

STAFF RECOMMENDATION: Approval with Conditions.

SUMMARY

Stoneyhurst Quarry covers 13.31 acres on the north side of River Road, west of the intersection of River and Seven Locks Roads. The reserves for the quarry are approaching exhaustion, and because of its unique configuration and topography, the site is appropriate for multi-family residential development. Most of the site is excavated to elevations of 150 feet to 175 feet, forming a crater with exposed rock formations. A perimeter zone of approximately 100 feet of forestation remains undisturbed at elevations ranging from 175 feet to 225 feet.

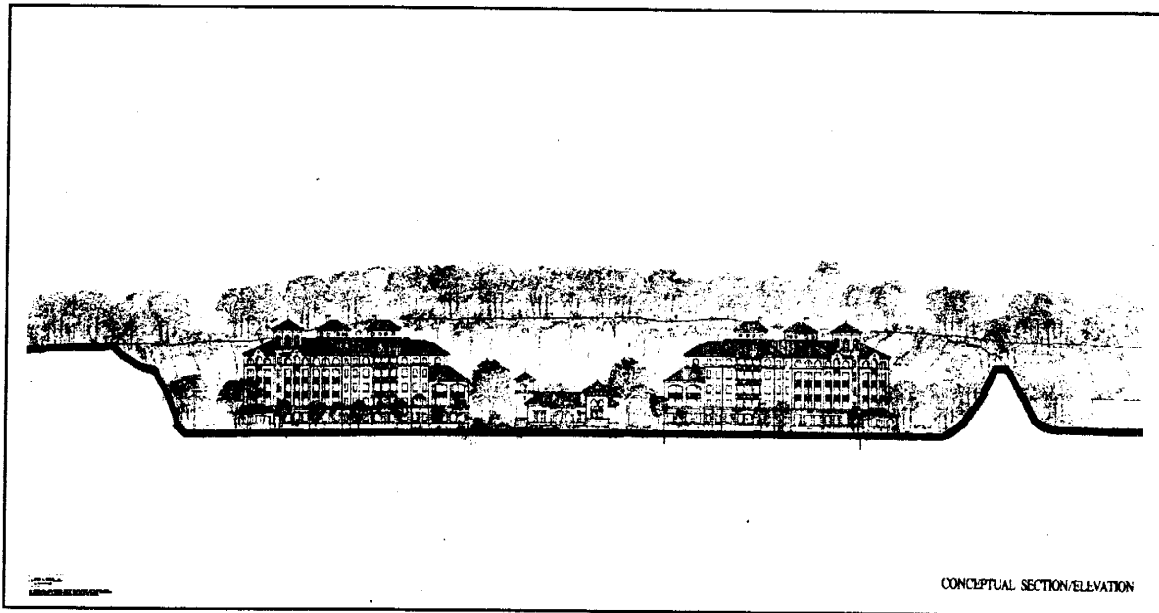
Currently the quarry's working field is bounded by shear rock face walls up to 75 feet in height, presenting significant challenges for development: highly unusual grading and natural materials, difficult structural issues, pedestrian and vehicular circulation, to name a few. Existing site conditions require a high level of coordination between the numerous design specialties involved, specifically structural engineering, storm water management, environmental planning, and traffic engineering to render the site suitable for development, particularly for optional method density.

Surrounding development is primarily housing, with single-family detached housing to the north, townhouses and the Cabin John Park Fire Station 10 to the east, and the Cabin John Stream Valley Park to the south.

Proposal

The project plan proposed features a design for a luxury condominium complex of four residential structures and a recreational clubhouse, with interconnected underground parking, sited within the existing Stoneyhurst Quarry site. The property was one of several rezoned subsequent to the Potomac Subregion Master Plan amendment. The applicant's proposal features vehicular access from River Road, essentially around the perimeter of the existing excavated "bowl," along the face walls of the quarry. The housing complex consists of 4 five-story buildings, constructed in re-inforced concrete, flexible in their form that bends to create a "necklace" facing the internal ring road. The two front buildings form a symmetric massing facing River Road to establish the building line and provide a setting for compatible streetscape.

Structural fill material will be employed to establish the construction grades for the foundation of this complex to be erected in reinforced concrete. The proposed plan provides for the stabilization of the quarry face walls with materials certified by verified engineering specifications. The proposal follows master plan recommendations for housing on the quarry site. The circulation patterns proposed would provide efficient, useful access for vehicles and pedestrians, along with access to the public use space.



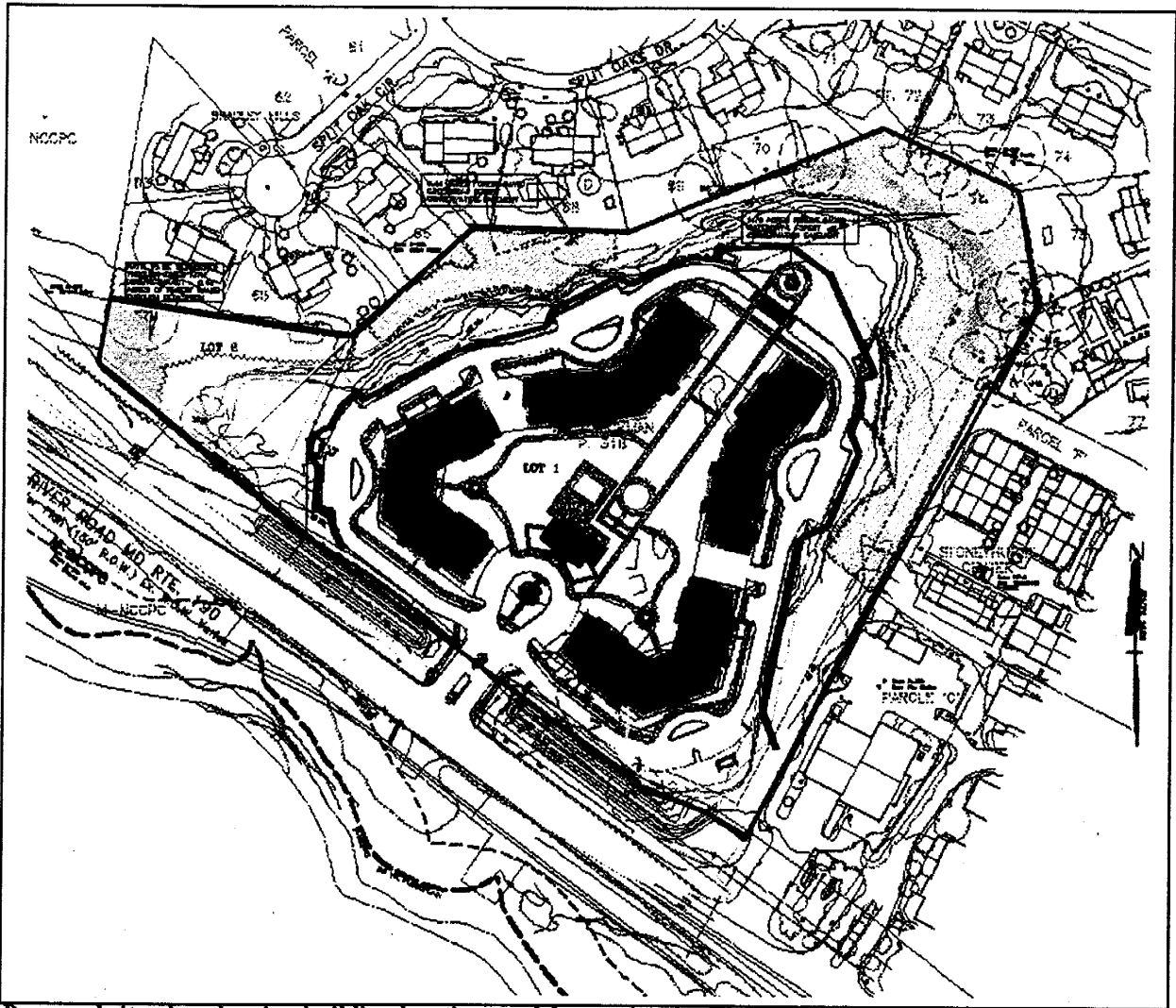
Site section looking northeast, showing placement of buildings in relation to the quarry walls, as viewed from the River Road elevation

