US Army Corps
of Engineers
Seattle District

Public Notice of Application for Permit

Regulatory Branch
Post Office Box 3755
Seattle, Washington 98124-3755
Telephone (206) 764-3495
Project Manager: Olivia Romano, Project Manager

Public Notice Date: November 24, 2003
Expiration Date: December 24, 2003
Reference: 200301064
Name: Georgia Strait Crossing Pipeline, Inc.

Interested parties are hereby notified that an application has been received for a Department of the Army permit in accordance with Section 10 of the Rivers and Harbors Act of March 3, 1899, and Section 404 of the Clean Water Act for certain work described below and shown on the enclosed drawings.

APPLICANT – Georgia Strait Crossing Pipeline LP (GSX-US)
2800 Post Oak Boulevard
Houston, Texas 77056-6100
ATTN: Mr. Tim L. Powell
Telephone: (713) 215-2719

LOCATION – In the Strait of Georgia and in wetlands, streams, and rivers in the Fraser and Nooksack basins. The proposed natural gas pipeline begins at the Northwest Pipeline Corporation's existing Sumas Compressor station at Sumas, Whatcom County, Washington, and ends at the United States/Canada border, in the Strait of Georgia near Patos Island, San Juan County, Washington.

WORK – Installation of 32 miles of a 20-inch buried natural gas pipeline and aboveground facilities from Sumas to a proposed Cherry Point compressor station and 1.4 miles of 16-inch pipeline from proposed compressor station to shoreline at Cherry Point (onshore portion) and installation of 14 miles of 16-inch natural gas pipeline from Cherry Point to US/Canada border in the Strait of Georgia (offshore portion). The onshore portion of the work will consist of the excavation and backfill of native material for burial of the pipeline, associated land clearing, and construction of temporary workspaces, and drill sites. The proposed pipeline will cross a total of 230 wetland areas and 87 rivers, streams, jurisdictional ditches, and the Strait of Georgia. The proposed pipeline construction will temporarily impact 59.34 acres of wetlands and riparian areas and result in the permanent conversion of 3.48 acres of scrub-shrub and forested wetlands to emergent or scrub-shrub wetlands. Thirty-one wetland areas will be bored or horizontal directional drilled (HDD) and there will be no wetland impacts associated with these crossings. Of the 87 river, stream, and jurisdictional ditch crossings, 15 will be bored, and 8 will be done using HDD, including south crossing of Saar Creek, Sumas River, Johnson Creek, Fishtrap Creek, Pepin Creek, Double Ditch Creek, East and West Guide Meridian Creeks, Bertrand Creek, South Fork of Dakota Creek, California Creek, Terrell Creek, five jurisdictional ditches, and Cherry Point beach and nearshore habitat area in the Strait of Georgia. The remaining river, stream, and jurisdictional ditch crossings will be done using one of several open-cut methods. There is no wetland impacts associated with the Bellingham receiving/staging/pipe storage area or the Gulf Road HDD pipe fabrication area.

The offshore portion of the work consists of the excavation of about 2,000 cubic yards of sediment for the HDD exit point (glory hole), and the excavation of a shallow pipe trench for the placement of the pipeline from the HDD exit point to a water depth of about -240 feet using a bury barge or pipe-trenching barge. The HDD exit point will be excavated using a clamshell dredge and will be backfilled by natural sedimentation. The excavated material will be placed on the sea floor adjacent to the exit point. To minimize interference with

fishing, anchoring, or other marine operations, the pipeline will be "key-in" at depths from -130 feet to -240 feet mean lower low water. "Key-in" method minimizes the amount of trenching so that the top of the pipeline is flush with the bottom of the sea floor when laid. At depths greater than -240 feet, the pipeline will be laid on the sea floor by lay barge.

PURPOSE – To provide a transportation system for natural gas to Canadian electrical generation facilities that will meet the growing demand for electrical power on Vancouver Island, Canada.

ADDITIONAL INFORMATION – The Federal Energy Regulatory Commission (FERC) finalized an Environmental Impact Statement (EIS) in July 2002, which addresses the alternative routes and the construction of the proposed natural gas pipeline by the GSX-US. The FERC also issued GSX-US a Certificate of Public Convenience and Necessity on September 20, 2002. A draft supplement Environmental Impact State was issued by Washington Department of Ecology on September 24, 2003, as part of the State Environmental Policy Act (SEPA). Please note the first public notice for the proposed project was issued on July 18, 2003, under the Corps Reference number 2001-2-000732. The proposed work stated above includes minor route changes, which have reduced the wetland and stream impacts from the originally proposed route. There are a number of wetland areas and associated drainage ditches that may be considered prior-converted wetlands by Natural Resources Conservation Service and/or are not within the U.S. Army Corps of Engineers (Corps) jurisdiction. However, all wetlands and ditches have been included in this public notice.

MITIGATION – The GSX-US is required by the FERC to restore all wetlands impacted by the construction of the pipeline. Restoration includes the segregation of topsoil during construction to allow for its placement back over the trenchline, returning of the ground elevation to pre-construction elevations, and revegetation. Impacted native wetland areas will be seeded using an approved wetland seed mixture that includes species native to the region. In addition, live cuttings of native woody species will be planted in impacted scrub-shrub and forested wetlands except in the 10-foot area directly above the proposed pipeline, which must not contain woody vegetation in accordance with safety guidance, and at waterway crossings to enhance wetland functions and to hasten recovery. Woody species would include dogwood, willow, cottonwood, and salmonberry. Revegetation will be monitored periodically for the first 3 years following construction. The GSX-US has identified a compensatory wetland mitigation site located along the proposed pipeline route (near milepost 28 on Sheet 10 of 56) just east of Kickerville Road. The proposal includes the enhancement of about 7.0 acres of an existing emergent wetland (dominated by reed canarygrass) to a forested/scrub-shrub wetland. Native trees, shrub, and herbaceous species will be planted and/or seeded at the proposed site and control of reed canarygrass will be implemented. The proposed mitigation would connect existing fragmented forested wetlands to the east and west of the proposed mitigation site. In order to meet Washington State Department of Ecology's recommended ratios, an additional 9.0 acres of additional wetland enhancement is necessary. The GSX-US is currently searching for another mitigation site that can be enhanced as the proposed Kickerville Road site will be. To compensate for the temporary and life of project changes in riparian functions, the GSX-US is proposing a riparian mitigation site located along the proposed pipeline route just west of Jackson Road and east of the proposed Cherry Point compressor station (near milepost 32 on Sheet 11 of 56). The site is a tributary to Terrell Creek with a narrow palustrine emergent wetland along the stream and hay meadow on either side of the stream. The site will be planted with native trees and shrubs enhancing 2.2 acres, of which 0.6 acres will be a forested wetland and 1.6 acres will be a forested upland.

ENDANGERED SPECIES – The Endangered Species Act (ESA) of 1973, as amended, requires assessment of potential impacts to listed and proposed species. The Bald eagle (Hali*aeetus leucocephalus*) listed threatened; Marbled murrelet (*Brachyramphus marmoratus)* listed threatened; Brown pelican (*Pelecanus occidentalis*),

endangered; Northern spotted owl (*Strix occidentalis)* listed threatened; Short-Tailed albatross (*Phoebastria albatrus*), endangered; Coastal/Puget Sound bull trout (*Salvelinus confluentus)* listed threatened; Puget Sound chinook (*Oncorhynchus tshawytscha*) listed threatened; Gray wolf (*Canis lupis*), endangered; Steller sea lion (*Eumetopias jubatus*), threatened; Blue whale (*Balaenoptera musculus*), endangered; Fin whale (*Balaenoptera physalus*), endangered; Humpback whale (*Megaptera novaeangliae*),endangered; Sei whale (*Balaenoptera borealis*), endangered; Sperm whale (*Physeter macrocephalus*), endangered; Black right whale (Balaena glacialis), endangered; Green sea turtle (*Chelonia mydas*), threatened; Leatherback sea turtle (*Dermochelys coriacea*), endangered; Loggerhead sea turtle (*Caretta caretta*), threatened; and Oregon silverspot butterfly (*Speyeria zerene hippolyta*), threatened, have been listed in the state of Washington, and may occur in the proposed project area. For marbled murrelet and the northern spotted owl, critical habitat has been designated. The FERC is the lead Federal agency for ESA. The FERC has completed informal consultation under Section 7 of the Act. The following determinations of effect were made for these species: "no effect" – Short-tailed albatross and Oregon silverspot butterfly, and "not likely to adversely affect" – Chinook, Bull trout, Gray wolf, Steller sea lion, Sei whale, Fin whale, Blue whale, Humpback whale, Black right whale, Sperm whale, Brown pelican, Bald eagle, Marbled murrelet, Northern spotted owl, Leatherback sea turtle, Green sea turtle, and Loggerhead sea turtle. The National Marine Fisheries Service (NMFS), by letter dated May 29, 2002, and U.S. Fish and Wildlife Service (USFWS), by letter dated June 25, 2002, concurred with FERC determinations.

ESSENTIAL FISH HABITAT – The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). EFH for Pacific salmon, Groundfish, and Coastal Pelagic Species occurs in the project area. The proposed action would impact approximately 45.6 acres of EFH for these species. The FERC is the lead Federal agency for EFH. The FERC has determined that the proposed action would impact approximately 45.6 acres of EFH for these species. The NMFS, by letter dated May 29, 2002, stated that the conservation measures that FERC included as part of the proposed action to address the ESA concerns are adequate to avoid, minimize, or otherwise offset potential adverse effects to EFH of the 46 species of groundfish, 4 species of coastal pelagics, and 3 species of Pacific salmon. Therefore conservation recommendations pursuant to MSA are not necessary. Consultation under the MSA is complete.

CULTURAL RESOURCES – The FERC as the lead agency for determining compliance with Section 106 of the National Historic Preservation Act, will consult with the State Historic Preservation Office as appropriate. A historic properties investigation has been conducted within the permit areas. The on-shore investigations identified 32 new cultural resources sites, 3 of which may be eligible for listing on the National Register of Historic Places. The off-shore investigations identified 6 potential sites. These sites are outside the pipeline construction corridor. Additional evaluation of these sites will be needed before an effects determination is made.

PUBLIC HEARING - Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

EVALUATION - The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof;

among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an EIS pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. This evaluation will include an alternatives analysis.

ADDITIONAL EVALUATION - The State of Washington is reviewing this work for consistency with the approved Washington Coastal Zone Management Program and for compliance with the applicable State and Federal water quality standards pursuant to Section 401 of the Clean Water Act. This proposal is the subject of Shorelines Substantial Development Permit No. SHR2002-00003 and SHC2002-00002 which are being processed by Whatcom County and Shorelines Substantial Development Permit No. 01SJ017 which is being processed by San Juan County.

COMMENT AND REVIEW PERIOD – Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether it would be in the public interest to authorize this proposal. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. All e-mail comments should be sent to Olivia.h.romano@usace.army.mil. Conventional mail comments should be sent ATTN: Regulatory Branch. Both conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commentor's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration. Please include the following name and reference number:

Georgia Strait Crossing Pipeline, LP, 200301064

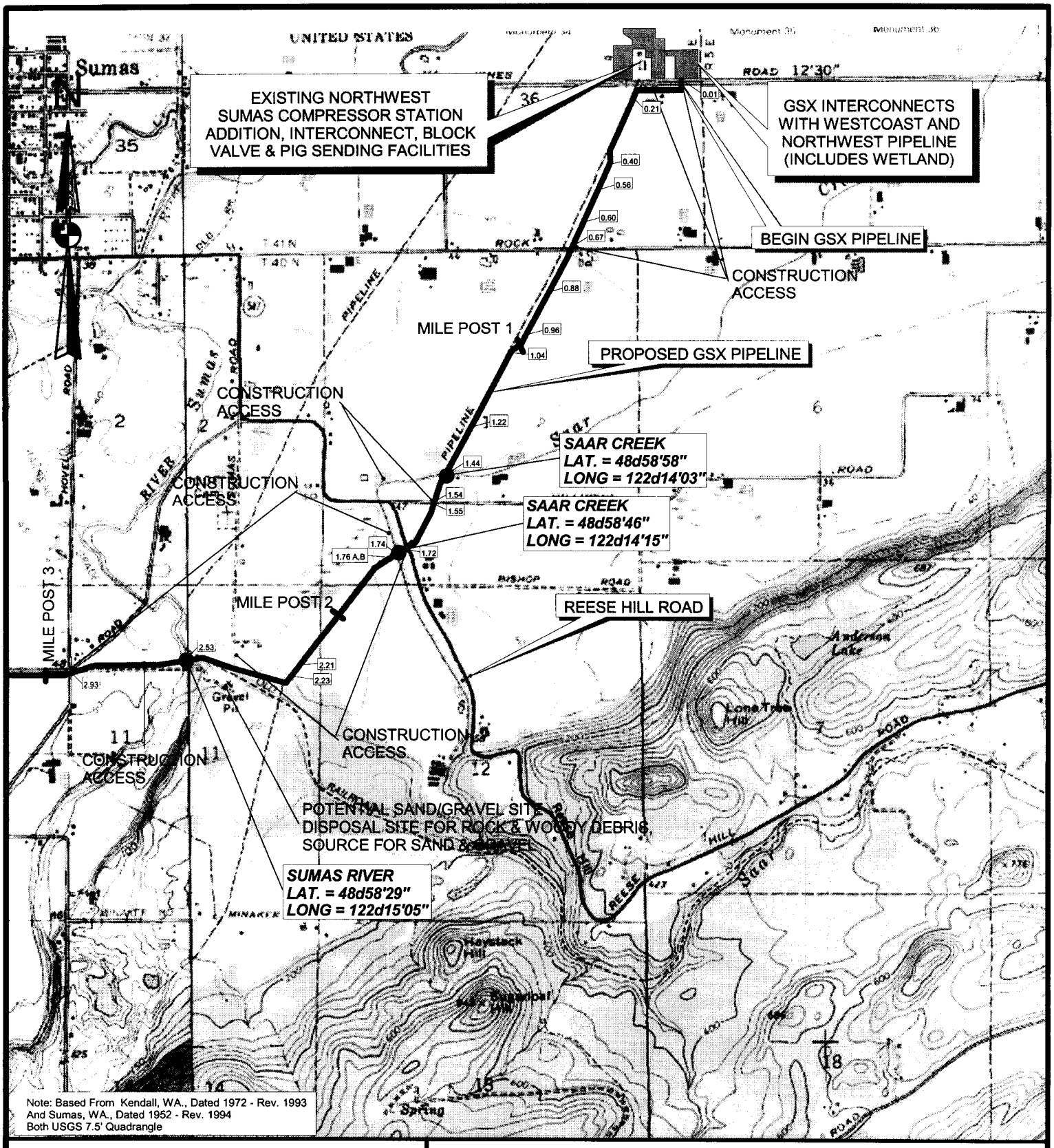
Encl
Drawings (56)

Note: Based from Victoria, B.C., Can.; Wash., U.S.
Dated 1967 - Revised (U.S. Area) 1974

0 1 2 3 4 5 6 7 8 9 10 Miles

0 5 10 15 20 Kilometers

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 1 of 56 Date 09/03



Note: Based From Kendall, WA., Dated 1972 - Rev. 1993
And Sumas, WA., Dated 1952 - Rev. 1994
Both USGS 7.5' Quadrangle

SCALE: 1" = 2000'

0.00 = WETLAND

WETLAND/WATERBODY
ROUTE MAP

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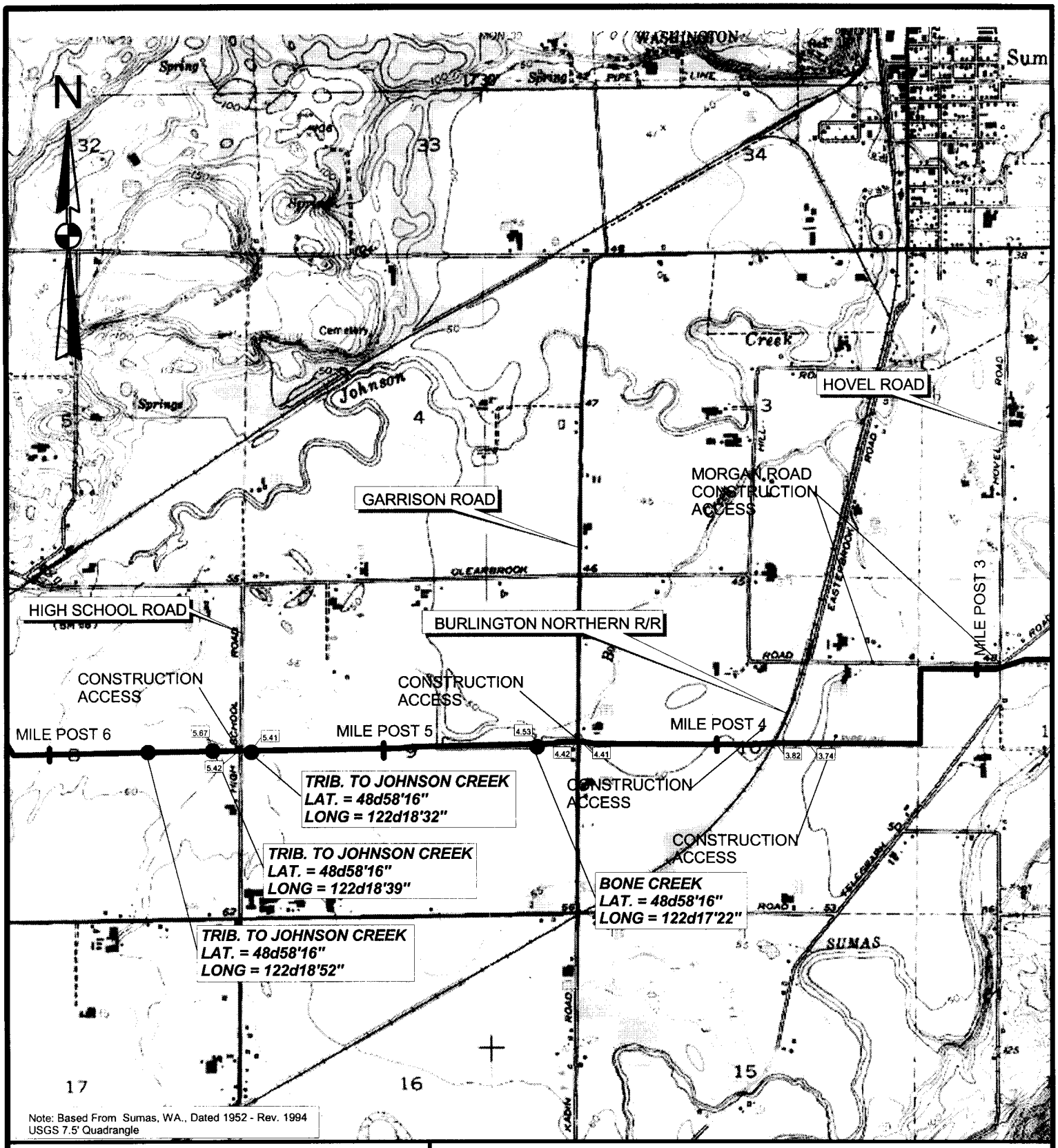

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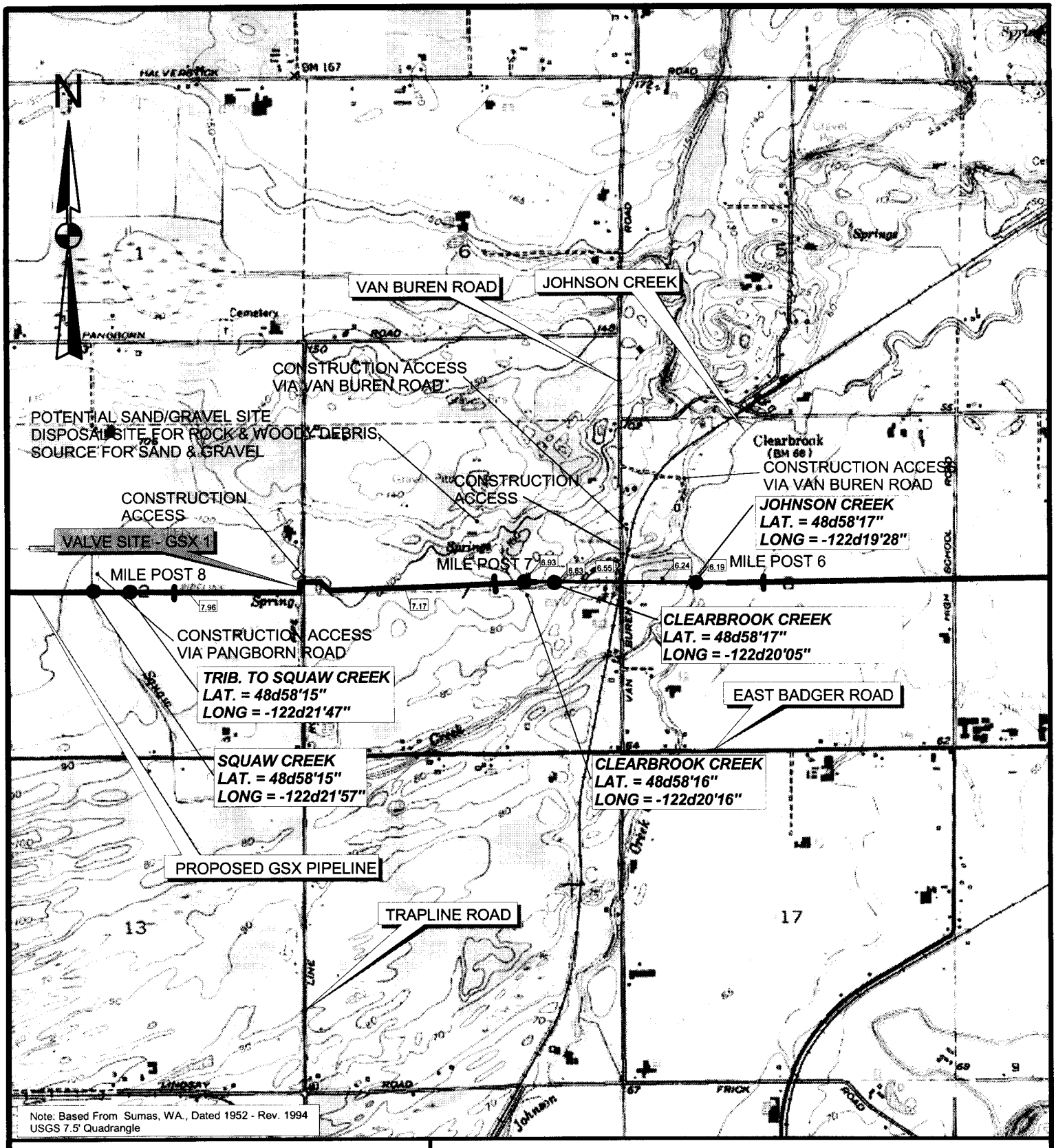

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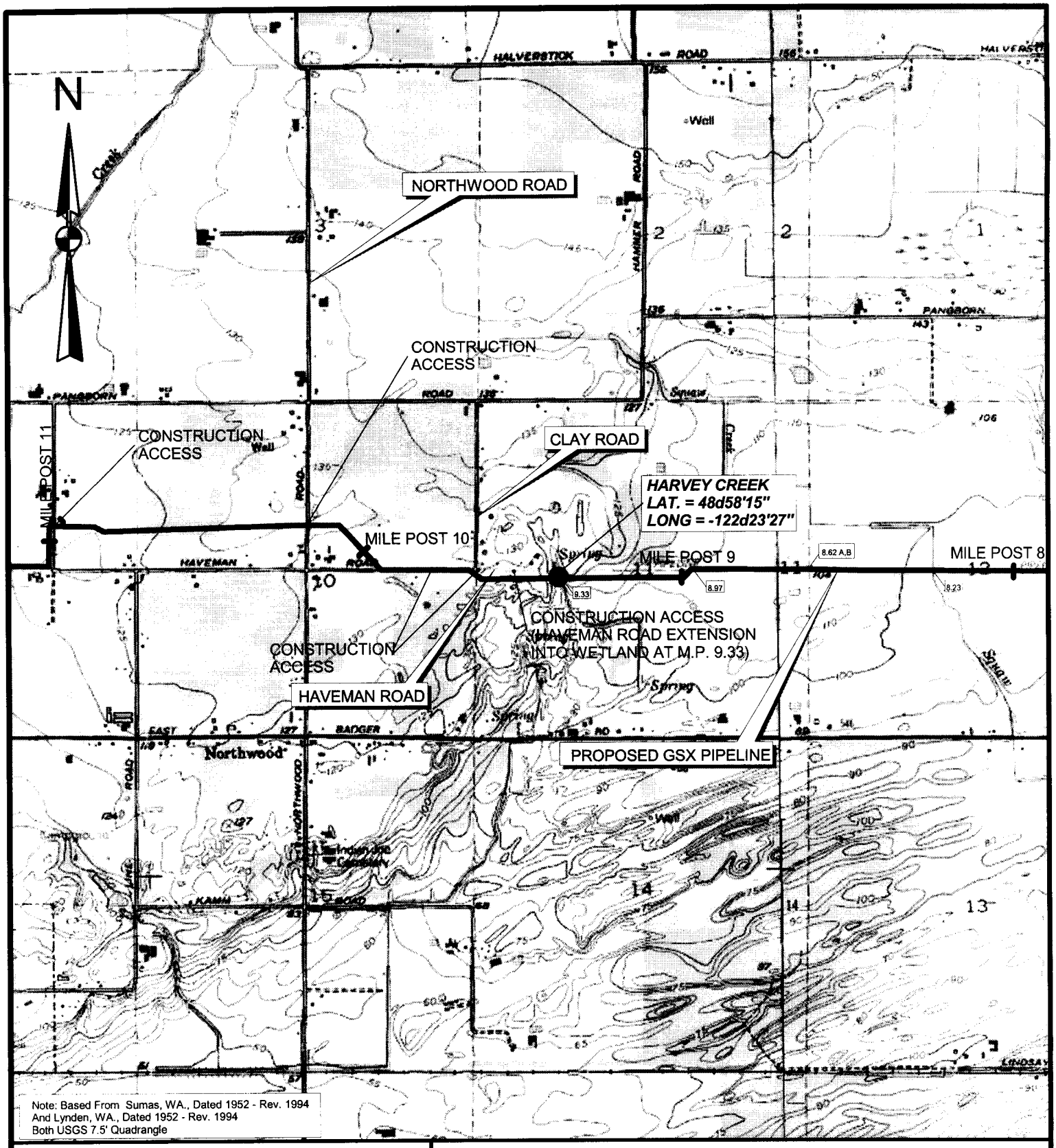

Note: Based From Sumas, WA., Dated 1952 - Rev. 1994
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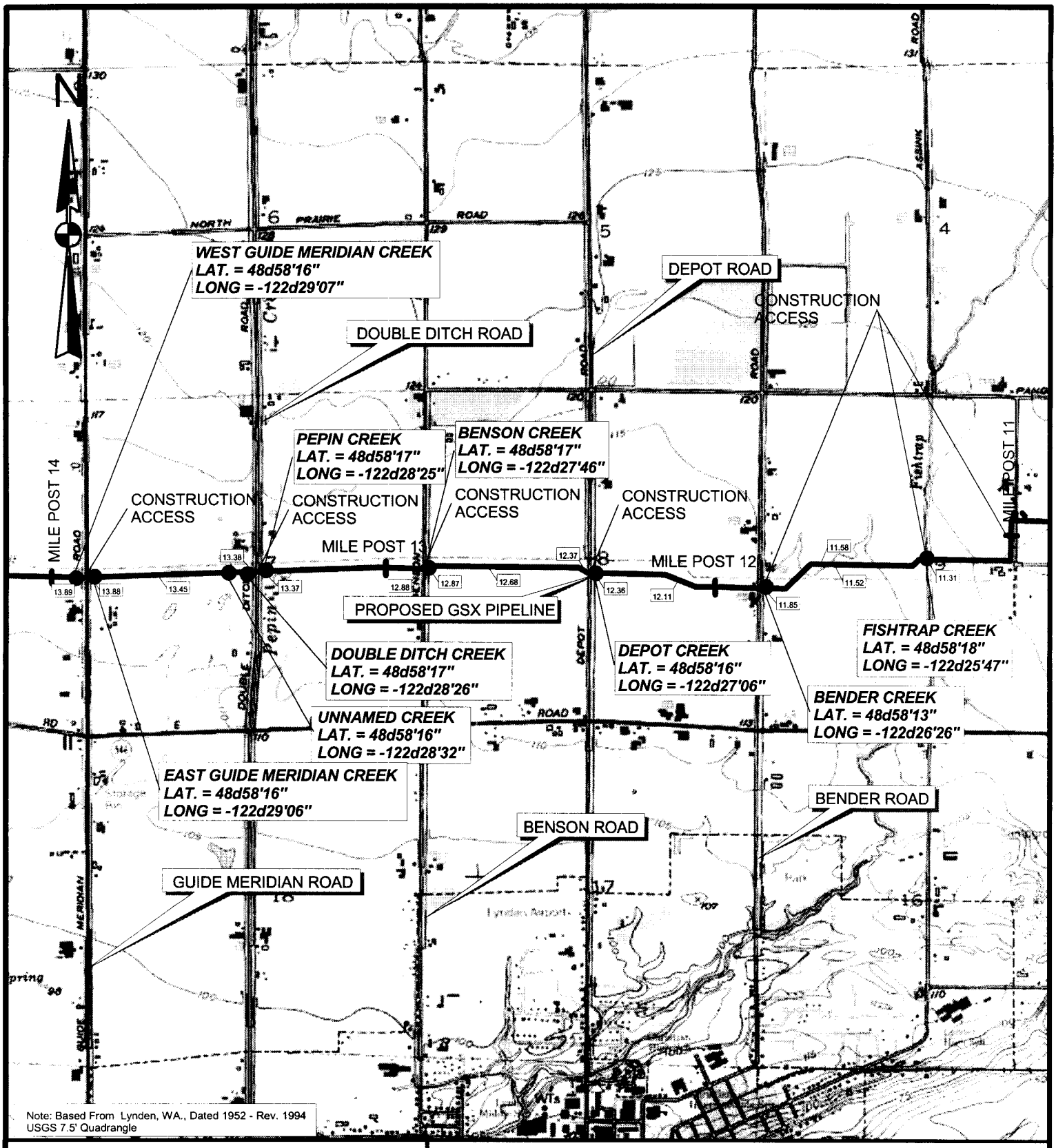

