



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

July 3, 2008

Elizabeth D. Baker
Walsh, Colucci, Lubeley, Emrich & Walsh
2200 Clarendon Boulevard, 13th Floor
Arlington, Virginia 22201

RE: Rezoning Application RZ 2007-MA-017
(Concurrent with Special Exception Application SE 2007-MA-032)

Dear Ms. Baker:

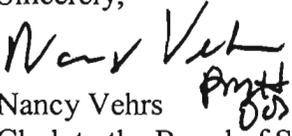
Enclosed you will find a copy of an Ordinance adopted by the Board of Supervisors at a regular meeting held on June 2, 2008, granting Rezoning Application RZ 2007-MA-017 in the name of Amerikor Properties, LLC. The Board's action rezones certain property in the Mason District from the C-6, CRD, HC, and SC Districts to the PDC, CRD, HC, and SC Districts and permits mixed use development with an overall Floor Area Ratio (FAR) of 2.04 including bonus density for the provision of work force dwelling units and approval of the conceptual and final development plans. The subject property is located on the east side of Markham Street and north of Little River Turnpike on approximately 3.44 acres of land [Tax Map 71-1 ((20)) 2], and is subject to the proffers dated May 29, 2008.

At its public hearing on May 28, 2008, the Planning Commission previously approved Final Development Plan Application FDP 2007-MA-017, subject to development conditions dated May 15, 2008, and the Board of Supervisors approval of RZ 2007-MA-017.

The Board also:

- Modified the peripheral parking lot landscaping, in favor of that shown on the CDP/FDP/SE Plat.
- Modified the PFM Standard 12-0702.1B2 to permit reduction of the minimum planting width requirement, in favor of that shown on the CDP/FDP/SE Plat and as proffered.

Sincerely,


Nancy Vehrs
Clerk to the Board of Supervisors
NV/dms
Enclosure

Office of the Clerk to the Board of Supervisors
12000 Government Center Parkway, Suite 533
Fairfax, Virginia 22035

Phone: 703-324-3151 ♦ Fax: 703-324-3926 ♦ TTY: 703-324-3903
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<http://www.fairfaxcounty.gov/bosclerk>



At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Government Center at Fairfax, Virginia, on the 2nd day of June, 2008, the following ordinance was adopted:

**AN ORDINANCE AMENDING THE ZONING ORDINANCE
PROPOSAL NUMBER RZ 2007-MA-017
(CONCURRENT WITH SE 2007-MA-032)**

WHEREAS, Amerikor Properties, LLC, filed in the proper form an application requesting the zoning of a certain parcel of land herein after described, from the C-6, CRD, HC, and SC Districts to the PDC, CRD, HC, and SC Districts, and

WHEREAS, at a duly called public hearing the Planning Commission considered the application and the propriety of amending the Zoning Ordinance in accordance therewith, and thereafter did submit to this Board its recommendation, and

WHEREAS, this Board has today held a duly called public hearing and after due consideration of the reports, recommendation, testimony and facts pertinent to the proposed amendment, the Board is of the opinion that the Ordinance should be amended,

NOW, THEREFORE, BE IT ORDAINED, that that certain parcel of land situated in the Mason District, and more particularly described as follows (see attached legal description):

Be, and hereby is, zoned to the PDC, CRD, HC, and SC Districts, and said property is subject to the use regulations of said PDC, CRD, HC, SC Districts, and further restricted by the conditions proffered and accepted pursuant to Va. Code Ann., 15.2-2303(a), which conditions are in addition to the Zoning Ordinance regulations applicable to said parcel, and

BE IT FURTHER ENACTED, that the boundaries of the Zoning Map heretofore adopted as a part of the Zoning Ordinance be, and they hereby are, amended in accordance with this enactment, and that said zoning map shall annotate and incorporate by reference the additional conditions governing said parcel.

GIVEN under my hand this 2nd day of June, 2008.



Nancy Véhrs
Clerk to the Board of Supervisors

RECEIVED
Department of Planning & Zoning

JUL 30 2008

Zoning Evaluation Division

PROFFERS

RZ 2007-MA-017

May 29, 2008

Pursuant to Section 15.2-2303(A) of the Code of Virginia (1950, as amended) and Section 18-204 of the Zoning Ordinance of Fairfax County (1978, as amended), the property owner and applicant, for themselves and their successors and/or assigns (hereinafter collectively referred to as the "Applicant"), hereby proffer that the development of the parcel under consideration and shown on the Fairfax County tax maps as Tax Map 71-1 ((20)) 2 (the "Property") shall be in accordance with the following conditions if, and only if, Rezoning application 2007-MA-017 is granted. In the event RZ 2007-MA-017 is approved, then any previous proffers for the Property are hereby deemed null and void and hereafter shall have no effect on the Property.

1. Conceptual/Final Development Plan/Special Exception Plat. The Property shall be developed in substantial conformance with the Markham Plaza Conceptual Development Plan ("CDP"), Final Development Plan ("FDP"), and Special Exception Plat ("SE Plat") dated October 31, 2007 and revised through May 12, 2008, prepared by Walter L. Phillips Incorporated. ("CDP/FDP/SE Plat"), consisting of fifteen (15) sheets.
2. Elements of CDP. Notwithstanding the fact that the CDP and FDP are presented on the same plan, the elements that are components of the CDP are limited to the perimeter points of access, the general location of the buildings, uses, building heights, and setbacks from the peripheral lot lines and only a future amendment to such elements shall require a subsequent Conceptual Development Plan Amendment ("CDPA") or Proffered Condition Amendment.
3. Minor Modifications. Minor modifications to the CDP/FDP/SE Plat may be permitted when necessitated by sound engineering or that may become necessary as part of final site design, final engineering design, or final architectural design pursuant to Section 16-403(4) of the Zoning Ordinance. Building footprints may be altered and the number of residential units and square footage of Principal and Secondary Uses (as defined herein) (and corresponding adjustments in required parking and Workforce Dwelling Units (as defined herein) may be adjusted, so long as (a) the minimum open space is not reduced; (b) the building height is not increased; (c) the peripheral setbacks are not reduced; and (d) the development otherwise is in substantial conformance with these Proffers and the CDP/FDP/SE Plat.
4. Alterations. The Applicant reserves the right to alter the layout shown for the parking garage, as well as loading areas, and trash facilities provided within and under the building footprints. The Applicant reserves the right to alter the specific design of the plaza and other common areas provided the general character, quality and level of amenity remains, and there is no increase in the amount of surface parking provided.

GENERAL

5. Proposed Development. Development on the Property shall include a maximum of 300,000 square feet of GFA, excluding bonus GFA associated with the provision of Workforce Dwelling Units (WDUs), and a maximum of 305,000 square feet of GFA including bonus GFA associated with the provision of WDU's. The amount of bonus GFA shall be determined at the time of site plan. The Applicant shall be entitled to bonus GFA equal to the GFA of all WDUs provided.

A minimum of 120,000 and a maximum of 185,000 square feet of gross floor area shall be commercial office use. A minimum of 42,000 and maximum of 86,000 square feet of gross floor area shall be dedicated to other commercial uses. A minimum of 60,000 and a maximum of 80,000 square feet of gross floor area shall be multi-family residential use and associated amenities. The gross square footage devoted to residential dwellings shall not exceed fifty (50) percent of the gross floor area of all principal uses on the Property. Gross floor area of non-residential secondary uses shall not exceed 25 percent of the gross floor area of all principal uses on the Property. In addition, up to 20,000 square feet of retail, service, health club, spa, and/or storage use may be located in the cellar as defined by the Fairfax County Zoning Ordinance. The Applicant reserves the right to construct up to an additional 15,000 square feet of retail, service, health club and storage uses in the cellar, provided there is a commensurate reduction of non-residential gross floor area outside the cellar. All cellar space provided shall, at a minimum, be parked as required by Article 11, utilizing the 20% parking reduction allowed by the Commercial Revitalization District.

6. Uses. The following uses are permitted:

A. Principal Uses:

- Business Service and supply establishments;
- Eating establishments;
- Financial institutions (without drive-through);
- Garment cleaning establishments (drop-off and pick-up only, no on-site processing);
- Offices;
- Personal service establishments;
- Public uses;
- Repair service establishments; and
- Retail sales establishments.

B. Secondary Uses:

- Accessory uses and home occupations;
- Automated teller machines, unmanned;
- Amusement arcades;
- Fast food restaurants (without drive-through);

- Quick service food stores;
 - Vehicle rental establishments;
 - Billiard and pool halls;
 - Health clubs;
 - Dwellings;
 - Child care centers and nursery schools with approval of a special exception;
 - Community clubs, centers, meeting halls;
 - Cultural centers, museums and similar facilities;
 - Private clubs and public benefit associations;
 - Private schools of special education; and
 - Telecommunications facilities limited to those that are mounted on the rooftop, mounted to the penthouse, or located within the building.
7. Mix of Non-Office Commercial Uses. No more than 30,000 square feet of GFA dedicated to non-office/commercial uses shall be high turnover eating establishments or fast food restaurants. An alteration to this non-office commercial mix may be approved through an administrative interpretation provided written documentation by the Applicant demonstrates that additional high turnover eating establishments and fast food restaurants can be accommodated without significantly increasing the traffic impacts.
8. Residential Units. A minimum of 60 residential units shall be constructed on the Property, with the maximum total number of residential units not to exceed 80 units. Such total shall include all Workforce Dwelling Units (“WDUs”) as defined in these Proffers.

TRANSPORTATION IMPROVEMENTS

9. Markham Street. As part of the first site plan approval for the Property, or upon demand by VDOT or Fairfax County, the Applicant shall dedicate in fee simple to the Board of Supervisors right-of-way along the Property’s Markham Street frontage as shown on the CDP/FDP/SE Plat. Prior to the issuance of any RUP or Non-RUP for the Property, the Applicant shall substantially complete the construction of a right turn lane into the Property’s northern entrance as shown on the CDP/FDP/SE Plat and as may be approved by VDOT. For purposes of this Proffer, substantially complete is defined as complete and available for use by the public but not necessarily accepted by VDOT for state maintenance.
10. Little River Turnpike. As part of the first site plan approval for the Property, the Applicant shall reserve an area along its frontage with Little River Turnpike approximately 122.5 feet from the existing centerline of Little River Turnpike for future dedication in fee simple upon demand by Fairfax County.
11. Markham Street/Little River Turnpike Intersection. Subject to VDOT approval, the Applicant shall within the existing right-of-way (a) install a raised median from the intersection with Little River Turnpike north for approximately 125 feet; (b) restripe the southbound lane configurations on the Markham Street approach to Little River Turnpike

to provide a left turn lane, a shared left/through lane and right turn lane utilizing 11 foot lanes as necessary; (c) restripe the northbound lane configuration on the Markham Street approach to Little River Turnpike to provide a left turn lane and a shared through/right lane; (d) modify the signal and signal phasing as needed to accommodate the new lane configuration; and (e) provide audible pedestrian countdown signals as permitted by VDOT.

12. Private Street.

A. The Applicant shall construct a drive aisle/private street along the Property's northern boundary as shown on Sheet 2 the CDP/FDP/SE Plat (the "Private Street"). Initially, the Private Street will only provide access to loading, trash and parking areas for the Property and access for emergency vehicles. Public access easements shall be granted as part of site plan approval for the vehicle travelway and adjacent sidewalk. The Applicant reserves the right to provide a different name for the Private Street.

B. It is intended that the Private Street will be extended in the future by others to connect with Annandale Road. This extension will likely occur on adjacent parcels to the east identified as Tax Map 71-1 ((4)) 18-20 and 21. At the time of site plan approval for the Property, a mutual interparcel access agreement shall be recorded to the benefit of these parcels.

C. It is further anticipated that the Private Street will be relocated in the future by the owners of the adjacent parcel identified as Tax Map 71-1 ((20)) 3 ("Parcel 3"). The ultimate design of the Private Street with the future redevelopment of Parcel 3 is shown on Sheet 9 of the CDP/FDP/SE Plat. A public access easement and a construction easement for the benefit of the owners of Parcel 3 located along the northern boundary of the Property as shown on Sheet 9 shall be recorded in the land records of Fairfax County at such time as:

(1) Fairfax County approves a site plan and building plan for the redevelopment of Parcel 3 that show all loading and trash areas located either within the new structures or set back from and screened from view from the Private Street, and show that the façade of the new structure(s) on Parcel 3 facing Private Street is the structure's front primary façade or is treated architecturally to appear to be the front primary façade, OR Parcel 3 is rezoned by Fairfax County; and

(2) The owners of Parcel 3 agree to construct and maintain their half of the Private Street from centerline and record a public access easement over their half of Private Street.

