

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE: Interurban Trail - Pedestrian & Bicycle Crossing Alternatives Analysis and Recommendation
DEPARTMENT: Public Works
PRESENTED BY: Kirk McKinley, Aurora and Interurban Project Manager

PROBLEM/ISSUE STATEMENT:

Policy T-39 of the Comprehensive Plan states: "Aggressively pursue construction of the Interurban Trail." Council Goal #1 states: "Work toward completing the Aurora and Interurban Trail projects." In pursuit of these goals and policies, Council has included four sections of the Interurban Trail for construction in the next few years. Currently, the South section (145th – 155th) is under construction. Council is tentatively scheduled to consider award of construction for the North section (between 192nd and 200th) on October 27. The South Central section of the trail will run from approximately 158th to tie in with the newly constructed trail through TOP Foods (175th). The design process for the South Central section began in October, with construction slated for Spring of 2004. The Interurban Trail Pedestrian & Bicycle Crossing project is slated for construction in 2005.

ALTERNATIVES ANALYZED:

On June 23, 2003 the City entered into a contract with CH2M Hill to undertake an alternatives analysis for the Interurban Pedestrian & Bicycle Crossing between approximately 155th and 158th. Over the past three months, staff and consultants have been analyzing alternatives for the proposed crossing. The project team initially identified over 25 alternatives. These were narrowed down to five for more in-depth analysis. A public open house on the alternatives was held on September 17, 2003. Over 50 citizens, businesses, and property owners attended this session, and provided valuable input on the alternatives and on the evaluation criteria. Open House invitations were sent to an Interurban Interested Parties list, all businesses and property owners in the vicinity, and to households along Midvale between 155th and 158th. In addition to the Open House, individual meetings were held with key businesses and property owners prior to developing alternatives, and after the Open House.

The five alternatives are:

- A2 -- At-Grade Option
- D1 -- Elevated Option
- D5a -- Loop Ramp Option
- D5b -- Westminster Option

- E2 -- Midvale Option

FINANCIAL IMPACT:

The adopted 2004-2009 Capital Improvement Program (CIP) includes a budget of \$3,634,292 for the Pedestrian & Bicycle Crossing project. The funding for the project is from four grant sources, and Roads Capital Fund. The Grants covers \$3,117,117 and the Roads Capital covers \$517,175. The Target Zero grant of \$534,292 will cover the design for the project, leaving approximately \$3,100,000 for construction. The alternatives analysis has been funded through Roads Capital Funding. This effort cost \$49,962. The recommended option is estimated to cost \$3.8 million, but has the opportunity to reduce costs.

RECOMMENDATION

Staff recommends that the Council direct staff to proceed with design for the Interurban Pedestrian and Bicycle Crossing Loop Ramp Alternative and that the design be prepared with the 155th bridge as an additive bid item (this will allow the option to delay or not include the 155th crossing if necessary later on). Staff also recommends a truss or arch design. Direction from the council on bridge style is requested.

Approved By: City Manager  City Attorney 

INTRODUCTION

Policy T-39 of the Comprehensive Plan states: "Aggressively pursue construction of the Interurban Trail." Council Goal #1 states: "Work toward completing the Aurora and Interurban Trail projects." In pursuit of these goals and policies, Council has included four sections of the Interurban Trail for construction in the next few years. Currently, the South section (145th – 155th) is under construction. Council is tentatively scheduled to consider award of construction for the North section (between 192nd and 200th) on October 27. The South Central section of the trail will run from approximately 158th to tie in with the newly constructed trail through TOP Foods (175th). The design process for the South Central section began in October and is slated for construction in Spring of 2004.. The Interurban Trail Pedestrian & Bicycle Crossing project is slated for construction in 2005.

BACKGROUND

The Pre-Design Report prepared by OTAK in 2001 recommended a bridge alternative design that was a post tension elevated structure. The cost of this bridge is beyond the budget allocated in the CIP. The Council allocated \$50,000 general fund monies in the 2003-2008 CIP for the bridge alternatives analysis.

On June 23, 2003 the City entered into a contract with CH2M Hill to undertake an alternatives analysis for the Interurban Trail Pedestrian & Bicycle Crossing between approximately 155th and 158th. Over the past three months, staff and consultants have been analyzing alternatives for the proposed crossing. A public open house on the alternatives was held on September 17, 2003. Over 50 citizens, businesses, and property owners attended this session, and provided valuable input on the alternatives and on the evaluation criteria. Open House invitations were sent to an Interurban Interested Parties list, all businesses and property owners in the vicinity, and to households along Midvale between 155th and 158th. The comments received at the open house are attached (Attachment C). In general, there was significant support for the bridge. The most favored alternative was the Elevated Option, followed closely by the Loop Ramp and Westminster Option.

ALTERNATIVES ANALYSIS

Initially, over 25 alternative crossing alignments were developed by the staff and consultant team. Of these, five were selected for detailed analysis and evaluation. Eight different evaluation criteria were developed. These include: access/connectivity, constructability, whether the project meets agency guidelines, expresses community identity, visual impacts to businesses/properties, anticipates or promotes future development, cost to construct, and cost to maintain. The evaluation summary is attached (Attachment B). A brief description of the five alternatives is below.

Cost estimates have been generated for each alternative. The Evaluation Matrix (Attachment B) includes costs presented as ranges. The costs in the table below and in the alternatives descriptions are more recent. The right-of-way and design costs have

been inflated to 2004, and the construction to 2005. The cost estimates include right-of-way (when needed), construction administration, and a 30% contingency.

Interurban Trail Crossing Options Cost Summary					
	Option A1 At-Grade Option	Option D1 Elevated Option	Option D5a Loop Ramp Option	Option D5b Westminster Option	Option E2 Midvale Option
Right of Way Costs	\$645,000	\$0	\$248,000	\$248,000	\$760,000
Total Estimated Project Cost	\$2,252,000	\$4,510,000	\$3,800,000	\$3,800,000	\$4,030,000

Option A2: At Grade Option

Option A2 proposes to cross Aurora Avenue at the 155th Street intersection at-grade. This option would construct a paved path adjacent to the sidewalk on the south side of 155th Street along the Safeway property. Right-of-way would need to be acquired for this and parking at Safeway would be impacted. This option proposes a realignment of Midvale to line up with the Safeway entrance, and a traffic signal would be installed at this location on 155th Street. After crossing 155th at-grade, the trail would share the roadway with Midvale Avenue to 160th Street. This option proposes to construct bike lanes and sidewalks along Midvale. At 157th Street, a trailhead would be constructed and a path paved to bring the trail to the Interurban corridor.

Several at-grade options were explored in this Project Study. Option A2 was considered further because of its added benefits of improving the Midvale/Safeway/155th intersection. This option does not improve safety for trail users. At-grade crossings are not desirable for safety of trail users and for ease of use for bike riders. This option also makes trail users share Midvale Avenue with vehicles. The at-grade slope along Midvale is very steep and exceeds ADA guidance for acceptable slopes for wheelchair users. Other concerns with this option are impacts to Safeway parking, which is already limited, and right-of-way acquisition needs.

This Option is estimated to cost approximately \$2.3 million. It is important to note that Option A2 will cause the City to forfeit the federal grant funding for the project.

Option D1: Elevated Option

Option D1 proposes an elevated trail along the traditional Interurban alignment. The trail would be a concrete bridge structure from the Pershing bulkhead through the Seattle City Light right-of-way adjacent to Aurora Avenue, and diagonally crossing Aurora Avenue and touching down within the Interurban corridor on the east side of Aurora south of 160th Street.

This option presents the most efficient and logical route for trail users. Because the entire trail is elevated, this option provides the most safety benefits for trail users,

limiting conflicts with vehicles. The trail option does not negatively affect access to business, however, it does not provide access to businesses or access to at-grade connections. Because of the structure type and thickness, it presents negative visual impacts to Westminster Triangle businesses. It also presents conflicts with Seattle City Light future expansion.

Option D1 is estimated to cost approximately \$4.5 million, which exceeds the current project budget of \$3.6 million.

Option D5a: Loop Ramp Option

The Loop Ramp Option presents a phased approach to completing a trail connection through the Interurban corridor. This option proposes to construct Trail bridges over 155th Street and Aurora Avenue. Ramps would bring trail users down to grade through the Westminster Triangle area between the two bridges. This option proposes steel arch bridges, steel truss bridges, or a combination of these bridge types.

