

BA 399-05 Harbor Point Promenade
Bldg/ Permit

MSA-S-1829-4767

Comm
6/16/05
NK
5/18/08

399-05

Hold for more comments.

Revision to Harbor Point M

Nick!

This is the revision to the Harbor P

They made it.

You and I discussed this last Hallow
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and what offsets have been paid to d

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range in regulations

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10% Rule, Worksheet A --They'll meet this requirement

Buffer

- they're responsible for 100% of the buffer
- they will be taking the Baltimore City option of credit for vegetated areas contiguous to buffer
- they want some of the buffer as "tree lawns" I said we'd work with them but planting charts in COMAR 27 are the requirements. See my email.
- there will be some offset fees.

15% afforestation --is required. They say it will be met thru landscaping.

Promenade --the site will have a promenade all the way around that is exempt from buffer requirements but subject to the 10% rule. This is one of 2 missing pieces in the stretch from the Museum of Industry on Key Hwy up to (but not yet including) Canton Crossing. Since the site is rip rap and not bulkheaded, we're going for a less formal design with some habitat areas between the path and the water. I've already discussed it with our architects... should be nice. Again see my email.

No vegetation and Existing Toxins --there is no vegetation to be removed. The site is full of chromium; there's a cap and pumps keep negative groundwater pressure, so nothing escapes into the Harbor. They will be adding several feet of top soil which should allow the above plantings to happen. I'm assuming the tree species will be smaller.

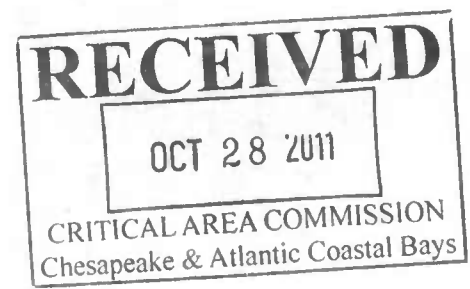
I think we'll all agree, this is a good course and this is something we can refer to it as the designs evolve and the development happens.

Definitely give me a call on this one.

Thanks,



--Gary-- 410 396-4369



Revision to Harbor Point Master Plan, 10-26-11

Nick!

This is the revision to the Harbor Point masterplan that's due Halloween 2011... They made it.

You and I discussed this last Halloween. There's a one pager (that I sent them last year) included in this package that says what they were to do and gives a little background on the change in regulations and what offsets have been paid to date.

The master plan's not rich in detail because their designs are still in flux. But along with my email (that claims to be "for clarity"), it sets the rules.

10% Rule, Worksheet A --They'll meet this requirement

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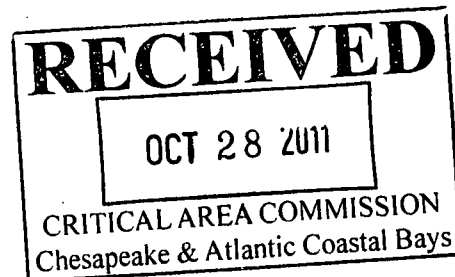
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Definitely give me a call on this one.

Thanks,



--Gary-- 410 396-4369



Post sent to the Developer 10/2010

The Department of Planning agrees to defer the requirement for revisions to the Harbor Point Masterplan. You may revise your current masterplan for up to one year, otherwise you must create a new plan under the new Critical Area regulations. There are no provisions for grandfathering under the new regulations, however because you are revising and approved plan, the Critical Area Commission has agreed to allow you the one year. Whether you revise your current plan or create a new one, it must be approved by the Department of Planning and the Critical Area Commission, and you must have an approved masterplan before any further permits are issued.

The revisions to your current master plan will include:

Revised site plan, that shows the proposed development as accurately as is possible at this time. Revised Worksheet A, for the proposed pervious and impervious surfaces. Anticipate the sports turf to be approved as 50% pervious.

Revised buffer calculations and schematic plan\map (see the buffer definition below), the requirement is for the entire buffer. Determine how much of, and where, the requirement will be met on site. The remainder will have to be met offsite or with a fee en lieu.

From COMAR 27:

Buffer.

- (a) "Buffer" means an area that:
 - (i) Based on conditions present at the time of development, is immediately landward from mean high water of a tidal water, the edge of bank of a tributary stream, or the edge of a tidal wetland; and
 - (ii) Exists or may be established in natural vegetation to protect a stream, tidal wetland, tidal waters, or terrestrial environment from human disturbance.
- (b) "Buffer" includes an area of:
 - (i) At least 100 feet, even if that area was previously disturbed by human activity....

Additionally in Baltimore City:

New vegetation planted outside the Buffer may be credited toward the buffer requirement provided that:

- 1) Vegetation planted outside the Buffer is at least 25 feet in width and depth and,
- 2) It is contiguous to existing or planned vegetation within the Buffer, and
- 3) Existing or planned vegetation within the Buffer includes at least 50 linear feet along the shoreline for the entire depth of the Buffer, and
- 4) The planting plan receives prior City approval.

To date, the following offset fees have been paid. These will be credited towards the requirements.

3/28/2008 Harbor Point Joint Venture \$5,253 buffer \$6,265.00 SW

8/11/2010 Thames Street Wharf (interim site work, plan# 1623) \$5,128.50 buffer

Letteron, Gary

From: Letteron, Gary
Sent: Wednesday, October 26, 2011 12:33 PM
To: 'Chris Krupinski'
Cc: Hranicky, Kenneth; Quilter, Robert
Subject: Harbor Point Critical Area masterplan

Chris,

Below is from our discussion on the Harbor Point Master Plan.

In order to receive buffer credit, areas must be planted for habitat, this means trees, shrubs and other wildlife plantings. Since this is a highly urban site, we will work with you to allow some areas as "tree lawns" (trees and shrubs w/ grass) for visibility, access and public safety. However, the planting charts in COMAR 27 dictate the requirements.

The portion of the site not in the buffer is subject to the 15% afforestation requirement, i.e. planting 15 shade\ canopy trees (or the equivalent in ornamental trees or shrubs) per acre. If the site is has 21.5 acres in the Critical Area but not in the buffer, that would be 223 trees. Landscaping with native species can be used to meet this requirement.

Since the shoreline is rip rap and the alignment of the promenade is not yet set, there should be some habitat areas at the water's edge, and some areas where the promenade is next to the water.


I will submit the master plan along with these comments for clarity to the Critical Area Commission for review.

Thanks,

--G--

Gary Letteron

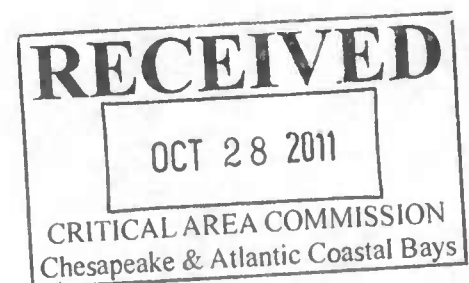
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Baltimore City Department of Planning
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410-396-4369 Phone
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gary.letteron@baltimorecity.gov

 Is it necessary to print this email?



www.baltimoresustainability.org

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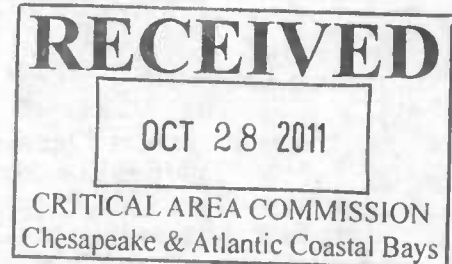
October 21, 2011

William K. Hellmann
*Emeritus*David W. Wallace
Stephen G. Zentz
J. Michael Potter
Thomas E. Mohler
Michael W. Myers
Mark M. Dumler

James A. Zito

Baltimore City Office of Sustainability
417 East Fayette Street, 8th Floor
Baltimore, MD 21202

Attention: Mr. Gary Letteron

Subject: Harbor Point Master Plan
Critical Area AnalysisJoseph A. Romanowski, Jr.
Michael L. Krupsaw
Lars E. Hill
J. Tommy Peacock, Jr.
Martin C. Rodgers
Kenneth A. Goon
Richard J. Adams, Jr.
John A. d'Epagnier
Barbara J. Hoage
Christopher F. Wright
Owen L. Peery
Nancy R. Bergeron
Stuart A. Montgomery
David G. Vanscoy
Henry J. Bankard, Jr.
James F. Ridenour, Jr.
Robert J. Andryszak
Raymond M. Harbeson, Jr.
B. Keith Skinner
Karen B. Kahl
Seyed A. Saadat
John C. Moore
Eric M. Klein
Todd E. Rousenberger
Donald P. Lauzon
Thomas M. Heil
Robert D. Ostermiller
Barry L. Brandt
Malachi M. Mills, III
James A. Burnett
Brian L. Hepting
Michael V. Gaffney
Lee C. Yowell
David A. Willoughby

Dear Mr. Letteron:

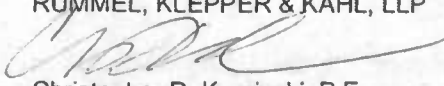
On behalf of Harbor East Development Group (HEDG), we are hereby submitting the enclosed Critical Area Analysis for the entire Harbor Point site for your review and approval. The analysis was prepared in accordance with the Baltimore City Critical Area Management Program, The Maryland Critical Area Commission 10% Rule Guidance Manual, and the Maryland Department of the Environment 2000 Stormwater Design Manual. The revisions were requested by Baltimore City in response to the approved Harbor Point PUD amendment in 2010.

Working from our previously approved Critical Area Master (April 2008), the latest Critical Area Analysis includes the proposed development parcels and open space areas from the approved 2010 PUD. Based on previous agreements with the City, it is understood that HEDG will be required to update the Critical Area Master Plan with each phase of development and resubmit to Baltimore City for approval along with updated Worksheet A calculations to confirm compliance with the Master Plan.

In summary, the proposed conditions associated with the Master Plan comply with the 10% Rule; therefore, a water quality BMP is not necessary. However, 100 foot Buffer encroachments will require payment of offset fees. Further discussion is included in the attached report. Please let us know if you have any questions.

Sincerely,

RUMMEL, KLEPPER & KAHL, LLP


 Christopher D. Krupinski, P.E.
Project Manager

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cc: Jonathan Flesher, HEDG
JAD/CDK/RAF

Attachments

1. Critical Area Narrative
2. Worksheet A (10% Rule)
3. Existing Conditions Drawing, CA-1
4. Proposed Conditions Drawing, CA-2
5. Revised Critical Area Fee Schedule

Harbor Point - Master Plan

Critical Area Narrative

Introduction

The existing site is a brownfield located at Harbor Point which is southeast of the Inner Harbor in Fells Point (See Drawing CA-1). Harbor Point, which is now owned by Honeywell, is on the former Allied Signal chromium plant site. The proposed site will consist of 5 parcels and a cultural use area (See drawing CA-2). Existing environmental caps of varying details have been installed as a result of a Consent Decree; however, the site has been cleared by the Environmental Protection Agency for redevelopment activities to begin. Development of the site will be phased, with this submittal covering the Master Plan condition with updates included in the 2010 Harbor Point PUD amendment. Future development includes a public pedestrian promenade along the existing shoreline (portions to extend into the water), open space park area, and future buildings (size and location to be determined).

Existing Conditions

The existing site currently consists of impervious areas and surface parking lots with connections to Caroline Street (via Block Street) and Thames Street (via Philpot Street). The first phase of development, the Thames Street Wharf building, was completed in 2010 and is incorporated into the Master Plan condition shown on drawing CA-2. The site is bound to south and west by the water and to the east by Thames Street and South Caroline Street. (See vicinity map on drawing CA-1)

Proposed Conditions

The proposed conditions include parcels for mixed use developments that will be implemented in a phased approach. Roadway and utility infrastructure will extend from the City's existing infrastructure at Thames and Caroline Street. The majority of green space for the proposed development will be concentrated in the park at the west end of the site which is a requirement of the PUD approved by Baltimore City. The first phase of development began in Parcel 5 with the completion of the Thames Street Wharf building.

Analysis

For the proposed Harbor Point Master Plan, the overall site has an associated PUD limit of 28.32 Acres and is considered redevelopment. The entire site falls within the 1,000 foot Critical Area.

Since the entire site falls within the Critical Area, CAMP requires a 10% pollutant reduction in the stormwater runoff. The Critical Area 10% Rule Worksheet A was used to determine the required pollutant removal. The following is a list of pertinent data and assumptions:

- Total existing impervious area = 24.94 Acres
- Total proposed impervious area = 21.84 Acres
- The proposed promenade was considered as impervious (non-slatted, non-wooden).



The project falls within the 100-foot buffer, so the CAMP fee of \$2.50 per square foot of development within the buffer was calculated. The following is a list of pertinent data and assumptions:

- Total limit of disturbance (proposed conditions) within the 100-foot buffer = 6.8 Acres.
- The proposed promenade was considered as a public use area.
- There are no existing building footprints within the 100-foot buffer.
- Total area of public use within the 100-foot buffer (promenade and open space access) = 2.65 Acres*
- Total area of grass credit (outside of 100-foot buffer) = 1.92 Acres

* *Note – per April 2008 Baltimore City review comments, Area 'H' may not qualify for promenade access pending review of a detailed site plan for this area. If Area 'H' is excluded, the total area of public use is 2.10 Acres (see Conclusion Section below for further discussion).*

Conclusion

A. 2010 PUD Amendment Update

Based on the preceding analysis, Worksheet A yields a negative pollutant removal requirement; therefore the project meets the specified criteria (See Worksheet A) without the need for a BMP. However, the buffer fee calculation indicates a net impact of 15,763 SF. A phased Buffer Impact Fee Schedule to address the 100 foot Buffer impacts has been attached to this report. The 100 foot Buffer impact has been determined assuming that Area 'H' is a buffer encroachment and is not excluded from the fee calculation. This will be reevaluated when this area is ready to proceed with development. Pending development projects will have to demonstrate their compliance with the Master Plan or each phase of development will need to pay the offset fees identified per the respective phase. (See revised buffer fee calculation sheet).

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HARBOR POINT CRITICAL AREA MASTER PLAN
BUFFER OFFSET CALCULATIONS
 10/21/2011

Buffer Development Area	Buffer Area Impact SF	% of Buffer Impact	Buffer Fee as a % of the development buffer	Buffer Fee Paid to Date
A	19,068	19%	\$ 7,559.73	
B	6,747	7%	\$ 2,674.93	
C	3,040	3%	\$ 1,205.24	
D	5,042	5%	\$ 1,998.96	
E	13,855	14%	\$ 5,492.98	\$ 5,253.05
E Temp Promenade(2/2010)				\$ 5,128.50
F	27,580	28%	\$ 10,934.41	
H	24,066	24%	\$ 9,541.25	
TOTAL	99,398	100%	\$ 39,407.50	\$ 10,381.55

Buffer Credit Area (Green Space) = 83,635 [See chart on CA-2]

Impact Area for Fee Calculation = 15,763 Based on 99,398 minus 83,635

Fee Calculation at \$2.50/SF = \$ 39,407.50

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements*

Step 1: Calculating Existing and Proposed Site Imperviousness

A. Calculate Percent Imperviousness

- 1) Site Acreage (A) = 28.32 acres
- 2) Site Imperviousness, existing and proposed, (See Table 1.0 for details)

	(a) Existing (acres)	(b) Post-Development (acres)
Rooftop	_____	_____
Roads	_____	_____
Sidewalks	_____	_____
Parking Lots	_____	_____
Pools / Ponds	_____	_____
Solid Piers/Decks	_____	_____
Other:	<u>24.94</u>	<u>21.84</u>
Impervious Surface Area	<u>24.94</u>	<u>21.84</u>

Imperviousness (I)

Existing Impervious Surface Area / Site Area = (Step 2a) / (Step 1) = 88%

Post-Development Impervious Surface Area / Site Area = (Step 2b) / (Step 1) = 77%

B. Define Development Category (circle)

- 1) Redevelopment: Existing imperviousness greater than 15% I (Go to Step 2A)
- 2) New development: Existing imperviousness less than 15% I (Go to Step 2B)
- 3) Single Lot Residential: Single lot being developed or improved; single family residential development; and more than 250 square feet of impervious area and associated disturbance. (Go to Section 5, Residential Approach, for detailed criteria and requirements)

* NOTE: All acreage used in this worksheet refers to areas within the IDA of the critical area only.

