GEORGIA
DEPARTMENT OF NATURAL RESOURCES
COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912.264.7218
COASTALGADNR.ORG

MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

November 07, 2019

Heath Hansell
Applied Technology & Management, Inc.
P.O. Box 20336
Charleston, SC 29413-0336

Re: Letter of Permission (LOP), Maintenance and Rehabilitation of the Existing Revetment and Sand Dunes, Saint Simons Island, Glynn County, Georgia

Dear Mr. Hansell:

This letter is in response to your request dated April 1, 2019 with revisions dated August 29, 2019, for authorization to perform maintenance to the existing rock revetment within jurisdiction of the Shore Protection Act (SPA). The current request is to conduct maintenance and repairs along the existing revetment across approximately 5,641 linear feet (LF) of shoreline and to install sand fencing to help facilitate dune growth along approximately 2,500 LF of shoreline. The project will be conducted in 5 phases, where phases 1-2 include rock revetment maintenance and repair on public properties, phases 3-4 include rock maintenance and repair on or near private property, and phase 5 includes installing sand fencing to facilitate growth of sand dunes.

Repairs and maintenance to the existing rock revetment in phases 1-4 will rehabilitate and raise the crest elevation to one-foot above the original 1960's design elevation (raise to +8.5' NAVD88) within the existing footprint. The revetment repair and maintenance work includes regions from Massengale Park to Gould Street and at Gould's Inlet. Phase 5 includes installing sand fencing from Coast Guard Beach access to Massengale Park. Public access will be hindered for approximately one-week at each of the 26 identified staging sites.

Phases 1 & 2: Revetment Maintenance and Repair- Public Property

Phase 1 will rehabilitate revetment sections that front public road ends, public parks, and public beach accesses. Phase 1 stretches from Wyley Street to Arnold road and encompasses approximately 2,695 linear feet of revetment to be repaired requiring around 5,200 tons of armor stone. Armor stone will be trucked from a quarry to the site using dump trucks and flatbed trucks. The stone will be staged upland of the revetment until placed in revetment template. Phase 1 will be completed from the upland with the rock staging areas landward of the structure as indicated on the Drawings. Rock will be placed in the proposed template with an excavator.

Phase 2 will rehabilitate a section of revetment that extends from 16th Street south to 15th street. The section of revetment to rehabilitate is approximately 330 feet long and is adjacent to a public parking lot. This section is expected to require approximately 350-tons of armor stone. The area

seaward of the revetment is in known essential habitat. To avoid disturbing any habitat or vegetation all construction and staging will be from uplands in this area and strictly limited to areas of existing rock as indicated on the drawings. Armor stone will be trucked to the site with dump trucks and placed in a staging area landward of the existing revetment. An excavator will place rock in the revetment template from upland of the structure.

Phases 3 & 4: Revetment Maintenance and Repair- Private Property

Phase 3 will rehabilitate sections of revetment with footprints on public land and fronting private property. This phase reaches from Frazier Street north to Arnold Street and contains approximately 881 linear feet of revetment to be rehabilitated. The rehabilitation for Phase 3 will require approximately 1,784 tons of armor stone. Armor stone will be delivered to the site using dump trucks and flat-bed trucks and will be staged upland of the existing revetment. Construction will take place from the ocean side of the revetment to avoid disturbing private property. Access to the beach will be across the existing revetment at several different road ends. A 30-feet wide access/construction corridor will be required seaward of the revetment for off-road dump trucks to haul rock from the staging area and for an excavator to place rock in the proposed template. All construction from the beach will take place at mid to low tide outside of turtle nesting season. No equipment or rock will be staged on the beach overnight.

Phase 4 will rehabilitate sections of revetment that are located on private property. This phase stretches from Gould Street north to Massengale Park and includes approximately 1,735 linear feet of revetment to be rehabilitated. No work will be completed by Glynn County without prior legal consent from the property owner. Construction for Phase 4 will take place from the ocean side of the revetment. Approximately 2,540 tons of armor stone will be brought to the site by dump trucks and flatbed trucks and staged upland of the existing revetment. The beach will be accessed by crossing the revetment at street ends and a 30 feet wide access/construction buffer seaward of the revetment will be required for the off-road dump truck to deliver rock to the excavator for placement. An excavator will work inside of the 30 feet wide buffer to place rock in the template. All work will take place at mid to low tide and will be completed outside of turtle season. No rock or equipment will be staged on the beach overnight.

Phase 5: Sand Fencing on Public Lands

Phase 5 will install sand fence along approximately 2,510 linear feet stretch of beach from Massengale Park to the United States Coast Guard Beach Access. The sand fence is proposed to facilitate growth of a dune along this stretch of beach. Sand fence will be installed in areas landward of Ordinary High-Water Line and in accordance with all Georgia Department of Natural Resources Sand Fence Guidelines. No dune planting is proposed. The sand fence installation will take place outside of turtle nesting season and posts will be set using a handheld auger or shovel.

The Department authorizes the maintenance activities within SPA jurisdiction as depicted above and in the attached project description and drawings. **No unauthorized equipment, materials, or debris may be placed, disposed of, or stored in jurisdictional areas.** Any incidental damage to dunes or dune vegetation will require restoration to be coordinated through this office. The project

will start no sooner than fifteen (15) days from the date of the letter and must be completed no later than April 30, 2020.

This LOP is valid for the above referenced project. Any change in the use, location, dimensions, or configuration of the approved project, without prior notification from this office, could result in the revocation of this permission and in the required removal of the related structures. Any incidental impacts to the beach, dunes, or vegetation must be restored to pre-activity vegetated and topographic conditions using hand-tools as determined by the Department. Public access may be temporarily affected in equipment staging areas and within the 30 ft. construction buffer.

This authorization does not relieve you from obtaining any other required federal, state, or local permits. If you have any further questions or concerns regarding this or any other projects, please feel free to contact Amy Flowers at (912) 262-3109.

Sincerely,

Jill Andrews
Chief, Coastal Management Section

Enclosures: Project Description, Project Drawings, Updated Table

Cc: Skye Stockel, US Army Corps of Engineers
Paul Andrews, Glynn County

File: LOP20190109

ATM | DESIGN ENGINEERING CONSULTING

01-April-2019

Mr. Josh Noble
Marsh and Shore Program Manager
Georgia Department of Natural Resources
Coastal Resources Division
1 Conservation Way, Suite 300
Brunswick, GA 31520

RE: LOP Revetment Maintenance Request
St. Simons Island, Glynn County, GA

Dear. Mr. Noble:

On behalf of Glynn County, Georgia, we are requesting a Letter of Permission to complete maintenance repairs on an existing rock revetment along St. Simons Island. The existing revetment was built in the late 1960s and early 1970s as a response to Hurricane Dora and was constructed with the "Johnson Rocks". The revetment has been subject to settlement, beach erosion, overtopping, and direct storm effects since original construction. Recent Hurricanes Matthew and Irma caused large sections of the revetment to be dislodged and left roads, homes, and other infrastructure vulnerable to high water and storm events in the future. Due to recent storms, Glynn County has identified the need to conduct maintenance and repairs along 9,280 total linear feet of the revetment for the purpose of coastal storm protection. Sand fencing in accordance with GADNR guidelines is also proposed along ~2,500 feet of shoreline. Glynn County has received a OneGeoriga Authority Grant with a project completion deadline of April 2020 to fund the project.

Attached to this cover letter is the additional below listed information:

- 2017 Pre-Construction Notification for Use of Certain Nationwide Permits Appendix B
- Supplemental Information to PCN Form
- Permit Plan Drawings

Please do not hesitate to call or contact me at hhansell@appliedtm.com if you any questions or require further information to process the application.

Sincerely,
APPLIED TECHNOLOGY & MANAGENMENT, INC.

Heath Hansell, PE
Project Engineer

cc: Paul Andrews, Glynn County
Kathryn Downs, Glynn County
Skye Stockel, USACE

St. Simons Revetment Rehabilitation
Supplemental Information to PCN Form
St. Simons, Glynn County, Georgia

Existing Site Conditions

The existing revetment fronting St. Simons was originally designed and constructed in the 1960's and 1970's and extends over 11,000 total linear feet of shoreline. The revetment is in two sections with the first stretch starting at Gould Street and heading northeast to Massengale Park and the second section starting near 10th Street and continuing north to Ocean Boulevard. The original revetment was constructed in response to Hurricane Dora which occurred in 1964. The existing revetment was originally designed with a 5 feet wide crest and crest elevation of 11.5 feet above Mean Low Water. When converting to North Atlantic Vertical Datum of 1988 and correcting for the most recent tidal epoch, this results in an original design crest elevation of 7.5' NAVD88. The seaward slope of revetment was designed for 1 vertical to 2 horizontal and the landward slope has a 1 vertical to 1.5 horizontal slope with a maximum width of revetment ~30 feet wide. The base of the structure and interior of the revetment had small core stone with a 2-foot-thick layer of armor stone on top. The core stone ranges in size from half a foot to 1 foot in diameter.

The existing revetment has been subject to settling, high tides, wave action, and storms for over 50 years, degrading the structure and lowering the crest elevation. Minimal to no beach berm remains at high tide between the ocean and the revetment exposing the revetment and upland infrastructure to higher tides and wave overtopping action on regular intervals. Higher tides and waves have scattered the existing revetment stone and exposed large sections of core stone which are susceptible to being dislodged from the revetment during storm activity. Various areas of upper (higher elevation/upland) revetment sections appear to have been supplemented with additional stone and/or restacked after storms for maintenance throughout the history of the structure.

Project Description

The purpose of the project is for coastal storm protection. The intent is to conduct maintenance on the existing structure with similar materials and construction methods to rehabilitate the revetment back to a condition that provides protection to the upland and upland infrastructure from wave attach during storms and high tide wave events. To accomplish this, the proposed design crest elevation for the revetment rehabilitation will be raised (to +8.5' NAVD88) one foot above the original 1960's design elevation (+7.5' NAVD88). The rehabilitated structure footprint

would remain within the footprint of the existing structure. Raising the crest elevation is necessary to increase the resiliency of the structure, account for sea level rise since original construction, and provide additional coastal storm protection. Armor stone will be a clean stone and have a median diameter of 2.5 feet and density equal to or greater than 160 pounds per cubic feet.

Typical Construction Methods

Armor stone will be trucked on-road to the site from upland sources to be added to the existing revetment template. Various staging and access areas have been identified on the Drawings throughout the project area. Along some portions of the revetment, armor stone will be placed from the upland side. Along other portions with restricted upland access corridors along the revetment, armor stone will be trucked off-road through identified accesses and along the shoreline for maintenance efforts. All work seaward of the revetment will be conducted during mid to lower tides. No excavation or rock placement will occur outside of the existing revetment footprint.

Construction Schedule

All work will be conducted outside of sea turtle nesting season. Anticipated commencement is October 2019 and anticipated completion of the project is April 2020.

Historic Structures and Other Properties

There are several historical structures in the general vicinity of the project area. Three federally listed buildings, The Lighthouse, King & Prince Hotel, and U.S. Coast Guard Station, are located nearby to the project areas. To prevent any negative effects to historic properties the revetment crest elevation is only being raised a minimal amount to not alter sites lines to the ocean from the historic properties, while still providing increased coastal storm protection for the significant structures. Sight lines along other areas will not be significantly impacted. Noise in project areas will only be temporary as it is expected the contractor will be able to complete 50 plus linear feet of revetment maintenance daily. Vibration monitoring and pre- and post- construction surveys of specific historical structures may also occur to document project conditions and avoid/minimize impacts.

The existing revetment is located on and fronts both private and public property (based on Glynn County GIS parcel data). Glynn County will directly acquire letters of permission and/or easements before any work is conducted on private property.

Phases

To facilitate project review, the project has been separated into phases based on the location and nature of maintenance proposed. It is the intent of Glynn County to conduct as much maintenance as possible within the project limits pending available budget and actual construction bid costs.

Phase 1

Phase 1 will rehabilitate revetment sections that front public road ends, public parks, and public beach accesses. Phase 1 stretches from Wyley Street to Arnold road and encompasses approximate 2,695 linear feet of revetment to be repaired requiring around 5,200 tons of armor stone. Armor stone will be trucked from a quarry to the site using dump trucks and flat bed trucks. The stone will be staged upland of the revetment until placed in revetment template. Phase 1 will be completed from the upland with the rock staging areas landward of the structure as indicated on the Drawings. Rock will be placed in the proposed rehabilitated template with an excavator.

