

City of Piedmont
COUNCIL AGENDA REPORT

DATE: April 3, 2023

TO: Mayor and Council

FROM: Sara Lillevand, City Administrator

SUBJECT: Consideration of a Conceptual Design for a Traffic Island at the Intersection of Nova Drive and Magnolia Avenue and Authorization to Proceed to Construction Documents for Bidding

RECOMMENDATION

Approve the conceptual design for the traffic island at the intersection of Nova Drive and Magnolia Avenue and direct staff to complete the construction bid documents and bid the project.

BACKGROUND

In 2018 the City's annual pavement restoration project included the restoration of Magnolia Avenue from its intersection with Hillside Avenue to its intersection with Wildwood Avenue. As part of that project, the design of the improvements included installation of a striped median island at the intersection of Nova Drive and Magnolia Avenue. The striped island also included installation of bollards to help define the edges of the striped island.

The concept of inclusion of an island at the intersection of Nova Drive and Magnolia came from the adopted 2015 Pedestrian and Bicycle Master Plan. Figure 2 of that plan was a location map showing the High-priority pedestrian safety projects as identified in the plan. The Nova Drive/Magnolia Avenue intersection was identified as an intersection where enhanced street crossings were recommended.

Based on recommendations from the Pedestrian and Bicycle Master Plan, during the design of the improvement's options were analyzed to find ways to make this intersection safer for pedestrians. Due to the configuration of the Nova Drive/Magnolia Avenue intersection, there was a very long pedestrian crossing on Magnolia Avenue across Nova Drive. In looking at ways to make the intersection safer for pedestrians, it was decided that the concept of installation of a refuge island would greatly improve pedestrian safety at this intersection.

The preferred concept during the design was to install a permanent island that was defined by curbing around the entire island, with the concept of eventual installation of landscaping within the island. Due to budgetary constraints as well as desire to test the concept with a less

permanent solution, curbing to permanently define the limits of the island was replaced with striping and bollards. These improvements were installed in 2019.

DISCUSSION

Since installation of the painted island with bollards, significant concerns have been observed and expressed with the installed configuration. City Staff and City Engineer along with input from residents have worked to develop a safer configuration for more permanent traffic island improvements. Ultimately, based on traffic calming principals and neighborhood feedback about the current behavior of vehicles and pedestrians in the area, staff recommend the conceptual design provided as Attachment A.

The proposed design includes the following:

- Installation of vertical curbing around a newly defined island and removal of the asphalt inside of the island curbing.
- Inclusion of a crosswalk through the island to provide a safe haven for pedestrians and limit pedestrian exposure to vehicular traffic.
- A newly shaped island that provides better direction to westbound drivers on Magnolia Avenue at this intersection.
- Installation of an eastbound left turn pocket for vehicles turning left off of Magnolia Avenue onto Nova Drive. This will provide the proper sight distance and increased safety at the intersection for left turning vehicles.
- The new shape of the island preserves the ability for all residents to access their driveways.
- New extended curb alignment (bulb out) along 101 Magnolia will slow traffic that is making the turn from westbound (downhill) vehicles on Magnolia turning right on to Nova Drive.
- Plan for future landscaping. The proposed island and the bulb out will be defined by new curbing with areas available for future landscaping. Initially, these areas will include treatments such as mulch to allow for conversion to landscape if funding becomes available.

Green Infrastructure: Unfortunately, preliminary indications are that green infrastructure will not be feasible in these areas due to the roadway's existing grade; however, if final design is authorized, these possibilities will be further explored.

Irrigation: Irrigated landscaping is not proposed at this time due to cost. Options for irrigation at this site include installation of a standalone water meter or extension of irrigation lines roughly 200 feet from the nearest irrigation source. Both options are estimated in excess of \$30,000. The proposed concept does include installation of irrigation chases (sleeves) to make installation of irrigation feasible in the future if funding becomes available.

Parking: The proposed modifications will not restrict or eliminate any currently available street parking. Due to the challenging geometric configuration of the roadway and sight distance safety requirements, the red curb that was installed at 102 Magnolia Avenue in July 2023 is proposed to

remain in place.

Staff seeks Council authorization to finalize the construction documents based on the concept presented and then to bid the project. If authorized to proceed with completion of the bid documents, staff anticipates that the project will go out to bid in spring. Bids would open in late spring and award recommendations would be brought to the Council in early summer. Based on this schedule, construction could take place over the summer early in FY 23/24.

