

ST. MARY'S COUNTY METROPOLITAN COMMISSION
MOHAWK DRIVE PUBLIC WATER MAIN EXTENSION
FEASIBILITY ANALYSIS

PREPARED BY
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St. Mary's County Metropolitan Commission

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Introduction

Mohawk Drive is located on the eastern side of MD Rte. 5, approximately 500 feet south of the Charles County border. The street and parcels of land that border it are located entirely within the Charlotte Hall Town Center. Please refer to the attached map entitled "Charlotte Hall, North Indian Creek Estates". The first 1050 feet of the south side of Mohawk Drive traverses through property zoned TMX and is currently occupied by a mix of relatively high density commercial retail and professional office users. The first 650' of property on the north side of the road from its intersection with MD Rte. 5 is zoned TMX. Beyond that point fairly large residential parcels adjoin the road until it terminates within approximately 3700'.

Two proposed residential subdivisions along Mohawk Drive are currently being reviewed by the St. Mary's County Government. One of the subdivisions is known as Pueblo Estates which is at the end of Mohawk Court and, as currently proposed, will create five additional lots on the 6.88 acres currently identified as Lot 1B on the County tax maps. In addition, another subdivision, North Indian Creek Estates will create six lots on Lot 500-15A. The owner of North Indian Creek Estates also owns Lot 5000-16B1, Lot 5000-16B2, Lot 5000-16B3 and Parcel 37, which are immediately adjacent to the proposed subdivision. These lots are currently vacant and could support four new houses at one equivalent dwelling unit (EDU) per acre. It is likely that houses will also be constructed on these lots in the near future. Finally, Lot 4, which is across the street from North Indian Creek Estates, is currently vacant and can also be subdivided into at least four additional lots.

It can, therefore, be expected that a total of at least 19 new houses will be constructed in the immediate future on these particular lots and parcels along the first 1850' of Mohawk Drive from Potomac Way, even if no other property owners with existing residences decide to subdivide. If the owners of some of those occupied parcels decide to subdivide, (which frequently occurs when vacant lots within a community are developed at higher densities than the existing parcels), or if any of these parcels decide to maximize density by transferring TDRs, substantially more houses could be constructed.

Purpose of Report

Article 70.9.1.a., of the Adequate Public Facilities provisions of the Comprehensive Plan for St. Mary's County, requires that, "All development in the Development District, Town Centers and Village Centers that is designated for service under the Comprehensive Water and Sewerage Plan (i.e., within a W-1, W-3D or W-6D service area) must be served by a public water system of sufficient capacity." All of the properties along Mohawk Drive have been designated W-6D since at least 1993. Therefore, all of the parcels previously referred to are expected to be served by public water service under the existing Comprehensive Plan and the Comprehensive Water and Sewer Plan (CWSP). This community is designated to be a primary residential growth area in the northern end of St. Mary's County that is intended to minimize the need to construct new residential construction within the Rural Preservation District (RPD). The extension of public water service to serve residential growth within the Charlotte Hall Town Center is, therefore, essential. The purpose of this report is to investigate the feasibility of extending public water service to part or all of Mohawk Drive to serve the previously mentioned subdivisions and vacant lots, as well as to serve existing residences and future lots that can be subdivided from numerous lots that currently have houses constructed upon them, but have the potential for further subdivision.

Discussion

Current Development: At the present time, 40 parcels of land on 174 acres have either direct or indirect access through rights-of-way to Mohawk Drive, Mohawk Court and Big Horn Court. The parcels and lots sizes run from a minimum of 1.19 acres to a maximum of 18.12 acres. This does not include the 89.92 acre parcel at the end of Mohawk Drive beyond Lot 12! The average parcel size is 4.3 acres. Five of the parcels or lots are occupied by at least one EDU. A total of 35 EDU's are currently located on these parcels. See the attached map and Table 1 for the parcel/lot configurations, sizes, owners and existing EDU's. All of these parcels are zoned RNC and have a Base Density of 1 unit per acre. This density can be increased to a maximum of 2 units per acre with a transfer of development rights (TDR). See Table 32.1 and 32.2 of the St. Mary's County Zoning Ordinance dated May 13, 2002, as amended. For the purpose of this study, one EDU (Equivalent Dwelling Unit) per acre has been conservatively used as the maximum development potential for the purpose of estimating the number of additional lots that could be constructed in the project area.

Development Potential: As indicated on the attached Table 1, based on a density of one unit per acre, Phase 1 of Mohawk Drive has the potential to add 38 additional EDUs to the 14 houses that already exist, for a total of 52 EDUs. As also indicated on Table 1, at 1 EDU per acre, at least 79 additional houses could be constructed along Phase 2 of Mohawk Drive and Big Horn Court. When added to the 21 houses currently adjacent to this section of the road, a total of 100 houses are possible in Phase 2. Therefore, a total of at least 117 additional houses could be constructed on the entire length of Mohawk Drive. When combined with the 35 existing houses, the project area has a maximum development potential of 152 houses. It should be noted that a very large (89.92 acres) parcel of land adjoins the back of Lot 12. Parcel 47 could be provided with public water service from Mohawk Drive if an easement can be obtained from either Lot 12 or Lot 11. Ten foot wide utility easements may already exist on the side lot lines of Lots 11 and 12, depending on when the lots were recorded. No effort has been made as part of this report to check the titles of these parcels. If Parcel 47 is connected to the water system, an additional 89 EDU could be served. Therefore, if public water service is extended to Parcel 47, a total of at least 241 EDU's could be developed within the green and red-lined properties along Mohawk Drive - without the use of TDRs!

