

MEMO

TO:	The Bloomington Common Council
FROM:	Scott Robinson, Director of Planning & Transportation
DATE:	07/20/2023
RE:	Old State Road 37 and Lower Cascades Park

Lower Cascades Park, where Old State Road 37 once provided the northern gateway entry into the City, is one of our oldest community-sized parks. Today, many improvements and changes have happened within and surrounding Cascades Park, raising important transportation mobility considerations about accessing the Park or traveling within the surrounding area. In a broad context, mobility within the park, mobility to and from the park, and mobility surrounding the Park have similar and at times conflicting priorities. Through prior policy guidance from the *2002 Growth Policies Plan* and the *2008 Bicycle and Pedestrian Transportation & Greenways System Plan*, the City established mobility guidance that contributed to multimodal improvements within the area. Further, the *2018 Bloomington Comprehensive Plan* and *2019 Transportation Plan* continued policy support, prioritization, and design standards for multimodal improvements in the area.

The following list provides a 20-year account of efforts to identify and implement trail connections to and within the Cascades Park area:

- *2002 Growth Policies Plan* - Classifies Old SR 37 as a Secondary Collector, which identifies sidewalks as a priority. The Plan's Mitigate Traffic Policy 2: Enhance Bicycle and Pedestrian Transportation Facilities specifies the City implement "alternative transportation projects annually as outlined in the City's (2001 - Resolution 01-24) Alternative Transportation Plan and Greenways System Plan". <https://bloomington.in.gov/sites/default/files/2017-07/Growth%20Policies%20Plan%202002.pdf>
- *2008 Bicycle and Pedestrian Transportation & Greenways Systems Plan* - This Plan prioritized over 75 projects, including the Cascades Trail network. The Cascades Trail network was prioritized as either a "medium" or "low" priority project due to implementation timings. <https://bloomington.in.gov/sites/default/files/2017-07/Bicycle%20and%20Pedestrian%20Transportation%20%26%20Greenways%20System%20Plan%202008%20%28reduced%20size%29.pdf>

- *2007 Bicycle/Pedestrian Feasibility Study: Cascades Park - Miller Showers to Griffy Lake* - This \$44,900 study evaluated the proposed network into 18 segments (A-R), which were grouped into 11 priority improvement phases. The highest identified priority was the segment between Miller-Showers Park and the central portion of Lower Cascades Park.
- *2008 Bicycle & Pedestrian Transportation & Greenways System Plan:*
<https://bloomington.in.gov/sites/default/files/2017-07/Bicycle%20and%20Pedestrian%20Transportation%20%26%20Greenways%20System%20Plan%202008%20%28reduced%20size%29.pdf> -
- *2008 Rose-Hulman Institute of Technology Senior Capstone Report - Cascades Creek Streamside Restoration-* concluded the “stream has excess energy that will continue to erode the bed and banks” and recommended a three-phase plan: stabilization, bank grading and alignment, and erosion protection through vegetation and boulder revetments.
- 2009 - \$132,553 design Phase 1 of the Cascades network: Sidepath from Clubhouse Drive to Stone Mill Road (~1.0 mile)
- *2009 Redefining Prosperity: Energy Descent and Community Resilience*
<https://bloomington.in.gov/sites/default/files/2017-07/peakoil.pdf> - This Council-led document outlines strategies to mitigate the effect of declining fuel supplies in areas including, but not limited to, transportation, municipal services, energy production and consumption, food security, water, and wastewater.
- *2011 Breaking Away Journey to Platinum* - specifies bicycle friendly community indicators for Quality of Life, Health Promotion, Environmental Harmony, and Economic Resiliency.
- 2012 - \$637,000 construction of Phase 1 Cascades network from Club House Drive to Stone Mill Road (~1.0 mile).
- 2014 - \$476,000 construction of Phase 2 Cascades network along Club House Drive from Old SR 37 to the Cascades Club House/Upper Cascades playground (~0.7 mile).
- 2016 - \$68,700 design funds approved (\$51,800 spent) of Phase 4 of the Cascade network (~0.6 mile).
- 2016 Resolution 16-14 designates Old S.R 37 as a designated U. S. Bicycle Route - Route 235; approved by council on November 16, 2016 with a 9-0 unanimous vote.
https://bloomington.in.gov/onboard/legislationFiles/download?legislationFile_id=110 -
- 2017 - \$1,562,783 construction and design of Old SR 37 and Dunn Street intersection alignment and trail connection from Stone Mill Drive to Griffy Dam (~0.35 mile).
- *2018 Bloomington Comprehensive Plan* - Chapter 6: Goal 6.1 Increase Sustainability, Goal 6.3 Improve the Bicycle and Pedestrian Network, and Goal 6.4 Prioritize Non-Automobile Modes. <https://bloomington.in.gov/sites/default/files/2018-04/Final%20Council%20Amended%20CMP%20%20Web%202.pdf>
- 2018 Bicentennial Bond, Resolution 18-22 - Funding for a trail connection from Clubhouse Drive to College Avenue and combined with funding for trails at Griffy Lake. The Resolution supporting a bond for \$3,865,000 stated “to finance certain capital improvements at facilities operated by the City of Bloomington Parks Department including the design, acquisition and construction of (i) trails at Griffy Lake, (ii) a trail from Clubhouse Drive to College Avenue at Cascades Park, and (iii) all related and incidental expenses incurred in connection therewith...”

