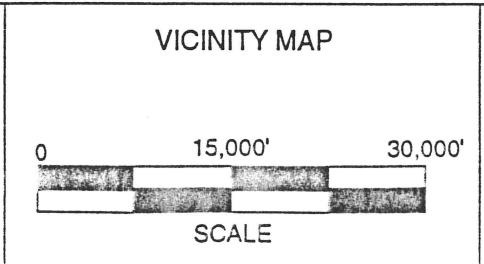
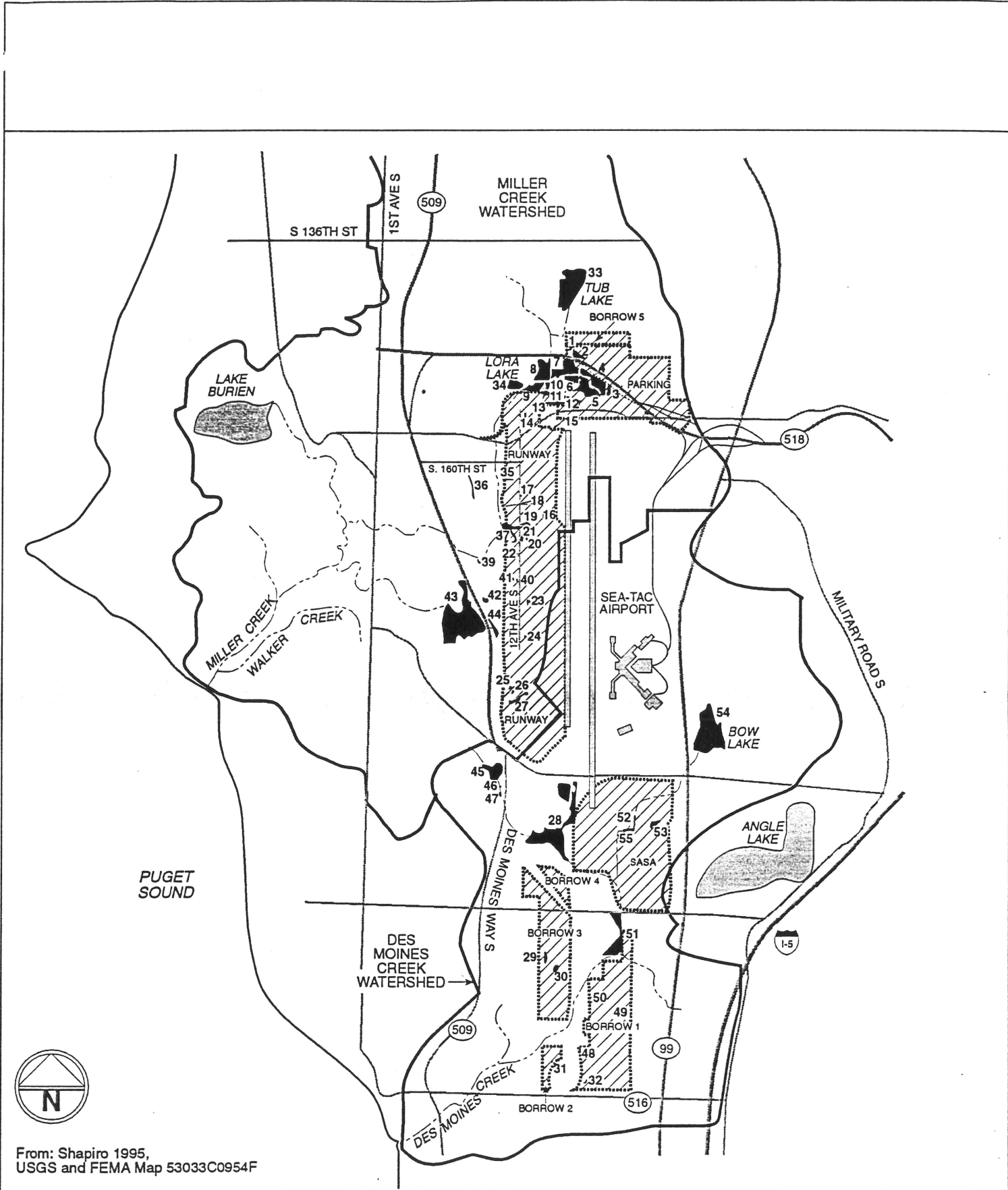


PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT



IMPACT/MITIGATION SITES

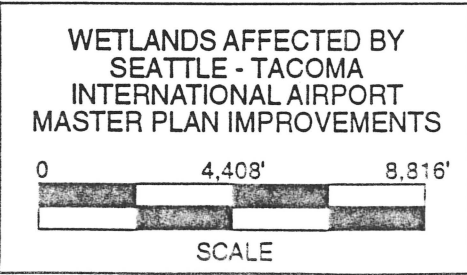
COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 1 of 44 DECEMBER 1996



From: Shapiro 1995,
USGS and FEMA Map 53033C0954F



PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
SEATTLE-TACOMA
INTERNATIONAL AIRPORT



IMPACT/MITIGATION SITES

IN: SECTIONS 20, 21, 28, 29, 32, AND 33
TOWNSHIP 23N, RANGE 4E
IN: SECTION 4, 5, TOWNSHIP 22N, RANGE 4E
COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 2 of 44 DECEMBER 1996

WETLAND NUMBER	CLASSIFICATION ¹	WETLAND SIZE (ACRES)	TOTAL IMPACT ⁵ (ACRES)	VEGETATION COVER TYPES IMPACTED (ACRES)		
				FORESTED	SHRUB-SCRUB	EMERGENT
1	Forested	0.07	0.07	0.07	-	-
2	Forested/Emergent (60/40)	0.74	0.74	0.44	-	0.29
3	Forested	0.56	0.19	0.19	-	-
4	Forested	5.02	0.46	0.46	-	-
5	Forested/Shrub-Scrub (10/90)	4.58	1.69	0.17	1.52	-
6	Shrub-Scrub	0.87	0.00	-	-	-
7	Forested/Open Water/Emergent	6.70	0.00	-	-	-
8	Shrub-Scrub/Emergent	4.95	0.00	-	-	-
9	Emergent/Forested (60/40)	2.85	0.13	0.05	-	0.08
10	Shrub-Scrub	0.31	0.00	-	-	-
11	Forested/Emergent (80/20)	0.50	0.47	0.37	-	0.09
12	Emergent/Forested (80/20)	0.21	0.21	0.04	-	0.16
13	Emergent	0.05	0.05	-	-	0.05
14	Forested	0.19	0.19	0.19	-	-
15	Emergent	0.28	0.28	-	-	0.28
16	Emergent	0.06	0.06	-	-	0.06
17	Emergent	0.03	0.03	-	-	0.03
18	Forested	0.12	0.12	0.12	-	-
19	Forested	0.57	0.57	0.57	-	-
20	Shrub-Scrub/Emergent (90/10)	0.06	0.06	-	0.06	0.01
21	Forested	0.22	0.22	0.22	-	-
22	Emergent/Shrub-Scrub (90/10)	0.06	0.06	-	0.01	0.05
23	Emergent	0.78	0.78	-	-	0.78
24	Emergent	0.14	0.14	-	-	0.14
25	Forested	0.06	0.06	0.06	-	-
26	Emergent	0.02	0.02	-	-	0.02
27	Emergent ²	0.00	0.00	-	-	-
28	Open Water/Shrub-Scrub (O/100)	18.10	0.06	-	0.06	-
29	Forested	0.74	0.74	0.74	-	-

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT

CLASSIFICATION, SIZE AND IMPACTS TO WETLANDS IN THE PROPOSED SEATTLE - TACOMA INTERNATIONAL AIRPORT MASTER PLAN UPDATE STUDY AREA

IMPACT/MITIGATION SITES

COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 3 of 44 DECEMBER 1996

WETLAND NUMBER	CLASSIFICATION ¹	WETLAND SIZE (ACRES)	TOTAL IMPACT ⁵ (ACRES)	VEGETATION COVER TYPES IMPACTED (ACRES)		
				FORESTED	SHRUB-SCRUB	EMERGENT
30	Forested/Shrub-Scrub (80/20)	0.50	0.50	0.40	0.10	-
31	Emergent	0.05	0.00	-	-	-
32	Emergent	0.05	0.05	-	-	0.05
33	Forested/Shrub-Scrub/ Emergent/Open Water	17.60	0.00	-	-	-
34	Open Water	1.40	0.00	-	-	-
35	Emergent	0.21	0.18	-	-	0.18
36	Forested/Emergent	0.30	0.00	-	-	-
37	Forested/Shrub-Scrub (70/30)	2.41	1.68	1.17	-	0.15
38	Emergent/Shrub-Scrub ³	0.00	0.00	-	-	-
39	Forested	0.07	0.00	-	-	-
40	Forested	0.09	0.09	0.09	-	-
41	Emergent	0.08	0.08	-	-	0.08
42	Emergent	0.50	0.00	-	-	-
43	Emergent/Shrub-Scrub/ Forested/Open Water	30.30	0.00	-	-	-
44	Forested/Shrub-Scrub	0.07	0.00	-	-	-
45	Emergent	5.00	0.00	-	-	-
46	Open Water	0.06	0.00	-	-	-
47	Open Water	0.20	0.00	-	-	-
48	Emergent	0.04	0.00	-	-	-
49	Emergent	0.03	0.03	-	-	0.03
50	Shrub-Scrub	0.12	0.12	-	0.12	-
51	Forested	8.10	0.48	0.48	-	-
52	Forested/Shrub-Scrub (90/10)	1.00	1.00	0.90	0.10	-
53	Forested	0.60	0.60	0.60	-	-
54	Shrub-Scrub/Open Water	25.70	0.00	-	-	-
55	Shrub-Scrub	0.04	0.04	-	0.04	-
TOTAL⁴		143.86	12.23	7.34	2.01	2.88

1 All wetland are palustrine based on USFWS classification system (Cowardin et al. 1979). Where more than one cover type, the percent impact to each cover type is shown in parenthesis.

2 Fill of this wetland completed with an approved Section 404 Nationwide 26 permit.

3 This wetland was determined not to be a regulated wetland by the City of Sea-Tac and the Corps of Engineers.

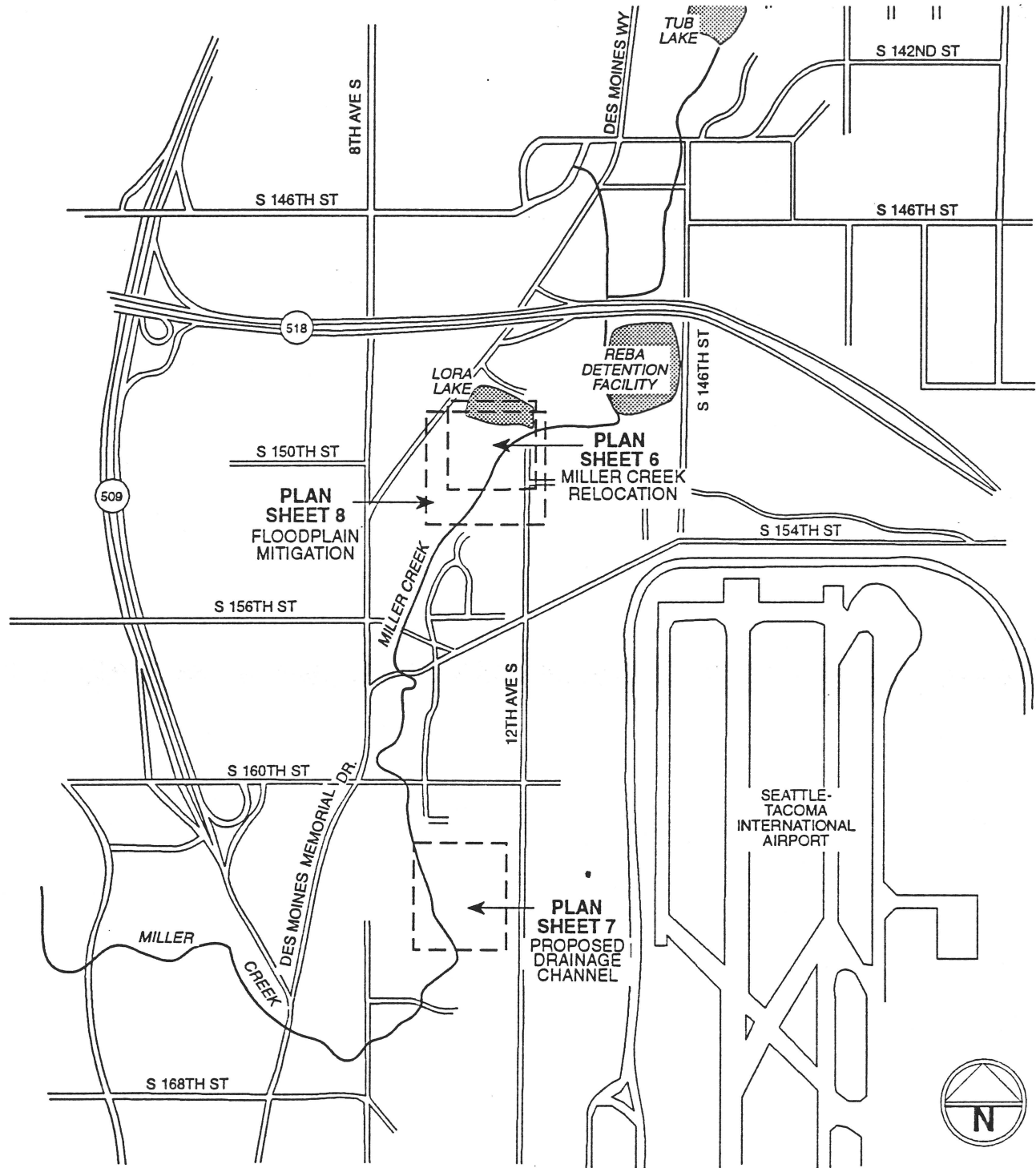
4 Values are rounded to two significant figures. Actual values differ slightly due to the effects of rounding.

PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
SEATTLE-TACOMA
INTERNATIONAL AIRPORT

CLASSIFICATION, SIZE AND
IMPACTS TO WETLANDS IN THE
PROPOSED SEATTLE - TACOMA
INTERNATIONAL AIRPORT
MASTER PLAN UPDATE
STUDY AREA

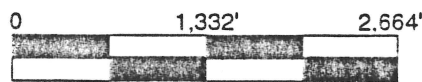
IMPACT/MITIGATION SITES

COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 4 of 44 DECEMBER 1996



PURPOSE: IMPLEMENTATION OF THE
 MASTER PLAN UPDATE
 SEATTLE-TACOMA
 INTERNATIONAL AIRPORT

MILLER CREEK RELOCATION
 VICINITY MAP



SCALE

PROPOSED MILLER CREEK
 RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 5 of 44 DECEMBER 1996

LORA LAKE OUTLET
STRUCTURE (SHEET 17),
AND CHANNEL (SHEET 18)

LORA LAKE

A
10

B
18

C
11

TYPICAL
BUFFER
PLAN
DETAIL
SHEET 14

MILLER CREEK
BYPASS
STRUCTURE
SHEET 16

PROPOSED
MILLER CREEK
CHANNEL

REBA DETENTION
FACILITY OUTLET CONTROL
STRUCTURE - STA 0+00

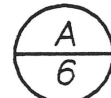
D
12

PROPOSED/RELOCATED S. 156TH WAY

13+26



LEGEND:



SECTION LETTER
SHEET WHERE SHOWN



STREAM BUFFER



EXISTING MILLER CREEK



PROPOSED MILLER CREEK

PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
FOR SEATTLE-TACOMA
INTERNATIONAL AIRPORT

MILLER CREEK RELOCATION
PLAN VIEW

0 150' 300'

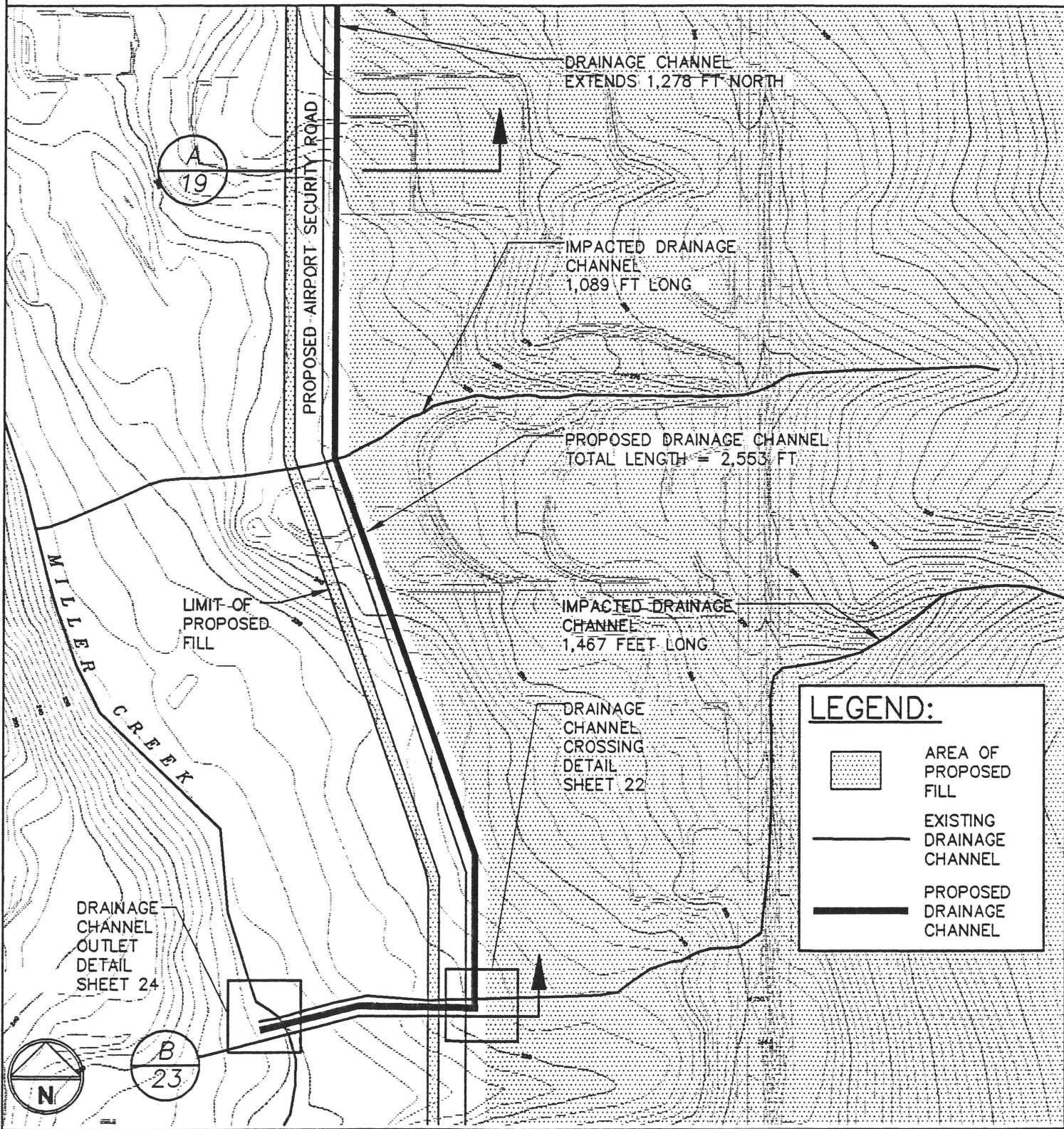


SCALE




CONTOUR INTERVAL: 2 FEET

PROPOSED MILLER CREEK
RELOCATION

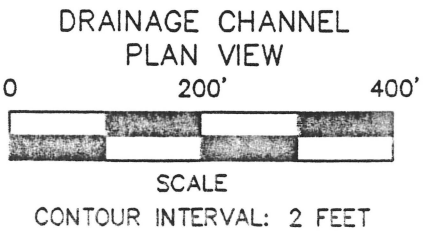
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 6 OF 44 DECEMBER 1996



LEGEND:

