

MTR Corporation Limited

Kwun Tong Line Extension (KTE)

Further Inspection Report of Three Kerosene Tanks for
the Kerosene Store at Chung Hau Street (June 2012)

Verified by:  _____


Position: Independent Environmental Checker

Date: 7 Jun 2012

MTR Corporation Limited

Kwun Tong Line Extension (KTE)

Further Inspection Report of Three Kerosene Tanks for
the Kerosene Store at Chung Hau Street (June 2012)

Certified by: 

Position: Environmental Team Leader

Date: 8 June 2012


NISHIMATSU CONSTRUCTION CO. LTD.

**MTRC Contract No. 1001
Kwun Tong Line Extension:
Yau Ma Tei to Whampoa Tunnels
and Ho Man Tin Station**

**Further Inspection Report of
Three Kerosene Tanks
For the Kerosene Store at Chung Hau Street**

(Version 2.0)

June 2012

Approved By	 _____ (Principal Environmental Consultant: Mr. K.S. Lee)
-------------	--

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

CINOTECH CONSULTANTS LIMITED

Room 1710, Technology Park

18 On Lai Street

Shatin, NT, Hong Kong

Tel: (852) 2151 2083 Fax: (852) 3107 1388

Email: info@cinotech.com.hk

TABLE OF CONTENTS

	Page
1 INTRODUCTION	1
2 KEROSENE STORE	2
3 REMOVAL OF THE KEROSENE TANKS.....	2
4 FURTHER INSPECTION OF THE CONCRETE BOX CONTAINMENT	2
5 CONCLUSION	3

List of Annex

Appendix I	Location of the Kerosene Store and BH1
Appendix II	Layout Plan and Sectional View of the Kerosene Store
Appendix III	Photos of Inspected Box Containment During Further Inspection

1 INTRODUCTION

- 1.1 The Kwun Tong Line Extension (the Project) is the proposed extension of the existing Kwun Tong Line (KTL) from Yau Ma Tei (YMT) Station to a new Whampoa (WHA) Station with an interchange with the proposed Shatin to Central Link (SCL) at the proposed Ho Man Tin (HOM) Station.
- 1.2 The Project is classified as a designated project under the Environmental Impact Assessment Ordinance (EIAO). An Environmental Impact Assessment (EIA) report was prepared and approved on 19 August 2010 (Register No.: AEIAR-154/2010).
- 1.3 Land contamination assessment was conducted and presented in Section 11 of the EIA. The EIA report mentioned that potential contamination is anticipated at the concord kerosene store at No.33, Chung Hau Street, Ho Man Tin due to the 3 kerosene storage tanks at the lowest floor of the store. Soil sampling was conducted at borehole BH1 which is located on the existing slope beneath Concord kerosene store. The location of Kerosene store and borehole BH1 were illustrated in **Appendix I**. Analysis results of the samples as included in the Contamination Assessment Report (CAR) in Appendix 11.2 of the approved EIA indicated that no exceedance of the Risk-Based Remediation Goals for Soil and Soil Saturation Limit was found. There was no groundwater encountered at BH1. It was recommended in the EIA and CAR that when the permission for access is granted at the time when the land is resumed, a reconnaissance site visit should be carried out to review whether further SI would be required.
- 1.4 In the Environmental Permit (EP No.: EP-399/2010/A) Section 3.7 stipulated that *“The Permit Holder shall carry out reconnaissance site visit to the kerosene store at Chung Hau Street (which falls within the Ho Man Tin Station works site). Within two weeks after the completion of reconnaissance site visit, the Permit Holder shall report to the Director in writing of any contamination hotspot(s) identified from the reconnaissance site visit.*
- 1.5 Reconnaissance site visit has been conducted and the reconnaissance site visit report has been prepared to fulfil the permit condition. Recommendation has made in the report that no contamination hotspot was identified within the store except the three tanks and the internal surface of the concrete box containment. A further inspection should be conducted to determine whether there is crack and stain on the concrete box containment after removal of the tanks.
- 1.6 This report is prepared by the Contractor’s environmental consultant to address the finding of the further inspection of concrete box containment after removal of the three kerosene tanks.

