Public Services
Engineering
212 Operations Center Drive
Wilmington, NC 28412
910 341-7807
910 341-5881 fax
wilmingtonnc.gov
Dial 711 TTY/Voice

COMPREHENSIVE STORMWATER MANAGEMENT PERMIT

HIGH DENSITY DEVELOPMENT

SECTION 1 – APPROVAL

Having reviewed the application and all supporting materials, the City of Wilmington has determined that the application is complete and the proposed development meets the requirements of the City of Wilmington's Comprehensive Stormwater Ordinance.

PERMIT HOLDER: **Home Place of Wilmington, LLC**
PROJECT: **The Homeplace**
ADDRESS: **1240 Beasley Road**
PERMIT #: **2017036R1**
DATE: **May 24, 2023**

Therefore, the above referenced site is hereby approved and subject to all conditions set forth in Section 2 of this approval and all applicable provisions of the City of Wilmington Comprehensive Stormwater Management Ordinance.

This permit shall be effective from the date of issuance until 05/24/2031 and shall be subject to the following specified conditions and limitations:

Section 2 - CONDITIONS

1. This approval is valid only for the stormwater management system as proposed on the approved stormwater management plans dated 01/08/2018.

2. The project will be limited to the amount and type of built-upon area indicated in Section IV of the Stormwater Management Application Form submitted as part of the approved stormwater permit application package, and per the approved plans.

3. This permit shall become void unless the facilities are constructed in accordance with the approved stormwater management plans, specifications and supporting documentation, including information provided in the application and supplements.

4. The runoff from all built-upon area within any permitted drainage area must be directed into the permitted stormwater control system for that drainage area.

5. The permittee shall submit a revised stormwater management application packet to the City of Wilmington and shall have received approval prior to construction, for any modification to the approved plans, including, but not limited to, those listed below:
    a. Any revision to any item shown on the approved plans, including the stormwater management measures, built-upon area, details, etc.
    b. Redesign or addition to the approved amount of built-upon area or to the drainage area.
    c. Further subdivision, acquisition, lease or sale of any part of the project area.
    d. Filling in, altering, or piping of any vegetative conveyance shown on the approved plan.
    e. Construction of any permitted future areas shown on the approved plans.

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6. A copy of the approved plans and specifications shall be maintained on file by the Permittee.

7. During construction, erosion shall be kept to a minimum and any eroded areas of the system will be repaired immediately.

8. If the stormwater system was used as an Erosion Control device, it must be restored to design condition prior to operation as a stormwater treatment device, and prior to issuance of any certificate of occupancy for the project.

9. All areas must be maintained in a permanently stabilized condition. If vegetated, permanent seeding requirements must follow the guidelines established in the North Carolina Erosion and Sediment Control Planning and Design Manual unless an alternative is specified and approved by the City of Wilmington.

10. All stormwater treatment systems as well as access to nearest right-of-way must be located in recorded easements.

11. All applicable operation & maintenance agreements and easements pertaining to each stormwater treatment system shall be referenced on the final plat and recorded with the Register of Deeds upon final plat approval. If no plat is recorded for the site the operation and maintenance agreements and easements shall be recorded with the Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching standards.

12. The stormwater management system shall be constructed in its entirety, vegetated and operational for its intended use prior to the construction of any built-upon surface unless prior approval is obtained. City Staff must be notified of any deviation prior to construction of the built-upon surface. Any deviation request shall include justification and must propose an alternative timeline or construction sequence. Notification shall not constitute approval. Any alternative timeline approved by City staff shall become an enforceable component of this permit.

13. The permittee shall at all times provide the operation and maintenance necessary to assure the permitted stormwater system functions at optimum efficiency. The approved Operation and Maintenance Agreement must be followed in its entirety and maintenance must occur at the scheduled intervals including, but not limited to:
    a. Scheduled inspections (interval noted on the agreement).
    b. Sediment removal.
    c. Mowing and revegetation of slopes and the vegetated areas.
    d. Maintenance of landscape plants, including those within the landscape buffer and on the vegetated shelf.
    e. Immediate repair of eroded areas, especially slopes.
    f. Debris removal and unclogging of outlet structure, orifice device, flow spreader, catch basins and/or piping.
    g. Access to the outlet structure must be available at all times.

14. Records of inspection, maintenance and repair for the permitted stormwater system must be kept by the permittee for at least 5 years from the date of record and made available upon request to authorized personnel of the City of Wilmington. The records will indicate the date, activity, name of person performing the work and what actions were taken.

