



# East Branch DuPage

# **River Trail**

Great Western Trail to Butterfield Road

# **Steering Committee**

Meeting #2 Summary



### Introduction

The second Steering Committee (SC) meeting for the EBDRT Alignment Study was held on Wednesday, September 25<sup>th</sup>, 2019 from 9:00 a.m. to 11:15 a.m. at the Glen Ellyn Police Department Community Room, 65 S. Park Boulevard, Glen Ellyn, IL 60137. The main objective of this second meeting was to determine the finalist alternative(s) to be carried forward into a Phase I Engineering Study for more detailed engineering development and environmental review. The list of meeting attendees is provided below.

A PowerPoint presentation was given that included a recap of SC Meeting #1, a review of the goals and objectives for this SC meeting, and the results of the additional analysis of alignment alternatives (Segments and Crossings) that was completed after SC Meeting #1. The PowerPoint presentation is included as Attachment A. A brief review was provided of the crossings and segments that achieved general group consensus at SC Meeting #1, and therefore were not planned for additional discussion at SC Meeting #2. The following Segments and Crossings included an evaluation of two or more alignment alternatives and the results of this evaluation were discussed at SC Meeting #2:

- Segment 1 St Charles Road to Crescent Blvd
- Crossing 2 Crescent Blvd / UPRR / Hill Ave
- Crossing 4 Fairview Ave (IL 53)
- Segment 4 Fairview Ave to Roosevelt Road
- Crossing 5 Roosevelt Road (IL 38)
- Segment 5 South of Roosevelt Road

The PowerPoint presentation was used to guide the group discussion by presenting the alternatives considered within the Segment or Crossing on a location map, then reviewing support material such as plan and profile exhibits, flood elevation data, and the comparative evaluation of alternatives with key takeaways, after which group discussion occurred. The group discussion resulted in identifying one or two finalist alternatives to be carried forward into the Phase I Engineering Study, which is summarized herein. Further coordination is required for Segment 3 and the southern portion of Segment 5 to investigate on-road options prior to Steering Committee Meeting #3.

SC Meeting #3 is planned for November 2019 and will focus on finalizing the Segment 3 and 5 alignment corridor, further refinement of the finalist alternative(s) to be carried forward into Phase I Engineering Study, and potential priority segments to pursue for federal funding opportunities.

### Meeting Participants

### Steering Committee (SC) Member Attendance

- Jessica Ortega, Forest Preserve District of DuPage County (FPDDC)
- Julius Hansen, Village of Glen Ellyn
- Carl Goldsmith, Village of Lombard
- Sara Race, Commonwealth Edison (ComEd) Environmental
- Jennifer Boyer, DuPage County Stormwater Management (DCSM)
- Ginger Wheeler, Friends of EBDRT
- Steve Johnson, Friends of EBDRT
- Libby A'Hearn Gilmore, Friends of EBDRT

### **Elected Officials Attendance**

- Tim Elliott, County Board Member District 4
- Tim Whelan, Commissioner, Forest Preserve District of DuPage County (FPDDC)

### Project Team Attendance

- Chris Snyder, DuPage County Division of Transportation
- Mike Barbier, DuPage County Division of Transportation
- John Loper, DuPage County Division of Transportation
- Mike Matkovic, Christopher B. Burke Engineering
- Dave Kleinwachter, Christopher B. Burke Engineering
- Emily Anderson, Christopher B. Burke Engineering

Tim Elliot, District 4 County Board Member, welcomed the Steering Committee, and reiterated that the focus of this initial alignment study and subsequent engineering studies is a generally north-south off-road multi-use path along the East Branch DuPage River, as discussed in SC Meeting #1. The purpose of this meeting is to continue efforts in the advancement of the alignment study to determine the finalist alternative(s) to carry forward into the Phase I Engineering Study.

### Summary of Discussion

The following provides a summary of the main discussion points, decisions, and action items that occurred at SC Meeting #2.

Emily Anderson, from Christopher B. Burke Engineering (CBBEL), led the discussion and described the agenda for the meeting. The agenda consisted of a recap of SC Meeting #1, group discussions of crossings and segments to be carried forward into the Phase I Study, and Next Steps.

A brief recap of SC Meeting #1 was presented, including the Project Overview, the Alignment Study process, and Steering Committee participation. The outcome of SC Meeting #1 resulted in a general consensus on the overall project goal of the EBDRT being an off-road, regional trail near the EBDR to connect the Great Western Trail to Butterfield Road to connect to a planned bike path by IDOT along the

north side of Butterfield Road. SC Meeting #1 also identified issues and concerns with the corridor and alignment alternatives to consider. Based on SC Meeting #1 discussion, one alignment was carried forward within following crossings and segments:

Crossing 1 – The St. Charles Road existing underpass

Segment 2 – Existing access road west of the Glenbard Wastewater Treatment Plant

Crossing 3 – Illinois Prairie Path at-grade crossing

- Segment 3 ComEd ROW / Glen Oak Forest Preserve
- Crossing 6 Future at-grade crossing with the I-88 Central DuPage Bikeway (planned)
- Segment 6 ComEd ROW

Because of general group consensus on these crossings and segments, no further discussion of these crossings or segments was anticipated as part of the SC Meeting #2. While the general alignments were agreed upon, it was stated that the exact location of the trail was still flexible within the corridor and would be further coordinated and refined in the Phase I Engineering Study based on stakeholder input, refinements in survey data, and in-depth hydraulic analysis.

After the completion of the SC Meeting #1, several follow-up tasks were completed in preparation for SC Meeting #2. First, SC members were emailed for input on evaluation criteria to assist in comparative evaluation of alternatives. Second, wetland delineations were completed throughout the corridor by CBBEL, which were then added to the alignment exhibits to give more precise limits on wetland areas to be avoided by the alignments. Finally, the FPDDC completed an internal review of Segment 1 alternatives within Churchill woods, and gave input on their alignment concerns and preference.

The objective of SC Meeting #2 was discussed, which included obtaining group consensus on the finalist alternative(s) to be carried forward into the Phase I Engineering Study. The general format for key decisions included: showing alternatives within the Segment or Crossing on a location map, then reviewing support material such as plan and profile exhibits, describing the comparative evaluation of alternatives with key takeaways, and then a group discussion. The following locations were identified as the planned group discussion items:

- Segment 1 St Charles Road to Crescent Blvd
- Crossing 2 Crescent Blvd / UPRR / Hill Ave
- Crossing 4 Fairview Ave (IL 53)
- Segment 4 Fairview Ave to Roosevelt Road
- Crossing 5 Roosevelt Road (IL 38)
- Segment 5 South of Roosevelt Road

Before discussing specific alignments and crossings, the EBDR flood data was reviewed. Flood data was gathered from the USGS Stream Gage located at Butterfield Road (IL 56) over the EBDR, which has recorded river elevations every 5 minutes since 2007. This data was referenced against the EBDR regulatory Hydraulic Model, which calculates common flood frequency elevations such as the 2-year, 10-year, and 100-year storm events. The following table summarizes the number of times the actual stream water surface elevation collected at the Butterfield Road stream gage exceeded the EBDR regulatory Hydraulic Model flood frequency elevations.

Flood Frequency	Range of Days/Year Actual Water Surface Elevation Exceeded Flood Frequency	Average Days/Year Actual Water Surface Elevation Exceeded Flood Frequency
(2-year) – 1 foot	0-12	6
2-year	0-7	3
5-year	0-5	1
10-year	0-5	1
50-year	0-1	0
100-year	0	0

The flood data at Butterfield Road (IL 56) was extrapolated to the rest of the corridor in order to estimate flooding frequency at various crossings. For example, if a trail is built at the (2-year) minus 1-foot elevation, it would be inundated between 0 to 12 days a year with an average inundation period of 6 days/year or be unusable for those 6 days/year or usable for 359 days/year. The data was used as a discussion point in the presentation to SC members to consider the acceptable levels of flood protection for the EBDRT. An in-depth discussion of acceptable flood protection is anticipated for Steering Committee Meeting #3. It was discussed that the IDNR will be requiring the updated Bulletin 70 data beginning January 2020, so future flood elevation modeling conducted in Phase I Engineering will include the updated rainfall data.

After establishing the flood data process, the meeting moved on to the group discussions on the alignment alternatives. Plan view exhibits, flood elevation data, and comparative evaluation tables were presented for each crossing or segment under discussion. A summary of each of the discussions is included below, and an exhibit showing the finalist alternatives is provided in Attachment B.