Existing & Potential Public Water Facilities: At the present time, an 8" diameter water main crosses Mohawk Drive at its intersection with Potomac Way. The water main is only about 300 feet away from the beginning of the previously mentioned residential area. This water main could be extended along the entire length (3700') of Mohawk Drive in order to provide public water service to the adjacent properties, and would be of sufficient size to provide adequate flow rate and pressure. Additional lengths of 130' and 660' would be required to serve Mohawk Court and Big Horn Court respectively. Fire hydrants would be installed at 400' intervals to provide fire protection. Water meters would be installed at each residence to measure usage for billing purposes, to encourage water conservation, and for leakage control.

Public water service could be extended along the entire length of Mohawk Drive and down Mohawk Court and Big Horn Court as one project; or in two phases as indicated on the attached map. The construction of water mains within public roads would be designed and constructed by the St. Mary's County Metropolitan Commission forces. Water main extensions within new subdivisions that are required to serve new lots must be designed and constructed by the developers of the lots at their expense.

Estimated Construction Costs: As indicated on the attached Table 2, the estimated construction cost of Phase 1 is \$107,900 and Phase 2 is \$150,600, for a total cost of \$258,500. As shown on Table 3, if Phase 1 is constructed prior to Phase 2, the Phase 1 cost per potential EDU is \$138.73 and the Phase 2 cost per EDU is \$100.68. If both Phases are constructed at the same time, the cost per EDU is \$113.70. If Parcel 47 is included in the project, the cost per EDU is reduced to \$71.71.

Table 1 lists the estimated annual Capital Cost for each of the properties located within the project area. If the water main is constructed, the annual Capital Cost will be assessed as a Benefit Assessment Charge using the Equal Benefit method of assessment. Property owners will be assessed based on the full development potential of their property. The number of existing EDU's will not have an effect on the Benefit Assessment Charge, unless there are more existing dwelling units than would be permitted under the current Zoning Ordinance. In that case, the higher of the existing or the potential EDU will be assessed. Vacant properties will be assessed, because the value of their property will increase as a result of the water main installation.

In addition to the estimated Benefit Assessment Charge, each property owner will be required to hire a well driller to abandon their well in accordance with procedures prescribed by the St. Mary's County Health Department. The cost to abandon an existing well is approximately \$600. The property owner will also be required to hire a plumber to connect their house to a water meter, which will be located at the front property line. This cost must be determined by each property owner individually based on the shortest distance to the meter from either the existing well or the house. That distance can then be multiplied by a cost of approximately \$25 per linear foot to determine the estimated plumber's fee.

Please note that at the time the property owner obtains a Connection Permit from the Metropolitan Commission, a Water Supply and Storage Charge must be paid for each existing dwelling unit. That charge is currently \$ 840 per EDU and is subject to change based on construction cost inflation. The revenues generated by these charges will be used to eventually increase the well capacity and the elevated storage capacity of the public water system, in order to properly serve the proposed customers.

Recommendation: As previously mentioned, the properties within the project area are all located within the Charlotte Hall Town Center and are designated by the Comprehensive Plan and the Zoning Ordinance for high density residential growth. It is expected that the Pueblo Estates and North Indian Creek Estates subdivisions will trigger a domino of subdivisions of currently undeveloped properties along Mohawk Drive, as well as previously developed lots that possess significant additional development potential. It is believed that when the owners of sparsely developed parcels experience adjoining parcels being developed at a higher density that they will, in turn, elect to take advantage of the financial gain that is possible by re-subdivision. To allow the potential for at least 206 new homes to be constructed over the next several decades on individual wells would be contrary to the Comprehensive Plan for St. Mary's County, would create additional unnecessary risk to the region's confined aquifers and deprive the residences of fire protection and other public health benefits associated with public water systems. The provision of public water service is, therefore, essential if this growth is to occur in a responsible manner. As a Smart Growth area, the Town Center is intended to serve as the designated residential growth area for northern St. Mary's County in order to preserve the Agricultural Preservation District. This analysis indicates that public water service can be extended now at a reasonable cost.

It is, therefore, the recommendation of this Report that public water service be extended to all of the properties within the project area at the same time, as part of one large project. It is also recommended that service be made available to Parcel 47, in order to significantly reduce the overall cost per property owner. All cost for extending water service from the end of Mohawk Drive to Parcel 47, as well as internally within all subdivisions, will be the responsibility of the owners of those parcels.

CAUTION ! ALL COSTS AND CHARGES ESTIMATED IN THIS REPORT ARE PRELIMINARY AND ARE SUBJECT TO CHANGE BASED ON ACTUAL FIELD CONDITIONS AND BID RESULTS.

