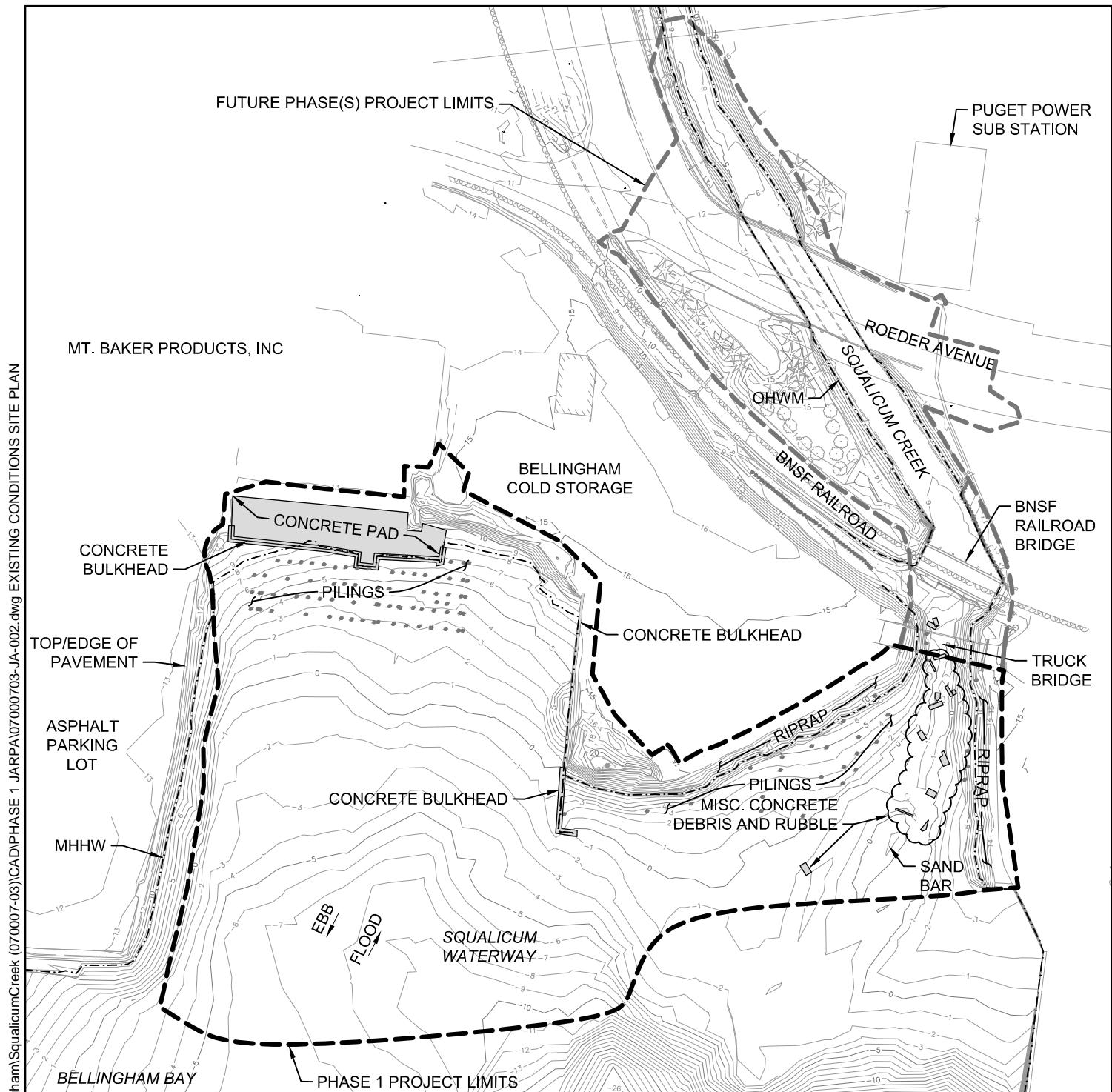


### VICINITY MAP

PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT-PHASE 1 ESTUARY RESTORATION	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET.	REFERENCE #:	IN: SQUALICUM CREEK ESTUARY
VERTICAL: MLLW, FEET. (BELLINGHAM, WA)	SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225	NEAR/AT: BELLINGHAM
ADJACENT PROPERTY OWNERS:	LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	COUNTY OF: WHATCOM
1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		STATE: WASHINGTON
		DATE: JANUARY 31, 2013
		SHEET: 1 OF 14



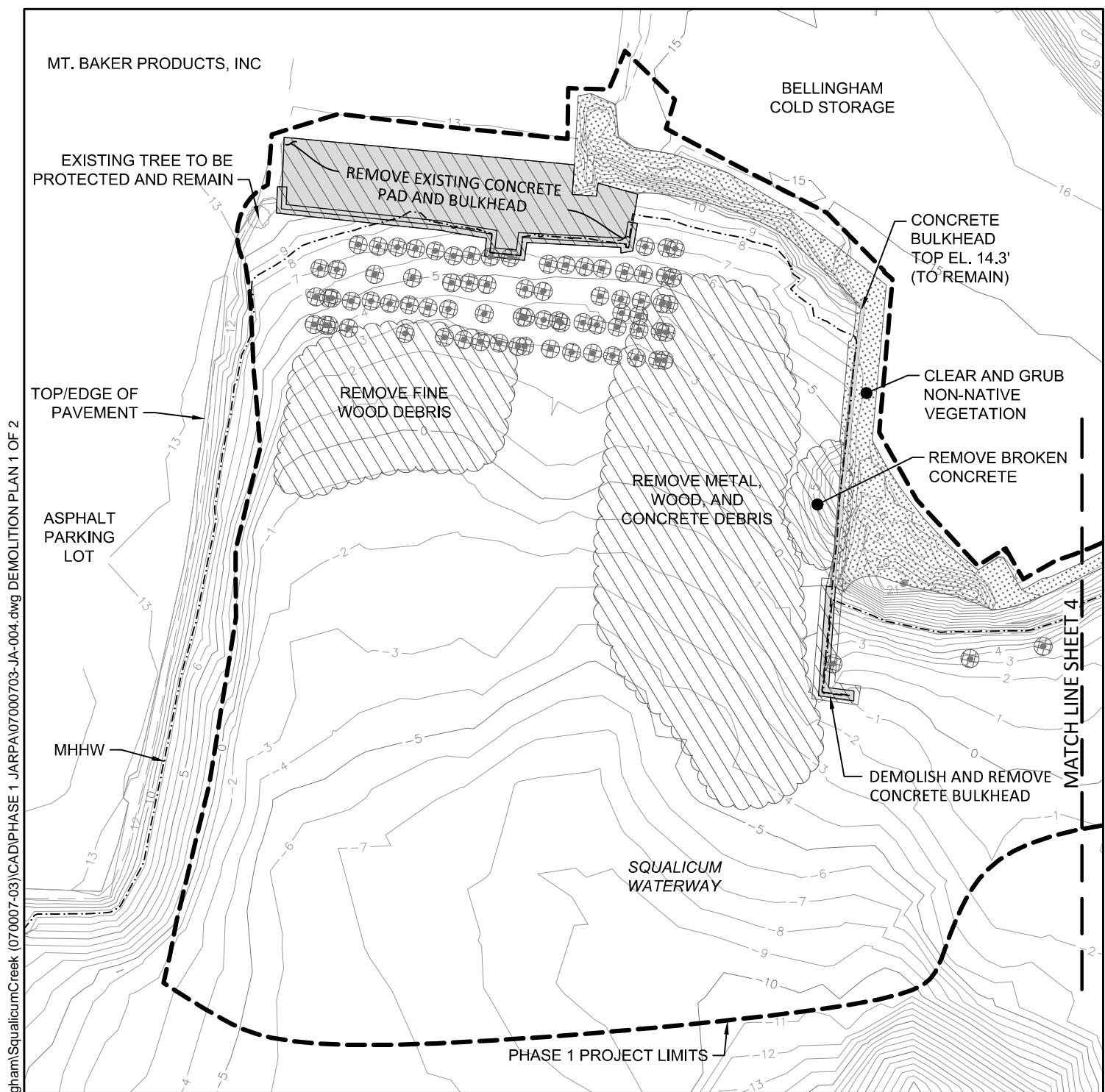
- - - - - MEAN HIGHER HIGH WATER/ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)  
 - - - - - PHASE 1 PROJECT LIMITS  
 - - - - - FUTURE PHASE(S) PROJECT LIMITS



