

ALTERNATIVE SITES TEST FIT STUDY

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West County Swim Center
- P579900

July 11, 2023

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EXECUTIVE SUMMARY

This report was prepared by MW Studios (consultant) for the citizens of Anne Arundel County, Maryland, on behalf of the County Executive, County Council, Department of Public Works, and Department of Recreation and Parks, to enumerate the process and outcomes resulting from the *Alternate Site Test Fit Study* work completed to date for the West County Swim Center (WCSC) aquatic center project.

PROJECT BACKGROUND

In the 2017 Land Preservation, Parks and Recreation Plan (LPPRP) Anne Arundel County identified a need to construct a third indoor aquatics / swim center facility, which would be located on the western side of the county (the two other existing indoor aquatics facilities being the Arundel Olympic Swim Center, located on Riva Road in Annapolis, and the North Arundel Aquatic Center, located on Crain Highway in Glen Burnie). The project has since been dubbed the “West County Swim Center” or WCSC.

In conjunction with the Anne Arundel County Department of Public Works, Anne Arundel County Department of Recreation and Parks conducted a feasibility study / site selection process in 2020 to determine the best placement for the project within the western region of the county. A total of 14 sites were evaluated. Nine in the first “group,” and then an additional five sites were added. The sites were studied and ranked according to the following evaluation criteria: access, traffic analysis, site analysis, parking, stormwater, availability of water and sewer services, location, potential for expansion, and total projected construction cost. The Provinces Park site (which henceforth may be referred to as the “original” project site) located at 1742 Disney Road in Severn, received the highest rank/score, and therefore, this site was chosen for project.

In November 2021, Anne Arundel County selected Manns Woodward Studios (MW) and its team of design consultants and engineers to design the project at Provinces Park. Furthermore, in early 2022, MW Studios and its design consultants re-evaluated the building program and site, and updated the projected, estimated project cost to construct the building on the Provinces Park / Original site.

On January 30, 2023, as customary for a project of this magnitude, The Department of Public Works, Recreation and Parks, and the County’s design consultant (MW) conducted a Community Information Meeting (CIM) at Meade Middle School in Severn, Maryland. This meeting was attended by over 150 attendees. During the CIM, the design consultant presented the “schematic” or 30% design plan for the building to be located at the Provinces Park site. While comments and feedback were mixed, the majority of participants who submitted comments voiced concerns about constructing the facility at this site. The concerns ranged from loss of existing filed space to increased traffic, among others.

In March of 2023, Anne Arundel County re-engaged MW to conduct an *Alternate Site Test Fit Study*. This study involved evaluating the following three alternate sites with consideration of constructing the WCSC project on one of these potential sites:

- Test Fit Site #1 – “Rockenbach Road / Taylor Family Ltd. Partnership / Parkside Parcel 70 Lot 1” Site
- Test Fit Site #2 – “Fort Meade / 26TH Street” Site
- Test Fit Site #3 – “Bacontown / Board of Education” Site

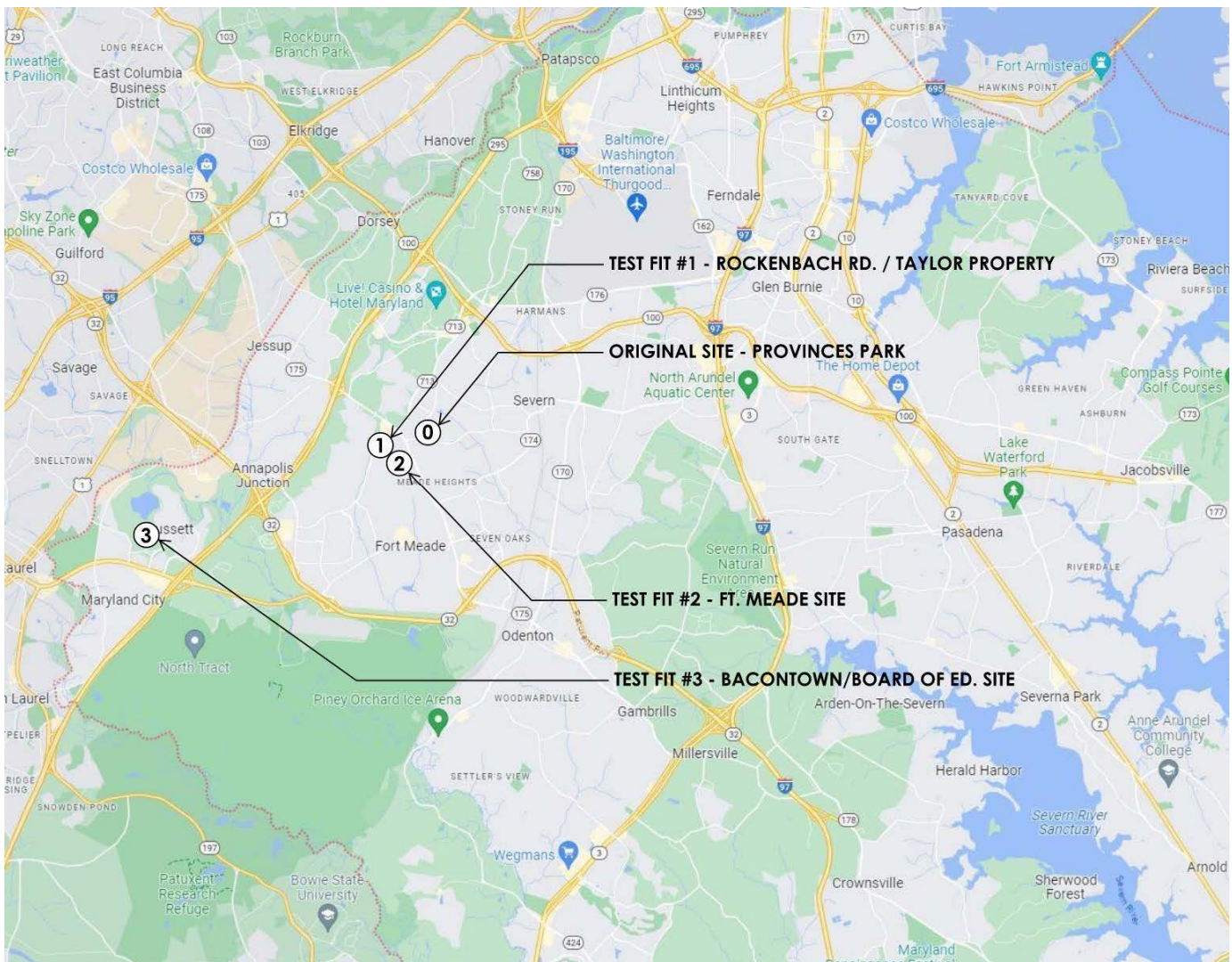


Figure '1' – Map: Test Fit Site Locations

This report describes the evaluation process, procedures, and outcomes of the *Alternate Site Test Fit Study*.

TEST FIT METHODOLOGY

The West County Swim Center building is currently designed to a 30% level of completion or “Schematic” design. For the purpose of completing this Alternative Site Test Fit Study, three sites were analyzed to determine the feasibility of placing the building’s footprint and all required site support elements (parking lots, plazas, fire lanes, storm water management facilities, et cetera) onto these designated sites. The building design was NOT altered to accommodate site-specific conditions; however, costs were estimated to potentially provide minor building design and construction modifications as required to suit unique conditions of some of the sites (for example, steep grades).

Performing the study in this manner will allow the design of the building to progress in a relatively continuous fashion should one of the alternative sites included in this study be selected for additional consideration.

BUILDING CONCEPT DESIGN



Figure '2' – West County Swim Center Floor Plan
(See Appendix # for a full-size copy of this drawing)

BUILDING CONCEPT DESIGN



Figure '3' – West County Swim Front Elevation / Rendering
(See Appendix # for a full-size copy of this drawing)



Figure '4' – West County Swim Southeast Elevation / Rendering
(See Appendix # for a full-size copy of this drawing)



Figure '5' – West County Swim Southwest Elevation / Rendering
(See Appendix # for a full-size copy of this drawing)

PROJECT PROGRAM (AMENITIES)

The project’s program has received refinements as the building design progresses. The building is slated to be LEED® (Leadership in Energy and Environmental Design) certified by the United States Green Building Council (USGBC) with a target of achieving “Silver” level. As it currently stands, the following square footages have been allocated to each building element (amenity) included in this project:

<u>Aquatic Zone Spaces and Elements:</u>	<u>Proposed Area:</u>
Competition Pool.....	12,974 SF
20 lanes	
Depth ranging from 4 – 8 feet, maximum	
50 meter course	
2 meter-wide portable bulkhead	
ADA-compliant pool lift	
Competition Pool Deck.....	12,533 SF
(4) shower stations	
(2) Team Benches.....	1,230 SF
Total: 312 Spectators	
Grandstand Spectator Seating.....	4,610 SF
Total: 453 Spectators	
Officials Area.....	210 SF
Recreation Pool.....	2,461 SF
Depth ranging from 0 – 4 feet	
Water play structures	
Water slide (18 foot height)	
(4) warm-up lanes	
Lazy river/current pool	
ADA-compliant pool lift	
Hot Tub.....	251 SF
32-person capacity	
ADA-compliant pool lift	
Kiddie Pool.....	701 SF
Indoor pool	
Depth ranging from 0 – 1.5 feet	
Beach-style, graduated (zero) entrance	
Recreation Pool Deck Area.....	7,884 SF
15 feet average width	
Potentially with a pipe chase below	
(5) shower stations	
 SUB-TOTAL AREA, Aquatic Zone Spaces and Elements.....	 42,854 SF



<u>Public 'Dry' Zone Spaces:</u>	<u>Proposed Area:</u>
Building Lobby & Circulation.....	4,850 SF
Classroom / Conference Room.....	491 SF
Lifeguard Office.....	172 SF
First Aid Station.....	171 SF
Party Rooms.....	1,000 SF
(2) individual rooms, 500 SF ea.	
Locker Rooms.....	2,764 SF
(2) separate male / female, ±1382 SF ea.	
Showering and toilet facilities included	
Family Changing Rooms.....	727 SF
(6) separate rooms, ±65 SF ea.	
 SUB-TOTAL AREA, Public 'Dry' Zone Spaces.....	 10,175 SF

<u>Administrative and Support Zone Spaces:</u>	<u>Proposed Area:</u>
Manager Office.....	145 SF
Assistant Office.....	144 SF
Office.....	101 SF
Meeting Room.....	328 SF
Work Room.....	198 SF
Communal Workspace.....	237 SF
(3) workstations, filing, and storage	
Administrative Suite.....	241 SF
Toilet Rooms.....	103 SF
(2) Unisex toilet rooms ±51 SF ea.	
 SUB-TOTAL AREA, Administrative and Support Zone Spaces.....	 1,497 SF

Project Program continues on next page...



Building and Pool Support and Storage Spaces:

Proposed Area:

Storage Room.....	42 SF
Aerobics Storage Room.....	136 SF
Chemical Storage Room.....	185 SF
Pool Filter, Pump, and Equipment Room(s).....	1,645 SF
Pool Equipment Storage Room.....	806 SF
(2) Custodial Closets.....	80 SF
Electrical Room.....	300 SF
Mechanical Room.....	1,226 SF
Water Service Room.....	133 SF
IDF Room.....	55 SF
MDF.....	71 SF

SUB-TOTAL AREA, Building and Pool Support and Storage Spaces:.....4,679 SF

Project Program Totals, Indoor (Building):

Proposed Total Programmed Indoor Building Area.....	59,205 SF (net)
Proposed Total Building Gross Area (Includes walls and other misc. building space).....	62,958 SF (gross)

Outdoor Amenities

Proposed Area:

Outdoor Splash Pad & Patio Area.....	5,779 SF
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SUB-TOTAL AREA, Outdoor Amenities.....5,779 SF (net)

TOTAL PROJECT BUILDING AREA (Gross Building + Outdoor Programmed Areas).....73,701 SF



PROVINCES PARK - PRELIMINARY SITE DESIGN

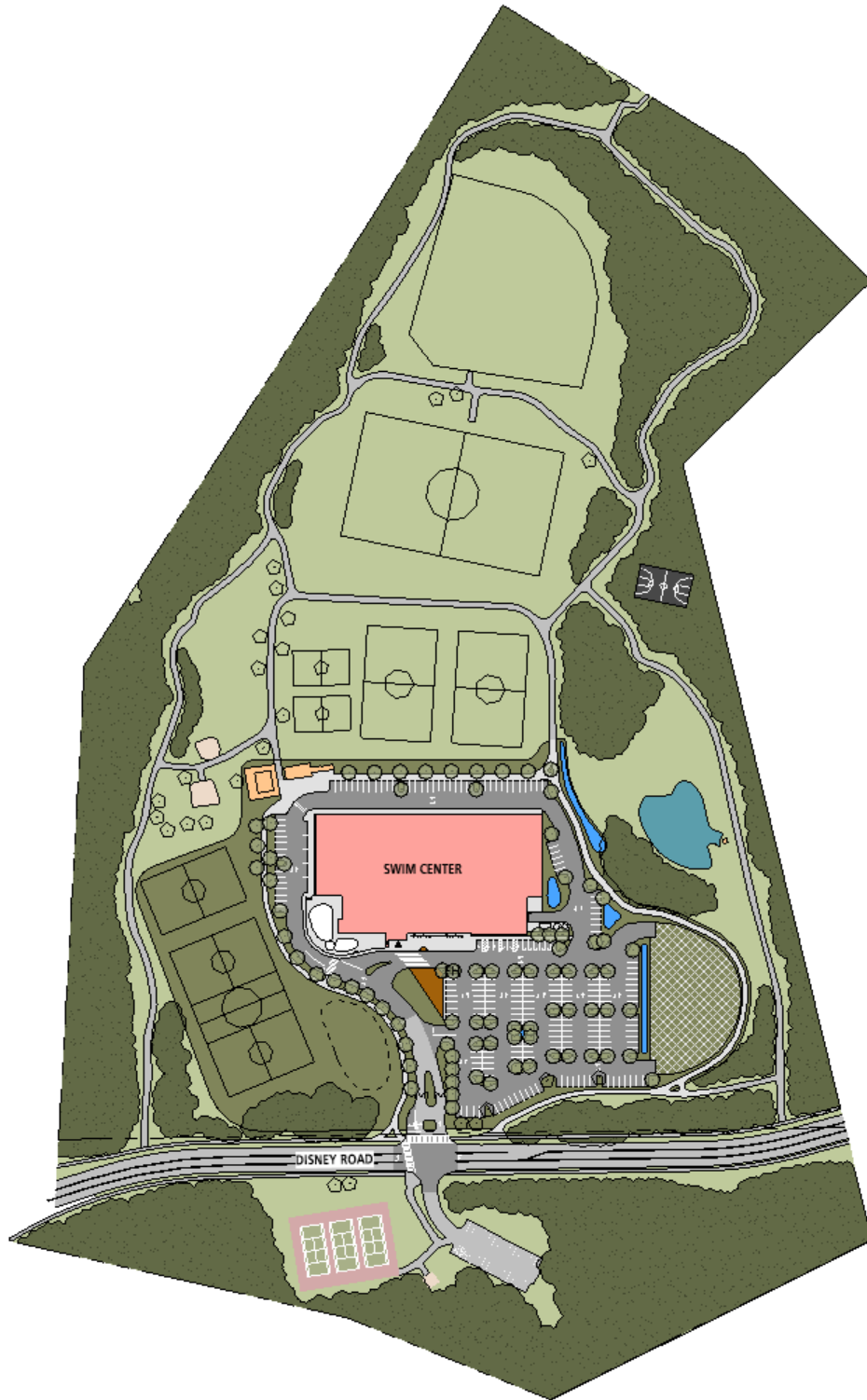


Figure '6' – Provinces Park Site Design with Swim Center

ALTERNATIVE SITE TEST FIT #1
 (Rockenbach Road / Taylor Family Ltd. Partnership / Parkside Parcel 70 Lot 1 Site)

Regional Context – Site #1

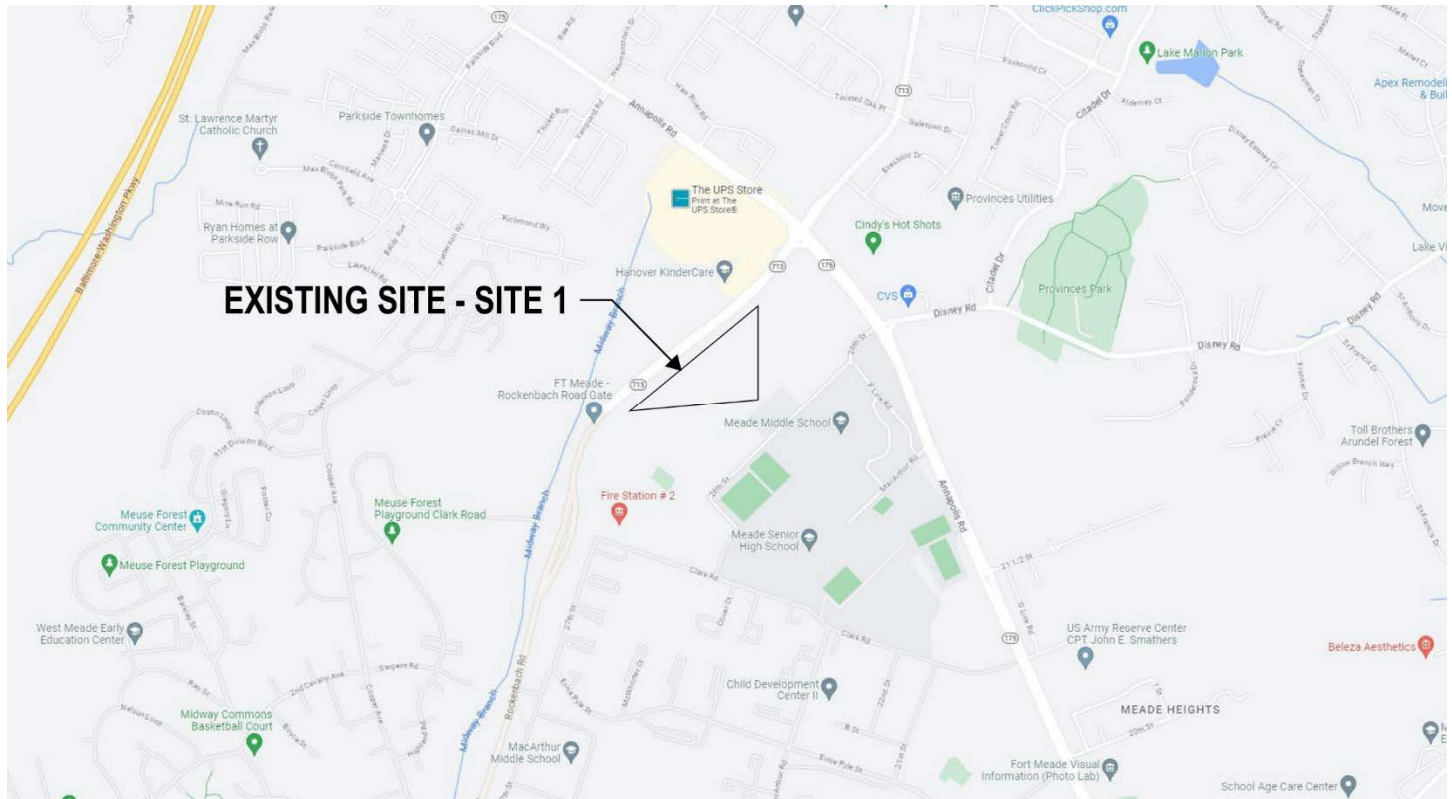


Figure '7' – Regional Context Map – Site #1

Alternative Test Fit Site #1 is located in the northwestern quadrant of Anne Arundel County, Maryland. The site lies approximately 0.35 miles from the west county geographical population center “target” for this project and is approximately 1.25 miles east of Baltimore Washington Parkway at the Annapolis Road (Maryland 175) junction. The site is accessible from points east due to its close proximity to Maryland Routes 100 and 32.

