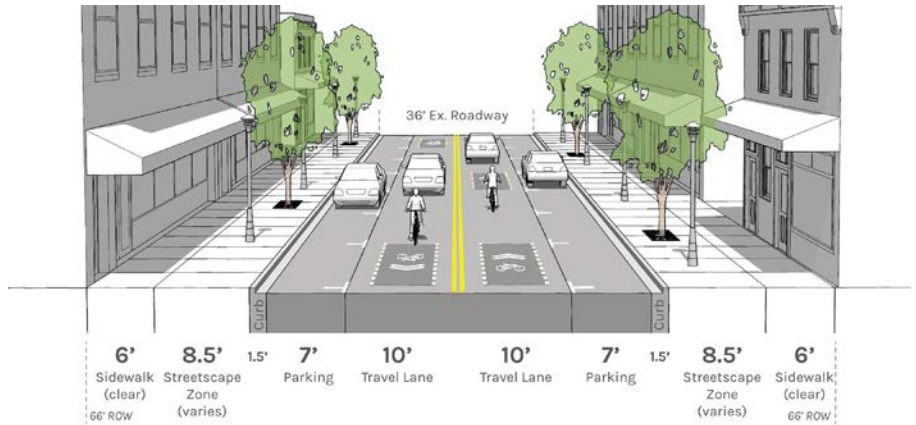
IMPLEMENTATION NOTES

Advisory Bike lanes + high visibility sharrow

16G 1100 FEET

MAIN STREET (OAK TO HOWARD)

State Owned.



PROPOSED FACILITY

high visibility sharrows

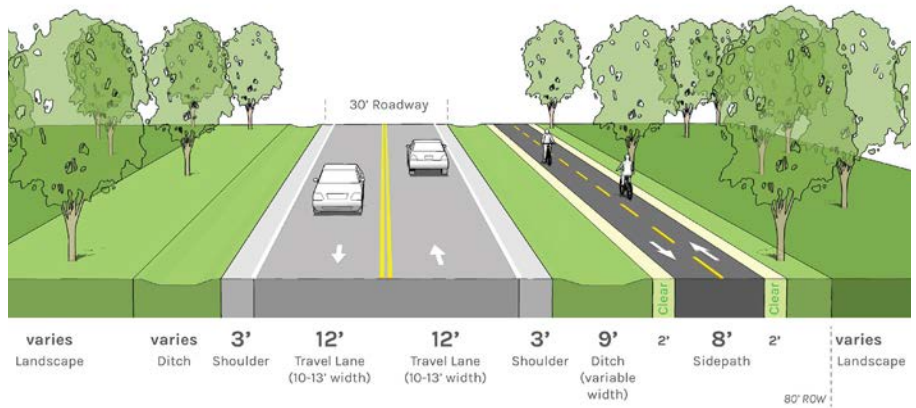
IMPLEMENTATION NOTES

High viz sharrows. Very narrow residential slow street

16H 0.3 MILE

OAK STREET (MAIN TO DIVISION)

City Owned



PROPOSED FACILITY

Sidepath

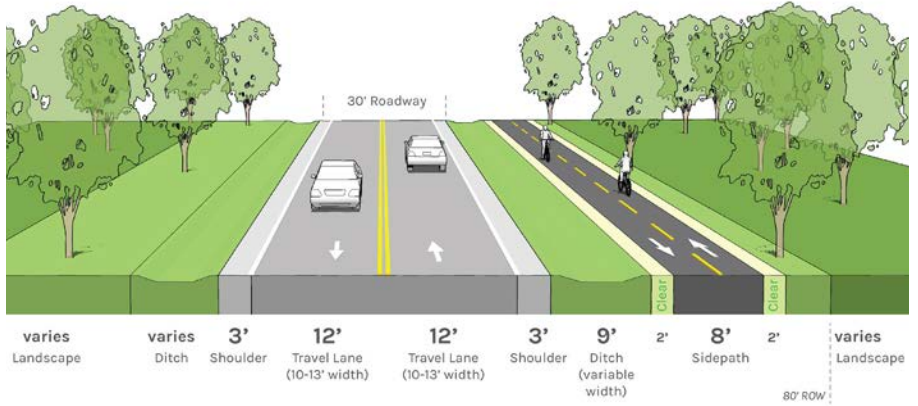
IMPLEMENTATION NOTES

Existing wide shoulder. Widen further on west side into protected bikeway / buffered sidepath

17A 10.6 MILE

DIVISION / FRED MOORE

County Owned
 AADT 3900 (FRED MOORE)
 AADT 4100-8300 (DIVISION)



PROPOSED FACILITY

Sidepath

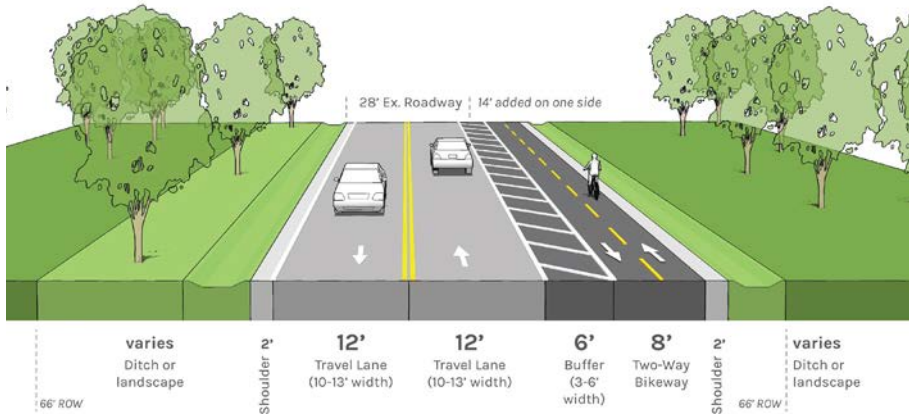
IMPLEMENTATION NOTES

2-lanes, 28' paved, Narrow gravel shoulders. Extra ROW on Southside of road
 Create sidepath in additional ROW OR expand shoulder on southside into a buffered trail

18A 12.8 MILE

GRATIOT AVE

County Owned
 AADT 3700-5700



PROPOSED FACILITY

Protected Bikeway

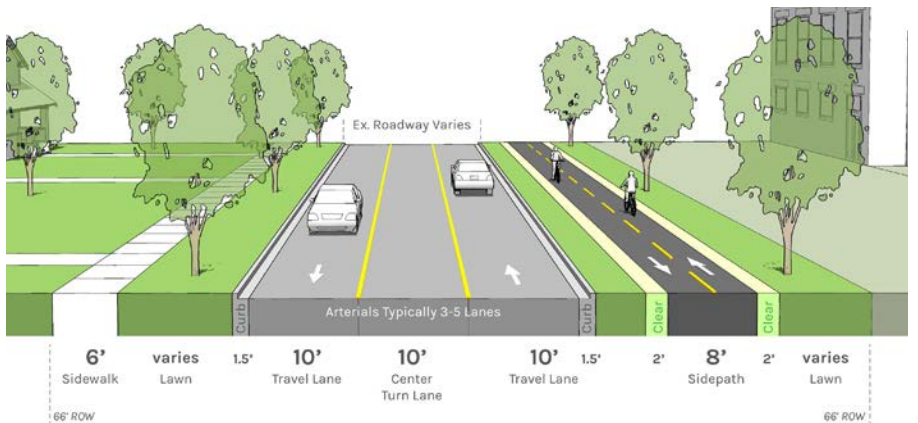
IMPLEMENTATION NOTES

2-lanes, 42' outside of shoulder to shoulder. Expand south shoulder into a buffered trail

19A 0.6 MILES

GRATIOT UNDERPASS

County Owned
 AADT 3600



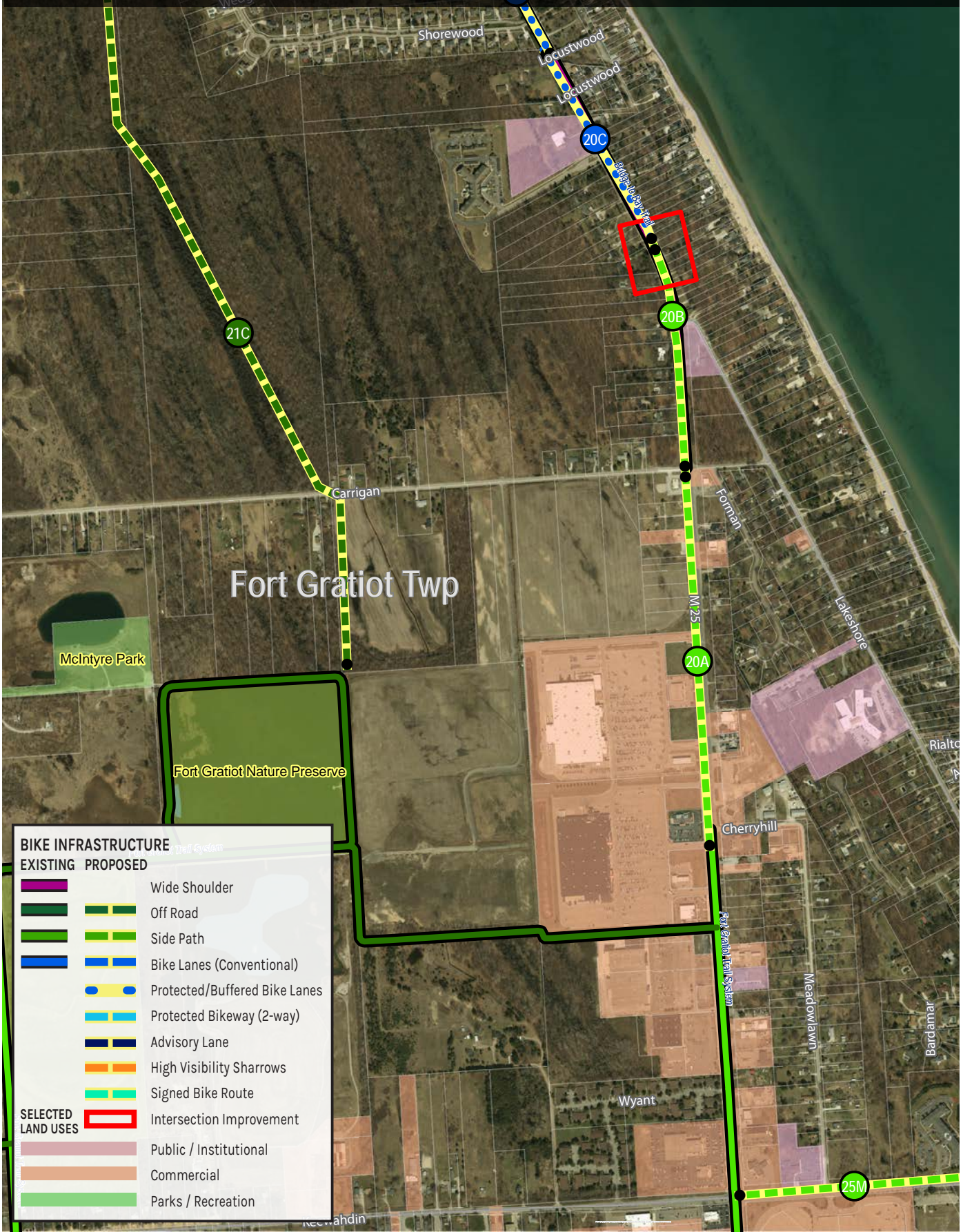
PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Add continuation of sidepath below the overpass. New Graitiot crossing needed west of bridge.

GAP #20 Fort Gratiot Preserve to Lakeshore



BIKE INFRASTRUCTURE

EXISTING	PROPOSED	Description
		Wide Shoulder
		Off Road
		Side Path
		Bike Lanes (Conventional)
		Protected/Buffered Bike Lanes
		Protected Bikeway (2-way)
		Advisory Lane
		High Visibility Sharrows
		Signed Bike Route
		Intersection Improvement

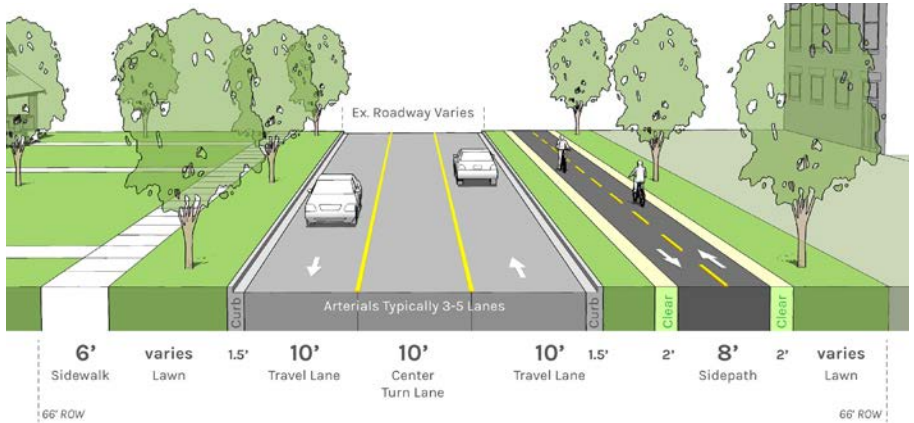
SELECTED LAND USES

	Public / Institutional
	Commercial
	Parks / Recreation

20A 0.5 MILE

CHERRYHILL TO M25 & CARRIGAN

State Owned
AADT 29700



PROPOSED FACILITY

Sidepath

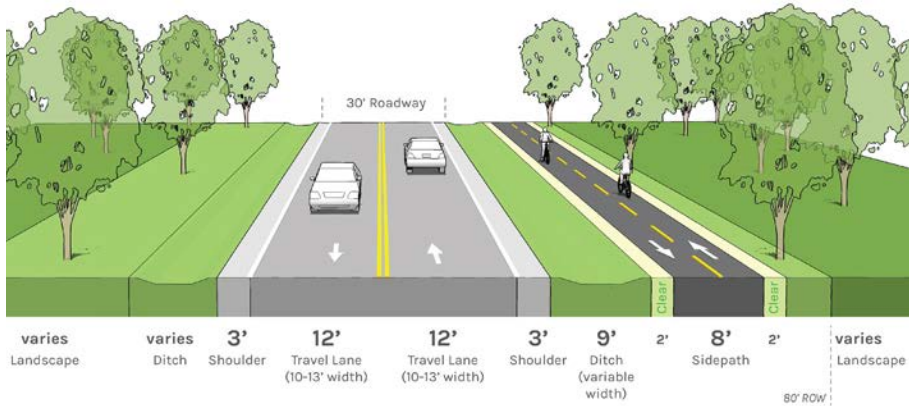
IMPLEMENTATION NOTES

Existing link, needs improvements

20B 0.3 MILE

M25 FROM CARRIGAN TO LAKESHORE

State Owned
AADT 16200



PROPOSED FACILITY

Sidepath

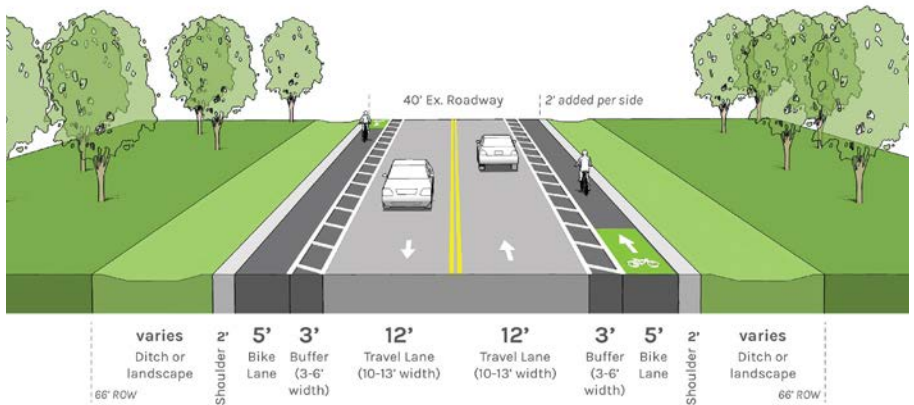
IMPLEMENTATION NOTES

Widen sidewalk into sidepath. Ample room

20C 0.3 MILE

M25 FROM LAKESHORE TO SHOREWOOD

State Owned
AADT 17800



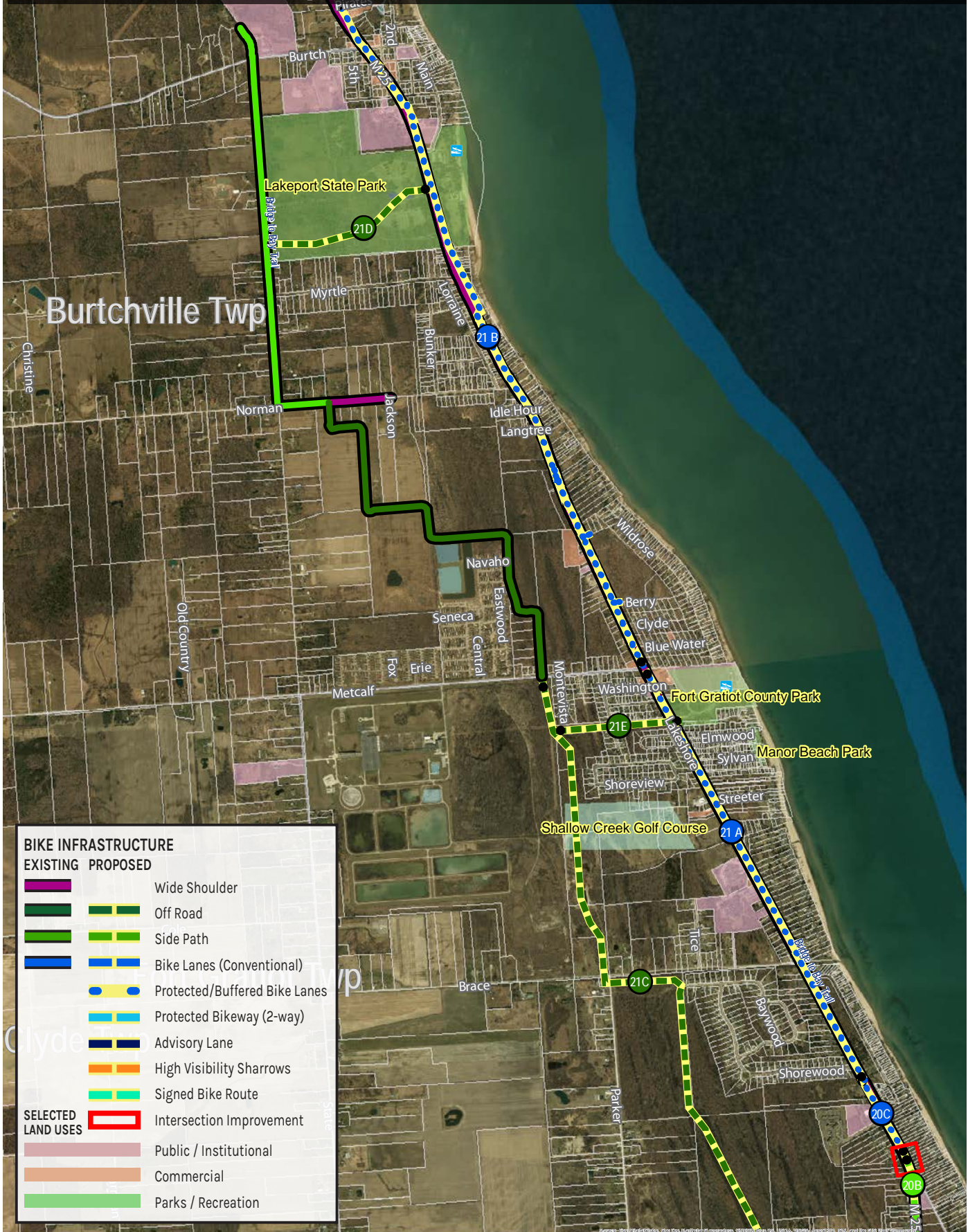
PROPOSED FACILITY

Off Road

IMPLEMENTATION NOTES

Sidewalk is too narrow. Widen into shared-use trail width (10')

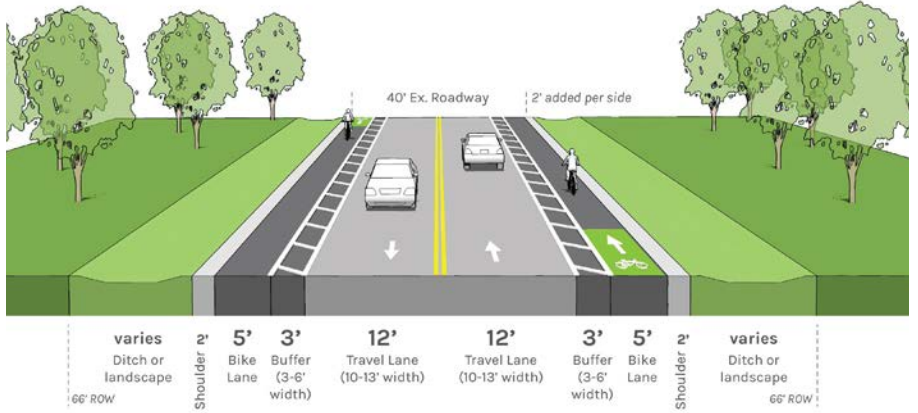
GAP #21 Lakeport State Park to Fort Gratiot



21A 1.6 MILE

LAKESHORE (SHOREWOOD TO FORT GRATIOT COUNTY PARK)

State Owned
AADT 13500



PROPOSED FACILITY

Sidepath

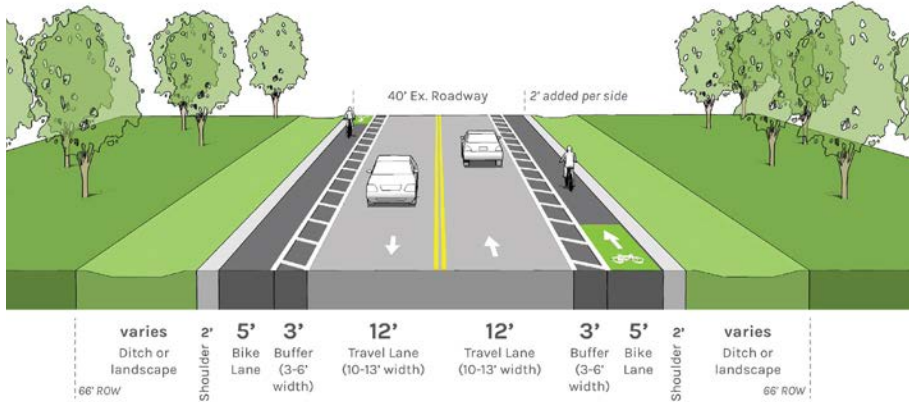
IMPLEMENTATION NOTES

paint 3' buffer on each side with 5' bike lane (no additional pavement needed)

21B 2.8 MILE

M25 TO FORT GRATIOT COUNTY PARK

State Owned
AADT 13500



PROPOSED FACILITY

Sidepath

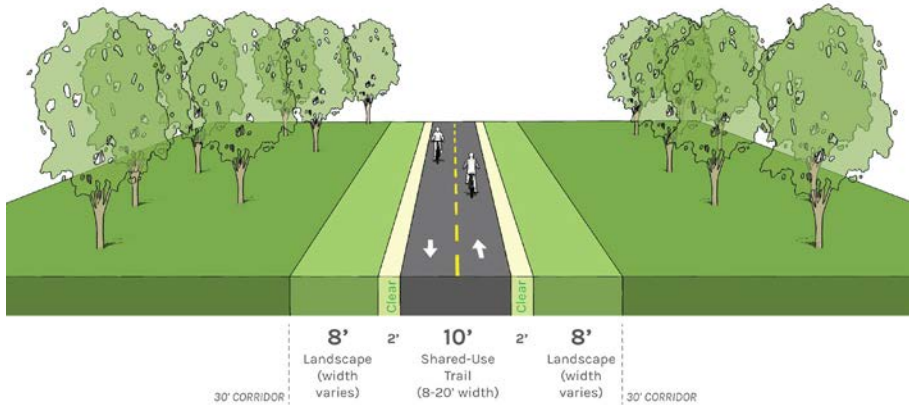
IMPLEMENTATION NOTES

paint 3' buffer on each side with 5' bike lane (no additional pavement needed) OR create buffered trail/sidepath on side

21C 2.6 MILES

HISTORIC DUNE

State Owned



PROPOSED FACILITY

Off Road

IMPLEMENTATION NOTES

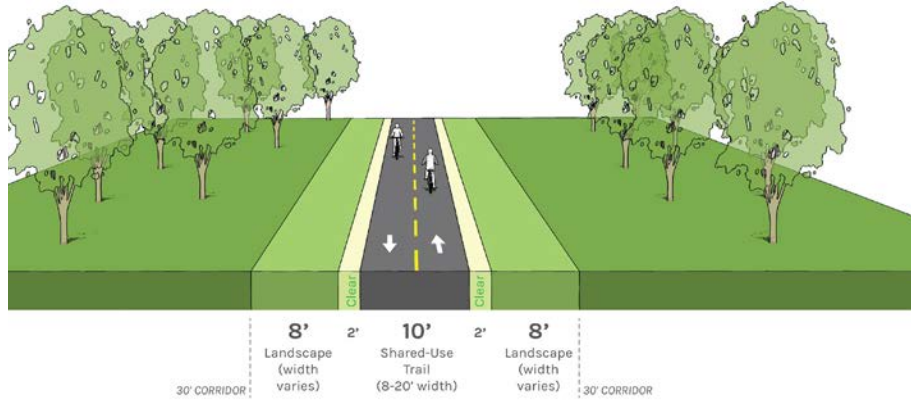
Potential off-street route through historic dune features. Conservation opportunity

21D

0.6 MILES

LAKEPORT STATE PARK

City Owned



PROPOSED FACILITY

Off Road

IMPLEMENTATION NOTES

Off-street trail connection through Lakeport State Park

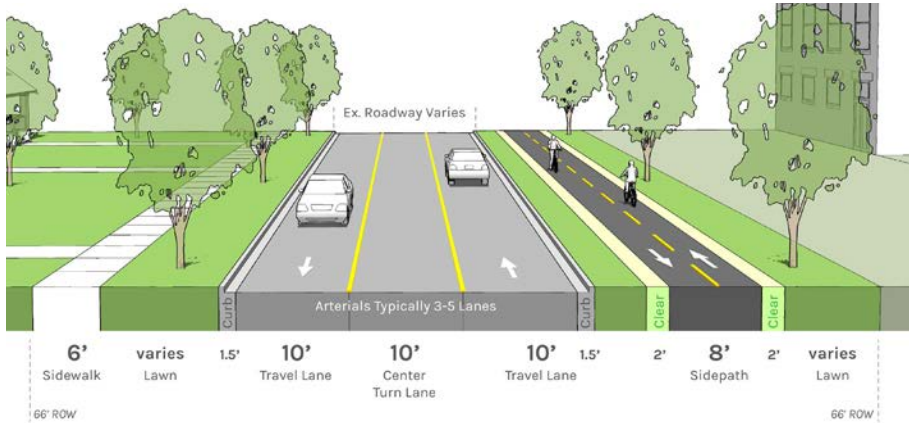
GAP #23,24 Wadhams Avoca Trail to River



23A 0.5 MILE

GRISWOLD ST

County Owned
AADT 5500



PROPOSED FACILITY

Protected Bikelane / Sidepath

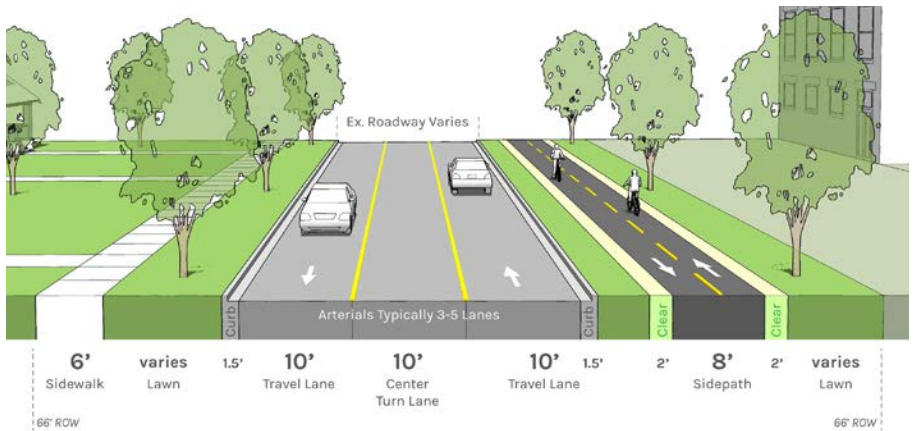
IMPLEMENTATION NOTES

Existing wide shoulders Build sidepath on the north side of the roadway. Possible bike lane addition on main roadway as well.