0 100  
 Scale in Feet

### EXISTING CONDITIONS AND PHASING PLAN

PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT- PHASE 1 ESTUARY RESTORATION  REFERENCE #: _____ SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225 LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.  IN: SQUALICUM CREEK ESTUARY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON DATE: JANUARY 31, 2013
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET. VERTICAL: MLLW, FEET. (BELLINGHAM, WA) ADJACENT PROPERTY OWNERS: 1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		



— Existing Mean Higher High Water/Ordinary High Water Mark (MHHW = +8.5' MLLW)

— Phase 1 Project Limits

● Piling to be removed

■ Clear and grub non-native vegetation

▨ Existing feature to be removed

**DEMOLITION NOTE:**

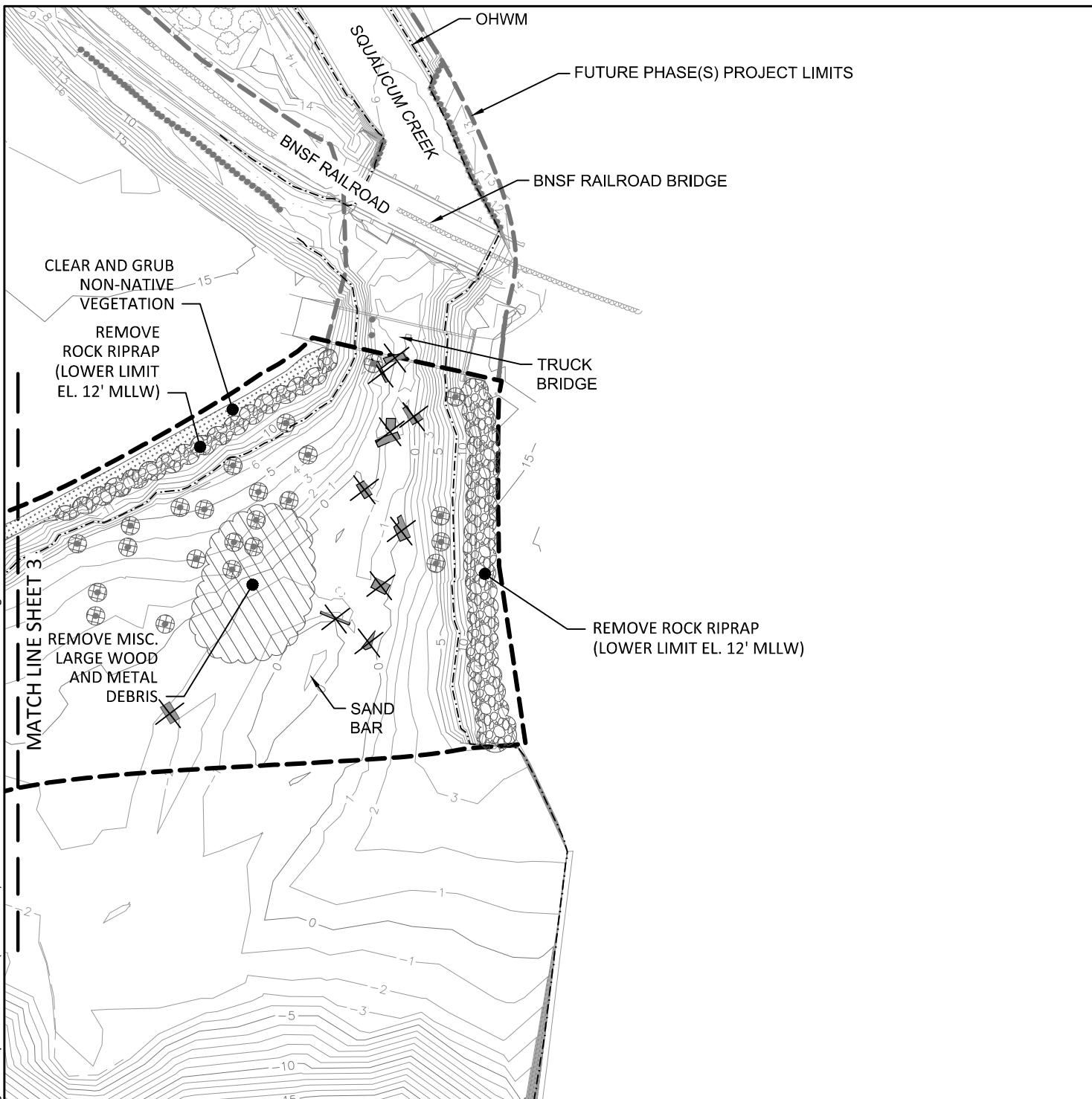
ALONG SHORELINE WITHIN PROJECT EXTENT REMOVE AND STOCKPILE ALL DRIFTWOOD. REMOVE CREOSOTE TREATED AND OTHER TREATED WOOD FOR OFFSITE DISPOSAL.

**DEMOLITION PLAN 1 OF 2**



0 60  
Scale in Feet

PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT-PHASE 1 ESTUARY RESTORATION REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225 LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION. IN: SQUALICUM CREEK ESTUARY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON DATE: JANUARY 31, 2013
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET. VERTICAL: MLLW, FEET. (BELLINGHAM, WA) ADJACENT PROPERTY OWNERS: 1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		



----- EXISTING MEAN HIGHER HIGH WATER/ORDINARY HIGH WATER LINE (MHHW = +8.5' MLLW)

