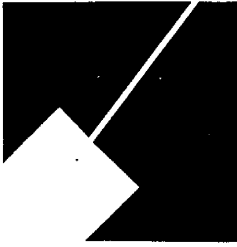


M-NCPPC



MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION

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Silver Spring, Maryland 20910-3760
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MCPB
Item No. 3
7-01-04

June 23, 2004

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Jeffrey Zyontz, Chief
Countywide Planning Division

Sue Edwards, Team Leader
I-270 Corridor Team *SE*
Community-Based Planning Division

Daniel K. Hardy, Supervisor *DKH*
Transportation Planning
Countywide Planning Division

FROM: Ki H. Kim, Planner/Coordinator (301) 495-4538 *KHK*
Transportation Planning
Countywide Planning Division

SUBJECT: Goshen Road South Phase I Transportation Facility Planning Study
Project Prospectus Recommendations

RECOMMENDATION: Transmit the following comments to the Montgomery County Department of Public Works and Transportation (DPWT):

1. The Goshen Road South Transportation Facility Planning Study should proceed to Phase II of the Facility Planning process as recommended in the May 2004 Draft Project Prospectus to develop a detailed design for Alternative 8, a four-lane divided roadway.

2. Per the Project Prospectus recommendation, the design for Goshen Road should be a four-lane facility, rather than the six-lane facility contemplated in the 1985 Gaithersburg Vicinity Master Plan. Recent long-range forecasting efforts have indicated that the six-lane facility will not be needed and this change will be reflected in the on-going Gaithersburg Vicinity Master Plan Update.
3. DPWT should incorporate the new Goshen Road over Cabin Branch Bridge into the design for the new roadway, and include a minimized road section near the Goshen Elm (a 200+ year-old specimen tree), to avoid impacting its critical root zone. DPWT must also honor its commitment established in the Memorandum of Understanding for Protection of the Goshen Elm.
4. DPWT should retain the narrowed 16 feet to 18 feet median in Alternative 8 to avoid community impacts. On all projects, however, including Goshen Road South, DPWT should consider amending County policies and practices to facilitate planting street trees on the landscape panel between the curb and adjacent sidewalk/bikeway and on the median strip to allow for better shading of the roadway, reduced warming of stormwater, and increased pedestrian comfort.
5. The Phase II Facility Planning study for the Goshen Road South should consider the following design details:
 - a. Investigate the presence of hydric soils at the stream crossing north of East Village Drive and include measures to reduce the incidence of flooding at that location.
 - b. Exercise flexibility in final road alignment to save most of the specimen trees and minimize park and private property impacts.
 - c. Minimize impacts to wetlands and waters of the United States along the roadway alignment as much as possible by considering the use of reduced sections, grading adjustments, retaining walls, and culvert/bridge modifications.
 - d. Incorporate noise impact mitigation for affected properties eligible under the County's Noise Abatement Policy into the Phase II facility design.

PURPOSE OF THIS BRIEFING

The purpose of this briefing is to apprise the Montgomery County Planning Board on the Phase I Facility Planning study completed by DPWT for the Goshen Road South project.

This study, commenced in May 2002, produced a Draft Project Prospectus in May 2004 based on several public meetings and discussions.

SUMMARY OF THE PROJECT

The Goshen Road South project area extends from Odendhal Avenue north to Warfield Road, a distance of approximately 3.3 miles. The project area is shown as Exhibit 1 and the recommended alternative for the roadway is presented in Exhibit 2. The project area is a mostly residential community serving the employment areas in Washington DC, Gaithersburg, Rockville and the I-270 Corridor and is approaching full development build-out.

