



Note: Staff reports can be accessed at www.mncppc.org/pgco/planning/plan.htm.

Special Exception Application No. 4479

Application	General Data
Project Name: Bardon Inc. Location: South of Accokeek Road, east of Gardner Road and west of MD 301. Applicant/Address: Bardon, Inc. 6401 Golden Triangle Drive, Ste. 400 Greenbelt, Maryland 20770	Date Accepted: 8/13/03
	Planning Board Action Limit: N/A
	Plan Acreage: 275
	Zone: R-A
	Dwelling Units: None
	Square Footage: N/A
	Planning Area: 85A
	Tier: Rural
	Council District: 09
	Municipality: N/A
	200-Scale Base Map: 221SE05

Purpose of Application	Notice Dates
Surface Mining	Adjoining Property Owners Previous Parties of Record Registered Associations: 7/14/03 (CB-12-2003)
	Sign(s) Posted on Site: N/A

Staff Recommendation			Staff Reviewer: Catherine H. Wallace
APPROVAL	APPROVAL WITH CONDITIONS	DISAPPROVAL	DISCUSSION
	X		

January 12, 2005

TECHNICAL STAFF REPORT:

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

VIA: Jimi Jones, Acting Zoning Supervisor

FROM: Catherine H. Wallace, Planner Coordinator

SUBJECT: **Special Exception Application No. 4479**

REQUEST: Surface Mining

RECOMMENDATION: **APPROVAL; with conditions**

NOTE:

This application is on the agenda for the Planning Board to decide whether or not to schedule a public hearing. If the Planning Board decides to hear the application, it will be placed on a future agenda.

Any person may request the Planning Board to schedule a public hearing. The request may be made in writing prior to the agenda date or in person on the agenda date. All requests must specify the reasons for the public hearing. All parties will be notified of the Planning Board's decision.

You are encouraged to become a person of record in this application. The request must be made in writing and sent to the Office of the Zoning Hearing Examiner at the address indicated above. Questions about becoming a person of record should be directed to the Hearing Examiner at 301-952-3644. All other questions should be directed to the Development Review Division at 301-952-3530.

FINDINGS:

- A. Location and Field Inspection: The subject property is located on the east side of Gardner Road, approximately one mile south of Accokeek Road (MD 373) and approximately 1.5 miles west of MD

301. It is approximately 275 acres in size and has 1,311 feet of frontage on Gardner Road.

B. Development Data Summary:

	EXISTING	PROPOSED
Zone(s)	R-A	R-A
Use(s)	sand and gravel mining	sand and gravel mining
Acreage	275.67	275.67

C. History: The property was retained in the R-A Zone through District Council adoption of the Subregion V Sectional Map Amendment in September 1993. In 1997, SE-4218 was approved for a sand and gravel mine on 282 acres. In 1998, a condition requiring the relocation of the haul route entrance on McKendree Road was eliminated.

D. Master Plan Recommendation:

2002 General Plan: This application is located in the Rural Tier. The vision for the Rural Tier is the protection of large amounts of land for woodland, wildlife habitat, recreation and agriculture pursuits, and preservation of the rural character and vistas that now exist.

Master Plan: 1993 *Subregion V Master Plan*.

The land use recommendations for this application are divided by a tributary to Mattawoman Creek:

- East of the tributary, the property is recommended for “Large Lot, Alternative Low-Density Development” at up to 0.9 dwelling units per acre using R-L, Comprehensive Design Zone techniques.
- West of the tributary, the property is recommended for “Rural” land use as part of the Piscataway-Danville Rural Living Area. “Rural” land use areas are recommended for agricultural, woodland, other rural land uses or residential development at a maximum density of one dwelling unit per two acres. Utilization of public sewer service for residential development is discouraged by master plan policies in this rural living area.

E. Request: The subject property is being mined for sand and gravel subject to Special Exception 4218, which was approved in 1997. Of the total 282 acres approved at that time, approximately 126 acres of the property were within the areas to be mined. The Zoning Ordinance limits the operation of sand and gravel mines to a period of five years unless an extension is granted. This application is for an extension of time for the existing surface mining operation. At the time of the filing of this application, about 65 acres of the area to be mined remained.

F. Neighborhood and Surrounding Uses:

The neighborhood is defined by the following boundaries:

North—MD 373 (Accokeek Road)

East—MD 301

South—Mattawoman Creek and the county boundary

West—Gardner Road

The above referenced boundaries are significant manmade and natural boundaries in the area. This neighborhood is the one defined for SE-4218. It is also noted that properties facing Gardner Road in the vicinity of this application, are also considered a part of the subject neighborhood. This would include the properties within the Green Acre Farms Subdivision and the other properties along Gardner Road between the two intersections of Mattawoman Lane with Gardner Road.

The neighborhood is rural in character and sparsely developed. Much of it is wooded with small pockets of residential development and occasional single-family homes on large lots. The Robin Dale Country Club east of the subject site, and current and former sand and gravel mines are the largest land uses in the neighborhood.

Directly adjoining the subject site are the following uses:

North—Undeveloped wooded land (Brandywood Estates), which was approved for sand and gravel mining as well as a wash plant in accordance with Special Exception 4402.

