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## Special Exception

## SE-4647

Application	General Data	
<p><b>Project Name:</b> Millville Quarry</p> <p><b>Location:</b> The south side of Accokeek Road (MD 373), on the east side of McKendree Road, approximately 810 feet east of their intersection.</p> <p><b>Applicant/Address:</b> Aggregate Industries, Inc. 6401 Golden Triangle Drive, Suite 400 Greenbelt, MD 20770</p> <p><b>Property Owner:</b> Millville Quarry, Inc. 6401 Golden Triangle Drive, Suite 400 Greenbelt, MD 20770</p>	Planning Board Hearing Date:	06/28/12
	Staff Report Date:	03/28/12
	Date Accepted:	11/13/09
	Planning Board Action Limit:	N/A
	Plan Acreage:	503.66
	Zone:	R-R
	Gross Floor Area:	N/A
	Lots:	N/A
	Parcels:	N/A
	Planning Area:	85A
	Tier:	Developing
	Council District:	09
	Election District	11
Municipality:	N/A	
200-Scale Base Map:	219SE07	

Purpose of Application	Notice Dates	
<p>This case was reviewed by the Planning Board on April 12, 2012. The Planning Board has scheduled this application for a public hearing on the agenda date of June 28, 2012.</p> <p>Special exception for surface mining of sand and gravel in the R-R Zone.</p> <p>Variances to Sections 25-122(b)(1)(G) and 27-442(a)(1)(e).</p>	Informational Mailing	08/27/09
	Acceptance Mailing:	11/06/09
	Sign Posting Deadline:	N/A

Staff Recommendation		Staff Reviewer: Tom Lockard Phone Number: 301-952-3410 E-mail: <a href="mailto:Thomas.Lockard@ppd.mncppc.org">Thomas.Lockard@ppd.mncppc.org</a>	
APPROVAL	APPROVAL WITH CONDITIONS	DISAPPROVAL	DISCUSSION
	X		

THE MARYLAND-NATIONAL CAPITAL  
PARK AND PLANNING COMMISSION

PRINCE GEORGE'S COUNTY PLANNING BOARD

**TECHNICAL STAFF REPORT:**

TO: The Prince George's County Planning Board  
The Prince George's County District Council

VIA: Jimi Jones, Zoning Supervisor, Development Review Division

FROM: Tom Lockard, Planner Coordinator, Zoning Section, Development Review Division

SUBJECT: **Special Exception Application No. SE-4647**  
**Millville Quarry**

REQUEST: **Surface mining of sand and gravel in the R-R Zone**

RECOMMENDATION: **APPROVAL with conditions**

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NOTE:

This case was reviewed by the Planning Board on April 12, 2012. The Planning Board has scheduled this application for a public hearing on the agenda date of June 28, 2012. The Planning Board also encourages all interested persons to request to become a person of record for this application.

Requests to become a person of record should be made in writing and addressed to The Maryland-National Capital Park and Planning Commission, Development Review Division, 14741 Governor Oden Bowie Drive, Upper Marlboro, MD 20772. Please call 301-952-3530 for additional information.

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**FINDINGS:**

A. **Location and Field Inspection:** The subject property is a large, irregularly-shaped tract of land, approximately 456.75 acres in area in the Rural Residential (R-R) Zone. It is the residentially-zoned section of a larger 576.29 acre tract, with the remaining acreage being in the Mixed Use–Transportation Oriented (M-X-T) Zone. It comprises 17 parcels on Tax Maps 144 and 154, all of which are recorded in Liber 16268, Folio 161. The site is located on the south side of Accokeek Road (MD 373) and the east side of McKendree Road, just southeast of the intersection of those two roads and west of Robert Crain Highway (US 301). The site is partially wooded, although substantial portions of the site were cleared for agriculture. There is one residence in the northwest section of the site, accessed from Accokeek Road to the north via a long driveway. There are several other structures identified as ruins scattered across the site. The site plan shows all of these structures as to be removed. The northern portion of the property drains into the Piscataway Creek watershed, and the southern portion of the property drains into the Mattawoman Creek watershed. The property contains several regulated stream systems including wetlands and 100-year floodplain. It is bisected by a proposed realignment of Accokeek Road within a 120-foot right-of-way.

B. **Development Data Summary:**

	<b>EXISTING</b>	<b>PROPOSED</b>
Zone(s)	R-R	R-R
Use(s)	Woodlands Agriculture	Sand and Gravel Mine
Acreage	456.75	456.75
Parcels	17	17

C. **History:** The majority of the property was retained in the Rural Residential (R-R) Zone in the 2009 *Approved Subregion 5 Master Plan and Sectional Map Amendment*, which was approved via District Council Resolution CR-61-2009.

D. **Master Plan Recommendation:** The 2002 *Prince George’s County Approved General Plan* places the area of this property to be mined in the Developing Tier. The vision for the Developing Tier is to maintain a pattern of low- to moderate-density suburban residential communities, distinct commercial centers, and employment areas that are increasingly transit serviceable.

According to the Subregion 5 Master Plan, the western portion of the property with frontage on McKendree Road is planned as residential low-transition. In residential low-transition areas, conservation subdivision techniques are strongly recommended with a minimum open space requirement of 60 percent. In a transition area, the conservation subdivision technique is strongly recommended to encourage a more environmentally-sensitive subdivision design. It is intended that conservation subdivisions require development to be clustered in less environmentally-sensitive areas and to have a minimum of 60 percent open space, although existing regulations require only 40 percent of the subdivision to be designated in a conservation lot or parcel. The location of this property in the Developing Tier allows for the use of public water and sewer in a conservation subdivision.

The remaining property is designated as low residential, intended for single-family detached residential development that may have up to 3.5 dwellings per acre. The master plan also includes the following goal for sand and gravel: “...the county capitalizes on the extraction of sand and gravel resources prior to the land being pre-empted by other land uses.”

Mining of this site to remove valuable natural resources is consistent with policies of both the General Plan and the Subregion 5 Master Plan. Although there is not a redevelopment concept included with the material reviewed for this application, redevelopment in accordance the recommendations of the Subregion 5 Master Plan should be feasible.

- E. **Request:** The applicant is proposing a sand and gravel mining operation. Environmentally-sensitive portions of the property including floodplain, tree conservation areas, wetlands, steep slopes, and bufferyards will be preserved. Mining is shown to take place in four phases. All existing structures are shown to be removed and no structures are proposed. No scale and scale house are shown. The material is proposed to be conveyed to the opposite side of McKendree Road where the applicant has an active wash plant. The conveyor will cross above McKendree Road and is designed to have the appearance of a pedestrian bridge. From there, the material will be dispersed to job sites throughout the region.

The applicant estimates a five-year timeframe for mining. If the operation does extend beyond the statutory maximum five-year approval, a new special exception will be required for the use to continue.

- F. **Neighborhood and Surrounding Uses:** The neighborhood is generally defined by the following boundaries:

<b>North</b> —	Accokeek Road (MD 373)
<b>East</b> —	Robert Crain Highway (US 301)
<b>South</b> —	Mattawoman Creek (Charles County boundary)
<b>West</b> —	Gardner Road

The neighborhood is predominantly undeveloped, with wooded parcels, scattered residences, sand and gravel mines, a wet processing plant, and agricultural fields. North and east of the subject property, towards US 301, are several residential subdivisions.

Abutting the northeast portion of the subject site is a residential subdivision, Lakeview at Brandywine. Across Accokeek Road to the north are single-family homes and undeveloped, wooded lots and parcels (all zoned R-R). To the east is Robert Crain Highway (MD 301) and several properties not included with the application. These properties abut the subject property and include Parcels 17 and 18 (zoned Commercial Shopping Center (C-S-C)), and Parcel 22 (zoned Miscellaneous Commercial (C-M)), all developed with commercial uses. Abutting the subject property to the south are the Chaddsford and McKendree Village subdivisions, which are mixed townhouse and single-family residences (zoned Residential Medium Development (R-M)). Also to the south is Parcel 21 (split zoned R-R and C-M) which is currently used as a truck trailer storage yard. To the west, across McKendree Road, is an existing surface mine with a wet processing facility. On the northwestern portion of the subject application, at the corner of McKendree Road and Accokeek Road (MD 373), are several residences located on individual lots and parcels (Lots 1 through 6 of the Brandywine Acres subdivision and Parcel 7).

