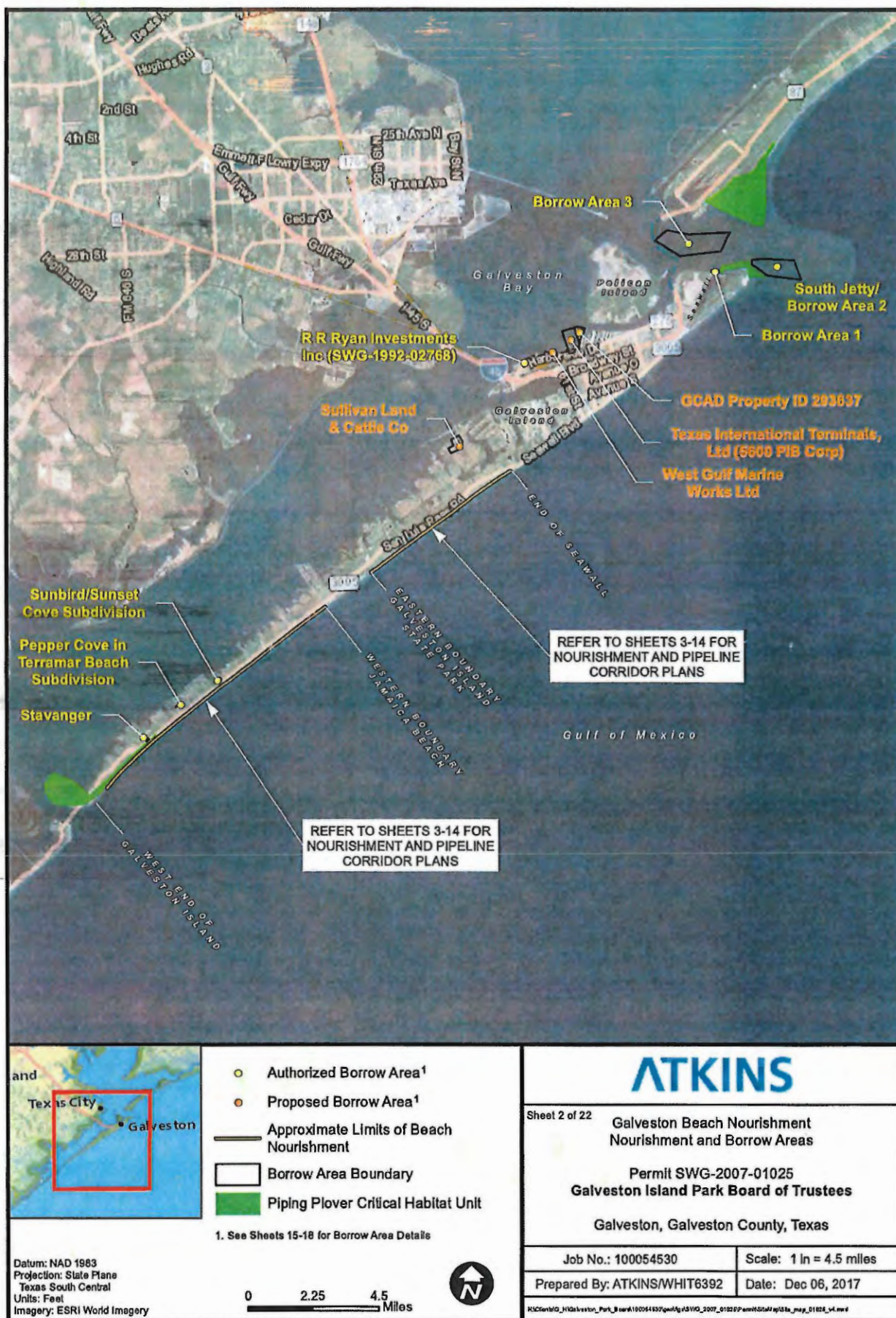
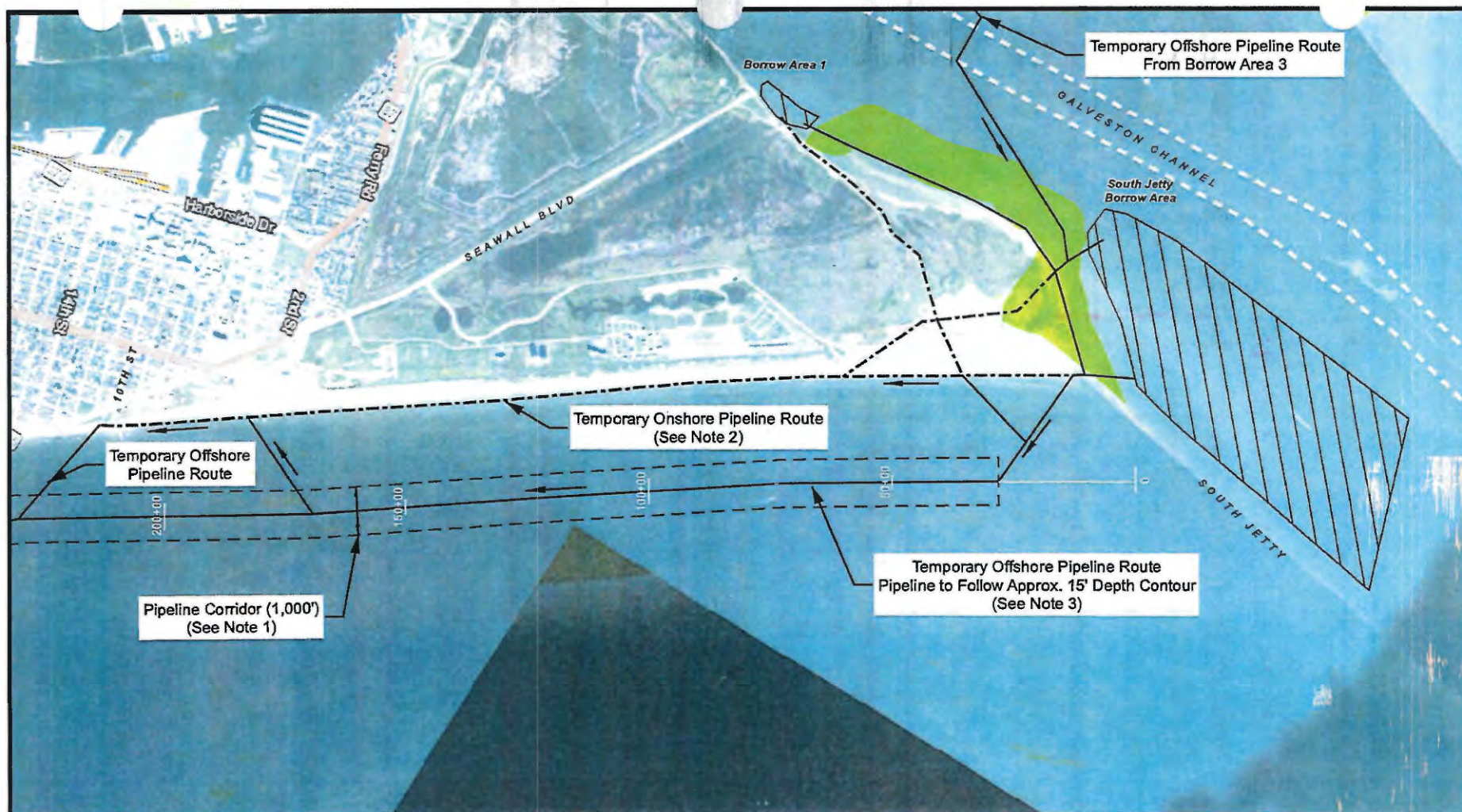






