CITY OF RYE

NOTICE

There will be a regular meeting of the City Council of the City of Rye on Wednesday, April 5, 2017, at 7:30 p.m. in Council Chambers at City Hall. *The Council will convene at 6:30 p.m. and it is expected they will adjourn into Executive Session at 6:31 p.m. to discuss litigation.*

AMENDED AGENDA

1. Pledge of Allegiance.

2. Roll Call.

3. Recognition of the Rye Recreation All Star Basketball Team.

4. General Announcements.

5. Draft unapproved minutes of the regular meeting of the City Council held March 15, 2017.

6. Issues Update/Old Business.

7. Presentation on the New York Rising Reconstruction Program projects.

** **Please note that the Tolling Agreement between the City of Rye and Crown Castle has been extended for an additional two-week period. The Public Hearings on Crown Castle will be held over; no decision or vote on the Crown Castle matter (Agenda Items #8 and #9) will occur until the April 19, 2017 City Council Meeting.**

8. Continuation of the Public Hearing to amend the Rye City Code: (a) local law Chapter 133, "Noise", by amending Section §133-4, "Points and method for measuring intensity of sound" to regulate placement and noise of telecommunication devices; (b) local law Chapter 167, "Streets and Sidewalks", to add a new 196, "Wireless Telecommunications Facilities", by amending Sections §196-3 through §196-8, §196-14, §196-17, §196-18, and §196-22 to regulate wireless facilities and structures regarding size, visual impact and permit process.

9. Continuation of the Public Hearing regarding the request submitted by Crown Castle to amend their agreement with the City and for the installation of additional locations to their existing wireless telecommunications located in the City of Rye.

9A. Consideration of a Resolution regarding the City of Rye and its policy toward immigrants or citizenship status.

10. Residents may be heard on matters for Council consideration that do not appear on the agenda.

11. Authorization for the City Manager to enter into an Agreement with the County of Westchester for 2017-2018 Prisoner Transportation Services.
Roll Call.

12. Resolution to amend the Nominations, Elections and Voting Eligibility procedures for the Rye Golf Club Commission regarding a Commission vacancy.

13. Consideration of the proposed changes to the Rules and Regulations of the City of Rye Police Department:
    - General Order #102.8 regarding the operational guidelines of the Bicycle Patrol Unit
    - General Order #103.7 regarding the carry and use of Oleoresin Capsicum (O.C.) Spray
    - General Order #103.10 regarding the training, deployment, use and aftercare of Conducted Electrical Weapons
    - General Order #115.3 regarding the procedures for the training of new police officers during post-academy training
    - General Order #118.2 regarding a new performance tracking software program entitled Guardian Tracking

14. Consideration of a request by the Lustgarten Foundation Cancer Research Institute for use of city streets on Sunday, April 23, 2016 from 9:00 a.m. to 12:00 p.m. for their annual Westchester Pancreatic Cancer Research Walk.

15. Miscellaneous communications and reports.

16. New Business.

17. Adjournment.

* *

The next regular meeting of the City Council will be held on Wednesday, April 19, 2017 at 7:30 p.m. A Joint Meeting of the City Council of the City of Rye and the Rye City School District Board of Education will be held on Saturday, April 22, 2017 at 9:00 a.m. in Rye City Hall.

** City Council meetings are available live on Cablevision Channel 75, Verizon Channel 39, and on the City Website, indexed by Agenda item, at www.ryeny.gov under “RyeTV Live”.

* Office Hours of the Mayor by appointment by emailing jsack@ryeny.gov or contacting the City Manager’s Office at (914) 967-7404.

CITY COUNCIL AGENDA

NO. 3 DEPT.: City Manager DATE: April 5, 2017

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Recognition of the Rye Recreation's Boys Basketball All-Star Team.

FOR THE MEETING OF:
April 5, 2017

RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That the Council recognize the achievements of the All-Star Team.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND:
10 boys were selected from Rye Recreation's Basketball league to represent Rye in the 86th Annual Westchester Boys Basketball Tournament at the County Center – Cub Division. The Rye Recreation All Stars won the 2017 Westchester County Cub 5th and 6th Grade Tournament, coming in first out of 20 teams in a single elimination tournament. The Rye Team advanced to the finals with wins against Rye Brook, Pelham Gold and Eastchester. The All Stars won the Westchester County Basketball Tournament on March 22nd with a 44-33 win against Pelham Blue. The win was particularly memorable for the team as the championship game was played on the same game floor as the Westchester Knicks.

Rye Recreation's 5th and 6th grade All-Star Team Roster:

John Atkins, Cole Bartlett, Brock Bieber, Michael Gonzalez-Molina, Andrew Keller,
Kian McCarthy, Owen Meyers, Charlie O'Rorke, Charlie Williams, and Tyler Winderman

Coaches: Doug Scott and Josh Kirsch

Recreation Supervisor: Doug Scott

Rye Recreation’s Boys Basketball All-Star Team

Bottom row left to right: Tyler Winderman, Michael Gonzalez-Molina, John Atkins, Cole Bartlett

Top row left to right: Coach Doug Scott, Kian McCarthy, Owen Meyers, Andrew Keller, Charlie Williams, Coach Josh Kirsch, Charlie O'Rorke

(not pictured Brock Bieber)

CITY COUNCIL AGENDA

NO. 5 DEPT.: City Clerk DATE: April 5, 2017

CONTACT: Carolyn D'Andrea, City Clerk

AGENDA ITEM: Draft unapproved minutes of the regular meeting of the City Council held March 15, 2017.

FOR THE MEETING OF:
April 5, 2017
RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That the Council approve the draft minutes.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND: Approve the minutes of the regular meeting of the City Council held March 15, 2017, as attached.

DRAFT UNAPPROVED MINUTES of the Regular Meeting of the City Council of the City of Rye held in City Hall on March 15, 2017, at 7:30 P.M.

PRESENT:

JOSEPH A. SACK Mayor
KIRSTIN BUCCI
EMILY HURD
JULIE KILLIAN
TERRENCE McCARTNEY
RICHARD MECCA
Councilmembers

ABSENT:

DANIELLE TAGGER-EPSTEIN
Councilmember

The Council convened at 6:30 P.M. Councilman McCartney made a motion, seconded by Councilwoman Bucci and unanimously carried to immediately adjourn into Executive Session to discuss litigation and personnel matters. Councilman McCartney made a motion, seconded by Councilwoman Bucci and unanimously carried, to adjourn the Executive Session at 7:30 P.M. The regular meeting convened at 7:45 P.M.

1. Pledge of Allegiance.

Mayor Sack called the meeting to order and invited the Council to join in the Pledge of Allegiance.

2. Roll Call.

Mayor Sack asked the City Clerk to call the roll; a quorum was present to conduct official City business.

3. General Announcements.

Councilman McCartney announced that on the Rye Recreation front, Kiddy Camp is now full. Further, Camp 78 still has some openings in certain weeks, but that program is also filling up quickly. He also announced that the Disbrow Park development public meeting schedule will be announced in April 2017. He also announced that the Spring/Summer recreation program information has been sent out to residents. On the Rye Golf Club front, early discount registration ends for the Rye Golf Club tomorrow, March 16, 2017. Councilman McCartney also made a statement in accordance with the Gun Safety Initiative spearheaded by him and Councilwoman Tagger-Epstein. He said that there are guns in almost one-third of all households nationwide. He also said that it is important to talk to children about gun safety.

Councilwoman Killian announced that the Bread of Life Food Pantry in Rye is having its Annual Benefit on May 3, 2017 at Serendipity Labs at 7:30 P.M.

Councilwoman Hurd stated that SPRYE had an excellent recent annual report.

4. Draft unapproved minutes of the regular meeting of the City Council held March 1, 2017.

Councilman McCartney made a motion, seconded by Councilman Mecca and unanimously carried, to approve the minutes of the regular meeting of the City Council held March 1, 2017.

5. Issues Update/Old Business.

Mayor Sack stated that Port Chester Village Board approved the findings statement concerning the United Hospital/ Starwood development site. He said that the City of Rye has always looked at this site with the goal of mitigating any impacts that may affect the immediately adjacent Rye neighborhoods.

Mayor Sack and Councilman McCartney explained that at the last minute prior to a vote, the Village of Port Chester in their March 6, 2017 findings removed a turn lane onto the Boston Post Road, which unfortunately may result in traffic being redirected onto High Street. As a result, the Litigation Committee has met, and the conclusion is to prepare to potentially file an Article 78 proceeding.

Mayor Sack made a motion to authorize Corporation Counsel Wilson to take necessary steps to prepare for Article 78 filing if necessary.

ROLL CALL
AYES: Mayor Sack, Councilmembers Bucci, Hurd, Killian, McCartney, Mecca
NAYS: None
ABSENT: Councilwoman Tagger-Epstein

Mayor Sack then clarified that sandwich boards are not allowed within the rights of way in the central business district in the City of Rye. He also clarified with City Manager Serrano and Corporation Counsel Wilson that cabaret licensing are required for establishments with dancing.

** **Please note that the Tolling Agreement between the City of Rye and Crown Castle has been extended for a three-week period. No decision or vote on the Crown Castle matter (Agenda Items #6 and #7) will occur until the April 5, 2017 City Council Meeting.**

6. Continuation of the Public Hearing to amend the Rye City Code: (a) local law Chapter 133, "Noise", by amending Section §133-4, "Points and method for

measuring intensity of sound" to regulate placement and noise of telecommunication devices; (b) local law Chapter 167, "Streets and Sidewalks", to add a new 196, "Wireless Telecommunications Facilities", by amending Sections §196-3 through §196-8, §196-14, §196-17, §196-18, and §196-22 to regulate wireless facilities and structures regarding size, visual impact and permit process.

Mayor Sack opened the public hearings for items 6 and 7 on the agenda together.

Charles Hyman, 95 Dogwood, thanked the City Council for listening to the citizens on the concerns raised. He felt concerned about health impacts and aesthetic effects.

Michael Sheridan, Snyder & Snyder, on behalf of Verizon Wireless, submitted written comment to the City Council. For the record, he stated that it is a nine page letter, including various comments on the definitions within the local laws, setback requirements, and other items.

Sam Burruano, 290 North Street, asked whether the new Chapter 196 would apply to Crown Castle. Mayor Sack and Corporation Counsel Wilson explained that Crown Castle did not submit an application pursuant to Chapter 196, but that the issue would be identified at a later date as litigation might be imminent. Mr. Burruano asked the Council to reconsider the 25 foot setback. He also felt that the standard within the law should be that of clear and convincing evidence. He stated that he felt "least intrusive" should be added to the concealed utility portion of the law.

Ben Stacks, 15 Sonn, addressed the Council. He stated that the current DAS node in the right-of-way near his home should be mitigated if the law is changed. He expressed concern over the noise emitted from a DAS node.

Callie Erikson, 190 Locust Avenue, addressed the Council. She addressed the list of priorities within the existing code versus the new proposed draft. She asked that the highway and railway areas be reenlisted as priorities. She discussed Greenwood Union Cemetery as a possible site for a new wireless facility. She stated that taller structures should be considered. She also stated that no wireless facilities, including stealth ones, should be exempt from certain provisions.

There was general discussion over large, tall facilities versus small nodes and preferences.

Joshua Cohn, 24 Green Avenue, expressed concern over the drafting of the law.

Julie Souza, Loudon Woods, thanked the Mayor and Council. She stated she had been present at many of the meetings. She referenced the CityScape meeting. She asked if the City had the coverage gaps maps of the 700 mHz data. Mayor Sack stated that they have not received that information to date. Ms. Souza asked if the City had a full inventory of existing structures. Mayor Sack stated that the City is attempting to get a better handle on this inventory. She said that there is a perception that this is an adversarial issue.

Mayor Sack commented that the Council has been very open to hearing citizen comment and taking them into account when considering the issues and shaping the proposed drafts.

Councilman Mecca stated that he has heard some proposals about putting a tower on top of the Police Department. From an engineering perspective, the City would need to look at how much square footage it would want to give up in that building to handle 110 mile-per-hour wind. He explained the specifics of how structures are attached and designed to withstand the required principles.

Daniel Sarmiento, 8 Holly Land, stated that he and his family recently moved to Rye. He said that if he knew that there would be a DAS node proposed near his home, he would not have moved to Rye. He expressed concern of a change in neighborhood character due to the placement of a node.

7. Continuation of the Public Hearing regarding the request submitted by Crown Castle to amend their agreement with the City and for the installation of additional locations to their existing wireless telecommunications located in the City of Rye.

Mr. Cohn addressed the Council again. He said that the City should consider stealth facilities on Whitby Castle. He was happy to hear that the City was moving toward a denial of Crown Castle's current application. He stated concern that Crown had not yet provided a map of a gap in coverage of 700 mHz, but only a "drive test" map. He referenced a letter to the City by a Verizon engineer, which does not reference a "significant" gap in coverage. He talked further about Verizon's interest and the future of technology.

Chris Fisher, Cuddy & Feder, on behalf of Crown Castle, addressed the Council. He discussed the most recent proposal to the City Council, in which all nodes would be placed on utility poles. The revised plan was the result of several months of consideration after hearing from residents and the Council. He discussed the specific boxes and infrastructure/ cabinets proposed, concerning the size, materials and locations on poles.

Mayor Sack asked if Mr. Fisher or Crown Castle had cured any of the deficiencies noted by the City of the right-of-way use agreement. Mr. Fisher said that the new proposal would address at least one of the noted deficiencies.

Mr. Fisher commented again that he feels that the application would fall under a Type 2 SEQRA declaration. He said that the Department of Environmental Conservation is currently amending their regulations to declare this type of issue a Type 2 action.

Councilman Mecca made a motion, seconded by Councilman McCartney and unanimously carried, to continue the Public Hearing on April 5, 2017.

8. Residents may be heard on matters for Council consideration that do not appear on the agenda.

There was nothing discussed under this agenda item.

9. Adoption of the 2017 County property tax rates.
Roll Call.

City Manager Serrano explained that each year, the City collects the County tax based on the County's equalization rate.

Councilman Mecca made a motion, seconded by Councilwoman Killian,

ROLL CALL
AYES: Mayor Sack, Councilmembers Bucci, Hurd, Killian, McCartney, Mecca
NAYS: None
ABSENT: Councilwoman Tagger-Epstein

10. Resolution to appropriate $825,000 of the Golf Club Fund's Unreserved Fund Balance for six major capital projects at the Rye Golf Club.
Roll Call.

Councilman McCartney explained that items of priority on major capital projects at the Golf Club are underway. He stated he recommended spending the funds, as there will still be $2.243 million left. Mayor Sack stated that all monies were raised by membership dues, rather than taxpayer dollars.

Councilman McCartney made a motion, seconded by Councilwoman Bucci, to appropriate $825,000 of the Golf Club Fund's Unreserved Fund Balance for six major capital projects at the Rye Golf Club.

ROLL CALL
AYES: Mayor Sack, Councilmembers Bucci, Hurd, Killian, McCartney, Mecca
NAYS: None
ABSENT: Councilwoman Tagger-Epstein

11. Resolution to transfer $45,000 from the Police Salaries line to the Building and Vehicle Fund for the purchase of a police vehicle.
Roll Call.

City Manager Serrano explained that he recently provided backup on the state of the current vehicles. He also stated that the salary set was $145,000, and therefore there would be funding leftover.

Councilwoman Bucci made a motion, seconded by Councilman McCartney, to adopt the following resolution:

WHEREAS, City staff has determined that the amounts required for the purchase of a police vehicle were not anticipated and were not provided for in the adopted 2017 budget by 45,000, and;

WHEREAS, the Police Salaries line has enough funds to be appropriated for the purchase of a new police vehicle, now, therefore be it;

RESOLVED, that the City Comptroller is authorized to transfer $45,000 from the Police Salaries line to the Building and Vehicle Fund for the purchase of a new police vehicle.

ROLL CALL
AYES: Mayor Sack, Councilmembers Bucci, Hurd, Killian, McCartney, Mecca
NAYS: None
ABSENT: Councilwoman Tagger-Epstein

12. Consideration of a request by the Rye Chamber of Commerce for the use of City Car Park #2 on Sundays from May 21, 2017 through December 3, 2017 from 8:30 a.m. to 2:00 p.m. for the Rye Farmers Market.

City Manager Serrano stated that the City would do its best to ensure that the construction within the downtown would be scheduled around the planned Sidewalk Sale dates.

Councilwoman Hurd made a motion, seconded by Councilman Mecca and unanimously carried, to approve the request by the Rye Chamber of Commerce for the use of City Car Park #2 on Sundays from May 21, 2017 through December 3, 2017 from 8:30 a.m. to 2:00 p.m. for the Rye Farmers Market.

13. Consideration of a request by the Rye Chamber of Commerce for the use of City streets for the Annual Sidewalk Sale to be held on Thursday, July 27, 2017 through Saturday, July 29, 2017 from 9:00 a.m. to 5:00 p.m.

Councilwoman Hurd made a motion, seconded by Councilman Mecca and unanimously carried, to approve a Consideration of a request by the Rye Chamber of Commerce for the use of City streets for the Annual Sidewalk Sale to be held on Thursday, July 27, 2017 through Saturday, July 29, 2017 from 9:00 a.m. to 5:00 p.m.

14. Consideration of a request by the Westchester County chapter of the National Alliance on Mental Illness (NAMI) to have a ribbon initiative in the Central Business District during the month of May 2017.

Councilwoman Killian made a motion, seconded by Councilman Mecca to approve the request by the Westchester County chapter of the National Alliance on Mental Illness

(NAMI) to have a ribbon initiative in the Central Business District during the month of May 2017.

15. Miscellaneous communications and reports.

There was nothing discussed under this agenda item.

16. New Business.

Mayor Sack appointed Jim Kuster to the CCAC and appointed Marion Anderson to the Human Rights committee. The Council unanimously upheld the appointments.

Councilwoman Hurd said that she would like to work with staff to draft legislation to approve Games of Chance within the City of Rye.

17. Adjournment.

There being no further business to discuss, Councilman Mecca made a motion at 9:35 P.M., seconded by Councilwoman Bucci and unanimously carried, to adjourn the meeting of the City Council.

Respectfully submitted,

Carolyn E. D'Andrea
City Clerk

CITY COUNCIL AGENDA

NO. 6 DEPT.: City Council DATE: April 5, 2017

CONTACT: Mayor Joseph A. Sack

AGENDA ITEM: Issues Update/Old Business

FOR THE MEETING OF:
April 5, 2017

RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That an update be provided on outstanding issues or Old Business.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND:

CITY COUNCIL AGENDA

NO. 7 DEPT.: City Manager DATE: April 5, 2017

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Presentation on the New York Rising Reconstruction Program projects.

FOR THE MEETING OF:

April 5, 2017

RYE CITY CODE,

CHAPTER

SECTION

RECOMMENDATION:

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND: A presentation will be made by the consultants from O'Brien & Gere Engineers, Inc. and the Dormitory Authority of the State of New York (DASNY) on the NY Rising Proposed Projects:

- Bowman Avenue Dam Upper Pond Resizing
- Modifications to the Sluice Gate at Bowman Avenue Dam
- Improved Milton Road Drainage to Harbor

See attached report.

OBG

REPORT

Upper Bowman Pond Modifications Study

DASNY
DORMITORY AUTHORITY STATE OF NEW YORK

March 2017

MARCH 29, 2017 | 12145 | 63832

Upper Bowman Pond Modifications Study

Prepared for:

DASNY
DORMITORY AUTHORITY STATE OF NEW YORK

DOUGLAS M. CRAWFORD, PE
O'Brien & Gere Engineers, Inc.

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12 Water Surface Elevation Reduction Results Comparison

13 Event Frequency Forecasting System

14 Indian Village Water Surface Elevation Profile

LIST OF ACRONYMS

2D	Two-Dimensional
CEA	Critical Environmental Area
CFR	Code of Federal Regulations
CY	Cubic Yards
DASNY	The Dormitory Authority of the State of New York
EAF	Environmental Assessment Form
ECL	Environmental Conservation Law
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FT	Feet
FEMA	Federal Emergency Management Agency
GML	General Municipal Law
GOSR	Governor's Office of Storm Recovery
HEC-HMS	Hydrologic Engineering Center's Hydrologic Modeling System
HEC-RAS	Hydrologic Engineering Center's River Analysis System
HUC	Hydrologic Unit Code
MS4	Municipal Separate Storm Sewer Systems
NEPA	National Environmental Policy Act
NHP	Natural Heritage Program
USGS	United States Geological Survey
USACE	United State Army Corps of Engineers

1. PROJECT BACKGROUND AND OBJECTIVES

The Blind Brook watershed (United States Geological Survey (USGS) Hydrologic Unit Code (HUC) 12-011000060405), tributary to the Long Island Sound, is located in southeastern New York state and southwestern Connecticut and contains portions of the Town of Greenwich, Connecticut, the City of Rye, the Town of Harrison, and the Villages of Rye Brook and Portchester, New York. The watershed location is shown in **Figure 1**. It has a drainage area of approximately 8,610 acres (13.45 square miles), is approximately 9 miles long from north to south and its width varies between approximately 0.5 and 2 miles east to west. The upstream portion of the watershed is moderately steep with an average slope of 0.7% and includes the Westchester County Airport, which contributes a significant portion of runoff volume during storm events (Parsons Brinckerhoff, 2014a). The downstream portion of the watershed slopes at a rate of approximately 0.1% and drains to Milton Harbor. The parameters of the watershed were estimated by O'Brien & Gere Engineers, Inc. (OBG) based on available GIS data for the area. The drainage area of the Blind Brook watershed is shown in **Figure 2**.

The City of Rye, NY (the City) is located in Westchester County, approximately 7 miles north of New York City. The City has experienced flooding associated with heavy rainfall events, resulting in significant property damage, especially within a neighborhood known as Indian Village, located adjacent to Blind Brook and between interstate highways I-287 and I-95. In 2007, two major events, one on March 2, and a second on April 15, left the community, businesses and roadways flooded and caused widespread power losses. On August 28, 2011, Hurricane Irene made landfall directly over the area causing extreme flooding and significant property loss. The following year, on October 29, 2012, Superstorm Sandy brought coastal flooding together with high winds and significant rainfall causing once again significant disruption and property loss to the community.

Several studies have been conducted to date regarding the flooding along Blind Brook, mainly focusing on providing recommendations for how to reduce the impact of flooding on the local community. In 2014, the City of Rye retained Parsons Brinckerhoff to provide a comprehensive evaluation of the previously completed studies and to develop further recommendations to reduce and mitigate the flooding and its impacts on the local community. In its *Hydrologic and Hydraulic Analysis Report* (Parsons Brinckerhoff, 2014a), Parsons Brinckerhoff summarized previously conducted studies and examined ways to mitigate flooding in Indian Village. The analysis presented by Parsons Brinckerhoff examines the following alternatives:

- Hydrologic and hydraulic analysis of proposed additional detention areas in the watershed
- Hydraulic analysis of Upper Pond resizing (with associated cost estimate)
- Review and development of sluice gate operating algorithms at the Bowman Avenue Dam

Parsons Brinkerhoff reported that increasing the volume of the Upper Pond, combined with modifications to the rules governing the operation of the sluice gate installed at the Bowman Avenue Dam, could provide a collective reduction in downstream water elevations ranging between 0.2 feet and 2 feet, depending on location and for flood events with return periods between 2-years and 100-years[1]. Parsons Brinckerhoff estimated the cost of the modifications to the Upper Pond at the Bowman Avenue Dam to exceed $6 million (Parsons Brinckerhoff, 2014a).

[1] **Flood Frequency magnitude**

Return Period	Exceedance Probability
2-years	50%
10-years	10%
25-years	4%
50-years	2%
100-years	1%

The Dormitory Authority of the State of New York (DASNY), on behalf of the Governor's Office of Storm Recovery (GOSR), has retained OBG to further analyze possible modifications to the Upper Pond and to assess the rules governing the operation of the sluice gate at the Bowman Avenue Dam. The analysis of modifications to the Upper Pond would help assess how the pond could be modified (*i.e.*, how much soil could be removed from the pond perimeter), given that the currently available funding for the design and construction improvements is $2 million.

The scope of work completed by OBG and presented in this report is summarized as follows:

- **TASK 1**: Review previous studies to assess the recommendations made to the City of Rye to date. The review also included evaluation of the United States Army Corps of Engineers Hydrologic Engineering Center's River Analysis System (HEC-RAS) model utilized by Parsons Brinckerhoff in its study, which was provided to OBG by the City of Rye.
- **TASK 2**: Perform a field investigation of Blind Brook in order to review the configuration of the Bowman Avenue Dam, sluice gate, and the Upper Pond, in order to further OBG's understanding of the Blind Brook watershed hydrologic characteristics. An additional objective of the site visit was to review site conditions relative to the HEC-RAS model input to develop an understanding of the appropriateness of selected model inputs and identify potential opportunities for model improvement
- **TASK 3**: Identify and evaluate an Upper Pond expansion alternative, given the available design and construction budget of $2 million.
- **TASK 4**: Evaluate the previously developed sluice gate operational algorithms at the Bowman Avenue Dam and analysis of potential operational adjustments to those algorithms (algorithm update) due to a potential expansion of Upper Pond identified in Task 3.

2. REVIEW OF EXISTING REPORTS

The City of Rye provided OBG with electronic copies of reports from previously conducted studies addressing flood management in the Blind Brook watershed. To support performance of Tasks 2, 3, and 4, OBG reviewed the following reports:

1. *Westchester County, NY, Flood Insurance Study* – FEMA – 2014
2. *Flood Mitigation Study – Bowman Avenue Dam Site*, Chas. H. Sells, Inc., March 12 2008. (Sells Report)
3. *Hydrologic and Hydraulic Analysis – Bowman Avenue Dam Project – Study for Resizing the Upper Pond Reservoir*, Paul C. Rizzo Engineering, New York, PLLC, September 2012. (Rizzo Report)
4. *Hydrologic and Hydraulic Analysis Report – Blind Brook Watershed Study*, Parsons Brinckerhoff, August 2014. (Parsons Brinckerhoff Report).

This section summarizes the findings and recommendations for reports 1 through 4 identified above, while focusing on the analysis targeting Upper Pond resizing and sluice gate operation. The selected reports provide the most relevant information that pertains to this study. Additional reports identified as informative and consequently reviewed but not fully summarized in this section due to their limited scope include:

5. *Watershed Plan and EIS – Blind Brook Watershed*, USDA Soil Conservation Service, July 1979
6. *Update to the 1999 Storm Water Management Plan. Westchester County Airport*, TRC Engineers, December 2010
7. *Flood Mitigation Study – Lower Pond Supplemental*, Chas. H. Sells, Inc., March 12 2008
8. *Memorandum: Bowman Avenue Sluice Gate Operation Analysis for the April 30 to May 1, 2014 Rainfall Event* - Parsons Brinckerhoff, August 2014

9. *Memorandum: Field Trip to Identify Potential Stream Gauge Locations on November 14, 2014* - Parsons Brinckerhoff, August 2014
10. *Memorandum: Impact of Various Flood Mitigation Measures on Flooding Situations within Indian Village* - Parsons Brinckerhoff, March 2015
11. *City of Rye Flood Mitigation Plan* – Tessier Environmental Consulting, November, 2001.

Item 8 in the above list provides valuable information regarding the implementation of the Sells algorithm to operate the Bowman Avenue Dam sluice gate. The document is an analysis of a recent flood event which occurred between April 30 and May 1, 2014. Detailed information about the sluice gate configuration and the experienced operating sequence are analyzed.

Item 9 is a summary of a field visit, conducted by Parsons Brinckerhoff, to identify potential stream gauge locations in support of the sluice gate operating algorithm. The memorandum also provides a discussion on the use of an upstream location for a stream gauge in order to provide flood magnitude forecasting. The summary of the reports 1 through 4 is presented below:

Report 1 - *Westchester County, NY, Flood Insurance Study* – FEMA – 2014

The Federal Emergency Management Agency (FEMA) performed hydraulic studies for the Blind Brook watershed as part of the National Flood Insurance Program (NFIP). In 2007, as a result of the study, FEMA released Flood Insurance Maps designating portions of the watershed adjacent to Blind Brook with corresponding floodplain limits for 100-year and 500-year flood events. An updated analysis conducted by FEMA in 2014 resulted in the release of the updated, preliminary floodplain boundaries and the corresponding flow magnitudes for a number of locations within the watershed. **Figure 3** shows the boundaries for the 100-year and 500-year floods for the Bowman Avenue Dam and its vicinity. The report provides information on the spatial extent of the flooding which demonstrates the extent of the local community affected by flooding.

Report 2 – *Flood Mitigation Study – Bowman Avenue Dam Site*, Chas. H. Sells, Inc., March 12, 2008

The study by Chas. H. Sells, Inc. (Sells), involves a feasibility analysis of various flood damage reduction measures at the Bowman Avenue Dam site. This work, performed by Sells, was motivated by the City's Flood Mitigation Plan, adopted in November 2001, in which the City identified a conceptual plan for providing downstream flood control. The intent of the report was to analyze several alternatives and compare the cost-to-benefit ratio of each of the proposed alternatives. The report aims to guide the City in implementing meaningful flood mitigation measures and to provide a basis for securing hazard mitigation grant funding.

The alternatives proposed in the study were analyzed based on the overall cost and the potential for lowering the water surface elevation downstream of the Bowman Avenue Dam, specifically between interstate highways I-287 and I-95. Among the presented alternatives, the report identifies installation of an automated sluice gate at the Bowman Avenue Dam as a preferred alternative (the dam's orifice at the time of the Sells' report was constricted by wooden logs leaving an approximately 20- ft^2 opening at the bottom of the dam). The proposed sluice gate, when installed, would allow for adjusting the outflow effective area based on flood event magnitude, and serve as a flood control structure.

An additional alternative showing significant potential for lowering downstream water surface during extreme rainfall events involves resizing of the Upper Pond by excavating soil and rock to maximize the storage potential in the pond. Two resizing scenarios with varying degrees of excavation were considered. The benefits associated with pond excavation were assessed both individually and in conjunction with benefits associated with sluice gate installation. The authors of the report recognized that the resizing of the Upper Pond would be associated with a significant cost and would require further investigations (*e.g.,* rock probes, soil testing for contamination).

Sells also proposed an algorithm for sluice gate operation where the magnitude of a flood event is determined by measuring water surface elevation directly at the dam. The algorithm relates flood magnitude to the pre-

calculated gate opening of the sluice gate to maximize the downstream water surface reduction. During normal flow conditions the gate remains closed. The report assumes that following automated sluice gate installation, the 'closed gate' condition would maintain the same size of the bottom opening, which was estimated at approximately 20.2 ft^2 at the time. The details of the sluice gate control algorithm developed by Sells are presented in Section 7.1.

After installation of the automated sluice gate, the Sells algorithm was implemented to control the position of the gate during flood events. The details of the implementation of the algorithm and the corresponding parameters controlling the gate are presented in the memorandum developed by Parsons Brinckerhoff (Item 8 on the list above).

