UNITED STATES FISH AND WILDLIFE SERVICE CORRESPONDENCE

AKRF

Nathan Riddle <nriddle@akrf.com>

Re: Rockaways Boardwalk Reconstruction - NEPA EA

1 message

Sinkevich, Steve <steve_sinkevich@fws.gov> Mon, Dec 9, 2013 at 3:25 PM
To: Nathan Riddle <nriddle@akrf.com>
Cc: "Quartini, Lindsay (Parks)" <Lindsay.Quartini@parks.nyc.gov>, Michael Rem <mrem@nycedc.com>, Peter Liebowitz <pliebowitz@akrf.com>

The following are my initial comments that are subject to change as more information and internal coordination occurs-

I'm in the process of preparing a letter better detailing the impacts of the project and the Service's recommended conservation measures. In the interim, I don't have comments on the constructoin of new piles at this time, beyond concern with construction occurring during the plover season (April 1-Sept 1 or when the last chick fledges) in the areas with a recent history of birds (generally B19-B59th streets).

I do have concerns with the construction of the baffle-wall in the area where plovers have bred in recent years since these walls will limit/prevent cross-island sediment transport north of the boardwalk. This natural process occurred after Sandy and created suitable habitat north of the boardwalk which plovers attempted to breed and forage in during the 2013 season. However, as we discussed in our recent conference call, Arverne by the Sea development would occur east of B44st. I'd prefer any measure that would increase the likelihood of cross-island sediment transport in the areas not to be developed, so my order of preference is: 1)no baffle-walls from B44-B56th streets; 2) break-away baffle walls in this area; and 3) permanent baffle-walls. At this time, wouldn't have problem with permanent baffle-walls outside of B44-56 since adjacent development either currently exists that would limit this natural process, or this development will occur in near future.

I'm the Service biologist handling this project, you can remove Steve Papa from the e-mail list to avoid confusion.

On Thu, Dec 5, 2013 at 9:52 AM, Nathan Riddle <nriddle@akrf.com> wrote:

> Thank you for the comments you have provided on the Rockaways Boardwalk reconstruction project.
>
> This email is to inform you that, subsequent to the distribution of the October 17, 2013 letter notifying you of changes to the scope of the Rockaways Boardwalk reconstruction project, further changes have been made as a result of design development. These changes are as follows:
>
> 1. Reconstruction of the boardwalk will include the construction of all new piles, rather than the reuse of the existing concrete piles. Testing and evaluation of the original concrete foundations (also referred to as “bents” and consisting of four concrete piles attached by a concrete pile cap) has indicated chloride contamination that may limit the life of the existing piles. Under current plans, the existing piles would remain in place and be buried; however, some or all of the piles may be removed instead. As currently envisioned but subject to further evaluation, new bents would be based on two new piles and would be spaced approximately 30 feet apart.
> 2. The proposed project still includes the construction of a sand-retaining wall (previously referred to as a baffle-wall) underneath the boardwalk but it has been redesigned so that it would no longer break away if significant wave forces were directly encountered. Rather, the wall would be permanent and at a fixed height so that water could flow below the scour line.
>
> Thank you for your continued consideration of this project,
>
> --

AKRF

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440 Park Avenue South
7th Floor
New York, NY 10016
tel: 212 696-0670
fax: 212 213-3191
www.akrf.com

September 13, 2013

Mr. Steve Papa
US Fish and Wildlife Service
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967

Re: Rockaways Boardwalk Reconstruction, Queens, New York

Dear Mr. Papa:

The City of New York is proposing to enter into a grant agreement with the United States Department of Housing and Urban Development (HUD) to disburse Community Development Block Grant-Disaster Recovery (CDBG-DR) Funds for the reconstruction of the Rockaway Beach boardwalk in the borough of Queens, New York City, which Hurricane Sandy significantly damaged in October 2012. The City of New York (the City) is the grantee of the CDBG-DR grant, and CDBG funding will be provided to the Office of Management and Budget (OMB), which is the responsible entity (RE) for environmental reviews. It is expected that the New York City Department of Parks and Recreation (DPR) will administer this program and the New York City Economic Development Corporation (NYCEDC) will be the funding subrecipient. As the grantee of the funds, the City will not be limited to returning to pre-disaster conditions as HUD encourages the use of CDBG-DR Funds to carry out activities that not only address disaster-related impacts, but leave communities sustainably positioned to meet the needs of their post-disaster populations and to further prospects for growth. The proposed project, which is described below, is being designed to address these broader goals for the Rockaway Peninsula.

As described above, in accordance with the use of CDBG-DR Funds, OMB is the RE for approving the federally required environmental review per 24 CFR Part 58. A National Environmental Policy Act (NEPA) Environmental Assessment (EA) will be prepared for the proposed project. This NEPA EA is also intended to serve agencies that must make findings under the New York State Environmental Quality Review Act (SEQRA) and New York City Environmental Quality Review (CEQR). Per NEPA, the environmental review will include consideration of various environmental factors and regulations, including historic preservation, floodplain management, wetland protection, threatened and endangered species, and environmental justice.

Hurricane Sandy damaged neighborhoods, beaches and DPR facilities in many locations. In the Rockaways, approximately 4.7 miles of boardwalks were damaged. Targeted repairs were made to portions of these boardwalks in time to allow their limited use during the summer of 2013.

As discussed in more detail below, the proposed project would complete the reconstruction of the boardwalks and would increase the resiliency of the boardwalks from Beach 20th Street to Beach 126th Street (see the attached USGS Quad map and aerial maps). The rebuilt boardwalks and associated access

points would be constructed to be compatible with beach replenishment projects currently being undertaken by the U.S. Army Corps of Engineers (USACE). To the extent practicable, and in coordination with USACE, the boardwalk project would also consider interim secondary coastal protection measures and, at a minimum, would be designed so as to not preclude additional storm protection measures in the future.

It is the intention of the project to reconstruct the boardwalks on the original concrete foundations (also referred to as "bents") and in a similar footprint. Each foundation bent consists of four concrete piles attached by a concrete pile cap. The bents are spaced at approximately 19 feet along the site for a total of approximately 1,306 pile bents. Testing and evaluation of the condition of the bents could result in the need for bents or piles to be replaced or added as part of the reconstruction. Design development could also result in modification of, or additions to, the bents to accommodate a new and more resilient structure.

An overall goal of the project is to raise the new boardwalks to an elevation above the 100-year FEMA storm surge levels which vary along the site from +13 feet to +17 feet North American Vertical Datum of 1988 (NAVD 88). The existing elevations of the tops of the pile caps vary from +10.4 feet to +14.56 feet NAVD 88. The typical boardwalk surface would be designed to be 3.0 feet above the 100-year storm surge elevation. This would result in raising the new boardwalk sections from approximately 1.4 feet at the eastern portion of the site to approximately 8.0 feet to the west. These elevations would vary to accommodate existing structures and to minimize changes in boardwalk elevations. Raising the boardwalks serves two purposes. First, the new boardwalks would be above the 100-year design flood elevations that would help guard against catastrophic destruction in the event of a future super storm. Second, the boardwalks would be designed to allow users to continue to view and access the beach in the event that dune structures or other protective measures under consideration by USACE are constructed under a separate project.

It is expected that construction for this boardwalk project will be phased, beginning in 2013, with all construction contracts awarded before the end of 2015. While the beach is currently being renourished by USACE under a separate project (including the creation of new dunes constructed between the shore and the boardwalk), it is not expected that USACE will issue final flood protection recommendations until 2015. The final recommended measures, as well as any potential schedule for their installation, are not known. Therefore, intermediate flood protection measures would be included as part of this project. These could consist of sand retaining elements that can be used to retain sand on the outboard side or beneath the boardwalks. These will provide a measure of flood protection that can be removed or incorporated into the future USACE solution.

There are four typical boardwalk conditions that need to be addressed in the boardwalk reconstruction effort. The existing impairments and likely treatments are described below:

- No boardwalk surfaces. In areas where no boardwalk structure remains other than the existing piles and caps, these structures would be evaluated and reused or replaced as appropriate. The new boardwalk could then be built at a higher elevation on existing pile caps, if feasible, based on a truss system described below. Individual pile caps may need to be repaired or replaced based on a structural evaluation of storm damage or other deteriorated conditions; repairs would most likely be with concrete patching.

- Damaged or obsolete wood and concrete boardwalks. All wood and appurtenances would likely need to be removed and concrete foundations repaired as necessary as noted above for areas where only the piles remain. The new boardwalks could then be built at a higher elevation on existing pile caps if feasible.