- Current Status:
 - \$3.5 million Bicentennial Bond Series B funding approved - plus \$119,000 interest
 - \$1,250,000 for trails at Griffy Lake (Loop Trail)
 - \$2.1 million for a trail from Clubhouse to College Avenue at Cascades Park
- Expenditures to Date:
 - Cascades Phase 5 - after pilot project was conducted; road improvements; creek stabilization. accessible trail to waterfall(~0.25 mile) - \$1,316,720
 - Trails at Griffy Lake (Loop Trail) - \$1,593,425
 - 7-Line Overage: \$622,455
- 2018 Sustainability Action Plan, Resolution 18-19 approving the *Bloomington Sustainability Action Plan* was approved 8-0 on October 31, 2018 - Goal 1.2a Conduct a climate vulnerability assessment, Goal 3.3 Achieve bicycle and pedestrian fatality rates of zero by 2023, Goal 3.4 Achieve the Walk Friendly Communities Platinum level designation by 2022, and Goal 3.5 Achieve the League of American Bicyclists Platinum Rating by 2022.
<https://bloomington.in.gov/sustainability/action-plan>
- 2019 *Transportation Plan* - Identifies the Bicycle Facilities Network: Figure 20 includes a multiuse network for the Cascades area.
<https://bloomington.in.gov/sites/default/files/2020-02/Transportation%20Plan%20Online%20Complete%20Draft%20with%20Appendices%20reduced.pdf>
- 2021: *Climate Action Plan*, Resolution 21-08 accepting the City of Bloomington Climate Action Plan was passed unanimously on April 21, 2021.
- 2022 General Obligation (GO) Bond - \$800,000 to \$960,000 design for the North Dunn Street Path. The planned 1.3 mile path provides connectivity to Griffy Lake Nature Preserve along one side of North Dunn Street from SR 45/46 to Old SR 37.

Even with these many plans and goals, there is a missing link 0.85-1.00 miles long between Miller Showers Park and Lower Cascades Park. Upon review, Planning staff determined there to be four alternatives for moving forward to meet mobility needs of the area, each with trade-offs regarding mobility, sustainability, and environmental outcomes, additional steps to implement, and associated costs. As there are many assumptions and unknowns at this time, selecting a preferred option will require additional steps so more detailed information is available to further guide implementation. The Administration seeks the Common Council's direction on their preferred alternative so these next steps can be taken. In no particular order, the four alternatives identified to connect Miller-Showers through Cascades Park are as follows:

- **No Build:** requires streamside stabilization, annual roadway maintenance, construction of a complete sidewalk network to access the area's parks, and amendments to the *Transportation Plan* and *Comprehensive Plan*
- **New Multi-Use Path/Trail:** build a new separated path that crosses over the creek at some point (or points) to join with the existing (Phase 5) trail project; requires streamside stabilization and annual roadway and trail maintenance

- **One-Way Road with Multi-use Path:** requires streamside stabilization, road width improvements for barrier between roadway and multi-use path, and annual roadway and path maintenance.
- **Road Conversion to Multi-use Path/Trail:** convert the road into a pedestrian and bike trail facility; requires streamside stabilization, roadway and private access improvements, parking improvements, and annual trail maintenance.

Below is a summary of general assumptions that are considered and will be part of the implementation of the preferred implementation (not in any order of preference):

- **Emergency Services:** Access to the Park for emergency services may change. People experiencing homelessness frequently use various areas of the Park as shelter. Other users of the Park also may need emergency services. This issue is similar to other parks in Bloomington.
- **Turnarounds/Parking/IMI Access:** Design may need to account for possible vehicle turnaround areas and/or additional parking and access to Irving Materials Incorporated (IMI) property.
- **Connectivity:** Access and mobility accounts for multi-modal connectivity to Miller Showers Park, Upper Cascades, Griffy Lake Nature Preserve, Ferguson Dog Park, and Bloomington High School North. Access to ADA-accessible parking areas is a priority. Facilities are designed to meet ADA standards.
- **Utilities infrastructure:** This corridor contains major CBU sewer infrastructure and storm infrastructure. Improvements are needed and the park will accommodate infrastructure access for infrastructure improvements and maintenance.
- **Road/Trail Width:** Design will need to evaluate the roadway width to account for transportation and long-term maintenance needs if the road conversion to multi-use path/trail alternative is not selected.
- **Traffic Signal Improvement:** The signal at N. Walnut and Old SR 37 may need to include a left turn signal onto Old SR 37 into Cascades Park. Indiana University sporting events do create “game day” traffic changes. Additional strategies can be employed to mitigate traffic and safety concerns. Recent Average Daily Traffic (ADT) counts taken in November 2021, between Gourley Pike and Club House Drive are 307 (weekday), 331 (Saturday - no IU Football Game) and 282 (Saturday IU Football Game).
- **Creek Crossing(s):** Designs may need to consider a new bridge to access the existing trail system on the west side of the creek. The multi-use path/trail alternative will require one or more new bridges to connect to the existing trail.
- **Streamside Stabilization:** In 2021, floodwaters damaged the roadway and demonstrated the need to comprehensively address streamside stabilization. Removing the spillway and adding boulder revetments, plantings, and alignment are previously-identified needs. The roadway restoration cost \$168,500 for included roadway milling, resurfacing, pavement markings, and guardrails. The Federal Highway Administration (FHWA) report “Addressing Resilience to Climate Change & Extreme Weather in Transportation Asset Management,”