2 KEROSENE STORE

- 2.1 The kerosene store at Chung Hau Street was operated by Concord Oil (Hong Kong) Limited until 2010 under the Short Term Tenancy land lease (STT KX1484). It is vacant currently. The location of the kerosene store is shown in **Appendix I**.
- 2.2 The kerosene store was built in 1970's. The store contains five levels: Roof Floor, Ground Floor, Lower Ground Floor, Sub-Lower Ground Floor and Underground Tank Level. There are three kerosene tanks in the Underground Tank Level. The as-built layout plan and the sectional view of the kerosene store are shown in **Appendix II**. These are the Buildings Department approved record drawings retrieved during design stage in 2008. The information in the drawings was mainly in line with our observations during the site visit.
- 2.3 According to the Contamination Assessment Plan (CAP) in Appendix 11.1 of the approved EIA, there was no record of spillage incidents reported at this kerosene store. The dimensions of all the 3 tanks are approximately 10m (L) x 5m (W) x 2.5m (H) and contained in a concrete box containment of 12.5m(L) x 6m(W) x 3.5m(H).

3 REMOVAL OF THE KEROSENE TANKS

- 3.1 Refer to the approved reconnaissance site visit report Section 4, the three tanks, the three pumps, the connecting pipes, the suspected stain area on the brick wall near the three pumps and the sand inside the concrete box containment, have been disposed of by means of chemical waste in accordance with Waste Disposal Ordinance.