Note: Based From Lynden, WA., Dated 1952 - Rev. 1994
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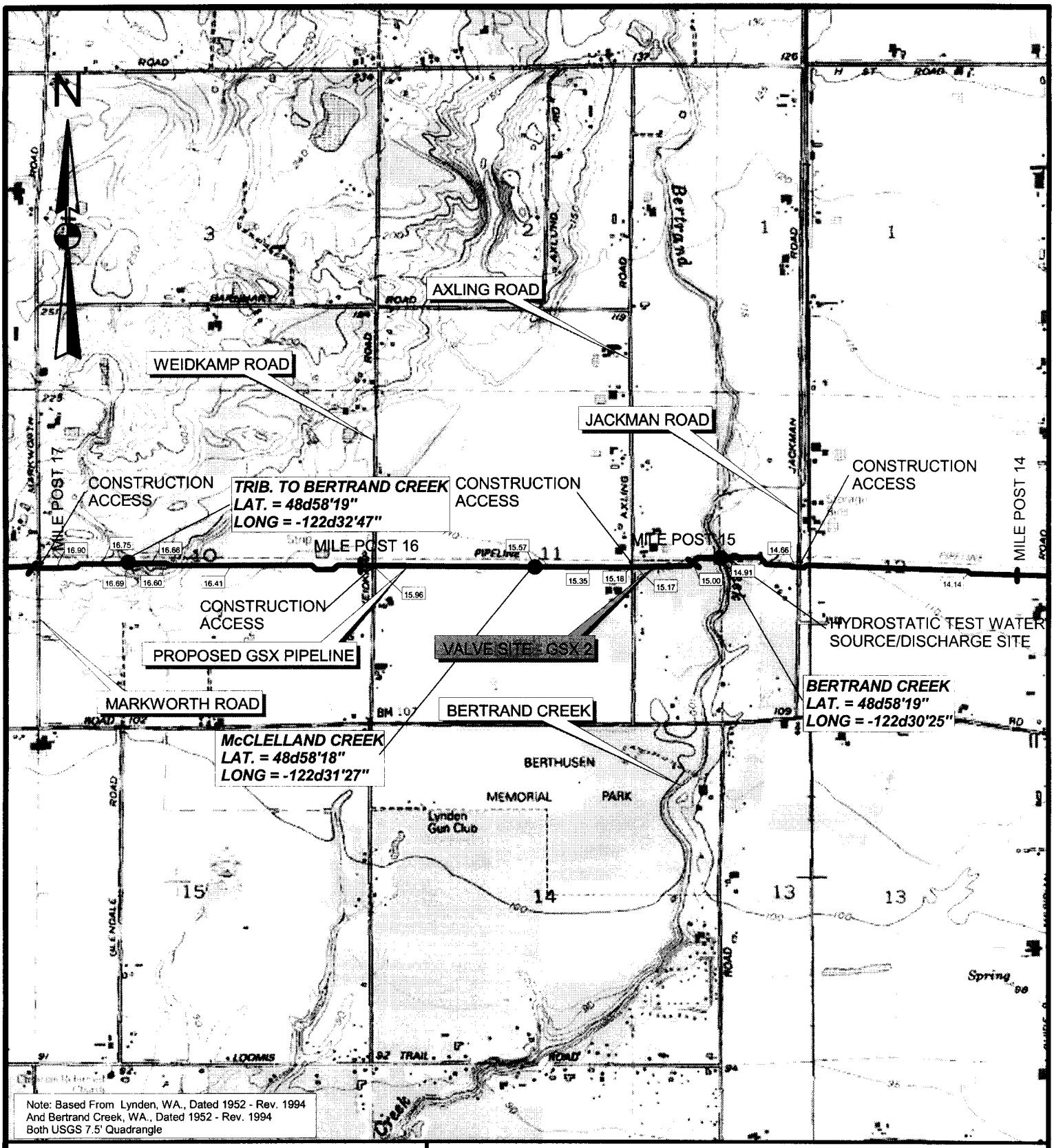

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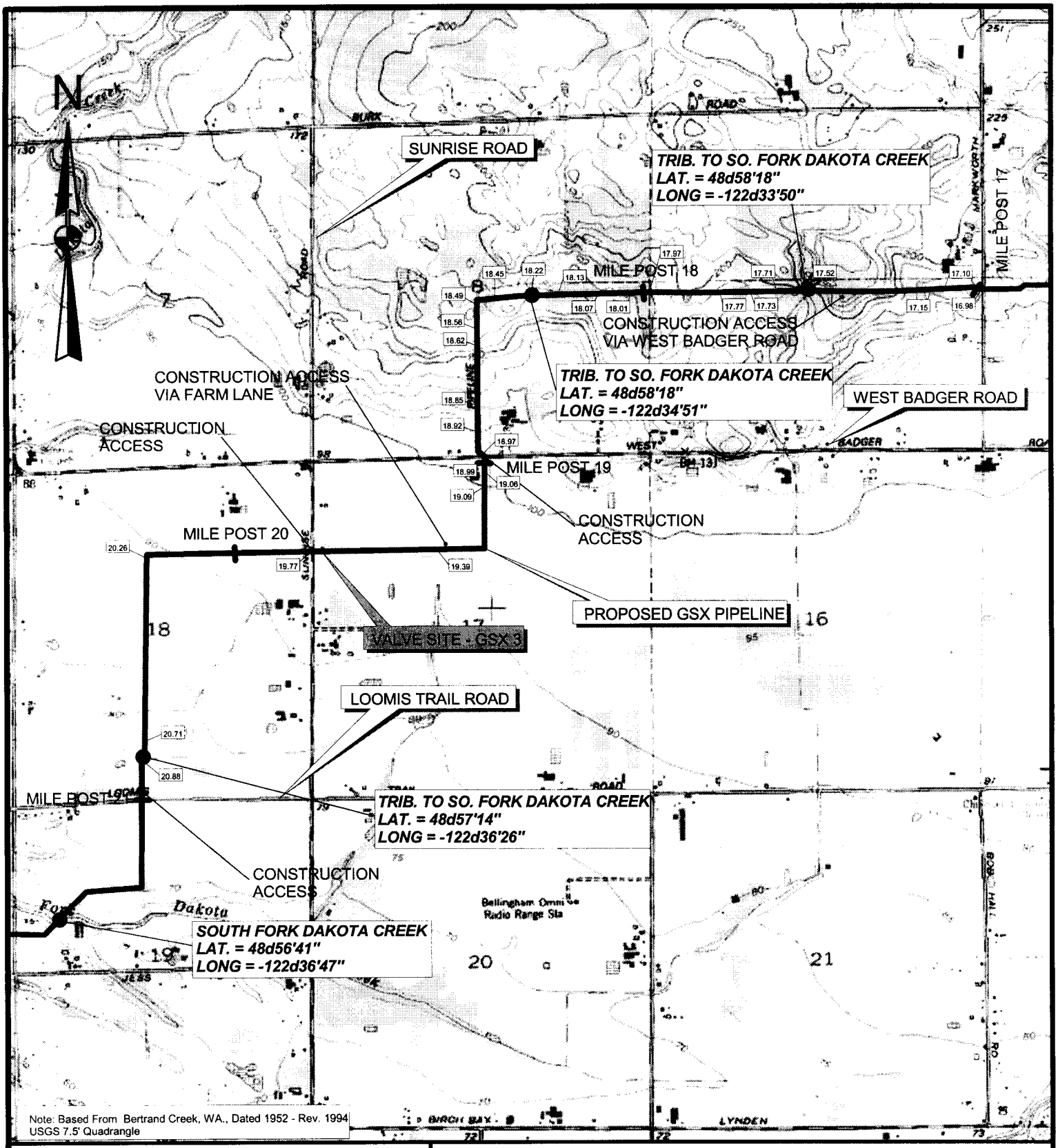

Note: Based From Bertrand Creek, WA., Dated 1952 - Rev. 1994
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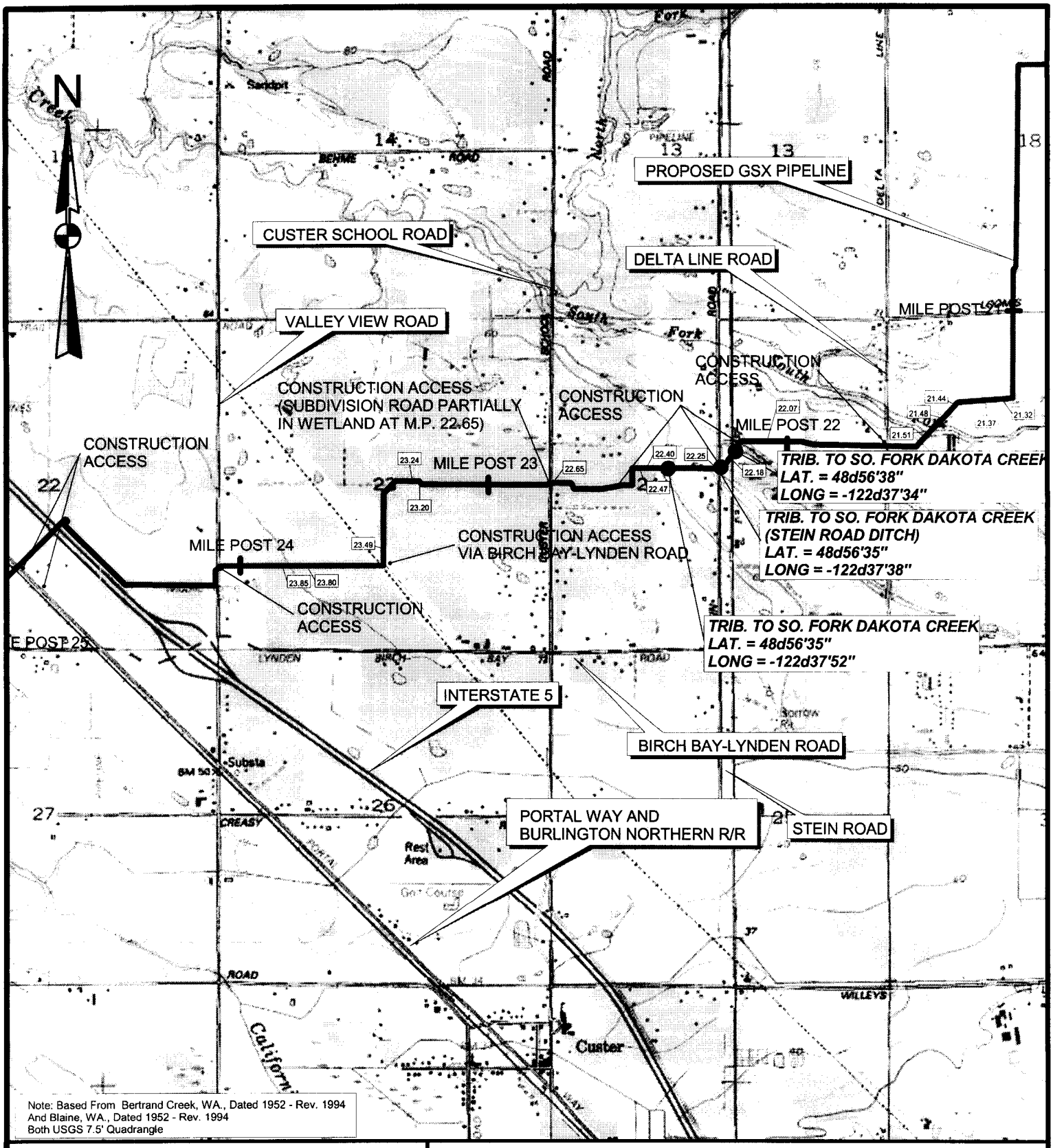

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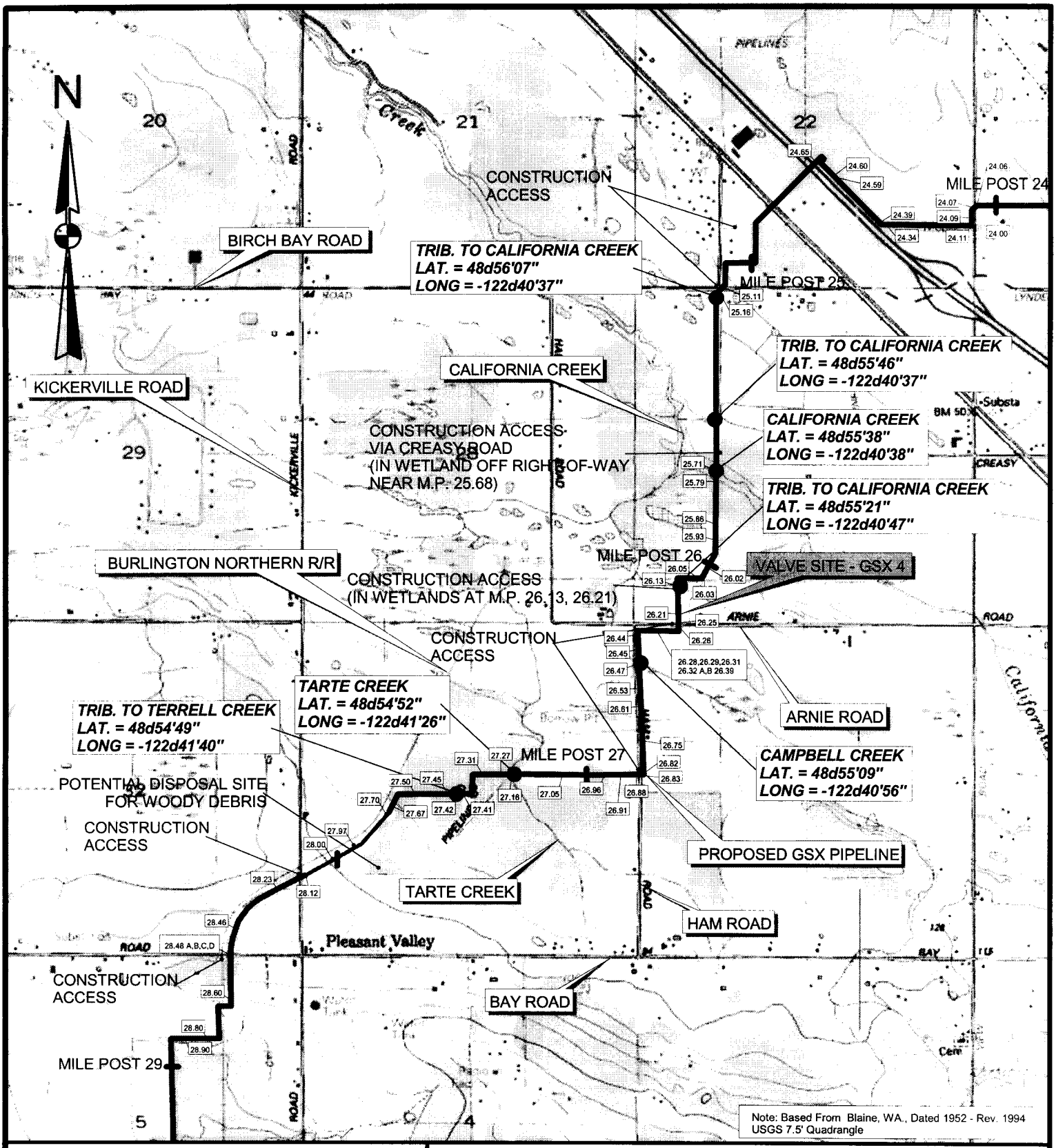

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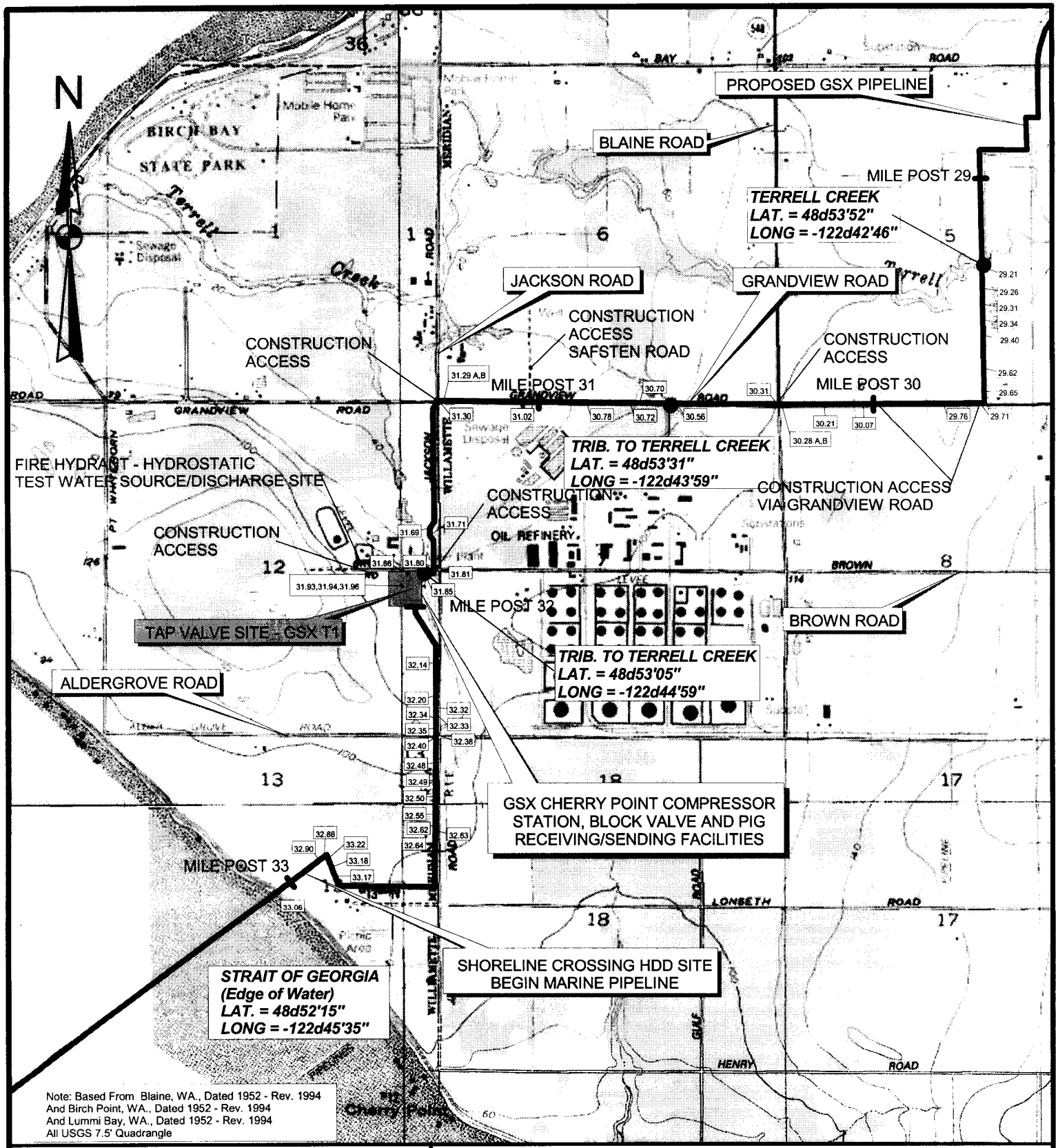

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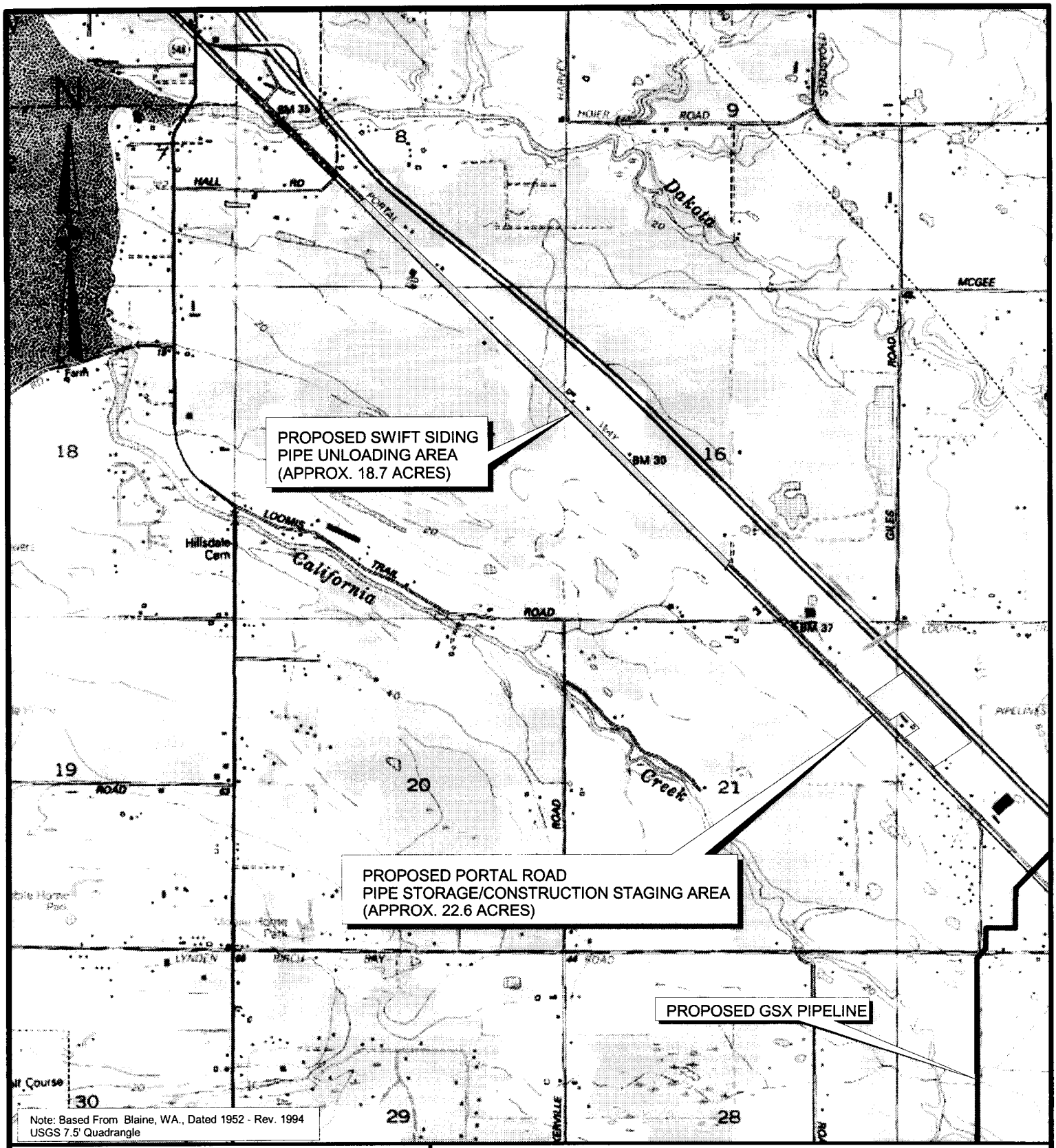

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FACILITIES MAP

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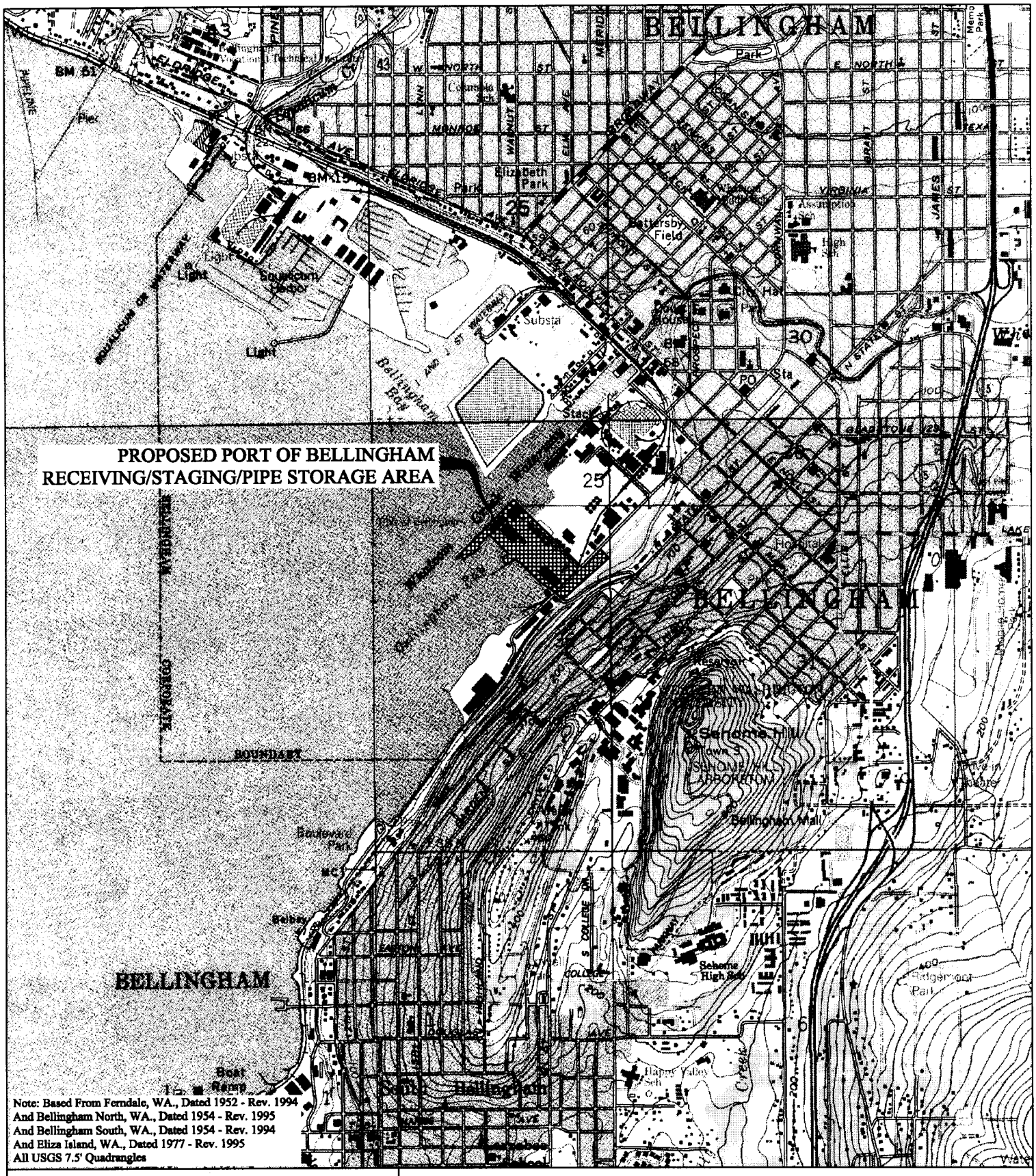

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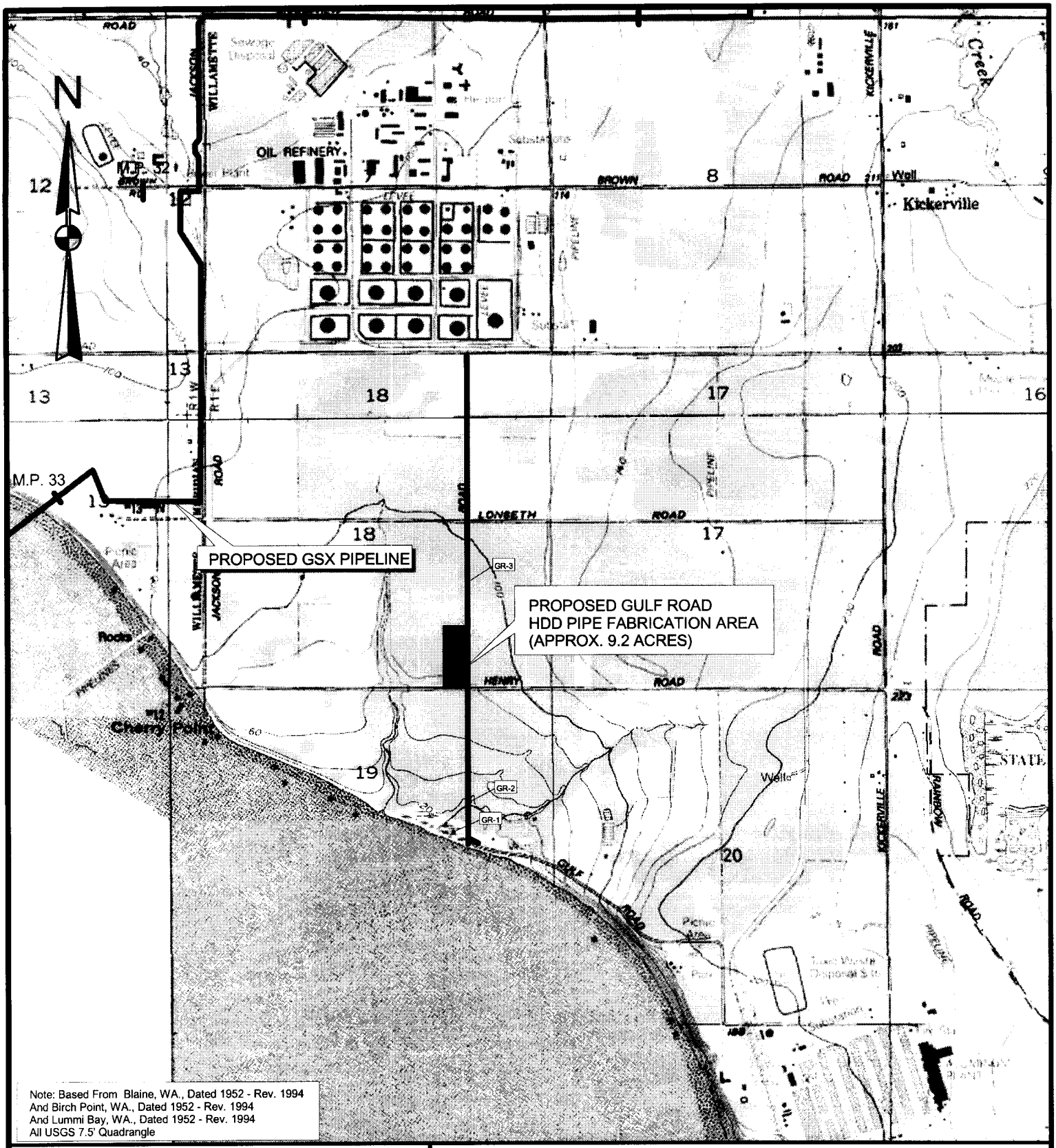

Note: Based From Blaine, WA., Dated 1952 - Rev. 1994
And Birch Point, WA., Dated 1952 - Rev. 1994
And Lummi Bay, WA., Dated 1952 - Rev. 1994
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WATERBODIES CROSSED BY THE GSX PIPELINE PROJECT

Milepost	Waterbody	Channelized	USGS Stream Designation[1]	Estimated Active Channel Width (ft)	Proposed Crossing Method (Alternative Crossing Methods)[2]	Area of Impact (square feet)	Surface Water Quality Class[3]	Washington Dept. Natural Resources Stream Type – Interim (Proposed)[4]	Federally Designated Critical Habitat[5,7]	Federally Listed, Proposed or Candidate Species, Known or Presumed Presence[6,7,8]	Other Fisheries[7,8]
FRASER RIVER WATERSHED											
0.01	Jurisdictional Ditch	Yes	I	4	OCF (CB)	300	Unk	NA	No	Unk	Unk
0.40	Jurisdictional Ditch	Yes	I	4	C	400	Unk	NA	No	Unk	Unk
0.57	Jurisdictional Ditch	Yes	I	4	OCF	400	Unk	NA	No	Unk	Unk
0.65	Jurisdictional Ditch	Yes	I	4	OCF	600	Unk	NA	No	Unk	Unk
0.67	Jurisdictional Ditch	Yes	I	4	OCF (CB)	600	Unk	NA	No	Unk	Unk
1.45	Saar Creek	Yes	P	15	CB (OC)	0	A	1 (S)	No	Presumed	Yes
1.74	Saar Creek	Yes	P	12	HDD (CB, OCD)	0	A	1 (S)	No	Presumed	Yes
1.75	Jurisdictional Ditch	Yes	I	12	HDD (CB, OCD)	0	Unk	NA	No	Unk	Unk
2.57	Sumas River	No	P	21	HDD (OCD)	0	A	1 (S)	No	Presumed	Yes
2.93	Jurisdictional Ditch	Yes	I	4	OCF (CB)	300	Unk	NA	No	Unk	Unk
3.82	Jurisdictional Ditch	Yes	I	15	CB	0	Unk	NA	No	Unk	Unk
4.41	Jurisdictional Ditch	Yes	I	16	CB	0	Unk	NA	No	Unk	Unk
4.42	Jurisdictional Ditch	Yes	I	10	CB	0	Unk	NA	No	Unk	Unk
4.54	Bone Creek	Yes	I	18	OCD	1,350	A	5 (Ns)	No	No	No
5.42	Tributary to Johnson Creek	Yes	I	4	OCF	600	Unk	NA	No	Unk	Unk
5.50	Tributary to Johnson Creek	No	I	12	OCF	900	A	5 (Ns)	No	No	No
5.68	Tributary to Johnson Creek	Yes	I	25	OCF	1,875	A	5 (Ns)	No	No	No
6.19	Johnson Creek	No	P	15	HDD (CB, OCD)	0	A	3 (F)	No	No	Yes
6.63	Clearbrook Creek	Yes	P	?	OCD	?	A	4 (Np)	No	No	Yes
6.93	Clearbrook Creek	No	P	12	OCD	900	A	4 (Np)	No	No	Yes
7.98	Tributary to Squaw Creek	Yes	I	10	OCF	1,000	Unk	NA	No	Unk	Unk
8.12	Tributary to Squaw Creek	Yes	I	10	OCF	750	A	9 (-)	No	No	No
8.24	Squaw Creek	Yes	P	6	OCD (CB)	450	A	4 (Np)	No	No	Yes
8.62	Jurisdictional Ditch	Yes	I	8	OCF	800	Unk	NA	No	Unk	Unk

