



COPY

VANCOUVER LAKE RESTORATION PROJECT

Progress Report No. 6

January 4, 1982



COOPER & ASSOCIATES, INC.

DAMES & MOORE

BE & C ENGINEERS

OGDEN BEEMAN & ASSOCIATES

VANCOUVER LAKE
RESTORATION PROJECT

Owner: THE PORT OF VANCOUVER

Owner's Representative: MATRIX MANAGEMENT GROUP

Construction Management: COOPER & ASSOCIATES, INC.

DAMES & MOORE

OGDEN BEEMAN & ASSOCIATES, INC.

BE&C ENGINEERS, INC.

Contractor: RIEDEL INTERNATIONAL, INC.

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COOPER & ASSOCIATES, INC.

ENGINEERING & CONSTRUCTION SERVICES

11675 S.W. 66th AVENUE • PORTLAND, OREGON 97223 • (503) 639-4914

155.08

January 4, 1982

Mr. Eric Oien
Matrix Management Group
915 Broadway
Vancouver, WA 98660

SUBJECT: Progress Report #6 for period from December 1, 1981
through December 31, 1981

Dear Mr. Oien:

During the month of December the 84" Ø RC culverts west of the gatewell structure were completed. Goodwill between the Contractor and the Management Team was demonstrated in resolving the Contractor's claims for extra on (a) the installation of the 84" Ø RC culverts and (b) the utility corridor on the south end of Alcoa disposal site.

The Contractor presented claims totalling \$197,173.41 for extras on (a) and (b). After reviewing the contract documents and site conditions, a negotiated settlement of \$50,286.86 resulted for (a). Based on findings by the Management Team, no extra was allowed for (b). The Contractor has asked that we consider some financial compensation for (b) since, in their opinion, the contract documents are vague on the utility corridor; thus, they did not cover it in their lump sum price for berm construction.

Joint effort between the Contractor and the Management Team for establishing survey control points around Vancouver Lake is in progress. Continued monitoring for settlement under the gatewell structure and the 84" Ø RC culverts has revealed a lower rate of settlement than observed in the past. Both the Management Team and the Contractor feel that settlement under the structures will be minimized on completion of installation and backfill when the ground water level will no longer be subject to rapid dewatering.

Owing to the uncertainty surrounding the volume of work to be done in Dugan/CENEX disposal site, no percentage of completion for archaeological work on this project can be defined at this time. The consulting archaeologist is preparing a revised budget estimate to cover the remaining work at the Vancouver

155.08
Page two.

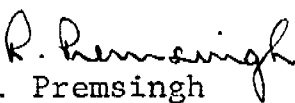
Lake Restoration Project. Final survey work for Buckmire disposal site is near completion. No problem is anticipated for completing final survey work in Alcoa and Kadow disposal sites nor the flushing channel prior to dredge spoils placement.

Analysis of water samples has shown no significant changes in water quality attributable to construction as documented during the previous months of the construction phase of this project.

In order to satisfy scheduled completion requirements of the project, we have to obtain early answers on (a) easement for utility corridor (b) minimum MSL elevation for dredge fill placement in Dugan/CENEX disposal site (c) priority in constructing either NE Island or SW Island in case both are not needed for dredge spoils disposal and (d) the Port of Vancouver's commitments/obligations to landowners in relation to dredging/dredge spoils disposal on this project.

Yours sincerely,

COOPER & ASSOCIATES, INC.


R. Premsingh

RP/plt

CERTIFICATE FOR PAYMENT

OWNER: Port of Vancouver
c/o Matrix Management Group
ATTENTION: Mr. Eric Oien

Estimate No. 6
 Date December 25, 1981
 Project No. 155.08
 Project Vancouver Lake
 Period from 11-25-81 to 12-25-81

This estimate for the construction of Vancouver Lake
 (Project)
Restoration Project for The Port of Vancouver
 (Owner)
 is in accordance with the agreement signed with Riedel International,
 (Contractor)
Inc. on June 16, 19 81.

The following summary of the attached sheets shows the value of the work completed and the amount now due Riedel International, Inc.

