

DEERING ISLAND DEVELOPMENTS LTD

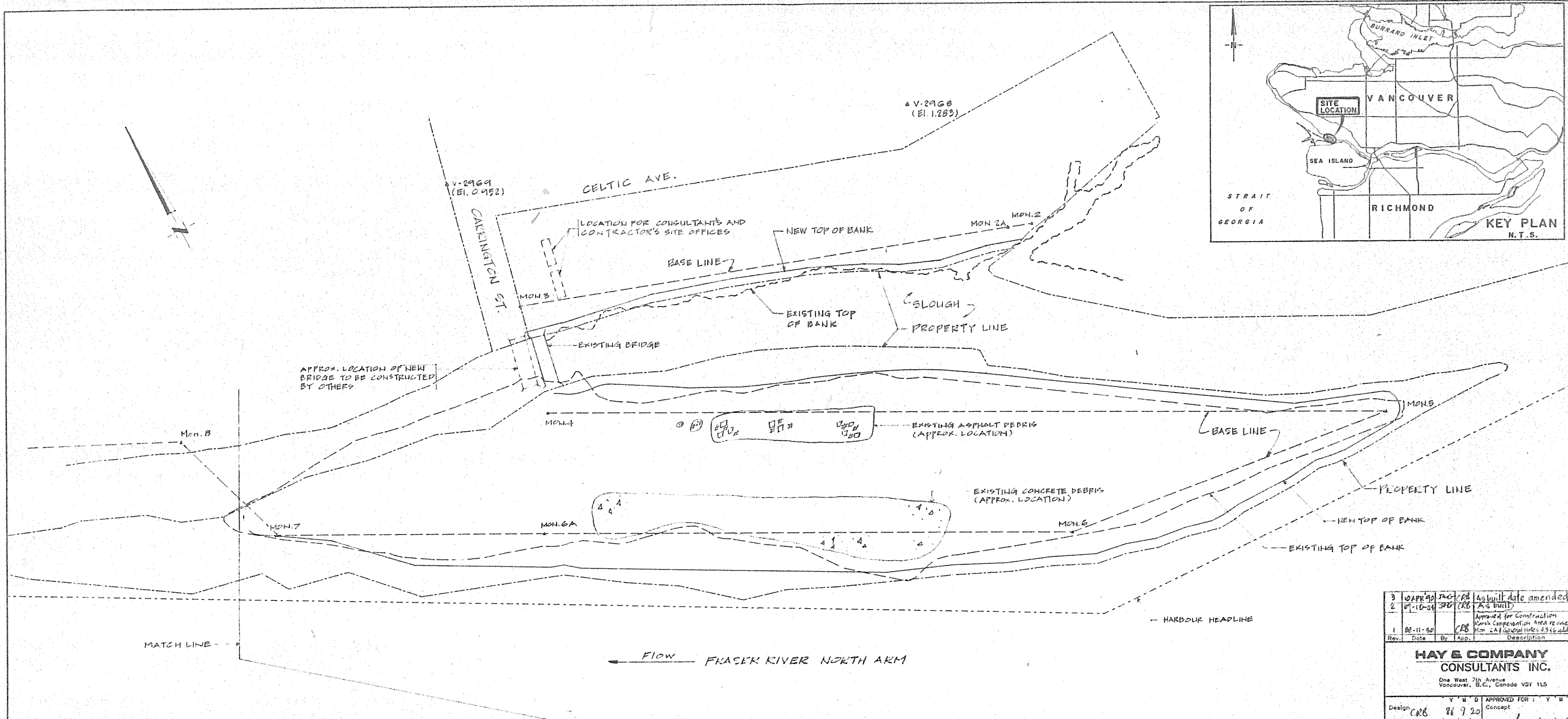
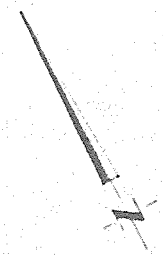
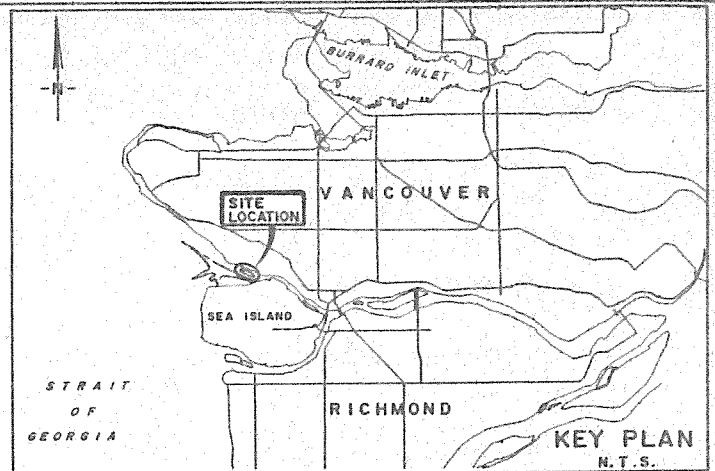
DEERING ISLAND DEVELOPMENT
CONTRACT NO. 2
SHORELINE PROTECTION

AS-BUILT DRAWINGS

APRIL 10, 1990

Contents

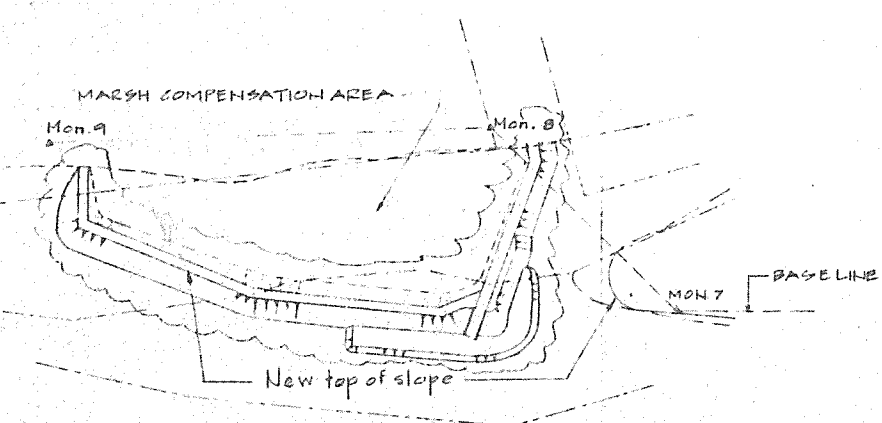
<u>Drawing No.</u>	<u>Revision</u>	<u>Title</u>
MGAL-01-101	3	Key Plan
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MGAL-01-106	4	Island Fill and Preload Sheet 2 of 2
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MGAL-01-108	4	Details Sheet 2 of 2
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DIDL-01-003	3	Structural Concrete
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MATCH LINE

Flow FRASER RIVER NORTH ARM

HARBOUR HEADLINE



MATCH LINE

REFERENCE MONUMENTS:

MON #	EASTING m	NORTHING m	BEARING	DISTANCE m
2	1604.60	997.40	291°12'27"	268.70
3	1334.10	1094.60	105°32'53"	57.33
4	1338.73	1030.37	120°11'00"	424.13
5	1714.00	821.10	279°12'46"	173.64
6	1542.60	848.30	300°11'00"	273.74
6A	1305.57	886.33	300°11'00"	138.00
7	1186.68	1055.91	344°19'44"	69.29
8	1167.85	1122.59	298°08'45"	116.04
9	1065.54	1177.33		
2A	1592.81	1001.98		

GENERAL NOTES:

1. MONUMENTS 2A, 3, 4, 5, 6, 6A, 7, 8, 9 WILL BE ESTABLISHED BY OTHERS
2. ACCESS TO FLOATS WITHIN SLOUGH AND SHORE EDGE MON. 2 TO MON. 3, NOT BEFORE JAN. 01, 1989
3. MONUMENTS V-2969 AND V-2968 ARE SET IN CONCRETE AT APPROX. LOCATIONS SHOWN
4. ALL PROPERTY LINES AND SURVEY INFORMATION FROM DATA SUPPLIED BY UNDERHILL & UNDERHILL
5. DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
6. ELEVATIONS ARE IN METRES TO GEODETIC DATUM

3	08-11-88	JAC	CRB	As built date amended
2	07-10-88	JED	CRB	As built
1	08-11-88		CRB	Approved for Construction Marsh Compensation Area revised Mon. 2A General Notes 4.5.16 added
Rev.	Date	By	App.	Description

HAY & COMPANY CONSULTANTS INC.
 One West 7th Avenue
 Vancouver, B.C., Canada V6Y 1L5

Design	CRB	88.9.20	APPROVED FOR	Y M D	Concept
Drawn	HNC/AP	88.09.06	Prepared by	HNC	88.09.07
Checked	KW	88.09.22	Isdn	CRB	88.09.23
			Construction	CRB	88.11.20

Scale
 1 : 1000

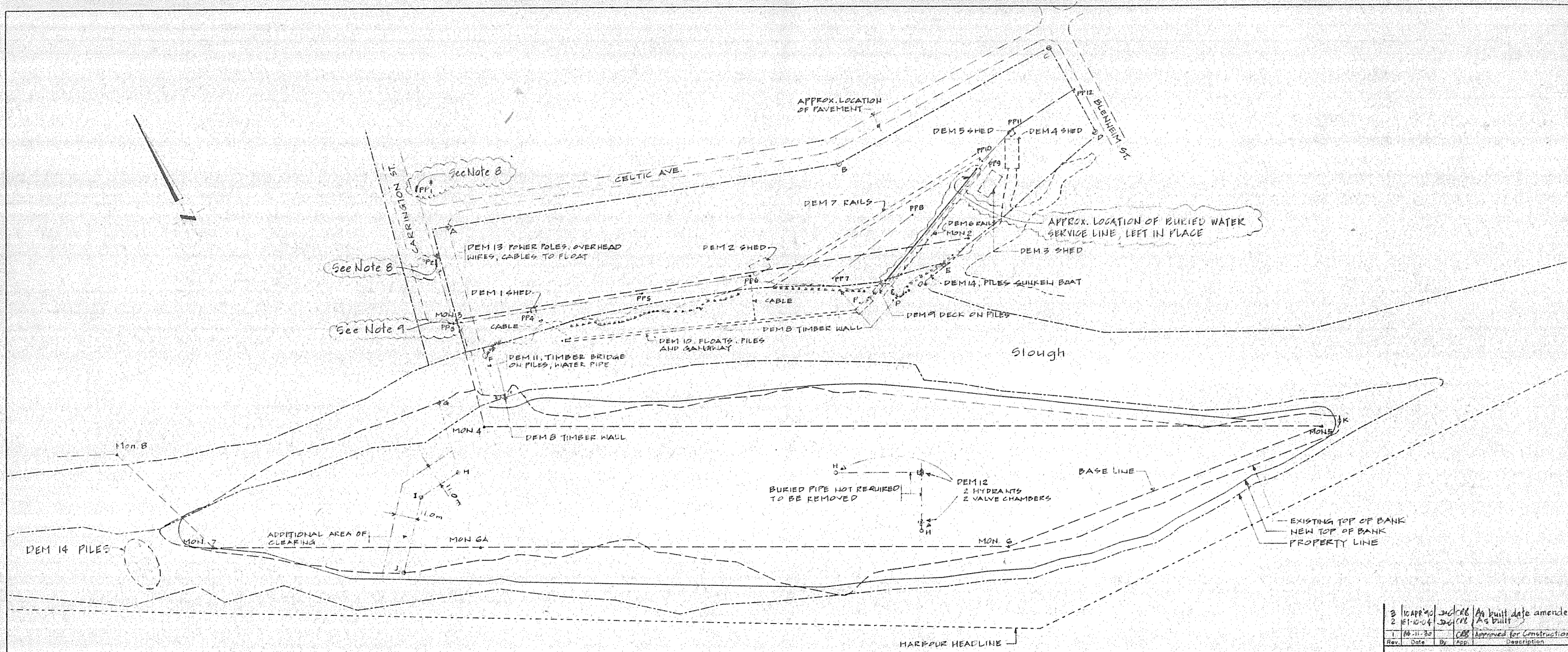
DEERING ISLAND DEVELOPMENTS LTD.

