OC 807-05 Palm Isles Condo Site Plan 05-18100030

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MSA-5-1829-5077

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Robert L. Ehrlich, Jr. Governor

Michael S. Steele Lt. Governor



Martin G. Madden Chairman

> 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 12, 2006

Mr. Blaine Smith, Zoning Administrator Town of Ocean City PO Box 158 Ocean City, MD 21843

#### **VIA FACSIMILE**

RE: Site Plan – Palm Isle Condominium, File 10769, 10770, & 10771

Dear Mr. Smith:

Thank you for providing the updated information on the above referenced project. The applicant proposes to demolish the existing structures and redevelop the site with 20 townhouse style condominiums. The site is not waterfront and is reported to be 24,000 square feet in size. Critical Area requirements include 10% pollutant reduction and 15% afforestation. This site was previously reviewed in December 2005.

During the last review the Commission had concerns about the pervious paver detail for the drive isles. This detail has been provided to the Commission. Since the developer is using the paver system as a BMP it is important to ensure the proper installation and maintenance of the pavers in the drive isles. The site plan as submitted meets the 10% pollutant reduction and 15% afforestation requirements.

Thank you for the opportunity to comment. If there are any changes to the site plans that would warrant further review, please submit them to this office. If you have any questions or concerns, please contact me directly at 410-260-3476.

Sincerel

Chris Clark Natural Resources Planner

cc: OC807-05

Robert L. Ehrlich, Jr. Governor

Michael S. Steele Lt. Governor



Martin G. Madden Chairman

> 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/

**VIA FACSIMILE** 

December 23, 2005

Mr. Blaine Smith, Zoning Administrator Town of Ocean City PO Box 158 Ocean City, MD 21843

# RE: Site Plan – Palm Isles Condominium, File #05-18100030

Dear Mr. Smith:

Thank you for providing information on the above referenced site plan. The applicant proposes to demolish existing structures and redevelop the site with 20 townhouse-style condominiums. The site is not waterfront and is 24,000 square feet in size. Critical Area requirements include 10% pollutant reduction and 15% afforestation. Commission staff has reviewed the information provided and we have the following comments:

- 1. It appears that all of the pervious pavers are proposed within the drive isles. This may (depending on the type of paver system) be inconsistent with the paving standards of the Town and the need for the subsoil to be permeable and moderately compacted at most. Documentation on the permeability of the underlying soils and compliance with the Town's paving standards must be provided. The full efficiency rating for the pavers may not be warranted.
- 2. In order to be considered a Best Management Practice, the proposed wet swale must be designed in accordance with the specifications of the MDE Stormwater Manual. A detailed cross-section is needed.
- 3. It appears that the 15% afforestation requirement is proposed to be addressed adequately on site.

Thank you for the opportunity to comment. If you have any questions or concerns, please contact me.

Sincerely,

Chandler

LeeArine Chandler Science Advisor

OC807-05 ćc:

