Wrightsville Beach Board of Alderme
Regular Meetin

5:30 p.m. THURSDAY, NOVEMBER 10, 201
Wrightsville Beach Town Hall Council Chamber
321 Causeway Drive, Wrightsville Beach, N(

AGENDA (ALL ITEMS ARE FOR DISCUSSION AND POSSIBLE ACTION)

1. Call to Order

2. Pledge of Allegiance

3. Invocation by Pastor John McIntyre, Wrightsville Beach Baptist Church

4. Public Comments

Notes on Comment Period: Each speaker is asked to limit comments to **3-5 minutes.** Citizens should sign up Town Hall by 5:00 p.m. the day of the meeting. The Board is interested in hearing your concerns, but speakers should n expect Board action or deliberation on subject matter brought up during the Public Comment segment. Topics requirir further investigation will be referred to the appropriate Town officials or staff and may be scheduled for a future agenda.

5. Consent Agenda

Notes on Consent Agenda: All items on the Consent Agenda are considered routine, to be enacted by one motic without discussion. If a member of the Governing Body requests discussion of an item, the item will be removed from th Consent Agenda and considered separately.

a. Approval of special event permits as follows:

1. Hope Inspires Giving at Christmas
   Fridays and Saturdays from November 26 to December 18, 2016 (6:00-8:00 pm)
   Location: Harbor Way Gardens

2. Wrightsville Beach Historical Walking Tour
   Friday-Sunday, November 25-27, 2016, (7:00 am – 6:00 pm)
   Saturday, December 10, 2016, (7:00 am – 6:00 pm)
   Location: 24 various locations around the Loop

3. New Year's Eve Wedding – Cameron (25 participants)
   Saturday, December 31, 2016, (10:00 pm – 12:00 midnight)
   Location: Beach Access #1 at Shell Island Resort

4. Communities in Schools Wrightsville Plunge (200-400 participants)
   Monday, January 1, 2017, (12:00 Noon – 3:00 pm) (Plunge at 1:00 pm)
   Location: Beach Strand north of Crystal Pier (Access #36)

5. US Open Beach Fat Bike Championship (300 participants)

Saturday, March 11, 2017, (6:00 am – 6:00 pm (race start at 10:00 am)
Location: Beach Strand from the Surf Club to the North End

b. Acknowledge previously approved special events for December.

c. Acknowledge departmental quarterly reports covering the months of July, August and Septembe 2016 (with the exception of the Fire Department, the Planning Department, and Gener Administration).

d. Approval of revised 2016 Board of Adjustment Meeting Schedule to cancel the November 17 meeting.

REQUESTED ACTION: Motion to APPROVE Consent Agenda.

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321 Causeway Drive, Wrightsville Beach, N

AGENDA (ALL ITEMS ARE FOR DISCUSSION AND POSSIBLE ACTION)

6. PRESENTATIONS

a. 2016 Ocean Rescue Season Update.

REQUESTED ACTION: None.

b. Introduction of Assistant Public Works Director Bill Fay; and an update of several Public Work Projects by Public Works Director Bill Squires.

REQUESTED ACTION: None.

7. REGULAR AGENDA

a. Consideration of TDA Funding Requests for 2016-2017 totaling $553,101.

REQUESTED ACTION: Approve TDA Funding Requests as presented.

b. Consideration of Resolution No. (2016) 1999 adopting a Citizen Participation Plan (CPP) for the 201 CAMA Land Use Plan Update.

REQUESTED ACTION: Adopt Resolution No. (2016) 1999 adopting the Citizen Participation Plan for th 2017 CAMA Land Use Plan Update.

c. Discussion and Direction regarding an appointment to fill a vacancy on the CAMA Land Use Pla Steering Committee due to one member being unable to participate.

REQUESTED ACTION: Select an applicant to fill the vacancy on the CAMA Land Use Plan Steerin Committee.

d. Discussion and Direction on applying for a FY2018 Unified Planning Work Program Project Fund (UPWP) grant to explore long term bridge replacement options for the Heidi Trask Drawbridge an short-term improvements to alleviate congestion on either side of the Heidi Trask Drawbridge.

REQUESTED ACTION: 1) Determine if Town wishes to provide any match; 2) Adopt Resolution N (2016) 2000, and 3) Approve the Mayor's signing of the attached letter to be submitted to the Wilmingto MPO.

e. Discussion and Direction on selecting an engineering firm for the Town's Assessment of the NEI t include Engineering and Permitting of a Duplicate Sewer Force Main.

REQUESTED ACTION: 1) Select a firm to begin negotiations with on a "scope of work" and fee schedul and 2) Direct staff to negotiate the "scope of work", fee schedule and contract and return the outcom back to the Board at another meeting.

f. Discussion and Direction on Leasing 5 Live Oak Drive (Old Fire Station).

REQUESTED ACTION: 1) Determine of the Town wishes to lease the space at 5 Live Oak Drive and, yes, instruct staff to bring back a proposed text amendment to the G-1 zoning district that will allow f Town leased office or retail space; and 2) If the Town wishes to lease the space between one and te years, ask staff to bring back a resolution to the Board to advertise the proposed leased space.

g. Discussion and Set Meeting Date for 2017 Board Retreat and set date for meet and greet f committee and board applicants.

REQUESTED ACTION: 1) Set date for 2017 Board Retreat; 2) Set date for meeting with prospectiv board and committee applicants; and 3) Instruct the Town Clerk to advertise for candidates for boar and committee vacancies in 2017.

8. OTHER ITEMS AND REPORTS

a. Mayor
b. Board of Aldermen
c. Town Attorney
d. Town Manager
e. Town Clerk

9. CLOSED SESSION FOR ADVICE FROM THE TOWN ATTORNEY PURSUANT TO G.S. 143.318.11

CITIZENS WITH DISABILITIES REQUIRING SPECIAL NEEDS TO ACCESS THE SERVICES OR PUBLIC MEETINGS OF WRIGHTSVILLE BEAC
GOVERNMENT SHOULD CONTACT THE TOWN MANAGER'S OFFICE FIVE DAYS PRIOR TO THE MEETING BY CALLING (910) 256-7900.

WRIGHTSVILLE BEACH PARKS & RECREATION DEPARTMENT
1 Bob Sawyer Drive, PO Box 626
Wrightsville Beach, North Carolina 28480
(910) 256-7925 Fax (910) 256-7926
www.TownofWrightsvilleBeach.com

MEMORANDUM

To: Mayor Blair and Board of Aldermen

From: Katie Ryan, Recreation Program Supervisor

Subject: Special Event Permit Applications

Date: November 4, 2016

Attached are the following special event permit applications that require Board of Aldermen approval:

1) **Hope Inspires Giving at Christmas**
Fridays and Saturdays, November 26 – December 18, 2016, 6:00 – 8:00 pm
Location: Harbor Way Gardens

Wrightsville Beach resident, Dawson Newman, is requesting approval to raise funds for Christmas lighting for the Harbor Island Garden Club and for assistance to local families during the holiday season. Mr. Newman would like to work with the Harbor Island Garden Club to add decorations to the Harbor Way Gardens for the holidays. He intends to invite visitors to the gardens and sell hot chocolate and outdoor ornaments for donations during the above referenced timeframes. This activity is one of his requirements as a student in Hoggard High School's International Baccalaureate program which includes completing 150 hours of a CAS (Creative Action Service) project.

2) **Wrightsville Beach Historical Walking Tour**
Friday – Sunday, November 25 – 27, 2016, 7:00 am – 6:00 pm
Saturday, December 10, 2016, 7:00 am – 6:00 pm
24 various locations around the loop

This special event permit application from the Wrightsville Beach Museum is a request to post educational signs around the Loop during Flotilla weekend and the day of the Museum's Jingle Bell Run. The signs are sponsored by various organizations and businesses that support the Jingle Bell Run and they offer historical information about Wrightsville Beach for individuals to enjoy as they walk the Loop.

3) **New Year's Eve Wedding - Cameron**
Saturday, December 31, 2016, 10:00 pm – 12:00 am
Location: Beach access 1 at Shell Island Resort
Participants: 25

This special event permit application requires Board approval because the event begins at 10:00 pm.

4) **Communities in Schools Wrightsville Plunge**
Monday, January 1, 2017, 12:00 – 3:00 pm, (plunge at 1:00 pm)
Location: Beach strand north of Crystal Pier (access 36)
Participants: 200 - 400

Organizers have requested the above times which are a change from the previously approved 1:00 – 3:00 pm (plunge at 2:00).

5) **US Open Beach Fat Bike Championship**
Saturday, March 11, 2017, 6:00 am - 6:00 pm (race start at 10:00 am)
Location: Beach strand Surf Club to North End
Participants: ~300

This special event permit application is for the 3rd annual Fat Tire race. The application requires Board approval due to the number of participants and the bicycles on the beach.

REQUESTED ACTION: Approve special event permit applications as presented.

TOWN OF WRIGHTSVILLE BEACH, NC
SPECIAL EVENT PERMIT APPLICATION

Applications requiring Board of Aldermen approval must be submitted 60 days prior to the event.
A SEPARATE APPLICATION MUST BE COMPLETED FOR EACH EVENT DATE.
PLEASE TYPE OR PRINT LEGIBLY AND INCLUDE THE APPROPRIATE FEE WITH APPLICATION

Wrightsville Beach Parks & Recreation Department
P. O. Box 626, Wrightsville Beach, NC 28480
(910) 256-7925

FOR OFFICE USE ONLY

✓ New Event

___ Recurring Event

Fee Per Day:

Participants	Fee
___ 1 - 25	$125.00
___ 26 - 100	$175.00
___ 101 - 199	$225.00
___ 200 - 400	$350.00
___ 401 - 600	$450.00
___ 601 - 1,000	$500.00
___ 1,001 - 2,000	$600.00
___ 2,001 - 3,000	$700.00
___ 3,001 - 4,000	$800.00
✓ 4,001 +	$1,000.00

Paid: Educational event

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher due within 14 days of event.

Non-profit organization? (Yes) No

Tax Exempt ID: ___

Time between 8 am & 10 pm? Prior to 8am

Number of Hours 4 days

Rain date necessary? Yes (No)

Park Facility ~~Reserved?~~ Yes No (Not Required)

Facility reserved & fee: ___

Portable toilets ~~needed?~~ Yes No (Not Required)

Number of trash carts needed ___
X $25.00 per cart
~~Amount due~~ = ___

Health Department permit obtained? Yes No (Not Required)

1. **Description of event:** Historic Walking Tour - On "The Loop"

2. **Event Date:** 11-25+26 / 12-10-16 (11-27) **Time:** 7:00 (am) pm **to** 6:00 am / (pm)
(Events must occur between 8:00 a.m. and 10:00 p.m.)

3. **Estimated number of participants (including spectators):** 100+

4. **Location:** W.B. "LOOP" Free-style educational walk

5. **Individual making request:** Donna M. Starling

Complete Mailing Address: 125 Edgewater Ln Wilm, NC 28403

Phone Number: 910-619-7095 E-mail: dstarling@ec.rr.com

6. **Individual who will be on site and in charge of activity:** SAME

Complete Mailing address: SAME

Phone Number: SAME E-mail: ___

7. **Sponsoring organization/corporation (if applicable):** W.B. Museum

Contact: Madeline Flagler

Complete Mailing Address: 303 W. Salisbury St. W.B. NC 28480

Phone Number: 910-256-2569 E-mail: wbmuseum@bizec.rr.com

8. **Briefly describe provisions for the following:**

Toilet facilities None Needed - Public Walkway

Trash disposal Public disposal available on "LOOP"
(Plastic and aluminum must be recycled. Use of styrofoam and glass is prohibited.)

Parking Public Parking

Electrical power needs None

Water needs None

9. **Will food be served?** ND **If yes, has permit from Health Dept. been obtained?** ___

Describe types of containers, cooking equipment, etc. to be used ~~None~~ "Real Estate Style" Signs

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Site plan included?
(Yes) No Not Required

Permit(s) needed for vehicle on the beach? Yes (No)
Number needed: _____

Vehicle permit issued to:

_____

Vendors requested?
Yes (No)

_____

_____

*Full road closure required?
Yes No

_____

Police support required?
Yes No (Not Required)

PD Comments:

_____

_____

Fire Dept. support required?
Yes No (Not Required)

FD Comments:

_____

_____

Ocean Rescue support required?
Yes No (Not Required)

OR Comments:

_____

_____

EMS support required?
Yes No (Not Required)

_____

_____

Certificate of Insurance obtained?
Yes No (Not Required)

10. Will there be any music, PA system, or loud activities (if any, briefly describe)? NO

If yes, provide information specifying location and direction of noise-emanating devices along with proposed noise level, frequency, and duration: None

11. Will any banners, tents, stages, chairs, nets, decorations, etc., be used at this activity? Yes

If so, what company is providing the equipment? A Sign from Above

Describe equipment in detail and provide a sketched plan: Approx 24 "Real Estate Style" signs

12. Will there be sales of any types of souvenirs, t-shirts, food, drinks or other products on public property? NO

If so, describe in detail: _____

13. Is police assistance necessary? NO *Are you requesting the closing of any streets? NO

If so, please specify: _____

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher. Amount will be submitted with a statement attesting to the number of finishers. Payment is due within fourteen (14) days of the event.

Organizers of runs and other race events are responsible for providing traffic and/or crowd control which shall be handled by the Wrightsville Beach Police Department. Organizers of waterborne activities are responsible for providing adequate water safety resources to assure the safety of participants. Depending on the nature of the event, the Special Events Coordinator, Town Manager, or the Board of Aldermen may require police assistance with traffic/crowd control, additional Ocean Rescue support, and/or Emergency Medical Services support. Additional fees for these services may be incurred.

I understand that if my event requires a complete road closure, I am responsible for paying an additional fee of $0.50 per race finisher. Payment is due within fourteen (14) days of the event.

I hereby certify that I am the authorized and responsible representative of the applying group and that I am at least 18 years of age. I understand that if any information is found not to be accurate, additional fees and/or fines may be assessed and/or my permit may be revoked.

I agree to comply with all town ordinances, rules, regulations, and other applicable laws.

I agree to save and keep the Town free and harmless from any and all loss or damages or claims for damages, including attorney's fees and litigation costs, arising from or out of the special event.

I agree to, upon request of the Special Events Coordinator, Town Manager, and/or the Board of Aldermen, to provide proof of general liability insurance listing the Town as an additionally insured with limits no less than 1 (one) million dollars.

I understand that if the event is cancelled, I will receive a refund of my application fee less a $15 administrative fee.

See attached memo for additional stipulations.

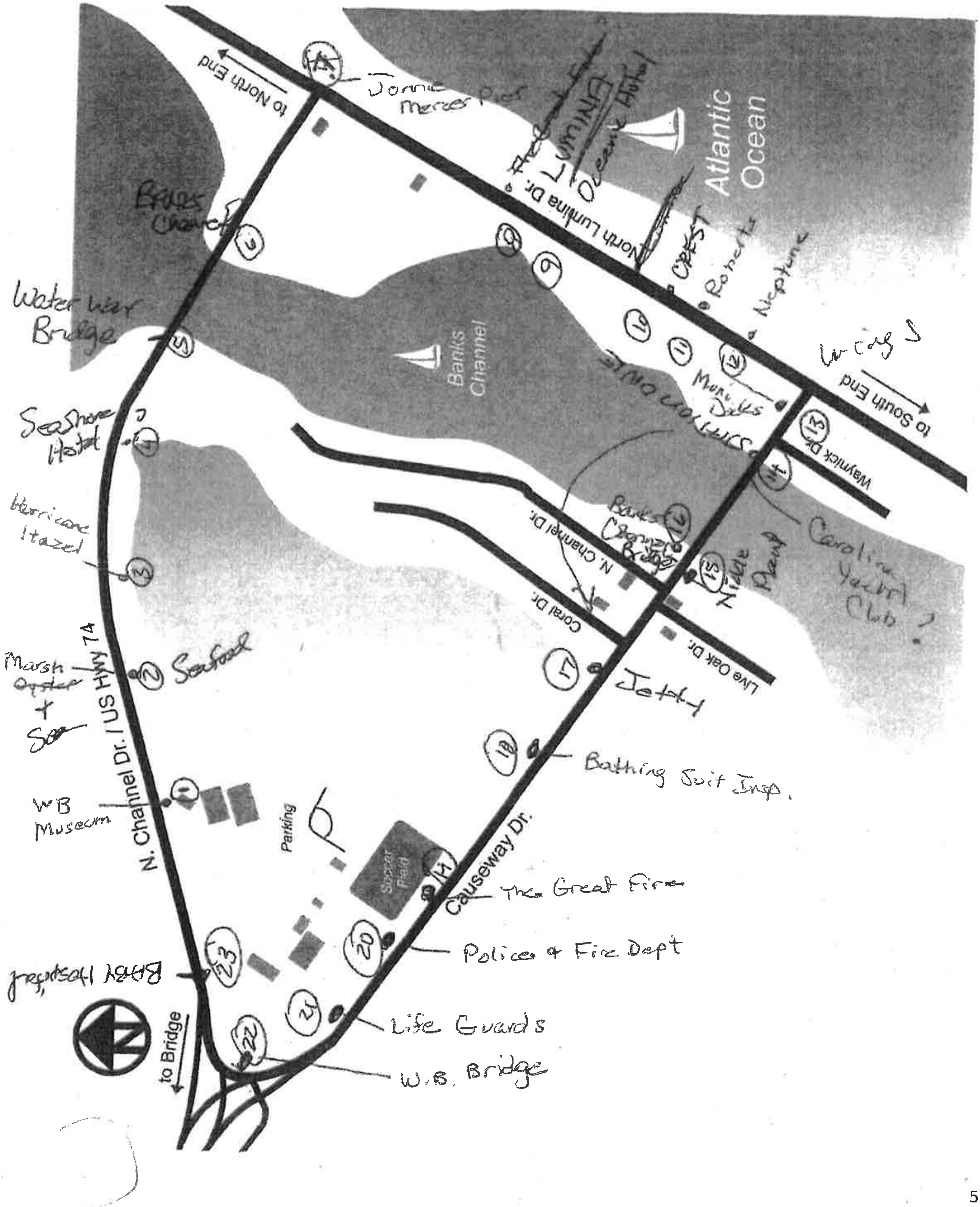
Signature: _____ Date: 11-3-16

This application is hereby approved, this the _____ day of _____, 20_____.

_____

Special Events Coordinator, Town of Wrightsville Beach, North Carolina

Revised 4/19/164



to North End
Johnnie Mercer Pier
Lumina
Oceanic Hotel
Atlantic Ocean
North Lumina Dr.
Crest
Roberts
Neptune
Banks Channel
Banks Channel
Seashore Hotel
Hurricane Hazel
Muni Docks
to South End
Waynick Dr.
N. Channel Dr.
Coral Dr.
Live Oak Dr.
Banks Channel Bridge
Carolina Yacht Club ?
Seafood
Jetty
N. Channel Dr. / US Hwy 74
Bathing Suit Insp.
WB Museum
Parking
Soccer Field
Causeway Dr.
The Great Fire
Police & Fire Dept
Baby Hospital
Life Guards
to Bridge
W.B. Bridge


2
The Lumina

TOWN OF WRIGHTSVILLE BEACH, NC
SPECIAL EVENT PERMIT APPLICATION

Applications requiring Board of Aldermen approval must be submitted 60 days prior to the event.
A SEPARATE APPLICATION MUST BE COMPLETED FOR EACH EVENT DATE.
PLEASE TYPE OR PRINT LEGIBLY AND INCLUDE THE APPROPRIATE FEE WITH APPLICATION

Wrightsville Beach Parks & Recreation Department
P. O. Box 626, Wrightsville Beach, NC 28480
(910) 256-7925

FOR OFFICE USE ONLY

✓ New Event

___ Recurring Event

Fee Per Day:

Participants	Fee
___ 1 - 25	$125.00
___ 26 - 100	$175.00
___ 101 - 199	$225.00
___ 200 - 400	$350.00
___ 401 - 600	$450.00
___ 601 - 1,000	$500.00
___ 1,001 - 2,000	$600.00
___ 2,001 - 3,000	$700.00
___ 3,001 - 4,000	$800.00
___ 4,001 +	$1,000.00

Paid: Educational School Activity

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher due within 14 days of event.

Non-profit organization? (Yes) No
Tax Exempt ID: Hoggard HS School

Time between 8 am & 10 pm? Yes

Number of Hours 2 hrs/day

Rain date necessary? Yes (No)

Park Facility Reserved? (Yes) No Not Required

Facility reserved & fee: no

Portable toilets needed? Yes No (Not Required)

Number of trash carts needed ___
X $25.00 per cart
Amount due = ___

Health Department permit obtained? Yes No (Not Required)

1. **Description of event:** "Hope Inspires Giving @ Christmas" - donations to hang "hope ornaments" + walk through lighted gardens

2. **Event Date:** 11/26+27, 12/3+4, 12/10+11, 12/17+18 **Time:** 6:00 am/(pm) to 5:00 am/(pm)
(Events must occur between 8:00 a.m. and 10:00 p.m.)

3. **Estimated number of participants (including spectators):** 25-50/night

4. **Location:** Harbor Way Gardens (hoping)

5. **Individual making request:** Dawson (Parent: Joelle Newman) 28480
Complete Mailing Address: 6 Heron Street, Wrightsville Beach, NC
Phone Number: 910-619-0329 E-mail: joelle.newman@nhcs.net

6. **Individual who will be on site and in charge of activity:** Joelle Newman / Dawson Newman
Complete Mailing address: 6 Heron St, WBch NC 28480
Phone Number: 910-619-0329 E-mail: joelle.newman@nhcs.net

7. **Sponsoring organization/corporation (if applicable):** Hoggard High School
Contact: Jean Hall IB Program
Complete Mailing Address: 4305 Shipyard Blvd, Wilm. NC 28403
Phone Number: 910-350-3072 E-mail: jean.hall@nhcs.net

8. **Briefly describe provisions for the following:**
Toilet facilities: Ø - brief walk thru gardens
Trash disposal: will clean up after event
(Plastic and aluminum must be recycled. Use of styrofoam and glass is prohibited.)
Parking: minimal - next to gardens
Electrical power needs: to power lights throughout garden
Water needs: Ø

9. **Will food be served?** 0 **If yes, has permit from Health Dept. been obtained?** ___

Describe types of containers, cooking equipment, etc. to be used ___

Benefits Harbor Island Garden Club

FOR OFFICE USE ONLY

Site plan included?
Yes No Not Required
Add'l Info
Permit(s) needed for vehicle on the beach? Yes (No)
Number needed: _____

Vehicle permit issued to:

_____

Vendors requested?
Yes No

_____

_____

*Full road closure required?
Yes No

_____

Police support required?
Yes No Not Required

PD Comments:

_____

_____

Fire Dept. support required?
Yes No Not Required

FD Comments:

_____

_____

Ocean Rescue support required?
Yes No Not Required

OR Comments:

_____

_____

EMS support required?
Yes No Not Required

_____

_____

Certificate of Insurance obtained?
Yes No Not Required

10. Will there be any music, PA system, or loud activities (if any, briefly describe)? Christmas music playing throughout garden

If yes, provide information specifying location and direction of noise-emanating devices along with proposed noise level, frequency, and duration: through a portable sound system - Block Rocker

11. Will any banners, tents, stages, chairs, nets, decorations, etc., be used at this activity? small beach bul

If so, what company is providing the equipment? self

Describe equipment in detail and provide a sketched plan: hanging from trees will remove when holidays over - along with lights

12. Will there be sales of any types of souvenirs, t-shirts, food, drinks or other products on public property? _____

If so, describe in detail: no

13. Is police assistance necessary? no *Are you requesting the closing of any streets? no

If so, please specify: - would like to drive by and monitor for safety - just be aware

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I understand that if my event requires a complete road closure, I am responsible for paying an additional fee of $0.50 per race finisher. Payment is due within fourteen (14) days of the event.

I hereby certify that I am the authorized and responsible representative of the applying group and that I am at least 18 years of age. I understand that if any information is found not to be accurate, additional fees and/or fines may be assessed and/or my permit may be revoked.

I agree to comply with all town ordinances, rules, regulations, and other applicable laws.

I agree to save and keep the Town free and harmless from any and all loss or damages or claims for damages, including attorney's fees and litigation costs, arising from or out of the special event.

I agree to, upon request of the Special Events Coordinator, Town Manager, and/or the Board of Aldermen, to provide proof of general liability insurance listing the Town as an additionally insured with limits no less than 1 (one) million dollars.

I understand that if the event is cancelled, I will receive a refund of my application fee less a $15 administrative fee.

See attached memo for additional stipulations.

Signature: Joelle Neuma Date: 11-4-16

This application is hereby approved, this the _____ day of _____, 20_____.

_____

Special Events Coordinator, Town of Wrightsville Beach, North Carolina

-Tim to let me know

Dawson Newman: Junior, Hoggard High School, IB Program

RE: CAS Project: **H**ope **I**nspires **G**iving at **C**hristmas

To my community members whom I propose my project,

CAS or the "Creative Action Service" Project is a mandatory community service project for the IB (International Baccalaureate) program at Hoggard High school that last through junior and senior year and requires you to log 150 hours. IB is a nationally recognized program that encourages global learning and responsible citizenship so we become passionate lifelong learners.

My name is Dawson Newman and I'm a 16 year old junior at Hoggard in the IB program as well as a lifelong resident of Wrightsville Beach. For my project I wanted to do something that involved the community I lived in and my family always talked about giving back during the holidays. The loop is a big attraction at WB and I know through my elementary school (Rooty Rascals) that the Harbor Island Garden Club does a lot for the local parks and community like yard of the month, brick paver, etc. My mom even bought a brick for one of her friends that had died of cancer. Harbor Way Gardens looks very cool inside but sometimes it's hard to see when you're driving past. I was talking with my mom and we both came up with an idea to help our community and bring people to Wrightsville Beach and the Harborway Gardens.

Since we both love the holidays we thought it would be a good idea to help families that are struggling especially those who have lost hope around the holidays because of financial reasons. After meeting with Mrs Running we came up with **H**ope **I**nspires **G**iving at **C**hristmas (HICG – acronym of Harbor Island Garden Club). The idea is to decorate the Harborway Gardens with lights as well as a variety of other decorations from the 27th of November to the 18th of December. On the weekends from 6-8pm I would provide "hope ornaments" to people to write their "Christmas Hope" on with a sharpie and to hang on a tree inside the gardens for a $10 donation. I would also have hot chocolate and candy canes for a donation. People can come enjoy the HarborWay Gardens lit up for the holidays like a Christmas winter wonderland. Christmas music will also be playing to add to the feel. The money donated would go back to local families in need around Christmas. I will also go to local businesses asking for donations to help pay for lights and other decorations in exchange for displaying their name in the gardens as a sponsor of my project. This would be a good thing to start Flotilla night after the parade is over if people didn't want to fight traffic they could stop in. I would like to be at the gardens on Saturday and Sunday nights from then til Sunday December 18th collecting donations through "Christmas Hope" ornaments. I would try to get spread the word about my project through the Lumina News, yard sign display by loop at gardens, and through postcard flyers at local merchants telling of event.

I know for this project to work I will need to collaborate with The Harbor Island Garden Club, the town of Wrightsville Beach, and local experts in areas I am not. If all goes well I would like to do it again next season.

Thank you for considering my proposal.

Dawson Newman 910-685-3288
Joelle Newman 910-619-0329 my mom

With support from the Harbor Island Garden Club and the Town of Wrightsville Beach, this Holiday you are invited to a magical event…

"HOPE INSPIRES GIVING @ CHRISTMAS" in the

Harbor Way Gardens

Write your "Christmas Hope" on an ornament and hang it from a tree throughout the gardens for a $10 donation to help local families in need at Christmas time.

What's your "Hope" for Christmas?!

Dates & Times for "Hope Ornaments!"

Sat. Nov 26th after Flotilla
Sun. Nov 27th : 6-8pm
Sat. Dec 3rd: 6-8pm
Sun. Dec 4th: 6-8 pm
Sat. Dec 10th: 6-8pm
Sun. Dec 11th: 6-8 pm
Sat. Dec 17th: 6-8pm
Sun. Dec 18th: 6-8 pm

* Hot Chocolate, Candy Canes, Music, Lights, and GIVING!*

Thank you for supporting my CAS (Creative-Activity- Service) IB Project at Hoggard High School

More info or to donate, please contact: hopeinspiresgiving@gmail.com

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More info or to donate, please contact: hopeinspiresgiving@gmail.com

TOWN OF WRIGHTSVILLE BEACH, NC
SPECIAL EVENT PERMIT APPLICATION

Wrightsville Beach Parks & Recreation Department
P. O. Box 626, Wrightsville Beach, NC 28480
(910) 256-7925

Applications requiring Board of Aldermen approval must be submitted 60 days prior to the event.
A SEPARATE APPLICATION MUST BE COMPLETED FOR EACH EVENT DATE.
PLEASE TYPE OR PRINT LEGIBLY AND INCLUDE THE APPROPRIATE FEE WITH APPLICATION

FOR OFFICE USE ONLY

X New Event

___ Recurring Event

Fee Per Day:

Participants	Fee
✓ 1 - 25	$125.00
___ 26 - 100	$175.00
___ 101 - 199	$225.00
___ 200 - 400	$350.00
___ 401 - 600	$450.00
___ 601 - 1,000	$500.00
___ 1,001 - 2,000	$600.00
___ 2,001 - 3,000	$700.00
___ 3,001 - 4,000	$800.00
___ 4,001 +	$1,000.00

Paid: $125 cash

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher due within 14 days of event.

Non-profit organization?
Yes (No)

Tax Exempt ID:

___

Time between 8 am & 10 pm? No

Number of Hours 2

Rain date necessary?
Yes (No)

Park Facility Reserved?
Yes No (Not Required)

Facility reserved & fee:

___

Portable toilets needed?
Yes No (Not Required)

Number of trash carts needed ___
X $25.00 per cart
Amount due = ___

Health Department permit obtained?
Yes No (Not Required)

1. **Description of event:** Wedding - New Year's Eve

2. **Event Date:** Dec 31st, 2016 **Time:** 10:00 am / (pm) to 12:00 (am) / pm
(Events must occur between 8:00 a.m. and 10:00 p.m.)

3. **Estimated number of participants (including spectators):** 25

4. **Location:** Access # 1 Wrightsville Beach

5. **Individual making request:** Bride Joan Cameron
Complete Mailing Address: 117 Lansdowne Road
Phone Number: 910-599-0030 E-mail: joankondrashi@gmail.com

6. **Individual who will be on site and in charge of activity:** Joan Cameron
Complete Mailing address: joan kondrashi@gmail.com
Phone Number: 910-599-0030 E-mail: ___

7. **Sponsoring organization/corporation (if applicable):** ___
Contact: ___
Complete Mailing Address: ___
Phone Number: ___ E-mail: ___

8. **Briefly describe provisions for the following:**
Toilet facilities ___
Trash disposal ___
(Plastic and aluminum must be recycled. Use of styrofoam and glass is prohibited.)
Parking At Shell Island Resort
Electrical power needs Shell Island Resort
Water needs Shell Island Resort

9. **Will food be served?** NO **If yes, has permit from Health Dept. been obtained?** ___
Describe types of containers, cooking equipment, etc. to be used ___

FOR OFFICE USE ONLY

Site plan included?
Yes (No) Not Required

Permit(s) needed for vehicle on the beach? Yes / No
Number needed: ____

Vehicle permit issued to:

Vendors requested?
Yes (No)

*Full road closure required?
Yes (No)

Police support required?
Yes No (Not Required)

PD Comments:

Fire Dept. support required?
Yes No (Not Required)

FD Comments:

Ocean Rescue support required?
Yes No (Not Required)

OR Comments:

EMS support required?
Yes No (Not Required)

Certificate of Insurance obtained?
Yes No (Not Required)

10. Will there be any music, PA system, or loud activities (if any, briefly describe)? NO

If yes, provide information specifying location and direction of noise-emanating devices along with proposed noise level, frequency, and duration: _____

11. Will any banners, tents, stages, chairs, nets, decorations, etc., be used at this activity? Chairs & decorations

If so, what company is providing the equipment? _____

Describe equipment in detail and provide a sketched plan: _____

12. Will there be sales of any types of souvenirs, t-shirts, food, drinks or other products on public property? _____

If so, describe in detail: NO

13. Is police assistance necessary? NO *Are you requesting the closing of any streets? _____

If so, please specify: _____

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher. Amount will be submitted with a statement attesting to the number of finishers. Payment is due within fourteen (14) days of the event.

Organizers of runs and other race events are responsible for providing traffic and/or crowd control which shall be handled by the Wrightsville Beach Police Department. Organizers of waterborne activities are responsible for providing adequate water safety resources to assure the safety of participants. Depending on the nature of the event, the Special Events Coordinator, Town Manager, or the Board of Aldermen may require police assistance with traffic/crowd control, additional Ocean Rescue support, and/or Emergency Medical Services support. Additional fees for these services may be incurred.

I understand that if my event requires a complete road closure, I am responsible for paying an additional fee of $0.50 per race finisher. Payment is due within fourteen (14) days of the event.

I hereby certify that I am the authorized and responsible representative of the applying group and that I am at least 18 years of age. I understand that if any information is found not to be accurate, additional fees and/or fines may be assessed and/or my permit may be revoked.

I agree to comply with all town ordinances, rules, regulations, and other applicable laws.

I agree to save and keep the Town free and harmless from any and all loss or damages or claims for damages, including attorney's fees and litigation costs, arising from or out of the special event.

I agree to, upon request of the Special Events Coordinator, Town Manager, and/or the Board of Aldermen, to provide proof of general liability insurance listing the Town as an additionally insured with limits no less than 1 (one) million dollars.

I understand that if the event is cancelled, I will receive a refund of my application fee less a $15 administrative fee.

See attached memo for additional stipulations.

Signature: Joan Cameron Date: 10/10/16

This application is hereby approved, this the _____ day of _____, 20_____.

_____
Special Events Coordinator, Town of Wrightsville Beach, North Carolina

TOWN OF WRIGHTSVILLE BEACH, NC
SPECIAL EVENT PERMIT APPLICATION

Applications requiring Board of Aldermen approval must be submitted 60 days prior to the event.
A SEPARATE APPLICATION MUST BE COMPLETED FOR EACH EVENT DATE.
PLEASE TYPE OR PRINT LEGIBLY AND INCLUDE THE APPROPRIATE FEE WITH APPLICATION

Wrightsville Beach Parks & Recreation Department
P. O. Box 626, Wrightsville Beach, NC 28480
(910) 256-7925

FOR OFFICE USE ONLY

___ New Event
✓ Recurring Event

Fee Per Day:

Participants	Fee
___ 1 - 25	$125.00
___ 26 - 100	$175.00
~~✓ 101 - 199~~	~~$225.00~~
✓ 200 - 400	$350.00
___ 401 - 600	$450.00
___ 601 - 1,000	$500.00
___ 1,001 - 2,000	$600.00
___ 2,001 - 3,000	$700.00
___ 3,001 - 4,000	$800.00
___ 4,001 +	$1,000.00

Paid: * #7225 #7241

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher due within 14 days of event.

Non-profit organization? (Yes) No

Tax Exempt ID: _____

Time between 8 am & 10 pm? Yes

Number of Hours 2

Rain date necessary? Yes (No)

Park Facility Reserved? Yes No (Not Required)

Facility reserved & fee: _____

Portable toilets needed? (Yes) No Not Required

Number of trash carts needed ___
X $25.00 per cart
Amount due = ___

Health Department permit obtained? Yes No (Not Required)

1. **Description of event:** ~~Polar Plunge~~ Wrightsville Plunge

2. **Event Date:** Sunday 1/1/17 **Time:** ~~1:00~~ am / (pm) to 3:00 am / (pm)
(Events must occur between 8:00 a.m. and 10:00 p.m.) Plunge @ ~~2:00~~ 1:00 12:00

3. **Estimated number of participants (including spectators):** ~~175~~ 200-400

4. **Location:** 1050 S. Lumina Ave.; Access #36

5. **Individual making request:** Louise Hicks
Complete Mailing Address: 20 N. 4th St., Suite 213, Wilm. 28401
Phone Number: 910.343.1901 E-mail: louise@ciscapefear.org

6. **Individual who will be on site and in charge of activity:** Louise Hicks
Complete Mailing address: _____
Phone Number: _____ E-mail: _____

7. **Sponsoring organization/corporation (if applicable):** * Communities In Schools of Cape Fear
Contact: see above
Complete Mailing Address: _____
Phone Number: _____ E-mail: _____

8. **Briefly describe provisions for the following:**
Toilet facilities ~~N/A~~ Public restrooms closed for season. Must have portable facilities
Trash disposal organization will clean up
(Plastic and aluminum must be recycled. Use of styrofoam and glass is prohibited.)
Parking utilize public parking May trolley.
Electrical power needs TBD organizer must provide
Water needs N/A

9. **Will food be served?** NO **If yes, has permit from Health Dept. been obtained?** N/A

Describe types of containers, cooking equipment, etc. to be used N/A

✓ Pier/Swim
- CeO I
✓ # of participants
- Vendors
✓ Plunge Time? 2:00

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Site plan included?
Yes No (Not Required)

Permit(s) needed for vehicle on the beach? (Yes) No
Number needed: 2

Vehicle permit issued to:
Louise Hicks

Vendors requested?
Yes (No)

*Full road closure required?
Yes (No)

Police support required?
Yes No (Not Required)

PD Comments:
None

Fire Dept. support required?
Yes No (Not Required)

FD Comments:
None

Ocean Rescue support required?
Yes No (Not Required)

OR Comments:

EMS support required?
Yes (No) Not Required

Certificate of Insurance obtained?
Yes No Not Required
To provide prior to event

10. Will there be any music, PA system, or loud activities (if any, briefly describe)? Yes. We will use a PA system to announce start & category winners

If yes, provide information specifying location and direction of noise-emanating devices along with proposed noise level, frequency, and duration: on the beach

11. Will any banners, tents, stages, chairs, nets, decorations, etc., be used at this activity? minimal

If so, what company is providing the equipment? N/A

Describe equipment in detail and provide a sketched plan: registration table & chairs table for hot drinks,

12. Will there be sales of any types of souvenirs, t-shirts, food, drinks or other products on public property? NO

If so, describe in detail: — although t-shirts are provided to Plunge participants as part of their registration.

13. Is police assistance necessary? NO *Are you requesting the closing of any streets? NO

If so, please specify:

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher. Amount will be submitted with a statement attesting to the number of finishers. Payment is due within fourteen (14) days of the event.

Organizers of runs and other race events are responsible for providing traffic and/or crowd control which shall be handled by the Wrightsville Beach Police Department. Organizers of waterborne activities are responsible for providing adequate water safety resources to assure the safety of participants. Depending on the nature of the event, the Special Events Coordinator, Town Manager, or the Board of Aldermen may require police assistance with traffic/crowd control, additional Ocean Rescue support, and/or Emergency Medical Services support. Additional fees for these services may be incurred.

I understand that if my event requires a complete road closure, I am responsible for paying an additional fee of $0.50 per race finisher. Payment is due within fourteen (14) days of the event.

I hereby certify that I am the authorized and responsible representative of the applying group and that I am at least 18 years of age. I understand that if any information is found not to be accurate, additional fees and/or fines may be assessed and/or my permit may be revoked.

I agree to comply with all town ordinances, rules, regulations, and other applicable laws.

I agree to save and keep the Town free and harmless from any and all loss or damages or claims for damages, including attorney's fees and litigation costs, arising from or out of the special event.

I agree to, upon request of the Special Events Coordinator, Town Manager, and/or the Board of Aldermen, to provide proof of general liability insurance listing the Town as an additionally insured with limits no less than 1 (one) million dollars.

I understand that if the event is cancelled, I will receive a refund of my application fee less a $15 administrative fee.

See attached memo for additional stipulations.

Signature: [signature] Date: 9/6/2016

This application is hereby approved, this the 14th day of October, 2016.

[signature]
Special Events Coordinator, Town of Wrightsville Beach, North Carolina

TOWN OF WRIGHTSVILLE BEACH, NC
SPECIAL EVENT PERMIT APPLICATION

Applications requiring Board of Aldermen approval must be submitted 60 days prior to the event.
A SEPARATE APPLICATION MUST BE COMPLETED FOR EACH EVENT DATE.
PLEASE TYPE OR PRINT LEGIBLY AND INCLUDE THE APPROPRIATE FEE WITH APPLICATION

Wrightsville Beach Parks & Recreation Department
P. O. Box 626, Wrightsville Beach, NC 28480
(910) 256-7925

FOR OFFICE USE ONLY

___ New Event

___ Recurring Event

Fee Per Day:

Participants	Fee
___ 1 - 25	$125.00
___ 26 - 100	$175.00
___ 101 - 199	$225.00
✓ 200 - 400	$350.00
___ 401 - 600	$450.00
___ 601 - 1,000	$500.00
___ 1,001 - 2,000	$600.00
___ 2,001 - 3,000	$700.00
___ 3,001 - 4,000	$800.00
___ 4,001 +	$1,000.00

Paid: #4853*

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher due within 14 days of event.

Non-profit organization?
Yes (No)

Tax Exempt ID: Benefits WB Foundation

Time between 8 am & 10 pm? Prior to 8am

Number of Hours 12

Rain date necessary?
Yes (No)

Park Facility Reserved?
Yes No (Not Required)

Facility reserved & fee: ___

Portable toilets needed?
Yes No (Not Required)

Number of trash carts needed ___
X $25.00 per cart
Amount due = ___

Health Department permit obtained?
Yes No (Not Required)

1. **Description of event:** BICYCLE RACE (3RD ANNUAL) UTILIZING FAT TIRE BICYCLES ON THE SAND. US OPEN

2. **Event Date:** MARCH 11TH, 2017 **Time:** 10:00 (am) / pm to 6:00 am / (pm)
(Events must occur between 8:00 a.m. and 10:00 p.m.) Set up begins at 6:00am Race start at 10:00am

3. **Estimated number of participants (including spectators):** 300

4. **Location:** THE BEACH FROM BLOCKADE RUNNER TO HANOVER SEASIDE CLUB.

5. **Individual making request:** SHAWN SPENCER

Complete Mailing Address: 128 CAVALIER DRIVE WILMINGTON, NC 28403

Phone Number: 910-264-5382 E-mail: SHAWN@BIKECYCLESHOP.COM

6. **Individual who will be on site and in charge of activity:** SHAWN SPENCER

Complete Mailing address: 128 CAVALIER DRIVE WILMINGTON NC 28403

Phone Number: 910 264 5382 E-mail: SHAWN@BIKECYCLESHOP.COM

7. **Sponsoring organization/corporation (if applicable):** BLOCKADE RUNNER

Contact: BILL BAGGETT

Complete Mailing Address: 275 WAYNICK BLVD, WB NC 28480

Phone Number: 910 256 2251 E-mail: WILLIAMJBAGGETT@GMAIL.COM

8. **Briefly describe provisions for the following:**

Toilet facilities BLOCKADE RUNNER'S FACILITIES

Trash disposal ON SITE TRASH BAGS
(Plastic and aluminum must be recycled. Use of styrofoam and glass is prohibited.)

Parking BLOCKADE RUNNER

Electrical power needs USING BLOCKADE RUNNER'S AND/OR ONE GENERATOR

Water needs NONE

9. **Will food be served?** NO **If yes, has permit from Health Dept. been obtained?** ___

Describe types of containers, cooking equipment, etc. to be used NONE

* Bike Cycles, LLC
Non profit -
Race start time -

FOR OFFICE USE ONLY

Site plan included?
Yes No Not Required

Permit(s) needed for vehicle on the beach? Yes No
Number needed: 2

Vehicle permit issued to:
Shawn Spencer

Vendors requested?
Yes No
Red Bull
Bike Cycles

***Full road closure required?**
Yes No

Police support required?
Yes No Not Required

PD Comments:

Fire Dept. support required?
Yes No Not Required

FD Comments:

Ocean Rescue support required?
Yes No Not Required

OR Comments:

EMS support required?
Yes No Not Required

Certificate of Insurance obtained?
Yes No Not Required
To provide prior to the event

10. Will there be any music, PA system, or loud activities (if any, briefly describe)? YES, SOME MUSIC AND PA ANNOUNCER FROM APPROX 12-4pm

If yes, provide information specifying location and direction of noise-emanating devices along with proposed noise level, frequency, and duration: ON BEACH DIRECTLY IN FRONT OF BLOCKADE RUNNER DIRECTED TOWARDS OCEAN/SOUTH

11. Will any banners, tents, stages, chairs, nets, decorations, etc., be used at this activity? YES

If so, what company is providing the equipment? RED BULL, BIKE CYCLES

Describe equipment in detail and provide a sketched plan: SMALL 10X10 TENTS AND INFLATABLE FINISH ARCH

12. Will there be sales of any types of souvenirs, t-shirts, food, drinks or other products on public property? NO

If so, describe in detail: _____

13. Is police assistance necessary? NO *Are you requesting the closing of any streets? NO

If so, please specify: _____

*Events requiring a complete road closure must pay a fee of $0.50 per race finisher. Amount will be submitted with a statement attesting to the number of finishers. Payment is due within fourteen (14) days of the event.

Organizers of runs and other race events are responsible for providing traffic and/or crowd control which shall be handled by the Wrightsville Beach Police Department. Organizers of waterborne activities are responsible for providing adequate water safety resources to assure the safety of participants. Depending on the nature of the event, the Special Events Coordinator, Town Manager, or the Board of Aldermen may require police assistance with traffic/crowd control, additional Ocean Rescue support, and/or Emergency Medical Services support. Additional fees for these services may be incurred.

I understand that if my event requires a complete road closure, I am responsible for paying an additional fee of $0.50 per race finisher. Payment is due within fourteen (14) days of the event.

I hereby certify that I am the authorized and responsible representative of the applying group and that I am at least 18 years of age. I understand that if any information is found not to be accurate, additional fees and/or fines may be assessed and/or my permit may be revoked.

I agree to comply with all town ordinances, rules, regulations, and other applicable laws.

I agree to save and keep the Town free and harmless from any and all loss or damages or claims for damages, including attorney's fees and litigation costs, arising from or out of the special event.

I agree to, upon request of the Special Events Coordinator, Town Manager, and/or the Board of Aldermen, to provide proof of general liability insurance listing the Town as an additionally insured with limits no less than 1 (one) million dollars.

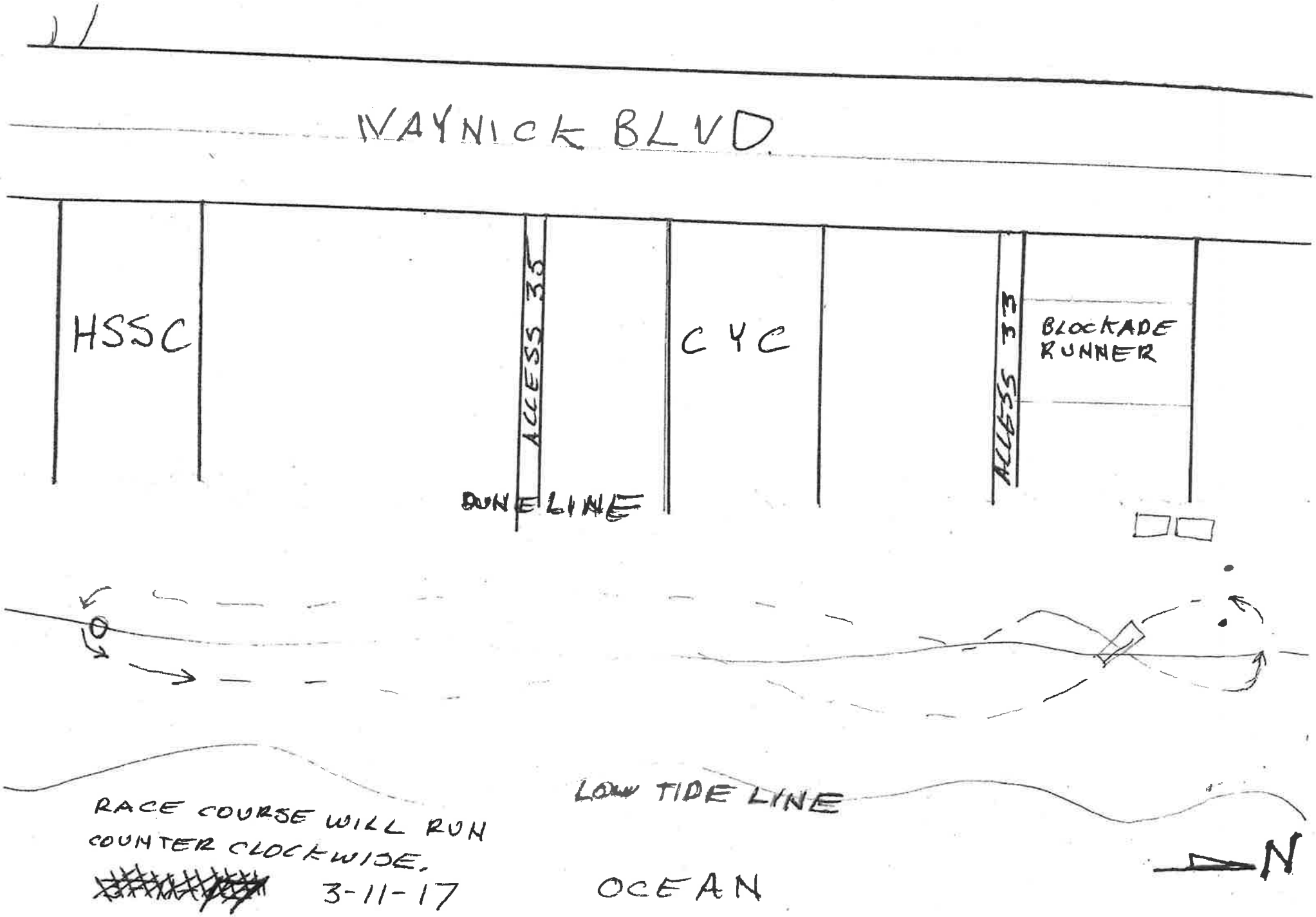
I understand that if the event is cancelled, I will receive a refund of my application fee less a $15 administrative fee.

See attached memo for additional stipulations.

Signature: _____ Date: 10-22-16

This application is hereby approved, this the _____ day of _____, 20_____.

_____
Special Events Coordinator, Town of Wrightsville Beach, North Carolina



RACE COURSE WILL RUN COUNTER CLOCKWISE.

3-11-17

PROPOSED DESIGN:
SHAWN SPENCER
11-2-16

APPROVED SPECIAL EVENTS
December 2016

Distribution List:

Glen Rogers, WBFD
Dave Baker, Ocean Rescue
Robert Pugh, WBFD
Daniel House, WBPD
Diana Zeunen, WBPD
Jason Bishop, WBPD
Greg Gowin, WBPD
Joe Newberry, WBPD
Jimmy Rich, WBPD
Jordan Smith, WBPD
Tim Owens, Town Manager
William Squires, Public Works
Bill Bailey, Public Works
David Clodfelter, Public Works
Tony Wilson, Planning & Parks
Katie Ryan, Parks and Recreation
Shannon Slocum, Park Ranger
Evan Morigerato, Parks Maintenance
Sylvia Holleman, Town Clerk
Wrightsville Beach Museum
Bryant Sykes, Lanier Parking
Matt Amor, Lanier Parking
Tiffany Rice, General Admin
Board of Aldermen
Ted Wilgis, NC Coastal Federation
WB Marketing Advisory Committee

FOR PARKING PURPOSES: Highlighted Events are reservations/events in WB Park.
Bold print indicates event is pending approval

EVENT DATE	TIME	NUMBER OF PARTICIPANTS	ACTIVITY	NAME	LOCATION	Vehicle on Beach and Parking Permit
Sat 12/3	8:30 am - 10:30	30	HOA Meeting	Channel Walk HOA	Fran Russ Recreation Center	
Sat 12/10	6:00 am - 12:00 pm	400	Jingle Bell Run	Flagler	WB Museum, Loop, and N. Channel	
Sat 12/31	**10:00 pm - 12:00 am**	**25**	**Wedding**	**Cameron**	**Beach strand at Shell Island Resort**	

* indicates vehicle on beach permit issued to L&L Tent Rentals,
Beach Side Occasions, ETC. Party Rentals or Sweet Water Bamboo

WRIGHTSVILLE BEACH POLICE DEPARTMENT

1st Quarter Report
July/August/September 2016

Presented by:

Chief Daniel L. House

Wrightsville Beach Police Department

Quarterly Report Executive Summary
First Quarter
FY 2016-2017
(July, August & September 2016)

Crime Report

During the first quarter of FY 2016-2017, the Town of Wrightsville beach saw slight increase in Part One crime from the same quarter last year in 2015 (approximately an 3% increase). The major area for the increase this quarter was Motor Vehicle Theft and Larceny.

