



**HARPER ESTUARY
RESTORATION
PROJECT
~ PHASE 1 ~**

LOCATION MAP

N.T.S.



VICINITY MAP

N.T.S.

Section 2, Township 23N, Range 2E
Kitsap County



SITE MAP

N.T.S.

Lat: 47° 31' 01" N
Long: -122° 31' 01" E

NOTES:

1. As part of the Harper Estuary Restoration Project Phase 1, the proposal will restore tidal geometry and habitat process to this pocket estuary currently affected by historic fill and undersized culverts.

This includes restoring historical estuarine areas, restoring tidal hydrology, restoring nearshore beach processes, and removing a fish passage barrier.

SITE DIRECTIONS:

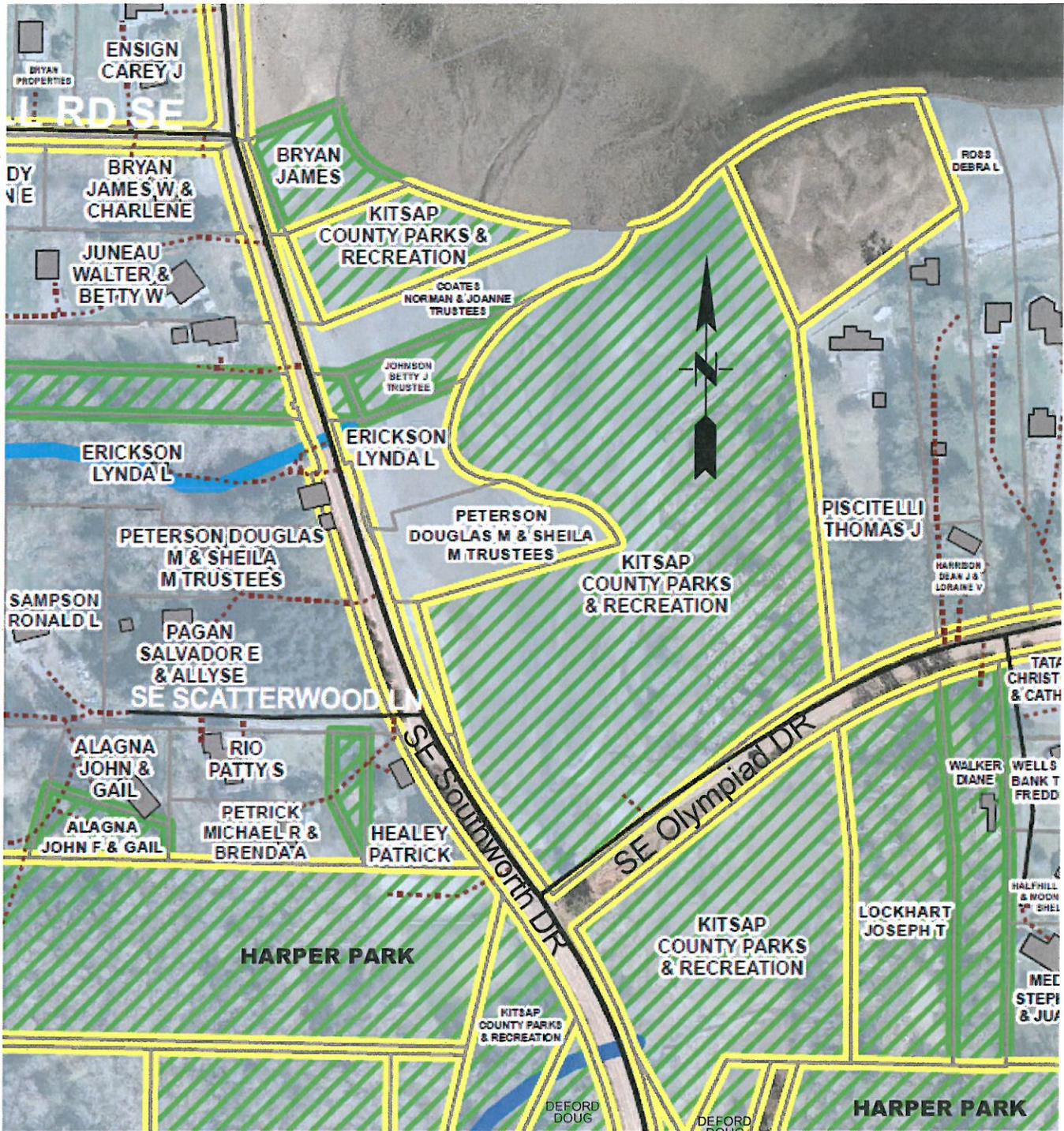
Harper Estuary is approx 1.3 miles NW of Southworth and 5.5 miles east of Port Orchard in Kitsap County, WA.