### Segment 1 - St. Charles Road to Crescent Blvd.

- Alt 1.2 was analyzed to have about a 2-year level of protection which would be usable for 362 days per year on average based on available stream gage data.
- Of the alternatives within Churchill Woods, the FPDDC supports Alt 1.2. Constructing a trail on new alignment through Class III or Class IV ecosystems is undesirable, and impacts should be avoided wherever possible. Alt. 1.1 and Alt 1.3 result in environmental impacts whereas Alt 1.2 would have relatively minimal environmental impacts and provides a good recreational benefit.
- FPDDC recommended showing an off-road trail from Crossing 1 at the St. Charles Rd underpass to the entrance of the existing trail at its northern limit, so that trail users would not need to use the existing parking lot. It was agreed that this detail will be added to the plan view exhibits.
- CBBEL clarified the cost shown for Alt. 1.4 in the comparative evaluations table was calculated assuming the existing 4' sidewalk would be widened to a 10' bituminous path.
- It was generally agreed that Alt. 1.4 should not be considered further as an EBDRT alternative unless the future Crossing 2E is chosen (to be discussed in the following group discussion). Alt 1.4 does not meet the project goal of being close to the river and is not anticipated to be desired by adjacent property owners impacted by the trail construction. Board Member Elliot noted the existing streets are comfortable to ride on but are narrow and recommended that the EBDRT

avoid neighborhood streets. Alt. 1.4 was recommended as potential connector path or local route, but not serve as the main EBDRT alignment.

On the above basis, the group concurred with Alt 1.2 as the finalist alternative within Segment 1 to be carried forward into Phase I Engineering for further design development and evaluation.

### Crossing 2 - Crescent Blvd / UPRR / Hill Ave.

- A question arose regarding the difficulty of permitting through the UPRR, and whether the Crossing alternative with the easiest permitting should be carried forward. The County offered insight that the UPRR permitting will be a challenge no matter which Crossing alternative is chosen, and therefore should not be a factor at this time for dismissing an otherwise effective and safe Crossing alternative that achieves the EBDRT goals and objectives.
- The Alt. 2C relative construction cost is slightly more than Alt 2B and provides full grade separation for all three crossings (Crescent, UPRR, and Hill). Alt 2C is approximately 225 feet long, whereas Alt. 2B is approximately 85 feet long. It was noted that shorter tunnels feel more comfortable for users as a long tunnel may feel unsafe if users cannot see the opposite end upon entering even if properly lit.
- It was agreed that Alt. 2A presents many concerns, especially with the sharp turns in the alignment and steep ramps that do not conform with ADA policies. However, this option has the lowest cost of construction omitting Alt 2E. Requiring riders to slow or dismount to navigate the 90-degree bends is undesirable from a user perspective. Alt. 2A must also be verified in Phase I Engineering to not present any significant hydraulic impedance or obstruction of flow of the EBDR in order to be considered feasible.
- Alt. 2A is within the floodplain and is estimated at the 2-Yr 1 foot elevation. This elevation is projected to be inundated approximately 6 days per year on average, and usable 359 days per year. Alt. 2B and Alt. 2C are above the 100-year floodplain elevation, and therefore would be usable every day of the year.
- Due to the low traffic volumes on Crescent Blvd and Hill Ave, traffic signals and pedestrian flashing beacons are not warranted. At-grade crossings of these roadways is considered low-stress and comfortable for most users. Alt. 2B should include traffic calming measures on street or 90 degree turns on the trail at approaches to at-grade crossings when exiting the tunnel.
- There was general group agreement that Alt. 2B is the most desirable. However, while there are many drawbacks of Alt. 2A, the UPRR will likely require a full investigation and vetting of Alt. 2A prior to agreeing to Alt. 2B.

On the above basis, the group concurred with Alt. 2A and Alt. 2B as the finalist alternatives at Crossing 2 to be carried forward into Phase I Engineering for further design development and evaluation.

### Segment 3 - Illinois Prairie Path to Fairview Ave. (IL 53)

- One alignment, Alt 3.0, was shown within Segment 3 that was determined primarily based on minimizing wetland impacts. The alignment remains flexible within the ComEd and Glen Oak Forest Preserve corridor and will be further refined in the Phase I Engineering Study based on many factors including continued stakeholder input, survey data, and in-depth hydraulic analysis.
- The FPDDC noted the need to establish long-term maintenance agreements for the EBDRT, with specific concerns on boardwalk structures within the ComEd ROW. The FPDDC requested further exploration of on-road alignment alternatives prior to committee to the Segment 3 corridor as shown. Several boardwalk structures and bridges are shown within Segment 3 which are recommended to be minimized or eliminated where possible due to maintenance concerns.
- If ComEd is going to utilize the trail to access their towers and perform maintenance, the trail or boardwalk would need to be designed to accommodate a minimum 20 ton vehicle loading.
- DuPage County Stormwater Management (DCSM) recommended reviewing proposed waterway
  and wetland crossings shown to reduce structures and associated long term maintenance which
  may result in greater wetland impacts. A wetland impact may be acceptable on a case by case
  basis to reduce long term maintenance; however, it must be demonstrated that the proposed
  trail does not impact flow to adjacent wetlands and waterways as the cost of wetland mitigation
  may be significant.
- The FPDDC requested studying alternative alignments including along the tollway or on street that may provide other benefits like connecting parks and neighborhoods to the trail, fewer structures and the possibility of utilizing the existing signalized crossing of IL 53 at Spring Ave.
- Board Member Elliot noted the Alt 3.0 alignment through the FPDDC and ComEd property could be a showcase or highlight segment for the EBDRT, and an alternative following Spring Avenue is not preferred based on the lack of proximity to the EBDR.

On the above basis, the project team will analyze an alternative alignment utilizing a local route west of the ComEd ROW and Glen Oak Forest Preserve and coordinate with the FPDDC for review ahead of Steering Committee Meeting #3.

### Crossing 4 - Fairview Ave. (IL 53)

- Although IDOT has proposed a new traffic signal at the Surrey Drive intersection located just east of I-355, the Village of Lombard does not support a traffic signal at this location based on not meeting warrants. On this basis, and due to the offset from the EBDRT corridor, the SC agreed that Alt. 4D should be dismissed from further consideration.
- It was explained that when the IL 53 bridge was constructed, the east and west cells of the bridge were intentionally designed to accommodate a future bike path under IL 53 with 10' of vertical clearance to the bottom of the bridge beam. However, the project team determined the future bike path would be inundated approximately 33 days per year at the existing shelf elevation. To

maximize the flood protection for Alt. 4B, the trail would be raised to provide 8.5' of vertical clearance. Based on available stream gage data, the trail is estimated to be inundated approximately 6 days per year. However, since raising the path fills the bridge opening area, it must be verified in Phase I Engineering to not obstruct EBDR flow. In addition, given the limited flexibility, more detailed EBDR stream analysis with updated Bulletin 70 rainfall data may further affect the feasibility of Alt. 4B.

- Alt. 4C is a high-stress at-grade crossing based on traffic volume and speed. The traffic volumes along IL 53 are high enough to potentially warrant an EBDRT crossing signal, contingent upon projected EBDRT bicycle and pedestrian volumes to be determined, and subject to IDOT review and approval. It was explained that Alt. 4C is equally possible on either the east or west side of the river.
- Alt. 4A was shown to be feasible. Although it would be a comparatively higher cost crossing alternative, it was discussed that the bridge could also act as a decorative gateway portal for the Villages of Lombard and Glen Ellyn. Further design considerations include the type of bridge ramp (circular, switch-back) and the impact to distribution ComEd power lines running east-west along the south side of IL 53, that will require relocation.

# On the above basis, the group concurred with Alt. 4A and Alt. 4B as the finalist alternatives at Crossing 4 to be carried forward into Phase I Engineering for further design development and evaluation.

### Segment 4 – Fairview Ave (IL 53) to Roosevelt Road (IL 38)

- Alt 4.1 is below the 2-year flood elevation and based on available stream gage data to be usable 353 days per year on average. Alt. 4.2 and 4.3 are higher and near the 10-year flood elevation, which is usable all year on average based on available stream gage data.
- Although higher in elevation, Alt. 4.2 and 4.3 are further away from the EBDR and would provide less recreation benefit by going through the ComEd corridor.
- During wetland delineations, a 150-foot section of Alt. 4.1 was shown to be lower than the rest of the berm and has wetlands. This wetland would require a boardwalk or pedestrian bridge to avoid impacts and increases the cost to this segment of trail. DCSM recalled Alt 4.1 is a manmade berm originally designed and constructed as part of a larger Tollway wetland mitigation plan. If this was the case, the plans could be used to verify and reinstate the original design intents of the berm as a maintenance project. Fill in this low area would not be considered wetland impacts.
- FPDDC expressed similar concerns with the Segment 4 alignments as described in Segment 3, and suggested studying an alternative alignment on the far west side of the FPDDC property. There appears to be room outside the delineated wetlands to fit an alignment, and this alignment would likely be higher in elevation than Alt. 4.1.

