



Public Services

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

1/4/2022

Shelly Bishop, Managing Partner
Raleigh-Wilmington Investors, LLC
6131 Falls of Neuse Road
Raleigh, NC 27609

**Subject: Stormwater Management Permit No. 2021001R1
East and Mason Subdivision
High Density - Wet Ponds**

Dear Shelly Bishop:

The City of Wilmington Engineering Division has received a request for a revision to the Stormwater Management Permit for East and Mason Subdivision. Having reviewed the application and all supporting materials, the City of Wilmington has determined that the proposed revision meets the requirements of the City of Wilmington's Comprehensive Stormwater Ordinance.

The revisions include:

Addition of amenity building with associated parking, conversion of roads from private to public, and lot 171 swale grading. Please find updated application and supplements attached.

Please be aware all terms and conditions of the permit 1/21/2021 remain in full force and effect. Any additional changes to the approved plans must be approved by this office prior to construction.

The issuance of the plan revision does not preclude the permittee from complying with all other applicable statutes, rules, regulations or ordinances which may have jurisdiction over the proposed activity, and obtaining a permit or approval prior to construction.

The revised stamped, approved stormwater management drawings will be released for construction by the Wilmington Planning Division under separate cover. Please replace any old plan sheets from the approved set with the new, revised sheet. An electronic copy of the approved drawing set, permit, application and supplementary documents will be maintained by the Wilmington Engineering Division. If you have any questions, or need additional information, please contact Eric Seidel, PE at (910) 765-7461 or eric.seidel@wilmingtonnc.gov

Sincerely,

A handwritten signature in blue ink, appearing to read 'A-Caudle'.

for Anthony Caudle, City Manager
City of Wilmington

cc: Dan Fisk, PE, Paramounte Engineering, Inc.
Patrick O'Mahony, Wilmington Development Services/Planning



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STORMWATER MANAGEMENT PERMIT APPLICATION FORM
(Form SWP 2.2)

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.):

East and Mason Subdivision

2. Location of Project (street address):

7500 Masonboro Sound Rd

City: Wilmington County: New Hanover Zip: 28409

3. Directions to project (from nearest major intersection):

Travel south along Masonboro Loop Rd, approximately 0.2 miles project is on your left across from Beasley Rd
across from Beasley Rd

II. PERMIT INFORMATION

1. Specify the type of project (check one): Low Density High Density
 Drains to an Offsite Stormwater System Drainage Plan Other

If the project drains to an Offsite System, list the Stormwater Permit Number(s):

City of Wilmington: _____ State - NCDENR/DWQ: _____

2. Is the project currently covered (whole or in part) by an existing City or State (NCDENR/DWQ) Stormwater Permit? Yes No

If yes, list all applicable Stormwater Permit Numbers:

City of Wilmington: 2021001 State - NCDENR/DWQ: _____

3. Additional Project Permit Requirements (check all applicable):

CAMA Major Sedimentation/Erosion Control
 NPDES Industrial Stormwater 404/401 Permit: Proposed Impacts: 0.45 Acres

If any of these permits have already been acquired please provide the Project Name, Project/Permit Number, issue date and the type of each permit:

III. CONTACT INFORMATION

1. Print Applicant / Signing Official's name and title (specifically the developer, property owner, lessee, designated government official, individual, etc. who owns the project):

Applicant / Organization: Raleigh-Wilmington Investors, LLC

Signing Official & Title: Shelly Bishop

- a. Contact information for Applicant / Signing Official:

Street Address: 6131 Falls of Neuse Rd

City: Raleigh State: NC Zip: 27609

Phone: 919-876-9200 Fax: 910-791-6760 Email: sbishop@robuckhomes.com

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

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

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

2. Print Property Owner's name and title below, if you are the lessee, purchaser, or developer. (This is the person who owns the property that the project is on.)

Property Owner / Organization: East & Mason Developers, LLC

Signing Official & Title: Shelly Bishop - Manager of TBM Partners, LLC which is managing member

- a. Contact information for Property Owner:

Street Address: 6131 Falls of Neuse Rd

City: Raleigh State: NC Zip: 27609

Phone: 919-876-9200 Fax: 910-791-6760 Email: sbishop@robuckhomes.com

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

3. (Optional) Print the name and title of another contact such as the project's construction supervisor or another person who can answer questions about the project:

Other Contact Person / Organization: _____

Signing Official & Title: _____

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

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ Email: _____

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

IV. PROJECT INFORMATION

1. In the space provided below, briefly summarize how the stormwater runoff will be treated.

Stormwater runoff will be treated through proposed wet ponds.

