Staff recommends approval to transmit comments to Montgomery County Public Schools.

The proposed project creates a collocated facility to house an expanded and relocated Tilden Middle School and a relocated Rock Terrace School.

The project will seek LEED Silver certification or higher by the United States Green Building Council (USGBC).
RECOMMENDATION

Staff recommends approval with the following comments to be transmitted to MCPS:

1. The proposed development must comply with the Final Forest Conservation Plan.
2. Continue working with the Montgomery County Department of Transportation (MCDOT) to provide adequate pedestrian improvements along Marcliff Road and Cushman Road.
3. Work with the MCDOT to provide adequate bicycle facilities.
4. Any increase of the school’s student core capacity beyond 1,600 students will require a traffic study as part of the future mandatory referral review.
5. Work with the MCDOT and the community to address any impacts arising from the proposed changes to the local traffic circulation plan – especially the proposal to provide direct vehicular access to the subject school site by removing the existing right- and left-turn restrictions from Tilden Lane to Marcliff Road from 7:00 to 9:00 a.m.
6. Maintain 5’ of open space on both Tilden Lane and Marcliff Road to accommodate the ultimate right-of-way.
7. Redesign internal crosswalks to be ADA-compliant with handicap ramps within the northern parking area.
8. Crosswalks and ramps at the corner of the Tilden/Marcliff intersection must be ADA compliant.

INTRODUCTION

This report consists of staff review of the Mandatory Referral for the proposed construction of a collocated facility to hold Tilden Middle School and Rock Terrace School, submitted by the Montgomery County Public Schools (MCPS) pursuant to Section 7-112 of the Regional District Act. A related Preliminary Forest Conservation Plan is reviewed in a separate memo to the Planning Board. A Final Forest Conservation Plan must be submitted for staff review and approval subsequent to the Planning Board review and action. The Planning Board action on a Mandatory Referral is advisory, but the Board decision on the related Forest Conservation Plan is regulatory and binding.

Site Description

The 19.75-acre site is located at 6300 Tilden Lane, west of Old Georgetown Road. This site was once the original location of Tilden Middle School, which relocated to the former Charles W. Woodward High School facility in 1991. At that time, this site became Tilden Center, the middle school holding facility for MCPS.

The site is within the boundary of the 1992 North Bethesda/Garrett Park Master Plan and the Walter Johnson cluster. The site fronts on Tilden Lane to the north, Marcliff Road to the south and east, and Cushman Road to the south and east.

Figure 1: Site and Vicinity
The site is surrounded by single-family residential properties on all sides.

The existing school facility currently houses the Feynman School, a private pre-K through grade 7 school. There are two baseball/softball diamonds and two rectangular fields located on the site, as well as tennis and basketball courts. There is one entrance on Tilden Lane and two entrances on Marcliff Road. The site is partially forested along the southern and northwestern perimeter, with scattered landscaping. It is organized into an upper plateau, with the basketball court, tennis courts, school building, and parking area and a lower plateau, with rectangular and diamond playing fields.

Project Description
The proposed project will collocate the Tilden Middle School and the Rock Terrace special education school on the site. The proposed expansion and relocation of Tilden Middle School is needed to accommodate growth in the Walter Johnson cluster. It will meet the requirements of the educational specifications for a new middle school by providing 59 teaching spaces for grades six through eight when completed in August 2020. The new middle school will have a core capacity of 1,500, with an initial enrollment of 1,094.

Rock Terrace School is a special education school that is currently located at 390 Martins Lane, Rockville. The relocation of Rock Terrace School to this site will meet the requirements of the educational specifications for a new special education facility by providing 18 teaching spaces, a core capacity of 128, with an initial enrollment of 120.
The new building will be designed for a core capacity of up to 1,628 students. The site plan takes advantage of the collocation of the two schools by sharing a bus drop-off loop, a gymnasium, cafeteria, and mechanical facilities but have separate classroom and laboratory spaces. But the two schools will have separate parent drop-off loops and main entrances.
The proposed school design includes the following elements:

- A three-story building organized in three main sections – Tilden Middle School, shared activities area, and Rock Terrace School;
- A bus loop shared by both schools;
- A student drop-off loop for Tilden Middle School, entering and exiting from Tilden Lane, with a main entrance at the northeast corner of the site;
- A student drop-off loop for Rock Terrace School, entering and exiting from Marcliff Drive, with a main entrance on Marcliff Drive;
- A separate activities entrance on Marcliff Road;
- A gymnasium, cafeteria, and administrative offices on the first floor;
- Classrooms, auxiliary gymnasiums, and the media center on the second floor;
- Classrooms and laboratories on the third floor; and
- Security features controlling student movement between Tilden Middle School and Rock Terrace School.
The building and site will be in full compliance with the most current applicable Code of Maryland Regulations (COMAR) and Americans with Disabilities Act (ADA), whichever is more stringent. The project will be designed to achieve Leadership in Energy and Environmental Design (LEED) Silver certification or higher by the United States Green Building Council (USGBC) under the LEED for Schools rating system.