Public Benefits

The development will dedicate 0.85 acres of parkland to MNCPPC, as a public amenity associated with the optional method densities. The dedicated parkland, located at the northwest portion of the site, will provide contiguous connection with existing M-NCPPC parkland. Additional amenities include the design and installation of 2,400 feet of bikeway along the River Road frontage.

Findings

Staff finds that the Project Plan, in accordance with the recommended conditions, will be in substantial conformance with the Potomac Subregion Master Plan, the intent of the RMX-1/TDR Zone, and other project plan findings as required by 59-D-4.42 of the Montgomery County Zoning Ordinance. Staff recommends approval of this proposal, as comprised of 100% multi-family housing because it is more desirable for environmental reasons and is more compatible with adjacent development (as noted in the Master Plan), than would be development comprised of 15% one-family homes. Per Section 59-C-1.395, the Planning Board may waive the requirement for 15% one-family homes based on these reasons.



Proposed site plan showing building locations and forestation for The Quarry. The blue line indicates the site boundaries. The red line shows the locations of the existing shear rock face walls, currently in varying states of stability. The hatch pattern indicates areas of forest conservation. The yellow area shows parkland dedication.

STAFF RECOMMENDATION

The staff recommends approval of Project Plan 9-04004 for 97 Residential Units, 28 including Transfer Development Rights, 15 MPDUs (15%) which are provided per the applicant's pending agreement with the Department of Housing and Community Affairs for a payment-in-lieu to the Housing Initiative Fund, Recreational Clubhouse of 50,000 square feet, 289 underground parking spaces and up to 91 surface parking spaces, subject to the following conditions:

PROJECT PLAN CONDITIONS

1. Development Ceiling and Density
The proposed project **density** is limited to 97 residential units, 298 underground parking spaces, and up to 91 surface parking spaces and a clubhouse of 50,000 for recreational use of the residents. This density is based on the gross tract area of 13.31 acres (also net area), and approximately 1,000 feet of road frontage along River Road.
2. Building Height and Mass
The **height** of the proposed building must not exceed +225 feet per the definition of building height as described in the zoning ordinance. Building mass articulation and setbacks shall be incorporated into the overall design scheme to provide visual interest at street level and to reduce the appearance of monolithic massing.
3. On-Site Common Space
The proposed **common spaces** are to be easily accessible and readily used for the resident's enjoyment. These spaces must foster the creation of a discrete character within a unifying theme. The design must create an inviting environment that will promote day and evening activities. The Common Space shall be reviewed in detail at the time of Site Plan, and shall address the following features:
 - a. Design Elements
The building **facades** that form project's public front must be designed to achieve a unified design. The **design** of the gatehouse, lead walks, and entry court must incorporate attractive pedestrian amenities. The residential common spaces must provide recreational amenities successfully integrating the amenities with high quality materials and landscaping. Particular attention must be given to the design of the building fronts facing River Road as well as the entry features and courtyard.

The **design elements** to be addressed at Site Plan Review include the following:
 - Benches of special materials, such as stone or mixed metals
 - Street Lights
 - Street Trees on internal roads and driveways
 - Special Paving for Pedestrian Spaces and Mixed-Use Spaces
 - Site Furnishings and Fixtures
 - Bicycle Racks
 - Site Lighting design, including Photometric Study and Night Lighting
 - Stone Retaining Walls, Seat Walls, and Terraces
 - Railings and Decorative Elements
 - Recreational Elements
 - Surface Parking
 - Extensive Planted Areas, including Terraces and Slopes
 - Seasonal Landscaping as referenced in the Master Plan
 - b. Structural and Functional Elements
The **structural and functional elements** to be addressed at Site Plan Review include the following:
 - Exact design dimensions and grading of the ring road
 - Exact locations of the stabilized quarry walls
 - Materials, finishes, details for the finished walls, including elevation points
 - Projected grading after removal of existing fill
 - Projected grading after structural fill placement, i.e., finished grades
 - Green Roof suitable for Stormwater Management, or other efficient roof SWM systems

- Roof and Terrace Landscaping
- Screening for Penthouses and Rooftop Equipment (Satellite Dishes)
- Building materials and finishes for the Quarry Walls
- Noise mitigation walls and interior/exterior noise level evaluation
- Safety Railings and Fences

These features shall be used to enhance the quality of the common space, establish its identity, promote public residential use, complement residential use, and facilitate pedestrian activity. The features shall be used to enhance the views from River Road.

4. Off-Site Public Amenities and Streetscape.

Off-site improvements including the shared-use bikeway and River Road streetscape shall be defined in detail at Site Plan review to successfully integrate the amenities to encourage public use.

