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Preliminary Plan 4-07053

Application	General Data
Project Name: The Brick Yard Location: Located on Muirkirk Road, northeast of intersection with US 1. Applicant/Address: Jackson-Shaw Brickyard Limited Partnership, LLP. 4640 Forbes Boulevard, Ste. 150B Lanham, MD 20706 Property Owner: Jackson-Shaw/Brickyard Limited Partnership	Date Accepted: 2/18/2008
	Planning Board Action Limit: 7/07/2008
	Plan Acreage: 68.4
	Zone: I-2 & I-3
	Gross Floor Area Flex space: 29,787
	Lots: 436
	Parcels: 37
	Planning Area: 62
	Tier: Developing
	Council District: 01
	Election District: 10
	Municipality: N/A
	200-Scale Base Map: 216/7NE07

Purpose of Application	Notice Dates
Residential and Flex Commercial Space and a Variation To Section 24-130 and 24-121(A)(4) of the Subdivision Regulations.	Adjoining Property Owners Previous Parties of Record Registered Associations: 11/20/2007 (CB-58-2003)
	Sign(s) Posted on Site and Notice of Hearing Mailed: 4/15/2008

Staff Recommendation		Staff Reviewer: Whitney Chellis	
APPROVAL	APPROVAL WITH CONDITIONS	DISAPPROVAL	DISCUSSION
	X		

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION

PRINCE GEORGE'S COUNTY PLANNING BOARD

STAFF REPORT

SUBJECT: Preliminary Plan of Subdivision 4-07053
The Brick Yard Lots 1-412 and 39 parcels

OVERVIEW

The subject property is located on Tax Map 9, Grid F-4, and is known as Parcels 18, 86 and 188. These are acreage parcels, never having been the subject of a record plat. The property is approximately 68.42 acres and zoned I-2 (48.80 acres) and I-3 (19.62 acres). The site is known as the Cherokee Brickyard and has been operating as a brick manufacturing and clay and sand mining operation. Special Exception 6 was approved in 1950 for this site for the "mining of clay and sand." The site is improved with several buildings that are to be razed, and a cell tower and existing structure to be reused as flex space that are to remain.

The property is exceptionally elongated and extends north from Muirkirk Road along the west side of Cedarhurst Drive, north of its cul-de-sac, and ultimately extends to the terminus of Mid-Atlantic Boulevard. The property generally abuts the CSX Railroad to the west and the Longwood and Montpelier Forest residential subdivisions to the east. The northern portion of the site narrows to no more than 150 feet in width at the cul-de sac of Cedarhurst Drive. The I-2-zoned portion of the property extends north from the intersection of Muirkirk Road and Cedarhurst Drive 2,700 feet, to a place that is approximately 500 feet south of the intersection of Cedarhurst Drive and Alloway Lane. The remainder of the property extending north toward Mid-Atlantic Boulevard is zoned I-3. The site is bisected by a PEPCO right-of-way which is in the fee-simple ownership of PEPCO and extends east and west, across the property.

The site was previously the subject of approved Preliminary Plan 4-04120 (PGCPB 05-155) for the Brick Yard site. That preliminary plan was for the entire 115± acres and for industrial development in accordance with the I-1, I-2 and I-3 Zones. This application is for a portion of the site which has not been the subject of a record plat. Two plats have been recorded for the part of the property (The Brickyard) which extends south from Mid-Atlantic Boulevard. Lots 1-3, Parcel A, and the dedication of Mid-Atlantic Boulevard was recorded in Plat Book PM 220@39, and Lots 4-8 were recorded in Plat Book PM 224@96 in 2007 and 2008 respectively. Proposed Lots 427, 428 and 429 within this subdivision extend north from the cul-de-sac of Cedarhurst Drive and are included in this preliminary plan but are not being developed as a part of the MARC Planned Community development. These parcels will be developed with industrial uses and have been included with this preliminary plan because the land area is part of Parcel 86 which extends north from the PEPCO right-of-way (Parcel 21) to Mid -Atlantic Boulevard.

Subsequent to the approval of Preliminary Plan 4-04120, CB-21-2006 was adopted by the County Council on July 18, 2006, for the purposes of defining a MARC Planned Community and permitting the use in the I-1, I-2 and I-3 Zones, in accordance with certain requirements. A MARC Planned Community is required to be a minimum of ten acres; included in a single preliminary plan of subdivision, any portion of which adjoins an existing MARC rail station site and which is planned to be developed with

commercial, industrial, office, residential, retail and/or similar uses which are interrelated by a common architectural and design theme.

A detailed site plan (DSP) is required for a MARC Planned Community in accordance with Part 3 Division 9 of Subtitle 27. The applicant has filed DSP-07034 which is pending and is posted for the Planning Board hearing on the same day as the subject application. Specifically, CB-21-2006 provides that the regulations restricting the height of structures, lot sizes and coverage, frontage, setbacks, density and intensity, dwelling unit types and other requirements of the specific zone in which the use is proposed, should not apply to uses and structures provided (within the MARC Planned Community) and are established by the approval of the DSP. Staff of the Urban Design Section are recommending approval of DSP-07034 which is consistent with this preliminary plan application.

The applicant is proposing 354 townhouse lots; 51 single-family lots; 860 multifamily and 29,787 square feet of flex space; with on-site recreational amenities adequate to serve the residential development, consistent with CB-21-2006. To address the vision in a MARC Planned Community to provide private streets and alley's CB-45-2007 was adopted by the County Council on November 20, 2007. Specifically, this legislation amended Section 24-128 of the Subdivision Regulations to provide for the approval of a subdivision with private roads, rights-of-way easements or alleys within a MARC Planned Community. The proposed preliminary plan is consistent with Section 24-128(b)(16).

SETTING

The site is located in the northwest quadrant of the intersection of Muirkirk Road and Cedarhurst Drive and south of the terminus of Mid-Atlantic Boulevard, east of US 1. The southern portion of the site is bisected from east to west by the 250-foot-wide PEPCO right-of-way. The Montpelier Forest and Longwood Subdivisions are east of the site. The Muirkirk Marc Station abuts the property to the southwest along Muirkirk Road. The CSX Railroad right-of-way abuts the property along the west property line.

FINDINGS AND REASONS FOR STAFF RECOMMENDATION

- Development Data Summary**—The following information relates to the subject preliminary plan application and the proposed development.

	EXISTING	PROPOSED
Zone	I-2 (48.8 acres) I-3 (19.62 acres)	I-2 (48.8 acres) I-3 (19.62 acres)
Use(s)	Brickyard and related industrial uses/cellular tower (to remain)	354 townhouse lots; 51 single-family lots; 860 multifamily and 29,787 square feet of flex space; with recreational amenities
Acreage	68.42	68.42
Lots	0	412
Parcels	3	39
Public Safety Mitigation Fee		No

- Environmental**—The Environmental Planning Section has reviewed Preliminary Plan of Subdivision 4-07053 and the Type I Tree Conservation Plan, TCPI/011/05-01, stamped as received on April 1, 2008. The revised package includes a Phase II noise study and a revised TCPI. The Environmental Planning Section recommends approval of 4-07053 and TCPI/011/05-01 subject to conditions.

The Environmental Planning Section previously reviewed Preliminary Plans 4-88103 and 4-04120, and Detailed Site Plans DSP-05024 and DSP-05070 for this site. A Type I Tree Conservation Plan, (TCPI/11/05) was approved with 4-04120. Type II Tree Conservation Plans, TCPII/118/05 and two revisions, were approved in conjunction with the detailed site plans in previous phases. The site is currently under review for a Detailed Site Plan, DSP-07034 and revised TCPII. A revision of a revised noise study was received May 5, 2008 that has not been reviewed. This noise study is required to address the noise on the site above 65 dBA Ldn, which includes most of the subject property. In places, the noise levels on-site are above 75 dBA Ldn. Conditions of approval to address issues related to the noise will be addressed during the review of the detailed site plan.

The site was previously used for brick manufacturing. Portions of the overall site have previous active mining and reclamation activity associated with them. The southern portion of the site is bisected from east to west by the 250-foot wide PEPCO right-of-way. Based on aerial photos the site is partially wooded; and there are regulated environmental features in the form of buffers on-site from off-site features. Steep and severe slopes (slopes with 15 percent – 25 percent grade and 25 percent grade or greater, respectively) are found at the site. Eight soil series are associated with the site and these include: five types in the Christiana series, Clay pits, Elkton silt loam, Iuka silt loam, two in the Keyport series, Ochlockonee silt loam, Sassafras gravelly sandy loam and two in the Sunnyside series. All five of the Christiana soils, the Elkton and Keyport silt loam soils have K-factors of 0.43, and the Iuka and Keyport fine sandy loam soils have K-factors of 0.37. The Elkton soils are hydric. Development constraints associated with these soils include: the Christiana and Elkton soils have a high shrink-swell potential, a high water table and poor drainage in relation to streets and parking lots, respectively, Keyport soils have slow permeability and high erosion potential in relation to drainage systems. Based on available information, Marlboro clays are not found to occur at this location.