G. **Specific Special Exception Requirements for a Sand and Gravel Mine:** Section 27-410 of the Zoning Ordinance permits a sand and gravel mine in the Open Space (O-S) Zone, subject to the following:

(a) **The surface mining of natural materials or deposits (including sand, gravel, or clay pits; rock or stone quarries; and the removal of earth or topsoil) may be permitted, subject to the following:**

(1) **Heavy machinery may be used for the extraction of natural material or deposits from the site. Except in the I-2 Zone, heavy machinery may not be used for washing, refining, or other processing, unless a Special Exception is granted for sand and gravel wet-processing under the provisions of Section 27-405;**

**Comment:** Heavy machinery will be used for excavation and hauling. No on-site washing, refining, or other processing is proposed.

(2) **The use shall not be noxious, offensive, or otherwise objectionable by reason of dust, smoke, or vibration;**

**Comment:** The Environmental Planning Section reviewed the proposed mining operation and provided an Environmental Impact Report (EIR-4647). Air quality and noise impacts were evaluated. According to the Environmental Planning Section, in a memorandum dated March 12, 2012 (Reiser to Lockard), the applicant's air quality report presented an evaluation of the predicted impacts on air quality by providing ambient (or background) air quality measurements and the predicted levels of pollutants that will result from the proposed mining activity. The combined information was compared to established air quality standards. The standards are known as the National Ambient Air Quality Standards (NAAQS) which are established for six criteria pollutants: carbon monoxide, lead, nitrogen dioxide, ground-level ozone, particulate matter, and sulfur dioxide.

The report concludes that all pollutants are expected to be below the NAAQS with the exception of ozone and fine particulates (PM<sub>2.5</sub>). These pollutants have ambient levels above the NAAQS and are in non-attainment for the county. The report indicates that the emissions of these pollutants from the proposed operation are minimal and would not worsen the ambient air quality of Prince George's County.

The EIR recommends conditions addressing issues relating to the air shed and air quality. Staff is recommending that these conditions be made part of any approval of this application.

(3) **The land areas exposed by the extraction and removal of natural materials or deposits shall be left suitable for development. A grading plan shall be submitted (along with the site plan) showing the existing and proposed ground elevations of the site, adjacent land, and all abutting streets. The exposed land area shall have a slope not greater than three-to-one (3:1), except where any portion of the site is developed for port or harbor facilities;**

**Comment:** The applicant will be required to restore the property so that it is suitable for development. A mining plan showing the proposed grading and a reclamation plan showing the final grades have been submitted. None of the proposed grades are greater than 3:1.

**(4) The Special Exception shall be valid for not longer than five (5) years, except where the use is located:**

**(A) In an R-R Zone which is predominantly undeveloped for a radius of one (1) mile from the operation; or**

**(B) In an I-2 Zone;**

**Comment:** The property is in the R-R Zone, but is not located in an area which is predominantly undeveloped. Therefore, this application, if approved, would be valid for a period not to exceed five years from the date of approval. Any request for additional time will require approval of a new special exception.

**(5) In addition to the requirements of Section 27-296(c), the site plan shall show an estimate of the time required for the removal of the material;**

**Comment:** The site plan contains a note that estimates the operation will be completed within five years.

**(6) At least sixty (60) calendar days prior to the hearing before the Zoning Hearing Examiner, the applicant shall file a traffic analysis with the Zoning Hearing Examiner for inclusion in the record, and shall send a copy to the Planning Board. The traffic analysis shall include the volume of traffic expected to be generated by the operation, and shall identify the streets to be used between the site and the nearest street (to be used) that has a minimum paved width of twenty-four (24) feet for the predominant length of the street;**

**Comment:** The applicant has submitted the required traffic study. No off-site hauling is proposed for the subject application because the raw material is proposed to be transported across McKendree Road via a proposed conveyor system to an existing wash plant operating pursuant to Special Exception SE-4403.

The analysis for this report was conducted by staff associated with the Transportation Planning Section, and is presented in conjunction with a traffic study submitted with the application. The original submitted traffic study, dated September 2008, analyzed the transportation facilities within the study area based on existing conditions, as well as future conditions with and without the impact of the subject application. This study was updated with current counts in September 2011. All analyses have been prepared using the methodologies and standards contained in the "Guidelines for the Analysis of the Traffic Impact of Development Applications" (Guidelines). The application states that all hauling of extracted material will occur on-site, with the material to be transported to the off-site wash plant (operating pursuant to Special Exception SE-4403) by means of a conveyor system across McKendree Road.

The subject property is located within the Developing Tier as defined in the *Prince George's County Approved General Plan*. As such, the subject property is evaluated according to the following standards:

**Links and signalized intersections:** Level-of-service (LOS) D, with signalized intersections operating at a critical lane volume (CLV) of 1,450 or better. Mitigation, as defined by Section 24-124(a)(6) of the Subdivision Regulations, is permitted at signalized intersections within any tier subject to meeting the geographical criteria in the Guidelines.

**Unsignalized intersections:** *The Highway Capacity Manual* procedure for unsignalized intersections is not a true test of adequacy, but rather an indicator that further operational studies need to be conducted. Vehicle delay in any movement exceeding 50.0 seconds is deemed to be an unacceptable operating condition at unsignalized intersections. In response to such a finding, the Planning Board has generally recommended that the applicant provide a traffic signal warrant study and install the signal (or other less costly warranted traffic controls) if deemed warranted by the appropriate operating agency.

### **Existing Conditions**

The following roadway facilities were identified in the traffic study as the network on which the proposed development would have the greatest impact, in consideration of the requirements of Section 27-410 of the Zoning Ordinance. For the purposes of this review, the following facilities are analyzed:

- MD 373 between McKendree Road and MD 5 — link

Regional access to the subject site is provided by Branch Avenue (MD 5), while local access is provided by Accokeek Road (MD 373), the facility that is the focus of the study. The site is served by an existing driveway 20 feet in width; this driveway is proposed to be widened to 22 feet and repaved.

Accokeek Road (MD 373) is a two-lane roadway serving the site. It is oriented from west to east between Indian Head Highway (MD 210) and Branch Avenue (MD 5). It is currently two through lanes (one in each direction) over its entire length, and the section from the subject site east/northeast to MD 5 has a pavement width generally at 24 feet, with a wider pavement width at major intersections. At no point is the pavement width along this link less than 24 feet. The majority of the link of MD 373 is posted at 40 miles per hour. The exception is advisory signage approaching a triple curve about 900 feet east of the entrance to the subject property; this is signed at 30 miles per hour.

The analysis of any transportation facility begins with the data collection process. Along the adjacent link, weekday counts were collected in April 2011. The counts were made between the hours of 6:00 a.m. and 7:00 p.m., and are summarized hourly. The analyses showed that the morning peak hour occurs between 7:00 a.m. and 8:00 a.m. along Accokeek Road (MD 373). Similarly, the afternoon peak hour occurs between 5:00 p.m. and 6:00 p.m. It is noted that the percentage of trucks in the traffic flow was not explicitly addressed.

Existing traffic conditions in the area of the subject property are summarized as follows:

<b>SUMMARY OF CAPACITY ANALYSES RESULTS — EXISTING CONDITION</b>		
	V/C Ratio	
Roadway Link	AM	PM
MD 373 from McKendree Road to MD 5*	0.23	0.15
*The link analysis procedure from <i>The Highway Capacity Manual</i> (Transportation Research Board) is applied, and the resulting volume-to-capacity (V/C) ratio is indicated. A maximum V/C of 0.80 is acceptable in accordance with the Guidelines.		

The traffic study included a summary of crash data along the link MD 373 (Accokeek Road) between MD 5 (Branch Avenue) and McKendree Road for the years 2007, 2008, and 2009. Over that three-year period, ten accidents were reported along this section of roadway. Based on average daily traffic volumes along McKendree Road, this degree of accident activity results in an accident rate of 94.3 per 100 million vehicle miles. This is less than the statewide average rate of 169.8 per 100 million vehicle miles (as summarized in 2008).

**Evaluation of Projected Impacts**

A review of the Maryland State Highway Administration (SHA) traffic database has revealed an annual growth rate in traffic along MD 373 between MD 5 and MD 210 of 1.0 percent. This trend in traffic is expected to continue into the future. This rate of traffic growth is unrelated to the subject application, and would be assumed to occur regardless of the status of the subject application.

Accokeek Road (MD 373) is proposed to be relocated onto a new alignment between McKendree Road and MD 5. This facility is proposed as a four- to six-lane facility (A-55) within a 120-foot right-of-way through the subject property between McKendree Road and US 301/MD 5. The existing Accokeek Road facility is designated as a four-lane collector roadway (C-527) within an 80-foot right-of-way along much of the site’s frontage. It is proposed to be located onto a new alignment near MD 5 to connect to the long-planned MD 5/Brandywine Road intersection. It is also proposed to be located onto a new alignment to connect to the A-55 facility. These recommendations are all contained in the *Approved Subregion 5 Master Plan and Sectional Map Amendment*.