-  AREA OF PROPOSED FILL
-  EXISTING DRAINAGE CHANNEL
-  PROPOSED DRAINAGE CHANNEL

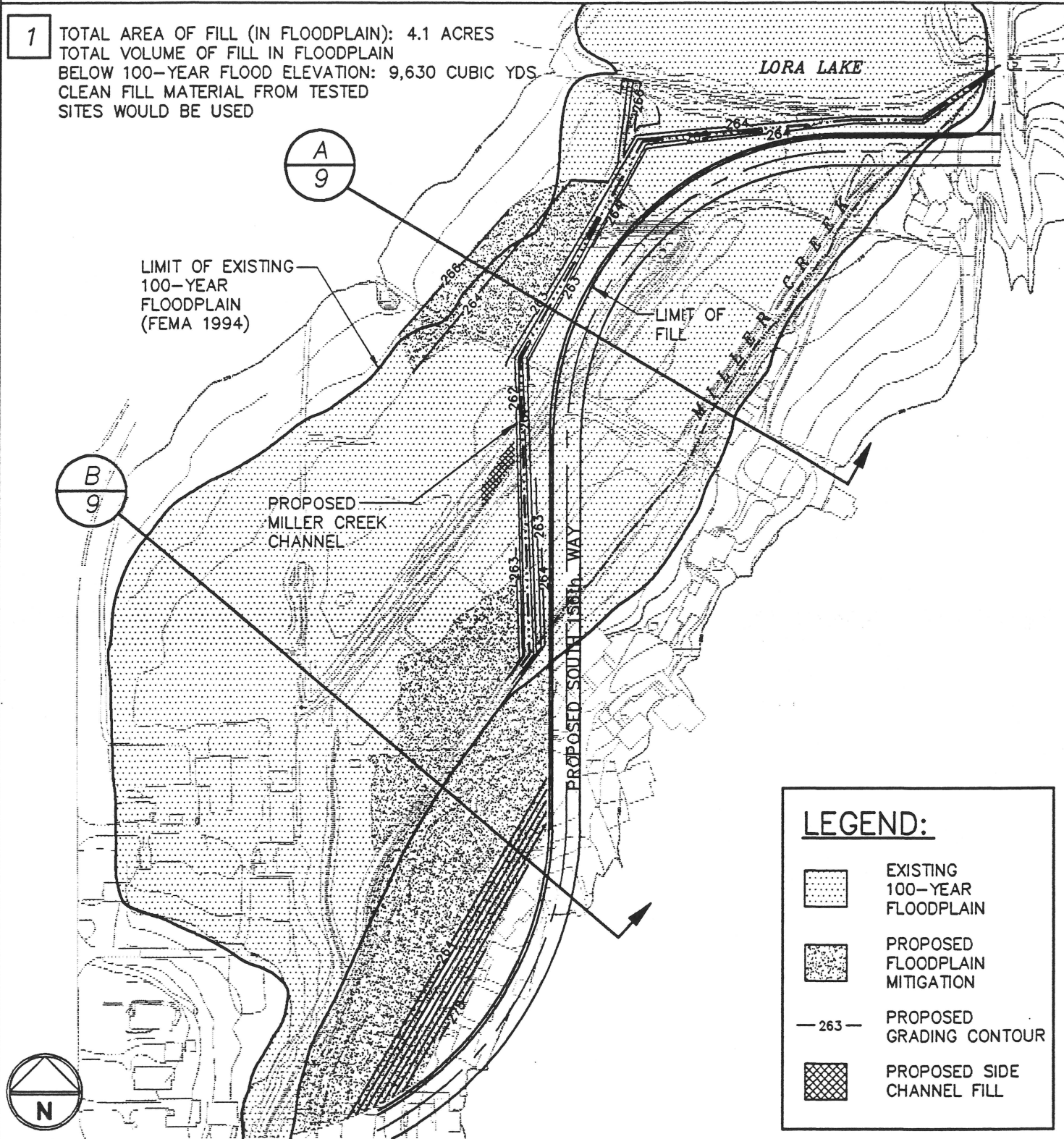
PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT







PROPOSED MILLER CREEK
RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 7 OF 44 DECEMBER 1996

1 TOTAL AREA OF FILL (IN FLOODPLAIN): 4.1 ACRES
 TOTAL VOLUME OF FILL IN FLOODPLAIN
 BELOW 100-YEAR FLOOD ELEVATION: 9,630 CUBIC YDS.
 CLEAN FILL MATERIAL FROM TESTED
 SITES WOULD BE USED

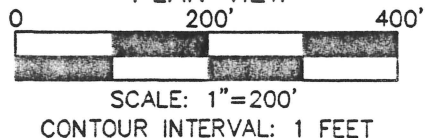


LEGEND:

-  EXISTING 100-YEAR FLOODPLAIN
-  PROPOSED FLOODPLAIN MITIGATION
-  — 263 — PROPOSED GRADING CONTOUR
-  PROPOSED SIDE CHANNEL FILL

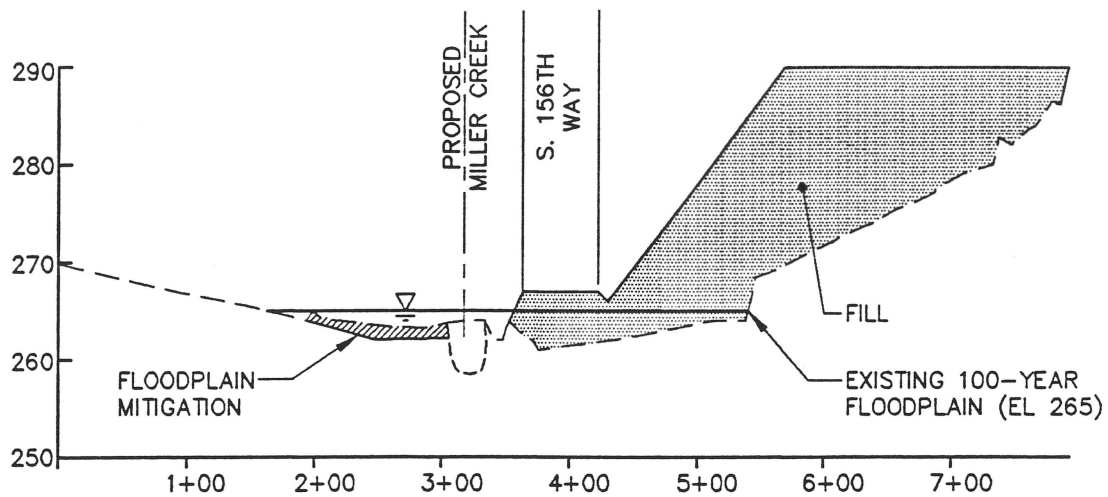
PURPOSE: IMPLEMENTATION OF THE
 MASTER PLAN UPDATE
 FOR SEATTLE-TACOMA
 INTERNATIONAL AIRPORT

FLOODPLAIN MITIGATION AND
 MILLER CREEK GRADING
 PLAN VIEW

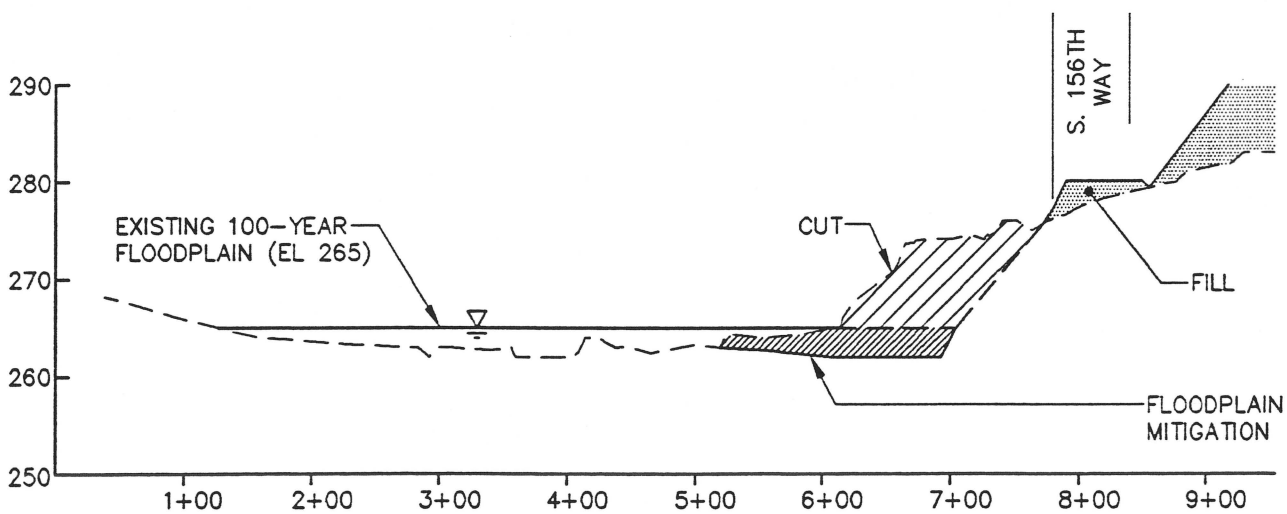
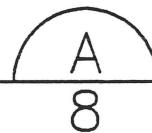


PROPOSED MILLER CREEK
 RELOCATION

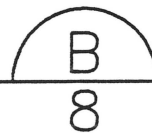
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 8 OF 44 DECEMBER 1996



SECTION

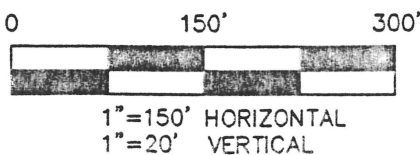


SECTION



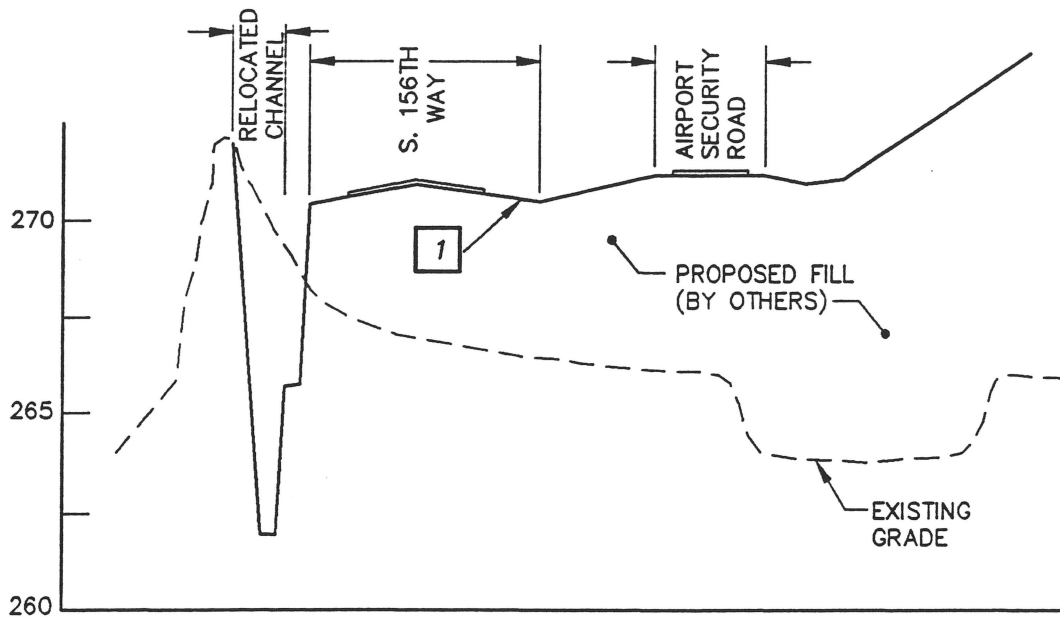
PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
FOR SEATTLE-TACOMA
INTERNATIONAL AIRPORT

FLOODPLAIN
SECTIONS

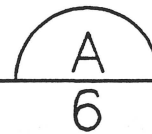


PROPOSED MITIGATION
WETLAND SITE

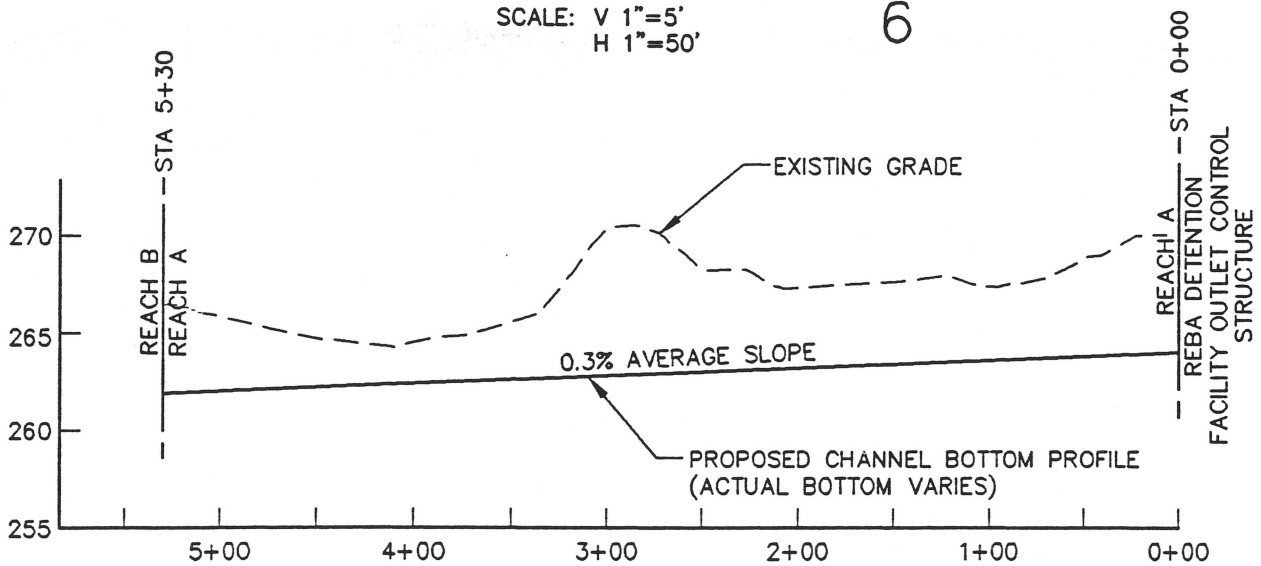
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 9 OF 44 DECEMBER 1996



SECTION



SCALE: V 1"=5'
H 1"=50'



PROFILE

SCALE: V 1"=5'
H 1"=100'

1 FILL ELEVATIONS AND FINISHED ROAD GRADES ARE ESTIMATED FOR ILLUSTRATION ONLY.

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

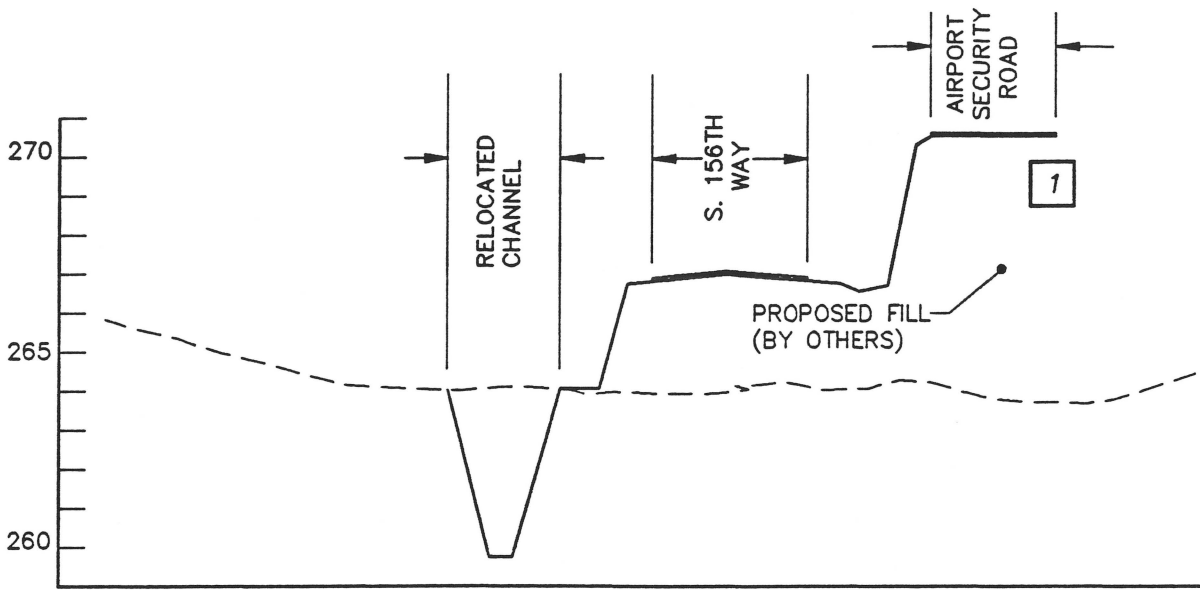
MILLER CREEK MITIGATION CHANNEL - REACH A

SECTION AND PROFILE

SCALE AS NOTED

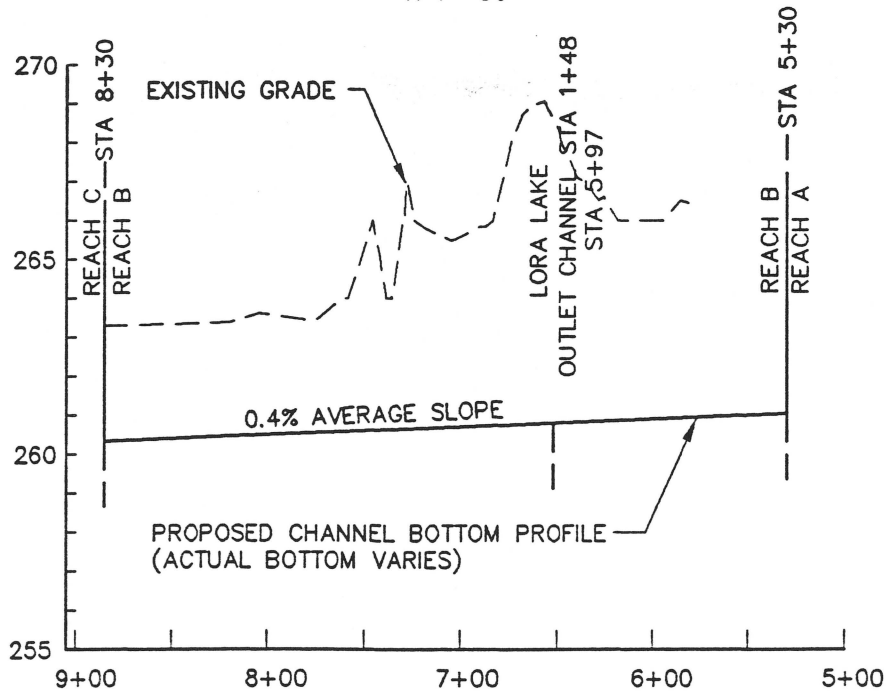
PROPOSED MILLER CREEK RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 10 OF 44 DECEMBER 1996



SECTION

SCALE: V 1"=5'
H 1"=50'



PROFILE

SCALE: V 1"=5'
H 1"=100'

1 FILL ELEVATIONS AND FINISHED ROAD GRADES ARE ESTIMATED FOR ILLUSTRATION ONLY.

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

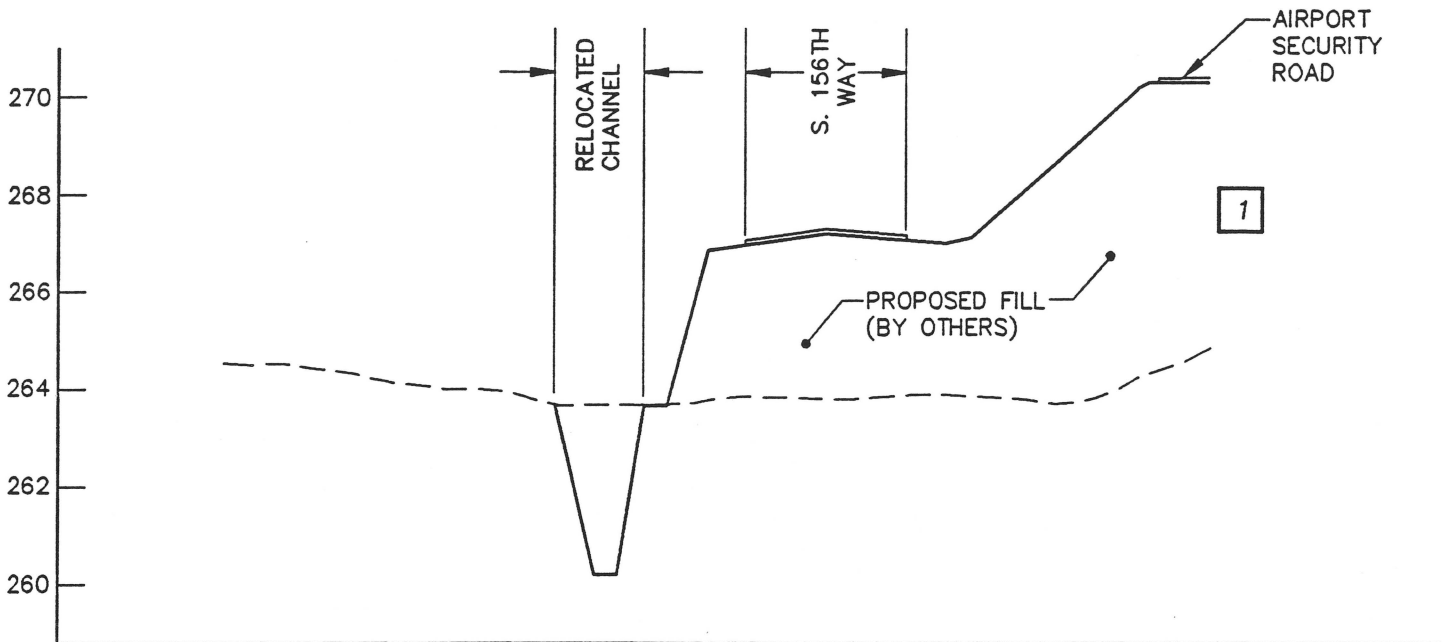
MILLER CREEK MITIGATION CHANNEL - REACH B