The northern portion of the site is in the Indian Creek watershed of the Potomac River Basin. The southern portion of the site is in the Upper Patuxent watershed in the Patuxent River basin. There are two significant noise generators in vicinity of the site and these include: US 1 and the CSX Railroad tracks. A cultural resource of historical significance is associated with the adjoining site and the previously approved preliminary plan north of the site; a fossil bearing rock formation was identified on that property. There are no scenic or historic roads in vicinity of the site. According to the Maryland Department of Natural Resources Natural Heritage Program staff, rare, threatened and endangered species are not found at this site.

A signed Natural Resource Inventory (NRI/046/07) has been submitted and reviewed. The site contains Waters of the U.S. in addition to steep and severe slopes. Although the majority of this site was previously disturbed, a total of four forest stands have been identified at the site. The combined total area of woodland associated with these stands is 6.45 acres. A total of eight specimen trees have been identified at the site. Overall, the vitality of these forest stands is considered to be only fair. Preservation of on-site vegetation should be limited, and the uses of high quality landscaping and off-site mitigation are encouraged. Previously approved tree conservation plans have followed this concept.

The site contains significant environmental features that are required to be protected by Section 24-130 of the Subdivision Regulations. The design should avoid any impacts to streams or their associated buffers unless essential for the development as a whole. The southern portion of the site contains a stream, but no wetlands or 100-year floodplain. There are no significant

environmental features on the northern portion of the property, which drains to the Patuxent River Basin. The southern portion of the site eventually drains to the Potomac River Basin. A minimum 50-foot buffer measured from each bank of a stream is a requirement of Section 24-130 of the Subdivision Regulations. A variation request, dated February 15, 2008, has been submitted. This request is consistent with impacts previously approved with 4-04120.

Impacts to these buffers are restricted by Section 24-130 of the Subdivision Regulations unless the Planning Board grants a variation to the Subdivision Regulations in accordance with Section 24-113. Even if approved by the Planning Board, the applicant will need to obtain federal and state permits prior to the issuance of any grading permit. Each variation is described individually below. However, for purposes of discussion relating to Section 24-113(a) of the Subdivision Regulations the impacts were discussed collectively.

Section 24-113(a) of the Subdivision Regulations sets forth the required findings for approval of variation requests. Section 24-113(a) reads:

Where the Planning Board finds that extraordinary hardship or practical difficulties may result from strict compliance with this Subtitle and/or that the purposes of this Subtitle may be served to a greater extent by an alternative proposal, it may approve variations from these Subdivision Regulations so that substantial justice may be done and the public interest secured, provided that such variation shall not have the effect of nullifying the intent and purpose of this Subtitle; and further provided that the Planning Board shall not approve variations unless it shall make findings based upon evidence presented to it in each specific case that:

The approval of the applicant's request does not have the effect of nullifying the intent and purpose of the Subdivision Regulations. In fact, strict compliance with the requirements of Section 24-130 could result in practical difficulties to the applicant that could result in the applicant not being able to develop this property.

Impact #1 is for the installation of a 42-inch waterline within an existing WSSC easement that is necessary to service the development. A secondary impact for a storm drain that is necessary to convey stormwater from the site will also be located within this area. The impact area is located in the southwest section of the site and totals 19,172 square feet. Staff supports impact #1.

Impact #2 is for the construction of a storm drain outfall and the installation of a noise barrier. The outfall is necessary to safely convey water from the site. The noise barrier is necessary to mitigate traffic and railroad-related noise affecting the development. This impact is located in the southwest section of the site adjacent to the railroad tracks and totals 27,397 square feet. Staff supports impact #2.

Section 24-113 of the Subdivision Regulations contains four required findings [text in bold] to be made before a variation can be granted.

- (1) The granting of the variation request would not be detrimental to public safety, health or welfare and does not injure other property;**

The installation of the stormwater management outfall is required by the Prince George's County Department of Environmental Resources, and the installation of the water line is

required by the Washington Suburban Sanitary and Sewer Commission to provide for public safety, health and welfare. The noise barrier is also necessary to protect the new residences from high levels of noise from the railroad. All designs are reviewed by the appropriate agency to ensure compliance with the regulations. The regulations require that the designs are not injurious to other properties.

(2) The conditions on which the variations are based are unique to the property for which the variation is sought and are not applicable generally to other properties;

The specific topography of the site requires the use of the stormwater management outfall shown on the plans to adequately serve the proposed development. The existing water line easement is within the expanded stream buffer.

(3) The variation does not constitute a violation of any other applicable law, ordinance or regulation; and

Because the applicant will have to obtain permits from other local, state and federal agencies as required by their regulations, the approval of this variation request would not constitute a violation of other applicable laws.

(4) Because of the peculiar physical surroundings, shape or topographical conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulation is carried out.

The site is peculiar in that it is located next to a railroad, with topography that has confined the stream to certain areas of the site. Preserving these features on-site would be difficult if not impossible. Without the impacts proposed, the property could not be properly developed.

The Environmental Planning Section supports the variation requests for the reasons stated above.

The site is subject to the Woodland Conservation and Tree Preservation Ordinance because it has a previously approved Type I Tree Conservation Plan, TCPI/11/05. The subject area within this preliminary plan is 68.42 acres, which is part of a previously approved TCPI that covers a larger area (115.98 acres). Because the revised TCPI submitted with this preliminary plan is subject to the woodland conservation requirements of the approved TCPI, this TCP must cover the same area as the previously approved TCPI.

A phased worksheet has been used to calculate the woodland conservation requirements for the site. The site has a woodland conservation threshold of 15 percent, or 17.40 acres of the net tract. The total woodland conservation requirement based on the total amount of proposed clearing is 25.82 acres. The TCPI proposes to meet the requirement with a total of 4.14 acres of on-site preservation, 7.04 acres of reforestation, and 14.64 acres of off-site mitigation. The worksheet shows a negative number for woodland saved but not counted. The worksheet should not show any negative numbers.

The TCPI shows reforestation on an adjacent site that currently has an approved Type II Tree Conservation Plan for the Longwood Subdivision (TCPII/002/95). That TCPII has been revised as part of a previous review for this site to account for the clearing and reforestation. Sheet 3

shows an area of reforestation labeled RA-7 that cannot be counted toward meeting the requirement because it is not on the subject site. This area is located directly south of proposed Lot 373 and must be removed because the area that is outside the existing legal boundaries of the property. The plan shows areas of proposed woodland afforestation/reforestation that do not qualify as woodland because they are less than 35 feet wide. This includes portions of RA-1, RA-7, RA-10, and RA-11. The plan should be revised to remove all woodland conservation areas less than 35 feet wide.

The pond on Sheet 3 of the TCPI is proposed with extensive reforestation around and in the facility and it appears as though the planting area extends to the limit of the surface water elevation for the pond. The embanked facility is shown with reforestation within the easements of the riser structure and stormwater inlet. Reforestation cannot be shown within the easements for the inlet, outfall and riser structures and must be removed.

The approved stormwater management concept plan submitted with the revised plans does not show planting around the pond, nor is it specified in the conditions of approval in the approval letter. If planting around the pond is proposed, approval in writing from the Prince Georges County Department of Public Works and Transportation (DPW&T) is required prior to signature approval of this preliminary plan and TCPI.

A copy of the stormwater management concept approval letter and plan, issued on March 10, 2008, were submitted. A total of three stormwater management ponds are proposed. Pond #3, as identified on the concept plan, will be located off-site on abutting land owned by the Department of Parks and Recreation. One of the conditions in the approval letter stipulates that approval from the Department of Parks and Recreation is required for the proposed stormwater management pond to be located off-site.

There are two sources of noise located in close proximity to the site: traffic noise from US 1 and railroad noise from the active CSX railroad tracks. US 1 is an arterial road and is generally regulated for noise impacts. The CSX Railroad tracks carry both CSX freight trains and MARC commuter trains.

A Phase I noise study, dated December 20, 2007, was stamped as received by the Environmental Planning Section on March 1, 2008. At selected locations, the 65 dBA and 70 dBA noise levels were measured in Leq (average day measurements), and were used to calculate the Ldn (average day and night over 24 hour period) measurements of the site. In memos commenting on the use of this type of measurement, staff stated that the 65 dBA Ldn must be calculated using the standard method and not Leq because of the high levels of ambient noise from US 1 that contribute to the noise on the site when a train passes. Subsequently, during a site visit the fact that the freight trains have a mandatory whistle warning was raised. To date this noise has not been factored into any noise study.