Both traffic studies were done within the narrow requirements of Section 27-410 of the Zoning Ordinance, which requires that the study “shall include the volume of traffic expected to be generated by the operation, and shall identify the streets to be used between the site and the nearest street (to be used) that has a minimum paved width of twenty-four (24) feet for the predominant length of the street.” Staff has identified all approved development within the immediate area of the link under study. Those identified developments would directly affect the link under study, and would include the following:

- Lakeview at Brandywine: 141 detached residences
- Estates at Pleasant Valley: 232 detached residences

Collectively, the background developments could generate 280 (56 inbound, 224 outbound) AM peak hour trips, and 336 (220 inbound, 116 outbound) PM peak hour trips. To determine the impact on the transportation network in the future, two years’



worth of growth is applied to the 2011 traffic counts. The projected traffic from the background developments is added to the estimated future traffic, and the results are analyzed using the methodologies outlined in the “Guidelines for the Analysis of the Traffic Impact of Development Proposals” (Guidelines). Background traffic conditions along the critical link are summarized in the following table. The future contribution of the subject site to traffic conditions without mining could be significant given the zoning (R-R) and the size of the site (over 500 acres). Nonetheless, were the subject site to be otherwise developed, the impacts of the development would have to be tested for transportation adequacy during a different process.

<b>PROJECTED FUTURE CONDITION — WITHOUT THE SUBJECT APPLICATION</b>		
Roadway Link	V/C Ratio	
	AM	PM
MD 373 from McKendree Road to MD 5*	0.46	0.32
*The link analysis procedure from <i>The Highway Capacity Manual</i> (Transportation Research Board) is applied, and the resulting volume-to-capacity (V/C) ratio is indicated. A maximum V/C of 0.80 is acceptable in accordance with the Guidelines.		

The analyses of the proposed mining application were predicated on two significant operational assumptions. Those assumptions are as follows:

- All extracted materials will be transported on-site to a conveyor system which is proposed to cross McKendree Road. The conveyor system would transport the materials to a wash plant currently operating under Special Exception SE-4403. Aside from the conveyor system, there is no haul route for this site.
- Traffic to and from the site will be limited to employees and visitors to the site.

There are six employees and managers expected on the site. Visitors to the site include water and fuel trucks (four and one per day, respectively) and any needed service vehicles (estimate one per day, but on an as-needed basis). It is assumed that the visitors generate two trips in and two trips out during each peak hour, while employees would generate six trips in during the AM peak hour and six trips out during the PM peak hour.

Total projected traffic volumes were obtained by combing site-generated trips with the projected future condition without the subject application, which includes reasonable growth in existing through traffic and traffic that would be generated by approved background development. The resulting projected future traffic conditions for the critical intersections are summarized in the following table.

<b>PROJECTED FUTURE CONDITION — WITH THE SUBJECT APPLICATION</b>		
Roadway Link	V/C Ratio	
	AM	PM
MD 373 from McKendree Road to MD 5*	0.46	0.32
*The link analysis procedure from <i>The Highway Capacity Manual</i> (Transportation Research Board) is applied, and the resulting volume-to-capacity (V/C) ratio is indicated. A maximum V/C of 0.80 is acceptable in accordance with the Guidelines.		

This analysis indicates the following:

- The link of MD 373 adjacent to the site operates acceptably now and in the future regardless of the mining activity within the subject site.

No issues were raised by agencies reviewing the traffic impact study for this site. SHA has indicated that the application should be limited to the trip level identified in the study; otherwise, an increased use of the MD 373 access would require improvements along the property frontage along MD 373.

### **Conclusion**

The Transportation Planning Section finds that the proposed surface mining use would meet the requirements of Subtitle 27 of the Count Code for the approval of a special exception from the standpoint of transportation. Numerous conditions of approval are recommended and have been added to the recommendation at the end of this report.

- (7) Driveways or access points shall be identified on the site plan, and shall be located so as not to endanger pedestrians or create traffic hazards. The surface material to be used on the driveways shall be identified on the site plan. Any access driveway shall be at least twenty-two (22) feet wide, and shall be paved for a distance of at least two hundred (200) feet from the boundary line of the Special Exception.**

**Comment:** A single access point is proposed along the south side of Accokeek Road (MD 373), approximately 2,900 feet to the east of McKendree Road, and has been identified on the plans. The proposed entrance meets the dimensional requirements; however, the plan should be revised to include a detail for the material to be used on the driveway.

- (8) The Technical Staff Report prepared in response to the application shall include a current, Countywide inventory of the locations, dates of approval, and conditions of approval concerning haul routes and estimated loads per day for all approved and pending Special Exceptions for sand and gravel wet-processing, sanitary landfills and rubble fills, and surface mining, as indicated by the record in the case. The inventory shall also include the locations of all nonconforming sand and gravel wet-processing, sanitary landfills and rubble fills, and surface mining operations throughout the County that were certified after September 6, 1974.**

**Comment:** The inventory is contained in Appendix A of EIR-4647.

- (b) In the I-3 Zone, the use shall be staged in conformance with the required Conceptual Site Plan. The District Council may require (as a condition of approval) that this use be terminated prior to a Detailed Site Plan being approved for another use included on the Conceptual Site Plan.**

**Comment:** The subject property is in the R-R Zone, thus this section does not apply.

- (c) **In the M-A-C, L-A-C, E-I-A, R-U, R-M, and R-S Zones, no surface mining operation may be permitted after a Specific Design Plan for the subject property has been approved. An application for this Special Exception may only be accepted, and the Special Exception granted, if no Specific Design Plan has yet been filed for the subject property.**

**Comment:** The subject property is in the R-R Zone, thus this section does not apply.

- (d) **In reviewing the application, the District Council shall consider the use of techniques which provide for noise attenuation.**

**Comment:** The Environmental Planning Section reviewed the proposed mining operation and provided an Environmental Impact Report (EIR-4647). According to the Environmental Planning Section, in a memorandum dated March 12, 2012 (Reiser to Lockard), EIR-4647 addressed noise concerns. The applicant is proposing to mitigate noise reaching adjacent properties through the retention of a wooded buffer along the periphery of the property and the building of a berm. The EIR recommends conditions which address issues relating to noise impacts. Staff is recommending that these conditions be made part of any approval of this application.

- (e) **On land which is located within a Chesapeake Bay Critical Area Overlay Zone, no surface mining shall be located within:**

- (1) **Designated habitat protection areas as described in the Conservation Manual;**
- (2) **The Buffer area, as defined in the Conservation Manual;**
- (3) **Any area where the use would result in the substantial loss of long-range (twenty-five (25) years or more) productivity of forest and agriculture, or result in a degrading of water quality; or**
- (4) **An area containing highly erodible soils.**

**Comment:** The site is not within a Chesapeake Bay Critical Area Overlay Zone, thus this section does not apply.

- (f) **In reviewing the application for compliance with the required findings set forth in Sections 27-317(a)(4) and 27-317(a)(5), the District Council shall consider the inventory required in Section 27-410(a)(8).**

**Comment:** The proposed mining site is located in a section of the county which has long been mined for sand and gravel. An updated inventory is attached to this report for the District Council's consideration. The inventory identifies one active mine in direct proximity to the subject property to the west and south, and there are other mining sites within the planning area that contribute truck trips to Crain Highway (US 301). There are several other applications for mining activity currently pending in the neighborhood.

H. **Additional requirements for a surface mining facility:** Section 27-445.02 of the Zoning Ordinance contains the following additional requirements for a surface mining facility:

- (a) **In order for any surface mining or sand and gravel wet-processing operation to continue, the requirements of this Section shall be met.**
- (b) **The purposes of this Section are to prevent or control the detrimental effects of surface mining and sand and gravel wet-processing operations upon neighboring properties, and existing and proposed land uses in the general area.**
- (c) **All surface mining and sand and gravel wet-processing operations shall meet the following requirements:**
  - (1) **The uses shall be operated in full compliance with applicable extraction and surface mining or sand and gravel wet-processing regulations;**

**Comment:** The applicant will obtain all necessary permits from the State of Maryland for the operation of a surface mine, subsequent to the approval of the special exception. The applicant intends to operate the surface mine in accordance with all permits.

- (2) **For the safety of residents and property, the operator of the facility shall take effective measures to control the speed of trucks utilizing his facility and neighboring streets;**

**Comment:** The State of Maryland, through their permitting process, and staff through recommended conditions address truck speed, monitoring, maintenance, and ownership. The conditions of approval will ensure this finding is met.

- (3) **The operator shall avoid depositing any debris upon any existing streets; and**

**Comment:** Proposed conditions require the applicant to use a water truck and sweeper truck as needed on its property and nearby roads, to minimize dust and to keep the public roads clear of debris. These conditions of approval will ensure this finding is met.

