



Memorandum

DATE: April 19, 2022

TO: Debbie Tarry, City Manager

FROM: Laura Reiter, Capital Projects Engineer II

RE: 60 Percent Design: 20th Avenue NW Sidewalks

CC: Bob Earl, Tricia Juhnke, Randy Witt

The City has received a Public Records Request (PRR) for the 60% design and arborist report for 20th Avenue NW sidewalks. As discussed at the last reoccurring transportation meeting, we have developed a memorandum/whitepaper on the information we have found responsive to the PRR and staff's plan to evaluate further as the design progresses to 90% and final design. This memorandum provides that information.

A draft 60% design of the sidewalk on 20th Avenue NW from NW 190th Street to NW 195th Street was received on March 23, 2022. City staff reviewed the design over the following weeks and identified multiple components of the design that need further evaluation and may change the design as it progresses to final design. The draft arborist report was based on this 60% design before City review and will be revised based on the evaluation and direction for final design.for the blocks

Background

In preliminary design/concept work on the improvements, staff reviewed alternatives for sidewalk location and width and determined that sidewalk on the west side of 20th Avenue NW would have the least impact on properties, trees, and utilities in the vicinity of the project. Direction was provided to the engineering designer to develop a 60% concept based on a 10' sidewalk with a small centerline shift to further minimize impacts. No tree removals were shown to be immediately required with this layout.

Before 60% design was finalized, an arborist completed a site visit to evaluate potential tree impacts and provided the designers a draft report of their findings. The report showed that the 10' sidewalk in some areas would likely have major impacts on existing mature trees. As a result of this information, to reduce impact to existing trees staff and engineering designers reduced the sidewalk width to 8' for the blocks between NW 190th

Street and NW 193rd Street. The remaining blocks of the project, to 195th, still proposed 10' wide sidewalk.

60% Review Findings

During the 60% Review, City staff identified other items of the design that should be evaluated.

1. Eastside drainage design and roadway reconstruction impacts to trees.
 - a. Excavations for drainage design and roadway reconstruction were identified as possibly major impacts to trees along the east side of 20th Avenue NW. Staff will review the possibility of:
 - i. Eliminating drainage improvements and limiting drainage work to west side of 20th Avenue NW.
 1. PRO: Minimize tree impacts & reduce project costs
 2. CON: Ponding issues will not be addressed
 - ii. Use alternate methods for construction, such as hand digging or excavation via vactor truck to reduce impacts to tree roots.
 1. PRO: Address ponding issues
 2. CON: Large increase in project costs
 - b. Reducing additional sidewalk width from 10' to 8' between 193rd to 195th.
 1. PRO: Centerline shift could be 2' less than what is currently proposed which will reduce or possibly eliminate roadway reconstruction on east side. This will also reduce project costs.
 2. CON: 8' sidewalk is not the best design for accommodating users of all ages and abilities.
2. Reducing possible impacts to trees on west side of 20th Ave NW.
 - a. Reducing additional sidewalk width from 10' to 8' between 193rd to 195th. This will eliminate or reduce some walls needed.
 1. PRO: Minimize excavations, reduce possible tree impacts & reduce project costs (note – this is only possible if we keep the centerline shift).
 2. CON: 8' sidewalk is not the best design for accommodating users of all ages and abilities. Reducing impacts on the west will keep potential impacts on the east.
 - b. Raised (pile supported) sidewalk.
 1. PRO: Reduce excavation required for walls and possibly minimize tree impacts

2. CON: Cannot be used at ramp/driveway areas, which are where many of the potential tree impacts are. Adds project costs and doesn't support drainage improvements. Ponding issues will not be addressed.
3. Driveway impacts on the west side for most homes due to small walls required to achieve ADA-compliant slopes for the sidewalk.
 - a. Reducing sidewalk width from 10' to 8' between 193rd to 195th (duplicate of #2 above).
 1. PRO: Centerline shift is 2' less than what is currently proposed which will reduce or possibly eliminate roadway reconstruction on east side. This will also reduce project costs.
 2. CON: 8' sidewalk is not the best design for accommodating users of all ages and abilities.
 - b. Provide steeper transitions – if OK with homeowners/reviewers.
4. Safety Improvements
 - a. Raised crosswalk to be approved by Fire Department
 - b. Additional ramp improvements at Richmond Beach Road intersection to be considered
5. Alternatives being considered to reduce total project costs
 - a. Reduce drainage scope (eliminate east side improvements and allow decreased level of service).
 - b. Reduce sidewalk width to 8' for the full length.
 - c. Change some of the concrete from permeable to traditional.
 - d. Consider at-grade sections of sidewalk (190 – 192).
 - e. Reduce quantity of runoff that will be infiltrated – consider sending more to piped conveyance systems.
 - f. Core drill existing pavement shoulder to confirm if rebuild is necessary with centerline shift.
 - g. Consolidated mailboxes.
 - h. Alternative wall designs.

Next Steps

A workshop to review the design options will be completed with the designer, arborist and City Staff. Staff will continue to try to find an appropriate balance for sidewalk improvements along 20th Avenue NW.