The entire length of the site's western boundary is exposed to noise from US 1 and the CSX Railroad tracks, to different degrees, mostly depending on the topography within the CSX right-of-way. The need to address the noise at the source is heightened by the close proximity of the proposed residential uses to the tracks and US 1. In addition, most of the outdoor activity areas are planned to be close to the western property line. The clubhouse and the amenity lake, as well as the rear yards of some of the townhouses and single-family units, are entirely within the unmitigated ground-level 65 dBA Ldn noise contour.

The revised Phase I Noise Study, stamped as received on May 5, 2008, has not been analyzed at

the time of this writing to determine if the noise contours contained within are shown correctly or if they are based on the proper assumptions.

The previous noise study contained a vibration analysis which consisted of measurements to assess the impact of vibration from the trains on the proposed adjacent structures. The results show that the measurements did not exceed ISO vibration standards (200 micrometers/second) for residential uses and no portions of the residential structures are expected to be impacted by vibration above those standards.

Water and Sewer Categories

The water and sewer service categories are W-3 and S-3 according to water and sewer maps obtained from the Department of Environmental Resources dated June 2003, and the site will therefore be served by public systems.

3. **Community Planning**—The site is located within the Subregion I Planning Area, and located within the Developing Tier as identified in the 2002 adopted General Plan. The development is in conformance with CB-21-2006 which permits a MARC Planned Community in the I-1, I-2 and I-3 Zones, and is therefore consistent with the Subregion 1 Master Plan and Sectional Map Amendment (1990), and General Plan.
4. **Parks and Recreation**—In accordance with Section 24-134(a) of the Subdivision Regulations the Department of Parks and Recreation recommends that the applicant provide private on-site recreational facilities in accordance with the standards outlined in the *Parks and Recreational Facilities Guidelines*.
5. **Trails**—The 1990 adopted and approved Subregion I Master Plan and the 2007 Preliminary Subregion I Master Plan designate Muirkirk Road as a master plan trail/bicycle corridor. Currently, a variety of cross sections are present along the road with some segments include standard sidewalks. Adjacent to the subject site is the existing Muirkirk MARC station. The Adopted and Approved General Plan includes a strategy to “review and fully exploit opportunities to incorporate non-motorized transportation such as pedestrian and bicycle trails into the county’s transportation system” (General Plan, page 66). The Preliminary Subregion I Master Plan reaffirms these recommendations with Policy 1 of the Bicycle, Pedestrian, and Equestrian Facilities Section:

Policy 1: Incorporate appropriate pedestrian-oriented development and transit-oriented features in the center and corridor nodes.

The first strategy under Policy 1 more specifically recommends:

Provide continuous sidewalks and designated bike lanes along Muirkirk Road to improve access to the Muirkirk MARC station.

These types of connections are especially appropriate on and along the subject site due to the proximity of the adjacent MARC station. The subject application proposes residential land uses and the property immediately to the east is an existing residential community. Staff recommends the provision of standard sidewalks, wide sidewalks, and public pathways to accommodate pedestrians from the residential communities walking to the MARC station. These sidewalks and paths will also serve residents of the subject site, as well as surrounding communities. Staff recommends bikeway signage to indicate the presence of the bikeway and the possibility of

bicycle traffic along the edge of the road. Striping for designated bike lanes can be considered by DPW&T comprehensively for Muirkirk Road at the time of road resurfacing or improvement.

The revised DPW&T road code includes a minimum width of five-feet for standard sidewalks. However, due to the presence of the MARC station and the county's transportation objective to "incorporate appropriate pedestrian, bicycle and transit-oriented and transit supporting design (TOD and TSD) features in all new developments" (General Plan, page 65), staff recommends the provision of wide sidewalks along Muirkirk Road and off-site along the east side of Cedarhurst Drive. These sidewalks should be a minimum of eight-feet wide and separated from the curb by a grass or planting strip, unless modified by DPW&T. This will serve to enhance the appearance of the corridors, but also to buffer pedestrians from the adjacent motor vehicle movement.

Condition 13 of previously approved Preliminary Plan 4-04120 (PGCPB 05-155) for the Brickyard site required:

13. Detailed site plan(s) for site development shall provide a pedestrian connection to the MARC station property in either a public use easement or on a business association common open space element, encumbered by a public use easement in the vicinity of Lots 5 and 6, or other location determined appropriate. A second connection should be provided serving pedestrian movements from Mid-Atlantic Boulevard to Cedarhurst Drive, using a public or private sidewalk system. Adequate signage shall be required for both connections. The width, design, and timing for the construction of the pedestrian connection shall be determined at the time of review of the site development DSP (not infrastructure). The DSP shall require the recordation of a public use easement.

A pedestrian connection to MARC in the form of an at-grade crossing is indicated on the submitted preliminary plan. Staff recommended that the evaluation of the crossing/connection be made with the time of DSP for this site. Because the connection is shown crossing one of the major roads into the site, a raised crosswalk or other pedestrian safety features may be appropriate. Staff also supports the recommendation of the Subdivision Section that the roads within Parcel B, Parcel E, and Parcel F be changed from private to public to ensure that surrounding communities can use the sidewalks and pedestrian connections to MARC and not be the responsibility of a private homeowners association for maintenance and liability.

Staff also continues to recommend the connection from Mid-Atlantic Boulevard to Cedarhurst Drive. In addition to connecting the two portions of the subject site, it will also ensure non-vehicular access to MARC from Mid-Atlantic Boulevard. The exact nature of this connection can be determined at the time of detailed site plan, which includes Parcel 427, 428, and 429 unless a trail connection through the dedicated M-NCPPC parkland is provided.

SIDEWALK CONNECTIVITY:

An extensive network of internal sidewalks and paths is proposed in the subject application. Sidewalks appear to be provided along both sides of all internal roads and paths or walkways are provided throughout the subject site through linear greenways and between units. A connector trail is also proposed within the open space provided along the CSX Railroad Tracks. Existing Mid-Atlantic Boulevard has sidewalks along both sides. Staff recommends that the extension of this road onto the subject site continue this cross-section and include sidewalks along both sides.

Existing public facilities in the vicinity of the subject site include the James H. Harrison Elementary School, Muirkirk West Neighborhood Park, Muirkirk South Community Park, and the Blue Ponds Conservation Area, as well as the previously mentioned Muirkirk MARC station.

6. **Transportation**—The applicant proposes a mixed-use subdivision consisting of a mix of residential types and a small commercial component within a MARC Planned Community, as defined in Subtitle 27.

Due to the uses proposed, staff deemed that a traffic study should be done. The resulting study has been referred to the County Department of Public Works and Transportation (DPW&T) and the Maryland State Highway Administration (SHA), and comments from them were received. The findings and recommendations outlined below are based upon a review of these materials and analyses conducted by the staff of the Transportation Planning Section, consistent with the *Guidelines for the Analysis of the Traffic Impact of Development Proposals*.

Growth Policy - Service Level Standards

The subject property is in the developing tier, as defined in the General Plan for Prince George's County. 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 is required in the developing tier.

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.

Staff Analysis of Traffic Impacts

It is noted that there is a prior Preliminary Plan of Subdivision 4-04120, approved on this site which is still valid. That preliminary plan covers the subject site plus an area north of the subject property. The resolution approving that plan included two trip caps, one covering the northern portion of 4-04120 (not included in this plan), and one covering the southern portion of 4-04120 (the subject site). While the submitted traffic study has demonstrated a comparison between the cap covering the southern portion of 4-04120, it also includes traffic counts done in April and May of 2007. This information will be used to determine transportation adequacy for the proposal at hand.

The existing conditions at the critical intersections identified for review and study are summarized below:

EXISTING TRAFFIC CONDITIONS

Intersection	Critical Lane Volume (AM & PM)		Level of Service (LOS, AM & PM)	
US 1 and Muirkirk Meadows Drive	1,024	850	B	A
Muirkirk Road and Virginia Manor Road	937	676	A	A
Muirkirk Road and Muirkirk Meadows Drive	44.4*	91.7*	--	--
Muirkirk Road and Cedarhurst/Old Baltimore Pike	904	1,101	A	B
Muirkirk Road and Conway Road/MARC Access	18.9*	27.9*	--	--
Muirkirk Road and site access	Future			
Cedarhurst Drive and site access	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*, delay exceeding 50.0 seconds indicates inadequate traffic operations. Values shown as “+999” suggest that the parameters are beyond the normal range of the procedure, and should be interpreted as a severe inadequacy.