At the time of site plan approval, the Applicant shall post a bond for one half the cost of reconstructing the road, including the cost of removing existing retaining walls in the area of the relocated road, which may be used by the owner of Parcel 3 when they construct the ultimate design shown on Sheet 9.

The ultimate design provides for an improved streetscape along the northern face of the proposed building on the Property. At the time of site plan approval for the Property, the Applicant shall post a bond with the Department of Public Works and Environmental Services ("DPWES") to cover the cost of reconstructing the sidewalk and streetscape as shown on Sheet 9. At such time as the owner of Parcel 3 or any authorized entity begins construction of the widening of Private Street, the Applicant shall reconstruct the sidewalk and streetscape as shown on Sheet 9. If following 30 years from issuance of the last RUP for the residential dwelling units on the Property, Private Street has not been relocated and reconstructed by the Owners of Parcel 3 as anticipated herein, the Applicant's bonds for said reconstruction of the road, sidewalk and streetscape shall be released to the Applicant and its commitment under this proffer shall be fulfilled.

13. Southern Interparcel Access. At the time of site plan approval, the Applicant shall provide an easement for interparcel access at a point along its southern boundary as shown on Sheet 2 of the CDP/FDP/SE Plat as well as on the entirety of the 20 foot by 150 foot area (approximately 3,000 square feet) of the Property which extends to Little River Turnpike. As the parcels to the south redevelop through a rezoning, this 3,000 square foot area may be utilized to provide north-south access and may be improved by others as necessary to accommodate a new road or travel aisle with sidewalk provided adjacent parcels record a public access easement over a portion of this new road over their property. The Applicant agrees to pay its pro-rata share of the maintenance of this potential new road or travel aisle and to provide temporary grading and construction easements necessary to accommodate its construction. The change in use of this 3,000 square foot area from a pedestrian connection to a vehicular connection shall not necessitate a PCA, FDPA or SEA for the Property.
14. Signal. At the time of site plan approval for the Property, the Applicant shall post a bond for 50 percent of the cost of designing, equipping and installing a traffic signal at the intersection of Markham Street and the Private Street. The Applicant shall provide the requisite easements on the Property to accommodate traffic signal poles and shall work with the Urban Forestry Management Division to minimize impact on the streetscaping/landscaping.
15. Zoning Administrator Consideration. Notwithstanding the foregoing, upon demonstration by the Applicant that despite diligent efforts or due to factors beyond the Applicant's control, the required transportation improvements proffered have been delayed (due to, but not limited to, an inability to secure necessary permission for utility relocations and/or VDOT approval for traffic signals, etc.) beyond the timeframes provided in each proffer, the Zoning Administrator may agree to a later date for completion of these transportation improvement(s).
16. Bicycle Racks. The Applicant shall install bicycle racks in the locations generally shown on the CDP/FDP/SE Plat and within the parking structure as reviewed and approved by Fairfax County at the time of final site plan. The bike racks shall be inverted U-style

racks or other design approved by Fairfax County Department of Transportation (“FCDOT”) and shall collectively accommodate parking for a minimum of 20 bicycles.

17. Bus Stop. The Applicant shall provide a public access easement (if needed) and construct a pad or other footing approved by FCDOT on its Markham Street frontage for the purpose of a future bus stop and shelter. Streetscaping/landscaping shown on Sheets 3 and 4 may be adjusted to accommodate the bus shelter pad.

TRANSPORTATION DEMAND MANAGEMENT

18. Transportation Demand Management Plan.

Transportation Demand Management (TDM) strategies, as detailed below, shall be utilized by the Applicant to reduce trips during peak hours. The TDM strategies shall be utilized to reduce the P.M. peak hour vehicular trips by a minimum of twenty percent (20%) for the combined general (non-medical) office uses, the employees of medical office uses, and residential uses based on the trip generation rates/equations applicable to such uses as set forth in the Institute of Transportation Engineers, Trip Generation, 7th Edition. Residents and employees shall be advised of all TDM strategies by the TMC, as defined below, with periodic written materials summarizing the availability of the TDM strategies. Transportation coordination duties shall be carried out by a designated property manager(s) or transportation management coordinator(s) (the “TMC”). The TMC position may be a part of other duties assigned to the individual(s). The following is a non-inclusive list of strategies shall be implemented to meet the trip reduction goal:

- A. Within one (1) year following approval of the first building permit on the Property, and prior to issuance of the first RUP or Non-RUP, the Applicant shall designate an individual to act as the TMC for the Property whose responsibility will be to implement the TDM strategies with on-going coordination with FCDOT. The TMC shall also be responsible for coordination and communication with any subsequent common association.
- B. Participate in the Fairfax County Ride Share Program.
- C. Disseminate information regarding Metrorail, Metrobus, ride-sharing and other relevant transit options in sale/leasing packages.
- D. Provide Metro maps, schedules and forms, ride-sharing and other relevant transit option information to residents, tenants and all employees of the Property through either a common website or a newsletter to be published at least twice a year and in a permanent display in the building’s lobby.
- E. Provide a pedestrian-friendly sidewalk system to encourage pedestrian circulation.

- F. Provide Smart Trip cards (or a similar transit fare card) in the amount of twenty-five (\$25) dollars to all initial purchasers upon closing and /or all rental tenants upon execution of their initial lease, as applicable.
- G. Provide access to shower facilities for office tenants and employees.
- H. Buildings shall be hardwired to provide high capacity, high bandwidth communication lines, or the equivalent wireless access. Building management shall encourage individual employers/tenants to provide employees with access to their networks via such lines or via wireless connections.
- I. Provide information and coordination of possible carpool and vanpool options to the residents, tenants and employees and preferential parking for commercial carpools and vanpools.
- J. Provide bike storage or bike racks for residents either in the cellar, as defined by the Zoning Ordinance, or in the parking structure

Concurrent with the designation of the TMC, the Applicant shall establish and fund a TDM account in the initial amount of \$10,000. Funds in the TDM account shall be utilized by the TMC each year to implement the TDM strategies. The TDM account shall be managed by TMC. A line item for further funding of the TDM account shall be included in the common association budget upon the establishment of the common association. The common association documents shall provide that the TDM account shall not be eliminated as a line item in the common association budget and that funds in the TDM account shall be annually funded by pro-rata assessments of residents and commercial owners as implemented as provided in the common association documents. Such funding shall be a minimum of \$3,500 per year, adjusted annually for inflation based on the Consumer Price Index. The TMC shall consult with FCDOT to develop and implement the TDM strategies. TDM strategies C, D, and F shall be established prior to, or current with, the issuance of the first RUP on the Property.

One (1) year following the issuance of the first RUP or Non-RUP on the Property, the effectiveness of the TDM strategies shall be evaluated using surveys and/or traffic counts prepared by the TMC in cooperation with FCDOT. The Applicant shall submit to FCDOT the result of the surveys in order to determine travel characteristics and whether the required reduction in trips has been achieved. Such TDM surveys shall be conducted annually for at least three (3) years following the initial survey. If the TDM surveys show that the trip reduction objectives are being met for two successive years, then the Applicant shall proceed with the TDM strategies as implemented and shall provide continuing surveys on a bi-annual basis.

In the event the trip reduction objectives have not been met after any TDM survey and/or traffic count, the Applicant shall meet with FCDOT to review the strategies in place, develop modifications to the TDM strategies, and adopt additional TDM strategies as deemed appropriate by FCDOT to facilitate meeting the trip reduction objectives. To help remedy the situation and meet the reduction goals, the Applicant shall double the

annual budget from \$3500 to \$7000, adjusted annually for inflation, in any year following a TDM survey or traffic count that indicates the trip reduction objectives have not been met. The Applicant shall continue to conduct annual TDM surveys until such time as the surveys and/or traffic counts demonstrate that the revised TDM strategies have been effective in meeting the trip reduction objectives for two successive years, at which time the TDM surveys may be conducted bi-annually, so long as the trip reduction objective continues to be met. The trip reduction objective, the TDM strategies and funding requirements shall be disclosed in common association documents.

SITE DESIGN AND AMENITIES

19. Landscape Plan. The CDP/FDP/SE Plat includes a conceptual landscape plan for the Property (Sheet 3) and detail sheets (Sheets 4-6) illustrating the plantings and other features to be provided.
- A. As part of each site plan submission, the Applicant shall submit to Urban Forest Management Division ("UFMD") of DPWES for review and approval a detailed landscape and tree cover plan (the "Landscape Plan"), which shall include, among other things:
- (i) Design details for tree wells and other similar planting areas above structures and along streets;
 - (ii) Composition of the planting materials and/or structural soils used where plantings are to be located within or on top of structures and other methods to be used to insure the viability of the proposed plantings; and
 - (iii) Other information that may be requested by the Urban Forest Management Division.
- B. Such Landscape Plan shall be consistent with the quality and quantity of plantings and materials shown on the CDP/FDP/SE Plat. A trellis planted with vines along with shrubbery planted at the corners shall be incorporated on the top level of the parking structure as shown on Sheet 3. Adjustments to the type and location of vegetation and the design of the plaza and streetscape improvements and plantings shall be permitted in consultation with DPZ and UFMD.
- C. For trees relied upon for satisfaction of tree cover requirements, which are not planted within an 8-foot wide minimum planting area, or that do not meet the minimum planting area required by the PFM, the Applicant shall use structural soil or structural cells. At the time of site plan submission, the Applicant shall provide written documentation to UFMD that the structural soils or structural cells are a researched product shown to effectively increase the survivability of trees in environments where soil volume and available rooting area is reduced by restrictive barriers such as paving, curbs, and compacted earth. The Applicant shall provide 72 hour notice to UFMD prior to installation of the soils or cells, to allow verification of the composition of the structural soil or structural cells and

verification that the structural is the correct mix and that either is installed correctly. The Applicant shall provide written documentation that the structural soils or structural cells were produced by a licensed company. The Applicant shall provide written confirmation from a certified arborist and/or landscape architect demonstrating and verifying installation of the structural soil or structural cells by a licensed contractor.

20. Streetscaping. Streetscape improvements and plantings shall be provided as indicated on Sheet 5 of the CDP/FDP/SE Plat. The Markham Street streetscape includes pavers, street trees a minimum of 2.5 to 3 inches in caliper, ornamental planting beds, benches and acorn lighting. Notwithstanding the foregoing, the Applicant reserves the right, in consultation with the Zoning Administrator, to shift the location of street trees along the proposed streetscapes to accommodate final architectural design, utilities and layout considerations, so long as such modifications are in substantial conformance with the CDP/FDP/SE Plat, and do not reduce the number of street trees provided.
21. Plaza. The Applicant shall construct a plaza and an embellished building entry zone in substantial conformance with that shown on Sheet 4 of the CDP/FDP/SE Plat. The plaza shall include:
 - A. Landscaping including shade trees (minimum 2.5 to 3 inch in caliper), ornamental trees (minimum 2 to 2.5 inch in caliper), lawn areas, shrubbery, potted plants and planting beds with seasonal color;
 - B. Hardscape areas such as concrete walkways with brick pavers, stonework, specialty paving and paving patterns to delineate pedestrian and vehicular travel zones;
 - C. Seating areas to include benches, game tables and chairs, and seasonal outdoor dining tables;
 - D. Pedestrian scaled lighting; and
 - E. A focal point feature to serve as the defining feature for the development. This feature shall be either a fountain or other water feature or alternatively a sculpture or other public art piece that may be selected by the Applicant or selected through a competitive process in conjunction with the Annandale Chamber of Commerce or the Office of the Mason District Supervisor.

Adjustments to the plaza design details may be made based on final engineering and architectural design, specific tenant uses, tenant entrances, etc., provided the overall design remains in substantial conformance with the general character of that shown on Sheet 4. The plaza shall be functionally complete (benches, landscaping and lighting installed) and open for use (subject to minor adjustments and punch-list items) prior to the issuance of the Non-RUPs for 20,000 square feet of non-office commercial uses.

22. Pedestrian/Bicycle Circulation. In combination with the streetscape improvements identified in these Proffers, the Applicant shall provide sidewalks of varying widths and

crosswalks at key intersections, as indicated on the CDP/FDP/SE Plat. All on-site sidewalks not located in the right-of-way shall be maintained by the Applicant or successor. Sidewalk improvements located within existing or proposed right-of-way shall be as approved by VDOT.