23B 1.3 MILES

GRISWOLD ST

County Owned
AADT 5500



PROPOSED FACILITY

Sidepath

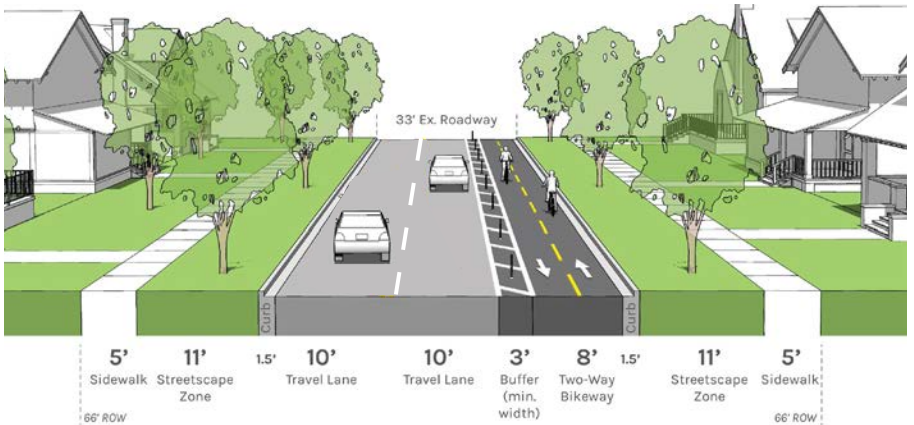
IMPLEMENTATION NOTES

Transition to south side of the road at Michigan. Establish sidepath on the southside of the road. Option to continue bike lanes

23C 1.8 MILE

OAK STREET

State Owned
AADT 5900



PROPOSED FACILITY

Protected Bikeway

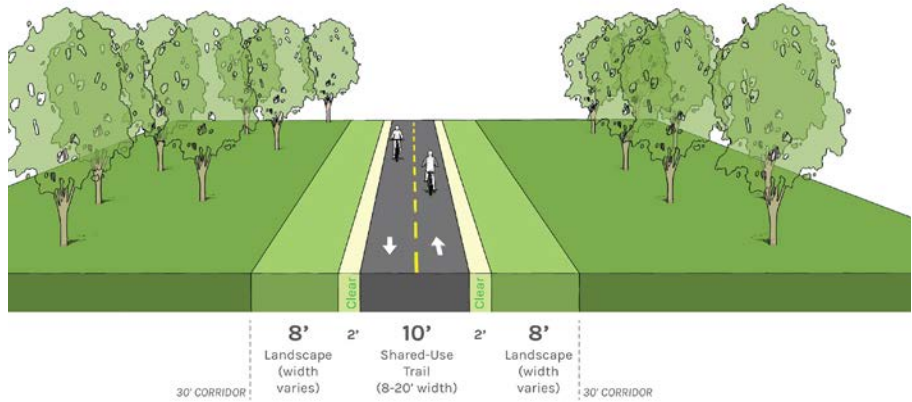
IMPLEMENTATION NOTES

2-lanes in one direction with extra wide parking lane. Remove parking and install separated bikeway.
40' pavement curb-to-curb.

23D 1.5 MILES

27TH TO 10TH

Partial city & partial county Owned



PROPOSED FACILITY

Off Road

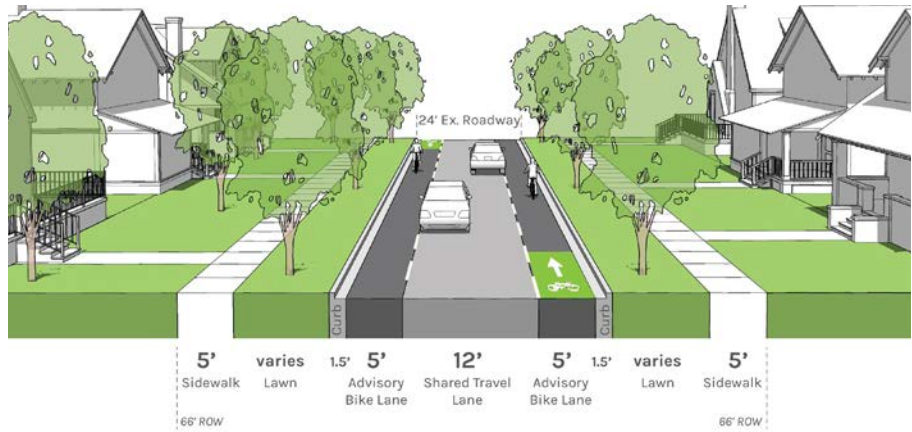
IMPLEMENTATION NOTES

North side of Rail Corridor. Off-street path on the north side of the rail corridor
New bike-ped bridge at 24th street.

23E 0.6 MILE

7TH STREET

City Owned
AADT 6200



PROPOSED FACILITY

Advisory Lane

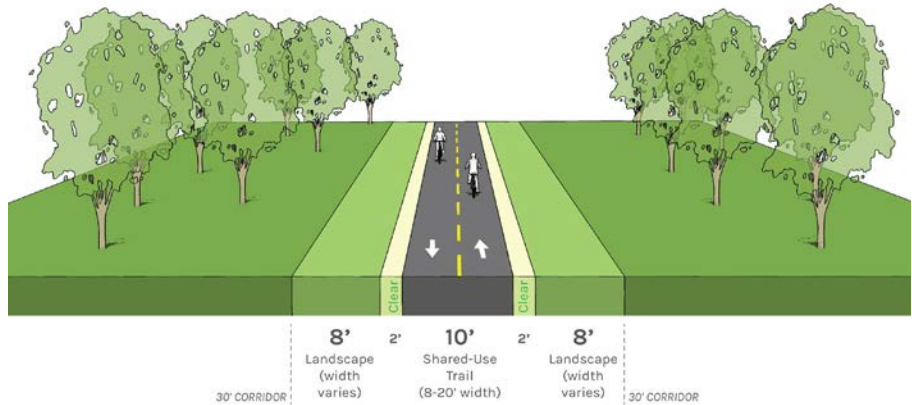
IMPLEMENTATION NOTES

34' roadway
Advisory lanes with parking OR protected bikeway

24F 0.5 MILES

GRISWOOD TO LAPEER

City Owned



PROPOSED FACILITY

Off Road

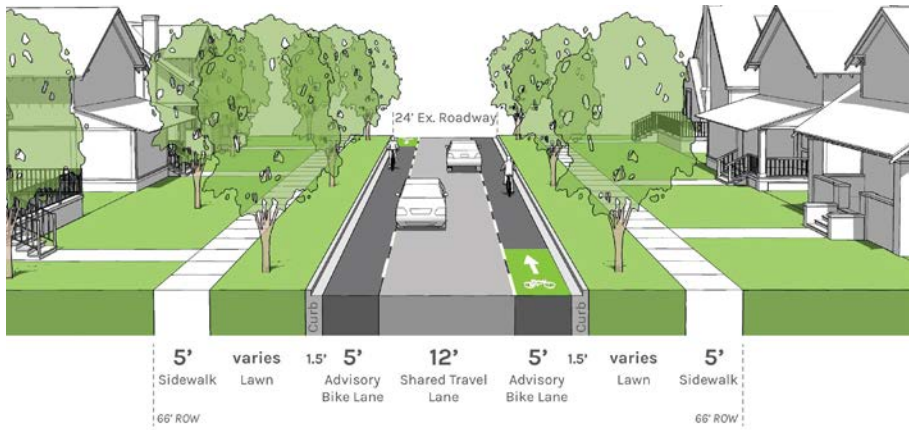
IMPLEMENTATION NOTES

Off-street path on the north side of the rail corridor.

24G 0.8 MILE

LAPEER TO WATER

City Owned

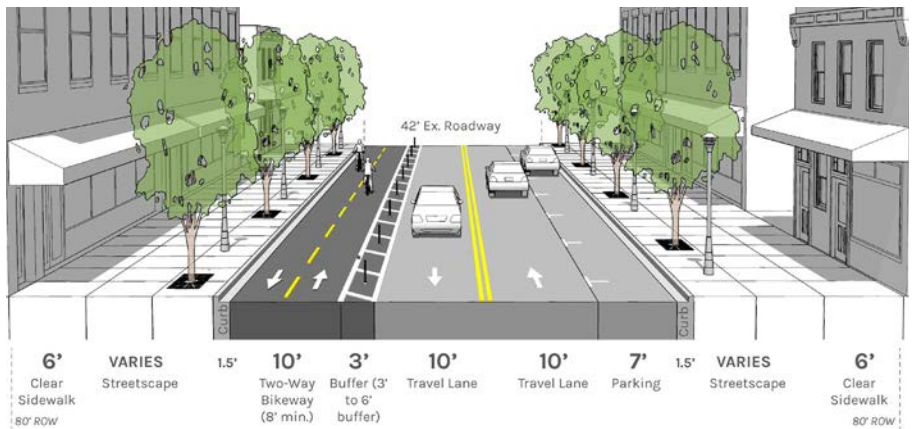


PROPOSED FACILITY	IMPLEMENTATION NOTES
Protected Bikeway	~32' pavement Add advisory bike lanes with parking on one side

24H 0.4 MILE

WATER STREET

County Owned

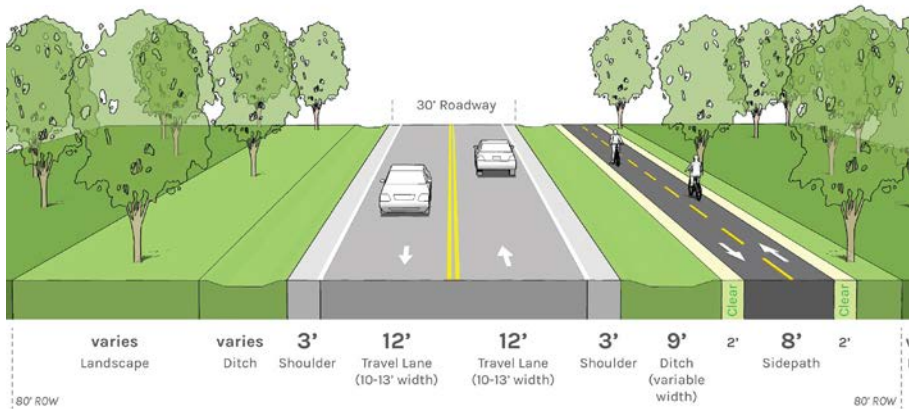


PROPOSED FACILITY	IMPLEMENTATION NOTES
Protected Bikeway	4-lanes, ~10,000 AADT Road Diet candidate Add protected bikeway

24I 0.5 MILES

32ND STREET

County Owned



PROPOSED FACILITY	IMPLEMENTATION NOTES
Sidepath	Add sidepath along the roadway - likely on the West side of the street. Crossing improvements needed.

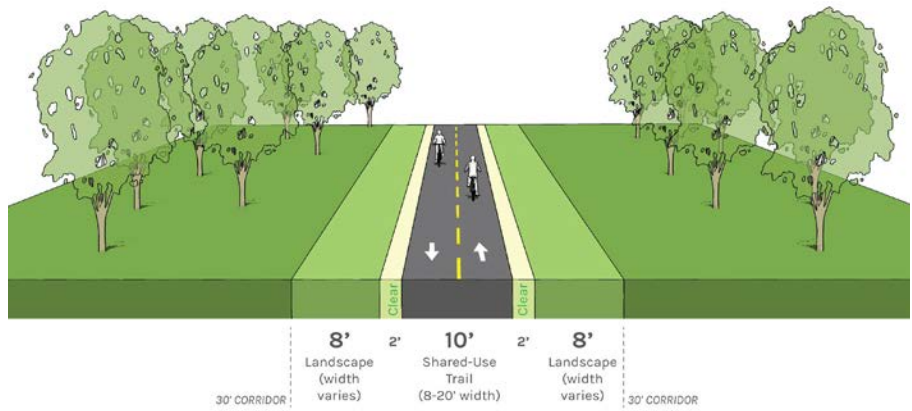
24J

1.4 MILE

LAPEER CONNECTOR

State Owned

AADT 6200



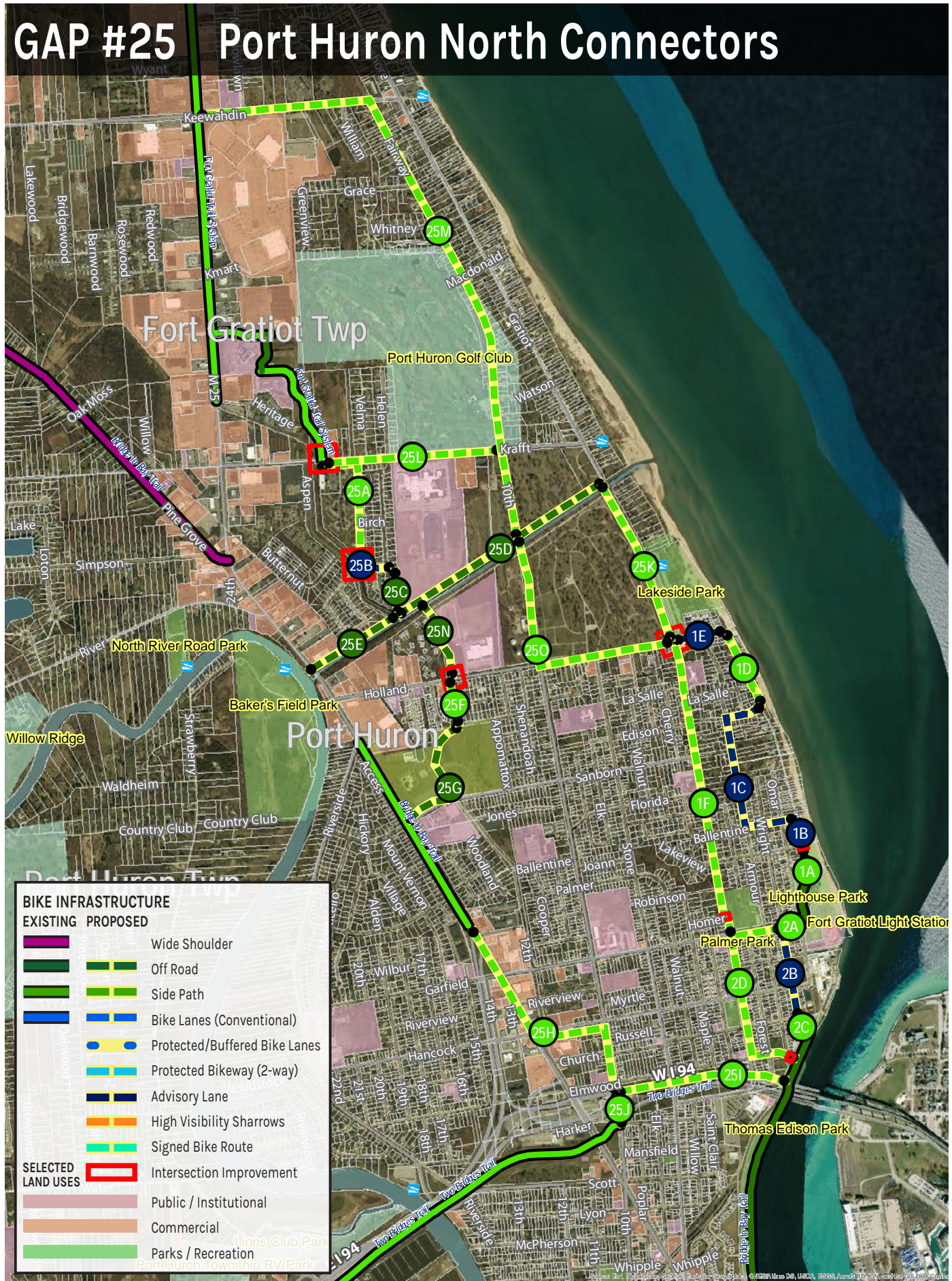
PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

Add sidepath to the east and south side of the Lapeer Connector roadway. Separate from roadway as much as possible given travel speeds and volumes.

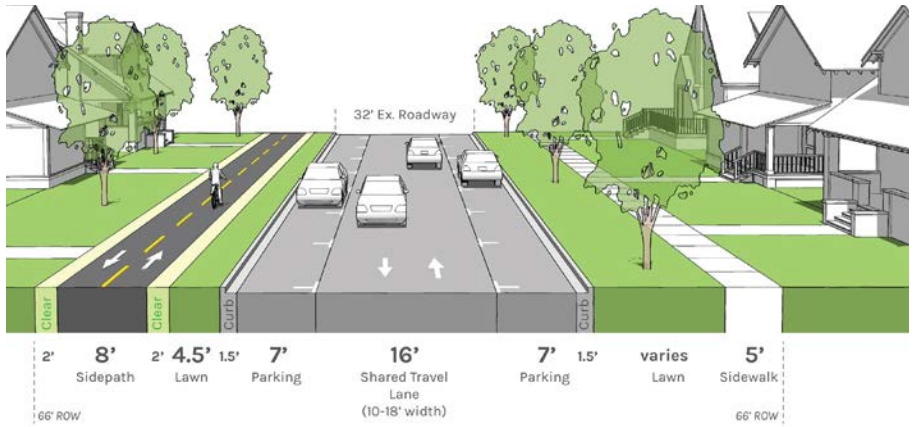
GAP #25 Port Huron North Connectors



25A 0.4 MILE

ASPEN

City Owned
Existing median.
AADT 6900



PROPOSED FACILITY

Sidepath

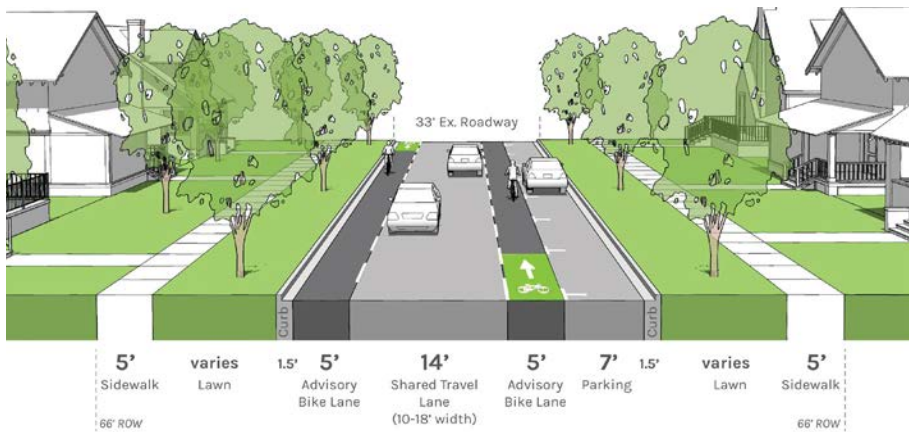
IMPLEMENTATION NOTES

Use median for side path.

25B 700 FEET

JACK PINE LN

City Owned
Road Diet planned (4-lane ends at Palmer) to add bike lanes



PROPOSED FACILITY

Advisory Lane

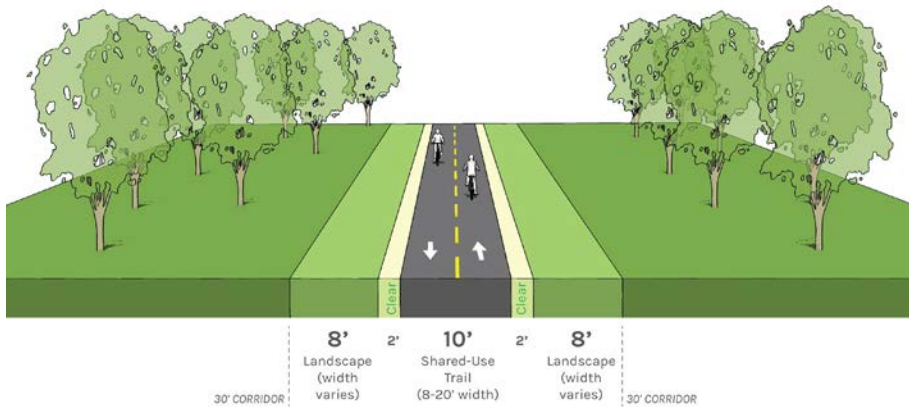
IMPLEMENTATION NOTES

Small on-street connection. Use Advisory bike lanes or high visibility sharrows.