The submitted traffic study provides an analysis for assessing the background traffic situation. This study considered the following:

- A 1.5 percent annual growth factor for through traffic along US 1 was used.
- Background development in the area, including approximately 900 approved but unbuilt residences and over one million square feet of industrial, office, and commercial development within the area, was included in the analysis.
- The background assignments for approved developments in the area were poorly done. The northern portion of Brickyard along with an adjacent site used distributions that were inconsistent with the original traffic studies, and underassigned to US 1. Other Laurel-area developments were underassigned to US 1 as well. Konterra Business Campus was poorly assigned as well, with 75 percent of the trips from 90 percent of the development left unassigned. As the traffic study had already been accepted, staff was left to provide a better analysis of the approved development and revise the background situation. The findings and recommendations reflect a corrected analysis.
- The analysis also considers the impacts of the Ammendale and Virginia Manor Road Capital Improvement Program (CIP) project, which is nearing full completion.

Background conditions are summarized as follows:

BACKGROUND TRAFFIC CONDITIONS				
Intersection	Critical Lane Volume (AM & PM)		Level of Service (LOS, AM & PM)	
	US 1 and Muirkirk Meadows Drive	1,330	1,137	D
Muirkirk Road and Virginia Manor Road	1,134	838	B	A
Muirkirk Road and Muirkirk Meadows Drive	+999*	+999*	--	--
Muirkirk Road and Cedarhurst/Old Baltimore Pike	1,066	1,234	B	C
Muirkirk Road and Conway Road/MARC Access	20.9*	31.2*	--	--
Muirkirk Road and site access	Future			
Cedarhurst Drive and site access	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*, delay exceeding 50.0 seconds indicates inadequate traffic operations. Values shown as "+999" suggest that the parameters are beyond the normal range of the procedure, and should be interpreted as a severe inadequacy.

In the traffic study, the site is proposed for development with primarily residential mixed-use. A key assumption made in the study involves a significant reduction for transit. The commercial use suggests a 5 percent reduction due to the availability of MARC services, and the residential uses include a 20 percent reduction. At this time, reference is made to *Development-Related Ridership Survey II*, prepared for the Washington Metropolitan Area Transit Authority (WMATA) in December 1989 (to be termed the 1989 Ridership Survey). This publication summarizes an extensive survey of residential, retail, office, and hotel uses near Metrorail station. This is done with the purpose of determining how likely persons accessing these land uses are to use Metrorail or other non-auto modes. It must be noted that Metrorail is not MARC (commuter rail) service, but the 1989 Ridership Survey is cited to provide a basis for comparison. Regarding information in that study and regarding the MARC services, the following findings are made:

- The five percent reduction for the commercial office uses is a small reduction of a small number. Although the use of any reduction is debatable due to the current operating features of the MARC service, it is accepted strictly due to its minimal impact on the overall analysis.
- If this site were adjacent to Metrorail, a 45 percent reduction in the residential trip rates would be considered overall. However, MARC service is not like Metrorail service for several reasons:
 - There is no midday service. Current service at Muirkirk stops at 9:00 A.M. and resumes at 4:00 P.M.
 - There is no evening service. The last train stopping at Muirkirk leaves Washington at 7:35 P.M., and the last train leaves Baltimore at 6:10 p.m.
 - There is no weekend service at all. Service is spotty at best during the peak hours. Commuter service to Washington involves six trains over a three-hour period, and commuter service to Baltimore

involves three trains over a two-hour period.

- In comparison, service from the Greenbelt Metrorail station is every six minutes during weekday peak periods, every 12 minutes on middays and weekends, and every 20 minutes during evenings.
- The capacity of the current MARC should be considered. Data shown in the 2007 MARC Growth and Investment Plan indicates that MARC services along the Camden Line (the line that serves Muirkirk station) currently provide 4,000 seats per day and serve 4,500 passengers. Therefore, the service is operating over capacity at this time.
- Due consideration needs to be given to the fact that persons working in areas convenient to MARC service would be attracted to live within walking distance of a station. Given that the current MARC service is very limited in scope and over capacity, the proposal appears to relate more to a need to locate inexpensive, dense housing than to take advantage of a significant transportation asset. It is staffs opinion that the poor quality of the MARC service will not allow persons residing within the subject property to give up use of automobiles to any great extent.
- Given that the analysis for the adequacy finding is a peak hour analysis, and given that the main benefit of the MARC service involves commuting trips, a transit trip reduction is justified. There is very little published knowledge concerning the rail mode share of development near commuter rail stations. It is recommended that mode share be set at one-quarter of that for Metrorail service for peak direction commuting trips (i.e., AM outbound and PM inbound trips), and no mode for opposite direction trips. Although this number is very debatable and staff approved of the original 20 percent number at the time of scoping, there are no better statistics that can be substantiated. This would be a mode share of 11.25 percent in the peak direction.

Given the findings above, site trip generation is summarized below:

	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
<i>Residential</i>	<i>1,265 units</i>					
Detached (51 units)	8	30	38	30	16	46
Attached (354 units)	50	198	248	184	99	283
MultiFamily (860 units)	86	361	447	335	181	516
Total Trips	144	589	733	549	296	845
Transit – Peak Dir (11.25%)	--	-67	-67	-62	--	-62
Transit – Non-Peak Dir (0%)	-0	--	-0	--	-0	-0
New Trips	144	522	666	487	296	783
<i>Commercial</i>	<i>29,800 square feet</i>					
Total Trips	54	6	60	10	45	55
Transit (5%)	-3	-0	-3	-1	-2	-3
New Trips	51	6	57	9	43	52
<i>TOTAL SITE</i>	195	528	723	496	339	835

In approving the scope for this traffic study, staff recommended a trip distribution that omitted Old Baltimore Pike, and this was an oversight. The final trips were redistributed with 20 percent along eastbound Muirkirk Road, 15 percent along Old Baltimore Pike, and 20 percent along US 1 southbound. Total traffic with the revised distribution is summarized below:

TOTAL TRAFFIC CONDITIONS				
Intersection	Critical Lane Volume (AM & PM)		Level of Service (LOS, AM & PM)	
	US 1 and Muirkirk Meadows Drive	1,447	1,270	D
Muirkirk Road and Virginia Manor Road	1,260	955	C	A
Muirkirk Road and Muirkirk Meadows Drive	+999*	+999*	--	--
Muirkirk Road and Cedarhurst/Old Baltimore Pike	1,241	1,425	A	D
Muirkirk Road and Conway Road/MARC Access	25.9*	88.9*	--	--
Muirkirk Road and site access	849	788	A	A
Cedarhurst Drive and site access	9.5*	8.7*	--	--
<p>*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>, delay exceeding 50.0 seconds indicates inadequate traffic operations. Values shown as "+999" suggest that the parameters are beyond the normal range of the procedure, and should be interpreted as a severe inadequacy.</p>				

Given these analysis, two of the unsignalized intersections would operate unacceptably in at least one peak hour. The applicant has also provided recommendations for three other intersections within the study area. Each is reviewed briefly below.

Muirkirk Road and Cedarhurst Drive/Old Baltimore Pike

Although the analysis does not indicate an inadequacy at this intersection, the applicant has proffered an eastbound exclusive left-turn lane. This improvement would greatly improve safe operations at this location, and is accepted as a part of the staff’s recommendation. With the additional lane in place, the intersection would operate at LOS C with a CLV of 1,214 in the AM peak hour, and at LOS D with a CLV of 1,301 in the PM peak hour.

Cedarhurst Drive and site access

Although the analysis does not indicate an inadequacy at this intersection, the applicant has proffered a northbound exclusive left-turn lane. This improvement would greatly improve safe operations at this location, and is accepted as a part of the staff’s findings. With the additional lane in place, the intersection would continue to operate acceptably as an unsignalized intersection in each peak hour. Nonetheless, this is strictly on-site, and must be a part of roadway permitting process.

Muirkirk Road and west site access

As a means of demonstrating adequacy at this new intersection, it has been analyzed as a full-movement signalized access. It is recommended that the following lane configuration be

provided:

- a. Along eastbound Muirkirk Road, an exclusive through lane, a shared through/right-turn lane, and an exclusive left-turn lane.
- b. Along westbound Muirkirk Road, an exclusive through lane, a shared through/right-turn lane, and an exclusive left-turn lane.
- c. Along the southbound site access, an exclusive right-turn lane and a shared through/left-turn lane.

It is also recommended in the traffic study that if a signal is installed at this location that it would be interconnected with the existing signal at Cedarhurst Drive/Old Baltimore Pike. This is advisable as the intersections are only 600 feet apart. Interconnecting the two signals would avoid excessive delays for Muirkirk Road traffic and would minimize vehicle stacking between the two signals.