During the first quarter, we saw a significant increase in Part Two crimes compared to last year during the same time period (approximately a 38% increase). The largest increases in Part Two crimes this quarter are drug violations, weapon violations and DWI. Since all three of these crimes are generally attributed to proactive policing as opposed to reactive policing, it seems logical that the reduced staffing last year would produce less proactive activity and reduced numbers in 2015. Compared to 2014 numbers when we were fully staffed (like in 2016), the difference is only a 5% increase in part two crime.

During this quarter, we had an increase in town ordinances violations (approximately 25% increase). This is mainly in the area of glass on the beach and alcohol violations. Again, increase staffing in 2016 has given the police department the ability to be more proactive in the enforcement of our ordinances.

Community Concerns

During the latest Chat with the Chief (October 27, 2016), there were no major issues voiced by the community. Generally speaking, the residents in attendance were happy with the Police Department and their response to the community's concerns.

Progress Report

Over the past year, the Police Department has worked to implement a staffing plan to enhance the overall efficiency and effectiveness of its operation. That plan was implemented this past spring in the 2016-2017 budget cycle. This summer certainly proved that we have implemented a winning formula and operations have been running very smoothly. Currently, the Police Department is working on its annual budget planning, its multi-year plan through year 2020 and working to close out year two (2) of its three (3) year CALEA Accreditation cycle.

Attachments:

- *WBPD Uniform Crime Report*
- *TOWB General Ordinance Violations Report*

WBPD Uniform Crime Report (UCR)		Previous Years								Last Four	Previous Year Same Quarter
		Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept		Jul-Sept
		2012	2013	2014	2015	2015	2016	2016	2016	TOTAL	2015
PART I CRIMES											
0120	CRIMINAL HOMICIDE (Manslaughter by negligence)	0	0	0	0	0	0	0	0	0	0
0200	ASSULT-SEXUAL/FORCIBLE RAPE	2	5	1	3	0	1	1	1	3	1
0300	ROBBERY	1	1	1	0	0	0	3	0	3	0
0400	ASSAULT-AGGRAVATED OR WITH WEAPON	17	5	5	10	2	0	3	3	8	3
0500	BURGLARY	56	49	34	43	6	4	14	9	24	14
0600	LARCENY-THEFT	218	210	154	152	15	29	66	58	110	54
0700	MOTOR VEHICLE THEFT	5	3	0	4	1	0	5	4	6	2
0900	ARSON	3	0	1	0	0	0	0	1	1	0
Part 1 Crime Total		**302**	**273**	**196**	**212**	**24**	**34**	**92**	**76**	**155**	**74**
PART 2 CRIMES											
0800	ASSAULT-SIMPLE	65	69	43	63	7	3	15	23	25	21
1000	FORGERGY AND COUNTERFEITING	4	4	3	7	1	2	3	1	6	4
1100	FRAUD	29	43	42	44	5	10	8	6	23	11
1200	EMBEZZLEMENT	1	0	3	0	0	0	0	1	1	0
1300	STOLEN PROPERTY	6	5	2	1	0	0	1	2	3	0
1400	VANDALISM	82	77	52	90	11	13	18	13	55	25
1500	WEAPON OFFENSES	12	11	4	8	0	0	7	7	7	2
1600	PROSTITUTION/VICE OFFENSES	0	2	1	0	0	1	0	2	3	0
1700	ALL OTHER SEX OFFENSES	6	3	0	2	1	2	1	1	5	0
1800	DRUG ABUSE VIOLATIONS	110	99	45	56	0	3	15	29	18	9
1900	GAMBLING	0	0	0	0	0	0	0		0	0
2000	OFFENSES AGAINST THE FAMILY OR CHILDREN	5	1	1	0	0	1	2	1	4	0
2100	DRIVING WHILE IMPAIRED	111	89	39	47	8	9	24	27	68	5
2200	LIQUOR LAW VIOLATIONS	57	25	10	8	0	3	5	3	8	3
2400	DISORDERLY CONDUCT	52	49	14	57	4	7	10	11	21	7
2500	OBSECENE MATERIAL/PORNOGRAPHY	0	0	0	0	0	0	0	1	1	0
4000	ALL TRAFFIC (EXCEPT DWI), SUICIDE (THE DECEASED IS THE VITIM), NON-NEGLIGENT TRAFFIC DEATH, NON-CRIMINAL DETINMENT (INVOLUNTARY COMMITMENT)	92	153	64	95	9	14	57	39	80	14
8000	MISSING PERSONS	2	0	0	2	0	2	0	7	2	0
9900	CALLS FOR SERVICE	51	30	32	38	3	8	8	10	29	13
Part 2 Crime Total		**685**	**660**	**355**	**518**	**49**	**78**	**174**	**184**	**359**	**114**
OTHER MISCELLANEOUS CRIMES											
2600	1) Contempt of Court, 2) Resist Arrest, 3) Parole Violations, 4) Traspassing, 5) Ordinance Violations (on a criminal citation - not civil), 6) All Other Offenses.	210	128	69	62	7	11	28	19	46	20
Miscellaneous Total		210	128	69	62	7	11	28		46	20
	GRAND TOTAL	**1197**	**1061**	**620**	**792**	**80**	**123**	**294**	**260**	**560**	**208**

TOWB General Ordinance Violations		Previous Years									Previous Year Same Quarter
		Jan-Dec 2012	Jan-Dec 2013	Jan-Dec 2014	Jan-Dec 2015	Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Jul-Sept 2016	Last Four TOTAL	Jul-Sept 2015
TRAFFIC CODE: CHAPTER 74											
74.02	Obstructing passage of other vehicles	3	18	6	37	9	8	14	24	55	10
ANIMALS: CHAPTER 91											
91.11	Dogs running at large prohibited	90	82	156	88	20	21	17	19	58	26
91.08	Animal Waste	19	8	0	3	0	1	0	0	1	0
91.08	Failure to License	1	3	1	18	3	5	0	2	10	2
91.13	Confinement of female dogs in heat	1	0	3	0	0	0	0	0	0	0
BEACH AND SHORE REGULATIONS: CHAPTER 92											
92.02	Littering beaches prohibited	5	1	11	6	3	2	0	0	5	3
92.03	Glass on Beach/Containers for food and drink	357	285	317	198	7	1	113	126	247	99
92.12	Use of surfboard or ski-board restricted	24	15	17	10	3	4	4	3	14	3
92.18	Use of vehicles on beach prohibited	7	9	1	2	1	5	2	0	8	1
	Miscellaneous Beach Regulations	0	18	0	0	0	1	0	0	1	0
HEALTH AND SANITATION: CHAPTER 96											
96.01	Litter	11	11	15	9	0	0	3	12	3	1
96.3	Human wastes	74	64	88	115	12	14	33	22	81	50
	Miscellaneous	0	3	8	14	0	0	15	28	43	14
NOISE: CHAPTER 97											
97.01	Loud, disturbing noises generally	82	24	26	23	4	1	9	5	19	5
97.02	Noises declared unreasonably loud and disturbing	0	19	0	2	0	0	0	0	0	0
STREETS AND SIDEWALKS: CHAPTER 99											
99.01	Assembling on sidewalks	0	0	0	0	0	0	0	0	0	0
BUSINESS REGULATIONS: CHAPTER 114											
114.02	Vehicle for hire license requirements	0	0	0	1	1	0	0	0	1	0
114.12	Refusal to pay charges	0	0	0	0	0	0	0	0	0	0
OFFENSES AGAINST PUBLIC PEACE & SAFETY: CHAPTER 130											
130.03	Consumption and possession of malt beverages, unfortified wine and alcoholic beverages	1262	789	520	228	4	12	192	224	208	135
OFFENSES AGAINST MORALS											
132.2	Profane and boisterous language	0	0	0	0	0	0	0	0	0	0
MISC VIOLATIONS											
	Miscellaneous Other	40	26	31	9	0	3	5	1	9	0
ND TOTAL		**1976**	**1375**	**1200**	**763**	**67**	**78**	**407**	**466**	**763**	**349**

TOWN OF WRIGHTSVILLE BEACH
PUBLIC WORKS DEPARTMENT

Quarterly Report 2016
July, August, September

Wm. B. Squires 10/19/16

William Squires, Public Works Director

PUBLIC WORKS QUARTERLY REPORT

PUBLIC WORKS QUARTERLY REPORT - JULY/AUGUST/SEPTEMBER, 2016

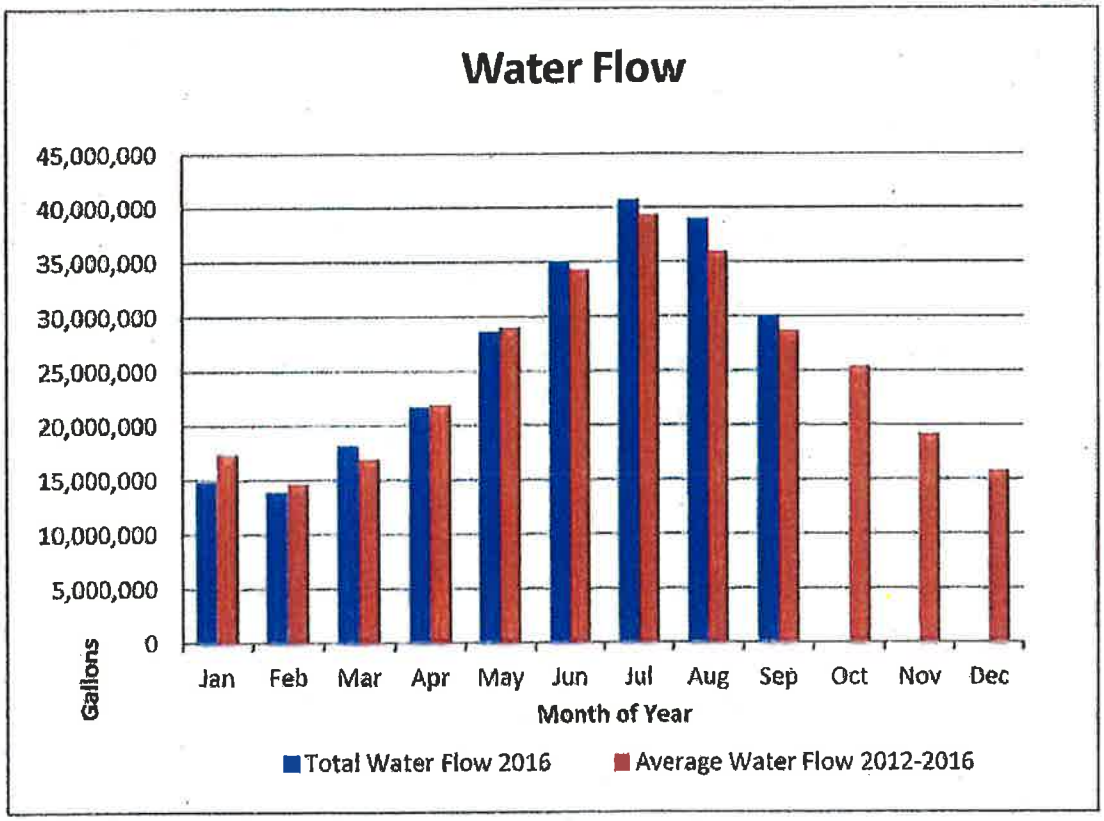
WATER:	Sep-16	Aug-16	Jul-16
# EMPLOYEES AUTHORIZED = 8	4	4	4
TOTAL WATER (GALLONS):	29,992,000	38,915,000	40,668,000
DAILY AVERAGE GALLONS:	999,733	1,255,323	1,311,871
HIGH DAY GALLONS:	1,770,000	1,619,000	1,701,000
HIGH DAY DATE:	9/1/2016	8/1/2016	7/18/2016
SEWER:			
TOTAL SEWER (GALLONS):	25,822,000	21,097,900	23,201,400
DAILY AVERAGE GALLONS:	860,733	680,577	748,432
HIGH DAY GALLONS:	2,397,600	943,300	1,027,700
HIGH DAY DATE:	9/1/2016	8/1/2016	7/4/2016
RAINFALL (INCHES):	20.7	6.7	1.7
ENTEROCOCUS TESTS			
#1 (JOHNNY MERCERS PIER)	0	0	10
#2 (BANKS CHANNEL @ SALISBURY)	0	0	<10
#3 (INTERCOASTAL WW/DRAWBRIDGE)	0	0	<10
#4 (WYNN PLAZA)	0	0	<10
#5 (BANKS CHANNEL @ YACHT CLUB)	0	0	<10
#6 (BANKS CHANNEL @ SOUTH END)	0	0	10
WORK ORDERS:			
WORK ORDERS PENDING:	10	17	2
WORK ORDERS COMPLETE:	162	223	154
SANITATION:	**Sep-16**	**Aug-16**	**Jul-16**
# EMPLOYEES AUTHORIZED = 7	7	7	5
TTL RESID. & COMM TONS:	349.17	453.23	496.84
BUILDING/CONSTRUCTION MATERIAL:	0	0	0
SCRAP METAL:	0	0	3.18
MIXED CONSTRUCTION:	302.17	0	0
YARD TRASH:	35.88	21.49	6.88
TOTAL RECYCLABLES TONS:	338.05	21.49	10.06
TOTAL SOLID WASTE TONS:	687.22	474.72	506.9
WORK ORDERS:			
WORK ORDERS PENDING:	5	20	5
WORK ORDERS COMPLETE:	205	241	188

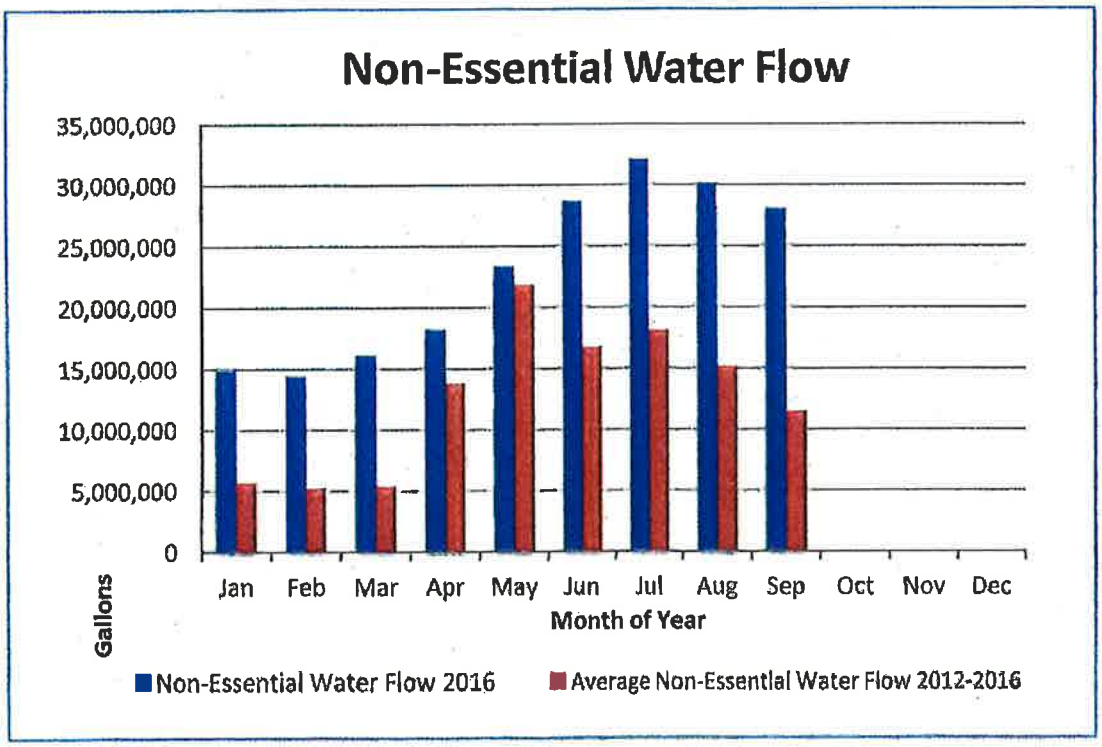
FLEET MAINTENANCE:	Sep-16	Aug-16	Jul-16
# EMPLOYEES AUTHORIZED = 3:	3	3	3
REPAIRS VEHICLES/EQUIPMENT (HRS):	191.1	283.7	179
REPAIR COSTS VEHICLES $:	$202.26	$111.03	$164.74
REPAIR COSTS EQUIPMENT $:	$7.24	$10.68	$0.00
OIL/TIRES $	$3,361.27	$5,321.51	$887.40
FUEL DISPENSED - DIESEL $:	$2,641.94	$2,816.64	$2,177.82
FUEL DISPENSED - GAS $:	$5,815.49	$5,694.64	$6,380.30
WORK ORDERS:			
WORK ORDERS PENDING:	67	53	62
WORK ORDERS COMPLETE:	42	81	31

2016 Year to date total cost for operation/maintenance of town assets through PW Department is $81879.74.

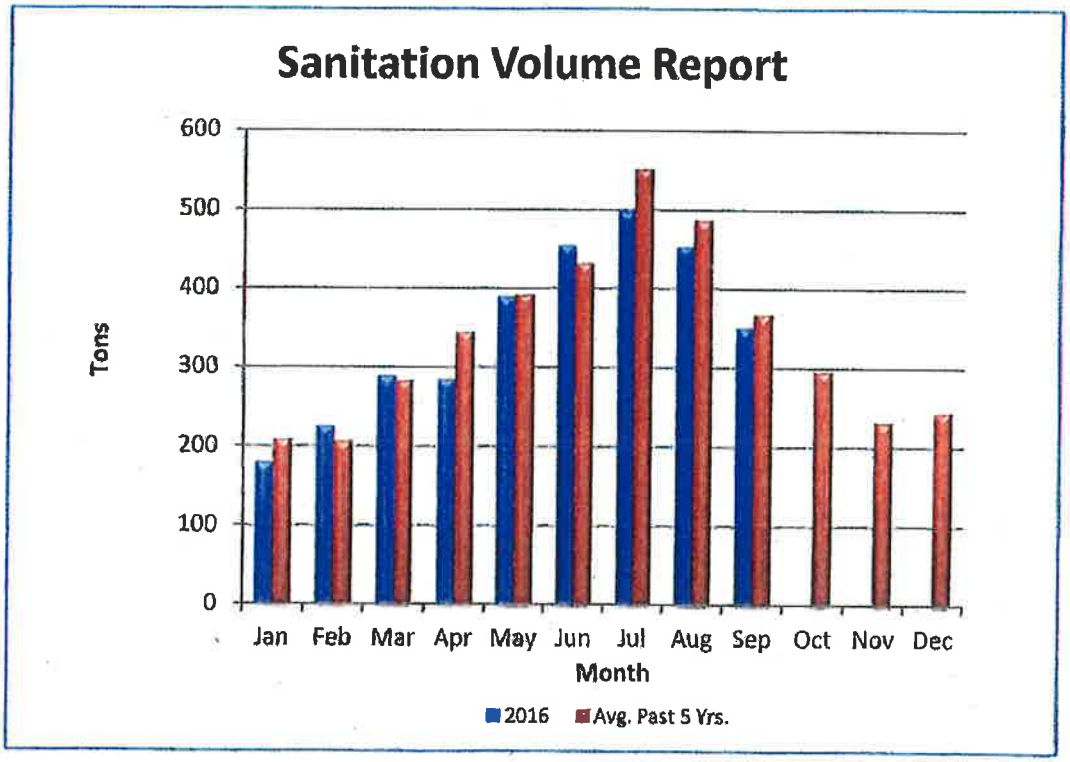
FACILITIES MAINTENANCE	Sep-16	Aug-16	Jul-16
# EMPLOYEES AUTHORIZED = 5:	4	4	3
TOTAL STREET REPAIRS (HRS):	117	1.75	19
TOTAL M/R RIGHT-OF-WAYS (HRS):	0	2.75	10
TOTAL STREET SWEEPING (HRS):	32	90	46
TOTAL STREET PAINTING (HRS):	0	0	4
SIDEWALK WORK (HRS):	0	0	0.25
M/R Construct BUILDINGS (HRS):	55.75	54.5	62.7
CLEAN/SUPPY BUILDINGS (HRS)	171.25	192.1	216.5
MISCELLANEOUS (HRS):	80	127.5	194
WORK ORDERS:			
WORK ORDERS PENDING:	16	29	21
WORK ORDERS COMPLETE:	134	129	140

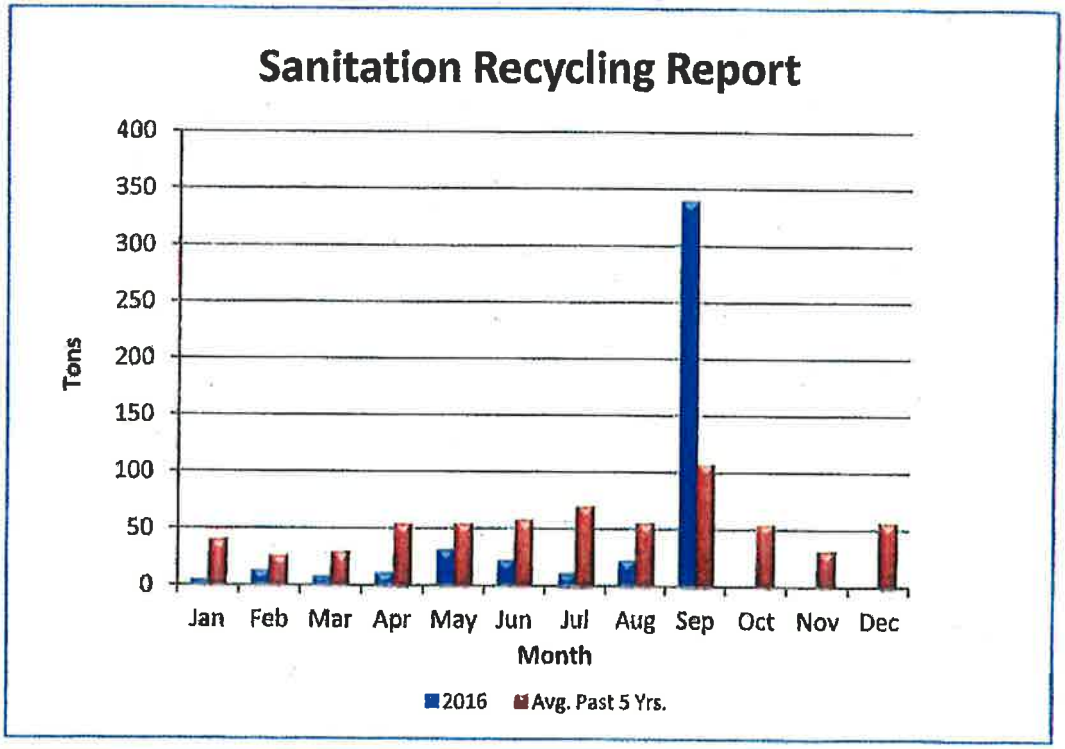
Water & Sewer Report



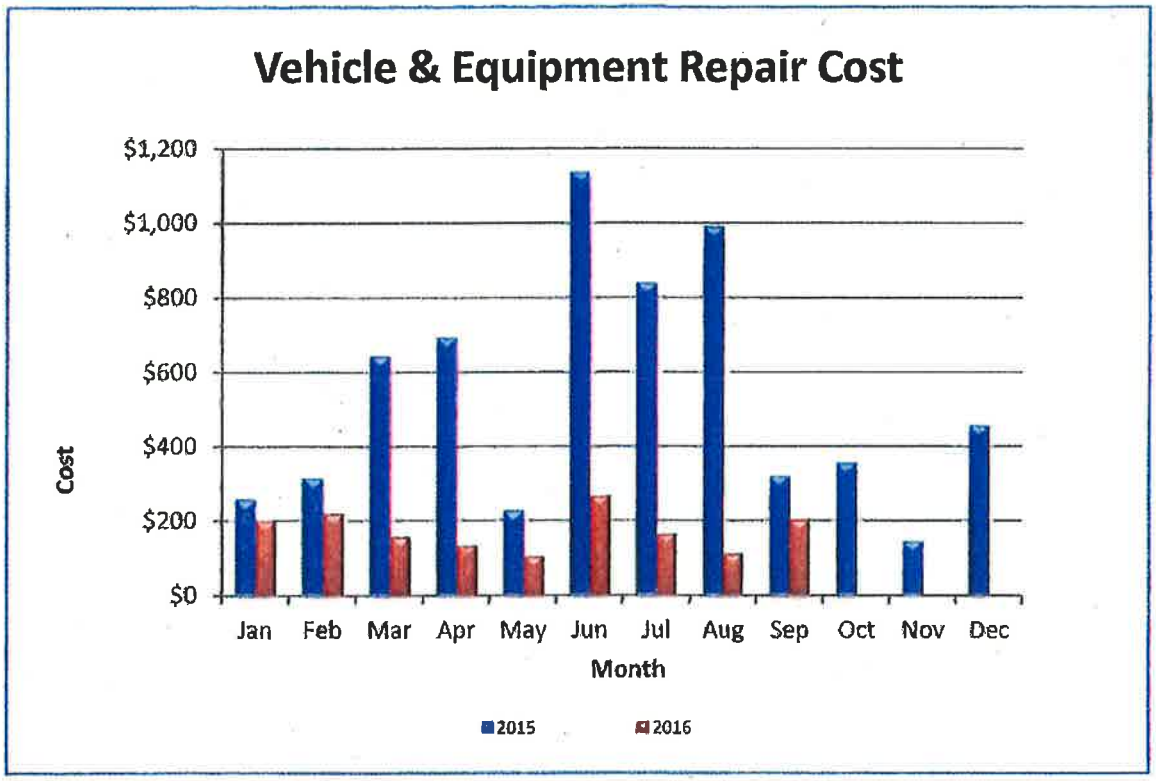


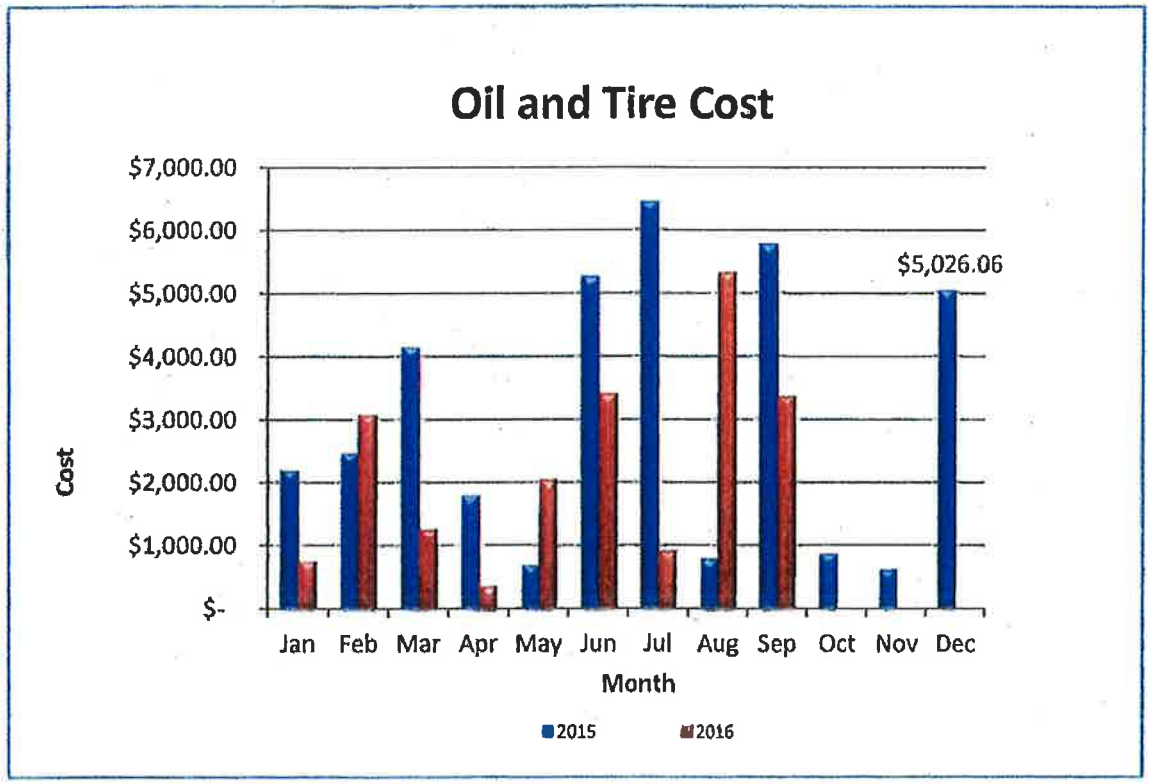
Sanitation Report

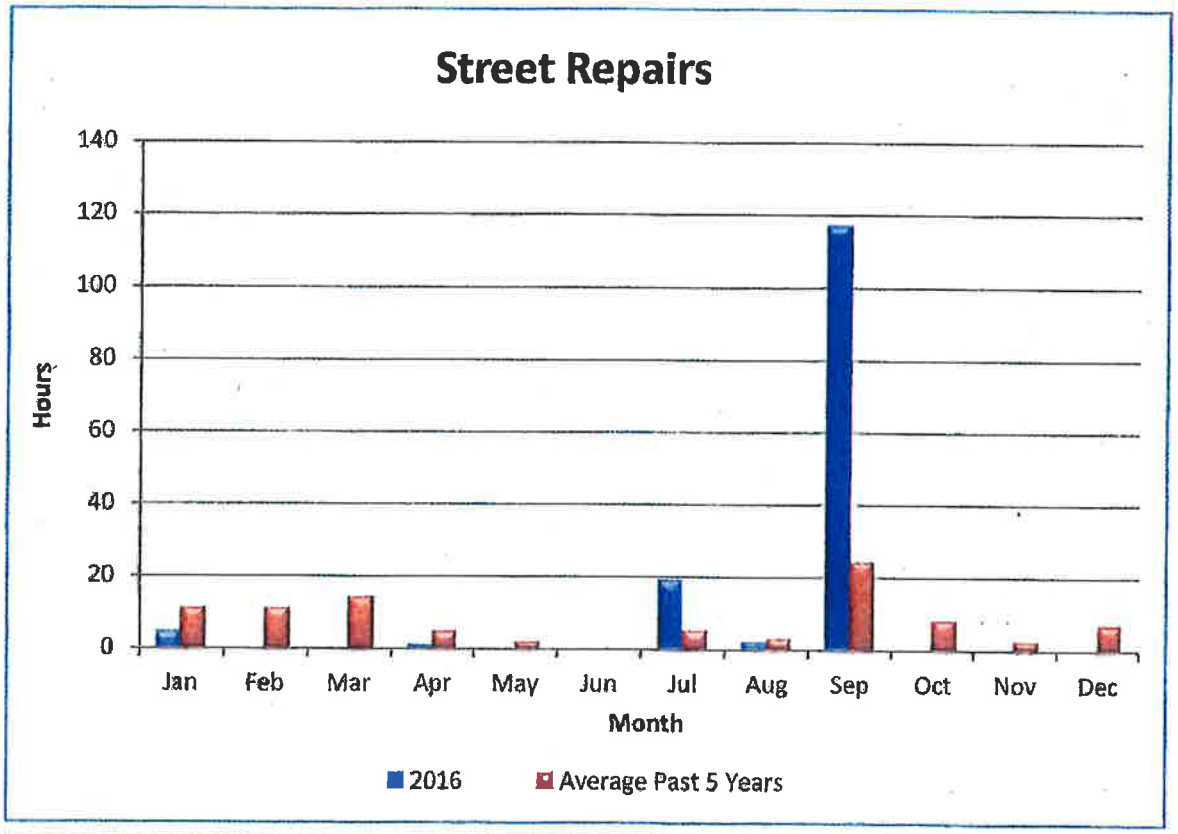


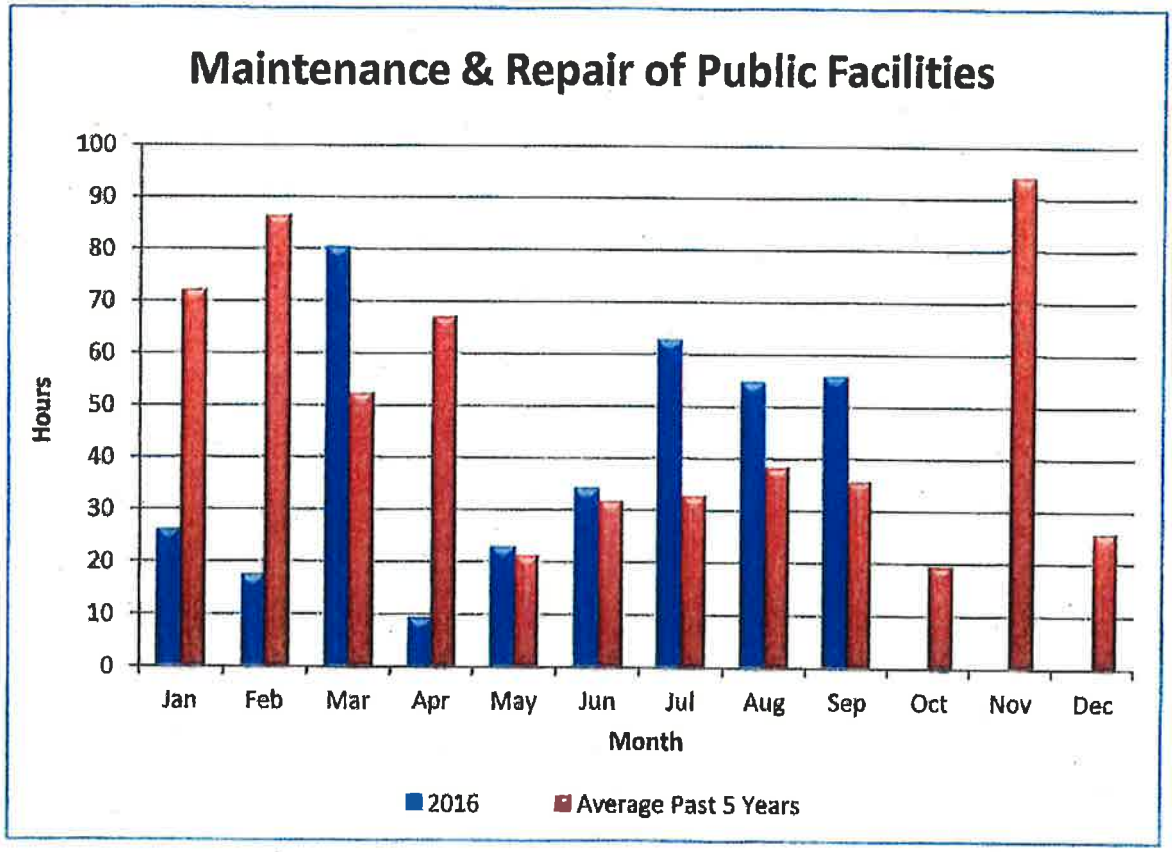


Fleet Maintenance Report






Street Repairs
140
120
100
80
60
40
20
0
Hours
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
2016
Average Past 5 Years


Maintenance & Repair of Public Facilities
100
90
80
70
60
50
40
30
20
10
0
Hours
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
2016
Average Past 5 Years

TOWN OF WRIGHTSVILLE BEACH
PLANNING & PARKS DEPARTMENT

RECREATION PROGRAMS

First Quarter Fiscal Year 2016-2017
July 2016
August 2016
September 2016

Katie Ryan, Parks and Recreation Program Supervisor

WRIGHTSVILLE BEACH
PARKS AND RECREATION DEPARTMENT
PROGRAMS AND ACTIVITIES PARTICIPATION REPORT
July 2016

	PROGRAMS / ACTIVITIES	FACILITY USED	INDIVIDUAL PARTICIPANTS			ATTENDANCE		
			WBR	NR	TOTAL	WBR	NR	TOTAL
	After School	Recreation Center			-			-
	Art and Jewelry Camp	Recreation Center			-			-
	Babysitter Training	Recreation Center			-			-
	Beach Bound Boot Camp	Basketball Court			-			-
	Bridge Lessons & Workshops	Recreation Center			-			-
	Cotillion	Recreation Center	4	7	11	20	35	55
	Farmers' Market	Seawater Field						876
	Junior Lifeguard	Beach Access 36	33	40	73	89	136	225
	Kids Cooking Class/Camp	Recreation Center	2	20	22	10	72	82
	Line Dancing	Recreation Center			-			-
	Performance Club Class/Camp	Recreation Center	7	22	29	29	98	127
	Shag	Recreation Center			-			-
	OTHER PROGRAMS TOTAL		**46**	**89**	**135**	**148**	**341**	**1,365**
	Aerobics/Toning (T-Th)	Recreation Center	13	12	25	45	50	95
	Aerobics/Low-Impact (M-W-F)	Recreation Center	11	11	22	52	60	112
*	Barre Fit	Recreation Center	16	20	36	32	21	53
*	Boot Camp	Basketball Court				23	5	28
*	Yoga - Hatha (Gentle)	Recreation Center				18	18	36
*	Yoga - Vinyasa	Recreation Center				52	66	118
	FITNESS TOTAL		**40**	**43**	**83**	**222**	**220**	**442**
**	Basketball League - Adult	Basketball Court		120	120		480	480
	Basketball - Youth	Basketball Court			-			-
**	Flag Football League - Adult	Soccer/Recycle Flds			-			-
	Flag Football League - Youth	Soccer Field			-			-
	Lacrosse Camp	Soccer Field			-			-
	Pickleball	Tennis Courts			-			-
	Soccer	Soccer Field	10	38	48	50	190	240
	Tennis Camp	Tennis Courts			-			-
	Tennis Lessons - Tots	Tennis Courts			-			-
	Tennis Lessons - Youth	Tennis Courts			-			-
	Tennis Lessons - Adults	Tennis Courts	1	4	5	6	24	30
	SPORTS TOTAL		**11**	**162**	**173**	**56**	**694**	**750**
		GRAND TOTAL	**97**	**294**	**391**	**426**	**1,255**	**2,557**

* Participants frequently attend a variety of fitness classes. Therefore, the individual participant count is combined for these fitness classes based on monthly token sales. Total class attendance is counted per class.

** Programs where total attendance is estimated based on number of games and approximate number of players.

***Not available for reporting per IT.

PUBLIC INQUIRIES	
Incoming Phone Calls	***N/A
Walk-Ins	329
Email	286
Faxes Received	
TOTAL INQUIRIES	615

SPECIAL EVENT PERMITS: 25

WRIGHTSVILLE BEACH
PARKS AND RECREATION DEPARTMENT
FACILITY RESERVATIONS AND USAGE REPORT
July 2016

FACILITY RESERVED	GROUP USING FACILITY	DAYS USED	NUMBER OF GROUPS			INDIVIDUAL PARTICIPANTS	TOTAL ATTENDANCE
			W.B. RES	NON-RES	TOTAL		
Basketball Court	Private				-		
Event Stage	WB P&R Events	4	1		1	1,700	1,700
Event Stage	Private	3		3	3	300	300
Pickleball Equipment	Private	8	1		1	10	80
*Recreation Center	AA	5		1	1	50	250
*Recreation Center	Boating	1		1	1	20	20
Recreation Center	Private	2	2		2	40	40
Recreation Center	WB P&R Events				-		
Recycle Field	Flag Football				-		
Seawater Field	Private	1		1	1	50	50
Seawater Field	Farmers' Market	4			-		876
Shelters	TOWB Events				-		
Shelters	Private	3		3	3	300	300
Soccer Field	Private	6	1	1	2	50	210
Soccer Field	Flag Football				-		
Softball Field	Private	8		1	1	240	1,400
Tennis Courts	Private				-		
Town Hall Field	Private	2		2	2	362	362
Town Hall Field	WB P&R Events				-		
Wheelchair	Private	31	4	30	34	34	114
	TOTALS	78	9	43	52	3,156	5,702

* Total individual participants, multiplied by number of days facility was used

TOTAL FACILITY USAGE (INCLUDES PROGRAMS, ACTIVITIES AND RESERVATIONS)

FACILITY/ LOCATION	TOTAL USAGE (NO. OF PEOPLE)
Basketball Courts	508
Event Stage	2000
Pickleball Equipment	80
Recreation Center	988
Recycle Field	
Seawater Field	926
Shelters	300
Soccer Field	210
Softball Field	1400
Tennis Courts	
Town Hall Field	362
Wheelchair	114

WRIGHTSVILLE BEACH PARKS AND RECREATION REVENUE
July 2016
Total Receipts Written - 134

PROGRAM	W.B. RES.	NON-RES.	REFUNDS	TOTAL
AFTER SCHOOL	$ 615.00			$ 615.00
ART & JEWELRY CAMP				$ -
BABYSITTER'S TRAINING	$ 170.00	$ 500.00		$ 670.00
BASKETBALL - YOUTH		$ 175.00		$ 175.00
BASKETBALL LEAGUE				$ -
BEACH BOUND BOOT CAMP				$ -
BRIDGE LESSONS				$ -
BUSINESS ON BEACH PERMITS				$ -
COTILLION	$ 420.00	$ 300.00		$ 720.00
DONATIONS		$ 10.00		$ 10.00
FARMERS' MARKET		$ 1,725.00		$ 1,725.00
FITNESS - LOW/TONE	$ 420.00	$ 505.00		$ 925.00
FITNESS - TOKENS	$ 704.00	$ 856.00		$ 1,560.00
FLAG FOOTBALL - ADULT				$ -
FLAG FOOTBALL - YOUTH				$ -
JUNIOR LIFEGUARD	$ 920.00	$ 440.00		$ 1,360.00
KIDS' COOKING CLASS	$ 320.00	$ 1,140.00		$ 1,460.00
LACROSSE CAMP				$ -
LINE DANCING				$ -
PERFORMANCE CLUB				$ -
PERFORMANCE CLUB CAMP	$ 140.00	$ 525.00		$ 665.00
PICKLEBALL				$ -
PICKLEBALL LADDER				$ -
REFUSE TO BE A VICTIM				$ -
RENTAL-EVENT STAGE	$ 70.00	$ 467.00		$ 537.00
RENTAL-OPEN AREAS				$ -
RENTAL - PICKLEBALL EQUIP				$ -
RENTAL-PICNIC SHELTERS	$ 90.00	$ 617.00		$ 707.00
RENT-RECREATION CENTER				$ -
RENTAL-SOCCER FIELD	$ 40.00	$ 100.00		$ 140.00
RENTAL-SOFTBALL FIELD				$ -
SHAG	$ 320.00	$ 300.00		$ 620.00
SOCCER	$ 230.00	$ 1,960.00		$ 2,190.00
MOVIE, CONCERT, RACE SPNSRS				$ -
SPECIAL EVENT PERMITS		$ 900.00		$ 900.00
TENNIS - YOUTH & TOTS				$ -
TENNIS - ADULTS	$ 60.00	$ 300.00		$ 360.00
TENNIS CAMP				$ -
T-SHIRTS/SWEATSHIRTS	$ 120.00			$ 120.00
WB VALENTINE 10K				$ -
JULY 2016	**$ 4,639.00**	**$ 10,820.00**	**$ -**	**$ 15,459.00**
JULY 2015	**$ 6,488.00**	**$ 14,737.50**	**$ 150.00**	**$ 21,075.50**
BEHIND/AHEAD BY	**$ (1,849.00)**	**$ (3,917.50)**	**$ (150.00)**	**$ (5,616.50)**

WRIGHTSVILLE BEACH
PARKS AND RECREATION DEPARTMENT
PROGRAMS AND ACTIVITIES PARTICIPATION REPORT
August 2016

	PROGRAMS / ACTIVITIES	FACILITY USED	INDIVIDUAL PARTICIPANTS			ATTENDANCE		
			WBR	NR	TOTAL	WBR	NR	TOTAL
	After School	Recreation Center	16	6	22	34	13	47
	Art and Jewelry Camp	Recreation Center			-			-
	Babysitter Training	Recreation Center	3	12	15	3	12	15
	Beach Bound Boot Camp	Basketball Court			-			-
	Bridge Lessons & Workshops	Recreation Center			-			-
	Cotillion	Recreation Center			-			-
	Farmers' Market	Seawater Field						895
	Junior Lifeguard	Beach Access 36			-			-
	Kids Cooking Class/Camp	Recreation Center			-			-
	Line Dancing	Recreation Center			-			-
	Performance Club Class/Camp	Recreation Center			-			-
	Shag	Recreation Center	16	18	34	16	18	34
	OTHER PROGRAMS TOTAL		**35**	**36**	**71**	**53**	**43**	**991**
	Aerobics/Toning (T-Th)	Recreation Center	17	14	31	59	58	117
	Aerobics/Low-Impact (M-W-F)	Recreation Center	11	14	25	63	93	156
*	Barre Fit	Recreation Center	21	21	42	32	31	63
*	Boot Camp	Basketball Court				24	10	34
*	Yoga - Hatha (Gentle)	Recreation Center				21	34	55
*	Yoga - Vinyasa	Recreation Center				54	67	121
	FITNESS TOTAL		**49**	**49**	**98**	**253**	**293**	**546**
**	Basketball League - Adult	Basketball Court			-			-
	Basketball - Youth	Basketball Court	2	9	11	10	45	55
**	Flag Football League - Adult	Soccer/Recycle Flds			-			-
	Flag Football League - Youth	Soccer Field			-			-
	Lacrosse Camp	Soccer Field			-			-
	Pickleball	Tennis Courts			-			-
	Soccer	Soccer Field			-			-
	Tennis Camp	Tennis Courts			-			-
	Tennis Lessons - Tots	Tennis Courts			-			-
	Tennis Lessons - Youth	Tennis Courts			-			-
	Tennis Lessons - Adults	Tennis Courts			-			-
	SPORTS TOTAL		**2**	**9**	**11**	**10**	**45**	**55**
		GRAND TOTAL	**86**	**94**	**180**	**316**	**381**	**1,592**

* Participants frequently attend a variety of fitness classes. Therefore, the individual participant count is combined for these fitness classes based on monthly token sales. Total class attendance is counted per class.

** Programs where total attendance is estimated based on number of games and approximate number of players.

***Only 3 weeks available for reporting per IT

PUBLIC INQUIRIES	
Incoming Phone Calls	***539
Walk-Ins	383
Email	294
Faxes Received	
TOTAL INQUIRIES	677

SPECIAL EVENT PERMITS: 18

WRIGHTSVILLE BEACH
PARKS AND RECREATION DEPARTMENT
FACILITY RESERVATIONS AND USAGE REPORT

August 2016

FACILITY RESERVED	GROUP USING FACILITY	DAYS USED	NUMBER OF GROUPS			INDIVIDUAL PARTICIPANTS	TOTAL ATTENDANCE
			W.B. RES	NON-RES	TOTAL		
Basketball Court	Private				-		
Event Stage	WB P&R Events	1	1		1	800	800
Event Stage	Private				-		
Pickleball Equipment	Private	9	1		1	10	90
*Recreation Center	AA	4		1	1	50	200
*Recreation Center	Boating				-		
Recreation Center	Private				-		
Recreation Center	WB P&R Events				-		
Recycle Field	Flag Football				-		
Seawater Field	Private	4	1	1	2	90	90
Seawater Field	Farmers' Market	5	1		1		895
Shelters	TOWB Events				-		
Shelters	Private	5	1	4	5	345	345
Soccer Field	Private	1	1		1	10	10
Soccer Field	Flag Football				-		
Softball Field	Private	5		1	1	240	875
Tennis Courts	Private				-		
Town Hall Field	Private				-		
Town Hall Field	WB P&R Events				-		
Wheelchair	Private	31	4	26	30	30	100
	TOTALS	65	10	33	43	1,575	3,405

* Total individual participants, multiplied by number of days facility was used

TOTAL FACILITY USAGE (INCLUDES PROGRAMS, ACTIVITIES AND RESERVATIONS)

FACILITY/ LOCATION	TOTAL USAGE (NO. OF PEOPLE)
Basketball Courts	89
Event Stage	800
Pickleball Equipment	90
Recreation Center	808
Recycle Field	
Seawater Field	985
Shelters	345
Soccer Field	10
Softball Field	875
Tennis Courts	
Town Hall Field	
Wheelchair	100

WRIGHTSVILLE BEACH PARKS AND RECREATION REVENUE
August 2016
Total Receipts Written - 219

PROGRAM	W.B. RES.	NON-RES.	REFUNDS	TOTAL
AFTER SCHOOL	$ 2,273.00	$ 2,005.00		$ 4,278.00
ART & JEWELRY CAMP				$ -
BABYSITTER'S TRAINING	$ 85.00	$ 600.00	$ 180.00	$ 505.00
BASKETBALL - YOUTH	$ 420.00	$ 1,359.00	$ 224.00	$ 1,555.00
BASKETBALL LEAGUE				$ -
BEACH BOUND BOOT CAMP	$ 400.00			$ 400.00
BRIDGE LESSONS				$ -
BUSINESS ON BEACH PERMITS				$ -
COTILLION	$ 200.00	$ 2,680.00		$ 2,880.00
DONATIONS				$ -
FARMERS' MARKET		$ 1,455.00		$ 1,455.00
FITNESS - LOW/TONE	$ 444.00	$ 675.00		$ 1,119.00
FITNESS - TOKENS	$ 904.00	$ 1,128.00		$ 2,032.00
FLAG FOOTBALL - ADULT				$ -
FLAG FOOTBALL - YOUTH	$ 224.00	$ 540.00		$ 764.00
JUNIOR LIFEGUARD				$ -
KIDS' COOKING CLASS	$ 84.00	$ 204.00		$ 288.00
LACROSSE CAMP				$ -
LINE DANCING				$ -
PERFORMANCE CLUB	$ 140.00	$ 5,499.00		$ 5,639.00
PERFORMANCE CLUB CAMP				$ -
PICKLEBALL				$ -
PICKLEBALL LADDER				$ -
REFUSE TO BE A VICTIM	$ 80.00	$ 100.00		$ 180.00
RENTAL-EVENT STAGE	$ 35.00	$ 188.00		$ 223.00
RENTAL-OPEN AREAS		$ 820.00	$ 50.00	$ 770.00
RENTAL - PICKLEBALL EQUIP				$ -
RENTAL-PICNIC SHELTERS	$ 20.00	$ 369.00	$ 135.00	$ 254.00
RENT-RECREATION CENTER	$ 60.00	$ 220.00		$ 280.00
RENTAL-SOCCER FIELD				$ -
RENTAL-SOFTBALL FIELD		$ 1,170.00		$ 1,170.00
SHAG	$ 320.00	$ 650.00		$ 970.00
SOCCER	$ 200.00			$ 200.00
MOVIE, CONCERT, RACE SPNSRS	$ 1,500.00			$ 1,500.00
SPECIAL EVENT PERMITS		$ 4,275.00		$ 4,275.00
TENNIS - YOUTH & TOTS		$ 150.00		$ 150.00
TENNIS - ADULTS				$ -
TENNIS CAMP				$ -
T-SHIRTS/SWEATSHIRTS	$ 12.00			$ 12.00
WB VALENTINE 10K				$ -
AUGUST 2016	**$ 7,401.00**	**$ 24,087.00**	**$ 589.00**	**$ 30,899.00**
AUGUST 2015	**$ 6,006.00**	**$ 14,932.00**	**$ 1,225.00**	**$ 19,713.00**
BEHIND/AHEAD BY	**$ 1,395.00**	**$ 9,155.00**	**$ (636.00)**	**$ 11,186.00**

WRIGHTSVILLE BEACH
PARKS AND RECREATION DEPARTMENT
PROGRAMS AND ACTIVITIES PARTICIPATION REPORT

September 2016

	PROGRAMS / ACTIVITIES	FACILITY USED	INDIVIDUAL PARTICIPANTS			ATTENDANCE		
			WBR	NR	TOTAL	WBR	NR	TOTAL
	After School	Recreation Center	20	6	26	235	85	320
	Art and Jewelry Camp	Recreation Center			-			-
	Babysitter Training	Recreation Center			-			-
	Beach Bound Boot Camp	Basketball Court	3	2	5	18	12	30
	Bridge Lessons & Workshops	Recreation Center			-			-
	Cotillion	Recreation Center	3	19	22	6	38	44
	Farmers' Market	Seawater Field						405
	Junior Lifeguard	Beach Access 36			-			-
	Kids Cooking Class/Camp	Recreation Center	6	6	12	12	12	24
	Line Dancing	Recreation Center			-			-
	Performance Club Class/Camp	Recreation Center	3	37	40	15	179	194
	Refuse to be a Victim	Public Safety Building	6	12	18	6	12	18
	Shag	Recreation Center	16	18	34	48	54	102
	OTHER PROGRAMS TOTAL		**57**	**100**	**157**	**340**	**392**	**1,137**
	Aerobics/Toning (T-Th)	Recreation Center	13	13	26	36	58	94
	Aerobics/Low-Impact (M-W-F)	Recreation Center	11	11	22	36	73	109
*	Barre Fit	Recreation Center	15	18	33	36	30	66
*	Boot Camp	Basketball Court				18	9	27
*	Yoga - Hatha (Gentle)	Recreation Center				23	22	45
*	Yoga - Vinyasa	Recreation Center				33	55	88
	FITNESS TOTAL		**39**	**42**	**81**	**182**	**247**	**429**
**	Basketball League - Adult	Basketball Court			-			-
	Basketball - Youth	Basketball Court	9	1	10	18	2	20
**	Flag Football League - Adult	Soccer/Recycle Flds			-			-
	Flag Football League - Youth	Soccer Field	8	5	13	24	15	39
	Lacrosse Camp	Soccer Field			-			-
	Pickleball	Tennis Courts	-	7	7	-	14	14
	Soccer	Soccer Field			-			-
	Tennis Camp	Tennis Courts			-			-
	Tennis Lessons - Tots	Tennis Courts			-			-
	Tennis Lessons - Youth	Tennis Courts			-			-
	Tennis Lessons - Adults	Tennis Courts			-			-
	SPORTS TOTAL		**17**	**13**	**30**	**42**	**31**	**73**
		GRAND TOTAL	**113**	**155**	**268**	**564**	**670**	**1,639**

* Participants frequently attend a variety of fitness classes. Therefore, the individual participant count is combined for these fitness classes based on monthly token sales. Total class attendance is counted per class.