WATERBODIES CROSSED BY THE GSX PIPELINE PROJECT

Milepost	Waterbody	Channelized	USGS Stream Designation[1]	Estimated Active Channel Width (ft)	Proposed Crossing Method (Alternative Crossing Methods)[2]	Area of Impact (square feet)	Surface Water Quality Class[3]	Washington Dept. Natural Resources Stream Type – Interim (Proposed)[4]	Federally Designated Critical Habitat[5,7]	Federally Listed, Proposed or Candidate Species, Known or Presumed Presence[6,7,8]	Other Fisheries[7,8]
NOOKSACK RIVER WATERSHED											
9.39	Harvey Creek (Tributary to Kamm Creek)	No	P	3	OCD	225	A	4 (Np)	No	No	No
11.32	Fishtrap Creek	Yes	P	25	CB (OCD)	0	A	1 (S)	Yes	Known	Yes
11.86	Bender Creek	Yes	P	15	OCD (CB)	1,875	A	4 (Np)	No	No	No
12.11	Jurisdictional Ditch	Yes	I	5	OCF	500	Unk	NA	No	Unk	Unk
12.37	Jurisdictional Ditch	Yes	I	15	OCF (CB)	2,250	Unk	NA	No	Unk	Unk
12.37	Depot Creek	Yes	P	15	OCF (CB)	2,250	A	4 (Np)	No	No	No
12.88	Benson Creek	Yes	P	15	OCF (CB)	1,125	A	9 (-)	No	No	No
12.98	Jurisdictional Ditch	Yes	I	15	OCF	1,650	Unk	NA	No	Unk	Unk
13.38	Pepin Creek (E. side of Double Ditch Road)	Yes	P	15	CB (HDD)	0	A	9 (-)	Yes	Known	Yes
13.39	Double Ditch Creek (ditch W. side of road)	Yes	P	15	CB (HDD)	0	A	9 (-)	Yes	Known	Yes
13.46	Unnamed Creek	Yes	I	15	OCF	1,500	A	9 (-)	No	No	No
13.89	East Guide Meridian Creek	Yes	P	10	CB (HDD)	0	A	9 (-)	No	No	No
13.90	West Guide Meridian Creek	Yes	I	15	CB (HDD)	0	A	4 (Np)	No	No	No
14.14	Jurisdictional Ditch	Yes	I	8	OCF	800	Unk	NA	No	Unk	Unk
14.66	Jurisdictional Ditch	Yes	I	10	OCF (CB)	1,500	Unk	NA	No	Unk	Unk
14.66	Jurisdictional Ditch	Yes	I	10	OCF (CB)	1,500	Unk	NA	No	Unk	Unk
14.91	Bertrand Creek	No	P	18	HDD (OCD)	0	A	1 (S)	Yes	Known	Yes
15.18	Jurisdictional Ditch	Yes	I	4	OCF (CB)	300	Unk	NA	No	Unk	Unk
15.45	Jurisdictional Ditch	Yes	I	4	OCF	400	Unk	NA	No	Unk	Unk
15.70	McClelland Creek	Yes	I	15	OCD	1,125	A	9 (-)	No	No	Yes
15.95	Jurisdictional Ditch	Yes	I	15	OCF (CB)	1,125	Unk	NA	No	Unk	Unk
15.96	Jurisdictional Ditch	Yes	I	15	OCF (CB)	1,125	Unk	NA	No	Unk	Unk
16.73	Tributary to Bertrand Creek	No	I	4	OCD	300	A	4 (Np)	No	No	Yes

WATERBODIES CROSSED BY THE GSX PIPELINE PROJECT

Milepost	Waterbody	Channelized	USGS Stream Designation[1]	Estimated Active Channel Width (ft)	Proposed Crossing Method (Alternative Crossing Methods)[2]	Area of Impact (square feet)	Surface Water Quality Class[3]	Washington Dept. Natural Resources Stream Type – Interim (Proposed)[4]	Federally Designated Critical Habitat[5,7]	Federally Listed, Proposed or Candidate Species, Known or Presumed Presence[6,7,8]	Other Fisheries[7,8]
STRAIT OF GEORGIA WATERSHED											
17.53	Tributary to S. Fork Dakota Ck	No	I	15	OCD	1,125	A	4 (Np)	No	No	No
18.30	Tributary to S. Fork Dakota Ck	No	I	5	OCF	375	A	9 (-)	No	No	No
19.24	Jurisdictional Ditch	Yes	I	15	OCF	1,500	Unk	NA	No	Unk	Unk
19.39	Jurisdictional Ditch	Yes	I	6	OCF (CB)	600	Unk	NA	No	Unk	Unk
19.91	Tributary to S. Fork Dakota Ck	Yes	I	4	OCF	400	Unk	NA	No	Unk	Unk
20.50	Jurisdictional Ditch	Yes	I	4	OCF	400	Unk	NA	No	Unk	Unk
20.71	Tributary to S. Fork Dakota Ck	Yes	I	5	OCF	375	A	4 (Np)	No	No	No
20.88	Jurisdictional Ditch	Yes	I	6	OCF (CB)	600	Unk	NA	No	Unk	Unk
21.32	Tributary to S. Fork Dakota Ck	No	I	4	OCF	300	A	NA	No	Unk	Unk
21.55	South Fork Dakota Creek	No	P	5	HDD (OCD)	0	A	3 (F)	No	No	Yes
22.17	Tributary to S. Fork Dakota Ck	Yes	I	5	OCD	375	A	5 (Ns)	No	No	No
22.25	Tributary to S. Fork Dakota Ck (Stein Rd Ditch)	Yes	I	15	OCF	1,500	A	5 (Ns)	No	No	No
22.43	Tributary to S. Fork Dakota Ck	No	P	8	OCD	600	A	5 (Ns)	No	No	No
24.06	Jurisdictional Ditch	Yes	I	3	OCF	225	Unk	NA	No	Unk	Unk
24.07	Jurisdictional Ditch	Yes	I	3	OCF	225	Unk	NA	No	Unk	Unk
24.11	Jurisdictional Ditch	Yes	I	6	OCF	750	Unk	NA	No	Unk	Unk
25.16	Tributary to California Creek	Yes	P	6	CB	0	A	5 (Ns)	No	No	No
25.55	Tributary to California Creek	Yes	P	10	OCD	1,000	A	5 (Ns)	No	No	No
25.70	California Creek	No	P	12	HDD (OCD)	0	A	3 (F)	No	Presumed	Yes
26.12	Jurisdictional Ditch	Yes	I	4	CB	0	Unk	NA	No	Unk	Unk
26.13	Jurisdictional Ditch	Yes	I	6	CB	0	Unk	NA	No	Unk	Unk
26.25	Jurisdictional Ditch	Yes	I	2	OCF (CB)	150	Unk	NA	No	Unk	Unk
26.49	Campbell Creek	Yes	P	15	OCD	1,125	A	4 (Np)	No	No	No
27.20	Tarte Creek	No	P	5	OCD	375	A	3 (F)	No	No	Yes

WATERBODIES CROSSED BY THE GSX PIPELINE PROJECT

Milepost	Waterbody	Channelized	USGS Stream Designation[1]	Estimated Active Channel Width (ft)	Proposed Crossing Method (Alternative Crossing Methods)[2]	Area of Impact (square feet)	Surface Water Quality Class[3]	Washington Dept. Natural Resources Stream Type – Interim (Proposed)[4]	Federally Designated Critical Habitat[5,7]	Federally Listed, Proposed or Candidate Species, Known or Presumed Presence[6,7,8]	Other Fisheries[7,8]
27.44	Tributary to Terrell Creek	No	P	6	OCD	450	A	5 (Ns)	No	No	No
28.47	Jurisdictional Ditch	Yes	I	4	C	500	Unk	NA	No	Unk	Unk
28.48	Jurisdictional Ditch	Yes	I	4	OCF (CB)	300	Unk	NA	No	Unk	Unk
29.25	Terrell Creek	No	P	6	HDD (OCD)	0	A	3 (F)	No	No	Yes
30.28	Jurisdictional Ditch	Yes	I	4	CB	0	Unk	NA	No	Unk	Unk
30.29	Jurisdictional Ditch	Yes	I	4	CB	0	Unk	NA	No	Unk	Unk
30.58	Tributary to Terrell Creek	No	I	2	OCD	150	A	4 (Np)	No	No	No
31.31	Jurisdictional Ditch	Yes	I	4	CB	0	Unk	NA	No	Unk	Unk
31.81	Jurisdictional Ditch	Yes	I	4	OCF (CB)	300	Unk	NA	No	Unk	Unk
31.82	Jurisdictional Ditch	Yes	I	5	OCF (CB)	375	Unk	NA	No	Unk	Unk
31.85	Tributary to Terrell Creek	No	I	8	OCD	600	A	4 (Np)	No	No	No
32.14	Jurisdictional Ditch	Yes	I	5	OCF	500	Unk	NA	No	Unk	Unk
32.39	Jurisdictional Ditch	Yes	I	3	OCF (CB)	300	Unk	NA	No	Unk	Unk
32.40	Jurisdictional Ditch	Yes	I	3	OCF (CB)	300	Unk	NA	No	Unk	Unk
32.64	Jurisdictional Ditch	Yes	I	10	OCF	1,000	Unk	NA	No	Unk	Unk
HDD	Jurisdictional Ditch	Yes	I	5	OCF	2,250	Unk	NA	No	Unk	Unk

[1]USGS Designation: I = Intermittent P = Perennial

[2]Crossing Methods: CB - Conventional Bore Crossing HDD - Horizontal Directional Drill C - Cleared only (no trench in wetland)
OCD - Open Cut Flume OCF - Open Cut Flowing OCN - Open Cut Non-Flowing
Alternative crossing methods will be used if the proposed method is unfeasible; where conventional boring is possible, it would be used instead of an HDD.

[3]Source: WAC Chapter 173-201A (Water Quality Standards for Surface Waters of the State of Washington)
A: Excellent AA: Pristine Unk: Unknown if a connection exists with jurisdictional ditch to a typed water in which fish are found

[4]Interim water types (WAC 222-16-031) and assumed permanent water types that will ultimately be used by WDNR (WAC 222-16-030):

Interim	(Proposed)	
1	(S)	Shoreline of the state – perennial waters with fish habitat
3	(F)	Perennial waters <20 feet wide with moderate to slight fish, wildlife and human use
4	(Np)	Perennial waters >2 feet wide with no fish habitat
5	(Ns)	Seasonal waters < 2 feet wide with no fish habitat
9	(-)	Unclassified water feature
NA		Ditches – classifications do not apply

[5]National Marine Fisheries Service (NMFS). 2000. Designated Critical Habitat for Nineteen Evolutionarily Significant Units of Salmon and Steelhead in Washington, Oregon, Idaho and California. Federal Register 65 (32): 7764-7787.

[6]Sources: Washington Department of Fish and Wildlife and Whatcom County Fish and Wildlife Habitat Environmental Resources Map Folio 1.

[7]Sources: U.S. Dept. of Interior Fish and Wildlife Service– Listed and proposed endangered and threatened species critical habitat, candidate species, and species of concern that may occur within the vicinity of the proposed Georgia Strait Crossing Project in Whatcom County, Washington. Letter from Ken S. Berg, Manager Western Washington Office USFWS. October 9, 2001 and National Marine Fisheries Service email from Bob Donnelly dated October 17, 2000 re; species of concern in the Strait of Georgia.

[8]Unknown: no documentation of presence or absence of federally listed or proposed species is available. Many ditches probably do not support these species, due to structures/barriers, flow irregularity, or other habitat limitations.

WATERS OF THE U.S. AFFECTED BY THE GSX GAS PIPELINE PROJECT

Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
MAINLINE RIGHT-OF-WAY									
Fraser River Watershed									
0.01	Jones Road ditch south	PEMCx	Road ditch	OCF (CB)	100	0.01	0	0	10.8
0.21	depression	POWA	Corn	W1	100	0.15	0	0	244.8
0.40	ditch	PEMCx	Hay meadow	C	100	0.02	0	0	0.0
0.57	ditch	PEMCx	Hay meadow	OCF	100	0.03	0	0	31.2
0.65	ditch	PEMCx	Corn / Hay meadow	OCF	150	0.04	0	0	72.0
0.67	Rock Road ditch	PEMCx	Road ditch	OCF (CB)	125	0.02	0	0	12.6
0.88	depression	POWA	Hay meadow	W1	100	0.18	0	0	230.4
1.04	depression	POWA	Hay meadow	W1	100	0.10	0	0	79.2
1.45	Saar Creek - north crossing	PEMC / R3UBH	Stream	CB (OC)	75	0.07	0	0	0.0
1.72	Reese Hill Road depression	POWC (PEMC)	Corn - PCC	HDD (CB,OC)	0	0.00	0	0	0.0
1.74	Saar Creek - bermed south crossing	PEMCx / R3UB	Stream	HDD (CB,OC)	0	0.00	0	0	0.0
1.75	ditch	PEMCx	Corn	HDD (CB,OC)	50	0.01	0	0	0.0
1.76	depression west of Saar Creek	POWA	Corn - PCC	W1	175	0.45	0	0	331.2
2.21	depression north of Sumas River	PEMA	Hay meadow	C	100	0.06	0	0	0.0
2.23	depression north of Sumas River	PEMA	Hay meadow	C	150	<0.01	0	0	0.0
2.57	Sumas River	R2UBH / PEMA	Stream	HDD (OC)	0	0.00	0	0	0.0
2.93	Morgan Road ditch south	PEMCx	Road ditch - Corn - PCC	OCF (CB)	75	0.01	0	0	9.0
3.82	BNSF R.R. ditch east	PEMCx	Railroad ditch - Hay meadow	CB	150	0.08	0	0	0.0

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. By Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington

WATERS OF THE U.S. AFFECTED BY THE GSX GAS PIPELINE PROJECT

Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
3.82	West of BNSF R.R.	PFOC / PEMCx	Forested Wetland / Emergent Wetland	CB	175	0.03	0	0	0.0
4.41	Hwy 9 South ditch east	PEMCx	Road ditch	CB	75	0.03	0	0	0.0
4.42	Hwy 9 South ditch west	PEMCx	Road ditch	CB	75	0.01	0	0	0.0
4.54	Bone Creek	PEMCx	channelized stream (in PCC)	OCD	75	0.10	0	0	81.6
5.42	Johnson Creek tributary ditch	PEMCx	ditch along High School Road	OCF (CB)	150	0.02	0	0	18.0
5.50	tributary to Johnson Creek	PEMCx	channelized stream	OCF	75	0.22	0	0	290.4
5.68	tributary to Johnson Creek	PSSCx	channelized stream (mostly in PCC)	OCF	75	0.07	0.004	0	98.4
6.19	Johnson Creek and fringe	PEMC / R2UBH	Stream	HDD (CB,OC)	0	0.00	0	0	0.0
6.24	pond just west of Johnson Creek	POWC/ PEMC	Pond/ Emergent Wetland	HDD (CB,OC)	0	0.00	0	0	0.0
6.55	Clearbrook Creek Area	PEMC	emergent wetland	W1	75	0.67	0	0	763.2
6.63	Clearbrook Creek	PEMCx	Stream	OCD	75	0.12	0	0	62.4
6.93	Clearbrook Creek	PEMCx (PSSC)	Stream	OCD	75	0.11	0.001	0	62.4
7.17	large PEM east of Trapline Road	PEMC	emergent wetland (small portion in PCC)	W1	65, 100	0.97	0	0	1317.6
7.98	ditch tributary to Squaw Creek	PEMCx	Raspberry / Hay meadow	OCF	100	0.10	0	0	115.2
8.12	tributary to Squaw Creek	PEMCx	channelized stream (a small part in PCC)	OCF	75	0.04	0	0	57.6
8.24	Squaw Creek	PEMCx	channelized stream (a small part in PCC)	OCD (CB)	75	0.31	0	0	79.2
8.62	Hay meadow east of Harvey Creek	PEMAd	Hay meadow	W1	100	4.35	0	0	4447.2
8.62	ditch	PFOCx	ditch	OCF	100	0.16	0.006	0.012	120.0
8.97	Hay meadow east of Harvey Creek	PEMAd	Hay meadow - PCC	W1	150, 100	2.66	0	0	1994.4

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App. By Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
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Nooksack River Watershed

WATERS OF THE U.S. AFFECTED BY THE GSX GAS PIPELINE PROJECT

Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
9.39	Harvey Creek (tributary to Kamm Creek)	PFOC / PSSC / PEMC	Stream	OCD	75	0.10	0.009	0.018	184.8
11.32	Fishtrap Creek	PEMCx / R2UBH	Stream	CB (OC)	75	0.08	0	0	0.0
11.52	west of Fishtrap Creek	PEMAf	Hay meadow, Farmed wetland - small portion PCC (corn)	W1	100	0.13	0	0	134.4
11.58	west of Fishtrap Creek	PEMAf	Hay meadow, Farmed wetland	W1	100	0.10	0	0	134.4
11.86	Bender Creek along Bender Road (east side)	PEMCx	channelized tributary to Fishtrap Creek	OCD (CB)	125	0.04	0	0	36.0
12.11	ditch	PEMCx	Corn (half in PCC)	OCF	100	0.03	0	0	36.0
12.37	Depot Creek along Depot Road (east side)	PEMCx	channelized tributary to Fishtrap Creek	OCF (CB)	150	0.05	0	0	36.0
12.37	Depot Road ditch (west side)	PEMCx	Road ditch (Hay meadow adjacent)	OCF	150	0.03	0	0	36.0
12.68	east of Benson Road	PEMAf	Hay meadow, Farmed wetland	W1	135	2.07	0	0	1780.8
12.88	Benson Creek along Benson Road (east side)	PEMCx	channelized tributary to Fishtrap Creek	OCF (CB)	75	0.03	0	0	38.4
12.98	ditch	PEMCx	Corn / Hay meadow	OCF	110	0.06	0	0	55.2
13.38	Pepin Creek along Double Ditch Road (east side)	PEMCx	channelized tributary to Fishtrap Creek	CB (HDD)	75	0.02	0	0	0.0
13.39	Double Ditch Creek along Double Ditch Road (west side)	PEMCx	channelized tributary to Fishtrap Creek	CB (HDD)	75	0.02	0	0	0.0
13.46	ditch (unnamed creek)	PEMCx	Corn / Hay meadow	OCF	100	0.02	0	0	16.8
13.89	East Guide Meridian Creek	PEMCx	Road ditch - channelized stream	CB (HDD)	75	0.02	0	0	0.0
13.90	West Guide Meridian Creek	PEMCx	Road ditch - channelized stream (PCC)	CB (HDD)	75	0.02	0	0	0.0
14.14	ditch	PEMCx	Hay meadow	OCF	100	0.03	0	0	36.0
14.66	Jackman Road ditch (east)	PSSCx	Road ditch - channelized tributary to Bertrand Creek	OCF (CB)	75	0.02	0	0	26.4

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WATERS OF THE U.S. AFFECTED BY THE GSX GAS PIPELINE PROJECT

Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
14.66	Jackman Road ditch (west)	PSSCx	Road ditch - channelized tributary to Bertrand Creek	OCF (CB)	75	0.02	0.001	0	38.4
14.91	Bertrand Creek	R2UBH / PFOA	Stream	HDD (OC)	50	0.05	0	0	0.0
15.00	depression	PEMA	existing pipeline ROW	W1	150	0.08	0	0	117.6
15.18	Axling Road ditch (west)	PFOCx	Road ditch	OCF (CB)	75	0.01	<0.001	0.001	10.8
15.45	ditch	PEMCx	Hay meadow (Corn)	OCF	100	0.02	0	0	21.6
15.70	McClelland Creek	PEMCx	channelized stream in Corn & Hay meadow - PCC	OCD (CB)	75	0.03	0	0	43.2
15.95	ditch east of Weidkamp Road	PEMCx	ditch	OCF (CB)	75	0.03	0	0	38.4
15.96	ditch west of Weidkamp Road	PEMCx	ditch - drains PFO	OCF (CB)	75	0.03	0	0	36.0
16.41	midway Markworth and Weidkamp Roads	PEMCd / PFOCd	emergent wetland / forested wetland	W1	75	0.33	0	0	331.2
16.60	east of Markworth Road	PFOA	forested wetland	C	75	0.05	0	0.007	0.0
16.66	hillside seep east of JW-16.69	PEMA	emergent wetland	W1	75	0.02	0	0	48.0
16.73	tributary to Bertrand Creek east of Markworth Road	PFOC (PEMC)	tributary to Bertrand Creek	OCD	75	0.20	0.003	0.028	304.8
16.75	hillside seep west of JW-16.69	PEMA	Hay meadow (grazed)	W1	100	0.21	0	0	276.0
16.95	swale just east of Markworth Road	PEMC	Hay meadow	W1 (CB)	100	0.20	0	0	336.0
16.98	swale just west of Markworth Road	PEMC	emergent wetland	W1	165	0.15	0	0	93.6
17.10	hillside seep west of Markworth Road	PEMC (PSSC)	cleared of trees - 17.10/17.15 complex	C	75	0.08	0.001	0	0.0
17.15	hillside seep west of Markworth Road	PEMC (PSSC)	cleared of trees - 17.10/17.15 complex	W2	75	0.22	0.011	0	334.8
Georgia Strait Watershed									
17.53	tributary to South Fork Dakota Creek west of Markworth Road	PFOC	stream (includes existing pipeline ROW)	OCD	75	0.01	0	0	0.0

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WATERS OF THE U.S. AFFECTED BY THE GSX GAS PIPELINE PROJECT

Site Description				Construction Details					
						Construction Disturbance Acreage[5]			
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Temporary Acreage	Permanent Acreage		Backfill Volume (cubic yards)
							10' Clear Zone	20' Clear Zone	
17.71	headwaters seep west of Markworth Road	PFOC	forested wetland (includes existing pipeline ROW)	W1	75	0.04	0	0.005	39.6
17.73	Hay meadow seeps west of Markworth Road	PEMC	Hay meadow	W1	75	0.26	0	0	283.2
17.77	Hay meadow seeps west of Markworth Road	PEMC	Hay meadow	W1	75	0.14	0	0	168.0
17.97	Forested depression	PFOC	forested wetland - 17.97/18.01 complex	W1	75	0.10	0	0.015	178.2
18.01	Forested depression	PFOC	forested wetland - 17.97/18.01 complex	W2	75	0.08	0.027	0.032	273.6
18.07	hillside seep	PEMC (PSSC)	emergent wetland (cleared of trees)	C	75	0.02	0	0	0.0
18.13	hillside seep	PEMC	emergent wetland	W1	75	0.02	0	0	102.6
18.30	tributary to So.Fork Dakota Creek 0.5 mile north of West Badger Road	PFOC / PEMC	forested wetland (includes existing pipeline ROW)	OCF	75	0.31	0.071	0.124	613.8
18.45	0.5 mile north of West Badger Road	PSSC / PFOC / PEMC	wetland complex	W2	100	0.65	0.007	0	646.2
18.49	hillside seep / drainage	PEMC	Hay meadow	W2	150	0.36	0	0	232.8
18.56	hillside seep	PEMCd	Hay meadow	W2	100	0.38	0	0	628.8
18.62	slope wetland north of West Badger Road	PEMCd	Hay meadow	W1	100	0.70	0	0	871.2
18.85	slope wetland north of West Badger Road	PEMCd	Hay meadow	W1	100	0.13	0	0	278.4
18.92	slope wetland north of West Badger Road	PEMCd	Hay meadow	W1	250	0.68	0	0	451.2
18.97	slope wetland north of West Badger Road	PEMCd	Hay meadow	CB	250	0.10	0	0	115.2
18.99	south of West Badger Road	PEMCd	Hay meadow	W1	100	0.94	0	0	928.8
19.06	marsh south of West Badger Road	PEMC	emergent wetland (mapped as PCC)	W2	75	0.27	0	0	205.2
19.24	ditch south of West Badger Road	PFOCx	Ditch	OCF	100	0.26	0.012	0.102	86.4
19.39	ditch east of Sunrise Road	PFOCx / PEMCx	Hay meadow	OCF (CB)	100	0.05	0	0	43.2

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App. By Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington

WATERS OF THE U.S. AFFECTED BY THE GSX GAS PIPELINE PROJECT

Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
19.91	tributary to S. Fork Dakota Creek (ditch)	PEMCx / PFOCx	Ditch in PCC	OCF	100	0.08	0.003	0.007	91.2
20.50	ditch north of Loomis Trail Road	PSSCx (PFOCx)	Hay meadow (Corn)	OCF	100	0.05	0.003	0	55.2
20.71	tributary to S. Fork Dakota Creek (ditch north of Loomis Trail Road)	PSSCx / PEMCx	Ditch (south extension of JW 19.77)	OCF	75	0.03	0.003	0	38.4
20.88	ditch just north of Loomis Trail Road	PEMCx	Hay meadow	OCF (CB)	100	0.09	0	0	84.0
21.01	ditch parallel to ROW south of Loomis Trail Road	PEMCx	Ditch	C	100	0.01	0	0	0.0
21.32	tributary to South Fork Dakota Creek	PFOC	forested wetland (no access)	OCF	75	0.06	0.013	0.027	104.4
21.37	forested wetland	PFOC	forested wetland	W1	75	0.22	0.015	0.060	55.8
21.44	South Fork Dakota Creek floodplain	PEMC	Stream floodplain (heavy grazing)	W1	100	0.06	0	0	46.8
21.48	South Fork Dakota Creek floodplain	PEMC	Stream floodplain (heavy grazing)	W1	50, 175	0.38	0	0	45.0
21.55	South Fork Dakota Creek	PEMC (R3UBH)	emergent wetland (stream)	HDD (OC)	50	0.25	0	0	0.0
22.17	PSS east of Stein Road (includes tributary to South Fork Dakota Creek)	PSSC	scrub-shrub wetland	OCD	75	0.45	0.082	0	639.0
22.18	PFO just east of Stein Road	PFOC	forested wetland	W1	75	0.27	0.025	0.052	194.4
22.25	tributary to South Fork Dakota Creek (Stein Road ditch)	PEMC	Stein Road ditch (west) and Hay meadow	OCF	100	0.29	0	0	391.2
22.43	tributary to South Fork Dakota Creek west of Stein Road	PFOC	intermittent stream	OCD	75	0.04	0.008	0.015	59.4
22.47	east of Custer School Road	PFOC (PEMC)	forested wetland (emergent wetland)	W1	75	0.19	0.023	0.046	234.0
22.65	just east of Custer School Road	PFOC (PEMC)	forested wetland (emergent wetland)	W2/W3	75	0.58	0.086	0.172	901.8
23.20	Old road depression east of powerline	PFOC	forested wetland	C	75	<0.01	0	0	0.0
23.24	Old road depression east of powerline	PFOF	forested wetland	W2/W3	75	0.02	0.013	0.024	104.4
23.49	Powerline corridor east of Valley View Road	PSSD	scrub-shrub wetland	C	75	0.01	0	0	0.0

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Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
23.80	PFO east of Valley View Road (near old drive-in theater)	PFOC	forested wetland	W1	75	0.19	0.038	0.075	298.8
23.85	PFO east of Valley View Road (near old drive-in theater)	PFOC	forested wetland mosaic - 54 percent wetland	W1	75	0.44	0.105	0.209	819.0
24.00	PSS just east of Valley View Road (near old drive-in theater)	PSSCd	scrub-shrub wetland	W1	130	0.47	0.043	0	334.8
24.06	Valley View Road east ditch	PEMCx	Road ditch	OCF	75	<0.01	0	0	0.0
24.07	Valley View Road west ditch	PEMCx	Road ditch	OCF	75	0.01	0	0	9.0
24.09	I-5 Holdings (just west of Valley View Road)	PEMC	emergent wetland	W1	125	0.03	0	0	0.0
24.11	ditch west of Valley View Road	PFOCx	forested wetland	OCF	125	0.01	0.001	0.003	10.8
24.34	I-5 Holdings	PFOC	forested wetland	W1	75	1.55	0.261	0.501	2098.8
24.39	I-5 borrow pit	PEMCx	Road ditch (includes existing pipeline ROW)	CB or HDD	75	0.07	0	0	0.0
24.59	I-5 Holdings	PFOC	forested wetland	W1	175	0.06	0.005	0.010	39.6
24.60	I-5 Holdings	PFOC	forested wetland	W1	75	<0.01	0.004	0.003	27.0
24.65	on I-5 ROW fence (west)	PSSCd	scrub-shrub wetland	CB or HDD	75	0.02	0	0	0.0
25.11	junction of Percie and Lynden Birch Bay Roads	PFOC / PEMC	wetland (includes existing pipeline ROW)	W1	150	0.43	0.035	0.069	333.0
25.16	tributary to California Creek	PEMC	perennial stream	CB	110	0.01	0	0	0.0
25.17	South of Lynden Birch Bay Road	PEMCd	Hay meadow	W1	100	4.77	0	0	5030.4
25.55	tributary to California Creek	PEMC	perennial stream	OCD	100	0.02	0	0	24.0
25.56	South of Lynden Birch Bay Road	PEMCd	Hay meadow	W1	100	1.50	0	0	1248.0
25.70	California Creek	R2OWH / PFOC	Stream (includes existing pipeline ROW)	HDD (OC)	50	0.02	0	0.007	0
25.79	depression south of California Creek	PEMC	emergent wetland (includes existing pipeline ROW, clearcut in 1999)	W1	75	0.16	0	0	129.6