Muirkirk Road and Muirkirk Meadows Road

This intersection operates inadequately during both peak hours as an unsignalized intersection. 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 if it is deemed warranted by the appropriate operating agency. The warrant study is, in itself, a more detailed study of the adequacy of the existing unsignalized intersection. With a signal in place, it is estimated that the intersection would operate at LOS B in the AM peak hour with a CLV of 1,125; in the PM peak hour, it would operate at LOS C with a CLV of 1,262.

Muirkirk Road and Conway Road/MARC Access

This intersection operates inadequately during both peak hours as an unsignalized intersection. 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 if it is deemed warranted by the appropriate operating agency. The warrant study is, in itself, a more detailed study of the adequacy of the existing unsignalized intersection. With a signal in place, it is estimated that the intersection would operate at LOS A in the AM peak hour with a CLV of 666; in the PM peak hour, it would operate at LOS A with a CLV of 731. Nonetheless, the possibility of a signal at this location, which is only 320 feet away from the west site access, raises the possibility that there could be three signals within approximately 920 feet of Muirkirk Road. While this signal should be studied, it should be considered with the west site access signal to determine which location would provide the better location for a signal.

With the improvements in place, the transportation network in the area will be adequate to support the development of the proposal.

SHA and DPW&T have offered comments on the proposal. DPW&T comments are summarized below:

1. DPW&T indicates opposition to the location of the west site access to Conway Road due to safety issues in their review of the traffic study. However, the March 3, 2008 referral from the DPW&T Office of Engineering regarding the overall plan for the site indicated no such opposition.
2. DPW&T comments on the trip distribution regarding Old Baltimore Pike. This was addressed in the recommendation.

3. DPW&T comments that the pavement marking exhibit included in the traffic study was not acceptable. DPW&T has not indicated an issue with the recommendations in concept, however. Any improvements recommended by the Planning Board will need to be designed to the satisfaction of the operating agency and eventually permitted, and this issue will need to be addressed as detailed designs are prepared.
4. DPW&T recommends a double left-turn lane along northbound Old Baltimore Pike at Muirkirk Road. However, the computed service levels do not justify this requirement. It is noted that the SHA comments also call attention to this left-turn movement but suggest a longer storage area. This may be more workable and may be able to be addressed when other improvements at this location are designed and permitted. Nonetheless, by the procedures contained in the Planning Board's own Guidelines, the intersection is well within the standards, and the addition of conditions would not be warranted.
5. In their review of the traffic study the DPW&T recommends moving the site access along Cedarhurst Drive directly across from Lockman Lane. Once again, however, the March 3, 2008 referral from the DPW&T Office of Engineering regarding the overall plan for the site indicated no such requirement or concern.
6. DPW&T cites inconsistencies between the recommendations and a figure in the traffic study in their sixth, eighth, and twelfth comments. The staff's recommendation resolves these inconsistencies.
7. DPW&T recommends that Cedarhurst Road be widened to the ultimate collector section along the frontage. However, Preliminary Plan of Subdivision 4-04120, was approved without a continuous public roadway between Muirkirk Road and Contee Road – the function that the collector facility was originally intended to have. The northern section of Brick Yard is being developed under that preliminary plan. Cedarhurst Drive is being improved within a 70-foot right-of-way consistent with plans that have been reviewed by the DPW&T Office of Engineering.
8. DPW&T recommends that the study consider the possibility that the ICC may not be completed by 2012. To the degree possible, the traffic study has utilized traffic assignments that were utilized in the study done for the prior preliminary plan. That plan did not take the ICC into consideration.
9. DPW&T has, in the tenth and thirteenth comments, indicated the need for signal warrant analysis, and the requisite bonding. These items are being incorporated into conditions.
10. DPW&T indicates that internal roadways to the site will not be maintained by the County. This is addressed in the March 3, 2008 referral from the DPW&T Office of Engineering.

SHA largely agreed with the recommendations in the traffic study but offered two additional comments. The first comment was addressed with DPW&T's fourth point above. The second comment was that "M-NCPPC should consider the construction of five-foot sidewalks with ADA ramps along Muirkirk Road and Cedarhurst Drive." The sidewalk recommendation is being addressed by the Trails Planner, and that recommendation is for wider sidewalks; in any regard, DPW&T will determine the width of the sidewalk that is ultimately constructed within the right-of-way.

The proposal includes three lots totaling 4.74 acres, with a portion gaining access via Cedarhurst Drive to the south and a portion gaining access via Mid-Atlantic Boulevard to the north. Based on typical floor-to-area ratios, it is determined that the north portion would contain 39,600 square feet of mixed office/warehouse space, while the south portion would contain 34,500 square feet of office space. These uses would generate 48 AM and 45 PM peak-hour vehicle trips to the north, and 69 AM and 64 PM peak-hour vehicle trips to the south. In consideration of the trip generation of these uses atop the assignment of the residential and commercial components, total traffic is summarized below:

TOTAL TRAFFIC CONDITIONS				
Intersection	Critical Lane Volume (AM & PM)		Level of Service (LOS, AM & PM)	
	US 1 and Muirkirk Meadows Drive	1,449	1,277	D
Muirkirk Road and Virginia Manor Road	1,271	969	C	A
Muirkirk Road and Muirkirk Meadows Drive	+999*	+999*	--	--
Muirkirk Road and Cedarhurst/Old Baltimore Pike	1,268	1,446	C	D
Muirkirk Road and Conway Road/MARC Access	25.9*	88.9*	--	--
Muirkirk Road and site access	877	805	A	A
Cedarhurst Drive and site access	9.5*	8.7*	--	--
*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> , delay exceeding 50.0 seconds indicates inadequate traffic operations. Values shown as "+999" suggest that the parameters are beyond the normal range of the procedure, and should be interpreted as a severe inadequacy.				

Given these analyses, it is determined that the three lots outside of the MARC Planned Community, while contributing traffic throughout the study area, would not result in traffic impacts that would alter the recommendations. However, this additional development should be reflected within the overall trip cap for this subdivision.

Plan Comments

The site is adjacent to Muirkirk Road, which is shown as a master plan collector facility on the Subregion I Master Plan. The plan reflects adequate dedication of 47.5 feet from baseline along the site’s frontage. This dedication is adequate.

The subdivision plan is generally acceptable from the standpoint of access and circulation. Cedarhurst Drive and Mid-Atlantic Boulevard are proposed to be connected by C-108, a master plan collector facility. The applicant discussed the potential connection issue prior to the 2004 subdivision. During these discussions, it was determined that the current configuration of two culs-de-sac would be approved in consideration of the fossil resources that currently exist where the C-108 facility was planned. It was agreed at that time to maintain the right-of-way along Cedarhurst Drive at 70 feet. Since that review, the status of C-108 has not changed, but the update of the Subregion I Master Plan will not reflect this facility.

The master plan for Subregion I includes A-44, a master plan arterial crosses the subject property west to east near its midpoint. It should be noted that the Intercounty Connector (ICC) is funded for construction within the A-44 right-of-way west of US 1. This facility stops at US 1 and has

never considered the subject section of A-44. Verbal responses from DPW&T and SHA received during review of the 2004 preliminary plan indicated general support of the county's right-of-way preservation strategies; however, neither agency identified funding or a timetable for property acquisition, and neither agency has altered their positions since that time. However, A-44 was removed from the *Approved Master Plan for Bowie and Vicinity Sectional Map Amendment of Planning Areas 71A, 71B, 74A, 74B*. It is determined that the requirements of Subtitle 24 for land reservation are not met, and the right-of-way for A-44 will not be preserved across this property.

At the time that the plan was filed, SHA was considering a roadway facility as a part of its US 1/MD 201 Corridor Study that would connect Cedarhurst Drive at Muirkirk Road with the end of the Intercounty Connection at US 1. This proposal could have affected approximately 100 lots plus the multifamily building proposed on Parcel C, and would have affected the street orientation of the entire site. Since the filing of this site, SHA has dropped that alternate from further consideration.

It is noted that, except for Cedarhurst Drive, every internal roadway on this site is proposed to be a private roadway. This is largely acceptable, but two roadways should be reflected as public streets; these would include:

- The east-west street accessing (Parcels G and E) Parcel C and the street-level commercial space within Parcel D.
- The western site access (Parcel F) between Muirkirk Road and the above-mentioned east-west street.

Both of these streets will carry heavy traffic utilizing the multifamily buildings and the commercial space. Both will serve occasional motorists seeking access to the MARC station. The homeowners should not bear the expense of maintaining what would essentially become a commercial roadway. Likewise, the commercial interests should be able to operate using a public rather than a privately-maintained street.