This option provides safety benefits of grade crossings for trail users, yet it does not have the visual impacts that the Elevated Option would have. Other benefits of this option are that it provides access to businesses and provides access to at-grade connections. This option does not limit development opportunities in the Triangle area, and future development could integrate the trail into the development. The long-term vision of the trail may be to keep it elevated without slopes up and down to grade, and this option could allow that to happen in phases with redevelopment. The types of bridges proposed for this option have a likelihood of generating positive reaction and present the opportunity to construct a “landmark” or “gateway” element.

The ramps as proposed in this option are not desirable for bike riders, since they would require users to make sharp turns and go up or down a steep incline. This Option also presents parking impacts to Pizza Hut property that could be mitigated.

Option D5a is estimated to cost approximately \$3.8 million. The project team will look at ways to reduce cost to complete the project within the current \$3.6 million budget. An example would be for the Aurora project to cover some aspects of this project, such as the having the trail serve as the sidewalk for Aurora in the section between the two ramps (this would reduce the costs to approximately \$3.64 million). Option D5a could also phase or eliminate the 155th Street crossing to save additional costs. This approach is estimated to bring the total cost down to \$2.5 million.

Option D5b: Westminster Option

The Westminster Option is similar to the Loop Ramp Option except that the alignment is proposed to go around the Westminster Triangle development. This option proposes to construct Trail bridges over 155th Street and Aurora Avenue. Ramps would bring trail users down to grade around the Westminster Triangle area between the two bridges. This option proposes steel arch bridges, steel truss bridges, or a combination of these bridge types.

This option provides safety benefits of grade crossings for trail users, yet it does not have the visual impacts that the Elevated Option would. Other benefits of this option are that it provides access to businesses and provides access to at-grade connections. This option does not limit development opportunities in the Triangle area, and future development could integrate the trail into the development. The long term vision of the

trail may be to keep it elevated without slopes up and down to grade, and this option could allow that to happen in phases with redevelopment. The types of bridges proposed for this option have a likelihood of generating positive reaction and present the opportunity to construct a "landmark" or "gateway" element.

The ramps as proposed in this option are not desirable for bike riders, since they would require users to make sharp turns and go up or down a steep incline.

Option D5b is estimated to cost approximately \$3.8 million. The project team will look at ways to reduce cost to complete the project within the current \$3.6 million budget. This option could also phase the 155th Street crossing to save additional cost.

Option E2: Midvale Option

The Midvale Option proposes an elevated trail alignment from the Pershing bulkhead at 155th Street over Aurora Avenue south of the 155th street intersection, over the north end of the Safeway parking lot then crossing 155th street and connecting at-grade with Midvale Avenue. This option proposes a steel arch or steel truss bridge over Aurora Avenue with the remaining elevated trail to be concrete structure over Safeway parking lot and 155th Street. After connecting to Midvale avenue, the trail would share the roadway with Midvale Avenue to 160th Street. This option proposes to construct bike lanes and sidewalks along Midvale. At 157th Street, a trailhead would be constructed and a path paved to bring the trail to the Interurban corridor.

This option provides safety of separating trail users from street crossings of Aurora Avenue and 155th Street. However, this option proposes trail users share Midvale Avenue with vehicles. The option does not limit development opportunities at Westminster Triangle, however, it would present negative visual impacts to Safeway and Parkwood Plaza. This option does not provide access to businesses or access to at-grade connections with the Aurora Corridor. The option would also have significant parking impacts to Safeway.

Option E2 is estimated to cost approximately \$4.0 million, which exceeds the current project budget of \$3.6 million.

Bridge Design Alternatives

In addition to the alignment alternatives, several bridge styles and types were evaluated. For clarification, we are defining style as the bridge form: truss, cable-stay, girder, arch, etc. We are defining type as the style plus structural element/material: concrete, steel, wood, etc. The evaluation considered typical cost per square foot, maximum span length, and typical structure depth. In order of cost, from low to high, the alternative bridge types analyzed are: pre-stressed, concrete girder, post-tension, steel girder, steel truss, steel arch, cable stay, suspension, and tunnel. Staff is not prepared to recommend a bridge type, but feel that the truss and arch styles are appropriate designs and affordable. The truss and arch styles have the support infrastructure above the bridge deck. This provides the ability to reduce the length of ramping to attain the 18.5 foot required clearance above the roadway. Bridge styles that have the supporting infrastructure below deck require longer ramping due to the additional elevation requirements for the support structure. Staff and consultants also feel the arch and truss styles provide more opportunity for art and landmark design

elements. The design process will further evaluate material types for the bridge. This will include consideration of wooden laminates and recycled bridges. Direction from the council to proceed with either a truss or arch style is requested.

STAKEHOLDERS

In addition to the Open House on September 17, staff has met with key property and business owners, and has continued to keep them in the loop throughout the alternatives analysis. Stakeholders were first interviewed as the study was initiated to find out key issues, concerns and questions. Interviews were held with Safeway, Joshua Green Corporation, Shoreline Family Auto, Parkwood Plaza, and Central Market. Stakeholders were also invited to attend the Open House, and follow-up conversations and meetings have been held with Safeway and Joshua Green Corporation. Safeway does not support the Midvale Option because of the structure blocking views to their business and impacts on parking. Joshua Green has expressed concern about options that impact their property, but have indicated that they object most to the Elevated Option.

SUMMARY

There are several options that the Council could pursue in selecting a crossing alternative. This section is intended to summarize the choices facing the Council.

The recommended alignment option is the Loop Ramp Option. The estimated cost for this option is \$3.8 million, which exceeds the budget by approximately \$200,000. All cost estimates for the options include a contingency which is 30% of the construction costs. The contingency assumption equals approximately \$600,000 for the Loop Ramp Option. Although, it is possible that all of the contingency could be used, it is likely the project could come in under budget. As mentioned in the alternative description above, there are other ways to save costs with this option including combining the at-grade portion between the two ramps with the sidewalk on Aurora and having Aurora cover the costs (approximate savings to bridge of \$160,000). This would reduce the cost to the Interurban Trail Pedestrian & Bicycle Crossing project to approximately \$3.64 million. Another option is to defer the 155th bridge for later construction (we recommend, however including it in the design process now).

The Elevated Option is estimated to cost approximately \$4.5 million. Should the Council have continued interest in the Elevated Option, staff could pursue additional funding through the PSRC, WSDOT, or other funding sources. This strategy would delay the design process, and potentially the construction. The Joshua Green Corporation does not support this option.

RECOMMENDATION

Staff recommends that the Council direct staff to proceed with design for the Interurban Pedestrian and Bicycle Crossing Loop Ramp Alternative and that the design be

prepared with the 155th bridge as an additive bid item (this will allow the option to delay or not include the 155th crossing if necessary later on). Staff also recommends a truss or arch design. Direction from the council on bridge style is requested.

