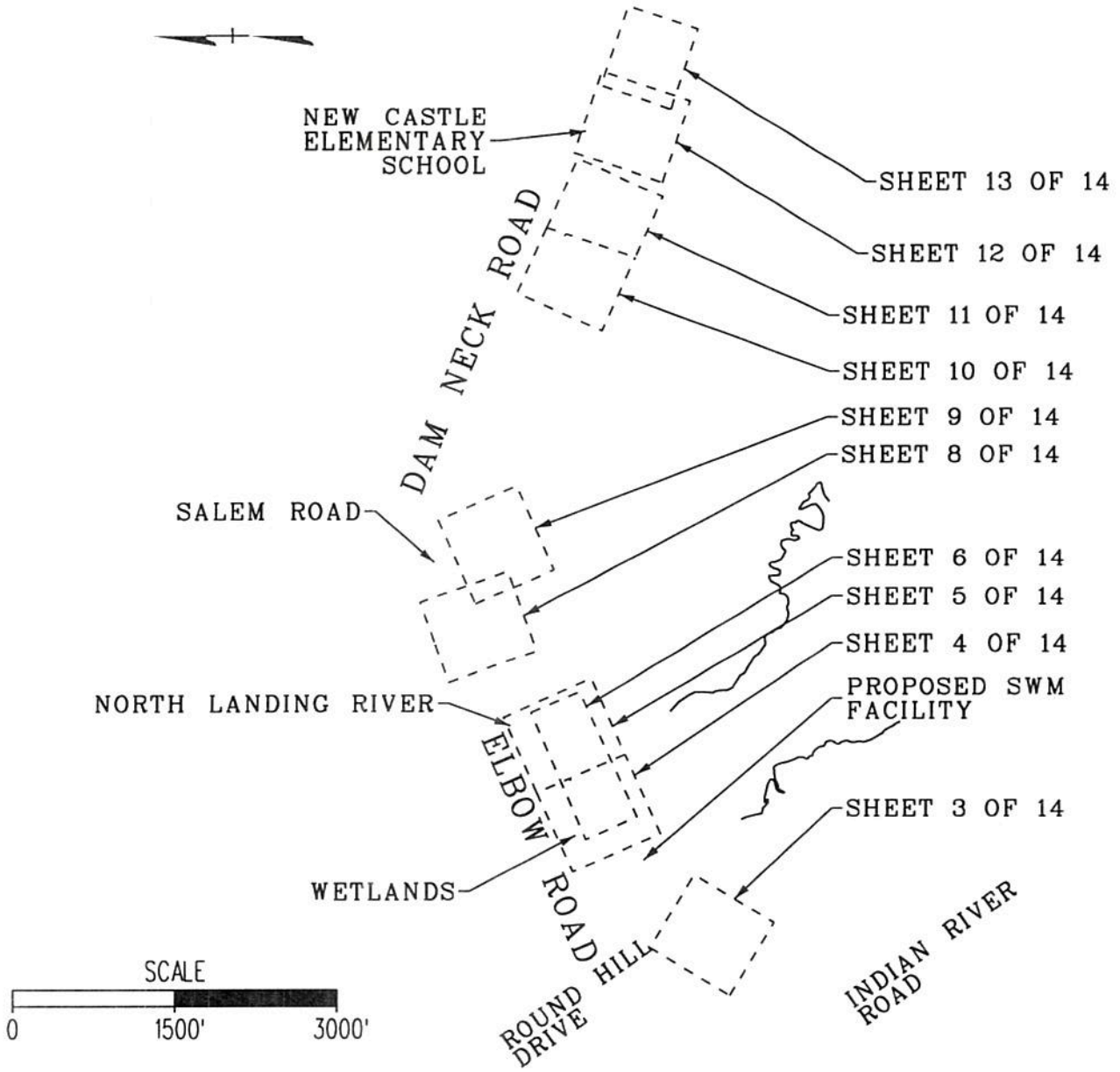
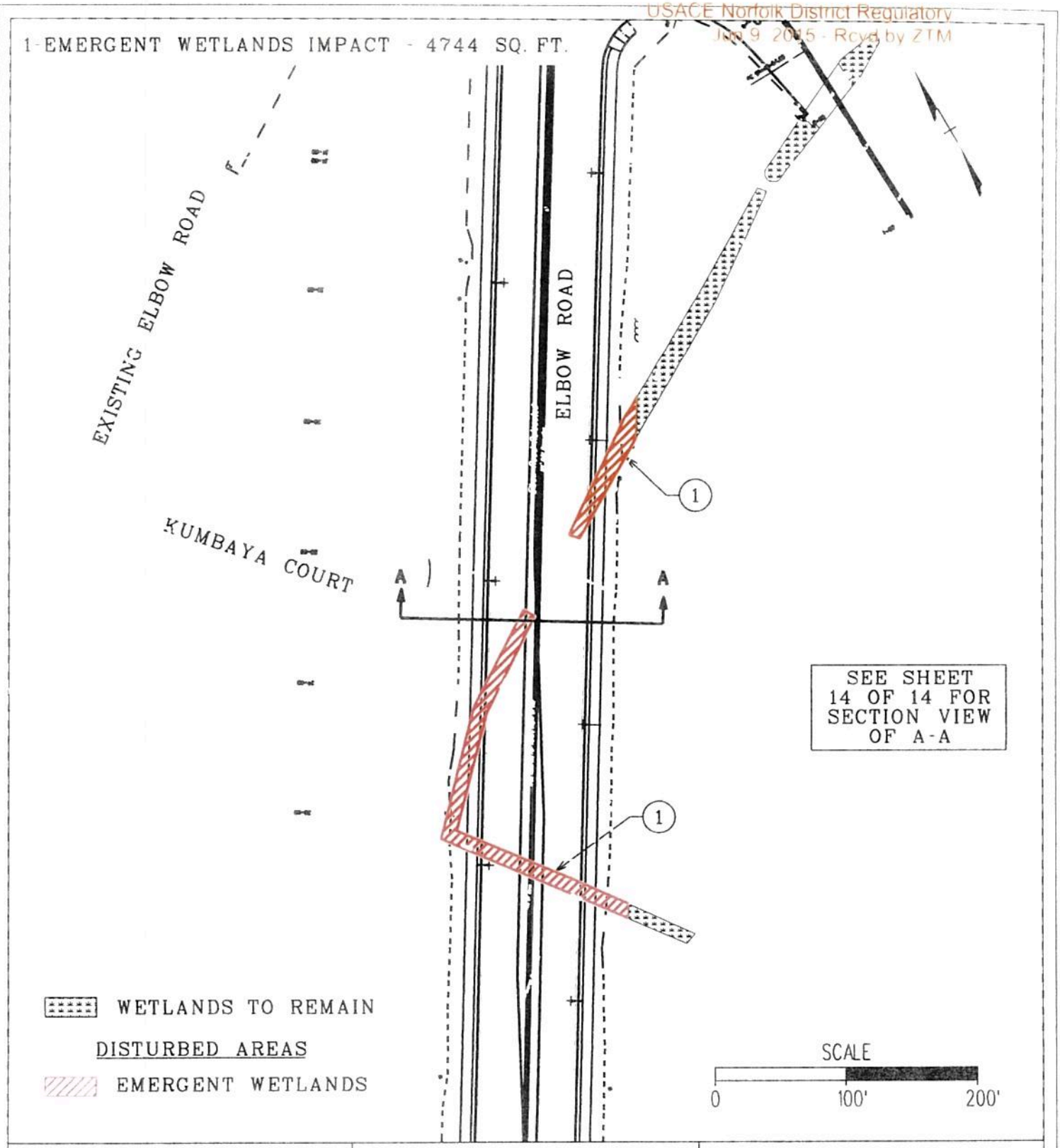
USACE Norfolk District Regulatory
Jun 9, 2015 Reviewed by ZTR