- Intact concrete boardwalks. Several concrete sections survived the storm intact. However, because they are below the new expected boardwalk heights developed in consideration of new 100-year storm surge levels and future sea rise considerations, the reconstruction could dismantle the concrete boardwalk topping, create a structure to span the height gap between the new boardwalk design level

and the existing pile caps, and then reuse, where applicable, the concrete boardwalk planks that are in good condition.

- Rebuilt "islands." The islands are boardwalk areas that are focal points of activity, generally in line with surface transportation, that were rebuilt since the storm in cast-in-place concrete. There are amenities at these locations such as washrooms and lifeguard stations. Because of the high level of design, the relationships to existing buildings, and the disruption that the reconstruction of these structures would entail, it is anticipated that these islands would be left in place. Since they are generally below the new design elevations, additional flood control measures could be incorporated at these locations including solutions that get put in place when a major storm event is forecast.

The typical boardwalk section is 40 feet wide, and the project proposes to rebuild all boardwalk areas generally to that width. The structural design for supporting the new boardwalks would likely be based on a system of trusses of varying heights supported on the existing pile caps. These would support concrete planks that may be covered with a topping layer of cast in place concrete, or may be textured in the pre-casting process. The potential use of trusses would allow the design to accommodate the varying heights of the pile caps, the design storm surge elevation, and adjacent structures. The supports and the boardwalks would be designed for buoyancy and wave forces.

The boardwalk reconstruction project would include lights, benches, drinking fountains, charging stations, and bike racks and other amenities that may be identified in the design process. New ADA-compliant public access ramps would be provided to replace those damaged in the storm. There are approximately 125 access points to the boardwalks that existed prior to the storm and which generally correspond to public streets (see attached figures showing locations of existing and historic public access points). The work proposed for these access points would include: 1) redesign to meet the new boardwalk elevation; and 2) possible elimination of access points that are no longer warranted. No new public access points are envisioned and all access points would take place within the boardwalk right-of-way and on previously disturbed areas.

The new boardwalks will be an integral part of the Rockaway Gateway Greenway. Over the course of the next few years, DPR will also be developing urban design and open space design concepts for the greater area of the Rockaway Peninsula to the east and west of the project area as well as north of the boardwalks as they connects to the local pedestrian, bicycle, and vehicular traffic network. This larger conceptual "Rockaway Peninsula Plan" will look at all lands north of the north edge of the boardwalk structures to the DPR property line and craft a vision of a restored landscape and recreational facilities that are integrated with the raised and rebuilt boardwalks. The Plan is intended to address how to knit together the various DPR open space parcels with each other, with adjacent streets, and with the boardwalks. The boardwalk redesign (the specific subject project of the EA) will inform and be compatible with this larger area context plan.

Should your office have comments on the proposed project's potential effects on the environment for the City to consider in the EA, we respectfully request comments to be provided within 30 calendar days, or we may assume that your office has no NEPA or otherwise related issues with the proposed project. Please do hesitate to contact Peter Liebowitz at (646) 388-9747 or pliebowitz@akrf.com if you have any questions.

Sincerely,
Project Environmental Officer

Peter A. Liebowitz, AICP
AKRF, Inc.
Senior Vice President

Sincerely,
Project Manager

Nathan Riddle
AKRF, Inc.
Senior Technical Director

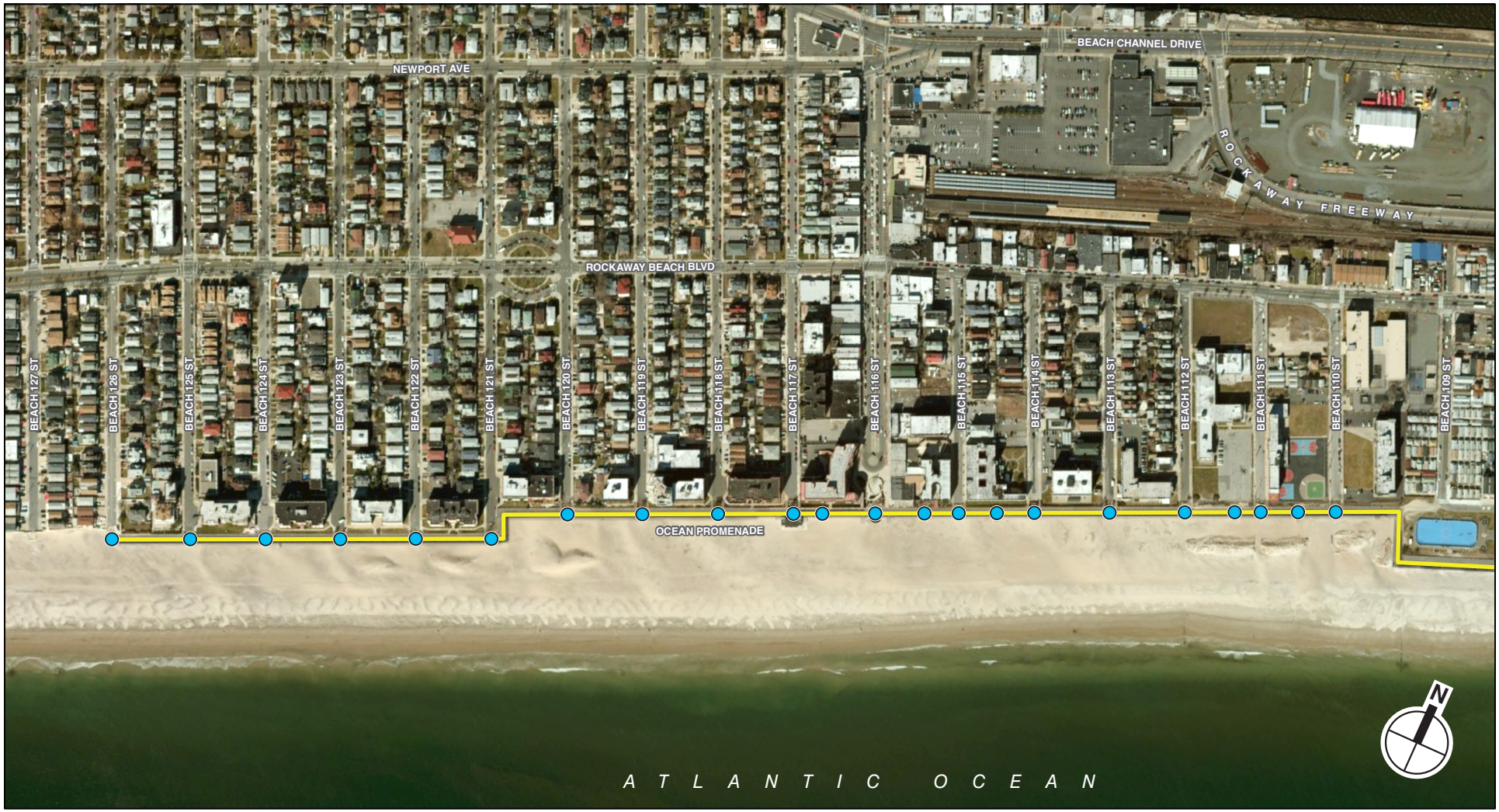
Point of contact: Peter A. Liebowitz, AKRF, Inc., 440 Park Avenue South, New York, NY 10016