- (4) **The owner of the subject property shall be required to post and maintain a permanent, durable sign identifying the use as a surface mining or sand and gravel wet-processing operation, in accordance with the requirements of Section 27-629.**

**Comment:** The applicant will post the required signage in compliance with the appropriate regulations.

- (d) **On land which is located within a Chesapeake Bay Critical Area Overlay Zone, surface mining, sand and gravel wet-processing, or wash plants, including ponds, spoil sites, and equipment, are prohibited within the Buffer, as defined in the Conservation Manual. In addition, no surface mining or sand and gravel wet processing shall be located within:**
  - (1) **Designated habitat protection areas, as described in the Conservation Manual;**

- (2) **The Buffer area, as defined in the Conservation Manual;**
- (3) **Any area where the use would result in the substantial loss of long-range (twenty-five (25) years or more) productivity of forest and agriculture, or result in a degrading of water quality; or**
- (4) **An area containing highly erodible soils.**

**Comment:** The subject property is not within a Chesapeake Bay Critical Area. No mining operations or equipment are located in any area prohibited by this provision.

I. **Environmental Impact Report:** In addition to the required findings of the Zoning Ordinance, under Maryland State Law (Article 28 of the Maryland Annotated Code, Maryland-National Capital Park and Planning Commission, Section 8-110), an environmental impact report (EIR) must be prepared by The Maryland-National Capital Park and Planning Commission (M-NCPPC) whenever a request is made for a special exception to the Zoning Ordinance for the mining of sand and gravel in Prince George’s County. The law requires that the report evaluate such a zoning request comprehensively by determining the impact of the proposed mining activities on:

- 1. Noise
- 2. Watershed and Water Quality
- 3. Airshed and Air Quality
- 4. Traffic and Traffic Safety
- 5. Biological Resources including wetlands, woodlands, and tree conservation
- 6. Any other environmental factors relating to the health, safety, and welfare of the residents of the affected area

The Environmental Planning Section prepared an EIR for this application (EIR-4647). It is attached to this report and contains a much more detailed analysis of potential impacts from this proposed use.

**Background**

This EIR was prepared using information obtained from the Environmental Protection Agency (EPA), the Maryland Department of the Environment (MDE), previous EIRs, M-NCPPC GIS, PGAtlas, information submitted by the applicant, and Planning Department publications. According to the statement of justification, large portions of the property will be held, upon reclamation, in a natural state for open space and tree conservation, providing large tracts of forest, and land that will be available for low-density development. All of the information submitted for the application can be found in the Planning Department’s official file for Special Exception SE-4647.

**Natural Resources Inventory**

An approved Natural Resource Inventory, NRI-014-10, was submitted with the application. There is a primary management area (PMA) comprised of streams, stream buffers, wetlands, wetland buffers, and 100-year floodplain. The 100-year floodplain shown on the plans is from a county approved study (FPS #200910). The forest stand delineation (FSD) indicates the presence of seven forest stands totaling 283.65 acres and 70 specimen trees. The Type 2 tree conservation plan (TCP2) and the special exception mining site plan are in general conformance with the approved NRI.

**Comment:** No revisions are required for conformance to the NRI.

**Woodland Conservation**

This property is subject to the provisions of the Prince George’s County Woodland and Wildlife Habitat Conservation Ordinance because the gross tract area is greater than 40,000 square feet in size and there are more than 10,000 square feet of existing woodlands. A Type 2 Tree Conservation Plan (TCP2-059-09) was submitted.

The woodland conservation threshold (WCT) for this 576.29-acre property (483.15 gross tract acres and 434.18 net tract acres in the R-R Zone, and 93.14 gross and net tract acres in the M-X-T Zone) is 19.12 percent of the net tract area or 100.81. The total woodland conservation requirement based on the amount of existing woodlands and the amount of proposed clearing is 134.72 acres which is proposed to be satisfied with 103.62 acres of on-site preservation and 31.10 acres of on-site reforestation.

The plan requires technical changes to be in conformance with the Woodland and Wildlife Habitat Conservation Ordinance. The TCP2 shows the labels for the proposed phases; however, it is unclear exactly where the proposed phase lines are located. The TCP2 should be revised to clearly indicate the proposed phase lines. This should be done by showing the phase lines on the plan or by adding an exhibit to the cover sheet.

Several minor revisions to the worksheet are needed. The worksheet has been shown as a phased worksheet with one phase accounting for the non-mining area and four phases of mining. Phase 4 has been shown to have more wooded floodplain than existing floodplain and Phase 2 has been shown to propose more clearing on the net tract than existing woodlands on the net tract. All total areas have been shown to match the areas shown on the approved NRI. Any revisions to the areas in the worksheet must continue to match the NRI.

Areas of regeneration are shown on the plan; however, the symbol is not shown in the legend. The legend should be updated to include the symbol for regeneration as shown on the plan.

The location of the limits of disturbance (LOD) adjacent to the woodland preservation area labeled as WPA-12 appears to be shown to impact an isolated wetland buffer. Because this was not an impact included in the statement of justification, it is assumed that this is a graphical error. The LOD should be revised in this area to clearly demonstrate preservation of the isolated wetland buffer within WPA-12.

All woodland conservation must meet the current requirements for the minimum size of woodland conservation areas. Portions of the proposed woodland preservation area labeled as WPA-1 do not meet the minimum width requirement to be counted as woodland preservation. This area may serve landscaping and screening purposes; however, the portions of the woodland preservation that do not meet the minimum requirements cannot be counted for woodland conservation purposes. WPA-1 should be revised and the worksheet should be updated accordingly.

After all revisions have been made, the qualified professional who prepared the plan needs to sign and date it and update the revision box with a summary of the revisions made.

Additionally, it should be noted that woodland conservation areas are required to be protected via a conservation easement per Section 25-122(d)(1)(B) of the Woodland and Wildlife Habitat Conservation Ordinance (WCO). A condition is recommended below to address the recordation of a conservation easement for areas of woodland conservation.

### **Variance for Specimen Tree Removal**

Effective October 1, 2009, the State Forest Conservation Act was amended to include a requirement for a variance if a specimen, champion, or historic tree is proposed to be removed. This state requirement was incorporated in the adopted County Code effective on September 1, 2010.

If after careful consideration has been given to the preservation of the specimen trees there remains a need to remove any of the specimen trees, a variance from Section 25-122(b)(1)(G) is required. Applicants can request a variance from the provisions of Division 2 of Subtitle 25 (the WCO) provided all of the required findings in Section 25-119(d) can be met. An application for a variance must be accompanied by a letter of justification stating the reasons for the request and how the request meets each of the required findings.

A Subtitle 25 variance request, including the required findings, was included in the revised special exception statement of justification stamped as received by the Environmental Planning Section on January 9, 2012.

The specimen tree table on the TCP2 shows the proposed removal of 22 of the 70 specimen trees that exist on-site (identified as Trees 4, 5, 9–14, 17, 18, 20, 22, 24, 29, 37–40, and 48–51). The limits of disturbance on the plans also show that these trees are to be removed. The trees to be preserved are located either in the PMA or along the perimeter of the site. A note located below the specimen tree table on the TCP2 indicates that a field investigation performed in October 2011 determined that trees identified as 17, 20, and 50 no longer exist on-site; however, these trees are included in the variance request.

Section 25-119(d) of the WCO contains six required findings [**text in bold**] to be made before a variance can be granted. The letter of justification submitted seeks to address the required findings for the 22 specimen trees as a group. Staff agrees with the approach to the analysis because they are clustered together centrally on the site and have similar concerns regarding their location, species, and condition.

#### **(A) Special conditions peculiar to the property have caused the unwarranted hardship;**

The statement of justification outlines the fact that significant sand and gravel deposits are located on this site. While there are other properties containing sand and gravel deposits within Prince George's County, not every property contains such deposits. Significant grading is necessary to reach the depth necessary to extract the sand and gravel deposits. The subject property is also fairly large in size (576.29 acres total and 456.75 acres within the special exception site area) lending to the economic viability of mineral extraction on-site. These are special conditions peculiar to the property.

#### **(B) Enforcement of these rules will deprive the applicant of rights commonly enjoyed by others in similar areas.**

Preventing the mining of sand and gravel on the Millville site within the area of the specimen trees would prevent the applicant from enjoying rights commonly enjoyed by other property owners with sites containing sand and gravel deposits that may not have specimen trees on-site.

**(C) Granting the variance will not confer on the applicant a special privilege that would be denied to other applicants.**

If other properties containing sand and gravel deposits are proposed to be mined and encounter trees in a similar condition and in a similar location, the same considerations would be provided during the review of the required variance application. The applicant is not seeking a special privilege that would be denied to others.