ATTACHMENTS

Attachment A: 5 Alternatives and 3 Artist Renderings

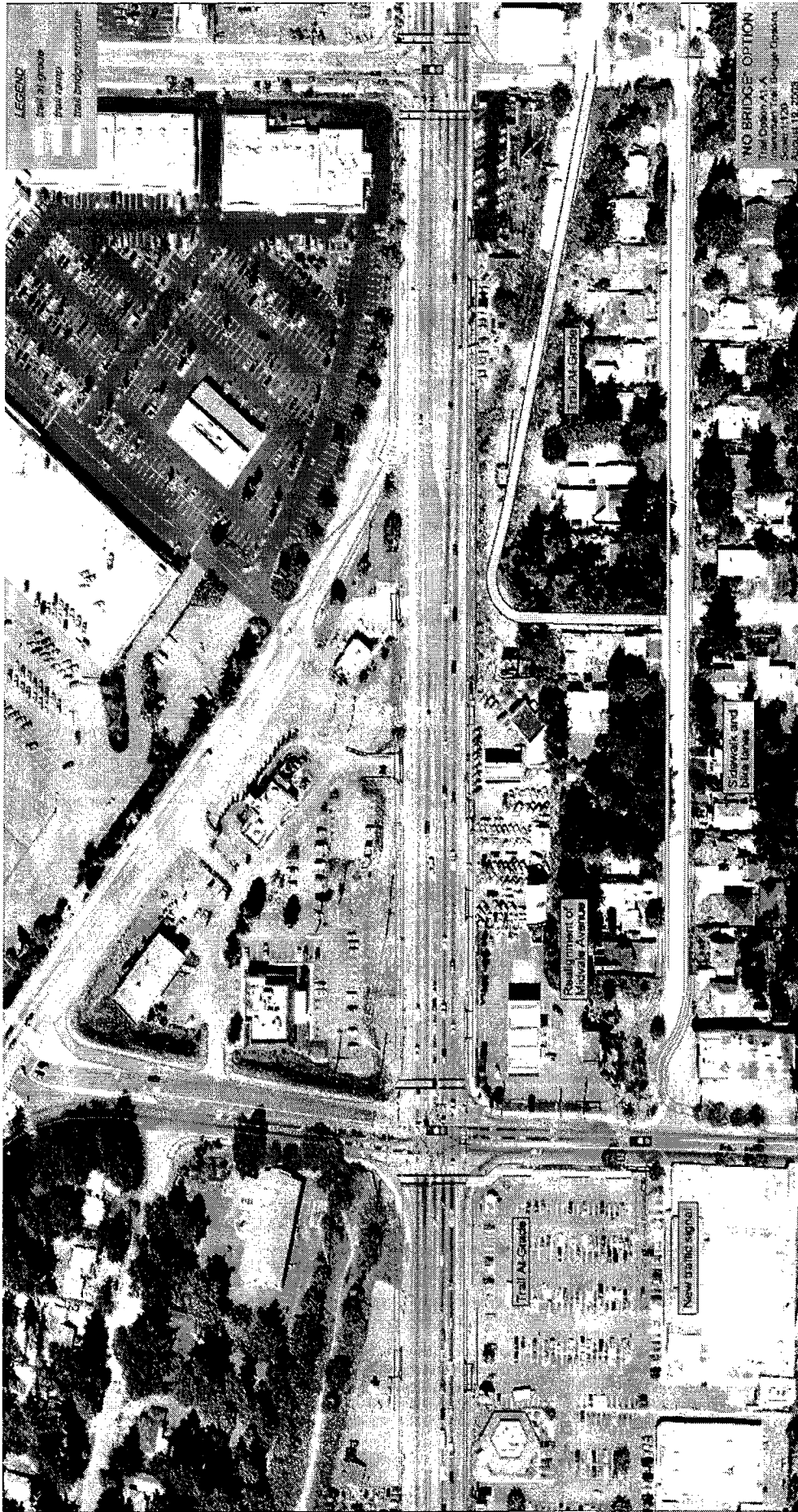
Attachment B: Evaluation Results/Screening Matrix

Attachment C: Interurban Trail - Pedestrian & Bicycle Crossing Open House Sept. 17,
2003 Alternatives Feedback/Attendee Comments

Aurora Interurban Trail Bridge Study

ATTACHMENT A





Option Benefits and Concerns

"At Grade Option"

Cost range: \$1.9 m to \$2.6 m

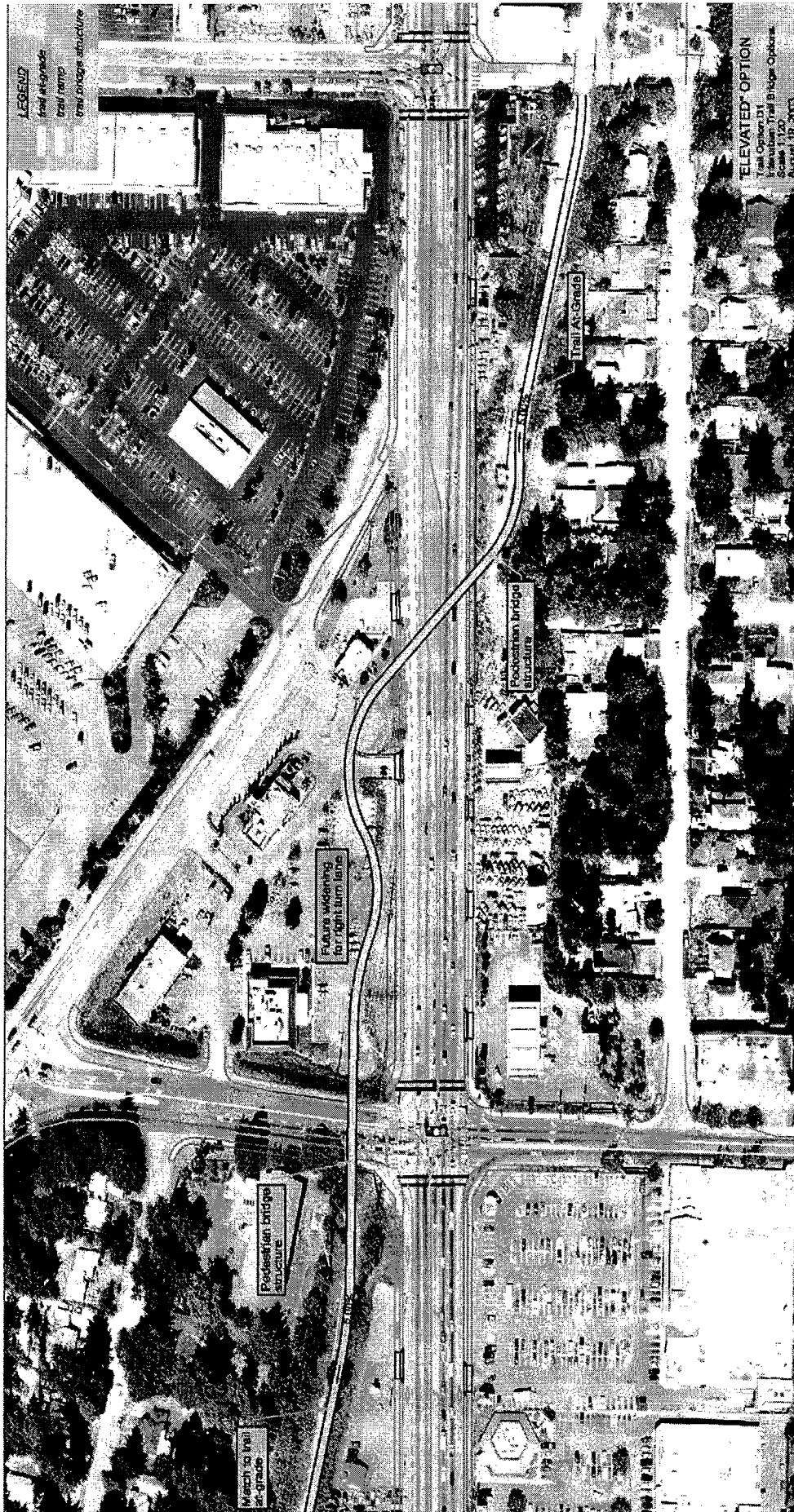
Bridge Type Options: none

Pros

- Minimal construction impacts to Aurora
- Trail does not negatively affect access to businesses
- Does not impair visibility to businesses
- Helps provide solution for Safeway/155th

Cons

- Safety concerns: at-grade crossings
- Not efficient route for trail users
- Trail route follows on steep grades
- Significant parking impacts at Safeway
- Right of Way acquisition required
- City will lose grant funding for the project
- Does not express community identity



Option Benefits and Concerns

Pros

- Efficient Route for trail users
- Provides Minimal conflicts with vehicles for Trail users = safety
- Trail does not negatively affect access to businesses
- No Right-of-Way acquisition required
- Opportunity for community identity statement