Northeast—The Robin Dale Country Club.

Southeast—The Dobson property, site of a former gravel mine (SE 2970) and the current haul road to McKendree Road.

Southwest—Across Gardner Road, a horse farm, a single-family residence, and a large lot subdivision, Green Acre Farms.

Northwest—Two single-family residences fronting on Gardner Road, undeveloped wooded land, sand and gravel mining approved via Special Exception Application 4334.

G. Specific Special Exception Requirements:

Sec. 27-410. Surface mining.

(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;**

Heavy machinery will be used for excavation and hauling. No on-site washing, refining or other processing is proposed as part of this application.

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

A report entitled "Evaluation of Air Quality Impacts for Aggregate Industries Surface Mining S.E. 4479", dated November 2003 was submitted with the current application. The report describes the site, outlines regulatory requirements, describes the existing ambient air quality, models the emissions generated at the site, provides an analysis of the data, and provides conclusions specific to the site and the neighborhood. The Environmental Planning Section has reviewed the report and concurs with the conclusion that the proposed mining will not significantly impact the air quality or produce a health hazard to residents. This issue is discussed in more detail in the Environmental Impact Report section below. This air quality study is considered supplemental information to EIR-4218 that reached the conclusion that, if the recommendations of the report are implemented, there will be no significant impact. Staff is recommending that the same conditions that relate to air quality be carried forward to the subject 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;**

The TCPII shows the existing and proposed ground elevations of the site, adjacent land, all abutting streets and that the final grades do not exceed 3:1.

- (4) The Special Exception shall be valid for not longer than five 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;**

The property is in the R-A Zone.

The applicant requests that this special exception be valid for a period not to exceed five years from the date of the approval. The original special exception was approved in 1997, however, final approval can be said to date from 1998 when the haul route condition was clarified. Approval for a second five years should be limited to 2008.

- (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;**

The Statement of Justification notes that Phase I has been completed, that 32.3 acres are actively being mined as Phase II, that 8.0 acres remain to be mined in part of Phase II, that Phase III will mine 10.7 acres, that Phase IV will extract sand and gravel from an additional 54.6 acres and that the estimated time to complete all of the phases is 4 years. This statement was submitted in 2003; therefore, the mining of this site can be completed by 2008.

- (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 24 feet for the predominant length of the street;**

A traffic study has been submitted and an analysis by the Transportation Section is provided in Finding H.4 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 22 feet wide and shall be paved for a distance of at least 200 feet from the boundary line of the Special Exception.**

The only access point utilized for this mining operation is to the east of the site at McKendree Road via a 22-foot-wide paved entrance 550 feet in length. This is the access point previously approved for the mining of this property under SE-4218.

- (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.**

Pages 6-11 of EIR 4218 contained the inventory as of February 1996. A revised inventory is attached to this report as Figure 1-4 in order to address this required finding.

- (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.**

The property is in the R-A Zone; therefore, this subsection 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.**

The property is in the R-A Zone; therefore, this subsection does not apply.

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

A report entitled "Surface Mining Acoustical Analysis, Queen Property Sand & Gravel Special Exception #4479," dated November 25, 2003, was submitted with the current application. The report includes measurements of noise generated by individual bulldozers, loaders, tracked hoes and hauling trucks used on the site, models the noise that would be generated at locations in planned mining Phases III and IV, analyzes potential impacts to nearby properties, and proposes mitigation measures to avoid impacts. The Environmental Planning Section has reviewed the report and concurs that the berm described in the report and shown on the Tree Conservation Plan will provide adequate noise attenuation so that the noise generated by the proposed mining will not significantly impact adjacent properties. This issue is discussed in more detail in the Environmental Impact Report Review section below.

- (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.**

The property is not within the Chesapeake Bay Critical Area; therefore, this subsection 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 inventory is attached to this memorandum as Figure 1-4 and as such is available for the District Council's consideration.

H. Evaluation of Previously Prepared Environmental Impact Statement

In addition to the required findings of the Zoning Ordinance, under State Law (Article 28, Section 8-110), an Environmental Impact Report must be prepared by The Maryland-National Capital Park and Planning Commission whenever a request is made for a Special Exception to the zoning regulations 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 Plan
6. Any other environmental factors relating to the health, safety and welfare of the residents of the affected area

The Environmental Planning Section previously prepared a complete Environmental Impact Report (EIR) during the review and approval of SE-4218. The current application is essentially identical to the proposal of SE-4218. The revised EIR for this application (referred to as EIR-4218-01) follows:

1. Noise

EIR-4218 addresses noise on pages 61, 81-91, 95-98, 102 and 105. Recommendations 7, 16, and 17 address issues related to noise.

A report entitled “Surface Mining Acoustical Analysis Queen Property Sand & Gravel Special Exception #4479”, dated November 25, 2003, was submitted with the application. The report includes measurements of noise generated by individual bulldozers, loaders, tracked hoes and hauling trucks used on the site, models the noise that would be generated at locations in planned mining Phases III and IV, analyzes potential impacts to nearby properties and proposes mitigation measures to avoid impacts. The Environmental Planning Section has reviewed the report and concurs that the berm described in the report and shown on the Tree Conservation Plan will provide adequate noise attenuation so that the noise generated by the proposed mining will not significantly impact adjacent properties. All recommended conditions are those contained within EIR-4218.