issued in April 2023, is a handbook to help practitioners incorporate natural hazard resilience into transportation facilities. Flooding and precipitation present environmental conditions that could impact pavement, bridges, culverts, slopes and soils, and mechanical and electrical equipment (Table 3-1 - <https://www.fhwa.dot.gov/asset/pubs/hif23010.pdf>). This section of roadway may be at a higher vulnerability than other transportation facilities in the area.

- **IDEM Mitigation Site:** The former motorcycle garage is capped in asphalt that must remain, which currently serves as a parking area. Designs will need to consider parking options and access from the south into the park.
- **Neighborhood and Regional Destination:** Lower and Upper Cascades Parks are resources for local and regional residents. The park is located close to the Blue Ridge, Fritz Terrace, Northwood Estates, and North Kinser Point neighborhood, as well as other adjacent residential areas to the south, west, and north. The park’s many amenities are also a draw for users from across Bloomington and the region. Providing multi-modal access to the park would allow all of these user groups to enjoy getting to the park, with or without a car.
- **Cascades Phase 4:** How do the decisions change priorities and/or completed design for Cascades Phase 4—from the Cascades Clubhouse to Kinser Pike, terminating at Acuff Road—connecting Bloomington High School North and neighborhoods north of Cascades Park. A 2017 estimate for construction was \$850k, and additional funding may be needed for golf course hole redesign.

Each alternative provides trade offs with the aforementioned assumptions and unknowns. Using our best reasonable assumptions the “no build” option would be the lowest-cost, and a separated multi-use path/trail would be the highest-cost option. The “one way with multi-use path/trail” and “road conversion to multi-use path/trail” alternatives would be similarly and moderately-priced. All options would require streamside stabilization and utility improvements along with annual maintenance needs. Note that the actual implementation costs are difficult to estimate until more details can be determined through the preliminary design process.

The “no build” option would leave unmet mobility and connectivity issues for the area's destinations, as it would not provide park access for pedestrians, bicyclists, or any non-motorist users accessing the park from the south. Additionally, this alternative presents a significant divergence in over 20 years of policy guidance and trail implementation, as past investments and guidance support a trail/path network system in this area: Cascades Phase 4 has preliminary designs for a multi-use path, and North Dunn Street also has funding to implement a multi-use path connecting to Griffy Lake Nature Reserve.

The separated “multi-use path/trail” would be consistent with policy guidance but would be the most expensive to implement, roughly estimated at approximately \$3 million with an additional \$600k needed for design and permitting (not including improvements for streambank stabilization or needed utility improvements). For comparison, the B-Line Trail extension from Adams Street to 17th Street (~0.8 mile long) is currently anticipated to cost over \$4.3 million for right of way, design, and construction.

The possibility exists for more than one stream crossing, and impacts to environmental resources are likely unavoidable due to steep slopes, trees, and the narrow sections between the streambank and hillside.

The “one way with multi-use path/trail” and the “road conversion to multi-use path/trail” options present opportunities to significantly reduce costs and may reduce some anticipated impacts to environmental resources, compared to the separated “multi-use path/trail” alternative. The direction of the one-way street presents trade-offs as far as which direction provides the most benefit. Typically, one-way streets are paired with another parallel one-way street that carries traffic in opposite direction, so the one-way couplet can address access and mobility needs. In this alternative, there is no one-way couplet opportunity, as the width of the existing roadway (approximately 20 feet) is too narrow for this alternative. The roadway width would need to be 30-32 feet wide (10’ trail, 4’ barrier, 10’ vehicle lane, 6-8’ shoulder), which is not feasible without widening the roadway.

The “road conversion to multi-use path/trail” alternative offers similar opportunities to reduce costs and impacts to environmental resources as the prior two alternatives. This option also avoids challenges related to not implementing a one-way couplet. Reusing the existing roadway offers opportunities to minimize raw construction materials and reduce other resources needed for new construction. The section of roadway that would be closed to vehicular traffic is less than 500 vehicles per day, and the majority of these trips are likely not associated with park users, but rather through traffic which can be easily accommodated on adjacent roadways. Therefore, the Administration recommends supporting the “road conversion to multi-use path/trail” alternative. It is up to the Council to decide on closure (this option) or not (and one of the other three alternatives), and the Administration can identify budget needs and a plan to implement the preferred alternative.