From HWY 16 @ mp 25 North take WA-160 E SE Sedgwick RD. Follow 4.8 miles to SE Southworth DR. Continue 1 mile± on SE Southworth DR to Harper Estuary

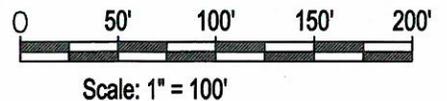
PURPOSE: RESTORE ESTUARY FUNCTIONS	REFERENCE NO:
PROPOSAL: SEE NOTE 1 THIS SHEET	APPLICANT: WDFW
LOCATION: INT OF OLYMPIAD & SOUTHWORTH	COUNTY: KITSAP
DATUM: NGVD 29	NEAR: SOUTHWORTH
ADJ PROPERTY OWNERS: SEE SHEET 2	WATER BODY: YUKON HARBOR
	DATE: SEPTEMBER 2015



HARPER ESTUARY - ADJACENT PROPERTY OWNERS



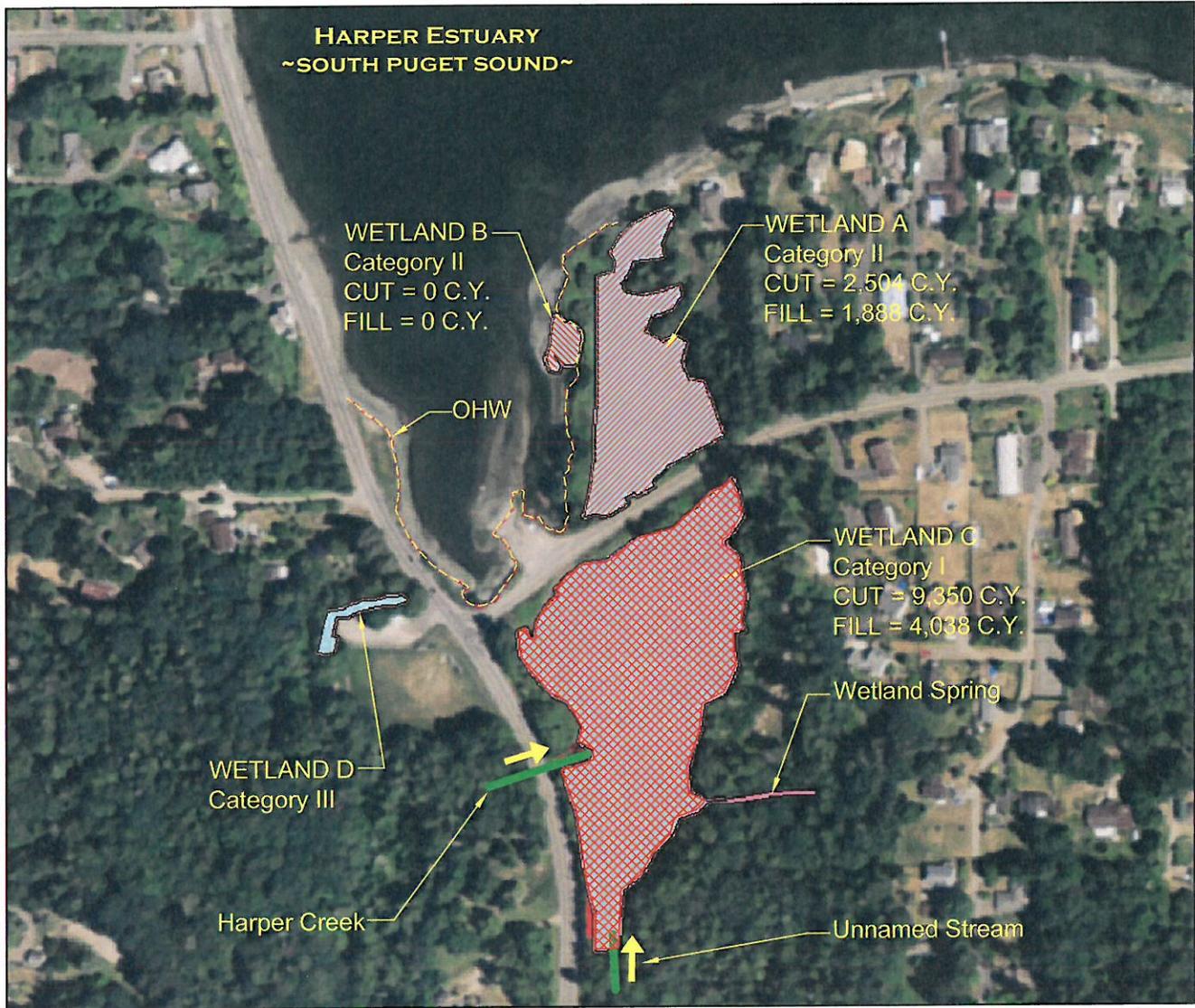
Ownership parcels shown from Kitsap County GIS - December 30, 2013



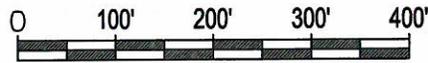
PURPOSE: RESTORE ESTUARY FUNCTIONS	REFERENCE NO:	 Washington Department of FISH and WILDLIFE
PROPOSAL: SEE NOTE 1 SHEET 1	APPLICANT: WDFW	
LOCATION: INT OF OLYMPIAD & SOUTHWORTH	COUNTY: KITSAP	
DATUM: NGVD 29	NEAR: SOUTHWORTH	
ADJ PROPERTY OWNERS: SEE ABOVE	WATER BODY: YUKON HARBOR	
	DATE: SEPTEMBER 2015	SHEET 2 of 12

HARPER ESTUARY - PLAN VIEW

WETLANDS & TIDAL WATERS



Wetland delineation as shown provided as part of GeoEngineers, Inc.
"Wetland and Stream Delineation Report, June 12, 2015



Scale: 1" = 200'

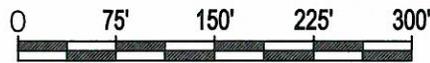


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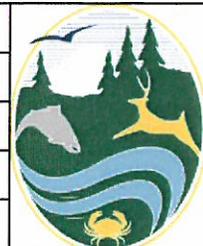
HARPER ESTUARY - DESIGN PROPOSAL OVERVIEW



Scale: 1" = 150'

