Interim Action Completion Report
Cornwall Avenue Landfill Interim Action
Bellingham, Washington

August 22, 2012

Prepared for

Port of Bellingham
Bellingham, Washington

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1.0 INTRODUCTION

This interim action completion report documents the successful implementation of an interim action at the Cornwall Avenue Landfill site (Site) by the Port of Bellingham (Port) in Bellingham, Washington. The interim action at the Site was implemented to beneficially reuse dredged sediment from the Port's Gate 3 Floats F & G Replacement and Outer Harbor Maintenance Dredging project (Gate 3 project) as contouring fill material at the Site. A vicinity map showing the location of the Site and the Gate 3 project area is shown on Figure 1. A summary of background information on Site conditions and the design of the interim action are presented in the Interim Action Plan (Landau Associates 2011a).

The interim action was conducted in accordance with the Washington State Model Toxics Control Act (MTCA) under Agreed Order No. 1778, as amended, between the Port and the City of Bellingham (City) and the Washington State Department of Ecology (Ecology).

1.1 SITE LOCATION

The Site is located at the terminus of Cornwall Avenue adjacent to Bellingham Bay, as shown on Figure 1. The Site is bounded by Bellingham Bay, the R.G. Haley cleanup site (a former wood treating facility), and Burlington Northern Santa Fe Railway Company (BNSF) tracks. The Interim Placement Areas (IPAs) constructed for storage of the beneficial reuse material are located on the waterward side of the inner harbor line, as shown on Figure 2. The inner harbor line represents the boundary between Port/City-owned land and state-owned land.

Because the Site is located along Bellingham Bay within an area designated as a seismic hazard area expected to have a "very high" response to seismic shaking, a critical area report (Landau Associates 2011b) was prepared to document that the planned interim action construction activities would not increase the seismic hazards and risks of potential consequences that already exist at the Site and at adjacent properties. The geologic cross section shown on Figure 3 was adapted from the critical area report prepared for the interim action, and shows the configuration of the IPA stockpiles and perimeter roadway/ditch system relative to other surface and subsurface features at the Site.

1.2 PURPOSE AND DESCRIPTION OF THE INTERIM ACTION

The interim action was designed to beneficially reuse sediment from the Port's Gate 3 dredging project as contouring fill material to establish grades for drainage at the Site. The placement and covering of the stabilized sediment stockpiles at the Site also allows a significant amount of the stormwater that previously infiltrated through the landfill soil cover materials and migrated through Site refuse to be redirected such that groundwater contact with refuse is significantly reduced.

Following offloading and processing/stabilization at the Georgia Pacific West (GP West) site, the stabilized Gate 3 dredged sediment was transported to the IPAs constructed at the Site and placed in covered stockpiles where it will be stored until it is subsequently reused as compacted, low-permeability fill material, which is anticipated to be completed as part of the final cleanup action at the Site. The interim action also included the installation of a landfill gas (LFG) control system beneath the IPAs.

Drawings and Specifications associated with implementation of the Interim Action Plan are included with the Gate 3 project Contract Documents (Port of Bellingham 2011). Selected drawings from the interim action 100 percent design drawings issued for construction are included in Appendix A. Additional information regarding the basis of design for the interim action is presented in the Interim Action Plan (Landau Associates 2011a).

2.0 INTERIM ACTION CONSTRUCTION SUMMARY

Interim Action construction activities were implemented by the Port's selected contractor, Dutra Construction Co., Inc. (Dutra) during the wet season between late fall of 2011 and late spring of 2012. Plan and cross sections that generally depict the configuration of the IPAs and other main elements of the interim action earthwork are shown on Figures 2 and 3. Note that project north was set toward downtown Bellingham, with Bellingham Bay being west and the BNSF railway tracks being east of the IPAs. A brief summary of selected Interim Action construction activities is presented in the following sections.

2.1 BENEFICIAL REUSE AREA PREPARATION

The beneficial reuse area at the Cornwall Avenue Landfill was prepared for stockpiling the stabilized sediments within IPAs # 1 and #2 in general accordance with the project plans and specifications. Due to exceptionally wet weather conditions at the time that IPA subgrade preparation was conducted, the upper portion of subgrade deteriorated rapidly under equipment traffic. Primary haul routes within the IPAs were stabilized with course aggregate and portions of the saturated subgrade soils were removed and placed in a spoils stockpile at the north end of IPA #2.

2.1.1 MONITORING WELL DECOMMISSIONING

Prior to Site grading for IPA construction, groundwater monitoring wells MW-2, MW-3, MW-7, MW-8, and MW-10 were decommissioned on October 10, 2011 by Cascade Drilling Co. under the direction of a Landau Associates' field engineer. MW-4 was also planned for decommissioning, but could not be located prior to or during IPA grading activities and thus is assumed to have been previously decommissioned by others. The well locations are shown on Sheet C4.6 in Appendix A.

2.1.2 PERIMETER BERMS, ROADS, AND DRAINAGE DITCHES

Materials from the upper 1 ft of the existing landfill soil cover and the stockpile of quarry spalls at the Site were used to construct the perimeter stormwater containment berm along the shoreline and a portion of the perimeter roads around the IPAs. Due to Site conditions and limitations, a significant amount of imported granular fill was used to complete construction of the roadways around the IPAs.

Excavation and grading of the drainage ditches and perimeter roadways around the IPAs was constructed in a manner to include a 20-mil scrim-reinforced polyethylene liner and an overlying 12 oz/sy geotextile cushion layer approximately 1 ft below the final road and ditch grades, in general accordance with the project plans and specifications, to control erosion and reduce surface water infiltration to the underlying landfill refuse. The drainage ditches were graded to drain to the existing stormwater detention basin and riprap/quarry spall spillway to Bellingham Bay located at the south end of the Site.

2.1.3 LANDFILL GAS CONTROL SYSTEM

Prior to placement of stabilized sediment or roadway fill within the overlying portions of the IPAs, the passive LFG collection and conveyance system components were installed within the IPA subgrade. The system was constructed using flexible strip geocomposite materials that were interconnected and routed to vent through four LFG riser pipes installed around the IPA stockpiles, with an overlying geotextile cushion layer to protect the geocomposite strip drains. The configuration and details of the LFG control system are shown on the construction drawings in Appendix A and the construction record survey drawing in Appendix B.

2.2 SEDIMENT STABILIZATION AND PLACEMENT

Approximately 47,500 cubic yards of fine-grained sediment from dredged material management units (DMMUs) POB 1, POB 2, and POB 3 were dredged from the Gate 3 area at Squalicum Outer Harbor, offloaded at the GP West pier, processed to remove debris and free water, and stabilized for excess moisture by addition of approximately 5 percent (by wet weight) Portland Cement and blending using a mechanical pugmill batch plant system. The blended material was temporarily stockpiled and allowed to "mellow" for several days at the GP West site until it attained a soil-like consistency and was suitable for transport to the Site.

2.2.1 MATERIAL HANDLING AND PLACEMENT

The stabilized sediment was transported from the GP West site by truck, end-dumped at the working face of the IPA stockpiles, handled by track-mounted excavators to achieve IPA stockpiles up to approximately 15 ft in height, and rough graded for drainage to the final IPA stockpile configuration shown on the record survey drawing in Appendix B.

2.2.2 INTERIM PLACEMENT AREA STOCKPILE COVER

The IPA stockpiles were covered with a 20-mil scrim-reinforced polyethylene liner with field-sewn seams. The stockpile liner material overlapped the roadway subgrade liner at the toe of the stockpiles, and was secured from wind uplift by fill placed at the toe and sandbags placed on the stockpile cover at an approximate 10 ft by 10 ft spacing and tied together. The IPAs will be maintained in this condition by the Port until the stabilized material is regraded and compacted as low permeability fill at the Site.

2.3 COMPLIANCE MONITORING

Compliance monitoring included the following protection, performance, and confirmational monitoring activities to assure the effectiveness of the interim action.

2.3.1 PROTECTION MONITORING

Protection monitoring included worker health and safety activities related to interim action construction, as well as certain provisions for protection of the general public. Worker health and safety was addressed through implementation of Dutra's health and safety plan, worker protection provisions, use of an automated vehicle wheel wash facility at the Site entrance, and use of the Landau Associates' health and safety plan (Landau Associates 2011c).

2.3.2 PERFORMANCE MONITORING

The interim action did not include actions intended to achieve a final numerical standard (i.e., cleanup level) for any affected media. As a result, performance monitoring consisted primarily of construction monitoring to confirm that the interim action was constructed in general conformance with the project design drawings and specifications. Additionally, the stabilized sediment was sampled and analyzed to document the concentrations of dioxins/furans of the material in the IPA stockpiles. These activities are discussed further in Section 2.4.

A National Pollution Discharge Elimination System (NPDES) Construction Stormwater General Permit was obtained for the Interim Action, and implemented by Dutra and the Port. The turbidity of stormwater runoff from the IPAs that discharged to Bellingham Bay via the spillway at the south side of the Site was monitored by Dutra and reported to Ecology.

2.3.3 CONFIRMATION MONITORING

Confirmation monitoring to confirm the long-term effectiveness of the interim action will consist of regular inspection of the IPA stockpiles and drainage facilities to confirm that the stabilized sediment remains covered and that stormwater and erosion controls at the Site are adequately maintained and remain effective.

2.4 CONSTRUCTION QUALITY ASSURANCE/QUALITY CONTROL

Port and Landau Associates personnel conducted certain construction quality assurance (CQA) monitoring activities in general accordance with the Interim Action CQA Plan (Landau Associates 2011d). Dutra and their subconsultant Materials Testing & Consulting, Inc. (MTC) conducted certain quality control (QC) activities included in the project plans and specifications. Documentation associated with CQA and

QC monitoring of interim action activities will be maintained in project files at the Port and Landau Associates.