4 FURTHER INSPECTION OF THE CONCRETE BOX CONTAINMENT

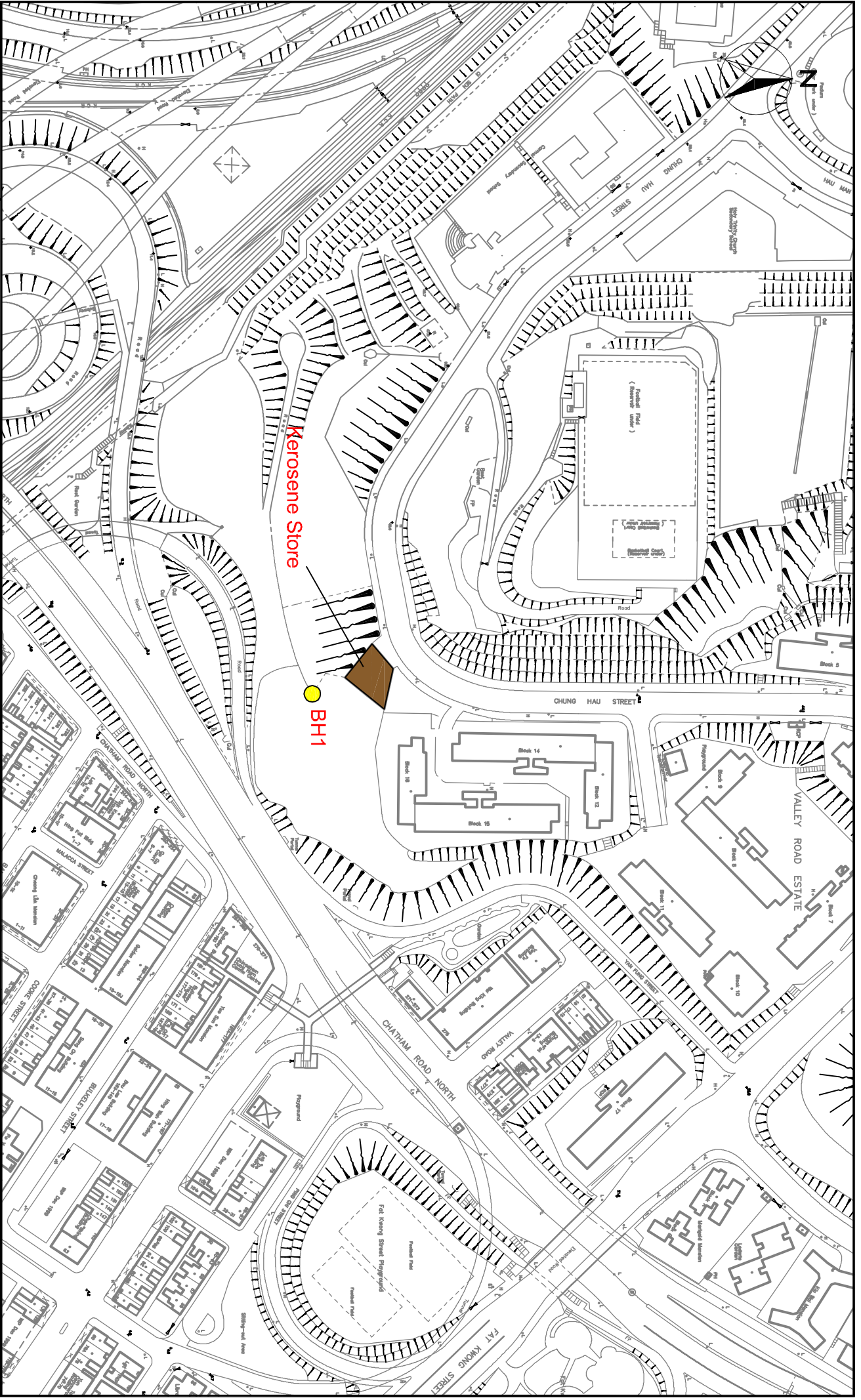
- 4.1 Further inspection of the Concrete Box Containment was carried out on 10 May 2012 with representatives from the project proponent, the main contractor, the consultant (Cinotech), the ET (MTR Corporation) and the IEC (Arup) after removal of the three kerosene tanks. The corresponding photos of inspected items are shown in **Appendix III**.
- 4.2 The concrete box containment was sited on a layer of filled rocks on the existing slope below the Sub-Lower Ground Floor of the Kerosene Store. No stain was observed on the base and wall of the box containment. No crack was identified on the walls or base of the concrete box containment. It can be confirmed that no hotspot is identified. No confirmatory soil sampling is required in accordance to the site visit report.

5 CONCLUSION

- 5.1 Further inspection of the concrete box containment has been conducted after removal of the three kerosene tanks in accordance with the reconnaissance site visit report for the kerosene store at Chung Hau Street. No stain or crack was identified on the walls or base of the concrete box containment.
- 5.2 It can be confirmed that no hotspot is identified. No further soil sampling is required. The submission of CAP, CAR and RAP in accordance with the EP's condition section 3.7 is not required.

