BA 288-05 Harris Creek Trash Inceptor
Bldg Permit

MSA-S-1829-4761

Comment 5/10/05

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 12, 2005

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

RE: Harris Creek Trash Interceptor
Consistency Report

Dear Mr. Hranicky:

This office has reviewed a proposal for a trash interceptor installation at the mouth of Harris Creek at the Lakewood Avenue outfall. Installation will consist of a floating debris collector, anchor and access system.

This office understands:

1. That this project will not modify the existing drainage area to the Critical Area, add impervious surface or permanently impact any environmental resources;

2. That there are no negative impacts to submerged aquatic vegetation beds or tributary streams; and,

3. That there will be no pavement or structures being built on land.

The Commission staff has determined that the above proposed development: 1) has environmental or economic consequences that will largely be confined to the immediate area of the site on which the development is located, 2) does not substantially affect the Critical Area program of the local jurisdiction, and 3) is not considered by the Commission as major development. *(See COMAR: Chapter Two, Regulations for Development in the Critical Area Resulting from State and Local Agency Programs).*

Therefore, approval of the above project by the Commission is not necessary. If there are any changes in development that may affect the habitat within the area on site, this office would like to be notified at (410) 260-3483.

Sincerely,

Dawnn McCleary

Dawnn McCleary
Natural Resources Planner

cc: Regina Esslinger
BA 288-05

MARTIN O'MALLEY
Mayor

OTIS ROLLEY III
Director

April 26, 2005

Ms. Dawnn McCleary
Chesapeake Bay Critical Area Commission
1804 West Street, Suite 100
Annapolis, Maryland 21401

Dear Ms. McCleary:

Re: Hawkins Creek Trash Interceptor Consistency Letter

Please find enclosed Site Plans and a Consistency Report for the installation of the City-owned floating debris collector. The project consists of a floating debris collector, anchoring and access system. The project is located at the outfall of Harris Creek adjacent to 2301 Boston Street. The primary objective is to remove debris before entering the harbor. There is no pavement or structure being built on land. All of the projects surfaces are pervious consisting of cables, netting, buoys, and a service walkway that is a non-skid grating (i.e. perforated to allow no water accumulation for safety reasons). The proposed project will not modify the existing drainage area to the Critical Area, add impervious surface or permanently impact any environmental resources. Hawkins Creek is completely covered. There will be no negative impact to submerged aquatic vegetation beds or tributary streams.

A review of the Consistency Report for this project shows that the proposed action is consistent with the City's Critical Area Management Program (CAMP). If you have any questions about this project or the attached report, please contact Mr. Kenneth Hranicky at 410-396-8356.

Sincerely,

Otis Rolley, III
Director

OR/ds/kh

Enclosures

Cc: Mr. Duncan Stuart, Department of Planning
File Copy

836 S. Bond St.

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 = 0.0674 acres
2) Site Impervious Surface Area, Existing and Proposed

	(a) Existing (acres)	(b) Post-Development (acres)
Rooftop	0.04	0.045
Roads		
Sidewalks	0.0034	0.0034
Parking lots	0.024	0.019
Pools/ponds		
Decks		
Other		
Impervious Surface Area	0.0674	0.0674

Imperviousness (I)
Existing Impervious Surface Area/Site Area = (Step 2a)/(Step1)= 100%
Post-Development Impervious Surface Area/Site Area = (Step 2b)/(Step 1)= 100%

B. Define Development Category (circle)

1) Redevelopment — Existing imperviousness greater that 15% I (*Go to Step 2A*)
2) New development — Existing imperviousness less that 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

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

A. Redevelopment

Lpre = (Rv) (C) (A) (8.16)

Rv = 0.05 + 0.009 (Ipre)

= 0.05 + 0.009 (100) = 0.95

Lpre = (0.95) (0.30) (0.0674) 8.16

= 0.16 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

Lpre = (0.5) (A)

= (0.5) (_____)

= _____ lbs /year of total phosphorous

Lpre = Same as above

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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

Lpost = (Rv) (C) (A) (8.16)

Rv = 0.05 + 0.009 (I_{post})