Recommended Condition: Truck speed on interior haul roads shall be controlled to 15 MPH or less.

Recommended Condition: Only the equipment listed on the approved plan and/or in this report shall be used on the site and it shall be equipped with a Donaldson TCU05 muffler or one that provides at least 30 dBA in sound reduction. Similar heavy equipment may be substituted as replacements are required.

Recommended Condition: All equipment used on the site, including trucks, shall be fitted with working mufflers at all times.

2. Watershed and Water Quality

EIR-4218 addresses water quality issues on pages 23-41, 61, 71-76, 94, 102 and 104. Recommendations 2 through 6 addresses issues related to watershed and water quality. To date there have not been any violations issued by the Maryland Department of the Environment for water quality-related issues.

In addition, this site contains natural features that are required to be protected under Section 24-130 of the Subdivision Regulations. In most circumstances, the expanded stream buffer

is placed into a conservation easement on a final plat. Because this proposal will not require a final plat, the Special Exception Site Plan shall be the means for protection of this sensitive area. The preservation of this stream will fulfill the requirements of Section 27-102(a)(13) of the Zoning Ordinance.

The following conditions are recommended for the reason stated in EIR-4218. All recommended conditions are those contained within EIR-4218.

Recommended Condition: Stockpiled overburden material be seeded with quick-growing grasses to minimize the wash-off of silt into streams within the site.

Recommended Condition: Reclamation and stabilization efforts shall be staged as diligently as possible and the direction of mining shall be closely followed. The disturbed area shall not exceed 25 acres at any one time.

Recommended Condition: Application of sludge during reclamation, when used under this Special Exception shall be performed in accordance with criteria and standards of the Maryland Department of Environment (MDE) and other best management practices and in compliance with the Prince George's County Code, Subtitle 21, Section 21-108. Use of sludge shall be limited and controlled to prevent any surface or subsurface contamination of water entering the Mattawoman Creek and its tributaries.

Recommended Condition: All sediment/erosion control traps and basins shall be enclosed with a minimum 42-inch-high safety fence. Safety signs, described in the Official Surface Mining Workbook (April 1990) of the State Safety Committee, and, safety benches and protective berming shall be used in order to increase the level of safety at the site.

Recommended Condition: Close monitoring of these measures shall be done by the Department of Natural Resources to assure that they continue to perform satisfactorily. The sediment control measures shall be approved by the Soil Conservation District.

This site contains natural features that are required to be protected under Section 24-130 of the Subdivision Regulations. In most circumstances, the expanded stream buffer is placed into a conservation easement on a final plat. Because this proposal will not require a final plat, the Special Exception Site Plan shall be the means for protection of this sensitive area. The preservation of this stream will fulfill the requirements of Section 27-102(a)(13) of the Zoning Ordinance.

Recommended Condition: The following note shall be added to the Special Exception Site Plan and the Type II Tree Conservation Plan:

“The expanded stream buffer shown on this plan describes an area where the installation of structures and the removal of vegetation is prohibited without prior written consent from the M-NCPPC Planning Director or designee. The removal of hazardous trees, limbs, branches, or trunks is allowed.”

3. Airshed and Air Quality

EIR-4218 addresses air quality on pages 61, 77-70, 94, 102, 104 and 105.

Recommendations 14 and 15 of the EIR address issues related to airshed and air quality.

A report entitled “Evaluation of Air Quality Impacts for Aggregate Industries Surface Mining S.E. 4479”, dated November 2003 was submitted with the current application. The report describes the site, outlines regulatory requirements, describes the existing ambient air quality, models the emissions generated at the site, provides an analysis of the data and provides conclusions specific to the site and the neighborhood. The Environmental Planning Section has reviewed the report and concurs with the conclusion that the proposed mining will not significantly impact the air quality or produce a health hazard to any residents if appropriate measures are implemented. All recommended conditions are those contained within EIR-4218.

Recommended Condition: Interior roads shall be watered or otherwise treated as necessary to minimize dust.

Recommended Condition: Street sweepers or water trucks shall be available during all hours of mining operation. These should be used as needed to keep McKendree Road in the vicinity of entrances clear of loose extracted materials from the proposed mining operation.

4. Traffic and Traffic Safety (based on the September 22, 2004, memorandum from Tom Masog, Transportation Planning Section)

EIR-4218 addresses traffic issues on pages 63, 92-93, 100-101, 103 and 107. Recommendations 8 through 13, 21 and 23 addresses issues related to traffic and traffic safety.