Step 2: Calculate the Pre-Development Load (L_{pre})

A. Redevelopment

$$\begin{aligned}
 L_{pre} &= (R_v)(C)(A)8.16 \\
 R_v &= 0.05 + 0.009(I_{pre}) & R_v &= 0.8420 \\
 L_{pre} &= (0.842)(0.3)(28.32)8.16 \\
 &= \underline{58.37} \text{ lbs P / year}
 \end{aligned}$$

where:

$$\begin{aligned}
 L_{pre} &= \text{Average annual load of total phosphorous exported from the site prior to development (lbs/yr)} \\
 R_v &= \text{Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff} \\
 I_{pre} &= \text{Pre-development Site imperviousness (I.e., I=75 if site is 75% impervious)} \\
 C &= \text{Flow weighted mean concentration of the pollutant in urban runoff (mg/l)} = 0.30 \\
 A &= \text{Area of the development site (acres in the Critical Area)} \\
 8.16 &= \text{Includes regional constants and unit conversion factors}
 \end{aligned}$$

OR

B. New Development

$$\begin{aligned}
 L_{pre} &= 0.5 \text{ lbs/year} * A \\
 &= \\
 &= \underline{\hspace{2cm}} \text{ lbs/yr P}
 \end{aligned}$$

Step 3: Calculate the Post-Development Load (L_{post})

A. New Development and Redevelopment

$$\begin{aligned}
 L_{post} &= (R_v)(C)(A)8.16 \\
 R_v &= 0.05 + 0.009(I_{post}) & R_v &= 0.7430 \\
 L_{post} &= (0.743)(0.3)(28.32)8.16 \\
 &= \underline{51.51} \text{ lbs P / year}
 \end{aligned}$$

where:

$$\begin{aligned}
 L_{post} &= \text{Average annual load of phosphorous exported from the post-development site (lbs./yr)} \\
 R_v &= \text{Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff} \\
 I_{post} &= \text{Site imperviousness (I.e., I=75 if site is 75% impervious)} \\
 C &= \text{Flow weighted mean concentration of the pollutant in urban runoff (mg/l)} = 0.30 \\
 A &= \text{Area of the development site (acres in the Critical Area)} \\
 8.16 &= \text{Includes regional constants and unit conversion factors}
 \end{aligned}$$

Step 4: Calculate the Pollutant Removal Requirement (RR)

$$\begin{aligned}
 RR &= L_{\text{post}} - (0.9)(L_{\text{pre}}) \\
 &= (51.51) - (0.9)(58.37) \\
 &= \underline{-1.02} \text{ lbs/yr P}
 \end{aligned}$$

Step 5: Identify Feasible Urban BMP

Select BMP Options using the screening matrices provided in the Chapter 4 of the 2000 Maryland Stormwater Design Manual. Calculate the load removed for each option.

BMP Type	(BMP _{RE})	x	(% DA Served)	x	(L _{post})	=	LR
_____	_____		_____	x	_____	=	_____ lbs/yr
_____	_____	x	_____	x	_____	=	_____ lbs/yr
_____	_____	x	_____	x	_____	=	_____ lbs/yr
_____	_____	x	_____	x	_____	=	_____ lbs/yr
Total Load Removed						=	_____ lbs/yr
Pollutant Removal Requirement, RR (from Step 4)						=	<u> -1.02 </u> lbs/yr

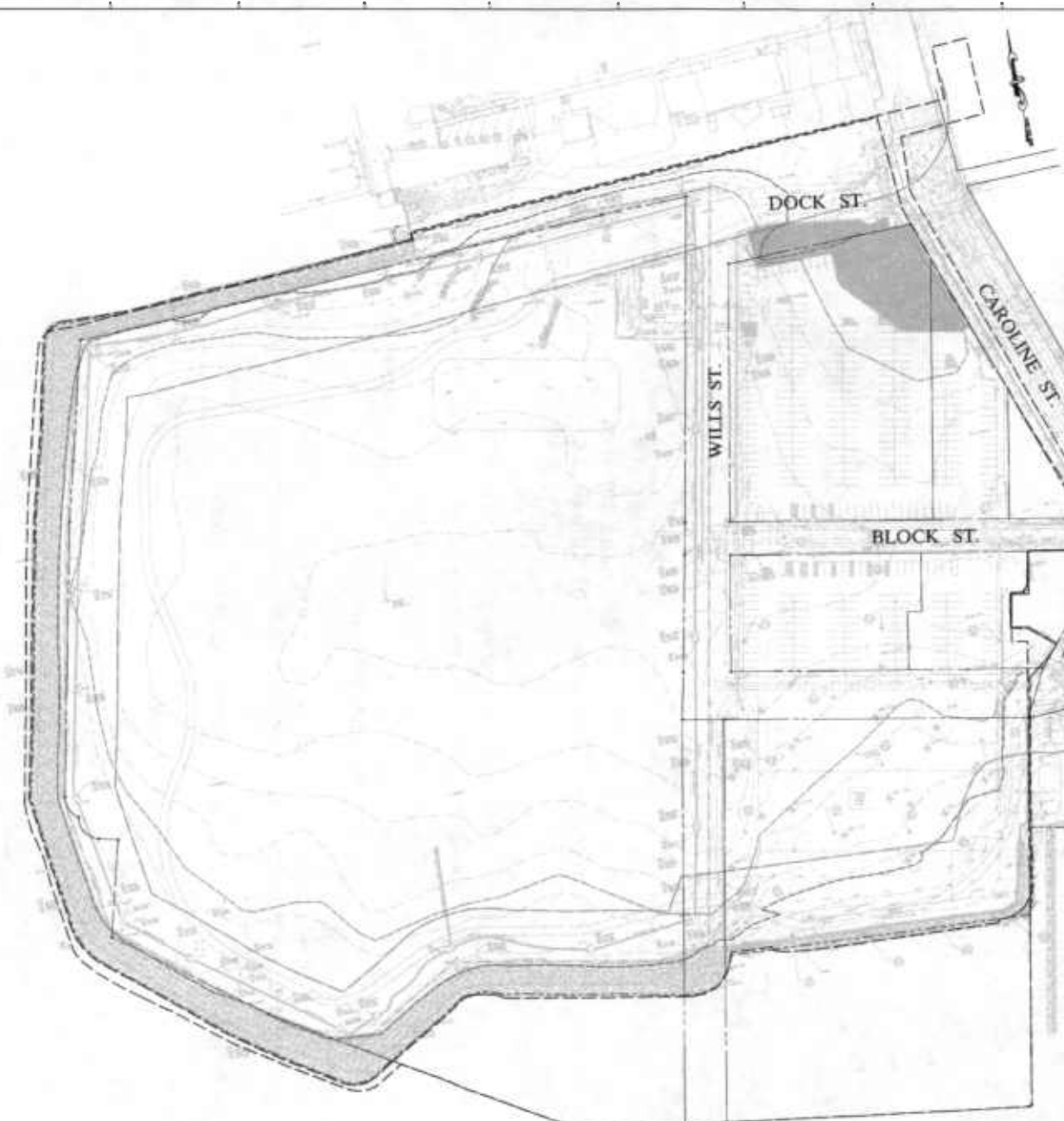
where:

- LR = Annual total phosphorous load removed by the proposed BMP (lbs/yr)
- L_{post} = Average annual load of phosphorous exported from the post-development site (lbs./yr)
- BMP_{RE} = BMP removal efficiency for total phosphorous, Table 4.8 (%)
- % DA Served = Fraction of the site area within the critical area IDA served by the BMP (%)
- RR = Pollutant removal requirement (lbs/yr)

If the Load Removed is equal to or greater than the pollutant removal requirement (RR) calculated in Step 4, then the on-site BMP option complies with the 10% Rule.

Has the RR (pollutant removal requirement) been met? Yes

P:\2003\03032500\Design\Reports\critical area\critical area wksht A - 10% rule.xls



- GENERAL NOTES:**
- EXISTING TOPOGRAPHIC SITE FEATURES SUCH AS BUILDINGS, STENCE LINES AND SHOWING PLUMBING AND SEWER SURVEYS PERFORMED BY GREENHORN & OSMIA, INC. DATED JAN. 2004, MORRIS RYCHIE ASSOC. DATED JAN. 2003 AND DANIEL CONSULTANTS, INC. DATED MARCH 2004. UTILITY INFORMATION INCLUDING ENGINEERED BENCHMAST SYSTEM (ECS) COMPONENTS WAS OBTAINED FROM RECORD DRAWINGS PROVIDED TO RMR BY HONEYWELL, BALTIMORE CITY AND BROWN HULLER CONSULTING ENGINEERS AND MAY NOT ACCURATELY REFLECT PRE-EXISTING OR CURRENT CONDITIONS FOR EXACT LOCATIONS OF THE COMPONENTS. REFER TO RELEVANT AS-BUILT DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CURRENT TOPOGRAPHIC AND UTILITY INFORMATION TO INSURE CONFORMANCE.
 - INFORMATION REFERENCED ON THIS PLAN REFLECTS SURVEYS PERFORMED USING OSUM - BALTIMORE CITY COORDINATE GRID SYSTEM.
 - THE ENTIRE SITE FALLS WITHIN THE LEEB CHESAPEAKE BAY CRITICAL AREA LIMITS.
 - THE ENTIRE SITE FALLS WITHIN 2 FLOODPLAINS BASED ON FLOOD RESOURCE RISK MAP (FRM) 100-YEAR FLOOD PLAIN (ELEVATION 8.8) BALTIMORE CITY GRAM ZONE 1 AREA OF 100-YEAR FLOOD OR AREA OF 100-YEAR FLOOD WITH AVERAGE DEPTH OF 1.555 FEET (11.7501) OR WITH DRAINAGE AREA LESS THAN ONE (1) SQUARE MILE (ELEVATION 11.4) BALTIMORE CITY SATURN 100-YEAR FLOOD RESOURCE STUDY CITY OF BALTIMORE DATED SEPTEMBER 25, 1991.
 - APPROXIMATE 100-YEAR FLOODPLAIN LOCATION AND 500-YEAR FLOODPLAIN LOCATION BASED ON ELEVATION 8.81 AND 11.4 RESPECTIVELY. ONLY FEMA FLOOD RESOURCE STUDY CITY OF BALTIMORE DATED SEPTEMBER 25, 1991.
 - EXISTING PERVIOUS INCLUDES REPAIR AREA WITHIN PUD LIMITS.

DOUGLAS / MYERS MARITIME PARK

EXISTING CONDITIONS

TOTAL SITE AREA PUD LIMIT/LIMIT OF DISTURBANCE	28.22 ACRES
EXISTING IMPERVIOUS	24.98 ACRES
EXISTING PERVIOUS (SEE NOTE 6)	3.38 ACRES
EXISTING REPAIR	2.87 ACRES

- LEGEND**
- PROPERTY LINE
 - PUD LIMIT/LIMIT OF DISTURBANCE
 - 100 YEAR FLOODPLAIN (EL. 8.8)
 - 500 YEAR FLOODPLAIN (EL. 11.4)
 - 80 FT. CRITICAL AREA BUFFER
 - NEW HIGH WATER LINE (EL. 2.0)
 - EXISTING CONTOUR
 - EXISTING SP-RAP IMPERVIOUS
 - EXISTING PERVIOUS AREA



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REVISIONS

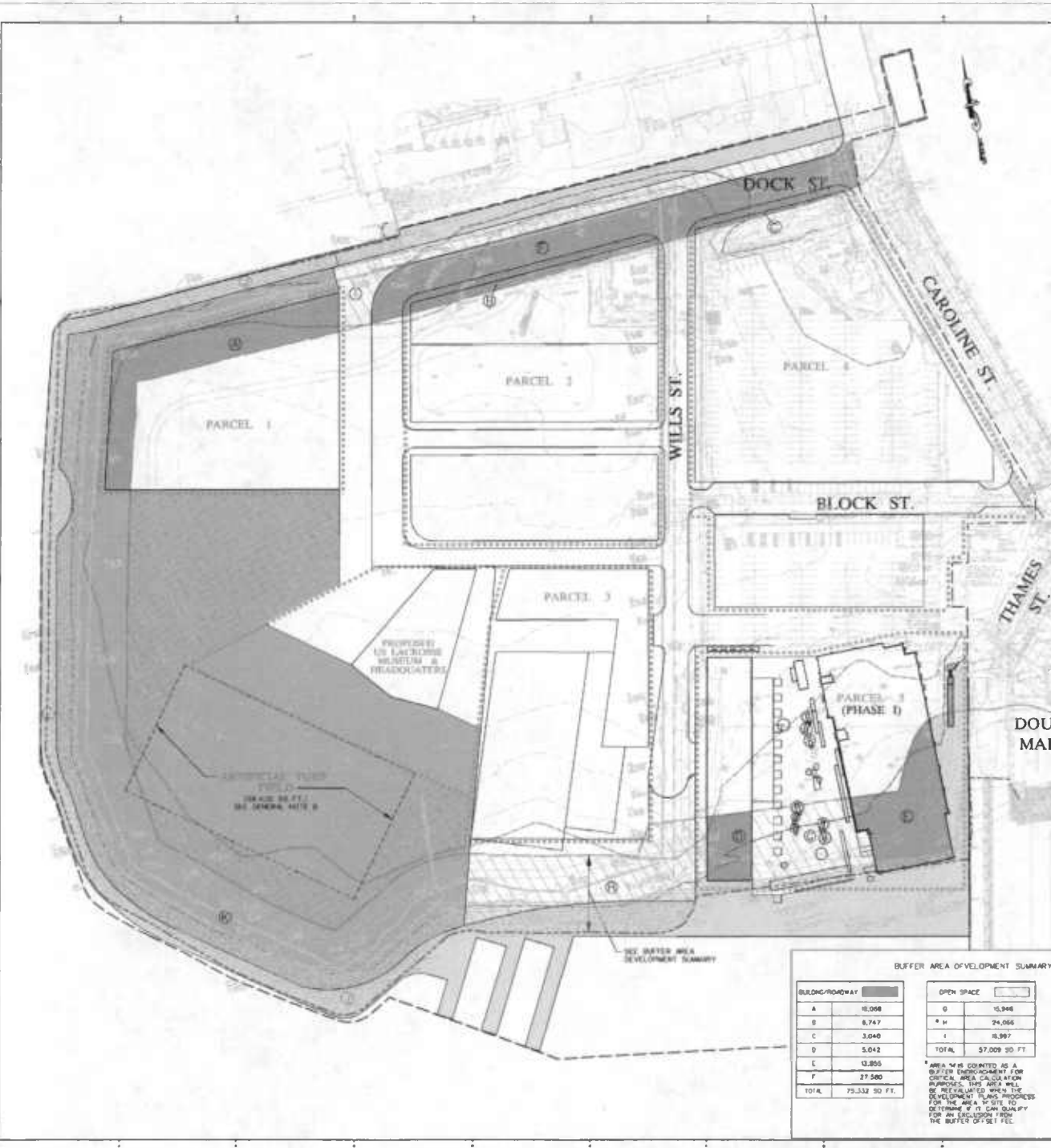
Rev.	Date	Description
1	04/18/2005	ISSUE FOR PERMITS
2	04/18/2005	10/21/05 ADD PERMITS