In addition to the outdoor active and recreational spaces, the support spaces such as the cafeteria, instructional media center, and gymnasium will be available to the community for use during non-school hours, while the remainder of the building will be secured.

Tilden Middle School’s hours are from 8:15 a.m. to 3:00 p.m. during the school year. Rock Terrace School’s hours of operation are from 8:40 a.m. to 3:30 p.m. during the school year. During the summer break and winter holidays only administrative staff is present. The school will be available for public use under the Montgomery County Use of Public Facilities Program. No phasing of construction is planned. The proposed project includes the following pedestrian facilities:

1. The internal circulation separates pedestrian and vehicular movements.
2. Lead-in sidewalks from Tilden Lane and Marcliff Road.
3. ADA-compliant handicap ramps for the sidewalk across entrances on Tilden Lane and Marcliff Road.
4. Handicapped parking spaces in the parking areas with delineated ADA accessible paths to both Tilden Middle School and Rock Terrace School main entrances.
5. Internal ADA-compliant and marked pedestrian crosswalks and handicap ramps or at-grade sidewalk crossing on the site.

**ANALYSIS**

**Conformance to Development Standards**
The property is zoned R-200. The proposed project was analyzed for conformance with the applicable development standards as shown in Table 1 below.
Table 1: Applicable Development Standards – R-200 Zone

<table>
<thead>
<tr>
<th>Development Standards</th>
<th>Required</th>
<th>Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Tract Area: (59-4.7 Residential – 200 Zone)</td>
<td>20,000 sq. ft.</td>
<td>860,310 sq. ft.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(18.75 ac.)</td>
</tr>
<tr>
<td>Maximum Lot Coverage</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>Minimum Principle Building Setbacks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front Setback</td>
<td>40’</td>
<td>126’</td>
</tr>
<tr>
<td>Side Setback</td>
<td>12’</td>
<td>Varies</td>
</tr>
<tr>
<td>Rear Setback</td>
<td>30’</td>
<td>32’</td>
</tr>
<tr>
<td>Maximum Building Height</td>
<td>50’</td>
<td>56’</td>
</tr>
<tr>
<td>Parking</td>
<td>N/A</td>
<td>215 parking spaces, including 9 ADA parking spaces</td>
</tr>
</tbody>
</table>

Master Plan
The North Bethesda/Garrett Park Master Plan does not have any specific recommendations for this site. The master plan identifies the site as a holding school but acknowledges that it may be necessary to reclaim school properties as operating schools if future enrollments so require. The only general recommendation for schools is to provide safe pedestrian connections. The MCPS and MCDOT are actively working towards this goal and therefore the use of this site as a school is consistent with the goals and objectives of the Plan.

Neighborhood Compatibility
As part of its review, the Planning Board must consider whether the nature of the proposed site and development, including its size, shape, scale, height, arrangement and design of structure, is compatible with the surrounding neighborhood and properties. Most of the site is separated from the surrounding residential properties by roads. The portions of the site that are adjacent to residential development have landscaped buffers.

Transportation
School Location and Vehicular Access
The site has vehicular access as follows:
- The existing curb cut from Tilden Lane is proposed to be retained as a two-way access while adding a new one-way exit for both cars and buses.
- The existing northern curb cut from Marcliff Road is proposed to be retained to be a two-way access for the bus loop for Rock Terrace School.
- The existing southern curb cut from Marcliff Road is proposed to be retained as a two-way access to the southern parking lot.

Master-Planned Roadways and Bikeways
Tilden Lane is recommended as a two-lane, primary residential street, P-7, with a 70-foot wide right-of-way and a Class II bikeway. Bike lanes, BL-24, are recommended in the 2005 Countywide Bikeways Functional Master Plan. A striped bikeway or conventional bike lanes is recommended in the current Bikeways Master Plan update. Currently Tilden Lane, along the school frontage has a 60- to 70-foot right-of-way.
Marcliff Road is recommended as a two-lane, primary residential street, P-13, with a 70-foot wide right-of-way and a bikeway facility is not recommended in the Master Plan. Currently Marcliff Road has only a 55-foot right-of-way. To address the right-of-way issues, MCPS proposes to maintain 5’ of open space on both Tilden Lane and Marcliff Road to accommodate the ultimate right-of-way. Cushman Road is not listed in the Master Plan, but it is a secondary residential street with a 60-foot right-of-way.