The **design elements** to be addressed at Site Plan Review include the following:

- Streetscape standards for River Road, including street trees and lighting
- Berm design, dimensions, and plantings
- Bus shelter(s)
- Landscape materials specific to the Master Plan

5. Parkland Dedication

At or prior to recording of plats, the applicant shall convey, subject to Parks staff acceptance, approximately 0.85 acres of the property, as shown on the project and preliminary plan drawings, to Maryland-National Capital Park and Planning Commission (M-NCPPC), as part of portion of the Cabin John Stream Valley Park northeast of River Road;

- a. Prior to conveyance of the 0.85-acre parkland, the applicant shall:
 - i. Install permanent property markers along the common property line between the proposed subdivision and the park; the location and detail of the markers shall be determined at Site Plan review;
 - ii. Remove all debris and trash, if any, from the area to be dedicated.
- b. **Off-site amenities** associated with the dedication of 0.85 acres parkland and parking shall be defined in detail at Site Plan review to successfully integrate the amenities and encourage public use.

The **design elements** to be addressed at Site Plan Review include the following:

- Construction of surface parking area improvements for the adjacent Cabin John Valley Stream Park north of River Road
- Trail Connection to the Park acreage from the proposed development and the existing neighborhood(s)
- Trail signage and other signage
- Review of M-NCPPC Parks design and construction standards as applicable to improvements

6. Environmental Planning

- a. Comply with the conditions of approval for the preliminary **forest conservation plan**; satisfy all conditions prior to recording of plat(s) or MCDPS issuance of sediment and erosion control permits;
- b. Submit a **noise analysis** to determine the noise impact level of traffic on River Road on the proposed development as part of the site plan submission; include as part of the study baseline noise conditions, 20-year projected noise levels, and appropriate noise mitigation if determined necessary from the noise analysis.
- c. Provide an **arborist's report** for existing significant trees; appropriate tree protection will be addressed at Site Plan Review;
- d. Construct **fill placement** and **quarry wall securing systems** under the supervision of a DPS-approved technical engineer licensed in the State of Maryland. Fill placement and quarry wall systems must comply with all DPS requirements; the engineer must certify and submit reports on the compaction and soil bearing capacity of the fills and the quarry wall securing system must meet all DPS

requirements for these systems.

- e. Comply with conditions of approval as delineated by the *Montgomery County Department of Permitting Services letter, dated April 12, 2004*, concerning **Special Inspections/Complex Structures**, including:

- i. Applicant must obtain building permit for excavation and fill placement for any building pad site;
- ii. Construction, excavation and fill placement activity are subject to special inspection /complex structures provisions of the building code;
- iii. Earth retention systems are subject to building permit and special inspection;
- iv. Applicant must ensure that the adjoining properties are protected from damage in accordance with the provision of the Montgomery County Building Code;
- v. Appropriate notice must be given to adjoining property owners in accordance with the Montgomery County Building Code.

7. Staging of the Public Amenities and Project Phasing

- a. The construction or installation of **all public amenities**, as delineated above in Items #3, #4, and #5 for on-site and off-site features, must be complete prior to the issuance of any occupancy permits.
- b. A detailed (revised) project **phasing plan** shall be submitted as part of Site Plan Review application; the phasing must address the completion of all amenities, and the sequence for streetscaping and landscaping installation, as well as site preparation, grading, pedestrian and vehicular access; the phasing plan shall address building massing and façade presentation as viewed from River Road through all phases of development; the phasing plan shall provide alternatives for landscape and façade treatment contingencies.

8. Moderately Priced Dwelling Units

Moderately Priced Dwelling Units (**MPDUs**), shall be provided in accordance with Chapter 25A of the Montgomery County Code. The maximum bonus density proposed for the subject development requires 15% MPDUs, or 15 MPDUs; the applicant must fulfill the requirements for off-site provision of MPDUs by providing an additional payment-in-lieu equal to two additional units. [See *letter from Elizabeth Davison, Department of Housing and Community Affairs, dated April 6, 2004*, attached.]

9. Transportation Planning

The applicant must fulfill these conditions as part of the APF test related to approval of the subject project plan:

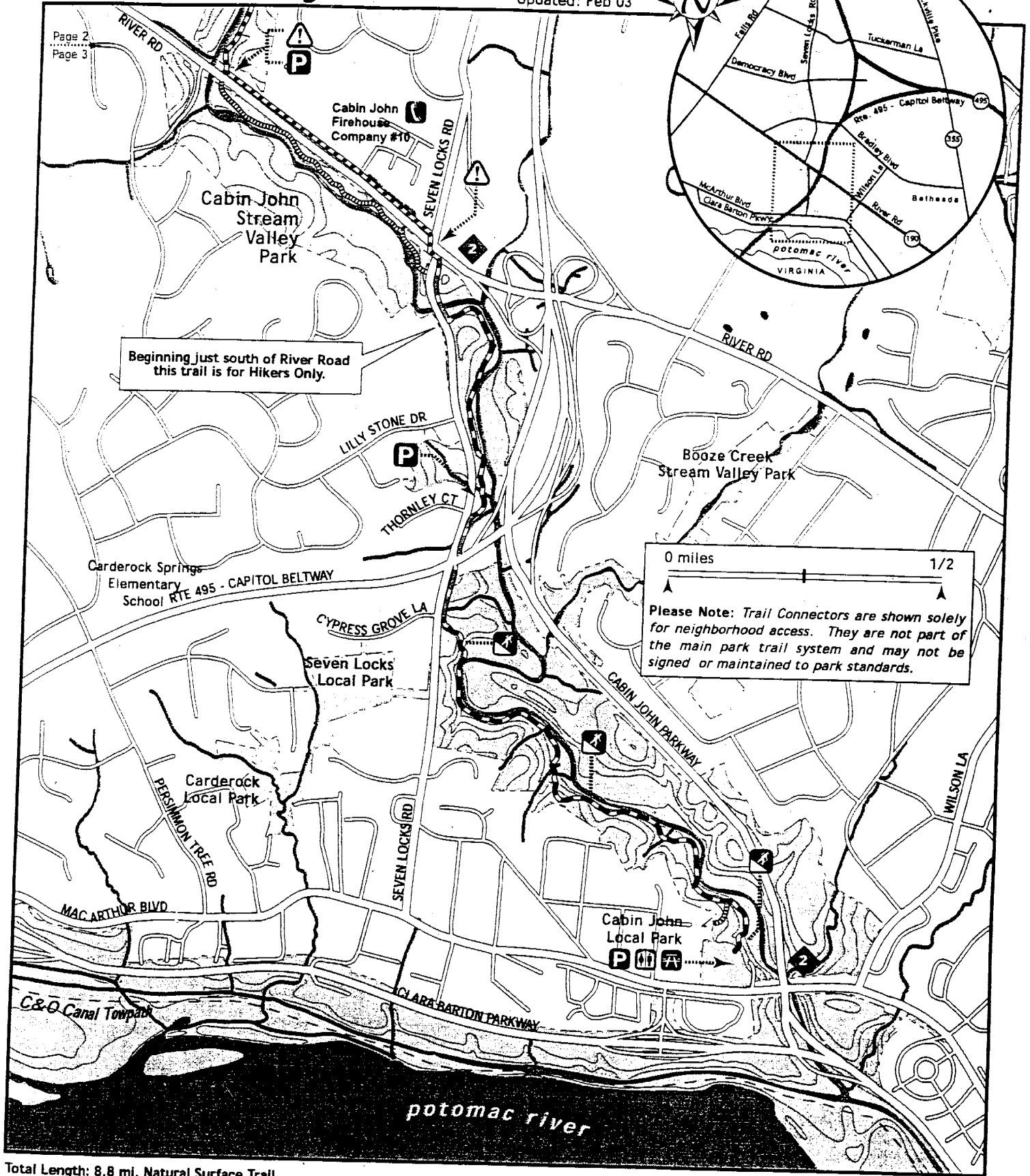
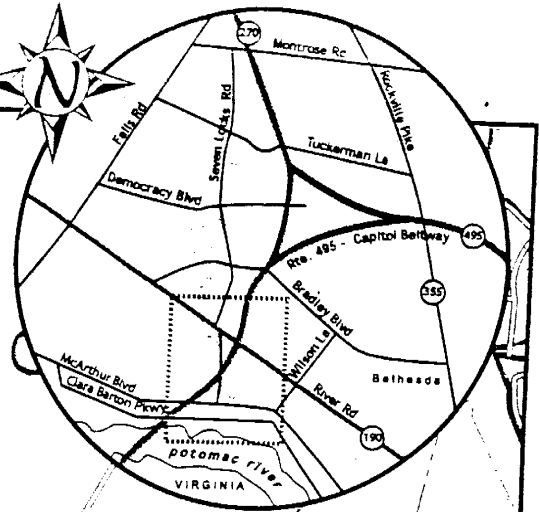
- a. Limit **total development** under project plan (and preliminary plan) approvals to 97 condominium residential units and a community clubhouse;
- b. Build the following **ten-foot shared use paths** (Class I Bikeways), consistent with both the Potomac Subregion and Countywide Bikeways Master Plans along the north side of River road (MD190): 1. A path along the site's frontage on the north side of River Road (MD 190), a distance of approximately 1,000 feet; 2. A path extending a distance of approximately 1,200 additional feet to the east up to the Seven Locks Road intersection; 3. A path extending approximately 300 feet to the west up to the Maryland-National Capital Park and Planning Commission's (M-NCPPC) parking lot to the west.
- c. The applicant, at their expense, shall design and install a **traffic signal** at the entrance on River Road (MD 190) if the traffic signal is warranted and approved by the Maryland State Highway Administration.

Cabin John Stream Valley Trail

Updated: Feb 03



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Page 3



Beginning just south of River Road this trail is for Hikers Only.

0 miles 1/2
Please Note: Trail Connectors are shown solely for neighborhood access. They are not part of the main park trail system and may not be signed or maintained to park standards.

Total Length: 8.8 mi. Natural Surface Trail
River Rd to McArthur Blvd (hiker only section) = 2.6 miles

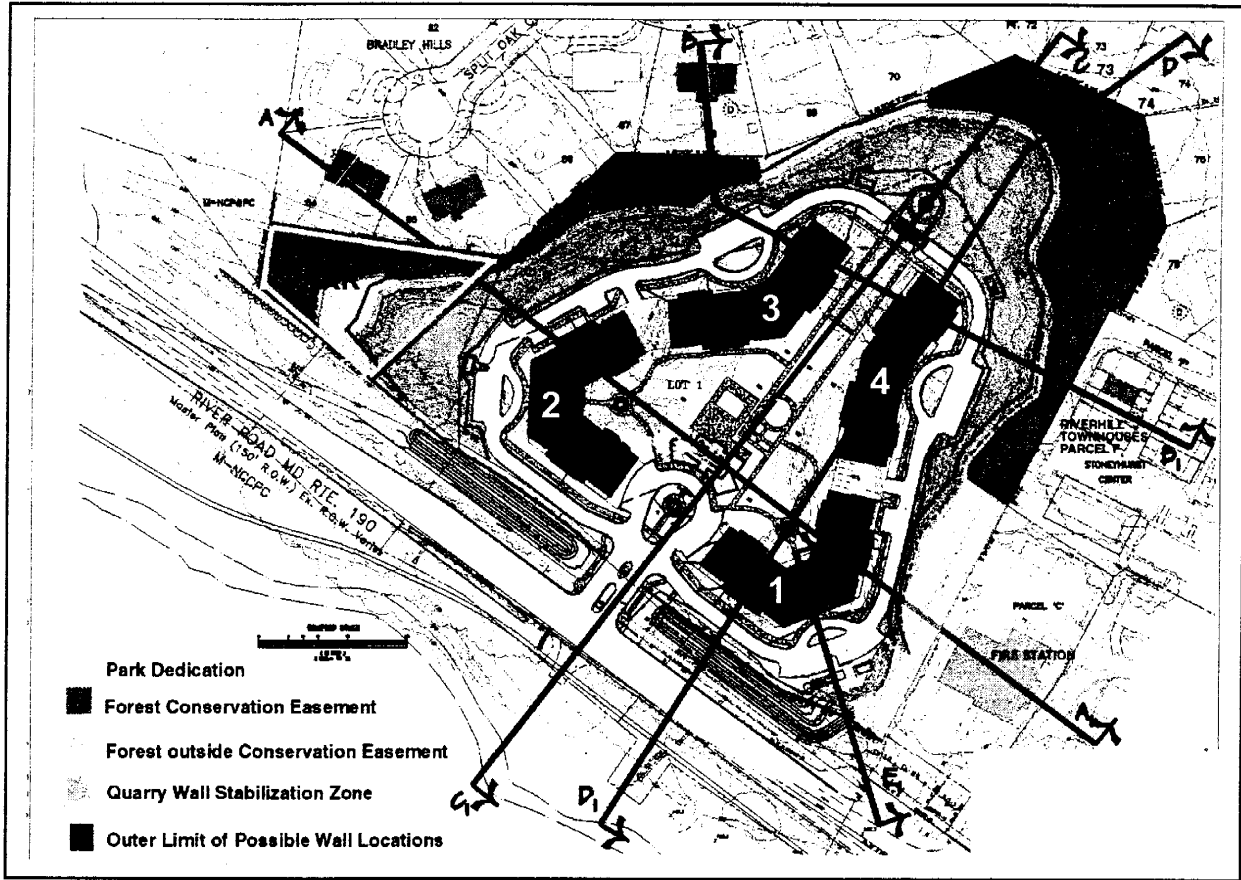
- Historic Mill House
- Historic Aqueduct Bridge - built in 1861 with a 220' span