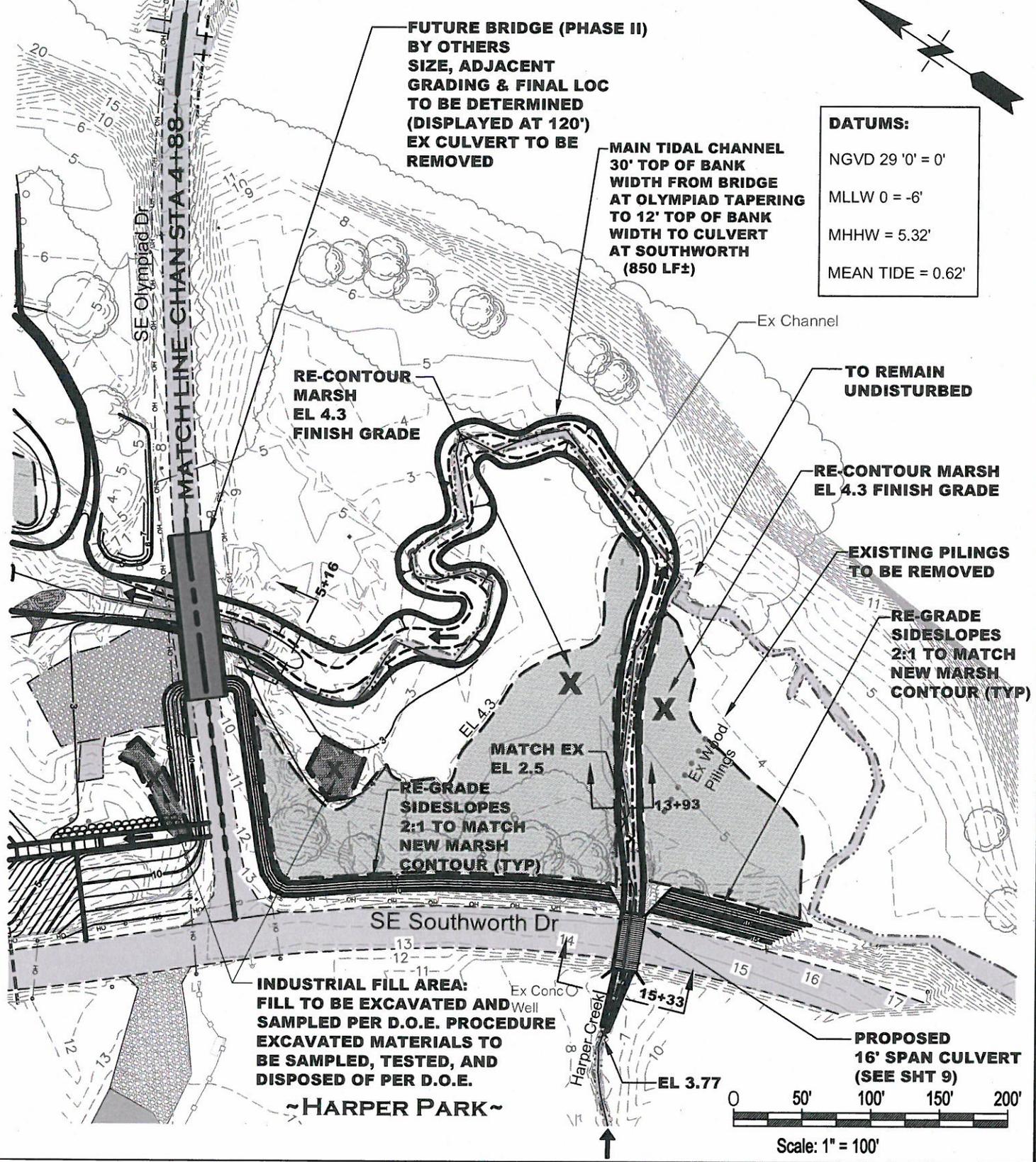


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HARPER ESTUARY - SITE PLAN 1 of 2