** Programs where total attendance is estimated based on number of games and approximate number of players.

PUBLIC INQUIRIES	
Incoming Phone Calls	786
Walk-Ins	247
Email	374
Faxes Received	
TOTAL INQUIRIES	1,407

SPECIAL EVENT PERMITS: 26

WRIGHTSVILLE BEACH
PARKS AND RECREATION DEPARTMENT
FACILITY RESERVATIONS AND USAGE REPORT

September 2016

FACILITY RESERVED	GROUP USING FACILITY	DAYS USED	NUMBER OF GROUPS			INDIVIDUAL PARTICIPANTS	TOTAL ATTENDANCE
			W.B. RES	NON-RES	TOTAL		
Basketball Court	Private	1		1	1	175	175
Event Stage	WB P&R Events				-		
Event Stage	Private	6	3	3	6	605	605
Pickleball Equipment	Private	9	1		1	10	90
*Recreation Center	AA	4		1	1	50	200
*Recreation Center	Boating				-		
Recreation Center	Private	2	2		2	110	110
Recreation Center	WB P&R Events				-		
Recycle Field	Flag Football				-		
Seawater Field	Private				-		
Seawater Field	Farmers' Market	4	1		1		405
Shelters	TOWB Events				-		
Shelters	Private	10	5	9	14	1,050	1,050
Soccer Field	Private	3	1	2	3	1,990	1,990
Soccer Field	Flag Football				-		
Softball Field	Private	5	2	3	5	537	537
Tennis Courts	Private				-		
Town Hall Field	Private	3		3	3	2,375	2,375
Town Hall Field	WB P&R Events				-		
Wheelchair	Private	25	3	19	22	22	84
	TOTALS	72	18	41	59	6,924	7,621

* Total individual participants, multiplied by number of days facility was used

TOTAL FACILITY USAGE (INCLUDES PROGRAMS, ACTIVITIES AND RESERVATIONS)

FACILITY/ LOCATION	TOTAL USAGE (NO. OF PEOPLE)
Basketball Courts	252
Event Stage	605
Pickleball Equipment	90
Recreation Center	1286
Recycle Field	
Seawater Field	405
Shelters	1050
Soccer Field	2029
Softball Field	537
Tennis Courts	14
Town Hall Field	2375
Wheelchair	84

WRIGHTSVILLE BEACH PARKS AND RECREATION REVENUE
September 2016
Total Receipts Written - 191

PROGRAM	W.B. RES.	NON-RES.	REFUNDS	TOTAL
AFTER SCHOOL	$ 5,619.00	$ 1,530.00		$ 7,149.00
ART & JEWELRY CAMP				$ -
BABYSITTER'S TRAINING				$ -
BASKETBALL - YOUTH	$ 1,140.00			$ 1,140.00
BASKETBALL LEAGUE				$ -
BEACH BOUND BOOT CAMP	$ 200.00	$ 480.00		$ 680.00
BRIDGE LESSONS				$ -
BUSINESS ON BEACH PERMITS				$ -
COTILLION	$ 100.00	$ 375.00		$ 475.00
DONATIONS				$ -
FARMERS' MARKET		$ 680.00		$ 680.00
FITNESS - LOW/TONE	$ 152.00	$ 455.00		$ 607.00
FITNESS - TOKENS	$ 640.00	$ 988.00		$ 1,628.00
FLAG FOOTBALL - ADULT				$ -
FLAG FOOTBALL - YOUTH	$ 896.00	$ 135.00	$ 179.20	$ 851.80
JUNIOR LIFEGUARD				$ -
KIDS' COOKING CLASS	$ 440.00	$ 744.00		$ 1,184.00
LACROSSE CAMP				$ -
LINE DANCING				$ -
PERFORMANCE CLUB	$ 590.00	$ 994.00		$ 1,584.00
PERFORMANCE CLUB CAMP				$ -
PICKLEBALL		$ 525.00		$ 525.00
PICKLEBALL LADDER				$ -
REFUSE TO BE A VICTIM	$ 40.00	$ 200.00		$ 240.00
RENTAL-EVENT STAGE			$ 92.00	$ (92.00)
RENTAL-OPEN AREAS		$ 430.00	$ 150.00	$ 280.00
RENTAL - PICKLEBALL EQUIP				$ -
RENTAL-PICNIC SHELTERS	$ 100.00	$ 760.00	$ 75.00	$ 785.00
RENT-RECREATION CENTER	$ 60.00			$ 60.00
RENTAL-SOCCER FIELD	$ 280.00	$ 80.00	$ 50.00	$ 310.00
RENTAL-SOFTBALL FIELD	$ 20.00	$ 90.00		$ 110.00
SHAG			$ 50.00	$ (50.00)
SOCCER	$ 200.00	$ 625.00		$ 825.00
MOVIE, CONCERT, RACE SPNSRS				$ -
SPECIAL EVENT PERMITS		$ 4,575.00		$ 4,575.00
TENNIS - YOUTH & TOTS	$ 60.00			$ 60.00
TENNIS - ADULTS	$ 60.00	$ 75.00		$ 135.00
TENNIS CAMP				$ -
T-SHIRTS/SWEATSHIRTS		$ 24.00		$ 24.00
WB VALENTINE 10K				$ -
SEPTEMBER 2016	**$ 10,597.00**	**$ 13,765.00**	**$ 596.20**	**$ 23,765.80**
SEPTEMBER 2015	**$ 8,624.00**	**$ 14,159.00**	**$ 1,605.00**	**$ 21,178.00**
BEHIND/AHEAD BY	**$ 1,973.00**	**$ (394.00)**	**$ (1,008.80)**	**$ 2,587.80**

Wrightsville Beach Parks and Recreation Revenue - FY 2016-2017

PROGRAM	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	TOTAL
AFTER SCHOOL	$615.00	$4,278.00	$7,149.00										$ 12,042.00
ART & JEWELRY CAMP													$ -
BABYSITTER'S TRAINING	$670.00	$505.00											$ 1,175.00
BASKETBALL - YOUTH	$175.00	$1,555.00	$1,140.00										$ 2,870.00
BASKETBALL LEAGUE													$ -
BEACH BOUND BOOT CAMP		$400.00	$680.00										$ 1,080.00
BRIDGE													$ -
BUS ON BEACH PERMITS													$ -
COTILLION	$720.00	$2,880.00	$475.00										$ 4,075.00
DONATIONS	$10.00												$ 10.00
FARMERS' MARKET	$1,725.00	$1,455.00	$680.00										$ 3,860.00
FITNESS - LOW/TONE	$925.00	$1,119.00	$607.00										$ 2,651.00
*FITNESS - TOKENS	$1,560.00	$2,032.00	$1,628.00										$ 5,220.00
FLAG FOOTBALL - ADULT													$ -
FLAG FOOTBALL - YOUTH		$764.00	$851.80										$ 1,615.80
JUNIOR LIFEGUARD	$1,360.00												$ 1,360.00
KIDS' COOKING CLASS	$1,460.00	$288.00	$1,184.00										$ 2,932.00
LACROSSE CAMP													$ -
LINE DANCING													$ -
PERFORMANCE CLUB		$5,639.00	$1,584.00										$ 7,223.00
PERFORMANCE CLUB CAMP	$665.00												$ 665.00
PICKLEBALL LESSONS			$525.00										$ 525.00
PICKLEBALL LADDER													$ -
REFUSE TO BE A VICTIM		$180.00	$240.00										$ 420.00
RENTAL-EVENT STAGE	$ 537.00	$223.00	($92.00)										$ 668.00
RENTAL-OPEN AREAS		$770.00	$280.00										$ 1,050.00
RENTAL - PICKLEBALL EQUIP													$ -
RENTAL-PICNIC SHELTERS	$707.00	$254.00	$785.00										$ 1,746.00
RENT-RECREATION CENTER		$280.00	$60.00										$ 340.00
RENTAL-SOCCER FIELD	$140.00		$310.00										$ 450.00
RENTAL-SOFTBALL FIELD		$1,170.00	$110.00										$ 1,280.00
SHAG	$620.00	$970.00	($50.00)										$ 1,540.00
SOCCER	$2,190.00	$200.00	$825.00										$ 3,215.00
SPNSRS-MOVIE & CONCERT		$1,500.00											$ 1,500.00
SPECIAL EVENT PERMITS	$900.00	$4,275.00	$4,575.00										$ 9,750.00
TENNIS - YOUTH & TOTS		$150.00	$60.00										$ 210.00
TENNIS - ADULTS	$360.00		$135.00										$ 495.00
TENNIS CAMP													$ -
T-SHIRTS/SWEATSHIRTS	$120.00	$12.00	$24.00										$ 156.00
WB VALENTINE 10K													$ -
TOTAL	$15,459.00	$30,899.00	$23,765.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$ 70,123.80

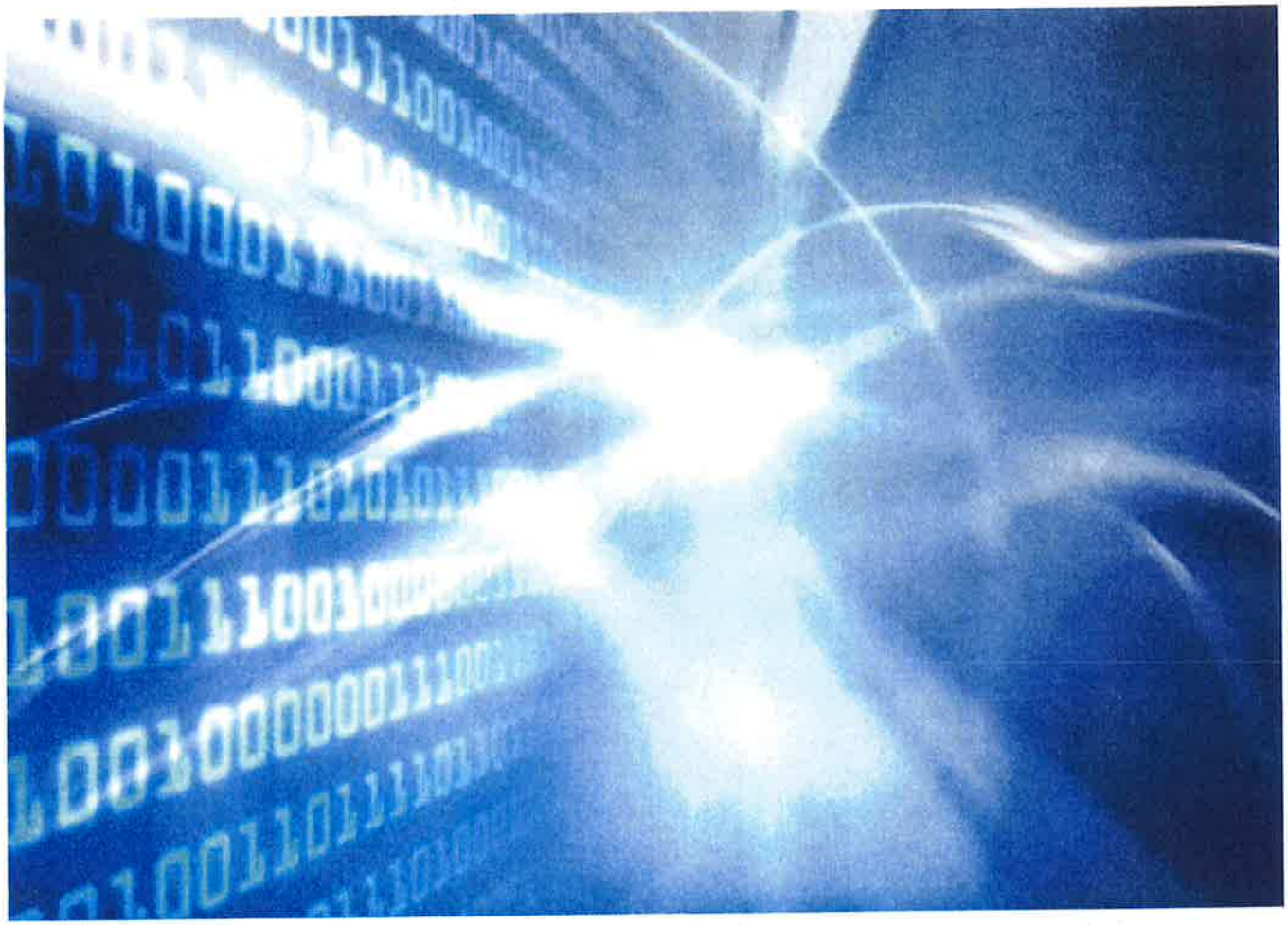
Wrightsville Beach Parks and Recreation Revenue - FY 2015-2016
Comparison to FY 2014-2015

PROGRAM	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	TOTAL
AFTER SCHOOL	$615.00	$4,278.00	$7,149.00										$ 12,042.00
ART & JEWELRY CAMP													$ -
BABYSITTER'S TRAINING	$670.00	$505.00											$ 1,175.00
BASKETBALL - YOUTH	$175.00	$1,555.00	$1,140.00										$ 2,870.00
BASKETBALL LEAGUE													$ -
BEACH BOUND BOOT CAMP		$400.00	$680.00										$ 1,080.00
BRIDGE													$ -
BUS ON BEACH PERMITS													$ -
COTILLION	$720.00	$2,880.00	$475.00										$ 4,075.00
DONATIONS	$10.00												$ 10.00
FARMERS' MARKET	$1,725.00	$1,455.00	$680.00										$ 3,860.00
FITNESS - LOW/TONE	$925.00	$1,119.00	$607.00										$ 2,651.00
*FITNESS - TOKENS	$1,560.00	$2,032.00	$1,628.00										$ 5,220.00
FLAG FOOTBALL - ADULT													$ -
FLAG FOOTBALL - YOUTH		$764.00	$851.80										$ 1,615.80
JUNIOR LIFEGUARD	$1,360.00												$ 1,360.00
KIDS' COOKING CLASS	$1,460.00	$288.00	$1,184.00										$ 2,932.00
LACROSSE CAMP													$ -
LINE DANCING													$ -
PERFORMANCE CLUB		$5,639.00	$1,584.00										$ 7,223.00
PERFORMANCE CLUB CAMP	$665.00												$ 665.00
PICKLEBALL LESSONS			$525.00										$ 525.00
PICKLEBALL LADDER													$ -
REFUSE TO BE A VICTIM		$180.00	$240.00										$ 420.00
RENTAL-EVENT STAGE	$ 537.00	$223.00	($92.00)										$ 668.00
RENTAL-OPEN AREAS		$770.00	$280.00										$ 1,050.00
RENTAL - PICKLEBALL EQUIP													$ -
RENTAL-PICNIC SHELTERS	$707.00	$254.00	$785.00										$ 1,746.00
RENT-RECREATION CENTER		$280.00	$60.00										$ 340.00
RENTAL-SOCCER FIELD	$140.00		$310.00										$ 450.00
RENTAL-SOFTBALL FIELD		$1,170.00	$110.00										$ 1,280.00
SHAG	$620.00	$970.00	($50.00)										$ 1,540.00
SOCCER	$2,190.00	$200.00	$825.00										$ 3,215.00
SPNSRS-MOVIE & CONCERT		$1,500.00											$ 1,500.00
SPECIAL EVENT PERMITS	$900.00	$4,275.00	$4,575.00										$ 9,750.00
TENNIS - YOUTH & TOTS		$150.00	$60.00										$ 210.00
TENNIS - ADULTS	$360.00		$135.00										$ 495.00
TENNIS CAMP													$ -
T-SHIRTS/SWEATSHIRTS	$120.00	$12.00	$24.00										$ 156.00
WB VALENTINE 10K													$ -
TOTAL 2016 - 2017	$15,459.00	$30,899.00	$23,765.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$ 70,123.80
TOTAL 2015 - 2016	$21,075.50	$19,713.00	$21,178.00	$10,928.50	$11,656.00	$10,128.50	$38,622.00	$48,739.70	$22,935.90	$26,932.71	$27,135.00	$18,291.00	$277,335.81
CHANGE	($5,616.50)	$11,186.00	$2,587.80	($10,928.50)	($11,656.00)	($10,128.50)	($38,622.00)	($48,739.70)	($22,935.90)	($26,932.71)	($27,135.00)	($18,291.00)	($207,212.01)

WRIGHTSVILLE BEACH PARKS AND RECREATION REVENUE - 2016

PROGRAM	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
AFTER SCHOOL	$4,581.00	$5,403.00	$4,279.00	$5,886.00	$4,554.00	$1,307.00	$615.00	$4,278.00	$7,149.00				$ 38,052.00
ART & JEWELRY CAMP			$345.00	$550.00	$460.00	($1,345.00)							$ 10.00
BABYSITTER'S TRAINING	$185.00	$1,385.00	$285.00		$200.00	$200.00	$670.00	$505.00					$ 3,430.00
BASKETBALL - YOUTH		$185.00	$535.00	$322.71			$175.00	$1,555.00	$1,140.00				$ 3,912.71
BASKETBALL LEAGUE				$2,500.00	$3,500.00								$ 6,000.00
BEACH BOUND BOOT CAMP	$920.00	$552.00	$440.00	$538.00	$20.00			$400.00	$680.00				$ 3,550.00
BRIDGE													$ -
BUS.ON BEACH PERMITS		$400.00		$600.00	$600.00								$ 1,600.00
COTILLION	$1,350.00	$175.00	$350.00		$315.00	$350.00	$720.00	$2,880.00	$475.00				$ 6,615.00
DONATIONS					$2.00	$40.00	$10.00						$ 52.00
FARMERS' MARKET		$700.00		$100.00	$1,400.00	$1,700.00	$1,725.00	$1,455.00	$680.00				$ 7,760.00
FITNESS - LOW/TONE	$728.00	$942.00	$1,011.00	$891.00	$796.00	$928.00	$925.00	$1,119.00	$607.00				$ 7,947.00
*FITNESS - TOKENS	$2,282.00	$2,386.00	$1,932.00	$1,662.00	$2,090.00	$1,560.00	$1,560.00	$2,032.00	$1,628.00				$ 17,132.00
FLAG FOOTBALL - ADULT	$8,400.00	$5,075.00											$ 13,475.00
FLAG FOOTBALL - YOUTH	$588.00	$4,620.00	$910.00					$764.00	$851.80				$ 7,733.80
JUNIOR LIFEGUARD	$5,700.00	$4,200.00	$920.00	$1,280.00	($25.00)	$1,640.00	$1,360.00						$ 15,075.00
KIDS' COOKING CLASS	$780.00	$321.20	$1,089.00	$570.00	$883.00	$950.00	$1,460.00	$288.00	$1,184.00				$ 7,525.20
LACROSSE CAMP			$140.00	$455.00	$880.00	$1,190.00							$ 2,665.00
LINE DANCING													$ -
PERFORMANCE CLUB	$5,739.00	$1,301.00	$2,450.40	$650.00				$5,639.00	$1,584.00				$ 17,363.40
PERFORMANCE CLUB CAMP				$1,435.00	$1,445.00	$725.00	$665.00						$ 4,270.00
PICKLEBALL LESSONS		$150.00	$5.00	$480.00	$75.00	($75.00)			$525.00				$ 1,160.00
PICKLEBALL LADDER													$ -
REFUSE TO BE A VICTIM								$180.00	$240.00				$ 420.00
RENTAL-EVENT STAGE			$869.00	$140.00	$60.00	$210.00	$ 537.00	$223.00	($92.00)				$ 1,947.00
RENTAL-OPEN AREAS	$190.00	$70.00	$205.00	$1,100.00	$140.00	$110.00		$770.00	$280.00				$ 2,865.00
RENTAL - PICKLEBALL EQUIP			$15.00	$15.00	$15.00	$5.00							$ 50.00
RENTAL-PICNIC SHELTERS	$120.00	$55.00	$290.00	($7.00)	$400.00	$416.00	$707.00	$254.00	$785.00				$ 3,020.00
RENT-RECREATION CENTER	($100.00)	$330.00	$30.00	$780.00		$780.00		$280.00	$60.00				$ 2,160.00
RENTAL-SOCCER FIELD	($10.00)	$20.00	$80.00		$70.00		$140.00		$310.00				$ 610.00
RENTAL-SOFTBALL FIELD	$30.00	$80.00	$325.00	$870.00		$540.00		$1,170.00	$110.00				$ 3,125.00
SHAG		$825.00	$895.00				$620.00	$970.00	($50.00)				$ 3,260.00
SOCCER	$225.00	$1,760.00	$1,365.00	$1,080.00	$4,560.00	$2,450.00	$2,190.00	$200.00	$825.00				$ 14,655.00
SPNSRS-MOVIE & CONCERT	$3,100.00	$700.00						$1,500.00					$ 5,300.00
SPECIAL EVENT PERMITS	$3,800.00	$5,640.00	$3,465.00	$4,415.00	$4,315.00	$3,300.00	$900.00	$4,275.00	$4,575.00				$ 34,685.00
TENNIS - YOUTH & TOTS	($75.00)	$600.00	$555.00	$270.00		$465.00		$150.00	$60.00				$ 2,025.00
TENNIS - ADULTS		$225.00	($15.00)	$225.00		$585.00	$360.00		$135.00				$ 1,515.00
TENNIS CAMP			$80.00	$80.00	$380.00	$260.00							$ 800.00
T-SHIRTS/SWEATSHIRTS	$89.00	$10.50	$85.50	$45.00			$120.00	$12.00	$24.00				$ 386.00
WB VALENTINE 10K		$10,629.00											$ 10,629.00
TOTAL	$38,622.00	$48,739.70	$22,935.90	$26,932.71	$27,135.00	$18,291.00	$15,459.00	$30,899.00	$23,765.80	$0.00	$0.00	$0.00	$252,780.11

Includes $12.71 copy charges for Basketball by the Sea



INFORMATION TECHNOLOGY

QUARTERLY REPORT

JULY - SEPTEMBER 2016

EXECUTIVE SUMMARY

In the first quarter of this fiscal year, the Information Technology Department continued working with the financial software project vendor, began initial surveys for the Planning and Parks and Recreation software projects, and began working with Facility Dude on the implementation of the Public Works Work Order software. The Mobile Data Management policy was placed on 4 of the town iPads in the Fire and Ocean Rescue departments.

The financial software implementation is still in progress. The Utility Billing module is almost complete. The first new bills will be sent in October. We still have the fixed assets, inventory, and employee self-service modules to do before this project is complete.

Planning, Parks and Recreation, and Public Works are beginning the planning stages of their software projects. All three departments will have cloud solutions that will enable them to utilize mobile devices to complete work tasks in the field. All of these projects should be complete by mid-summer.

We will be rolling out several new tablets to work with the mobile software. The Mobile Data Management policy will be applied to all of them. This policy will track them by GPS, will only allow certain apps to be installed, and requires a secure password to log in.

We also rolled out two additional iPads for the Fire Department to use with their new Freedom Application.

Our firewall is beginning to show signs of age (11 years old). The vendor will no longer have support for it beginning in 2018. We have had some bumps in the road with it as of late and will need to get it replaced in the 17/18 budget.

Next quarter we will finish up the Financial Management project and start getting in deeper with the other department software projects.

EXECUTIVE SUMMARY

INFORMATION TECHNOLOGY

	JULY	AUG	SEPT
Network Infrastructure			
% Network Uptime	100	100	100
% Server Up Time	100	98	98
IT Support			
# of Support Tickets Submitted	19	38	43
# of Emails Received	183	184	114
# of Phone Calls	n/a	227	331
Dept. with highest ticket count	POLICE	POLICE	POLICE
Website			
Total Visits	26,430	21,115	13,575
Total Page Views	47,230	36,012	23,323
Average Session Duration	2min7sec	2min6sec	2min5sec
New Visitors	22,636	18,165	11,577
Returning Visitors	3,794	2,950	1,998
Most Viewed Page	HOME	HOME	HOME
2nd Most Viewed Page	PUBLIC BATH	PUBLIC BATH	PARKING
3rd Most Viewed Page	PARKING	PARKING	PUBLIC BATH
Most Popular Browser Used	CHROME	CHROME	CHROME
Most Popular Device Used	SMARTPHONE	DESKTOP	DESKTOP
Most Popular Visitor Location	WILMINGTON	WILMINGTON	WILMINGTON
Video Streaming			
Livestream Followers	81	82	82
Vimeo Followers	2	2	2
Board Meeting Live Views	19	4	32
Board Meeting Archive Views	4	29	1
Planning Bd Mtg Live Views	3	42	17
Planning Bd Mtg Archive Views	0	0	0
Telephone System			
Total # of Incoming Calls	N/A	7,075	9,544
Total # of Voicemails Received	N/A	2,226	2,096
Dept. with Highest Call Count	N/A	PARKING	PARKING
Dept. with 2nd Highest Call Count	N/A	POLICE	POLICE
Email			
# of Mailboxes Maintained	80	80	78
Avg # of Emails Received	52,896	36,685	26,968
Email Content Filtered	1,815	2,157	2,332
# of Malware Detected	108	142	290
% Email tagged as SPAM	1,956	16,093	20,024
Malware Threats			
# of Protected PCs	75	76	77
# of Malware Threats	9	6	3
FACEBOOK			
Likes	65	36	26
Comments	1	1	0
Shares	1	0	0
Messages	4	7	2
POLICE DEPARTMENT FACEBOOK			
Likes	31	14	15
Comments	0	0	0
Shares	38	49	97
Messages	5	7	3

Planning and Inspections

TOWN OF WRIGHTSVILLE BEACH

PLANNING AND INSPECTIONS • 321 CAUSEWAY DRIVE • P.O. BOX 626
WRIGHTSVILLE BEACH, N.C. 28480 • 910-256-7937

MEMORANDUM

To: Mayor Blair and Members of the Board of Aldermen
From: Tony Wilson, Planning and Parks Director TW
Re: **Consent Agenda: Cancellation of the November 17, 2016 Board of Adjustment Meeting**
Date: **November 2, 2016**
Cc: Tim Owens, Town Manager

Staff respectfully requests that the following meeting be cancelled due to the lack of agenda items.

- To cancel the November 17, 2016, Board of Adjustment Meeting at 5:00 p.m.

Requested Action
Cancel the November 17, 2016 Board of Adjustment Meeting.

Town of
Wrightsville Beach

321 Causeway Drive – P. O. Box 626
Wrightsville Beach, North Carolina 28480

PUBLIC NOTICE

2016 Board of Adjustment Meeting Schedule

The public will take notice that the regular meeting schedule for the Wrightsville Beach Board of Adjustment for 2016 will be as follows; and that this is a true copy of the schedule kept on file in the office of the Town Clerk, as required by G.S. 143-318.12:

~~Thursday, January 28, 2016~~ – Cancelled
~~Thursday, February 25, 2016~~ – Cancelled
~~Thursday, March 24, 2016~~ – Cancelled
~~Thursday, April 28, 2016~~ – Cancelled
~~Thursday, May 26, 2016~~ – Cancelled
~~Thursday, June 23, 2016~~ – Cancelled
~~Thursday, July 28, 2016~~ – Cancelled
~~Thursday, August 25, 2016~~ – Cancelled
~~Thursday, September 22, 2016~~ – Cancelled
~~Thursday, October 27, 2016~~ – Cancelled
~~Thursday, November 17, 2016~~ – Cancelled
Thursday, December 15, 2016

All meetings will commence at 5:00 p.m., unless otherwise noted above, in Council Chambers of Town Hall, 321 Causeway Drive, Wrightsville Beach, North Carolina.

Sylvia Holleman
Town Clerk

11/10/16

TOWN OF WRIGHTSVILLE BEACH
Post Office Box 626
321 Causeway Drive
Wrightsville Beach, North Carolina 28480
(910)239-1700
FAX (910)256-7910

November 10, 2016

MEMORANDUM

To: Mayor Blair and Board Members
From: Tim Owens, Town Manager
Re: 2016 Lifeguard End of the Year Update

Agenda Item

Life Guard Supervisor Dave Baker will in attendance to give you the season end life guard update as we have in prior years.

Action Items

1. Discuss the item and ask questions

TOWN OF WRIGHTSVILLE BEACH
Post Office Box 626
321 Causeway Drive
Wrightsville Beach, North Carolina 28480
(910)239-1700
FAX (910)256-7910

November 10, 2016

MEMORANDUM

To:	Mayor Blair and Board Members
From:	Tim Owens, Town Manager
Re:	Introduction of Asst. Public Works Director Bill Fay and Update of Several Public Works Projects

Agenda Item

Public Works Director Bill Squires will formally introduce Assistant Public Works Director Bill Fay at the upcoming Board meeting. In addition, Mr. Squires will give you a brief update on several critical projects that the Town is working on.

Action Items

1. Discuss the item and ask questions

Town of Wrightsville Beach
North Carolina
321 Causeway Drive
Wrightsville Beach, North Carolina 28480
Ph: 910-256-7900

MEMORANDUM

To: Mayor Blair and Board of Aldermen

From: Erica F. Walters, Finance Officer

Subject: **Tourism Development Authority (TDA) Funding Requests**

Date: November 10, 2016

Background: In order to access funds derived from the Room Occupancy Tax (ROT) that are dedicated to local programs to support tourism initiatives, we are required to submit applications to the Tourism Development Authority (TDA). The process requires that the local legislative body approve the applications prior to review and approval by the TDA Board. Funding is provided only if the program or project directly relates to the promotion of tourism. We are proposing the following items be submitted to the TDA for funding consideration during the current fiscal year:

NC Holiday Flotilla	$ 29,000
Beach Patrol	$100,000
Trolley Stop Restroom	$ 12,000
Ocean Rescue Operations	$377,101
Beach Facilities & Sanitation	$ 35,000
TOTAL	**$553,101**

Recommendation: These are the requests for TDA funding to help provide support for FY 2017 municipal requirements that are directly related to our tourism expenses. These expenses are repeat expenditures from year to year. Total funding support requested from the TDA during this fiscal year will amount to **$553,101**. We anticipate that adequate ROT Program funds from the "second 3%" will be available to support these requirements. A summary of FY 2017 Funding Requests is attached, along with the proposed applications that will be forwarded to the TDA.

Requested Action: Approve TDA Funding Requests as presented.

TOWN OF WRIGHTSVILLE BEACH
MUNICIPAL COMPLEX 321 CAUSEWAY DRIVE • P.O. BOX 626
WRIGHTSVILLE BEACH, N.C. 28480 • 910-256-7900

November 10, 2016

Kim Hufham, Chief Executive Officer
Cape Fear Coast Convention and Visitors Bureau
505 Nutt Street, Unit A
Wilmington, NC 28401

Ref: Tourism Development Authority Funding Application

Dear Kim,

Enclosed are applications seeking Tourism Development Authority (TDA) funding from the Town of Wrightsville Beach. We request the applications be submitted for consideration by the TDA Board at their next meeting. The applications have been reviewed and approved by the Town of Wrightsville Beach Board of Aldermen at their meeting on November 10, 2016.

Please advise if any additional information is required. Thank you for your continued support and assistance in the application process.

Sincerely,

Tim Owens
Town Manager

Enclosures

c/c Bill Blair, Mayor
Erica Walters, Finance Officer

NEW HANOVER COUNTY TOURISM DEVELOPMENT AUTHORITY

APPLICATION FOR FUNDING FOR TOURISM RELATED EXPENDITURES

REQUEST GUIDELINES:

- Request must be pre-approved by Governing Body.
- Request must be submitted on proper application form.
- Application to be received by TDA three (3) weeks prior to scheduled meeting for consideration.

CRITERIA:

- Expenditures that in the judgment of the authority are designed to increase the use of lodging facilities, meeting facilities, or convention facilities in the town or to attract tourists or business travelers to the town and the term includes tourism-related capital expenditures.
- Funds must be budgeted and available.
- Disbursement of approved projects must meet NC Budget and Fiscal Control Act.

Governing Body: Town of Wrightsville Beach
Contact Person: Tim Owens, Town Manager
Address: 321 Causeway Drive, P.O. Box 626, Wrightsville Beach, NC 28480
Phone: (910) 256-7900 Fax: (910) 256-7910 E-Mail: towens@towb.org

Date Approved by Governing Body: November 10, 2016
Date Project/Activity Will Begin: July 1, 2016 Will be Completed: June 30, 2017
Total Cost of Project/Activity: $ 35,000 Amount Requested: $ 35,000

Description of Project/Activity (*include its correlation to travel and tourism and its merit as a project or activity designed to enhance the area as a travel destination):*

BEACH FACILITIES & SANITATIONS

The Wrightsville Beach Board of Aldermen respectfully request TDA funding in the amount of $35,000 to help support the cleaning of beach bathhouses and sanitation pick up on the oceanfront and other tourist related areas from July 1, 2016 through June 30, 2017. The Town spends at least 1,600 hours performing this function. The reimbursement requested includes the salaries and benefits for those hours performing tourism related cleaning within the Town.

By: _____ Date: _____

Return Application To:
Cape Fear Coast Convention and Visitors Bureau
Attention: President/CEO
505 Nutt Street, Unit A, Wilmington, NC 28401
(910)341-4030

Status: _____

NEW HANOVER COUNTY TOURISM DEVELOPMENT AUTHORITY

APPLICATION FOR FUNDING FOR TOURISM RELATED EXPENDITURES

REQUEST GUIDELINES:

- Request must be pre-approved by Governing Body.
- Request must be submitted on proper application form.
- Application to be received by TDA three (3) weeks prior to scheduled meeting for consideration.

CRITERIA:

- Expenditures that in the judgment of the authority are designed to increase the use of lodging facilities, meeting facilities, or convention facilities in the town or to attract tourists or business travelers to the town and the term includes tourism-related capital expenditures.
- Funds must be budgeted and available.
- Disbursement of approved projects must meet NC Budget and Fiscal Control Act.

Governing Body: Town of Wrightsville Beach
Contact Person: Tim Owens, Town Manager
Address: 321 Causeway Drive, P.O. Box 626, Wrightsville Beach, NC 28480
Phone: (910) 256-7900 Fax: (910) 256-7910 E-Mail: towens@towb.org

Date Approved by Governing Body: November 10, 2016
Date Project/Activity Will Begin: July 1, 2016 Will be Completed: June 30, 2017
Total Cost of Project/Activity: $ 100,000 Amount Requested: $ 100,000

Description of Project/Activity (*include its correlation to travel and tourism and its merit as a project or activity designed to enhance the area as a travel destination):*

BEACH PATROL

The Wrightsville Beach Board of Aldermen respectfully request TDA funding in the amount of $100,000 to support our Beach Patrol Officer function during FY 2017. This service provides two dedicated Beach Patrol Officers to patrol nearly four miles of beach strand and attend to the enforcement of ordinances and policies related to the use of parks and beaches by both residents and visitors to the beaches, parks, and local public facilities that support the tourism industry. The Beach Patrol Officers provide an integral part of our overall Beach Safety and Ocean Rescue Program and have full police enforcement authority.

By: _____ Date: _____

Return Application To:
Cape Fear Coast Convention and Visitors Bureau
Attention: President/CEO
505 Nutt Street, Unit A, Wilmington, NC 28401
(910)341-4030

Status: _____

NEW HANOVER COUNTY TOURISM DEVELOPMENT AUTHORITY

APPLICATION FOR FUNDING FOR TOURISM RELATED EXPENDITURES

REQUEST GUIDELINES:

- Request must be pre-approved by Governing Body.
- Request must be submitted on proper application form.
- Application to be received by TDA three (3) weeks prior to scheduled meeting for consideration.

CRITERIA:

- Expenditures that in the judgment of the authority are designed to increase the use of lodging facilities, meeting facilities, or convention facilities in the town or to attract tourists or business travelers to the town and the term includes tourism-related capital expenditures.
- Funds must be budgeted and available.
- Disbursement of approved projects must meet NC Budget and Fiscal Control Act.

Governing Body: Town of Wrightsville Beach
Contact Person: Tim Owens, Town Manager
Address: 321 Causeway Drive, P.O. Box 626, Wrightsville Beach, NC 28480
Phone: (910) 256-7900 Fax: (910) 256-7910 E-Mail: towens@towb.org

Date Approved by Governing Body: November 10, 2016
Date Project/Activity Will Begin: July 1, 2016 Will be Completed: December 31, 2017
Total Cost of Project/Activity: $29,000 Amount Requested: $ 29,000

Description of Project/Activity (*include its correlation to travel and tourism and its merit as a project or activity designed to enhance the area as a travel destination):*

NC HOLIDAY FLOTILLA

The Wrightsville Beach Board of Aldermen respectfully request TDA funding in the amount of $29,000 be favorably considered to help fund fireworks, advertising, public relations and media support associated with the planning and presentation of the 2016 North Carolina Holiday Flotilla. These funds are to be used exclusively to help pay for a fireworks display ($12,000) and other expenses to promote and execute the annual event ($17,000). Funds will only be disbursed to the Holiday Flotilla by the Town of Wrightsville Beach on a reimbursement basis after a review of paid invoices. The North Carolina Holiday Flotilla is a non-profit corporate entity that has traditionally presented this event at Wrightsville Beach during the Thanksgiving holiday weekend. This will the 33rd year for the Holiday Flotilla and it continues to be one of the premier tourist attractions of the year for Wrightsville Beach and the entire southeastern Carolina region.

By: _____ Date: _____

Return Application To:
Cape Fear Coast Convention and Visitors Bureau
Attention: President/CEO
505 Nutt Street, Unit A, Wilmington, NC 28401
(910)341-4030

Status: _____

NEW HANOVER COUNTY TOURISM DEVELOPMENT AUTHORITY

APPLICATION FOR FUNDING FOR TOURISM RELATED EXPENDITURES

REQUEST GUIDELINES:

- Request must be pre-approved by Governing Body.
- Request must be submitted on proper application form.
- Application to be received by TDA three (3) weeks prior to scheduled meeting for consideration.

CRITERIA:

- Expenditures that in the judgment of the authority are designed to increase the use of lodging facilities, meeting facilities, or convention facilities in the town or to attract tourists or business travelers to the town and the term includes tourism-related capital expenditures.
- Funds must be budgeted and available.
- Disbursement of approved projects must meet NC Budget and Fiscal Control Act.

Governing Body: Town of Wrightsville Beach
Contact Person: Tim Owens, Town Manager
Address: 321 Causeway Drive, P.O. Box 626, Wrightsville Beach, NC 28480
Phone:(910) 256-7900 Fax: (910) 256-7910 E-Mail: towens@towb.org

Date Approved by Governing Body: November 10, 2016
Date Project/Activity Will Begin: July 1, 2016 Will be Completed: June 30, 2017
Total Cost of Project/Activity: $12,000 Amount Requested: $ 12,000

Description of Project/Activity (*include its correlation to travel and tourism and its merit as a project or activity designed to enhance the area as a travel destination):*

TROLLEY STOP RESTROOM

The Wrightsville Beach Board of Aldermen respectfully request TDA funding in the amount of $12,000 to help support the necessity to maintain a public restroom in the hub of the Wrightsville Beach business area, commonly known as the Trolley Stop. This area is a focal point for visitors to Wrightsville Beach. In 2005, with the help of TDA funding, the Town was able to secure a site to create a new public restroom, and with in-house assets constructed a fully handicapped accessible facility. The facility is the only public restroom in the central business area and is part of the ongoing development and enhancement of the Trolley Stop area. However, the annual lease cost for the section of the building that houses the restroom is $12,000. We are seeking support from the TDA in the amount equivalent to the annual lease because this facility is critical in supporting our local tourism industry, and serving both the beach strand as well as the popular Wynn Plaza park and public dock.

By:_____ Date: _____

Return Application To:
Cape Fear Coast Convention and Visitors Bureau
Attention: President/CEO
505 Nutt Street, Unit A, Wilmington, NC 28401
(910)341-4030

Status: _____

NEW HANOVER COUNTY TOURISM DEVELOPMENT AUTHORITY

APPLICATION FOR FUNDING FOR TOURISM RELATED EXPENDITURES

REQUEST GUIDELINES:

- Request must be pre-approved by Governing Body.
- Request must be submitted on proper application form.
- Application to be received by TDA three (3) weeks prior to scheduled meeting for consideration.

CRITERIA:

- Expenditures that in the judgment of the authority are designed to increase the use of lodging facilities, meeting facilities, or convention facilities in the town or to attract tourists or business travelers to the town and the term includes tourism-related capital expenditures.
- Funds must be budgeted and available.
- Disbursement of approved projects must meet NC Budget and Fiscal Control Act.

Governing Body: Town of Wrightsville Beach
Contact Person: Tim Owens, Town Manager
Address: 321 Causeway Drive, P.O. Box 626, Wrightsville Beach, NC 28480
Phone: (910) 256-7900 Fax: (910) 256-7910 E-Mail: towens@towb.org

Date Approved by Governing Body: November 10, 2016
Date Project/Activity Will Begin: July1, 2016 Will be Completed: June 30, 2017
Total Cost of Project/Activity: $ 377,101 Amount Requested: $ 377,101

Description of Project/Activity (*include its correlation to travel and tourism and its merit as a project or activity designed to enhance the area as a travel destination):*

OCEAN RESCUE PROGRAM

The Wrightsville Beach Board of Aldermen respectfully request TDA funding in the amount of $377,101 to be favorably considered to support our Ocean Rescue Program (Beach Strand Lifeguards) during FY 2017. This service provides comprehensive ocean rescue coverage for nearly four miles of beach strand and expanded manning for thirteen (13) lifeguard stations as well as mobile coverage. The Service is staffed by thirty (30) fully qualified personnel. The mission of the Wrightsville Beach Ocean Rescue Program is to provide water lifesaving services, emergency life support, water safety education, and enforcement of local water related ordinances. Operation of the service is a critical element in providing a safe and hospitable environment for beach visitors. The sum includes salaries and associated operational costs for the Wrightsville Beach Ocean Rescue Program and incorporates the salaries for the Ocean Rescue Director and Lifeguard Captain.

By: _____ Date: _____

Return Application To:
Cape Fear Coast Convention and Visitors Bureau
Attention: President/CEO
505 Nutt Street, Unit A, Wilmington, NC 28401
(910)341-4030

Status: _____

TOWN OF WRIGHTSVILLE BEACH
PLANNING AND INSPECTIONS • 321 CAUSEWAY DRIVE • P.O. BOX 626
WRIGHTSVILLE BEACH, N.C. 28480 • 910-256-7937

Planning and Inspections

MEMORANDUM

To: Mayor Blair and Members of the Board of Aldermen
From: Tony Wilson, Planning and Parks Director TW
Re: Citizen Participation Plan- 2016 CAMA Land Use Plan Update
Cc: Tim Owens, Town Manager

The Board of Aldermen is asked to approve the attached Citizen Participation Plan for the Town's 2016 CAMA Land Use Plan Update. The formal Citizen Participation Plan outlines the various methods the Town and Holland Consulting Planners will use to secure meaningful public input into the updated plan.

Several methods are outlined in the attached Citizen Participation Plan, including:

- The appointment of a 13-member Steering Committee,
- 7 work sessions,
- A mid-project review meeting,
- Submittal of draft plan to the Steering Committee by the consultant,
- Meeting with the Planning Board for presentation of the plan,
- Submittal of plan to the Board of Aldermen for consideration,
- Presentation of the final plan at a Public Hearing.

Additionally, the Town staff will be publicizing the planning process through the Town's website, Lumina News and email.

Requested Action:
Approve the Citizen Participation Plan.

Attachments:

1. Citizen Participation Plan
2. Resolution (2016) 1999

RESOLUTION NO. (2016) 1999

Board of Aldermen
Town of Wrightsville Beach, North Carolina
Date: November 10, 2016

A RESOLUTION OF THE BOARD OF ALDERMEN OF
THE TOWN OF WRIGHTSVILLE BEACH, NORTH CAROLINA
ADOPTING A CITIZEN PARTICIPATION PLAN (CPP)
FOR THE 2017 CAMA LAND USE PLAN UPDATE

WHEREAS, the initial step in the planning process for the 2017 CAMA Land Use Plan Update is the adoption of a Citizen Participation Plan (CPP) by the Wrightsville Beach Board of Aldermen; and

WHEREAS, the Citizen Participation Plan is attached hereto as Exhibit A and incorporated herein by reference.

NOW, THEREFORE, BE IT RESOLVED that the Board of Aldermen of the Town of Wrightsville Beach, North Carolina, recognizing that a collaborative effort with the public is essential in the land use planning process, does hereby adopt the Citizen Participation Plan for the 2017 CAMA Land Use Plan Update (attached hereto as Exhibit A).

This Resolution duly adopted this 10th day of November, 2016.

_____
William J. Blair III, MAYOR

ATTEST:

_____
Sylvia J. Holleman, Town Clerk

TOWN OF WRIGHTSVILLE BEACH
2017 CAMA LAND USE PLAN UPDATE
CITIZEN PARTICIPATION PLAN

Introduction

The Town of Wrightsville Beach has initiated the preparation of an updated CAMA Land Use Plan for the Wrightsville Beach planning jurisdiction. The final document will serve as land use plan for future public investment to achieve the community's overall vision. The intent of this project is to draft a plan that will maintain the positive attributes of the existing Plan, while identifying new and strategic development goals and policies, and also new and strategic public initiatives supported by the community.

Recognizing that a collaborative effort with the public is essential, the initial step in the planning process is the adoption of this Citizen Participation Plan (CPP) by the Wrightsville Beach Board of Aldermen. Approval of the CPP was accomplished on November 10, 2016.

CAMA Land Use Plan Steering Committee

A CAMA Land Use Plan Steering Committee is established by the adoption of this plan. This committee will:

- Supervise the preparation of a draft CAMA Land Use Plan for presentation to the Wrightsville Beach Planning Board. (Upon recommendation of the Planning Board, the Plan will be presented to the Wrightsville Beach Board of Aldermen);
- Act in an advisory capacity to the Town staff, Consultant, Planning Board, and Board of Aldermen during the preparation of the draft CAMA Land Use Plan;
- Adhere to the terms of the scope of work included in the contract for consulting services with Holland Consulting Planners, Inc., dated October 13, 2016. Deviations from the scope of work will not be allowed without the express consent of the Wrightsville Beach Board of Aldermen.
- Review and comment on all sections of the draft plan throughout its preparation;
- End its responsibilities with the recommendation of a draft plan to the Town of Wrightsville Beach Planning Board.

The committee is composed of thirteen (13) members representing diverse interests, and includes the following members appointed by the Wrightsville Beach Board of Aldermen:

1. Jim Busby
2. Susan Collins
3. David Culp
4. Jeff DeGroote
5. Pat Koballa
6. Darryl Mills
7. Robert A. O'Quinn
8. William E. Sisson, Jr.
9. James C. Smith
10. Robert Tillman
11. Calvin Wells
12. Allen Rippy (alternate)
13. Frank Smith, Jr. (alternate)

Meetings

All Steering Committee meetings will be conducted in an open format which will encourage public involvement/engagement. The Steering Committee will conduct up to seven (7) work sessions, including one (1) with the Board of Aldermen, to prepare the draft CAMA Land Use Plan. All meetings of the Steering Committee will be advertised, posted on the project and Town websites, and open to the public. At a minimum, the following meetings will be conducted throughout the plan preparation process:

- Up to six (6) 1-1/2 hour work sessions of the Steering Committee and one (1) work session with the Board of Aldermen (total of seven [7] work sessions) will be conducted. At each Steering Committee meeting, the location, date, and time of the succeeding meeting will be determined. All meetings will be advertised, posted on the project and Town websites, and open to the public.

- A mid-project public review meeting to report overall project status and to obtain public input on progress to date. This meeting will be scheduled approximately six (6) months into the project, and will provide a summary of all data and issues identification obtained to date in the process.

- Submittal of draft plan to the Steering Committee by the consultant. Following approval of a draft plan by the Steering Committee, one (1) open house meeting for public review will be conducted to allow the public to question and comment on the draft plan.

- A meeting with the Town Planning Board for presentation of the plan.

- Submittal of plan to the Board of Aldermen for consideration.

- Presentation of the final plan at a public hearing.

Rules of Conduct

The Steering Committee will adopt specific rules of procedure for its conduct. These rules should define at a minimum:

- Advertising of committee meetings.
- Designation of Chairperson/Vice-Chairperson.
- Controlled opportunities for public input/comments at meetings.
- Meeting locations.
- Steering Committee meeting schedule objectives.
- Decision-making procedures/guidelines.

Public Notification

To ensure that the public is informed of meeting times and has access to the draft CAMA Land Use Plan throughout this process, the following steps will be taken:

- Notices of all public meetings will be advertised in a non-legal advertisement section of The Lumina News newspaper, in addition to being placed in the Town Municipal Building.

- Notices of all public meetings will be e-mailed to civic groups and other interested groups (to be determined by Town staff).

- The project team will create and maintain an interactive project-dedicated website to both collect and disseminate information regarding the project. The draft plan (as well as all notices) will be posted on this CAMA Land Use Plan website so that citizens may either review the document online or print it out. Information regarding the project website will be posted in The Lumina News newspaper, Town Municipal Building, and on the Town's official website.

- Notices of all meetings will be posted on the project website, The Lumina News, and the Town's official website at http://www.townofwrightsvillebeach.com/.

Dissemination of Information

The following procedures will be utilized to ensure the availability of information:

- Copies of the draft plan will be placed at the Municipal Building for citizen review, as well as being available at all meetings to ensure that the citizens in attendance can review items being discussed.

- The draft Plan will be posted on the Town of Wrightsville Beach CAMA Land Use Plan website as it is developed for online review or printing. Information regarding the location of the document online will be included in all published notices of Steering Committee meetings.

- Sections of the proposed plan will be provided to the Steering Committee prior to any meetings at which the draft plan section(s) will be discussed.