PACKAGE 3

CRITICAL AREA ANALYSES EXISTING CONDITIONS

Date: 04/18/05
Sheet: 12/18
Scale: 1" = 200'
Drawn: JRM
Checked: JRM

CA-1



- GENERAL NOTES:
- EXISTING TOPOGRAPHIC SITE FEATURES SUCH AS (BUILDINGS, ROADS, PROPERTY BOUNDARIES, FENCE LINES) AND SHORELINE PERIMETER ARE BASED ON SURVEYS PERFORMED BY GREENHORNE & O'MARA, INC. DATED JAN. 2004. MORRIS RITCHE ASSOC., DATED JUNE 1993 AND DANIEL CONSLANTS, INC. DATED MARCH 1999. UTILITY INFORMATION (INCLUDING ENGINEERED REMEDIAL SYSTEM (ERS) COMPONENTS) WAS OBTAINED FROM RECORD DRAWINGS PROVIDED TO MRK BY HONEYWELL, BALTIMORE CITY, AND MUESER RUTLEDGE CONSULTING ENGINEERS AND MAY NOT ACCURATELY REFLECT PRE-EXISTING OR CURRENT CONDITIONS. FOR EXACT LOCATIONS OF ERS COMPONENTS, REFER TO RELEVANT AS-BUILT DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CURRENT TOPOGRAPHIC AND UTILITY INFORMATION TO HIS/HER OWN SATISFACTION.
 - INFORMATION REFERENCED ON THIS PLAN REFLECTS SURVEYS PERFORMED USING DATUM - BALTIMORE CITY COORDINATE GRID SYSTEM.
 - THE ENTIRE SITE FALLS WITHIN THE 1000' CHESAPEAKE BAY CRITICAL AREA LIMITS.
 - THE ENTIRE SITE FALLS WITHIN 2 FLOODPLANS, ZONES BASED ON FLOOD INSURANCE RATE MAP (REF: FEMA MAP PANEL 2400870010) ZONE AE (ACTIVE 100-YEAR FLOODPLAIN ELEVATION 8.81) BALTIMORE CITY DATUM ZONE X (AREA OF 500-YEAR FLOOD OR AREA OF 100-YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN ONE (1) FOOT OR WITH DRAINAGE AREA LESS THAN ONE (1) SQUARE MILE ELEVATION 11.4 BALTIMORE CITY DATUM (REF: FEMA FLOOD INSURANCE STUDY CITY OF BALTIMORE DATED SEPTEMBER 30, 1988))
 - APPROXIMATE 100-YEAR FLOODPLAIN LOCATION AND 500-YEAR FLOODPLAIN LOCATION BASED ON ELEVATION 8.81 AND 11.4 RESPECTIVELY (REF: FEMA FLOOD INSURANCE STUDY CITY OF BALTIMORE DATED SEPTEMBER 30, 1988).
 - PROPOSED PERVIOUS INCLUDES RIPARIAN AREA WITHIN PUD LIMITS.
 - 100' BUFFER AREA DOES NOT INCLUDE RIPARIAN AREA WITHIN LIMITS OF DISTURBANCE.
 - PROPOSED BUFFER CREDIT AREA INDICATES AN AREA THAT WILL BE ESTABLISHED TO PROVIDE BUFFER PLANTING AS REQUIRED TO MEET CRITICAL AREA GUIDELINES.
 - IT IS ASSUMED THE ARTIFICIAL TURF FIELD WILL BE CONSTRUCTED IN COMPLIANCE WITH THE FUTURE CRITICAL AREA REQUIREMENTS TO BE CONSIDERED PERVIOUS AREA THESE REQUIREMENTS ARE NOT YET AVAILABLE; EACH CASE IS CONSIDERED INDIVIDUALLY.

	PROPOSED CONDITIONS	NET CHANGE FROM EXISTING CONDITIONS
(PUD LIMIT/LIMIT OF DISTURBANCE) PER PUD DRAWINGS	28.52 ACRES	0.0 ACRES
PROPOSED IMPERVIOUS	21.84 ACRES	-3.10 ACRES
PROPOSED PERVIOUS (SEE NOTE 6)	6.48 ACRES	+3.10 ACRES
100' BUFFER AREA (SEE NOTE 7)	8.6 ACRES	N/A
BUFFER OPEN SPACE USE	1.31 ACRES	N/A
BUFFER BUILDING / ROADWAY AREA	1.73 ACRES	N/A
BUFFER CREDIT (GREEN SPACE)	1.92 ACRES	N/A
RIAPARIAN AREA	2.07 ACRES	-0.90 ACRES

NOTE: AREAS DENOTED ON PLAN ARE BASED UPON SCHEMATIC LEVEL DOCUMENTS AND MAY NOT PRECISELY CORRESPOND WITH DATA ABOVE.

DOUGLAS / MYERS MARITIME PARK

- LEGEND
- PROPERTY LINE
 - PUD LIMIT/LIMIT OF DISTURBANCE
 - 100 YEAR FLOODPLAIN (EL. 8.81)
 - 500 YEAR FLOODPLAIN (EL. 11.4)
 - 100 FT. CRITICAL AREA BUFFER
 - MEAN HIGH WATER LINE (EL. 2.17)
 - EXISTING CONTOUR
 - EXISTING RIP-RAP EMBANKMENT
 - PROPOSED PERVIOUS AREA
 - PROPOSED PROMENADE - PUBLIC PEDESTRIAN EASEMENT
 - PROPOSED DEVELOPMENT PARCEL
 - PROPOSED OPEN SPACE W/ PROPOSED PUBLIC PEDESTRIAN EASEMENT (IN 100 FT BUFFER)
 - PROPOSED 100 FT BUFFER CREDIT AREA - SEE NOTE 8
 - PROPOSED ARTIFICIAL TURF FIELD

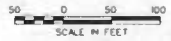
BUFFER AREA DEVELOPMENT SUMMARY

BUILDING/ROADWAY	OPEN SPACE	PROMENADE
A 18,098	G 15,946	J 58,389
B 6,747	H 24,066	TOTAL 58,389 SQ. FT.
C 3,040	I 18,987	
D 5,042	TOTAL 57,009 SQ. FT.	
E 12,855		
F 27,580		
TOTAL 75,332 SQ. FT.		

AREA 'M' IS COUNTED AS A BUFFER ENCROACHMENT FOR CRITICAL AREA CALCULATION PURPOSES. THIS AREA WILL BE NECESSARY TO MEET THE REQUIREMENTS TO DETERMINE IF IT CAN QUALIFY FOR AN EXCLUSION FROM THE BUFFER OF SET PCL.

PROMENADE	GREEN SPACE
J 58,389	K 106,741
TOTAL 58,389 SQ. FT.	TOTAL 106,741 SQ. FT.

TOTAL = 297,471 SQ. FT. 6.8 Ac.



THAMES STREET WHARF Office Building
1300 Thames Street
Baltimore, Maryland 21231

ARCHITECT OF RECORD
Aronoff/Davis Associates + Planners
1000 Hill Street Suite 100
Baltimore, MD 21230
410.347.9100
410.347.9101

LANDSCAPE ARCHITECT
Aronoff/Davis Associates + Planners
1000 Hill Street Suite 100
Baltimore, MD 21230
410.347.9100
410.347.9101

FOUNDATION DESIGN
Mueser Rutledge Consulting Engineers
14 News Street
275 West 34th Street, 2nd Floor
New York, NY 10018
212.269.2200
212.269.2201

STRUCTURAL ENGINEER
Mueser Rutledge Consulting Engineers
1320-C Avenue Rd., Suite 100
Baltimore, MD 21286
410.271.1000
410.271.1001

MECHANICAL ENGINEER
Mueser Rutledge Consulting Engineers
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ELECTRICAL ENGINEER
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ENVIRONMENTAL ENGINEER
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Item	Date	Revision
52.54.06		BUFFER CREDIT AREA
52.54.08		CITY COMMENTS
54.38.08		CAC/CITY COMMENTS
58.23.14		2020 PUD UPDATE

PACKAGE 3

CRITICAL AREA ANALYSES CONCEPTUAL MASTER PLAN

Project Number: 2014-07 Date: 11.23.20
Drawn by: DWW Issue: AS NOTED

CA-2

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor



Margaret G. McHale
Chair

Ren Serey
Executive Director

**STATE OF MARYLAND
CRITICAL AREA COMMISSION
CHESAPEAKE AND ATLANTIC COASTAL BAYS**

1804 West Street, Suite 100, Annapolis, Maryland 21401
(410) 260-3460 Fax: (410) 974-5338
www.dnr.state.md.us/criticalarea/

April 7, 2008

Kenneth Hranicky
Environmental Planner
City of Baltimore Department of Planning
417 East Fayette Street, 8th Floor
Baltimore, MD 21202

**Re: Harbor Point
Master Plan & Phase I**

Dear Mr. Hranicky:

Thank you for providing information on the above referenced Master Plan and Phase I for Harbor Point. The applicant is proposing to develop five parcels for mixed use development. The property is 27.63 acres and is designated as an Intensely Developed Area (IDA). Currently, the site is developed with parking lots and additional impervious surface areas. The applicant proposes to develop office buildings, a service area, a public promenade, courtyard, roads, athletic field, and two residential buildings; Phase I will entail the creation of an office building and a portion of the promenade on Parcel 5. Total existing impervious surface on the entire site is 27.22 acres (98.5%); upon completion of this project, total impervious surface will be reduced to 20.74 acres (75.1%). The applicant is meeting 10% phosphorus removal requirements by reducing the amount of impervious surface onsite; in addition, the applicant is utilizing a green roof on portions of the proposed building in Phase I. To meet Buffer planting requirements, the applicant is proposing to plant 1.9 acres of natural vegetation onsite.

Based on the information provided, we have the following comments for this project:

1. On Sheet CA-2, the applicant has delineated the 100-year floodplain with a blue color that appears to represent the Mean High Water Line (MHW), based on the legend. Please have the applicant redraw the site plan, to clearly distinguish the 100-year floodplain from the MHW Line.
2. Please ensure the applicant plants the green space area onsite with native plants and vegetation.
3. Please submit future phases of the project for Commission review and comment.



Thank you for providing the information on this building permit. If you have any questions, please call me at (410) 260-3483.

Sincerely,



Nick Kelly

Natural Resource Planner

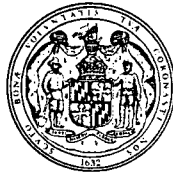
cc: BA 399-05

Duncan Stuart, City of Baltimore Department of Planning

Lisa Hoerger, CAC

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor



Margaret G. McHale
Chair

Ren Serey
Executive Director

STATE OF MARYLAND
CRITICAL AREA COMMISSION
CHESAPEAKE AND ATLANTIC COASTAL BAYS

1804 West Street, Suite 100, Annapolis, Maryland 21401

(410) 260-3460 Fax: (410) 974-5338

www.dnr.state.md.us/criticalarea/

May 2, 2008

Timothy Manuelides
Law Offices of Peter G. Angelos
One Charles Center
100 North Charles Street, 22nd Floor
Baltimore, MD 21201

**Re: Harbor Point
Master Plan & Phase I**

Dear Mr. Manuelides:

Thank you for your request for information about the above-referenced project. As you may be aware, for the past several months the Critical Area Commission has been working on strengthening the State's Critical Area Law, which was passed by the General Assembly in early April and signed by Governor Martin O'Malley on April 24, 2008. Due to the press of legislative matters, staff's response to your request has been delayed, and, for that, we apologize. However, we have now gathered the information that corresponds to your request. The file is available in our office at 1804 West Street, Suite 100, Annapolis, Maryland, and you are welcome to review this file at any time.

Please contact our Principal Counsel, Marianne Dise, at (410) 260-3466, or me at (410) 260-3483, to set up a time to review the file or to ask any additional questions.

Once again, we thank you for your request, and we look forward to assisting you in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Nick Kelly".

Nick Kelly, Ph.D

Natural Resource Planner

cc: BA 399-05

Ren Serey, CAC

Marianne Dise, CAC

Duncan Stuart, City of Baltimore Department of Planning

TTY for the Deaf

Annapolis: (410) 974-2609 D.C. Metro: (301) 586-0450

Robert L. Ehrlich, Jr.
Governor

Michael S. Steele
Lt. Governor



Martin G. Madden
Chairman

Ren Serey
Executive Director

STATE OF MARYLAND
CRITICAL AREA COMMISSION
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1804 West Street, Suite 100, Annapolis, Maryland 21401
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June 16, 2005

Mr. Kenneth Hranicky
Environmental Planner
Baltimore City Department of Planning
417 East Fayette Street, 8th Floor
Baltimore, Maryland 21202

RE: Harbor Point Temporary Promenade
South Alignment

Dear Mr. Hranicky:

This office has reviewed the applicant's proposal to put a temporary promenade at the above project. The site is 0.518 acres in size and in an Intensely Developed Area.

After reviewing the site plan and the 10% calculations, this office does not oppose the temporary promenade. We understand that the permanent promenade will be part of the final development plans and these final development plans along with the final 10 % calculations will be sent to us for review.

If there are any questions, please feel free to call me at (410) 260-3483.

Sincerely,

A handwritten signature in cursive script that reads "Dawnn McCleary".

Dawnn McCleary
Natural Resources Planner

cc: Duncan Stuart
Regina Esslinger
BA 399-05

SHEILA DIXON
Mayor



DOUGLAS B. McCOACH, III
Director

December 8, 2004

Mr. Nick Kelly
Natural Resources Planner
Critical Area Commission
1804 West Street, Suite 100
Annapolis, Maryland 21401

Dear Mr. Kelly:

RE: Harbor Point Master Plan

Attached you will find the documents for both the Harbor Point Master Plan (HPMP) and the first building of that master plan. This letter is to layout, for your consideration, the process from here on out regarding the build out of HPMP.

Right now, as reflected in the HPMP, the applicant is meeting the 10% reduction with plenty of room. This is because of the large amount of pervious surface they are providing. Applicant is aware that as each phase gets built out any changes to the amount of land coverage will have to be reflected in a new Worksheet A.