	Calculating Pol	llutant Re	moval Requ	lirements	
tep	1: Calculate Existing a	nd Propose	d Site Imper	lousness	
18	Calculate Percent Imperviouaness				
)	Site Area within the Critical A	rea IDA, A :	. 0. 5.5	acrea	
)	Site Impervious Surface Area	I. Existing a	nd Proposed. (	See Table 4 1 for details	
	· · · ·	(a) Existing	(acrea)	(b) Proposed (perce)	
	-		(00103)	(u) Fropused (acres)	
	Roads	n on drodes and a	на се на	and the second sec	
	Parking lots	0.13	3	DOZ	
	Driveways	0.0	4		
	Sidewalks/paths	0.00	7	0,06	
	Reenops	6		0.28	
		_0.01	1.		
	Other			0.01	
	Impervious Surface Area	0.3	6 -	0.38	
	Imperviousness (I)	1	· .		
	Existing Imperviousness, Im	. 22	Impervioue	Surface Area / Sile Area	
	a fina		(Step 2a) / (	(Step 1)	
		33	0.36	11 0.55	
	· · · · ·	. 33	0.65	%	
	<b>m</b>				
	rroposea imperviousness, l <sub>po</sub>	nt - an	Impervious	Surface Area / Site Area	
	. •	- 2	(Step 2b) / (	Step 1)	
			0.38	JI(0.55)	
		. 2	0.69	%	
Def	fine Development Category (c	ircle)	and the second sec		
•	New Development: Existing	impervious	less less than	15% 1 /Go to Step 241	
$\mathcal{C}$	Redevelopment: Existing	imperviousr	less of 15% i d	$\frac{1272}{100} + \frac{100}{100} +$	
~~~			······································		
	Single Lot Residential Develop family residential development and associated disturbance (G criteria and requirements)	<u>ment</u> : Single ; and more t o to Section	e lot being dev han 250 squar 5, Residential	eloped or improved; single e feet of impervious area Approach, for detailed	

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Step 3:		Calculate the Post-Development Load (Lpost)		
A.,	New C	)evelo	opment and Redevelopment	
	Lpost	32	(R <sub>v</sub> ) (C) (A) (8.16)	
	R.	28	0.05 + 0.009 (I <sub>pcsl</sub> )	
		<b>a</b> '	0.05 + 0.009 ( 69) = 0.61	
	Lpost	1	(0.67)(0.30)(0.55)(8.16)	
		18	0.90 Ibs/year of total phosphorus	
	Where	<b>e:</b>	-	
	Lpot	302	Average annual load of total phosphorus exported from the post-	
	R <sub>v</sub>	21	Runoff coefficient, which expresses the fraction of rainfall which is	
	Ipoet	19	Post-development (proposed) site imperviousness (i.e., I = 75 il site is 75% impervious)	
	C	28	Flow-weighted mean concentration of the pollutant (total phosphorus in urban runoff (mg/l) = 0.30 mg/l	
	A 8.18	32 33	Area of the site within the Critical Area IDA (acres) Includes regional constants and unit conversion factors	
Ste	94:		Calculate the Pollutant Removal Requirement (RR)	
	RR	3	L <sub>prest</sub> - (0.9) (L <sub>pro</sub> )	
		1987	<u>(0.90)</u> - (0.9) <u>(0.86</u> )	
			0,13 lbs/year of total phosphorus	
	Whe	ſ <b>e</b> :		
	RR		Pollutant removal requirement (ibs/year) Average annual load of total phosphorus exported from the post-	
	Lpre	3	development site (lbs/year) Average annual load of total phosphorus exported from the site prio to development (lbs/year)	
•				

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tion E.	dont	W Feasible BMP(s)	
mah o:	149114		
Select BMP Options Maryland Stornwate	using ti Ir Desig	ne screening matrices provided in the Chapter 4 of the 2000 n Manual. Calculate the load removed for each option.	
BMP Type	(Lpcs	) x (BMP <sub>RE</sub> ) x (% DA Served) = LR	
Dancas	09	$35 \times 65 \times 46\% = 0.22$ lbs/year	,2
	0.7	x x = ibs/year	
	÷.	x x = ibs/year	
		x x = lbs/year	
		Load Removed, LR (total) = ibs/year	,2