On the above basis, of the Segment 4 alternatives presented (4.1, 4.2, and 4.3) the group concurred with Alt. 4.1 as the finalist alternative to be carried forward into Phase I Engineering for further design development and evaluation. In addition, a new alignment west of Alt 4.1 along the FPDDC western limits will be evaluated.

Crossing 5 – Roosevelt Road (IL 38)

- Alt. 5A utilizing the Baker Hill Drive existing traffic signal does not meet the project goals of being close to the EBDR and was dismissed.
- Alt. 5D utilizing the I-355 existing traffic signal routes users directly adjacent to a ComEd substation, and therefore less recreational benefit.
- It was shown at SC Meeting #1 that the existing Roosevelt Road (IL 38) EBDR hydraulic opening could not accommodate a trail. Alt. 5B is proposed as a standalone pedestrian underpass below Roosevelt Road (IL 38) that could be constructed above the 100-year floodplain elevation by taking advantage of the natural ground elevation increase going west of the EBDR.
- The Alt. 5C overpass is feasible on the west side of the EBDR away from the ComEd ROW and high-tension power lines. A consideration is its relative higher cost as compared to the other crossing alternatives. It was discussed that this bridge could also act as a decorative gateway portal for the Villages of Lombard and Glen Ellyn.

# On the above basis, the group concurred with Alt. 5B and Alt. 5C as the finalist alternatives at Crossing 5 to be carried forward into Phase I Engineering for further design development and evaluation.

### <u>Segment 5 – South of Roosevelt Road (IL 38)</u>

- The Village of Glen Ellyn confirmed Alt. 5.1 is primarily within the Village property, and not on private property as suggested by signage at the site.
- FPDDC requested eliminating the boardwalk or bridge shown along the east side of Maryknoll Circle, and show a sidepath instead. The existing sidewalk along the road could be widened to form the path.
- Alt 5.1 would be inundated approximately 9 days per year, and usable 356 days per year on average. Alt 5.3 would be shown to be near the 10-year flood elevation which is usable all year on average based on available stream gage data.
- Although Alt 5.3 would have a higher level of flood protection, it is a further distance from the EBDR and has less recreational benefit near the ComEd towers.
- If ComEd is going to utilize the trail to access their towers and perform maintenance, the trail or boardwalk would need to be designed to accommodate a minimum 20 ton vehicle loading.

# On the above basis, the group concurred with Alt. 5.1 as the finalist alternative at Segment 5 to be carried forward into Phase I Engineering for further design development and evaluation.

### Southern Portion of Segment 5 and Segment 6 to Butterfield Road (IL 56)

There is a large wetland complex within the southern portion of Segment 5 which may have similar concerns as in the Segment 3 discussion regarding boardwalks and maintenance. Therefore, the project team anticipates analyzing an alternative alignment utilizing a local route west of the ComEd ROW to coordinate with the FPDDC for review.

Segment 6 meanders within ComEd property to avoid wetland areas and to utilize existing ComEd access roads. The Segment 6 alignment will be further coordinated and refined in the Phase I Engineering Study based on factors including stakeholder input, survey data, and in-depth hydraulic analysis. If ComEd is going to utilize the trail to access their towers and perform maintenance, the trail or boardwalk would need to be designed to accommodate a minimum 20 ton vehicle loading.

During SC Meeting #1, it was asked whether an IL 56 underpass was feasible to connect the proposed trail on the north to the Forest Preserve located on the south side of IL 56. Based on the low roadway profile elevation, an IL 56 underpass is not feasible as the underpass would be near the normal water level of the EBDR and would require a continually pump station to stay dry. Therefore, a proposed IL 56 underpass is not recommended to be implemented with this project. IDOT plans for Butterfield Road improvements were obtained that show a new separated pedestrian bridge along the north side of the roadway. The EBDRT is proposed to connect to the future east-west bike path on the north side of IL 56.

On the above basis, the project team will analyze an alternative alignment utilizing a local route west of the ComEd ROW and coordinate with the FPDDC for review. The group concurred with the southern termini meeting the multi-use path on the north side of IL 56.

### **General Comments**

After segments and crossings were discussed, general topics were brought up that apply to the entire corridor. Further research will be completed on types of boardwalks or pedestrian bridges to be used so that the materials utilized are robust, durable, and low maintenance. The FPDDC stated that wooden boardwalks are not desired as they have proven to degrade over time and require a high degree of maintenance. Construction techniques of the boardwalks or bridges must also be considered, as boardwalks that require cranes or other large equipment may cause larger, unanticipated wetland impacts due to the construction footprint. The group concurred that types of boardwalk structures or techniques as well as costs and design loading parameters will be presented as part of SC Meeting #3 for a better understanding of proposed structures, environmental impacts, and long-term maintenance.

### Next Steps

Chris Snyder stated that the objective going forward is to identify the finalist alignment(s) by the end of this year for moving into Phase I Engineering Studies. The project will be pursuing federal CMAQ/TAP funding in Spring 2021.

The next steps for the project were discussed. The thrid and final SC meeting will be planned for November or early December 2019 and will focus on finalizing the Segment 3 and 5 alignment corridor, further refinement of the finalist alternative(s) to be carried forward into Phase I Engineering Study, potential priority segments to pursue for funding opportunities, and the additional follow-up items noted above.





## Attachment A

Power Point Presentation and Group Discussion Support Material



East Branch DuPage River Trail (EBDRT) Great Western Trail to Butterfield Road Section No. 19-00002-07-BT

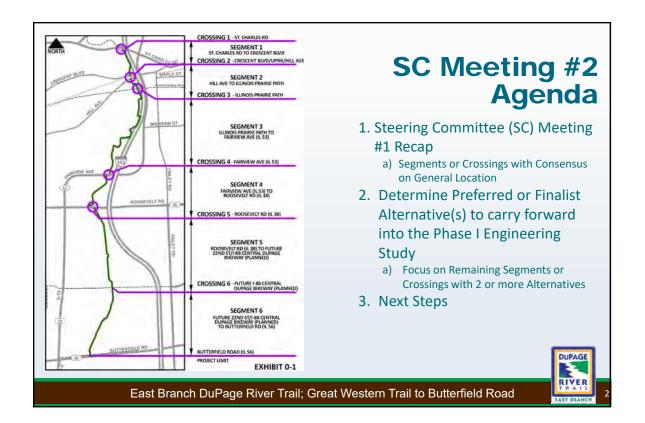


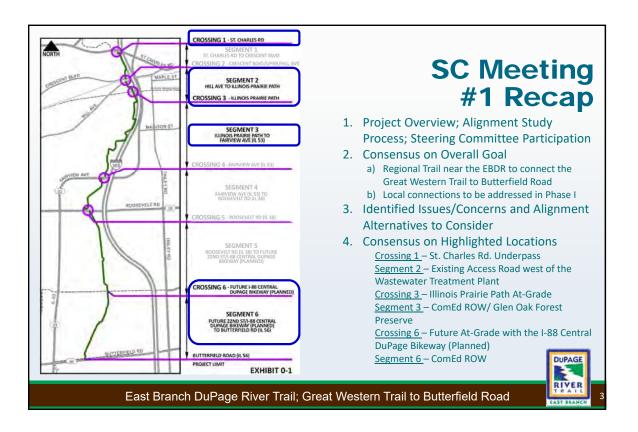
Steering Committee Meeting #2 September 25th, 2019 at 9 a.m. Glen Ellyn Police Department Community Room 65 S. Park Boulevard, Glen Ellyn, IL 60137

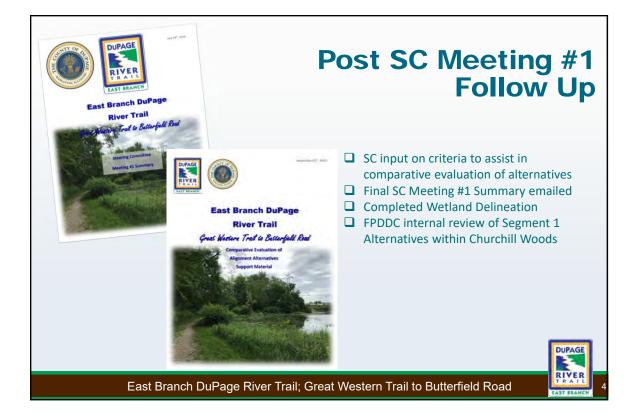
### Meeting Agenda

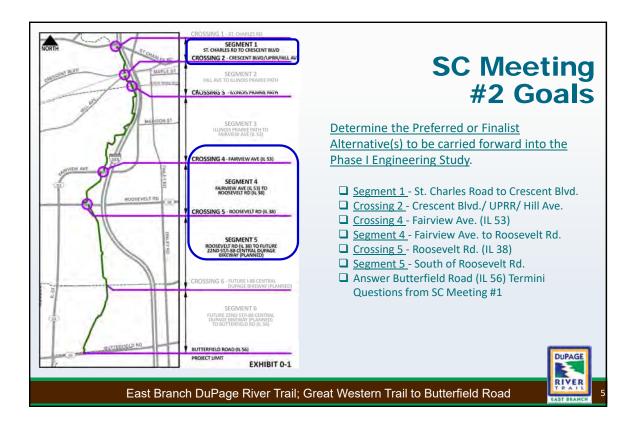
- 1) Steering Committee (SC) Meeting #1 Recap
  - a) Segments or Crossings with Consensus on Location from SC Meeting #1.
- 2) Determine Preferred or Finalist Alignment Alternative(s) to carry forward into Phase I Engineering Study
  - a) Advanced Material Review, then Group Discussion by Segment or Crossing
  - b) Focus on Segments or Crossings with 2 or more Alternatives
    - i) Segment 1 Great Western Trail to Crescent Blvd.
    - ii) Crossing 2 Crescent Blvd./ UPRR/ Hill Ave.
    - iii) Crossing 4 Fairview Avenue (IL 53)
    - iv) Segment 4 Fairview Avenue to Roosevelt Road
    - v) Crossing 5 Roosevelt Road (IL 38)
    - vi) Segment 5 South of Roosevelt Road (Adjacent to Maryknoll)
- 3) Next Steps

