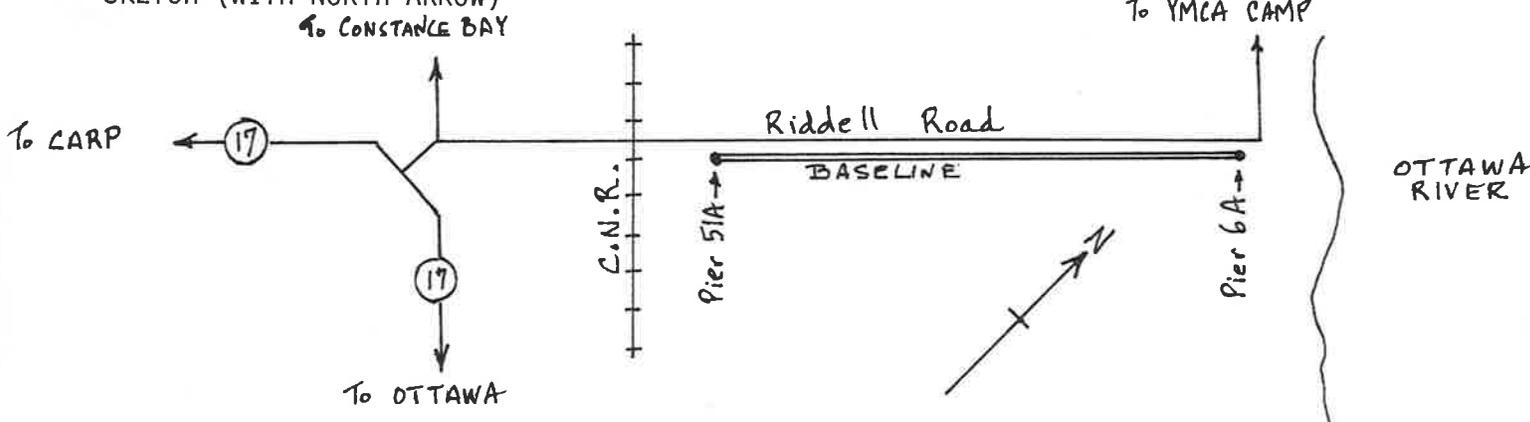


CANADA
 GEODETIC SURVEY

DESCRIPTION OF CALIBRATION BASELINE

NAME National Geodetic Baseline (Shirleys Bay) APPROX LAT. 45°23'30"
 ESTABLISHED BY Geodetic Survey APPROX LONG 75°56'00"
 DISTANCE AND DIRECTION FROM NEAREST CITY 12 km NW of Ottawa City Limits MAP SHEET 31 G/5

SKETCH (WITH NORTH ARROW)



DESCRIPTION:

The baseline consists of thirteen 45 cm diameter, reinforced concrete piers anchored to bedrock. They are placed at varied distances along a 2.3 km straight line, and project above ground to heights ranging from 0.8 m to 1.5 m.

The site, near Shirley's Bay, Ontario, is on the western outskirts of Ottawa about 32 km from Parliament Hill. The piers are on a 9.1 m wide strip of land, along the southeastern boundary of the Riddell Road right-of-way, owned by the Department of National Defence, and released to the Department of Energy, Mines and Resources for the baseline.

ELEVATIONS OF TOPS OF PIERS AND APPROXIMATE DISTANCES FROM FIRST PIER

*			
PIER NO.	<u>6A</u>	ELEV <u>77.085</u> m	DIST <u>Nil</u> m
PIER NO.	<u>7</u>	ELEV <u>76.629</u> m	DIST <u>30</u> m
PIER NO.	<u>12</u>	ELEV <u>71.195</u> m	DIST <u>280</u> m
PIER NO.	<u>13</u>	ELEV <u>70.400</u> m	DIST <u>330</u> m
PIER NO.	<u>16</u>	ELEV <u>67.706</u> m	DIST <u>480</u> m
PIER NO.	<u>18</u>	ELEV <u>67.639</u> m	DIST <u>580</u> m
PIER NO.	<u>29</u>	ELEV <u>68.588</u> m	DIST <u>1130</u> m
PIER NO.	<u>30</u>	ELEV <u>68.734</u> m	DIST <u>1180</u> m
PIER NO.	<u>38A</u>	ELEV <u>70.150</u> m	DIST <u>1600</u> m
PIER NO.	<u>39</u>	ELEV <u>70.176</u> m	DIST <u>1630</u> m
PIER NO.	<u>40</u>	ELEV <u>70.259</u> m	DIST <u>1680</u> m
PIER NO.	<u>51</u>	ELEV <u>70.190</u> m	DIST <u>2230</u> m
PIER NO.	<u>51A</u>	ELEV <u>70.835</u> m	DIST <u>2260</u> m

LEVELLING METHOD Spirit ORDER First YEAR 1971 AGENCY Geodetic Survey

DESCRIPTION PREPARED BY A.D. Selley DATE 17/5/78

PHC-58 (1978)

Note: Pier 16 is reported to be unstable, and should not be used.

