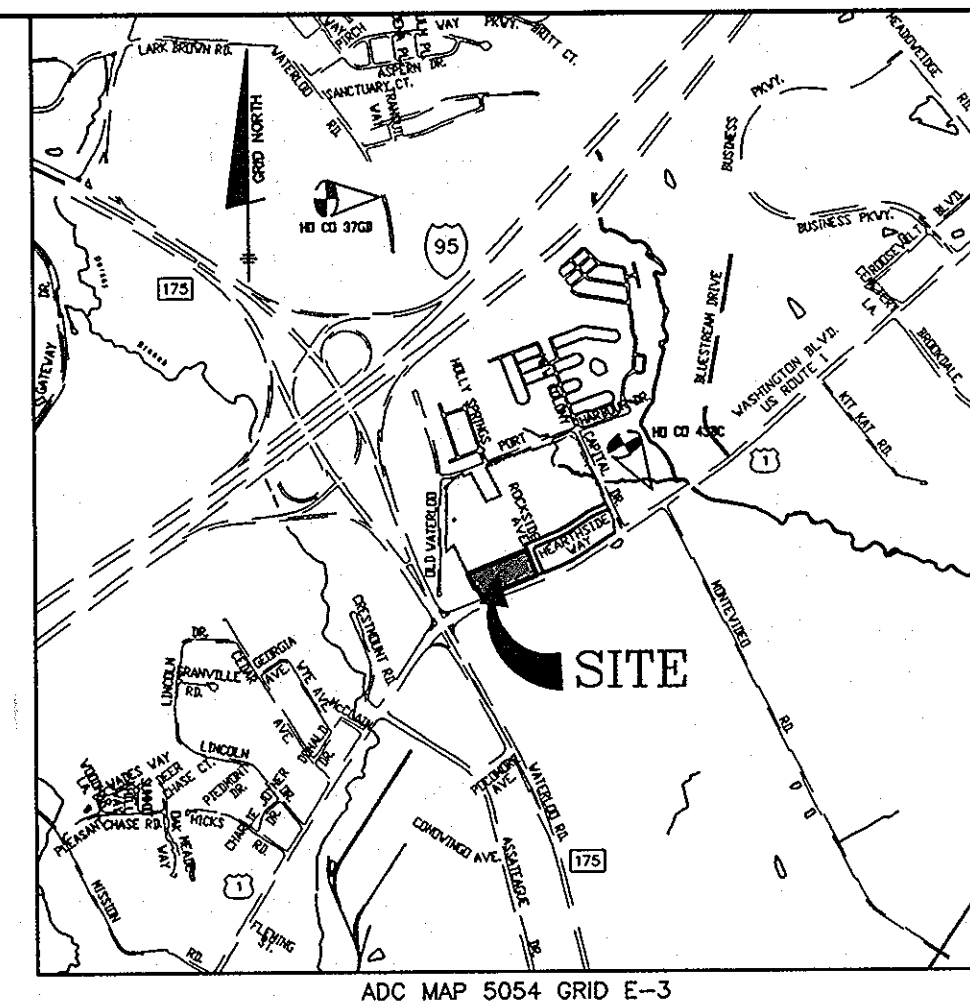


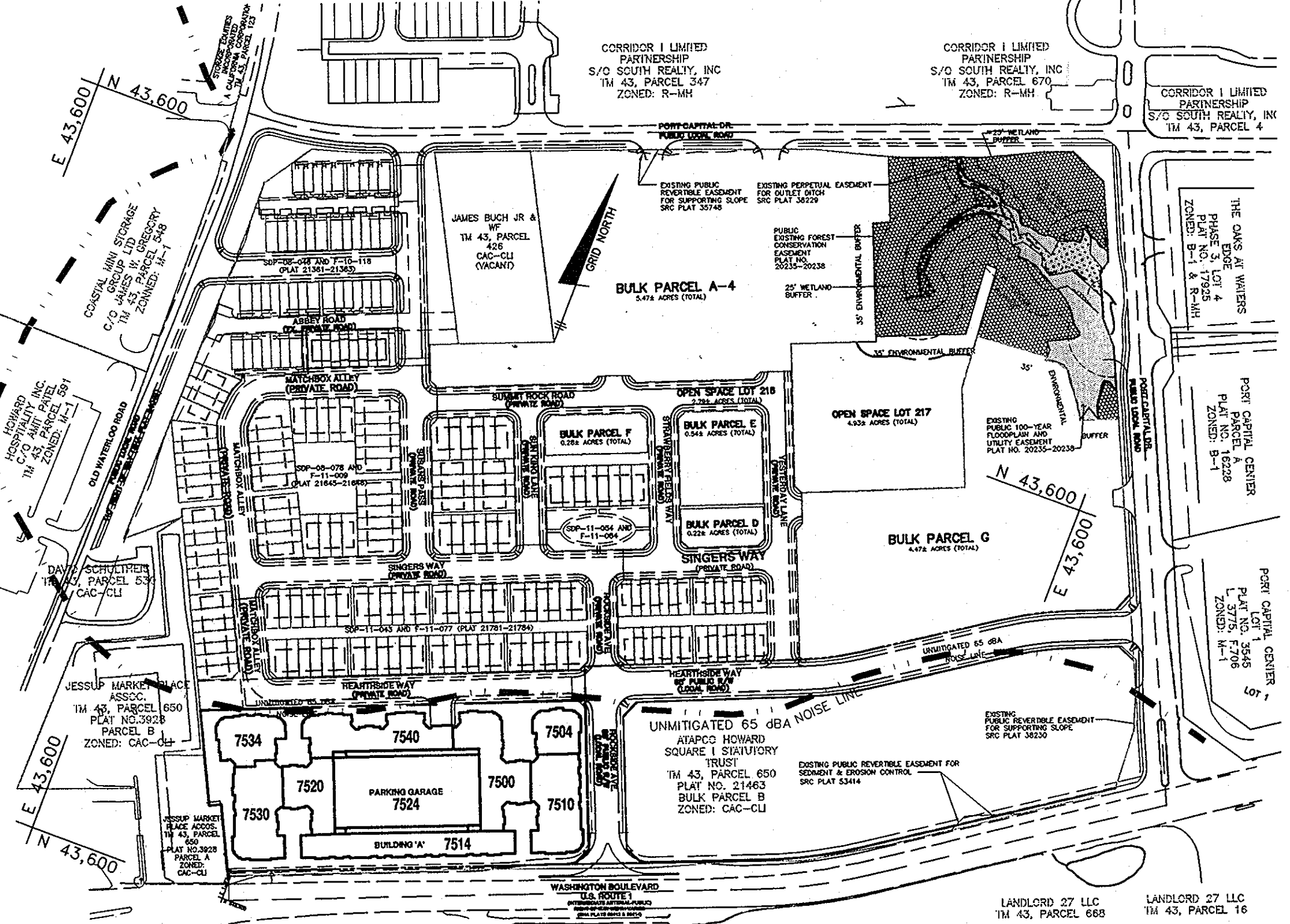
SHEET INDEX table with columns NO. and DESCRIPTION. Includes title sheet, sediment control, site development, noise study, water quality, and landscape plan.

SITE DEVELOPMENT PLAN
HOWARD SQUARE
PHASE 3 & 4, PARCEL C
APARTMENT BUILDING



GENERAL NOTES:

- 1. THIS PLAN IS SUBJECT TO COUNTY COUNCIL BILL 45-2003...
2. THE SUBJECT PROPERTY IS ZONED CAC-CLU PER THE 2/2/04 COMPREHENSIVE ZONING PLAN...
3. STORM DRAIN REPORT AND STORMWATER MANAGEMENT REPORTS PROVIDED BY MILDBERG, BOENDER & ASSOC., INC.



GENERAL NOTES CONT'D:

- 38. WP-11-017 WAS APPROVED IN AUGUST 27, 2010, WAIVING SECTION 16.156 (g)(2) WHICH ESTABLISHES TIMELINES FOR SUBMISSION OF REVISED PLANS...
39. WP-11-067 WAS APPROVED ON NOVEMBER 23, 2010, WAIVING SECTION 16.120(C)(4) WHICH REQUIRES THAT SINGLE-FAMILY ATTACHED LOTS HAVE A MINIMUM 15 FOOT FRONTAGE ON A PUBLIC ROAD WHICH MAY BE APPROVED PROVIDED THEY FRONT ON A COMMONLY OWNED AREA...

SITE ANALYSIS DATA CHART

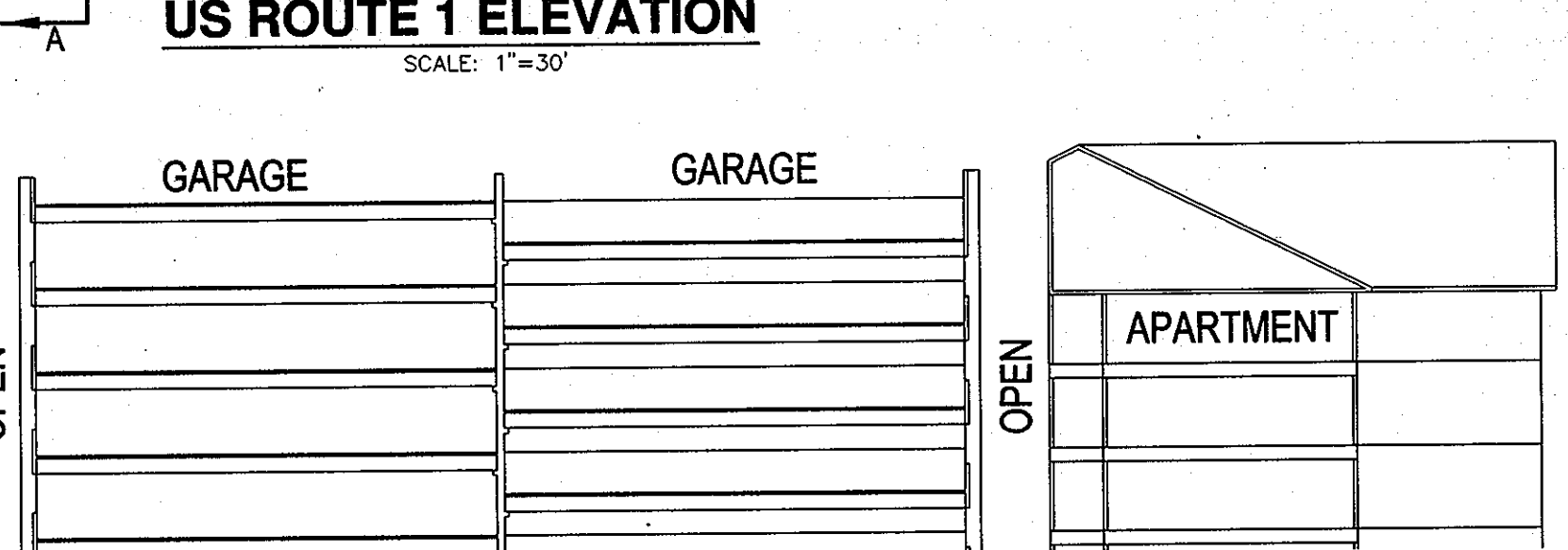
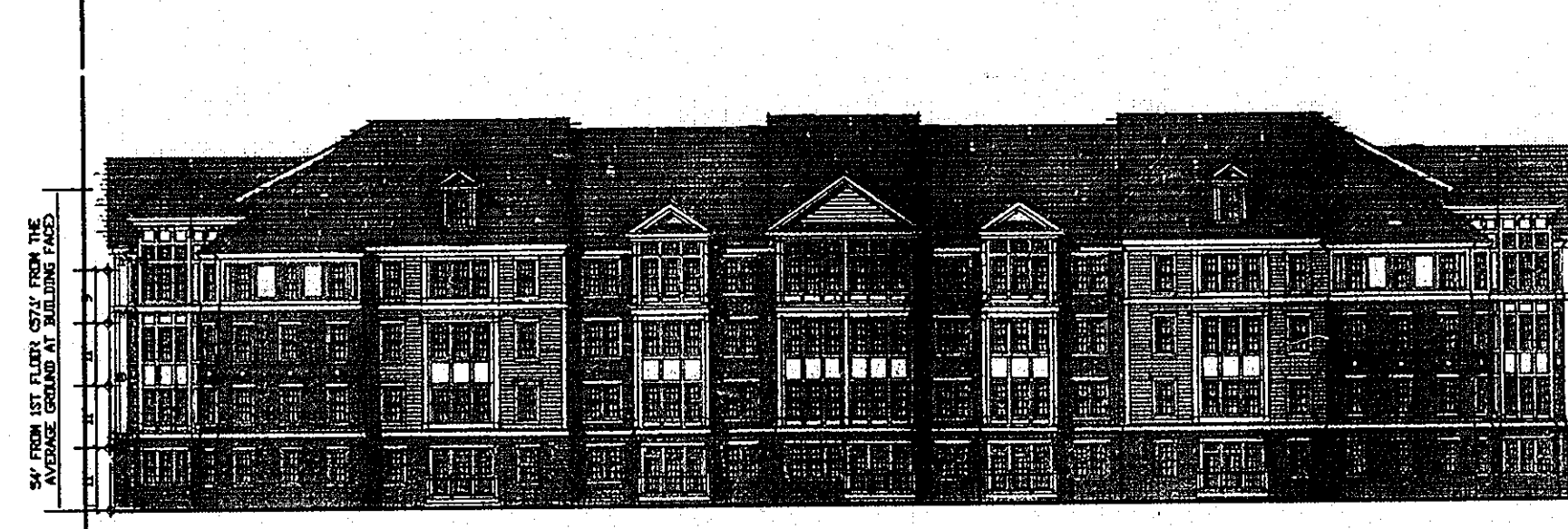
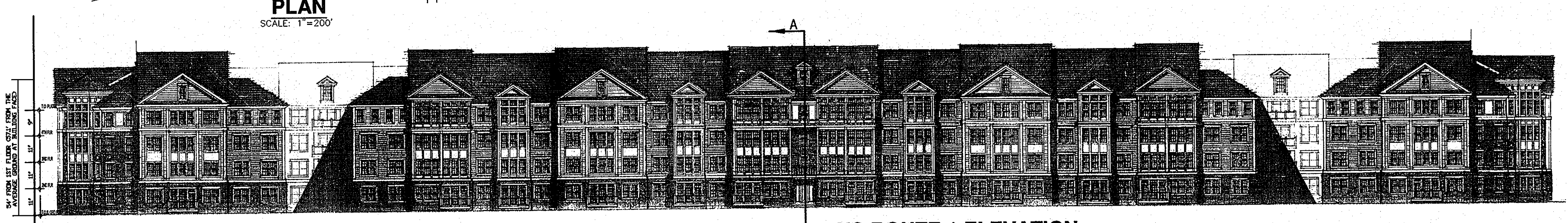
Table with 7 columns: Item, Description, Value. Includes total project area, area of plan submission, approximate limit of disturbance, present zoning, proposed use of site, total number of units available, total number of units proposed.

BUILDING CONSTRUCTION MATERIALS SHALL BE USED TO REDUCE THE INTERIOR SOUND TO 45 DBA

ADDRESS CHART table with columns LOT NO. and STREET ADDRESS. Lists addresses for parcels C 7500 through C 7540.



- 22. WP-07-052 WAS APPROVED ON MAY 8, 2007 WAIVING SECTION 16.116(a)(1) AND 16.116(a)(2)(ii) OF THE SUBDIVISION REGULATIONS. THE APPROVAL IS SUBJECT TO THE FOLLOWING:
1. UNDERGROUND SWIM IN THE CURRENT LOCATION OF THE EXISTING SWIM POND WILL BE INSTALLED AS NECESSARY...
2. LIMITS OF DISTURBANCE WILL BE THE MINIMUM NECESSARY TO INSTALL THE IMPROVEMENTS AND SHALL NOT EXCEED THE DISTURBANCE SHOWN ON THE WAIVER PETITION EXHIBIT SUBMITTED ON 4/4/07...



- 32. WP-08-020 WAS APPROVED ON OCTOBER 3, 2007, WAIVING SECTION 16.155 (APPLICABILITY) WHICH REQUIRED THE SUBMISSION OF SITE DEVELOPMENT PLAN FOR NEW OR EXPANDED NONRESIDENTIAL DEVELOPMENT AND NEW RESIDENTIAL DEVELOPMENT INCLUDING SINGLE-FAMILY ATTACHED, APARTMENT AND MOBILE HOME RESIDENTIAL DEVELOPMENT...
33. EXISTING UTILITIES BASED ON FIELD RUN SURVEY PERFORMED BY MILDBERG, BOENDER AND ASSOC., ON OR ABOUT JUNE 2007.

ESD Micro-Scale Practices Summary Table with columns Practice, MDE Type, Total DA, Impervious Area, etc. Includes Residential and Commercial sections.

Residential and Commercial credit tables showing allocations required, provided, and remaining for various units and sections.

