



**SAUGATUCK
TOWNSHIP**

**Tri-Community Non-Motorized Trail Study Committee Agenda
July 30, 2021 at 2:00 pm**

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **APPROVAL OF AGENDA**
4. **APPROVAL OF MINUTES**
 - a. **July 16, 2021**
5. **PUBLIC COMMENTS/TODAY'S AGENDA TOPICS ONLY (LIMIT 3 MINUTES)** *Use the "raise hand" button in the participant's screen found in the Zoom interface or enter *9 if calling in by phone to raise hand.*
6. **REVIEW OF WORKING DESIGNS/COSTS FOR DISCUSSION:**
 - A. **Washington to Lake St. (Douglas & Saugatuck)**
 1. **Option 1**
 2. **Option 2**
 3. **Option 3**
 - B. **Lake St. to Maple St. (City of Saugatuck)**
 1. **Option 1**
 2. **Option 2**
 - C. **Maple St. to Old Allegan Rd. (Saug. Twp)**
 - D. **Blue Star Highway to Holland St. via North St., Amelanchier Park**
7. **PUBLIC INFORMATION MEETING/OPEN HOUSE**
8. **REVIEW NEXT STEPS**
9. **PUBLIC COMMENTS (LIMIT 3 MINUTES)** *Use the "raise hand" button in the participant's screen found in the Zoom interface or enter *9 if calling in by phone to raise hand.*
10. **MEMBER CLOSING COMMENTS**
11. **ADJOURN (ROLL CALL)**

NOTICE:

This public meeting will be held using **Zoom** video/audio conference technology due to the COVID-19 restrictions currently in place.

Join online by visiting:

<https://us02web.zoom.us/j/2698572603>

Join by phone by dialing:

(312) 626-6799

-or-

(646) 518-9805

Then enter "Meeting ID":

2698572603

Please send questions or comments regarding meeting agenda items prior to meeting to:

hleo@saugatuckcity.com

Tri-Community Trail Committee (TCC)

Minutes July 16, 2021 Meeting

Meeting commenced at 2:04 PM.

Present: Cindy Osman , Kathy Mooradian, Jerry Donovan, Holly Leo, Ken Trester, John Adams, Richard Donovan. Brenda Marcy excused. **Also attending:** Joe Frey , Rich Labombard for part of meeting, Reps from C2AE.

Motion to approve agenda made by Mooradian, seconded by Adams. Motion passed.

Motion to approve minutes from previous meeting made by Trester, seconded by R. Donovan

PUBLIC COMMENTS. Barry Johnson pointed out how important the final width of the emergency lane is as well as saying the barrier by Maple Street *could be* a concern. He'll wait for more detail

Leo took the floor to remind the committee of goals done during the draft plans of 2019. She also reviewed the Parks Plan stats of bike trail support by the locals via surveys done. There is clearly overwhelming support. She set the stage to move forward with our mandate to finish our work then introduced Larry Fox , Managing Principle at C2AE, the chosen engineering firm, to update us on design options.

NEW BUSINESS:

Fox took over and went through the slides in our packet. He went through seven sections of trail within the scope of the project. The committee was to help him decide what options to cost out at this point. Q and A with Fox and his team commenced with some trail segments getting little comment while other segments had more options to consider.

Highlights: Larry felt fairly confident and explained why MDOT would buy into the 3 lane option over the bridge even though parts would not be perfectly to ASHTO standards. Having said that, there is always the chance they will reject it.

Trester commented he was still concerned about the delineators but felt the 3 Lane delivers most objectives and is the one most safe; we should move on with that one.

Committee decided to cost out the 2 Lane option also as a backup and way to keep the process going. Larry's team felt it more likely they would have to tweak the 3 lane if anything, not get a total rejection due to the challenges the bridge segment presents.

Accelerator lane near Lake St. was brought up. If a light goes in at Lake, no lane needed. If no light, should lane stay? Pros to let it go but a major concern is that NOT having it backs up traffic badly. Another concern is that having a light adds more cost. No decision yet on this. Fox will cost out all options.

Traffic study is not done and this will happen before any decision on a light or no light as well.

In the end, most options shared will be costed out so a final route can be put together. IE. Three options will be looked at for the Lake Street to Maple section. The original drawing from F and V firm, plus 2 new ones from C2AE, both likely to be more costly. These 2 were presented as a backup due a fear that MDOT may not accept the original roadway expansion plan of F and V.

Joe Frey wanted them to look into a traffic buffer as cars approach from the north; Perhaps something like what Douglas did from the south. Fox will investigate it.

On the section from BS to Holland Street, there were 2 options. Joe Frey presented a 3rd. Committee agree to look into it as well. Frey will also talk to his Parks committee about their preference since one option involves Amelanchier Park in the township. They want a trail but are to be included.