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15. Upon completion of construction, before a Certificate of Occupancy shall be granted, and prior to operation or intended use of this permitted facility, the applicant shall submit to the City of Wilmington as-built plans for all stormwater management facilities. The plans shall show the final design specifications and the field location, type, depth, invert and planted vegetation of all measures, controls and devices, as-installed. A certification shall be submitted, along with all supporting documentation that specifies, under seal that the as-built stormwater measures, controls and devices are in compliance with the approved stormwater management plans. A final inspection by City of Wilmington personnel will be required prior to issuance of a certificate of occupancy or operation of the permitted facility.

16. This permit is not transferable except after application and approval by the City of Wilmington. In the event of a change of ownership, name change or change of address the permittee must submit a completed Name/Ownership Change form to the City of Wilmington at least 30 days prior to the change. It shall be signed by all applicable parties, and be accompanied by all required supporting documentation. Submittal of a complete application shall not be construed as an approved application. The application will be reviewed on its own merits by the City of Wilmington and may or may not be approved. The project must be in compliance with the terms of this permit in order for the transfer request to be considered. The permittee is responsible for compliance with all permit conditions until such time as the City of Wilmington approves the transfer request. Neither the sale of the project nor the conveyance of common area to a third party should be considered as an approved transfer of the permit.

17. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to enforcement action by the City of Wilmington, in accordance with Sections 18-52 and 18-53 and any other applicable section of the Land Development Code.

18. The City of Wilmington may notify the permittee when the permitted site does not meet one or more of the minimum requirements of the permit. Within the time frame specified in the notice, the permittee shall submit a written time schedule to the City of Wilmington for modifying the site to meet minimum requirements. The permittee shall provide copies of revised plans and certification in writing to the City of Wilmington that the changes have been made.

19. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances, which may be imposed by other government agencies (local, state, and federal) having jurisdiction.

20. In the event that the facilities fail to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective action, including those as may be required by the City of Wilmington, such as the construction of additional or replacement stormwater management systems.

21. The permittee grants City of Wilmington Staff permission to enter the property during normal business hours for the purpose of inspecting all components of the permitted stormwater management facility.

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22. The permit issued shall continue in force and effect until revoked or terminated by the City of Wilmington. The permit may be modified, revoked and reissued or terminated for cause. The filing of a request for a permit modification, revocation and re-issuance or termination does not stay any permit condition.

23. The approved stormwater management plans and all documentation submitted as part of the approved stormwater management permit application package for this project are incorporated by reference and are enforceable parts of the permit.

24. The permittee shall submit a renewal request with all required forms and documentation at least 180 days prior to the expiration date of this permit.

25. If any one or more of the conditions of this permit is found to be unenforceable or otherwise invalidated, all remaining conditions shall remain in full effect.

Stormwater Management Permit issued this the 24th day of May, 2023

for Anthony Caudle, City Manager
City of Wilmington

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STORMWATER MANAGEMENT PERMIT APPLICATION FORM
(Form SWP 2.3)

I. GENERAL INFORMATION

1. Project Name (subdivision, facility, or establishment name - should be consistent with project name on plans, specifications, letters, operation and maintenance agreements, etc.):
   Home Place of Wilmington, LLC

2. Location of Project (street address):
   1240 Beasley Road

   City: Wilmington County: New Hanover Zip: 28409

II. PERMIT INFORMATION

1. Specify the type of project (check one): ☐ Low Density ☑ High Density
   ☐ Offsite Stormwater System ☐ Drainage Plan ☐ Redevelopment ☐ Other
   If the project drains to an Offsite System, list the Stormwater Permit Number(s):
   City of Wilmington: _____ State – NCDEQ/DEMLR: _____

2. Is the project currently covered (whole or in part) by an existing City or State (NCDEQ/DEMLR) Stormwater Permit? ○ Yes ◉ No
   If yes, list all applicable Stormwater Permit Numbers:
   City of Wilmington: _____ State – NCDEQ/DEMLR: _____

3. Additional Project Permit Requirements (check all applicable):
   ☐ CAMA Major ☑ Sedimentation/Erosion Control ☐ 404/401 Permit

III. CONTACT INFORMATION

1. Print Applicant / Signing Official's name and title (the developer, property owner, lessee, designated government official, individual, etc. who owns the project):
   Applicant / Organization: Home Place of Wilmington, LLC
   Signing Official & Title: Thomas Street / President of HOA

CITY OF WILMINGTON ENGINEERING

a. Contact information for Applicant / Signing Official:

Address: 3141 Casa Court

City: Wilmington State: NC Zip: 28409

Phone: 910-262-4057 Email: tstreet28@yahoo.com

b. Please check the appropriate box. The applicant listed above is:

- (•) The property owner/Purchaser (Skip to item 3)
- ( ) Lessee (Attach a copy of the lease agreement and complete items 2 and 2a below)
- ( ) Developer (Complete items 2 and 2a below.)

