

**Supplemental Information for
Land and Water Conservation Fund Grant Application LW23-0032
for Stony Creek Ravine Nature Park Access Improvements**

UPDATED INFORMATION IN NARRATIVE & ACCESS, MAPS, SHPO, FURNISHINGS ATTACHMENTS

3. Site Quality

B. Ease of Access

Goal: 20 points for multiple ways to access site besides autos:

Park-to-park trail Connection: Stony Creek Ravine Nature Park & Stony Creek Metropark

Public Transportation: OPC Minibus for Rochester, Rochester Hills & Oakland Township

Walkable Access from Residential Areas: Knob Creek subdivision park entrance

Multi-use Path Access: Snell Road Safety Path

C. Sustainable Design

Goal: 20 points for entire project designed per SITES v2 criteria:

Manage precipitation on-site using rain garden - Criteria 3.1 & 3.5

Michigan native landscape materials -Criteria 4.3

Bike racks at trailhead – Criteria 6.5

Recycling bins - Criteria 8.2

Solar-powered signs - Criteria 8.5

Conserve species habitats by complying with USFWS Concurrence Letter - Criteria 1.4

Trail planning reduced disturbed areas & increased path/trail connections – Criteria 2.2 & 4.4

Require benches, tables, & recycle bins constructed of recycled plastic lumber - Criteria 5.5

Require restroom wood enclosure constructed from FSC or SFI certified wood materials - Criteria 5.1

Require limestone for parking lot/trails sourced within 50 miles of project site - Criteria 5.6

Protect historic places by redirecting trail around sites in SHPO Letter of No Effect - Criteria 6.1

6. Quality of Park Design B. Clearly Described Facilities

Goal: 35 points for “high-quality design”

Site Compatibility: Trails provide nature observation without negative impact to sensitive areas.

Safe Traffic flow: Separation of motorized from non-motorized traffic. Connections to adjacent trails/paths. Motorized access from collector road.

Access Routes Provided: To ADA parking spaces, drinking water, restrooms, picnic area & trails.

Minimize Environmental Impact: Parking lot/trailhead located in old farm field.

Groundwater Infiltration: Rain garden detains parking lot storm water runoff.

Complementary Facilities: Support facilities located near parking lot/trailhead. Wayfinding signage at decision points & trail seating every 500'.

8. Universal Access Design B. Entire Project Uses UA Principles

Goal: 30 points

Parking Lot: 30-spaces include 3 paved, striped, & signed ADA spaces.

Access Path: 8' wide concrete, max 5% running slope/2% cross slope, connects from ADA parking spaces to support facilities.

Toilets: 2 unisex ADA portable restrooms on concrete slab with adequate clear space.

Hand Pump Well: On concrete pad with clear space, operable with one hand.

Picnic Area: On concrete pad with clear space around 4 fixed picnic tables.

Trails: 6'- 8'-wide crushed stabilized limestone, max 5% running slope/2% cross slope with accessible benches located on concrete seating areas.

Signs: Interpretive & wayfinding in audio, pictorial, large print, QR code formats.

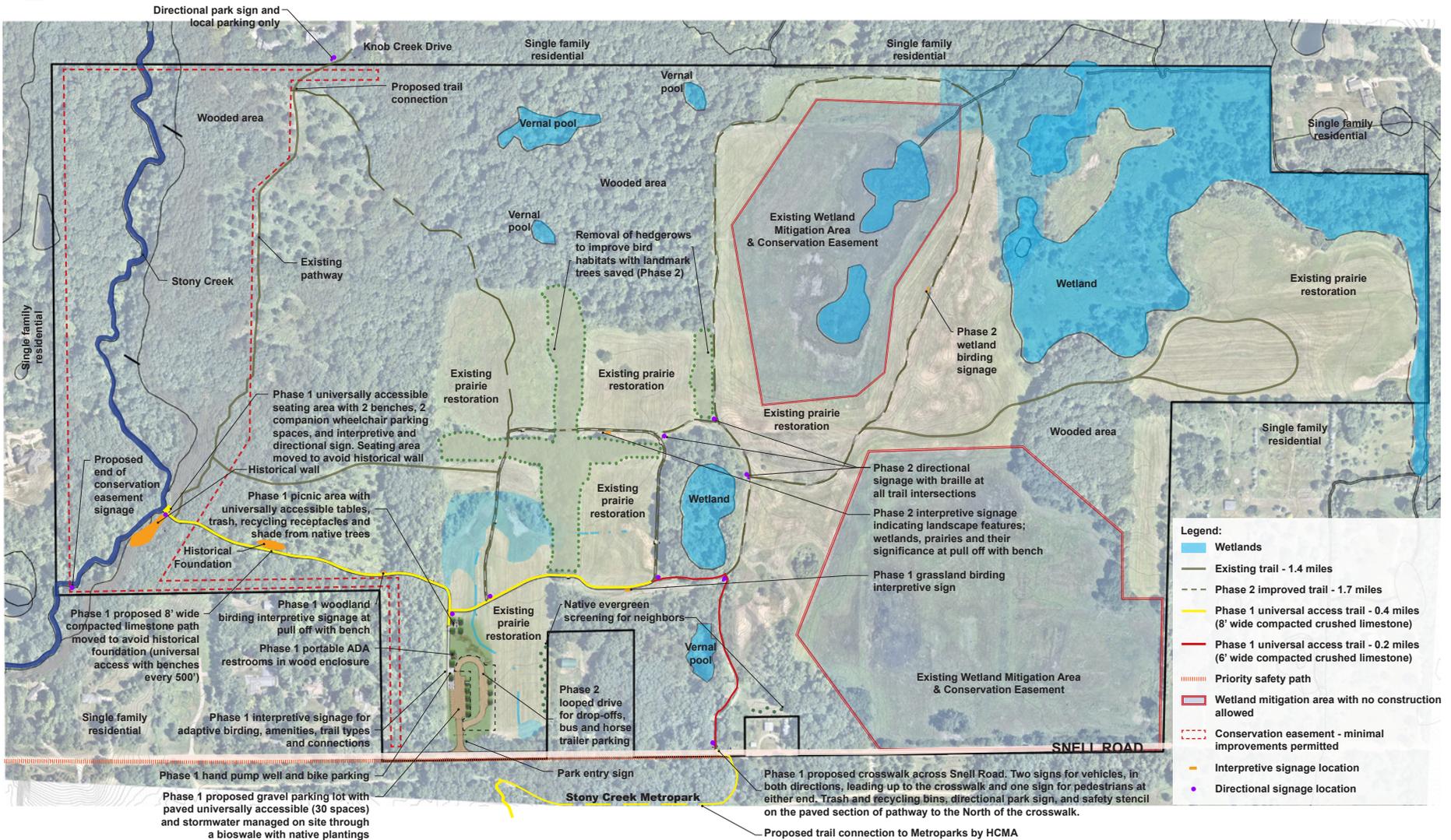
Picnic Tables: Fixed with clear sitting space on ends.

Benches: With backs/armrests located on concrete with adjacent clear space.



Site Development Plan

TF23-0084



Not To Scale
Updated 9.25.2023

Stony Creek Ravine Nature Park Site Development Plan

Oakland Township

Stony Creek Ravine Nature Park
Access and Connectivity Improvements

• 2023 Natural Resources Trust Fund Grant • Michigan Department of Natural Resources •

Site Plan provided by:

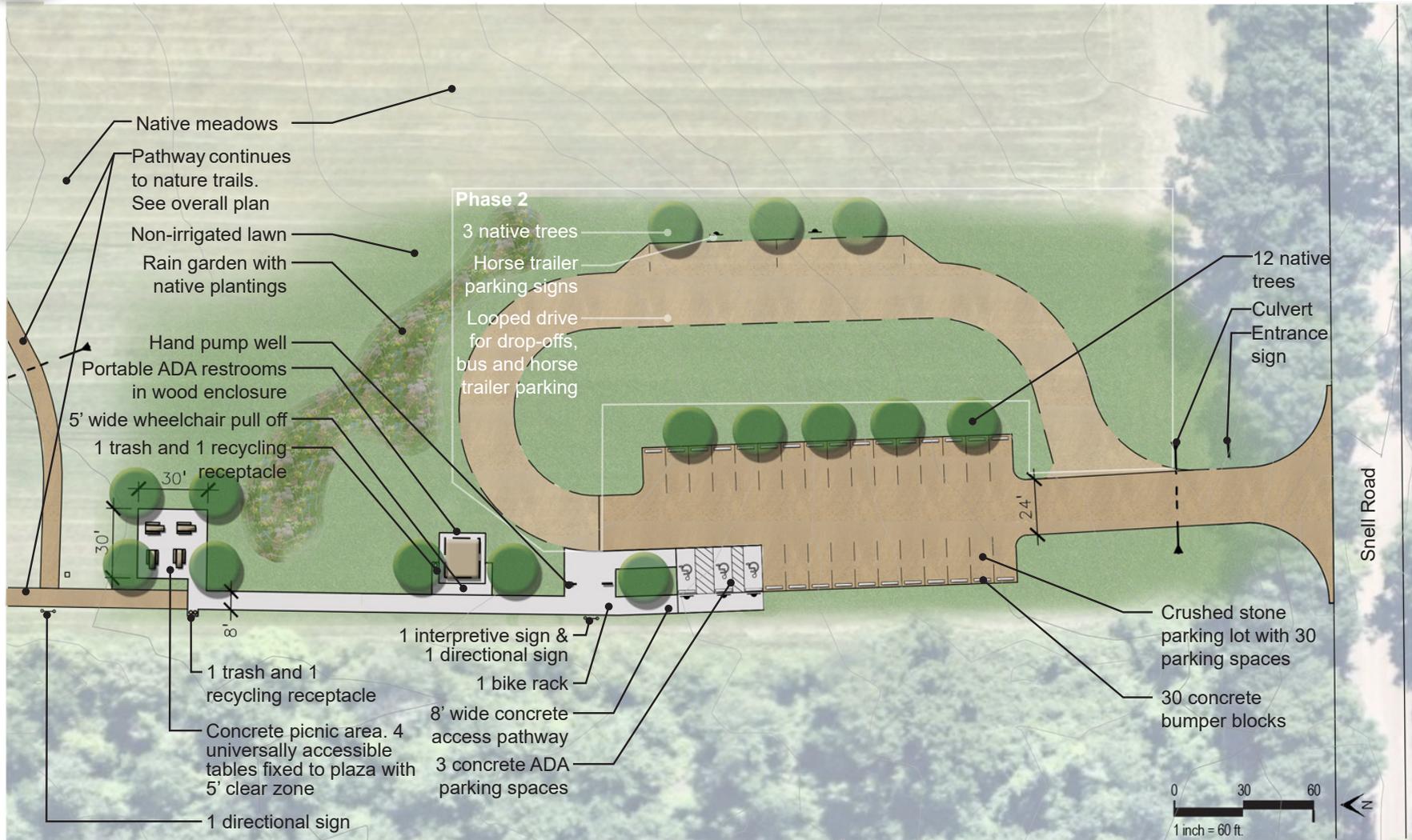




Site Development Plan

- Parking Enlargement

TF23-0084



Not To Scale
Updated 9.25.2023

**Stony Creek Ravine
Nature Park
Site Development Plan**

Oakland Township

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Site Plan
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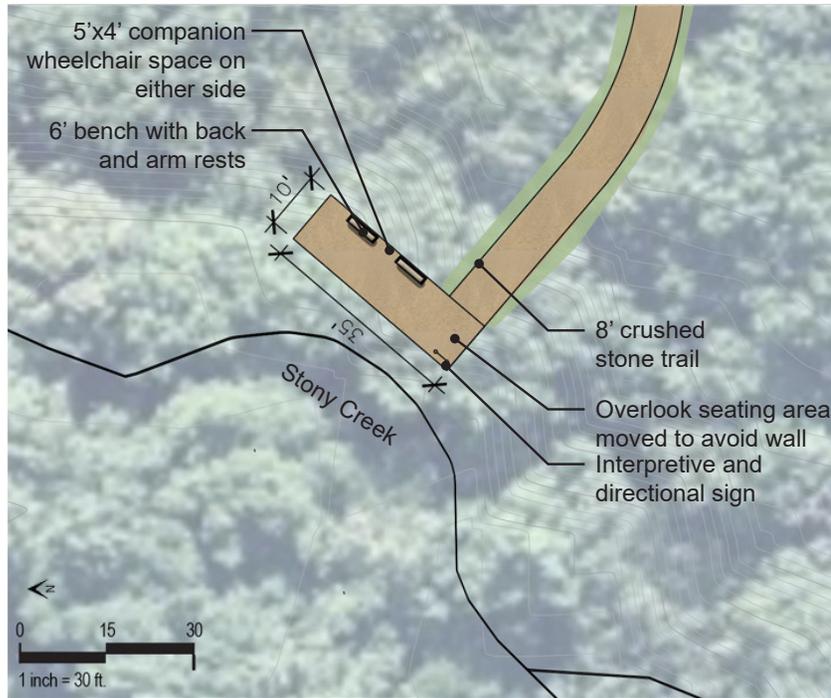




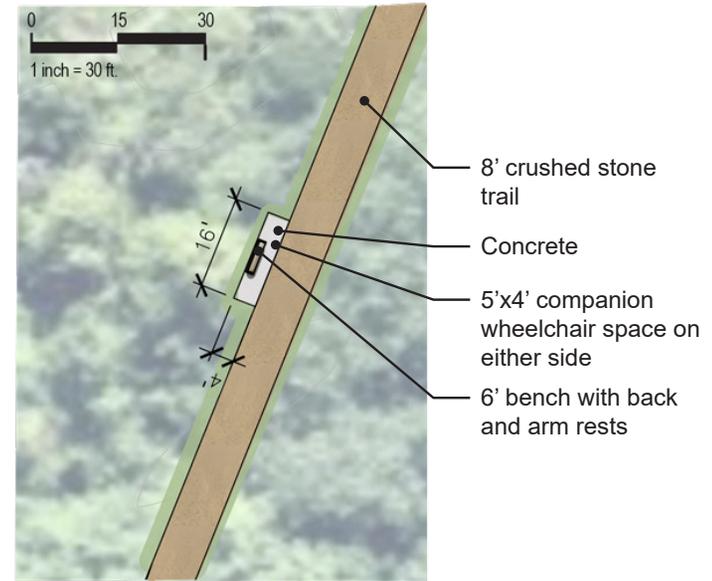
Site Development Plan

- Scenic Overlook and Seating Area Enlargement

TF23-0084



Scenic Overlook



Typical Seating Area



Not To Scale
Updated 9.25.2023

**Stony Creek Ravine
Nature Park
Site Development Plan**

Oakland Township

Stony Creek Ravine Nature Park
Access and Connectivity Improvements

• 2023 Natural Resources Trust Fund Grant • Michigan Department of Natural Resources •

Site Plan
provided by:



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Provider Information

Areas Served:

Rochester, Rochester Hills, Oakland Township

Eligibility Requirements:

Must be 60+ or disabled(doctor's note required), AND a resident of Rochester, Rochester Hills or Oakland Township.