NEXT STEPS: C2AE would like to see a one route design formulated in the next three weeks. This is to be ready to go to the public for comment. Leo reported that Isabels business offered their convention space for public meetings which all were happy about. Looking to have that by Mid-August so grants can be submitted with final plan. Holly says another interlocal agreement is coming due. Frey has a boiler- plate agreement that the three Municipal Managers can meet and work on.

PUBLIC COMMENTS: John Saurino from the Township commented on looking for the safest crossings. Bikers off Elizabeth Street could be blind sighted due to steep incline.

Barry Johnson pointed out that snow removal equipment in Douglas and Saugatuck *may not* be right for clearing over the bridge Both cities should look into this. Also, wants the county to weigh in. County has attended many of our meetings and will certainly be involved in final design.

Committee comments: None

R. Donovan made a motion to adjourn, Trester seconded. Meeting ended about 345 PM

Blue Star Trail

Route Descriptions and Alternates (Draft for Discussion)

Washington Street to Lake Street (Douglas and Saugatuck)

Option 1 – 3 Lane Roadway with 8' Non-motorized Trail

- Restripe roadway to provide three each 11 foot traffic lanes
- Add 3 foot separation between trail and southbound traffic lane via pavement marking and vertical separation (traffic delineators, or other to be determined).
- Provides 8 foot non-motorized pathway with paved 2 foot clear zones on each side.
- North bridge approach includes a 10 foot wide separated trail behind the curb with a bike rail on the west side along the embankment (same for both alternates).

Observations/Discussion

- May require “design exception” for 8 foot wide trail. Good justification is available.
- Vertical separation proposed through use of traffic delineators. MDOT may require curb or other separation technique.
- Maintains full 3 lane section through bridge and approaches. 11 foot center lane highly desirable by emergency services.
- North bridge approach includes a 10 foot wide separated trail behind the curb with a bike rail on the west side along the embankment (same for both alternates).

Option 2 – 2 Lane Roadway with 10' Non-motorized Trail

- Restripe roadway to provide 2 lane bridge crossing with 4.5 foot paved shoulders and greater separation from non-motorized trail. Vertical separation also required or highly recommended (traffic delineators or other to be determined).
- Provides 14 foot wide non-motorized trail and designated emergency service vehicle lane (lines up with existing path south of Washington).
- South approach transitions back to 3 lanes for left turns at Washington Street. This section has 2 each 11' travel lanes with a 10' left turn lane and no shoulders.
- North bridge approach includes a 10 foot wide separated trail behind the curb with a bike rail on the west side along the embankment (same for both alternates).

Observations/Discussion

- Short left turn lane stacking at south end of bridge may cause traffic backups
- Vertical separation proposed through use of traffic delineators. MDOT may require curb or other separation technique.
- Provides dedicated emergency vehicle lane across bridge

Option 3 – Add Traffic Signals w/ remote operation for Emergency Vehicle Operation

- Requires traffic signals in addition to Options 1 or 2 above

Lake Street to Maple Street (City of Saugatuck)

Option 1 – Full Roadway Separation with At Grade Boardwalk or Retaining Wall Section

- Maintains existing roadway as-is
- Requires guardrail relocation north of Lake Street
- Limited top width and steep embankment section on northwest side of roadway requires adding at-grade boardwalk or retaining wall section north to Bridge Street to provide 10' separated trail with required clear zone (5' from edge of paved shoulder).
- From Bridge to Maple, embankment reverses and retaining wall on west side of trail likely required.

Observations/Discussion

- AASHTO Compliant separation
- No roadway configuration changes

Option 2 – 10' Non-motorized Trail with Reduced Separation

- Because of the high cost of Option 1, it may be possible to reduce the roadway separation requirement by adding a vertical separation component. This option would add concrete curb and gutter to the west side of the roadway along with a vertical component such as delineators. This can then reduce the separation from the travel lane to approximately 4 feet, and reduces the overall top width requirement by approximately 7 feet from Option 1.
- Requires existing guardrail relocation to face of curb.
- Roadway reconfiguration consists of cutting and removing paved shoulder and adding concrete curb and gutter at lane line.
- From Bridge to Maple, embankment reverses and retaining wall on west side of trail likely required.

Observations/Discussion

- Reduced horizontal separation from AASHTO minimum 5 feet requires vertical element and MDOT approval.
- Vertical separation proposed through use of traffic delineators and curb and gutter.
- Drainage reconfiguration required

Maple Street to Old Allegan Road (Saugatuck Township)

Three Distinct Typical Cross Sections Apply to the Area (No Alternates Provided)

All Sections are AASHTO compliant Separated Trails with No Roadway Reconfiguration

10' HMA Trail with Retaining Wall - From Maple to approximately 350' north

This section has a steep embankment up from the roadway and some structures close to the right of way line that will require a retaining wall to be constructed in order to construct the path within the right of way.