23. On-Site Recreation. The Applicant shall provide facilities designed to meet the on-site recreational needs of the future residents of the Property. Pursuant to Paragraph 2 of Section 6-110 and Paragraph 2 of Section 16-404 of the Zoning Ordinance regarding developed recreational facilities, the Applicant shall expend a minimum of \$1,500 per market-rate residential unit on such recreation facilities. Prior to final bond release for the Property, the balance of any funds not expended on-site shall be contributed to the Fairfax County Park Authority for the provision of recreation facilities located in proximity to the Property. As a part of the recreational facilities, the Applicant shall provide:

- A. Exterior terraces to be located on the rooftops of the building, as illustrated on Sheet 6 of the CDP/FDP/SE Plat, with informal seating areas, landscaping, hardscape areas, and the passive recreation areas; the Applicant reserves the right to modify the specific design, so long as the quality and general character remains the same as shown on Sheet 6; and a
- B. Clubroom for community gatherings and fitness area with a minimum aggregate square footage of 1,500 square feet.

24. Lighting. Outdoor lighting shall comply with the Outdoor Lighting Standards of Section 14-900 of the Zoning Ordinance. Building mounted security lighting shall utilize full cut-off fixtures with shielding such that the lamp surface is not directly visible.

All upper level parking deck lighting fixtures shall not exceed a height of 15 feet and shall utilize full cut-off fixtures. Lighting on the lower level of parking decks shall be installed between the ceiling beams to reduce glare.

25. Signage. Signage for the Property shall be provided in accordance with the requirements of Article 12 and Section A7-109, Paragraph 4.A, of the Zoning Ordinance or pursuant to a Comprehensive Sign Plan approved by the Planning Commission. Uplighting of signs shall be prohibited.

ARCHITECTURAL DESIGN AND BUILDING MATERIALS

26. Architecture and Materials. The architectural design of the proposed building shall be in substantial conformance with that shown on Sheet 8 of the CDP/FDP/SE Plat (the "Building Perspectives"). The Building Perspectives may be modified by the Applicant as part of final engineering and building design, provided that such modifications provide a similar character of design and level of quality as that shown. Building materials for the retail and office levels shall be selected from among the following: brick, cementitious or other composite architectural panels, masonry/stone, glass, split-face block and pre-cast panels. The predominant building materials shall be brick, glass and

masonry used up to and including the sixth floor of the building. The residential levels at the top of the building may include the above-referenced materials as well as siding and synthetic stucco. Final architectural details and accents may include other materials. Bay windows, balconies, awnings, storefronts and other architectural details may be provided so long as such features do not extend more than eight (8) feet beyond the building footprints shown on the CDP/FDP/SE Plat, and provided that the streetscape features and dimensions at the ground plane are maintained. The height of the penthouse shall not exceed 18 feet.

The architectural design of the open garage structure shall be in substantial conformance with that shown on Sheet 2A. The garage structure shall be pre-cast concrete or cast-in-place and shall include solid spandrel panels that will provide screening for headlights. Brick inset panels to complement the brick on the building shall be utilized on the third level to top level of the northern, eastern and southern garage facades and on all levels of that portion of the western façade that extends beyond the main building. The color of the brick inset panels shall be harmonious with the building materials utilized on the main structure.

27. Green Building Practices.

- A. The Applicant shall include a U.S. Green Building Council Leadership in Energy and Environmental Design (“LEED”) accredited professional as a member of the design team. The LEED accredited professional shall work with the team to incorporate LEED design elements into the project so that the project will be positioned to attain LEED certification. At the time of site plan submission, the Applicant shall provide documentation to the Environment and Development Review Branch of DPZ demonstrating compliance with the commitment to engage such a professional.
- B. The Applicant shall include, as part of the site plan submission and building plan submission, a list prepared by the LEED accredited professional of specific credits that the Applicant anticipates attaining within the LEED—Core and Shell rating system, or other LEED rating system determined to be applicable to the project. The LEED accredited professional shall provide certification statements at both the time of site plan review and the time of building plan review indicating that the items on the list should meet at least the minimum number of credits necessary to position the project to attain LEED certification.
- C. Prior to approval of a building permit by Fairfax County for the project, the Applicant shall execute a separate agreement and post, for that project a “green building escrow,” in the form of cash or a letter of credit from a financial institution acceptable to DPWES as defined in the Public Facilities Manual, in the fixed amount of \$680,000. This escrow will be in addition to and separate from other bond requirements and shall be released upon demonstration of attainment of certification, by the U.S. Green Building Council, under the U.S. Green Building Council’s LEED – Core and Shell rating system or other LEED rating system determined to be applicable to the project. The provision of

documentation to the Environment and Development Review Branch of DPZ from the U.S. Green Building Council that the project has attained LEED certification shall be sufficient to satisfy this commitment. If the Applicant fails to provide documentation to the Environment and Development Review Branch of DPZ demonstrating attainment of LEED certification within two years of issuance of the first RUP or Non-RUP for the project, the escrow shall be released to Fairfax County as the sole remedy for failure to meet the LEED certification and shall be posted to a fund within the County budget supporting implementation of County environmental initiatives.

- D. Prior to issuance of the first Non-RUP or RUP, the Applicant shall provide to the Environment and Development Review Branch of DPZ a letter from the LEED accredited professional certifying that a green building maintenance reference manual has been prepared for use by future building occupants that this manual has been written by a LEED accredited professional, that copies of this manual shall be provided to all future building occupants and that this manual, at a minimum:
- Provides a narrative description of each green building component, including a description of the environmental benefits of that component and including information regarding the importance of maintenance and operation in retaining the attributes of a green building;
 - Provides, where applicable, product manufacturer's manuals or other instructions regarding operations and maintenance needs for each green building component, including operational practices that can enhance energy and water conservation;
 - Provides, as applicable, either or both of the following: (1) a maintenance staff notification process for improperly functioning equipment; or (2) a list of local service providers that offer regularly scheduled service and maintenance contracts to assure proper performance of green building-related equipment and the structure, to include, where applicable, the HVAC system, water heating equipment, water conservation features, sealants, and caulks; and
 - Provides contact information that building occupants can use to obtain further guidance on each green building component.

Prior to issuance of a Non-RUP or RUP, the Applicant shall provide an electronic copy of the manual in PDF format to the Environment and Development Review Branch of DPZ.

ENVIRONMENT

28. Stormwater Management Facilities.

- A. Stormwater Quantity. Upon demonstration by the Applicant at the time of site plan that impervious surfaces on the Property post-construction will be less than the pre-construction impervious surfaces, stormwater detention shall not be required. However subject to approval of DPWES, the Applicant shall provide

permeable pavers and rain tanks within the central plaza area as shown on Sheet 4 of the CDP/FDP.

- B. Best Management Practices. The Applicant shall incorporate Best Management Practices ("BMP") in order to improve water quality associated with stormwater runoff. Using structural and/or non-structural BMPs such as sand filters, storm filters, Filterra devices or a combination thereof, the site plan shall demonstrate a reduction of the phosphorous loading from the Property, based on a comparison of the conditions of the Property as currently developed and the conditions of the Property upon completion.
 - C. Maintenance Responsibility. The responsibility for the maintenance of the rain tanks and underground BMP facility shall fall solely on the commercial component of the Property; the residential component of the Property shall have no responsibility for maintaining these underground facilities.
29. Noise Attenuation. The Applicant shall prepare a Noise Impact Analysis for the residential uses on the Property detailing projected traffic-related noise impacts affecting the Property and proposing mitigation techniques. This analysis shall be submitted to DPWES and DPZ at the time of site plan submission for review and approval. The analysis shall include noise contours at several height intervals. The Applicant shall, as necessary, provide mitigation techniques designed to reduce noise levels for exterior sources in the interior of residential units to no greater than 45 dBA Ldn.

AFFORDABLE HOUSING

30. Workforce Dwelling Units ("WDUs"). The Applicant shall provide housing units on the Property that will be leased and/or sold to future residents who have a median household income of up to 120% of the Area Median Income ("AMI") for the currently defined Washington, D.C. Metropolitan Statistical Area as determined by the U.S. Department of Housing and Urban Development (such units hereafter referred to as "WDUs"). The number of WDUs to be provided on the Property shall be equal to 12% of all dwelling units to be constructed on the Property. The WDUs shall be administered as set forth in the Board of Supervisors Workforce Dwelling Unit Administrative Guidelines adopted October 15, 2007.

The Applicant reserves the right to enter into a separate binding written agreement with the appropriate Fairfax County agency as to the terms and conditions of the administration of the WDUs. Such an agreement shall be on terms mutually acceptable to both the Applicant and Fairfax County and may occur after the approval of this Application. Neither the Board of Supervisors nor Fairfax County shall be obligated to execute such an agreement. If such an agreement is executed by all applicable parties, then the WDUs shall be administered in accordance with such an agreement, and the administrative requirements of this Proffer shall become null and void. Such an agreement and any modifications thereto, shall be recorded in the land records of Fairfax County.

PUBLIC/COMMUNITY FACILITIES

31. Park Authority Contribution. In addition to the recreation facilities provided on-site, the Applicant shall at the time of site plan approval provide a contribution of \$1,500 per dwelling unit shown on the site plan to the Board of Supervisors to be used for parks and/or recreational facilities in the vicinity of the Property.
32. Public Schools. Per the Residential Development Criteria Implementation Motion adopted by the Board of Supervisors on September 9, 2002, and revised July, 2006, the Applicant shall contribute \$12,400 per expected student based on a ratio of 0.078 students per residential unit to the Fairfax County School Board to be utilized for capital improvements to schools that any students generated by the Residential Buildings will attend. Such contribution shall be made prior to site plan approval, and shall be based on the actual number of dwelling units constructed.

MISCELLANEOUS

33. Disclosures. The Applicant shall notify all prospective purchasers in sales literature and purchasers in writing at the time of settlement of the maintenance responsibilities related to the private streets, the plaza, other common areas and stormwater management facilities; the obligations of the transportation demand management program; as well as the access easements and future road construction set forth in Proffers 12 and 13.
34. Advance Density Credit. Advanced density credit is reserved consistent with the provisions of the Fairfax County Zoning Ordinance for all eligible dedications described herein or as may be required by Fairfax County or VDOT pursuant to the PFM, at the time of site plan approval for the Property.
35. Retaining Walls. Retaining walls not shown on the CDP/FDP that may be needed on the Property as a result of final engineering design, shall be a maximum height of four (4) feet. All retaining walls shall be constructed of interlocking blocks or concrete with an architectural finish.
36. Severability. Pursuant to Section 18-204 of the Zoning Ordinance, any portion of the Property may be the subject of a proffered condition amendment ("PCA"), Special Exception ("SE"), Special Permit ("SP"), or Final Development Plan Amendment ("FDPA") without joinder and/or consent of the owners of the other portions of the Property, provided that such PCA, SE, SEA, SP or FDPA does not materially adversely affect the other phases. Previously approved zoning applications applicable to the balance of the Property that is not the subject of such a PCA, SE, SP or FDPA shall otherwise remain in full force and effect.
37. Successors and Assigns. These Proffers will bind and inure to the benefit of the Applicant and its successors and assigns. Each reference to "Applicant" in this proffer statement shall include within its meaning and shall be binding upon Applicant's successor(s) in interest and/or developer(s) of the site or any portion of the site.

38. Counterparts. These Proffers may be executed in one or more counterparts, each of which when so executed and delivered shall be deemed an original, and all of which taken together shall constitute but one and the same instrument.

[SIGNATURES BEGIN ON THE NEXT PAGE]

APPLICANT/CONTRACT PURCHASER OF TAX MAP
71-1 ((20)) 2

AMERIKOR PROPERTIES, LLC

A handwritten signature in black ink, consisting of a large, loopy 'S' followed by a horizontal line and a smaller 'C'. The signature is written over a horizontal line.

By: S.C. Brian Kim
Its: Managing Member

[SIGNATURES CONTINUE ON NEXT PAGE]

TITLE OWNER OF TAX MAP 71-1 ((20)) 2

FAIRFAX INVESTORS LIMITED PARTNERSHIP,
L.L.P.

A handwritten signature in black ink, appearing to read "Michael M. Webb", written over a horizontal line.