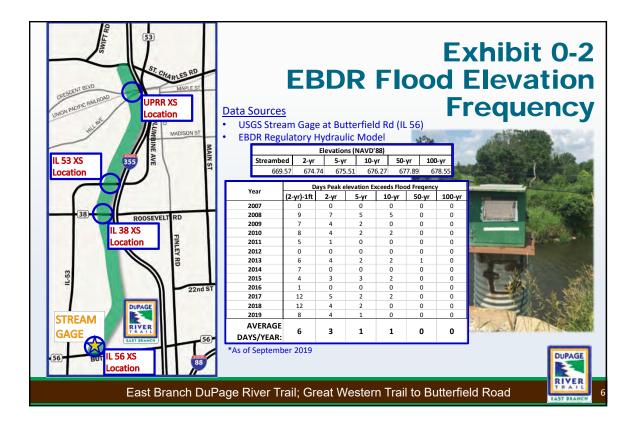


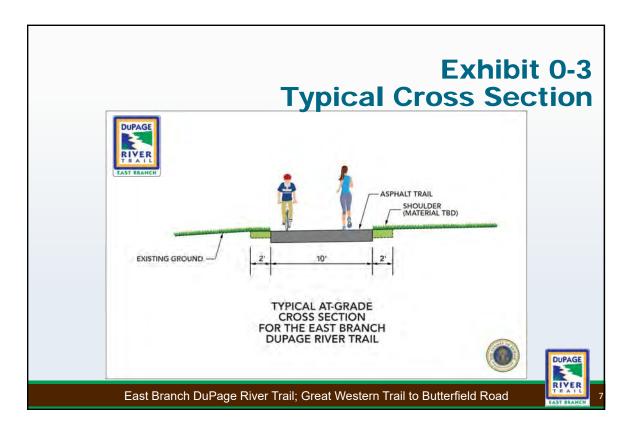


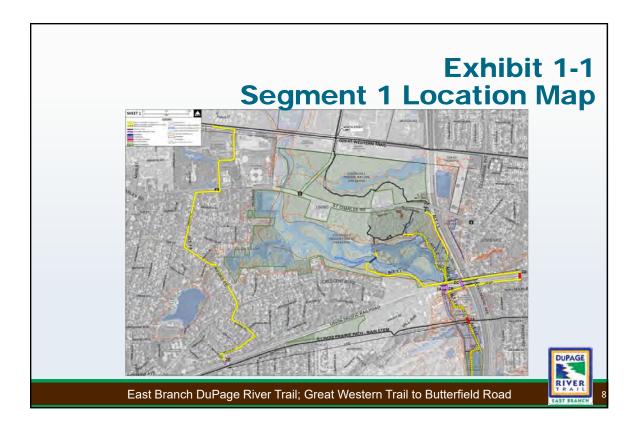


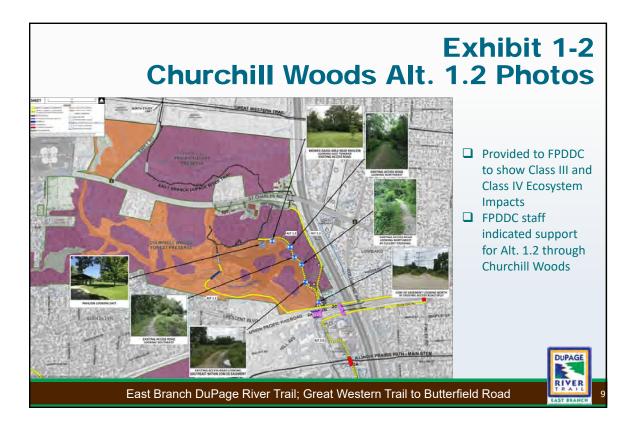


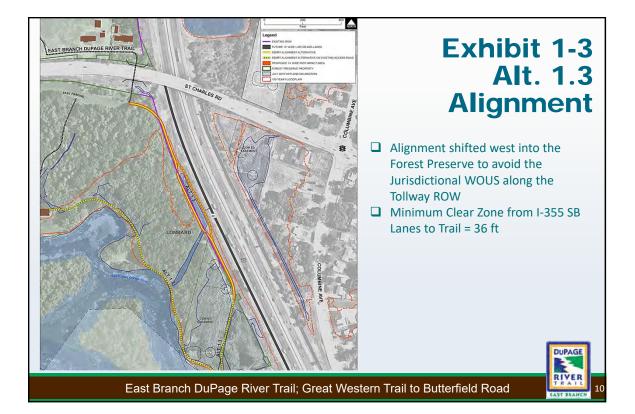


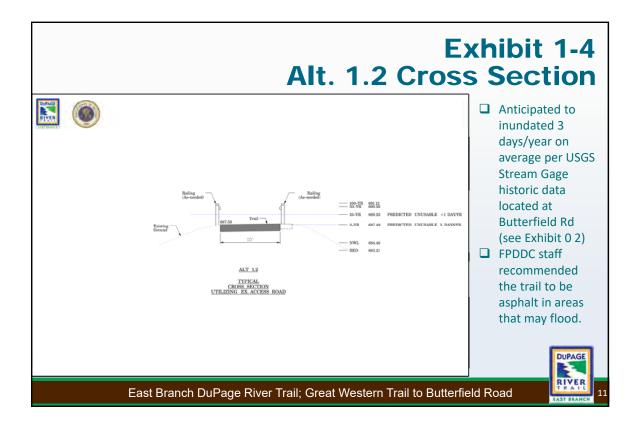












<u> </u>	<u>yn</u>	Segm	ient 1: Great Weste	in trail to crescer	it Biva.	parative Evaluation
Evaluation Criteria		Alt. 1.1; West Alignment	Alt. 1.2: Central Existing Access Road	Alt. 1.3: East Alignment Along Tollway	Alt. 1.4: Riford Avenue to Taylor Street	
Recreational Benefit		-				
Praximity to River	distance	Lines Baselon B.	Loss married	300 10 500 11	-	Alt. 1.1 requires 2 pedestrian bridges or
Adjacent Land Use <sup>1</sup>	scale 1-5	100	-		2	
Transportation Benefit						boardwalks across the EBDR to avoid
Ease of Operations (minimize swdchbacks, difficult grades, alignment, or confusion)	scale 1-5	- 3			3	wetland impacts.
Level of Flood Protection # Days Path is Umaable	a days unusiable	2	7	1		
Safety		_				FPDDC staff indicated support for Alt. 1.2
Crossing Level of Stress 14	scale 1-5			1		through Churchill Woods.
Environmental and Socioeconomic Impacts	5	-				Alt. 1.1 and 1.2 anticipated to be
Floodplain Impiects	acres	0.63	0.05	0.45	0.05	the second s
Wetland/ WOUS Impacts	atres	0.05	0.01	0.01	1000	inundated 3 days/year on average.
T&E Species Impacts	acres.	0.00	0,02	0.00	0.00	Alt. 1.3 shifted west into the Forest
Class IV Forests	acres	0.00	000	0.19	0.00	
Private Land Acquisition	acres	0.00	-0.00	0.00	0.69 ac if sidepath	Preserve to avoid the Jurisdictional WOUS
Cost Effectiveness	-					along the Tollway ROW results in Class IV
af Structures Needed		1 - 200 ft ped. 1 - 120 ft ped	a	a.		- · ·
Relative Initial Construction Cost <sup>3</sup>	5	S1 8 M	1520-000	-1000.000	57.3 M	Ecosystem Impacts.
Relative Long Term Maintenance Cost	5-55555	\$\$\$	55	\$\$	55	Alt. 1.4 is more than 1,500 feet west of
Footnotes: Lote: - usersemble: - mac controlled/Named 54 2. Carlo Man Beenky, unless environment: Hap in Hamming Level Constitutions Carlo (10), August Base - Stocold, Luncters Chansies (LC) - SJOCOCO, I-SJS W - Reditative Vigital Beenk Mit Bayasian and a search of Relative Comparison Scale Automations utilizing entiting addats studied assumed to Relative Comparison Scale	uality (per area) Path = 51.2M/mil dge Abutment = 24 Blod, and Hill Aum	e Trail Bridge/Boardw 600/d, Traffic Signal M	om = 5200/suft, Vehicle oddfeation = \$150,000	Birige/Bointweix + Si New Flashing Bission O	raming = \$200,000	the EBDR and was further considered with Crossing 2E.