The methodology for estimating changes to the downstream water surface associated with the proposed measures included detailed hydrologic and hydraulic analysis using a HEC-RAS model. Cross sectional data, Manning 'n' values, and bridge geometry were obtained from FEMA's 1979 preliminary Flood Insurance Study (FIS) for Westchester County. The flow rates for the analysis were developed by Sells, using WinTR-20 software. The summary of main results is presented in **Table 2** at the end of this section.

Report 3 – *Hydrologic and Hydraulic Analysis – Bowman Avenue Dam Project – Study for Resizing the Upper Pond Reservoir*, Paul C. Rizzo Engineering, New York, PLLC, September 2012.

Paul C. Rizzo Engineering (RIZZO) was retained by Sells, Inc. to perform a hydrologic and hydraulic analysis to evaluate the potential benefits of resizing of the Upper Pond in order to increase available flood water storage capacity in the watershed. As part of the modeling process, the Blind Brook watershed was divided into six sub-watersheds according to the topographic and hydrologic conditions. To evaluate how changes to the Upper Pond would affect hydrographs associated with given design storms, a full hydrologic model was developed using the United States Army Corps of Engineers Hydrologic Engineering Center's – Hydrologic Modeling System (HEC-HMS) software. Geographic Information System (GIS) software was used to support the modeling by providing spatial information regarding soil type and land cover use. RIZZO was also asked to consider optimizing the sluice gate operation to increase potential benefits from the proposed automated sluice gate at the Bowman Avenue Dam site.

The hydrographs obtained as a result of the hydrologic simulation of the six sub-watersheds were consequently used as input data to a HEC-RAS model for further analysis. The evaluation of the results presented in the report focused on the area most affected by frequent flooding and located between interstate highways I-287 and I-95 (Indian Village).

The following alternative scenarios were analyzed:

- No-build alternative, serving as existing conditions model
- Revision of the sluice operation rules proposed by Sells
- Analysis of the Upper Pond resizing alternatives, which assumes excavation of 110,000 cubic yards of material (*i.e.* 96,000 cubic yards of soil and up to 14,000 cubic yards of rock)
- Analysis of the additional benefits from maximizing the resizing of Upper Pond, which assumes excavation of 130,000 cubic yards of material (*i.e.* 109,000 cubic yards of soil and up to 21,000 cubic yards of rock)
- Combined benefit of resizing Upper Pond and optimal sluice gate operation.

The results from the analysis of alternatives presented in the report indicate that utilizing the sluice gate in conjunction with resizing Upper Pond show the most benefit in terms of downstream water surface elevation reduction. The reductions are most significant (up to 1.3 ft.) for larger storm events (25- to 100-year return period). The report also shows that the incremental benefit gained from maximizing the Upper Pond is insignificant when compared to the initial resizing alternative. According to RIZZO, the sluice gate operation should be controlled by monitoring water surface elevation directly in Upper Pond by an automated water surface elevation sensor. The rules for operating the gate assume keeping the gate closed for storms with return

periods less than 5-years, adopting the Sells gate operating rules for storms with return periods between 5- and 10-years, and setting the gate to be fully open for floods with return periods greater than 10-years. A detailed description of the algorithm is provided in Section 7.1.

The direct comparison of the results presented by RIZZO to those provided by Sells is difficult, due to the difference in discharge values implemented in the simulation process. The comparison of the peak discharges associated with different flood magnitudes for both Sells and RIZZO are shown in **Table 1**. The values are reported for the Purchase St. location.

Table 1: Peak Discharge Values Comparison Between Sells and RIZZO (Estimated at Purchase St.)

HYDROGRAPH PEAK FLOW RATES (CFS)*		
STORM EVENT	**SELLS**	**RIZZO**
2-year	781	1036
5-year	1275	2143
10-year	1663	2883
25-year	2292	3429
50-year	2767	4084
100-year	3346	4673

*Values reported by RIZZO, 2012.

The differences between the discharge values can be explained by the approach used by the authors in modeling the discharge values for the watershed (*e.g.,* software used, model input data, and analysis method). **Table 2** at the end of this section provides the summary of results presented by RIZZO.

Report 4 – *Hydrologic and Hydraulic Analysis Report – Blind Brook Watershed Study*, Parsons Brinckerhoff, August 2014.

The report by Parsons Brinckerhoff summarizes six reports previously submitted to the City of Rye, which focused on flood mitigation in the Blind Brook watershed. The assessment of the previously developed reports had been requested by the City as part of an effort to evaluate additional and previously presented flood reduction measures. Besides providing a comprehensive review of the previously completed studies, the report identified ten new sites as potential detention basins within the watershed area that could serve as temporary flood water storage to reduce the extent of downstream flooding. The impact of the detention basins on the downstream flooding was evaluated separately and in conjunction with other measures (*i.e.,* resizing of the Upper Pond and modified sluice gate operation). Finally, the report proposes alternative operating algorithms for the sluice gate operation at the Bowman Avenue Dam and documents and evaluation of the performance of the revised sluice gate algorithm both separately and in conjunction with the Upper Pond resizing alternative.

The sluice gate operating algorithm developed by Parsons Brinckerhoff assumes that the gate will stay fully open during normal flow conditions and that the gate will be closed when the water surface elevation, monitored by a sensor installed at a location between the interstate highways I-287 and I-95, reaches a specific threshold. The threshold value that triggers the closing of the gate was estimated for a range of flood magnitudes and for two alternative control gauge locations (a location immediately downstream of interstate highway I-287 and a second location in the center of Indian Village). The details of the operating algorithm proposed by Parsons Brinckerhoff are presented in Section 7.1.

The Parsons Brinckerhoff report recommended the following future steps to be taken by the City:

1. Attainment of stream cross-section survey to improve the accuracy of the hydrologic model. the topographic data used by Parsons Brinkerhoff was derived directly from a LiDAR dataset and did not contain the detailed geometry of the stream cross section below water surface.
2. Installation of stream gauges within Blind Brook in order to calibrate the model using measured discharges and water surface elevation data to better represent the existing condition.
3. Development of detailed detention pond grading plans, outfall structures and elevation-discharge relationships for the selected potential detention areas.

The hydrologic analysis of the system related to the Upper Pond resizing and sluice gate control was conducted with the use of HEC-RAS and HEC-HMS software packages. The peak discharge values estimated by Parsons Brinckerhoff differed from those used by Sells and those of RIZZO. The differences in flow values ranges between 2% and 7% between the reports and can be attributed to different sub-divisions of the watershed leading to different timings between contributing hydrographs, selection of updated soils data information, and other differences in the overall modeling approach.

Summary of the Review

The review of the previously completed studies identified the following:

- The reports focused on examining alternatives that can help mitigate flood extent along Blind Brook between interstate highways I-287 and I-95.
- Among studied alternatives, the combination of optimal sluice gate operation and resizing of Upper Pond appeared to be the most effective way in mitigating downstream flooding conditions.
- Two Upper Pond excavation scenarios were analyzed by RIZZO and Parsons Brinckerhoff. The added benefit associated with maximizing the Upper Pond does not justify the extra cost associated with excavation of additional material within the pond area. Maximizing the pond storage volume would provide relatively negligible reductions in water surface elevation (*e.g.* between 0.1 and 0.3 feet for most flood scenarios). The excavation scenario recommended by Parsons Brinckerhoff assumes removal of ~110,000 CY of material from Upper Pond with the associated cost exceeding $6 million.
- Three alternative sluice gate operating algorithms have been investigated. The detailed analysis of the sluice gate and the proposed operating rules are presented in Section 6.
- Differences in modeling approach, data sources used, and assumptions within the models should be taken into consideration when making a direct comparison between the results presented in the reports.
- OBG considered the approach and the results provided by each of the analyzed reports and concluded that the HEC-RAS model utilized by Parson Brinckerhoff and the associated channel geometry and input data are appropriate for use as the basis for the analysis presented in this report.
- The three proposed sluice gate operating algorithms all assume that the decision to control the gate is to be based on an event magnitude. This implies an existence of an event forecasting ability – an ability to forecast the event's magnitude as it happens with enough lead time, allowing for decision making. Without this capability, sluice gate operating algorithms cannot be successfully implemented.

Table 2 compares results for the main findings reported in previously completed studies with focus on resizing of Upper Pond and optimizing sluice gate operation.

Table 2: Comparison of Main Results from Previous Studies. Water Surface Elevation Reduction (ft)

STORM EVENT	SLUICE GATE				RESIZING + SLUICE GATE			
2-year	**Sells**	**RIZZO**	**PB-IV***	**PB-I-287***	**Sells**	**RIZZO**	**PB-IV***	**PB-I-287***
D/S of I-287	0.0	0.0	0.0	-0.1	-0.3	-0.6	0.0	-0.1
Purchase St	0.0	0.0	0.0	-0.1	-0.3	-0.6	0.0	-0.1
U/S of I-95	-0.7	0.0	0.0	-0.1	-0.4	-0.5	0.0	-0.1
10-year								
D/S of I-287	-0.5	**	-0.2	-0.2	-1.3	-0.2	-0.4	-0.6
Purchase St	-0.6	**	-0.3	-1.0	-2.2	-0.5	-0.8	-1.1
U/S of I-95	-0.8	**	-0.4	-1.5	-3.1	-0.7	-0.8	-1.1
50-year								
D/S of I-287	-0.5	-0.2	-0.5	-0.5	-0.9	-0.4	-0.5	-0.7
Purchase St	-1.7	-0.4	-0.9	-1.0	-2.9	-0.6	-1.0	-1.2
U/S of I-95	-4.2	-0.5	-1.6	-2.0	-5.3	-1.0	-1.5	-1.8
100-year								
D/S of I-287	-0.4	-0.2	-0.2	-0.4	-0.9	-0.4	-0.2	-0.6
Purchase St	-0.9	-0.2	-0.5	-0.9	-1.9	-0.6	-0.4	-1.0
U/S of I-95	-1.1	-0.5	-0.8	-1.7	-2.1	-1.3	-0.7	-1.5

All algorithms assume the same Upper Pond resizing scenario.
* PB-IV – Parsons Brinckerhoff algorithm with gate control location in Indian Village, PB-I-287 – Parson Brinkerhoff algorithm with gate control location downstream of I-287
**Assumes Sells algorithm results

When analyzing the above results, one must take into account the inherent differences in the modeling approach utilized by respective authors, such as software used, geometry data, sluice gate parameters, land use, and rainfall statistics data used for flow calculations.

The relatively large water surface elevation reductions for the 50-year flood event reported by Sells can be attributed to flow values used in the report and the associated change in the flow regime from the free surface to pressure flow at the I-95 culvert. A more detailed explanation of this situation is provided by RIZZO, 2012.

3. SITE VISIT SUMMARY

On September 21, 2016, OBG performed a site visit to Blind Brook to review the configuration of the Bowman Avenue Dam, the sluice gate, and Upper Pond. Field observations of Blind Brook, the upstream and downstream sections of Upper Pond, and the Bowman Avenue Dam site were made. The visit provided an opportunity to verify the representativeness of the HEC-RAS models in capturing the geometry of the main structures along Blind Brook and to identify locations of potential hydraulic model improvements.

An on-site review of HEC-RAS model input parameters associated with Blind Brook cross section geometry, bridge configurations, and Manning's 'n' values were compared to field observations. Photo documentation was collected of the main structures along Blind Brook within the HEC-RAS model domain. The area most affected by frequent flooding (the Indian Village neighborhood) was visited with assistance from the City's engineers and planners who identified the extent of past flooding. The main observations made and the information collected during the site visit are summarized below:

- The sluice gate is not currently utilizing any operating algorithm. For all events the gate remains in the closed position.

- The status and the accuracy of the water surface elevation data collected by the automated sensor installed at the upstream side of the Bowman Avenue Dam requires further investigation to evaluate whether the gauge can be used in future applications.
- Upper Pond and the immediate upstream and downstream sections of Blind Brook are heavily vegetated and their representation in the HEC-RAS model is adequate.
- The physical dimensions for the main structures (*i.e.,* bridges, culverts) appear to be appropriately represented in the model.
- The placement and elevation of the ineffective flow areas, which are a HEC-RAS model feature, representing flow around structures (*i.e.,* bridges, culverts), were visually assessed in the field and compared to their model representation. The associated findings were implemented as part of the HEC-RAS model review process (see Section 4).
- The configuration of the culvert under interstate highway I-95, the adjacent railroad corridor, a sequence of turns and structures immediately downstream of I-95 may limit the flow of water during large storm events, and consequently affect the water surface upstream of I-95 and into the Indian Village neighborhood. This observation was later confirmed by the results obtained from the HEC-RAS model, showing significant difference in water surface elevation between the upstream and downstream sections of the interstate I-95 culvert. This is further discussed in Section 8.
- No bathymetric survey data is associated with the HEC-RAS model provided to OBG, so discrepancies between the model's geometry and the physical dimensions of the channel may exist.
- The HEC-RAS model is limited in its spatial extent and does not cover areas downstream of interstate highway I-95. This prevents evaluations of how changes to Upper Pond and utilization of the sluice gate can affect areas beyond the model's coverage.

The information collected during the site visit was essential in evaluating the previously conducted studies, reviewing the hydrologic model, developing alternatives for Upper Pond excavation, and developing sluice gate operating scenarios.

4. REVIEW OF THE HEC-RAS MODEL

Following the review of the previously conducted studies and the site visit, OBG conducted an assessment of the HEC-RAS model. The model developed by RIZZO, and further updated by Parsons Brinckerhoff, was provided to OBG by the City.

The model covers a portion of the main brook reach starting near the intersection of Lincoln Avenue and Crawford Road and continues downstream for approximately 3 miles to Locust Avenue. The model limits are shown in **Figure 4**. The cross sections are spaced tightly along the main channel with separating distance varying between 15 and 50 feet. The cross-sectional geometry is based on LiDAR derived data. Except for bridge sections, the model employs a single Manning's 'n' value to represent the hydrologic roughness throughout the modeled Blind Brook reach. The selected value of 0.045 would indicate a straight, minor channel with some weeds and stone and a vegetated floodplain with trees (Chow, 1959). This description generally fits the conditions in the stream, but more detailed analysis of roughness conditions in the channel presents an opportunity for future model improvement.

During the review process, adjustments were made to the model with the intent to improve the overall performance of the model. Descriptions of these adjustments are provided below.

- <u>Adjustment and/or removal of a number of "ineffective flow areas".</u> An ineffective flow area is often associated with a culvert or a bridge, where the free flow of water is constrained by the structure and the flow velocity is significantly reduced before the flow can pass the structure. Information collected during the site visit helped identify a number of cross sections in the model where the ineffective flow area parameters could be further adjusted in height and location.

- Adjustment of model parameters, boundary conditions and initial conditions. The execution of a HEC-RAS model run is controlled by a number of parameters specified by the user. By controlling the parameters, a modeler can significantly affect the model's outcome and computational accuracy. In the case of unsteady flow simulations, the accuracy of a model and its stability need to be balanced through user's input to allow for the model to successfully run while providing valuable information. The selection of boundary and initial conditions and the parameters controlling a model are often a matter of users' experience and unique site characteristics. OBG tested a number of parameter configurations with the intent to improve the model's output accuracy without compromising the quality of the results or the stability of the model. Some of the HEC-RAS parameters that were affected by this step included: adjustment of the implicit weighting factor "theta", which serves as a way to control the accuracy and the stability of the model; modification of the water surface calculation tolerance, resulting in lower acceptable errors associated with calculations of the water surface; and the adjustment of the calculation time step in order to achieve a higher temporal resolution of the results.
- Model geometry and flow conditions. The model provided to OBG consisted of a number of geometry files, defining the physical shape and parameters of the model as well as a number of flow conditions, defining shape and peak values for hydrographs associated with flood events between 2-year and 100-year storms. The availability of multiple geometry and flow condition files shows a rich history of the modeling effort associated with the Blind Brook watershed. As part of the model review process, OBG identified differences between geometries and flow conditions and selected those most representative of the conditions that were being modeled within the scope of this project (*i.e.,* the geometries associated with the additional upstream water detention areas developed by Parsons Brinckerhoff and the Upper Pond maximum resizing alternatives were removed, together with initial boundary conditions associated with the proposed, but not yet implemented flood mitigation measures at the Westchester Airport).
- Pilot channel implementation. The cross-sectional geometry of the model, derived directly from LiDAR data, shows high natural variability typically associated with remotely sensed data. This, together with a number of tightly spaced cross sections, leads to the relatively complex geometry of the channel bottom. This leads to instability in model outputs often seen as "oscillation" of the results, typically most pronounced for low-flow conditions. To reduce this instability, OBG implemented a section of a pilot channel in the upstream reach of the model. A pilot channel is a built-in HEC-RAS module, which serves to smooth the bottom of a channel reach and removes the low-flow instabilities, without affecting the model's overall results.

After review of the model and making minor adjustments identified above, OBG concluded that the HEC-RAS model obtained from the City of Rye was appropriate for use in evaluating additional flood mitigation alternatives with the following assumptions:

- The model was not calibrated by observational data. Due to the lack of operational stream gauges along Blind Brook, no stage or flow information is currently being recorded that could be used as basis for full model calibration. As recommended by Parsons Brinckerhoff, installation and maintenance of stream gauges along Blind Brook presents another opportunity that could lead to improved accuracy of modeling over time (*i.e.,* 10+ years).
- The uncertainties associated with the results (*i.e.*, absolute values for water surface elevation and associated flows) provided in the report should be recognized. Those uncertainties are associated with the fact that the HEC-RAS model used throughout the report had not been calibrated (calibration data was not available). Nevertheless, the relative differences in calculated water surface elevations for tested alternative scenarios can provide useful information when comparing alternative flood mitigation methods.

5. EVALUATION OF RESIZING OF UPPER POND

5.1 SITE DESCRIPTION

The Bowman Avenue Dam is located within the Village of Rye Brook, immediately upstream of the interstate highway I-287. The dam, together with the Upper Pond, serves as the only flood mitigation structure along Blind Brook. The Bowman Avenue Dam, and the adjacent Upper and Lower Ponds are shown in **Figure 5**. Constructed in the 1900s, the dam and Upper Pond were originally used for ice production. In 1941 the dam collapsed and was rebuilt as a reinforced concrete gravity dam founded on ledge rock. The dam is 119 feet long by 13 feet high (measured to the spillway). The outlet, located at the bottom, is 15 feet wide by 11.5 feet high and the top spillway is 20 feet wide by 2 feet high. In 2013, the City of Rye installed an automated sluice gate capable of varying the dam's opening between approximately 22 ft^2 (gate closed) and approximately125 ft^2 (gate fully open). A schematic depiction and a photo of the dam's existing condition are shown in **Figure 6**. Based on the analysis of historic aerial photographs, it can be observed that the Upper Pond site has changed considerably over the years due to siltation (Parsons Brinckerhoff, 2014, estimated that the Upper Pond is now approximately 25% of its original size). The capacity of the Upper Pond has been estimated at 145 acre-feet (Sells 2008) when measured from the normal pool elevation to the crest of the dam at elevation 57.3 feet.

Downstream of the dam is Lower Bowman Pond, which also serves as the confluence with East Branch Blind Brook. The Lower Pond, originally used as a quarry, was abandoned in 1976 and subsequently flooded to form the pond. Lower Bowman Pond provides minimal additional flood storage and is not considered a flood control structure. The report *Flood Mitigation Study – Lower Pond Supplemental* (Sells, 2008) provides a detailed analysis of the Lower Pond and examines an alternative to convert it into a flood control structure, but the associated significant construction cost compared to the relatively limited additional reduction in water surface elevation estimated by RIZZO (between 3 and 6 inches), resulted in the elimination of the project from the list of feasible flood mitigation alternatives.

Previously performed studies (Sells, 2008; Rizzo, 2012; Parsons Brinckerhoff, 2014a) concluded that conducting a $6 million project to expand the pond can provide reductions in water surface elevations during flood events. A component of the project scope of work was to identify the downstream water surface elevation reductions that may be achieved by conducting a $2 million project to expand the Upper Pond. The analysis utilized a HEC-RAS model that was developed by RIZZO and Parsons Brinckerhoff and was slightly revised after further adjustments by OBG (see Section 4 for details). The results of the analysis are reported for three locations downstream of the Bowman Avenue Dam that are historically associated with property damage during flood events. The locations used for results comparison are shown in **Figure 7**.

5.2 SUMMARY OF PREVIOUSLY PROPOSED UPPER POND EXCAVATION PLANS

The previously conducted studies by Sells, RIZZO and Parsons Brinckerhoff, concluded that creating additional storage volume behind the Bowman Avenue Dam by resizing the Upper Pond, can help reduce downstream water surface elevation during flood events.

The extent of the excavation proposed by RIZZO, and further evaluated by Parsons Brinkerhoff, includes removal of approximately 96,000 CY of soil and between 6,000 and 14,000 CY of rock from the pond's perimeter. The downstream reduction in water surface elevation achieved by creating the additional storage is evaluated by comparing the existing conditions model results with results of the model accounting for the proposed Upper Pond modifications. **Table 3** summarizes those benefits as reported by Parsons Brinkerhoff (Parsons Brinkerhoff, 2014a).

Table 3: Water Surface Elevation Reductions Associated with Upper Pond Resizing Estimated by Parsons Brinckerhoff (2014)

STORM EVENT	LOCATION	WSE REDUCTION (FT)
2-year	D/S of I-287	-0.14
	Purchase St	-0.14
	U/S of I-95	-0.10
10-year	D/S of I-287	-0.47
	Purchase St	-0.80
	U/S of I-95	-1.00
50-year	D/S of I-287	-0.33
	Purchase St	-0.64
	U/S of I-95	-1.30
100-year	D/S of I-287	-0.1
	Purchase St	-0.32
	U/S of I-95	-0.63

Parsons Brinckerhoff estimated the construction cost associated with the resizing of Upper Pond to be approximately $6 million. Unit costs for the study have been developed by Parsons Brinckerhoff based on the *Weighted Average Item Price Report by Item, Region and Quarter* (US Customary Contract Let, July 2012 – June 2013) provided by the Office of Engineering, Design Quality Assurance Bureau, New York State DOT website. The itemized cost estimate developed by Parsons Brinckerhoff for the Upper Pond resizing is provided in **Table 4**.

Table 4: Parsons Brinckerhoff Cost Estimate Associated with Upper Pond Resizing.

ITEM DESCRIPTION	UNITS	QUANTITY	UNIT COST ($)	COST ($)
Mobilization	LS	1	100,000	100,000
Clearing & Grubbing	AC	15.5	7,800	120,900
Rock Excavation	CY	6,246	100	624,642
Soil Excavation	CY	97,861	40	3,914,424
Water Handling	LS	1	100,000	100,000
Soil Erosion & Sediment Control	LS	1	200,000	200,000
			Sum	5,059,966
			Contingency 20%	1,011,993
			Total	**6,071,960**

Based on the Parsons Brinckerhoff itemized construction costs and the available construction budget of $2 million, OBG developed a limited Upper Pond resizing alternative in which the quantity of rock and soil to be removed is reduced, and using the unit prices included in the Parsons Brinckerhoff estimate. The resulting cost estimate associated with this alternative is shown in **Table 5**.

Table 5: OBG Cost Estimate Associated with Limited Upper Pond Resizing Assuming Parsons Brinckerhoff Unit Costs.

ITEM DESCRIPTION	UNITS	QUANTITY	UNIT COST ($)	COST ($)
Mobilization	LS	1	100,000	100,000
Clearing & Grubbing	AC	2.5	7,800	19,500
Rock Excavation	CY	0	100	0
Soil Excavation	CY	31,000	40	1,240,000
Water Handling	LS	1	100,000	100,000
Soil Erosion & Sediment Control	LS	1	200,000	200,000
			Sum	1,659,500
			Contingency 20%	331,900
			Total	**1,991,400**

The excavation plan associated with this alternative assumes that the bottom of the pond after excavation would have an elevation of 41 feet above mean sea level eliminating the need to excavate the underlying rock[2]. The total volume of soil that would be excavated based on the above assumptions was estimated at approximately 31,000 CY. An analysis of the estimated benefit associated with the downstream water surface elevation reduction is presented below.

5.3 31,000 CY EXCAVATION ALTERNATIVE

To evaluate the effect of the limited, 31,000 CY Upper Pond resizing alternative, a HEC-RAS model geometry associated with existing conditions was updated to reflect the changes in topography. OBG utilized LiDAR data from the Westchester County online GIS system[3] to generate a high resolution digital elevation model for the Upper Pond area. When selecting the excavation perimeter, the following set of conditions was considered:

- The pond expansion area was selected such that it would involve excavation of undisturbed and non-contaminated soil to reduce costs associated with soil disposal. The information about the distribution of the non-hazardous contaminated soil (class C) within the Upper Pond is identified in the Parsons Brinckerhoff's report (2014a), Figure 33, which shows the results of the soil survey conducted by RIZZO in 2012.
- The additional volume created by excavation should be utilized during flood events with magnitudes corresponding to floods up to 100-year in frequency (*i.e.,* the location and limits of the resizing were selected to avoid removal of soil in areas that are unlikely to be flooded by frequent events).
- A focused excavation area was selected to limit the area required for clearing and grubbing.
- Access for construction equipment is a component of the project. An expansion area located close to an existing point of access has cost advantages.
- Selecting a location that minimized the need for water handling (Blind Brook flows) and erosion and sediment control.
- The excavated volume should be approximately 31,000 CY.

After identifying an area based on the conditions listed above, the digital elevation model was modified to reflect the changes. A graphical representation of the digital elevation model before and after modification is presented in **Figure 8**. The modified digital elevation model was consecutively used to update the cross sections of the

[2] The survey by RIZZO identified the elevation of rock to be below 41 ft above mean sea level in the excavation area.
[3] http://giswww.westchestergov.com/wcgis/Lidar.htm

HEC-RAS model. The updated model geometry accounting for the 31,000 CY of soil removal was used to evaluate the benefit associated with the excavation in terms of downstream water reduction. The results for this analysis are presented in **Table 6**. The calculations assume that the sluice gate remains closed for all flood events and the bottom opening area is 22.6 ft^2.

Table 6: Water Surface Reductions Associated with the 31,000 CY Upper Pond Resizing.

STORM EVENT/LOCATION	EXISTING CONDITIONS WATER SURFACE ELEVATION (FT)	31,000 CY EXCAVATION WATER SURFACE ELEVATION (FT)	DIFFERENCE (FT)
2-year			
D/S of I-287	32.80	32.47	-0.33
Purchase St	26.99	26.77	-0.22
U/S of I-95	22.01	21.67	-0.34
10-year			
D/S of I-287	35.11	35.03	-0.08
Purchase St	30.97	30.89	-0.08
U/S of I-95	25.69	25.49	-0.20
50-year			
D/S of I-287	36.13	36.11	-0.02
Purchase St	32.33	32.26	-0.07
U/S of I-95	28.73	28.59	-0.14
100-year			
D/S of I-287	36.49	36.47	-0.02
Purchase St	33.22	33.15	-0.07
U/S of I-95	30.42	30.03	-0.12

The values reported in **Table 6** (and **Table 8** in section 5.4) were developed using a HEC-RAS model which was subject to the changes described in Section 4 and consequently, the values presented as "existing conditions differ from those presented in previous reports.

5.4 UPPER POND RESIZING - REVISED COST ESTIMATE

A cost estimate for soil transportation and disposal was not included in Parsons Brinkerhoff's $6 million construction cost estimate. OBG developed a new cost estimate that includes the cost for soil transportation and disposal to identify a more representative volume of soil that could be removed from the Upper Pond for $2 million. The description of the items included in the cost estimate and the associated unit prices are presented in **Table 7**.

Table 7: OBG Class 5 Cost Estimate Associated with Limited Upper Pond Resizing and OBG Unit Costs.

ITEM DESCRIPTION	UNITS	QUANTITY	UNIT COST ($)	COST ($)
Mobilization	LS	1	82,300	82,300
Equipment Cost	LS	1	60,000	60,000
Clearing & Grubbing	AC	2.5	16,200	40,500
Access Road	LF	150	485	72,600
Soil Excavation	CY	13,500	14.84	200,340
Soil Disposal	TN	22,950	46	1,044,225
Water Management	LS	1	145,500	145,500
			Subtotal	1,645,465
			Contingency 30%	407,300
			Total	**2,052,765**

The following assumptions are associated with the estimate presented in **Table 7**:

1. The estimate is categorized as Class 5 (concept screening) by the Association for the Advancement of Cost Engineering (AACE).
2. Westchester County prevailing wages for labor cost.
3. Soils are not contaminated and can be disposed of at a landfill within 50 miles of the site.
4. Work can be completed without interruption.
5. No obstructions exist that would prevent work.
6. The area is easily accessible.
7. 30% contingency.
8. No significant delays or cost impacts associated with permitting (See **Table 9**).
9. Costs associated with storage or treatment of water are not included.
10. Rock excavation is not required.
11. Water management includes: diesel pumps (6”-8”), Super Sacks, HDPE Pipe (~200’ bypass) and labor for daily maintenance.
12. No engineering or construction management costs are included.

The revised estimate results in a 13,500 CY volume of soil being removed from the Upper Pond for an estimated cost of $2 million.

5.5 13,500 C.Y. EXCAVATION ALTERNATIVE

Based on the revised cost estimate, a second excavation scenario involving 13,500 CY of soil removal was evaluated with respect to the downstream water surface evaluation reduction. The area designated for excavation and the proposed grading plan are shown in **Figure 9**. The selection of the area was guided by the same set of conditions as the 31,000 CY excavation plan (described in Section 5.2). The revised grading plan was subsequently used to update the HEC-RAS model geometry and allow for evaluation of the proposed excavation plan with respect to the downstream water surface elevation reduction. The relative changes of the water

surface elevations between interstate highways I-287 and I-95 is presented in **Table 8** for three selected locations.

Table 8: Water Surface Reductions Associated with the 13,500 CY Upper Pond Resizing.

STORM EVENT/LOCATION	EXISTING CONDITIONS WSE [FT]	13,500 CY EXCAVATION WSE [FT]	DIFFERENCE [FT]
2-year			
D/S of I-287	32.80	32.59	-0.21
Purchase St	26.99	26.79	-0.20
U/S of I-95	22.01	21.69	-0.32
10-year			
D/S of I-287	35.11	35.07	-0.04
Purchase St	30.97	30.92	-0.05
U/S of I-95	25.69	25.59	-0.10
50-year			
D/S of I-287	36.13	36.12	-0.01
Purchase St	32.33	32.30	-0.03
U/S of I-95	28.73	28.66	-0.07
100-year			
D/S of I-287	36.49	36.48	-0.01
Purchase St	33.22	33.18	-0.04
U/S of I-95	30.42	30.36	-0.06

The limited Upper Pond resizing alternatives presented here, show that expansion of the Upper Pond by 31,000 CY or 13,500 CY can lower the water surface elevation in the Indian Village by up to approximately 0.3 feet during relatively frequent flood events (2-year and less). Water surface elevation reductions for storms greater than 2-year are negligible. It should be noted that the precision of the reported results is beyond the accuracy of the HEC-RAS model but was reported to capture the limited differences in the effect of the evaluated Upper Pond excavation.