Value of all contract work completed to date *	\$ 4,604,912.00
Value of materials on hand	\$ _____
Value of contract modifications completed to date (nos. _____ to _____)	\$ nil
Total earned by Contractor *	\$ 4,604,912.00
Less previous total *	\$ 4,376,947.00
Value earned this period *	\$ 227,965.00
Less Retainage * (5% of (a) = (b))	\$ 11,398.25
Add sales tax @ 6.3% (on value)	\$ 14,361.80
Amount now due Contractor (value earned + sales tax less retainage)	\$ 230,928.55

4,604,912/11,512,886.86 = Percent of Project Completed 40 %

193/929 = Percent of Contract time used 21 %

Original Contract	11,442,000.00
1st C.O. #1-#5	20,600.00
1st C.O. #6	50,286.86
TOTAL CONTRACT	11,512,886.86

COOPER & ASSOCIATES, Inc.

R. Premsingh
R. Premsingh

* Not including tax

"Imagineering A Better World"



: The Port of Vancouver

OM: Riedel International, Inc.


TE: December 22, 1981

BJECT Estimate Voucher #6

Dear Sirs:

Please find enclosed subject form submitted to Cooper & Associates, Inc. on December 22, 1981.

Thank you,



DENNIS HAMMOND
Project Manager

DH/plt

Enclosures (1)

WILLAMETTE-WESTERN CORPORATION
 WESTERN-PACIFIC DREDGING CORP.
 Foot of N. Portsmouth Ave., Portland, Oregon 97203

ESTIMATE
 TO PORT CO
 ADDRESS PO Box 118

Final Earnings for Period From 11-25-81 To 12-25-81

ITEM NUMBER	COST CODE	DESCRIPTION	CONTRACT		
			QUANTITY	U.P.	
1		MOBILIZATION	1		1,949.19
2 P1		PORT MILE	1		335.00
2		N PORT	1		357.50
3		ALCOA	1		248.60
4		TRUSS	1		442.30
5		DESIGN CENTER	1		311.00
6		NE SHEET	1		91.60
7		SOUTH PARK	1		185.40
8		DREDGING TRAIL LIGHTS	6.45 H		4,192.50
8		" PORTER LIGHT	1.92 H		1,247.40
9		GRAND BY	30		30,000
10		BEACHING MATERIAL	-		-
11		CORNER EX	207,000		1,250.25
12		PILE COST	192,000		212,961
13		CARRIER SPACER	1		294.00
14		24" CONC PILE	1		135.00
15		ROAD DREDGING	1		62,501
16		DREDGE STRUCTURE	4.5		109,201
17		CHANGE ORDERS	-		2,101
18		WA STATE SALES TAX			

SUMMARY OF BACKCHARGES THIS PERIOD

D.F.A.R.	DATE	DESCRIPTION
		10% RETENTION ON 1ST 100%
		NO RETENTION ON SALES TAX

Carlson Testing, Inc.

received
12.21.81

Construction Inspection & Related Tests

P.O. Box 23814
Tigard, Oregon 97223
Phone (503) 641-4114

REPORT OF CONCRETE TEST SPECIMENS

Date Molded: 11-17, 19 81 Job. No. CP-1066
 Client: Cooper & Associates
 Project: Vancouver Lake Restoration
 Address: Old Lower River Road
 Contractor: Reidel International Sub-Contractor: _____
 Concrete Supplier: Western Pacific Cast by: W. Scheribel
 Weather: Showers Temp. high: 50 Temp. low: _____
 Location of Concrete Placement: Gatewell walls.

Strength Requirement: 3000 PSI @ 28 days Slump: 1" & 4 3/4"
 Cement Type: I No. of sacks: Mix# 757 Entrained Air .2%
 Admix, Amount: _____ Brand: _____ Admix, Amount: _____ Brand: _____
 Coarse agg. size: 3/4" Type: Natural Fine Agg. Size: Bldg.