Transportation Staff Conclusions

Based on the preceding findings, the Transportation Planning Section concludes that adequate transportation facilities would exist to serve the proposed subdivision as required under Section 24-124 of the Prince George's County Code if the application is approved with conditions.

7. **Schools**—The Historic Preservation and Public Facilities Planning Section has reviewed this preliminary plan for impact on school facilities in accordance with Section 24-122.02 of the Subdivision Regulations and CB-30-2003 and CR-23-2003 and concluded the following :

Impact on Affected Public School Clusters

Affected School Clusters #	Elementary School Cluster 1	Middle School Cluster 1	High School Cluster 1
Dwelling Units	1265 DU	1265 DU	1265 DU
Pupil Yield Factor	.24	.06	.12
Subdivision Enrollment	303.6	75.9	51.72
Actual Enrollment	5,980	1,557	4,191
Completion Enrollment	214.08	56	112
Cumulative Enrollment	.72	.30	.36
Total Enrollment	6,298.24	1,689.2	4,455.16
State Rated Capacity	5,876	1,759	4,123
Percent Capacity	110.59%	96.03%	108.05%

Source: Prince George's County Planning Department, M-NCPPC, January 2007

County Council bill CB-31-2003 establishes a school facilities surcharge in the amounts of: \$7,000 per dwelling if a building is located between I 495 and the District of Columbia; \$7,000 per dwelling if the building is included within a basic plan or conceptual site plan that abuts an existing or planned mass transit rail station site operated by the WMATA; or \$12,000 per dwelling for all other buildings. Council bill CB-31-2003 allows for these surcharges to be adjusted for inflation and the current amounts are \$7,870 and \$13,493 to be paid at the time of issuance of each building permit. The school surcharge may be used for the construction of additional or expanded school facilities and renovations to existing school buildings or other systemic changes.

The Historic Preservation and Public Facilities Planning Section finds that this project meets the adequate public facilities policies for school facilities contained in Section 24-122.02, CB-30-2003 and CB-31-2003 and CR-23-2003.

8. **Fire and Rescue**— The existing fire engine service at Laurel Fire Station, Company 10 located at 7411 Cherry Lane has a service travel time of 5 minutes, which is beyond the 3.25-minutes travel time guideline.

The existing paramedic service at Laurel Rescue Squad, Company 49 located at 14910 Bowie Road has a service travel time of 5 minutes, which is within the 7.25-minutes travel time guideline.

The existing ladder truck service at Laurel Fire Station Company 10 located at 7411 Cherry Lane has a service travel time of 5 minutes, which is beyond the 4.25-minutes travel time guideline.

In order to alleviate the negative impact on fire and rescue services due to the inadequate service discussed, an automatic fire suppression system shall be provided in all new buildings proposed in this preliminary plan unless the Prince George's County Fire/EMS Department determines that an alternative method of fire suppression is appropriate.

The above findings are in conformance with the adopted and approved public safety master plan 1990 and the “Guidelines for the Analysis of Development Impact on Fire and Rescue Facilities.”

9. **Police Facilities**—The subject property is located in Police District VI. The standard response time is 10 minutes for priority calls and 25 minutes for nonpriority calls. The times are based on a rolling average for the proceeding 12 months. The preliminary plan was accepted for processing by the Planning Department on February 19, 2008.

Reporting Cycle	Previous 12 Month Cycle	Priority Calls	Nonpriority Calls
Acceptance Date February 19, 2008	12/06 - 12/07	10 minutes	15 minutes
Cycle 1			
Cycle 2			
Cycle 3			

The response time standards of 10 minutes for priority calls and 25 minutes for nonpriority calls were met February 27, 2008. The Police Chief has reported that the department has adequate equipment to meet the standards stated in CB-56-2005. Pursuant to CR-69-2006, the Prince George’s County Council and the County Executive suspended the provisions of Section 24-122.01(e)(1)(A, B) regarding sworn police personnel staffing levels.

10. **Health Department**—The Health Department has been working with the applicant concerning an environmental assessment of the property. There have been repeated elevated arsenic levels in the area of the former brick manufacturing facility. This may be indicative of naturally occurring arsenic levels. The historical use of the property in the manufacturing of bricks created a disturbed site. If the site had not been disturbed, the naturally occurring arsenic would have remained bound up in the soil. After reviewing the submitted Environmental Site Assessments (I and II) and subsequent submissions regarding soil sampling at the above referenced property, the following will be required in order to safeguard the health and well-being of the community from potential threats from the elevated arsenic levels.

- 1.a. Continue monitoring for arsenic in the proposed residential and commercial areas of the property. Take samples from the present grade and include subsequent samples as the grade is elevated from three foot depth, to final grade. Submit sample results to the Prince George's County Health Department. Sample results taken from future planned residential areas with unconfined exposure to soil must exhibit arsenic levels at or below Maryland Department of the Environment (MDE) defined Anticipated Typical Concentrations (ATC's).
- 2.b. Submit a detailed site plan indicating proposed residential areas, commercial areas, open areas (parks, playgrounds, green ways), paved areas, and parking lots, and include an overlay of sampling points.
- c. Locate all former USTs and ASTs on the property. Ground water monitoring wells may be required in these areas to monitor for Total Petroleum Hydrocarbons (TPH-DRO). Identify any former septic systems and/or shallow wells, and properly abandon any that are located.

The proposed development of this property appears well suited for a mixed-use development. The proposal includes capping the area of the South Parcel under pavement and under commercial and

residential buildings and topping off/grading with final clean fill to include any green spaces or lawns. This should reduce the potential for contact with soils containing elevated arsenic levels. Also, since the property will be serviced with public water, groundwater will not be used as potable drinking water source. The health department is not recommending any conditions and will work with the applicant through the authority of Subtitle 22. This information was provided for informational purposes.

11. **Stormwater Management**—The Department of Public Works and Transportation (DPW&T) has determined that on-site stormwater management is required. A Stormwater Management Concept Plan, No. 5249-2005-00 has been approved with conditions to ensure that development of this site does not result in on-site or downstream flooding. Development must be in accordance with this approved plan.
12. **Historic**—Phase I archeological survey is not recommended on the property. A search of current and historic photographs, topographic and historic maps, and locations of currently known archeological sites indicates the probability of archeological sites within the subject property is low. The entire area has been graded and any sites that would have been present on the property would have been adversely impacted.

However, Section 106 review may require archeological survey for state or federal agencies. section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties, to include archeological sites. This review is required when state or federal monies, or federal permits are required for a project.

13. **Lot Depth Variation 24-121(a)(4)**—The Brick Yard MARC Planned Community is a proposed mixed use, transit-oriented development planned. The proposed development adjoins the CSX rail line for nearly 3,000 feet along the rail line’s eastern side. The Brick Yard MARC Planned Community is intentionally concentrated to capitalize on the accessibility to mass transit and thereby reduce dependency on the automobile. However, even with this advantage, the applicant has not overlooked the necessity to assure that the noise inherent at this location is not going to adversely impact the quality of life within the community.

Section 24-121(a)(4) of the Subdivision Regulations establishes design guidelines for residential lots adjacent to an existing transit right-of-way shall be platted with a minimum lot depth of 300 feet. Due to the concentration of development recommended by the Metro Planned Community use, the applicant is proposing lots with less than the required 300 feet.

The following lots do not meet the minimum 300-foot lot depth from the CSX railroad right-of-way. These lot numbers may be adjusted in accordance with the DSP but the number of lots impacted should not be increased:

Townhouse lots; 218-245, 302-321, 374-381, 398-405, 419-422 and
Single-family lots; 322-335, 338-341, 423-425.

The total number of lots which do not meet the strict regulation is 89; 68 townhouse lots and 21 single-family lots. This is 21 percent of the total 412 lots proposed in this subdivision. Because of the dense lot configuration already proposed on this site, these lots would most likely have to be deleted and could not be shifted to other parts of the site. A 21 percent reduction in the number of lots within this subdivision could result in an extraordinary hardship on the applicant in their ability to feasibly develop the site. Moreover, the Metro Planned Community use envisions a high density compact development adjacent to the MARC. The 300-foot lot depth requirement is utilized through out the county including in the rural tier and other suburban areas. The

Subdivision Regulations does not distinguish an alternative lot depth requirement based on the location or intent of the development pattern. The ability of the applicant to file a variation to this requirement allows the Planning Board to take into consideration unique land use planning concepts and ensure that a balance between the concept and the strict application of the code is struck.