5.6 UPPER POND CLEARING AND MAINTENANCE

The Upper Pond is thickly vegetated with trees and brush. The City of Rye has expressed concern regarding the risk of fallen trees being washed downstream and causing property damage. OBG's conceptual construction cost estimate for clearing the nine-acre pond of vegetation is approximately $75,000 to $100,000. This activity may require installation of an access road which may cost an additional $100,000. As an alternative to clearing the nine-acre pond, a program could be implemented to annually identify fallen trees and remove them from the Upper Pond. A conceptual cost estimate was not developed for this alternative, however this activity could be addressed further in the Inspection and Maintenance Plan developed for Bowman Dam.

6. PERMITTING AND APPROVALS

A review of required permitting and approvals associated with a potential Upper Pond expansion was performed. Based on a review of the NYSDEC's Environmental Resource Mapper (http://www.dec.ny.gov/gis/erm/), these alternatives would likely require the permits and approvals from federal, state, and local agencies that are summarized in **Table 9**. Additional considerations regarding potential permits and approvals include:

- Blind Brook is designated Class SC by the NYSDEC and, therefore, should not be protected pursuant to 6 NYCRR Part 608; Article 15 of the ECL (Protection of Waters).
- No mapped freshwater wetlands that are protected pursuant to 6 NYCRR Parts 663 – 664; Article 24 of the ECL (New York State Freshwater Wetlands) were identified on-site.
- According to the U.S. Fish & Wildlife's Information for Planning and Conservation (IPaC) database, there are no federally listed endangered species known to occur on-site (https://ecos.fws.gov/ipac/).

If design and construction efforts associated with an Upper Pond expansion were to proceed, coordination with agencies should commence as soon as practicable after the development of conceptual design documents, such that the requirements can be clarified and applications submitted.

Table 9. Potential Permits and Approvals

	PERMIT	ACTIVITY	AGENCY
	Federal		
1	Section 404 of the Clean Water Act (Joint Application)	Discharge of dredged or fill material into waters of the United States (delineation of wetlands required for application). Nationwide Permits vs. Project-Specific Permit.	USACE
	State		
2	Section 401 of the Clean Water Act (401 Water Quality Certification) (Joint Application)	Certification is used to ensure that federal agencies issuing permits or carrying out direct actions, which may result in a discharge to waters of the United States do not violate New York State's water quality standards or impair designated uses.	NYSDEC
3	SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002)	Stormwater discharges from construction phase activities disturbing one-acre or greater. Includes preparation and implementation of SWPPP.	NYSDEC
4	SEQRA (Article 8 of the ECL; 6 NYCRR Part 617)	Review of potential environmental impacts. Preparation of Short or Full EAF.	Lead & Involved Agencies (coordinated vs. uncoordinated review)
5	Federal & State Preservation Laws (36 CFR 800; 9 NYCRR Part 428; Sections 3.09 and 14.09 of the NYS Parks, Recreation and Historic Preservation Law)	Activities affecting historic, architectural, archaeological and cultural resources. Involved State agency determines need for consultation with NYSOPRHP. Consultation via NYSOPRHP's Cultural Resource Information System (CRIS). Initial consultation includes submission of project description and location, photographs, and documentation of prior disturbance and/or cultural resource investigation. Goal is to obtain "No Effect" letter from NYSOPRHP.	NYSOPRHP – Field Services Bureau
6	ESA (Section 7 of ESA)	Consultation process to identify whether a Federally- or State-listed, proposed or candidate species and/or critical habitat may occur within the proposed project area.	USFWS NYSDEC NHP
7	Floodplain Development Permit	Work within 100-year floodplain. Approval process is typically delegated to local floodplain administrator.	City of Rye
	Local (Municipal)		
8	Site Plan Approval	Approval of site modifications. Coordinate with municipal Code Enforcement Officer to identify process.	Village of Rye Brook Planning Board of Appeals

	PERMIT	ACTIVITY	AGENCY
9	GML 239-m	County Planning Board review of activities located within 500-feet of State or County highway, municipal boundary or park.	County Planning Board
10	Chapter 241, Article III of the Westchester County Administrative Code	Work within 100-feet of Blind Brook	Westchester County Department of Public Works & Transportation
11	Village of Rye Brook Code Section 235	Approval to remove trees	Village of Rye Brook

Notes/Assumptions

1. Typical timeframes (actual timeframes may differ).
2. Additional ministerial and/or discretionary permits, approvals, and reviews may apply.

7. BOWMAN AVENUE DAM SLUICE GATE EVALUATION

As described in the 2008 report by Sells, during normal (low) flow conditions, water passes beneath the Bowman Avenue Dam through a 15-feet wide opening with a varying height, depending on the sluice gate elevation. For storm events exceeding approximately 1450 cubic feet per second (between 2-year and 5-year design storm), the flowing water overtops the crest of the dam and flows into the overflow channel, before joining the main channel of Blind Brook just downstream of the dam. Prior to this study, three operating algorithms were developed to control the automatic sluice gate installed at the dam.

7.1 SUMMARY OF PREVIOUSLY DEVELOPED SLUICE GATE OPERATION ALGORITHMS

OBG reviewed the previously developed algorithms and compared the effects of each of the sluice gate control methods on the downstream water surface elevation using the HEC-RAS model. A summary of the previously developed sluice gate operating algorithms is presented below.

Sells Algorithm

As previously described, an automatic sluice gate was installed in 2013, replacing a wooden-log-based structure which served to restrict flow through the dam. The installation of the sluice gate was evaluated in the study by Sells (Sells, 2008), in which a number of alternative gate opening sizes and their effect on flood reduction downstream were analyzed. The Sells report recommended that to maximize the benefit from the newly installed gate, the gate opening should be set to a given size based on flood magnitude. The Sells report included estimated opening size values for controlling the gate during a flood event, as summarized in **Table 10**.

Table 10: Bowman Avenue Dam Sluice Gate Opening Rules Developed by Sells, 2008.

STORM EVENT	ORIFICE SIZE [FT^2]	ESTIMATED GATE HEIGHT [FT]
2-year	20.2	0 (Gate Closed)
5-year	45.6	1.69
10-year	72.1	3.46
25-year	105.6	5.69
50-year	139.1	7.93 (Gate Fully Open)
100-year	139.1	7.93 (Gate Fully Open)

The gate's current configuration creates an opening at the bottom of the gate even when the gate is fully closed. Sells used an approximated area of 20.2 ft^2 allowing for flow through the gate to represent the "fully closed" gate conditions. The estimated gate height values from **Table 10** were estimated by OBG assuming a 15 feet wide

orifice opening. It is important to note that the gate height of 7.93 feet associated with full opening is not achievable in existing conditions since the gate's maximum opening is reported at 7.3 feet (Parsons Brinckerhoff, 2014b). The results obtained by Sells showing the effectiveness of the sluice gate in lowering the downstream water surface elevation are presented in **Table 11**.

Table 11: Water Surface Elevation – Optimal Sluice Gate Operation (Sells, 2008).

STORM EVENT	EXISTING CONDITIONS WSE (FT)	WITH OPTIMAL SLUICE GATE OPENING (FT)	DIFFERENCE (FT)
2-year		**Orifice opening: 20.2 ft^2**	
D/S of I-287	31.7	31.7	0
Purchase St	25.65	25.65	0
U/S of I-95	20.77	20.80	0.03
5-year		**Orifice opening: 45.6 ft^2**	
D/S of I-287	32.15	31.62	-0.53
Purchase St	27.20	26.61	-0.59
U/S of I-95	22.95	22.36	-0.59
10-year		**Orifice opening: 72.1 ft^2**	
D/S of I-287	32.73	32.27	-0.46
Purchase St	28.33	27.73	-0.60
U/S of I-95	24.59	23.89	-0.70
25-year		**Orifice opening: 105.6 ft^2**	
D/S of I-287	33.44	32.87	-0.57
Purchase St	30.06	29.21	-0.85
U/S of I-95	26.93	26.19	-0.74
50-year		**Orifice opening: 139.1 ft^2**	
D/S of I-287	34.11	33.66	-0.45
Purchase St	31.91	30.18	-1.73
U/S of I-95	30.56	26.41	-4.15
100-year		**Orifice opening: 139.1 ft^2**	
D/S of I-287	34.97	34.54	-0.43
Purchase St	33.44	32.55	-0.89
U/S of I-95	32.17	31.12	-1.05

RIZZO Algorithm

RIZZO, in its 2012 report, proposed a sluice gate operation algorithm that results in the gate being closed for storms with return periods of 5-years or less, adopting the Sells gate operating algorithm for storms with return periods between 5- and 10-years, and setting the gate to "fully open" for events greater than 10-years. The operating logic for the RIZZO algorithm is captured in **Table 12**.

Table 12: Bowman Avenue Dam Sluice Gate Opening Rules Developed by RIZZO, 2012.

STORM EVENT [YEARS]	ORIFICE SIZE [FT^2]	ESTIMATED GATE HEIGHT [FT]
< 5	27	0 (Gate Closed)
5 - 10	52.4 - 72.1	1.7 - 3
> 10-years	145.9	7.93 (Gate Fully Open)

The report by RIZZO assumes that the minimal gate opening associated with the closed gate is 27 ft^2 (compared to 20.2 ft^2 used by Sells, 2008). The estimated flood reduction benefits associated with adopting the RIZZO sluice gate operating algorithm are summarized in **Table 13**.

Table 13: Water Surface Elevation – Optimal Sluice Gate Operation (RIZZO, 2012).

STORM EVENT	EXISTING CONDITIONS WSE (FT)	WITH OPTIMAL SLUICE GATE OPENING (FT)	DIFFERENCE (FT)
2-year		**Orifice opening: 27 ft^2**	
D/S of I-287	33.8	33.8	0
Purchase St	28.3	28.3	0
U/S of I-95	23.4	23.4	0
5-year		**Orifice opening: 52.4 ft^2**	
D/S of I-287	34.5	*	*
Purchase St	29.8	*	*
U/S of I-95	24.7	*	*
10-year		**Orifice opening: 78.9 ft^2**	
D/S of I-287	35.1	*	*
Purchase St	31.0	*	*
U/S of I-95	26.1	*	*
25-year		**Orifice opening: 145.9 ft^2**	
D/S of I-287	33.5	35.4	-0.1
Purchase St	31.7	31.6	-0.1
U/S of I-95	27.3	27.2	-0.1
50-year		**Orifice opening: 145.9 ft^2**	
D/S of I-287	35.9	35.7	-0.2
Purchase St	32.5	32.1	-0.4
U/S of I-95	28.7	28.2	-0.5
100-year		**Orifice opening: 145.9 ft^2**	
D/S of I-287	36.3	36.1	-0.2
Purchase St	33.2	33.0	-0.2
U/S of I-95	30.2	29.7	-0.5

* Assumes Sells operating sequence and corresponding results.

Both Sells and RIZZO proposed using a water surface elevation sensor installed at the Bowman Avenue Dam, or within the Upper Pond, to categorize an ongoing flood event magnitude and consequently control the sluice gate.

Parsons Brinkerhoff Algorithm

Parsons Brinckerhoff studied the operational rules for the sluice gate at the Bowman Avenue Dam in order to evaluate alternatives to the methods proposed by Sells and RIZZO. The first modification proposed by Parsons Brinckerhoff involved moving the sensor controlling the sluice gate to a location downstream from the Bowman Avenue Dam. By using a downstream location, the water surface elevation reduction from gate operation could be optimized for the area most affected by flooding. Two alternative locations for gate control were evaluated – one just downstream of the interstate highway I-287 and a second one in the center of Indian Village. **Figure 10** identifies both locations.

The second modification included change to the operating principle for the Bowman Avenue Dam. Unlike the Sells and RIZZO algorithms, the Parsons Brinckerhoff algorithm considers that the sluice gate should stay fully open during normal flow conditions, and it should be fully closed once the water surface elevation at the control location reaches a pre-defined elevation. Implementation of the Parsons Brinckerhoff algorithm involves

calculation of an appropriate gate control value, which maximizes the reduction in water surface elevation based on the gauge control location and flood magnitude. The specific methodology for calculating the control values is presented in the Parsons Brinckerhoff report.

The resulting reductions in water surface elevation for flood events with return periods between 2-years and 100-years reported by Parsons Brinckerhoff for selected downstream locations are presented in **Table 14**.

Table 14: Water Surface Elevation – Optimal Sluice Gate Operation (Parsons Brinckerhoff, 2014).

STORM EVENT	EXISTING CONDITIONS* WSE (FT)	PARSONS BRINCKERHOFF ALGORITHM CONTROL LOCATION AT I-287	DIFFERENCE (B-A) (FT)	PARSONS BRINCKERHOFF ALGORITHM CONTROL LOCATION AT INDIAN VILLAGE	DIFFERENCE (D-A) [FT]
Column	A	B	C	D	E
2-year					
D/S of I-287	33.28	33.28	0.00	33.27	-0.01
Purchase St	27.74	27.74	0.00	27.73	-0.01
U/S of I-95	22.95	22.95	0.00	22.95	0.00
5-year					
D/S of I-287	34.42	34.28	-0.14	34.46	0.04
Purchase St	29.54	29.23	-0.31	29.49	-0.05
U/S of I-95	24.31	24.08	-0.23	24.26	-0.05
10-year					
D/S of I-287	35.31	34.87	-0.44	35.10	-0.21
Purchase St	31.22	30.37	-0.85	30.88	-0.34
U/S of I-95	27.77	25.40	-0.83	25.80	-0.43
25-year					
D/S of I-287	35.82	35.36	-0.46	35.53	-0.29
Purchase St	32.15	31.28	-0.87	31.64	-0.51
U/S of I-95	27.73	26.70	-1.03	26.96	-0.77
50-year					
D/S of I-287	36.37	35.85	-0.52	35.90	-0.47
Purchase St	33.24	32.27	-0.97	32.38	-0.86
U/S of I-95	29.83	28.38	-1.45	28.26	-1.57
100-year					
D/S of I-287	36.59	36.37	-0.22	36.41	-0.18
Purchase St	33.75	33.32	-0.43	33.22	-0.53
U/S of I-95	30.87	30.17	-0.70	30.06	-0.78

*The Existing Conditions WSE values (Column A) assume flows expected after completion of the planned[4] improvements to the Westchester County Airport stormwater infrastructure, and labeled "Future 2011 scenario" in the Parsons Brinckerhoff report.

Summary of the Sluice Gate Operating Algorithms

The comparison of the results reported for the three previously proposed sluice gate algorithms is difficult, due to the inherent differences between the modeling approaches utilized by each of the reports. In addition, each of the algorithms was developed assuming different sluice gate configurations and varying Upper Pond geometries. The algorithms and the associated water surface reductions are based on the approximated characteristics of

[4] Design of improvements consisting of construction of additional detention basins was finalized in May 2016.

the sluice gate, they are dependent on proper implementation of the algorithms, availability of real-time water surface elevation data and would require updates if the geometry of Upper Pond was to be changed.

To allow for a meaningful comparison of the sluice gate operating rules, and to account for the evaluated Upper Pond expansion, OBG modeled each of the previously developed algorithms using HEC-RAS model with unified control parameters[5] and utilizing a channel geometry that assumes the 13,500 CY Upper Pond expansion has been implemented. By utilizing the same set of conditions (*i.e.,* boundary conditions, initial conditions, simulation parameters, model geometry) and modifying only sluice gate operating rules, OBG compared relative benefits associated with each of the algorithms separately for a range of flood events. The evaluated Upper Pond expansion, if completed, would require an update to the algorithm design proposed by Parsons Brinckerhoff, specifically the sluice gate control values. The values triggering closing of the sluice gate, initially developed by Parsons Brinckerhoff for the two gate control locations presented earlier in **Figure 10**, were updated by OBG to maximize the downstream water surface elevation reductions assuming the 13,500 CY Upper Pond modification was implemented.

The analysis of the HEC-RAS model output of the sluice gate algorithms allowed OBG to identify potential additional modifications to the gate operating rules, which, if implemented, could provide further benefit to the Parsons Brinckerhoff-developed method. The update to the Parsons Brinckerhoff algorithm associated with the 13,500 CY Upper Pond resizing and sluice gate modifications are presented in the following section.

7.2 UPDATES TO THE PARSONS BRINCKERHOFF SLUICE GATE OPERATING ALGORITHM

The implementation of the sluice gate algorithms developed by Parsons Brinckerhoff in the HEC-RAS model indicated that after the initial sluice gate closing, the gate will be returned to its initial (open) position as soon as the water surface elevation at the control location returns to levels less than the trigger values. The analysis of the HEC-RAS output revealed that such implementation may lead to a rapid increase in the volume of water being released from the Upper Pond and consequently additional increase in the water surface elevation downstream of the dam. For more frequent events (less than 5-year return period), this effect can create a surge in the downstream water elevation, overtopping the initial peak flow conditions. An example that illustrates this situation is presented in **Figure 11** where a 2-year flood event hydrograph for a downstream location is shown for two alternative scenarios. The red line shows the change in the water surface elevation if the sluice gate at the dam remained closed throughout the event (existing conditions), while the blue line shows the Parsons Brinckerhoff sluice gate algorithm implementation. As seen in the figure, the initial closing of the sluice gate (according to the estimated control values) does not provide significant reduction in the water surface elevation, as expected, based on **Table 14**. After the peak flow is achieved, the water starts receding and the algorithm dictates that the gate can be returned to its initial (open) position. The opening causes a rapid increase in the downstream water surface elevation visible as a "bump" in **Figure 11**. The sequence of gate opening and closing is repeated three times by the algorithm until most of the water stored in the Upper Pond is released. To avoid this potentially unintended consequence, a modification to the Parsons Brinckerhoff algorithm could be implemented, as follows:

- The sluice gate should not be operated for events with return periods less than 5-years because expected reductions in water surface elevation assuming "optimal" algorithm performance would be less than 1 inch.
- For events with return periods greater than 5-years, the gate should be closed according to the logic developed by Parsons Brinckerhoff and the estimated gate control values. Once engaged, the gate should remain closed until normal flow conditions are observed, in order to avoid a rapid release of water stored in the Upper Pond. The operating algorithm can be further refined based on hydraulic modeling and by collecting water surface elevation data from downstream sensors after the algorithm is implemented.

As previously explained, the evaluated modification of the Upper Pond would require the Parsons Brinckerhoff developed sluice gate algorithm to be updated to account for the change in pond's geometry (i*.e.,* to account for

[5] All alternatives use the same set of model parameters, boundary and initial conditions and channel geometry files.

the additional storage volume). Assuming the same gate control locations as those proposed by Parsons Brinckerhoff (**Figure 10**), OBG used the procedure presented in the Parsons Brinckerhoff report to develop an updated set of gate control values for a range of flood conditions. The updated values for the control location downstream of the interstate highway I-287 are presented in **Table 15**, while the values for the control location located in Indian Village are presented in **Table 16**.

Table 15: Updated Gate Control Values for the I-287 Location.

GATE POSITION FOR NORMAL FLOWS: OPEN		
GATE CONTROL LOCATION AT MODEL XS: 2230.179 (Downstream of I-287)		
Event Return Period [years]	WSE to Close the Gate (OBG) [ft]	WSE to Close the Gate (Parsons Brinkerhoff [ft]
2	32.5	31.72
5	34.1	33.24
10	34.6	34.62
25	35.1	35.13
50	35.7	36.68
100	36.1	36.00

Table 16: Updated Gate Control Values for the Indian Village Location.

GATE POSITION FOR NORMAL FLOWS: OPEN		
GATE CONTROL LOCATION AT MODEL XS: 890.597 (Indian Village)		
Event Return Period [years]	WSE to Close the Gate (OBG) [ft]	WSE to Close the Gate (Parsons Brinkerhoff [ft]
2	23	23.69
5	25.3	24.09
10	26.6	25.69
25	27.7	27.19
50	29.0	29.09
100	30.0	30.01

Figure 12 summarizes the reductions in water surface elevation associated with the updated Parsons Brinkerhoff algorithm and provides a comparison to the Sells and RIZZO methods as modeled by OBG, using a set of unified model control conditions, the updated gate control values, and the modified logic, assuming that the gate will remain closed until normal flow conditions return. The models associated with the results presented in **Figure 12** also include a 13,500 CY expansion of Upper Pond.

The three previously developed sluice gate algorithms by Sells, RIZZO, and Parsons Brinckerhoff operate with the assumption that the magnitude of the flood event can be classified by its return period as the event occurs. The successful implementation of each of the algorithms and the potential reductions in the water surface elevation would depend on the quality of such classification. To provide means for event classification, OBG proposes installation of a water surface elevation sensor upstream of the Bowman Avenue Dam. The upstream gauge would be used to determine the event's peak flow, which could then be translated to the event's return period. The known return period for the event would be used to trigger gate closing based on the control values presented in **Tables 15 and 16**. The location of the gauge would be selected to provide sufficient lead time, allowing for characterization of the event's return period before the decision to close the sluice gate is made. The proposed method and a potential location of the proposed upstream sensor are presented in **Figure 13**. The figure shows that the delay in the travel-time of the peak discharge, between the upstream gauge location and the dam, should be considered to allow for the system to properly classify the event return period. The decision

to close the gate would be made before the peak discharge reaches the dam. Preliminary analysis showed, that for many flood conditions, the location close to the Hutchinson River Parkway would provide sufficient lead time. Identifying the specific location for the upstream water elevation sensor would require further study, which is outside of the scope of this report. A similar approach has been previously proposed by Parsons Brinckerhoff in its 2015 memorandum to the City of Rye, titled *Field Trip to Identify Potential Stream Gauge Locations on November 14, 2014*.

Based on information presented in **Figure 12**, the updated Parsons Brinkerhoff algorithm results in the largest reductions in water surface elevations when compared to Sells and RIZZO algorithms. Its implementation would require installation of at least two additional water surface elevation sensors, one for a downstream location (*i.e.,* a stream gauge to control the sluice gate) and one for a location upstream of the Bowman Avenue Dam (*i.e.,* a stream gauge to characterize event magnitude).

It is important to note that the reductions in water surface elevation reported in **Figure 12** are based on an uncalibrated hydrologic model. The reported values and the associated gate control values for the Parsons Brinckerhoff sluice gate algorithm are likely to be affected by computational uncertainty and would need to be re-evaluated after the proposed changes are implemented. In operational practice, the full capability of the algorithm would be achieved over time by carefully analyzing data collected by upstream and downstream water surface elevation sensors and by adjusting the algorithm periodically to incorporate the empirical data.

8. THE SIGNIFICANCE OF CULVERTS DOWNSTREAM OF INDIAN VILLAGE

Based on the review of the FEMA flood insurance rate maps, the site visit, and the hydraulic modeling completed as part of this report, it is concluded that the spatial extent of flooding in Indian Village can be in part attributed to the limited capacity of the culverts located under the interstate highway I-95, the neighboring railroad bridge, and the culvert at the intersection of Theodore Fremd Avenue and Elm Place. Both the size and the configuration of the outlet create conditions that during flood events can cause significant headwater buildup. The headwater results in additional backwater upstream from the culvert which can be seen in the HEC-RAS model profile presented in **Figure 14** and on the FEMA maps presented in **Figure 3**. The water surface elevation longitudinal profile in **Figure 14** also presents the results of a supplemental HEC-RAS analysis performed by OBG. The analysis demonstrates that by increasing the flow capacity of the I-95 culvert and by creating additional routes for the flow to pass this section of Blind Brook, the water surface elevation conditions immediately upstream of the I-95 highway can be improved by up to 2 feet during significant flood events.

Identification of specific improvements that could be made to these culverts to reduce upstream water surface elevations was not within the scope of this study. If a separate study was undertaken to further evaluate this, it should consider the following:

- Permitting and approval challenges associated with adding additional hydraulic capacity to cross significant infrastructure features such as interstate I-95 and the railroad bridge.
- Potential increases in downstream flooding associated with adding additional hydraulic capacity at these locations. Additional improvements may be required to mitigate these effects.
- The existing model ends at Locust Avenue and it would likely have to be extended further downstream to appropriately assess the potential impact of increased downstream flow.

9. SUMMARY

- OBG reviewed and analyzed technical reports by others previously submitted to the City of Rye, focusing on methods to reduce the effect of flooding in the Blind Brook watershed. The review identified that previous studies focused on the area most prone to frequent flooding, between the interstate highways I-287 and I-95, known as Indian Village. Among the proposed flood mitigation methods, the combined effect of the resizing of the Upper Pond and the utilization of the automated sluice gate installed at the Bowman Avenue Dam had been selected as the preferred alternative. As part of the review process, OBG received and reviewed a HEC-

RAS model developed by RIZZO and Parsons Brinckerhoff for the corresponding section of Blind Brook. OBG made minor modifications to the model prior to conducting a series of modeling activities for the purpose of this report.

- A site visit was performed by OBG to further understand the hydraulic characteristics of the Blind Brook watershed, the configuration of Upper Pond, and the associated Bowman Avenue Dam. During the visit a number of observations were made, which served to verify the configuration of the associated HEC-RAS model. Following the visit, OBG utilized the HEC-RAS model for performing additional evaluations after making minor model modifications as described in Section 4. OBG also recognized that the configuration of the culverts under interstate highway I-95, the adjacent railroad bridge, and at the intersection of Theodore Fremd Avenue and Elm Place, cause a significant increase in Blind Brook water surface elevations in the vicinity of Indian Village.
- Two alternative Upper Pond resizing scenarios were evaluated using hydraulic modeling. Based on a $2 million construction budget, OBG estimated the amount of soil that could be excavated from Upper Pond based on a construction cost estimate included in a Parsons Brinckerhoff report (2014a), which resulted in a 31,000 CY excavation plan. After developing a revised cost estimate, a more representative 13,500 CY excavation plan was evaluated. The maximum downstream water surface elevation reduction resulting from an Upper Pond expansion of 13,500 CY was estimated at approximately 0.3 feet.
- OBG conducted a detailed review of the previously developed Bowman Avenue Dam sluice gate operating algorithms. The review included implementation and modeling of each of the sluice gate algorithms for a range of flood scenarios. Based on the analysis, OBG identified that the algorithm previously developed by Parsons Brinckerhoff results in the greatest water surface elevation reductions at locations downstream of the Bowman Avenue Dam. An updated set of control values was developed for the Parsons Brinckerhoff sluice gate algorithm, accounting for a potential 13,500 CY Upper Pond expansion. The combined effect of the utilization of the Parsons Brinckerhoff sluice gate control algorithm and the 13,500 CY Upper Pond expansion can lead to reductions in water surface elevation in Indian Village of up to 1 foot, depending on flood magnitude and gate control location. The majority of this reduction is attributed to operation of the sluice gate, and the reduction attributed to the Upper Pond expansion is negligible. Therefore, it is not recommended that a 13,500 CY Upper Pond expansion be constructed.
- The HEC-RAS model utilized during this study is an uncalibrated hydrologic model, due to the lack of stream gauges in Blind Brook. The results of the analysis provide valuable information when making a relative comparison between different flood mitigation measures. However, the absolute values reported may be subject to uncertainties, which can be refined in the future through model calibration.

10. RECOMMENDATIONS

OBG has identified recommendations for potential next project steps. The recommendations are described below, and where applicable, discussion of previous recommendations made by Parsons Brinkerhoff in their 2014 and 2015 analyses is also included.

This study identified the potential for up to 1 foot of water surface elevation reduction in the Indian Village neighborhood by implementing a 13,500 CY expansion of Upper Pond and implementing the sluice gate operation algorithm identified by Parsons Brinkerhoff. Appropriate operation of the sluice gate will require design and installation of stream gauges upstream and downstream of the Bowman Avenue Dam, active monitoring of the gauges, maintenance of the gauges, and periodic updates to the sluice gate operating algorithm based on the stream gauge data that is collected (*i.e.*, the algorithm would be refined based on collected data). Costs associated with design and installation of these gauges have not been estimated, nor have the costs associated with monitoring and maintenance.

In addition, the benefits associated with the potential for mitigating property damage by operating the sluice gate have not been quantified. As stated in Section 9 and summarized in **Figure 12**, the potential water surface elevation reductions that may be realized through operation of the sluice gate and expanding Upper Pond by 13,500 CY are approximately 1 foot. However, the work performed to date by Parsons Brinkerhoff and OBG

utilized an uncalibrated hydraulic model. Though studies by Parsons Brinkerhoff and OBG have estimated potential water surface elevation reductions that may be realized, the accuracy of the water surface elevations associated with the existing and proposed conditions is unknown. If the accuracy of the model was refined through calibration, the benefits associated with the potential for mitigating property damage could then be estimated by performance of a benefit cost analysis utilizing a methodology developed by the Federal Emergency Management Agency (FEMA).

Given this background, OBG has identified the following two alternative paths forward for further progressing the City of Rye's flood mitigation capabilities.

ALTERNATIVE 1

Recognizing that developing a calibrated model will require design and installation of one or more stream gauges and a period of time to collect a representative data set after the gauges are installed, an approximate benefit cost analysis may be performed utilizing the currently available uncalibrated model, the most recent Flood Insurance Rate Mapping and Flood Insurance Study developed by FEMA, and dwelling information previously collected by the City of Rye and analyzed by Parsons Brinkerhoff (2015). The benefit cost analysis would assist the City of Rye in deciding whether making additional expenditures to operate the sluice gate is economically viable.

Based on the outcome of the benefit cost analysis, recommendations identified in Alternative 2 could be implemented. Or, Alternative 1 could be foregone in favor of Alternative 2.

ALTERNATIVE 2

If the City of Rye decides to collect stream gauge data and operate the sluice gate, OBG recommends design, construction, and operation of stream gauges to calibrate the model and to assist in operation of the sluice gate as described in Section 7. Additional details associated with this alternative are provided below.