2. Total Property Area: 2,800,036+/- square feet

3. Total Coastal Wetlands Area: 0 square feet

4. Total Surface Water Area: 2,970+/- square feet

5. Total Property Area (2) – Total Coastal Wetlands Area (3) – Total Surface Water Area (4) = Total Project Area: 2,797,066 square feet.

6. Existing Impervious Surface within Property Area: _____ square feet

7. Existing Impervious Surface to be Removed/Demolished: _____ square feet

8. Existing Impervious Surface to Remain: 0 square feet

9. Total Onsite (within property boundary) Newly Constructed Impervious Surface (*in square feet*):

Buildings/Lots	646,250
Impervious Pavement	258,707
Pervious Pavement (adj. total, with % credit applied)	
Impervious Sidewalks	71,581
Pervious Sidewalks (adj. total, with % credit applied)	
Other (describe)	27,500
Future Development	41,832
Total Onsite Newly Constructed Impervious Surface	1,045,870

10. Total Onsite Impervious Surface

(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) = 1,045,870 square feet

11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 37.3 %

12. Total Offsite Newly Constructed Impervious Area (improvements made outside of property boundary, in square feet):

Impervious Pavement	2,120
Pervious Pavement (adj. total, with % credit applied)	
Impervious Sidewalks	7,675
Pervious Sidewalks (adj. total, with % credit applied)	
Other (describe)	
Total Offsite Newly Constructed Impervious Surface	9,795

13. Total Newly Constructed Impervious Surface

(Total Onsite + Offsite Newly Constructed Impervious Surface) = 1,055,665 square feet

14. Complete the following information for each Stormwater BMP drainage area. If there are more than three drainage areas in the project, attach an additional sheet with the information for each area provided in the same format as below. Low Density projects may omit this section and skip to Section V.

Basin Information	BMP # 1	BMP # 2	BMP # 3
Receiving Stream Name	Masonboro Sound	Masonboro Sound	Masonboro Sound
Receiving Stream Index Number	18-87-25.7	18-87-25.7	18-87-25.7
Stream Classification	SA;ORW	SA;ORW	SA;ORW
Total Drainage Area (sf)	184,111	1,353,251	120,301
On-Site Drainage Area (sf)	184,111	1,353,251	120,301
Off-Site Drainage Area (sf)	0	0	0
Total Impervious Area (sf)	100,250	671,675	63,835
Buildings/Lots (sf)	56,250	425,750	40,500
Impervious Pavement (sf)	27,380	167,895	11,340
Pervious Pavement (sf)			
Impervious Sidewalks (sf)	8,688	42,285	3,635
Pervious Sidewalks (sf)			
Other (sf)		27,500	
Future Development (sf)	7,932	8,245	8,360
Existing Impervious to remain (sf)			
Offsite (sf)			
Percent Impervious Area (%)	54.5	49.6	53.1

15. How was the off-site impervious area listed above determined? Provide documentation:

N/A

14. Complete the following information for each Stormwater BMP drainage area. If there are more than three drainage areas in the project, attach an additional sheet with the information for each area provided in the same format as below. Low Density projects may omit this section and skip to Section V.

Basin Information	BMP # 4	BMP # 5	BMP #
Receiving Stream Name	Masonboro Sound	Masonboro Sound	
Receiving Stream Index Number	18-87-25.7	18-87-25.7	
Stream Classification	SA;ORW	SA;ORW	
Total Drainage Area (sf)	169,019	271,660	
On-Site Drainage Area (sf)	169,019	271,660	
Off-Site Drainage Area (sf)	0	0	
Total Impervious Area (sf)	96,940	113,170	
Buildings/Lots (sf)	54,000	69,750	
Impervious Pavement (sf)	25,125	28,967	
Pervious Pavement (sf)			
Impervious Sidewalks (sf)	9,325	7,648	
Pervious Sidewalks (sf)			
Other (sf)			
Future Development (sf)	8,490	8,805	
Existing Impervious to remain (sf)			
Offsite (sf)			
Percent Impervious Area (%)	57.4	41.7	