Phase 2

Phase 2 will rehabilitate a section of revetment that extends from 16th Street south to 15th street. The section of revetment to rehabilitate is approximately 330 feet long and is adjacent to a public parking lot. This section is expected to require approximately 350 tons of armor stone. The area seaward of the revetment is in known essential habitat and to avoid disturbing any habitat or vegetation all construction and staging will be from uplands in this area and strictly limited to areas of existing rock as indicated on the Drawings. Armor stone will be trucked to the site with dump trucks and placed in a staging area upland of the existing revetment. An excavator will place rock in the revetment template from upland of the structure.

Phase 3

Phase 3 will rehabilitate sections of revetment with footprints on public land and fronting private property. This phase reaches from Frazier Street north to Arnold Street and contains approximately 3,210 linear feet of revetment to be rehabilitated. The rehabilitation for Phase 3 will require approximately 6,500 tons of armor stone. Armor stone will be delivered to the site using

dump trucks and flat-bed trucks and will be staged upland of the existing revetment. Construction will take place from the ocean side of the revetment to avoid disturbing private property. Access to the beach will be across the existing revetment at several different road ends. A 30 feet wide access/construction corridor will be required waterward of the revetment for off-road dump trucks to haul rock from the staging area and for an excavator to place rock in the proposed template. All construction from the beach will take place at mid to low tide outside of turtle nesting season. No equipment or rock will be staged on the beach overnight.

Phase 4

Phase 4 will rehabilitate sections of revetment that are located on private property. This phase stretches from Gould Street north to Massengale Park and includes approximately 3,245 linear feet of revetment to be rehabilitated. No work will be completed by Glynn County without prior legal consent from the property owner. Construction for Phase 4 will take place from the ocean side of the revetment. Approximately 4,750 tons of Armor stone will be brought to the site by dump trucks and flatbed trucks and staged upland of the existing revetment. The beach will be accessed by crossing the revetment at street ends and a 30 feet wide access/construction buffer seaward of the revetment will be required for the off-road dump truck to deliver rock to the excavator for placement. An excavator will work inside of the 30 feet wide buffer to place rock in the template. All work will take place at mid to low tide and will be completed outside of turtle season. No rock or equipment will be staged on the beach overnight.

Phase 5

Phase 5 will install sand fence along 2,510 linear feet stretch of beach from Massengale Park to the United States Coast Guard Beach Access. The sand fence is proposed to facilitate growth of a dune along this stretch of beach. Sand fence will be installed in areas landward of the Highest Astronomical Tide line (HAT, coincides with Ordinary High-Water Line) and in accordance with all Georgia Department of Natural Resources sand fence guidelines. No dune planting is proposed. The sand fence construction will take place outside of turtle nesting season and posts will be set using an auger or shovel.

Measures Taken to Avoid/Minimize Impacts to Water of U.S.

Measures taken to avoid/minimize impacts to Waters of the U.S. include:

- All work will take place outside of turtle nesting season.
- Construction completed from the beach will take place at low to mid tide only.
- The revetment rehabilitation will take place inside the existing revetment limits.
- No excavation will occur seaward of the existing revetment.
- All stone will be clean and free of fines.
- Rockwork on the seaward slope of the revetment below HAT will be timed to occur during lower tides.
- Appropriate erosion and sediment control measures will be implemented as required.

Additional measures include:

- No materials will be stored on the beach or in the sand dunes.
- All affected naturally vegetated areas upland of the revetment will be restored to pre-project conditions.
- Any staging and access improvements will be made with removeable materials such as timber crane mats.

Maps, Drawings, and Other Information

9. Are cultural resources located on or near the project site?

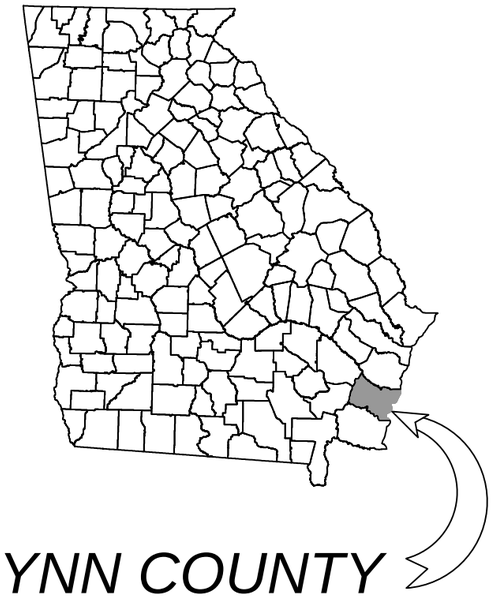
Three federally listed buildings are located adjacent to the project area. The Lighthouse, King & Prince Hotel, and U.S. Coast Guard Station. The revetment will be raised to approximately 8.5 feet NAVD88 which is only 1 to 2 feet above the upland existing elevations. The revetment rehabilitation will not block site lines to the Atlantic Ocean from any historic building. Construction is expected to move quickly, and the contractor should only be working near the Lighthouse for several days. No work will occur on the King & Prince property because all work will be completed from the beach for this section. No rock work will take place near the U.S. Coast Guard Station, but light machinery may be required to help install dune fence. Vibration monitoring and pre- and post- construction surveys of specific historical structures may also occur to document project conditions and avoid/minimize impacts.

SAINT SIMONS ISLAND

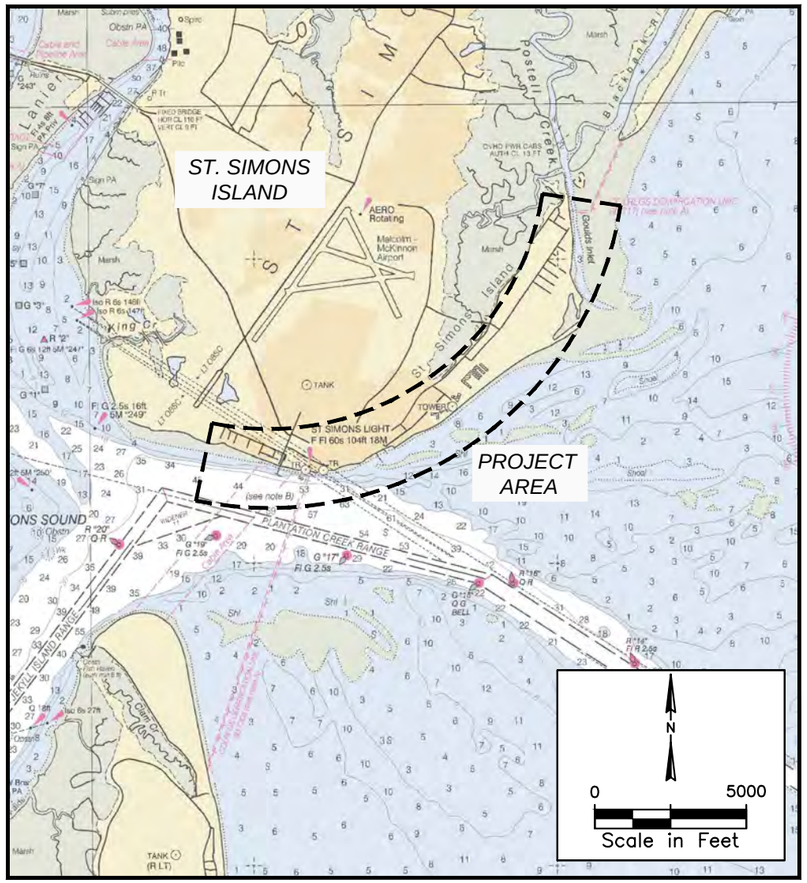
NWP 3(a)

REVETMENT MAINTENANCE

GEORGIA



GLYNN COUNTY



SHEET INDEX:

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

COVER SHEET &
LOCATION MAP

Revision: August 29, 2019

Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

LEGEND

PHASE 1 - REVETMENT FRONTING PUBLIC PROPERTY ONLY

PHASE 2 - GOULDS INLET (PUBLIC PROPERTY)

PHASE 3 - REVETMENT ON PUBLIC PROPERTY FRONTING PRIVATE PROPERTY

PHASE 4 - REVETMENT ON PRIVATE PROPERTY

PHASE 5 - SAND FENCING

PHASE 2
GOULDS INLET
PARKING AREA
~490'

PHASE 5
SAND FENCING FROM COAST GUARD
BEACH ACCESS TO MASSENGALE PARK
~2,510'

PHASES 1, 3, & 4
MASSENGALE PARK TO GOULD STREET
~9,280'

ATLANTIC OCEAN

ST. SIMONS SOUND

N
0 1200
Scale in Feet

NWP3 DRAWING EXHIBITS

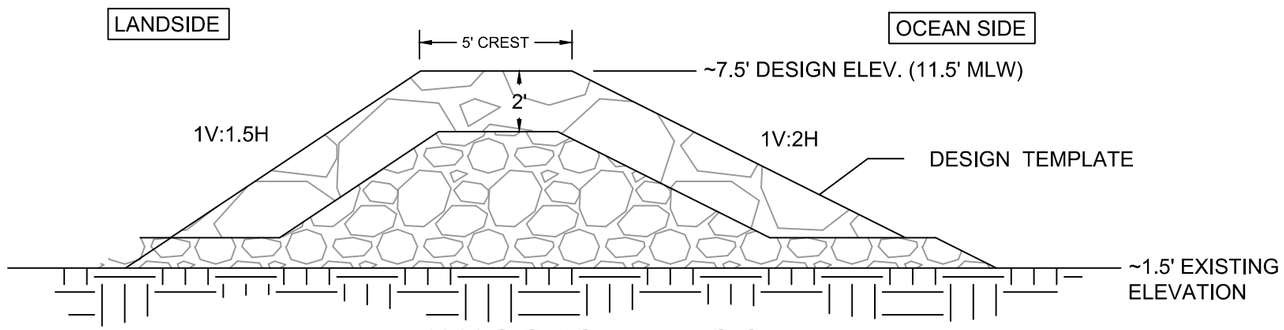
Project Name: St. Simons Revetment Maintenance	Latitude: 31° 8'2.55"N
Waterbody: Atlantic Ocean	Longitude: 81°23'48.16"W
County: Glynn	Applicant: Glynn County
State: Georgia	Agent: Applied Technology & Management

PROJECT OVERVIEW

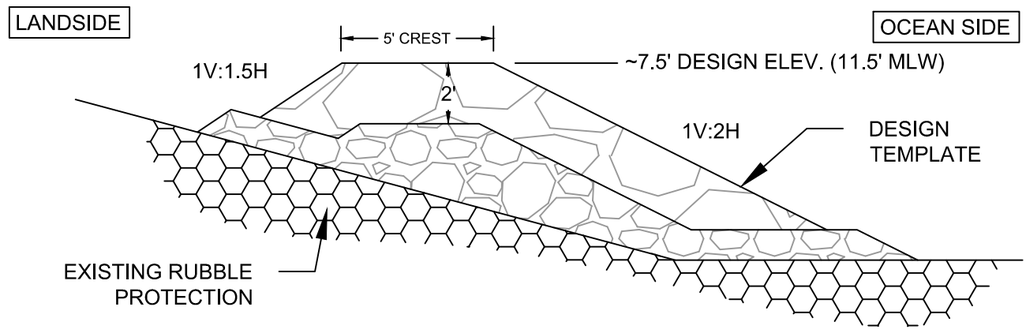
Revision: August 29, 2019

Date: April 1, 2019

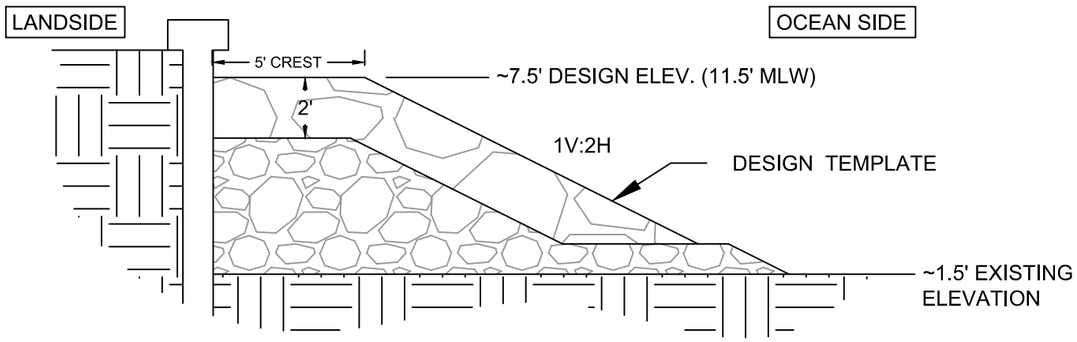
ATM DESIGN ENGINEERING CONSULTING



1960'S ORIGINAL DESIGN
TYPICAL SECTION AT LOW PROFILE AREAS



1960'S ORIGINAL DESIGN
TYPICAL SECTION AT EXISTING REVETMENT AREAS



1960'S ORIGINAL DESIGN
TYPICAL SECTION AT EXISTING WALL AREAS

NOTE: ORIGINAL DESIGN BASED ON U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT PLANS FROM 1960'S. ELEVATIONS HAVE BEEN CONVERTED TO REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988.