Park Police: 307.949.3010
(Emergency Only)
Park Manager: 301.299.0024

ISSUES OF PROJECT PLAN REVIEW

In the course of project plan review, staff and applicant reviewed typical issues such as the location of the buildings, on-site and off-site public amenities, the general massing and scale of the structures, and landscaping concepts. However, the predominant issue of review addressed significant unique issues pertaining to the structural stabilization of the quarry floor and walls. The Planning Board granted an extension for the review period to accommodate satisfactory resolution of multiple preliminary reviews required by the Montgomery County Department of Permitting Services.



Site Plan drawing showing Conservation Easement (dark green), MNCPPC Park Dedication (yellow), Natural Open Space (light green), Wall Stabilization Zone (grey), and the farthest location of the Quarry walls or LOD (red). The cross-section lines are referenced below to show the wall stabilization zones, widths of the wooded buffers, and distances between selected buildings.

Structural Fill Placement and Wall Stabilization

This unique site, currently an operating quarry bounded by shear rock face walls up to 75 feet in height, presents significant challenges for development: highly unusual grading and natural materials, difficult structural issues, pedestrian and vehicular circulation, to name a few. Existing site conditions require a high level of coordination between the numerous design specialties involved, specifically structural engineering, storm water management, environmental planning, and traffic engineering to render the site suitable for development, particularly for optional method density.

Proposed design for the Quarry Walls

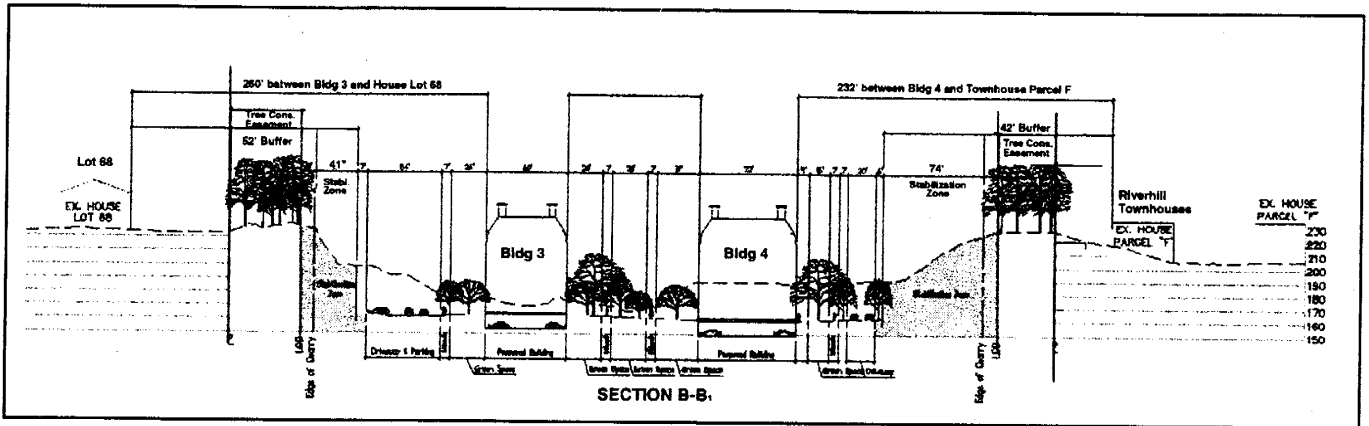
The applicant’s proposal features vehicular access from River Road, essentially around the perimeter of the existing excavated “bowl,” along the face walls of the quarry. Structural fill material will be employed to establish the construction grades for the foundation of this complex to be erected in reinforced concrete. (It should be noted that all of the proposed structures will be constructed in reinforced concrete.) The proposed plan also provides for the stabilization

of the quarry face walls using up to three available technologies as best suited to the each area's soil composition, and strength, ductility, and durability of natural base material as subject to construction conditions. The quarry walls will be finished using techniques and materials certified by verified engineering specifications.

Impact of the Quarry Wall Locations on the Development

The issue of wall stabilization impacts fundamental elements of the development process as applied to this site, such as road location, forestation, and compatibility with adjacent development. Essentially, the ultimate locations of the finished, stabilized walls will dictate the size and dimensions of the developed interior of the “quarry bowl,” hence, prescribing the following: 1. The exact placement and dimensions of the ring road, its associated sidewalks and pedestrian paths; 2. The size and shape of the forested area at the quarry “top;” and; 3. The width of the forested buffer atop the quarry between the development and the adjoining neighboring houses.

Section B-B₁



Site section showing the quarry wall stabilization zone (grey hatch), farthest limit of disturbance (red), the property line (blue), minimum wooded buffers, and the firehouse to the south of the development. The sections below are similarly

Stabilization Process

Final engineering design specifications for stabilization, incorporating techniques to be approved by DPS, requires extensive field test because the varied composition and quality of the existing quarry wall material throughout the site envelope—ranging from sedimentary rock, to shale, to eroding slopes consisting of indigenous soils and debris. The existing wall faces must be stabilized uniformly throughout the site, requiring removal of some portions of the wall surfaces and soil material, prior to shoring or pinning these surfaces as preparation for the finished walls. Portions of the quarry walls will be retained as natural rock formations for aesthetic affect, with intermittent terraces as part of the landscape design concept. Final engineering assessments will: determine the exact amount of wall material removal, define the areas of natural rock preservation, and identify the location, facing depth, and specifications of the finished veneers to be applied where necessary.