WETLAND TYPE	TEMPORARY	PERMANENT
CONVERSION (FORESTED-SCRUB SHRUB)	---	66230 SQ. FT.
WATERS OF U.S.	3983 SQ. FT.	2100 SQ. FT.
JURISDICTIONAL DITCH	---	10782 SQ. FT.
EMERGENT WETLANDS	---	7437 SQ. FT.
FORESTED WETLANDS	51698 SQ. FT.	30342 SQ. FT.



DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE • 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	INDEX MAP	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 2 OF 14

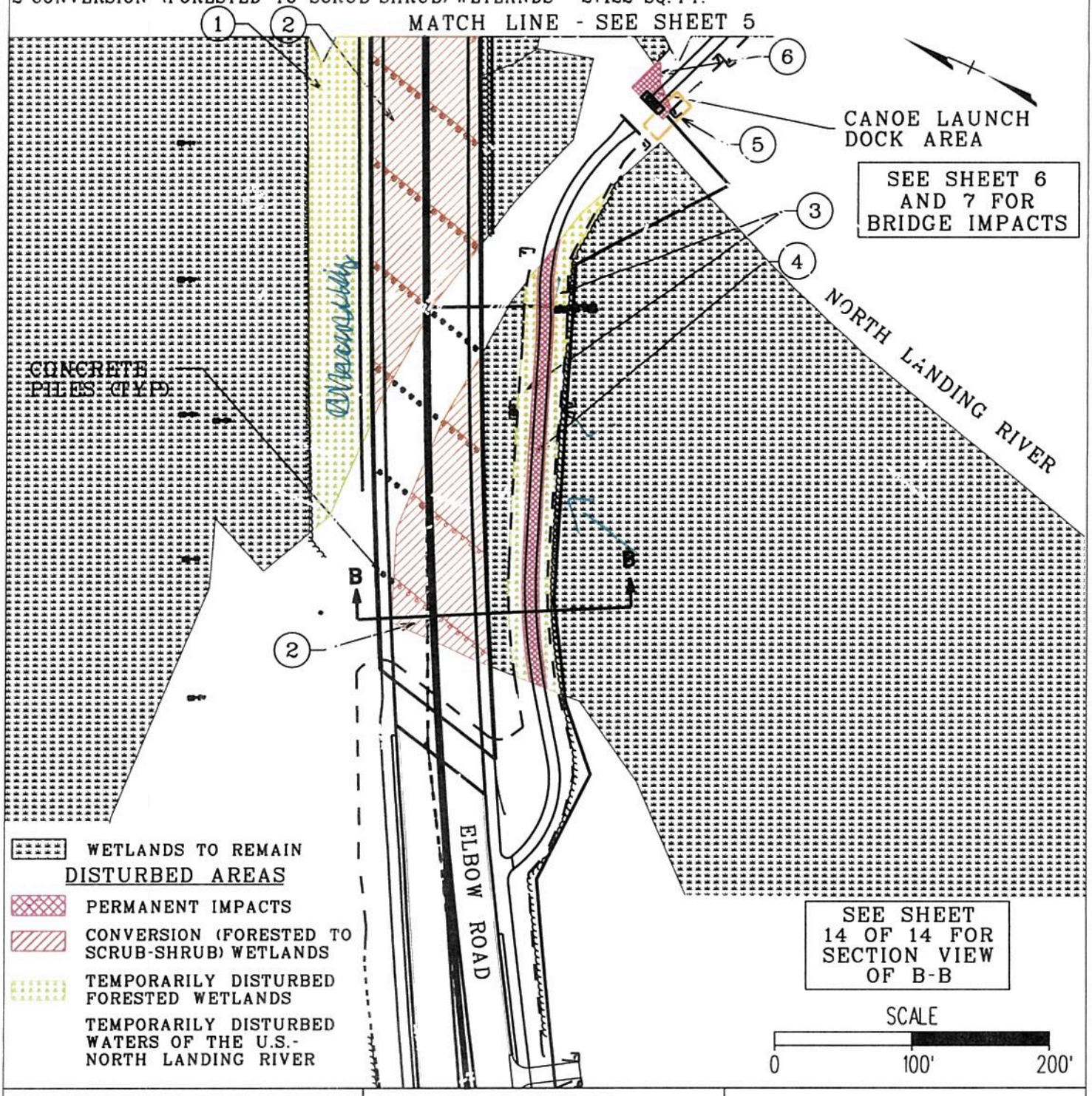
USACE Norfolk District Regulatory
Jun 9 2015 - Rcvd by ZTM



DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE = 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	ELBOW ROAD	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 3 OF 14

USACE Norfolk District Regulatory
JUN 9 2015 RECEIVED ZTM

1-TEMP. FORESTED WETLANDS IMPACT - 14800 SQ. FT.
3-TEMP. FORESTED WETLANDS IMPACT - 6562 SQ. FT.
4-PERM. FORESTED WETLANDS IMPACT - 3823 SQ. FT.
2-CONVERSION (FORESTED TO SCRUB-SHRUB) WETLANDS - 27122 SQ. FT.
5-TEMP. WATERS OF THE U.S. IMPACT - 517 SQ. FT.
6-PERM. WATERS OF THE U.S. IMPACT - 566 SQ. FT.



DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE • 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	ELBOW ROAD PROPOSED IMPACTS- PLAN VIEW	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 4 OF 14