NOAA STATION 8677344, ST. SIMONS ISLAND, GA		
DATUM	ABBREV.	ELEV. NAVD88 (FEET)
HIGHEST ASTRONOMICAL TIDE**	HAT	5.0
MEAN HIGHER HIGH WATER	MHHW	3.0
MEAN HIGH WATER	MHW	2.6
NORTH AMERICAN VERTICAL DATUM, 1988	NAVD88	0.0
MEAN LOW WATER	MLW	-4.0
MEAN LOWER LOW WATER	MLLW	-4.2

**COINCIDES WITH ORDINARY HIGH WATER LINE.

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

ORIGINAL 1960'S
REVETMENT DESIGN
TEMPLATE

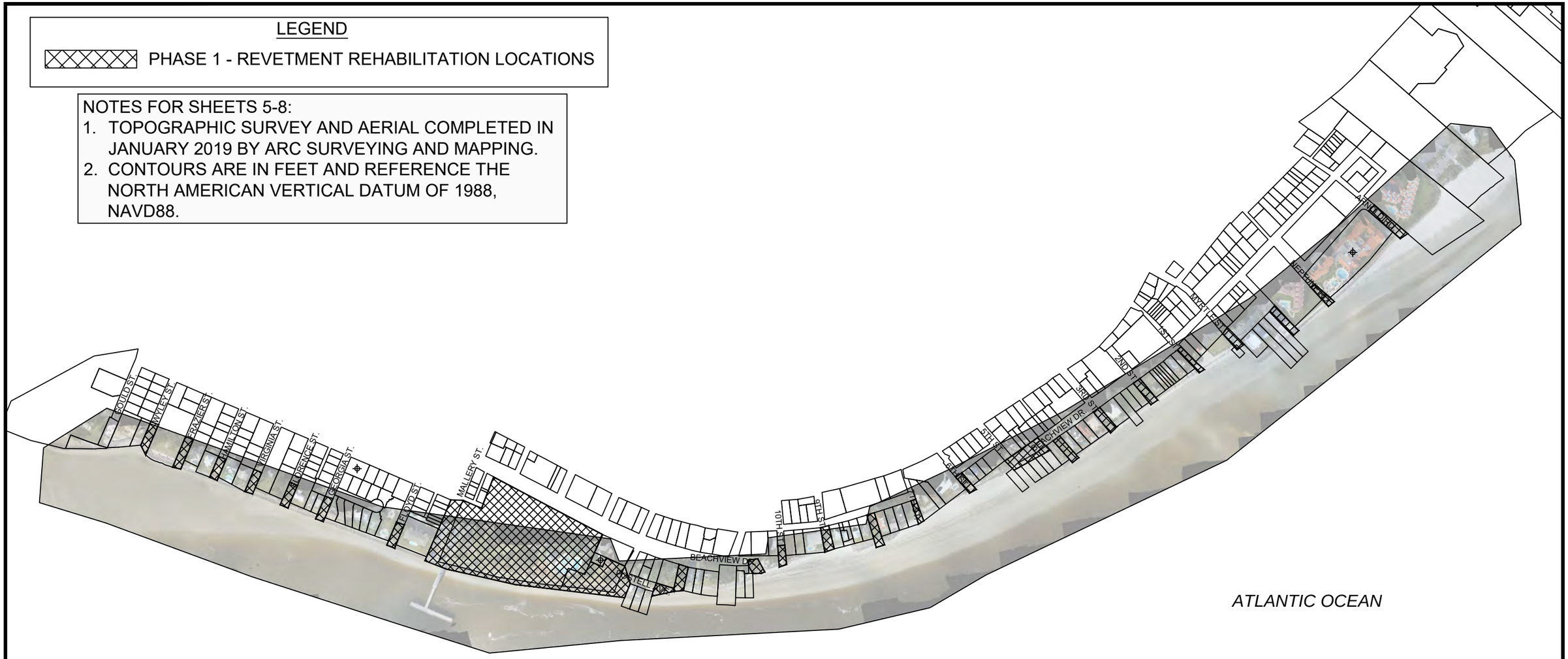
Revision: August 29, 2019
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

LEGEND

PHASE 1 - REVETMENT REHABILITATION LOCATIONS

NOTES FOR SHEETS 5-8:
1. TOPOGRAPHIC SURVEY AND AERIAL COMPLETED IN JANUARY 2019 BY ARC SURVEYING AND MAPPING.
2. CONTOURS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88.



PHASE 1

REVETMENT FRONTING PUBLIC PROPERTY ONLY
(~2,695 LINEAR FEET OF REVETMENT REHABILITATION,
~5,200 TONS OF ROCK REQUIRED)

N

0 600

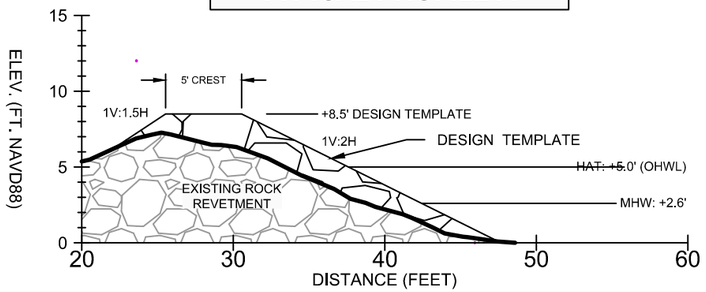
Scale in Feet

NWP3 DRAWING EXHIBITS

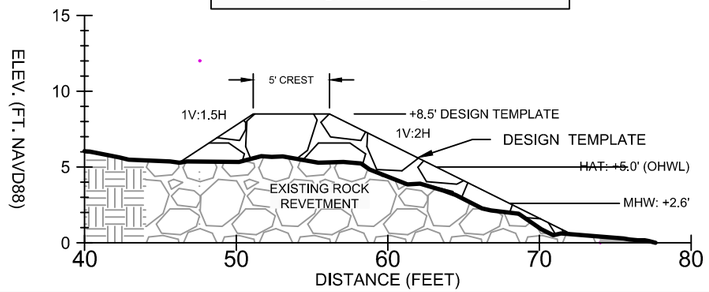
Project Name: St. Simons Revetment Maintenance	Latitude: 31° 8'2.55"N	PHASE 1 OVERVIEW	Revision: August 29, 2019
Waterbody: Atlantic Ocean	Longitude: 81°23'48.16"W		
County: Glynn	Applicant: Glynn County		
State: Georgia	Agent: Applied Technology & Management		Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