Advanced Notice Needed:

At least 5-7 business days required

Service Fees:

\$2.00 per trip. (\$4.00 round-trip)

Service Types

Door to Door:

Yes

Curb to Curb:

Yes

Door through Door:

No

Wheelchair Accessible:

Yes

Medical:

Yes

Errand / Shopping:

Yes

Social / Recreationalist:

Yes

Employment:

Yes

Private Trans:

No

Non-Profit / Community Trans:

Yes

Public Transportation:

No

Service Times

Monday:

8:15am - 4:30pm

Tuesday:

8:15am - 4:30pm

Wednesday:

8:15am - 4:30pm

Thursday:

8:15am - 4:30pm

Friday:

8:15am - 4:30pm

Saturday:

9:00am - 4:00pm

Sunday:

8:00am - 1:00pm (Church services only)



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Quick Links

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- [Detroit Area Agency of Aging](#)
- [SMART Bus](#)
- [Regional Transit Authority of Southeast Michigan](#)
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- [Ann Arbor Area Transportation Authority](#)

Online Resources

- [Driving Tips](#)
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Zoning

Oakland Township Oakland County, Michigan

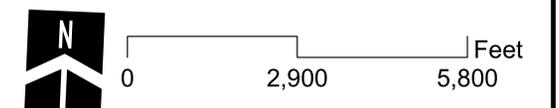
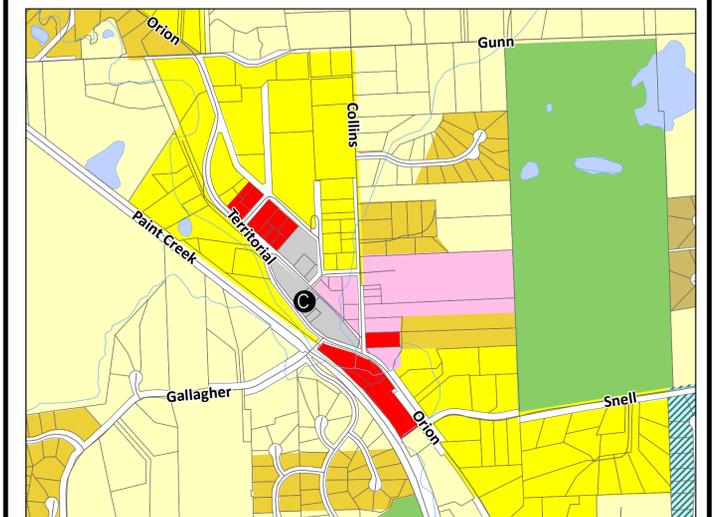
Zoning Districts

- RC - Recreation Conservation
- VLRD - Very Low Residential Density
- LRD - Low Residential Density
- LMRD - Low Medium Residential Density
- MRD - Medium Residential Density
- MHRD - Medium High Residential Density
- MH - Manufactured Housing
- RM - Multiple Family Residential
- C - Commercial
- OS - Office Service
- RD - Research and Development
- PUD - Planned Unit Development
- PUD - Planned Unit Development, Development Conditions Apply*
- Consent Judgement Properties

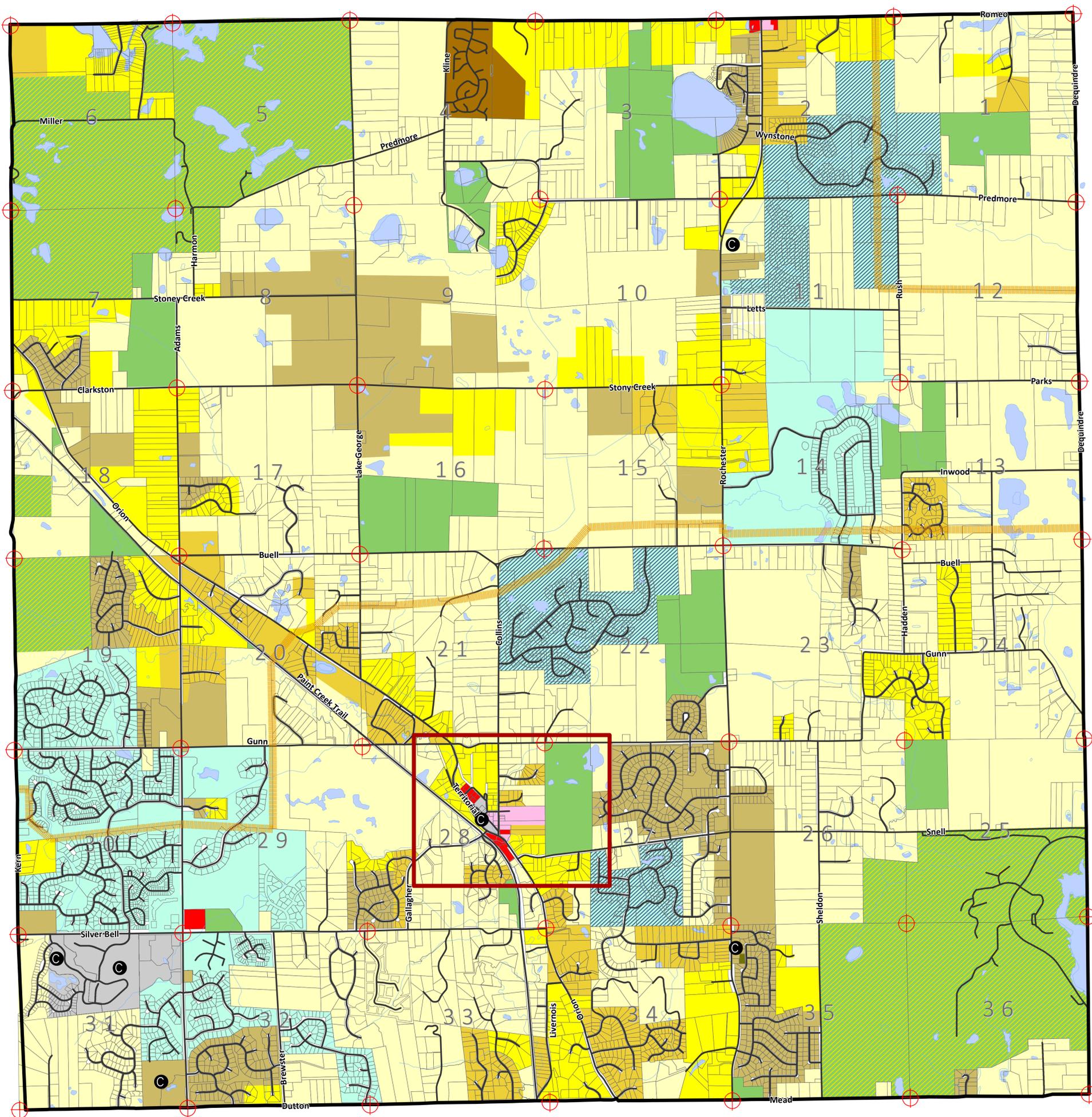
Wireless Communication Facilities

- Permitted Use Overlay Zone
- Special Use Overlay Zone

*All conditions of previous approvals apply. Amendments shall follow current Planned Unit Development amendment procedures.



Adopted: January 23, 2018
 Carlisle/Wortman Associates, Inc.
 Ann Arbor, Michigan



Ms. Merrie Carlock
DNR Grants Management
P.O. Box 30425
Lansing, MI 48909-7925

Subject: Additional Pedestrian Pathway Access to Stony Creek Ravine Nature Park
MNRTF Grant Application TF23-0084 and LWCF Grant Application TF23-0032

September 20, 2023

Dear Ms. Merrie Carlock,

As Chair of Oakland Township's Safety Paths and Trails Committee, I would like to update you on the progress being made concerning the Snell Road safety path that would provide an additional way to access Stony Creek Ravine Nature Park.

The Huron Clinton Metroparks have been studying routes that could connect Indian Springs Metropark and Stony Creek Metropark with local destinations such as Stony Creek Ravine Nature Park. Please see the attached presentation that was shared in August 2023 with project stakeholders.

The majority of the highest scoring routes incorporate a safety path along the south side of Snell Road between Rochester Road and Stony Creek Metropark, which could also provide a sidewalk-type access to Stony Creek Ravine Nature Park in addition to automobile access and trail access.

Representatives of the Oakland Township Safety Paths and Trails Committee and Huron-Clinton Metroparks representatives are discussing how to best provide this connection along Snell Road. Oakland Township has a dedicated Safety Paths and Trails millage and considers this route a high-priority for capital funding. To that end, Oakland Township is contracting with PEA Group to draft safety path easements for review with both property owners and the Road Commission of Oakland County.

The Safety Paths and Trails Committee supports connecting the township residents with Stony Creek Ravine Nature Park and Stony Creek Metropark via a pedestrian path on the South side of Snell Road. This path is one of our top priorities in our attached July 2023 Oakland Township Trails and Pathways Strategy Map and Route Feasibility Study.

Sincerely,



Andy Zale
Chairperson, Oakland Township Safety Paths and Trails Committee



Trails & Pathways Strategy Plan

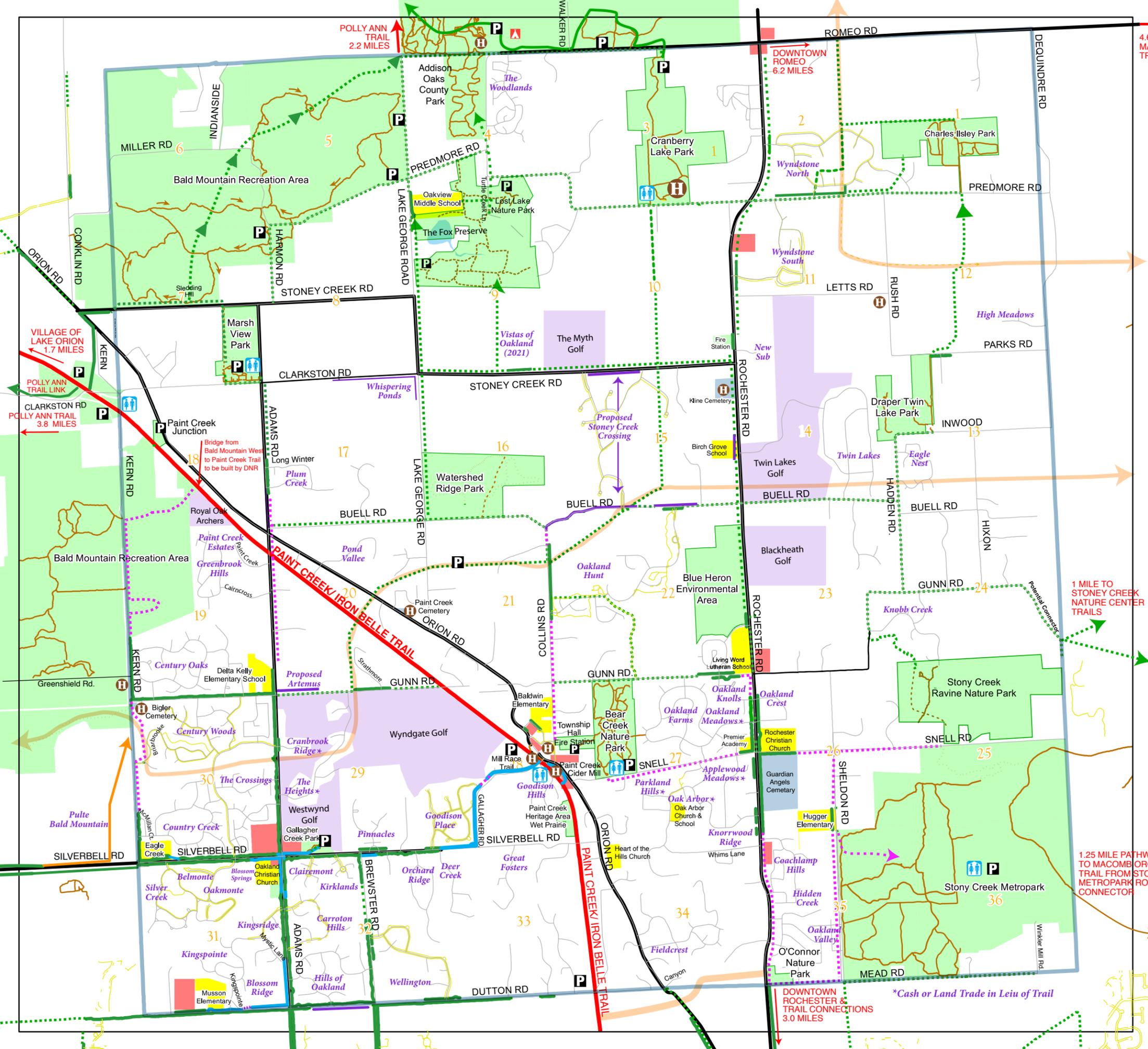
7/20/23

Desirable routes are established in part by using the scoring criteria detailed in the Desirability/Feasibility Worksheets in the SPTC Strategy Plan. Detailed feasibility studies have not been performed for every route indicated on the maps. Further study or changes in circumstances may reveal challenges that would prohibit progress of a route. Conversely, a low-scoring path may rise to higher priority due to new circumstances.

LEGEND

- Under Construction
- Existing Township Safety/Side Path or Trail
- Existing Subdivision Safety/Side Path or Trail
- Sidewalk/Existing
- Special Interest Connections (Routes not finalized. May contain substantial feasibility issues.)
- Desirable Safety/Side Path: (Routes not finalized. May contain substantial feasibility issues.)
- Existing Park Path
- Proposed Park Path
- Powerline or Gas Right-of-Way
- Proposed by Others
- Paint Creek / Iron Belle Trail
- Township Boundary
- Commercial Areas
- Public Parks
- School/Church
- Private Recreation
- Cemetary
- Parking/Staging
- Historical
- Camping
- Rest Area

SAFETY PATHS AND TRAILS COMMITTEE:
 Andy Zale, Chairman & BOT Representative, Teresa Mulawa, Vice Chair;
 Laurel Johnson, Secretary; Lisa Sokol, Committee Member;
 Libby Dwyer, Committee Member, John Casedi, PC Representative,
 Jim Quesenberry, PRC Representative