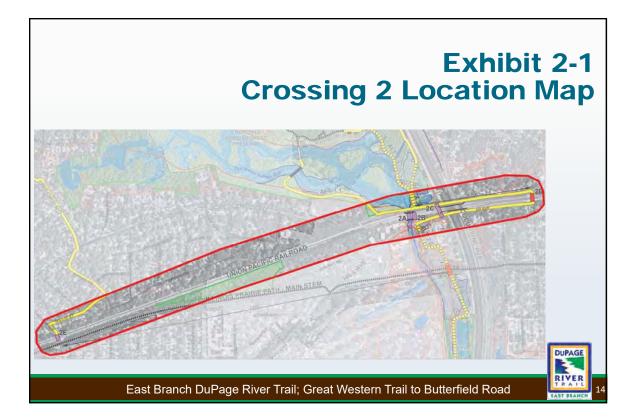
ComEd Access Roads Looking North from Crescent Blvd.

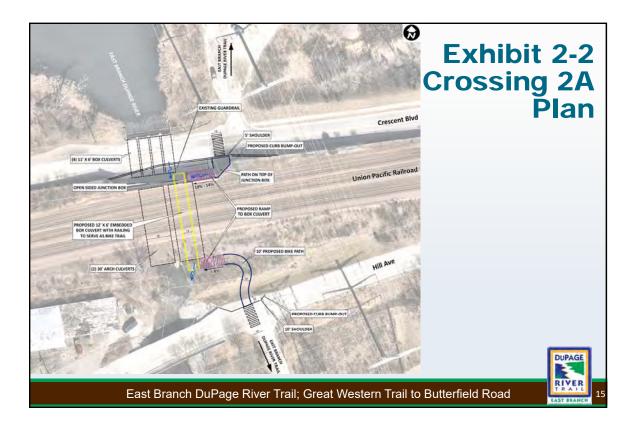
# Segment #1 Group Discussion

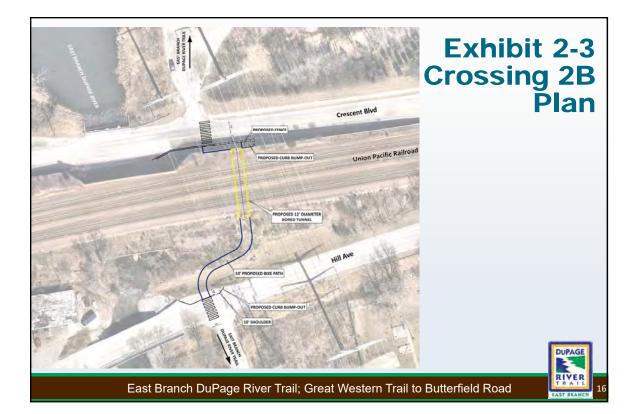
#### Segment #1:

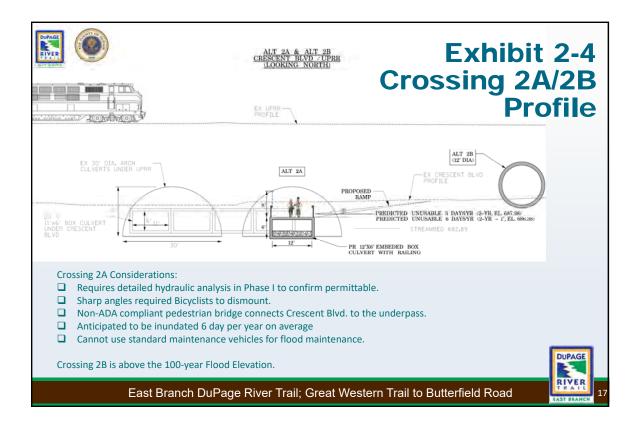
- Alt. 1.1: West Alignment along East Branch DuPage River (EBDR)
- Alt. 1.2: Central Existing Access Road along EBDR – Preferred Alternative by FPDDC Staff to minimize environmental impacts
- Alt. 1.3: East Alignment along Tollway
- Alt. 1.4: Great Western Trail to Taylor Street Underpass linked with Crossing 2E

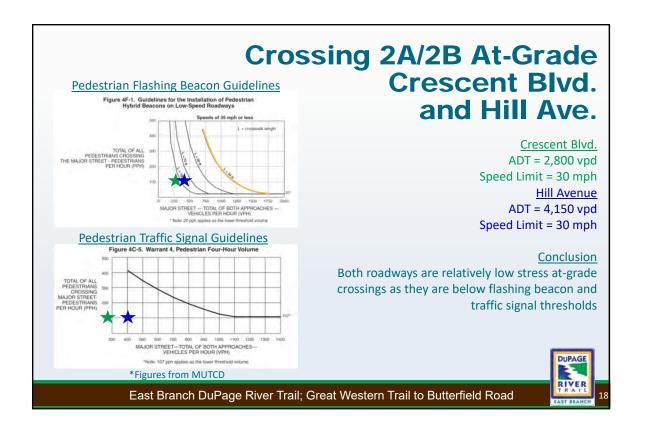


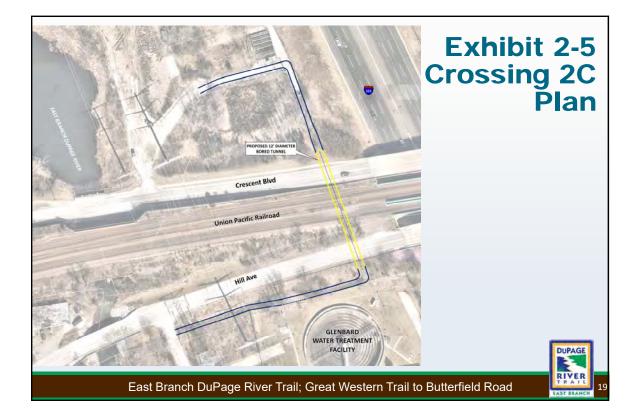












	LOOKING NORTH	Exhibit 2-6 Crossing 2C Profile
	EX UPPR PHOPILE EX CRESCENT PROFILE UT RV PROFILE EX CRESCENT PROFILE EX CRESCENT EX CRESCENT	1-355
East Bran	ch DuPage River Trail; Great Western	Trail to Butterfield Road

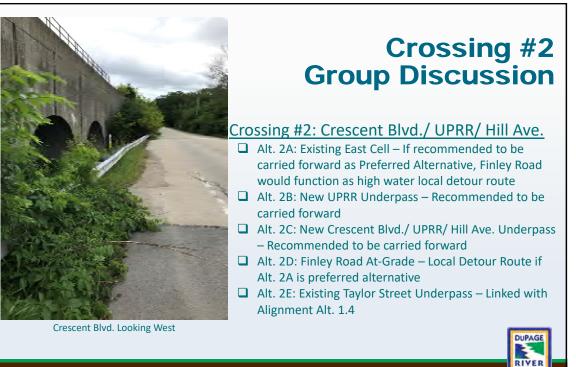
# Exhibit 2-7 Crossing 2 Comparative Evaluation