As shown in Exhibit 2, the typical section of the recommended alternative – Alternative 8 - includes four through travel lanes, a four-foot grass panel and an eight-foot hiker/biker trail on the west side, a six-foot panel and a five-foot sidewalk on the east side, street trees and street lighting on the roadside behind the bike path and sidewalk, with low plantings in the minimum sixteen-foot wide median. In recommending construction of Goshen Road as a new four-lane divided roadway, the Project Prospectus includes the following recommendations:

- Add exclusive left-turn lanes along Goshen Road at each intersection.
- Add a second left-turn lane to the southbound approach to Midcounty Highway along with a third eastbound through lane along Midcounty Highway.
- Develop avoidance alternative for the “Black and White Inn”, should the inn be identified as a historic structure.
- Include a minimized section near the Goshen Elm, a 200+ year-old specimen tree, to avoid impacting it.
- Investigate the use of mechanically stabilized earth retaining walls.
- Incorporate the new Goshen Road Bridge over Cabin Branch (under construction including provision for deer passage and a natural surface trail) in the design.
- Develop stormwater management locations and measures in areas that limit impacts to existing residential, commercial, church and park properties.
- Complete a noise analysis for the corridor, identifying potential noise abatement measures, locations, impacts and costs.

MASTER PLAN CONSISTENCY

Improvements to Goshen Road are recommended in the Gaithersburg Vicinity Master Plan. Improvements may include the reduction of horizontal and vertical curves, improvement of intersections, and widening. This highway is anticipated to be heavily used by traffic generated from several major developments along its length, as well as major residential development in Montgomery Village East, north of Snouffer School Road and east of Goshen Road.

The 1985 Gaithersburg Vicinity Master Plan describes Goshen Road as a Major Highway (M-25) with four to six lanes in a 120-foot right-of-way.

Staff finds that the recommended alternative for Goshen Road South is consistent with the intent of the Master Plan. There are two elements, however, where the design does not reflect specific Master Plan recommendations:

- The recommended design provides four travel lanes rather than six.
- The typical cross section includes 16 to 18-foot-wide median rather than a 24-foot-wide median within the reduced right-of-way.

Staff supports these two elements as recommended by the Facility Planning Study based on staff's finding as discussed below.

Number of Travel Lanes

The Gaithersburg Vicinity Master Plan recommends that Goshen Road have a four to six-lane cross-section. The Facility Planning study examined three different typical sections: a two-lane undivided section, a four-lane divided section, and a six-lane divided section. The two-lane undivided typical section does not meet the study's purpose and need, since the lack of a median would result in undesirable levels of traffic service, safety, and aesthetic value.

The limits of the Goshen Road South study are the city of Gaithersburg to the south, and the Agricultural Preserve to the north. Traffic volumes along Goshen Road reflect the development patterns, generally increasing from north to south. Currently, Goshen Road has an average daily traffic (ADT) volume of approximately 10,000 vehicles per day north of Snouffer School Road and approximately 17,000 vehicles per day north of Midcounty Highway. By 2025, the forecast ADT volumes at these two locations are anticipated to be 19,000 and 26,000, respectively, whether Goshen Road is four lanes or six lanes in width.

The DPWT study assessed intersection operations at 18 locations. Currently, ten locations operate at unacceptable levels of service. The recommended alternative results in acceptable year 2025 intersection levels of service except for at three unsignalized locations (Rothbury Drive, Goshen Crossing, and Mother of God School) where additional treatments including intersection signalization and left-turn prohibitions, will be analyzed during Phase II.

In summary, both the four-lane and six-lane sections would provide commensurate levels of service in 2025, the horizon year analyzed for the study. However, the six-lane section recommended in the Gaithersburg Vicinity Master Plan has greater adverse community impacts. In essence, both the four-lane and six-lane sections have the same general requirements regarding sidewalks and landscaping within the same 120-foot right-of-way. However, the six-lane section requires a far more constrained design with narrower landscape buffers.

Staff finds that the six-lane typical section will not be needed to accommodate future travel demands even under Master Plan build-out conditions.