— PHASE 1 PROJECT LIMITS

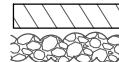


PILE TO BE REMOVED

— LARGE CONCRETE DEBRIS TO BE REMOVED



CLEAR AND GRUB NON-NATIVE VEGETATION



EXISTING FEATURE TO BE REMOVED



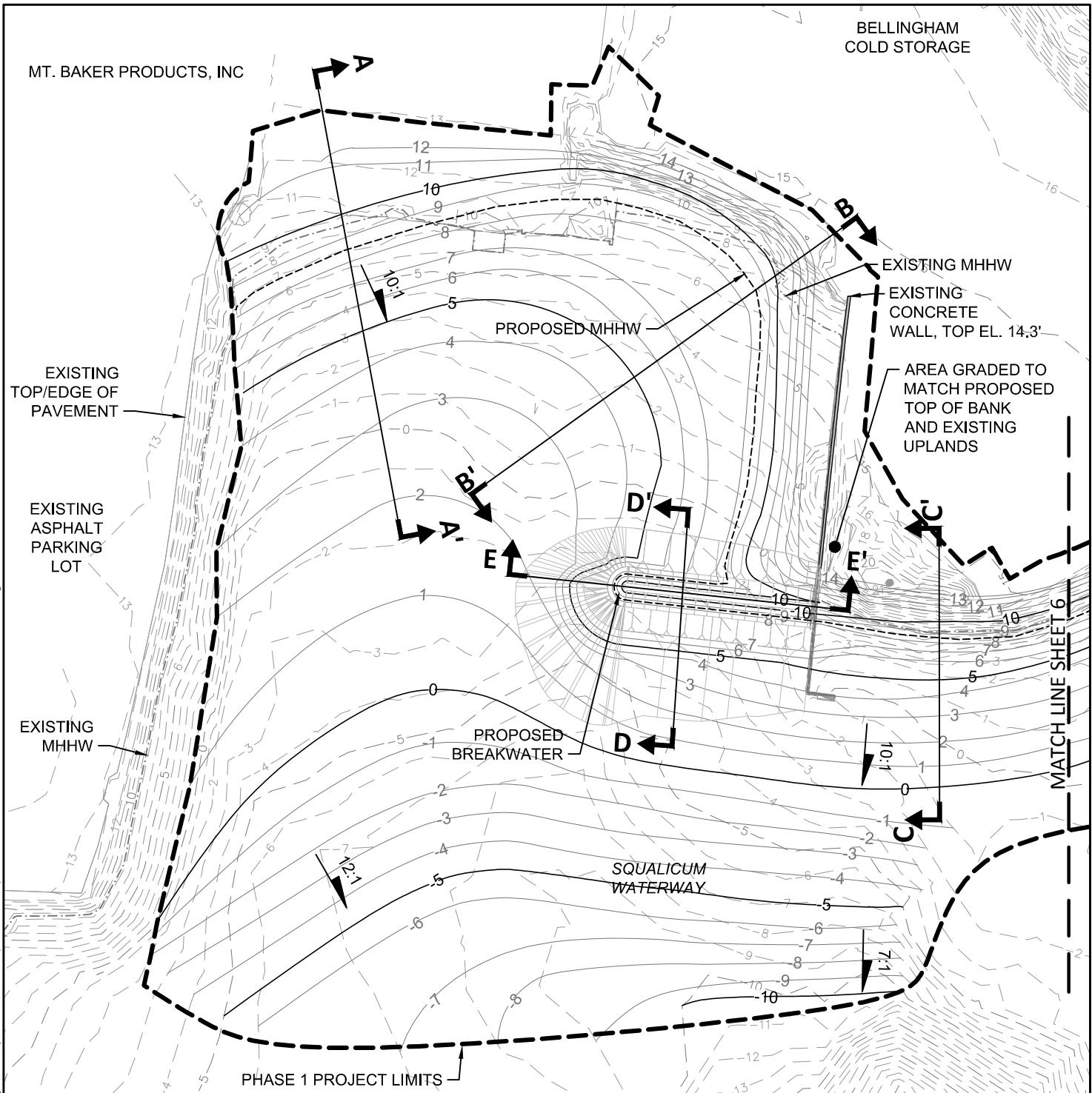
ROCK RIPRAP TO BE REMOVED



0 60  
Scale in Feet

## DEMOLITION PLAN 2 OF 2

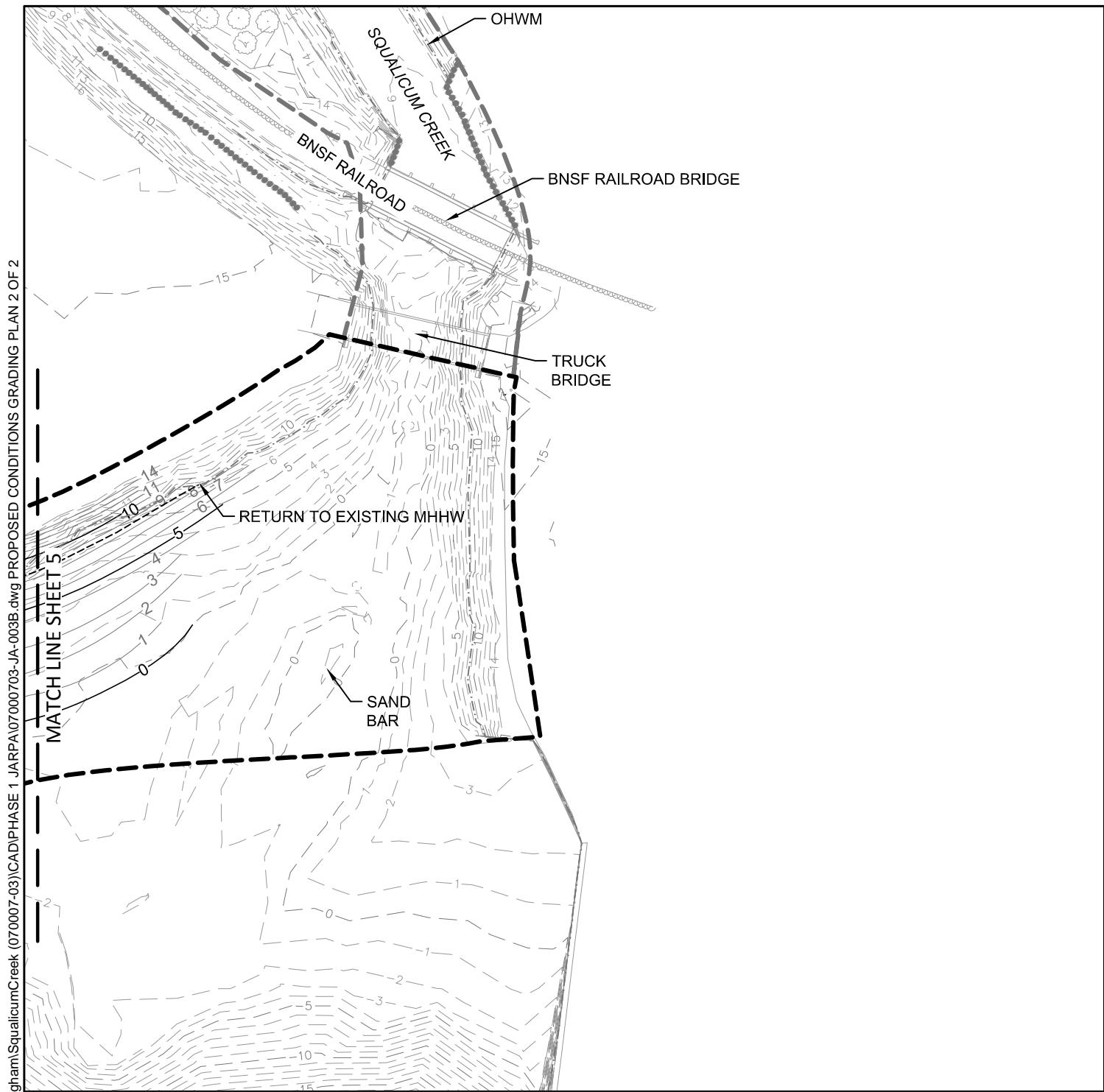
PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT- PHASE 1 ESTUARY RESTORATION	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET.	REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225	IN: SQUALICUM CREEK ESTUARY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON
VERTICAL: MLLW, FEET. (BELLINGHAM, WA)	LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	DATE: JANUARY 31, 2013
ADJACENT PROPERTY OWNERS:		SHEET: 4 OF 14
1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		



0 60  
Scale in Feet

### PROPOSED CONDITIONS GRADING PLAN 1 OF 2

PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT-PHASE 1 ESTUARY RESTORATION	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET.	REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225	IN: SQUALICUM CREEK ESTUARY
VERTICAL: MLLW, FEET. (BELLINGHAM, WA)	LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON
ADJACENT PROPERTY OWNERS:		DATE: JANUARY 31, 2013
1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		SHEET: 5 OF 14



— PROPOSED MEAN HIGHER HIGH WATER/ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)

— EXISTING MEAN HIGHER HIGH WATER/ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)

— PHASE 1 PROJECT LIMITS

— EXISTING MAJOR CONTOUR (5-FT INTERVAL)

— EXISTING MINOR CONTOUR (1-FT INTERVAL)