PHASE 1
PLAN VIEW & TYPICAL SECTIONS
WYLEY STREET TO FLOYD STREET

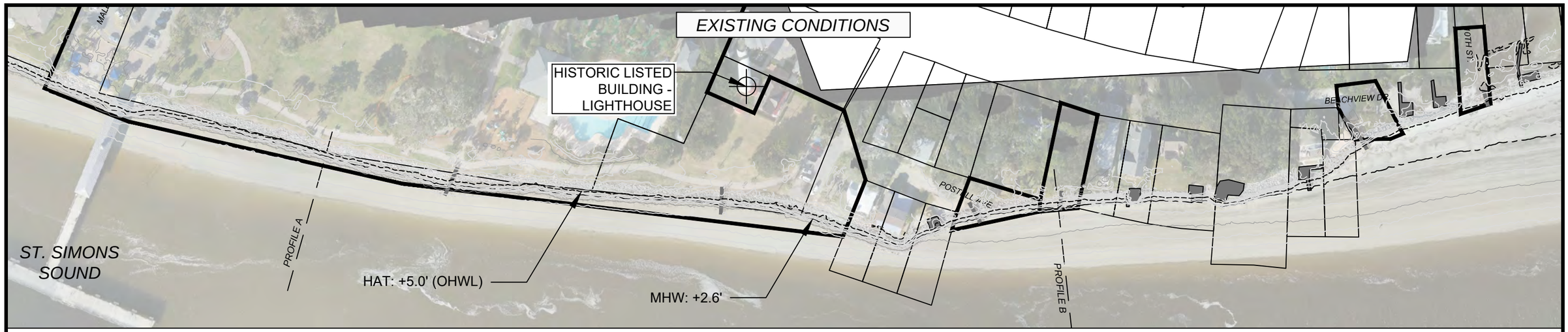
Revision: August 29, 2019

Date: April 1, 2019

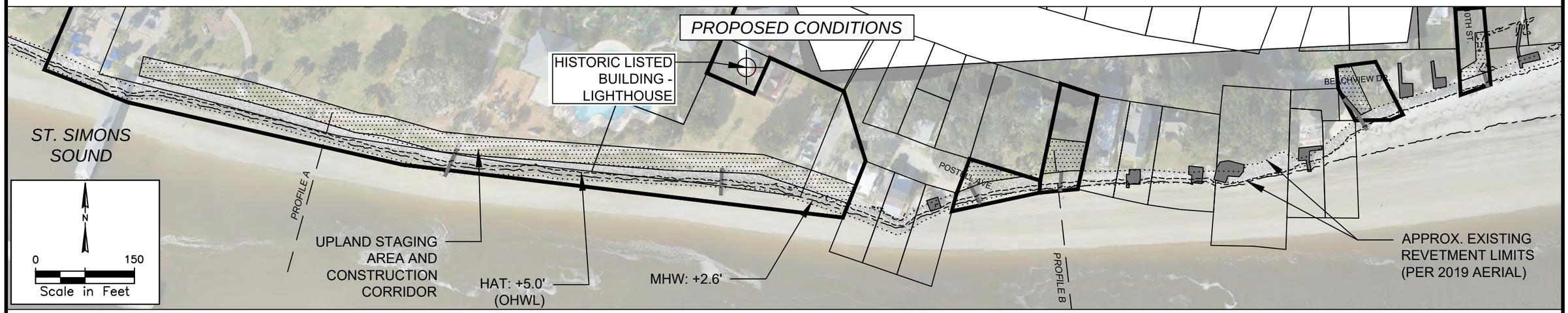
ATM DESIGN ENGINEERING CONSULTING

Sheet 5

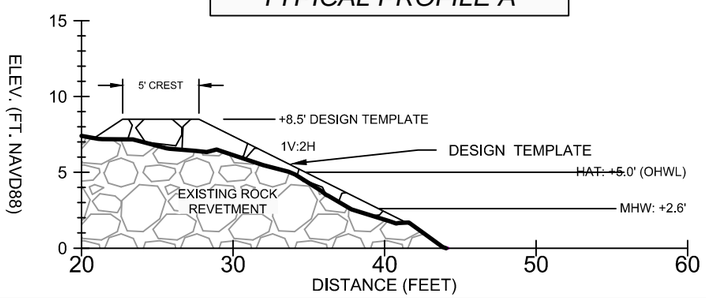
EXISTING CONDITIONS



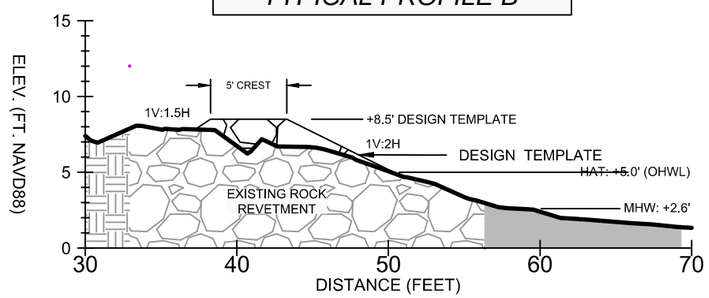
PROPOSED CONDITIONS



TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

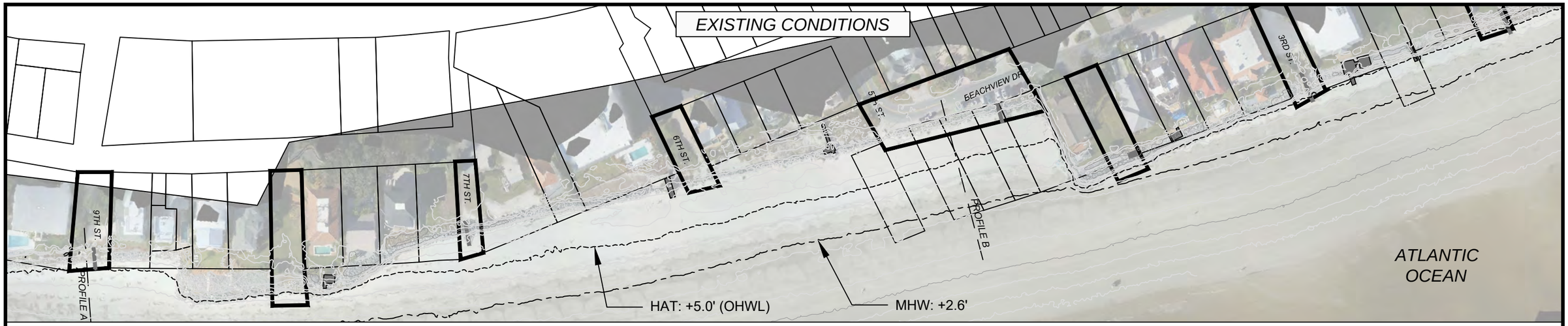
PHASE 1
PLAN VIEW & TYPICAL SECTIONS
NEPTUNE PARK TO 10TH STREET

Revision: August 29, 2019

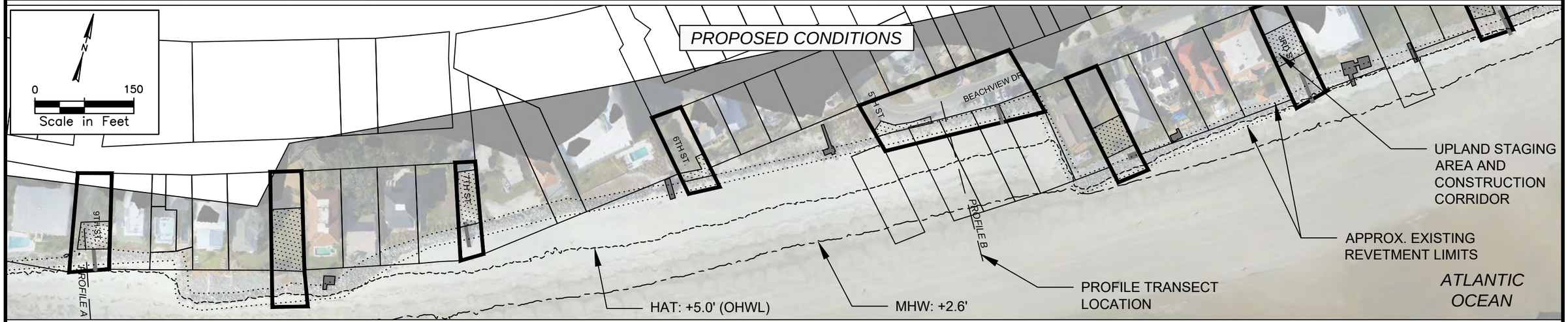
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

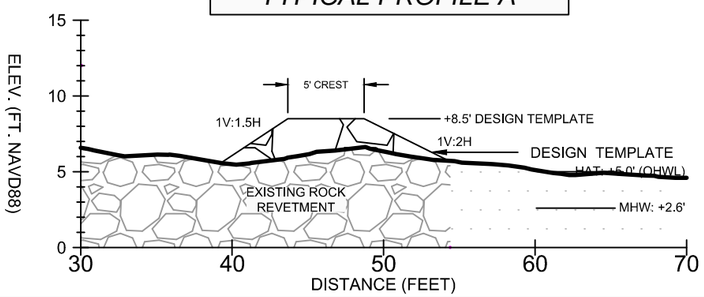
EXISTING CONDITIONS



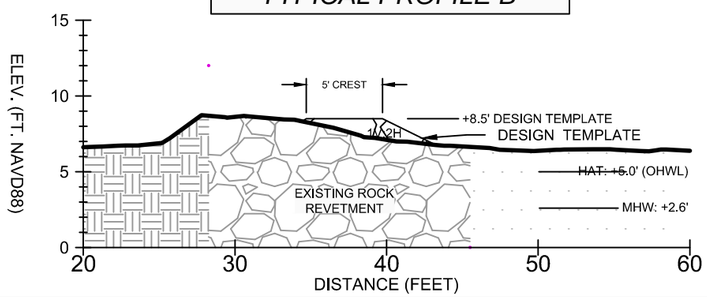
PROPOSED CONDITIONS



TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

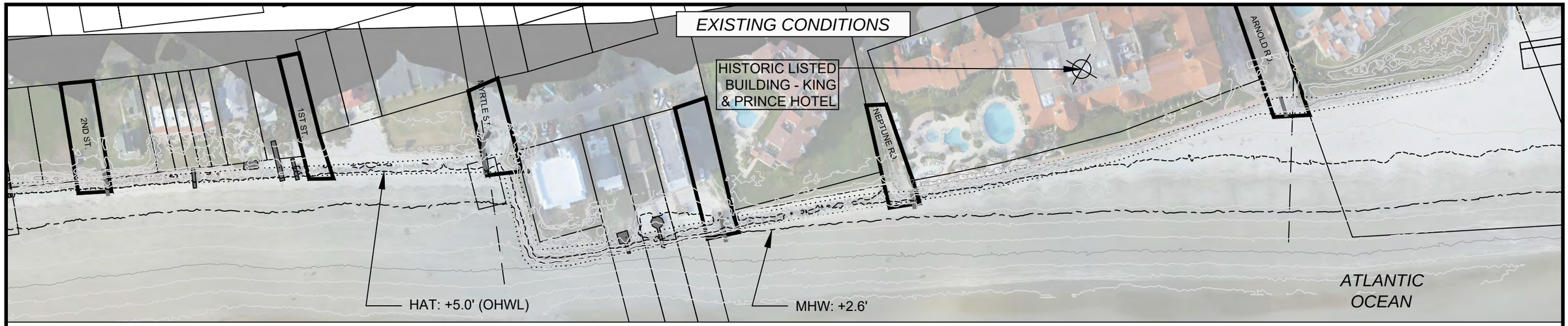
Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

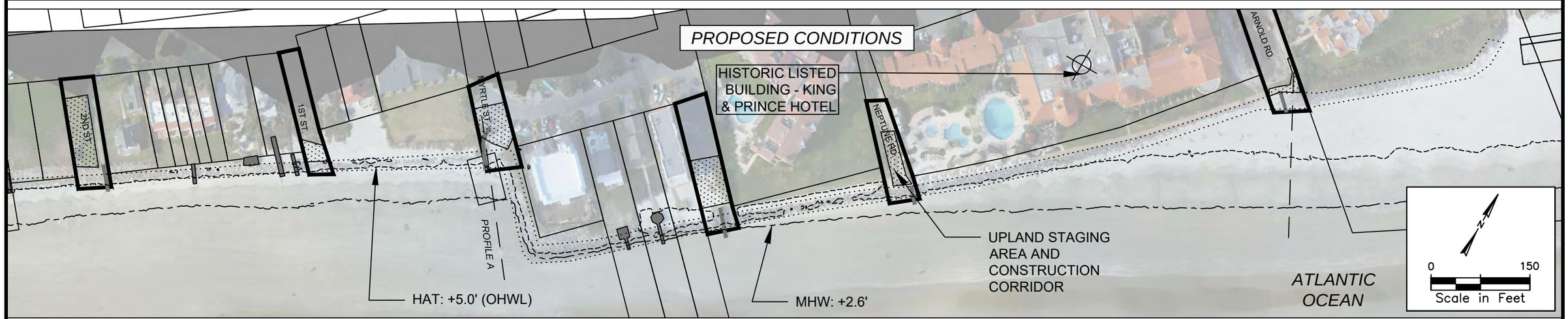
PHASE 1
PLAN VIEW & TYPICAL SECTIONS
9TH STREET TO 3RD STREET

Revision: August 29, 2019

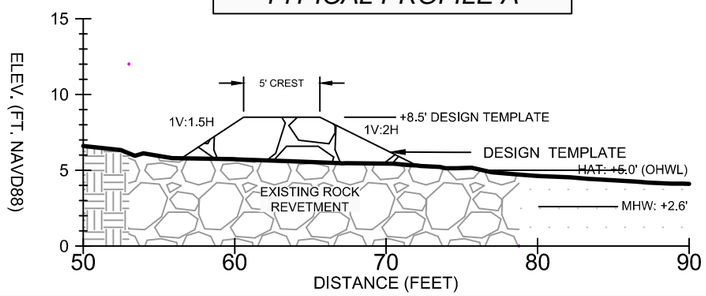
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING





TYPICAL PROFILE A



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

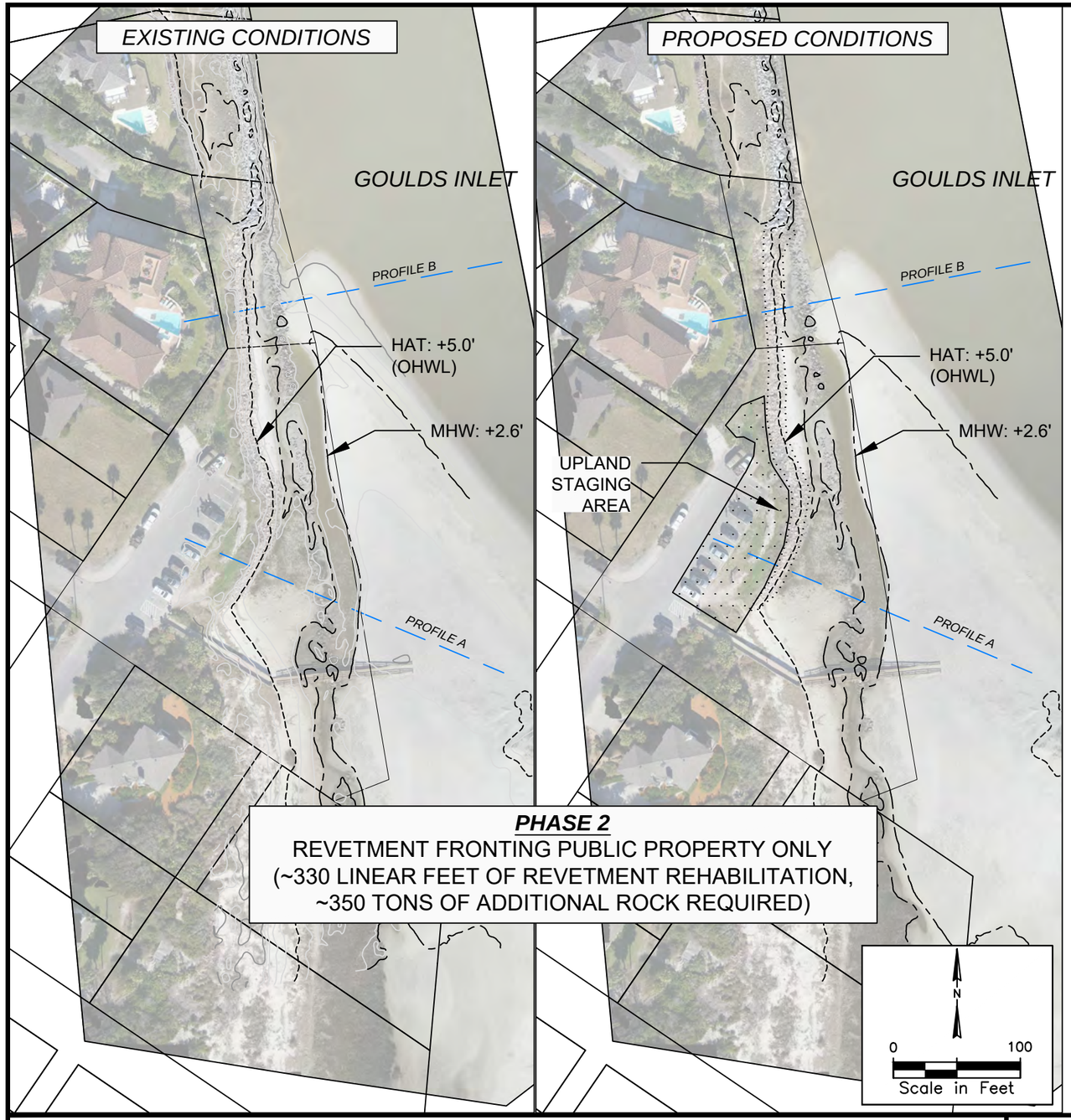
Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

PHASE 1
PLAN VIEW & TYPICAL SECTIONS
2ND STREET TO MASSENGALE PARK

Revision: August 29, 2019

Date: April 1, 2019

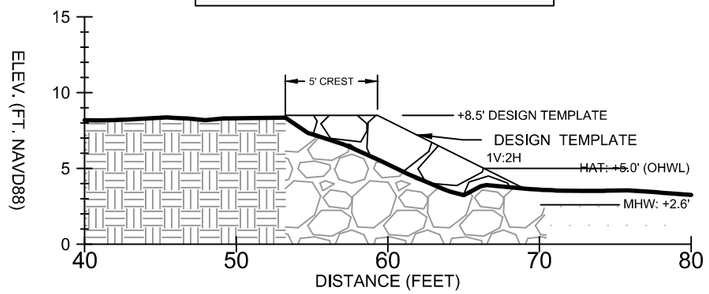
ATM DESIGN ENGINEERING CONSULTING



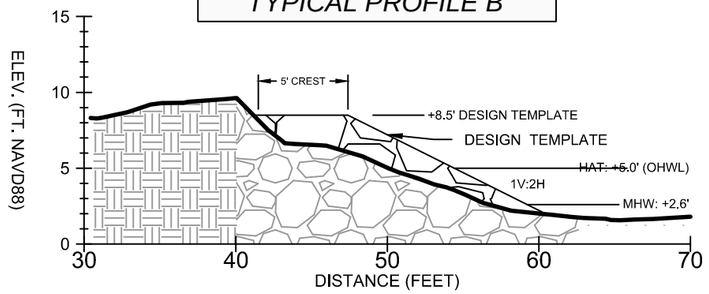
PHASE 2

REVETMENT FRONTING PUBLIC PROPERTY ONLY
(~330 LINEAR FEET OF REVETMENT REHABILITATION,
~350 TONS OF ADDITIONAL ROCK REQUIRED)

TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NOTES FOR SHEET 9:

1. TOPOGRAPHIC SURVEY AND AERIAL COMPLETED IN JANUARY 2019 BY ARC SURVEYING AND MAPPING.
2. CONTOURS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88.