- Temporary Offshore Pipeline Route
- - - Temporary Onshore Pipeline Route
- - - Pipeline Corridor (1,000')
- Galveston Channel
- 5,000 ft Stationing
- ▨ Authorized Borrow Area
- Piping Plover Critical Habitat

Datum: NAD 1983
 Projection: State Plane Texas South Central
 Units: Feet
 Imagery: ESRI World Imagery

NOTES:

1. OFFSHORE PIPELINE WILL BE SUBMERGED WITHIN PROPOSED CORRIDOR AND MARKED IN ACCORDANCE WITH U.S. COAST GUARD REQUIREMENTS
2. PIPELINE ON BEACH WILL BE PLACED LANDWARD OF THE MHW LINE.
3. APPLICANT MAY UTILIZE COMBINATION OF ONSHORE AND OFFSHORE METHODS FOR BRINGING DREDGE PIPE TO BEACH NOURISHMENT AREAS. PIPELINES POSITIONED NEARLY PERPENDICULAR TO THE BEACH WOULD BE UTILIZED TO CONVEY MATERIAL FROM THE OFFSHORE ROUTE AND/OR HOPPER DREDGE TO THE BEACH NOURISHMENT AREAS. LOCATIONS MAY VARY. HOPPER DREDGE DISTANCE FROM SHORE IS DEPENDENT ON BOTTOM CONTOURS, THIS MAY VARY.

0 1,500 3,000
 Feet



ATKINS

Sheet 3 of 22

Galveston Beach Nourishment
 Pipeline Routes

Permit SWG-2007-01025
 Galveston Island Park Board of Trustees

Galveston, Galveston County, Texas

Job No.: 100054530

Scale: 1" = 3,000'

Prepared By: Atkins/WHIT6392

Date: Dec 06, 2017

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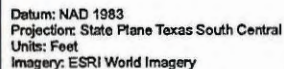
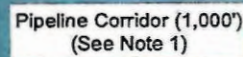
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Projection: State Plane Texas South Central
Units: Feet
Imagery: ESRI World Imagery

0 700 1,400 Feet



Date: Dec 06, 2017

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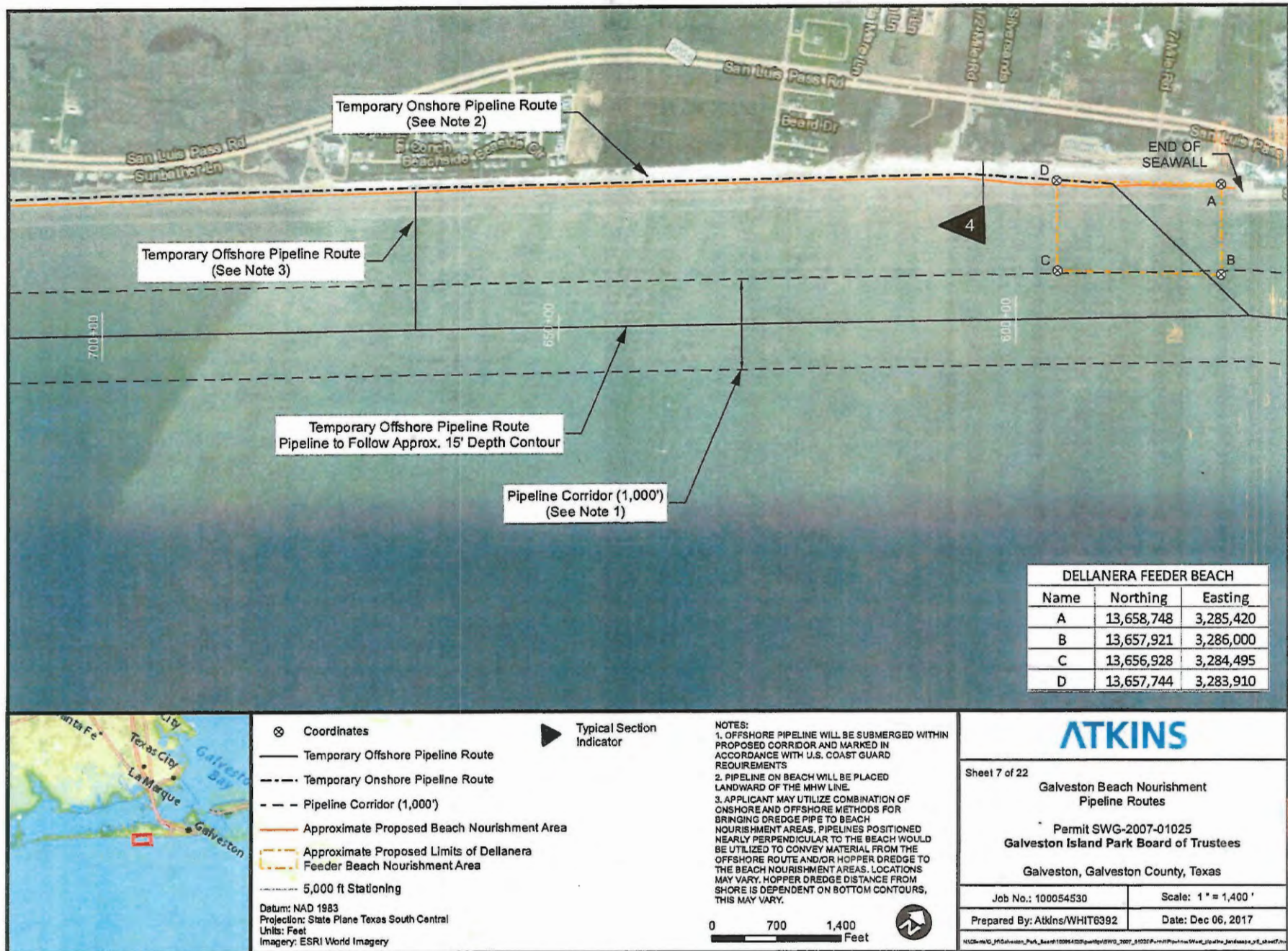