4.6 MILES TO MACOMB ORCHARD TRAIL

DOWNTOWN ROCHESTER 6.2 MILES

POLLY ANN TRAIL 2.2 MILES

VILLAGE OF LAKE ORION 1.7 MILES

POLLY ANN TRAIL LINK

CLARKSTON RD POLLY ANN TRAIL 3.8 MILES

1 MILE TO STONEY CREEK NATURE CENTER TRAILS

1.25 MILE PATHWAY TO MACOMB ORCHARD TRAIL FROM STONEY CREEK METROPARK ROAD CONNECTOR

DOWNTOWN ROCHESTER & TRAIL CONNECTIONS 3.0 MILES

*Cash or Land Trade in Lieu of Trail

Desirability/Feasibility Worksheets: Updated 7/17/2023

DESCRIPTION										DESIRABILITY										FEASIBILITY							
PATH DESCRIPTION	2013 PEA Segment Number	Section Location	Number of Incomplete Segments	Length of Segment to Be Built (In Feet)	Continuous Length When Completed and combined with existing paths	Construction Challenges: Boardwalks, slope mitigation, retaining walls, bridges, tree replacement, etc.	SPTC Status & Comments	Calculations: Average Population Served Per Acre within a One Mile Radius (640 per sq. Mile) Plus actual traffic count	(X3) Average Population within a One Mile Radius: 0-300=1, 201-600=2, 601-1000=3, 1001-2000=4, Over 2000=5	(X3) 24 hour Traffic Count on Adjacent Street: <1000=1, <2500=2, <5000=3, <10000=4, >10000=5	(X2) Special features within 500 Ft: *Shop *Staging *Rest Area *Church *Natural *Historical *Cemetery	(X3) Connects to a Park: No=0, Yes=5	(X3) Connects to an Existing Path or Trail: No=0, Yes=5	(X3) Connects to Paint Creek or Regional Trail: No=0, Yes=5	(X2) Number of Miles Completed Path Will Connect: 0=0, <1=1, <2=2, <3=3, <4-5=4, >5=5	(X2) Connects to a School: No=0, Yes=5	(X3) Completes a Loop: No=0, Yes=5	TOTAL Desirability Ranking	(X3) Availability of ROW: Falls within ROW=5, Requires Permanent Easements=0	(X-2) Number of Permanent Easements Required	(X-3) Number of Construction Challenges:	(X2) Crossing on a Paved Road: Y=0, N=5	(X2) Funding Sources Available Beyond SPTC Millage: Y=5, N=0	Total Feasibility Ranking			
	1	GALLAGHER ROAD GAP: West side	P4-11	28	1	One 250' gap	+10 miles incl PCT & connections to Silverbell & Adams	Retaining Wall	2021 Cost opinion: \$4800+\$34,500+\$80,300=\$119,000			0	0	15	15	10	0	0	40	15	5	-3	5	0	22	62	
2	GUNN RD: Adams Rd. to Paint Creek Trail (north side)	P4-04	20	1	6019	+10 miles incl PCT & connections to existing paths along Adams	Slope mitigation steep slope retaining wall boardwalk	2017 Cost opinion: \$850,000 Sidewalk with a Paved shoulder	6 x 674=384; TC=1750	6	6	0	Gallagher Creek park Delta Kelly	15	15	15	10	10	0	77	0	-24	-12	0	0	-36	41
3	Dutton Rd: (north side) Blossom Ridge entrance to Kings Pt. connector trail	P4-19?	31	1	390	6 miles inc. connections to existing paths along Adams	Small wetland, steep retaining wall, path adjacent to road with guardrail	May require construction easement on one parcel. Portion part of Blossom Ridge consent judgement. There is an alternate path on the south side of Dutton in Roch. Hills - from Adams to Squirrel	2.95 x 640+1888; TC=2080	12	6	0	Veterans' Memorial Park Musson Delta Kelly	15	15	0	10	10	0	68	0	-2	-9	0	0	-11	57
4	ITC Powerline Phase 1: Kern to Gunn Rd.	na	29 30	1	9600	Creek crossings golf course.	Creek crossings golf course. See Purple route for alternate	Alt route exists on Gunn from Kern to Adams. Eliminate phase 1 & use BMRA link to PCT instead then PU power line @PCT?	1.76 x 640=1126	12	NA	4	Creek crossings BMRA	15	15	0	10	10	0	66	15	-2	-6	0	0	7	73
5	ITC Powerline Phase 2: Gunn Rd. to Paint Creek trail Including path from Adams to power line (or use easement from adams to PCT)	T4-03	20	1	.75 mile	+10 miles incl PCT & connections to existing paths along Adams	Creek Crossing, Steep Slopes, Span Bridge, Retaining Walls, Slope Mitigation Boardwalk	Prelim. Engineering studies made 2015. Property owner not receptive in 2015. Would complete loop when Gallagher Gap is completed trails on Gunn W. of Adams. Ask about Grant	.75 x 640=480; TC=NA	6	NA	6	BMRA Paint Creek wetland, creek, 6 rivers has powerline easements Veteran's memorial Delta Kelly	15	15	15	10	10	0	77	0	-4	-18	0	0	-22	55
6	ITC Powerline Phase 3: Paint Creek Trail to Orion Road	T3-04	20	1	1056	+10 miles incl PCT & connections to existing paths along Adams	Boardwalk	Need to review	.75 x 640=480; TC=NA	6	NA	0	NA	0	0	15	10	0	31	15	-2	-3	0	0	10	41	
7	ITC Powerline Phase 4: Orion Rd. to Lake George Rd.	T3-05	20	1	2112	+10 Miles if combined w/phase 3	na	Approx .4 miles	.55 x 640=352	6	NA	0	NA	0	0	0	0	6	15	-2	-3	10	0	20	26		
8	ITC Powerline Phase 5: Lake George Rd. To Rochester	T3-06 + na	15 21 22	1	14520	+2 miles	na	Alternate path along Collins to Buell is complete	.6 x 640= 384	6	NA	0	NA	0	15	0	0	27	15	-2	-9	0	0	4	31		
9	ITC Powerline Phase 6 Rochester Rd. to Hadden Rd.	T3-06 T2-07	14	1	5280	1 mile	wetland, stream, steep slope, heavily wooded, boardwalk, retaining wall, slope mitigation golf course	Eventual connection to Draper Twin Lake Park. For Alternate to ITC Phase 6 Buell/Tnwood/Hadden to Draper Twin Lake: See new description below	.68 x 640 = 435	6	NA	0	NA	0	0	0	4	0	10	15	-2	-24	10	0	-1	9	
10	ITC Powerline Phase 3-5 Paint Creek Trail to Rochester Rd.	T3-04 T3-05 T3-06	15 20 21 22	1	17182	+10 miles incl PCT	boardwalk	Need to review	.75 x 640=480; TC=NA	6	NA	0	NA	0	15	15	10	0	46	15	-2	-15	0	0	-2	44	
11	SILVERBELL Rd. (north side) from Gallagher Creek Park to Gallagher Road	P4-09	28 29	2	660	10 miles incl. PCT	Existing home with retaining wall at road	Path is complete along the south side of Silverbell road. Calculations assume Gallagher gap is done	1.51 x 640 = 966; TC=4370	9	9	0	Gallagher Creek park Eagle Creek Delta Kelly	15	15	15	10	10	0	83	0	-10	-6	0	0	-16	67
12	ADAMS RD (east side): Plum Creek Sub/Long Winter Lane to Marshview park	T1-06	17	2	2745	4857	Some boardwalk, woods,	Crossing at Adams/Clarkston?	.27 x 640 = 173; TC=4470	3	9	0	Marshview Park	15	15	0	2	0	44	0	-20	-3	0	0	-23	21	
13	ADAMS RD (east side): Paint Creek Trail to Plum Creek Sub Path	na	17 20	1	3380	10 miles incl. PCT	some boardwalk, heavily wooded +?	Crossing at Adams/Orion, Township owns NE parcel @ Buell & Adams	.77 x 640 = 490, TC=4470	6	9	0	NA	0	15	15	10	0	55	0	-2	-9	0	0	-11	44	
14	ADAMS RD (east side): Paint Creek Trail to Marshview park (Lines 13 & 14 combined)	T1-06	17 20	1	6125	10 miles incl. PCT	Some boardwalk, heavily wooded,	Crossing at Adams/Orion, Township owns NE parcel @ Buell & Adams. watch for population to increase	.77 x 640 = 490, TC=4470	6	9	0	Marshview Park	15	15	15	10	0	70	0	-22	-12	0	0	-34	36	
15	ADAMS RD (west Side): Gunn Road to Paint Creek Trail	P4-99	19	1	4488'	+10 miles incl PCT & connections along Adams	Steep slope, trees, span bridge, boardwalk, retaining wall, slope mitigation	Cost opinion from 2015 \$1,010,000 Connects to Delta Kelly, Township owns easement parcel at north end.	1.76 x 640- 1126; TC=11,150	12	15	2	Paint Creek	0	15	15	10	10	0	79	0	-4	-18	0	0	-22	57

Desirability/Feasibility Worksheets: Updated 7/17/2023

ID	PATH DESCRIPTION	DESCRIPTION					SPTC Status & Comments	DESIRABILITY										FEASIBILITY					Total Feasibility Ranking				
		2013 PEA Segment Number	Section Location	Number of Incomplete Segments	Length of Segment to Be Built (In Feet)	Continuous Length When Completed and combined with existing paths		Construction Challenges: Boardwalks, slope mitigation, retaining walls, bridges, tree replacement, etc.	Calculations: Average Population Served Per Acre within a One Mile Radius (640 per sq. Mile) Plus actual traffic count	(X3) Average Population within a One Mile Radius: 0-300=1, 201-600=2, 601-1000=3, 1001-2000=4, Over 2000=5	(X3) 24 hour Traffic Count on Adjacent Street: <1000=1, <2500=2, <5000=3, <10000=4, >10000=5	(QTY X2) Special features within 500 Ft: *Shop *Staging *Rest Area *Church *Natural *Historical *Cemetery	(X3) Description of Special features Found:	(X3) Connects to a Park: No=0, Yes=5	(X3) Connects to an Existing Path or Trail: No=0, Yes=5	(X3) Connects to a Creek or Regional Trail: No=0, Yes=5	(X2) Number of Miles Completed Path Will Connect: 0=0, <1=1, <2=2, <3=3, <4-5=4, >5=5	(X2) Connects to a School: No=0, Yes=5	(X3) Completes a Loop: No=0, Yes=5	TOTAL Desirability Ranking	(X3) Availability of ROW: Falls within ROW=5, Requires Permanent Easements=0	(X-2) Number of Permanent Easements Required		(X-3) Number of Construction Challenges:	(X2) Crossing on a Paved Road: Y=0, N=5	(X2) Funding Sources Available Beyond SPTC Millage: Y=5, N=0	
16	BUELL RD (North side) Adams to Lake George Rd./Watershed Ridge Park	na	17	1	5280	1 mile	Wetlands, slope, trees	Possible partial inter-park link in Watershed Ridge	.69 x 640=442; TC=450	6	3	0	Watershed Ridge Park	15	0	0	2	0	0	26	0	-20	-9	10	0	-19	7
17	CLARKSTON RD (south side) Adams Rd. to start of Whispering Ponds Sub	Na	17	1	4600	1 mile	?	7/22: Whispering ponds is in under construction, Population will increase	.22 x 640=141; TC=1240	3	6	0	Marshview Park	15	15	0	4	0	0	43	0	-14	-9	0	0	-23	20
18	STONEY CREEK RD (? Side) From Lake George Rd. To Rochester	9 10 16 15	27	2	10,800	2 miles	Wetlands, slope, trees	Note: Township owns a small parcel at NE corner of lake george & Stoney Creek Rds.	.13 x 640=83; TC=3790	3	9	2	Kline Cemetery	0	0	0	6	0	0	20	0	-34	-12	10	0	-36	-16
19	GUNN Rd. (south Side) Collins to Rochester	P3-07	27	1	5068	3 miles incl Bear Creek trails	Wetlands, slope, trees, boardwalk, retaining wall	Connects to some existing trails at Rochester Rd.	1.53 x 640=915; TC=880	9	3	4	Foglers, Living Word School, Bear Creek Park	15	15	0	10	10	0	66	0	-14	-18	0	0	-32	34
20	Collins Rd. From Orion to Gunn?	P3-04	27 28	2	3062	+10 miles incl PCT with a crossing of Orion to PCT	Slope Mitigation, Boardwalk, retaining wall, Mature trees at Yellow house, requires Crossing on Orion with Hawk Signal	Already partial sidewalk at Township Hall Links with Cider Mill Connector	1.33 x 640=851; TC=1590	9	6	10	Cider Mill, Methodist Church, Baldwin School Nature Center, Township Hall, Shops Bear Creek Park	15	15	15	10	10	0	90	0	-22	-18	0	0	-40	50
21	COLLINS Road: (Side TBD) Gunn Rd. to Oakland Hunt (Buell Road)	T5-01	21 22	1	2217	1.25 miles	Heavily Wooded	Link to Existing Trails & new to be built at Oakland Hunt. Population will increase. Links to sidewalks	.845 x 640=540; TC=1010	6	6	0	NA	0	15	0	6	0	0	33	0	-14	-6	10	0	-10	23
22	COLLINS Road: (Side TBD) Orion to Oakland Hunt (Buell Road) (Lines 21 & 22 combined)	P3-04 T5-01	21 22 27 28	2	5279	+10 miles incl PCT with a crossing of Orion to PCT	Slope Mitigation, Boardwalk, retaining wall, Heavily wooded Mature trees at Yellow house, requires Crossing on Orion with Hawk Signal	Already partial sidewalk at Township Hall Links with Cider Mill Connector Link to Existing Trails & new to be built at Oakland Hunt. Population will increase. Links to sidewalks	1.33 x 640=851; TC=1590	9	6	10	Cider Mill, Methodist Church, Baldwin School Nature Center, Township Hall, Shops Bear Creek Park	15	15	15	10	10	0	90	0	-36	-24	0	0	-60	30
23	BUELL RD: (North Side) Collins to Watershed Ridge/Lake George Rd.	NA	16 21	1	2429'	1.75 miles	trees, boardwalk	Possible partial inter-park trail link in Watershed Ridge	.656 x 640=420; TC=420	6	3	0	Watershed Ridge Park	15	15	0	6	0	0	45	0	-8	-6	10	0	-4	41
24	SNELL RD. (North Side): Bear Creek Park to Rochester Rd.	P5-17	27	1	3960'+	2.5 miles incl Bear Creek trails	Wetlands, steep slope, heavy woods, boardwalk, retaining wall, slope mitigation	Combines with Bear Creek Trails to get to Collins Rd.	1.54 x 640=986; TC=2020	9	6	2	Church @Snell & Rochester, Premier Academy Bear Creek Park	15	15	0	10	10	0	67	0	-14	-18	0	0	-32	35
25	ROCHESTER RD. (East Side) Mead Rd. to Snell	P5-12	26 35	1	2720	2.75 miles	steep slope, boardwalk, slope mitigation, retaining wall, heavily wooded	Abuts Coach Lamp Hills Sub, connects to Guardian Angels Path	1.785 x 640=1142; TC= 18,000	12	15	6	Cider Mill, Church, Cemetery, O'Connor Nature Park, Premier Academy	15	15	0	8	10	0	81	0	-6	-18	0	0	-24	57
26	ROCHESTER RD: (East Side) Snell to Gunn	P5-09	26	2	686	1.5 miles	Corn field	Premier Academy @SW corner Snell & Rochester	1.54 x 640=986; TC=15,030	9	15	6	Foglers, Church, Cemetery, Premier academy	0	15	0	4	10	0	59	15	0	0	0	0	15	74
27	ROCHESTER RD: (west side) Gunn to Buell	P5-06	22	2	4250?	1 mile	Boardwalk, slope mitigation, wetland	Replace deer Pointe Boardwalk, wrap around Living Word to connect Gunn path, Blue Heron Nature Park Connection	.85x640=544; TC=14,140	6	15	0	Blue Heron,	15	15	0	4	10	0	65	0	-6	-9	10	0	-5	60
28	ROCHESTER RD: (west side) Buell to Stoney Creek		15	2	4752	1 mile	2 Bridges, Boardwalk,	Kline Cemetery, light coming at stoney creek roadNE section will get future development	.62x640=397; TC=11,920	6	15	2	Kline Cemetery, New school	0	0	0	2	10	0	35	0	-22	-9	10	0	-21	14
29	ROCHESTER Rd: West Side Stoney Creek to Predmore		10 11	2	9874	1.75 miles	Woods, boardwalk	Firestation #2, has a path	.486640=311; TC=13,510	6	15	0	Piechnek's	0	15	0	4	0	0	40	0	-24	-9	10	0	-23	17
30	ROCHESTER RD. West Side Predmore to Romeo		2	1	4594	.8 miles	Homes with good easements are very close to road.	AOaks park owns NW corner at Romeo Rd, S&M Market, Wyndstone north & South + Private parcels are across Rochester. Rd.	.985 x 640=630; TC=12,340	9	15	2	S&M Market	0	0	0	4	0	0	30	0	-4	-6	10	0	0	30