- In addition to installing a gauge downstream of Bowman Avenue Dam, the gauge and sluice gate operation system should include installation and operation of a stream gauge upstream of Bowman Avenue Dam to classify flood events as described in Section 7.2. This recommendation aligns with previous work performed by Parsons Brinkerhoff (2015).
- After the stream gauges are installed, collected data should be utilized to calibrate the hydrologic and hydraulic model prior to operation of the sluice gate.
- The hydraulic analysis conducted by OBG indicates that, when properly implemented, the Parsons Brinckerhoff algorithm can provide approximately 1-ft of reduction in downstream water surface elevation. This level of water surface elevation reduction can be achieved for significant flood events (*i.e.,* 25-year or greater return period). For more frequent flood events, with return periods less than 5-years, the benefit of utilizing the analyzed sluice gate operating strategy is on the order of several inches. If the gauges are installed and the sluice gate is actively operated using an algorithm related to stream gauge information, given the limited benefit of operating the sluice gate during more frequent flood events (*i.e.,* events with return period less than 5 years), OBG recommends that the gate remain fully open.
- It is recommended that Parsons Brinkerhoff's proposed sluice gate operation algorithm be modified to limit gate opening when a substantial amount of water is stored in the Upper Pond. This consideration is also relevant to other previously proposed sluice gate operating algorithms. The release of stored water should take place through the bottom opening at Bowman Avenue Dam until normal pond levels are achieved. Implementing this recommendation would prevent a rapid release of water from the dam from amplifying downstream water surface elevations, as illustrated in **Figure 11**.
- Parsons Brinkerhoff (2014a) recommended performance of a topographic survey of the channel. The benefits of undertaking this effort are unknown. The previously collected topographic information may be sufficient for the analyses performed given the relatively large flow rates associated with the extreme flood events being evaluated (*e.g.,* 25-year, 50-year, 100-year storms). It is recommended that several

sample cross sections be surveyed and compared to the topography utilized in the model to further assess the benefits of a more comprehensive topographic survey.

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Figures

FIGURE 1

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I:\Nys-Dorm.12145\63832.Blind-Brook-Flo\Docs\DWGMXD\FIG 01 Site Map.mxd

ADAPTED FROM: MAMARONEK, NEW YORK AND GLENVILLE, CONNECTICUT USGS QUADRANGLE

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

MAP LOCATION

N

SITE LOCATION

0 4 8 16
Miles

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MARCH 2017

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O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

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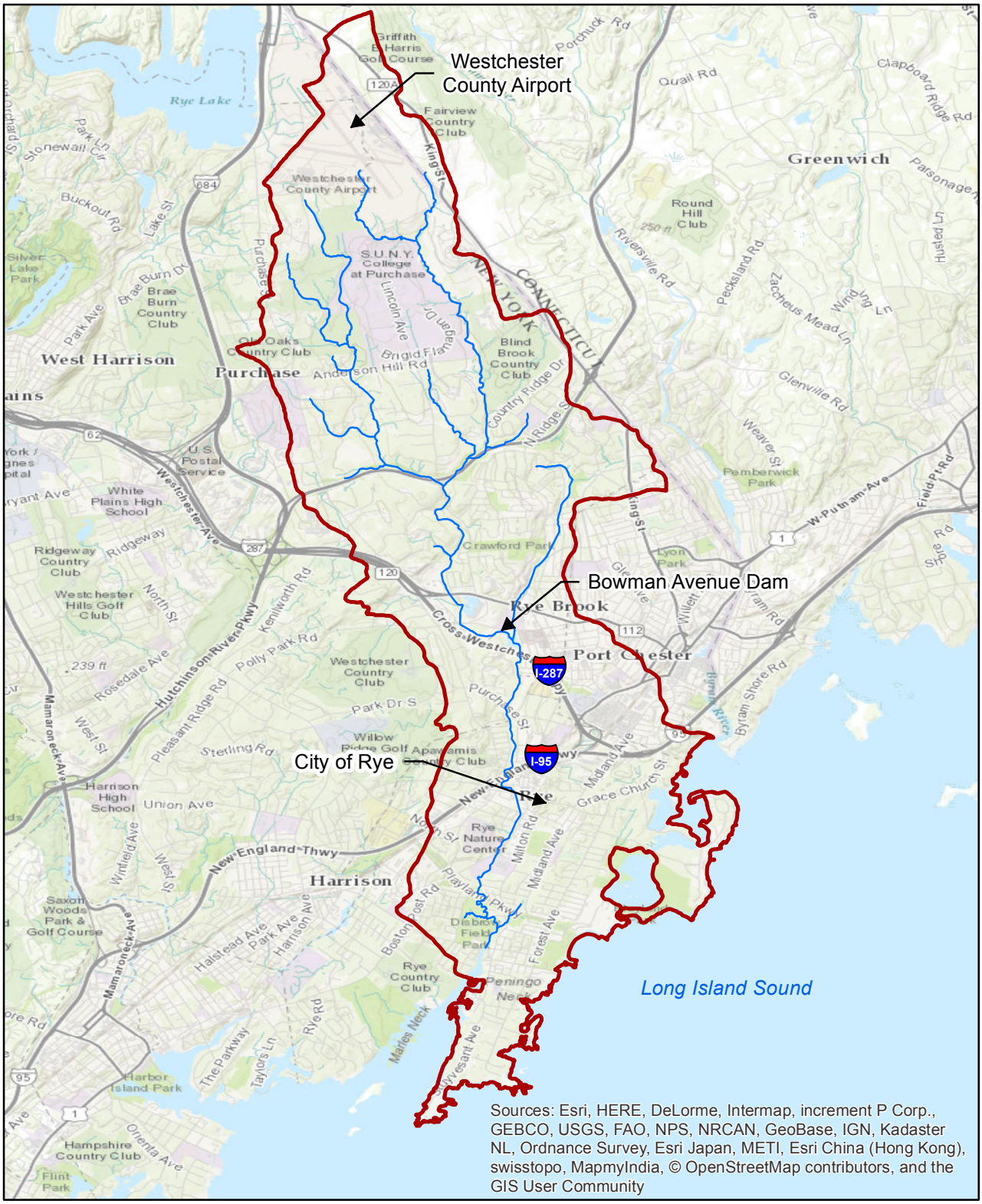

I:\Nys-Dorm.12145\63832.Blind-Brook-Flo\Docs\DWG\MXD\FIG 02 Blind Brook Watershed.mxd

LEGEND

- Flowlines
- Blind Brook Watershed Extent

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

BLIND BROOK WATERSHED

N

0 3,500 7,000 14,000
Feet

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MARCH 2017

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 3

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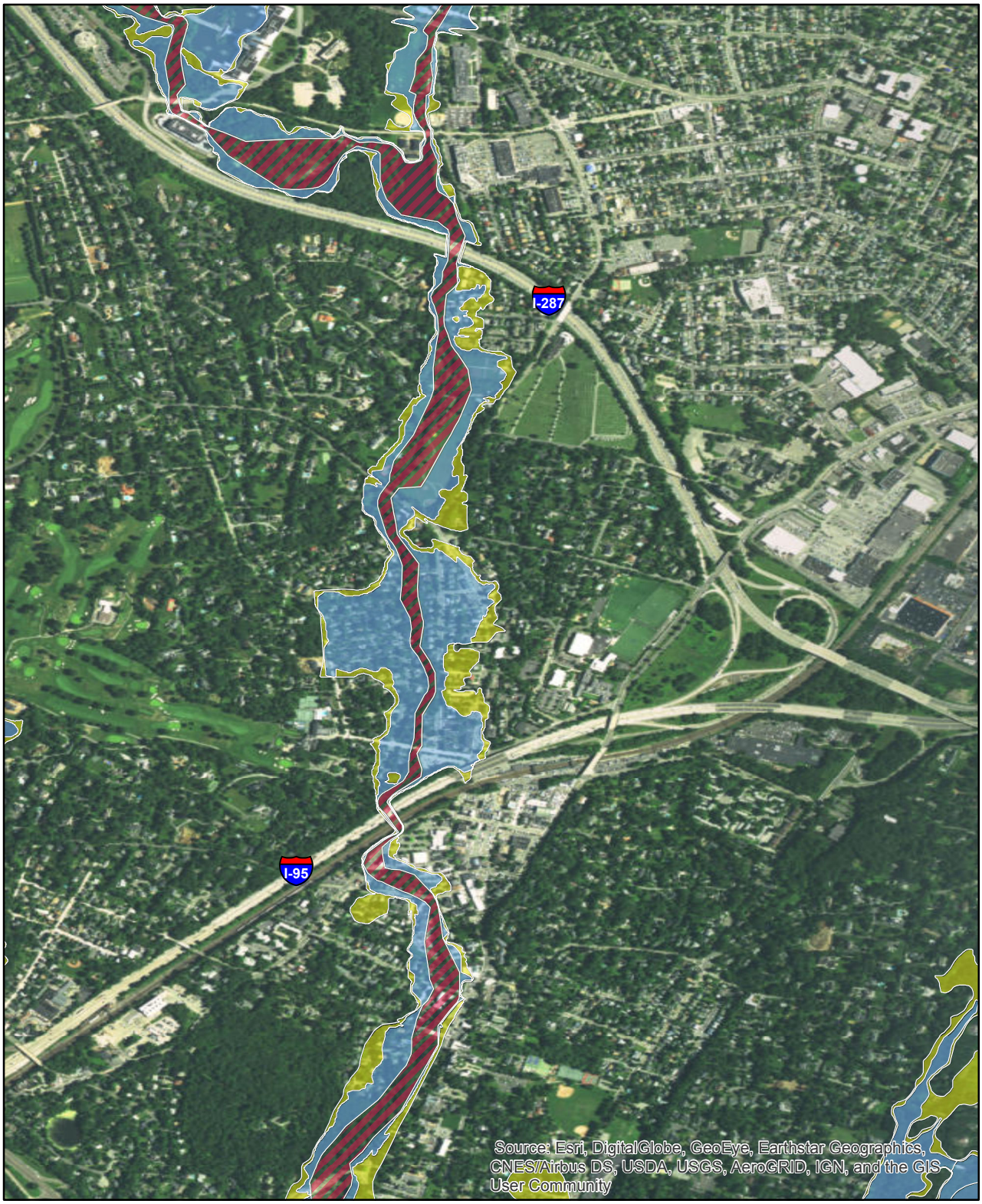

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LEGEND

- Regulatory Floodway
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

N

FLOOD INSURANCE RATE MAP (FIRM)

0 750 1,500 3,000
Feet

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O'BRIEN & GERE ENGINEERS, INC.

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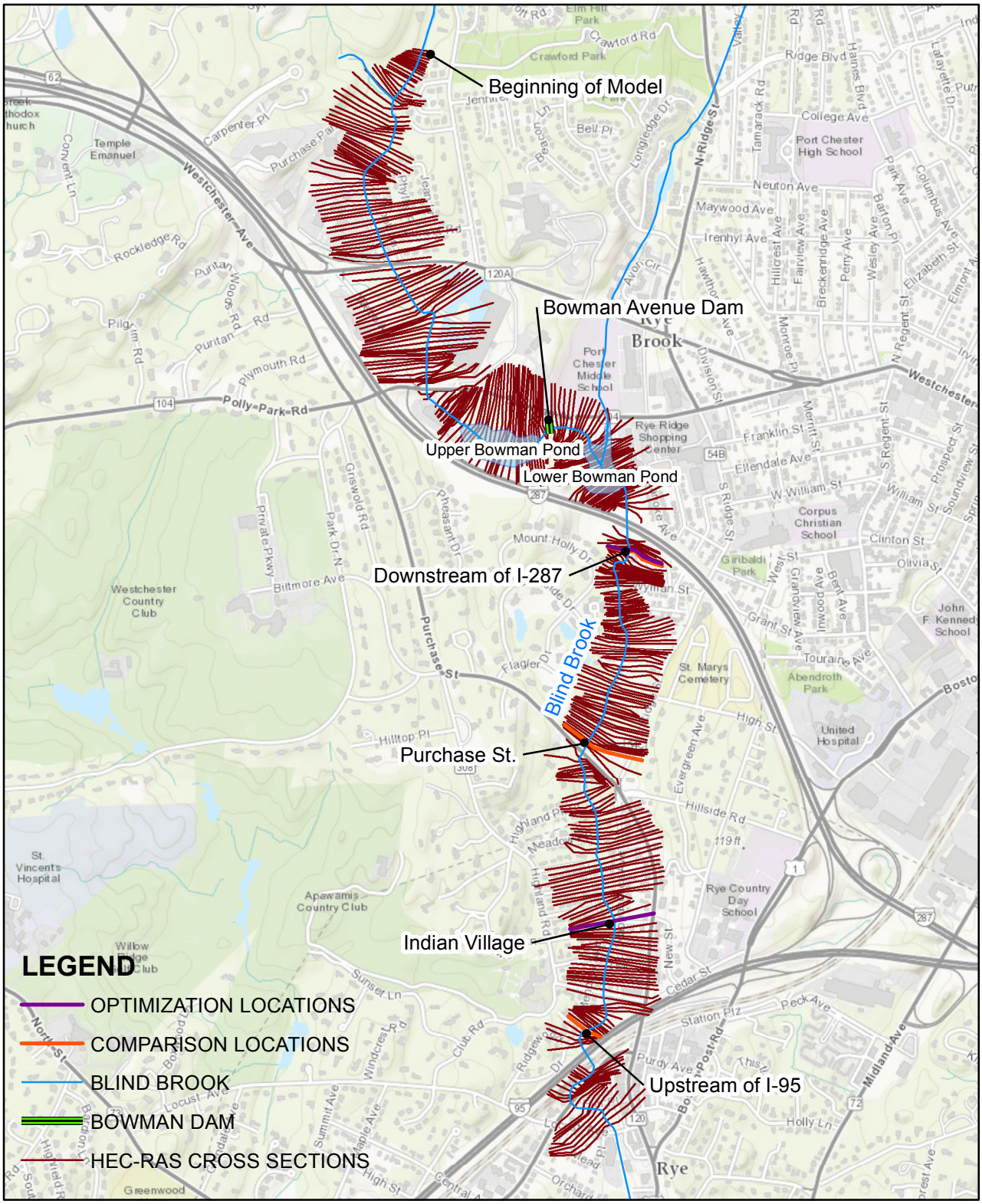

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UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

HEC-RAS MODEL EXTENT

N

0 800 1,600 3,200
Feet

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MARCH 2017

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 5

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I:\Nys-Dorm.12145\63832.Blind-Brook-Flo\Docs\DWG\MXD\FIG 04 Upper Pond.mxd

LEGEND

- Bowman Dam
- Blind Brook

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

BOWMAN AVENUE DAM LOCATION

N

0 200 400 800
Feet

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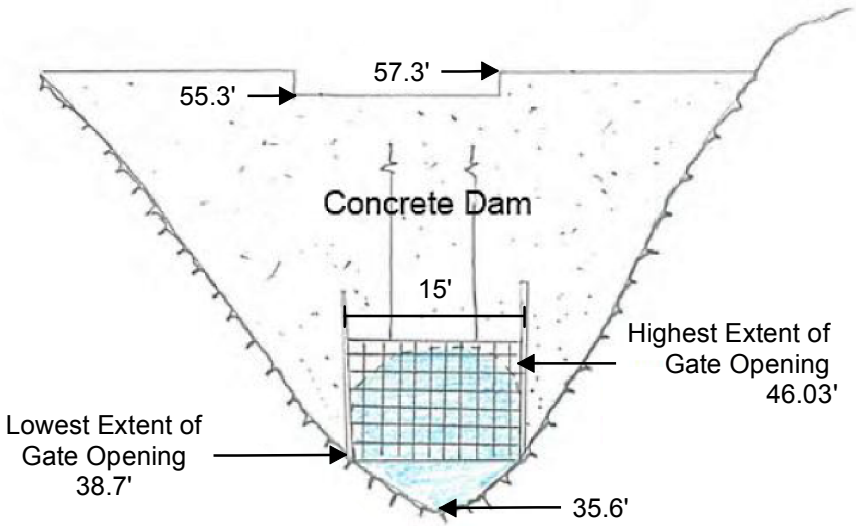
Sluice Gate Photograph - 9/21/2016

Sluice Gate Conceptual Diagram



UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

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BOWMAN AVENUE DAM SLUICE GATE

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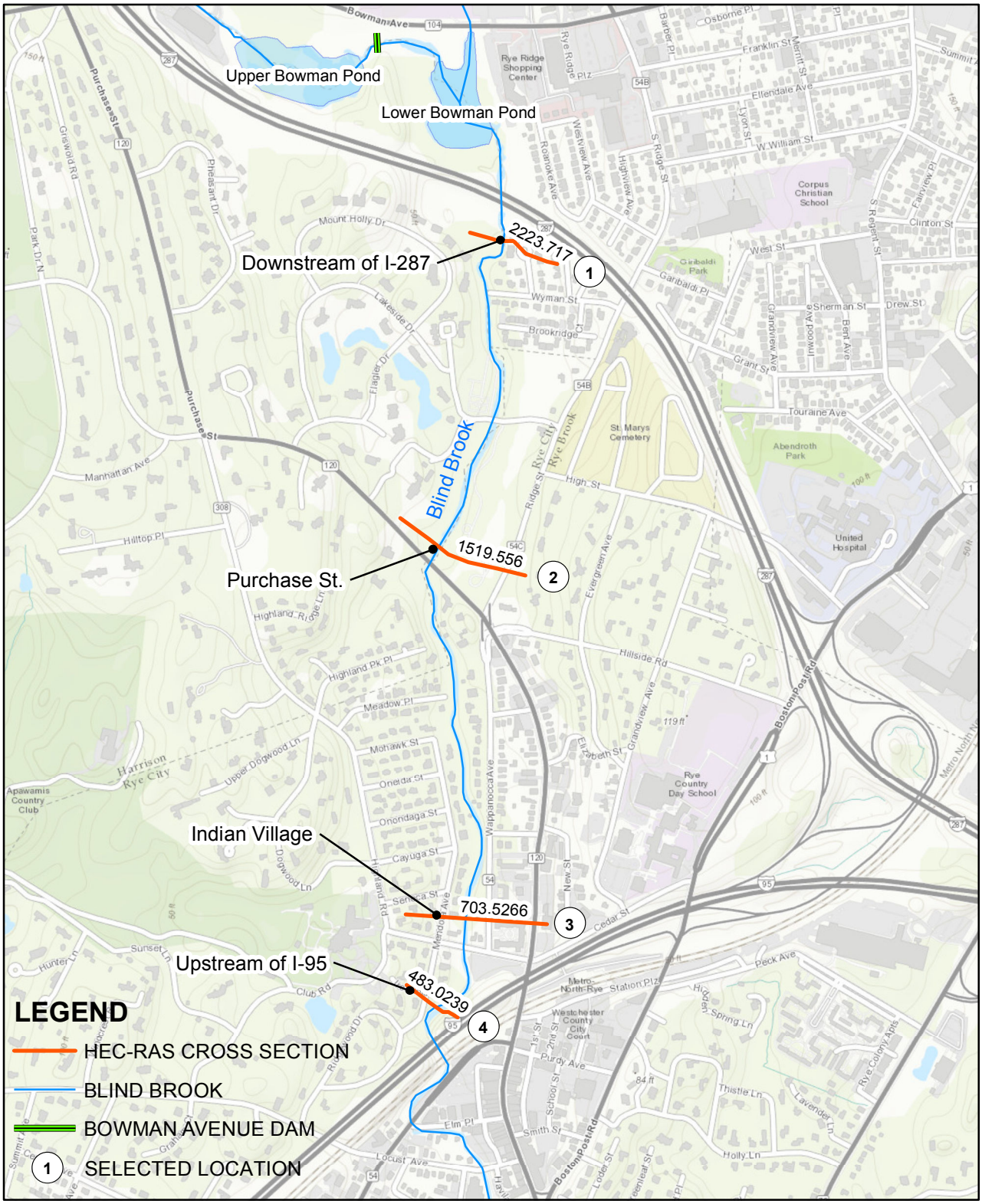
FIGURE 7



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I:\Nys-Dorm.12145\63832.Blind-Brook-Flo\Docs\DWG\MXD\FIG 07 Comparison XS Locations_Rev.mxd

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

BOWMAN AVENUE DAM
COMPARISON LOCATIONS

N

0 500 1,000 2,000
Feet

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O'BRIEN & GERE ENGINEERS, INC.

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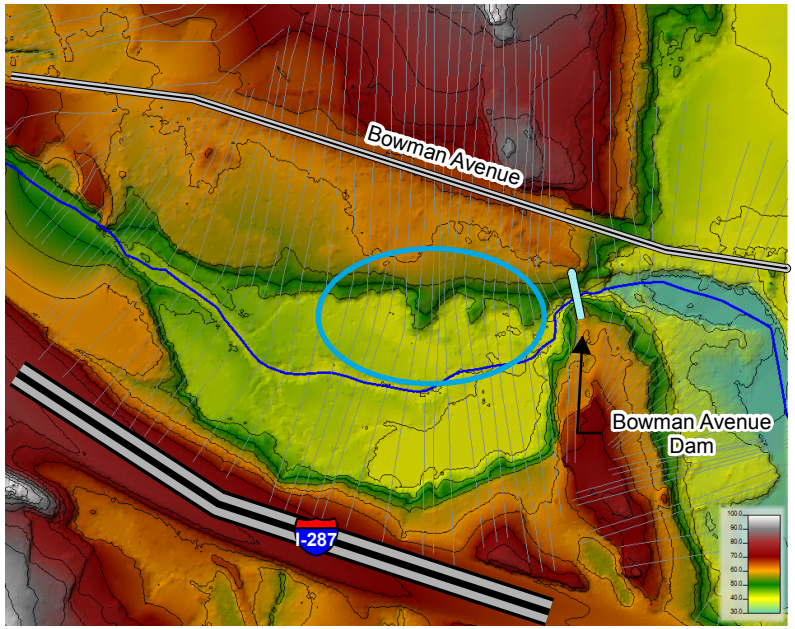
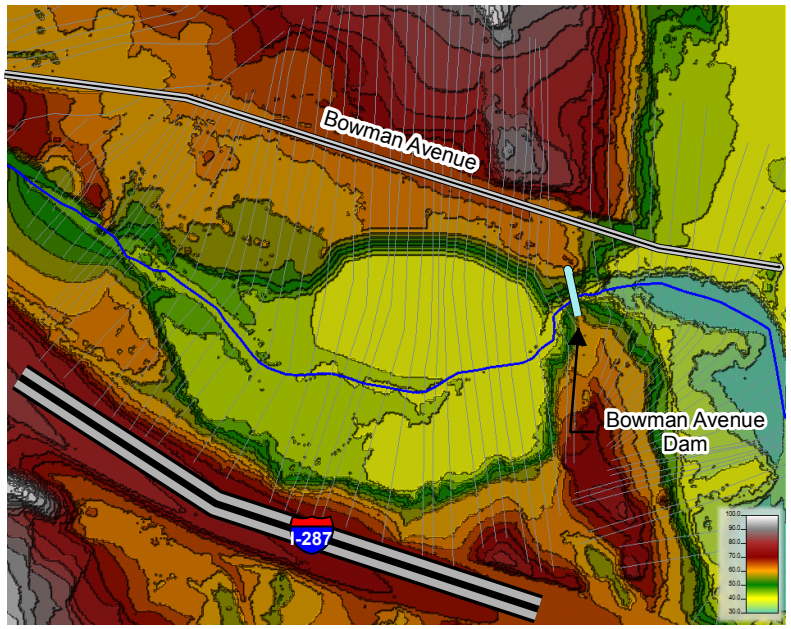
Existing Conditions



31,000 C.Y. Excavation



Excavation Bottom Elevation: 41' AMSL

Legend

31,000 CY
Excavation Limit

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

31,000 CY UPPER
POND RESIZING LIMITS

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MARCH 2017

O'BRIEN & GERE ENGINEERS, INC.

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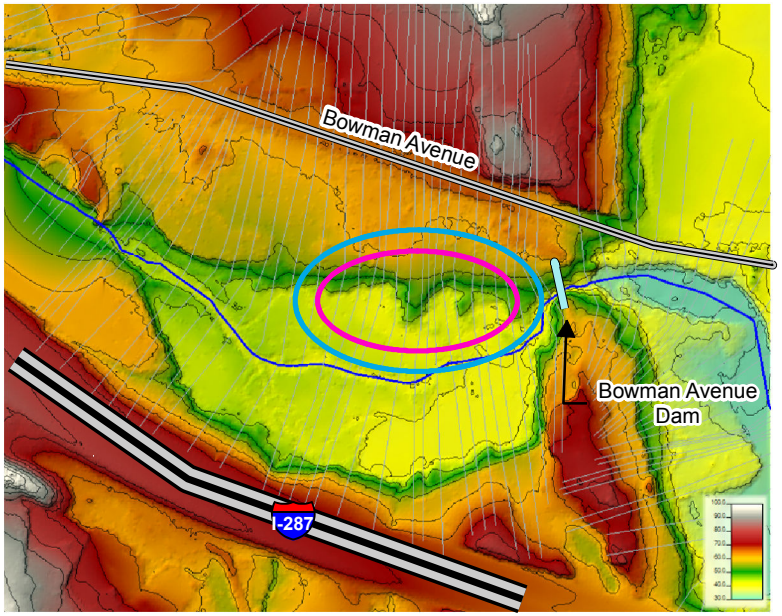
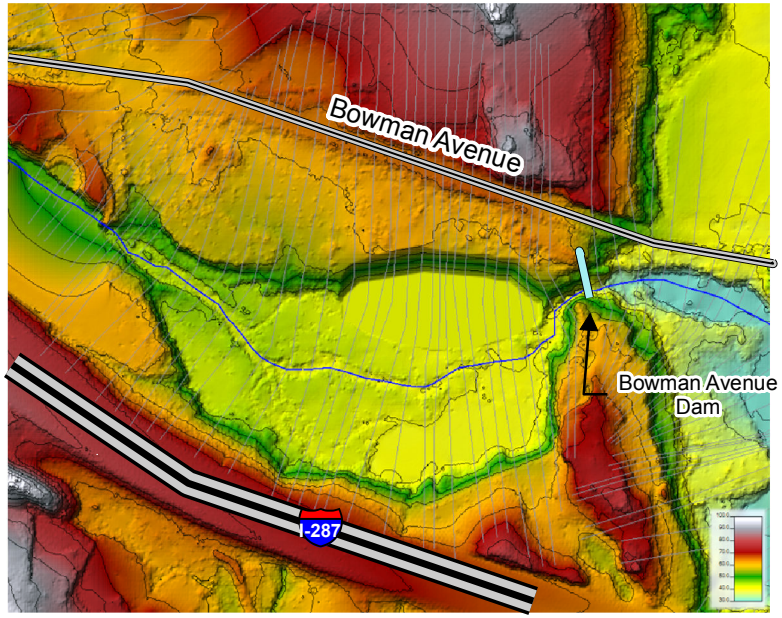
Existing Conditions



13,500 C.Y. Excavation



Excavation Bottom Elevation: 41' AMSL

Legend

- 13,500 CY Excavation Limit
- 31,000 CY Excavation Limit

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

13,500 CY UPPER POND RESIZING LIMITS

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MARCH 2017

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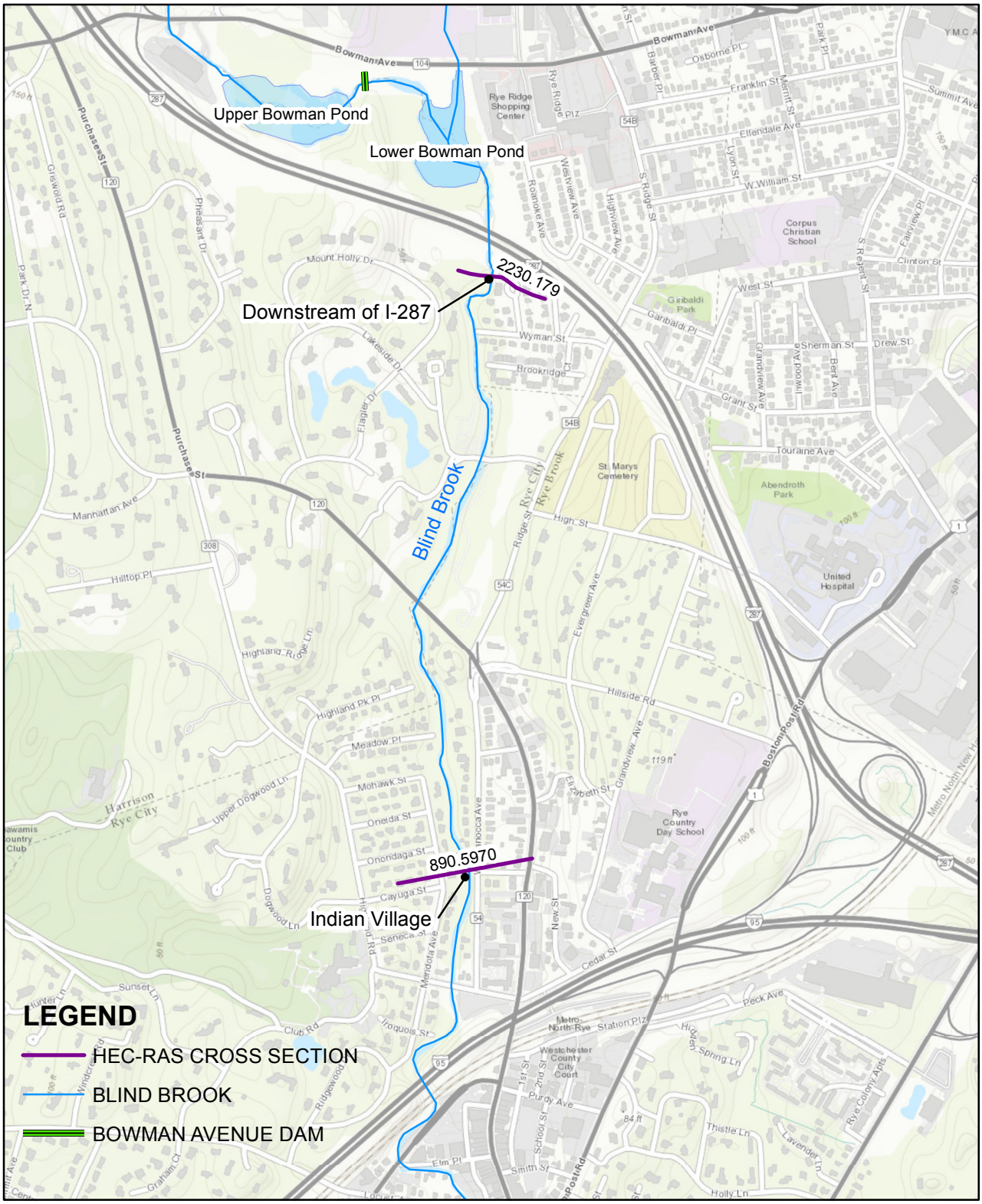

I:\Nys-Dorm.12145\63832.Blind-Brook-Flo\Docs\DWG\MXD\FIG 10 Optimization XS Locs.mxd