15. How was the off-site impervious area listed above determined? Provide documentation:

V. SUBMITTAL REQUIREMENTS

1. Supplemental and Operation & Maintenance Forms - One applicable City of Wilmington Stormwater BMP supplement form and checklist must be submitted for **each** BMP specified for this project. One applicable proposed operation and maintenance (O&M) form must be submitted for **each type** of stormwater BMP. Once approved, the operation and maintenance forms must be referenced on the final plat and recorded with the register of deeds office.
2. Deed Restrictions and Restrictive Covenants - For all subdivisions, outparcels, and future development, the appropriate property restrictions and protective covenants are required to be recorded prior to the sale of any lot. Due to variability in lot sizes or the proposed BUA allocations, a table listing each lot number, lot size, and the allowable built-upon area must be provided as an attachment to the completed and notarized deed restriction form. The appropriate deed restrictions and protective covenants forms can be downloaded at the link listed in section V (3). Download the latest versions for each submittal.

In instances where the applicant is different than the property owner, it is the responsibility of the property owner to sign the deed restrictions and protective covenants form while the applicant is responsible for ensuring that the deed restrictions are recorded.

By the notarized signature(s) below, the permit holder(s) certify that the recorded property restrictions and protective covenants for this project, if required, shall include all the items required in the permit and listed on the forms available on the website, that the covenants will be binding on all parties and persons claiming under them, that they will run with the land, that the required covenants cannot be changed or deleted without concurrence from the City of Wilmington, and that they will be recorded prior to the sale of any lot.

3. Only complete application packages will be accepted and reviewed by the City. A complete package includes all of the items listed on the City Engineering Plan Review Checklist, including the fee. Copies of the Engineering Plan Review Checklist, all Forms, Deed Restrictions as well as detailed instructions on how to complete this application form may be downloaded from:

<http://www.wilmingtonnc.gov/PublicServices/Engineering/PlanReview/StormwaterPermits.aspx>

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

VI. CONSULTANT INFORMATION AND AUTHORIZATION

1. Applicant: 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: Daniel J. Fisk

Consulting Firm: Paramounte Engineering, Inc.

a. Contact information for consultant listed above:

Mailing Address: 122 Cinema Drive

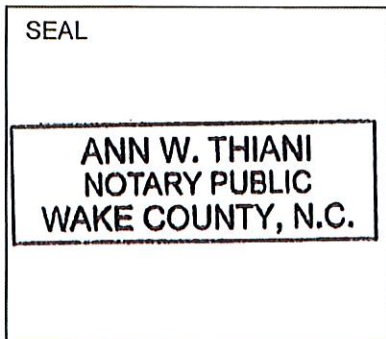
City: Wilmington State: NC Zip: 28403

Phone: 910.791.6707 Fax: 910.791.6760 Email: dfisk@paramounte-eng.com

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

I, (print or type name of person listed in Contact Information, item 2) Shelly Bishop, certify that I own the property identified in this permit application, and thus give permission to (print or type name of person listed in Contact Information, item 1) Shelly Bishop with (print or type name of organization listed in Contact Information, item 1) Raleigh-Wilmington Investors, LLC 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 (entity listed in Contact Information, item 1) 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: Shelly R. Bishop
Date: 7/1/21

I, ANN W. THIANI, a Notary Public for the State of NC, County of WAKE, do hereby certify that SHELLY R. BISHOP personally appeared before me this day of JULY 1, 2021.

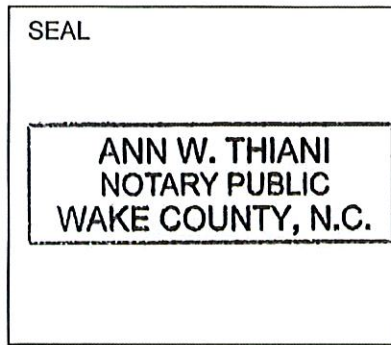
and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

Ann W. Thiani

My commission expires: 10/30/2023

VIII. APPLICANT'S CERTIFICATION

I, (print or type name of person listed in Contact Information, item 1) Shelly Bishop 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 stormwater rules under.