Cons

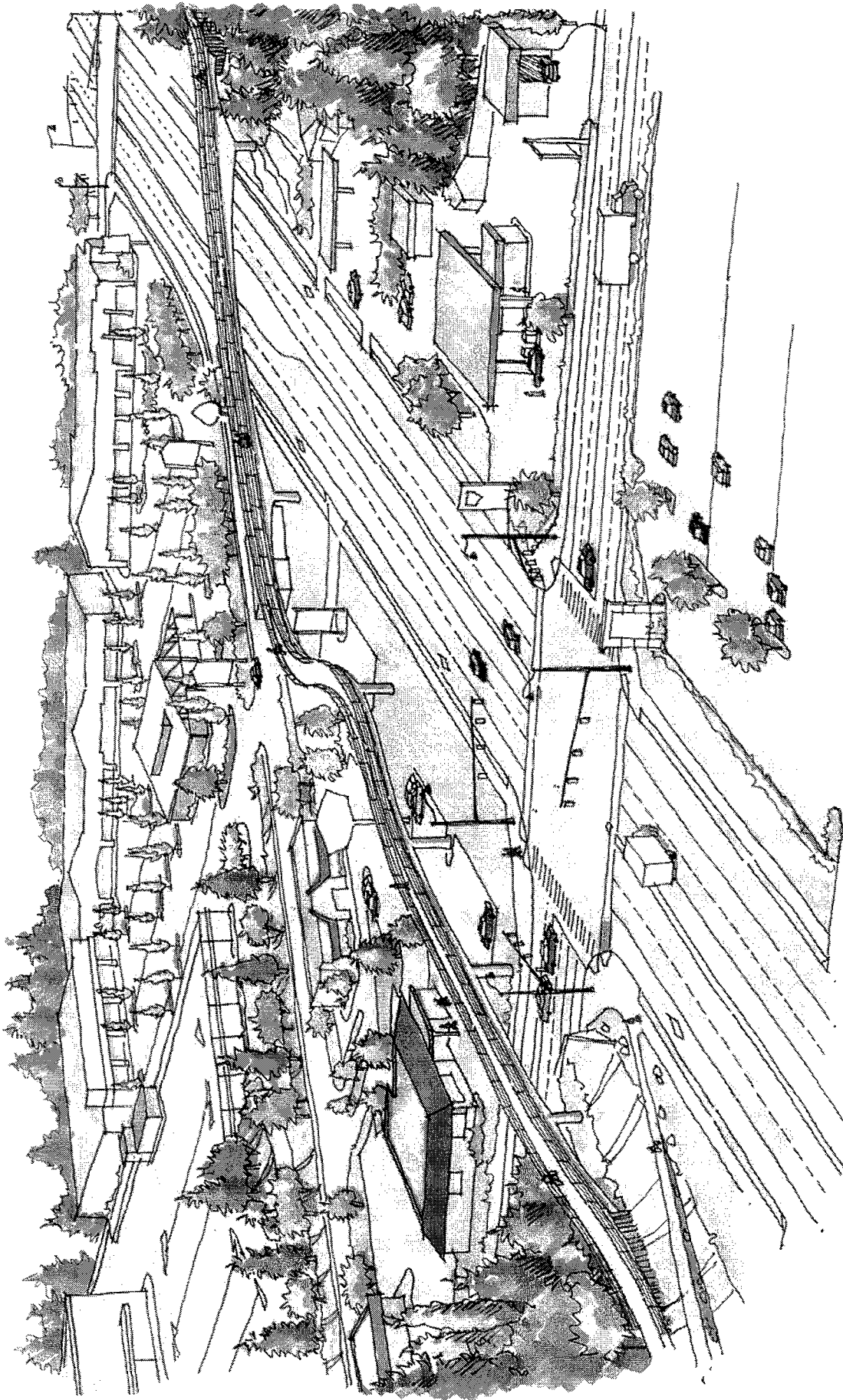
- High cost
- May affect visibility of businesses in Westminister Triangle and Aurora Square
- Parking impacts for Westminister Triangle businesses
- Does not include access to businesses

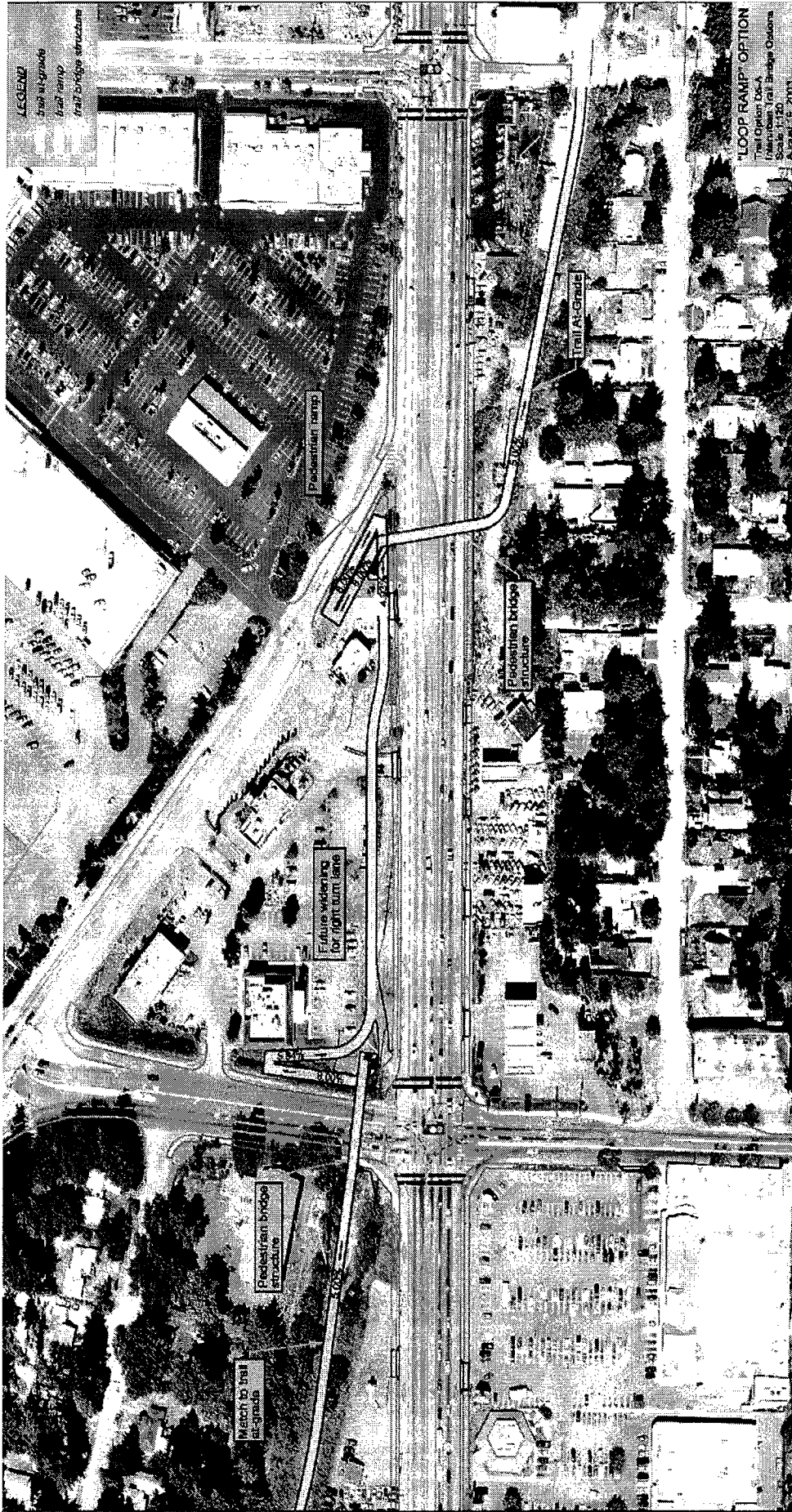
"Elevated Option"