In this case, staff recommends that the Planning Board grant the variations subject to the approval of the detailed site plan which should ensure that noise and vibration impacts are mitigated, which is generally the underpinning of the requirement for the 300-foot lot depth requirement.

The applicant filed a variation to address Section 24-113 of the Subdivision Regulations which sets forth the required findings for approval of a variation request. Staff supports the variation to allow lot depths of less than 300 feet in this case and makes the following findings (in bold):

Where the Planning Board finds that extraordinary hardship or practical difficulties may result from strict compliance with this Subtitle and/or that the purposes of this Subtitle may be served to a greater extent by an alternative proposal, it may approve variations from these Subdivision Regulations so that substantial justice may be done and the public interest secured, provided that such variation shall not have the effect of nullifying the intent and purpose of this Subtitle; and further provided that the Planning Board shall not approve variations unless it shall make findings based upon evidence presented to it in each specific case that:

The approval of the applicant's request does not have the effect of nullifying the intent and purpose of the Subdivision Regulations. In fact, strict compliance with the requirements of Section 24-121(a)(3) could result in practical difficulties to the applicant that could result in the applicant not being able to develop this property. In accordance with the intent of the MARC Planned Community

Residential lots adjacent to an existing or planned roadway of freeway or higher classification, or an existing or planned transit right-of-way, shall be platted with a depth of three hundred (300) feet. Adequate protection and screening from traffic nuisances shall be provided by earthen berms, plant material, fencing, and/or the establishment of a building restriction line, when appropriate.

The preliminary plan proposes multifamily, townhouses and small lot single-family detached dwellings within 300 feet of the CSX right-of-way, in an area encompassing over 20 acres of the site. With 45 percent of the proposed residentially developed land within this 300 feet, a variation is necessary from Section 24-121(a)(4) for the approval of the Preliminary Plan. Section 24-113 of the Subdivision Regulations sets forth the required findings for approval of variation requests:

- 1. The granting of the variation will not be detrimental to the public safety, health or welfare, or injurious to other property.**
- 2. The conditions on which the variation is based are unique to the property for which the variation is sought and are not applicable generally to other properties.**
- 3. The variation does not constitute a violation of any other applicable law, ordinance, or regulation.**
- 4. Because of the particular physical surroundings, shape or topographical conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations is carried out.**

The proposed redevelopment of this site for a MARC Planned Community was envisioned by the enactment of CB-21-2006. Among the “purposes” of a MARC Planned Community are:

- “(4) To promote the effective and optimum use of transit and other major transportation systems;”
- “(7) To provide the maximum amount of freedom possible in the architectural design of buildings and their groupings and layout within the area classified as a MARC Planned Community ...”
- “(9) To maximize the value of existing or planned public infrastructure.”

A MARC Planned Community is a development having commercial/retail, industrial, office and residential uses in close proximity to a transit rail station. This is the first MARC Planned Community in the County and is therefore unique in its configuration to the surrounding properties. In order to achieve the intensity and mix of uses envisioned, an urban development pattern is necessary, bringing the uses closer together, mostly within walking distance to the station. Further, included among the “Requirements” of a MARC Planned Community, Section 27-475.06.05(b)(1):

- “(A)(i) Pedestrian circulation to the MARC Station from the MARC Planned Community ...”
- “(E) Development within a MARC Planned Community shall be situated so that a minimum of fifty (50) percent of the trip-generating uses shall be located no further than 1,320 feet (¼ mile) from the center of the MARC transit station platform.”

To fulfill this requirement, the proposed MARC Planned Community is indeed transit-oriented, being concentrated around the MARC station which results in lots of less than 300 feet in depth to attain the density desired by CB-21-2006. The density of the residential is greater closest to the MARC station with multifamily and townhouse development, and then becomes less dense, moving away from the station, with larger townhouse and single-family detached development. This orderly integration of the mixed residential uses provides a harmonious transition from the more intense development surrounding the MARC station, to the less intense larger single-family detached lots in the surrounding neighborhoods to the east.

The primary purpose for the lot depth requirement is to address issues with noise and vibration. To address this the applicant submitted a Phase I Traffic and Railway Noise Analysis, prepared by Phoenix Noise and Vibration, which makes recommendations for mitigation measures of berming and barriers in order to meet the county standard for residential noise levels. This analysis focused on three areas for mitigation measures: around the community swimming pool, behind townhouse Lots 224-255 and townhouse Lots 316-335, and behind single-family detached Lots 336-349. An analysis of the specific building materials and possible mitigation measures necessary will be conducted in the Phase II Noise Study and addressed with the detailed site plan and subsequent revisions.

The proposed intensity of development, project wide, is necessary to maintain the MARC Planned Community’s vitality. The 300 foot lot depth regulation was generally envisioned to address a suburban or rural setting, keeping the development away from the transit noise source. The goal of CB-21-2006 is to utilize the MARC transit line as an amenity, promoting a convenient mass transit option for its community’s residences and employees.

The granting of this variation request from Section 24-121(a)(4) for reducing the requirement of residential lot depth to under 300 feet, will also assure that this MARC Planned Community can be realized as envisioned in the Subregion I Preliminary Master Plan (Map 7, page 28), without adversely impacting the quality of the residential development. Staff recommends approval of a

variation to lot depth, subject to review of appropriate noise mitigation measures to be approved with the detailed site plan or its subsequent revisions.

RECOMMENDATION

APPROVAL, subject to the following conditions:

1. Prior to signature approval of the preliminary plan of subdivision, the following technical corrections shall be made:
 - a. Reflect that streets E, F and B are public streets and not private to be owned by the HOA.
 - b. Provide reference to variations to section 24-121, and 24-130.
2. A Type II Tree Conservation Plan shall be approved in conjunction with the detailed site plan.
3. Development of this site shall be in conformance with the Stormwater Management Concept Plan, No.5249-2005-00 and any subsequent revisions.
4. In conformance with the Adopted and Approved Subregion I Master Plan, the applicant, and the applicant's heirs, successors, and/or assignees shall provide:
 - a. The adopted and approved Subregion I master plan recommends that Muirkirk Road be designated as a Class III bikeway with appropriate signage. Because Muirkirk Road is a county right-of-way, the applicant, and the applicant's heirs, successors, and/or assignees shall provide a financial contribution of \$210.00 to the DPW&T for the placement of this signage. A note shall be placed on the final plat for payment to be received prior to the issuance of the first building permit.
 - b. Provide an eight-foot-wide sidewalk along the subject site's entire frontage of Muirkirk Road separated from the curb by a grass landscape strip, unless modified by DPW&T.
 - c. Provide standard sidewalks along both sides of the subject site's portion of Mid-Atlantic Boulevard, unless modified by DPW&T.
 - d. Provide an eight-foot-wide sidewalk along the north side of Cedarhurst Drive separated from the curb by a grass/landscape strip, unless modified by DPW&T.
 - e. Provide minimum six-foot-wide sidewalks along both sides of the roads within Parcel B, Parcel E, and Parcel F, unless modified by DPW&T.
 - f. Provide a public walkway from the subject site to the adjacent MARC property. As this walkway will involve an at-grade crossing of Parcel F (proposed roadway), the need for a raised crosswalk or other pedestrian safety features shall be evaluated.
 - g. Provide standard sidewalks along both sides of all internal roads (excluding alleys) unless modified by DPW&T.
5. A conservation easement shall be described by bearings and distances on the final plat. The conservation easement shall contain the expanded stream buffers, excluding those areas where variation requests have been approved, and be reviewed by the Environmental Planning Section

prior to APPROVAL. The following note shall be placed on the plat:

"Conservation easements described on this plat 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."

6. Prior to the issuance of any permits which impact jurisdictional wetlands, wetland buffers, streams or Waters of the U.S., the applicant shall submit copies of all federal and state wetland permits, evidence that approval conditions have been complied with, and associated mitigation plans.
7. Prior to signature approval of the preliminary plan and prior to submission of the TCPII with the DSP, the off-site reforestation proposed on the off-site pond shall be clarified, such that the proposed woodland conservation treatment is only credited to either the subject site (TCPI/11/05-01) or the Longwood Site (TCPII/002/95).
8. Prior to signature approval of the preliminary plan, written approval shall be obtained from the DPW&T to allow the reforestation in and around the pond shown on Sheet 3 of the TCPI. If permission is not obtained, the reforestation shall be removed and the additional acreage shall be shown as off-site mitigation.
9. Prior to signature approval of the preliminary plan, The TCPI shall be revised as follows:
 - a. Revise the woodland conservation worksheet to eliminate the negative acreage for "woodland saved, not counted."
 - b. Remove the area of reforestation south of proposed Lot 373 that is not within the legal boundaries of the site.
 - c. Eliminate all areas of woodland conservation less than 35-feet wide as being counted toward the woodland conservation requirement. This includes the areas identified within RA-1, RA-7, RA-10, and RA-11.
 - d. Eliminate woodland conservation from all stormwater management easements, including the proposed reforestation within the easements associated with the stormwater management pond on Sheet 3.
 - e. Identify in the legend the symbols located adjacent to CA-20 on Sheet 3 or remove them from the plan.
 - f. Provide a coversheet with an overall view of the site.
 - g. Show a north arrow on each sheet of the plan.
 - h. Clearly show the limit, acreage, and woodland treatment type of each proposed woodland treatment area with a more distinct or readable symbol and label each area.
 - i. Revise the worksheet as necessary.
 - j. Have the plans signed and dated by the qualified professional who prepared the plan.