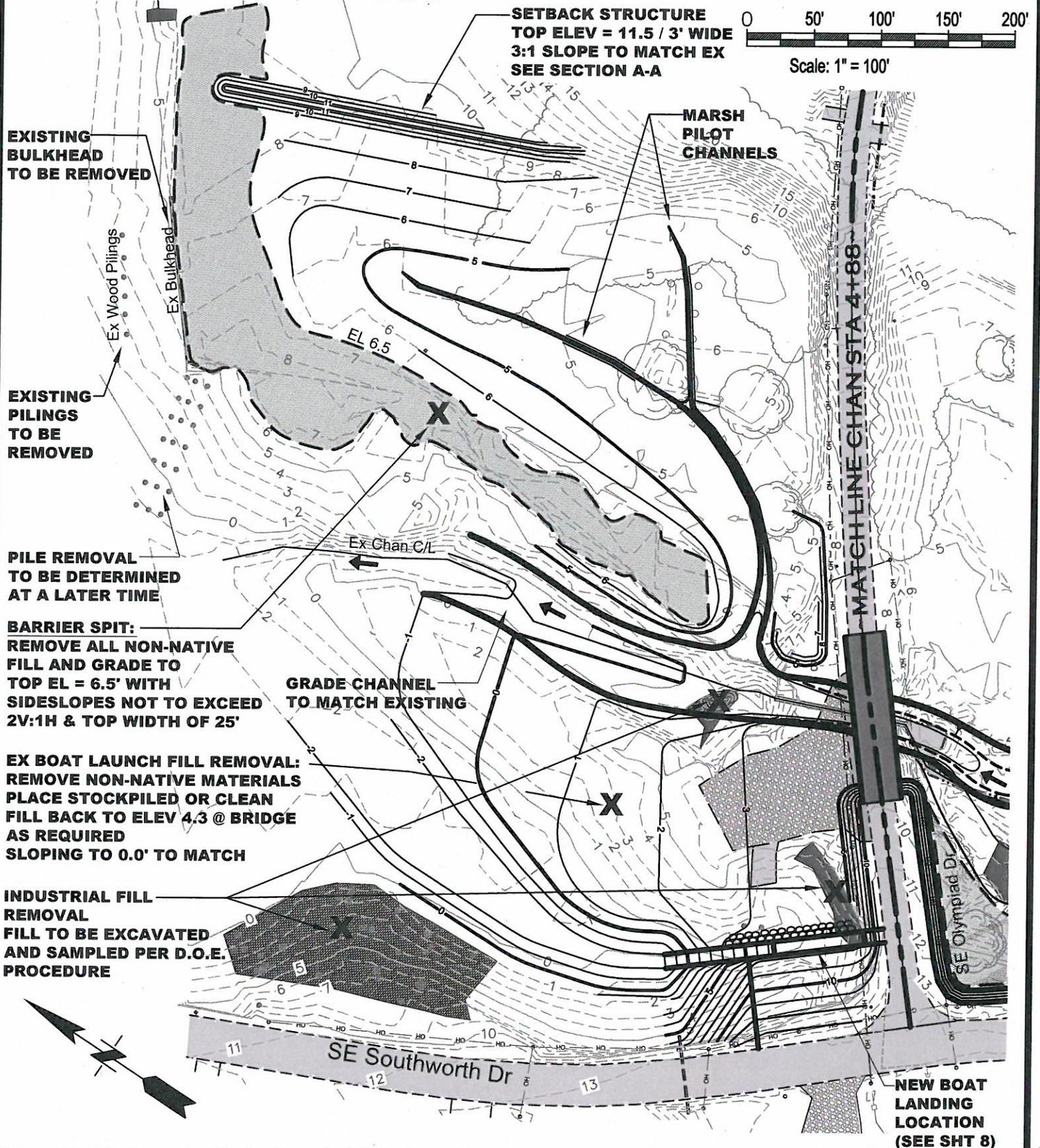


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HARPER ESTUARY - SITE PLAN 2 of 2