**(D) The request is not based on conditions or circumstances which are the result of actions by the applicant;**

The existing conditions or circumstances are not the result of actions by the applicant because the applicant has taken no action on the subject property under the current application.

**(E) The request does not arise from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property; and**

The request to remove the trees does not arise from any condition on a neighboring property.

**(F) Granting of the variance will not adversely affect water quality.**

The statement of justification indicates that granting this variance will in no way affect water quality and that the applicant will provide a stormwater management plan designed for the unique circumstances of this site and its surroundings.

The application is also subject to the erosion and sediment control requirements of the Maryland Department of the Environment (MDE) and the Prince George's County Soil Conservation District for water quality purposes.

The trees to be preserved are located either in the PMA or along the perimeter of the site and will provide a water quality benefit, with regard to providing canopy cover to slow down and filter falling rain, providing areas for water infiltration in the root zone, preventing soil erosion, and by providing a variety of other eco-services such as reducing the ambient temperature of stormwater run-off.

**Comment:** The required findings of Section 25-119(d) have been properly addressed for the removal of specimen trees identified as 4, 5, 9–14, 17, 18, 20, 22, 24, 29, 37–40, and 48–51 based on the information provided.

#### **Tree Canopy Coverage**

Subtitle 25, Division 3, the Tree Canopy Coverage Ordinance, requires a minimum percentage of tree canopy coverage on projects that require a grading permit. Properties that are zoned R-R are required to provide a minimum of 15 percent, and properties that are zoned M-X-T are required to provide a minimum of 10 percent of the gross tract area in tree canopy. The subject property is 576.29 acres in size; 483.15 acres in the R-R Zone that are included in the subject special exception, and 93.14 in the M-X-T zone that is located outside the limits of the subject special exception. Because tree canopy requirements are based on the gross tract area of a site, the



requirement for this application is based on the entire 576.29 acres. The resulting tree canopy coverage requirement is 14.2 percent, or 81.79 acres.

The plat of special exception and the landscape plan shows the required tree canopy worksheet; however, the worksheet needs to be revised to account for the requirement based on the entire 576.29 gross tract acreage. By staff's calculations, it appears that the entire requirement can be met with on-site woodland conservation. The worksheet should be revised to demonstrate how the project will meet the full requirement.

### **Stormwater Management and Sediment Control**

All grading, erosion, and sediment control plans are reviewed by the Prince George's County Soil Conservation District for conformance with the current Maryland Standards and Specifications for Soil Erosion and Sediment Control as well as the current Prince George's Soil Conservation District Soil Erosion and Sediment Control-Pond Safety Manual. Sediment and erosion control devices must function for both existing and proposed drainage areas and elevations. All outfalls must be designed to ensure non-erosive conditions.

A water quality certification (Code of Maryland (COMAR 26.08.02.10)) is required for any activity which may result in any discharge to navigable waters unless the applicant provides a certification from the state that the activity does not violate state water quality standards or limitations. Discharges permitted by the state under the National Pollutant Discharge Elimination System (NPDES) are certified by MDE.

No specific erosion and sediment control or stormwater management information has been submitted to date; however, proposed protective devices, including the general location of sediment control basins and tree protection devices, have been shown on the TCP2. A copy of the technical sediment erosion control plan is needed for review purposes prior to certification of the special exception to verify that the limits of disturbance shown on the TCP2 are in general conformance with the technical sediment erosion control plan.

### **Need for Grading Permit**

The Maryland Department of the Environment (MDE) issues mining permits for sand and gravel mines in Maryland. Through this permit, MDE only has control over the actual mining operation itself and does not enforce the conditions of the special exception or the requirements for woodland conservation. Issuance of a county grading permit in conformance with Subtitle 32 will allow the county inspectors to inspect and enforce the site development elements that are controlled at the county level and the proposed conditions of the special exception application. The Zoning Ordinance provides the opportunity to address issues raised during the review of a special exception through the imposition of conditions of approval:

### **Section 27-318. Conditional approval.**

**When a Special Exception is approved, any requirements or conditions deemed necessary to protect adjacent properties and the general neighborhood may be added to those of this Subtitle.**

Because oversight of the proper implementation of the special exception conditions and woodland conservation requirements at the county level is not possible without the issuance of a local permit, a grading permit (or equivalent) should be a requirement of approval of the special exception for mining.

The permit fee for the grading permit should only encompass the elements associated with the special exception approval that are not enforced by MDE. Specifically, the grading permit should be issued for the paved portion of the entrance road. By requiring a county permit for this limited area, the cost of the permit will be greatly reduced (from that of a permit for the entire disturbed area), while providing county inspectors the ability to ensure the proper implementation of the special exception conditions and woodland conservation requirements.

The issuance of a county grading permit will also allow the posting of a bond for reforestation as part of the proposed TCP2. Without a grading permit, there is no method at the local level to post this bond or inspect and approve the proposed reforestation areas.

### **Groundwater and Hydrologic Impacts**

A revised hydrologic evaluation report prepared by GTA, Inc., dated November 9, 2011 was stamped as received January 9, 2012. The report includes soil boring cross section and existing well location information, including; a domestic well search area plan, a 1,000-foot property boundary well search table, MDE well completion reports, and cross section plans.

The report indicates that groundwater levels are expected to be affected by the mining operation. The cross sections show that mining is proposed to extend to a depth of approximately 25 feet below the existing grade and that the existing water table ranges from near the surface to approximately 20 feet below the surface. Based on the cross sections provided, the depth of mining is expected to range from approximately 15 feet above to approximately 19 feet below the existing water table.

The report states that the interception, pumping, and storage of groundwater, or dewatering, is not proposed. However, temporary, localized dewatering may be necessary for safe resource extraction because the mining of several portions of the property is proposed to occur at a depth below the existing water table. Any pumped water will be required to be purposefully discharged through professionally engineered and permitted water handling systems. Only mineral extraction is proposed and no washing or processing of raw material is proposed on-site.

The location of existing wells within a 1,000-foot radius was provided in the report and on an exhibit. The information presented in the report is based on a combination of information obtained by GTA from the following sources; Washington Suburban Sanitary Commission (WSSC) water service maps, discussions with WSSC personnel, reconnaissance of the areas indicated as public water service areas, and site reconnaissance of properties identified as vacant based on review of aerial photos. GTA also cross referenced well completion data obtained from MDE and the Prince George's County Health Department with parcel ownership data and performed reconnaissance of properties where structures were identified and attempted to interview these property owners. All identified wells have been depicted on the Domestic Well Search Area Plan included in the appendix of the report. The plan labels the wells as domestic or non-domestic, and with respect to depth, as deep, shallow, or unknown.

The results of the well search indicate that most properties located within 1,000 feet are served by public water. The compiled data indicates that there are two properties with deep domestic wells, three properties with apparent/possible residential structures and unknown deep or shallow wells, and 13 commercial properties with the well status broken down as follows: one property with a possible well, one property served by a single deep well, a group of seven properties served by two deep wells, and four properties with wells of unknown depth. One well is located on-site which is planned to be abandoned and sealed.

The applicant has identified all wells within 1,000 feet of the subject site, to the extent practical. Impacts to wells in the surrounding area are not anticipated because dewatering operations are not proposed; therefore, no drawdown of the groundwater table due to pumping is expected. Because no dewatering is proposed, no drawdown calculations were provided.

The hydrogeologic conditions that underlie the site vicinity include a confining layer that acts as a hydraulic barrier between the surficial water table aquifer in the upland deposits, and the deeper aquifers that supply groundwater to wells in the area. Therefore, if localized dewatering is needed during the mining operation to address encountered groundwater, the pumping would be temporary in nature and would not likely affect the groundwater level associated with wells in the area.

The report also indicates that no adverse impacts on the hydrologic support of the on-site stream systems are anticipated. Although the topography will be altered during the mining operation, the disturbance will be phased and the final grades should reestablish similar groundwater flow patterns that currently exist. The stormwater management and sediment erosion control measures proposed are designed to control surface water and hydrologic recharge and impacts to down-stream systems are expected to be negligible due to the relatively small hydrologic contribution from the site on a regional scale.

Also of importance to note is that Burch Branch has been impounded at the property boundary adjacent to Accokeek Road, forming Lake Ruth which is a significant hydrologic feature on the subject site. Based on a comparison of the 1913 Brandywine, Maryland 15-minute topographic quadrangle map and the 1938 aerial imagery, the lake was established sometime between 1913 and 1938. In May 2010, there was a breach of the dam that impounds the lake. No mitigation requirements have been required to date other than the State Highway Administration (SHA) and the Soils Conservation District (SCD) requesting proper armoring of the road slopes and approach channel at the Accokeek Road culvert crossing.