25C 700 FEET

CATALPA CT

City Owned



PROPOSED FACILITY

Off Road

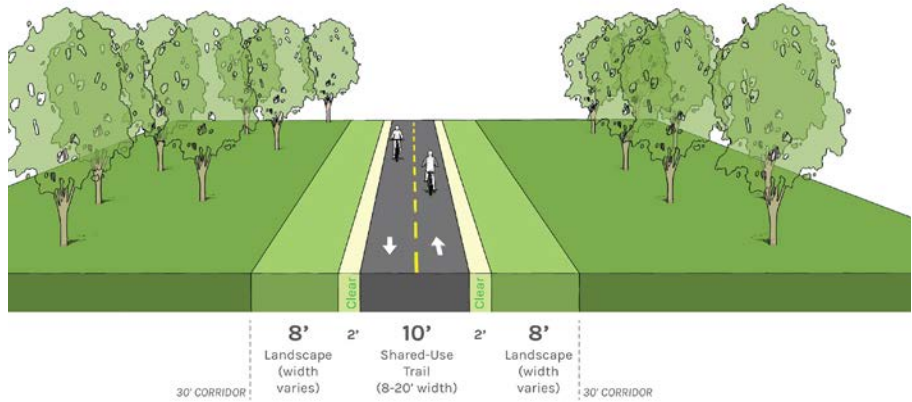
IMPLEMENTATION NOTES

New off-street trail connections on school properties and top of bank

25D 0.7 MILES

BLACK RIVER TO GRATIOT

City Owned



PROPOSED FACILITY

Off Road

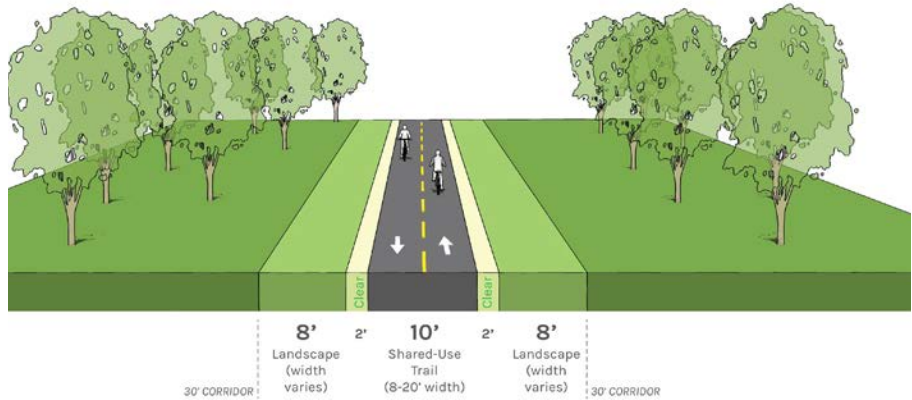
IMPLEMENTATION NOTES

New off-street trail connections on school properties and top of bank

25E 0.3 MILES

BLACK RIVER TO PINE GROVE AVE

City Owned



PROPOSED FACILITY

Off Road

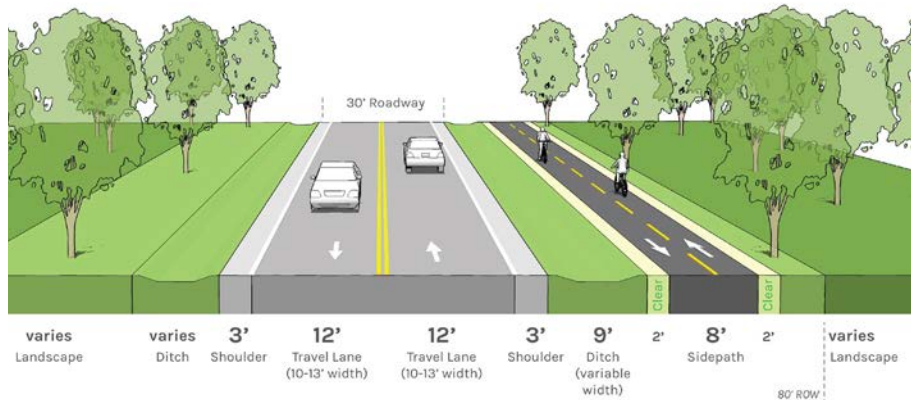
IMPLEMENTATION NOTES

New off-street trail connections on school properties and top of bank

25F 0.1 MILES

PARKWAY DRIVE

City Owned



PROPOSED FACILITY

Sidepath

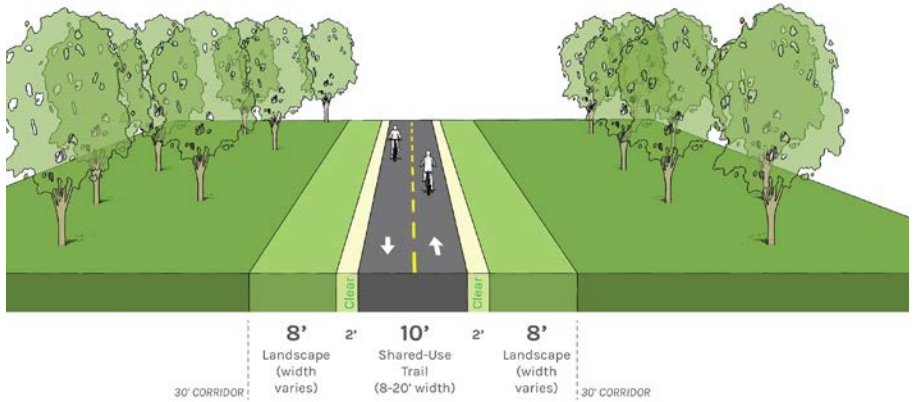
IMPLEMENTATION NOTES

No existing sidewalks. Build sidepath on the west side of the road

25G 0.4 MILES

SANBORN PARK

City Owned



PROPOSED FACILITY

Off Road

IMPLEMENTATION NOTES

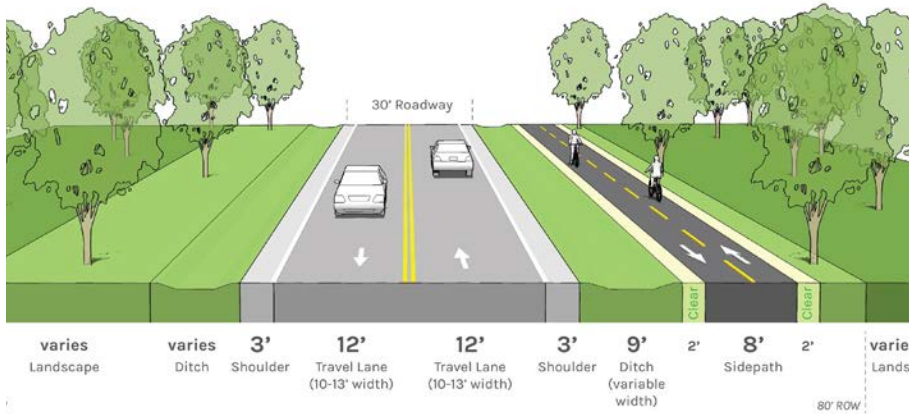
Path through the park

25H 0.3 MILES

PINE GROVE AVE

State Owned

AADT 26600



PROPOSED FACILITY

Sidepath

IMPLEMENTATION NOTES

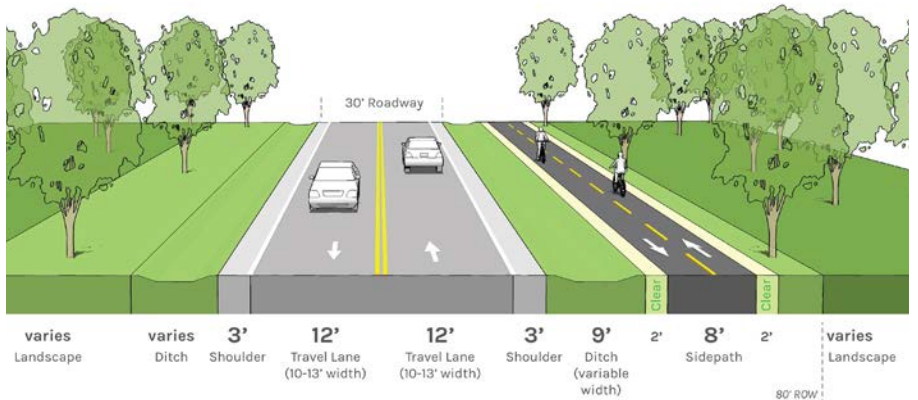
Continue existing sidepath further south

25I 0.8 MILES

HANCOCK TO GRATIOT

State Owned

AADT 10000



PROPOSED FACILITY

Sidepath

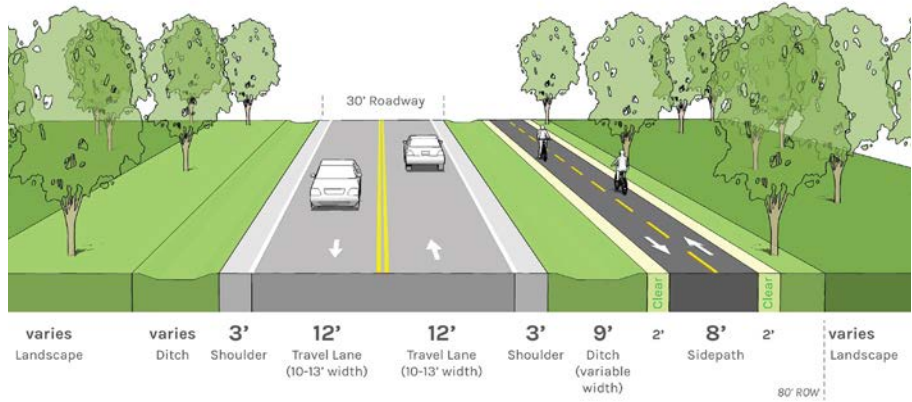
IMPLEMENTATION NOTES

Widen existing sidewalk on south + west sides into a sidepath (Hancock, 10th, and Elmwood)

25J 0.1 MILE

BRIDGE CONNECTOR

State Owned



PROPOSED FACILITY

Sidepath

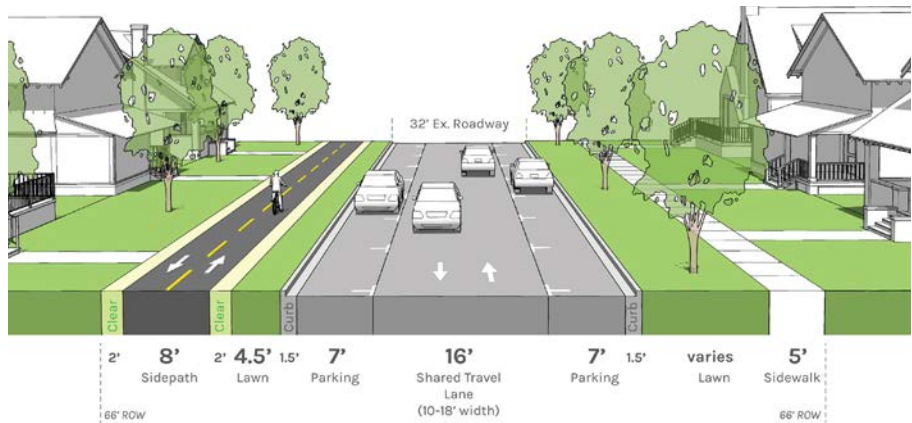
IMPLEMENTATION NOTES

Provide a sidepath spur under the overpass to connect to the existing Two Bridges Trail.

25K 0.5 MILE

LAKESIDE PARK

City Owned



PROPOSED FACILITY

Sidepath

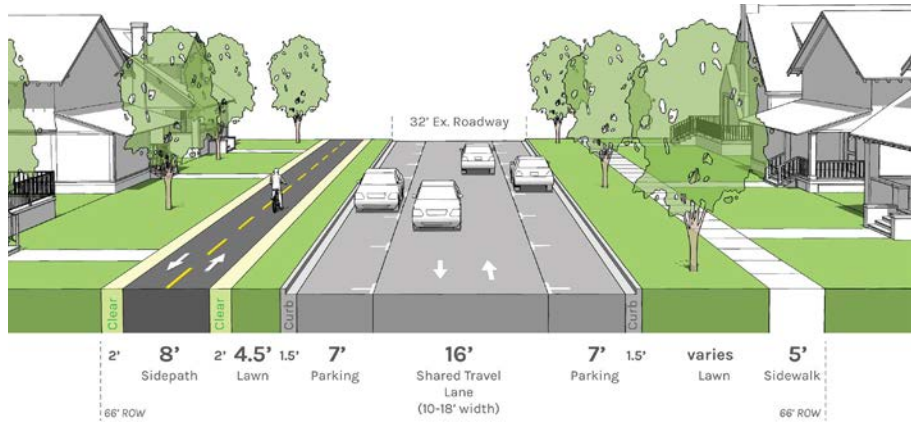
IMPLEMENTATION NOTES

Sidepath on the west side of the road. Bridge does not need center turn lane.

25L 0.8 MILES

KRAFFT ROAD

City Owned



PROPOSED FACILITY

Sidepath

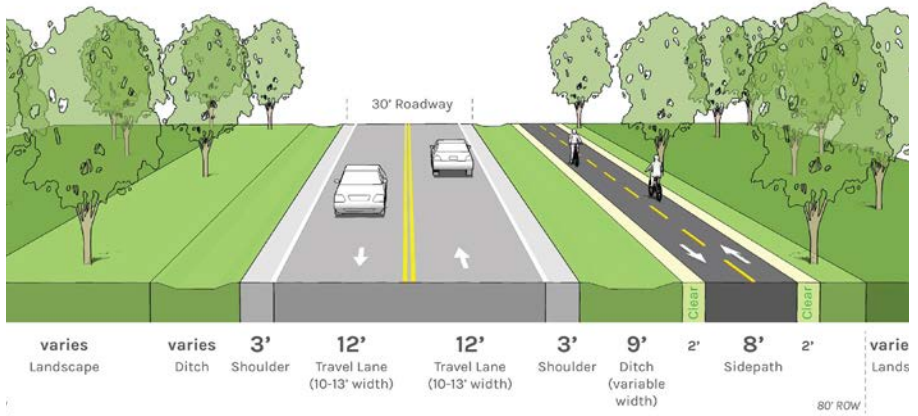
IMPLEMENTATION NOTES

Sidepath opportunity on the Soutside of Krafft

25M 1.7 MILE

FAIRWAY / 10TH STREET

City Owned



PROPOSED FACILITY

Protected Bikelane / Sidepath

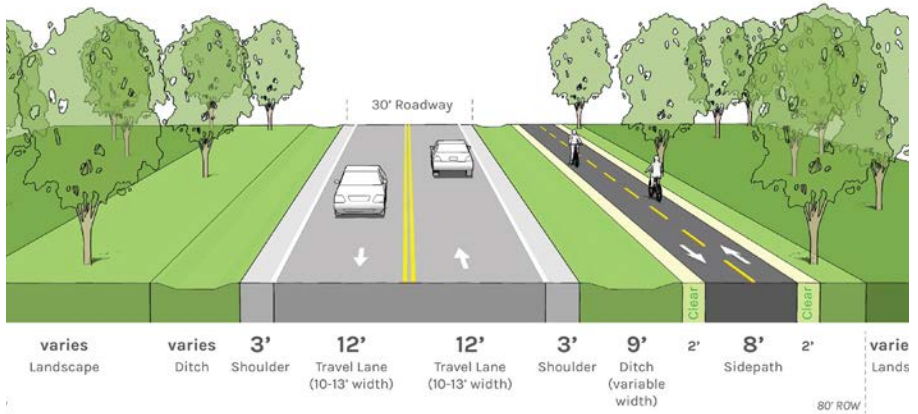
IMPLEMENTATION NOTES

Sidepath along Fairway (long-term) and advisory bike lanes (short-term).

25N 1300 FEET

RAMBLEWOOD DR

City Owned



PROPOSED FACILITY

Sidepath

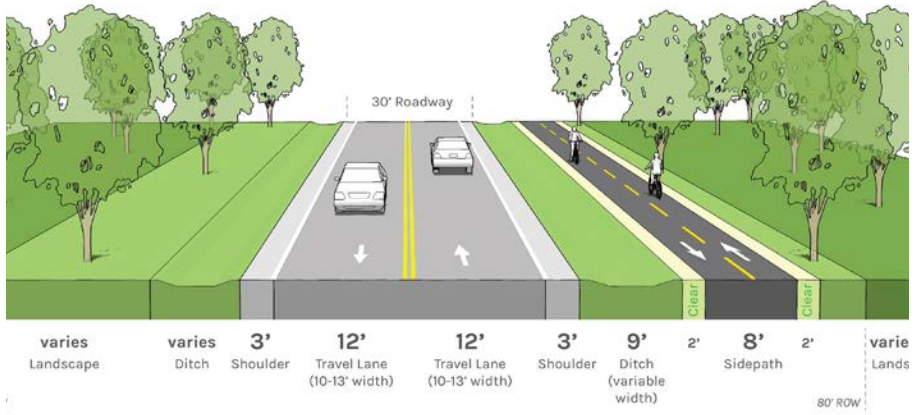
IMPLEMENTATION NOTES

New off-street trail connections on school properties and top of bank

25O 1.7 MILE

10TH STREET / HOLLAND

City Owned



PROPOSED FACILITY

Protected Bikelane / Sidepath

IMPLEMENTATION NOTES

Sidepath along 10th street and Holland (long-term) and advisory bike lanes (short-term).

APPENDIX

MEETING PRESENTATIONS

STEERING COMMITTEE MEETING #1



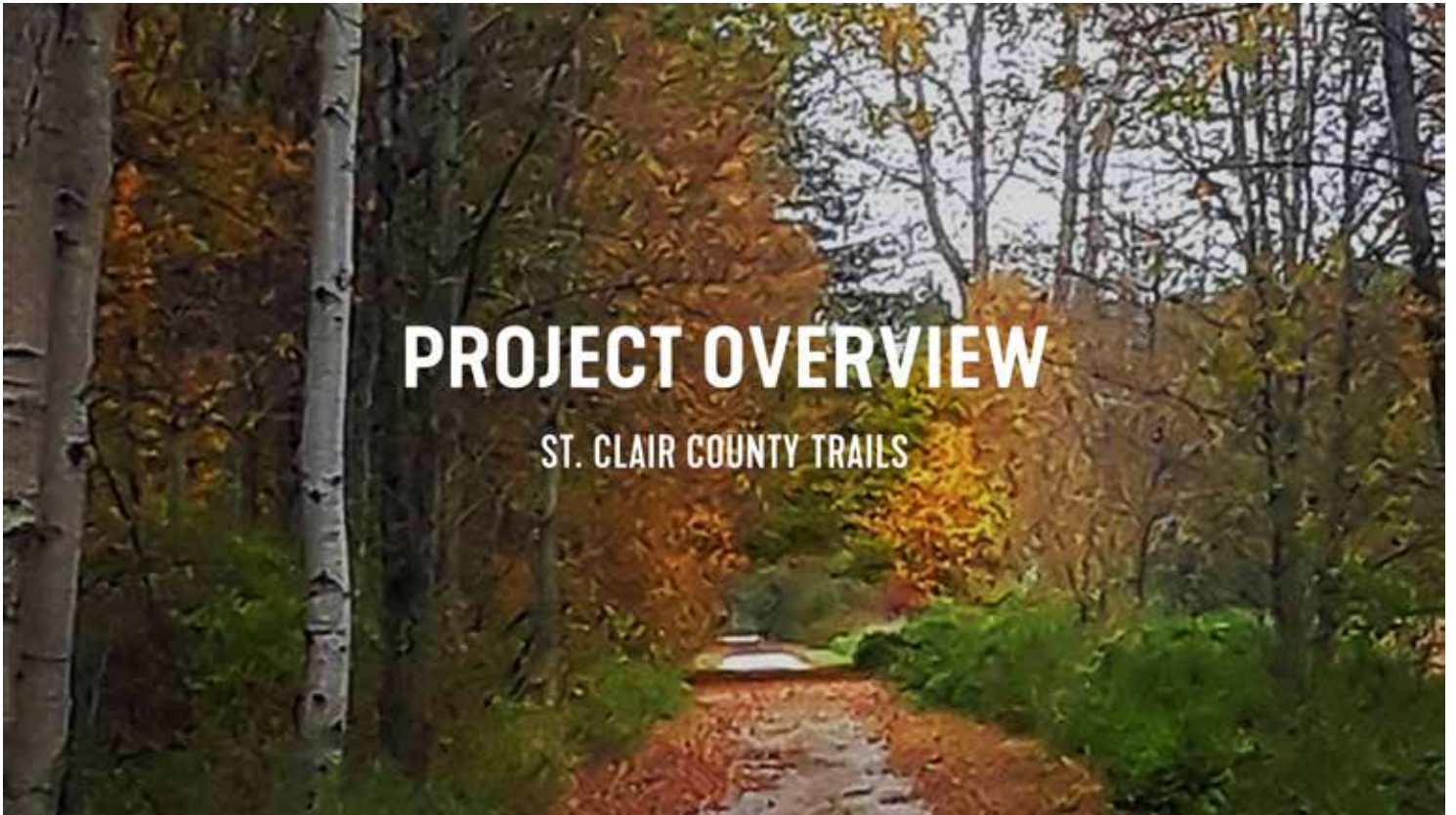
AGENDA

STEERING COMMITTEE MEETING



1. Welcome/Introductions
2. Project Overview
3. Project Goals
4. Greenway and Trail Benefits
5. Existing Conditions
6. Economic Asset Mapping
7. Gap/Route Mapping
8. Next Steps





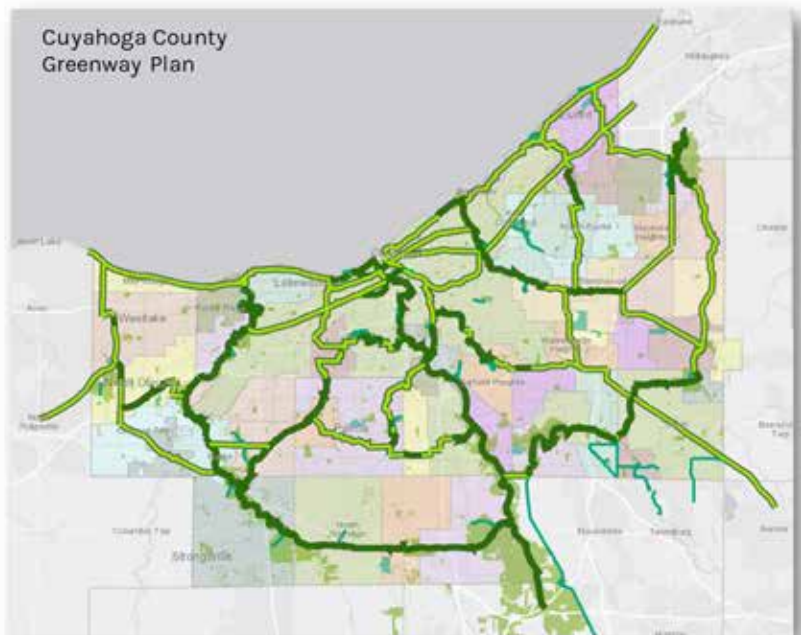
PROJECT OVERVIEW

ST. CLAIR COUNTY TRAILS

PROJECT PURPOSE

Develop a countywide non-motorized strategy and action plan

- Identify existing gaps in countywide trail networks
- Identify preferred alternatives to eliminate the gaps
- Prioritize the timing for completing the needed connections



GREENWAYS & URBAN TRAILS

Greenways are dedicated, linear spaces that provide opportunities for recreation, non-motorized transportation, and natural features.

- Typically includes shared-use trails, landscaping, natural amenities, and site furnishings.
- Typically off-street.
- Designed for all ages and all abilities

Urban Trails are dedicated facilities that provide non-motorized connections through and between communities for recreation and access to jobs to community assets.

- Typically located within public rights-of-way or other constrained spaces.
- Typically includes bicycle facilities and/or pathways separated from vehicle roadways.
- Designed for all ages and all abilities
- May include additional landscaping, natural features, and site furnishings.



BENEFITS OF GREENWAYS & URBAN TRAILS

Generates **economic activity**

- Adds to property value, attracts businesses and residents, contributes to tourism

Enhances **cultural awareness and community identity**

- Connects to local heritage, interpretive opportunities, and community destinations

Increases **mobility and transportation options**

- Connect jobs, commercial areas, institutions, and residents

Improves **community health through active living**


- Creates attractive, safe, accessible places to walk, bike, hike, run and more

Provides **environmental benefits**

- Manages stormwater, protects and restores habitat, improves air and water quality



DESIGN FOR ALL AGES

<p>Interested but Concerned 51%-56% of the total population</p> <p>Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.</p>	<p>Somewhat Confident 5-9% of the total population</p> <p>Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.</p>	<p>Highly Confident 4-7% of the total population</p> <p>Comfortable riding with traffic; will use roads without bike lanes.</p>
		
<p>LOW STRESS TOLERANCE</p>		<p>HIGH STRESS TOLERANCE</p>

LOW STRESS BICYCLE FACILITIES



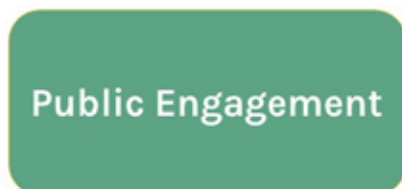
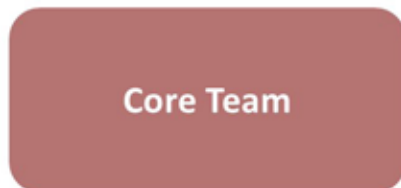
STEERING COMMITTEE MEETING #1

PROJECT AREA

8 cities, 23 townships + numerous villages and unincorporated communities



STRUCTURE + ROLES



- **Core Team** - primary contact for this project responsible for providing guidance, direction and decision-making
- **Steering Committee** - responsible for providing perspective on important state, regional and community trail and greenway issues
- **Public Engagement** - responsible for providing perspective on important trail and greenway issues from their respective communities
 - Public meetings/workshops
 - Surveys
 - Project website / portal



PROJECT GOALS

ST. CLAIR COUNTY TRAILS

PROJECT GOALS

- Develop a regional connected trail network providing access to essential assets and destinations within and external to St. Clair County.
- Use trails as an economic development and reinvestment driver for St. Clair County communities.
- Leverage existing plans and initiatives to encourage collaboration and effective use of resources.
- Enhance community health, public safety, and green infrastructure through trail design and management.