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Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
25.86	east of extensive beaver pond	PFOC / PEMC	Wetland complex (includes existing pipeline ROW, part clearcut in 1999)	W1	75	0.26	0.018	0.034	252.0
25.93	north of BNSF R.R.	PEMC	Hay meadow	W1	100	0.27	0	0	244.8
26.05	depression north of BNSF R.R.	PEMA	emergent wetland	C	100	0.01	0	0	0.0
26.12	BNSF R.R. borrow pit (north)	PEMCx	Railroad ditch (discontinuous wetland)	CB	100	0.07	0	0	60.0
26.13	BNSF R.R. borrow pit (south)	PEMCx (PFOC)	Railroad ditch (small PFO at west end)	CB	125	0.07	0	0	0.0
26.13	swale north of Arnie Road	PEMC	Hay meadow	W1	150, 100	0.19	0	0	144.0
26.21	just north of Arnie Road	PEMC	Hay meadow	W1	175	0.30	0	0	120.0
26.25	Arnie Road ditch north	PEMAx	Road ditch	OCF (CB)	75	<0.01	0	0	3.6
26.26	just south of Arnie Road	PEMC	Hay meadow	C	175	0.03	0	0	0.0
26.28	just south of Arnie Road	PEMC	Hay meadow	C	100	0.02	0	0	0.0
26.29	just south of Arnie Road	PEMC	Hay meadow	C	100	0.02	0	0	0.0
26.31	just south of Arnie Road	PEMC	Hay meadow	W1	100	0.08	0	0	122.4
26.32a	just south of Arnie Road	PEMC	Hay meadow	C	100	0.01	0	0	0.0
26.32b	just south of Arnie Road	PEMC	Hay meadow	C	100	0.01	0	0	0.0
26.39	just south of Arnie Road	PEMC	Hay meadow	W1	100	0.01	0	0	12.0
26.44	just south of Arnie Road	PEMC	Hay meadow	C	100	0.03	0	0	0.0
26.45	just south of Arnie Road	PEMC	Hay meadow	C	100	0.04	0	0	0.0
26.49	Campbell Creek	PEMCd	channelized tributary to California Creek	OCD	75	0.16	0	0	206.4
26.53	east of Ham Road	PEMAd	Hay meadow	W1	100	0.71	0	0	712.8

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Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
26.61	east of Ham Road	PEMAd	hillside seep - Hay meadow	W1	100	0.52	0	0	525.6
26.75	east of Ham Road	PEMA	Hay meadow	W1	100	0.18	0	0	141.6
26.82	east of Ham Road	PEMA	Hay meadow	W1	150	0.37	0	0	72.0
26.83	west of Ham Road	PFOA	forested wetland	W1	75	0.20	0.052	0.091	408.6
26.88	west of Ham Road	PEMA	Hay meadow	W1	75	0.05	0	0	67.2
26.91	west of Ham Road	PEMA	Hay meadow	W1	75	0.06	0	0	0.0
26.96	west of Ham Road	PFOA / PEMA	Wetland complex (includes existing pipeline ROW)	W1	75	0.22	0.021	0.032	324.0
27.05	west of Ham Road	PEMA	emergent wetland (includes existing pipeline ROW)	W1	125	1.13	0	0	1373.4
27.20	Tarte Creek	PFOC	Stream	OCD	75	0.05	0.014	0.026	151.2
27.27	west of Tarte Creek	PEMC	emergent wetland (existing pipeline ROW)	W1	125	0.01	0	0	0.0
27.31	west of Tarte Creek	PEMC (PFOA)	primarily emergent wetland (existing pipeline ROW)	W1	75	0.14	0.012	0.015	176.4
27.42	west of Tarte Creek	PEMC	emergent wetland (existing pipeline ROW)	C	75	0.03	0	0	0.0
27.44	tributary to Terrell Creek	PFOC	forested wetland (includes existing pipeline ROW)	OCD	75	0.04	0.009	0.016	93.6
27.45	east of BNSF R.R.	PEMC / PFOA	Wetland complex (includes existing pipeline ROW)	W1	75	0.40	0.015	0.062	160.2
27.50	wetland east of BNSF R.R.	PEMC	emergent wetland	W1	75	0.03	0	0	19.8
27.67	South of BNSF R.R. & East of Kickerville Road	PEMC	primarily emergent wetland (primarily existing pipeline ROW)	W1	75	0.08	0	0	117.0
27.70	South of BNSF R.R. & East of Kickerville Road	PEMA	Emergent Wetland	W1	75	0.02	0	0	25.2
27.97	South of BNSF R.R. & East of Kickerville Road	PEMA	Emergent Wetland	W1	75	1.14	0	0	1089
28.00	South of BNSF R.R. & East of Kickerville Road	PSSA	scrub-shrub wetland	W1	75	0.09	0.018	0	142.2

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Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
28.12	depression contained by BNSF R.R. & Kickerville Road	PFOA / PEMA	Wetland complex (includes existing pipeline ROW)	W1	75	0.13	0.006	0.014	189.0
28.23	west of Kickerville Road & north of Bay Road	PFOA / PEMA	Wetland complex (includes existing pipeline ROW)	W1	75	1.16	0.159	0.294	2086.2
28.47	Bay Road ditch north	PEMAx	Road ditch	C	125	0.05	0	0	0.0
28.48	Bay road ditch south	PEMAx	Road ditch	OCF (CB)	75	0.01	0	0	7.2
28.48	BNSF R.R. borrow pit (east)	PFOAx	Railroad ditch (south of Bay Road)	CB	75	0.03	0	0	0.0
28.48	BNSF R.R. borrow pit (west)	PFOAx	Railroad ditch (south of Bay Road)	CB	75	0.03	0	0	0.0
28.48	just south of Bay Road	PEMA	Hay meadow	W1	150	0.26	0	0	237.6
28.60	south of Bay Road	PEMA	Hay meadow	W1	100	0.03	0	0	48.0
28.80	west of BNSF R.R. (south of Bay Road)	PEMA (PFOA)	primarily emergent wetland (includes Hay meadow)	W1	100	0.47	0.010	0.022	504.0
28.90	west of BNSF R.R. (south of Bay Road)	PEMAd	Hay meadow	W1	75	1.78	0	0	2450.4
29.25	Terrell Creek	PFOA / PEMA / R2UBH	Stream	HDD (OC)	50	0.15	0	0	0.0
29.26	ditch (& east Hay meadow) between Terrell Creek & Grandview Road	PEMAd (PSSAd)	primarily emergent wetland - large ditch and Hay meadow	C	100	0.01	0	0	0.0
29.31	between Terrell Creek & Grandview Road	PEMA	Hay meadow	W1	125	0.22	0	0	470.4
29.34	between Terrell Creek & Grandview Road	PEMA	Hay meadow	C	125	0.12	0	0	0.0
29.40	between Terrell Creek & Grandview Road	PEMA	Hay meadow	W1	100	0.06	0	0	60.0
29.62	just north of Grandview Road	PEMA	go-back Hay meadow	W1	100, 75	0.45	0	0	381.6
29.71	just north of Grandview Road	PEMA	go-back Hay meadow	W1	75	0.20	0	0	261.0
29.76	just north of Grandview Road	PEMA	go-back Hay meadow	W1	75	0.63	0	0	696.6
30.07	just north of Grandview Road	PEMA	go-back Hay meadow	W1	75	1.05	0	0	1089.0

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Site Description				Construction Details					
						Construction Disturbance Acreage[5]			
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Temporary Acreage	Permanent Acreage		Backfill Volume (cubic yards)
							10' Clear Zone	20' Clear Zone	
30.21	just north of Grandview Road (east of Blaine Road)	PEMA	go-back Hay meadow	W1	75,125	0.58	0	0	444.6
30.28	Blaine Road ditch east	PEMCx (PSSA)	Road ditch between BNSF Railroad and Blaine Road	CB	75	0.01	0	0	0.0
30.29	Blaine Road ditch west	PEMCx (PSSA)	ditch at Blaine Road	CB	75	0.01	0	0	0.0
30.29	just north of Grandview Road (west of Blaine Road)	PEMA	go-back Hay meadow	W1	125,75	0.59	0	0	469.8
30.31	just north of Grandview Road (west of Blaine Road)	PEMA	go-back Hay meadow	W1	75	1.44	0	0	1494.0
30.58	tributary to Terrell Creek	PEMC	Stream (includes small POWHh)	OCD	75	0.59	0	0	572.4
30.70	just north of Grandview Road	PEMA	depression in go-back Hay meadow	W1	75	0.08	0	0	75.6
30.72	just north of Grandview Road	PEMA	go-back Hay meadow	W1	75	0.28	0	0	327.6
30.78	just north of Grandview Road	PEMA	go-back Hay meadow	W1	75	1.36	0	0	1458.0
31.02	just north of Grandview Road (east of Jackson Road)	PEMA	go-back Hay meadow	W1	75	2.68	0	0	2196.0
31.31	Jackson Road ditch west	PEMCx	Road ditch	CB	75	0.01	0	0	0.0
31.69	seep west of Jackson Road	PEMC	emergent wetland	W1	75	0.03	0	0	50.4
31.71	seep west of Jackson Road	PEMC	emergent wetland	W1	75	0.04	0	0	77.4
31.81	Brown Road ditch north	PEMCx	Road ditch	OCF (CB)	75	0.01	0	0	7.2
31.82	Brown Road ditch south (at Jackson Road)	PEMCx	Road ditch	OCF (CB)	75	0.01	0	0	9.0
31.85	tributary to Terrell Creek south of Brown Road	PEMC	perennial stream	OCD	75	0.08	0	0	117.6
32.14	ditch	PEMAx	emergent wetland	OCF	100	0.02	0	0	24.0
32.20	depression	PEMA	Hay meadow	C	100	<0.01	0	0	0.0
32.32	depression	PEMA	Hay meadow	W1	100	0.03	0	0	19.2

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Site Description				Construction Details					
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Construction Disturbance Acreage[5]			Backfill Volume (cubic yards)
						Temporary Acreage	Permanent Acreage		
							10' Clear Zone	20' Clear Zone	
32.33	depression	PEMA	Hay meadow	W1	100	0.01	0	0	19.2
32.34	depression	PEMA	Hay meadow	C	100	<0.01	0	0	0.0
32.35	depression	PEMA	Hay meadow	C	100	0.03	0	0	0.0
32.39	Alder Grove Road ditch north	PEMAx	Road ditch	OCF (CB)	100	0.01	0	0	5.4
32.40	Alder Grove Road ditch south	PEMAx	Road ditch	OCF (CB)	100	0.01	0	0	5.4
32.48	depression	PEMA	Hay meadow	C	100	0.02	0	0	0.0
32.49	depression	PEMA	Hay meadow	C	100	0.01	0	0	0.0
32.50	depression	PEMA	Hay meadow	C	100	0.01	0	0	0.0
32.55	depression	PEMA	Hay meadow	C	100	<0.01	0	0	0.0
32.62	depression	PEMA	Hay meadow	C	100	0.01	0	0	0.0
32.63	depression	PEMA	Hay meadow	C	100	<0.01	0	0	0.0
32.64	ditch	PEMAx	Road ditch	OCF	100	0.02	0	0	18.0
33.17	depression	PEMA	Hay meadow	W1	100	0.12	0	0	158.4
33.18	depression	PEMA	30% emergent wetland in Hay meadow	W1	450	0.20	0	0	67.2
33.22	depression	PEMA	Hay meadow	C	450	0.06	0	0	0.0
Milepost equation (correction point for reroute)									
HDD	ditch	PEMAx	Hay meadow	C	450	0.05	0	0	0.0
HDD	Hay meadow near Landfall	PEMA	Hay meadow	C	450	0.01	0	0	0.0
HDD	Hay meadow near Landfall	PEMA	depression in Hay meadow	C	450	0.03	0	0	0.0
32.88	Hay meadow near Landfall	PEMA	drainage in Hay meadow	W1	450	0.25	0	0	115.2

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Site Description				Construction Details					
						Construction Disturbance Acreage[5]			
Milepost[1]	Site Name	Cowardin Class[2]	Land Category[3]	Proposed Crossing Method[4]	Total Construction ROW Width (feet)	Temporary Acreage	Permanent Acreage		Backfill Volume (cubic yards)
							10' Clear Zone	20' Clear Zone	
32.89	Hay meadow near Landfall	PEMA	depression in Hay meadow	C	450	0.02	0	0	0.0
32.90	Hay meadow near Landfall	PEMA	depression in Hay meadow	C	450	0.01	0	0	0.0
TOTAL Onshore Pipeline Facilities						**56.85**	**1.25**	**2.23**	**57,682.2**
ABOVEGROUND FACILITIES									
Interconnect Facilities/Compressor Station									
0.00	GSX Sumas Interconnect Facilities	PEMC	NRCS mapped as PCC	W1	NA	2.49	0		684.0
31.93	GSX Cherry Point (includes Pig Receiving Facility)	PEMA	Hay meadow	NA	NA	0.00	0 (0.01)		(80.7)
31.94	GSX Cherry Point (includes Pig Receiving Facility)	PEMA	Hay meadow	NA	NA	0.00	0 (0.02)		(161.3)
31.96	GSX Cherry Point (includes Pig Receiving Facility)	PEMA	Hay meadow	NA	NA	0.00	0 (0.01)		(80.7)
TOTAL Aboveground Facilities						**2.49**	**0 (0.04)[6]**		**684.0 (1006.7)[7]**
GSX WETLAND TOTAL						**59.34**	**1.25**	**2.23**	

[1] Milepost of wetland polygons was determined at the eastern-most edge of the polygon on or perpendicular to the centerline. Mileposts for waterbodies are based on the waterbody centerline.

[2] Cowardin (1979), USDI Fish and Wildlife Service (1990):

Wetland Class

PEM	=	Palustrine Emergent	PUB	=	Palustrine Unconsolidated Bottom
PFO	=	Palustrine Forested	R2UB	=	Riverine, Lower Perennial, Unconsolidated Bottom
PSS	=	Palustrine Scrub-Shrub	R3UB	=	Riverine, Upper Perennial, Unconsolidated Bottom
POW	=	Palustrine Open Water	R4SB	=	Riverine, Intermittent, Streambed

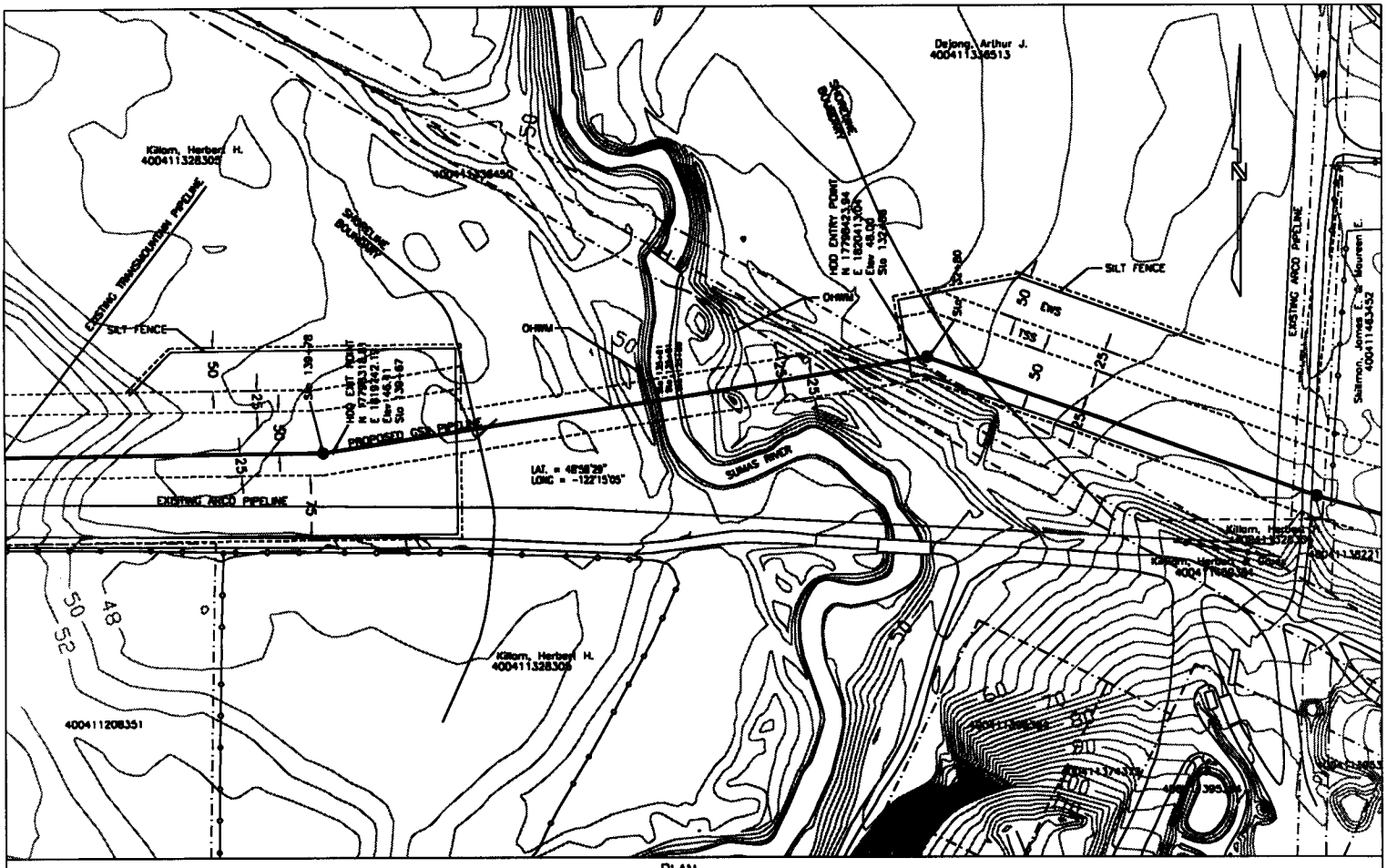
[3] Land Category: Agricultural wetlands include hay meadow/pasture, commodity crops (ponded sites in corn fields) and ditches (minor, unnamed constructed drainages in agricultural fields). Any areas designated as PCC (Prior Converted Cropland) that meet wetland criteria are included in the affected acreage calculations. The segment of "go-back" hay meadow north of Grandview Road between MP 29.7 - 31.3 that is currently managed as open space is not included in agricultural wetland acreage based on current land use.

[4] Crossing Methods:
CB - Conventional Bore Crossing HDD - Horizontal Directional Drill C - Cleared only (no trench in wetland) OCD - Open Cut Flume OCF - Open Cut Flowing OCN - Open Cut Non-Flowing
W1 - String and Weld W2 - Upland Fabrication W3 - Push-Pull NA - Not Applicable

[5] Construction Disturbance Acreage was calculated from actual boundaries as mapped using AutoCAD 2000. Permanent acreage applies to wetland sites that will be affected for the life of the project, i.e. scrub-shrub and forested wetland areas over the centerline that would be maintained clear of trees and shrubs. Two clearing zone widths (10 feet and 20 feet) are given here to reflect the 10-foot-wide zone permanently maintained as herbaceous and the additional 20-foot-zone cleared of trees taller than 15 feet.

[6] Isolated wetlands at the Cherry Point Compressor Station site have been determined by the Corps of Engineers to be non-jurisdictional and by Washington Department of Ecology to be jurisdictional.

[7] In the onshore portion of the project, excavated material will consist of topsoil and trench spoil. Topsoil varies from silt loams to loams; spoil is derived from alluvium, glacial outwash and glacial drift. The amount of excavated material will depend on the pipeline burial requirements of the individual waterbodies and wetlands. The amount of excavated material will vary from 1.8 cubic yards per lineal foot in areas with a minimum cover of three feet (non-agricultural wetlands) to 2.4 cubic yards per lineal foot in areas with five feet of cover (agricultural wetlands).



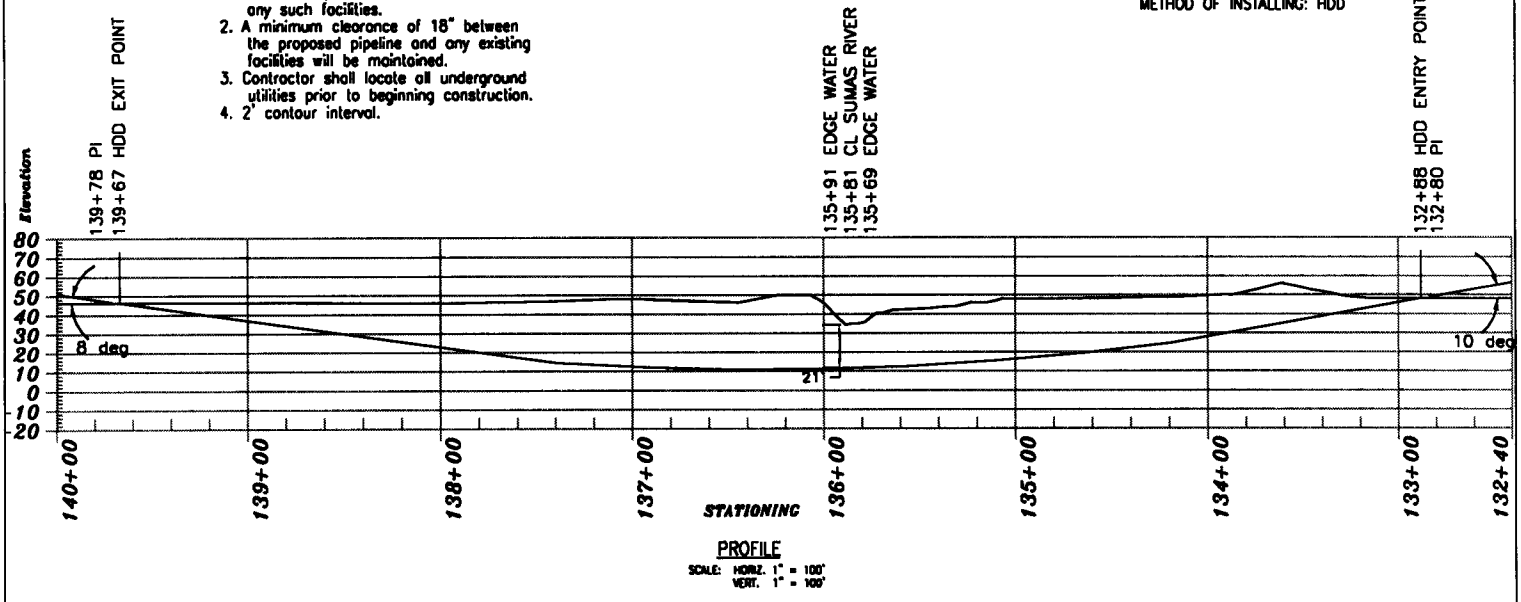
PLAN
SCALE: 1" = 200'

GENERAL NOTES:

1. The Company has made an effort to locate all existing underground facilities, but does not guarantee the accuracy of the information shown on this map. Nor does it accept any responsibility for errors in the location of, or for failure to indicate any such facilities.
2. A minimum clearance of 18" between the proposed pipeline and any existing facilities will be maintained.
3. Contractor shall locate all underground utilities prior to beginning construction.
4. 2' contour interval.

PIPE SPECIFICATIONS:

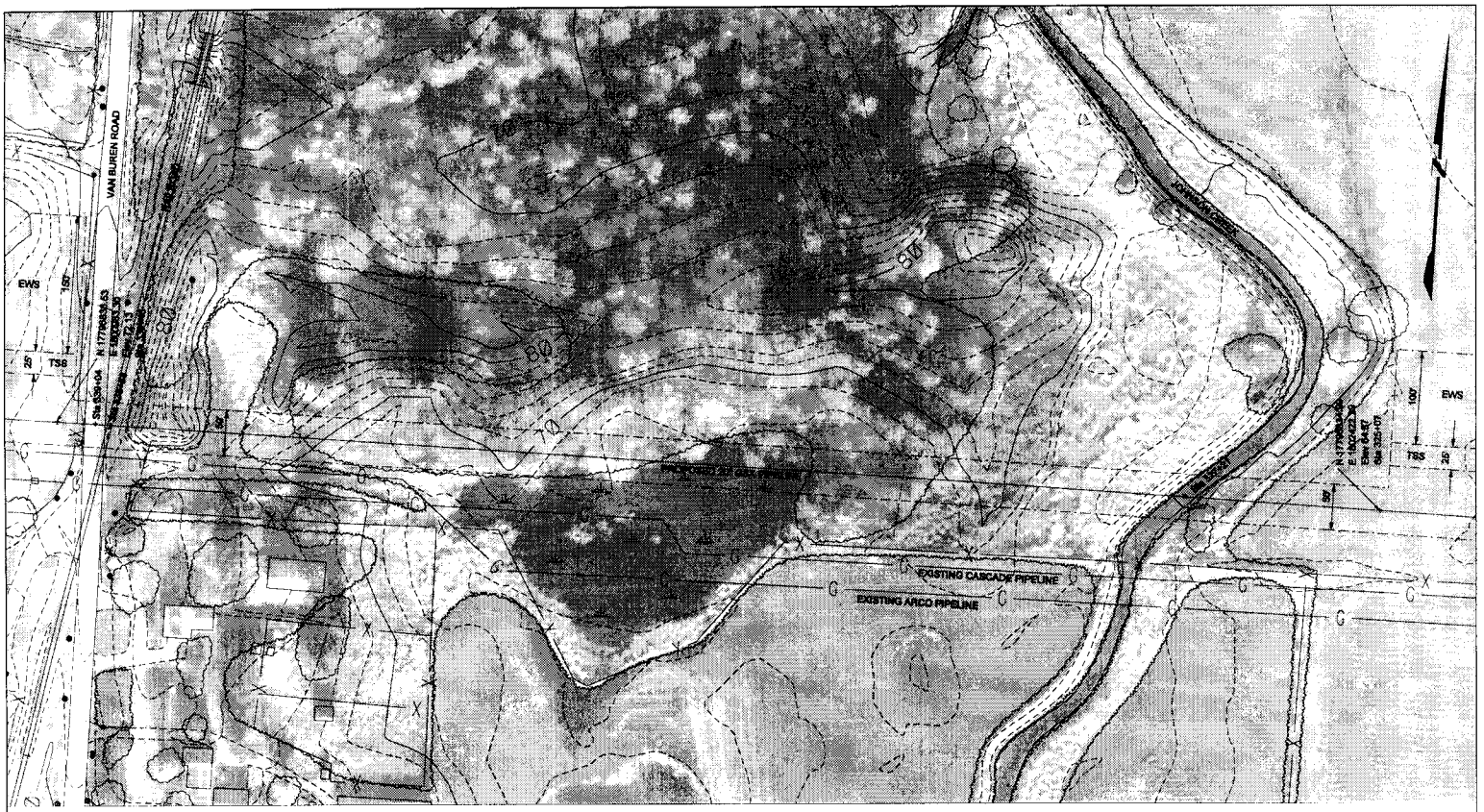
20" O.D. 0.438 W.T.
WT. PER FT.: 91.51
MATERIAL: CARBON STEEL
EXTERNALLY COATED - PLANT APPLIED FUSION BONDED EPOXY AND 16 MILS. POWERCRETE
TYPE JOINT: WELDED
METHOD OF INSTALLING: HDD



PROFILE
SCALE: HORIZ. 1" = 100'
VERT. 1" = 100'

SUMAS RIVER PLAN/PROFILE
M.P. 2.57
WHATCOM CO., WASHINGTON

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 33 of 56 Date 09/03



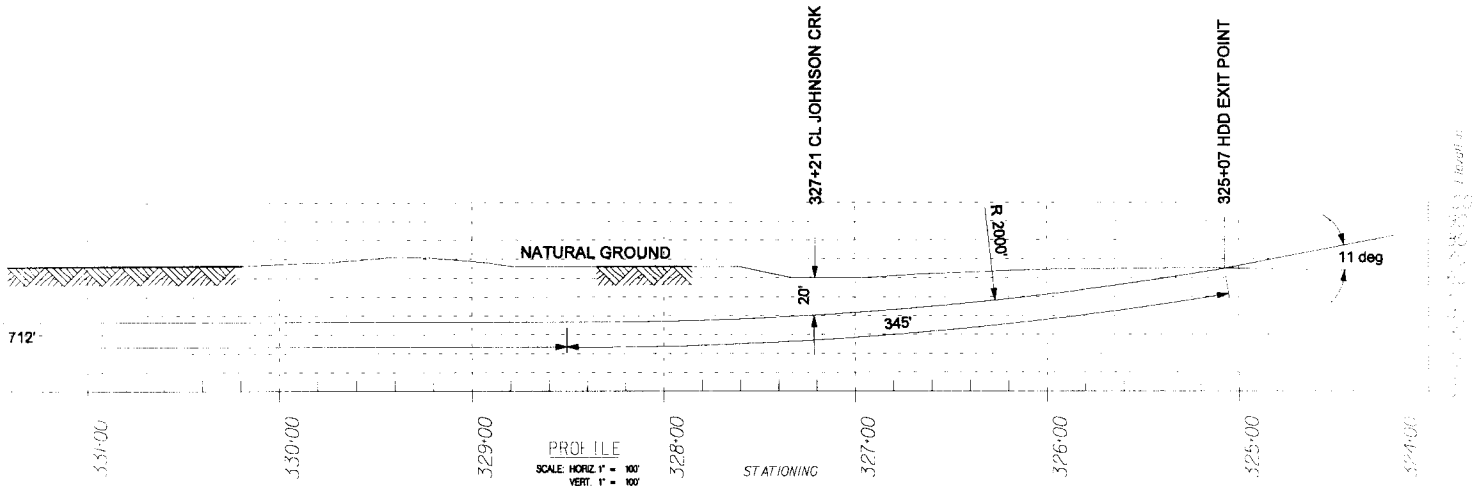
PLAN
SCALE: 1" = 200'

GENERAL NOTES:

1. The Company has made an effort to locate all underground facilities now existing but does not guarantee the accuracy of the information shown on this map nor does it accept any responsibility for errors in the location or for failure to indicate any such facilities.
2. A minimum clearance of 18" between the proposed pipeline and any existing facilities will be maintained.
3. Contractor shall locate all underground facilities prior to beginning construction.
4. [illegible] interval.