2. Print Property Owner's name and title (if different from the applicant).

Property Owner / Organization: _____

Signing Official & Title: _____

a. Contact information for Property Owner:

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

3. (Optional) Other Contact name and title (such as a construction supervisor) who would like to be copied on all correspondence:

Other Contact Person / Organization: Blue Atlantic Management - Management Company

Signing Official & Title: Thomas Bissette - Manager of BAM

a. Contact information for person listed in item 3 above:

Street Address: 5129 Oleander Drive Ste. 101

City: Wilmington State: NC Zip: 28403

Phone: 910-392-3130 Email: Thomas@bamgt.com

4. Agent Authorization: Complete this section if you wish to designate authority to another individual and/or firm (such as a consulting engineer and /or firm) so that they may provide information on your behalf for this project (such as addressing requests for additional information).

Consulting Engineer: _____

Consulting Firm: _____

a. Contact information for consultant listed above:

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

CITY OF WILMINGTON ENGINEERING

IV. PROJECT INFORMATION

1. Total Property Area: 518,800 square feet
2. Total Coastal Wetlands Area: 0 square feet
3. Total Surface Water Area: 0 square feet
4. Total Property Area (1) – Total Coastal Wetlands Area (2) – Total Surface Water Area (3) = Total Project Area: 518,800 square feet.
5. Existing Impervious Surface within Project Area: 2,528 square feet
6. Existing Impervious Surface to be Removed/Demolished: 2,528 square feet
7. Existing Impervious Surface to Remain: 0 square feet
8. Total Onsite (within property boundary) Newly Constructed Impervious Surface (in square feet):

Buildings/Lots	105,900
Impervious Pavement	29,590
Pervious Pavement (total area / adjusted area w credit applied)	0 /
Impervious Sidewalks	5,940
Pervious Sidewalks (total area / adjusted area w credit applied)	0 /
Other (Describe)	0
Future Development	1750
Total Onsite Newly Constructed Impervious Surface	143,180

9. Total Onsite Impervious Surface
(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) 143,180 square feet
10. Net Change in Onsite Impervious Surface (+ for net increase, - for net decrease)_____square feet
11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 27.6 %
12. Total Offsite Newly Constructed Impervious Area (*in square feet*):

Impervious Pavement	1550
Pervious Pavement (total area / adjusted area w credit applied)	0 /
Impervious Sidewalks	2905
Pervious Sidewalks (total area / adjusted area w credit applied)	0 /
Other (Describe)	0
Total Offsite Newly Constructed Impervious Surface	4455

13. Complete the following information for each Stormwater SCM drainage area. Low Density and Drainage Plan projects (with no permeable pavements) may omit this section and skip to Section V.

Basin Information	Type of SCM SCM #	Type of SCM SCM #	Type of SCM SCM #
Receiving Stream Name	UT Hewletts Creek		
Receiving Stream Index Number	18-87-26		
Stream Classification	SA;HQW		
Total Drainage Area (sf)	411,413		
On-Site Drainage Area (sf)	411,413		
Off-Site Drainage Area (sf)	0		
Buildings/Lots (sf)	105,900		
Impervious Pavement (sf)			
Pervious Pavement (total / adjusted) (sf)	29590 /	/	/
Impervious Sidewalks (sf)	5940		
Pervious Sidewalks (total / adjusted) (sf)	/	/	/
Other (sf)			
Future Development (sf)	1750		
Existing Impervious to remain (sf)			
Offsite (sf)			
Total Impervious Area (sf)	143180		
Percent Impervious Area (%)	34.8%		