This also goes for the Buffer. Currently that applicant is planting the cross hatched area as buffer to receive buffer credit. This office is continuing to work with the applicant in securing in perpetuity this area as Buffer. Note 8 is in recognition that there are Buffer planting requirements and that grass will not suffice.

There is an extra sheet of paper attached to the plans titled "Harbor Point Master Plan Buffer Offset Calculations". This spreadsheet details how each part of the development will impact the buffer and the fee associated with that impact. The note of at the bottom of the spreadsheet is so the developer knows that we will be revisiting the HPMP at each step. Please let me know if you have any questions about that.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth Hranicky".

Kenneth Hranicky, AICP, CFM

SHEILA DIXON
Mayor



DOUGLAS B. McCOACH, III
Director

HARBOR POINT MASTER PLAN BUFFER OFFSET CALCULATIONS

BUFFER AREA DEVELOPMENT	Buffer Area Impact SqFt	% of Buffer Impact	Buffer Fee as a % of the development in the buffer
A	14,441	14%	\$ 5,574.61
B	12,984	13%	\$ 5,012.17
C	1,859	2%	\$ 717.62
D	2,276	2%	\$ 878.60
E	5,915	6%	\$ 2,283.35
F	13,608	13%	\$ 5,253.05
G	28,426	28%	\$ 10,973.19
I*	21,462	21%	\$ 8,284.90
TOTAL	100,971	100%	\$ 38,978
BUFFER CREDIT AREA (Sq.Ft.)	85,380		
Total Buffer Impact Area for Fee Calculation	15,591		
Buffer Fee @ \$2.50 per Sq.Ft.	\$ 38,978		

*Promenade Access Credit (as defined in the CAMP III.B.4.) is not being allowed for Buffer Area Development 'I' since the area does not show any program for promenade access. All credit areas - to include buffer credit, promenade, and promenade access areas - will be revisited throughout the development of the master plan area as projects are submitted. Adjustments to the Buffer Offset fee will be made and paid at that time.

J?



**Rummel,
Klepper
& Kahl, LLP**

*William K. Hellmann
Emeritus*

*David W. Wallace
Robert J. Halbert
Stephen G. Zentz
J. Michael Potter
Thomas E. Mohler
James A. Zito*

*Charles M. Easter, Jr.
Joseph A. Romanowski, Jr.
Michael L. Krupsaw
Lars E. Hill
J. Tommy Peacock, Jr.
Michael W. Myers
Martin C. Rodgers
Kenneth A. Goon
Richard J. Adams, Jr.
John A. d'Epagnier
Barbara J. Hoage
Christopher F. Wright
Owen L. Peery
Nancy R. Bergeron
Stuart A. Montgomery
David G. Vanscoy
Henry J. Bankard, Jr.
James F. Ridenour, Jr.
Robert J. Andryszak
Raymond M. Harbeson, Jr.
B. Keith Skinner
Karen B. Kahl
Seyed A. Saadat
John C. Moore
Eric M. Klein
Todd E. Rousenberger
Donald P. Lauzon
Thomas M. Heil
Robert D. Ostermiller
Barry L. Brandt
Malachi M. Mills*

*81 Mosher Street
Baltimore, Maryland
21217-4250
Ph: 410-728-2900
Fax: 410-728-2992
www.rkengineers.com*

November 22, 2006
Revised March 18, 2008

Baltimore City Department of Planning
417 East Fayette Street, 8th Floor
Baltimore, Maryland 21217

Attention: Mr. Ken Hranicky, AICP, CFM

Subject: Harbor Point Master Plan & Phase I Office
Critical Area Analysis

Dear Mr. Hranicky:

Struever Brothers, Eccles & Rouse (SBER) is currently developing Thames Street Wharf at Harbor Point and will be involved with commercial development throughout this site. On behalf of SBER, we are hereby submitting the enclosed Critical Area Analysis for the entire Harbor Point site. The analysis was prepared in accordance with the Baltimore City Critical Area Management Program, The Maryland Critical Area Commission 10% Rule Guidance Manual, and the Maryland Department of the Environment 2000 Stormwater Design Manual.

Based on our March 30, 2006 meeting with Baltimore City Department of Planning, the Critical Area Analysis includes a Critical Area Master Plan for the entire Harbor Point development, with the understanding that at each phase of development, the design team will be required to submit updated Worksheet A calculations to confirm compliance with the Master Plan. The attached documents have been revised per our recent phone conversations (i.e. buffer fee calculations and public easement boundaries).

In summary, the proposed conditions associated with the Master Plan meet the pollutant reduction criteria; therefore, a water quality BMP is not necessary. Also, these proposed conditions do not yield a Buffer Fee as a result of the credits available for the extent of public space proposed. As a result, we would like to confirm that this submittal is sufficient to defer Critical Area requirements for the Phase I Building Permit application that has been submitted to Baltimore City.

We appreciate your review of the enclosed materials. Please contact our office if you have any questions.

Sincerely,

RUMMEL, KLEPPER & KAHL, LLP


Christopher D. Krupinski, P.E.
Project Manager

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Attachments

- * Critical Area Narrative
- * Worksheet A (10% Rule)
- * Buffer Fee Calculation
- * Existing Conditions Drawing, CA-1
- * Proposed Conditions Drawing, CA-2
- * Phase I Site Plan, CA-3
- * Phase I Landscape Plan, L1.00
- * Check (1,000 review fee included with Original Nov 2006 letter)

cc: Ray Talabis, SBER
DWW/File
JAD/CDK

Harbor Point - Master Plan

Critical Area Narrative

Introduction

The existing site is a brownfield located at Harbor Point which is southeast of the Inner Harbor in Fells Point (See Drawing CA-1). Harbor Point, which is now owned by Honeywell, is on the former Allied Signal chromium plant site. The proposed site will consist of 5 parcels and a cultural use area (See drawing CA-2). Existing environmental caps of varying details have been installed as a result of a Consent Decree; however, the site has been cleared by the Environmental Protection Agency for redevelopment activities to begin. Development of the site will be phased, with this submittal covering the Master Plan condition and the first phase (Phase 1). Future development includes a public pedestrian promenade along the existing shoreline (portions to extend into the water), open space park area, and future buildings (size and location to be determined).

Existing Conditions

The existing site currently consists of impervious areas and surface parking lots with connections to Caroline Street (via Block Street) and Thames Street (via Philpot Street). The site is bound to south and west by the water and to the east by Thames Street and South Caroline Street. (See vicinity map on drawing CA-1 and CA-2)

Proposed Conditions

Master Plan – the proposed conditions include parcels for mixed use developments that will be implemented in a phased approach. Roadway and utility infrastructure will extend from the City's existing infrastructure at Thames and Caroline Street. The majority of green space for the proposed development will be concentrated in the park at the west end of the site which is a requirement of the PUD approved by Baltimore City.

Phase I - The proposed development of Parcel 5 (Phase 1) includes a new office building along Thames Street, service area, and public promenade. Future development of this parcel will include a public courtyard and two residential buildings (Wills Pier and Block Street). This development will connect with Thames Street and Block Street. A green roof is proposed for the office building to further meet the Critical Area requirements of phosphorous removal. The proposed design for the office building is in compliance with the parameters of the Master Plan analysis as noted on drawing CA-3.



Analysis

For the proposed Harbor Point Master Plan, the overall site has an associated total limit of disturbance of 27.63 Acres, is considered redevelopment, and falls within the 1,000 foot Critical Area.

Since the entire site falls within the Critical Area, CAMP requires a 10% pollutant reduction in the stormwater runoff. The Critical Area 10% Rule Worksheet A was used to determine the required pollutant removal. The following is a list of pertinent data and assumptions:

- Total existing impervious area (including riparian area) = 27.22 Acres
- Total proposed impervious area (including riparian area) = 20.74 Acres
- The proposed promenade was considered as impervious (non-slatted, non-wooden).

The project falls within the 100-foot buffer, so the CAMP fee of \$2.50 per square foot of development within the buffer was calculated. The following is a list of pertinent data and assumptions:

- Total limit of disturbance (proposed conditions) within the 100-foot buffer = 7.60 Acres.
- The proposed promenade was considered as a public use area.
- There are no existing building footprints within the 100-foot buffer.
- Total area of public use (promenade and access) = 3.41 Acres.
- Total area of grass credit (outside of 100-foot buffer) = 1.96 Acres

Conclusion

Based on the preceding analysis, Worksheet A yields a negative pollutant removal requirement; therefore the project meets the specified criteria (See Worksheet A) without the need for a BMP.

Similarly, the buffer fee calculation yields a negative amount; therefore the 100-foot buffer requirements are met. (See buffer fee calculation).

In summary, the project meets the 10% Rule for the Chesapeake Bay Critical Area and it will not require payment of fees associated with redevelopment within the 100-foot buffer. For the purpose of the first phase of development (Thames Wharf), we request confirmation that the proposed Master Plan improvements will satisfy the overall requirements of the Critical Area requirements; thereby allowing the Phase I development to defer Critical Area BMP implementation until later phases of the Master Plan build out (i.e., proposed park). Where feasible, each phase of development will study opportunities to incorporate design procedures (i.e. additional vegetated areas, green roofs, etc.) that will supplement the "green" components of this Master Plan.

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Rummel, Klepper & Kahl, LLP
Consulting Engineers

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements¹

Step 1: Calculate Existing and Proposed Site Imperviousness

A. Calculate Percent Imperviousness

- 1) Site Area within the Critical Area IDA, A = 27.63 acres
- 2) Site Impervious Surface Area, Existing and Proposed, (See Table 4.1 for details)

	(a) Existing (acres)	(b) Proposed (acres)
Roads	_____	_____
Parking lots	_____	_____
Driveways	_____	_____
Sidewalks/paths	_____	_____
Rooftops	_____	_____
Decks	_____	_____
Swimming pools/ponds	_____	_____
Other	_____	_____
Impervious Surface Area	<u>27.22</u>	<u>20.74</u>

- 3) Imperviousness (I)

Existing Imperviousness, I_{pre} = Impervious Surface Area / Site Area
 = (Step 2a) / (Step 1)
 = $(\frac{27.22}{27.63}) / (\frac{27.63}{27.63})$
 = 98.5 %

Proposed Imperviousness, I_{post} = Impervious Surface Area / Site Area
 = (Step 2b) / (Step 1)
 = $(\frac{20.74}{27.63}) / (\frac{27.63}{27.63})$
 = 75.1 %

B. Define Development Category (circle)

- 1) New Development: Existing imperviousness less than 15% I (Go to Step 2A)
- 2) Redevelopment: Existing imperviousness of 15% I or more (Go to Step 2B)
- 3) Single Lot Residential Development: Single lot being developed or improved; single family residential development; and more than 250 square feet of impervious area and associated disturbance (Go to Section 5, Residential Approach, for detailed criteria and requirements).

¹ NOTE: All acreage used in this worksheet refers to areas within the IDA of the Critical Area only.

Step 2: Calculate the Predevelopment Load (L_{pre})

A. New Development

N/A

$$\begin{aligned} L_{pre} &= (0.5) (A) \\ &= (0.5) (\quad) \\ &= \quad \text{lbs /year of total phosphorus} \end{aligned}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
0.5 = Annual total phosphorus load from undeveloped lands (lbs/acre/year)
A = Area of the site within the Critical Area IDA (acres)

B. Redevelopment

$$\begin{aligned} L_{pre} &= (R_v) (C) (A) (8.16) \\ R_v &= 0.05 + 0.009 (I_{pre}) \\ &= 0.05 + 0.009 (\underline{18.5}) = \underline{0.937} \\ L_{pre} &= (\underline{0.937}) (\underline{0.3}) (\underline{27.63}) (8.16) \\ &= \underline{63.38} \text{ lbs/year of total phosphorus} \end{aligned}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
 R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff
 I_{pre} = Pre-development (existing) site imperviousness (i.e., $I = 75$ if site is 75% impervious)
C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l
A = Area of the site within the Critical Area IDA (acres)
8.16 = Includes regional constants and unit conversion factors

Step 3: Calculate the Post-Development Load (L_{post})

A. New Development and Redevelopment:

$$L_{post} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{post})$$

$$= 0.05 + 0.009 (75.1) = 0.726$$

$$L_{post} = (0.726) (0.3) (27.63) (8.16)$$

$$= 49.11 \text{ lbs/year of total phosphorus}$$

Where:

L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)

R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff

I_{post} = Post-development (proposed) site imperviousness (i.e., $I = 75$ if site is 75% impervious)

C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l

A = Area of the site within the Critical Area IDA (acres)

8.16 = Includes regional constants and unit conversion factors

Step 4: Calculate the Pollutant Removal Requirement (RR)

$$RR = L_{post} - (0.9) (L_{pre})$$

$$= (49.11) - (0.9) (63.38)$$

$$= -7.93 \text{ lbs/year of total phosphorus}$$

Where:

\therefore 10% RR MET w/ ON-SITE PROPOSED PREVIOUS AREA

RR = Pollutant removal requirement (lbs/year)

L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)

L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)

Step 5:

Identify Feasible BMP(s)

Select BMP Options using the screening matrices provided in the Chapter 4 of the 2000 Maryland Stormwater Design Manual. Calculate the load removed for each option.

BMP Type	(L _{post})	x	(BMP _{RE})	x	(% DA Served)	=	LR
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
Load Removed, LR (total) =							_____ lbs/year
Pollutant Removal Requirement, RR (from Step 4) =							_____ lbs/year

Where:

- Load Removed, LR = Annual total phosphorus load removed by the proposed BMP (lbs/year)
- L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)
- BMP_{RE} = BMP removal efficiency for total phosphorus, Table 4.8 (%)
- % DA Served = Fraction of the site area within the critical area IDA served by the BMP (%)
- RR = Pollutant removal requirement (lbs/year)

If the Load Removed is equal to or greater than the Pollutant Removal Requirement computed in Step 4, then the on-site BMP complies with the 10% Rule.

Has the RR (pollutant removal requirement) been met? Yes No



1. TOTAL LIMIT OF DISTURBANCE WITHIN 100 FT BUFFER
 = 331,166 SF (7.60 ACRES)

2. TOTAL AREA OF EXIST. BLDGS WITHIN 100 FT BUFFER
 = 0 SF

3. TOTAL AREA OF PUBLIC PEDESTRIAN EASEMENT (OPEN SPACE)
 = PROMENADE + ACCESS AREAS
 = 114,560 SF + 33,771 SF = 148,331 SF
 (3.41 AC)

4. TOTAL AREA OF GREEN SPACE (BUFFER CREDIT) OUTSIDE 100' BUFFER
 = 85,314 SF (1.96 AC)

5. TOTAL AREA OF GREEN SPACE WITHIN 100' BUFFER
 = 103,326 SF (2.37 AC)

100 FT BUFFER FEE = $[(1) - (2) - (3) - (4) - (5)] \times \$2.50/SF$
 = $[-5,805 SF] \times \$2.50/SF$

NEGATIVE 'SF' ∴ NO BUFFER FEE WITH OFFSETS NOTED

MASTER PLAN WILL REQUIRE BUFFER PLANTING ALONG PROMENADE (AREA (K) ON DWG CA2) AND IN PARK (BUFFER CREDIT AREA OF 1.96 AC). NOTE - MINIMUM BUFFER CREDIT AREA IN PARK IS 79,509 SF PER MASTER PLAN.