Desirability/Feasibility Worksheets: Updated 7/17/2023

DESCRIPTION							DESIRABILITY											FEASIBILITY									
PATH DESCRIPTION	2013 PEA Segment Number	Section Location	Number of Incomplete Segments	Length of Segment to Be Built (In Feet)	Continuous Length When Completed and combined with existing paths	Construction Challenges: Boardwalks, slope mitigation, retaining walls, bridges, tree replacement, etc.	SPTC Status & Comments	Calculations: Average Population Served Per Acre within a One Mile Radius (640 per sq. Mile) Plus actual traffic count	(X3) Average Population within a One Mile Radius: 0-300=1, 201-600=2, 601-1000=3, 1001-2000=4, Over 2000=5	(X3) 24 hour Traffic Count on Adjacent Street: <1000=1, <2500=2, <5000=3, <10000=4, >10000=5	(X2) 24 hour Traffic Count on Adjacent Street: <1000=1, <2500=2, <5000=3, <10000=4, >10000=5	(QTY X2) Description of Special features within 500 Ft: *Shop *Staging *Rest Area *Church *Natural *Historical *Cemetery	(X3) Connects to a Park: No=0, Yes=5	(X3) Connects to an Existing Path or Trail: No=0, Yes=5	(X3) Connects to Paint Creek or Regional Trail: No=0, Yes=5	(X2) Number of Miles Completed Path Will Connect: 0=0, <1=1, <2=2, <3=3, <4-5=4, >5=5	(X2) Connects to a School: No=0, Yes=5	(X3) Completes a Loop: No=0, Yes=5	TOTAL Desirability Ranking	(X3) Availability of ROW: Falls within ROW=5, Requires Permanent Easements=0	(X-2) Number of Permanent Easements Required	(X-3) Number of Construction Challenges:	(X2) Crossing on a Paved Road: Y=0, N=5	(X2) Funding Sources Available Beyond SPTC Millage: Y=5, N=0	Total Feasibility Ranking		
	31	GAS EASEMENT: Orion to Rochester Rd. (North of Mead)	T5-03	34	1	TBD	.6 miles	wetland, stream, steep slope, heavily wooded, boardwalk, retaining wall, slope mitigation	Review possible links to Paint Creek Trail & O'Connor park, Roch Hills link is O'Connor considered a worthwhile connection	1.81 x 640=1158	12	NA	NA	O'Connor Park	0	0	0	2	0	0	14	15	0	-18	10	0	7
32	BUELL Rd. (South Side): Rochester to Hadden Rd.	T3-06	23	1	5280	1 miles	Wetlands, bridge, boardwalk	Twin Lakes Development on north side. Eventually link to Draper Twin Lakes Park	.68x640=435; TC=2310	6	6	0	NA	0	0	0	2	0	0	14	0	-20	-9	10	0	-19	-5
33	HADDEN RD. (East Side): Inwood to Buell	T2-07	13	1	3960	1.75 miles incl Draper Twin Lakes trails	wetland, stream, steep slope, heavily wooded, boardwalk, retaining wall, slope mitigation	Connects to Draper Twin lake Park	.68 x 640=435; TC=990	6	3	0	Draper Twin Lakes Park	15	15	0	6	0	0	45	0	-8	-21	10	0	-19	26
34	Wyndstone/ Isley Park Connection: Romeo to Predmore	T2-01, T2-02, P2-03	2			1 mile	Need to Review Area & New Subdivision paths	Developer is planning asphalt path along Predmore, P2-03 is completed from parking area on Parkway Dr. to Isley Park	.86x640=550. TC=NA				Isley Park	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
35	PREDMORE RD: Rochester to Charles Isley Park		1 2	1		+2 miles incl Isley Park trails		Developer Abandoned? Bike Fund donation?	.59 x640=378 TC=270	6	3	0	Charles Isley Park	15	15	0	4	0	0	43	0	-6	TBD	10	0	4	47
36	STONY CREEK RAVINE PARK TO SNELL RD.	T5-05	25	1	0		wetland, stream, steep slope, heavily wooded, boardwalk, retaining wall, slope mitigation	Parks & Rec Project: inter park trail	prc project	prc project		Stony Creek Ravine Park Stony Creek Metro Park	prc project	prc project	prc project	prc project	prc project	prc project	prc project	prc project	prc project	prc project	prc project	prc project	prc project	prc project	prc project
37	SNELL RD: (Side TBD) Rochester to Stony Creek Ravine Park		25 26	1	6653	+2 miles after connection to Stony Creek Metopark	creek, trees, retaining Wall, sloop mitigation	Use Guardian Angels Path on South side then cross to north side. Or build full path on south edge of church. Pending connection to Stony Creek Metro Park & Clinton River/Macomb Orchard Trail (Easement figured on south side to Sheldon, then on north side)	1.24 x 640=896. TC=1860	9	6	6	Creek Crossing, Cemetery, Church, Premier Academy, Stony Creek Ravine Park	15	15	15	10	10	0	86	0	-20	-12	0	0	-32	54
38	SHELDON RD: (west side) Snell to Mead Rd.		26 35	2	7392	+10 miles incl Stony Creek Metopark	Bridge, Boardwalk, trees	Connects to Park & Huggar School	1.24 x 640=794. TC=960	9	3	4	Creek Crossing, Stony Creek Metopark, Huggar, Clinton River/Macomb orchards trail	15	15	15	10	10	0	81	0	-22	-9	10	0	-21	60
39	MEAD RD. (North side) Roch.Rd/O'Connor park to Winkler Mill Rd.		35 36	1	9240	1.75 miles		Connects to 2-3 Parks	.91x640=582 TC=810	6	3	0	O'Connor Park	15	0	0	4	0	0	28	TBD	TBD	TBD	10	0	TBD	
IRON BELLE CONNECTION: Utilizing BMRA/DNR existing inter-park trails (inter-park trails are rustic, not ADA accessible)																											
41	BMRA SOUTH UNIT TO PAINT CREEK TRAIL (Greenshield to PCT) Same as line 47)		18 19	1	11,088	10+ miles incl PCT	Heavily wooded, slope mitigation, Steep slope, 2 bridges, retaining wall	MDNR Project that would use existing BMRA trails W. of Kern & new trails E. of Kern. Orion Township showed interest in connection. Bridge over Paint Creek in planning	2.91 x 640=1862 TC=510	12	3	6	Decker Settlement Cemetery, Special Natural Features	15	15	15	10	0	0	76	15	-2	-18	10	0	5	81
42	Stoney Creek Rd (North Side) from Orion Rd. to Marshview park via BMRA	IB-1	7	1	4330	10+ miles with connection to PCT	Trees, slopes, DNR natural area. Cross at Orion Township Line & again to marshview Park	Possible Roundabout coming to Stoney Creek & Orion Rd State land. Consider trail on south side instead. Would connect to Polly Ann & PCT via Orion Twp Kern Rd Trail	.48x640=310. TC=3020	6	9	0	Marshview Park BMRA	15	15	15	10	0	0	70	0	-2	-6	0	0	-8	62

Desirability/Feasibility Worksheets: Updated 7/17/2023

DESCRIPTION							DESIRABILITY										FEASIBILITY									
PATH DESCRIPTION	2013 PEA Segment Number	Section Location	Number of Incomplete Segments	Length of Segment to Be Built (In Feet)	Continuous Length When Completed and combined with existing paths	Construction Challenges: Boardwalks, slope mitigation, retaining walls, bridges, tree replacement, etc.	SPTC Status & Comments	Calculations: Average Population Served <u>Per Acre</u> within a One Mile Radius (640 per sq. Mile) Plus actual traffic count	(X3) Average Population within a One Mile Radius: 0-300=1, 201-600=2, 601-1000=3, 1001-2000=4, Over 2000=5	(X3) 24 hour Traffic Count on Adjacent Street: <1000=1, <2500=2, <5000=3, <10000=4, >10000=5	(X3) 24 hour Traffic Count on Adjacent Street: 18000=2, 2114=183	(QTY X2) Special features within 500 Ft: *Shop *Staging *Rest Area *Church *Natural *Historical *Cemetery	Description of Special features Found:	(X3) Connects to a Park: No=0, Yes=5	(X3) Connects to an Existing Path or Trail: No=0, Yes=5	(X3) Connects to a Creek or Regional Trail: No=0, Yes=5	(X2) Number of Miles Completed Path Will Connect: 0=0, <1=1, <2=2, <3=3, <4-5=4, >5=5	(X2) Connects to a School: No=0, Yes=5	(X3) Completes a Loop: No=0, Yes=5	TOTAL Desirability Ranking	(X3) Availability of ROW: Falls within ROW=5, Requires Permanent Easements=0	(X-2) Number of Permanent Easements Required	(X-3) Number of Construction Challenges:	(X2) Crossing on a Paved Road: Y=0, N=5	(X2) Funding Sources Available Beyond SPTC Millage: Y=5, N=0	Total Feasibility Ranking
	61 Gunn Rd: (South Side) Rochester to Knob Creek drive		23 26	1	5280	+2 miles incl SC Ravine trails	Steep Slope, Bridge	Knob Creek allows access to Stony Creek Ravine Park, linking to Stony Creek metro park	.6x640=384. TC=1450	6	6	4	Foglers, pretty Creek crossing, Stony Creek Ravine, living word school	15	15	0	10	10	0	66	0	-42	-6	0	0	-48
62 Brewster S. of Silverbell Fill-In (west side)	P4-17	32	1	1320 + 400 = 1720	Over 4 miles including connections	retaining walls, steep slopes, Boardwalk	BOT voted 4/2023 to allow the removal of the existing HOA-owned Cloister path and voiced their opinion that there was little to no feasibility for a safety path connecting to the remaining path along Brewster. Four residents contacted in 2015 were not open to easements	1.51 x640=966; TC=1080	9	6	0	Gallagher Creek Park Musson Delta Kelly	15	15	0	10	10	10	75	0	-8	-9	0	0	-17	58

Desirability/Feasibility Worksheets: Updated 7/17/2023

DESCRIPTION										DESIRABILITY										FEASIBILITY						
PATH DESCRIPTION	2013 PEA Segment Number	Section Location	Number of Incomplete Segments	Length of Segment to Be Built (In Feet)	Continuous Length When Completed and combined with existing paths	Construction Challenges: Boardwalks, slope mitigation, retaining walls, bridges, tree replacement, etc.	SPTC Status & Comments	Calculations: Average Population Served Per Acre within a One Mile Radius (640 per sq. Mile) Plus actual traffic count	(X3) Average Population within a One Mile Radius: 0-300=1, 201-600=2, 601-1000=3, 1001-2000=4, Over 2000=5	(X3) 24 Hour Traffic Count on Adjacent Street: <1000=1, <2500=2, <5000=3, <10000=4, >10000=5 (BTRC 2014.183)	(QTY X2) Special features within 500 Ft: *Shop *Staging *Rest Area *Church *Natural *Historical *Cemetery	(X3) Description of Special features Found:	(X3) Connects to a Park: No=0, Yes=5	(X3) Connects to an Existing Path or Trail: No=0, Yes=5	(X3) Connects to Paint Creek or Regional Trail: No=0, Yes=5	(X2) Number of Miles Completed Path Will Connect: 0=0, <1=1, <2=2, <3=3, <4-5=4, >5=5	(X2) Connects to a School: No=0, Yes=5	(X3) Completes a Loop: No=0, Yes=5	TOTAL Desirability Ranking	(X3) Availability of ROW: Falls within ROW=5, Requires Permanent Easements=0	(X-2) Number of Permanent Easements Required	(X-3) Number of Construction Challenges:	(X2) Crossing on a Paved Road: Y=0, N=5	(X2) Funding Sources Available Beyond SPTC Millage: Y=5, N=0	Total Feasibility Ranking	
	COMPLETED PATHS & COSTS AS OF 5/23/22 (With Engineering Fees)																									
1	ADAMS ROAD / MODETZ: East Side Adams connecting two existing paths between Dutton and Silverbell (N. Addison Cir to Vet. Tribute)		32	Asphalt	370	2-3 miles incl existing paths on Adams	Complete 2011: Approx \$35,000 8 ft path Property owner mows		15	15	4		0	15	0	6	0	0	55	0	-2	0	10	0	8	63
2	CIDER MILL CONNECTOR: Paint Creek Cider Mill to behind Flagstar bank to PCT	na	28	Asphalt	685	+10 miles incl PCT	Sprinkler system reroute, retaining wall	Completed Fall 2016 \$86,700 + 29,500 = \$116,200 8 ft path Bank / twp mows	15	12	12	Cider Mill, Historical	0	15	15	10	0	0	79	0	-2	-6	10	0	2	81
3	SILVERBELL & BREWSTER: South Side of Silverbell, Brewster to connection with Coventry Lane Path	P4-14	32	Asphalt	506	4-5 miles incl existing paths at Silverbell and Adams	Slope mitigation	Completed Fall 2016 \$49,800 + 32,900 = \$82,700 10 ft path SPT responsible for mowing	15	6	0	Gallagher Creek Park	15	15	0	8	0	0	59	0	-3	-3	10	0	4	63
4	EAGLE CREEK BOARDWALK: North side of Silverbell from Eagle creek Academy east to Country Creek path	P4-08	30	cement approach / Trex boardwalk	283	8.5 miles incl connections to existing paths on Silverbell	Boardwalk	Completed Spring 2017 \$170,000 + 30,200 = \$200,200 SPT responsible for trimming	15	15	4	Eagle Creek Academy	15	15	0	8	10	0	82	0	-2	-3	10	0	5	87
5	GALLAGHER CREEK PARK PATH: North side of Silverbell from Adams to Gallagher creek park	PF-09	29	Concrete	1000	8.5 miles incl existing paths at Silverbell and Adams	wetlands, slope mitigation	Completed Fall 2018 \$235,000 4 ft path SPT responsible for mowing	15	9	10	Gallagher Creek Park Delta Kelly Sherwood Forest	15	15	0	10	10	0	84	15	0	-12	10	0	13	97
6	DUTTON: North side of Dutton from Blossom Ridge entrance to Adams Road	P4-19	31	Asphalt	3168		consent judgement	Completed 2018 Part of Blossom Ridge consent judgement \$114,000 (paid from "Bike Fund") 8 ft path property owner mows	15	15	4		0	15	0	10	10	0	69	0	-2	-6	10	0	2	71
6	ADAMS ROAD: West side of Adams, from Mystic Lane to Dutton Road	P4-15	31	Asphalt																						
7	OAKLAND CHRISTIAN CHURCH SW CORNER Silverbell (from Oakland Christian Church) and Adams (to Veteran's tribute memorial)	P4-19	31	Asphalt	3168	5 + miles incl existing paths at Silverbell and Adams	path rebuild & signal updates	Projected cost \$288,000 & intersection 8 ft path Church mows	15	15	4		0	15	0	10	10	0	69	0	-2	-6	10	0	2	71
7	ADAMS ROAD BOARDWALK RENOVATION: West side of Adams from Oakland Christian Church to Veteran's Memorial	PF-19	31	wood boardwalk						430 foot Boardwalk Renovation	Completed Spring 2019 \$78,550 SPT responsible for trimming / phragmites										0					
8	GALLAGHER ROAD: West Side of Gallagher from Silverbell to PCT Excluding a gap	P4-11	28	concrete sidewalk-Goodison Pl to PCT / Asphalt goodison pl to silverbell	5597	+10 miles incl PCT & connections to Silverbell & Adams	Retaining wall, Slope mitigation, trees, one permanent easement	Completed 2022 Merlo Construction \$850,000 + 46,000 = \$896,000 4 ft concrete sidewalk path / 8 ft asphalt path Goodison mows asphalt SPT responsible for concrete sidewalk	12	9	10		0	15	15	10	10	0	81	0	-2	-9	0	0	-11	70

Note Desirability / Feasibility Worksheets help to prioritize prospective trail routes and to identify known issues. Scoring criteria was established by studying current and previous Township Master Plans, the data provided by engineering consultants in the 2013 SPT Feasibility Study, further advice from planning and engineering consultants, data in the Trails & Pathways Strategy Plan maps, other regional trail plans as well as recommendations from citizens. The Worksheets are under continuous review by the SPTC as new information and trail opportunities become available due to changes such as road improvements, subdivision developments or new easement opportunities. Those proposed paths with the highest rankings will be given priority for evaluation.

Desirability/Feasibility Worksheets: Updated 7/17/2023

PATH DESCRIPTION	DESCRIPTION						SPTC Status & Comments	DESIRABILITY										FEASIBILITY					
	2013 PEA Segment Number	Section Location	Number of Incomplete Segments	Length of Segment to Be Built (In Feet)	Continuous Length When Completed and combined with existing paths	Construction Challenges: Boardwalks, slope mitigation, retaining walls, bridges, tree replacement, etc.		Calculations: Average Population Served Per Acre within a One Mile Radius (640 per sq. Mile) Plus actual traffic count	(X3) Average Population within a One Mile Radius: 0-300=1, 201-600=2, 601-1000=3, 1001-2000=4, Over 2000=5	(X3) 24 hour Traffic Count on Adjacent Street: <1000= 1, <2500=2, <5000=3, <10000=4, >10000=5 (8000, 2014,18)	(QTY X2) Special features within 500 Ft: *Shop *Staging *Rest Area *Church *Natural *Historical *Cemetery	Description of Special features Found:	(X3) Connects to a Park: No=0, Yes= 5	(X3) Connects to an Existing Path or Trail: No=0, Yes= 5	(X3) Connects to Paint Creek or Regional Trail: No=0, Yes= 5	(X2) Number of Miles Completed Path Will Connect: 0=0, <1=1, <2=2, <3=3, <4-5=4, >5=5	(X2) Connects to a School: No=0, Yes= 5	(X3) Completes a Loop: No=0, Yes= 5	TOTAL Desirability Ranking	(X3) Availability of ROW: Falls within ROW=5, Requires Permanent Easements=0	(X-2) Number of Permanent Easements Required	(X-3) Number of Construction Challenges:	(X2) Crossing on a Paved Road: Y=0, N=5

OAKLAND TOWNSHIP SAFETY PATH CRITERION / METHODOLOGY

Yellow Cells indicate that an alternative path exists	
Pink Cells indicate grouping of major paths that are broken down into several segments	
Orange Cells indicate path possibly to be developer built	
Purple Cells indicate possible connections to Iron Belle Trail	

PATH DESCRIPTION COLUMNS:

PEA Segment Number – These segment numbers reference current and potential safety paths from the 2013 PEA analysis and are shown on the Trails & Pathways Strategy Plan Map which is included in the township's Master Plan dated September 12, 2017	
Section Location – The township is broken down into 36 segment blocks which are also shown on the Trails & Pathways Strategy Plan Map which is included in the township's Master Plan dated September 12, 2017. If a desired safety path designates which side of the road the safety path would be built, that section number is used. If the desired safety path lists the side of the road as TBD, then if the safety path straddles two blocks, both blocks will be included in the chart.	
Number of incomplete segments – typically 1 unless the proposed safety path includes a portion where a path or sidewalk currently exists and would connect on either side of the existing path (then incomplete segments would be 2 or more)	
Length of segment to be built (in feet) – this is the length of path to be built, excluding any existing path sections	
Continuous length when completed and combined with existing paths – This is the total of the path to be constructed, plus the length of all of the paths / trails that it will connect to	
Construction challenges – list all challenges including boardwalks, slope mitigation, retaining walls, bridges, steep slope, heavily treed, golf course crossing. If there would be more than one boardwalk or bridge needed, that should be noted in comments	
SPTC Status & comments – included are cost estimates, any pertinent information regarding the proposed path, if there is a path along the opposite side of the street, it should be noted. Also, any parallel paths that exist that could be alternate route should be noted.	