Appendix I

The Location of the Kerosene Store and BH1



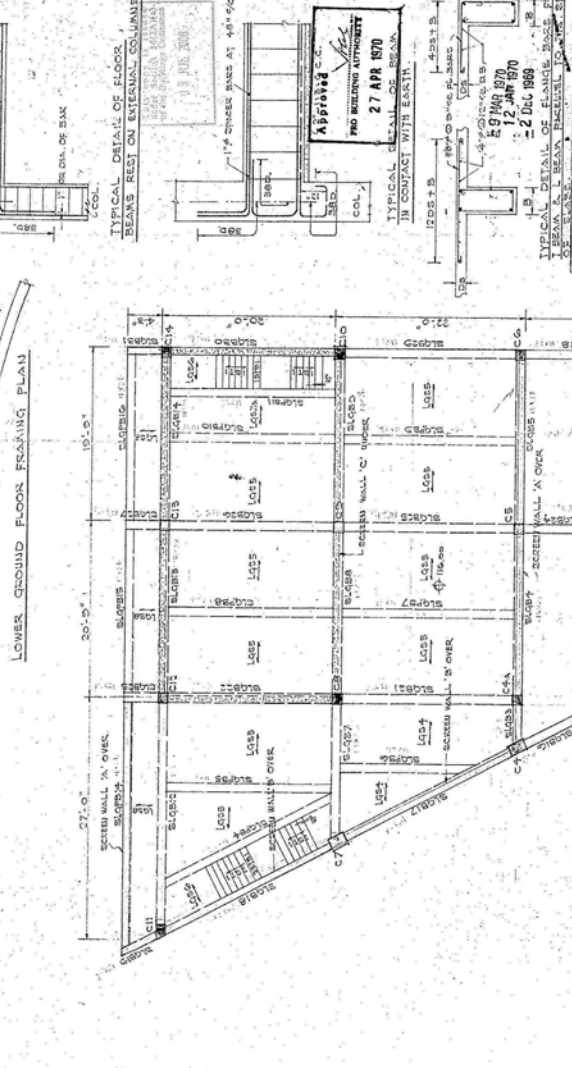
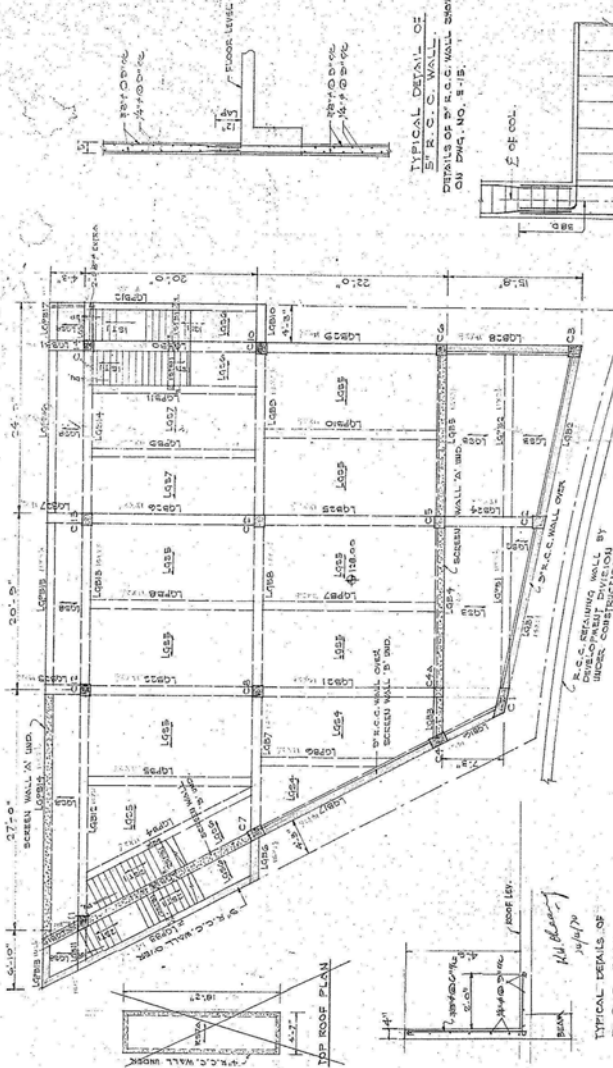
Further Inspection Report for 3 Kerosene Tanks for the Kerosene Store at Chung Hau Street
Location of Kerosene Store & BH1