The area immediately to the north of the site can generally be categorized as “commercial” and contains numerous commercial shopping centers, restaurants, gas stations, and newer medium-density residential townhome and apartment developments. United States Army Fort George G. Meade lies directly south of the property.

Coincidentally, Alternative Test Site #2 lies immediately adjacent to Site #1 to the south/southeast.

Existing Conditions & Site Inventory – Site #1

This 13.4775 acre property with 1600 feet of frontage on Rockenbach Road (Maryland Route 713) is bordered on two sides by Fort Mead US Army property. It is part of Parkside Subdivision Phase One, Parcel 1C, also known as Parcel 70 Lot 1. The Parkside development is on 250 acres previously known as Blobs Park. The property is currently privately owned with state records showing “Taylor Family Ltd Partnership A” as the ownership entity.

There are two buildable areas within this parcel. The two buildable areas are bisected by steep slopes and a 4.4 acre recorded forest conservation easement. The larger of the two buildable areas is approximately 6.3 acres, however, the access to this northern area is hindered by steep slopes along Rockenbach Road. The steep slopes along Rockenbach may be a reason why no one has previously moved forward with developing this property. Grading the steep slope area for access would be costly and it would further reduce the size of the buildable acreage. The smaller buildable area in the southwest is not confronted with steep slopes at the access point, however it is only 1.3 acres in size which would not offer any significant recreational use.

The southeast section of Fort Meade is an EPA Superfund environmental clean-up site, however that area of Fort Meade is a half mile from the subject property. The County’s typical Phase I Environmental Assessment will determine if there are any impacts from the Superfund site (the scope of this study did not include a Phase 1 assessment).

This parcel is located within the state designated Priority Funding Area and the county’s Targeted Growth Area.

This site is currently unimproved and nearly 100% forested.

Site #1 Quick Stats

Account No.	Map	Parcel	Lot	Property	City	Acres	Deed	Plat
04-420-902272210	13	70	1	Taylor Family Ltd Partnership A	Jessup	13.4775	Liber 18929 Folio 00781	0321/0036



Existing Conditions – Site #1



Figure '8' – Aerial Photography – Site #1

Wetlands, Streams, Waterways, and Buffers – Site #1



Figure '9' – Streams, Waterways, and Buffer Zones Plan – Site #1

An ephemeral stream is presumed to exist within the site's "valley". A presumed buffer requirement of 100 ft has been applied. Per our desktop analysis, the site does not appear to contain any tidal or non-tidal wetlands, other streams, or waterways, but this should be confirmed by field survey if the development of this site progresses.

The site lies within the watershed of the Little Patuxent River.

Site Topography and Steep Slopes– Site #1



Figure '10' – Steep Slope Analysis Plan – Site #1

The site is classified as 5% flat, 90% moderate slopes, and 5% steep slopes. Some steep slopes occur along the Rockenbach Road frontage.

Preliminary Forest Stand Delineation and Conservation Easements– Site #1



Figure '11' – Preliminary Forest Delineation Plan and Conservation Easements – Site #1

The property appears to be nearly 100% forested. A recorded conservation easement of approximately 4.6 acres in size bisects the site. A second easement of approximately 0.4 acres is located to the northeast of the larger one, for a total of 5.0 encumbered acres, or approximately 37% of the total site area. The scope of this study did not entail exploration of termination and repurchase of 4.6 acre easement, which would likely yield a significantly more “usable” site. However, the costs associated with this “buyback” could be significant.

Identification and Preservation of Historic and Cultural Elements – Site #1

A search of the MEDUSA database (Maryland’s Cultural Resource Information System) indicates no apparent existing historic or cultural elements exist on the site. However, this should be confirmed by field survey if the development of this site progresses.



Figure '12' – Cultural Resources Map – Site #1

Site Access & Probable Roadway Improvements – Site #1

Limited site access can be afforded via Rockenbach Road (Maryland Route 713). In accordance with Maryland State Highway Administration (SHA) and Maryland Department of Transportation (DoT) standards and guidelines, roadway improvements will likely be required in order to develop this site into a swim center. Vehicular access to the site would likely be limited to a single point (as shown) or possibly two points.

New acceleration and deceleration lanes at the site’s proposed vehicular entrance constructed to lengths required for a 40-mph posted speed limit have been included in the concept design. This will entail adding a sixth lane to the existing 5-lane highway, and reconstruction of a hard shoulder in the area of the new turn lanes. The 5-lane highway’s existing shared left turn lane should be converted to a left-turn movement “in” only lane serving west-bound traffic, constructed to a length required for a 40-mph posted speed limit. The opposing side of this new left-turn movement “in” lane should be decommissioned as a shared center turn lane for safety reasons via new striping and signage.

Given the volume and speed of traffic currently utilizing this segment of Rockenbach Road (Maryland Route 713) and with consideration of the relative straightness and good site distance at the proposed location of the intersection, it is unlikely that the new intersection will need to be signalized. However, this should be confirmed by a traffic study should the development of this site progress.



Figure '13' – Probable Roadway Improvements at Rockenbach Road – Site #1

Analysis of Existing Transportation Systems and Potential Points of Connection – Site #1

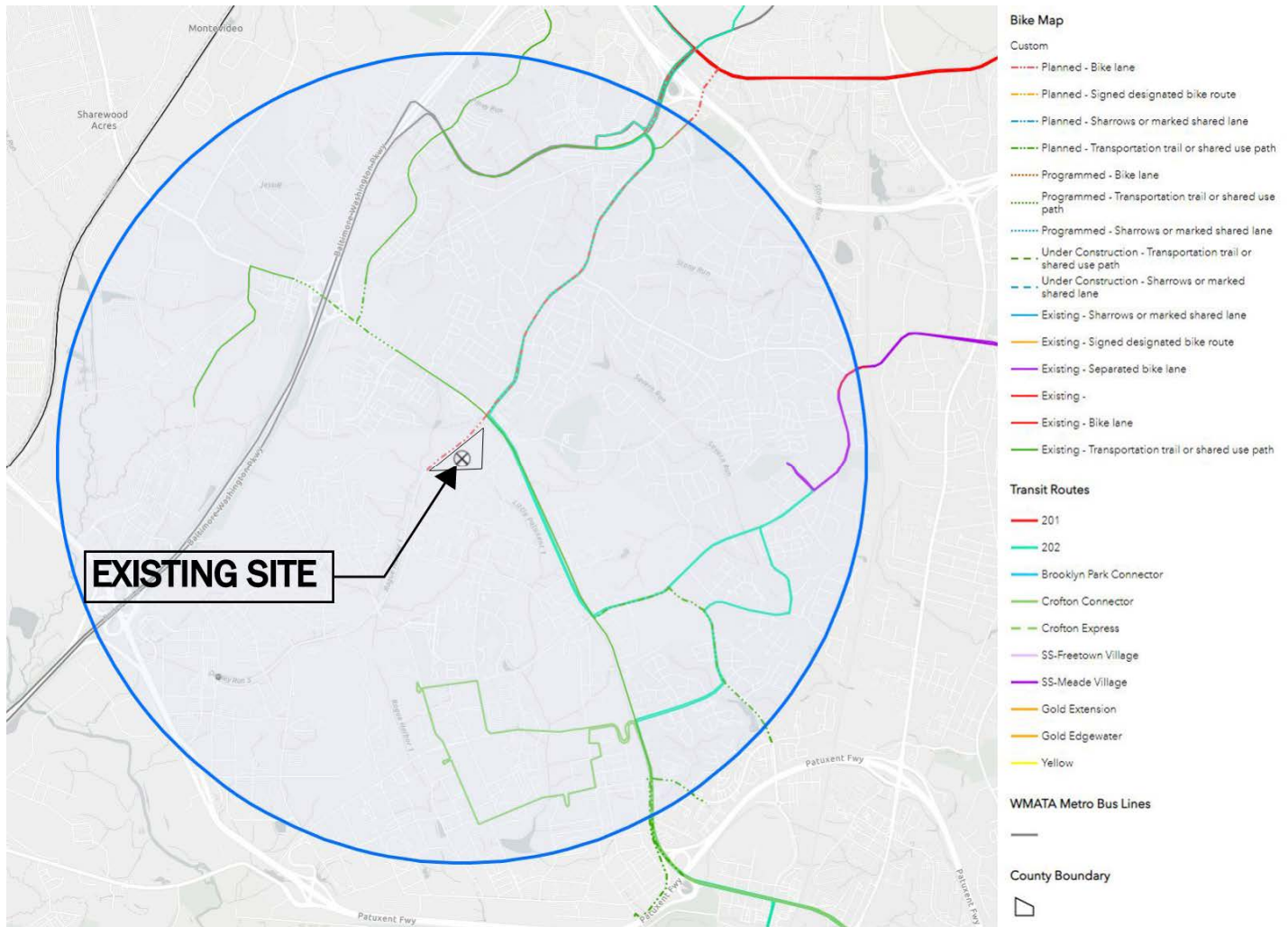


Figure '14' – Transportation Systems and Potential Points of Connection Map – Site #1

The site is not presently served by any transportation systems or infrastructure other than Rockenbach Road (Maryland Route 713). However, a future bike lane is shown to be planned for this segment of Rockenbach Road. The site lies approximately 600 feet from existing Anne Arundel County Transit Route 202, which connects the Ft. Meade area to the Arundel Mills development to the north, and Odenton MARC station to the south. Furthermore, an existing dedicated hiker/biker (shared use) path runs along Annapolis Road (Maryland Route 175) approximately 600 feet to the north of the site. Therefore, this site could feasibly be connected to existing bus transit routes and the county’s dedicated bicycle infrastructure network.

Zoning – Site #1

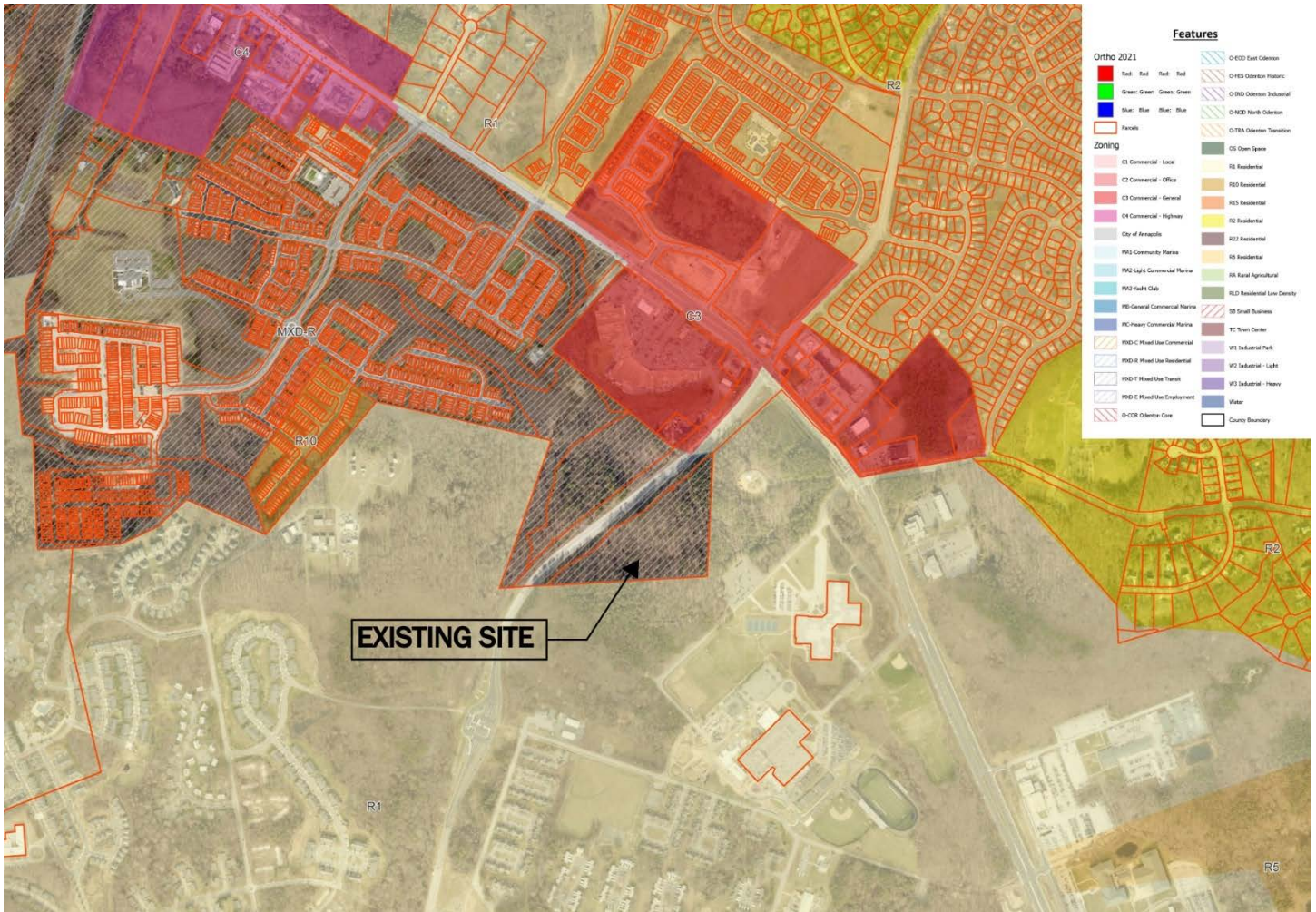


Figure '15' – Zoning and Land Use Map – Site #1

The site is zoned MXD-R: mixed use development – residential. Although projects constructed on county-owned property are technically exempt from conformance to zoning regulations, the project’s use, which has been defined as “*swimming pools and recreation facilities, community, if located 50 feet from each lot line and dwelling unit*” is permitted by matter-of-right within the MXD-R zoning category. Therefore, a 50-ft setback from all “interior” property lines has been imposed by us onto the subject property.

It is not anticipated the building will exceed the 90-foot height limit associated with MXD-R zoning category.

Availability of Utilities – Site #1

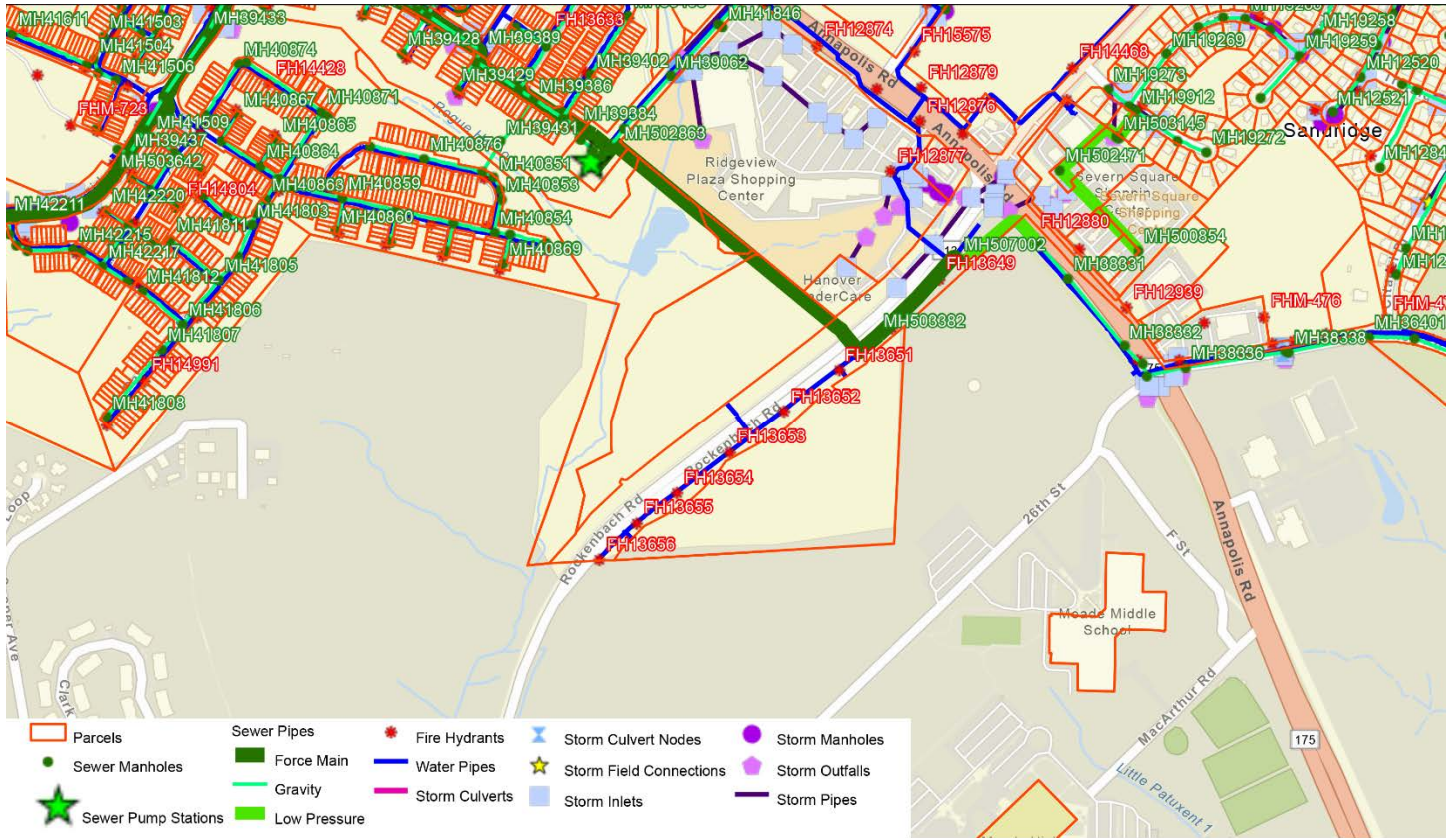


Figure '16' – Existing Availability of Utilities Map – Site #1

Water Service

Public water service in this area is provided by Anne Arundel County Bureau of Utilities. While the site is not currently connected to public water service, a 24" existing water line exists along Rockenbach Road, directly adjacent to the site. Therefore, it is feasible that this site would be served by public water with only limited extensions required to bring water on site.

Sewer Service

Public sewer service in this area is provided by Anne Arundel County Bureau of Utilities. While the site is not currently connected to public sewer service, a 12" existing gravity sewer line exists in Rockenbach Road, approximately 50 ft from the site's north apex/corner. Therefore, it is feasible that this site could be served by public sewer with only limited extensions to connect to existing public lines. It would need to be determined during later design phases if a portion of the extension would need to be force main.

Electric Service

Electric service in this area is provided by Baltimore Gas and Electric Company (BGE) a regulated public utility. While the site is not currently connected to an electric service, our preliminary discussions with BGE have revealed that electric service is available to serve the project. A new underground feeder line would need to be extended approximately 1,000 ft. from the area near the intersection of Maryland route 175 and Rockenbach Road to provide the anticipated 112.5 KVA electrical service required for this building utilizing a 277/480 volt, three-phase, four-wire connection.

Natural Gas Service

Natural gas service in this area is provided by Baltimore Gas and Electric Company (BGE) a regulated public utility. While the site is not currently connected to natural gas service, our preliminary discussion with BGE has revealed that gas service is available to serve the project. A new 8" underground gas line would need to be extended approximately 1,000 ft. from the area near the intersection of Maryland route 175 and Rockenbach Road to provide the anticipated 12,000 cu ft/hr gas service required for this project.

Communications and Internet Service

Communications and internet service in this area is provided to commercial buildings by Verizon, Comcast, and Broadstripe. A new fiber optic line would need to be extended approximately 1,000 ft. from the area near the intersection of Maryland Route 175 and Rockenbach road to provide service for the project.