Signature: Shelly R. Bishop
Date: 7/1/21

I, ANN W. THIANI, a Notary Public for the State of NC, County of WAKE, do hereby certify that SHELLY R. BISHOP personally appeared before me this day of JULY 1, 2021, and acknowledge the due execution of the application for a stormwater

permit. Witness my hand and official seal,

Ann W. Thiani

My commission expires: 10/30/2023

SUPPLEMENT-EZ COVER PAGE

FORMS LOADED

PROJECT INFORMATION		
1	Project Name	East & Mason
2	Project Area (ac)	64.28
3	Coastal Wetland Area (ac)	0
4	Surface Water Area (ac)	0.07
5	Is this project High or Low Density?	High
6	Does this project use an off-site SCM?	No

COMPLIANCE WITH 02H .1003(4)		
7	Width of vegetated setbacks provided (feet)	50
8	Will the vegetated setback remain vegetated?	MEETS .1003(4)(c-d)
9	Is BUA other than as listed in .1003(4)(c-d) out of the setback?	YES
10	Is streambank stabilization proposed on this project?	No

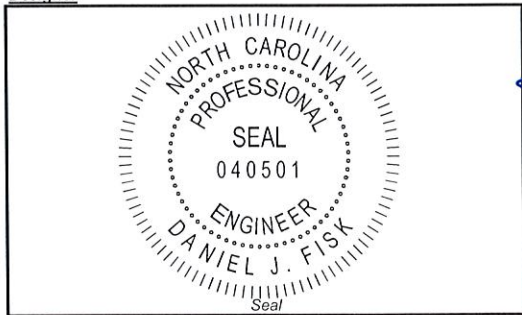
NUMBER AND TYPE OF SCMs:		
11	Infiltration System	0
12	Bioretention Cell	0
13	Wet Pond	5
14	Stormwater Wetland	0
15	Permeable Pavement	0
16	Sand Filter	0
17	Rainwater Harvesting (RWH)	0
18	Green Roof	0
19	Level Spreader-Filter Strip (LS-FS)	0
20	Disconnected Impervious Surface (DIS)	0
21	Treatment Swale	0
22	Dry Pond	0
23	Storm Filter	0
24	Silva Cell	0
25	Bayfilter	0
26	Filterra	0

FORMS LOADED

DESIGNER CERTIFICATION		
27	Name and Title:	Daniel J. Fisk, PE
28	Organization:	Paramounte Engineering, Inc
29	Street address:	122 Cinema Drive
30	City, State, Zip:	Wilmington, NC 28403
31	Phone number(s):	910.791.6707
32	Email:	dfisk@paramounte-eng.com

Certification Statement:
 I certify, under penalty of law that this Supplement-EZ form and all supporting information were prepared under my direction or supervision; that the information provided in the form is, to the best of my knowledge and belief, true, accurate, and complete; and that the engineering plans, specifications, operation and maintenance agreements and other supporting information are consistent with the information provided here.