— PROPOSED MAJOR CONTOUR (5-FT INTERVAL)

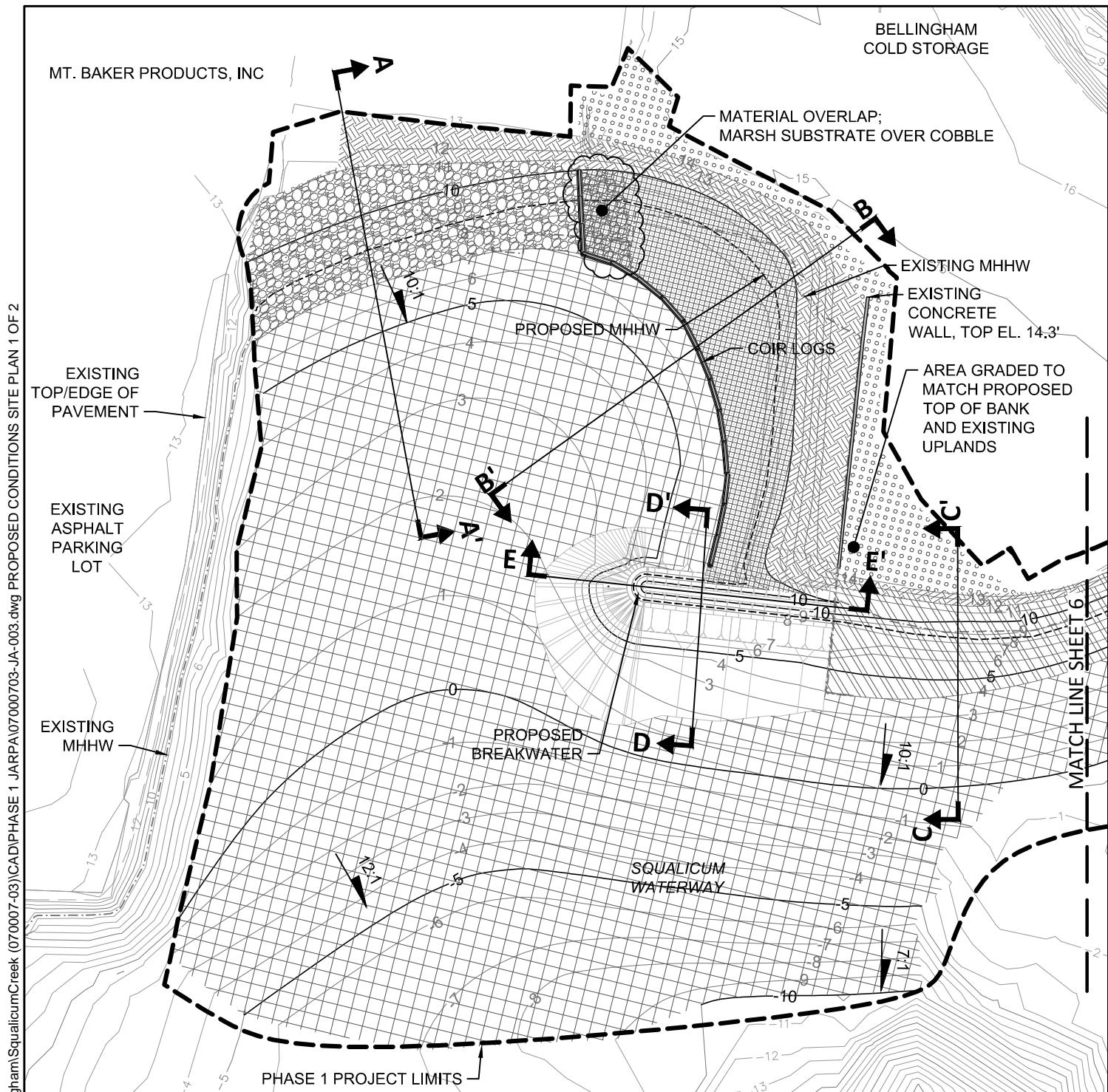
— PROPOSED MINOR CONTOUR (1-FT INTERVAL)



0 60  
Scale in Feet

### PROPOSED CONDITIONS GRADING PLAN 2 OF 2

PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT-PHASE 1 ESTUARY RESTORATION	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET.	REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225	IN: SQUALICUM CREEK ESTUARY
VERTICAL: MLLW, FEET. (BELLINGHAM, WA)	LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON
ADJACENT PROPERTY OWNERS:		DATE: JANUARY 31, 2013
1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		SHEET: 6 OF 14



PROPOSED MEAN HIGHER HIGH WATER/ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)

EXISTING MEAN HIGHER HIGH WATER/ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)

— PHASE 1 PROJECT LIMITS

■ TOP SOIL COVERED WITH COIR FABRIC

■ MARSH SUBSTRATE COVERED WITH COIR FABRIC

■ SAND/GRAVEL MIX

■ 10" COBBLE

— COIR LOG (TYP.)

■ 6" DEPTH CRUSHED ROCK

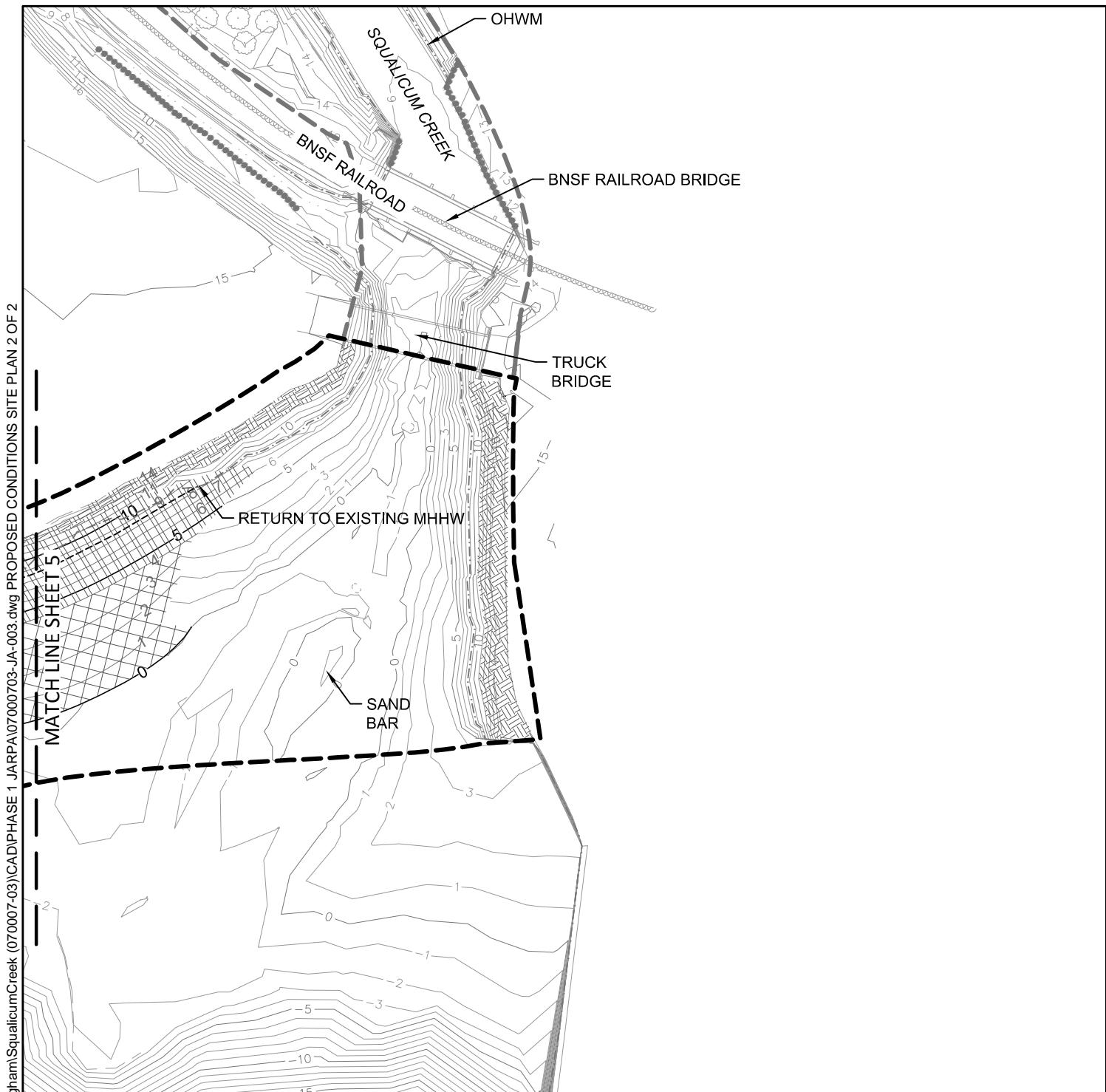
■ 3"-6" COBBLE (AVG. 18" DEPTH WITH  
6" DEPTH FISH MIX TOP DRESSING)