PIPE SPECIFICATIONS:

20" O.D. 0.438 W.T.
WT. PER FT.: 91.51
MATERIAL: CARBON STEEL
EXTERNALLY COATED - PLANT APPLIED
FUSION BONDED EPOXY AND
16 MILS. POWERCRETE
TYPE JOINT: WELDED
METHOD OF INSTALLING: HDD



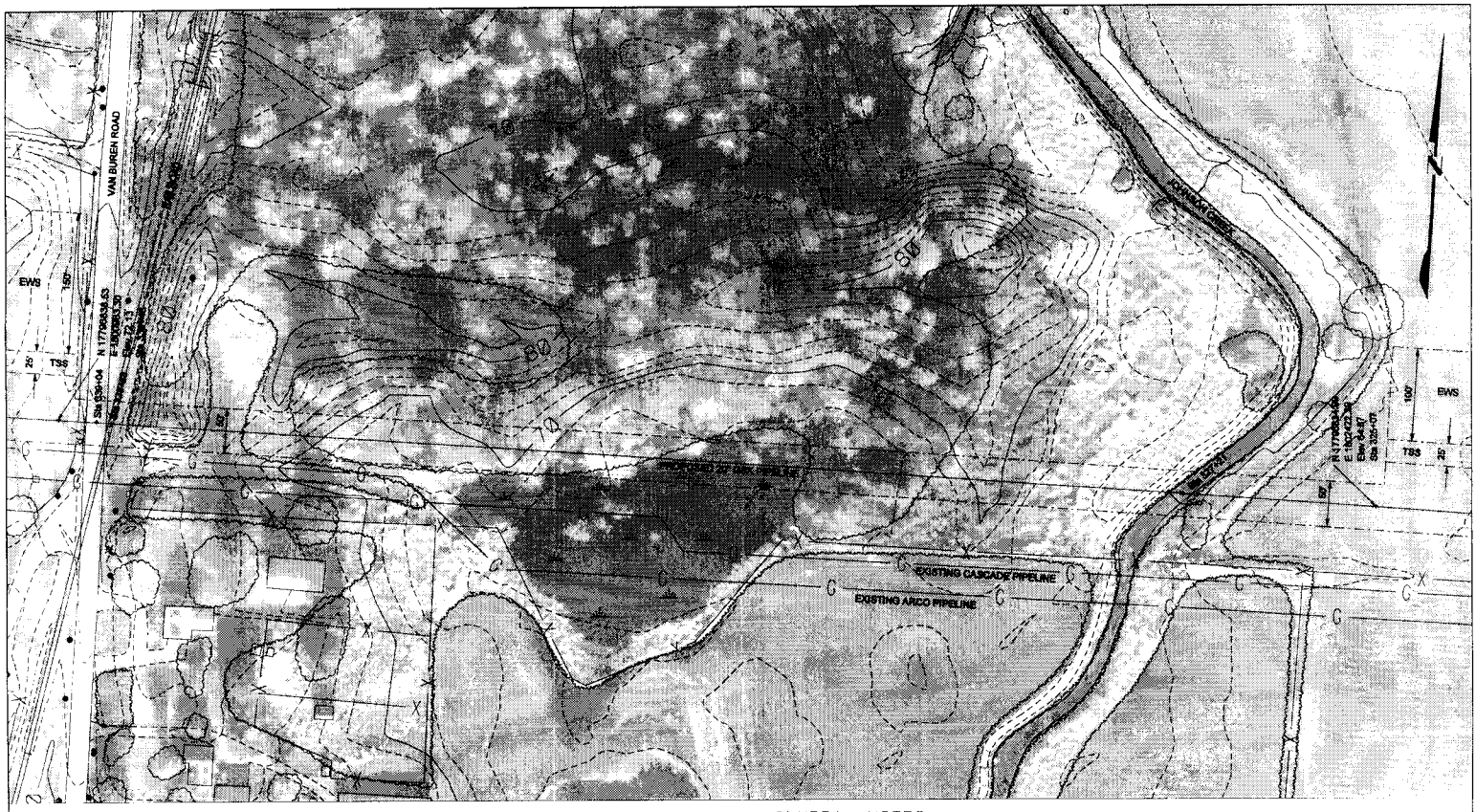
Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 34 of 56 Date 09/03

GEORGIA STRAIT CROSSING PIPELINE, L.P.
R/R/VAN BUREN RD./JOHNSON CREEK
STREAM/RAILROAD/ROAD PROFILE
MP 6.19,6.41 & 6.42 - SEC 7&8 T40N R4E
WHATCOM CO., WASHINGTON

GEORGIA STRAIT CROSSING PROJECT

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
[illegible]	[illegible]	[illegible]	REVISED PER ROUTE CHANGE	12016		

DRAWN BY: KIT	DATE: 5-02-2001	ISSUED FOR BID:	SCALE: AS NOTED
CHECKED BY:	DATE:	ISSUED FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 2493.2-X-107	SHEET [illegible] OF [illegible]
		31 JUL 2003 k:\georgia_strait\mapping\hydrology\water bodies\2493.10\sx34.dgn	



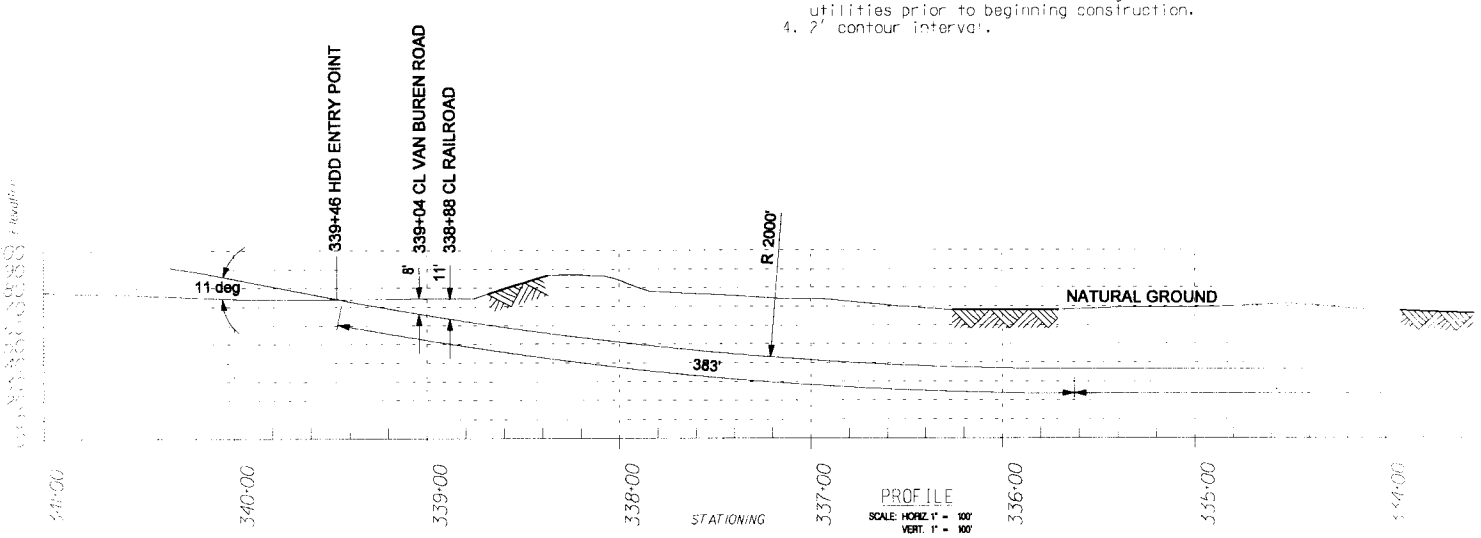
PLAN
SCALE: 1" = 200'

GENERAL NOTES:

1. The Company has made an effort to locate all underground facilities now existing but does not guarantee the accuracy of the information shown on this map nor does it accept any responsibility for errors in the location or for failure to indicate any such facilities.
2. A minimum clearance of 18" between the proposed pipeline and any existing facilities will be maintained.
3. Contractor shall locate all underground utilities prior to beginning construction.
4. 2' contour interval.

PIPE SPECIFICATIONS:

20" O.D. 0.438 W.T.
WT. PER FT.: 91.25
MATERIAL: CARBON STEEL
EXTERNALLY COATED - PLANT APPLIED FUSION BONDED EPOXY AND
16 MILS. POWDERCRETE
TYPE JOINT: WELDED
METHOD OF INSTALLATION: HDD



PROFILE
SCALE: HORIZ. 1" = 100'
VERT. 1" = 100'

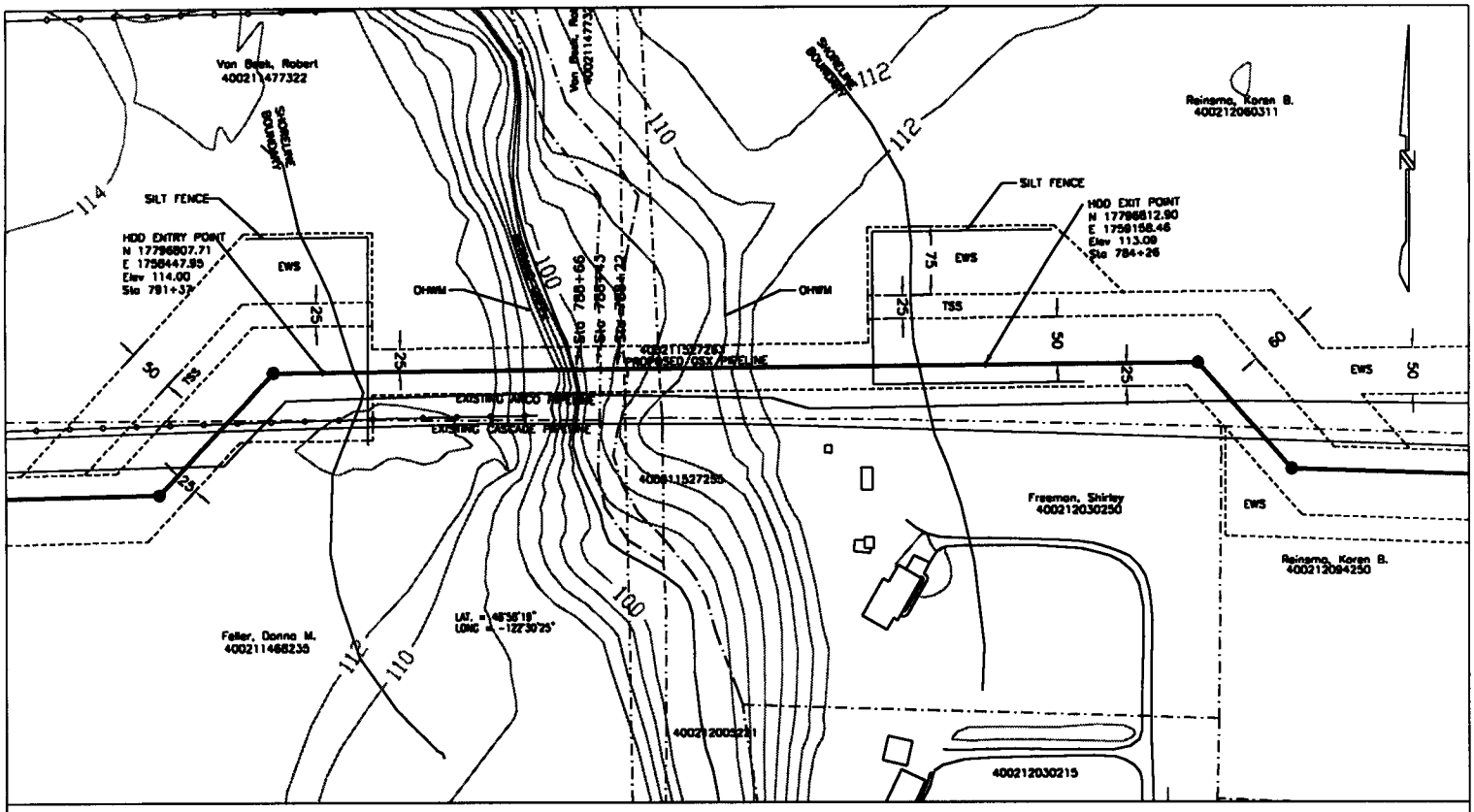
Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 35 of 56 Date 09/03

GEORGIA STRAIT CROSSING PIPELINE, L.P.
R/R/VAN BUREN RD./JOHNSON CREEK
STREAM/RAILROAD/ROAD PROFILE
MP 6.19,6.41 & 6.42 - SEC 7&8 T40N R4E
WHATCOM CO., WASHINGTON

GEORGIA STRAIT CROSSING PROJECT

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
	5/03	K	REVISED PER ROUTE CHANGE	12016		

DRAWN BY: KLL	DATE: 5-02-2001	ISSUED FOR BID:	SCALE: AS NOTED
CHECKED BY:	DATE:	ISSUED FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 2493.2-X-107	SHEET OF
		31 JUL 2003 k:\georgia_strait\mapping\hydrology\water bodies\2493.107sm2.dgn	



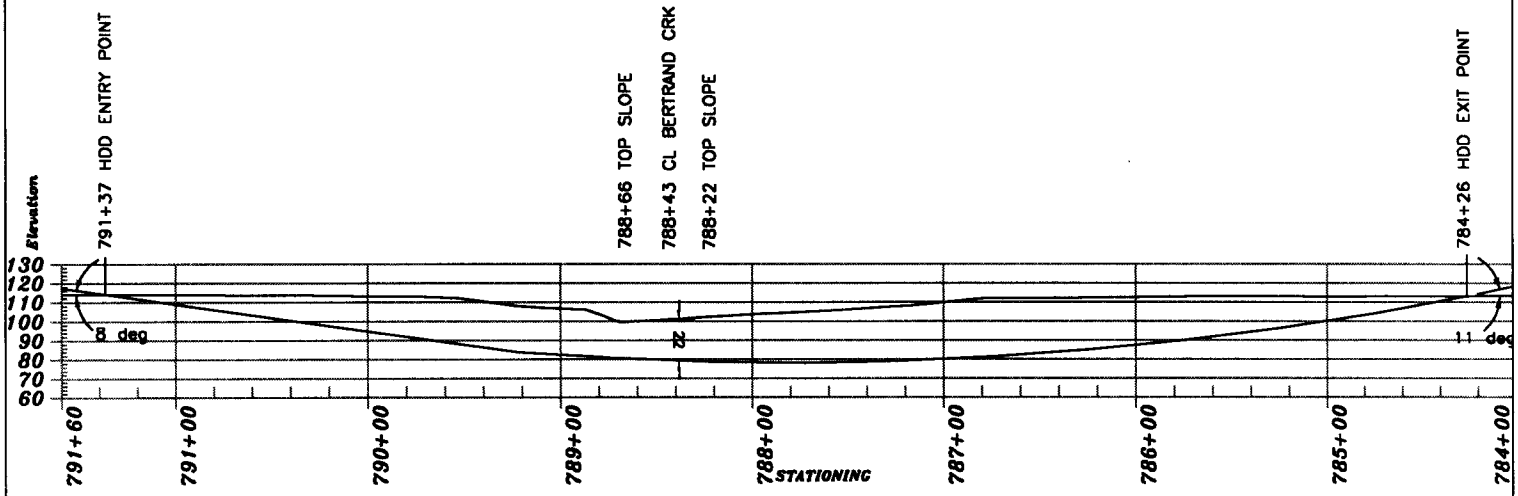
PLAN
SCALE: 1" = 200'

GENERAL NOTES:

1. The Company has made an effort to locate all existing underground facilities, but does not guarantee the accuracy of the information shown on this map. Nor does it accept any responsibility for errors in the location of, or for failure to indicate any such facilities.
2. A minimum clearance of 18" between the proposed pipeline and any existing facilities will be maintained.
3. Contractor shall locate all underground utilities prior to beginning construction.
4. 2' contour interval.

PIPE SPECIFICATIONS:

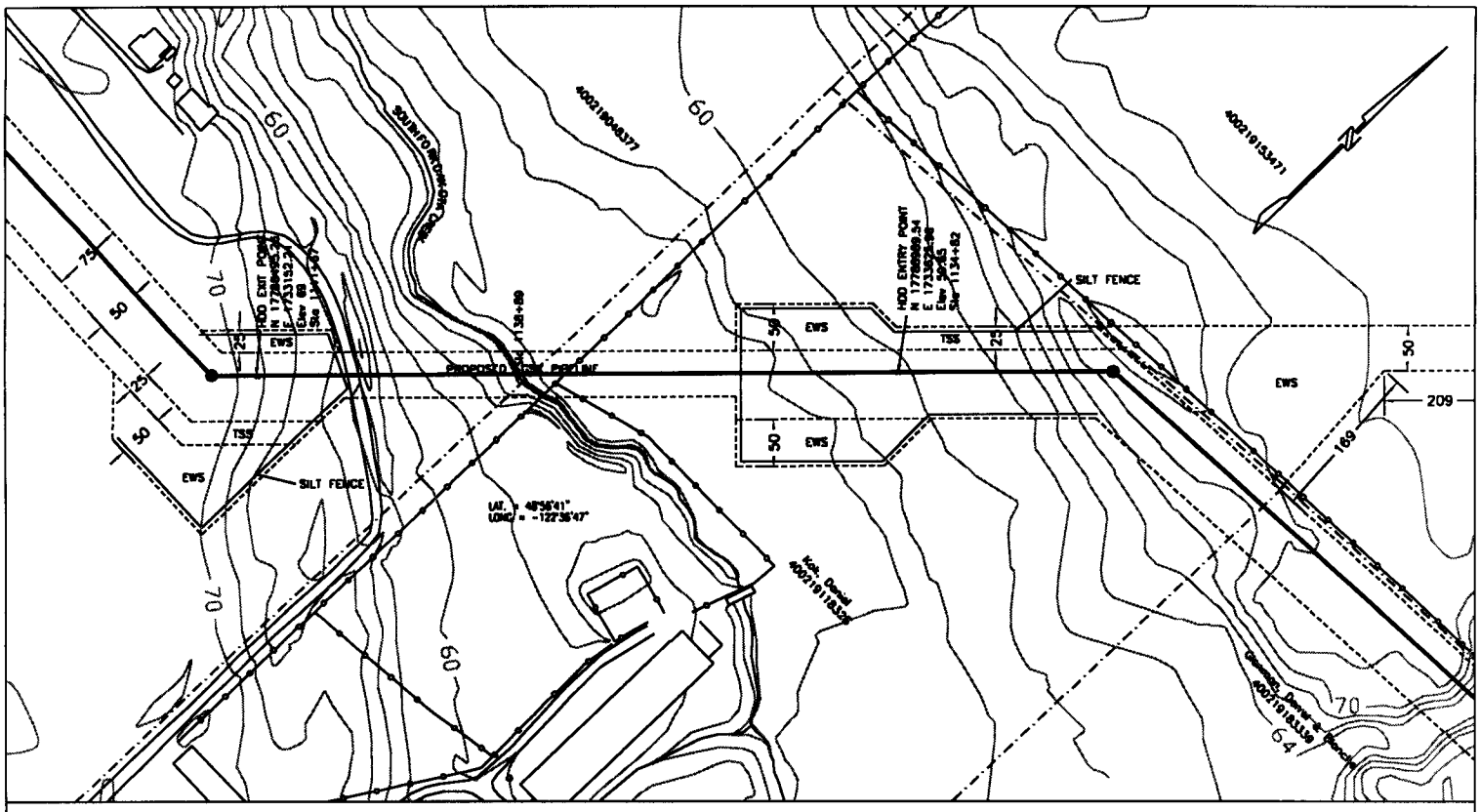
20" O.D. 0.438 W.T.
WT. PER FT.: 91.51
MATERIAL: CARBON STEEL
EXTERNALLY COATED - PLANT APPLIED
FUSION BONDED EPOXY AND
16 MILS. POWERCRETE
TYPE JOINT: WELDED
METHOD OF INSTALLING: HDD



PROFILE
SCALE: HORIZ. 1" = 100'
VERT. 1" = 100'

BERTRAND CREEK PLAN/PROFILE
M.P. 14.91
WHATCOM CO., WASHINGTON

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 36 of 56 Date 09/03



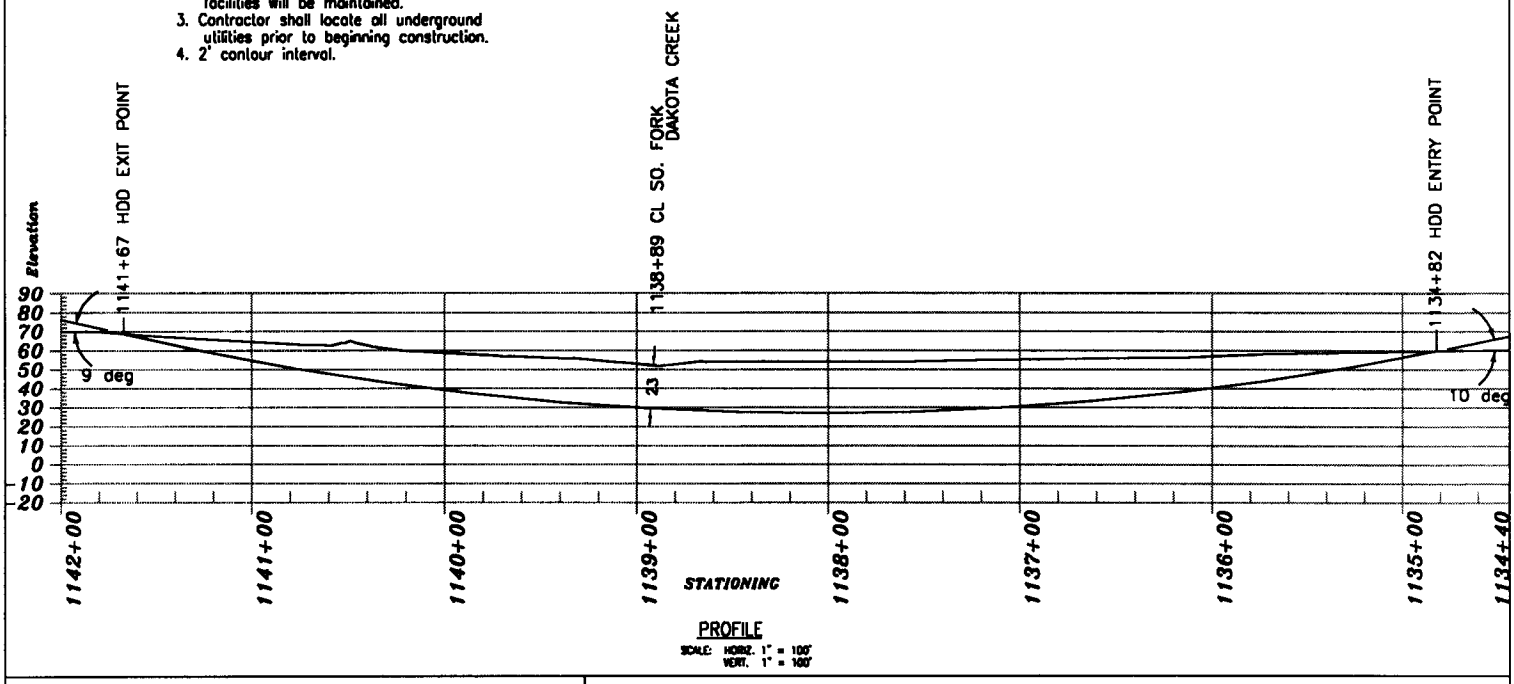
PLAN
SCALE: 1" = 200'

GENERAL NOTES:

1. The Company has made an effort to locate all existing underground facilities, but does not guarantee the accuracy of the information shown on this map. Nor does it accept any responsibility for errors in the location of, or for failure to indicate any such facilities.
2. A minimum clearance of 18" between the proposed pipeline and any existing facilities will be maintained.
3. Contractor shall locate all underground utilities prior to beginning construction.
4. 2' contour interval.

PIPE SPECIFICATIONS:

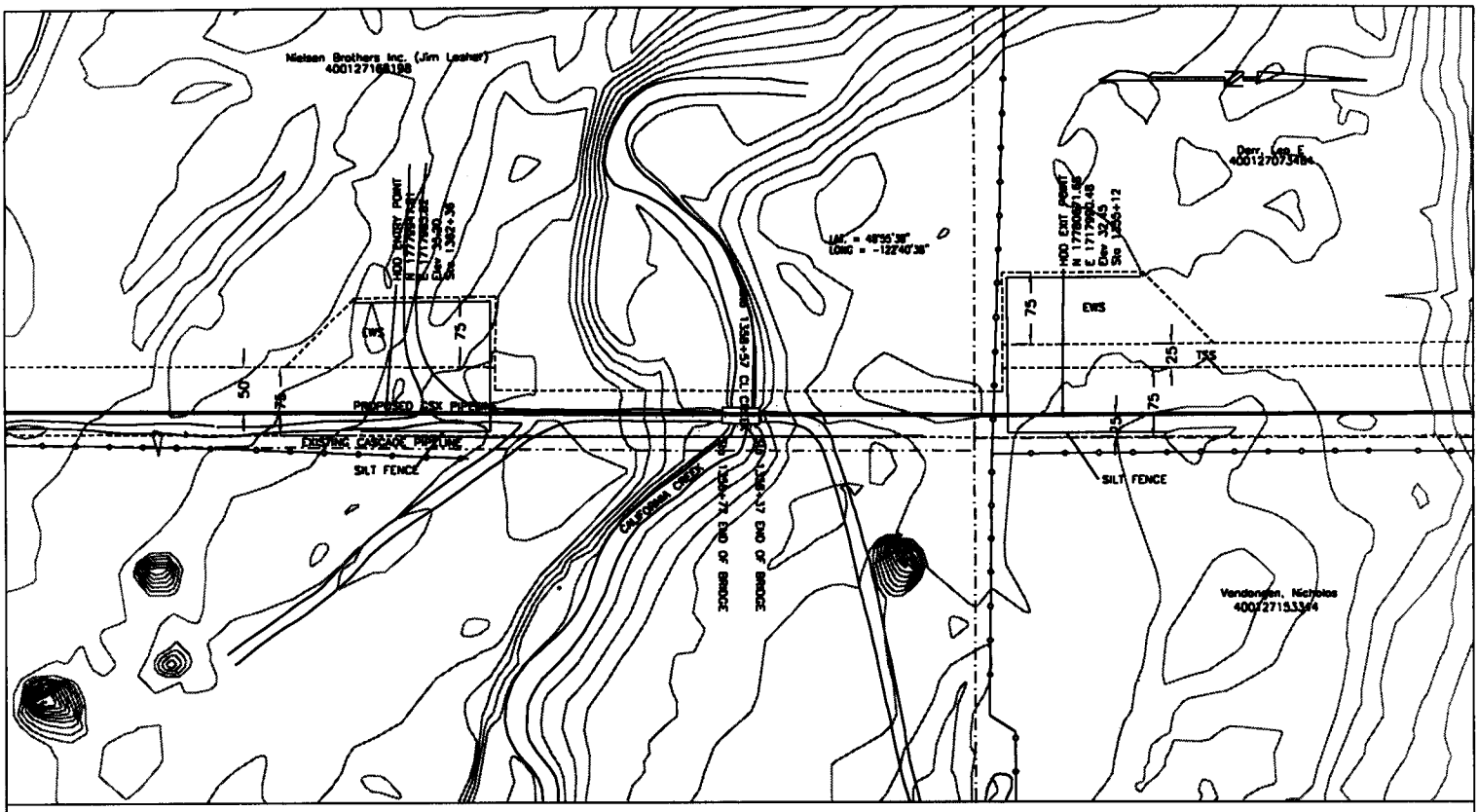
20" O.D. 0.438 W.T.
WT. PER FT.: 91.51
MATERIAL: CARBON STEEL
EXTERNALLY COATED - PLANT APPLIED
FUSION BONDED EPOXY AND
16 MILS. POWERCRETE
TYPE JOINT: WELDED
METHOD OF INSTALLING: HDD



PROFILE
SCALE: HORIZ. 1" = 100'
VERT. 1" = 100'

SOUTH FORK DAKOTA CREEK PLAN/PROFILE
M.P. 21.55
WHATCOM CO., WASHINGTON

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 37 of 56 Date 09/03



PLAN
SCALE: 1" = 200'

GENERAL NOTES:

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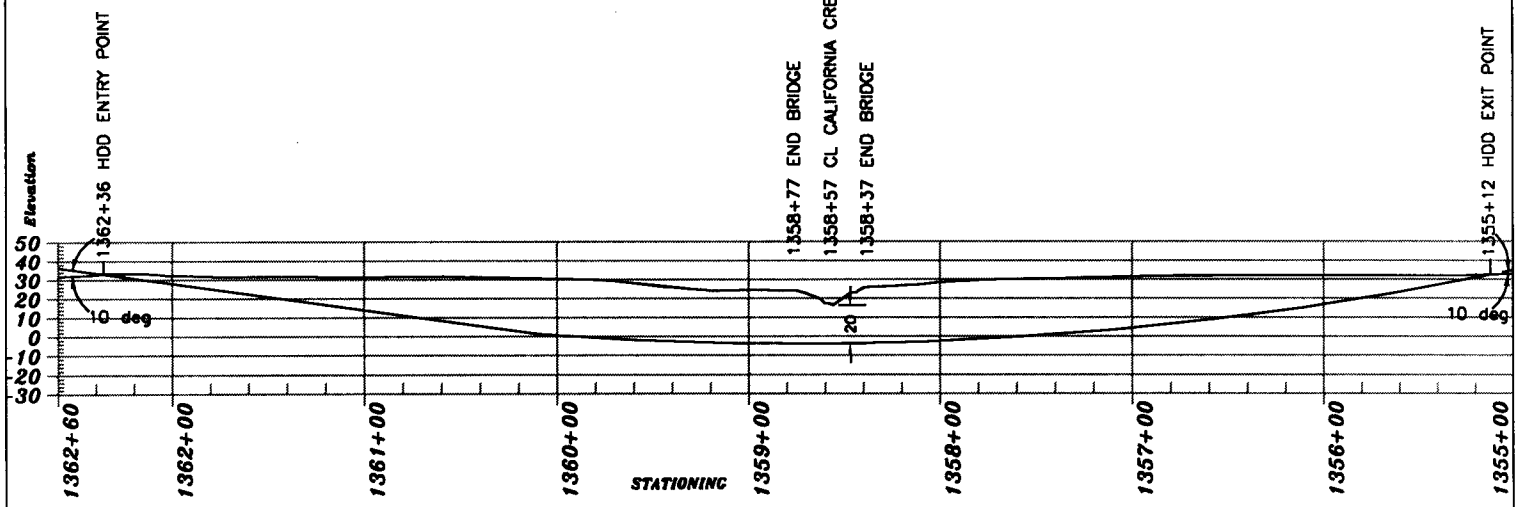
2. A minimum clearance of 18" between the proposed pipeline and any existing facilities will be maintained.
3. Contractor shall locate all underground utilities prior to beginning construction.
4. 2' contour interval.