By: Michael M. Webb, Successor Trustee

[SIGNATURES END]



FINAL DEVELOPMENT PLAN CONDITIONS

FDP 2007-MA-017

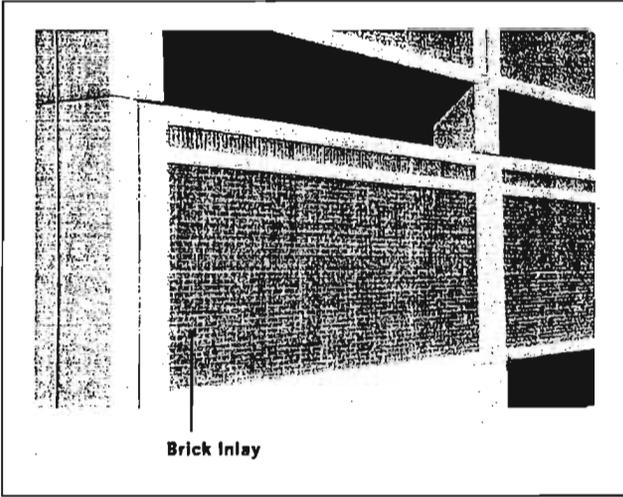
May 15, 2008

If it is the intent of the Planning Commission to approve Final Development Plan FDP 2007-MA-017, to permit mixed use development, on property located at Tax Map 71-1 ((20)) 2, staff recommends that the Planning Commission condition the approval by requiring conformance with the following development conditions.

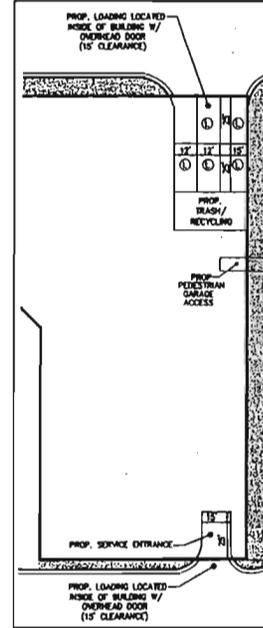
1. All trash disposal locations shall be contained within the building or the parking garage and shall be fully screened from view through the use of solid, opaque enclosures.
2. No pole signs shall be located on the property. Irrespective of that shown on the plat, the existing pole sign located along Little River Turnpike shall be removed.
3. A sewer service study shall be provided to determine if the existing sewer system is adequate to accommodate the proposed development. Any deficiencies shall be corrected before or concurrent with development of the site.
4. (a) Irrespective of notes shown, the architectural design of the proposed building shall be in substantial conformance with that shown on all sheets of the CDP/FDP/SE Plat.

(b) Siding shall not be utilized as a building material except on the residential levels (as stated in the proffers) and only for trim or other details.

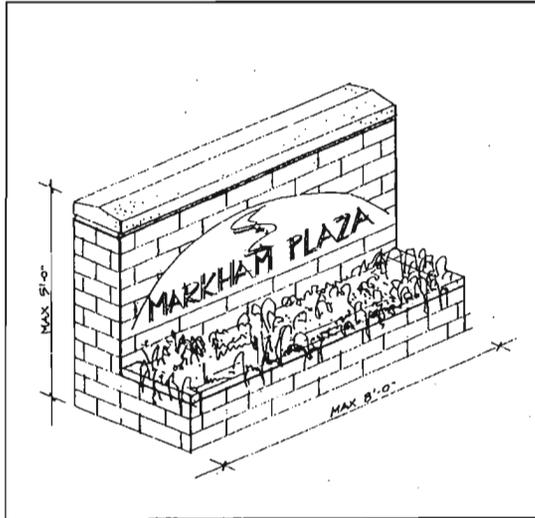
PARKING GARAGE FACADE DETAIL



LOADING OVERHEAD DETAIL

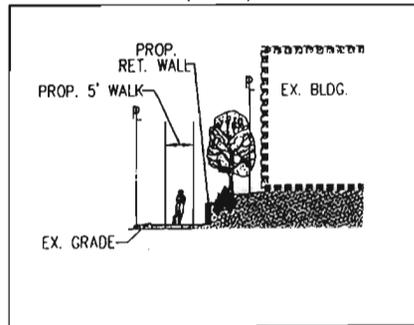


PROPOSED MONUMENT SIGN DETAIL

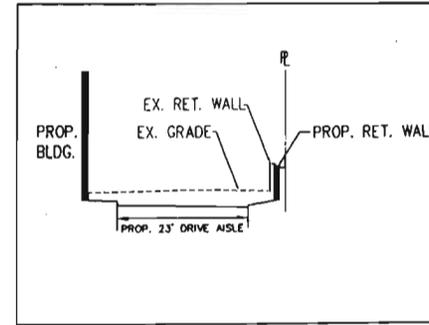


NOTE: THIS DETAIL IS ILLUSTRATIVE TO DEMONSTRATE ONLY THE DIMENSIONS OF THE SIGN.

SECTION 1-1
(SCALE: 1"=10')



SECTION 2-2
(SCALE: 1"=10')



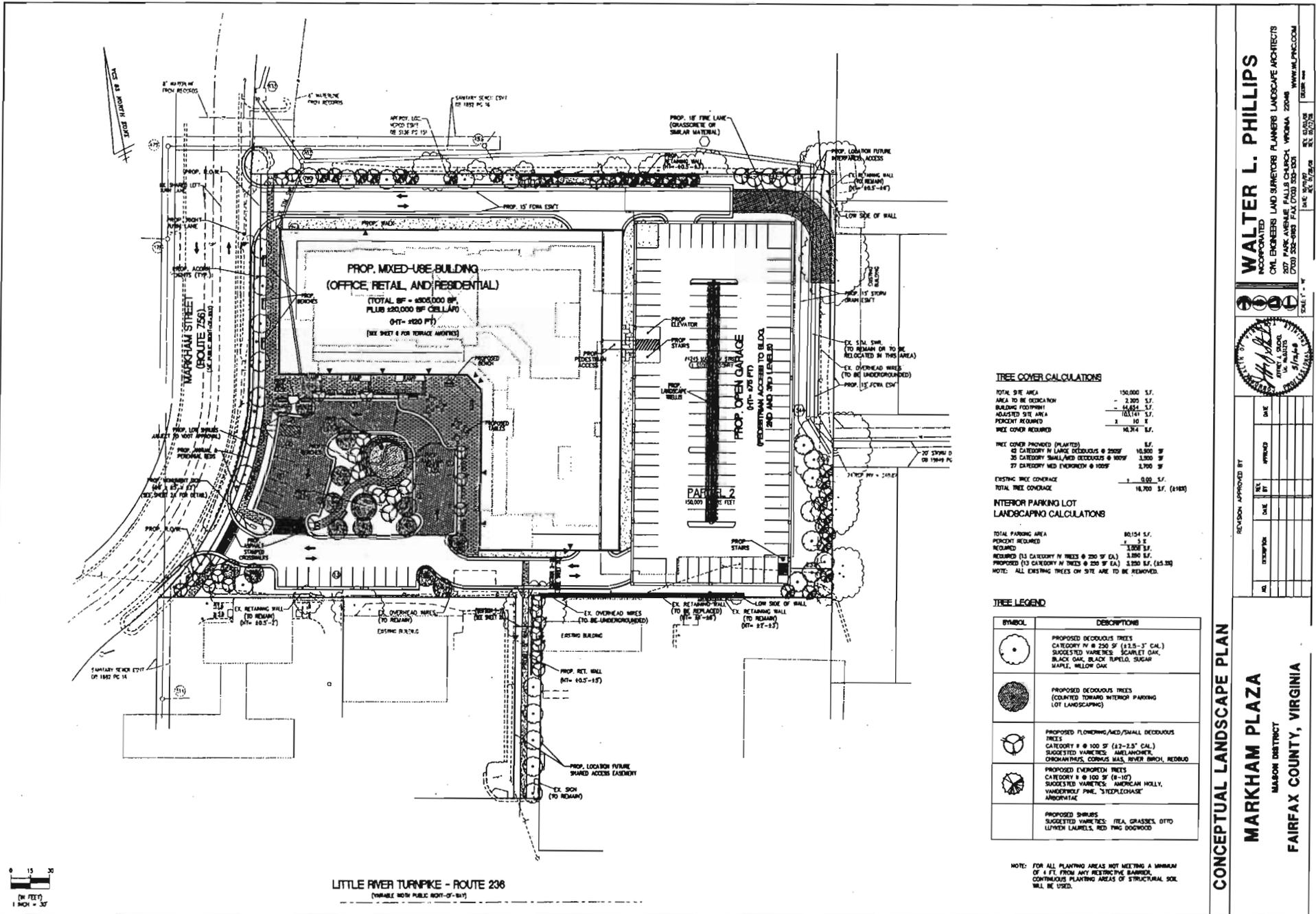
WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS, LAND SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
207 PARK AVENUE, FALLS CHURCH, VIRGINIA 22046 WWW.WLPINC.COM
TEL: 571/271-8100 FAX: 571/271-8101



REVISION APPROVED BY:

NO.	DESCRIPTION	DATE BY	APPROVED

SITE DETAILS
MARKHAM PLAZA
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA



TREE COVER CALCULATIONS

TOTAL SITE AREA	150,000 S.F.
AREA TO BE REDEVELOPED	- 2,200 S.F.
BUILDING FOOTPRINT	- 14,654 S.F.
ADJUSTED SITE AREA	133,146 S.F.
PERCENT REQUIRED	10.0%
TREE COVER REQUIRED	13,314 S.F.

TREE COVER PROVIDED (PLANTED)

42 CATEGORY IV LARGE DECIDUOUS @ 250'	10,500 S.F.
25 CATEGORY SMALL/MED DECIDUOUS @ 100'	3,000 S.F.
27 CATEGORY MED EVERGREEN @ 100'	3,000 S.F.
EXISTING TREE COVERAGE	1 0.00 S.F.
TOTAL TREE COVERAGE	16,700 S.F. (118%)

INTERIOR PARKING LOT LANDSCAPING CALCULATIONS

TOTAL PARKING AREA	80,154 S.F.
PERCENT REQUIRED	1.0%
REQUIRED	3,000 S.F.
REQUIRED (13 CATEGORY IV TREES @ 230' @ EA.)	3,000 S.F.
PROPOSED (13 CATEGORY IV TREES @ 230' @ EA.)	3,000 S.F. (100%)

NOTE: ALL EXISTING TREES ON SITE ARE TO BE REMOVED.

TREE LEGEND

SYMBOL	DESCRIPTIONS
	PROPOSED DECIDUOUS TREES CATEGORY IV @ 230' SF (13.5-3' CAL.) SUGGESTED VARIETIES: SCARLET OAK, BLACK OAK, BLACK TURPELO, SUGAR MAPLE, MELLOW OAK
	PROPOSED DECIDUOUS TREES (COUNTED TOWARD INTERIOR PARKING LOT LANDSCAPING)
	PROPOSED FLOWERING/SMALL DECIDUOUS TREES CATEGORY II @ 100' SF (12-2.5' CAL.) SUGGESTED VARIETIES: AMELANCHIER, OPHONIMUS, CORNUS MAS, RIVER BIRCH, REDBUD
	PROPOSED EVERGREEN TREES CATEGORY IV @ 100' SF (8-10') SUGGESTED VARIETIES: AMERICAN HOLLY, HARDENBERG PINE, 'SNEEPLCHASE' ANONNATA
	PROPOSED SHRUBS SUGGESTED VARIETIES: ITEA, GRASSES, OTTO LYNNER LAURELS, RED KING DOGWOOD

NOTE: FOR ALL PLANTING AREAS NOT MEETING A MINIMUM OF 4 FT. FROM ANY RESTRICTIVE BARRIER, CONTIGUOUS PLANTING AREAS OF STRUCTURAL SOIL WILL BE USED.