Project
 DEERING ISLAND DEVELOPMENT

Drawing
 KEY PLAN

Drawing No.
 MGAL.02 - 101

Revision
 3



FRASER RIVER NORTH ARM

NOTES

1. LOCATIONS OF FEATURES ARE APPROXIMATE.
2. ALL EXISTING FEATURES MAY NOT BE SHOWN
3. AREA FOR REMOVAL OF TREES AND SHRUBS BOUNDED BY LINES ABCDEFA AND GHILKGA, PLUS ALONG SHORELINE AS NECESSARY TO CONSTRUCT SLOPE PROTECTION WORKS. ALSO CLEAR TO WEST OF LINE HIJ AS SHOWN.
4. CLEAR FENCES AND BRUSH BETWEEN ROAD AND PROPERTY LINE ALONG FABCD.
5. AREA A,B,C,D,E,F, A AND FLOATS IN SLOUGH WILL BE AVAILABLE FOR WORK AFTER JAN. 01, 1989
6. DO NOT CLEAR RIPARIAN VEGETATION WITHIN 5m OF HIGH WATER BETWEEN END OF RIPRAP AT MON. 2 TO D
7. FOR GENERAL NOTES, SEE DWG MGAL-02-101 & FIG. 2
8. POWER POLES PP4 AND PP2 LEFT IN PLACE
9. POWER POLE PP3 NOT REMOVED BY SEPT. 29, 1989

3	10 APR 90	JCB	CRB	As built date amended
2	81-10-14	JCB	CRB	As built
1	88-11-30	JCB	CRB	Approved for construction
Rev.	Date	By	App.	Description

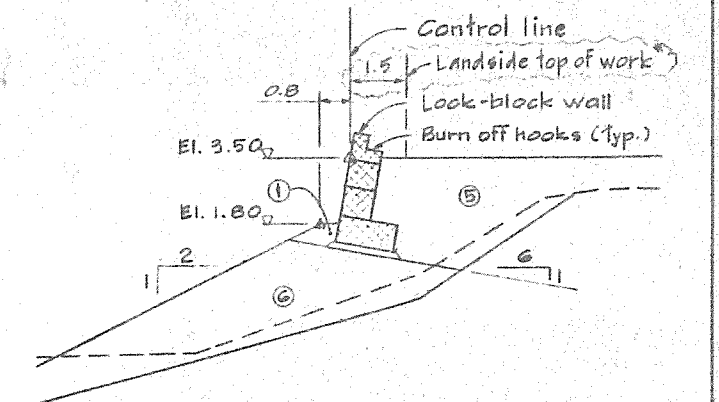
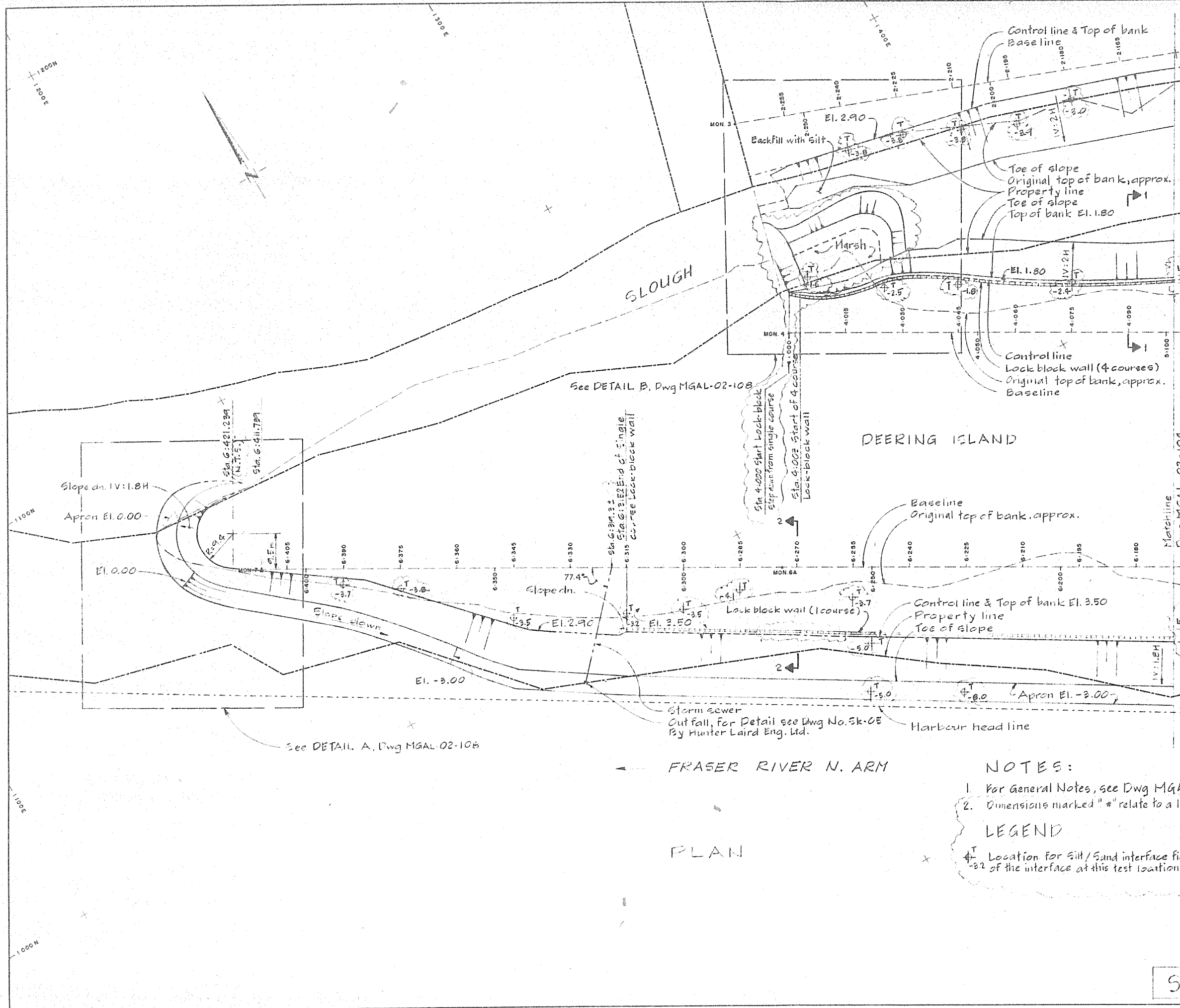
**HAY & COMPANY
CONSULTANTS INC.**

One West 7th Avenue
Vancouver, B.C., Canada V5Y 1L5

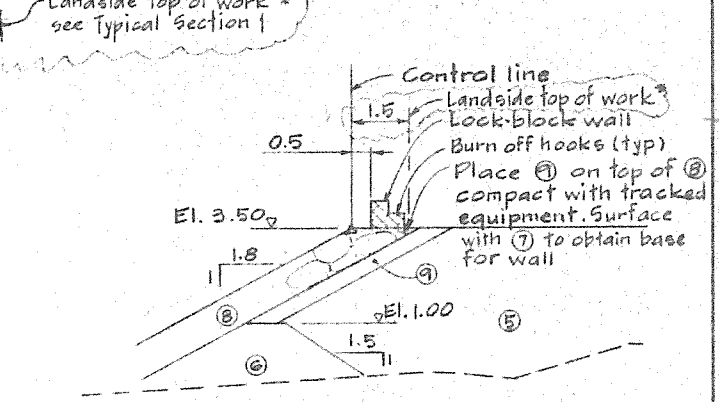
Design	CRB	28.9.20	APPROVED FOR	Y M D
Drawn	AP	88.09.07	Prepared by	88.09.29
Checked	NSW	88.09.23	Tender	CR Blad 88.09.23
			Construction	CR Blad 88.11.30

Scales
1:1000

DEERING ISLAND DEVELOPMENTS LTD.	
Project	DEERING ISLAND DEVELOPMENT
Drawing	CLEARING AND DEMOLITION
Drawing No.	MGAL-02-102
Revision	3



TYPICAL SECTION - 1
4 Course Lock block wall
N.T.S.



TYPICAL SECTION - 2
1 Course Lock block wall
N.T.S.

- NOTES:**
- For General Notes, see Dwg MGAL-02-101 & Fig 2
 - Dimensions marked "*" relate to a legal agreement
- LEGEND**
- ⊕ Location for Silt/Sand interface field test and the elevation of the interface at this test location

4	16 APR 90	RSW	AS BUILT	Date amended
3	01 10 04	RSW	AS BUILT	
2	08 11 30	RSW	APPROVED FOR CONSTRUCTION	
1	09 24 88	RSW	L.B. wall layout & West end changed	
Rev.	Date	By	App.	Description

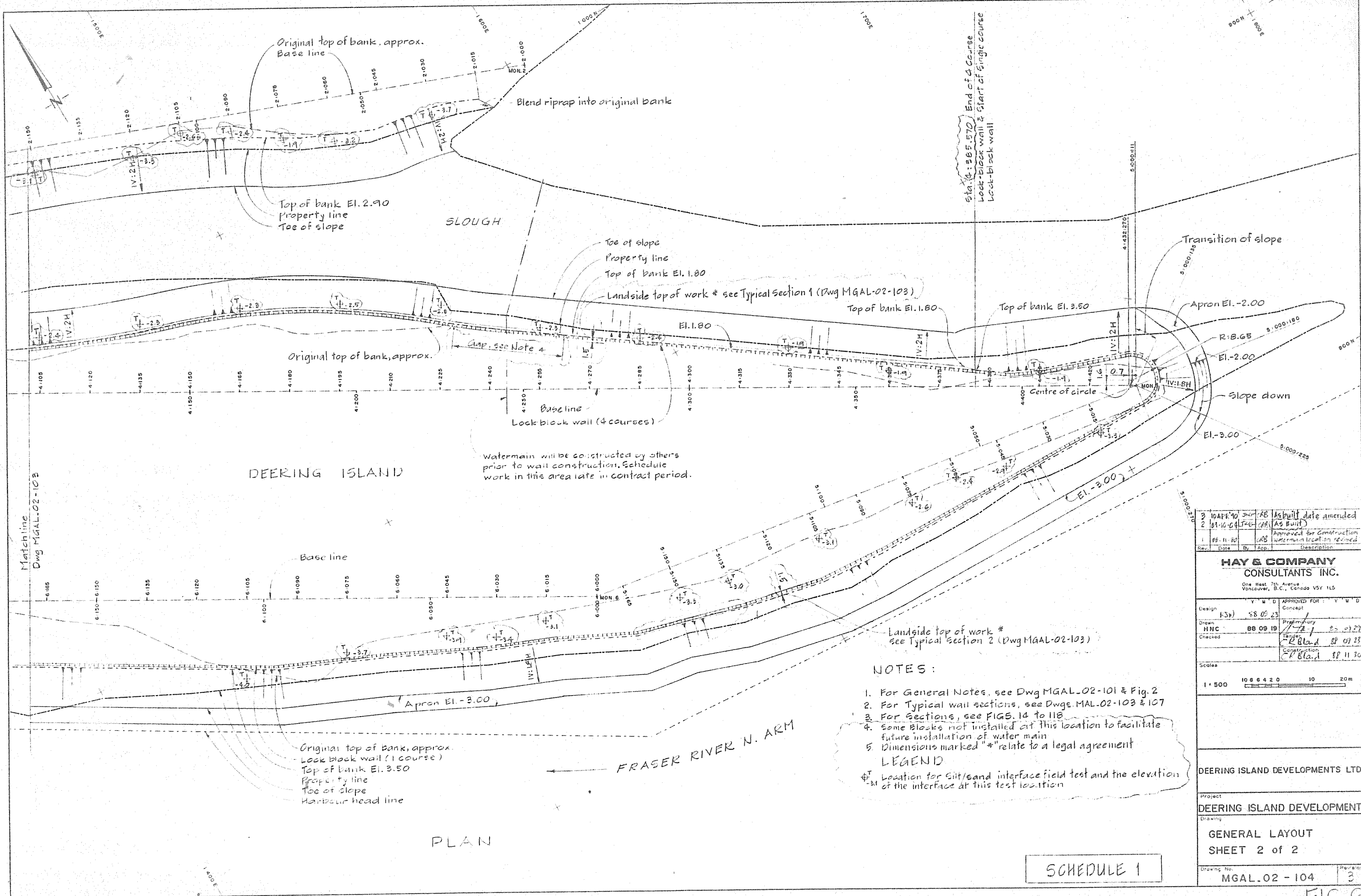
HAY & COMPANY
CONSULTANTS INC.
One West 7th Avenue
Vancouver, B.C., Canada V5Y 1L5

Design	RSW	88 09 23	Concept
Drawn	HNC	88 09 16	Proficiency
Checked			Tender
			Construction

Scales
1" = 500' 10 8 6 4 2 0 10 20m

DEERING ISLAND DEVELOPMENTS LTD.	
Project	
DEERING ISLAND DEVELOPMENT	
Drawing	
GENERAL LAYOUT	
SHEET 1 of 2	
Drawing No.	MGAL-02-103
Revision	4

SCHEDULE 1



PLAN

NOTES:

1. For General Notes, see Dwg MGAL-02-101 & Fig. 2
 2. For Typical wall sections, see Dwgs. MAL-02-103 & 107
 3. For Sections, see FIGS. 14 to 118
 4. Some blocks not installed at this location to facilitate future installation of water main
 5. Dimensions marked "*" relate to a legal agreement
- LEGEND
 † Location for silt/sand interface field test and the elevation of the interface at this test location

2	10 APR 90	JAB	AS BUILT DATE AMENDED
2	01-10-04	JAB	AS BUILT
1	08-11-20	JAB	APPROVED FOR CONSTRUCTION WATERMAIN LOCATION REVISED
Rev.	Date	By	Description

HAY & COMPANY
 CONSULTANTS INC.
 One West 7th Avenue
 Vancouver, B.C., Canada V5Y 1L5

Design	K3H	88-09-23	APPROVED FOR	V M D	Concept
Drawn	HNC	88-09-19	7-2-1	25-09-27	Preliminary
Checked			R. Blad	88-09-23	Target
			R. Blad	88-11-30	Construction

Scales
 1" = 500' 10 8 6 4 2 0 10 20m

DEERING ISLAND DEVELOPMENTS LTD.