SECTION AND PROFILE

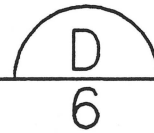
SCALE AS NOTED

PROPOSED MILLER CREEK RELOCATION

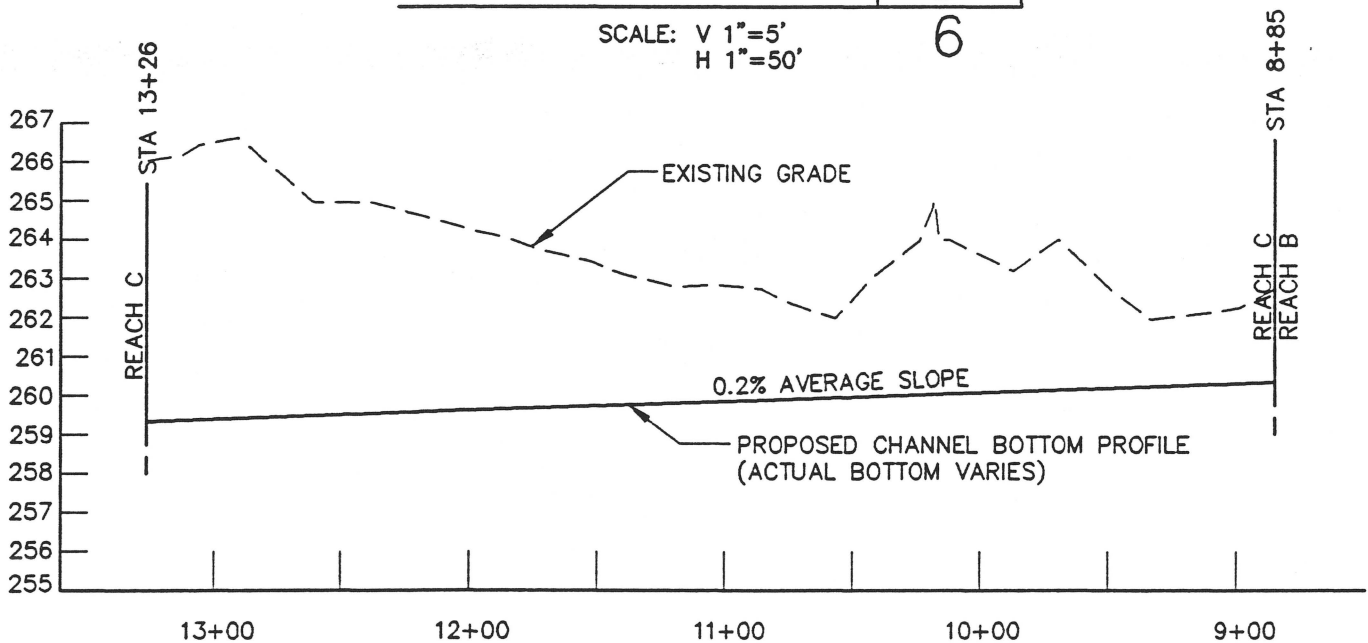
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 11 OF 44 DECEMBER 1996



SECTION



SCALE: V 1"=5'
H 1"=50'



1 FILL ELEVATIONS AND FINISHED ROAD GRADES ARE ESTIMATED FOR ILLUSTRATION ONLY.

PROFILE

SCALE: V 1"=5'
H 1"=75'

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

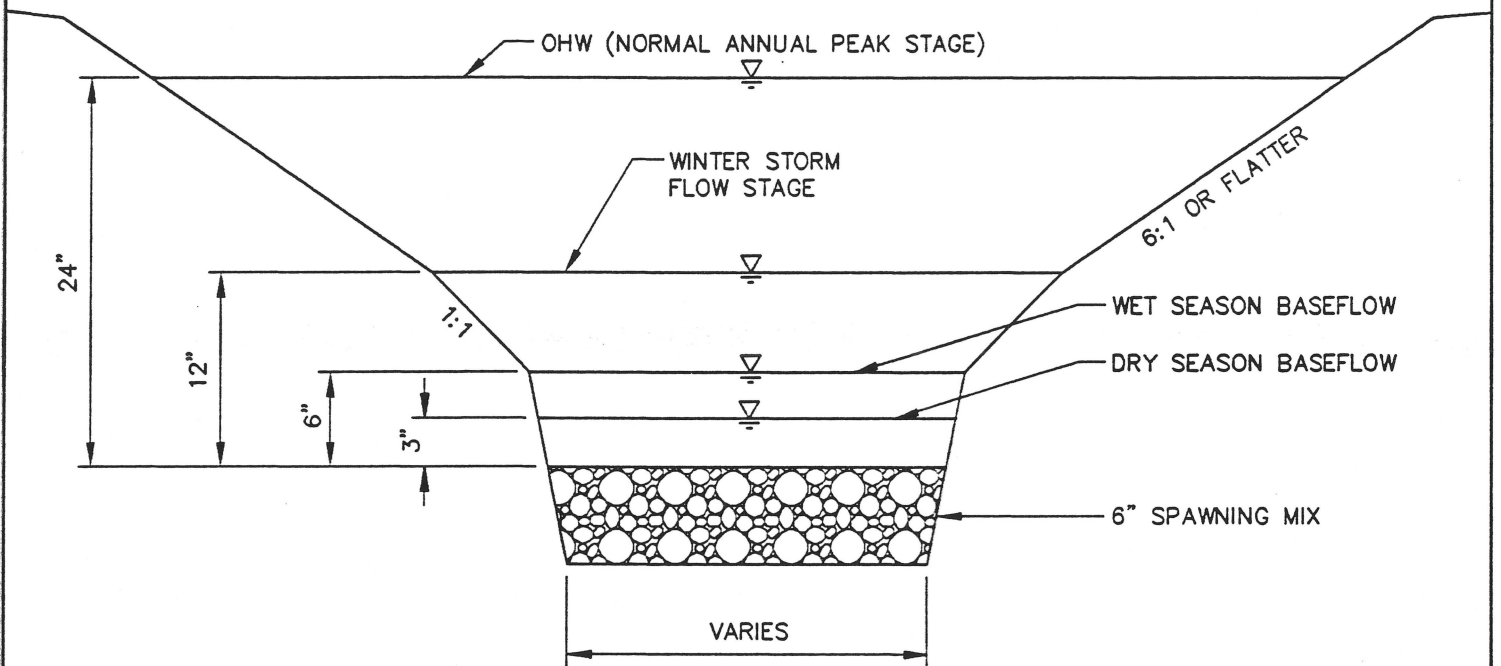
MILLER CREEK MITIGATION CHANNEL - REACH C

SECTION AND PROFILE

SCALE AS NOTED

PROPOSED MILLER CREEK RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 12 OF 44 DECEMBER 1996



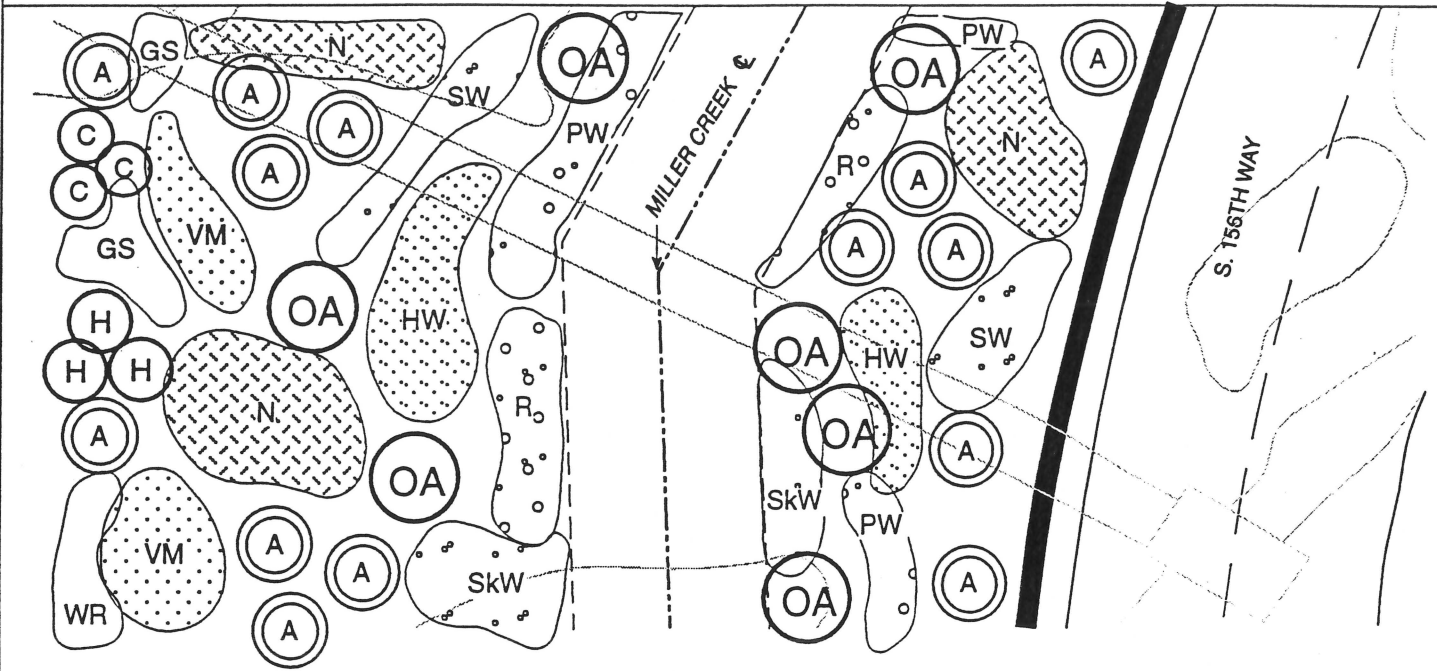
PURPOSE: IMPLEMENTATION OF THE
 MASTER PLAN UPDATE
 FOR SEATTLE-TACOMA
 INTERNATIONAL AIRPORT

TYPICAL MILLER CREEK
 CHANNEL SECTION

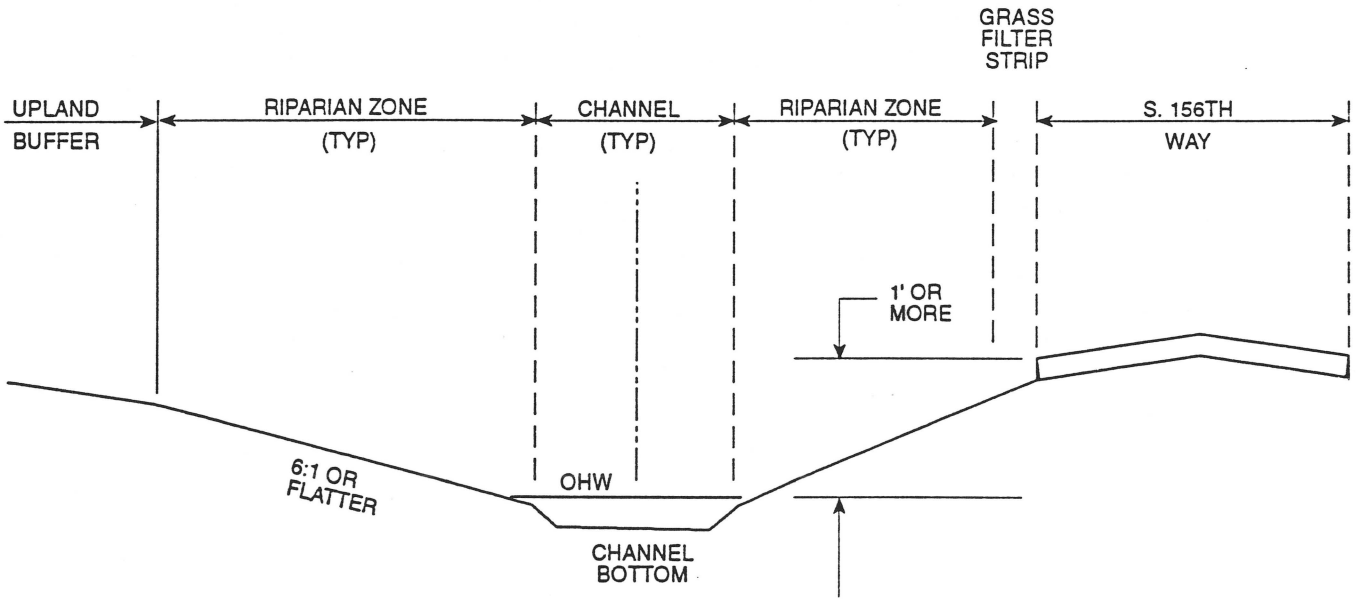
NOT TO SCALE

PROPOSED MILLER CREEK
 RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 13 OF 44 DECEMBER 1996



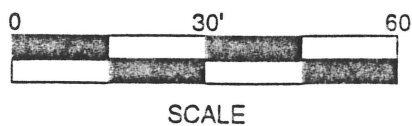
TYPICAL PLAN



SECTION

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT

TYPICAL BUFFER PLANTING DETAIL - RELOCATED MILLER CREEK



PROPOSED MILLER CREEK RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 14 of 44 DECEMBER 1996

Plant species proposed for Miller Creek streamside zone

Scientific Name	Common Name	Symbol	Condition	Comments
Trees				
<i>Alnus rubra</i>	red alder	(A)	container	At least 100 trees/acre would be planted in this area.
<i>Fraxinus latifolia</i>	Oregon ash	(OA)	container	
<i>Salix lasiandra</i>	Pacific willow	(PW)	bareroot	
Shrubs				
<i>Acer circinatum</i>	vine maple	(VM)	container	35 to 50% of the area would be planted with shrubs.
<i>Cornus stolonifera</i>	red osier dogwood	(R)	bareroot	
<i>Physocarpus capitatus</i>	Pacific ninebark	(N)	container	
<i>Salix hookerana</i>	Hooker's willow	(HW)	bareroot/livestake	bareroot/livestake
<i>Salix scouleriana</i>	Scouler's willow	(SW)	bareroot/livestake	
<i>Salix sitchensis</i>	Sitka willow	(SkW)	bareroot/livestake	

Plant species proposed for Miller Creek upland buffer

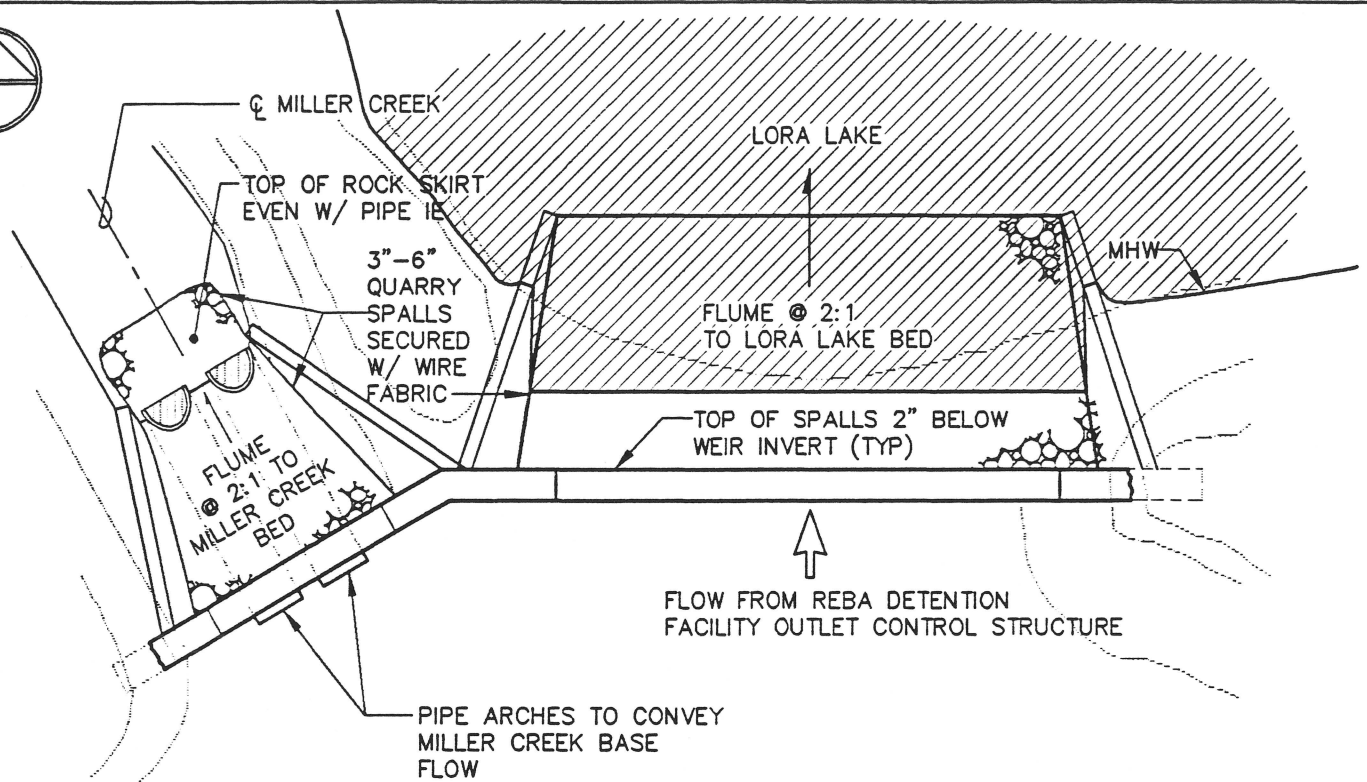
Scientific Name	Common Name	Symbol	Condition	Comments
Trees				
<i>Alnus rubra</i>	red alder	(A)	container	At least 100 trees/acre would be planted in the upland buffer.
<i>Corylus cornuta</i>	Western hazelnut	(H)	container	
<i>Rhamnus purshiana</i>	cascara	(C)	container	
Shrubs				
<i>Acer circinatum</i>	vine maple	(VM)	container	30 to 40% of the buffer zone would be planted with shrubs.
<i>Gaultheria shallon</i>	salal	(GS)	container	
<i>Physocarpus capitatus</i>	Pacific ninebark	(N)	container	
<i>Rosa woodsii</i>	Wood's rose	(WR)	container	

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT

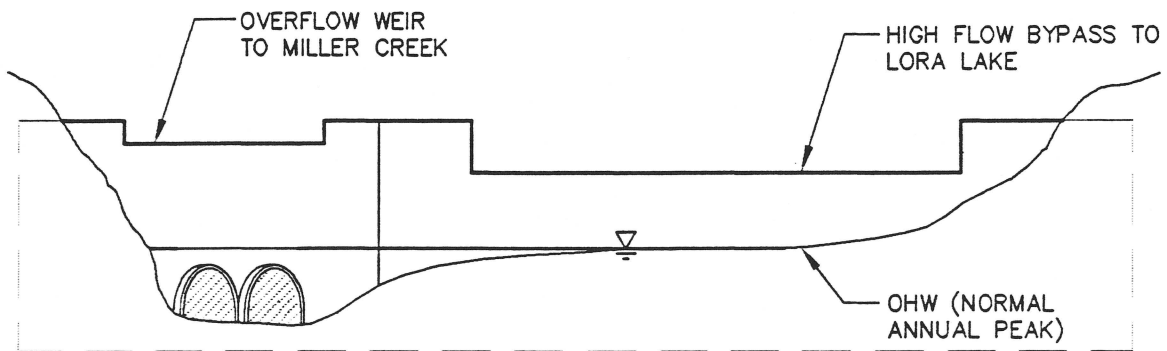
PLANTING SCHEDULE - RELOCATED MILLER CREEK

PROPOSED MILLER CREEK RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 15 of 44 DECEMBER 1996