DESIRABILITY COLUMNS:

Calculations: Average Population Served Per Acre within a One Mile Radius x 640 – average population within a one mile radius. (There are 640 acres per square mile). This column also includes actual traffic count. Information regarding the average population per acre was obtained from the 2020 census per Sencog's website. The township was broken down into 33 sections. Data blocks that comprised each section were identified and their respective population totals and acreage were added up to get a total population and total acreage per section. The total population divided by the total acreage was computed for each section. A one mile radius (based on the center point of the proposed path) was then charted and the average population per acre for any of the sections that fell within the one mile radius was added together and averaged.	
Average Population within a one mile Radius – Based on the population within a one mile radius calculated in the first column, points were assigned as shown and multiplied x3.	
24 hour Traffic count on adjacent street – Traffic counts shown in the first column were determined based on information derived from the Road Commission of Oakland County's website (based on traffic information from 2014 – 2018). Based on these traffic counts, points are assigned as shown and multiplied x3.	
Special features within 500 feet – included as special features are shops, staging parking lots, rest area, church, natural beauty, historical feature, cemetery (golf courses were not considered a special feature). The number of features listed in column #5 were totaled, then multiplied x2.	
Description of special features – special features are listed as well as any schools and/or parks that the proposed path would connect to	
Connects to a Park – If the proposed path allows it, along with existing paths, to connect to a park, 15 points were assigned. If not, then zero points were assigned	
Connects to an existing path or trail – If the proposed path allows it, along with existing paths, to connect to an existing path (even if it is a small sidewalk section), 15 points were assigned. If not then zero points were assigned.	
Connects to Paint Creek or Regional Trail - If the proposed path allows it, along with existing paths, to connect to the PCT or a Regional Trail, then 15 points were assigned. If not, then zero points were assigned	
Number of miles completed path will connect – Based on the number of miles the completed path would connect, points were assigned as shown, then multiplied x2.	
Connects to a School – If the proposed path allows it, along with existing paths, to connect to a school, 10 points were assigned. If not, then zero points were assigned	
Completes a loop – If the proposed path completes a loop, 10 points were assigned. If not, then zero points were assigned	
Total Desirability Ranking – This is the total of the points assigned for columns 2-4 and 6-11	

FEASIBILITY COLUMNS:

Availability of ROW – If the entire proposed path falls within an existing ROW, 15 points were assigned, if not then zero points were assigned. The ROW map was from Oakland County property gateway: Property Gateway v. 7.4 (oakgov.com). Right-of-ways were assumed to exist for utilities (like the power line) and in Bald Mountain Recreation Area	
Number of permanent easements required – The ROW map from Oakland County property gateway was used to determine the number of properties along the proposed path that would be required to grant a permanent easement. One easement was assumed to be needed for the utility ROW as well as any paths proposed within Bald Mountain Recreation area	
Number of Construction Challenges – For each construction challenge listed under the Description column #6, minus 3 points was assigned. The number of challenges were totaled and multiplied x3.	
Crossing on a Paved Road – If the proposed path crossed a paved road, or in order to connect to a school or park one had to cross a paved road, zero points were assigned. If no crossing of a paved road was involved, 10 points were assigned	
Funding sources available beyond SPT millage – If there were funding sources known and applied for, 10 points were assigned, if not zero points were assigned.	
Total Feasibility Ranking - This is the total of the points assigned for columns 1-5	
Total Overall Ranking – This is the total of both the desirability ranking and the feasibility ranking	



CONNECTING METROPARKS WITH TRAILS

HURON-CLINTON METROPARK REGIONAL TRAIL STUDY

PROJECT AREA 4: INDIAN SPRINGS TO STONY CREEK METROPARKS



JUNE 2022



INTRODUCTIONS

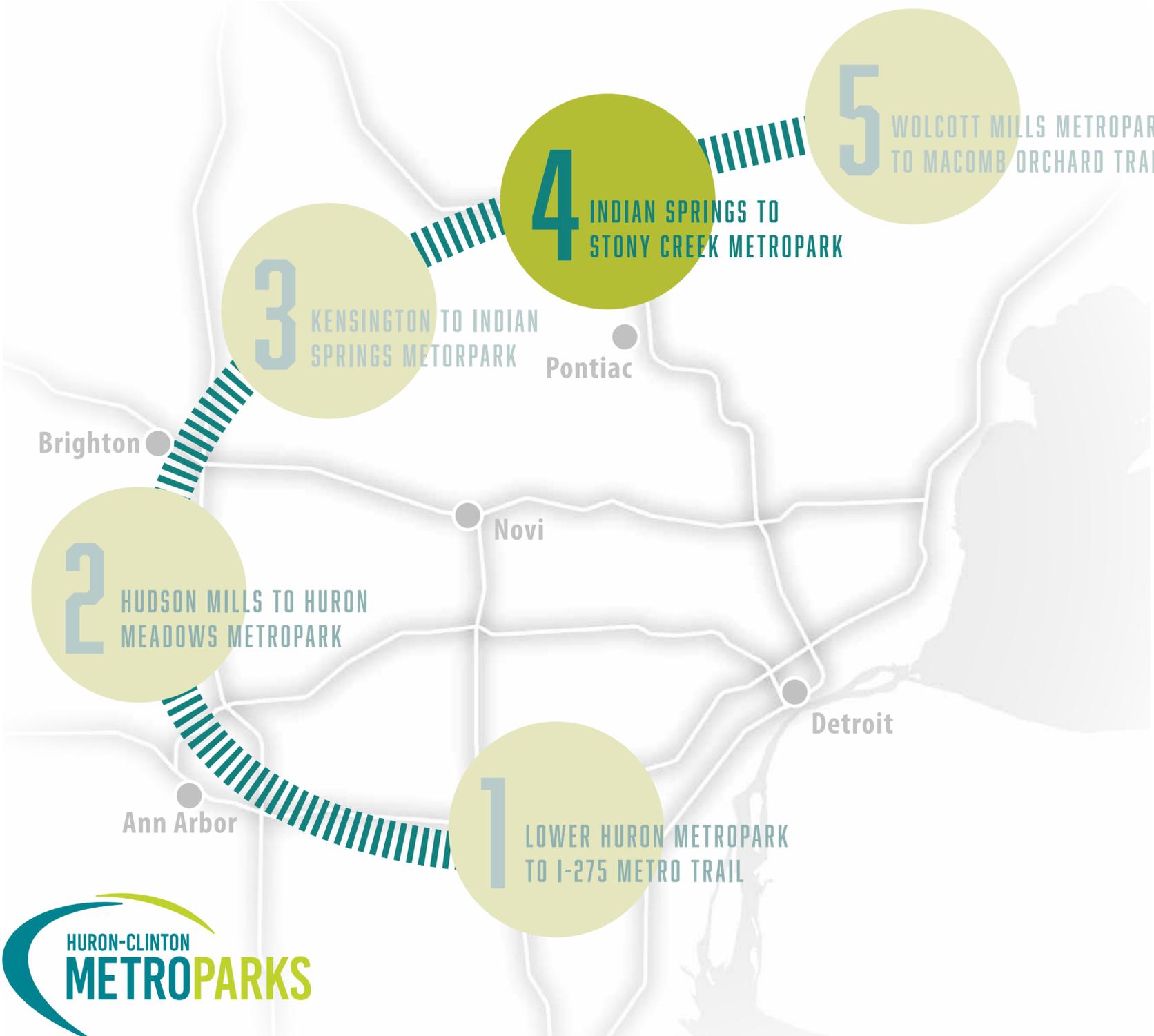
PROJECT BACKGROUND

HURON-CLINTON METROPARK REGIONAL TRAIL STUDY



INDIAN SPRINGS TO STONY CREEK METROPARKS

HURON-CLINTON METROPARK REGIONAL TRAIL STUDY



MEETING INTENT:

INTRODUCE PRELIMINARY ROUTE OPTIONS FOR THIS PROJECT.

SOLICIT INPUT ON PRELIMINARY ROUTE SCORING BEFORE WE PRESENT TO THE PUBLIC.

SCORING CRITERIA

1. ACCESS TO RECREATION (10 POINTS)

A measure of potential connections to other non-pathway related recreation opportunities such as fishing areas, kayaking, existing or proposed parks.

1 = limited connection to recreation areas

10 = quality connections to recreation areas

2. RESIDENTIAL ACCESSIBILITY (10 POINTS)

A measure of both population density and demographic diversity.

1 = low residential density near the trail

15 = easy access to high residential areas

3. SAFETY (10 POINTS)

A comparative measure of route safety in terms of interaction with vehicular traffic as well as public visibility of the trail section.

1 = significant safety concerns – potentially unsafe

10 = limited safety concerns – very safe

4. SCENIC QUALITY (10 POINTS)

A comparative measure of visual quality along the route as well as diversity of landscape character. Both attractive scenery and landscape diversity are desirable.

1 = poor scenic quality

10 = attractive scenery with diversity

5. VIABILITY OF LONG-TERM MAINTENANCE (10 POINTS)

A measure of potential long-term maintenance cost liabilities. Facilities such as boardwalks have a higher long-term maintenance cost than a paved pathway. Additional amenities such as fences, railings, retaining walls, bollards, etc. pose a potential for increasing long-term maintenance costs.

1 = significant maintenance costs

10 = minimal maintenance costs

6. ADJACENT AMENITIES (10 POINTS)

A measure of how accessible the trail will be to commercial or institutional places of interest such as local restaurants, stores, restroom stops, churches or schools.

1 = no access to amenities

10 = high access to amenity locations

7. PROPERTY ACQUISITION FEASIBILITY (20 POINTS)

A measure of the quantity of easements or land acquisition that may be required for development of the trail. The most significant obstacle to implementation is property ownership. Easement acquisition for trails on private property is often difficult and can be an insurmountable obstacle to development.

1 = abundant obstacles

20 = minimal obstacles

8. METROPARK CONNECTIVITY (20 POINTS)

A measure of the amount of time and effort it would take to travel from one Metropark to the next.

1 = long distance traveled between parks

20 = shortest distance between parks

9. FEASIBILITY OF DEVELOPMENT (10 POINTS)

A measure of the ease of development in terms of technical challenges of the land. Obstacles to development may include steep slopes, natural features such as wetlands, floodplains, streams or rivers, railroads or high traffic roads.

1 = abundant obstacles

10 = minimal obstacles

ITEMS TO NOTE WHEN REVIEWING THE ROUTE SCORING

ALL THE ROUTES ARE GOOD OPTIONS.

We're trying to define the best option that suites the needs of connecting the Metroparks.

ONLY THE HIGH SCORING ROUTES WILL BE FURTHER VETTED.