EXISTING CONDITIONS

ST. CLAIR COUNTY TRAILS

ST. CLAIR COUNTY TRAILS

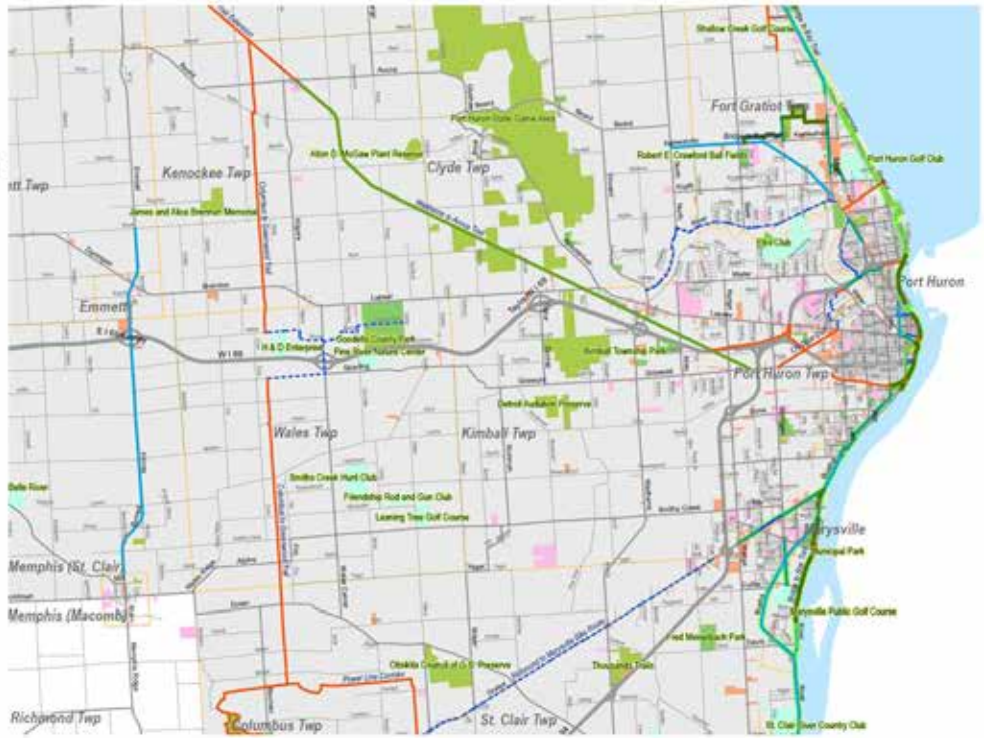
MAJOR TRAIL INITIATIVES

- Bridge-to-Bay Trail
- Great Lake-to-Lake Trail (route #1)
- Wadhams to Avoca Trail



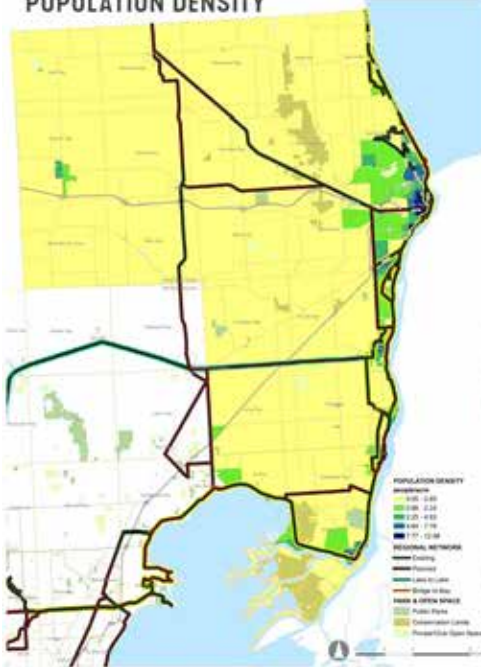
FACILITY INVENTORY

- Trail Type (SEMCOG_BikePed)**
 - 8-10' Shared-use Path
 - 8' Fines Shared-use Path
 - Planned Shared-use Path
 - Planned Unimproved Path
- County Bike (SEMCOG_BikePed)**
 - Mapped Only Bike Route
 - Planned Back-Road Bike Route
 - Planned Bike Route
- On Road (SEMCOG_BikePed)**
 - Bike Lane Existing
 - Wide Shoulder Existing
- Side Path (SEMCOG_BikePed)**
 - 8-10' Side Path
- PARK & OPEN SPACE**
 - Public Parks
 - Conservation Lands
 - Private/Club Open Space
- Land Use**
 - Public / Institutional Land Uses
 - Commercial Land Uses
- Bridge to Bay (Highlight)**
 - Bridge to Bay
- Lake to Lake (Highlight)**
 - Lake to Lake
- Municipal Boundaries**
 - Municipal Boundaries

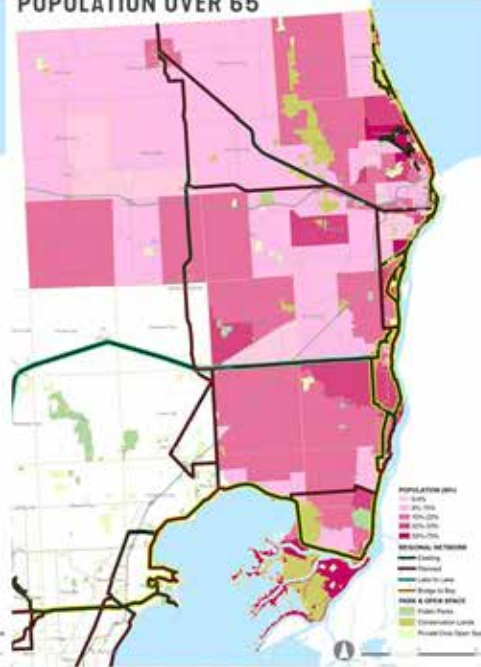


DEMOGRAPHIC MAPPING

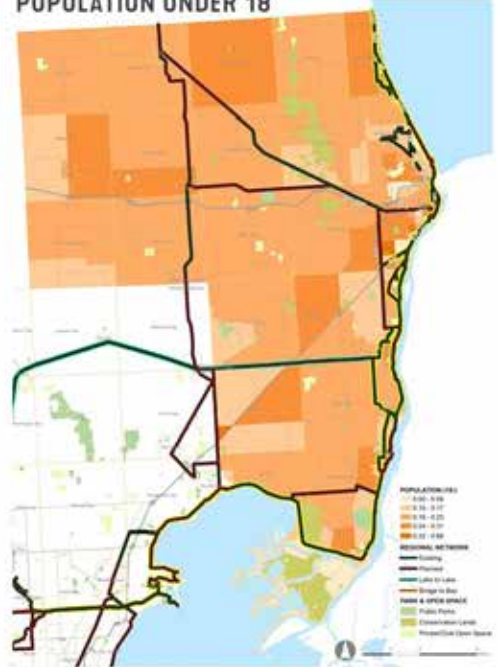
POPULATION DENSITY



POPULATION OVER 65



POPULATION UNDER 18



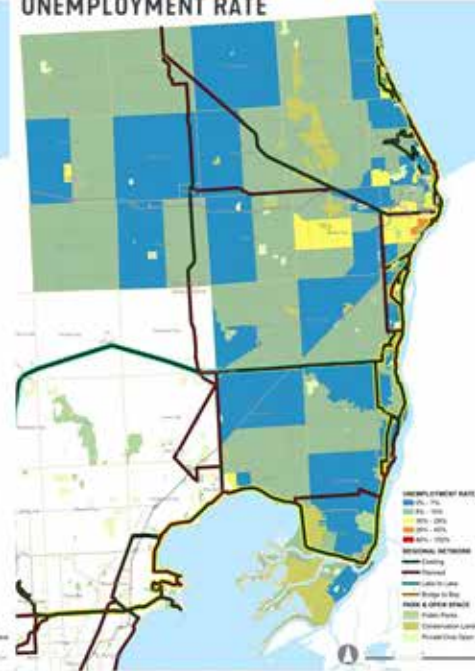
STEERING COMMITTEE MEETING #1

DEMOGRAPHIC MAPPING

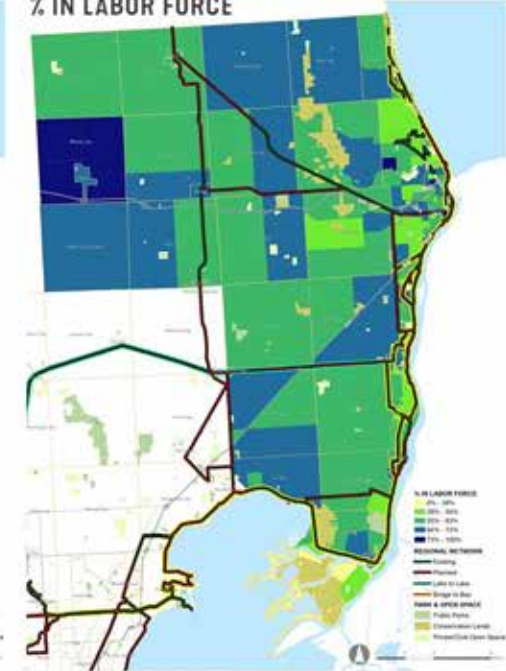
JOB DENSITY



UNEMPLOYMENT RATE

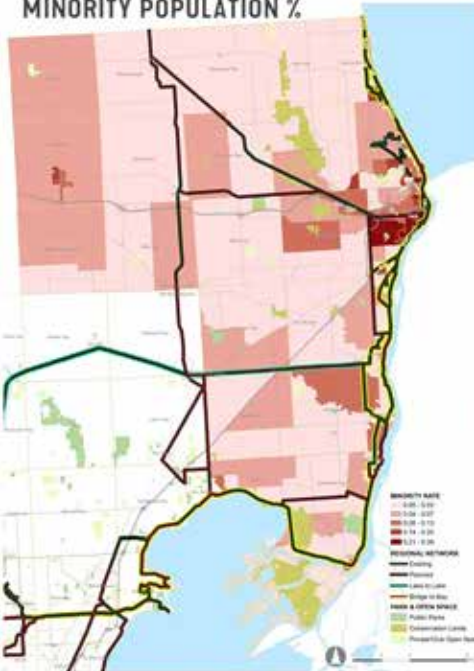


% IN LABOR FORCE

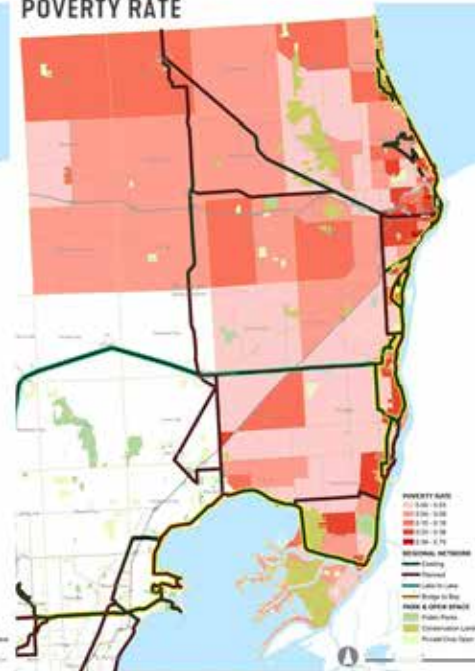


DEMOGRAPHIC MAPPING

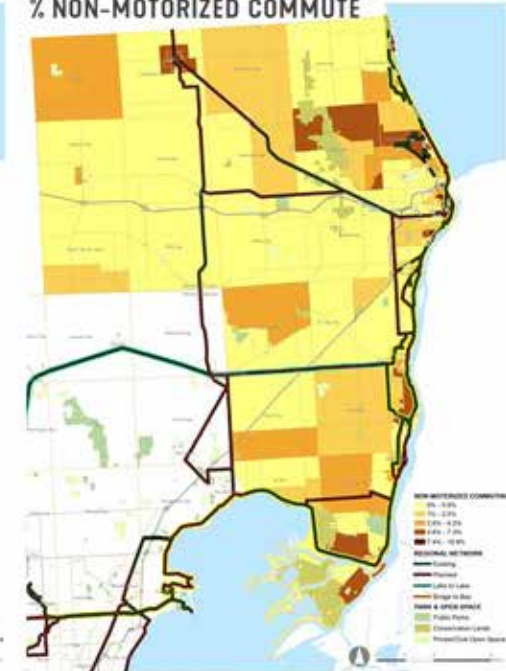
MINORITY POPULATION %



POVERTY RATE



% NON-MOTORIZED COMMUTE



DATA ANALYSIS

NEXT STEPS

- Are there other important pieces of data or information to collect?
- What topics or factors are important to you?
- What questions do you have that you'd like an answer to?



STEERING COMMITTEE MEETING #1

GROUP MAPPING SESSION

Break out into small groups and complete **three** tasks working in a small group:

#1 - **BLUE DOTS / MARKS = Assets and Destinations**

Mark destinations like parks, commercial centers, job hubs, and other assets using **blue markers and dots**

#2 - **RED DOTS / MARKS = Challenges & Obstacles**

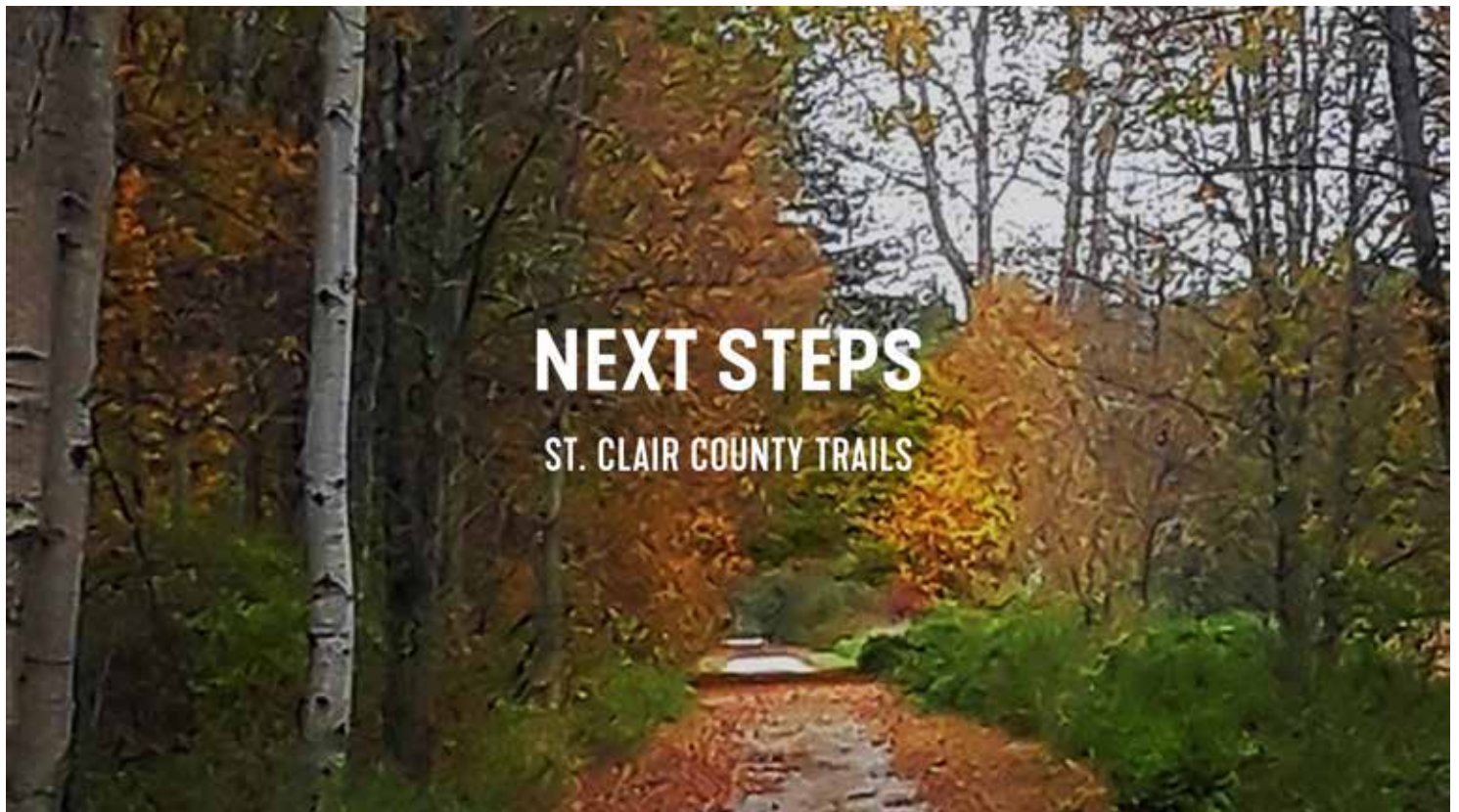
Mark/outline challenges or obstacles using **red markers and dots**

#3 - **GREEN DOTS / MARKS = Trail Opportunities**

Mark planned or proposed trails, new route ideas, trailheads, needed connections, etc. using **green markers and dots**

LEAVE A COMMENT WITH EVERY DOT/MARK

CONSIDER POTENTIAL ALIGNED PROJECTS, PARTNERS, FUNDING



SCHEDULE

NEXT STEPS

	Oct 15	Oct 22	Oct 29	Nov 5	Nov 12	Nov 19	Nov 26	Dec 3	Dec 10	Dec 17	Dec 24	Dec 31	Jan 7	Jan 14	Jan 21	Jan 28	Feb 4	Feb 11	Feb 18	Feb 25	Mar 4	Mar 11	Mar 18	Mar 25	
Core Team Meetings/Calls	■		■		■		■		■		■		■		■				■		■		■		
Task One																									
1.1 Project Team Organization	10/15																								
1.2 Community Engagement																									
1.3 Steering Committee #1				11/7																					
Task Two																									
2.1 Context Analysis																									
2.2 Non-Motorized Network Assessment																									
Community Meeting #1 (two mtgs.)								12/11																	
Task Three																									
3.1 Alternatives Analysis																									
Steering Committee #2																									
Community Meeting #2 (two mtgs.)													wk of 1/14												
Task Four																									
4.1 Preferred Route																									
Steering Committee #3																									
4.2 Draft Report																									
Steering Committee #4																									
Community Meeting #3 (two mtgs.)																									
Final Report																									3/21

- Public Meetings December 11, 2018
- Steering Committee #2 - TBA (week of Jan 14th)



STEERING COMMITTEE MEETING #1

SOME IMAGES FROM THE INTERNET - WADHAMS TO AVOCA TRAIL



SOME IMAGES FROM THE INTERNET - BRIDGE TO BAY TRAIL



PUBLIC MEETING #1



AGENDA

STEERING COMMITTEE MEETING



1. Welcome/Introductions
2. Project Overview
3. Goals and Process
4. Existing Conditions
5. Feedback Activities
6. Next Steps





PROJECT PURPOSE

Develop a countywide non-motorized strategy and action plan

- Identify existing gaps in countywide trail networks
- Identify preferred alternatives to eliminate the gaps
- Prioritize the timing for completing the needed connections



PROJECT AREA

- 8 cities, 23 townships + numerous villages and unincorporated communities
- 26 of 54 miles of the Bridge to Bay Trail system complete. Easy parts are already done.
- Build on prior planning efforts:
 - St. Clair County Trails and Routes Action Plan (2009)
 - The Blueways of St. Clair
 - 2040 Long Range Transportation Plan (2014)
 - SEMCOG Regional Bike & Pedestrian Plan (2014)
 - US Bike Route 20



WHO IS INVOLVED?

LEAD ORGANIZATIONS



**ST. CLAIR COUNTY
METROPOLITAN
PLANNING
COMMISSION**



TRAIL PLAN CONSULTANT

SMITHGROUP

OTHER PARTNERS



**PUBLIC SECTOR
CONSULTANTS**

PUBLIC MEETING #1

TRAILS

Trails are dedicated, linear non-motorized corridors that provide opportunities for recreation, non-motorized transportation, and natural features.

- Typically includes shared-use trails, landscaping, natural amenities, and site furnishings.
- Typically off-street.
- Designed for all ages and all abilities



BIKEWAYS

Bikeways are dedicated bicycle infrastructure that provide connections through and between communities for recreation and access to jobs to community assets.

- Typically located within public rights-of-way or other constrained spaces.
- Desire for bicycle infrastructure and pathways to be separated from vehicular roadway.
- Designed for all ages and all abilities
- May include additional landscaping, natural features, and site furnishings.



BENEFITS OF TRAILS & BIKEWAYS

Generates **economic activity**

- Adds to property value, attracts businesses and residents, contributes to tourism

Enhances **cultural awareness and community identity**

- Connects to local heritage, interpretive opportunities, and community destinations

Increases **mobility and transportation options**

- Connect jobs, commercial areas, institutions, and residents

Improves **community health through active living**

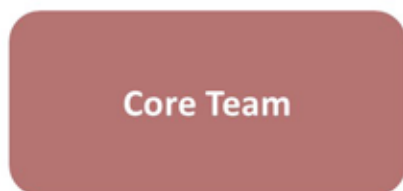
- Creates attractive, safe, accessible places to walk, bike, hike, run and more

Provides **environmental benefits**

- Manages stormwater, protects and restores habitat, improves air and water quality



PROJECT STRUCTURE + ROLES



- **Core Team** - primary group for this project responsible for providing guidance, direction and decision-making

- St. Clair County Parks, St. Clair County Metropolitan Planning Commission, Great Lake to Lake Trails



- **Steering Committee** - responsible for providing perspective on important state, regional and community trail and greenway issues



- **Public Engagement** - responsible for providing perspective on important trail and greenway issues from their respective communities

- Public meetings/workshops
- Surveys
- Project website / portal



PROJECT GOALS

1. Develop a **regional connected trail network** providing access to essential assets and destinations within and outside of St. Clair County.
2. Use trails as an **economic development and reinvestment** driver for St. Clair County communities.
3. Leverage existing plans and initiatives to **encourage collaboration, partnerships** and effective use of resources for project implementation
4. Enhance community **health, public safety, and green infrastructure** through sound trail design and management.

PLANNING PROCESS

FOCUS ON GAPS & LINKING TO ECONOMIC OPPORTUNITIES

STEP 1

Fall 2018

- **What are the needs and opportunities? Identify:**
 - Key destinations to access
 - Community demographics and economics
 - Existing trails and bicycle infrastructure
 - Trail and bikeways opportunities

* Engages stakeholders

* Leverages technical analyses

STEP 2

Jan-March 2019

- **What are the options and priorities?**
 - What are the critical gaps?
 - What benefits are provided?
 - Explore alternatives
 - Land access, space availability, costs, funding, etc.