****ALL WORK AND STAGING TO TAKE PLACE FROM UPLANDS- NO WORK ON WETLAND VEGETATION/HABITAT****

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

PHASE 2
PLAN VIEW AND TYPICAL SECTIONS
GOULDS INLET BEACH ACCESS

Revision: August 29, 2019

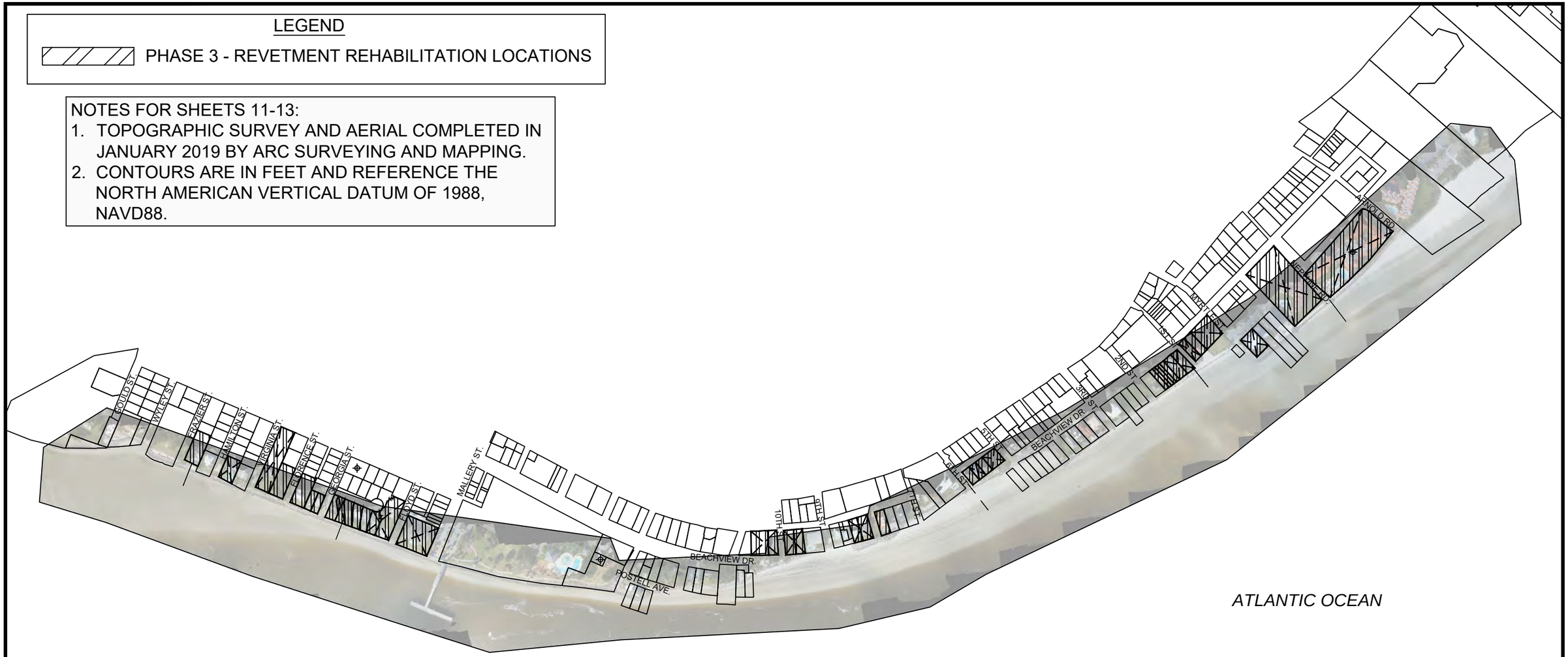
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

LEGEND

PHASE 3 - REVETMENT REHABILITATION LOCATIONS

NOTES FOR SHEETS 11-13:
1. TOPOGRAPHIC SURVEY AND AERIAL COMPLETED IN JANUARY 2019 BY ARC SURVEYING AND MAPPING.
2. CONTOURS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88.



ATLANTIC OCEAN

ST. SIMONS SOUND

PHASE 3

REVETMENT ON PUBLIC PROPERTY FRONTING PRIVATE PROPERTY
(~881 LINEAR FEET OF REVETMENT REHABILITATION,
~1,785 TONS OF ROCK REQUIRED)

N

0 600

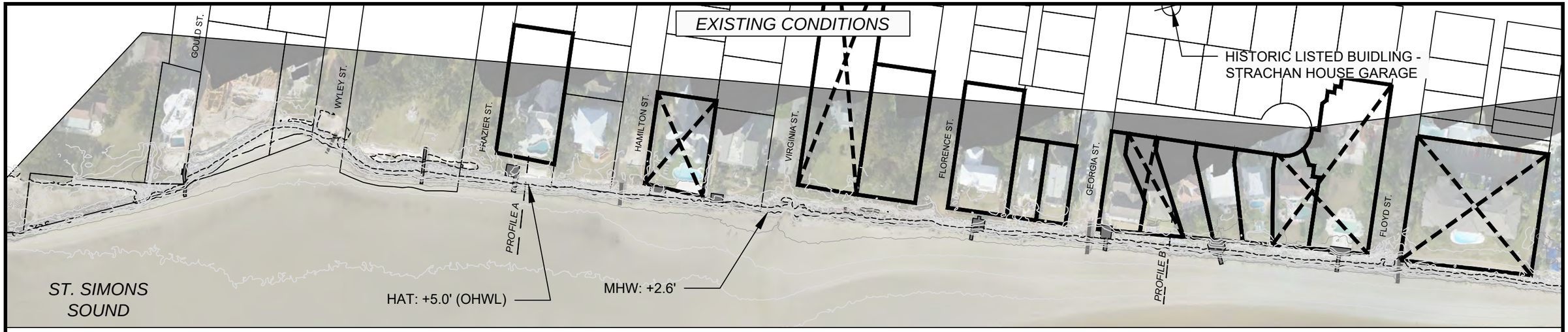
Scale in Feet

NWP3 DRAWING EXHIBITS

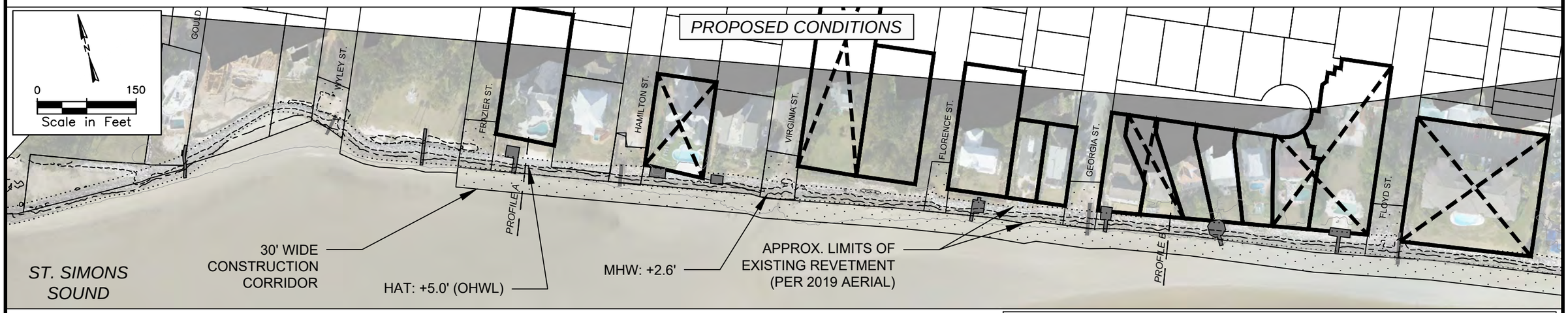
Project Name: St. Simons Revetment Maintenance	Latitude: 31° 8'2.55"N	PHASE 3 OVERVIEW	Revision: August 29, 2019
Waterbody: Atlantic Ocean	Longitude: 81°23'48.16"W		
County: Glynn	Applicant: Glynn County		
State: Georgia	Agent: Applied Technology & Management		Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

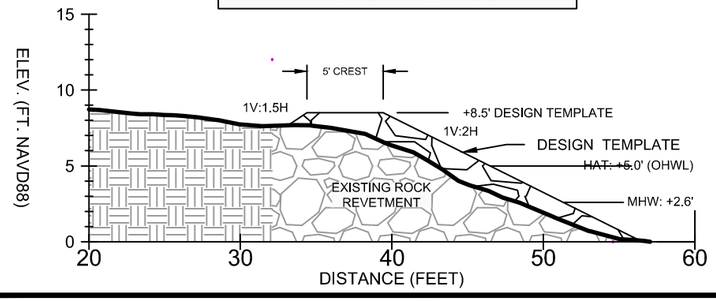
EXISTING CONDITIONS



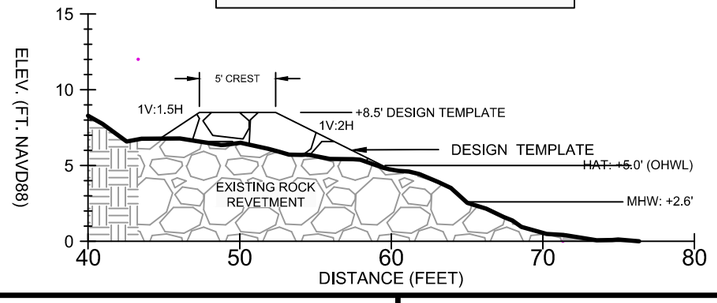
PROPOSED CONDITIONS



TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

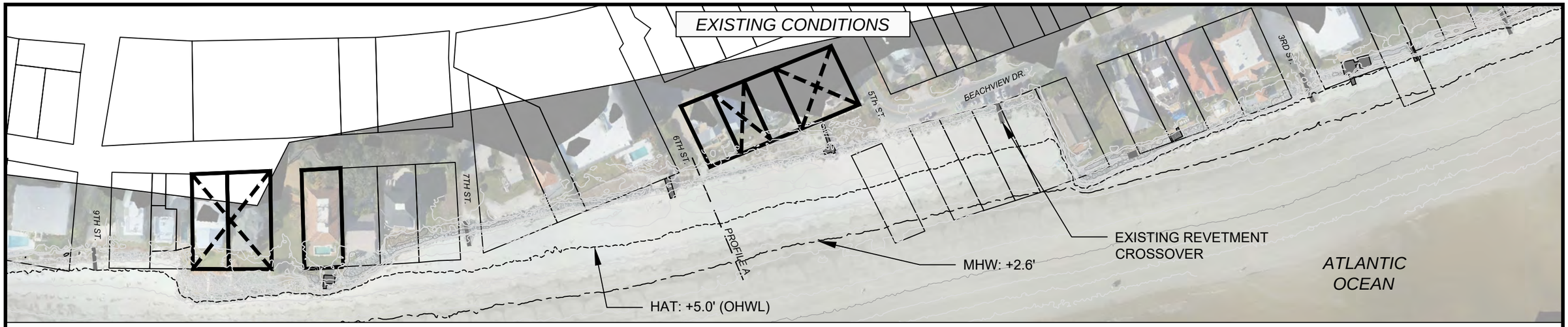
PHASE 3
PLAN VIEW & TYPICAL SECTIONS
FRAZIER STREET TO FLOYD STREET

Revision: August 29, 2019

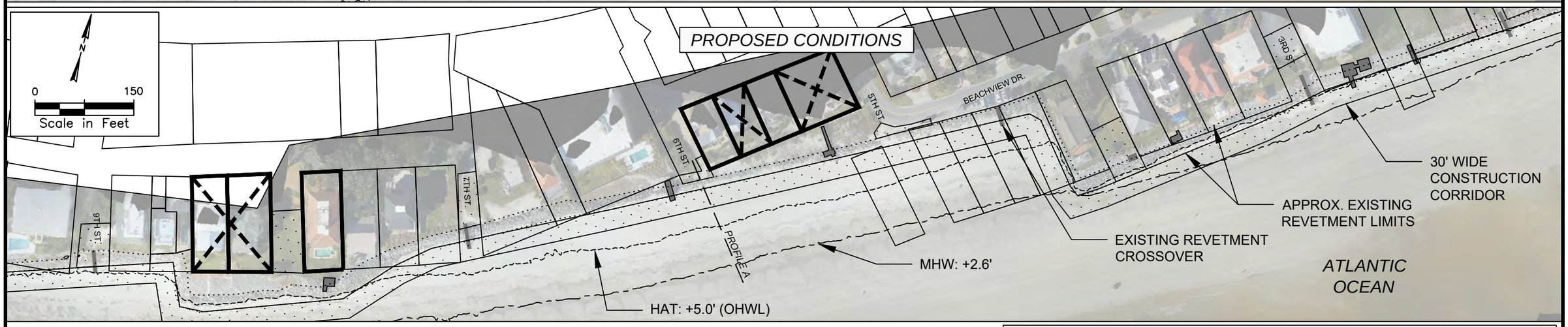
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