Full Site Analysis – Site #1



Figure '17' – Full Site Analysis Plan – Site #1

When the existing site constraints are applied to the site plan, a potentially developable area of approximately 6.3 acres results. Note, this potentially developable acreage does not include a small portion of the site's southwest corner that is also believed to be "developable". It's important to note, it does presume 0.4 acres presently encumbered by conservation easement will undergo buyback, the steep slopes within this area will be graded accordingly, and the area will be cleared and grubbed of forest.

Concept Design – Site #1



Figure '18' – Concept Design Plan – Site #1
(See Appendix # for a full-size copy of this drawing)

Placing the West County Swim Center building and required site support elements within the 6.3 acre potentially developable area appears to be feasible as shown in Figure 18. This site concept design approach yields 200 parking spaces.

The site could be served by a single point of vehicular ingress and egress by way of a new roadway connection with Rockenbach Road (Maryland Route 713) with a possible second point of vehicular egress to the north for emergency or maintenance use. We recommend the new roadway connection be placed at the approximate midpoint between the Ft. Meade Gate (to the south) and the intersection of Rockenbach Road (Maryland Route 713) and Annapolis Road (Maryland Route 175) to the north.

Notable potential deficiencies of associated with utilization of this site:

- **Lack of “Walkability” and Connectiveness to Existing Transportation Networks:** This site lacks any connectivity to existing pedestrian, bicycle, and mass transportation networks, although as previously stated, the site could be connected to nearby networks, both existing and planned. The costs associated with building pedestrian walks, bike lanes, bus infrastructure, etc., have not been included within this study. The site is currently accessible by private vehicle only, which could limit access to those who depend on transportation networks for access and mobility.
- **Grading and Site Retaining Walls:** Development of this site will require extensive grading, clearing of existing forest, and construction of retaining walls in order to fit all required programmatic elements within the potentially developable area. The costs associated with this sitework, particularly construction of the required retaining walls, could be significant.
- **Building Orientation:** The building cannot be placed the ideal “solar” orientation, which generally entails placing the “long” axis of the building running 15 degrees offset from the east/west lines of latitude. Instead, we recommend aligning the building’s “long” axis with the existing highway. Do this may require additional solar “controls” to be placed on the building’s design to mitigate heat gain and reduce glare on the pool water to an acceptable level.

Notable positive attributes:

- This’s site weaknesses are also its strengths. The site is relatively isolated from surrounding development. It essentially has no “neighbors” immediately adjacent to it, with the exception of the existing Board of Education buildings (e.g., Meade Middle and High Schools) located on the federal government’s property. Therefore, it is unlikely that the adjacent communities or neighborhoods would be opposed to the development of this site into a swim center.
- It should be mentioned that the southern end of the site could be outfitted with additional recreational amenities, such as hiking trails.

ALTERNATIVE SITE TEST FIT #2
(Fort Meade / 26th Street Site)

Regional Context – Site #2

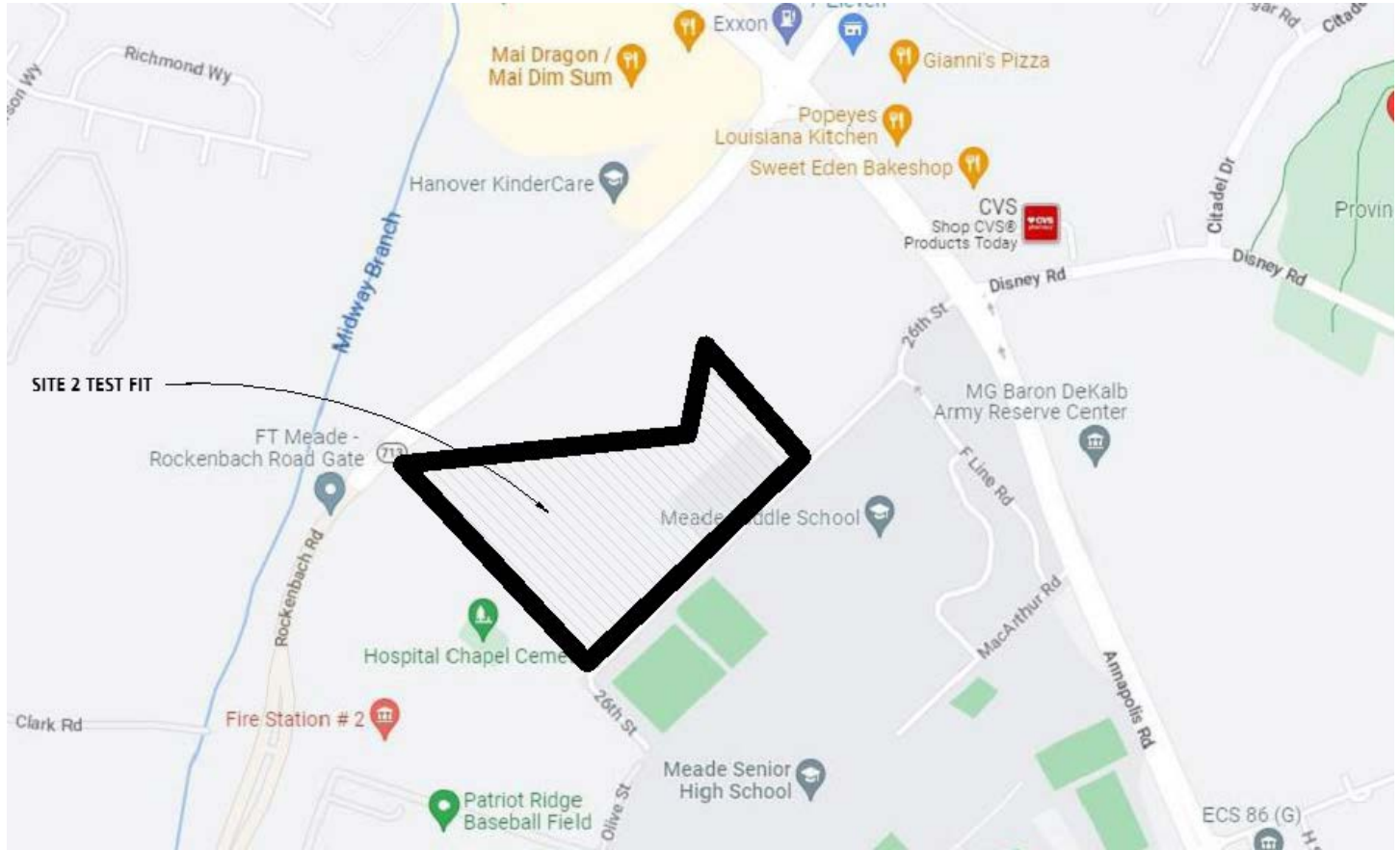


Figure '19' – Regional Context Map – Site #2

Alternative Test Fit Site #2 is located in the northwestern quadrant of Anne Arundel County, Maryland. The site lies approximately 0.35 miles from the west county geographical population center “target” for this project and is approximately 1.25 miles east of Baltimore Washington Parkway at the Annapolis Road (Maryland 175) junction. The site is accessible from points east due to its close proximity to Maryland Routes 100 and 32.

The area immediately to the north of the site can generally be categorized as “commercial” and contains numerous commercial shopping centers, restaurants, gas stations, and newer medium-density residential townhome and apartment developments. United States Army Fort George G. Meade lies directly south of the property.

Coincidentally, Alternative Test Site #1 lies immediately adjacent to Site #2 to the north/northwest.

Existing Conditions & Site Inventory – Site #2

This site lies completely on United States Army Fort George G. Meade, federal government property. The site's eastern, southern/southeastern, and western boundaries were selected for the purpose of completing this study and do not represent actual property lines or any type of legitimate parcel/subdivision within Ft. Meade. The site is surrounded by other Ft. Meade property owned by the federal government on its western, southern/southeastern, and eastern sides. Ft. Meade Water Tower #4 is located north/northeast of this site. The two legs of the site that form its northern boundary coincidentally border Site #1, which is privately owned and not part of Ft. Meade's property. Meade Middle and High Schools are located south of 26th Street "across the street" from the site.

With this understanding, site #2 measures 17.3 acres in area with approximately 1,200 feet of frontage along 26th Street.

The county would need to receive permission to use or "rent" the site from the Army in order to construct the swim center on this site. An arrangement could possibly be made to lease the property from the federal government for \$1 per year over an agreed period of time.

This site's only notable improvement is a paved surface parking lot located at its eastern corner. This parking lot contains approximately 190 spaces and is presently utilized by the Board of Education for school use (Meade Middle and High Schools). It may be possible to enter into a parking lot sharing agreement to utilize this existing lot for overflow purposes if the swim center is built here. The site is approximately 85% forested.

A low "valley" bisects this site into essentially two distinct areas to the east and west. The existing parking lot is in the eastern area. The western area is potentially usable for development.

The southeast section of Fort Meade is an EPA Superfund environmental clean-up site, however that area of Fort Meade is a half mile from this site. It's recommended that a Phase I Environmental Assessment be conducted if the county moves forward with the development of this site to determine if there are any impacts from the Superfund site (the scope of this study did not include a Phase 1 assessment).

Existing Conditions – Site #2



Figure '20' – Aerial Photography – Site #2

Wetlands, Streams, Waterways, and Buffers – Site #2



Figure '21' – Wetlands, Streams, Waterways, and Buffer Zones Plan – Site #2

An ephemeral stream is presumed to exist within the site's "valley". A presumed buffer requirement of 100 ft has been applied. Per our desktop analysis, the site does not appear to contain any tidal or non-tidal wetlands, other streams, or waterways, but this should be confirmed by field survey if the development of this site progresses.

The site lies within the watershed of the Little Patuxent River.

Site Topography and Steep Slopes – Site #2



Figure '22' – Steep Slope Analysis Plan – Site #2

The site is classified as 15% flat, 82% moderate slopes, and 3% steep slopes. Some steep slopes between the existing paved parking area and the presumed stream.

Preliminary Forest Stand Delineation and Conservation Easements



Figure '23' – Preliminary Forest Delineation Plan and Conservation Easements

The property appears to be nearly 85% forested. Only the area around the existing paved parking lot is unforested. Based on our desktop analysis, there are no known conservation easements in place. However, it is recommended that this be confirmed before further planning takes place.

It is likely that a portion of the existing forested area will need to be reserved for conservation purposes. Being that Site #2 lies wholly on a federally-owned military installation, the requirements for afforestation may differ from the development of private land. The Army Corps of Engineers may need to be consulted.

Identification and Preservation of Historic and Cultural Elements

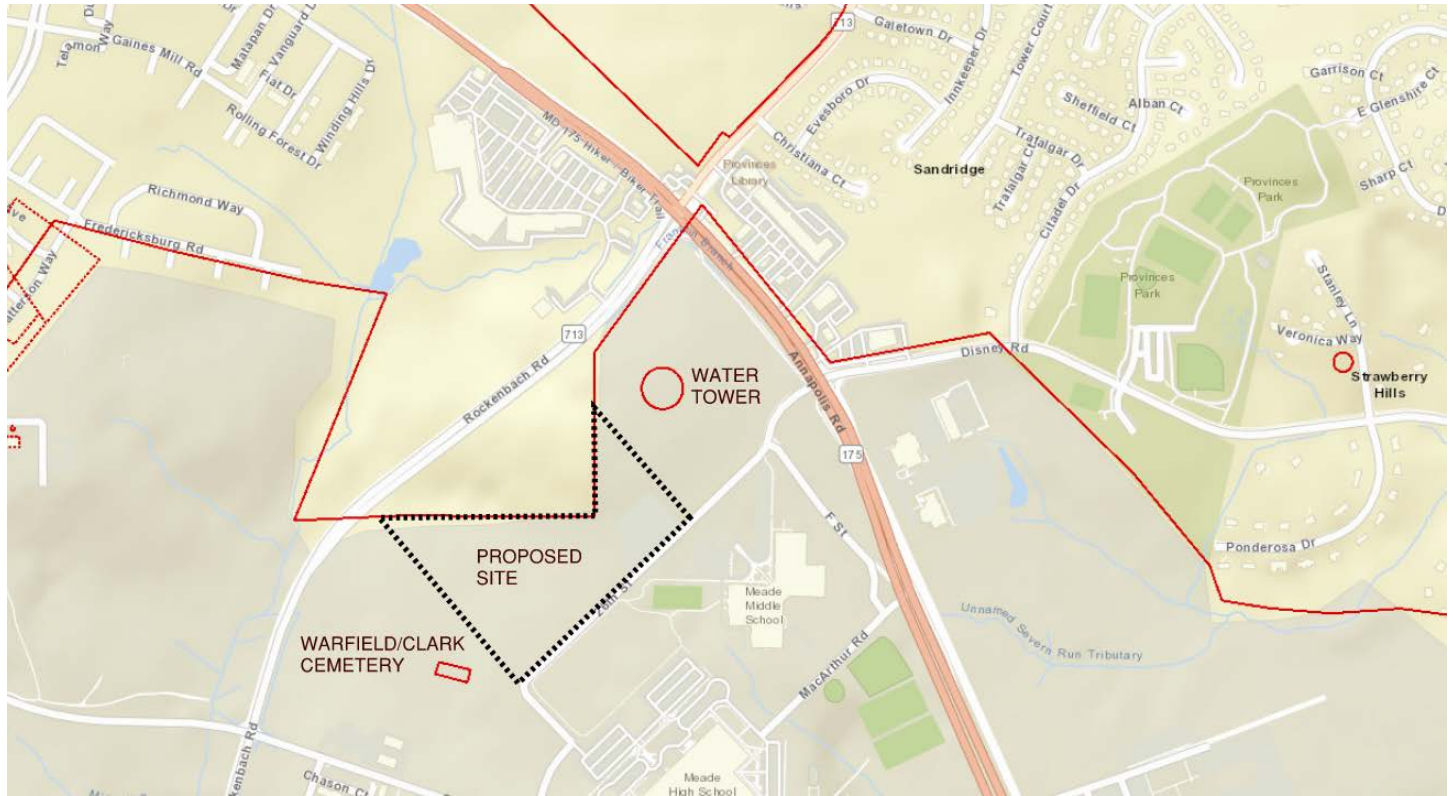


Figure '24' – Cultural Resources Map – Site #2

A search of the MEDUSA database (Maryland's Cultural Resource Information System) revealed two known potential cultural resources in close vicinity of this site; however, none are within the proposed limits of the site. Both the water tower, located northeast of the site, and Warfield/Clark Cemetery, located nearly adjacent to the site to its southwest, are listed on the Maryland Inventory of Historic Properties:

- AA-2370 Fort George G. Meade Warfield/Clark Cemetery
- AA-2734 Fort George G. Meade Water Tower 004 (WT004)

The Determination of Eligibility (DOE) for both the water tower and cemetery was prepared by the US Army Corps of Engineers (USACE) on or about December 1, 2006. Refer to Figures 25 and 26 on the following pages. Neither of these inventoried resources currently have MHT eligibility, and neither are listed on the National Register of Historic Places (NRHP). However, further investigation may be required should development of this site take place.

Project and Property Data		Print
Property Name:	Warfield \ Clark Cemetery, Fort George G. Meade	MIHP No: AA-2370 ?
Project:	Fort Meade Cultural Resource Management Plan Update	Agency: ARMY
Evaluation ?		
MHT Eligibility Determination: <i>Not eligible</i>		Review Date: 1/24/2008
Address Information ?		
Address:	Rockenbach Road and Clark Road within Fort George G. Meade	
Town:	Fort Meade	Zip Code: 20755-5115
Counties:	Anne Arundel	USGS Quad(s): Odenton
Ownership Information		
Owner:	Fort George G. Meade	Tax Account ID:
Tax Map Number:		Tax Parcel Number:
Related Records ? <small>Click on hyperlink to go to related record</small>		Name of District ?
■ MIHP	Fort George G. Meade; Warfield/Clark Cemetery	Fort Meade
■ NRHP	No NRHP Records	
■ Easement	No Easement Records	
Preparer's Recommendation		
Agency Prepared By: U.S. Army Corps of Engineers		
Preparer's Name: First:		Last: Date Prepared: 12/1/2006
Preparer's Eligibility Recommendation:	No	Is there a previous DOE for this property?:
Criteria: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D ?	Consideration: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> None ?	
If the property is a contributing/non-contributing resource to a NR district/property: ?		
District Inventory No.:		District Eligible: <input type="checkbox"/>
District Name:		District Listed: <input type="checkbox"/>
Documentation is presented in:		
Description of Property and Justification:		
<p>The Warfield/Clark Cemetery has graves dating to the 19th century but the majority of the burials have taken place since 1950, the most recent dating to 2004. The site is marked as the "Hospital Chapel Cemetery" on the Odenton USGS quad sheet. Nineteen stone markers were visible at this cemetery. The cemetery is located at the end of a dirt road, approximately one-half mile northwest of the Fort Meade High School. This cemetery does not contain the graves of any persons of transcendent importance, is not associated with historic events, does not possess distinctive design features, and is not of significant age. The site has limited research potential so does not meet NRHP Criteria Consideration D. The Warfield/Clark Cemetery is therefore ineligible for listing in the NRHP.</p>		

Figure '25' - MIHP Inventory Sheet for Warfield/Clark Cemetery

Project and Property Data		Print
Property Name:	Fort George G. Meade Water Tower #004	MIHP No: AA-2374
Project:	Fort Meade Cultural Resource Management Plan Update	Agency: ARMY
Evaluation		
MHT Eligibility Determination: <i>Not eligible</i>		Review Date: 1/24/2008
Address Information		
Address:	South of intersection of Annapolis Road (MD 175) and Ridge Road within Fort George G. Meade	
Town:	Fort Meade	Zip Code: 20755-5115
Counties:	Anne Arundel	USGS Quad(s): Relay
Ownership Information		
Owner:	Fort George G. Meade	Tax Account ID:
Tax Map Number:		Tax Parcel Number:
Related Records		Name of District
<p><small>Click on hyperlink to go to related record</small></p> <ul style="list-style-type: none"> ■ MIHP Fort George G. Meade; Water Tower 004 (WT004) ■ NRHP No NRHP Records ■ Easement No Easement Records 		Fort Meade
Preparer's Recommendation		
Agency Prepared By: U.S. Army Corps of Engineers		
Preparer's Name: First:		Last: Date Prepared: 12/1/2006
Preparer's Eligibility Recommendation:	No	Is there a previous DOE for this property?:
Criteria:	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input checked="" type="checkbox"/> ? Consideration: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> None <input checked="" type="checkbox"/> ?	
If the property is a contributing/non-contributing resource to a NR district/property: <input checked="" type="checkbox"/> ?		
District Inventory No.:		District Eligible: <input type="checkbox"/>
District Name:		District Listed: <input type="checkbox"/>
Documentation is presented in:		
Description of Property and Justification:		
<p>The water towers at Fort Meade were constructed between 1928 and 1955. The water towers were constructed across the installation with no apparent plan. Two water towers are associated with the Camp Meade period and the transition to a permanent installation. Two water towers are associated with World War II mobilization construction. The fifth water tower was constructed in 1955. This water tower is located near a family housing area. Construction of this water tower predated the housing area, which was built in 1959.</p> <p>Water Tower 004 (WT004) was constructed in 1941. The tower is located on Hunt Hill, near Route 175 and 26th Street, one of the highest points on the northern part of the post. The tower is 106 feet tall and has a capacity of 500,000 gallons of water. The circular tank is steel and</p>		

Figure '26' - MHIP Inventory Sheet for Ft. Meade Water Tower

Site Access & Probable Roadway Improvements – Site #2

Limited site access can be afforded via 26th Street, an existing paved “base” road owned by the Federal Government. The road is currently a +/- 22-foot wide paved roadway with a painted yellow centerline marking, but contains no hard shoulders. The road has a posted speed limit of 25 MPH. This segment of 26th Street currently provides “off base” unrestricted civilian access to Meade Senior High School, and presumably it would provide the main point of access to the Swim Center development, should the development be located here.