0 700 1,400 Feet

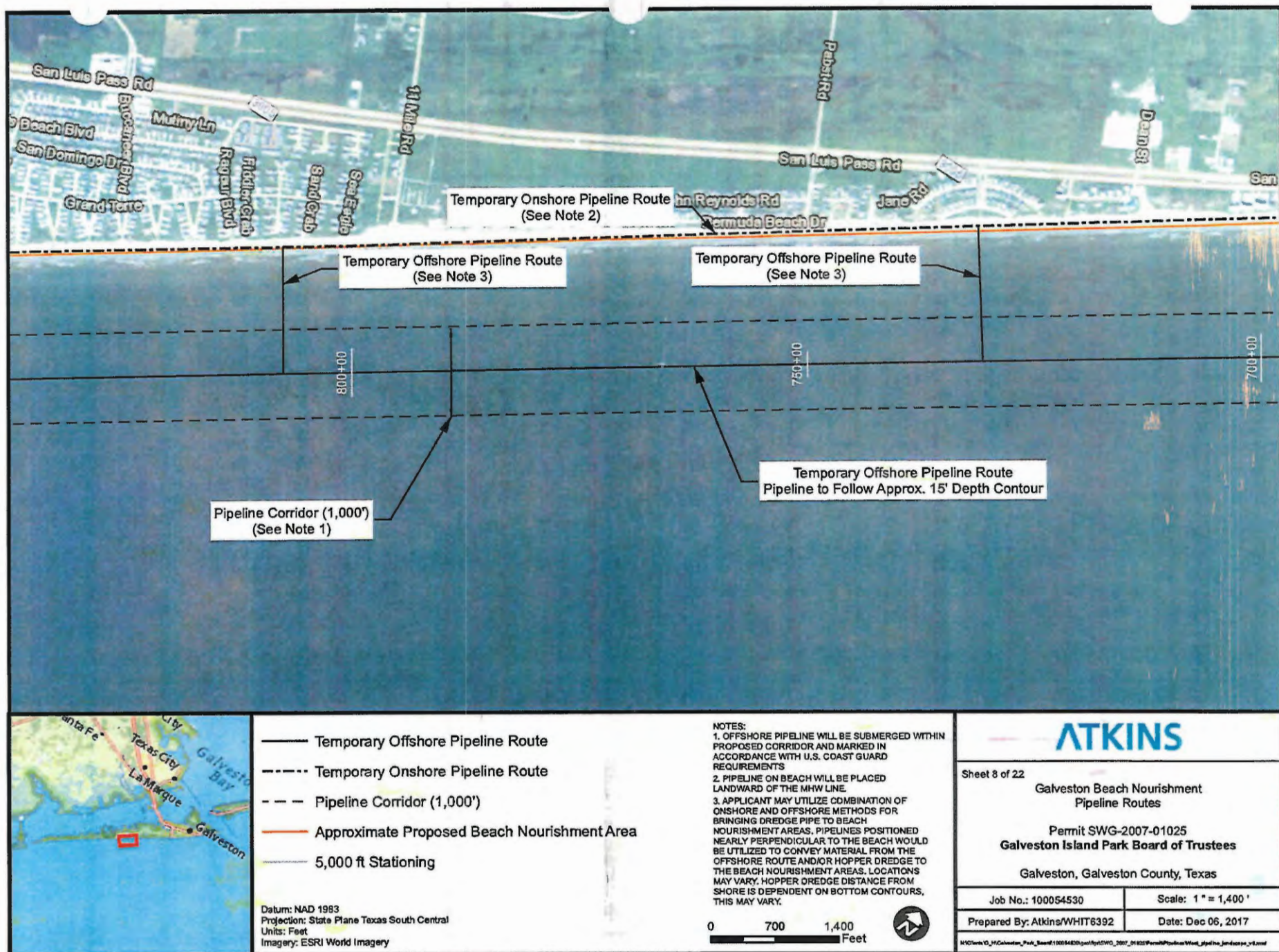


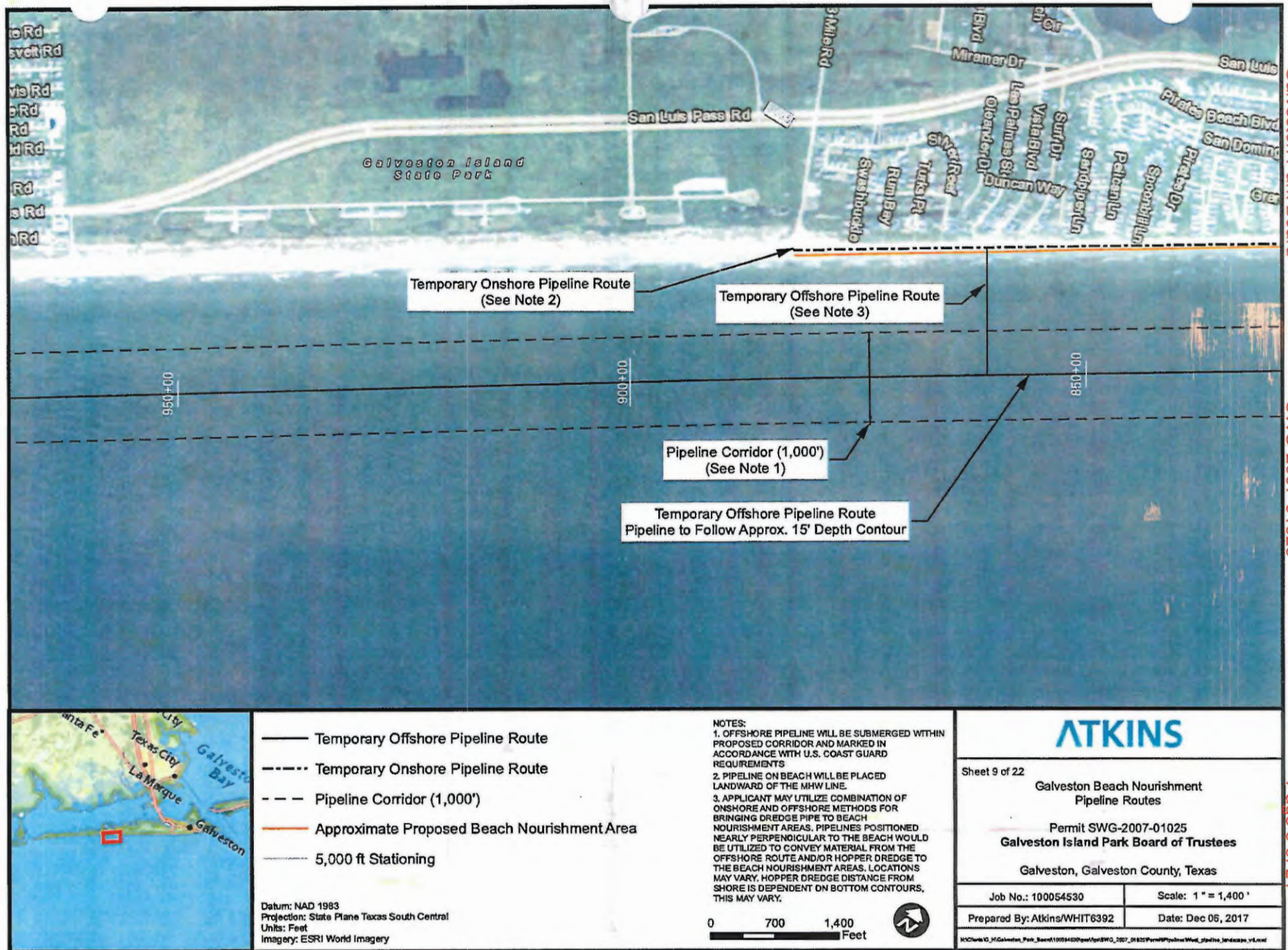
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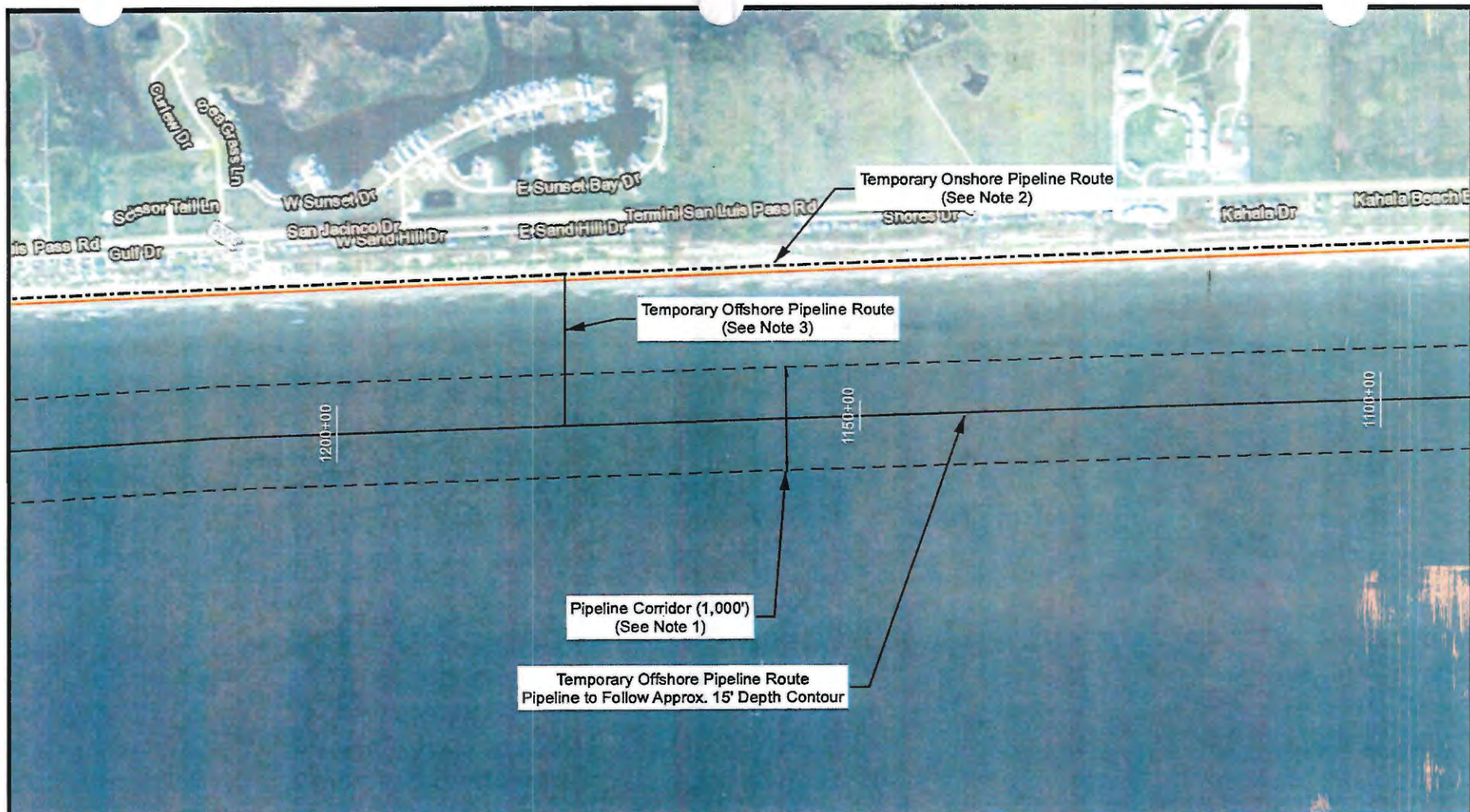
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- Temporary Offshore Pipeline Route
- - - Temporary Onshore Pipeline Route
- - - Pipeline Corridor (1,000')
- Approximate Proposed Beach Nourishment Area
- 5,000 ft Stationing

