



# East Branch DuPage River Trail *Great Western Trail to Butterfield Road*

## Alignment Study Report

December 2021



# TABLE OF CONTENTS

<b>Table of Contents.....</b>	<b>i</b>
<b>Attachments.....</b>	<b>ii</b>
<b>1.0 Introduction .....</b>	<b>1</b>
1.1 EBDRT Project Overview .....	1
1.2 Stakeholder and Agency Coordination Overview .....	1
<b>2.0 Project Corridor Existing Conditions and Challenges.....</b>	<b>2</b>
2.1 EBDR Challenges.....	2
2.2 Comed and Nicor Facilities.....	3
2.3 Glenbard Wastewater Authority Facilities.....	3
2.4 Major Roadway and Railway Crossings.....	3
2.5 Railroad Bike Path Crossing At Taylor Avenue .....	6
<b>3.0 Evaluation of Alternatives .....</b>	<b>6</b>
3.1 EBDRT Corridor Crossings and Sections Studied .....	6
3.2 Initial Alternatives Analysis .....	7
3.3 Additional Alternatives Analysis.....	8
3.4 Agency / Stakeholder Coordination .....	8
<b>4.0 Description of the Phase I Alternatives .....</b>	<b>10</b>
4.1 St. Charles Road to IL 38.....	10
<b>5.0 Recommended Next Steps .....</b>	<b>16</b>
5.1 Phase I Study Considerations .....	17
5.2 Future Project Development.....	18

## ATTACHMENTS

Attachment 1 – Location Map

Attachment 2 – Study Area Key Map and Existing Conditions

Attachment 3 – Steering Committee Meeting #1 Summary

Attachment 4 – Steering Committee Meeting #2 Summary

Attachment 5 – Steering Committee Meeting #3 Summary

Attachment 6 – Steering Committee Meeting #4 Summary

Attachment 7 – Steering Committee Meeting #5 Summary

Attachment 8 – Agency Coordination

Attachment 9 – Identified Corridors for Further Study

**ATTACHMENTS 3-8 ARE AVAILABLE UPON REQUEST FROM THE DUPAGE  
COUNTY DIVISION OF TRANSPORTATION**

# 1.0 INTRODUCTION

## 1.1 EBDRT PROJECT OVERVIEW

In its entirety, the East Branch DuPage River Trail (EBDRT) is a planned 28-mile regional trail in central DuPage County, intended as a multi-use greenway trail in the vicinity of the East Branch DuPage River (EBDR). The north-south trail was first conceptualized in the 1970s as an off-street non-motorized pathway for DuPage residents west of I-355, connecting isolated pockets of forest preserves with parks, waterways, and several municipalities. The regional trail is recognized by the DuPage County Bikeways and Trails Plan and CMAP's Regional Greenways and Trails Plan, but as of 2019 the trail's conceptual alignment remained mired in uncertainty. What proved to be the most difficult segment to fund, design, and construct is the section between the Great Western Trail and IL 56. This central portion of the trail through Glen Ellyn was planned to traverse a variety of barriers that presented technical, fiscal, and jurisdictional challenges. The summation of those challenges required additional technical assistance in order to be surmounted. Conflicts with roadway crossings, railroad crossings, and sanitary district facilities needed to be evaluated for solutions and/or viable alternatives.

The Alignment Study's primary tasks consisted of identifying alignment alternatives, evaluating those alternatives through a stakeholder-driven planning process, and generating consensus among key stakeholders to select a preferred alternative or alternatives to carry forward.

This East Branch DuPage River Trail (EBDRT) Alignment Study clarifies the alignment for a section of the EBDRT from the Great Western Trail to Butterfield Road (IL 56). This section of the proposed EBDRT is over 5 miles long and traverses the Villages of Glen Ellyn and Lombard, unincorporated DuPage County, Forest Preserve District of DuPage County holdings, ComEd property, and Illinois Tollway right-of-way. The objective of the Alignment Study was to identify a EBDRT alignment or corridors to carry forward into Phase I Engineering and Environmental Studies for detailed analysis, which is required to ensure eligibility for future federal funding opportunities. See Attachment 1 for a location map of the study area. The location map identifies 6 Segments and Crossings within the study area, arranged from north to south.

## 1.2 STAKEHOLDER AND AGENCY COORDINATION OVERVIEW

Stakeholder coordination is essential to ensuring that all existing obstacles and stakeholder concerns are recognized throughout the project development process. Coordination was facilitated via individual agency meetings and five Steering Committee meetings between June 2019 and September 2021. For public involvement, a project website was prepared for the EBDRT to post project information, project updates, and the ultimate Preferred Alternative or Alternatives to be Carried Forward. A Public Information Meeting was not held during the Alignment Study but is planned to take place during the Phase I Study.

The primary objective of the Steering Committee was to work collaboratively to identify and evaluate a range of trail alignment alternatives. The Steering Committee was comprised of representatives from key stakeholders:

- DuPage County Division of Transportation,
- Village of Glen Ellyn,
- Village of Lombard,

- Forest Preserve District of DuPage County,
- DuPage County Stormwater Management,
- Commonwealth Edison,
- Lombard Park District,
- Butterfield Park District, and
- The Friends of the East Branch DuPage River Trail.

These organizations are stakeholders with property, jurisdiction, or supporters within the project corridor.

## 2.0 PROJECT CORRIDOR EXISTING CONDITIONS AND CHALLENGES

Due to the trail's proximity to the East Branch DuPage River (EBDR), the project corridor is characterized by heavily vegetated, low-lying areas within the EBDR floodplain fringe zones, which also comprise of widespread wetlands. Within these areas, user-made paths and maintenance access paths exist at various locations along the corridor with the potential to be repurposed for the EBDRT. These existing paths have been created by a variety of users and agencies, and therefore must be individually analyzed to determine which would be suitable for the proposed EBDRT. Refer to Attachment 7 for floodplain boundary and delineated wetland limits.

While many opportunities exist for a proposed EBDRT, in-depth analysis and extensive coordination has also revealed several challenges within the project corridor. Below are some EBDRT challenges identified:

### 2.1 EBDRT CHALLENGES

There are several inherited riverine challenges within the corridor due to the proximity of the EBDR including:

- Flood Protection – Much of the existing corridor is below the EBDR 2-year level of flood protection. To provide a higher level of flood protection fill in the floodplain or structures would be required.
- Floodplain Fill – Any fill within designated floodplain areas will be subject to compensatory storage mitigation. Compensatory storage mitigation is also required for any fill within existing compensatory storage sites.
- Wetlands/WOUS Impacts – There are numerous wetland and Waters of the U.S. (WOUS) and I-355 mitigation sites near the EBDR. The trail is proposed to avoid delineated wetlands and WOUS wherever possible and mitigate when avoidance is not possible.
- High-Quality Ecosystem Impacts – There are Class III and IV (high-quality) ecosystems within the Forest Preserve holdings along the corridor. The proposed trail considered designated high-quality ecosystem impacts wherever required.
- Boardwalks and Bridges – Boardwalk structures and bridges may be constructed to span the river or wetland areas. These structures must demonstrate no impedance of flow of the EBDR, meet appropriate loading requirements, and must consider long-term maintenance in the selection of materials and design.