= 0.05 + 0.009 (100) = 0.950

Lpost = (.95)(3)(.0674) (8.16)

= 0.16 lbs P/year

where:

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

Rv = Runoff coefficient, which expresses the fraction of rainfall which is Converted into runoff

Ipost = 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

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Step 4: Calculate the Pollutant Removal Requirement (RR)

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

= (.16) – (0.9) (.16)

0.016

=0.02 lbs/year of total phosphorous

Where:

RR = Pollutant removal requirement (lbs/year)

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

Lpre = 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	(Lpost)	x	(BMPre)		(% DA Served)		LR
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year

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Load Removed, LR (total) =_____lbs/year

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

Where:

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

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

BMPre = 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** X **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.

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CRITICAL AREA STORMWATER OFFSET FEE CALCULATION FOR THE 10% POLLUTANT REMOVAL REQUIREMENT
1/02/2005

Using information from Worksheet A, calculate the offset fee:

RR = Pollutant Removal Requirement
LR = Annual total phosphorous load removed by the proposed BMP

Offset Fee en lieu: (RR – LR) x $35,000

(.016 - 0.0) x $35,000 = 598.61

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CRITICAL AREA LANDSCAPE OFFSET FEE CALCULATION FOR THE 15% LANDSCAPE REQUIREMENT

1/02/2005

Using information from Worksheet A, calculate the offset fee:
Landscape Fee in lieu based on number of 2.5 inch caliper trees

A = Area of site in square feet
A x (.15) = B

(2935.9) x (.15) = 440.39

B / 43,560 = C

440.39 / 43,560 = 0.0101

C x 100 = # of 2.5" caliper trees required

0.0101 x 100 = 1.011

Price/tree - $200.00

(# of 2.5" caliper trees required) x $200.00 = Landscape Fee in lieu

1.011 x 200 = $ 202.20

revised
sent 5/11/05

Harris Creek Trash Interceptor
Consistency Report

The City of Baltimore is proposing to install a trash interceptor at the mouth of Harris Creek. We have enclosed site plans and Worksheet A for the project. The project consists of a floating debris collector, anchoring and access system. There is no pavement or structure being built on land. All of the project's surfaces are pervious consisting of cables, netting, buoys, and a service walkway that is a non-skid grating (i.e. perforated to allow no water accumulation for safety reasons).

The project is located in the water and is therefore considered within the buffer.

SOILS
No part of this project is on land and no land is to be disturbed in the installation of this project..

VEGETATION AND MITIGATION
There are 0 existing street trees, which will be saved, and 0 additional 0 will be planted. Additionally, 0 # will be planted.

TIDAL WETLANDS AND FLOODPLAIN
This project is located in the water.

RARE AND ENDANGERED PLANTS AND ANIMALS
There are no known Federal or State threatened or endangered plant or wildlife species present at this time.

WATER QUALITY IMPROVEMENT
The proposed project does not reduce phosphorous but will improve water quality.

If there are questions regarding this report, please call Kenneth Hranicky at (410)-396-8356.

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF WATER AND WASTEWATER
ENVIRONMENTAL SERVICES DIVISION

INDEX OF SHEETS	
NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL PLAN AND ELEVATION
3	PLAN AND SECTION
4	MISCELLANEOUS DETAILS

CONTRACT NO. ER-4011
HARRIS CREEK
DEBRIS COLLECTOR

GENERAL NOTES

1. PERFORM WORK AND INSTALL MATERIALS IN ACCORDANCE WITH CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR MATERIAL, HIGHWAYS, BRIDGES, UTILITIES, AND INCIDENTAL STRUCTURES, 1979.
2. REFERENCED DETAILS SHALL BE IN ACCORDANCE WITH THE CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS BOOK OF STANDARDS.
3. ANY EXISTING GROUND DISTURBED BY CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO ORIGINAL CONDITIONS. COSTS OF REPAIRS SHALL BE AT CONTRACTOR EXPENSE.
4. NOTIFY MISS UTILITY AT (800) 257-7777 AT LEAST FIVE (5) DAYS PRIOR TO BEGINNING WORK.
5. RIGHT-OF-WAY LINES SHOWN ON THESE DRAWINGS ARE FOR INFORMATION ONLY AND DO NOT REPRESENT THE OFFICIAL PROPERTY INFORMATION, SEE THE APPROPRIATE RIGHT-OF-WAY PLAT.