2.4.1 STABILIZED SEDIMENT PHYSICAL PROPERTIES

The physical properties of the stabilized sediment were monitored during interim action construction using textural observations and laboratory testing to confirm that the material could be adequately reworked and regraded as contouring fill material and placed as a low-permeability soil component of a final cap at the Site. Physical testing included water content, grain size distribution, Atterberg limits, and moisture-density relationships (Standard Proctor compaction tests).

2.4.2 STABILIZED SEDIMENT DIOXIN ANALYSES

Based on pre-construction sediment characterization activities, dioxin concentrations for Gate 3 sediment from DMMUs POB 1, POB 2, and POB 3 ranged from 6.2 to 27.3 nanograms/kilogram (ng/kg) (parts per trillion) [2,3,7,8 TCDD toxicity equivalency (TEQ)], with a volume-weighted average dioxin TEQ concentration of approximately 20.9 ng/kg. The sediment characterization report for the Gate 3 project (Landau Associates 2010) and the Interim Action Plan (Landau Associates 2011a) provide detailed discussions of sediment quality analyses conducted for the Gate 3 project and dioxin mobility considerations relative to the Interim Action.

As part of CQA activities, five samples of stabilized sediment were collected (three from IPA #1 and two from IPA #2) and analyzed at Analytical Resources, Incorporated (ARI) laboratory for dioxins using EPA Method 1613B. The results for these five samples are summarized in Table 1, and the sample locations are shown on Figure 2. The dioxin concentrations for the stabilized sediment samples ranged from about 9.5 to 21.9 ng/kg TEQ. These results demonstrate that the dioxin concentrations for the stabilized sediment samples are consistent with the dioxin concentrations for the pre-dredge sediment samples.

2.5 INTERIM ACTION DESIGN MODIFICATIONS

Several relatively minor design modifications were made during implementation of the interim action, including the following:

- IPA #2 Size Reduction: The configuration of the northern portion of IPA #2 was modified from the design footprint shown on the construction drawings in Appendix A to the modified (shortened) footprint shown on the as-built survey drawing in Appendix B. The associated LFG control system under the northern portion of IPA #2 was also modified to reflect the IPA reconfiguration.
- The bottom elevation of certain segments of the drainage ditches around the IPAs was raised to promote stormwater conveyance and limit excavations that extended into the underlying refuse. This also resulted in the need to import additional granular fill material for construction of certain segments of the perimeter road/ditch system.

- Excavations for certain segments of the ditch along the east side of IPA #2 encountered the top of the landfill refuse, which needed to be excavated and stockpiled for offsite disposal. Dutra/MTC had the stockpiled landfill refuse analyzed as part of profiling for disposal at a permitted Subtitle D offsite landfill facility prior to transporting the material off the Site.
- An onsite spoils placement area was constructed north of IPA #2 (as shown on the as-built survey drawing in Appendix B) to store clean onsite spoils from Site clearing, IPA subgrade preparation, and ditch construction activities. The liner system under the perimeter road/ditch system was not extended under this uncovered spoils placement area.

3.0 USE OF THIS REPORT

This Interim Action Completion report has been prepared for the use of the Port of Bellingham and the Washington State Department of Ecology for specific application to the Cornwall Avenue Landfill Interim Action project. None of the information, conclusions, and recommendations included in this document can be used for any other project without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and written authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

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4.0 REFERENCES

Landau Associates. 2011a. *Cornwall Avenue Landfill Interim Action Plan, Bellingham, Washington.* Prepared for the Port of Bellingham. August 18.

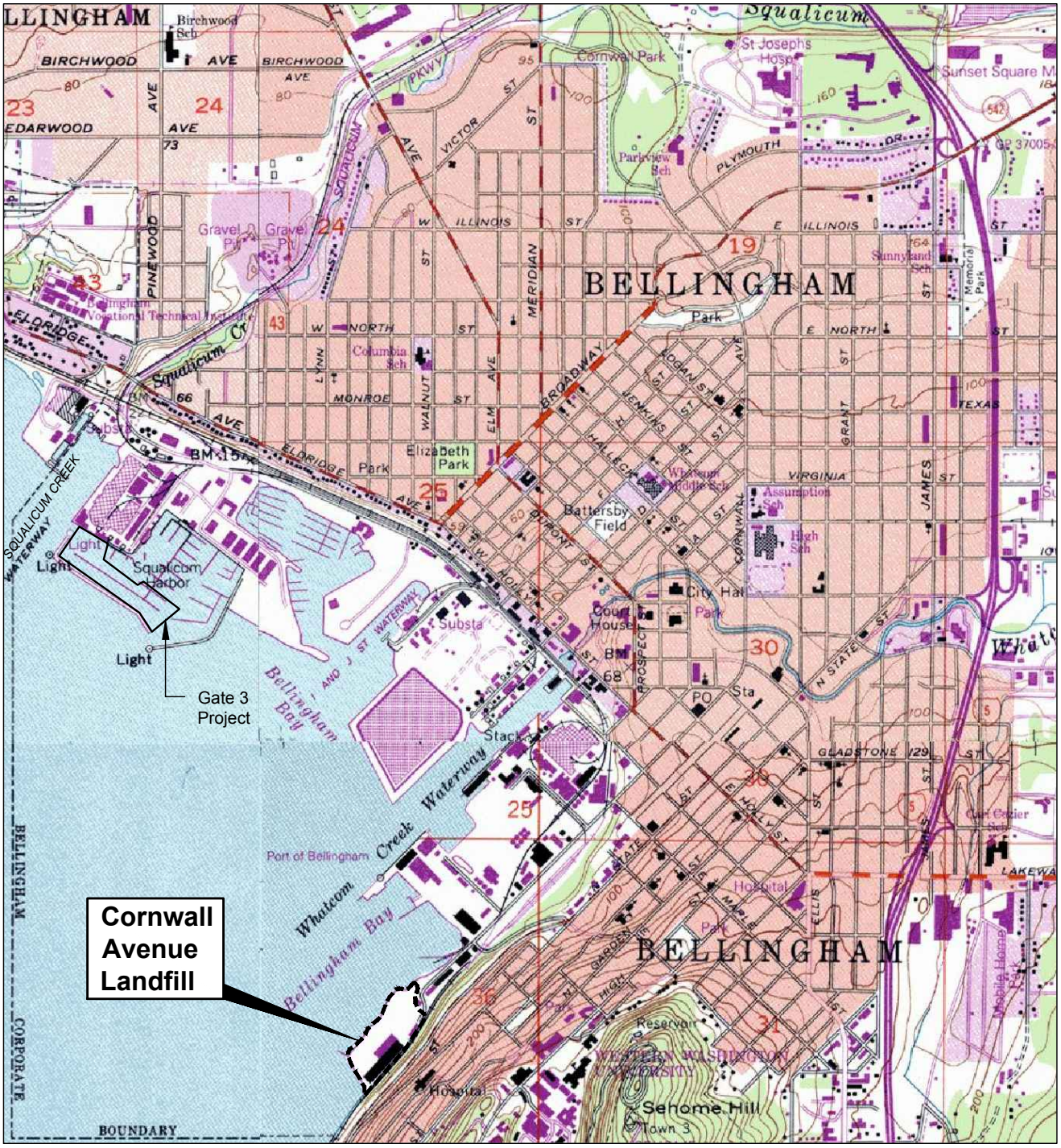
Landau Associates. 2011b. *Critical Area Report, Cornwall Avenue Landfill Interim Action Project, Bellingham, Washington.* Prepared for the Port of Bellingham. November 2.

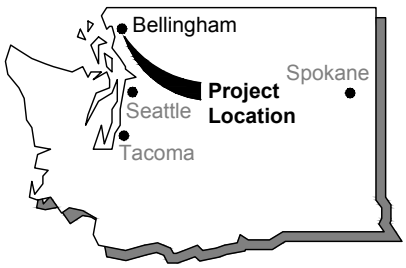
Landau Associates. 2011c. *Health and Safety Plan, Cornwall Avenue Landfill Interim Action, Bellingham, Washington.* Prepared for the Port of Bellingham. October 26.

Landau Associates. 2011d. *Construction Quality Assurance Plan, Cornwall Avenue Landfill Interim Action, Bellingham, Washington.* Prepared for the Port of Bellingham. December 14.

Landau Associates. 2010. *Sediment Characterization Report, Gate 3 Floats F & G Replacement Project, Squalicum Outer Harbor, Port of Bellingham.* Prepared for Port of Bellingham. November 3.

Port of Bellingham. 2011. *Bid Solicitation, Gate 3 Floats F & G Replacement and Outer Harbor Maintenance Dredging Project, Squalicum Harbor.* Bellingham, Washington. June.