PIPE SPECIFICATIONS:

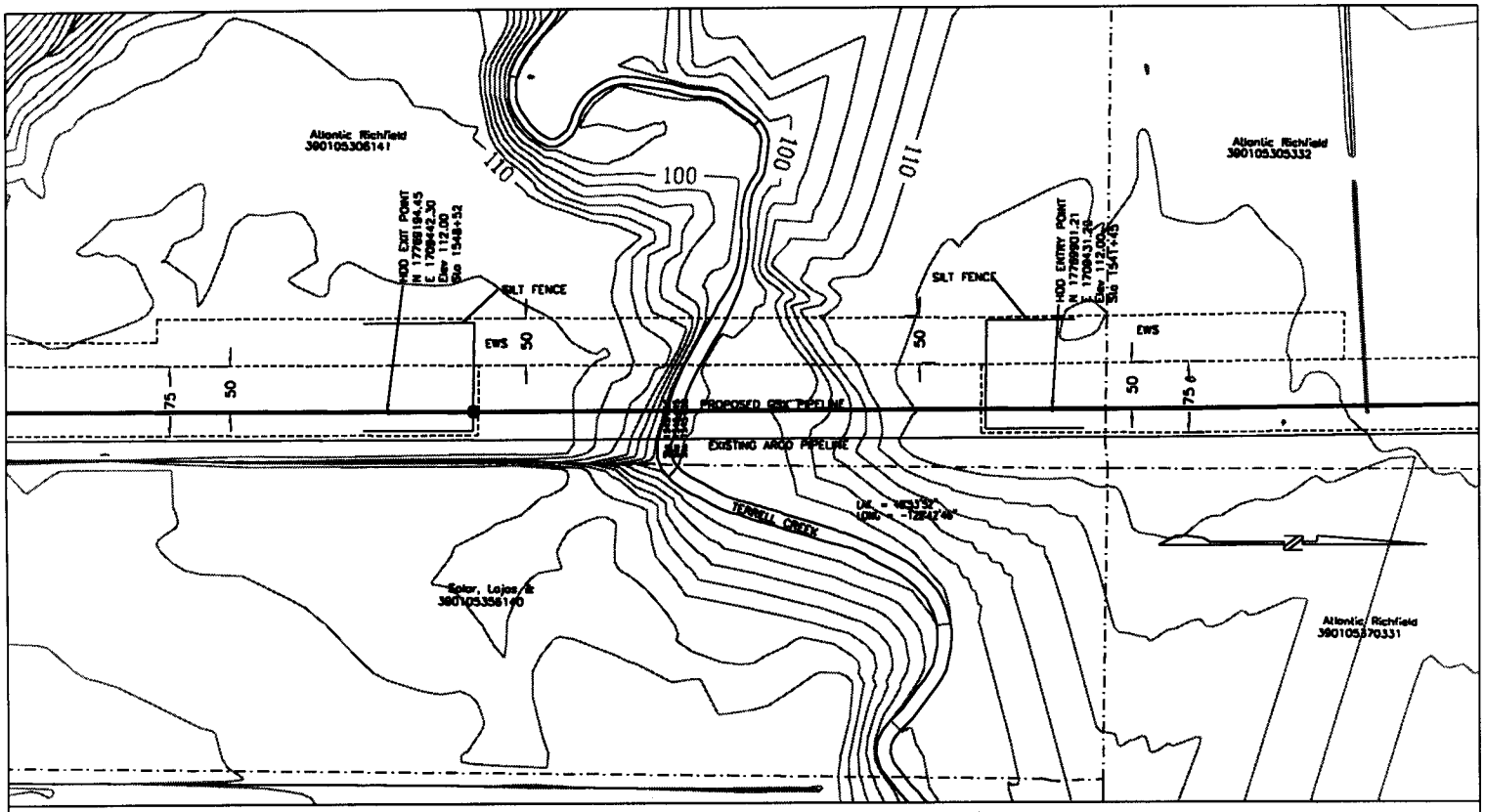
20" O.D. 0.438 W.T.
WT. PER FT.: 91.51
MATERIAL: CARBON STEEL
EXTERNALLY COATED - PLANT APPLIED
FUSION BONDED EPOXY AND
16 MILS. POWERCRETE
TYPE JOINT: WELDED
METHOD OF INSTALLING: HDD



PROFILE
SCALE: HORIZ. 1" = 100'
VERT. 1" = 100'

CALIFORNIA CREEK PLAN/PROFILE
M.P. 25.70
WHATCOM CO., WASHINGTON

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 38 of 56 Date 09/03



PLAN
SCALE: 1" = 200'

GENERAL NOTES:

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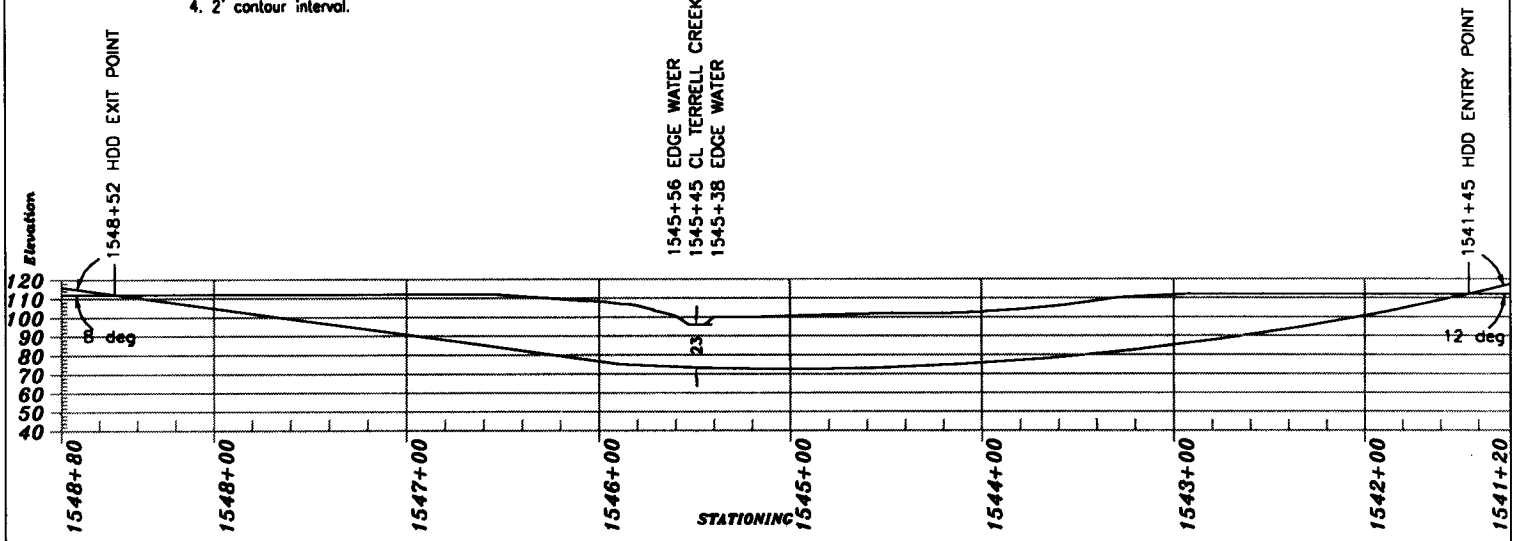
2. A minimum clearance of 18" between the proposed pipeline and any existing facilities will be maintained.
3. Contractor shall locate all underground utilities prior to beginning construction.
4. 2' contour interval.

PIPE SPECIFICATIONS:

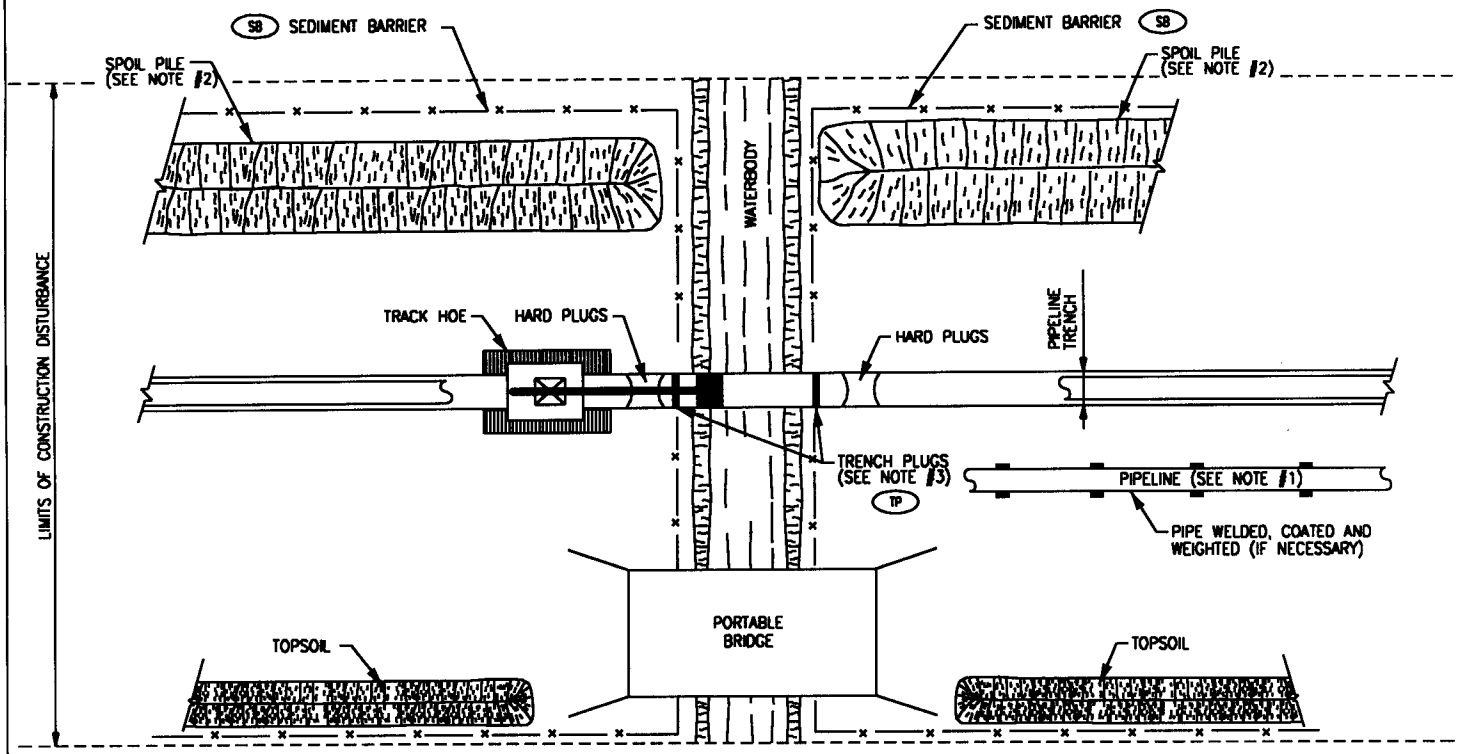
20" O.D. 0.438 W.T.
WT. PER FT.: 91.51
MATERIAL: CARBON STEEL
EXTERNALLY COATED - PLANT APPLIED
FUSION BONDED EPOXY AND
16 MILS. POWERCRETE
TYPE JOINT: WELDED
METHOD OF INSTALLING: HDD



PROFILE
SCALE: HORIZ. 1" = 100'
VERT. 1" = 100'

TERRELL CREEK PLAN/PROFILE
M.P. 29.25
WHATCOM CO., WASHINGTON

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 39 of 56 Date 09/03



NOTES:

1. This method will be used for crossing waterways using conventional open-trenching methods. The pipe will be installed to a depth of at least 5 feet below the bottom of the creek channel.

2. Workspace for spoil storage is located on either side of the creek crossing adjacent to the proposed pipeline alignment. Additional workspace for support vehicles, supplies and materials, construction equipment and access construction area (including areas to turn equipment around) are shown on the site specific plans. Sediment Barriers will be installed around workspace areas and spoil storage areas to protect waterbody from surface runoff.

3. The crossing will be installed within 24 hours or as expeditiously as possible to minimize impacts to the waterway, and work will proceed without stoppage from the start of excavation until the pipeline is buried under the stream. The pipe trench will be backfilled using mechanical placement. Trench plugs will be installed at the banks on either side of the waterway.

4. If the Waterway is navigable or used by recreational boaters, a mitigation plan for traffic interruption will be prepared.

5. Impacts to riparian vegetation will be minimized by keeping workspace areas compact, locating them away from stream bank edges, and by locating them in previously cleared areas to the extent possible.

6. Erosion and sediment control measures shall be inspected daily and repaired if necessary.

7. This method applies to stream and river crossings, where flows exceed the capacity of flume or pump crossing methods, or that are not feasible to bore. Clearing and grading, topsoil salvage and topsoil stripping depths shall be the same as indicated for adjacent upland areas unless specified otherwise.

8. Schedule crossing during low flow period, if possible.

9. No refueling of mobile equipment within 100 feet of stream bank. Place sign posts 100 feet back from wetland boundary and advise no refueling. Refuel stationary equipment as per SPCC plan.

10. Leave hard plugs at the stream bank edge, until just prior to pipe installation.

11. Maintain stream flow throughout crossing construction.

12. Restore watercourse channel to approximate pre-construction profile and substrate.

13. Spoil and/or topsoil will be placed on either side of the trench based on evaluation of site conditions at construction.

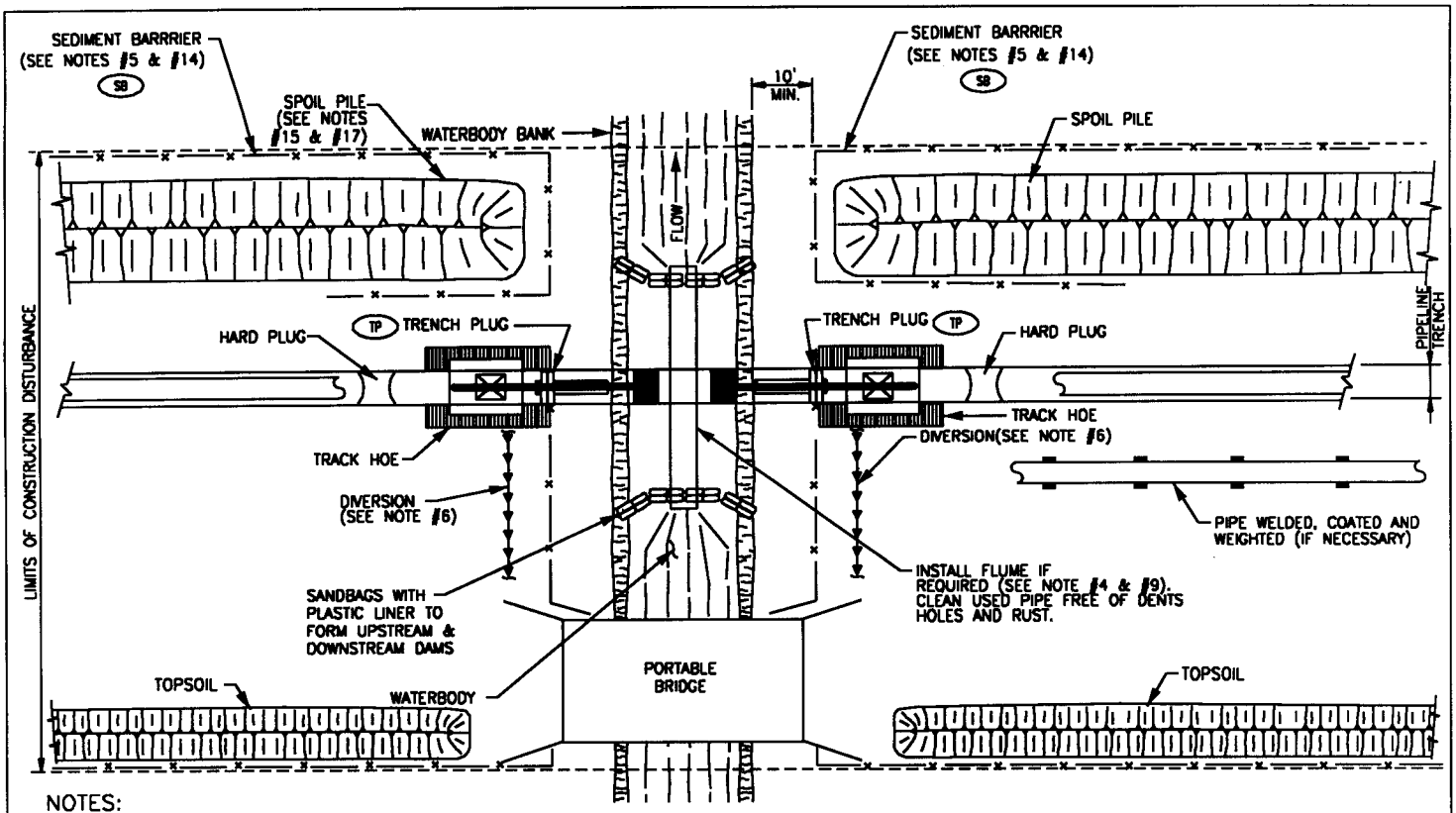
14. Where possible 5' of cover will be maintained under the waterbody. If possible, the width of the trench will be adjusted accordingly to maintain a 2:1 trench slope. In areas where 3' of cover is called for, trench width/depth will be adjusted accordingly.

15. Right-of-way width and temporary extra workspace areas are shown on Preliminary Terrestrial Alignment sheets.

OCF

TYPICAL WATERBODY CROSSING - OPEN CUT FLOWING METHOD

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 40 of 56 Date 09/03



NOTES:

1. Schedule crossing during low flow period, if possible.

2. Equipment operating in the waterbody shall be limited to that needed to perform construction. Use temporary stream crossing if other types of equipment must cross waterbody.

3. Staging area(s) for waterbody crossing(s), when required, shall be located at least 50 feet from water's edge (where topographic conditions permit) and shall be of a minimum size needed for convenient preparation.

4. Flume shall not be removed until completion of the waterbody crossing.

5. Erosion and sediment control measures shall be inspected daily and repaired if necessary.

6. Install diversion trenches at the base of all slopes adjacent to the waterbody as part of final grading, to prevent bank wash-out.

7. No refueling of mobile equipment within 100 feet of stream bank. Place sign posts 100 feet back from wetland boundary and advise no refueling, refuel stationary equipment as per SPCC plan.

8. Leave hard plugs at stream bank edge, until just prior to pipe installation. Replace with trench plugs after pipe installation.

9. Size flume to handle anticipated flows, install flume in waterbody and maintain correct alignment until removed.

10. Construct upstream dike followed by downstream dike. Where necessary to ensure a watertight barrier, install a flange on upstream end of flume and seal to substrate with sandbags and polyethylene liner, "key" dikes into banks or construct secondary dike, if necessary.

11. Pump stream channel dry between dikes, if necessary. Discharge water onto stable surface and/or into sediment barriers, to prevent erosion and sedimentation, no heavy silt-laden water shall be discharged in the stream.

12. Maintain stream flow, if present, throughout crossing construction.

13. Restore watercourse channel and stream banks to approximate pre-construction profile and substrate, as required.

14. Sediment barriers shall be installed along either side of waterbody and around spoil piles to intercept surface runoff.

15. Stockpile topsoil and spoil separately. Topsoil and spoil shall not be stockpiled across the stream channel and shall be placed a minimum of 10 feet from the streambanks.

16. Flag wetland boundaries prior to clearing.

17. Spoil and/or topsoil will be placed on either side of the trench based on evaluation of site conditions at construction.

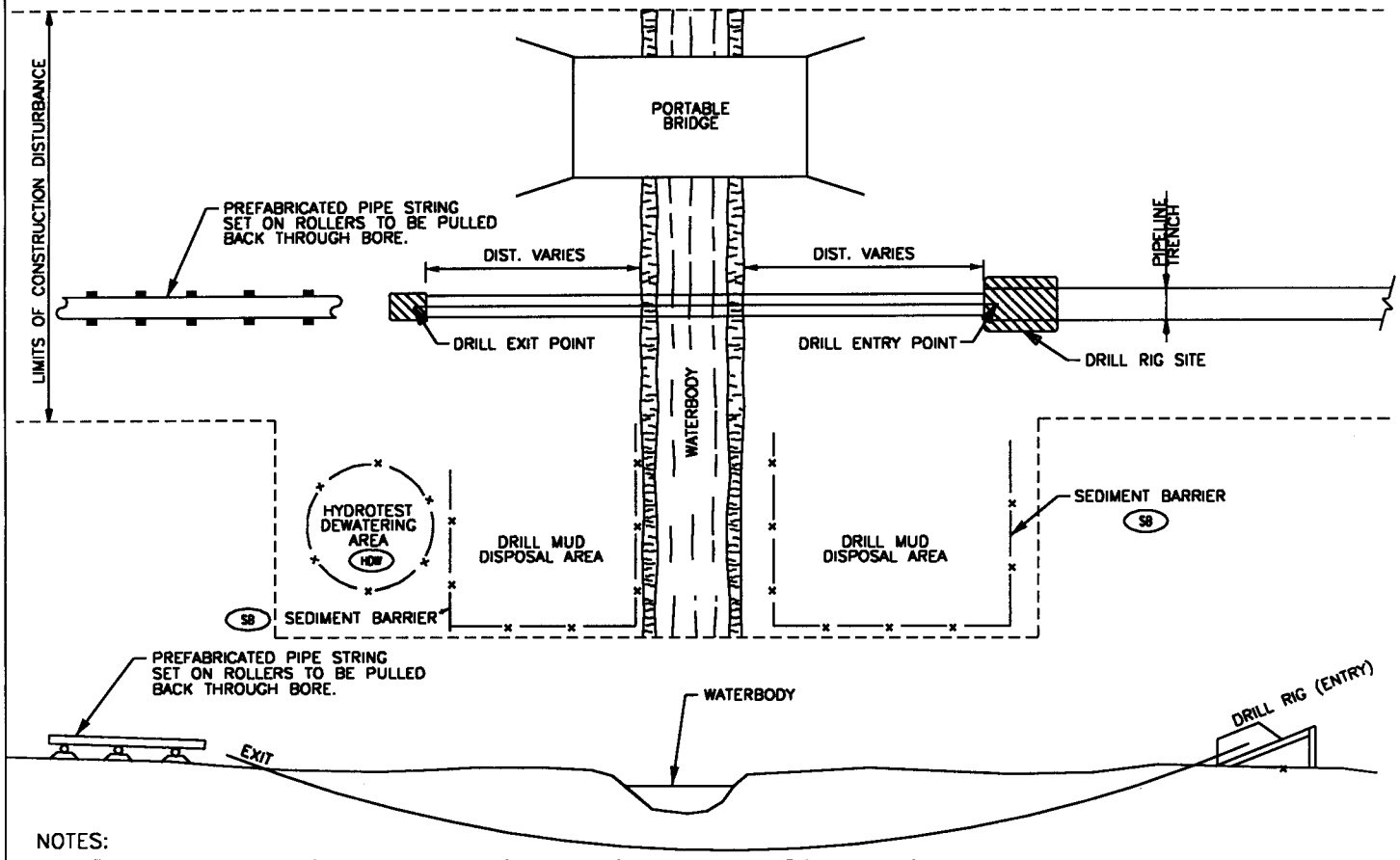
18. Where possible 5' of cover will be maintained under the waterbody. If possible, the width of the trench will be adjusted accordingly to maintain a 2:1 trench slope. In areas where 3' of cover is called for, trench width/depth will be adjusted accordingly.

19. Right-of-way width and temporary extra workspace areas are shown on Preliminary Terrestrial Alignment sheets.

OCD

TYPICAL WATERBODY CROSSING - OPEN CUT FLUME METHOD

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
 Date 09/03



NOTES:

1. The general layout depicted shows the typical layout for the crossing of a waterway with a pipeline using the Horizontal Directional Drilling (HDD) method. The drilling and the pipe string will be located on opposite sides of the waterway in areas similar to the areas shown in the detail. Actual area configurations are shown on the FERC alignment sheets or the Environmental Plans. The pipe will be pulled under the waterway from the drill rig side. This drawing depicts general layout and control measures only. Detailed information including the drill trajectory and minimum depth below the waterway is included on a separate plan and profile drawing.

2. Workspace for spoil storage for the excavations at the boring sites and the approaches to those sites are located adjacent to those areas on the plans. Additional workspace necessary for the drilling equipment, support vehicles, supplies and materials, construction equipment and access to the drilling sites including areas to turn equipment around are shown on the plans. Workspace on for fabrication of the pipe string and its storage until it is pulled under the river is also required. Sediment Barriers will be installed around workspace areas and spoil storage areas to protect waterbody from surface runoff.

3. Access to the waterbody bank on either side of the waterbody may be necessary for withdrawal of hydrostatic test water for the waterbody crossing section if testing is required prior to installation, as well as for operation of drill tracking equipment. Hydrostatic test water will be discharged in the areas shown on the plans through a Hydrostatic Dewatering Structure (HDW) shown in the plans and allowed to sheet flow to the receiving stream or to infiltrate into the dewatering area. Soil erosion and sediment control measures are shown on the Environmental Plans.

4. Drilling mud for the proposed crossing will be disposed of by the contractor off-site in an approved landfill.

5. The crossing contractor will be required to have an adequate supply of sediment barrier and or hay bales to contain an inadvertent release of drilling mud on either side of the crossing. The project will have a site specific Spill Prevention Control and Countermeasure Plan (SPCC) that will further address spills. In the event of a drilling mud release the drilling mud will be pumped or hauled to the designated disposal area and the area of the release dried, stabilized, restored and re-vegetated in accordance with the Environmental Plans.

6. In the event that the HDD method is not successful for this crossing, the bore hole (to a depth of 30 feet) will be grouted with a concrete slurry to prevent migration of surface or ground water through the bore. If, in the event that HDD is not successful, the bore would be attempted again using the same method or the waterway will be open cut.

7. Erosion and sediment control measures shall be inspected daily and repaired if necessary.

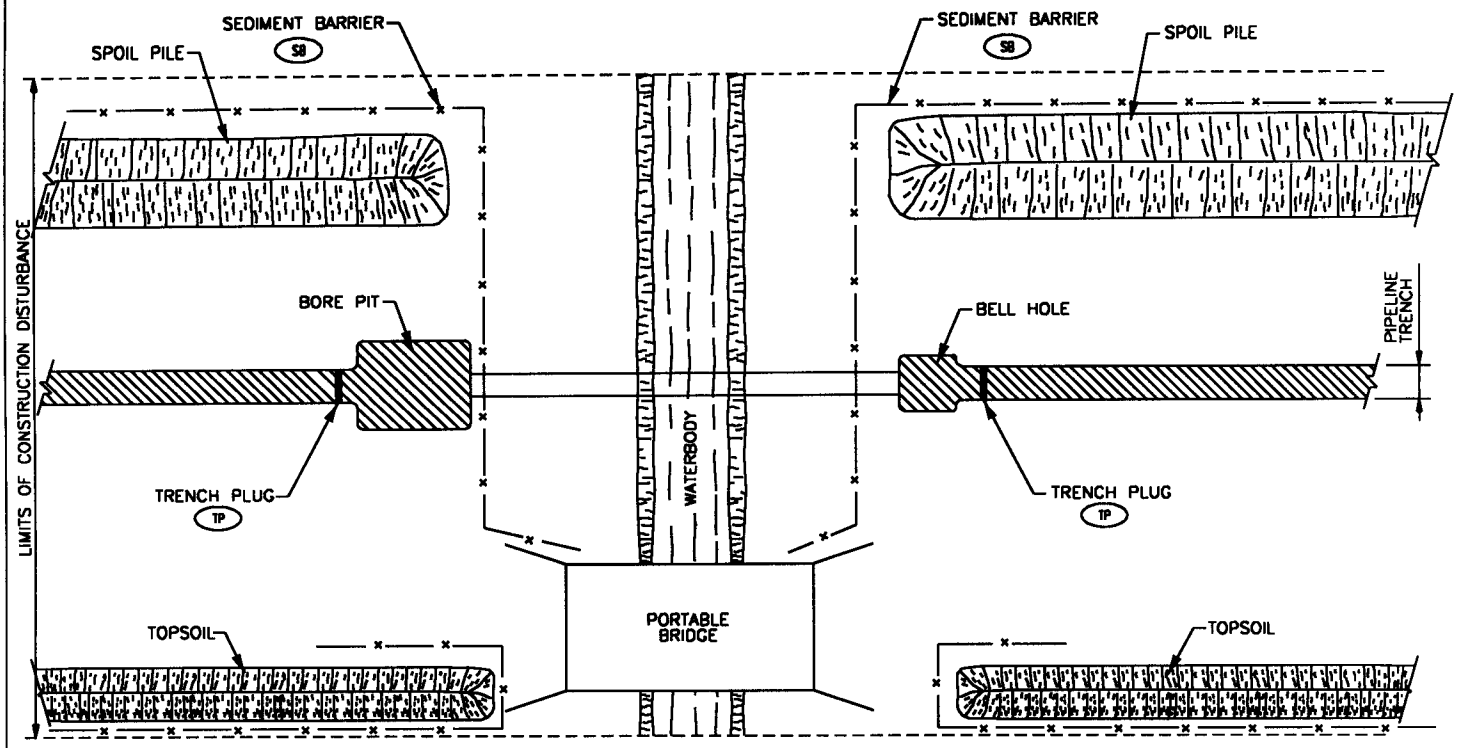
8. Temporary waterbody crossing to consist of temporary bridge, railcar or timber mats supported by flumes or culverts.

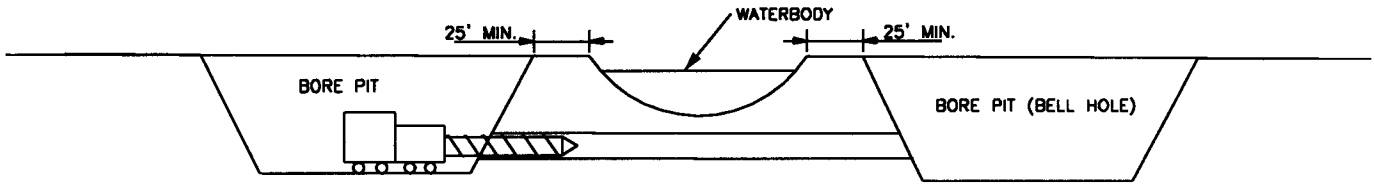
9. Spoil and/or topsoil will be placed on either side of the trench based on evaluation of site conditions at construction.

HDD

TYPICAL HORIZONTAL DIRECTIONAL DRILLING METHOD

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 42 of 56 Date 09/03





NOTES:

1. Contractor shall install sediment barriers at the base of slopes adjacent to stream crossings where vegetation is disturbed, to intercept surface runoff.

2. Contractor shall install sediment barriers to protect spoil piles where sediment barriers across the entire disturbed area are not required.

3. Horizontal bores will be used primarily for crossing transportation corridors and waterbodies.

4. Maintain a minimum 10 feet vegetative buffer along both sides of the waterbody.

5. The sides of the bore pits, shall be sloped back to a stable configuration, unless shoring is necessary. Install safety fence around bore pits as necessary.

6. Dewater bore pit to control seepage water inflow. Water removed from bore pit and bell hole shall be filtered through a trench dewatering facility (TDW). to prevent entry of uncontrolled water into waterbody. Minimize draw down of waterbody and maintain stream flow.

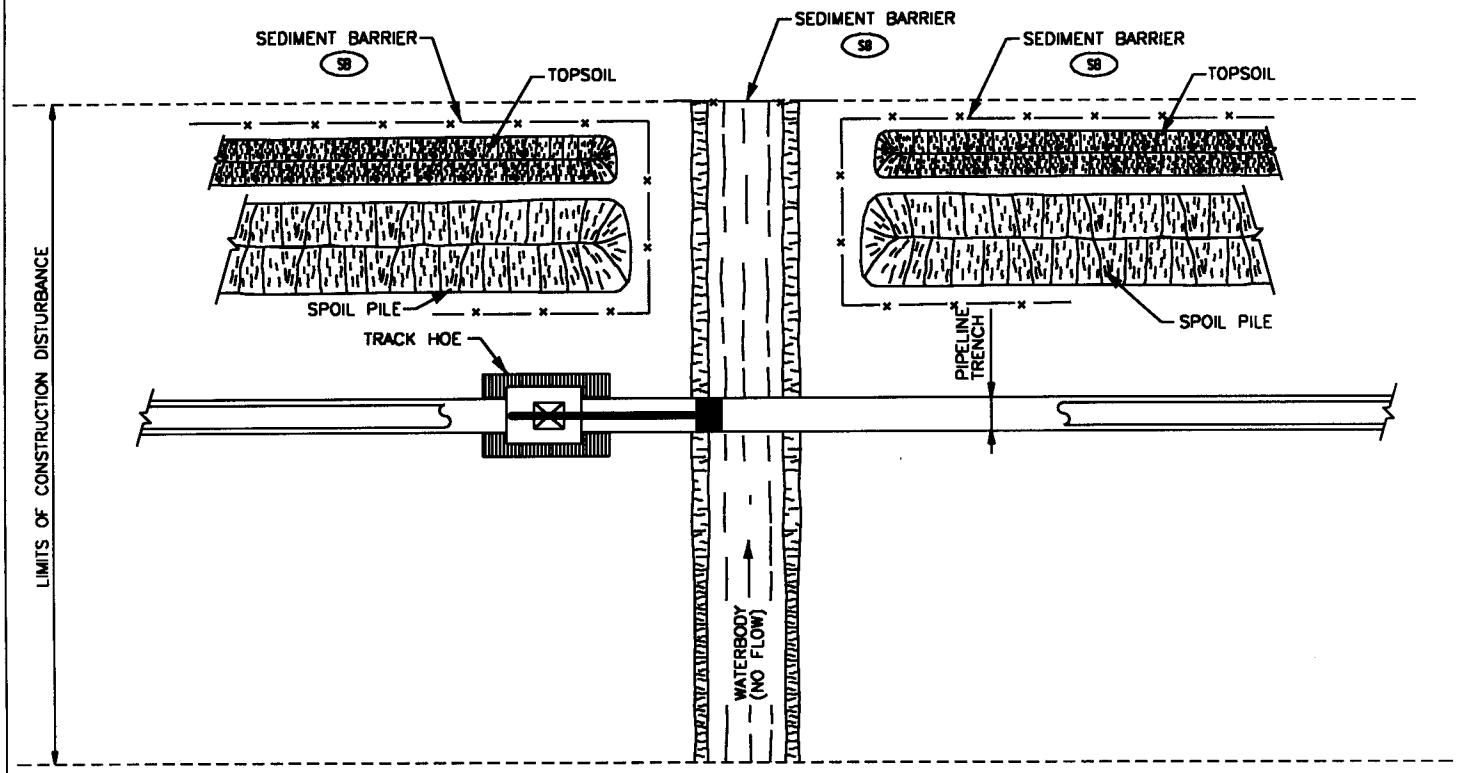
7. Upon completion of pipe installation and tie-ins, backfill and compact the bore pits.