DPWT has completed an analysis of the performance of the four-lane Goshen Road design under year 2050 travel demands. DPWT's analysis is based on our regional transportation analysis for the master plan build-out scenario defined in the Planning Board's Transportation Policy Report. The 2050 forecast travel demands are only marginally higher than those in year 2025 as the study area is approaching build-out and the area roadway network sufficiently handles the slight increase in longer distance travel from points north along Woodfield Road (MD 124). This analysis forms the basis for the staff recommendation to support four lanes as the maximum number of lanes needed on Goshen Road South, both for this facility planning study and for the concurrent Gaithersburg Vicinity Master Plan amendment.

Staff proposes to incorporate the recommended four-lane section for Goshen Road in the Update of the Gaithersburg Vicinity Master Plan currently being developed.

Median Width

In general, the recommendation for a four-lane typical section allows a median design that exceeds the 24-foot width recommended in the Master Plan. Alternative 8 includes a 16-foot typical median with low shrubbery plantings. The median width increases to 18 feet at signalized intersections to accommodate a 12-foot left-turn lane and a 6-foot median. The median width is increased to 24 feet at unsignalized intersections to provide adequate storage width that will accommodate a two-staged vehicular crossing. The reduced median width has been developed to accomplish the objective of reducing the overall right-of-way width, which has been strongly recommended by members of adjacent communities.

Staff supports the reduced typical section in Alternative 8 because it minimizes impacts on adjacent communities. The Alternative 8 typical section includes low shrubbery in the median and trees located behind the sidewalk rather than in the landscape panel between the sidewalk and the travel lanes. In general, it is the staff position to support tree plantings in both the median and the landscape panel, as the trees provide better roadway shading, reduce stormwater warming, and increase pedestrian comfort.

The issues regarding street tree placement are complex and are one element of continuing interagency discussions regarding updating Section 49 of the Montgomery County Code (also known as the "road code"). DPWT established a new policy in December 2003 regarding street tree placement relative to the sidewalk. As indicated in Attachment A, the Goshen Road Scuth design includes street trees behind the sidewalk as the posted speed is planned for 40 MPH. Staff concurs with the posted speed recommendation.

DPWT staff states that the December 2003 policy is based on guidelines from the American Association of State Highway and Transportation Officials (AASHTO) recommending a 14-foot clear zone between the curb and any fixed object. Based on this interpretation of AASHTO, DPWT staff finds that a 28-foot wide median would be required to safely plant trees in the median.

Staff recognizes the DPWT interpretation of AASHTO guidelines but finds that alternative interpretations can be made to support street trees in narrower medians. The State Highway Administration, for instance, is proposing street trees in a 20-foot median on portions of the MD 28/MD 198 widening project where no change is proposed to the existing 40 MPH posted speed.

In this instance, staff recognizes the community support for the typical section elements in Alternative 8, including median shrubbery. Staff will continue to urge DPWT on all projects to adopt practices and policies more consistent with those applied by SHA that better integrate street trees into arterial and major highway typical sections. Should those policy changes be made during the Phase II facility planning process for Goshen Road South, staff would expect the designs to be revised accordingly.

Staff finds that the recommended typical section satisfies the intent of the Master Plan.

PUBLIC OUTREACH

The DPWT study team held two public meetings during the Phase I Facility Planning process. The first meeting, on April 29, 2003, presented the study's purpose and need, the environmental inventory, the accident history and existing and projected traffic volumes with seven typical section alternatives. After reviewing comments from the community, the study team selected two of the typical section alternatives and a new typical section (Alternative 8) with a reduced width to be carried forward into conceptual engineering. The new typical section was developed to address public comment. The study team held the second public meeting on February 10, 2004, to update the community on the project's progress and to obtain community input and preferences for the project.

The recommended alternative includes several design elements that reflect comments received through public participation. In particular, the recommended typical section has been developed to minimize impacts to the existing homes along Goshen Road by reducing the overall width. The minimum right-of-way of Alternative 8 is 100 feet and the minimum width of median is 16 feet. The right-of-way recommended in the master plan is 120 feet and the typical width of median is 24 feet.