Datum: NAD 1983
 Projection: State Plane Texas South Central
 Units: Feet
 Imagery: ESRI World Imagery

NOTES:

1. OFFSHORE PIPELINE WILL BE SUBMERGED WITHIN PROPOSED CORRIDOR AND MARKED IN ACCORDANCE WITH U.S. COAST GUARD REQUIREMENTS
2. PIPELINE ON BEACH WILL BE PLACED LANDWARD OF THE MHW LINE.
3. APPLICANT MAY UTILIZE COMBINATION OF ONSHORE AND OFFSHORE METHODS FOR BRINGING DREDGE PIPE TO BEACH NOURISHMENT AREAS. PIPELINES POSITIONED NEARLY PERPENDICULAR TO THE BEACH WOULD BE UTILIZED TO CONVEY MATERIAL FROM THE OFFSHORE ROUTE AND/OR HOPPER DREDGE TO THE BEACH NOURISHMENT AREAS. LOCATIONS MAY VARY. HOPPER DREDGE DISTANCE FROM SHORE IS DEPENDENT ON BOTTOM CONTOURS, THIS MAY VARY.

0 700 1,400 Feet



ATKINS

Sheet 11 of 22

Galveston Beach Nourishment
 Pipeline Routes

Permit SWG-2007-01025
 Galveston Island Park Board of Trustees

Galveston, Galveston County, Texas

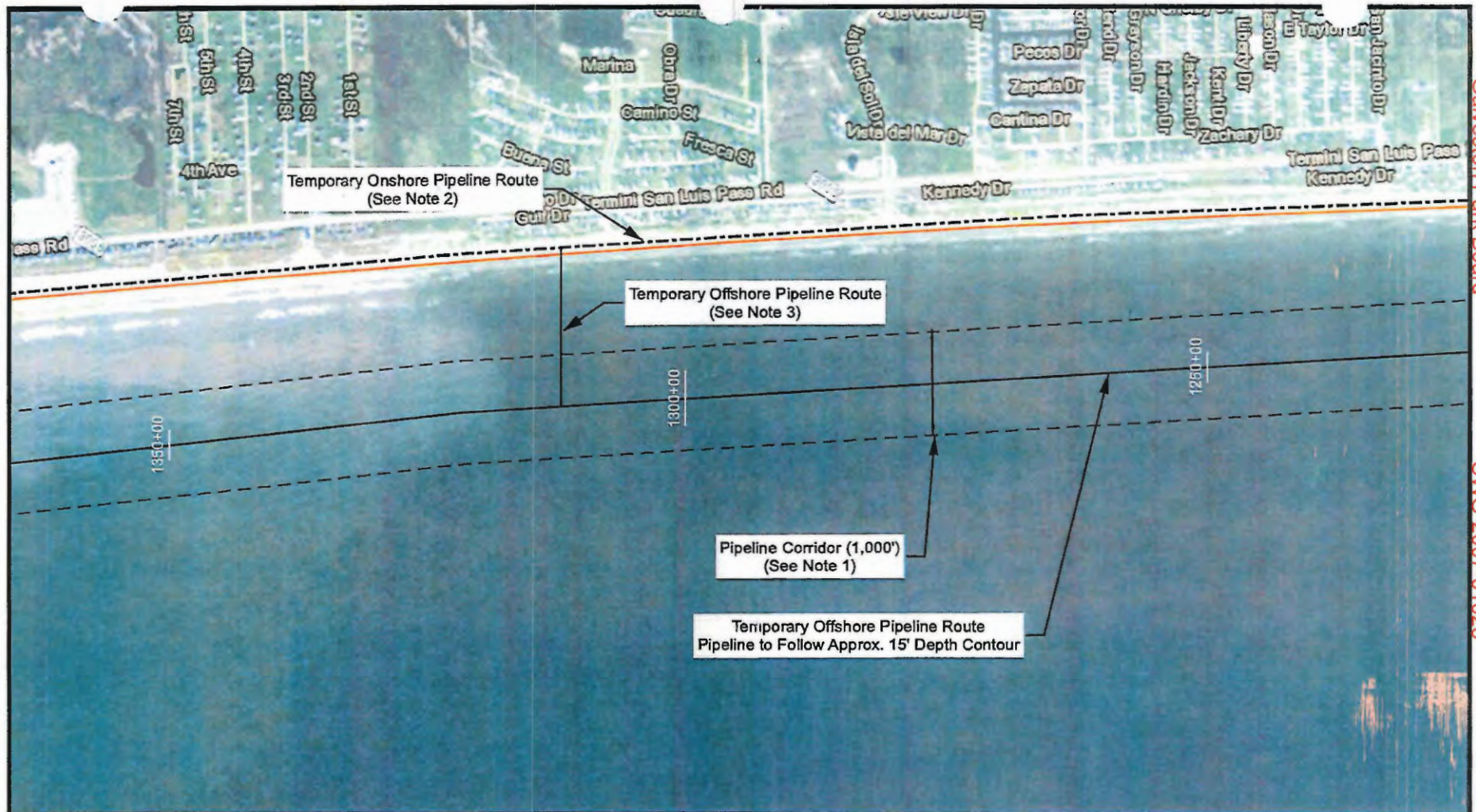
Job No.: 100054530

Scale: 1" = 1,400'

Prepared By: Atkins/WHIT6392

Date: Dec 06, 2017

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- Temporary Offshore Pipeline Route
- - - Temporary Onshore Pipeline Route
- - - Pipeline Corridor (1,000')
- Approximate Proposed Beach Nourishment Area
- 5,000 ft Stationing