Basin Information	Type of SCM SCM #	Type of SCM SCM #	Type of SCM SCM #
Receiving Stream Name			
Receiving Stream Index Number			
Stream Classification			
Total Drainage Area (sf)			
On-Site Drainage Area (sf)			
Off-Site Drainage Area (sf)			
Buildings/Lots (sf)			
Impervious Pavement (sf)			
Pervious Pavement (total / adjusted) (sf)	/	/	/
Impervious Sidewalks (sf)			
Pervious Sidewalks (total / adjusted) (sf)	/	/	/
Other (sf)			
Future Development (sf)			
Existing Impervious to remain (sf)			
Offsite (sf)			
Total Impervious Area (sf)			
Percent Impervious Area (%)			

V. SUBMITTAL REQUIREMENTS

Only complete application packages will be accepted and reviewed by the City. A complete package includes all of the items listed below. Copies of forms, deed restrictions, checklists as well as detailed instructions on how to complete this application form may be downloaded from the City of Wilmington Plan Review website below:

https://www.wilmingtonnc.gov/departments/engineering/plan-review/stormwater-permits

The complete application package should be submitted to the following address:

City of Wilmington – Engineering
Plan Review Section
212 Operations Center Dr.
Wilmington, NC 28412

Please indicate that the following required information have been provided by initialing in the space provided for each item.

	Initials
1. One completed Stormwater Management Permit Application Form.	TS
2. One completed Supplement Form for each SCM proposed (signed, sealed and dated).	TS
3. One completed Operation & Maintenance agreement for each type of SCM.	TS
4. Proposed Deed Restrictions and Restrictive Covenants (for all subdivisions)	TS
5. Appropriate stormwater permit review fee.	TS
6. Minimum requirements identified on the Engineering Plan Review Checklist have been addressed.	TS
7. One set of calculations (sealed. signed and dated).	TS
8. A detailed narrative (one to two pages) describing the stormwater treatment/management system for the project.	TS
9. A USGS map identifying the site location. If the receiving stream is reported as class SA or the receiving stream drains to class SA waters within ½ mile of the site boundary, include the ½ mile radius on the map.	NA
10. A copy of the soils report, if applicable. Must meet NCDEQ SCM Manual and MDC requirements for the type of SCM proposed. The report must include boring logs and a map of boring locations.	NA
11. One full set of plans folded to 8.5" x 14".	NA
12. A map delineating and labeling the drainage area for each SCM proposed.	NA
13. A map delineating and labeling the drainage area for each inlet and conveyance proposed.	TS
14. A digital copy of the entire submittal package (can be submitted via flash drive, CD, email, dropbox or other file sharing system).	TS

CITY OF WILMINGTON ENGINEERING

VI. PROPERTY OWNER AUTHORIZATION (If Section III(2) has been filled out, complete this section)

I, _____, certify that I own the property identified in this permit application, and thus give permission to _____ with _____ to develop the project as currently proposed. A copy of the lease agreement or pending property sales contract has been provided with the submittal, which indicates the party responsible for the operation and maintenance of the stormwater system.

As the legal property owner I acknowledge, understand, and agree by my signature below, that if my designated agent _____dissolves their company and/or cancels or defaults on their lease agreement, or pending sale, responsibility for compliance with the City of Wilmington Stormwater Permit reverts back to me, the property owner. As the property owner, it is my responsibility to notify the City of Wilmington immediately and submit a completed Name/Ownership Change Form within 30 days; otherwise I will be operating a stormwater treatment facility without a valid permit. I understand that the operation of a stormwater treatment facility without a valid permit is a violation of the City of Wilmington Municipal Code of Ordinances and may result in appropriate enforcement including the assessment of civil penalties.

Signature: _____Date:_____

SEAL

I, _____, a Notary Public for the State of _____, County of _____, do hereby certify that _____ personally appeared before me this day of _____, _____, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

_____

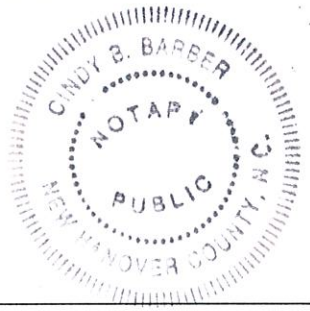
My commission expires: _____

VII. APPLICANT'S CERTIFICATION

I, Thomas Street certify that the information included on this permit application form is, to the best of my knowledge, correct and that the project will be constructed in conformance with the approved plans, that the required deed restrictions and protective covenants will be recorded, and that the proposed project complies with the requirements of the applicable rules under the City's Comprehensive Stormwater Ordinance.