Off-base civilian traffic can gain access (ingress) to this site by way of two intersections with Maryland State Route 175 (Annapolis Road) the primary one being at the existing signalized intersection with Disney Road, and the secondary being at an unsignalized “T” intersection with MacArthur Road by way of F Line Road, although F Line Road appears to be partially gated and is probably reserved for emergency access only. Vehicular egress from this area is 100% channel to the signalized intersection of Maryland 175 and Disney Road. It’s important to note that both Meade Middle and High Schools share this singular point of egress.

Pedestrian and bicycle access can be provided to this site by a connection to the existing bike path that runs adjacent to and southeast of the vehicular portion of 26th Street (see Analysis of Existing Transportation Systems and Potential Points of Connection Section for more information).

During our site visit to this property, this segment of 26th Street appeared to be in need of resurfacing. Funding for roadway improvements, which may include resurfacing, widening, and adding safety shoulders and crosswalks, should be included within this site’s potential budgetary cost estimates.



Figure ‘27’ - Probable Roadway Improvements to 26th Street – Site #2

Analysis of Existing Transportation Systems and Potential Points of Connection – Site #2

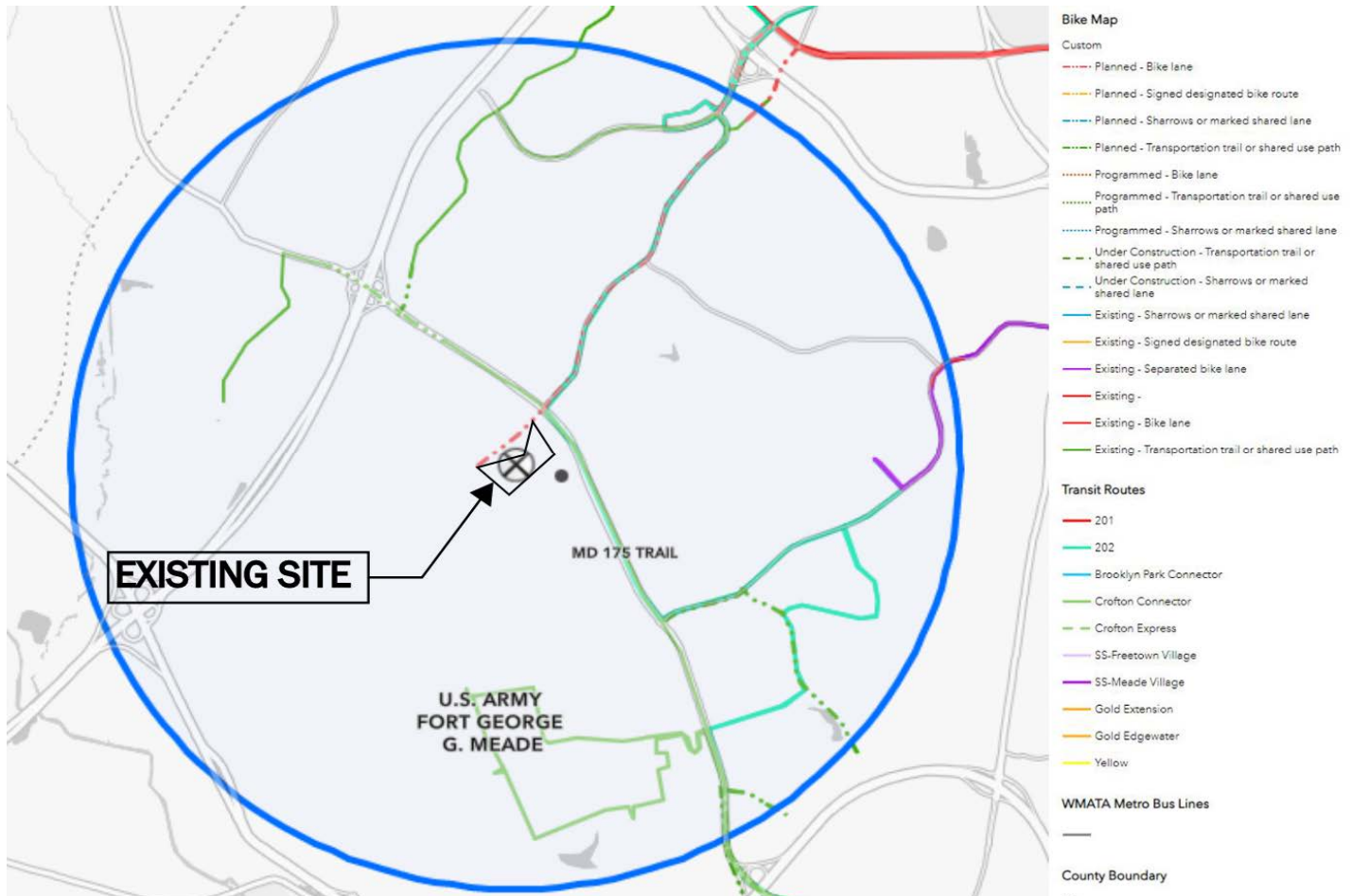


Figure '28' – Transportation Systems and Potential Points of Connection Map – Site #2

The site is not presently served by any transportation systems or infrastructure other than an existing vehicular connection by way of 26th Street.

While an existing bike path runs adjacent to and southeast of the vehicular portion of 26th Street that borders the site, we could not find a viable bicycle connection to the nearby recently-constructed hiker/biker (shared use) path that runs along Annapolis Road (Maryland Route 175), although a pedestrian-only side walk does connect Annapolis Road to the nearby Meade Middle School. It is recommended that the existing hiker/biker path be extended and made continuous to connect to the Annapolis Road bike path to provide immediate bicycle and pedestrian access to the site, should the swim center go here.

The site lies approximately 800 feet from existing Anne Arundel County Transit Route 202, which connects the Ft. Meade area to the Arundel Mills development to the north, and Odenton MARC station to the south. Furthermore, an existing dedicated hiker/biker (shared use) path runs along Annapolis Road (Maryland Route 175) approximately 600 feet to the north of the site. Therefore, this site could feasibly be connected to existing bus transit routes and the county's dedicated bicycle infrastructure network.

Zoning – Site #2

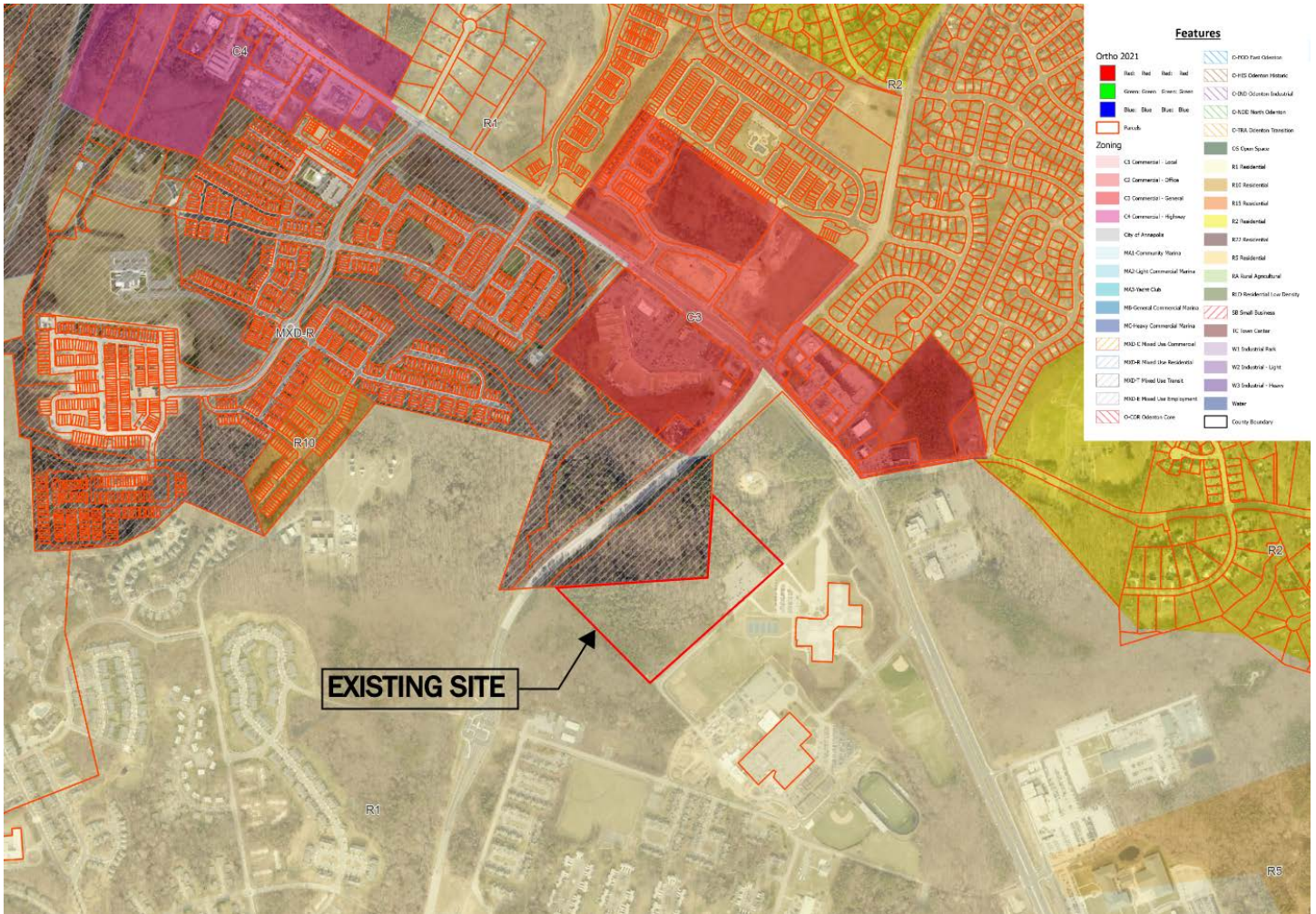


Figure '29' – Zoning and Land Use Map – Site #2

Anne Arundel County Zoning Ordinance (Article 18 of the Anne Arundel County Code) is not applicable to Site #2, as the land is owned by the Federal Government, and therefore, falls under the jurisdiction of the military in this case.

Fort Meade would need to approve the site plan from a land use standpoint, which at this time, has not occurred.

For the purposes of site planning, we have instituted a 50-foot setback from the proposed/presumed site boundary. This should also be confirmed by the military should the development of this site progress.

Availability of Utilities – Site #2

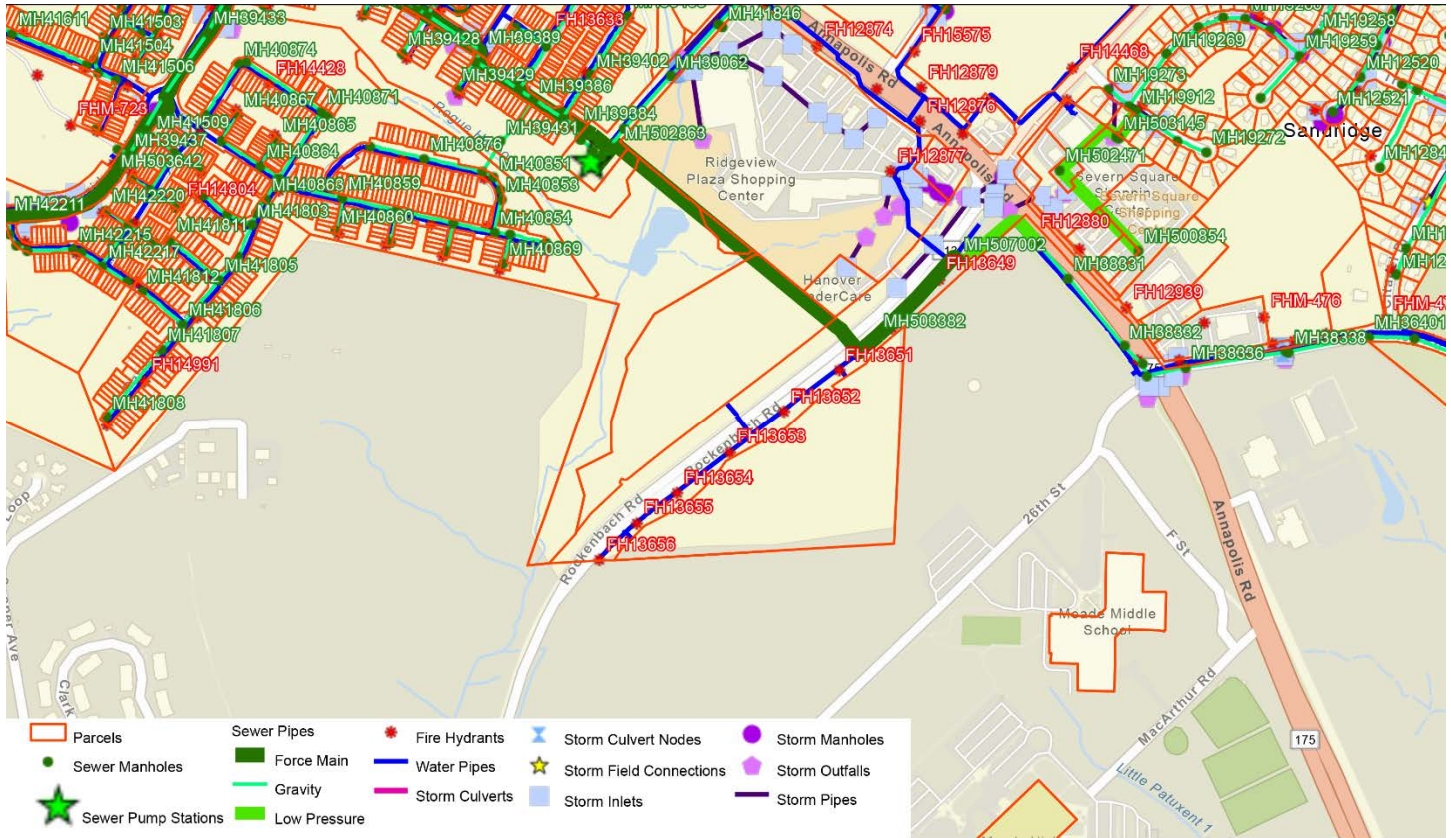


Figure '30' – Existing Availability of Utilities Map – Site #2

Water Service

Public water service in this area is provided by Anne Arundel County Bureau of Utilities. However, the base also has its own water system. It is unclear if this site would be served by the county or the base. For the purpose of completing this study, we assume the site will tap into the county’s water service. While the site is not currently connected to public water service, a 30” existing water line exists along Annapolis Road (Maryland Route 175), which turns east at Disney Road. This pipe is located approximately 1,000 feet from where the building would be placed on the site.

Sewer Service

Public sewer service in this area is provided by Anne Arundel County Bureau of Utilities. However, the base also has its own sewer system. It is unclear if this site would be served by the county or the base. For the purpose of completing this study, we assume the site will tap into the county’s sewer service. While the site is not currently connected to public sewer service, a 15” existing gravity sewer line exists in Annapolis Road (Maryland Route 175) – reference manhole #MH38334. This pipe also turns east at Disney Road. This pipe is

located approximately 1,000 feet from where the building would be placed on this site. A portion of this 1,000-foot-long connection may need to be force main.

Electric Service

Electric service in this area is provided by Baltimore Gas and Electric Company (BGE) a regulated public utility. While the site is not currently connected to an electric service, our preliminary discussions with BGE have revealed that electric service is available to serve the project. A new underground feeder line would need to be extended approximately 1,000 ft. from the area near the intersection of Annapolis Road (Maryland Route 175) and Disney Road to provide the anticipated 112.5 KVA electrical service required for this building utilizing a 277/480 volt, three-phase, four-wire connection.

Natural Gas Service

Natural gas service in this area is provided by Baltimore Gas and Electric Company (BGE) a regulated public utility. While the site is not currently connected to natural gas service, our preliminary discussion with BGE has revealed that gas service is available to serve the project. A new 8" underground gas line would need to be extended approximately 1,000 ft. from the area near the intersection of Annapolis Road (Maryland Route 175) and Disney Road to provide the anticipated 12,000 cu ft/hr gas service required for the project.

Communications and Internet Service

Communications and internet service in this area is provided to commercial buildings by Verizon, Comcast, and Broadstripe. A new fiber optic line would need to be extended approximately 1,000 ft. from the area near the intersection of Annapolis Road (Maryland Route 175) and Disney Road to provide service for the project.

Full Site Analysis – Site #2



Figure '31' – Full Site Analysis Plan – Site #2

When the existing site constraints are applied to the site plan, a potentially developable area of approximately 5.5 acres results. The majority of this area will need to be cleared and grubbed as it is about 100% forested.

Concept Design – Site #2



Figure '32' – Concept Design Plan – Site #2
 (See Appendix # for a full-size copy of this drawing)

Placing the West County Swim Center building and required site support elements within the 5.5 acre potentially developable area appears to be feasible as shown in Figure 32. This site concept design approach yields 175 newly-constructed parking spaces, not including the 190 existing paved parking spaces that are currently used for Board of Education purposes (Meade High and Middle Schools) but could potentially be shared with the swim center project for evening and weekend use. Note, to achieve the sharing of the parking we do propose to connect the swim center development, proposed for the southwest corner of the site to the existing parking lot via a “boardwalk” or pedestrian bridge structure that would traverse the existing valley and stream.

The site could be served by dual points of vehicular ingress and egress by way of a new roadway connections with 26th Street. We recommend the new roadway connections be placed at the approximate endpoints of the site to maximize flow. A new crosswalk is recommended to be placed across 26th Street at the east end of the site to provide safe bicycle and pedestrian connections to the existing paved bike path that runs parallel to 26th Street to its south.

Notable potential deficiencies of associated with utilization of this site:

- **Grading and Site Retaining Walls:** Development of this site will require extensive grading, clearing of existing forest, and construction of retaining walls in order to fit all required programmatic elements within the potentially developable area. The costs associated with this sitework, particularly construction of the required retaining walls, could be significant.
- **Building Orientation:** The building likely cannot be placed the ideal “solar” orientation, which generally entails placing the “long” axis of the building running 15 degrees offset from the east/west lines of latitude. Instead, we recommend aligning the building’s “long” axis parallel with the existing 26th Street. Do this may require additional solar “controls” to be placed on the building’s design to mitigate heat gain and reduce glare on the pool water to an acceptable level. A second layout for this site could be studied whereby the building is placed in the ideal orientation, should development progress here; however, this second layout option would likely result a less efficient use of the site and would increase the amount of forest removal. The scope of our study did not include analyzing this secondary layout.

Notable positive attributes:

- This’s site weaknesses are also its strengths. The site is relatively isolated from surrounding development. It essentially has no “neighbors” immediately adjacent to it, with the exception of the existing Board of Education buildings (e.g., Meade Middle and High Schools) located on the federal government’s property. Therefore, it is unlikely that the adjacent communities or neighborhoods would be opposed to the development of this site into a swim center.
- As previously mentioned in other Sections, there is potential to share existing paved parking that is currently utilized by the Board of Education (Meade High and Middle Schools). This could have numerous benefits including:
 - Lowering the cost to build new paved parking on this site.
 - Potential benefits due to less impervious area: Less stormwater management mitigation required, less forest removal, et cetera
 - Providing additional shared parking that is available to other campus users (e.g., the schools)
- The site is located directly “across the street” from other existing recreational amenities, such as ball fields
- It should be mentioned that the northern and eastern ends of the site could be outfitted with additional recreational amenities, such as hiking trails.