Po	llutant F	Removal Requirement, RR (from Step 4) = $0.73$ lbs/year	
Where:			
Load Removed, LR	72	Annual total phosphorus load removed by the proposed BMP (lbs/vear)	
Lpost	æ	Average annual load of total phosphorus exported from the	
BMP	DE 13	BMP removal efficiency for total phosphorus, Table 4.8 (%)	
% DA Serve	d =	Fraction of the site area within the critical area IDA served by the BMP (%)	
RR	32	Poilutant removal requirement (lbs/year)	

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#### MEMORANDUM

TO: Departmental Representatives and Other Public Agencies

FROM: Planning and Community Development

DATE: December 5, 2005

SUBJECT: Staff Review of Palm Isles Condominium – Proposed 20 multi-family residential units (8-3BR units and 12-4BR units) to be located on Lots 17 and 18, Block 108, Ocean Bay City Plat, further described as located on the north side of 75<sup>th</sup> Street and known locally as 104 – 75<sup>th</sup> Street, in the Town of Ocean City, Maryland. File #05-18100030

APPLICANT: OC 75, LLC, c/o Steve Grebow

#### \*\*\*\*\*\*

An application has been made for the above referenced project requiring your

#### review.

The staff review meeting for this project is scheduled for **Thursday**, January 5, 2006, at 10:30 a.m. in the downstairs conference room of City Hall. The applicant and all agencies are encouraged to attend. Your input is vital to the overall approval process.

Should you have any questions, please call Blaine Smith at 410-289-8855.

cc: M.B. Richardson, Chief Building Official Terry McGean, Engineering Sam Villani, Fire Marshal Woodrow Shockley, Solid Waste Allen Absher, Verizon Paul Skorobatsch, Conectiv Perry Linz, Water Department Charles Felin, Wastewater Department Nelson Kelly, Wastewater Bob Small, State Highway Administration Dean Dashiell, Public Works Jimmy Jarman, Comcast, 8301 Coastal Hwy, Ocean City, Md. Jesse C. Houston, Director of P & D LeeAnne Chandler, Critical Area Commission Karen Zera, GIS File P&Z 05-18100030 Correspondence '05

DEC 78 2005 SMB

CRITICAL AREA COMMISSION

# Critical Area Project Application Town of Ocean City

Date: 11/16/05 File#	05-18100030
Project Name: 75+ STREET CONDE	2
Project Address 75 th STREET OLEAN	CITY NAD
Tax Map: // 4 Parcel: 20/A Block: 108 Lot# 18 Z	coning <u>2C-2</u>
Property Owner OC 75 22C PI	hone <u>443 857-66</u> 65
Property Owner Address 3627 BROADLEAF	T. GLENWOOD MD
Parcel size (SF): 24.000	21738
I. Project Description	
In the 100 foot buffer? Yes No (lf	yes, continue with Sec. I) no, skip to Sec. 111)
Parcels 40,000 SF or more: Critical Area setback is 25 fee cantilevering permitted within 25 feet of the shoreline/wet permitted 10' into setback, per construction standards.)	t. No impervious surface or lands. ("Purvious" decks are
Parcels less than 40,000 SF: Critical Area set back is equal (feet). No impervious surfaces permitted within the ground level are permitted in the setback, per construction star	I to the zoning setback e setback. ("Pervious" decks at adards.)
Existing Conditions HA	
Impervious surface (SF) % of site imperv	ious:
Impervious surface within the 100-foot buffer (SF):	
Proposed Conditions	
Impervious surface (SF): % of site imperv	ious:
Total SF of disturbed area:	
Impervious surface within the 100-foot buffer (SF):	RECEIVED
	DEC 7 2005

Form Revised 12/1/04