Public Transit Service
The nearest bus stop is approximately 2,500 feet to the south along Tuckerman Lane.

Pedestrian and Bicycle Facilities
The existing sidewalk network is substandard and non-ADA compliant. The existing sidewalks are as follows:

- Five-foot wide sidewalks with no green panels exist on both sides along Tilden Lane.
- Four-foot wide sidewalks with green panels on both sides of the northern section of Marcliff Road.
- Four-foot wide sidewalks with a substandard curb and narrow separation on only the school side of the southern section of Marcliff Road and Cushman Road.
- There are no sidewalks along most of the residential streets intersecting Tilden Lane.
MCPS has been working with MCDOT on the pedestrian improvements along Marcliff Road and Cushman Road. Revising the current open section roadways will require significant site improvements, including addressing storm drain adequacy and alignment. If MCDOT is not able to replace these sidewalks by the time the new school facilities open, then MCPS will replace the facilities with a similar level of pedestrian facility to the existing sidewalk.

Local Area Transportation Review
The numbers of peak-hour trips generated by the new middle school is based on trip-generation rates derived from the data at the existing Tilden Middle School on Old Georgetown Road with currently 797 students. The table below shows the number of trips generated by both schools within the weekday morning peak period (6:30 to 9:30 a.m.) and the afternoon dismissal peak hour of the schools from 2:30 to 3:30 p.m. (that is before the typical weekday evening peak-hour starting at 4:00 p.m.).

<table>
<thead>
<tr>
<th></th>
<th>Number of Students</th>
<th>Peak Hour Vehicle Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Morning Vehicle</td>
</tr>
<tr>
<td>Proposed Schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tilden</td>
<td>1,500</td>
<td>975</td>
</tr>
<tr>
<td>Rock Terrace</td>
<td>100</td>
<td>65</td>
</tr>
<tr>
<td>Subtotal for Both Schools</td>
<td>1,600</td>
<td>1,040</td>
</tr>
<tr>
<td>Existing Sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle School</td>
<td>797</td>
<td>516</td>
</tr>
<tr>
<td>“Tilden Center”</td>
<td>n/a</td>
<td>51</td>
</tr>
<tr>
<td>Rock Terrace</td>
<td>100</td>
<td>65</td>
</tr>
<tr>
<td>Subtotal</td>
<td>897</td>
<td>632</td>
</tr>
<tr>
<td>Increase</td>
<td>703</td>
<td>408</td>
</tr>
<tr>
<td>Auto Driver</td>
<td></td>
<td>536</td>
</tr>
<tr>
<td>Auto Passenger</td>
<td></td>
<td>105</td>
</tr>
<tr>
<td>Transit</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Pedestrian &amp; Bike</td>
<td></td>
<td>97</td>
</tr>
</tbody>
</table>

Figure 4: Marcliff Road sidewalk
Under the 2016-2020 Subdivision Staging Policy, a traffic study is required if the number of morning or afternoon person-trips exceed 50 during the weekday peak hours. In this case, the number of vehicular, transit, bicycle, and pedestrian trips each exceed the standard 50 person-trips in the AM peak period but not in the PM peak hour.

Based on the traffic study results, the Highway Capacity Manual’s (HCM) average intersection delay values (in seconds per vehicle) at the studied intersections are shown in the table below for the following traffic conditions:

1. **Existing:** Existing traffic conditions.
2. **Background:** The existing condition plus the trips generated from approved but unbuilt nearby developments.
3. **Total:** The existing condition plus the site-generated trips generated by the proposed schools with a total of 1,600 students.