ALTERNATIVE SITE TEST FIT #3
(Bacontown / Board of Education Site)

Regional Context

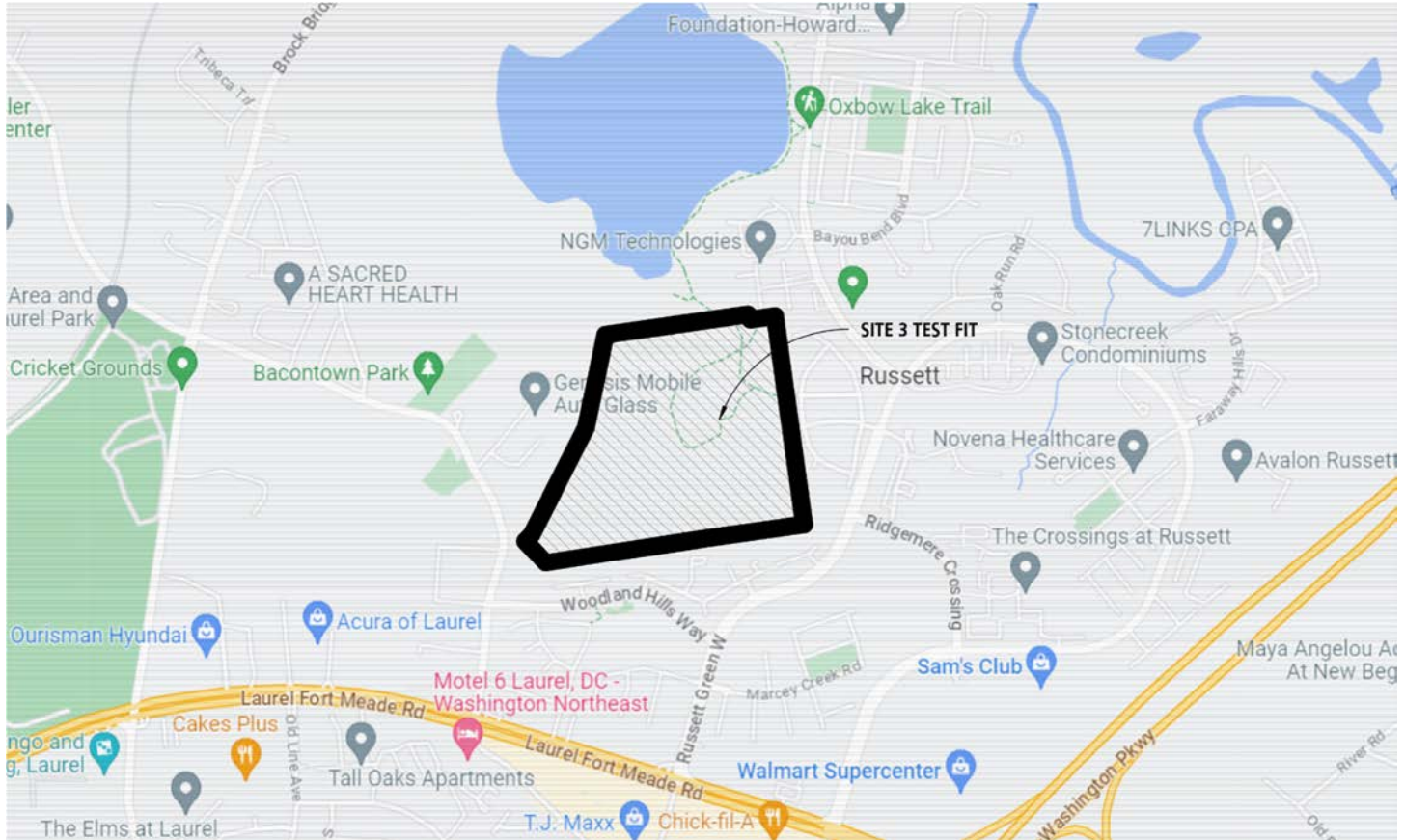


Figure '33' – Regional Context Map – Site #3

Alternative Test Fit Site #3 is located in the far west of the northwestern quadrant of Anne Arundel County, Maryland. The site lies approximately 9.6 miles from the west county geographical population center “target” for this project and approximately 1 mile west of Baltimore Washington Parkway at the Laurel Fort Meade Road (Maryland 198) junction. The site is accessible from points east due to its close proximity to Maryland Routes 198 and 32.

The area immediately to the north of and adjoining the site is an existing natural area known as Oxbow Lake, much of which is owned by Anne Arundel County. Tax records indicate the lake itself is owned by the State of Maryland (reference Tax Account Number 400003256400). To its immediate east and south exists the planned residential community of Russett Green, which consists of newer single-family homes and townhomes. Further south lies Route 198, a commercial corridor which is developed with shopping centers, restaurants, car dealerships, office buildings and gas stations. Immediately to its west is Bacontown, a historically African-American residential community. Laurel Park Racetrack and the Howard County line are located about 1-1.5 miles west of this site.

Existing Conditions & Site Inventory – Site #3

This 76.198 acre property is currently owned by the Anne Arundel County Board of Education. Due to its proximity to the existing historic Bacontown community, it is commonly referred to as the “Bacontown Board of Education” site.

The site is bounded by county-owned and privately-owned land to the north, and privately-owned residential lots to the south, east, and west. The site contains no existing road or right-of-way frontages. However, at the southeast corner of the site the extension of Ridgemere Crossing right-of-way provides site site’s eastern connection point to a public right-of-way, and a separate parcel (4000000093039) also owned by the Board of Education provides an opportunity to connect the site to Whiskey Bottom Road from the west. A third point of connection may be possible from the north, however, a roadway connection may be infeasible due to steep slopes in this area (refer to Site Topography and Steep Slopes – Site #3 Section).

This parcel is located within the state designated Priority Funding Area and the county’s Targeted Growth Area.

The site is currently unimproved with the exception of a few unpaved hiking trails that have been blazed thru it connection nearby residential communities to the Oxbow Lake natural area located to the north. The site is approximately 95% forested.

Site #1 Quick Stats

Account No.	Map	Grid	Parcel	Property Ownership	City	Acres	Deed	Plat
400000093059	19	12	226	Anne Arundel County Board of Education	Laurel	76.198	Liber 2391 Folio 303	Unknown



Existing Conditions – Site #3

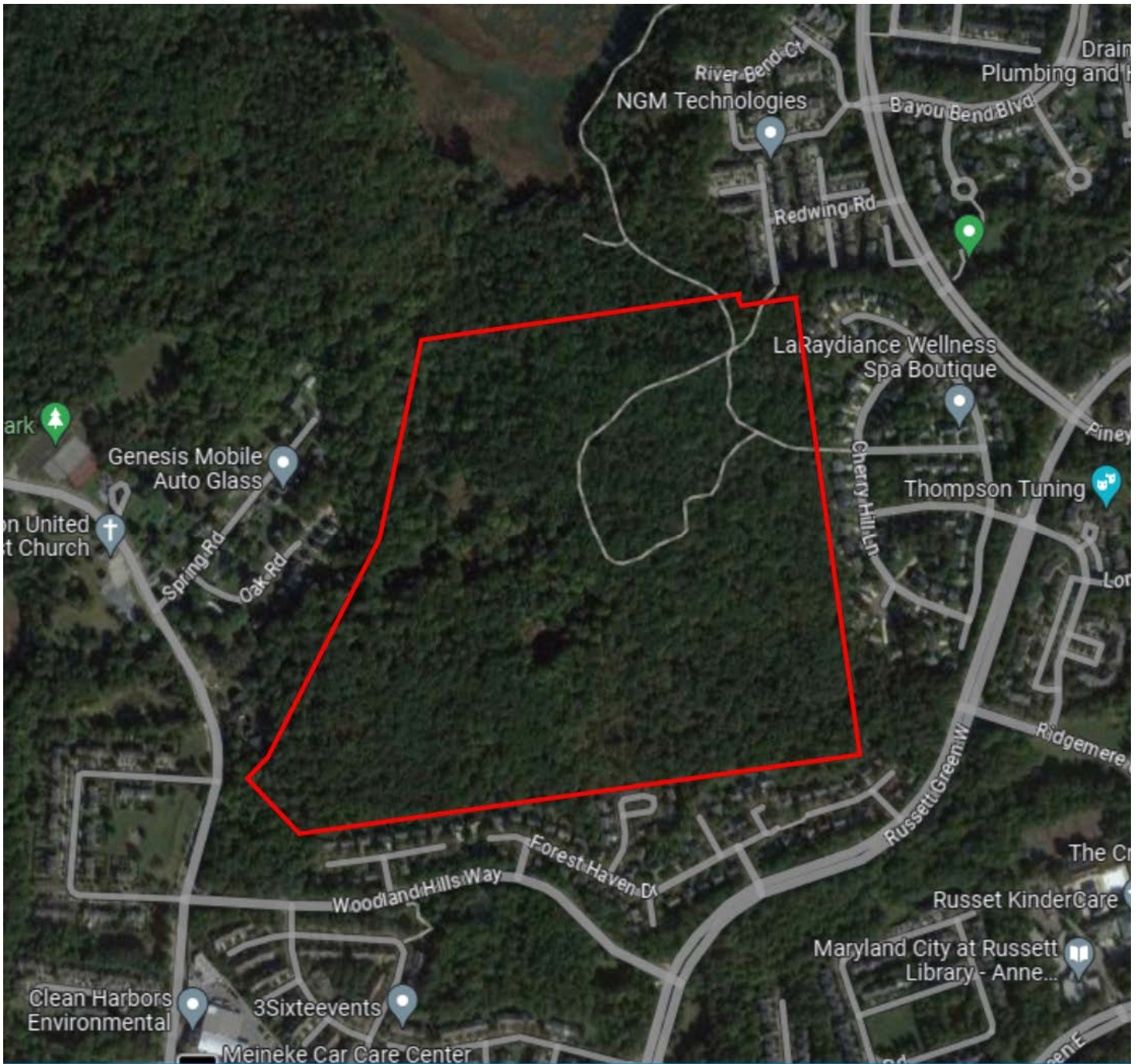


Figure '34' – Aerial Photography – Site #3

Wetlands, Streams, Waterways, and Buffers – Site #3

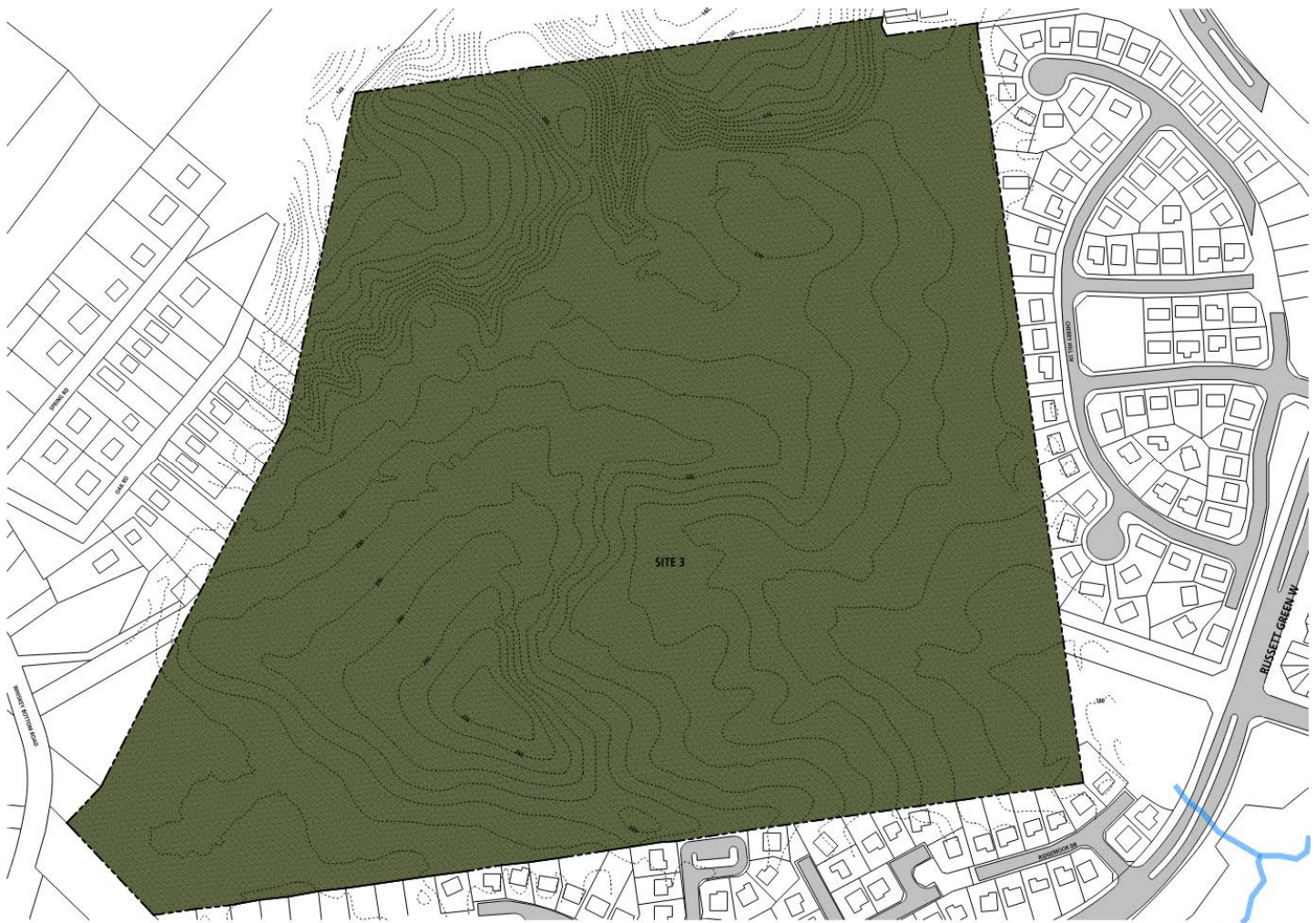


Figure '35' – Streams, Waterways, and Buffer Zones Plan – Site #3

GIS data indicates a portion of stream known as “Dorsey Run #4” originates within the parcel located immediately to the south/southeast of the site that is owned by the Russett Community Association, Inc. The southeast quadrant of the site drains into this stream. The site contains a regional elevation high point (259 feet) and a drainage “divide” with the north end of the site draining to the Oxbow Lake natural area.

The majority of the site including the areas that drain into the Oxbow and Dorsey Run #4 lie within the Little Patuxent River watershed, while the far western edge of the site is part the Upper Patuxent watershed.

GIS data show no tidal or non-tidal wetlands, streams, waterways, or buffers on this site, but this should be confirmed by field survey if the development of this site progresses.

Site Topography and Steep Slopes – Site #3

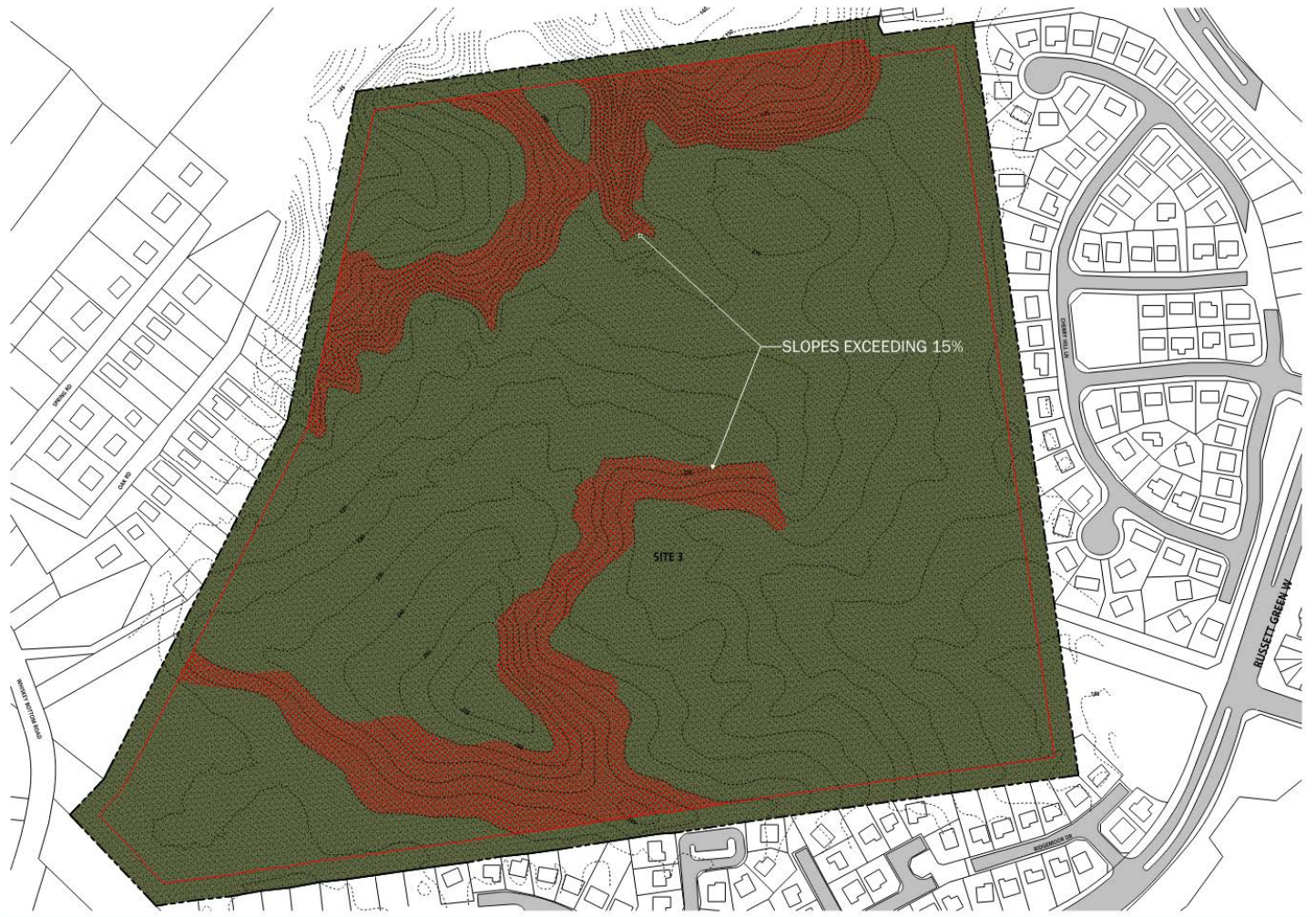


Figure '36' – Steep Slope Analysis Plan – Site #3

The site is classified as 15% flat, 70% moderate slopes, and 15% steep slopes. Generally, there are two areas containing steep slopes. The first is concentrated on the north end and northwest corner of the site and from there continue in a downward direction to Oxbow Lake located north of this site. The second area of steep slopes occurs in the southcentral portion of the site.

Preliminary Forest Stand Delineation and Conservation Easements – Site #3



Figure '37' – Preliminary Forest Delineation Plan and Conservation Easements – Site #3

The property appears to be approximately 95% forested, but based on our desktop analysis, no known conservation easements are in place. However, this should be confirmed before further planning takes place.

It is likely that a portion of the existing forested area will need to be reserved for conservation purposes if this site is developed. The forested areas in the north end of the site which adjoin the Oxbow Lake natural area could be reserved for these purposes.

Identification and Preservation of Historic and Cultural Elements – Site #3

While the site is located a couple hundred feet east of the Bacontown Historic District (MHIP Inventory Number AA-2082) a search of the MEDUSA database (Maryland’s Cultural Resource Information System) indicates no apparent existing historic or cultural elements exist on the site. However, this should be confirmed by field survey if the development of this site progresses.