* Engages stakeholders

* Leverages technical analyses

STEP 3

April 2019

- **Trail Framework and Action Plan**
 - Identify project implementors
 - Funding

DESIGNING FOR ALL AGES



Image Credit: Toole Design Group

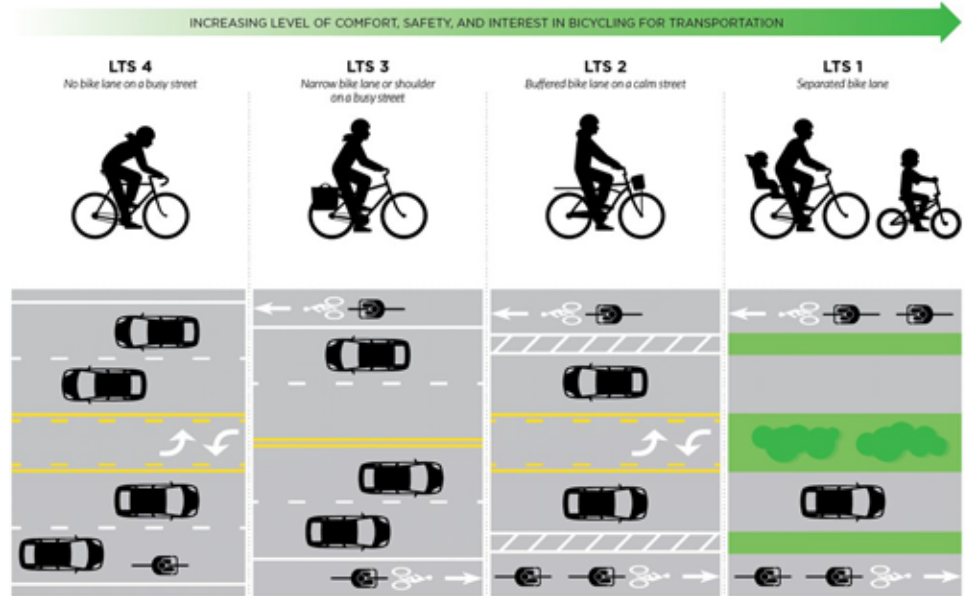
PUBLIC MEETING #1

LEVEL OF TRAFFIC STRESS (LTS)

RELATES TO TYPE OF USER

LTS Based on:

- Speed of road
- Number of travel lanes
- Vehicle traffic volume
- Intersection conditions
- Presence + Width of bike lanes or shoulders
- Physical separation
- Size of vehicles



BASIC BICYCLE INFRASTRUCTURE



Typically Level of Traffic Stress 3 + 4
i.e. higher stress for most bicycle riders



LOWER STRESS BICYCLE INFRASTRUCTURE



Shared Street design
w/ Advisory Bike Lanes

Typically Level of Traffic Stress 2



Bike boulevard / slow street / shared street



Buffered bike lanes

New York, NY

LOWER STRESS BICYCLE INFRASTRUCTURE

Typically Level of Traffic Stress 1 or 2



2-way Protected Bike Lane
(cycletrack)



2-way Protected Bike Lane
(cycletrack)



1-way Protected Bike Lane

LOW STRESS BICYCLE INFRASTRUCTURE

Typically Level of Traffic Stress 1



MAKING SPACE FOR TRAILS & BIKEWAYS

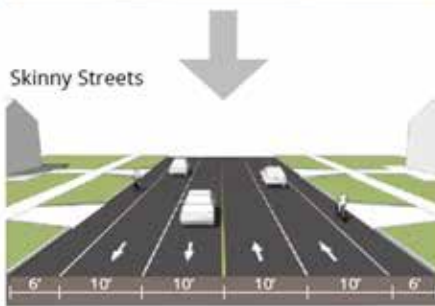
ROAD DIETS

(Remove travel lanes)



SKINNY STREETS

(Narrow travel lanes)



WIDEN SIDEWALKS INTO SIDEPATHS

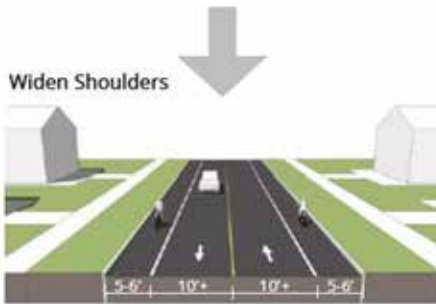
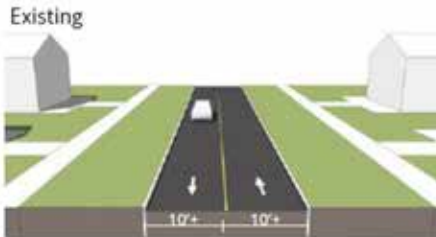
(10' wide shared use paths)



MAKING SPACE FOR TRAILS & BIKEWAYS

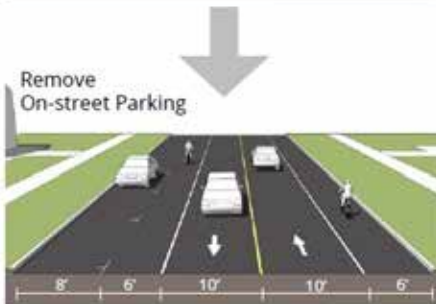
WIDEN SHOULDERS

(8' for buffered bike lanes)



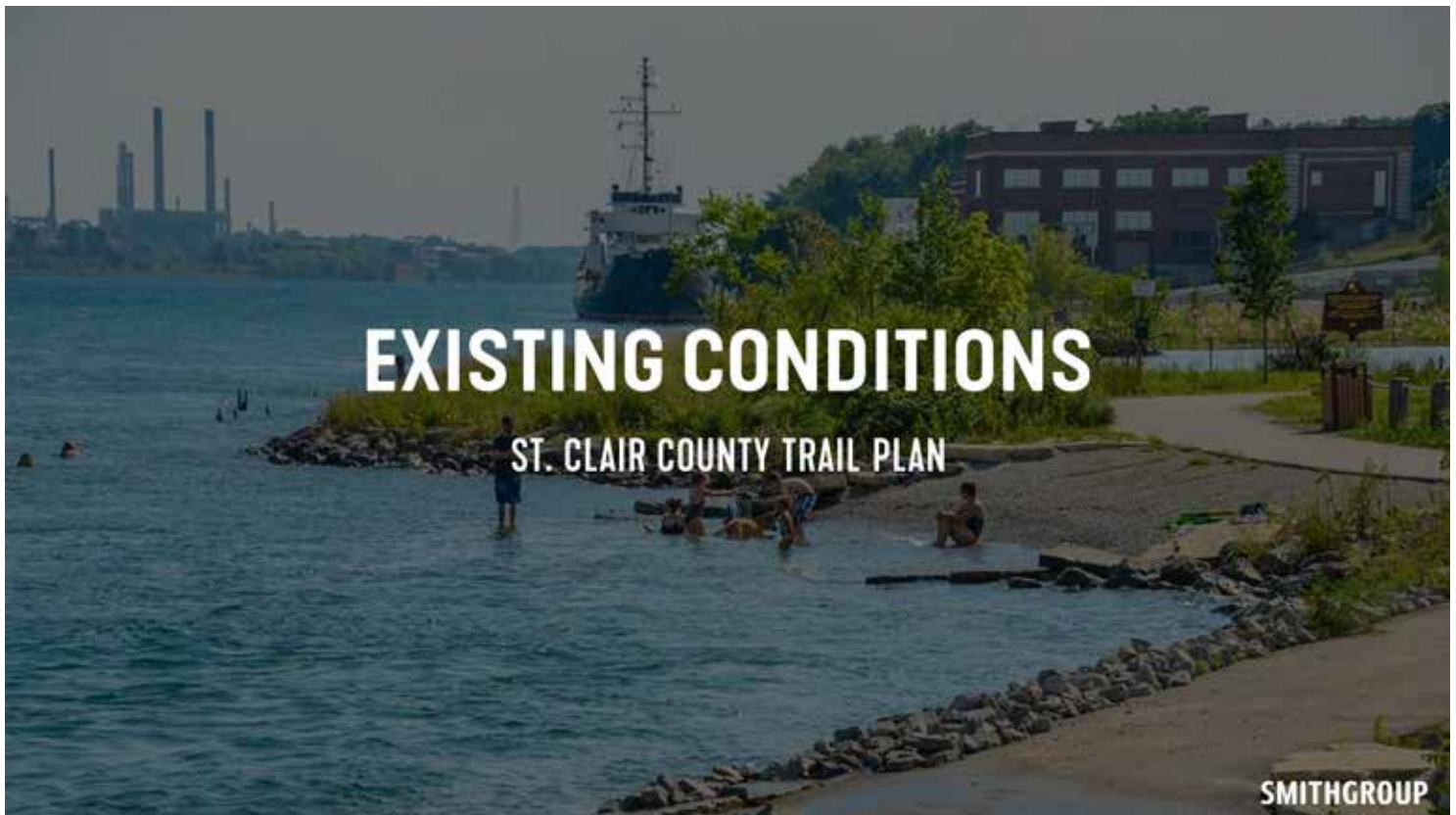
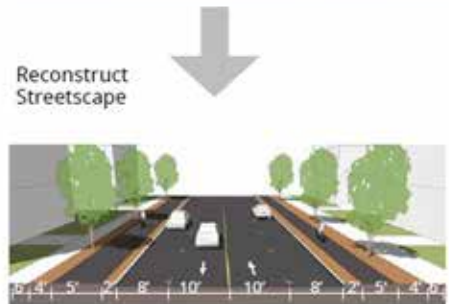
REMOVE PARKING

(Add bike lanes or bikeway)



RECONSTRUCT STREETS

(Protected Bike Lanes or Bikeways)



PUBLIC MEETING #1

ST. CLAIR COUNTY TRAILS

MAJOR TRAIL INITIATIVES

- Bridge-to-Bay Trail
- Great Lake-to-Lake Trail (route #1)
- Wadhams to Avoca Trail



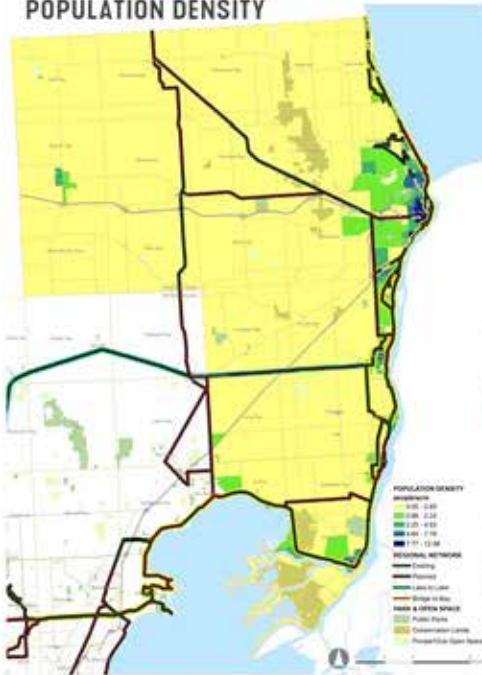
FACILITY INVENTORY

- EXISTING FACILITIES**
 - Off Road
 - Side Path
 - Wide Shoulder
 - On Road Bike Lane
- PROPOSED FACILITIES**
 - Off Road
 - Side Path
 - On Road Bikelane
- IDENTIFIED GAPS**
 - Trail Gap
- PARK & OPEN SPACE**
 - Public Parks
 - Conservation Lands
 - Private/Club Open Space
- Land Use**
 - Public / Institutional Land Uses
 - Commercial Land Uses
- Municipal Boundaries**
 - Municipal Boundaries
- BIKE ROUTE (Highlight)**
 - County
 - Regional
 - USBR20

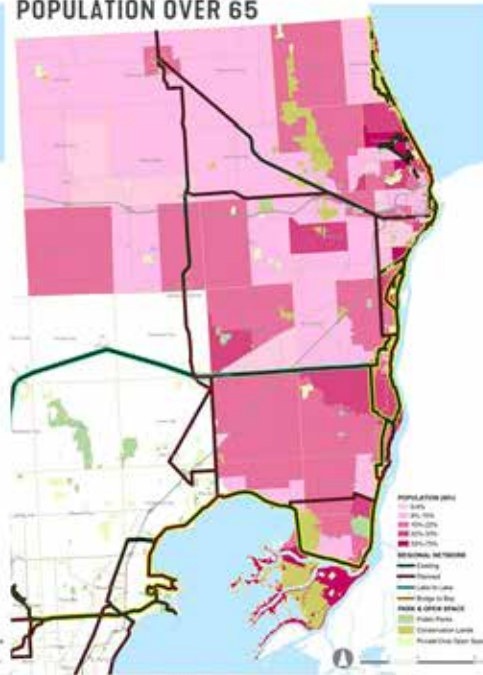


CONTEXT MAPPING

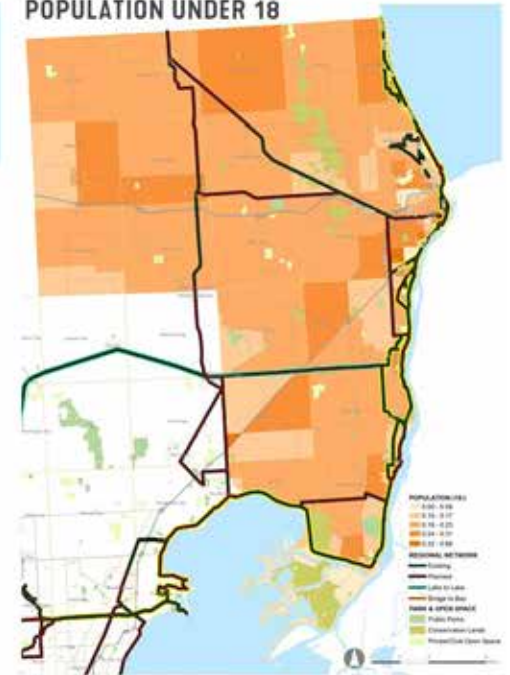
POPULATION DENSITY



POPULATION OVER 65



POPULATION UNDER 18

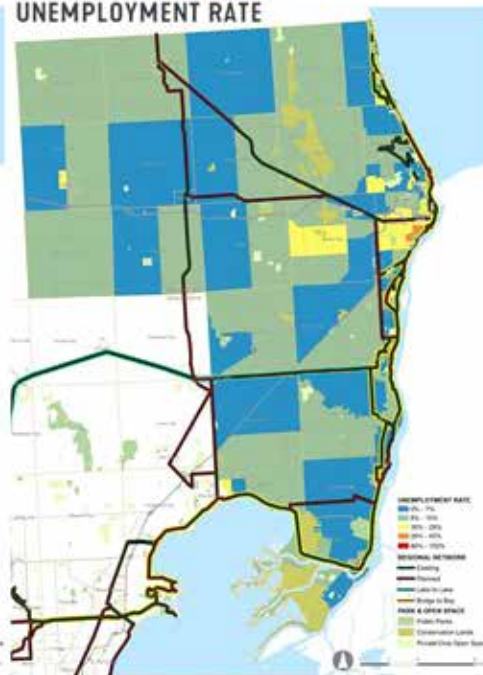


CONTEXT MAPPING

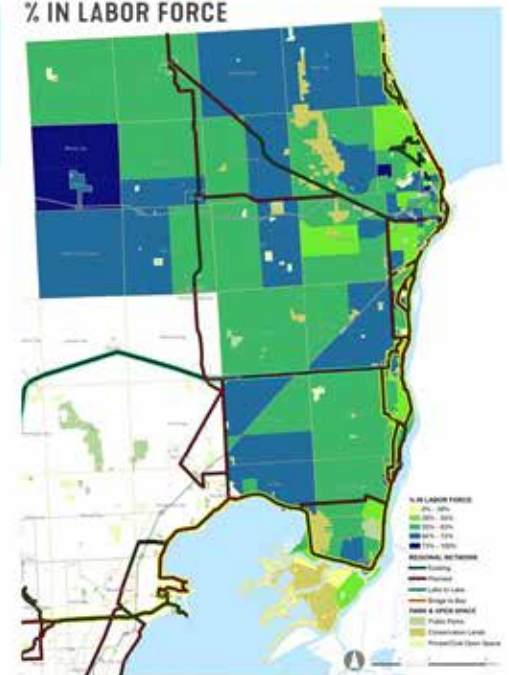
JOB DENSITY



UNEMPLOYMENT RATE



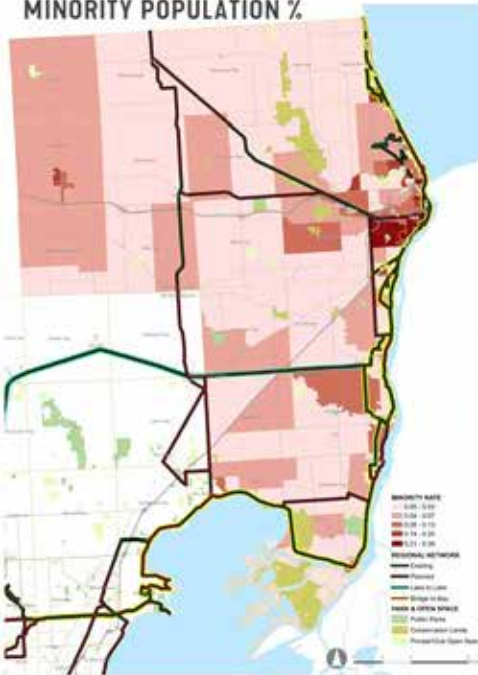
% IN LABOR FORCE



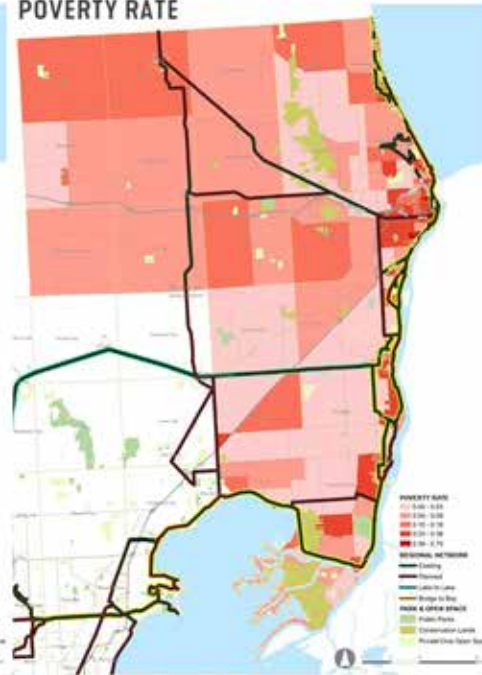
PUBLIC MEETING #1

CONTEXT MAPPING

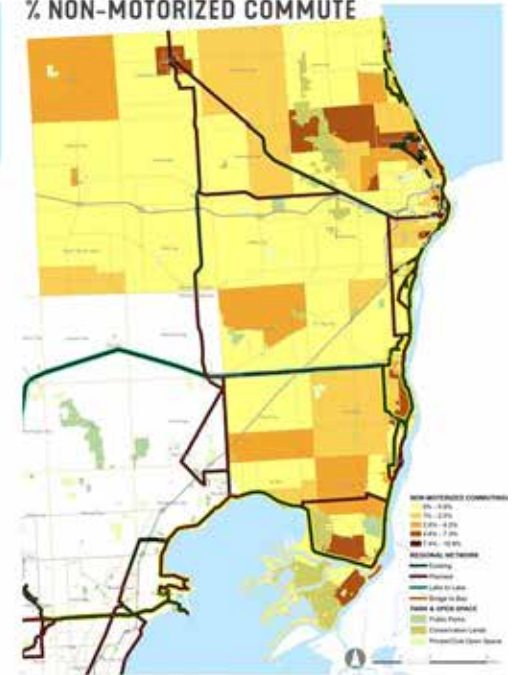
MINORITY POPULATION %



POVERTY RATE



% NON-MOTORIZED COMMUTE



DATA ANALYSIS

NEXT STEPS

- Integration of destinations and asset mapping from Blueways of St Clair, Steering Committee, Public Workshops
- Refined trail inventory and opportunity map
- Analysis summary of demographic and economic needs & opportunity relative to trails
 - Additional data and analyses as needed





OPEN HOUSE MAPPING SESSION

Please leave the following types of feedback on the map boards:

#1 – **BLUE DOTS / MARKS** = Assets and Destinations

Mark destinations like parks, commercial centers, job hubs, and other assets using **blue markers and dots**

#2 – **RED DOTS / MARKS** = Challenges & Obstacles

Mark/outline challenges or obstacles using **red markers and dots**

#3 – **GREEN DOTS / MARKS** = Trail Opportunities

Mark planned or proposed trails, new route ideas, trailheads, needed connections, etc. using **green markers and dots**

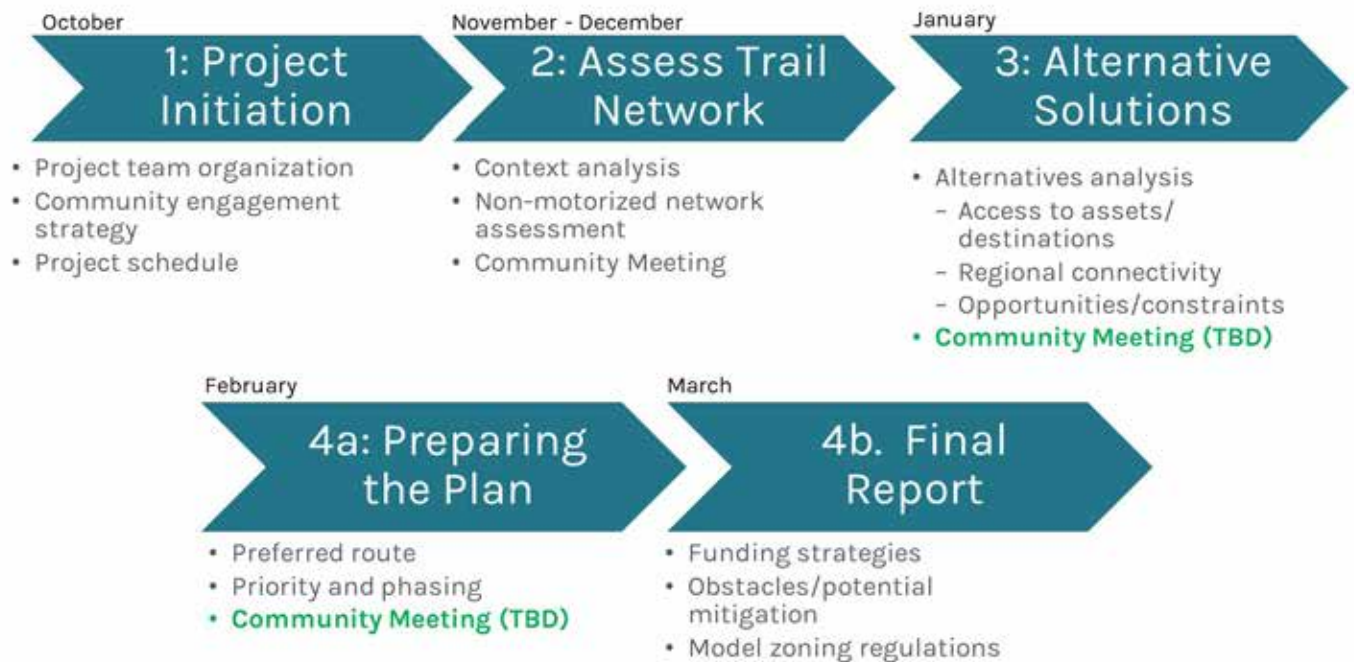
LEAVE A COMMENT WITH EVERY DOT/MARK!!

***** FILL OUT A SURVEY FORUM (OR TAKE ONLINE) *****

PUBLIC MEETING #1



PROJECT SCHEDULE







AGENDA

SCCOTS MEETING 2019-02-13



1. Project Overview
2. Design Approach
3. Starting Ideas
4. Next Steps





PROJECT PURPOSE

Develop a countywide non-motorized strategy and action plan

- Identify existing gaps in countywide trail networks
- Identify preferred alternatives to eliminate the gaps
- Prioritize the timing for completing the needed connections



PROJECT AREA

- 8 cities, 23 townships + numerous villages and unincorporated communities
- 26 of 54 miles of the Bridge to Bay Trail system complete. Easy parts are already done.
- Build on prior planning efforts:
 - St. Clair County Trails and Routes Action Plan (2009)
 - The Blueways of St. Clair
 - 2040 Long Range Transportation Plan (2014)
 - SEMCOG Regional Bike & Pedestrian Plan (2014)
 - US Bike Route 20



PROJECT GOALS

1. Develop a **regional connected trail network** providing access to essential assets and destinations within and outside of St. Clair County.
2. Use trails as an **economic development and reinvestment** driver for St. Clair County communities.
3. Leverage existing plans and initiatives to **encourage collaboration, partnerships** and effective use of resources for project implementation
4. Enhance community **health, public safety, and green infrastructure** through sound trail design and management.

PROJECT STRUCTURE + ROLES

LEAD ORGANIZATIONS



- **Core Team** - primary group for this project responsible for providing guidance, direction and decision-making
 - St Clair County Parks, St. Clair County Metropolitan Planning Commission, Great Lake to Lake Trails

- **Steering Committee** - responsible for providing perspective on important state, regional and community trail and greenway issues

- **Public Engagement** - responsible for providing perspective on important trail and greenway issues from their respective communities
 - Public meetings/workshops
 - Surveys
 - Project website / portal

PLANNING PROCESS

FOCUS ON GAPS & LINKING TO ECONOMIC OPPORTUNITIES

STEP 1

Fall 2018

- **What are the needs and opportunities? Identify:**
 - Key destinations to access
 - Community demographics and economics
 - Existing trails and bicycle infrastructure
 - Trail and bikeways opportunities

- * Engages stakeholders
- * Leverages technical analyses

STEP 2

Jan-March 2019

- **What are the options and priorities?**
 - What are the critical gaps?
 - What benefits are provided?
 - Explore alternatives
 - Land access, space availability, costs, funding, etc.