The selection of Alternative 8 is supported by the Montgomery Village Foundation and by many individual community members as indicated in Attachment B.

SUMMARY OF PROJECT PROSPECTUS STUDY FINDINGS

The four-lane alternative recommended in the Project Prospectus is expected to have the following benefits and impacts:

Benefits

- Improves network connectivity per Gaithersburg Vicinity Master Plan, reducing travel times for pedestrians, bicyclists, and vehicles (including emergency vehicles).
- Improves pedestrian and bicyclist accessibility and safety by providing a continuous sidewalk, shared-use path, and on-road bike accommodations.
- Reduces congestion at several intersections along Goshen Road.
- Improves motorist safety by separating opposing traffic with a median.

Impacts

- Approximately four acres of forest stand impacts, including nine specimen trees.
- Right-of-way impacts on approximately 10.7 acres of fee acquisition and easements among approximately 86 properties (not including stormwater management).
- Approximately 0.5 acre of wetlands and 0.5 acre of Waters of the United States.
- Potential impact on the “Black and White Inn” under the current design recommendations; avoidance alternative may need to be developed at this location pending further investigation regarding the Inn’s historic status.
- Noise impact on 68 residences projected to have noise level exceeding 67 dBA, the DPWT noise level criteria.

The Project Prospectus does not include an estimate of construction or right-of-way costs. Preliminary DPWT staff estimates indicate that the Alternative 8 construction costs, excluding noise mitigation and right-of-way costs, are likely in the range of \$40M to \$50M. Options that construct or retain plans for a six-lane roadway would likely cost approximately \$10M more. DPWT will prepare cost estimates during Phase II of the facility planning process, when the design has been refined and includes right-of-way costs and noise mitigation.

During Phase II of Facility Planning, the Project Prospectus notes that the issues identified by Phase I Facility Planning Process and the remaining elements of the project will be addressed in further detail, including the development of preliminary design plan by the following major activities:

- Developing more accurate base mapping.
- Conducting a natural resources inventory and Forest Stand Delineation. A Forest Conservation Plan will also be required to describe how the four acres of forest stand impacts will be mitigated.

- Developing avoidance/minimization measures for impacts to wetlands and Waters of the United States.
- Delineating the right-of-way requirements in more detail.
- Identifying the precise type, size and location of retaining walls to be used.
- Producing a detailed cost estimate.







Pedestrian and Bicycle Accommodations

Throughout the project length, pedestrians will be accommodated on a five-foot-wide sidewalk on the east side of the roadway. The shared-use path proposed on the west side would accommodate both pedestrians and bicyclists. Both of these facilities are separated from the roadway by a landscape panel.

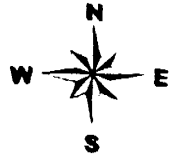
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Attachments