LITTLE RIVER TURNPIKE - ROUTE 236
(VARIALB WITH PUBLIC RIGHT-OF-WAY)



WALTER L. PHILLIPS
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207 PARK AVENUE FALLS CHURCH, VIRGINIA 22048
TEL: 571-261-7700 FAX: 571-261-7701 WWW.WLP.COM

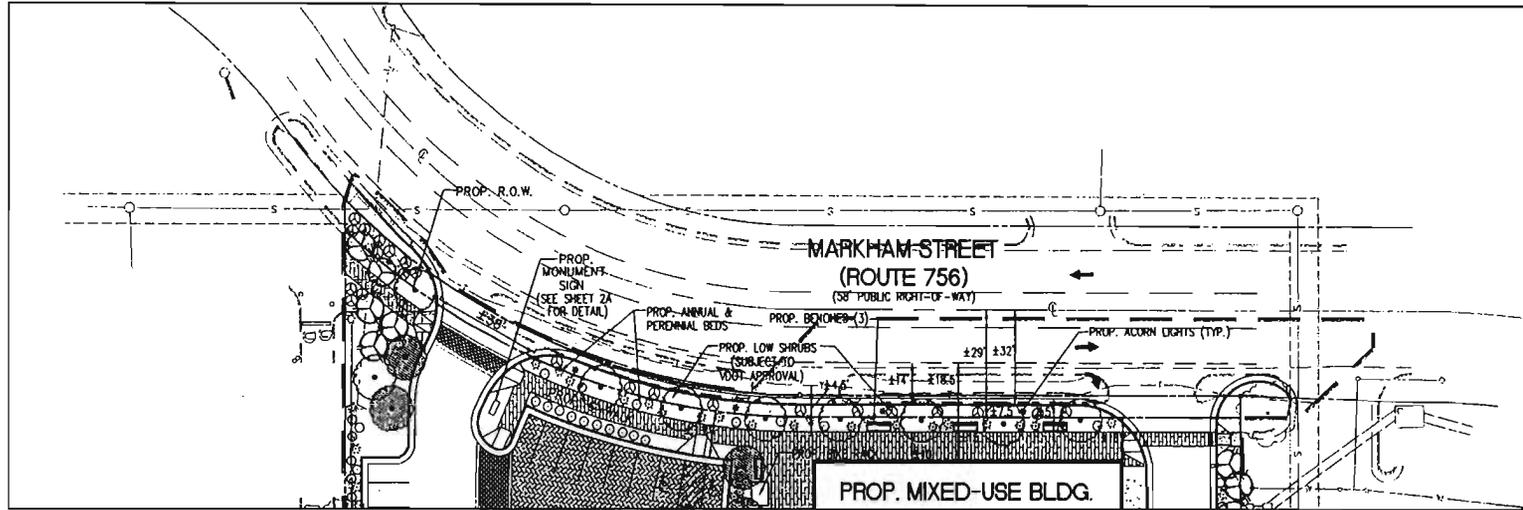


REVISION APPROVED BY

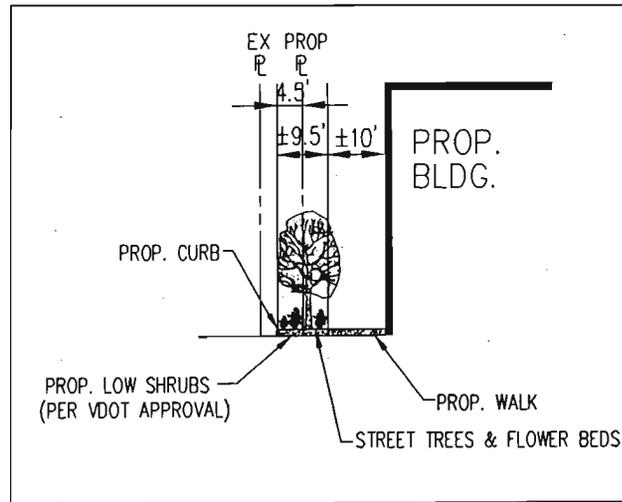
NO.	DATE	APPROVED

CONCEPTUAL LANDSCAPE PLAN
MARKHAM PLAZA
MARION DISTRICT
FAIRFAX COUNTY, VIRGINIA

MARKHAM STREETSCAPE DETAIL
(SCALE: 1" = 20')



MARKHAM STREETSCAPE CROSS-SECTION
(SCALE: 1" = 10')



STREETSCAPE DETAILS

MARKHAM PLAZA
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA

WALTER L. PHILLIPS
INCORPORATED

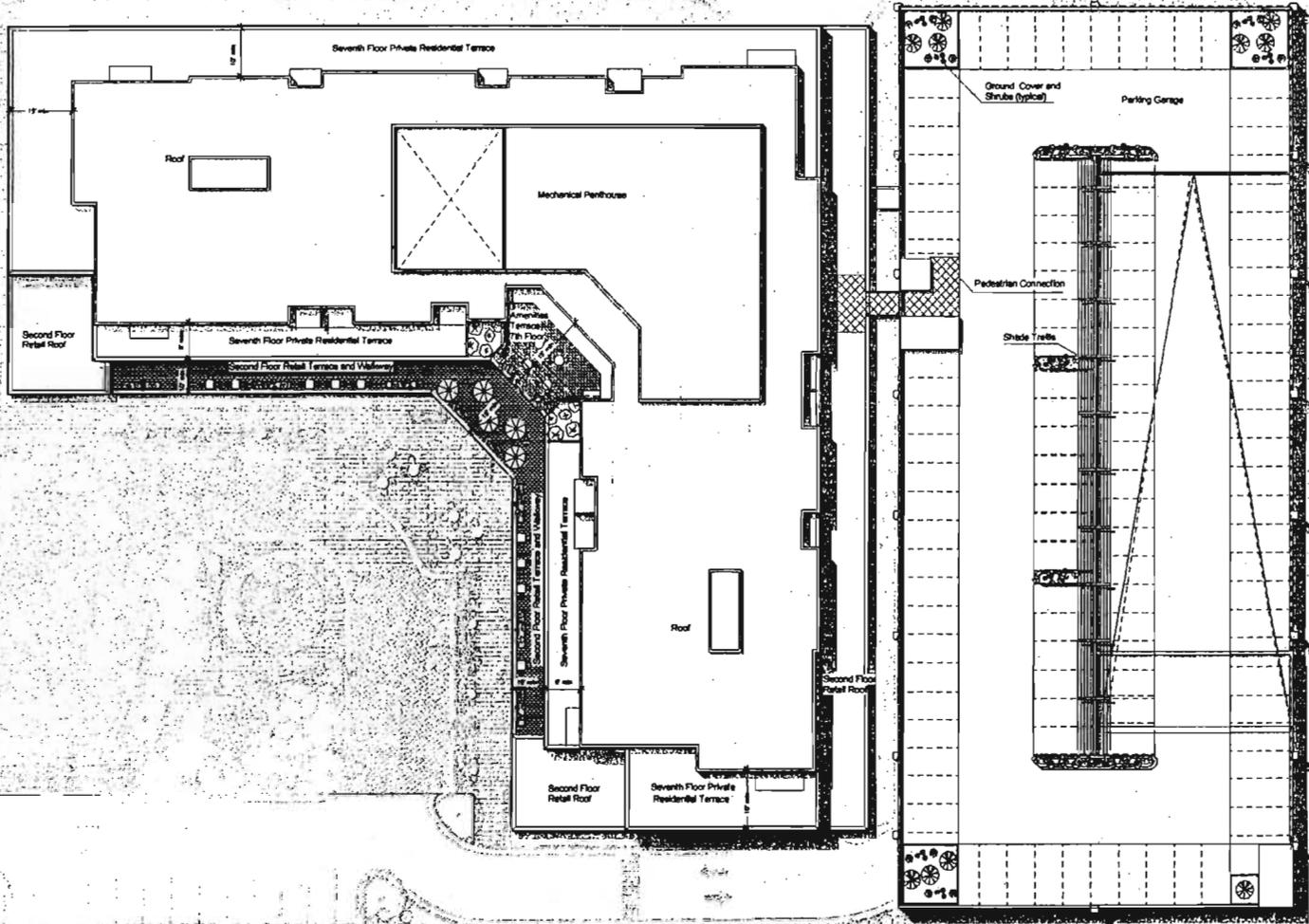
CIVIL ENGINEERS AND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
307 PARK AVENUE FALLS CHURCH, VIRGINIA 22048
(703) 532-0183 FAX (703) 532-1001
WWW.WLPHILLIPS.COM



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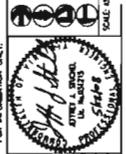
(ROUTE 756)
(35' PUBLIC RIGHT-OF-WAY)



NOTE:
FOR CONCEPTUAL PURPOSES ONLY. SUBJECT
TO CHANGE PENDING FINAL DESIGN.

TERRACE AMENITIES PLAN

MARKHAM PLAZA
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA

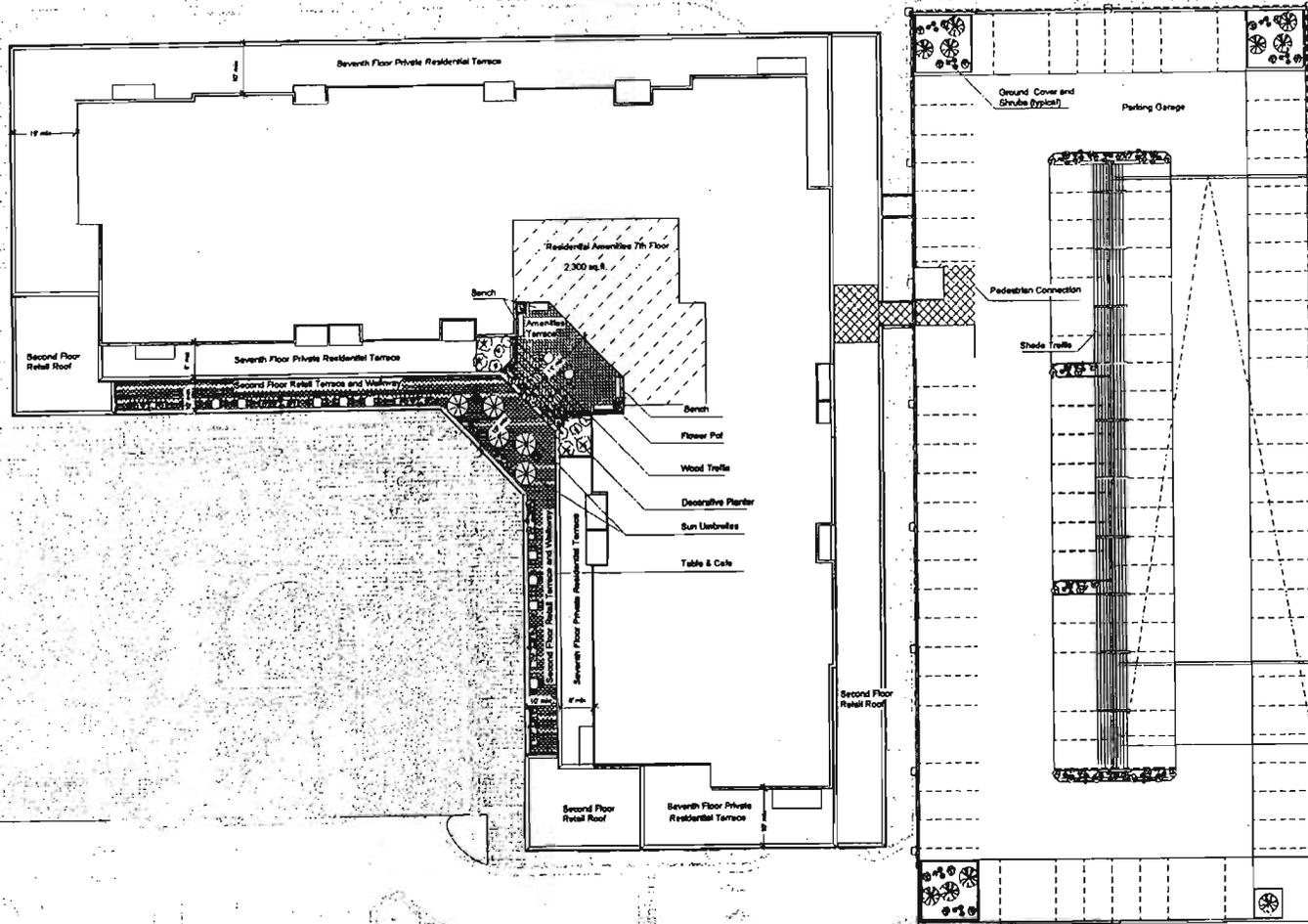


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307 PARK AVENUE FALLS CHURCH, VIRGINIA 22048
WWW.WLPHI.COM
PHONE: (703) 552-9900 FAX: (703) 552-1501
SCALE: AS SHOWN
DATE: 02/20/08
DRAWN: [unintelligible]

REVISION APPROVED BY:

NO.	DESCRIPTION	DATE	BY	APP'D	DATE

MARKHAM STREET
 (ROUTE 756)
 (36' PUBLIC RIGHT-OF-WAY)



NOTE:
 FOR CONCEPTUAL PURPOSES ONLY, SUBJECT
 TO CHANGE PENDING FINAL DESIGN.