- IL Mitigation Worksbeet in the 100-foot Buffer N/A-
- 1. Detached Single Family Dwellings

Value of Construction: \$

- a. Landscaping required in the amount of 2% of the cost of construction (Value of construction x .02 = S\_\_\_\_\_)
- b. Total landscaping provided. Attach cost values and plant schedule. (Must equal or exceed "Means" book value.) S
- c. Mitigation requirement (if a b > 0) = Fee in Lieu of landscaping. S\_\_\_\_\_\_(To be paid prior to issuance of Certificate of Occupancy.)

2. Multi-Family and Commercial Mitigation worksheet (within the 100' buffer) - If not in 100-foot buffer skip to Section III below.

- All SF values determined from "Landscaping Conversion Table" below.

SF

Activity Description (Complete all that apply):

2.	Trees or	shrubs remov	ed fron	a buffer	(outside of	setback):
		•	·	/ #	т. Т	SF x 1=

v.	Trees or shrubs rea	moved from sett	back # 3	x SF=x 2=	SF
C.	Pervious to imperv	ious		SF x 2 =	SF
d.	Improved pervious	to improved pe	rvious	SF 1 1 =	SF
e.	Undisturbed surface	e disturbed but	remaining	pervious	
		l.	_	SF11=	SF
£	Impervious to imp	ervious /	SFI	1=	SF
2.	Impervious to perv	ious /	SFI	$0 \Rightarrow \overline{0 \text{ SF}}$	• •
h.	Construction of de	cks in setback		SF x 2 =	SF
Ł	TOTAL MITIGATION	REQUIRED (SUM	of a through	<u>h h)</u> ⇒	SF
j.	TOTAL LANDSCAPIN	G PROVIDED (R	efer to "Lan	dscaping Conversion	Chart" below)
•		Number	Value	Total	•
	Large trees	I	200 SF	SF	
	Large trees Small trees		200 SF 100 SF	SF	
	Large trees Small trees Large shrubs		200 SF 100 SF 75 SF	SF SF SF	
	Large trees Small trees Large shrubs Small shrubs		200 SF 100 SF 75 SF 50 SF	SF SF SF SF	
	Large trees Small trees Large shrubs Small shrubs Plants		200 SF 100 SF 75 SF 50 SF 2 SF	SF SF SF SF SF	
	Large trees Small trees Large shrubs Small shrubs Plants TOTAL VALUE OF L		200 SF 100 SF 75 SF 50 SF 2 SF	SF SF SF SF SF SF	
	Large trees Small trees Large shrubs Small shrubs Plants TOTAL VALUE OF L. (Must provide this S	X X X X X X X X X X X X X X X X X X X	200 SF 100 SF 75 SF 50 SF 2 SF 2 SF DVIDED rea not only	SF SF SF SF SF SF the plants listed above	
	Large trees Small trees Large shrubs Small shrubs Plants TOTAL VALUE OF L. (Must provide this S. FEE-IN-LIEU OF LA)	ANDSCAPING PRO F of plantable ar	200 SF 100 SF 75 SF 50 SF 2 SF 2 SF 0VIDED rea not only (SET) = i - i	SF SF SF SF SF the plants listed above x \$1.20 \$	  z)
	Large trees Small trees Large shrubs Small shrubs Plants TOTAL VALUE OF L. (Must provide this S. FEE-IN-LIEU OF LAT (To be paid prior to	X X X X ANDSCAPING PRO F of plantable ar ND\$CAPING (OFF issuance of Certi	200 SF 100 SF 75 SF 50 SF 2 SF	SF SF SF SF SF the plants listed above x \$1.20 \$ ccupancy)	2)

# LANDSCAPING CONVERSION CHART

Large tree = 200 square feet of mitigation Small tree = 100 square feet """ Large shrub = 75 square feet """ Small shrub = 50 square feet """ Herbaceous plants = 2 square feet of mitigation per plant

# III. Afforestation (Landscaping) Requirements Outside the 100-foot Buffer

1.

All Development within the 1000' Critical Area (but outside the 100' buffer) every development or redevelopment must be planted in woody vegetation in an amount of 15% of the site area.

a. Total landscaping required: Parcel size I .15 = <u>3600</u> SF. (This SF area must be plantable and planted with the following number of plants) b. Landscaping provided (use Landscaping Conversion Chart)