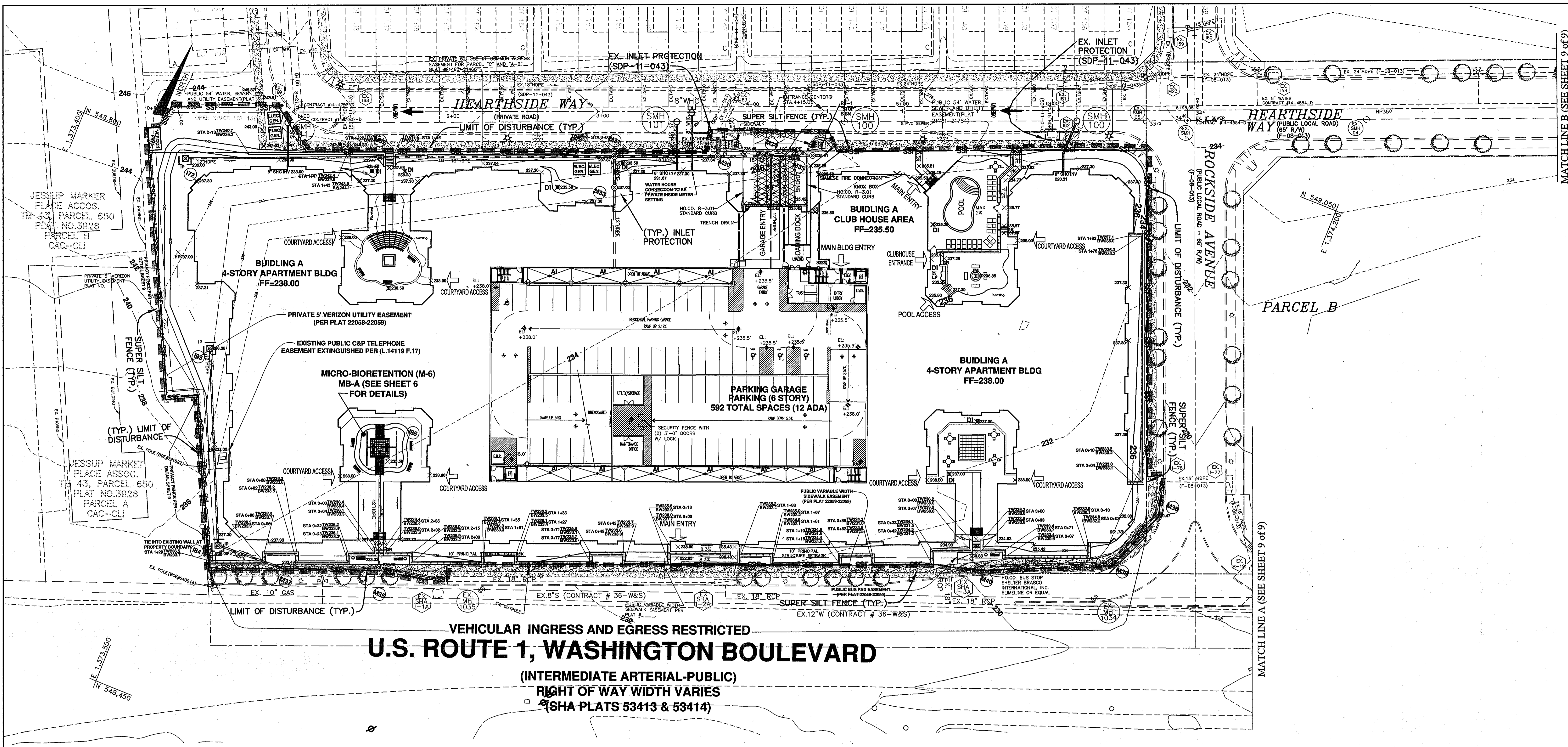
APPROVED FOR PUBLIC WATER AND SEWERAGE SYSTEM HOWARD COUNTY HEALTH DEPARTMENT. Includes signatures and dates for approval.

Commercial table showing Phase, Year, Deadlines, Adjustments, Commercial (SF), and Currently Anticipated (SF).

AMENITY TABLE showing Sections, Parcel (Area), Total Area, Amenity Area Provided, and Proposed Amenity.

PERMIT INFORMATION CHART showing SUBDIVISION NAME (HOWARD SQUARE), SECTION/AREA (PHASE 3 and 4), PARCEL (C), PLAT (21463-21466), BLOCK No (3&9), ZONE (CAC-CLU), TAX MAP (43), ELECTION DISTRICT (1), PARCEL (6069.01).

BENCHMARK ENGINEERING, INC. logo and contact information. HOWARD SQUARE PHASE 3 AND 4, PARCEL C APARTMENT BUILDING. Includes developer/owner information, title sheet details, and draft/check status.

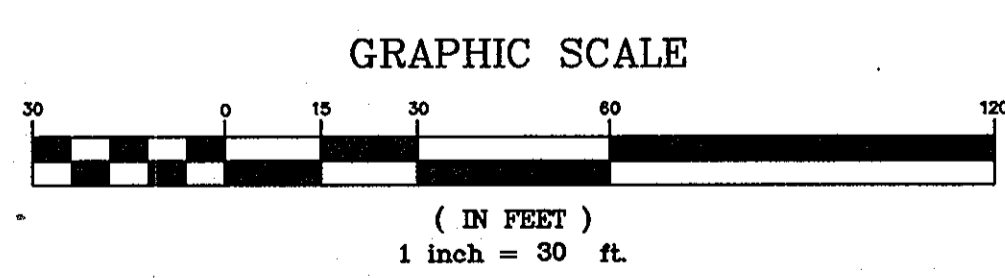


VEHICULAR INGRESS AND EGRESS RESTRICTED
U.S. ROUTE 1, WASHINGTON BOULEVARD
 (INTERMEDIATE ARTERIAL-PUBLIC)
 RIGHT OF WAY WIDTH VARIES
 (SHA PLATS 53413 & 53414)

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING OVERHEAD POWER LINES
- EXISTING GAS LINES
- LIMIT OF DISTURBANCE
- STORM DRAIN PIPE
- SIDEWALK
- MITIGATED 65dBA NOISE LINE
- FIRE HYDRANT
- STABILIZED CONSTRUCTION ENTRANCE
- RETAINING WALL 3' OR LESS IN HEIGHT
- PROPOSED FENCE
- LIGHTS
- EXISTING LANDSCAPING TREES
- AMENITY AREAS
- SILT FENCE
- INLET PROTECTION
- DOWN SPOUT
- ROOF LEADER AND LANDSCAPING DRAIN MANIFOLD

NOTE: THE BUILDING SITS BACK 8.6' FROM THE BUILDING RESTRICTION LINE AND THEREFORE, IN ACCORDANCE WITH SECT. 127.5(D)(2)(a)(1) THE PERMITTED HEIGHT IS 59.3' SINCE IT HAS AN INTEGRATED GARAGE. THE ACTUAL HEIGHT OF THE BUILDING BASED ON THE AVERAGE ELEVATION AROUND THE BUILDING IS 55.8'(54' FROM THE FIRST FLOOR). ADDITIONALLY, SINCE THE GARAGE SITS BACK MORE THAN 20' FROM THE BUILDING RESTRICTION LINE IN ACCORDANCE WITH THE SAME SECTION THE PERMITTED HEIGHT IS 65'(MAX HEIGHT) AND THE ACTUAL GARAGE HEIGHT IS 60.3'.



ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 ENGINEER: BRUCE F. CLARY
 DATE: 9/17/2012

OWNER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 ATAPCO HOWARD SQUARE I BUSINESS TRUST
 DATE: 9/18/2012

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John K. Robertson
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 9/20/12

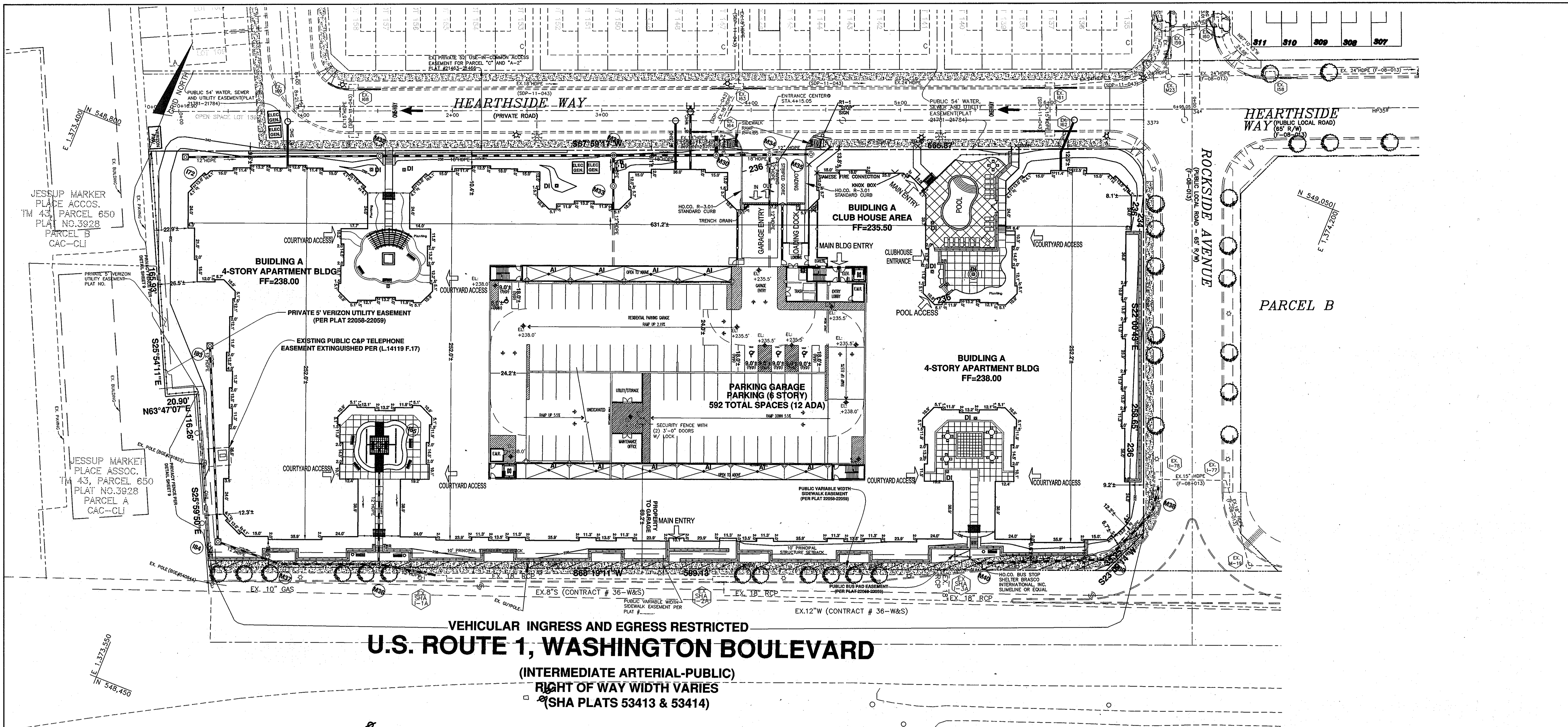
Veronica Shelton
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 11/01/12

David A. Joyce
 DIRECTOR
 DATE: 9/18/12

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8480 BALTIMORE NATIONAL PIKE SUITE 418 ELICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-6644
 60 THOMAS JOHNSON DRIVE A FREDERICK, MARYLAND 21702
 (P) 301-371-3505 (F) 301-371-3506
 WWW.BE-CVLENGINEERING.COM

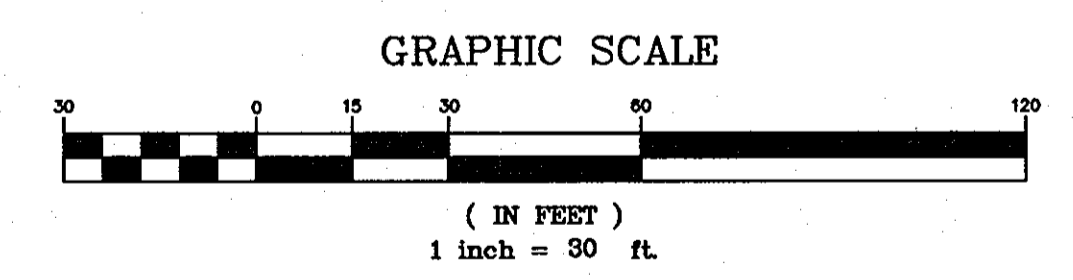
DEVELOPER/OWNER: ATAPCO HOWARD SQUARE I BUSINESS TRUST 10 E. Baltimore St. Suite 1800 Baltimore, MD 21202 (410) 347-7189	HOWARD SQUARE PHASE 3 AND 4, PARCEL C APARTMENT BUILDING TAX MAP: 43 GRID 3 & 9 - PARCEL: C ZONED: CAC-CL ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND SEDIMENT & EROSION CONTROL AND GRADING PLAN DATE: JANUARY, 2012 REVISED: SEPTEMBER, 2012 SCALE: AS SHOWN	BEI PROJECT NO. 2434 SHEET 2 OF 12 SDP-12-018
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VEHICULAR INGRESS AND EGRESS RESTRICTED
U.S. ROUTE 1, WASHINGTON BOULEVARD
 (INTERMEDIATE ARTERIAL-PUBLIC)
 RIGHT OF WAY WIDTH VARIES
 (SHA PLATS 53413 & 53414)

LEGEND

- | | | | |
|--|-------------------------------------|--|--|
| | EXISTING CONTOURS | | LIGHTS |
| | PROPOSED CONTOURS | | EXISTING LANDSCAPING TREES |
| | EXISTING OVERHEAD POWER LINES | | AMENITY AREAS |
| | EXISTING GAS LINES | | SILT FENCE |
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| | MITIGATED 65/60A NOISE LINE | | |
| | FIRE HYDRANT | | |
| | STABILIZED CONSTRUCTION ENTRANCE | | |
| | RETAINING WALL 3' OR LESS IN HEIGHT | | |
| | PROPOSED FENCE | | |



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 10/2/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 11/01/12
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 11/3/12
 DIRECTOR DATE

NO.	DATE	REVISION		
BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC. 8460 BALTIMORE NATIONAL PIKE & SUITE 418 A ELLEWOOD CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6844 60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702 (P) 301-371-3505 (F) 301-371-3506 WWW.BEI-CVLENGINEERING.COM				
Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer in the State of Maryland, License No. 28598, dated 7-22-2013. 9/17/2012				
DEVELOPER/OWNER:		HOWARD SQUARE PHASE 3 AND 4, PARCEL C APARTMENT BUILDING		
ATAPCO HOWARD SQUARE I BUSINESS TRUST 10 E. Baltimore St. Suite 1600 Baltimore, MD 21202 (410) 347-7199		TAX MAP: 43 GRID 3 & 9 - PARCEL: C ZONED: CAC-CL ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND		
SITE DEVELOPMENT AND DIMENSION PLAN				
DATE: JANUARY 2012		BEI PROJECT NO. 2434		
REVISED: SEPTEMBER 2012		SHEET 3 OF 12		
DRAFT: BFC/MCR	CHECK: BFC	SCALE: AS SHOWN		

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION.
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DICES, PERMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. 3) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

SOIL DUST CONTROL

- 1. MULCHES - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
2. VEGETATIVE COVER - See standards for temporary vegetative cover.
3. TILLOP - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts.

TEMPORARY METHODS

- 1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
2. Vegetative Cover - See standards for temporary vegetative cover.
3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts.

PERMANENT METHODS

- 1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
2. Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.
3. Stone - Cover surface with crushed stone or coarse gravel.

DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

PURPOSE

To provide a suitable medium for vegetative growth. Sole of concern here low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

CONDITIONS WHERE PRACTICE APPLIES

This practice is limited to areas having 2:1 or flatter slopes where:

- a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
c. The original soil to be vegetated contains material toxic to plant growth.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Topsoil, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
1. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of chert, stones, slag, coarse fragments, gravel, sticks, rocks, trash, or other materials larger than 1 1/2" in diameter.

NOTE

Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

TOPSOIL APPLICATION

- I. When topsoiling, maintain needed erosion and sediment control practices such as diversion, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
II. Grades on the grass to be topsoiled, which have been previously established, shall be maintained, about 4" - 6" higher in elevation.
III. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

ALTERNATIVE FOR PERMANENT SEEDING

- I. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribed amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of application of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

PURPOSE

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

CONDITIONS WHERE PRACTICE APPLIES

Exposed soils where ground cover is needed for 6 months or more.

SEED MIXTURES

- A. Seed Mixtures
1. General Use
a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

TURFGRASS MIXTURES

- a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

KENTUCKY BLUEGRASS

1. Kentucky Bluegrass - Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

KENTUCKY BLUEGRASS/PERENNIAL RYE

1. Kentucky Bluegrass/Perennial Rye - Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and where turf will receive medium to intensive management. Certified Kentucky Bluegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

TALL FESCUE/KENTUCKY BLUEGRASS

1. Tall Fescue/Kentucky Bluegrass - Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 5 to 5 percent and Certified Fine Fescue and 90 to 90 percent. Seeding Rate: 1 1/2 to 2.0 pounds per 1000 square feet. One or more cultivars may be blended.

SHADE MIXTURES

1. Kentucky Bluegrass/Fine Fescue - Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 90 to 90 percent. Seeding Rate: 1 1/2 to 2.0 pounds per 1000 square feet.

NOTES

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland". Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES

WESTERN MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 6b, 6a)
CENTRAL MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)
SOUTHERN MD: March 15 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

TILL AREAS TO RECEIVE SOED BY DIGGING OR OTHER APPROVED METHODS

To a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1/4 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

SOIL MOISTURE IS CRITICAL

Apply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on wetting) until they are firmly established. This is not especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

SOIL TO BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS

Sod must not be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.

DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL

lightly irrigate the subsoil immediately prior to laying the sod.

WHEREVER POSSIBLE, LAY SOIL WITH THE LONG EDGES PARALLEL TO THE CONTOUR

and with staggering joints. Roll and tamp, peg or otherwise secure the soil to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.

WATER THE SOIL IMMEDIATELY FOLLOWING ROLLING AND TAMPING

until the underside of the new sod and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

SOIL MAINTENANCE

In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the summer for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

DO NOT MOW UNTIL THE SOIL IS FIRMLY ROOTED

Not more than 1/3 of the grass leaf should be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B-4-3 STANDARDS AND SPECIFICATIONS

FOR SEEDING AND MULCHING

DEFINITION

The application of seed and mulch to establish vegetative cover.

PURPOSE

To protect disturbed soils from erosion during and at the end of construction.

CONDITIONS WHERE PRACTICE APPLIES

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

CRITERIA

A. Seeding
1. Specifications
a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of seeding such material on any project.

MULCHING

A. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site specific seeding summaries.

APPLICATION

To stabilize disturbed soils with permanent vegetation.

PURPOSE

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

CONDITIONS WHERE PRACTICE APPLIES

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- A. Seed Mixtures
1. General Use
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b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

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KENTUCKY BLUEGRASS/PERENNIAL RYE

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SOUTHERN MD: March 15 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

TILL AREAS TO RECEIVE SOED BY DIGGING OR OTHER APPROVED METHODS

To a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1/4 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

SOIL MOISTURE IS CRITICAL

Apply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on wetting) until they are firmly established. This is not especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

SOIL TO BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS

Sod must not be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.

DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL

lightly irrigate the subsoil immediately prior to laying the sod.

WHEREVER POSSIBLE, LAY SOIL WITH THE LONG EDGES PARALLEL TO THE CONTOUR

and with staggering joints. Roll and tamp, peg or otherwise secure the soil to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.

WATER THE SOIL IMMEDIATELY FOLLOWING ROLLING AND TAMPING

until the underside of the new sod and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

SOIL MAINTENANCE

In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the summer for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

DO NOT MOW UNTIL THE SOIL IS FIRMLY ROOTED

Not more than 1/3 of the grass leaf should be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B-4-3 STANDARDS AND SPECIFICATIONS

FOR SEEDING AND MULCHING

DEFINITION

The application of seed and mulch to establish vegetative cover.

PURPOSE

To protect disturbed soils from erosion during and at the end of construction.

CONDITIONS WHERE PRACTICE APPLIES

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

CRITERIA

A. Seeding
1. Specifications
a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of seeding such material on any project.

MULCHING

A. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site specific seeding summaries.

APPLICATION

To stabilize disturbed soils with permanent vegetation.

PURPOSE

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

CONDITIONS WHERE PRACTICE APPLIES

Exposed soils where ground cover is needed for 6 months or more.

SEED MIXTURES

- A. Seed Mixtures
1. General Use
a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

TURFGRASS MIXTURES

- a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

KENTUCKY BLUEGRASS

1. Kentucky Bluegrass - Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

KENTUCKY BLUEGRASS/PERENNIAL RYE

1. Kentucky Bluegrass/Perennial Rye - Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and where turf will receive medium to intensive management. Certified Kentucky Bluegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

TALL FESCUE/KENTUCKY BLUEGRASS

1. Tall Fescue/Kentucky Bluegrass - Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 5 to 5 percent and Certified Fine Fescue and 90 to 90 percent. Seeding Rate: 1 1/2 to 2.0 pounds per 1000 square feet.

SHADE MIXTURES

1. Kentucky Bluegrass/Fine Fescue - Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 90 to 90 percent. Seeding Rate: 1 1/2 to 2.0 pounds per 1000 square feet.

NOTES

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland". Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES

WESTERN MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 6b, 6a)
CENTRAL MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)
SOUTHERN MD: March 15 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

TILL AREAS TO RECEIVE SOED BY DIGGING OR OTHER APPROVED METHODS

To a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1/4 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

SOIL MOISTURE IS CRITICAL

Apply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on wetting) until they are firmly established. This is not especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

SOIL TO BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS

Sod must not be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.

DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL

lightly irrigate the subsoil immediately prior to laying the sod.

WHEREVER POSSIBLE, LAY SOIL WITH THE LONG EDGES PARALLEL TO THE CONTOUR

and with staggering joints. Roll and tamp, peg or otherwise secure the soil to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.

WATER THE SOIL IMMEDIATELY FOLLOWING ROLLING AND TAMPING

until the underside of the new sod and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

SOIL MAINTENANCE

In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the summer for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

DO NOT MOW UNTIL THE SOIL IS FIRMLY ROOTED

Not more than 1/3 of the grass leaf should be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B-4-3 STANDARDS AND SPECIFICATIONS

FOR SEEDING AND MULCHING

DEFINITION

The application of seed and mulch to establish vegetative cover.

PURPOSE

To protect disturbed soils from erosion during and at the end of construction.

CONDITIONS WHERE PRACTICE APPLIES

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

CRITERIA

A. Seeding
1. Specifications
a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of seeding such material on any project.

MULCHING

A. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site specific seeding summaries.

APPLICATION

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PURPOSE

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

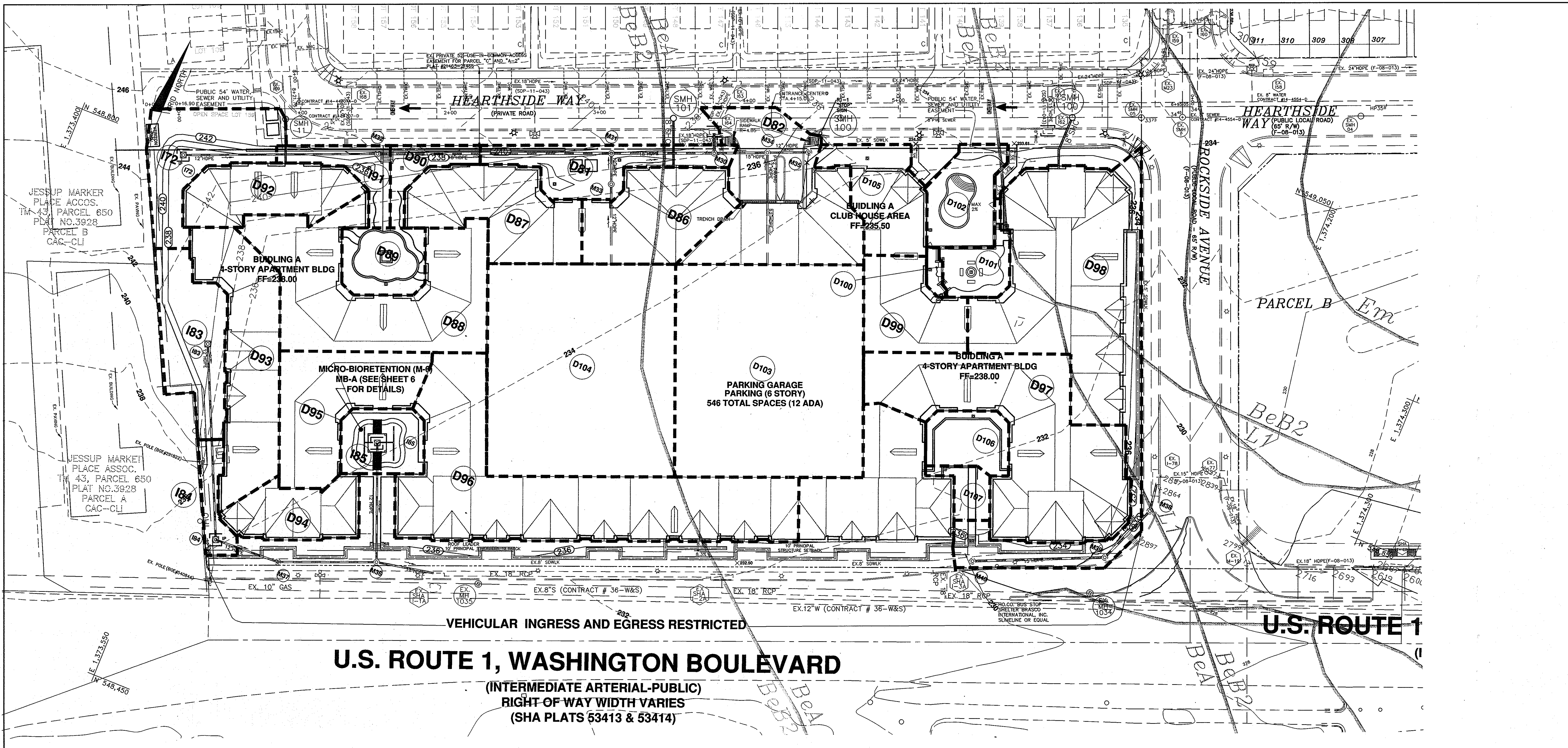
CONDITIONS WHERE PRACTICE APPLIES

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TURFGRASS MIXTURES

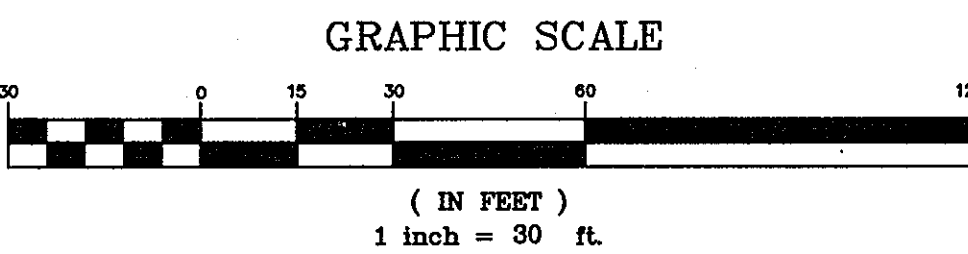


U.S. ROUTE 1, WASHINGTON BOULEVARD
 (INTERMEDIATE ARTERIAL-PUBLIC)
 RIGHT OF WAY WIDTH VARIES
 (SHA PLATS 53413 & 53414)

SYMBOL	HYDROLOGIC GROUP	SOILS CHART
BaA	YES	C BELTSVILLE SILT LOAM, 0 TO 1 PERCENT SLOPES
BaB	YES	C BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED
BaC	YES	C BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED
BaD	YES	C BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED
CaB	YES	B CHILLUM SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED
Em	YES	D ELKTON SILT LOAM
Li	YES	A EVERBROOK LOAMY SAND, 5 TO 15 PERCENT SLOPES
Li	YES	D LEONARDTOWN SILT LOAM
ScD	YES	C SANDY AND CLAYEY LAND, MODERATELY ERODED

SIZE	TYPE	LF
12"	HDPE HI-Q	643
18"	HDPE HI-Q	305
24"	HDPE HI-Q	15

PHASE	INLET #	ZONING (Z)	AREA (Ac) (A)	"C" FACTOR (<25 YR) (C)	% IMPERVIOUS (P)
I	I-72	CE-CL1	0.11	0.11	0.72
I	D-81	CE-CL1	0.08	0.08	0.72
I	D-82	CE-CL1	0.20	0.20	0.72
I	I-83	CE-CL1	0.10	0.10	0.72
I	I-84	CE-CL1	0.03	0.03	0.72
I	I-85	CE-CL1	0.05	0.05	0.72
I	D-86	CE-CL1	0.12	0.12	0.72
I	D-87	CE-CL1	0.13	0.13	0.72
I	D-88	CE-CL1	0.24	0.24	0.72
I	D-89	CE-CL1	0.06	0.06	0.72
I	D-90	CE-CL1	0.03	0.03	0.72
I	D-91	CE-CL1	0.04	0.04	0.72
I	D-92	CE-CL1	0.10	0.10	0.72
I	D-93	CE-CL1	0.14	0.14	0.72
I	D-94	CE-CL1	0.07	0.07	0.72
I	D-95	CE-CL1	0.14	0.14	0.72
I	D-96	CE-CL1	0.35	0.35	0.72
I	D-97	CE-CL1	0.29	0.29	0.72
I	D-98	CE-CL1	0.41	0.41	0.72
I	D-99	CE-CL1	0.09	0.09	0.72
I	D-100	CE-CL1	0.01	0.01	0.72
I	D-101	CE-CL1	0.04	0.04	0.72
I	D-102	CE-CL1	0.07	0.07	0.72
I	D-103	CE-CL1	0.41	0.41	0.72
I	D-104	CE-CL1	0.41	0.41	0.72
I	D-105	CE-CL1	0.20	0.20	0.72
I	D-106	CE-CL1	0.05	0.05	0.72
I	D-107	CE-CL1	0.02	0.02	0.72
I	D-108	CE-CL1	0.15	0.15	0.72



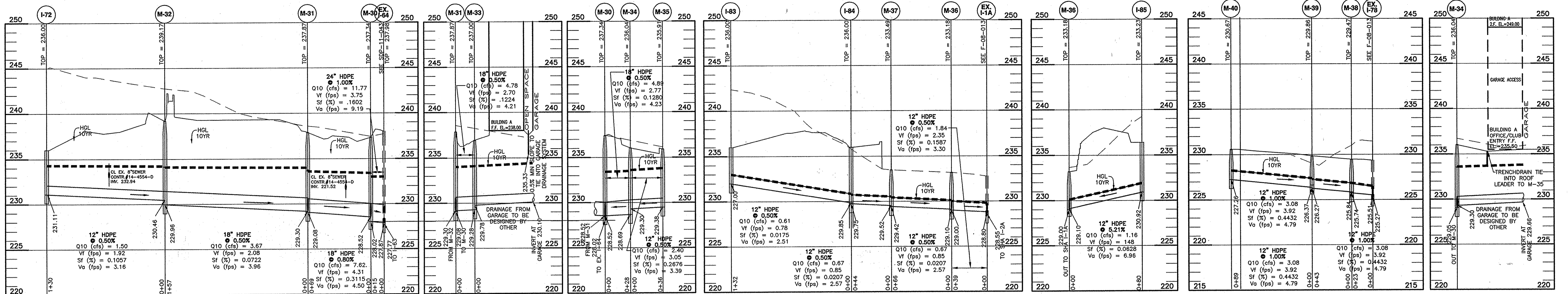
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 10/25/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 11/01/12
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 11/14/12
 DIRECTOR DATE

NO.	DATE	REVISION
BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC. 8450 BALTIMORE NATIONAL PIKE SUITE 418 ELICOTT CITY, MARYLAND 21043 (P) 410-465-8105 (F) 410-465-8844 60 THOMAS JOHNSON DRIVE A FREDERICK, MARYLAND 21702 (P) 301-371-3505 (F) 301-371-3506 WWW.BEI-CMENGINEERING.COM		
DEVELOPER/OWNER: ATAPCO HOWARD SQUARE I STATUTORY TRUST 10 E. Baltimore St. Suite 1600 Baltimore, MD 21202 (410) 347-7189		Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28559
HOWARD SQUARE PHASE 3 AND 4, PARCEL C APARTMENT BUILDING		TAX MAP: 43 GRID 3 & 9 - PARCEL: C ZONED: CAC-CL1 ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND
SOIL AND STORM DRAINAGE AREA MAP		DATE: SEPTEMBER, 2011 REVISED: SEPTEMBER, 2012 BEI PROJECT NO. 2434
DRAFT:MCR/BFC	CHECK:CAM/BFC	SCALE: AS SHOWN SHEET 5 OF 12



STORMDRAIN PROFILE: EX I-64 TO I-82
SCALE: HOR. 1"=50'; VERT. 1"=5'

STORMDRAIN PROFILE: M-30 TO GARAGE
SCALE: HOR. 1"=50'; VERT. 1"=5'

STORMDRAIN PROFILE: M-30 TO M-35
SCALE: HOR. 1"=50'; VERT. 1"=5'

STORMDRAIN PROFILE: EX I1A TO I-83
SCALE: HOR. 1"=50'; VERT. 1"=5'

STORMDRAIN PROFILE: M-35 TO I-85
SCALE: HOR. 1"=50'; VERT. 1"=5'

STORMDRAIN PROFILE: EX I-78 TO M-39
SCALE: HOR. 1"=50'; VERT. 1"=5'

STORMDRAIN PROFILE: M-34 TO GARAGE
SCALE: HOR. 1"=50'; VERT. 1"=5'