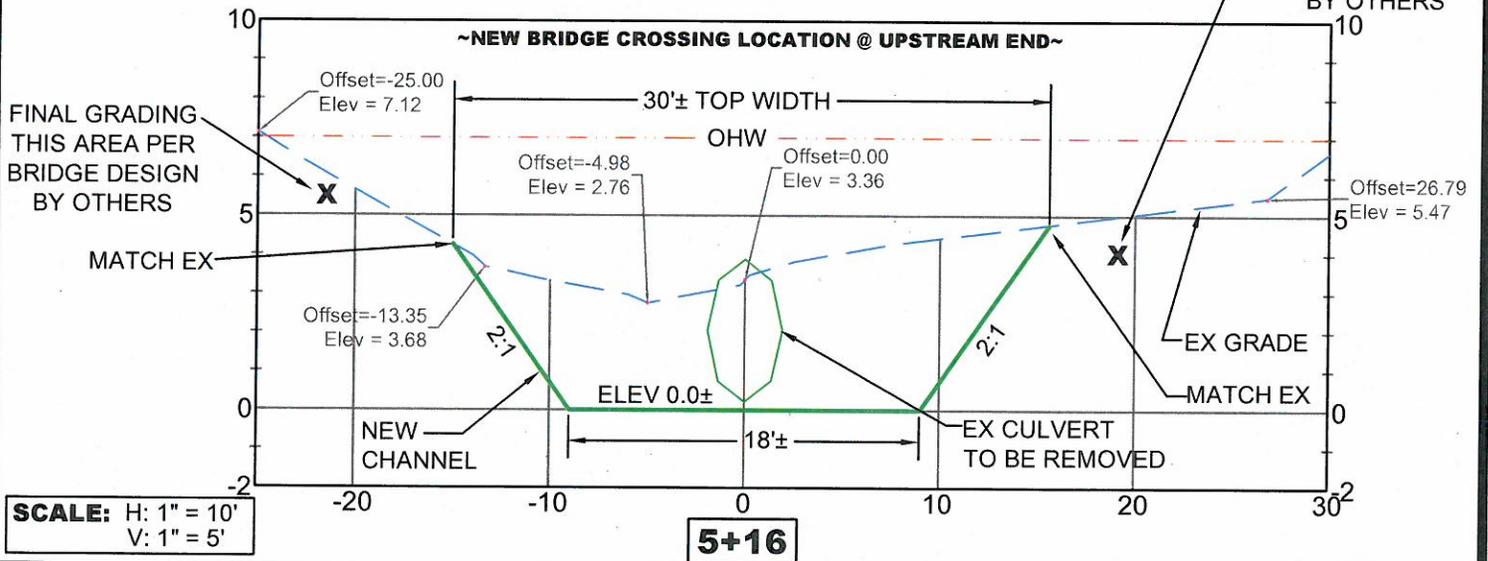
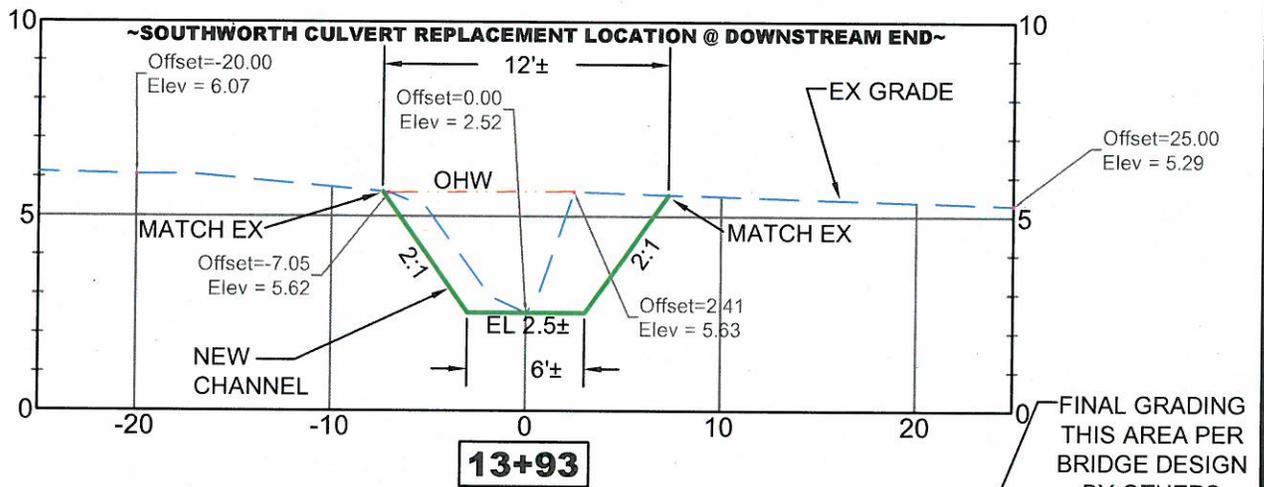
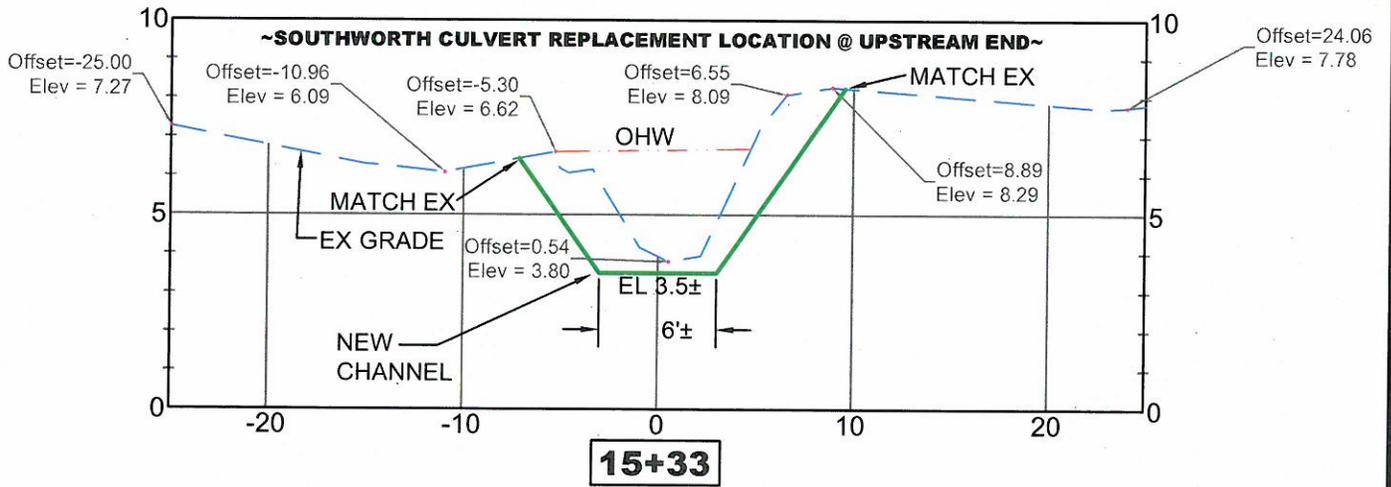
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 DATUM: NGVD 29
 ADJ PROPERTY OWNERS: SEE SHEET 2

REFERENCE NO:
 APPLICANT: WDFW
 COUNTY: KITSAP
 NEAR: SOUTHWORTH
 WATER BODY: YUKON HARBOR
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HARPER ESTUARY - STREAM CHANNEL SECTIONS



SCALE: H: 1" = 10'
V: 1" = 5'

PURPOSE: RESTORE ESTUARY FUNCTIONS

PROPOSAL: SEE NOTE 1 SHEET 1

LOCATION: INT OF OLYMPIAD & SOUTHWORTH

DATUM: NGVD 29

ADJ PROPERTY OWNERS: SEE SHEET 2

REFERENCE NO:

APPLICANT: WDFW

COUNTY: KITSAP

NEAR: SOUTHWORTH

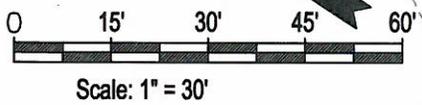
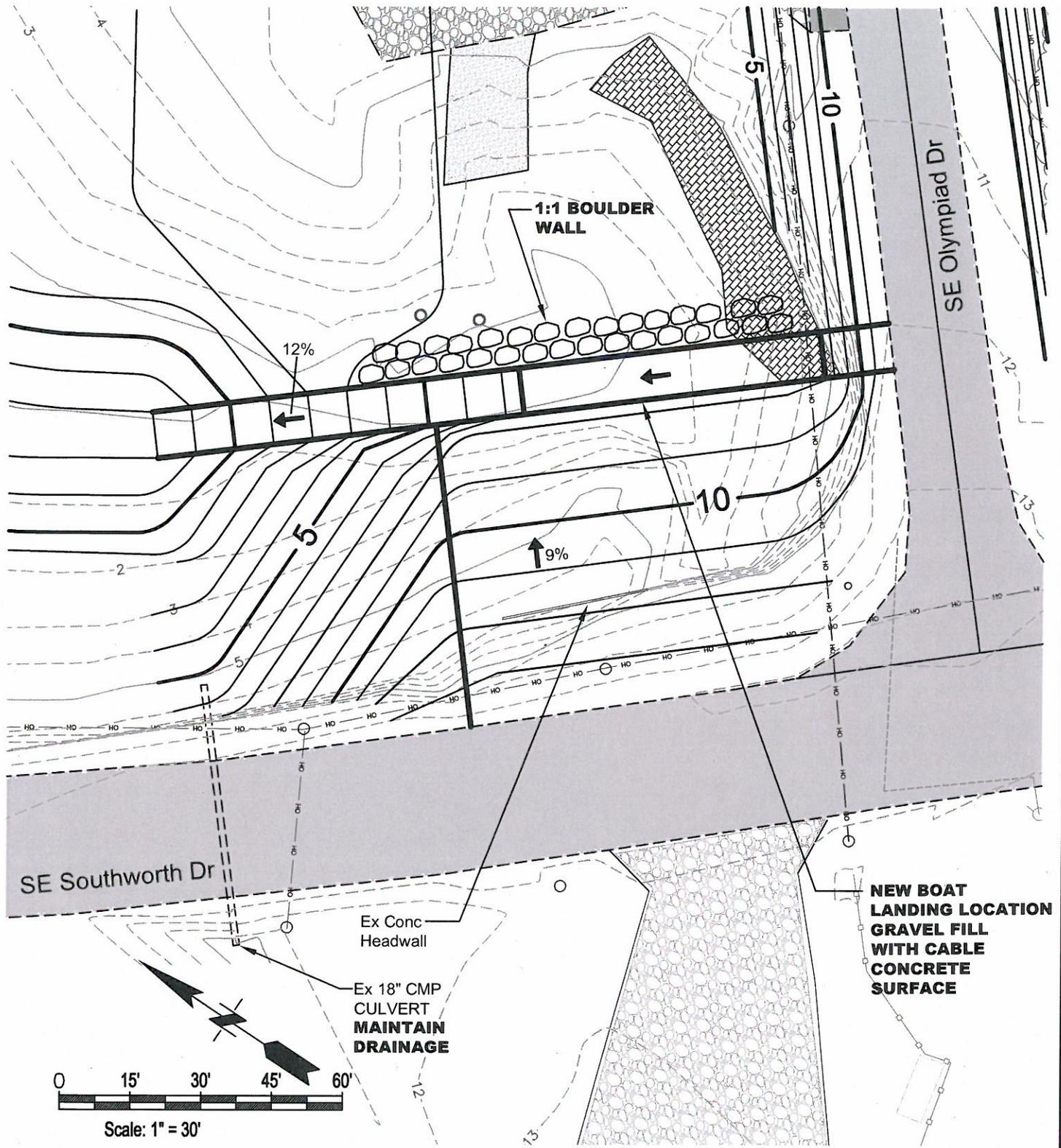
WATER BODY: YUKON HARBOR

DATE: SEPTEMBER 2015



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HARPER ESTUARY - BOAT LANDING