Challenge for Project Plan Review

The challenge at this stage of the development review is to achieve an appropriate engineering assessment based on adequate, reliable field data for evaluating the estimable quarry wall locations. Preliminary review of the site conditions and proposed engineering for the wall stabilization has satisfied the county permitting agency (DPS) information requirements, and allowed the applicant, in coordination with staff and county engineers, to establish a locational envelope within which the final wall placement will be determined—essentially defining the farthest determinate boundary for siting of the quarry walls.

Community Comment

Some adjoining property owners have inquired about the impact of the development. The questions have primarily addressed compatible building height. However, some closely adjacent neighbors have expressed concern with the preservation of the wooded buffer. To address these concerns, staff requested the applicant to perform site section

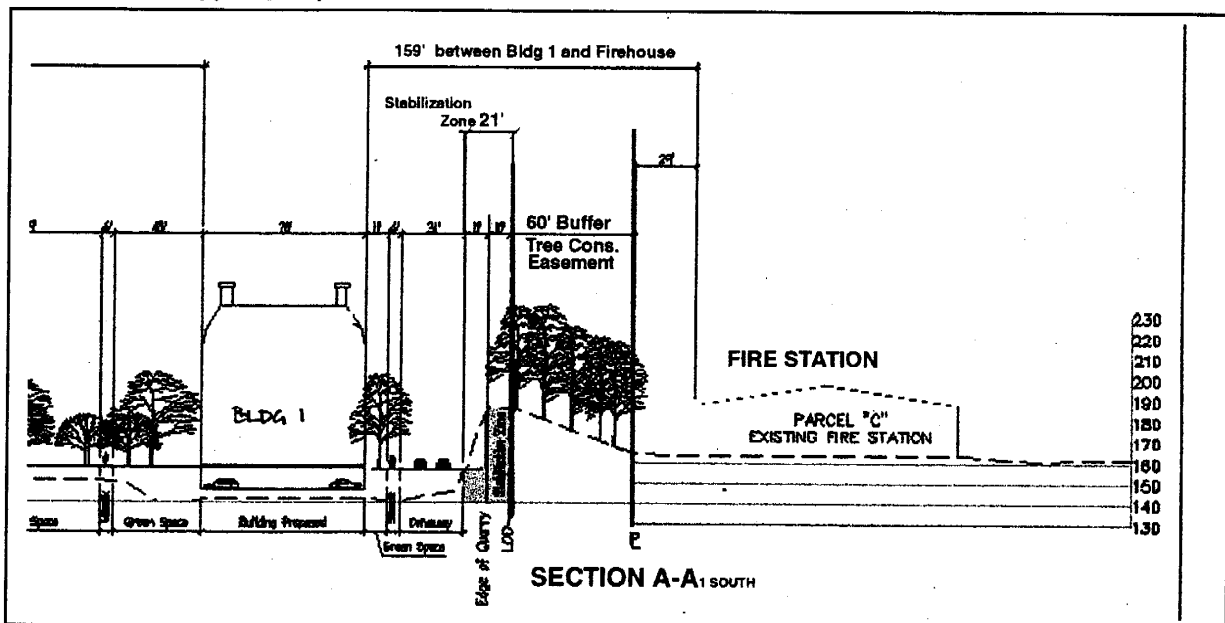
studies showing the minimal buffer conditions at four specific locations. [See chart showing study results and annotated site sections, below.]

Impact on Existing Adjacent Structures			
Building	Direction from Site	Minimum Width of Wooded Buffer	Distance to new Buildings
Fire Station	South at River Road	60 feet	159 feet from Bldg 1
Riverhill Townhouse	South at Stoneyhurst Center	42 feet	232 feet from Bldg 4
House, Lot 73	East	93 feet	460 feet from Bldg 4
House, Lot 74	East	105 feet	440 feet from Bldg 4
House, Lot 68	North at Split Oak Court	52 feet	260 feet from Bldg 3
House, Lot 65	North at Split Oak Court	76 feet	229 feet from Bldg 2
House, Lot 64	North at Split Oak Court	76 feet	330 feet from Bldg 2

Staff Recommendation

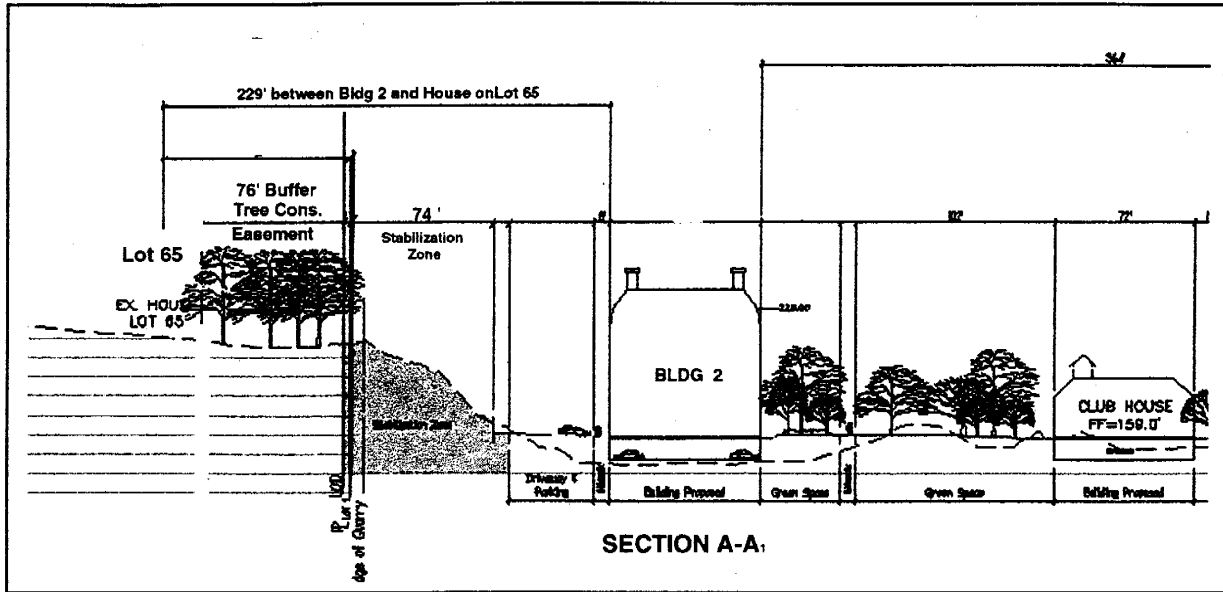
The applicant has provided preliminary professional geotechnical and structural engineering assessments satisfy staff's concerns with the placement of the quarry walls, and the attendant development issues. Staff recommends approval of this project plan, subject to DPS and Environmental Planning Conditions of Approval, and the establishment of the final wall locations at Site Plan Review. Staff finds that the estimated location of the vehicular and pedestrian systems, within the envelope as shown are adequate, safe, and efficient. Likewise, the forestation preserved, with the quarry walls sited within the projected bounds, meets the requirements for on-site forest conservation. Finally, the above-mentioned forestation boundaries showing the *minimum* buffer, delineate an adequate wooded buffer between the proposed development and the adjoining neighborhoods. The building height, as shown in the site sections follows the Master Plan recommendation, fitting compatibly with the adjoining neighborhood structures and topography. [See below: *site plan showing minimum dimensions of forestation and wooded buffer at key site section lines.*]