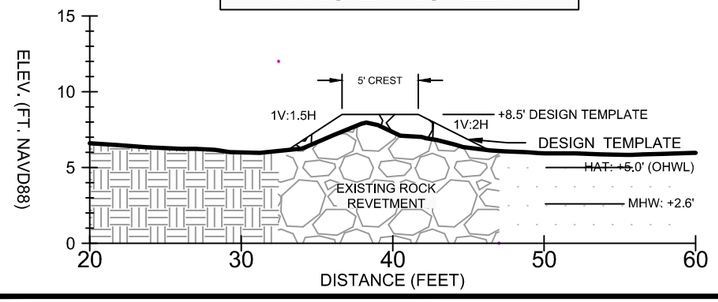
EXISTING CONDITIONS



PROPOSED CONDITIONS



TYPICAL PROFILE A



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

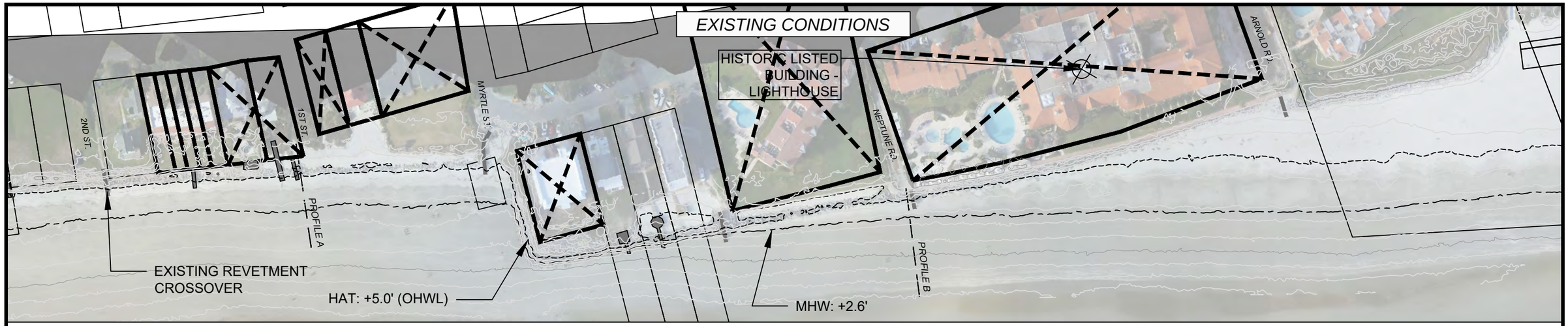
Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia
Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

PHASE 3
PLAN VIEW & TYPICAL SECTIONS
9TH STREET TO 3RD STREET

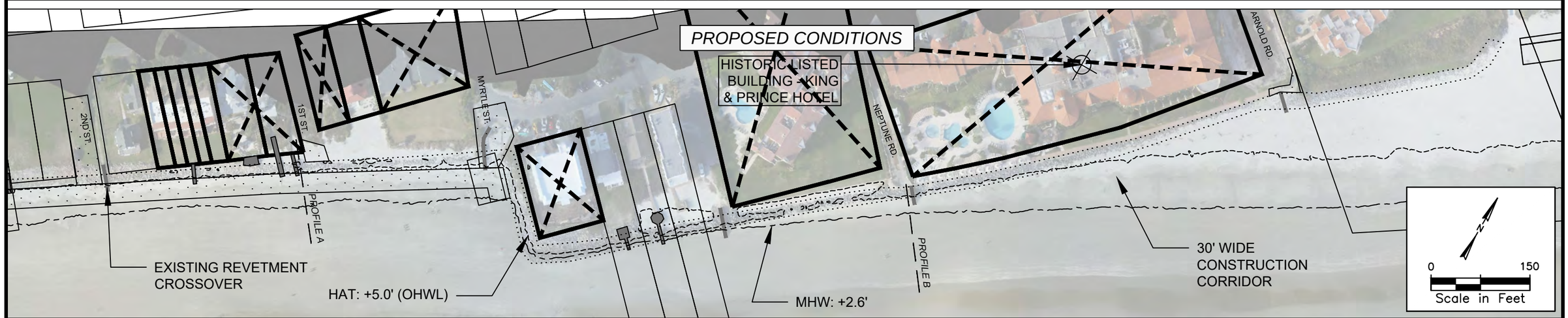
Revision: August 29, 2019
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

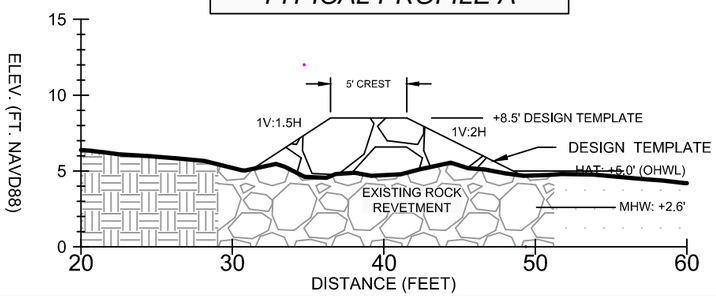
EXISTING CONDITIONS



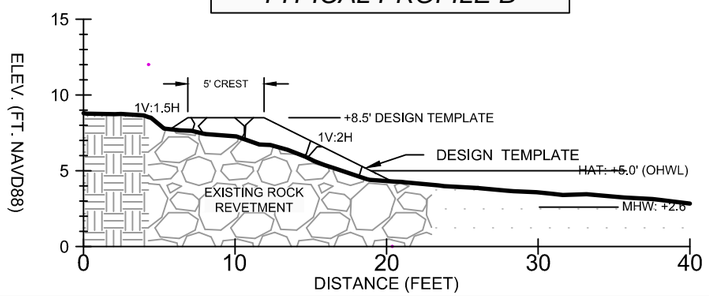
PROPOSED CONDITIONS



TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

PHASE 3
PLAN VIEW & TYPICAL SECTIONS
2ND STREET TO MASSENGALE PARK

Revision: August 29, 2019

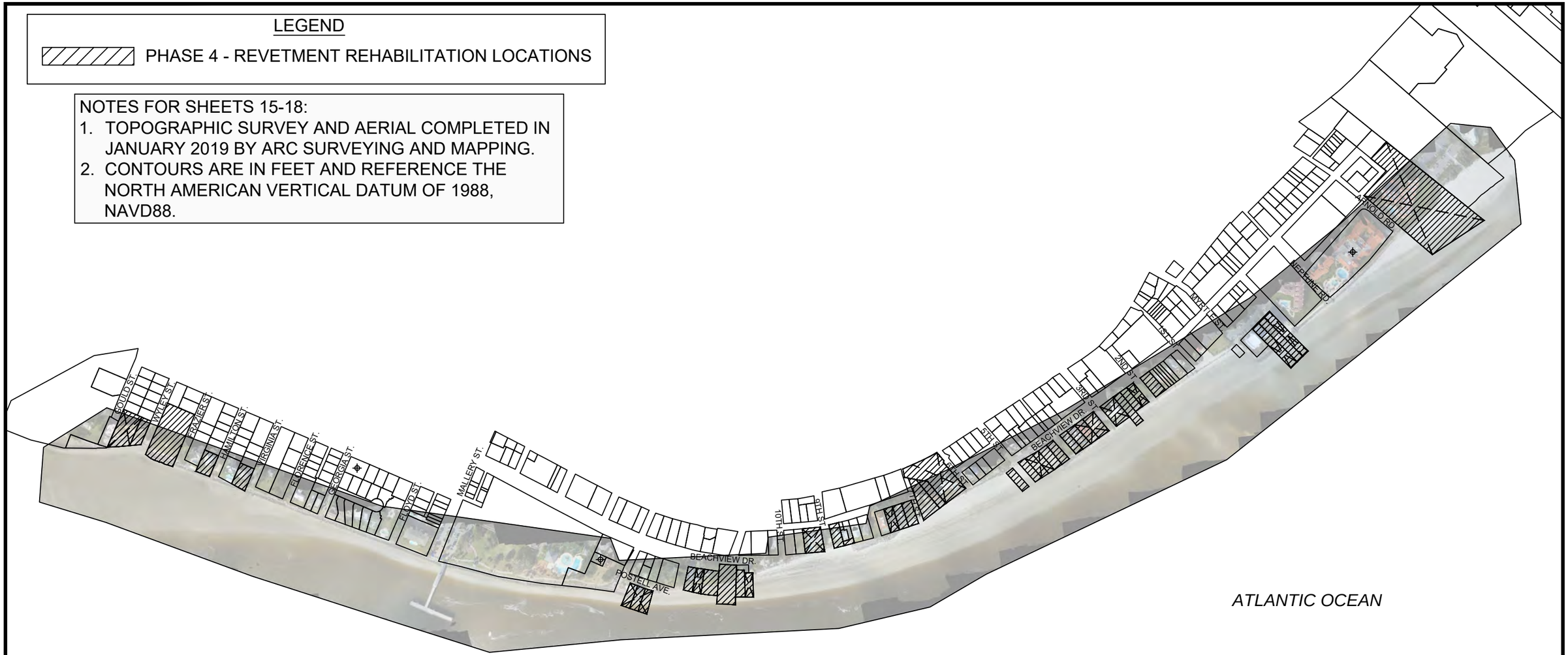
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

LEGEND

PHASE 4 - REVETMENT REHABILITATION LOCATIONS

NOTES FOR SHEETS 15-18:
1. TOPOGRAPHIC SURVEY AND AERIAL COMPLETED IN JANUARY 2019 BY ARC SURVEYING AND MAPPING.
2. CONTOURS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88.