8. Spoil and/or topsoil will be placed on either side of the trench based on evaluation of site conditions at construction.

CB

TYPICAL CONVENTIONAL BORING METHOD

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 43 of 56 Date 09/03



NOTES:

1. This method applies to swales and incised drainages with no perceptible flow or adjacent wetlands at time of crossing Clearing and grading, topsoil salvage and topsoil stripping depths shall be the same as indicated for adjacent upland unless otherwise directed by the Company Representative.

2. No refueling of mobile equipment within 100 feet of stream bank. Place sign posts 100 feet back from wetland boundary and advise no refueling. Refuel stationary equipment as per SPCC plan.

3. Construct sediment barrier (straw bales and/or silt fence) to prevent silt-laden water and spoil from flowing back into watercourse. Constructed sediment barriers shall extend along the sides of the stockpiles.

4. Stockpile topsoil and spoil separately. Topsoil shall not be stockpiled across the stream channel and shall be placed a minimum of 10 feet from streambanks.

5. Restore watercourse channel and stream banks to approximate pre-construction profile and substrate. If stabilizing is necessary, install permanent erosion controls.

6. Sediment barrier materials will be readily available for installation between spoil and topsoil stockpiles and the stream channel in the event rainfall or runoff events may cause sedimentation into the channel. Sediment barriers shall be installed as directed by the Environmental Inspector.

7. Flag wetland boundaries prior to clearing.

8. Spoil and/or topsoil will be placed on either side of the trench based on evaluation of site conditions at construction.

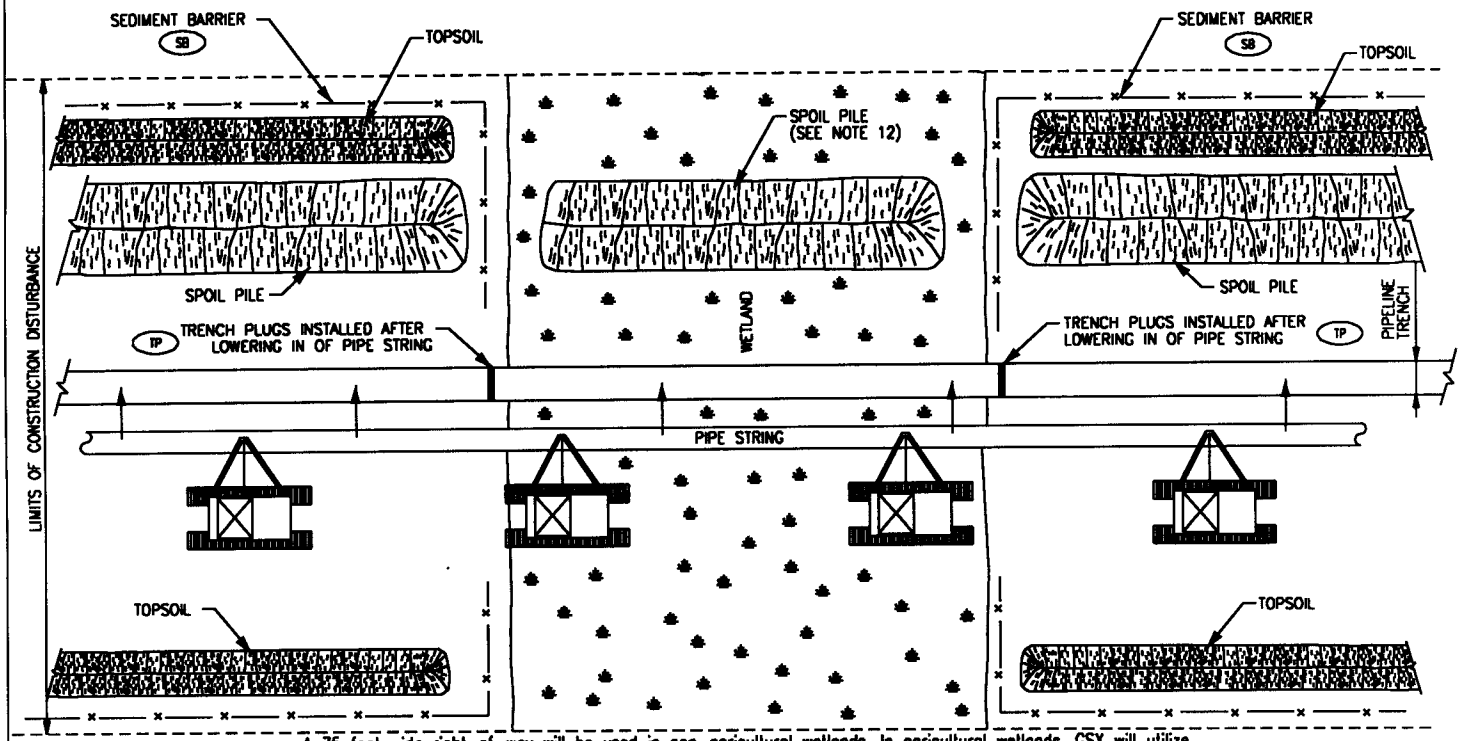
9. Where possible 5' of cover will be maintained under the waterbody. If possible, the width of the trench will be adjusted accordingly to maintain a 2:1 trench slope. In areas where 3' of cover is called for, trench width/depth will be adjusted accordingly.

10. Right-of-way width and temporary extra workspace areas are shown on Preliminary Terrestrial Alignment sheets.

OCN

TYPICAL WATERBODY CROSSING - OPEN CUT NON-FLOWING METHOD

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
 Date 09/03



A 75 foot wide right-of-way will be used in non-agricultural wetlands. In agricultural wetlands, GSX will utilize a construction right-of-way width of 100 feet, unless soils are saturated at the time of construction.

NOTES:

1. This method will be used for wetland pipelay during the dry season, when wetland area is dry. If site becomes wet at time of trenching, contractor shall avoid soil compaction by utilizing wide-track or balloon tire construction equipment or normal construction equipment operated on timber mats or prefabricated equipment mats.
If fabricated timber mats are used for stabilization, the backhoe shall gradually move across the wetland, by moving the mat from immediately behind to immediately in the front of the backhoe's path. This "leap frog" process minimizes impact to the wetland by distributing the weight of the backhoe, reducing the number of posses through the wetland, and minimizing the area covered by timber mats at any given time.
NOTE: COMPANY SHALL APPROVE SELECTION OF W1, W2 OR W3 METHOD.

2. Contractor shall install sediment barriers at the wetland edge and maintained throughout construction to the extent possible to prevent surface runoff from the upland construction area and upland spoil storage areas from entering the wetland.

3. Contractor shall excavate a trench for the pipe using construction equipment located in the upland areas or in the wetland areas on mats. Topsoil from the trench line only will be salvaged in the wetland area.

4. Contractor shall backfill the pipeline using equipment operating from the mats and/or equipment located on the adjacent upland areas. Trench plugs will be installed at the wetland edges.

5. Erosion and sediment control measures shall be inspected daily and contractor shall repair if necessary.

6. Contractor shall place signage 100 feet back from wetland boundary to advise no refueling of mobile equipment within 100 feet of stream bank. Refuel stationary equipment as per SPCC plan.

7. Contractor shall avoid adjacent wetlands and install sediment barriers (straw bales and/or silt fence) at edge of ROW along wetland edge as required.

8. Contractor shall conduct trench line topsoil stripping if topsoil is not saturated. Contractor shall salvage topsoil to a depth of 12 in. or as determined by the environmental inspector. Segregated topsoil pile may be located on spoil side, as required.

9. Contractor shall remove any timber mats or prefabricated mats from wetlands upon completion.

10. Contractor shall restore grade to near pre-construction topography, replace topsoil, and install permanent erosion control.

11. Wetland boundaries shall be flagged prior to clearing.

12. Spoil may be stockpiled in wetlands only if the width of wetland precludes movement of spoil outside the wetland.

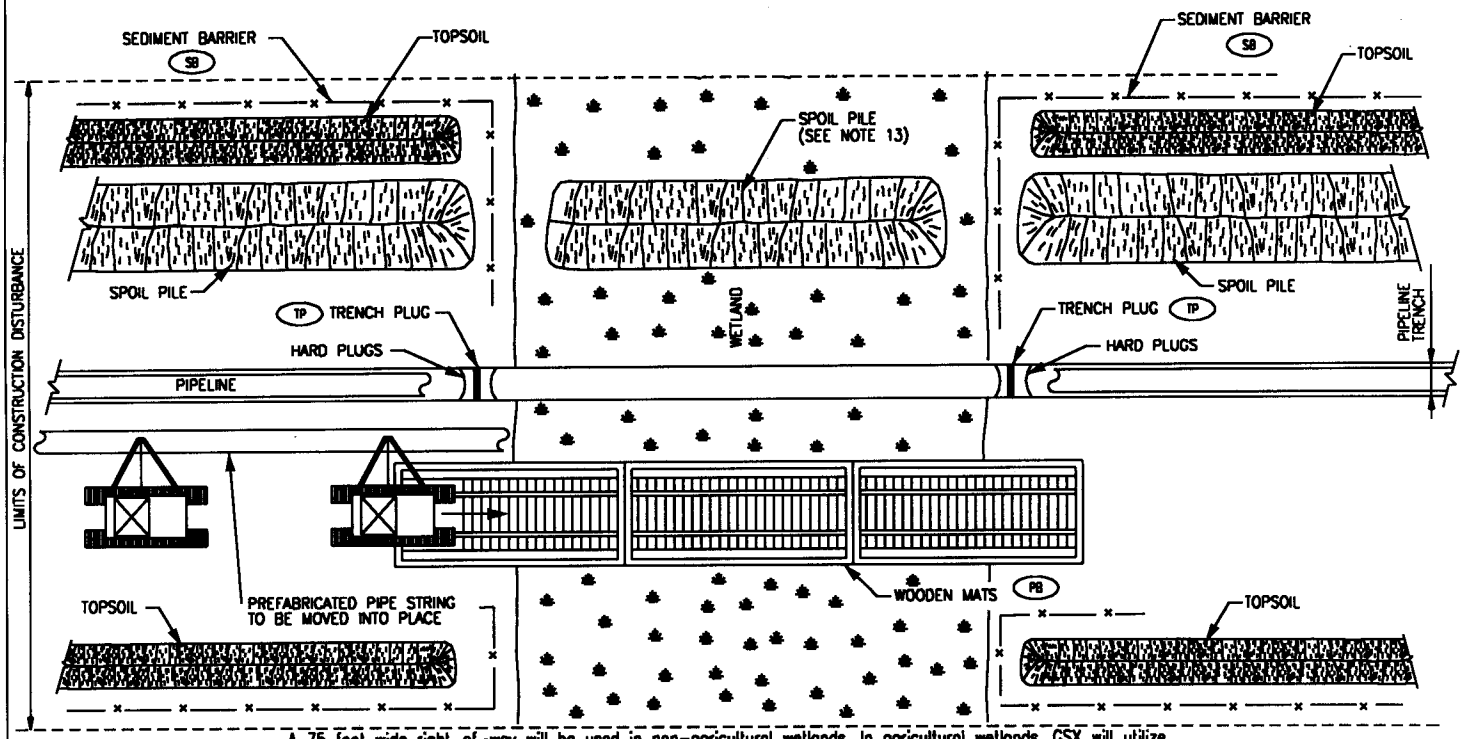
13. Spoil and/or topsoil will be placed on either side of the trench based on evaluation of site conditions at construction.

14. Where possible 5' of cover will be maintained under the wetland. If possible, the width of the trench will be adjusted accordingly to maintain a 2:1 trench slope. In areas where 3' of cover is called for, trench width/depth will be adjusted accordingly.

15. Right-of-way width and temporary extra workspace areas are shown on Preliminary Terrestrial Alignment sheets.

W1 TYPICAL STRING AND WELD CONSTRUCTION CROSSING METHOD

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
 Date 09/03



A 75 foot wide right-of-way will be used in non-agricultural wetlands. In agricultural wetlands, GSX will utilize a construction right-of-way width of 100 feet, unless soils are saturated at the time of construction.

NOTES:

1. Contractor shall use this method for wetland areas where wet conditions or soft soils are present but where the wetland can support construction equipment on mats for the excavation, pipelay, backfilling and restoration processes.
NOTE: COMPANY SHALL APPROVE SELECTION OF W1, W2 OR W3 METHOD.

2. Contractor shall install sediment barriers at the wetland edge and maintained throughout construction to the extent possible to prevent surface runoff from the upland construction area and upland spoil storage areas from entering the wetland.

3. Contractor shall fabricate the pipe string in an adjacent upland area and carried across the wetland area on mats for installation in the wetland trench.

4. Contractor shall leave hard plugs at edge of wetland, until just prior to trenching.

5. Erosion and sediment control measures shall be inspected daily and contractor shall repair if necessary.

6. Contractor shall place signage 100 feet back from wetland boundary to advise no refueling of mobile equipment within 100 feet of stream bank. Refuel stationary equipment as per SPCC plan.

7. Contractor shall avoid soil compaction by utilizing wide-track or balloon tire construction equipment, or normal construction equipment operated on timber mats or prefabricated equipment mats.
If fabricated timber mats are used for stabilization, contractor shall gradually move backhoe across the wetland, by moving the mat from immediately behind to immediately in the front of the backhoe's path. This "leap frog" process minimizes impact to the wetland by distributing the weight of the backhoe, reducing the number of passes through the wetland, and minimizing the area covered by timber mats at any given time.

8. Contractor shall avoid adjacent wetlands and install sediment barriers (straw bales and/or silt fence) at edge of ROW along wetland edge as required.

9. Contractor shall backfill the pipeline using equipment operating from the mats and/or equipment located on the adjacent upland areas. Trench plugs will be installed at the wetland edges.

10. Wetland boundaries shall be flagged prior to clearing.

11. Contractor shall restore grade to near pre-construction topography, replace topsoil, and permanent erosion control.

12. Contractor shall remove any timber mats or prefabricated mats from wetlands upon completion.

13. Contractor shall place topsoil and spoil piles at least 10 feet from wetland edges except where wetlands are wider than the reach of excavating equipment. Where the reach is wider than that of the excavating equipment, the spoil stockpile shall be placed on the spoil side of the right-of-way.

14. Contractor shall salvage topsoil from the trench line only. Topsoil stripping shall not be required in saturated soil conditions.

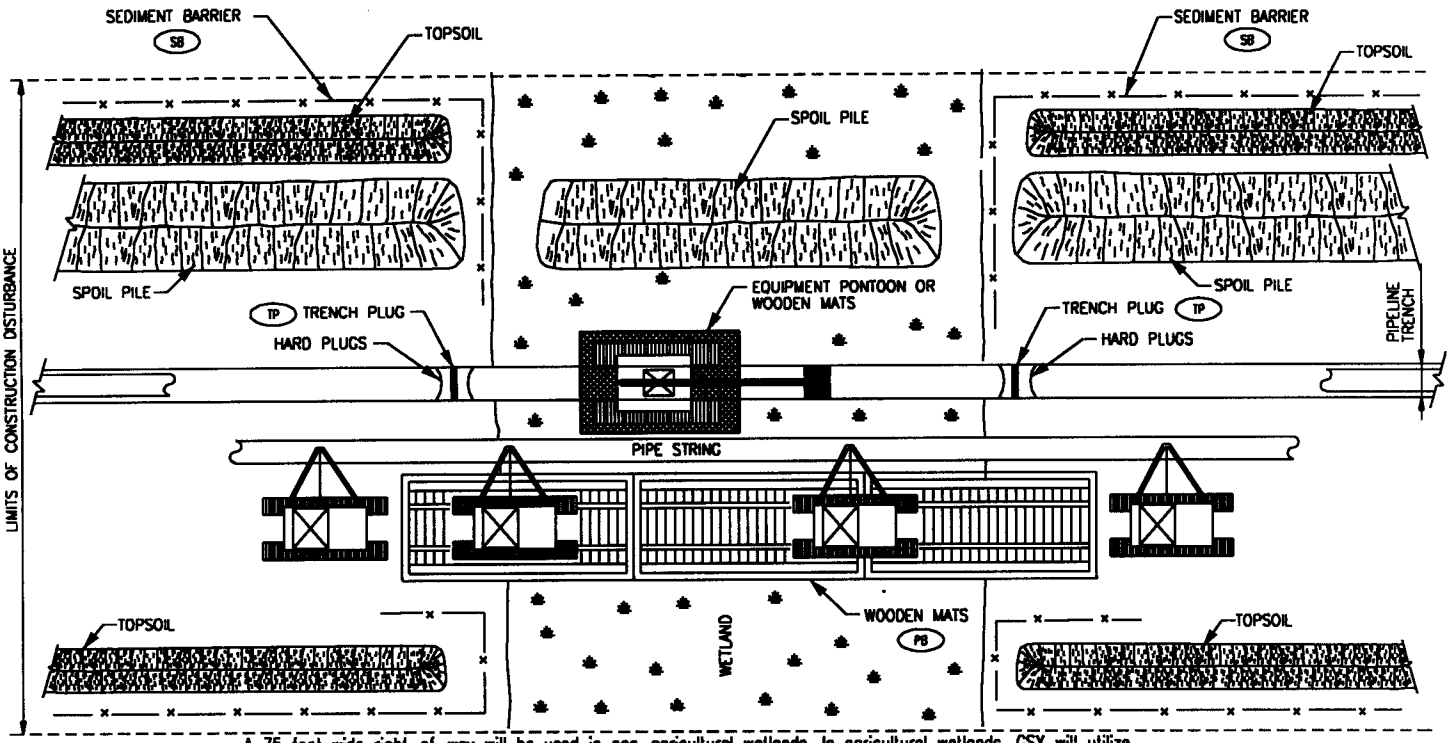
15. Spoil and/or topsoil will be placed on either side of the trench based on evaluation of site conditions at construction.

16. Where possible 5' of cover will be maintained under the wetland. If possible, the width of the trench will be adjusted accordingly to maintain a 2:1 trench slope. In areas where 3' of cover is called for, trench width/depth will be adjusted accordingly.

17. Right-of-way width and temporary extra workspace areas are shown on Preliminary Terrestrial Alignment sheets.

W2 TYPICAL UPLAND FABRICATION CONSTRUCTION CROSSING METHOD

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
 Date 09/03



A 75 foot wide right-of-way will be used in non-agricultural wetlands. In agricultural wetlands, GSX will utilize a construction right-of-way width of 100 feet, unless soils are saturated at the time of construction.

NOTES:

1. Contractor shall utilize this method for wetland pipelay where support of construction equipment on mats for excavation, stringing, welding, pipelay, backfilling and restoration is very difficult.
NOTE: COMPANY SHALL APPROVE SELECTION OF W1, W2 OR W3 METHOD.

2. Contractor shall utilize amphibious excavators (pontoon mounted backhoes) or tracked backhoes supported by fabricated timber mats or floats, to excavate trench. If fabricated timber mats are used for stabilization, the backhoe shall gradually move across the wetland, by moving the mat from immediately behind to immediately in the front of the backhoe's path. This "leap frog" process minimizes impact to the wetland by distributing the weight of the backhoe, reducing the number of passes through the wetland, and minimizing the area covered by timber mats at any given time.

3. Contractor shall install sediment barriers at the wetland edge and maintain same throughout construction to the extent possible to prevent surface runoff from the upland construction area and upland spoil storage areas from entering the wetland.

4. Contractor shall fabricate the pipe string in an adjacent upland area and float or carry it across the wetland area on mats or using swamp construction equipment. Equipment located on the adjacent upland areas will push or pull pipe string across wetland.

5. Topsoil salvage will not be required in saturated wetlands.

6. Contractor shall backfill the pipeline using in-wetland equipment and/or equipment located on the adjacent upland areas. Trench plugs will be installed at the wetland edges.

7. Erosion and sediment control measures shall be inspected daily and contractor shall repair if necessary.

8. Contractor shall place signage 100 feet back from wetland boundary and advise no refueling of mobile equipment within 100 feet of stream bank. Refuel stationary equipment as per SPCC plan.

9. Contractor shall restore grade to near pre-construction topography, replace topsoil, and permanent erosion control.

10. Contractor shall remove any timber mats or fill consisting of non-native material from wetlands upon completion.

11. Contractor shall avoid adjacent wetlands and install sediment barriers (straw bales and/or silt fence) at edge of ROW along wetland edge as required.

12. Contractor shall leave hard plugs at edge of wetland, until just prior to trenching.

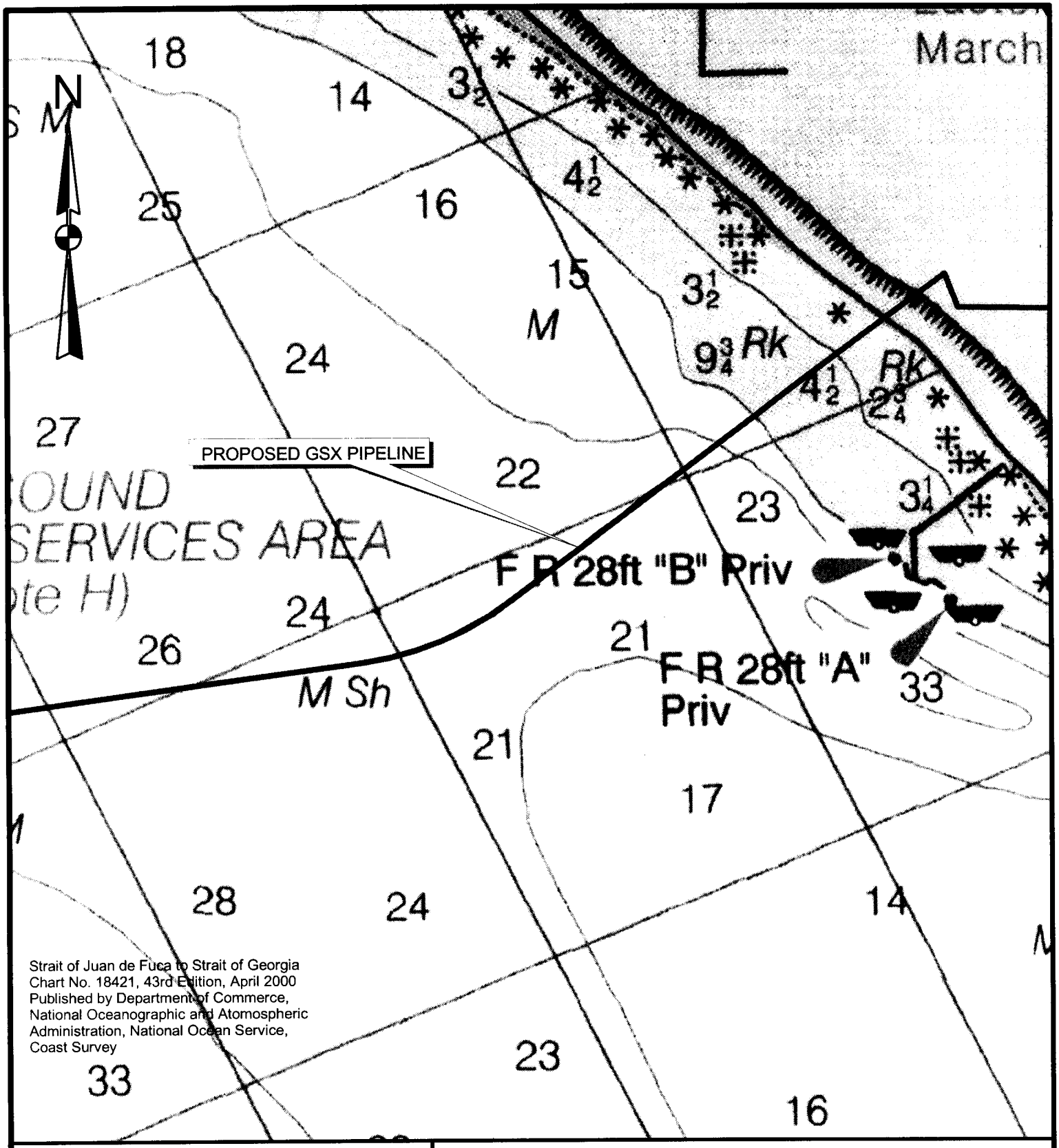
13. Wetland boundaries shall be flagged prior to clearing.

14. Spoil and/or topsoil will be placed on either side of the trench based on evaluation of site conditions at construction.

15. Where possible 5' of cover will be maintained under the wetland. If possible, the width of the trench will be adjusted accordingly to maintain a 2:1 trench slope. In areas where 3' of cover is called for, trench width/depth will be adjusted accordingly.

16. Right-of-way width and temporary extra workspace areas are shown on Preliminary Terrestrial Alignment sheets.

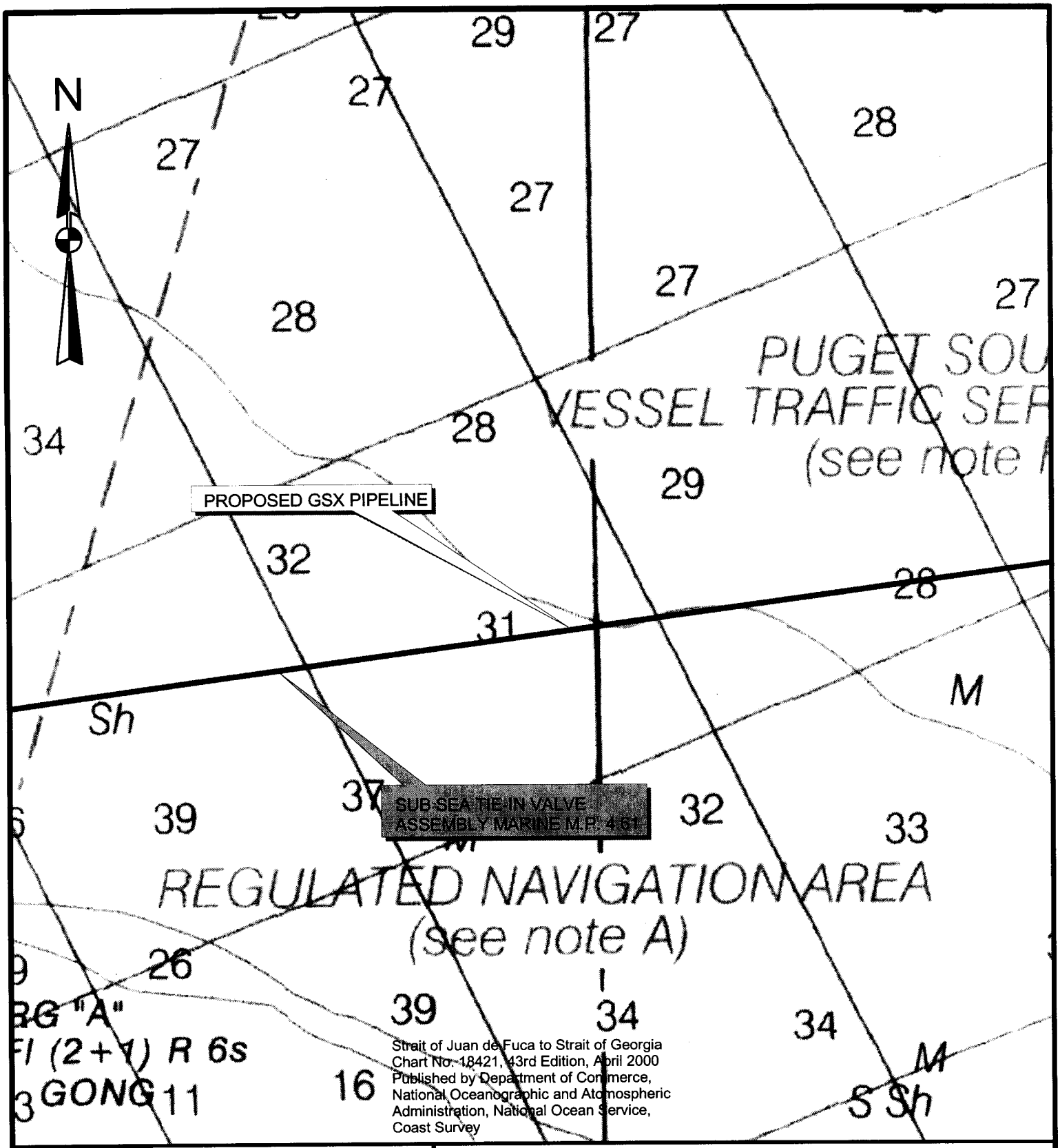
W3 TYPICAL PUSH-PULL CONSTRUCTION CROSSING METHOD	Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline Reference: 2001-2-00732 Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington Sheet 47 of 56 Date 09/03



SCALE: 1" = 2000'

OFFSHORE ROUTE MAP

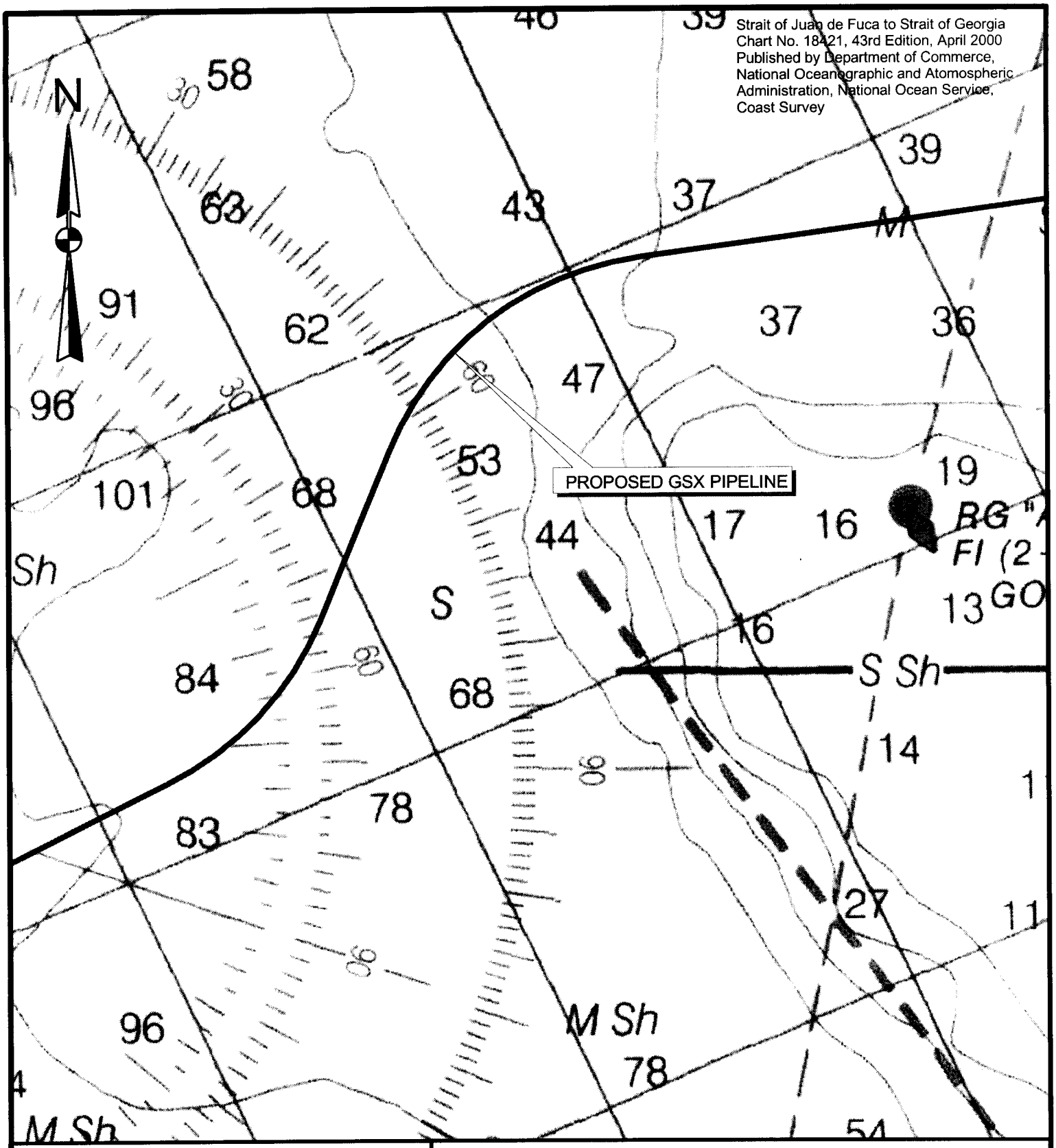
Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 48 of 56 Date 09/03