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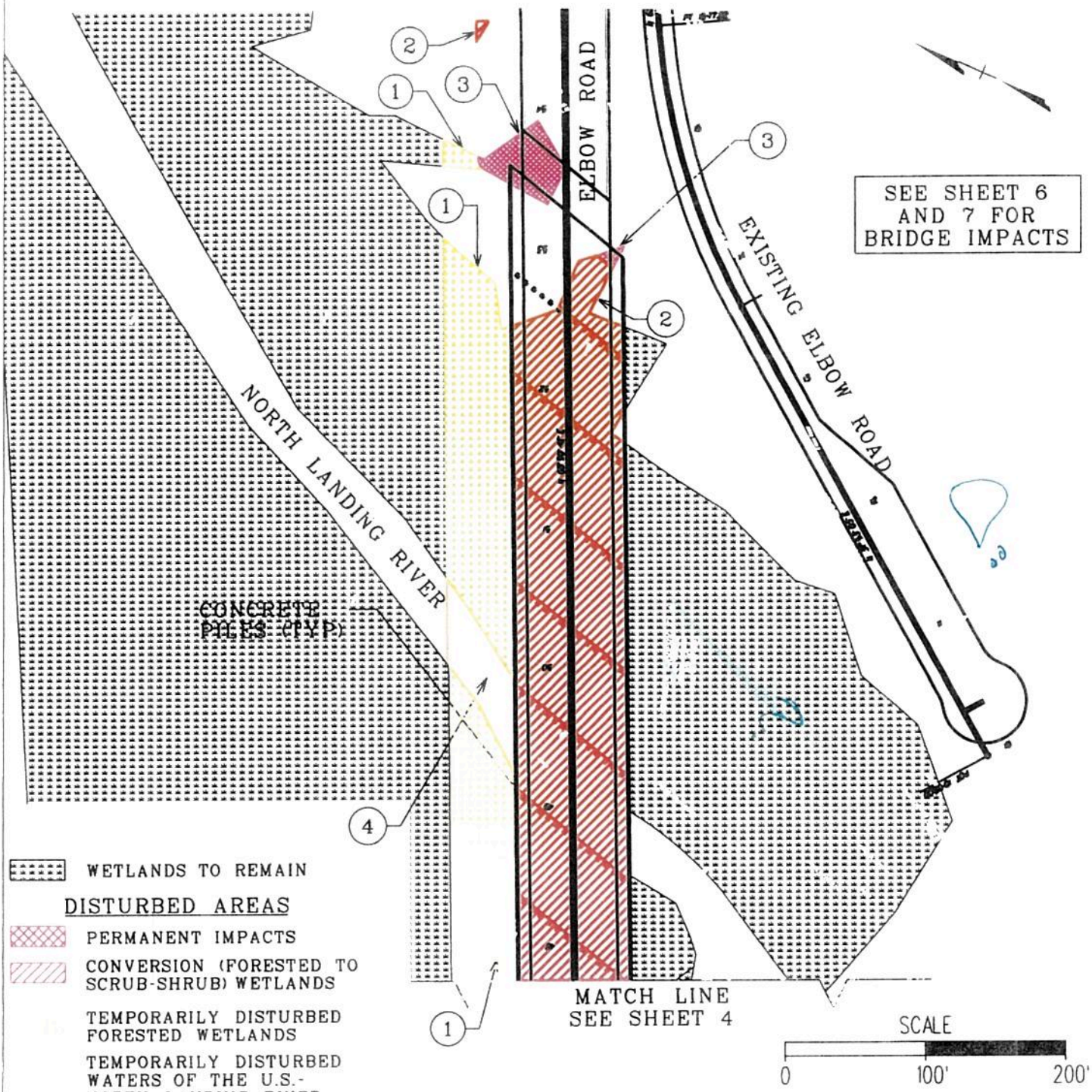
1-TEMP. FORESTED WETLANDS IMPACT - 21583 SQ. FT.
3-PERM. FORESTED WETLANDS IMPACT - 2061 SQ. FT.
4-TEMP. WATERS OF THE U.S. IMPACTS - 2953 SQ. FT.

2-CONVERSION (FORESTED TO SCRUB-SHRUB) WETLANDS - 39108 SQ. FT.



DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE * 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	ELBOW ROAD PROPOSED IMPACTS-PLAN VIEW	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 5 OF 14

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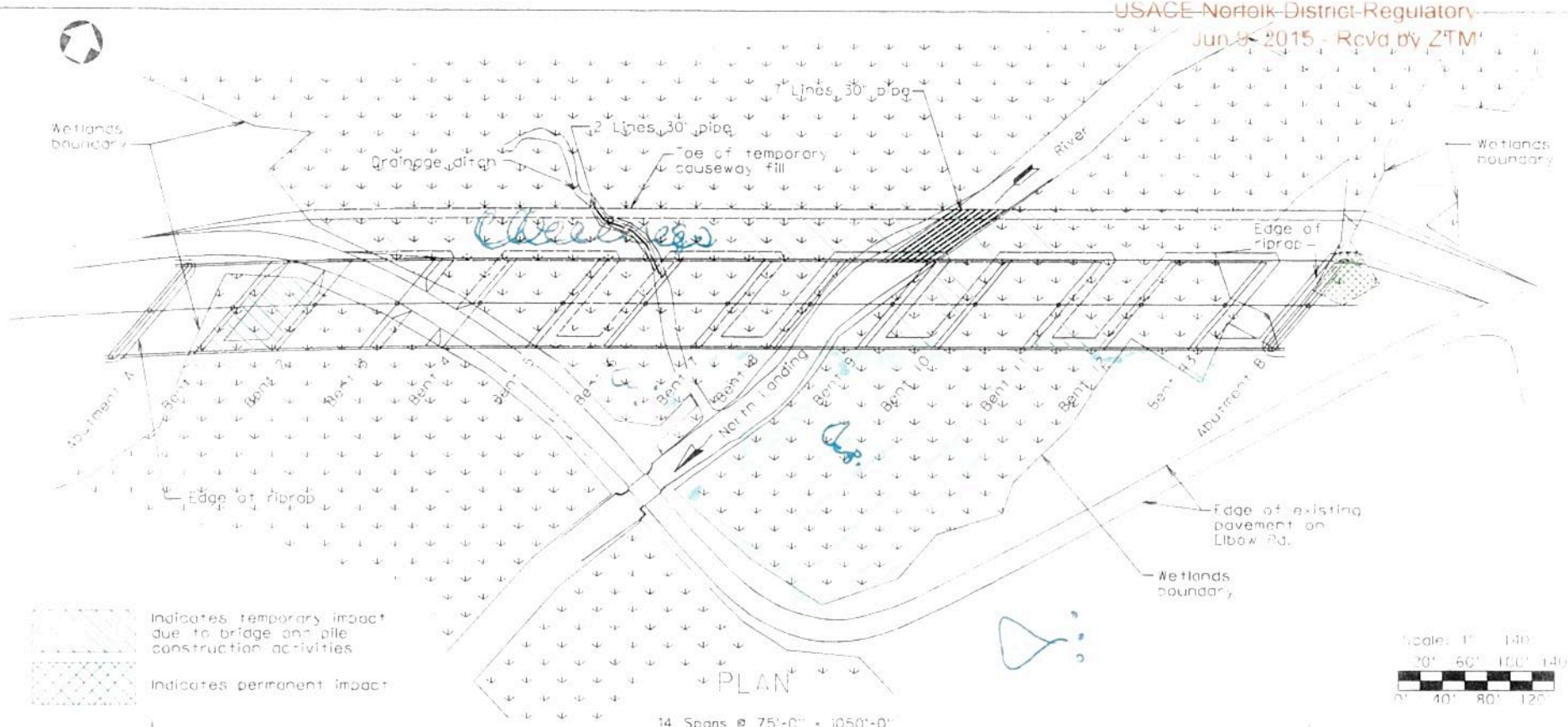