0 2000 4000

Approximate Scale in Feet

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Interim Action Competion Report Cornwall Avenue Landfill Bellingham, Washington	**Vicinity Map**	Figure 1

Interim Action Competion Report | V:\001\020\400\490\InterimActionCompletionReport\Figure 1.dwg (A) "Figure 1" 7/2/2012

Legend

- B-10 — Boring Location and Designation
- IPA1,S1 — Stabilized Sediment Dioxin Sample Location and Designation
- Approximate Landward Boundary of Landfill Refuse
- Property Line
- Existing Fence
- 12 — Existing Elevation Contour (ft, MLLW)
- IPA Access Road
- IPA Berm
- A A" — Cross Section Location and Designation

Bellingham Bay

N

Top Of Bank

Ditch

Ditch 0.5%

3:1 Typ

IPA1,S3

IPA1,S2

IPA1,S1

Interim Placement Area #1

Interim Placement Area #2

IPA2,S1

IPA2,S2

B-10

B-11

B-7

A"

A

B"

B

(See Figure 3)

Landfill Boundary

R.G. Haley Site

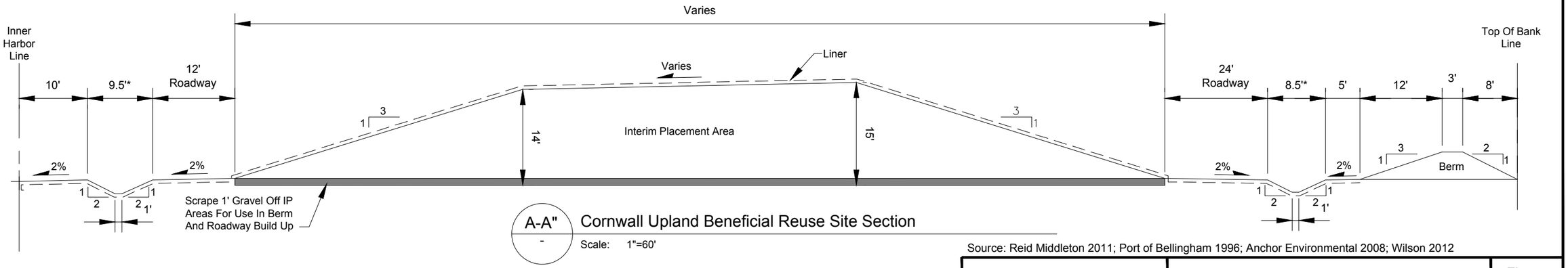
Inner Harbor Line

Existing Stormwater Detention Basin

Burlington Northern Railway

0 100 200

Scale in Feet



A-A" — Cornwall Upland Beneficial Reuse Site Section

Scale: 1"=60'

Source: Reid Middleton 2011; Port of Bellingham 1996; Anchor Environmental 2008; Wilson 2012

Interim Action Completion Report
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Interim Action Site Plan and Section

Figure 2

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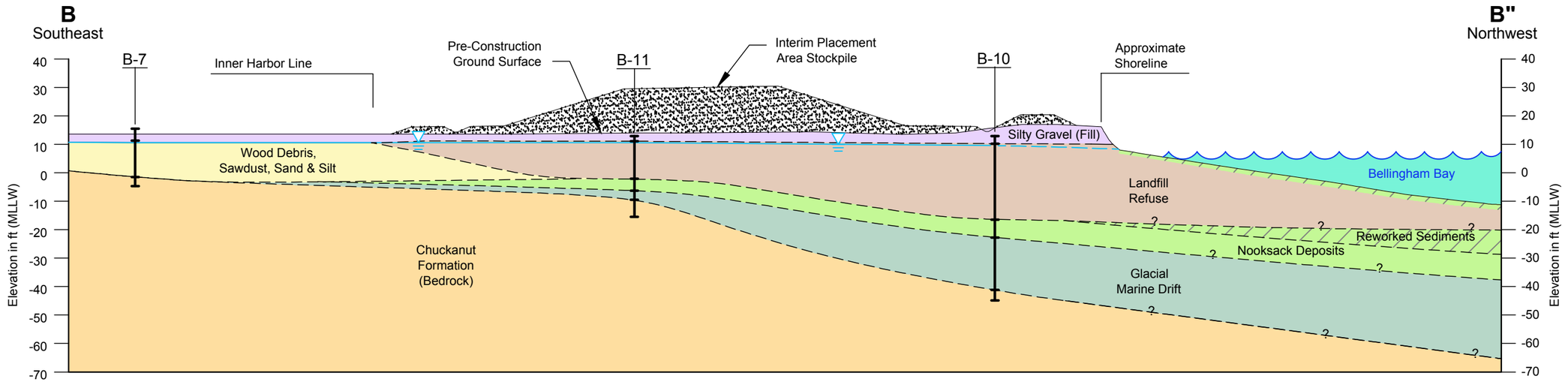

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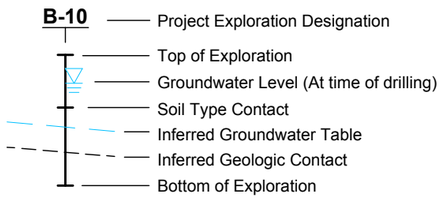

Notes

1. See Figure 2 for approximate location of geologic cross section.
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Adapted from: Reid Middleton 2011, Port of Bellingham 1996

0 40 80
Scale in Feet

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Interim Action Competion Report Cornwall Avenue Landfill Bellingham, Washington	**Geologic Cross Section B-B"**	Figure 3

Interim Action Competion Report | V:\001\020\400490\InterimActionCompletionReport\Figure 3.dwg (A) "Figure 3" 7/2/2012

TABLE 1
STABILIZED SEDIMENT DIOXIN RESULTS
CORNWALL AVENUE LANDFILL INTERIM ACTION
BELLINGHAM, WASHINGTON

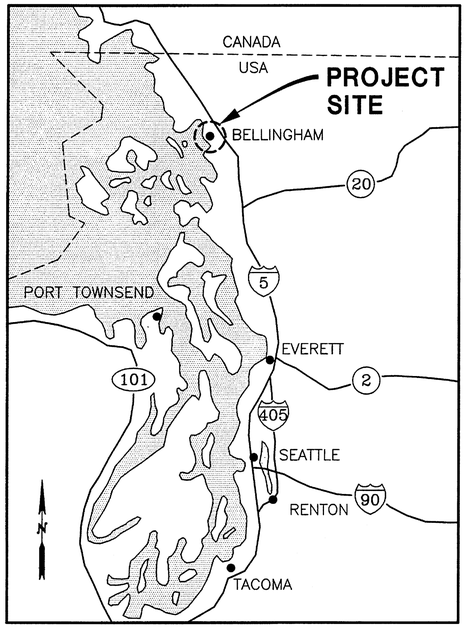
Sample Name	CA-LF-IPA1-0201112A	CA-LF-IPA1-021512B	CA-LF-IPA1-021512C	CA-LF-IPA2-022412D	CA-LF-IPA2-022412E
Sample Description	IPA 1, Sample 1	IPA 1, Sample 2	IPA 1, Sample 3	IPA 2, Sample 1	IPA 2, Sample 2
Sample Collection Date	2/1/2012	2/15/2012	2/15/2012	2/24/2012	2/24/2012
	Result & Qualifier	Result & Qualifier	Result & Qualifier	Result & Qualifier	Result & Qualifier
CHLORINATED DIOXINS (ng/kg)					
Method 1613B					
2,3,7,8-TCDD	0.269 UJ	0.312 UJ	0.405 UJ	0.248 UJ	0.201 UJ
1,2,3,7,8-PeCDD	**1.83**	**3.87**	3.43 UJ	**2.42**	**1.67**
1,2,3,4,7,8-HxCDD	**3.24**	**5.72**	**6.24** J	**4.17**	**2.84**
1,2,3,6,7,8-HxCDD	**13.2**	**31.7**	**24.6**	**17.4**	**13.2**
1,2,3,7,8,9-HxCDD	**7.23**	**15.3**	**15.6**	**9.94**	**7.02**
1,2,3,4,6,7,8-HpCDD	**355**	**735**	**695**	**459**	**348**
OCDD	**3220**	**6330**	**6550**	**4280**	**3380**
Total TCDD	**22.5**	**22.8**	**24.9**	**23.6**	**15.2**
Total PeCDD	**27.9**	**34.6**	**38.8**	**31.6**	**22.6**
Total HxCDD	**120**	**1660**	**258**	**166**	**114**
Total HpCDD	**836**	**223**	**1810**	**1190**	**922**
CHLORINATED FURANS (ng/kg)					
Method 1613B					
2,3,7,8-TCDF	**1.51**	**2.17**	**1.70**	**1.53**	**1.16**
1,2,3,7,8-PeCDF	0.828 UJ	**2.36**	**1.07** J	**0.813** J	**0.634** J
2,3,4,7,8-PeCDF	**1.08**	**2.24**	1.04 UJ	0.900 UJ	0.670 UJ
1,2,3,4,7,8-HxCDF	**3.32**	**6.31**	**4.75** J	**3.22**	**2.49**
1,2,3,6,7,8-HxCDF	**1.42** J	**2.85**	1.95 UJ	**1.72** J	1.27 UJ
2,3,4,6,7,8-HxCDF	**2.19**	**4.40**	3.33 UJ	1.06 UJ	**1.06** J
1,2,3,7,8,9-HxCDF	1.23 UJ	**3.21**	**1.70** J	**1.37** J	**0.921** J
1,2,3,4,6,7,8-HpCDF	**35.7**	**76.4**	**80.4**	**42.3**	**35.5**
1,2,3,4,7,8,9-HpCDF	2.12 U	**3.68**	3.63 UJ	**2.38**	**2.05**
OCDF	**83.9**	**142**	**230**	**103**	**94.1**
Total TCDF	**6.31**	**9.23**	**6.37**	**8.93**	**4.23**
Total PeCDF	**21.8**	**58.8**	**30.4**	**24.7**	**19.5**
Total HxCDF	**68.0**	**173**	**114**	**77.1**	**60.8**
Total HpCDF	**118**	**256**	**260**	**139**	**120**
TEQ (ND=1/2 DL) (a)	**10.5**	**22.0**	**17.6**	**13.0**	**9.72**
TEQ (ND=0) (b)	**10.3**	**21.9**	**15.3**	**12.7**	**9.46**

ng/kg = nanogram per kilogram (parts per trillion)
TEQ = Toxicity equivalent.
J = Indicates the compound was detected; the given concentration is an estimate.
U = Indicates the compound was undetected at the reported concentration.
Bold cells indicate a detected compound.
(a) TEQ calculated using 2005 World Health Organization (WHO) toxicity equivalency factors (TEFs) and one half the detection limit for non-detects
(b) TEQ calculated using 2005 World Health Organization (WHO) toxicity equivalency factors (TEFs) and zero for non-detects