TERRACE AMENITIES PLAN
MARKHAM PLAZA
 MASON DISTRICT
 FAIRFAX COUNTY, VIRGINIA

FOR INFORMATION ONLY

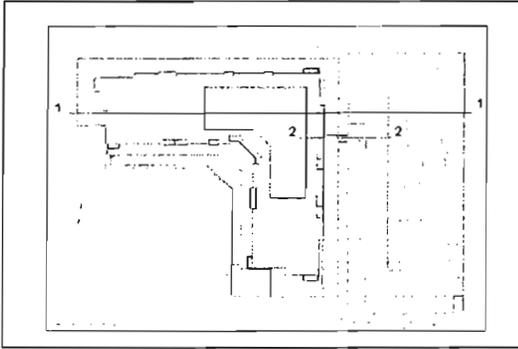
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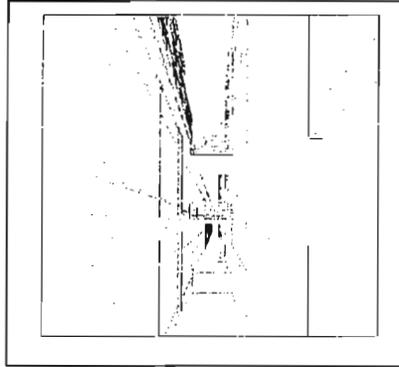
WALTER L. PHILLIPS
 INCORPORATED
 CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
 507 PARK AVENUE FALLS CHURCH, VIRGINIA 22048
 (703) 532-8883 FAX (703) 532-0011
 WWW.WLPHINC.COM
 DATE: 5/16/16
 SCALE: 1" = 10'-0"

KEY MAP

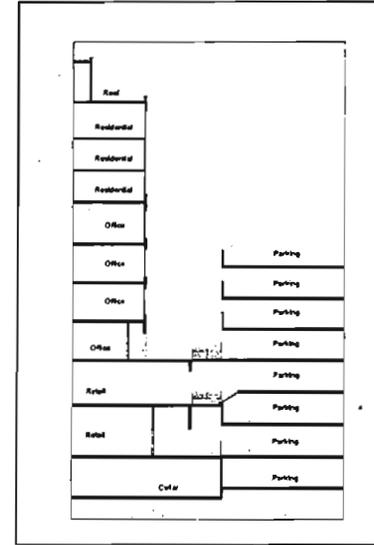
PARKING DECK PEDESTRIAN CROSS-OVER



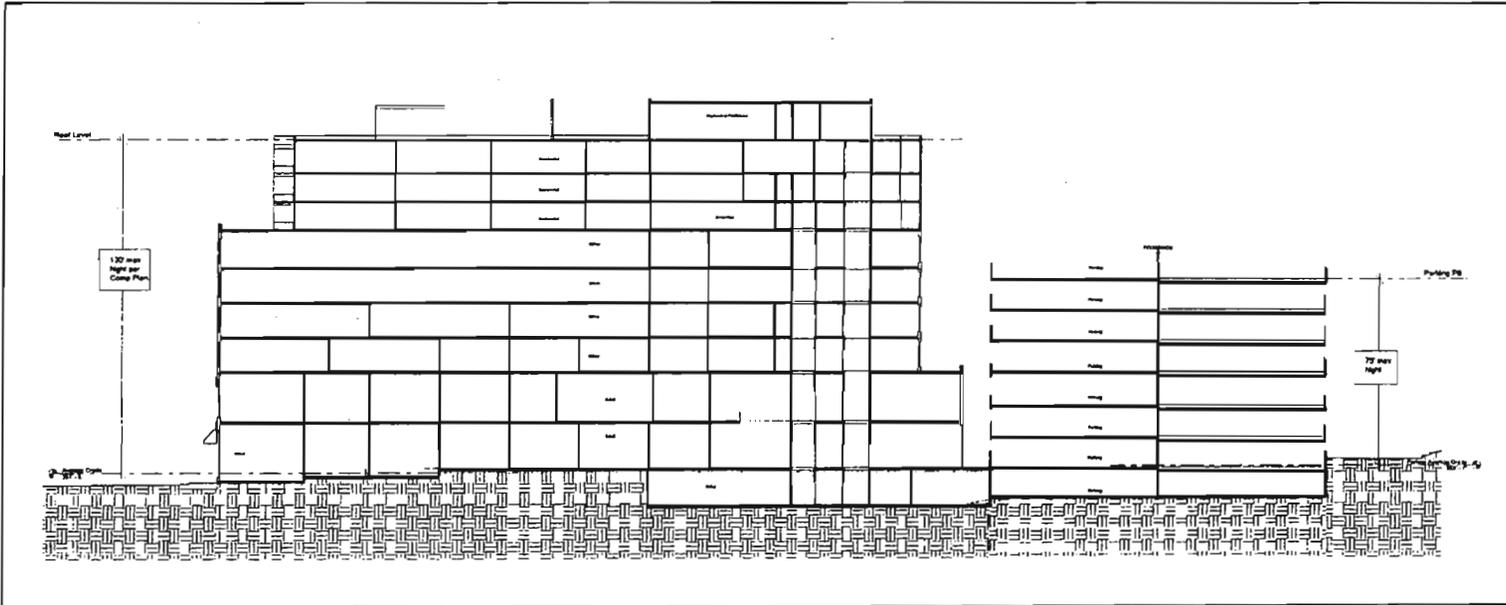
PEDESTRIAN CONNECTION VIEW



**DETAIL SECTION 2 - 2
PEDESTRIAN CONNECTION CROSS SECTION**



CROSS SECTION 1-1



NOTE:
FOR CONCEPTUAL PURPOSES ONLY, SUBJECT TO
CHANGE PRIOR TO FINAL DESIGN.

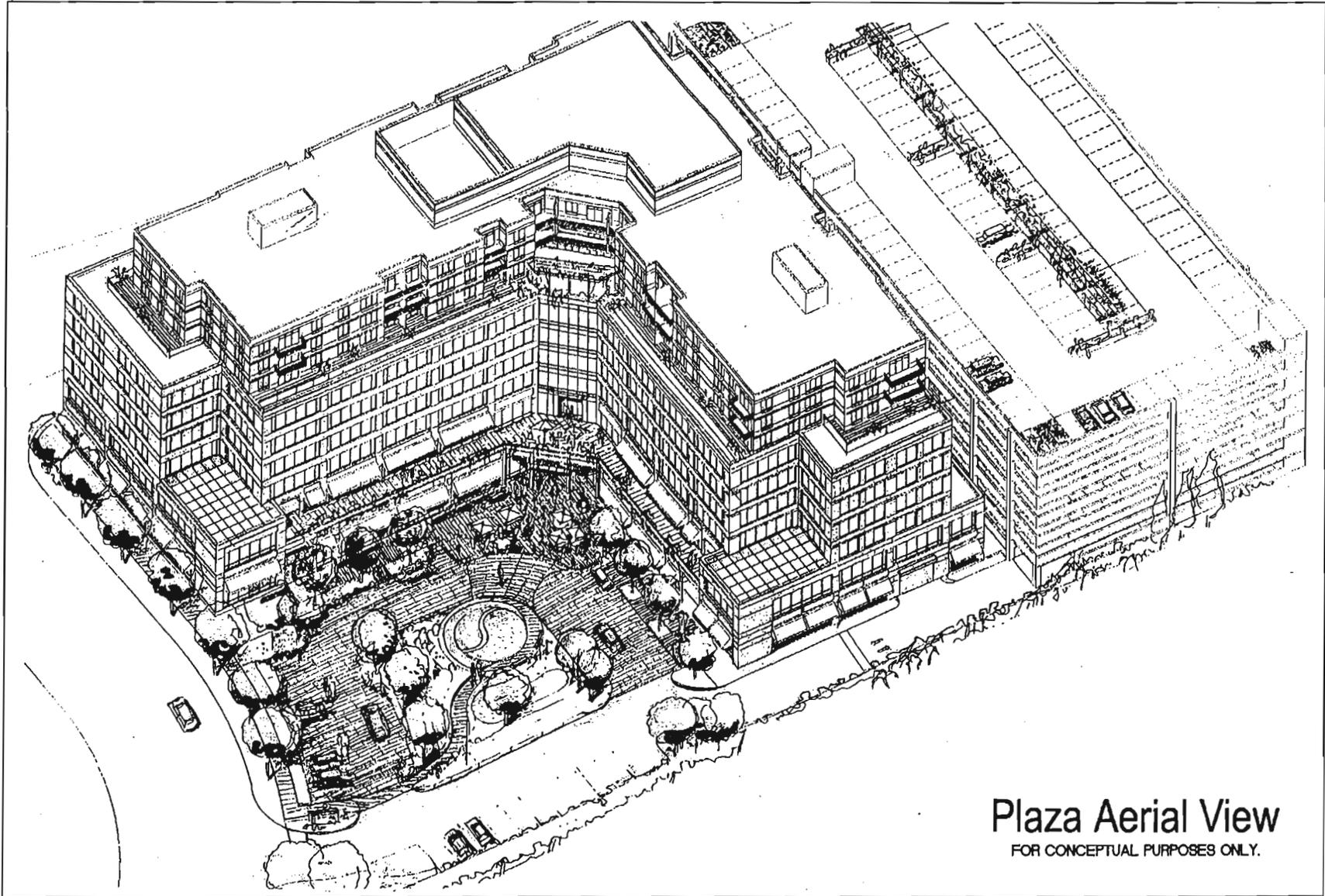
WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS, LAND SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
307 PARK AVENUE, FALLS CHURCH, VIRGINIA 22046 WWW.WLPINC.COM
(703) 532-9600 FAX (703) 533-1011
DATE: 04/10/08 BY: JAV/BJE/STP/STP



REASON APPROVED BY:

NO.	DATE	BY	REASON

BUILDING CROSS SECTIONS
MARKHAM PLAZA
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA



Plaza Aerial View
FOR CONCEPTUAL PURPOSES ONLY.

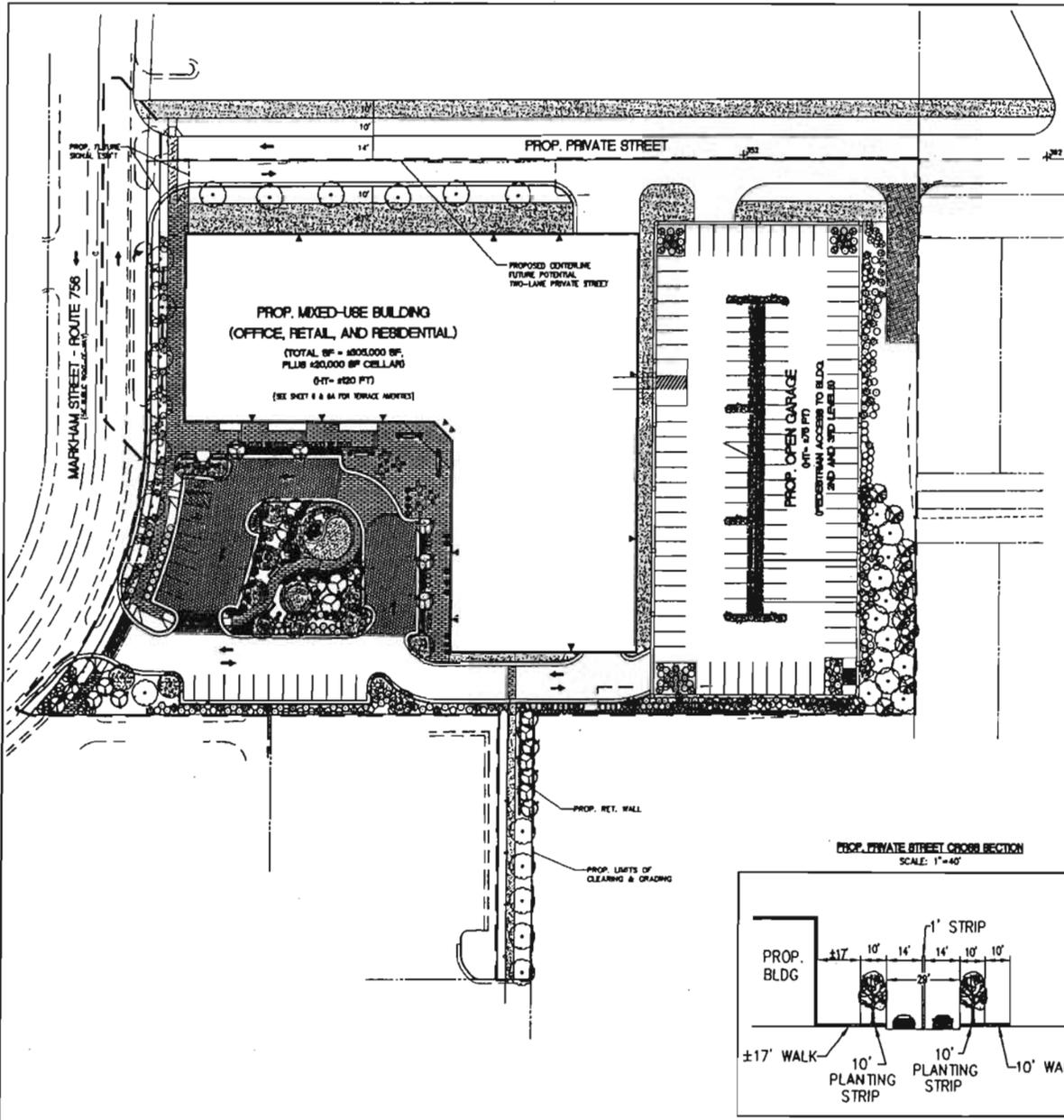
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ONE ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 552-9982 FAX (703) 552-1011 WWW.WLPHINC.COM