Specimen No.	Specimen Type	Test @ Days	Register Number	Date Rec'd.	Date Tested	Total Load	Area	Unit Load PSI	Report No.
A	6 x 12 Set I	7	2809	11-19	11-24	150,000	28.27	5310	11
B		28	2810	11-19	12-15	162,000	28.27	5730	12
C	Set II	7	2811	11-19	11-24	146,500	28.27	5180	11
D		7	2812	11-19	11-24	143,000	28.27	5060	11
E		28	2813	11-19	12-15	159,000	28.27	5620	12
F		28	2814	11-19	12-15	158,000	28.27	5590	12

Remarks: _____

JOB ENGINEER'S DAILY REPORT
CONTROL OF COMPACTED FILL

Received
12.29.81

Job No.
08799-008
Page
1 of 1

Job Location VANCOUVER LAKE	Client or Owner PORT OF VANCOUVER	Report Sequence No. 28	
General Location of Fill GATEWELL STRUCTURE	Purpose of Fill or Nature of Structure to be Supported ROADWAY AND EMBANKMENT	Date 12-17-81	Day of Week THUR
General Contractor RIEDEL	Grading or Earthwork Contractor RIEDEL	Job Engineer DLT	HRS Charged
Contractor's Shift	Contractor's Superintendent or Foreman R PREM SINGH	Assistants	HRS Charged

Source and Description of Fill Material ON SITE SILTY SAND	Weather O'CAST - DRY
APPROXIMATE YARDAGE	
Total Req'd.	Placed this Shift
	Total To-Date

Test Number	Test Location	Elevation	Reference Compaction Curve	Maximum Dry Density lbs./cu.ft.	Fill Moisture %	Test Dry Density lbs./cu.ft.	% of Maximum Dry Density	Daily Report Describing Compaction
①	SEE ATTACHMENT 13+00 20 FT ± OF CHANNEL & DEPTH BELOW SURFACE OF 18 IN	15 ±	*	106*	14	106	100	OK +
②	13+25 ON CHANNEL & DEPTH BELOW SURFACE OF 12 IN	15 ±	*	106	19	105	99	OK
③	12+50 ON CHANNEL & DEPTH BELOW SURFACE OF 8 IN	15 ±	*	106	22	98	93	OK
* STANDARD AASHO (T-99) + 90% OF MAX REQUIRED								

SUPPLEMENTARY REPORT (Describe equipment used for hauling, spreading, watering, conditioning and compacting; also report thickness of lifts, and number of roller trips.)

CONTRACTOR IS PREPARING TO PLACE ADDITIONAL FILL IN AREA WHERE CULVERTS PASS UNDER NEW LOWER RIVER ROAD AS SHOWN ON ATTACHMENT. AT PRESENT APPROX 6 FT OF FILL IS IN PLACE OVER THE TOP OF THE PIPES. FILL WAS COMPACTED USING 4-6 PASSES WITH A VIBRATORY SEGMENTED-PAO ROLLER. GENERALLY, THE TOP 4-10 IN. OF FILL PUMPS UNDER EQUIPMENT TRAFFIC DUE TO EXCESS MOISTURE IN THE SOIL. THIS SHOULD BE REMOVED OR MIXED WITH DRIER ON-SITE SOILS AND COMPACTED PRIOR TO PLACEMENT OF ADDITIONAL FILL.

BASED ON THE ABOVE FIELD DENSITY TESTS AND OBSERVATIONS, COMPACTION OF THE FILL IS SATISFACTORY WITH THE EXCEPTION OF SURFACE WET MATERIALS.

ions for relocated
the terminating
supplied by the
ny to the Port
ation Coordination
ted by others.

NOTES!