## **2.2 COMED AND NICOR FACILITIES**

There is a ComEd high voltage corridor west of I-355 along most of the EBDRT corridor. Challenges to building a trail within the ComEd ROW include:

- Nicor Facilities - A large high pressure Nicor gas pipeline is within the ComEd ROW near its west boundary for most of the corridor. While transverse crossings are acceptable, longitudinal encroachments are not advisable and should be avoided.
- ComEd ROW Vehicle Loading – For any areas within the ComEd ROW, the EBDRT will be designed to meet HS-20 loading requirements for ComEd maintenance vehicles. This applies to any portion of the trail built at-grade or on structures within the ComEd ROW.
- ComEd Tower Buffers – 20-foot horizontal clearance must be maintained from the base of any ComEd tower.
- Construction Activities within the ComEd Corridor – When working in the vicinity of ComEd’s electric transmission lines during the installation, OSHA requires minimum fifteen (15) feet working clearance distance between the booms, arms or other parts that can be raised on the equipment for the Petitioner’s contractor and ComEd’s existing 138,000 volt electric transmission conductors, and a minimum twenty (20) feet working clearance distance between the booms, arms or other parts that can be raised on the equipment for the Petitioner’s contractor and ComEd’s existing 345,000 volt electric transmission conductors. ComEd has indicated that under no circumstances, should truck beds be raised underneath ComEd transmission lines.
- Permanent Structure Wire Clearance – In locations where the ComEd wires are lower than the required vertical clearance to the existing ground, a 17-foot horizontal offset from the outer-most wires is required for proposed EBDRT structures. ComEd has identified the EBDRT crossings south of IL 38 as substandard existing clearance, therefore an EBDRT bridge over the EBDRT must be at least 17 feet from the outer-most wire. At this and potentially other locations within the ComEd ROW, the EBDRT may be required to be constructed at-grade or lower to maintain the existing vertical clearance from the ground surface to the overhead wires.

## **2.3 GLENBARD WASTEWATER AUTHORITY FACILITIES**

There are two Glenbard Wastewater Authority (GWA) facilities within the project corridor:

- The northern one is located just south of Hill Avenue, west of I-355, and east of the EBDRT. The northern facility may pose a challenge to cross since there is limited space between it, I-355, and Hill Avenue and the facility's security must be maintained.
- The southern one is located just east of Bemis Road, west of the EBDRT, and north of Glen Crest Creek. GWA recently acquired a parcel to the north of the facility and indicated the lagoons to the east of the EBDRT are being filled, as these are no longer necessary for their operations.

## **2.4 MAJOR ROADWAY AND RAILWAY CROSSINGS**

Below is a list of existing EBDRT structures near anticipated EBDRT major roadway and railway crossing locations. These structures are listed herein solely as a means of identification; suitability for use by the EBDRT shall be as

determined in further analyses. Existing structure data was obtained from a combination of as-built drawings, record design drawings, the FEMA regulatory hydraulic model, and field visits to the site.

#### Crossing 1 – St. Charles Road

The EBDRT crosses under St. Charles Road west of Swift Road. An existing segment of the EBDRT traverses southeast through the Churchill Woods Nature Preserve and terminates at the Churchill Prairie Nature Preserve East Division Ranger Office just north of St. Charles Road and west of the I-355 bridge. An existing 16'(w)x10'-10"(h) concrete box opening connects the Churchill Prairie Nature Preserve East Division Ranger Office to the Churchill Woods Forest Preserve Picnic Shelter east parking lot on the south side. The existing box culvert is used as a personnel underpass only, shared between FPDDC vehicles and bicycle and pedestrians utilizing the existing trail system and Forest Preserve. The existing underpass does not have demarcated lanes or pavement markings to separate vehicular and pedestrian uses.

#### Crossing 2 – Crescent Blvd/UPRR/ Hill Avenue

The EBDRT crosses under Crescent Boulevard, the Union Pacific Railroad (UPRR), and Hill Avenue in a series of three separate structures within a very short distance, therefore this location is grouped as one Major Crossing. The EBDRT is conveyed below Crescent Boulevard via quadruple 11'(w) x 6'(h) box culverts. Approximately 15 feet downstream of the downstream face of the Crescent Boulevard culverts, the UPRR rises approximately 30 high on fill with retaining walls, and crosses over the EBDRT in 2 – 30-foot diameter arch openings. The main EBDRT channel flows through the west arch opening, while the east arch opening conveys higher intensity flows. The distance from the top peak of the arches to the normal water surface elevation is approximately 15 feet. The two UPRR 30-foot diameter arch culverts were widened at an unknown time to accommodate additional tracks. The south face of the arch culverts is made from a dated modular stone block retaining wall with the date shown as 1905. The north face of the culvert is a much newer monolithic concrete retaining wall. The inside concrete surface of the culverts appears to have been poured as a single concrete arch connecting between the two retaining wall faces, with the older south side arch foundations still visibly different than the newer north side.

Existing St. Charles Rd Underpass  
Looking North



Crescent Blvd Looking Southwest



Initial observations and data collection of the arch culverts indicate a narrow pedestrian bridge or trail surface could be possible through the existing arch culverts. However, horizontal and vertical alignments may be difficult to create smooth transitions to the Crescent Boulevard roadway surface. A proposed trail within the arch culverts may also have a low level of flood protection.

Approximately 90 feet downstream of the southern face of the UPRR arch culverts, the Hill Avenue 3-span bridge crosses over the EBDR. The bridge spans 76 feet in total on a 13.5-degree skew to the roadway alignment, with two, 3-foot piers straddling the EBDR channel. The concrete slab bridge was constructed circa 2016. The distance from the low beam elevation to the normal water surface elevation is approximately 6 feet. Of further complexity, the centerlines of the three major structures are horizontally offset from each other due to the bending river alignment and the offset of the UPRR arches.

The UPRR profile is at-grade with the Crescent Boulevard roadway profile approximately 700 feet west of the EBDR crossing. From west to east, both the Crescent Boulevard and Hill Avenue roadway profiles descend to meet the existing ground elevations on either side of the river, while the UPRR maintains a high elevation on 30-foot concrete retaining walls. The high railroad elevation continues approximately 600 feet east of the river to bridge over I-355. East of the EBDR crossing, the Crescent Boulevard and Hill Avenue roadway profiles ascend to meet the UPRR profile and cross over I-355.

#### *Crossing 3 – Illinois Prairie Path*

The existing Illinois Prairie Path crosses over the EBDR via a prefabricated pedestrian bridge. Since the project aims to tie-into the IPP and not circumvent it, a connection to the IPP east of the EBDR bridge is anticipated. This connection is planned to occur near the Glenbard Wastewater Authority maintenance entrances, just west of I-355.

#### *Crossing 4 – IL 53 (Fairview Avenue)*

The EBDR crosses below IL 53 (Fairview Avenue) via a 3-span concrete slab bridge constructed circa 2008. The bridge spans 96 feet in total with two, three-foot wide piers straddling the EBDR channel. Both the east and west cells of the bridge were intentionally designed to provide accommodations for a future bike path, leaving 14-foot-wide flat shelves with 10 feet of vertical clearance below the low beam elevation. The elevation of these flat shelves was designed approximately 1.7 feet above the normal water surface elevation of the river, and therefore have a low level of flood protection.

It should also be noted that the existing IL 53 bridge piers and abutments extend approximately 12 feet wider than the roadway deck on both the south and north sides of the bridge. The widened substructure was originally built in consideration of potential future roadway widening that has not come to realization. These widened piers could also be potentially used for the EBDRT to cross over the EBDR, protected by barrier but adjacent to



the roadway. Depending on the ultimate crossing and alignment chosen, the extended piers would be useful in utilizing the existing infrastructure for the EBDRT.