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Pala

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March 14, 2008

Custodian of Records
City of Baltimore, Department of Planning
417 E. Fayette Street
8th Floor
Baltimore, Maryland 21202

**Re: Harbor Point Property
Block & Wills Streets, Baltimore, Maryland 21231
EPA ID# MDD069396711**

Dear Custodian of Records:

This is a request under the Maryland Public Information Act, State Government Article §§ 10-611-628 for information concerning with the above referenced property (the "Property"). The site is known as Harbor Point (formerly Allied-Signal Baltimore Works facility) and is comprised of several parcels located on a 27-acre peninsula along the Northwest Branch of the Patapsco River near Baltimore's Inner Harbor. I wish to inspect all records in the Planning Commission's custody and control pertaining to the following:

1. Any and all development plans (including conceptual development plans and detailed development plans) or development proposals submitted by any person or entity including, without limitation, SBER Harbor Point, LLC, Harbor Point Development, LLC, Honeywell, Inc., and H&S Properties Development Corporation, or any other person or entity, concerning the Property;
2. Any and all regulatory or other approvals or denials by any local, state, or federal governmental entity or regulatory agency including, without limitation, any agency or department of Baltimore City, the Maryland Department of the Environment ("MDE"), the Maryland Critical Areas Commission, the United States Environmental Protection Agency ("USEPA"), or any other entity regarding the use or development of the Property.

UNION PARK CENTER • 8908 HARFORD ROAD • BALTIMORE, MD 21286-8846 • 410-426-2200 • (800) 402-3240 • FAX 410-426-1268
COURT TOWERS • 410 W. PENNSYLVANIA AVENUE • SUITE 200 • TOWSON, MD 21204-6325 • 410-421-1000
111 S. GEORGE STREET • UNIT 2 • CUMBERLAND, MD 21102 • 301-759-2700 • FAX 301-759-2705

* Stuart
> Stuart

3. Any and all correspondence between any local, state or federal regulatory authority, and any other person or entity regarding the use or development of the Property;
4. Any and all plans, drawings, plats, maps, or other graphical material related to the use or development of the Property.
5. Any and all documents that refer or relate to the critical area in which the Property is located including, without limitation, all correspondence, applications, reviews, permits or other regulatory approvals, or any other document concerning the critical area or Critical Areas Commission in connection with the Property or the use or development of the Property.
6. Any other documents that refer or relate to the use or development of the Property.

If all or any part of this request is denied, I request that I be provided with a written statement of the grounds for the denial. If you determine that some portions of the requested records are exempt from disclosure, please provide me with the portions that can be disclosed.

I look forward to inspecting the above referenced records at your earliest convenience. Should you have any questions regarding this request or require any additional information, please do not hesitate to call me.

Sincerely,



Timothy Manuclides

CITY OF BALTIMORE
CHESAPEAKE BAY CRITICAL AREA MANAGEMENT PROGRAM

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements *

1/12/04

Step 1: Project Description

A. Calculate Percent Imperviousness

1) Site Area within the Critical Area IDA, Acreage = 0.518 acres

2) Site Impervious Surface Area, Existing and Proposed

	(a) Existing (acres)	(b) Post-Development (acres)
Rooftop	_____	_____
Roads	_____	_____
Sidewalks	_____	<u>0.518</u>
Parking lots	_____	_____
Pools/ponds	_____	_____
Decks	_____	_____
Other	<u>Paved/GRAVEL 0.518</u>	_____
Impervious Surface Area	<u>0.518</u>	<u>0.518</u>

Imperviousness (I)

Existing Impervious Surface Area/Site Area = (Step 2a)/(Step 1) = 1.0

Post-Development Impervious Surface Area/Site Area = (Step 2b)/(Step 1) = 1.0

B. Define Development Category (circle)

- 1) Redevelopment Existing imperviousness greater than 15% I (Go to Step 2A)
- 2) New development Existing imperviousness less than 15% I (Go to Step 2B)

*NOTE: All acreage used in this worksheet refer to areas within the Intensely Developed Areas of the Critical Area only

Step 2: Calculate the Pre-Development Load (Lpre)

A. Redevelopment

$$L_{pre} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{pre})$$

$$= 0.05 + 0.009 (\underline{100}) = \underline{0.95}$$

$$L_{pre} = (\underline{0.95}) (\underline{0.30}) (\underline{0.518}) 8.16$$

$$= \underline{1.20} \text{ lbs/year of total phosphorous}$$

Where:

- Lpre = Average annual load of total phosphorous exported from the site prior to development (lbs/year)
- Rv = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff
- Ipre = Pre-development (existing) site imperviousness (i.e., I=75 if site is 75% impervious)
- C = Flow-weighted mean concentration of the pollutant (total phosphorous) in urban runoff
= 0.30 (milligrams per liter)
- A = Area of the site within the Critical Area Intensely Developed Area (IDA) in acres
- 8.16 = Includes regional constants and unit conversion factors

B. New Development

$$L_{pre} = (0.5) (A)$$

$$= (0.5) (\underline{\hspace{2cm}})$$

$$= \underline{\hspace{2cm}} \text{ lbs /year of total phosphorous}$$

$$L_{pre} = \text{Same as above}$$

0.5 = Annual total phosphorous load from undeveloped lands (lbs/acre/year)

A = Same as above

Step 3: Calculate the Post-Development Load (L Post)

A. New Development and Redevelopment

$$L_{\text{post}} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{\text{post}})$$

$$= 0.05 + 0.009 (100) = 0.95$$

$$L_{\text{post}} = (0.95) (0.30) (0.518) (8.16)$$

$$= 1.70 \text{ lbs P/year}$$

where:

L_{post} = Average annual load of total phosphorous exported from the post development site (lbs/year)

R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff

I_{post} = Post-development (proposed) site imperviousness (i.e., $I = 75$ if site is 75% impervious)

C = Flow-weighted mean concentration of the pollutant (total phosphorous) in urban runoff

C = 0.30 milligrams per liter

A = Area of the site within the Critical Area Intensely Developed Area (IDA) in acres

8.16 = Includes regional constants and unit conversion factors

Step 4: Calculate the Pollutant Removal Requirement (RR)

$$\begin{aligned}
 RR &= L_{\text{post}} - (0.9) (L_{\text{pre}}) \\
 &= (1.20) - (0.9) (1.20) \\
 &= 0.12 \text{ lbs/year of total phosphorous}
 \end{aligned}$$

Temporary Public Walk Area

RECEIVED

JUN 7 2005

CRITICAL AREA COMMISSION

Where:

RR = Pollutant removal requirement (lbs/year)

L_{post} = Average annual load of total phosphorous exported from the post development site (lbs/year)

L_{pre} = Average annual load of total phosphorous exported from the site prior to development (lbs/year)

Step 5: Identify Feasible Urban BMP

Select Best Management Practice options from the 2003 10% Rule Guidance Manual, Table 4.8 (%) at the Critical Area WEB site: <http://www.dnr.state.md.us/criticalarea/> Calculate the load removed for each option.

BMP	(L _{post})	x	(BMP _{pre})	(% DA Served)	LR
_____	_____	x	_____	x	= _____ lbs/year
_____	_____	x	_____	x	= _____ lbs/year
_____	_____	x	_____	x	= _____ lbs/year
_____	_____	x	_____	x	= _____ lbs/year

N/A

Load Removed, LR (total) = _____ lbs/year

Pollutant Removal Requirement, RR (from Step 4) = 0.12 lbs/year

Where:

Load Removed, LR = Annual total phosphorous load removed by the proposed BMP (lbs/year)

L_{post} = Average annual load of total phosphorous exported from the post development site (lbs/year)

BMP_{re} = BMP removal efficiency for total phosphorus, Table 4.8 (%)

% DA Served = Fraction of the site area within the Critical Area IDA served by the BMP (%)

RR = Pollutant removal requirement (lbs/year)

HAS THE RR (POLLUTANT REMOVAL REQUIREMENT) BEEN MET?

YES NO

If the Load Removed is equal to or greater than the pollutant removal requirement (RR) calculated in Step 4, then the on-site BMP option complies with the 10% Rule.

N/A

399-05



Rummel,
Klepper
& Kahl, LLP

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November 22, 2006

Baltimore City Department of Planning
417 East Fayette Street, 8th Floor
Baltimore, Maryland 21217

Attention: Mr. Duncan Stuart
Reference: Harbor Point
Master Plan
Subject: Critical Area Analysis

Dear Mr. Stuart:

Struever Brothers, Eccles & Rouse (SBER) is currently developing Thames Street Wharf at Harbor Point and will be involved with commercial development throughout this site. On behalf of SBER, we are hereby submitting the enclosed Critical Area Analysis for the entire Harbor Point site. The analysis was prepared in accordance with the Baltimore City Critical Area Management Program, The Maryland Critical Area Commission 10% Rule Guidance Manual, and the Maryland Department of the Environment 2000 Stormwater Design Manual.

Based on our March 30, 2006 meeting with Baltimore City Department of Planning, the Critical Area Analysis includes a Critical Area Master Plan for the entire Harbor Point development, with the understanding that at each phase of development, the design team will be required to submit updated Worksheet A calculations to confirm compliance with the Master Plan.

In summary, the proposed conditions associated with the Master Plan meet the pollutant reduction criteria; therefore, a water quality BMP is not necessary. Also, these proposed conditions do not yield a Buffer Fee as a result of the credits available for the extent of public space proposed. As a result, we would like to confirm that this submittal is sufficient to meet Critical Area requirements for the Phase I Building Permit application (scheduled submission to Baltimore City - November 2006).

We appreciate your review of the enclosed materials. Please contact our office if you have any questions.

Sincerely,

RUMMEL, KLEPPER & KAHL, LLP

Christopher D. Krupinski, P.E.
Project Manager

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Attachments

- Critical Area Narrative
- Worksheet A (10% Rule)
- Buffer Fee Calculation
- Existing Conditions Drawing, CA-1
- Proposed Conditions Drawing, CA-2
- Check (\$1,000 review fee)

cc: Mr. Joseph Kostow, BCDPW
Tonja Potter, SBER

DWW/Flie
JAD/CDR/KMA

Harbor Point - Master Plan

Critical Area Narrative

Introduction

The existing site is located at Harbor Point which is southeast of Inner Harbor in Fells Point (See Drawing CA-1). Harbor Point, which is now owned by Honeywell, is on the former Allied Signal chromium plant site. The proposed site will consist of 5 parcels and a cultural use area (See drawing CA-2). Existing environmental caps of varying details have been installed as a result of a Consent Decree; however, the site has been cleared by the Environmental Protection Agency for redevelopment activities to begin. Development of the site will be phased, with this submittal covering the Master Plan condition and the first phase (Phase 1). Future development includes a public pedestrian promenade along the existing shoreline (portions to extend into the water), open space park area, and future buildings (size and location to be determined).

Existing Conditions

The existing site currently consists of impervious areas and surface parking lots with connections to Caroline Street (via Block Street) and Thames Street (via Philpot Street). The site is bound to south and west by the water and to the east by Thames Street and South Caroline Street. (See vicinity map on drawing CA-1 and CA-2)

Proposed Conditions

The proposed development of Parcel 5 (Phase 1) includes a new office building along Thames Street, plaza area, public promenade, residential buildings (Wills Pier and Block Street) and a parking garage. This development will connect with Thames Street via the new Thames Street extension.

Analysis

For the proposed Harbor Point Master Plan, the overall site has an associated total limit of disturbance of 27.63 Acres, is considered redevelopment, and falls within the 1,000 foot Critical Area.

Since the entire site falls within the Critical Area, CAMP requires a 10% pollutant reduction in the stormwater runoff. The Critical Area 10% Rule Worksheet A was used to determine the required pollutant removal. The following is a list of pertinent data and assumptions:



- o Total existing impervious area (including riparian area) = 27.22 Acres
- o Total proposed impervious area (including riparian area) = 21.33 Acres
- o The proposed promenade was considered as impervious (non-slatted, non-wooden).

The project falls within the 100-foot buffer, so the CAMP fee of \$2.50 per square foot of development within the buffer was calculated. The following is a list of pertinent data and assumptions:

- o Total limit of disturbance (proposed conditions) within the 100-foot buffer = 7.60 Acres.
- o The proposed promenade was considered as a public use area.
- o There are no existing building footprints within the 100-foot buffer.
- o Total area of public use = 6.43 Acres.
- o Total area of grass credit (outside of 100-foot buffer) = 1.96 Acres

Conclusion

Based on the preceding analysis, Worksheet A yields a negative pollutant removal requirement; therefore the project meets the specified criteria (See Worksheet A). We request a waiver for an associated BMP due to these results.

Similarly, the buffer fee calculation yields a negative amount; therefore the 100-foot buffer requirements are met. (See buffer fee calculation).

In summary, the project meets the 10% Rule for the Chesapeake Bay Critical Area and it will not require payment of fees associated with redevelopment within the 100-foot buffer. For the purpose of the first phase of development (Thames Wharf), we request confirmation that the proposed Master Plan improvements will satisfy the overall requirements of the Critical Area requirements; thereby allowing the Phase I development to defer Critical Area BMP implementation until later phases of the Master Plan build out (i.e., proposed park). Where feasible, each phase of development will study opportunities to incorporate design procedures (i.e. additional vegetated areas, green roofs, etc.) that will supplement the "green" components of this Master Plan.

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Rummel, Klepper & Kahl, LLP
 Consulting Engineers

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements¹

Step 1: Calculate Existing and Proposed Site Imperviousness
--

A. Calculate Percent Imperviousness

- 1) Site Area within the Critical Area IDA, A = 27.63 acres
- 2) Site Impervious Surface Area, Existing and Proposed, (See Table 4.1 for details)

	(a) Existing (acres)	(b) Proposed (acres)
Roads / MISC.	<u>24.25</u>	<u>19.06</u>
Parking lots	_____	_____
Driveways	_____	_____
Sidewalks/paths	_____	_____
Rooftops	_____	_____
Decks	_____	_____
Swimming pools/ponds	_____	_____
Other	<u>RIPARIAN - 2.97</u>	<u>RIPARIAN - 2.27</u>
Impervious Surface Area	<u>27.22</u>	<u>21.33</u>

- 3) Imperviousness (I)

Existing Imperviousness, I_{pre} = Impervious Surface Area / Site Area
 = (Step 2a) / (Step 1)
 = $(\frac{27.22}{27.63}) / (\frac{27.63}{27.63})$
 = 98.5 %

Proposed Imperviousness, I_{post} = Impervious Surface Area / Site Area
 = (Step 2b) / (Step 1)
 = $(\frac{21.33}{27.63}) / (\frac{27.63}{27.63})$
 = 77.2 %

B. Define Development Category (circle)

- 1) New Development: Existing imperviousness less than 15% I (Go to Step 2A)
- 2) Redevelopment: Existing imperviousness of 15% I or more (Go to Step 2B)
- 3) Single Lot Residential Development: Single lot being developed or improved; single family residential development; and more than 250 square feet of impervious area and associated disturbance (Go to Section 5, Residential Approach, for detailed criteria and requirements).