APPENDIX A

Selected Interim Action Construction Drawings

PORT OF BELLINGHAM
GATE 3 FLOATS F & G REPLACEMENT



LOCATION MAP
NOT TO SCALE

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LANDAU ASSOCIATES

DWG NO.	No. SHTS.	SHEET TITLE
		GENERAL
G1.0	1	TITLE SHEET, VICINITY MAP, LOCATION MAP, SHEET INDEX
G1.1	2	PROJECT CONTROL PLAN
		EROSION/SEDIMENTATION CONTROL
C0.1	3	EROSION AND SEDIMENTATION CONTROL PLAN
C0.2	4	EROSION AND SEDIMENTATION CONTROL PLAN
C0.3	5	EROSION AND SEDIMENTATION CONTROL DETAILS AND NOTES
		DEMOLITION
C1.1	6	DEMOLITION PLAN
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		FLOATS AND PILES
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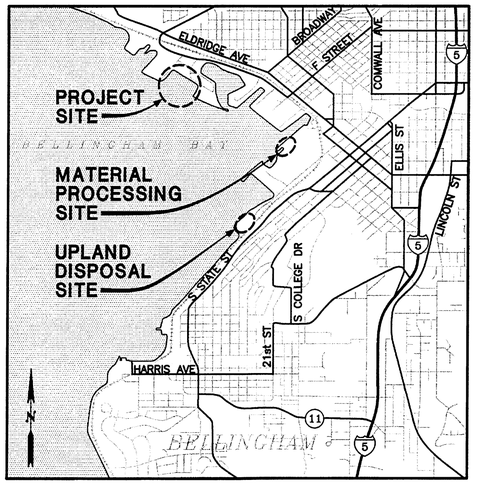
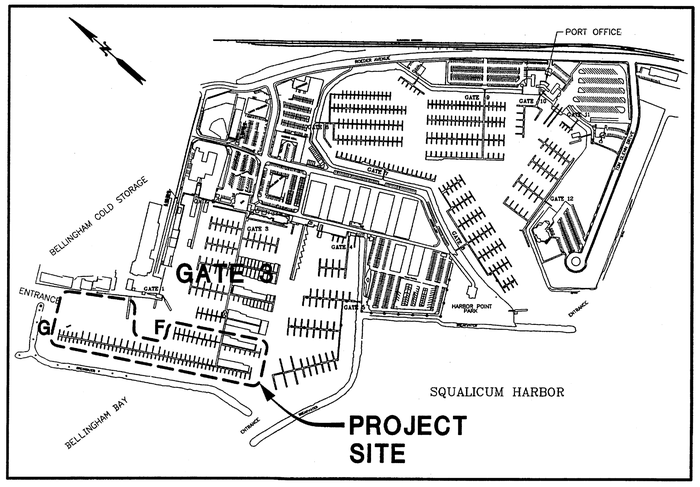
E3.2	38	ELECTRICAL DETAILS



VICINITY MAP
NOT TO SCALE



MARINA MAP
NOT TO SCALE

LANDAU ASSOCIATES
130 2nd AVENUE S.
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HPe HARBOR POWER ENGINEERS, INC.
206.855.4600 tel | 206.890.6557 cell
eddavid2@harborpowernet | www.harborpower.net
ELECTRICAL ENGINEERING FOR COASTAL & WATERFRONT FACILITIES

728 134th Street SW · Suite 200
Everett, Washington 98204
Ph: 425 741-3800
Reid Middleton

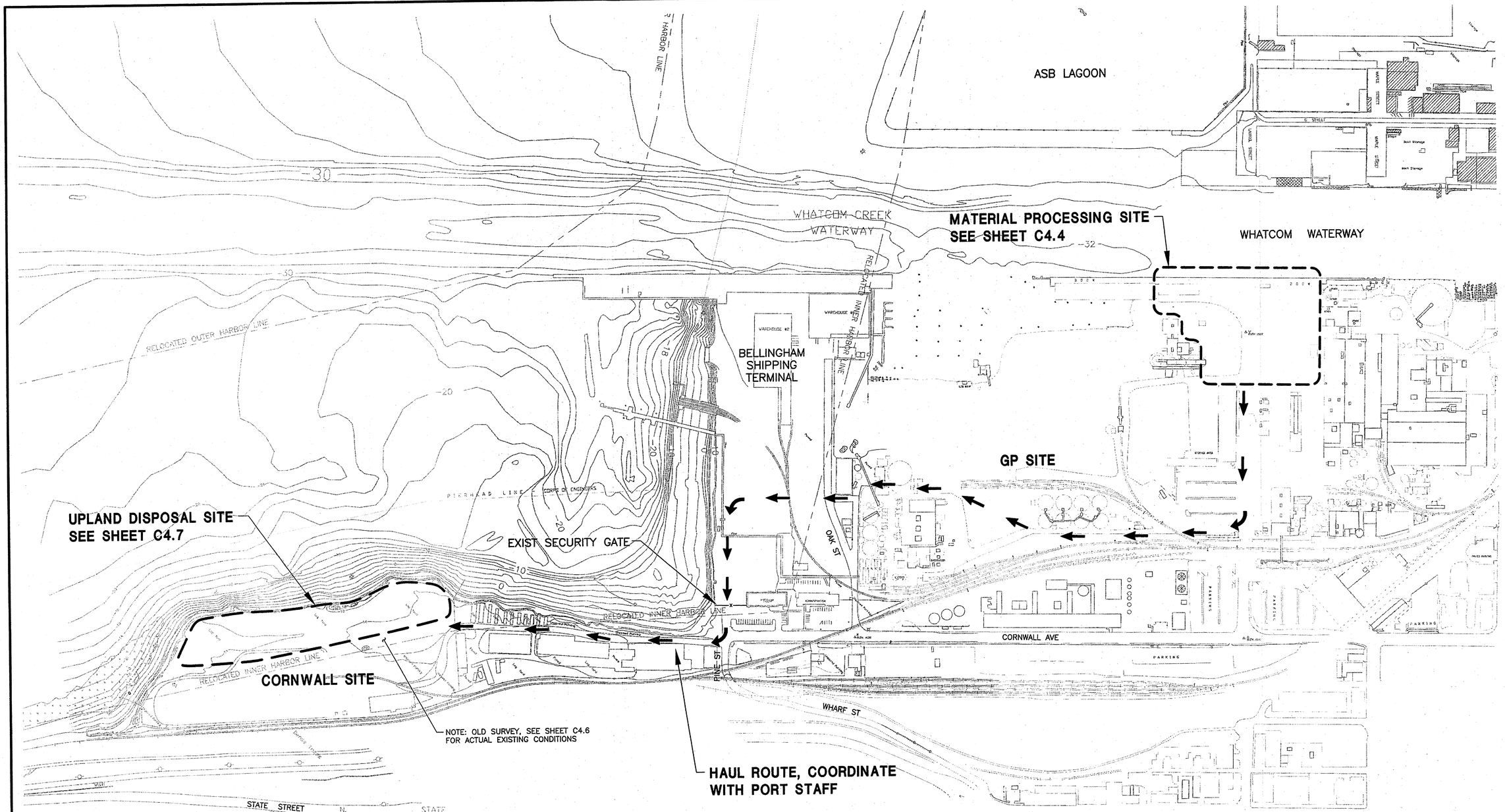
NO.	DATE	BY	REVISION

SHANNON M. KINSELLA — STATE OF WASHINGTON — 30262 — REGISTERED PROFESSIONAL ENGINEER — 6/2/11

NOTE: "L"
IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY.

PORT OF BELLINGHAM
GATE 3 FLOATS F & G REPLACEMENT
TITLE SHEET, VICINITY MAP, LOCATION MAP, SHEET INDEX

SCALE	NO SCALE
DES.	SMK
DR.	DJO
CH.	
F.B.	--
DATE	06/01/11
FILE NO.	24-06-006
SHEET NO.	G1.0
OF SHEETS	



UPLAND SITES AND HAUL ROUTE

SCALE: 1"=200'

SCALE IN FEET

200 0 200 400

NOTES

1. PROVIDE TRAFFIC CONTROL AS NEEDED ON PUBLIC ROADS AND AT RAILROAD CROSSINGS.
2. PORT TO PROVIDE SECURITY GUARD AT SECURITY GATE ON BELLINGHAM SHIPPING TERMINAL.