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

BOWMAN AVENUE DAM
GATE CONTROL LOCATIONS

N

0 500 1,000 2,000
Feet

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MARCH 2017

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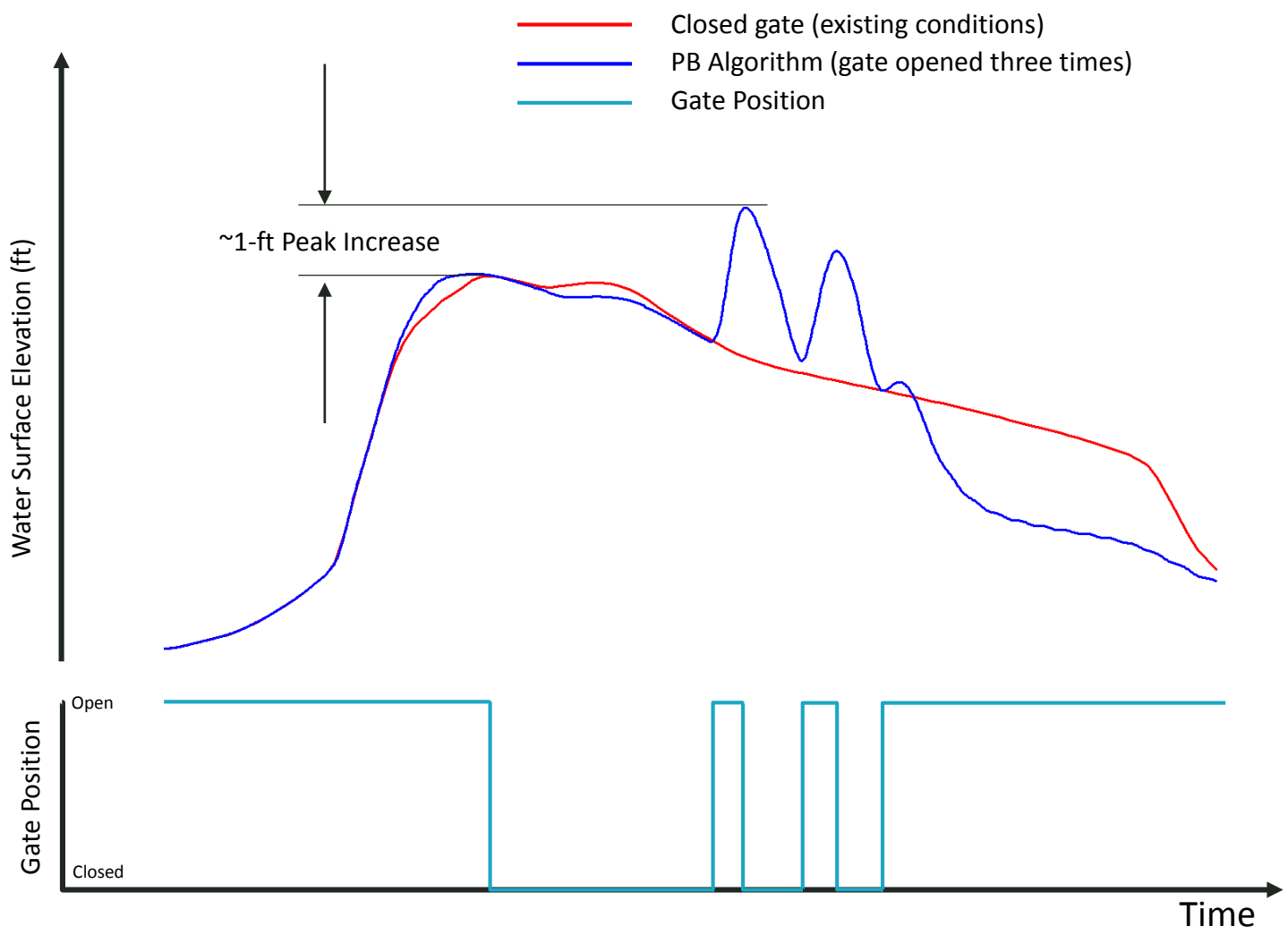
FIGURE 11



UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

PB ALGORITHM
2-YEAR EVENT

MARCH 2017

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 12

UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

WATER SURFACE ELEVATION REDUCTION RESULTS COMPARISON

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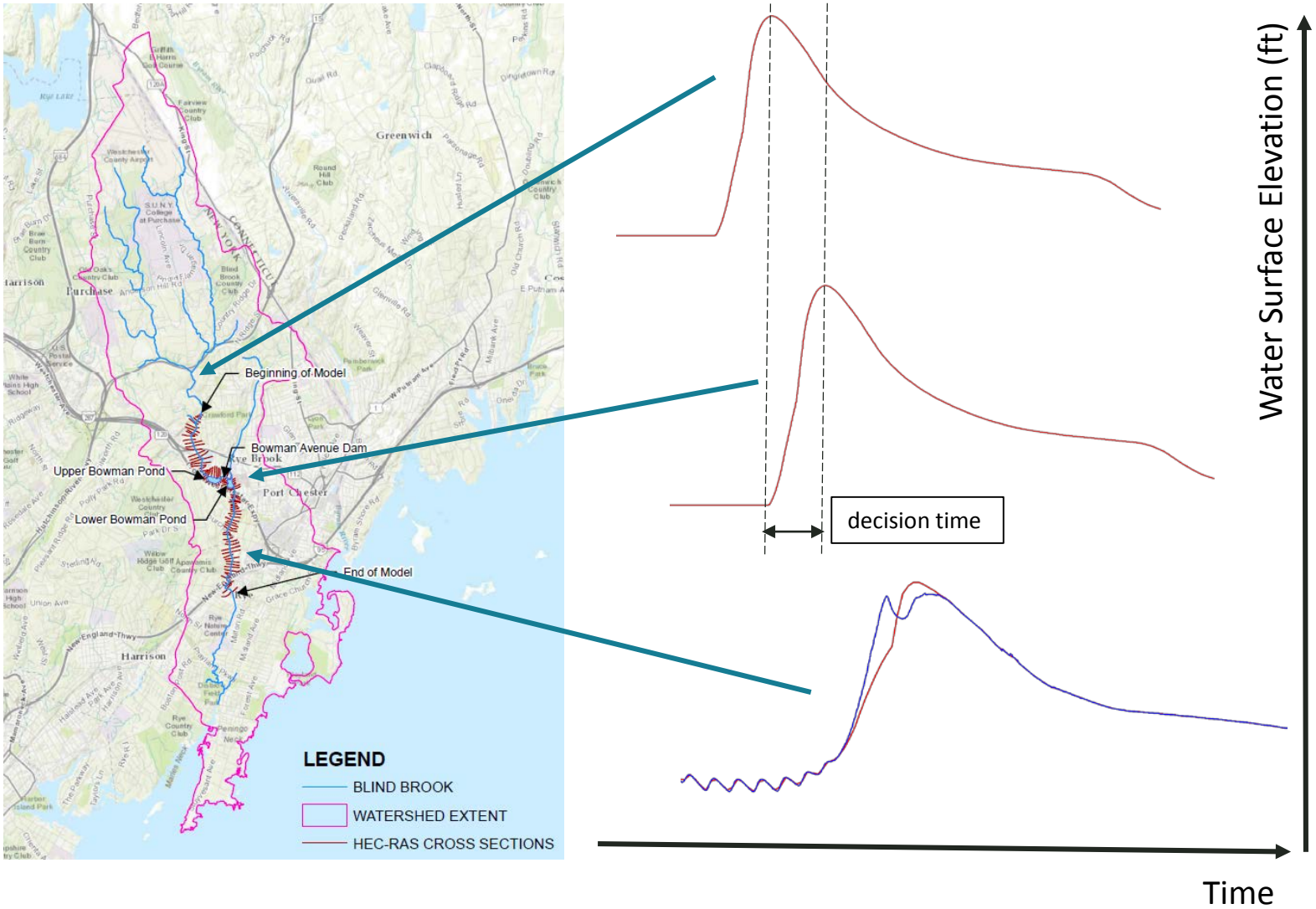
MARCH 2017

FIGURE 13



UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

EVENT FREQUENCY FORECASTING SYSTEM

MARCH 2017

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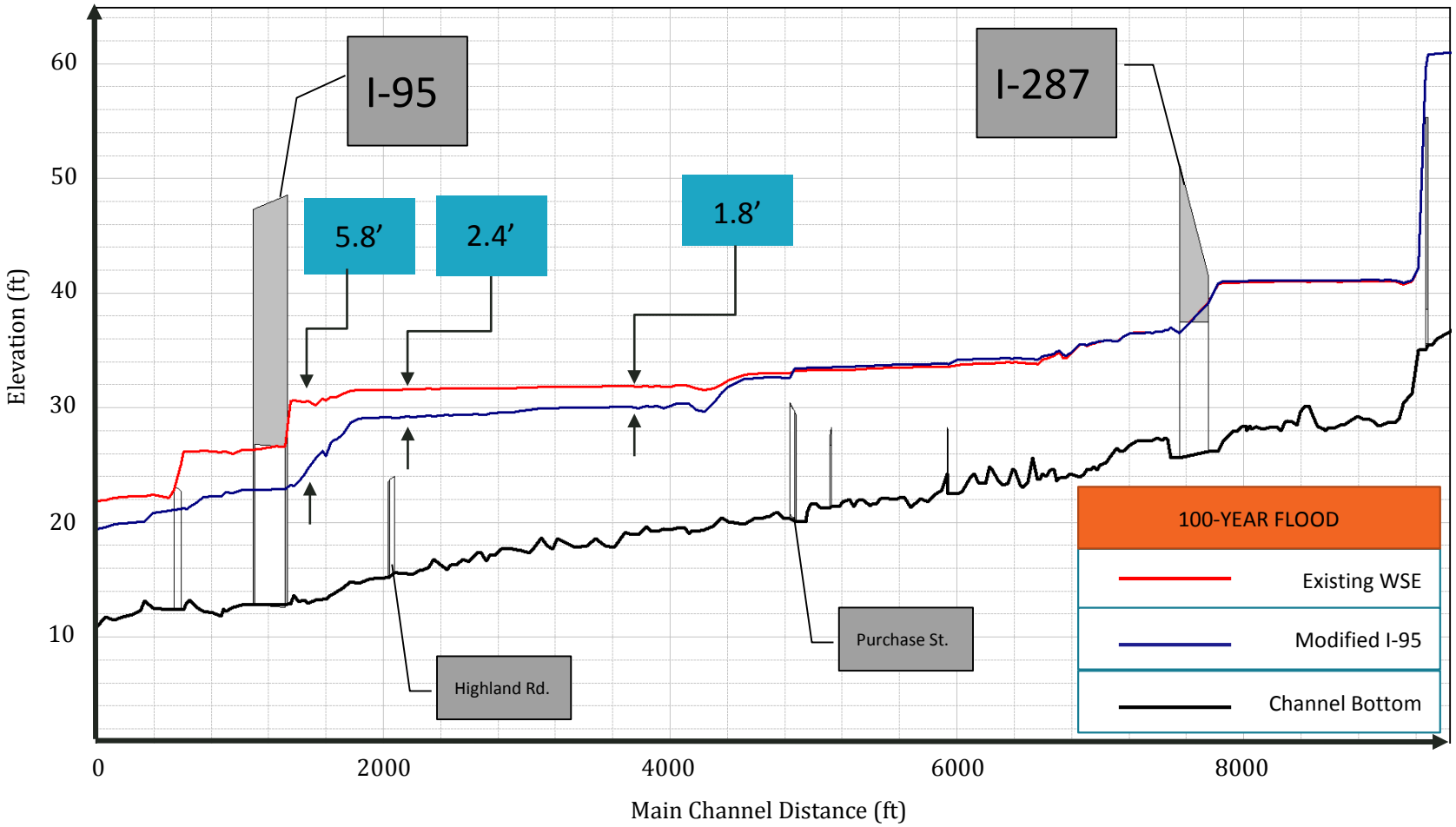
FIGURE 14



UPPER BOWMAN POND
MODIFICATIONS STUDY
RYE, NEW YORK

INDIAN VILLAGE WATER
SURFACE ELEVATION PROFILE

MARCH 2017

O'BRIEN & GERE ENGINEERS, INC.

CITY COUNCIL AGENDA

NO. 8 DEPT.: City Manager's Office DATE: April 5, 2017

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Continuation of the Public Hearing to amend the Rye City Code: (a) local law Chapter 133, "Noise", by amending Section §133-4, "Points and method for measuring intensity of sound" to regulate placement and noise of telecommunication devices; (b) local law Chapter 167, "Streets and Sidewalks", to add a new Article IV "Placement of Permanent Facilities in the Rights of Way", Sections §167-66 through §167-71, to regulate placement of devices in the right of way; and (c) local law Chapter 196, "Wireless Telecommunications Facilities", by amending Sections §196-3 through §196-8, §196-14, §196-17, §196-18, and §196-22 to regulate wireless facilities and structures regarding size, visual impact and permit process.

FOR THE MEETING OF:
April 5, 2017
RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That the City Council set a Public Hearing to approve the changes in the City Code regarding telecommunications devices.

IMPACT: ☐ Environmental ☐ Fiscal ☒ Neighborhood ☐ Other:

BACKGROUND: Local law Chapter 196, "Wireless Telecommunications Facilities was adopted in 1997 with modifications in 2003. Due to the continuing evolution of telecommunications technology and demands, the recommendation is to make changes to Chapters 133, 167 and 196 of the Rye City Code to address telecommunications devices regarding size, visual impact, placement and permit process.

See attached Draft Local Laws as of March 15, 2017.

Revised Draft Local Laws will be available on the City website on Monday, April 3, 2017.

SUMMARY OF MODIFICATIONS TO CODE OF ORDINANCES

Chapter 133: **Noise**

§ 133-1 **Unnecessary noise prohibited.**
Subject to the provisions of this chapter, the creation of any unreasonably loud, disturbing and unnecessary noise is prohibited. Noise of such character, intensity and duration as to be detrimental to the life or health of any individual is prohibited.

§ 133-2 **Prohibited acts. *****

§ 133-3 **Permissible intensity of noise.**
[Amended 8-21-1991 by L.L. No. 19-1991]
Except for noise emanating from the operation of motor vehicles, the permissible intensity of noise from any of the foregoing acts, whether such noise is intermittent, impulsive, sporadic or continuous, shall be limited as follows:

A. Maximum sound pressure [db(A)] shall be as follows:

(1) Fifty-five db(A) for stationary sources and 70 db(A) for outdoor power tools.
(2) Portable air compressors and their related equipment are limited to 76 db(A).
(3) Lawn mowers, leaf blowers, and outdoor vacuum cleaners shall have a permitted intensity of 85 db(A); use of this equipment is prohibited between the hours of 8:00 p.m. and 8:00 a.m. on weekdays and between the hours of 6:00 p.m. and 10:00 a.m. on weekends and holidays. The permitted intensity and hours described in this subsection will apply to leaf blowers during months when the use of leaf blowers is permitted.
(4) Air-conditioning units and pool filters are limited to 60 db(A).

§ 133-4 **Points and method for measuring intensity of sound.**

A. Except for noise emanating from the operation of motor vehicles, the point at which the intensity of sound is to be measured shall be at a distance of 50 feet, except that noise from

(1) air-conditioning units and pool filters at a distance of 10 feet.

(2). stationary utility or communications facilities located on public property shall be measured at a distance of 50 feet, or, if less, the distance from the facility or its supporting Supporting Structure to a sidewalk or the nearest private residential property line, but no less than 10 feet. For any such facilities, the measurements should include noise from that facility and all other stationary utility or communications facilities proximately associated with ~~located on or within 10 feet of~~ the stationary utility or communications facility or its supporting Supporting Structure.

B. Measurement shall be made using a meter capable of measuring decibels and of a type meeting ANSI S1.4-1971, Type 2 standard. The measurement is to be made using a free-field microphone directed at the noise source.

~~PURPOSE: CURRENT LAW REQUIRES MEASUREMENT OF NOISE AT A SHORTER DISTANCE WHERE THE DEVICES IS LIKELY TO BE LOCATED IN A WAY THAT NOISE LEVELS WILL REACH PASSERBYS OR NEIGHBORS, AS OPPOSED TO THE RESIDENTS OR OCCUPANTS OF A BUILDING. THIS PROVISION RECOGNIZES THAT~~

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~~SOME UTILITY FACILITIES ARE LIKELY TO LOCATED IN A WAY THAT RAISES THE CONCERNS THAT LED TO THE "10 FOOT" STANDARD UNDER CURRENT LAW, AND SOME WILL NOT. THE AMENDMENTS WOULD ADOPT A SHORTER DISTANCE WHERE THE FACILITY IS NEAR RESIDENTIAL PROPERTIES OR PUBLIC WALKWAYS, AND USES THE LONGER DISTANCE FOR MORE REMOTE FACILITIES.~~

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Chapter 167 – Street and Sidewalks

ADD A NEW ARTICLE VI - PLACEMENT OF PERMANENT FACILITIES IN THE RIGHTS OF WAY

167-66. **Consent required for placement of permanent facilities**. Except as specifically provided in this Code, or where a consent has been granted by the State, and no consent may be required by the City, any person that wishes to place permanent facilities in the rights of way must have a consent from the City, which consent, if issued after the date of the ordinance, must take the form of a franchise or license. Persons who own or control facilities in the rights of way used to provide cable services to end users must obtain a video franchise from the City as provided in Section 185, but a video franchise under Chapter 185 is not in lieu of the franchise or license described herein if facilities are placed in the rights of way to provide other services.

167.67. **No waiver of police powers.** No franchise or license may waive or restrict the City's exercise of its police powers. The grant of a right to use or occupy rights of way is not a waiver of the City's authority to control the time, place or manner of placement of the facilities or equipment of a licensee or franchisee, or the right to prohibit the placement of certain types of equipment that present a hazard to persons or property, or that may incommode the public or unduly interfere with use of the rights of way. Placement of ~~wireless facilities~~Wireless Facilities in the rights of way will be subject to Chapter 196.

167.68. **Effect of loss of utility status**. A person that claims the right to use the rights of way as a utility pursuant to New York law loses its franchise if the status of the company changes, or the particular facility installed is not covered by the relevant provision of New York law.

167.69. **Consent indivisible**. No person may subdivide, sublease or grant any other person the right to install facilities in the rights of way, including, without limitation, where the other person's facilities are enclosed entirely within the facilities of a person authorized to occupy the rights of way

167.70. **Exceptions to requirement for franchise or license.** Notwithstanding the foregoing, City may permit a person holding a license or franchise issued by the City under this Section to allow another person to place facilities in the rights of way within a base station (as defined in Chapter 196) after the effective date of this provision where:

(1) The base station is as approved by the City as part of the initial authorization under Chapter 196, and the placement does not involve an increase in the size or total volume of the base station;

(2) The base station is wholly under the control and management of a person holding a license or franchise, and that person is liable for all acts or omissions, and all harms associated with the base stations and all its components whether the same are its acts or omissions, or the acts or omissions of an owner of any component of the base station;

(3) The person holding the franchise or license must warrant and agree that it will not permit the other person to take any action in the rights of way with respect to the base station or

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its components, including but not limited to, installing, physically modifying, maintaining the facilities such person owns; all such activities shall be the sole responsibility of the person holding the franchise or license.

(4) The person for on whose behalf equipment has been installed must acknowledge and agree, in a form acceptable to the City Attorney

(i) that the City has not granted it a franchise or consent to be in the Rights of Way for any purpose;

(ii) that it understand and is bound by Franchisee's representations in the Section 167.70(1)-(3);

(iii) that it shall have no rights or claims against the City of any sort related to its facilities, but shall be jointly and severally liable for any acts or omission of the holder of the license or franchise, or its own acts and omissions that result in any harms to the City or to the public;

(iii) that City may treat any equipment owned by such entity as if it were owned by the person holding the franchise or license for all purposes (including but not limited to removal and relocation).

(iv). that as long as its equipment is in the rights of way, in lieu of a franchise or consent fee, it will pay the fee required by Section 167.71, or cause the person holding the franchise or license to pay on its behalf.

167.71. **Compensation for use of the rights of way**. Unless a franchise or license provides otherwise:

(1) For an person that has facilities in the rights of way and does not itself hold a franchise or license authorizing placement of facilities in the rights of way to provide those services, except where compensation for that use is provided for under a franchise or license with another person, or is prohibited by New York State law:

(i) for lines or conduit occupying the rights of way, and supporting structures and associated equipment cabinets for the lines or conduit that may be permitted in the rights of way, 5% of gross revenues derived from the operation of the facilities within the City;

(ii) for Wireless Facilities, $2000 per annum for each Wireless Facility. Where a Wireless Facility contains more than one radio unit, the fee will be $2000 per radio unit per Wireless Facility. Where a Wireless Facility includes a new supporting structure or ground cabinet an additional rent equal to the square footage affected by the supporting structure (taking into account separation distances required from other structures, and including footage occupied by guy wires) x the average value of unimproved property in the City.

~~5% of gross revenues derived from the operation of its facilities within the City.~~

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(2) For an entity that operates as a provider of and which holds a franchise or license authorizing the use of the rights of way to provide that service, the amount specified in the franchise or license, or if no amount is specified, and a fee may be imposed, the amount specified in Section 167.71(1).

(3) The fee specified in this section is not in lieu of any other tax, fee or assessment. Without limitation, an applicant shall bear costs associated with negotiating and issuing a franchise or license.

(4) City may waive the fee or impose a different fee where the fee provided under Section 167.71(1) cannot reasonably be applied or is not reasonable in light of the right of way use.

167.72 Registration Requirement.

(1) Whether or not a franchise or license is required, any person placing permanent facilities in the rights of way shall be required to register with the City beginning on October 1, 2017, identifying the nature and location of its facilities in the rights of way, and the location of major components associated with those facilities. Wireless facilities are considered major components, and any powered facility is considered a major component.

(2) A permanent facility is defined as any structure or equipment, other than a structure or equipment owned by the municipality or an agency or subdivision of the federal or state government, that is (a) physically affixed to the ground, or to any structure affixed to the ground in the rights of way; and (b) intended to remain in place for more than one year.

(3) This provision does not require any person to disclose information it is prohibited from disclosing under state or federal law. However, a person that would otherwise be subject to this provision, but who may not disclose the location or nature of its facilities consistent with state or federal law must register, and shall note the provisions of law which it claims restrict disclosure.

(4) The _____ shall develop registration forms by July 1, 2017, and may establish requirements for the submission of information in a form that permits the City to locate and identify facilities in its rights of way.

(5) Each registrant shall pay such fees as the City may establish from time to time to recover the cost of the registration system.

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Chapter 196

WIRELESS TELECOMMUNICATIONS FACILITIES

GENERAL REFERENCES

§ 196-1. Purpose and legislative intent.

The Telecommunications Act of 1996 affirmed the City of Rye's authority concerning the placement, construction and modification of wireless telecommunications facilities. The City Council finds that wireless telecommunications facilities and related equipment may pose a unique hazard to the health, safety, public welfare and environment of the City and its inhabitants, and may also have an adverse visual impact on the community, its character and thus the quality of life in the City. The intent of this chapter is to ensure that the placement, construction or modification of wireless telecommunications facilities and related equipment is consistent with the City's land use policies and Zoning Code[1]; to minimize the negative and adverse visual impact of wireless telecommunications facilities; to assure a comprehensive review of environmental impacts of such facilities; to protect the health, safety and welfare of the City of Rye; and to encourage shared use of wireless telecommunication facilities.

§ 196-2. Title.

This chapter may be known and cited as the "Wireless Telecommunications Facilities Siting and Special Use Permit Law for the City of Rye," or may otherwise be known as the "Wireless Facilities Law."

§ 196-3. Definitions; word usage.

For purposes of this chapter, and where not inconsistent with the context of a particular section, the defined terms, phrases, words, abbreviations and their derivations shall have the meanings given in this section. When not inconsistent with the context, words in the present tense include the future tense, words used in the plural number include words in the singular number and words in the singular number include the plural number. The word "shall" is always mandatory and not merely directory.

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[1] **1. Editor's Note: See Ch. 197, Zoning.**

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ACCESSORY FACILITY OR STRUCTURE — An accessory facility or structure serving or being used in conjunction with a Base Station~~telecommunications facility~~ and located on the same property or lot as the ~~telecommunications tower~~Base Station, whether or not owned by the person who owns or controls the Base Station, including but not limited to utility or transmission equipment storage sheds or cabinets; electric meters; and fencing or shielding.

APPLICANT — Includes any individual, corporation, estate, trust partnership, joint-stock company, association of two or more persons, limited liability company or entity submitting an application to the City of Rye for a special use permit for a telecommunications facility.

APPLICATION — The form approved by the Council, together with all necessary and appropriate documentation that an applicant submits in order to receive a special use permit for a telecommunications facility.

ANTENNA — A ~~-~~device, dish, array, or similar device used for sending and/or receiving electromagnetic waves for FCC-licensed or authorized wireless communications.~~system of electrical conductors that transmit or receive electromagnetic waves or radio frequency signals. Such waves shall include, but not be limited, to radio, television, cellular, paging, personal telecommunications services (PCS) and microwave telecommunications.~~

BASE STATION - A facility or equipment at a fixed location that enables FCC-licensed or authorized wireless communications between user equipment and a communications network. The term does not encompass a Tower as defined herein or any equipment associated with a Tower. The term Base Station includes, without limitation:

(1) Equipment associated with wireless communications services such as private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul.

(2) Radio transceivers, Antennas, coaxial or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration (including Distributed Antenna Systems ("DAS") and small-cell networks); provided that, wireline connections in the rights of way linking Antennas to other elements of a small cell, DAS or similar network will not be treated as part of the Wireless Facility and instead their placement shall be subject to review consistent with applicable provisions of the Rye City Code, the applicable franchise; and New York law.

(3) Any Supporting Structure other than a Tower that, at the time the relevant application is filed with the City under this section, supports or houses equipment described in paragraphs (1)-(2) that has been reviewed and approved for placement of such equipment under this Chapter, or under another State or local regulatory review process, even if the Supporting Structure was not built for the sole or primary purpose of providing that support. For Supporting Structures that support equipment described in paragraphs (1)-(2), including but not limited to the sides of buildings, water Towers, or utility poles, the term includes only that portion of a Supporting Structure specifically approved to support the wireless equipment described in paragraphs (1)-(2), and only relates to activities necessary to permit the installation, maintenance, replacement

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or collocation of wireless equipment described in the preceding paragraph. The exemption of a Supporting Structure from review is not an approval.

BREAK POINT — The location on a telecommunications ~~tower~~Tower (~~tower~~Tower) which, in the event of a failure of the ~~tower~~Tower, would result in the ~~tower~~Tower falling or collapsing within the boundaries of the property on which the ~~tower~~Tower is placed.

CARRIER ON WHEELS or CELL ON WHEELS ("COW") - A portable self-contained facility that can be moved to a location and set up to provide Personal Wireless Services. A COW is normally vehicle-mounted and contains a telescoping boom to support the Antenna.

CITY — The City of Rye, New York.

COLLOCATION — The use of the ~~same~~ an existing ~~telecommunications tower~~Tower or Base Station ~~structure~~ to install ~~carry~~ additional transmission equipment ~~two or more antenna~~Antenna~~s~~ for the provision of wireless services. ~~by two or more persons or entities.~~

COMMERCIAL IMPRACTICABILITY or COMMERCIALLY IMPRACTICABLE — The meaning in this chapter and any special use permit granted hereunder as is defined and applied under the United States Uniform Commercial Code (UCC).

COMPLETED APPLICATION — An application that contains all information and/or data required by the City on application forms, by ordinance or by written practice. ~~necessary to enable the Council to evaluate the merits of the application and to make an informed decision with respect to the effect and impact of the telecommunications tower~~Tower ~~on the City in the context of the permitted land use for the particular location requested.~~

CONCEALMENT ELEMENT - Any design feature, including but not limited to painting, shielding requirements and restrictions on location, proportions, or physical dimensions in relation to the surrounding area or Supporting Structures that are intended to make a Wireless Facility or any Supporting Structure supporting it less visible to the casual observer.

COUNCIL — The City Council of the City of Rye, which is the officially designated agency or body of the community to whom applications for a special use permit for a telecommunications facility must be made, and that is authorized to review, analyze, evaluate and make decisions with respect to granting or revoking special use permits for telecommunications facilities. The Council may, at its discretion, delegate or designate other official agencies of the City to accept, review, analyze, evaluate and make recommendations to the Council with respect to the granting or not granting, recertifying or not recertifying or revoking special use permits for telecommunications facilities.

EAF — The Environmental Assessment Form approved by the New York Department of Environmental Conservation.

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EXISTING - In place as of the date an application is received for installation or modification of a Wireless Facility.

FAA — The Federal Aviation Administration or its duly designated and authorized successor agency.

FCC — The Federal Communications Commission or its duly designated and authorized successor agency.

~~FREESTANDING TOWER — A tower~~Tower~~ that is not supported by guy wires and ground anchors or other means of attached or external support.~~

HEIGHT — When referring to a ~~tower~~Tower or ~~structure~~Supporting Structure, the distance measured from the preexisting grade level to the highest point on the ~~tower~~Tower or ~~structure~~Supporting Structure, even if said highest point is an ~~antenna~~Antenna.

NIER — Nonionizing electromagnetic radiation.

PERSON — Any individual, corporation, estate, trust, partnership, joint-stock company, association of two or more persons having a joint common interest or governmental entity.

~~PERSONAL WIRELESS FACILITY —~~. ~~See definition for "telecommunications tower."~~

PERSONAL WIRELESS SERVICES ~~or PWS or PERSONAL TELECOMMUNICATIONS SERVICE or PCS (or any functionally equivalent service or technology that may be developed in the future)~~ — Shall have the same meaning as defined and used in the 1996 Federal Telecommunications Act and associated regulations.

~~SITE — See definition for "telecommunications tower~~Tower~~."~~

SPECIAL USE PERMIT — The official document or permit by which an applicant is allowed to construct and use a telecommunications ~~tower~~Tower as granted or issued by the City.

STEALTH FACILITY - Any Wireless Facility that is integrated as an architectural feature of a an existing Supporting Structure or any new Wireless Facility that is camouflaged or concealed so that the presence of the Wireless Facility is not readily apparent to a casual observer.

SUPPORTING STRUCTURE – Excluding a Tower, any building, mast or other facility capable of supporting or housing a Base Station.

SUBSTANTIAL CHANGE - Substantial change has the same meaning the term "Substantial Change" as defined by Federal Communications Commission regulations, 47 C.F.R. §1.40001(b)(7).

TELECOMMUNICATIONS — The transmission and reception of audio, video, data and other information by wire, radio frequency, light and other electronic or electromagnetic systems.

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WIRELESS FACILITY — All elements of a facility at a fixed location used in connection with the provision of any FCC licensed or authorized wireless service, including the Base Station (but excluding the Supporting Structure to which the Base Station is attached or within which it is enclosed), Tower, if any, and Accessory Facilities or Supporting Structures serving that Base Station.