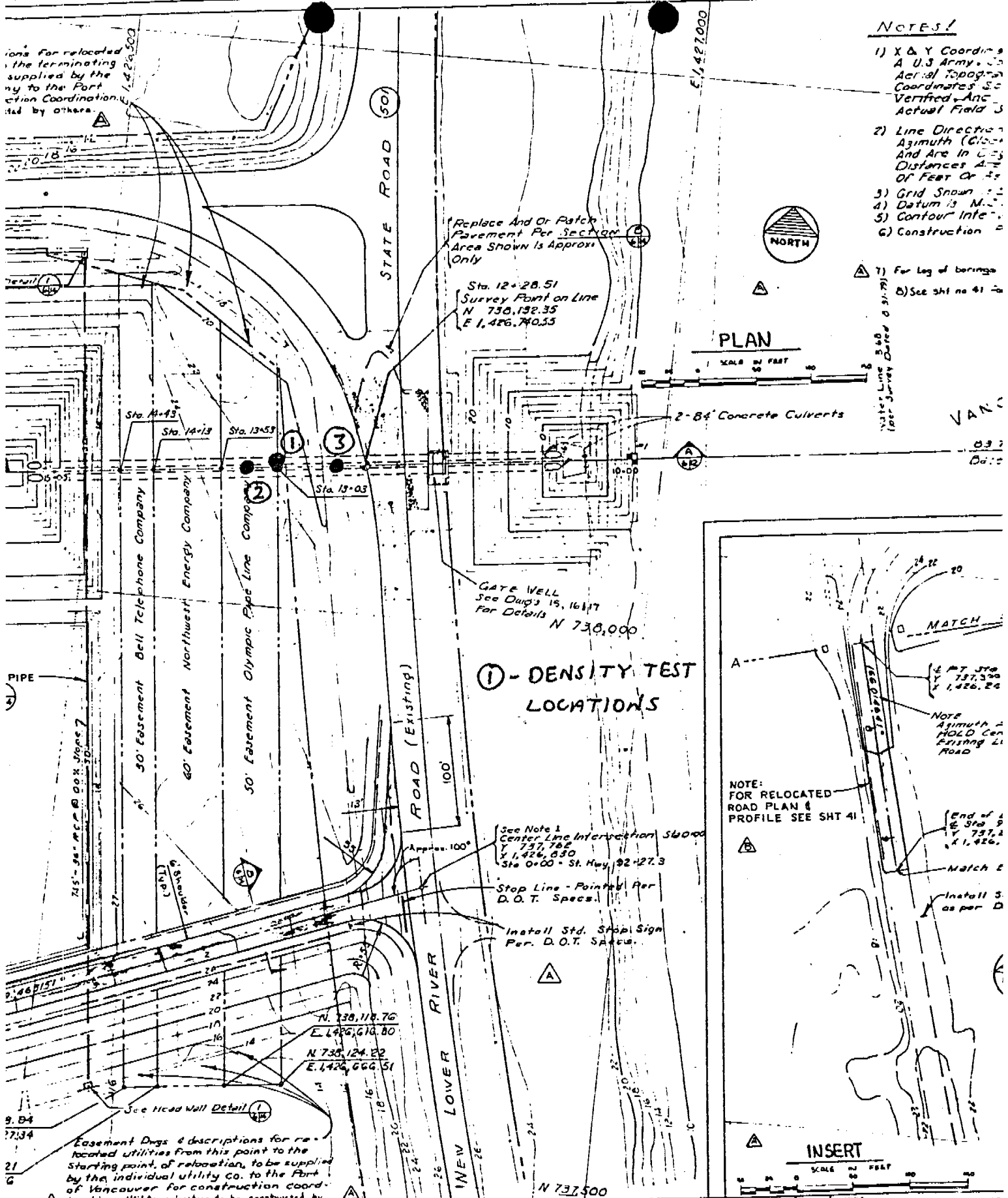
- 1) X & Y Coordinations
A. U.S. Army, Co
Aerial Topograph
Coordinates Se
Verified, Anc
Actual Field S
- 2) Line Direction
Azimuth (Clock
And Are in Feet
Distances Are
Of Feet Or Ft
- 3) Grid Shown
- 4) Datum is M.S.L.
- 5) Contour Intervals
- 6) Construction