- * Engages stakeholders
- * Leverages technical analyses

STEP 3

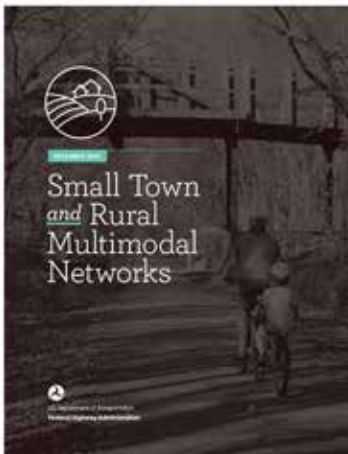
April 2019

- **Trail Framework and Action Plan**
 - Identify project implementors
 - Funding



BIKE FACILITY GUIDANCE

BEST PRACTICES, CASE STUDIES



- FHWA (2016)**
- Advisory bike lanes
 - Bike boulevards
 - Rural roadways



- FHWA (2015)**
- Protected bikeways
 - Intersection design



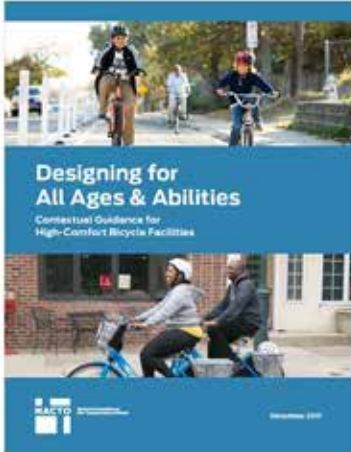
- NACTO (2014)**
- Full range of bike facilities



- Alta Planning (2017)**
- Advisory bike lanes
 - Case study review

BIKE FACILITY GUIDANCE

BEST PRACTICES, CASE STUDIES



NACTO (2017)

- All ages & abilities



MUTCD Allowed treatments

- Bike lanes up to & through intersections
- Buffer separated bike lanes
- Counter-flow & left-side bike lanes

MUTCD Interim approved treatments

- Green pavement
- Bike bikes
- Bike signals

MUTCD Experimental treatments

- Two-stage turn boxes
- Dashed/advisory bike lanes
- Green sharrow markings

TRAILS & BIKEWAYS

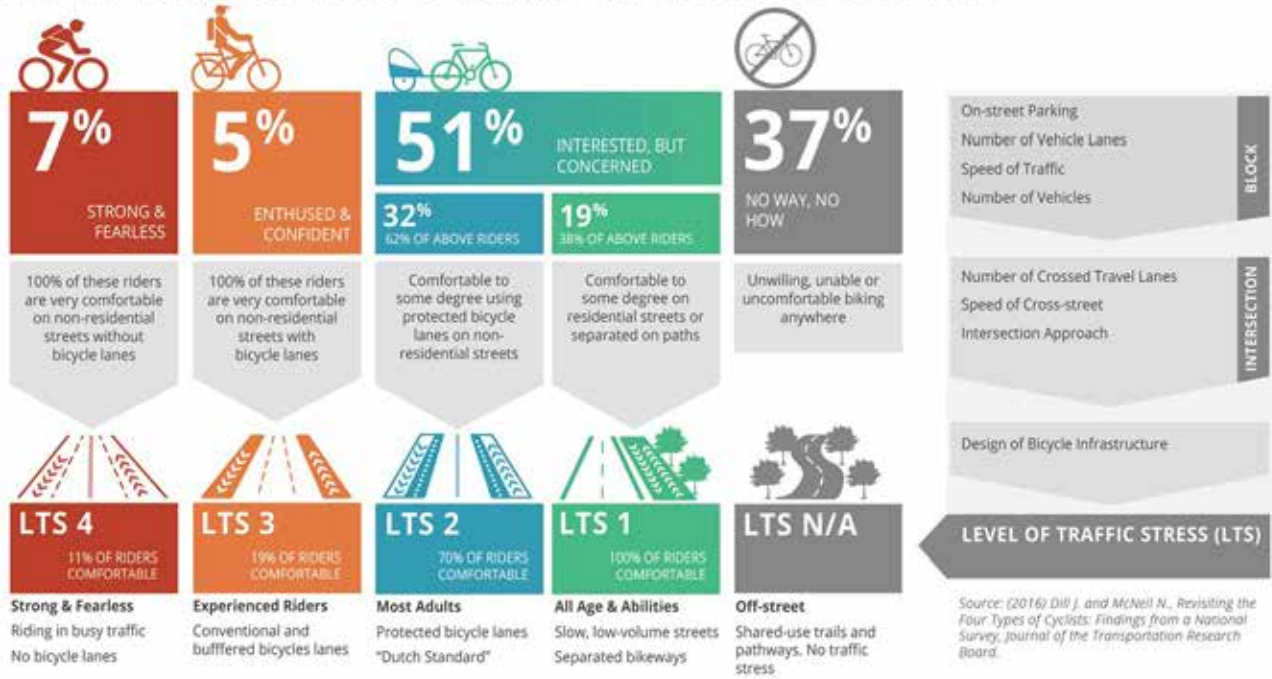
WORKING DEFINITIONS

Trails refer to shared-use pathways that are separate from roadways and public rights-of-way and that **serves** all ages and abilities.

Bikeways refer to dedicated bicycle facilities within public roadways with a **desire** to serve all ages and abilities.



TYPES OF BIKE RIDERS & LEVEL OF TRAFFIC STRESS



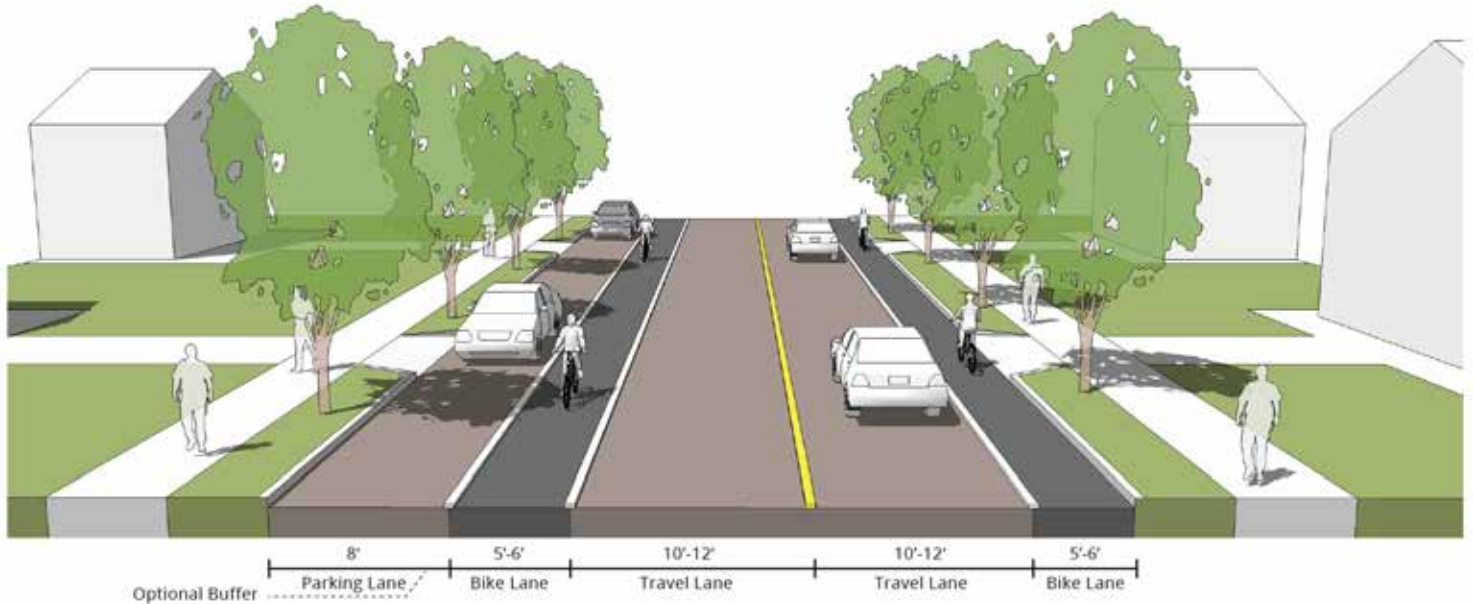
BASIC BICYCLE INFRASTRUCTURE



Typically Level of Traffic Stress 3 + 4
i.e. higher stress for most bicycle riders

BIKE LANES / WIDE SHOULDERS

CONVENTIONAL APPROACHES



LOWER STRESS BICYCLE INFRASTRUCTURE

Typically Level of Traffic Stress 1 or 2



2-way Protected Bike Lane (cycletrack)



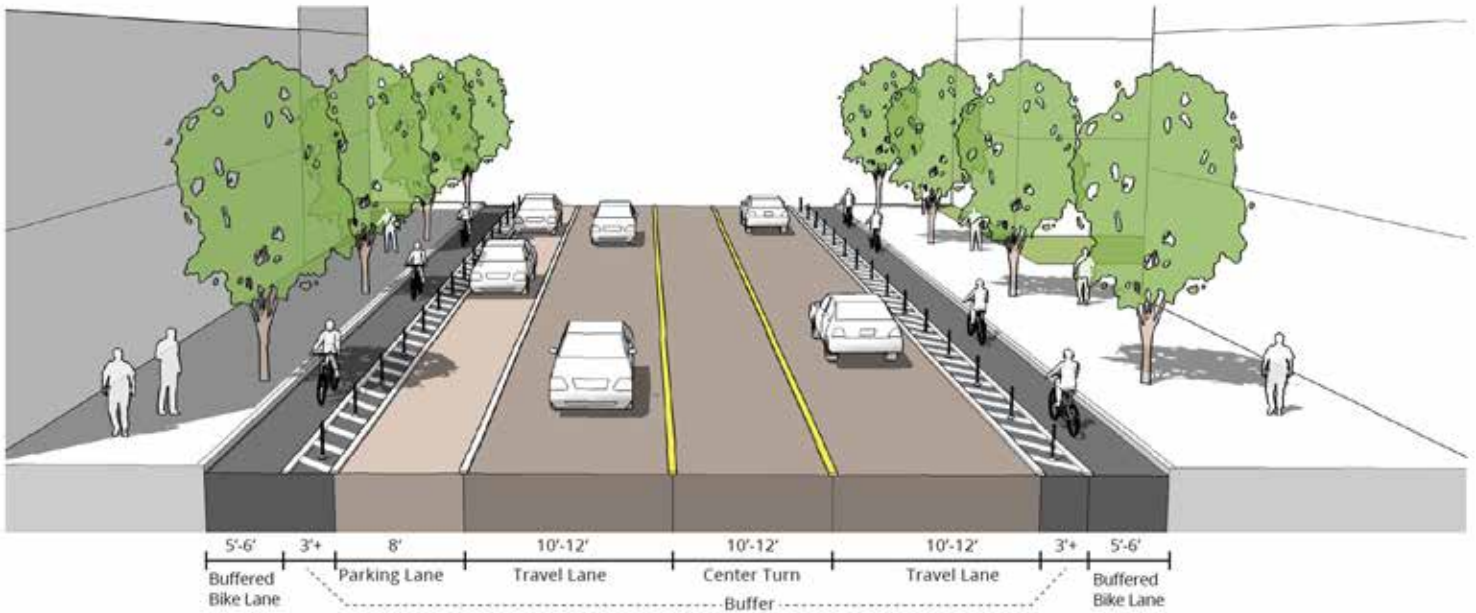
1-way Protected Bike Lane



2-way Protected Bike Lane (cycletrack)

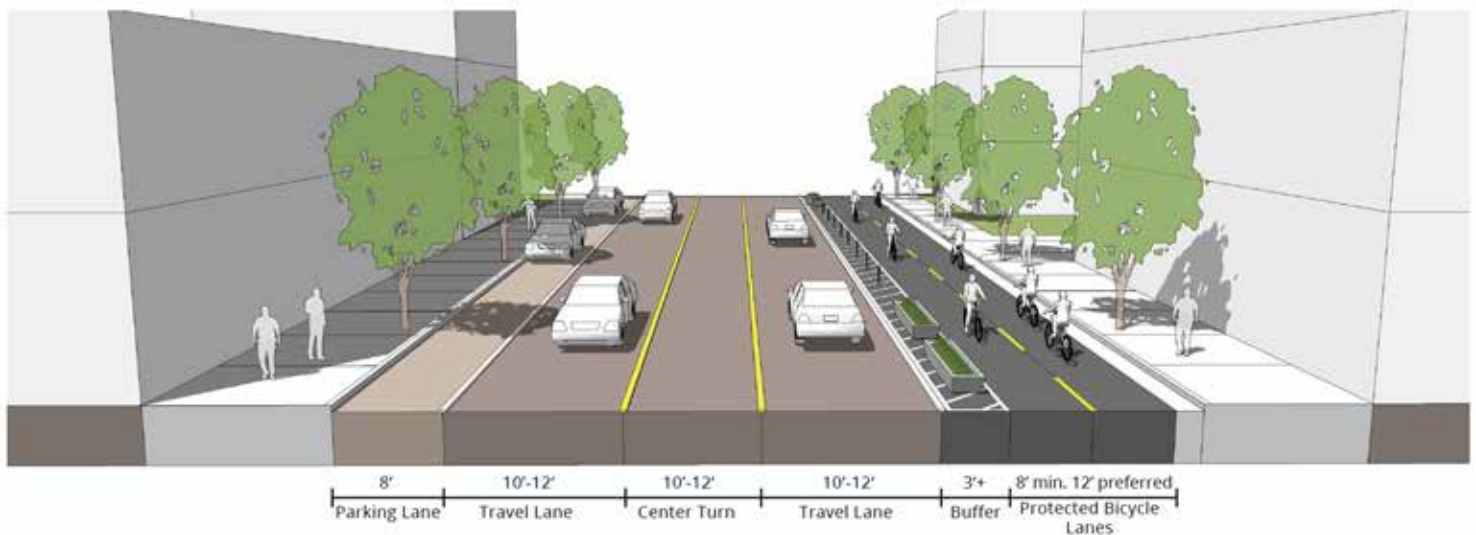
BUFFERED BIKE LANES (OR SHOULDERS)

BUFFER CAN BE STRIPED ONLY



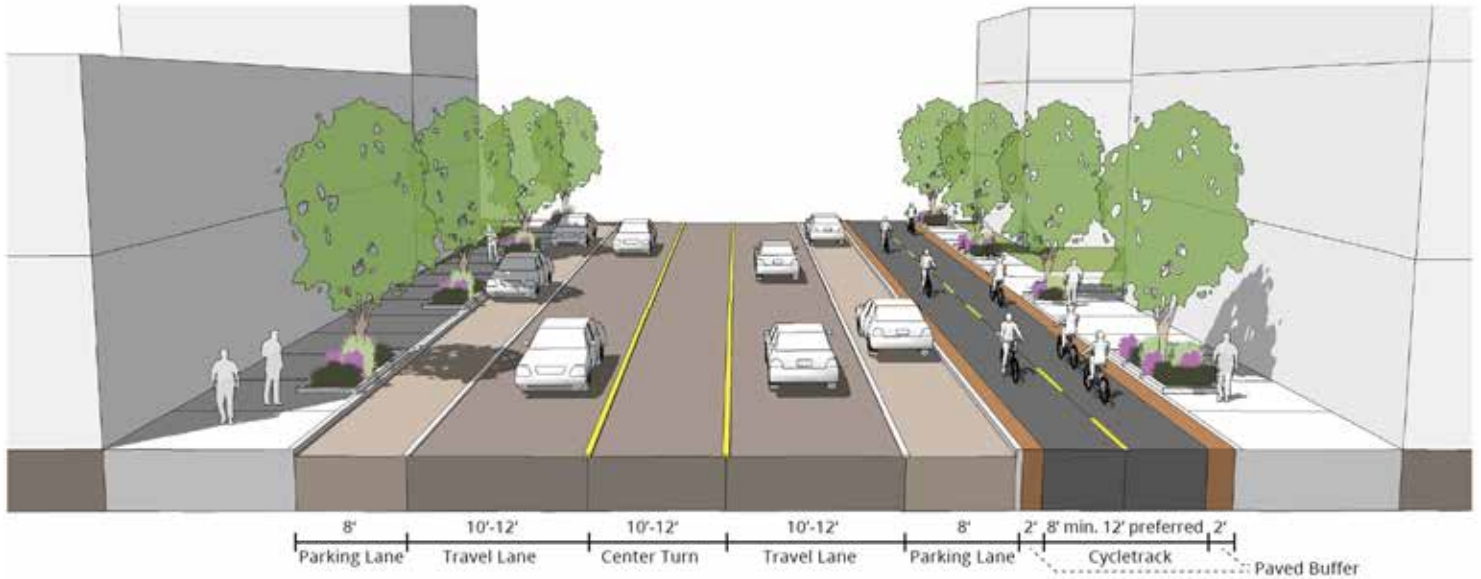
PROTECTED BIKEWAY

TYPICALLY 2-WAY BIKE FACILITIES WITH PHYSICAL BARRIERS



RAISED BIKEWAY

VERTICAL SEPARATION FROM THE ROADWAY, OFTEN AT SIDEWALK LEVEL



LOWER STRESS BICYCLE INFRASTRUCTURE



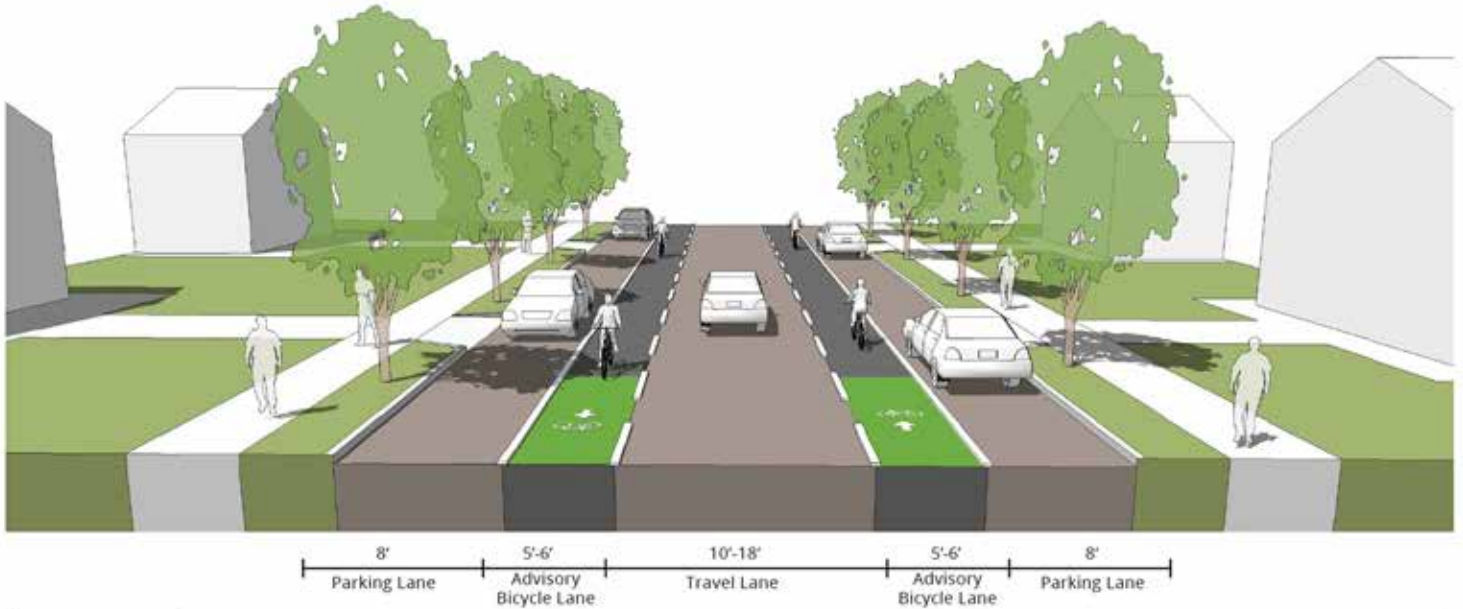
Typically Level of Traffic Stress 2



SCCOTS MEETING

ADVISORY (DASHED) BIKE LANES

LOW SPEED, LOW VOLUME STREETS
STILL ACCOMMODATES 2-WAY VEHICLE TRAVEL



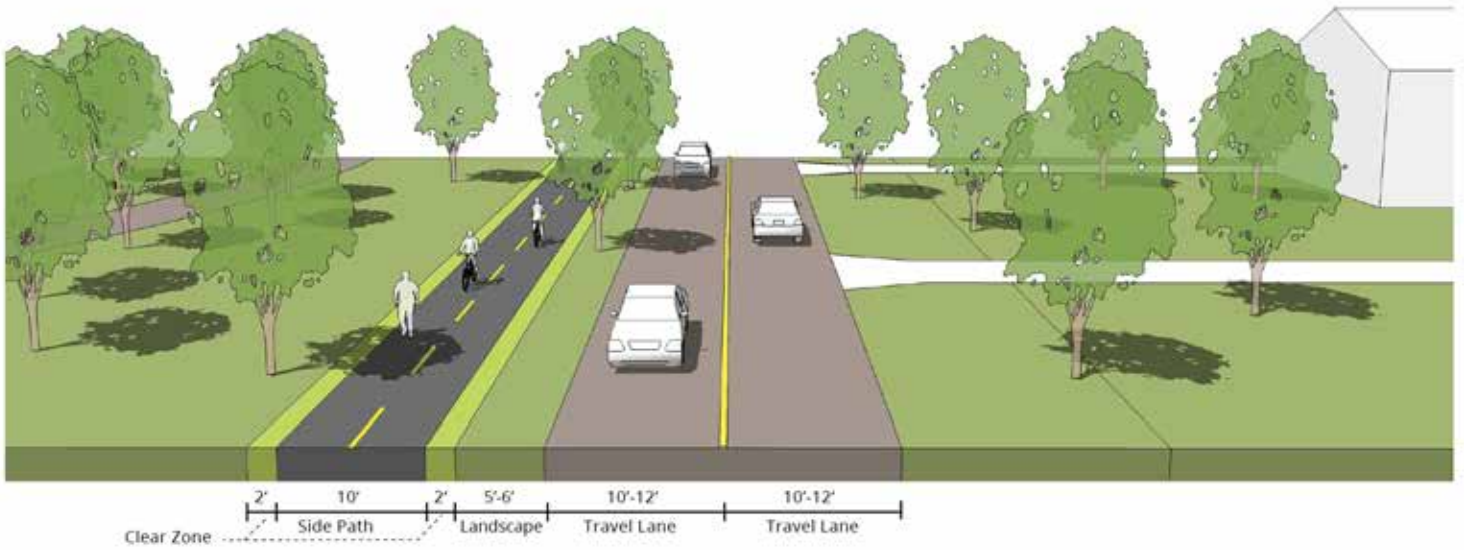
LOW STRESS BICYCLE INFRASTRUCTURE

Typically Level of Traffic Stress 1



SIDE PATHS

TYPICALLY DESIGNED AS SHARED-USE TRAILS



CHARTING A PATH FORWARD

BRIDGING GAPS

- **STEP 1: Gap Identification**
 - Inventory existing trail/bikeway data, destinations, assets, and opportunities.
 - Identify key gaps in the network and desired linkages.

- **STEP 2: Gap Alternatives**
 - Review each gap in detail through field-visits and GIS mapping.
 - Develop potential solution(s) to the gap based on design approach.
 - Assess alternative treatments or routes for bridging gaps.

- **STEP 3: Prioritization & Implementation**
 - Prioritize individual projects based on needs, opportunities, and implementation considerations.

GAP IDENTIFICATION

STEP 1

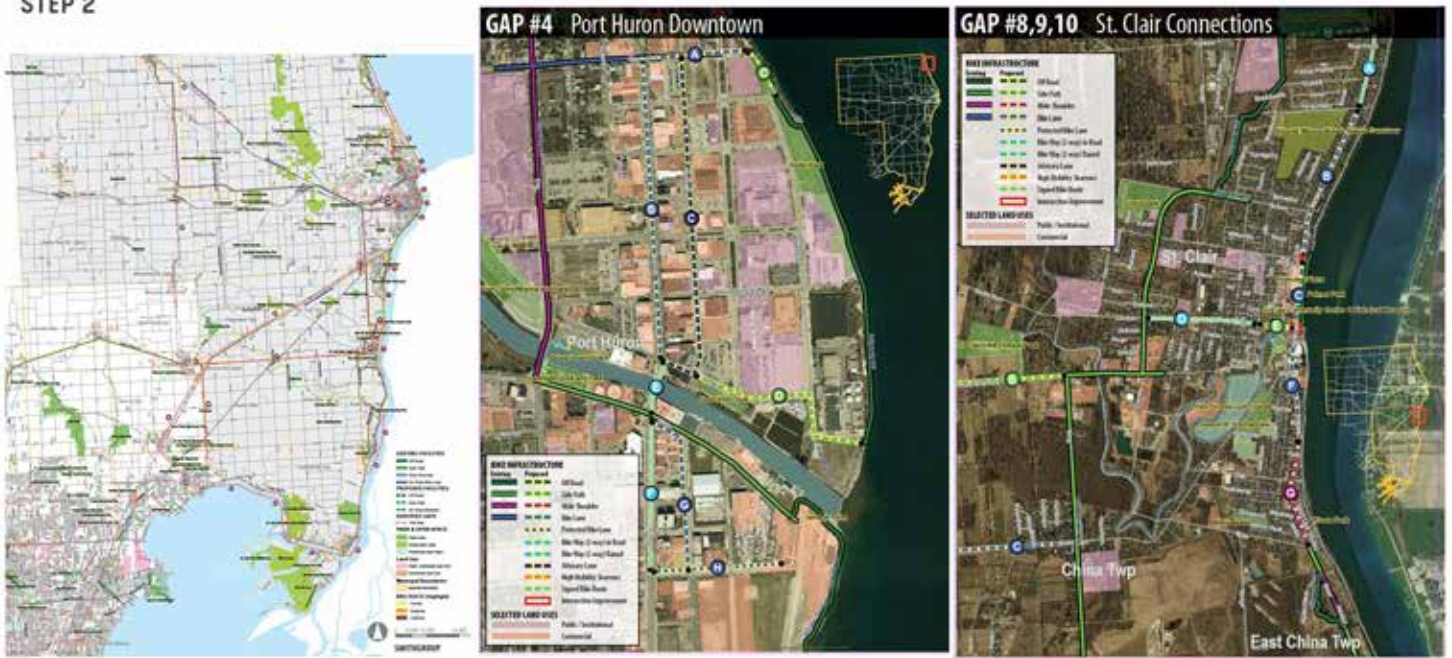
- 27 gaps identified related to:
 - Bridge-to-Bay Trail
 - Great Lake to Lake Trail
 - Wadhams to Avoca Trail
 - Other key connections

- EXISTING FACILITIES**
 - Off Road
 - Side Path
 - Wide Shoulder
 - On Road Bike Lane
- PROPOSED FACILITIES**
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 - Side Path
 - On Road Bikelane
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 - Private/Club Open Space
- Land Use**
 - Public / Institutional Land Uses
 - Commercial Land Uses
- Municipal Boundaries**
 - Municipal Boundaries
- BIKE ROUTE (Highlight)**
 - County
 - Regional
 - USBR20



GAP IDEA PLANS

STEP 2



MAKING SPACE FOR TRAILS & BIKEWAYS

STEP 2

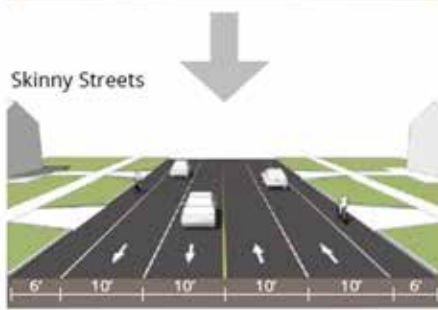
ROAD DIETS

(Remove travel lanes)



SKINNY STREETS

(Narrow travel lanes)



WIDEN SIDEWALKS INTO SIDE PATHS OR CREATE NEW SIDE PATHS

(10' wide shared use paths)

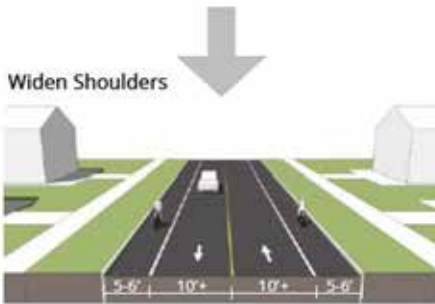
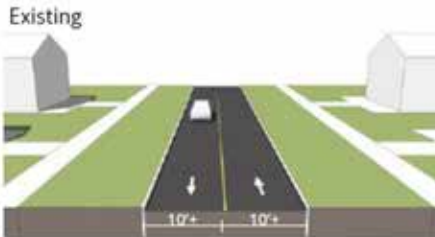


MAKING SPACE FOR TRAILS & BIKEWAYS

STEP 2

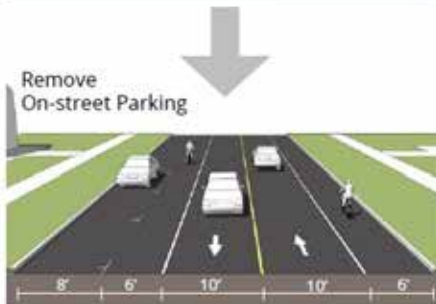
WIDEN SHOULDERS

(8' for buffered bike lanes)



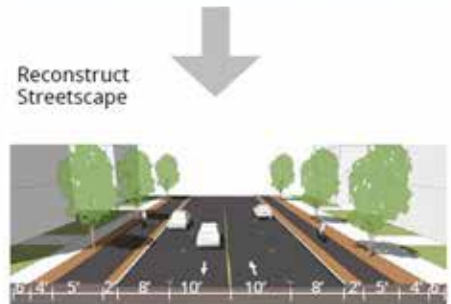
REMOVE PARKING

(Add bike lanes or bikeway)



RECONSTRUCT STREETS

(Protected Bike Lanes or Bikeways)



FEEDBACK & INPUT

Review hard copies or electronic versions of gap idea plans.