#### Crossing 5 – IL 38

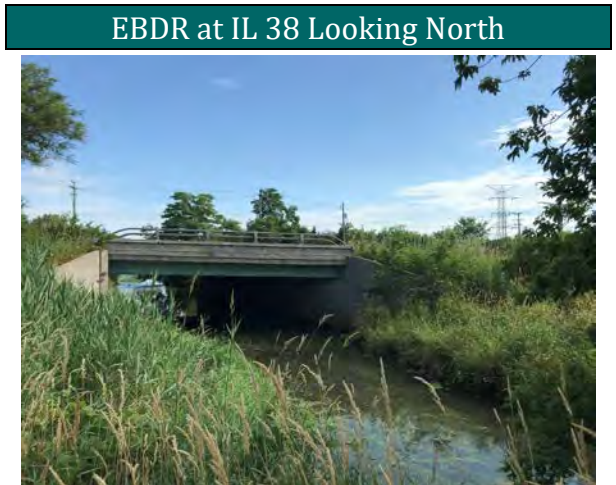
The EBDRT crosses below IL 38 via a single span steel beam bridge built circa 1987. The bridge spans approximately 35 feet on a 12-degree skew from the roadway alignment. The distance from the low beam elevation to the normal water surface elevation is approximately 7.5 feet.

#### Crossing 6 – 22<sup>nd</sup> Street

There is currently no existing crossing structure at 22<sup>nd</sup> Street.

#### Project Limits – IL 56

The EBDRT project study limits terminate on the north side of IL 56, where a connection would be made to the existing bike path or the future multi-use path planned as part of the IDOT-led IL 53/ IL 56 roadway improvement project. While this section of the EBDRT does not include an IL 56 crossing, the existing EBDRT bridge or a new pedestrian underpass or overpass were considered as options. The existing IL 56 bridge over the EBDRT is a single span steel beam bridge built circa 1972. The bridge spans approximately 67 feet on a 22.5-degree skew from the roadway alignment. The distance from the low beam elevation to the normal water surface elevation is approximately 9 feet.



## **2.5 RAILROAD BIKE PATH CROSSING AT TAYLOR AVENUE**

The Village of Glen Ellyn recently completed a new pedestrian crossing below the UPRR along Taylor Avenue, approximately 1 mile to the west of the EBDRT. The underpass is a 12-foot diameter pedestrian tunnel bored through the UPRR embankment and included the construction of two new retaining walls on each side of the tunnel. While this pedestrian tunnel was determined by the Steering Committee to be too far west to utilize as an EBDRT railroad crossing location, a similar design could be implemented closer to the river crossing. A new pedestrian tunnel under the UPRR would provide a high level of flood protection and a direct crossing route. However, based on early coordination with the UPRR a new crossing may take a significant amount of time to permit. The railroad may prove to be a physically complex barrier that will require extensive coordination with Union Pacific to successfully cross.

## **3.0 EVALUATION OF ALTERNATIVES**

### **3.1 EBDRT CORRIDOR CROSSINGS AND SECTIONS STUDIED**

A key map is included as Attachment 2 which shows the proposed corridor separated into major crossings and segments between crossings. The crossings and segments evaluated include:

Crossings:

1. St. Charles Road
2. Crescent Blvd./ UPRR/ Hill Ave.
3. Illinois Prairie Path (IPP)
4. Fairview Avenue (IL 53)
5. Roosevelt Road (IL 38)
6. Future 22<sup>nd</sup> Street Bike Path

Segments:

1. St. Charles Road to Crescent Blvd.
2. Hill Ave. to IPP
3. IPP to IL 53
4. IL 53 to IL 38
5. IL 38 to 22<sup>nd</sup> Street
6. 22<sup>nd</sup> Street to IL 56

### **3.2 INITIAL ALTERNATIVES ANALYSIS**

Initial alternatives were based on preliminary coordination with various agencies, stakeholder input, and site visits along the corridor. Initial alignment alternatives included a new trail utilizing existing maintenance path routes and avoiding major conflicts.

As previously mentioned, a Steering Committee (SC) was assembled consisting of key stakeholders and decision makers in the project area. The primary objective of the SC was to work collaboratively to identify and evaluate a range of trail alignment alternatives.

The first of five SC meetings was held on July 24<sup>th</sup>, 2019. The main objective of SC Meeting #1 was to provide a project overview, brainstorm initial alternatives to be analyzed, study area issues and concerns, and project goals.

Initial alignment and crossing alternatives were then refined with the newly acquired wetland limits, flood data, and DuPage County contour information. These refined alternatives were assessed with a list of evaluation criteria to develop a measuring tool for which to compare alternatives.

SC Meeting # 2 was held on September 25<sup>th</sup>, 2019 to discuss results of alternatives evaluations from SC Meeting #1, identify additional alignments to consider, and to determine finalist alternatives where possible to carry forward into Phase I Engineering.

See Attachments 3 & 4 (SC Meeting #1 & #2 Summaries) for a detailed description of the meetings and alignment evaluations. The Steering Committee reached a general preliminary consensus on Crossing and Segment 1 (Churchill Woods), Crossing and Segment 2 (Crescent Blvd to IPP), Crossing 3 (IPP), Crossing 4 (IL 53), and Crossing 5 (IL 38).

### **3.3 ADDITIONAL ALTERNATIVES ANALYSIS**

After Steering Committee Meeting #2, additional alternatives were analyzed for Segments 3, 4, 5, and 6, and Crossing 6. New alternatives included segment revisions within the corridor as well as on-road alternatives in areas where the EBDRT presented physical or environmental challenges. On-road alternatives represented local street routes adjacent to the EBDRT corridor, with three distinct proposals: a widened sidewalk adjacent to the roadway, a widened roadway for shared use or dedicated bike lanes, and a no-build option that utilizes the existing infrastructure using signage to identify the bike route.

SC Meeting #3 was held on January 30, 2020. The purpose of this meeting was to discuss results of additional alternatives evaluations and to determine finalist alternatives to carry forward into Phase I Engineering. At the conclusion of SC #3, the Steering Committee reached consensus on Segment 3 and Segment 4. It was determined that Segment 5, Crossing 6, and Segment 6 would require additional alternatives analysis since the ComEd ROW south of IL 38 was found to be significantly more complex than anticipated. Initially, the Steering Committee dismissed the ComEd corridor due to the significant environmental, structural, and construction challenges of building any structures throughout the corridor. Subsequent analyses revealed that only some segments of ComEd were infeasible for a future trail alignment.

To examine the southern segments of the EBDRT in greater detail, an additional phase of the Alignment Study was completed from IL 38 to IL 56 only. See Attachment 5 for a detailed description of the additional analysis completed and SC Meeting #3 Summary.

After a series of additional analyses and coordination, SC Meeting #4 was held on January 27, 2021. The purpose of this final SC meeting was to describe the analyses conducted on Segment 5, Crossing 6, and Segment 6 to determine a finalist alignment alternative to carry forward into Phase I Engineering. Two finalist alternatives were presented: a West Alignment following the IL 53 corridor, consisting of a high degree of local connections and public access; and an East Alignment, with a local on-road segment, an off-road segment, use of select stretches of the ComEd corridor, and close proximity to the EBDRT.

After Steering Committee Meeting #4, comments were received in support of the East Alignment that also recognized the advantages of the West Alignment. Therefore, both corridors south of Roosevelt Road will be brought forward for further study. Steering Committee Meeting #5 was held on September 23, 2021. The meeting objective was to review the study purpose, alternatives evaluation completed, discuss comments received since Steering Committee Meeting #4, and then confirm with the group the corridors being carried forward.