Existing Traffic Conditions

The major roadways in the vicinity of the site include the following:

- US 301/MD 5. This is a six-lane state-maintained arterial/expressway that currently carries 81,300 vehicles on a daily basis. The reported daily traffic volume is based upon State Highway Administration (SHA) traffic count maps. At a location often termed “T. B.,” MD 5 continues northward toward the Capital Beltway while US 301 turns northeastward. The section of MD 5 north of T. B. carries 62,700 daily vehicles on a four-lane section, while US 301 north of T. B. carries 30,900 daily vehicles on a four-lane section. The posted speed limit along US 301/MD 5 is 55 miles per hour. All of the truck traffic associated with hauling of the proposed mining material from the site is expected to be using this roadway between McKendree Road and T. B. An estimated 30 percent of trucks would continue along MD 5 north of T. B., while the remainder would use US 301 and continue east along MD 381 to a local wash plant.
- MD 381. This is a two-lane state-maintained rural roadway that currently carries between 3,600 and 8,500 vehicles on a daily basis. The reported daily traffic volume is based upon State Highway Administration (SHA) traffic count maps, and the section of MD 381 just east of US 301 carries a daily traffic volume of 8,525. The MD 381 pavement has a width of at least 24 feet with four to eight foot-wide shoulders along most of its length. The posted speed limit ranges from 30 to 50

miles per hour. An estimated 70 percent of the truck traffic associated with hauling of the proposed mining material from the site is expected to be using this roadway east of US 301 to access a wash plant along North Keys Road.

- McKendree Road. This is a two-lane county-maintained rural roadway that currently carries approximately 3,700 vehicles on a daily basis. There is no reported daily traffic volume available; rather, the above estimate is based upon actual 8-hour traffic counts shown in the traffic study multiplied by a factor of 1.5. The McKendree Road pavement has a width of 24 feet with 8 foot-wide shoulders along its length between the site access roadway and US 301/MD 5. The posted speed limit is 40 miles per hour. All of the truck traffic associated with hauling of the proposed mining material from the site is expected to be using this roadway between the site entrance and US 301/MD 5.

The applicant provided a traffic study detailing analyses at three nearby intersections:

- US 301/MD 5 and McKendree Road/Cedarville Road, which is signalized
- US 301 and MD 381, which is signalized
- McKendree Road and the site access, which is unsignalized

Using actual traffic counts documented in the traffic study, intersection capacity analyses were conducted for the area intersections, in accordance with the procedures contained in the Prince George's County Planning Board's *Guidelines for the Analysis of the Traffic Impact of Development Proposals*. Based on these analyses, staff made the determinations regarding levels-of-service (LOS) and critical lane volumes (CLV) contained in Table 1.

Table 1: EXISTING TRAFFIC CONDITIONS				
Intersection	Critical Lane Volume		Level of Service (LOS, AM & PM)	
	AM	PM		
US 301/MD 5 and McKendree/Cedarville Roads	1,030	1,588	B	E
US 301 and MD 381	936	1,159	A	C
McKendree Road 1 and site entrance	future		--	--
In analyzing unsignalized intersections, average vehicle delay for various movements through the intersection is measured in seconds of vehicle delay. The numbers shown indicate the greatest average delay for any movement within the intersection. According to the <i>Guidelines</i> , an average vehicle delay exceeding 50.0 seconds indicates inadequate traffic operations. Values shown as "+999" suggest that the parameters are outside of the normal range of the procedure, and should be interpreted as a severe inadequacy.				

The subject property is located in the Rural Tier, as defined in the 2002 General Plan for Prince George's County. As such, the standard that applies to the subject property for signalized intersections is Level-of-Service (LOS) C, with a critical lane volume (CLV) of 1,300 or better. The US 301/MD 5 and McKendree Road/Cedarville Road intersection

¹ The tables in the September 22, 2004, and in EIR-4218-01 incorrectly reference MD 381 and site entrance. As the preceding paragraph shows, the intersection analyzed was McKendree Road and the site entrance.

operates unacceptably during the PM peak hour.

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. According to the “Guidelines,” 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 study and install the signal (or other less costly traffic controls) if deemed warranted by the appropriate operating agency. A LOS is generally not reported for unsignalized intersections because LOS is not the standard—the quantity of delay is the standard that triggers the need for a condition.

Under existing conditions, of course, this use is currently operational, and it is generating traffic at its site access point and along the haul route. For the purpose of this analysis, however, the use is assumed to **not** be in place. Therefore, the impact of the use is measured for this EIR by analyzing the present and future (i.e., background) conditions without the use and then adding the use to the future condition (i.e., total).

To summarize, under existing conditions the US 301/MD 5 and McKendree Road/Cedarville Road intersection operates unacceptably during the PM peak hour. Otherwise, the road facilities in the study area operate acceptably with regard to county guidelines.

Background Traffic Conditions

The subject property is located within the area covered by the Subregion V master plan, which was approved in November 1993. In accordance with this master plan, a number of changes are contemplated in the vicinity of the subject site, as detailed below.

- MD 5 would be upgraded to a freeway, designated as F-9, with the freeway facility generally following MD 5 and US 301/MD 5 except that the freeway would be placed on a new alignment to the west from north of McKendree Road to the Mattawoman Creek. This new alignment is about 1,600 feet east of the proposed site entrance.
- US 301 north of T. B. would be upgraded to a freeway, designated as F-10.
- McKendree Road along and east of the site entrance would be upgraded to a major collector – four lanes with a median—designated as C-502.
- X A new arterial roadway, A-63, would provide local service to industrial properties east of US 301/MD 5 as well as other properties north of T. B. This roadway would connect to existing MD 381.
- Existing US 301/MD 5 near McKendree Road and south to the Mattawoman Creek would remain in its current configuration with an arterial designation, A-64.
- The F-10 facility mentioned above along US 301 would be extended to the southwest from existing T. B. to the Charles County line, and this freeway facility is planned to cross the subject property north to south.