Large trees	¥	· X	200 SF -		SF
Small trees	¥ <u>    //  </u>	X	100  SF = 2	1.100	SF
Large shrubs #	<u> </u>	1	75 SF =	600	SF ·
Small shrubs	# 58	<u> </u>	50 SF -	2,900	SF

TOTAL VALUE OF LANDSCAPING PROVIDED:

IV. <u>Stormwater management and the 10% rule</u> - Pollutant reduction requirement for all disturbances over 250 SF in the 1000 foot Critical Area.

4,600

SF

1. Single family development subject to stormwater management requirements that use the "Standard Stormwater Management Plan" automatically meet the 10% Rule.

2. Single family development not subject to stormwater management regulations can meet the intent of the 10% Rule by submitting a Water Quality Management Plan.

3. Commercial and multi-family development must submit the 10% Rule Worksheet.

V. <u>Habitat Protection</u> (skip if it is less than 40,000 SF)

For lots of 40,000 square feet or greater, the applicant must consult with the Maryland Department of Natural Resources to determine the existence of any Habitat Protection Areas that may be affected by the proposed development. VL Landscape Plan

# ALL VEGETATION SHALL BE PROVIDED IN ACCORDANCE WITH CHAPTER 98, ARTICLE II, LANDSCAPING, OF THE CODE.

# VII. Site plan requirements

Critical Area site plan is required and it must include the following information:

- 1. Topography
- 2. Mean high water line
- 3. Delineation of private and State tidal wetlands
- 4. Delineation of non-tidal wetlands
- 5. Soil Types
- 6. Tree cover (show location of individual trees or a tree line defining wooded areas).
- 7. Landscaping plan with required plants and plantable area
- 8. 100-foot Buffer and applicable setback
- 9. Habitat protection areas (if applicable)
- 10. All impervious surfaces labeled as existing or proposed.
- 11. All proposed clearing, grading and disturbance.
- 11. Computation of total existing and proposed impervious surfaces, existing forest cover and proposed clearing and total area of disturbance.
- 12. Proposed landscaping/mitigation plan.

Reviewed by:	Zonin	g Administrator	(Date	)
· .	Enviro	nmental Engineer	(Date	)

25-	140 75 K STR	EET	
	Worksheet A: S	tandard Applicati	on Process
	<b>Calculating</b> Pol	lutant Removal Requ	uirements'
Step	1: Calculate Existing a	nd Proposed Site Imper	viousness
<b>A.</b>	Calculate Percent Impervio	usness	
1)	Site Area within the Critical A	<b>rea IDA, A = <u>0.55</u></b>	acres
2)	Site Impervious Surface Area	a, Existing and Proposed,	(See Table 4.1 for details)
		(a) Existing (acres)	(b) Proposed (acres)
	Roads Parking lots Driveways Sidewalks/paths	0.13 0.04 0.02	0.03
	<b>Rooftops</b> Decks Swimming pools/ponds Other	0,16 (2.01	0.27
	Impervious Surface Area	0.36 Acco	0.36
3)	imperviousness (i)	· · · ·	
	Existing Imperviousness, I <sub>pre</sub>	= Imperviou = (Step 2a) = ( = 65	<b>Is Surface Area / Site Area</b> / ( <b>Step 1</b> ) <u>76</u> / (_ <i>O, 55</i> )
	Proposed Imperviousness, I,	mont = Imperviou = (Step 2b) = (3 =65	s Surface Area / Site Area / (Step 1) %
B. D	efine Development Category	(circie)	
1)	New Development: Existin	g imperviousness less th	an <u>15%</u> I (Go to Step 2A)
2)	Redevelopment: Existin	g Imperviousness of <u>15%</u>	i or more (Go to Step 28)