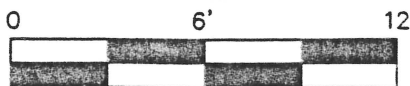
PLAN



ELEVATION

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

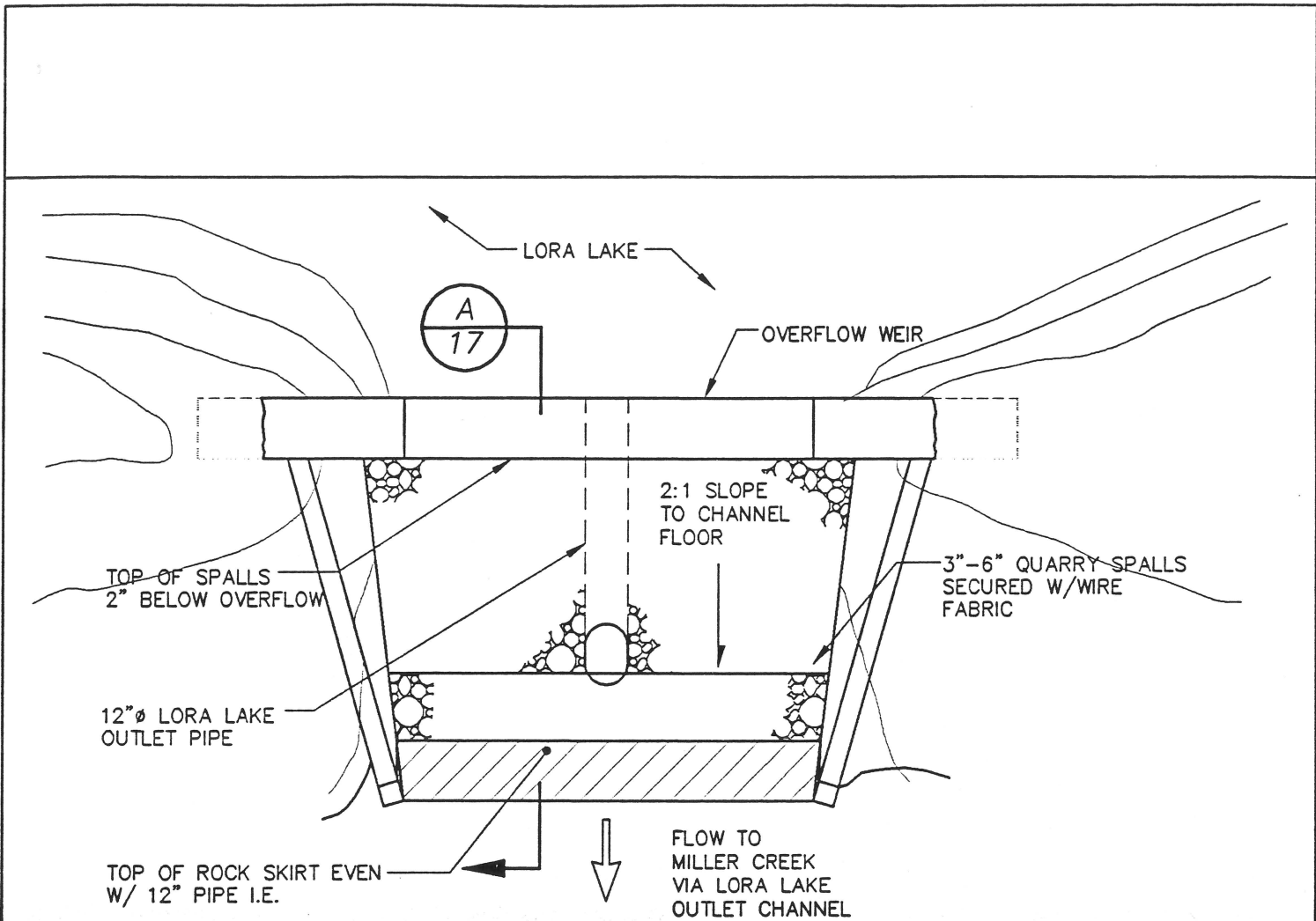
MILLER CREEK HIGH FLOW BYPASS STRUCTURE PLAN & ELEVATION



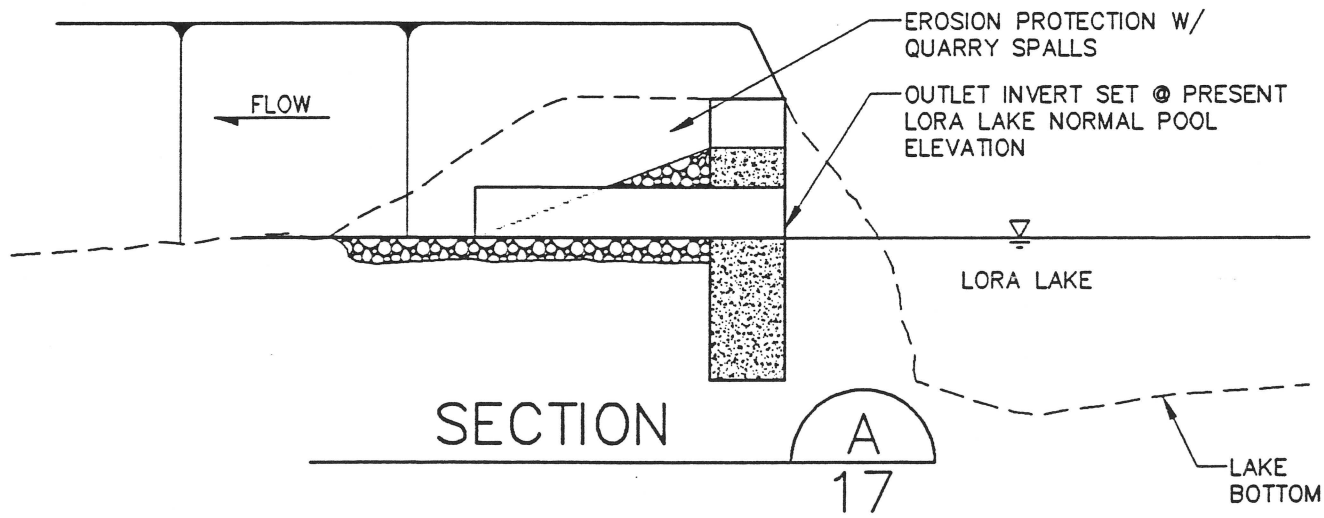
SCALE: 1" = 6'

PROPOSED MILLER CREEK RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 16 OF 44 DECEMBER 1996



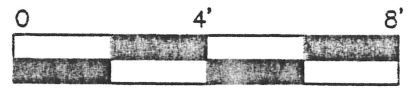
PLAN



SECTION

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

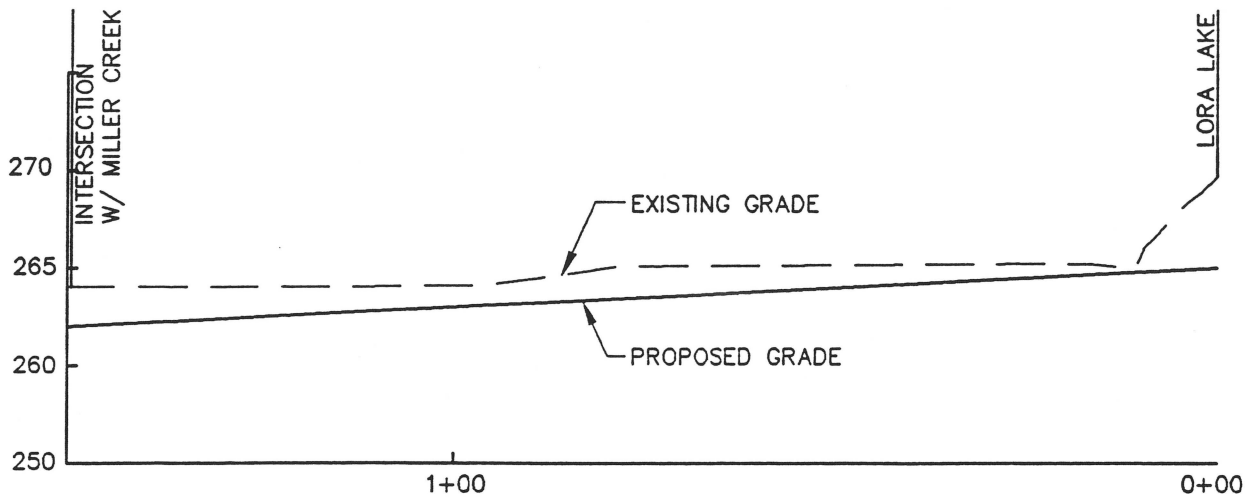
LORA LAKE OUTLET STRUCTURE PLAN & SECTION



SCALE: 1" = 4'

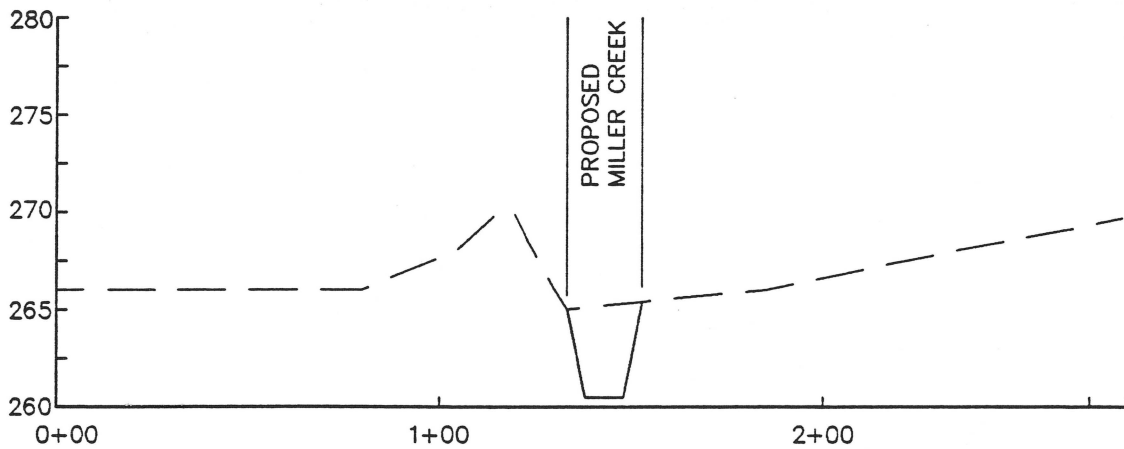
PROPOSED MILLER CREEK RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 17 OF 44 DECEMBER 1996



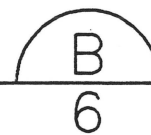
PROFILE

H: 1"=25'
V: 1"=10'



SECTION

H: 1"=50'
V: 1"=10'



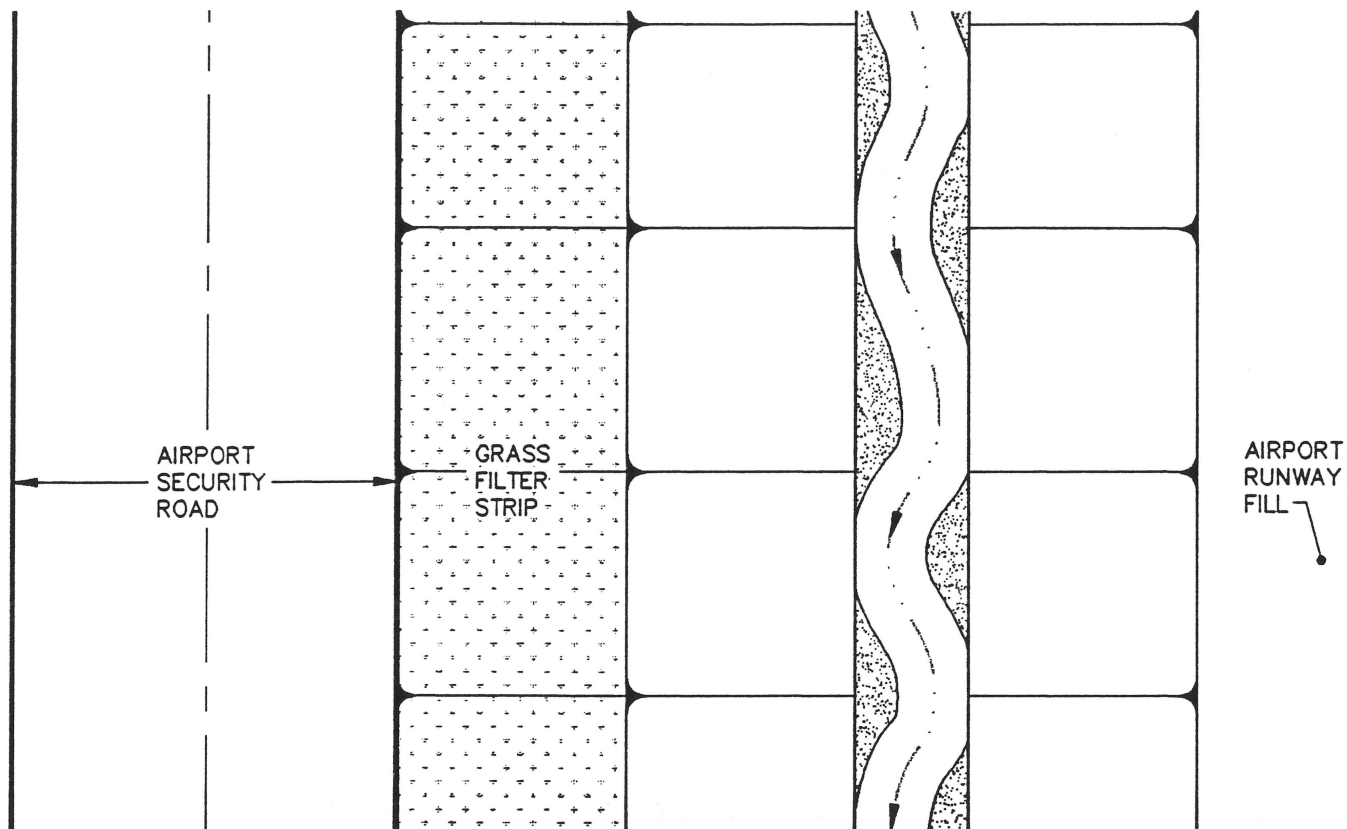
PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
FOR SEATTLE-TACOMA
INTERNATIONAL AIRPORT

LORA LAKE OUTLET CHANNEL
DETAIL
PROFILE AND SECTION

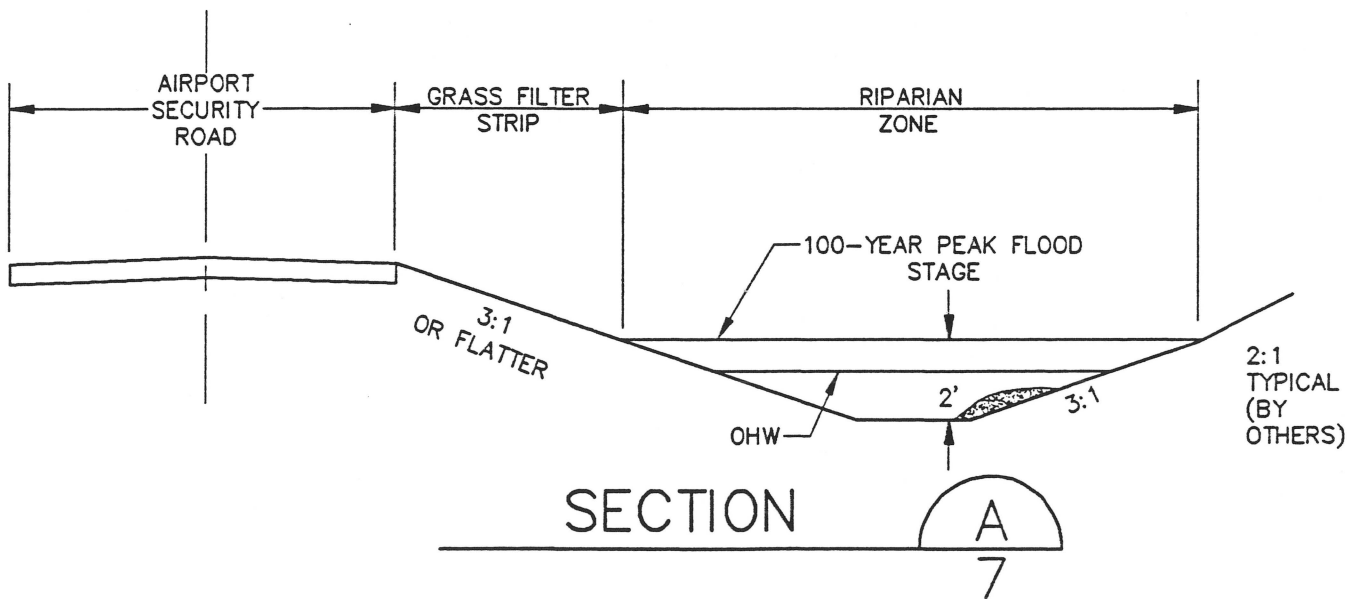
SCALE AS NOTED

PROPOSED MILLER CREEK
RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 18 OF 44 DECEMBER 1996



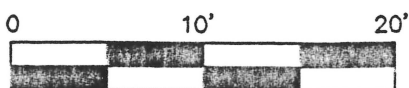
PLAN



SECTION

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

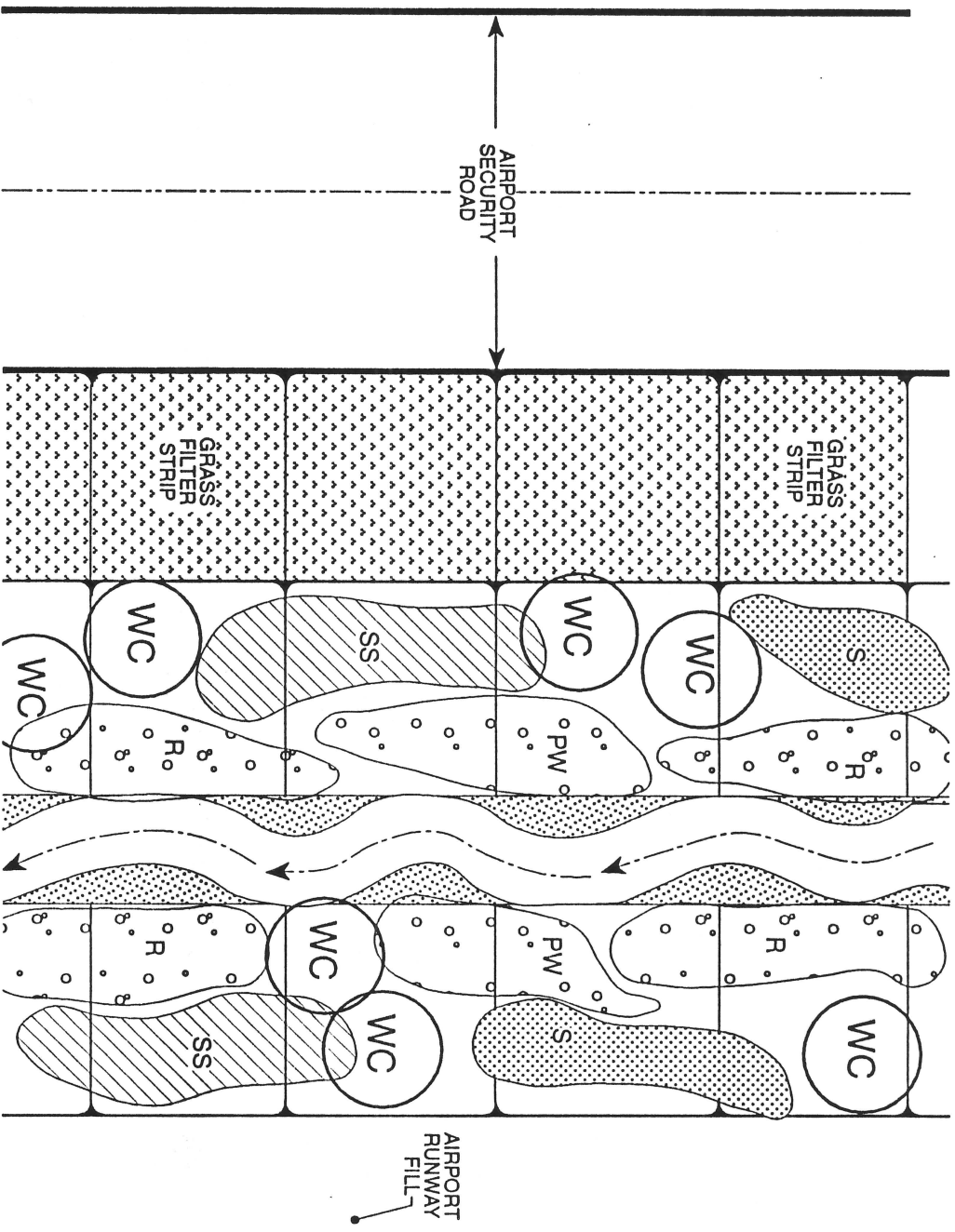
TYPICAL DRAINAGE CHANNEL



SCALE: 1" = 10'

PROPOSED MILLER CREEK RELOCATION

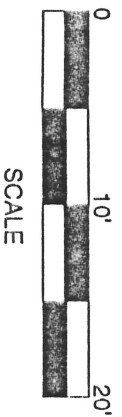
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 19 OF 44 DECEMBER 1996



TYPICAL PLAN

PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
SEATTLE-TACOMA
INTERNATIONAL AIRPORT






TYPICAL PLANTING PLAN
DRAINAGE CHANNEL



PROPOSED MILLER CREEK
RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 20 of 44 DECEMBER 1996

Plant species proposed for drainage channel plantings

Scientific Name	Common Name	Symbol	Condition	Comments
Shrubs				
<i>Cornus stolonifera</i>	red osier dogwood		container	50 to 70% of these areas would be planted with shrubs.
<i>Pyrus fusca</i>	Western crabapple		container	
<i>Rubus spectabilis</i>	salmonberry		bareroot/livestake	
<i>Salix lasiandra</i>	Pacific willow		bareroot/livestake	
<i>Salix scouleriana</i>	Scouler's willow		bareroot/livestake	