~~WIRELESS TELECOMMUNICATIONS FACILITY or TOWER or SITE or PERSONAL WIRELESS FACILITY (or any functionally equivalent service or technology that may be developed in the future) — A structure~~Supporting Structure~~ or location designed or intended to be used or used to support antenna~~Antenna~~s. It includes without limit antenna~~Antenna~~s applied to the facade of a building or roof-mounted antenna~~Antenna~~s, freestanding tower~~Tower~~s, guyed tower~~Tower~~s, monopoles and similar structure~~Supporting Structure~~s that employ camouflage technology, and including, but not limited to, structure~~Supporting Structure~~s such as a church steeple, water tower~~Tower~~, sign or other similar structure~~Supporting Structure~~s intended to mitigate the visual impact of an antenna~~Antenna~~ or the functional equivalent of such. It is a facility or structure~~Supporting Structure~~ intended for transmitting and/or receiving radio, television, cellular, paging, personal telecommunications services or microwave telecommunications, but excluding those used exclusively for fire, police and other dispatch telecommunications, or exclusively for private radio and television reception and private citizens' bands, amateur radio and other similar telecommunications.

~~TELECOMMUNICATIONS STRUCTURE — Any structure~~Supporting Structure~~ used in, associated with or necessary for the provision of wireless services and as described in the definition of wireless telecommunications facility~~Wireless Facility~~.~~

TEMPORARY — In relation to all aspects and components of this chapter fewer than 90 days.

TOWER – Any Supporting Structure built for the sole or primary purpose of supporting any FCC-licensed or authorized Antennas and their associated facilities, including Supporting Structures that are constructed for wireless communications services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul, and the associated site. This definition does not include utility poles.

UTILITY POLE - A Supporting Structure owned and/or operated by a public utility, and regulated by the New York State Department of Public service, which is primarily built to support lines, cables, or wires for telephone, cable television, or electricity, or to provide lighting.

§ 196-4. <u>Policy and goals for special use permits</u>.

In order to ensure that the placement, construction and modification of ~~wireless~~ Wireless ~~telecommunications f~~Facilities conforms to the City's purpose and intent of this chapter, the Council creates a special use permit for ~~a telecommunications facility. As such, the Council adopts a policy with respect to a special use permit for a wireless~~ Wireless ~~telecommunications f~~Facilit~~y~~ies for the purpose of achieving the following goals:

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A. Implementing an application process for person(s) seeking a special use permit for a ~~wireless~~ Wireless ~~telecommunications f~~Facility.

B. Establishing a policy for examining an application for and issuing a special use permit for a ~~wireless~~ Wireless ~~telecommunications f~~Facility that is both fair and consistent.

C. Establishing reasonable time frames for granting or not granting a special use permit for a ~~wireless~~ Wireless ~~telecommunications f~~Facility, or recertifying or revoking the special use permit granted under this chapter.

D. Promoting and encouraging, wherever possible, and where it will result in the least overall visual impact for residential dwelling units, the ~~sharing and/or~~ collocation of ~~a w~~Wireless ~~telecommunications f~~Facility~~ies~~ ~~among service providers~~.

E. Promoting and encouraging, wherever possible, the placement of a ~~wireless~~ Wireless ~~telecommunications f~~Facility in such a manner as to cause minimal disruption to the land, property, buildings and other facilities adjacent to, surrounding and in generally the same area as the requested location of such a ~~wireless~~ Wireless ~~telecommunications f~~Facility and to minimize adverse aesthetic impacts to the community.

§ 196-5. Special use permit ~~application and other requirements~~.

A. A person who installs Wireless Facilities pursuant to this section must comply with all safety codes; comply with requirements for RF emissions; and must paint and maintain facilities to minimize visibility of the Wireless Facilities.

B. This Chapter does not apply to any device designed for end-user over-the-air reception, not transmission, of television broadcast signals, multi-channel multi-point distribution service, or direct broadcast satellite service; or for end user reception of signals from an Internet service provider and end user transmission of signals to an Internet service provider.

C. The following Wireless Facilities do not require a special use permit , except where the same are on or affect a historic property, or an environmentally sensitive area. Requirements that may apply to the underlying Supporting Structure to which a Base Station is to be attached, as well as all other applicable laws and regulations continue to apply.

1. Wireless Facilities that are less than 1 cu ft. in size, placed on existing Supporting Structures without increasing the physical dimensions of the existing Supporting Structures. The "cubic footage" takes into account all the elements of the Wireless Facility (including meters and power supplies required, if any).

2. Wireless Facilities placed on existing, City-approved Towers on private property, or public property off the right of way where the installation does not result in a Substantial Change in the physical dimensions of the Tower as originally approved by City.

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3. Wireless Facilities placed on the rooftop of non-residential buildings; that are at least 25 feet from any residential unit; and that are not visible from the street.

4. Wireless Facilities within existing Supporting Structures (other than historical properties) that are not visible from outside the Supporting Structure and do not change the physical dimensions or appearance of the Supporting Structure within which they are placed.

6. Wireless Facilities placed on property owned or controlled by the City, other than Rights of Way.

7. Carriers on Wheels where the placement is permitted, and complies with, applicable FCC regulations for temporary placement of Wireless Facilities.

8. Routine maintenance, or replacement of elements of a Wireless Facility that do not change the dimensions or visibility of a Wireless Facility.

C. For eligible facilities requests, as defined in the Federal Communications regulation 47 C.F.R. §1.40001(b)(3), implementing federal law, 47 U.S.C. §1455 (other than requests exempted by Section 196-5.C.2), a conditional special use permit will be issued.

(1) A conditional special use permit may be issued administratively by the Zoning Administrator. The conditional use permit shall specifically provide that it is not being issued at the direction of the federal government and without the consent of the City, and shall be of no further force and effect when the permit for the underlying facility expires, or the federal law changes so that the permit as issued is no longer required.

(2) An application must be submitted containing such information as the Zoning Administrator may require. The application must contain at least the information required to permit the Zoning Administrator to determine whether the application is an eligible facilities request, including the underlying approval for the existing Tower and base station and any approved modifications to the same where the modifications were approved prior to February 22, 2012, and detailed information about the Tower and base station as the same exist on the date of the application.

(3) The application shall be denied if it is not an eligible facilities request. If an application is denied because it is determined that it is not eligible for a permit under Section 6409, the applicant may request that the application be treated as a request for special permit by submitting all the information required for a special permit within ten (10) days of the denial of application submitted under Section 6409.

D. All other Wireless Facility installations (including modifications) require a special use permit.

(1) Special use permits may be granted where applicant shows:

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a. The Wireless Facility proposed is not being built speculatively (that is, there is a customer for the Wireless Facility), and it will be built promptly upon approval.

b. The applicant and any entity whose equipment would be included in the installations has all the authorizations required to place the Wireless Facilities from the state, or the City, or the owner of the property, and to modify, replace or attach to a Supporting Structure.

c. The Wireless Facility is designed and placed to minimize the visual impact on the community.

d. The Wireless Faclity does not significantly impact the site upon which it will be located or the properties that will be disturbed as a result of its installation.

e. if Applicant claims the status of a utility under New York law, it must show that the Wireless Facility is necessary for the provision of services, which showing must include a showing that it is the least intrusive alternative for providing service. If applicant claims a right as a provider of wireless services or facilities under 47 U.S.C. § 332(c)(7), it must show that absent approval, there will be a prohibition in the provision of wireless services within the meaning of federal law.

(2) City may approve a special use permit without the showing required by Section D.(1)(e) where the facility is not located in or does not affect historic properties or environmentally sensitive areas and the Wireless Facility:

a. Is a Stealth Facility that otherwise satisfies the provisions of this ordinance.

b. Contains Concealment Elements, and is to be placed or shielded on an Existing Supporting Structure in such a way such that the Wireless Facility is not readily visible to surrounding properties, and is not subject to modification except at the discretion of the City.

(3). Notwithstanding the foregoing, City may require the showing under Section D.(1).e where the City determines installation or modification of the Witreless Facility substantially alters the size, proportions or dimensions of an Existing Supporting Structure.

E. Demonstration of least intrusive alternative.

(1) As part of showing that it has proposed the least intrusive alternative for placement, an applicant is required to show that

a. It is installing Stealth Facilities to the extent possible; and

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b. It is otherwise installing facilities in the highest priority locations that are available and necessary to the provision of service or to avoid a prohibition.

(2) The highest priority locations are:

a. Existing Towers serving Rye.

b. Existing Supporting Structures off the rights of way that have Wireless Facilities on rooftops or on building exteriors, including municipally-owned Supporting Structures. (not including Supporting Structures listed in Section 196-5.B(1)-(2)..

(c) Other municipally-owned property (other than the rights of way) where service can be provided using an existing Supporting Structure or a replacement Supporting Structure of similar height and design; or a new Supporting Structure whose height does not exceed 40 feet.

(4) An applicant is further required to show that its proposed installation or modification:

a. minimizes the visual impact of the Wireless Facilities and associated Supporting Structures particularly from residential units, as proposed and under any modification that could be made to that installation as of right; and

b. is designed to be consistent with the overall characteristics of the area where the facilities are located; and

c. has minimized the new Supporting Structures proposed, and the impact of those Supporting Structures.

d. In considering the visibility of facilities, City may consider the mass and size of the facilities, the scale of the facilities (or the effect of the placement on the mass, size and scale of Supporting Structures to which or within which the Wireless Facilities may be attached or concealed) , and any other factor that may affect the impact on the community It may consider the elements of a Wireless Facility separately, or collectively, and may require a showing the visibility of each element of the Wireless Facility, and the effect on any Supporting Structure to which the Wireless Facility will be attached, has been minimized.

(5) The City may approve or require placement in a location that is not the highest priority where the record shows a proposed installation at a different location will result in less impact on the community.

(6) In considering whether a proposal represents the least restrictive alternative, the City will consider the impact of a planned project as a whole, and

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may consider the impact if it is likely that others providers of Wireless Facilities or services may require similar facilities.

§ 196-6. Special use permit, and Special Conditional Use Permit Application Requirements

A. All applicants for a special use permit for a ~~wireless telecommunications facility~~Wireless Facility or any modification of such facility shall comply with the requirements set forth in this section. In addition to the information required by Section 196-5.C., an applicant for a special conditional use permit must comply with the requirements of subsections 196-6.B-D; E (2)-(6),(10), (14)-(18) and (22); G; H; and where the Wireless Facilities that are being modified are Stealth Facilities or subject to Concealment Elements, the visual impact analysis required by subsections I-J so that the City may determine whether the Concealment Elements are defeated.

B. An application for a special use permit for a ~~wireless telecommunications facility~~Wireless Facility shall be signed on behalf of the applicant by the person preparing the same and with knowledge of the contents and representations made therein and attesting to the truth and completeness of the information. The landowner, if different than the applicant, shall also sign the application. At the discretion of the Council, any false or misleading statement in the application may subject the applicant to denial of the application without further consideration or opportunity for correction.

C. Applications not meeting the requirements stated herein or which are otherwise incomplete may be rejected by the Council.

D. The applicant shall include a statement in writing that:

(1) The applicant's proposed ~~wireless telecommunications facility~~Wireless Facility will be maintained in a safe manner and in compliance with all conditions of the special use permit, without exception, unless specifically granted relief by the Council in writing, as well as all applicable and permissible local codes, ordinances and regulations, including any and all applicable county, state and federal laws, rules and regulations.

(2) The construction of the ~~wireless telecommunications facility~~Wireless Facility is legally permissible, including but not limited to the fact that the applicant is authorized to do business in New York State.

E. No ~~wireless telecommunications facility~~Wireless Facility ~~or tower~~Tower ~~or other tall structure~~Supporting Structure shall be installed or constructed ~~for the purpose of providing wireless telecommunications service~~ until a plan of the site is reviewed and approved by the Council and, in situations involving ~~tower~~Towers, until the site plan is reviewed and approved by the Planning Commission. All applications for the construction or installation of a new ~~wireless telecommunications facility~~Wireless Facility shall be accompanied by a report containing the information hereinafter set forth. The report shall be signed by a licensed professional engineer registered in the state and shall contain the following information. Where this section calls for certification, such certification shall be by a qualified New York State licensed professional engineer

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acceptable to the City, unless otherwise noted. The application shall include, in addition to the other requirements for the special use permit, the following information:

(1) Documentation that shows applicant satisfies the requirements of Section 196-5.D-E. ~~demonstrates the need for the wireless telecommunications facility~~Wireless Facility ~~to provide service primarily within the City.~~

(2) Name and address of the person preparing the report.

(3) Name and address of the property owner, operator and applicant, to include the legal form of the applicant. Name and address of any person who will own equipment associated with the Wireless Facility.

(4) Postal address and Tax Map parcel number of the property.

(5) Zoning district or designation in which the property is situated.

(6) Size of the property stated both in square feet and lot line dimensions and a diagram showing the location of all lot lines where the facility is proposed to be located outside of the right of way, and within the rights of way, the location of the proposed facility in relation to the right of way, pedestrian and non-motorized vehicle pathways and cross-walks, and the location in relation to driveways and residential structures on the same right of way and within 750 feet.

(7) Location of all residential structures within 750 feet.

(8) Location of all habitable structures within 750 feet.

(9) Location of all structures on the property which is the subject of the application, or for the right of way, within 250 feet of the proposed facility.

(10) Location, size and height of all proposed and existing ~~antenna~~Antenna~~s~~ Wireless Facilities ~~and all appurtenant structure~~Supporting Structure~~s~~.

(11) Type, size and location of all proposed and existing landscaping.

(12) The number, type and design of the ~~wireless telecommunications facility~~Wireless Facility(s) ~~antenna~~Antenna(s) proposed and the basis for the calculations of the ~~wireless telecommunications facility~~Wireless Facility's capacity to accommodate multiple users.

(13) The make, model and manufacturer of the ~~wireless facility~~Wireless Facility and ~~antenna~~Antenna(s).

(14) A description of the proposed ~~wireless facility~~Wireless Facility ~~and antenna(s)~~ and all related fixtures, ~~structure~~Supporting Structures, appurtenances and apparatus, including height above preexisting grade, materials, color and lighting. For a modification to a facility, applicant must describe precisely any change in physical dimensions to any portion of the facility and describe in detail any additional equipment

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installed as part of the modification and any modifications required to the Supporting Structure (including, but not limited to, modifications to meters, powers supplies, cabling, and guys).

(15) The frequency, modulation and class of service of radio or other transmitting equipment.

(16) Transmission and maximum effective radiated power of the ~~antenna~~Antenna(s).

(17) Direction of maximum lobes and associated radiation of the ~~antenna~~Antenna(s).

~~(18) The applicant's proposed wireless facility maintenance and inspection procedures and related system of records.~~

(18) Certification that NIER levels at the proposed site are within the threshold levels adopted by the FCC. The certifying engineer need not be approved by the City.

~~(20) Certification that the proposed antenna(s) will not cause interference with existing telecommunications devices. The certifying engineer need not be approved by the City.~~

(21) A copy of the FCC license applicable for the use of the ~~wireless telecommunications facility~~Wireless Facility, if any, and a copy of any certificate issued by the State of New York for the facility; and proof that applicant and any person who will own facilities associated with the proposed Wireless Facility are authorized to place the facilities at the location proposed.

(22) For a Tower, ~~C~~certification that a topographic and geomorphologic study and analysis has been conducted and that taking into account the subsurface and substrata, and the proposed drainage plan, that the site is adequate to assure the stability of the proposed ~~wireless telecommunication~~s ~~tower~~Tower on the proposed site. The certifying engineer need not be approved by the City.

(23) Propagation studies of the proposed site and all adjoining proposed or in-service or existing sites.

(24) The applicant shall disclose, in writing, any agreement in existence prior to submission of the application that would limit or preclude the ability of the applicant to share any new ~~wireless telecommunications facility~~Wireless Facility that it constructs.

(25) The applicant shall provide a notarized affidavit that either the proposed installation meets all laws, codes and ordinances or that it meets the same except as specifically listed on said affidavit.

F. In the case of a new ~~wireless telecommunications facility~~Wireless Facility, the applicant shall be required to submit a report demonstrating its efforts to secure shared use of existing ~~wireless telecommunications facility~~Wireless Facility(s). Copies of written requests and responses for shared use shall be provided to the Council.

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G. Certification that the ~~wireless telecommunications facility~~Wireless Facility and attachments both are designed and constructed ("as built") to meet all county, state and federal structural requirements for loads, including wind and ice loads.

H. After construction and prior to receiving a certificate of compliance, certification that the ~~wireless telecommunications facility~~Wireless Facility and related facilities are grounded and bonded so as to protect persons and property and installed with appropriate surge protectors.

I. The applicant shall submit a completed long form EAF and a completed Visual EAF addendum. The Council may require submission of a more detailed visual analysis based on the results of the Visual EAF addendum. Applicants are encouraged to seek preapplication meetings with the City Council to address the scope of the required visual assessment.

J. A visual impact assessment shall be provided with each application which shall include:

(1) A Zone of Visibility Map, which shall be provided in order to determine locations where the facility may be seen.

(2) Pictorial representations of before and after views from key viewpoints to be determined by Council or the City's Board of Architectural Review, including but not limited to state highways and other major roads; state and local parks; other public lands; historic districts; preserves and historic sites normally open to the public; and from any other location where the site is visible to a large number of visitors or travelers. The City will provide guidance concerning the appropriate key sites at a preapplication meeting.

(3) An assessment of the visual impact of the facility base, guy wires and accessory buildings from abutting and adjacent properties and streets.

K. The applicant shall identify any concealment elements proposed for the Wireless Facility.~~, in a manner approved by the Council, demonstrate and provide, in writing and/or by drawing, how it shall effectively screen from view its proposed wireless telecommunications facility~~Wireless Facility ~~base and all related facilities and structure~~ and Supporting Structures~~, subject to Council approval.~~

~~L. All utilities serving any wireless telecommunications facility~~Wireless Facility ~~shall be installed underground, embedded in existing construction or otherwise shielded from view and in compliance with all laws, rules and regulations of the City, including specifically, but not limited to, the National Electrical Safety Code and the National Electrical Code, where appropriate. The Council may waive or vary the requirements of undergrounding installation of utilities whenever, in the opinion of the Council, such variance or waiver shall not be detrimental to the health, safety, general welfare or environment, including the visual and scenic characteristics of the area~~ .

~~M. All wireless telecommunications facilities and accessory facilities applications shall contain a demonstration that the facility shall be sited so as to have the least adverse visual impact on the environment and its character, and the residences in the area of the~~

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~~wireless telecommunications facility~~Wireless Facility~~ site. The application shall also include appropriate information addressing the cumulative visual impact of future collocations by the applicant or other telecommunication service providers.~~

N. Where possible, for Wireless Facilities located outside of the rights of way wiring and other components shall be located within buildings. Wireless ~~telecommunications f~~Facilities installed on the exterior of existing buildings/~~structure~~Supporting Structures shall be integrated into the design of such buildings/~~structure~~Supporting Structures. The intent of this provision is to make the installation invisible or indistinguishable from other existing architectural features. Both the ~~wireless telecommunications facility~~Wireless Facility and any and all accessory or associated facilities shall maximize the use of building materials, colors and textures designed to blend with the ~~structure~~Supporting Structure to which it may be affixed and with the natural surroundings. Where possible, for facilities in the rights of way, when existing Utility Poles are replaced, the Wireless Facility will be placed within a pole approved by the City and the utility.

O. An access road and parking to assure adequate emergency and service access shall be provided, should such be deemed necessary by the Council. Maximum use of existing roads, whether public or private, shall be made to the extent practicable. Road construction shall at all times minimize ground disturbance and vegetation cutting. Road grades shall closely follow natural contours to assure minimal visual disturbance and reduce soil erosion potential.

P. Every Wireless ~~A person who holds a special use permit for a wireless telecommunications facility~~ Facility shall be constructed, operated, maintained, repaired, ~~modify~~ modified or restored ~~the permitted wireless telecommunications facility~~Wireless Facility in strict compliance with the then-current version of all ~~current~~ technical, safety and safety-related codes adopted by the City, county, state or United States, including but not limited to the most recent editions of the National Electrical Safety Code and the National Electrical Code, as well as accepted and responsibly workmanlike industry practices and recommended practices of the National Association of Tower Erectors. The codes referred to are codes that include, but are not limited to, construction, building, electrical, fire, safety, health and land use codes. In the event of a conflict between or among any of the preceding, the more stringent shall apply.

Q. Every person constructing or owning a Wireless Facility ~~A holder of a special use permit granted under this chapter~~ shall obtain, at its own expense, all permits and licenses required by applicable law, rule, regulation or law and must maintain the same, in full force and effect, for as long as required by the City or other governmental entity or agency having jurisdiction over the applicant.

R. The Council intends to be the lead agency, pursuant to SEQRA. The Council shall conduct a review of the proposed project in combination with its review of the application under this chapter.

S. An applicant shall submit to the Building Inspector the number of completed applications determined to be needed at the preapplication meeting. A copy of the notification of

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application shall be provided to the legislative body of all adjacent municipalities and to the Westchester County Planning Board.

T. If the applicant is proposing the construction of a ~~tower~~Tower or installation on an existing building/~~structure~~Supporting Structure, the applicant shall examine the feasibility of designing the installation to accommodate future demand for at least two additional commercial applications, e.g., future collocations. The scope of this examination shall be determined by the Council. The ~~wireless telecommunications facility~~Wireless Facility shall be structurally designed to accommodate at least two additional ~~antenna~~Antenna arrays equal to those of the applicant and located as close to the applicant's ~~antenna~~Antenna as possible without causing interference. This requirement may be waived, provided that the applicant, in writing, demonstrates that the provisions of future shared usage of the ~~wireless telecommunications facility~~Wireless Facility is not technologically feasible, or is commercially impracticable and creates an unnecessary and unreasonable burden, based upon:

(1) The number of FCC licenses foreseeably available for the area.

(2) The kind of ~~wireless telecommunications facility~~Wireless Facility ~~site~~ and ~~structure~~Tower or Supporting Structure proposed.

~~(3) The number of existing and potential licenses without wireless telecommunications facility spaces/sites.~~

(~~4~~3) Available space on existing and approved telecommunications ~~tower~~Towers.

U. Unless waived by the Council, there shall be a preapplication meeting required for every special use permit. The purpose of the preapplication meeting will be to address issues which will help to expedite the review and permitting process. Where the application is for the shared use of an existing ~~telecommunications tower~~Tower~~(s) or other high structure~~Supporting Structure, the applicant can seek to waive any application requirements that may not be applicable. At the preapplication meeting, the waiver requests, if appropriate, will be decided by the City. Costs of the City's consultants to prepare for and attend the preapplication meeting will be borne by the applicant.

~~V. The holder of a special use permit shall notify the City of any intended modification of a wireless telecommunications facility~~Wireless Facility ~~and shall apply to the City to modify, relocate or rebuild a wireless telecommunications facility~~Wireless Facility~~.~~

V. Without limiting the foregoing, except where it is demonstrated that denial would result in a prohibition of the provision of wireless services within the meaning of federal law:

1. In the rights of way, no Towers are permitted except as part of a Stealth Facility.

2. No Wireless Facilities are permitted within underground areas except Stealth Facilities.

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3. A new or replacement Supporting Structure, other than a Stealth Facility, street lighting or traffic control structure may not be approved that is greater in height from ground level than the average height of existing distribution utility poles in the same area. No extension of an existing Supporting Structure (other than street lighting or traffic control structures) to permit installation of a Wireless Facility may be approved that unless the addition complies with subsection 5 and increases the height of the supporting structure by the lesser of 20% or six feet.

4. Except for cabling, the lowest edge of any component of the Wireless Facility (including meters) on a Utility Pole must be 8 feet above the ground unless concealed within the pole.

5. All Wireless Facilities mounted to the side of a Supporting Structure in the right of way, other than in the communications space, must be flush-mounted, sized and painted so that the facility to the extent possible the facility is concealed;

6. All facilities mounted to the top of a pole must be designed so that the facilities form a continuous line with the pole, and as a Concealment Element, are no more than 10% greater in diameter than the pole itself.

7. In placing facilities, following rules apply:

a. Facilities should be at least 25 feet from any residential structure, and located so that the facilities are not directly in front of any front window or door of a residential Structure.

b. Locations that are less visible from a residential structure are preferred over locations that are more visible.

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~~§ 196-6. Location of wireless telecommunications facilities.~~

~~(1) Priority of location. Applicants for wireless telecommunications facilities shall locate, site and erect said wireless telecommunications facilities, including tower~~Towers~~s or other tall structure~~Supporting Structures~~s, in accordance with the following priorities, Subsection being the highest priority and Subsection A(1)(e) being the lowest priority:~~

~~(a) On existing tall structure~~Supporting Structures~~s or telecommunications tower~~Towers~~s.~~

~~(b) Collocation on a site with existing telecommunications tower~~Towers~~s or structure~~Supporting Structures~~s.~~

~~(c) In commercially zoned areas along Interstate 95, Interstate 287 or railroad tracks.~~

~~(d) In nonresidential areas.~~

~~(e) On other property in the City.~~

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1. (2)If the proposed property site is not the highest priority listed above, then a detailed explanation must be provided as to why a site of a higher priority was not selected. The person seeking such an exception must satisfactorily demonstrate the reason or reasons why such a permit should be granted for the proposed site and the hardship that would be incurred by the applicant if the permit were not granted for the proposed site.(3) An applicant may not by-pass sites of higher priority by stating the site presented is the only site leased or selected. An application shall address collocation as an option, and, if such option is not proposed, the applicant must explain why collocation is commercially or otherwise impracticable. Agreements between providers limiting or prohibiting collocation shall not be a valid basis for any claim of commercial impracticability or hardship.(4) Notwithstanding the above, the Council may approve any site located within an area in the above list of priorities, provided that the Council finds that the proposed site is in the best interest of the health, safety and welfare of the City and its inhabitants.

2.

B. The applicant shall submit a written report demonstrating the applicant's review of the above locations in order of priority, demonstrating the technological reason for the site selection. If the site selected is not the highest priority, then a detailed written explanation as to why sites of a higher priority were not selected shall be included with the application.

C. The applicant shall, in writing, identify and disclose the number and locations of any additional sites that the applicant has, is or will be considering, reviewing or planning for wireless telecommunications facilities in the City, and all municipalities adjoining the City, for a two-year period following the date of the application.

D. Notwithstanding that a potential site may be situated in an area of highest priority or highest available priority, the Council may disapprove an application for any of the following reasons:

(1) Conflict with safety and safety-related codes and requirements.

(2) Conflict with traffic needs or traffic laws or definitive plans for changes in traffic flow or traffic laws.

(3) Conflict with the historic nature of a neighborhood or historical district.

(4) The use or construction of a wireless telecommunications facilityWireless Facility which is contrary to an already stated purpose of a specific zoning or land use designation.

(5) The placement and location of a wireless telecommunications facilityWireless Facility which would create an unacceptable risk, or the probability of such, to residents, the public, employees and agents of the City or employees of the service provider or other service providers.

§ 196-7. Shared use of tower Towers.

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A. Location of antennaAntennas on preexisting structureSupporting Structures shall be considered and preferred. Shared use of existing telecommunications towerTowers or other existing structureSupporting Structures shall be preferred by the City, as opposed to the proposed construction of new telecommunications towerTowers. Where such shared use is unavailable, the applicant shall submit a comprehensive report inventorying existing towerTowers and other appropriate structureSupporting Structures within four miles of any proposed new towerTower site, unless the applicant can show that some other distance is more reasonable, and outlining opportunities for shared use of existing facilities and the use of other preexisting structureSupporting Structures as a preferred alternative to new construction.

B. An applicant intending to share use of an existing telecommunications towerTower or other tall structureSupporting Structure shall be required to document the intent of the existing owner to share use.

C. In the event that an application to share the use of an existing telecommunications towerTower does not increase the height of the telecommunications towerTower, the Council shall waive such requirements of the application required by this chapter as may be for good cause shown.

D. Such shared use shall consist only of the minimum antennaAntenna array technologically required to provide service within the City unless good cause is shown.

§ 196-8. Height of wireless telecommunications facilities.

A. The applicant must submit documentation justifying to the Council the total height of any wireless telecommunications facilityWireless Facility and/or antennaAntenna and the basis therefor. Such justification shall be to provide service within the City, to the extent practicable, unless good cause is shown.

B. Wireless telecommunications facilities shall be no higher than the minimum height necessary. Unless waived by the Council upon good cause shown, the maximum height of facilities located outside the rights of way shall be 100 90 feet, based on three collocated antennaAntenna arrays and ambient tree height of 70 feet.

C. The maximum height of any wireless telecommunications facilityWireless Facility and attached antennaAntennas constructed after the effective date of this chapter shall not exceed that which shall permit operation without artificial lighting of any kind in accordance with municipal, county, state and/or any federal law and/or regulation.

§ 196-9. Visibility of facilities.

A. Wireless telecommunications facilities shall not be artificially lighted or marked, except as required by law.

B. Telecommunications towers and facilitiesExcept where inconsistent with concealment elements, Towers shall be of a galvanized finish, or painted with a rust-preventive paint of an appropriate color to harmonize with the surroundings as approved by the Council and the Board

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of Architectural Review, and shall be maintained in accordance with the requirements of this chapter.

C. If lighting is required, the applicant shall provide a detailed plan for sufficient lighting of as unobtrusive and inoffensive an effect as is permissible under state and federal regulations, and an artist's rendering or other visual **representation showing the effect of light emanating from the site on neighboring habitable structures within** 1,500 feet of all property lines of the parcel on which the ~~wireless telecommunications facility~~Wireless Facility is located.

§ 196-10. Security of facilities.

All wireless telecommunications facilities ~~and antenna~~Antennas ~~s~~ shall be located, fenced or otherwise secured in a manner which prevents unauthorized access. Specifically:

A. Where possible, ~~All~~ Wireless Facilities ~~antenna~~Antennas, ~~tower~~Towers and other supporting ~~structure~~Supporting Structures, including guy wires, shall be made inaccessible to individuals and constructed or shielded in such a manner that they cannot be climbed or run into; and

B. To the extent possible, Wireless Facilities shall be installed so that powered elements ~~Transmitters and telecommunications control points must be installed such that they~~ are readily accessible only to persons authorized to operate or service them.

§ 196-11. Signage.

Unless the City determines that the signage required under this section would be inconsistent with minimizing visual impact, ~~W~~wireless telecommunications facilities shall contain a sign no larger than four square feet to provide adequate notification to persons in the immediate area of the presence of an ~~antenna~~Antenna that has transmission capabilities. The sign shall contain the name(s) of the owner(s) and operator(s) of the ~~antenna~~Antenna(s) as well as emergency phone number(s). The sign shall be located so as to be visible from the access point of the site. No other signage, including advertising, shall be permitted on any wireless telecommunications facilities, ~~antenna~~Antennas, ~~antenna~~Antenna supporting ~~structure~~Supporting Structures or ~~antenna~~Antenna ~~tower~~Towers, unless required by law, or unless the signage is part of a concealment element. Signs shall be approved by the Board of Architectural Review.