- Copies of the draft plan or sections of the draft plan may be obtained from the Municipal Building.

Public Comment

Throughout the process, the public will have the following opportunities for input:

- At each Steering Committee meeting, time will be allocated for public comments and/or questions.

- At any time during the preparation of the draft Plan, the public may obtain information and/or offer comments via e-mail.

- A citizen (including absentee property owners) survey for widespread distribution and posting on project website will be developed and will be open for 60 days from the date of initial distribution.

- The town-wide mid-project status meeting/public input session, Steering Committee work sessions, open house, and public hearing will all provide additional opportunities for public input and questions.

- Sign-up sheets will be placed in the Wrightsville Beach Municipal Building. Individuals who place their names on this list will be mailed or e-mailed notices announcing meeting times for review of the CAMA Land Use Plan.

- Social media will be utilized on an as-needed basis.

Schedule

The CAMA Land Use Plan planning process will utilize the following schedule:

Project Task	Timeframe
Issue Notice to Proceed	October 2016
Project Initiation	October-November 2016
Research and Analysis	November 2016-January 2017
Plan Format/Development	November 2015-March 2017
Open House	April 2017
Public Hearing	May 2017

NOTE: This schedule may be subject to change as project milestones are achieved and depending upon the length of time required to receive CAMA review comments.

Planning and Inspections

TOWN OF WRIGHTSVILLE BEACH

PLANNING AND INSPECTIONS • 321 CAUSEWAY DRIVE • P.O. BOX 626
WRIGHTSVILLE BEACH, N.C. 28480 • 910-256-7937

MEMORANDUM

To: Mayor Blair and Members of the Board of Aldermen
From: Tony Wilson, Planning and Parks Director TW
Re: **Discussion and Direction regarding an appointment to fill a vacancy on the CAMA Land Use Plan Steering Committee**
Date: **November 2, 2016**
Cc: Tim Owens, Town Manager

At the October 13, 2016 Board of Aldermen Meeting, the board selected 13 members for the CAMA Land Use Plan Steering Committee. On October 19, 2016 Robert Tillman declined the appointment to the committee.

Requested Action
Select another applicant to fill the vacancy on the CAMA Land Use Plan Steering Committee.

Attachments:
1. CAMA Land Use Plan Steering Committee Members

CAMA LAND USE PLAN STEERING COMMITTEE

NAME / ADDRESS	CONTACT INFORMATION	APPOINTMENT HISTORY
Jim Busby	10 Sand Dollar Lane, WB 256-0246 (h) 443-3992 (w) jwbusby@aol.com	Appointed 10-13-16 Ad Hoc
Susan Collins	614 Coburn Street, WB 256-5072 (h) 619-3278 (c) scollinswb@gmail.com	Appointed 10-13-16 Ad Hoc
David Culp	745 Schloss Street, WB 547-3236 (h) dculp@ec.rr.com	Appointed 10-13-16 Ad Hoc
Jeff DeGroote	9A East Henderson Street, WB 232-9688 (h) 256-1118 (w) jeff@southendsurf.com	Appointed 10-13-16 Ad Hoc
Pat Koballa	5 Bahama Drive, WB 256-5044 (h) 620-9501 (w) pkoballa@stevensonauto.com	Appointed 10-13-16 Ad Hoc
Darryl Mills	104 Lees Cut, WB 228-8552 (h) 350-1500 (w) darryl@darrylmillslaw.com	Appointed 10-13-16 Ad Hoc
Robert A. (Bob) O'Quinn	25 Shore Drive, WB 256-4702 (h) 256-0037 (w) oquinnlaw@aol.com	Appointed 10-13-16 Ad Hoc
William E. (Bill) Sisson, Jr.	16 Shore Drive, WB 256-1898 (h) 392-3770 (w) sissonw@gmail.com	Appointed 10-13-16 Ad Hoc
James C. (Jim) Smith	54 Pelican Drive, WB 599-7004 (h) 392-3300 (w) jsmith4030@aol.com	Appointed 10-13-16 Ad Hoc
Robert Tillman Declined Appointment 10-19-16	78 Pelican Drive, P. O. Box 476, WB 256-4502 (h) BLTillman@ec.rr.com	Appointed 10-13-16 Ad Hoc
Calvin Wells	506 N. Channel Drive 1905 Ashbrook Dr., Wilmington, NC 28403 612-1064 (c) calvinfwells@gmail.com	Appointed 10-13-16 Ad Hoc

ALTERNATES

Allen Rippy	101 Circle Drive, WB 619-9552 (h) 799-2421 (w) arippy@rippyautomotive.com	Appointed 10-13-16 Ad Hoc
Frank Smith, Jr.	322 Causeway Drive #707, WB 616-2857 (h) 256-0065 (w) fsmith@smith2design.com	Appointed 10-13-16 Ad Hoc

BALLOT

October 13, 2016

CAMA LAND USE PLAN STEERING COMMITTEE
For Two Alternate Seats

Place one check (√) by 2 applicants.

An applicant must receive at least three votes.

APPLICANT	VOTE
John Douglas Barker, II	
Sue Bulluck	
Vincent Burgess	
Jim Busby	
Susan Collins	
Lee Crouch, Jr.	
David Culp (Planning Board)	
Jeff DeGroote	
David Floyd	
David Hamilton Jacobs	
Pat Koballa	
Darryl Mills (Board of Aldermen)	
Nicolas Montoya	
Bob O'Quinn	
Allen Rippy	
Britt Klimberg Sheinbaum	
Justin Walker Shepard	
Bill Sisson	
Frank Smith, Jr.	
Jim Smith (Planning Board)	
Susan Snider (Planning Board)	
Robert Tillman	
Calvin Wells	

TOWN OF WRIGHTSVILLE BEACH
Post Office Box 626
321 Causeway Drive
Wrightsville Beach, North Carolina 28480
(910)239-1700
FAX (910)256-7910

November 10, 2016

MEMORANDUM

To: Mayor Blair and Board Members
From: Tim Owens, Town Manager
Re: Discussion and Direction on applying for a FY2018 Unified Planning Work Program Project Funds(UPWP) grant to explore long term bridge replacement options for the Heidi Trask Drawbridge and short-term improvements to alleviate congestion on either side of the Heidi Trask Drawbridge

Agenda Item

At the last meeting, we discussed the opportunity to apply for UPWP funds to seek funding to explore long term bridge replacement options. At that time, I told the Board that I would bring back more information and a formal request. Attached is a letter and resolution to be sent to the Wilmington MPO seeking 2018 UPWP Funds for the Heidi Trask Drawbridge Strategic Planning Study in the amount of $100,000

Action Items

1. Discuss the item and ask questions
2. Determine if the Town wishes to provide any match to the request
3. Adopt the Attached Resolution
4. Approve the Mayor signing the attached letter and to submit the letter to the Wilmington MPO

TOWN OF WRIGHTSVILLE BEACH
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Wrightsville Beach, North Carolina 28480
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FAX (910)256-7910

November 10, 2016

Wilmington Metropolitan Planning Organization
Attn: Mr. Mike Kozlosky, Executive Director
Post Office Box 1810
Wilmington, NC 28402

Dear Mr. Kozlosky,

The Town of Wrightsville Beach respectfully requests that the Wilmington Urban Area Metropolitan Planning Organization consider allocating FY2018 Unified Planning Work Program Project Funds (UPWP) for the Heidi Trask Drawbridge Strategic Planning Study to evaluate options for repair or replacement of the existing bridge.

The Heidi Trask Drawbridge serves as the only vehicular transportation link between the mainland and Wrightsville Beach. While North Carolina Department of Transportation did recently complete a major renovation of the bridge, the drawbridge is one of the oldest in the State of North Carolina. The bridge is six years older than the Topsail Island swing bridge and fifteen years older than the Cape Fear Memorial Bridge. It should be noted that construction of the replacement bridge for the Topsail Island swing bridge recently began and that the Cape Fear Memorial Bridge is also slated for replacement in the coming years when a final replacement plan has been developed. Due to the significance of the Heidi Trask Drawbridge to the Wilmington region and the Town, it is important that a long-term plan be developed to ensure that reliable access to Wrightsville Beach is in place for many generations to come.

Despite the Heidi Trask Drawbridge major renovations completed three years ago, the the bridge will reach its maximum lifespan in 20 to 30 years. As the population of both the Town and the Lower Cape Fear Region continue to increase, the demand and strain that is put on this already highly used bridge will continue to increase. The importance of

maintaining the connection to the mainland in a manner which is both safe and reliable is critical for not only the residents and businesses of the island, but also to the many visitors from the surrounding area and beyond who travel across the drawbridge to Wrightsville Beach each year.

The Town of Wrightsville Beach respectfully requests that the Wilmington Metropolitan Planning Organization consider allocating UPWP funds for a comprehensive planning study of the Heidi Trask Drawbridge. The estimated cost of the study is $100,000. The objectives of the study would be to examine, at a minimum, the following:

- Evaluate current and future traffic demand
- The feasibility and location of constructing a new multi-lane fixed bridge
- Review the feasibility maintaining the existing drawbridge in its current configuration
- Consider the construction of a second bridge to provide better access on and off the island
- Identify and include pedestrian and bicycle facilities as part of any new bridge design
- Review and evaluate current and future conditions to develop short-term recommendations for improving traffic flow (including bicycle and pedestrian traffic) on either side of the Heidi Trask Drawbridge

Thank you again for your consideration. If you have any questions, please contact me at (910)256-7900.

Sincerely,

William J. Blair, III
Mayor

Attachments

- Resolution
- Bridge
- 2010 Traffic Counts
- Study corridor

RESOLUTION NO. (2016) 2000

Board of Aldermen
Town of Wrightsville Beach
Date: November 10, 2016

A RESOLUTION OF THE BOARD OF ALDERMEN OF THE TOWN OF WRIGHTSVILLE BEACH, NORTH CAROLINA REQUESTING THAT THE WILMINGTON METROPOLITAN PLANNING ORGANIZATION SET ASIDE FY2018 UNIFIED PLANNING WORK PROGRAM PROJECT FUNDS (UPWP) FOR THE HEIDI TRASK DRAWBRIDGE STRATEGIC PLANNING STUDY

WHEREAS, the Board of Aldermen of the Town of Wrightsville Beach recognizes that the Heidi Trask Drawbridge is the only transportation link to the island, and

WHEREAS, the Drawbridge was recently renovated but still has a limited lifespan, and

WHEREAS, the Board of Aldermen of the Town of Wrightsville Beach recognizes the amount of time and effort it takes to plan for large scale infrastructure improvements,

NOW, THEREFORE BE IT RESOLVED, that the Board of Aldermen of the Town of Wrightsville Beach request that the Wilmington Metropolitan Planning Organization set aside FY2018 Unified Planning Work Program Project Funds for the Heidi Trask Drawbridge Strategic Planning Study with a scope of work to at least include:

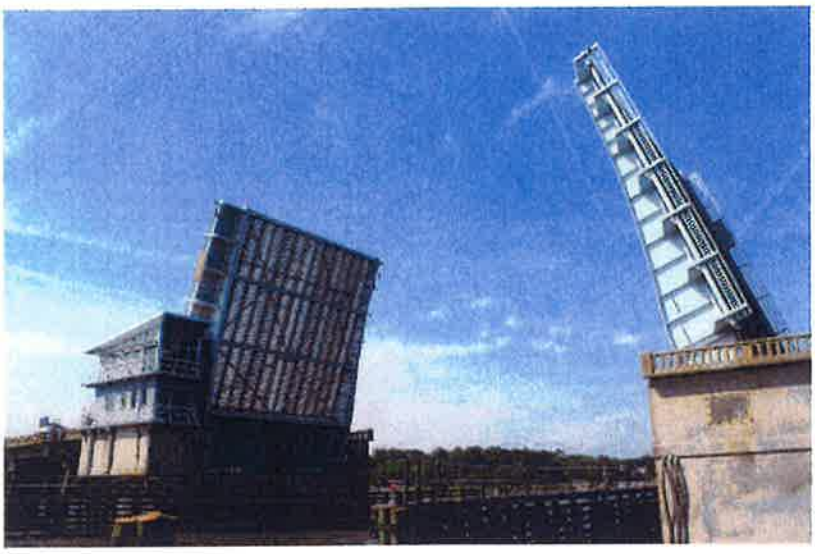
- Evaluate current and future traffic demand
- The feasibility and location of constructing a new multi-lane fixed bridge
- Review the feasibility maintaining the existing drawbridge in its current configuration
- Consider the construction of a second bridge to provide better access on and off the island
- Identify and include pedestrian and bicycle facilities as part of any new bridge design
- Review and evaluate current and future conditions to develop short-term recommendations for improving traffic flow (including bicycle and pedestrian traffic) on either side of the Heidi Trask Drawbridge

This Resolution adopted this 10th day of November, 2016.

_____
William J. Blair III, Mayor

ATTEST:

_____
Sylvia J. Holleman, Town Clerk



2010 Traffic Counts

Traffic Count Key:

- 19,213
- 4,369
- 17,796
- 11,695

Anticipated Study Corridor

TOWN OF WRIGHTSVILLE BEACH
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321 Causeway Drive
Wrightsville Beach, North Carolina 28480
(910)239-1700
FAX (910)256-7910

November 10, 2016

MEMORANDUM

To: Mayor Blair and Board Members
From: Tim Owens, Town Manager
Re: Discussion and Direction on Selecting an Engineering Firm for the Town's Assessment of the NEI to include Engineering and Permitting of a Duplicate Sewer Force Main

Agenda Item

As directed by the Board, staff advertised the attached RFQ for a project that entails the current assessment of the NEI to include engineering and permitting of a duplicate sewer force main. The item was sent out on September 30th and the Town received 4 submittals. The firms that submitted were Highfill Infrastructure Engineering, SEPI Engineering and Construction, McKim and Creed and AECOM.

All responders were very qualified. Public Works Director Bill Squires and I reviewed the proposals and we are recommending Highfill Infrastructure Engineering and that we consider negotiation a formal "scope of work" and cost proposal to complete those items that are outlined in the RFQ. Highfill provided a solid, phased approach to the project and they have had previous experience with projects involving the NEI both with Wrightsville Beach and CFPUA along with other sewer design projects within the Town. If negotiations fail with Highfill, the next recommendation would be with SEPI engineering.

Highfill was the second choice behind McKim and Creed with regard to our recent water study.

Action Items

1. Discuss the item and ask questions
2. Select a Firm to begin negotiations with on a "scope of work" and fee schedule
3. Direct Staff to negotiate the "scope of work", fee schedule and contract and return the outcome back to the Board at another meeting.

TOWN OF WRIGHTSVLLE BEACH

REQUEST FOR QUALIFICATIONS (RFQ)

FOR CONSULTANT ENGINEERING SERVICES TO ASSESS THE CURRENT CONDITION OF THE TOWN'S ONLY SEWER CONNECTION TO CAPE FEAR UTILITY AUTHORITY AND LOCATED UNDER THE INTRACOASTAL WATERWAY AND COMPLETE ENGINEERING AND PERMITTING OF A DUPLICATE SEWER LINE CONNECTION

BOARD OF ALDERMEN

William Blair, III, Mayor
Darryl Mills, Mayor Pro-Tem
Elizabeth King, Alderman
Hank Miller, Alderman
Lisa Weeks, Alderman

Town of Wrightsville Beach, NC

REQUEST FOR QUALIFICATIONS (RFQ)

FOR CONSULTANT ENGINEERING SERVICES TO ASSESS THE CURRENT CONDITION OF THE TOWN'S ONLY SEWER CONNECTION TO CAPE FEAR UTILITY AUTHORITY AND LOCATED UNDER THE INTRACOASTAL WATERWAY AND COMPLETE ENGINEERING AND PERMITTING OF A DUPLICATE SEWER LINE CONNECTION

The Town of Wrightsville Beach is requesting that licensed engineering firms submit qualifications with expertise in water and sewer infrastructure planning, design and permitting.

A. STUDY OBJECTIVE

The Town of Wrightsville Beach has approximately 2700 water and sewer customers. Water is produced using 9 wells with the Town producing approximately 260 Million Gallons of water per year. The Town operates a sewer collection system with 7 lift stations. The sewer generated from customers is sent to Cape Fear Public Utility Authority (CFPUA) for treatment by a single 14 inch force main that was constructed in 1982. That force main extends from Lift Station #5 under the Intracoastal Waterway and enters (Cape Fear Public Utility Authority) CFPUA's waste stream at Airlie Road and Military Cutoff. The Town sends approximately 250,000,000 gallons of sewer per year to CFPUA.

The current condition and material of the existing force main is unknown and needs to be assessed. Given the age and possible condition of the force main, the Town needs to move forward on engineering a secondary force main and possibly recondition the existing force main if needed.

Background on the Town of Wrightsville Beach

The Town of Wrightsville Beach is a full-service coastal community of 2,500 full-time residents located in southeastern North Carolina. Located along the Atlantic Ocean, the population of Wrightsville Beach expands to an estimated 15-20,000 during summer months.

The Town is bordered by the Atlantic Ocean to the east, Banks and Motts Channel, the Atlantic Intercoastal Waterway, and Lees Cut and adjacent marsh and spoil islands. In addition, the Town has a variety of voluntarily annexed properties to the west of the intercoastal waterway.

A. SCOPE OF SERVICES

1. **Phase 1**
   Review and explore the current condition, material, location and structural integrity of the existing sewer force main connection with Cape Fear Public Utility Authority from the Town's Pump Station #5 crossing the Intracoastal Waterway to the Wrightsville Avenue Intersection. Make recommendations to correct any deficiencies or concerns with the existing force main to include cost estimates.
2. **Phase 2**
   Provide the Town with alternatives to create a redundant sewer line connection with Cape Fear Public Utility Authority. Engineer and Permit a secondary sewer force main that crosses the Intracoastal waterway with connections to the existing force main at optimal locations. Provide detailed cost estimates to complete the project.
3. **Phase 3 (To be determined at a later date)**
   Create bid documents, oversee bid process and award, coordinate construction process and construction management of the new force main connection.

C. PROPOSAL REQUIREMENTS

The proposal shall explicitly include, at a minimum, the following elements:

1. **Cover Letter and Executive Summary of the Approach that the Firm Will Take to Fulfill the Goals and Objectives of the Project:** A cover letter by an individual who is authorized to bind the responding firm contractually shall be attached to the proposal. Within that cover letter, the respondent shall give a summary of those elements and approaches that the firm proposes to fulfill the goals and objectives of the contract.

2. **Statement of Qualifications and Level of Experience**: The firm shall present a statement of qualifications as to their prior history with similar projects to include references. A brief summary of those similar projects is encouraged. The statement of qualification should include:

- A statement of qualification and experience;
- Identification of the staff to be assigned to this project;
- Resumes of all key staff to be employed on the project;
- A Project Manager having overall project management authority;
- An outline of your team's general approach to undertaking this project demonstrating an understanding of the project goals and a capability to successfully complete the project;
- References for projects similar in nature and scope completed within the last five (5) years;
- For each referenced project, identify the project name including contact information and describe the scope of work undertaken by your company/team;
- Technical information on the process and protocols proposed to be used and an hourly charge rate for key staff to be assigned to the project

3. **Detailed Timeline:** In addition to the submittal of the firm's approach to the project, the firm shall include a detailed timeline of events that correspond with approach that the firm will be taking to complete the project.

4. **Deliverables:** The firm shall detail the deliverables that will be expected following the completion of the project.

5. **Proof of Insurance and Disclosure of any Litigation:** The firm shall provide proof of insurance with an original insurance certification naming the Town as additional insured if selected. In addition, the RFP should disclose and describe all publicly recorded legal actions stemming from performance of professional responsibilities in which the firm or individuals assigned to this project have been named. Specifically describe the outcome of all actions or declare the current status if litigation is pending.

6. **Preliminary Cost Proposal: *Please provide a standard rate schedule for all those participating in the Study.***

D. PROPOSAL SUBMITTAL

At a minimum, the information as requested in Section C. of this RFP shall be submitted and can include additional information if it will further qualify the approach and qualifications of the firm making the proposal. The proposal shall not exceed 20 single-sided page.

Following the selection of the successful team, a turn-key scope of work including tasks, man-hours, fees and schedule will be developed and submitted to the Town for review and approval and consideration at a later Board meeting.

E. DEADLINE FOR SUBMISSION OF PROPOSALS:

Interested firms should submit sealed proposals no later than NOON on Tuesday, November 1, 2016 to:

Proposals shall be Mailed or Hand Delivered to:

Sewer Line Permitting RFQ
Attn: Town Manager
Post Office Box 626
Wrightsville Beach, NC 28480

Proposals received after the required deadline will not be accepted. Proposals will be discussed at a subsequent Town Council meeting and will be awarded to the most qualified and responsible bidder(s). The Board of Aldermen reserves the right to approve proposals, deny proposals, negotiate proposal or re-advertise for additional proposals for the project if deemed necessary by the Board of Aldermen or Town Manager. The Board of Aldermen and Town Staff reserve the right to interview any or all of the applicants to help aid in determining the most qualified firm. The Bidding requirements of the North Carolina General Statutes will be considered when reviewing and approving the final firm.

F. CONTACT, QUESTIONS AND CORRESPONDENCE

All contact, questions, and correspondence regarding the project and proposal shall be directed to the following:

Town Manager
Tim Owens
Post Office Box 626
Wrightsville Beach, NC 28480
(910)256-7900
towens@towb.org

Note – All written correspondence and e-mails are considered public documents in the State of North Carolina

Statement of Qualifications:

Engineering Consulting Services - NEI Condition Assessment and Duplicate Force Main

for the
Town of Wrightsville Beach

November 1, 2016

HIGHFILL

HIGHFILL
INFRASTRUCTURE
ENGINEERING, P.C.

3804 Park Avenue, Unit A
Wilmington, North Carolina 28403
910-313-1516

November 1, 2016

Sewer Line Permitting RFQ
Attn: Tim Owens, Town Manager
Town of Wrightsville Beach
P.O. Box 626
Wrightsville Beach, NC 28480

RE: Statement of Qualifications
Engineering Consulting Services - NEI Condition Assessment and Duplicate Force Main Design

Dear Mr. Owens:

Our prior experience with the Town of Wrightsville Beach's (Town's) NEI Segment I force main (NEI1), and related infrastructure, will save the Town time and money. We will help you first determine what degree of additional condition assessment is warranted based on the Town's primary objective and considering the results of the prior condition assessment and repair of NEI1. I led that previous condition assessment and repair project with support from several HIGHFILL team members, which makes us the ideal team for this next step. Our team's extensive experience with this particular main, and the pump stations that feed it, provide your most efficient path to informed decisions and prudent investments for some of the Town's most critical infrastructure.

Our approach consists of the following primary steps, which are described in more detail in Section 2.3 of the attached SOQ:

- Phase I workshop with Town staff to discuss the following:
  - The pipe materials and characteristics presented in the record drawings and specifications
  - Pipe failure modes for the pipe materials involved
  - Results of the NEI1 previous assessment and repair work
  - Condition assessment options, benefits and limitations
- Verify pipe materials in the field and perform appropriate condition assessment
- Identify practical options for a redundant force main
- Perform a cost/benefit analysis to choose the best option, prudent timing, and anticipated cost
- Consider applying to USDA for a low-interest loan to finance the improvements
- Design and permit the redundant main

Our team has the most first-hand knowledge of the Town's system and an excellent history of success working with the Town's Public Works staff. We also work extensively with CFPUA and are prepared to coordinate with their appropriate staff as required. Our key project team members have overseen more than thirty horizontal direction drills, including one under Kenan Creek for the Town, and know how to ensure their success. We appreciate the opportunity to respond to your RFQ, and we are prepared to begin work immediately upon selection.

If you have any questions, please contact me at 919-481-4342 or cford@hiepc.com.

Sincerely,

HIGHFILL INFRASTRUCTURE ENGINEERING, P.C.

Chris Ford, PE
Vice President of Operations

Table of Contents

Section 2 - Statement of Qualifications and Level of Experience

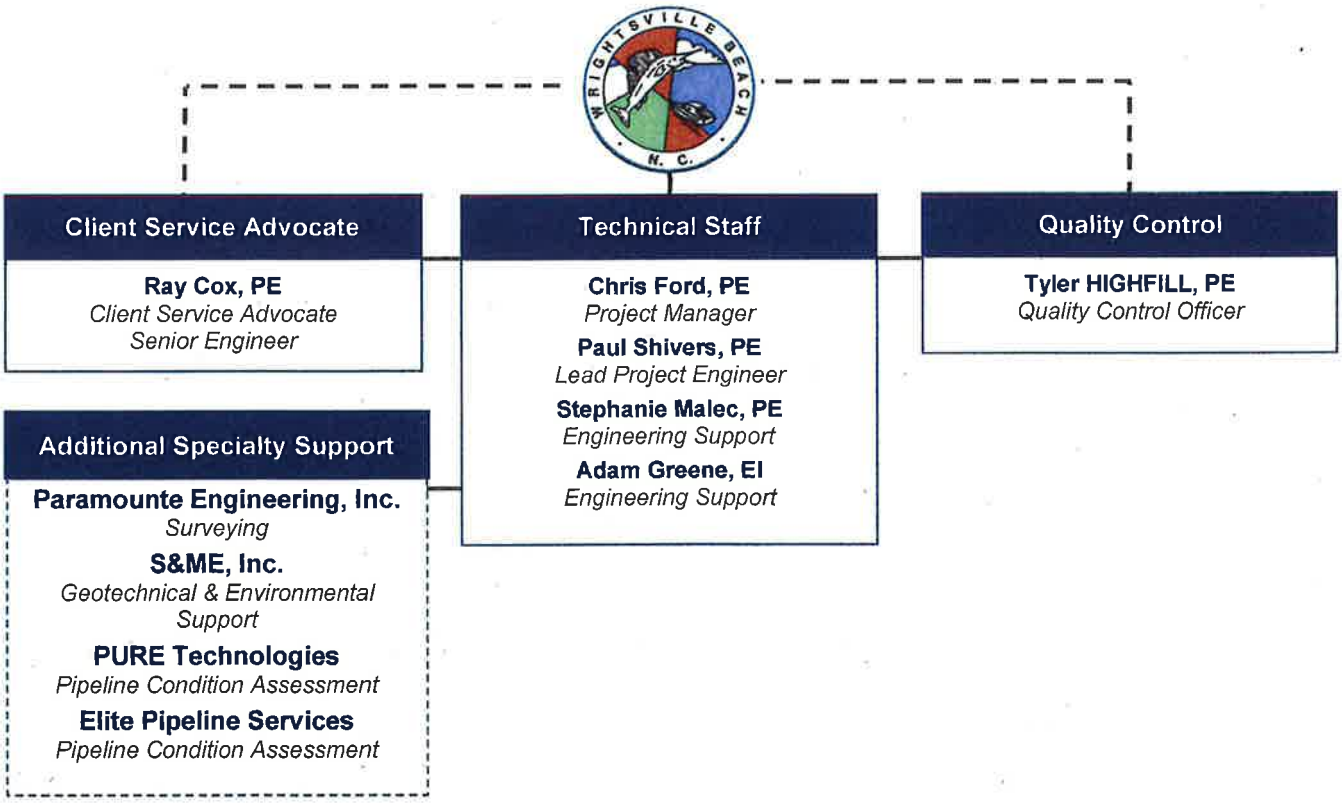
2.1 Statement of Qualifications and Experience

The personnel assigned to this project have a proven record of success in performing similar work for public utilities across North Carolina. Our previous work with the Town of Wrightsville Beach and with the Cape Fear Public Utility Authority (CFPUA) provide a level of efficiency and base knowledge that no other firm can offer.

2.2 Our Team

2.2.1 Organizational Chart

The organizational chart below presents our project team and depicts the lines of communication and reporting for successful completion of this project. Project Manager Chris Ford's extensive experience with the Town's infrastructure will help save the Town time and money by guiding you more quickly to a decision of what level of condition assessment and redundancy is warranted. As a company Principal, he will also ensure that our team's skilled resources are applied in the right place at the right time to carry out the work efficiently.



Client Service Advocate Ray Cox and Quality Control Officer Tyler Highfill will give the Town added accountability and confidence by ensuring that the Town's expectations are understood and met through implementation of our Quality Management Program. Ray will also help Town staff understand the benefits and limitations of various condition assessment techniques early in the process so that funds can be invested most wisely. He and Tyler both assisted Chris with the initial NEI1 condition assessment, providing ideal continuity and efficiency.

2.2.2 Key Personnel Resumes

Chris Ford, PE – Project Manager

Chris Ford, PE, is HIGHFILL's Vice President of Operations and will serve as project manager for this project. Chris was the obvious choice to lead this project because of his extensive previous experience with the NEI1 and his excellent relationship with Town utilities staff. He will serve as the Town's primary point of contact. As a firm principal, he will also ensure that the appropriate resources are in place to accomplish the project objectives efficiently.

Education: B.S., Civil Engineering, North Carolina State University, 1989

Years of Experience: 27

Professional Registrations: Professional Engineer: NC

Mr. Ford's previous work with the Town includes the following (see Section 2.4 for more details):

- NEI Segment I – prioritization and condition assessment of the Town's primary connection to CFPUA's sewer system.
- Sanitary Sewer Condition Assessment and Rehabilitation – resulted in the development of an annual condition assessment and rehabilitation program
- Pump Stations 1 and 5 Improvements – reliability improvements at two critical pump stations, with expedited design to meet funding deadlines. (Not yet constructed.)

Question and Answer Session with Chris Ford:

What sets HIGHFILL apart from competitors for this project?

"I led the initial condition assessment and repairs of the NEI1 (this force main). Tyler and Ray assisted in that effort, so our team has unmatched experience with this critical main. This experience, along with our local staff and familiarity to Town utility personnel, enables us to help the Town Manager most efficiently resolve these concerns that cause him to lose sleep."

What critical knowledge has resulted from your previous experience with the Town?

"We found one area in the previous assessment that required rehabilitation because of pipe corrosion. This area was repaired with a high pressure CIPP liner with end seals that require periodic inspection. If those seals have not been checked, they need to be in the very near future."

Professional Associations:

- National Society of Professional Engineers (NSPE)
- American Water Works Association (AWWA)
- Professional Engineers of North Carolina (PENC), Southeastern Chapter, Past President
- National Association of Sewer Service Companies (NASSCO).
- North American Society for Trenchless Technology (NASTT)
- Southeast Society for Trenchless Technology (SESTT), Board of Directors, Secretary

Paul Shivers, PE – Lead Project Engineer

Education: Bachelor of Civil Engineering, Georgia Institute of Technology, 1997
Years of Experience: 19
Professional Registrations: Professional Engineer: NC, SC

Paul leads our engineering group in Wilmington. He provides the Town a familiar, local contact that helps us better anticipate and respond to the Town's needs through all phases of the project. In addition to providing engineering support for planning and design, he will lead and coordinate all field activities.

Ray Cox, PE – Client Service Advocate

Education: B.S., Biological and Agricultural Engineering, North Carolina State University, 1993
Years of Experience: 23
Professional Registrations: Professional Engineer: NC, SC

Ray Cox, PE, is our Vice President of Marketing. He is a firm principal whose primary focus is helping to ensure that our client relationships remain strong. As Client Service Advocate for this project, Ray will review project progress with the Project Manager on a monthly basis, thereby providing the Town additional assurance of team dependability and accountability. He will also touch base with the Town's project manager periodically to ensure that expectations are met, and he will provide technical guidance to the project team.

Tyler Highfill, PE - Quality Control Officer

Education: Master of Civil Engineering, North Carolina State University, 1994; B.S., Civil Engineering, North Carolina State University, 1992
Years of Experience: 24
Professional Registrations: Professional Engineer: NC, SC

Tyler Highfill, PE, our President and CEO, founded HIGHFILL after becoming frustrated with the amount of time he spent on "overhead" as a Program Manager in a larger firm. His vision was to invest that time in client service and to deliver the same high quality engineering in a more efficient package. That vision is the basis for the client-centered culture at HIGHFILL. Our principals help to keep overhead low by training our project managers effectively and by actively participating in project work. As Quality Control Officer, Tyler will ensure that all deliverables undergo thorough technical review to confirm accuracy before being passed along to the Town.

2.3 Project Approach

2.3.1 Phase I

The initial phase of the NEI1 Assessment will compile documentation from various sources related to the history of the existing system for review with the Town. After thorough review, the project team will determine if additional investigation is necessary and if so, what information needs to be obtained to evaluate the condition of the existing ICWW crossing. Phase I will include the following tasks.

1. Conduct a Phase I workshop with Town staff
    a. Identify and document project drivers, goals, and objectives. (***Is the objective to ensure that there is at least one crossing that is in good condition or is the primary goal redundancy?***)
    b. Verify lines of communication, expectations, preferences, deliverables, and schedule.
    c. Review the history of the NEI Segment I force main (NEI1) including:
        i. Discuss initial installation method and materials from record drawings and specifications, which have already been reviewed by HIGHFILL staff. The construction drawings indicate a high density polyethylene (HDPE) pipe was planned for crossing the ICWW; however, the construction specifications indicate that both HDPE (Type PE-3408, SDR-11) and ball joint ductile iron (DI) pipe were acceptable. HDPE and DI pipes have different failure modes, so condition assessment techniques differ for the two pipe materials.
        ii. Discuss failure modes for HDPE and DI pipes and their ramifications for the current ICWW crossing.
        iii. Discuss the results of previous NEI1 condition assessment and rehabilitation work by HIGHFILL staff.
    d. Discuss available condition assessment methods, along with benefits, limitations, and anticipated relative costs.
2. Perform field observation and testing
    a. Oversee excavation of one or both transition blocks to verify the pipe material of the ICWW crossing and perform localized condition assessment as warranted.
    b. Based on the pipe material, develop a condition assessment plan that meets the Town's goals, objectives, and budget.
    c. Perform the condition assessment and document the results.
3. Document the background, decisions, results and recommendations in a technical memorandum (TM).

2.3.2 Phase II

Phase II will focus on the design of a redundant crossing of the ICWW. This will include the following tasks:

1. Identify and discuss with the Town practical options for a redundant force main.
2. Consider applying for a low-interest, 40-year loan from USDA to finance the construction.
3. Prepare another TM or, if USDA financing is sought, a Preliminary Engineering Report and Environmental Assessment (PER/EA) for the redundant force main:
    a. Include a cost/benefit comparison of prudent alternatives.
    b. Help the Town determine the appropriate project timeline through construction completion.
    c. Identify project costs, including anticipated impact to rate payers.

4. Design and permit the redundant main, providing updated cost opinions at key design intervals including design completion.

2.3.3 Phase III (Timing to be determined in Phase II)

Upon completion of Phases 1 & 2, bids will be received for the redundant force main followed by construction. Bid and construction phase tasks will include the following:

1. On the timeline determined in Phase II, assist the Town in advertising the project for bidding
    a. Prepare bidding and contracting documents
    b. Make bid documents available to contractors and plan rooms
    c. Hold a pre-bid meeting if deemed necessary
    d. Assist with the bid opening
        i. Provide a certified bid tabulation
        ii. Provide a recommendation concerning award
2. Provide construction contract administration and construction observation services through construction

2.3.4 Additional Considerations

As the Town prepares to evaluate the condition of the NEI ICWW crossing, it is prudent to consider a holistic approach to assessing and rehabilitating wastewater collection and conveyance system infrastructure. A holistic approach will allow the Town to identify the additional critical needs and prioritize the improvements needed to address those needs. Several examples follow.

Design & Permit vs. Design, Permit, and Construction

The Town should consider several potential ramifications before electing to design and permit the redundant force main and construct it at a later date, versus immediately proceeding with construction:

1. Permits may expire.
2. The design location in the right-of-way may be encroached upon.
3. If the existing force main fails, there will not be sufficient time to install the new force main before the existing could be repaired. Constructing the new force main will require a contractor to acquire materials, mobilize, install and test the new force main, and then connect it to the existing force main. To provide the desired redundancy, the Town must move forward and construct the new ICWW crossing prior to a failure of the existing crossing.

Condition and Criticality of Other Wastewater Assets

The Town's Lift Station 3 Force Main recently failed when a section of the 6-inch iron force main burst and washed out the surrounding area. Could this be an indication that the same issues identified in the Northeast Interceptor Segment 1 Assessment are just beginning to surface on other Town force mains? Prior to constructing a redundant crossing of the ICWW, the Town may want to consider evaluating the condition of other sewer force mains and prioritizing improvements based on their criticality. Depending on the condition of the ICWW crossing, that may benefit the Town more. We can assist the Town with developing an efficient and effective way to identify weak points in the Town's system and address those prior to failure.

Infiltration and Inflow

Staff have indicated that the Town's wastewater collection system has significant infiltration and inflow (I&I) that should be reduced. Reducing I&I essentially restores capacity to the collection system and reduces pumping and treatment costs. Flow monitoring would be beneficial to identify the source(s) of I&I. Rehabilitation and replacement methods using trenchless technologies could be used to minimize the disturbance and cost. My work

with the Town in 2010 and 2011 included review of CCTV, rating the defects, and selecting a method of rehabilitation. The work Identified some sewers that needed repair, and some that did not. Our previous work and the information we have obtained will be an asset to the Town as you begin an I&I reduction program.

Previous Condition Assessment Recommendations

In 2006, Chris Ford and Tyler Highfill prepared the NEI Segment 1 Preliminary Engineering Report for the Town of Wrightsville Beach. The Town might consider reviewing and implementing the recommendations that have not been addressed to this point.

2.4 Feature Projects

Summarized below is a sampling of several recent similar projects that demonstrate how we are uniquely positioned to help the Town achieve its objectives most efficiently.

Northeast Interceptor Evaluation, Segment 1 Condition and Reliability Assessment and Improvements

Town of Wrightsville Beach, Wrightsville Beach, NC

Due to past failures and reliability concerns, the Town of Wrightsville Beach desired a condition and reliability assessment of the Northeast Interceptor Segment 1 (NEI1) Sewer System. The goal of the study was to identify improvements that would reduce failures and provide a system that would maintain the public health and confidence. HIGHFILL and Kimley-Horn and Associates, Inc. (KHA) teamed on the project, and Chris Ford, PE, served as Project Director and Manager for this project for KHA, who served as prime.

KHA used HIGHFILL's Deficiency Identification and Repair Program (DIRP) to perform the pipeline condition assessment. Through evaluation of past failures, the force main profile, targeted ultrasonic thickness testing, and coupon extraction, deteriorated portions of the force main were identified. An operational evaluation was performed to assess the operational procedures of the system, including review of the current odor and corrosion control facilities; evaluation of the condition, functionality, sizing, operation, and maintenance of the air release valves (ARVs); evaluation of the daily pump station data collection and recording; and review and evaluation of the SCADA system monitoring. A criticality assessment was performed to determine which elements of the system are most important to maintain reliable wastewater service. Reliability improvement recommendations were compiled in a Capital Improvements Plan and Implementation Plan.

KHA, with Chris Ford as Project Manager, provided the subsequent design, bid, and construction phase services for the recommended improvements. The recommended improvements consisted of the removal and replacement of 1,300 linear feet of deteriorated 14-inch ductile iron force main, including 470 linear feet of 16-inch horizontal directional drill and rehabilitation of 330 linear feet of deteriorated 14-inch ductile iron force main by installation of a 100-psi cured-in-place pressure liner.

***Reference**: Bill Fay, Assistant Public Works Director, Town of Wrightsville Beach, 910-256-7935, bfay@towb.org*
Team members: Ford, Highfill, Cox, Shivers

Relevance to Town:

- Primary team members were directly involved in previous analysis, condition assessment, and repair of this same force main. Our first-hand knowledge will save the Town time and money.
- We will provide unique insight into the history of analysis and decisions regarding this main, which provides continuity not available with any other team.

Northeast Interceptor Evaluation, Segment 2 Condition and Reliability Assessment and Improvements

Cape Fear Public Utility Authority, Wilmington, NC

Project included preparation of wastewater flow projections, system criticality assessment, and assistance with force main field integrity testing of Segment 2 of the Northeast Interceptor, which consists of a 6 MGD pump station, 9.6 MGD pump station, two miles of 20-inch force main, and eight miles of 24-inch force main. The proximity of the project to sensitive coastal waters and the number of preceding wastewater spills related to the system made it a very high profile project. As such, the project required careful coordination between the three system partners (City of Wilmington, New Hanover County, and the Town of Wrightsville Beach) as well as regulators from the (then) Division of Water Quality. The evaluation resulted in approximately $40M of recommended improvements. This work was performed as a subcontractor to KHA while Chris Ford was employed by that firm and serving as Project Manager.

Reference: *Frank Styers, PE, Chief Operating Officer, CFPUA, 910-332-6670, Frank.Styers@cfpua.org*
Team members: Ford, Highfill, Cox, Shivers

Relevance to Town:

- A continuation of the NEI1 work, this project included extensive force main condition assessment and planning that is directly comparable to the services currently sought by the Town.

Northeast Interceptor Rehabilitation, Phases 1 & 2

CFPUA, Wilmington, NC

A thorough condition assessment of the 14-mile long Northeast Interceptor (NEI) force main yielded recommendations for rehabilitation in two phases. Phase 1 included urgently needed repairs, and Phase 2 included repairs that could be delayed until other system improvements were completed that would reduce costly bypass pumping. Phase 1 was completed on an expedited schedule so that a State-imposed building moratorium could be lifted.

Phase 1 Rehabilitation

- Replacement of 210 linear feet of 20-inch gravity sewer with 24-inch gravity sewer, including bypass pumping.
- Replacement of 500 linear feet of deteriorated 20-inch ductile iron force main by static pipe bursting.
- Rehabilitation of 1,700 linear feet of deteriorated 20- and 24-inch ductile iron force main by installation of a 100-psi CIPP pressure liner.
- Conversion and rehabilitation of 280 linear feet of 20-inch ductile iron gravity sewer to force main by installation of a 100-psi CIPP pressure liner.
- Replacement of the Pump Station 34 influent junction manhole.
- Replacement or retrofit of air release valves and vaults.
- Relocation of 1,400 linear feet of 24-inch force main.

Phase 2 Rehabilitation

The Phase 2 Rehabilitation consists of the rehabilitation or replacement of approximately 4,800 linear feet (LF) of deteriorated 20-inch ductile iron force main and air release valve vaults. The feasibility and cost-effectiveness of four viable alternatives were evaluated including pipe bursting, high pressure cured-in-place pipe pressure liner (100 psi), open-cut excavation and replacement in-place, and open-cut excavation and replacement within the

same corridor. Static pipe bursting was the selected as the more feasible alternative that best met the client's goals and objectives.

Reference: Frank Styers, PE, Chief Operating Officer, CFPUA, 910-332-6670, Frank.Styers@cfpua.org
Team members: Ford

Relevance to Town:

- Demonstrated experience in leading the design and construction phases of rehabilitation for major force mains in the same vicinity.

Pump Stations 1 and 5 Improvements

Town of Wrightsville Beach, NC

Prior to his employment with HIGHFILL, Project Manager Chris Ford oversaw a project to design capacity and reliability improvements for the Town's two main pump stations, Pump Station 1 and Pump Station 5. Design improvements to Pump Station 1 included the addition of a 100-HP pump with VFD controls and associated piping, and the replacement of the existing HVAC system, roof, doors, louvers, and other deteriorated components. Designed improvements to Pump Station 5 included complete replacement of the suction lift pump station with a submersible pump station with VFD controls. An elevated electrical building to house all controls and telemetry was also designed due to flood levels on the barrier island.

This project design was expedited in order to seek funding through the American Reinvestment and Recovery Act (ARRA) of 2009. Within six weeks, construction contract documents were completed and the necessary permits were obtained in order to meet the submittal deadline. Unfortunately, the Town did not qualify for ARRA funding and the improvements were not constructed at that time.

Reference: Bill Fay, Assistant Public Works Director, Town of Wrightsville Beach, 910-256-7935, bfay@towb.org
Team members: Ford

Relevance to Town:

- Provides further evidence of Mr. Ford's experience in assessing and repairing Town infrastructure and working with Town staff
- Demonstrates the ability to expedite services as necessary to meet project requirements

Force Main Assessment and Rehabilitation Design Program

CFPUA, Wilmington, NC

In 2012, CFPUA's collection system included 144 pump stations with force mains totaling 108 miles in length. In spite of significant progress made to minimize SSOs on their extensive system, force main breaks had persisted as recently as late 2011. CFPUA selected HIGHFILL as prime, along with team member Brown and Caldwell as sub, to develop a comprehensive, continuing force main inspection and condition assessment program.

We developed a five-task approach as follows:

- **Task 1** – Criticality Analysis and Prioritization
- **Task 2** – Development of Inspection and Condition Assessment Guideline Document
- **Task 3** – Field Inspection of High Priority Force Mains
- **Task 4** – Condition Assessment of High Priority Force Mains
- **Task 5** – Recommendations for Re-inspection, Repair, Rehabilitation or Replacement

Our approach is designed to ensure that limited resources are focused where they have the most potential benefit. The criticality analysis and prioritization step allowed us to focus on CFPUA's highest priority force mains first. To date, we have completed acoustic inspection of nearly 14 miles of 20-inch and 24-inch diameter force mains and have presented recommendations for next steps. We have also provided recommendations for targeted segments of other critical force mains that were not well-suited for acoustic inspection. Our findings and recommendations are helping CFPUA to decide which mains to program for rehabilitation, replacement, or re-inspection. We have provided written documentation of each step and have coordinated closely with CFPUA engineering and operational personnel. We have also provided tools for CFPUA to become self-sufficient in the ongoing inventory, prioritization, and assessment of force mains consistent with EPA's CMOM practices. All prioritization and assessment data were presented in Technical Memorandum format for integration into CFPUA's Asset Management program through their GIS and CMMS.

HIGHFILL was recently selected by CFPUA to develop and implement an ongoing force main and ARV assessment and rehabilitation find it-fix it program that will incorporate the components of the previous work.

Reference: Frank Styers, Chief Operating Officer, CFPUA, (910) 332-6670, Frank.Styers@cfpua.org
Team members: Cox, Highfill, Shivers

Relevance to Town:

- Demonstrates HIGHFILL's ability to develop and implement a program for prioritization and assessment of a large, coastal force main system
- Demonstrates high proficiency in force main condition assessment technology and execution

PS 13 Force Main Assessment Specifications

CFPUA, Wilmington, NC

CFPUA is in the process of developing an ongoing FM Assessment and Rehabilitation Program (Program). The Program consists of the development and utilization of specifications and details that will allow a contractor perform fieldwork to assess condition of and/or rehabilitate force main segments that have been prioritized under CFPUA's Asset Management Program (AMP). CFPUA has engaged HIGHFILL to help build the Program by developing the specifications that will be utilized for force main condition assessment. The documents developed under the initial task will be used for the PS 13 force main.

Reference: Paul Reinmann, PE, Sr. Project Engineer, CFPUA, (910) 332-6674, Paul.Reinmann@cfpua.org
Team members: Shivers, Ford, Cox, Highfill

Relevance to Town:

- Further demonstration of other utilities' confidence in HIGHFILL's force main condition assessment expertise

Sanitary Sewer Condition Assessment and Rehabilitation

Town of Wrightsville Beach, Wrightsville Beach, NC

In 2011, prior to his employment with HIGHFILL, Chris Ford, PE, managed a condition assessment of selected portions of the Town of Wrightsville Beach's wastewater collection system and evaluated the options for repair, rehabilitation, and replacement. The goal of this project was to repair deteriorated portions of the collection system, which included approximately 8,165 linear feet of 8- to 24-inch vitrified clay and ductile iron pipe, and to regain lost pump station and treatment plant capacity by eliminating costly infiltration and inflow. Due to the proximity to environmentally sensitive areas and existing structures, trenchless rehabilitation technologies were necessary to minimize environmental permitting, liability, and social impacts. As part of this project, Chris Ford worked with the Town to develop an annual condition assessment and rehabilitation program.

Reference: Bill Fay, Assistant Public Works Director, Town of Wrightsville Beach, 910-256-7935, bfay@towb.org
Team members: Ford

Relevance to Town:

- Provides an example of Project Manager Chris Ford's prior similar experience with Town infrastructure
- Demonstrates proficiency with assessment and rehabilitation technologies appropriate for coastal utilities

Water System Expansion

Pender County, NC

Pender County selected HIGHFILL to help expand the County's water distribution system into the Moore's Creek and Central Pender Water and Sewer Districts (MCWSD and CPWSD). Project highlights include the following:

- USDA funding committed totals $18,865,000
- USDA grants committed total $7,546,000 (40% of total project budget)
- 26 HDD installations (up to 14" HDPE), including 2 crossings of the Northeast Cape Fear River
- New 0.5 MG elevated storage tank
- 4.4 miles of new 16-inch diameter transmission main
- 70 miles of new 2-inch through 12-inch diameter distribution mains
- Project delivery was accelerated in order to meet general obligation bond sale deadline
- Study phase is complete, with FONSI issued and PER approved
- Construction is underway

***Reference**: Bryan McCabe, Pender County Utilities, (910) 259-0212, bmccabe@pendercountync.gov*
Team members: Shivers, Cox, Greene, Malec

Relevance to Town:

- One example of HIGHFILL's horizontal directional drilling (HDD) proficiency in a coastal county, with 26 HDDs designed and installed for these three projects
- Example of HIGHFILL's proficiency in obtaining USDA infrastructure financing

2.5 Process and Protocols

The technical processes and tools to be used are described in the Approach Outline in Section 2.3.

2.5.1 Quality Mangement Program

Throughout each project phase, we will implement our Quality Management Program (QMP). HIGHFILL's project managers are trained in all aspects of our QMP and are held accountable for implementing its procedures on every project. Our QMP Manual integrates and defines expectations for Quality Control, Quality Assurance, and Project Management, which are the three primary focal points for consistently meeting our clients' expectations and deliberately providing quality service. The result of implementing our QMP is that projects are driven to success and not left to chance.

Some highlights from our QMP that contribute to our consistently well-managed projects include the following:

- Clear and thorough scope development
- Client project kickoff meeting for consistent project understanding
- Internal design team project kickoff meeting to facilitate product delivery
- Regularly updated master project schedule with key project deliveries
- Weekly project management financial report monitoring
- Monthly project re-planning to assess schedule compliance and manpower
- Monthly quality assurance reviews including resource allocation and quality product development

Section 3 - Timeline

The following table outlines our anticipated project schedule. Note that opportunities exist to expedite certain phases and deliverables, which we will discuss with the Town at the Phase I Workshop.

Milestone	Anticipated Complete Date/Time Range
Notice to Proceed	December 8, 2016
Phase I Workshop	December 15, 2016
Phase I Planning & Fieldwork	January 2017 – April 2017
Ph. I Technical Memo Complete	May 2017
Phase II TM or PER/EA	May 2017 – August 2017
Phase II Design & Permitting	December 2017
Phase III	TBD

Section 4 - Deliverables

HIGHFILL anticipates providing the following key deliverables to the Town at various stages of project completion:

- Written agendas and meeting summaries for all meetings
- Phase I Technical Memorandum
- Phase II Technical Memorandum or PER/EA (for USDA financing)
- Schedule for Phase III
- Phase III bidding and construction documents (timing to be determined)
- Record drawings for improvements

Section 5 - Proof of Insurance and Litigation Disclosure

5.1 Certificate of Insurance

HIGHFILL will meet all insurance requirements for this project, as illustrated by the original insurance certificate included in Appendix A, which lists the Town as additional insured.

5.2 Litigation Disclosure

HIGHFILL attests that there have been no publicly recorded legal actions stemming from performance of professional responsibilities in which our firm or individuals assigned to this project have been named.

Section 6 - Standard Rates

6.1 HIGHFILL 2016 Standard Rate Chart

Employee Classification	Hourly Rate	Team Members (Rate)
Principal, Chief Engineer	$180-195	Not anticipated
Senior Project Manager	$150-185	Ford, Cox, Highfill ($180)
Project Manager, Senior Engineer	$130-155	Shivers ($150)
Engineer (PE)	$105-135	Malec ($125)
Engineering Intern (EI)	$90-110	Greene ($90)
Senior CAD Designer	$90-110	Not anticipated
CAD Designer	$70-95	Not anticipated
Senior Construction Observer	$75-95	Snyder ($85)
Construction Observer	$65-80	Not anticipated
Senior Technician	$75-95	Not anticipated
Technician	$65-80	Not anticipated
Project Administrative Assistant	$50-65	Fornes ($60)

Expenses/Subcontractors	Cost Incurred
Subcontractor	Invoice + 10%
Reimbursable Project Costs	Invoice + 10%
Mileage	then-current IRS rate
Water and Sewer Modeling Software License Recovery Fee	5% of fee ceiling (up to a maximum of $1,000) to be included on first invoice

Rates are valid through 2016.