Cost range: \$3.8 m to \$5.2 m

Bridge Type Options: Concrete
box/concrete girder







Option Benefits and Concerns

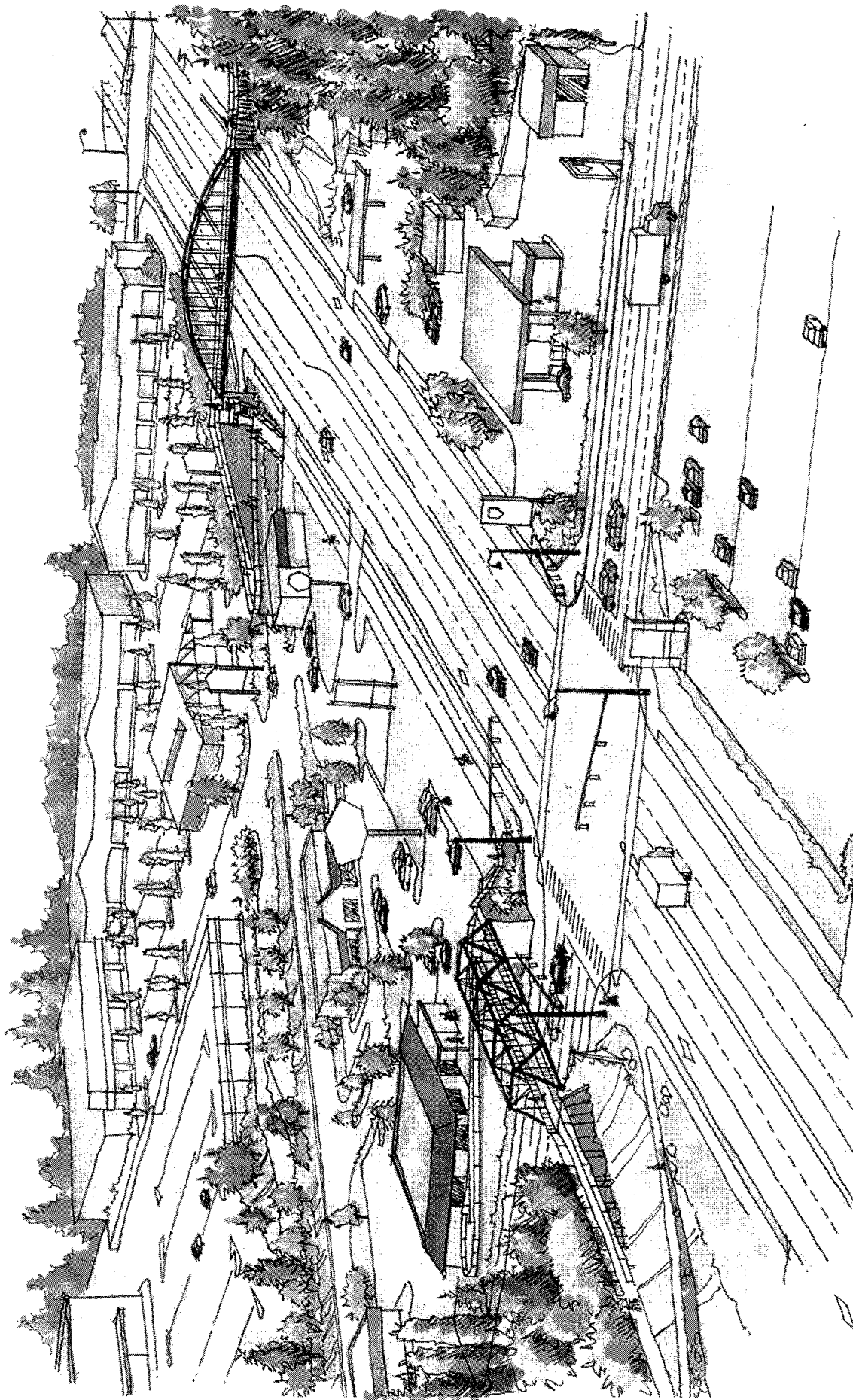
Pros	Cons
- Provides Minimal conflicts with vehicles for Trail users = safety - Opportunity for special bridge(s) to express community identity - Lessens visual impact for Westminster Triangle businesses - Conducive for redevelopment of triangle - does not limit development opportunities - Aurora sidewalk could be replaced (cost) - Potential to phase or eliminate 155th Street Bridge	- Steep ramps for bridges do not provide efficient route for Trail users - Parking impacts at Pizza Hut - Right of Way acquisition required (minor) - Access conflicts with driveway and trail at business driveway

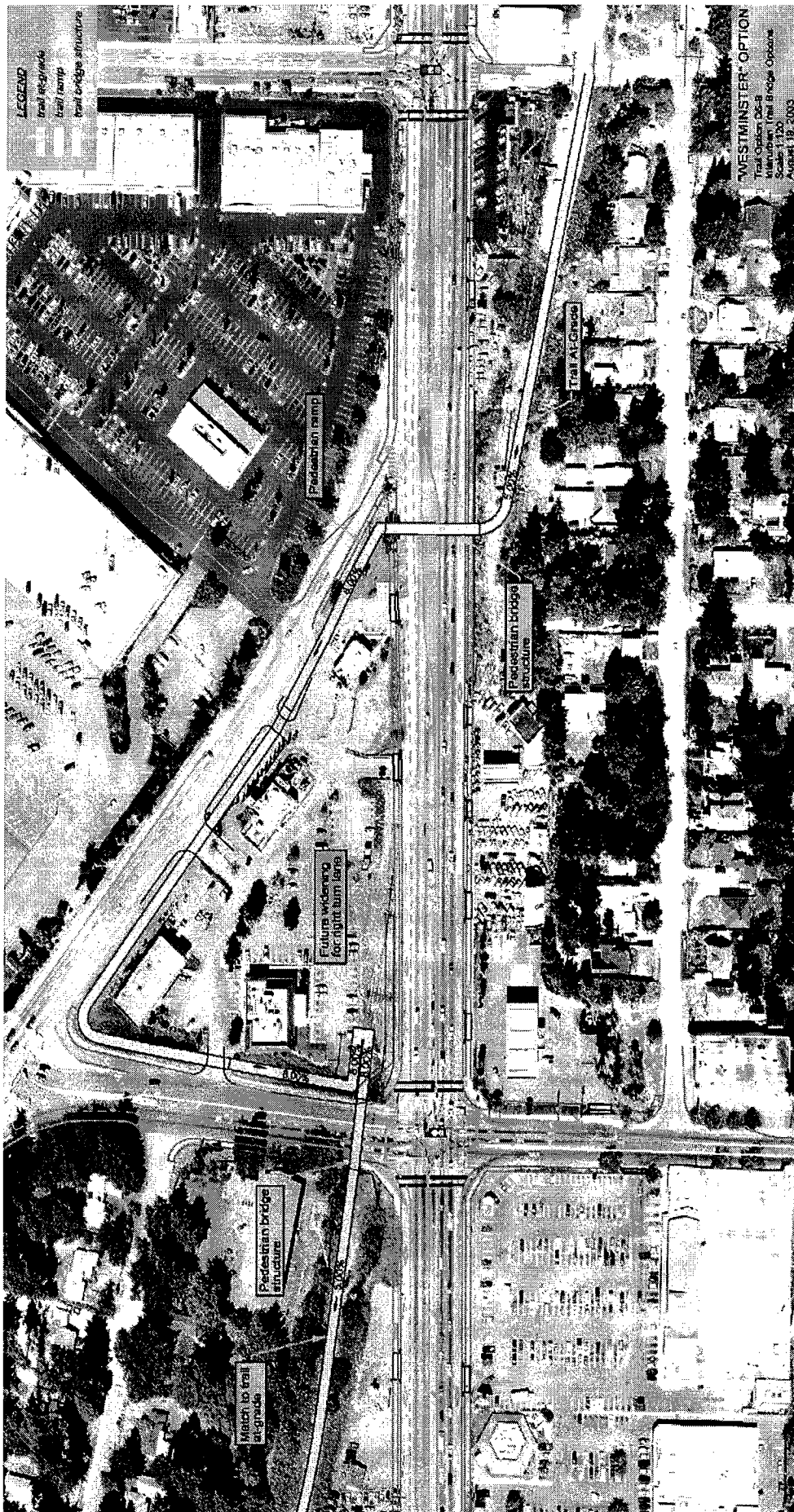
"Loop Ramp Option"