Section A-A₁ (SOUTH)



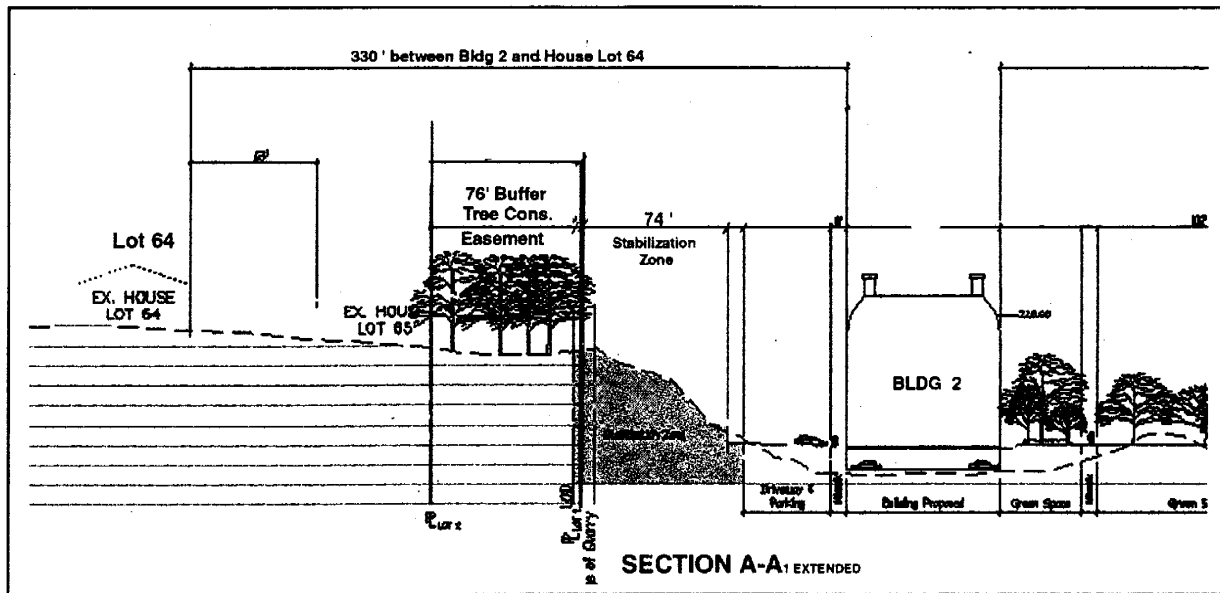
Section view of the southern portion of the site, looking East. The Fire Station is on the right. There is a minimum 60 foot wooded buffer. The Stabilization Zone is 21 feet.

Section A-A₁ (NORTH)



Section view showing the northern portion of the site, looking east. Lot 65 is at the far left. The 76-foot wooded buffer includes a portion of the parkland to be dedicated to M-NCPPC.

Section A-A₁ (SOUTH-extended)



Section view, as above, extended to include Lot 64.

MPDUs

Agreement for Fee-in-Lieu Payment to the Housing Initiative Fund

The Department of Housing and Community Affairs has approved the applicant's request for an Agreement to provide a Fee-in-Lieu payment to the Housing Initiative Fund in place of providing the 15 required MPDUs on site. The reasoning behind this approval, as issued by the director, Elizabeth Davison, relates to the excessive condominium fees on prospective residents of this development. According to the analysis, the per unit fee is projected to reach \$1,428.35 per month, or \$17,140.21 annually. The fees applicable to MPDU certificate holders is projected to total \$667.30 per month, with a sales price of \$110,000.00, and a monthly mortgage of \$1,540.00 per month. This housing expenditure would exceed the income eligibility guidelines for the county program. If no buyer within the MPDU program could be found, the unit would be sold at the control price to a higher income household; this arrangement would not serve the intended population. The DHCA reviewed "unbundling of fees" as a separate alternative, without successful resolution.