Sales or Use Taxes: Rates do not include sales or use tax on professional services. If any governmental entity takes a legislative action that imposes sales or use taxes on Engineer's services, then such taxes will be invoiced for reimbursement by Client.

Section 7 - Conclusion

The Town will benefit directly and tangibly from our team's unmatched previous experience with the NEI1 force main. We are prepared to guide the Town to its most efficient resolution. We will enable the Town to make well-informed decisions very early in the process that will ensure that the most prudent investments are made throughout each phase.

Our team is ready for immediate assignment to this project, and we welcome the opportunity to help the Town ensure that this critical connection to CFPUA's collection system continues to be reliable.

We appreciate the opportunity to submit this SOQ. Feel free to contact us with any questions.

Chris Ford, PE
919.481.4342
cford@hiepc.com

The foregoing is a statement of facts.

Chris Ford, PE, Vice President

Appendix A – Certificate of Liability Insurance

HIGHINF-01 MROBERTS

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/26/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Summers Thompson Lowry, Inc. 100 Europa Drive Suite 571 Chapel Hill, NC 27517-2393	PHONE (A/C, No, Ext): (919) 968-4472	FAX (A/C, No): (919) 942-4221
	E-MAIL ADDRESS: info@STLinsure.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Massachusetts Bay Ins. Co.	
INSURED Highfill Infrastructure Engineering, PC & HIE Ventures 2703 Jones Franklin Rd Ste 201 Cary, NC 27518	INSURER B : Allmerica Financial Benefit	
	INSURER C : The Hanover Ins Co	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC OTHER:	X		OD69555289	08/14/2016	08/14/2017	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY SCHEDULED AUTOS HIRED AUTOS ONLY NON-OWNED AUTOS ONLY			AW69613693	08/14/2016	08/14/2017	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 0			OD69555289	08/14/2016	08/14/2017	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A					PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $
C	Professional Liab.			LH69238535	08/14/2016	08/14/2017	Aggregate	3,000,000
C				LH69238535	08/14/2016	08/14/2017	Per Claim	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Certificate Holder is additional insured as respects written contract.

CERTIFICATE HOLDER

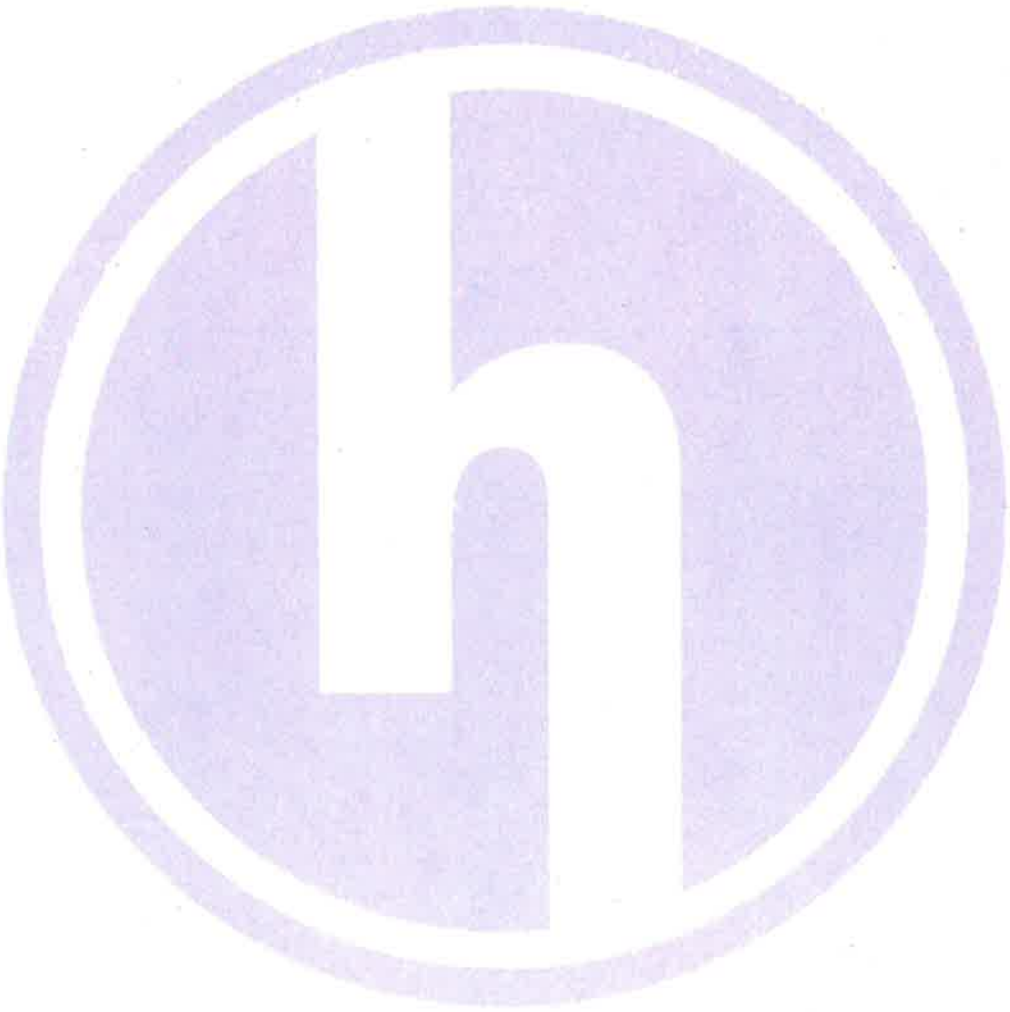
Town of Wrightsville Beach
PO Box 626
Wrightsville Beach, NC 28480

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Margo J Robert



HIGHFILL

Celebrating 15 Years

SEPI
ENGINEERING & CONSTRUCTION

1025 Wade Avenue
Raleigh, NC | 27605
919.789.9977

11020 David Taylor
Drive | Suite 115
Charlotte, NC | 28262
704.714.4880

5030 New Centre
Drive | Suite B
Wilmington, NC
28403 | 910.523.5715

10800 Midlothian
Turnpike | Suite 100
Richmond, VA
23235 | 804.594.0181

PO Box 1954
Loveland, CO
80539

sepiengineering.com
@SEPIengineers

1. COVER LETTER/EXECUTIVE SUMMARY

November 1, 2016

Mr. Timothy Owens, AICP | Town Manager
321 Causeway Drive | Municipal Complex, Town Hall | Wrightsville Beach, NC 28480

RE: Request for Qualifications (RFQ) - For Consultant Engineering Services to Assess the Current Condition of the Town's Only Sewer Connection to Cape Fear Public Utility Authority (CFPUA) and Located Under the Intracoastal Waterway and Complete Engineering and Permitting of a Duplicate Sewer Line Connection

Dear Mr. Owens,

SEPI Engineering & Construction, Inc. (SEPI) is pleased to submit our response to the Town's RFQ. To help implement a successful project, the SEPI Team is pleased to offer the following advantages to the Town:

Project approach | SEPI's project approach is intended to provide a comprehensive review and evaluation of the Town's only existing sewer connection to the CFPUA system which is located under the intracoastal waterway (Phase 1) as well as complete engineering and permitting of a duplicate sewer line connection (Phase 2).

Phase 1 will consist of an evaluation of the force main's current condition which will be completed utilizing three primary efforts. First, the line will be inspected utilizing inline ultrasonic pig inspection technology. Secondly, areas of concern identified outside the Atlantic Intracoastal Waterway (AIWW) crossing during the ultrasonic inspection will be further evaluated by excavation and visual inspection. And finally, upon completion of the inline and visual inspection of the force main, the corridor which the existing force main occupies will be surveyed.

Phase 2 will consist of the development of redundancy alternatives for connectivity to the CFPUA system. The development of connection alternatives will require working with multiple interested parties including the Town, CFPUA, North Carolina Department of Environmental Quality (NCDEQ), US Army Corps of Engineers, and North Carolina Department of Transportation (NCDOT).

SEPI's **Project Manager, Greg Thompson, PE, PLS** served as New Hanover's County Engineer from 2004–2007 and was responsible for the daily operations of the County's utility system. Mr. Thompson worked closely with the Town of Wrightsville Beach and the City of Wilmington and has an extensive knowledge of the utilities in the County.

Local experience | Our engineers are familiar with, and are currently working in, the Town of Wrightsville Beach including projects for Shell Island Access #1 and Causeway Parking; Waterline Improvements and Upgrades; and Lift Station #5. We also have extensive local experience throughout the coastal region as shown on the project experience map on page 16.

Proven history | SEPI has a proven history of providing quality design and engineering services through reputable, qualified, and licensed engineers since our inception in 2001. Our experience in utility operations as well as the combining of utility systems and operations, will enable us to provide viable solutions for your project.

Successful relationships | Our Team will include TI Coastal (TIC) for hydrographic surveying. SEPI has a long standing working relationship with TIC and a successful track record in providing quality service on similar local projects.

Summation

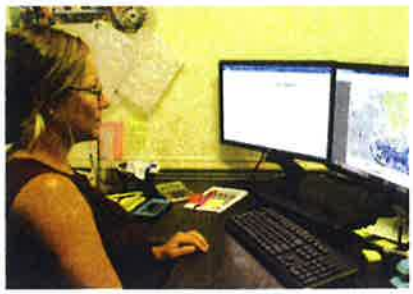
SEPI covers an extremely wide range of expertise, offering unique combinations of talent to the Town of Wrightsville Beach.

We take pride in our support of the Town and our capability to provide qualified personnel to complete the project on schedule and on budget.

We ask for your strong consideration as you make your selection. Please do not hesitate to contact me by phone at 910.523.5714 or via email at gthompson@sepiengineering.com if you have any questions regarding our RFQ.

Sincerely,

Greg Thompson, PE, PLS
Wilmington Site/Civil Department Manager
Project Manager



***Experienced Wilmington Office.** SEPI 's experience with the Town will enable us to deliver similar success on this contract. From left to right: Adam Snipes, PE, David Perfater, PLS, and Susan Westberry, AICP, PWS, CPESC, LSSIT.*

***Office proximity.** Our Wilmington office is within close proximity to the Town of Wrightsville Beach and has the ability to mobilize quickly to meet the required time frame for project tasks.*

2. STATEMENT OF QUALIFICATIONS & LEVEL OF EXPERIENCE

>> SEPI Team

SEPI, founded in 2001, is a rapidly growing firm that offers clients a dynamic combination of technical experience. We are a Woman-Owned Business with five office locations including our headquarters in Raleigh, NC and branch offices in Wilmington and Charlotte, NC, Richmond, VA, and Loveland, CO. With a staff of more than 225 professionals, SEPI provides comprehensive services that include: water and sewer utility engineering; site/civil engineering; land planning; surveying; environmental; planning; roadway design; traffic engineering; water resources; environmental remediation; construction engineering and inspection; and operations and maintenance.

The SEPI Team understands the unique requirements to successfully complete a project of this scope and magnitude. Our Team is comprised of highly qualified professionals with past project experience that exhibits our knowledge and understanding of municipal water and sewer systems.

SEPI provides professional services to a variety of market sectors including water and sewer utilities. Our staff includes professionals with a wide range of work and project exposure including not only water and sewer modeling, design, permitting, and construction management; but also utility operations, regulatory compliance, and emergency response and management. Our public utility services include:

- Water and Sewer System Design and Permitting
- Water and Sewer System Modeling and Assessment
- Capacity Planning and Management
- Asset Management
- Operations and Management Support
- Regulatory Compliance and Reporting
- Master Planning
- Ordinance and Policy Development
- Contract/Construction Management
- Engineering On-Call Support
- Emergency Management Support

Subconsultant

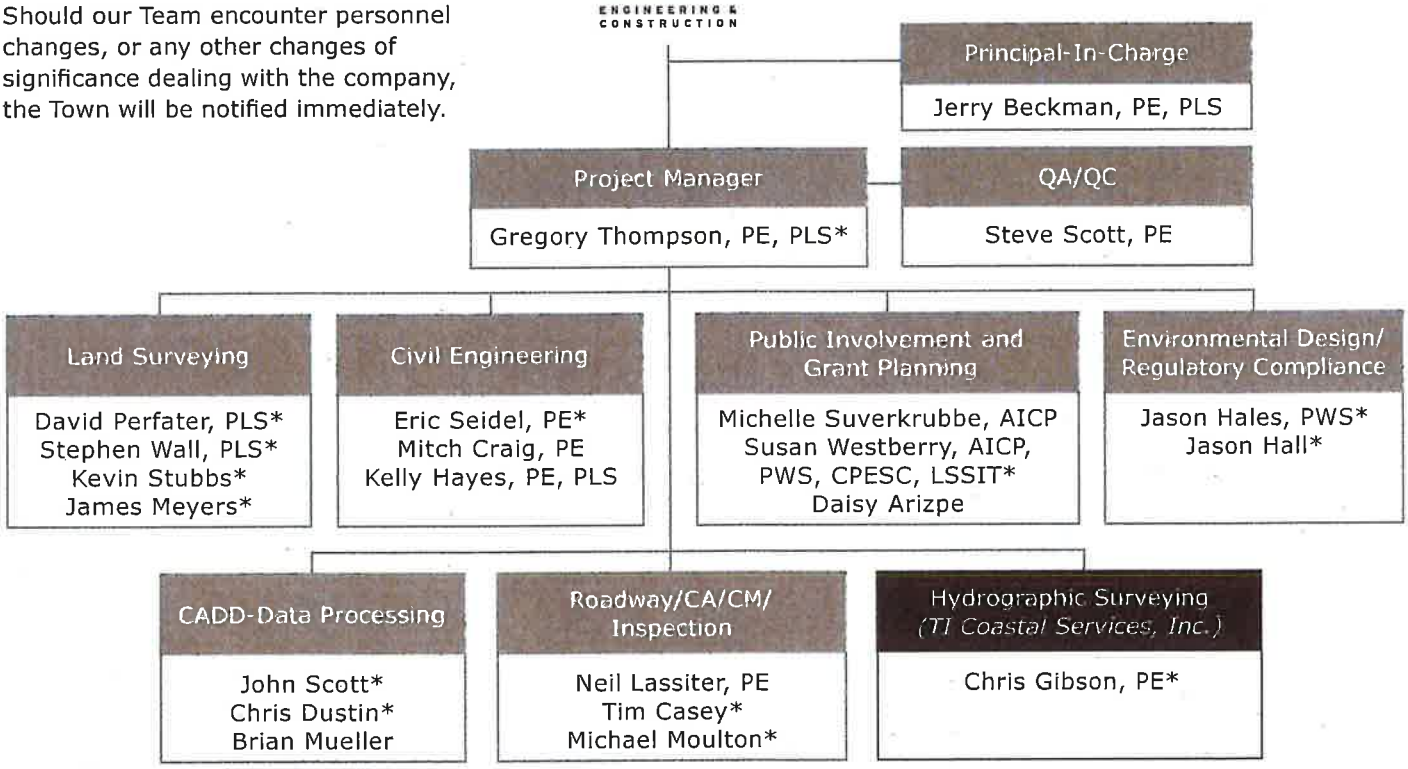
TI Coastal Services, Inc. (TIC) specializes in coastal engineering, sediment budget management, beach, and nearshore surveying. TIC's founders have over 52 combined years of experience working together as a team in the collection and analysis of hydrographic and topographic survey data for coastal storm damage reduction projects in the Mid-Atlantic region. TIC staff has extensive experience in developing, permitting, and implementing sustainable beach management plans for coastal North Carolina from Mason's Inlet to the Town of Topsail Beach.

TIC takes pride in being able to identify and implement beneficial use projects often with the dual purpose of improving navigation while providing for storm damage reduction on the beachfront. TIC's staff has proven its ability to think outside of the box to develop creative, economical solutions to challenging beach management situations.

>> Organizational Chart

Below is the proposed SEPI Team for this project. The roles of Team members are shown in the organizational chart. Our proposed Team fully provides the necessary experience, education, and registrations to support the Town's needs.

Should our Team encounter personnel changes, or any other changes of significance dealing with the company, the Town will be notified immediately.



Wilmington-based staff

***Proven Team Leadership.** Project Manager, Greg Thompson, PE, PLS has 26+ years of experience with public projects for various local clients. His professional experience includes serving as County Engineer for New Hanover County.*

>> Project Manager

Greg Thompson, PE, PLS, will serve as Project Manager. He has extensive municipal design and project management experience including water and sewer utility assessment and design; roadway improvements; storm drainage; water and sanitary sewer infrastructure improvements; coastal dredging; and beach renourishment. This experience often included easement acquisition for roadway, water, and sewer projects as well as construction access for utilities, dredging, and site development. Mr. Thompson also has extensive experience with public meetings and presentations, including presentation efforts associated with federal, state, and local regulatory agencies; elected officials and boards; property owners; and private organizations.

Mr. Thompson works from our Wilmington office and has over 26 years of experience with public projects for various local government clients. His professional experience includes serving as County Engineer for New Hanover County. Mr. Thompson's project experience with the County included over $400 million in construction projects which included environmental, parks, passive and active recreation, and trail projects as well as multiple utility and building projects.

Mr. Thompson's experience provides him with a unique understanding of the demands that a project of this type brings, including the responsibilities and challenges associated with the special considerations that must be given to the residents within the project area, elected officials, and Town staff.

Project Case Studies

The experience and history of SEPI's Project Team will be utilized to the benefit of the Town of Wrightsville Beach. Specifically the experience of Mr. Thompson from his time with New Hanover County will allow SEPI to provide professional services with a level of knowledge and understanding that few can offer. Several of the past projects which Mr. Thompson was responsible for have been included below as project case studies.

>> New Hanover County Water System Enhancements, Wilmington, NC

Mr. Thompson provided planning, analysis, engineering design, permitting, and project management for system improvements. Project objectives included the improvement of system deficiencies to address flow, pressure, and system management issues.

A multi-year project from 2004-2007, it provided a basis for a system master plan to be used as a planning tool in the assessment of requests for service from individuals and organizations seeking connection to the County's system.

Major improvements consisted of the construction of 3.5-miles of water transmission and distribution mains; a 500,000 gallon water tower; and SCADA improvements.

>> Mott's Creek Interceptor and Lift Station, Wilmington, NC

Project scope included project management, planning, design, permitting, easement acquisition, field evaluations, and inspections. The construction of the County's Mott's Creek Interceptor allowed for the increased demand in the Monkey Junction area of the county to be addressed. The project was comprised of approximately 1.7-miles of gravity interceptor and a regional lift station.

>> Bradley Creek Sewer Rehabilitation Project, Wilmington, NC

Mr. Thompson managed the design development, permitting, and utility coordination for this contract.

- Constructed in 1984, the Seagate Sewer conveyed sewer from central New Hanover County to the wastewater treatment plant in the southern part of the County.
- In 2006, approximately 5,300-ft of 24-inch gravity outfall along Bradley Creek required rehabilitation.
- The junction box located outside the regional pump station also had extensive deterioration and needed to be replaced.

Challenges/Solutions

- Many challenges existed, including issues of design and permitting, as well as performing the work for a project located in a now heavily populated area along an "SC" classified water body. As a result, it was necessary to develop a project that was environmentally friendly, cost effective, and with a minimized disruption to the public. Much of the outfall was located in the back yards of residents who were vaguely aware that the sewer line was even there.
- The replacement of the junction box was the most difficult to accomplish. Limited site access and the need to temporarily divert flow from not only the 24-inch gravity outfall, but also flow from an eight-inch diameter gravity line, an eight-inch diameter force main a 10-inch diameter force main and a 16-inch diameter force main, all operated by different utilities, made coordination and planning a high priority. By-pass pumping operations, to divert more than five MGD, operated 24/7 during the demolition and replacement of the junction box.

Skilled Team members. ***The SEPI Team has built strong team relationships, allowing us to work together as a cohesive unit. We take pride in our support of our clients and our capability to provide qualified, skilled team members such as those in our local Wilmington office.***

From left to right: Jason Hales, PWS, Alex Craig, and Jason Hall work together to complete project designs.

>> Resumes of Key Personnel

Greg Thompson, PE, PLS | Project Manager

Education: BS, Civil Engineering, UNC Charlotte
Registrations: Professional Engineer, NC (#21155), Professional Land Surveyor, NC (#L-4442)
Bio: Mr. Thompson has design and project management experience with various projects that have included heavy industrial, commercial, office, government, and residential construction. Additionally, his experience includes roadway improvements, storm drainage, water and sanitary sewer infrastructure improvements, coastal dredging, and beach renourishment.
Relevant Project Experience:

- ***Wrightsville Beach Engineering NEI Consult, NC.*** Project Manager responsible for providing technical letters of opinion concerning the operational and maintenance needs of the Town. SEPI provided technical support for the Town during discussions with regard to a proposed marina project adjacent to the Northeast Interceptor along the AIWW.
- ***Wrightsville Beach Lift Station #5, Wrightsville Beach, NC.*** Project Manager responsible for tdesign, permmiting, and bid construction services. SEPI is currently under contract to provide engineering and design services, regulatory compliance, construction documentation, bid services, and construction phase services for the Lift Station #5 Improvement project.
- ***Cape Fear Public Utility Authority,13th Street/ North Lakeshore, Wilmington, NC.*** Project Manager responsible for six technical staff on the demolition, renovation, replacement, and construction of 10,000-LF of 10"–18" sewer line with a project budget of $1.4 million and contract cost of $140,000. Oversaw site preparation, site utilities, and site grading and drainage. Mentored surveyors in data collection and evaluation to ensure the appropriate protocols and procedures were followed. Managed and mentored engineers-in-training during data collection, system evaluation, capacity evaluation, impact analysis, civil design, design analysis, and the permitting process. Directed the permit process with NCDOT, City of Wilmington, and North Carolina Public Water. Oversaw design and implementation of CIPP to shorten project schedule. Project was on time, within budget, and had zero OSHA-related incidents. SEPI developed an existing conditions survey and capacity analysis recommendation report using HGL modeling.
- ***Thomas Garst Lane Sewer Evaluation TO#4, Leland, NC.*** Project Manager responsible for a sewer inspection and evaluation of existing CCTV sewer video to develop a rehabilitation recommendation report and construction cost estimate for the Town of Leland. SEPI preformed a sewer inspection and evaluation of existing CCTV sewer video to develop a rehabilitation recommendation report and construction cost estimate for the Town.
- ***Town of Leland Pump Station #10 Improvements, Leland, NC.*** Project Manager responsible for existing conditions survey and development of site plan for the construction of expanded wet well storage capacity. SEPI provided engineering and design services, regulatory compliance assistance and submittal, construction documentation, and specifications necessary for the construction of a sewer pump station/wet well and site improvements to meet the needs of the Town.

Jerry Beckman, PE, PLS | Principal-in-Charge

Education: BS, Industrial Technology, East Carolina University
Registrations: Professional Engineer, NC (#022575); Professional Land Surveyor, NC (#L-3133)
Bio: Mr. Beckman has been involved in the planning, design, production, and management of a wide variety of engineering and surveying projects for more than 30 years. Most of his career has been focused in the land development and surveying practices and has included clients and projects from the private sector, and the federal, state, and municipal government sectors.
Relevant Project Experience:

- ***Cape Fear Public Utility Authority, 13th Street/ North Lakeshore, Wilmington, NC.*** Principal-in-Charge responsible for overseeing the development of an existing conditions survey and capacity analysis recommendation report using HGL modeling. SEPI conducted field surveying to locate and map existing system features for existing VCP sewer. Survey work included establishing a survey control network, location of manholes, condition assessment of

manholes, determining pipe sizes and materials, and collection of invert and rim vertical data.

- ***Town of Leland Pump Station #10 Improvements, Leland, NC.*** Principal-in-Charge responsible for oversight and QA/QC. SEPI provided engineering and design services, regulatory compliance assistance and submittal, construction documentation, and specifications necessary for the construction of a sewer pump station/wet well and site improvements to meet the needs of the Town.
- ***UNC Wilmington, Graham-Hewlett Hall Site/ Civil Review and Investigation, Wilmington, NC.*** Principal-In-Charge responsible for supervision of the Project Managers' site/civil engineering analysis and recommendations. UNC Wilmington's Graham-Hewlett Hall is 77,000-SF and was built originally in 1976. The University hired SEPI to perform a site review of architectural and systems deficiencies, and provide a review of recommendation for identified upgrades. SEPI was tasked with gathering available information on the buildings during site visits, including the available drawings, previous studies, records of recent problems reported by the occupants, etc. SEPI then provided recommendations for grading, drainage, roadways, and sewer improvements.
- ***River Run Phase 6, Mecklenburg County, NC.*** Principal-in-Charge responsible for oversight and QA/QC. SEPI was commissioned to provide a due-diligence report for this 75-acre, undeveloped, wooded parcel bounded by Rocky River and the west branch of Rocky River. The report included the topographic and boundary surveys, environmental assessment, geotechnical assessments, potential lot layouts with alternate lot yields, potential storm water concerns, water and sewer assessments, and USACE meetings to review delineated wetlands.

Steve Scott, PE | QA/QC

Education: Engineering Studies, The Pennsylvania State University

Registrations: Professional Engineer, NC (#22569), GA (#030013)

Bio: Mr. Scott has more than 30 years of extensive experience in all areas of transportation engineering from the planning stage through final plans and specifications. He has served as the Project Manager for numerous NCDOT, SCDOT, and municipal projects. Mr. Scott is very familiar with the processes and procedures used to successfully complete all aspects of a transportation engineering project.

Relevant Project Experience:

- ***Wake County Public School System (WCPSS), E-17 Elementary School Site Infrastructure Improvements, Wake County, NC.*** QA/QC Manager responsible for overseeing the school's site work, and offsite sanitary sewer improvements, as well as the development of construction plans for improvements to 0.6-miles of Leesville Road and 0.5-miles of intersecting streets. SEPI was responsible for the creation of a traffic impact analysis for this 800-student elementary school development.
- ***Cope Creek Road Widening and Associated Infrastructure, NC.*** QA/QC Manager responsible for overseeing roadway widening and realignment for NCDOT on 1.13-miles of roadway; and storm drainage design, erosion control, traffic control, and public involvement. Supervised Low Impact Development designs to minimize construction impacts through context sensitive design to mountainous terrain region with extreme side slopes. Oversaw relocation of approximately 450-LF of 8" sanitary sewer and over 400' of stream design. Directed traffic studies, traffic planning design of roadways, site grading and drainage including erosion control, surveying, and permit acquisition. Provided design review of all engineering calculations, drawings, and technical specifications.
- ***WCPSS, E-17, Sycamore Creek Elementary School, Raleigh, NC.*** QA/QC Manager responsible for a traffic impact study and roadway improvements for an 800-student elementary school development on Leesville Road. Project included widening Leesville Road from two lanes to four lanes with curb and gutter. Project included roadway design, drainage design, erosion control design, signal design, traffic control, pavement marking, and signage design.

David Perfater, PLS | Land Surveying

Education: BA, Management, Radford University; AS, Business Administration, Virginia Western Community College; AAS, Civil Engineering Technology, Virginia Western Community College

Registrations: Professional Land Surveyor, NC (#L-4951), VA (#0403001847)

Relevant Project Experience:

- ***New Hope Road Sewer, Staunton, VA.*** Survey Manager responsible for two-mile sanitary sewer project. Surveying included GPS survey for control, topographic and boundary surveys, and construction layout.
- ***WCPSS, E-33 Offsite Improvements, Cary, NC.*** Survey Manager responsible for easement plat preparations. SEPI was responsible for the offsite roadway improvement designs for the E-33 Elementary School Development. Off-site improvement designs included widening O'Kelly Chapel to one-half the ultimate cross-section along the property frontage; adding a right-turn bay at the signalized intersection of Green Level Church Road/ O'Kelly Chapel Road; and adding/extending turn lanes

at the signalized intersection of NC-55/O'Kelly Chapel Road. Services included survey; roadway design; hydraulics design; utility design/coordination; traffic control/pavement marking design; traffic signal/TS design; and signing.

- ***WCPSS, E-32 Scotts Ridge Elementary School Survey, Wake County, NC.*** Survey Manager responsible for recombination map preparation and submittals. SEPI provided a topographical survey of a 31-acre tract for the future Scotts Ridge Elementary School. Survey services included locating wetlands and riparian buffers. Expanded surveying and mapping services were performed by the SEPI Team as well as offsite surveying and mapping, which included roadway and utility surveys and property corner locations.
- ***Anhut Properties LLC, Buffaloe Road Townhomes, Wake County, NC.*** Survey Manager responsible for stream flood way verification and supervising survey crew in the field. SEPI was responsible for site engineering and permitting; layout and grading; erosion control, utility and stormwater plans; and construction administration. The permitting was done through the City of Raleigh.

Steve Wall, PLS | Land Surveying

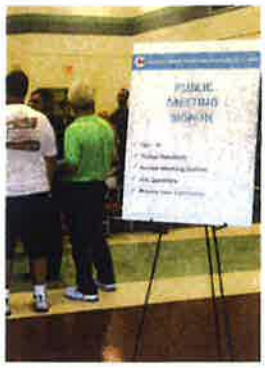
Education: AAS, Surveying Technology, Coastal Carolina Community College; Bachelor of Science, Earth Science, UNC Charlotte
Registrations: Professional Land Surveyor, NC (#L-3732); OSHA 10-Hour Safety Training
Bio: Mr. Wall has a broad knowledge of topographic and boundary work, extensive mapping locations work with GPS, and construction surveying. He is responsible for daily supervision of field crew on numerous projects.
Relevant Project Experience:

- ***Wrightsville Beach Lift Station #5 Rehab, Wrightsville Beach, NC.*** Surveyor responsible for project control, pavement DTM, obscure areas, hydrographic location, property location, and topographic surveying. SEPI is currently under contract to provide engineering and design services, regulatory compliance, construction documentation, bid services, and construction phase services.
- ***Town of Wrightsville Beach, Waterline Replacement Oxford Street, New Hanover County, NC.*** Surveyor responsible for survey data collection, existing condition mapping, engineering design, and permitting for the following streets Waynick Boulevard, Sunset Avenue, Lumina Avenue, Nathan Street, Oxford Street, Henderson Street, Greensboro Street, Seagull Street, Shearwater Street, and Meier Street. All surveying, environmental, and engineering services were provided in-house to help maintain project continuity and efficiency.
- ***Town of Wrightsville Beach, Waterline Replacement Waynick Boulevard, New Hanover County, NC.*** Surveyor for improvements on the following Town streets Waynick Boulevard, Sunset Avenue, Lumina Avenue, Nathan, Oxford, Henderson, Greensboro, Seagull, Shearwater, and Meier Street. All surveying, environmental, and engineering services were provided in-house to help maintain project continuity and efficiency through project completion.

Eric Seidel, PE | Civil Engineering

Education: BS, Civil Engineering, NC State University
Registrations: Professional Engineer, NC (#042127)
Bio: Mr. Seidel has 12 years of civil engineering experience in areas of stormwater design, erosion control, grading, water, sewer, and street design, plus all impacting rules and regulations. He has strong project management skills and has successfully developed long term relationships with clients and subcontractors. Mr. Seidel can balance state and local requirements, to arrive at permitable solutions, in accordance with strict project timelines. He has negotiated alternatives with multiple private, municipal, and federal clients. Mr. Seidel has developed advanced knowledge in software programs such as AutoCAD Civil 3D and Carson Civil Survey to develop clean, precise, and detailed construction drawings.
Relevant Project Experience:

- ***Wrightsville Beach Lift Station #5, Wrightsville Beach, NC.*** Project Engineer responsible for wet well capacity design, pump sizing, existing conditions mapping, demo plan, site plan, and all corresponding utility details. Also assisted in the development of specifications and contract documents for bidding. SEPI is currently under contract to provide engineering and design services, regulatory compliance, construction documentation, bid services, and construction phase services. The Town identified a need to replace the existing wet well, pumps, and controls for the existing lift station. The new wet well will provide the necessary storage required to address existing peak flows and peak flows which are expected to result from potential future growth.
- ***Cape Fear Public Utility Authority, 13th Street/North Lakeshore, Wilmington, NC.*** Project Engineer responsible for providing an existing conditions survey and capacity analysis recommendation report using HGL modeling. SEPI determined pipe sizing, system layout, and functionality for CIPP rehabilitation, replacement, and construction for approximately 10,000-LF of 10"–18" existing VCP sewer. SEPI developed an existing conditions survey and capacity analysis recommendation report using HGL modeling.



***Community connection through public involvement:** Our Team's experience in public involvement and community outreach such as for the Carolina Beach Road Improvements project for the Town of Carolina Beach, shown above, will help to assess and minimize potential impacts of your project on the local community and project stakeholders.*

- ***Thomas Garst Lane Sewer Evaluation TO#4, Leland, NC.*** Project Engineer responsible for a sewer inspection and evaluation of existing CCTV sewer video to develop a rehabilitation recommendation report and construction cost estimate for the Town.
- ***Town of Leland PS #10 Improvements, Leland, NC.*** Project Engineer responsible for existing conditions survey and development of site plan for the construction of expanded wet well storage capacity. SEPI provided engineering and design services, regulatory compliance assistance and submittal, construction documentation, and specifications necessary for the construction of a sewer pump station/wet well and site improvements to meet the needs of the Town of Leland.
- ***Blossom Ferry Engineering Report, NC.*** Project Engineer responsible for developing an Inspection and Engineering report, for the developer, analyzing existing street, water, sewer, and stormwater conditions. This report identified potential problem areas and provided recommendations, before turning the development over to the HOA.

Michelle Suverkrubbe, AICP | Public Involvement and Grant Planning

Education: BS, Biological Sciences, California Polytechnic State University
Registrations: American Institute of Certified Planners (#011801)
Bio: Ms. Suverkrubbe is a Project Manager and Environmental Planner with 30 years of experience successfully managing and preparing EIS/EA/CE documents under NEPA/SEPA for DOT transportation projects, as well as many other types of public and private projects. She is experienced with leading public involvement programs including scoping meetings, public meetings, and generating project newsletters and website text.
Relevant Project Experience:

- ***Town of Carolina Beach, Carolina Beach Greenway, New Hanover County, NC.*** QA/QC Manager responsible for working to ensure the Programmatic Categorical Exclusion (PCE) document meets regulatory requirements; reviewing the PCE document; and coordinating with MOTSU and regulatory agencies. SEPI was contracted to provide surveying and engineering services to develop plans and specifications for the construction of approximately 6,390-LF of 10' wide paved multi-use path, and approximately 4,500-LF of existing pavement.
- ***NCDOT, U-3400 Archdale Road Widening, Archdale, NC.*** Project Manager responsible for the preparation of SEPA Environmental Assessment (EA) including CCR/CIA reports; leading public involvement activities; managing engineering and design activities; and managing traffic and natural environment studies and permitting for the widening of three miles of a rural two-lane minor arterial to a four-lane median divided facility located between High Point and southern Archdale. SEPI is contracted to provide planning and roadway design services.
- ***CE - Stokes, Meadows and Forsyth Tech Water and Sewer Improvements, Stokes County, NC.*** Responsible for managing and preparing all aspects of a CE document under the Tennessee Valley Authority's NEPA Guidelines. The project included four miles of water mains, four miles of sewer lines (force and gravity), one sewer pump station, 17 fire hydrants and a 200,000 gallon water storage tower in central Stokes County. Purpose was to connect the Town of Danbury with the community of Meadows and serve a new campus of Forsyth Technical Community College. Responsible for managing: all aspects of the project's engineering design; engineering staff and sub consultants; environmental and system permitting; public involvement program; easement acquisition; bid and award processes; and contractor performance during project construction. Also responsible for researching and preparing grant applications and administering grant awards to fund the sewer system, including preparing agreement documents, grant project management

plans, progress reports, financial updates, and project closeout documents. Successfully won $3.1 million (87% of total cost) from grantors including Golden Leaf Fund, Appalachian Regional Commission, and DENR's new Division of Water Infrastructure Funding Program. Construction of the sewer system was completed in June 2015. *(Previous Experience)*

Jason Hales, PWS | Environmental Design/ Regulatory Compliance

Education: MS, Marine Science, UNC Wilmington; BS, Marine Biology, UNC Wilmington
Registrations: Professional Wetland Scientist, NC (#2842)
Bio: Mr. Hales is a Project Manager with 16 years of experience in the coastal region of North Carolina. His experience includes wetland and stream delineations; shoreline studies; regulatory agency verifications; 401/404 and CAMA permitting; mitigation planning and monitoring; endangered and invasive species surveys; and water quality sampling.
Relevant Project Experience:

- ***Town of Carolina Beach, Carolina Beach Greenway, New Hanover County, NC.*** Project Manager responsible for conducting wetland and stream delineation and nationwide impact permitting for 1.21-mile pedestrian and bicycle path.
- ***NC Department of Cultural Resources, Fort Anderson, Emergency Shoreline Stabilization, Brunswick, NC.*** Project Manager responsible for shoreline stabilization efforts at Brunswick Town Fort Anderson State historic site to include project design, regulatory agency coordination, and CAMA major permit application for approximately 4,800-ft stabilization project along the Cape Fear River shoreline to protect historical resources. SEPI designed emergency repair measures including the design of submerged breakwater structures to mitigate shoreline erosion of the Brunswick Town and Fort Anderson tidal marsh/shore line caused by large vessel passage in the Cape Fear River shipping channel and endangering archaeological important property.
- ***228 Seacrest Drive, Wrightsville Beach, NC.*** Project Manager for 404/CAMA wetlands delineation, agency consultation, CAMA general permit issuance for shoreline stabilization to restore damaged riparian buffer, and add support to aging bulkhead.

John Scott | CADD-Data Processing

Education: AAS, Civil Engineering Technology, Belmont Technical College
Bio: Mr. Scott has over 20 years of experience in multiple environments utilizing AutoCAD software, most recently Civil3D 2016, as well as three years of experience with ArcGIS software. He has demonstrated high performance standards including attention to schedules, deadlines, and quality work, and is capable of handling multiple projects concurrently. Mr. Scott has experience leading and assisting in the development of AutoCAD standards and Civil3D styles; and developing and revising LISP routines to assist CAD technicians with performing standard tasks more efficiently within AutoCAD.
Relevant Project Experience:

- ***Town of Carolina Beach, Carolina Beach Survey On-Call, New Hanover County, NC.*** CADD Technician responsible for preparing field data points to begin survey; importing and evaluating completed survey data; generating site/linework from survey points; and preparing all necessary plans and details.
- ***Wrightsville Beach Lift Station #5 Rehab, Wrightsville Beach, NC.*** CADD Technician responsible for assisting in the design of a new wet well and relocating necessary utilities; importing and evaluating survey data; generating site/linework from survey points; and preparing necessary plans/details.
- ***Town of Leland Pump Station #10 Improvements, Leland, NC.*** CADD Technician responsible for assisting in the design of a new wet well and relocating necessary utilities; importing and evaluating survey data; generating site/linework from survey points; and preparing necessary plans/details.
- ***Cape Fear Public Utility Authority, Wilmington, NC.*** Engineering Technician responsible for performing various tasks that included NCDOT encroachment applications, as-built drawing research, assigned project numbers, and utilized ArcGIS to produce master planning maps showing potential means to expand water and sewer to desired locations and Civil3D to produce drawing plan sets containing utility plan profiles and standard details. Mr. Scott also created AutoCAD standards, Civil3D style templates, and provided AutoCAD software support within the office. *(Previous Experience)*

Neil Lassiter | Roadway/CA/CM/Inspection

Education: BS Civil Engineering, Construction Option, NC State University
Registrations: Professional Engineer, NC (#14115), VA (#0402053373)
Bio: Mr. Lassiter has over 33 years of experience in the transportation and construction management industries including maintenance and operations. As the CEI Division Manager, he is responsible for inspection services, contract administration, and construction management of multiple transportation projects in North Carolina, Virginia, and South Carolina. Prior to joining SEPI, Mr. Lassiter was employed by NCDOT where he served as Division Engineer in Division 2 for 17 years and 13 years in NCDOT Division 1 while assigned to

the positions of Division Construction Engineer, Division Maintenance Engineer, District Engineer, Division Traffic Engineer, and Assistant Resident Engineer.

Relevant Project Experience:

- ***City of Charlotte-Department of Transportation, Google Fiber Optic Utilities Monitoring CEI Services, Charlotte, NC.*** Program Manager responsible for coordinating appropriate staffing assignments and project schedule. SEPI is monitoring hundreds of permitted projects of fiber optic cable installation and as many as 25 utility crews at the peak of operations including coordination between contractors, private property owners, and the City of Charlotte. Our technicians will review and report that work is done in accordance with approved environmental, traffic control, and right-of-way encroachment permits. In addition, SEPI is responsible for tracking daily costs records associated with each permit to allow financial recovery from the impacted utilities. Material testing inspection may also be necessary.
- ***City of Durham, Google Fiber Optic Utilities Monitoring, Durham, NC.*** Program Manager responsible for coordinating appropriate staffing assignments and project schedule. SEPI is currently providing services for the City of Durham Google Cable Monitoring project. Services include daily observation and monitoring for the installation of fiber optic cable city-wide, which is being performed by various fiber optic utility contractors. SEPI staff will utilize the City's Primavera Contract Management (PCM) and Daily Reporting (PDXR) software to summarize daily activities and report time assigned to the project. Other services will include reviewing and reporting that work is done in accordance with approved environmental, traffic control, and right-of-way encroachment permits. Some material testing inspection may also be necessary.
- ***Town of Clayton, Pedestrian Connector, Clayton, NC.*** Program Manager responsible for coordinating appropriate staffing assignments and project schedule. SEPI was selected to provide CEI and construction management services associated with the connector project. The project corridor begins at the Town's Community Center, winds along Amelia Church Road, on new location at times, and ties into existing pedestrian infrastructure at other points. The scope of work includes inspection of subgrades, compaction testing of fill soils, concrete material sampling and testing, nuclear gauge testing of aggregate base material and asphalt, pedestrian walkway structure inspection, monitoring sedimentation and erosion control devices, monitoring traffic control, monitoring utility conflicts and relocations, and inspection of asphalt laydown as needed in accordance with NCDOT standards.

Subconsultant

Chris Gibson, PE | Hydrographic Surveying

Firm: TI Coastal Services
Education: BS Civil Engineering, NC State University
Registrations: Professional Engineer, NC (#026273), SC (#SC25709), FL (#52638) MS (#MS 19216)

Relevant Project Experience:

- ***Topsail Beach Nourishment Project, Topsail Beach, NC.*** Engineer responsible for developing the conceptual redesign through permitting, contracting, and construction. The project resulted in providing higher quality sand to the beach, a net savings to the Town of $6.6 million. This project involved redesigning an existing beach nourishment project to use dredge spoil and channel maintenance material instead of an offshore source to nourish 4.2-miles of shoreline with 1.1 million cubic yards of sand.
- ***Mason Inlet Monitoring and Maintenance, Wrightsville Beach, NC.*** Engineer responsible for overseeing the physical monitoring operations, including hydrographic, topographic, and aerial surveys. Performed sediment transport evaluations of the inlet system and adjacent beaches, and provided planning analysis for long-term inlet management. Also responsible for environmental permitting, preparation of plans and specifications, cost estimation, and construction management for all maintenance dredging and beach nourishment.
- ***Figure "8" Island Beach Renourishment, Wilmington, NC.*** Engineer responsible for overseeing physical monitoring operations, including hydrographic, topographic, and aerial surveys. Performed sediment transport evaluations of the 3.5-mile channel system and beaches. Also responsible for environmental permitting, preparation of plans and specifications, cost estimation, and construction management for all maintenance dredging and beach nourishment.
- ***NC International Terminal, Southport, NC.*** Project Engineer responsible for analyzing and incorporating into GIS format existing USACE surveys and geotechnical data, which included over 1,000 probes and borings. Also responsible for further hydrographic, topographic, and geotechnical investigations to augment the USACE data set. The project involved 68-million cubic yards of dredging with materials ranging from solid rock and clays to beach quality sans. Involved in the analysis of multiple channel design scenarios incorporating PIANC and USACE standards, analysis of dredging costs and methodologies for the various materials, and conceptual level design for disposal and beneficial-use of the dredged material.

Aerial of Wrightsville Beach Sewer Treatment Plant constructed in 1945.

The Greater Wilmington Area 201 Facilities Plan.

>> Project History

In 1945, the Town of Wrightsville Beach operated one of the first sewer treatment plants in eastern North Carolina and the first in New Hanover County. During the period of 1950 to 1960, New Hanover County had a population growth rate near that of the state of North Carolina. However between 1960 and 1970, that rate increased to approximately five percent higher than that of the state.

Much of this growth occurred in and around the coastal areas of the county including Wrightsville Beach. With this growth came an increase in impacts to water quality in the surrounding estuaries from increased stormwater runoff, failing septic systems, and industrial growth in the region. Additionally, public awareness and concern over controlling water pollution also increased.

In 1972, significant changes to the Federal Water Pollution Act of 1948 were made in the form of amendments. As amended, the law became known as the Clean Water Act (CWA). These changes, in part, established a requirement for the preparation of an in-depth evaluation of existing conditions and facilities and an analysis of future needs.

The Greater Wilmington Area 201 Facilities Plan (201 Plan) represented the combined effort of the Town of Wrightsville Beach, New Hanover County, and the City of Wilmington to meet the needs of the required assessment and also provided a plan for regionalization of the sewer systems in the county. In 1981, the US Environmental Protection Agency (EPA) approved the 201 Plan and as such, the Northeast Interceptor (NEI) project was eligible for funding from the EPA.

The force main was constructed in the early 1980's as part of the NEI project and represents the sole means of conveyance for sewer generated by the Town to reach the wastewater treatment facility operated by the CFPUA. The force main is a 14-inch pipe and is assumed to be constructed of Ductile Iron Pipe (DIP) and polyethylene, however as-built documentation is limited and the exact materials utilized during construction are unknown. The force main is utilized to pump raw sewage at a current maximum rate of 1.3-million gallons per day (MGD) across the AIWW to CFPUA's Bradley Creek pump station located on Oleander Drive.

The force main crossing the AIWW is located in an easement granted by the state of North Carolina and is approximately three to four feet below the mudline along the easement corridor. The line is anchored with concrete counterweights, which are buried with the pipe at varying intervals.

>> Project Understanding

The force main has been in continuous service for approximately 34 years and the existing condition of the line is unknown due to the challenges of inspection from the constructed location. The Town has recognized the importance of this line and understands the need to establish the existing condition as well as develop a solution for improving the integrity of the system by the most feasible means available.

The Town has identified a two-phase approach to address this current need. Phase One involves defining the specific material which the force main was constructed, the current condition, and the location of the force main starting at lift station number five. Phase Two will provide the Town with options and cost estimates for constructing a secondary sewer force main across the AIWW.

>> Key Project Challenges

Based on our understanding of the project and site visit to the project area, the following are potential challenges to be addressed during Phase 1 and Phase 2:

Existing Utilities

- Repair of areas within AIWW that need rehabilitation.
- Inspection of existing forcemain under AIWW to determine existing condition.
- Location of a new AIWW crossing will require understanding of the potential future conflicts.

Private Property Owners

- Understanding and avoidance of conflicts with private property owners along the potential routing corridor.

Coordination

- Developing routing options that do not interfere with existing services or planned future system growth.

Existing Utilities | SEPI will inspect existing utilities along the NEI corridor.

Private Property Owners | SEPI will work to avoid conflicts with private property owners.

Coordination | SEPI will coordinate with CFPUA to develop routing options.

>> Project Approach

Phase 1: Review and Explore the Force Main's Current Condition

The evaluation of the force main will be completed utilizing three primary efforts consisting of pig inspection technology, excavation and visual inspection, and a corridor survey.

Pig Inspection Technology | Due to the route and environmental conditions where the force main is located and the identified information which is sought for the force main, ultrasonic inspection has been identified by SEPI as the most feasible option for inspection. Though this technology is offered worldwide and is utilized by many industries, this is a highly specialized service offered by a few contractors. Ultrasonic pigging will allow for the most detailed collection of integrity data for the pipeline with limited disruption in the operation and maintenance of the systems. Due to the potential operational impacts and the required coordination necessary for an inspection effort of this type, SEPI feels it is important that both the Town and CFPUA be involved with the selection of this service provider to help ensure the appropriate level of comfort and confidence is achieved.

First, the line will be inspected utilizing inline ultrasonic pig inspection technology. This system allows for the mapping of pipeline location, geometry and wall thickness, and provides detailed reporting of the findings. This will allow us to gather pipeline data, including locations where material changes occur, anchor locations for polyethylene pipe under the AIWW, and integrity data for the ductile iron portion of the force main in a nondestructive manner.

Excavation and Visual Inspection | Areas of concern identified outside the AIWW crossing during the ultrasonic inspection will be further evaluated by excavation and visual inspection. If needed, testing through coupon sampling can be done at this time or, if required, spot repairs can be performed.

Corridor Survey | Upon completion of the inline and visual inspection of the force main, it will be necessary to survey the corridor occupied by the existing force main. Though the data gathered from the ultrasonic inspection will provide the specific georeferenced location of the force main, it will not show existing topography or the location of adjacent structures, facilities, or other potential obstructions which could limit or interfere with the repair of the existing force main and with installation

Existing conditions:

AWWA crossing of NEI.

Construction along corridor of NEI.

Bradley Creek crossing of NEI.

of an alternate or secondary force main. This information will also be utilized to develop cost estimates for any necessary repairs that should occur to address force main integrity concerns as well as in the second phase of services to develop alternatives for connection redundancy.

Phase 2: Development of Redundancy Alternatives for Connectivity to CFPUA System

The development of connection alternatives will require working with multiple interested parties including the Town of Wrightsville Beach, CFPUA, NCDEQ, US Army Corps of Engineers, and NCDOT. This phase has specific challenges that will need to be recognized and addressed to prevent unnecessary or costly project delays or future operation and maintenance issues. These challenges include:

1. Location of a new AIWW crossing will require understanding of the potential future conflicts associated with the navigation channel, collocation of existing or planned future utility crossings on either side and under the AIWW, and the future replacement of the NCDOT Highway 74/76 Bridge into Wrightsville Beach.
2. Understanding and avoidance of conflicts with private property owners along the potential routing corridor. An example would be the current issues being addressed with the existing and proposed marina located on the West side of the AIWW across from the boating access.
3. Working with the CFPUA in developing routing options that do not interfere with existing services as well as the Authority's planned future system growth.

It will be necessary to approach the development of redundancy options in an inclusive and cooperative manner when working with the interested parties. This will require open and accurate communication with the Town and CFPUA staff.

The construction of a redundant force main connection will also provide the opportunity to possibly improve the system performance of both systems.

At the time of the initial construction of the NEI, the only option was to terminate the force main at the Bradley Creek Pump Station. Over the years, the Town has had operational issues associated with pressure and flow fluctuations with the operation of the force main in its current as-built condition. Over the last 30 plus years, development within New Hanover County has resulted in sewer infrastructure improvements that could offer a more desirable interconnection with the CFPUA sewer system. This could provide a solution to the operational variances seen by the Town.

>> Relevant Project Experience and References

Wrightsville Beach Lift Station #5 Rehab, Wrightsville Beach, NC

SEPI is currently under contract to provide engineering and design services, regulatory compliance, construction documentation, bid services, and construction phase services for the Lift Station #5 Improvement project.

The Town has identified a need to replace the existing wet well, pumps, and controls for the existing lift station.

The new wet well will provide the necessary storage required to address existing peak flows and peak flows which are expected to result from potential future growth.