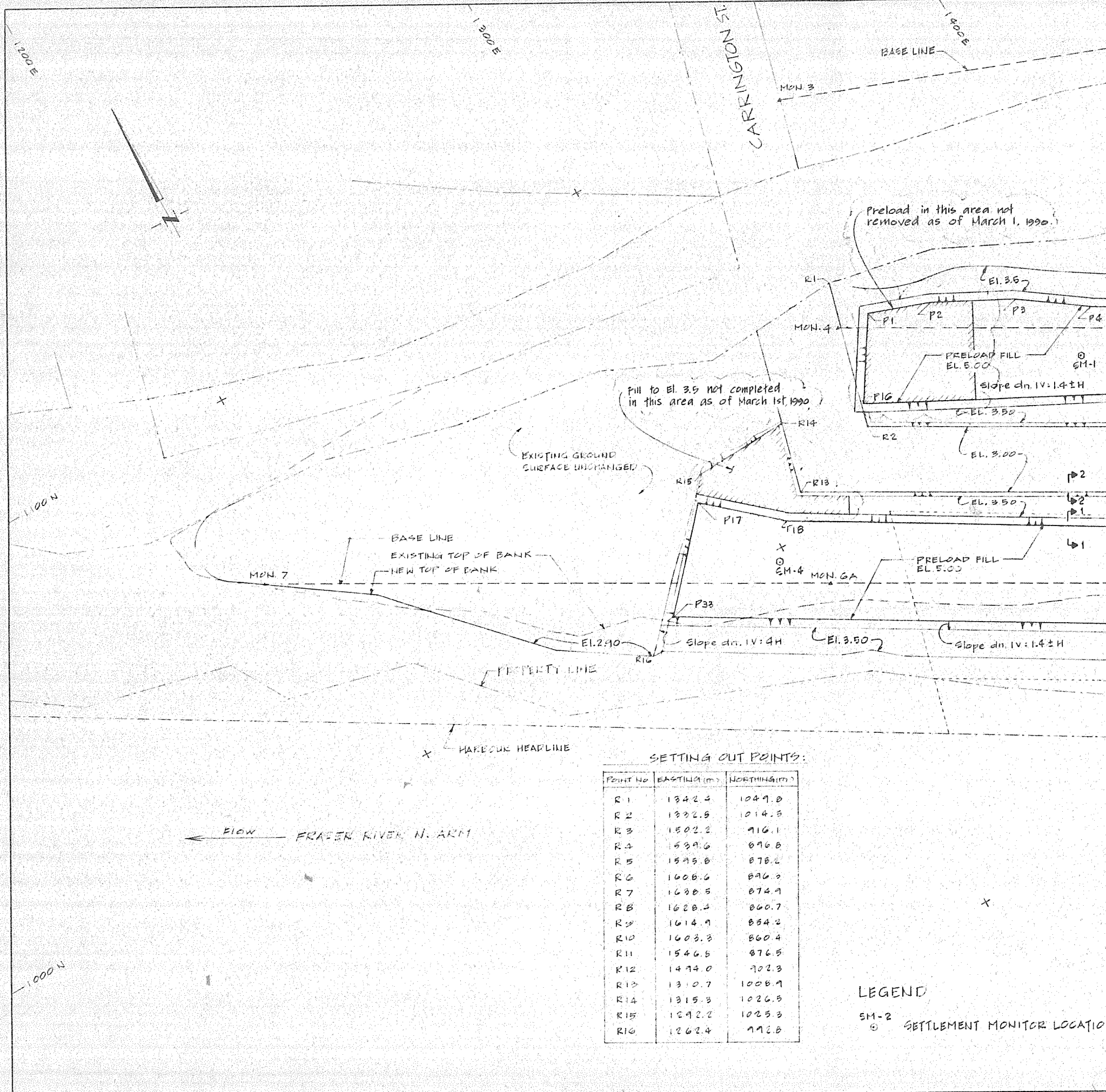
Project
 DEERING ISLAND DEVELOPMENT

Drawing
 GENERAL LAYOUT
 SHEET 2 of 2

Drawing No.
 MGAL-02-104 3

SCHEDULE 1

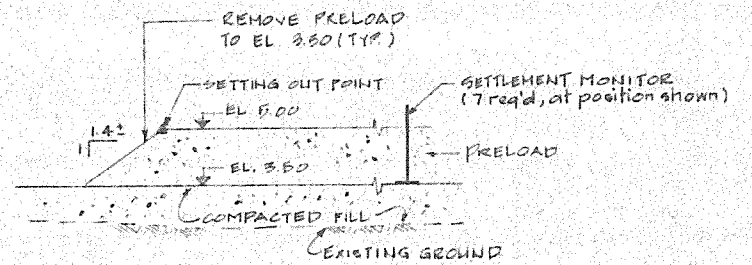
FIG 6



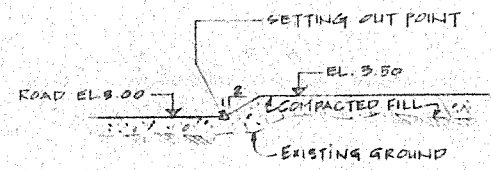
SETTING OUT POINTS:

POINT No.	EASTING (m)	NORTHING (m)
R1	1342.4	1047.0
R2	1332.5	1014.5
R3	1502.2	916.1
R4	539.6	896.8
R5	1595.0	878.2
R6	1606.6	896.3
R7	1638.5	874.9
R8	1628.4	860.7
R9	1614.9	854.2
R10	1603.3	860.4
R11	1546.5	876.5
R12	1474.0	702.3
R13	1310.7	1008.9
R14	1315.3	1026.5
R15	1292.2	1023.3
R16	1262.4	992.5

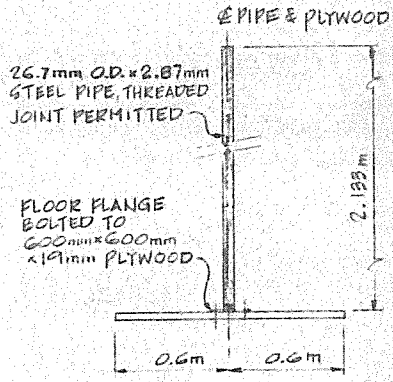
LEGEND
 SM-2
 ○ SETTLEMENT MONITOR LOCATION



SECTION 1
1:100



SECTION 2
1:100



SETTLEMENT MONITOR
(7 required)
Scale 1:20

PRELOAD SETTING OUT POINTS:

POINT No.	EASTING (m)	NORTHING (m)
P1	1326.8	1038.7
P2	1361.1	1033.4
P3	1379.7	1023.5
P4	1394.5	1012.7
P5	1440.0	986.6
P6	1475.7	974.2
P7	1515.1	954.3
P8	1526.4	946.9
P9	1573.3	909.8
P10	1574.7	911.3
P11	1598.8	894.1
P12	1571.3	883.5
P13	1561.4	874.6
P14	533.4	908.3
P15	1437.0	965.6
P16	1335.0	1020.1
P17	1287.9	1019.7
P18	1304.7	1004.6
P19	1415.4	937.1
P20	1511.0	884.5
P21	1560.5	863.4
P22	1597.8	853.4
P23	1615.0	847.4
P24	1631.5	851.6
P25	1637.5	841.6
P26	1648.5	856.4
P27	1684.8	836.4
P28	1680.0	823.9
P29	1610.4	824.6
P30	1590.4	828.9
P31	1551.7	840.6
P32	1450.6	888.3
P33	1268.6	928.9

Rev.	Date	By	App.	Description
4	10/29/90	CRB	CRB	As built date amended
3	01-10-90	CRB	CRB	As built
2	11-30	CRB	CRB	Approved for construction
1	09/29/88	NSW	CRB	Preload on Property lots revised

HAY & COMPANY CONSULTANTS INC.
 One West 7th Avenue
 Vancouver, B.C., Canada V5Y 1L5

Design	Y M D	APPROVED FOR:	Y M D
CRB	88 9 20	Concept	
Drawn		Preliminary	
HLG	A.P.	88 09 08	88 07 29
Checked		Tender	
NSW	88 9 23	CR Blad	88 07 23
		Construction	
		CR Blad	88 11 30

Scales:

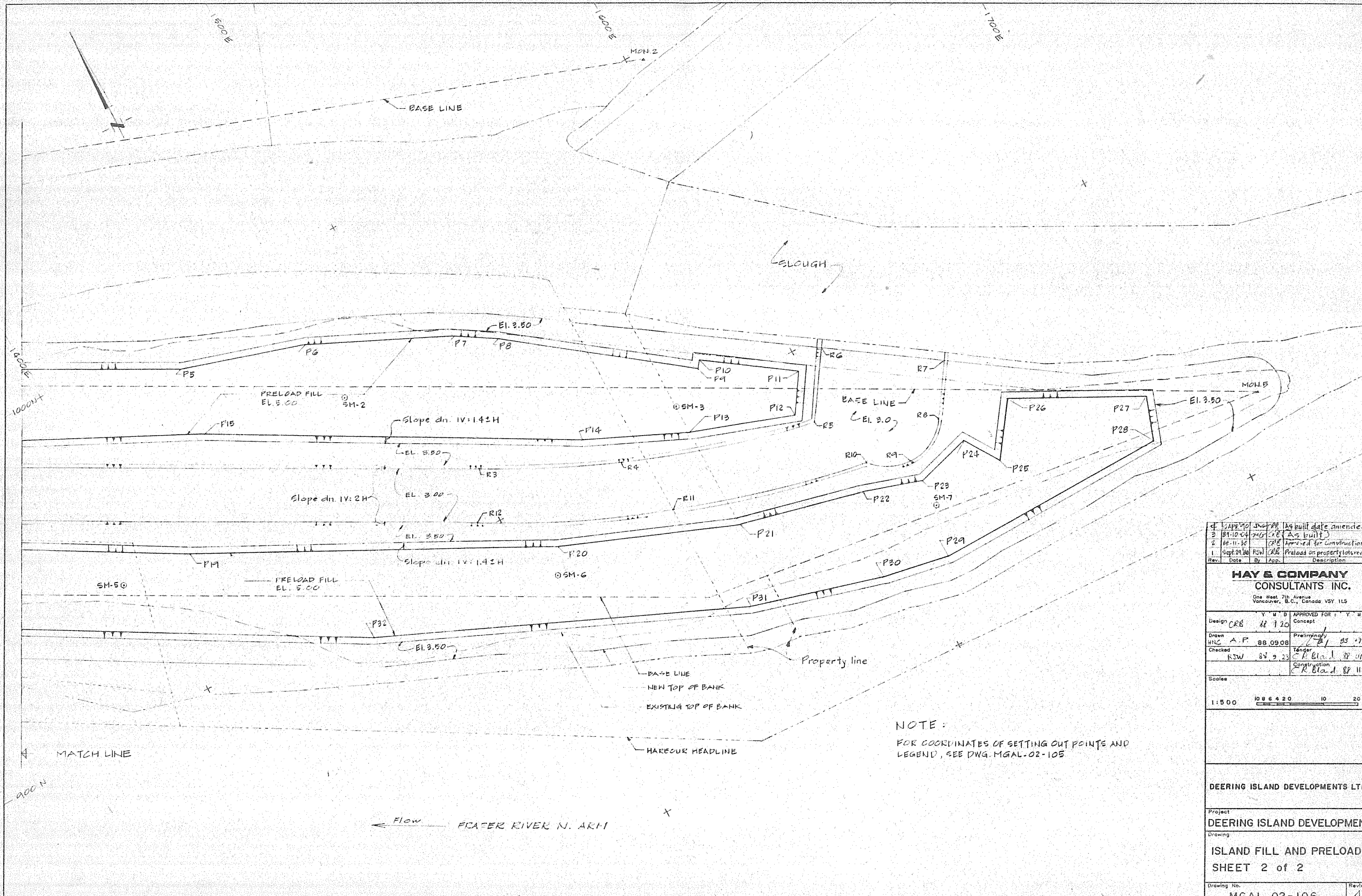
1:500	10 8 4 2 0	10	20m
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DEERING ISLAND DEVELOPMENTS LTD

Project:
DEERING ISLAND DEVELOPMENT

Drawing:
ISLAND FILL AND PRELOAD SHEET 1 of 2

Drawing No. **MGAL.02 - 105** Revision **4**



1	12/21/00	CRB	As built date amended
2	04/10/04	CRB	As built
3	08/11/06	CRB	Approved for construction
4	09/24/08	CRB	Preload on property lots revised
Rev.	Date	By	Description

**HAY & COMPANY
CONSULTANTS INC.**
One West 7th Avenue
Vancouver, B.C., Canada V5Y 1L5

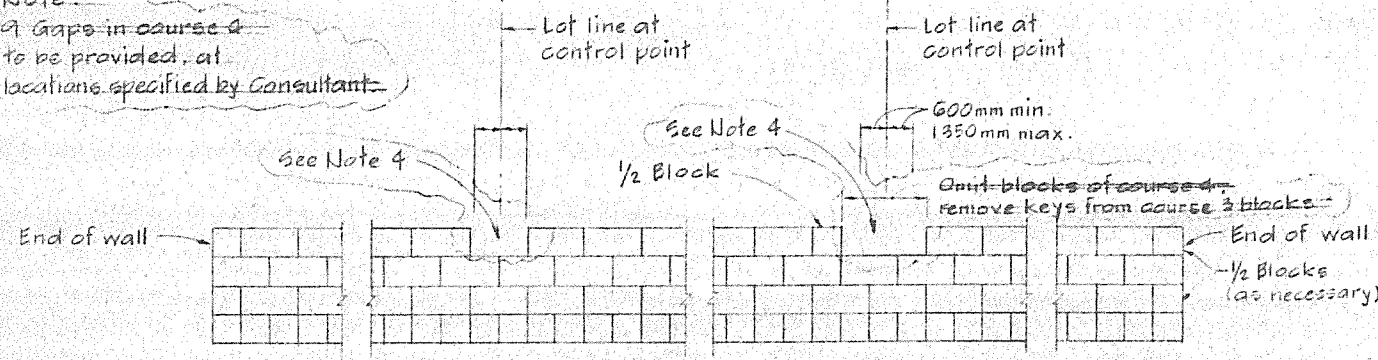
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Drawn	HNC	A.F.	88.09.08
Checked	RSW	88.9.23	Construction
Scale	1:500		