Payment Amounts

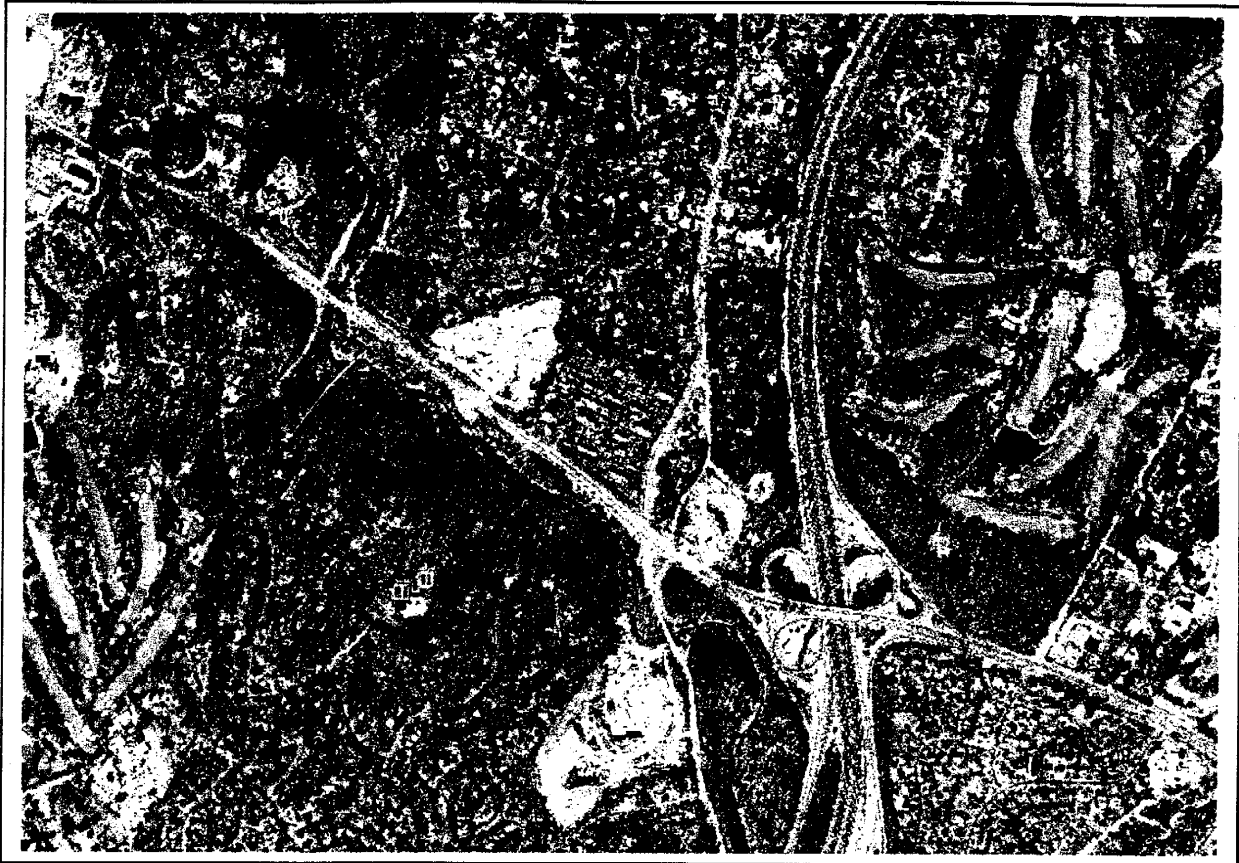
The applicant, therefore, has reached an agreement with DHCA to provide a payment to the Housing Initiative Fund for equal to 10% of the average sales price of all the market rate units for each MPDU required. The fee is expected to approach \$100,000 per MPDU. In addition, the applicant will provide a supplementary payment equal to two MPDUs to fulfill the requirement to provide *significantly more* MPDUs within the same or adjoining planning area.

Staff Recommendation

It is understood that the purview of this issue rests with the Department of Housing and Community Affairs, and that very high condominium fees are a significant impediment to providing the MPDUs on site. However, staff encourages the applicant to consider providing even a handful of MPDUs on site. The Master Plan specifically links the maximum density for this site to the provision of MPDUs,

"The maximum density on the site must not exceed 80 single family units (including MPDUs) under the standard method. A waiver of the requirement for 15% detached dwellings is recommended. Under the optional method, up to 97 multi-family units, including MPDUs, are permitted."

PROJECT DESCRIPTION: Surrounding Vicinity

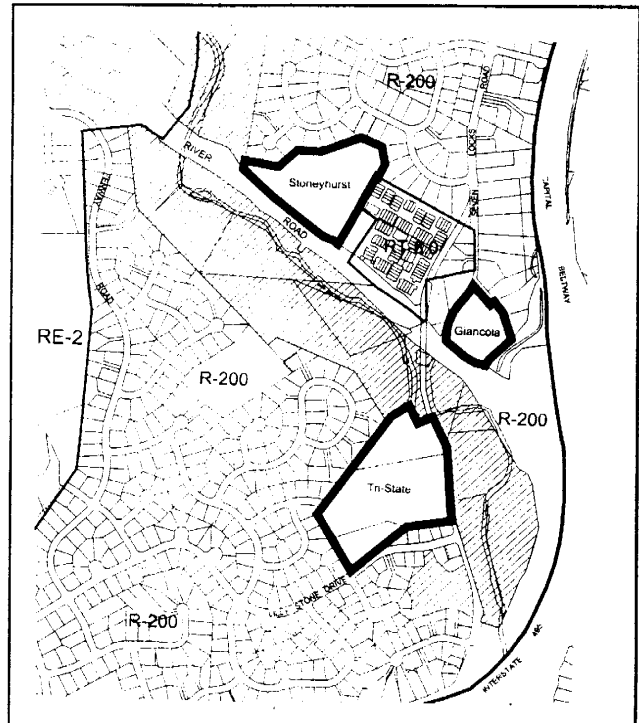


Aerial view of the vicinity. The three quarries are clearly visible by color and topography. The Stoneyhurst Quarry, the subject of this review (9-04004) , is located at the top, on the north side of River Road. The Tri-State Quarry is shown at the bottom, south of River Road, along the frontage of Seven Locks Road. The Giancola Quarry, currently under Site Plan Review (8-04026) is shown as the middle of the three quarries, located east of Stoneyhurst, along River Road.

The quarry site comprises 13.3 acres of land located approximately 2,000 feet west of Seven Locks Road, with 1,000 feet of frontage on River Road.

The property is zoned RMX-1/TDR 6 per the adoption of the Potomac Sectional Map Amendment G-800 adopted October 15, 2002.

The one-family homes to the north and the fire station to the east are zoned R-200. The townhouse and condominium community to the east is zoned RT-8. The Cabin John Stream Valley Park, which straddles River Road, to the south and west, is zoned R-200.



SITE DESCRIPTION:



Planimetric GIS map showing the site and its frontage on River Road; single family housing lies to the north and west; the Riverhill townhouses to the south and east. The Fire Station may be seen directly adjoining the site on the south-east. The solid green area indicates the Cabin John Stream Valley Park north of Seven Locks Road; the yellow area show the 0.85 acres to be dedicated to MNCPPC Parks Department as part of the Optional Method public amenities. The light green area shows the extension of the Cabin John Park south of River Road.

The subject property is more particularly known as Parcel 318, or Residences on Donald's Park. The property is bounded by River Road on the south, Cabin John Stream Valley Park to the south and west, and Cabin John No. 10 Fire Department and the community of River Hills to the east, and the community of Bradley Hills to the north. The site lies about 3,000 feet west of the Washington Beltway-River Road (I-495-MD190) interchange.

The site is currently an operating quarry that is improved with a few trailer and sheds and temporary structures. The site is defined by a U-shaped "crater", formed by shear rock face walls on the north, east and west sides of the site. The face ranges in height, with a maximum elevation of 75 feet. The south side is open to the street frontage on River Road. The excavated bowl is essentially on grade with River Road and comprises approximately 10 acres. The remainder of the site, 3.3 acres) maintains its natural grade elevation (above the excavated bowl), as a "upper shelf," whose forestation buffers the proposed development from the existing neighboring residential communities.