MS
 19-5-78
 * SEE NOTE DATED
 23 JAN 83 FOR
 REVISED ELEVATIONS
 GJB

Geodetic Survey of Canada
DESCRIPTION OF CALIBRATION BASELINE

Name (NGBL) OTTAWA, SHIRLEY'S BAY

Mid-Point

Established by GEODETIC SURVEY OF CANADA

Approx Lat. 45°-23'

Dist & Dir from nearest city 12 KM NW OF OTTAWA

Approx Long 75°-56'

CITY LIMITS

Map Sheet 31G/5e

Sketch (with N arrow)

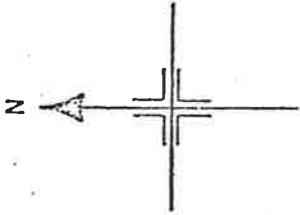
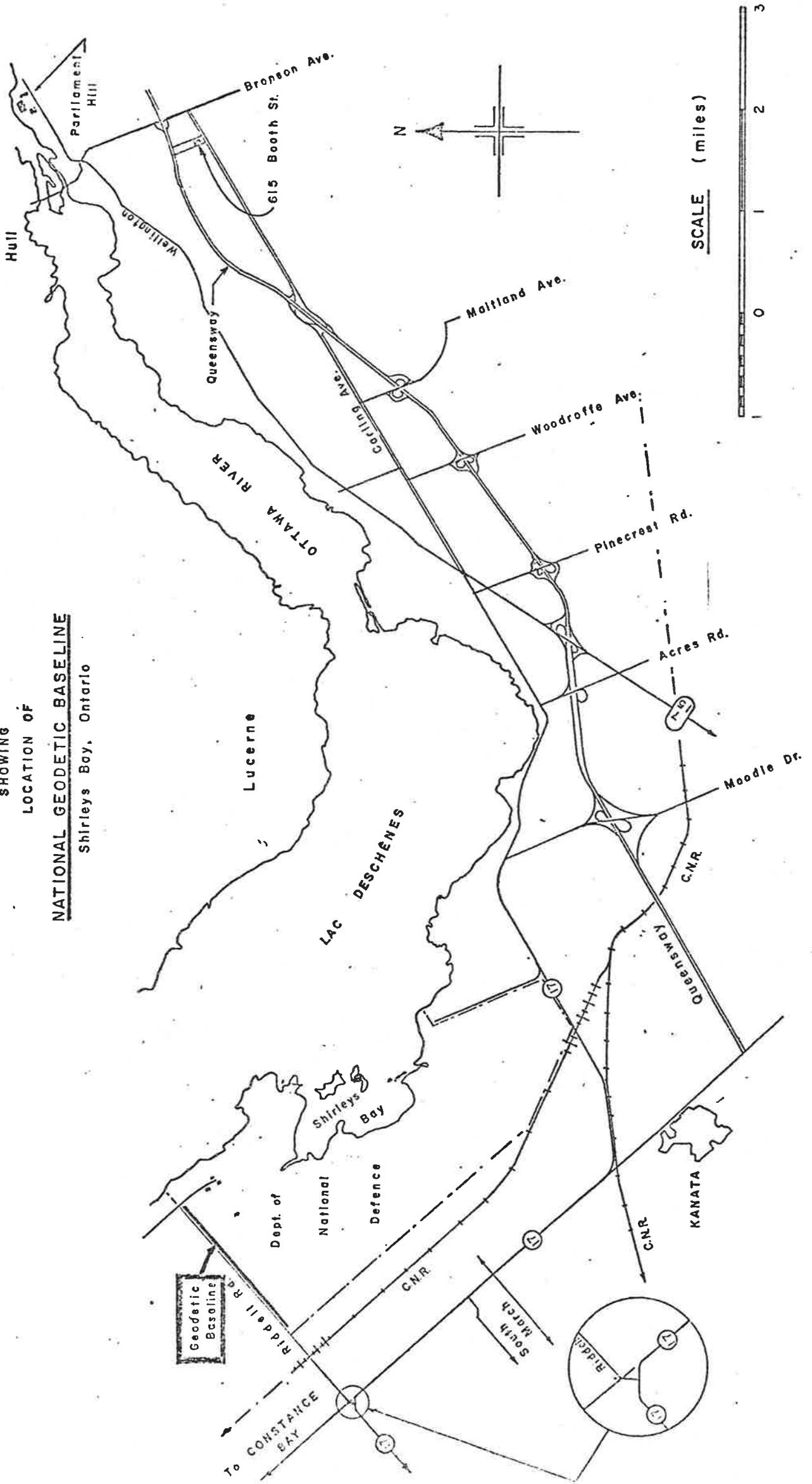