### **3.4 AGENCY / STAKEHOLDER COORDINATION**

In addition to the three Steering Committee meetings, numerous one-on-one coordination meetings were held to determine the preferred alternative or alternatives to carry into the Phase I Study including:

- Tollway Kickoff Meeting – June 17th, 2019
- FPDDC Kickoff Meeting – June 21<sup>st</sup>, 2019
- ComEd Email Coordination – June 2019
- UPRR Kickoff Meeting – July 12<sup>th</sup>, 2019
- DCSM Email Coordination – July 2019

- IDNR Email Coordination – July 2019
- FPDDC Coordination Meeting – November 14<sup>th</sup>, 2019
- FHWA/IDOT BDE Coordination Meeting – November 19<sup>th</sup>, 2019
- ComEd Coordination Meeting – December 10<sup>th</sup>, 2019
- Tollway Email Coordination – January 2<sup>nd</sup>, 2020
- ComEd Email Coordination – Early 2020
- Lombard Park District – February 26<sup>th</sup>, 2020
- Glenbard Wastewater Authority – March 12<sup>th</sup>, 2020
- Mary Knoll Homeowner Association – March 18<sup>th</sup>, 2020
- Glen Ellyn Park District Coordination Meeting – September 16<sup>th</sup>, 2020
- CCSD 89 / Westfield Elementary School Coordination Meeting – September 28<sup>th</sup>, 2020
- Butterfield Park District Coordination Meeting – October 8<sup>th</sup>, 2020
- IDOT Coordination Meeting – November 5<sup>th</sup>, 2020
- IL American Water Company Coordination Meeting – November 5<sup>th</sup>, 2020
- Village of Lombard and Lombard Park District Coordination Meeting – December 22<sup>nd</sup>, 2020
- Village of Glen Ellyn Coordination Meeting – January 4<sup>th</sup>, 2021
- Lombard Park District Letter - November 10<sup>th</sup>, 2021
- FHWA/IDOT BDE Coordination Meeting – November 16<sup>th</sup>, 2021
- Various Email Coordination

Meeting summaries and letters are included in Attachment 8.

## 4.0 DESCRIPTION OF THE PHASE I ALTERNATIVES

### 4.1 ST. CHARLES ROAD TO IL 38

From St. Charles Road to IL 38, preferred alignment alternatives were selected based on the summation of data, technical analysis, comparative evaluation, and Steering Committee input. The following provides a description of alternatives to be carried forward into the Phase I Study.

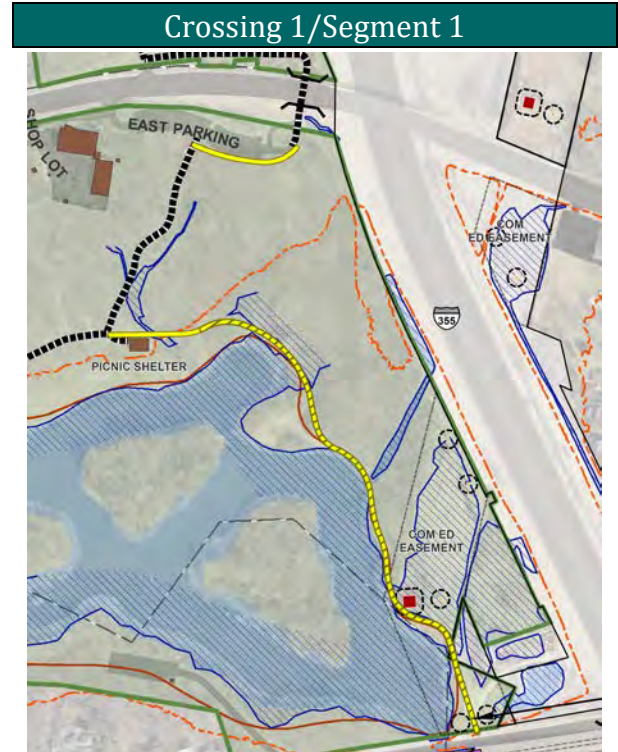
#### Crossing 1 – St. Charles Road

The existing 16'(w) x 10'-10"(h) concrete box culvert underpass west of I-355 will be utilized for the EBDRT.

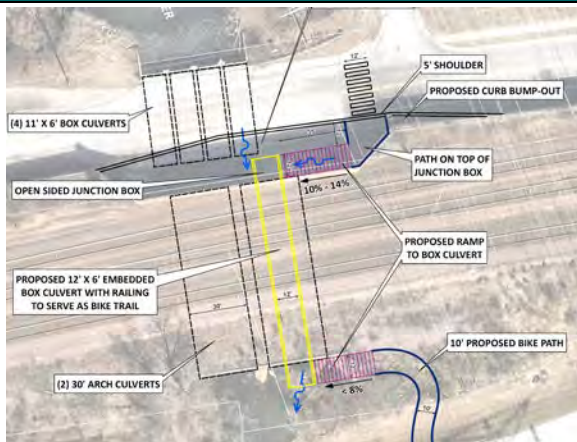
#### Segment 1 – St. Charles Road to Crescent Boulevard

From the existing underpass crossing, Segment 1 continues south within the Churchill Woods Forest Preserve along the south edge of the East parking lot, where it connects with the existing limestone screened trail headed south. A short length of new path will need to be constructed immediately north of the existing picnic shelter to connect the existing path with an existing access road to the east. The access road follows the eastern edge of the lagoon areas heading south.

Approximately 500 feet north of Crescent Boulevard, the Churchill Woods Forest Preserve access path merges onto ComEd-controlled property and the proposed path continues to follow an existing ComEd access drive further south. Segment 1 ends at Crescent Boulevard, designated as Crossing 2.



#### Crossing 2A



#### Crossing 2 – Crescent Blvd/UPRR/Hill Avenue

Two proposed crossing alternatives are progressing into Phase I due to Union Pacific's review timeline for new railroad crossings, as well as anticipated design constraints. Crossing 2A consists of a new, 12'(w) x 6'(h) box culvert to be placed within the existing east cell of the UPRR dual 30' diameter arch culverts. The top surface of the box culvert would be utilized as the riding surface for the path, with railings constructed and attached to both sides of the culvert. The box culvert would provide a minimum 8' vertical clearance to the top of the existing railroad culvert opening and would require

perpendicular ramps on each end of the culvert to transition from the existing ground elevation to the lower culvert elevation. The ramps would connect to Crescent Blvd and Hill Ave, where at-grade crossings would be constructed with curb bump-outs, pavement marking, signage, and other pedestrian safety accommodations.

Crossing 2B consists of a new 12-foot diameter bored tunnel through the UPRR retaining wall, located to the east of the river crossing. The tunnel would be bored at-grade with Crescent Blvd, providing a high level of flood protection and facilitating easier at-grade crossings of both Crescent and Hill. The UPRR tunnel would connect to Hill via a short stretch of path built at-grade. Pedestrian crossing accommodations would be similar to the Crossing 2A option, with curb bump-outs, pavement marking, and signage, among other safety accommodations.

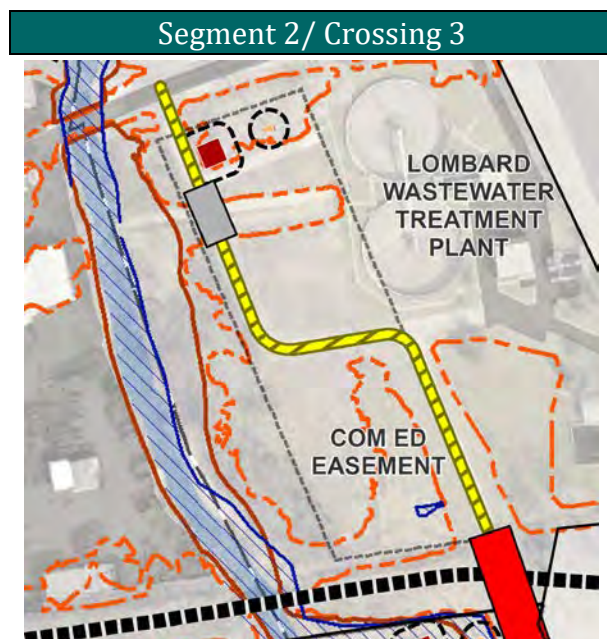
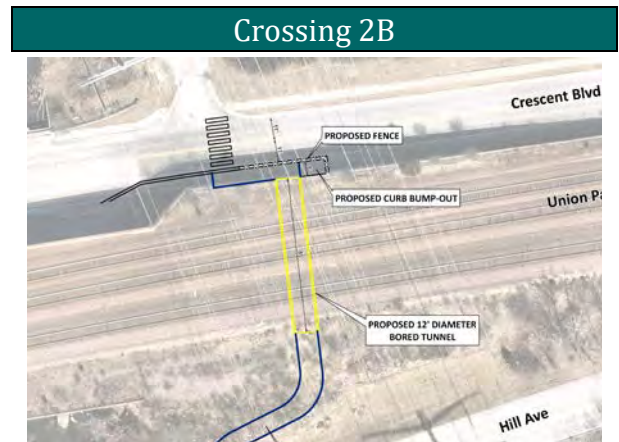
#### Segment 2 – Hill Avenue to the Illinois Prairie Path (IPP)