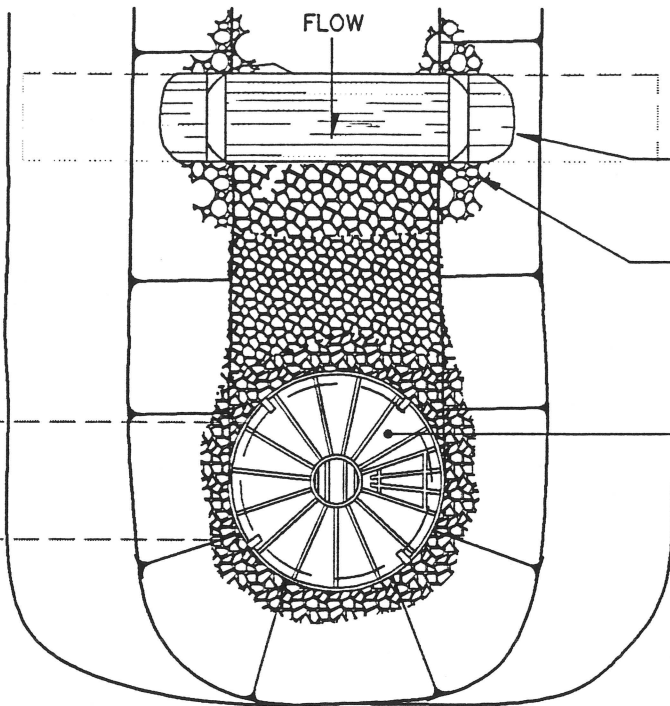
PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
SEATTLE-TACOMA
INTERNATIONAL AIRPORT

TYPICAL PLANTING PLAN
SCHEDULE - DRAINAGE
CHANNEL

PROPOSED MILLER CREEK
RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 21 of 44 DECEMBER 1996

A
22



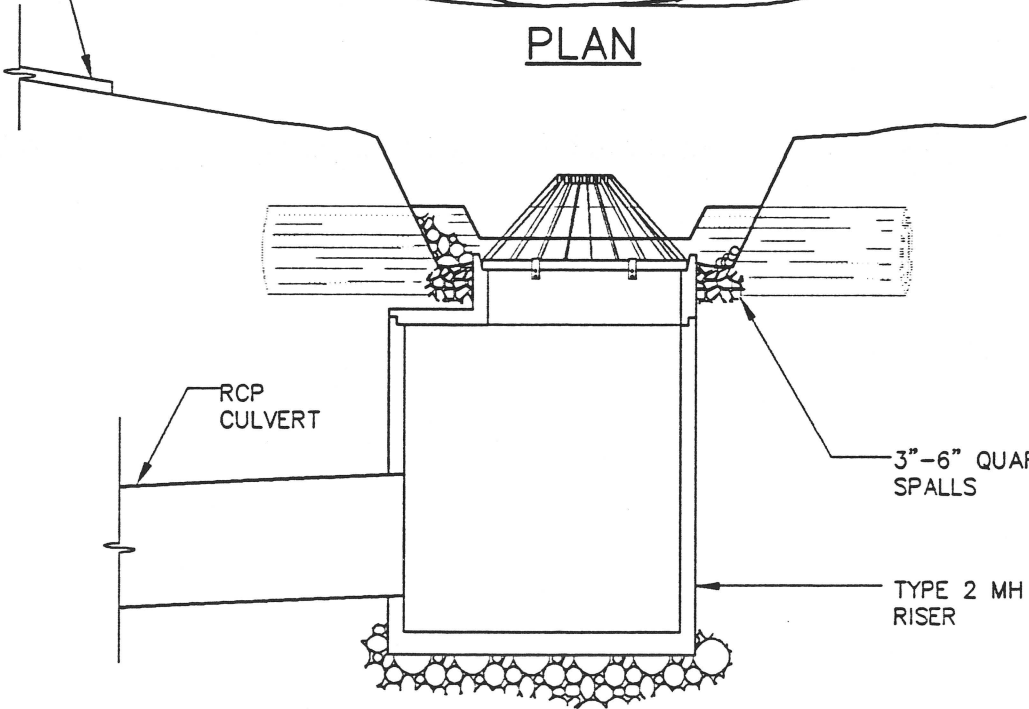
LOG DROP STRUCTURE

SPLASH PAD W/ 3"-6" QUARRY SPALLS

DROP INLET GRATE

PLAN

S. 156TH WAY



RCP CULVERT

3"-6" QUARRY SPALLS

TYPE 2 MH AND RISER

SECTION

A
22

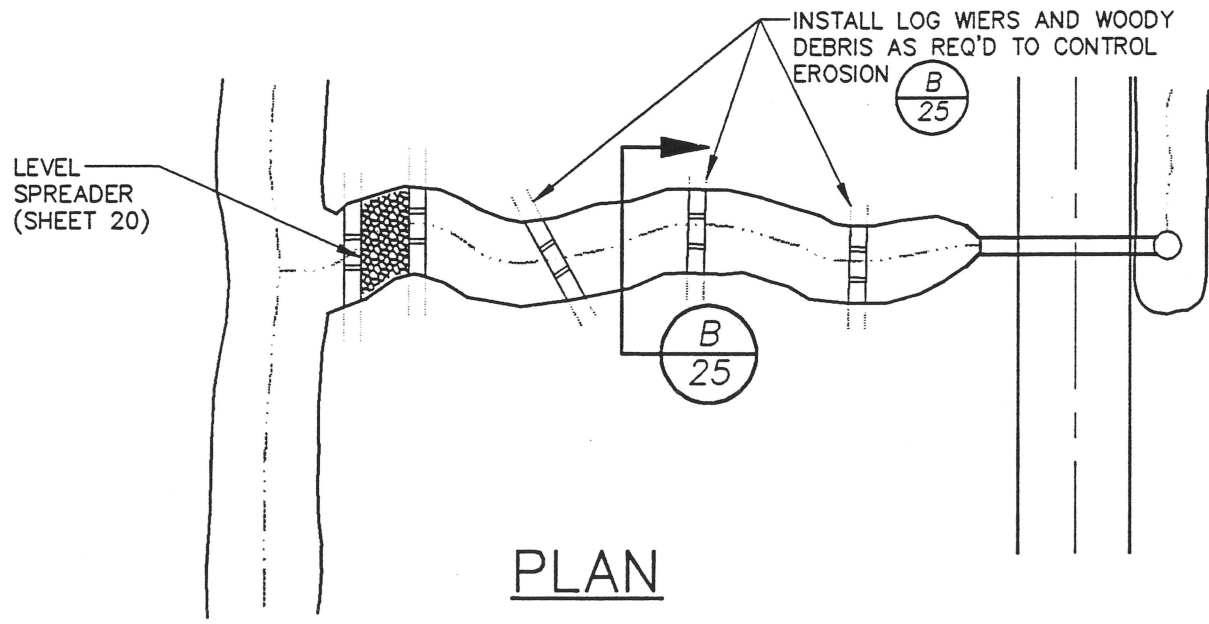
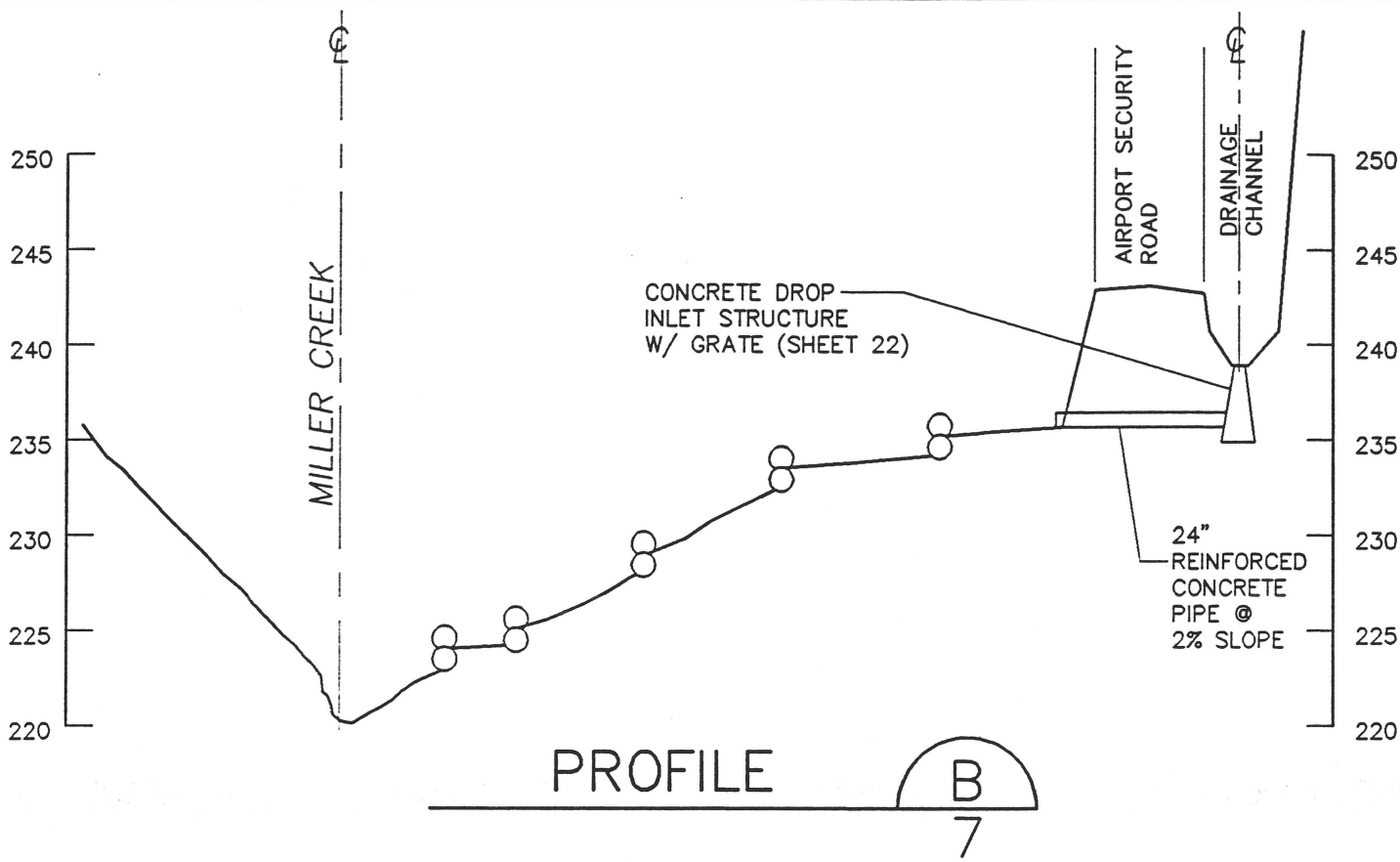
PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

DRAINAGE CHANNEL CROSSING OF THE AIRPORT SECURITY ROAD

PROPOSED MILLER CREEK RELOCATION

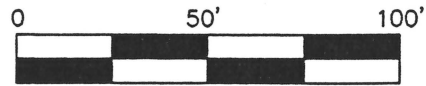
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 22 OF 44 DECEMBER 1996

NOT TO SCALE



PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

DRAINAGE CHANNEL PLAN AND PROFILE

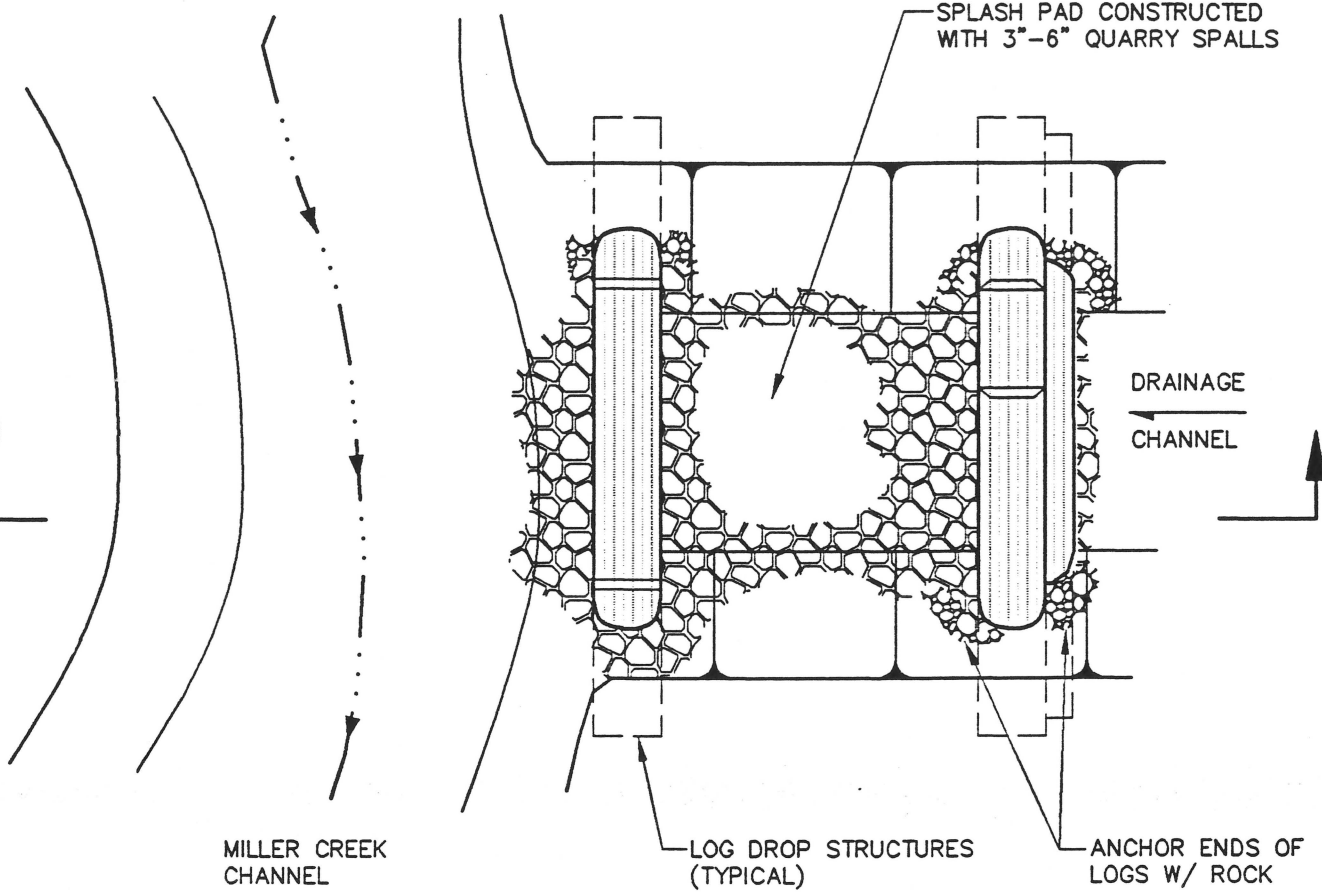


SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

PROPOSED MILLER CREEK RELOCATION

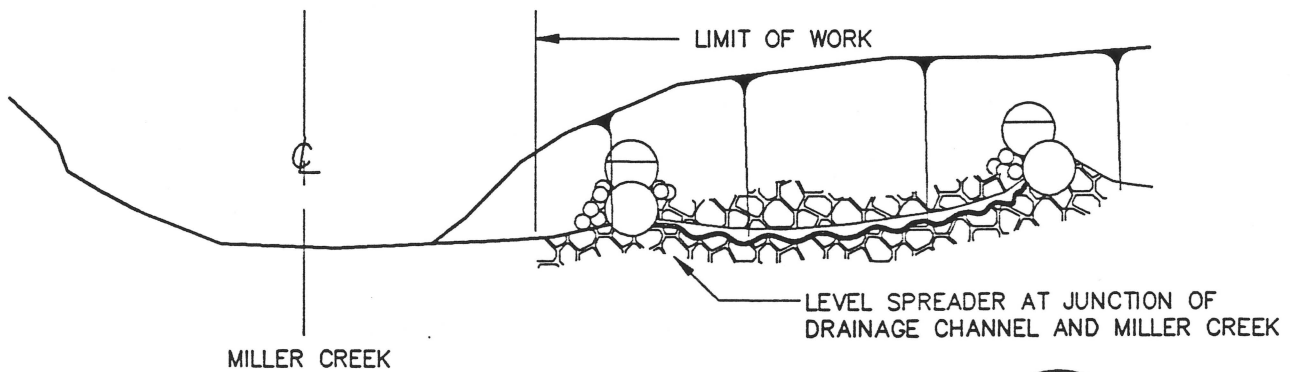
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 23 OF 44 DECEMBER 1996

A
24



PLAN

NO SCALE



SECTION

NO SCALE

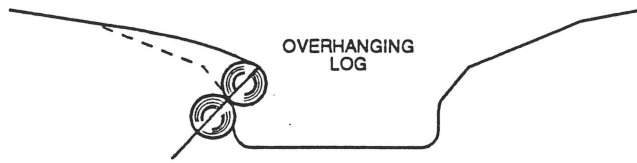
A
24

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

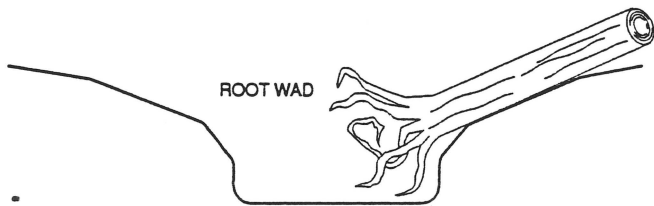
DRAINAGE CHANNEL OUTLET AT MILLER CREEK

PROPOSED MILLER CREEK RELOCATION

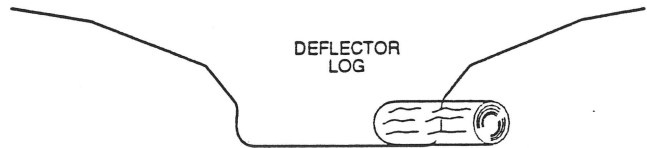
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 24 OF 44 DECEMBER 1996



OVERHANGING LOG

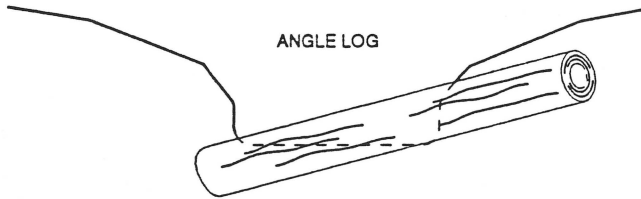


ROOT WAD

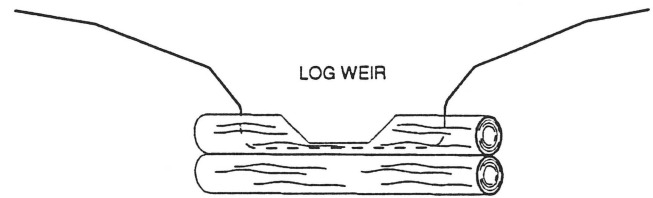


DEFLECTOR LOG

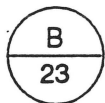
Miller Creek
Woody Debris Installation



ANGLE LOG



LOG WEIR



Drainage Channel Woody Debris Installation

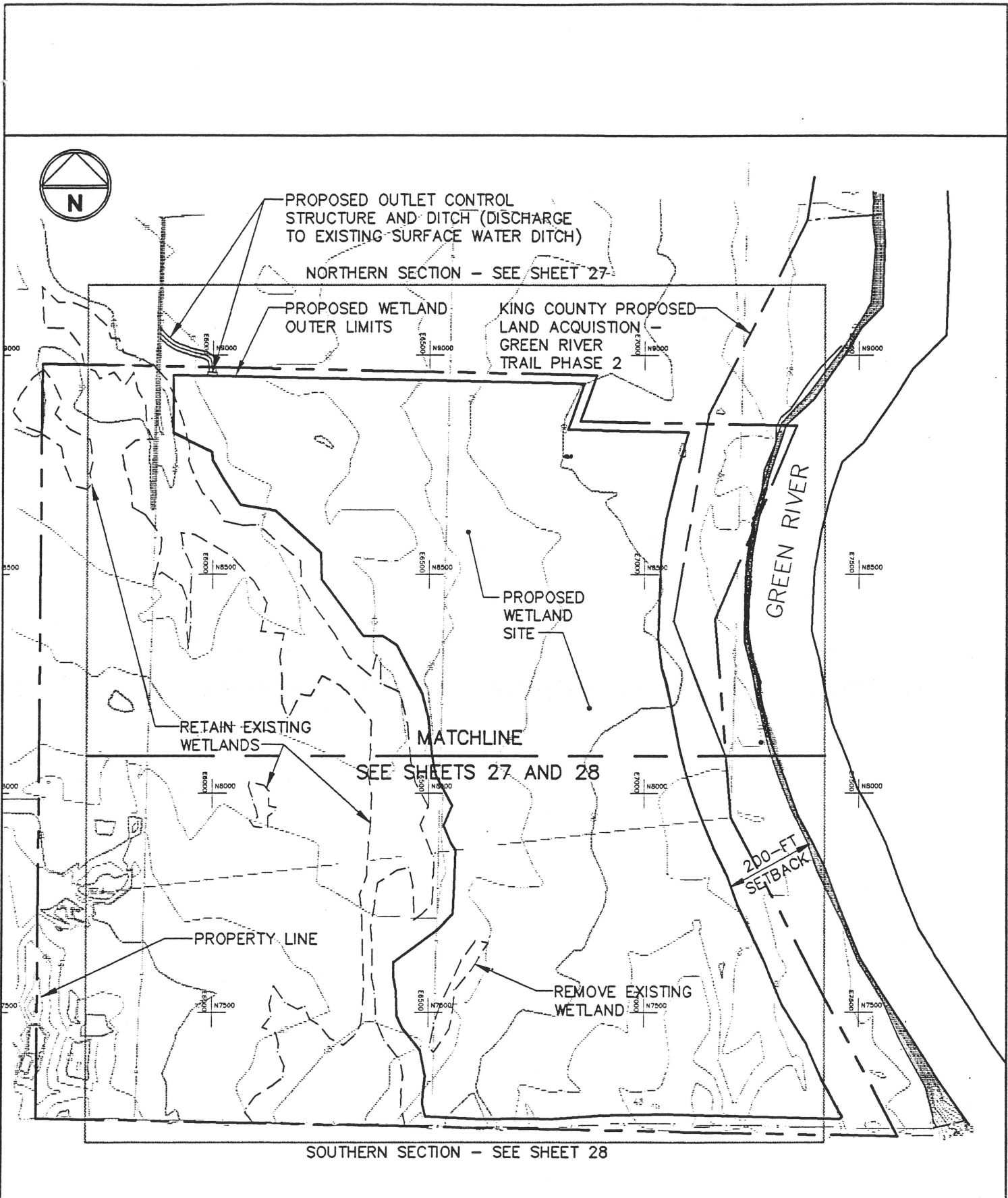
PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
SEATTLE-TACOMA
INTERNATIONAL AIRPORT