FISCAL CONSIDERATIONS

The preliminary cost estimate to construct the proposed improvements is broken out below. The actual cost depend on the bids received after the construction drawings are created and the project is put out to contractors:

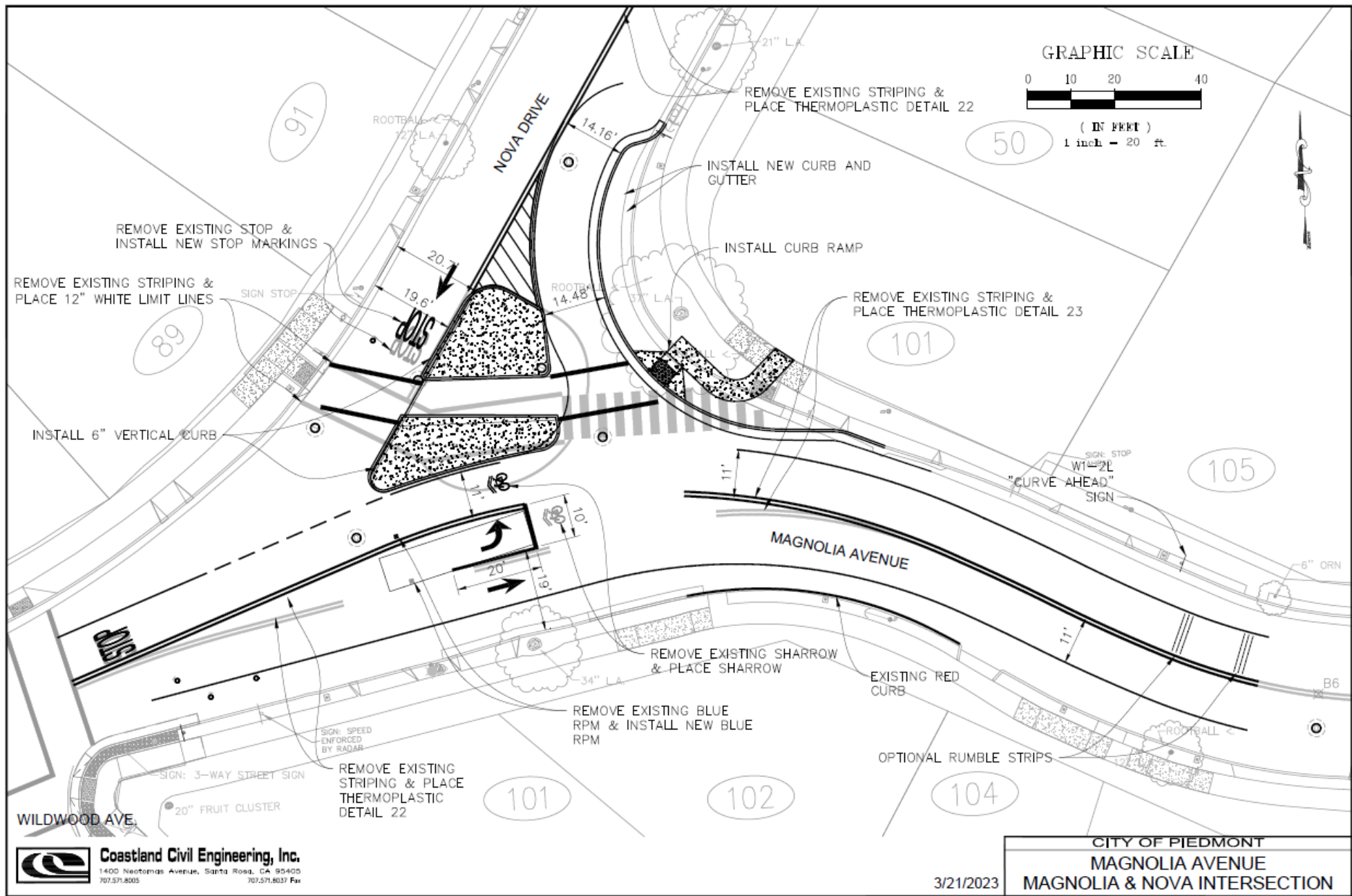
Estimated Construction Cost	\$ 80,000
Non-Irrigated (Drought Tolerant) Planting	\$ 20,000
Total Estimated Construction Cost	\$100,000

Funding for the project has been projected under the Facilities Capital fund in the fiscal year 2023-24 budget which will be considered by City Council in June. In addition, this project has potential for public-private partnership to help offset some of the costs. If authorized to proceed, staff will initiate fundraising discussions.

By: Daniel Gonzales, Public Works Director
John Wanger, City Engineer

Attachments:

A: Conceptual Design for Magnolia / Nova Intersection



Item 3 – Magnolia/Nova Traffic Island Conceptual Design
Correspondence Received before Monday, April 3rd at 3:00 p.m.

City Council:

The staff report for the Nova/Magnolia Traffic Island indicates that Green Infrastructure (GI) is not feasible in this preliminary design but will be considered if Council authorizes moving to a final design. To that end, I recommend Council clarify with Coastland what aspects of the preliminary design it considers amenable to GI. From my recollection, the Alameda County Stormwater Program provided all municipalities with an assessment of street curbs suitable for GI. This was a very useful resource for Piedmont in planning for GI as most streets in the community have some level of grade. Did Coastland consult the county analysis for the Nova/Magnolia design?

Though not part of tonight's discussion of the triangle design, I recommend staff consider a final design that can be applied to the other bollard installations in lower Piedmont, namely Lower Grand and Fairview. These are unsightly and may experience the same design failure as Nova did. All three sites are in proximity so staff may wish to consider a design for Nova/Magnolia that can be consistently applied to these other locations at a future date. Integrating all three sites would likely be eligible for GI grant funding.

Garrett Keating