1:500	10 0 5 4 20	10	20m
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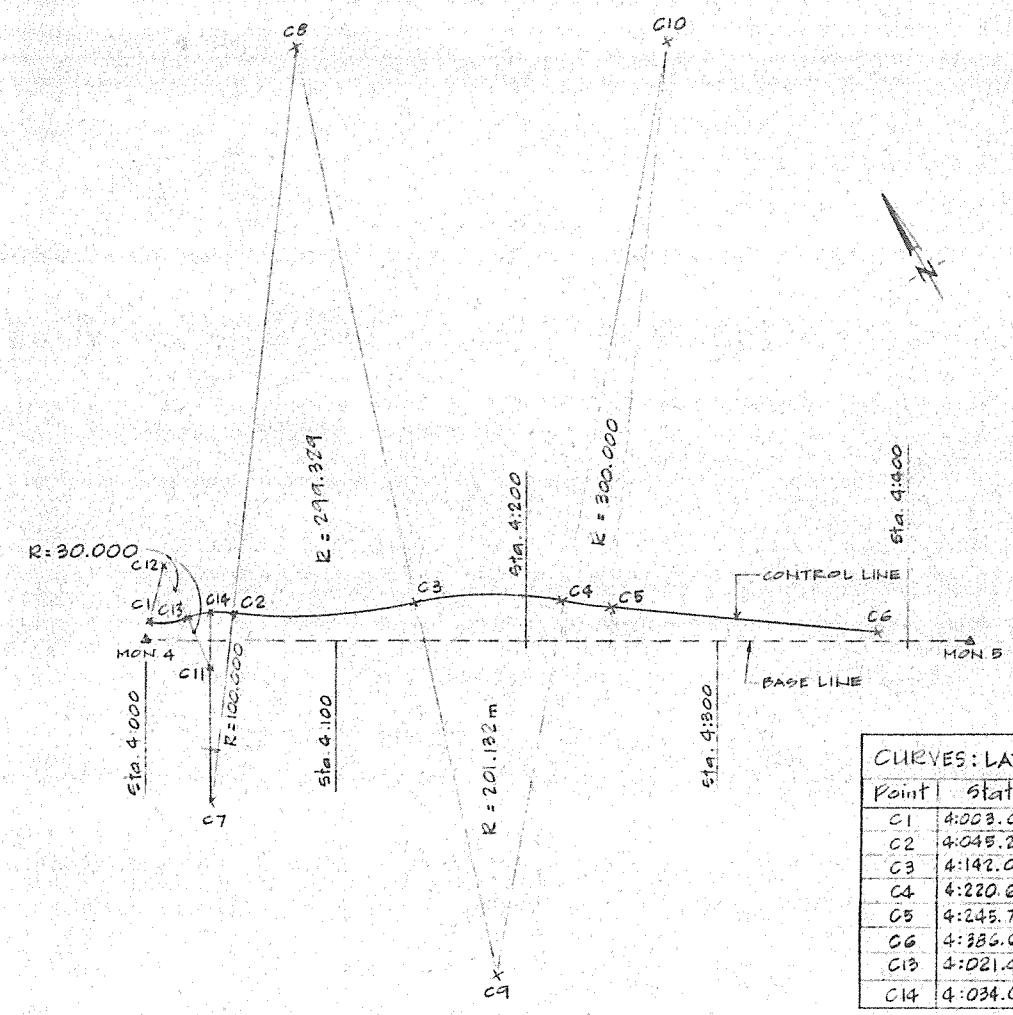
NOTE:
FOR COORDINATES OF SETTING OUT POINTS AND LEGEND, SEE DWG. MGAL-02-105

DEERING ISLAND DEVELOPMENTS LTD	
Project	DEERING ISLAND DEVELOPMENT
Drawing	ISLAND FILL AND PRELOAD SHEET 2 of 2
Drawing No.	MGAL-02-106
Revision	4

Note: Gaps in course 4 to be provided, at locations specified by Consultant.



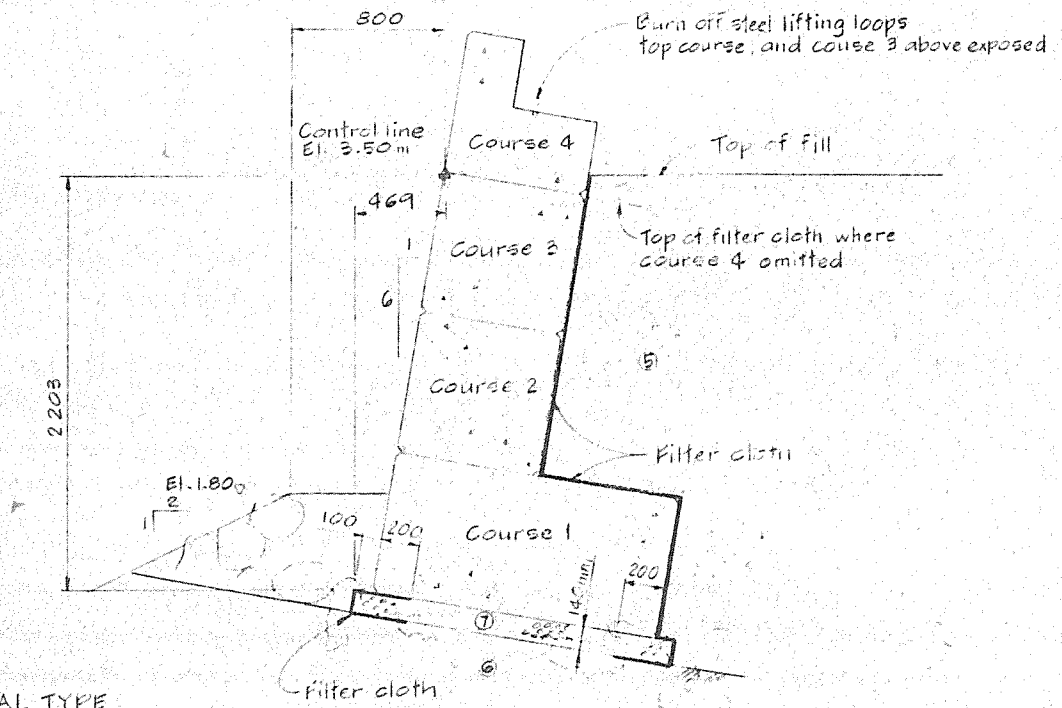
FRONT ELEVATION
TYPICAL BLOCK LAYOUT
CONCRETE BLOCK WALL
Scale B



LAYOUT DIAGRAM
Scale A

Point	Station	Offset
C1	4:003.000	10.116
C2	4:045.286	14.574
C3	4:142.090	19.754
C4	4:220.628	21.291
C5	4:245.776	17.884
C6	4:386.056	4.891
C13	4:021.476	12.360
C14	4:034.082	15.169

Point	NORTHING	EASTING
C7	948.747	1325.808
C8	1270.000	1563.000
C9	793.500	1410.000
C10	1175.567	1734.281
C11	1009.374	1360.798
C12	1069.128	1366.223



- MATERIAL TYPE
- 5 Sand fill
 - 6 Rock fill
 - 7 Drain rock

TYPICAL SECTION
CONCRETE BLOCK WALL
Scale C

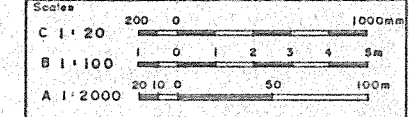
- NOTES:
- Control point offsets are measured perpendicular to the survey base line at the tabulated station locations
 - Stations and offsets are in metres
 - For General Notes see Dwg. MGAL-02-101 and Fig. 2
 - Gaps were not left in the lock-block wall.

Station	Offset	Station	Offset
4:003	10.116	4:130	17.360
4:005	9.792	4:135	18.287
4:010	9.574	4:140	19.303
4:015	10.198	4:145	20.370
4:020	11.719	4:150	21.325
4:025	13.739	4:155	22.149
4:030	14.881	4:160	22.845
4:035	15.168	4:165	23.414
4:040	15.012	4:170	23.856
4:045	14.605	4:175	24.173
4:050	14.095	4:180	24.365
4:055	13.669	4:185	24.432
4:060	13.328	4:190	24.376
4:065	13.070	4:195	24.194
4:070	12.896	4:200	23.889
4:075	12.806	4:205	23.457
4:080	12.799	4:210	22.900
4:085	12.876	4:215	22.215
4:090	13.036	4:220	21.402
4:095	13.280	4:225	20.542
4:100	13.608	4:230	19.768
4:105	14.020	4:235	19.079
4:110	14.517	4:240	18.475
4:115	15.099	4:245	17.957
4:120	15.766	4:245.776	17.884
4:125	16.520	4:386.056	4.891

Rev.	Date	By	App.	Description
2	04/10/90	JAC	CRB	As built date amended
1	09/10/89	JAC	CRB	As built
1	08/11/88	RSW	CRB	Approved for Construction
				LB Wall layout changed

HAY & COMPANY
CONSULTANTS INC.
One West 7th Avenue
Vancouver, B.C., Canada V5Y 1L5

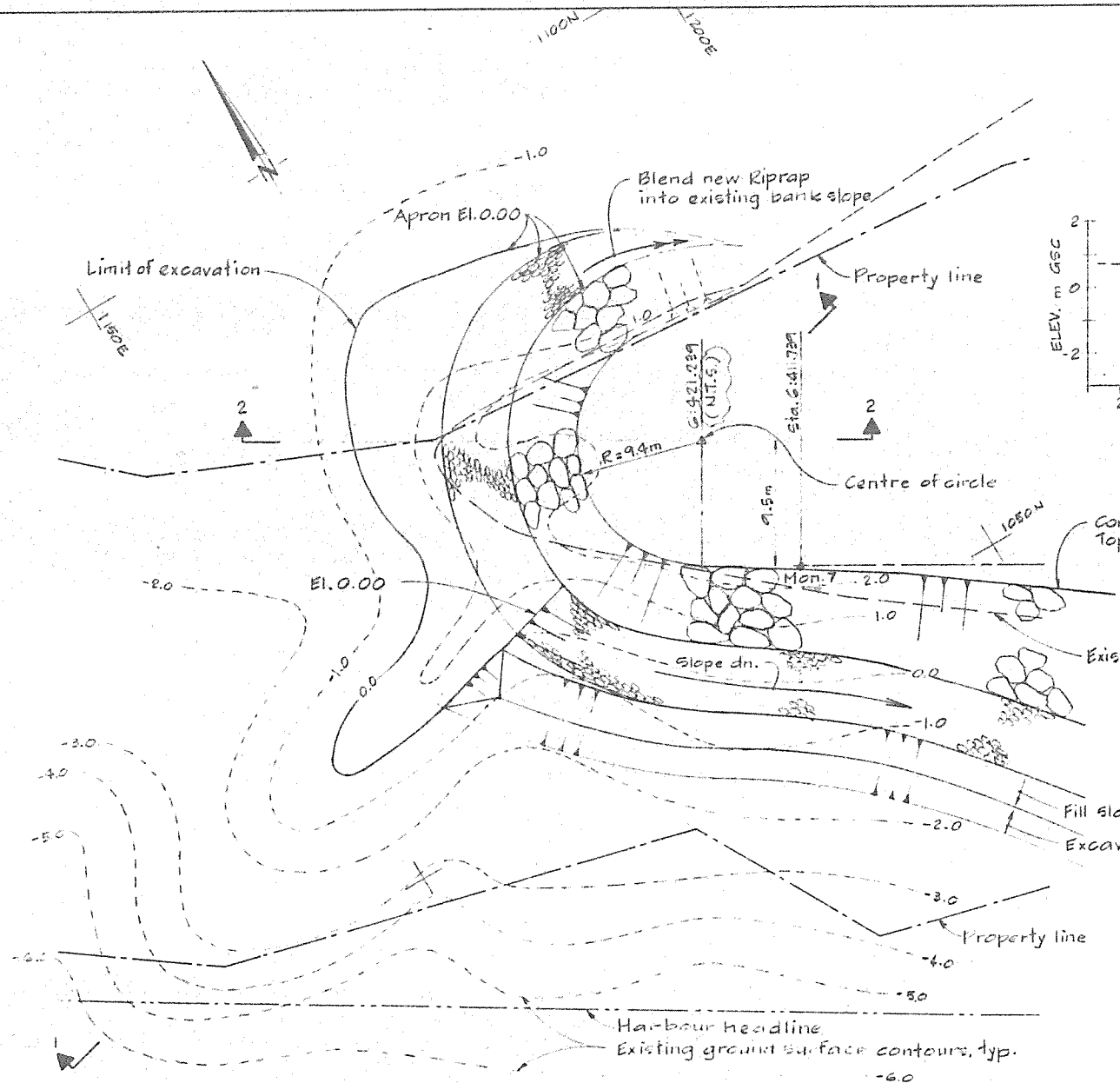
Design	Drawn	Checked	Approved For
CRB 88 9 20	HNC 88 09 06	RSW 88 9 23	Y M D Concept
			Preliminary 88 09 29
			Tender CRB 88 09 23
			Construction CRB 88 11 30