In small groups by geographic area, discuss route options.

Provide reaction to the idea identifying any issues or concerns or other missed possibilities.



NEXT STEPS

FOCUS ON GAPS & LINKING TO ECONOMIC OPPORTUNITIES

STEP 1

Fall 2018

- **What are the needs and opportunities? Identify:**
 - Key destinations to access
 - Community demographics and economics
 - Existing trails and bicycle infrastructure
 - Trail and bikeways opportunities

* Engages stakeholders

* Leverages technical analyses

STEP 2

Jan-March 2019

- **What are the options and priorities?**
 - What are the critical gaps?
 - What benefits are provided?
 - Explore alternatives
 - Land access, space availability, costs, funding, etc.

* Engages stakeholders

* Leverages technical analyses

STEP 3

April 2019

- **Trail Framework and Action Plan**
 - Identify project implementors
 - Funding



STEERING COMMITTEE MEETING #2



AGENDA

STEERING COMMITTEE MEETING #2



1. Welcome & Introductions
2. Presentation
 - Updates
 - Recap goals
 - Recap design approaches
 - Overview of gap maps
3. Discussion of Great Lake-to-Lake Trail Extension
4. Overall questions
5. Feedback at map boards





PROJECT PURPOSE

Develop a countywide non-motorized strategy and action plan

- Identify existing gaps in countywide trail networks
- Identify preferred alternatives to eliminate the gaps
- Prioritize the timing for completing the needed connections



PROJECT GOALS

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- **Core Team** - primary group for this project responsible for providing guidance, direction and decision-making

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Steering Committee

- **Steering Committee** - responsible for providing perspective on important state, regional and community trail and greenway issues

Public Engagement

- **Public Engagement** - responsible for providing perspective on important trail and greenway issues from their respective communities

- Public meetings/workshops
- Surveys
- Project website / portal

STEERING COMMITTEE MEETING #2

PLANNING PROCESS + UPDATES

STEP 1

Fall 2018

- **What are the needs and opportunities? Identify:**
 - Key destinations to access
 - Community demographics and economics
 - Existing trails and bicycle infrastructure
 - Trail and bikeways opportunities

ACTIVITIES

- **Public Meeting December 11, 2018**
 - Reviewed gaps
 - Generated additional ideas for resolving gaps

STEP 2

Jan-March 2019

- **What are the options and priorities?**
 - What are the critical gaps?
 - What benefits are provided?
 - **Explore alternatives**
 - **Land access, space availability, costs, funding, etc.**

RECENT ACTIVITIES

- **SCCOTS meeting held on February 21st**
 - Technical review of ideas and options
- **Municipality review + input period**
- **Developed cross-section concepts for gaps**

STEP 3

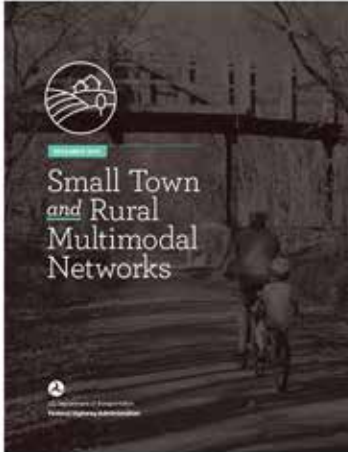
April 2019

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BIKE FACILITY GUIDANCE

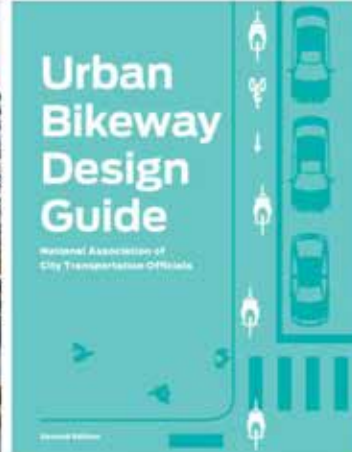
BEST PRACTICES, CASE STUDIES



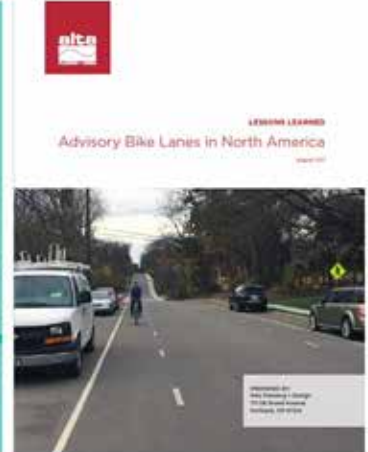
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- Advisory bike lanes
 - Bike boulevards
 - Rural roadways



- FHWA (2015)**
- Protected bikeways
 - Intersection design



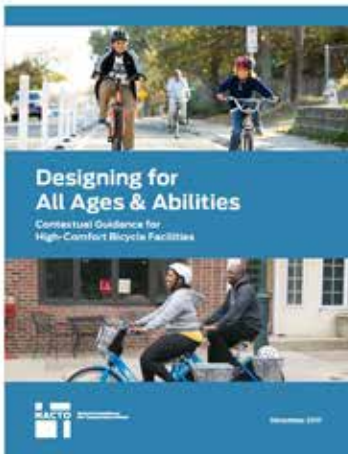
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- Full range of bike facilities



- Alta Planning (2017)**
- Advisory bike lanes
 - Case study review

BIKE FACILITY GUIDANCE

BEST PRACTICES, CASE STUDIES



- NACTO (2017)**
- All ages & abilities



- MUTCD Allowed treatments**
- Bike lanes up to & through intersections
 - Buffer separated bike lanes
 - Counter-flow & left-side bike lanes

- MUTCD Interim approved treatments**
- Green pavement
 - Bike bikes
 - Bike signals

- MUTCD Experimental treatments**
- Two-stage turn boxes
 - Dashed/advisory bike lanes
 - Green sharrow markings

STEERING COMMITTEE MEETING #2

TRAILS & BIKEWAYS

WORKING DEFINITIONS

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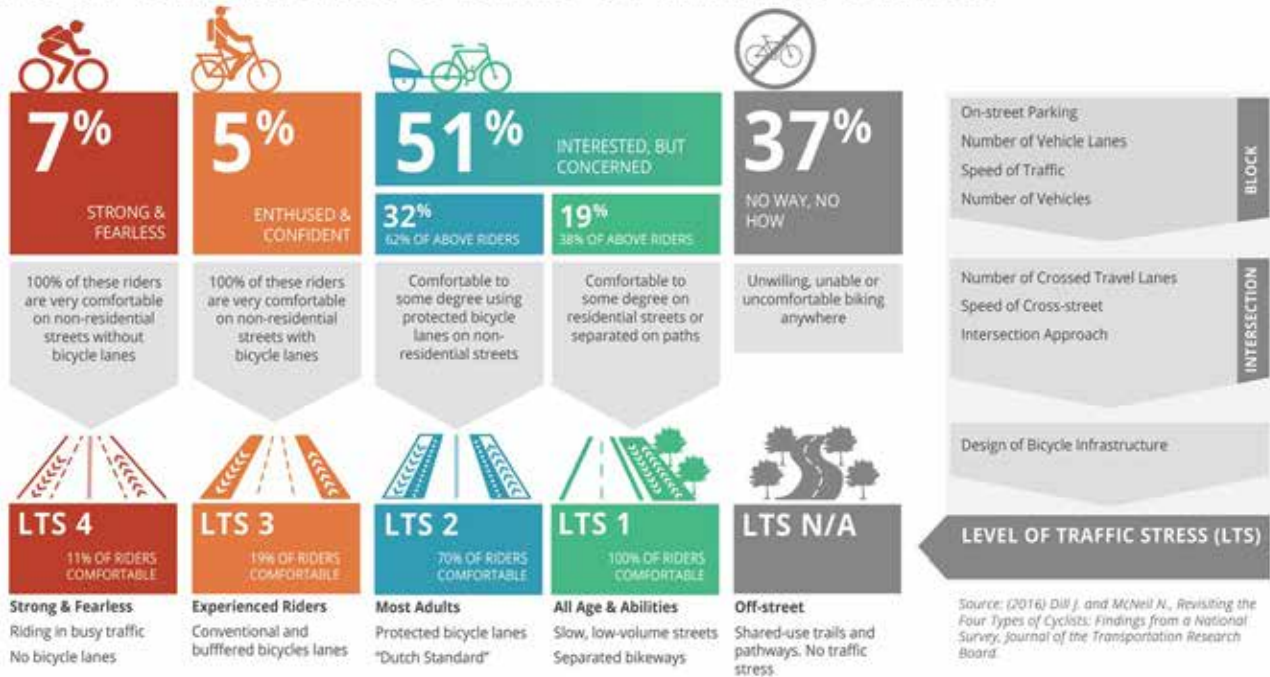


Dequindre Cut, Detroit



Indianapolis Cultural Trail

TYPES OF BIKE RIDERS & LEVEL OF TRAFFIC STRESS



BASIC BICYCLE INFRASTRUCTURE



“Sharrow” Markings
(share the road)

Austin, TX



Conventional
bike lanes

Baldwin Park, CA
Photo: www.parkandpeople.org - Cliff Smith



Typically Level of Traffic Stress 3 + 4
i.e. higher stress for most bicycle riders

LOWER STRESS BICYCLE INFRASTRUCTURE

Typically Level of Traffic Stress 1 or 2



2-way Protected Bike Lane
(cycletrack)



1-way Protected Bike Lane

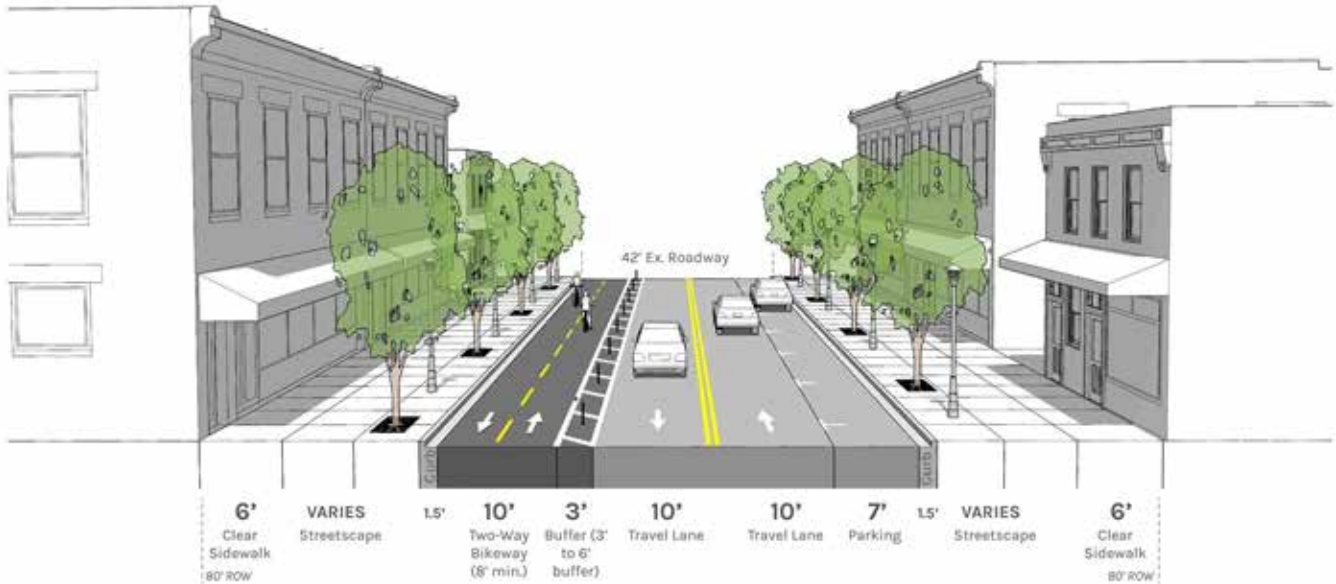


2-way Protected Bike Lane
(cycletrack)

STEERING COMMITTEE MEETING #2

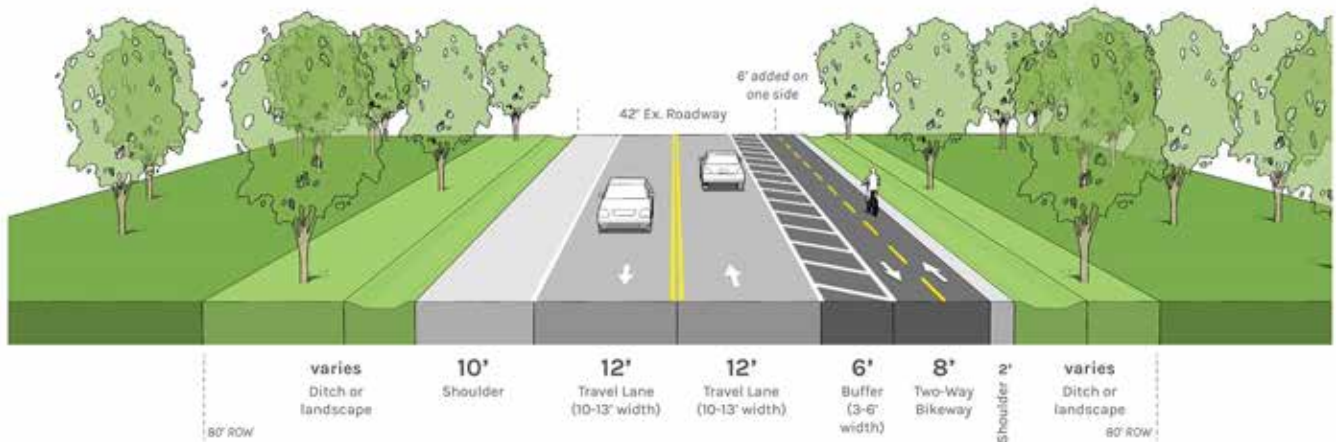
PROTECTED BIKEWAY

URBAN CONTEXT, 2-WAY BIKE FACILITY, PARKING ON ONE SIDE CAN TYPICALLY FIT WITHIN EXISTING CURB-TO-CURB DIMENSIONS



PROTECTED/BUFFERED BIKEWAY

RURAL, 2-WAY BIKE FACILITY IMPLEMENTED BY WIDENING + PAVING SHOULDER ON ONE SIDE USE WHERE THERE IS NOT ROOM FOR A SEPARATE SIDEPATH



LOWER STRESS BICYCLE INFRASTRUCTURE

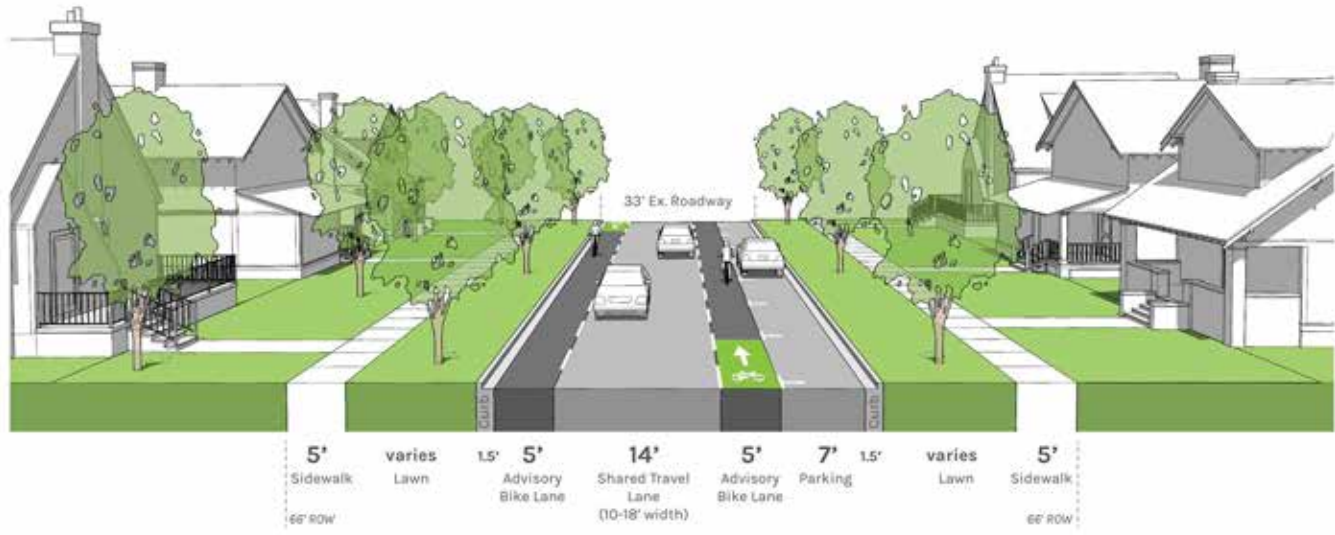


Typically Level of Traffic Stress 2



ADVISORY (DASHED) BIKE LANES

LOW SPEED, LOW VOLUME STREETS (RESIDENTIAL OR COMMERCIAL)
STILL ACCOMMODATES 2-WAY VEHICLE TRAVEL



LOW STRESS BICYCLE INFRASTRUCTURE

Typically Level of Traffic Stress 1



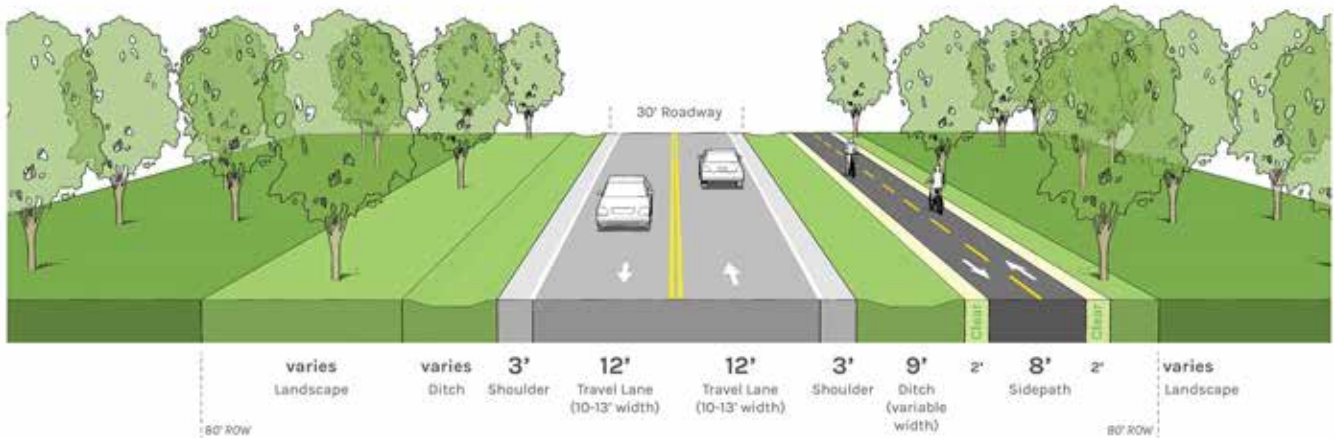
Side Paths



Trails
(separate from roadways)

SIDEPATH

SHARED USE TRAIL OUTSIDE OF ROADWAY (PEDESTRIANS + BICYCLISTS)
RURAL / ARTERIAL ROAD CONTEXTS

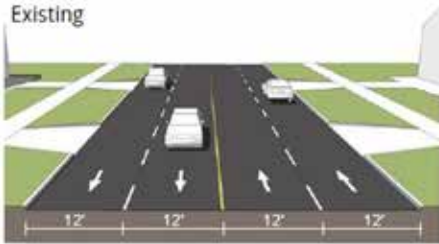


MAKING SPACE FOR TRAILS & BIKEWAYS

STEP 2

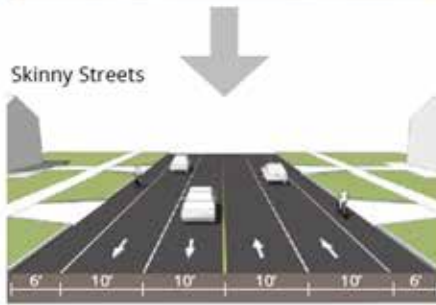
ROAD DIETS

(Remove travel lanes)



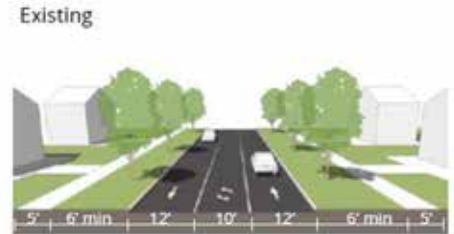
SKINNY STREETS

(Narrow travel lanes)



WIDEN SIDEWALKS INTO SIDE PATHS OR CREATE NEW SIDE PATHS

(10' wide shared use paths)

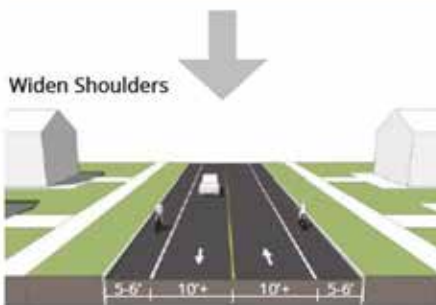
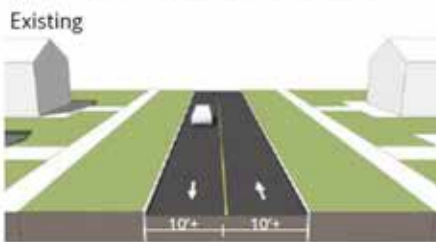


MAKING SPACE FOR TRAILS & BIKEWAYS

STEP 2

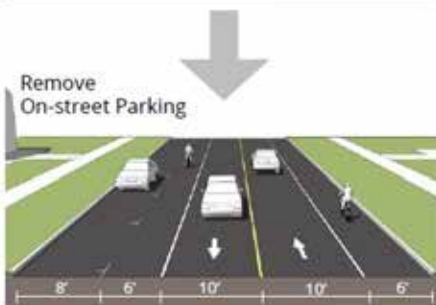
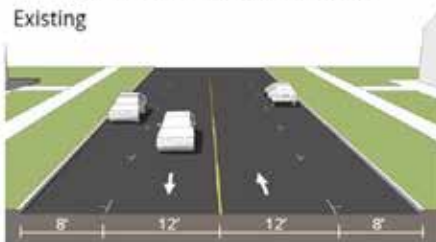
WIDEN SHOULDERS

(8' for buffered bike lanes)