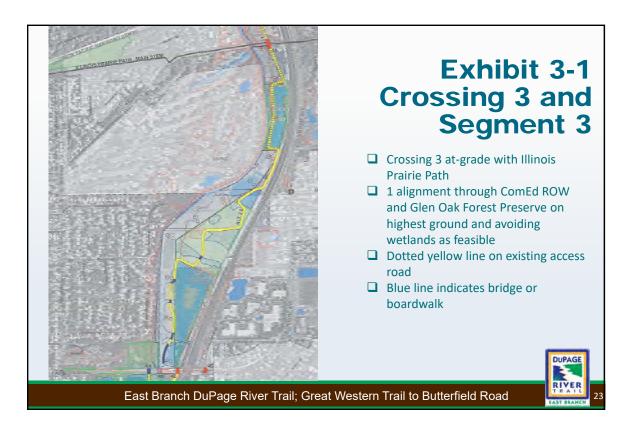
		Crossing 2: Crescent Bivd. (ADT=2,800 vpd) / UPRR/ Hill Avenue (ADT=4 150 vpd)						
Evaluation Criteria		Alt. 2A: Existing East Cell	Alt. 28: New UPRR Underpass	Alt. 2C: New Crescent/UPRR/Hill Underplass	Alt. JD: Finley Road At-Grade	Alt, 2E: Existing Taylor Street Underpass		
Recreational Benefit								
Proximity to River	distance	Lancaster	Last Day STA	350.9	1984.1	1 April 1		
Adjacent Land Use <sup>2</sup>	scale 1-5	.3	2	3	3	2		
Transportation Benefit				-	-			
Ease of Operations (minimize switchbacks, difficult grades, alignment, or confusion) Level of Flood Protection # Days Path is	scale 1-5 # days unusable			<u>4</u>		4		
Unusable	Unusable	0			4			
and the second se								
Crossing Level of Stress <sup>14</sup> Environmental and Socioeconomic Impact	scale 1-5	3	1 3					
	5		1					
Floodplain Impacts	acres	0,03	-04801	10.00	0.00	0.00		
Wetland/ WOUS Impacts	acres	0.03	-0100	10100	0.00	0.00		
T&E Species Impacts	acres	0.00	0.00	0.00	0.00	3 300		
Class IV Forests	acres	0.00	00.0	0.00	0.00	0.00		
Private Land Acquisition	acres	-0	.0.		8/0,34	0		
Cost Effectiveness				-				
# of Structures Needed		3 - JC's 100ft culvert	1-100ft Underpase	1-2008 underpass	2 - vehicle bridge widening			
Relative Initial Construction Cost <sup>1</sup>	5	\$1.8 M	\$5.5 M	\$5.0 M	\$4.1 M	\$5		
Relative Long Term Maintenance Cost	5-55555	555	55	55	\$5			

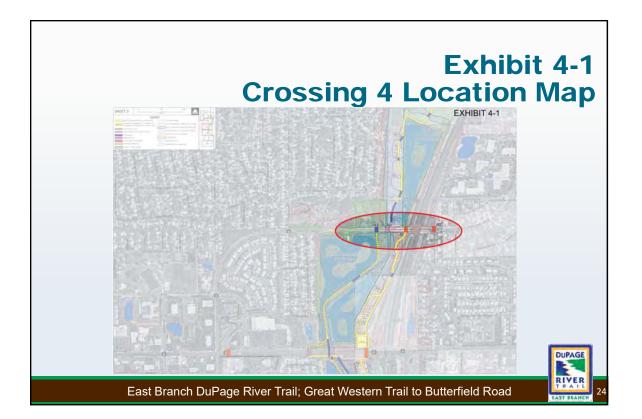
- Crossing 2A and 2B at-grade crossings are relatively low stress based on roadway ADT and speed limit.
- Crossing 2A anticipated to be inundated 6 days/year on average and requires detailed hydraulic analysis in Phase I to confirm permittable.
- Crossing 2A challenges include substandard ADA and geometry, maintenance concerns, waterway conveyance and floodway permitting issues, and WOUS impacts.
- Crossing 2D and 2E are greater than 1,500 feet from the EBDR.
- Crossing 2A and 2B recommended to be carried forward.

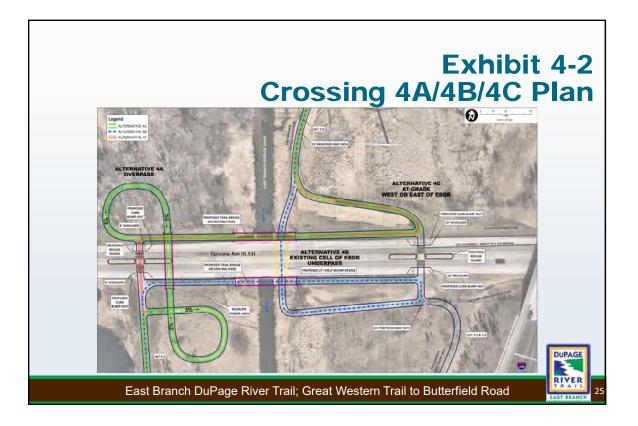
RIVER

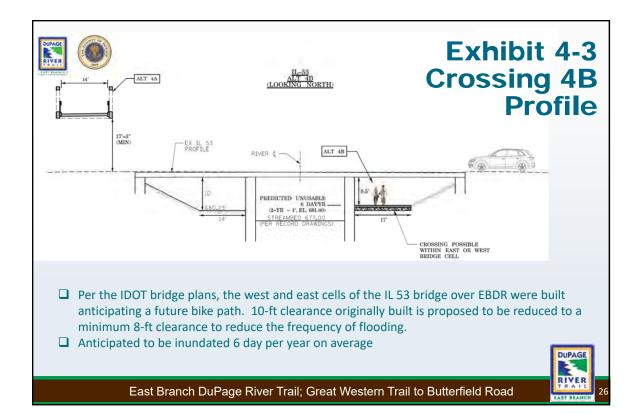
East Branch DuPage River Trail; Great Western Trail to Butterfield Road

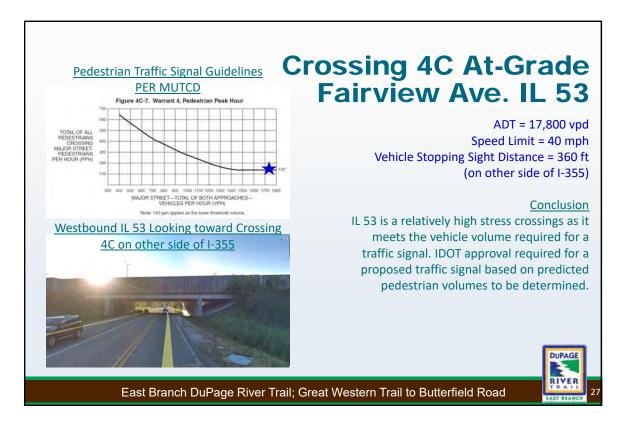


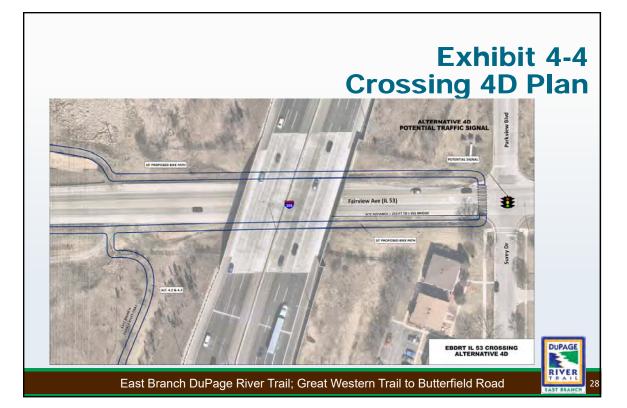












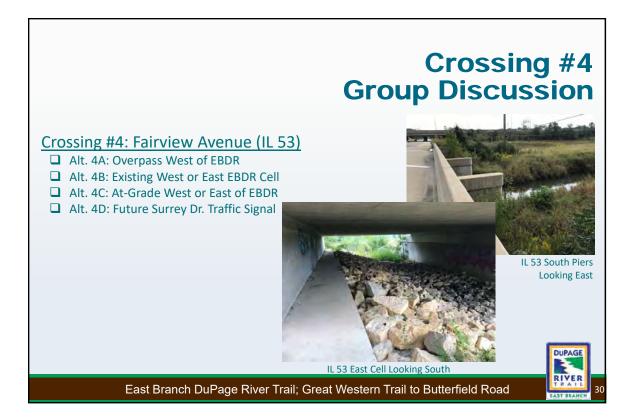
## Exhibit 4-5 Crossing 4 Comparative Evaluation

the second se	Crossing 4: Fairview Avenue (IL 53)				
Evaluation Criteria	Alt. 4A: New Overpass West of EBDR	Alt. 48: Existing W or E EBDR Cell Underpass	Alt. 4C: At-Grade West or East of EBDR	Alt. 4D: Future Surrey Dr. Traffic Signal	
Recreational Benefit					
Proximity to River	vietance	200 8	Loss min Salt	200 n	
Adjacent Land Use	scale 1-5	1 at 1		-	2
Transportation Benefit					
Ease of Operations (minimize exitchbacks) difficult grades, alignment, or confusion) Level of Flood Protection/ # Days Path is	scale 1-5	3	4	ė	2
Unusable	unusable	1 0 1	6	0	a
Safety					_
Crossing Level of Stress 1.*	scale 1.5			2	1
Environmental and Socioeconomic Impact	8				
Floodplain Impacts	acres	0.03	0.03	10.00	0.02
Wetland/ WOUS Impacts	acres	0.03	0.03	0.00	0.02
T&E Species Impacts	acres	0.00	0.00	0.00	0.00
Class IV Forests	acres	arab	0.00	10.00	0.00
Private Land Acquisition	acres	0.00	0.00	0.00-	2.0.08
Cost Effectiveness					
# of Structures Needed		1 - ped bridge 1 - IL 53 N Widening	1 - IL 53 Widening If wi Att 4.1	1 - IL 53 S F w Alt 4 1 Widening	ig.
Relative Initial Construction Cost	5	S4.6M	5840.000	8850,000	saturat
Relative Long Term Maintenance Cost	5-55555	555	55	55	55