SHANNON M. KINGSLEY
STATE OF WASHINGTON
90263
REGISTERED PROFESSIONAL ENGINEER
6/2/11

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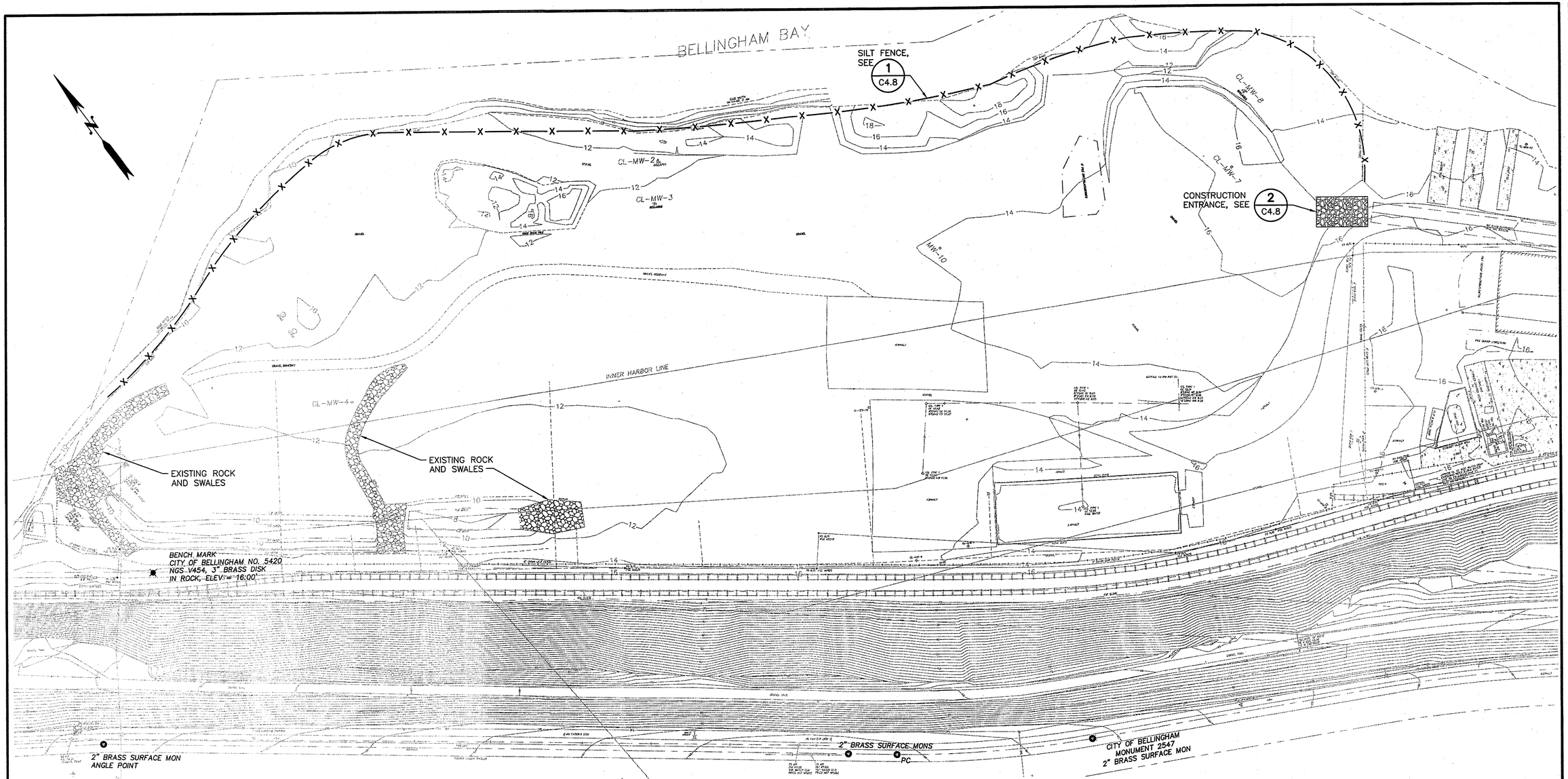
PORT OF BELLINGHAM
GATE 3 FLOATS F & G REPLACEMENT

UPLAND SITES AND HAUL ROUTE

SCALE	AS NOTED
DES.	SMK
DR.	DJO
CH.	
F.B.	— —
SHEET NO.	C4.3
OF SHEETS	
DATE	06/01/11
FILE NO.	24-06-006



DATUM

1. HORIZONTAL DATUM: NAD 83/91, WASHINGTON NORTH ZONE

BASIS OF BEARINGS: N44°13'32"W ALONG PINE STREET BETWEEN MONUMENTS AT CORNWALL AVE. (CITY OF BELLINGHAM CONTROL POINT NO. 588) AND BOULEVARD ST. (2" BRASS SURFACE MONUMENTS).

2. VERTICAL DATUM: NAVD 1988

BENCH MARKS: CITY OF BELLINGHAM NO. 4488 (NGS U 454), 3" BRASS MONUMENT IN CONCRETE CURB AT NORTHERLY CORNER OF CORNWALL AVE BRIDGE OVER RAILROAD, WEST OF INTERSECTION WITH MAPLE ST., ELEVATION = 39.57 FEET

CITY OF BELLINGHAM NO. 5420 (NGS V 454), 3" BRASS MONUMENT IN ROCK, WEST OF RAILROAD TRACKS, APPROXIMATELY 0.5 MILES SOUTHWEST OF INTERSECTION WITH PINE ST., ELEVATION = 16.00 FEET

CITY OF BELLINGHAM NO. 588, 2" BRASS MONUMENT AT INTERSECTION CORNWALL AVE. AND PINE ST., ELEVATION = 13.37 FEET.

CONVERSION TO MLLW TIDAL DATUM: ADD 0.48' TO NAVD 1988 ELEVATIONS

3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY OF OBSERVABLE FEATURES AND SUPPLEMENTED WITH INFORMATION FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED, BUT ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

4. FIELD WORK FOR THIS SURVEY WAS PERFORMED IN DECEMBER 2007 AND JANUARY 2008.

5. FIELD MEASUREMENTS FOR THIS MAP WERE PERFORMED WITH LEICA 1101 TOTAL STATIONS AND TRIMBLE 5700 GPS RECEIVERS, AND MEET OR EXCEED A LINEAR CLOSURE OF 1:15,000. ALL PRIMARY MEASUREMENT EQUIPMENT UTILIZED HAS BEEN COMPARED AND ADJUSTED TO A NATIONAL GEODETIC SURVEY CALIBRATED BASELINE, WITHIN THE LAST YEAR.

EXISTING CONDITIONS AND EROSION/SEDIMENTATION CONTROL PLAN

SCALE: 1"=50'

LEGEND

- LIGHT POLE WITH ARM
- LIGHT POLE WITH NO ARM / PEDESTRIAN SIGNAL POLE
- POWER VAULT
- UTILITY POLE
- GUY ANCHOR
- SIGNAL POLE
- SIGNAL POLE WITH LUMINAIRE ARM
- POWER METER
- POWER JUNCTION BOX
- POWER HANDHOLE
- TRANSFORMER
- TSCB TRAFFIC SIGNAL CONTROL BOX
- SLCB STREET LIGHT CONTROL BOX
- TV CABLE TV JUNCTION BOX
- T TELEPHONE VAULT
- T TELEPHONE PEDESTAL
- T,B TELEPHONE JUNCTION BOX
- GM GAS METER
- GAS VALVE
- W WATER VAULT
- FIRE HYDRANT
- WATER VALVE
- WM WATER METER
- MW MONITOR WELL
- BLOWOFF VALVE
- PRV PRESSURE RELIEF VALVE
- ICV IRRIGATION CONTROL VALVE
- PIV POST INDICATOR VALVE
- FDC FIRE DEPARTMENT CONNECTION
- HOSE BIBB
- CATCH BASIN, TYPE 1
- CATCH BASIN, TYPE 2/STORM MANHOLE
- SDCO STORM DRAIN CLEANOUT
- CULVERT
- SANITARY SEWER MANHOLE
- SSCO SANITARY SEWER CLEANOUT
- ROCKERY
- TEST HOLE
- SIGNPOST
- MB MAILBOX
- DECIDUOUS TREE (DEC)
- CONIFEROUS TREE
- MONUMENT
- R/C FOUND REBAR/CAP
- TK/LD TACK IN LEAD
- D STORM DRAIN LINE
- G GAS LINE
- OPL OVERHEAD POWER LINE
- P UNDERGROUND POWER LINE
- S SANITARY SEWER LINE
- OTL OVERHEAD TELEPHONE LINE
- T UNDERGROUND TELEPHONE LINE
- TV UNDERGROUND CABLE TV LINE
- FM FORCE MAIN
- W WATER LINE

NOTE

1. EXISTING SITE PLAN INFORMATION AND CONTOURS FROM W&H SURVEY, DATED JANUARY, 1 2001.

SCALE IN FEET
50 0 50 100

SHANNON M. KINSMAN
STATE OF WASHINGTON
30282
REGISTERED PROFESSIONAL ENGINEER
6/6/11

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NO.	DATE	BY	REVISION

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PORT OF BELLINGHAM
GATE 3 FLOATS F & G REPLACEMENT

EXISTING CONDITIONS AND EROSION/SEDIMENTATION CONTROL PLAN

SCALE	AS SHOWN
DES. SMK	SHEET NO. C4.6
DR. CSM	
CH.	
F.B. ---	OF SHEETS
DATE 06/01/11	
FILE NO. 24-06-006	

PROTECTION ROCK NOTES:

1. NEW PROTECTION ROCK TO BE ONE-MAN ROCK.
2. INSTALL FILTER FABRIC BELOW NEW PROTECTION ROCK. OVERLAP AND KEY IN FABRIC PER MANUFACTURER'S RECOMMENDATIONS.
3. NEW PROTECTION ROCK TO HAVE MINIMUM OVERALL DEPTH OF 18 INCHES. MINIMUM DEPTH BELOW DITCH INVERT SHALL BE 6 INCHES.
4. REUSE REMOVED EXIST ROCK FROM ENDS OF DITCHES TO REGRADE SPILLWAY, REGRADE TO FORM SLIGHT DITCH

BELLINGHAM BAY

APPROX FUTURE OVERWATER WALKWAY LANDING ELEV +16.8' MLLW

REMOVE EXIST ROCK AND INSTALL NEW 20'x20' TYP PROTECTION ROCK, SLOPE NEW ROCK TOWARDS CENTER

BERM

CULVERT, TYP

INTERIM PLACEMENT AREA #1

INTERIM PLACEMENT AREA #2

24' BASE ONLY

45' BASE & ADDITIVE

21' BASE ONLY

42' BASE & ADDITIVE

3:1 TYP

DITCH 0.5%

INNER HARBOR LINE

INNER/HARBOR LINE

CL-MW-3

CL-MW-4

CL-MW-10

CONSTRUCTION ENTRANCE, SEE 2/C4.8

WHEEL WASH

STA 12+70.43
N 639244.35
E 1239999.54

STA 0+00
N 638178.63
E 1239308.00

BENCH MARK
CITY OF BELLINGHAM NO. 5420
NGS V454, 3" BRASS DISK
IN ROCK, ELEV = 16.00'