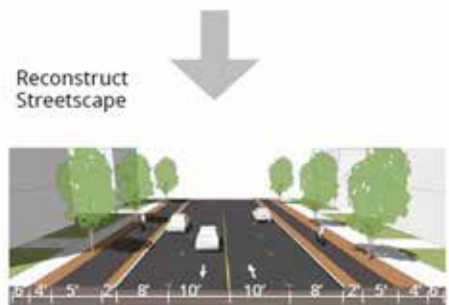
REMOVE PARKING

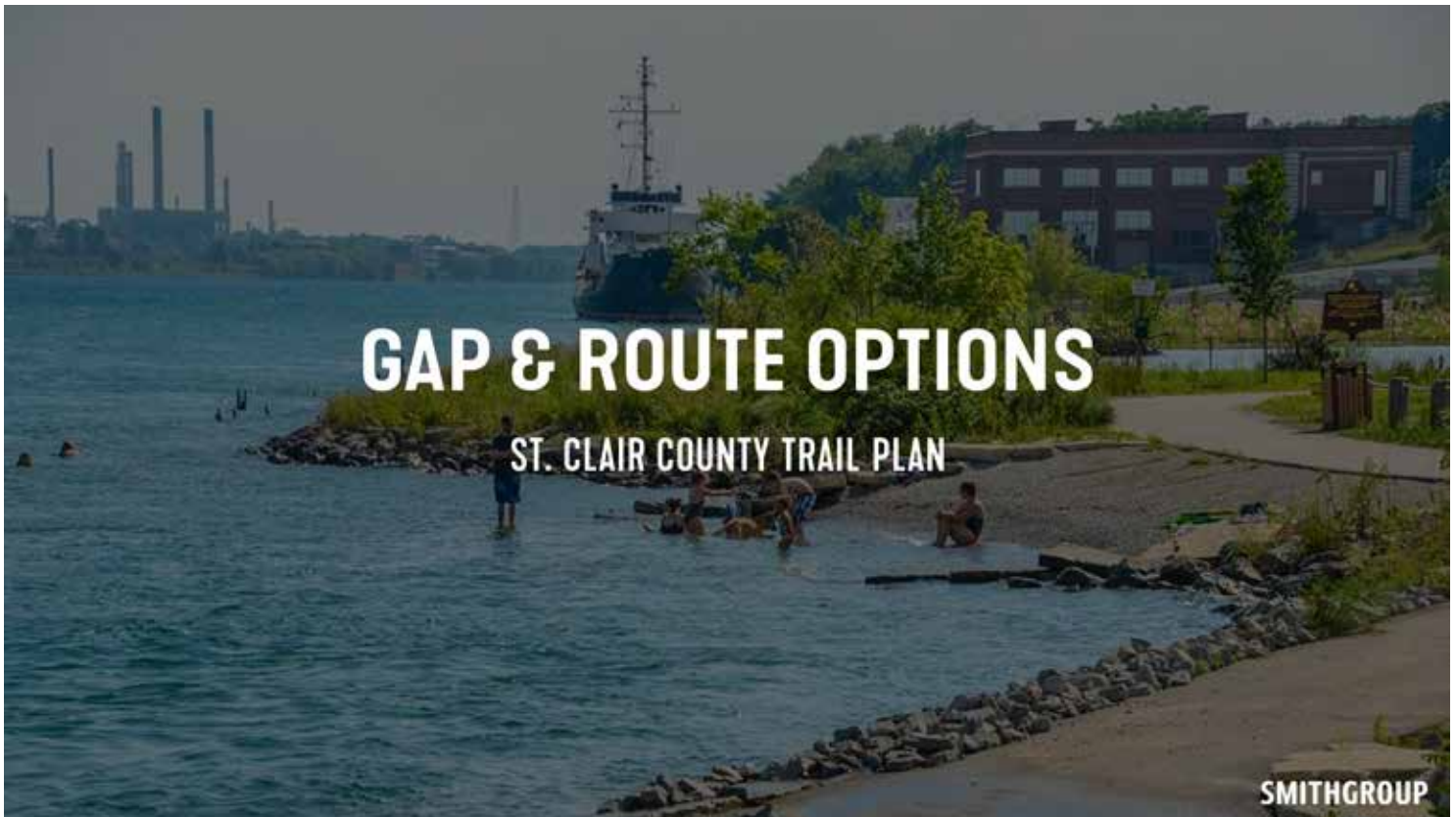
(Add bike lanes or bikeway)



RECONSTRUCT STREETS

(Protected Bike Lanes or Bikeways)





CHARTING A PATH FORWARD

BRIDGING GAPS

▪ STEP 1: Gap Identification

- Inventory existing trail/bikeway data, destinations, assets, and opportunities.
- Identify key gaps in the network and desired linkages.

▪ STEP 2: Gap Alternatives

- Review each gap in detail through field-visits and GIS mapping.
- Develop potential solution(s) to the gap based on design approach.
- Explore alternative treatments or routes for bridging gaps. ←

▪ STEP 3: Prioritization & Implementation

- Prioritize individual projects based on needs, opportunities, and implementation considerations.

GAP IDENTIFICATION

STEP 1

- 27 gaps identified related to:
 - Bridge-to-Bay Trail
 - Great Lake-to-Lake Trail Route #1
 - Wadhams to Avoca Trail
 - Other key connections

- EXISTING FACILITIES**
 - Off Road
 - Side Path
 - Wide Shoulder
 - On Road Bike Lane
- PROPOSED FACILITIES**
 - Off Road
 - Side Path
 - On Road Bikeway
- IDENTIFIED GAPS**
 - Trail Gap
- PARK & OPEN SPACE**
 - Public Parks
 - Conservation Lands
 - Private/Club Open Space
- Land Use**
 - Public / Institutional Land Uses
 - Commercial Land Uses
- Municipal Boundaries**
 - Municipal Boundaries
- BIKE ROUTE (Highlight)**
 - County
 - Regional
 - USBR20



GAP IDEA PLANS

STEP 2

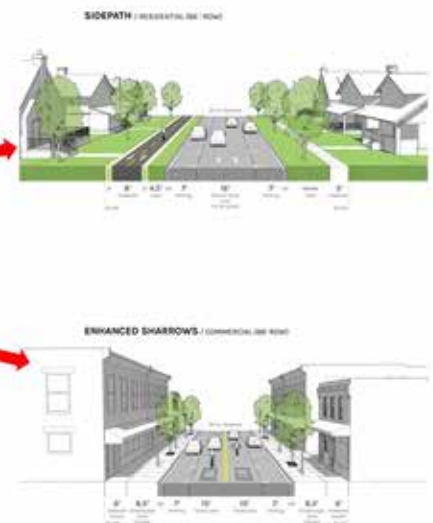
OVERALL GAPS



ROUTE OPTIONS FOR GAPS



DESIGN APPROACHES



STEERING COMMITTEE MEETING #2

PROJECT PRIORITIZATION

STEP 3

Factors affecting prioritization

- Connection to existing trails or bike facilities (regional vs. local)
- Destinations accessed + community benefits (economics, equity)
- Transportation needs addressed
- Overlap with other capital projects / opportunities
- Attractiveness + impact of proposed facility
- Ease of construction (available land, properties, ROW space)
- Balancing other transportation/ROW needs + values
- Cost of construction and available funding

GREAT LAKE-TO-LAKE TRAIL ROUTE #1

GAP #17 AND #18

- Two options:
 - **17A:** Division + Fred Moore from Richmond to King Rd. Trail (St. Clair)
 - **18A:** Gratiot Ave from Richmond to I-94 and existing Gratiot Sidepath
- Richmond has a plan to extend trail through their community



GREAT LAKE-TO-LAKE TRAIL ROUTE #1

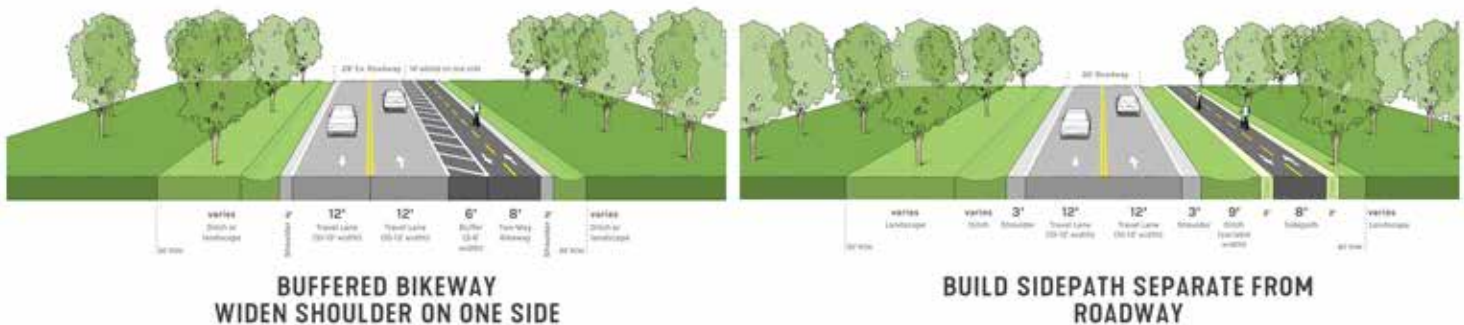
GAP #17 AND #18

- Two options:
 - 17A:** Division + Fred Moore from Richmond to King Rd. Trail (St. Clair)
 - 18A:** Gratiot Ave from Richmond to I-94 and existing Gratiot Sidepath



GREAT LAKE-TO-LAKE TRAIL ROUTE #1

DESIGN APPROACHES FOR EITHER OPTION



STEERING COMMITTEE MEETING #2

GREAT LAKE-TO-LAKE TRAIL ROUTE #1

PROS AND CONS OF ROUTE OPTIONS

17A: DIVISION + FRED MOORE

- Provides a connection to St. Clair (additional community connected)
- Additional ROW on south side of road, more room for sidepath construction
- Sidepath creates better rider experience
- ~140 properties adjacent to roadway
- Shorter length of project (10.6 miles)
- Fewer ped. Bridges may be needed
- Lower estimated construction cost (\$9.3M)

18A: GRATIOT AVE

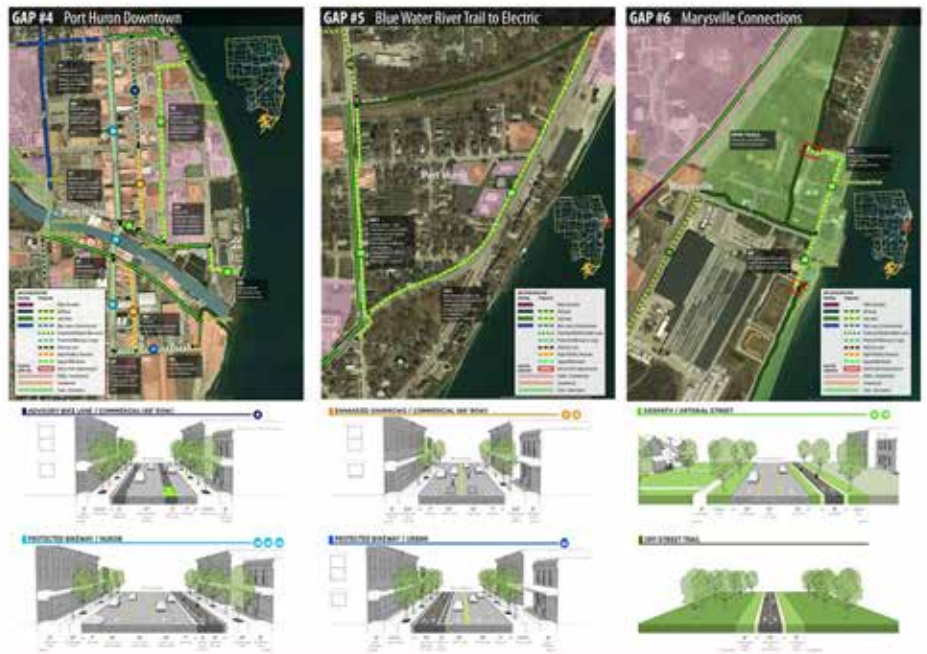
- Does not connect to St. Clair – but more direct route to terminus (Lighthouse Park)
- Narrower ROW overall
- More of route may have to be buffered bikeway (less desirable rider experience)
- ~200 properties adjacent to roadway
- Longer length for this project (13.1 miles)
- More ped. bridges may be needed
- Higher estimated construction cost (\$13.3M)

Planning team recommends Division + Fred Moore Option

FEEDBACK & INPUT

Boards show detailed gap maps and typical cross-sections for key route options.

Please review and provide comments on sticky notes





NEXT STEPS

- Report draft late April 2019
- Steering Committee Meeting #3
 - Review and refine route prioritization
 - Early May 2019 meeting
- Public Meeting #2
 - May 2019, TBD
- Final Report





APPENDIX

SURVEY RESPONSE

#	Question 1: Are there specific trail opportunities or connections you'd like to see in St. Clair county or to adjacent areas? Please write-in suggestions below:
1	The Bridge to Bay trail in Port Huron needs better signage
2	Fred Moore Hwy
3	Wadhams trail paved all the way.
4	Connect Meijer Pond with Metcalf rd bike trail.
5	Wta to downtown
6	"Extend the WTA to Yale Connect the Fort Gratiot Trail to the Burchville Trail Make a connection to the Macomb Orchard Trail"
7	Connection from MOT to Bridge to Bay. Fred Moore highway is way to busy and narrow for me to Bike (avid cyclist) a larger paved shoulder would solv problem, using St Clair highway to King same problem but less bust. I feel that making sure MOT connects to area in St Clair city
8	Would love to see a connection to the Macon's Orchard Trail or an extension of the Wadhams trail into Port Huron or even better, beyond Avoca!
9	I bike to work China to Marysville. Trails great some of the crossing are challenging but much better then I'm used to.
10	I'd like to see something that goes close to Black River up near Comstock Hills. A bike path that follows along the River would be great
11	Better connections to shopping areas in Fort Gratiot and connecting Fort Gratiot to Port Huron. Specifically - bike lanes along Lakeshore Rd/Gratiot.
12	Connecting Wadham trail to other trails
13	Finish connecting the WTA to the river
14	Connecting cycle routes between Lexington and Algonac. Connecting the Wadhams to Avoca Trail to downtown Port Huron.
15	Connect the bike trail that ends at Yankee Rd to the trail next to the junior high. Connect the trail that runs along River Rd and ends north of St Clair with the trail that ends at Yankee Rd.
16	Connect port huron and lexington.
17	ORV trails
18	Connect Burtchville and Fort Gratiot. Better trail signage south of Port Huron.
19	Sanilac county needs something like the bike path that runs from Port Huron west.

#	Question 1: Are there specific trail opportunities or connections you'd like to see in St. Clair county or to adjacent areas? Please write-in suggestions below:
20	The trail in burtchville (state to norman to metcalf) connected to metcalf county park, downtown lakeport (so along burtch rd) and connected to the paths behind meijer
21	Clay township has a poor, undeveloped, hard to access trail system.
22	More in the algonac area that are not adjacent to m-29 so you can enjoy your walk without the roar of traffic in you ears.
23	Connections to schools and neighborhoods
24	I would be forever grateful if the trail system in avoca reached yale. We love using the trails, but we don't have a way to transport our bicycles to it. We also don't have daytime transportation. We would use a yale trail quite frequently for running, walking, and bicycling.
25	Trail on busha in marysville stops at 2500 busha.
26	A trail that connects and run through beards hills would be wonderful. It's the only place in the area that is good for hill repeats and the narrow road is unsafe especially for cyclists.
27	Bridge to bay completed.
28	"Bridge to bay great lake to lake trail"
29	Mainly the projects that have already been started to be finished
30	"Extend the wta to yale connect to the macomb orchard trail connect the fort gratiot trails to burtchville trail twp park"
31	Connect st. Clair to macomb orchard trail
32	"Would like a link to macomb orchard trail would like blueways linked together-to many breaks now"
33	"Extension of bike path off 1-94/water street more direct/safe pathway ph-->marysville"
34	"I would like to see more bike trails in port huron twp i would like to see the trails connected"
35	"St. Clair boat harbor palmer park legacy field"
36	In ira township on m29 the trail is using shoulders of m29. The shoulder is falling apart. Drivers are all over the shoulder while they are on the phone talking or texting. I live on m29 and used to ride between new baltimore and algonac but i no longer feel safe on the shoulder.
37	More trails along the water
38	South metcalf

#	Question 1: Are there specific trail opportunities or connections you'd like to see in St. Clair county or to adjacent areas? Please write-in suggestions below:
	Wafhams to Avoca needs to connect to Bridge to Bay trail.
	It would be nice to update & repave the Marine city trail. Been on it lately ??? If you have you know what I'm talking about.
	<p>"The Burtchville Twp. trail should, at least, be connected with the Fort Gratiot Trail (behind Meijers/Walmart). Include a safe access route to Gratiot Avenue, for a safe passage to the Blue Water Bridge and downtown Port Huron.</p> <p>M-25 should have a safe route to connect with Lexington, MI. At a minimum, a safe route could include riding up the State Parks (day and camping sites).</p> <p>Old Lakeshore (by Keewahdin Elementary School) is a concern, the road has a narrow shoulder with cars backing out of homes, and the speed is 45 miles per hour until Gratiot/Krafft.</p> <p>At this time, M-25 is too dangerous for most bikers. Cars seem unsure if they can cross the white lines and zoom in and out.</p> <p>Look at the the Little Traverse Wheelway around Petoskey. I think the Blue Water Area could create something similar."</p>
	Anything along the St. Clair River would be great!
	Please bring a SAFE way to recreate by why of a Trail Plan on Harsens Island
	Completion of the bridge to bay bike trail
	Bike path on Harsens Island was split with a little on each side of road. It's too narrow. When repave next put it on one side only.
	From Lakeside Beach to Lighthouse Beach
	I'm connected
	Connect the trails
	<ul style="list-style-type: none"> "- interpretive signage along trails, ""you are here"" maps (thinking of Marquette) - add amenities to trails (lights, emergency phones, benches) (thinking of tart trail) - make 1 set of consistent maps available to all communities, chamber, discover the blue"
	connectivity with Amtrak
	<ul style="list-style-type: none"> "- where feasible, have shared greenway of blueways facilities - Macomb orchard trails (great lake to lake trail) connection to bridge-to-bay"
	capitalize on connection to Ontario at Algonac
	<ul style="list-style-type: none"> "- southern end of st. clair county connect to Macomb orchard directly to lake st. clair - harsens island"

#	Question 1: Are there specific trail opportunities or connections you'd like to see in St. Clair county or to adjacent areas? Please write-in suggestions below:
	Connect to st. Clair little league facilities along the fred moore hwy. Corridor
	"Connecting the st. Clair little league field to bike path on king/fred moore to allow safe access to little league connecting macomb orchard trail to bike paths in st. Clair/connection to bike path heading south"
	From my perspective 1st priority - finish all the connections - bridge to bay; and priority connection b.T.B trail to macomb orchard. Develop signage maps along trail so it is clear all the different route/trail options. Spaced restroom facilities and water fountains.
	Ira township has no bridge to bay trail. It seems to be a missing link to the macomb county trails to the south and the rest pf the county to the north. The township is in dire need of recreational opportunities that the trail system could provide.
	Beards hill, bob wiley land, off road/off pavement, mountain bike trails through twp, county, and state owned land. (As a destination) (they can be family friendly)
	Connect wta to bridge-to-bay trail
	"Access to st. Clair little league access to downtown st. Clair access to algonac via marine city access to port huron via st. Clair access to east china twp via st. Clair"
	"St. Clair little league park st. Clair plaza pine river/st. Clair harbor-camping, fishing, kayaking, canoeing st. Clair inn"
	"Close up the gaps on bridge to bay. Macomb orchard trail to be connected with bridge to bay."
	Prefer separate trails (paved) or bike paths with separation
	Please don't forget that us horse owners want to continue to have trail access.
	A trail running east and west along krafft or keewahdin rd to bring bike riders over to lakeshore to be able to connect to the bridge to bay trail. Traffic on both of those roads can be scary to mingle in with a bike.
	I would enjoy more nature trails. I am just getting into biking. I do enjoy the current trail between marysville and st clair. I plan to explore the avoca trail more this summer
	"I live to run and it's nice being on dirt roads but getting to the trail from king road down meisner isn't the safest especially with kids and the winding road "
	Beards hills area
	A better path from the blue water river walk through port huron out to edison parkway
	Sidewalk or bike path down marsh road

#	Question 1: Are there specific trail opportunities or connections you'd like to see in St. Clair county or to adjacent areas?
	No trail in ira twp that's useable. M29 is too dangerous to ride on shoulder. Too many people killed doing that.
	Connect east china trail to downtown st.Clair...Trail stops at bree rd, i am not willing to cross the river road with my kids on bikes. We would ride to the library/downtown if the trail connected.
	Have the bridge to bay trail completed
	Safe route from algonac st park to harsen's island ferry landing
	Hardens island a most attractive site for biking and walking trails
	A trail on marine city hwy would be wonderful!

#	Question 2: Do you have other feedback you'd like to share with the project team?
	Any progressive area has bike trails. If you want income earners you must have the infrastructure that attracts them.
	Just an attaboy and a thank you
	I've lived all over the country. It is so great to live in a bike friendly community. Thank you for all that you do.
	Biking trails are getting crowded
	The trails could use some maintenance minor patch work bikes and ankles don't have suspension systems
	Good to reinforce the message that cyclists can share the road with cars.
	St clair county wadhams to avoca trail needs better and clean facilities. I am embarrassed to say i live hete. Take a look at richmond's trailhead for macomb orchard trail. They have done it right respecting those that want to use trails!
	Keep the path away from 50mph plus roads. Car pollution is a hindrance, even if the trail is completely separate from the road.
	Harsens island is a wonderful place to create a linear park (aka bike trail) the natural resources of the area can not be reproduced anywhere, a flat riding experience for all levels of bike riders, and the scenic nature of the area is not copied anywhere locally. There is currently no where, on the island, designated to walk or bike ride safely!!!! With the new kayak park coming to the island, i see this as a perfect opportunity to incorporate a trail plan with in the parks and recreations master plan for this spot. I think it is cost effective to use the new park as a bike trail starting point.
	Great job so far
	Trail to marine city is very bumpy. Needs repair
	Needs lots if work in algonac and clay.
	We love the trails and use them when we can. Thank you!
	First i would like to say thank you so much! I love the trail. I recently moved here and it was my goal to live in a bike friendly community. I bike china to marysville to work on my gravel bike. My observations: crossings at 4 way stops and cross traffic difficult in saint clair. Maybe signs? Range is also challenging.
	I know this is more about paved pathways, but i would like to see more cross country running and mountain biking trails. Trails where you can have elevation and directional change, something to break up the monotony of going in a strait flat line like wadhams to avoca trail.
	Keep up the good work on our parks and trails!
	"Just how can i help and be more involved. Paper survey results"
	"Path/trail west to connect w/ southern links trail in lapeer co. Paper survey result"

#	Question: Do you have other feedback you'd like to share with the project team?
	"I think it needs to be more evident in the display of information that this is for everyone-not just bikes if you want to ""connect"" the communities, you can't leave out st. clair. paper survey result"
	"also there is not public transportation in this southern part of the county so good safe bike paths would help people get to jobs and/or buses in Macomb co. coordinate with road commission when roads are being redone to get more bike trails would be helpful. paper survey result"
	"how are you using ""bikeways"" and cycling. are you using a recreation model or transportation model? you need to get clearer on this distinction. paper survey results"
	"- inventory st. clair county/city/township/village existing ordinances % master plans that relate to roads, trails, recreation and identify priorities or lack prioritization of biking/hiking/walking (i.e. road widths, etc.) - establish consistent/one umbrella for a adopt a trail program ""county wide"" paper survey result "
	"very glad to have opportunity for input. st. clair county has forward looking leadership paper survey result"
	"engage st. clair county, roaa commission (road design criteria grossly inadequate for cycling and walking) paper survey result"
	"as mentioned, caps should also id trails in sub standard repair paper survey result"
	"the more trails the better-safety a factor. paper survey result"
	"the more paths, the better! very exciting! paper survey result"
	Please keep paving of trails at Wadhams and south. North - keep gravel.
	Would like trail in Ira Twp.
	We love the trail access in our neighborhood!
	Ira township needs path to new Baltimore and Algonac.
	M-29 needs to be more attractive regardless of additional trails/bike lanes
	A connection from the industrial road at the corner of 26 Mile & County Line to the trail would be great.

#	Question: Are you involved in any recreational groups, advocacy groups, or other organizations involved with trails or bikeways?
	Sierra club. Slow roll and slow paddle.
	Rails to trails member
	Metro planning & community foundation
	Mpc parks
	Blue water outdoor club
	I have been involved with the trail towns and safe routes to school initiatives
	Friends of the saint clair river watersheds
	Clinton river area mountain bike association
	Pedal across lower michigan, see trails committee.
	Chain gang, league of my cyclists, rails & trails
	Chain gang bicycle club
	League of michigan bicyclists
	Friends of the st. Clair river
	Friends of the st. Clair river/the yakabouts (kayaking)/blueways of s.C.C.
	Chamber of commerce, sc harbor commission
	Friends of st. Clair river
	Chain gang bike club. I ride 2,000 miles per year.
	ST. CLAIR CHAMBER
	Blueways of st. Clair, friends of the st. Clair river

#	Question: Are you involved in any recreational groups, advocacy groups, or other organizations involved with trails or bikeways?
	Yes - port huron township
	Rails-to-trails
	City of richmond, macomb orchard trail commission
	Friends of st, clair river, bluewater outdoor club, blue water club
	Sce parc, scr trails committee, clay twp recreation, mparks, nerpa
	Yes - st. Clair county commissioner
	St. Clair run club
	League of mi bicyclists
	Imba, cramba
	Friends of the st. Clair river
	Community foundation
	Community foundation of st. Clair
	Community foundation
	I ride my bike almost daily down my road only. Can't bike on palms or m29
	Blue water outdoor club