Services: System improvements to address existing and potential future growth peak flows; documentation and compliance procedures; engineering and design services based on determined Town needs

Contact: Town of Wrightsville Beach | Timothy Owens, AICP | 910.239.1770 towens@towb.org

Wrightsville Beach On-Call Engineering Services, NEI Consult, Wrightsville Beach, NC

SEPI provided technical support for the Town of Wrightsville Beach during discussions with regard to a proposed marina project adjacent to the Northeast Interceptor along the AIWW. Specifically, SEPI provided technical letters of opinion concerning the operational and maintenance needs of the Town and the importance of maintaining the existing easement corridor free and clear of obstructions that may hamper of prevent the Town from responding to an emergency event associated with the force main. Additionally, SEPI participated in meetings with the Town and the developer regarding possible solutions to the identified conflicts between the proposed project and the operational needs of the Town.

Services: Technical support and letters of opinion

Contact: Town of Wrightsville Beach | Timothy Owens, AICP | 910.239.1770 towens@towb.org

Cape Fear Public Utility Authority, 13th Street/North Lakeshore, Wilmington, NC

SEPI developed an existing conditions survey and capacity analysis recommendation report using HGL (Hydraulic Grade Line) modeling. SEPI conducted field surveying to locate and map existing system features for approximately 10,000 linear feet of 10" - 18" existing VCP (Vitrified Clay Pipe) sewer.

Survey work included establishing a survey control network, location of manholes, condition assessment of manholes, determining pipe sizes and materials, and collection of invert and rim vertical data. In addition, records research was done to determine extent of existing easements.

Services: Existing conditions survey and capacity analysis; sewer line modeling; collection of system data including existing features and records research; system analysis; system capacity determination

Contact: CFPUA | Jim Craig | 910.540.8826 | James.Craig@cfpua.org

Town of Leland Pump Station #10 Improvements, Leland, NC

SEPI provided engineering and design services, regulatory compliance assistance and submittal, construction documentation, and specifications necessary for the construction of a sewer pump station/wet well and site improvements, to meet the needs of the Town.

The new wet well will provide the necessary storage required to address peak flows which are expected to result from planned system improvements associated with the construction of the Highway 17 Force Main Corridor improvements currently under development.

Services: Systems improvements to address peak flow; documentation and specifications for sewer pump station/wet well; engineering and design for wet well current and future needs capacity; regulatory compliance support services

Contact: Town of Leland | Jimmy Strickland | 910.332.4651 | jstrickland@townofleland.com

Town of Leland Water Analysis, Leland, NC

SEPI developed a water model analysis of approximately 26-miles of existing 6"-16" waterline. The model contained more than 500 pipes and over 1,000 Nodes, while including all minor losses for bends, piping, and gate valves.

The model was created using extended period simulation to determine water looping scenarios to improve the Town's existing system.

Services: Water model analysis of existing water system; survey of existing water system; future water usage/growth simulations

Contact: Town of Leland | Jimmy Strickland | 910.332.4651 | jstrickland@townofleland.com

Thomas Garst Lane Sewer Evaluation TO#4, Leland, NC

SEPI preformed a sewer inspection and evaluation of existing CCTV sewer video to develop a rehabilitation recommendation report and construction cost estimate for the Town of Leland.

Services: Sewer system inspection and evaluation; water/sewer engineering and design; system cost development

Contact: Town of Leland | David Hollis | 910.371.0148 | dhollis@townofleland.com

Town of Wrightsville Beach, Waterline Improvements and Upgrades, Wrightsville Beach, NC

SEPI has performed multiple waterline upgrades, improvements, and extensions for the Town of Wrightsville Beach. SEPI was responsible for all survey data collection, existing condition mapping, engineering design, and permitting for the following streets: Waynick Boulevard, Sunset Avenue, Lumina Avenue, Nathan Street, Oxford Street, Henderson Street, Greensboro Street, Seagull Street, Shearwater Street, and Meier Street.

All surveying, environmental, and engineering services were provided in-house to help maintain project continuity and efficiency through project completion.

Services: Replacement of aged piping; existing condition mapping; design and permitting support services; in-house surveying, environmental, and environmental services

Contact: Town of Wrightsville Beach | Timothy Owens, AICP | 910.239.1770 towens@towb.org

Brunswick County Expert Witness, Brunswick County, NC

SEPI was retained by Brunswick County to provide an expert opinion regarding the cost to complete the construction of certain bonded infrastructure located in the Seawatch, Ocean Ridge, and Ocean Island Palms subdivisions.

SEPI staff reviewed each of the bond documents, performed a site inspection to verify existing conditions, and reviewed all utility and road quantities, permits, and construction drawings for the bonded items as part of the effort to develop an expert opinion regarding the cost to complete the bonded work.

SEPI inspected and assessed over eight miles of waterline, sewer, stormwater, and roadway infrastructure before project completion.

Services: Permitting and system documentation review; analysis of current water and sewer system conditions; assessment of cost/risk to system upgrades

Contact: Parker Poe | Matthew Mall | 919.835.4626 | matthewmall@parkerpoe.com

Beach Inlet and Sound Program, Topsail Beach, NC *(TI Coastal experience)*

TIC investigated alternative sand sources for an emergency interim nourishment project, while the Federal 50-year management plan continued to evolve, and was able to quickly identify inshore sources containing sufficient volumes of beach quality sand to complete the nourishment project. Borrow areas were permitted and construction began a year after the initial contract with the Town was signed and the Town completed their first 1.1 million CY nourishment project the following spring. Due to the success of this project, Topsail Beach retained TIC to establish a long term BIS management plan and bring the Town into FEMA compliance for an engineered beach design.

Services: Investigated alternative sand sources for beach renourishment

Contact: Town of Topsail Beach | Connie Forand | 910.328.4326 accountant@topsailbeach.org

SEPI Local Project Experience

1. Ocean Ridge Easement Survey **2.** Lake Maintenance Preliminary Review **3.** Winner Avenue Stormwater Improvements **4.** Cape Fear Boulevard MUP **5.** Carolina Beach Village Sewer Survey (Water Department) **6.** Carolina Beach Survey On-Call **7.** Carolina Beach Greenway **8.** Hiram Avenue Easement Staking **9.** St. Joseph Sewer Extension **10.** Carolina Beach Marina **11.** St. Joseph Street Ditch Survey **12.** Existing Sewer Survey, FL/GA/VA Avenues **13.** Meier Street Waterline Replacement **14.** Waynick Boulevard Waterline Replacement **15.** Wrightsville Beach Causeway Parking Due Diligence **16.** Wrightsville Beach Causeway Parking Improvements **17.** Wrightsville Beach Engineering Consulting **18.** Wrightsville Beach Lift Station #5 **19.** Oxford Street Waterline Replacement **20.** Oxford Paving Project **21.** Seagull & Shearwater Water Lines **22.** Wrightsville Beach Easement Survey **23.** Access #1 Due Diligence **24.** Leland Model On-Call **25.** Street Resurfacing **26.** Brunswick Forest Water Tower **27.** Leland Pump Station #10 Improvements **28.** Ocean Gate Plaza Extension Review **29.** Optimal Water Tower **30.** Westport Home Owners Mega-Berm **31.** Thomas Garst Lane Sewer Evaluation TO#4 **32.** Veterans Park Water Tower **33.** NHC Water System Enhancements **34.** Motts Creek Lift Station **35.** Kerr Avenue Pump Station **36.** Brookfield/ Briarwood Water and Sewer **37.** Ogden Outfall **38.** Mott's Creek Interceptor and Lift Station **39.** Kings Grant Water and Sewer **40.** Bradley Creek Interceptor and Lift Station **41.** Ogden Interceptor (*32-41 Greg Thompson Previous Experience)*

>> Process/Protocols Technical Information

CADD STANDARDS

The SEPI Team will use AutoCAD Civil 3D for the completion of mapping for this project. These files will be submitted to the Town in the requested format to help ensure the final design plan and recommendations will be compatible with the Town's system, now, and in the future. SEPI also has experience and expertise in ArcGIS software and will export shapefiles for the Town's use upon request.

>> Hourly Charge Rate for Key Staff

Please see 6. Preliminary Cost Proposal on page 20 for our Hourly Rate Chart for key staff members.

3. DETAILED TIMELINE

	2016 December	January	February	March	2017 April	May	June
Phase 1							
Selection of ultrasonic inspection contractor							
Ultrasonic inspection							
Existing route survey							
Coordination meetings with the Town and CFPUA							
Spot inspections							
Development of repair design & permitting *(as required)*							
Immediate repairs *(as required)*							
Phase 2							
System evaluation and development of alternative routing							
Coordination meetings with the Town and CFPUA							
Finalization of best routing options							
Cost analysis							
Final report							

**Note: The schedule presented is based on assumptions for the purpose of presentation.*

Local civil engineering design expertise. Lead Civil Engineer, Eric Seidel, PE has 12 years of civil engineering experience in areas of stormwater design, erosion control, grading, water, sewer, and street design, plus all impacting rules and regulations. He has strong project management skills and has successfully developed long term relationships with clients and subcontractors.

4. DELIVERABLES

Phase 1 Deliverables

1. Ultrasonic Inspection Report
   a. Estimates of burst pressure and critical flaw size
   b. Crack assessment
   c. Remaining life assessment
   d. Corrosion growth rate modeling
   e. Wall thickness profiles
2. Force Main Corridor Survey (Hydro and Landside)
3. Identification/Recommendations of Immediate Repair Sites
4. Estimates for Immediate Repairs
5. Design and Permitting for Immediate Repairs

Phase 2 Deliverables

1. Development of Alternative Routing and Connection Options (Consensus with the Town and CFPUA)
2. Cost Estimates for Redundant Connection Option(s)
3. Final Report detailing findings of Phase 1 and 2

Phase 3 Deliverables

1. Development of Design, Permit, and Construction Documents
2. Bid Phase Services
3. Construction Phase Services

5. PROOF OF INSURANCE AND DISCLOSURE OF ANY LITIGATION

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 5/11/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Debbie Sewell
Scott Insurance (Ral) 4700 Falls of Neuse, Ste. 320 Raleigh NC 27609	PHONE (A/C, No, Ext): 336-510-0073 FAX (A/C, No): 434-455-8910 E-MAIL ADDRESS: dsewell@scottins.com

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
Sepi Engineering & Construction, Inc. 1025 Wade Avenue Raleigh NC 27605 SEPIE-1	INSURER A : Hartford Fire Ins Co (A+)	19682
	INSURER B : Hartford Ins Co of Midwest(A+)	37478
	INSURER C : Hartford Casualty Ins Co (A+)	29424
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES CERTIFICATE NUMBER: 406608640 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			22UUNNA9289	1/1/2016	1/1/2017	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$300,000
	X Contractual Liab						MED EXP (Any one person)	$10,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY			22UENNA9356	1/1/2016	1/1/2017	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS [X] NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
C	UMBRELLA LIAB [X] OCCUR			22RHUNA9535	1/1/2016	1/1/2017	EACH OCCURRENCE	$5,000,000
	EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$
	DED [X] RETENTION $ 10,000							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			22WBCR9393	1/1/2016	1/1/2017	X PER STATUTE [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] N/A						E.L. EACH ACCIDENT	$1,000,000
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$1,000,000
A	Equipment			22UUNNA9289	1/1/2016	1/1/2017	Ded	$2,500
A	Property			22UUNNA9289	1/1/2016	1/1/2017	Ded	$2,500

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Town of Wrightsville Beach is listed as additional insured as respects general liability, when required by written contract.

CERTIFICATE HOLDER	CANCELLATION
Town of Wrightsville Beach P.O. Box 626 Wrightsville Beach NC 28480	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Lisa Cenney

ACORD 25 (2014/01) The ACORD name and logo are registered marks of ACORD

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 5/11/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Insurance Management Consultants, Inc. P.O. Box 2490 Davidson NC 28036	PHONE (A/C, No, Ext): (704) 799-1600	FAX (A/C, No): (704) 799-2955
	E-MAIL ADDRESS: cert@imcipls.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A: RLI Insurance Company	13056
INSURED	INSURER B:	
SEPI Engineering & Construction, Inc. 1025 Wade Avenue Raleigh NC 27605	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES — CERTIFICATE NUMBER: 6/22/2015 PL — REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE / OCCUR						EACH OCCURRENCE	$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / PRO-JECT / LOC						GENERAL AGGREGATE	$
							PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO ALL OWNED AUTOS / SCHEDULED AUTOS HIRED AUTOS / NON-OWNED AUTOS						BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED / RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N / N/A If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE / OTH-ER	
							E.L. EACH ACCIDENT	$
							E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Professional Liability			RDP0020651	6/22/2015	6/22/2016	Per Claim	2,000,000
							Aggregate	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION
towens@towb.org Town of Wrightsville Beach Post Office Box 626 Wrightsville Beach, NC 28480	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Jeff Todd/CM

ACORD 25 (2014/01)
INS025 (2014/01)

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>> Litigation

SEPI has no publicly recorded legal actions stemming from performance of professional responsibilities in the last two years per other compliance inquires we've responded to.

6. PRELIMINARY COST PROPOSAL

Professional Services	Rate Per Hour ($)
Principal	215.00
Senior Project Manager	190.00
Project Manager II	160.00
Project Manager I	140.00
Project Engineer II (PE)	125.00
Project Engineer I (EI)	113.00
Project Designer	98.00
Senior Planner	120.00
Planner	105.00
Senior Technician	100.00
Technician	95.00
CADD Technician	80.00
Environmental Services	
Project Scientist I	75.00
Project Scientist II	90.00
Project Scientist III	100.00
Stream Engineer I	110.00
Stream Engineer II	125.00
Stream Engineer III	150.00
Survey Services	
Project Manager, PLS	125.00
Project Surveyor, PLS	109.00
3-Man Survey Crew	175.00
2-Man Survey Crew	130.00
Clerical	44.50

Professional Services	Rate Per Hour ($)
Subconsultant - TI Coastal Services, Inc	
Principal/Senior Engineer	185.00
Professional Staff (PE, PLS, PG)	145.00
Senior Technical Staff	125.00
Engineer	105.00
Engineer/CADD Technician	75.00
Administrative	65.00

REQUEST FOR QUALIFICATIONS

NEI DESIGN PROJECT

SUBMITTED TO:

TOWN OF WRIGHTSVILLE BEACH | POST OFFICE BOX 626 | WRIGHTSVILLE BEACH, NC 28480

910.256.7900

SUBMITTED BY:

MCKIM & CREED | WILMINGTON, NC

910.343.1048 | MCKIMCREED.COM

McKIM&CREED

McKIM&CREED

November 1, 2016

162032

Mr. Timothy Owens, AICP
Town of Wrightsville Beach
Post Office Box 626
Wrightsville Beach, NC 28480

RE: CONSULTANT ENGINEERING SERVICES TO ASSESS THE CURRENT CONDITION OF THE TOWN'S ONLY SEWER CONNECTION TO CFPUA AND LOCATED UNDER INTRACOASTAL WATERWAY AND COMPLETE ENGINEERING AND PERMITTING OF A DUPLICATE SEWER LINE CONNECTION

Dear Mr. Owens,

We understand the importance of being prepared. The Town's 14-inch force main is the only means of conveying sewage from the island and sections of the force main are located in environmentally sensitive areas. If a break in the line were to occur, the potential outcome could be disastrous to the environment and to the residents of Wrightsville Beach.

In your request for qualifications (RFQ), you solicit a firm with experience in sewer asset condition assessment and force main design and construction. McKim & Creed, Inc. is pleased to submit our qualifications and proposal to the Town of Wrightsville Beach. Our proposal and project team has been carefully prepared to address the needs as outlined by the RFQ. Our detailed approach is provided within the proposal and the following Executive Summary provides a brief outline of the key elements to our approach:

EXECUTIVE SUMMARY

FORCE MAIN CONDITION ASSESSMENT

Inspection of the condition of force main assets are typically difficult due to a lack of redundancy, limited access points, the high cost of bypass pumping, and the continuous operation of the pipeline. Pipeline inspection with the use of CCTV cameras inside of the pipe is not feasible due to these limitations. Our approach to the inspection of the Town's 14-inch force main would be a four-phase process as follows:

- Develop data and review record drawings of the force main and any other pertinent information available such as soil surveys and location of environmentally significant areas adjacent to the force main.
- Perform a leak and gas detection inspection of the pipeline to identify areas with the highest potential for corrosion using SmartBall technology.
- Excavate test pits at the high potential for corrosion locations identified by the data evaluation and SmartBall tests and perform non-destructive testing (NDT) on the pipe in order to determine the integrity and approximate wall thickness of the pipe.
- Analyze and evaluate the information learned from the leak and gas detection program and NDT analysis of the pipe and provide an opinion on the condition of the force main and recommend further action. The condition assessment of the force main, the recommendations for improvements, and construction cost opinions will be provided as a Preliminary Engineering Report (PER).

The process outlined above was developed with the specific intent of continuing to operate the force main during the process of inspection. The proposed tests can provide a highly informed overview of the condition of the pipeline with no impact to the integrity or operation of the force main. We have teamed with Pure Technologies and S&ME, two nationally recognized leaders in condition assessment and NDT, to provide these highly specialized tests.

DESIGN AND PERMITTING OF THE REDUNDANT FORCE MAIN

Today, pipe installations across large bodies of water and environmental sensitive areas are typically accomplished through the use of trenchless technology. As detailed by our extensive project experience, McKim & Creed engineers have completed numerous trenchless installations utilizing varying installation methods such as horizontal directional drill, microtunneling, conventional hand tunneling, and bore and jack. For our team, trenchless technologies are not just an "after thought" or "option of last resort" when designing pipeline projects. When evaluated correctly, trenchless technologies can be a cost effective tool for pipeline installation, and we have successfully used this tool in many different scenarios – pressure lines, gravity lines, rock,

limited construction space, environmentally sensitive areas, etc.
Based on the size of force main and location across the Intracoastal Waterway (ICW), we anticipate that horizontal directional drill (HDD) will likely be the most appropriate trenchless technology for this application. This method will allow the Town of Wrightsville Beach to install a force main 20 to 40 feet below the bottom of the ICW and eliminate any worries of damaged cause from channel activities. Our general approach to the design and permitting of the redundant force main installation by HDD is as follows:

- Perform geological surveys to determine subsurface conditions.
- Perform a topographical survey of the proposed force main corridor as well as survey the location of important features such as wetland flags and existing structures. It is recommended Subsurface Utility Engineering (SUE) services be performed in order to located and survey existing utilities.
- Obtain necessary permits.
- Develop a Preliminary Engineering Report to include information from the geological and environmental investigations, preliminary HDD design, pipe material selection, evaluation of drilling operations, proposed connections to the existing force main and cost opinions.
- Produce detailed HDD plans and specifications.

If desired, McKim & Creed can provide the Town of Wrightsville Beach with the following services:

- Prequalify HDD specialty Contractors.
- Provide bid and award phase services.
- Provide construction phase services.

McKim & Creed will provide the Town of Wrightsville Beach with the best mix of local presence, nationally recognized expertise and system knowledge to successfully complete this project. As always, we appreciate the opportunity to provide our qualifications to the Town.

Respectfully submitted,
McKim & Creed, Inc.

Jacob VandenBosch, PE
Project Manager

TABLE OF CONTENTS

STATEMENT OF QUALIFICATIONS AND LEVEL OF EXPERIENCE

McKim & Creed, Inc. is a committed team of talented professionals who improve the quality of life for businesses and communities by providing world-class engineering and geomatics solutions.

Whether it's designing sustainable water solutions, creating energy-efficient environments, planning thriving communities, or gathering data for safe transportation networks, McKim & Creed works to improve the quality of life for our clients and the communities we serve.

Our technical specialties include civil, environmental, mechanical, electrical, plumbing, and structural engineering; industrial design-build services; airborne and mobile LiDAR/scanning; unmanned aerial systems; subsurface utility engineering; and hydrographic and conventional surveying services for the energy, transportation, federal, land development, water and building markets. As an employee-owned company that has been in operation since 1978, we provide these services through excellent work, dedicated service and a passionate desire to solve problems and impact lives.

McKim & Creed's depth of local resources offers the flexibility to provide experienced staff at your disposal to keep your project on track. Our solid background and experience have resulted in the method and controls being in place to balance staff requirements while maintaining quality, schedule and budget for our clients. McKim & Creed is committed to meeting budget and schedule requirements.

OUR ENGINEERING, SURVEYING AND PLANNING SERVICES

- **Water/wastewater and reclaimed water design**
- **Trenchless technology**
- **Asset Condition Assessment**
- **Site/civil, structural, electrical, mechanical and plumbing engineering**
- **Water/Wastewater renewal and replacement**
- **Geomatics specialties** ranging from airborne LiDAR, photogrammetry and mobile scanning to electronic data collection, hydrographic surveying and subsurface utility engineering

The McKim & Creed team is uniquely qualified to provide the requested scope of services listed in the RFQ and to execute the project for the Town of Wrightsville Beach.

PROJECT TEAM

McKim & Creed offers the Town of Wrightsville Beach a project team that will exceed the city's expectations for this project by providing an experienced team, capable of handling your project. Our experience will provide value driven solutions.

McKim & Creed is committed to responsive service and our project manager, **Jacob VandenBosch**, will be responsive to requests for service. We can be counted on to respond quickly to any critical needs. We have proven to our clients that they are a priority to us, and we will illustrate that by making it a priority to respond promptly. We will collaborate with your project manager on a written project plan that identifies scope, schedule, budget, and a communication plan that meets the project needs. We are committed to meeting your performance expectations.

An organizational chart of key team members can be found below. Brief resumes of the key team members are included on the following pages. All team members have ample availability to dedicate themselves to this project and are committed to meeting all project milestones and deadlines on time and within budget.

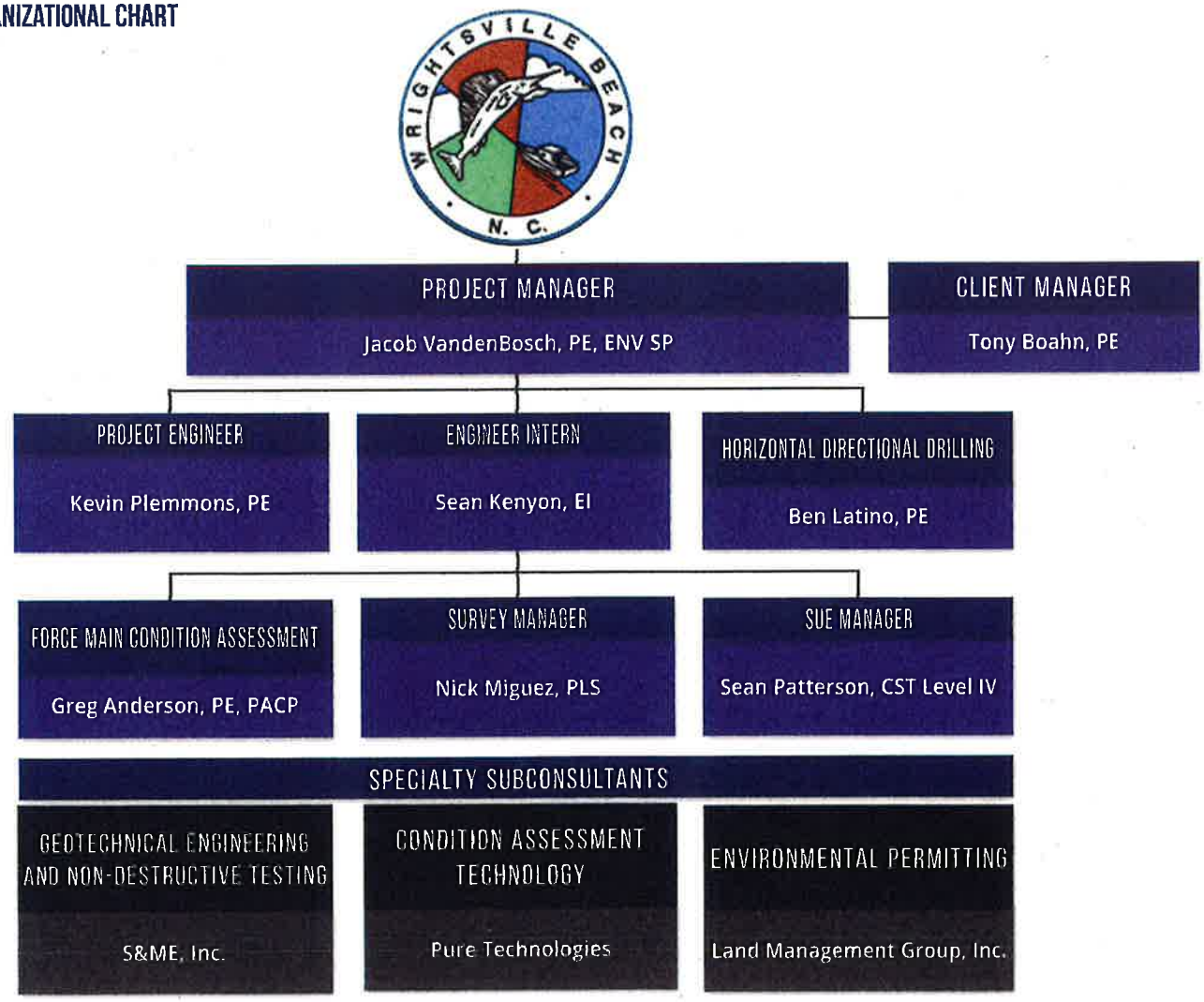
LOCATIONS

N. CAROLINA

Charlotte
Raleigh
Wilmington*
Asheville

*Our nearby Wilmington office will manage the services requested by the Town.

ORGANIZATIONAL CHART



TEAM MEMBER / ROLE	EXPERIENCE
 10 Years **Jacob VandenBosch, PE, ENV SP** Project Manager	Jacob VandenBosch, PE, ENV SP has been involved in most aspects of project management, planning and design for projects primarily in the municipal water industry. His expertise includes the development of preliminary engineering reports, master planning of municipal systems, hydraulic modeling, project design, cost estimation, scheduling, permitting, project bidding and award, and construction administration. As a lead project designer on multiple projects, Mr. VandenBosch has extensive experience in all phases of water and sewer system installation. His ability to coordinate across different disciplines has allowed his teams to produce high quality, cost-efficient designs.
 29 Years **Tony Boahn, PE** Client Manager	Tony Boahn, PE has been responsible for all aspects of project management, design, and construction administration of water and wastewater projects. Mr. Boahn has worked on a wide variety of projects including infrastructure master plans, pump stations, sewer force mains, gravity sewer systems, water distribution systems, and water and wastewater treatment plants. Mr. Boahn is experienced in projects involving state and federal funding programs including Community Development Block Grant (CDBG), Economic Development Agency (EDA), United States Development Agency (USDA), Disaster Relief Initiative (DRI), State Revolving Fund (SRF), and State Revolving Loan (SRL). He is well versed in permitting, bid and award procedures, and construction administration of water and wastewater utility projects throughout North Carolina.
 9 Years **Kevin Plemmons, PE** Project Engineer	Kevin Plemmons, PE has been involved in a variety of municipal and private development projects at the preliminary engineering, final design, project bidding, and construction administration phases. He has worked on several studies including water distribution system modeling, pressure and gravity wastewater system modeling, water distribution system evaluations and preliminary engineering reports, wastewater feasibility and capacity studies, environmental assessments, and wastewater master planning. Moreover, Mr. Plemmons has completed engineering evaluations, designs, hydraulic models, and assisted in county-wide wastewater standards creation.
 1 Year **Sean Kenyon, EI** Engineer Intern	Sean Kenyon, EI has been involved with a variety of water and wastewater infrastructure projects including water distribution systems, wastewater collection, pump stations, force mains, and wastewater treatment facilities. His experience includes hydraulic modeling, master planning, report preparation, and assistance with infrastructure design.
 17 Years **Ben Latino, PE** Horizontal Directional Drilling	Ben Latino, PE has more than 17 years of engineering experience in the water/wastewater field. He has been involved with water and wastewater utility studies and design, reclaimed water and stormwater systems design, wastewater compliance, geosciences, and construction administration. Mr. Latino's specific project experience includes sanitary sewer evaluation services (SSES); infiltration and inflow studies; preliminary engineering studies; sanitary sewer lift station design, rehabilitation/replacement and condition assessments; and water, reclaimed water, and force main design, including the use of trenchless technology. He is also NASSCO PACP/MACP/LACP certified.
 30 Years **Greg Anderson, PE** Force Main Condition Assessment	Greg Anderson, PE has 30 years of progressive engineering experience and has worked primarily for the past 21 years on utility-related projects. These projects include the design of water distribution/transmission systems, and stormwater and wastewater collection/conveyance systems. He has served as a project engineer, project manager, and project principal for numerous I&I evaluation, sanitary sewer evaluation survey (SSES), and rehabilitation projects. Mr. Anderson has completed infrastructure condition assessments and has been involved in system rehabilitation design both nationally and internationally. Mr. Anderson is also a member of NASSCO, ASCE and WEF.

Nick Miguez, PLS
Survey Manager

Nick Miguez, PLS has 18 years of experience in the land surveying profession. After serving in the US Marine Corps, Mr. Miguez began his land surveying career in 1999 and is now a project manager for McKim & Creed's geomatics division in Wilmington, NC. Some of his clients include NCDOT, USACE, USDA, Weeks Marine, New Hanover County, and the City of Wilmington. He has been responsible for all aspects of surveying including but not limited to construction layout, boundary, wetland, topographic, GPS, and route surveys.

Sean Patterson, CST
SUE Manager

Sean Patterson, CST Level IV has 21 years of experience in the subsurface utility engineering (SUE) profession and the facilities management industry. Mr. Patterson manages projects at all levels of performance including supervising crews and scheduling equipment. He has overseen 500 full service SUE projects in NC, SC, OH, PA and VA. Mr. Patterson's specific experience in telecommunications engineering and construction permits him to manage outside plant contract engineering projects including construction and documentation for 15 US states.

Perry Vezina
Geotechnical Engineering and Non-Destructive Testing
S&ME

Perry Vezina is the NDE Area Manager, Company NDT Level III, senior NDE/ NDT project manager, and Radiation Safety Officer for industrial radiography. He is skilled in the following disciplines: Radiographic Testing, Dye Penetrant Testing, Magnetic Particle Testing, Visual Testing, Ultrasonic Testing, Ground Penetrating Radar Testing, Digital Thermography, and Eddy Current Testing.

24 Years

S&ME

Mark Power
Geotechnical Engineering and Non-Destructive Testing
S&ME

Mark Powers is a Senior Metals Technician for S&ME's Raleigh NC Location. He offers 24 years of experience in the nondestructive testing fields that includes Quality Assurance/Control management, Project management, technical field expertise, performing various methods of NDT in several industries including new bridge construction, new ship and submarine constructions, oil and gas equipment, and energy providers.

Erin Culbertson
Condition Assessment Technology
Pure Technologies

Ms. Culbertson serves as a senior project manager for Pure Technologies bringing more than 7 years of experience that includes pressurized pipeline condition assessment, gravity pipeline assessment, asset management, hydraulic modeling, sanitary sewer evaluation surveys (SSES), wet weather management, and regulatory compliance. Prior to joining, she worked for a national consulting firm and served as project manager for a multi-million dollar rehabilitation plan using data collected from a regulatory driven condition assessment program and for the development and long term implementation of a management, operations, and maintenance program. She has extensive experience with the many aspects of buried infrastructure management and has proven results managing multi-faceted condition assessment programs.

Kimberlee Williams
Environmental Permitting
Land Management Group, Inc.

Ms. Williams is an environmental scientist with Land Management Group, Inc. She prepares and submits federal and state permit applications (including Section 404 Nationwide and Individual Permits, Section 401 Water Quality Certifications, & CAMA Permits). Ms. Williams also performs biological surveys and evaluate habitat for its ability to support federally and state listed species. She prepares environmental studies including wetland mapping/delineation reports, environmental assessments, and mitigation plans. Ms. Williams also has experience coordinating the implementation of mitigation projects and performing annual vegetation and hydrological monitoring of mitigation sites.

GENERAL APPROACH AND UNDERSTANDING

PROJECT UNDERSTANDING

The Town of Wrightsville Beach currently owns, operates, and maintains a water distribution and sewer collection system that services approximately 2,700 customers. Sewage is collected and conveyed to the Cape Fear Public Utility Authority (CFPUA) for treatment by a 14-inch force main constructed in 1982. According to records, the material of the force main is ductile iron pipe. The force main originates at Lift Station #5 and discharges to CFPUA at the Bradley Creek Pump Station. Additionally, the force main has two subaqueous crossings at the Intracoastal Waterway (ICW) and Bradley's Creek.

A report recently completed in July 2016 for the Town in reference to the expansion of the Grand View Community boat dock outlined several concerns for the condition of the force main. First, the general condition of the force main is unknown and is believed to be subject to internal and external corrosive elements. The age of the force main is approximately 34 years old. The typical life span of ductile iron pipe is fifty to one hundred years depending on the quality of installation and external soil conditions. However, portions of the force main can degrade at a faster rate and are normally found at high points in the pipe line where air pockets can be created and hydrogen sulfide gas is released that can corrode the interior wall of the pipe. External elements such as stray electrical currents and corrosive soils can also lead to external corrosion of the pipe. Second, the force main was installed across the Intracoastal Waterway by sinking the pipe into the mudline of the channel. The location of the force main leaves it susceptible to physical damage from boat and channel maintenance activities as well as possible corrosion due to the presence of saltwater.

The risk of failure for the Town's force main is very high. The force main is the Town's only means of conveying sewage off of the island and the force main is located in environmentally sensitive areas. A break of the force main could have dire consequences for both the environment and the residents of the island. Because of this high risk for failure, the Town of Wrightsville Beach is in need of professional services to inspect the condition of the existing condition force main, recommend needed improvements, and design a redundant force main connection across the ICW.

The McKim & Creed team provides extensive experience and expertise in pipeline condition assessment, force main design, and the design and installation of force mains under water bodies and environmentally sensitive areas using horizontal directional drilling technology. Additionally, our team includes Pure Technologies, a recognized industry leader in the inspection, assessment, and management of pressurized pipelines. Pure Technologies' proprietary condition assessment technology allows the inspection of pressurized pipelines while under continuous operation.

We are confident that our team provides the most comprehensive approach to successfully complete this project and assist the Town in determining the most cost-effective solution to identify and address any deficiencies of the force main and provide a redundant force main connection across the ICW.

PROJECT APPROACH

McKim & Creed will work directly with the Town of Wrightsville Beach to evaluate and assess the condition of the force main from Pump Station #5 to the Wrightsville Avenue intersection. Additionally, McKim & Creed will provide engineering design for a redundant force main crossing of the ICW. Our detailed project approach is as follows:

Phase 1 – Force Main Condition Assessment

Inspection of the condition of force main assets are typically difficult due to a lack of redundancy, limited access points, the high cost of bypass pumping, and the continuous operation of the pipeline. Pipeline inspection with the use of CCTV cameras inside of the pipe is not feasible because of these limitations. Our approach to the inspection of the Town's 14-inch force main would be a four-phase process as follows:

- Develop data and review record drawings of the force main and any other pertinent information available such as soil surveys and location of environmentally significant areas adjacent to the force main.
- Perform a leak and gas detection inspection of the pipeline to identify areas with the highest potential for corrosion. We have teamed with Pure Technologies and propose to use the SmartBall technology for this inspection.
- Excavate test pits at the high potential for corrosion locations identified by SmartBall and perform non-destructive testing on the pipe in order to determine the integrity and approximate wall thickness of the pipe. It is anticipated Ultrasonic Thickness Testing (UTT) would be utilized. Alternatively, coupons could be extracted from the pipe (destructive testing) and sent to a lab for analysis. Coupons are a much more invasive form of testing and a tapping saddle would be required to remain after the coupons have been extracted. Testing for the wall thickness of the pipe will allow us to evaluate any possible corrosion to the pipe and approximate the useful remaining life of the pipe. We have teamed with S&ME to provide Non-Destructive Testing of the force main.

- Analyze and evaluate the information learned from the leak and gas detection program and the non-destructive analysis of the pipe and provide an opinion on the condition of the force main and recommend further action. The condition assessment of the force main, the recommendations for improvements, and construction cost opinions will be provided as a Preliminary Engineering Report.

The process outlined above was developed with the specific intent of continuing to operate the force main during the process of inspection. The proposed tests can provide a highly informed overview of the condition of the pipeline with no impact to the integrity or operation of the force main. A detailed overview of the gas and leak detection and nondestructive testing are provided below.

SmartBall Tool and Smart Ball Receiver (SBR)

SmartBall Inspection Technology

We propose using the SmartBall proprietary technology developed by Pure Technologies for the leak and gas pocket detection of the force main. SmartBall leak and gas pocket detection surveys begin by inserting a foam ball with an inner aluminum alloy core containing the acoustic sensor and circuitry into the subject pipeline, typically through a 4-inch opening. The aluminum core is encapsulated inside the foam ball to provide the appropriate mass, size, and overall weight to allow the SmartBall tool to be propelled by the flow of the water in the pipeline. The foam ball also dampens any sound that the SmartBall tool might generate as it traverses the pipeline. During the survey, the acoustic sensor continuously records all acoustic activity in the pipeline. This data is then analyzed to determine the presence and location of any leaks or pockets of trapped air. Insertion and extraction points for the SmartBall tool will be coordinated with requirements for other proposed technologies to minimize modifications to the transmission main.

An acoustic emitter within the SmartBall tool emits high frequency, timed, acoustic signals that are detected by proprietary SmartBall Receivers (SBRs) positioned at predetermined locations on the surface. The SBRs track the tool's movement and location, correlating its position at any time to provide accurate location information for acoustic events recorded during the survey. Inspection benefits include utilizing the SmartBall tool include:

- Easy to deploy through existing pipeline features;
- No disruption to regular pipeline service;
- Long inspection capabilities from a single deployment;
- Under optimal operating conditions, SmartBall technology has located leaks as small as 0.028 gal/min (leak sensitivity is determined based on each pipeline's operational conditions); and,
- Typical location accuracy within 5-feet.

Non-Destructive Testing

Non-destructive testing techniques used for metallic pipes such as ultrasonic thickness measurement allow for evaluating the pipe wall thickness without having to physically damage the pipe and remove coupons for analysis. In addition, non-destructive testing can be performed while the force main remains in operation. Ultrasonic Thickness Testing (UTT) transmits high-frequency sound waves through one side of a metal wall from a transducer. When sound reaches the other side of the metal wall, a fraction of the waves will echo back to the transducer. The metal thickness is determined by recording the time it takes to travel through the metal and return. By identifying areas of the force main for the highest potential for corrosion by evaluating internal and external corrosion factors, we can utilize UTT to evaluate any possible corrosion to the force main and approximate the useful remaining life of the pipe.

Phase 2 – Redundant Force Main Crossing of the IntraCoastal Waterway

The original 14-inch force main constructed in 1982 was installed across the ICW by linking and restraining ductile iron bell joint pipe and then sinking it into the soft mud at the bottom of the channel. Today, pipe installations across large bodies of water and environmental sensitive areas are accomplished through the use of trenchless technology. As detailed by our extensive project experience, McKim & Creed engineers have completed numerous trenchless installations utilizing varying installation methods such as horizontal directional drill, microtunneling, conventional hand tunneling, and bore and jack. For our team, trenchless technologies are not just an "after thought" or "option of last resort" when designing pipeline projects. When evaluated correctly, trenchless technologies can be a cost effective tool for pipeline installation, and we have successfully used this tool in many different scenarios – pressure lines, gravity lines, rock, limited construction space, environmentally sensitive areas, etc.

Based on the size of force main and location across the ICW, we anticipate that horizontal directional drill (HDD) will likely be the most appropriate trenchless technology for this application. Originally developed for the oil industry and now widely used in the water industry, HDD is a steerable trenchless method of installing underground pipe across a designed bore path using a drilling rig located at the surface. This method will allow the Town of Wrightsville Beach to install a force main 20 to 40 feet below the bottom of the ICW and eliminate any worries of damaged cause from channel

McKim & Creed has significant HDD experience.

activities. Our approach to the design and permitting of the redundant force main by HDD is as follows:

GEOLOGICAL SURVEY / S&ME will provide geological survey services. The geotechnical engineers at S&ME that work with us on utility line projects have a very thorough understanding of how geology impacts utility line design and construction, especially trenchless installations. Soil borings will be required to gain an understanding of the underlying soils and the impact they will have on the proposed drill. A geotechnical report will be provided by S&ME and the information will be used for detailed design calculations and HDD design.

DESIGN SURVEY / McKim & Creed will perform a topographic survey and location along the proposed force main alignment corridor. Additionally, survey location of water features, existing structures and wetland delineation flagging will be provided in order to define the limits of the wetlands, tidal zones and any riparian buffers.

In addition to traditional survey, McKim & Creed will also provide limited subsurface utility engineering (SUE) services for the project. These services will include Quality Level B SUE for horizontal designation and mapping of existing underground utilities and Quality Level A SUE through use of vacuum test holes to verify the physical location (x,y,z), depth, size and material of the existing underground utilities along the trenchless design alignment.

ENVIRONMENTAL PERMITTING / The Land Management Group (LMG) will provide services for environmental permitting. McKim & Creed's local Wilmington team has worked with LMG on numerous projects involving permitting with the USACE and CAMA. It is anticipated LMG will be required to delineate wetlands, obtain a jurisdictional determination, and work with the USACE and NCDEQ to obtain any required Nationwide, Water Quality, and CAMA permits.

PRELIMINARY ENGINEERING REPORT / McKim & Creed will provide the Town of Wrightsville Beach with the results of the geotechnical and environmental investigation and will use the design survey to develop a Preliminary Engineering Report that will include a preliminary design and a selection of the appropriate installation method, evaluation and selection of the pipe material, evaluation of the drilling operation, develop preliminary design of the transitions and connections with the existing force main, initiate regulatory permits, and provide a preliminary opinion of cost. One option the Town may wish to consider is the drilling and installation of two pipelines beneath the ICW and abandonment of the existing force main. Typically, the cost to install a second pipe by HDD is greatly reduced because the HDD equipment is already mobilized to the site. As discussed previously, the existing condition of the force main across the ICW is unknown and the location and depth of bury leaves it susceptible to physical damage. This option can be further discussed in the preliminary engineering phase.

DETAILED HDD DESIGN PLANS AND SPECIFICATIONS / McKim & Creed will complete detailed design of the HDD installation and will produce plans and specifications that can be used for bidding and award of the construction contract. The plan sheets will include all of the necessary design survey information collected during the preliminary design stage, survey control points/monuments, contours, existing utilities, permanent and temporary easements, dimensions, labels, staging areas, drill launch and retrieval locations, construction notes (as necessary), tree protection, erosion control, wetlands, streams and buffers, property owner information, no clearing boundary, and other pertinent information for construction of the pipe. The profile view will be prepared initially from the preliminary profile design developed during the Preliminary Engineering Report phase of the project. The profile will be updated as necessary and enhanced to provide more detail for construction purposes. The profile will show at a minimum the HDD pipeline, pipe material and grade/class, approximate ream path, vertical/horizontal curve information including pipe bend radii, minimum separation requirements from the ground surface a key locations, existing utilities, transition fittings, restraints, valves, and other fittings.

McKim & Creed will develop the necessary details for the pipe material transitions and restraint for connection to the existing force main. The inclusion of any required isolation or air valves will be provided with the plans. Additionally, specifications will be developed for the project. Over the years, we have continued to craft our HDD specifications based on current industry standards, changes in technology, and lessons learned on previous projects. The project HDD specification will be tailored to fit the needs of the project based on the owner's requirements and preferences, project site conditions and the pipe materials being proposed.

PREQUALIFICATION OF TRENCHLESS CONTRACTOR / The capability of the drilling contractor and their experience installing pipelines across water bodies such as the ICW is imperative to the success of the project. As such, McKim & Creed recommends establishing qualification criteria, issuing a Request for Qualifications and prequalifying the drilling contractors prior to bidding the overall project.

McKim & Creed is experienced with developing prequalification requirements and preparing Requests for Qualification (RFQ) documents for general contractors, subcontractors and equipment suppliers.

BID AND AWARD PHASE SERVICES / McKim & Creed routinely assists its clients in advertising projects for competitive bidding and conducts formal bid/award procedures for projects similar to this project. We are familiar with current legal requirements for obtaining bids on publicly funded work in North Carolina. Below is a summary of services we typically provide for projects of this nature and that can be included in the scope of this project if so desired:

- Prepare and furnish bidding documents for review and approval by CFPUA and its legal counsel, as appropriate.
- Provide reproducible plans and specifications to the Town of Wrightsville Beach
- Respond to plan holder inquires and prepare addenda as required.
- Develop addenda for formal issuance.
- Attend and participate in pre-bid meeting.
- Attend formal bid opening.
- Develop and certify bid tabulations.
- Check contractor references.
- Provide recommendation of award.

CONSTRUCTION PHASE SERVICES / McKim & Creed has completed numerous projects of similar scope and nature that have required construction phase services. We propose to shorten the completion time for construction to a practical minimum consistent with achieving the required level of quality and conformance within budgetary constraints. McKim & Creed proposes to provide the following construction administration services:

- Schedule and conduct pre-construction conference. Prepare and distribute minutes.
- Schedule and conduct progress meetings on a monthly basis. Prepare and distribute minutes.
- Review and approve shop drawings from contractor.
- Endeavor to resolve problems in a timely manner as work proceeds and involve appropriate parties in resolving disputes and problems associated with the project.
- Coordinate and document prepurchased items with the Contractor, if applicable.
- Pay request review and recommendation for payment to Owner.
- Change order review and recommendation to Owner
- Prepare punch-list and coordinate completion of punch-list items with contractor.
- Prepare construction record drawings in AutoCAD format and provide mylars with electronic files on CD to the Owner.
- Certify completion of project to the appropriate agencies.

McKim & Creed is available to provide full time resident observation for this project, if so desired. We have worked directly with our clients on several projects under this arrangement and are comfortable providing the level of service required. Generally, McKim & Creed construction phase services would include the following construction resident observation services:

- Provide field observation during construction (periodic or full-time)
- Field verify quantities of work completed for pay application processing
- Provide substantial and final completion certification to the appropriate agencies

Additionally, McKim & Creed has a tested Program Management process which tracks multiple task orders from client requirements to monthly program reporting during execution. The following are certification held by members of our construction services group:

- Construction Document Technologist
- Certified Construction Contract Administrator
- LEED® Accreditation
- OSHA 10-Hour Safety Certificate
- Professional Engineer
- Engineer Intern

While not assuming any responsibility for the contractors' activities, our construction representative can have a significant impact on the construction period with a proactive approach to problem identification and resolution, as well as serving as an effective liaison to the individual stakeholders in the area. Our construction observers specialize in resolution of field construction problems, and can always be counted on to be a positive part of the construction process.

SIMILAR PROJECTS

Below is a listing of similar project completed by the McKim & Creed team within the last five years.

Model the Water System and to Complete a System Wide Assessment of the Town's Water and Sewer Systems

Town of Wrightsville Beach, NC

The Town of Wrightsville Beach has approximately 2,700 water and sewer customers with drinking water supplied via nine wells with the town producing approximately 260 million gallons of water per year. Wastewater generated from the town is pumped to the Cape Fear Public Utility Authority (CFPUA) for treatment and disposal. Water demands peak to approximately 1.5 mgd in the summer tourist season and the town desires to develop alternatives to meet current peak demands as well as future projected demands. McKim & Creed was contracted to evaluate the existing water system in order to determine current and long-term system improvements with respect to current and long-term demand projections. Primary tasks will include the creation of a WaterCAD hydraulic model and evaluation of multiple options

for alternative water supply to include purchasing bulk water from the CFPUA, implementation of aquifer storage and recovery, and transfer of the utility system to the CFPUA. As part of these supply options, McKim & Creed will conduct a water quality analysis for the potential blending of CFPUA surface water and the town's groundwater supply.

Additionally, our scope of work includes a system-wide condition assessment of both the water and sewer systems for the town and an asset value evaluation of the respective systems. The final project deliverables will include a preliminary engineering report (PER) as well as development of a 10-year Capital Improvements Plan (CIP) to address infrastructure improvements required for the town's water and wastewater systems.

OWNER:

Town of Wrightsville Beach, NC

CONTACT:

Timothy Owens, AICP; (910) 239-1770; towens@towb.org

KEY TEAM MEMBERS INVOLVED:

Tony Boahn, PE

Kevin Plemmons, PE

Sean Kenyon, EI

Greg Anderson, PE

Inspection of North Topsail Beach High Rise Bridge Water Line

Onslow County, NC

McKim & Creed provided professional engineering services in the inspection of approximately 2500 LF of 10-inch diameter ductile iron water line attached to the North Topsail Beach Bridge on NC Highway 210. Inspection included a representative sample of the hanger assemblies to determine their general condition. The water line remained in operation during the inspection. Non-destructive inspection and evaluation methods were used. The hanger assemblies were comprised of anchors, hanger rods, clevis hangers, and angle brackets. The estimated quantities of existing anchors, hanger rods, and clevis hangers were 315 each, and the estimated quantity of angle brackets installed was150.

OWNER:

Onslow County Water & Sewer Authority (ONWASA)

CONTACT:

Karen Fergason; (910) 937-7546; kfergason@onwasa.com

KEY TEAM MEMBERS INVOLVED:

Tony Boahn, PE

Kevin Plemmons, PE

S&ME

Inspection of North Topsail Beach High Rise Bridge Water Line: Water Line Along the North Side of NC 210 Bridge.

Pump Station 12 Force Main Replacement/ Rehab

Wilmington, NC

Pump Station #12 (PS12), also known as the Cowan Street Pumping Station, is located at the north end of downtown Wilmington, NC, adjacent to the Cape Fear River. The pump station and the associated force main were constructed in 1968 placing the age of the infrastructure at well over forty years. The PS12 force main was identified by the Force Main Condition Assessment – Phase 1 report and by the Asset Management Risk Team as a top priority for replacement due to possible corrosion from hydrogen sulfide gas.

McKim & Creed provided a Preliminary Engineering Report (PER) to evaluate the options for the replacement or rehabilitation of the PS12 force main and provided a recommended course of action. The Cape Fear Public Utility Authority (CFPUA) has received funding from the Clean Water State Resolving Fund to replace the force main and has contracted with McKim & Creed to produce the ER/EID required for funding. CFPUA has also expressed interest in utilizing the existing force main by rehabilitating the pipe and using it as a parallel main in conjunction with the replacement main.

The PS #12 Force Main Replacement project is currently under the design and permitting phase and is scheduled to be under construction in 2017.

OWNER:

Cape Fear Public Utility Authority (CFPUA)

CONTACT:

Jamison Fair; (910) 332-6633; jamison.fair@cfpua.org

KEY TEAM MEMBERS INVOLVED:

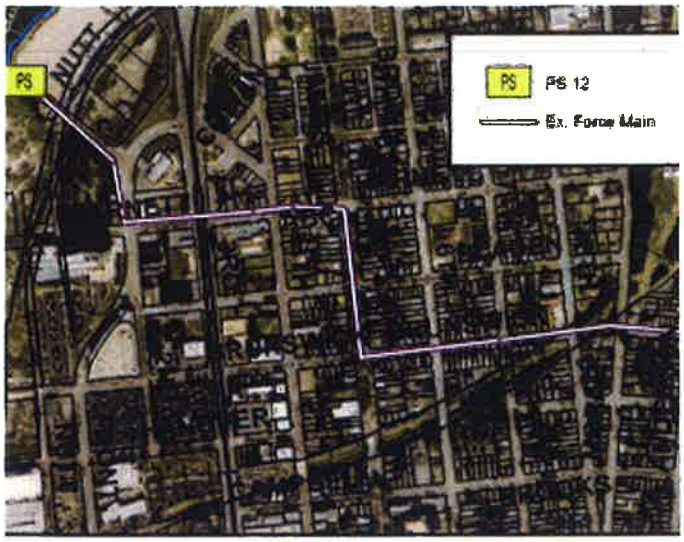
Jacob VandenBosch, PE

Tony Boahn, PE

Sean Kenyon, EI

S&ME

Land Management Group, Inc.