Signature: Thomas Street Date: 3/27/23

SEAL



I, Cindy B. Barber, a Notary Public for the State of North Carolina, County of New Hanover, do hereby certify that Thomas Street personally appeared before me this day of 27th March 2023, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

Cindy B. Barber

My commission expires: Dec. 1, 2027

High Density Residential Subdivisions
Deed Restrictions & Protective Covenances

In accordance with Article 14, Division III of the City of Wilmington Land Development Code, deed restrictions and protective covenants are required for High Density Residential Subdivisions where lots will be subdivided and sold and runoff will be treated in an engineered stormwater control facility. Deed restrictions and protective covenants are necessary to ensure that the development maintains a "built-upon" area consistent with the design criteria used to size the stormwater control facility.

Project Name: Home Place of Wilmington, LLC

Owner / Developer: Home Place of Wilmington, LLC

1. *The following covenants are intended to ensure ongoing compliance with the City of Wilmington Stormwater Management Permit Number 2017036, as issued by the City of Wilmington/Engineering.*
2. *The City of Wilmington is made a beneficiary of these covenants to the extent necessary to maintain compliance with the stormwater management permit.*
3. *These covenants are to run with the land and be binding on all persons and parties claiming under them.*
4. *The covenants pertaining to stormwater may not be altered or rescinded without the express written consent of the City of Wilmington.*
5. *Alteration of the drainage as shown on the approved plan may not take place without the concurrence of the City of Wilmington.*
6. *The maximum allowable built-upon area per lot is 4050 & 4350 square feet. This allotted amount includes any built-upon area constructed within the lot property boundaries, and that portion of the right-of-way between the front lot line and the edge of the pavement. Built upon area includes, but is not limited to, structures, asphalt, concrete, compacted gravel, brick, stone, slate, coquina, and parking areas, but does not include raised open wood decking, washed gravel excluding fines, or the water surface of swimming pools. Note: sidewalk improvements allocated as right-of-way BUA shall not count against deeded lot restricted BUA.*

OR, if the proposed built-upon areas per lot will vary, please REPLACE #6 above with the following:

The maximum built-upon area per lot, in square feet, is as listed below:

Lot #	*BUA*	*Lot #*	*BUA*	*Lot #*	*BUA*	*Lot #*	*BUA**
Lot 13 & 14	4,350			Lot 1-12 & 15-26	4,050		

Check ____ Yes or ___X___ No if additional lot BUA information has been attached.
** If additional space is needed please attach lot BUA spreadsheet.*

This allotted amount includes any built-upon area constructed within the lot property boundaries, and that portion of the right-of-way between the front lot line and the edge of the pavement. Built upon area includes, but is not limited to, structures, asphalt, concrete, compacted gravel, brick, stone, slate, coquina, and parking areas, but does not include raised open wood decking, washed gravel excluding fines, or the water surface of swimming pools. Note: sidewalk improvements allocated as right-of-way BUA shall not count against deeded lot restricted BUA.

7. *All runoff from the built-upon areas on the lot must drain into the permitted system. This may be accomplished through a variety of means including roof drain gutters which drain to the street, grading the lot to drain toward the street, or grading perimeter swales to collect the lot runoff and directing them into a component of the stormwater collection system. Lots that will naturally drain into the system are not required to provide these additional measures.*

I acknowledge, affirm and agree by my signature below, that I will cause the following deed restrictions and covenants to be recorded prior to the sale of any lot:

Signature: Thomas Street Date: March 22, 2023

Print Name: Thomas Street

Permit No._____
(to be provided by DWQ)

STORMWATER MANAGEMENT PERMIT APPLICATION FORM
401 CERTIFICATION APPLICATION FORM

WET DETENTION BASIN SUPPLEMENT

This form must be filled out, printed and submitted.
The Required Items Checklist (Part III) must be printed, filled out and submitted along with all of the required information.

I. PROJECT INFORMATION

Project name	**The Homeplace**
Contact person	Tripp Enginerring, PC, Phillip Tripp
Phone number	910-763-5100
Date	3/2/2017
Drainage area number	1

II. DESIGN INFORMATION

Site Characteristics

Drainage area	587,461	ft^2	
Impervious area, post-development	257,285	ft^2	
% impervious	43.80	%	
Design rainfall depth	1.5	in	

Storage Volume: Non-SA Waters

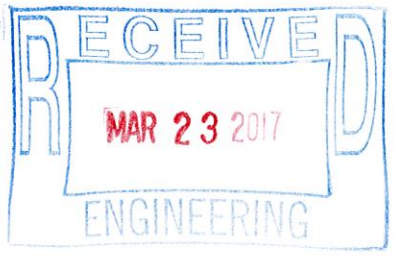
Minimum volume required	19,350	ft^3	Insufficient required volume.
Volume provided	30,852	ft^3	OK, volume provided is equal to or in excess of volume required.