¹ NOTE: All acreage used in this worksheet refers to areas within the IDA of the Critical Area only.

Step 2: Calculate the Predevelopment Load (L_{pre})

A. New Development

$$\begin{aligned} L_{pre} &= (0.5) (A) \quad N/A \\ &= (0.5) (\quad) \\ &= \quad \text{lbs /year of total phosphorus} \end{aligned}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
0.5 = Annual total phosphorus load from undeveloped lands (lbs/acre/year)
A = Area of the site within the Critical Area IDA (acres)

B. Redevelopment

$$\begin{aligned} L_{pre} &= (R_v) (C) (A) (8.16) \\ R_v &= 0.05 + 0.009 (I_{pre}) \\ &= 0.05 + 0.009 (\underline{98.5}) = \underline{0.937} \\ L_{pre} &= (\underline{0.937}) (\underline{0.30}) (\underline{27.63}) (8.16) \\ &= \underline{63.38} \text{ lbs/year of total phosphorus} \end{aligned}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
 R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff
 I_{pre} = Pre-development (existing) site imperviousness (i.e., $I = 75$ if site is 75% impervious)
C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l
A = Area of the site within the Critical Area IDA (acres)
8.16 = Includes regional constants and unit conversion factors

Step 3: Calculate the Post-Development Load (L_{post})

A. New Development and Redevelopment:

$$L_{post} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{post})$$

$$= 0.05 + 0.009 (\underline{77.2}) = \underline{0.745}$$

$$L_{post} = (\underline{0.745}) (\underline{0.30}) (\underline{27.63}) (8.16)$$

$$= \underline{50.39} \text{ lbs/year of total phosphorus}$$

Where:

L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)

R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff

I_{post} = Post-development (proposed) site imperviousness (i.e., $I = 75$ if site is 75% impervious)

C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l

A = Area of the site within the Critical Area IDA (acres)

8.16 = Includes regional constants and unit conversion factors

Step 4: Calculate the Pollutant Removal Requirement (RR)

$$RR = L_{post} - (0.9) (L_{pre})$$

$$= (\underline{50.39}) - (0.9) (\underline{63.38})$$

$$= \underline{-6.65} \text{ lbs/year of total phosphorus}$$

Where:

NEGATIVE VALUE \therefore 10% RULE MET

RR = Pollutant removal requirement (lbs/year)

L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)

L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)

Step 5: Identify Feasible BMP(s)

Select BMP Options using the screening matrices provided in the Chapter 4 of the 2000 Maryland Stormwater Design Manual. Calculate the load removed for each option.

BMP Type	(L_{post})	x	(BMP_{RE})	x	(% DA Served)	=	LR
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
Load Removed, LR (total) =							_____ lbs/year
Pollutant Removal Requirement, RR (from Step 4) =							_____ lbs/year

Where:

- Load Removed, LR = Annual total phosphorus load removed by the proposed BMP (lbs/year)
- L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)
- BMP_{RE} = BMP removal efficiency for total phosphorus, Table 4.8 (%)
- % DA Served = Fraction of the site area within the critical area IDA served by the BMP (%)
- RR = Pollutant removal requirement (lbs/year)

If the Load Removed is equal to or greater than the Pollutant Removal Requirement computed in Step 4, then the on-site BMP complies with the 10% Rule.

Has the RR (pollutant removal requirement) been met? Yes No



(A) TOTAL AREA OF LIMIT OF DISTURBANCE WITHIN 100-FOOT BUFFER
 = 331,056 S.F. (7.60 Acres)

(B) TOTAL AREA OF EXISTING BUILDINGS WITHIN 100-FOOT BUFFER
 = 0 S.F.

(C) TOTAL AREA OF PUBLIC USE WITHIN 100-FOOT BUFFER
 = 279,977 S.F. (6.43 Acres)

(D) TOTAL AREA OF GRASS CREDIT OUTSIDE OF 100-FOOT BUFFER
 = 85,314 S.F. (1.96 Acres)

CALCULATION: $[A - B - C - D] \times \$2.50/S.F. = \text{FEE}$

$[331,056 \text{ S.F.} - 0 - 279,977 \text{ S.F.} - 85,314 \text{ S.F.}] \times \$2.50/S.F.$

$= [-34,235 \text{ S.F.}] \times \$2.50/S.F.$

NEGATIVE SQUARE FOOTAGE. ∴ NO FEE IS REQUIRED

NOTE: GRASS CREDIT OUTSIDE OF 100-FOOT BUFFER REQUIRED TO RESULT IN NO FEE

= 51,079 S.F. (1.17 Acres)



- GENERAL NOTES:**
- EXISTING TOPOGRAPHIC SITE FEATURES SUCH AS (BUILDINGS, ROADS, PROPERTY BOUNDARIES, FENCE LINES AND SHORELINE PERIMETER) ARE BASED ON SURVEYS PERFORMED BY GREENHORNE & O'MARA, INC. DATED JAN. 2004, MORRIS RITCHE ASSOC., DATED JUNE 1993 AND DANIEL CONSULTANTS, INC. DATED MARCH 1999. UTILITY INFORMATION (INCLUDING ENGINEERED REMEDIAL SYSTEM (ERS) COMPONENTS) WAS OBTAINED FROM RECORD DRAWINGS PROVIDED TO RK&K BY HONEYWELL, BALTIMORE CITY, AND MUESER RUTLEDGE CONSULTING ENGINEERS AND MAY NOT ACCURATELY REFLECT PRE-EXISTING OR CURRENT CONDITIONS. FOR EXACT LOCATIONS OF ERS COMPONENTS, REFER TO RELEVANT AS-BUILT DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CURRENT TOPOGRAPHIC AND UTILITY INFORMATION TO HIS/HER OWN SATISFACTION.
 - INFORMATION REFERENCED ON THIS PLAN REFLECTS SURVEYS PERFORMED USING DATUM - BALTIMORE CITY COORDINATE GRID SYSTEM.
 - THE ENTIRE SITE FALLS WITHIN THE 1,000' CHESAPEAKE BAY CRITICAL AREA LIMITS.
 - THE ENTIRE SITE FALLS WITHIN 2 FLOODPLAINS, ZONES BASED ON FLOOD INSURANCE RATE MAP (REF. FEMA MAP PANEL 2400870011D)
 ZONE AE (ACTIVE 100-YEAR FLOODPLAIN) ELEVATION 8.81 BALTIMORE CITY DATUM
 ZONE X (AREA OF 500-YEAR FLOOD OR AREA OF 100-YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN ONE (1) FOOT OR WITH DRAINAGE AREA LESS THAN ONE (1) SQUARE MILE) ELEVATION 11.4 BALTIMORE CITY DATUM (REF. FEMA FLOOD INSURANCE STUDY CITY OF BALTIMORE DATED SEPTEMBER 30, 1988)
 - APPROXIMATE 100-YEAR FLOODPLAIN LOCATION AND 500-YEAR FLOODPLAIN LOCATION BASED ON ELEVATION 8.81 AND 11.4 RESPECTIVELY. (REF. FEMA FLOOD INSURANCE STUDY CITY OF BALTIMORE DATED SEPTEMBER 30, 1988)
 - PROPOSED IMPERVIOUS INCLUDES RIPARIAN AREA WITHIN LIMITS OF DISTURBANCE.
 - 100' BUFFER AREA DOES NOT INCLUDE RIPARIAN AREA WITHIN LIMITS OF DISTURBANCE.
 - PROPOSED BUFFER CREDIT AREA INDICATES AN AREA THAT WILL BE ESTABLISHED TO PROVIDE BUFFER PLANTING AS REQUIRED TO MEET CRITICAL AREA GUIDELINES.

	PROPOSED CONDITIONS	NET CHANGE FROM EXISTING CONDITIONS
(PUD LIMIT/LIMIT OF DISTURBANCE) PER PUD DRAWINGS	27.63 ACRES	0.0 ACRES
PROPOSED IMPERVIOUS (SEE NOTE 6)	20.74 ACRES	-6.48 ACRES
PROPOSED PERVIOUS (INCLUDING GREEN ROOF)	6.89 ACRES	+6.48 ACRES
100' BUFFER AREA (SEE NOTE 7)	7.60 ACRES	N/A
BUFFER OPEN SPACE USE	0.78 ACRES	N/A
BUFFER BUILDING / ROADWAY AREA	1.83 ACRES	N/A
BUFFER CREDIT (GREEN SPACE)	1.96 ACRES	N/A
RIPARIAN AREA	2.27 ACRES	-0.70 ACRES

NOTE: AREAS DENOTED ON PLAN ARE BASED UPON SCHEMATIC LEVEL DOCUMENTS AND MAY NOT PRECISELY CORRESPOND WITH DATA ABOVE

HARBOR POINT DEVELOPMENT, LLC
Thames Street Wharf Office Building
 1300 Thames Street
 Baltimore, Maryland 21231

ARCHITECT OF RECORD
 AyersSaintGross Architects + Planners
 1940 Hill Street Suite 100
 Baltimore, MD 21230
 410.347.8500
 410.347.8519 F

DESIGN ARCHITECT
 Elkus | Manfredi Architects
 300 A Street
 Boston, MA 02210

FOUNDATION DESIGN
 Mueser Rutledge Consulting Engineers
 14 Penn Plaza
 225 West 34th Street, 2nd Floor
 New York, NY 10122
 917.339.9300
 917.339.9400 F

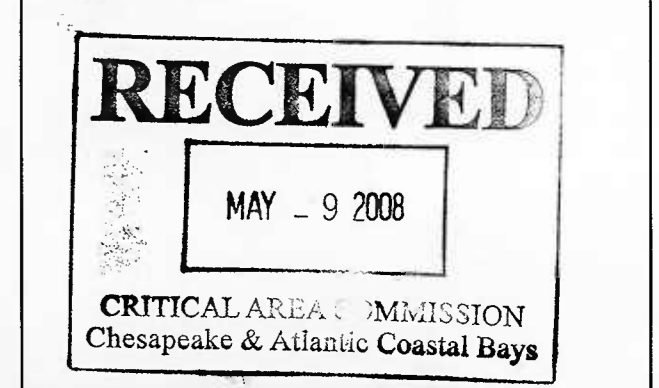
STRUCTURAL ENGINEER
 Morris & Ritchie Associates
 1220-C Joppa Rd., Suite 505
 Towson, MD 21286
 410.821.1690
 410.821.1748 F

MECHANICAL/ELECTRICAL ENGINEER
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 Alexandria, VA 22314
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CIVIL ENGINEER
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 410.728.2834 F

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 Acus Engineering, Inc.
 4803 Innovation Drive
 Fort Collins, CO 80525
 970.229.9668

TELECOM/SECURITY CONSULTANT
 The Foy Group, Inc.
 3307 Berlin Court
 Abingdon, MD 21009
 410.515.0664



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED, DRAWN, OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10084, EXPIRATION DATE FEBRUARY 13, 2008.



Num	Date	Revision
12.14.06		BUFFER CREDIT AREA
03.18.08		CITY COMMENTS

PACKAGE 3

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CRITICAL AREA ANALYSES CONCEPTUAL MASTER PLAN

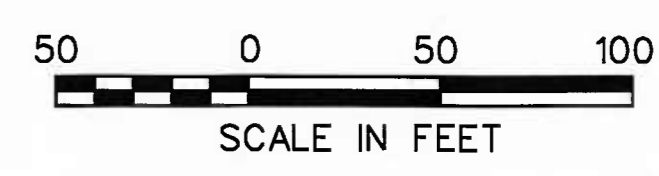
Project Number: 20314.07
 Date: 11.22.06
 Drawn By: DWV
 Scale: AS NOTED
 Drawing No. CA-2

BUFFER AREA DEVELOPMENT

BUILDING/ROADWAY		OPEN SPACE		GREEN SPACE	
A	14,441	H	12,309	K	103,326
B	12,984	I	21,462	TOTAL	103,326 SQ. FT.
C	1,859	TOTAL	33,771 SQ. FT.		
D	2,276	PROMENADE			
E	5,915	J	114,560		
F	13,608	TOTAL	114,560 SQ. FT.		
G	28,426				
TOTAL	79,509 SQ. FT.				

TOTAL - 331,166 SQ. FT.
7.60 Ac.

- LEGEND**
- PROPERTY LINE
 - PUD LIMIT/LIMIT OF DISTURBANCE
 - 100 YEAR FLOODPLAIN (EL. 8.81)
 - 500 YEAR FLOODPLAIN (EL. 11.4)
 - 100 FT. CRITICAL AREA BUFFER
 - MEAN HIGH WATER LINE (EL. 2.17)
 - EXISTING CONTOUR
 - EXISTING RIP-RAP EMBANKMENT
 - PROPOSED PERVIOUS AREA
 - PROPOSED PROMENADE - PUBLIC PEDESTRIAN EASEMENT
 - PROPOSED DEVELOPMENT PARCEL
 - PROPOSED OPEN SPACE W/ PROPOSED PUBLIC PEDESTRIAN EASEMENT (IN 100 FT. BUFFER)
 - PROPOSED 100 FT. BUFFER CREDIT AREA - SEE NOTE 8
 - PROPOSED GREEN ROOF



GENERAL NOTES:

- EXISTING TOPOGRAPHIC SITE FEATURES SUCH AS (BUILDINGS, ROADS, PROPERTY BOUNDARIES, FENCE LINES AND SHORELINE PERIMETER) ARE BASED ON SURVEYS PERFORMED BY GREENHORNE & O'MARA, INC. DATED JAN. 2004, MORRIS RITCHIE ASSOC., DATED JUNE 1993 AND DANIEL CONSULTANTS, INC. DATED MARCH 1999. UTILITY INFORMATION (INCLUDING ENGINEERED REMEDIAL SYSTEM (ERS) COMPONENTS) WAS OBTAINED FROM RECORD DRAWINGS PROVIDED TO RK&B BY HONEYWELL, BALTIMORE CITY, AND MUESER RUTLEDGE CONSULTING ENGINEERS AND MAY NOT ACCURATELY REFLECT PRE-EXISTING OR CURRENT CONDITIONS. FOR EXACT LOCATIONS OF ERS COMPONENTS, REFER TO RELEVANT AS-BUILT DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CURRENT TOPOGRAPHIC AND UTILITY INFORMATION TO HIS/HER OWN SATISFACTION.
- INFORMATION REFERENCED ON THIS PLAN REFLECTS SURVEYS PERFORMED USING DATUM - BALTIMORE CITY COORDINATE GRID SYSTEM.
- THE ENTIRE SITE FALLS WITHIN THE 1,000' CHESAPEAKE BAY CRITICAL AREA LIMITS.
- THE ENTIRE SITE FALLS WITHIN 2 FLOODPLAINS, ZONES BASED ON FLOOD INSURANCE RATE MAP (REF. FEMA MAP PANEL 240087001D)
 ZONE AE (ACTIVE 100-YEAR FLOODPLAIN) ELEVATION 8.81 BALTIMORE CITY DATUM
 ZONE X (AREA OF 500-YEAR FLOOD OR AREA OF 100-YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN ONE (1) FOOT OR WITH DRAINAGE AREA LESS THAN ONE (1) SQUARE MILE) ELEVATION 11.4 BALTIMORE CITY DATUM (REF. FEMA FLOOD INSURANCE STUDY CITY OF BALTIMORE DATED SEPTEMBER 30, 1988)
- APPROXIMATE 100-YEAR FLOODPLAIN LOCATION AND 500-YEAR FLOODPLAIN LOCATION BASED ON ELEVATION 8.81 AND 11.4 RESPECTIVELY. (REF. FEMA FLOOD INSURANCE STUDY CITY OF BALTIMORE DATED SEPTEMBER 30, 1988)

BLOCK ST.