SCALE: 1" = 2000'

OFFSHORE ROUTE MAP

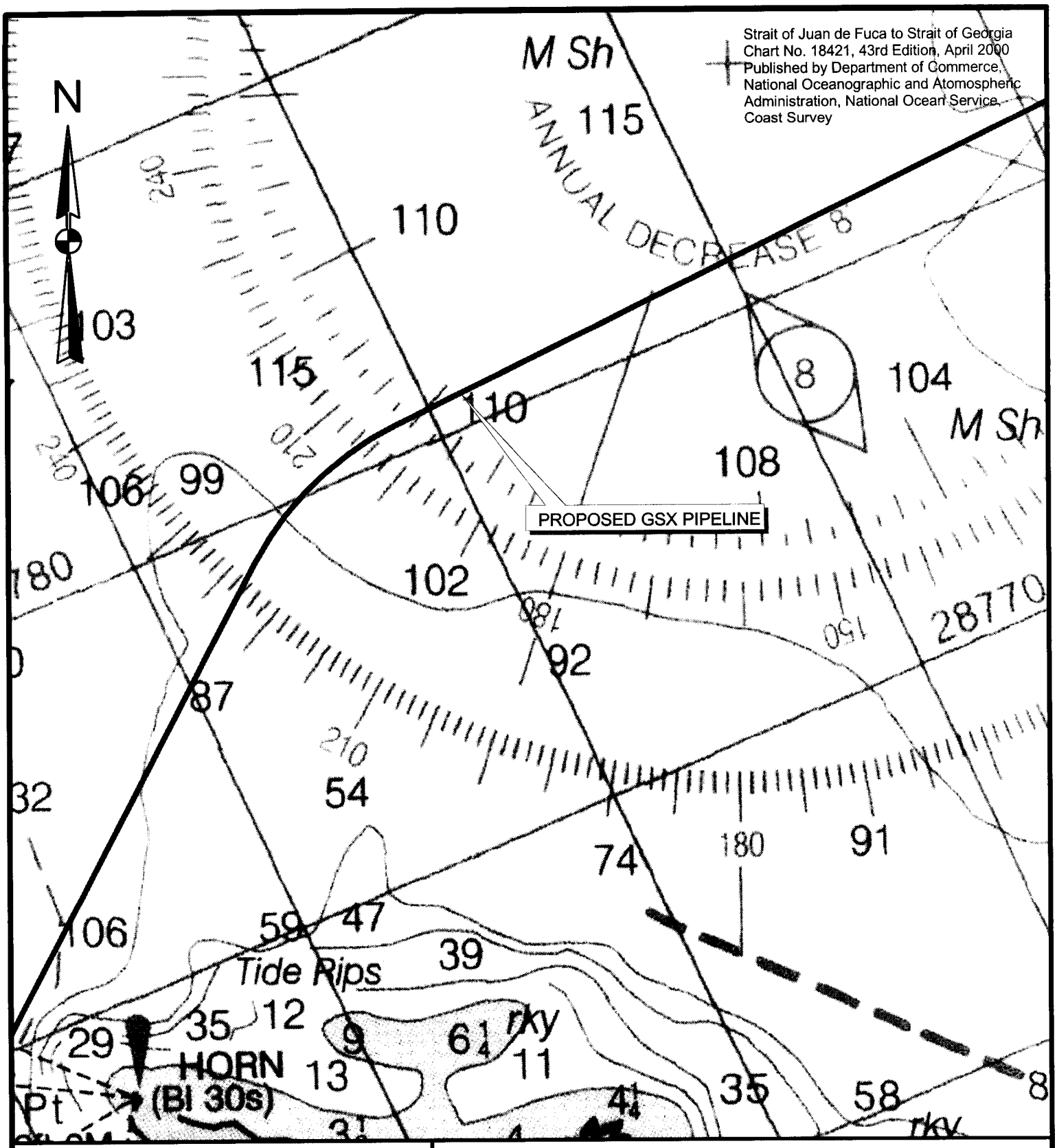
Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 49 of 56 Date 09/03



SCALE: 1" = 2000'

OFFSHORE ROUTE MAP

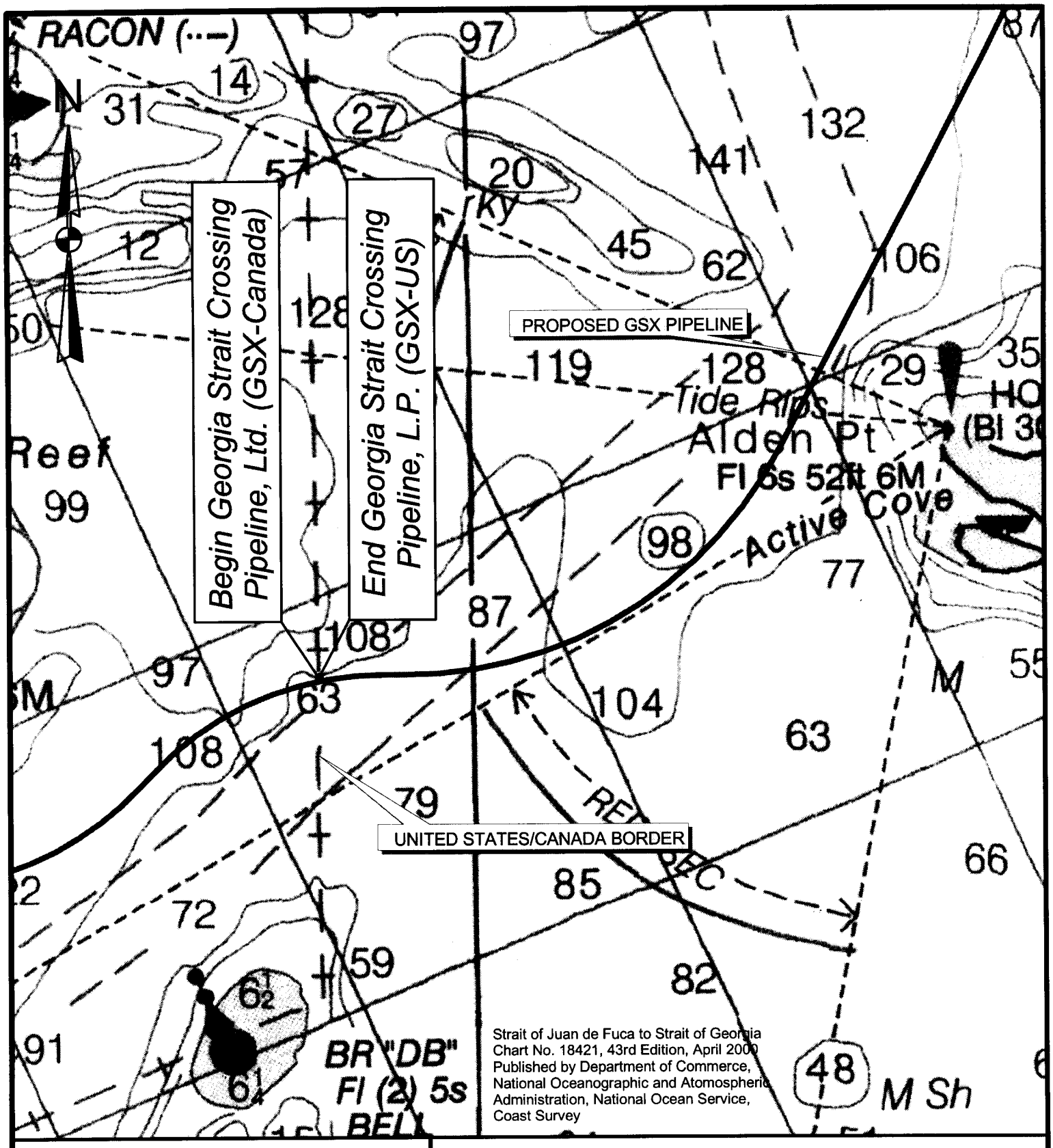
Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 50 of 56 Date 09/03



SCALE: 1" = 2000'

OFFSHORE ROUTE MAP

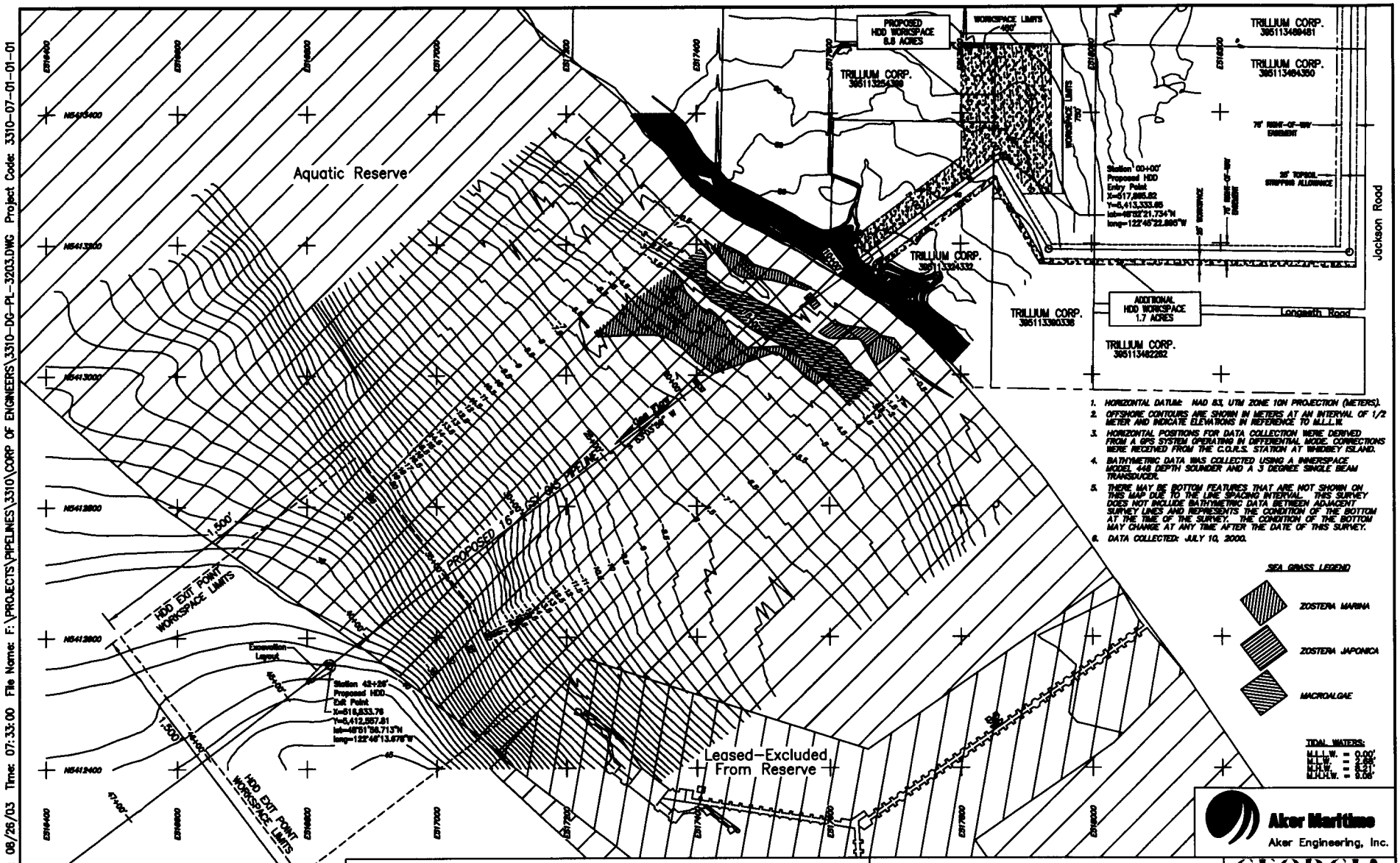
Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 51 of 56 Date 09/03



SCALE: 1" = 2000'

OFFSHORE ROUTE MAP

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 52 of 56 Date 09/03



Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 53 of 56 Date 09/03

Aker Maritime
Aker Engineering, Inc.

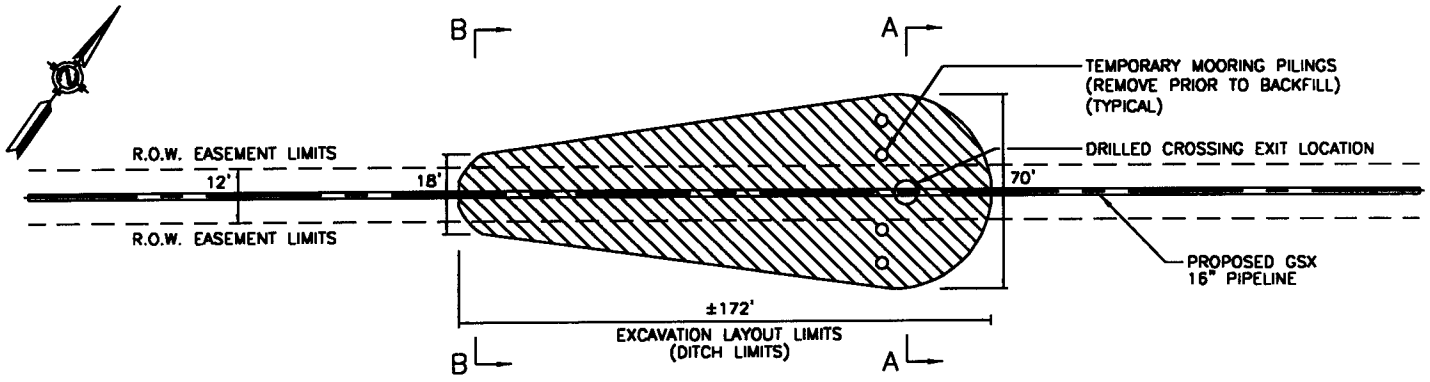
FINAL MARINE ROUTE
PROPOSED 16" GSX GAS PIPELINE
PLAN VIEW FOR OFFSHORE PORTION OF HORIZONTAL DIRECTIONAL DRILL METHOD
CHERRY POINT SHORELINE, WASHINGTON

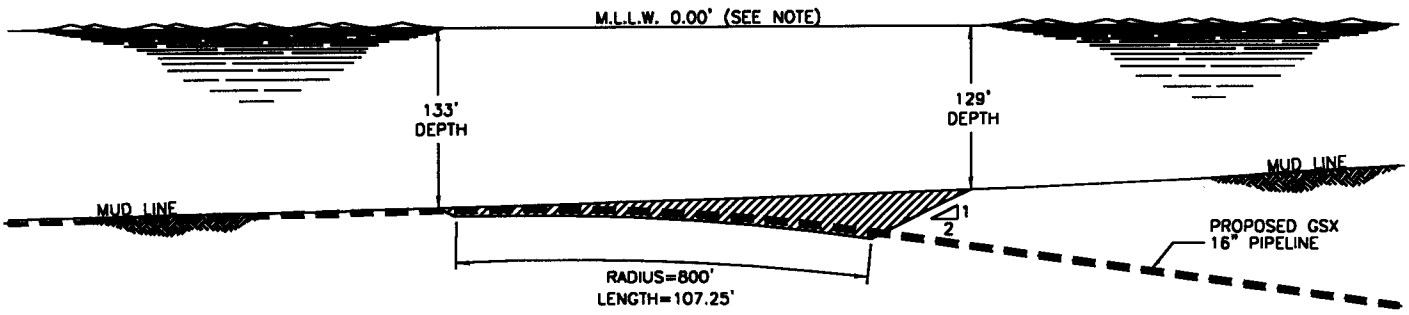
GEORGIA STRAIT CROSSING PROJECT

GEORGIA STRAIT CROSSING PIPELINE LP.

DRAWN: GJC	APPROVED:	DRAWING NUMBER: 3310-DG-PL-3201	SHEET 1
CHECKED:	SCALE: NONE		

Operator: DEPJCC01 Last Rev. Date: 08/26/03 Time: 07:33:00 File Name: F:\PROJECTS\PIPELINES\3310\CORP OF ENGINEERS\3310-DG-PL-3203.DWG Project Code: 3310-07-01-01





PLAN & PROFILE
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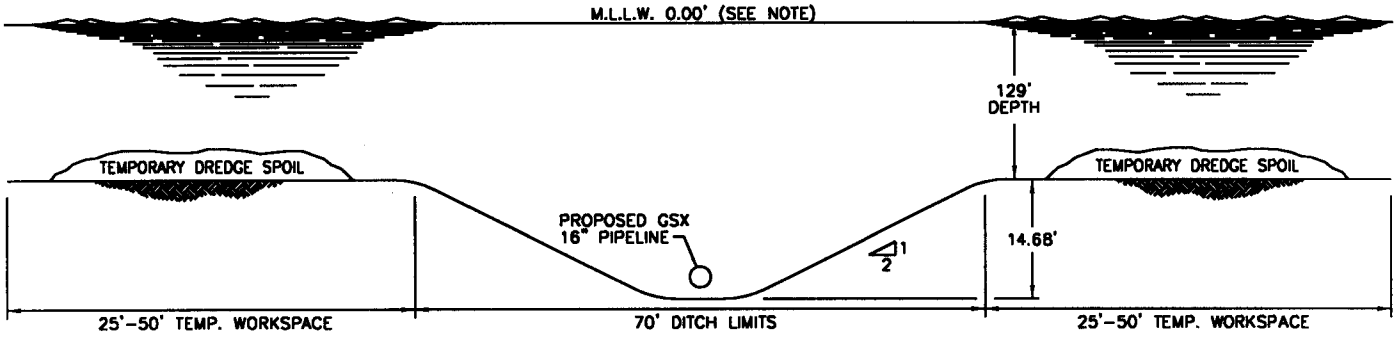

SECTION A-A
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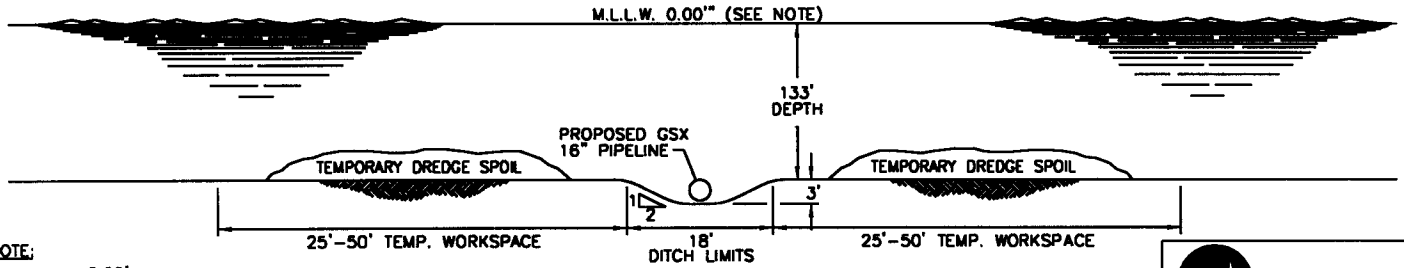


NOTE:
M.L.L.W. = 0.00'
M.L.W. = 2.68'
M.H.W. = 8.21'
M.H.H.W. = 9.08'

SECTION B-B
NOT TO SCALE

Aker Maritime
Aker Engineering, Inc.

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 54 of 56 Date 09/03

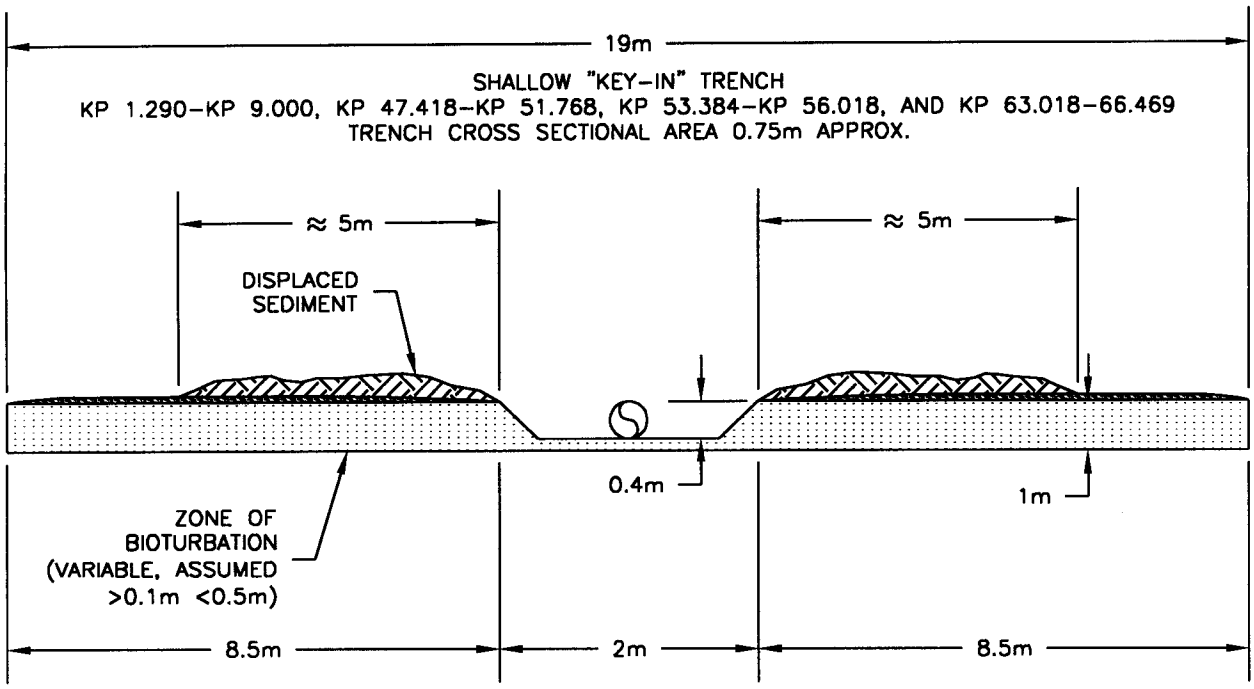
FINAL MARINE ROUTE
PROPOSED 16" GSX GAS PIPELINE
CROSS SECTIONS FOR OFFSHORE
PORTION OF HORIZONTAL DIRECTIONAL DRILL
CHERRY POINT SHORELINE, WASHINGTON

GEORGIA STRAIT CROSSING PROJECT
GEORGIA STRAIT CROSSING PIPELINE LP.

DRAWN: GJC	APPROVED:	DRAWING NUMBER: 3310-DG-PL-3202	SHEET 1
CHECKED:	SCALE: NONE		

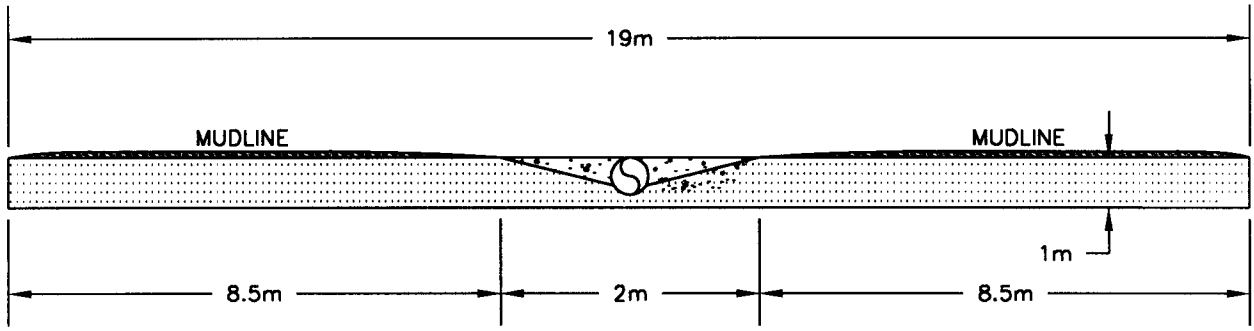
Operator: DEPJCC01 Last Rev. Date: 10/16/01 Time: 15:11:00 File Name: F:\PROJECTS\PIPELINES\3310\CORP OF ENGINEERS\3310-DG-PL-3202.DWG Project Code: 3310-07-01-01-01

TYPICAL KEY-IN DETAIL



BEFORE NATURAL BACKFILL

NOT TO SCALE



AFTER NATURAL BACKFILL

NOT TO SCALE

Aker Maritime
Aker Engineering, Inc.

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 55 of 56 Date 09/03

FINAL MARINE ROUTE
PROPOSED 16" GSX GAS PIPELINE
TYPICAL CROSS SECTION OF OFFSHORE PORTION USING KEY-IN METHOD

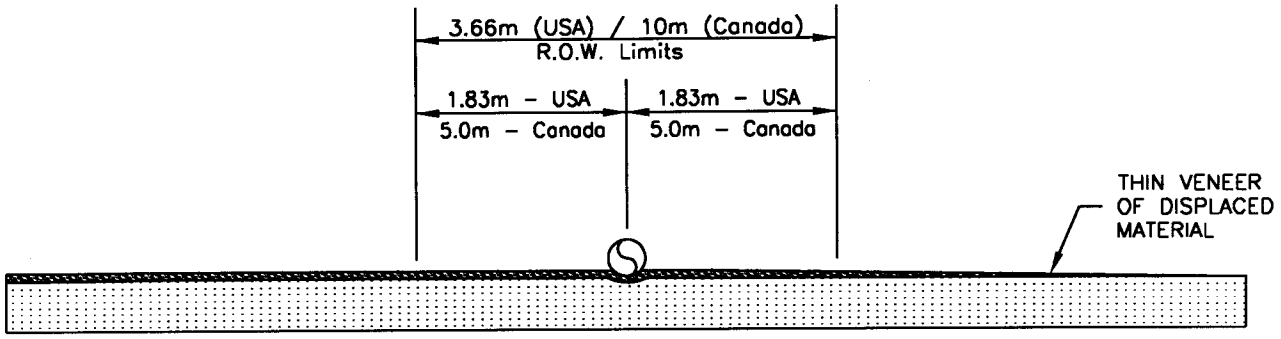
GEORGIA STRAIT CROSSING PROJECT
GEORGIA STRAIT CROSSING PIPELINE LTD.

DRAWN: RWG	APPROVED: GDE	DRAWING NUMBER: 3310-DG-PL-3205	SHEET 1
CHECKED: JBK	SCALE: NONE		

Operator: DEGJC01 Last Rev. Date: 08/14/03 Time: 15:18:05 File Name: F:\PROJECTS\PIPELINES\3310\CORP OF ENGINEERS\3310-DG-PL-3205.DWG Project Code: 3310-07-01-01-01

TYPICAL BOTTOM LAY

BOTTOM LAY
KP 9.000–KP 47.418, KP 51.768–KP 53.384, AND KP 56.018–KP 63.018



BEFORE NATURAL BACK FILL
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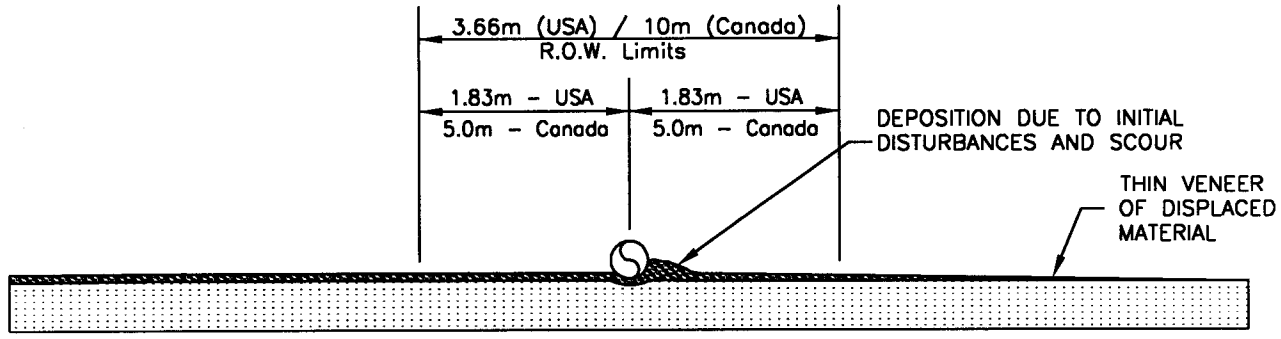

AFTER NATURAL BACK FILL
NOT TO SCALE

Aker Maritime
Aker Engineering, Inc.

Proposed: Onshore portion 20-inch natural gas pipeline and Offshore portion 16-inch natural gas pipeline
Reference: 2001-2-00732
Purpose: Transport natural gas to present/future customers on Vancouver Island and in NW Washington
App. by Georgia Strait Crossing Pipeline LP, Whatcom and San Juan Counties, Washington
Sheet 56 of 56 Date 09/03

FINAL MARINE ROUTE
PROPOSED 16" GSX GAS PIPELINE
TYPICAL CROSS SECTION OF OFFSHORE PORTION USING BOTTOM LAY METHOD

GEORGIA STRAIT CROSSING PROJECT
GEORGIA STRAIT CROSSING PIPELINE LTD.

DRAWN: RWG	APPROVED: GDE	DRAWING NUMBER: 3310-DG-PL-3206	SHEET 1
CHECKED: JBK	SCALE: NONE		

Operator: DEGJCO1 Last Rev. Date: 08/14/03 Time: 15:27:00 File Name: F:\PROJECTS\PIPELINES\3310\CORP OF ENGINEERS\3310-DG-PL-3206.DWG Project Code: 3310-07-01-01-01

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Notice of Application for
Water Quality Certification
and for
Certification of Consistency with the
Washington Coastal Zone Management Program

Date: Novemeber 24, 2003

Notice is herby given that a request has been filed with the Department of Ecology, pursuant to the requirements of Section 401 of the federal Clean Water Act of 1977 (PL 95-217), to certify that the project described in the U.S. Army Corps of Engineers Public Notice No. 200301064 will comply with the Sections 301, 302, 303, 306, and 307 of the Act, and with applicable provisions of State and Federal water pollution control laws.

Notice is herby given that a request has been filed with the Department of Ecology, pursuant to the requirements of Section 307© of the Federal Coastal Zone Management Act of 1972 (16 U.S.C. 1451), to certify that the above referenced project will comply with the Washington State Coastal Zone Management Program and that the project will be conducted in a manner consistent with that program.

Any person desiring to present views on the project pertaining to the project on either or both (1) compliance with water pollution control laws or (2) the project's compliance or consistency with the Washington State Coastal Zone Management Program may do so by providing written comments within 30 days of the above publication date to:

Federal Permit Coordinator
Department of Ecology
SEA Program
Post Office Box 47600
Olympia, Washington 98504-7600