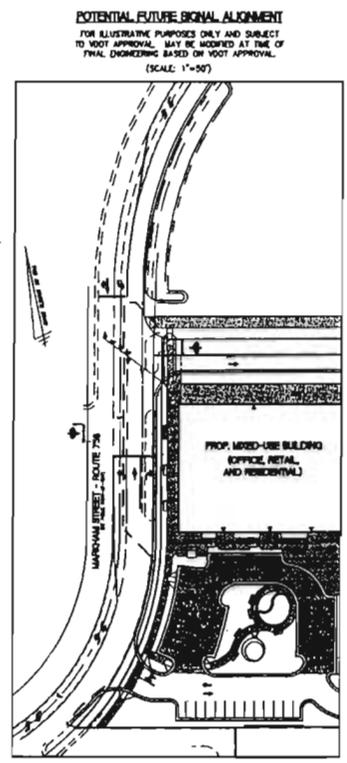
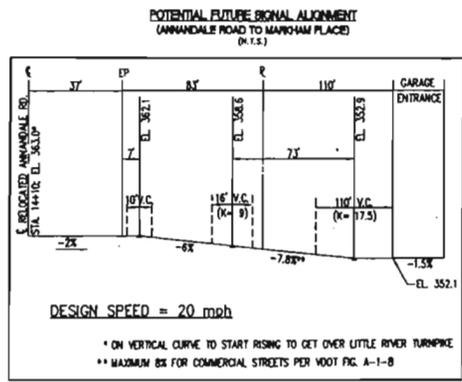
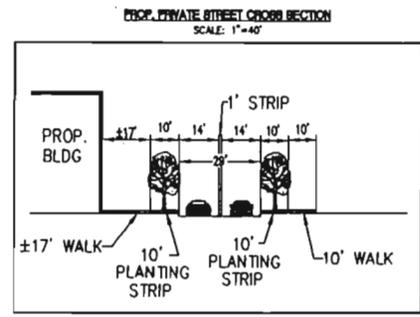
FOR INFORMATION ONLY

NO.	DESCRIPTION	DATE	BY	APPROVED BY

BUILDING PERSPECTIVE VIEW
MARKHAM PLAZA
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA



File No. PS-20 For Map No. 20-2 Job No. 01-022 Civil Div. File # 01022_01P Date



FUTURE PRIVATE STREET PLAN

MARKHAM PLAZA
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA

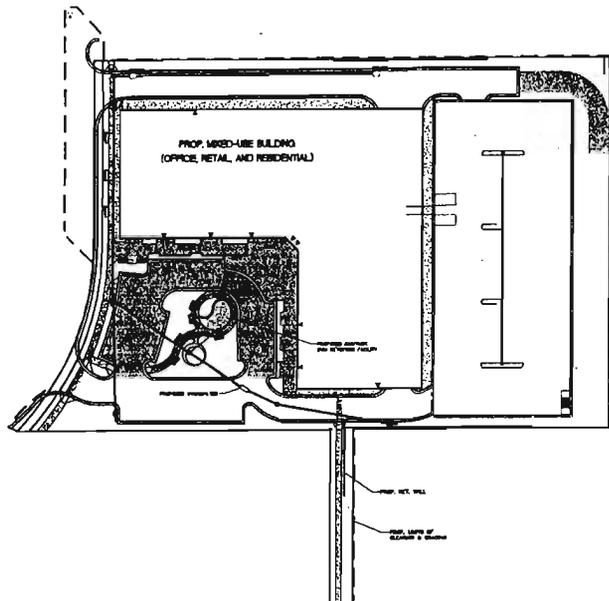
REVISION APPROVED BY:

NO.	DESCRIPTION	DATE	BY	APPROVED	DATE



WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEER LAND SURVEYOR PLANNER LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
703.332.0800 FALL.0203.332.0801 WWW.WLPINC.COM

DATE: 11-11-11
BY: WLP/MLP
SCALE: 1"=40'



POTENTIAL SWM/BMP AREA MAP
1" = 50'

STORMWATER MANAGEMENT SUMMARY

- I. PRE-DEVELOPMENT (EXISTING CONDITIONS) - (TOTAL SITE)**
- A. CONTRIBUTING AREAS:**
 0.20 AC @ 0.30 (GREEN AREA, DN-SITE)
 3.24 AC @ 0.90 (PREFS, DRIVEWAYS, SIDEWALKS, ETC.)
 3.44 AC
- B. WEIGHTED "C":**
 $(0.20)(0.30) + (3.24)(0.90) = 0.87$
 3.44
- C. TIME OF CONCENTRATION = 5 MIN**
- D. RUNOFF:**
 Q2 = (0.87)(5.45)(3.44) = 16.31 CFS
 Q10 = (0.87)(7.27)(3.44) = 21.76 CFS
- II. POST-DEVELOPMENT (ULTIMATE CONDITIONS) - (TOTAL SITE)**
- A. CONTRIBUTING AREAS:**
 0.64 AC @ 0.30 (GREEN AREA, DN-SITE)
 2.80 AC @ 0.90 (PAVED AREA, DN-SITE)
 3.44 AC
- B. WEIGHTED "C":**
 $(0.64)(0.30) + (2.80)(0.90) = 0.79$
 3.44
- C. RUNOFF:**
 Q2 = (0.79)(5.45)(3.44) = 14.81 CFS
 Q10 = (0.79)(7.27)(3.44) = 19.76 CFS

RAINTANK DETENTION FACILITY COMPUTATIONS

- I. 10YR-2HR STORM EVENT**
- A. CONTRIBUTING AREA = 0.56 AC**
- B. "C" VALUE = 0.90**
- C. RAINFALL FOR 10YR-2HR EVENT = 0.25"**
- D. RUNOFF VOLUME TO RAINTANK**
 $V = (0.56 AC)(0.90)(0.25") = 536 CF$
- II. RAIN TANK SIZING**
- A. VOLUME OF SINGLE CRATE**
 $V = (LENGTH)(WIDTH)(HEIGHT)$
 $V = (1.34')(2.25')(1.48') = 4.44 CF$
 (4.44)(90) VOLUME = 4.22' OF DETENTION STORAGE / CRATE
- B. NUMBER OF CRATES = 127**
- C. STORAGE VOLUME PROVIDED = 127 @ 4.22' = 536 CF**

BMP FACILITY DESIGN CALCULATIONS

PART 1: LIST ALL OF THE SUBAREAS AND "C" FACTORS USED IN THE BMP COMPUTATIONS

SUBAREA DESCRIPTION AND DESCRIPTION	"C" FACTOR	ACRES
(1)	(2)	(3)
A1: ONSITE DRAINAGE AREA TO STORMWATER(S)	0.85	0.75

PART 2: COMPUTE THE WEIGHTED AVERAGE "C" FACTOR FOR THE SITE

(A) AREA OF THE SITE (a) 1.65 ACRES

(B) WEIGHTED AVERAGE "C" FACTOR = 0.79 (PER STORMWATER MANAGEMENT SUMMARY THIS SHEET)

PART 3: COMPUTE THE TOTAL PHOSPHORUS REMOVAL FOR THE SITE

SUBAREA DESCRIPTION	BMP TYPE	REMOVAL EFF. (%)	AREA (AC)	"C" FACTOR RATIO	PRODUCT RATIO
(1)	(2)	(3)	(4)	(5)	(6)
A1	STORMWATER(S)	50	0.75/1.65	0.80/0.79	13.7

(a) TOTAL = 13.7%

DETERMINE COMPLIANCE WITH PHOSPHORUS REMOVAL REQUIREMENT

- (A) SELECT REQUIREMENT (a) = 5.5%
- * WATER SUPPLY OVERLAY DISTRICT (COOQUAN WATERSHED) = 50 %
 - * CHESAPEAKE BAY PRESERVATION AREA (NEW DEVELOPMENT) = 40 %
 - * CHESAPEAKE BAY PRESERVATION AREA (REDEVELOPMENT) = [1 - 0.9 * (0.94/0.81)] * 100 = -4.4%

BMP/SWM NARRATIVE:

THE SITE CURRENTLY CONTAINS A BOWLING ALLEY AND ASSOCIATED ASPHALT PARKING AREAS. THE PRE-DEVELOPMENT IMPERVIOUS AREA OF 3.24 AC WILL BE REDUCED TO 2.80 AC POST-DEVELOPMENT. DUE TO THIS REDUCTION IN IMPERVIOUS AREA, THERE IS NO PHOSPHORUS REMOVAL REQUIREMENT BASED ON THE CHESAPEAKE BAY PRESERVATION AREA FORMULA FOR RE-DEVELOPMENT. HOWEVER, ADDITIONAL PHOSPHORUS REMOVAL IS PROVIDED TO BE PROVIDED THROUGH THE USE OF STORMWATER CATCHMENTS LOCATED IN THE SURFACE PARKING LOT. THE BMP DESIGN WILL BE FINALIZED AT THE TIME OF THE SITE PLAN.

THE PRE DEVELOPMENT PEAK RELEASES FROM THE SITE ARE 16.31 CFS AND 21.76 CFS FOR THE 2 YEAR AND 10 YEAR STORMS RESPECTIVELY. THESE RELEASES WILL BE REDUCED TO 14.81 CFS AND 19.76 CFS POST-DEVELOPMENT, RESULTING IN A 1.50 CFS REDUCTION IN PEAK RUNOFF DURING THE 2 YEAR STORM AND A 2.00 CFS REDUCTION IN PEAK RUNOFF DURING THE 10 YEAR STORM SOLELY BY REDUCING IMPERVIOUS AREA. THE SITE RUNOFF RATES WILL BE FURTHER REDUCED BY OBTAINING THE ENTIRE 10 YEAR STORM RUNOFF FOR 0.56 ACRES OF THE SITE IN UNDERGROUND EXISTANCES.

STORMWATER MANAGEMENT CHECKLIST

MINIMUM STORMWATER INFORMATION FOR ZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of this information requirement with justification shall be attached. Note: Waivers will be acted upon upon receipt. Failure to adequately address the required submission information may result in a delay in processing the application.

This information is required under the following Zoning Ordinance paragraphs:
 Section 16-111 (B) (1) & (2) Section 16-111 (D) (1) & (2)
 Chapter 16-112 (B) (1) & (2) Chapter 16-112 (D) (1) & (2)
 Chapter 16-113 (B) (1) & (2) Chapter 16-113 (D) (1) & (2)
 Chapter 16-114 (B) (1) & (2) Chapter 16-114 (D) (1) & (2)

1. Plot is at a minimum scale of 1"=50' (unless 1/2"=50' is required) and a minimum scale of 1"=100'.
2. A graphic depicting the stormwater management facility and limits of clearing and grading accommodate the stormwater management facility, storm drainage pipe systems and outlet protection, pond sedimentation, access roads, site utility, energy dissipation devices, and stream stabilization measures as shown on Sheet 11.1.
3. Provide:

Facility Name/Type & No.	On-site area served (acres)	Off-site area (acres)	Drainage area (acres)	Footprint area (sq ft)	Storage Volume (cu ft)	Height (ft)
RAINTANK	0.56	N/A	0.56	363	536	N/A
4. Onsite drainage channels, outlets and pipe systems are shown on Sheet 11.1.1.1. Pond inlet and outlet pipe systems are shown on Sheet 11.1.2.
5. Maintenance access roads to stormwater management facility(ies) are shown on Sheet 11.1.1. Type of stabilization across road surface noted on the plan is _____.
6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 11.1.1.
7. A stormwater management consultant which contains a description of how detention and best management practices requirements will be met is provided on Sheet 11.1.
8. A description of the existing conditions or such numbered site outlet extended downstream from the site in a path which is at least 100 times the site area or which has a drainage area of at least one square mile (100 acres) to be provided on Sheet 11.2.
9. A description of how the outlet requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 11.2.
10. Existing topography with maximum contour intervals of one (1) foot and a note as to whether it is an air survey or field run is provided on Sheet 11.0.