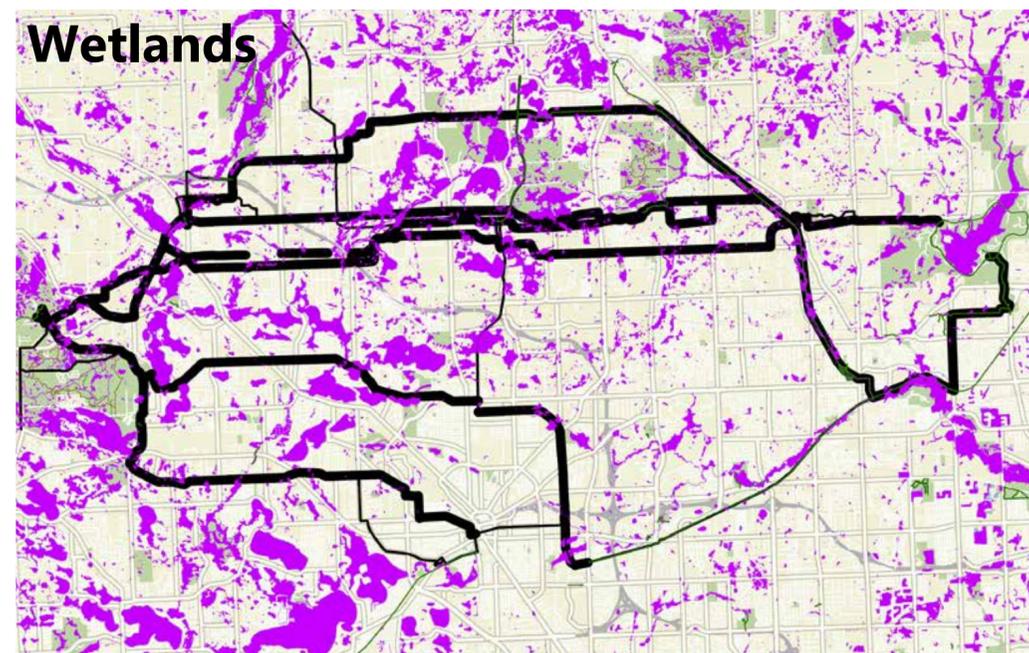
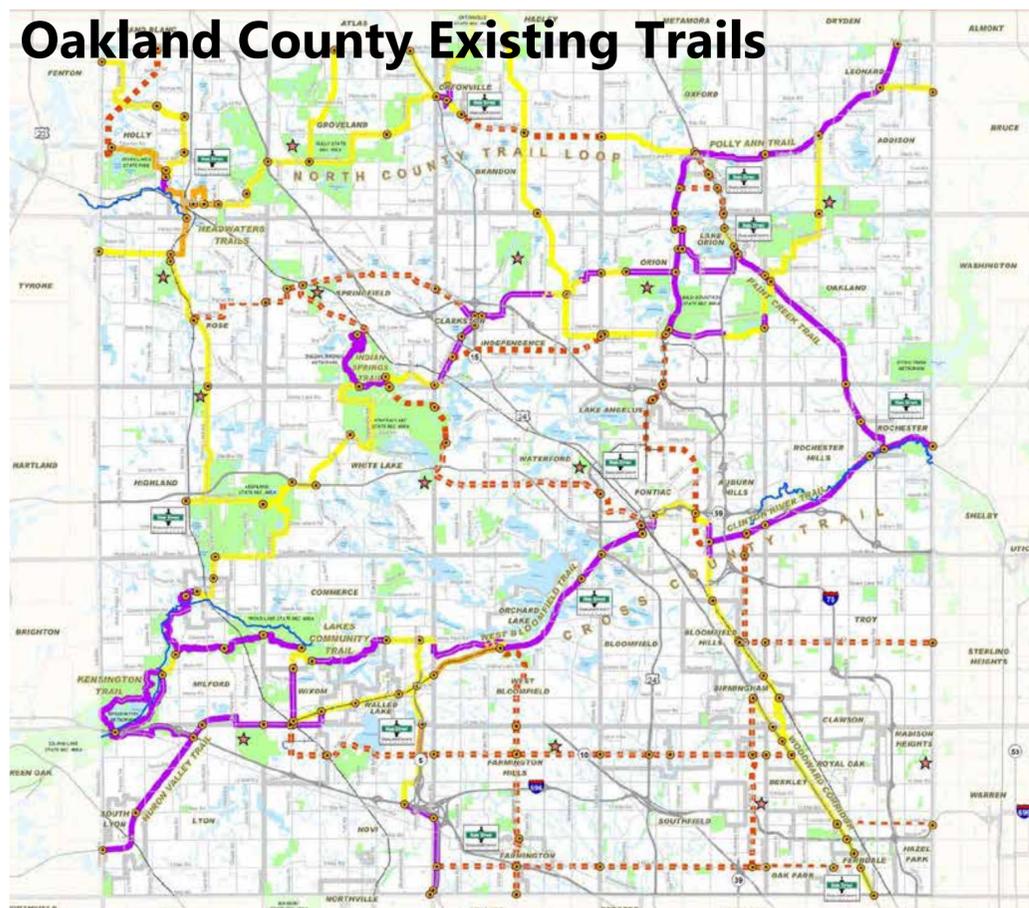
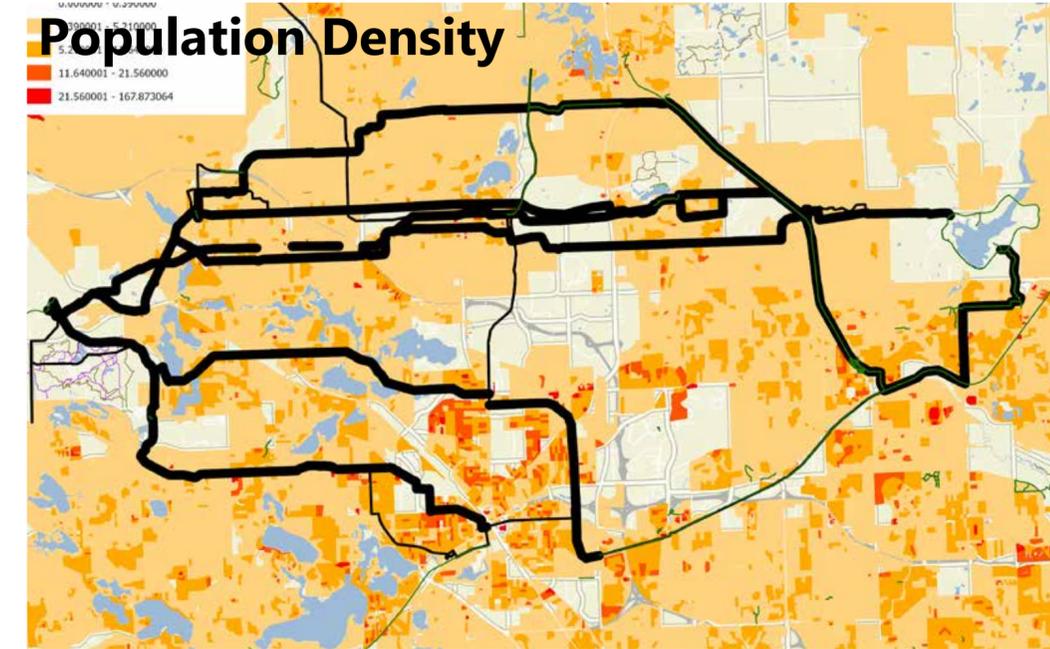
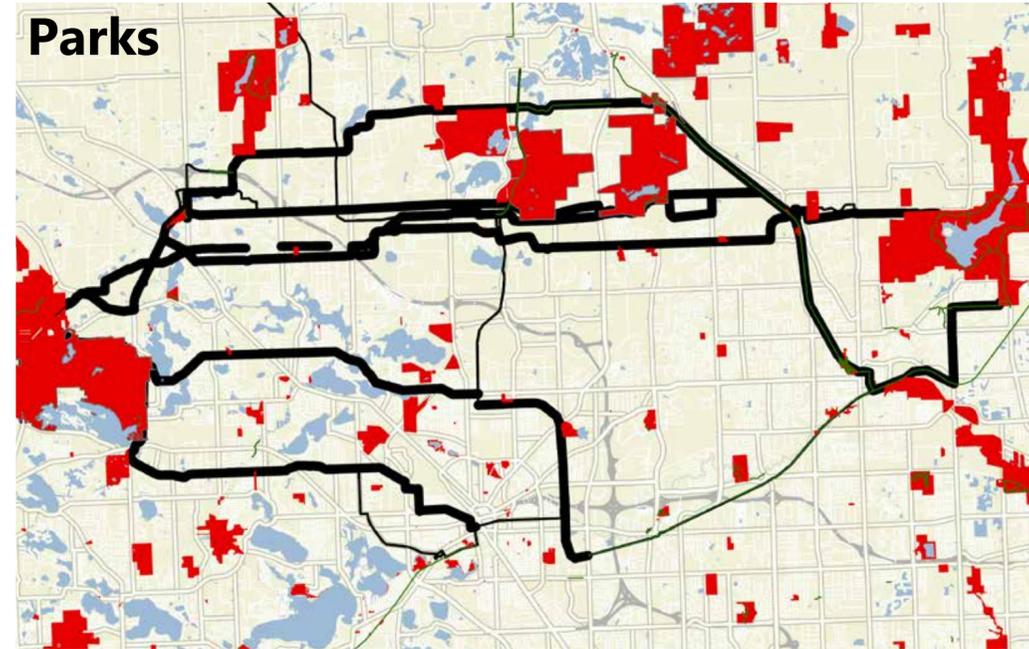
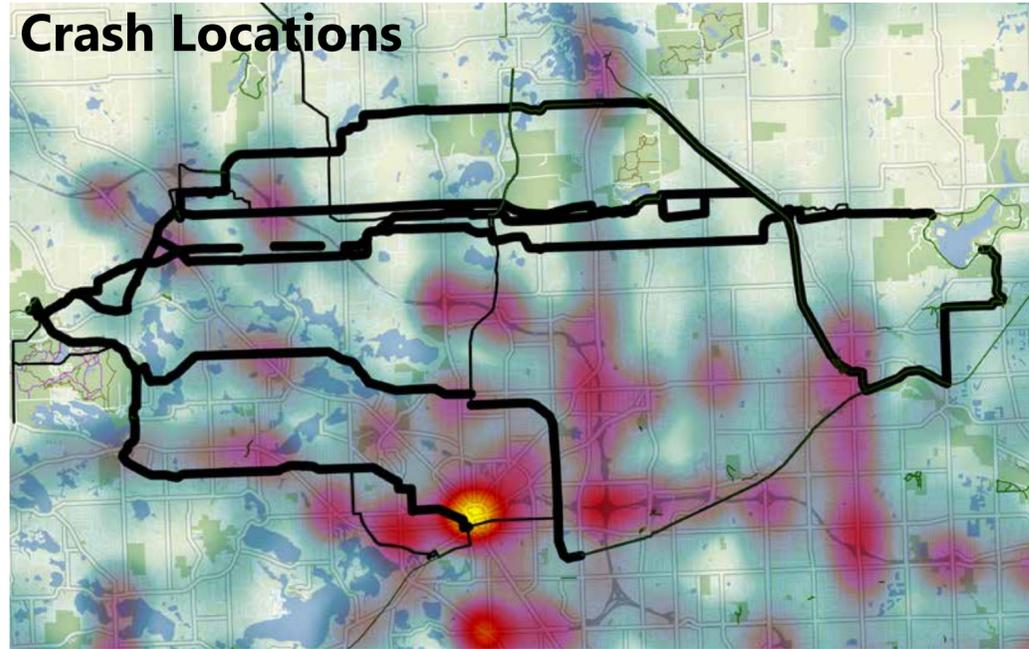
This current process is to shortlist routes for further evaluation.

ALL ROUTES HAVE SERIOUS CONSTRUCTIBILITY CHALLENGES.

We seek to determine the most viable route that meets the project goals.

ASHTO STANDARD 10' PATHWAYS ARE IDEAL, ARE NOT REALISTIC IN ALL AREAS.

Multiple cross sections must be used including on-road biking, crushed fine trails, and sidewalks.

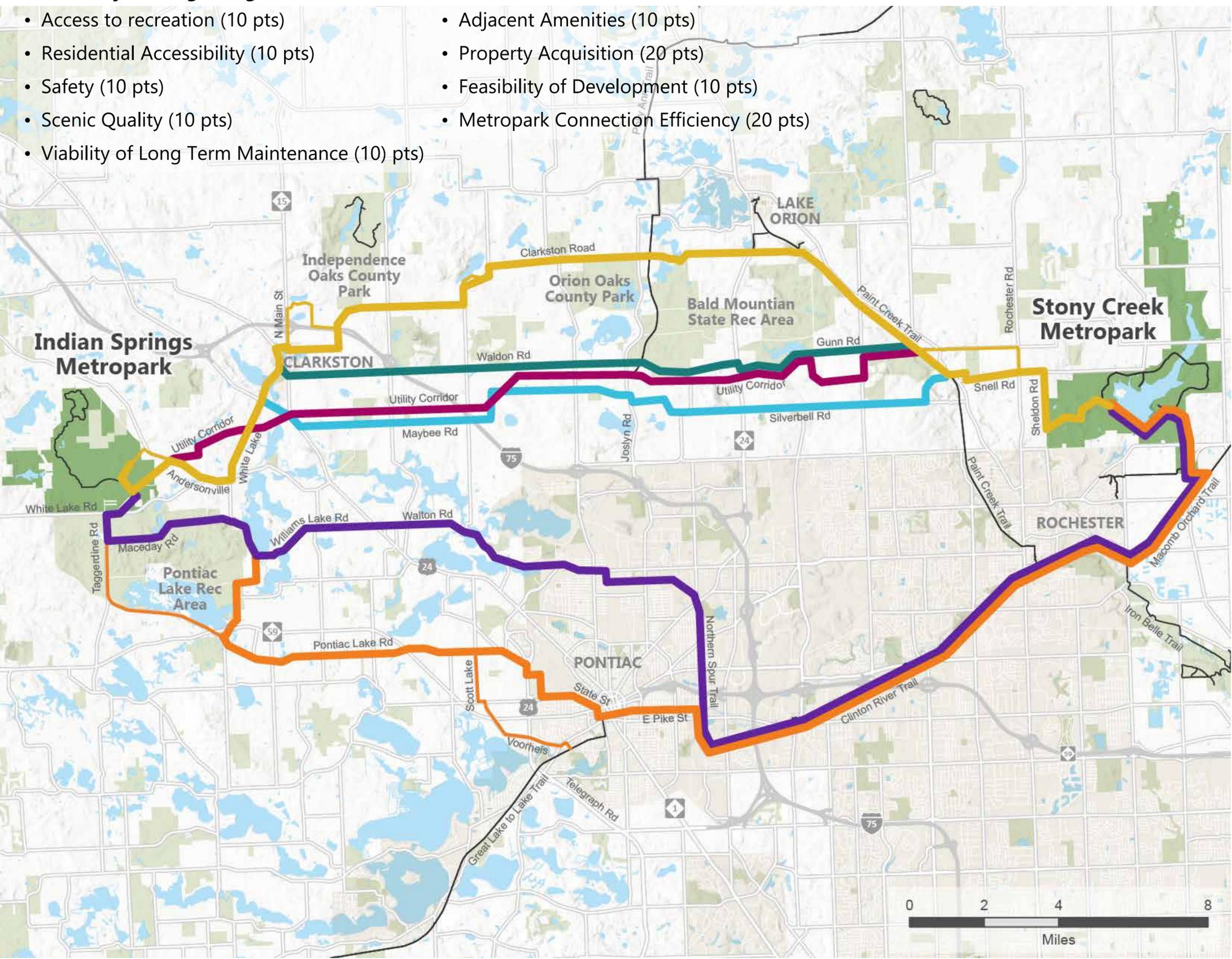


ROUTE SEGMENT DEVELOPMENT PROCESS

- Natural features, private property, and safety concerns eliminated some route options.
- Looked at existing use patterns of bicyclists and runners.
- Mapped out multiple route segments.
- Looked at demographics, equity and bike/pedestrian demand areas.

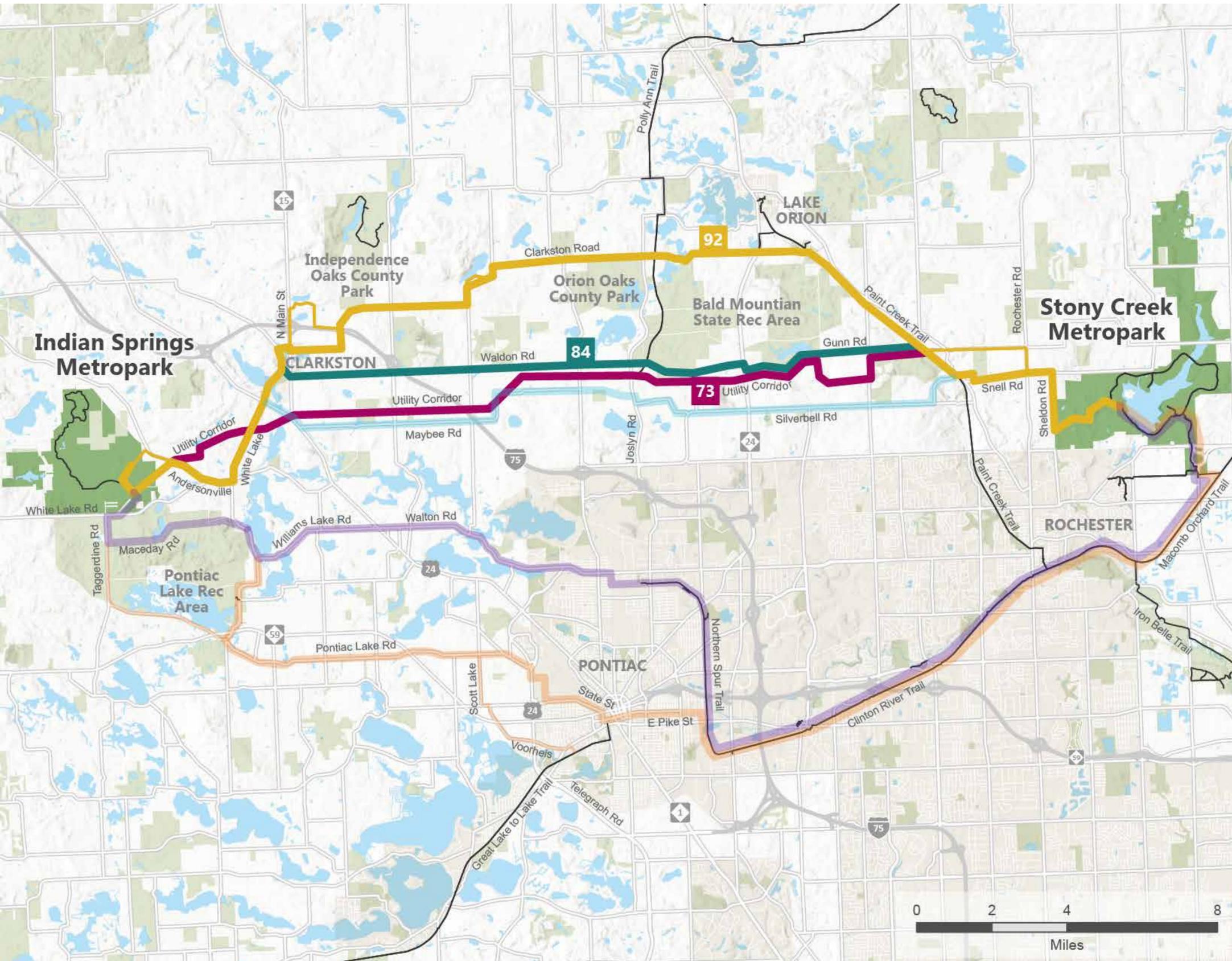
Preliminary Scoring Categories

- Access to recreation (10 pts)
- Residential Accessibility (10 pts)
- Safety (10 pts)
- Scenic Quality (10 pts)
- Viability of Long Term Maintenance (10 pts)
- Adjacent Amenities (10 pts)
- Property Acquisition (20 pts)
- Feasibility of Development (10 pts)
- Metropark Connection Efficiency (20 pts)



PRELIMINARY SCORING OF ROUTE SEGMENTS

- 110 Weighted Point system for segments within each zone.
- Property acquisition and Metropark connection efficiency weighted more heavily.
- Verified the scored segments with field studies.