Storage Volume: SA Waters

1.5" runoff volume		ft^3
Pre-development 1-yr, 24-hr runoff		ft^3
Post-development 1-yr, 24-hr runoff		ft^3
Minimum volume required		ft^3
Volume provided		ft^3

Peak Flow Calculations

Is the pre/post control of the 1yr 24hr storm peak flow required?	Y	(Y or N)	
1-yr, 24-hr rainfall depth	3.9	in	
Rational C, pre-development	0.15	(unitless)	
Rational C, post-development	0.45	(unitless)	
Rainfall intensity: 1-yr, 24-hr storm	4.87	in/hr	OK
Pre-development 1-yr, 24-hr peak flow	12.92	ft^3/sec	
Post-development 1-yr, 24-hr peak flow	38.75	ft^3/sec	
Pre/Post 1-yr, 24-hr peak flow control	25.83	ft^3/sec	



Elevations

Temporary pool elevation	15.00	fmsl	
Permanent pool elevation	14.00	fmsl	
SHWT elevation (approx. at the perm. pool elevation)	15.50	fmsl	
Top of 10ft vegetated shelf elevation	14.50	fmsl	
Bottom of 10ft vegetated shelf elevation	13.50	fmsl	
Sediment cleanout, top elevation (bottom of pond)	7.00	fmsl	
Sediment cleanout, bottom elevation	6.00	fmsl	
Sediment storage provided	1.00	ft	
Is there additional volume stored above the state-required temp. pool?	Y	(Y or N)	
Elevation of the top of the additional volume	15.0	fmsl	OK

Permit No._____
(to be provided by DWQ)

II. DESIGN INFORMATION

Surface Areas			
Area, temporary pool	32,671	ft^2	
Area REQUIRED, permanent pool	10,687	ft^2	
SA/DA ratio	0.02	(unitless)	
Area PROVIDED, permanent pool, A_{perm_pool}	28,605	ft^2	OK
Area, bottom of 10ft vegetated shelf, A_{bot_shelf}	26,274	ft^2	
Area, sediment cleanout, top elevation (bottom of pond), A_{bot_pond}	9,244	ft^2	
Volumes			
Volume, temporary pool	30,852	ft^3	OK
Volume, permanent pool, V_{perm_pool}	128,844	ft^3	
Volume, forebay (sum of forebays if more than one forebay)	26,358	ft^3	
Forebay % of permanent pool volume	20.5%	%	OK
SA/DA Table Data			
Design TSS removal	90	%	
Coastal SA/DA Table Used?	Y	*(Y or N)*	
Mountain/Piedmont SA/DA Table Used?	N	(Y or N)	
SA/DA ratio	2.06	(unitless)	
Average depth (used in SA/DA table):	5		
Calculation option 1 used? (See Figure 10-2b)	N	(Y or N)	
Volume, permanent pool, V_{perm_pool}	128,844	ft^3	
Area provided, permanent pool, A_{perm_pool}	28,605	ft^2	
Average depth calculated		ft	Need 3 ft *min.*
Average depth used in SA/DA, d_{av}, (Round to nearest 0.5ft)		ft	
Calculation option 2 used? (See Figure 10-2b)	Y	(Y or N)	
Area provided, permanent pool, A_{perm_pool}	28,605	ft^2	
Area, bottom of 10ft vegetated shelf, A_{bot_shelf}	26,274	ft^2	
Area, sediment cleanout, top elevation (bottom of pond), A_{bot_pond}	9,244	ft^2	
"Depth" (distance b/w bottom of 10ft shelf and top of sediment)	6.50	ft	
Average depth calculated	4.87	ft	OK
Average depth used in SA/DA, d_{av}, (Round to nearest 0.5ft)	5.0	ft	OK
Drawdown Calculations			
Drawdown through orifice?	Y	(Y or N)	
Diameter of orifice (if circular)	2.50	in	
Area of orifice (if-non-circular)		in^2	
Coefficient of discharge (C_D)	0.60	*(unitless)*	
Driving head (H_o)	0.33	ft	
Drawdown through weir?	N	(Y or N)	
Weir type		(unitless)	
Coefficient of discharge (C_w)		(unitless)	
Length of weir (L)		ft	
Driving head (H)		ft	
Pre-development 1-yr, 24-hr peak flow	12.92	ft^3/sec	
Post-development 1-yr, 24-hr peak flow	38.75	ft^3/sec	
Storage volume discharge rate (through discharge orifice or weir)	0.10	ft^3/sec	
Storage volume drawdown time	2.36	days	OK, draws down in 2-5 days.
Additional Information			
Vegetated side slopes	3	:1	OK
Vegetated shelf slope	10	:1	OK
Vegetated shelf width	10.0	ft	OK
Length of flowpath to width ratio	3	:1	OK
Length to width ratio	3.5	:1	OK
Trash rack for overflow & orifice?	Y	(Y or N)	OK
Freeboard provided	1.4	ft	OK
Vegetated filter provided?	Y	(Y or N)	OK
Recorded drainage easement provided?	Y	(Y or N)	OK
Capures all runoff at ultimate build-out?	Y	(Y or N)	OK
Drain mechanism for maintenance or emergencies is:	Pump		