South of Hill Avenue, an existing maintenance roadway connects Hill to the Glenbard Wastewater Authority (GWA) and the Illinois Prairie Path (IPP). The existing maintenance path connects the two but is gated at Hill and the IPP. The proposed alignment would utilize the existing maintenance path or a separate parallel path to the roadway and relocate fencing and gating to maintain the security of the facility. Coordination with the Village of Glen Ellyn and the Village of Lombard indicated the route is feasible, however security must be maintained at

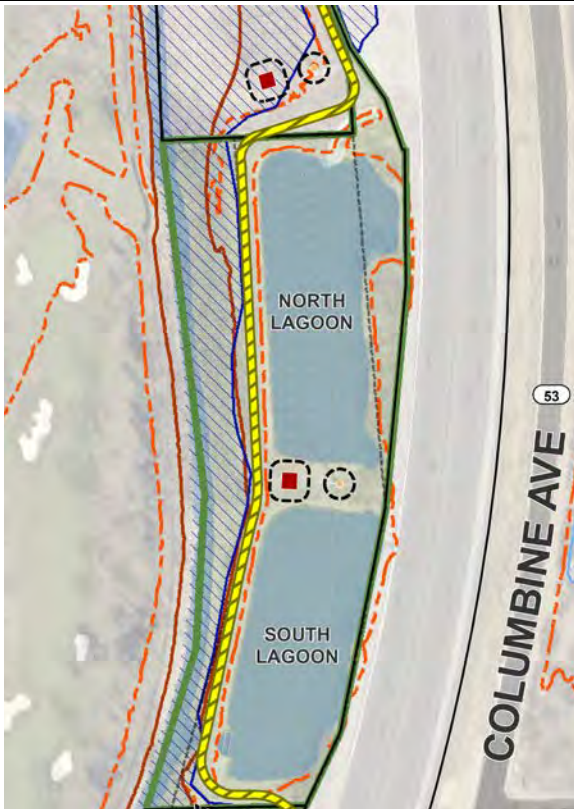
the wastewater facility. Therefore, detailed study is required prior to signoff from the GWA for use of their facilities.

#### Crossing 3 – Illinois Prairie Path (IPP)

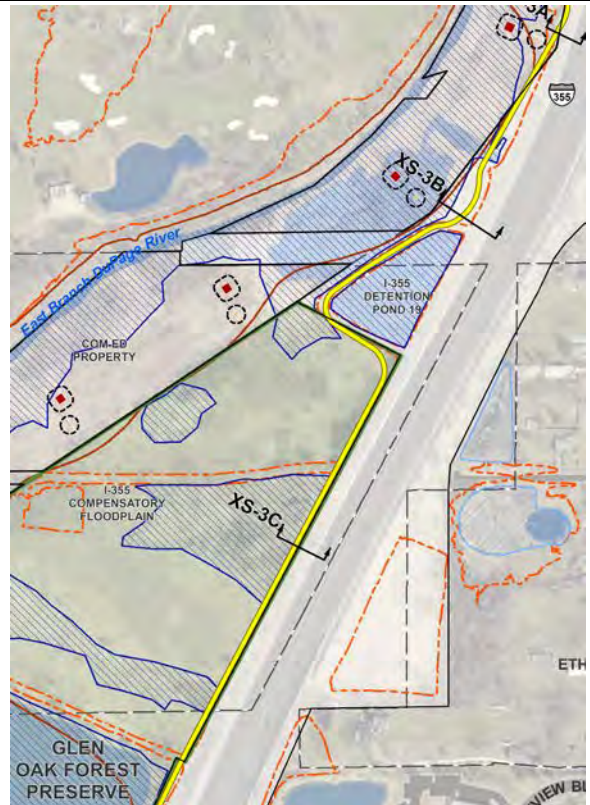
The existing crossing of the IPP intersected by the GWA maintenance driveways would be maintained as an at-grade crossing. This crossing will provide access to and from the EBDRT at the Prairie Path.



### Segment 3 Existing Access Road



### Segment 3 I-355 ROW Detail



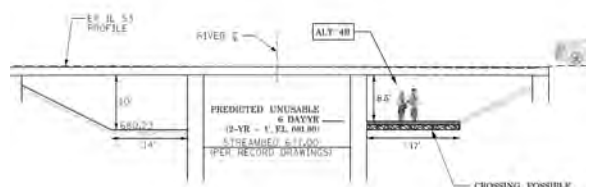
### Segment 3 – Illinois Prairie Path (IPP) to IL 53 (Fairview Avenue)

South of the IPP, a second GWA maintenance driveway leads south for approximately 2,000 feet adjacent to ComEd property and past two lagoons operated by the GWA. The EBDRT is proposed to follow the alignment of the existing maintenance drive, similar to Segment 2, until the driveway terminates. After its termination at the south lagoon, a new path alignment will continue south to follow the toe of I-355 embankment. The alignment generally continues south on the west side of the I-355 ROW but meanders through FPDDC holdings to avoid existing delineated wetlands, the I-355 detention facility, and the I-355 wetland mitigation site. Minor wetland impacts are anticipated through the Glen Oak Forest Preserve prior to the crossing at IL 53 (Fairview Avenue).

### Crossing 4 – IL 53 (Fairview Avenue)

Two IL 53 crossing alternatives are progressing into Phase I, with a below-grade crossing of IL 53 having been selected as the preferred alternative. The existing IL 53 bridge was designed to provide accommodations for a future bike path, leaving 14-foot wide shelves with 10 feet of vertical clearance below the low beam elevation. The elevation of these shelves, however, is very low and may have a high frequency of flooding. Vertical space exists to raise this shelf up to a maximum of 2 feet higher

### Crossing 4 Underpass



## Crossing 4 & Segment 4



for increased flood protection. However, impacts on the hydraulic capacity of the bridge must be confirmed in Phase I.

If the Phase I Study finds flooding to be too frequent and finds significant hydraulic impacts of raising the shelf below the bridge, it was generally agreed that a pedestrian overpass would be a recommended secondary alternative for the crossing. Due to the height required of an overpass, long ramps would be required on each side of the crossing but would be considered an acceptable tradeoff for user safety. The existing widened substructure of the IL 53 bridge could be utilized for either the below-grade crossing of IL 53 or the pedestrian overpass alternative.

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

The EBDRT would be constructed on the existing user-created path on a berm that bisects the East Branch Riverway Forest Preserve, which appears to have sufficient width to construct the 10-foot wide EBDRT at-grade. The existing berm begins approximately 200 feet west of the IL 53 crossing over the EBDRT. It runs approximately 600 feet south before turning southwest to follow adjacent to the EBDRT on its west bank to IL 38. The existing berm provides an approximately 2-year level of flood protection and is anticipated to minimize both boardwalk structures and wetland mitigation along the alignment. Special effort will be made to locate if there are any original berm plans, thus allowing filling to raise a 200-foot long section of the berm that has sunken below the 2-year elevation to match the rest of the berm elevation as a restoration project.