2" BRASS SURFACE MON
ANGLE POINT

2" BRASS SURFACE MONS
PC

CITY OF BELLINGHAM
MONUMENT 2547
2" BRASS SURFACE MON

INTERIM PLACEMENT AREA #1 VOLUMES

BASE ONLY:
APPROX VOLUME = 18,700 CY

BASE & ADDITIVE:
APPROX VOLUME = 31,000 CY

INTERIM PLACEMENT AREA #2 VOLUMES

BASE ONLY:
APPROX VOLUME = 12,500 CY

BASE & ADDITIVE:
APPROX VOLUME = 20,000 CY

PROJECT CONTROL			
(X)	STATION	OFFSET	DESCRIPTION
1	0+52.45	91.31' LT	SHOREWARD EDGE OF BERM
2	2+49.81	261.31' LT	SHOREWARD EDGE OF BERM
3	3+23.11	274.61' LT	SHOREWARD EDGE OF BERM
4	6+11.32	230.93' LT	SHOREWARD EDGE OF BERM
5	9+12.64	222.75' LT	SHOREWARD EDGE OF BERM
6	10+51.34	245.42' LT	SHOREWARD EDGE OF BERM
7	11+72.51	231.10' LT	SHOREWARD EDGE OF BERM
8	12+55.49	70.73' LT	SHOREWARD EDGE OF BERM
9	0+00	14.25' LT	CENTER LINE DITCH END
10	2+44.92	14.25' LT	CENTER LINE DITCH END
11	2+60.46	14.25' LT	CENTER LINE DITCH END
12	5+59.17	14.25' LT	CENTER LINE DITCH END
13	5+79.73	14.25' LT	CENTER LINE DITCH END
14	7+7.95	14.25' LT	CENTER LINE DITCH END
15	7+15.01	43.81' LT	CENTER LINE DITCH END
16	7+22.23	139.20' LT	CENTER LINE DITCH END
17	7+76.58	188.27' LT	CENTER LINE DITCH END
18	7+80.06	14.25' LT	CENTER LINE DITCH END
19	7+87.29	187.91' LT	CENTER LINE DITCH END
20	11+96.99	14.25' LT	CENTER LINE DITCH END
21	3+96.71	120.17' RT	CENTER LINE DITCH END

MATERIAL VOLUMES		
	CUT (cu yds)	FILL (cu yds)
BERM	–	2,400
GRAVEL ROAD	400	3,300
DITCHES	800	450

LEGEND

CULVERT

11.0' BOTTOM OF DITCH ELEVATION, APPROXIMATE

CORNWALL UPLAND BENEFICIAL REUSE SITE

SCALE: 1"=50'

SCALE IN FEET
50 0 50 100

NOTES

1. EXISTING SITE PLAN INFORMATION AND CONTOURS FROM W & H SURVEY, DATED 1/11/2011.
2. REMOVE AND DISPOSE ANY CONCRETE DEBRIS IN WORK AREA, EXISTING BEACH AND BANK SLOPE TO REMAIN UNDISTURBED.
3. EXISTING MONITORING WELLS TO BE DECOMMISSIONED BY PORT PRIOR TO START OF CONSTRUCTION.
4. ALL SITE WORK (EXCEPT ONE DITCH) TO BE CONTAINED NORTH OF THE INNER HARBOR LINE.
5. INSTALL WHEEL WASH AT CONSTRUCTION ENTRANCE.
6. ALL EQUIPMENT TO USE WHEEL WASH PRIOR TO LEAVING THE SITE.
7. ALL PLACED DREDGE MATERIAL TO BE COVERED WITH LINER AS SOON AS POSSIBLE.
8. INTERIM PLACEMENT AREA VOLUMES INCLUDE 25% BULKING FACTOR.
9. SCRAPE 1' FOOT OF GRAVEL OFF INTERIM PLACEMENT AREAS FOR USE IN BERM AND ROADWAY BUILD UP.
10. CULVERTS SHALL HAVE THE FOLLOWING PROPERTIES:

PIPE MATERIAL: HDPE DUAL WALL PIPE WITH A CORRUGATED EXTERIOR AND A SMOOTH INTERIOR. MANUFACTURED IN ACCORDANCE WITH AASHTO M294 TYPES, ASTM F2306, AND ASTM F2648 PIPE SHALL CONTAIN A MINIMUM OF 2% CARBON BLACK CONTENT PER ASTM D3350.

SIZE: 12"ø MIN

SLOPE: 0.5%

SHANNON M. KINGSLEY STATE OF WASHINGTON 30262 REGISTERED PROFESSIONAL ENGINEER
6/2/11

NOTE: "L" IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY.

REVISION

NO.	DATE	BY

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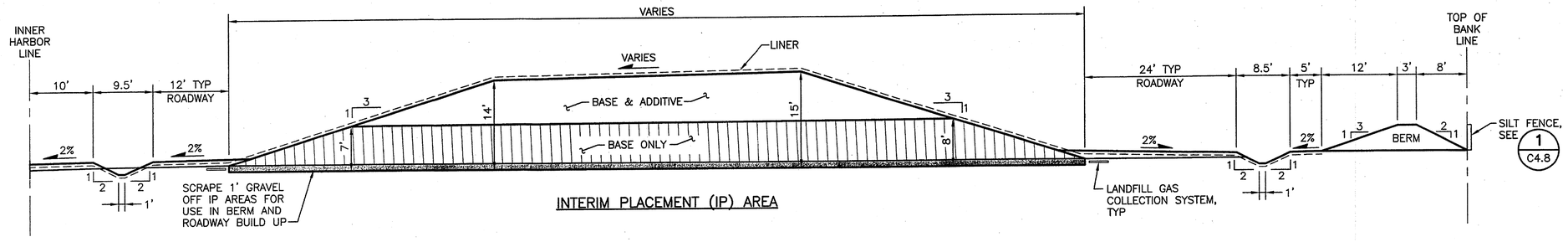
Ph: 425 741-3800
Reid Middleton

PORT OF BELLINGHAM
GATE 3 FLOATS F & G REPLACEMENT

CORNWALL UPLAND BENEFICIAL REUSE SITE PLAN

SCALE	AS SHOWN
DES. SMK	SHEET NO. C4.7
DR. CSM	
CH.	
F.B. – –	OF SHEETS
DATE	06/01/11
FILE NO.	24-06-006

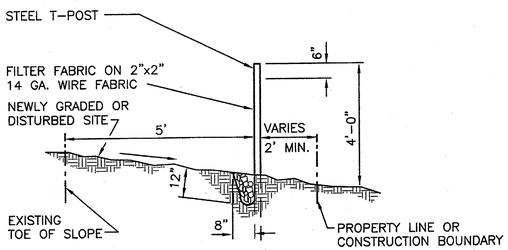


INTERIM PLACEMENT (IP) AREA

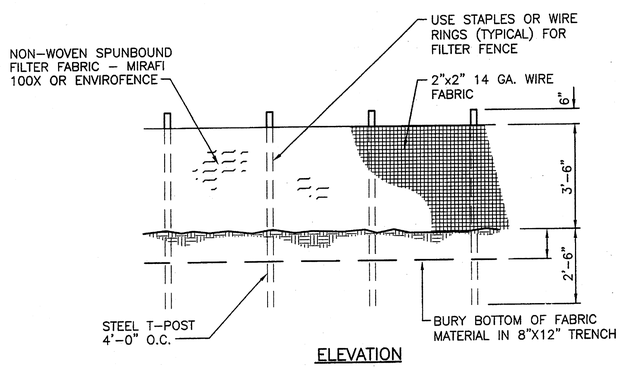
A C4.7 **CORNWALL UPLAND BENEFICIAL REUSE SITE SECTION**
NOT TO SCALE

NOTES:

1. DITCH ELEVATION SHOWN IS SCHEMATIC. SEE DRAWING C4.7 FOR ELEVATIONS.
2. INSTALL SILT FENCE CONTINUOUS ALONG ENTIRE LENGTH OF BERM.
3. SEE SHEET C4.9 FOR LANDFILL GAS CONTROL SYSTEM.
4. BERM TO BE STABILIZED AND HYDROSEEDED AFTER COMPLETION.

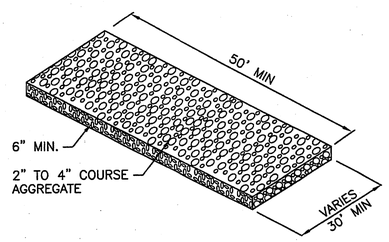


SECTION



ELEVATION

1 C4.6 **FILTER FABRIC FENCE**
NOT TO SCALE



NOTE:
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR RACKED FROM VEHICLES ONTO ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

2 C4.6 **GRAVEL CONSTRUCTION ENTRANCE**
NOT TO SCALE

NOTE:
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"L"