Datum: NAD 1983
 Projection: State Plane Texas South Central
 Units: Feet
 Imagery: ESRI World Imagery

NOTES:

1. OFFSHORE PIPELINE WILL BE SUBMERGED WITHIN PROPOSED CORRIDOR AND MARKED IN ACCORDANCE WITH U.S. COAST GUARD REQUIREMENTS
2. PIPELINE ON BEACH WILL BE PLACED LANDWARD OF THE MHW LINE
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0 700 1,400 Feet



ATKINS

Sheet 12 of 22

Galveston Beach Nourishment
 Pipeline Routes

Permit SWG-2007-01025
 Galveston Island Park Board of Trustees

Galveston, Galveston County, Texas

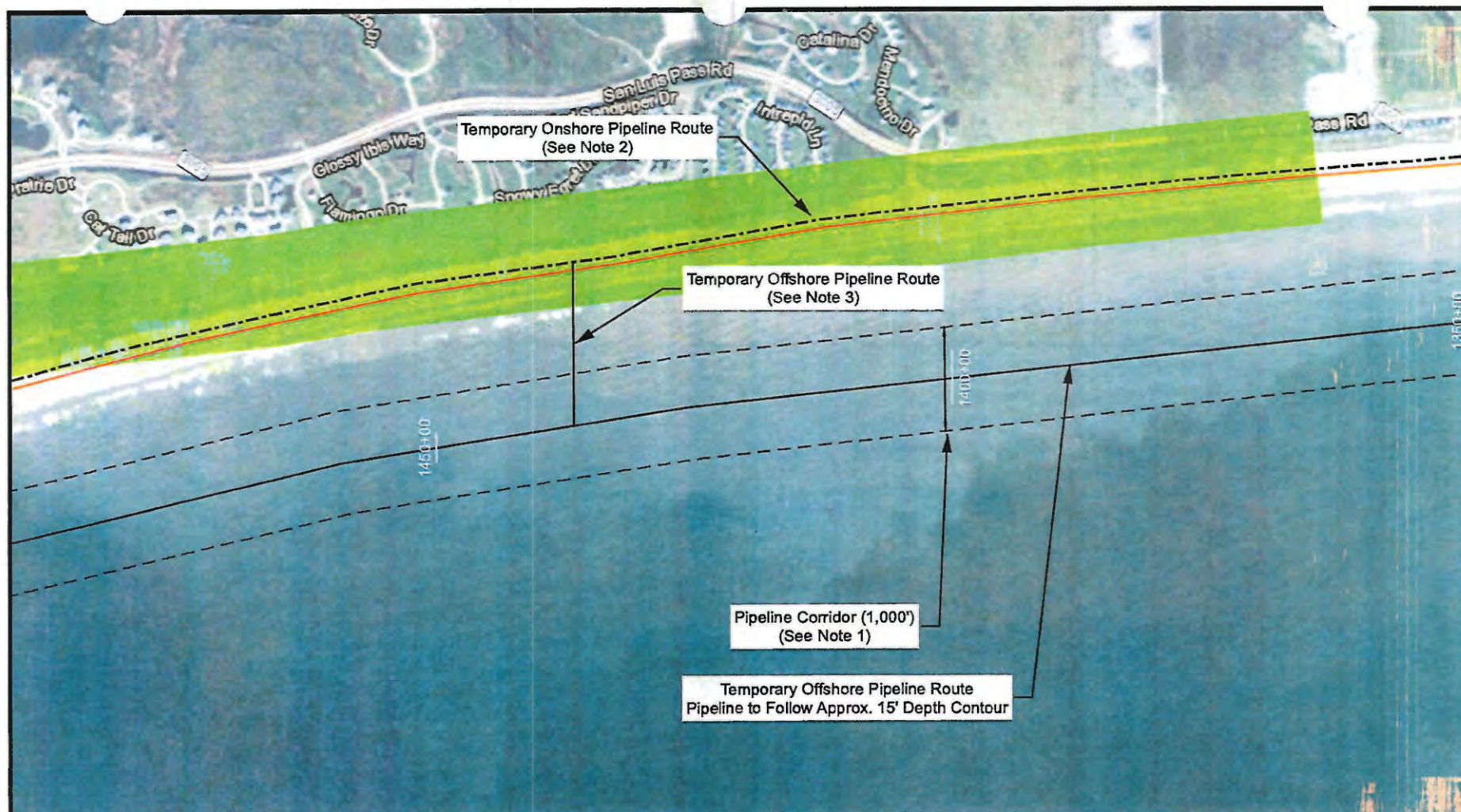
Job No.: 100054530

Scale: 1" = 1,400'

Prepared By: Atkins/WHIT6392

Date: Dec 06, 2017

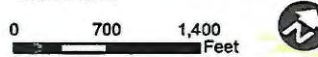
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- Temporary Offshore Pipeline Route
- - - Temporary Onshore Pipeline Route
- - - Pipeline Corridor (1,000')
- Approximate Proposed Beach Nourishment Area
- 5,000 ft Stationing
- Piping Plover Critical Habitat

Datum: NAD 1983
 Projection: State Plane Texas South Central
 Units: Feet
 Imagery: ESRI World Imagery