Although no impacts to surrounding wells are anticipated, the applicant may need to provide new wells for any property owner within 1,000 feet whose well is negatively affected by the mining operation. A condition is proposed to address this situation should it arise.

### **Impacts to Regulated Environmental Features**

This site contains regulated environmental features that are required to be preserved and/or restored to the fullest extent possible under Section 27-317(a)(7) of the Zoning Ordinance. The on-site regulated environmental features include streams and their associated 75-foot-wide buffers, wetlands and their associated 25-foot-wide buffers, and the 100-year floodplain. The site also contains several isolated wetlands.

Section 27-296(c)(1)(L) of the Zoning Ordinance requires that: "A letter of justification stating how the proposed design ensures the preservation and/or restoration of the regulated environmental features to the fullest extent possible." A justification was included in the revised special exception statement of justification stamped as received by the Environmental Planning Section on January 9, 2012.

Impacts to the regulated environmental features should be limited to those that are necessary for the development of the property. Necessary impacts are those that are directly attributable to infrastructure required for the reasonable use and orderly and efficient development of the subject property or are those that are required by County Code for reasons of health, safety, or welfare. Necessary impacts include, but are not limited to, adequate sanitary sewerage lines and water

lines, road crossings for required street connections, and outfalls for stormwater management facilities. Road crossings of streams and/or wetlands may be appropriate if placed at the location of an existing crossing or at the point of least impact to the regulated environmental features. Stormwater management outfalls may also be considered necessary impacts if the site has been designed to place the outfall at a point of least impact. The types of impacts that can be avoided include those for site grading, building placement, parking, stormwater management facilities (not including outfalls), and road crossings where reasonable alternatives exist. The cumulative impacts for the development of a property should be the fewest necessary and sufficient to reasonably develop the site in conformance with County Code.

The special exception proposes 13 new impacts and 6 existing impacts to the PMA; 12 proposed impacts for the installation of stormwater management and sediment control outfalls, one proposed haul road crossing, and six existing farm road crossings that are proposed to be used as haul roads. These impacts to the PMA total 3.28 acres; 2.21 acres for the outfalls, 0.13 acre for the proposed haul road crossing, and 0.94 acre for the existing farm road crossings that are proposed for use as haul roads. The impacts for the outfalls are considered necessary to the orderly development of the subject property and are necessary to safely convey water back to the receiving streams. These impacts cannot be avoided because they are required by other provisions of the county and state codes. The use of existing crossings for the haul roads will provide access to the areas to be mined, with the least amount of proposed impact. The single new proposed crossing is proposed at a point of least impact and is necessary to gain access to minable material. The plan shows the preservation of the remaining areas of PMA and the isolated wetlands.

Staff supports the request for installation of the stormwater management and sediment control outfalls as well as the existing and proposed road crossings. The outfalls have been located in areas with minimal impacts to woodland, streams, wetlands, and wetland buffers, and have been designed to outfall at the lowest possible elevations to reduce the potential energy of overland flows. The use of existing road crossings is also supported for access throughout the site. The single proposed crossing has been located at a point of least impact, between two wetlands.

Areas of PMA that are not currently forested are shown to be afforested on the TCP2.

### **Noise**

A noise study prepared by Staiano Engineering, Inc. dated October 27, 2009, and updated December 13, 2011, was stamped as received by the Environmental Planning Section on January 9, 2012.

The revised report included an additional receptor on the east side of the property and an expanded evaluation of the conveyor system. The previous findings of no significance were confirmed in the revised report with respect to the conveyor system and the noise generated by the mining operation based on mitigation in the form of proposed berms along a majority of the property boundary.

Noise impacts are evaluated with respect to how the predicted noise levels compare with state noise standards and regulations (COMAR 26.02.03). The state noise standards apply to noise receptors and are established based on the adjacent land use categories (industrial, commercial, and residential). The maximum allowable noise levels for receiving residential uses is 65 dBA during the daytime. It should be noted that the mining operation will have only daytime hours of operation and that the noise generated from mining operations is instantaneous noise, not the 24-hour day/night average (Ldn) standard used in Prince George's County with respect to traffic noise. Instantaneous noise levels are more restrictive, defined by COMAR, and used for the

evaluation of noise emanating from mining sites. Traffic generated noise is regulated using the average 24-hour level or Ldn because traffic noise occurs both day and night. The hours of operation proposed for the mining operation do not include nighttime hours.

The noise environment in the project area will be affected by noise from two types of sources: point and non-point. Point source noise emanates from the various excavation equipment used on-site. Non-point source noise emanates from the flow of vehicular traffic along a roadway or haul road. The main source of vehicular related noise in relation to mining operations comes from the dump trucks moving around on the site, entering the site empty, and full trucks hauling material away. However, the current application does not propose to haul material off-site, rather the proposal includes a conveyor system to transfer material across McKendree Road to an existing processing facility.

The noise study used the noise levels measured for the equipment proposed to operate on-site to predict the point source noise associated with the proposed mining operation. Sound abatement in the form of berms is proposed to reduce noise levels at the property boundary. The results of the report indicate that the Code of Maryland Regulations (COMAR) residential noise limit (65 dBA) is expected to be met at all receptors based on the proposed site design which includes eleven 12- to 18-foot-high noise berms along most of the site perimeter, as shown on the special exception site plan. The report infers that this conclusion can also be made for the noise levels at the property boundary of the mining site.

A separate evaluation is presented in the report for the predicted noise associated with the proposed conveyor. The noise sources considered for the conveyance of material includes a conveyor hopper as well as a hauler. The material will be dumped into a conveyor hopper from the off-road haul trucks. The hopper location will move as the mining progresses. The evaluation was performed for the position of the conveyor loading that is closest to the evaluated receptor. The results of the evaluation indicate that the conveyor noise contributions are negligible.

The report prepared by Staiano Engineering, Inc. indicates that, with the installation of berms, the noise standard of 65 dBA for residential areas is anticipated to be met on-site. Additional typical restrictions as follows are recommended to further reduce noise impacts in the surrounding area.

### **Visual Impacts**

The subject property has frontage on Accokeek Road (MD 373), McKendree Road, and Robert Crain Highway (US 301). The mining operation is not proposed on the M-X-T portion of the property, which is 93.14 acres in size and is the portion of the property located closest to US 301. This portion of the property will provide a buffer ranging from approximately 550 to 2,500 linear feet of mostly wooded area between the proposed mining operation and the view from US 301.

Accokeek and McKendree Roads are designated historic roads, which require evaluation of the visual aesthetics as part of the special exception review. A viewshed inventory plan set prepared by Ben Dyer Associates, Inc. was stamped as received by the Environmental Planning Section on March 17, 2010. One sheet of the plan set was prepared for the length of property frontage on Accokeek Road and the other for McKendree Road. Each plan shows an aerial photo for the length of the property and individual photographs of the site and its surroundings. Two exhibits were also submitted that show a typical view of screening berms; one wooded and one non-wooded.

The plans show proposed berms ranging in dimension from approximately 12 to 18 feet in height, 54 to 76 feet in width at the base, and 4 feet in width at the top. These berms were designed primarily for noise attenuation, but will also serve to screen the mining operation.

The screening requirements for projects located along historic roads can be found in Section 4.6 of the *Prince George's County Landscape Manual* (Landscape Manual) which, in the Developing Tier, requires the planting of a minimum 20-foot-wide buffer, with a minimum of 80 plant units per 100 linear feet of frontage, excluding driveway openings, and plant materials are required to be located outside of the public utility easement. Currently, the plans show planting in accordance with Section 4.2 of the Landscape Manual. While the plans show a 50-foot planting strip along most portions of the historic road frontage, at a minimum, the first 20-feet of planting needs to be revised to meet the planting density required in Section 4.6.

The screening requirements for incompatible uses, such as the proposed mining operation adjacent to residential uses, are subject to Section 4.7 of the Landscape Manual. The plans appear to meet this requirement.

A unique site design element, a covered conveyor system across McKendree Road, is being proposed for the transport of raw materials from the subject site to a wet processing plant located across McKendree Road (approved under SE-4403 and SE-4651). Architectural and structural drawings have been submitted that include a rendering of the conveyor, as well as a floor plan, elevations, wall sections, and a cross section of the proposed conveyor system. The information submitted adequately addresses the viewshed of the proposed structure.