9.10.13

Approximate Project Site Location:
73° 48' 4" W 40° 35' 11" N

USGS Topographic Map –
Far Rockaway Quadrangle
Figure 1

9.10.13



Boardwalk

Boardwalk Access

0 200 500 FEET

SCALE

Existing Boardwalk Access – Rockaway Park/Belle Harbor

Figure 2

9.10.13

Boardwalk

Boardwalk Access

0 400 1000 FEET

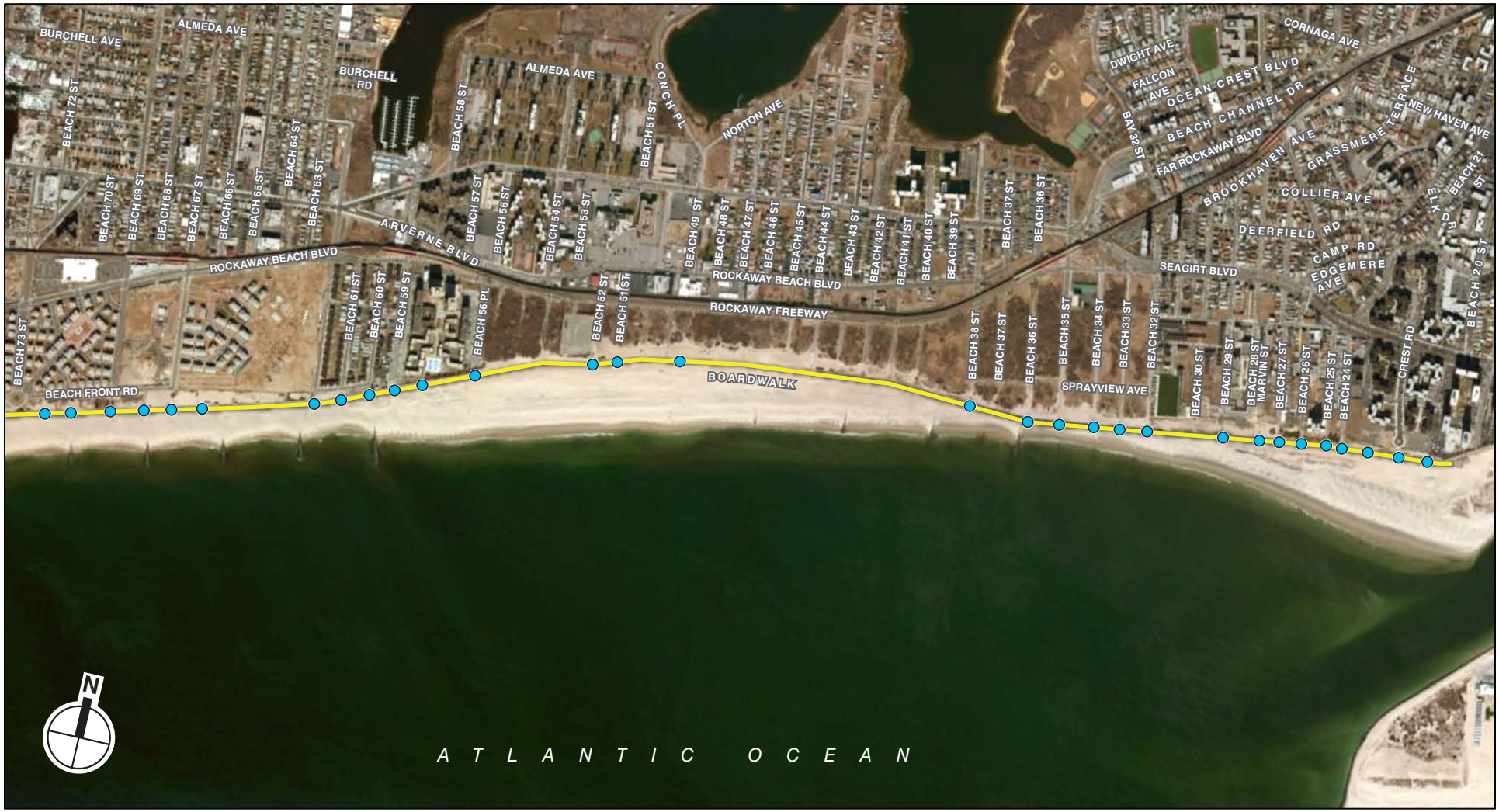
SCALE

ROCKAWAYS BOARDWALK RECONSTRUCTION

Existing Boardwalk Access – Seaside

Figure 3

9.10.13



Boardwalk

Boardwalk Access

0 800 1600 FEET

SCALE

ROCKAWAYS BOARDWALK RECONSTRUCTION

Existing Boardwalk Access – Arverne East/Far Rockaway

Figure 4

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October 3, 2013

Mr. Steve Papa
US Fish and Wildlife Service
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967

Re: Rockaways Boardwalk Reconstruction, Queens, New York
Updated Project Description

Dear Mr. Papa:

The City of New York is proposing to enter into a grant agreement with the United States Department of Housing and Urban Development (HUD) to disburse Community Development Block Grant-Disaster Recovery (CDBG-DR) Funds for the reconstruction of the Rockaway Beach boardwalk in the borough of Queens, New York City, which Hurricane Sandy significantly damaged in October 2012. The City of New York (the City) is the grantee of the CDBG-DR grant, and CDBG funding will be provided to the Office of Management and Budget (OMB), which is the responsible entity (RE) for environmental reviews. It is expected that the New York City Department of Parks and Recreation (DPR) will administer this program and the New York City Economic Development Corporation (NYCEDC) will be the funding subrecipient. As the grantee of the funds, the City will not be limited to returning to pre-disaster conditions as HUD encourages the use of CDBG-DR Funds to carry out activities that not only address disaster-related impacts, but leave communities sustainably positioned to meet the needs of their post-disaster populations and to further prospects for growth. The proposed project, which is described below, is being designed to address these broader goals for the Rockaway Peninsula. ***Subsequent to the distribution of the September 13, 2013 letter notifying you of the Rockaways Boardwalk reconstruction project, changes have been made to the scope of the project. These project changes are indicated in this letter with italics***.

As described above, in accordance with the use of CDBG-DR Funds, OMB is the RE for approving the federally required environmental review per 24 CFR Part 58. A National Environmental Policy Act (NEPA) Environmental Assessment (EA) will be prepared for the proposed project. This NEPA EA is also intended to serve agencies that must make findings under the New York State Environmental Quality Review Act (SEQRA) and New York City Environmental Quality Review (CEQR). Per NEPA, the environmental review will include consideration of various environmental factors and regulations, including historic preservation, floodplain management, wetland protection, threatened and endangered species, and environmental justice.

Hurricane Sandy damaged neighborhoods, beaches and DPR facilities in many locations. In the Rockaways, approximately 4.7 miles of boardwalks were damaged. Targeted repairs were made to portions of these boardwalks in time to allow their limited use during the summer of 2013.

As discussed in more detail below, the proposed project would complete the reconstruction of the boardwalks and would increase the resiliency of the boardwalks from Beach 20th Street to Beach 126th Street (see the attached USGS Quad map and aerial maps). The rebuilt boardwalks and associated access points would be constructed to be compatible with beach replenishment projects currently being undertaken by the U.S. Army Corps of Engineers (USACE). To the extent practicable, and in coordination with USACE, the boardwalk project would also consider interim secondary coastal protection measures and, at a minimum, would be designed so as to not preclude additional storm protection measures in the future.

In addition, between Beach 126th and Beach 149th Streets, the proposed project includes providing new temporary access to the beach with stairs and ramps across the new dunes currently being constructed as part of the USACE beach renourishment project. These structures would be utilized until there is further USACE implementation of a long term management plan. It is expected that the new structures would be located at each street end and that four locations would also have access ramps that are compliant with the Americans with Disabilities Act (ADA).

It is the intention of the project to reconstruct the boardwalks on the original concrete foundations (also referred to as "bents") and in a similar footprint. Each foundation bent consists of four concrete piles attached by a concrete pile cap. The bents are spaced at approximately 19 feet along the site for a total of approximately 1,306 pile bents. Testing and evaluation of the condition of the bents could result in the need for bents or piles to be replaced or added as part of the reconstruction. Design development could also result in modification of, or additions to, the bents to accommodate a new and more resilient structure. ***The reconstruction may also incorporate a baffle-wall underneath the boardwalk that would prevent sand migration and help to protect the adjacent community. If constructed, the baffle-wall would span the length of the boardwalk. The baffle-wall would retain the volume of sand extending from the USACE dune under the boardwalk to the baffle-wall. The wall would also restrict blowing sand from passing under the boardwalk from the beach to the inland area. Similar to the baffle-walls that have been rebuilt outside the project area, the baffle-wall underneath the boardwalk would likely be attached to H-piles, and it would be composed of concrete panels that extend approximately 4 feet below the sand surface, which would break away if significant wave forces were directly encountered. Testing is currently underway to determine the depth of the piles, which may be up to 40 feet into the ground.***

An overall goal of the project is to raise the new boardwalks to an elevation above the 100-year FEMA storm surge levels which vary along the site from +13 feet to +17 feet North American Vertical Datum of 1988 (NAVD 88). The existing elevations of the tops of the pile caps vary from +10.4 feet to +14.56 feet NAVD 88. The typical boardwalk surface would be designed to be 3.0 feet above the 100-year storm surge elevation. This would result in raising the new boardwalk sections from approximately 1.4 feet at the eastern portion of the site to approximately 8.0 feet to the west. These elevations would vary to accommodate existing structures and to minimize changes in boardwalk elevations. Raising the boardwalks serves two purposes. First, the new boardwalks would be above the 100-year design flood elevations that would help guard against catastrophic destruction in the event of a future super storm. Second, the boardwalks would be designed to allow users to continue to view and access the beach in the event that dune structures or other protective measures under consideration by USACE are constructed under a separate project.