- 7) For Log of borings
- 8) See sht no 41



PLAN

SCALE IN FEET



① - DENSITY TEST LOCATIONS

NOTE:
FOR RELOCATED
ROAD PLAN &
PROFILE SEE SHT 41

INSERT

SCALE IN FEET

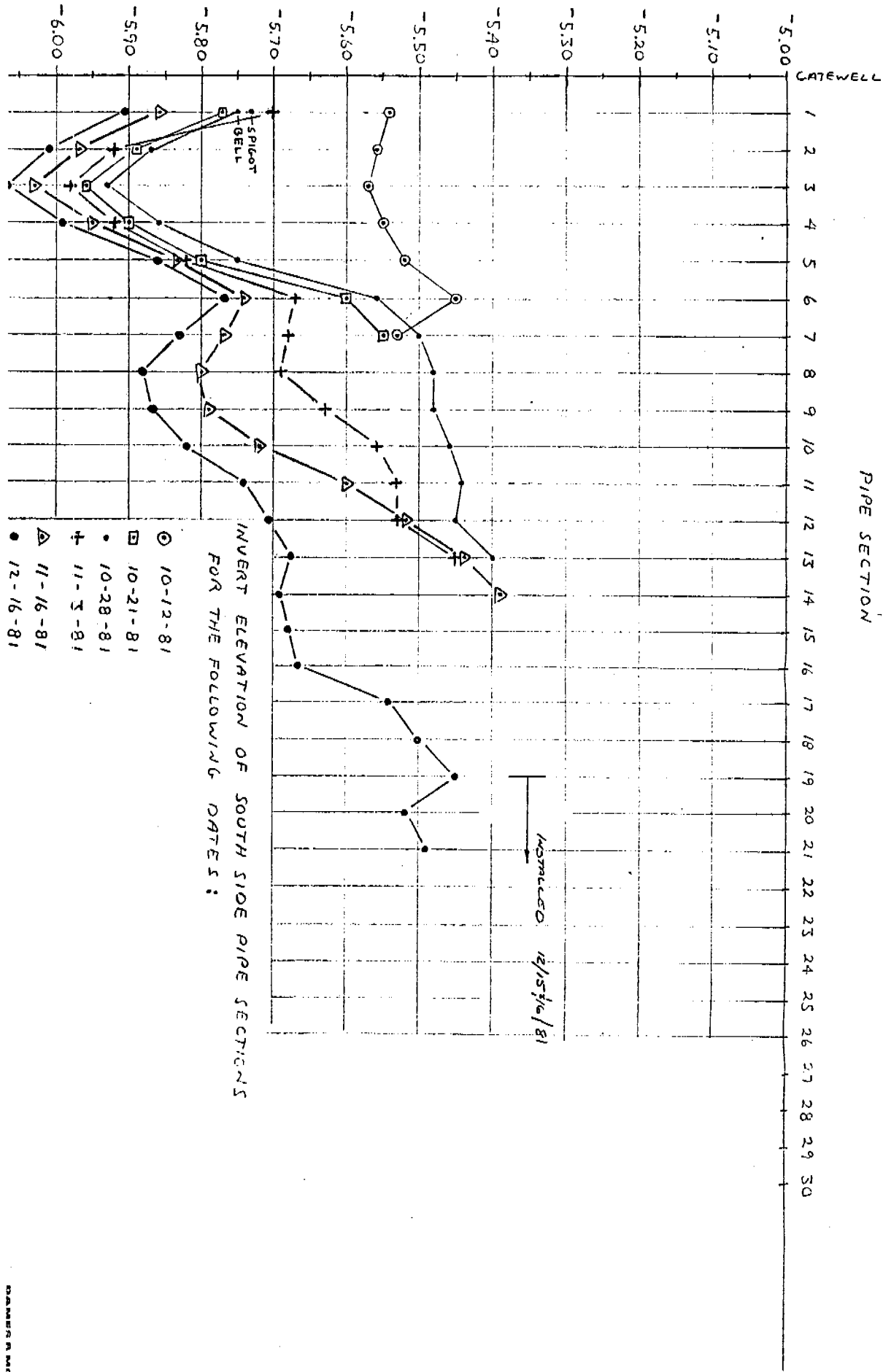
Easement Digs & descriptions for re-located utilities from this point to the starting point of relocation, to be supplied by the individual utility co. to the Port of Vancouver for construction coordination. Utility relocation to be constructed by

<p>DATE</p> <p>1-27-81</p> <p>11-17-80</p>	<p>E&C ENGINEERS INC.</p> <p>A BEYOND SYMBIOTARY</p>	<p>PORT OF VANCOUVER USA</p>		<p>ACCEPTABILITY THIS DESIGN AND/OR SPECIFICATION IS APPROVED</p> <p>APPROVED BY: R. G. G. 11</p> <p>DATE: FEB 2 1981</p> <p>APPROVED: J. CHAVE DOE 2 01</p> <p>W. ELDRIDGE CPA 2-29-81</p>	<p>DATE: 12-21-80</p> <p>BY: J. HARRIS</p> <p>DATE: 12-21-80</p> <p>BY: J. HARRIS</p> <p>DATE: 12-21-80</p> <p>BY: J. HARRIS</p>	<p>FLUSHING FINISH GRADING ST</p> <p>VANCOUVER LAKE PORT OF VANCOUVER, B.C.</p>
--	---	------------------------------	--	---	--	---