SEDIMENT AND EROSION CONTROL NOTE:

THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR SEDIMENT AND EROSION CONTROL AS SET FORTH IN THE BALTIMORE CITY SEDIMENT AND EROSION CONTROL MANUAL.

STORMWATER MANAGEMENT:

THIS PROJECT INVOLVES DISTURBANCE OF LESS THAN 5,000 SQ. FT., THEREFORE IS EXCEMPT FROM REQUIREMENT OF THE BALTIMORE CITY STORMWATER MANAGEMENT DESIGN MANUAL UNDER SECTION III.A.(2).

NOTES:

1.) ALL COURSES AND COORDINATES SHOWN HEREON ARE BASED UPON THE BALTIMORE CITY SURVEY CONTROL SYSTEM AND ARE REFERENCED TO THE FOLLOWING TRAVERSE STATIONS:

27858 N -5590.0100 E 10525.8020
32607 N -5609.1740 E 10128.8720

2.) THE ELEVATIONS SHOWN HEREON ARE REFERENCED TO MEAN LOW TIDE AS ADOPTED BY THE BALTIMORE SURVEY CONTROL SYSTEM AND ARE BASED ON BENCH MARK #6059 ELEV. 24.420.

3.) THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES. LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXISTING LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. ADDITIONAL BURIED UTILITIES OR STRUCTURES MAY BE ENCOUNTERED.

VICINITY MAP

2000 0 1000 2000 3000 5000

SCALE: 1" = 2000'

LEGEND

EXISTING

SANITARY SEWER MANHOLE	TW 12.0 TOP WALL GRADE
STORM DRAIN MANHOLE	WATER MANHOLE
SANITARY CLEANOUT	WATER METER
DECIDUOUS TREE	GAS METER
BUSH	PRIVATE MAILBOX
CONIFEROUS TREE	FIRE HYDRANT
SIGN POST	WOODS/TREELINE
ELECTRIC POLE	WOOD FENCE
LIGHT POLE	TRAVERSE CONTROL POINT
TELEPHONE MANHOLE	PROPERTY LINE
ELECTRIC MANHOLE	STREAM
10.0 SPOT GRADE	

PROPOSED

BALTIMORE CITY REVIEW	R/W RELEASE	GRADE ESTABLISHED	HIGHWAY DESIGN	STRUCTURAL	DRAINAGE	LIGHTING	CONDUIT	EROSION AND SEDIMENT CONTROL	TRAFFIC ENGINEERING	SIGNAL ENGINEERING	WASTE WATER ENGINEERING	WATER ENGINEERING
BY												
DATE												