PHASE 4
REVETMENT ON PRIVATE PROPERTY
(~1,735 LINEAR FEET OF REVETMENT REHABILITATION,
~2,540 TONS OF ROCK REQUIRED)

N

0 600

Scale in Feet

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance	Latitude: 31° 8'2.55"N
Waterbody: Atlantic Ocean	Longitude: 81°23'48.16"W
County: Glynn	Applicant: Glynn County
State: Georgia	Agent: Applied Technology & Management

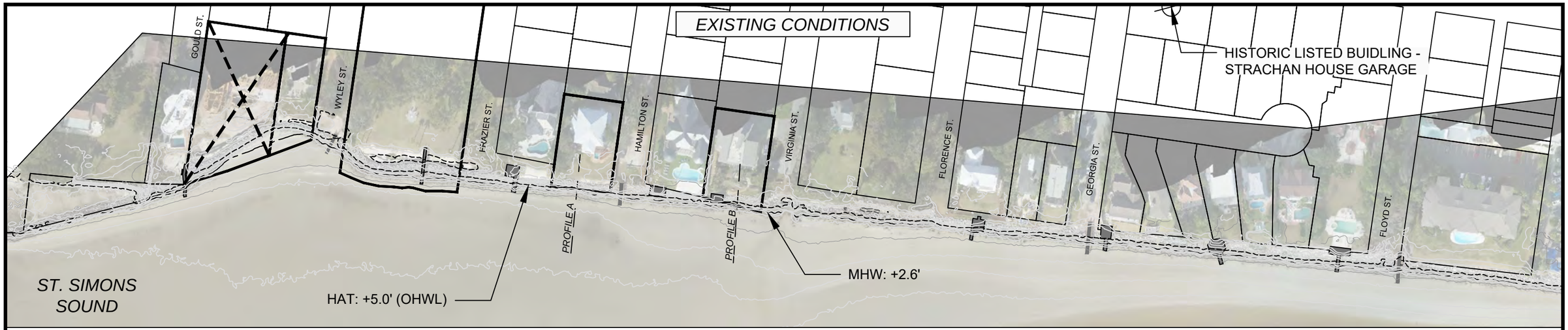
PHASE 4 OVERVIEW

Revision: August 29, 2019

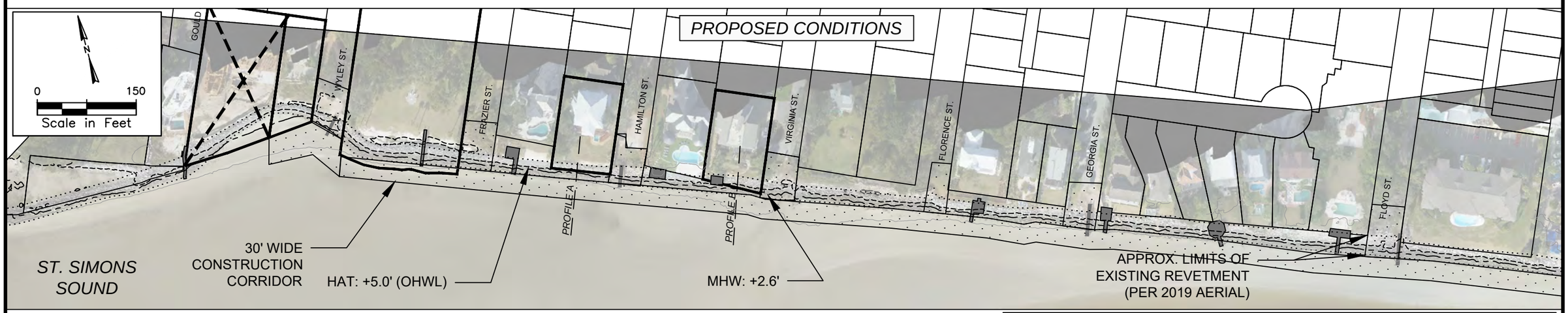
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

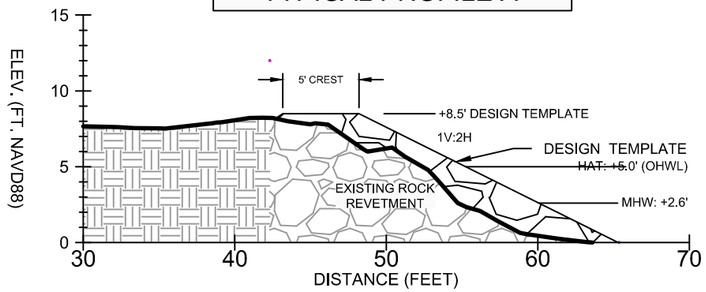
EXISTING CONDITIONS



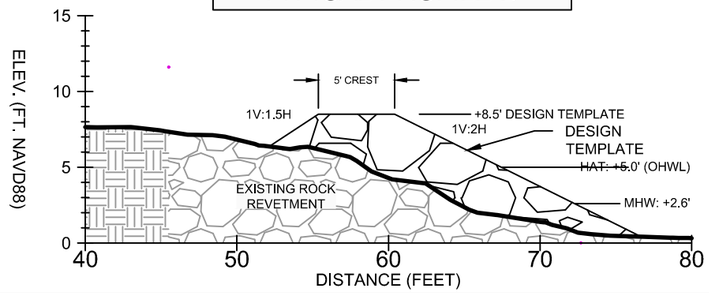
PROPOSED CONDITIONS



TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

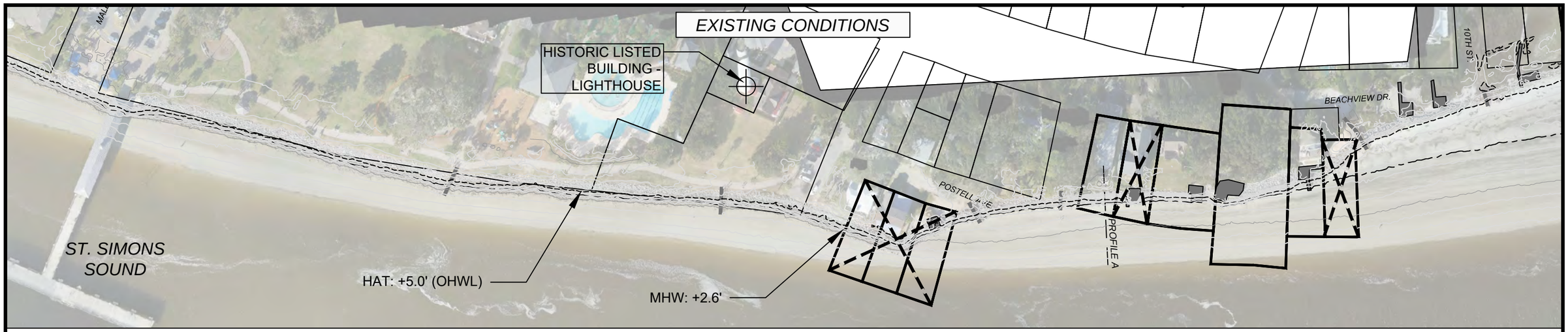
PHASE 4
PLAN VIEW & TYPICAL SECTIONS
WYLEY STREET TO FLOYD STREET

Revision: August 29, 2019

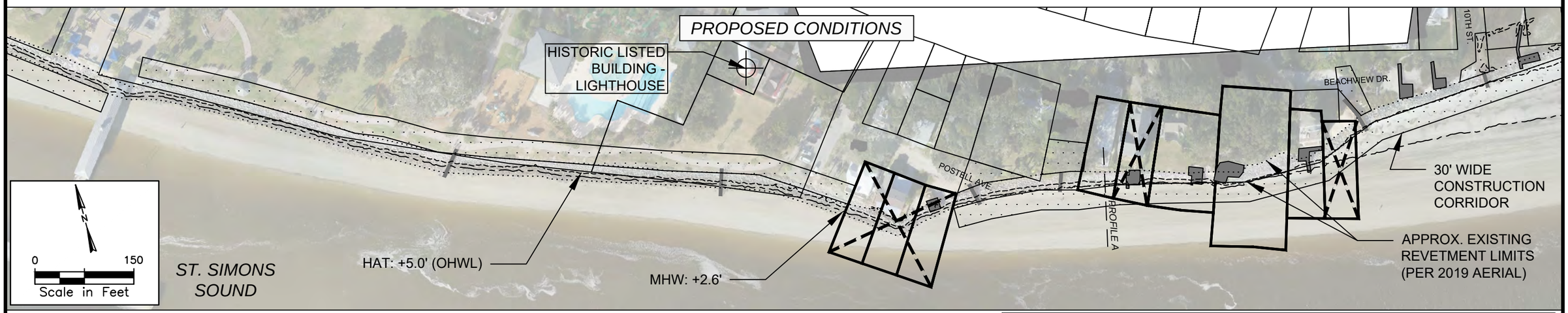
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

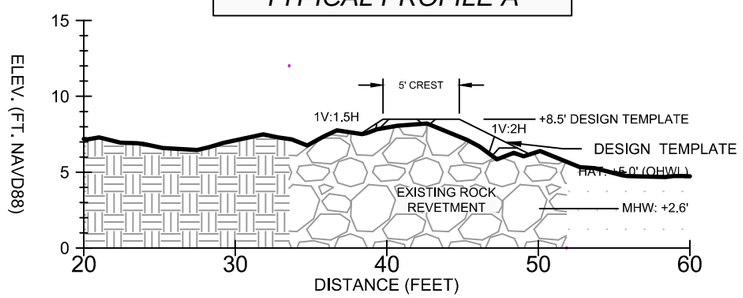
EXISTING CONDITIONS



PROPOSED CONDITIONS



TYPICAL PROFILE A



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

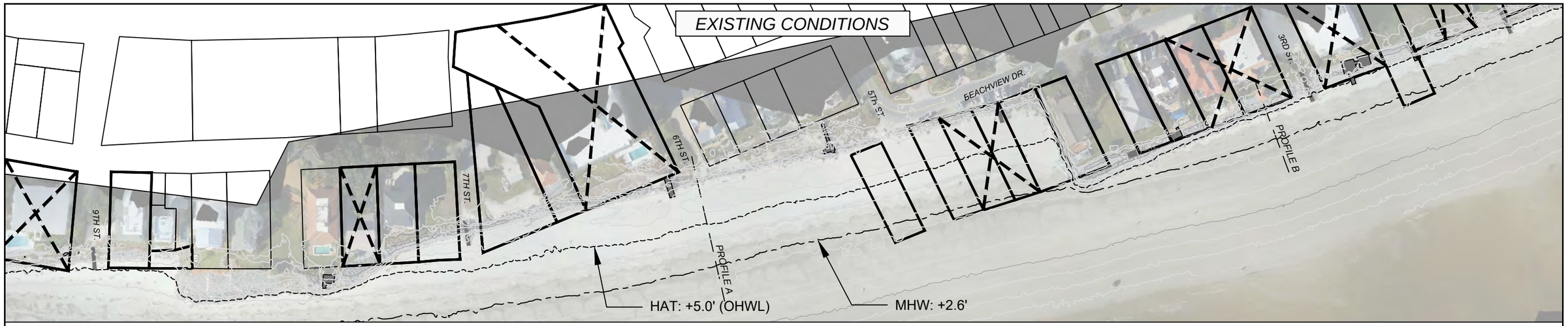
Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

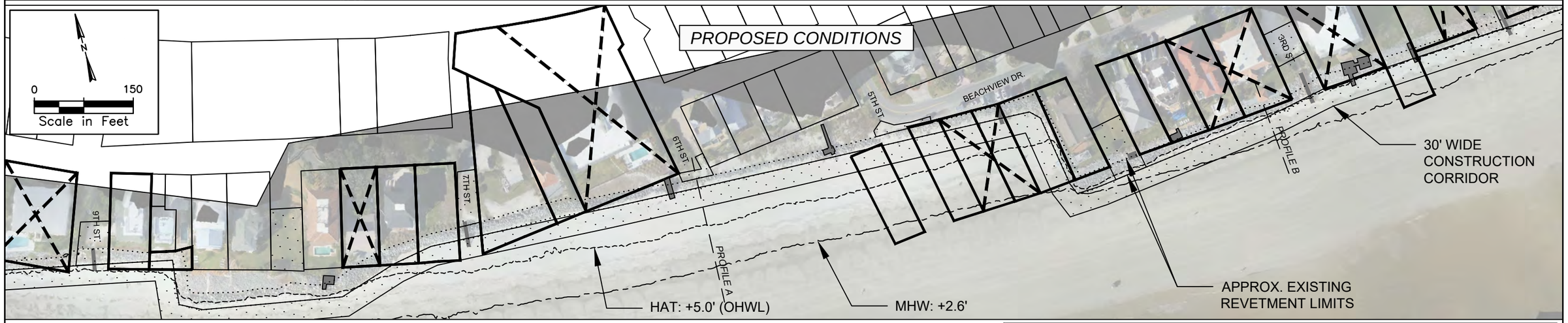
PHASE 4
PLAN VIEW & TYPICAL SECTIONS
NEPTUNE PARK TO 10TH STREET

Revision: August 29, 2019

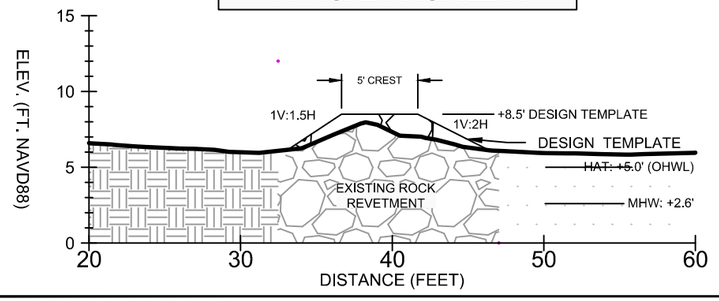
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