Permit Number:_____
(to be provided by City of Wilmington)
BMP Drainage Basin #:_____

Wet Detention Basin Operation and Maintenance Agreement

I will keep a maintenance record on this BMP. This maintenance record will be kept in a log in a known set location. Any deficient BMP elements noted in the inspection will be corrected, repaired or replaced immediately. These deficiencies can affect the integrity of structures, safety of the public, and the removal efficiency of the BMP.

The wet detention basin system is defined as the wet detention basin, pretreatment including forebays and the vegetated filter if one is provided.

This system (*check one*):
☐ **does** ☒ **does not** **incorporate a vegetated filter at the outlet.**

This system (*check one*):
☐ **does** ☒ **does not** **incorporate pretreatment other than a forebay.**

Important maintenance procedures:

- Immediately after the wet detention basin is established, the plants on the vegetated shelf and perimeter of the basin should be watered twice weekly if needed, until the plants become established (commonly six weeks).
- No portion of the wet detention pond should be fertilized after the first initial fertilization that is required to establish the plants on the vegetated shelf.
- Stable groundcover should be maintained in the drainage area to reduce the sediment load to the wet detention basin.
- If the basin must be drained for an emergency or to perform maintenance, the flushing of sediment through the emergency drain should be minimized to the maximum extent practical.
- Once a year, a dam safety expert should inspect the embankment.

After the wet detention pond is established, it should be inspected **once a month and within 24 hours after every storm event greater than 1.5 inches.** Records of operation and maintenance should be kept in a known set location and must be available upon request.Inspection activities shall be performed as follows. Any problems that are found shall be repaired immediately.

BMP element:	Potential problem:	How I will remediate the problem:
The entire BMP	Trash/debris is present.	Remove the trash/debris.
The side slopes of the wet detention basin	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, and then plant a ground cover and water until it is established. Provide lime and a one-time fertilizer application.
	Vegetation is too short or too long.	Maintain vegetation at a height of approximately six inches.

Permit Number:_____
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BMP Drainage Basin #:_____

BMP element:	Potential problem:	How I will remediate the problem:
The inlet device: pipe or swale	The pipe is clogged.	Unclog the pipe. Dispose of the sediment off-site.
	The pipe is cracked or otherwise damaged.	Replace the pipe.
	Erosion is occurring in the swale.	Regrade the swale if necessary to smooth it over and provide erosion control devices such as reinforced turf matting or riprap to avoid future problems with erosion.
The forebay	Sediment has accumulated to a depth greater than the original design depth for sediment storage.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the BMP.
	Erosion has occurred.	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.
	Weeds are present.	Remove the weeds, preferably by hand. If pesticide is used, wipe it on the plants rather than spraying.
The vegetated shelf	Best professional practices show that pruning is needed to maintain optimal plant health.	Prune according to best professional practices
	The plant community and coverage is significantly (>25%) different from approved landscape plan.	Restore plant vegetation to approved condition. If landscape plan needs to be adjusted to specify vegetation more appropriate for site conditions, contact City Stormwater or Engineering Staff.
	Cattails or other invasive plants cover >25% of the veg't shelf. A monculture of plants must be avoided)	Remove all invasives by physical removal or by wiping them with pesticide (do not spray) - consult a professional.
	Plants are dead, diseased or dying.	Determine the source of the problem: soils, hydrology, disease, etc. Remedy the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if a soil test indicates it is necessary.
The main treatment area	Sediment has accumulated to a depth greater than the original design sediment storage depth.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the BMP.