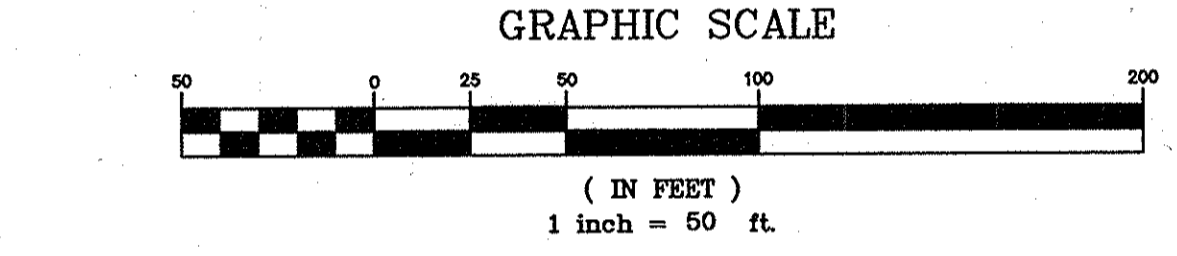
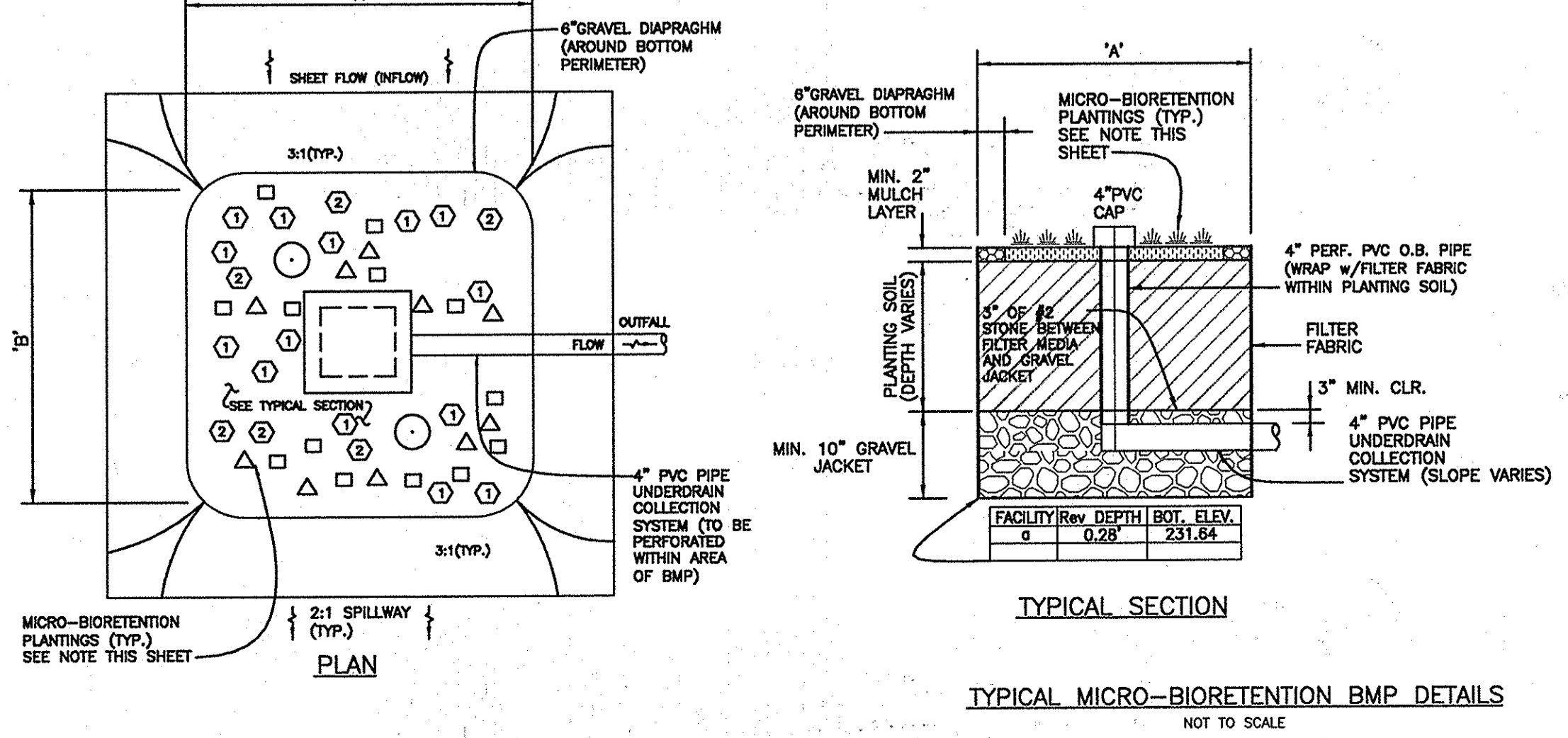
STRUCTURE TABLE									
NUMBER	TYPE	LOCATION	INVERT IN	INVERT OUT	TOP ELEV.	HO. CO. STD. DETAIL	MAINTENANCE		
I-72	YARD	N 548,796.69, E 1,373,474.38	-	-	231.11	D-4.14	PRIVATE		
I-83	YARD	N 548,836.81, E 1,373,593.72	230.34(M-30)	-	230.09	D-4.14	PRIVATE		
I-84	YARD	N 548,564.56, E 1,373,591.58	229.85(I-83)	-	229.75	D-4.14	PRIVATE		
I-85	D-INLET	N 548,684.55, E 1,373,537.36	-	-	230.92	D-4.10	PRIVATE		
MANHOLES									
M-30	4" DIA	N 548,930.29, E 1,373,803.63	228.52(M-31)	228.02	237.34	G-5.12	PRIVATE		
M-31	4" DIA	N 548,904.50, E 1,373,738.80	229.30(M-32/M-33)	-	229.08	G-5.12	PRIVATE		
M-32	4" DIA	N 548,845.82, E 1,373,594.57	230.46(I-72)	-	229.96	G-5.12	PRIVATE		
M-33	4" DIA	N 548,885.08, E 1,373,747.52	229.78(GARAGE)	-	229.28	G-5.12	PRIVATE		
M-34	4" DIA	N 548,943.86, E 1,373,836.51	229.30(M-35)	-	230.04	G-5.12	PRIVATE		
M-35	4" DIA	N 548,954.47, E 1,373,862.21	-	-	229.38	G-5.12	PRIVATE		
M-36	4" DIA	N 548,590.63, E 1,373,696.95	229.10(M-37)	-	229.00	G-5.12	PRIVATE		
M-37	4" DIA	N 548,566.13, E 1,373,635.63	229.52(I-84)	-	229.42	G-5.12	PRIVATE		
M-38	4" DIA	N 548,815.54, E 1,374,164.38	225.84(M-39)	-	225.74	G-5.12	PRIVATE		
M-39	4" DIA	N 548,775.40, E 1,374,148.06	226.27(M-40)	-	226.37	G-5.12	PRIVATE		
M-40	4" DIA	N 548,740.08, E 1,374,066.91	-	-	227.26	G-5.12	PRIVATE		

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH-OUT. ANY REPLACEMENT OF MULCH SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE & INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL & PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN THE SPRING AND FALL. THIS INSPECTION WILL INCLUDE: REMOVAL OF DEAD & DISEASED VEGETATION CONSIDERED BEYOND TREATMENT; TREATMENT OF ALL DISEASED TREES & SHRUBS; AND REPLACEMENT OF ALL DEFICIENT STAKES & WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE THE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS-NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

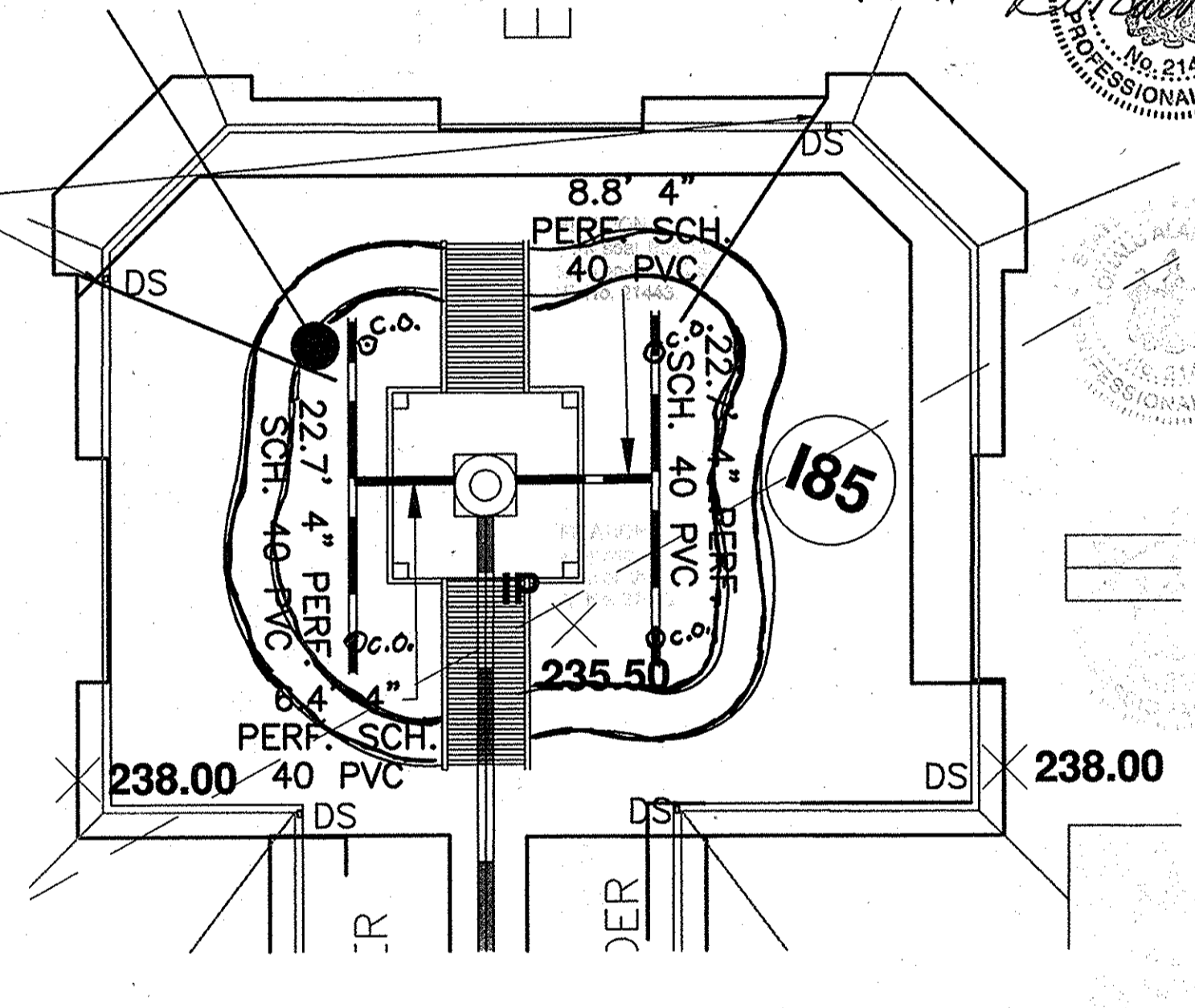
UNDERDRAIN, OVERFLOW AND OUTFALL NOTES

- THE LAST CLEAN-OUT LOCATION WITHIN EACH MICRO-BIORETENTION FACILITY SHALL BE FITTED WITH A NON-CLOGGING SURFACE DRAIN (EXAMPLE: 4" ABS ROOF DRAIN W/CAST ALUMINUM DOME) AT THE POND SURFACE ELEVATION INDICATED IN THE CORRESPONDING TABLE ELEV. 2.
- THE PVC WITHIN THE FACILITY SHALL BE PERFORATED.
- THE UNDER-DRAIN AND PIPE TO OUTFALL SHALL BE INSTALLED TO A MINIMUM DEPTH 2' BELOW FINISHED GRADE AND SHALL MAINTAIN A MINIMUM 1% SLOPE AND MAINTAIN A MINIMUM 1' OF SEPARATION AT ALL CROSSINGS.



MATERIALS AND SPECIFICATIONS FOR (M-6) MICRO-BIORETENTION			
MATERIAL	SPECIFICATION	SIZE	NOTES:
PLANTINGS (IF REQUIRED)	SEE APPENDIX A: TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
PLANTING SOIL (2.0' TO 4.0' DEEP)	LOAMY SAND (60-85%) & COMPOST (35-40%) OR LOAMY SAND (30%) COARSE SAND (50%) & COMPOST (35-40%)	N/A	USDA SOIL TYPES: LOAMY SAND, SANDY LOAM; CLAY CONTENT < 5%
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT	N/A	-
MULCH	SHREDDED HARDWOOD	N/A	AGED 6 MONTHS, MINIMUM
PEA GRAVEL DIAPHRAGM	PEA GRAVEL: ASTM D-448	#8 OR #9 (1/8" TO 3/8")	-
CURTAIN DRAIN	ORNAMENTAL STONE: WASHED COBBLES	STONE: 2" TO 5"	-
GEOTEXTILE	N/A	N/A	PE TYPE 1 - NONWOVEN
GRAVEL (UNDERDRAINS & BERMS)	AASHTO M-43	#57 OR #6 (3/8" TO 3/4")	#8 STONE
UNDERDRAIN PIPING	F758, TYPE PS28 OR AASHTO M-278	4" TO 6" RIGID SCH.40 PVC OR SDR25	SLOTTED OR PERFORATED: 3/8" PERFS. 6" O/C. 4 HOLES PER ROW; MINIMUM OF 5" OF GRAVEL OVER PIPES. NOT NECESSARY. STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND. DESIGN TO INCLUDE MEETING ACI CODE 309/308 VERTICAL LOADING (H-10 OR H-20) ALLOWABLE HORIZONTAL LOADINGS (BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING
POURED-IN-PLACE CONC. (IF REQUIRED)	MSHA MIX NO. 3, 1-3500 @ 28 DAYS, NORMAL WEIGHT, AIR ENTRAINMENT REINFORCING TO MEET ASTM 615-60	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONC. REQUIRED; 28 DAY STRENGTH TEST AND SLUMP TEST; ALL CONC. DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND. DESIGN TO INCLUDE MEETING ACI CODE 309/308 VERTICAL LOADING (H-10 OR H-20) ALLOWABLE HORIZONTAL LOADINGS (BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING
SAND (1.0' DEEP)	AASHTO M-6 OR ASTM C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITE SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.

DOWNSPOUTS TO DISCHARGE INTO MICRO-BIO RETENTION AT ELEVATION 236.65



MICRO-BIORETENTION MB-A PLAN DETAIL
SCALE: HOR. 1"=10'

NOTE: ALL STORM DRAINS SHOWN ON THESE PLANS ARE TO BE PRIVATELY OWNED AND MAINTAINED

NOTE: ALL STORMWATER MANAGEMENT BMP'S SHOWN ON THESE PLANS ARE TO BE PRIVATELY OWNED AND MAINTAINED

MICRO-BIORETENTION PLANTING TABLES		
MICRO-BIORETENTION - a		
SYMBOL	QUANTITY	NAME
○	55	VINCA MINOR (COMMON PERIWINKLE)
△	49	AJUSTA REPTAN S (CREEPING BUGLEWEED)
□	26	IRIS VERSICOLOR (IRIS)
◇	16	HEMEROCALLIS SP (DAYLILY)
●	1	ACER RUBRUM (RED MAPLE)

BUILDINGS	ESD a
ELEV. 1	236.50
ELEV. 2	236.36
ELEV. 3	235.75
ELEV. 4	235.50
ELEV. 5	233.50
ELEV. 6	232.92
ELEV. 7	232.60
DIMENSIONS	
'A'	24'
'B'	24'
TOTAL SF	584

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* 10/25/12 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 11/01/12 DATE

DIRECTOR: *[Signature]* 1/2/13 DATE

BENCHMARK ENGINEERING, INC.
6480 BALTIMORE NATIONAL PIKE & SUITE 418 • ELIJAH CITY, MARYLAND 21043
(P) 410-465-8105 (F) 410-465-8944
60 THOMAS SHIMMON DRIVE • FREDERICK, MARYLAND 21702
(P) 301-371-3505 (F) 301-371-3506
WWW.BE-CIVILENGINEERING.COM

HOWARD SQUARE PHASE 3 AND 4, PARCEL C APARTMENT BUILDING

ATAPCO HOWARD SQUARE I STATUTORY TRUST
10 E. Baltimore St. Suite 1600
Baltimore, MD 21202
(410) 347-7189

TAX MAP: 43 GRID 3 & 9 - PARCEL: C
ZONED: CAC-CLJ
ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND

PRIVATE STORM DRAIN PROFILES AND PRIVATE MICRO-BIORETENTION FACILITY DETAILS

DATE: SEPTEMBER, 2011
REVISED: SEPTEMBER, 2012
SCALE: AS SHOWN

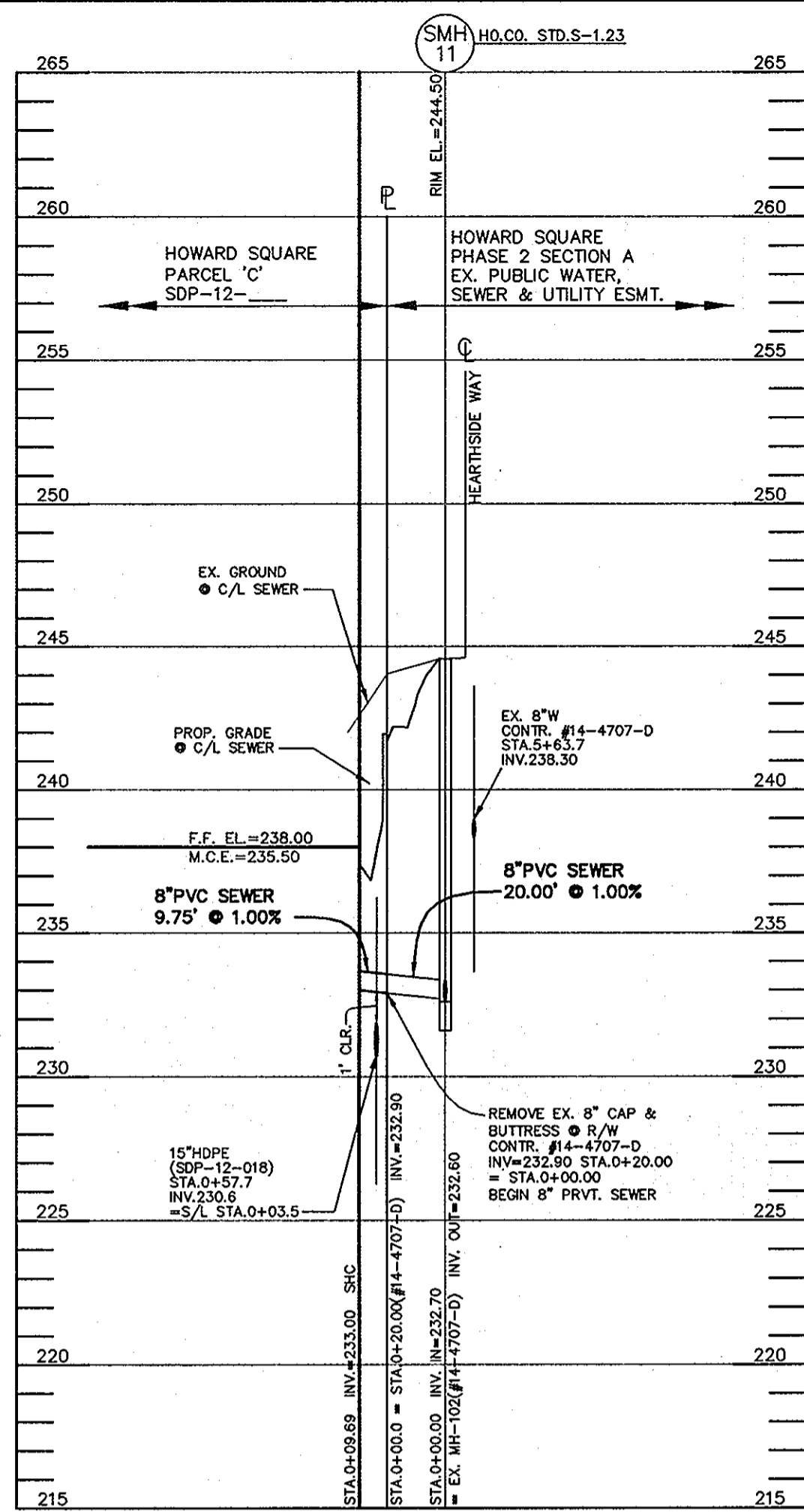
BEI PROJECT NO. 2434
SHEET 6 OF 12

DRAFT: BFC CHECK: BFC

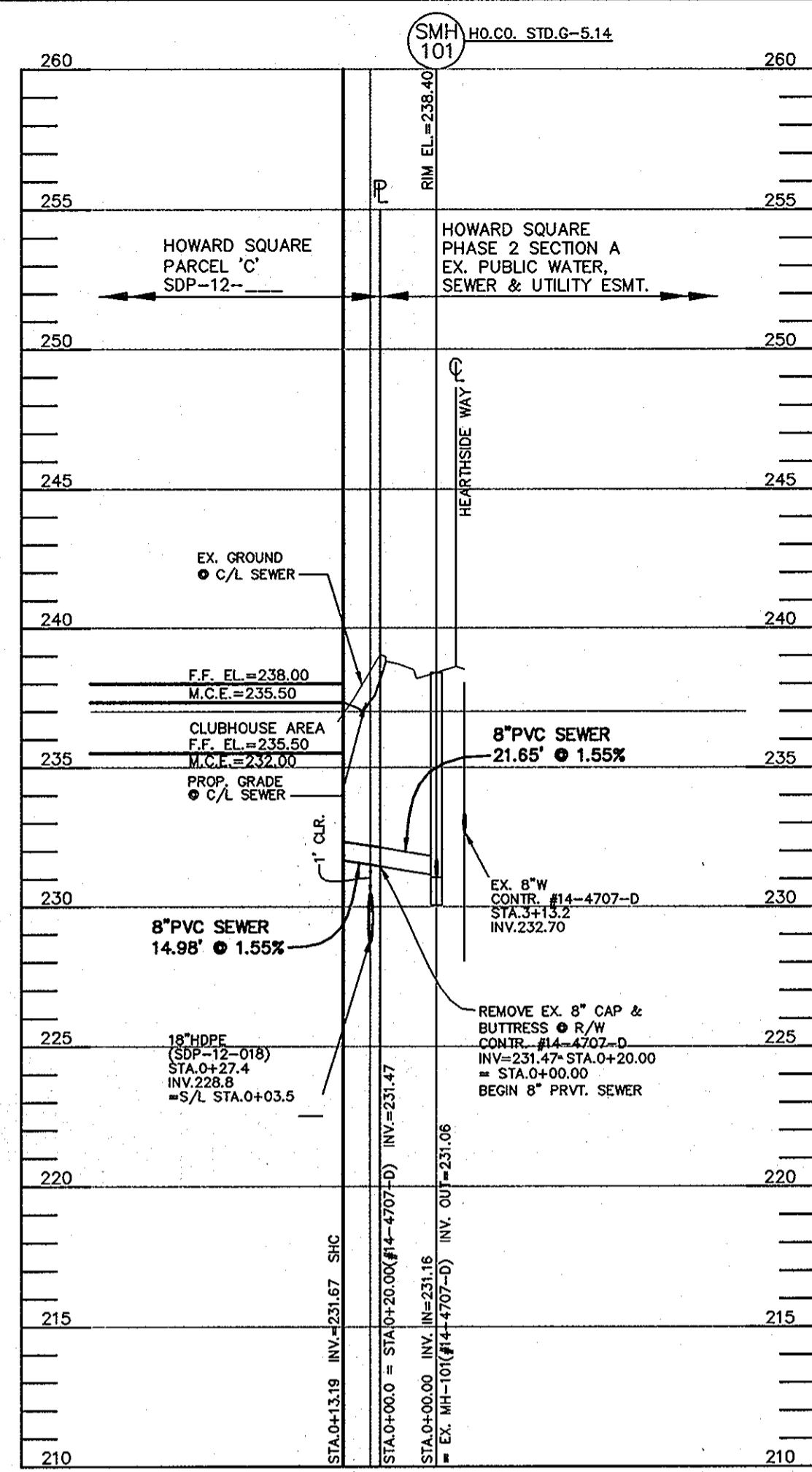
AS-BUILT SDP-12-018



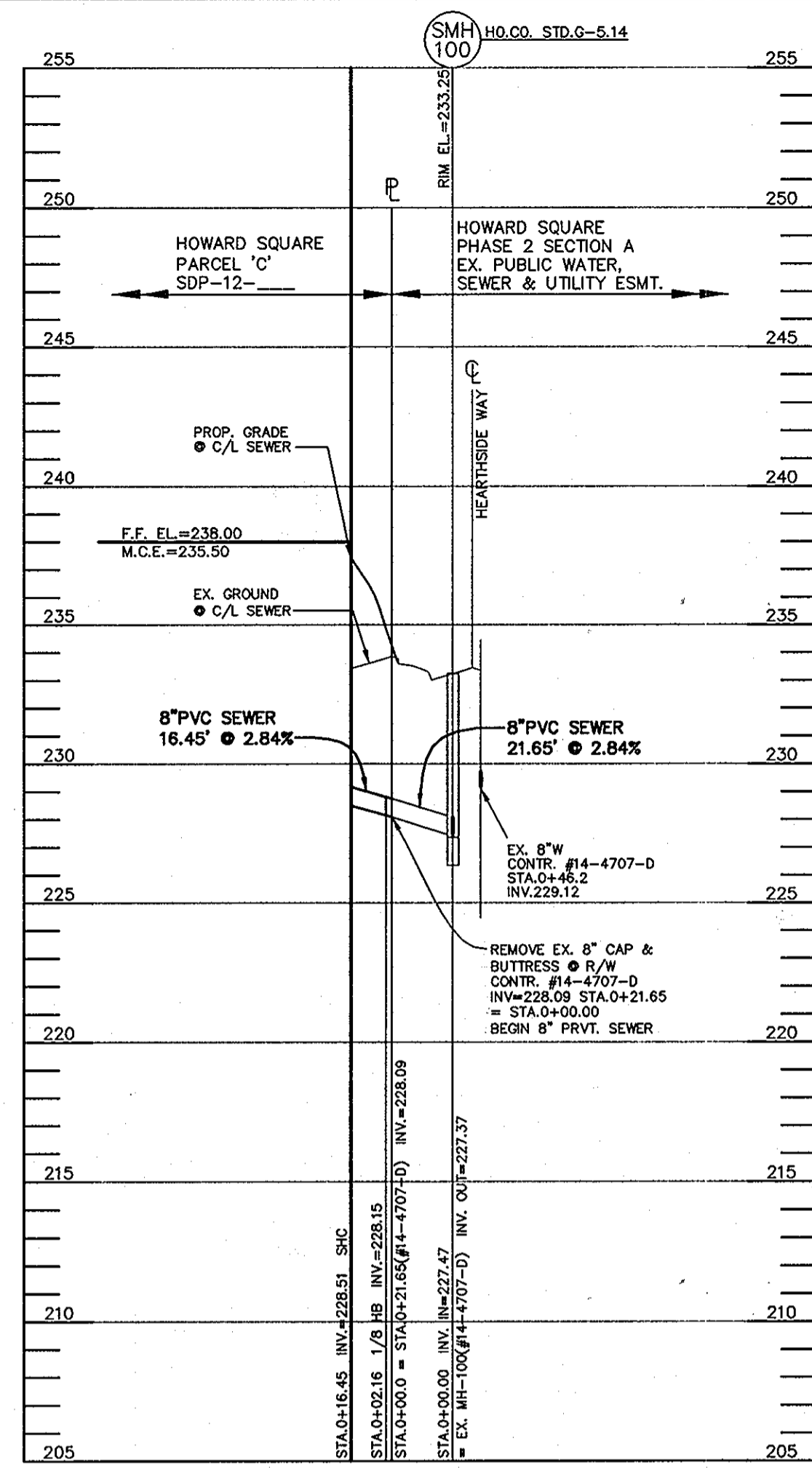
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 21443, Expiration Date: 12-21-14



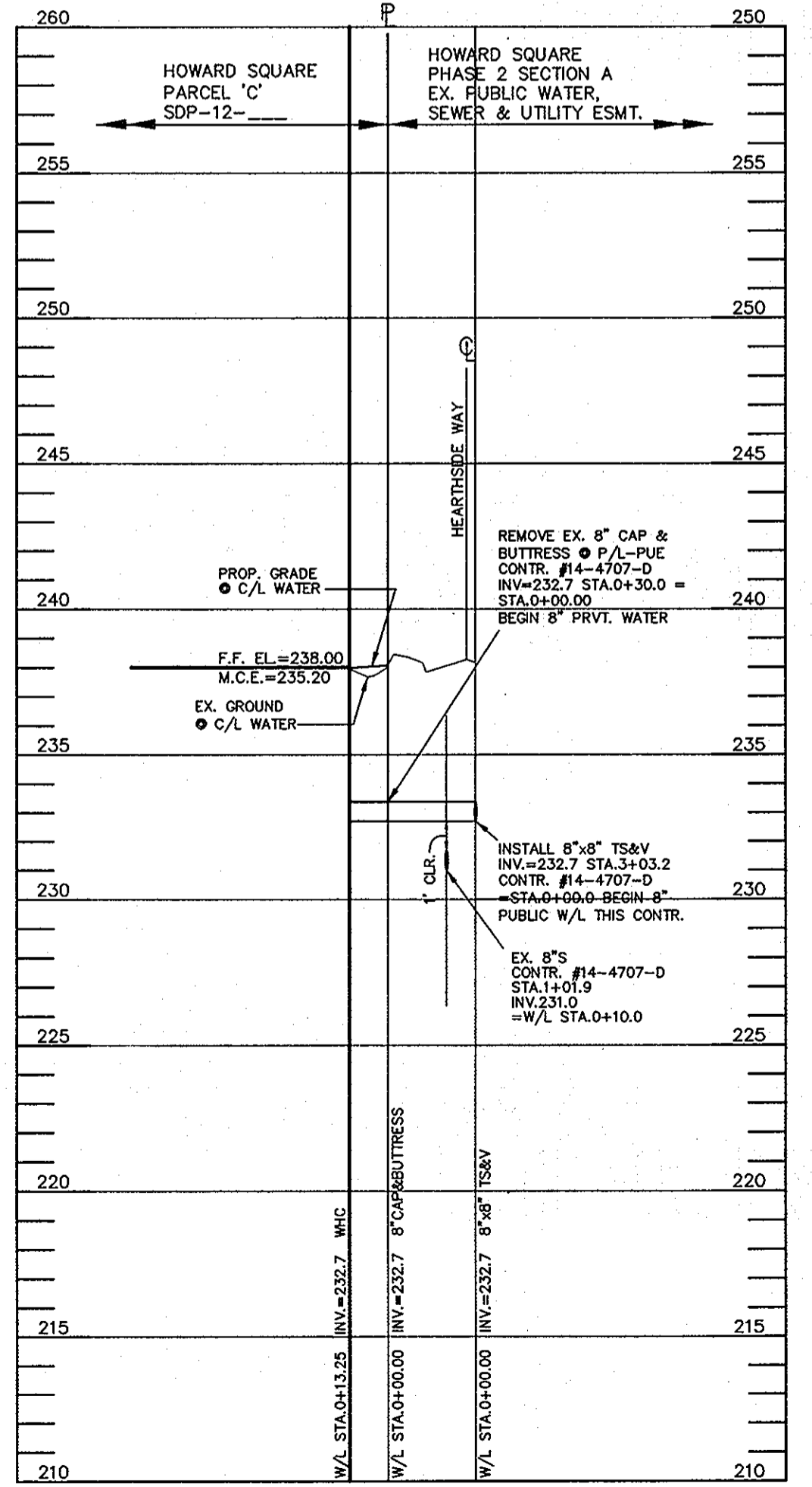
SMH-11
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



SMH-101
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



SMH-100
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



8" W/C
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

P2565 Specification Sheet

Ordering Guide
Example: P2565 10 A

Product Code	P2565
Pole Height	10
Finish	1
Base	1
Socket	1
Optics	1
Photo Control	1
Socket	1
Writing	1
Voltage	1

Specifications
Housing: 300 Mil high-strength, low-copper, proprietary cast aluminum alloy...
Finish: A durable polyethylene exterior finish...
Warranty: Three-year limited warranty...
Base: 12" dia. x 43 3/4" H...
Pole EPA Values:

Windspeed (mph)	10'	12'	14'	16'
Height	13,200	11,200	8,200	5,500
	8,200	6,000	3,700	2,700

Victorian (V72) Specification Sheet

Ordering Guide
Example: V72 A 10 N D 705 E

Product Code	V72
Pole Height	10
Finish	1
Base	1
Socket	1
Optics	1
Photo Control	1
Socket	1
Writing	1
Voltage	1

Specifications
Housing: 300 Mil high-strength, low-copper, proprietary cast aluminum alloy...
Finish: A durable polyethylene exterior finish...
Warranty: Three-year limited warranty...
Base: 12" dia. x 43 3/4" H...
Pole EPA Values:

Windspeed (mph)	10'	12'	14'	16'
Height	13,200	11,200	8,200	5,500
	8,200	6,000	3,700	2,700

VICTOR STANLEY, INC.

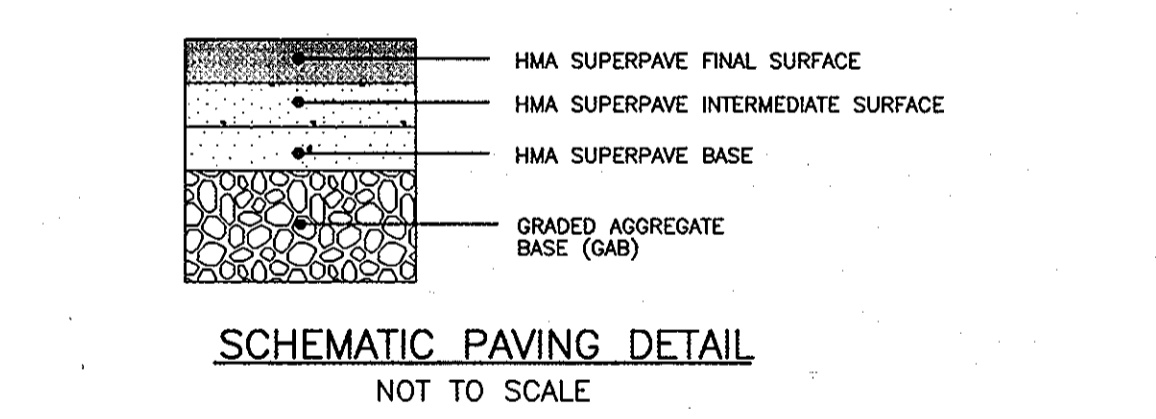
AVAILABLE OPTIONS:
POWER COATING
INTERMEDIATE & CHAIR ARMRESTS
LEGGING
STAINLESS STEEL
STAINLESS STEEL SEAM

NOTES:
1. DESIGNED NOT TO SCALE. DO NOT SCALE DIMENSIONS.
2. ALL FABRICATED METAL COMPONENTS ARE STEEL, STAINLESS STEEL, ALUMINUM, PREPARED, AND BLENDED WITH POLYURETHANE FINISH...
3. ALL FABRICATED METAL COMPONENTS ARE STEEL, STAINLESS STEEL, ALUMINUM, PREPARED, AND BLENDED WITH POLYURETHANE FINISH...
4. THIS VICTOR STANLEY, INC. PRODUCT WILL BE PERMANENTLY MARKED BY THE MANUFACTURER WITH THE VICTOR STANLEY, INC. PRODUCT ID NUMBER...
5. FOR HIGH SEAT ADJUSTABLE CHAIRS, NOT OF PLANNING BEFORE POWER COATING IS AVAILABLE. SEE WRITTEN SPECIFICATIONS FOR DETAILS.
6. THIS PRODUCT IS SUPPLY FACTORY ASSEMBLED.

VICTOR STANLEY, INC.

AVAILABLE OPTIONS:
POWER COATING
STAINLESS STEEL SEAM
STAINLESS STEEL SEAM

NOTES:
1. DESIGNED NOT TO SCALE. DO NOT SCALE DIMENSIONS.
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6. THIS PRODUCT IS SUPPLY FACTORY ASSEMBLED.



SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)						
		3 to <5	5 to <7	>7	3 to <5	5 to <7	>7	
P-2	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS LAKE, ACCESS STREET CUL-DE-SAC: RESIDENTIAL	PAVEMENT MATERIAL (INCHES)						
		HMA SUPERPAVE FINAL SURFACE	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE	1.0	1.0	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE	2.0	2.0	2.0	3.5	2.0	2.0
		GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief Development Engineering Division
DATE: 10/25/12

Chief, Division of Land Development
DATE: 11/01/12

Director
DATE: 11/01/12

BENCHMARK ENGINEERING, INC.
8450 BALTIMORE NATIONAL PIKE SUITE 418 ELLICOTT CITY, MARYLAND 21104
(P) 410-465-8105 (F) 410-465-8844
60 THOMAS JOHNSON DRIVE A FREDERICK, MARYLAND 21702
(P) 301-371-3008 (F) 301-371-3006
WWW.BEI-CADENGINEERING.COM

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer in the State of Maryland, License No. 17120.