BY DATE
 CHECKED BY
 COPY TO EO

REVISIONS
 BY DATE TO EO
 BY DA TO EO

INVERT ELEVATION (FT)



PIPE SECTION

INVERT ELEVATION OF SOUTH SIDE PIPE SECTIONS
 FOR THE FOLLOWING DATES:

- 10-12-81
- 10-21-81
- 10-28-81
- + 11-3-81
- △ 11-16-81
- 12-16-81

FILE 08799-008
 SUBJECT PIPE SECTIONS
 SOUTH PIPE SHEET 1 OF 1



COOPER & ASSOCIATES, INC.

ENGINEERING & CONSTRUCTION SERVICES

11675 S.W. 66th AVENUE • PORTLAND, OREGON 97223 • (503) 639-4914

FILE
155.083

155.083

December 21, 1981

Riedel International, Inc.
c/o Project Office
Vancouver, WA 98666
ATTN: Dennis Hammond

SUBJECT: Vancouver Lake Restoration Project - Change
Order #6

Dear Dennis:

Enclosed is Change Order #6 for extra work and material for the installation of the 84" Ø RC Culverts, which resulted from your final request on December 17, 1981 for quantities - based on dimensions, and unit prices, as stated in items (a), (b) and (c) of said Change Order.

Yours sincerely,

COOPER & ASSOCIATES, INC.

R. Prensingh
R. Prensingh

RP/plt

Enclosure

CONTRACT CHANGE ORDER

Vancouver
City
Washington
State

Six
Order No.
Vancouver Lake Restoration Project
Contract For
The Port of Vancouver
Owner

December 21, 1981
Dated

To: RJEDEL INTERNATIONAL, INC.
(Contractor)

You are hereby requested to comply with the following changes from the Contract Plans and Specifications.

DESCRIPTION OF CHANGES	Decrease in Contract Price	Increase in Contract Price
See attached (a), (b) & (c) for description of each for extra work and material for the installation of the 84" Ø RC culverts.	\$ _____	\$ <u>50,286.86</u>
Totals	_____	<u>50,286.86</u>
Net Change in Contract Price	_____	<u>50,286.86</u>

Justification:

The sum of \$ 50,286.86 is hereby ADDED TO (added to) _____ the total contract price. + C.O.'s #1 thru #5 dtd 11-19-81 (11,462,600.00) + C.O. #6

The adjusted contract price to date is thereby \$ 11,512,886.86

The time provided for completion is NOT CHANGED by (increased) (Decreased) (not changed) _____ calendar days.

This document will become a supplement to the contract and all provisions of the Contract will apply hereto.

Accepted: [Signature]
(Contractor)

12-22-81
(Date)

Recommended: [Signature]
(Engineer)

12/21/81
(Date)

Approved: _____

(Date)

Attachment to Change Order #6
December 21, 1981

Extra Work & Material for Installation of 84" Ø RC Culverts

(a) Over Excavation

Length of trench including gatewell structure	=	466 ft
Width of trench	=	26 ft
Depth of trench (from -8.67 MSL to -12.5 MSL) and from (-12.5 MSL to -16.33 MSL) under the gatewell structure. i.e., $\frac{466 \times 26 \times 3.83}{27}$	=	
1719 cu yds @ 10.00 per cu yd	=	\$17,190.00

(b) Filtering Material

Provide filtering material; place in layers in pipe trench as described in (a) and compact with vibratory probe to a depth of 3 ft from elevation -6.67 MSL. Layers are as follows: 1 ft of concrete sand, 2 ft of 1½" crushed rock and 0.83 ft of 4" minus crushed rock together with 2 ft of 4" minus crushed rock to be provided by the Contractor at no cost to the Owner. i.e., 1719 cu yds of filtering material @ 17.00 per cu yd

= \$29,223.00

(c) Select Backfill

Hauling sand, from flushing channel excavation between sta 50 + 50 and 62 + 00, for backfill over pipe zone to elevation +11 MSL @ 1.09 per cu yd. Dimensions of fill are: 397' x 30.83' x 7.84' equals 3554 cu yds @ 1.09 per cu yd

= \$ 3,873.86

CHANGE ORDER #6 TOTAL

\$50,286.86

R. P. Cunningham 12/21/81
D. Macmillan 12/22/81

REVISED MEETING NOTES

DATE: December 14, 1981

PLACE: Project Site - Construction Trailer

TIME: 10:00 AM

ATTENDEES: D. Hammond, D. Jones, J. Munson-Riedel International, Inc.
D. Nordmark-BE&C Engineers, Inc.
D. Hardin-Dames & Moore
G. Hartman-Ogden Beeman & Associates
R. Premsing, P. Ehinger, P. Trotter-Cooper & Associates, Inc.