- The interchange at F-9 and F-10 would be upgraded from the present configuration. New interchanges at F-9/C-502 and F-10/A-63 would replace the existing US 301/MD 5/McKendree Road/Cedarville Road and US 301/MD 381 at-grade intersections.

There are no road construction projects in the vicinity of the subject property that are currently programmed in either the County Capital Improvement Program (CIP) or the State Consolidated Transportation Program (CTP). Projects that are fully funded in either the CIP or the CTP may be assumed to be part of the transportation network for purposes of analyzing future conditions. However, it should be noted that both F-9 and F-10 are under active study by the State Highway Administration.

The traffic analysis submitted by the applicant includes a review of future, or background, traffic. The study assumes a growth rate of 2.5 percent per year along each of the state highway facilities. The study also considers the impacts of 21 developments, comprising 2,315 residences and 10,065,000 square feet of commercial development, in the area of the subject site. Three additional subdivisions have been approved in the area since the traffic study was done, and another is pending. Their impacts upon the study area are summarized below. Where traffic percentages do not add to 100 percent, the remaining traffic is allocated to roadways outside of the study area for this application.

- Preliminary plan 4-04072 for Lakeview at Brandywine, 260 lots, with 5 percent of site traffic southward along US 301/MD 5.
- Preliminary plan 4-04013 for Brandywine Crossing, 22 lots, with 15 percent of site traffic southward along US 301/MD 5 and 25 percent of site traffic south along US 301 continuing westward along MD 381.
- Preliminary plan 4-03130 for Tayman Property, 35 lots, with 15 percent of site traffic southward along US 301/MD 5 and 25 percent of site traffic south along US 301 continuing westward along MD 381.
- Preliminary plan 4-04095 is pending for Missouri Acres, 41 lots, with 65 percent of site traffic along MD 381, with 15 percent of site traffic continuing southward along US 301/MD 5 and the remaining 50 percent of site traffic continuing westward along MD 381.

Based upon staff's current analyses of the background traffic conditions, staff made the determinations regarding levels-of-service and critical lane volumes contained in Table 2.

Table 2: BACKGROUND TRAFFIC CONDITIONS				
Intersection	Critical Lane Volume		Level of Service (LOS, AM & PM)	
	AM	PM		
US 301/MD 5 and McKendree/Cedarville Roads	3,122	2,670	F	F
US 301 and MD 381	1,592	1,703	E	F
McKendree Road and site entrance	future		--	--

In analyzing unsignalized intersections, average vehicle delay for various movements through the intersection is measured in seconds of vehicle delay. The numbers shown indicate the greatest average delay for any movement within the intersection. According to the *Guidelines*, an average vehicle delay exceeding 50.0 seconds indicates inadequate traffic operations. Values shown as “+999” suggest that the parameters are outside of the normal range of the procedure, and should be interpreted as a severe inadequacy.

Once again, the use is assumed to **not** be in place. Therefore, the impact of the use will be measured at the next step by adding the use to the background traffic condition.

To summarize, under background conditions—future conditions without the use—the US 301/MD 5 and McKendree Road/Cedarville Road and the US 301/MD 381 intersections operate unacceptably during both peak hours with regard to county guidelines. The standard for development in the Rural Tier is LOS C.

Total Traffic Conditions

The proposed mining operation involves the extraction of sand and gravel resources from the site, utilizing an existing access driveway from the site to McKendree Road. From that point, the resources would be transported to either a local wash plant northeast of the site along North Keys Road or another wash plant further north of the study area. Approximately 70 percent of the resources are estimated to use the North Keys Road wash plant, resulting in 70 percent of traffic leaving the site and heading north along US 301 to MD 381. The remainder of the trips—30 percent—would go north from the site along MD 5. The access driveway has been in use by the subject site under SE-4218. It is a paved roadway, 22 feet in width, extending 550 feet back from McKendree Road. Beyond that point it is a compacted earth roadway.

The site is proposed for use as a sand and gravel mining operation. The proposal for the current special exception would be to maintain the same number of truckloads per day (150 truckloads daily, resulting in 150 trucks in and 150 trucks out per day) as is approved under the current SE-4218. Based upon an eight-hour day for operations, the site would generate 19 trucks into the site and 19 trucks out of the site during the AM and the PM peak hours. Based upon the conditions of approval for SE-4218 regarding operating hours, the applicant is allowed to operate between 8:00 a.m. and 4:00 p.m.—a total of eight hours. Therefore, the impact of one-eighth of daily traffic entering and leaving the site during the AM and PM peak hours would appear to be representative for this site. Therefore, with the trip generation and distribution as assumed, the results contained in Table 3 are obtained under total traffic.