WILLS ST.

THAMES ST.

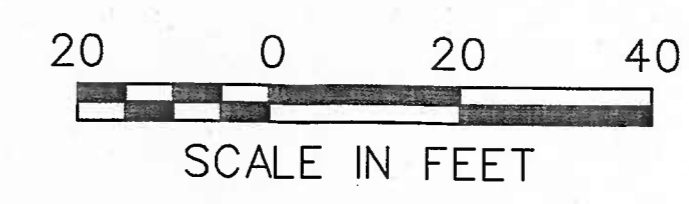
DOUGLAS / MYERS
 MARITIME PARK
 (EXISTING TO REMAIN)

PHASE I
 OFFICE BLDG.

PHASE I / MASTER PLAN COMPARISON			
	PHASE I PERMIT	MASTER PLAN	
TOTAL PROJECT AREA	1.89 Ac.	EQUALS 1.89 Ac.	OK
BLDG FOOTPRINT	0.85 Ac.	EQUALS 0.85 Ac.	OK
IMPERVIOUS AREA (BLDG / HARDSCAPE)	1.0 Ac.	< 1.89 Ac.	OK
GREEN ROOF	0.15 Ac.	EQUALS 0.15 Ac.	OK
PERVIOUS OPEN SPACE	0.04 Ac.	> 0.00 Ac.	OK

LEGEND

- PROJECT LIMITS
- - - 100 YEAR FLOODPLAIN (EL. 8.81)
- . - . 500 YEAR FLOODPLAIN (EL. 11.4)
- 100 FT. CRITICAL AREA BUFFER
- EXISTING CONTOUR
- PROPOSED PERVIOUS AREA
- ▨ PROPOSED GREEN ROOF



Num	Date	Revision

KEY PLAN
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 SAINT
 GROSS**

ARCHITECTS + PLANNERS
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PHASE I
 SITE PLAN

Project Number: 20314.07
 Date: 03.18.08
 Drawn By: DWV
 Scale: (ENTER SCALE)

Drawing No. **CA-3**

PROGRAM CERTIFICATION
LANDSCAPE MAINTENANCE AGREEMENT FORM
City of Baltimore, Maryland
Department of Planning

I am aware of the requirements of the City of Baltimore Critical Area Management Program and I agree to comply with these regulations and all applicable policy, guidelines and ordinances. I further agree to:

1. Certify installation of the approved Best Management Practice(s), to maintain such practices and have signed, if appropriate, a Declaration of Covenants-Inspection/Maintenance Agreement for Stormwater Management Facility and filed it with the Department of Public Works, Construction Management Division.

2. Certify installation of the Landscaping/Planting Plan not later than one (1) year from the date of occupancy to the Baltimore City Planning Department, 417 E. Fayette Street, 8th Floor, Baltimore, MD 21202.

3. Certify implementation of the landscape maintenance agreement listed in items A-F below. I shall be responsible for this maintenance and tree care for a period of two years. Services shall include, but not be limited to the following:

A. WATERING

- Watering shall be provided during the growing season as required.
- First Growing Season: Once per week.
- Second and Subsequent Growing Seasons: As needed, but not less than once per month during July and August. This includes trees planted in the sidewalk and the public right-of-way.

B. REINFORCEMENT OF PLANTING REQUIREMENTS

- A minimum of 100% of the total number of trees is required to survive at the end of the two-year maintenance period.

C. MOWING AND FERTILIZER USE

- Mowing: Areas requiring mowing should be kept to a minimum. If mowing is necessary, raise the lawn mower blade to at least 3 inches. This will reduce soil erosion, increase water absorption, and increase turf drought tolerance. On areas that are lawn that do not require close mowing, allow the grass to attain a height of at least 10 inches. Mowing in these areas is permitted once per year in the fall after September.
- Fertilizer, Pesticides and Herbicides: Avoid the use of any fertilizer, especially those containing phosphorous or nitrogen, chemical pesticides and herbicides. If pest (rat) control is necessary, use integrated pest management, which limits pesticide applications to times when a problem is actually present. Remove all human waste sources: garbage, spoiled food, pet excrement, etc.-these are all rodent food sources.

D. PROTECTION FROM DISEASE AND INJURY

- Periodic inspection shall be made for any evidence of disease or damage, soil erosion, increase water absorption, and increase turf drought tolerance. On areas that are lawn that do not require close mowing, allow the grass to attain a height of at least 10 inches. Mowing in these areas is permitted once per year in the fall after September.
- Fertilizer, Pesticides and Herbicides: Avoid the use of any fertilizer, especially those containing phosphorous or nitrogen, chemical pesticides and herbicides. If pest (rat) control is necessary, use integrated pest management, which limits pesticide applications to times when a problem is actually present. Remove all human waste sources: garbage, spoiled food, pet excrement, etc.-these are all rodent food sources.

E. CONTROL OF INVASIVE PLANT SPECIES

- Phragmites, alantus (Tree-of-Heaven) and other non-native plant removal shall be undertaken in any areas on-site for a minimum of two years. Invasive, non-native plants will overtake the newly planted, native landscaping plants and create a monoculture unless controlled. Non-native, invasive plants should be spot-controlled using a combination of "Rodeo" herbicide, hand cutting and weeding. Care should be taken not to spray any newly planted, native plants.

- Periodic inspection shall be made for any evidence of disease or damage.

Developer's Signature Date _____

Owner's Name Date _____

Owner's Signature Date _____

PLANT SCHEDULE FOR L1.30

TREES

QUA	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
4	TD	<i>Taxodium distichum</i> "Showee Brove"	Upright Bald Cypress	3.5" cal, 7" Clearwood	

GREEN ROOF SUCCULENTS

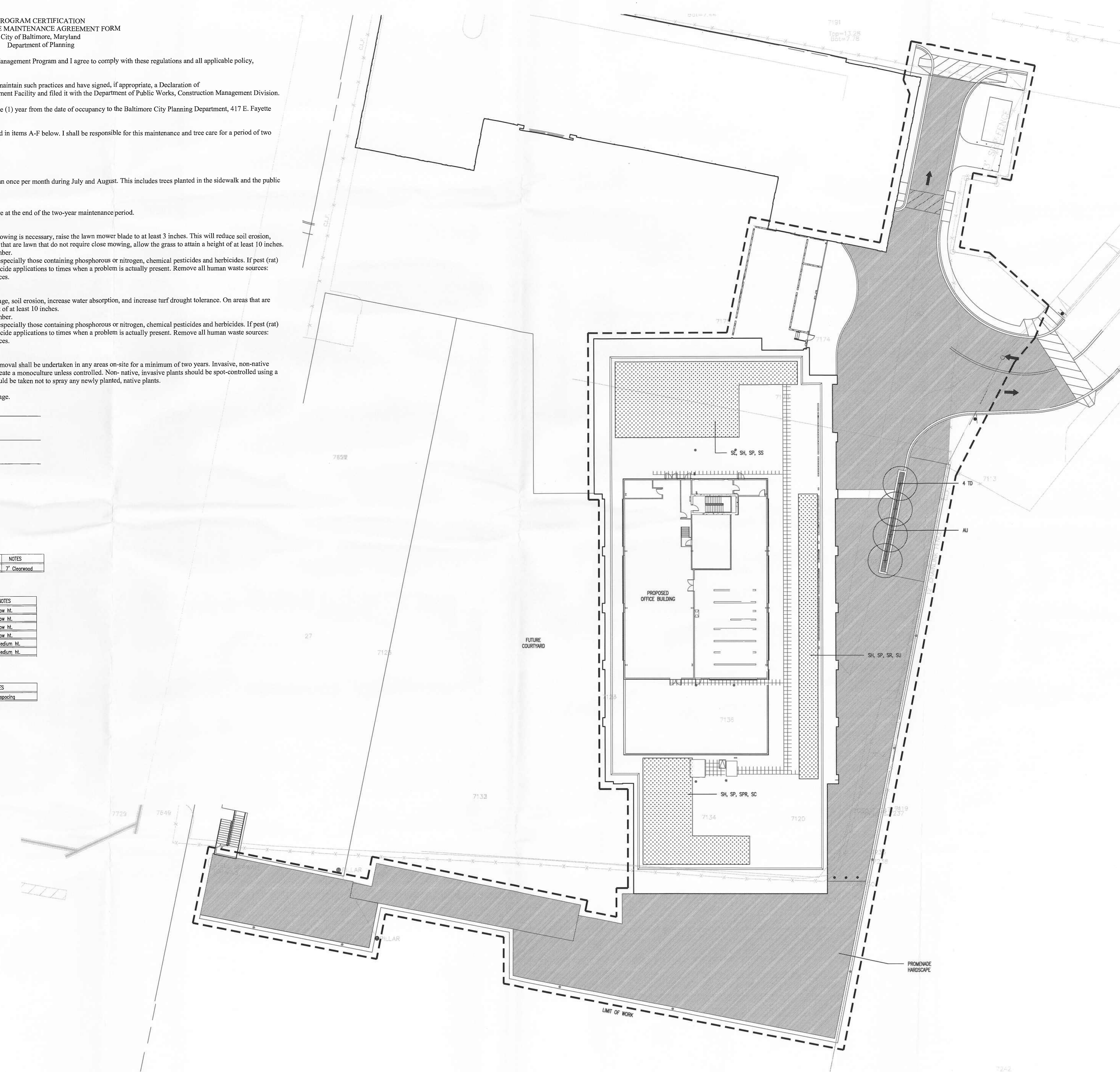
QUA	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
-	SE	<i>Sedum ewersii</i>	Stonecrop	Plugs	Low ht.
-	SH	<i>Sedum hispanicum</i>	Stonecrop	Plugs	Low ht.
-	SP	<i>Sedum poeytioides</i>	Stonecrop	Plugs	Low ht.
-	SPR	<i>Sedum pluricaule</i> "Rosentopplott"	Stonecrop	Plugs	Low ht.
-	SR	<i>Sedum rupestre</i> (reflexum)	Stonecrop	Plugs	Medium ht.
-	SS	<i>Sedum spurium</i> "Summer Glory"	Stonecrop	Plugs	Medium ht.

GROUND COVER

QUA	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
-	AU	<i>Arctostaphylos uva-ursi</i>	Bearberry	3" pots	12" spacing

LEGEND

- HARDSCAPE PAVING
- ROOFTOP PLANTING
- GROUND COVER
- UPRIGHT DECIDUOUS TREE
- LIMIT OF WORK



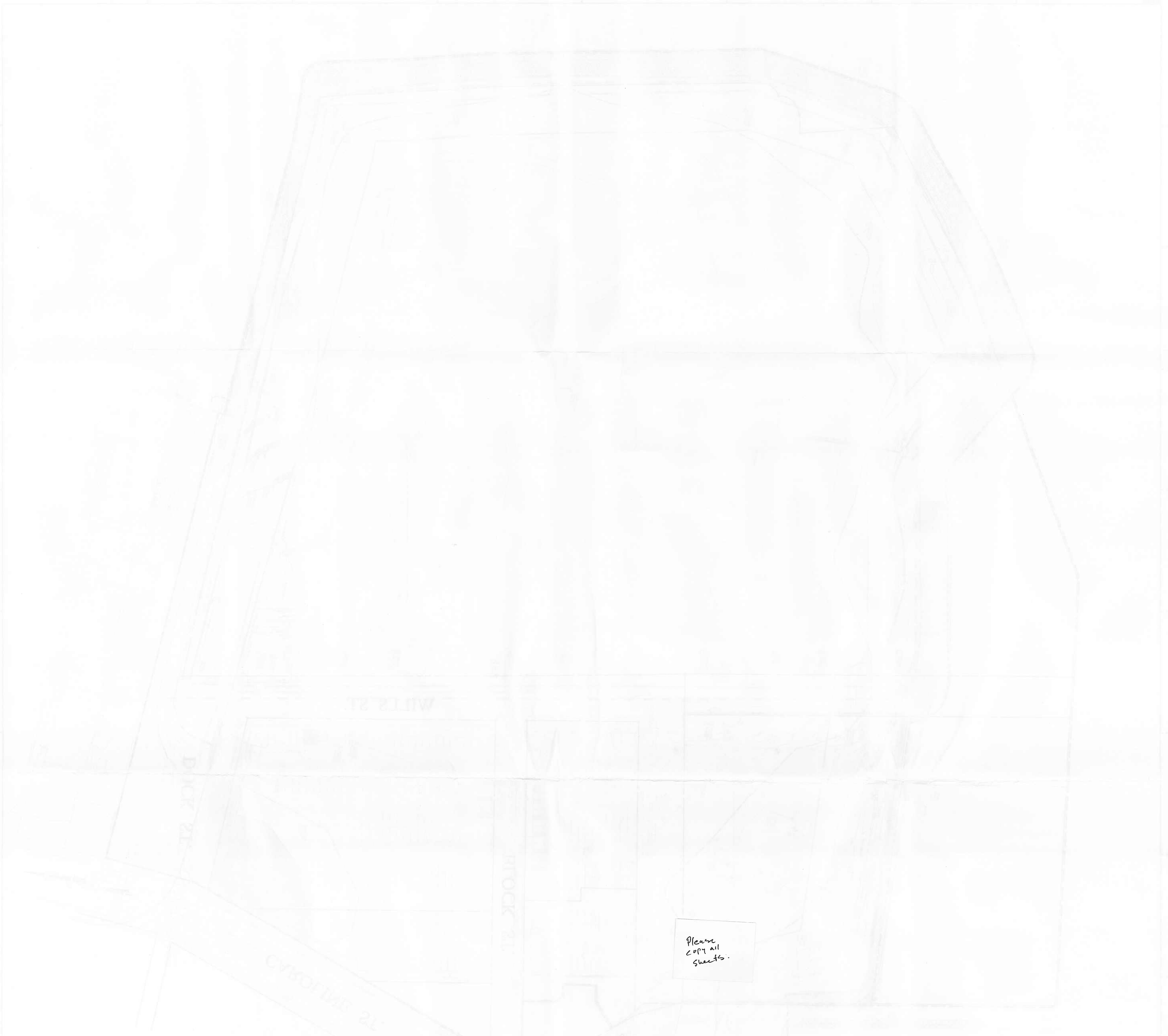
HARBOR POINT
HARBOR POINT DEVELOPMENT, LLC
Thames Street Wharf Office Building
1300 Thames Street
Baltimore, Maryland 21231
ARCHITECT OF RECORD
Ayers/Saint/Gross Architects + Planners
1040 Hull Street Suite 100
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410.347.8500
410.347.8519 F
DESIGN ARCHITECT
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Boston, MA 02210
FOUNDATION DESIGN
Mueser Rutledge Consulting Engineers
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225 West 34th Street, 2nd Floor
New York, NY 10122
917.339.9300
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Towson, MD 21286
410.821.1890
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MECHANICAL/ELECTRICAL ENGINEER
Vanderweil Engineers
625 N. Washington Street
Alexandria, VA 22314
703.683.9700
CIVIL ENGINEER
Rumml, Klepper & Kahl
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Baltimore, MD 21217
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410.728.2834 F
WATER FEATURE CONSULTANT
Aqua Engineering, Inc.
4953 Innovation Drive
Fort Collins, CO 80525
970.229.9688
TELECOM/SECURITY CONSULTANT
The Foy Group, Inc.
3307 Berlin Court
Abingdon, MD 21009
410.515.0564

Num	Date	Revision

KEY PLAN
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CRITICAL AREA COMMISSION

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ARCHITECTS + PLANNERS
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BALTIMORE WASHINGTON D.C. PHOENIX

LANDSCAPE PLAN
Project Number: 20314.07
Date: 03.18.08
Drawn By: SY
Scale:
Drawing No.:
L1.00



Please copy all sheets.