Figure '38' – Cultural Resources Map – Site #3

Site Access & Probable Roadway Improvements – Site #3

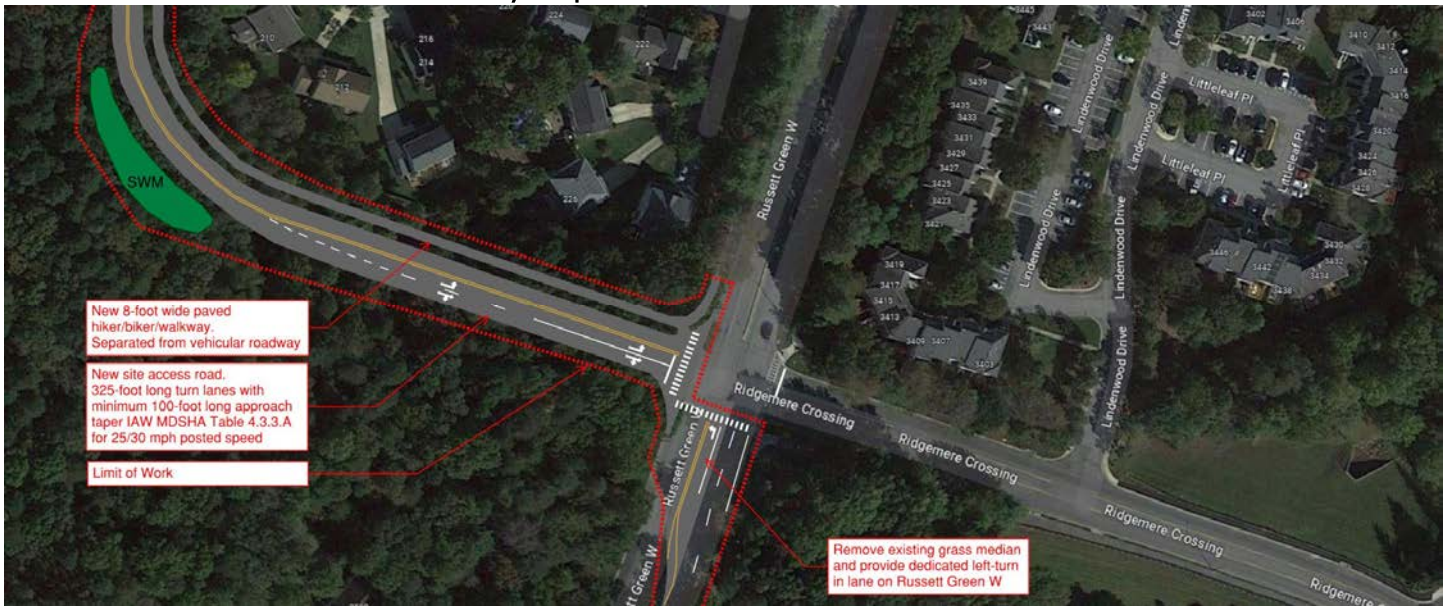


Figure '39' - Probable Improvements to Russett Green West, Ridgemere Crossing – Site #3

Limited site access can be afforded via a single primary point of vehicular ingress and egress by way of a new roadway connection that would join the existing intersection of Russet Green West with Ridgemere Crossing (essentially forming an extension of Ridgemere) to the east. A second point of vehicular access could be provided in the future by extending this interior site to connect with existing Whiskey Bottom Road to the west, near the existing intersection of Laurel View Court. This will likely be necessary should any additional development of this site moves forward. As noted, we recommend also providing an 8-foot wide paved hiker/biker/walkway that is alongside but separated from the primary vehicular roadway, providing access for pedestrians and bicyclists.

We recommend the proposed interior site access road be 25-foot in paved width with center markings to facilitate 2-way traffic. Where the proposed roadway connects to existing Russet Green West, the paved width shall be expanded to facilitate a third “right turn movement” lane in the outbound (easterly) direction of traffic flow.

Our preliminary analysis indicates roadway improvements to Russet Green West, an existing county-owned “collector,” could be limited to the removal of an existing grass median on the south side of the intersection for the addition of a dedicated left-turn-in lane as shown in Figure 39 above. Existing Ridgemere Crossing to the east of the intersection is already constructed with two dedicated right- and left-turn movement lanes. The only improvement required at this segment is the conversion of the existing right-turn movement lane to a combined right and straight. This could be accomplished with new thermoplastic roadway graphics and/or signage alone.

Secondary connection points for pedestrian and bicycle access from the existing community to the east could potentially be achieved by way of connections Lindenwood Drive and Cherry Blossom Crossing. Aerial photography indicates that existing connections to this “Board of Education” site already exist at these locations, presumably for recreational purposes. These existing connections could be improved or strengthened with approval from the community association.

Analysis of Existing Transportation Systems and Potential Points of Connection – Site #3



Figure '40' – Transportation Systems and Potential Points of Connection Map – Site #3

The site is not presently served by any transportation systems or infrastructure, nor is it located near any existing or planned transit routes. However, existing pedestrian and bicycle infrastructure does exist nearby. A connection to the Russett Green community biking and pedestrian trail system should be considered at both the site’s new primary point of access (southeast corner) and also along the east to connect the existing residential area to this amenity.

Furthermore, unpaved hiking trails could be extended to the north to connect into the existing Oxbow Lake natural area.

Zoning – Site #3



Figure '41' – Zoning and Land Use Map – Site #3

The total site contains three zoning classification types: **R5**, **R10**, and **R15**. The portion of the site where the swim center is proposed to be located contains **R5** and **R10** classifications. Although projects constructed on county-owned property area technically exempt from conformance to zoning regulations, the project's use, which has been defined as "*swimming pools and recreational facilities, community, if located at least 50 feet from each residential lot line or dwelling unit*" is permitted by matter of right within residential zoning including R5, R10, and R15.

It is our opinion that the following bulk regulations may also be applicable:

- Minimum lot coverage by structures: **40%**, in R5 zones.
- The maximum setback requirement would be 35 feet in an R5, R10, or R15 zone, however, the setback requirement included within the project's use description (e.g., 50 feet) governs.

Therefore, a 50-ft setback from all "interior" property lines has been imposed by us onto the subject property.

The swim center building, as proposed, is anticipated to exceed the 35-foot height limit associated with R5 zoning category. If this land was not "county-owned," technically a zoning variance would need to be granted to construct a building exceeding 35-feet in height.

Availability of Utilities – Site #3

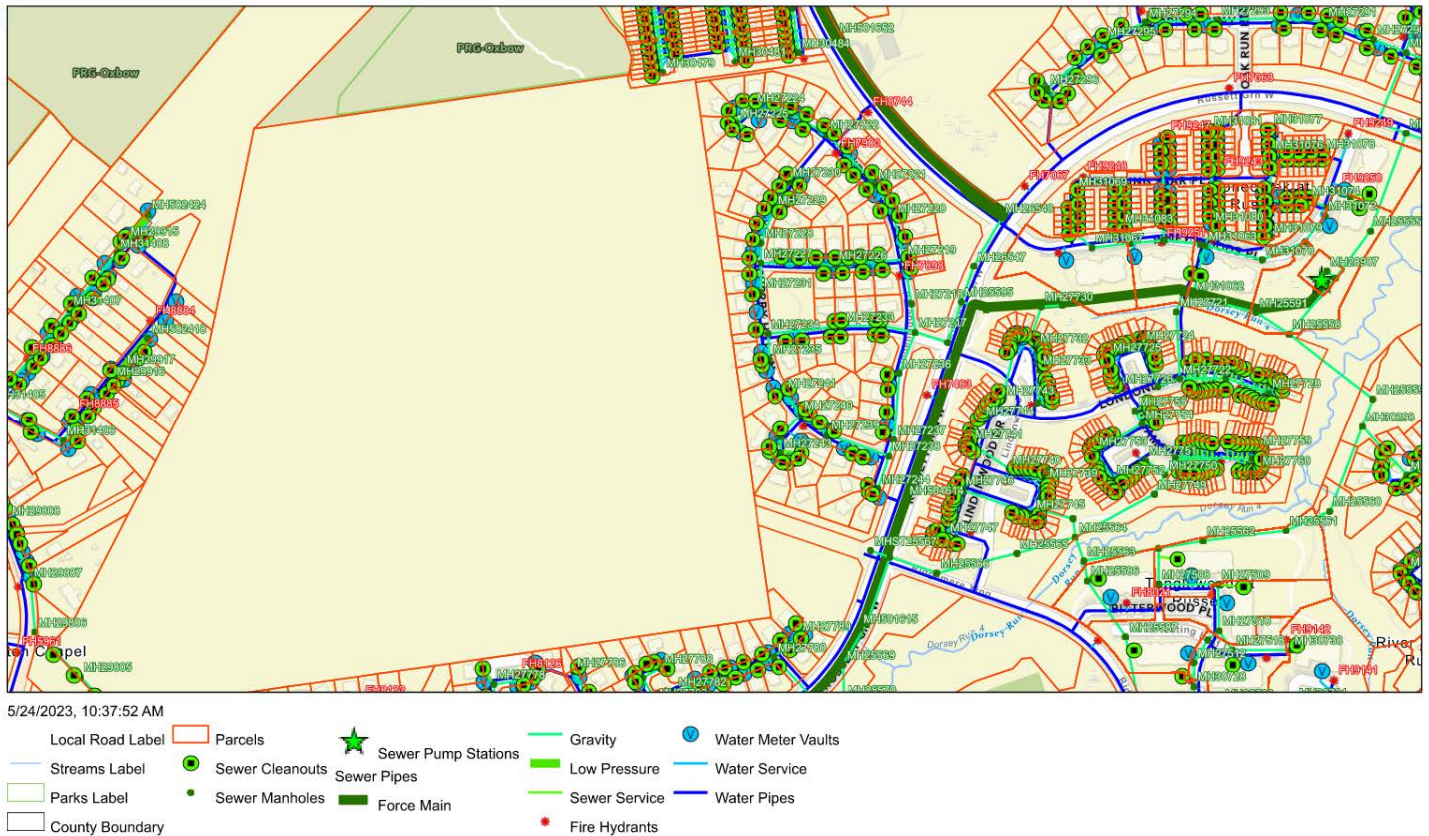


Figure '42' – Existing Availability of Utilities Map – Site #3

Water Service

Public water service in this area is provided by Anne Arundel County Bureau of Utilities. While the site is not currently connected to public water service, an existing 8” diameter water line is stubbed into the Ridgemere Crossing ROW connection point located at the site’s southeast corner. This 8” line is connected to an existing 20” diameter water line located in Russett Green West. Therefore, it is feasible that this site would be served by public water with extensions required to bring water on site.

Sewer Service

Public sewer service in this area is provided by Anne Arundel County Bureau of Utilities. While the site is not currently connected to public sewer service, an existing 8” diameter gravity sewer line is stubbed into the Ridgemere Crossing ROW connection point located at the site’s southeast corner (termination point is MHST25567). This 8” line is connected to a 10” gravity line located in Russett Green West known as “Russett Phase 1 Water & Sewer” having an invert approximately 28 feet below the building’s proposed FFE. Therefore, it is feasible that this site could be served by public sewer with gravity extensions to existing public lines.

Electric Service

Electric service in this area is provided by Baltimore Gas and Electric Company (BGE) a regulated public utility. While the site is not currently connected to an electric service, our preliminary discussions with BGE have revealed that electric service is available to serve the project. A new underground feeder line would need to be extended approximately 1,200 ft. from the area near the intersection of Ridgemere Crossing and Russett Green West to provide the anticipated 112.5 KVA electrical service required for this building utilizing a 277/480 volt, three-phase, four-wire connection.

Natural Gas Service

Natural gas service in this area is provided by Baltimore Gas and Electric Company (BGE) a regulated public utility. While the site is not currently connected to natural gas service, our preliminary discussion with BGE has revealed that gas service is available to serve the project. A new 8" underground gas line would need to be extended approximately 1,200 ft. from the area near the intersection of from the area near the intersection of Ridgemere Crossing and Russett Green West to provide the anticipated 12,000 cu ft/hr gas service required for this project.

Communications and Internet Service

Communications and internet service in this area is provided to commercial buildings by Verizon, Comcast, and Broadstripe. A new fiber optic line would need to be extended approximately 1,200 ft. from the area near the intersection of Ridgemere Crossing and Russett Green West to provide service for the project.

Full Site Analysis – Site #3

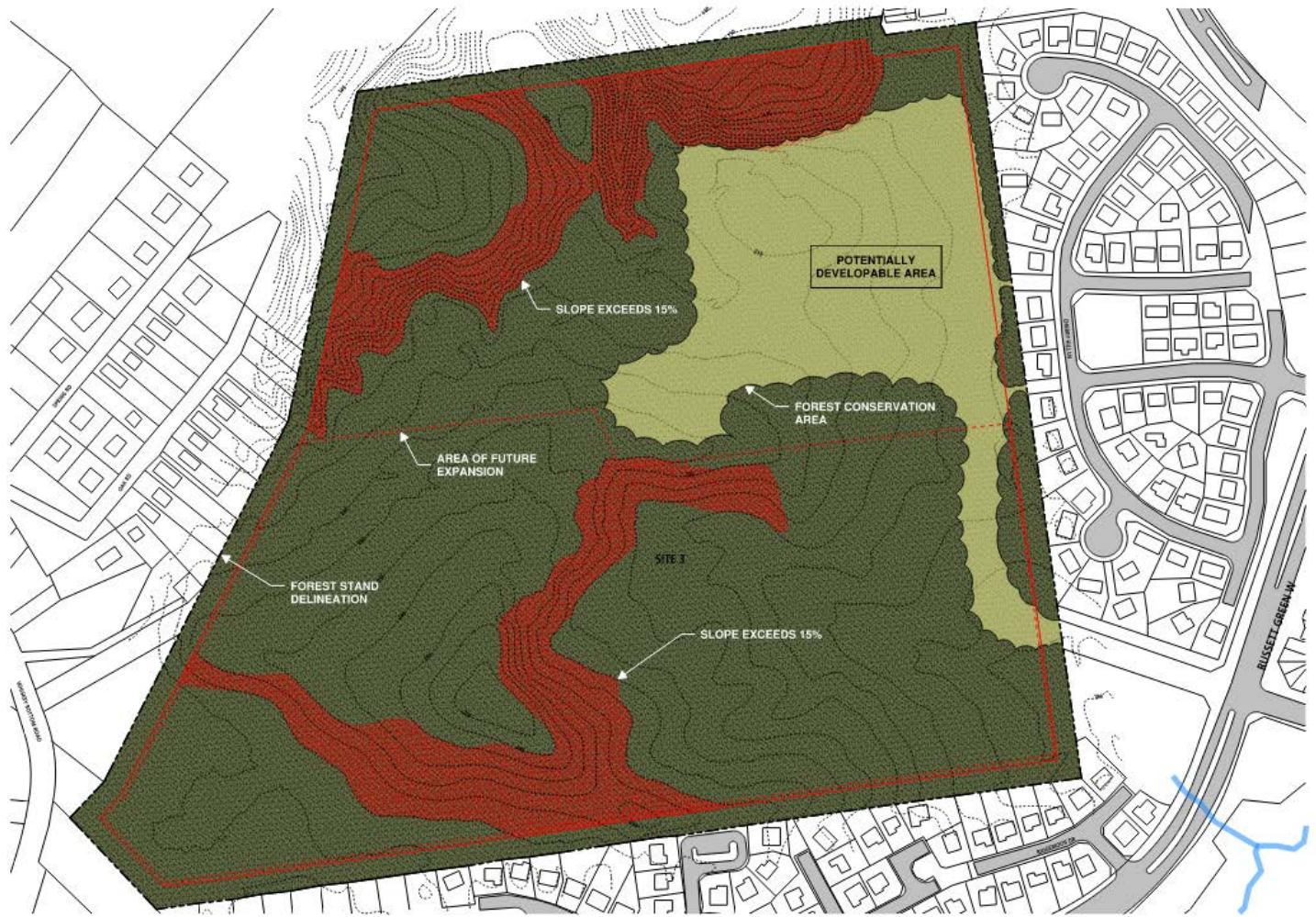


Figure '43' – Full Site Analysis Plan – Site #3

When the existing site constraints are applied to the site plan and areas placed into reserve for other uses are considered, a potentially developable area of approximately 8.8 acres results.

Concept Design – Site #3

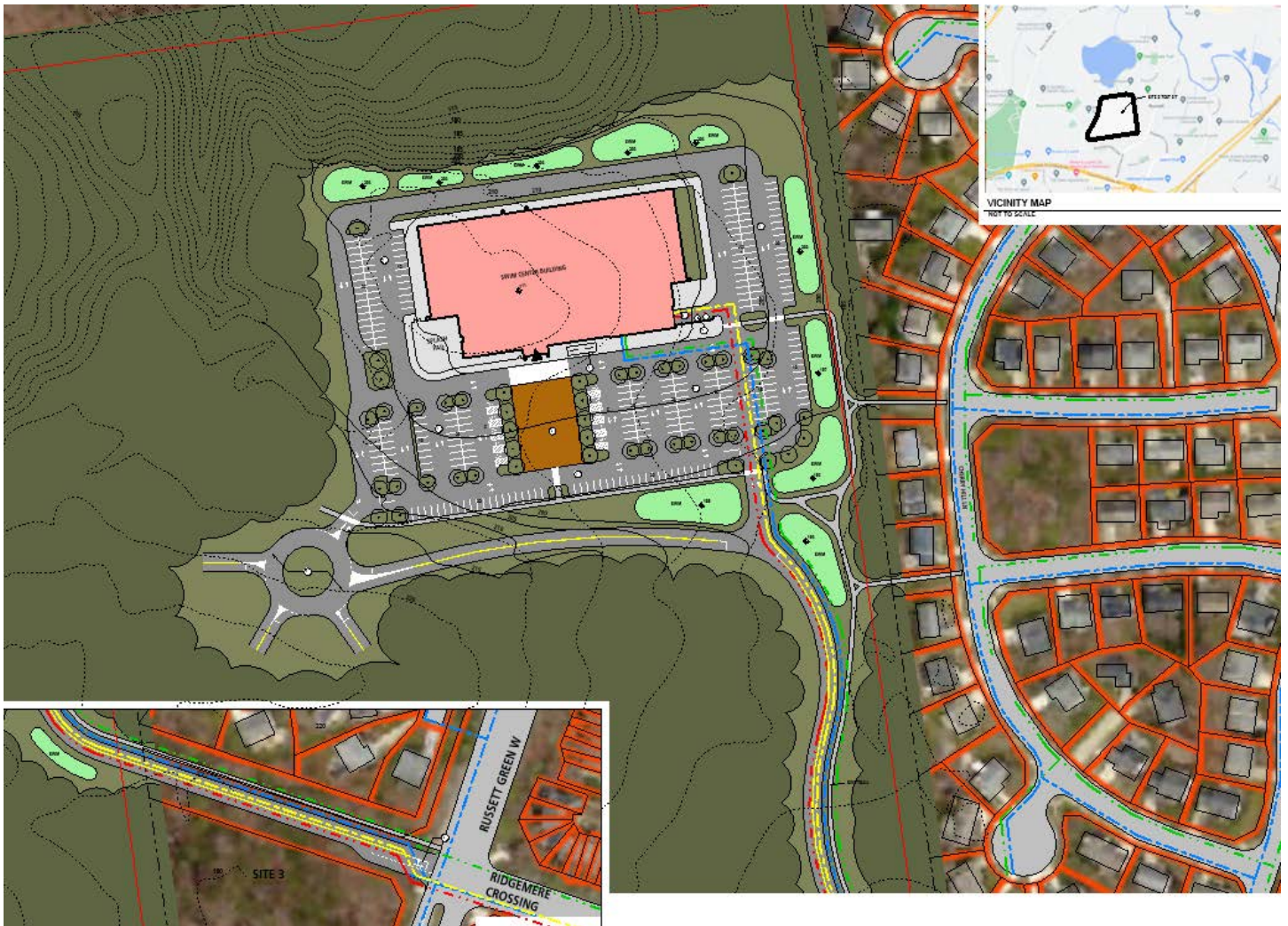


Figure '44' – Concept Design Site Plan – Site #3
(See Appendix # for a full-size copy of this drawing)

Site #3 contains a significant amount of acreage that appears to be “developable”. We have chosen the northeast quadrant of this parcel as the most ideal location for the swim center building with consideration of preserving the southern half of the site for future educational use (i.e., schools). Furthermore, the northern end of the site borders the existing Oxbow Lake natural area, making the northern portion of the site ideal for development of recreation and park uses.