3)	Single Lot Residential Devel family residential developme and associated disturbance criteria and requirements).	opment: Single lot being d nt; and more than 250 squ (Go to Section 5, Residen	leveloped or improved; single uare feet of impervious area tial Approach, for detailed

'



Step 3:	Calculate the Post-Development Load (Lpost)
A. New	Development and Redevelopment:
Lpost	= (R <sub>v</sub> ) (C) (A) (8.16)
R	= 0.05 + 0.009 (l <sub>post</sub> )
	= 0.05 + 0.009 ( <u>65</u> ) = <u>0,64</u>
Lpost	= (0.64)(0.30)(0.55)(8.16)
	= <u>O. 86</u> Ibs/year of total phosphorus
Wher	e:
Lpost	= Average annual load of total phosphorus exported from the post-
R <sub>v</sub>	<ul> <li>Runoff coefficient, which expresses the fraction of rainfall which is</li> </ul>
Ipost	<ul> <li>Post-development (proposed) site imperviousness (i.e., i = 75 if site</li> </ul>
C	<ul> <li>Flow-weighted mean concentration of the pollutant (total phosphorus)</li> <li>in when succession is a substitution of the pollutant (total phosphorus)</li> </ul>
A	<ul> <li>Area of the site within the Critical Area IDA (acres)</li> </ul>
8.18	Includes regional constants and unit conversion factors
Step 4:	Calculate the Pollutant Removal Requirement (RR)
RR	= L <sub>post</sub> - (0.9) (L <sub>pre</sub> )
	= ( <u>0.86</u> )-(0.9)( <u>0.86</u> )
	= <u>0,09</u> Ibs/year of total phosphorus
Where	<b>):</b>
RR	<ul> <li>Pollutant removal requirement (ibs/year)</li> </ul>
Lpot	<ul> <li>Average annual load of total phosphorus exported from the post-</li> </ul>
Lan	Average annual load of total phosphorus exported from the site size
	to development (ibs/year)

1.

Step 5:	Identify Feasible BMP(s)
Select BMP Options Maryland Stormwate	s using the screening matrices provided in the Chapter 4 of the 2000 er Design Manual. Calculate the load removed for each option.
BMP Type	$(L_{post})$ x (BMP <sub>RE</sub> ) x (% DA Served) = LR
WET SWALE	$0.85 \times 40\% \times 43 = 0.15$ lbs/year
INFILTRATION	$0.85 \times 65\% \times 42 = 0.23$ lbs/year
	X * = Ibs/year
	X x ≊ ibs/year
	Load Removed, LR (total) = $0.38$ lbs/year
Po	Ilutant Removal Requirement, RR (from Step 4) = $O.09$ lbs/year
Where:	
Load Removed, LR	Annual total phosphorus load removed by the proposed BMP (lbs/vear)
Lpost	<ul> <li>Average annual load of total phosphorus exported from the</li> <li>post development site (libely and)</li> </ul>
BMP,	BMP removal efficiency for total phosphorus. Table 4.8 (%)
% DA Served	d = Fraction of the site area within the critical area IDA served by the BMP (%)
RR	<ul> <li>Pollutant removal requirement (lbs/year)</li> </ul>
If the Load Removed computed in Step 4,	d is equal to or greater than the Pollutant Removal Requirement then the on-site BMP complies with the 10% Rule.
Has the RR (polluta	ant removal requirement) been met? 🗹 Yes 🛛 No



IUTAL SITE AREA	24,000 S.T.
TOTAL DISTURBED AREA	24,000 s.f.
EXISTING IMPERVIOUS AREA	15,507 s.f.
EXISTING % IMPERVIOUS	65%
PROPOSED IMPERVIOUS AREA	16,675 s.f.
(NOT INCLUDING PAVERS)	
PROPOSED % IMPERVIOUS	69%
% INCREASE IN IMPERVIOUS	3%
% AREA REQUIRED FOR SWM	23%
AREA REQUIRED	5,520 s.f.
1" VOLUME REQUIRED	460 c.f.
AREA OF PAVERS	4312 s.f.
VOLUME PROVIDED IN PAVERS	1156 c.f.
AREA PAVERS SERVES	11,240 s.f.

SITE IMPERVIOUS AREAS	EXISTING (AC.)	PROPOSED (AC.)
ROADS		
PARKING LOTS	0.13	0.03
DRIVEWAYS	0.04	
SIDEWALKS/PATHS	0.02	0.06
ROOFTOPS	0.16	0.28
DECKS	0.01	
SWIMMING POOLS/PONDS		0.01
OTHER		
TOTAL =	0.36	0.38