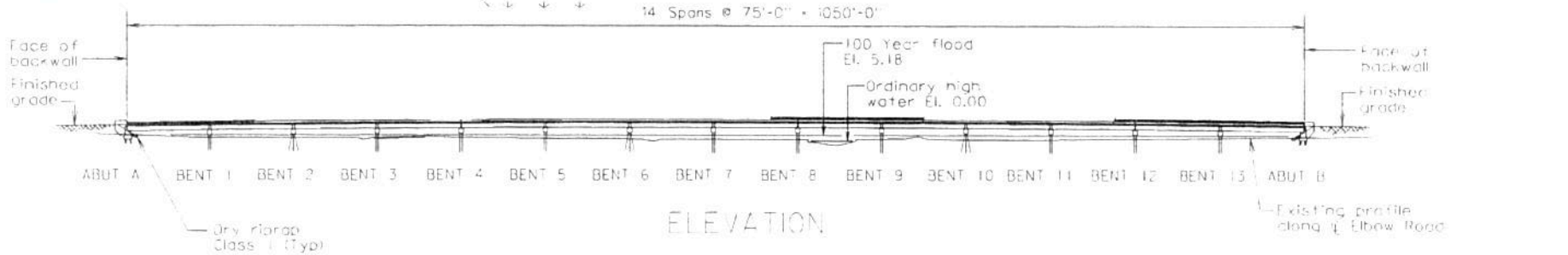

Notes:

1. For causeway quantities see sheet 7.
2. For causeway part plan see sheet 7.

DATUM: NAVD 88

ADJACENT PROPERTY OWNERS: SEE ATTACHED

APPLICANT: CITY OF VIRGINIA BEACH

ELBOW ROAD PHASE II EXTENSION PROJECT

TEMPORARY CAUSEWAY PLAN

CLARK•NEXSEN
4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA

IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE = 03010205

CITY: VIRGINIA BEACH

DATE: MAY 13, 2015

SHEET 6 OF 14

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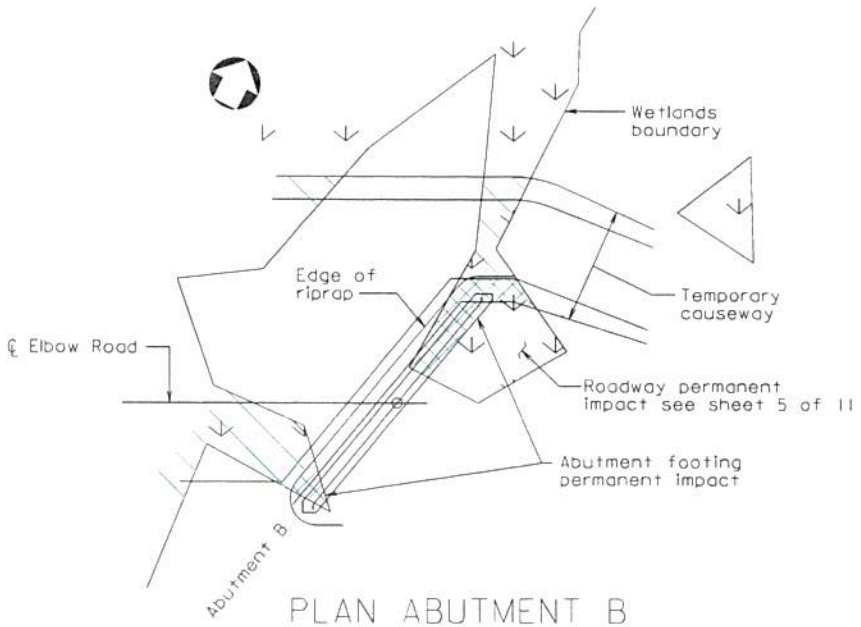
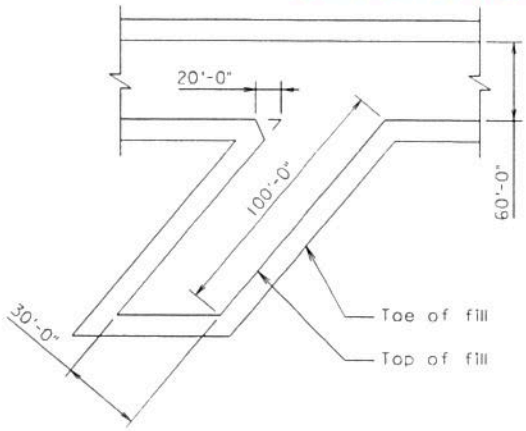


PLAN ABUTMENT B
Not to Scale



CAUSEWAY PART PLAN
Not to Scale

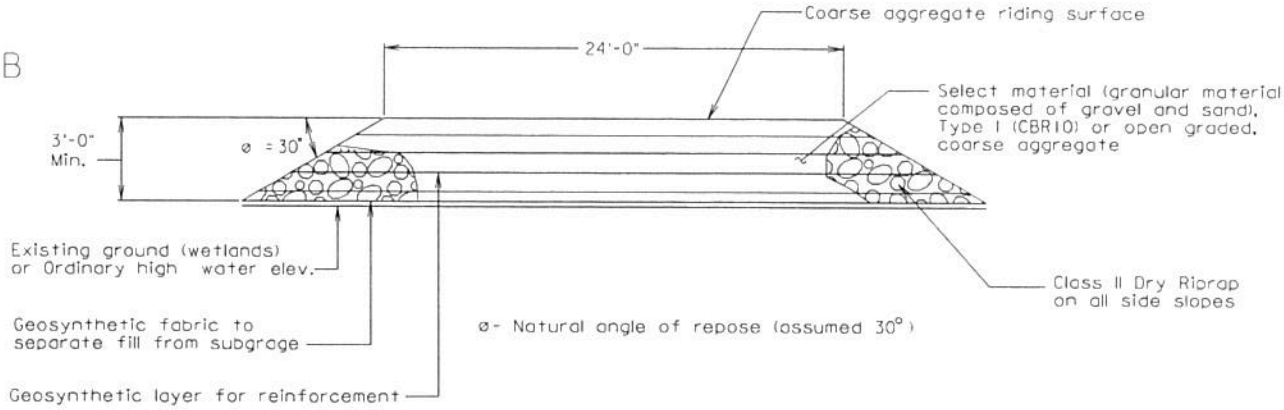
TEMPORARY IMPACT TO WETLANDS
CAUSEWAY QUANTITIES

AREA	VOLUME
66,712.0 SF	10,089.0 CY

Note:
Quantities indicated for the causeway are only for that portion located inside the wetland boundary indicated on plan.