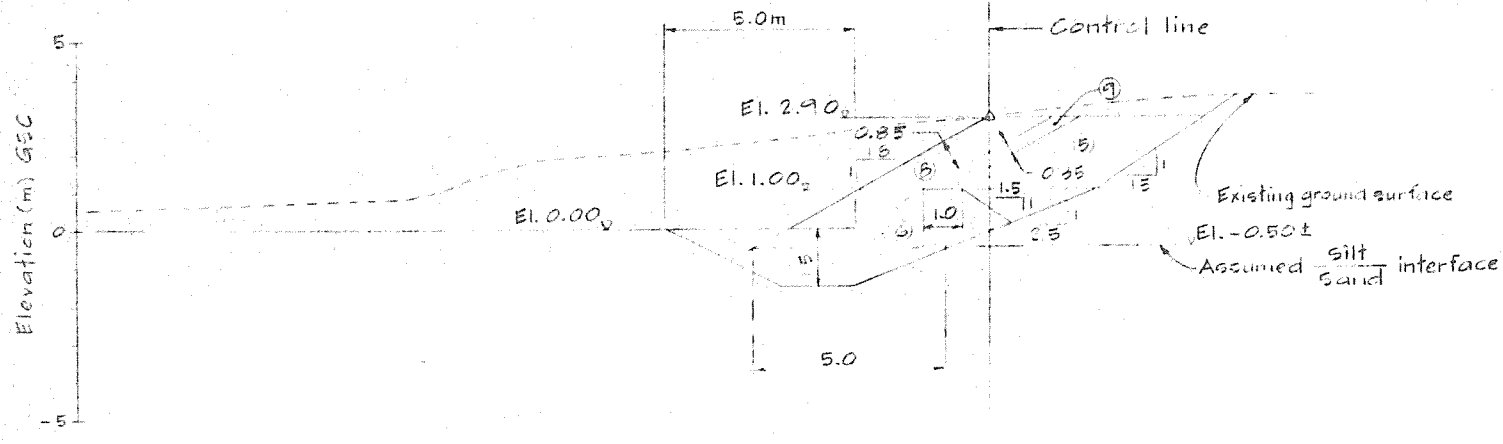
DEERING ISLAND DEVELOPMENTS LTD.
Project
DEERING ISLAND DEVELOPMENT

Drawing
DETAILS
SHEET 1 of 2

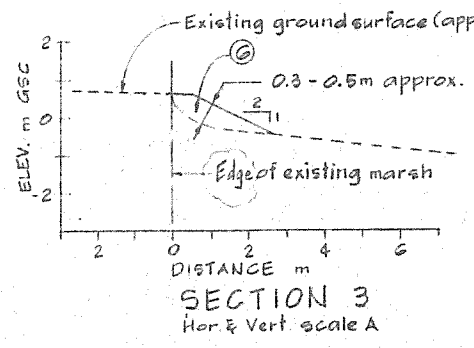
Drawing No. MGAL-02-107
Revision 3



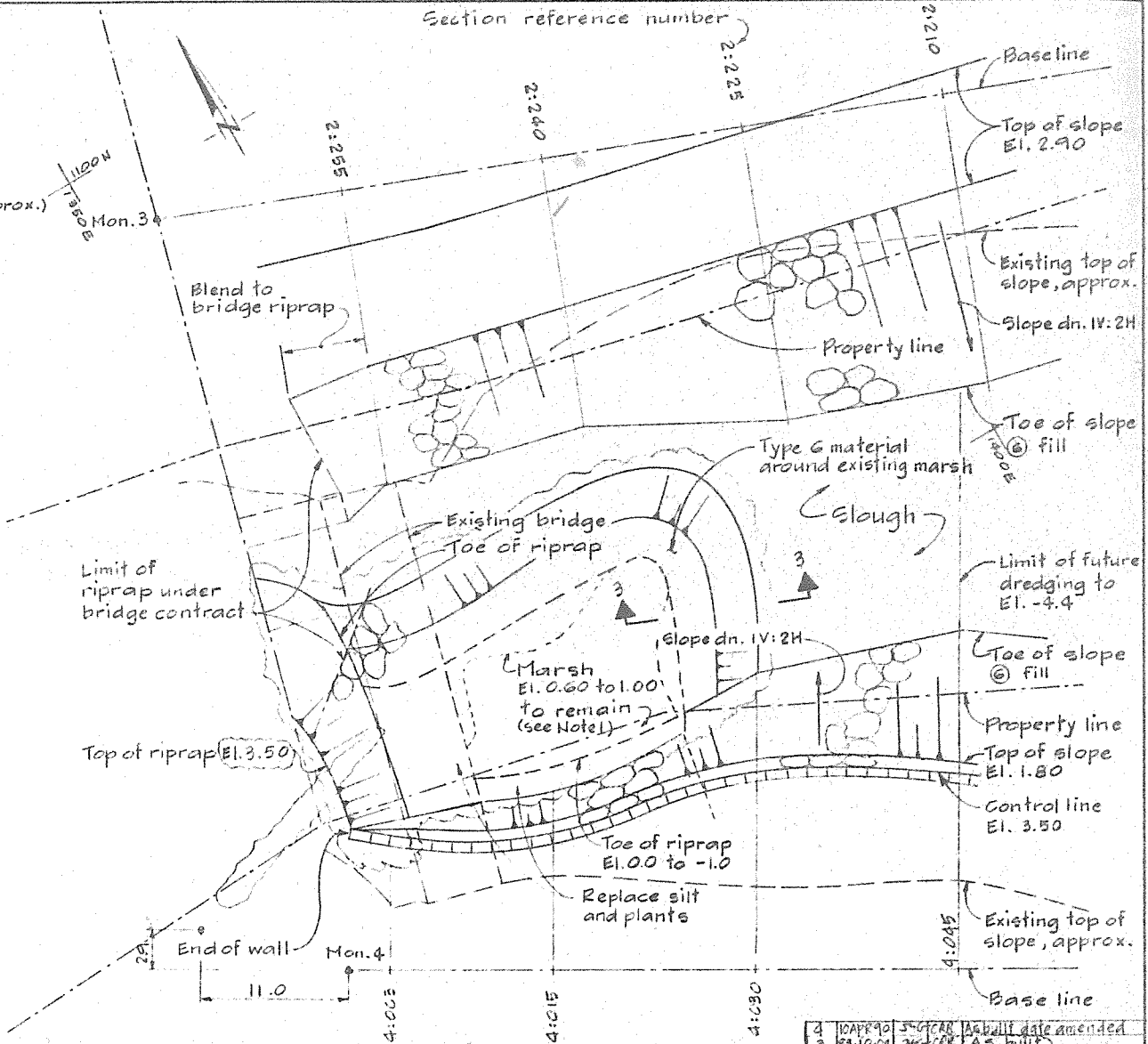
DETAIL $\frac{A}{103}$
Plan at Mon. 7
Scale B



SECTION 1
Hor. & Vert. Scale A



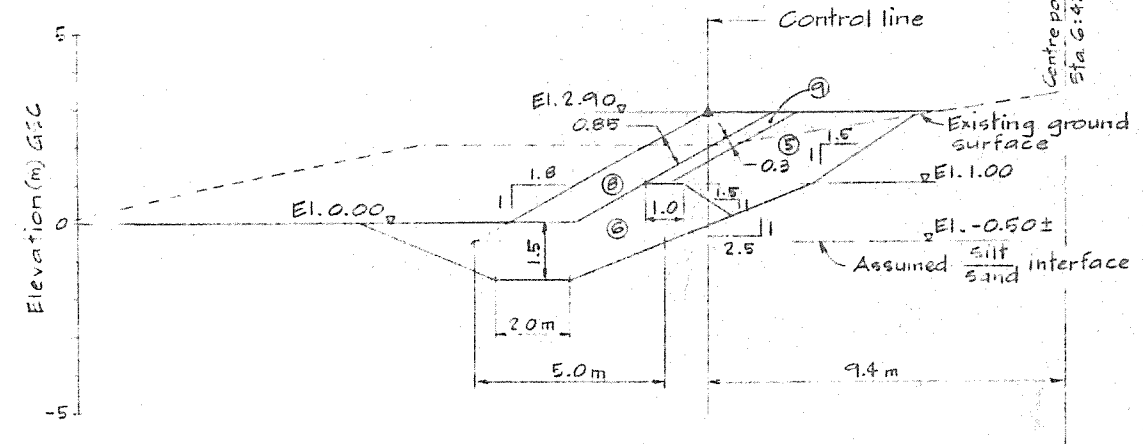
SECTION 3
Hor. & Vert. scale A



DETAIL $\frac{B}{103}$
Plan at Bridge
Scale B

NOTES:

- Protect existing vegetation. Where excavated, retain orientation of top material containing plants. Store moist, replace on surface after backfill.



SECTION 2
Hor. & Vert. Scale A

1	10/07/90	J.C. CAR	As built date amended
2	01/12/91	CRB	A's built
3	27/01/98	CRB	Detail amended & Sect. 3 added
4	16/11/98	R.W. CRB	Approved for Construction Detail A & Section changed
Rev.	Date	By	App. Description

HAY & COMPANY
CONSULTANTS INC.
One West 7th Avenue
Vancouver, B.C., Canada V5Y 1L5

Design	CRB	88/7/20	APPROVED FOR	Y M D	CONCEPT
Drawn	H.N.C.	88/09/09	Prepared by	88/07/29	
Checked	R.W.	88/5/23	Tender	88/07/28	
			Construction	88/11/30	

Scales

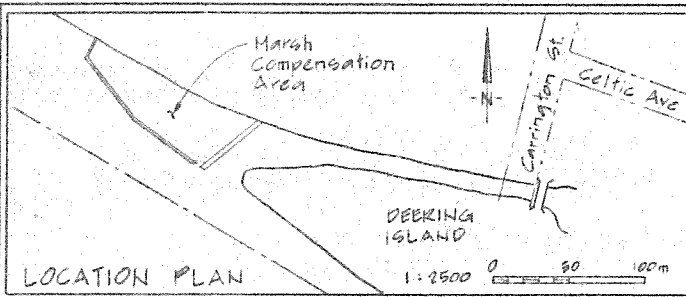
B	1:250	0	5	10m
A	1:100	0	5	5m

DEERING ISLAND DEVELOPMENTS LTD.

Project
DEERING ISLAND DEVELOPMENT

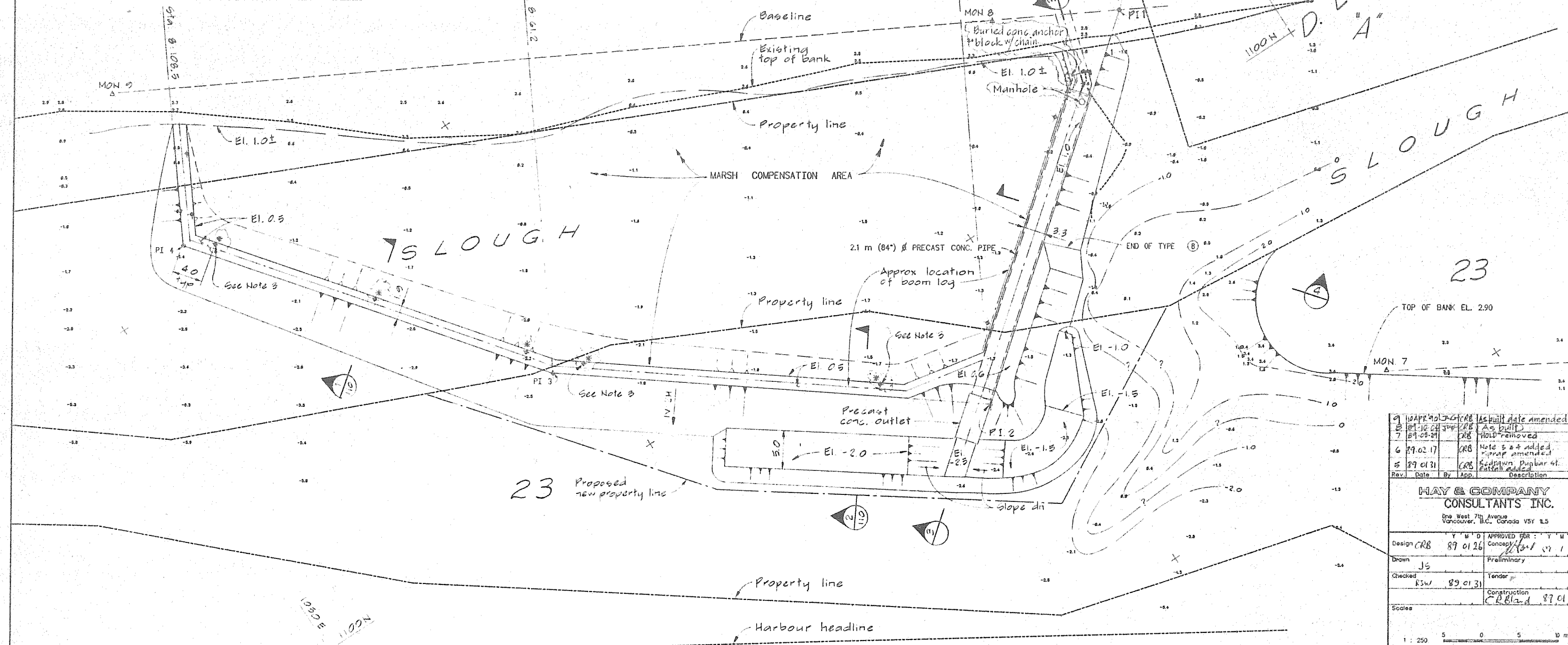
DETAILS
SHEET 2 of 2

Drawing No.
MGAL.02-108



D. L. 314

"A"
plan 178
Existing 84" dia (?) concrete pipe "B"
Invert El. -2.1 at outlet (Approx location, details not known)