The swim center development in this concept plan has been pushed back into the site to an area just south of existing steep slopes. This is ideal from both a site grading and master planning standpoint. Minimal retaining walls need to be constructed if this strategy is utilized.

This site design approach yields 300 parking spaces. Please refer to Site Access and Probably Roadway Improvements (Site #3) section of this report for expanded information relating to proposed vehicular and pedestrian access to the site.

This site facilities an ideal building orientation as it relates to “solar”.

Notable potential deficiencies of associated with utilization of this site:

- **Geographical Location:** This site is located approximately 9.6 miles from the west county geographical center point “target” for the placement of this facility, and therefore, its geographical location could be considered non-centralized with respect to serving the citizens of western Anne Arundel County and the county as a whole. The site is located less than one mile from the Howard County line.
- **Potential Community Resistance:** Although we have not explored this, the site’s proximity to existing established adjacent residential communities could potentially cause some friction or resistance. We recommend the county work with existing communities ahead of the development of this site in order to engage stakeholders and develop “buy in” prior to moving forward with the development of this site.
- **Lack of Connectiveness to Existing Transportation Networks:** This site lacks any connectivity to existing mass transportation networks, and our preliminary research has shown that no new networks are planned in the immediate area of this site. The site is currently accessible by private vehicle only, but can potentially be connected to the existing hiker/biker and pedestrian system within the Russett Green development, however, this could potentially limit access to those who depend on transportation networks for access and mobility.

Notable positive attributes:

- The site adjoins an existing natural area. Adding the swim center building to this site could further develop and enhance the Oxbow Lake area, potentially transforming it into a legitimate local or regional recreational park.
- It should be mentioned that the northern end of the site could be outfitted with additional recreational amenities, such as hiking trails.
- There are potential synergies (opportunities) that could be developed and exploited with relation to the site’s potential recreational and educational uses.

ALTERNATE SITE TEST FIT COMPARISON MATRIX

	Original Site	Test Fit Site #1	Test Fit Site #2	Test Fit Site #3
	<i>Provinces Park</i>	<i>Rockenbach Rd/ Taylor Property</i>	<i>Ft. Meade/ 26th Street</i>	<i>Bacontown/ Board of Ed.</i>
Proximity to West County Geographical Population Center	0.1 mile	0.35 mile	0.35 mile	9.60 miles
Total Site Acreage	34.9 acres	13.6 acres	17.5 acres*	79.5 acres
Acreage Available for Development	8.1 acres	6.3 acres	5.5 acres	8.8 acres
Acreage that is Encumbered, Reserved for Other Uses, or Deemed "Undevelopable"	26.8 acres	7.3 acres	12 acres*	70.7 acres
No. of Parking Spaces	298, includes 50 "grass" overflow parking area	200	175, plus 190 existing parking spaces to be shared with the schools	300
Can Site Physically Accommodate Swim Center Project ?	YES	YES	YES	YES
Availability of Utilities	YES	YES, but requires extensive connection lengths	YES, but requires extensive connection lengths	YES, but requires extensive connection lengths
Correct Building "Solar" Orientation Can be Achieved	YES	NO	POSSIBLE	YES
Land Acquisition Required	NO	YES	NO	NO
Project Timeframe Extension Due to Land Acquisition	NO (county-owned)	YES (acquisition & transfer)	YES (federal reviews)	NO (county-owned)
Extensive Grading / Earthmoving Required	NO	YES	YES	YES



	Original Site	Test Fit Site #1	Test Fit Site #2	Test Fit Site #3
	<i>Provinces Park</i>	<i>Rockenbach Rd/ Taylor Property</i>	<i>Ft. Meade/ 26th Street</i>	<i>Bacontown/ Board of Ed.</i>
Significant Deforestation Required	NO	YES	YES	YES
Connectivity to Exst. Hiker/Biker Infrastructure	YES	POSSIBLE	YES, but requires extension	YES
Connectivity to Exst. Transit Routes	POSSIBLE	POSSIBLE	POSSIBLE	NO
Adjacent to Existing Other Rec & Park Amenities	YES	NO	YES, Board of Ed. athletic facilities	YES, Oxbow Lake natural area
Adjacent to Potential/Future Rec & Park Amenities	YES	YES	NO	YES
Estimated Project Cost Increase**	\$ 0	\$ 10,126,126	\$ 9,723,696	\$ 12,420,290
TOTAL SITE SCORE	26	8	11	14

**Site #2 (Ft. Meade) is not a defined “parcel,” and therefore, it’s total size and area have been estimated based on presumed extents provided to us by Others for use in completing this study.*

***When compared to Provinces Park (original) site, which currently has the lowest projected estimated total project cost. Refer to Cost Estimates section of this report for details (next page).*



COST ESTIMATES

The scope of this study includes estimating the cost differentials across the three alternative test fit sites while comparing them to probable cost of construction to develop the swim center project at the original site – Provinces Park. In order to achieve a more realistic total project cost comparison, additional “soft” costs that are likely to be incurred if one of the alternative sites are selected, have also been estimated and included within the total project probable cost estimate.

	Original Site	Test Fit Site #1	Test Fit Site #2	Test Fit Site #3
	<i>Provinces Park</i>	<i>Rockenbach Rd/ Taylor Property</i>	<i>Ft. Meade/ 26th Street</i>	<i>Bacontown/ Board of Ed.</i>
Base Building Cost	\$ 53,404,607	\$ 53,404,607	\$ 53,404,607	\$ 53,404,607
Added Building Cost to Address Site Conditions – Grading	\$ 0	\$ 200,000	\$ 50,000	\$ 0
Added Building Cost to Address Site Conditions – Solar	\$ 0	\$ 50,000	\$ 50,000	\$ 0
Base Project “Soft” Costs	\$ 3,500,000	\$ 3,500,000	\$ 3,500,000	\$ 3,500,000
Site Development Cost	\$ 8,389,330 *	\$ 9,806,206 *	\$ 11,373,835 *	\$ 13,922,265 *
Site Acquisition Cost	\$ 0	\$ 3,900,000 **	\$ 1	\$ 0
Estimated A/E Fees for Site “Re-Design”	\$ 0 (N/A)	\$ 134,494	\$ 161,392	\$ 154,668
Contingency	\$ 0	\$ 1,896,324	\$ 1,943,339	\$ 2,019,806
Cost Escalation (add 1 yr. to project schedule)	\$ 0 (N/A)	\$ 4,424,756	\$ 4,534,459	\$ 4,712,881
TOTAL PROJECT COST	\$ 65,293,937	\$ 75,420,063	\$ 75,017,633	\$ 77,714,227

*Basis is cost estimate provided by CostCon, Inc., a subconsultant to MW Studios.

**Basis is a land appraisal provided by an independent third-party entity on or around June 2022. The estimated value of the land as appraised been adjusted to match current market trends.

ITEMIZED ESTIMATE OF SITE DEVELOPMENT COSTS

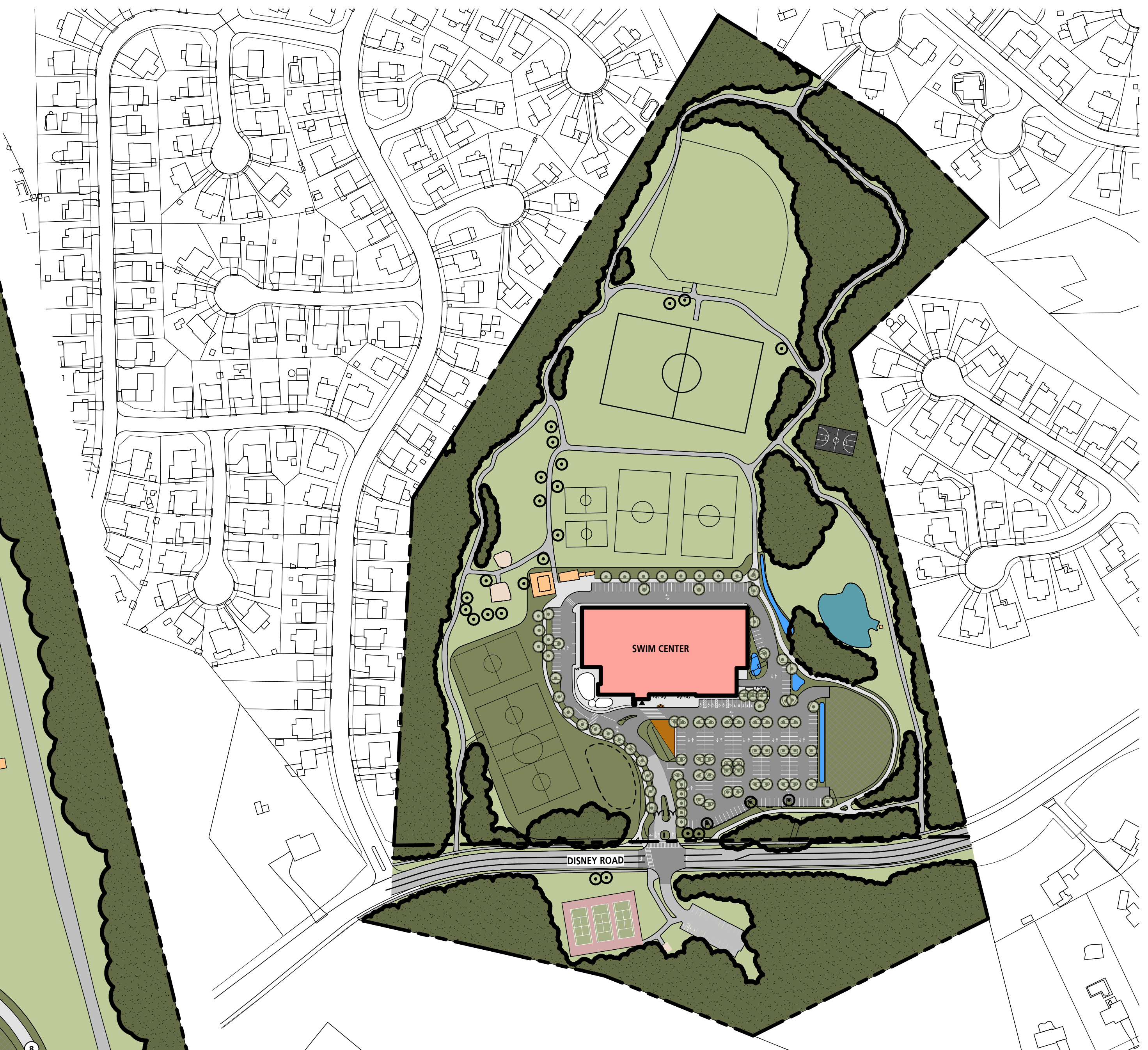
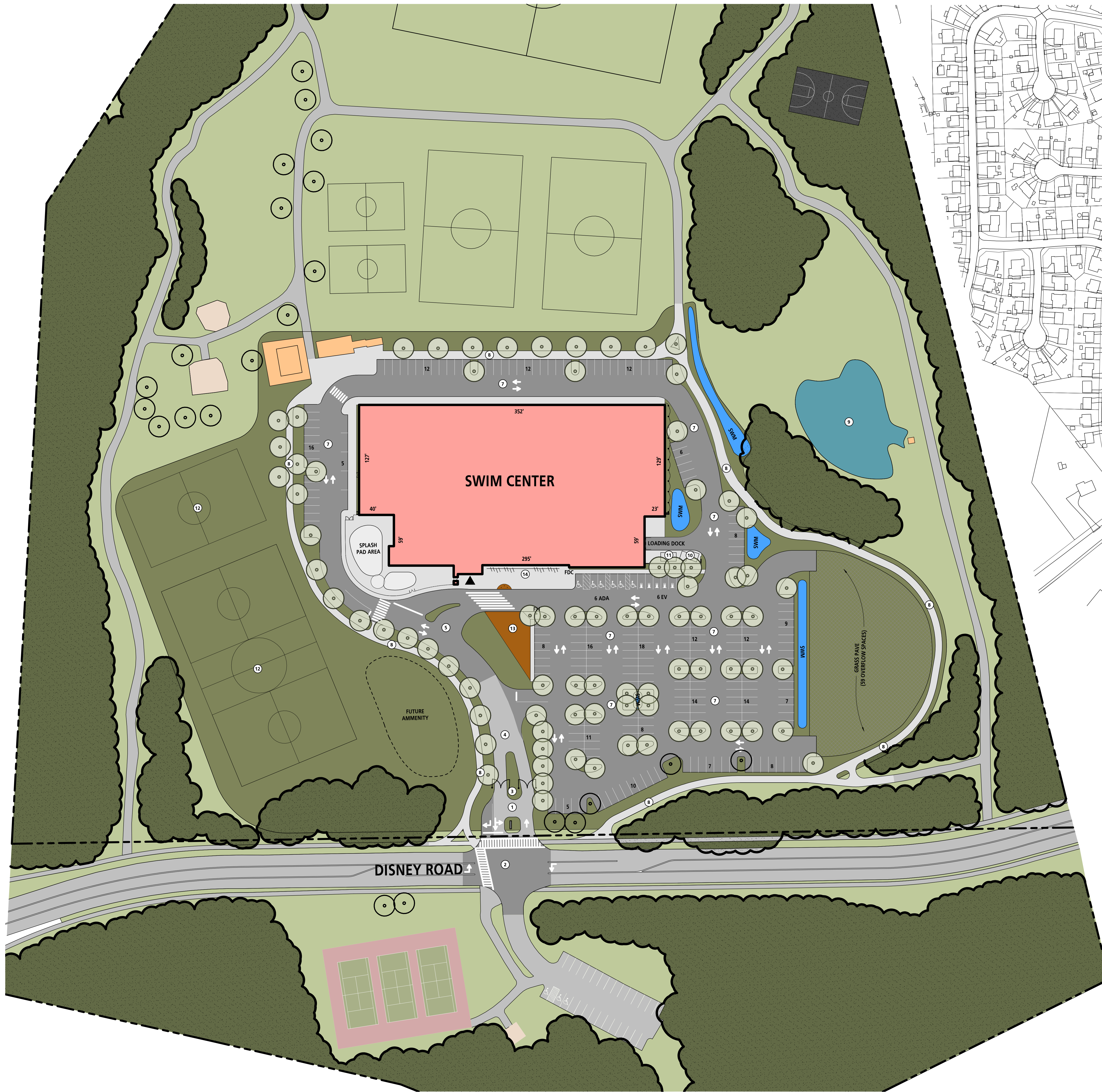
FEASIBLE COST OF CONSTRUCTION ESTIMATE AT SCHEMATIC DESIGN SUBMISSION

ESTIMATE CALCULATED IN 1st QUARTER 2023 US DOLLARS

CAT	ESTIMATE / BID SUMMARY	DISNEY ROAD	ROCHENBACH ROAD	26TH STREET	BACONTOWN
		ORIGINAL SITE	ALT SITE #1	ALT SITE #2	ALT SITE #3
01	General Conditions	\$243,864.23	\$285,050.52	\$330,618.94	\$404,697.69
02	Existing Conditions	\$195,855.75	\$110,000.00	\$110,000.00	\$176,000.00
03	Concrete	\$0.00	\$0.00	\$0.00	\$0.00
04	Masonry	\$0.00	\$0.00	\$0.00	\$0.00
05	Metals	\$0.00	\$0.00	\$0.00	\$0.00
06	Wood Plastics and Composites	\$0.00	\$0.00	\$0.00	\$0.00
07	Thermal and Moisture Protection	\$0.00	\$0.00	\$0.00	\$0.00
08	Openings	\$0.00	\$0.00	\$0.00	\$0.00
09	Finish	\$0.00	\$0.00	\$0.00	\$0.00
10	Specialties	\$0.00	\$0.00	\$0.00	\$0.00
11	Equipment	\$0.00	\$0.00	\$0.00	\$0.00
12	Furnishings	\$0.00	\$0.00	\$0.00	\$0.00
13	Special Construction	\$0.00	\$0.00	\$0.00	\$0.00
14	Conveying Equipment	\$0.00	\$0.00	\$0.00	\$0.00
21	Fire Suppression	\$0.00	\$0.00	\$0.00	\$0.00
22	Plumbing	\$0.00	\$0.00	\$0.00	\$0.00
23	Heating-Ventilation and Air Conditioning	\$0.00	\$0.00	\$0.00	\$0.00
26	Electrical	\$0.00	\$0.00	\$0.00	\$0.00
27	Communications	\$0.00	\$0.00	\$0.00	\$0.00
28	Electrical Safety and Security	\$0.00	\$0.00	\$0.00	\$0.00
31	Earthwork	\$1,160,200.00	\$1,886,566.00	\$1,586,474.00	\$2,989,950.00
32	Site Improvements	\$1,662,758.14	\$2,190,630.89	\$2,658,746.18	\$1,945,959.49
33	Utilities	\$1,858,470.80	\$1,513,813.50	\$2,257,158.70	\$2,982,044.28
100	Miscellaneous	\$0.00	\$0.00	\$0.00	\$0.00
SUBTOTAL		\$5,121,148.92	\$5,986,060.91	\$6,942,997.82	\$8,498,651.46
	PREVAILING WAGE 5.00%	\$256,057.45	\$299,303.05	\$347,149.89	\$424,932.57
	CONTRACTORS GENERAL CONDITIONS 6.00%	\$322,632.38	\$377,121.84	\$437,408.86	\$535,415.04
	LIABILITY INSURANCE 1.25%	\$71,247.98	\$83,281.07	\$96,594.46	\$118,237.49
	PAYMENT AND PERFORMANCE BOND 1.50%	\$86,566.30	\$101,186.50	\$117,362.27	\$143,658.55
	GENERAL CONTRACTOR OVERHEAD AND PROFIT 5.00%	\$292,882.65	\$342,347.67	\$397,075.67	\$486,044.76
	DESIGN CONTINGENCY 10.00%	\$615,053.57	\$718,930.10	\$833,858.90	\$1,020,693.99
	BUILDERS RISK BY OWNER	\$0.00	\$0.00	\$0.00	\$0.00
	BUILDING PERMITS BY OWNER	\$0.00	\$0.00	\$0.00	\$0.00
	COST ESCALATION TO JULY 1, 2025 24.00%	\$1,623,741.42	\$1,897,975.47	\$2,201,387.49	\$2,694,632.12
	TOTAL	\$8,389,330.68	\$9,806,206.61	\$11,373,835.35	\$13,922,265.98

END OF REPORT
(EXCEPT FOR APPENDECIES)





ARCHITECTURAL VICINITY DIAGRAM
NOT TO SCALE

KEYNOTES

- ① EXISTING PARK ENTRANCE WITH ADDED RIGHT TURN LANE
- ② ROADWAY IMPROVEMENTS LIMITED TO RE-STRIPING (TURN LANES) AND NEW CROSSWALKS
- ③ EXISTING PARK GATES TO REMAIN
- ④ EXISTING PORTION OF PARK ENTRANCE ROAD TO REMAIN
- ⑤ PARK ENTRANCE ROAD EXTENSION
- ⑥ EXISTING PARKING AREA TO REMAIN
- ⑦ PROPOSED PARKING AREA
- ⑧ PROPOSED BIKE PATH EXTENSION
- ⑨ EXISTING SWM AREA TO BE MODIFIED TO ACCOMMODATE PROJECT
- ⑩ PROPOSED DUMPSTER ENCLOSURE LOCATION
- ⑪ PROPOSED GENERATOR AND PAD LOCATION
- ⑫ PROPOSED RELOCATED ATHLETIC FIELDS
- ⑬ PLAZA
- ⑭ BIKE RACKS