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DATE: 10/10/2011

SCALE: 1/4" = 1'-0"

PROJECT: [illegible]

CLIENT: [illegible]

ARCHITECT: [illegible]

DOUGLAS WALKER
 ARCHITECTS
 1000 W. 10TH AVENUE
 DENVER, CO 80202
 TEL: 303.733.1111
 WWW.DWARCHITECTS.COM

NO.	DESCRIPTION	DATE
1	PRELIMINARY	10/10/2011
2	REVISED	10/10/2011
3	REVISED	10/10/2011
4	REVISED	10/10/2011
5	REVISED	10/10/2011
6	REVISED	10/10/2011
7	REVISED	10/10/2011
8	REVISED	10/10/2011
9	REVISED	10/10/2011
10	REVISED	10/10/2011

CONTRACT NO. [illegible]

DATE: 10/10/2011

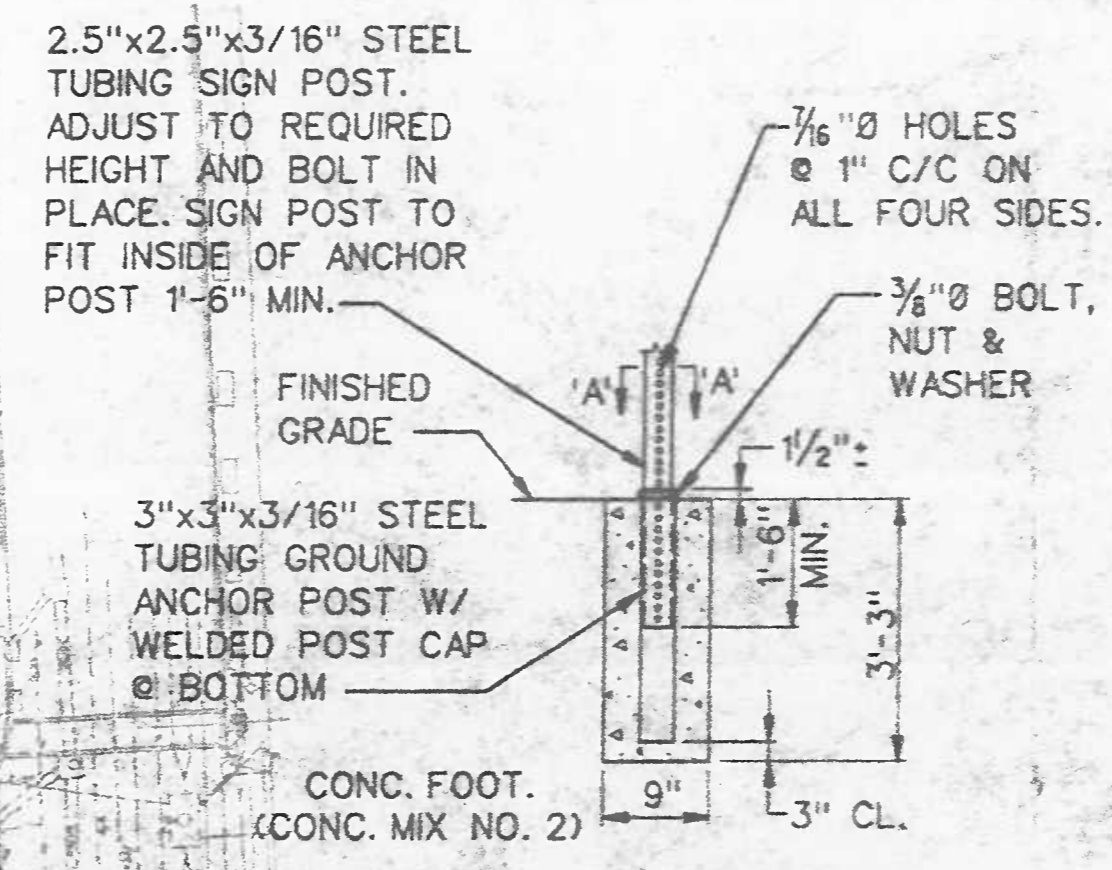
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PROJECT: [illegible]

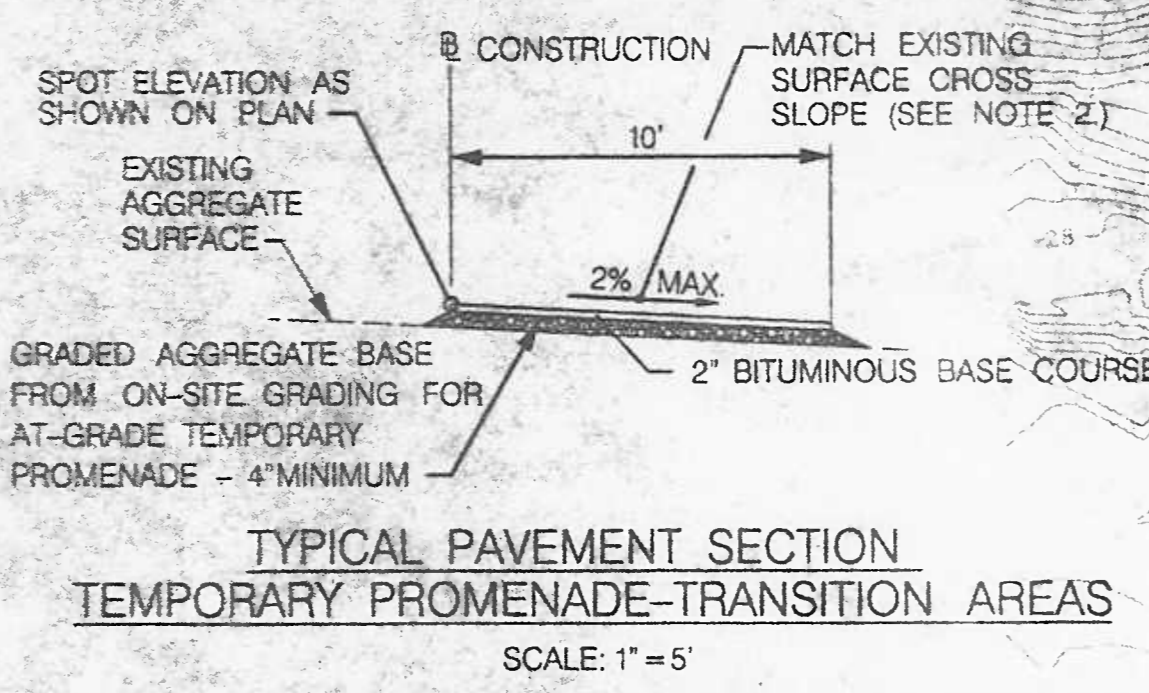
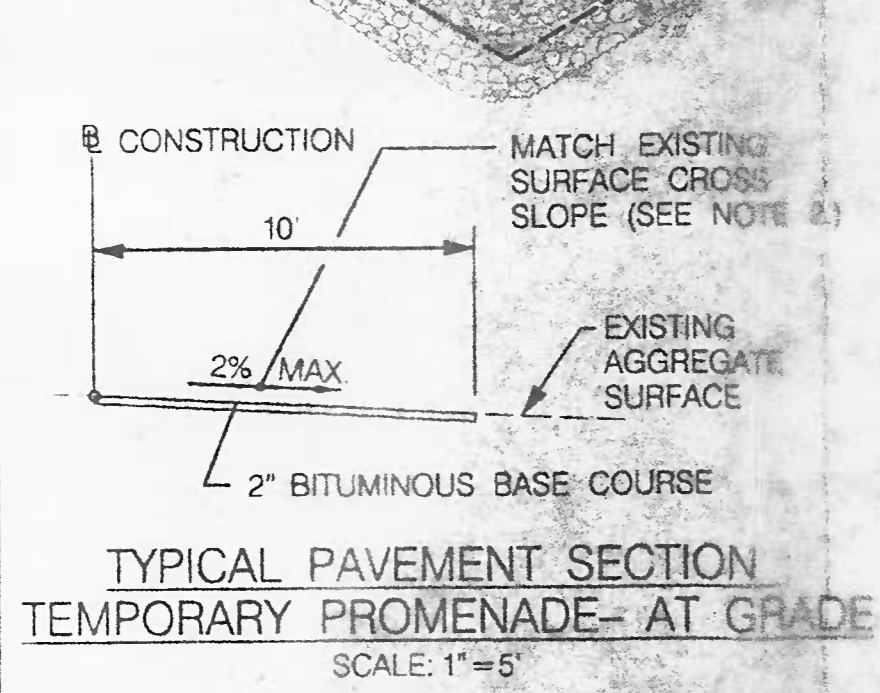
CLIENT: [illegible]

ARCHITECT: [illegible]

- NOTES:**
1. FINISHED SURFACE OF TEMPORARY PROMENADE SHALL BE FLUSH WITH EXISTING GRADE EXCEPT IN AREAS WHERE INDICATED.
 2. CROSS SLOPE OF TEMPORARY PROMENADE SHALL NOT EXCEED 2%.
 3. LONGITUDINAL SLOPE OF WALKWAY SHALL NOT EXCEED 5%.
 4. EXISTING SHEET FLOW OF STORM DRAIN WATER ACROSS TEMPORARY PROMENADE SHALL BE MAINTAINED.
 5. UTILITIES MUST BE LOCATED PRIOR TO INSTALLATION OF SIGN POSTS.
 6. THE ENTIRE PROJECT SITE IS WITHIN THE CRITICAL AREA.
 7. PROMENADE HOURS ARE DAWN TO DUSK.
 8. INTRUSIVE ACTIVITY GREATER THAN 12" BELOW EXISTING SURFACE GRADE IS NOT PERMITTED WITHOUT PERMISSION FROM U.S. EPA M.C.E. HONEYWELL INTERNATIONAL AND HARBOR POINT DEVELOPMENT, LLC.
 9. ALL DISTURBED AREAS SHALL BE STABILIZED BY THE END OF THE WORK DAY.
 10. PROJECT DATUM IS BALTIMORE CITY DATUM.



POINT	STATION	S. NORTH	E. EAST	DELTA	RADIUS
PC	10+00.00	-5000.0000	1000.0000	4194.154	
PC	10+04.18	-5000.1333	1000.2810		
PI	10+13.65	-5000.5750	1000.7289	4192.4612	25.00
PRC	10+22.31	-5000.9900	1000.3119		
PI	10+22.31	-5000.9900	1000.3119	5202.3120	100.00
PRC	11+14.89	-5003.2664	999.9281		
PI	11+48.37	-5003.4130	1000.1970	3701.2121	100.00
PRC	11+79.50	-5000.1000	1000.0000		
PI	12+20.00	-5074.8810	1000.8812	3173.2034	175.00
PT	12+78.14	-5073.8810	1000.8812		
PC	13+78.14	-5098.1810	1000.8812		
PI	15+41.01	-5082.1700	1000.8812	8141.1830	75.00
PT	15+83.10	-5027.5488	1000.8812		
PC	16+55.34	-5108.4300	1000.8812		
PI	18+97.07	-5139.6410	1000.8812	2073.0581	175.00
PT	17+28.12	-5170.8520	1000.8812		
PC	18+08.52	-5231.0000	1000.8812		
PI	18+65.58	-5325.8810	1000.8812	4058.5545	175.00
PRC	19+53.02	-5395.7410	1000.8812		
PI	21+25.35	-5500.0000	1000.8812	6901.1420	175.00
PT	22+25.35	-5600.1000	1000.8812		
PC	23+17.03	-5650.2000	1000.8812		
PI	23+87.21	-5670.9500	1000.8812	6794.9172	75.00
PT	24+05.48	-5692.0000	1000.8812		
PC	24+98.90	-5691.4700	1000.8812		
PI	25+49.46	-5692.0000	1000.8812	5736.3035	150.00
PRC	26+17.85	-5658.1000	1000.8812		
PI	26+96.70	-5693.7410	1000.8812	5329.4402	150.00
PRC	27+83.14	-5659.0000	1000.8812		
PI	28+25.08	-5630.3300	1000.8812	5329.4402	100.00
PT	28+70.08	-5660.0000	1000.8812		
PC	30+98.50	-5670.0000	1000.8812		
PI	31+43.91	-5640.1700	1000.8812		
PI	32+66.72	-5669.3010	1000.8812		



LEGEND

- PROPOSED TEMPORARY BITUMINOUS PROMENADE
- PROPOSED STRIPING ON EXISTING PAVEMENT FOR TEMPORARY PROMENADE
- EXISTING HYDRAULIC MONITORING SYSTEM (HMS COMPONENTS)
- EXISTING SOIL/BENTONITE BARRIER
- SETBACK FROM HMS COMPONENTS (10' EACH SIDE)
- SETBACK FROM SOIL/BENTONITE BARRIER (30' EACH SIDE)
- PROPOSED FINISHED SURFACE SPOT ELEVATION AT 0.0' OFFSET FROM CONSTRUCTION

50 0 50 100
SCALE: 1" = 50'-0"

HARBOR POINT TEMPORARY PROMENADE

CIVIL ENGINEER
RUMMEL, KLEPPER & KAHL, LLP
88 MOSHER STREET
BALTIMORE, MD 21217
(410) 728-2900

GEOTECHNICAL ENGINEER
MUESER RUTLEDGE CONSULTING ENGINEERS
14 PENN. PLAZA
NEW YORK, NY 10122-0002
(917) 339-9300

ENVIRONMENTAL ENGINEER
GOLDER ASSOCIATES INC.
1951 OLD CUTHBERT ROAD
SUITE 301
CHERRY HILL, NJ 08034
(856) 616-3166

MASTER PLANNER
EHRENKRANTZ ECKSTUT & KUHN ARCHITECTS
25 EAST 4TH STREET
NEW YORK, NY 10003
(212) 353-0400

OWNER:
HONEYWELL INTERNATIONAL, INC.
DEVELOPER:
HARBOR POINT DEVELOPMENT, LLC

NO. DATE REVISION



KEY PLAN
PLOT PLAN / TEMPORARY PROMENADE SOUTH ALIGNMENT
DRAWING TITLE

DATE: FEBRUARY 4, 2005	SCALE: AS NOTED
DRAWN BY: JLV	CHECKED BY: JLV
DATE: FEBRUARY 4, 2005	
TPP-2	
DRAWING NO.	

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