It is expected that construction for this boardwalk project will be phased, beginning in 2013, with all construction contracts awarded before the end of 2015. While the beach is currently being renourished by USACE under a separate project (including the creation of new dunes constructed between the shore and the boardwalk), it is not expected that USACE will issue final flood protection recommendations until 2015. The final recommended measures, as well as any potential schedule for their installation, are not known. Therefore, intermediate flood protection measures would be included as part of this project. These could consist of sand retaining elements that can be used to retain sand on the outboard side or beneath the boardwalks. These will provide a measure of flood protection that can be removed or incorporated

into the future USACE solution. ***Furthermore, the project anticipates filling the gap between the USACE created dune and the boardwalk with additional sand that would also fill the area under the boardwalk to the baffle-wall. This landward extension of the dune would be planted with vegetation and would provide further resilience and create a more direct access from the boardwalk, across the USACE dune and down to the beach.***

There are four typical boardwalk conditions that need to be addressed in the boardwalk reconstruction effort. The existing impairments and likely treatments are described below:

- No boardwalk surfaces. In areas where no boardwalk structure remains other than the existing piles and caps, these structures would be evaluated and reused or replaced as appropriate. The new boardwalk could then be built at a higher elevation on existing pile caps, if feasible, based on a truss system described below. Individual pile caps may need to be repaired or replaced based on a structural evaluation of storm damage or other deteriorated conditions; repairs would most likely be with concrete patching.
- Damaged or obsolete wood and concrete boardwalks. All wood and appurtenances would likely need to be removed and concrete foundations repaired as necessary as noted above for areas where only the piles remain. The new boardwalks could then be built at a higher elevation on existing pile caps if feasible.
- Intact concrete boardwalks. Several concrete sections survived the storm intact. However, because they are below the new expected boardwalk heights developed in consideration of new 100-year storm surge levels and future sea rise considerations, the reconstruction could dismantle the concrete boardwalk topping, create a structure to span the height gap between the new boardwalk design level and the existing pile caps, and then reuse, where applicable, the concrete boardwalk planks that are in good condition.
- Rebuilt "islands." The islands are boardwalk areas that are focal points of activity, generally in line with surface transportation, that were rebuilt since the storm in cast-in-place concrete. There are amenities at these locations such as washrooms and lifeguard stations. Because of the high level of design, the relationships to existing buildings, and the disruption that the reconstruction of these structures would entail, it is anticipated that these islands would be left in place. Since they are generally below the new design elevations, additional flood control measures could be incorporated at these locations including solutions that get put in place when a major storm event is forecast.

The typical boardwalk section is 40 feet wide, and the project proposes to rebuild all boardwalk areas generally to that width. ***At selected locations, the boardwalk reconstruction may extend to up to 50 feet in order to ensure ADA-compliant access and to provide small gathering spaces for public use.*** The structural design for supporting the new boardwalks would likely be based on a system of trusses of varying heights supported on the existing pile caps. These would support concrete planks that may be covered with a topping layer of cast in place concrete, or may be textured in the pre-casting process. The potential use of trusses would allow the design to accommodate the varying heights of the pile caps, the design storm surge elevation, and adjacent structures. The supports and the boardwalks would be designed for buoyancy and wave forces.

The boardwalk reconstruction project would include lights, benches, drinking fountains, charging stations, and bike racks and other amenities that may be identified in the design process. New ADA-compliant public access ramps would be provided to replace those damaged in the storm. There are approximately 125 access points to the boardwalks that existed prior to the storm and which generally correspond to public streets (see attached figures showing locations of existing and historic public access points). The work proposed for these access points would include: 1) redesign to meet the new boardwalk elevation; and 2) possible elimination of access points that are no longer warranted. No new public access points are envisioned and all access points would take place within the boardwalk right-of-way and on previously disturbed areas.

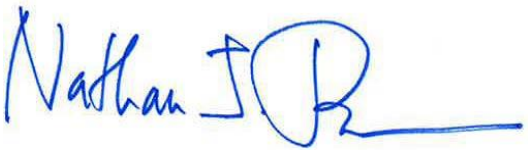
The new boardwalks will be an integral part of the Rockaway Gateway Greenway. Over the course of the next few years, DPR will also be developing urban design and open space design concepts for the greater area of the Rockaway Peninsula to the east and west of the project area as well as north of the boardwalks as they connects to the local pedestrian, bicycle, and vehicular traffic network. This larger conceptual "Rockaway Peninsula Plan" will look at all lands north of the north edge of the boardwalk structures to the DPR property line and craft a vision of a restored landscape and recreational facilities that are integrated with the raised and rebuilt boardwalks. The Plan is intended to address how to knit together the various DPR open space parcels with each other, with adjacent streets, and with the boardwalks. The boardwalk redesign (the specific subject project of the EA) will inform and be compatible with this larger area context plan.

Should your office have comments on the proposed project's potential effects on the environment for the City to consider in the EA, we respectfully request comments to be provided within 30 calendar days, or we may assume that your office has no NEPA or otherwise related issues with the proposed project. Please do hesitate to contact Peter Liebowitz at (646) 388-9747 or pliebowitz@akrf.com if you have any questions.

Sincerely,
Project Environmental Officer

Peter A. Liebowitz, AICP
AKRF, Inc.
Senior Vice President

Sincerely,
Project Manager



Nathan Riddle
AKRF, Inc.
Senior Technical Director

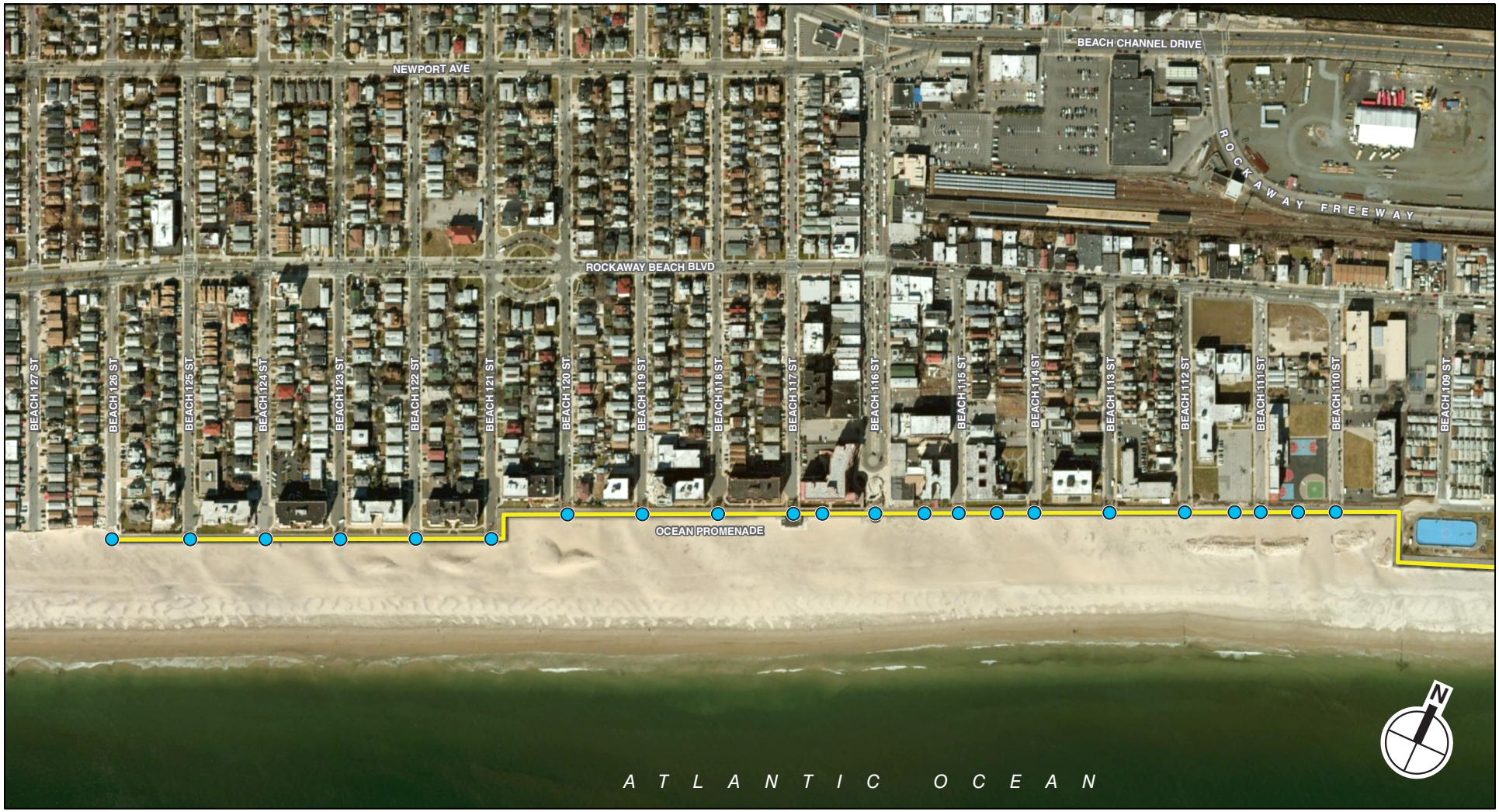
Point of contact: Peter A. Liebowitz, AKRF, Inc., 440 Park Avenue South, New York, NY 10016