Pump Station 12 Force Main Replacement/Rehab

Henderson Drive Water and Sewer Assessment

Jacksonville, NC

The City of Jacksonville has received notification from NCDOT that they plan to rebuild the roadway pavement along Henderson Drive in Jacksonville from Gum Branch Road to Hwy 17 (Marine Boulevard) and the City is concerned about the impact to their existing utilities within the NCDOT project limits. The existing water mains in this area are subject to damage or failure from the proposed construction due to the fact that the utilities are located under the pavement with minimum cover and are older, cast iron mains. According to the City's GIS records, there are various water line sizes (2, 6, 8 and 12-inch) along Henderson Drive, with some sections of parallel pipe runs. The City wishes to develop a replacement plan for the existing water lines along Henderson Drive to be implemented prior to the NCDOT project. This will eliminate the concerns over damage to the existing mains and provide for a sustainable approach by increasing the water main service life and optimizing available flow and pressure along Henderson Drive. Additionally, the City would like to determine what improvements to the existing sanitary sewer along Henderson Drive need to be made prior to completion of the NCDOT project.

The City of Jacksonville has contracted with McKim & Creed to evaluate options for replacing the existing water lines along Henderson Drive. The evaluation includes using the recently updated and calibrated Finished Water Model for the City's water system to determine the appropriate line size or sizes (for parallel replacements) for the water main replacement options considered. Additionally, the City has requested that McKim & Creed evaluate CCTV video footage and inspection reports for the existing sanitary sewer and manholes along Henderson Drive and provide recommendations for necessary repairs, replacement and/or rehabilitation of the subject sewer lines and manholes. The evaluation is currently underway and all improvements will be in place prior to the NCDOT project.

OWNER:

City of Jacksonville, NC

CONTACT:

Andrew Kassell; 910-938-5330; akassell@ci.jacksonville.nc.us

KEY TEAM MEMBERS INVOLVED:

Jacob VandenBosch, PE

Tony Boahn, PE

Sean Kenyon, EI

Greg Anderson, PE

Northside WWTP Effluent Force Main / Directional Drill

Wilmington, NC

To provide effluent disposal for the Northside Wastewater Treatment Plant in Wilmington, NC, the Cape Fear Public Utility Authority installed 12,000 LF of 30-inch effluent force main. The project also included two 30-inch fusible PVC horizontal directional drills, 2,500 LF total length, that traveled 25 feet below Smith Creek and connected with the Northside existing effluent outfall. McKim & Creed provided construction administration and observation services, and prepared record drawings. The 30-inch effluent force main was constructed as part of the Northside WWTP expansion from 8 mgd to 16 mgd and paralleled the existing 30-inch effluent force main.

Challenges and Solutions

The route of the pipeline required crossing wetlands and environmentally sensitive areas such as Smith Creek. During design of the project, it was determined that trenchless installation would be preferable to minimize impacts to these areas and obtain the necessary environmental permits

Northside WWTP Effluent Force Main / Directional Drill: HDD drill rig used on the project.

for construction. The 2,500-foot length requirement for the directional drill was installed in two drill operations, which provided flexibility to the stage of the drill operation, and minimized the impact to sensitive areas and nearby residential areas. The Smith Creek crossing was accomplished with no impacts to surrounding wetlands or water vessel traffic on the creek.

Significance of Project

This project represents McKim & Creed's experience with design and installation of large diameter HDD in areas of environmental concern.

OWNER:

Cape Fear Public Utility Authority (CFPUA)

CONTACT:

Frank Styers, PE; (910) 332-6670; Frank.Styers@cfpua.org

KEY TEAM MEMBERS INVOLVED:

Jacob VandenBosch, PE

Tony Boahn, PE

Kevin Plemmons, PE

Nick Miguez, PLS

S&ME

River Road Force Main Replacement Project

Wilmington, NC

McKim & Creed provided engineering consultation and survey services for the replacement of the 24-inch concrete River Road force main. The 18,500 LF force main, which was originally constructed in 1974, has had previous improvements made to a 2,600 LF section. McKim & Creed provided preliminary routing analysis, design, SUE, survey and permitting services for this project, which encompassed improvements made to the remaining 16,000 LF. McKim & Creed began with completing a preliminary routing analysis to determine potential available routes for the new force main. A comparative assessment of several routing options was made based on several factors: potential costs (incurred through easement acquisitions, increased construction needs due to conflicting existing utility lines), impact to private property owners, impact on the environment, traffic control issues and permitting issues, with a final recommendation made in a technical memorandum. Subsurface Utility Engineering and a design survey, which helped identify utilities in existing road right-of-ways, were conducted in support of this effort. Full design (up through preparation of final construction documents) was furnished for the installation of approximately 16,000 LF of 24-inch force main for construction within the rights-of-way of River Road and Burnett Boulevard. Opinions of probable project construction cost for the final design documents were included, and final plans delivered to the authority ready for formal bid and award procedures. Finally, upon completion of 100% design, McKim & Creed prepared and submitted permit applications to the following agencies: NCDOT (Encroachment Agreement), NCDENR (Division of Water Quality Sewer, Division of Land Quality Erosion & Sedimentation Control and Stormwater Permits), US Army Corps of Engineers (Wetlands Nationwide Permit), Division of Coastal Management (CAMA Permit) and City of Wilmington (TRC, if applicable).

OWNER:

Cape Fear Public Utility Authority (CFPUA)

CONTACT:

Jamison Fair; (910) 332-6633; jamison.fair@cfpua.org

KEY TEAM MEMBERS INVOLVED:

Tony Boahn, PE

Kevin Plemmons, PE

Nick Miguez, PLS

Sean Patterson, CST Level IV

York County Catawba River Water Main

York, SC

McKim & Creed provided engineering and construction phase services in connection with the Catawba River Water Main project, which consisted of the design and construction of approximately 34,000 LF of large-diameter water main and a 12,000 gpm water booster pump station. The water main, which ranged in size from 24 inches to 30 inches, but mostly 30-inch, ultimately connected the City of Rock Hill water distribution system to the York County Eastern Water Distribution System at Highway 21 with several interconnects along the route. Other recommendations of this plan included the design and construction of a 1.5 MG elevated storage tank and water main extensions on Gold Hill Road and Pleasant Road to increase redundancy and improve the hydraulics of the distribution system.

A community outreach plan was implemented for the project in order to build consensus and present items such as project background, water main routing, and potential impacts during construction. A Preliminary Engineering Study was performed to verify recommendations from a previously prepared feasibility study, to develop transmission main alternatives, to assess comparative costs of property purchases that would need to be made to facilitate given route alternatives, and to project SCADA system requirements specific to the project. Full engineering design followed, including the design of the transmission main alignment corridor, detailed plans for the water booster pump station, and all right-of-ways and permanent easements.

Notable elements of the design include an approximate 1,000

York County Catawba River Water Main

LF horizontal directional drill under the Catawba River and an approximate 500 LF bore and jack under Interstate 77. McKim & Creed also prepared necessary permit applications; conducted geotechnical, archaeological, wetland, and endangered species investigations of the project corridor; negotiated right-of-way acquisitions across 35 properties; and provided bid phase services for three separate construction contracts.

OWNER:

York County (SC)

CONTACT:

Ron Pompey, PE; (803) 818-5783;

Ron.Pompey@yorkcountygov.com;

KEY TEAM MEMBERS INVOLVED:

Jacob VandenBosch, PE

PWC US 301 Water Main Replacement

Fayetteville, NC

McKim & Creed is performing the preliminary engineering study, final design engineering, surveying, SUE, mapping, and GIS services required to replace the existing 16-inch potable water main along US Highway 301 from Elk Road to Tom Starling Road, with a new 20-inch ductile iron water main. Construction of this new water main will eliminate the existing aerial crossing and provide additional flow and pressure to the Cumberland County Industrial Park and the surrounding area.

McKim & Creed provided design for the replacement of a 20-foot aerial water main crossing of Rockfish Creek with a horizontal directional drill (HDD) crossing. The HDD crossing is approximately 1,200 LF and approximately 40-feet in depth and crosses Rockfish Creek and nearby

PWC US 301 Water Main Replacement

wetlands parallel to the NCDOT US 301 bridge. HDD was the chosen method of installation to eliminate potential environmental impacts to the creek and nearby wetlands. The HDD was designed for installation of either 24-inch SDR 9 HDPE pipe and 20-inch restrained joint ductile iron pipe. Fusible PVC was also evaluated as a potential material, but was not selected. Potential utilization of both pipe material types required separate evaluation of the pull forces and radius of curvature of each, as well as specification for pipe laydown, joining techniques, detection wires, pipe material transition fittings, etc. The pipe alignment and profile was also selected to maintain separation distances from the NCDOT bridge structure, as well as minimize the potential for drilling fluid frac-outs in the creek and adjacent wetlands areas. A HDD specification and HDD contractor qualifications were developed for the client as a special provision to their standard specifications.

Challenges and Solutions

Challenges for this project included integrating the design for two different pipe materials and utilizing available area for drilling and equipment, as well as pipe stringing, fusing, and pullback. NCDOT does not allow construction drives off of highways, and alternate access to the drill site was negotiated with NCDOT through a former road right-of-way. McKim & Creed completed design calculations for both HDPE and DIP. Ultimately, the client selected HDPE for the bid.

Significance of Project

This project showcases McKim & Creed's experience with trenchless pipeline design and installation techniques for both HDPE and ductile iron pipe. We can bring this experience to bear for the Town of Wrightsville Beach to assist in selecting the most appropriate and feasible trenchless alternatives.

OWNER:

Fayetteville Public Works Commission (PWC)

CONTACT:

John Allen, PE; (910) 223-4730; john.allen@faypwc.com

KEY TEAM MEMBERS INVOLVED:

Ben Latino, PE

Halifax River Subaqueous Sewer Force Main Crossing & Sewer Transmission Improvements PDR

City of Daytona Beach Shores, FL

McKim & Creed is providing professional engineering services to replace a failed sewer force main under the Halifax River, to extend the transmission main along Peninsula Drive to the new crossing location and improve the associated lift stations to provide a secondary connection and have a redundant system in the event of a primary failure. The river crossing will include a 1,900 to 2,700 LF by 40-feet to 45-feet deep horizontal directional drill utilizing 24-inch or 30-inch main. The drill will cross under the intracoastal waterway, be threaded around channel markers, traverse a multi-million dollar property, land in a community sports complex and marina, and stage the pipe along residential roadways. Consideration will be given to multiple materials including HDPE, FPVC, steel and FRP. The projects will also address social, environmental, site access, equipment staging, maintenance of traffic and noise concerns.

Challenges and Solutions

The proposed HDD alignment for this project runs from a 15 foot easement adjacent to a prestigious home in a high end residential neighborhood on the east bank to a high traffic community sports complex and marina on the west bank. Therefore, drilling equipment and pipe staging will be imperative to minimize noise concerns, impact to properties and maintenance of traffic. The subaqueous portion of the line will pass under the Halifax River and a navigable channel with high boat traffic so a frac-out in or around the channel could be very disruptive to local boat traffic and the environment. McKim & Creed is working closely with the City, local residents and drilling contractors to identify all the local issues and to develop a drilling design that will be successful while minimizing these concerns with the inclusion of drilling contractor pre-qualifications and selection, a staging and laydown plan, a detailed frac-out procedure, a maintenance of traffic plan and limitations on operating hours other than final pull back.

Halifax River Subaqueous Sewer Force Main Crossing & Sewer Transmission Improvements PDR: Photo of drill path from west bank looking east at Daytona Beach Shores.

Significance of Project

McKim & Creed's knowledge of the local issues, drilling concepts and contractor relationships will be invaluable in the successful completion of this challenging Halifax River crossing.

OWNER:

City of Daytona Beach Shores

CONTACT:

Fred Hiatt, Jr.; (386) 763-5365; fhiatt@cityofdbs.org

TABLE 1 - ADDITIONAL MCKIM & CREED HDD EXPERIENCE

We have listed below several HDD projects that McKim & Creed has recently performed further showcasing the depth and breadth of our experience.

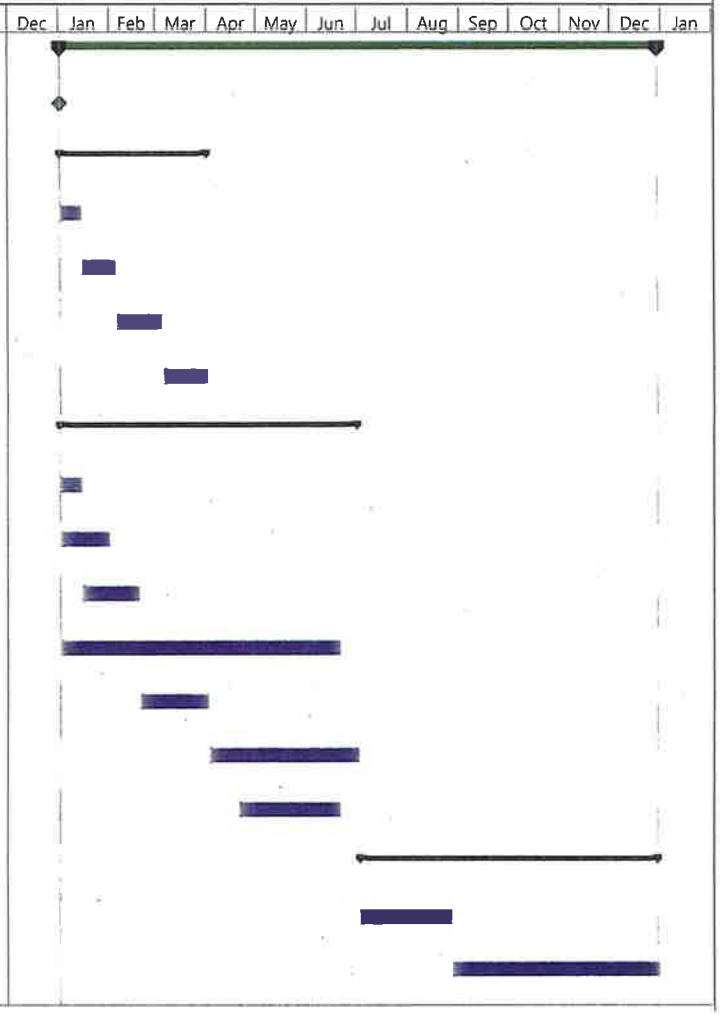
PROJECT	CLIENT	PIPE SIZE/MATERIAL/LENGTH/TYPE	CHALLENGE/SIGNIFICANCE
Thomas Humphrey Road/ Halltown Road Water Line	City of Jacksonville, NC Gregory Meshaw (910) 938-6552	12-inch/PVC/15,000 LF/Water	HDD was utilized to minimize wetland and stream impacts and permitting requirements.
Moores Chapel (Harbor House) Water Main Design	Charlotte Water Arnold Jarrell, PE (704) 391-5170	16-inch, 12-inch, 8-inch/HDPE 3,490 LF/Water	Calculations of the predicted settlement of the proposed HDD installation were submitted and approved by NCDOT in support of the variances to maximum reamed diameters.
Brunswick/New Hanover Gas Line	Piedmont Natural Gas Mara Sikora, PE (704) 731-4375	10-in/Steel/3,900 LF/Gas	Alignment of one, 1,800 LF drill had to avoid existing pump station, two force mains, roadway and bridge, wetlands/ creek, and overhead power substation and lines.
State Rte A1A Beachside Master Pump Station and Force Main	City of Palm Coast, FL Richard Adams (386) 986-2350	10-inch/5,840 LF/Sewer 14-inch/14,855 LF/Sewer	HDD under Intracoastal Waterway for connection to master pump station.
SR 681 Regional Water Main Interconnect	Sarasota County, FL Seton Katz, PE (941) 861-0897	30-in/SDR 11 HDPE/3,500 LF/ Water	Installed across FDOT I-75 right-of-way, in environmentally sensitive wetlands, and under a small water body.
Clearwater Harbor Reclaimed Water System	City of Clearwater, FL Robert Fahey, PE (727) 562-4608	4-in, 6-in, 8-in/Certalock PVC/27,500 LF/RCW	Routed through residential neighborhood at shallow depths for service connections and maintenance and had a navigable waterway bridge.
Skycrest Reclaimed Water System	City of Clearwater, FL Robert Maue, PE (727) 562-4827	16-in & 24-in/Certalock PVC/800 LF/RCW 6-in/Certalock PVC/1,597 LF/ RCW 4-in/Certalock PVC/44,579 LF/ RCW 4, 6, 8-in/Certalock PVC/52,500 LF/RCW	Project crossed an entire City by connecting east and west reclaimed water systems, including several large diameter drills and jack and bores requiring FDOT and railroad approvals. Distribution system was installed shallow for service connections and maintenance utilizing short HDD runs.
Reclaimed Water Interconnect Project	Pinellas County, FL Sandra McDonald, PE (727) 464-4068	30-in/SDR 11 HDPE/10,000 LF/ RCW	Project interconnected two municipalities.
Scotts Hill Water & Sewer District	Pender County Michael Mack (910) 259-1280	2-in to 12-in/HDPE/92,000 LF/ Water	Located adjacent to the Intracoastal Water Way, the directional drills were installed to minimize impacts to wetlands and environmentally sensitive waters.
Bragg Boulevard Water Main Replacement	Fayetteville Public Works Commission John Allen, PE (910) 223-4730	6-in/HDPE/1,500 LF/Water 6-in/Ductile Iron/5,500 LF/Water	Alignment needed to avoid existing utilities including gas, water, sanitary sewer, and power lines (overhead and underground).
Siesta Key to Casey Key Water Main	Sarasota County, FL Seton Katz, PE (941) 861-0897	10-in/SDR 9 HDPE/2,700 LF/ Water	Alignment, drill staging and easement agreements had to be attained. Protected sensitive environmental lands, intra-coastal waterway and the gopher tortoises.
Halifax River Subaqueous Sewer Force Main Crossing and Sewer Trans. Improvements	City of Daytona Beach Shores Fred Hiatt, Jr. (386) 763-5365	24-in or 30-in/HDPE, FPVC, Steel or FRP/1,900 LF to 2,700 LF/ Sewer	Drilling equipment and pipe staging will need to minimize noise concerns as well as impact to properties.
Key West to Sunset Key HDD	Mears Group, Inc. Jim Williams 832-634-2921	2,800 LF pipe bundle including: 8-inch/HDPE/Water 4-inch/FPVC/Sewer in 8-inch/ HDPE Casing (2) 6-inch/HDPE/Electrical	HDD is located in FL Keys National Marine Sanctuary. Alignment crosses cruise ship docks. Utility bundle was used to save costs on multiple drills.

DETAILED TIMELINE

We have provided a detailed schedule for the Town of Wrightsville Beach NEI design project below.

Town of Wrightsville Beach
NEI Force Main Condition Assessment & Improvements

ID	Task Description	Start Date	Finish Date
1	TOTAL PROJECT TIMELINE	Mon 1/2/17	Fri 12/29/17
2	Project Kickoff Meeting	Mon 1/2/17	Mon 1/2/17
3	**Phase 1 - Force Main Condition Assessment**	**Mon 1/2/17**	**Fri 3/31/17**
4	Coordinate and Review Ex. Information	Mon 1/2/17	Fri 1/13/17
5	Leak and Air Pocket Detection Program	Mon 1/16/17	Fri 2/3/17
6	Non-Destructive Testing	Mon 2/6/17	Fri 3/3/17
7	Preliminary Engineering Report	Mon 3/6/17	Fri 3/31/17
8	**Phase 2 - Force Main Design and Permitting**	**Mon 1/2/17**	**Fri 6/30/17**
9	Coordinate and Review Ex. Information	Mon 1/2/17	Fri 1/13/17
10	Geological Survey	Tue 1/3/17	Mon 1/30/17
11	Design Survey	Mon 1/16/17	Fri 2/17/17
12	Environmental Permitting	Tue 1/3/17	Mon 6/19/17
13	Preliminary Engineering Report	Mon 2/20/17	Fri 3/31/17
14	HDD Plans and Specifications	Mon 4/3/17	Fri 6/30/17
15	Regulatory Permitting	Fri 4/21/17	Mon 6/19/17
16	**Phase 3 - Construction**	**Mon 7/3/17**	**Fri 12/29/17**
17	Bid and Award	Mon 7/3/17	Fri 8/25/17
18	Construction	Mon 8/28/17	Fri 12/29/17



DELIVERABLES

McKim & Creed proposes the following deliverables for this project:

PHASE 1 CONDITION ASSESSMENT

- Preliminary Engineering Report

PHASE 2 FORCE MAIN DESIGN AND PERMITTING

- Permit Submittals
- Geotechnical Engineering Report
- Preliminary Engineering Report
- Detailed Plans and Specifications

PROOF OF INSURANCE AND DISCLOSURE OF ANY LITIGATION

McKim & Creed is currently (and has been over the past five years) involved in a limited number of legal claims. McKim & Creed is confident in its ability to successfully defend, or settle on favorable terms, all such outstanding claims. Furthermore, for the protection of McKim & Creed and its clients, McKim & Creed always maintains a comprehensive insurance program which includes professional liability, workers' compensation, comprehensive general liability, automobile and umbrella policies, with limits sufficient to cover the defense and payment of all outstanding claims against McKim & Creed. In the opinion of McKim & Creed's management, no claim or lawsuit currently pending against McKim & Creed will materially affect McKim & Creed's ability to perform this project.

ACTIVE LITIGATION

1) Page v. City of Safety Harbor – Claim based on contractor's failure to reinstall a sewer line to a customer's house during a renovation of the sewer line. Indefinite stay has been granted while Plaintiff pursues claims against contractor. Monetary values to be determined.

LITIGATION IN THE LAST FIVE YEARS

- 1) New Bern Riverfront Development v. Weaver Cook Construction et al; - Third party claim based on defective construction with ancillary allegations that could relate to design. Resolved in 2014.
- 2) Town of Hope Mills v. Crowder Construction et al – claim for construction defects and design errors relating to the draining of the Hope Mills Lake. Lawsuit was resolved in 2014.
- 3) William C. Mann v. M. Dale Swiggett – 3rd part claim in a libel/slander matter. McKim & Creed has been dismissed from the lawsuit in 2012.
- 5) Carolina Meters v. McKim & Creed – small collection matter settled in 2014.
- 6) McKim & Creed. V. AxVantage – ongoing collection matter filed in 2013.
- 7) URMC v. McKim & Creed – ongoing collection and licensing matter filed in 2013

Client#: 216019 20MCKIMCRE

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/24/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
BB&T Insurance Services, Inc.
Post Office Box 13941
Durham, NC 27709
919 281-4500

CONTACT NAME: Debbie Church
PHONE (A/C, No, Ext): 910-772-3720 FAX (A/C, No): 888-746-8761
E-MAIL ADDRESS: dschurch@bbandt.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Charter Oak Fire Insurance Comp	25615
INSURER B: Travelers Property Casualty Co	25674
INSURER C: Farmington Casualty Company	41483
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
McKim and Creed Inc
1730 Varsity Dr Ste 500
Raleigh, NC 27606-2689

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR	X		8302G091871COF16	09/05/2016	09/05/2017	EACH OCCURRENCE	$1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
							MED EXP (Any one person)	$10,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [X] LOC						GENERAL AGGREGATE	$2,000,000
							PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS / SCHEDULED AUTOS X HIRED AUTOS / X NON-OWNED AUTOS	X	X	8102G113498TIL16	09/05/2016	09/05/2017	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
B	X UMBRELLA LIAB / X OCCUR	X	X	CUP3G377649TIL16	09/05/2016	09/05/2017	EACH OCCURRENCE	$10,000,000
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$10,000,000
	DED / X RETENTION $10000							$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N / N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		X	UB4142T725	09/05/2016	09/05/2017	X PER STATUTE / OTH-ER	
							E.L. EACH ACCIDENT	$1,000,000
							E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER
For Information Purposes Only

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Client#: 292011 80MCKIMCRE

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/08/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
BB&T Insurance Services, Inc
3318 West Friendly Ave.,
Ste. 400
Greensboro, NC 27410

CONTACT NAME: Jenny Fisher
PHONE (A/C, No, Ext): 804 678-5025 FAX (A/C, No): 888-751-3010
E-MAIL ADDRESS: jjfisher@bbandt.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: XL Specialty Insurance Company	37885
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
McKim & Creed Inc.
1730 Varsity Drive #500
Raleigh, NC 27606

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE / OCCUR						EACH OCCURRENCE	$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / PRO-JECT / LOC						GENERAL AGGREGATE	$
							PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS / SCHEDULED AUTOS HIRED AUTOS / NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident)	$
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED / RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? / N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE / OTH-ER	
							E.L. EACH ACCIDENT	$
							E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Professional Liability			DPR9808035	09/05/2016	09/05/2017	$5,000,000 Per Claim $7,000,000 Aggregate	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
If contract is awarded, contact the above Insured for a Certificate of Insurance

CERTIFICATE HOLDER
FOR PROPOSAL ONLY
McKim & Creed, Inc.
1730 Varsity Drive #500
Raleigh, NC 27606

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
K Blanchard

PRELIMINARY COST PROPOSAL

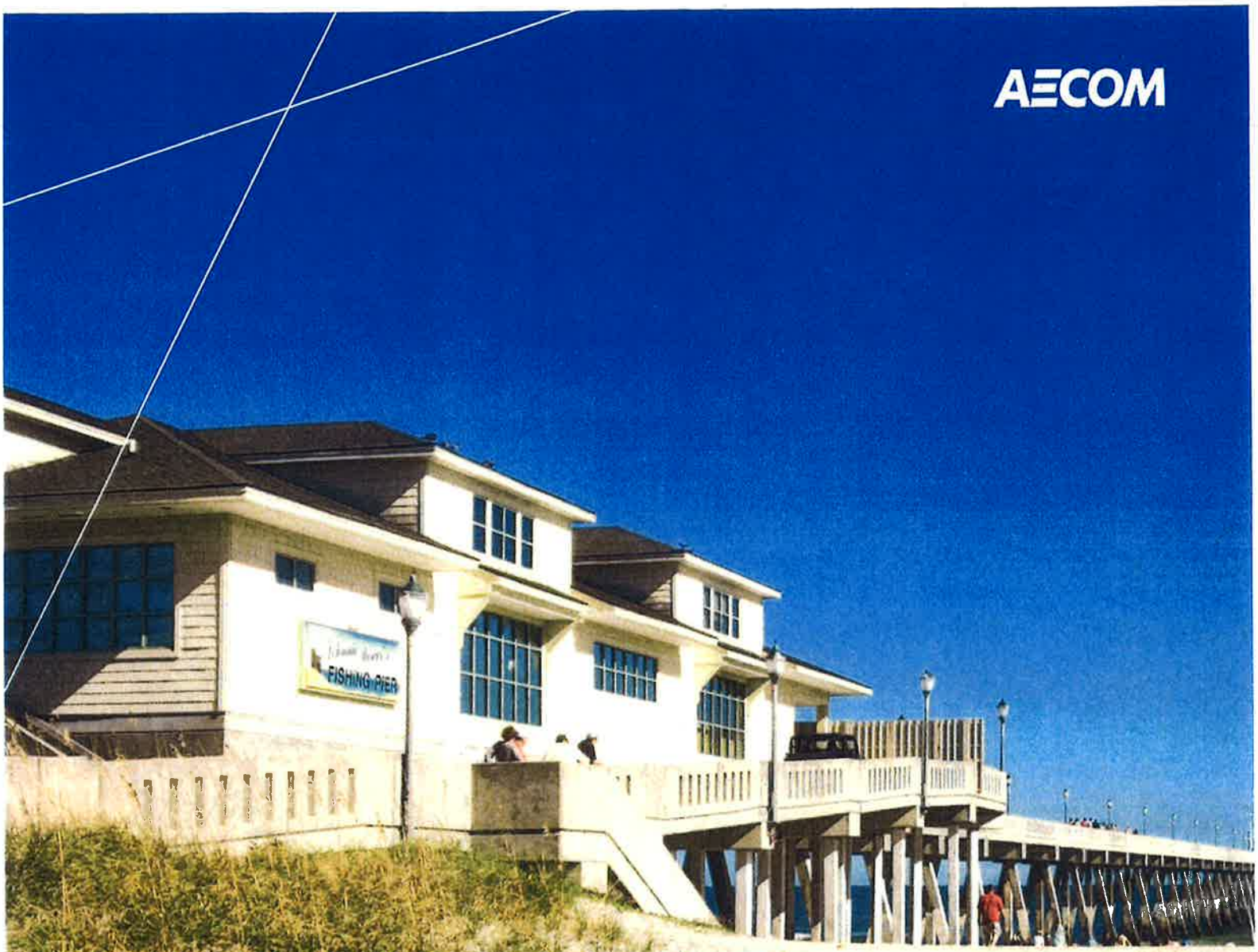
McKIM&CREED

2016 SCHEDULE OF HOURLY RATES

Employee Classification	Per Diem Rates (Fee/Hour)
Engineering	
Principal	$270.00
Engineering Manager	$235.00
Project Manager III	$200.00
Project Manager II	$180.00
Project Manager I	$168.00
Technical Specialist	$245.00
Project Engineer IV	$195.00
Project Engineer III	$180.00
Project Engineer II	$145.00
Project Engineer I	$132.00
Engineer Intern	$120.00
Land Planner	$119.00
Designer IV	$140.00
Designer III	$123.00
Designer II	$113.00
Designer I	$88.00
Sr. CAD Technician	$80.00
CAD Technician	$66.00
Sr. Project Administrator	$96.00
Project Administrator	$83.00
Administrative Assistant	$67.00
Construction	
Construction Administrator III	$140.00
Construction Administrator II	$132.00
Construction Administrator I	$111.00
Project Representative III	$132.00
Project Representative II	$111.00
Project Representative I	$91.00
Field Services	
Field Technician I	$77.00
Field Technician II	$103.00
Field Services Manager	$123.00

Employee Classification	Per Diem Rates (Fee/Hour)
Surveying	
Sr. Surveyor/Project Manager III	$210.00
Sr. Surveyor/Project Manager II	$190.00
Sr. Surveyor/Project Manager I	$153.00
Project Surveyor	$120.00
Sr. Survey CAD Technician	$98.00
Survey CAD Technician	$83.00
Survey Technician	$76.00
Survey Field Supervisor	$93.00
Project Coordinator	$108.00
Field Survey Party (1 Person Crew)	$95.00
Field Survey Party (2 Person Crew)	$135.00
Field Survey Party (3 Person Crew)	$190.00
Subsurface Utility Engineering	
Utility Engineering Sr. Project Manager	$197.00
Utility Engineering Project Manager	$165.00
Utility Engineering Technician I	$70.00
Utility Engineering Technician II	$82.00
Utility Engineering Analyst	$93.00
Utility Engineering Specialist	$124.00
Utility Engineering Party (2 Person Crew)	$150.00
Geospatial Information Systems	
GIS Specialist	$108.00
GIS Technician II	$87.00
GIS Technician I	$70.00
LiDAR Field Technician	$82.00
LiDAR Technician I	$75.00
LiDAR Technician II	$100.00
LiDAR Technician III	$118.00
Photogrammetrist	$140.00
Hydrographic Surveying	
Hydrographic Specialist I	$88.00
Hydrographic Specialist II	$98.00

Rates are valid through December 31, 2016.



AECOM

Statement of Qualifications for Consultant Engineering Services

To Assess the Current Condition of the Town's Only Sewer Connection to Cape Fear Public Utility Authority and Located Under the Intracoastal Waterway and Complete Engineering and Permitting of a Duplicate Sewer Line Connection

Town of Wrightsville Beach, North Carolina
November 1, 2016

AECOM
201 N. Front Street
Suite 509
Wilmington, NC 28401
www.aecom.com

910 763 8063 tel
910 763 8289 fax

November 1, 2016

Sewer Force Main Condition Assessment, Engineering, and Permitting RFQ
Attn: Town Manager
Tim Owens
Post Office Box 626
Wrightsville Beach, NC 28480

Re: Request for Qualifications for Consultant Engineering Services to Assess the Current Condition of the Town's Only Sewer Connection to Cape Fear Public Utility Authority and Located Under the Intracoastal Waterway and Complete Engineering and Permitting of a Duplicate Sewer Line Connection

Dear Mr. Owens,

Our AECOM Technical Services of North Carolina, Inc. (AECOM) team is pleased to submit the enclosed Statement of Qualifications (SOQ) to Wrightsville Beach. The AECOM team is locally-based with national expertise to meet the significant issues and challenges of the project. Below is an executive summary of our approach that our team will take to fulfill the goals and objects of the project and the Town.

Executive Summary of AECOM's Approach

Topic	Actions by AECOM
Force Main Condition Assessment and Recommendations	Conduct a condition assessment of the existing force main including desktop analysis of force main records, exterior investigation of pipe material degradation, interior investigation of pipe degradation, summarize results, recommendations, and costs in a Technical Memorandum.
Redundant Force Main Alignment Alternatives	Conduct a routing analysis for the optimal location of a redundant force main, including surveying of route corridors, geotechnical investigations, summarize results, recommendations, and costs in a Technical Memorandum.
Force Main Design and Permitting	Provide design documents based on Condition Assessment and Alignment Alternatives of improvements to existing force main pipe as well as plan and profile for new redundant force main pipe. New force main would include a trenchless installation under ICW. Design documents will be prepared and submitted for Town review and consideration, as well as submitted to applicable permitting agencies for approval.
Force Main Bidding and Construction	Finalize design documents for bidding purposes, assist Town during Bidder Pre-Qualification Phase and Bidding Phase, provide Construction Administration and Inspection services as needed, provide record drawings based on the design.

We would appreciate the opportunity to meet with you and further explain our project approach and qualifications.

Sincerely,
AECOM Technical Services of North Carolina, Inc.

Rick Prosser, PE, CFM
Vice President
Mid-Southeast Area Business
Unit Leader - Water

Steve Thomas, PE, LEED AP
Project Manager
stephen.b.thomas@aecom.com
910.667.2389

Statement of Qualifications and Level of Experience

Statement of Qualification

AECOM is an integrated professional services firm positioned to design, build, finance, and operate infrastructure assets around the world for public and private-sector clients. AECOM was founded in 1990 and some of our predecessor firms date back more than 110 years.

With nearly 100,000 employees in 150 countries around the world, AECOM brings global expertise through our Wilmington and Morrisville, North Carolina offices. That depth of expertise will be leveraged by our local team that has helped municipal, Federal, and private organizations manage growth through the planning, design, and construction of reliable infrastructure.

Our team for this project consists of:

- Local and internationally recognized staff experienced with force main assessment and rehabilitation.
- Local and internationally recognized staff experienced with complex horizontal directional drilling of critical infrastructure.
- Engineers with extensive experience in assessing, designing, developing cost estimates, and permitting, along the North Carolina coast.
- Construction managers, experienced in all aspects of cost estimating, bidding, resident inspection, and contractor management.

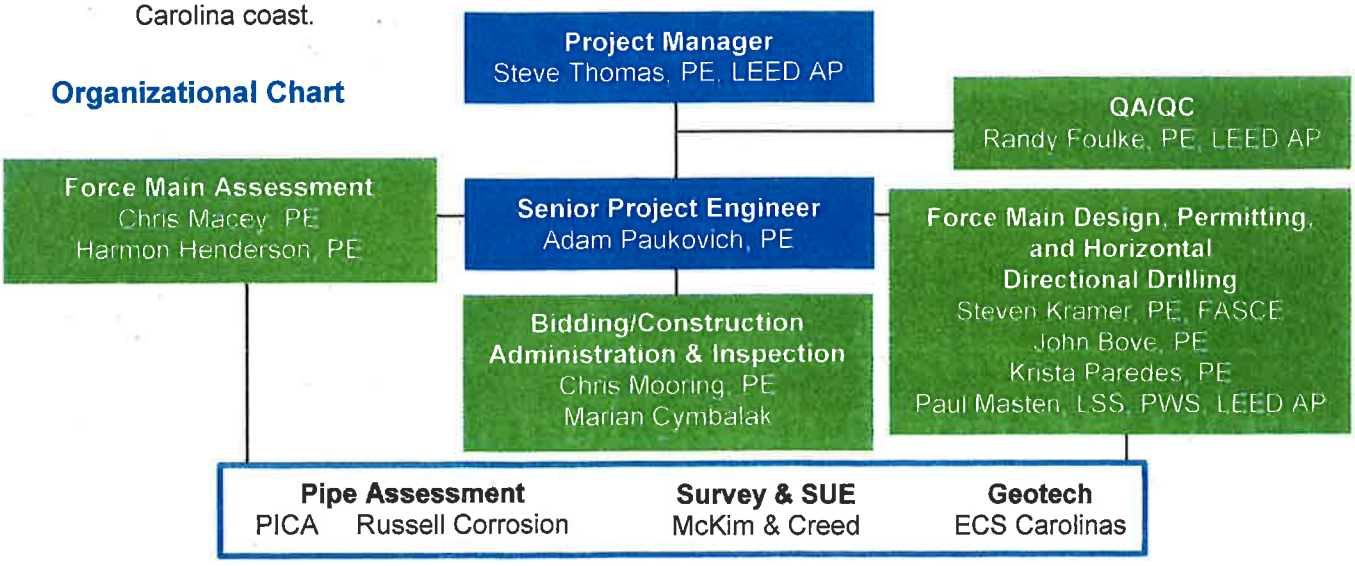
Key Personnel

Our water team has a strong local presence and more than 40 years of experience in this region. Between our Wilmington and Morrisville/Raleigh offices, our AECOM team has the local resources of over 300 employees to support our local project team assist the Town. We will manage this contract from our Wilmington office located a short drive from the Town's offices and project site. Steve Thomas, Senior Project Manager from our Wilmington office, will have overall project management authority. This local presence will allow us to provide timely, responsive service to the Town.

Our team provides the depth of experience and the expertise required to meet the significant issues and challenges of this project. Our staffing approach will help us deliver projects on time and within budget for Wrightsville Beach, as well as respond to meet the Town's needs based on the location of our qualified personnel.

The resumes of key personnel are found on the following pages.

Organizational Chart



Resumes of Key Staff

Steve Thomas, PE, LEED AP

Project Manager
Education: BS/Civil Engineering

Steve is located in AECOM's Wilmington office and has over 18 years of civil design experience on interdisciplinary teams, is well-versed in permitting procedures, and has an excellent rapport with both local and regional reviewers in the Triangle and Eastern North Carolina. His varied project management experience gives him a wide skill set, especially in planning and design, as well as client/team coordination, with special emphasis on communication and team-building.

- HDD experience within New Hanover County.
- Managed and/or served as the task lead on numerous water distribution, sewer collection and conveyance, pump station, and wastewater facility design and construction projects.
- Serves as the Client Account Manager for a variety of clients including Cape Fear Public Utility Authority, and the City of Wilmington.

Randy Foulke, PE, BCEE, LEED AP

Senior Engineer (QA/QC)

Education: BS/Biological Engineering

Randy has over 45 years of experience in the planning, design and construction of wastewater collection systems in 14 states, including NC. He has over 26 years of experience wastewater facilities in the greater Wilmington area. Randy has extensive experience in permitting of new construction in coastal areas of NC. His experience includes trenchless design and construction experience in NC, including under the ICW. Randy has been in responsible charge of design of some of the largest wastewater collection systems in NC.

- Senior technical engineer for the 4,200 LF HDD installation of water and wastewater pressure pipelines for Brunswick County at Sunset Beach under the ICW.
- Senior technical engineer for a 1,800 LF HDD installation of an 18-inch wastewater force main at Fort Bragg for Old North Utility Services, and replacement of 15,000 LF of existing force main.

Adam Paukovich, PE

Senior Project Engineer
Education: BS/Civil Engineering

Adam has over 14 years of experience in the planning, design, and construction of municipal, industrial, and Federal water and wastewater infrastructure, and is currently serving as a Senior Water / Wastewater Project Engineer in the Morrisville office. Adam is also PACP certified.

- Task Lead for the design and construction of the HDD of a new force main and redundant water main under the Intracoastal Waterway in Sunset Beach.
- Performed numerous condition assessments on existing water and wastewater pipeline networks and facilities.
- Adam has managed and/or served as the task lead on numerous sewer collection and conveyance, pump station, wastewater facility, and water distribution assessment, design, and construction projects.
- Project experience includes the planning, design, and construction of over 300,000 feet of water/wastewater pipelines ranging from 2" to 24" in diameter and the rehabilitation, replacement, and new installation of over 30 lift stations ranging from 25 GPM to 14.5 MGD in NC, SC, NY, and NJ.

Chris Macey, PE

Senior Engineer
(Force Main Assessment)

Education: BSc/Civil Engineering

Chris is recognized as AECOM's North American Technical Practice Leader for Condition Assessment and Rehabilitation of water / wastewater pipelines. Chris has over 40 years of experience carrying out numerous condition assessments of pressurized pipelines, including force mains, using both traditional and advanced technologies. Chris is also PACP, MACP, and LACP certified.

- Lead Engineer on complex condition assessment projects using advanced imaging and remote sensing techniques to assess pipes up to 120" in diameter.
- Co-Authored the current North American Society of Trenchless Technology (NASTT) Cast-In-Place Pipe (CIPP) Best Practices Course and recently released CIPP Best Practices Guidelines

Resume Table

Name & Education		Skills
Steven Kramer, PE, FASCE Senior Engineer (HDD Expert) MSA/Management; BS/Civil Engineering; BS/Engineering and Public Policy		Steven has 34 years of experience in engineering and construction serving the infrastructure industry. He is recognized as a leader in underground and trenchless technology. Serving as project manager or design manager, Steven led the design, management, and construction of over 50 underground and trenchless projects ranging in construction values up to $800 million for municipalities, utilities, and transportation authorities. For bringing creative cost-saving solutions, many of Steven's projects have won awards such as the 1999 and 2003 Trenchless Projects of the year.
John Bove, PE Senior Geotechnical Engineer MS/ Geotechnical Engineering; BS/Civil Engineering		John has over 30 years of experience in Geotechnical Engineering projects throughout the eastern United States. John is experienced in leading and managing geotechnical subsurface investigations with results and recommendations used for the design of water and wastewater pipeline and facility construction, including geologic regions along the NC Coast, including geotechnical analysis for pipeline design
Krista Paredes, PE Project Engineer MSE/ Environmental Engineering; BS/Civil Engineering		Krista is a Water / Wastewater Engineer, as well as the Water / Wastewater CAD Manager. She is responsible for all water / wastewater CAD drafting practices, as well as providing design services for multiple municipal, Federal, and private water / wastewater projects. Krista has over 8 years of experience working on site civil, distribution / collection system, and lift station projects. Project Engineer on the design and construction of the Sunset Beach Water Main Second Feed. Krista is PACP Certified.
Harmon Henderson, PE Mid Project Engineer BS/Civil Engineering		Harmon is a project engineer with over 12 years of experience providing water, wastewater, and stormwater consulting services to clients in the municipal, Federal, and private sectors. He specializes in feasibility studies, asset management and condition assessments, system rehabilitation, and regulatory compliance. He has conducted studies and design projects at facilities throughout the United States, Puerto Rico, Asia, and East Africa. Task Lead on the Force Main Assessment Project for the City of Raleigh. Harmon is PACP, MACP, and LACP Certified.
Chris Mooring, PE Project Engineer BS/Civil Engineering		Located in our Wilmington office, Chris has over 9 years of experience as a Civil Engineer/Designer in the design, permitting, bidding, and construction administration and inspection of a variety of civil infrastructure projects. Chris has managed large and complex construction inspection programs/projects for water distribution and storage, wastewater collection, and water / wastewater treatment facilities.
Marian Cymbalak Construction Technician BS Equivalent/ Civil Engineering		Marian has over 35 years of experience in the design, bidding, cost estimation, and construction administration and inspection of large civil infrastructure projects. Marian's extensive experience is a proven value as he performs constructability reviews and through cost opinions on a variety of complex infrastructure design projects. He is currently serving as the Resident Project Inspector, Constructability Consultant, and Cost Estimator.
Paul Masten, LSS, PWS, LEED AP Mid Project Scientist BA/ Environmental Science		Located in our Wilmington office, Paul is a Lead Environmental Consultant with a valuable understanding of environmental and natural resource permitting requirements for infrastructure projects in the public, institutional, and private sectors. He has a strong working knowledge of North Carolina environments, particularly in the coastal region and has developed respected relationships with local and regional regulatory personnel through many field visits, project meetings, and permit applications.

ESC Carolinas, LLP	With an office in Wilmington, NC, ECS Carolinas, LLP is a premier provider of geotechnical engineering, construction materials testing, environmental consulting and facilities engineering services across the Carolinas, Tennessee, Georgia and Alabama. With more than 430 employees and over 25 years of experience, ECS is equipped to help projects from conception through conservation for both the private and public sectors.
McKim & Creed	McKim & Creed is an employee-owned firm, with an extensive history in NC projects. McKim & Creed utilizes the latest survey/mapping technologies, equipment, and techniques to produce accurate surveys in a timely, cost-effective manner. Their comprehensive Geomatics Division is heavily invested in LiDAR, Unmanned Aircraft Systems (UAS), SUE, Hydrographic, GIS, and Conventional Land Survey services, supporting data collection and field services for public and private markets. With a focus on quality control, they are committed to ensuring client satisfaction.
PICA	PICA provides "Direct Condition Assessment (DCA)" of pipelines through the use of in-line inspection (ILI) tools. Using their unique patented technology, PICA provides accurate measurements of remaining wall thickness in cast iron, ductile iron, and steel pipelines. Using electromagnetic technology, PICA's tools have equal sensitivity to wall loss regardless of whether it is on the inside or outside of the pipe and can "see" through liners, scale and tubercles to detect graphitization and pitting, erosion and cracks.
Russell Corrosion	Russell Corrosion Consultants, Inc. is a certified woman owned and operated small business (WOSB). Their team consists of individuals who have dedicated their careers to Corrosion Control Services. Russell Corrosion consists of professionals who have been recognized by the National Association of Corrosion Engineers (NACE) for outstanding contributions to the field of corrosion engineering.

PACP Certification of AECOM Staff

In 2014, 13 of our AECOM NC staff received their certification or recertification in the Pipeline Assessment Certification Program© (PACP©) of the National Association of Sewer Service Companies (NASSCO). Our North Carolina staff have completed over thirty pipeline evaluation projects. With our unparalleled capacity we look forward to expanding our service to meet the Town's infrastructure rehabilitation and asset management needs.

Chris Oliver, Tyler Goff, Kristen Pierce, Kyle Butcher, Krista Paredes, Harmon Henderson, Patty Chandley, Perry Gayle, Mary Brice, Adam Paukovich, Joe Langston. Not pictured: Tammy Wehking and George Galambos

Project Understanding

Our AECOM team is enthusiastic about the opportunity to work on this unique and important project. The Town of Wrightsville Beach has identified that their single force main, which conveys all wastewater to the Cape Fear Public Utility Authority, is a source of environmental and economic risk and it is time to evaluate and mitigate that risk. The Town wishes to both assess the condition of the existing force main and construct a redundant force main. Construction of a redundant force main is a wise improvement which provides both capacity and resiliency to the existing system. Assessment of the existing force main will serve to determine the useful life remaining in the pipe which, in turn, will inform the urgency of rehabilitation of the existing main and construction of the redundant main. Both the assessment project and the new force main project include complex challenges such as the lack of inventory data and the busy pipeline corridor and waterway crossing. Our AECOM team excels in complex challenges of this nature and we look forward to sharing with you our expertise in these highly specialized fields of study and design so that the Town feels confident that it will receive long-term and technically sound solutions

Approach

We cannot emphasize enough that this type of work is highly specialized, and the Town needs an experienced firm with a local office that can provide the high-level of expertise required for a successful project. Since a variety of challenges will arise during the condition assessment phase and the redundancy construction phase, it is imperative that the engineering team have the proper experience and expertise so the correct analysis and evaluation tools are used and that the final result meets the Town's expectations.

We envision two major tasks which could be performed simultaneously: Condition assessment of the existing force main and planning and design for a parallel force main. We have the capacity and expertise to dedicate a separate design team to each of these tasks so that they may proceed together. The results of the condition assessment will be helpful in planning a timeline for construction of the parallel and rehabilitation of the existing force main.

Task I – Condition Assessment of Existing Force Main

The primary objectives for force main condition assessment have been identified as:

- Develop a strategy for assessing the force main connection from the Town's pump station to the existing CFPUA connection
- Perform the condition assessment
- Develop recommendations for deficiencies, concerns, and rehabilitation, as required

AECOM recommends employing a risk based approach for assessing the condition of the force main. This approach incorporates the science of material degradation and the various means of detecting deterioration with the risk of failure and economics so the appropriate level of condition assessment is carried out. AECOM has successfully implemented risk based condition assessment techniques on force mains across North America.

Our technical approach is a staged approach that carefully:

- Categorizes the exposure environment in a manner that facilitates understanding the vulnerabilities of the system
- Screens for deterioration drivers
- Quantifies risk and uncertainty of condition to develop a focused data capture plan commensurate with the risk and appropriately matched to cost effectively close the gap between exposure and uncertainty at each stage
- Carries out staged assessments of condition using a variety of analytical techniques and innovative tools
- Iterates this process to advance understanding and minimize risk exposure
- Stops when an appropriate level of understanding has been obtained to make informed decisions – eliminating expense due to unnecessary assessments

Categorizing Inventory and Exposure Environment

Our first objective is to learn as much as possible about the existing pipe and the environment that the interior and exterior of the pipe experience. Through interviews and records reviews we hope to discover institutional knowledge and construction documents that will reveal:

- Pipe types, wall thicknesses, manufacturing standards, coating information
- System profiles, operating pressures, pump settings
- As-built documents and any available GIS data

This inventory information is invaluable for assessing vulnerabilities of the force main before we consider the use of more advanced condition assessment tools. It will be important to understand not only the force main, but connecting infrastructure as well. Additional information on the force main and connecting infrastructure installed by legacy utilities of the current utility operators will be investigated.

The exposure environment is more "low-hanging fruit" that aids our understanding of vulnerability. Marine soils, a saltwater environment, and tidal influences are environments known to be corrosive to the exterior of ductile iron pipe (DIP) and accelerate the deterioration of cement-based pipes. Once the pipe type is determined, we will immediately know more about the likelihood of external deterioration from the exposure environment.

If the available information cannot precisely provide a location, depth, diameter, or material of the force main, then subsurface utility engineering (SUE) will be conducted by our subcontractor, McKim & Creed. McKim & Creed is an employee-owned Geomatics firm, with an extensive history of working on Wilmington-area projects using the latest survey/mapping technologies, equipment, and techniques.

Screening for Deterioration Drivers and Initial Assessments (Desktop Assessment)

Once we know more about the originally installed pipe and the operating conditions to which it is exposed, then we are able to perform a desktop assessment of the system to further our understanding of the deterioration factors without deploying costly and risky invasive tools.

For example, transient modelling can help us understand where air pockets will likely form within the force main based on the original design. Air pockets facilitate hydrogen sulfide gas formation, which can rapidly break down cementitious linings and ferrous metals. While there are a number of advanced tools to facilitate air pocket detection, this process is expensive and often results in selection of the wrong tool for detection. Transient analysis is also a critical tool to fully understand the most common reason for premature failure of PVC force mains, which is fatigue. Understanding the cyclic loading on PVC force mains before the fatigue limit is reached allows for a modified operating strategy that can usually achieve a much longer useful life.

Quantifying Risk, Deploying Innovative Tools, and Developing a Focused Condition Assessment Plan

Quantifying risk and mapping the more advanced field assessment is a classic Risk Assessment exercise. We use initial assessments of condition and a simplified consequence model to determine the most appropriate techniques for force main assessment.

High failure consequence portions of the force main need to have their condition understood with greater clarity; however, the cost of continuous measurement using advanced electromagnetic tools can run in excess of $250/foot (in 14"-30" pipes). Therefore, a thorough assessment of failure consequence and likelihood of deterioration is required prior to making that investment. In such cases, the use of a screening tool, such as Pure's SmartBall™ with electromagnetic (EM) capability may be advisable. Benefits of this tool include:

- Cost effective deployment at $10-$20/foot
- Detection of pipe segments with higher stress signatures (does not quantify the degree of deterioration)
- Provides cost effective guidance on where and where not to apply more advanced assessment methods for ferrous metal pipes
- Informs staged use of continuous measurement tools versus intelligent spot excavations
- Allows for balanced use of visual and non-destructive testing methods such as ultrasonic thickness measurements

By carefully staging condition assessment in this manner, we can help the Town build on each layer of information, assuring that the correct techniques and tools are matched to the correct problems. As a result, the correct amount of money will be invested in the condition assessment process, an amount commensurate with the true risk exposure. At the conclusion of the Desktop Assessment, our technical team will deliver a report summarizing the results and proposing specific strategies for the cost effective staged condition assessment.