DATE: JANUARY 2012
REVISED: SEPTEMBER 2012
SCALE: AS SHOWN

HOWARD SQUARE PHASE 3 AND 4, PARCEL C APARTMENT BUILDING

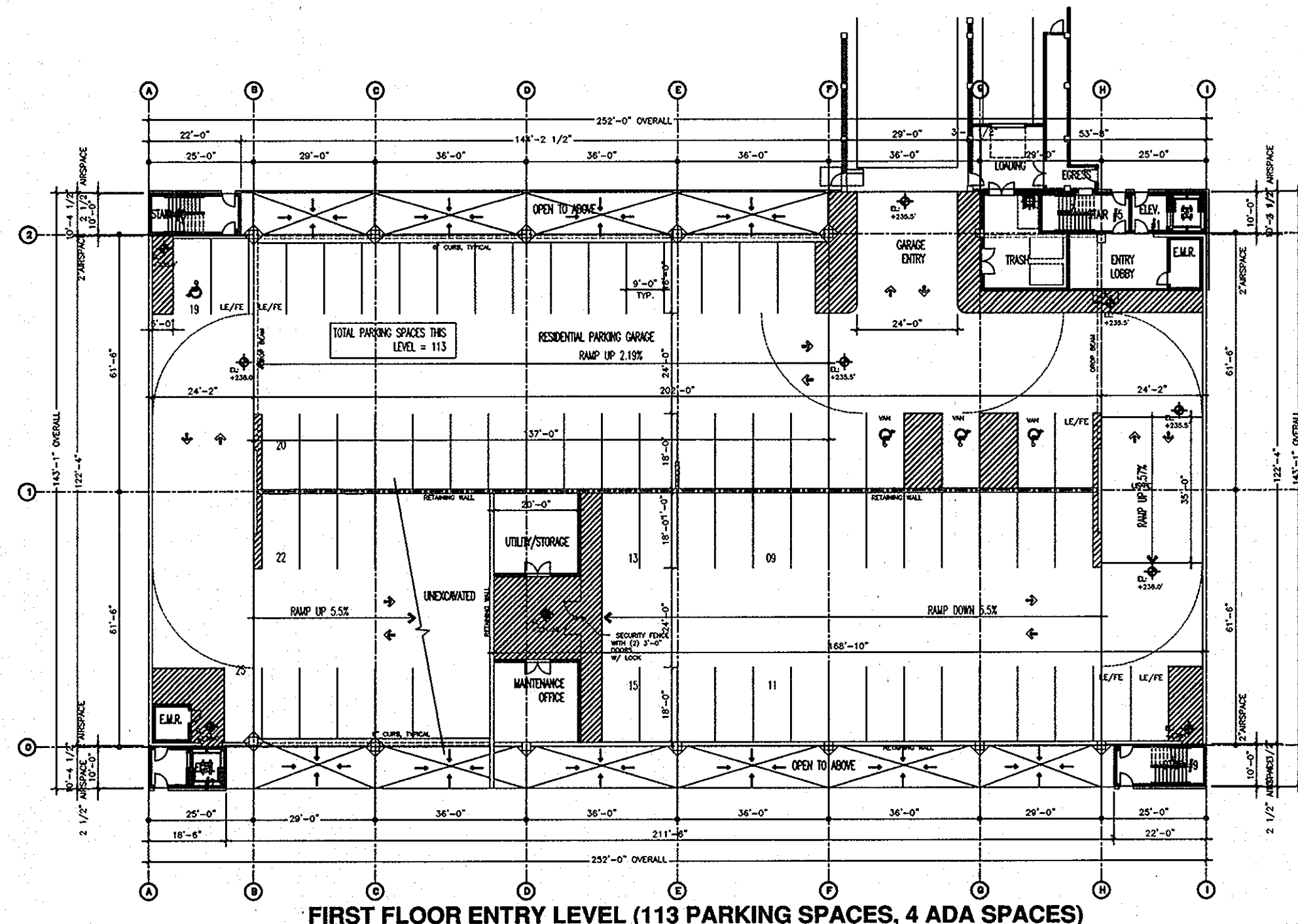
TAX MAP: 43 GRID 3 & 9 - PARCEL: C
ZONED: CAC-CL
ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND

WHC AND SHC PROFILES AND AMENITY FURNITURE DETAILS

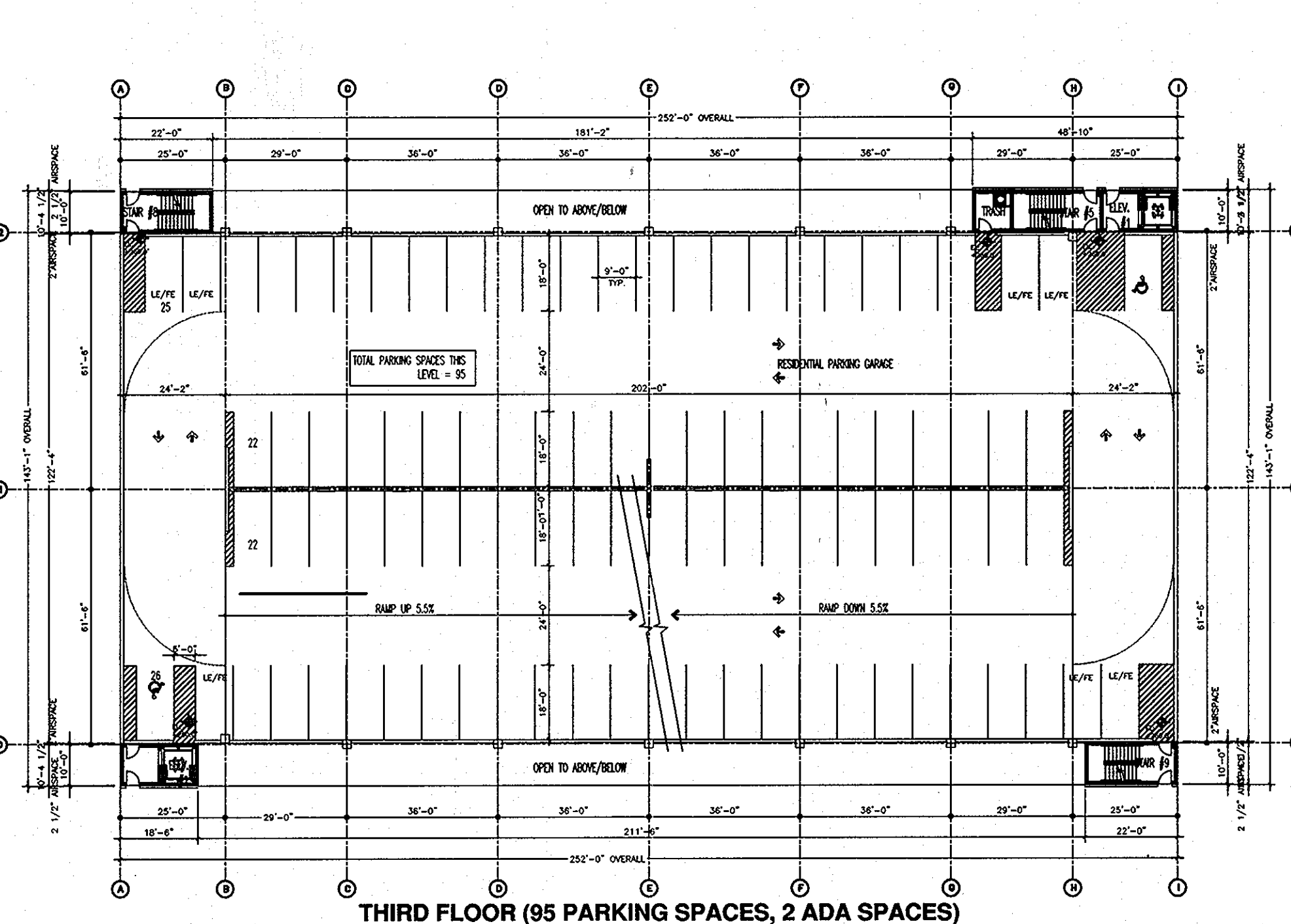
DEVELOPER/OWNER: ATAPCO HOWARD SQUARE I BUSINESS TRUST
10 E. Baltimore St. Suite 1600 Baltimore, MD 21202 (410) 347-7189

DATE: JANUARY 2012
REVISED: SEPTEMBER 2012
SCALE: AS SHOWN

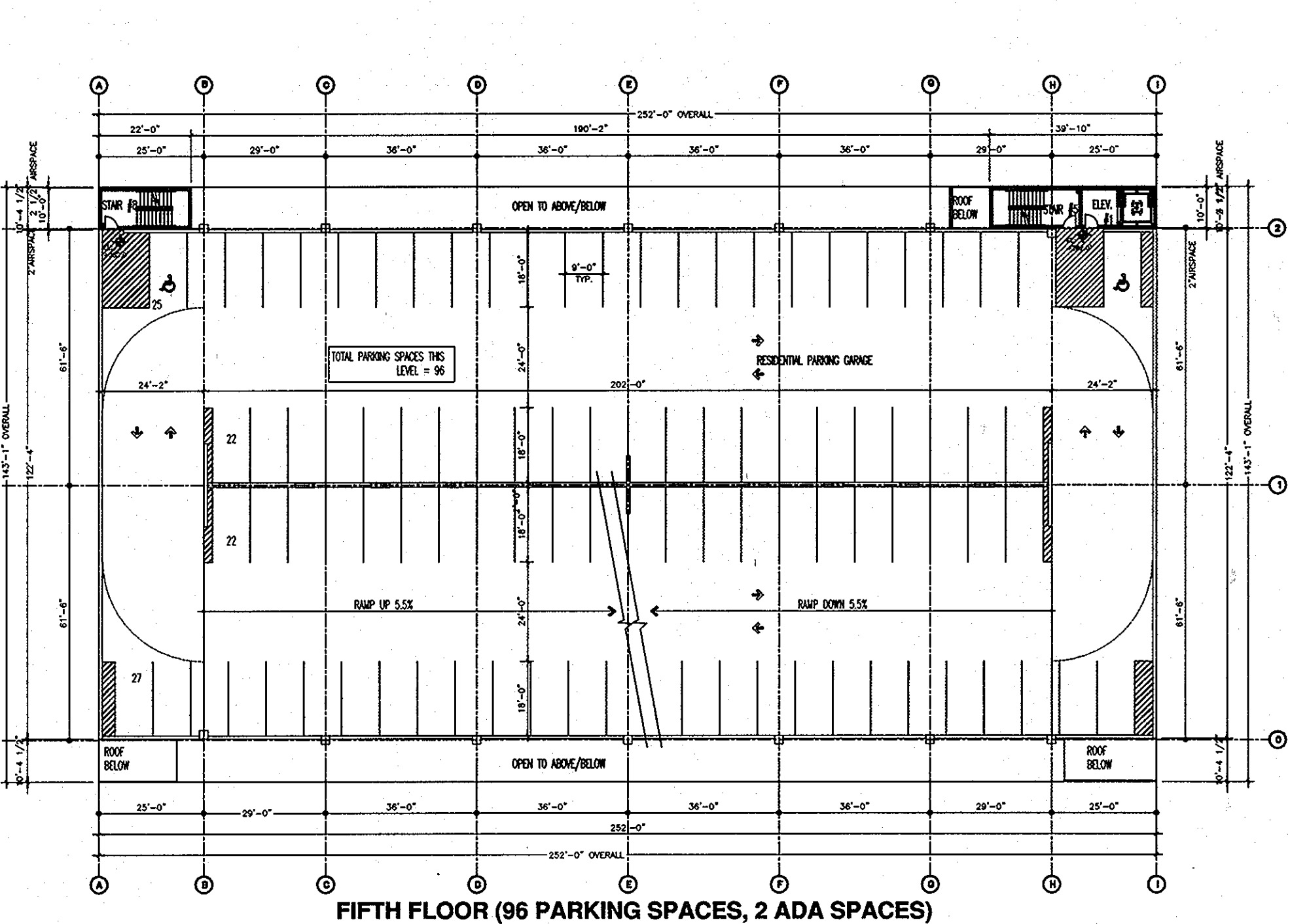
BEI PROJECT NO. 2434
SHEET 7 OF 12



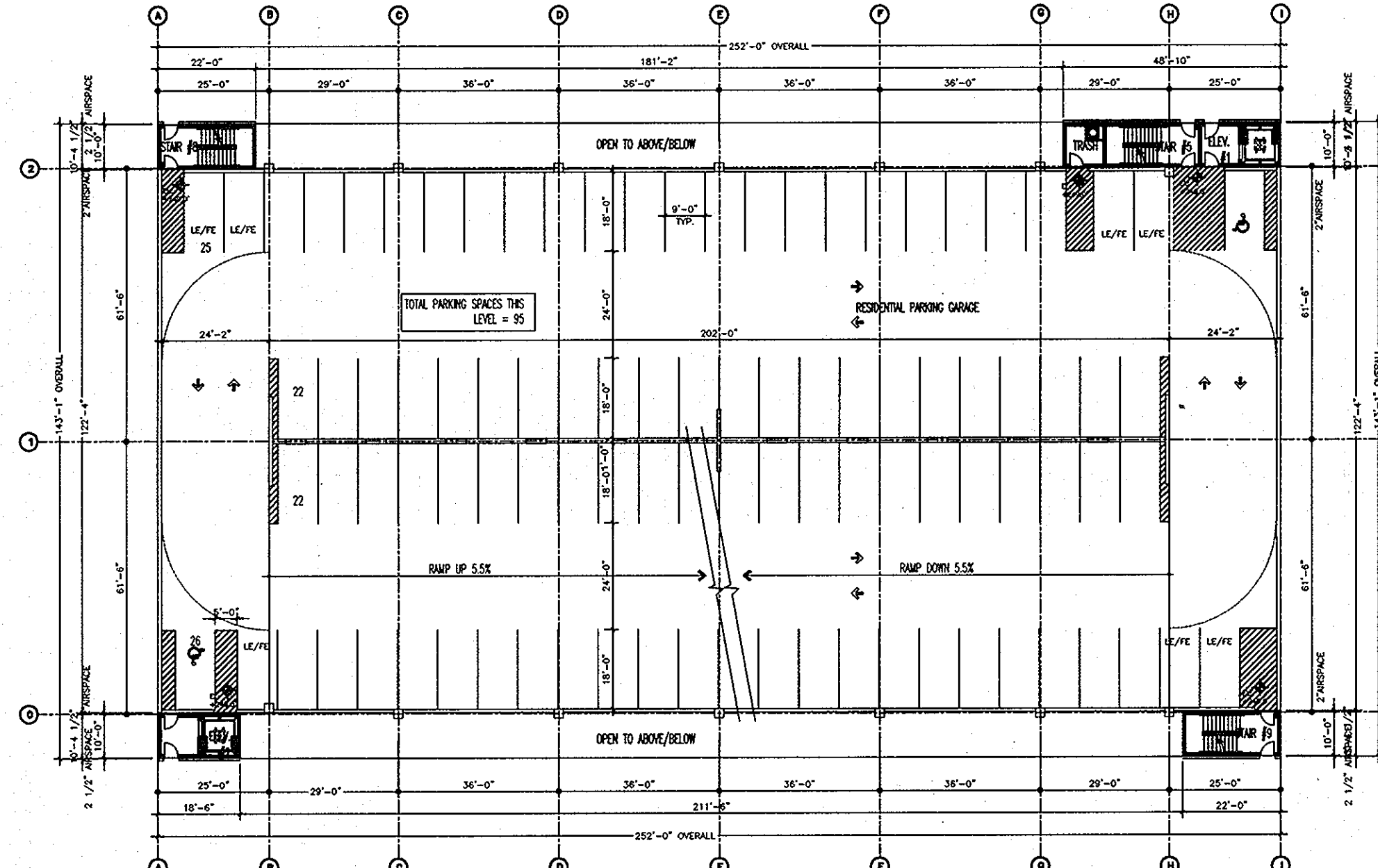
FIRST FLOOR ENTRY LEVEL (113 PARKING SPACES, 4 ADA SPACES)



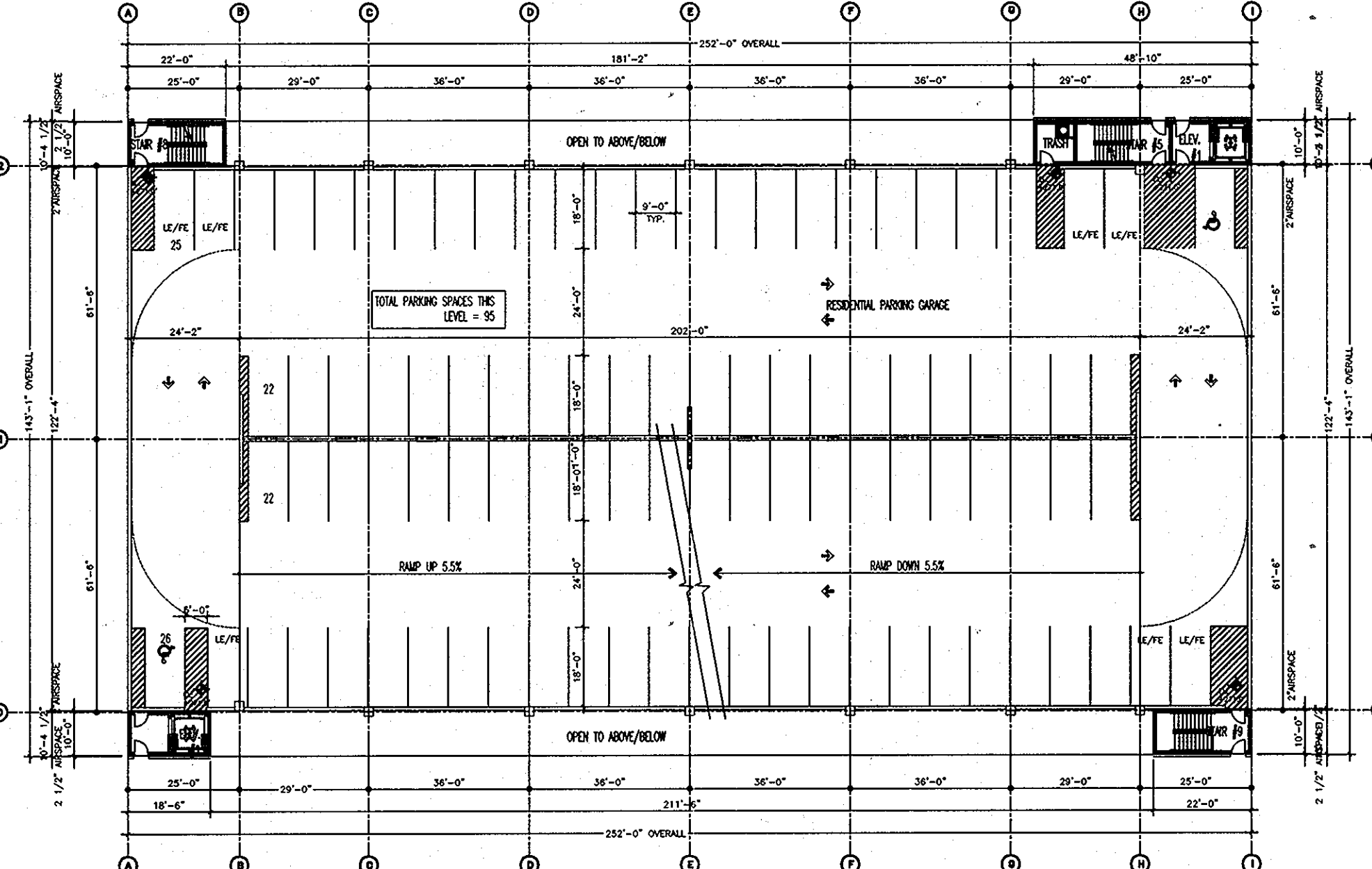
THIRD FLOOR (95 PARKING SPACES, 2 ADA SPACES)