10.1.13

Approximate Project Site Location:
73° 48' 4" W 40° 35' 11" N

USGS Topographic Map –
Far Rockaway Quadrangle
Figure 1

9.10.13



Boardwalk

Boardwalk Access

0 200 500 FEET

SCALE

Existing Boardwalk Access – Rockaway Park/Belle Harbor

Figure 2

9.10.13

Boardwalk

Boardwalk Access

0 400 1000 FEET

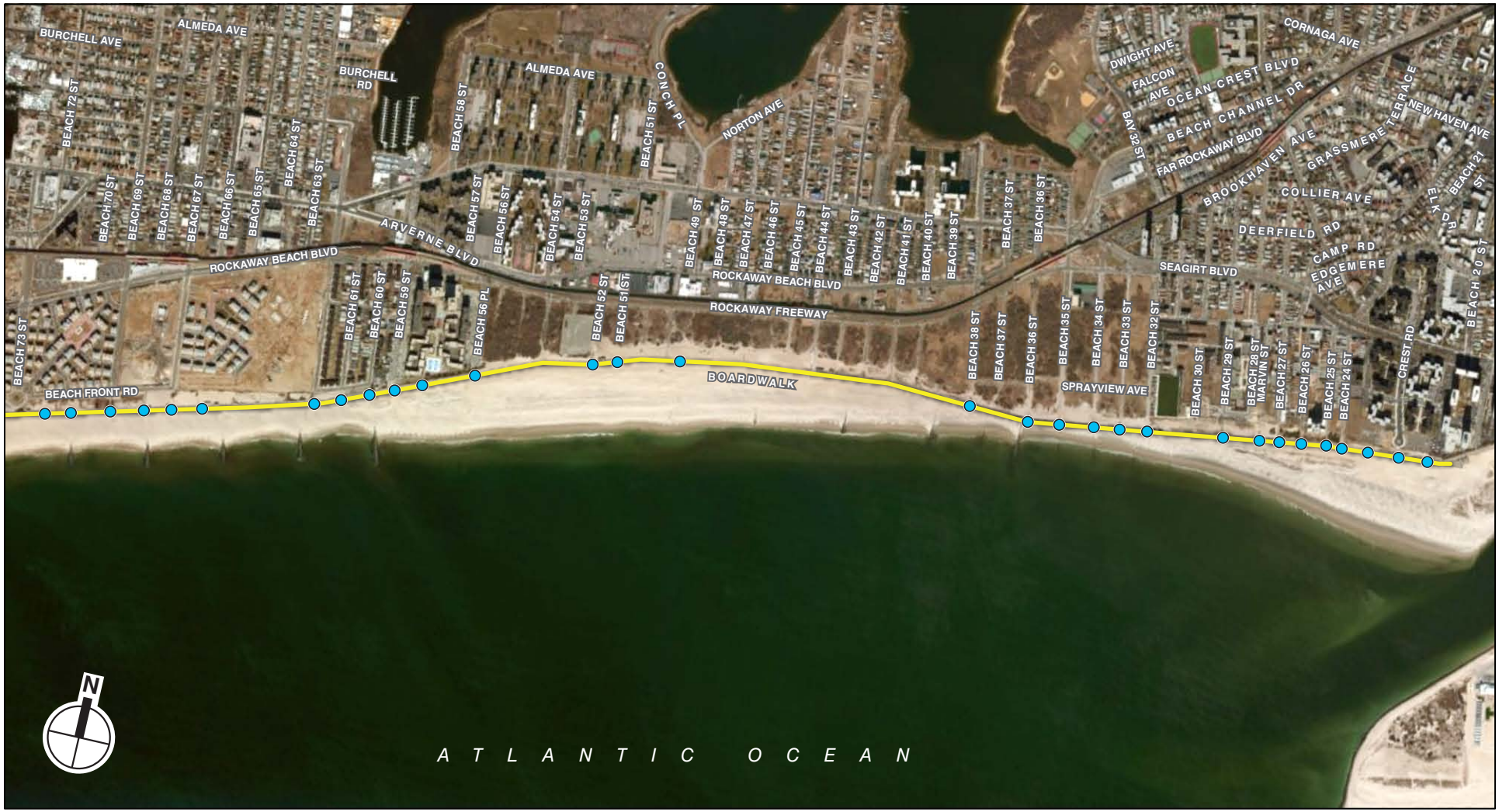
SCALE

ROCKAWAYS BOARDWALK RECONSTRUCTION

Existing Boardwalk Access – Seaside

Figure 3

9.10.13



Boardwalk

Boardwalk Access

0 800 1600 FEET

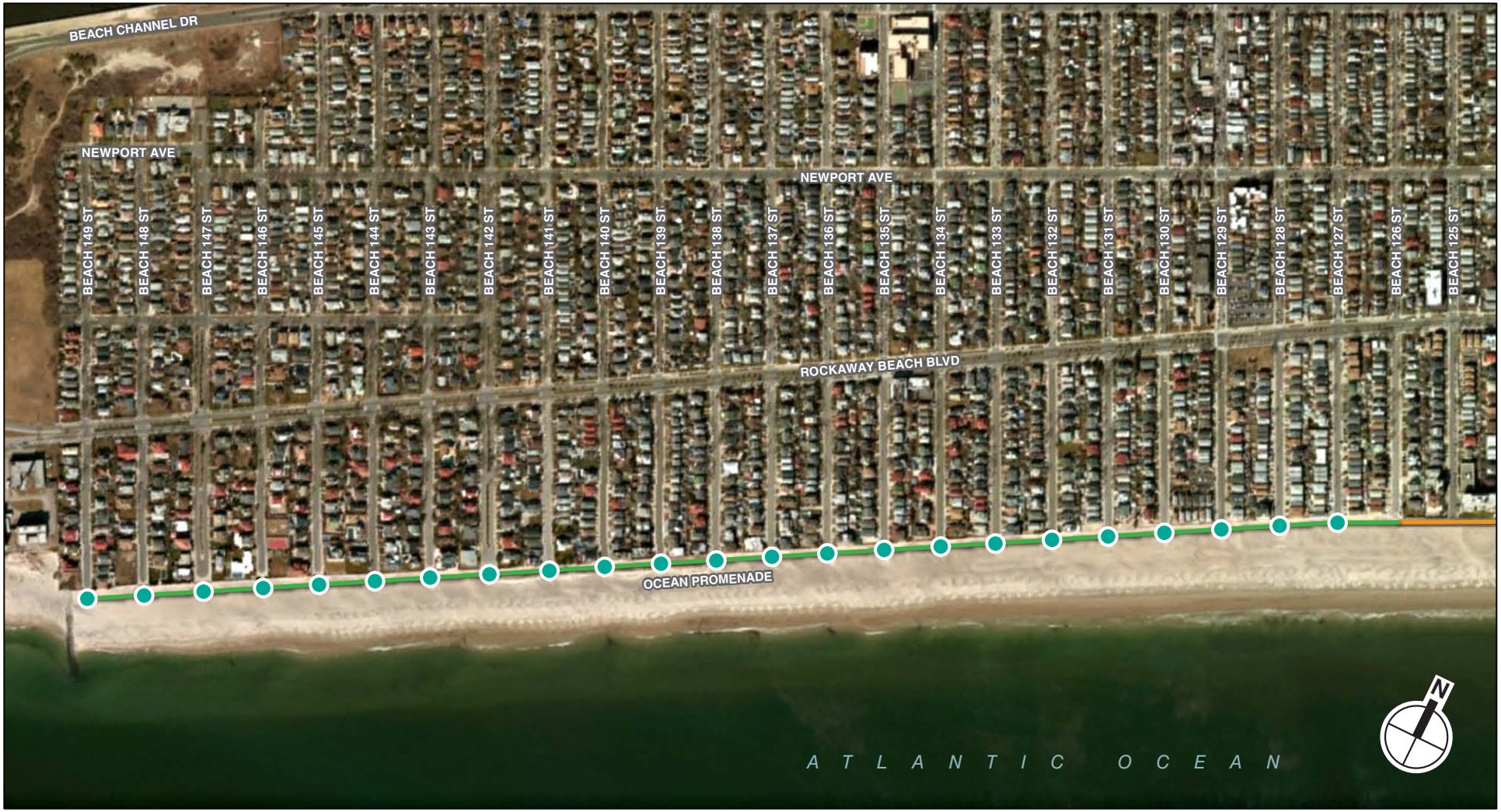
SCALE

ROCKAWAYS BOARDWALK RECONSTRUCTION

Existing Boardwalk Access – Arverne East/Far Rockaway

Figure 4

10.1.13



Boardwalk

USACE Dune

Temporary Crossing Structure

0 400 800 FEET

SCALE

ROCKAWAYS BOARDWALK RECONSTRUCTION

Temporary Crossing Structures

Figure 5

AKRF

Environmental and Planning Consultants

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October 17, 2013

Mr. Steve Papa
US Fish and Wildlife Service
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967