In addition to the landscaping requirements, the plans show a 50-foot-wide setback strip along McKendree and Accokeek Roads as well as the abutting residences on the northwest and northeast portions of the property. All berms are proposed to be located beyond the 50-foot setback, with the planting located within the 50-foot setback area. While the berms are proposed for noise mitigation along portions of the site boundary, when combined with the proposed setback and planting required for landscape and tree conservation purposes, adequate visual mitigation to the historic roads and to the adjacent properties will be provided.

#### **Additional Issues Addressed in the EIR**

Additional environmental issues were discussed in the EIR for the subject property including air quality, transportation, and archeology. While transportation and archeological issues were discussed in the EIR, they have been evaluated in separate referral memos provided by the Transportation Planning Section and the Historic Preservation Section, respectively.

The Historic Preservation Section has concluded that the proposal will have no effect on identified historic sites, resources, or districts. However, the staff archeologist is recommending a Phase I archeological investigation for the site. Based on the examination of historic maps and aerial photographs, the project area has high probability of containing historic archeological sites. Two early historic roads, Accokeek Road (MD 373) and McKendree Road, border the north and south portions of the subject property. The 1861 Martenet map and the 1878 Hopkins map indicates that James Martin resided on the property from the mid- to late-19th century. James Martin held 40 slaves in 1860 and some of these slaves likely lived and labored on the subject property. Several 18th century Archeological Sites (18PR543 and 18PR833) have been identified in the vicinity of the subject property, indicating that this area was occupied early in the 18th century. Many of the parcels comprising the subject property were patented in the early to mid-18th century. Some of the possible occupants of the land in the 18th century include John Wynn, William Foard, Thomas Adkie, Thomas Young, and Nicholas Miles. Early 19th century

occupants may include Joseph Messenger, Mary Parker, Aquilla Baden, and Jeremiah Townshend. The probability of identifying archeological sites that could provide information on the early history of Prince George's County is moderate to high.

During the 20th century, the John Deere Company of Illinois acquired the subject property from the heirs of James Martin. Deere and Company was probably responsible for constructing the numerous buildings on the property that are visible in the 1938 aerial photograph. The property is referred to as the "Deere & Company" farm in deeds from the mid-20th century. Fred and Ruth Schinmann acquired the subject property in 1947 and held title until 1954. Afterwards, the property changed hands numerous times throughout the late 20th century. Since this farm was owned by Deere and Company throughout the early 20th century, it could provide information on the mechanization of agriculture in Prince George's County.

Previous archeological surveys in the vicinity of the subject property have identified 15 prehistoric and historic archeological resources within one mile of the subject property. In addition, 43 historic properties or districts have been recorded within one mile of the subject property. Two county Historic Sites, Gwynn Park (85A-013) and Marlow-Huntt Store (85A-033-14), and two Historic Resources, J.E. Huntt Residence (85A-017) and McKendree Church Cemetery (85A-020), are located within one mile of the subject property.

Staff acknowledges that no local law requires archeological investigations as part of approval of a special exception. However, such investigations are important and, therefore, staff recommends it be done.

The EIR notes that all of the air quality standards are currently met in the vicinity of the proposed mine except the ozone standard for which the Metropolitan Washington, D.C. area is in a nonattainment status. Adding the predicted increases in air pollutants from the mining operation showed that the operation will not raise pollutant levels above the established standards; however, measures are recommended to reduce the amount of particulate matter that is present during the mining operation. A condition is recommended to address the minimization of particulate matter entering the air and the reduction of sulfur pollution through the use of low sulfur fuels.

- J. **Prince George's County Landscape Manual Requirements:** The application is subject to the *Prince George's County Landscape Manual* since there is a change in use to one in a higher use category (i.e., from a agriculture to a sand and gravel mine). The landscape plan shows compliance through the retention of wide areas of woodland along the site's periphery.
- K. **Sign Regulations:** Other than the required sign identifying the mine operator, no signage is shown on the site plan, and the statement of justification indicates no signs are proposed with this application.
- L. **Zone Standards:** This proposal is in compliance with the standards set forth in the County Code for the R-R Zone, with the exception of the 25-foot setback for structures found in Section 27-442(a)(1)(e), for which the applicant seeks a variance.
- M. **Variance to 25-foot setback of Section 27-442(a)(1)(e):** Section 27-442(a)(1)(e) of the Zoning Ordinance prescribes that, in the R-R Zone, all structures greater than six feet in height be set back 25 feet from the street line. The site plan shows that this required setback is not being met where the proposed conveyor crosses McKendree Road. Because the support structure is located 17.5 feet from the street line, a maximum reduction of 7.5 feet is sought.

Section 27-230(a) provides the following findings for approval of a variance:

- (1) **A specific parcel of land has exceptional narrowness, shallowness, or shape, exceptional topographic conditions, or other extraordinary situations or conditions;**

**Comment:** The applicant is proposing to construct a conveyor system across McKendree Road in order to transfer the mined material to a wash plant they operate on the other side of the road. This allows the material to be moved without placing additional truck traffic on the road network. In order to support the conveyor at a height that permits adequate clearance, the support structure must be located closer to the street line than would otherwise be permitted. This locational quirk presents an extraordinary situation not generally applicable to other properties in the neighborhood.

- (2) **The strict application of this Subtitle will result in peculiar and unusual practical difficulties to, or exceptional or undue hardship upon, the owner of the property; and**

**Comment:** As indicated above, unless the variance is approved, the applicant will not be able to transport the material to the wash plant without utilizing trucks. The conveyor system has been designed to cross a 60-foot right-of-way and must have 18 feet of clearance in order to accommodate traffic along McKendree Road. Thus, the structure must be taller than six feet in height, which requires a 25-foot setback. The strict application of this section would result in practical difficulties by causing additional truck trips on the roads which could otherwise be avoided. Accordingly, the strict application of the setback would not only result in a practical difficulty, but additional impacts on neighborhood residents.

- (3) **The variance will not substantially impair the intent, purpose, or integrity of the General Plan or Master Plan.**

**Comment:** The variance will not substantially impair the intent, purpose, or integrity of the 2009 *Approved Subregion 5 Master Plan and Sectional Map Amendment*. To the contrary, the master plan strongly recommends the extraction of sand and gravel prior to future development of the site in a manner which minimizes impacts and allows for ultimate development. The requested variance will lessen the impact of the operation on the surrounding community by removing truck trips, traditionally one of the most contentious issues in this type of use. Although there is not a redevelopment concept included with the material reviewed for this application, redevelopment in accordance the recommendations of the Subregion 5 Master Plan should be feasible.

#### **Conclusion**

Staff believes the applicant has met their burden of proof in this instance. Therefore, staff recommends the variance be approved.

#### **N. Required Findings:**

Section 27-317(a) of the Zoning Ordinance provides that a special exception may be approved if:

- (1) **The proposed use and site plan are in harmony with the purposes of this Subtitle.**

**Comment:** The proposed use and site plan are in harmony with the purposes of the Zoning Ordinance. The purposes of the Zoning Ordinance, as provided in Section 27-102(a), seek



generally to protect and promote the health, safety, and welfare of county inhabitants and promote compatible land use relationships. The operations are required to be conducted in conformance with applicable state and county standards meant to protect adjacent property owners and the surrounding area from adverse impacts. Staff is recommending conditions which will ensure any impacts are minimized and, if necessary, ameliorated.

**(2) The proposed use is in conformance with all the applicable requirements and regulations of this Subtitle.**

**Comment:** With the conditions of approval contained at the end of this application in place, the proposed use is in conformance with the requirements and regulations of the Zoning Ordinance. No other departures or waivers are required to implement the special exception.

**(3) The proposed use will not substantially impair the integrity of any validly approved Master Plan or Functional Master Plan, or, in the absence of a Master Plan or Functional Master Plan, the General Plan;**

**Comment:** The proposed use will not substantially impair the integrity of the Subregion 5 Master Plan. The proposed special exception is in conformance with the recommendations and environmental provisions of the General Plan, the area master plan, and the *Approved Countywide Green Infrastructure Plan* as noted herein. The proposed use is in conformance with the master plan because the proposed mining operation is in keeping with the sand and gravel section of the Subregion 5 Master Plan.

**(4) The proposed use will not adversely affect the health, safety, or welfare of residents or workers in the area;**

**Comment:** The proposed use is subject to county and state regulations related to environmental management and safety that will protect the health, safety, and welfare of residents nearby and workers on-site. A detailed analysis of the potential impacts is provided in the Environmental Impact Report (EIR-4647). Recommended conditions are proposed herein to address potential impacts and will ensure that such impacts are minimal.

**(5) The proposed use will not be detrimental to the use or development of adjacent properties or the general neighborhood;**

**Comment:** The potential effects of the proposed use have been identified in the EIR and are addressed in more detail in the Environmental Review section above. With the recommended conditions in place, the proposed use will not be detrimental to adjacent properties or the neighborhood.