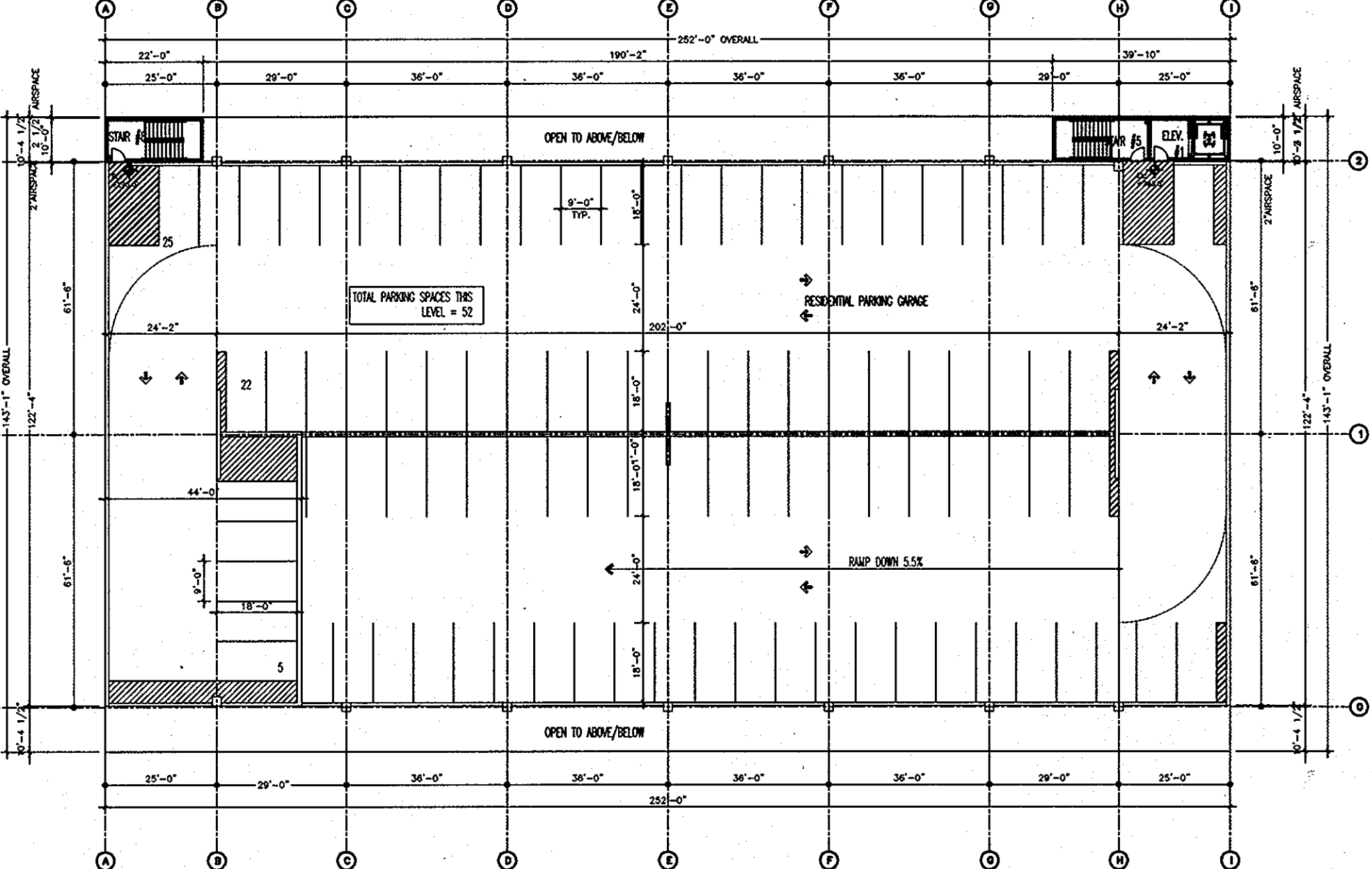
FIFTH FLOOR (96 PARKING SPACES, 2 ADA SPACES)



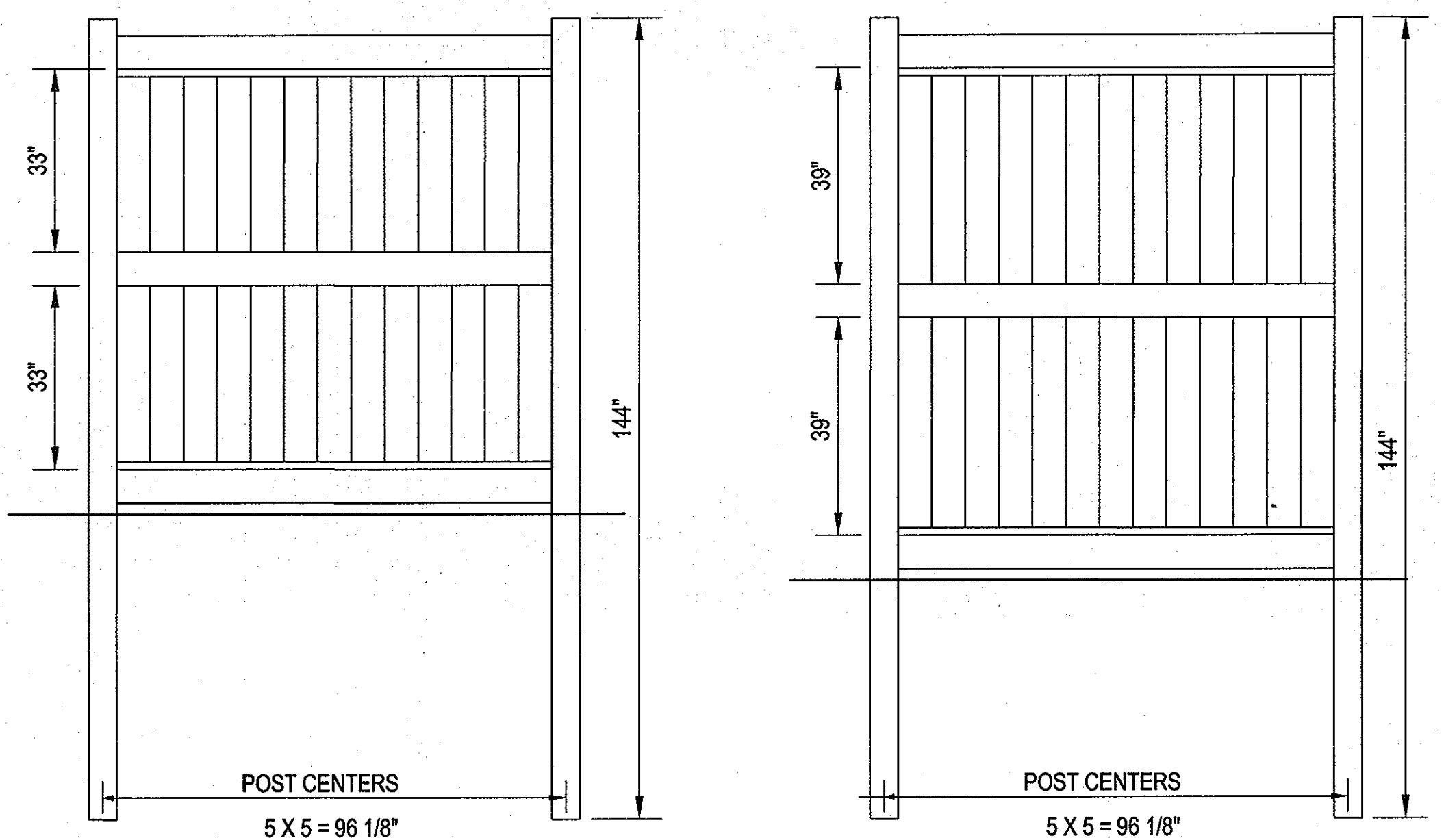
SECOND FLOOR (95 PARKING SPACES, 2 ADA SPACES)



FOURTH FLOOR (95 PARKING SPACES, 2 ADA SPACES)

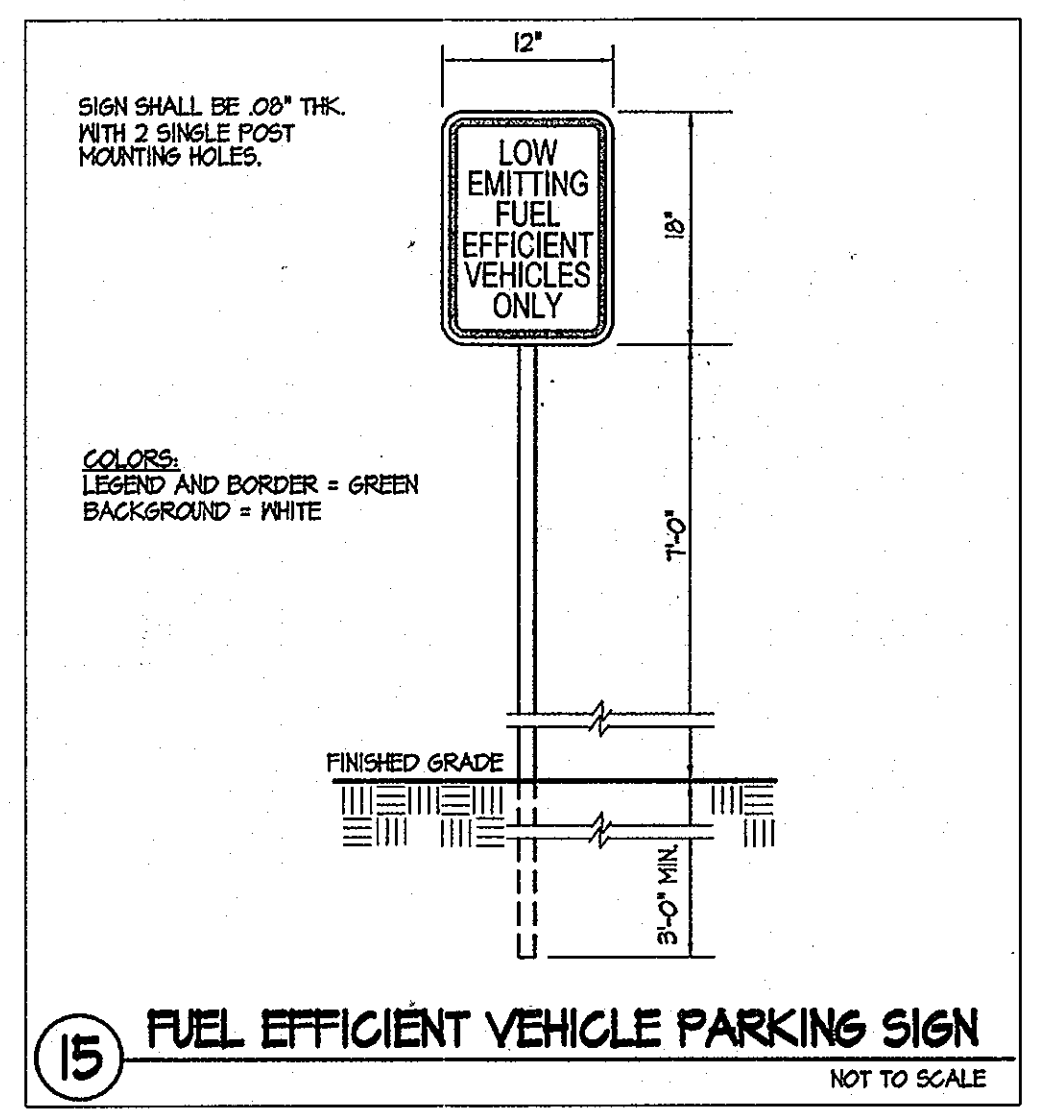


SECOND FLOOR ENTRY LEVEL (95 PARKING SPACES, 2 ADA SPACES)



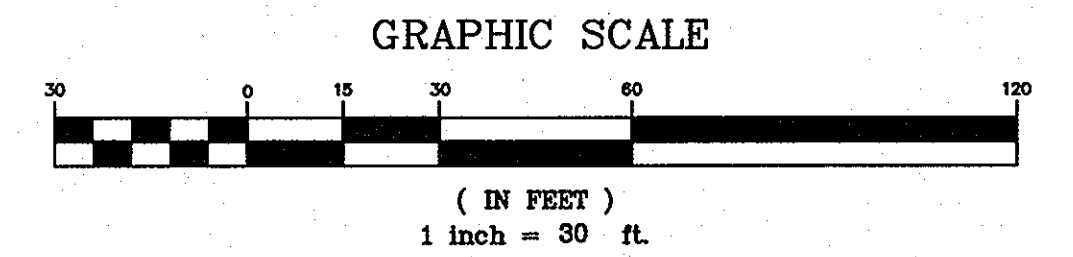
GALVESTON 8" HIGH / 8" WIDE
GALVESTON VINYL FENCING OR SIMILAR

SEE ACCOMPANYING SPECIFICATIONS FOR MORE INFORMATION. FENCE INSTALLATION IS TO BE IN ACCORDANCE WITH MANUFACTURER'S SHOP DRAWINGS (800) 333-0569

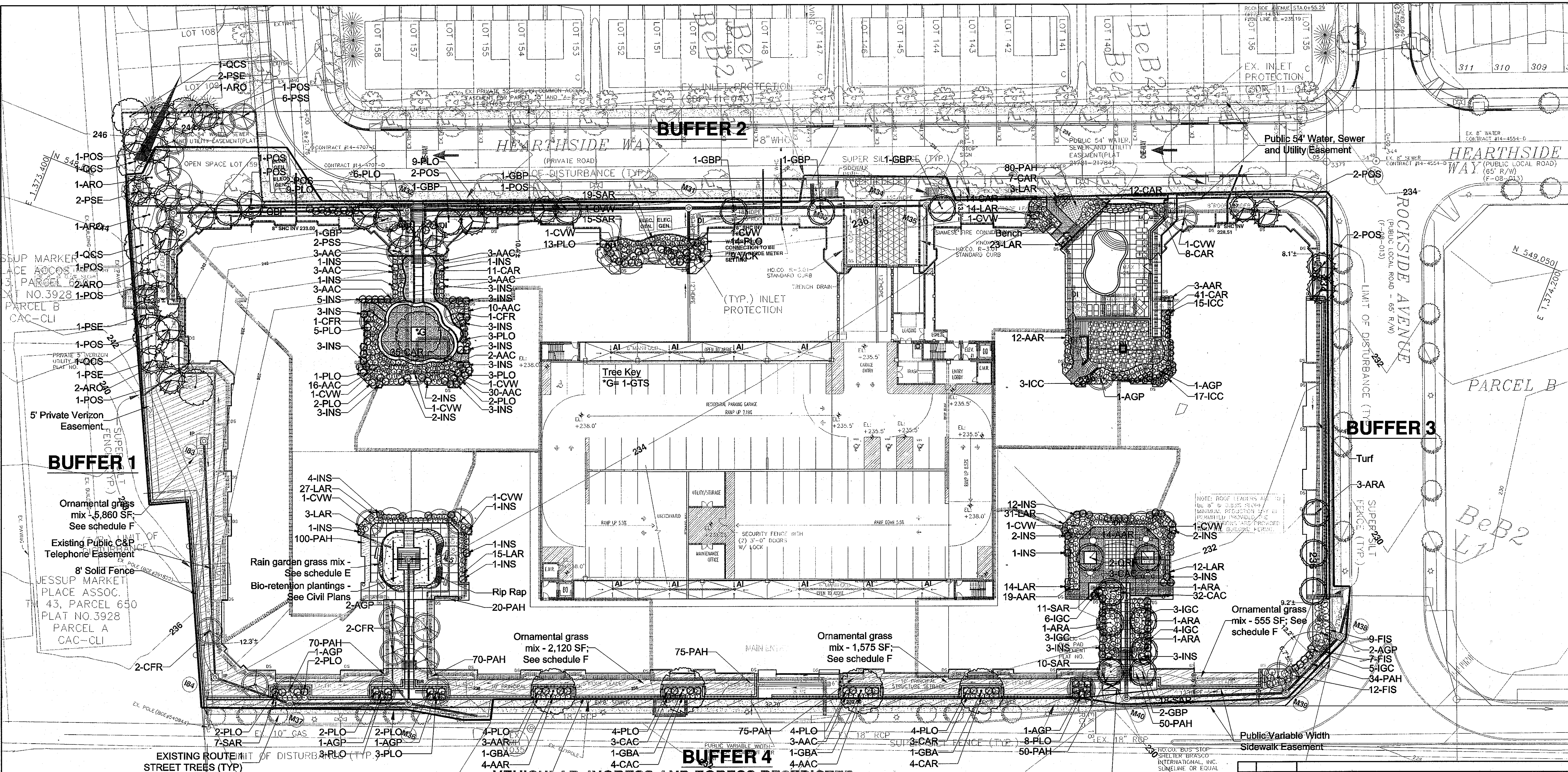


(15) FUEL EFFICIENT VEHICLE PARKING SIGN
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
John D. ... 10/2/12
 CHIEF, DEVELOPMENT ENGINEERING DIV. DATE
Kevin ... 11/01/12
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
David ... 11/2/12
 DIRECTOR DATE



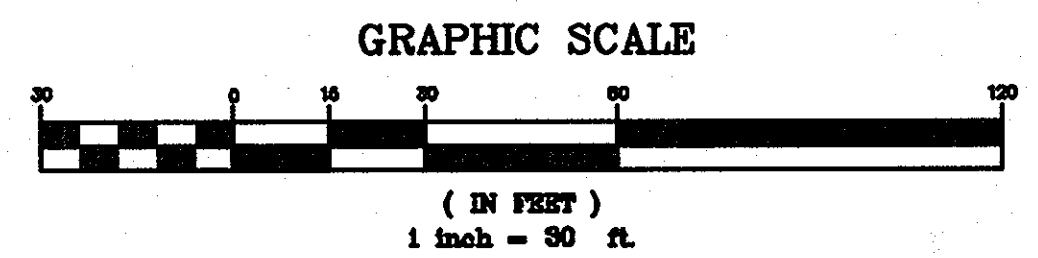
BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC. 6400 BALTIMORE NATIONAL PIKE & SUITE 418 ELIJAH CITY, MARYLAND 21043 (P) 410-465-8105 (F) 410-465-8844 60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702 (P) 301-371-3508 (F) 301-371-3508 WWW.BE-CVLENGINEERING.COM		PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer or professional land surveyor of the State of Maryland, License No. 28585 REGISTERED PROFESSIONAL ENGINEER
DEVELOPER/OWNER: ATAPCO HOWARD SQUARE I BUSINESS TRUST 10 E. Baltimore St. Suite 1600 Baltimore, MD 21202 (410) 347-7189	HOWARD SQUARE PHASE 3 AND 4, PARCEL C APARTMENT BUILDING TAX MAP: 43 GRID 3 & 9 - PARCEL: C ZONED: CAC-CL ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND PARKING GARAGE AND FENCE DETAILS	
DATE: JANUARY 2012 REVISED: SEPTEMBER 2012 DRAFT: BFC/MCR CHECK: BFC	BEI PROJECT NO. 2434 SCALE: AS SHOWN SHEET 9 OF 12	SDP-12-018



U.S. ROUTE 1, WASHINGTON BOULEVARD
(INTERMEDIATE ARTERIAL-PUBLIC)

LANDSCAPING NOTES

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
2. THE FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$69,513.00 FOR 115 SHADE TREES, 20 EVERGREENS, ALSO, 1,067.1 LF OF WALL AND 1,067.1 LF OF FENCE. SURETY WILL NOT BE RELEASED UNTIL ALL LANDSCAPING AND AMENITY FEATURES AS SHOWN ON THE LANDSCAPE PLAN HAVE BEEN INSTALLED.
3. STREET TREES BONDED AND INSTALLED UNDER F-08-013 AND SDP-11-043.
4. ALL LANDSCAPING PLANT TYPES SHOWN ON THESE PLANS ARE RECOMMENDATIONS AND MAY BE SUBSTITUTED WITH APPROVED EQUIVALENTS FROM THE HOWARD COUNTY LANDSCAPE MANUAL.