Re: Rockaways Boardwalk Reconstruction, Queens, New York
Updated Project Description – SECOND AMENDED LETTER

Dear Mr. Papa:

The City of New York is proposing to enter into a grant agreement with the United States Department of Housing and Urban Development (HUD) to disburse Community Development Block Grant-Disaster Recovery (CDBG-DR) Funds for the reconstruction of the Rockaway Beach boardwalk in the borough of Queens, New York City, which Hurricane Sandy significantly damaged in October 2012. The City of New York (the City) is the grantee of the CDBG-DR grant, and CDBG funding will be provided to the Office of Management and Budget (OMB), which is the responsible entity (RE) for environmental reviews. It is expected that the New York City Department of Parks and Recreation (DPR) will administer this program and the New York City Economic Development Corporation (NYCEDC) will be the funding subrecipient. As the grantee of the funds, the City will not be limited to returning to pre-disaster conditions as HUD encourages the use of CDBG-DR Funds to carry out activities that not only address disaster-related impacts, but leave communities sustainably positioned to meet the needs of their post-disaster populations and to further prospects for growth. The proposed project, which is described below, is being designed to address these broader goals for the Rockaway Peninsula. ***Subsequent to the distribution of the October 3, 2013 letter notifying you of the Rockaways Boardwalk reconstruction project, further changes have been made to the scope of the project. These project changes are indicated in this letter with italics***.

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Hurricane Sandy damaged neighborhoods, beaches and DPR facilities in many locations. In the Rockaways, approximately 4.7 miles of boardwalks were damaged. Targeted repairs were made to portions of these boardwalks in time to allow their limited use during the summer of 2013. ***As part of this phase, DPR replaced comfort and lifeguard stations destroyed by Hurricane Sandy with steel-framed***

modular structures along the Rockaway Peninsula, which allowed the beach areas to safely open for the summer 2013 season. These modular units were constructed pursuant to New York State Department of Environmental Conservation permits and were determined to be a Type II action under SEQRA and a Categorical Exclusion under the Federal Emergency Management Agency's (FEMA) NEPA regulations. Thus far, the modular units have been installed at Beach 32nd Street, Beach 59th Street, Beach 73rd Street, Beach 86th Street, Beach 97th Street, Beach 106th Street, and Beach 116th Street. Due to a potential change in location from Beach 66th Street to Beach 67th Street, the comfort station at Beach 67th Street has not yet been installed but is slated for construction during winter 2013-2014.

As discussed in more detail below, the proposed project would complete the reconstruction of the boardwalks and would increase the resiliency of the boardwalks from Beach 20th Street to Beach 126th Street (see the attached USGS Quad map and aerial maps). The rebuilt boardwalks and associated access points would be constructed to be compatible with beach replenishment projects currently being undertaken by the U.S. Army Corps of Engineers (USACE). To the extent practicable, and in coordination with USACE, the boardwalk project would also consider interim secondary coastal protection measures and, at a minimum, would be designed so as to not preclude additional storm protection measures in the future.

In addition, between Beach 126th and Beach 149th Streets, the proposed project includes providing new temporary access to the beach with stairs and ramps across the new dunes currently being constructed as part of the USACE beach renourishment project. These structures would be utilized until there is further USACE implementation of a long term management plan. It is expected that the new structures would be located at each street end and that four locations would also have access ramps that are compliant with the Americans with Disabilities Act (ADA). ***Between Beach 20th and Beach 9th Streets, the proposed project may restore existing dunes and stabilize them through the addition of infill sand, geotextile fabric, plantings, and a sand fence. DPR may also consider installing ramp and/or stair access over these restored dunes.***

It is the intention of the project to reconstruct the boardwalks on the original concrete foundations (also referred to as "bents") and in a similar footprint. Each foundation bent consists of four concrete piles attached by a concrete pile cap. The bents are spaced at approximately 19 feet along the site for a total of approximately 1,306 pile bents. Testing and evaluation of the condition of the bents could result in the need for bents or piles to be replaced or added as part of the reconstruction. Design development could also result in modification of, or additions to, the bents to accommodate a new and more resilient structure. The reconstruction may also incorporate a baffle-wall underneath the boardwalk that would prevent sand migration and help to protect the adjacent community. If constructed, the baffle-wall would span the length of the boardwalk. The baffle-wall would retain the volume of sand extending from the USACE dune under the boardwalk to the baffle-wall. The wall would also restrict blowing sand from passing under the boardwalk from the beach to the inland area. Similar to the baffle-walls that have been rebuilt outside the project area, the baffle-wall underneath the boardwalk would likely be attached to H-piles, and it would be composed of concrete panels that extend approximately 4 feet below the sand surface, which would break away if significant wave forces were directly encountered. Testing is currently underway to determine the depth of the piles, which may be up to 40 feet into the ground.

An overall goal of the project is to raise the new boardwalks to an elevation above the 100-year FEMA storm surge levels which vary along the site from +13 feet to +***20*** feet North American Vertical Datum of 1988 (NAVD 88). The existing elevations of the tops of the pile caps vary from +10.4 feet to +14.56 feet NAVD 88. The typical boardwalk surface would be designed to be ***up to*** 3.0 feet above the 100-year storm surge elevation. This would result in raising the new boardwalk sections from approximately 1.4 feet at the eastern portion of the site to approximately 8.0 feet to the west. These elevations would vary to accommodate existing structures and to minimize changes in boardwalk elevations. Raising the boardwalks serves two purposes. First, the new boardwalks would be above the 100-year design flood elevations that would help guard against catastrophic destruction in the event of a future super storm.

Second, the boardwalks would be designed to allow users to continue to view and access the beach in the event that dune structures or other protective measures under consideration by USACE are constructed under a separate project.

It is expected that construction for this boardwalk project will be phased, beginning in 2013, with all construction contracts awarded before the end of 2015. While the beach is currently being renourished by USACE under a separate project (including the creation of new dunes constructed between the shore and the boardwalk), it is not expected that USACE will issue final flood protection recommendations until 2015. The final recommended measures, as well as any potential schedule for their installation, are not known. Therefore, intermediate flood protection measures would be included as part of this project. These could consist of sand retaining elements that can be used to retain sand on the outboard side or beneath the boardwalks. These will provide a measure of flood protection that can be removed or incorporated into the future USACE solution. Furthermore, the project anticipates filling the gap between the USACE created dune and the boardwalk with additional sand that would also fill the area under the boardwalk to the baffle-wall. This landward extension of the dune would be planted with vegetation and would provide further resilience and create a more direct access from the boardwalk, across the USACE dune and down to the beach.

There are four typical boardwalk conditions that need to be addressed in the boardwalk reconstruction effort. The existing impairments and likely treatments are described below:

- No boardwalk surfaces. In areas where no boardwalk structure remains other than the existing piles and caps, these structures would be evaluated and reused or replaced as appropriate. The new boardwalk could then be built at a higher elevation on existing pile caps, if feasible, based on a truss system described below. Individual pile caps may need to be repaired or replaced based on a structural evaluation of storm damage or other deteriorated conditions; repairs would most likely be with concrete patching.
- Damaged or obsolete wood and concrete boardwalks. All wood and appurtenances would likely need to be removed and concrete foundations repaired as necessary as noted above for areas where only the piles remain. The new boardwalks could then be built at a higher elevation on existing pile caps if feasible.
- Intact concrete boardwalks. Several concrete sections survived the storm intact. However, because they are below the new expected boardwalk heights developed in consideration of new 100-year storm surge levels and future sea rise considerations, the reconstruction could dismantle the concrete boardwalk topping, create a structure to span the height gap between the new boardwalk design level and the existing pile caps, and then reuse, where applicable, the concrete boardwalk planks that are in good condition.
- Rebuilt "islands." The islands are boardwalk areas that are focal points of activity, generally in line with surface transportation, that were rebuilt since the storm in cast-in-place concrete. There are amenities at these locations such as washrooms and lifeguard stations. Because of the high level of design, the relationships to existing buildings, and the disruption that the reconstruction of these structures would entail, it is anticipated that these islands would be left in place. Since they are generally below the new design elevations, additional flood control measures could be incorporated at these locations including solutions that get put in place when a major storm event is forecast.