### Crossing 5 – IL 38 (Roosevelt Road)

The existing IL 38 bridge over the EBDRT does not have sufficient opening width to accommodate a new path within it. Separate below-grade and above grade alternatives were considered but proved not to be cost effective when considering the availability of a signalized intersection crossing to the west of the EBDRT near access to a commercial trip generator. The proposed alignment selected instead routes the EBDRT westward on the north side of IL 38 replacing the existing 5' wide sidewalk as an off-street path. The EBDRT continues west

approximately 1,500 feet to the signalized intersection at Baker Hill Drive and IL 38. The trail crosses the north leg of Baker Hill Drive, and then the west leg of IL 38 both at-grade. Since the Baker Hill Drive/IL 38 intersection already has existing pedestrian crossings on the north and west legs of the intersection, major traffic signal modifications are not anticipated.

## Segment 5: IL 53 ROW South of IL 38

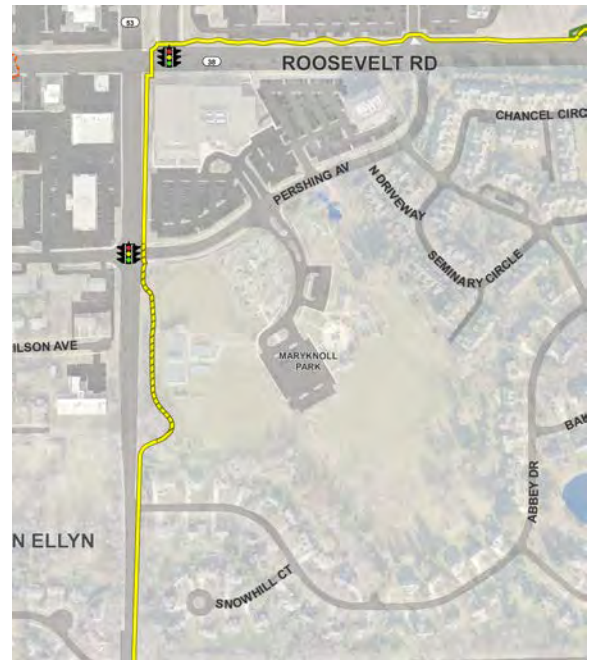


Segments 5 and 6 – (IL 38 to 22<sup>nd</sup> Street and 22<sup>nd</sup> Street to IL 56)

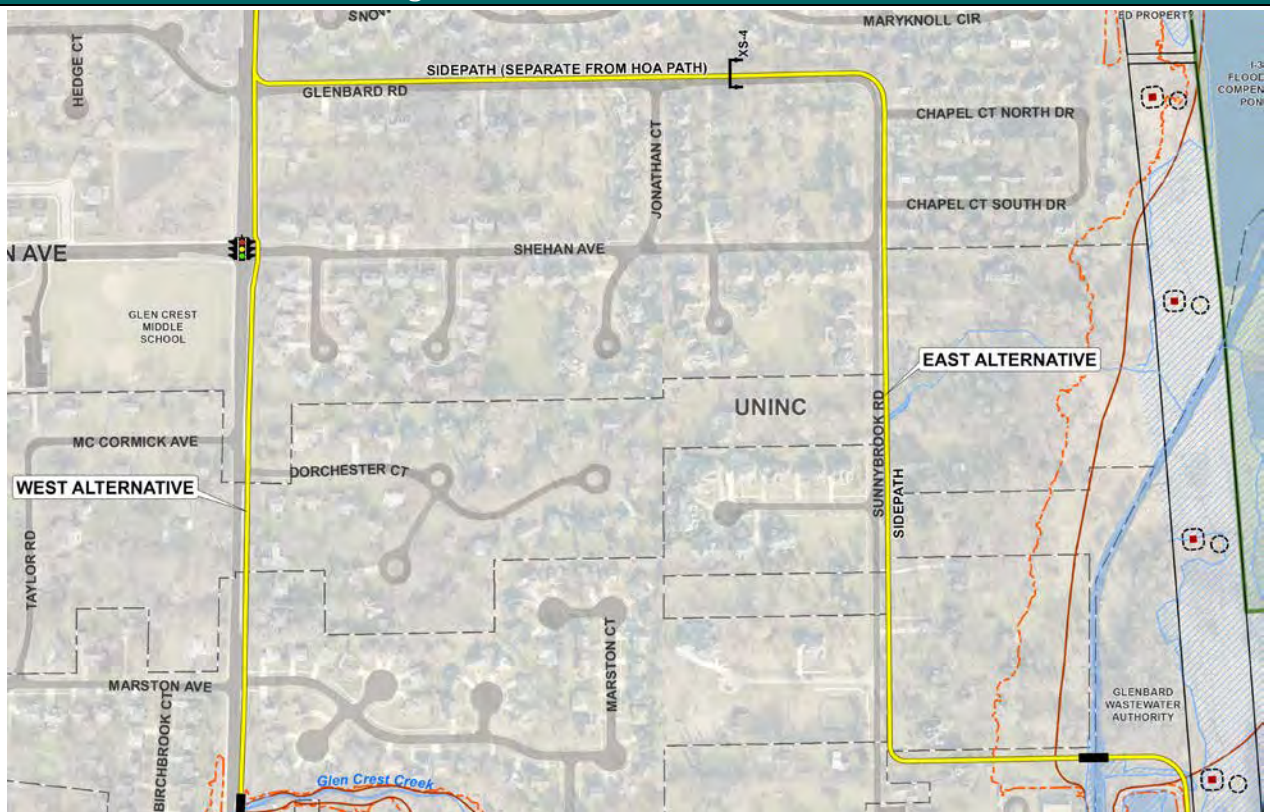
On the south side of IL 38, a 14' wide strip of turf grass follows IL 53 towards the south, above and adjacent to the large existing retaining wall carrying IL 53 below IL 38. The area lies within the IL 53 ROW, presumed to be used for maintenance access and utilities. The EBDRT will utilize this maintenance corridor to follow IL 53 south to Pershing Avenue as an off-street path. The existing concrete retaining wall along IL 53 is capped with a chain link fence, providing a barrier approximately 42" above grade within this corridor for pedestrian and vehicular safety, which is proposed to be maintained. No major impacts to this space are anticipated outside of minor tree removals.

South of Pershing Avenue, the EBDRT continues as an off-street path and follows the alignment of the Glen Ellyn