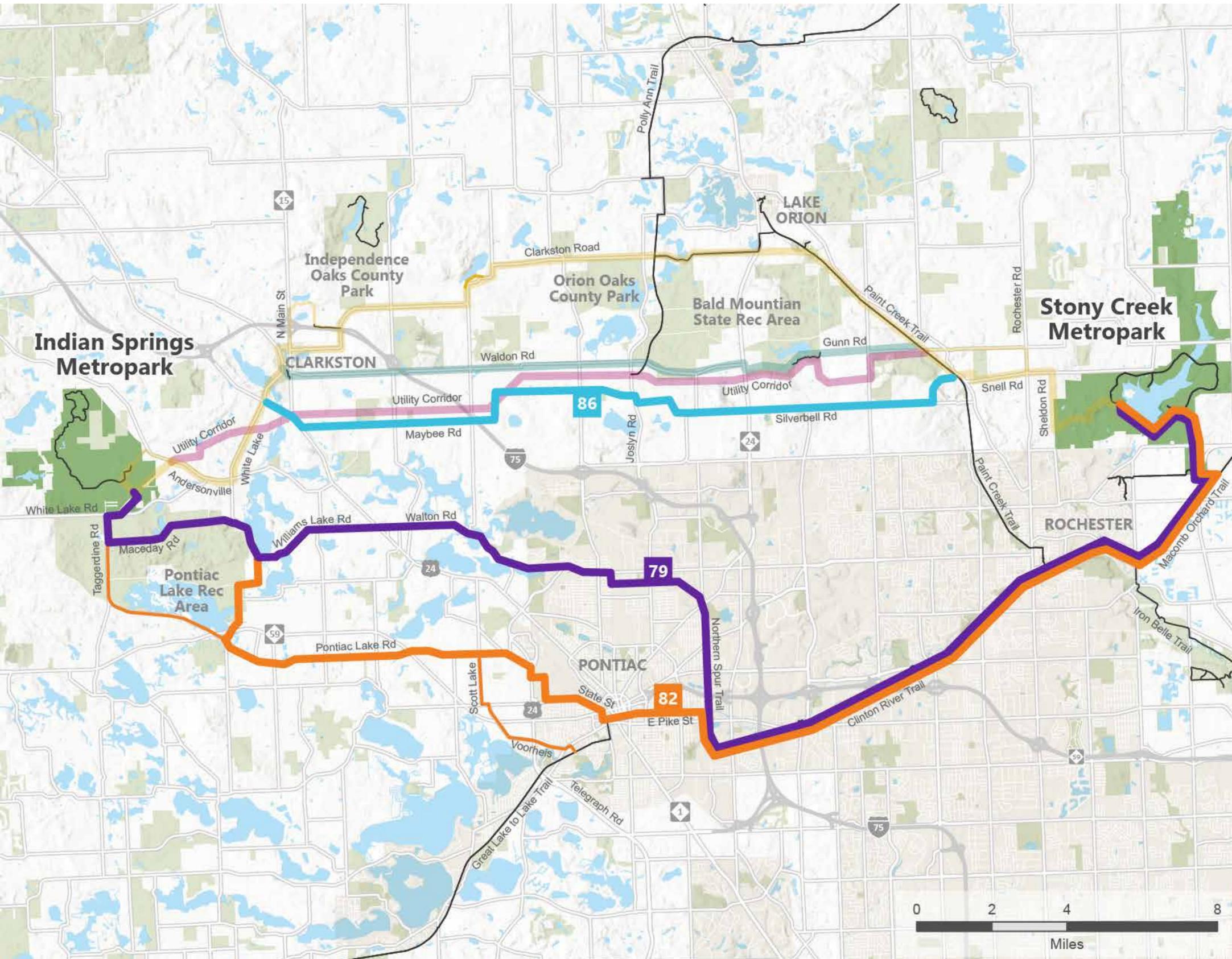


PRELIMINARY SCORING OF ROUTE SEGMENTS

- Yellow route: Follows Oakland County's planned route, links parks and destinations every few miles, majority of route is built, connection through Clarkston to Stony Creek most challenging.
- Teal route: Existing side paths along most of route, almost all residential areas, long stretches between destinations. Extensive mid-block crossing over M-24.
- Magenta route: ITC corridor is broken up by a private golf course and expressway west of Baldwin. Has the most property easements and wetlands. Requires a mid-block crossing over M-24, long stretches between destinations.

PRELIMINARY SCORING OF ROUTE SEGMENTS

- Blue route: Existing side paths along most of route, almost all residential areas, long stretches between destinations.
- Purple route: Existing side paths along most of route, follows existing off road trails in Pontiac. Pontiac Lake State Rec Area section would be on road (unpaved). Bridges and wetlands present challenges with the North Spur Trail. Lots of high traffic and curb cuts.
- Orange route: Follows Oakland County's planned route. Pontiac Lake State Rec Area section would be on road (unpaved). Crosses M-59 in 2 locations, bridges that need to be replaced and wetlands present challenge with North Spur Trail in Pontiac, long stretches between destinations.



Proud Lake Recreation Area: Maceday Rd



Pontiac Lake Recreation Area Trailhead



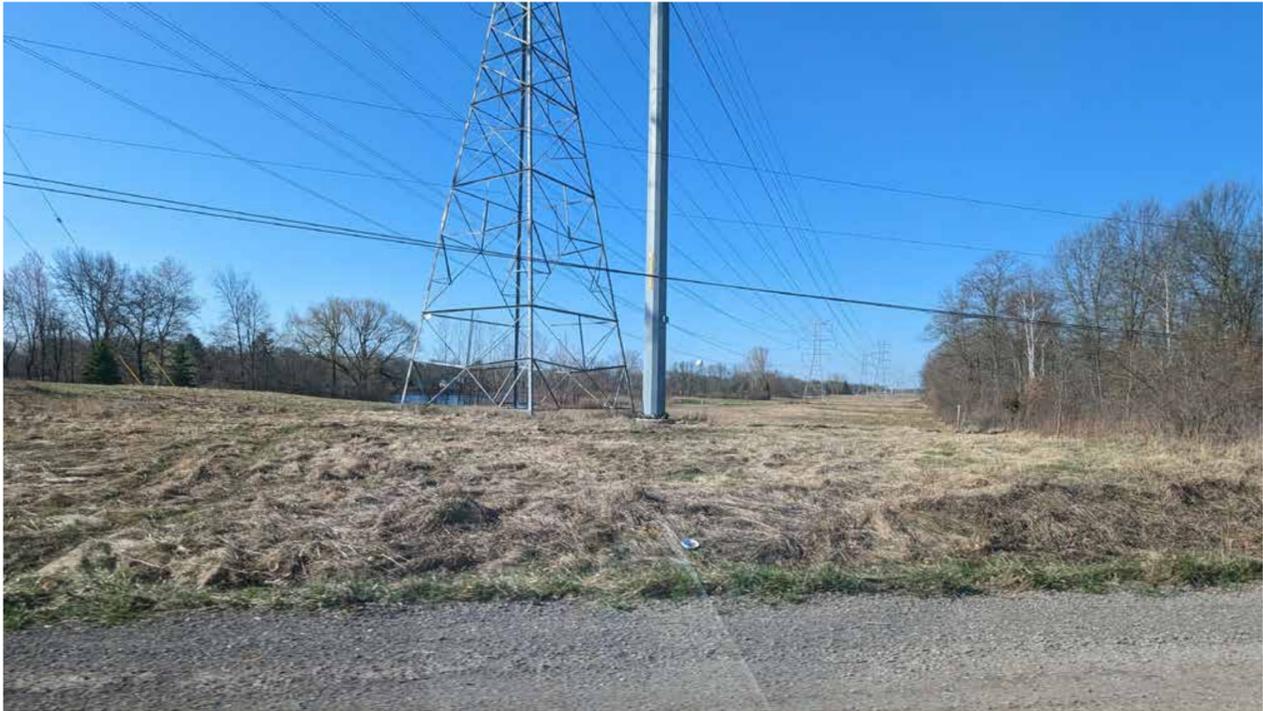
Walton Rd



Silverbell Rd



ITC Corridor



Anderson Rd

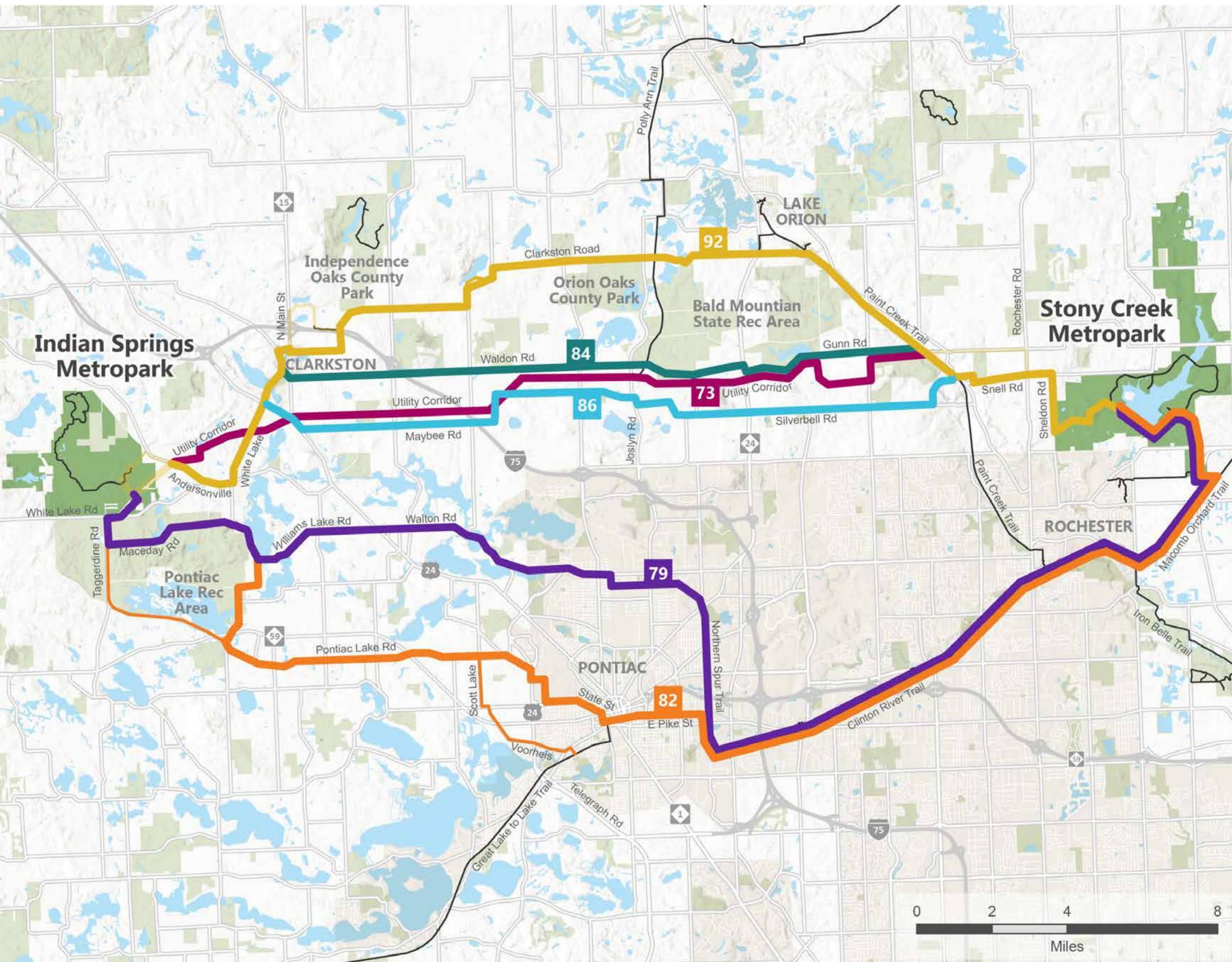


Clarkston Rd



Snell Rd

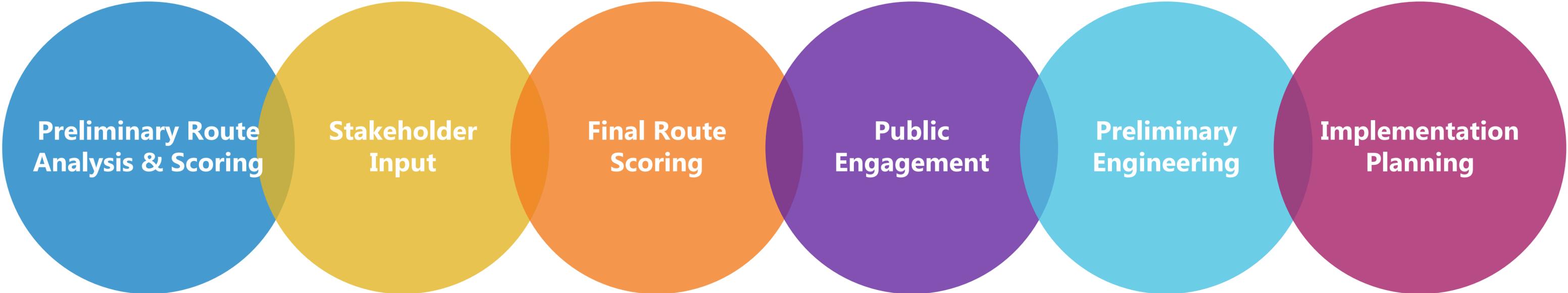




PRELIMINARY SCORING OF ROUTE SEGMENTS

- Made predominately of existing pathway.
- Links parks and destinations along the way, creating local connections and rest areas in between the Metroparks.
- Follow Oakland County's planned route.

NEXT STEPS



**Present preliminary
pathway plan to
stakeholders**



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
MICHIGAN STRATEGIC FUND
STATE HISTORIC PRESERVATION OFFICE

QUENTIN L. MESSER, JR.
PRESIDENT

September 27, 2023

NEAL J BEDLAN
NATIONAL PARK SERVICE
MIDWEST REGION
601 RIVERFRONT DRIVE
OMAHA NE 68102-4226

RE: ER23-639 Stony Creek Ravine Nature Park Project HA23.03.AI, Oakland Township,
T04N R11E, Section 25, Oakland Township, Oakland County (NPS)

Dear Neal Bedlan:

Under the authority of Section 106 of the National Historic Preservation Act of 1966, as amended, we have reviewed the above-cited undertaking at the location noted above. Our review included revised project mapping, which we received from the archaeological consultant on September 27, 2023. The revised mapping indicates that two unevaluated archaeological resources, Sites 200K552 and 200K553 will be avoided during project activities and that the path of the trail has been rerouted to avoid these sites. Therefore, based on the information provided for our review, it is the opinion of the State Historic Preservation Officer (SHPO) that **no historic properties are affected** within the area of potential effects of this undertaking.

This letter evidences NPS's compliance with 36 CFR § 800.4 "Identification of historic properties," and the fulfillment of NPS's responsibility to notify the SHPO, as a consulting party in the Section 106 process, under 36 CFR § 800.4(d)(1) "No historic properties affected." **If the scope of work changes in any way, or in the unlikely event that human remains or archaeological material are encountered during construction activities related to the above-cited undertaking, work must be halted, and the Michigan SHPO and other appropriate authorities must be contacted immediately.**

We remind you that federal agency officials or their delegated authorities are required to involve the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties per 36 CFR § 800.2(d). The National Historic Preservation Act also requires that federal agencies consult with Native American Tribes and/or Tribal Historic Preservation Officers (THPO) who may attribute religious and cultural significance to historic properties that may be affected by the agency's undertakings per 36 CFR § 800.2(c)(2)(ii).

The State Historic Preservation Office is not the office of record for this undertaking. You are therefore asked to maintain a copy of this letter with your environmental review record for this undertaking.



If you have any questions, please contact Amy Krull, Federal Projects Archaeologist at 517-285-4211 or by email at krulla@michigan.gov. **Please reference our project number in all communication with this office regarding this undertaking.** Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,



Amy Krull
Federal Projects Archaeologist

ak

Copy: Christie Bayus, MDNR
Mindy Milos-Dale, Charter Township of Oakland
Patrick Monte Lawton, Heartsong Archaeology, LLC



United States Department of the Interior
FISH AND WILDLIFE SERVICE

2651 Coolidge Road, Suite 101
East Lansing, Michigan 48823-6360



September 8, 2023

Ms. Mindy Milos-Dale
Charter Township of Oakland
4393 Collins Road
Rochester, MI 48306

RE: Endangered Species Act Section 7 Consultation for the Stony Creek Ravine Nature Park
Project ECOSphere 2023-0052094

Dear Ms. Milos-Dale:

Thank you for your request of August 31, 2023 for informal consultation for the proposed Stony Creek Ravine Nature Park Project pursuant to section 7 of the Endangered Species Act, as amended (ESA) (16 U.S.C. § 1536), and the ESA's implementing regulations (50 CFR 402.13).

The proposed action consists of increasing access and connectivity to Stony Creek Ravine Nature Park in Rochester, MI. The project will involve construction of an entrance and 30-space parking lot off Snell Road, accessible trailhead facilities including drinking water, portable restrooms, and a picnic area, installation of benches and accessible sitting areas, and installation of wayfinding and interpretive signage. The project will also include the installation of trails to create an 8 feet wide compacted limestone path to the accessible sitting area overlooking Stony Creek and a 6 feet wide compacted limestone trail connecting to Stony Creek Metropark on the other side of Snell Road. Project plans detailing the location of proposed trails and other structures are available in the project record. This project has applied for funding from National Park Service's Land and Water Conservation Fund.

Your site plans, emails, and our meetings addressed potential effects from the proposed project on the endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*, NLEB) and threatened eastern massasauga rattlesnake (*Sistrurus catenatus*, EMR). We concur with your determination of threatened and endangered species that may be present and affected within the action area.

Indiana Bat

You determined that this project is *not likely to adversely affect* Indiana bat. We concur with this determination for the following reasons:

- The removal of trees will be completed between October 1 and April 14, which is outside the active season.
- Tree removal is limited to less than 10 acres of modeled bat habitat and will not impact landscape connectivity.

- Any sightings of bats or bat sign found before or during construction activities will be reported to the Michigan Field Office within 24 hours at (517) 351-2555 and EastLansing@fws.gov.