The typical boardwalk section is 40 feet wide, and the project proposes to rebuild all boardwalk areas generally to that width. At selected locations, the boardwalk reconstruction may extend to up to 50 feet in order to ensure ADA-compliant access and to provide small gathering spaces for public use. The structural design for supporting the new boardwalks would likely be based on a system of trusses of varying heights supported on the existing pile caps. These would support concrete planks that may be covered with a topping layer of cast in place concrete, or may be textured in the pre-casting process. The potential use of trusses would allow the design to accommodate the varying heights of the pile caps, the

design storm surge elevation, and adjacent structures. The supports and the boardwalks would be designed for buoyancy and wave forces.

The boardwalk reconstruction project would include lights, benches, drinking fountains, charging stations, and bike racks and other amenities that may be identified in the design process. New ADA-compliant public access ramps would be provided to replace those damaged in the storm. There are approximately 125 access points to the boardwalks that existed prior to the storm and which generally correspond to public streets (see attached figures showing locations of existing and historic public access points). The work proposed for these access points would include: 1) redesign to meet the new boardwalk elevation; ***2) potential inclusion of new access points; and 3)*** possible elimination of access points that are no longer warranted.

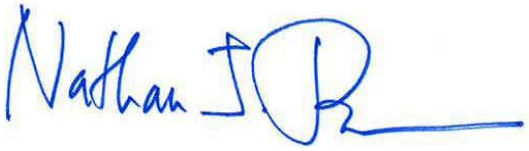
The new boardwalks will be an integral part of the Rockaway Gateway Greenway. Over the course of the next few years, DPR will also be developing urban design and open space design concepts for the greater area of the Rockaway Peninsula to the east and west of the project area as well as north of the boardwalks as they connects to the local pedestrian, bicycle, and vehicular traffic network. This larger conceptual "Rockaway Peninsula Plan" will look at all lands north of the north edge of the boardwalk structures to the DPR property line and craft a vision of a restored landscape and recreational facilities that are integrated with the raised and rebuilt boardwalks. The Plan is intended to address how to knit together the various DPR open space parcels with each other, with adjacent streets, and with the boardwalks. The boardwalk redesign (the specific subject project of the EA) will inform and be compatible with this larger area context plan.

Should your office have comments on the proposed project's potential effects on the environment for the City to consider in the EA, we respectfully request comments to be provided within 30 calendar days, or we may assume that your office has no NEPA or otherwise related issues with the proposed project. Please do hesitate to contact Peter Liebowitz at (646) 388-9747 or pliebowitz@akrf.com if you have any questions.

Sincerely,
Project Environmental Officer

Peter A. Liebowitz, AICP
AKRF, Inc.
Senior Vice President

Sincerely,
Project Manager



Nathan Riddle
AKRF, Inc.
Senior Technical Director

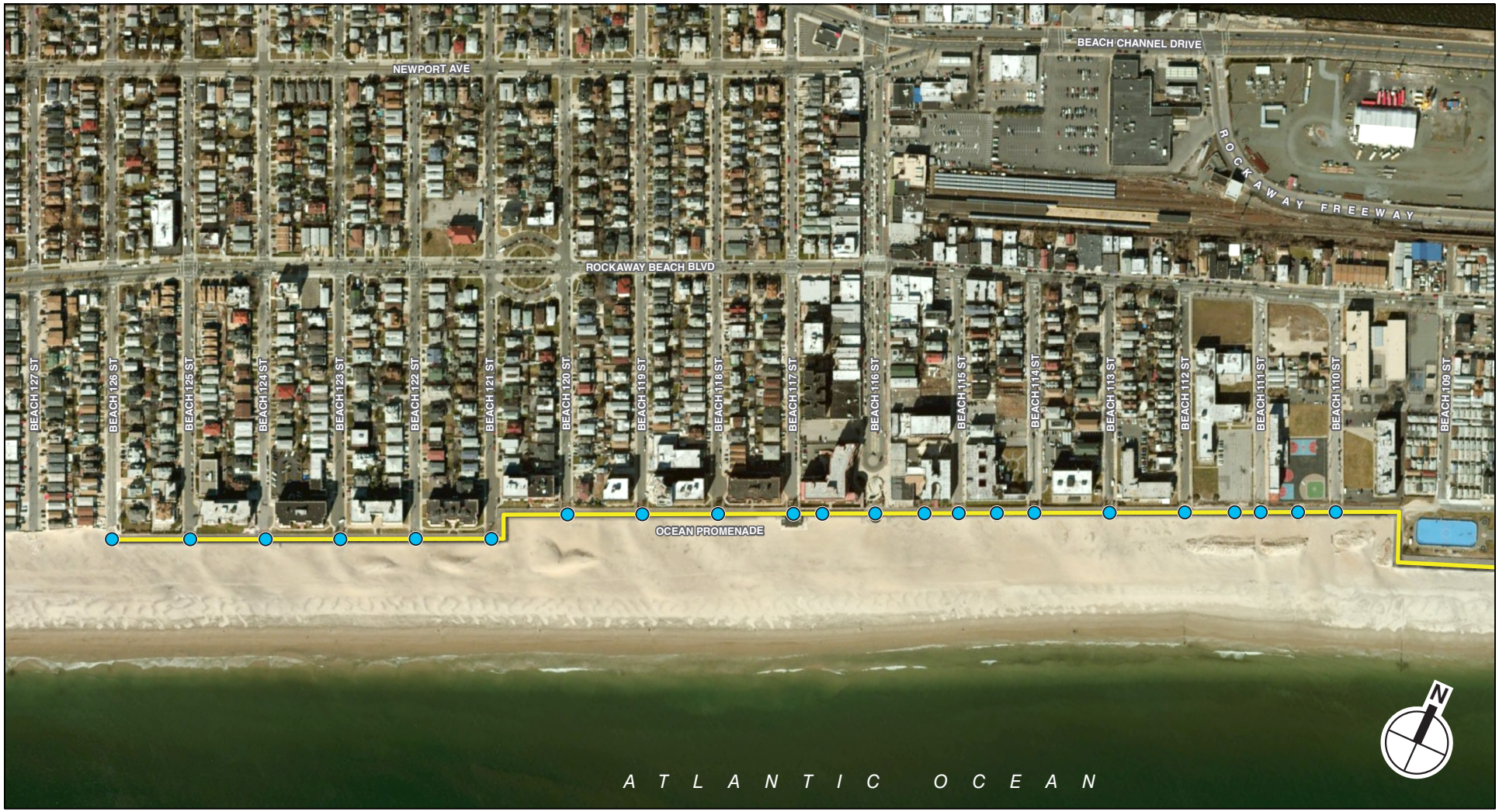
Point of contact: Peter A. Liebowitz, AKRF, Inc., 440 Park Avenue South, New York, NY 10016