Crossing/Segment 5: IL 38 to Glenbard Rd



Segment 5: Glenbard Rd to 22<sup>nd</sup> Street

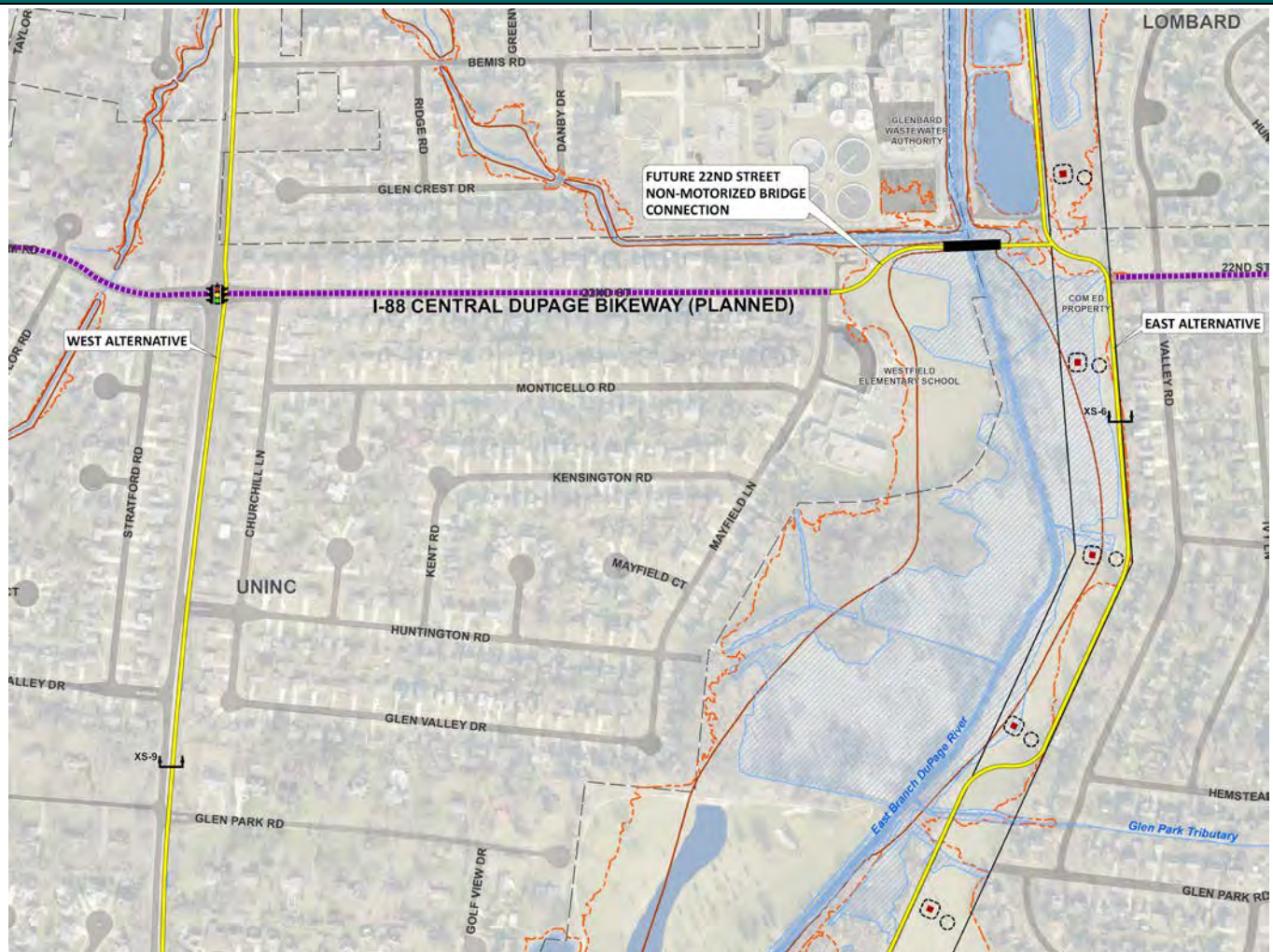


Park District multi-use path, turning east outside the IL 53 ROW and into Maryknoll Park, a Glen Ellyn Park District facility. The path continues to the south end of Maryknoll Park, where it then turns southwest to reconnect into the east side of the IL 53 ROW. From Glenbard Road to IL 56, there are two alternatives being carried forward for further investigation:

- South along the east side of IL 53 from Glenbard Road to IL 56
- From IL 53 to east on Glenbard Road to south on Sunnybrook Road to east along the Glenbard Wastewater Authority (GWA) north property line across the East Branch DuPage River to south along the GWA east property line to south within the ComEd ROW to south within the ComEd ROW or Lombard Park District property, DCSM property, and Illinois American Water Company properties to IL 56.

The preferred alternative will be determined as part of a future Phase I Study. Carrying forward two finalist alternatives does not preclude other alternatives from being considered as part of the Phase I Study process.

### Crossing and Segment 6: 22<sup>nd</sup> Street to McCarron Rd



## Segment 6 at IL 56



### Crossing 6 – 22<sup>nd</sup> Street

Stakeholders expressed consensus to include studying a non-motorized bridge connection across the EBDRT at 22<sup>nd</sup> Street in a future Phase I Study regardless of the preferred alternative to be determined. None of the alternatives studies from IL 38 to IL 56 preclude the construction of a non-motorized bridge connection at 22<sup>nd</sup> Street.

### Segment 6 at IL 56

At IL 56, the planned IL 56 widening project by IDOT will add a new multi-use path along the north side of IL 56. The EBDRT will connect into this path whether at IL 53 or at the ComEd ROW, and no additional improvements to the IL 56 at IL 53

signalized trail crossing are proposed. The IDOT-led IL 56/IL 53 improvement plan include an extension of the EBDRT south along IL 53 into the Hidden Lake Forest Preserve.

Refer to Attachment 9 for Alternatives to be Carried Forward into Phase I Studies.

## 5.0 RECOMMENDED NEXT STEPS

This Alignment Study summarized herein resulted in finalist alternatives from the Great Western Trail to Butterfield Road (IL 56). The next steps consist of undertaking Phase I Engineering and Environmental Studies (Phase I Studies) from the existing trailhead just north of St. Charles Road to the terminus at IL 56 for the proposed EBDRT. Based on the large alignment study area and scope, the Phase I Study limits are planned to be broken into more manageable logical termini as follows:

- Phase I Study from existing EBDRT just north of St. Charles Road to the Illinois Prairie Path
- Illinois Prairie Path to Roosevelt Road (IL 38)
- Roosevelt Road (IL 38) to Butterfield Road (IL 56)

IDOT and FHWA concurred with the first anticipated Phase I Study from St. Charles Road to the Illinois Prairie Path Scope and Logical Termini at the November 16, 2021 coordination meeting.

## 5.1 PHASE I STUDY CONSIDERATIONS

Phase I Studies will be developed in accordance with federal project development procedures and coordinated through IDOT-District One Bureau of Local Roads and Streets (IDOT-BLRS) to ensure eligibility for future federal funding opportunities. At this time, DuDOT anticipates submitting the EBDRT for grant funds, which may require substantial completion of Phase I Studies for the limits of the project included in the application.

The existing portion of the EBDRT within the Churchill Prairie Nature Preserve connects the Great Western Trail to the FPDDC rangers' station just north of St. Charles Road. The FPDDC has indicated no improvements are planned for the existing portion of the EBDRT; however, they have requested improvements to the ranger station driveway north of St. Charles Road to improve safety in connecting the existing trailhead to the proposed EBDRT south of St. Charles Road. Since the existing portion of the EBDRT north of St. Charles does not require further modification, the effective north limit of the first Phase I Study is the existing EBDRT trailhead just north of St. Charles Road.

The south limit of a future Phase I Study is the IL 56 at IL 53 signalized intersection. This portion of the path will connect to the future east-west multi-use path to be constructed along the north side of IL 56 during the IL 56 widening project.

The Phase I Studies include IDOT environmental and technical reviews. The required level of effort to complete a Phase I Study is dependent upon several project-specific factors: the extent of new or modified structures (widen existing bridges, new crossings of the East Branch DuPage River (EBDR), elevated boardwalks, retaining walls) that will be part of the EBDRT; the associated hydraulic analyses and reports; bridge structure reports; and Type, Size and Location (TSL) drawings (and associated geotechnical investigations). IDOT may require the aforementioned reports to be completed as part of a Phase I Study. While finalist alternatives have been determined for the Phase I Study limits, several crossing alternatives are dependent on the engineering and environmental studies to be completed in Phase I. a

While permitting normally occurs in Phase II, coordination with the UPRR for the proposed underpass is anticipated to take several years based on other similar projects and previous coordination with UPRR. UPRR and ICC coordination is not anticipated to be completed within the 18-month schedule for Phase I, and is thus expected to begin in Phase I and continue into Phase II.

Based on coordination completed with ComEd during this Alignment Study, ComEd does not want any real estate petitions to be submitted to them for review until final structural drawings have been completed (i.e.; Phase II).