Permit Number:_____
(to be provided by City of Wilmington)
BMP Drainage Basin #:_____

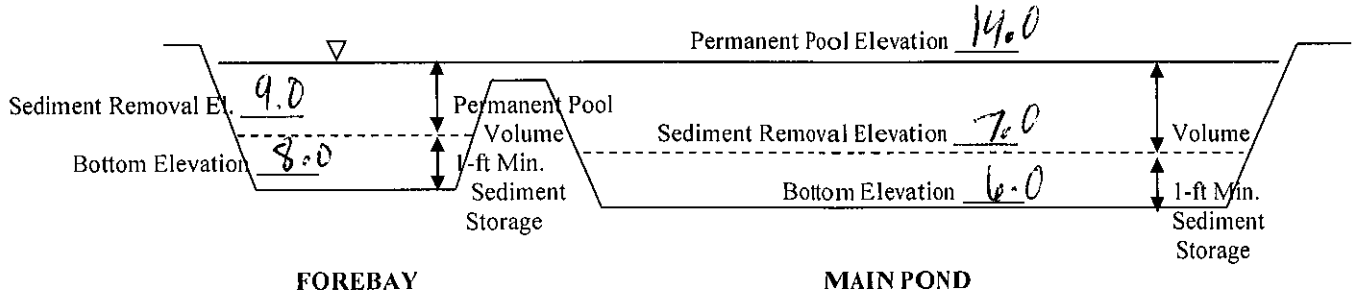
BMP element:	Potential problem:	How I will remediate the problem:
The main treatment area (continued)	Algal growth covers over 25% of the area.	Consult a professional to remove and control the algal growth.
	Cattails or other invasive plants cover >25% of the veg't shelf. A monculture of plants must be avoided)	Remove all invasives by physical removal or by wiping them with pesticide (do not spray) – consult a professional.
The embankment	Shrubs have started to grow on the embankment.	Remove shrubs immediately.
	Evidence of muskrat or beaver activity is present.	Use traps to remove muskrats and consult a professional to remove beavers.
	A tree has started to grow on the embankment.	Consult a dam safety specialist to remove the tree.
	An annual inspection by an appropriate professional shows that the embankment needs repair. (if applicable)	Make all needed repairs.
The outlet device	Clogging has occurred.	Clean out the outlet device. Dispose of the sediment off-site.
	The outlet device is damaged	Repair or replace the outlet device.
The receiving water	Erosion or other signs of damage have occurred at the outlet.	Contact the local NC Division of Water Quality Regional Office, or the 401 Oversight Unit at 919-733-1786.

The measuring device used to determine the sediment elevation shall be such that it will give an accurate depth reading and not readily penetrate into accumulated sediments.

When the permanent pool depth reads 7.0 feet in the main pond, the sediment shall be removed.

When the permanent pool depth reads 5.0 feet in the forebay, the sediment shall be removed.

BASIN DIAGRAM
(fill in the blanks)



Permit Number:_____
(to be provided by City of Wilmington)

I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above. I agree to notify the City of Wilmington of any problems with the system or prior to any changes to the system or responsible party.

Project name: Home Place of Wilmington, LLC

BMP drainage basin number:_____

Print name: Thomas Street

Title: President of HOA

Address: 3141 Casa Court Wilmington NC 28409

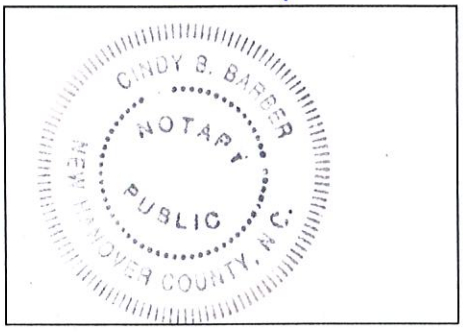
Phone: 910-262-4057

Signature: Thomas Street

Date: 3/27/23

Note: The legally responsible party should not be a homeowners association unless more than 50% of the lots have been sold and a resident of the subdivision has been named the president.

I, Cindy B. Barbee, a Notary Public for the State of North Carolina, County of New Hanover, do hereby certify that Thomas Street personally appeared before me this 27th day of March, 2023, and acknowledge the due execution of the forgoing wet detention basin maintenance requirements. Witness my hand and official seal, Cindy B. Barbee



SEAL

My commission expires Dec. 1, 2027