ABUTMENT FOOTING
PERMANENT IMPACT TO WETLANDS

	AREA
Abutment B	806.0 SF
Concrete piles	624.0 SF



TYPICAL TEMPORARY CAUSEWAY CROSS SECTION
Not to Scale

Indicates temporary impact due to bridge and pile construction activities

Indicates permanent impact

DATUM: NAVD 88

ADJACENT PROPERTY OWNERS: SEE ATTACHED

APPLICANT: CITY OF VIRGINIA BEACH

ELBOW ROAD PHASE II EXTENSION PROJECT

CAUSEWAY DETAILS

CLARK•NEXSEN
4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA

IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE * 03010205

CITY: VIRGINIA BEACH

DATE: MAY 13, 2015

SHEET 7 OF 14

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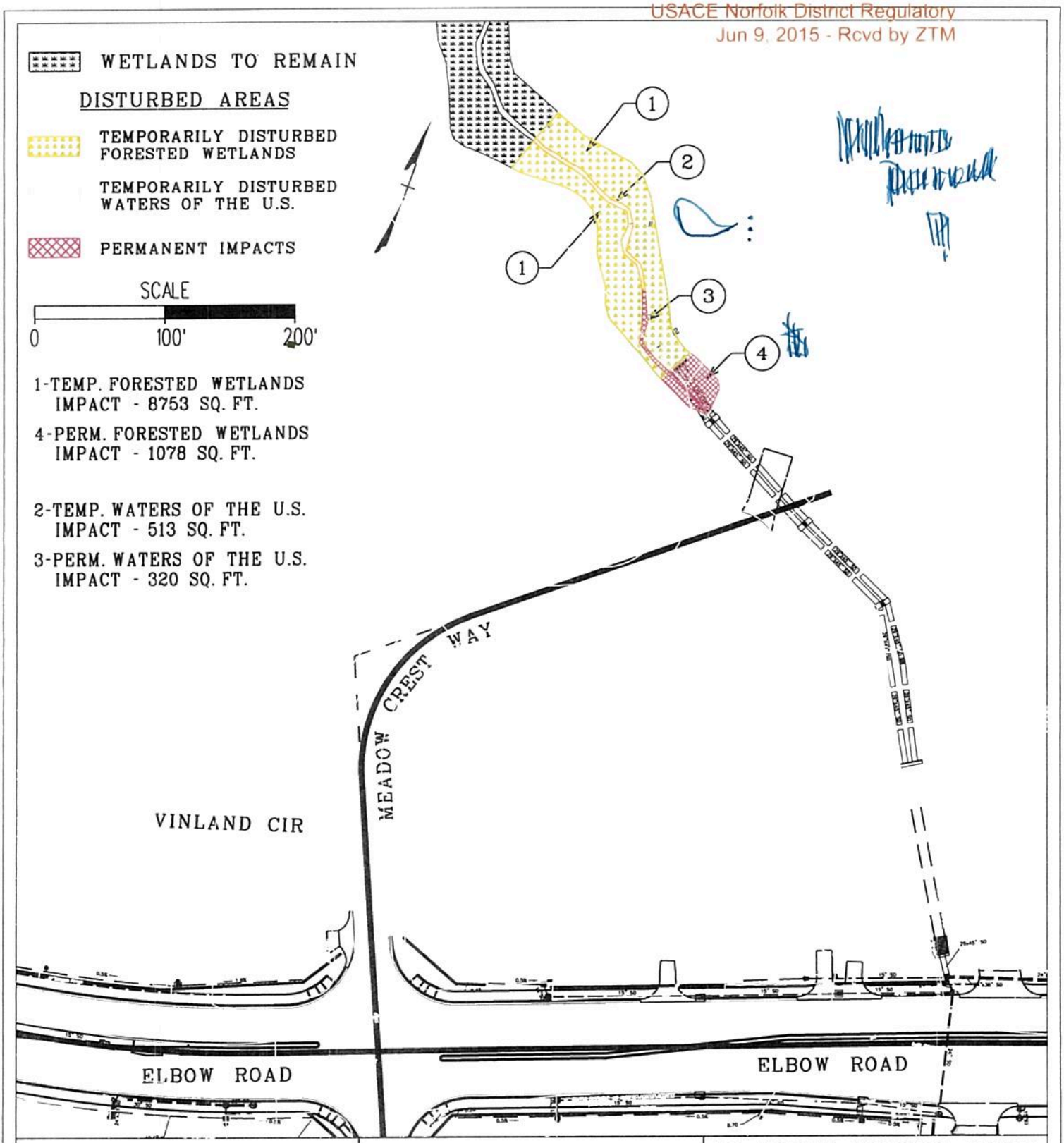

DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE • 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	WATT'S PARCEL DITCH	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 8 OF 14

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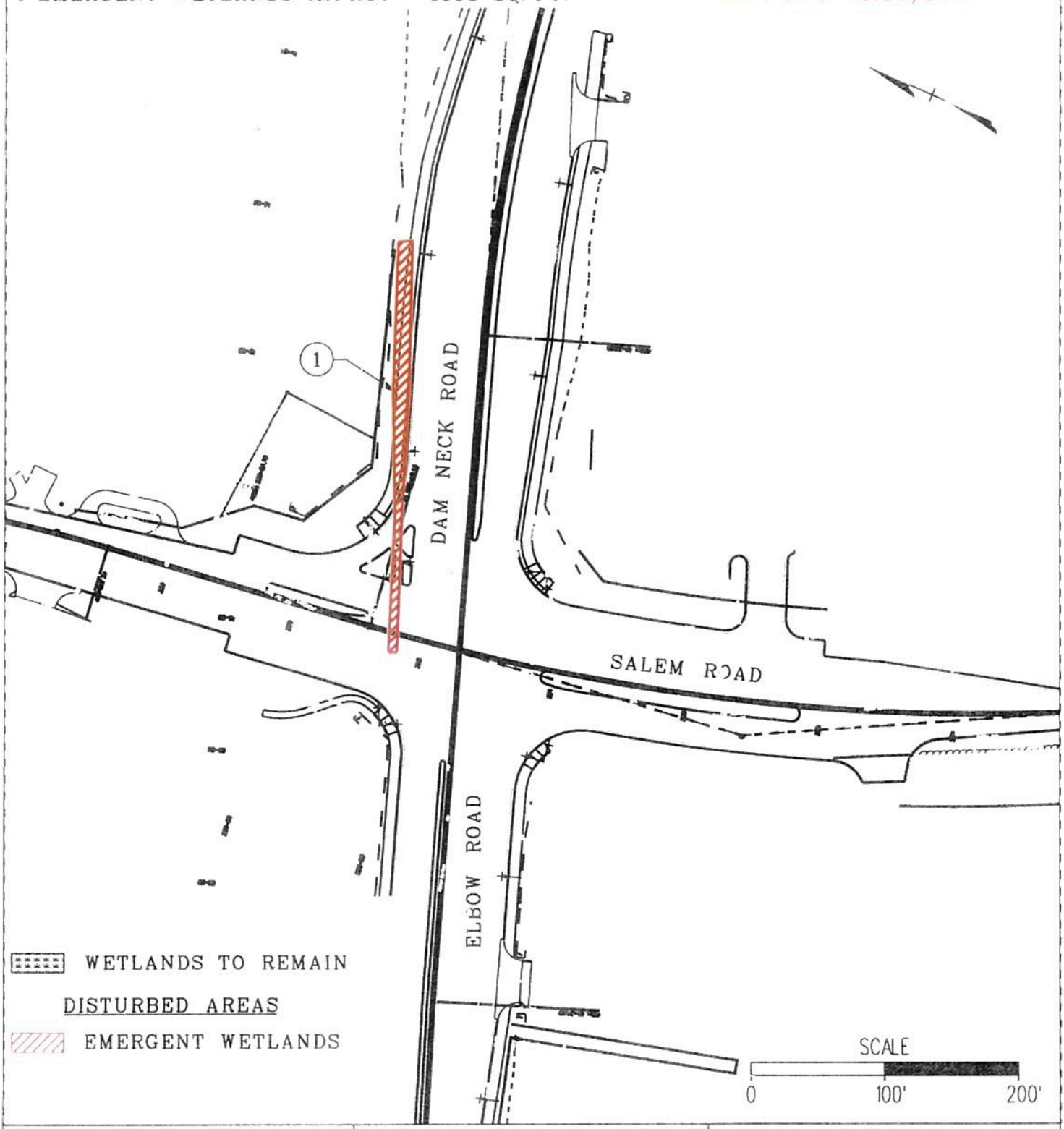

DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE * 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	DAM NECK AND SALEM ROAD	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 9 OF 14

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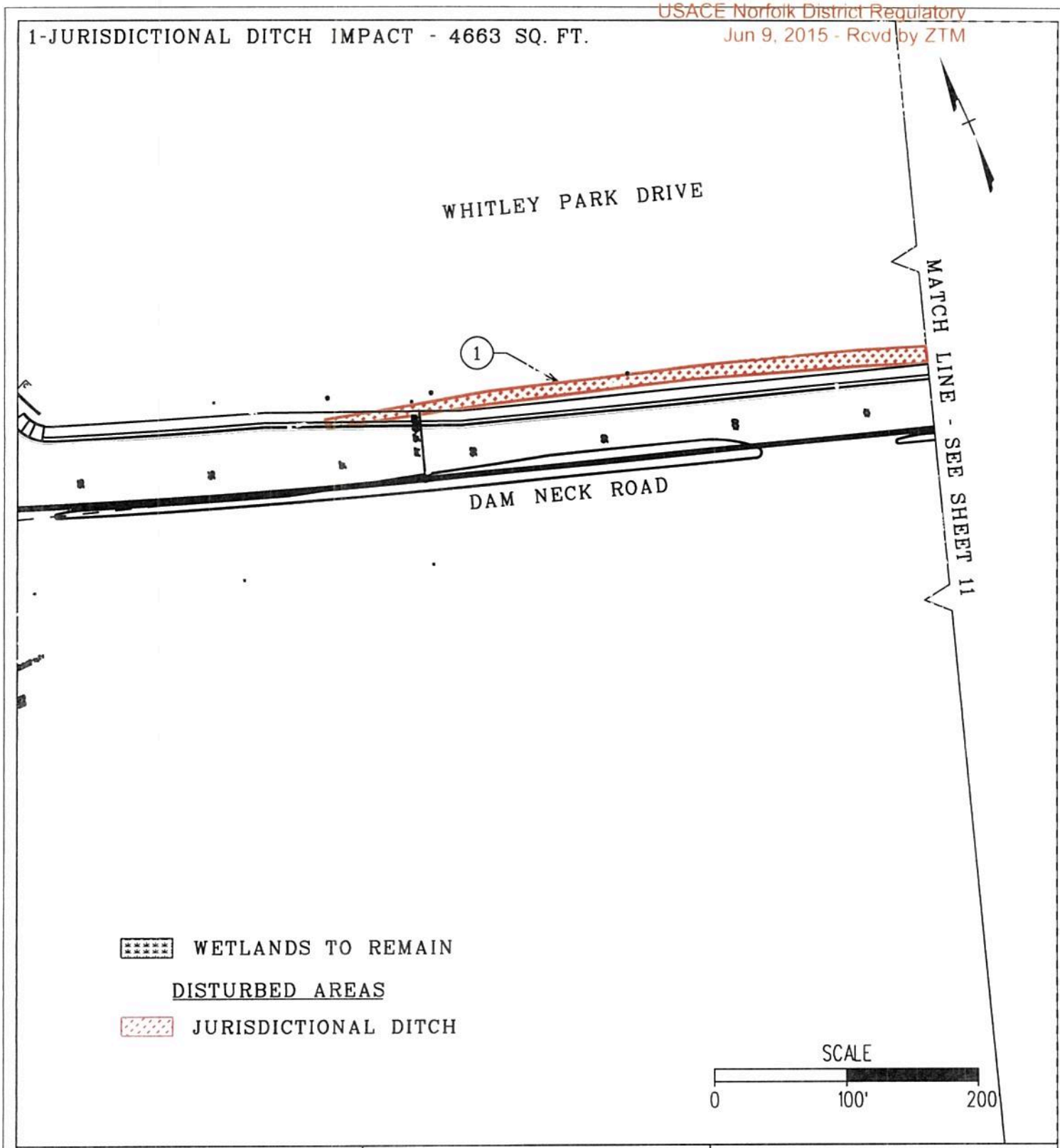
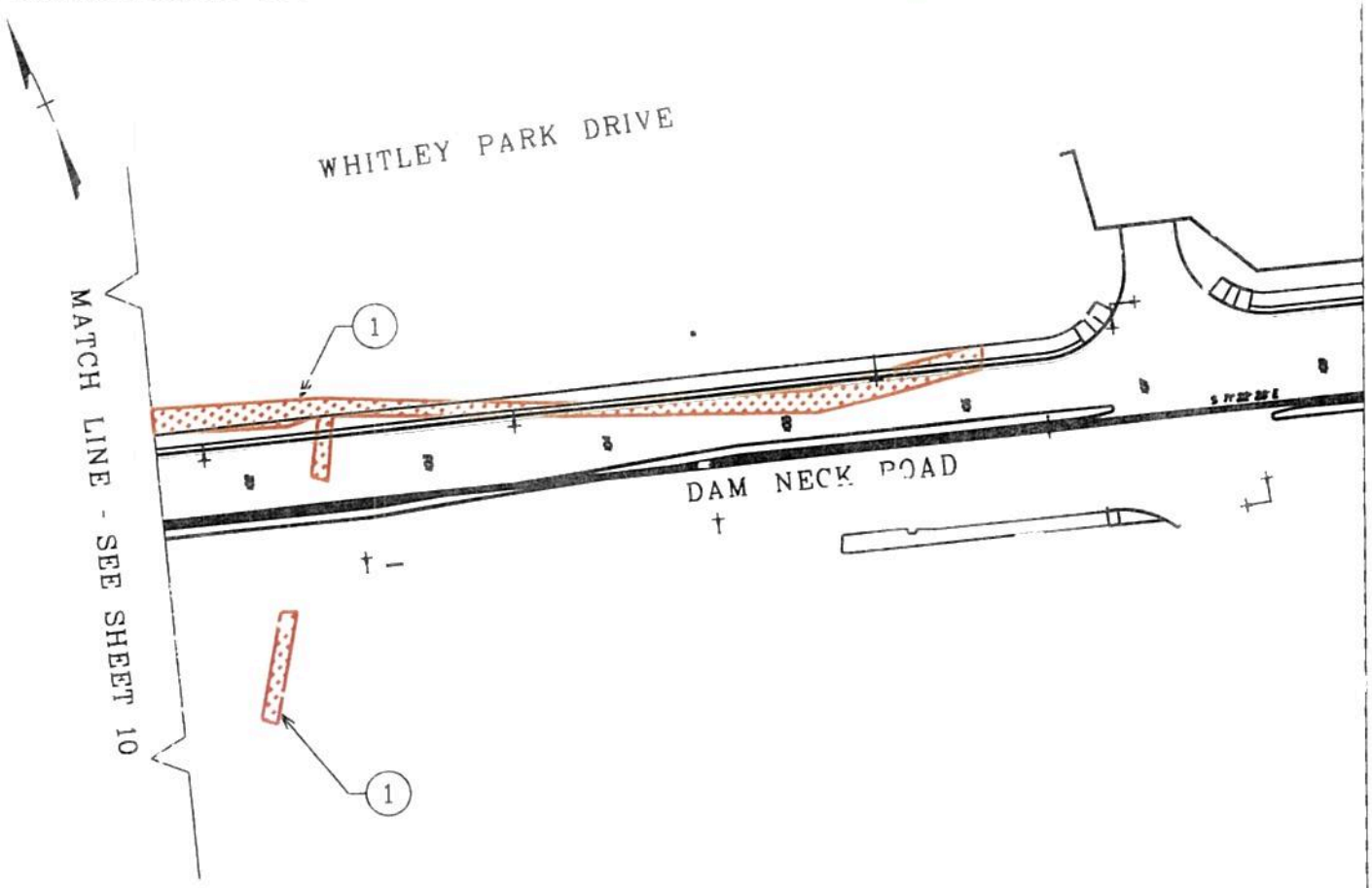


DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE • 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	DAM NECK ROAD PROPOSED IMPACTS- PLAN VIEW	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 10 OF 14

USACE Norfolk District Regulatory
Jun 9 2015 - Rcvd by ZTM

1-JURISDICTIONAL DITCH IMPACT - 6119 SQ. FT.



WETLANDS TO REMAIN

DISTURBED AREAS

JURISDICTIONAL DITCH

SCALE
0 100' 200'

DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE * 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	DAM NECK ROAD PROPOSED IMPACTS- PLAN VIEW	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 11 OF 14

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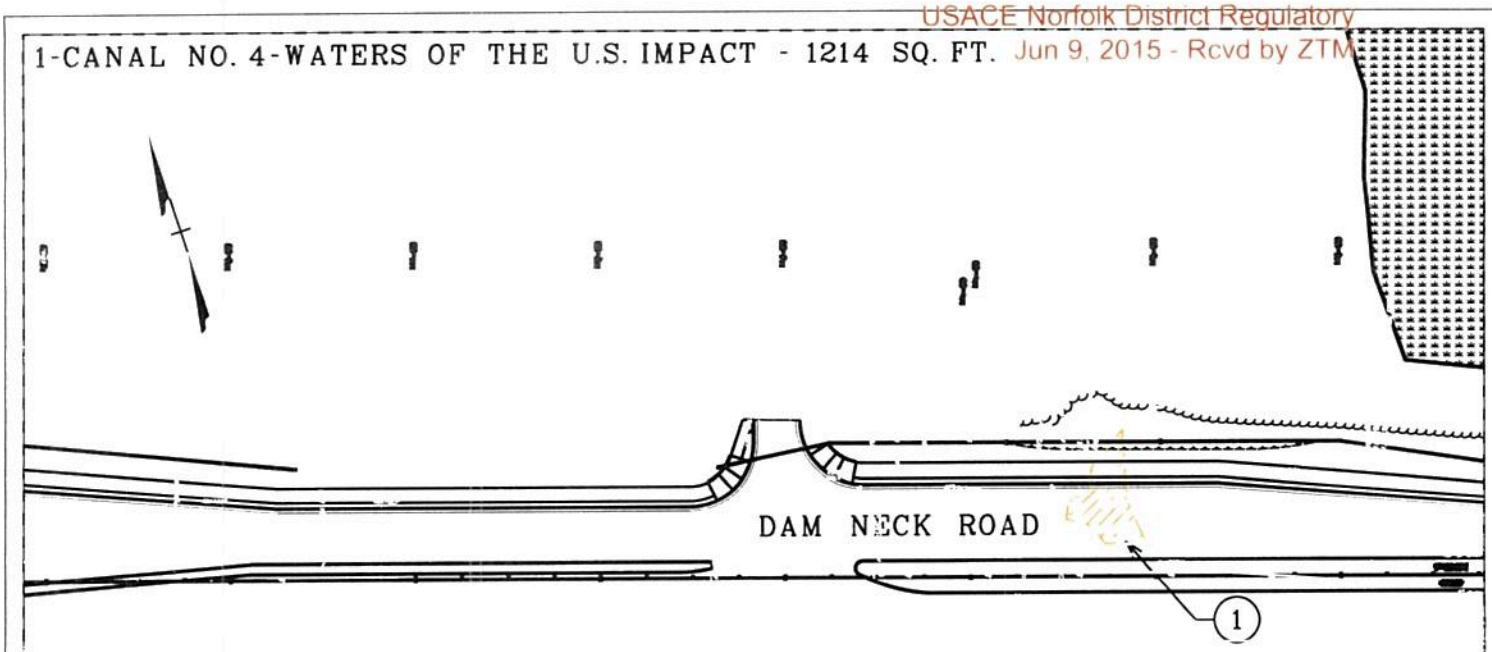
USACE Norfolk District Regulatory

1-CANAL NO. 4-WATERS OF THE U.S. IMPACT - 1214 SQ. FT. Jun 9, 2015 - Rcvd by ZTM



WETLANDS TO REMAIN

DISTURBED AREAS

CANAL NO. 4 - WATERS OF THE U.S.

SCALE
0 100' 200'

DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE * 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	DAM NECK ROAD PLAN AT CANAL NO. 4	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 12 OF 14

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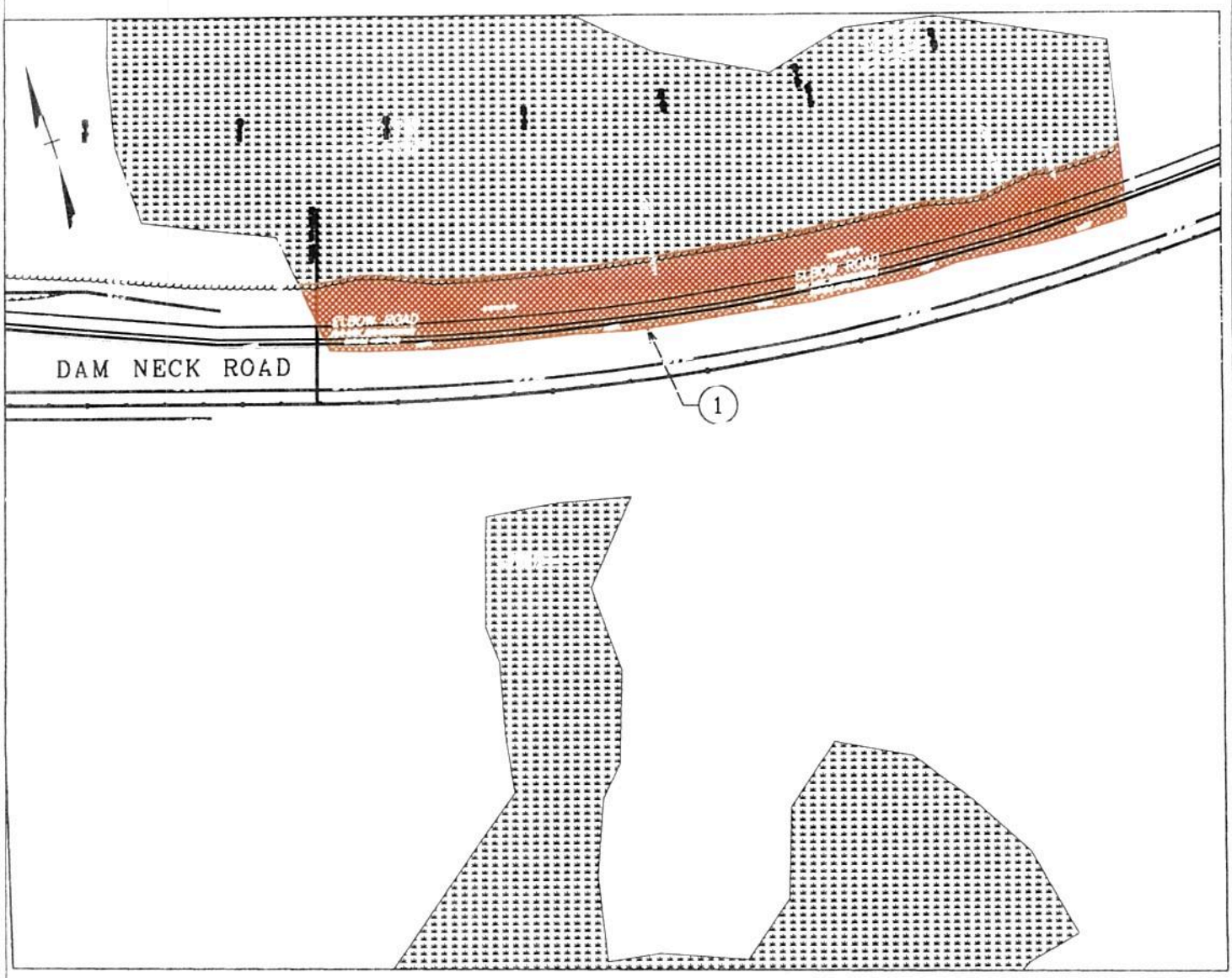
Jun 9 2015 Rcvd by ZTM