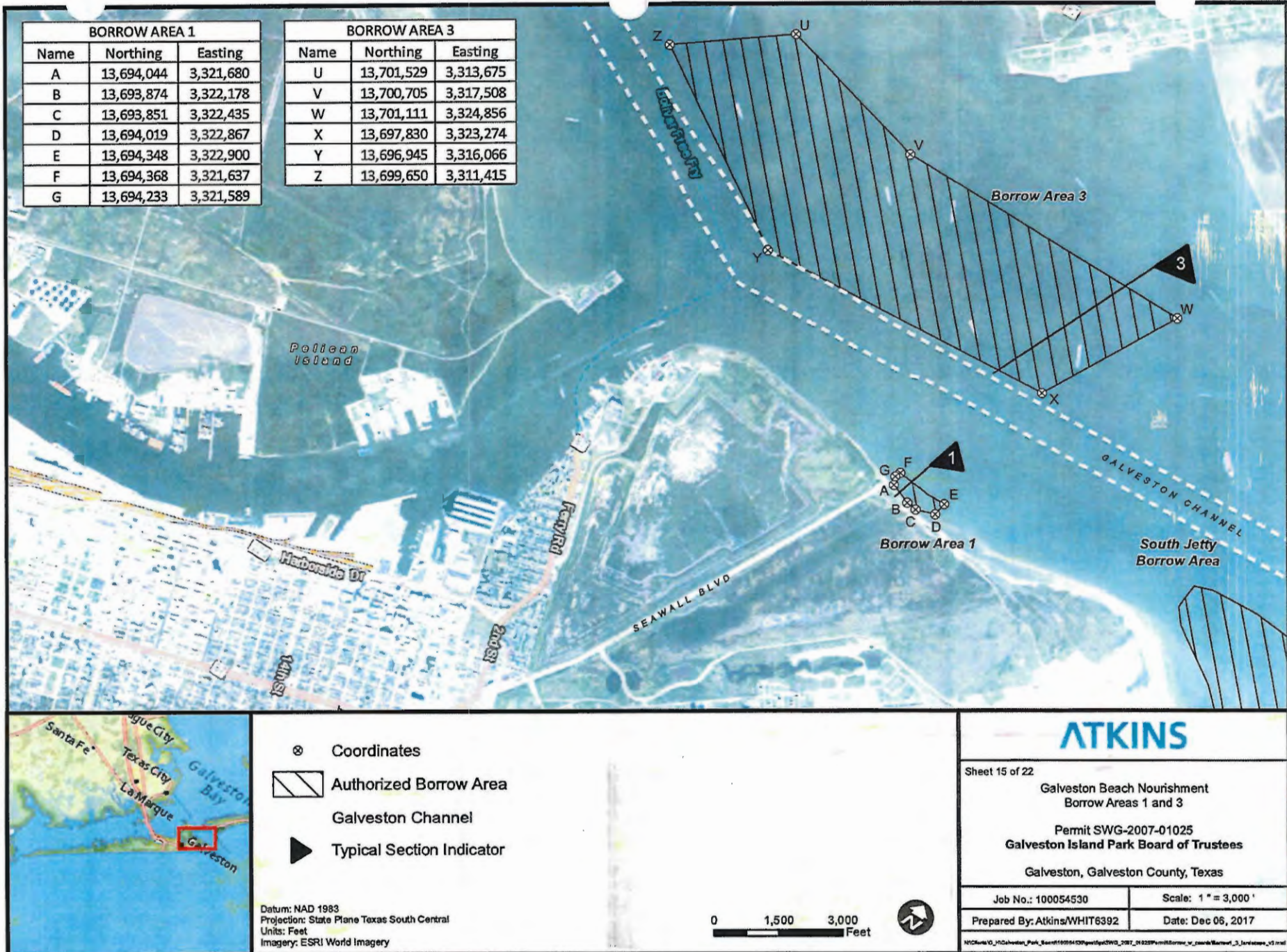
NOTES:
 1. OFFSHORE PIPELINE WILL BE SUBMERGED WITHIN PROPOSED CORRIDOR AND MARKED IN ACCORDANCE WITH U.S. COAST GUARD REQUIREMENTS
 2. PIPELINE ON BEACH WILL BE PLACED LANDWARD OF THE MHW LINE.
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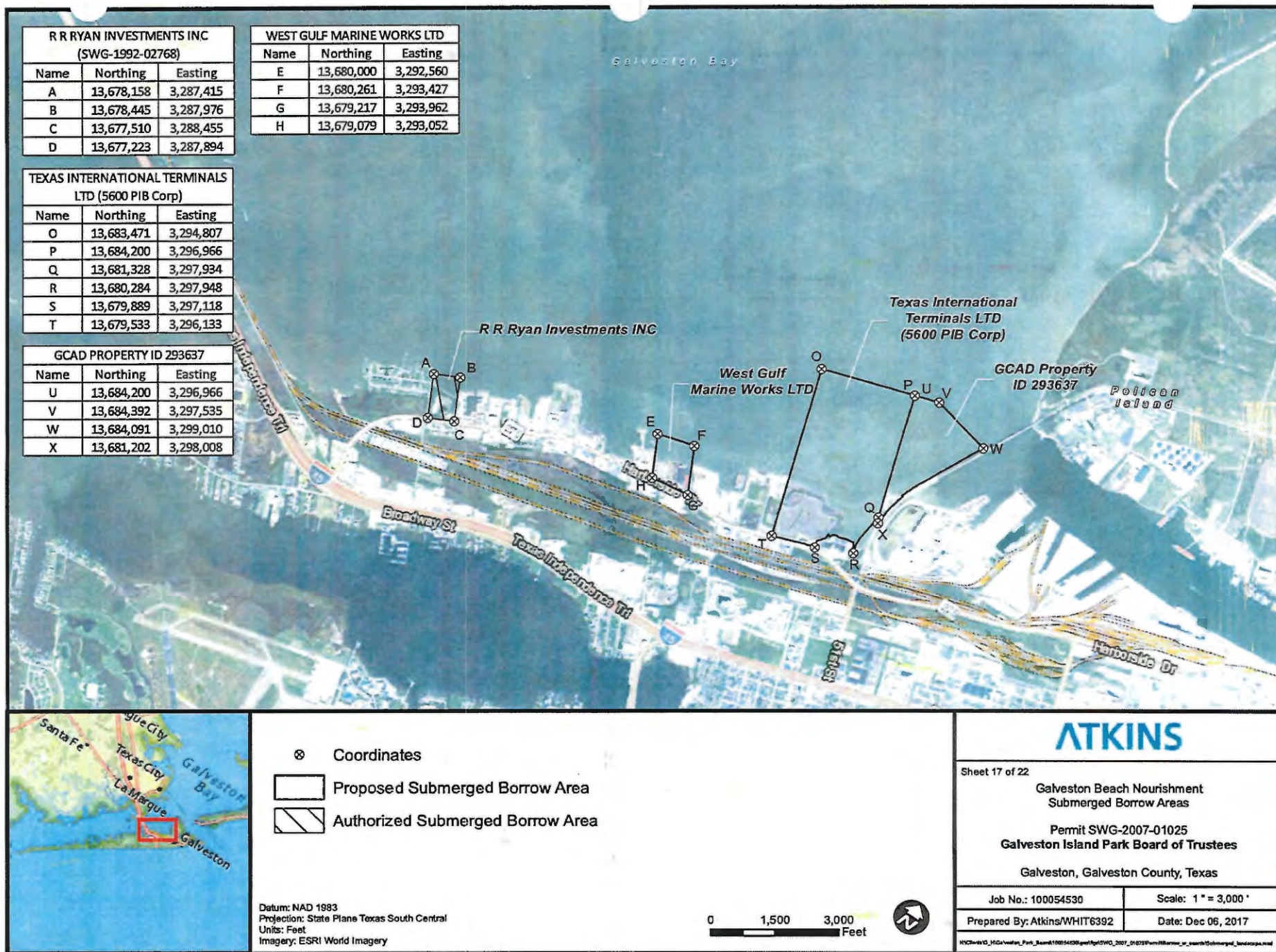


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Sheet 13 of 22
 Galveston Beach Nourishment
 Pipeline Routes
 Permit SWG-2007-01025
 Galveston Island Park Board of Trustees
 Galveston, Galveston County, Texas

Job No.: 100054530	Scale: 1" = 1,400'
Prepared By: Atkins/WHIT6392	Date: Dec 06, 2017



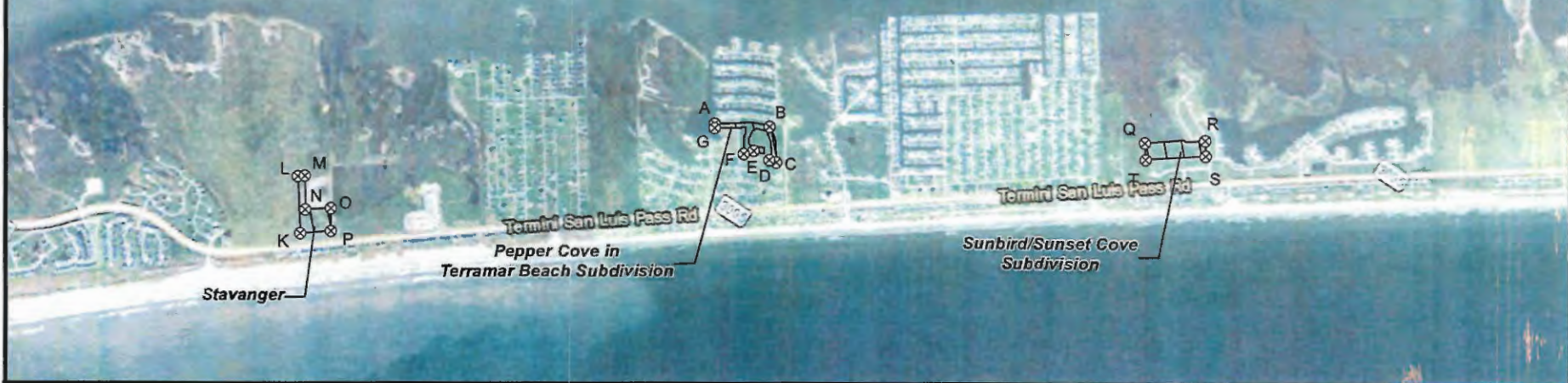


SUNBIRD/SUNSET COVE SUBDIVISION		
Name	Northing	Easting
Q	13,621,657	3,232,530
R	13,622,355	3,233,446
S	13,622,114	3,233,634
T	13,621,397	3,232,723