PURPOSE: Discussion of Management Team concerns on matters pertaining to dredging.

The meeting was opened by Dennis Hammond introducing David Jones to the attendees. Mr. Jones will replace Mr. Hammond as Project Manager/Engineer when the dredging portion of the project begins.

Management Team concerns and Contractor's response are as follows:

1. Dredging Schedule

Response: It is very tentative based on the possibility of constructing either NE or SW Island or both. They anticipate having NE Shore constructed in August-September of 1982. The dredge McCurdy will most likely not be on the Vancouver Lake project as it is foreseen that the Corps of Engineers will not release the dredge from the Toutle River project site. The dredge Anderson will most likely show up on the project site in early January or no later than mid-March of 1982. This vessel will dredge 400,000 cu yds at the mouth of the lake and discharge into Buckmire disposal area. The possibility of the dredge Missouri or Papoose showing up on the project site is very likely. Both are electric dredges that will be using trailer barges capable of cutting a wide swing.

Two problems with the flushing channel are high water and the fact that Alcoa and Northwest Natural Gas cannot agree on an easement. Dredging cannot begin until the matter of easements has been resolved.

Dredging schedule was based on pumping capabilities.

2. Threshold Sill

Response: It is undecided whether this item is needed and what size it should be if it is needed. Joe Munson will get a letter to the Management Team for necessary permits.

3. Extras for Differing Soil Conditions

Response: No claims if dredge hits clay; if it hits rock, they will make claims.

REVISED MEETING NOTES

Page two.

4. Dredging in Lake River with respect to turbidity & water quality:
Response: No dredging in Lake River will be necessary. Dredge will be able to float all the way into the Lake where it will begin dredging. Contractor has no fear of any problems with turbidity and water quality.
5. Construction of in-water berms for NE Shore
Response: Contractor mentioned that this will be done when dredging starts. High water was defined as water level above 7 feet MSL.
6. Claims for Standby Time
Response: If Contractor must shutdown for no fault of his own, he must be paid \$1,000 per shift as per bid. If he is shutdown for periods more than 5 days, a fair/acceptable rate, different from the \$1,000 per shift as per bid, should be negotiated between Contractor and Management Team.
7. Utilization of Disposal Sites
Response: No need seen for South Park. Not all disposal sites will be fully utilized. Some sites could be abandoned. If Dugan/CENEX site is to be filled to capacity, the Port of Vancouver should anticipate additional cost for pumping through 11,000 feet of dredge lines. Contractor requested a list from the Port of Vancouver outlining POV's commitments and obligations to landowners.

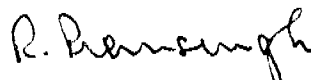
Kadow and Buckmire disposal areas are scheduled to be used for sure. No priority at this time for North Park or Alcoa. Question about Dugan/CENEX, "has fill height been resolved between POV and landowners?"

Further dialogue encompassed: a) 30% swell factor - Contractor feels we will never see a swell factor of 30% - most likely 5-10%.

b) With the concept of a 30% swell factor and a limited amount of overdepth dredging, disposal sites were made available around the lake to provide adequate dredge spoils storage capacity at reasonable pumping distances.

Contractor wanted it pointed out that "the Management Team cannot hold Contractor to any specific amounts to be dredged/filled in disposal sites other than Kadow disposal area".

If Contractor is instructed to pump to areas beyond equipment's capabilities, he will be compensated accordingly. Since flushing channel spoil disposal area will not be filled to capacity, POV may want to consider it for maintenance dredging instead of South Park disposal site. Construction of NE Island is to be given priority over SW Island if both are not needed for dredge spoil disposal.


R. PREMSINGH

RP/plt