<table>
<thead>
<tr>
<th>Studied Intersection</th>
<th>Traffic Condition</th>
<th>Existing AM</th>
<th>Existing PM</th>
<th>Background AM</th>
<th>Background PM</th>
<th>Total AM</th>
<th>Total PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montrose Road &amp; Tildenwood Drive</td>
<td></td>
<td>27.6</td>
<td>18.7</td>
<td>27.8</td>
<td>19.5</td>
<td>31.8</td>
<td>28.0</td>
</tr>
<tr>
<td>Old Georgetown Road &amp; Tilden Lane-Nicholson Lane</td>
<td></td>
<td>35.4</td>
<td>23.6</td>
<td>41.1</td>
<td>27.6</td>
<td>58.0 (53.1)</td>
<td>33.3 (30.7)</td>
</tr>
<tr>
<td>Old Georgetown Road &amp; Tuckerman Lane</td>
<td></td>
<td>81.8</td>
<td>42.0</td>
<td>85.6*</td>
<td>44.8</td>
<td>92.1* (87.5*)</td>
<td>50.2 (47.4)</td>
</tr>
<tr>
<td>Tuckerman Lane &amp; Marcliff Road</td>
<td></td>
<td>13.1</td>
<td>3.4</td>
<td>14.5</td>
<td>3.5</td>
<td>50.6 (98.6*)</td>
<td>4.9 (7.6)</td>
</tr>
<tr>
<td>Tilden Lane &amp; Danville Drive-Marcliff Road</td>
<td></td>
<td>9.1</td>
<td>8.1</td>
<td>9.6</td>
<td>8.3</td>
<td>40.2 (39.6)</td>
<td>10.3 (10.2)</td>
</tr>
<tr>
<td>Marcliff Road &amp; Cushman Road</td>
<td></td>
<td>7.4</td>
<td>7.3</td>
<td>7.4</td>
<td>7.3</td>
<td>8.8 (8.9)</td>
<td>7.6 (7.8)</td>
</tr>
<tr>
<td>Tildenwood Drive &amp; Old Stage Road</td>
<td></td>
<td>7.8</td>
<td>7.5</td>
<td>8.1</td>
<td>7.6</td>
<td>9.6</td>
<td>8.2</td>
</tr>
<tr>
<td>Old Stage Road &amp; Tilden Lane</td>
<td></td>
<td>8.5</td>
<td>7.6</td>
<td>8.7</td>
<td>7.7</td>
<td>10.6</td>
<td>8.2</td>
</tr>
<tr>
<td>Tilden Lane &amp; West School Driveway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>58.6</td>
<td>6.8</td>
</tr>
<tr>
<td>Tilden Lane &amp; East School Driveway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13.1</td>
<td>10.0</td>
</tr>
<tr>
<td>Marcliff Road &amp; North School Driveway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.3 (0.3)</td>
<td>0.3 (0.3)</td>
</tr>
<tr>
<td>Marcliff Road &amp; South School Driveway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.3 (1.5)</td>
<td>0.6 (1.5)</td>
</tr>
</tbody>
</table>

The values in parentheses above are the HCM values if MCDOT removes turning restrictions at the following intersections:

- Tilden Lane/Marcliff Road-Danville Drive: Currently restricts right and left turns from Tilden Lane to Marcliff Road from 7:00 to 9:00 a.m. and
• Tuckerman Lane/Marcliff Road: Currently restricts left turns from Tuckerman Lane to Marcliff Road from 4:00 to 6:00 p.m.

As indicated with an asterisk above, the HCM delay values exceed the applicable standard of 71 seconds/vehicle for the North Bethesda Policy Area at two of the studied intersections -- Old Georgetown Road/Tuckerman Lane and Marcliff Road/Tuckerman Lane. To satisfy the LATR test under the 2016-2020 Subdivision Staging Policy (new SSP) the following analysis is provided.

For the vehicular impact, the new SSP standard is an average HCM delay (of all the intersection approaches) of 71 seconds per vehicle for those located in the North Bethesda Policy Area. The site generated traffic will be mitigated by the following:

• By changing the location of the school site, the site-generated vehicular traffic at the Old Georgetown Road/Tuckerman Lane intersection will be redistributed through the critical movements at this intersection.

• At the Marcliff Road/Tuckerman Lane intersection, the site-generated vehicular traffic will be mitigated with a traffic signal installed by MCDOT when it is warranted. An MCPS traffic consultant is working with MCDOT to provide them a follow-up traffic analysis. MCDOT has a CIP project to fund the installation of traffic signals throughout the County.

While the new SSP requires an inventory of the bus routes within 1,000 feet of a site, the nearest bus stop to the site is over 2,500 feet, so no transit analysis is needed.

The new SSP requires improvements of any sidewalk within 500 feet of the site boundary that is worse than LOS of D. The quality of the existing sidewalks is discussed in the Pedestrian and Bicycle Facilities section above. MCPS should work with the MCDOT’s Pedestrian Safety Initiative to upgrade substandard sidewalks or construct missing off-site sidewalk connections within 500’. The off-site pedestrian circulation improvements can be funded through the established MCDOT CIP project #506747- Annual Sidewalk Program or project #P509036- Transportation Improvements for Schools.