At the time of installation, all shrubs and other plantings herewith listed and approved for this site, shall be of the proper height requirements in accordance with the Howard County Landscaping Manual. In addition, no substitutions or relocation of required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this approved Landscaping plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to applicable plans and certificates.

THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BENCHES, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWIT LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.

OWNER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Duffy P. McConnel 9-18-2012
ATAPCO HOWARD SQUARE II STATUTORY TRUST DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Michael J. Pappas 9/18/12
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Keith Edwards 11/6/12
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

David L. Uggel 11/4/12
DIRECTOR DATE

NO.	DATE	REVISION

LPDA
LAND PLANNING & DESIGN
ASSOCIATES

46169 Westlake Drive Suite 340
Starling, Virginia 20165 ■ www.lpda.net
703-437-7907 ■ Fax 434-298-2109

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional landscape architect under the laws of the State of Maryland, License No. 3314, Registration Date: 10-04-2013.

September 14, 2012

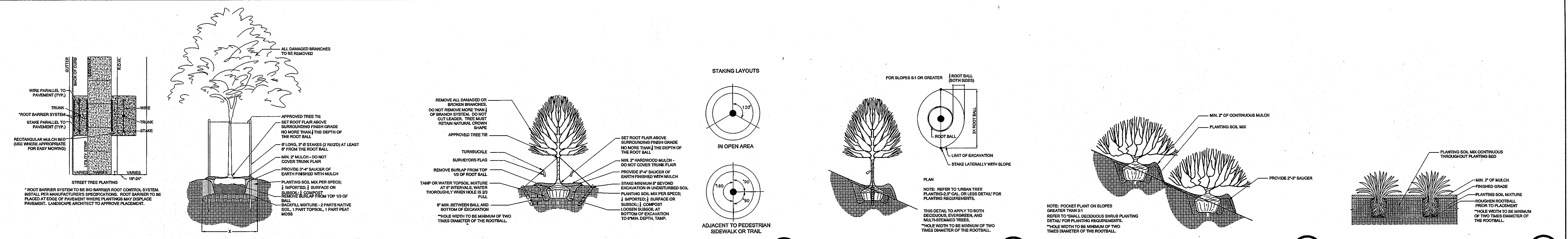
DEVELOPER/OWNER: **HOWARD SQUARE**
PHASE 3 AND 4, PARCEL C
APARTMENT BUILDING

TAX MAP: 43 GRID 3 & 9 - PARCEL C
ZONED: CAC-CLI
ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND

LANDSCAPE PLAN

DATE: September 2012 BEI PROJECT NO. 2434
DRAFT:AMS CHECK:ZAL SCALE: AS SHOWN SHEET **11** OF 12

Note:
1. Plans are subject to change pending approval from Howard County.



1 URBAN TREE PLANTING - ADJACENT TO SIDEWALK
SCALE: NOT TO SCALE

2 TREE PLANTING and STREET TREE GUYING
SCALE: NOT TO SCALE

3 EVERGREEN TREE PLANTING
SCALE: NOT TO SCALE

4 EVERGREEN SHRUB PLANTING
SCALE: NOT TO SCALE

5 SMALL DECIDUOUS SHRUB PLANTING
SCALE: NOT TO SCALE

6 PERENNIAL PLANTING
SCALE: NOT TO SCALE

7 SHRUB PLANTING ON SLOPE
SCALE: NOT TO SCALE

8 TREE PLANTING ON SLOPE
SCALE: NOT TO SCALE

9 ELEVATION OF ROUTE 1 STONE WALL
SCALE: NOT TO SCALE

10 SECTION OF ROUTE 1 CMU CORE; STONE VENEER WALL
SCALE: NOT TO SCALE

Schedule B Plant Schedule
Howard Square Apartments - Howard County, Maryland

Canopy Trees					
Deciduous Trees					
Code	Quantity	Botanical Name	Common Name	Size	Comments
ARA	7	Acer rubrum 'Armstrong'	Armstrong Columnar Red Maple	2.5" cal.	B&B
ARO	7	Acer rubrum 'October Glory'	October Glory Maple	2.5" cal.	B&B
GBA	4	Ginkgo biloba 'Autumn Gold'	Autumn Gold Ginkgo	2.5" cal.	B&B; Male Tree ONLY
GBP	9	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	2.5" cal.	B&B; Male Tree ONLY
GTS	1	Gleditsia triacanthos var. inermis 'Shademaster'	Shademaster Ginkgo	2.5" cal.	B&B
OCS	4	Quercus coccinea	Scarlet Oak	2.5" cal.	B&B
GRF	2	Quercus robur 'Fastigiata'	Columnar English Oak	2.5" cal.	B&B
	34		Subtotal		
Evergreen Trees					
Code	Quantity	Botanical Name	Common Name	Size	Comments
POS	17	Picea omorika	Serbian Spruce	8' ht. min.	B&B
PSE	6	Pinus strobus	Eastern White Pine	8' ht. min.	B&B
	23		Subtotal		
Ornamental Trees					
Medium Deciduous Trees					
Code	Quantity	Botanical Name	Common Name	Size	Condition
AGP	10	Acer giseum	Paperbark Maple	2" cal.	B&B
CFR	6	Cornus florida 'rubra'	Red Flowering Dogwood	2" cal.	B&B
CVW	12	Crataegus viridis 'Winter King'	Winter King Hawthorne	2" cal.	B&B
PSS	8	Prunus sargentii	Sargent Cherry	2" cal.	B&B
	36		Subtotal		
Shrubs					
Evergreen Shrubs					
Code	Quantity	Botanical Name	Common Name	Size	Comments
ICC	35	Ilex x crenata 'Compacta'	Compact Inkberry	24" ht.	Cont.
IGC	21	Ilex glabra 'Compacta'	Compact Japanese Holly	24" ht.	Cont.
INS	71	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly	24" ht.	Cont.
PLO	105	Prunus laurocerasus 'Otto Luyken'	Otto Luyken Cherry Laurel	24" ht.	Cont.
	232		Subtotal		
Deciduous Shrubs					
Code	Quantity	Botanical Name	Common Name	Size	Comments
AAC	80	Autumn amethyst	Azalea x 'Conlee'	24" ht.	Cont.
AAR	55	Autumn angel	Azalea x 'Robbie'	24" ht.	Cont.
CAC	42	Autumn cheer	Azalea x 'Conlee'	24" ht.	Cont.
CAR	149	Autumn chifon	Azalea x 'Robbie'	24" ht.	Cont.
FIS	28	Forsythia intermedia 'Spectabilis'	Showy Border Forsythia	24" ht.	Cont.
LAR	142	Autumn lilac	Azalea x 'Robbie'	24" ht.	Cont.
SAR	80	Autumn statice	Azalea x 'Robbie'	24" ht.	Cont.
VCK	9	Viburnum carlesii	Korean Spice Viburnum	24" ht.	Cont.
	585		Subtotal		
Grasses					
Code	Quantity	Botanical Name	Common Name	Size	Comments
PAH	504	Pennisetum alopecuroides 'Hamlen'	Dwarf Fountain Grass	gallon	24" O.C.
	504		Subtotal		
	1089		Total Plantings		

Schedule E Plant Schedule
Howard Square Apartments - Howard County, Maryland

Rain Garden Mix					
Rain Garden Mix - ERNMX-180					
Code	% of Mix	Botanical Name	Common Name	Size	Comments
RGM	20	Panicum rigidulum	Redtop Panic Grass	Seed	
RGM	20	Schizachyrium scoparium	Little Bluestem	Seed	
RGM	10	Elymus virginicus	Virginia Wild Rye	Seed	
RGM	5	Carex vulpinoidea	Fox Sedge	Seed	
RGM	5	Chasmanthium latifolia	River Oats	Seed	
RGM	5	Echinacea purpurea	Purple Coneflower	Seed	
RGM	5	Liatris spicata	Marsh (Dense) Blazing Star	Seed	
RGM	5	Rudbeckia hirta	Black Eyed Susan	Seed	
RGM	3	Monarda fistulosa	Wild Bergamot	Seed	
RGM	3	Penstemon digitalis	Tall White Beard Tongue	Seed	
RGM	2	Andropogon gerardii	Big Bluestem	Seed	
RGM	2	Asclepias incarnata	Swamp Milkweed	Seed	
RGM	2	Aster novea-angliae	New England Aster	Seed	
RGM	2	Baptisia australis	Blue False Indigo	Seed	
RGM	2	Geum laciniatum	Rough Avena	Seed	
RGM	2	Senna hebecarpa	Wild Senna	Seed	
RGM	2	Tridacenia ohioensis	Ohio Spiderwort	Seed	
RGM	2	Verbena hastata	Blue Vervain	Seed	
RGM	2	Zizia aurea	Golden Alexanders	Seed	
RGM	1	Agrostis perennans	Autumn Bentgrass	Seed	
	100				

NOTE: Contractor is MUST contact Ernst Seed or equivalent seed producer to ensure ornamental grass seed mix will work in site conditions if substitutions are to be made to the seed mix contractor is to work with seed producer to find the best substitution possible; ALL substitutions must be submitted and approved by Landscape Architect or Owner.

Schedule F Plant Schedule
Howard Square Apartments - Howard County, Maryland

Ornamental Grass Mix					
Butterfly and Hummingbird Mix - ERNMX-179					
Code	% of Mix	Botanical Name	Common Name	Size	Comments
OGM	10	Schizachyrium scoparium	Little Bluestem	Seed	
OGM	8	Papaver rhoeas, Shirley Mix	Corn Poppy/Shirley Mix	Seed	
OGM	7	Carex flacca	Lance Leaved Carex	Seed	
OGM	7	Carex flacca	Plains Carex	Seed	
OGM	7	Cosmos bipinnatus	Cosmos	Seed	
OGM	7	Dianthus barbatus	Sweet William	Seed	
OGM	7	Silene aemula	Catchfly	Seed	
OGM	6	Lupinus polyphyllus	Bigleaf Aster	Seed	
OGM	6	Sorghastrum nutans	Indiangrass	Seed	
OGM	5	Delphinium ajacis	Rock et Larkspur	Seed	
OGM	5	Echinacea purpurea	Purple Coneflower	Seed	
OGM	5	Rudbeckia hirta	Black Eyed Susan	Seed	
OGM	4	Elymus virginicus	Virginia Wild Rye	Seed	
OGM	3	Gaillardia aristata	Perennial Gaillardia (Blanket Flower)	Seed	
OGM	3	Liatris spicata	Marsh (Dense) Blazing Star	Seed	
OGM	2	Aster novea-angliae	New England Aster	Seed	
OGM	2	Linum grandiflorum rubrum	Scarlet Flax	Seed	
OGM	2	Monarda fistulosa	Wild Bergamot	Seed	
OGM	2	Solidago speciosa	Showy Goldenrod	Seed	
OGM	1	Asclepias syriaca	Common Milkweed	Seed	
OGM	1	Asclepias tuberosa	Butterfly Milkweed	Seed	
	100				

NOTE: Contractor is MUST contact Ernst Seed or equivalent seed producer to ensure ornamental grass seed mix will work in site conditions if substitutions are to be made to the seed mix contractor is to work with seed producer to find the best substitution possible; ALL substitutions must be submitted and approved by Landscape Architect or Owner.

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAY				ADJACENT TO PERIMETER PROPERTIES			
	NO	YES	YES	YES	NO	NO	NO	NO
PERIMETER NO. / LANDSCAPE TYPE	1	A	2	B	3	A	4	B
LINEAR FEET OF FRONTAGE (PERIMETER REQUIRED)	303.1 (0.0)	665.9 (665.9)	293.9 (122.9)	599.1 (6.1)				
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO				
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES	303.1*	NO	YES	171*	YES	593*	
NUMBER OF PLANTS REQUIRED:								
SHADE TREES	0	13	3	0				
EVERGREEN TREES	0	17	3	0				
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-				
SHRUBS	0	0	0	0				
NUMBER OF TREES PROVIDED:								
SHADE TREES	0	6	3	0				
EVERGREEN TREES	0	7	3	0				
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-				
SHRUBS (10:1 SUBSTITUTION)	0	150	0	0				
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-				
SHRUBS (10:1 SUBSTITUTION)	0	-	-	-				

* - THE BUILDING PERIMETER WILL BE FINISHED ON TOP OF A 3' RETAINING WALL WHERE SHOWN ON PLANS WITH GATED ENTRIES IN THESE AREAS

SCHEDULE C - RESIDENTIAL INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS:	299
NUMBER OF TREES REQUIRED: (1/2' DIA. SPA. - 1/2' DIA. APT.)	99
NUMBER OF TREES PROVIDED (COURTYARDS):	
SHADE TREES (2:1 SUBSTITUTION)	13*
OTHER TREES (2:1 SUBSTITUTION)	22
SHRUBS (10:1 SUBSTITUTION)	610
NUMBER OF TREES PROVIDED (PERIMETERS 1&2):	
SHADE TREES	11
OTHER TREES (2:1 SUBSTITUTION)	6
SHRUBS (10:1 SUBSTITUTION)	0

* - INCLUDES CREDIT FOR ONE SHAW SHADE TREE IN MICRO-BRETENTION FACILITY

NOTE:
1. Plans are subject to change pending approval from Howard County.

OWNER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL, I/WE FURTHER CERTIFY THAT UPON COMPLETION OF A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Jeffrey A. McConaugh 9-18-2012
ATAPCO HOWARD SQUARE II STATUTORY TRUST DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John P. ... 9/18/12
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Keith ... 11/01/12
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

David ... 11/16/12
DIRECTOR DATE

LANDSCAPING NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- THE FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$69,513.00 FOR 115 SHADE TREES, 20 EVERGREENS, ALSO, 1,067.1 LF OF WALL AND 1,067.1 LF OF FENCE. SURETY WILL NOT BE RELEASED UNTIL ALL LANDSCAPING AND AMENITY FEATURES AS SHOWN ON THE LANDSCAPE PLAN HAVE BEEN INSTALLED.
- STREET TREES BONDED AND INSTALLED UNDER F-08-013 AND SDP-11-043.
- ALL LANDSCAPING PLANT TYPES SHOWN ON THESE PLANS ARE RECOMMENDATIONS AND MAY BE SUBSTITUTED WITH APPROVED EQUIVALENTS FROM THE HOWARD COUNTY LANDSCAPE MANUAL.

At the time of installation, all shrubs and other plantings herewith listed and approved for this site, shall be of the proper height requirements in accordance with the Howard County Landscaping Manual. In addition, no substitutions or reduction of required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this approved landscape plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to applicable plans and certificates.

THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.

AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR REDUCTION OF REQUIRED PLANTINGS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.

NO.	DATE	REVISION

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional landscape architect under the laws of the State of Maryland, License No. 3314, Expiration Date: 10-04-2013.

LPDA
LAND PLANNING & DESIGN ASSOCIATES
46169 Westlake Drive Suite 340
Stafford, Virginia 20165 ■ www.lpda.net
703-437-7907 ■ Fax 434-296-2109

September 14, 2012

DEVELOPER/OWNER:
ATAPCO HOWARD SQUARE I STATUTORY TRUST
10 E. Baltimore St. Suite 1600
Baltimore, MD 21202
(410) 347-7189

HOWARD SQUARE
PHASE 3 AND 4, PARCEL C
APARTMENT BUILDING

TAX MAP: 43 GRD 3 & 9 - PARCEL C
ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND

LANDSCAPE PLAN

DATE: September 2012 BEI PROJECT NO. 2434

SCALE: AS SHOWN SHEET 12 OF 12

DRAFT:AMS CHECK:ZAL