§ 196-12. Lot size and setbacks. [Amended 10-1-2003 by L.L. No. 7-2003]

A. All proposed ~~telecommunications tower~~Towers ~~and associated equipment~~Towers shall be set back from abutting parcels, recorded rights-of-way and road and street lines a distance sufficient to substantially contain on site all ice-fall or debris from a ~~tower~~Tower or ~~tower~~Tower failure and to preserve the privacy and sanctity of any adjoining properties.

B. ~~Freestanding wireless telecommunications t~~Towers, other than Towers placed on an existing Supporting Structure shall be setback from any property line at least a distance equal to the height of the facility plus 10 feet, or the existing setback requirement of the underlying zoning district, whichever is greater. Further, any accessory ~~structure~~Supporting Structure shall be located so as to comply with the minimum zoning setback requirements for the principal building on the property on which it is situated.

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C. Where a Wireless Facility ~~the facility~~ involves an ~~collocation or~~ attachment to an existing building or ~~structure~~Supporting Structure other than a Supporting Structure in the rights of way, the facility, including but not limited to ~~antenna~~Antennas, accessory ~~structure~~Supporting Structures, and/or other appurtenances, shall be setback from any property line the distance of the setback requirement of the underlying zoning district plus 10 feet.

§ 196-13. Retention of expert assistance and reimbursement by applicant.

A. The Council may hire any consultant and/or expert necessary to assist the Council in reviewing and evaluating the application and any requests for recertification.

B. An applicant shall deposit with the City funds sufficient to reimburse the City for all reasonable costs of consultant and expert evaluation and consultation to the Council in connection with the review of any application. The initial deposit shall be $7,500 for a facility application and $5,000 in the case of collocation. These funds shall accompany the filing of an application, and the City will maintain a separate escrow account for all such funds. The City's consultants/experts shall bill or invoice the City no less frequently than monthly for its services in reviewing the application and performing its duties. If at any time during the review process the balance of this account falls below $2,500, additional funds must be submitted to the City to bring the balance of the account to $5,000, or in the case of collocation, $5,000, or upon request from the applicant, a lesser amount to be set by the City Council, before any further action or consideration is taken on the application. In the event that the amount held in escrow by the City is more than the amount of the actual billing or invoicing, the difference shall be promptly refunded to the applicant.

C. The total amount of the funds set forth in Subsection B of this section may vary with the scope and complexity of the project, the completeness of the application and other information as may be needed by the Council or its consultant/expert to complete the necessary review and analysis. Additional funds, as required, shall be paid by the applicant. The initial amount of the escrow deposit shall be established at a preapplication meeting with the City. Notice of the hiring of a consultant/expert shall be given to the applicant at or before this meeting.

§ 196-14. Existing Facilities~~ceptions from special use permit~~.

~~A. No person shall be permitted to site, place, build, construct or modify or prepare any site for the placement or use of a wireless telecommunications facility~~Wireless Facility ~~as of the effective date of this chapter without having first obtained a special use permit for a wireless telecommunications facility~~Wireless Facility~~. Notwithstanding anything to the contrary in this section, no special use permit shall be required for those exceptions noted in the definition of wireless telecommunications facility~~Wireless Facility~~, such as those used exclusively for fire, police and other dispatch telecommunications, or exclusively for private radio and television reception and private citizen's bands, amateur radio and other similar telecommunications.~~

~~B. New construction, including routine maintenance on an existing wireless telecommunications facility~~Wireless Facility~~, shall comply with the requirements of this chapter.~~

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~~C~~A. All wireless telecommunications facilities existing on or before the effective date of this chapter shall be allowed to continue as they presently exist; provided, however, that any modification to existing facilities must comply with this chapter.

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§ 196-15. Public hearing required for special use permit.

A. Public hearing and public notification by applicant. Before the City Council acts on any application for a special use permit, it shall hold a public hearing thereon in accordance with the General City Law. To facilitate notification of the public, a public notification list shall be prepared by the applicant, using the most current City of Rye Tax Maps and Tax Assessment Roll, showing the Tax Map sheet, black and lot number, the owners name and owner's mailing address for each property located wholly or partially within 750 feet of the perimeter of the property that is the subject of the application. If a property on the public notification list is also listed as a cooperative or an apartment on a list entitled "Apartment List City of Rye," maintained by the City Assessor's office, the notice shall only be mailed to the property owner of record. When the public hearing is required by the City Council, the applicant shall deliver a copy of the public notice provided by the City Planner to all of the property owners contained on the public notification list by certified mail with certificate of mailing.

The above mailing and posting notice requirements must be performed in accordance with the following requirements:

1. The delivery of mailing shall be limited solely to the public notice provided by the City Planner.

2. The public notice shall be mailed to all property owners by certified mail with certificate of mailing (no return receipt necessary) at a post office or official depository of the Postal Service, at least 10 days prior to the date of the public hearing.

3. At least five business days prior to the public hearing, the applicant shall provide to the City Planner all certificates of mailing.

4. At least one week preceding the date of the public hearing, at least one sign, a minimum of two feet by three feet in size and carrying a legend prescribed by the City Council announcing the public hearing, shall be posted on the property. The height of the lettering on the sign shall be no less than two inches, except that the words "PUBLIC NOTICE" appearing at the top of the sign shall have no less than five-inch-high lettering. The sign shall be in full public view from the street and not more than 30 feet therefrom. The sign shall be removed from the property within two days after the public hearing.

B. In cases of review by the Board of Architectural Review or the Planning Commission, the notice rules for these bodies shall apply for the properties within the seven-hundred-fifty-foot perimeter as previously set forth.

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C. The Council shall schedule the public hearing referred to in Subsection A of this section once it finds the application is complete. The Council, at any stage prior to issuing a special use permit, may require such additional information as it deems necessary**.**

D. Council may waive any requirement hereof and of Section 196-16 as required to comply with state or federal law.

§ 196-16. Action on application for special use permit.

A. The Council will undertake a review of an application pursuant to this chapter in a timely fashion and shall act within a reasonable period of time given the relative complexity of the application and the circumstances, with due regard for the public's interest and need to be involved, and the applicant's desire for a timely resolution.

B. The Council shall refer any application or part thereof to the Board of Architectural Review (BAR) and may refer any application or part thereof to the Planning Commission for their advisory review and comment prior to the public hearing. This referral shall not preclude any final approvals of these or other City boards or departments required by this chapter or other law.

C. After the public hearing and after formally considering the application, the Council may approve and issue or deny a special use permit. Its decision shall be in writing and shall be based on substantial evidence in the record. The burden of proof for the grant of the permit shall always be upon the applicant.

D. If the Council approves the special use permit for a ~~wireless telecommunications facility~~Wireless Facility, then the applicant shall be notified of such approval, in writing, within 10 calendar days of the Council's action, and the special use permit shall be issued within 30 days after such approval.

E. If the Council denies the special use permit for a ~~wireless telecommunications facility~~Wireless Facility, then the applicant shall be notified of such denial, in writing, within 10 calendar days of the Council's action.

F. The City's decision on an application for a special use permit for a ~~wireless telecommunications facility~~Wireless Facility shall be supported by substantial evidence contained in a written record.

§ 196-17. Recertification of special use permit.

A. At any time between 12 months and six months prior to the five-year anniversary date after the effective date of the permit and all subsequent fifth anniversaries of the original special use permit for a ~~wireless telecommunications facility~~Wireless Facility, the holder of a special use permit for such ~~tower~~Tower shall submit a written request for recertification. In the written request for recertification, the holder of such special use permit shall note the following:

1. The name of the holder of the special use permit for the ~~wireless telecommunications facility~~Wireless Facility.

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2. If applicable, the number or title of the special use permit.

3. The date of the original granting of the special use permit.

4. Whether the ~~wireless telecommunications facility~~Wireless Facility has been moved, relocated, rebuilt, repaired or otherwise modified since the issuance of the special use permit.

5. If the ~~wireless telecommunications facility~~Wireless Facility has been moved, relocated, rebuilt, repaired or otherwise modified, then whether the Council approved such action, and under what terms and conditions, and whether those terms and conditions were complied with and abided by.

6. Any requests for waivers or relief of any kind whatsoever from the requirements of this chapter and any requirements for a special use permit.

7. That the ~~wireless telecommunications facility~~Wireless Facility is in compliance with the special use permit and compliance with all applicable codes, laws, rules and regulations.

8. Whether the facility is still being used; and whether it can be reduced in sized, combined with or replaced by other facilities or otherwise altered to make it less visible.

9. Whether it complies with then applicable requirements of the City Code for placement of Wireless Facilities.

~~8.~~10. Whether there have been any changes in the legal status of the applicant or any entity whose facilities are part of the Wireless Facility; and whether all required authorizations and consents are still in full force and effect.

B. If, after such review, the Council determines that the permitted ~~wireless telecommunications facility~~Wireless Facility is in compliance with the special use permit and all applicable codes, laws and rules; that it continues to be used in the provision of wireless services; that all relevant entities continue to have all necessary authorizations; and that the facility cannot be modified or replaced so that it is less visible, then the Council shall issue a recertification special use permit for the ~~wireless telecommunications facility~~Wireless Facility, which may include any new provisions or conditions that are mutually agreed upon, or required by codes, law or regulation. .

C. If the Council does not complete its review, as noted in Subsection B of this section, prior to the five-year anniversary date of the special use permit, or subsequent fifth anniversaries, then the applicant for the permitted ~~wireless telecommunications facility~~Wireless Facility shall receive an extension of the special use permit for up to six months, in order for the Council to complete its review.

D. If the holder of a special use permit for a ~~wireless telecommunications facility~~Wireless Facility does not submit a request for recertification of such special use permit within the time

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frame noted in Subsection A of this section, or if the Council finds that the ~~wireless telecommunications facility~~Wireless Facility has been moved, relocated, rebuilt, or otherwise modified without approval of such having been granted by the Council under this chapter, or that the conditions for recertification have not been met, then such special use permit and any authorizations granted thereunder shall cease to exist on the date of the fifth anniversary of the original granting of the special use permit, or subsequent fifth anniversaries, unless the holder of the special use permit adequately demonstrates to the Council that extenuating circumstances prevented a timely recertification request. If the Council agrees that there were legitimately extenuating circumstances, then the holder of the special use permit may submit a late recertification request. Council may also recertify subject to conditions that it establishes, and contingent on satisfaction of those conditions.

§ 196-18. Extent and parameters of special use permit.[ALL REMAINING PROVISIONS SHOULD APPLY TO SPECIAL USE PERMITS AND CONDITIONAL SPECIAL USE PERMITS]

The extent and parameters of a special use permit for a ~~wireless telecommunications facility~~Wireless Facility shall be as follows:

A. Such special use permit shall be nonexclusive.

B. Such special use permit shall not be assignable or transferable without the express written consent of the Council.

C. Such special use permit may be revoked, canceled or terminated for a violation of the conditions and provisions of the special use permit for a ~~wireless telecommunications facility~~Wireless Facility, or for a material violation of this chapter or applicable law.

§ 196-19. Application fee.

A. At the time that a person submits an application for a special use permit for a new ~~wireless telecommunications facility~~Wireless Facility, such person shall pay an application fee to the City of Rye of $5,000. If the application is for a special use permit for collocating on an existing ~~wireless telecommunications facility~~Wireless Facility, the fee shall be $3,000.

B. No application fee is required in order to recertify a special use permit for a ~~wireless telecommunications facility~~Wireless Facility, unless there has been a modification of the ~~wireless telecommunications facility~~Wireless Facility since the date of the issuance of the existing special use permit for which the conditions of the special use permit have not previously been modified. In the case of any modification, the fees provided in Subsection A shall apply.

§ 196-20. Performance security.

The applicant and the owner of record of any proposed ~~wireless telecommunications facility~~Wireless Facility property site shall be jointly required to execute and file with the City a bond, or other form of security acceptable to the City as to type of security and the form and manner of execution, in an amount and with such sureties as are deemed sufficient by the Council to assure the faithful performance of the terms and conditions of this chapter and

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conditions of any special use permit issued pursuant to this chapter. The full amount of the bond or security shall remain in full force and effect throughout the term of the special use permit and/or until the removal of the ~~wireless telecommunications facility~~Wireless Facility and any necessary site restoration is completed. The failure to pay any annual premium for the renewal of any such security shall be a violation of the provisions of the special use permit and shall entitle the Council to revoke the special use permit after prior written notice to the applicant and holder of the permit.

§ 196-21. Reservation of authority to inspect wireless telecommunications facilities.

A. In order to verify that the holder of a special use permit for a ~~wireless telecommunications facility~~Wireless Facility and any and all lessees, renters and/or licensees of a ~~wireless telecommunications facility~~Wireless Facility place and construct such facilities, including ~~tower~~Towers and ~~antenna~~Antennas, in accordance with all applicable technical, safety, fire, building and zoning codes, laws, ordinances and regulations and other applicable requirements, the City may inspect all facets of said permit holder's, renter's, lessee's or licensee's placement, construction, modification and maintenance of such facilities, including but not limited to ~~tower~~Towers, ~~antenna~~Antennas and buildings or other ~~structure~~Supporting Structures constructed or located on the permitted site.

B. The City shall pay for costs associated with such an inspection, except for those circumstances occasioned by said holder's, lessee's or licensee's refusal to provide necessary information, or necessary access to such facilities, including ~~tower~~Towers, ~~antenna~~Antennas and appurtenant or associated facilities, or refusal to otherwise cooperate with the City with respect to an inspection, or if violations of this chapter are found to exist, in which case the holder, lessee or licensee shall reimburse the City for the cost of the inspection.

C. Payment of such costs shall be made to the City within 30 days from the date of the invoice or other demand for reimbursement. In the event that the finding(s) of violation is (are) appealed in accordance with the procedures set forth in this chapter, said reimbursement payment must still be paid to the City, and the reimbursement shall be placed in an escrow account established by the City specifically for this purpose, pending the final decision on appeal.

§ 196-22. ~~Annual~~ NIER certification.

Every Wireless Facility must meet FCC RF emission standards as the same may be amended from time to time.

A. In addition to the certifications and information required as part of an application, the City shall require any person installing Wireless Facilities to provide: field test measurements sufficient to show compliance with FCC RF standards at full operational power. Measurements should be cumulative, and not just based on facilities that a particular person may own or install at a location. ~~The holder of the special use permit shall, annually, certify to the City that NIER levels at the site are within the threshold levels adopted by the FCC. The certifying engineer need not be approved by the City.~~

§ 196-23. Liability insurance.

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A. A holder of a special use permit for a ~~wireless telecommunications facility~~Wireless Facility shall secure and at all times maintain public liability insurance, property damage insurance and umbrella insurance coverage for the duration of the special use permit in amounts as set forth below:

(1) Commercial general liability: $1,000,000 per occurrence, $2,000,000 aggregate.

(2) Automobile coverage: $1,000,000 per occurrence, $2,000,000 aggregate.

B. The commercial general liability insurance policy shall specifically include the City and its officials, employees and agents as additional insureds.

C. The insurance policies shall be issued by an agent or representative of an insurance company licensed to do business in the state.

D. The insurance policies shall contain an endorsement obligating the insurance company to furnish the City with at least 30 days' written notice in advance of the cancellation of the insurance.

E. Renewal or replacement policies or certificates shall be delivered to the City at least 15 days before the expiration of the insurance which such policies are to renew or replace.

F. Before construction of a permitted ~~wireless telecommunications facility~~Wireless Facility is initiated, but in no case later than 15 days after the grant of the special use permit, the holder of the special use permit shall deliver to the City a copy of each of the policies or certificates representing the insurance in the required amounts.

§ 196-24. Indemnification.

Any special use permit issued pursuant to this chapter shall contain a provision with respect to indemnification. Such provision shall require the holder of the special use permit, to the extent permitted by the law, to at all times defend, indemnify, protect, save, hold harmless and exempt the City, officials of the City, its officers, agents, servants, and employees from any and all penalties, damage or charges arising out of any and all claims, suits, demands, causes of action, or award of damages, whether compensatory or punitive, or expenses arising therefrom, either at law or in equity, which might arise out of, or are caused by, the construction, erection, modification, location, products performance, operation, maintenance, repair, installation, replacement, removal or restoration of a ~~wireless telecommunications facility~~Wireless Facility within the City. With respect to the penalties, damages or charges referenced herein, reasonable attorneys' fees, consultants' fees, and expert witness fees are included in those costs that are recoverable by the City.

§ 196-25. Penalties for offenses.

A. Civil sanctions. Any person who violates any of the provisions of this chapter shall be liable for a civil penalty of not more than $3,000 for every such violation. Each consecutive day of violation will be considered a separate offense. Such civil penalty may be released or

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compromised by the City Council. In addition, the City Council shall have power, following a hearing, to direct the violator to comply with the provisions of this chapter.

B. Criminal sanctions. Any person, firm or corporation who or which willfully violates any of the provisions of this chapter or permits promulgated thereunder, excluding provisions set forth in the rules and regulations promulgated thereunder, upon conviction thereof of the first offense, shall be guilty of a violation punishable by a fine of not less than $500 and not more than $1,000 and, for a second offense and each subsequent offense, shall be guilty of a violation punishable by a fine of not less than $1,000 nor more than $2,000 or a term of imprisonment of not more than 15 days, or both. Each consecutive day of violation will be considered a separate offense.

C. Notwithstanding anything in this chapter, the holder of the special use permit for a ~~wireless telecommunications facility~~Wireless Facility may not use the payment of fines, liquidated damages or other penalties to evade or avoid compliance with this chapter or any section of this chapter. An attempt to do so shall subject the holder of the special use permit to termination and revocation of the special use permit. The City may also seek injunctive relief to prevent the continued violation of this chapter.

§ 196-26. Default and/or revocation.

A. If a ~~wireless telecommunications facility~~Wireless Facility is repaired, rebuilt, placed, moved, relocated, modified or maintained in a way that is inconsistent or not in compliance with the provisions of this chapter or of the special use permit, then the Council shall notify the holder of the special use permit, in writing, of such violation. Such notice shall specify the nature of the violation or noncompliance and that the violations must be corrected within seven days of the date of the postmark of the notice, or of the date of personal service of the notice, whichever is earlier. Notwithstanding anything to the contrary in this subsection or any other section of this chapter, if the violation causes, creates or presents an imminent danger or threat to the health or safety of lives or property, the Council may, at its sole discretion, order the violation remedied within 24 hours.

B. If within the period set forth in Subsection A above the ~~wireless telecommunications facility~~Wireless Facility is not brought into compliance with the provisions of this chapter, or of the special use permit, or substantial steps are not taken in order to bring the affected ~~wireless telecommunications facility~~Wireless Facility into compliance, then the Council may revoke such special use permit for a ~~wireless telecommunications facility~~Wireless Facility and shall notify the holder of the special use permit within 48 hours of such action.

§ 196-27. Removal of wireless telecommunications facilities.

A. Under the following circumstances, the Council may determine that the health, safety and welfare interests of the City warrant and require the removal of a ~~wireless telecommunications facility~~Wireless Facility:

1. A ~~wireless telecommunications facility~~Wireless Facility with a permit has been abandoned (i.e., not used as a ~~wireless telecommunications facility~~Wireless Facility)

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for a period exceeding 90 days or a total of 180 days in any three-hundred-sixty-five-day period, except for periods caused by force majeure or acts of God.

2. A permitted ~~wireless telecommunications facility~~Wireless Facility falls into such a state of disrepair that it creates a health or safety hazard.

3. A ~~wireless telecommunications facility~~Wireless Facility has been located, constructed or modified without first obtaining the required special use permit, or any other necessary authorization.

B. If the Council makes such a determination as noted in Subsection A of this section, then the Council shall notify the holder of the special use permit for the ~~wireless telecommunications facility~~Wireless Facility within 48 hours that said ~~wireless telecommunications facility~~Wireless Facility is to be removed. The Council may approve an interim temporary use agreement/permit, such as to enable the sale of the ~~wireless telecommunications facility~~Wireless Facility.

C. The holder of the special use permit, or its successors or assigns, shall dismantle and remove such ~~wireless telecommunications facility~~Wireless Facility, and all associated ~~structure~~Supporting Structures and facilities, from the site and restore the site to as close to its original condition as is possible, such restoration being limited only by physical or commercial impracticability, within 90 days of receipt of written notice from the Council. However, if the owner of the property upon which the ~~wireless telecommunications facility~~Wireless Facility is located wishes to retain any access roadway to the ~~wireless telecommunications facility~~Wireless Facility, the owner may do so with the approval of the Council.

D. If a ~~wireless telecommunications facility~~Wireless Facility is not removed or substantial progress has not been made to remove the ~~wireless telecommunications facility~~Wireless Facility within 90 days after the permit holder has received notice, then the Council may order officials or representatives of the City to remove the ~~wireless telecommunications facility~~Wireless Facility at the sole expense of the owner or permit holder.

E. If the City removes, or causes to be removed, a ~~wireless telecommunications facility~~Wireless Facility, and the owner of the ~~wireless telecommunications facility~~Wireless Facility does not claim the property and remove the facility from the site to a lawful location within 10 days, then the City may take steps to declare the facility abandoned and sell it and its components.

F. Notwithstanding anything in this section to the contrary, the Council may approve a temporary use agreement/permit for the ~~wireless telecommunications facility~~Wireless Facility, for no more 90 days, during which time a suitable plan for removal, conversion or relocation of the affected ~~wireless telecommunications facility~~Wireless Facility shall be developed by the holder of the permit, subject to the approval of the Council, and an agreement to such plan shall be executed by the holder of the permit and the City. If such a plan is not developed, approved and executed within the ninety-day time period, then the City may take possession of and dispose of the affected ~~wireless telecommunications facility~~Wireless Facility in the manner provided in this section.

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§ 196-28. Applicability of application requirements and permit conditions.

A. Any applicant can request the waiver of application requirements that are inapplicable to their permit application. Such request shall be in writing. Requests should be discussed at the preapplication meeting. The applicant shall have the burden of supporting such requests. Determinations as to applicability of application requirements shall be made by the City.

B. In determining permit conditions, the City Council can waive inapplicable permit requirements, consistent with the policy goals and priorities of this chapter. The applicant shall have the burden of supporting such requests. Determinations as to applicability of permit condition requirements shall be made by the City Council.

§ 196-29. Adherence to state and/or federal rules and regulations.

A. To the extent that the holder of a special use permit for a ~~wireless telecommunications facility~~Wireless Facility has not received relief, or is otherwise exempt, from appropriate state and/or federal agency rules or regulations, then the holder of such a special use permit shall adhere to and comply with all applicable rules, regulations, standards and provisions of any state or federal agency, including but not limited to the FAA and the FCC. Specifically included in this requirement are any rules and regulations regarding height, lighting, security, electrical and RF emission standards.

B. To the extent that applicable rules, regulations, standards and provisions of any state or federal agency, including but not limited to the FAA and the FCC, and specifically including any rules and regulations regarding height, lighting and security, are changed and/or are modified during the duration of a special use permit for a ~~wireless telecommunications facility~~Wireless Facility, then the holder of such a special use permit shall conform the permitted ~~wireless telecommunications facility~~Wireless Facility to the applicable changed and/or modified rule, regulation, standard or provision within a maximum of 24 months of the effective date of the applicable changed and/or modified rule, regulation, standard or provision, or sooner as may be required by the issuing entity.

§ 196-30. Conflict with other laws.

Where this chapter differs or conflicts with other laws, rules and regulations, unless the right to do so is preempted or prohibited by the county, state or federal government, the more restrictive or protective of the City and the public shall apply.

§ 196-31. Severability.

If any phrase, sentence, part, section, subsection or other portion of this chapter or any application thereof to any person or circumstance is declared void, unconstitutional or invalid for any reason, then such word, phrase, sentence, part, section, subsection or other portion, or the proscribed application thereof, shall be severable, and the remaining provisions of this chapter, and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect.

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§ 196-32. Enforcement.

This chapter shall be enforced by the Building Inspector in the same manner as provided in Chapter 197, Zoning, and subject to the same penalties as set forth therein.

§ 196-33. Authority.

This chapter is enacted pursuant to the Municipal Home Rule Law. This chapter shall supersede the provisions of City law to the extent it is inconsistent with the same, and to the extent permitted by the New York State Constitution, the Municipal Home Rule Law or any other applicable statute.

167.72. In addition to complying with generally applicable safety codes 4. RF [this may be part of Chapter 196 or a separate section of the Code]

4.1. Every ~~wireless facility~~Wireless Facility must meet FCC RF emission standards as the same may be amended from time to time.

4.2. City shall require any person installing ~~wireless facilities~~Wireless Facilities to provide:

4.2.1. At the time of an application for installation, information sufficient to show that the facility will comply with FCC RF standards and;

4.2.2. After installation, field test measurements sufficient to show compliance with FCC RF standards at full operational power; and

4.2.3. Measurements should be cumulative, and not just based on facilities that a particular person may own or install at a location.

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CITY COUNCIL AGENDA

NO. 9 DEPT.: City Manager DATE: April 5, 2017

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Continuation of the Public Hearing regarding the request submitted by Crown Castle to amend their agreement with the City and for the installation of additional locations to their existing wireless telecommunications located in the City of Rye.

FOR THE MEETING OF:

April 5, 2017

RYE CITY CODE,

CHAPTER

SECTION

RECOMMENDATION: That the City Council continue the Public Hearing regarding Crown Castle's request regarding an agreement amendment and the placement of additional attachments.

IMPACT: ☐ Environmental ☐ Fiscal ☒ Neighborhood ☐ Other:

BACKGROUND: The City Council approved an agreement with NextG Networks, Inc. at their January 12, 2011 City Council Meeting to conduct business as a telecommunications company operating with infrastructure located in the City's public ways. Crown Castle purchased NextG in December 2011. Crown Castle is seeking an amendment to the agreement with the City to change the language to "Con Edison approved shroud," as Con Edison is the local utility who owns most of the poles in the right-of-way in the City.

Crown Castle currently has nine (9) facilities in the City of Rye. They are seeking to add approximately seventy (70) additional locations within the City's right-of-way.

The City Council referred the application for additional locations to the Board of Architectural Review (BAR) at their April 13, 2016 meeting. The BAR approved the application at their May 9, 2016 meeting.

Documents regarding Crown Castle are available on the City website at www.ryeny.gov.

CITY COUNCIL AGENDA

NO. 9A DEPT.: City Council DATE: April 5, 2017

CONTACT: Councilmember Danielle Tagger-Epstein

AGENDA ITEM: Consideration of a Resolution regarding the City of Rye and its policy toward immigrants or citizenship status.

FOR THE MEETING OF:
April 5, 2017

RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That the Council consider a Resolution establishing guidelines and policies regarding immigration and citizenship status.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND:

See attached Resolution.

A Resolution Regarding the City of Rye and Its Policy Towards Immigrants or Citizenship Status

WHEREAS, the City of Rye (the "City") wants to further nondiscriminatory practices and to alleviate any tensions between various groups within and outside the City; and

WHEREAS, the City Charter Chapter 22 "Human Rights Commission" establishes a City Human Rights Commission (the "Commission") to study, review and assist in addressing questions and issues involving one's race, sexual orientation, religion or immigration status; and

WHEREAS, to further the City's goals set forth in Chapter 22, the City believes that the following policies should be followed.

NOW, THEREFORE, BE IT RESOLVED that:

A. Rye Police Officers shall not stop, question, interrogate, investigate or arrest an individual solely on the basis of:

(1) Actual or suspected immigration or citizenship status; or

(2) 'Civil immigrant detainer' or an administrative warrant in the individual's name or an immigration detainer in the individual's name, including those identified in the National Crime Information Center (NCIC) database.

B. A Rye Police Officer shall not inquire about a person's immigration status, including a crime victim, witness, or person who calls or approaches the police seeking assistance unless necessary to investigate criminal activity by that individual.

C. The above provision shall in no way limit a Rye Police Officer from inquiring about a person's immigration status when the officer makes an arrest for any offense classified as a felony under the New York Penal Law or for operating a motor vehicle while under the influence of alcohol or drugs.

BE IT FURTHER RESOLVED, it is further the policy of the City of Rye that it's law enforcement only honor detainer requests from United States Immigration and Customs Enforcement ('ICE") or Customs and Border Protections ('CBP') with judicial warrants, except in rare instances to protect public safety. In furtherance of this policy:

A. The Rye Police may respond affirmatively to a "civil immigration detainer" from ICE or CBP to detain or transfer an individual for immigration enforcement or investigation purposes for up to 48 hours only if the request is accompanied by a judicial warrant:

B. Notwithstanding subdivision (a) of this section, the Rye Police may detain a person for up to 48 hours on a "civil immigration detainer" in the absence of a judicial warrant only if:

(1) There is probable cause to believe that the individual has illegally re- entered the country after a previous removal or return as defined by 8 U.S.C. §1326; or

(2) There is probable cause to believe that the individual has or is engaged in terrorist activity.

BE IT FURTHER RESOLVED, that it is further the policy of the City of Rye that in the absence of a judicial warrant, the Rye Police shall not honor ICE or CBP requests for certain personal information about the individual. In furtherance of that policy:

No Rye Police Officer may respond affirmatively to an ICE or CBP request for non-public information about an individual, including, but not limited to, non-public information about an individual's release from the custody of the Police Department, an individual's home address or work address, unless:

A. The request is accompanied by a judicial warrant, or:

B. Such disclosure has been authorized in writing by the individual to whom such information pertains, or if such individual is a minor or is otherwise not legally competent, by such individual's parent or legal guardian; or

C. Such disclosure is required by Federal, State or County law; or

D. The individual to whom such information pertains is suspected by such officer or such officer's agency of engaging in illegal activity, other than their mere status as an undocumented immigrant; or

E. The dissemination of such information is necessary to apprehend a person suspected of engaging in illegal activity, other than their mere status as an undocumented immigrant, or

F. Disclosing information about an individual's criminal arrests or convictions, where disclosure of such information about the individual is otherwise permitted by state law or required pursuant to subpoena or court order; or

G. Disclosing information about an individual's juvenile arrests or delinquency or youthful offender adjudications, where disclosure of such information about the individual is otherwise permitted by state law or is required pursuant to subpoena or court order.

AND BE IT FURTHER RESOLVED, that it is further policy of the City of Rye that City resources not be used to create or assist in the creation of any registry, including a Federal registry, that is based on race, gender, sexual orientation, religion, ethnicity or national origin.

AND BE IT FURTHER RESOLVED, that this resolution and the guidelines and policies set forth herein are not intended, do not, and may not be relied upon to create any benefit, substantive or procedural, enforceable at law by any party in any administrative, civil or criminal matter.

CITY COUNCIL AGENDA

NO. 11 DEPT.: City Manager DATE: April 5, 2017

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Authorization for the City Manager to enter into an Agreement with the County of Westchester for 2017-2018 Prisoner Transportation Services.

FOR THE MEETING OF:

April 5, 2017

RYE CITY CODE,

CHAPTER

SECTION

RECOMMENDATION: That the Mayor and Council authorize the City Manager to enter into the agreement.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND:

The Agreement between the Westchester County Department of Correction and the City of Rye to provide prisoner transportation between the City of Rye and the Westchester County Jail for a two-year period commencing January 1, 2017 through December 31, 2018.