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED BUILDING
- PROJECT SITE AREA
- EXISTING WOODED SITE AREA
- PROPOSED BITUMINOUS PAVING
- EXISTING BASKETBALL COURT PAVING
- EXISTING FACILITIES / STRUCTURES
- EXISTING PLAYGROUND
- EXISTING SWM AREA
- PROPOSED SWM AREA
- PROPOSED CONCRETE PAVING
- PROPOSED GRASSPAVE AREA
- SPECIALTY PAVERS
- ▼ PROPOSED BUILDING ENTRANCE

SITE INFO

PARKING SPACES:	237
GRASS PAVE (OVERFLOW):	59
TOTAL SPACES:	296

ARCHITECTURAL SITE PLAN

06-06-2023
PROJECT NO.: 21-064

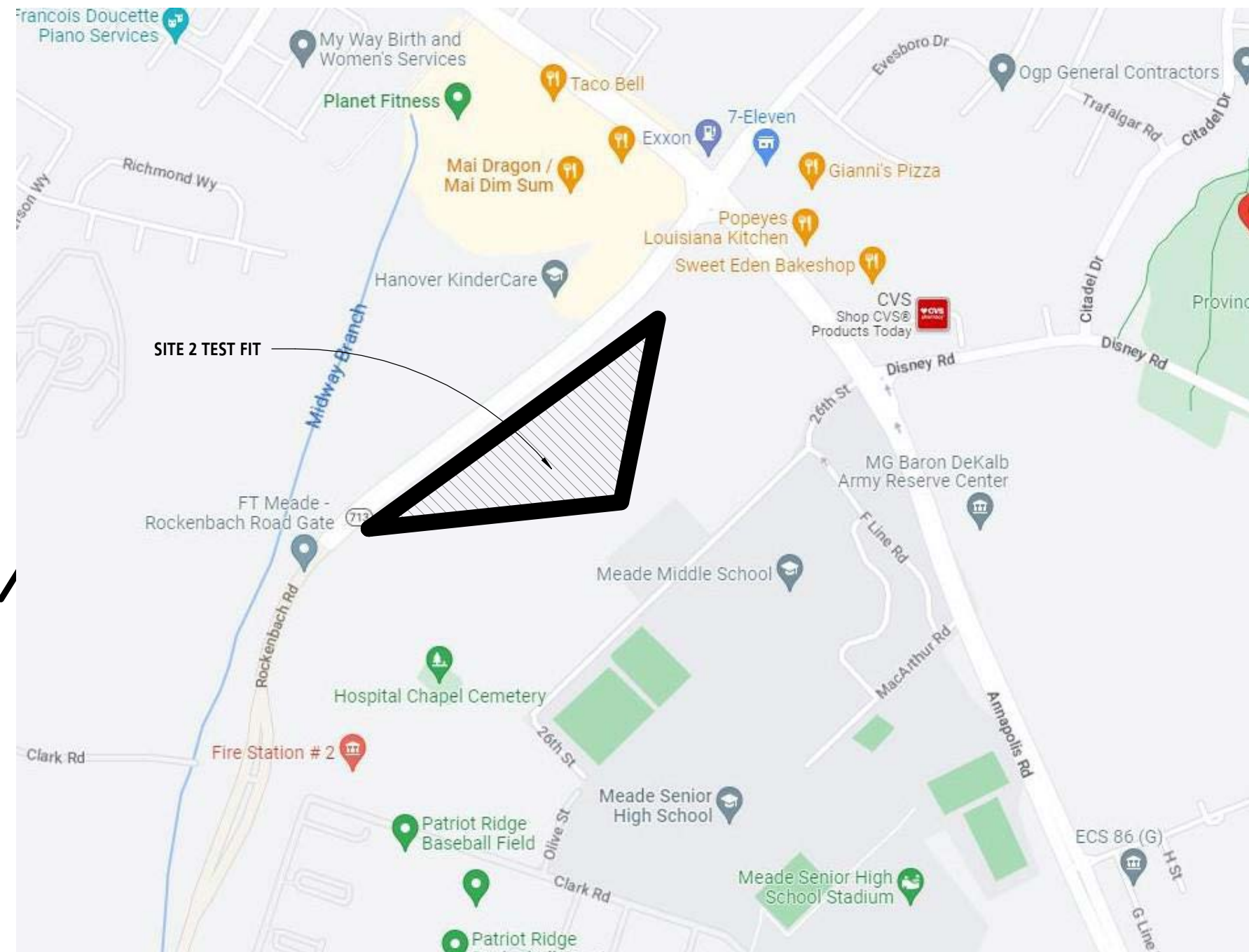
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WEST COUNTY SWIM CENTER
ANNE ARUNDEL COUNTY
RECREATION AND PARKS
PROVINCES PARK, MD



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APPENDIX DRAWING A-1



VICINITY MAP
NOT TO SCALE

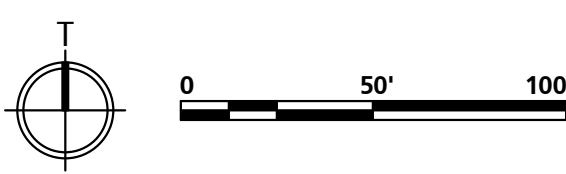


- KEYNOTES - SITE 1**
- ① ROADWAY IMPROVEMENTS LIMITED TO RE-STRIPING (TURN LANES)
 - ② NEW PARK ENTRANCE WITH ADDED TURN LANES
 - ③ NEW EXTERIOR SPLASH PAD AREA
 - ④ PLAZA
 - ⑤ BICYCLE RACKS AND CANOPY
 - ⑥ LOADING DOCK
 - ⑦ PROPOSED DUMPSTER ENCLOSURE LOCATION
 - ⑧ PROPOSED PARKING AREA
 - ⑨ SITE RETAINING WALL

- LEGEND**
- EXISTING PROPERTY LINE
 - - - SITE BOUNDARY LINE
 - - - PRESUMED STREAM AND BUFFER
 - - - WATER LINE
 - - - SANITARY LINE
 - - - GAS LINE
 - - - ELECTRIC LINE
 - - - ZONING SETBACK LINE
 - POTENTIALLY DEVELOPABLE AREA
 - PROPOSED BUILDING
 - LIMIT OF DISTURBANCE (LOD)
 - FOREST CONSERVATION AREA
 - EXISTING WOODED SITE AREA
 - PROPOSED BITUMINOUS PAVING
 - PROPOSED SWM AREA
 - PROPOSED CONCRETE PAVING
 - SPECIALTY PAVERS
 - BOARDWALK/BRIDGE
 - EXISTING SLOPE EXCEEDING 15%
 - ▲ PROPOSED BUILDING ENTRANCE

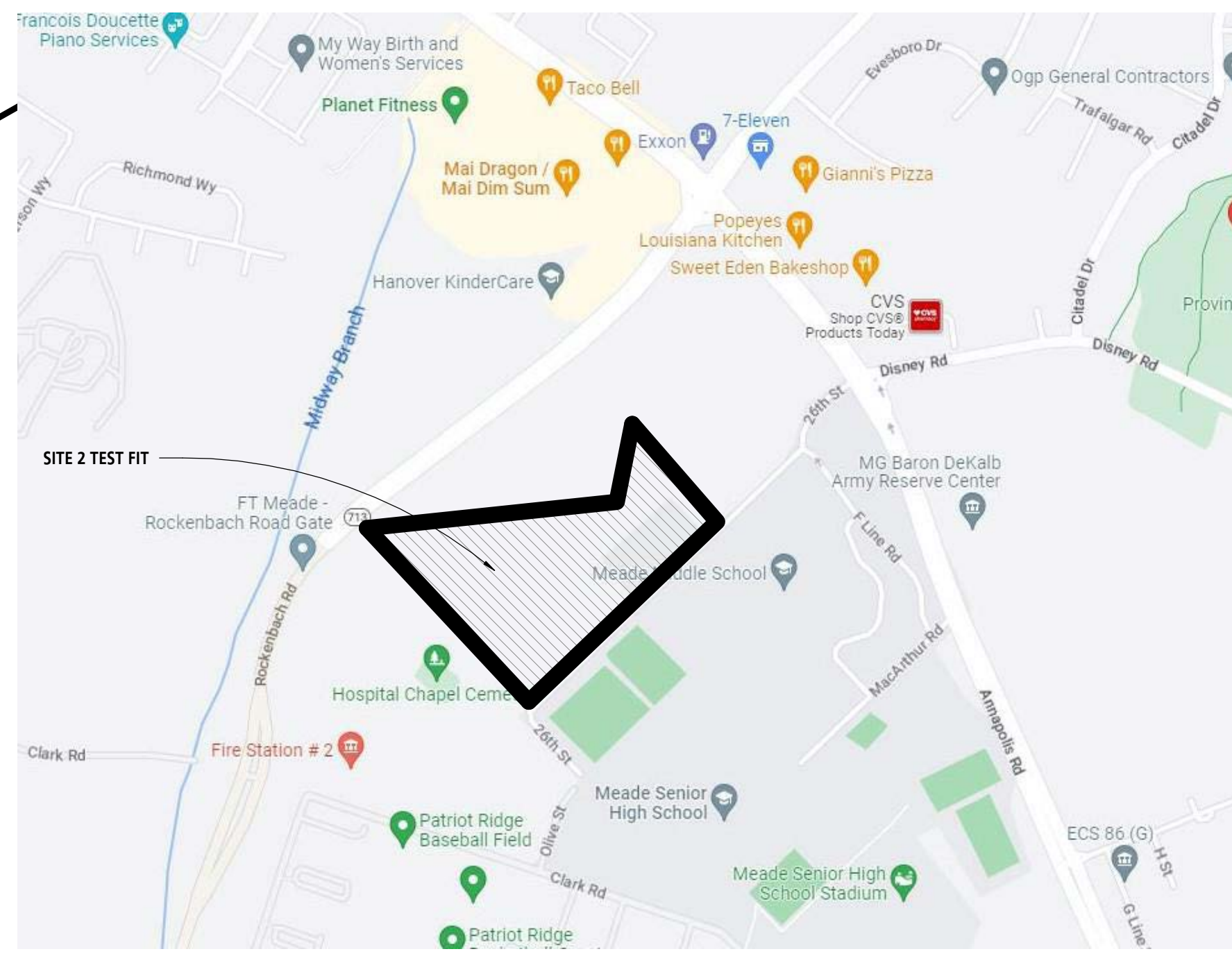
SITE INFO

PARKING SPACES:	190
ADA PARKING SPACES:	10
TOTAL SPACES:	200
SPLASH PAD SF:	8,700
TOTAL SITE ACREAGE:	13.6
LOD ACREAGE:	6.3



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APPENDIX DRAWING A-2



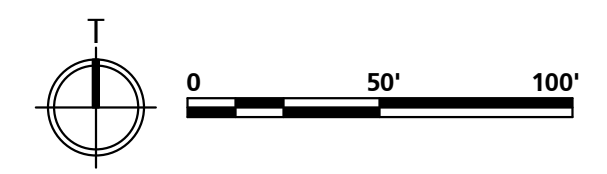
VICINITY MAP
NOT TO SCALE

- KEYNOTES - SITE 2**
- ① NEW PARK ENTRANCE WITH IN/OUT LANES
 - ② NEW PARK EXIT LANE
 - ③ NEW EXTERIOR SPLASH PAD AREA
 - ④ PLAZA
 - ⑤ BICYCLE RACKS AND CANOPY
 - ⑥ LOADING DOCK
 - ⑦ PROPOSED DUMPSTER ENCLOSURE LOCATION
 - ⑧ PROPOSED PARKING AREA
 - ⑨ BIKE PATH EXTENSION
 - ⑩ NEW BOARDWALK AND BRIDGE
 - ⑪ EXISTING PARKING LOT
 - ⑫ SITE RETAINING WALL

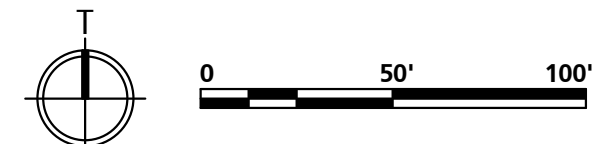
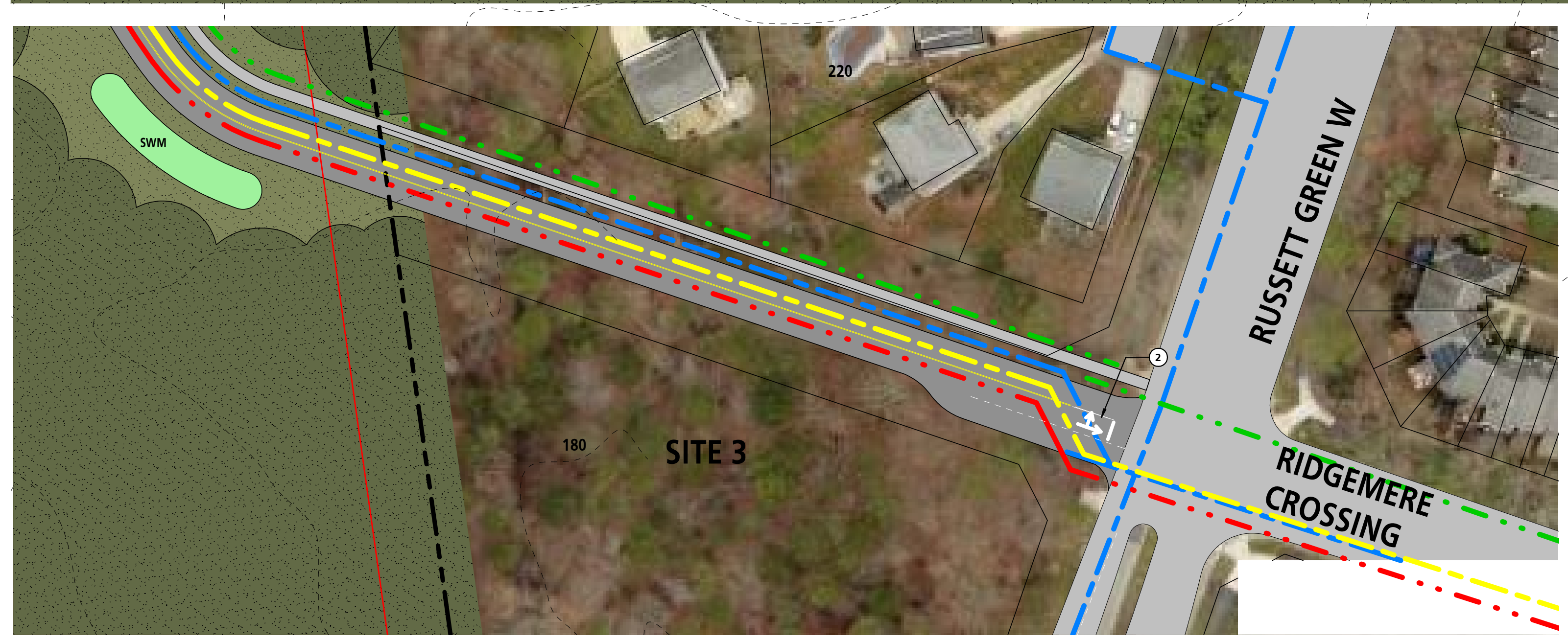
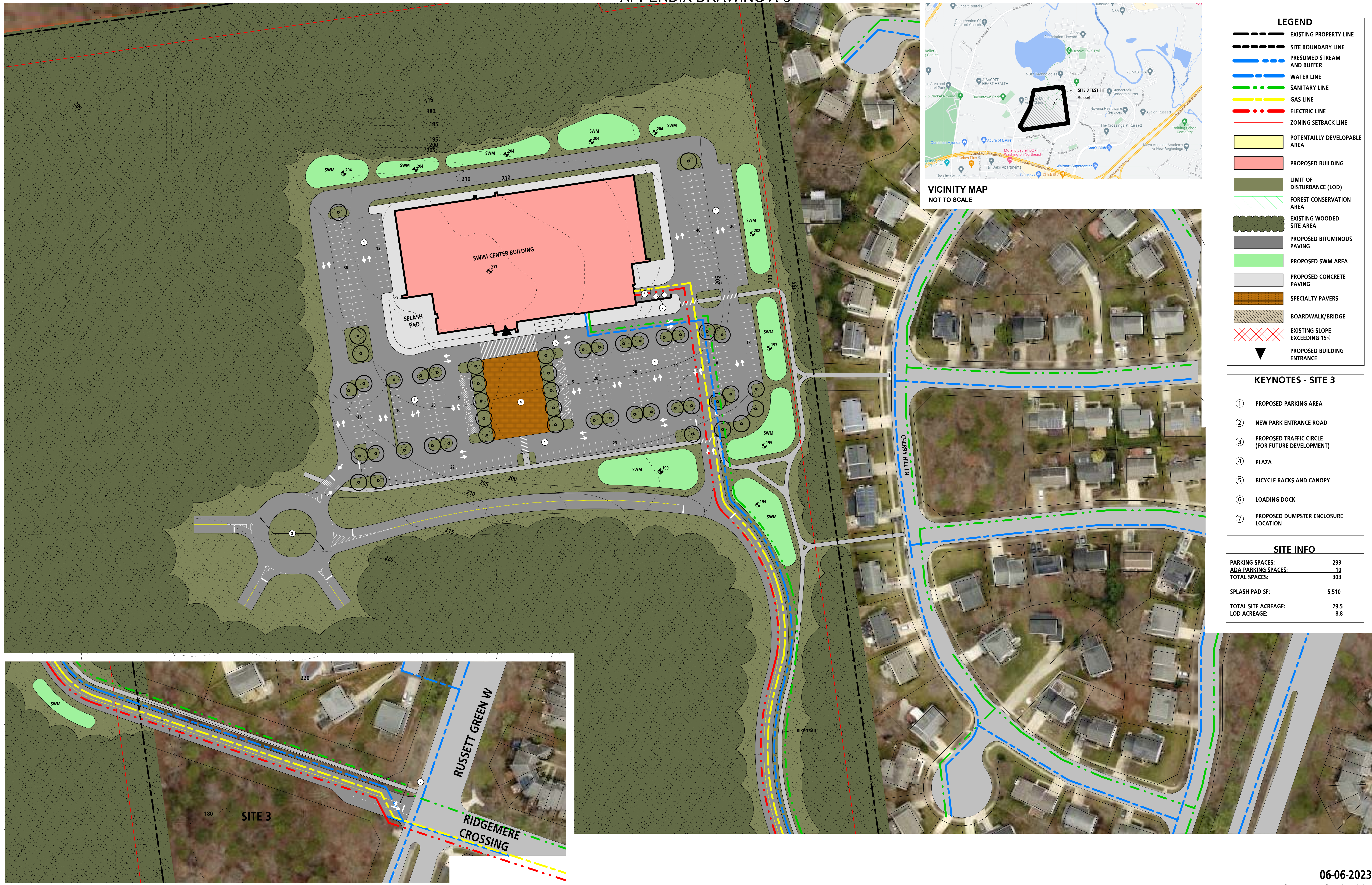
- LEGEND**
- EXISTING PROPERTY LINE
 - SITE BOUNDARY LINE
 - PRESUMED STREAM AND BUFFER
 - WATER LINE
 - SANITARY LINE
 - GAS LINE
 - ELECTRIC LINE
 - ZONING SETBACK LINE
 - POTENTIALLY DEVELOPABLE AREA
 - PROPOSED BUILDING
 - LIMIT OF DISTURBANCE (LOD)
 - ▨ FOREST CONSERVATION AREA
 - EXISTING WOODED SITE AREA
 - PROPOSED BITUMINOUS PAVING
 - PROPOSED SWM AREA
 - PROPOSED CONCRETE PAVING
 - SPECIALTY PAVERS
 - BOARDWALK/BRIDGE
 - ▨ EXISTING SLOPE EXCEEDING 15%
 - ▲ PROPOSED BUILDING ENTRANCE

SITE INFO

PARKING SPACES:	165
ADA PARKING SPACES:	10
TOTAL SPACES:	175
SPLASH PAD SF:	5,845
TOTAL SITE ACREAGE:	17.3
LOD ACREAGE:	5.5



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