mno to mcph re Goshen Road South v2

LEGEND

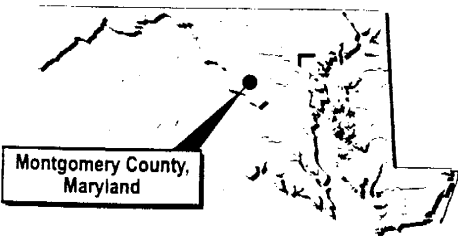
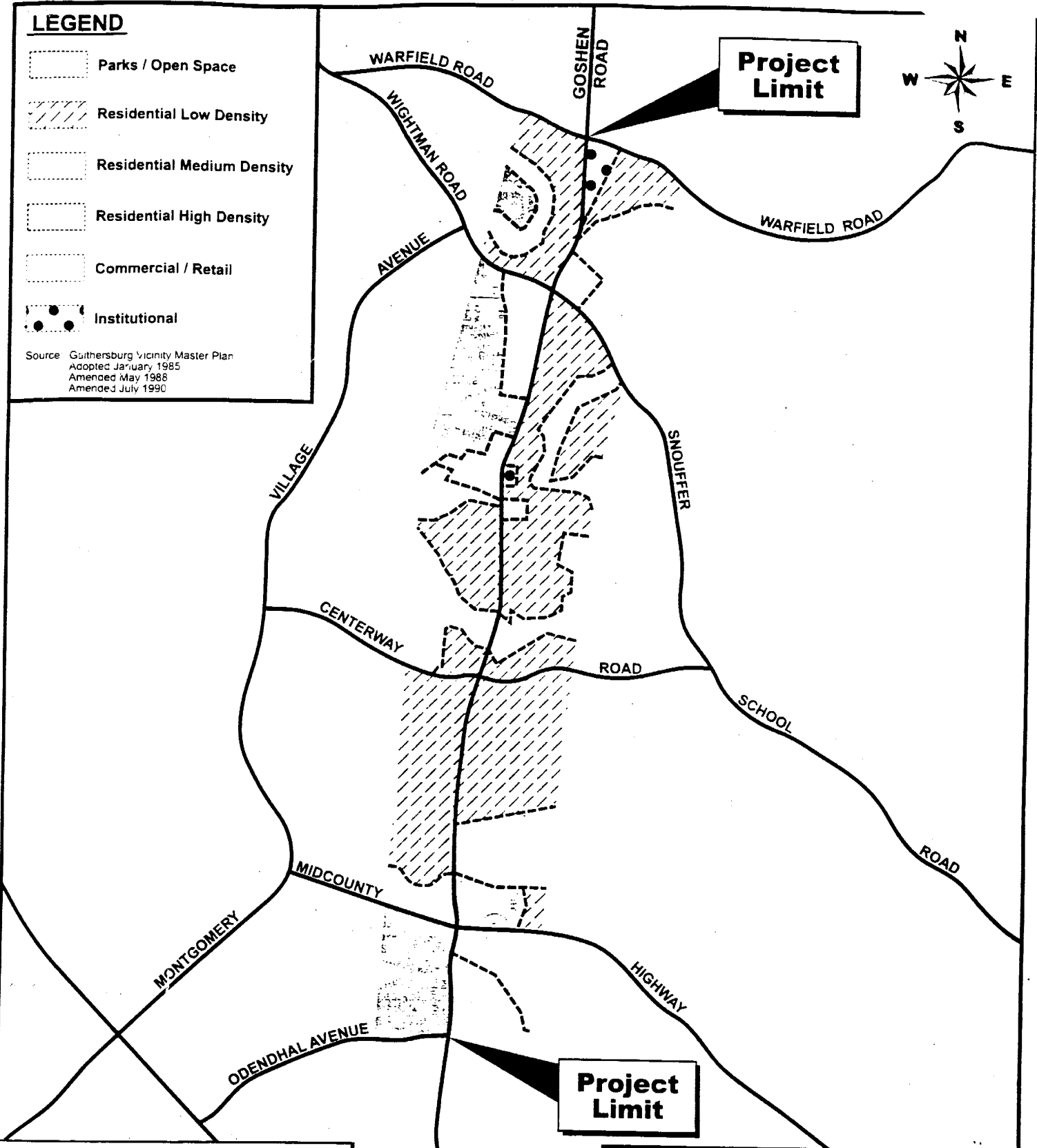
-  Parks / Open Space
-  Residential Low Density
-  Residential Medium Density
-  Residential High Density
-  Commercial / Retail
-  Institutional

Source Guithersburg Vicinity Master Plan
Adopted January 1985
Amended May 1988
Amended July 1990



Project Limit

Project Limit



 **GOSHEN ROAD SOUTH**

LAND USE ADJACENT TO GOSHEN ROAD

 RUMMEL, KLEPPER & KAHL, LLP	Date MAY 2004	Figure 2-1
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ALTERNATIVE 8
4-LANE DIVIDED ROADWAY MINIMIZED SECTION