10. Development of this subdivision shall be in conformance with an approved Type I Tree Conservation Plan (TCPI/011/05-01). The following note shall be placed on the Final Plat of Subdivision:

“This development is subject to restrictions shown on the approved Type I Tree Conservation Plan (TCPI/011/05-01), or as modified by the Type II Tree Conservation Plan, and precludes any disturbance or installation of any structure within specific areas. Failure to comply will mean a violation of an approved Tree Conservation Plan and will make the owner subject to mitigation under the Woodland Conservation and Tree Preservation Ordinance. This property is subject to the notification provisions of CB-60-2005. Copies of all approved Tree Conservation Plans for the subject property are available in the offices of the Maryland-National Capital Park and Planning Commission, Prince Georges County, Planning Department.”
11. Prior to signature approval of the preliminary plan, the Phase I Noise Study dated May 1, 2008, shall be reviewed by staff and comments from staff shall be addressed with regard to showing the locations of the unmitigated noise contours and the use of the proper assumptions for the study. The TCPI and preliminary plan shall then be revised to remove the 65 dBA Leq noise contours and show the 65 dBA Ldn noise contours (unmitigated ground and upper level) based on the results of the calculated Ldn measurements from the staff-reviewed study
12. Prior to the approval of building permits the applicant, and the applicant’s heirs, successors and/or assignees shall demonstrate that a homeowners association has been established and that the common areas have been conveyed to the homeowners association.
13. The applicant and the applicant’s heirs, successors and/or assignees shall submit three (3) original Recreational Facilities Agreements (RFA) to DRD for construction of recreational facilities on homeowners land, for approval prior to the submission of final plats. Upon approval by the DRD, the RFA shall be recorded among the County Land Records.
14. The applicant, and the applicant’s heirs, successors and/or assignees shall submit a performance bond, letter of credit, or other suitable financial guarantee for the construction of recreational facilities on homeowners land, prior to the issuance of building permits.
15. Prior to signature approval of the preliminary plan the applicant shall submit a public utility plan which delineates the location for all of the public utility easements parallel, contiguous and adjacent to all public and private road and alley rights-of-way unless modified by PEPCO and Verizon.
16. Prior to the approval of building permits, the applicant, and the applicant’s heirs, successors and/or assignees shall convey to the homeowners association (HOA) 16.9± acres of open space land (Parcels, C, G, L, N, O, P, Q, R, S, X). Land to be conveyed shall be subject the following:
 - a. Conveyance shall take place prior to the issuance of building permits.
 - b. A copy of unrecorded, special warranty deed for the property to be conveyed shall be submitted to the Subdivision Section of the Development Review Division (DRD), Upper Marlboro, along with the final plat.

- c. All waste matter of any kind shall be removed from the property, prior to conveyance, and all disturbed areas shall have a full stand of grass or other vegetation upon completion of any phase, section or the entire project.
 - d. The conveyed land shall not suffer the disposition of construction materials, soil filling, discarded plant materials, refuse or similar waste matter.
 - e. Any disturbance of land to be conveyed to a homeowners association shall be in accordance with an approved detailed site plan or shall require the written consent of DRD. This shall include, but not be limited to, the location of sediment control measures, tree removal, temporary or permanent stormwater management facilities, utility placement and storm drain outfalls. If such proposals are approved, a written agreement and financial guarantee shall be required to warrant restoration, repair or improvements, required by the approval process.
 - f. Storm drain outfalls shall be designed to avoid adverse impacts on land to be conveyed to a homeowners association. The location and design of drainage outfalls that adversely impact property to be conveyed shall be reviewed and approved by DRD prior to the issuance of grading or building permits.
 - g. Temporary or permanent use of land to be conveyed to a homeowners association for stormwater management shall be approved by DRD.
 - h. The Planning Board or its designee shall be satisfied that there are adequate provisions to assure retention and future maintenance of the property to be conveyed.
17. Total development within the subject property shall be limited to 1,265 residences and 29,800 square feet of commercial/retail/office space, and 74,100 square feet of mixed industrial space or equivalent development which generates no more than 840 AM peak hour and 944 PM peak-hour new vehicle trips, in consideration of the transit model shares identified within the findings. Any development generating a traffic impact greater than that identified herein above shall require a new preliminary plan of subdivision with a new determination of the adequacy of transportation facilities.
18. **Muirkirk Road and Cedarhurst Drive/Old Baltimore Pike:** Prior to the issuance of any building permits within the subject property, the following road improvements shall (a) have full financial assurances through either private money or full funding in the county's capital program, (b) have been permitted for construction through the operating agency's access permit process, and (c) have an agreed-upon timetable for construction with the appropriate operating agency:
- a. On the eastbound Muirkirk Road approach, provide an exclusive left-turn lane, an exclusive through lane, and a shared through/right-turn lane.
19. **Muirkirk Road and west site access:** Prior to the issuance of any building permits within the subject property, the following road improvements shall (a) have full financial assurances through either private money or full funding in the county's capital program, (b) have been permitted for construction through the operating agency's access permit process, and (c) have an agreed-upon timetable for construction with the appropriate operating agency:
- a. Along eastbound Muirkirk Road, provide an exclusive through lane, a shared through/right-turn lane, and an exclusive left-turn lane.

- b. Along westbound Muirkirk Road, provide an exclusive through lane, a shared through/right-turn lane, and an exclusive left-turn lane.
 - c. Along the southbound site access, provide an exclusive right-turn lane and a shared through/left-turn lane.
 - d. Prior to issuance of the initial building permit within the subject property, the applicant shall submit an acceptable traffic signal warrant study to DPW&T for signalization at the intersection of Muirkirk Road and the western site access. The applicant should utilize a new 12-hour count, and should analyze signal warrants under total future traffic as well as existing traffic at the direction of the operating agency, and consider interconnection with the existing Muirkirk Road/Cedarhurst Drive/Old Baltimore Pike signal. If a signal or other traffic control improvements are deemed warranted at that time, the applicant shall bond the signal with the appropriate agency prior to the release of any building permits within the subject property, and install it at a time when directed by that agency.
20. **Muirkirk Road and Muirkirk Meadows Road:** Prior to issuance of the first building permit within the subject property, the applicant shall submit an acceptable traffic signal warrant study to DPW&T for signalization at the intersection of Muirkirk Road and Muirkirk Meadows Road. The applicant should utilize a new 12-hour count, and should analyze signal warrants under total future traffic as well as existing traffic at the direction of the operating agency. If a signal or other traffic control improvements are deemed warranted at that time, the applicant shall bond the signal with the appropriate agency prior to the release of any building permits within the subject property, and install it at a time when directed by that agency.
21. **Muirkirk Road and Conway Road/MARC Access:** Prior to issuance of the first building permit within the subject property, the applicant shall submit an acceptable traffic signal warrant study to DPW&T and SHA for signalization at the intersection of Muirkirk Road and Conway Road/MARC Access. The applicant should utilize a new 12-hour count, and should analyze signal warrants under total future traffic as well as existing traffic at the direction of the operating agency, and consider interconnection with the existing Muirkirk Road/Cedarhurst Drive/Old Baltimore Pike signal. If a signal or other traffic control improvements are deemed warranted at that time, the applicant shall bond the signal with the appropriate agency prior to the release of any building permits within the subject property, and install it at a time when directed by that agency.
22. At the time of final plat approval, the applicant shall dedicate right-of-way along existing Muirkirk Road of 47.5 feet from baseline, as shown on the submitted plan.
23. An automatic fire suppression system shall be provided in all new buildings proposed in this subdivision, unless the Prince George's County Fire/EMS Department determines that an alternative method of fire suppression is appropriate.

STAFF RECOMMENDS APPROVAL OF TYPE I TREE CONSERVATION PLAN TCPI/011/05-01 AND VARIATIONS TO SECTION 24-130 and 24-121(a)(4) OF THE SUBDIVISION REGULATIONS.