Cost range: \$3.2 m to \$4.4 m

Bridge Type Options: Steel Arch, Steel Truss







Option Benefits and Concerns

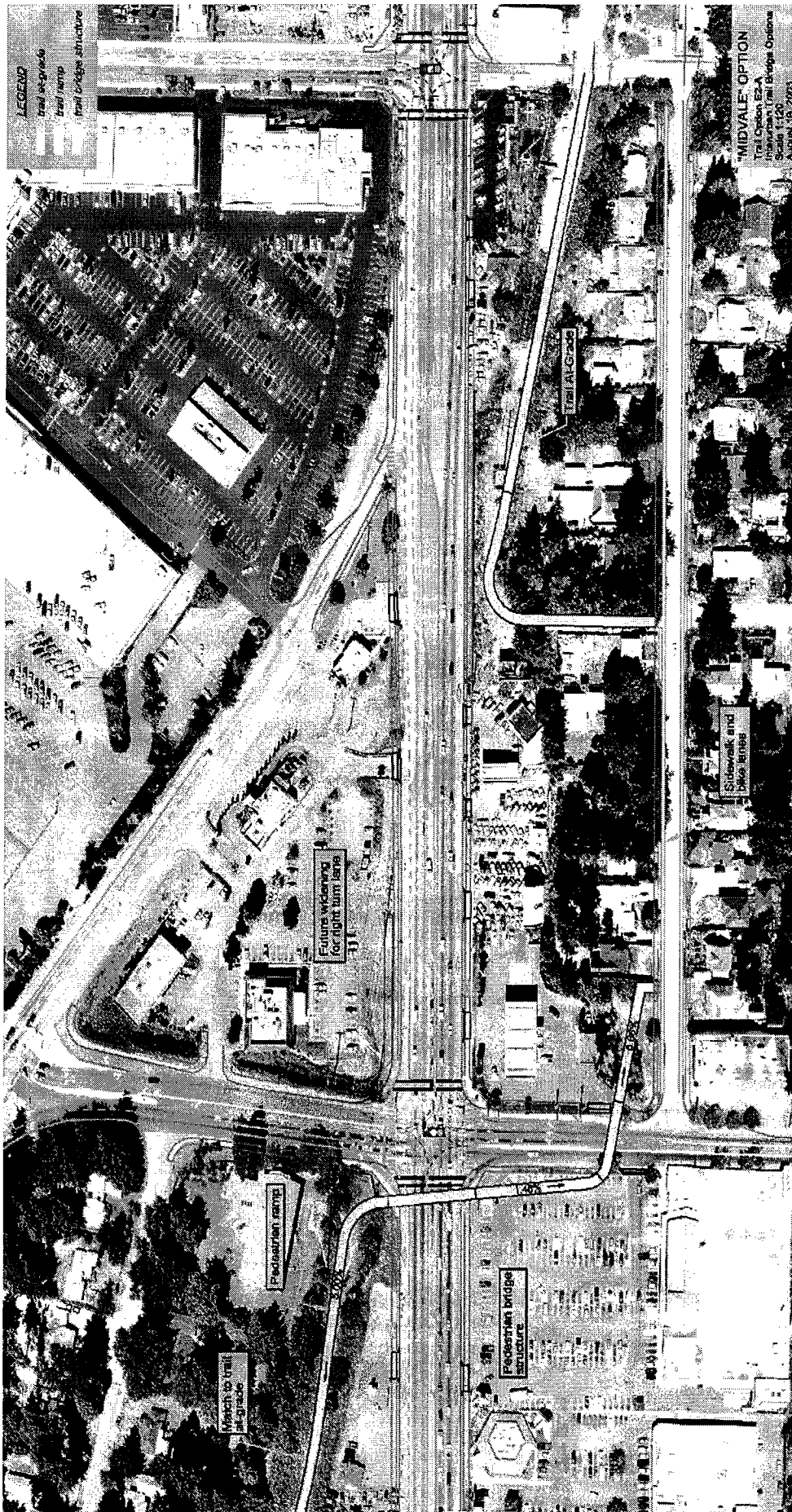
Pros	Cons
- Provides Minimal conflicts with vehicles for Trail users = safety - Opportunity for special bridge(s) to express community identity - Lessens visual impact for Westminster Triangle businesses - Protects redevelopment possibilities for Triangle - Allows for better access to Aurora Square from Trail - Potential to phase or eliminate 155th Bridge	- Steep ramps on the trail for bridges - Alignment does not provide efficient, direct route for bicycle riders on Trail - Right of Way acquisition required (minor)

"Westminster Option"

Cost range: \$3.2 m to \$4.4 m

Bridge Type Options: Steel Arch, Steel Truss





Option Benefits and Concerns

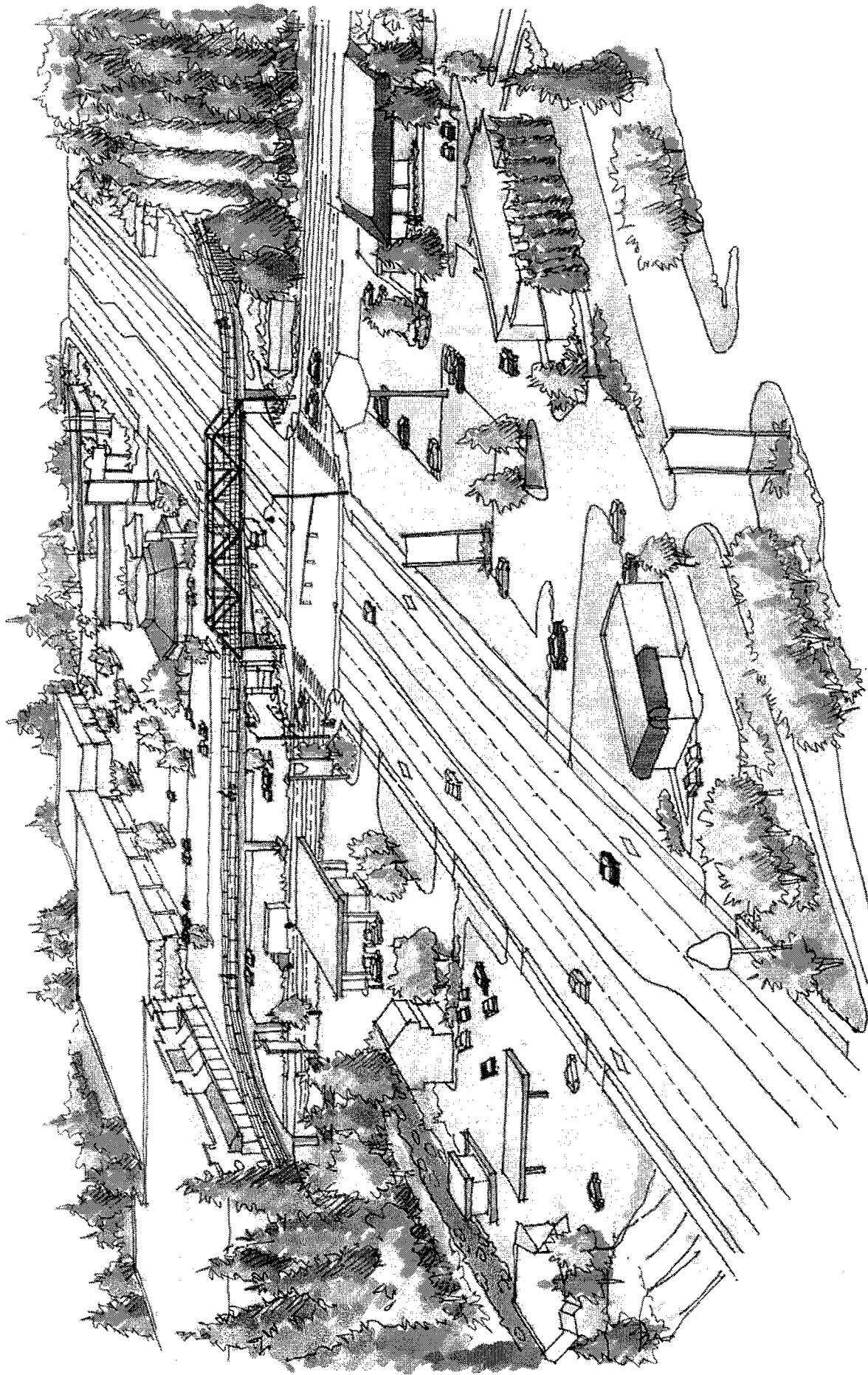
Pros	Cons
- Grade separates street crossings for Trail users = safety - Does not limit development opportunities at Westminster Triangle - Potential to combine signal with Aurora Bridge	- Visual impacts, visibility to Safeway and Parkwood Plaza businesses - Parking impacts at Safeway - Right of Way acquisition required - Trail uses residential street

"Midvale Option"