WALLACE, MONTGOMERY & ASSOCIATES, LLP
CIVIL AND STRUCTURAL ENGINEERS
110 WEST ROAD
TOWSON, MARYLAND 21204

STATE OF MARYLAND — STUART BAILEY ALTO — No. 13804 — REGISTERED PROFESSIONAL ENGINEER — 3/29/05

William Stack, JF
CHIEF, WATER QUALITY MANAGEMENT SECTION

Ralph O. Cullison III
CHIEF, ENVIRONMENTAL SERVICES DIVISION

3/29/05
HEAD, BUREAU OF WATER & WASTEWATER

DIRECTOR OF PUBLIC WORKS

DATE: APRIL, 2005
4 SHEETS IN SET
SHEET 1 OF 4

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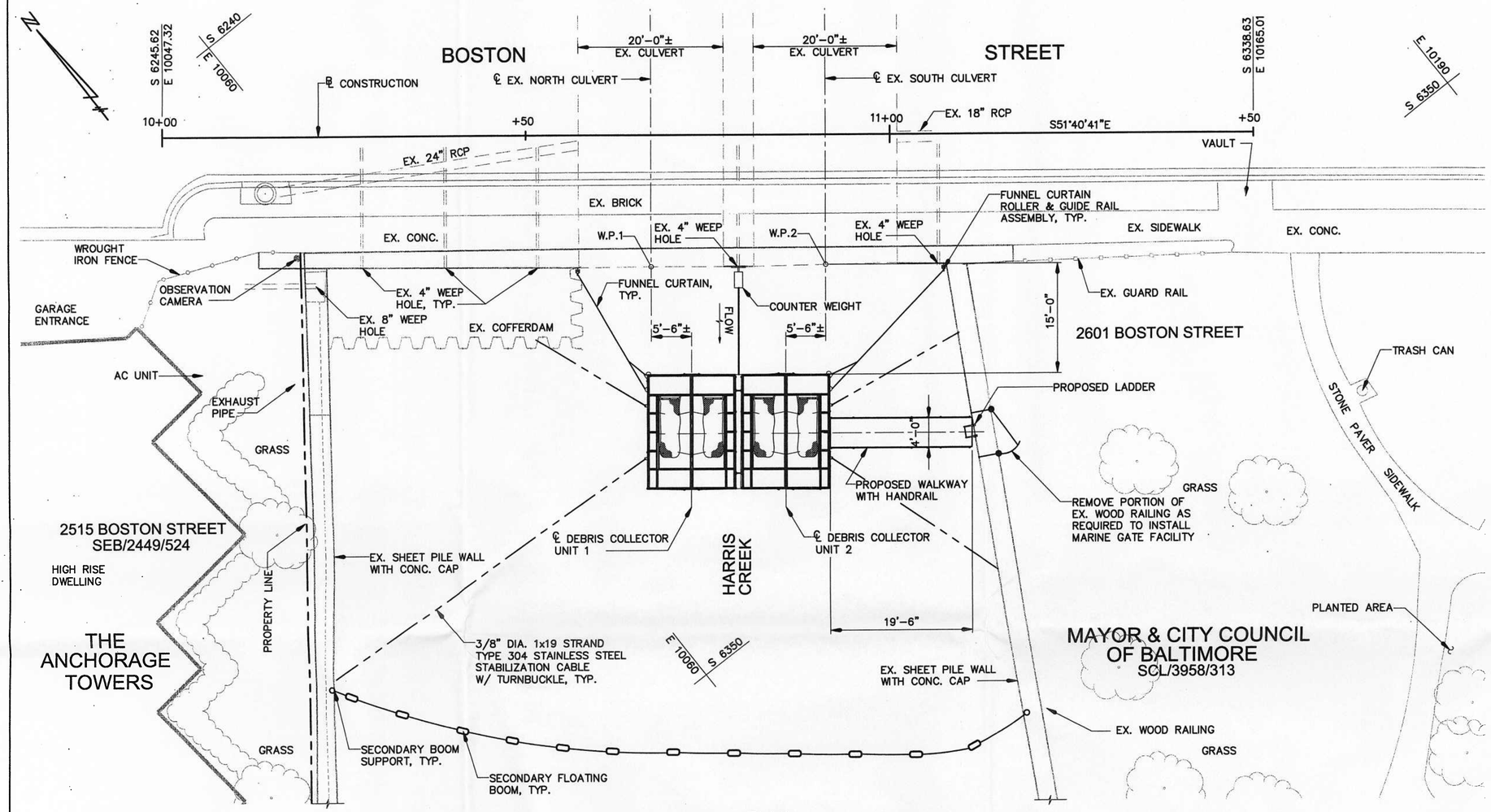
DATE: JANUARY 1, 2004