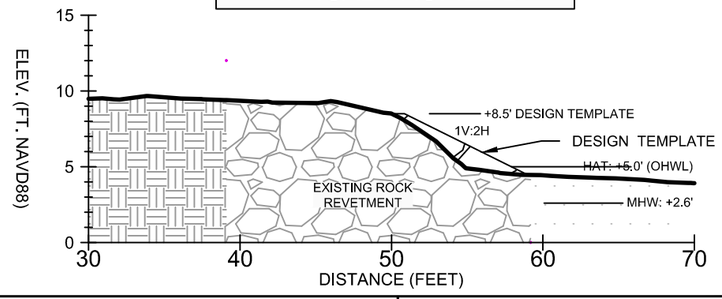




TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

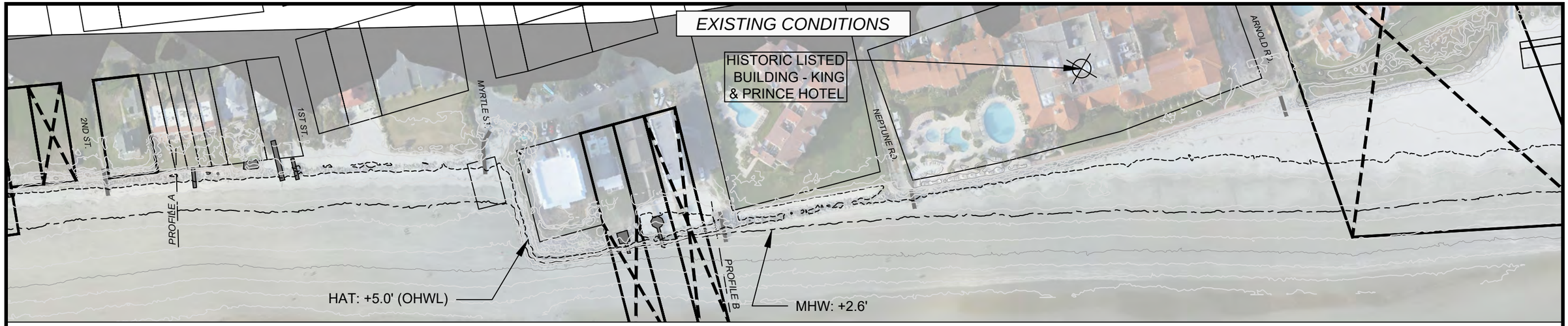
PHASE 4
PLAN VIEW & TYPICAL SECTIONS
9TH STREET TO 3RD STREET

Revision: August 29, 2019

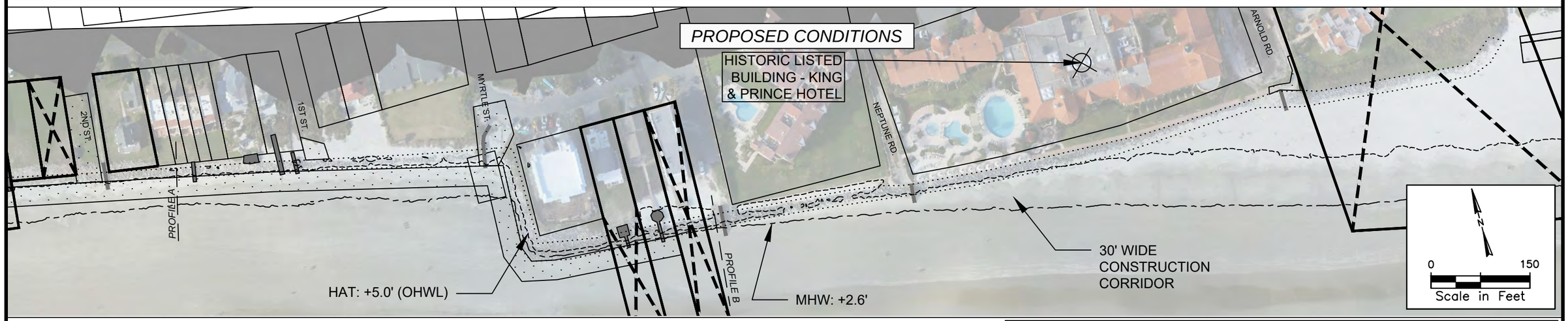
Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

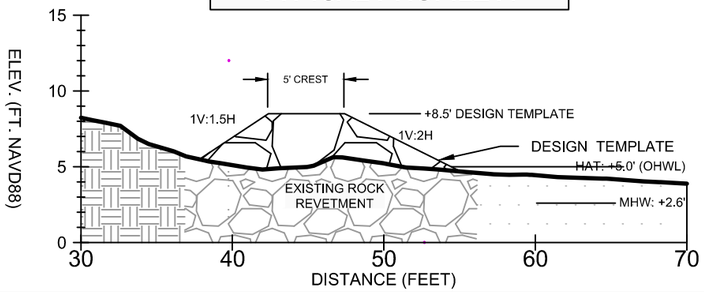
EXISTING CONDITIONS



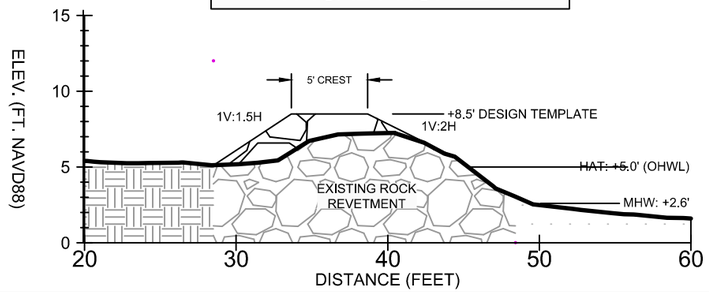
PROPOSED CONDITIONS



TYPICAL PROFILE A



TYPICAL PROFILE B



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA/ WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

PHASE 4
PLAN VIEW & TYPICAL SECTIONS
2ND STREET TO MASSENGALE PARK

Revision: August 29, 2019

Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING

EXISTING CONDITIONS

N

0 200

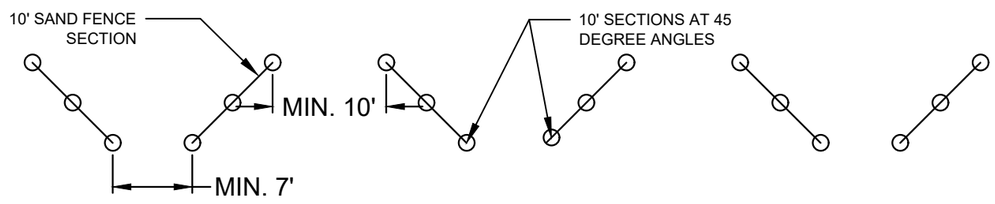
Scale in Feet

PROPOSED CONDITIONS

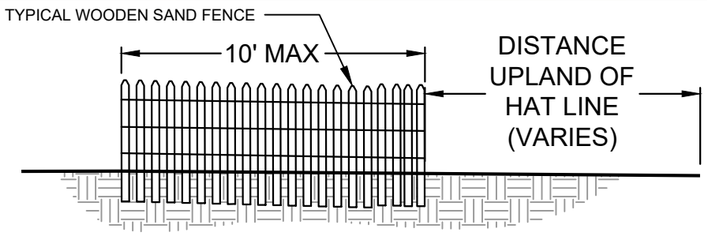
PROPOSED SAND FENCING AREA (ABOVE HAT: +5.0' (OHWL) NAVD88)

DO NOT DISTURB EXISTING ESTABLISHED VEGETATION

NOTE:
AERIAL IMAGE FROM GOOGLE EARTH DATED JANUARY 25, 2019 AND IS APPROXIMATE.



TYPICAL SAND FENCE LAYOUT
(BASED ON GA DNR GUIDELINES



TYPICAL SAND FENCE SECTION

SAND FENCE NOTES:
1. SAND FENCE WILL NOT BE PLACED IN INTERTIDAL ZONE.
2. SAND WILL NOT BE PLACED WITHIN 7' OF BEACH SCARP
3. SAND FENCE WILL NOT BE USED TO CONTROL PEDESTRIAN TRAFFIC.
4. STANDARD 4' SAND FENCE WILL BE USED WITH WOODEN SLATS WIRED TOGETHER WITH SPACES BETWEEN SLATS.

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia

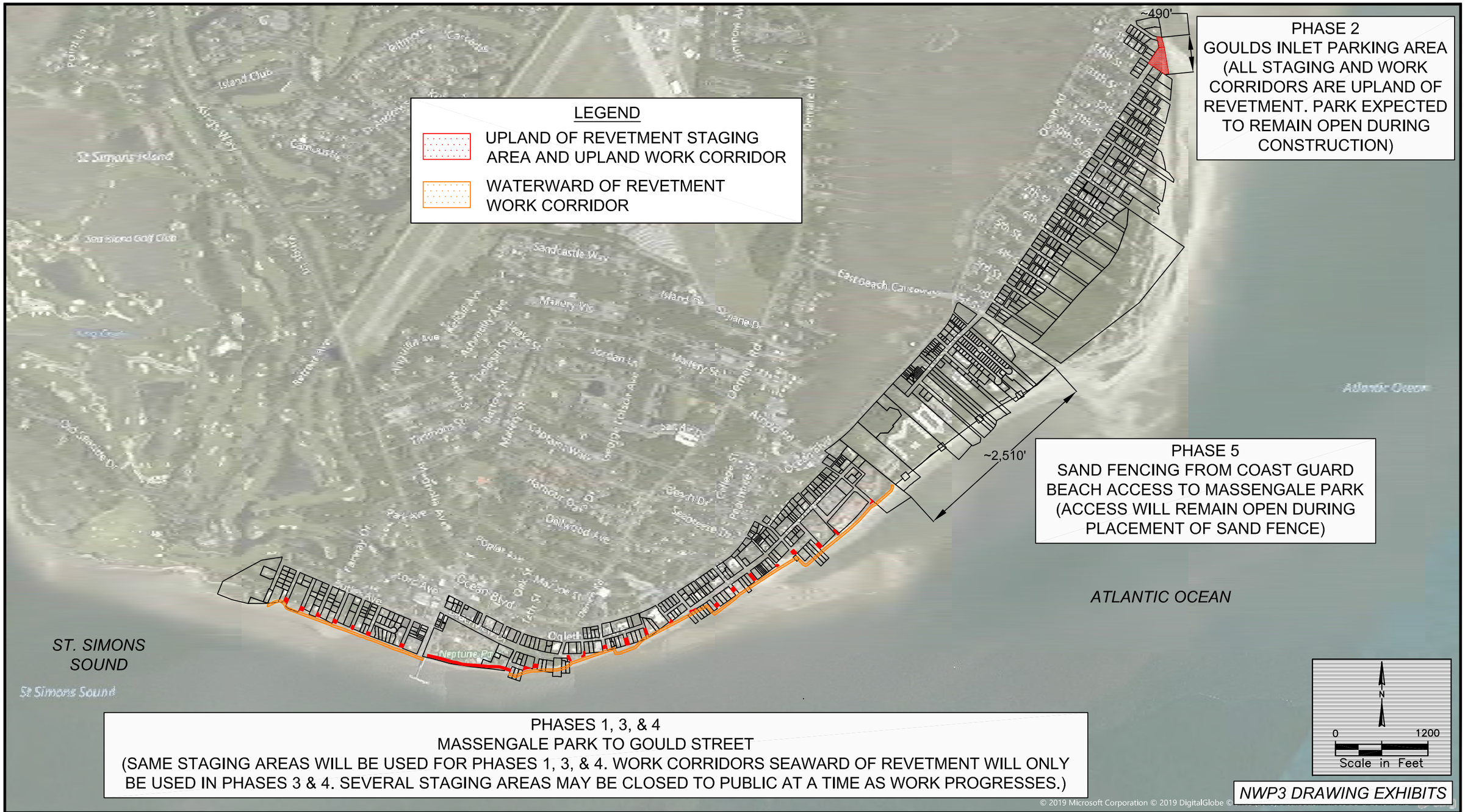
Latitude: 31° 8'2.55"N
Longitude: 81°23'48.16"W
Applicant: Glynn County
Agent: Applied Technology & Management

PHASE 5
PLAN VIEW AND TYPICAL SECTIONS
MASSENGALE PARK TO US COAST GUARD BEACH ACCESS

Revision: August 29, 2019

Date: April 1, 2019

ATM DESIGN ENGINEERING CONSULTING



Project Name: St. Simons Revetment Maintenance	Latitude: 31° 8'2.55"N
Waterbody: Atlantic Ocean	Longitude: 81°23'48.16"W
County: Glynn	Applicant: Glynn County
State: Georgia	Agent: Applied Technology & Management

PROJECT STAGING AREA

OVERVIEW

Revision:

Date: July 26, 2019

ATM DESIGN ENGINEERING CONSULTING

Sheet STAGING

Ms. Flowers,

Please see below table for tonnage estimates. It includes the original as well as the updated/revised tonnage. Please don't hesitate to contact me if you need anything further. Thank you.

Phase	Original Revetment Length (ft)	Revised Revetment Length (ft)	Original Revetment Tonnage	Revised Revetment Tonnage
1	2,695	2,695	5,200	5,200
2	330	330	350	350
3	3,210	881	6,500	1,784
4	3,245	1,735	4,750	2,540
Total	9,480	5,641	16,800	9,874