PEPPER COVE IN TERRAMAR BEACH SUBDIVISION		
Name	Northing	Easting
A	13,617,235	3,225,587
B	13,617,794	3,226,487
C	13,617,301	3,226,996
D	13,617,262	3,226,867
E	13,617,230	3,226,513
F	13,617,082	3,226,392
G	13,617,161	3,225,640

STAVANGER		
Name	Northing	Easting
K	13,610,925	3,220,297
L	13,611,797	3,219,617
M	13,611,875	3,219,724
N	13,611,356	3,220,111
O	13,611,654	3,220,495
P	13,611,302	3,220,752

SULLIVAN LAND & CATTLE CO		
Name	Northing	Easting
A	13,662,845	3,274,588
B	13,663,320	3,275,497
C	13,664,340	3,275,021
D	13,665,048	3,276,516
E	13,663,904	3,277,095
F	13,662,572	3,276,494
G	13,661,989	3,275,013



- ⊗ Coordinates
- Proposed Borrow Area
- ▨ Authorized Borrow Area

Datum: NAD 1983
 Projection: State Plane Texas South Central
 Units: Feet
 Imagery: ESRI World Imagery

Sunbird/Sunset Cove Subdivision, Stavanger,
 Pepper Cove in Terramar Beach Subdivision,
 and Sullivan Land and Cattle Co Borrow Areas

0 1,500 3,000
 Feet



ATKINS

Sheet 18 of 22

Galveston Beach Nourishment
 Proposed and Authorized Borrow Areas

Permit SWG-2007-01025
 Galveston Island Park Board of Trustees

Galveston, Galveston County, Texas

Job No.: 100054530

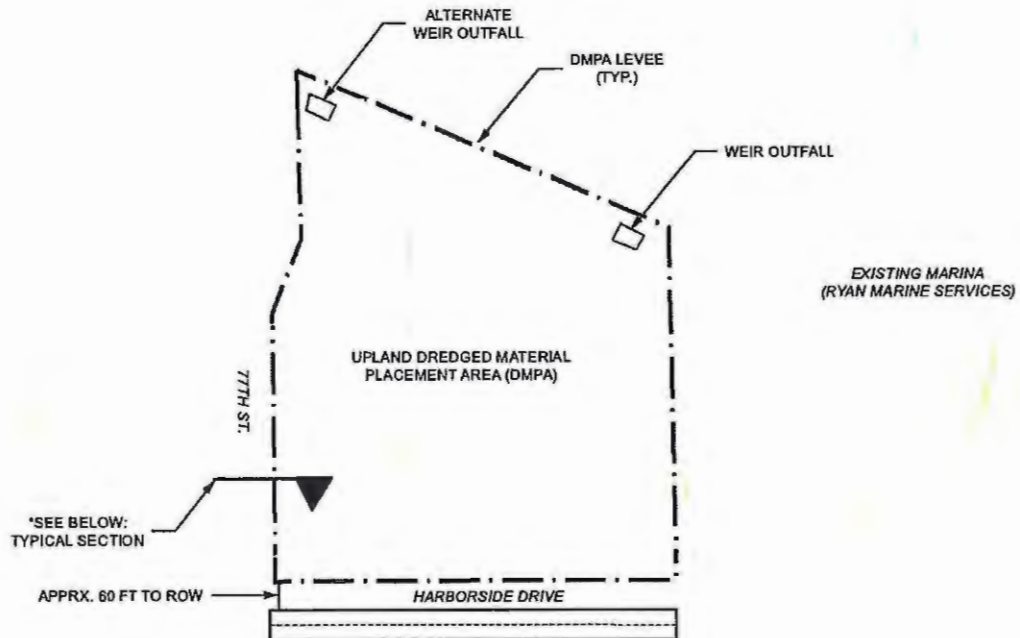
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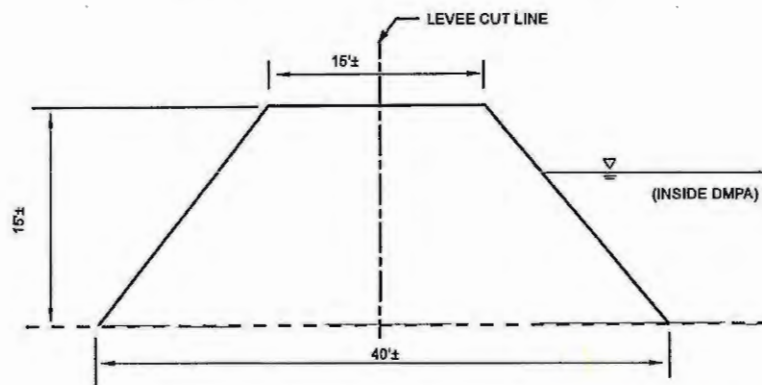
Date: Dec 06, 2017

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**UPLAND DREDGED MATERIAL PLACEMENT AREA (DMPA) PLAN
RYAN MARINE (SWG-1992-02768)**



TYPICAL SECTION - DMPA LEVEE*



NOTES:

1. ALL ELEVATIONS ARE IN FEET AND REFER TO NAVD' 88

ATKINS

Sheet 19 of 22

Galveston Beach Nourishment
Placement Area Typical Section

Permit SWG-2007-01025
Galveston Island Park Board of Trustees

Galveston, Galveston County, Texas

Job No.: 100054530

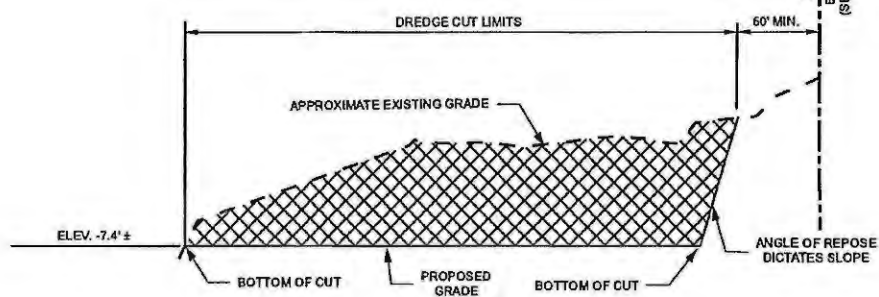
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Prepared By: ATKINS/WHIT6392

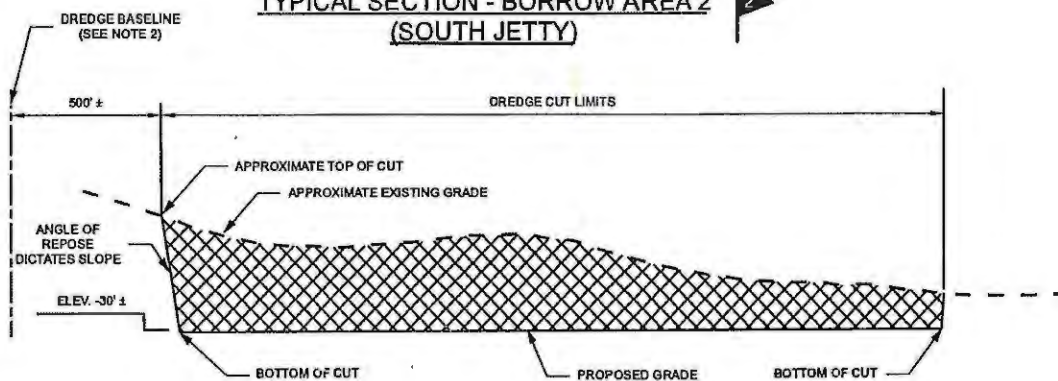
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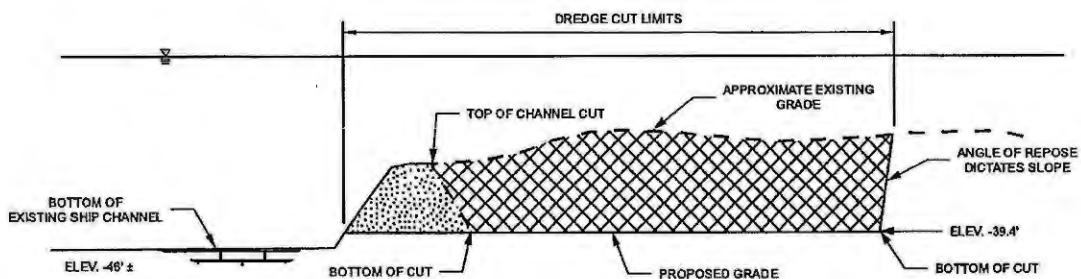
TYPICAL SECTION - BORROW AREA 1