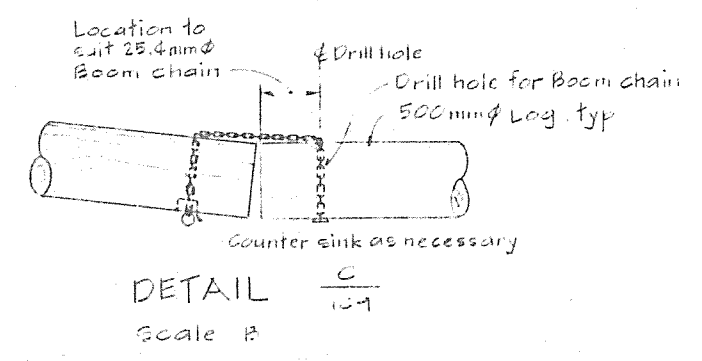
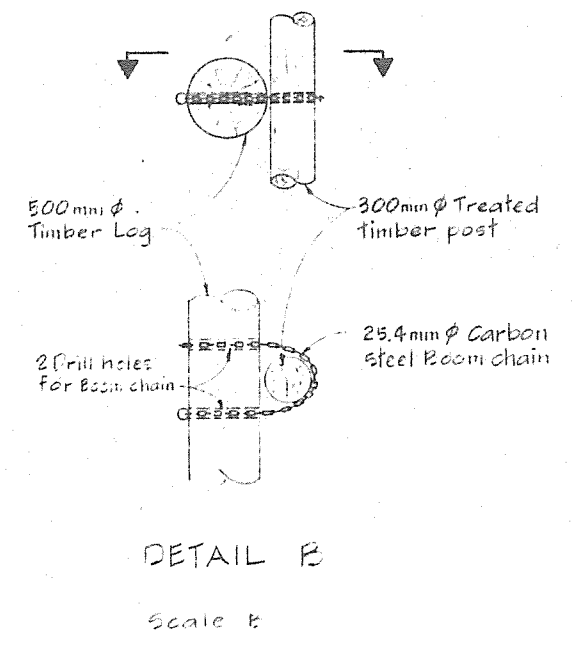
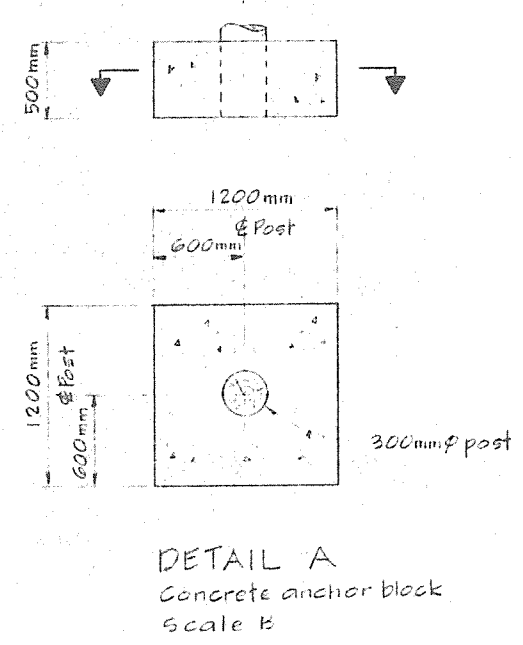
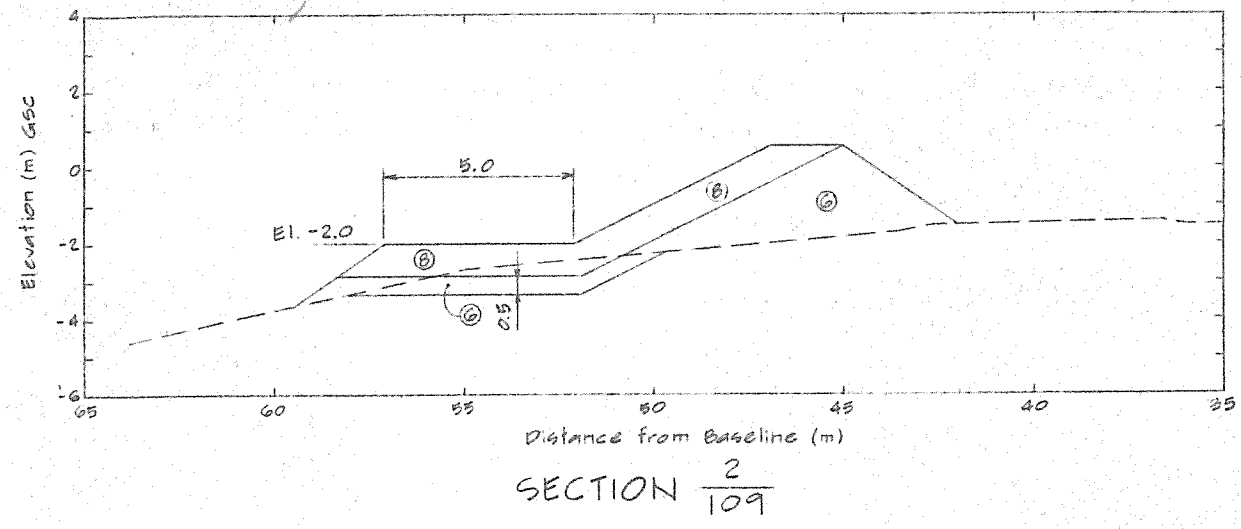
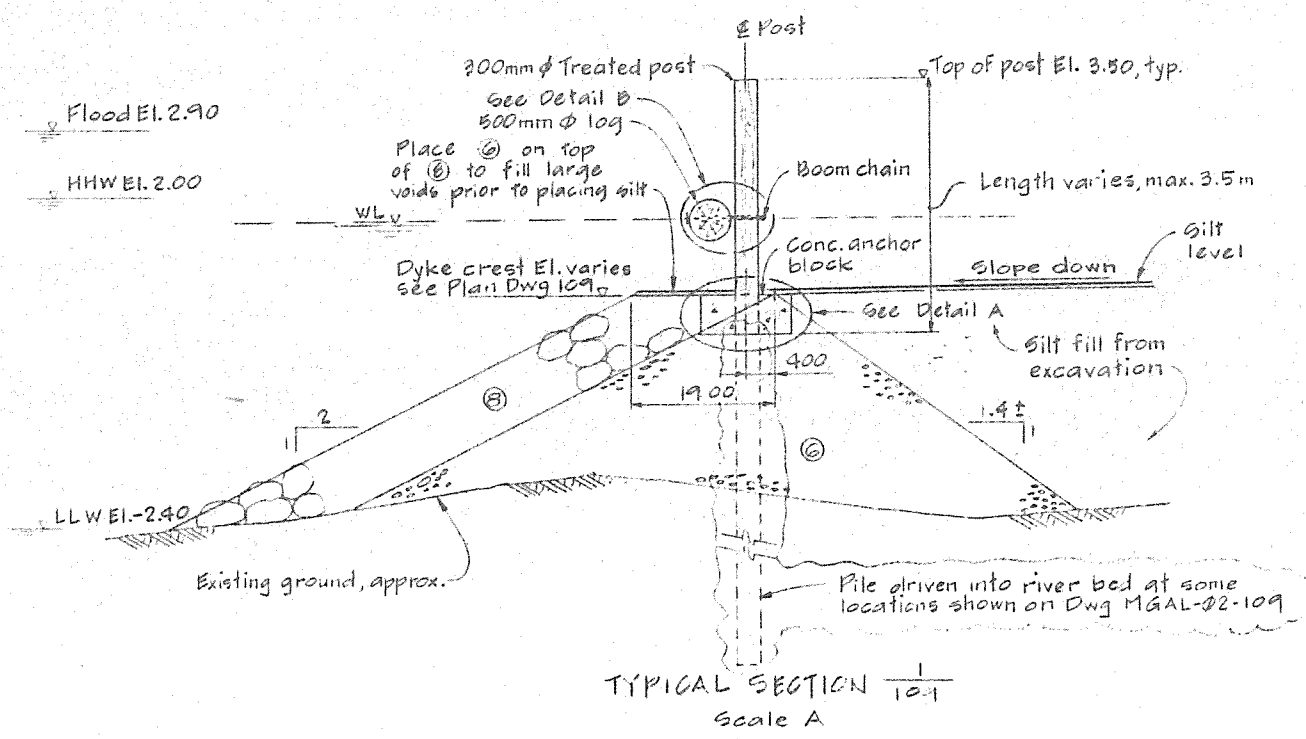
Rev.	Date	By	App.	Description
9	18 APR 90	JCR		As built date amended
8	18 JAN 89	JCR		As built
7	04 FEB 89	JCR		Hand removed
6	19 FEB 87	JCR		Note 5 & 4 added Wrap amended
5	01 FEB 87	JCR		Sediment, Pubbar of Outlet added

HAY & COMPANY CONSULTANTS INC.			
One West 7th Avenue Vancouver, B.C. Canada V5Y 1S5			
Design	JCR	Y M D	APPROVED FOR: Y M D
Drawn	JS	89 01 26	Concept / 17 1 26
Checked	RSW	89 01 31	Preliminary
Scale			Tender
			Construction
			CRB/and 87 01 31

MON. NO.	EASTING (m)	NORTHING (m)	P I NO.	STATION (m)	DISTANCE FROM BASELINE (m)
8	1167.85	1122.59	1	8 : -16.0	0.0
9	1065.54	1177.33	2	8 : 4.1	50.4
			3	8 : 61.2	41.8
			4	6 : 108.5	20.7

- NOTES:
- FOR GENERAL NOTES, SEE DWG. MGAL-02-101 & FIG. 2
 - SEE DRAWINGS DIDL-01-002 TO 004 FOR SECTIONS 3 & 4
 - INSTALL WHITE REFLECTIVE TAPE ON 3" PILES MARKED
 - PROPERTY DESCRIPTIONS BY UNDERHILL & UNDERHILL
- LEGEND
- + POST LOCATION
 - * PILES DRIVEN INTO RIVER BED IN PLACE OF POST EMBEDDED IN CONCRETE

DEERING ISLAND DEVELOPMENTS LTD.	
Project	DEERING ISLAND DEVELOPMENT
Drawing	MARSH COMPENSATION AREA GENERAL ARRANGEMENT
Drawing No.	MGAL - 02 - 109
Revision	1



- NOTES:
1. For General Notes, see Dwg MGAL-02-101 & FIG. 2
 2. For Layout Plan, see Dwg MGAL-02-109

5	10 APR 90	CRB	As built date amended
4	87 10 23	CRB	As built
3	87 11 16	CRB	Det 2/109 amended
2	88 12 12	CRB	Silt level added amended 1/109
1	86 11 30	CRB	Approved for construction Det 2/109 added
Rev.	Date	By	Description

HAY & COMPANY CONSULTANTS INC.
 One West 7th Avenue
 Vancouver, B.C., Canada V6Y 1L5

Design	Y M D	APPROVED FOR	Y M D
Drawn	88 09 21	Concept	
Checked	88 09 21	Preliminary	88 09 21
		Tender	88 09 21
		Construction	88 11 30