0 60  
Scale in Feet

### PROPOSED CONDITIONS SITE PLAN 1 OF 2

PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT- PHASE 1 ESTUARY RESTORATION	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET.	REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225	IN: SQUALICUM CREEK ESTUARY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON
VERTICAL: MLLW, FEET. (BELLINGHAM, WA)	LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	DATE: JANUARY 31, 2013
ADJACENT PROPERTY OWNERS:		SHEET: 7 OF 14
1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		



----- PROPOSED MEAN HIGHER HIGH WATER/ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)

----- EXISTING MEAN HIGHER HIGH WATER/ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)

----- PHASE 1 PROJECT LIMITS

TOP SOIL COVERED WITH COIR FABRIC

SAND/GRAVEL MIX

3"-6" COBBLE (AVG. 18" DEPTH WITH 6" DEPTH FISH MIX TOP DRESSING)



0 60  
Scale in Feet

### PROPOSED CONDITIONS SITE PLAN 2 OF 2

PURPOSE: ESTUARINE HABITAT RESTORATION

DATUM: HORIZONTAL: WA STATE PLANE NORTH  
NAD83, FEET.

VERTICAL: MLLW, FEET. (BELLINGHAM, WA)

ADJACENT PROPERTY OWNERS:

1. PORT OF BELLINGHAM
2. BNSF RAILWAY COMPANY

NAME: SQUALICUM CREEK DELTA PROJECT-  
PHASE 1 ESTUARY RESTORATION

REFERENCE #:

SITE LOCATION ADDRESS:  
2929 ROEDER AVENUE, BELLINGHAM, WA  
98225

LAT: 48.761 N

LONG: -122.508 W

T38N, R2E, SEC 23

PROPOSED: BULKHEAD REMOVAL,  
BREAKWATER CONSTRUCTION, FILL  
PLACEMENT, BEACH, MARSH, AND RIPARIAN  
HABITAT RESTORATION.

IN: SQUALICUM CREEK ESTUARY

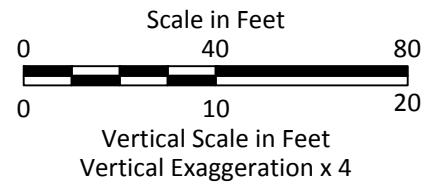
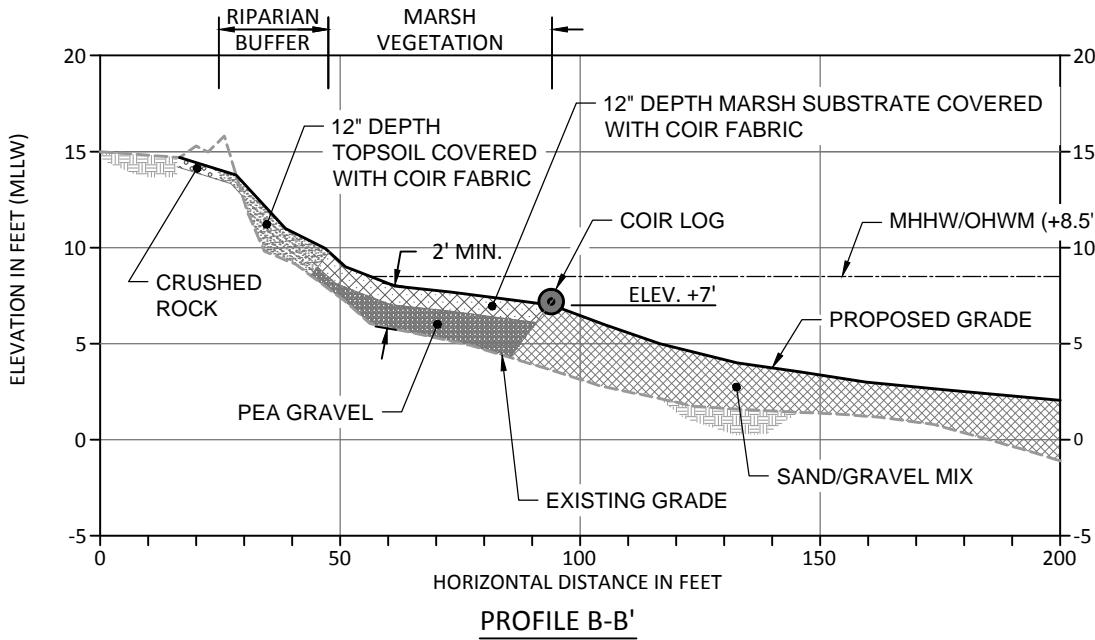
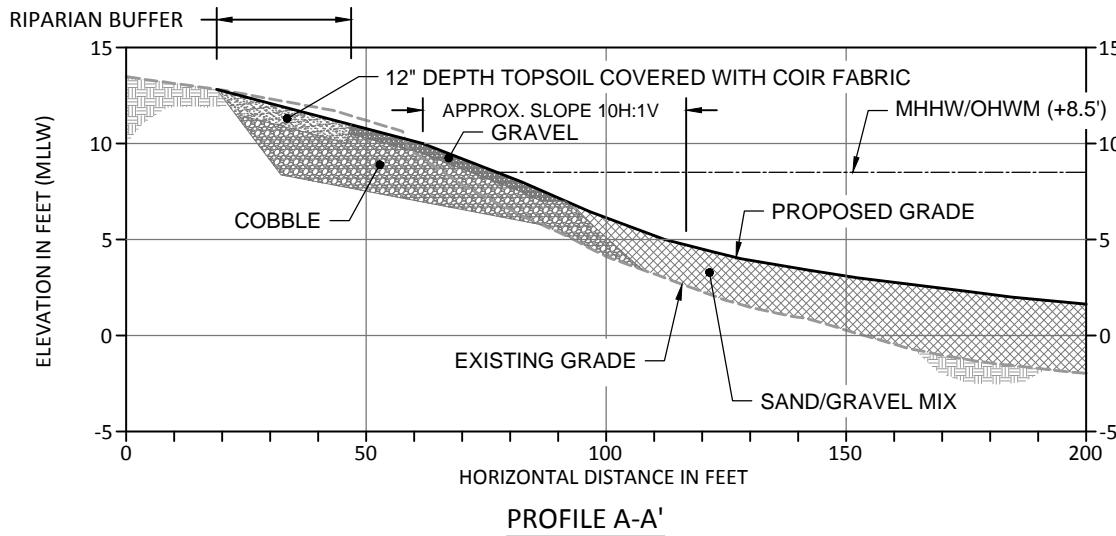
NEAR/AT: BELLINGHAM