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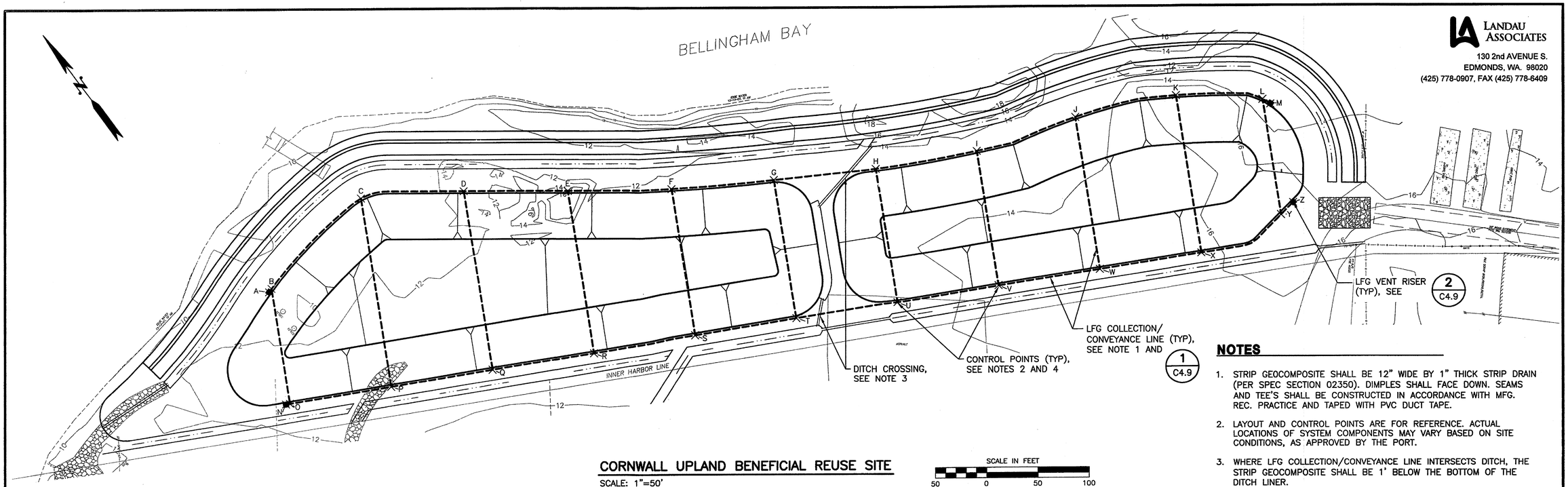
Reid Middleton

PORT OF BELLINGHAM
GATE 3 FLOATS F & G REPLACEMENT

CORNWALL UPLAND BENEFICIAL REUSE SITE
SECTIONS AND DETAILS

SCALE	AS SHOWN
DES.	SMK
DR.	CSM
CH.	
F.B.	---
SHEET NO.	C4.8
OF SHEETS	
DATE	06/01/11
FILE NO.	24-06-006



CORNWALL UPLAND BENEFICIAL REUSE SITE

SCALE: 1"=50'

SCALE IN FEET
50 0 50 100

LANDAU ASSOCIATES
130 2nd AVENUE S.
EDMONDS, WA. 98020
(425) 778-0907, FAX (425) 778-6409

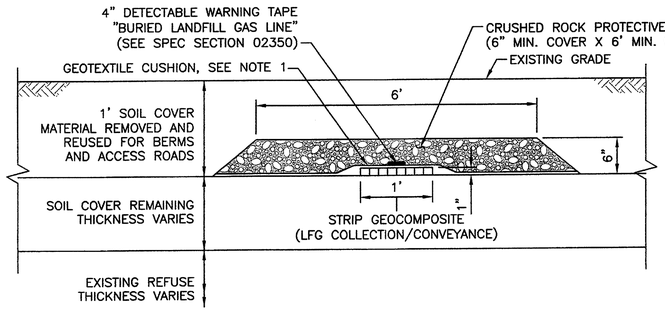
NOTES

1. STRIP GEOCOMPOSITE SHALL BE 12" WIDE BY 1" THICK STRIP DRAIN (PER SPEC SECTION 02350). DIMPLES SHALL FACE DOWN. SEAMS AND TEE'S SHALL BE CONSTRUCTED IN ACCORDANCE WITH MFG. REC. PRACTICE AND TAPED WITH PVC DUCT TAPE.
2. LAYOUT AND CONTROL POINTS ARE FOR REFERENCE. ACTUAL LOCATIONS OF SYSTEM COMPONENTS MAY VARY BASED ON SITE CONDITIONS, AS APPROVED BY THE PORT.
3. WHERE LFG COLLECTION/CONVEYANCE LINE INTERSECTS DITCH, THE STRIP GEOCOMPOSITE SHALL BE 1' BELOW THE BOTTOM OF THE DITCH LINER.
4. CONTRACTOR TO PROVIDE A SURVEYORS REPORT BY A LICENSED PROFESSIONAL SURVEYOR DOCUMENTING THE AS-CONSTRUCTED LOCATION AND ELEVATION OF EACH CONNECTION POINT AND PROVIDE HORIZONTAL AND VERTICAL DATA TO THE PORT.

LEGEND

◆ LFG VENT RISER

LFG COLLECTION/CONVEYANCE LINE

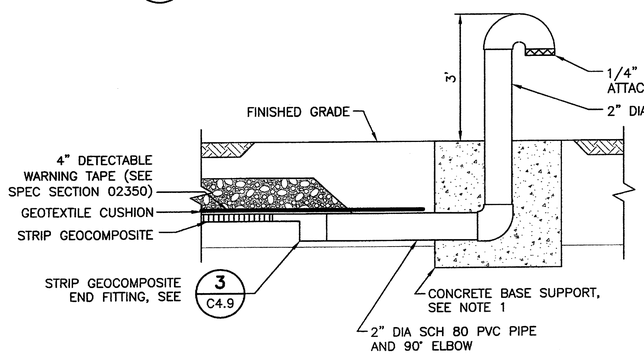


NOTES

1. GEOTEXTILE CUSHION SHALL BE MIN. 12 OZ/SQ. YD. (SEE SPEC SECTION 02350)
2. SEQUENCE SUBGRADE PREPARATION AND LFG CONTROL SYSTEM CONSTRUCTION IN ACCORDANCE WITH SPEC SECTION 02300 AND 02350, AND CONTRACTOR'S APPROVED CONSTRUCTION PLAN TO PREVENT DAMAGE TO SYSTEM COMPONENTS AND FUNCTIONALITY.

1 C4.9 LFG COLLECTION/CONVEYANCE LINE DETAIL

SCALE: NTS

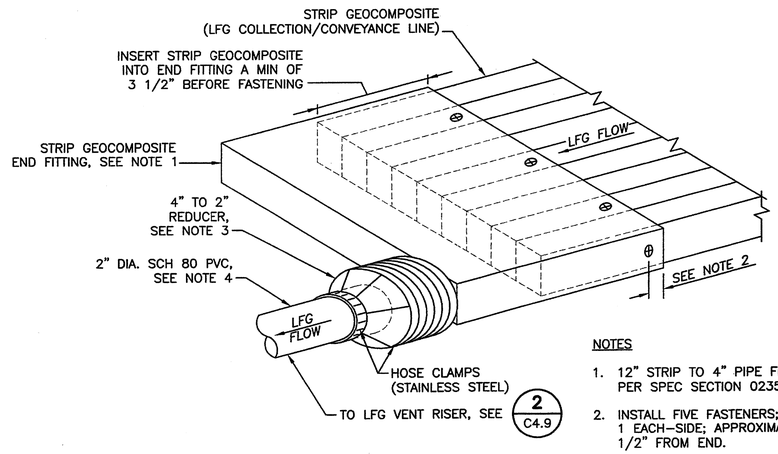


NOTE

1. CONCRETE BASE SUPPORT SHALL EXTEND 3" BELOW THE BOTTOM AND 12" ABOVE THE TOP OF LATERAL PIPING, AND EXTEND 12" LATERALLY IN ALL DIRECTIONS AROUND THE RISER PIPE.
2. VENT RISERS SHALL BE LOCATED APPROXIMATELY 2' OUTSIDE OF THE INTERIM PLACEMENT AREA BOUNDARY.
3. INSTALL THREE CONCRETE-FILLED STEEL BOLLARDS (3' ABOVE GROUND PAINTED YELLOW) AROUND EACH VENT RISER FOR TRAFFIC PROTECTION.

2 C4.9 LFG VENT RISER DETAIL

SCALE: NTS



NOTES

1. 12" STRIP TO 4" PIPE FITTING PER SPEC SECTION 02350.
2. INSTALL FIVE FASTENERS; 3-TOP; 1 EACH-SIDE; APPROXIMATELY 1 1/2" FROM END.
3. FERNCO RUBBER BOOT 4" TO 2" ADAPTER OR EQUAL AS APPROVED BY THE PORT.
4. INSERT 2" DIA. SCH 80 PVC A MIN. OF 5" INTO FERNCO BOOT.

3 C4.9 STRIP COMPOSITE END FITTING DETAIL

SCALE: NTS

CONTROL POINT TABLE					
POINT	NORTHING	EASTING	POINT	NORTHING	EASTING
A	638,408.48	1,239,292.50	N	638,347.85	1,239,383.84
B	638,412.40	1,239,291.72	O	638,351.21	1,239,386.01
C	638,536.28	1,239,284.51	P	638,435.10	1,239,440.45
D	638,615.08	1,239,346.79	Q	638,518.98	1,239,494.88
E	638,690.21	1,239,414.72	R	638,602.87	1,239,549.31
F	638,766.22	1,239,481.29	S	638,687.30	1,239,602.91
G	638,846.06	1,239,541.97	T	638,771.19	1,239,657.34
H	638,927.01	1,239,600.92	U	638,854.66	1,239,712.42
I	639,011.43	1,239,654.52	V	638,938.55	1,239,766.85
J	639,104.54	1,239,694.74	W	639,022.31	1,239,821.48
K	639,190.97	1,239,745.26	X	639,106.19	1,239,875.92
L	639,250.66	1,239,804.64	Y	639,188.62	1,239,900.25
M	639,253.33	1,239,813.13	Z	639,205.36	1,239,899.16

* COORDINATES SHOWN ARE IN WASHINGTON STATE PLANE NAD83 NORTH ZONE (FEET).