10' Separated Trail

The section from 350 feet north of Maple to 900 feet north of Maple has grades that allow for a standard separated trail construction.

- AASHTO Compliant separation
- No roadway configuration changes

Boardwalk – Old Allegan Road to 300 feet South

The northernmost section of trail to Old Allegan Road has wetland/low area adjacent to the roadway and will require a boardwalk section.

Blue Star Highway to Holland Street via North Street, Amalanchier Park and 66th Street (Saugatuck Township)

Two Distinct Typical Cross Sections Apply to the Area (No Alternates Provided)

All Sections are AASHTO compliant Separated Trails with No Roadway Reconfiguration

10' Separated Trail

The section will apply along North Street (construction along old RR grade, through Amalanchier Park (except Boardwalk section) and then along the west side of 66th Street.

Boardwalk

This section will apply to the wetland/creek crossing in Amalanchier Park. The length of boardwalk will be limited as much as practical.

Engineer's Opinion of Costs

Project Number: 210097	Project Engineer: Lawrence M. Fox, PE
Estimate Number: 1: Blue Star Trail	Date Created: 7/15/2021
Project Type: Miscellaneous	Date Edited: 7/28/2021
Location: Saugatuck	Fed/State #:
Description: Blue Star Trail	Fed Item:
	Control Section:

Line	Pay Item	Description	Quantity	Units	Unit Price	Total
Category: 0001 Washington St. to Lake St.						
0001	1500001	Mobilization, Max	1.000	LSUM	\$12,600.00	\$12,600.00
0002	2020004	Tree, Rem, 6 inch to 18 inch	8.000	Ea	\$300.00	\$2,400.00
0003	2040020	Curb and Gutter, Rem	50.000	Ft	\$10.00	\$500.00
0004	2040055	Sidewalk, Rem	430.000	Syd	\$10.00	\$4,300.00
0005	2087051	_ Soil Erosion and Sedimentation Control	1.000	LSUM	\$1,000.00	\$1,000.00
0006	8020038	Curb and Gutter, Conc, Det F4	20.000	Ft	\$20.00	\$400.00
0007	8030030	Curb Ramp Opening, Conc	20.000	Ft	\$30.00	\$600.00
0008	8030034	Sidewalk Ramp, Conc, 4 inch	200.000	Sft	\$7.00	\$1,400.00
0009	8030044	Sidewalk, Conc, 4 inch	200.000	Sft	\$5.00	\$1,000.00
0010	8060011	Shared use Path, Aggregate, LM	180.000	Cyd	\$50.00	\$9,000.00
0011	8060030	Shared use Path, Grading	500.000	Ft	\$15.00	\$7,500.00
0012	8060040	Shared use Path, HMA	130.000	Ton	\$120.00	\$15,600.00
0013	8087001	_ Fence, Bike Rail, 42 inch	450.000	Ft	\$50.00	\$22,500.00
0014	8107050	_ Traffic Delineator	210.000	Ea	\$100.00	\$21,000.00
0015	8110233	Pavt Mrkg, Waterborne, 6 inch, White	3,050.000	Ft	\$0.50	\$1,525.00
0016	8110234	Pavt Mrkg, Waterborne, 6 inch, Yellow	4,575.000	Ft	\$0.50	\$2,287.50
0017	8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	7,625.000	Ft	\$1.00	\$7,625.00
0018	8127051	_ Traffic Control	1.000	LSUM	\$17,600.00	\$17,600.00
0019	8167011	_ Slope Restoration	280.000	Syd	\$5.00	\$1,400.00

Category 0001 Total: \$130,237.50

Category: 0002	Lake St. to Maple St. (Alternate Median Section)
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0020	1500001	Mobilization, Max	1.000	LSUM	\$62,500.00	\$62,500.00
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Line	Pay Item	Description	Quantity	Units	Unit Price	Total
0021	2040021	Curb, Rem	900.000	Ft	\$10.00	\$9,000.00
0022	2040035	Guardrail, Rem	200.000	Ft	\$1.50	\$300.00
0023	2087051	_ Soil Erosion and Sedimentation Control	1.000	LSUM	\$5,600.00	\$5,600.00
0024	4017051	_ Drainage Improvements	1.000	LSUM	\$30,000.00	\$30,000.00
0025	5010005	HMA Surface, Rem	500.000	Syd	\$3.50	\$1,750.00
0026	7047051	_ Steel Sheet Pile with Steel Cap and Rail	1.000	LSUM	\$310,000.00	\$310,000.00
0027	8020016	Curb and Gutter, Conc, Det B2	900.000	Ft	\$25.00	\$22,500.00
0028	8030034	Sidewalk Ramp, Conc, 4 inch	200.000	Sft	\$7.00	\$1,400.00
0029	8037010	_ Concrete Median, 6 inch	1,800.000	Sft	\$8.00	\$14,400.00
0030	8060011	Shared use Path, Aggregate, LM	310.000	Cyd	\$50.00	\$15,500.00
0031	8060030	Shared use Path, Grading	900.000	Ft	\$15.00	\$13,500.00
0032	8060040	Shared use Path, HMA	270.000	Ton	\$120.00	\$32,400.00
0033	8070004	Guardrail, Type MGS-8	200.000	Ft	\$20.00	\$4,000.00
0034	8107050	_ Traffic Delineator	140.000	Ea	\$100.00	\$14,000.00
0035	8110233	Pavt Mrkg, Waterborne, 6 inch, White	1,800.000	Ft	\$0.50	\$900.00
0036	8127051	_ Traffic Control	1.000	LSUM	\$28,000.00	\$28,000.00
0037	8167011	_ Slope Restoration	500.000	Syd	\$5.00	\$2,500.00
0038	8507010	_ Modular Block Retaining Wall	600.000	Sft	\$50.00	\$30,000.00