COUNTY OF: WHATCOM

STATE: WASHINGTON

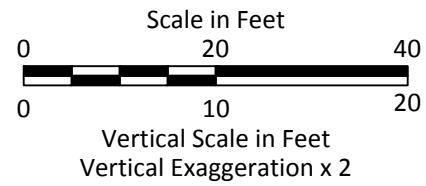
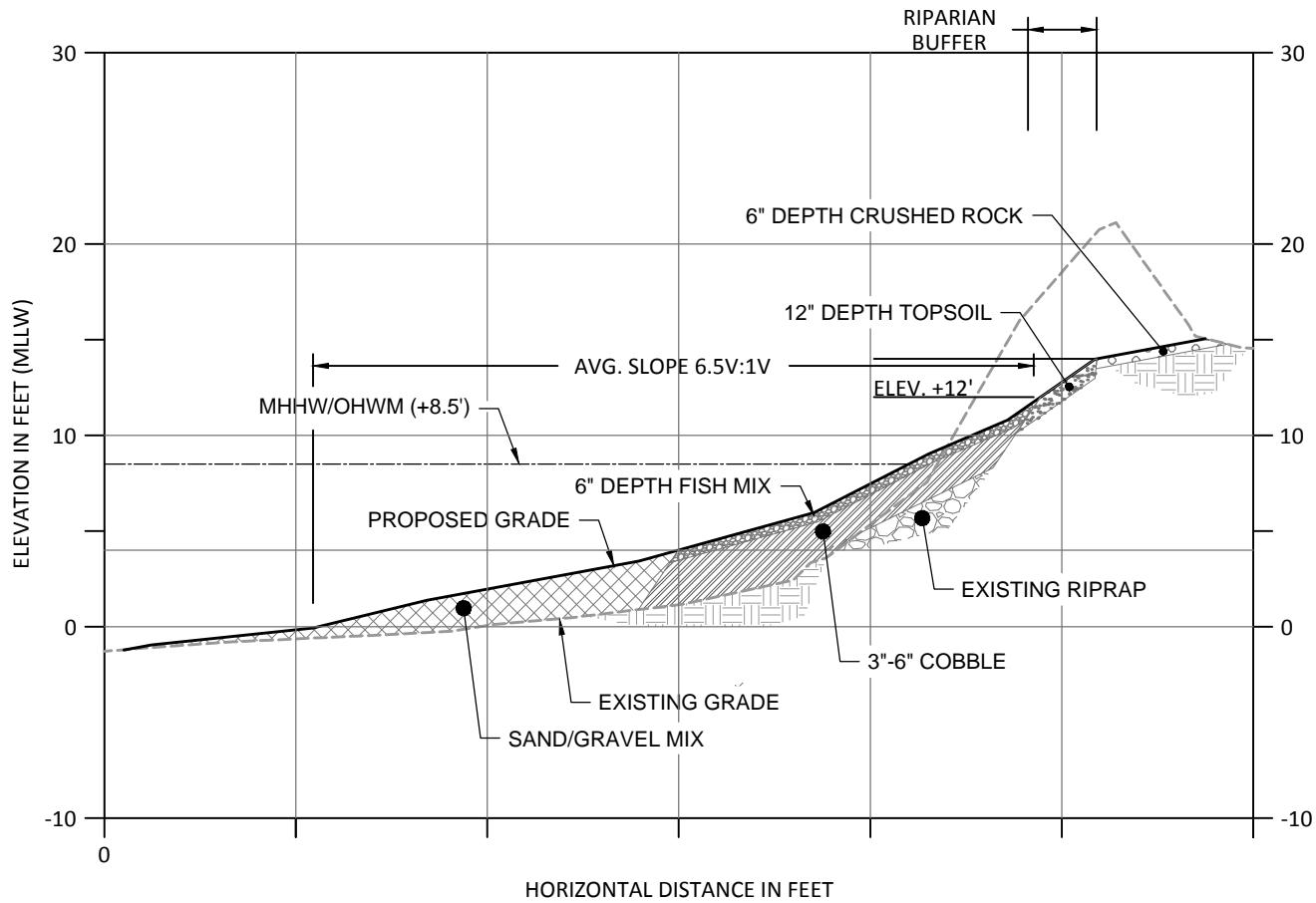
DATE: JANUARY 31, 2013

SHEET: 8 OF 14



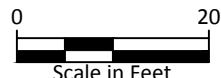
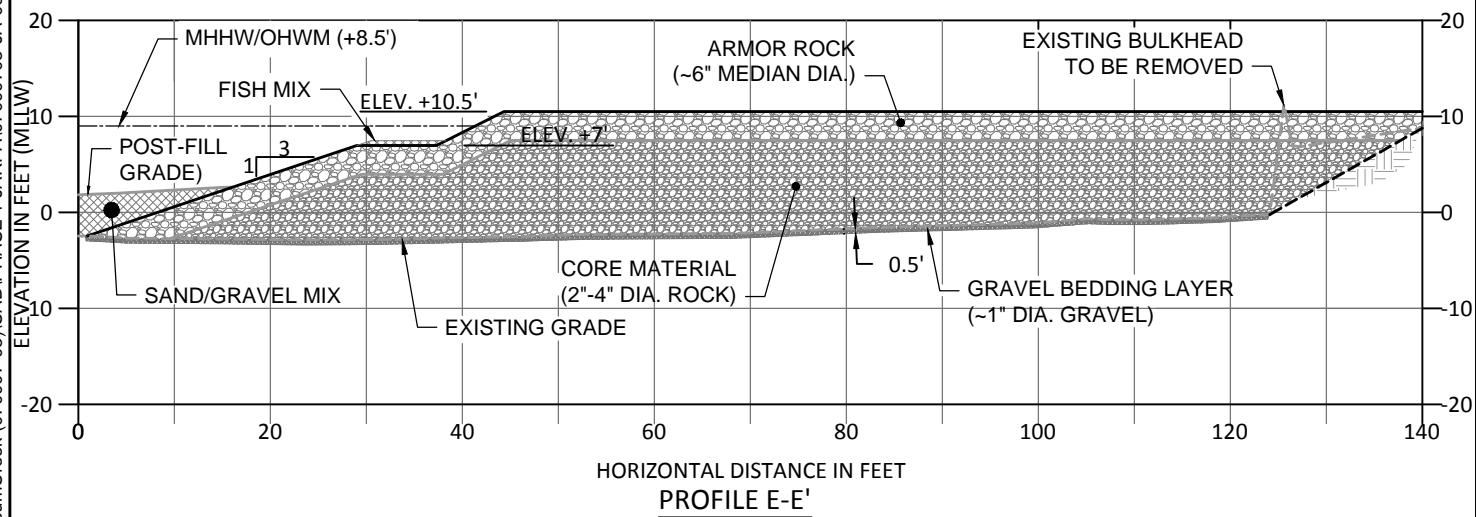
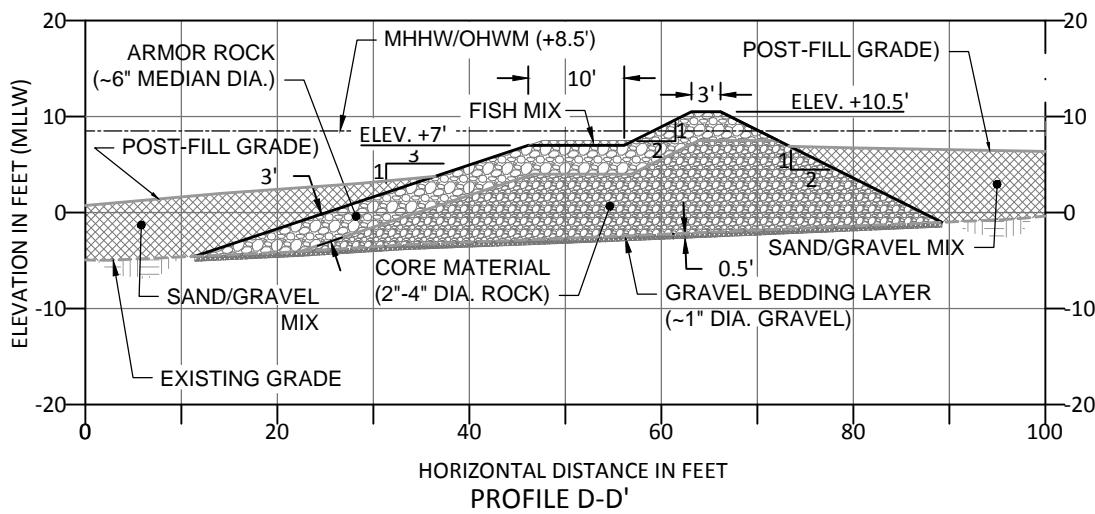
### PROFILES A-A' AND B-B'