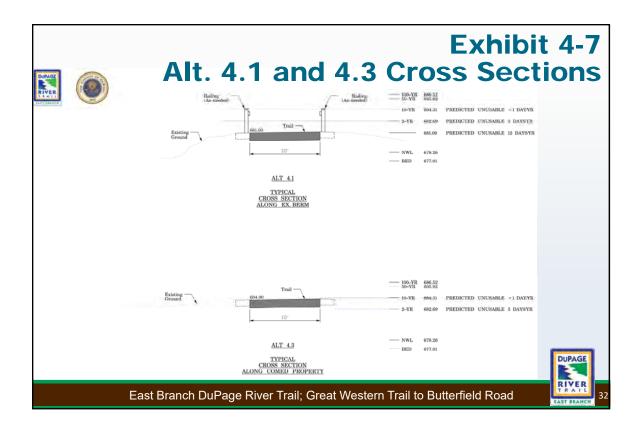
- Crossing 4A requires relocating power lines along IL 53.
- Crossing 4B implements anticipated future path per IDOT bridge plans.
- Crossing 4B anticipated to be inundated 6 day per year on average.
- Crossing 4C is a relatively high stress at-grade crossing.
- Crossing 4A overpass and 4B underpass recommended to be carried forward.
- Crossing to be coordinated with IDOT.

DUPAGE









# Exhibit 4-8 Segment 4 Comparative Evaluation

the second second	Segment 4: Fairview Avenue to Rooseveit Rid				
Evaluation Criteria	Ah, 4.1: Existing "User Path" on Berns West of EBDR	Alt. 4.2: Existing ComEd Access Road East of EBOR	Alt. 4.3: East Alignment East of EBDR		
Recreational Benefit					
Proximity to River	stistance		Canada State 2018	10 10 300 1	
Adjacent Land Use <sup>2</sup>	scale 1-5	1 1801.1	2	2	
Transportation Benefit					
Ease of Operations (minimize s-tothacks, difficult grades, alignment, or confusion) Level of Flood Protection/ # Days Path is Unculable	scale 1-5 3 days unusable	12	*	4	
Safety					
Crossing Level of Stress <sup>1, #</sup>	scale 1-5	-	1		
Environmental and Socioeconomic Impacts	3			1	
Floodplain Impacts	acres	0.81	0.74	0.65	
Wetland/ WOUS Impacts	acres.	0.07	DIED	640	
T&E Species Impacts	acres.	0.00	0.00	0.00	
Class IV Forests	acres	0.00	- 6.80	0.66	
Private Land Acquisition	acres	0.00	0.00	0.00	
Cost Effectiveness	-				
a of Structures Needed		1-150ft ped boardwalk	1 - 50R ped bridge	1 - 50tt ped bridge	
Relative Initial Construction Cost <sup>3</sup>	\$	\$1.3M	\$870,000	\$840,000	
Relative Long Term Maintenance Cost	5-55555	55	55	55	

Segment #4: Fairview Avenue

□ Alt. 4.1: Existing "User Path" on

□ Alt. 4.3: East Alignment East of

to Roosevelt Road

EBDR

Berm West of EBDR Alt. 4.2: Existing ComEd Access

**Road East of EBDR** 

- □ Alt. 4.1 anticipated to be inundated approximately 12 days/year on average.
- □ Alt. 4.2 and 4.3 anticipated to be inundated less than 1 day/year.
- Alt. 4.1 requires approximately 150 feet of boardwalk along the existing berm to cross a low wetland area.
- Alt. 4.2 and 4.3 are located closer to the ComEd substation just north of Roosevelt Rd.
- Alt. 4.1 or 4.3 recommended to be carried forward.



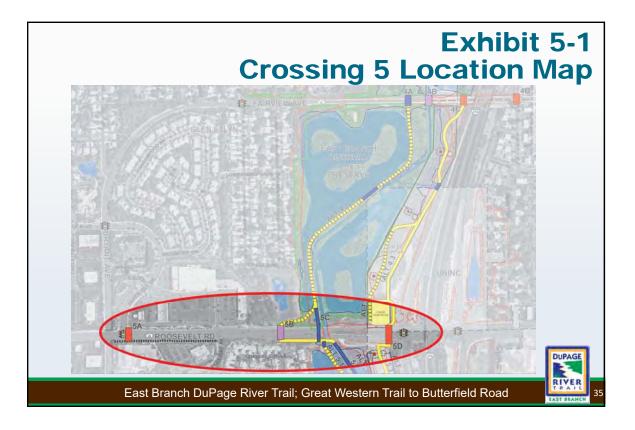
DUPAGE

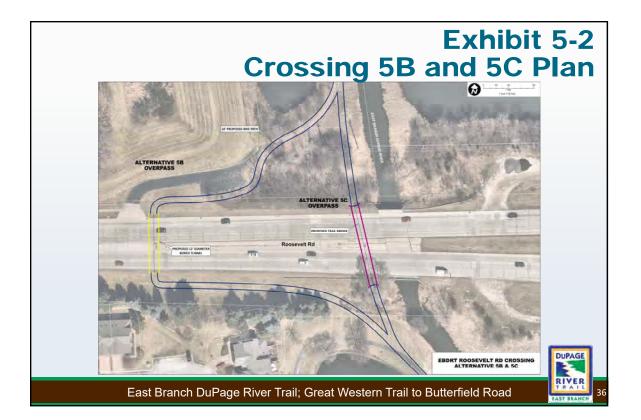
East Branch DuPage River Trail; Great Western Trail to Butterfield Road

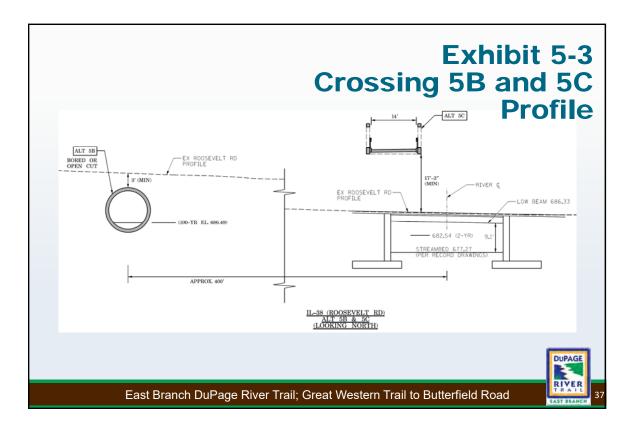
# Segment #4 Group Discussion



East Branch Forest Riverway Forest Preserve Looking Northeast









# Exhibit 5-5 Crossing 5 Comparative Evaluation

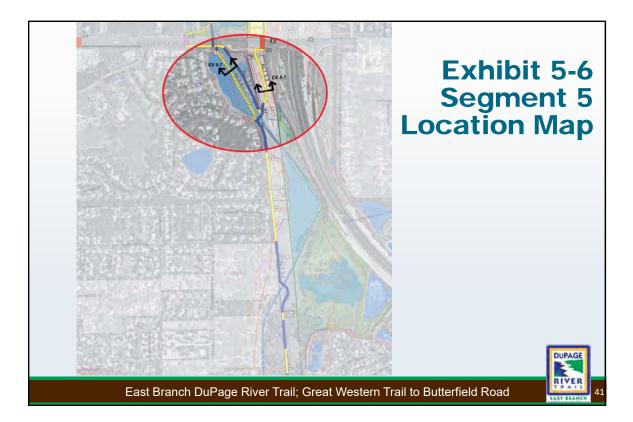
and the second se	Crossing 5: Roosevelt Road (IL 38)					
Evaluation Criteria		Alt. 5A: Baker Hill Dr. Traffic Signal At-Grade	Alt, 58: New Underpass West of EBDR	Alt. 5C: New Overpass at EBDR	Ait. 5D: 1-355 Traffic Signal At-Grade	
Recreational Benefit						
Proximity to River	distance		s10 ti	10 60400 8	600 ft	
Adjacent Land Use <sup>2</sup>	scale 1-5	2	3	3	3	
Transportation Benefit						
Ease of Operations (minimize switchbacks, difficult grades, alignment, or confusion) Level of Flood Protection/ # Days Path is	scale 1-5 # days		4.000	1	3	
Unusable	unusable	0			0.0	
Safety		-	-			
Crossing Level of Stress <sup>1</sup>	scale 1-5	- A.	8.			
Environmental and Socioeconomic Impact	e <sup>4</sup>					
Floodplain Impacts	acres	000	0.00	0.00	0.00	
Wetland/ WOUS Impacts	acres.	0.00	0.00	0.00	1.00	
T&E Species Impacts	acres	0.00	8-00	0.00	0.00	
Class IV Forests	acres	0,00	0.00	0.00	0,00	
Private Land Acquisition	# parcels/ acres	0.00	0.001	0.00	0.00	
Cost Effectiveness						
# of Structures Needed		2	1 - culvert. 1 - retaining wall	1 ped bridge	ø	
Relative Initial Construction Cost <sup>3</sup>	5	\$1,468	\$2.7M	\$4,354	\$1.1M	
Relative Long Term Maintenance Cost	5-55555	3	55	55	4	