TYPICAL SECTION - BORROW AREA 2
(SOUTH JETTY)



TYPICAL SECTION - BORROW AREA 3



NOTES:

1. ALL ELEVATIONS ARE IN FEET AND REFER TO NAVD' 88
2. DREDGE BASELINE IS APPROXIMATE CENTERLINE OF EXISTING SOUTH JETTY

ATKINS

Sheet 20 of 22

Galveston Beach Nourishment Borrow Area Typical Sections

Permit SWG-2007-01025
Galveston Island Park Board of Trustees

Galveston, Galveston County, Texas

Job No.: 100054530

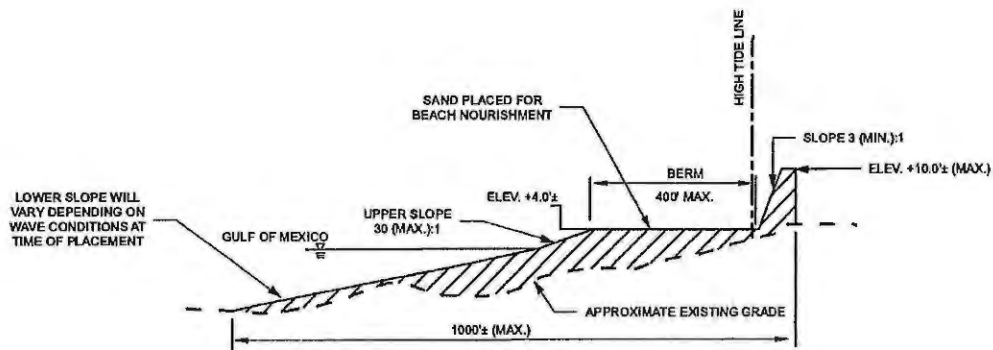
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Prepared By: ATKINS/WHIT6392

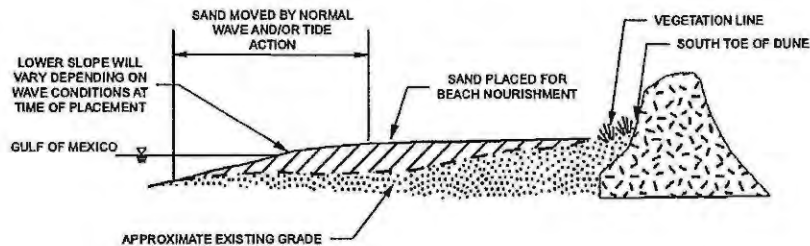
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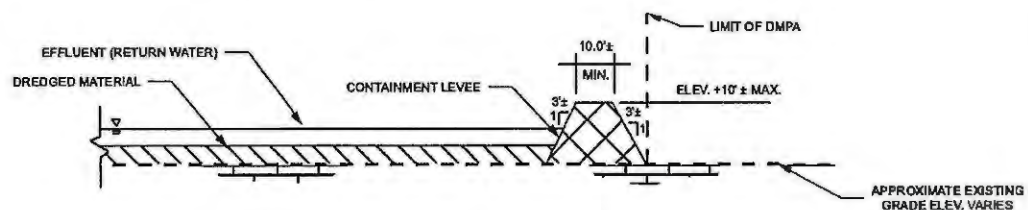
TYPICAL BEACH NOURISHMENT SECTION - DELLANERA



TYPICAL GALVESTON BEACH NOURISHMENT SECTION



TYPICAL SECTION - DMPA CONTAINMENT LEVEE



NOTES:

1. ALL ELEVATIONS ARE IN FEET AND REFER TO NAVD' 88

ATKINS

Sheet 21 of 22

Galveston Beach Nourishment
Typical Sections

Permit SWG-2007-01025
Galveston Island Park Board of Trustees

Galveston, Galveston County, Texas

Job No.: 100054530

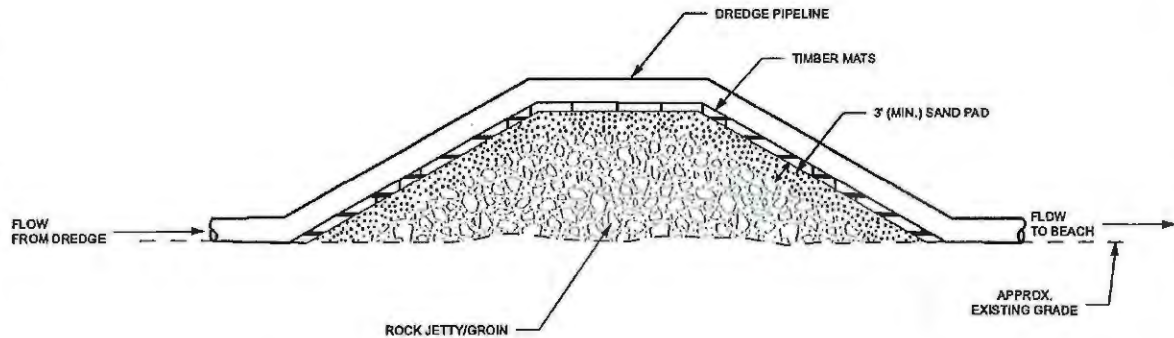
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Prepared By: ATKINS/WHIT6392

Date: Dec 06, 2017

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TYPICAL SECTION - SOUTH JETTY/GROIN DREDGE PIPELINE CROSSING



NOTES:

1. AT SOUTH JETTY AND 10TH ST. GROIN, DREDGE PIPELINE SHALL BE ROUTED SO THAT JETTY/GROIN CROSSING OCCURS AT A LOCATION WHERE MINIMAL SAND PLACEMENT IS REQUIRED TO ACCOMPLISH 3' COVER. WHERE ADDITIONAL SAND IS NEEDED, IT MAY BE REDISTRIBUTED FROM NON-VEGETATED AREAS IMMEDIATELY ADJACENT TO CROSSING. SAND SHALL BE RETURNED TO ITS ORIGINAL LOCATION AT COMPLETION OF PROJECT.
2. WEST OF 10TH STREET, SOURCE OF MATERIAL FOR SAND PAD SHALL BE DREDGED MATERIAL FROM DESIGNATED BORROW AREAS. SAND SHALL BE GRADED WITHIN BEACH NOURISHMENT TEMPLATE AT PROJECT COMPLETION.

ATKINS

Sheet 22 of 22

Galveston Beach Nourishment
Jetty/Groin Crossing Typical Section

Permit SWG-2007-01025
Galveston Island Park Board of Trustees

Galveston, Galveston County, Texas

Job No.: 100054530

Scale: Not to scale

Prepared By: ATKINS/WHIT6392

Date: Dec 06, 2017

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