10.1.13

Approximate Project Site Location:
73° 48' 4" W 40° 35' 11" N

USGS Topographic Map –
Far Rockaway Quadrangle
Figure 1

9.10.13



Boardwalk

Boardwalk Access

0 200 500 FEET

SCALE

Existing Boardwalk Access – Rockaway Park/Belle Harbor

Figure 2

9.10.13

Boardwalk

Boardwalk Access

0 400 1000 FEET

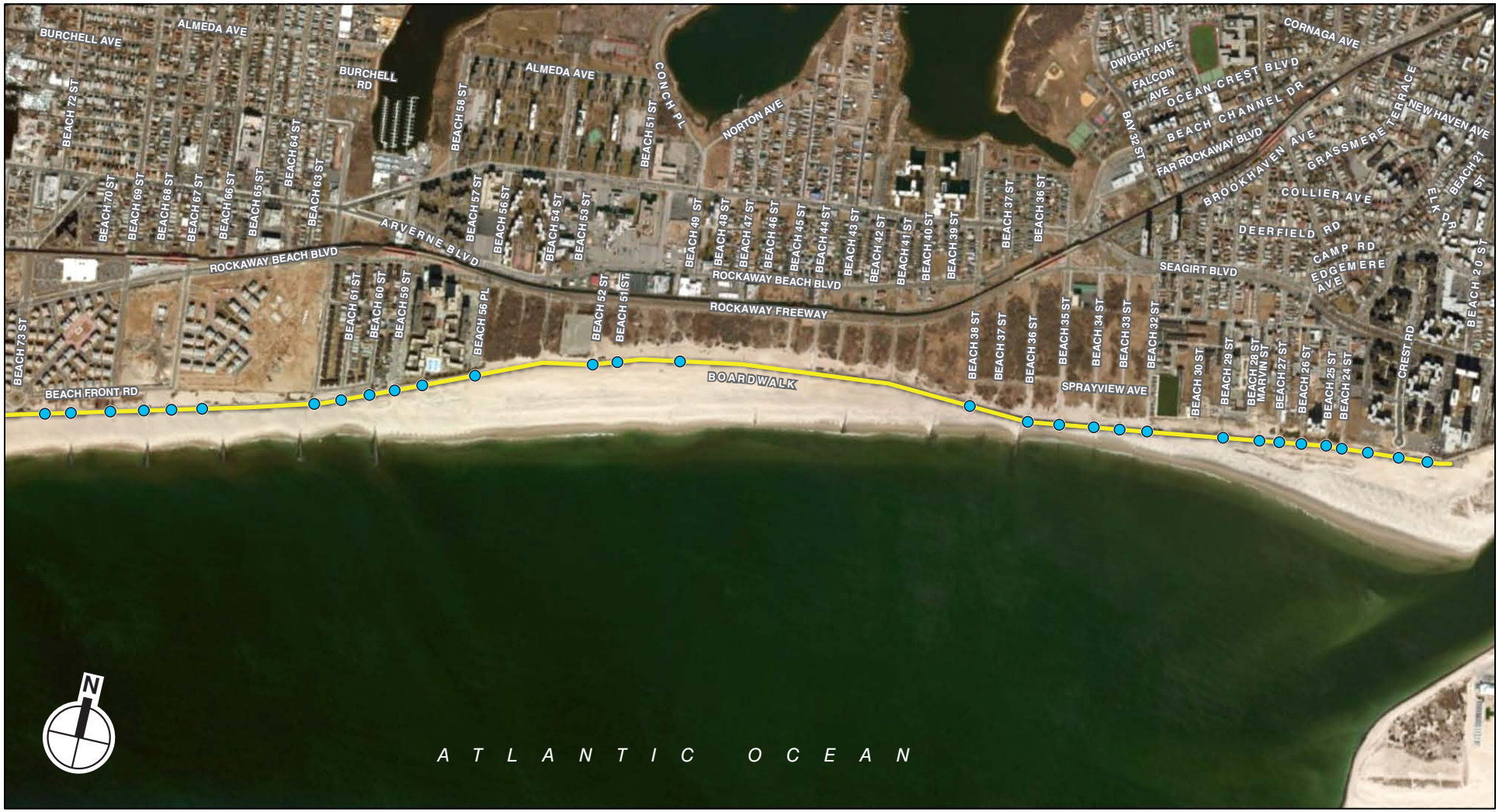
SCALE

ROCKAWAYS BOARDWALK RECONSTRUCTION

Existing Boardwalk Access – Seaside

Figure 3

9.10.13



Boardwalk

Boardwalk Access

0 800 1600 FEET

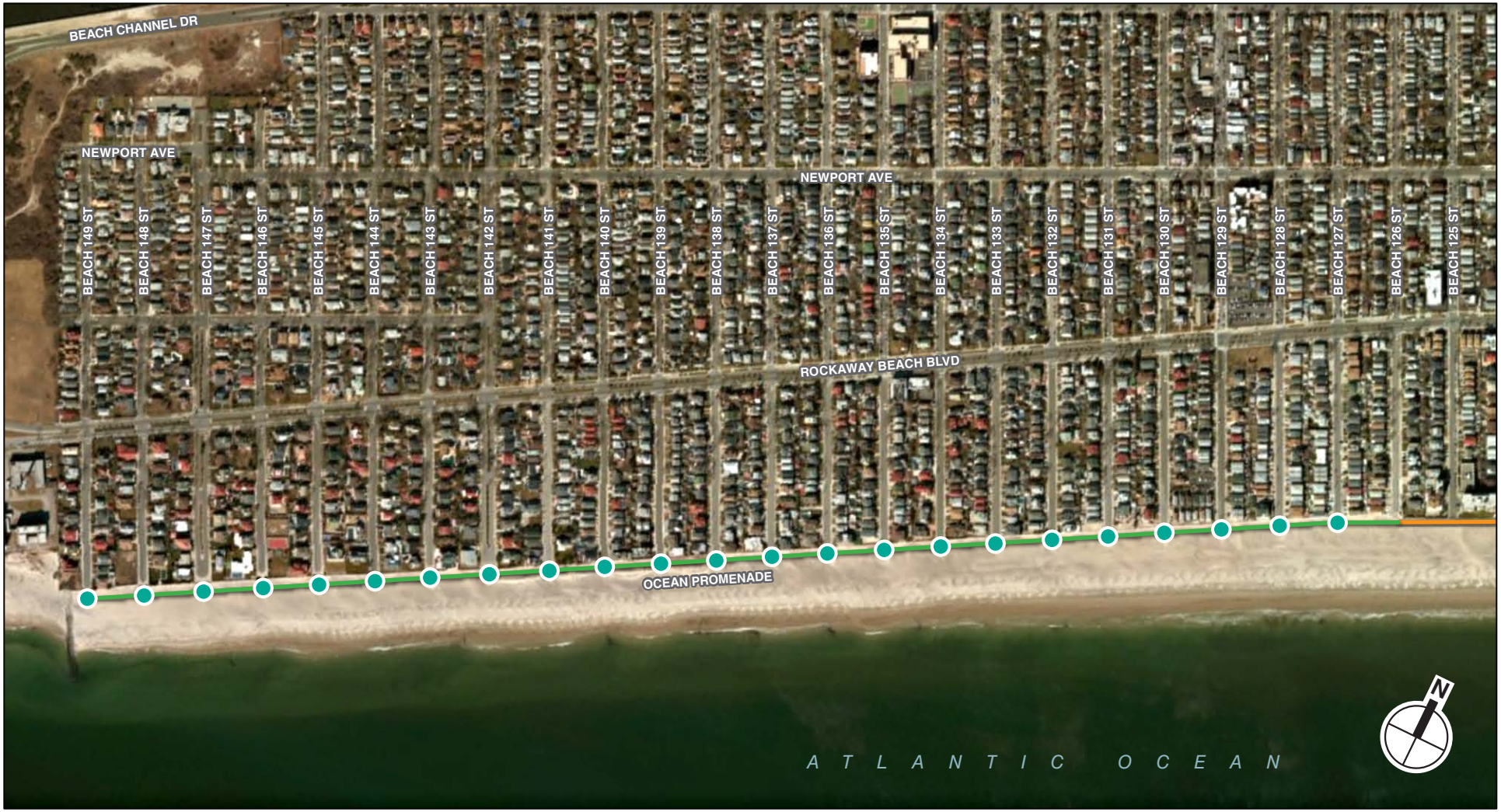
SCALE

ROCKAWAYS BOARDWALK RECONSTRUCTION

Existing Boardwalk Access – Arverne East/Far Rockaway

Figure 4

10.1.13



Boardwalk

USACE Dune

Temporary Crossing Structure

0 400 800 FEET

SCALE

ROCKAWAYS BOARDWALK RECONSTRUCTION

Temporary Crossing Structures

Figure 5

10.11.13

Dunes to be Restored

ROCKAWAYS BOARDWALK RECONSTRUCTION

Existing Dunes
Figure 6

Nathan Riddle <nriddle@akrf.com>

Rockaways Boardwalk Reconstruction - NEPA EA

1 message

Nathan Riddle <nriddle@akrf.com> Thu, Dec 5, 2013 at 9:52 AM
To: steve_papa@fws.gov, steve_sinkevich@fws.gov
Cc: "Quartini, Lindsay (Parks)" <Lindsay.Quartini@parks.nyc.gov>, Michael Rem <mrem@nycedc.com>, Peter Liebowitz <pliebowitz@akrf.com>

Thank you for the comments you have provided on the Rockaways Boardwalk reconstruction project.

This email is to inform you that, subsequent to the distribution of the October 17, 2013 letter notifying you of changes to the scope of the Rockaways Boardwalk reconstruction project, further changes have been made as a result of design development. These changes are as follows:

1. Reconstruction of the boardwalk will include the construction of all new piles, rather than the reuse of the existing concrete piles. Testing and evaluation of the original concrete foundations (also referred to as “bents” and consisting of four concrete piles attached by a concrete pile cap) has indicated chloride contamination that may limit the life of the existing piles. Under current plans, the existing piles would remain in place and be buried; however, some or all of the piles may be removed instead. As currently envisioned but subject to further evaluation, new bents would be based on two new piles and would be spaced approximately 30 feet apart.
2. The proposed project still includes the construction of a sand-retaining wall (previously referred to as a baffle-wall) underneath the boardwalk but it has been redesigned so that it would no longer break away if significant wave forces were directly encountered. Rather, the wall would be permanent and at a fixed height so that water could flow below the scour line.

Thank you for your continued consideration of this project,

--
Nathan Riddle
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