Completion of the Phase I Studies will be documented in a Project Development Report (PDR) that is anticipated to be a Categorical Exclusion Group II (Federal CE, IDOT BLRS Form 22210) based on the potential for instream work and environmental impacts associated with waters of the US/wetlands, East Branch DuPage River (EBDR) floodway/floodplain, tree removal, etc.

The Phase I tasks will include full ROW, wetland, hydrologic impact assessments, and further agency coordination to lay the groundwork for future design plans.

Public Information Meetings (PIMs) are planned be held during the Phase I Studies to present the preferred or finalist alternative(s) and their design elements for review and comment. PIMs provide an opportunity for a

larger cross section of project stakeholders to provide input and express any concerns at an early stage of project development, thereby ensuring that all issues/concerns are identified and considered as part of the overall project development process.

## **5.2 FUTURE PROJECT DEVELOPMENT**

At an undetermined point during future engineering stages, it is anticipated that sections of the trail will be further segmented by logical termini. By splitting the EBDRT into smaller segments for project development, segmentation of the regional trail will allow stakeholders to make those segments more manageable for the purposes of seeking grant funds and constructing major crossings. The County has identified multiple grant funding sources for Phase I Engineering and future construction including: the Congestion Mitigation and Air Quality (CMAQ)/Transportation Alternatives Program (TAP-L), Surface Transportation Program (STP) regional fund, the Illinois Transportation Enhancement Program (ITEP), and the Federal Regional Trail Program (RTP) through the Illinois Department of Natural Resources.

# **Attachment 1**

## **Location Map**



CLIENT:



**DUPAGE COUNTY  
DEPARTMENT OF  
TRANSPORTATION**

TITLE:

**EAST BRANCH DUPAGE RIVER TRAIL  
PROJECT LOCATION MAP**

PROJ. NO. 190277

DATE: 12/06/2021

SHEET 1 OF 1

DRAWING NO.



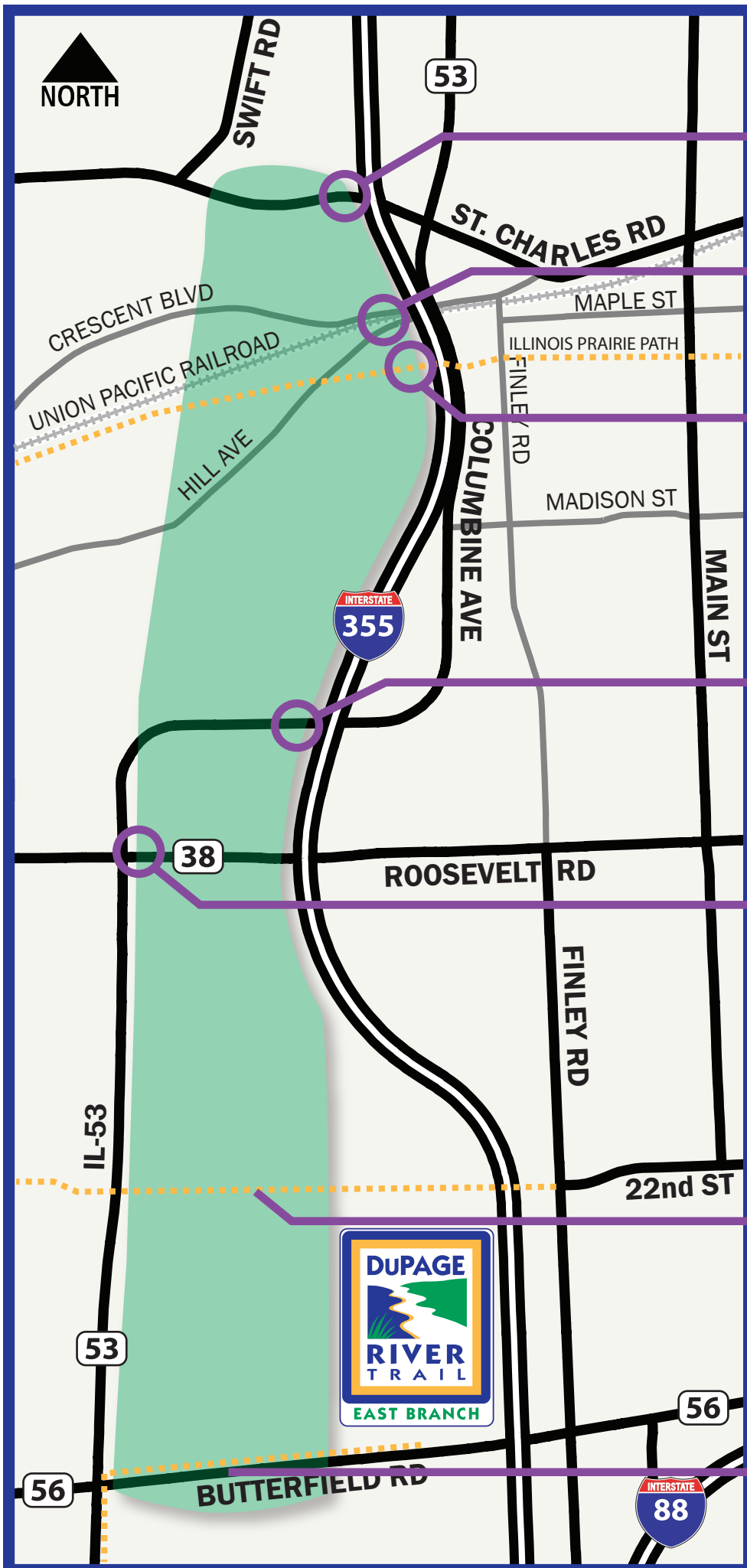
**CHRISTOPHER B. BURKE ENGINEERING, LTD.**  
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.	DRW	SCALE:	1:36,000
DWN.		AUTHOR:	DWALTERS
CHKD.		PLOT DATE:	12/6/2021
FILE:	Location Map 12062021		

**EXH 1**

# **Attachment 2**

## **Alternatives Evaluation Key Map**



**CROSSING 1** - ST. CHARLES RD

**SEGMENT 1**  
ST. CHARLES RD TO CRESCENT BLVD

**CROSSING 2** - CRESCENT BLVD/UPRR/HILL AVE

**SEGMENT 2**  
HILL AVE TO ILLINOIS PRAIRIE PATH

**CROSSING 3** - ILLINOIS PRAIRIE PATH

**SEGMENT 3**  
ILLINOIS PRAIRIE PATH TO  
FAIRVIEW AVE (IL 53)

**CROSSING 4** - FAIRVIEW AVE (IL 53)

**SEGMENT 4**  
FAIRVIEW AVE (IL 53) TO  
ROOSEVELT RD (IL 38)

**CROSSING 5** - ROOSEVELT RD (IL 38)

**SEGMENT 5**  
ROOSEVELT RD (IL 38) TO FUTURE  
22ND ST/I-88 CENTRAL DUPAGE  
BIKEWAY (PLANNED)

**CROSSING 6** - FUTURE I-88 CENTRAL  
DUPAGE BIKEWAY (PLANNED)

**SEGMENT 6**  
FUTURE 22ND ST/I-88 CENTRAL  
DUPAGE BIKEWAY (PLANNED) TO  
BUTTERFIELD RD (IL 56)

BUTTERFIELD ROAD (IL 56)

PROJECT LIMIT

# **Attachment 9**

## **Identified Corridors for Further Study**

# LEGEND

- CONCEPT ALTERNATIVES
- EXISTING EBDRT
- PROPOSED EBDRT (BY OTHERS)
- FOREST PRESERVE
- HYDROLOGY
- 100-YEAR FLOODPLAIN
- FLOODWAY
- PRE PHASE I STUDY CORRIDOR

0 0.25 0.5  
Miles