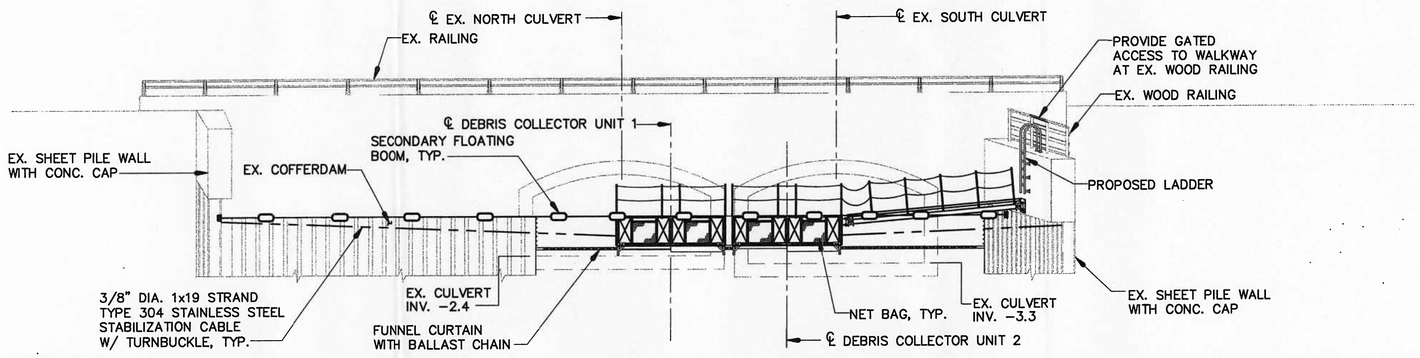


PLAN

SCALE: 1/8"=1'-0"

NOTE:

CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITIES TO THE PROPERTY OWNED BY THE MAYOR AND CITY COUNCIL. ACCESS TO THE ANCHORAGE TOWERS PROPERTY IS DENIED.



ELEVATION

SCALE: 1/8"=1'-0"

REVISIONS			
NO.	DESCRIPTION	DATE	BY

GENERAL NOTES:

SPECIFICATIONS: CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR MATERIAL, HIGHWAYS, BRIDGES, UTILITIES, AND INCIDENTAL STRUCTURES, 1979.

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 2002 FOR DESIGN.

AISC MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN, 1995.

CONCRETE DESIGN: SERVICE LOAD DESIGN METHOD. fc = 1,200 P.S.I.

REINFORCING STEEL DESIGN: fs = 24,000 P.S.I.

STRUCTURAL STEEL DESIGN: = ELASTIC DESIGN METHOD.

LOADING: 85 P.S.F WALKWAY.

CONCRETE: ALL CONCRETE SHALL BE MIX NO. 3 (3500 P.S.I.) UNLESS OTHERWISE NOTED ON PLANS.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE PIER FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED FOR THIS PROJECT.

KEYS: ALL KEYS ARE NOMINAL SIZE.

STRUCTURAL STEEL: ALL STRUCTURAL MEMBERS, PLATE AND ATTACHMENT HARDWARE OF NETTING TRASH TRAP SHALL CONFORM TO TYPE 316 STAINLESS STEEL.

EXISTING STRUCTURE: ALL DIMENSIONS AFFECTED BY THE GEOMETRICS, AND/OR LOCATION OF EXISTING STRUCTURES SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR, BEFORE ANY CONSTRUCTION IS DONE, AND BEFORE ANY REINFORCING STEEL, ETC., IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE ± MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION. THESE MARKS (±) INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.

WORKING POINT DATA				
MARKS	STA.	OFFSET	SOUTHING	EASTING
W.P.1	10+67.16	18.11 R	6301.48	10088.79
W.P.2	10+91.16	17.87 R	6316.17	10107.76

STATE OF MARYLAND — STUART BAILEY SAUB — No. 17803 — REGISTERED PROFESSIONAL ENGINEER

3.23.06

DRAWN BY: JLB/RMM
EXAMINED BY: AD/WES

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DATE: JANUARY 1, 2004

WALLACE, MONTGOMERY & ASSOCIATES, LLP
CIVIL AND STRUCTURAL ENGINEERS
110 WEST ROAD
TOWSON, MARYLAND 21204

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF WATER AND WASTEWATER

HARRIS CREEK DEBRIS COLLECTOR

GENERAL PLAN AND ELEVATION

SCALE: AS SHOWN DATE: APRIL 2005

SHEET 2 OF 4

FILE REF.