Cost range: \$3.4 m to \$4.6 m

Bridge Type Options: Steel truss over Aurora, concrete box or girder over 155th





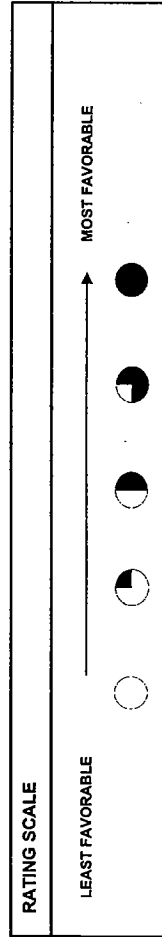
Shoreline Aurora Corridor Interurban Trail Bridge Alternatives Evaluation

Attachment B

Evaluation Results

Screening Matrix
Interurban Trail Bridge Options

Criteria	Option A2		Option D1		Option D5a		Option D5b		Option E2	
	At-Grade Option	Elevated Option	Loop Ramp Option	Westminster Option	Midvale Option					
Safety of Trail Users	- Does not provide safety benefits - At-grade trail crossings on arterial roads - Trail shares Midvale with vehicles	- Safer option, completely separate, elevated trail	- Grade separated crossings - Crosses driveways at Pizza Hut and SCL	- Grade separated crossings - Crosses driveways at Denny's and Pizza Hut	- Grade separated crossings - Driveway conflicts/sharing roadway with cars on Midvale					
Access / Connectivity Provided	- Provides at-grade connections - Provides access to businesses - Does not provide efficient route - Has significant grade slope at Midvale	- Provides logical and efficient route - No significant grade changes - Does not provide access to at-grade connections - Does not provide access to businesses	- Provides logical and efficient alignment - Provides access to businesses - Grade changes are not desirable	- Provides at-grade connections - Provides access to businesses - Alignment is not most efficient - Grade changes are not desirable	- No significant grade changes - Does not provide access to businesses - Does not provide at-grade connections - Alignment is not efficient					
Constructability	- No conflicts with power lines - Construction is feasible - No significant traffic control/construction impacts to Aurora Ave traffic - Significant impacts to Salfordway parking	- Construction is feasible - No significant construction impacts to businesses - Cumulative construction/traffic control impacts on Aurora Avenue - Fixed location may be conflict with future SCL expansion	- Option does not present conflicts with power lines - Construction is feasible - Construction will result in cumulative impacts on Aurora Avenue during construction - Parking impacts to Pizza Hut - these can be mitigated	- Option does not present conflict with power lines - Construction is feasible - Option does not present significant impacts to businesses	- Option does not present conflict with power lines - Option presents impact to Salfordway parking - Option will result in cumulative traffic control impacts during construction					
Meets Agency Guidelines	- Steep grades on Midvale - steeper than min ADA guidelines	- Most desirable geometry for bikes	- Meets agency guidelines, but bends at ramps are not desirable for bikes	- Meets agency guidelines, but bends at ramps are not desirable for bikes	- Meets agency guidelines, but bends at ramps are not desirable for bikes					
Expresses Community Identity	- No structure	- Concrete bridges - May be visually pleasing - May be landmark structure - Concrete structure is more architectural, not considered as visually pleasing, not as transparent as truss or arch bridges	- Steel truss or steel arch - Maximum opportunity to express community identity, construct visually pleasing landmark structures, create gateway, and integrate theme that would generate a positive reaction	- Steel truss or steel arch - Maximum opportunity to express community identity, construct visually pleasing landmark structures, create gateway, and integrate theme that would generate a positive reaction	- Combination - steel arch/truss over Aurora, concrete bridge over Salfordway and 15th - May be visually pleasing - May be landmark/gateway structure - Opportunity to express theme with bridge over Aurora - The structure will impact sight distance at 15th					
Visual Impacts to Businesses	- No impacts, no benefits - Route uses residential street and construction will change character of Midvale	- Significant visual impacts at Westminster triangle and Aurora Square	- Ramps may have visual impacts at Denny's and Pizza Hut - Bridge may provide "gateway" or landmark benefit for businesses	- Ramps may have visual impacts at Denny's and Pizza Hut - Bridge may provide "gateway" or landmark benefit for businesses	- This option will have significant visual impact to Salfordway and Pinewood Plaza - The bridges may provide landmark benefit for businesses					
Anticipates / Promotes Future Development	- Does not limit development, does not promote future development	- May provide landmark benefit for businesses - This option is not feasible to be integrated into future development - Does not provide access to development - Limits development around the alignment	- Does not limit - Can be integrated with development - Provides access to business development - Opportunity for landmark to promote business	- Does not limit - Can be integrated with development - Provides access to business development - Opportunity for landmark to promote business	- May provide landmark benefit for businesses - This option is not feasible to be integrated into future development - Does not provide access to development - Limits development around the alignment					
Cost	- \$1.9 to \$2.6 million - This option will forfeit \$2m grant funding	- \$3.8 to \$5.2 million - This option does not fit within the current budget	- \$3.2 to \$4.4 million - Provides ability to phase project to meet budget constraints	- \$3.2 to \$4.4 million - Provides ability to phase project to meet budget constraints	- \$3.4 to \$4.6 million - This option cost is likely beyond current project funding					



INTERURBAN BRIDGE OPEN HOUSE - SEPT 17, 2003

ALTERNATIVES FEEDBACK/ATTENDEE COMMENTS

Please share your thoughts on benefits and/or concerns for each of the following alternatives:

Responder	<u>At-Grade Option:</u>	<u>Westminster Option:</u>	<u>Loop Ramp Option</u>	<u>Midvale Option</u>	<u>Elevated Option</u>	<u>User Type</u>
1	Too high safety risk from street and driveways	Too long & round about	Higher cost of two bridges plus long switchback ramps	Best design in my opinion. Allows trail to go behind businesses on East side of Aurora. I would prefer a diagonal crossing as shown in B1 to preserve the look of the original bridge. See attached photos.	Second best design in my opinion.	Bicycle rider/Recreational
2	Negative	If at all possible, build elevated sections across Westminster/155th/Aurora ASAP, with available funding, as direct a route as is possible	N/C	No	Most charming - need traffic separation - on grade intersection crossing detracts from trail experience .	Bicycle rider
3	Not preferred due to potential safety concerns for bikers/pedestrians	N/C	N/C	N/C	Modified version of elevated option where the bridges of the loop ramp option is developed and the elevated option is added during redevelopment of Aurora Square parcel. Council Member Gustafsen has some good ideas about this option. Bridge type should be reminiscent of original Pershing design to maintain Historical context.	Pedestrian

INTERURBAN BRIDGE OPEN HOUSE - SEPT 17, 2003

ALTERNATIVES FEEDBACK/ATTENDEE COMMENTS

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4	N/C	Bridge too steep grade for bikes and wheel chairs. Path of least resistance at Denny's people will not stay on path to connect other side, shortest path between two points.	N/C	Best yet, but no access to Safeway.	I like this one, need access the Denny's area though.	N/C
5	Don't like - This is what we have now.	People will go off trail to get from place where ramp drops to where it ramps up.	Would recommend this if you took out the loop and graded more gradually on a straight line. More concerned with long term accessibility and impacts local folks than about impacts to businesses.	N/C	No access to businesses would be fine if incorporated into new business where people could exit off bridge onto second floor of business. Seems very expensive and not practical.	N/C
6	No. Safety concerns too great. Must have bridges	Just dumb.	This one connects the trail to the business area better than the "elevated" in front of Denny's/Dairy Queen, Pizza Hut. Bring in business to those areas from recreational users.	I don't like the trail disappearing into residential area.	Direct for bikers, joggers, visible for safety of users, pleasing clean lines, recreates original Interurban route more closely than any other plan.	Pedestrian/Recreation al/Access to nearby services. Parkwood students on field trip will walk to businesses.
7	Negative: Too close to traffic on Aurora & Midvale. Positive: Lower cost, minimal change. Vote: NO,	Negative: Switchback X1; increase view of businesses. Positive: short bridge structures. Vote: No	Negative: switchback X 2; cumbersome. Positive: short bridge structures. Vote: No.	Negative: Permission from Safeway?? Use of residential street. Positive: crossing Aurora X 1. Vote: Yes	Negatives: cost. Positives: continuity of trail. Vote: Yes.	N/C