Table 3: TOTAL TRAFFIC CONDITIONS

Intersection	Critical Lane Volume		Level of Service (LOS, AM & PM)	
	AM	PM		
US 301/MD 5 and McKendree/Cedarville Roads	3,132	2,691	F	F
US 301 and MD 381	1,592	1,716	E	F
McKendree Road and site entrance	8.9*	10.1*	--	--

In analyzing unsignalized intersections, average vehicle delay for various movements through the intersection is measured in seconds of vehicle delay. The numbers shown indicate the greatest average delay for any movement within the intersection. According to the *Guidelines*, an average vehicle delay exceeding 50.0 seconds indicates inadequate traffic operations. Values

shown as “+999” suggest that the parameters are outside of the normal range of the procedure, and should be interpreted as a severe inadequacy.

Under total traffic conditions—future conditions with the proposed use in place—the US 301/MD 5 and McKendree Road/Cedarville Road and the US 301/MD 381 intersections operate unacceptably during both peak hours with regard to county guidelines. The standard for development in the Rural Tier is LOS C. The site access point does operate acceptably, however. There would be no change in the service levels to the intersections or links within the study area as a result of this request.

Findings and Recommendations—Mitigation of Adverse Impacts

This applicant asserts that there are no adverse transportation impacts anticipated from the proposed mining operation. This analysis is based, however, upon maintaining the level of activity and the haul route that the applicant has been using to date, and this would include maintaining the same hours of operation. The assertion, in spite of the poor service levels noted in the analysis at area intersections, is based upon several determinations by the applicant:

- The reported conditions, which add site traffic directly to peak-hour traffic conditions, represent a “worst case” because the AM and PM peak hours actually occur before and after, respectively, the applicant’s permitted hours of operation.
- Special Exception SE-4218 was approved despite having a traffic study that showed essentially the same conditions in 1997 as are shown in the current traffic study. The current request is substantially similar to the request made in 1997; the time of operation, haul route, and activity is identical to the assumptions made in 1997.
- The use is a temporary use limited to five years.

In considering this information, it must be noted that the regulations regarding the traffic review of mining operations have not changed since 1997. However, the 2002 Prince George’s County General Plan created a significant new policy in establishing differing transportation service standards by designated tier. While the applicable service standard in 1997 was LOS D, designation of the subject site within the Rural Tier changed that standard to LOS C.

Nonetheless, the applicable standard for the approval of a Special Exception is not a strict adequacy standard but an assessment of health, safety, and welfare of citizens and workers in the area. The facts cited by the applicant in asserting no adverse impact are correct, and regardless of whether the standard for evaluating transportation adequacy changed between 1997 and the present, the strict standard was not met in 1997 and will not be met by a temporary use today. Therefore, it is determined that there are no anticipated adverse impacts from the proposed mining operation. In consideration of this finding, it is the transportation staff’s opinion that the proposed mining activity, in and of itself, will not have any adverse impact on the area roadways. This finding is based, however, upon maintaining the level of activity and the haul route that the applicant has been using to date, and this would include maintaining the same hours of operation. Assurances to this effect should be obtained by implementation of the conditions listed below:

Recommended Condition: Truck traffic associated with the proposed mining activity shall be limited to the hours between 8:00 a.m. and 4:00 p.m. Monday through Friday.

Recommended Condition: Trucks shall enter and leave the site by way of McKendree Road between the site entrance and US 301/MD 5, and continue up US 301/MD 5 to the north.

Recommended Condition: Mining activity shall be restricted to 150 truckloads of material daily.

The driveway into the site exists, and no modifications are proposed to the site access point along MD 381. The applicant shall be aware that any changes to the site access point require the review and approval of the county Department of Public Works and Transportation.

Neither the County Department of Public Works and Transportation nor SHA had comments on the traffic study's findings and recommendations.

5. Biological Resources including wetlands, woodlands and Tree Conservation Plan

EIR-4218 addresses these environmental issues on pages 62, 92, 99, 100, 102 and 104. Recommendations 18 thorough 20, 24 and 25 address issues related to biological resources.

This site is subject to the provisions of the Woodland Conservation Ordinance because the entire site is more than 40,000 square feet in area and contains more than 10,000 square feet of woodland. A Forest Stand Delineation was prepared as part of the Environmental Impact Report for SE-4218 and a discussion is included in Section 4.5 of EIR-4218. A Tree Conservation Plan is required by Section 27-317(a)(6) of the Zoning Ordinance for the approval of any Special Exception. A Type II Tree Conservation Plan, TCP/II/6/96, was reviewed and approved for this property as part of SE-4218. The current application proposes minor changes to the previously approved TCP.

The plan proposes clearing 130.72 acres of the existing 248.71 acres of upland woodland and no clearing of any of the 22.5 acres of woodland within the 100-year floodplain. The woodland conservation for this proposal has been correctly calculated as 171.02 acres. The plan proposes 119.00 acres of on-site preservation and 52.02 acres of on-site reforestation for a total of 171.02 acres.

The proposed woodland conservation areas include all of the sensitive environmental features on the property and create a contiguous woodland area, meeting the intent of the Woodland Conservation Ordinance.

Recommended Action: The Environmental Planning Section recommends approval of TCP/II/6/96-01.

Recommended Condition: The tree preservation lines shall be staked on the ground and reviewed by M-NCPPC, Environmental Planning Section, prior to the installation of sediment/erosion control measures and tree protective devices.