Delivering a Strategy, Evaluating Risk, and Developing Recommendations

During the staged condition assessment, our technical team will analyze the condition assessment output and deliver a summary report to the Town highlighting the results and indicating areas of concern. The team will draw support from Quality Assurance staff to validate the assessment results. The summary will detail areas where there are apparent defects, deterioration, or other signs of failure and indicate if any additional assessment work is required or recommended. The output of the assessments will likely influence the Likelihood of Failure Ratings derived from the Desktop Assessments. We will work with the Town to fully understand their risk tolerance to distinguish between assessments that warrant rehabilitation versus future monitoring of condition.

It is likely that differences in condition will exist between various sections of the force main. Recommendations will include a detailed summary of locations where the existing pipe can be rehabilitated versus removal and replacement. An alternatives analysis will be performed to evaluate the need and costs of open cut versus trenchless approaches for existing force main improvements. This analysis will include a hydraulic evaluation of the existing force main to determine if capacity has been lost due to internal reduction in the effective cross-sectional area of the pipe. This hydraulic evaluation will include discussions with the Town to determine current and future capacity needs for wastewater conveyance from the Town.

The AECOM Team has designed rehabilitation programs throughout the world as well as within Eastern North Carolina and Hampton Roads, Virginia. We will draw from that experience to make preliminary recommendations for infrastructure improvements including O&M suggestions to prolong the service life of the force main, proposed schedules for renewal or re-inspection, and recommendations for rehabilitation or replacement.

Task II – Planning and Design for a Parallel Force Main

The installation of a parallel force main is a sound practice that will provide capacity, redundancy, and overall resiliency to the Town's wastewater conveyance system. The most significant feature of a parallel force main serving the Town of Wrightsville Beach is the crossing of this force main below the Intracoastal Waterway (ICW). Our local AECOM design team has a wealth of knowledge in the design and installation requirements for force mains throughout Coastal NC, including trenchless installations below various waterways and protected environmental corridors. Proper design, including connection to the existing system, location, and construction techniques, are necessary to provide a successful project.

Design Requirements for a New Force Main

Connection to the existing system is important for preventing interruption of service during installation, and verifies that the hydraulics of the total system will not be compromised or negatively impacted.

Determination of the actual location of the route and connection of new force main to the existing infrastructure is important to balance costs, redundancy, short-term and long-term risks, operation and maintenance. The connection design is important to provide future flexibility, but also to provide continuous operation of the existing force main.

The assessment of the existing force main is important to determine what techniques can be used to tap or connect into the existing pipe. A recommendation from the assessment activities will determine what methods can be used, where the connection should be made, and how quickly the redundant force main will need to be constructed. The design needs to include a provision for emptying the force main of wastewater and pumping in clean water. This is necessary to protect the pipe or linings during extended periods where wastewater flow is not conveyed.

It will be necessary to use trenchless technology to install a new force main under the ICW. There are multiple techniques that can be used such as horizontal directional drilling (HDD), microtunneling / pipejacking, and Direct Pipe methods. AECOM has experience with all of these trenchless methods for wastewater piping systems. AECOM will investigate which technique will be advisable, but based on our project experience on trenchless installations of force mains along the NC Coast, it is likely that the use of a HDD will be used. HDD does have requirements for a successful installation. If these requirements are not met, then unexpected, significant costs to the Town would be the result. Traditionally, there are four primary factors that determine the technical feasibility of a drilling operation. These factors include:

1) Siting conditions of the installation
2) Length of the installation
3) Borehole and pipe diameter
4) Underground conditions

The HDD risk table located below, outlines the many options and relative costs associated with a variety of condition assessment detection methods and tools that are available.

General Risk Evaluation Factors for Directional Drilling Projects

Degree of Risk	Risk Factors
Low Risk	• No surrounding structures along the alignment • Entire length of the proposed route accessible from the surface • Drive lengths normal for the pipe diameter • Stable ground
Medium Risk	• Limited areas of surface access over drive length • Long drive lengths for the pipe diameter • Variable ground
High Risk	• No access from surface for majority of drive length • Drive lengths near or exceeding the maximum distance for pipe diameter • Unstable ground

Based on our reconnaissance at this proposed project site, this HDD project would fall into the Medium to High Risk Category.

Surveying

The site survey will include parcel, easement, and right-of-way boundaries, topographic information, and location of subsurface utilities. The survey will likely need to include a profile of the bottom of the ICW for the horizontal directional drilling (HDD) design, and permitting. Sub-surface engineering (SUE) may be advisable for this project due to the potential for multiple significant underground utilities. SUE will also be necessary to locate the existing force main, and determine the exterior conditions of the force main during the Assessment Task. A preliminary evaluation of the underground utilities will be made with recommendations on where SUE should be performed. The use of SUE will prevent potential surprises during construction that could lead to change orders. The AECOM team includes the Wilmington-area firm, McKim & Creed, for surveying and SUE. If easements are necessary, including the potential for a sub-aqueous easement for the pipeline crossing at the ICW, McKim & Creed will provide the necessary surveying and platting activities.

Geotechnical

It is imperative that the geological conditions be clearly understood at the project site. The geology may either dictate or recommend the depth of the HDD by lessening potential for collapse of the borehole and frack-outs. It may also determine the ease of the boring and the pullback operations. For the recent HDD at Sunset Beach for Brunswick County, AECOM successfully designed the HDD to be 60 feet below sea level. The geologic formation at this elevation was much more homogeneous for ease of construction and was much less risky to conduct operations. From the geotechnical work described above, our HDD expert, Steven Kramer, would determine the optimum depth of the HDD for the new force main, taking into consideration ease of construction, risk, safety, and costs.

Two deep bores, at either end of the HDD are required to determine the characteristics of the geology of the area. In addition, measurements and reporting of groundwater will assist in the design of the HDD and other portions of the redundant force main. This understanding will create for a more continuous and efficient drilling procedure. Depending upon the selected location of the new force main, additional borings may be required, including within the ICW and at select intervals along the proposed force main alignment. Field activities for this work will be performed by ECS' Wilmington office with AECOM personnel onsite during all drilling operations.

Construction Contractor Pre-qualification

A qualified contractor, with the proper equipment and experience, is one of the more important considerations on this project. AECOM has excellent knowledge of drilling contractors across the country and understands their capabilities. AECOM highly recommends that a pre-qualification process be used to select contractors who are appropriate for the project. During the pre-qualification process, it is essential to determine the equipment that contractors have available to them. If a contractor does not have rigs with the necessary pullback force, then the risk of failure of the installation becomes significantly higher.

A qualified contractor, with the proper equipment and experience, is one of the more important considerations on this project. AECOM has extensive experience in evaluating and selecting HDD contractors.

Issues and Challenges for Trenchless Pipe Installation

The size of the HDD, or other trenchless method used for this project, and the characteristics of the site, result in some complexities that need to be addressed for a successful project. These include the following:

- The existence of existing structures in the area requires an understanding of the attributes of the existing infrastructure and how it was constructed. The extent of the below grade and below water surface structures needs to be ascertained to prevent any conflicts that could result in delays or catastrophic results. The driving of piles can result in weakened geologic conditions that can result in a frack-out, which can impact the environment. The space requirements for drilling operations at the entry pit, and the layout area for the pipeline for pullback at the exit pit need to be considered. For this type of project an area of 15,000 to 20,000 square feet may be required at the entry pit. For pullback operations, it is usually recommended that the entire length of the pipe be assembled prior to pullback. This may require that a corridor length of 1,500 to 2,000 linear feet be available for pullback. These space requirements may require close coordination with NCDOT. Alternative trenchless installation methods may require a larger staging area, depending on the alternative. If the space requirements for pullback are an issue, the pipe can be assembled during pullback, but this usually requires equipment with more pulling power, and requires additional time for pullback operations, thereby causing greater impacts on adjacent property owners.
- The size of pipe, installation methods, and location of the pipeline impact the vertical and horizontal radius dimensions and the allowable deviation from the centerline. The design must consider these factors to comply with NCDOT requirements, the physical limitations of the pipe, and the limitations of installation equipment.
- Sophisticated techniques must be used to locate the horizontal alignment and the profile of the installed force main. AECOM is familiar with equipment that can accurately locate deep buried pipelines.
- Inclusion of pig launching and retrieval stations as part of the project should be considered. Being able to pig the line would provide the ability to clean the line, should it become necessary and perform periodic assessments, if desired.
- Selection of the size of trenchless pipe to maintain acceptable hydraulic cross-sectional area is an important consideration. Due to the pullback force, it may be necessary to specify a thicker wall pipe, which reduces the internal diameter. The pipe under the ICW may need to be larger than the remainder of the force main. If the type of trenchless pipe is different from the remainder of the force main and larger, transition couplings or fittings are necessary
- Scheduling of installation to prevent disruption to tourist season traffic needs to be considered. Timing of the installation would be coordinated with the Town to lessen these impacts.

Final Design and Permitting

The final design will endeavor to minimize conflicts with existing utilities and reduce the need for permanent easements for construction and maintenance. The specifications will provide requirements to schedule work to prevent disruption to the operations of the Town or the CFPUA. Specifications will also detail requirements of NCDOT and the Town, and requirements to coordinate work with the Town or the CFPUA as needed.

Based on the results from Task 1, AECOM will develop 30%, 60%, and 90% design documents consisting of plan and profile drawings of the redundant force main, and rehabilitation or other improvements to the existing force main. Technical specifications including the Town's Contract Documents, and cost opinions for the design would also be prepared. AECOM will schedule workshops with Town staff after each design milestone completion to provide the Town with the opportunity to review the force main plan and profile drawings, specifications, and cost opinions in order to offer comments to avoid potential issues.

Plans and specifications will be designed with consideration for protection of waterways and estuarine corridor through appropriate erosion and sedimentation control practices in accordance with State requirements. Prior and during the design phases, our AECOM Team will meet with personnel at NCDEQ, CAMA, NCDOT personnel to ensure that regulatory personnel understand the project components. AECOM and our surveyor, McKim & Creed, will work with the State to obtain a sub-aqueous easement of the force main crossing State-owned waters, should that be required. Our Team will also coordinate with local City and Town ordinances for stormwater permitting, should those permits be necessary.

Wrightsville Beach Existing Force Main Project Area Map

Based on our understanding of the project, past experience on similar projects of size and importance, and our knowledge of the local area, we've attached a map showing the approximate alignment of the existing force main, along with potential areas of concern along the proposed redundant pipeline.

FM discharge to CFPUA system

Busy street crossing

Dense commercial with numerous business entrances

Preferred route to avoid busy street intersection

Busy boat ramp and parking lot

New condo complex

Corridor for HDD of parallel FM

Town of Wrightsville Beach LS-5

Pelican Drive temporary staging area for drill rigs and drilled pipe

Project Experience

Wastewater Collection System – Vacuum Station and Force Main

Sunset Beach, North Carolina

Client
Brunswick County
Public Utilities
PO Box 249
Bolivia, NC 28422

Client Contact
Jerry Pierce, PE
910.253.2659
jerry.pierce@
brunswickcountync.gov

Project Status
Completed July 2013

Project Relevance

- HDD design and construction under ICW
- Coastal permitting challenges
- Pipeline installation in crowded street corridors
- NCDOT permitting

Summary

Services: Preliminary Engineering, Design, Permitting, Bidding, Construction Administration & Observation

AECOM legacy firm URS was contracted by Brunswick County to design the wastewater collection system for Sunset Beach, NC. Unique aspects of the project are noted below.

- Project included 108,000 LF of small diameter, low pressure collection sewer, 46,500 LF of vacuum collection sewer, and 12,900 LF of gravity sewer. Project also included installation of a 3-story, 2.16 MGD vacuum station and approximately 13,600 LF of 10-inch force main.
- Horizontal directional drill (HDD) and bore and jack technologies were selected to mitigate impacts to wetlands, streams, and coastal marshes. Project included the use of a 4,200 LF HDD under the Intracoastal Waterway (ICW), utilizing fusible PVC. Permit negotiations with NCDOT for this project resulted in fusible PVC being an acceptable technology with NCDOT statewide.
- Engineering, environmental, feasibility, and cost analyses were performed to evaluate and select technology for providing service to approximately 2,900 residential properties, primarily single family, and approximately 25 commercial and institutional properties. Multiple technologies were selected for implementation resulting in approximately $10M in capital cost savings, and approximately $100K per year in operational cost savings.
- Significant areas of wetlands, streams, ponds, and coastal marshes existed in the project area, necessitating the selection of pipeline alignment that would minimize impacts, reduce capital costs, and expedite permitting.
- Project utilized multiple funding mechanisms, including American Recovery and Reinvestment Act (ARRA) and SRF Principal Forgiveness Loans. Use of ARRA funds required expedited permitting with permit times reduced as much as 75% with some regulatory agencies.

Team: Randy Foulke, Adam Paukovich, Marian Cymbalak

Water Distribution System – Water Main Second Feed

Sunset Beach, North Carolina

Client
Brunswick County
Public Utilities
PO Box 249
Bolivia, NC 28422

Client Contact
Barry Guise, PE
910.253.2460
barry.guise@
brunswickcountync.gov

Project Status
Completed
September 2013

Project Relevance

- HDD design and construction under ICW
- Coastal permitting
- NCDOT permitting

Summary

Services: Design, Permitting, Bidding, Construction Administration & Observation

AECOM legacy firm URS was contracted by Brunswick County to provide design, permitting, bidding, and construction administration services for a redundant water main feed to the Island portion of the Sunset Beach community.

- The project included 4,200 LF of 12-inch HDD fusible PVC water main under the Intracoastal Waterway and adjacent marshland. Project also included open cut of new water main for wet tapping of the existing water mains on both ends of the drill.
- Developed a driller pre-qualification package and process that gave the County a strong level of confidence in the drilling subcontractor that would lead this effort.
- Complex permitting with NCDOT for Encroachment Agreement, NCDEQ Public Water Supply Section for acquiring approval of permitting the use of fusible PVC for water distribution, and the NC Department of Administration for acquiring a sub-aqueous easement.
- Project was awarded to AECOM (URS) due to the strong performance during the design through construction of the Sunset Beach force main HDD installed the previous year.
- Complex drilling path with steep ascents and descents to elevations of 50-feet below the base of the ICW.
- Design coordination with the Town and NC Division of Wildlife to ensure minimal impacts to residents, parks, and boating access and ramps.

Team: Randy Foulke, Adam Paukovich, Krista Paredes, Marian Cymbalak

Heritage Park Area Sewer Extension

Wilmington, North Carolina

Client
Cape Fear Public
Utility Authority
235 Government
Center Drive
Wilmington, NC 28403

Client Contact
Jamison Fair
910.332.6633
jamison.fair@cfpua.org

Project Status
Completed August 2016

Project Relevance

- HDD design and construction
- Force main design and construction
- Complicated permitting with NCDOT and CAMA

Summary

Services: Design, Permitting, Bidding, Construction Administration & Observation

AECOM legacy firm URS was tasked with design and permitting for the Heritage Park Area Sewer Extension in Wilmington, NC. The project included the following aspects:

- Design, ER/EID amendment, permitting, bidding, and SRF funding assistance.
- Wetland delineation.
- 16,000 LF of 8-inch gravity sewer mains, 9,600 LF of 8-inch force mains, and 15,000 LF of 2-inch to 6-inch water mains, including 2,300 LF of water main installed via HDD.
- 0.73 MGD pump station.
- Complex permitting with Infrastructure Finance Section of NCDEQ, NCDOT, CSX railroad, USACE, CAMA, and New Hanover County, including permit variance negotiations due to complicated pipeline routing corridors within close proximity to residential water wells.
- Multiple bore and jack installations under roadways, railroad, and wetlands.

Team: Steve Thomas, Randy Foulke, Adam Paukovich, Chris Mooring, Marian Cymbalak, John Bove, Krista Paredes

Force Main Evaluation

Virginia Beach, VA

Client
City of Virginia Beach
Public Utilities Engineering Division
Municipal Center Building 2
2405 Courthouse Drive
Virginia Beach, VA 23456

Client Contact
Katherine A. Nixon, PE
Project Manager
757.385.4171
knixon@vbgov.com

Project Status
2010-Current

Project Relevance

- Force main condition assessment
- Condition assessment under we areas
- Corrosion survey
- Pipeline inspection and condition analysis

Summary

Services: Force main condition assessment, developed a risk-based statistical analysis tool, and developed a Standard Operating Proceedure for pipeline breaks and evaluating the inspection and management of air relief valves.

AECOM is performing ongoing services for a Force Main Condition Assessment Program (CAP) for the City of Virginia Beach, Virginia. Our team performed comprehensive corrosion evaluation identifying potential risk areas based on pipe environment, pipeline assessment, direct assessments of ferrous and cementitious pipelines, soil analysis, ESA, GIS, corrosion surveys, and pipe break condition analysis. Coordinated the deployment of several industry-leading continuous assessment technologies. Our team worked closely with City operations staff to complete the location and marking of all 26 miles and about 450 'critical' force mains to document potential implementation issues and potential social and environmental impacts as a result of the work.

AECOM used the data generated and developed a risk-based statistical analysis tool that provides the client with a factor of safety rating for every pipe in the entire 175 mile force main inventory. Developed Standard Operating Procedure for pipeline breaks and evaluating the inspection and management of air relief valves.

Team: Chris Macey

Force Main Risk Condition Assessment and Risk Management Framework

City of Ottawa, Ontario Canada

Client
City of Ottawa
Ottawa Town Hall
110 Laurier Avenue West
Ottawa, Ontario K1P 1J1
Canada

Client Contact
Amanda Shane, MASc, MBA, PE
Project Manager, Environmental Consulting Projects
613.580.2424 ext 43937

Project Status
On-going, scheduled for 2016

Project Relevance
- Force main condition assessment
- Condition assessment under wet areas
- Multiple assessment tools

Summary

Services: risk-based condition assessment program

AECOM is developing and implementing a risk based condition assessment program for all 88 force mains in inventory in Ottawa, ON, (MSA pop. 1.2 million). Ottawa's force main inventory includes thermoplastic (PVC and HDPE), ferrous metals (ductile, cast iron and steel), cementitious (AC), and composite (PCCP) materials. In addition to physical condition, failure models and management strategies are being developed to manage hydraulic and odor control failures. The 88 force mains include pipe sizes varying from 6" through 42" and over 60 miles of pipe. The condition assessment toolbox includes a diverse array of analytical assessment tools for applied load analysis, leak detection, electromagnetic inspection and direct assessment techniques specifically tailored to optimize condition assessment for each force main.

Team: Chris Macey

High Risk River Crossing Condition Assessment

City of Winnipeg, Water and Waste Department, Canada

Client
City of Winnipeg Water and Waste Department
110-1199 Pacific Ave.
Winnipeg, MB, R3E 3S8

Client Contact
Armand Delaurier, Asset Management Branch
204.986.6636
ADelaurier1@winnipeg.ca

Project Status
Completed in 2016

Project Relevance
- Force main condition assessment
- Condition assessment under waterway
- Innovative assessment tools

Summary

Services: Advanced electromagnetic condition assessment technologies, condition assessment, risk assessment, benefit cost assessment, development of applied load models.

AECOM inspected 19 pipelines at 14 separate river crossing locations with advanced electromagnetic condition assessment technologies. The vast majority of this portion of the river crossing inventory are steel mains and the conveyance type includes wastewater siphons, sewer force mains, and water mains in diameters ranging from 10" through 31". The primary inspection technology being used is remote field eddy current (RFEC) technology and the inspection program includes risk assessments to assess the viability of each deployment, a benefit-cost assessment, the development of an applied loads model, assessment of physical condition, rationalization of failure probability, and if required, a preliminary assessment of rehabilitation requirements. The program commenced in 2012. Wastewater siphons and force mains were completed in the fall of 2015 and five water crossings remain to be inspected in 2015.

Team: Chris Macey

Technical Information & Process and Protocols used by AECOM

AECOM Internal Quality Control Procedures

All documents that are part of deliverables are subject to a Detail Check and Independent Technical Review (ITR). The ITR is a formal process, which is conducted by senior professionals who are independent of the project team and who review the document for soundness of a technical approach or result, for professional judgments made, for the correct application of complicated problem-solving techniques, for changes in the scope of a project, and for major decisions made at the planning stage or during the course of a project. ITRs are required for all subcontractor tasks and deliverables. All quality assurance activities are documented in a standardized format.

AECOM Cost Control Procedures

Through up-front project planning and effective management of our project resources during execution, we are able to control costs on projects. We accomplish this through the use of experienced cost estimators to build realistic cost estimates, standardized cost estimate and cost reporting templates, and constant budget tracking by project managers and project controls staff. For financial tracking of project performance, our cost accounting system, maintains the current status of project task budgets and costs accrued. As necessary, we proactively follow up and resolve any cost variance to ensure projects stay on budget.

Meeting Project Schedules

Preparing and adhering to a project schedule is the responsibility of the Project Manager. Steve Thomas is an experienced project manager on a variety of infrastructure engineering projects for multiple clients in the municipal, federal, and private sectors, and has been successful at meeting demanding schedules. Project Managers at AECOM undergo a rigorous internal training and certification program to provide them with the tools and knowledge to be effective and successful managers.

Previous Performance Does Indicate Future Results

AECOM has a proven track record of providing quality products on time and within assigned budgets. The best indicator of excellent performance is a satisfied client. Clients demonstrate their satisfaction most directly through awarding repeat business. AECOM has an extensive list of longstanding clients. This repeat-client history is indicative of our superior performance on past assignments. AECOM is proud of its reputation and client relationships and encourages the Town of Wrightsville Beach to contact our past and current clients to verify our technical expertise and commitment to schedule, budget, and quality.

Rate Table

Standard unit rates and fees for AECOM are provided in the table below. These rates are expected to be effective until January 1, 2017 and will be subject to escalation in line with inflation.

Labor Category	Hourly Rate
Project Manager	$195
Senior Engineer	$185
Senior Project Engineer	$150
Mid Project Engineer	$125
Project Engineer	$100
Staff Engineer	$85
Senior Geotechnical Engineer	$175
Staff Geotechnical Engineer	$65
Senior Scientist	$170
Senior Project Scientist	$125
Mid Project Scientist	$105
Project Scientist	$90
Staff Scientist	$75
Senior GIS Specialist	$135
Senior Project GIS Specialist	$110
Mid Project GIS Specialist	$95
Project GIS Specialist	$75
Staff GIS Specialist	$60

Project References

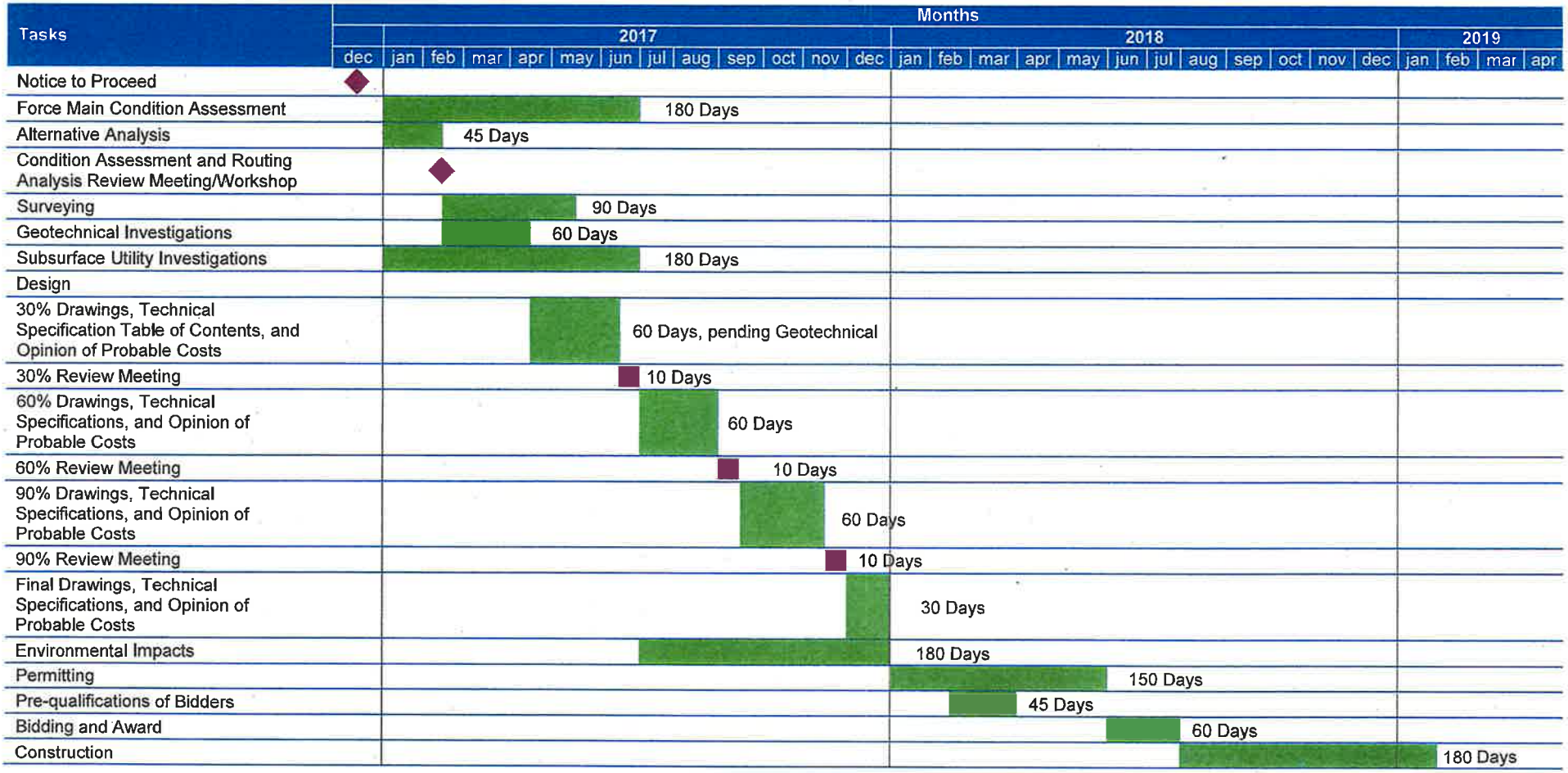
Orange Water and Sewer Authority, Carrboro, NC

Jeremy Fireline, PE, 919.537.4249 x429
Project: Historic Rogers Road Area Sewer Extension (2014-Present)

City of Raleigh Public Utilities Department, NC
Aaron Bower, PE, 919.996.3469
Project: Various projects through the City of Raleigh Public Utilities Department On-Call

Old North Utility Services, Fort Bragg, NC
Patrick Jennings, PE, 910.495.1311 x116
Project: Lift Station / Force Main 1 and 5 Rehabilitation / Replacement Design

Detailed Timeline



Note: Force main assessment is dependent upon the assessment methods used.

Deliverables

Task 1

- Force Main Assessment Recommendations Technical Memorandum
  - Including cost estimates, condition assessment, and recommended approach for rehabilitation or replacement

Task 2

- Redundant Force Main Alternative Analysis Technical Memorandum
  - Including cost estimates, redundant force main alignment alternatives, and recommended connection locations
- 30%, 60%, and 90% design drawings, specifications, and cost opinions
- Associated permit approvals from applicable agencies
- Sub-Aqueous easement plat

Task 3

- 100% design drawings, specifications, and cost opinions for bidding purposes
- Recommended bid tab and bid award
- Construction meeting minutes
- Punch lists and construction closeout documentation
- Record drawings

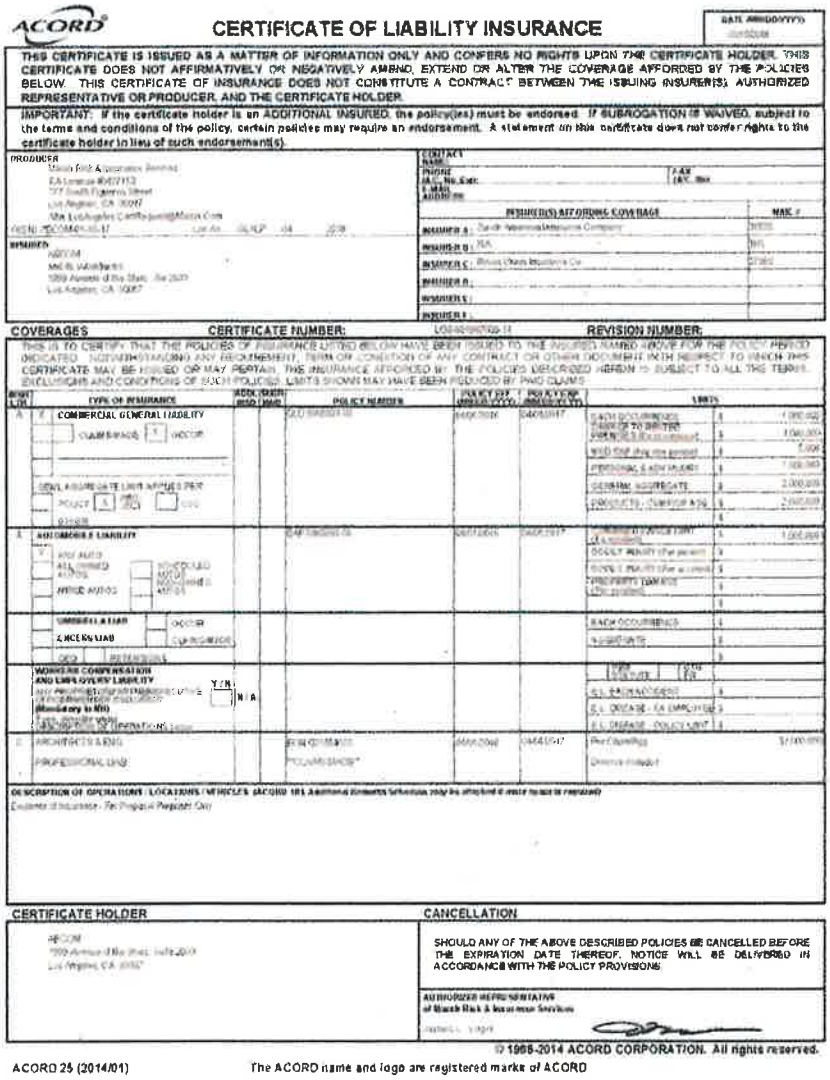
Proof of Insurance and Disclosure of Litigation

Current Litigation

AECOM Technical Services of North Carolina, Inc. is a large professional services company that executes hundreds of projects annually. As with any large service company, from time to time, AECOM is involved in claims and litigation. However, at this time there are no claims of litigation against AECOM Technical Services of North Carolina, Inc., or any of the proposal personnel of this project. We strive to avoid litigation and have a risk management program in place that includes early recognition of situations that might give rise to a claim, open lines of communication, and proactive dispute resolution. None of our current litigation could reasonably be expected to have a material adverse effect on AECOM or its ability to perform under the Contract contemplated by the proposal. If you require additional information, please contact Lusanna Ro, Southeast Region Chief Counsel, at 804-515-8567 or Lusanna.ro@aecom.com

Proof of Insurance

In the event the project is awarded, the insurance certificate will be updated to provide Wrightsville Beach as an additional insured on the General Liability policy



ACORD

CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

CONTACT NAME

PHONE (A/C, No, Ext)

FAX (A/C, No)

E-MAIL ADDRESS

INSURER(S) AFFORDING COVERAGE

NAIC #

INSURER A:

INSURER B:

INSURER C:

INSURER D:

INSURER E:

INSURER F:

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE $ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) $ 1,000,000
							MED EXP (Any one person) $ 5,000
							PERSONAL & ADV INJURY $ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE $ 2,000,000
	POLICY X PRO- JECT LOC						PRODUCTS - COMP/OP AGG $ 2,000,000
	OTHER:						$
A	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) $ 1,000,000
	ANY AUTO						BODILY INJURY (Per person) $
	ALL OWNED AUTOS						BODILY INJURY (Per accident) $
	SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident) $
	HIRED AUTOS						$
	NON-OWNED AUTOS						$
	UMBRELLA LIAB						EACH OCCURRENCE $
	EXCESS LIAB						AGGREGATE $
	DED						$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						PER STATUTE OTH-ER $
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N	N/A				E.L. EACH ACCIDENT $
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE $
							E.L. DISEASE - POLICY LIMIT $
A	ARCHITECTS & ENG PROFESSIONAL LIAB						Per Claim/Agg $1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Evidence of Insurance - For Proposal Purposes Only

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Preliminary Cost Proposal

Please refer to page 16 for the team rate table.

About AECOM

AECOM is built to deliver a better world. We design, build, finance, and operate infrastructure assets for governments, businesses, and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated, and vital. A Fortune 500 firm, AECOM had revenue of approximately $18 billion during fiscal year 2015. See how we deliver what others can only imagine at aecom.com and @AECOM.

Steve Thomas, PE, LEED AP
Project Manager
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aecom.com

TOWN OF WRIGHTSVILLE BEACH
Post Office Box 626
321 Causeway Drive
Wrightsville Beach, North Carolina 28480
(910)239-1700
FAX (910)256-7910

November 10, 2016

MEMORANDUM

To: Mayor Blair and Board Members
From: Tim Owens, Town Manager
Re: Direction on Leasing 5 Live Oak Drive (Old Fire Station)

Agenda Item

The Town has office space that could be leased at 5 Live Oak Drive. It was previously leased by Fasse Construction. The prior lease with Fasse Construction was $700 per month for one year increments. The Town can authorize a Town official to lease the property if the lease is for a year or less. If the lease if for greater than a year up to 10 years, the location and lease amount has to be advertised for 30 days following a resolution by the Board.

If order for the Town to lease the space, the Town would need to consider a text amendment to allow for Town leased office or retail space in the G1 Zoning District.

Action Items

1. Discuss the item and ask questions
2. Determine if the Town wishes to lease the space at 5 Live Oak Drive
3. If the Town does wish to lease the space, instruct staff to bring back a proposed text amendment to the G1 zoning district that will allow for Town leased office or retail space.
4. If the Town wishes to lease the space between 1 and 10 years, ask the staff to bring back a resolution to the Board to advertise the proposed leased space.

Article 12.

Sale and Disposition of Property.

§ 160A-265. Use and disposal of property.

In the discretion of the council, a city may: (i) hold, use, change the use thereof to other uses, or (ii) sell or dispose of real and personal property, without regard to the method or purpose of its acquisition or to its intended or actual governmental or other prior use. (1981 (Reg. Sess., 1982), c. 1236.)

§ 160A-266. Methods of sale; limitation.

(a) Subject to the limitations prescribed in subsection (b) of this section, and according to the procedures prescribed in this Article, a city may dispose of real or personal property belonging to the city by:

(1) Private negotiation and sale;
(2) Advertisement for sealed bids;
(3) Negotiated offer, advertisement, and upset bid;
(4) Public auction; or
(5) Exchange.

(b) Private negotiation and sale may be used only with respect to personal property valued at less than thirty thousand dollars ($30,000) for any one item or group of similar items. Real property, of any value, and personal property valued at thirty thousand dollars ($30,000) or more for any one item or group of similar items may be exchanged as permitted by G.S. 160A-271, or may be sold by any method permitted in this Article other than private negotiation and sale, except as permitted in G.S. 160A-277 and G.S. 160A-279.

Provided, however, a city may dispose of real property of any value and personal property valued at thirty thousand dollars ($30,000) or more for any one item or group of similar items by private negotiation and sale where (i) said real or personal property is significant for its architectural, archaeological, artistic, cultural or historical associations, or significant for its relationship to other property significant for architectural, archaeological, artistic, cultural or historical associations, or significant for its natural, scenic or open condition; and (ii) said real or personal property is to be sold to a nonprofit corporation or trust whose purposes include the preservation or conservation of real or personal properties of architectural, archaeological, artistic, cultural, historical, natural or scenic significance; and (iii) where a preservation agreement or conservation agreement as defined in G.S. 121-35 is placed in the deed conveying said property from the city to the nonprofit corporation or trust. Said nonprofit corporation or trust shall only dispose of or use said real or personal property subject to covenants or other legally binding restrictions which will promote the preservation or conservation of the property, and, where appropriate, secure rights of public access.

(c) A city council may adopt regulations prescribing procedures for disposing of personal property valued at less than thirty thousand dollars ($30,000) for any one item or group of items in substitution for the requirements of this Article. The regulations shall be designed to secure for the city fair market value for all property disposed of and to accomplish the disposal efficiently and economically. The regulations may, but need not, require published notice, and may provide for either public or private exchanges and sales. The council may authorize one or more city officials to declare surplus any personal property valued at less than thirty thousand dollars ($30,000) for any one item or group of items, to set its fair market value, and to convey title to the property for the city in accord with the regulations. A city official authorized under this

section to dispose of property shall keep a record of all property sold under this section and that record shall generally describe the property sold or exchanged, to whom it was sold, or with whom exchanged, and the amount of money or other consideration received for each sale or exchange.

(d) A city may discard any personal property that: (i) is determined to have no value; (ii) remains unsold or unclaimed after the city has exhausted efforts to sell the property using any applicable procedure under this Article; or (iii) poses a potential threat to the public health or safety. (1971, c. 698, s. 1; 1973, c. 426, s. 42.1; 1983, c. 130, s. 1; c. 456; 1987, c. 692, s. 2; 1987 (Reg. Sess., 1988), c. 1108, s. 9; 1997-174, s. 6; 2001-328, s. 4; 2005-227, s. 3.)

§ 160A-267. Private sale.

When the council proposes to dispose of property by private sale, it shall at a regular council meeting adopt a resolution or order authorizing an appropriate city official to dispose of the property by private sale at a negotiated price. The resolution or order shall identify the property to be sold and may, but need not, specify a minimum price. A notice summarizing the contents of the resolution or order shall be published once after its adoption, and no sale shall be consummated thereunder until 10 days after its publication. (1971, c. 698, s. 1; 1979, 2nd Sess., c. 1247, s. 24.)

§ 160A-268. Advertisement for sealed bids.

The sale of property by advertisement for sealed bids shall be done in the manner prescribed by law for the purchase of property, except that in the case of real property the advertisement for bids shall be begun not less than 30 days before the date fixed for opening bids. (1971, c. 698, s. 1.)

§ 160A-269. Negotiated offer, advertisement, and upset bids.

A city may receive, solicit, or negotiate an offer to purchase property and advertise it for upset bids. When an offer is made and the council proposes to accept it, the council shall require the offeror to deposit five percent (5%) of his bid with the city clerk, and shall publish a notice of the offer. The notice shall contain a general description of the property, the amount and terms of the offer, and a notice that within 10 days any person may raise the bid by not less than ten percent (10%) of the first one thousand dollars ($1,000) and five percent (5%) of the remainder. When a bid is raised, the bidder shall deposit with the city clerk five percent (5%) of the increased bid, and the clerk shall readvertise the offer at the increased bid. This procedure shall be repeated until no further qualifying upset bids are received, at which time the council may accept the offer and sell the property to the highest bidder. The council may at any time reject any and all offers. (1971, c. 698, s. 1; 1979, 2nd Sess., c. 1247, s. 25.)

§ 160A-270. Public auction.

(a) Real Property. – When it is proposed to sell real property at public auction, the council shall first adopt a resolution authorizing the sale, describing the property to be sold, specifying the date, time, place, and terms of sale, and stating that any offer or bid must be accepted and confirmed by the council before the sale will be effective. The resolution may, but need not, require the highest bidder at the sale to make a bid deposit in a specified amount. The council shall then publish a notice of the sale at least once and not less than 30 days before the sale. The notice shall contain a general description of the land sufficient to identify it, the terms

of the sale, and a reference to the authorizing resolution. After bids have been received, the highest bid shall be reported to the council, and the council shall accept or reject it within 30 days thereafter. If the bid is rejected, the council may readvertise the property for sale.

(b) Personal Property. – When it is proposed to sell personal property at public auction, the council shall at a regular council meeting adopt a resolution or order authorizing an appropriate city official to dispose of the property at public auction. The resolution or order shall identify the property to be sold and set out the date, time, place, and terms of the sale. The resolution or order (or a notice summarizing its contents) shall be published at least once and not less than 10 days before the date of the auction.

(c) The council may conduct auctions of real or personal property electronically by authorizing the establishment of an electronic auction procedure or by authorizing the use of existing private or public electronic auction services. Notice of an electronic auction of property shall identify, in addition to the information required in subsections (a) and (b) of this section, the electronic address where information about the property to be sold can be found and the electronic address where electronic bids may be posted. Notice may be published in a newspaper having general circulation in the political subdivision or by electronic means, or both. A decision to publish notice solely by electronic means for a particular auction or for all auctions under this subsection shall be approved by the governing board of the political subdivision. Except as provided in this subsection, all requirements of subsections (a) and (b) of this section apply to electronic auctions. (1971, c. 698, s. 1; 1973, c. 426, s. 43; 2001-328, s. 5; 2005-227, s. 4; 2006-264, s. 74.)

§ 160A-271. Exchange of property.

A city may exchange any real or personal property belonging to the city for other real or personal property by private negotiation if the city receives a full and fair consideration in exchange for its property. A city may also exchange facilities of a city-owned enterprise for like facilities located within or outside the corporate limits. Property shall be exchanged only pursuant to a resolution authorizing the exchange adopted at a regular meeting of the council upon 10 days' public notice. Notice shall be given by publication describing the properties to be exchanged, stating the value of the properties and other consideration changing hands, and announcing the council's intent to authorize the exchange at its next regular meeting. (1971, c. 698, s. 1; 1973, c. 426, s. 42.1.)

§ 160A-272. Lease or rental of property.

(a) Any property owned by a city may be leased or rented for such terms and upon such conditions as the council may determine, but not for longer than 10 years (except as otherwise provided in subsection (b1) of this section) and only if the council determines that the property will not be needed by the city for the term of the lease. In determining the term of a proposed lease, periods that may be added to the original term by options to renew or extend shall be included.

(a1) Property may be rented or leased only pursuant to a resolution of the council authorizing the execution of the lease or rental agreement adopted at a regular council meeting upon 30 days' public notice. Notice shall be given by publication describing the property to be leased or rented, stating the annual rental or lease payments, and announcing the council's intent to authorize the lease or rental at its next regular meeting.

(b) No public notice as required by subsection (a1) of this section need be given for resolutions authorizing leases or rentals for terms of one year or less, and the council may delegate to the city manager or some other city administrative officer authority to lease or rent city property for terms of one year or less.

(b1) Leases for terms of more than 10 years shall be treated as a sale of property and may be executed by following any of the procedures authorized for sale of real property.

(c) Notwithstanding subsection (b1) of this section, the council may approve a lease without treating that lease as a sale of property for any of the following reasons:

(1) For the siting and operation of a renewable energy facility, as that term is defined in G.S. 62-133.8(a)(7), for a term up to 25 years.

(2) For the siting and operation of a tower, as that term is defined in G.S. 146-29.2(a)(7), for communication purposes for a term up to 25 years. (1971, c. 698, s. 1; 1979, 2nd Sess., c. 1247, s. 26; 2009-149, ss. 2, 3; 2010-57, s. 2; 2010-63, s. 2(b); 2011-150, s. 1; 2014-120, s. 34; 2015-246, s. 9.)

§ 160A-272.1. Lease of utility or enterprise property.

Subject to G.S. 160A-321, a city-owned utility or public service enterprise, or part thereof, may be leased. (1979, 2nd Sess., c. 1247, s. 27.)

§ 160A-273. Grant of easements.

A city shall have authority to grant easements over, through, under, or across any city property or the right-of-way of any public street or alley that is not a part of the State highway system. Easements in a street or alley right-of-way shall not be granted if the easement would substantially impair or hinder the use of the street or alley as a way of passage. A grant of air rights over a street right-of-way or other property owned by the city for the purpose of erecting a building or other permanent structure (other than utility wires or pipes) shall be treated as a sale of real property, except that a grant of air rights over a street right-of-way for the purpose of constructing a bridge or passageway between existing buildings on opposite sides of the street shall be treated as a grant of an easement. (1971, c. 698, s. 1.)

§ 160A-274. Sale, lease, exchange and joint use of governmental property.

(a) For the purposes of this section, "governmental unit" means a city, county, school administrative unit, sanitary district, fire district, the State, or any other public district, authority, department, agency, board, commission, or institution.

(b) Any governmental unit may, upon such terms and conditions as it deems wise, with or without consideration, exchange with, lease to, lease from, sell to, or purchase from any other governmental unit any interest in real or personal property.

(c) Action under this section shall be taken by the governing body of the governmental unit. Action hereunder by any State agency, except the Department of Transportation, shall be taken only after approval by the Department of Administration. Action with regard to State property under the control of the Department of Transportation shall be taken by the Department of Transportation or its duly authorized delegate. Provided, any county board of education or board of education for any city administrative unit may, upon such terms and conditions as it deems wise, lease to another governmental unit for one dollar ($1.00) per year any real property owned or held by the board which has been determined by the board to be unnecessary or

undesirable for public school purposes. (1969, c. 806; 1971, c. 698, s. 1; 1973, c. 507, s. 5; 1975, c. 455; c. 664, s. 9; c. 879, s. 46; 1977, c. 464, s. 34; 2001-328, s. 6.)

§ 160A-275. Warranty deeds.

Any city, county, or other municipal corporation is authorized to execute and deliver deeds to any real property with full covenants of warranty, without regard to how the property was acquired, when, in the opinion of the governing body, it is in the best interest of the city, county, or other municipal corporation to convey by warranty deed. Members of the governing boards of counties, cities, and other municipal corporations are hereby relieved of any personal or individual liability by reason of the execution of warranty deeds to governmentally owned property unless they act in fraud, malice, or bad faith. (1945, c. 962; 1955, c. 935; 1969, cc. 48, 223, 332; c. 1003, s. 5; 1971, c. 698, s. 1.)

§ 160A-276. Sale of stocks, bonds, and other securities.

A city may sell through a broker without complying with the preceding sections of this Article shares of common and preferred stock, bonds, options, and warrants or other rights with respect to stocks and bonds, and other securities, when the stock, bond, or other right or security has an established market and is traded in the usual course of business on a national stock exchange or over-the-counter by reputable brokers and securities dealers. The city may pay the usual fees and taxes incident to such transactions. Nothing in this section authorizes a city to deal in its own bonds in any manner inconsistent with Chapter 159 of the General Statutes, nor to invest in any securities not authorized by G.S. 159-30. (1973, c. 426, s. 44.)

§ 160A-277. Sale of land to volunteer fire departments and rescue squads; procedure.

(a) A city, upon such terms and conditions as it deems wise, with or without monetary consideration may lease, sell or convey to a volunteer fire department or to a volunteer rescue squad any land or interest in land, for the purpose of constructing or expanding fire department or rescue squad facilities, if the volunteer fire department or volunteer rescue squad provides fire protection or rescue services to the city.

(b) Any lease, sale or conveyance under this section must be approved by the city council by resolution adopted at a regular meeting of the council upon 10 days' public notice. Notice shall be given by publication describing the property to be leased or sold, stating the value of the properties, the proposed monetary consideration or lack thereof, and the council's intent to authorize the lease, sale or conveyance. (1979, c. 583.)

§ 160A-278. Lease of land for housing.

A city may lease land upon such terms and conditions as it deems wise to any person, firm or corporation who will use the land to construct housing for the benefit of persons of low income, or moderate income, or low and moderate income. Such a housing project may also provide housing to persons of other than low or moderate income, as long as at least twenty percent (20%) of the units in the project are set aside for the exclusive use of persons of low income. Despite the provisions of G.S. 160A-272, a lease authorized pursuant to this section may be made by private negotiation and may extend for longer than 10 years. Property may be leased under this section only pursuant to a resolution of the council authorizing the execution of the lease adopted at a regular council meeting upon 10 days' public notice. Notice shall be given by

publication describing the property to be leased, stating the value of the property, stating the proposed consideration for the lease, and stating the council's intention to authorize the lease. (1987, c. 464, s. 9.)

§ 160A-279. Sale of property to entities carrying out a public purpose; procedure.

(a) Whenever a city or county is authorized to appropriate funds to any public or private entity which carries out a public purpose, the city or county may, in lieu of or in addition to the appropriation of funds, convey by private sale to such an entity any real or personal property which it owns; provided no property acquired by the exercise of eminent domain may be conveyed under this section; provided that no such conveyance may be made to a for-profit corporation. The city or county shall attach to any such conveyance covenants or conditions which assure that the property will be put to a public use by the recipient entity. The procedural provisions of G.S. 160A-267 shall apply. Provided, however, that a city or county may convey to any public or private entity, which is authorized to receive appropriations from a city or county, surplus automobiles without compensation or without the requirement that the automobiles be used for a public purpose. Provided, however, this conveyance is conditioned upon conveyance by the public or private entity to Work First participants selected by the county department of social services under the rules adopted by the local department of social services. In the discretion of the public or private entity to which the city or county conveys the surplus automobile, when that entity conveys the vehicle to a Work First participant it may arrange for an appropriate security interest in the vehicle, including a lien or lease, until such time as the Work First participant satisfactorily completes the requirements of the Work First program. This subsequent conveyance by the public or private entity to the Work First participant may be without compensation. The participant may be required to pay for license, tag, and/or title.

(b) Notwithstanding any other provision of law, this section applies only to cities and counties and not to any other entity which this Article otherwise applies to.

(c) Repealed by Session Laws 1993, c. 491, s. 1.

(d) This section does not limit the right of any entity to convey property by private sale when that right is conferred by another law, public, or local. (1987, c. 692, s. 1; 1993, c. 491, s. 1; 1998-195, s. 1.)

§ 160A-280. Donations of personal property to other governmental units.

(a) A city may donate to another governmental unit within the United States, a sister city, or a nonprofit organization incorporated by (i) the United States, (ii) the District of Columbia, or (iii) one of the United States, any personal property, including supplies, materials, and equipment, that the governing board deems to be surplus, obsolete, or unused. The governing board of the city shall post a public notice at least five days prior to the adoption of a resolution approving the donation. The resolution shall be adopted prior to making any donation of surplus, obsolete, or unused personal property. For purposes of this section a sister city is a city in a nation other than the United States that has entered into a formal, written agreement or memorandum of understanding with the donor city for the purposes of establishing a long term partnership to promote communication, understanding, and goodwill between peoples and to develop mutually beneficial activities, programs, and ideas. The agreement or memorandum of understanding establishing the sister city relationship shall be signed by the mayors or chief elective officer of both the donor and recipient cities.

(b) For the purposes of this section, the term "governmental unit" shall have the same meaning as defined by G.S. 160A-274(a) and shall include North Carolina charter schools.

(c) The authority granted to a city under this section is in addition to any authority granted under any other provision of law. (2007-430, s. 1; 2009-141, ss. 1, 2, 3.)

TOWN OF WRIGHTSVILLE BEACH
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November 10, 2016

MEMORANDUM

To:	Mayor Blair and Board Members
From:	Tim Owens, Town Manager
Re:	Discussion and Set Meeting Date for 2017 Board Retreat and set a time to Meet Prospective Committee and Board Members

Agenda Item

Retreat

Each year, the Board holds a retreat to discuss goals and objectives for the upcoming calendar year, discuss and address items in more depth than can be typically done at a Board meeting, and discuss the upcoming budget process, goals and priorities. Typically, the meeting is held in late January to early February. Dates to consider are:

January

Friday	Saturday
20	21
27	28

February

Friday	Saturday
10	11

After choosing the retreat date, please submit to me those items that you would like to cover during the retreat prior to the end of December or sooner.

Prospective Board and Committee Member meeting

The Board also likes to hold a "meet and greet" with prospective committee and board members prior to appointments in January. I recommend that the Board consider holding the "meet and greet" prior to the December 8, 2016 Board meeting and ask that the Town Clerk advertise for candidates. Attached is a list of Boards and Committees and potential openings.

Action Items

1. Discuss the item and ask questions
2. Set a date for the Board Retreat
3. Set a date for meeting with prospective board and committee members
4. Instruct the Town Clerk to advertise for candidates for boards and committees