1-PERM. FORESTED WETLANDS IMPACT - 23380 SQ. FT.



WETLANDS TO REMAIN

DISTURBED AREAS

PERMANENT IMPACTS

SCALE
0 100' 200'

DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE * 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	DAM NECK ROAD PLAN AT JURISDICTIONAL WETLANDS PREVIOUSLY VERIFIED BY COE	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 13 OF 14

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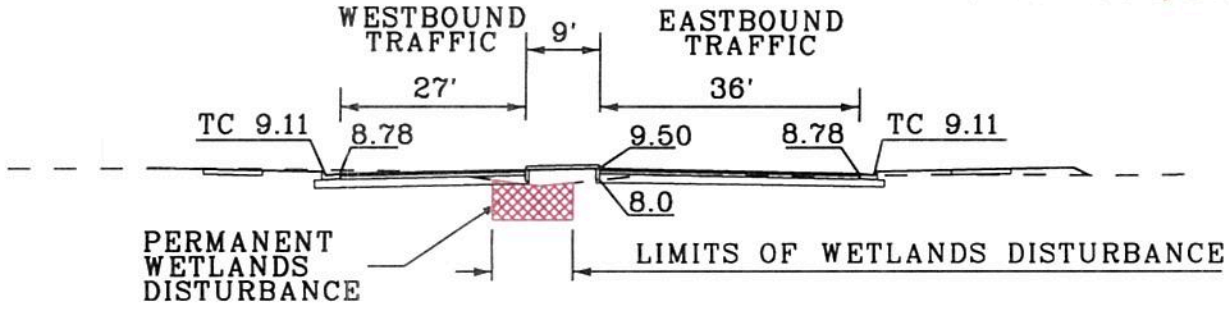
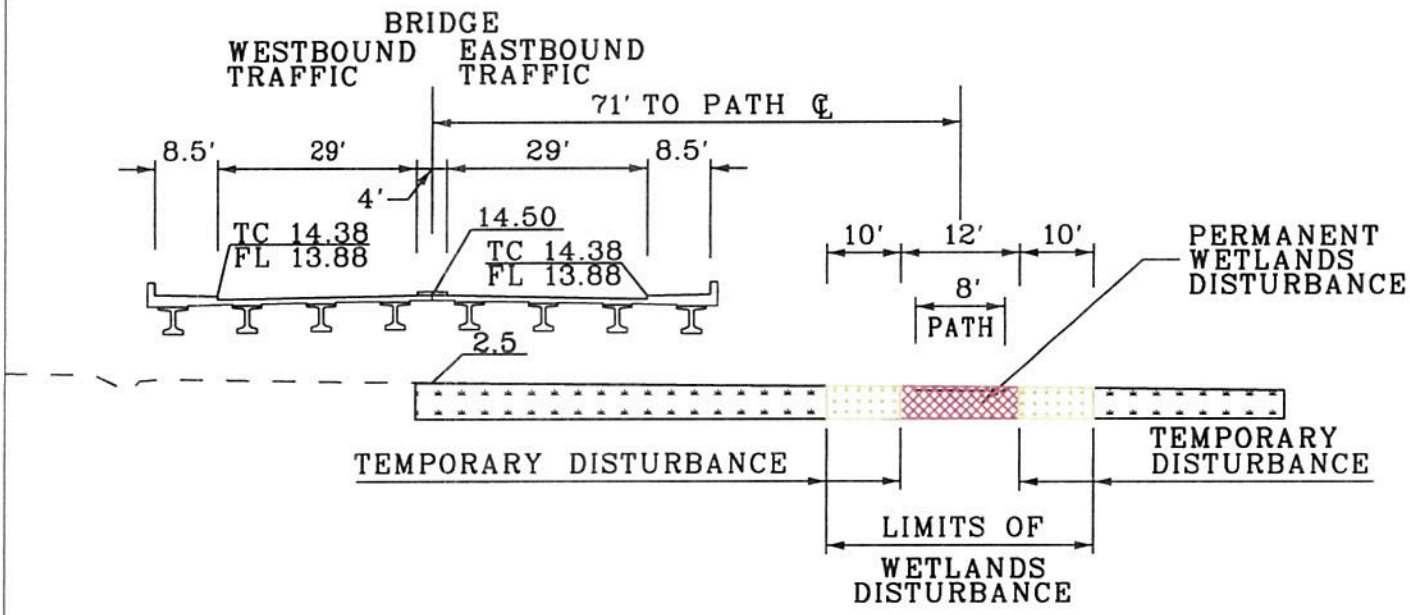


SECTION A-A



SECTION B-B

WETLANDS TO REMAIN

DISTURBED AREAS

PERMANENT IMPACTS

TEMPORARILY DISTURBED FORESTED WETLANDS

SCALE
0 25' 50'

DATUM: NAVD 88	ELBOW ROAD PHASE II EXTENSION PROJECT	IN: NORTH LANDING RIVER WATERSHED - HYDROLOGIC UNIT CODE • 03010205
ADJACENT PROPERTY OWNERS: SEE ATTACHED	SECTIONS	CITY: VIRGINIA BEACH
APPLICANT: CITY OF VIRGINIA BEACH	CLARK•NEXSEN 4525 MAIN STREET, SUITE 1400 VIRGINIA BEACH, VIRGINIA	DATE: MAY 13, 2015 SHEET 14 OF 14