Recommended Condition: A Reforestation Bond shall be posted with the Prince George's

County Department of Environmental Resources prior to the issuance of any permits for this mining operation. All reforestation shown on TCPH/6/96-01 shall be completed during the first spring planting season following completion of the mining operation or upon final stabilization of the mining site. Prior to the approval of SE-4479, the applicant shall provide evidence that the Reforestation Bond has been posted with the Prince George's County Department of Environmental Resources.

Recommended Condition: Prior to issuance of the Use and Occupancy Permit, the applicant shall obtain all the permits and licenses that are required by the federal, state and local governments. Such permits include, but are not limited to, permits for disturbance of wetlands and wetland buffers and stream crossings.

6. Other environmental factors relating to the health, safety and welfare of the residents of the affected area

EIR-4218 addresses these issues on pages 62-63, 92, 100, 103 and 104. Recommendations 1, 26, 28 and 29 address the additional issues related to the health, safety and welfare of the residents of the affected area. Recommendation 26 has been modified because there is no access to the site from Accokeek Road.

Recommended Condition: Topsoil shall be stockpiled within the area for use during the reclamation period.

Recommended Condition: The gate at the McKendree Road entrance shall be locked when the site is not in operation.

Recommended Condition: The mining at this site (SE-4479) will not commence until the mining approved by Special Exception 4218 is completed.

Recommended Condition: All the above conditions shall be listed on the site plan.

- I. Parking Regulations: No parking spaces are required for a mining operation.
- J. *Landscape Manual* Requirements: The proposed site plan shows bufferyards surrounding the current and proposed mining activity in accordance with the requirements of the *Landscape Manual*. Along land in residential use, or zoned for residential uses, a 50-foot-wide building setback and a 40-foot-wide yard are required by the *Landscape Manual*. The subject property actually abuts only two homes, which are located on the north side of Gardner Road. In addition to a 50-foot-wide wooded bufferyard, a woodland conservation area has been established on that portion of the property providing a buffer of more than 900 feet. A wooded buffer of at least 100 feet is located along the entire length of Gardner Road.
- K. Zone Standards: The proposed site plan meets the standards of the R-A Zone.
- L. Sign Regulations: No signs are shown on the proposed site plan.
- M. 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.

With the conditions of approval recommended below, the proposed uses and site plan will be in harmony with the purposes of the Zoning Ordinance. The purposes of the Zoning Ordinance, which are provided in Section 27-102, seek generally to protect and promote the health, safety, morals, comfort, convenience and welfare of present and future inhabitants of the county. The subject property is within a portion of the county that is rich in aggregate material that is necessary for certain types of construction and land development. In 1997, the District Council found that the mining of the subject property under substantially the same site plan would be in harmony with the purposes of the Zoning Ordinance. The applicant has submitted updated studies and analyses that indicate that the proposed mining operation will continue to be conducted in accordance with state and local requirements. Staff therefore believes that the proposed use will be operated in a safe manner and will provide aggregate materials necessary to serve the growth of the county and surrounding jurisdictions.

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

With the recommended conditions of approval, the continuation of the existing mining operation will be in conformance with all the applicable requirements and regulations of the Zoning Ordinance.

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 Map Plan, the General Plan.

The continuation of the mining operation on the subject property will not substantially impair the integrity of the 1993 approved master plan for Subregion V.

There are two land use recommendations for this large tract, which is generally divided by a tributary of Mattawoman Creek:

1. The eastern portion of the property is recommended for “Suburban Estate” or “Low Density Planned Neighborhood” residential land use.
2. The western portion of the property is recommended for “Rural” land use as part of the Piscataway-Danville Rural Living Area. “Rural” land use areas are recommended for agricultural, woodland and other rural uses or residential development at a density of one dwelling unit per two acres. Utilization of public sewer service for residential development is discouraged by master plan policies in this rural living area.

The master plan also recognizes that Subregion V is an important source of sand and gravel for the metropolitan area. The plan provides goals and objectives for the extraction of mineral resources:

Goal: To provide for the efficient and sequential extraction of significant mineral deposits and the reclamation and development of the extraction areas, while minimizing impacts on the environment.

Objectives:

- “To identify those properties containing significant sand and gravel deposits.”
- “To ensure an adequate supply of sand and gravel for future development of the metropolitan area.”
- “To phase future development in a manner providing for the orderly extraction of sand and gravel resources and discouraging the premature commitment of these areas to permanent development.”
- “To plan development so that the rehabilitation of previously extracted areas may be accomplished in an orderly manner.”
- “To continue to develop and refine guidelines and criteria for evaluating resource extraction proposals that preclude adverse effects on the natural and human environment and reduce conflicts with the surrounding land uses.”

Community Planning Division staff, in a memo dated November 18, 2003, finds that there are no new master plan issues pertaining to continuation of mining on this site, as previously approved.

The 2002 General Plan classifies this application in the Rural Tier. Surface mining activity is an interim use of land that is not specifically addressed by Rural Tier Development Pattern goals and policies. Reclamation and reuse of this site upon the completion of mining activities (in another 2.5 years according to the applicant’s Justification, p.2) for recreation, agriculture or forestry as suggested by the applicant would be consistent with Rural Tier Development Pattern goals and policies.