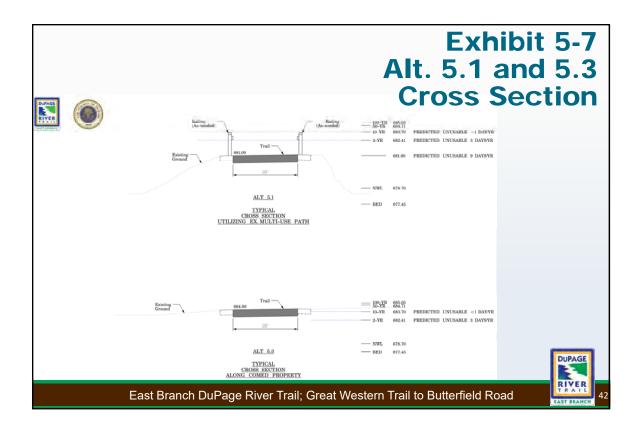
- Crossing 5B underpass feasible near the EBDR without flood concerns.
- Crossing 5C overpass feasible near the EBDR without ComEd high tension power line clearance concerns. Could be designed as a community gateway feature.
- □ Four stages for Crossing 5D at I-355 traffic signal.
- Crossing 5B overpass and 5C underpass are recommended to be carried forward.

DUPAGE

Crossing to be coordinated with IDOT.





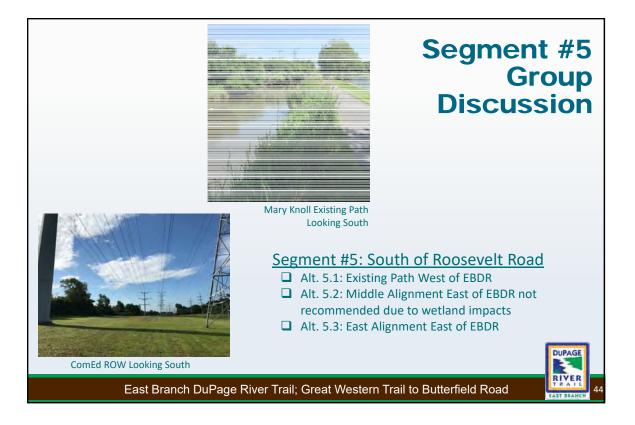


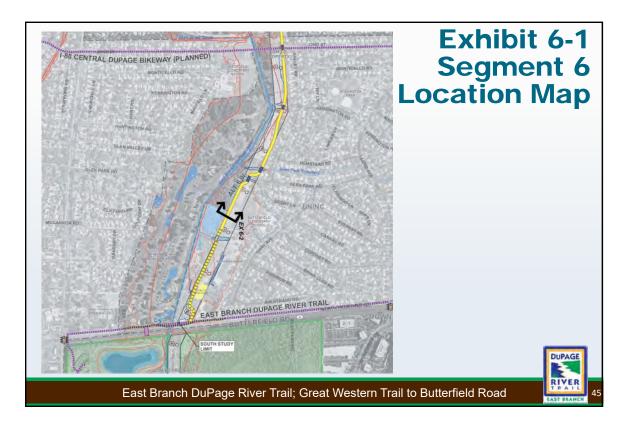
# Exhibit 5-8 Segment 5 Comparative Evaluation

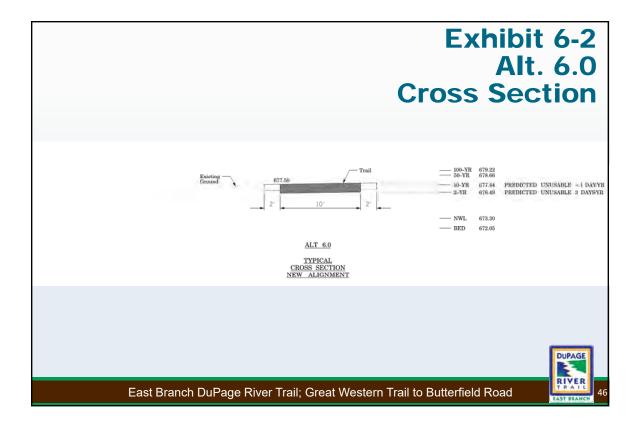
	Segment 5: Just South of Roosevelt Rd (IL 38)				
Evaluation Criteria	Ait. 5.1: Existing Path West of EBDR	Alt. 5.2: Middle Alignment East of EBDR	Alt. 5.3: East Alignment in ComEd ROW East of EBOR		
Recreational Benefit					
Proximity to River	distance	and the state	Leve man 80 m	10 to 300 m	
Adjacent Land Use <sup>2</sup>	scale 1-5	4	4	4	
Transportation Benefit		_			
Ease of Operations (minimize switchibacks, difficult grades, alignment, or confusion) Level of Picod Protection/ # Days Path is Unusable	scale 1-5 # days unusable	- 3	8		
Safety					
Crossing Level of Stress <sup>1</sup>	scale 1-5				
Environmental and Socioeconomic Impact	s <sup>4</sup>				
Floodplain Implacts	acres	0.37	0.35	0.24	
Wefland/ WOUS Impacts	acres	0.02	1.00	0.07	
T&E Species Impacts	acres	3.60	0.00	0.00	
Class IV Forests	acres	0.00	0:00	0.00	
Private Land Acquisition	# parcelul acres	1/0.02	0.00	0.00	
Cost Effectiveness					
# of Structures Needed			1 ped bridge/ dam modification	1 ped bridge/ dam nicd/fication	
Relative Initial Construction Cost <sup>2</sup>	.5	5230,000	\$1.1M	\$1,1M	
Relative Long Term Maintenance Cost	\$-55555	100 A	\$5	55	

- Alt. 5.1 is relatively lower and anticipated to be inundated approximately 9 days/year on average.
- Alt. 5.2 is not recommended due to excessive wetland impacts or maintenance requirements if built on boardwalk as compared to Alt. 5.1 or 5.3.
- □ Alt. 5.3 anticipated to be inundated less than 1 day/year.
- Portions of the existing path along Alt. 5.1 have scoured into the EBDR, and the path is required to be repaired and stabilized (i.e.; gabion baskets, etc.).

RIVER

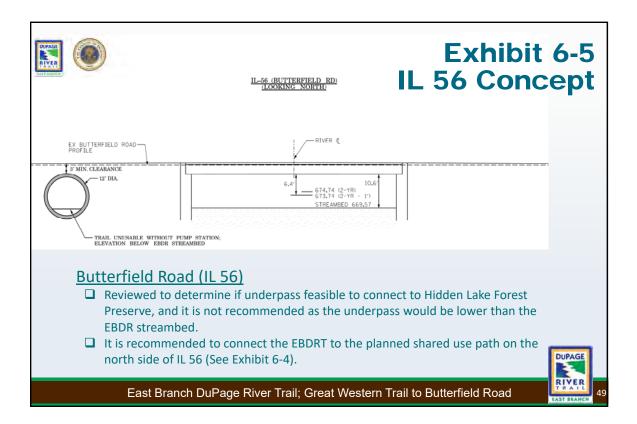


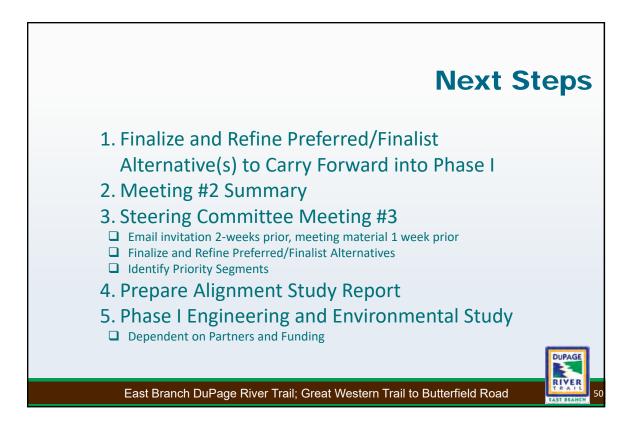












### Attachment B

Finalist Alternative Alignment to be carried forward into Phase I Engineering for further design development and evaluation