Description prep : ROBERT FEENY

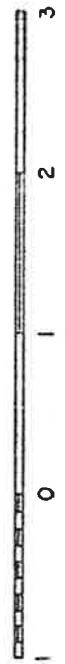
Date 87-02-05

HC-58

MAP
SHOWING
LOCATION OF
NATIONAL GEODETIC BASELINE
 Shirleys Bay, Ontario



SCALE (miles)



NATIONAL GEODETIC BASELINE

at

SHIRLEY'S BAY (OTTAWA)

Measured and Maintained by The
Geodetic Survey of Canada
Department of Energy, Mines and Resources
Ottawa, Canada

NATIONAL GEODETIC BASELINE

Shirley's Bay (Ottawa)

STATION NUMBERS

FIGURE 1

Shirley 693650

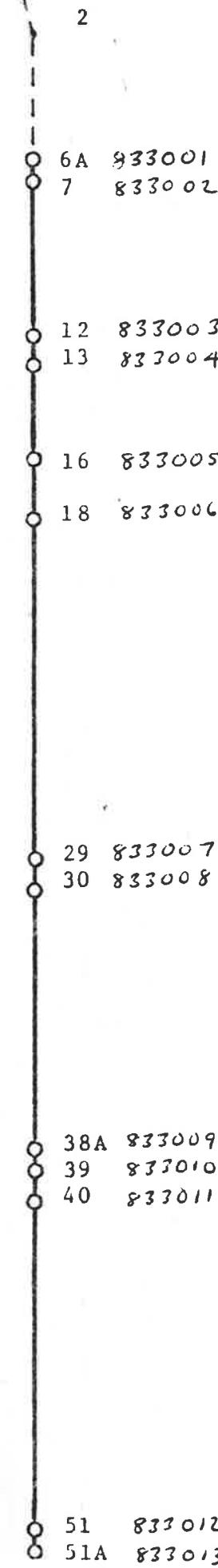


TABLE I

Approximate Sea Level Distances

Monument No. From - To	Approx. Sea Level Dist. (metres)	Cumulative Dist. (metres)
6A 7	30.48	30.48
7 12	249.94	280.42
12 13	50.02	330.45
13 16	149.88	480.33
16 18	100.03	580.36
18 29	549.99	1130.35
29 30	50.04	1180.39
30 38A	419.49	1599.88
38A 39	30.48	1630.37
39 40	50.00	1680.37
40 51	549.71	2230.08
51 51A	30.47	2260.55

TABLE II

Terminal Monuments For Various Nominal Distances

Nominal Dist. (m)	Terminals	Nominal Dist. (m)	Terminals
30.5	6A-7, 38A-39, 51-51A	1100	7-29, 18-40
50	12-13, 29-30, 39-40	1119.5	16-38A
80.5	38A-40	1130.5	6A-29
100	16-18	1150	7-30, 16-39
150	13-16 (Grazing)	1180.5	6A-30
200	12-16 (Grazing)	1200	16-40
250	7-12 (Grazing), 13-18	1269.5	13-38A
300	7-13 (Grazing), 12-18	1300	13-39
419.5	30-38A	1319.5	12-38A
450	30-39	1350	12-39, 13-40
469.5	29-38A	1400	12-40
500	29-39, 30-40	1569.5	7-38A
550	7-18(Grazing), 18-29, 29-40, 40-51	1600	6A-38A, 7-39
580.5	40-51A	1630.5	6A-39
600	18-30, 39-51	1650	7-40
630.5	38A-51	1680.5	6A-40
650	16-29	1900	13-51
661	38A-51A	1930.5	13-51A
700	16-30	1950	12-51
800	13-29	1980.5	12-51A
850	12-29, 13-30	2200	7-51
900	12-30	2230.5	6A-51, 7-51A
1019.5	18-38A	2261	6A-51A
1050	18-39		

TABLE III

Monument Number	Elevations (m)
6A	77.085
7	76.629
12	71.195
13	70.400
16	67.706
18	67.639
29	68.588
30	68.734
38A	70.150
39	70.176
40	70.259
51	70.190
51A	70.835

Shirley

79.701