WOODY DEBRIS
INSTALLATION DETAILS

PROPOSED MILLER CREEK
RELOCATION

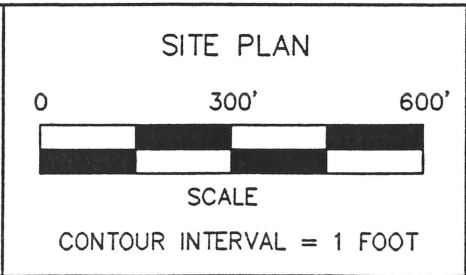
NOT TO SCALE

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E
COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 25 of 44 DECEMBER 1996



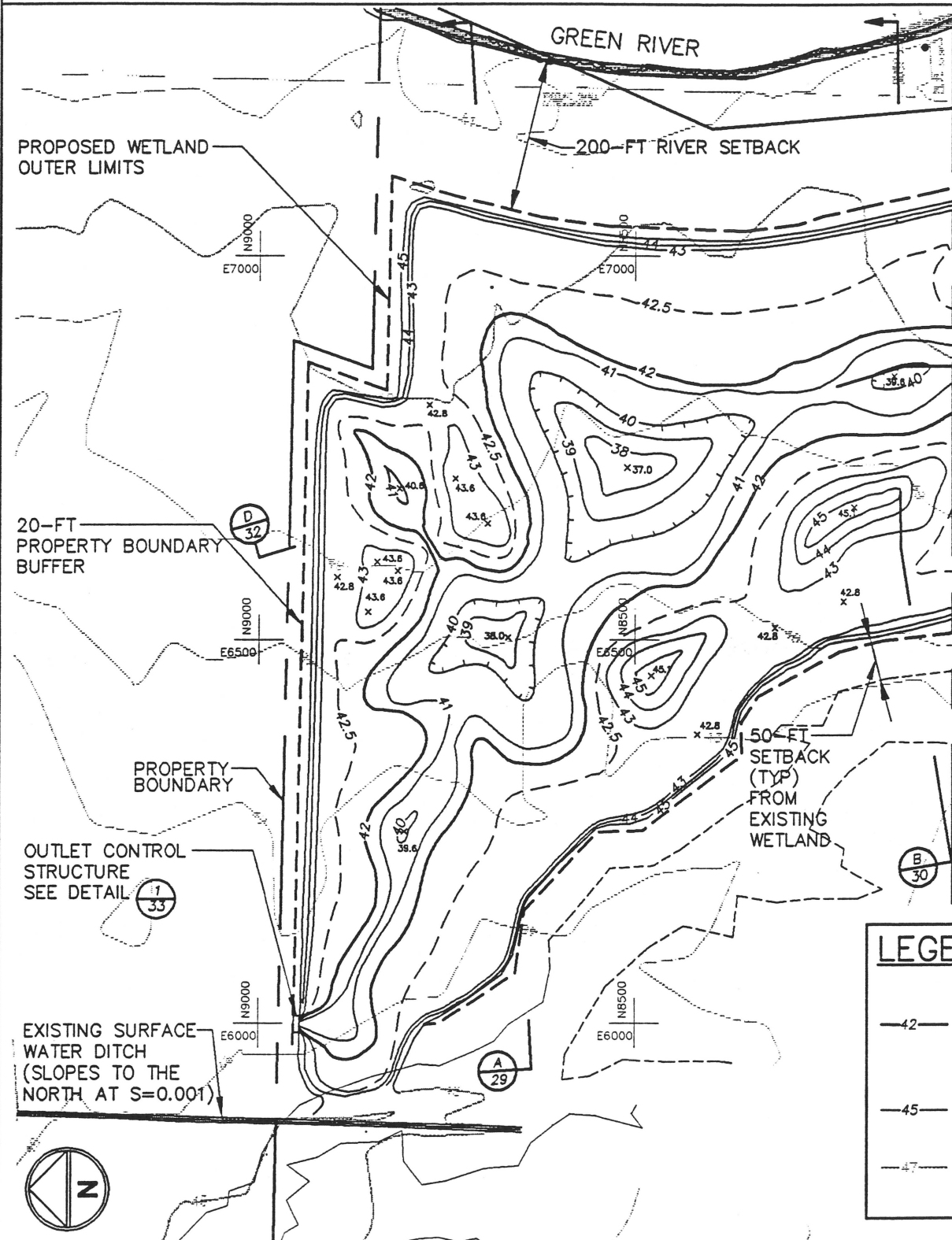
PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

DATUM: NGVD29-AUBURN



PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 26 OF 44 DECEMBER 1996

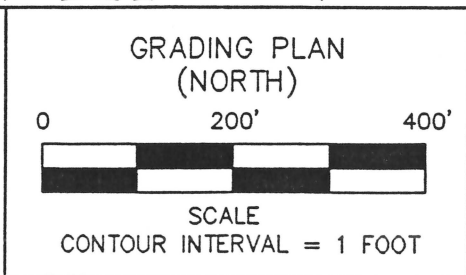


MATCH LINE - SEE SHEET 28

LEGEND:	
	OPEN WATER-HIGH WATER LEVEL
	PROPOSED CONTOURS
	EXISTING CONTOURS

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

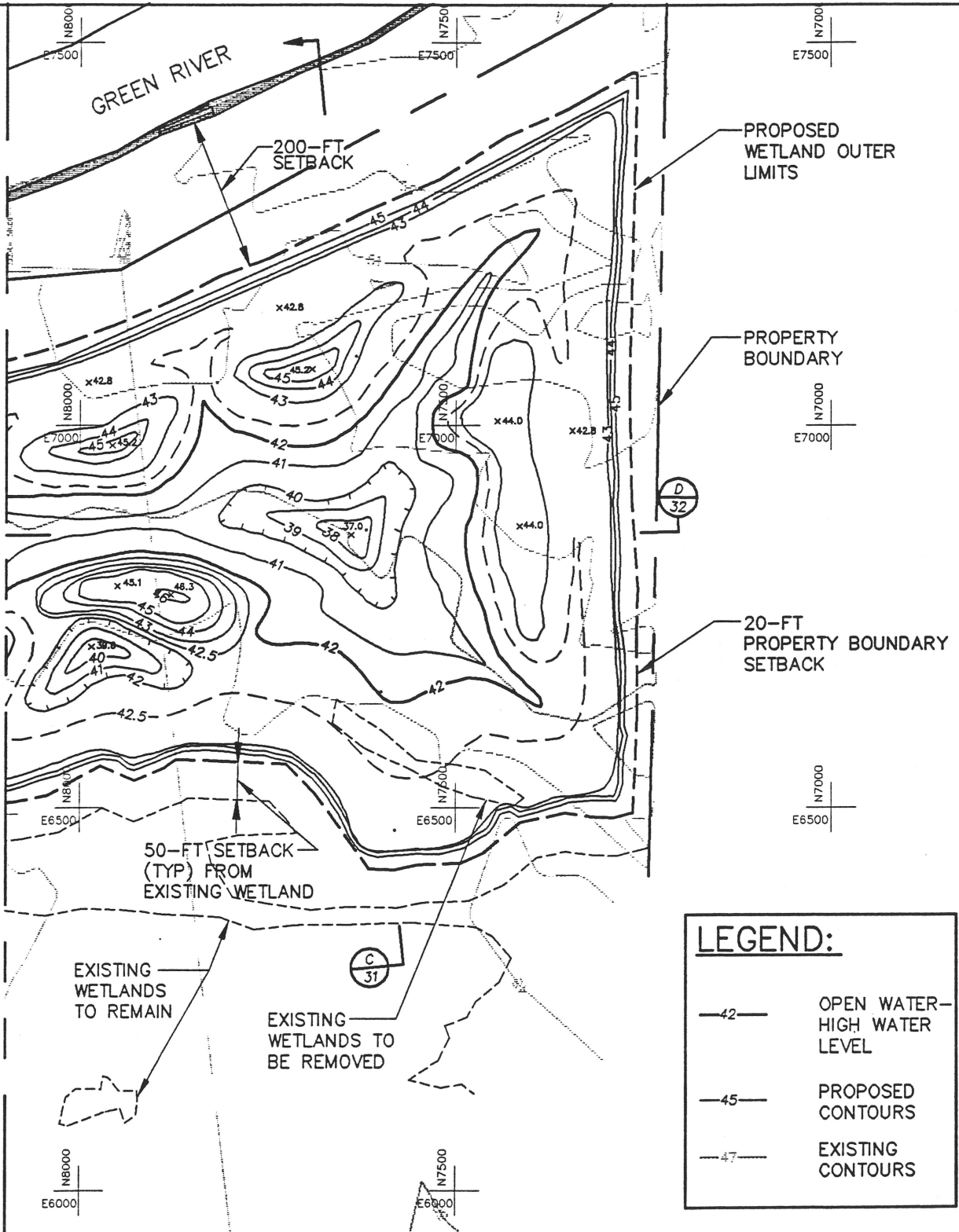
DATUM: NGVD29-AUBURN



PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 27 OF 44 DECEMBER 1996

MATCH LINE - SEE SHEET 27



LEGEND:

- 42 OPEN WATER-HIGH WATER LEVEL
- 45 PROPOSED CONTOURS
- 47 EXISTING CONTOURS

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

GRADING PLAN (SOUTH)

0 200' 400'



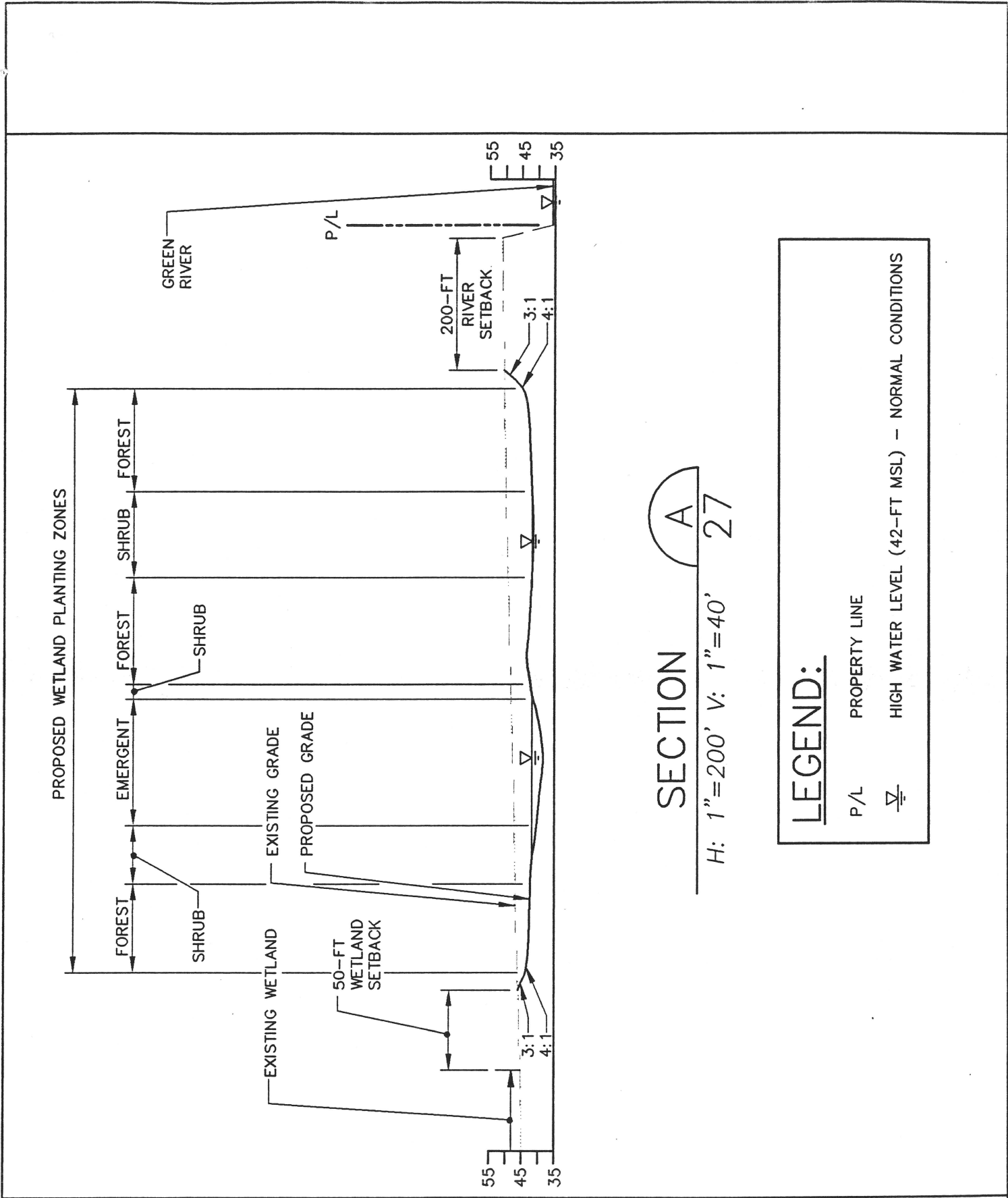
SCALE

CONTOUR INTERVAL = 1 FOOT

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 28 OF 44 DECEMBER 1996

DATUM: NGVD29-AUBURN



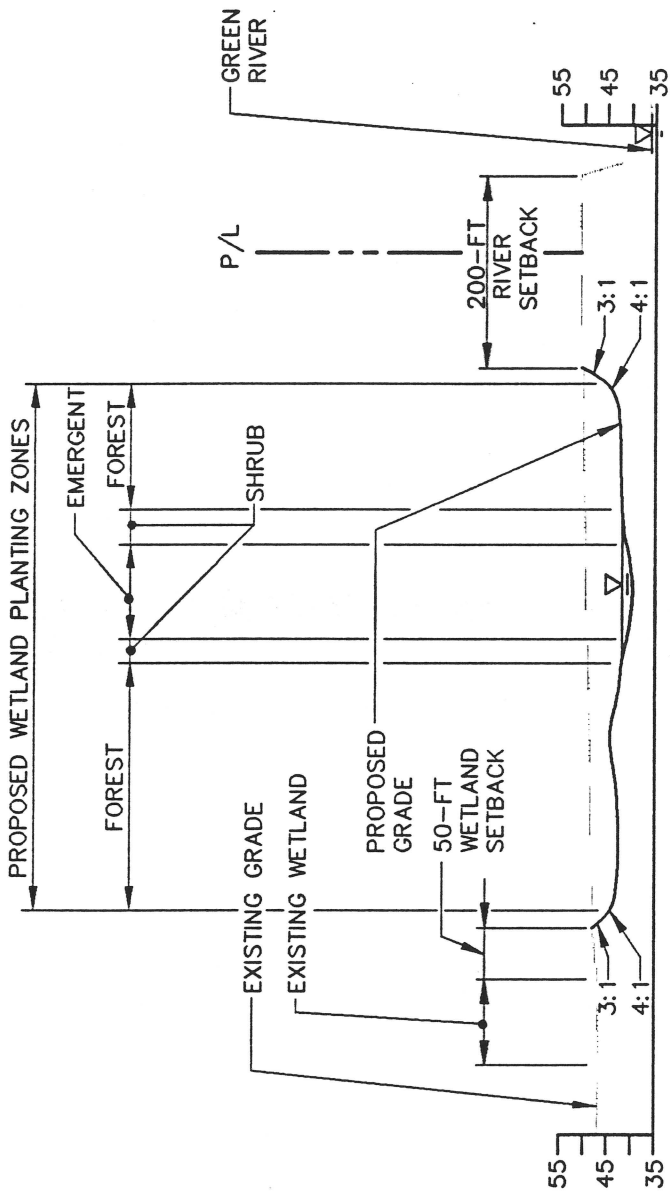
SECTION A
 H: 1"=200' V: 1"=40' 27

LEGEND:
 P/L PROPERTY LINE
 ▽ HIGH WATER LEVEL (42-FT MSL) - NORMAL CONDITIONS

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT
 DATUM: NGVD29-AUBURN

SECTION VIEW
 SCALE AS SHOWN


PROPOSED WETLAND MITIGATION
 IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 29 OF 44 DECEMBER 1996



SECTION B
 H: 1"=200' V: 1"=40' 27

LEGEND:

P/L PROPERTY LINE

 HIGH WATER LEVEL (42-FT MSL) - NORMAL CONDITIONS

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

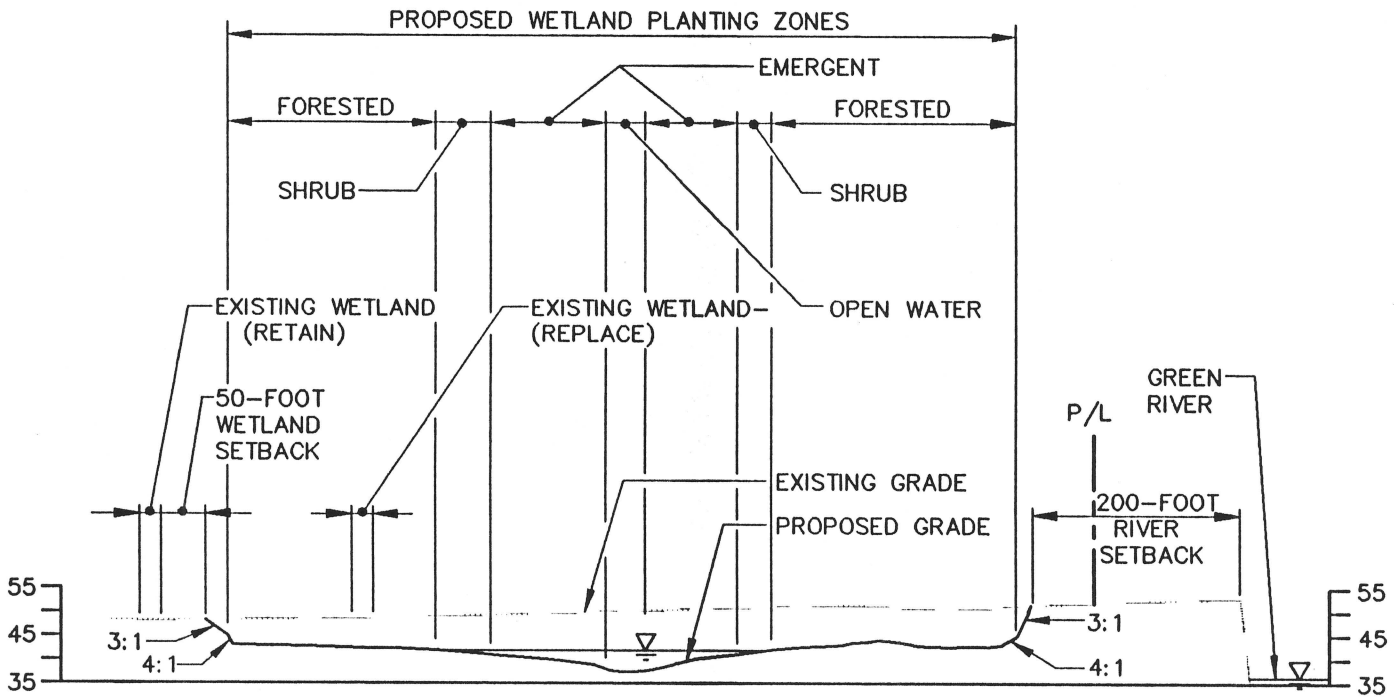
DATUM: NGVD29-AUBURN

SECTION VIEW

SCALE AS SHOWN

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 30 OF 44 DECEMBER 1996



PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

DATUM: NGVD29-AUBURN

SECTION VIEW

SCALE AS SHOWN

PROPOSED WETLAND MITIGATION

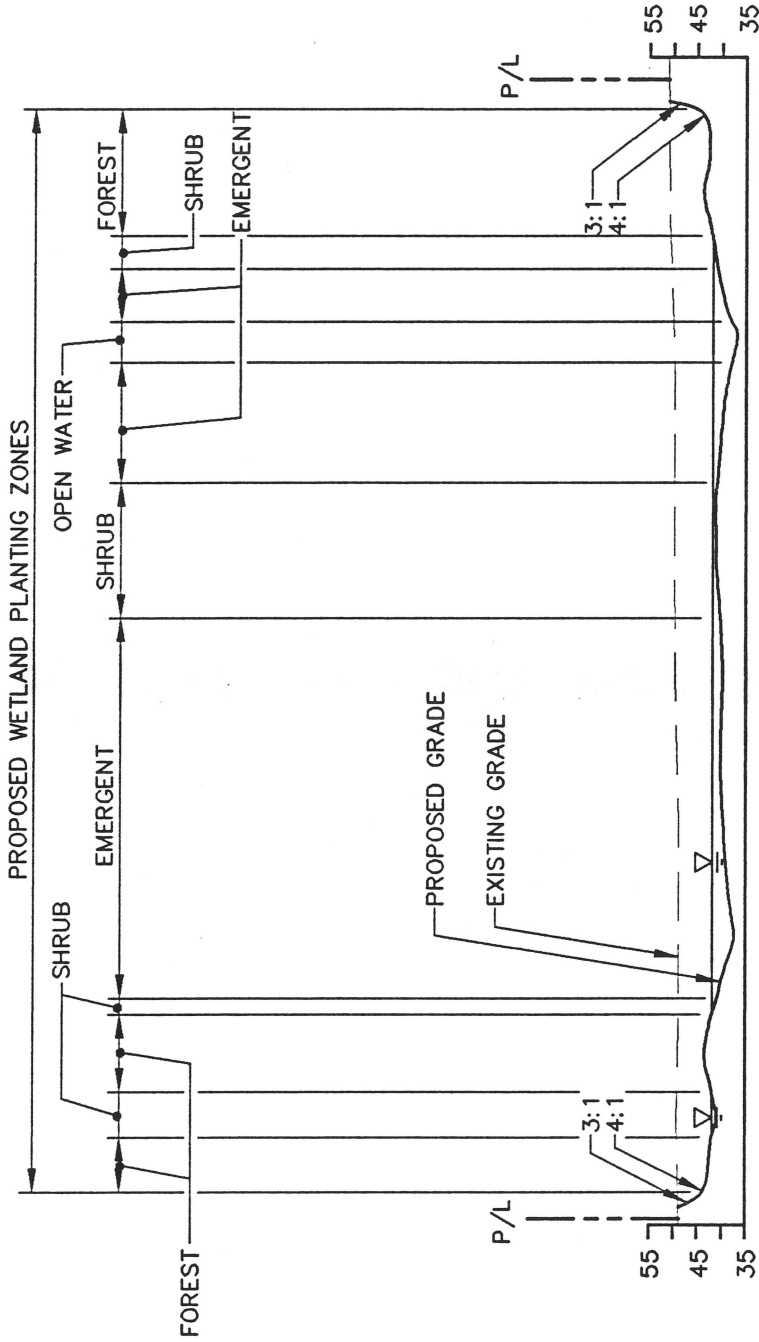
IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 31 OF 44 DECEMBER 1996

SECTION C
 H: 1"=200' V: 1"=40' 28

LEGEND:

P/L PROPERTY LINE

HIGH WATER LEVEL (42-FT MSL) - NORMAL CONDITIONS



SECTION D
 H: 1"=300' V: 1"=40' 27,28

LEGEND:	
P/L	PROPERTY LINE
	HIGH WATER LEVEL (42-FT MSL) - NORMAL CONDITIONS

PURPOSE: IMPLEMENTATION OF THE
 MASTER PLAN UPDATE
 FOR SEATTLE-TACOMA
 INTERNATIONAL AIRPORT

DATUM: NGVD29-AUBURN

SECTION VIEW

SCALE AS SHOWN

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE OF: WA.
 APPLICATION BY: PORT OF SEATTLE
 SHEET 32 OF 44 DECEMBER 1996

2 \cadd\2921-01\SEA-TAC\29120133

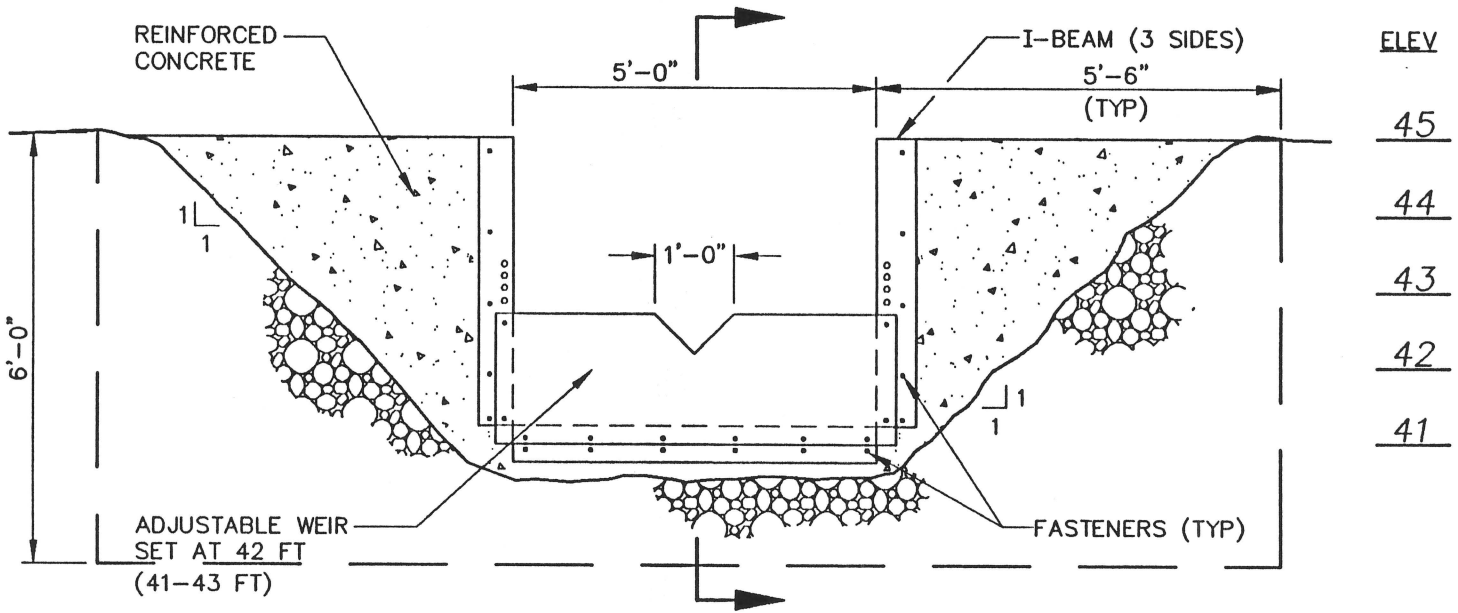
PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

DATUM: NGVD29-AUBURN

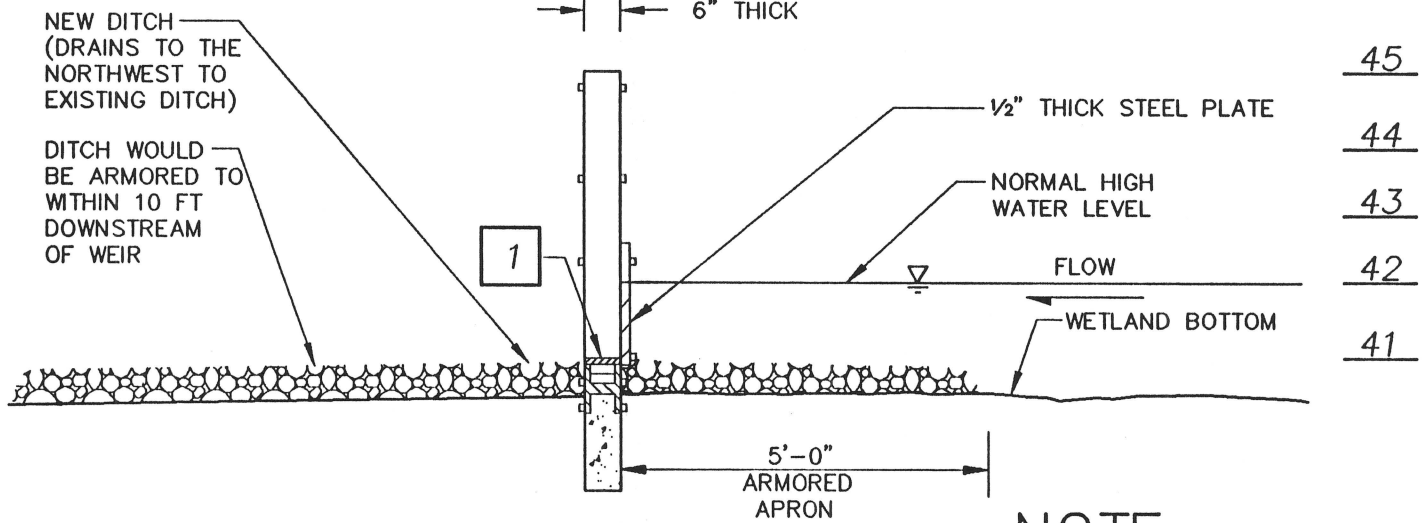
DETAIL No. 1
OUTLET CONTROL STRUCTURE
SCALE AS SHOWN

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 33 OF 44 DECEMBER 1996



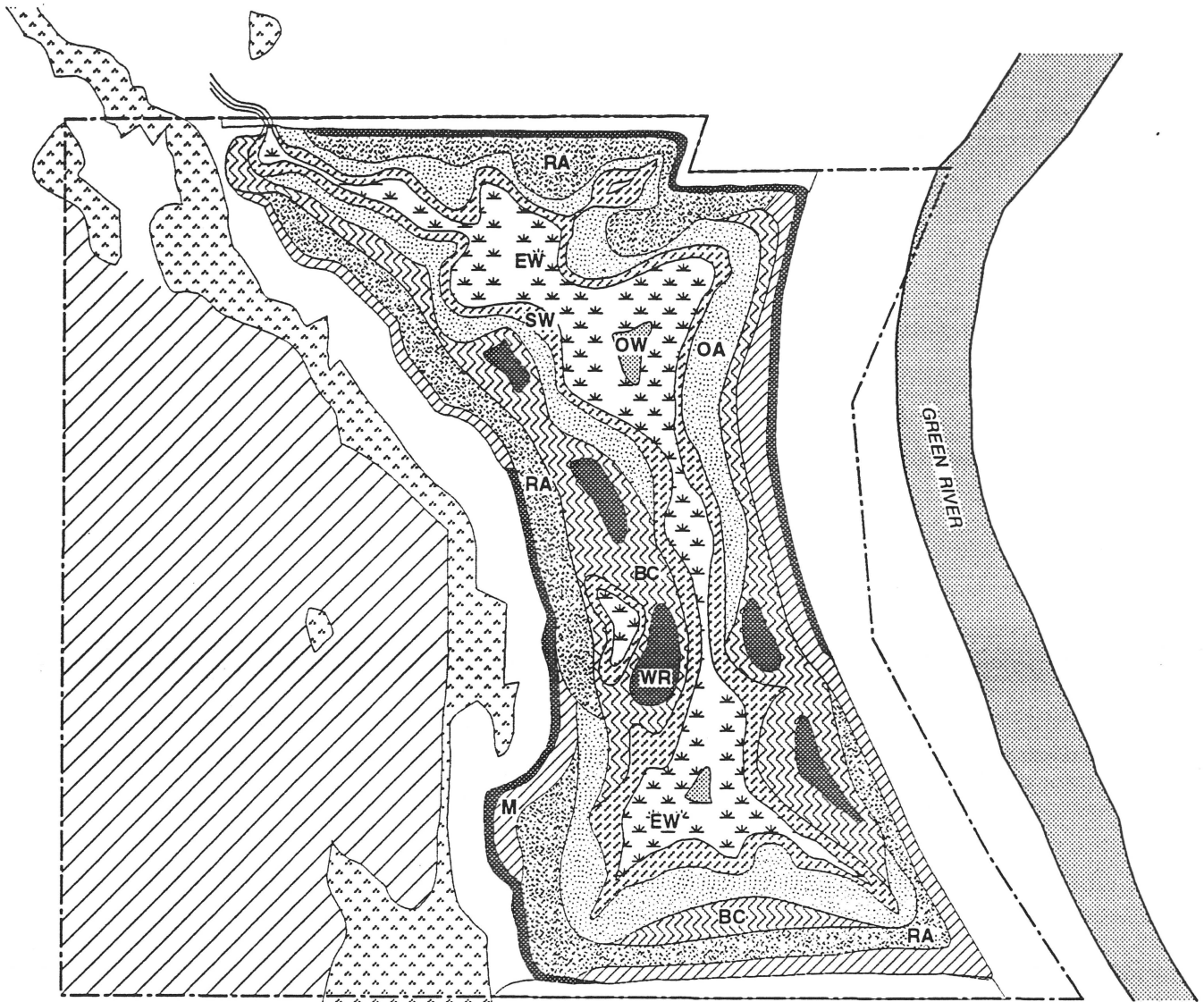
ELEVATION
SCALE: 3/8" = 1'-0"












SECTION

NOTE:
1 EXPOSED PORTIONS OF I-BEAM WOULD BE CAPPED WITH 3/8" STEEL

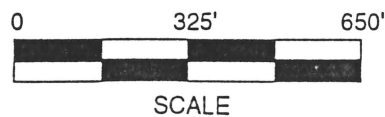
ELEV
45
44
43
42
41
ELEV
45
44
43
42
41



- | | | | |
|---|-------------------------|---|--------------------------|
|  | Black Cottonwood/Willow |  | Existing Wetland |
|  | Red Alder/Salmonberry |  | Shrub Wetland |
|  | Oregon Ash/Slough Sedge |  | Emergent Wetland |
|  | Mixed Forest |  | Open Water/Non-vegetated |
|  | Western Red Cedar | | |

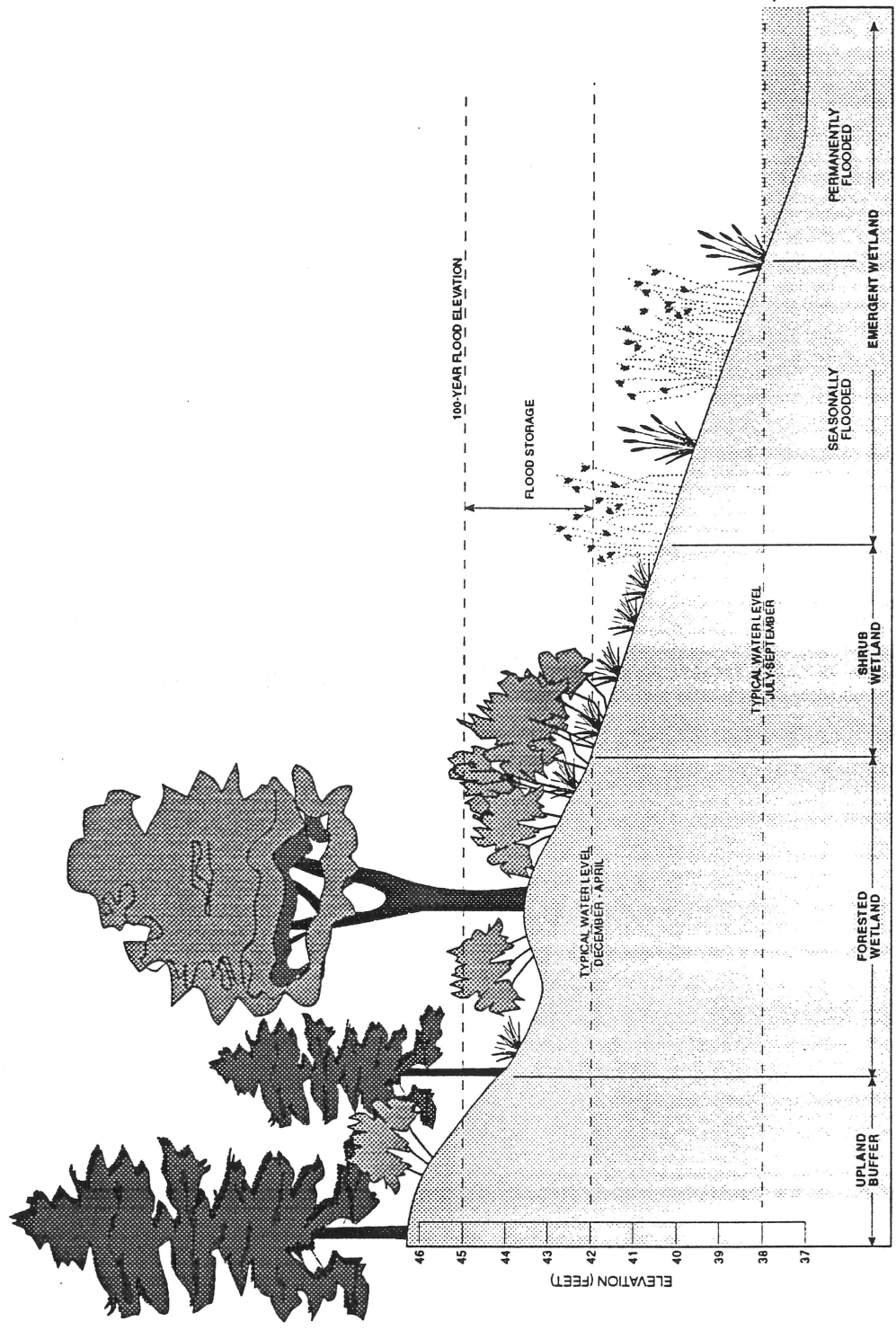
PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
SEATTLE-TACOMA
INTERNATIONAL AIRPORT

PROPOSED WETLAND
PLANT ASSOCIATIONS



PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 34 of 44 DECEMBER 1996



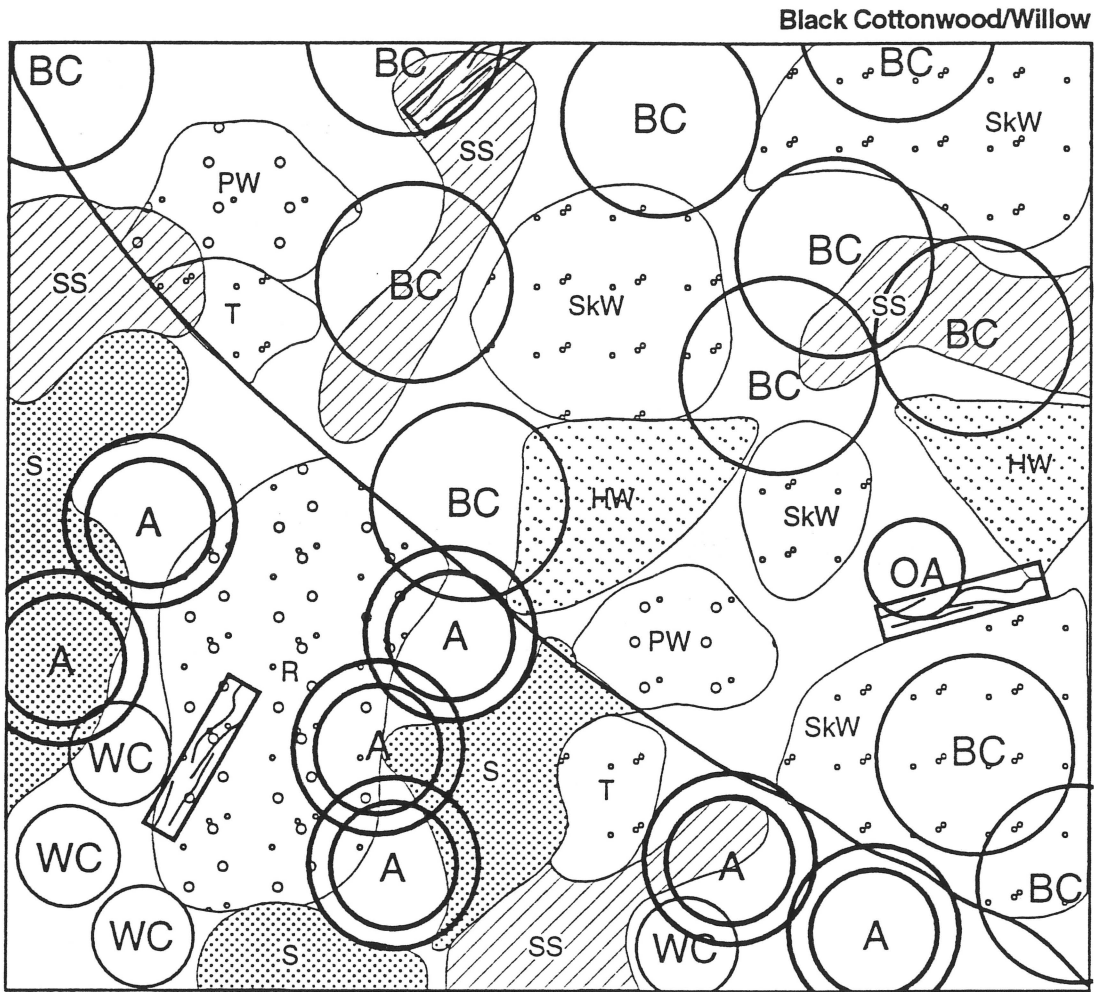
PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT

RELATIONSHIP OF SEASONAL WATER LEVEL VARIATIONS TO PROPOSED WETLAND VEGETATION

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 35 of 44 DECEMBER 1996

NOT TO SCALE




Black Cottonwood/Willow


Red Alder/Salmonberry

<p>PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT</p>	<p>TYPICAL PLANTING PLAN BLACK COTTONWOOD/ WILLOW AND RED ALDER/ SALMONBERRY ZONES</p> <p>NOT TO SCALE</p>	<p>PROPOSED WETLAND MITIGATION</p> <p>IN: SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 36 of 44 DECEMBER 1996</p>
---	--	---

Black Cottonwood/Willow Zone

Scientific Name	Common Name	Symbol	Condition	Comments
Trees				
<i>Fraxinus latifolia</i>	Oregon ash	OA	container	Trees would be planted at densities of at least 120 plants per acre.
<i>Populus trichocarpa</i>	black cottonwood	BC	container/bareroot	
<i>Salix lasiandra</i>	Pacific willow	PW	bareroot/livestake	
Shrubs				
<i>Lonicera involucrata</i>	twinberry	TP	container	Approximately 35 to 50% of this association would be planted with shrubs. Spacing would be about 5 ft on center.
<i>Salix hookeriana</i>	Hooker's willow	HW	bareroot/livestake	
<i>Salix sitchensis</i>	Sitka willow	SkW	bareroot/livestake	
Herbs				
<i>Carex obnupta</i>	slough sedge	SS	plug/seed	10 to 15% of the association would be planted with slough sedge. The remaining area would be seeded with a grass groundcover.
Downed Log				

Red Alder/Salmonberry Zone

Scientific Name	Common Name	Symbol	Condition	Comments
Trees				
<i>Alnus rubra</i>	red alder	A	container	Trees would be planted at densities of at least 120 plants per acre.
<i>Pyrus fusca</i>	western crabapple	WC	container	
Shrubs				
<i>Cornus stolonifera</i>	red-osier dogwood	R	bareroot/livestake	40 to 50% of the area would be planted with shrubs at an approximate spacing of 5 ft on center.
<i>Lonicera involucrata</i>	twinberry	T	container	
<i>Rubus spectabilis</i>	salmonberry	S	container/bareroot	
Herbs				
<i>Carex obnupta</i>	slough sedge	SS	plug/seed	Slough sedge would be planted in 10 to 20% of the association. The remaining area would be seeded with a grass groundcover.
Downed Log				

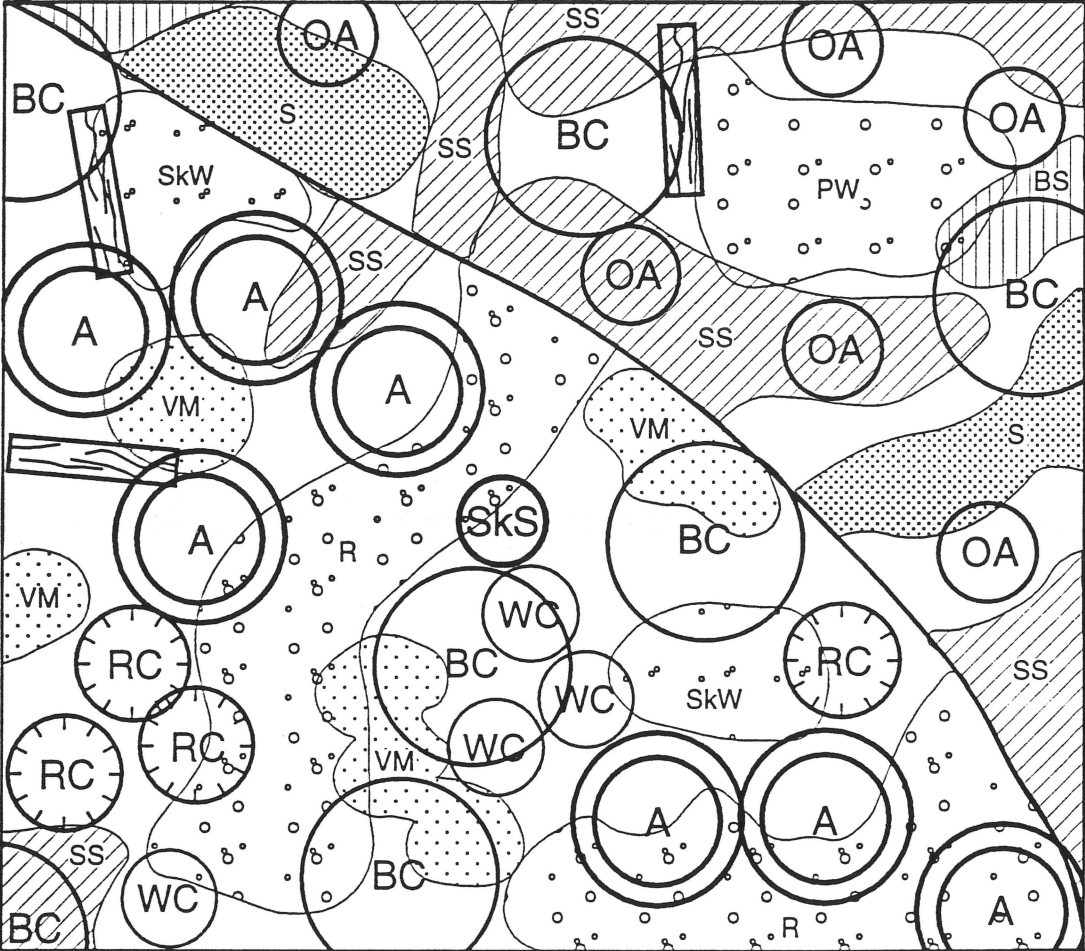
PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT

TYPICAL PLANTING PLAN BLACK COTTONWOOD/WILLOW AND RED ALDER/SALMONBERRY ZONES

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 37 of 44 DECEMBER 1996

Oregon Ash/Slough Sedge



Mixed Forest

PURPOSE: IMPLEMENTATION OF THE
 MASTER PLAN UPDATE
 SEATTLE-TACOMA
 INTERNATIONAL AIRPORT

TYPICAL PLANTING PLAN
 OREGON ASH/SLOUGH
 SEDGE AND MIXED
 FOREST ZONES

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 38 of 44 DECEMBER 1996

NOT TO SCALE

Oregon Ash/Slough Sedge Zone

Scientific Name	Common Name	Symbol	Condition	Comments
Trees				
<i>Fraxinus latifolia</i>	Oregon ash		container	At least 150 trees per acre would be planted in this association.
<i>Salix lasiandra</i>	Pacific willow		bareroot	
<i>Populus trichocarpa</i>	Black Cottonwood		container/livestake	
Shrubs				
<i>Rubus spectabilis</i>	salmonberry		container/bareroot	10 to 20% of the area would be planted with salmonberry at spacings of at least 5 ft on center.
Herbs				
<i>Carex obnupta</i>	slough sedge		plug/seed	40 to 50% of this association would be planted and/or seeded with slough sedge. The remaining area would be seeded with a grass groundcover.
<i>Carex rostrata</i>	beaked sedge		plug	
Downed Log				

Mixed Forest Zone

Scientific Name	Common Name	Symbol	Condition	Comments
Trees				
<i>Alnus rubra</i>	red alder		container	At least 120 trees per acre would be planted in this association.
<i>Picea sitchensis</i>	Sitka spruce		container	
<i>Populus trichocarpa</i>	black cottonwood		container/bareroot	
<i>Pyrus fusca</i>	western crabapple		container	
<i>Thuja plicata</i>	western red cedar		container	
Shrubs				
<i>Acer circinatum</i>	vine maple		container	40 to 50% of the area would be planted with shrubs at spacings of approximately 5 ft on center.
<i>Cornus stolonifera</i>	red-osier dogwood		bareroot/livestake	
<i>Salix sitchensis</i>	Sitka willow		bareroot/livestake	
Herbs				
<i>Carex obnupta</i>	slough sedge		plug/seed	2 to 10% of the area would be planted with slough sedge. The remaining area would be seeded with a grass groundcover.
Downed Log				

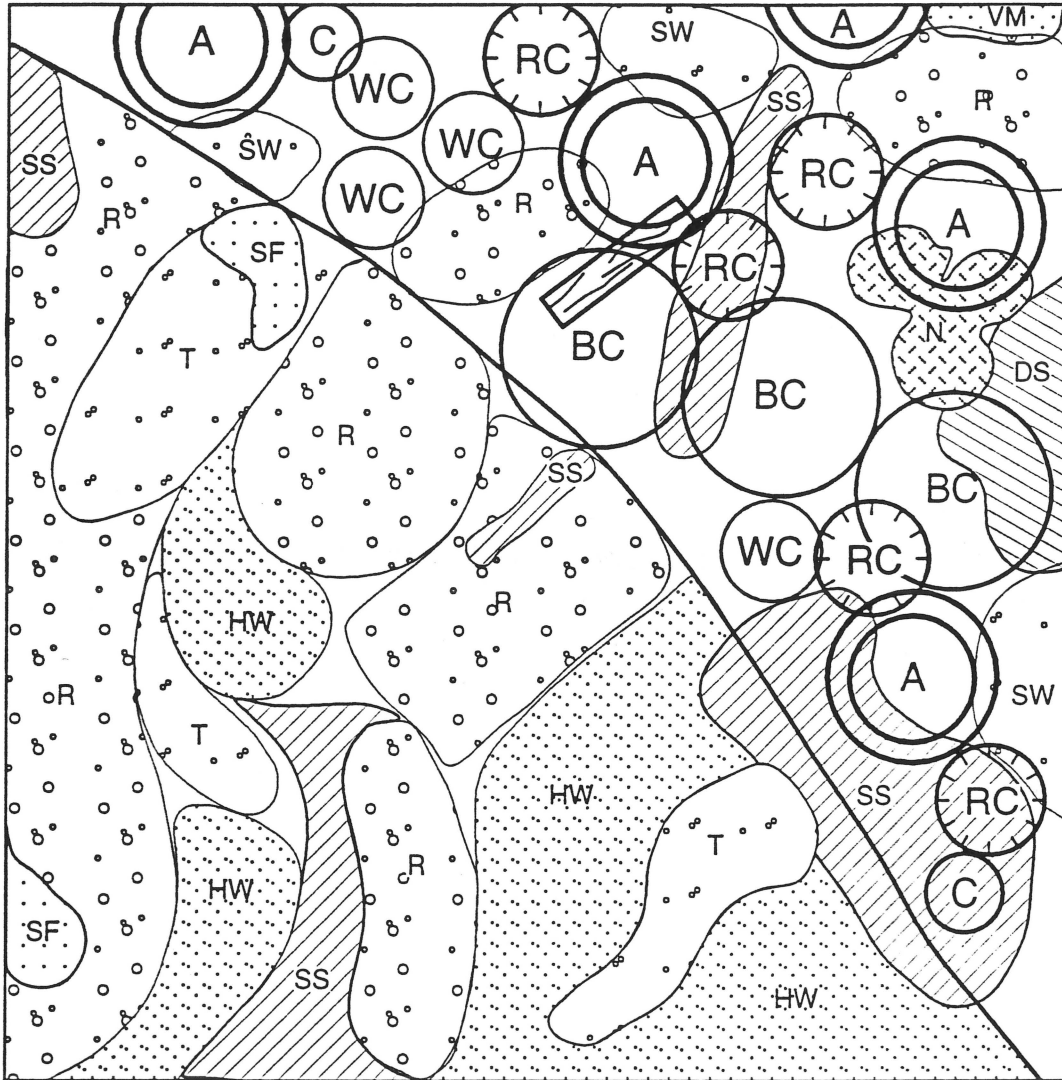
PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT

TYPICAL PLANTING PLAN OREGON ASH/SLOUGH SEDGE AND MIXED FOREST ZONES

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 39 of 44 DECEMBER 1996

Western Red Cedar Forest



Shrub Zone

PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
SEATTLE-TACOMA
INTERNATIONAL AIRPORT

TYPICAL PLANTING PLAN
WESTERN RED CEDAR FOREST
AND SHRUB ZONES

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 40 of 44 DECEMBER 1996

NOT TO SCALE

Western Red Cedar Forest Zone

Scientific Name	Common Name	Symbol	Condition	Comments
Trees				
<i>Alnus rubra</i>	red alder	(A)	container	At least 150 trees per acre would be planted in this association.
<i>Populus trichocarpa</i>	black cottonwood	(BC)	container/bareroot	
<i>Pyrus fusca</i>	western crabapple	(WC)	container	
<i>Rhamnus purshiana</i>	casara	(C)	container	
<i>Thuja plicata</i>	western red cedar	(RC)	container	
Shrubs				
<i>Acer circinatum</i>	vine maple	(VM)	container	20 to 30% of the area would be planted with shrubs. Spacing would be approximately 5 ft on center.
<i>Cornus stolonifera</i>	red-osier dogwood	(R)	bareroot/livestake	
<i>Physocarpus capitatus</i>	Pacific ninebark	(N)	container	
<i>Salix scouleriana</i>	Scouler's willow	(SW)	bareroot/livestake	
Herbs				
<i>Carex deweyana</i>	Dewey's sedge	(DS)	plug	15 to 25% of the area would be planted with sedges. The remaining area would be seeded with a grass groundcover.
<i>Carex obnupta</i>	slough sedge	(SS)	plug/seed	

Shrub Zone

Scientific Name	Common Name	Symbol	Condition	Comments
Shrubs				
<i>Cornus stolonifera</i>	red-osier dogwood	(R)	bareroot/livestake	Shrubs would be planted in approximately 85 to 90% of the shrub zone at spacings ranging from 5 to 8 ft on center.
<i>Lonicera involucrata</i>	twinberry	(T)	container	
<i>Salix hookeriana</i>	Hooker's willow	(HW)	bareroot/livestake	
Herbs				
<i>Carex obnupta</i>	slough sedge	(SS)	plug/seed	5 to 10% of the shrub zone would be planted and/or seeded with emergent species. The remaining area would be seeded with a grass groundcover.
<i>Scirpus microcorpus</i>	small-fruited bulrush	(SF)	seed	

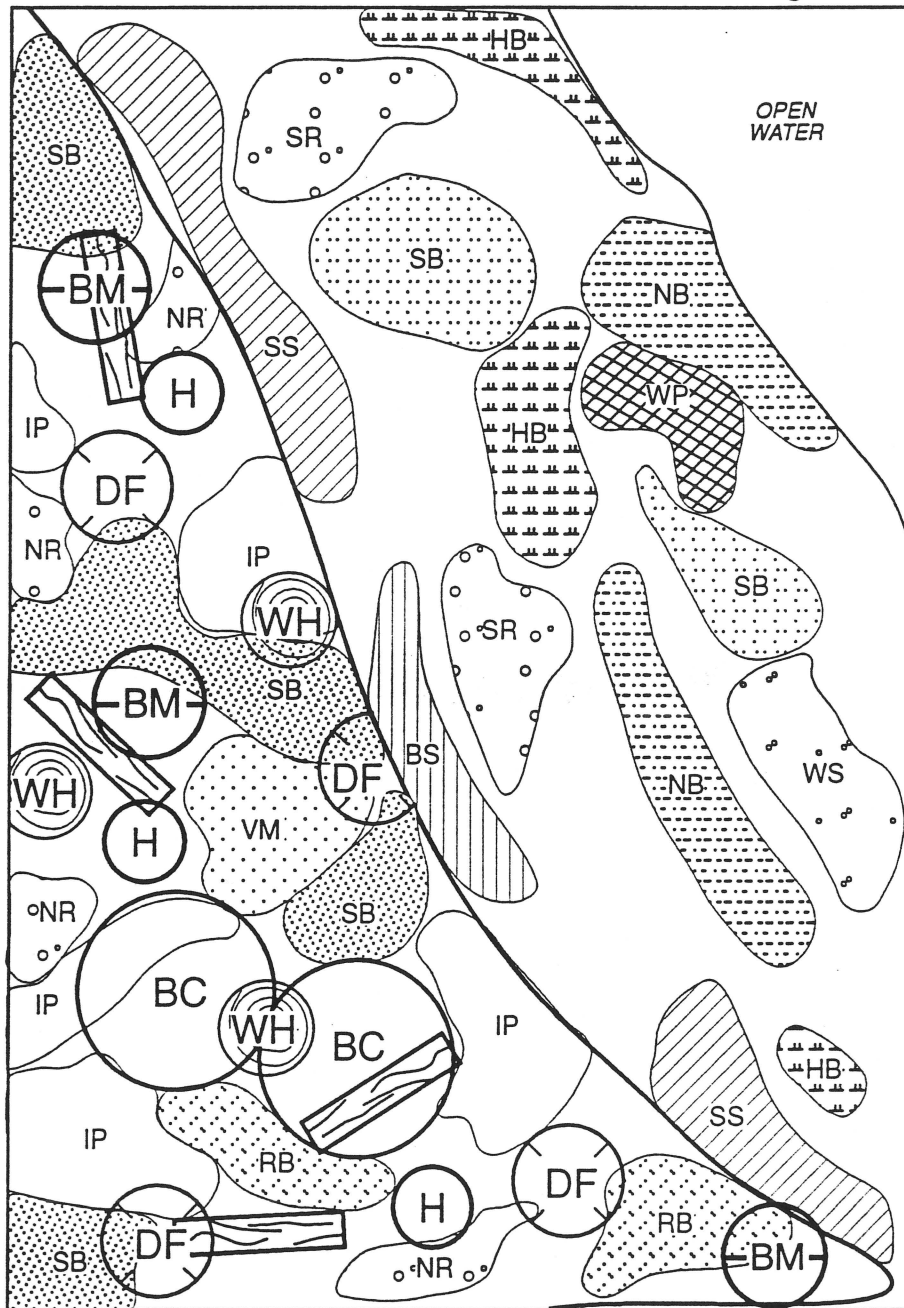
PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT

TYPICAL PLANTING PLAN WESTERN RED CEDAR FOREST AND SHRUB ZONES

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 41 of 44 DECEMBER 1996

Emergent Zone



Upland Buffer

PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
SEATTLE-TACOMA
INTERNATIONAL AIRPORT

TYPICAL PLANTING PLAN
EMERGENT AND UPLAND
BUFFER ZONES

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
COUNTY OF: KING STATE: WA
APPLICATION BY: PORT OF SEATTLE
SHEET 42 of 44 DECEMBER 1996

NOT TO SCALE

Emergent Zone

Scientific Name	Common Name	Symbol	Condition	Comments
Herbs				
<i>Carex obnupta</i>	slough sedge		plug	50 to 75% of the emergent zone would be planted with the listed plant species. The remaining area would be seeded (with grasses, sedges, and rushes) or left unseeded and subjected to natural colonization.
<i>Carex rostrata</i>	beaked sedge		plug	
<i>Eleocharis palustris</i>	common spike-rush		plug	
<i>Oenanthe sarmentosa</i>	water parsley		container	
<i>Polygonum amphibian</i>	water smartweed		container	
<i>Scirpus acutis</i>	hardstem bulrush		plug	
<i>Scirpus microcarpus</i>	small-fruited bulrush		seed	
<i>Sparganium emersum</i>	narrow-leaf burreed		plug	
	Hydroseed mix/ Natural colonization			

Upland Buffer Zone

Scientific Name	Common Name	Symbol	Condition	Comments
Trees				
<i>Acer macrophyllum</i>	big-leaf maple		container	At least 120 trees per acre would be planted in the upland buffer.
<i>Populus trichocarpa</i>	black cottonwood		container/bareroot	
<i>Pseudotsuga menziesii</i>	Douglas-fir		container	
<i>Tsuga heterophylla</i>	western hemlock		container	
Shrubs				
<i>Acer circinatum</i>	vine maple		container	30 to 40% of the area would be planted with shrubs at spacings ranging from 5 to 6 ft on center.
<i>Corylus cornuta</i>	hazelnut		container	
<i>Oemeleria cerasiformis</i>	Indian plum		container	
<i>Rosa nutkana</i>	nootka rose		container	
<i>Symphoricarpos albus</i>	snowberry		container	

PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT

TYPICAL PLANTING PLAN EMERGENT AND UPLAND BUFFER ZONES

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
 COUNTY OF: KING STATE: WA
 APPLICATION BY: PORT OF SEATTLE
 SHEET 43 of 44 DECEMBER 1996

SHEET 44 OF 44
THIS SHEET LEFT
INTENTIONALLY
BLANK

PURPOSE: IMPLEMENTATION OF THE
MASTER PLAN UPDATE
FOR SEATTLE-TACOMA
INTERNATIONAL AIRPORT

DATUM: NGVD29-AUBURN

PROPOSED WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E
COUNTY OF: KING STATE OF: WA.
APPLICATION BY: PORT OF SEATTLE
SHEET 44 OF 44 DECEMBER 1996