INTERURBAN BRIDGE OPEN HOUSE - SEPT 17, 2003

ALTERNATIVES FEEDBACK/ATTENDEE COMMENTS

Please share your thoughts on benefits and/or concerns for each of the following alternatives:

Responder	<u>At-Grade Option:</u>	<u>Westminster Option:</u>	<u>Loop Ramp Option</u>	<u>Midvale Option</u>	<u>Elevated Option</u>	<u>User Type</u>
8	Safety is a large concern with this option. I like the price tag, though. I don't care for the use of tunnels.	Westminster is too busy for a trail! I have major safety concerns here. It is also about as indirect as the trail could be. Also, too many driveways intersect with the trail.	Not bad, although I dislike pedestrian traffic on Aurora. A big plus is business access at Denny's etc.	I have concerns about going through a residential area. I also have concerns that the intersection at 155th& Aurora would become unsafe with the addition of an overpass here.	Although "pricey", this is my favorite option. This provides the best opportunity to provide safety and also provides opportunity for the city to show its individuality. The main drawback for me is not direct business access to Denny's etc.	Pedestrian
9	Exposure to traffic is unsafe, especially for small children, and detracts from the urban trail environment.	N/C	Long ram is very unappealing.	Best Option. Ramps and Bridge are at right angles giving a very clean look. Minor disruption to Safeway vs. at-grade level, major disruption. Good grade and minimal turns, good for biking or skating. Outlets at Safeway would make it more appealing for me to shop there. Parking is terrible. Could get exercise and shopping done together. Only drawback is exposure to traffic on Midvale. But exposure is minimal and well worth the other benefits.	N/C	Bicycle Rider/Pedestrian/Recreational/Access to nearby services/Skating

INTERURBAN BRIDGE OPEN HOUSE - SEPT 17, 2003

ALTERNATIVES FEEDBACK/ATTENDEE COMMENTS

Please share your thoughts on benefits and/or concerns for each of the following alternatives:

Responder	<u>At-Grade Option:</u>	<u>Westminster Option:</u>	<u>Loop Ramp Option</u>	<u>Midvale Option</u>	<u>Elevated Option</u>	<u>User Type</u>
10	Pros: Inexpensive, leaves options in future to add bridges, allows business access. Cons: goes through residential, have to cross 2 intersections. Thought: as part of road improvements connect with sidewalk on east side of Aurora	Similar comments as Loop Ramp. Cons: Impact on business, not as direct.	Pros: cost efficient, option add 1 or both bridges does not go into residential access on/off at 2 locations, minimizes visual impact of bridge, more direct than "Westminster Option". Improves streetscape along Aurora, minimal impact on business. Thoughts: delete access off Aurora into Triangle.	Similar comments as Westminster option. Additional comments not as obtrusive would fit better with wires.	Cons: Too costly. I just don't see it "fitting" with all the wires. Limited access on and off. Thought: Drop option. We don't need an albatross.	
11	Traffic concerns, pedestrian accidents are bound to happen	Impacts business too much.	Uses City property	Neighborhood Impact	Practically adequate, goes over City Property.	Pedestrian/Recreational
12	H3 Less cost - Pedestrian safety issue at driveways	E1B, less visual impact on businesses and less on development potential.	D3. Probably most expensive but provides safety, continuity and identity.	E1. Less cost, but pedestrian safety issue at crossings.	C1. This is how I thought the crossing would ideally be constructed. Good community /Old Interurban identity.	N/C
13	Having to cross 155th and/or Aurora not the best intersection to cross.	Pretty good. Better crossing - only have one light to wait for instead of two.	Not good for biking.	Think this option the best.	Like this option a lot too.	Bicycle Rider/Pedestrian
14	Crossing 155th and Aurora is not good for bikes and people. Promotes J-walking and accidents.	Good option especially if going to close that portion of road way long term.	Ramps: Bike means more excessive; Should try to keep flat.	This is the best for the price.	This is great, but cost could be the biggest issue.	Bicycle rider/Pedestrian

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15	Too unsafe for bikes and walkers, although cost effective	Seems to be fairly direct route, as long as graded trail has separation from cars.	Allows access for walkers. Bridges should be concrete girder to allow for openness and "lighter" feel rather than heavy structure. A plus is an additional pedestrian crossing between 155th and 160th.	Again puts people on the street with cars and Midvale is a narrow street.	Too visually distracting, although a direct route for bikers there is no access for walkers to use bridge.	Pedestrian/Commuter/Recreational
16	Could work but major impact on Aurora Triangle	Best - Opportunity for nice bridges. Minimizes impact on private property. Takes trail through proposed City center a Aurora Square/Aurora Triangle.	Unightly ramps. Otherwise, could work.	Loss of visual impact. Too much involvement of residential.	Worst - creates a new "viaduct" like the one Seattle wants to demolish.	N/C
17	Traffic flow and safety impacted	Soften the curves of the switchbacks for safer cycling/walking. Good access to businesses.	Too loopy.	Diverts trail users from businesses - negative impact, in my opinion.	Needs more/better access to ground level.	N/C
18	This is no solution for cyclists. Might work for pedestrians.	Too many switchbacks.	Too many switchbacks.	N/C	This is the ONLY solution that would work for cyclists. The cost may be high, but it would be safe and also looks good.	Bicycle Rider/Pedestrian/Recreational
19	Don't waste the money on this one. No one will use it.	N/C	N/C	N/C	This is the only one that is bike friendly. If anyone other than little kids are to use this, this is the one. I am tired of hearing about the business. The people and users of the trail should be the first voice heard. The business will benefit in the end.	Bicycle Rider/Pedestrian/Recreational/Access to nearby services

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22	No way. Conflicts always with intersection turning movements.	No.	Yes, Doughnut. No, others.	Security lousy. Persons on Midvale not happy. Cyclists and Peds not happy. Many will avoid and become peds in 155th intersection.	Yes. D is best. If not, vote for Doughnut. Clear alignment visible by N & S cyclists. Security guaranteed by Police. Lighting mandatory on bridge as well as Interurban Trail. Please consider lighting as in standards by I.E.S. If \$ a problem, put in 2" conduit and J-boxes NOW	Bicycle Rider/Pedestrian/Recreational
23	Main safety problems - Poor walking/cycling environment through Safeway area. Use of local street not good.	I think this is the best option. Least impact on adjacent properties. Good job of integrating into area. Bridges are well-placed and in scale with area. Could become a major landmark for South Shoreline.	Approach ramps are difficult for cyclists. Become skate board areas with associated problems. Users are too close to the vehicles and pollution on Aurora.	Bridge structure is too massive, too long. Out of scale with area. Become a joke rather than an asset.	Too expensive. Bridge structure too massive. Would be very expensive to maintain.	Bicycle Rider/Pedestrian/Recreational
24	Safety concerns on street crossings.	N/C	N/C	N/C	N/C	Recreational
25	Only if you don't have the money.	Both depend on how the Square is developed.	If the trail doesn't interfere with development, I would be in favor of it closer as in "Westminster Option."	Definitely not.	Too expensive. Too much construction for what you get.	N/C
26	N/C	N/C	N/C	N/C	D-1 straight line.	Will not use.

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27	Really don't like this at all. Think bikers and pedestrians really need a bridge.	I love Central Market and it would be nice if there was a side/spur trail going that way. But taking the whole trail to Westminster is too far out of the way.	This would be my first choice. I like that it avoids going near the Safeway parking lot, which I avoid at all costs as a driver and a pedestrian. I like that it is at grade north of 155th, allowing trail users to access Westminster businesses (or future businesses) if they wish without taking them out of the way to Westminster (as another option does) if they don't want to. Users of the trail at that point would be visible to drivers on 99, promoting use of the trail. (I drive 522 every day and enjoy seeing the Burke-Gilman users as I drive home.	N/C	This would be my 2nd choice for some of the reasons stated above. But it lacks some advantages the "Loop Ramp" option does. The length of the bridge makes me a little nervous.	Bicycle Rider/Pedestrian/Acces ss to nearby services
28	N/C	N/C	Like modified version of this, with no bridge at 155th: have a northbound ramp from the trail going down (on Aurora) to N 155th and cross 155th at grade level. Any other bridge or trail will obscure vision for businesses and will obscure vision for signal lights elsewhere.	N/C	N/c	N/C