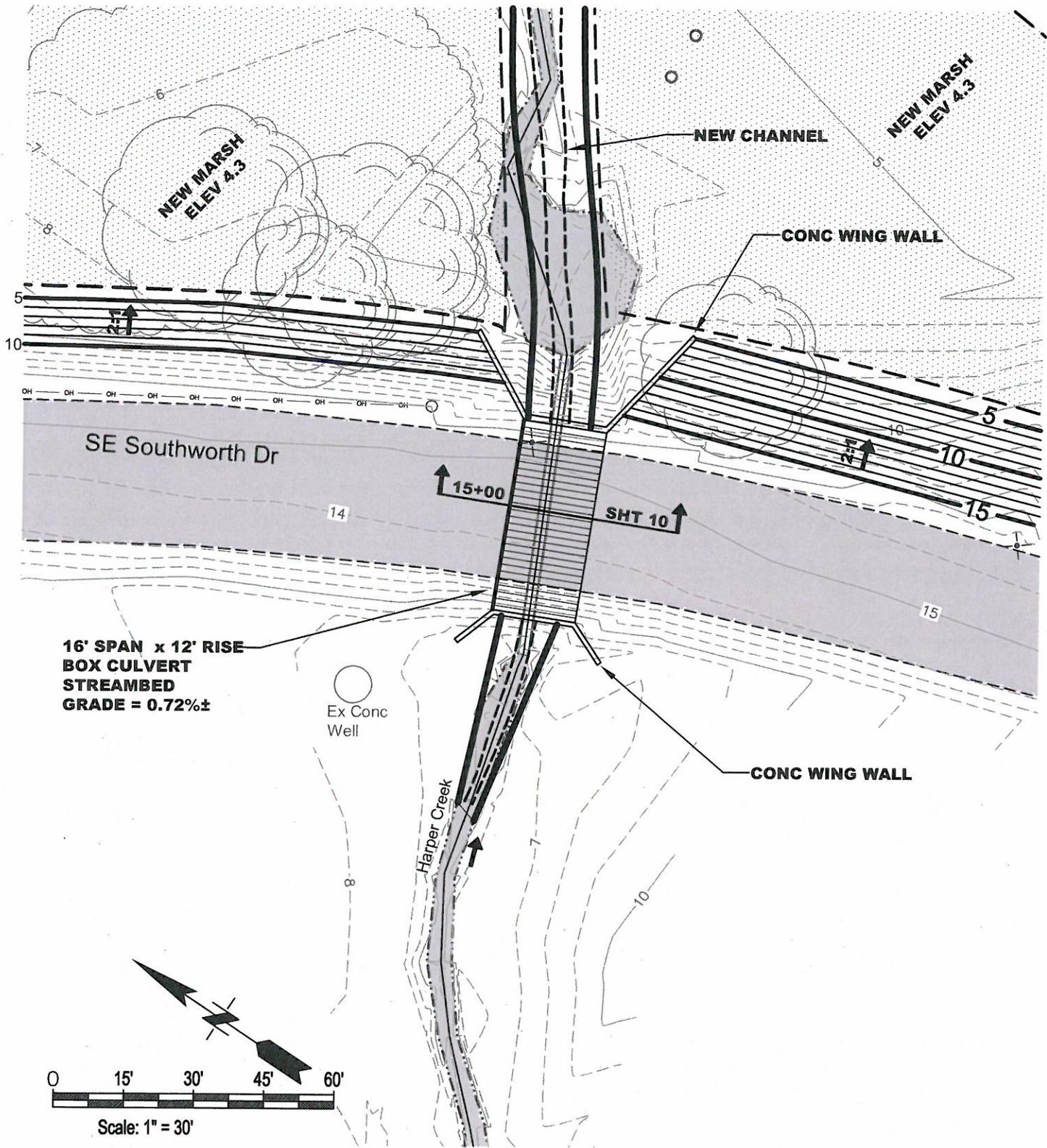


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HARPER ESTUARY - SOUTHWORTH CULVERT REPLACEMENT

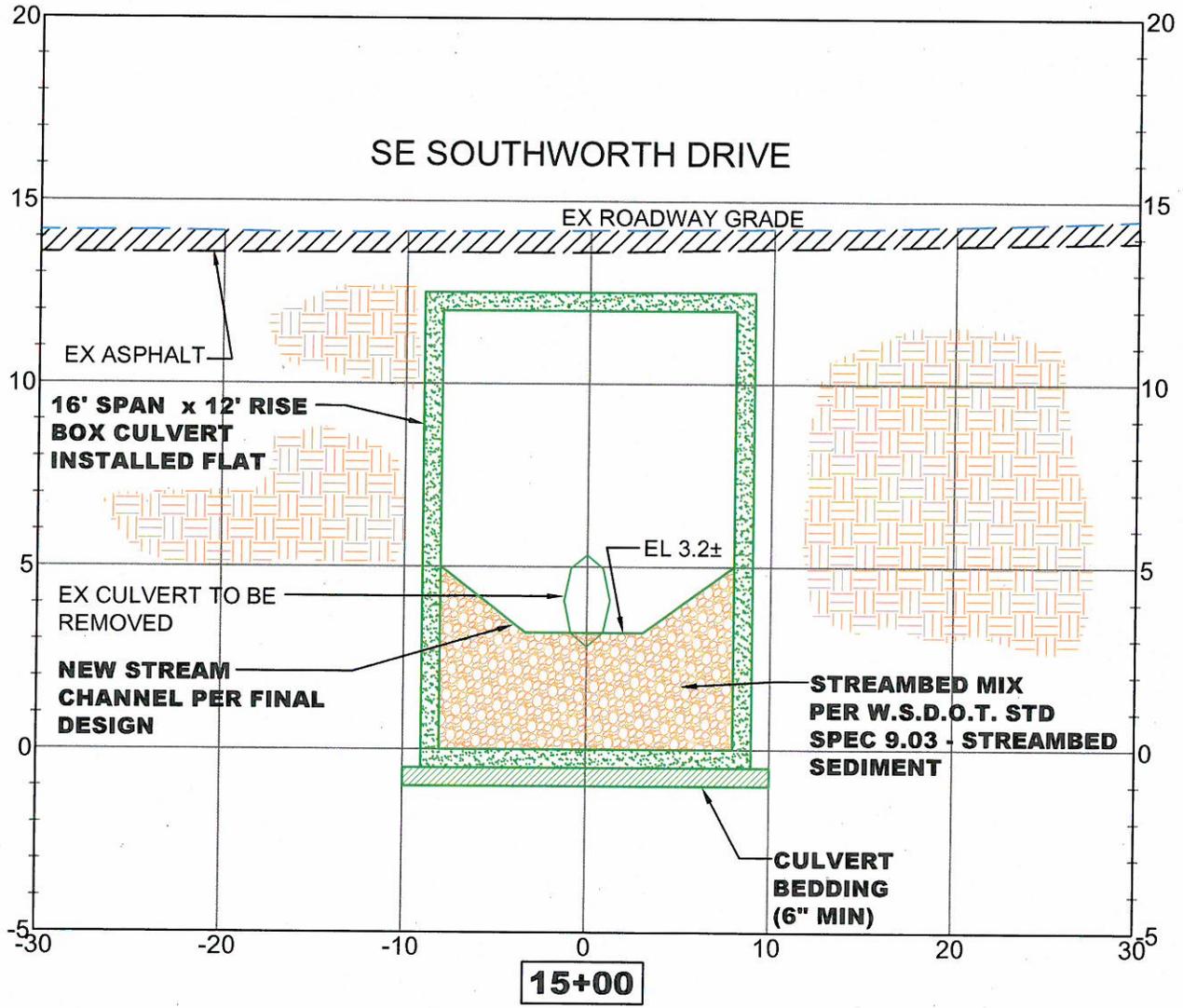


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HARPER ESTUARY - SOUTHWORTH CULVERT SECTION

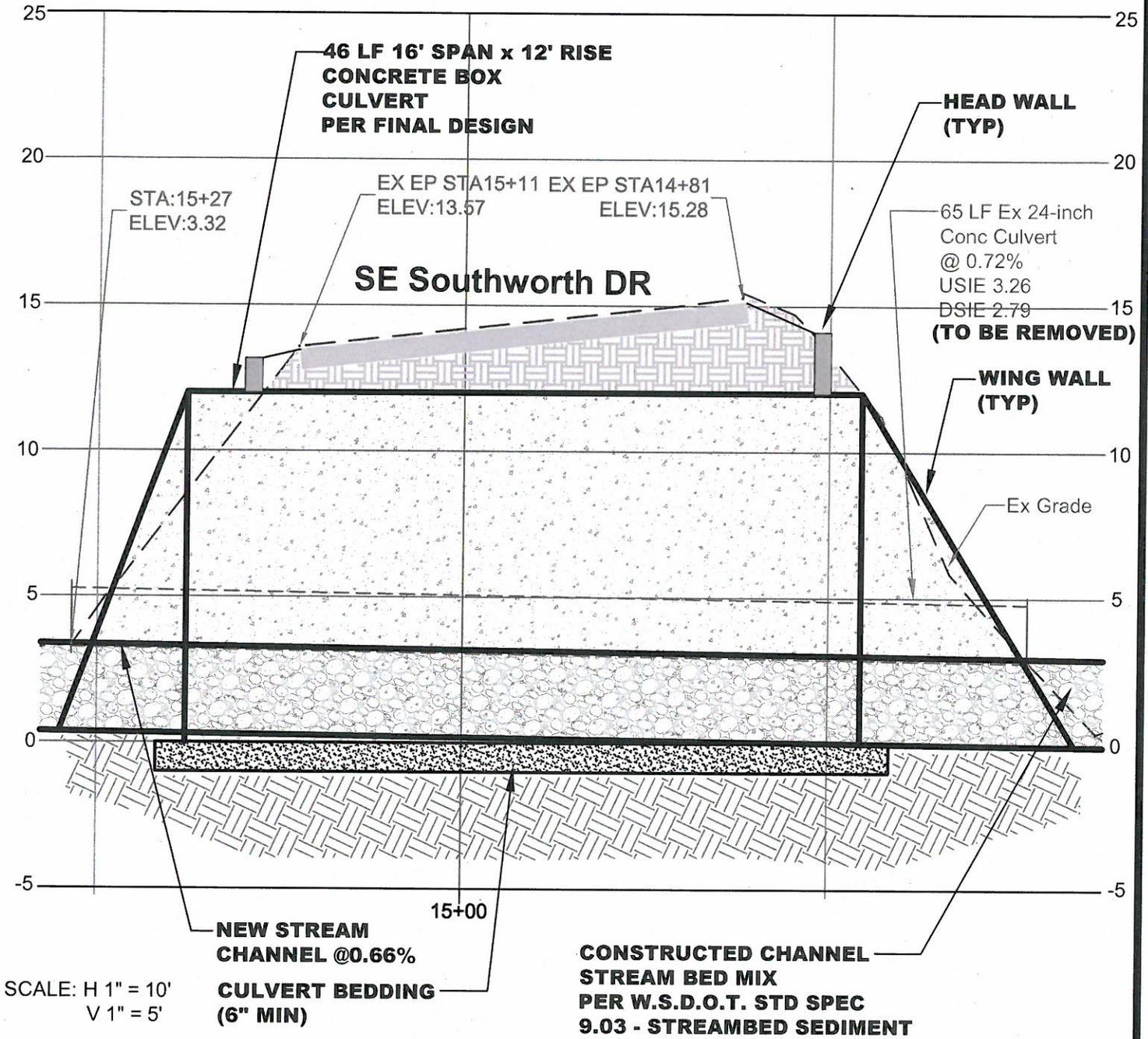


SCALE: H: 1" = 10'
V: 1" = 5'

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HARPER ESTUARY - SOUTHWORTH CULVERT PROFILE & STREAM CHANNEL



PURPOSE: RESTORE ESTUARY FUNCTIONS

PROPOSAL: SEE NOTE 1 SHEET 1

LOCATION: INT OF OLYMPIAD & SOUTHWORTH

DATUM: NGVD 29

ADJ PROPERTY OWNERS: SEE SHEET 2

REFERENCE NO:

APPLICANT: WDFW

COUNTY: KITSAP

NEAR: SOUTHWORTH

WATER BODY: YUKON HARBOR

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HARPER ESTUARY - MATERIAL QUANTITIES / DISTURBED AREAS

<u>ITEM</u>	<u>CUT</u>	<u>FILL</u>
WITHIN O.H.W.	9,653 C.Y.	7,064 C.Y.
<u>OUTSIDE O.H.W.</u>	<u>16,499 C.Y.</u>	<u>10,100 C.Y.</u>
SUBTOTAL	26,152 C.Y.	17,164 C.Y.

*ADDITIONAL QUANTITIES

WITHIN ROAD EMBANKMENT	1,509 C.Y.	910 C.Y.
INDUSTRIAL FILL (TO BE REMOVED)	18,204 C.Y.	

TOTAL DISTURBED AREA = 8.3 ACRES (361,548 S.F.)

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