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

The continuation of the existing use will not adversely affect the health, safety or welfare of residents or workers in the area. The applicant has provided the required information for review of adverse impacts. The Environment Planning Section has prepared an Environmental Impact Report that recommends the continuation of the previously recommended conditions in order to address issues relating to noise, air quality, and watershed protection.

The hours of operation for truck traffic to and from the site will be limited to the hours of 8:00 a.m. to 4:00 p.m. in order to avoid impacts on the primary peak hours. The Transportation Planning Section staff analysis notes that while the transportation issues identified in SE-4218 remain, the level of service of the nearest critical intersections will continue to decline due to the growth of traffic in the region as well as subdivision activity in the surrounding area. The avoidance of truck activity during the peak hours will continue to address this issue. Furthermore, the approval of an extension of time for three years rather

than five will lesson the impacts of traffic from this site on future residential growth in the area.

5. The proposed use will not be detrimental to the use or development of adjacent properties or the general neighborhood.

The continuation of the wooded buffers between the mining activities and the surrounding area, the conditions relating to the operations of equipment on the site, and the restrictions on the hours of operation on the site will continue to ensure that the proposed use will not be detrimental to the use or development of adjacent properties or the general neighborhood.

(6) The proposed site plan is in conformance with an approved Tree Conservation Plan.

This application proposes minor changes to the previously approved Tree Conservation Plan. Based upon the findings in the Environmental Impact Report (EIR-4218-01), TCPH/6/96-01 is recommended for approval, subject to Conditions 10, 16, 17 and 18 found at the end of this report.

CONCLUSION:

Staff recommends APPROVAL of SE-4479 subject to the following conditions:

1. This Special Exception shall be valid for a period not to exceed three years from the date of the approval.
2. Truck speed on interior haul roads shall be controlled to 15 MPH or less.
3. Only the equipment listed on the approved plan and/or in this report shall be used on the site and it shall be equipped with a Donaldson TCU05 muffler or one that provides at least 30 dBA in sound reduction. Similar heavy equipment may be substituted, as replacements are required.
4. All equipment used on the site, including trucks, shall be fitted with working mufflers at all times.
5. Stockpiled overburden material be seeded with quick-growing grasses to minimize the wash-off of silt into streams within the site.
6. Reclamation and stabilization efforts shall be staged as diligently as possible and the direction of mining shall be closely followed. The disturbed area shall not exceed 25 acres at any one time.
7. Application of sludge during reclamation, when used under this Special Exception shall be performed in accordance with criteria and standards of the Maryland Department of Environment (MDE) and other best management practices and in compliance with the Prince George's County Code, Subtitle 21, Section 21-108. Use of sludge shall be limited and controlled to prevent any surface or subsurface contamination of water entering the Mattawoman Creek and its tributaries.
8. All sediment/erosion control traps and basins shall be enclosed with a minimum 42- inch-high safety fence. Safety signs, described in the Official Surface Mining Workbook (April, 1990) of the State Safety Committee, and, safety benches and protective berming shall be used in order to increase the level of safety

at the site.

9. Close monitoring of these measures shall be done by the Department of Natural Resources to assure that they continue to perform satisfactorily. The sediment control measures shall be approved by the Soil Conservation District.
10. The following note shall be added to the Special Exception Site Plan and the Type II Tree Conservation Plan:

“The expanded stream buffer shown on this plan describes an area where the installation of structures and the removal of vegetation is 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. Interior roads shall be watered or otherwise treated as necessary to minimize dust.
12. Street sweepers or water trucks shall be available during all hours of mining operation. These should be used as needed to keep McKendree Road in the vicinity of entrances clear of loose extracted materials from the proposed mining operation.
13. Truck traffic associated with the proposed mining activity shall be limited to the hours between 8:00 a.m. and 4:00 p.m. Monday through Friday.
14. Trucks shall enter and leave the site by way of McKendree Road between the site entrance and US 301/MD 5, and continue up US 301/MD 5 to the north.
15. Mining activity shall be restricted to 150 truckloads of material daily.
16. The tree preservation lines shall be staked on the ground and reviewed by M-NCPPC, Environmental Planning Section, prior to the installation of sediment/erosion control measures and tree protective devices.
17. A Reforestation Bond shall be posted with the Prince George's County Department of Environmental Resources prior to the issuance of any permits for this mining operation. All reforestation shown on TCPII/6/96-01 shall be completed during the first spring planting season following completion of the mining operation or upon final stabilization of the mining site. Prior to the approval of SE-4479, the applicant shall provide evidence that the Reforestation Bond has been posted with the Prince George's County Department of Environmental Resources.
18. Prior to issuance of the Use and Occupancy Permit, the Applicant shall obtain all the permits and licenses that are required by the federal, state and local governments. Such permits include, but are not limited to, permits for disturbance of wetlands and wetland buffers and stream crossings.
19. The gate at the McKendree Road entrance shall be locked when the site is not in operation.
20. The mining at this site (SE-4479) will not commence until the mining approved by Special Exception 4218 is completed.
21. All the above conditions shall be listed on the site plan.