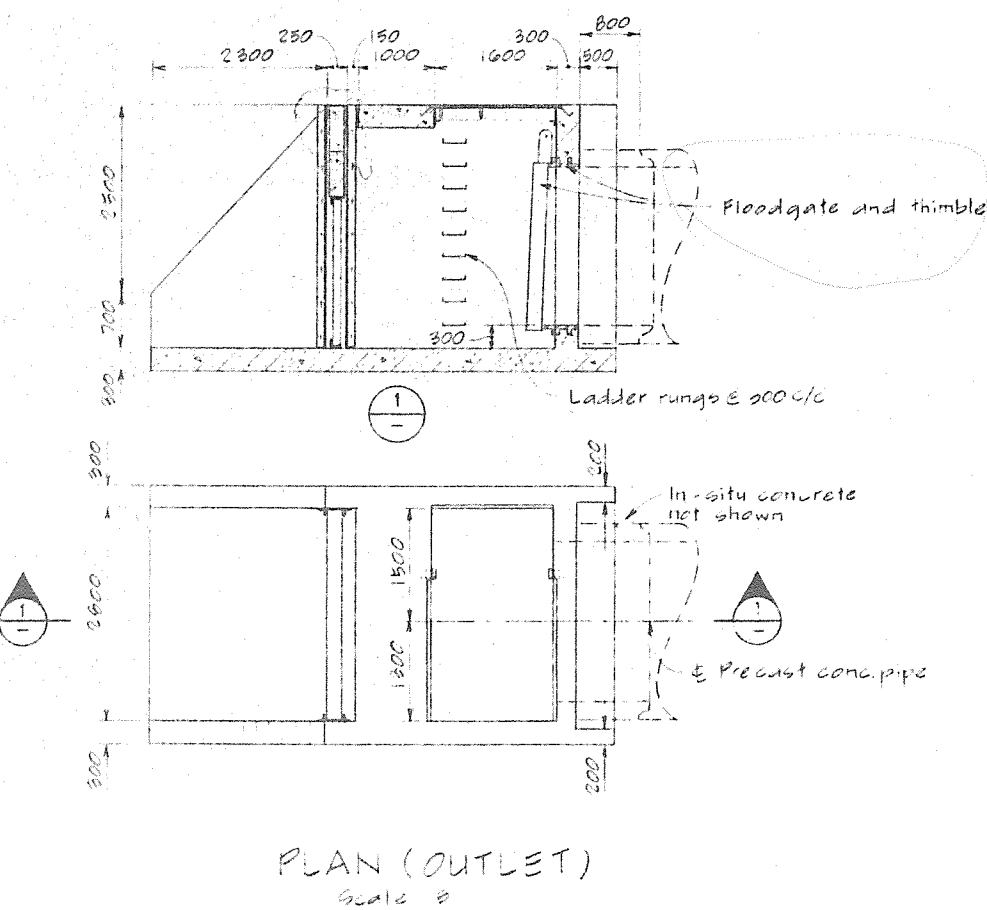
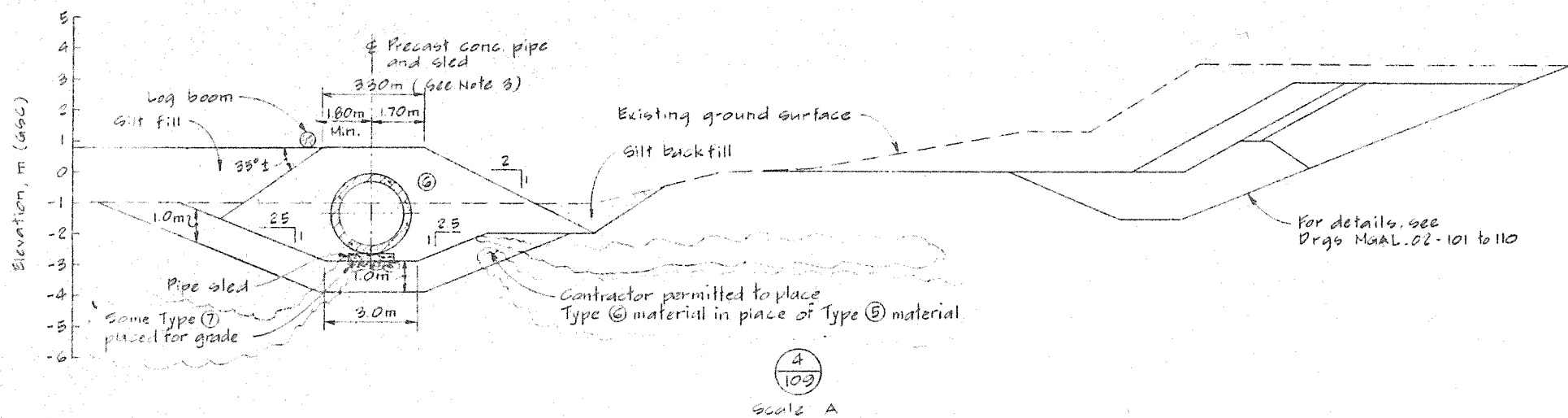
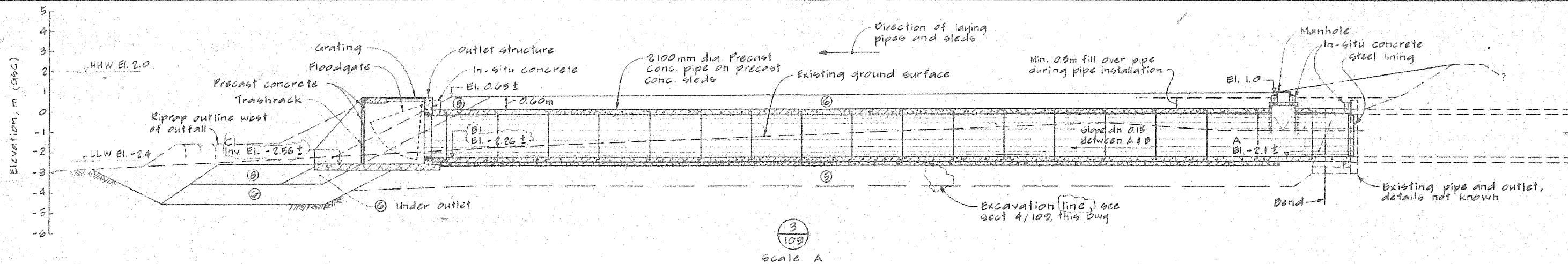
Scales:
 B 1:25 500 0 1000mm
 A 1:50 0 1 2m

DEERING ISLAND DEVELOPMENTS LTD.

Project
 DEERING ISLAND DEVELOPMENT

Drawing
 MARSH COMPENSATION SECTIONS & DETAILS

Drawing No. MGAL_02-110 Revision 3



GENERAL NOTES: (REGS DDL-01-002 to 004)

1. Drawings DDL-01-002, 003, 004 prepared from sketches DDL-01-1001 to 1006.

NOTES:

1. For location of sections 3 and 4, see Dwg. MGAL.02-109.
2. All dimensions are millimetres and Elevations are metres to ASCC datum unless otherwise noted.
3. Smooth top surface for vehicle access.
4. Elevations 'A', 'B' and 'C' to be confirmed after survey of existing outlet.

3	10 APR 90	JRC	CRB	As built (date amended)
2	10-10-04	JRC	CRB	As built
1	12 MAR 87	CRB	CRB	Sections 1 & 3 amended
Rev.	Date	By	App.	Description

HAY & COMPANY CONSULTANTS INC.
 One West 7th Avenue
 Vancouver, B.C., Canada V5Y 1S5

Design	CRB	Y M D	87 02 17	APPROVED FOR: Y M D	Concept	JH	87 02 21
Drawn	JH		87 02 17		Preliminary		
Checked	RJW		89 02 17		Tender	CRB	87 02 22
					Construction		

Scales:

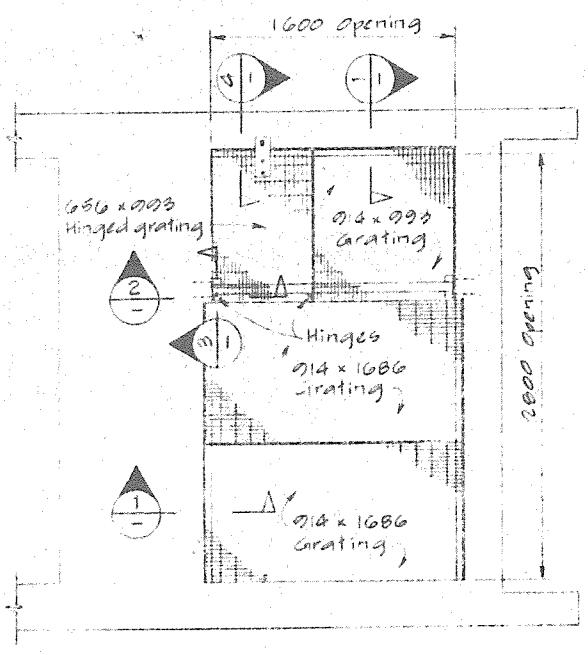
B	1:50	0	500	1000	2000mm
A	1:100	0	1000	2000	mm

DEERING ISLAND DEVELOPMENTS LTD.

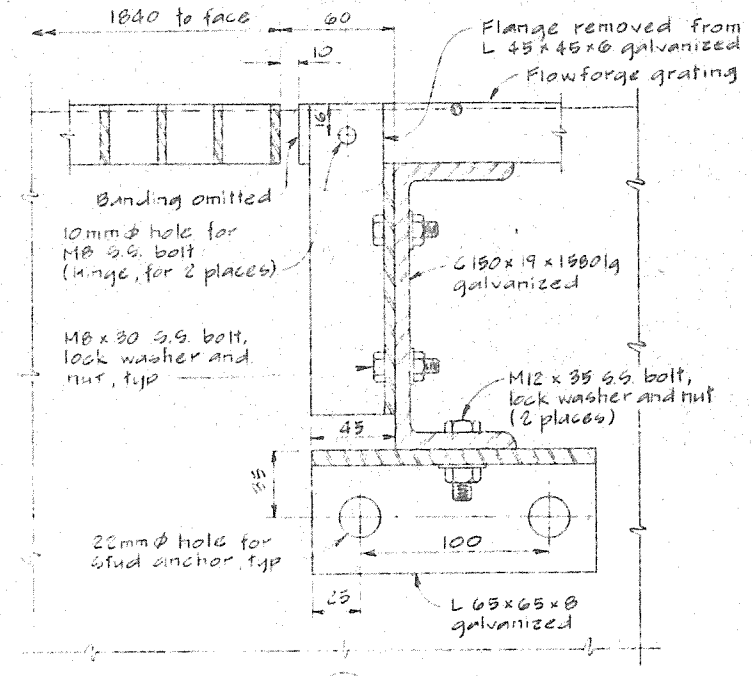
Project: **DUNBAR STREET OUTFALL**

Drawing: **GENERAL ARRANGEMENT SECTIONS**

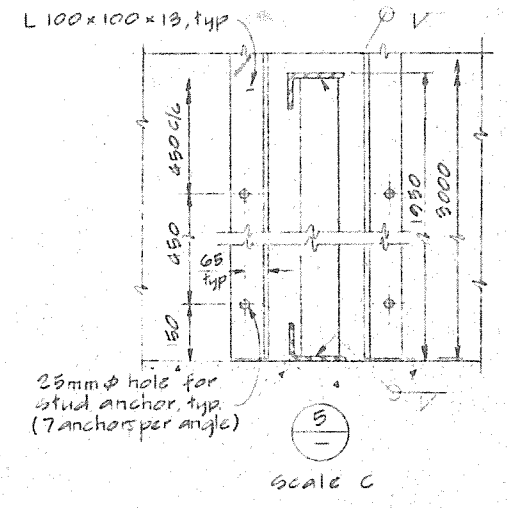
Drawing No.	DDL-01-002	Revision	3
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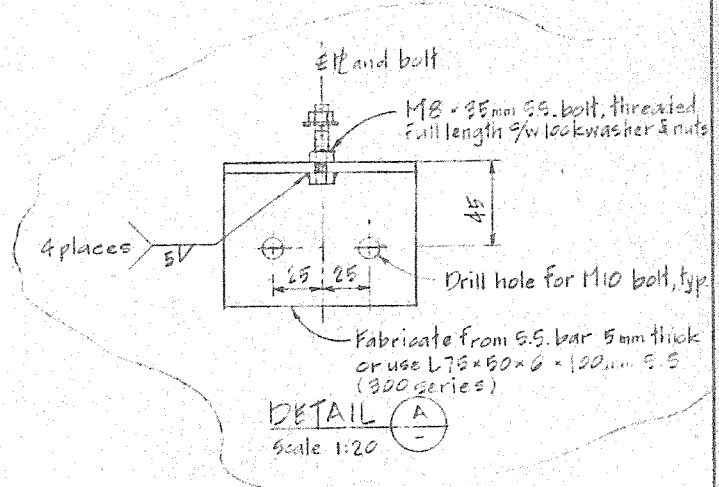
PLAN
SCALE A