NOTE: "L"
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Reid Middleton

PORT OF BELLINGHAM
GATE 3 FLOATS F & G REPLACEMENT

CORNWALL UPLAND
LANDFILL GAS CONTROL SYSTEM PLAN

SCALE	AS SHOWN
DES. JMD	SHEET NO. C4.9
DR. BLT	
CH. DAP	
F.B. --	OF SHEETS
DATE 06/01/11	
FILE NO. 24-06-006	

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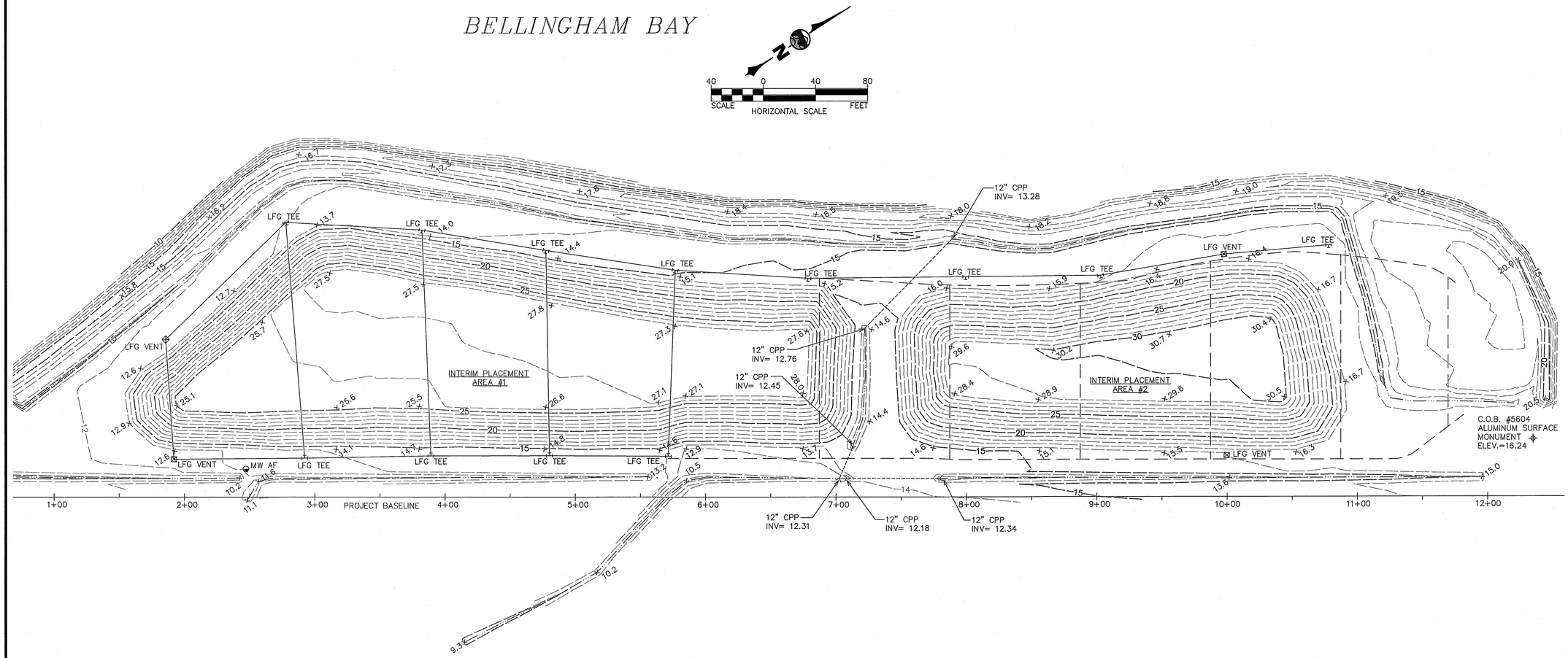
APPENDIX B

As-Built Record Survey Drawings



SURVEYOR'S NOTES

1. THIS SURVEY WAS PERFORMED IN MAY 2012, FOR THE PURPOSE OF REPRESENTING THE FINAL AS-BUILT CONDITIONS AND ELEVATIONS AT THE "CORNWALL BENEFICIAL REUSE SITE", SHOWN ON SHEETS 4.5-4.8 OF THE PLAN SET PREPARED BY REID-MIDDLETON FOR THE PORT OF BELLINGHAM'S "GATE 3 FLOATS--F&G REPLACEMENT" PROJECT.

2. CONTROL FOR THIS SURVEY WAS DERIVED FROM REID-MIDDLETON'S SURVEY OF EXISTING CONDITIONS AND EROSION/SEDIMENTATION CONTROL PLAN NOTES, SHEET **C-4.6** OF SAID PLAN SET. FIELD VERIFICATION OF THE RECOVERED CONTROL REVEALED LESS THAN 0.10' OF DISCREPANCY BETWEEN EXPECTED VALUE, AND CURRENT MEASUREMENT.

3. LANDFILL GAS (LFG) SYSTEM WAS CONSTRUCTED AND BURIED BEFORE THIS SURVEY WAS COMPLETED. THREE METHODS WERE USED TO SHOW THE APPROXIMATE LOCATION OF THE LFG SYSTEM ON THIS SHEET:

- LFG VENTS WERE VISIBLE ABOVEGROUND, AND ALL VENTS SHOWN HEREON WERE LOCATED BY ACTUAL MEASUREMENTS TO THE VENTS.

- WHERE SHOWN, LFG TEES WERE LOCATED BY MEASUREMENTS TO OFFSET STAKES SET BY THE CONTRACTOR. THE ACCURACY OF THESE OFFSET STAKES IN UNKNOWN. THE SOLID LFG LINES SHOWN ON THIS SHEET SIMPLY CONNECT THE CONTRACTOR LOCATED TEES TO ONE ANOTHER AND TO THE VENTS IN A CONFIGURATION APPROXIMATING THE PROPOSED LFG SYSTEM.

- WHERE THERE WERE NO STAKES OR MARKINGS AVAILABLE TO INDICATE THE LOCATION OF THE LFG SYSTEM, IT IS SHOWN HEREON WITH A DASHED LINE PER THE REID-MIDDLETON PLAN SET (SHEET C4.9 - LANDFILL GAS CONTROL SYSTEM PLAN).

CONTROL NOTES

1. **BASIS OF COORDINATES:** FOUND CITY OF BELLINGHAM 2" BRASS SURFACE DISC W/PUNCH AT INTERSECTION OF CORNWALL AVENUE AND PINE STREET. WSE CONTROL POINT #904, C.O.B. DESIGNATION #588. THE FOLLOWING COORDINATES WERE HELD FOR CITY OF BELLINGHAM MONUMENT #588:

   NORTHING = ***639,988.1596 USFT***
   EASTING = ***1,240,757.7416 USFT***

2. **BASIS OF BEARINGS:** HELD DERIVED INVERSE BETWEEN THE ABOVE-MENTIONED CONTROL POINT #904/#588 AND FOUND CITY OF BELLINGHAM 2" ALUMINUM SURFACE DISK, CITY DESIGNATION #5604, SAID BEARING BEING N 47°22' 02"W, AT A DISTANCE OF 1106.94'. THE FOLLOWING COORDINATES WERE HELD FOR CITY OF BELLINGHAM DESIGNATION #5604:
   NORTHING = ***639,238.434 USFT***
   EASTING = ***1,239,943.3553 USFT***

3. **BASIS OF ELEVATIONS:** REFERENCE BENCHMARK: CITY OF BELLINGHAM COMPREHENSIVE MAPPING PROGRAM 2009 STATION ***COB # 588***, NAVD88 EL=13.35, PER THE CITY OF BELLINGHAM'S AMENDED RECORD OF SURVEY OF WATERFRONT MONUMENTS, RECORDED UNDER WHATCOM COUNTY AUDITOR'S FILE #2080302393. MONUMENT #588 IS LOCATED AT THE INTERSECTION OF CORNWALL AVENUE AND PINE STREET.

4. ***HORIZONTAL DATUM:*** NAD83/98 WASHINGTON STATE PLANE (NORTH ZONE) US SURVEY-FOOT COORDINATION AND MENSURATION, PER THE REID-MIDDLETON SURVEY FOR THE PORT OF BELLINGHAM (SEE SURVEYOR'S NOTE #2) .

5. ***VERTICAL DATUM:*** NAVD88 PER THE CITY OF BELLINGHAM RECORD OF SURVEY FILED UNDER AF #2080302393, AND THE REID-MIDDLETON CONTROL NOTES AS STATED.

LEGEND

⊠	EXISTING LFG VENT
⁂	EXISTING LFG TEE LOCATION PER CONTRACTOR OFFSET STAKE
◒	EXISTING MONITORING WELL
⌖	SITE BENCHMARK
× 15.0	SPOT ELEVATION
—·—·—	EXISTING DITCH CENTERLINE
- - - - -	EXISTING CULVERT
———	EXISTING LFG LINES PER CONTRACTOR OFFSET STAKES TO LFG TEES
— — — —	LFG LINES PER PLAN SET (SEE SURVEYOR'S NOTE 3)

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM A LICENSED LAND SURVEYOR IN THE STATE OF WASHINGTON, THAT THIS MAP IS BASED ON AN ACTUAL FIELD SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL DATA SHOWN HEREON ACTUALLY EXISTS IN THE LOCATIONS SHOWN AT THE TIME OF THIS SURVEY. THIS TOPOGRAPHIC MAP WAS DONE AT THE REQUEST OF DUTRA GROUP IN MAY OF 2012.

J. THOMAS BREWSTER, P.L.S. NO. 44335 DATE

J. THOMAS BREWSTER — STATE OF WASHINGTON — 44335 — REGISTERED PROFESSIONAL LAND SURVEYOR — 5/21/2012

5/21/2012

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DESIGNED BY
DRAWN BY JCS
CHECKED BY JTB

DUTRA GROUP

BELLINGHAM WASHINGTON

CORNWALL UPLAND BENEFICIAL REUSE SITE AS-BUILT SURVEY

DATE MAY 2012
SCALE AS SHOWN
JOB NUMBER 2011-134

SHEET 1 OF 1