For the bicycle impact, the new SSP requires improvements of any bikeway within a quarter-mile of an educational facility that has a Level of Traffic Stress/Stress Tolerance Level (LTS) worse than LTS-2 (defined as low). The bikeway TLS on Tilden Lane is moderate high or moderate low on nearby segments. MCPS should work with MCDOT (and its bikeways coordinator Pat Shepherd) to improve the nearby substandard bikeway segments.

Transportation Policy Area Review
Under the 2016-2020 Subdivision Staging Policy, the public schools are not explicitly exempt from the Transportation Policy Area Review (TPAR) test. However, the County does not require public schools to pay the development impact tax.
Environmental Analysis
Environmental Guidelines
Staff approved a Natural Resource Inventory/Forest Stand Delineation (NRI/FSD #420161060) for the school site on 2/29/2016. There are 2.82 acres of forest, but no streams, wetlands, floodplains, or environmental buffers on the site. The site is within the Cabin John Creek watershed. The proposed project complies with the Environmental Guidelines.

Forest Conservation
Forest conservation issues are covered in a separate regulatory memo to the Planning Board. In summary, this property is subject to the Montgomery County Forest Conservation Law (Chapter 22A of the County Code). The Preliminary Forest Conservation Plan proposes to clear 0.46 acres of forest, retain 2.36 acres of forest, and plant 0.74 acres of forest.

Stormwater Management
The Montgomery County Department of Permitting Services (DPS) approved a stormwater management concept plan on 7/19/2017 (Attachment 3). The stormwater management concept includes 27 microbioretention facilities. Structural facilities are provided to attenuate the 10-year storm event due to the limited capacity of the surrounding public drain system.

Community Notification
MCPS worked with parents, neighbors, and school staff since 2015 on the proposed project. There were six public work sessions in association with the feasibility study and three work sessions in association with the schematic design phase. Planning staff sent out notifications of the regulatory plan review at the Planning Board.

Attachments
1. Site plan
2. Circulation plan
3. DPS stormwater management concept plan approval letter
ATTACHMENT 3

DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett
County Executive

Diane R. Schwartz Jones
Director

July 19, 2017

Mr. Shawn Benjaminson, P.E.
ADTEK Engineers, Inc.
97 Monacacy Blvd., Unit H
Frederick, Maryland 21701

Re: COMBINED STORMWATER MANAGEMENT CONCEPT/SITE DEVELOPMENT STORMWATER MANAGEMENT PLAN for
Tilden Middle School / Rock Terrace School
Preliminary Plan #: N/A
SM File #: 282932
Tract Size/Zone: 19.76 Ac / RMH-200
Total Concept Area: 15.89 Ac.
Lots/Block: N/A
Parcel(s): 6 Parcels
Watershed: Upper Rock Creek

Dear Mr. Benjaminson:

Based on a review by the Department of Permitting Services (DPS) Review Staff, the stormwater management concept for the above-mentioned site is acceptable. The stormwater management concept proposes to meet required stormwater management goals via providing 27 micro-bioretention facilities. Per your correspondence with the DPS ROW Section, onsite attenuation of the 10-year storm event to maintain existing flow rates from the site will also be provided due to the limited capacity of the surrounding public storm drain system.

The following items will need to be addressed during the detailed sediment control/stormwater management plan stage:

1. ESD practices should be provided and distributed throughout the site to the maximum extent practicable. In areas where this is not feasible due to site constraints, it is acceptable to combine micro-bioretention practices and provide bioretention facilities to meet the required stormwater management goals.

2. A detailed review of the stormwater management computations will occur at the time of detailed plan review.

3. An engineered sediment control plan must be submitted for this development.

4. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.

5. Landscaping shown on the approved Landscape Plan as part of the approved Site Plan are illustrative purpose only and may be changed at the time of detailed plan review of the Sediment Control/Storm Water Management plans by the Mont. Co. Department of Permitting Services, Water Resources Section.

255 Rockville Pike, 2nd Floor, Rockville, Maryland 20850 | 240-777-0311
www.montgomerycountymd.gov/permittingservices
This list may not be all-inclusive and may change based on available information at the time.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact Mike Geier at 240-777-6342.

Sincerely,

Mark C. Etheridge, Manager
Water Resources Section
Division of Land Development Services

MCE: me CN282932 Tilden Rock Creek Terrace School.mig

cc: C. Conlon
    SM File # 282932

ESD Acres: 15
STRUCTURAL Acres: 0
WAIVED Acres: 0