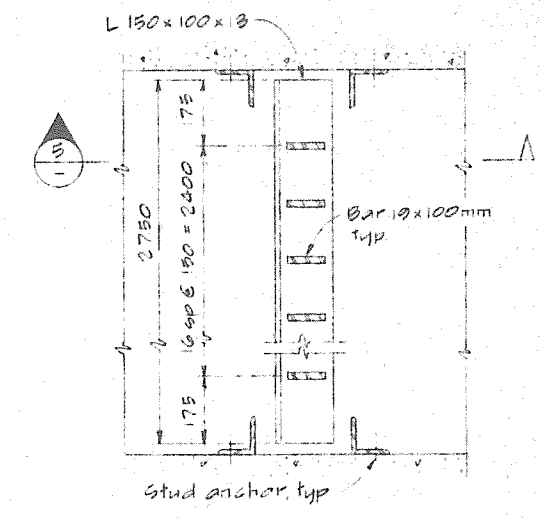
SCALE B



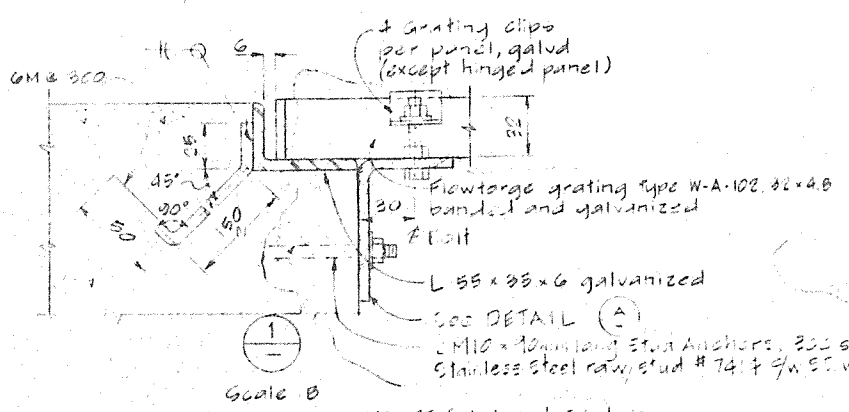
SCALE C



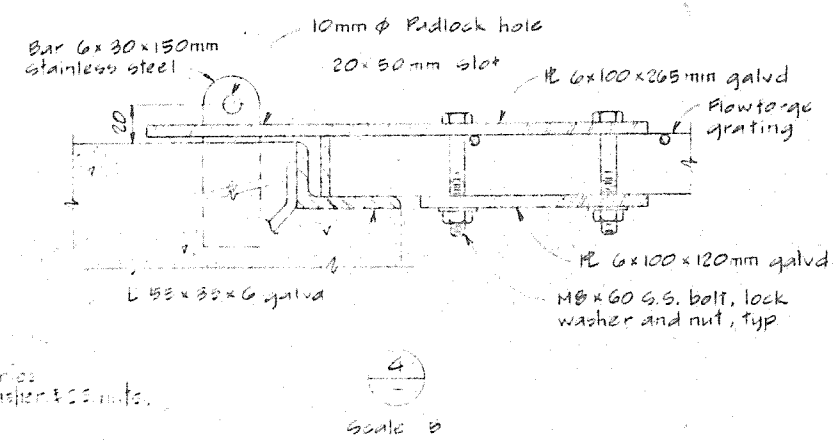
DETAIL A
SCALE 1:20



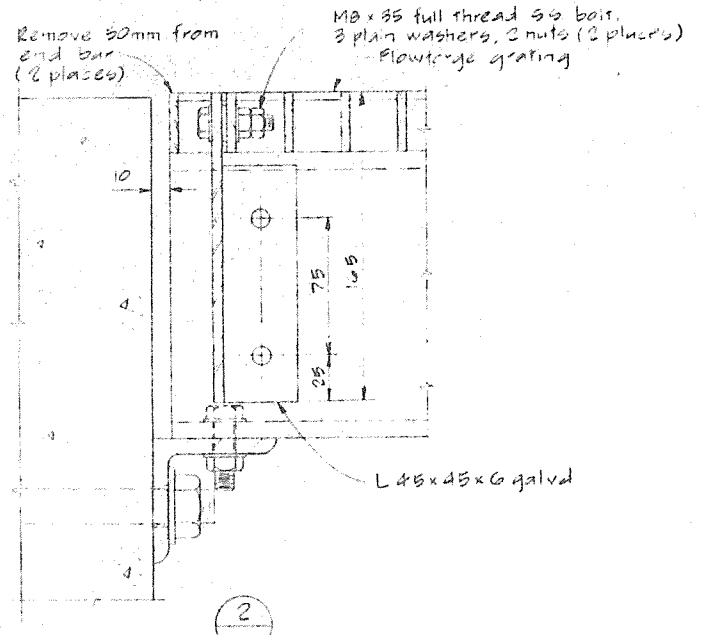
PLAN
TRASHRACK & GUIDES
SCALE C



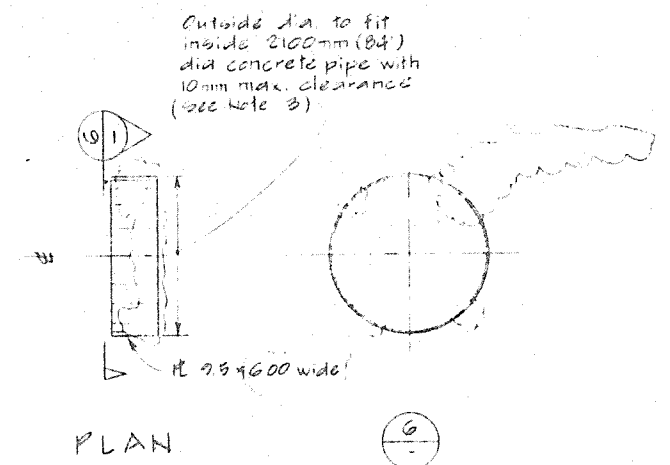
SCALE B



SCALE B



SCALE B



PLAN
STEEL LINING FOR
PIPE JUNCTION
SCALE D

NOTES

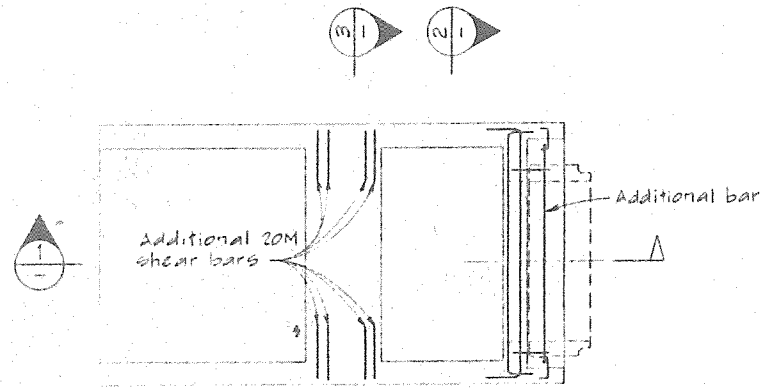
- All dimensions are millimetres unless otherwise noted
- Stud anchors for trashrack guides and grating beam support to be 300 series stainless steel Rawstud # 7342, 3/4" dia x 3 1/2" lg. with S.S. washer and S.S. nut or approved equal.
- Steel lining dimensions to be verified after site inspection of existing outlet. Steel to be mild steel, uncoated.
- All miscellaneous metalwork unless otherwise specified to be hot dip galvanized steel.
- All welds to be full strength seal welds.
- Grating design live load 9.6 kPa (200 lb/ft²).

3	10 APR 90	JL	As built date amended
2	09-10-04	CRB	As built
1	2 MAY 87	CRB	Steel lining amended
Rev	Date	By	Description

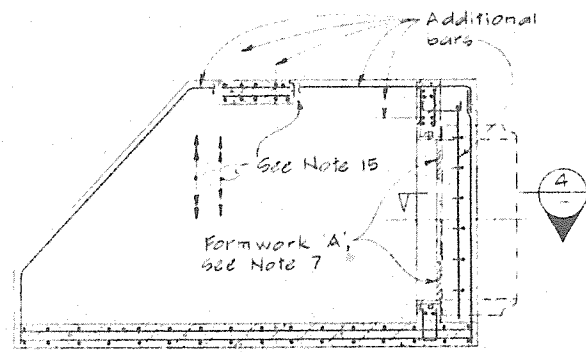
HAY & COMPANY CONSULTANTS INC. One West 7th Avenue Vancouver, B.C., Canada V5Y 1Z5		APPROVED FOR:	Y. M. D.			
		Design	RJW	89.02.20	Concept	D.H.
Drawn	JL	89.02.20	Preliminary			
Checked	CRB	89.02.21	Tender	C. P. (a. l.)	87.02.12	Construction

Scale	D 1:50	600	0	1000	6000mm
C 1:10	60	0	100	6000mm	
B 1:2	30	0	50	1000mm	
A 1:25	12	0	50	1500mm	

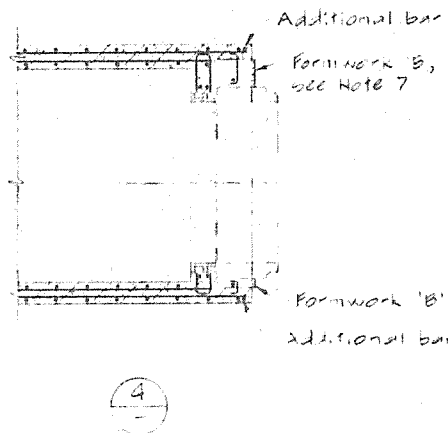
DEERING ISLAND DEVELOPMENTS LTD.	
Project	DUNBAR STREET OUTFALL
Drawing	MISCELLANEOUS METALWORK
Drawing No.	DIDL-01-004
Revision	3



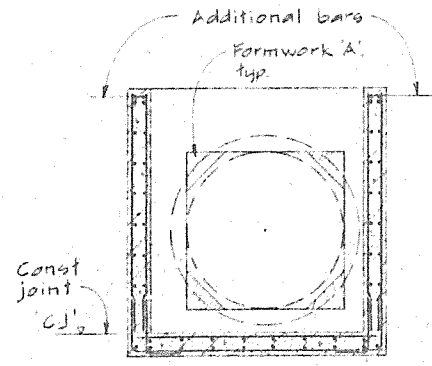
PLAN, OUTLET STRUCTURE



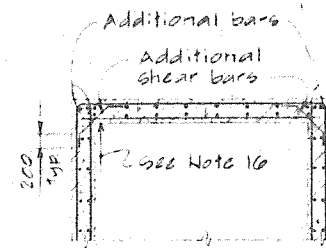
1



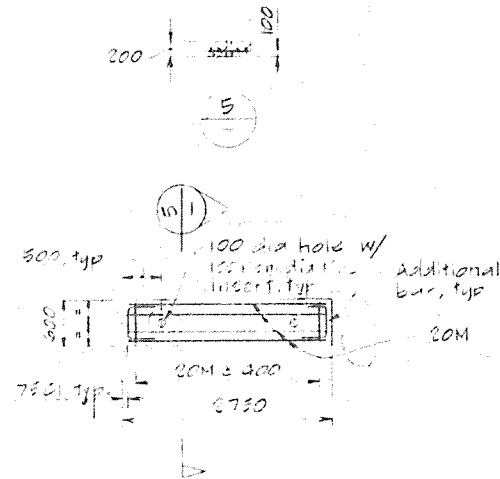
4



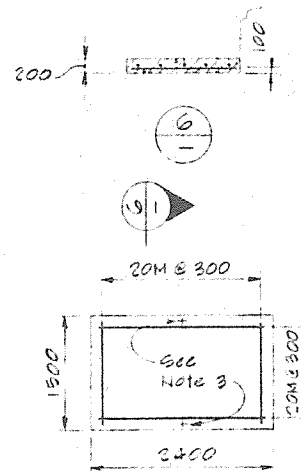
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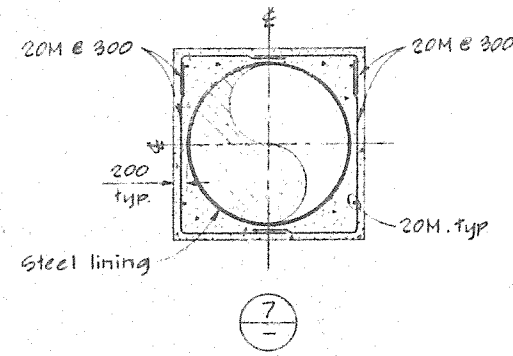
3



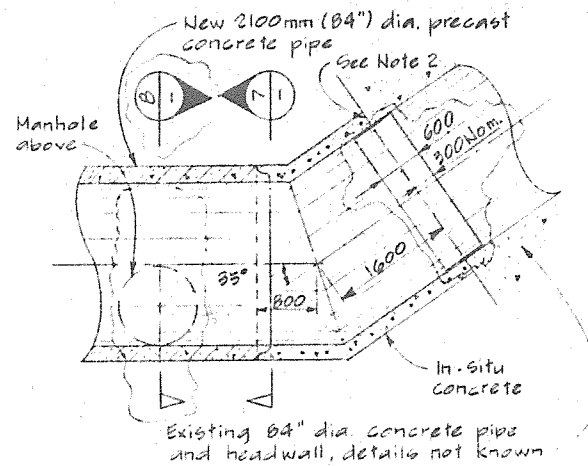
PLAN CONCRETE COVER



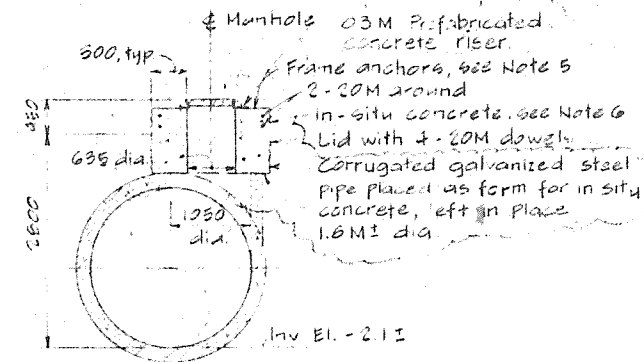
PLAN PIPE SLED



7



PLAN - PIPE JUNCTION ON PIPE CENTRELINE



8

NOTES:

- All dimensions are millimetres unless otherwise noted.
- Where shown, paint ends of pipe with bitumen or asphalt.
- Pipe sled steel lifting hooks, as required by Contractor, may remain in place.
- Manhole cover and frame to be supplied to Contractor by City at a City yard.
- Frame anchors to be 300 series stainless steel Rawlstud # 7342, 3/4" dia x 5 1/2" lg, or approved equal, 0 No. required.
- Outside form may be round or octagonal at Contractor's option. Payment quantity to be based on round form.
- Form 'A' required if square gate used. Remove after installation. Notify Consultant if round gate used so that necessary changes to reinforcement can be made. Formwork 'B' may remain in place.
- All reinforcement to be 20M, 400 MPa deformed bars. Lap length 450mm. Concrete 35 MPa, Type 20 cement, 6-8% air.
- For outlet structure, spacing 400mm both ways, both faces unless otherwise shown. Additional bars required are noted.
- At corners, outside bars to be continuous, inside bars to extend to 60mm from outside face.
- Concrete cover 50mm to reinforcement and ties.
- Construction joints required at elevations marked 'CJ'.
- Supports/spacers to be plastic, except concrete blocks meeting concrete specification permitted at base.
- 25mm chamfer required on all exposed edges of outlet structure including concrete covers.
- Move bars away from stud anchor locations.
- Outlet structure may be lifted by 2 slings, one each side of 1000 x 300 beam at position indicated. Protect corners of concrete using 150 x 150mm angles 300mm long during lifting.

Rev.	Date	By	App.	Description
3	10 APR 90	JL-CRB		As built date amended
2	07-10-04	JL-CRB		(As built)
1	12 MAR 87	CRB		Plan Pipe junction amended

HAY & COMPANY CONSULTANTS INC.
One West 7th Avenue
Vancouver, B.C. Canada V5Y 2L5

Design	CRB	87 02 20	APPROVED FOR	Y M D	Concept	DH	87 02 21
Drawn	JL	87 02 20	Preliminary				
Checked	B.T.	87 02 21	Tender		CRB	87 02 22	Construction

Scale	1:50
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DEERING ISLAND DEVELOPMENTS LTD.

Project
DUNBAR STREET OUTFALL

Drawing
STRUCTURAL CONCRETE

Drawing No.	2102-01-003	Revision	3
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