PURPOSE: ESTUARINE HABITAT RESTORATION  DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET. VERTICAL: MLLW, FEET. (BELLINGHAM, WA) ADJACENT PROPERTY OWNERS: 1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY	NAME: SQUALICUM CREEK DELTA PROJECT- PHASE 1 ESTUARY RESTORATION  REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225 LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION. IN: SQUALICUM CREEK ESTUARY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON DATE: JANUARY 31, 2013
SHEET: 9 OF 14		



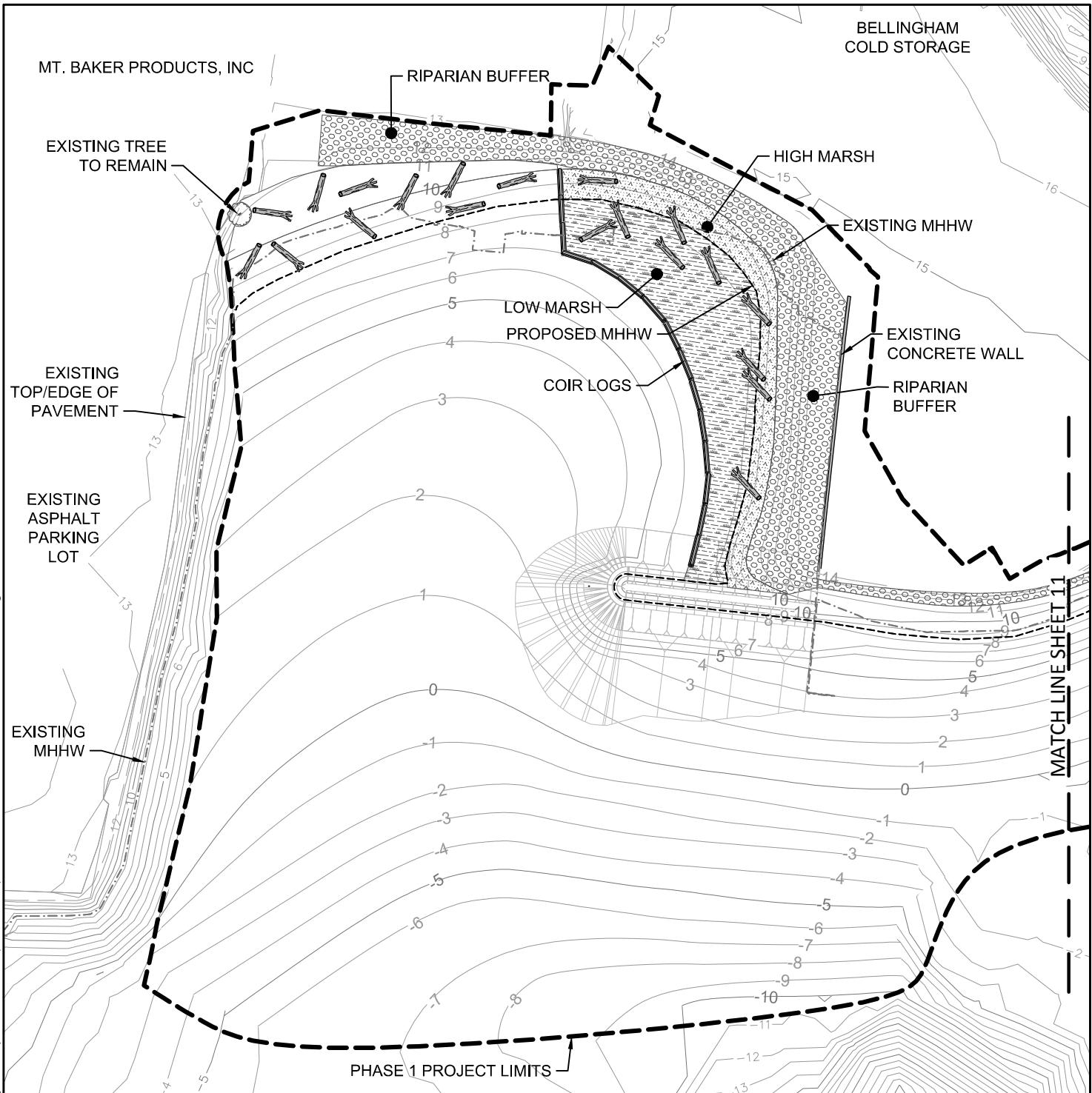
PROFILE C-C'

PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT-PHASE 1 ESTUARY RESTORATION	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET.	REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225	IN: SQUALICUM CREEK ESTUARY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON
VERTICAL: MLLW, FEET. (BELLINGHAM, WA)	LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	DATE: JANUARY 31, 2013
ADJACENT PROPERTY OWNERS:		
1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		



### PROFILES D-D' AND E-E'

PURPOSE: ESTUARINE HABITAT RESTORATION  DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET. VERTICAL: MLLW, FEET. (BELLINGHAM, WA) ADJACENT PROPERTY OWNERS: 1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY	NAME: SQUALICUM CREEK DELTA PROJECT- PHASE 1 ESTUARY RESTORATION  REFERENCE #: _____ SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225 LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION. IN: SQUALICUM CREEK ESTUARY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON DATE: JANUARY 31, 2013
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— PROPOSED MEAN HIGHER HIGH WATER\ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)

— EXISTING MEAN HIGHER HIGH WATER\ORDINARY HIGH WATER MARK (MHHW = +8.5' MLLW)