Designer



D.J.Fisk
 Signature of Designer

07.06.21
 Date

WET POND

1	Drainage area number	1	2	3	4	5
2	Design volume of SCM (cu ft)	24489 cf	187985 cf	27664 cf	27148 cf	26186 cf
GENERAL MDC FROM 02H .1050						
3	Is the SCM sized to treat the SW from all surfaces at build-out?	Yes	Yes	Yes	Yes	Yes
4	Is the SCM located away from contaminated soils?	Yes	Yes	Yes	Yes	Yes
5	What are the side slopes of the SCM (H:V)?	3:1	6:1	3:1	3:1	3:1
6	Does the SCM have retaining walls, gabion walls or other engineered side slopes?	No	No	No	Yes	No
7	Are the inlets, outlets, and receiving stream protected from erosion (10-year storm)?	Yes	Yes	Yes	Yes	Yes
8	Is there an overflow or bypass for inflow volume in excess of the design volume?	No	No	No	No	No
9	What is the method for dewatering the SCM for maintenance?	Pump (preferred)	Pump (preferred)	Pump (preferred)	Pump (preferred)	Pump (preferred)
10	If applicable, will the SCM be cleaned out after construction?	Yes	Yes	Yes	Yes	Yes
11	Does the maintenance access comply with General MDC (8)?	Yes	Yes	Yes	Yes	Yes
12	Does the drainage easement comply with General MDC (9)?	Yes	Yes	Yes	Yes	Yes
13	If the SCM is on a single family lot, does (will?) the plat comply with General MDC (10)?	N/A	N/A	N/A	N/A	N/A
14	Is there an O&M Agreement that complies with General MDC (11)?	Yes	Yes	Yes	Yes	Yes
15	Is there an O&M Plan that complies with General MDC (12)?	Yes	Yes	Yes	Yes	Yes
16	Does the SCM follow the device specific MDC?	Yes	Yes	Yes	Yes	Yes
17	Was the SCM designed by an NC licensed professional?	Yes	Yes	Yes	Yes	Yes
WET POND MDC FROM 02H .1053						
18	Method used	SA/DA	SA/DA	SA/DA	SA/DA	SA/DA
19	Has a stage/storage table been provided in the calculations?	Yes	Yes	Yes	Yes	Yes
20	Elevation of the excavated main pool depth (bottom of sediment removal) (fmsl)	14.00	13.00	13.00	14.00	10.00
21	Elevation of the main pool bottom-(top of sediment removal) (fmsl)	15.00	14.00	14.00	15.00	11.00
22	Elevation of the bottom of the vegetated shelf (fmsl)	20.00	18.00	18.00	19.00	14.00
23	Elevation of the permanent pool (fmsl)	21.00	19.00	19.00	20.00	15.00
24	Elevation of the top of the vegetated shelf (fmsl)	21.00	19.00	19.00	20.00	15.00
25	Elevation of the temporary pool (fmsl)	22.75	20.25	21.50	22.00	16.75
26	Surface area of the main permanent pool (square feet)	9935	119440	7575	9375	11170
27	Volume of the main permanent pool (cubic feet)	25605 cf	519870 cf	18680 cf	19008 cf	29575 cf
28	Average depth of the main pool (feet)	3.6 ft	4.7 ft	3.3 ft	3.5 ft	3.3 ft
29	Average depth equation used	Equation 3	Equation 3	Equation 3	Equation 3	Equation 3
30	If using equation 3, main pool perimeter (feet)	546 ft	1473 ft	404 ft	734 ft	483 ft
31	If using equation 3, width of submerged veg. shelf (feet)	6 ft	6 ft	6 ft	6 ft	6 ft
32	Volume of the forebay (cubic feet)	4935 cf	96080 cf	3238 cf	3683 cf	5700 cf
33	Is this 15-20% of the volume in the main pool?	Yes	Yes	Yes	Yes	Yes
34	Clean-out depth for forebay (inches)	36 in	60 in	36 in	48 in	48 in
35	Design volume of SCM (cu ft)	24489 cf	187985 cf	27664 cf	27148 cf	26186 cf
36	Is the outlet an orifice or a weir?	Orifice	Orifice	Orifice	Orifice	Orifice
37	If orifice, orifice diameter (inches)	2.5 in	7 in	2 in	2.5 in	2.5 in
38	If weir, weir height (inches)	-	-	-	-	-
39	If weir, weir length (inches)	-	-	-	-	-
40	Drawdown time for the temporary pool (days)	2.33	2.99	3.4	2.41	2.49
41	Are the inlet(s) and outlet located in a manner that avoids short-circuiting?	Yes	Yes	Yes	Yes	Yes
42	Are berms or baffles provided to improve the flow path?	No	No	No	No	No
43	Depth of forebay at entrance (inches)	36 in	60 in	36 in	48 in	48 in
44	Depth of forebay at exit (inches)	12 in	12 in	12 in	12 in	12 in
45	Does water flow out of the forebay in a non-erosive manner?	Yes	Yes	Yes	Yes	Yes
46	Width of the vegetated shelf (feet)	6 ft	6 ft	6 ft	6 ft	6 ft
47	Slope of vegetated shelf (H:V)	6:1	6:1	6:1	6:1	6:1
48	Does the orifice drawdown from below the top surface of the permanent pool?	Yes	Yes	Yes	Yes	Yes
49	Does the pond minimize impacts to the receiving channel from the 1-yr, 24-hr storm?	Yes	Yes	Yes	Yes	Yes
50	Are fountains proposed? (If Y, please provide documentation that MDC(9) is met.)					
51	Is a trash rack or other device provided to protect the outlet system?	Yes	Yes	Yes	Yes	Yes
52	Are the dam and embankment planted in non-clumping turf grass?	Yes	Yes	Yes	Yes	Yes
53	Species of turf that will be used on the dam and embankment	Bermuda/Centipede	Bermuda/Centipede	Bermuda/Centipede	Bermuda/Centipede	Bermuda/Centipede
54	Has a planting plan been provided for the vegetated shelf?	Yes	Yes	Yes	Yes	Yes
ADDITIONAL INFORMATION						
55	Please use this space to provide any additional information about the wet pond(s):					