Category 0002 Total: \$598,250.00

Category: 0003 Lake St to Maple St (Alternate Timber Boardwalk)

0039	1500001	Mobilization, Max	1.000	LSUM	\$64,200.00	\$64,200.00
0040	2040035	Guardrail, Rem	200.000	Ft	\$1.50	\$300.00
0041	2087051	_ Soil Erosion and Sedimentation Control	1.000	LSUM	\$5,100.00	\$5,100.00
0042	8030034	Sidewalk Ramp, Conc, 4 inch	200.000	Sft	\$7.00	\$1,400.00
0043	8060011	Shared use Path, Aggregate, LM	60.000	Cyd	\$50.00	\$3,000.00
0044	8060030	Shared use Path, Grading	200.000	Ft	\$15.00	\$3,000.00
0045	8060040	Shared use Path, HMA	45.000	Ton	\$120.00	\$5,400.00
0046	8070004	Guardrail, Type MGS-8	200.000	Ft	\$20.00	\$4,000.00
0047	8127051	_ Traffic Control	1.000	LSUM	\$30,500.00	\$30,500.00
0048	8167011	_ Slope Restoration	500.000	Syd	\$5.00	\$2,500.00
0049	8507001	_ Pressure Treated Wood Boardwalk, 14 Ft	700.000	Ft	\$750.00	\$525,000.00

Line	Pay Item	Description	Quantity	Units	Unit Price	Total
0050	8507010	_ Modular Block Retaining Wall	600.000	Sft	\$50.00	\$30,000.00

Category 0003 Total: \$674,400.00

Category: 0004 Maple St. to Old Allegan

0051	1500001	Mobilization, Max	1.000	LSUM	\$40,300.00	\$40,300.00
0052	2087051	_ Soil Erosion and Sedimentation Control	1.000	LSUM	\$9,200.00	\$9,200.00
0053	4017051	_ Drainage Improvements	1.000	LSUM	\$30,000.00	\$30,000.00
0054	8060011	Shared use Path, Aggregate, LM	305.000	Cyd	\$50.00	\$15,250.00
0055	8060030	Shared use Path, Grading	1,025.000	Ft	\$15.00	\$15,375.00
0056	8060040	Shared use Path, HMA	220.000	Ton	\$120.00	\$26,400.00
0057	8127051	_ Traffic Control	1.000	LSUM	\$19,200.00	\$19,200.00
0058	8157010	_ Modular Block Retaining Wall	1,400.000	Sft	\$50.00	\$70,000.00
0059	8167011	_ Slope Restoration	1,500.000	Syd	\$5.00	\$7,500.00
0060	8507001	_ Pressure Treated Wood Boardwalk, 14 Ft	275.000	Ft	\$800.00	\$220,000.00

Category 0004 Total: \$453,225.00

Category: 0006 North St. to Holland St. (Park)

0061	1500001	Mobilization, Max	1.000	LSUM	\$26,500.00	\$26,500.00
0062	2087051	_ Soil Erosion and Sedimentation Control	1.000	LSUM	\$3,000.00	\$3,000.00
0063	8060011	Shared use Path, Aggregate, LM	415.000	Cyd	\$50.00	\$20,750.00
0064	8060030	Shared use Path, Grading	1,400.000	Ft	\$20.00	\$28,000.00
0065	8060040	Shared use Path, HMA	300.000	Ton	\$120.00	\$36,000.00
0066	8127051	_ Traffic Control	1.000	LSUM	\$12,600.00	\$12,600.00
0067	8167011	_ Slope Restoration	1,700.000	Syd	\$5.00	\$8,500.00
0068	8507001	_ Pressure Treated Wood Boardwalk/ Bridge, 14 Ft	210.000	Ft	\$900.00	\$189,000.00

Category 0006 Total: \$324,350.00