**(6) The proposed site plan is in conformance with an approved Type 2 Tree Conservation Plan; and**

**Comment:** A Type 2 Tree Conservation Plan (TCP2-059-09) was submitted for review concurrently with the special exception site plan. Minor revisions to the TCP2 are required for conformance with the Woodland Conservation Ordinance, as described in the Environmental Review section above.

**(7) The proposed site plan demonstrates the preservation and/or restoration of the regulated environmental features in a natural state to the fullest extent possible.**

**Comment:** The regulated environmental features on the subject property have been preserved and/or restored to the fullest extent possible based on the limits of disturbance shown on the tree conservation plan submitted for review. The impacts approved are for the installation of 12 stormwater management and sediment control outfalls, 6 existing road crossings, and 1 proposed road crossing.

## **CONCLUSION**

Based on the preceding analysis and findings, staff is recommending that Special Exception Application No. SE-4647 be APPROVED, including variances to Section 25-122(b)(1)(G) and Section 27-442(a)(1)(e), subject to the following conditions:

1. Prior to certification of the special exception, the mining site plan shall be revised to show the proposed paving on the haul road at its entrance point onto Accokeek Road, for a distance of no less than 200 feet. Details for the paving shall also be provided on the mining site plan and shall include, at a minimum, the following information: length and width of pavement (minimum of 200 feet long and 22 feet wide), type of paving material, and timing (prior to the commencement of mining).
2. A conservation easement shall be recorded in the Prince George's County land records in accordance with Section 25-122(d)(1)(B). The easement shall describe, by bearings and distances, the areas of woodland conservation shown on the Type 2 tree conservation plan (TCP2) as approved. The easement shall be reviewed by the Maryland-National Capital Park and Planning Commission (M-NCPPC), Environmental Planning Section, prior to recordation.
3. The applicant shall notify the Maryland-National Capital Park and Planning Commission (M-NCPPC), Environmental Planning Section, prior to the start of reforestation for each phase of this mining operation and schedule a meeting to address reforestation and woodland conservation issues.
4. Prior to the start of work in any phase or portion thereof, the limits of disturbance for that phase or portion thereof shall be staked on the ground or flagged on the existing trees. The applicant or their representative shall walk the limits of disturbance (LOD) with a representative of the Maryland-National Capital Park and Planning Commission (M-NCPPC), Environmental Planning Section, prior to the installation of sediment/erosion control measures and tree protective devices.
5. Prior to certification of the special exception, the Type 2 tree conservation plan shall be revised as follows:
  - a. Clearly show all proposed phase lines.
  - b. Revise the worksheet as follows:
    - (1) ensure that the area of existing wooded floodplain does not exceed the area of existing floodplain for any phase;

- (2) ensure that proposed clearing on the net tract does not exceed the existing woodland on the net tract for any phase.
  - c. Provide the symbol for regeneration in the legend.
  - d. Revise the limits of disturbance (LOD) to show the preservation of all regulated environmental features that are not approved to be impacted with this application.
  - e. Ensure that the minimum required dimensions are met for those areas counted as woodland conservation.
  - f. Have the qualified professional who prepared the plan sign and date it and update the revision box with a summary of the revisions made.
6. Prior to certification of the special exception, the tree canopy coverage schedule shown on the plat of special exception site and landscape plan shall be revised to show the tree canopy requirement based on the gross tract area of the site and to demonstrate how the resulting requirement will be met.
  7. Prior to certification of the special exception, a copy of the approved sediment and erosion control plan shall be submitted to The Maryland-National Capital Park and Planning Commission (M-NCPPC).
  8. Prior to commencement of the mining operation, a special permit shall be obtained from the appropriate agency of Prince George's County Government to ensure compliance with the grading plan approved under Section 27-410(a)(3) of the Zoning Ordinance. The permit shall require the applicant to post a bond acceptable to the county attorney to secure its obligations pertaining to reforestation and landscaping as required by this special exception.
  9. The area to be mined shall be reclaimed in accordance with the reclamation plan by filling with acceptable materials as described in the Prince George's County Building Code.
  10. A conservation easement shall be recorded in the Prince George's County land records that describes the primary management area (PMA) by bearings and distances. The conservation easement shall contain the entirety of the PMA as shown on the approved natural resources inventory (NRI) except for the areas of approved impacts as shown on the approved Type 2 tree conservation plan (TCP2). The conservation easement shall be reviewed by the Environmental Planning Section prior to recordation. The recorded easement document shall include the following text:

"These conservation easements are areas where the installation of structures and roads and the removal of vegetation are prohibited without prior written consent from the M-NCPPC Planning Director or designee. The removal of hazardous trees, limbs, branches, or trunks is allowed."
  11. Prior to certification of the special exception, the plat of special exception site and landscape plan shall be revised in conformance with Section 4.6 of the *Prince George's County Landscape Manual*.

12. Noise mitigation shall be provided on-site by implementation of the following:
  - a. Mining operations on the site are restricted to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and 7:00 a.m. to 4:00 p.m. on Saturdays, excluding federal holidays. There will be no operations on Sundays. Trucks are not permitted to arrive at the site prior to 7:00 a.m.
  - b. The 12- to 18-foot-high noise mitigation berms shall be located as shown on the plans submitted to protect nearby residential buildings and properties.
  - c. Trucks shall not use compression or “Jake” brakes both on-site and on the roadway.
  - d. Speeds on-site shall be restricted to 15 miles per hour (mph) for all heavy vehicles.
  - e. All machinery shall be kept in good working order, especially mufflers to ensure quiet operation.
  - f. The volume of backup warning devices shall be minimized while still meeting Occupational Safety and Health Administration (OSHA) standards.
13. Prior to certification of the special exception, the air report shall be revised as follows:
  - a. Provide written justification for running the dispersion model using the smallest area at the center of the site or provide the results of revised modeling to reflect the actual area of each phase with respect to the closest receptor to demonstrate that the air quality of the surrounding properties will not be adversely impacted.
  - b. Provide additional information to indicate that the five receptors in the vicinity of the proposed mining, used in the dispersion model, are sufficient to represent the expected air quality impacts surrounding the entire property. Provide the results of revised modeling including additional receptor locations if warranted.
14. Mitigation of particulate matter emissions shall be accomplished by implementation of the following:
  - a. The haul roads shall be maintained with a water truck or other approved dust control methods.
  - b. Sweeping of the paved roads with a road sweeper will occur as needed.
  - c. Open-bodied vehicles transporting materials shall be covered at all times when in motion, in accordance with Code of Maryland (COMAR) regulations.
  - d. The site shall have a 15 mile per hour (mph) speed limit to reduce dust generation from travel on the unpaved portions of the proposed haul road.
  - e. All mobile equipment to be used on-site shall use ultra-low sulfur diesel fuel. The fuel supplier certification of the sulfur content of each fuel delivery shall be kept on-site for the duration of the special exception approval period.

15. Equipment fueling on-site shall be done in accordance with National Fire Protection Association (NFPA) 30, Flammable and Combustible Liquids Code, Chapters 2 and 3. The mobile fueling trucks shall be operated by trained personnel holding valid oil vehicle operator's certificates as required by Code of Maryland (COMAR) 26.10.01.17. Care shall be taken to minimize spillage. Refueling shall take place as far from streams and wetlands as possible.
16. If the operation of the subject sand and gravel mine impacts the water level in any wells within 1,000 feet of the subject mining site as verified by the Maryland Department of the Environment (MDE), corrective action shall be immediately taken by the applicant, including but not limited to, the drilling of a new well to replace the adversely affected well.
17. Prior to approval of this special exception, Phase I (Identification) archeological investigations, according to the Planning Board's *Guidelines for Archeological Review* (May 2005), are recommended on the above-referenced property to determine if any cultural resources are present. Areas of the property that possess a high potential to contain archeological resources should be surveyed for archeological sites. The applicant should submit a Phase I research plan for approval by the staff archeologist prior to commencing Phase I work. Evidence of Maryland-National Capital Park and Planning Commission (M-NCPPC) concurrence with the final Phase I report and recommendations is required prior to approval.
18. Upon receipt of the report by the Planning Department, if it is determined that potentially significant archeological resources exist in the project area, prior to review by the Zoning Hearing Examiner, the applicant shall provide a plan for:
  - a. Evaluating the resource at the Phase II level, or
  - b. Avoiding and preserving the resource in place.
19. If a Phase II and/or Phase III archeological evaluation or mitigation is necessary, the applicant shall provide a final report detailing the Phase II and/or Phase III investigations and ensure that all artifacts are curated in a proper manner, prior to any ground disturbance or the approval of any grading permits.