Based on this information, we expect any potential effects from this project on Indiana bat to be insignificant.

Northern Long-Eared Bat

You determined that this project is *not likely to adversely affect* NLEB. We concur with this determination for the following reasons:

- The removal of trees will be completed between October 1 and April 14, which is outside the active season.
- Tree removal is limited to less than 10 acres of modeled bat habitat and will not impact landscape connectivity.
- Any sightings of bats or bat sign found before or during construction activities will be reported to the Michigan Field Office within 24 hours at (517) 351-2555 and EastLansing@fws.gov.

Based on this information, we expect any potential effects from this project on NLEB to be insignificant.

Eastern Massasauga Rattlesnake

You determined that this project is *not likely to adversely affect* EMR. We concur with this determination for the following reasons:

- FWS visited the proposed action area on August 31, 2023, to assess potential EMR habitat and provide recommendations on potential conservation measures. Based on our observations, Tier 1 modeled EMR habitat in the project area is marginal in quality due to heavy vegetative cover and historic land use.
- Only wildlife-safe erosion and sedimentation control materials that do not contain plastic mesh netting will be used. Several products for soil erosion and control exist that do not contain plastic netting including net-less erosion control blankets (for example, made of excelsior), loose mulch, hydraulic mulch, soil binders, unreinforced silt fences, and straw bales. Others are made from natural fibers (such as jute) and loosely woven together in a manner that allows wildlife to wiggle free.
- On-site personnel will be educated on EMR behavior, habitat use, protections, and conservation measures to be used for the project, and will review the species [fact sheet](#) or watch MDNR's ["60-Second Snakes: The Eastern Massasauga Rattlesnake"](#) video.
- Any observations of EMR or other listed species will be reported to the Michigan Field Office within 24 hours at (517) 351-2555 and EastLansing@fws.gov.

Based on this information, we expect any potential effects from this project on EMR to be discountable.

Conclusion

Please note that when a project requires consultation under section 7 of the ESA, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. If the Federal agency concurs with your determination, the project as proposed has completed section 7 consultation.

When the National Park Service maintains discretionary involvement or control over the project, reinitiation of consultation is required (50 CFR 402.16(a)) under certain conditions: (1) if new information reveals effects of the project that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) if the project is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the written concurrence; or (3) if a new species is listed or critical habitat designated that may be affected by the project.

We appreciate the opportunity to cooperate with the National Park Service in conserving endangered species. If you have any questions regarding these comments, please contact Michelle Kane, of this office, at 517-351-3460, or michelle_kane@fws.gov.

Sincerely,

Scott Hicks
Field Supervisor

cc:

Amy Bleisch, MDNR, Wildlife Division, Lansing, MI
Christie Bayus, MDNR, LWCF Program Manager, Lansing, MI
Brandon Pace, NPS LWCF, Denver, CO



ParkSeries | Picnic Table 72" ADA2 9851 S/E Installation Instructions

ParkSeries picnic tables can be installed surface mount or embedded. Layout variations are as shown.

Site Preparation

Proper site preparation enhances product appearance and supports long-term product performance. Level and install at proper sitting and table heights.

Surface Attachment

Picnic tables anchor directly to concrete surfaces or concrete footings. Anchors must be specified and provided by the project designer or installation contractor and should be appropriate to the mounting surface. Use bottom mounting plates as a template to drill anchor holes. Tamper resistant, 1/2" SS Low Head Socket Cap Screws are recommended. *(Tamper-resistant, 1/2-13 x 1-1/2" SS Bolts are available special order from RecycleDesign).*

Embedded Mount

Picnic tables/seats mount on steel "T"-Frames embedded in concrete. 10" SonoTube™ forms are recommended. Follow local guidelines for footing depths.

Note

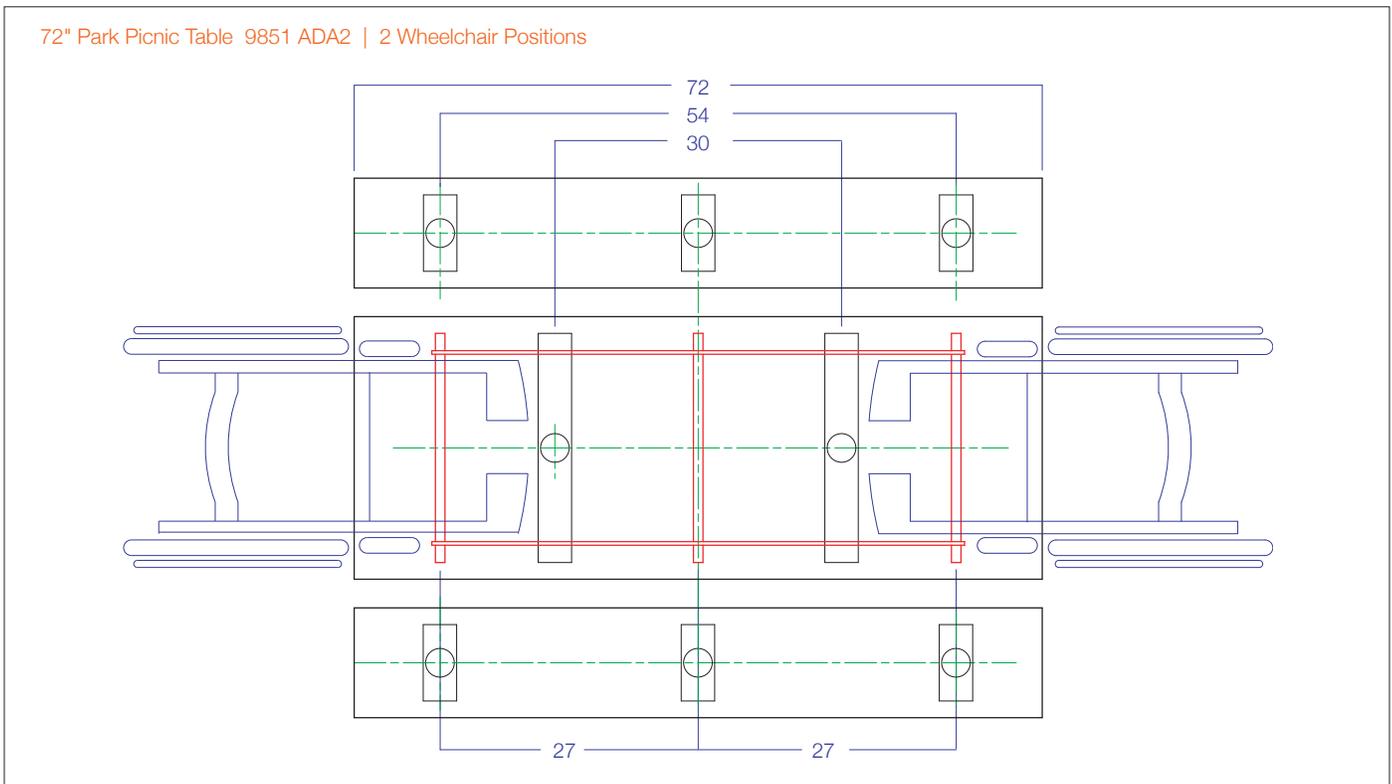
Tables and seats may be fully assembled before embedding in concrete. This will insure alignment of the supports and facilitate attachment of the planks to the steel supports. Position, level and support the entire assembled product in place so that the concrete footings can be poured around the supports. Be sure that support posts are vertical and braced against dislocation. Clean concrete from posts above grade or finish below grade line to insure a clean installation.

ADA Table Installation

ADA Universal and ADA Special picnic tables are to be installed 27" minimum clearance to the underside of the table. Seat height will be 18" from the ground to the top of the seat surface. Knee clearance width will exceed 30" and knee depth exceed 19".

ADA Dimensions:

- Knee Space Width: 30"
- Table Clearance Height: 27"
- Knee Space Depth: 19"
- Seat Height Range: 17"-19"



May 2011 v10.1 Fahnstrom/White Design

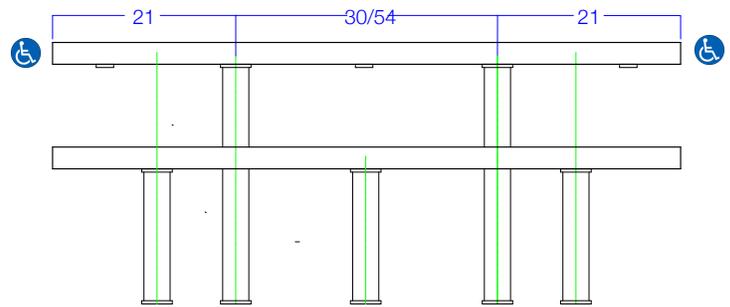
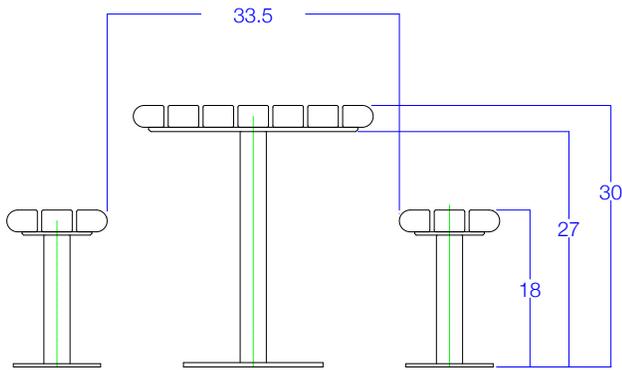
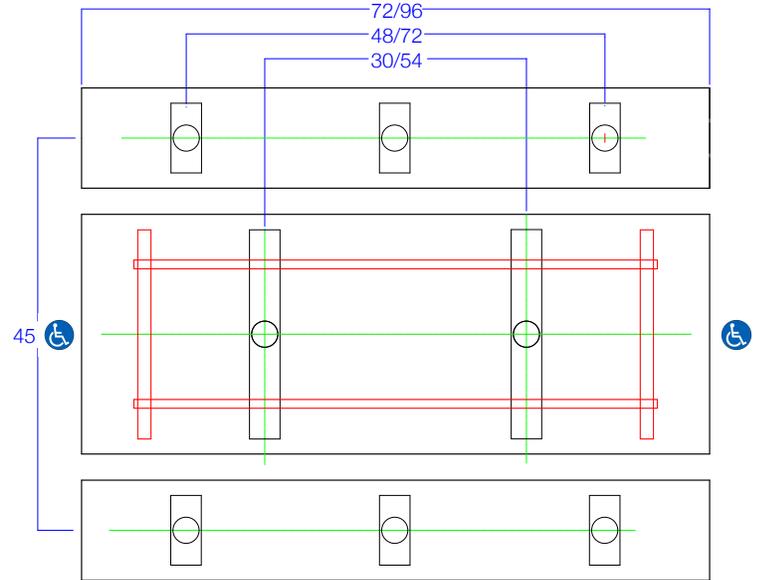
ParkSeries | 72/96 Picnic Table | ADA2 | Universal



All Park Series tables are commercial grade construction exceeding a 500 lb. snow load rating. Both ends of the table conform to ADA guidelines for wheel chair access.

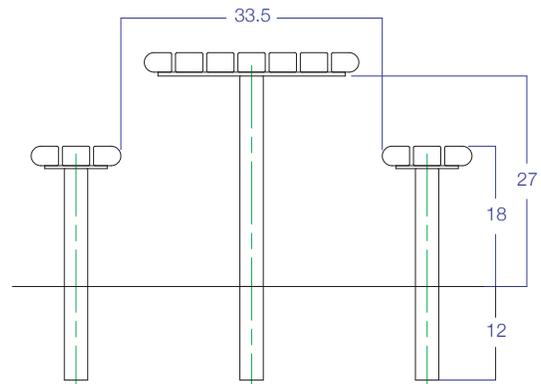
ADA Requirements:

Width	30"
Height	27"
Depth	19"
Seat	17"-19"



Specification Options *Asterisk categories must be selected

- * **Powder Coat Colors**
 - Standard Gloss
 - Standard Matte
 - Custom
 - Brown
 - Green
 - Charcoal
 - Black
 - Red
- * **HDPE Colors**
 - Custom
 - Gray
 - Cedar
 - Weathered
- * **Length Options**
 - 72" - PAR.PT.072.ADA.SM
 - 72" - PAR.PT.072.ADA.EM
 - 96" - PAR.PT.096.ADA.SM
 - 96" - PAR.PT.096.ADA.EM
- * **Surface Installation Kit**
 - 9300-004-INST

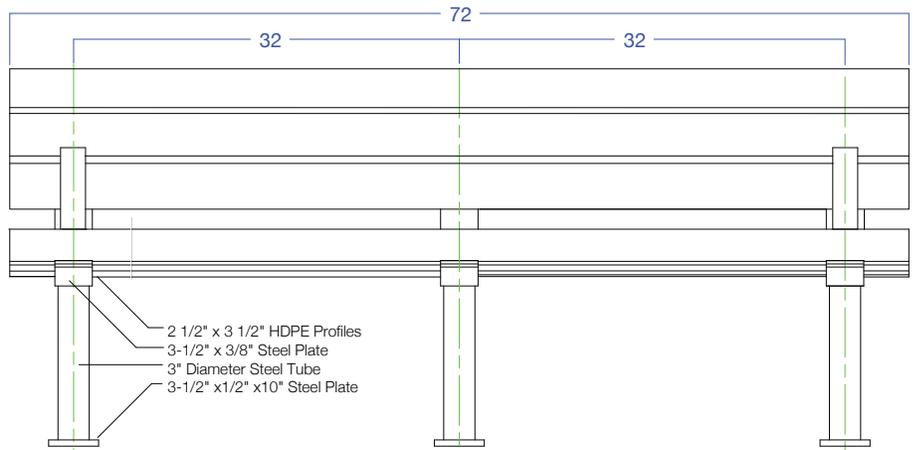
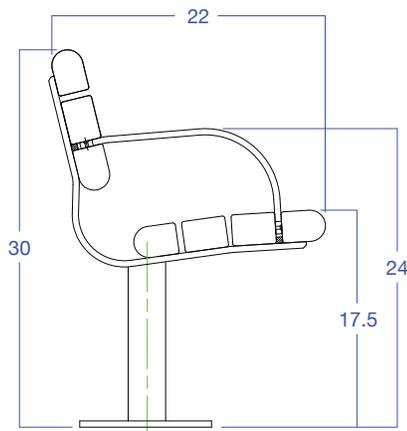
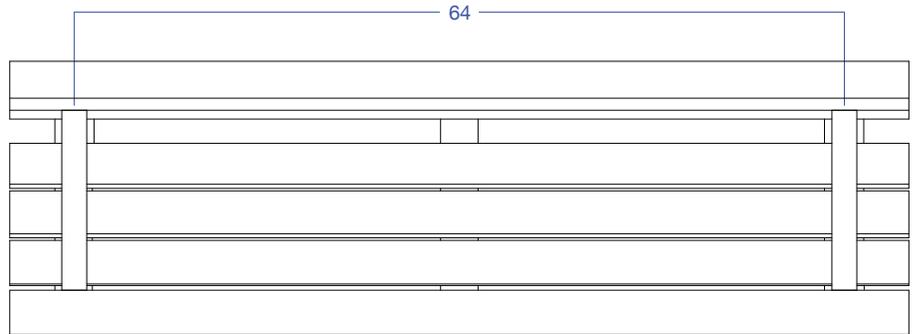


Embedded table dimensions required to be ADA compliant.

March 2012 v10.3 Fahnstrom/White Design

Order Sheet

ParkSeries | Contour Seat / Arm and Armless



Specification Options *Asterisk categories must be selected

- * Powder Coat Colors**
 - Standard Gloss
 - Standard Matte
 - Custom/Specify
 - Brown
 - Green
 - Charcoal
 - Black
 - Red
 - White
- * HDPE Colors**
 - Custom/Specify
 - Gray
 - Cedar
 - Weathered
- * Length Options-w/Arms**
 - Surface Embedded
 - Custom Length/Specify
 - 60" - PAR.CON.SE.060.ARM
 - 72" - PAR.CON.SE.072.ARM
 - 96" - PAR.CON.SE.096.ARM
- * Length Options-Armless**
 - Surface Embedded
 - Custom Length/Specify
 - 60" - PAR.CON.SE.060
 - 72" - PAR.CON.SE.072
 - 96" - PAR.CON.SE.096
- Center Arms 9944 - 1 2 3
- Surface Installation Hardware 9300-004-INST

Contour/Arm/Surface Mount

Contour/Armless/Embedded