N/A 11. A submission waiver is requested for _____
 N/A 12. Stormwater management is not required because _____

PRELIMINARY STORMWATER MANAGEMENT PLAN

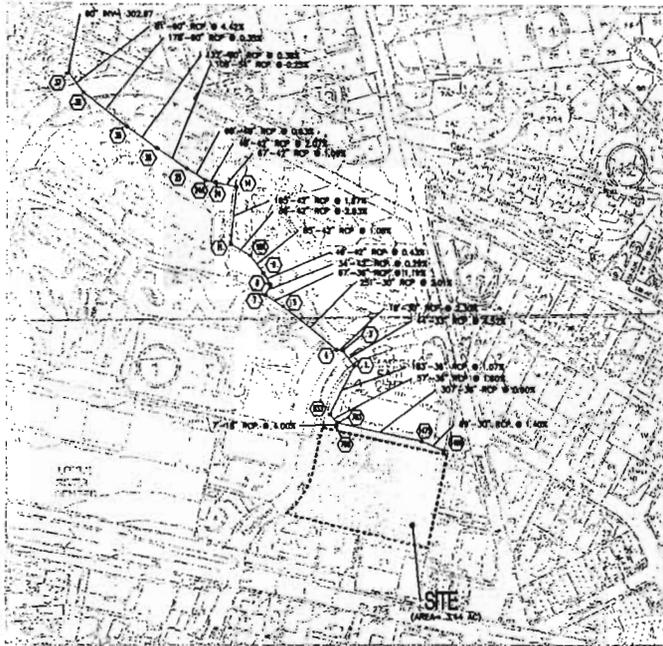
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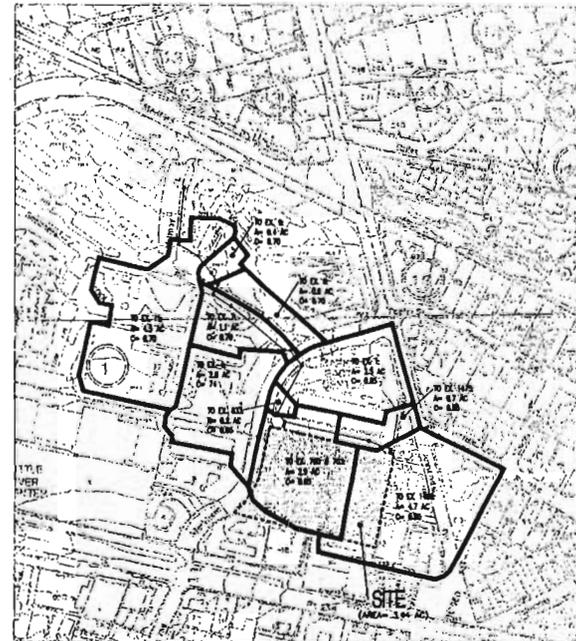
REVISION APPROVED BY

NO.	DESCRIPTION	DATE	BY	APPROVED

MARKHAM PLAZA
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA



OUTFALL STORM SEWER MAP
1" = 200'



OUTFALL DRAINAGE AREA MAP
1" = 200'

OUTFALL STORM SEWER COMPUTATIONS

From point	To point	area (A)	C	CA	Inlet time (seconds)	inlet depth (feet)	runoff (CFS) (unretarded)	runoff (CFS) (retarded)	length (ft)	slope (PCT)	diameter (in)	capacity (CFS)
1488	1478	4.70	0.80	3.76	7.27	28.04	28.04	88	0.9740	30	48.53	
1478	750	4.70	0.80	3.76	7.27	28.04	28.04	88	0.9740	18	21.91	
750	750	1.43	0.80	1.14	7.27	8.98	8.98	27	0.2190	24	45.37	
750	833	1.43	0.80	1.14	7.27	8.98	8.98	27	0.2190	18	16.98	
833	1	0.20	0.80	0.16	7.27	1.24	0.62	18	0.0107	18	16.98	
1	2	2.8	0.80	2.24	7.27	16.18	8.77	44	0.0482	24	118.44	
2	4	2.8	0.74	2.07	7.27	16.08	8.77	18	0.0250	30	56.21	
4	6	2.8	0.74	2.07	7.27	16.08	8.77	18	0.0250	30	56.21	
6	8	1.1	0.70	0.77	7.27	8.92	8.94	24	0.0258	42	54.18	
8	9	0.6	0.70	0.42	7.27	5.07	5.71	48	0.0061	42	16.91	
9	10A	0.4	0.70	0.28	7.27	3.04	3.47	48	0.0108	42	104.88	
10A	11	1.4	0.70	0.98	7.27	10.72	10.72	42	0.0080	42	122.26	
11	14	4.8	0.70	3.36	7.27	22.90	11.64	176	0.0187	42	122.26	

OUTFALL NARRATIVE:

THIS SITE IS LOCATED IN THE ACCOCHIE CREEK WATERSHED. RUNOFF FROM THIS SITE IS CONVEYED VIA ONE SHEET AND STORM SEWER FLOW TO AN MPA LOCATED TO THE WEST OF THE SITE.

THE MAJORITY OF THE SITE DRAINS TO AN EXISTING STORM SEWER SYSTEM LOCATED ON-SITE AND DIRECTLY NEXT TO THE SITE OF THE ADJACENT PROPERTY. THIS STORM SEWER FLOWS TO THE WEST ACROSS MARSHMAN ST. AND THROUGH THE PARLIAMENT VILLAGE APARTMENT COMPLEX. THIS EXISTING STORM SEWER SYSTEM HAS BEEN ANALYZED AND WAS FOUND TO BE ADEQUATE TO CONVEY THE 10 YEAR STORM TO A POINT DETERMINED USING 6-0203.2A. THE LARGEST CONTINUING DRAINAGE AREA WHICH INCLUDES A PORTION OF THE SITE IS 4.7 ACRES DRAINING TO STRUCTURE 1488. AT STRUCTURE 1488, A DRAINAGE AREA OF 4.3 ACRES ENTERS THE SYSTEM. SINCE 4.3 ACRES IS GREATER THAN 80% OF 4.7 ACRES, THE ANALYSIS CAN BE STOPPED AT A POINT 150' DOWNSTREAM OF STRUCTURE 11. SINCE STRUCTURE 14 IS 180' DOWNSTREAM OF STRUCTURE 11, THE ANALYSIS CAN BE STOPPED THERE. HYDRAULIC GRADELINE COMPUTATIONS, HOWEVER, HAVE BEEN PROVIDED FROM THE POINT WHERE THE STORM SEWER DISCHARGES INTO THE MPA (STRUCTURE 37).

IN SUMMARY, THE ADEQUATE OUTFALL REQUIREMENTS HAVE BEEN MET AND THE DOWNSTREAM EXTENT OF REVIEW HAS DETERMINED USING 6-0203.2A. THIS PRELIMINARY OUTFALL ANALYSIS IS SUBJECT TO CHANGE WITH FUTURE ENGINEERING AND WILL BE REEVALUATED AND MODIFIED WITH FUTURE PLANS.

HYDRAULIC GRADELINE COMPUTATIONS

Inlet Station	Structure Type (A/C)	Outlet Water Surface Elevation	Junction Lines													Inlet Water Surface Elevation	New Water Surface Elevation	Difference						
			Q ₁ (cfs)	Q ₂ (cfs)	Q ₃ (cfs)	Q ₄ (cfs)	Q ₅ (cfs)	Q ₆ (cfs)	Q ₇ (cfs)	Q ₈ (cfs)	Q ₉ (cfs)	Q ₁₀ (cfs)	Q ₁₁ (cfs)	Q ₁₂ (cfs)	Q ₁₃ (cfs)									
38	M	308.87	80	201.47	81	0.028	0.48	10.38	0.41	90	159.27	0.26	1993.00	1.24	0.12	20	0.20	0.21	-0.37	0.88	207.83	218.92	8.09	
38	I	307.83	80	182.27	178	0.023	0.67	8.28	0.23	80	180.24	0.18	1884.82	1.21	0.13	18	0.03	0.47	0.40	0.20	1.17	208.06	218.98	0.92
38	I	288.00	80	130.24	123	0.023	0.62	8.18	0.23	84	193.78	0.27	1486.84	1.48	0.18	80	0.41	1.28	1.41	0.79	1.24	216.34	215.30	-0.96
38	I	316.24	84	193.78	188	0.026	0.48	9.87	0.28	48	181.23	13.03	1920.01	3.28	0.22	16	0.03	0.28	0.28	0.38	1.03	211.37	218.33	4.96
34A	M	311.37	66	181.23	88	0.011	0.78	13.03	0.88	42	181.23	15.73	2377.16	3.84	0.28	20	0.38	1.82	-0.75	1.53	212.88	217.03	4.14	
24	I	312.89	42	181.23	48	0.023	1.08	18.72	0.88	42	148.88	18.43	2787.86	3.71	0.27	18	0.03	1.23	1.73	0.88	1.85	214.84	222.77	7.93
14	I	314.84	42	148.88	47	0.022	1.08	18.08	0.87	42	117.84	13.23	1426.43	3.88	0.23	20	0.38	2.13	2.77	1.28	2.48	212.88	222.42	4.73
11	I	317.88	42	117.84	188	0.014	3.87	13.23	0.88	42	84.74	0.28	837.92	1.81	0.18	80	0.21	1.28	1.63	0.81	1.48	221.17	227.32	6.05
10A	M	321.17	42	84.74	38	0.028	0.82	8.86	0.28	42	84.74	0.88	832.92	1.81	0.18	30	0.33	0.84	-0.42	0.74	231.81	238.40	6.40	
9	I	321.81	42	84.74	88	0.028	0.78	8.86	0.28	42	92.71	0.84	893.37	1.44	0.14	0	0.00	0.87	0.88	0.34	1.08	223.00	229.81	6.81
8	I	323.00	42	92.71	48	0.028	0.42	8.84	0.28	42	88.84	0.71	816.88	1.32	0.13	80	0.48	0.82	1.20	0.87	1.89	224.03	232.88	8.85
7	I	324.03	42	88.84	24	0.028	0.28	8.71	0.27	38	83.84	11.78	878.48	1.13	0.21	80	0.50	1.41	1.28	0.88	1.28	223.34	231.65	8.31
6	M	328.34	38	83.84	87	0.018	1.04	11.78	0.84	30	83.84	18.81	1408.88	0.84	0.04	18	0.03	0.89	-0.48	1.20	208.77	224.73	7.96	
4	I	328.77	38	83.84	81	0.041	10.28	18.92	1.11	20	87.87	13.88	845.11	3.88	1.84	48	0.38	3.88	3.84	1.88	12.21	238.87	246.28	6.28
3	M	338.87	38	87.87	18	0.037	8.48	13.88	0.74	20	87.87	11.44	777.78	3.82	0.71	80	0.86	2.11	-1.08	1.86	240.83	248.33	4.71	
1	I	348.88	30	87.87	44	0.017	8.78	11.44	0.61	28	82.88	7.23	280.28	0.88	0.28	80	0.20	1.50	1.44	1.44	241.87	248.30	3.23	
120	I	241.87	38	82.88	168	0.028	1.44	7.23	0.21	28	81.88	7.88	272.14	0.88	0.28	80	0.28	0.78	1.08	0.21	1.44	243.81	248.87	2.26
750	I	243.81	38	81.88	87	0.028	0.24	7.88	0.28	28	75.37	4.71	187.88	0.28	0.12	80	0.13	0.84	0.88	0.81	344.34	348.42	2.18	
1478	I	344.34	38	75.37	207	0.028	0.77	4.72	0.28	20	78.84	0.82	171.78	0.84	0.18	18	0.03	0.28	0.28	0.18	348.18	350.32	0.33	
1488	I	248.18	38	78.84	88	0.028	0.48	5.82	0.14	20	78.84	0.82	171.78	0.84	0.18	80	0.23	0.84	0.71	0.35	348.88	350.78	8.79	

PRELIMINARY OUTFALL ANALYSIS

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DATE: 01/17/18
SCALE: 1" = 200'

NO.	DESCRIPTION	DATE	BY	APPROVED	DATE

REVISION APPROVED BY:

MARKHAM PLAZA
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: 01/17/18
SCALE: 1" = 200'

PRELIMINARY OUTFALL ANALYSIS