— PHASE 1 PROJECT LIMITS

RIPARIAN TREES AND SHRUBS

LOW MARSH

HIGH MARSH

PLACED SALVAGED DRIFTWOOD

COIR LOG



0 60  
Scale in Feet

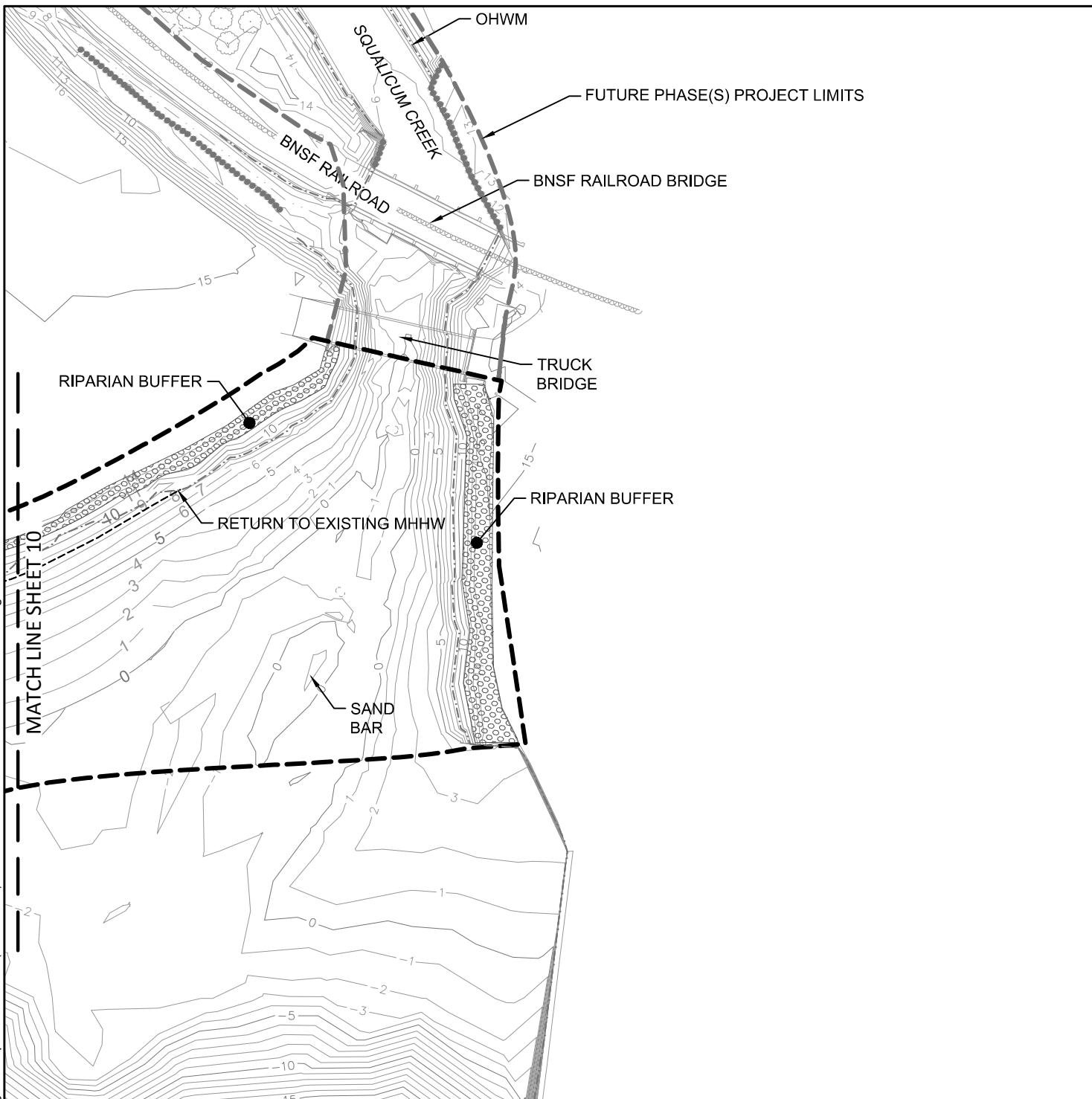
NOTE: FOR PLANT SCHEDULE SEE SHEET 12

### PLANTING PLAN 1 OF 2

PURPOSE: ESTUARINE HABITAT RESTORATION  
DATUM: HORIZONTAL: WA STATE PLANE NORTH  
NAD83, FEET.  
VERTICAL: MLLW, FEET. (BELLINGHAM, WA)  
ADJACENT PROPERTY OWNERS:  
1. PORT OF BELLINGHAM  
2. BNSF RAILWAY COMPANY

NAME: SQUALICUM CREEK DELTA PROJECT-  
PHASE 1 ESTUARY RESTORATION  
REFERENCE #: SITE LOCATION ADDRESS:  
2929 ROEDER AVENUE, BELLINGHAM, WA  
98225  
LAT: 48.761 N  
LONG: -122.508 W  
T38N, R2E, SEC 23

PROPOSED: BULKHEAD REMOVAL,  
BREAKWATER CONSTRUCTION, FILL  
PLACEMENT, BEACH, MARSH, AND RIPARIAN  
HABITAT RESTORATION.  
IN: SQUALICUM CREEK ESTUARY  
NEAR/AT: BELLINGHAM  
COUNTY OF: WHATCOM  
STATE: WASHINGTON  
DATE: JANUARY 31, 2013



0 60  
Scale in Feet

### PLANTING PLAN 2 OF 2

PURPOSE: ESTUARINE HABITAT RESTORATION	NAME: SQUALICUM CREEK DELTA PROJECT- PHASE 1 ESTUARY RESTORATION	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.
DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET.	REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225	IN: SQUALICUM CREEK ESTUARY
VERTICAL: MLLW, FEET. (BELLINGHAM, WA)	LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON
ADJACENT PROPERTY OWNERS: 1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY		DATE: JANUARY 31, 2013
		SHEET: 13 OF 14

COMMON NAME	SCIENTIFIC NAME
<b>RIPARIAN TREES</b>	
DOUGLAS MAPLE	<i>Acer glabrum</i>
BIG LEAF MAPLE	<i>Acer macrophyllum</i>
RED ALDER	<i>Alnus rubra</i>
BLACK HAWTHORNE	<i>Crataegus douglasii</i>
DOUGLAS FIR	<i>Pseudotsuga menziesii</i>
SITKA SPRUCE	<i>Picea sitchensis</i>
SHORE PINE	<i>Pinus contorta</i> var. <i>contorta</i>
<b>RIPARIAN SHRUBS</b>	
OCEAN SPRAY	<i>Holodiscus discolor</i>
OREGON GRAPE	<i>Mahonia aquifolium</i>
SWEET GALE	<i>Myrica gale</i>
NOOTKA ROSE	<i>Rosa nutkana</i>
RED ELDERBERRY	<i>Sambucus racemosa</i>
SNOWBERRY	<i>Fragaria chiloensis</i>
<b>LOW MARSH</b>	
LYNGBY'S SEDGE	<i>Carex lyngbyei</i>
SALTGRASS	<i>Distichlis spicata</i>
PACIFIC SILVERWEED	<i>Potentilla Pacifica</i>
PICKLEWEED	<i>Salicornia virginica</i>
AMERICAN THREESQUARE	<i>Scirpus americanus</i>
SEASIDE ARROW GRASS	<i>Triglochin maritimum</i>
<b>HIGH MARSH</b>	
DOUGLAS ASTER	<i>Aster subspicatus</i>
TUFTED HAIRGRASS	<i>Deschampsia caespitosa</i>
DUNEGRASS	<i>Elymus mollis</i>
BEACH STRAWBERRY	<i>Fragaria chiloensis</i>
PUGET SOUND GUMWEED	<i>Grindelia integrifolia</i>
PACIFIC SILVERWEED	<i>Potentilla Pacifica</i>

### PLANT SCHEDULE

PURPOSE: ESTUARINE HABITAT RESTORATION  DATUM: HORIZONTAL: WA STATE PLANE NORTH NAD83, FEET. VERTICAL: MLLW, FEET. (BELLINGHAM, WA) ADJACENT PROPERTY OWNERS: 1. PORT OF BELLINGHAM 2. BNSF RAILWAY COMPANY	NAME: SQUALICUM CREEK DELTA PROJECT- PHASE 1 ESTUARY RESTORATION  REFERENCE #: SITE LOCATION ADDRESS: 2929 ROEDER AVENUE, BELLINGHAM, WA 98225 LAT: 48.761 N LONG: -122.508 W T38N, R2E, SEC 23	PROPOSED: BULKHEAD REMOVAL, BREAKWATER CONSTRUCTION, FILL PLACEMENT, BEACH, MARSH, AND RIPARIAN HABITAT RESTORATION.  IN: SQUALICUM CREEK ESTUARY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON DATE: JANUARY 31, 2013
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