See attached documentation.

Westchester gov.com

Robert P. Astorino
County Executive

Department of Correction

Kevin M. Cheverko
Commissioner

March 17, 2017

City of Rye
1051 Boston Post Road
Rye, New York 10580

Dear Carolyn D'Andrea:

Please find enclosed an original agreement between the Department of Correction and the City of Rye for prisoner transportation for the term commencing January 1, 2017 and terminating December 31, 2018.

Please fully complete and send back the prisoner transportation agreement to:

Westchester County Department of Correction
P.O. Box 389
Valhalla, New York 10595
Attn: Vivian Buettner/Headquarters

Please include a copy of an insurance certificate naming Westchester County as additional insured covering this contract. If you are self-insured, please provide a Self-Insured Employers Workers Compensation Form (SI12) which certifies that compensation has been secured.

If you have any questions, please do not hesitate to contact me at (914) 231-1336.

Very truly yours,

Susan Gheevarghese
Assistant Director, Administrative Services

SG/vmb
enclosure

P. O. Box 389
Valhalla, New York 10595-0389 Telephone: (914)231-1054 Fax: (914) 231-1262 E-mail: kmc4@westchestergov.com

PRISONER TRANSPORTATION--ZONE RATE

THIS AGREEMENT, made this _____ day of _____, 2017 by and between:

THE COUNTY OF WESTCHESTER, a municipal corporation of the State of New York having an office and place of business in the Michaelian Office Building, 148 Martine Avenue, White Plains, New York 10601

(hereinafter referred to as the "County")

and

THE CITY OF RYE, a municipality of the State of New York having its office and place of business at 1051 Boston Post Road, Rye, New York 10580

(hereinafter referred to as the "Municipality")

WHEREAS, pursuant to Sections 500-c and 500-d of the Corrections law prisoners are required to be transported from local municipalities to the Westchester County Jail in Valhalla, New York; and

WHEREAS, the County and the Municipality agree to cooperate in providing such prisoner transportation.

NOW, THEREFORE, in consideration of the terms and conditions herein contained, the County and the Municipality agree as follows:

1. **PRISONER TRANSPORTATION**: Except for prisoners arrested by the Westchester County Department of Public Safety, the Municipality shall provide round trip prisoner transportation using its own police department personnel and vehicles between the Municipality and the Westchester County Department of Correction for all prisoners remanded to the Westchester County Jail by court order or required to appear before the local

court within the Municipality. The County will reimburse the Municipality for the actual number of round trips. All municipalities, where possible, shall hold prisoners for one daily trip to the Department of Correction.

2. **REIMBURSEMENT**: The Municipality shall be reimbursed by the County for prisoner transportation services at the rate plus mileage per round trip indicated in the Zone Rate Plan attached hereto as Appendix "A" and made a part hereof. The rate will be paid as follows:

> For transportation to County Jail subsequent to arrest - 1 round trip plus mileage;
>
> For Transportation from County Jail to local court; no return - 1 round trip plus mileage;
>
> For Transportation from County Jail to local court; remand to County Jail, where the time expended does not exceed three (3) hours - 2 round trips plus mileage;

Only in the following circumstances will an hourly rate and mileage fee be paid, as an alternative to the zone rate set forth above:

a. Transportation of female prisoners (1 officer and 1 matron). A minimum of four (4) hours will be reimbursed for a matron; or

b. Transportation of seven (7) or more prisoners (requiring an additional officer); or

c. Transportation of prisoners charged with Class A felonies OR classified by Department of Correction as an "A" or "AA" prisoner considered to present danger may warrant (requiring an additional officer); or

d. Transportation from County Jail to local court and remand to County Jail where time expended exceeds three (3) hours.

In the event that any one of conditions "a" through "d" above are met, then the actual per hour personnel costs incurred by the Municipality will be paid at the hourly wage

and fringe benefit cost as determined in the applicable collective bargaining agreement between the Municipality and the Municipal Police Association for police officers and/or matrons plus a mileage.

Reimbursement for mileage shall be at the rate of fifty-three and a half cents ($.535) per mile, or at the then current Internal Revenue Service mileage rate, multiplied by the mileage indicated in Appendix "A".

3. **MEALS**: The County shall reimburse the Municipality for meals provided to post-arraignment prisoners for the actual and reasonable costs incurred and receipts submitted as part of the municipality's monthly voucher submitted to the Department of Correction.

4. **TERM**: This Agreement shall commence on January 1, 2017 and shall terminate on December 31, 2018. The County may, upon thirty (30) days written notice to the Municipality, terminate this Agreement in whole or in part when it deems it to be in its best interest. In such event, the Municipality shall be compensated and the County shall be liable only for payment for services rendered prior to the effective date of termination.

5. **PAYMENT**: Requests for reimbursement shall be submitted by the Municipality on a monthly basis on properly executed County claim forms and paid after approval by the Commissioner of Correction. The number of round trips made, prisoners transported and dates should be listed on the claim forms submitted to the Department of Correction. Reimbursement request shall be subject to audit by the County, and the Municipality shall keep and make available to the County such detailed books and records as are reasonably necessary to substantiate the basis for reimbursement. The Municipality shall not be entitled to reimbursement for any prisoner transportation expense not specifically provided for herein.

The total aggregate cost to the County under this Agreement and the agreements with the other municipalities for zone rate prisoner transportation pursuant to the Resolution approved by the Board of Acquisition and Contract on _____, 201_, shall not

exceed $1,304,811. This Agreement shall be deemed executory only to the extent of the monies appropriated and available for the purpose of this Agreement and no liability on account hereof shall be incurred by the County beyond the amount of such monies.

6. **INSURANCE AND INDEMNIFICATION**: All personnel and vehicles engaged in prisoner transportation duties shall at all times remain and be deemed the employees and property of the Municipality. In addition to, and not in limitation of the insurance provisions contained in Schedule "B" of this Agreement, the Municipality agrees to indemnify, defend and hold the County, its officers, employees and agents harmless from and against any and all liability, loss, damage or expense the County may suffer as a result of any and all claims, demands, causes of action or judgments arising directly or indirectly out of the transportation of prisoners for which reimbursement is sought hereunder for losses arising out of the negligent acts or omissions of the Municipality, its agents or employees.

7. **ENTIRE AGREEMENT**: This Agreement constitutes the entire and integrated agreement between and among the parties hereto and supersedes any and all prior negotiations, agreements and conditions, whether written or oral. Any modification or amendment to this Agreement shall be void unless it is in writing and subscribed by the party to be charged.

8. **APPLICABLE LAW**: This Agreement shall be construed and enforced in accordance with the laws of the State of New York.

9. **APPROVALS**: This Agreement is subject to the approval of the Westchester County Board of Legislators, the Westchester County Board of Acquisition and Contract and the governing legislative body of the Municipality.

IN WITNESS WHEREOF, the County and the Municipality have executed this Agreement on the _____ day of _____, 2017.

THE COUNTY OF WESTCHESTER

By:_____
Kevin M. Cheverko
Commissioner of Correction

By:_____
(Name)
(Title)

Approved by the Westchester County Board of Legislators by Act No __ – 201_ on the ____ day of _____, 201_.

Approved by the Board of Acquisition and Contract of the County of Westchester on the ____ day of _____, 201_.

Approved by the _____ of the _____ on the _____ day of _____, 20__.

Approved as to form and manner of execution:

_____
Assistant County Attorney
The County of Westchester
K/I/dcr/Zone Rate Agmt. 17

Approved as to form and manner of execution:

_____

MUNICIPALITY'S ACKNOWLEDGEMENT

STATE OF NEW YORK)

) ss.:

COUNTY OF WESTCHESTER)

On this _____ day of _____, 2017, before me personally came

_____, to me known, and known to me to be the

_____ of _____,

the municipal corporation described in and which executed the within instrument, who being by me duly sworn did depose and say that he, the said _____ resides at

_____

and that he is _____ of said municipal corporation.

_____

Notary Public County

CERTIFICATE OF AUTHORITY
(Municipality)

I, _____,
(Officer other than officer signing contract)
certify that I am the _____ of the
(Title)

_____
(Name of Municipality)

(the" Municipality") a corporation duly organized in good standing under the

_____
(Law under which organized, e.g., the New York Village
Law, Town Law, General Municipal Law)

named in the foregoing agreement that _____
(Person executing agreement)

who signed said agreement on behalf of the Municipality was, at the time of execution
_____of the Municipality,
(Title of such person),

that said agreement was duly signed for on behalf of said Municipality by authority of its

_____
(Town Board, Village Board, City Council)

thereunto duly authorized, and that such authority is in full force and effect at the date hereof.

_____
(Signature)

STATE OF NEW YORK)
ss.:
COUNTY OF WESTCHESTER)

On this _____ day of _____, 2017, before me personally came _____
_____ whose signature appears above, to me known, and know to be the
_____ of _____,
(title)
the municipal corporation described in and which executed the above certificate, who being by me duly sworn did depose and say that he, the said _____
resides at _____, and that he is
the _____ of said municipal corporation.
(title)

_____
Notary Public County

APPENDIX A

ZONE PLAN REIMBURSEMENT RATES WITH DISTANCE TRAVELED TO AND FROM

WESTCHESTER COUNTY DEPARTMENT OF CORRECTION

(Effective Term: January 1, 2017 through December 31, 2018)

POLICE AGENCY	**ROUND TRIP DISTANCE**

ZONE #1 (1 - 10 Miles)

Reimbursed Rate Per Round Trip:	(1/1/17 – 12/31/17)	$202.72
	(1/1/18 – 12/31/18)	$208.81

Plus mileage reimbursed at $.535 (or the then current IRS mileage rate) times distance.

Elmsford, Village	6 Miles
Sleepy Hollow, Village	8 Miles
Pleasantville, Village	8 Miles
Tarrytown, Village	10 Miles

ZONE #2 (11 - 20 Miles)

Reimbursed Rate Per Round Trip:	(1/1/17 – 12/31/17)	$212.88
	(1/1/18 – 12/31/18)	$219.27

Plus mileage reimbursed at $.535 (or the then current IRS mileage rate) times distance.

Irvington, Village	12 Miles
Briarcliff Manor, Village	14 Miles
New Castle, Town	16 Miles
North Castle, Town	16 Miles
Dobbs Ferry, Village	17 Miles
Ardsley, Village	18 Miles
Scarsdale, Village	19 Miles
Ossining, Village	20 Miles
Hastings-on-Hudson, Village	20 Miles

ZONE #3 (21 - 30 Miles)

Reimbursed Rate Per Round Trip:	(1/1/17 – 12/31/17)	$222.99
	(1/1/18 – 12/31/18)	$229.68

Plus mileage reimbursed at $.535 (or the then current IRS mileage rate) times distance.

Rye Brook, Village	23 Miles
Rye, City	25 Miles
Tuckahoe, Village	25 Miles
Eastchester, Town	25 Miles
Port Chester, Village	28 Miles
Mamaroneck, Village	30 Miles
Pelham, Town	30 Miles

ZONE #4 (31 - 40 Miles)

Reimbursed Rate Per Round Trip:	(1/1/17 – 12/31/17)	$233.17
	(1/1/18 – 12/31/18)	$240.16

Plus mileage reimbursed at $.535 (or the then current IRS mileage rate) times distance.

Pelham Manor, Village	35 Miles

SCHEDULE "B"

STANDARD INSURANCE PROVISIONS
(MUNICIPALITY)

1. Prior to commencing work, the Municipality shall obtain at its own cost and expense the required insurance from insurance companies licensed in the State of New York, carrying a Best's financial rating of A or better, and shall provide evidence of such insurance to the County of Westchester, as may be required and approved by the Director of Risk Management of the County. The policies or certificates thereof shall provide that thirty days prior to cancellation or material change in the policy, notices of same shall be given to the Director of Risk Management of the County of Westchester by registered mail, return receipt requested, for all of the following stated insurance policies. All notices shall name the Municipality and identify the Agreement.

If at any time any of the policies required herein shall be or become unsatisfactory to the County, as to form or substance, or if a company issuing any such policy shall be or become unsatisfactory to the County, the Municipality shall upon notice to that effect from the County, promptly obtain a new policy, submit the same to the Department of Risk Management of the County of Westchester for approval and submit a certificate thereof. Upon failure of the Municipality to furnish, deliver and maintain such insurance, the Agreement, at the election of the County, may be declared suspended, discontinued or terminated. Failure of the Municipality to take out, maintain, or the taking out or maintenance of any required insurance, shall not relieve the Municipality from any liability under the Agreement, nor shall the insurance requirements be construed to conflict with or otherwise limit the contractual obligations of the Municipality concerning indemnification. All property losses shall be made payable to and adjusted with the County.

In the event that claims, for which the County may be liable, in excess of the insured amounts provided herein are filed by reason of any operations under the Agreement, the amount of excess of such claims or any portion thereof, may be withheld from payment due or to become due the Municipality until such time as the Municipality shall furnish such additional security covering such claims in form satisfactory to the County of Westchester.

2. The Municipality shall provide proof of the following coverage (if additional coverage is required for a specific agreement, those requirements will be described in the "Special Conditions" of the contract specifications):

(a) Workers' Compensation. Certificate form C-105.2 (9/07) or State Fund Insurance Company form U-26.3 is required for proof of compliance with the New York State Workers' Compensation Law. State Workers' Compensation Board form DB-120.1 is required for proof of compliance with the New York State Disability Benefits Law. Location of operation shall be "All locations in Westchester County, New York."

Where an applicant claims to not be required to carry either a Workers' Compensation Policy or Disability Benefits Policy, or both, the employer must complete NYS form CE-200, available to download at: www.wcb.state.ny.us (click on Employers/Businesses, then Business Permits/Licenses/Contracts to see instruction manual).

If the employer is self-insured for Worker's Compensation, he/she should present a certificate from the New York State Worker's Compensation Board evidencing that fact (Either SI-12, Certificate of Workers' Compensation Self-Insurance, or GSI-105.2, Certificate of Participation in Workers' Compensation Group Self-Insurance).

(b) Employer's Liability with minimum limit of $100,000.00.

(c) Commercial General Liability Insurance with a minimum limit of liability per occurrence of $1,000,000.00 for bodily injury and $100,000.00 for property damage or a combined single limit of $1,000,000.00 (c.s.l.), naming the County of Westchester as an additional insured. This insurance shall indicate the following coverages:

(i) Premises - Operations.
(ii) Broad Form Contractual.

(d) Automobile Liability Insurance with a minimum limit of liability per occurrence of $1,000,000.00 per occurrence for bodily injury and a minimum limit of $100,000.00 per occurrence for property damage or a combined single limit of $1,000,000.00 unless otherwise indicated in the contract specifications. This insurance shall include for bodily injury and property damage the following coverages:

(i) Owned automobiles.
(ii) Hired automobiles.
(iii) Non-owned automobiles.

3. All policies of the Municipality shall be endorsed to contain the following clauses:

(a) Insurers shall have no right to recovery or subrogation against the County of Westchester (including its employees and other agents and agencies), it being the intention of the parties that the insurance policies so effected shall protect both parties and be primary coverage for any and all losses covered by the above-described insurance.

(b) The clause "other insurance provisions" in a policy in which the County of Westchester is named as an insured, shall not apply to the County of Westchester.

(c) The insurance companies issuing the policy or policies shall have no recourse against the County of Westchester (including its agents and agencies as aforesaid) for payment of any premiums or for assessments under any form of policy.

(d) Any and all deductibles in the above described insurance policies shall be assumed by and be for the account of, and at the sole risk of, the Municipality.

CITY COUNCIL AGENDA

NO. 12 DEPT.: Golf Club DATE: April 5, 2017

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Resolution to amend the Nominations, Elections and Voting Eligibility procedures for the Rye Golf Club Commission regarding a Commission vacancy.

FOR THE MEETING OF:
April 5, 2017
RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That the Council approve the proposed changes regarding appointment of a Commission member to the Golf Club Commission.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND: The Rye Golf Club Commission is requesting to amend their Nominations, Elections and Voting Eligibility procedures regarding appointment when there is a vacancy on the Commission. Currently when the Commission falls below seven members, "the person(s) with the next number of highest votes from the previous election shall, if such person is otherwise eligible and willing to fill such vacancy, be appointed to the Commission to maintain seven Commission members until the next regular election. In the event there is no one to fill the vacancy a special election will be held to fill the vacancy and maintain seven Commission members until the next regular election."

The RGC Commission would like to update these procedures so that the Commission may appoint a new member if there is no person from the last election to serve instead of holding a special election as the current by-laws indicate.

See attached revised By-Laws.

Rye Golf Club
Nominations, Elections and Voting Eligibility

1) Commission

a) The Rye Golf Club Commission will consist of seven adult Club members in good standing elected by the eligible voting Club members. The Commission shall at no time have more than one non-resident member.

b) The term of each Commission member shall be three years, commencing January 1 of the year following a regular election year. There is no limit to the number of terms a Commission member may serve.

c) A Commission member-elect shall be allowed to attend Commission meetings from their date of election but may not participate in voting until they are sworn in.

d) The Commission members will select a chairperson from their group for a one-year term (the "Chairperson") at the first regular Commission meeting in an applicable calendar year. A Chairperson may serve as Chairperson for an unlimited number of terms. The Chairperson will appoint a Vice Chairperson who will act as Chairperson in his/her absence.

e) Commission vacancies shall be filled at the next regular election following the vacancy for the remainder of the vacant term. In the event the Commission falls below seven members, the person(s) with the next number of highest votes from the previous election shall, if such person is otherwise eligible and willing to fill such vacancy, be appointed to the Commission to maintain seven Commission members until the next regular election. In the event there is no one to fill the vacancy, the Commission may appoint an eligible member to serve ~~a special election will be held to fill the vacancy and maintain seven Commission members~~ until the next regular election in order to maintain the Commission at seven members.

f) A quorum of the Commission is established by four members present at a meeting.

2) Election

a) Voting will take place over a two-week period online through a secure online service approved by the Commission that suits our needs.

b) An invitation email will be sent to all eligible voters with instructions on how to cast your vote online.

c) For those members wishing to cast their vote onsite, a computer kiosk will be available at the club during normal business hours throughout the voting time period.

d) Votes will be tallied in accordance with the instructions provided therewith and will not be

counted as a result of any of the following:

i) Vote is not cast within the specified time period; or

ii) Vote is not cast in accordance with specified instructions; or

iii) Vote is rejected for any reason by the online service being used.

e) Valid ballots shall be tallied for each Commission candidate by the online service. The results will be forwarded to the City Clerk who shall submit a list of election results to the City Council for approval no later than November.

3) Voting eligibility

a) An invitation email shall be sent (to the email on file) to each eligible voting member. The Golf Club Member Handbook shall indicate the membership categories and members entitled to voting privileges.

b) To receive an invitation email and vote in an election, the voting member must have an email on file and have a member logon account established prior to the election.

c) No Club member shall be entitled to vote more than once in an election.

Rye Golf Club
Commission Responsibilities

1) The Commission.

a) *Role*. The Commission shall serve in an advisory capacity on behalf of the members of the Golf Club and shall have the responsibilities set forth in Section 1(c) below. Neither the Commission, any Committee of the Commission nor any member of the Commission or member of any Committee thereof, shall have any direct authority or responsibility for execution, implementation or management of any activity, program, employment matter, or contract involving the Golf Club. The Golf Club Manager (who reports to the City Manager) shall be responsible for the execution, implementation and management of the authorized operation of the Golf Club.

b) *Advisory Recommendations*. The Commission shall make such recommendations as it deems proper in respect of the current and proposed activities, programs, policies and other matters related to the Golf Club, the Commission shall also make recommendations concerning the duties and responsibilities of independent contractors (e.g., Golf Professional), including recommendations concerning employment of prospective individuals to fill those positions, and any other areas the Commission deems appropriate; such recommendations shall be made directly to the Golf Club Manager. The Commission shall also make recommendations concerning the duties and responsibilities of the Golf

Club Manager, including recommendations concerning employment of prospective individuals to fill the position, and any other areas the Commission deems appropriate; such recommendations shall be made directly to the Rye City Manager.

c) *Responsibilities.* The Commission shall:

i) Adopt, interpret, apply and enforce such rules and regulations relating to the use of the Golf Club as it deems appropriate, which rules and regulations shall not be inconsistent or conflict with any agreement of the City of Rye or any published policy of the Rye City Council;

ii) Review, advise on and approve an annual budget for the Golf Club provided and prepared by Golf Club staff and finance committee. Annual budgets shall include proposed annual membership categories and fees and proposed charges for other services provided by the Golf Club, prior to timely submission of such annual budget to the Rye City Manager;

iii) select a Commission Chairperson; and

iv) Decide such matters as may be properly brought before the Commission for a decision.

d) *Commission Chairperson.* The responsibilities of the Commission Chairperson shall be:

i) to appoint a chairperson to each Standing Committee of the Commission;

ii) to organize limited duration Ad Hoc Committees of the Commission as may be necessary from time to time for the purpose of making recommendations to the Commission in respect of matters not properly within the scope of the usual and customary advisory role of a Standing Committee of the Commission;

iii) to appoint a chairperson to each Ad Hoc Committee of the Commission;

iv) to serve as an ex-officio member on each Committee of the Commission;

v) to appoint a Vice-Chairperson of the Commission who shall serve as Chairperson during the absence of the Chairperson; and

vi) to direct such matters as the Chairperson deems necessary and appropriate to a Committee of the Commission for the advice and recommendation of such Committee.

2) Committees of the Commission.

a) *Standing Committees.* The Commission shall have Standing Committees to advise and make recommendations to the Commission on such matters that properly come before a Standing Committee or as may be directed to such Committee by the Commission or the Commission Chairperson. The Standing Committees of the Commission initially shall

include Committees relating to Golf, Pool, House and Finance.

b) *Ad Hoc Committees.* The Commission shall have such Ad Hoc Committees as may be constituted from time to time pursuant to Section 1(d)(ii) above.

c) *Committee Members and Chairpersons.*

i) Each Standing Committee and Ad Hoc Committee of the Commission shall be constituted with no fewer than three members and no more than seven members; provided that a Committee may be constituted with two members and up to nine members in appropriate circumstances with the approval, by majority vote, of the Commission.

ii) A Committee member shall be a member of the Golf Club holding a valid current membership entitling such member to voting privileges.

iii) The Chairperson appointed to each Standing Committee shall be a Member of the Commission, other than the Chairperson of the Commission.

iv) The Chairperson of an Ad Hoc Committee may be a Member of the Commission.

v) The Chairperson of a Committee shall make efforts to seek out qualified members to serve as members of such Committee. The Committee Chairperson will then make recommendations to the Commission of any such qualified members it believes should serve on such Committee. Such nominees shall serve as Committee members upon approval by majority vote of the Commission. Such nominees will serve as Committee members at the convenience of the Commission and can be removed from such Committee service at any time and for any reason at the sole discretion of the Commission. A Committee member shall serve until the earlier of the end of the Golf Club year for which he or she serves as a member or the date a Committee terminates, or the date on which such member is removed by the Commission.

CITY COUNCIL AGENDA

NO. 13 DEPT.: Police DATE: April 5, 2017

CONTACT: Michael C. Corcoran, Jr., Commissioner of Public Safety

AGENDA ITEM: Consideration of the proposed changes to the Rules and Regulations of the City of Rye Police Department: General Order #102.8, General Order #103.7, General Order #103.10, General Order #115.3 and the addition of General Order #118.2.

FOR THE MEETING OF:
April 5, 2017

RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: Approval of a revision to five (5) General Orders and the addition of one (1) new General Order.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:
Enhancement of the operational effectiveness of the Department.

BACKGROUND:

- Revision of General Order #102.8 regarding the operational guidelines of the Bicycle Patrol Unit
- Revision of General Order #103.7 regarding the carry and use of Oleoresin Capsicum (O.C.) Spray
- Revision of General Order #103.10 regarding the training, deployment, use and aftercare of Conducted Electrical Weapons
- Revision of General Order #115.3 regarding the procedures for the training of new police officers during post-academy training
- Addition of General Order #118.2 regarding a new performance tracking software program entitled Guardian Tracking

See attached General Orders which have been substantively revised. They have been provided to the Rye Police Association for review pursuant to the provisions of the collective bargaining agreement.

CITY COUNCIL AGENDA

NO. 14 DEPT.: City Manager DATE: April 5, 2017

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Consideration of a request by the Lustgarten Foundation Cancer Research Institute for use of City streets on Sunday, April 23, 2017 from 9:00 a.m. to 12:00 p.m. for their annual Westchester Pancreatic Cancer Research Walk.

FOR THE MEETING OF:
April 5, 2017
RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That the Council consider granting the request.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND: The use of City streets is requested for the annual Westchester Pancreatic Cancer Research Walk to be held at Rye Playland on Sunday, April 23th from 9:00 a.m. to 12:00 p.m. The event was organized in memory of Gigi Shanes-Hernandez who was a life-long Rye resident, to raise awareness and funds to support research efforts on pancreatic cancer. Since the inaugural walk in 2010, the Westchester Walk has raised nearly $2.2 Million. Thanks to private funding 100% of every donation goes directly to pancreatic cancer research.

See attached letter, event information and map of event.

CURE PANCREATIC CANCER
• LUSTGARTEN FOUNDATION •

December 8, 2016

Dear Friend:

On behalf of The Lustgarten Foundation, we invite you to partner with us to sponsor the 8TH Annual Westchester Pancreatic Cancer Research Walk April 23, 2017 at Rye Playland. The event benefits The Lustgarten Foundation, the nation's largest private funder of pancreatic cancer research, and underscores our mission of advancing the scientific and medical research related to the diagnosis, treatment, cure and prevention of pancreatic cancer.

The Westchester walk is part of our nationwide walk program that brings together patients, their families and loved ones, community leaders, corporations, and business owners to increase awareness and raise critically needed funds for research. An estimated 2,000 participants are expected to attend this event. Since its inception in 2001, the Pancreatic Cancer Research Walk Series has grown to 35 walks across the country and 18,000 participants have raised more than $30 million.

The enclosed sponsorship opportunities guarantee a significant return on investment in the form of enhanced public image, targeted promotions and direct prospecting. Sponsorship opportunities range from in-kind packages based on the items your company can donate, to sponsorship packages valued from only $250, which include varying levels of prominent logo placement, free walker registrations, and onsite product/service sampling.

Nearly 53,000 Americans will be diagnosed with pancreatic cancer this year alone, and more than 41,000 will die of this lethal disease, while research remains grossly underfunded. In fact, with only 2 percent of the National Cancer Institute funding directed at the nation's fourth-leading cause of cancer deaths, the work supported by The Lustgarten Foundation has played a critical role in understanding pancreatic cancer and in promoting therapeutic discoveries that have led to new therapies. The Pancreatic Cancer Research Walks support our efforts to find early detection methods, effective treatments and ultimately a cure for pancreatic cancer.

It is thanks in part to the contributions of our walk participants that The Lustgarten Foundation has committed $120 million for research to date. Since the Foundation's inception, more than 1,000 researchers have been working to find a cure, and we have supported more than 200 research projects at over 60 institutions worldwide, all in a targeted effort to move our research program forward. 100 percent of every dollar donated to The Lustgarten Foundation goes directly to pancreatic cancer research.

If we can provide any additional information about this walk or the work of The Lustgarten Foundation, please contact us directly at toll-free 1-866-789-1000 or awalsh@lustgarten.org. Your tax deductible support will bring us closer to a cure!

Sincerely,

Ann Walsh
Director of Events

EIN # 31-1611837

1111 Stewart Avenue, Bethpage, NY 11714
PH. 516.803.2419 / Fax 516.803.2303 / www.lustgarten.org

CURE PANCREATIC CANCER
• LUSTGARTEN FOUNDATION •

THE LUSTGARTEN FOUNDATION is America's largest private foundation dedicated solely to funding pancreatic cancer research. Our mission is to advance the scientific and medical research related to the diagnosis, treatment, cure and prevention of pancreatic cancer. To fulfill this mission, the Foundation has supported more than 200 research projects at nearly 60 medical and research centers worldwide. Since its inception, the Foundation has directed $125 million to research and assembled the best scientific minds with the hope that one day, a cure can be found.

With an overall survival rate of just eight percent over five years, pancreatic cancer has no early detection tests, no effective long-term treatments, and, unless the cancer is surgically removed in its earliest stages, no cure. An estimated 53,000 Americans will be diagnosed this year alone, and the disease is projected to become the third leading cause of cancer-related deaths in 2016. And, with only 2 percent of National Cancer Institute funding directed at pancreatic cancer, the research supported by The Lustgarten Foundation plays a critical role in understanding the disease and raising awareness and funding for innovative research.

RESEARCH ADVANCES

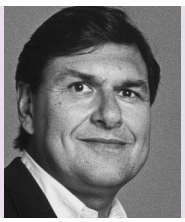
The Lustgarten Foundation Pancreatic Cancer Research Laboratory at Cold Spring Harbor Laboratory was established to focus exclusively on pancreatic cancer research and is led by the Foundation's Director of Research, David Tuveson, M.D., Ph.D. Dr. Tuveson and his colleagues developed a three-dimensional cell culture system, called an organoid, which allows pancreatic cancer to be grown from human tissue. The organoid provides researchers with the means to better understand the disease outside of the human and inside the laboratory and offers the hope of personalized cancer treatments in the future.

Additional developments include:

- Clinical trials to develop blood tests and new imaging strategies to detect pancreatic cancer and evaluate pancreatic cysts
- Advancements in early detection and screening techniques, including research into hereditary and environmental causes of pancreatic cancer
- Studies focused on immunotherapy and new drug combinations to identify more effective treatment options
- Research into new treatments, including those targeting the gene mutations that cause the disease and those using a synthetic form of vitamin D called paricalcitol

COMMUNITY EVENTS

- Nearly 300 community events are planned this year, in addition to several major fundraisers. These events raise significant funding to support our expanding research initiatives and engage patients and their families.
- Our nationwide Pancreatic Cancer Research Walk program includes 36 walks this year alone and has raised $35 million to date in our quest to find a cure.



The Lustgarten Foundation was established by Marc Lustgarten, an executive with Cablevision Systems Corporation and The Madison Square Garden Company, along with Cablevision Chairman Charles Dolan and CEO James Dolan, following Marc's diagnosis of pancreatic cancer in 1998. He died the following year at the age of 52.

Thanks to private funding, 100% of every dollar donated to The Lustgarten Foundation goes directly to pancreatic cancer research. Visit www.lustgarten.org or call 866-789-1000 for more information.

2017 Westchester Pancreatic Cancer Research Walk

Rye Playland, Rye, NY
Sunday, April 23rd

CURE PANCREATIC CANCER
LUSTGARTEN FOUNDATION

For Medical Emergencies Call 914-557-4423