SCALE	N.T.S.	DATE	MAY'12
CHECK	K.S.	DRAWN	MC
JOB NO.	LC10079	FIGURE NO.	A01
		REV	-

Appendix II

The Layout Plan and Sectional View of the
Kerosene Store

B.C.O. REF. NO. 8-1115A



APPROVED
27 APR 1970
PRO BUILDING AUTHORITY

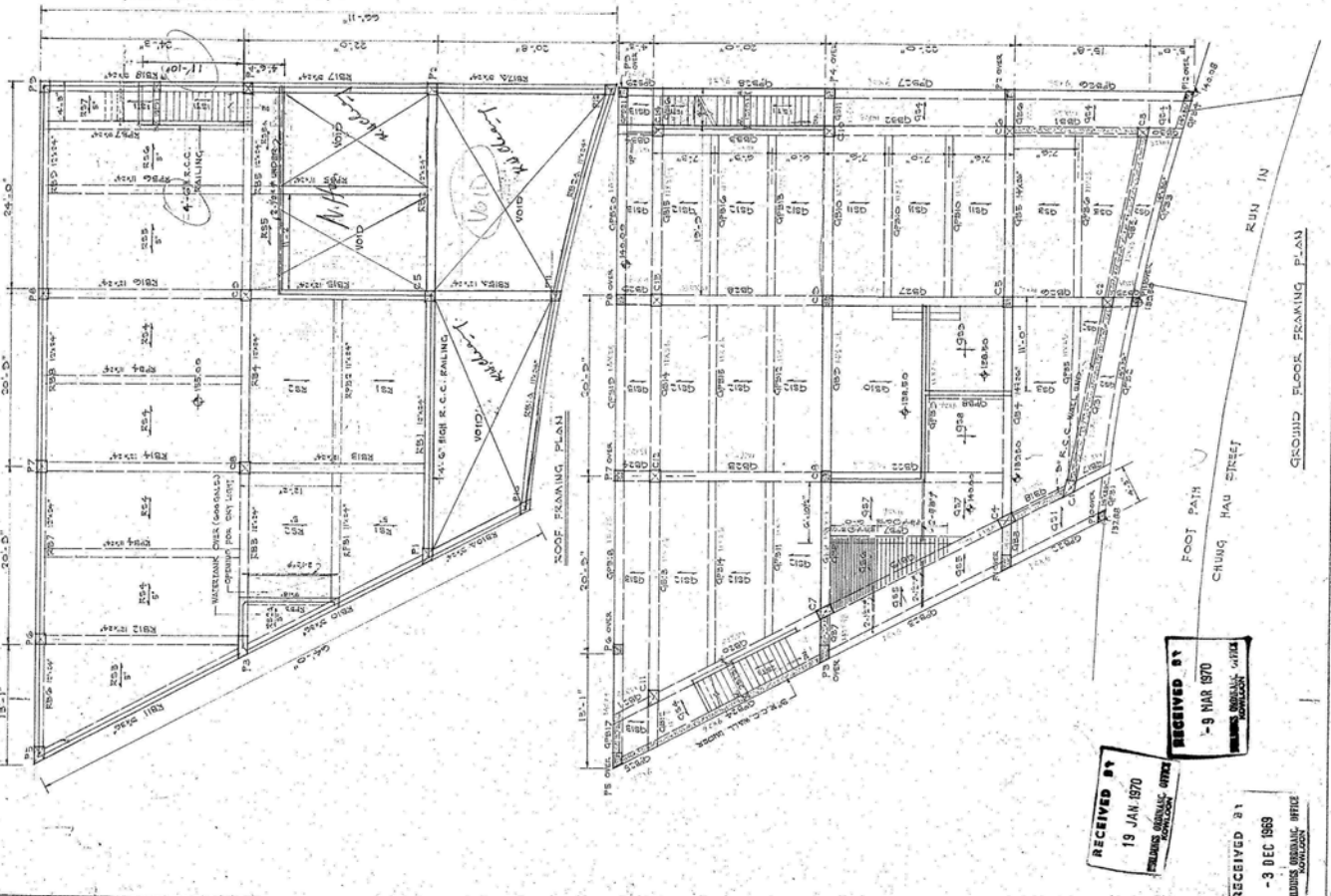
TYPICAL DETAIL OF R.C.C. WALL OVER SCREEN WALL IN CONTACT WITH EARTH.

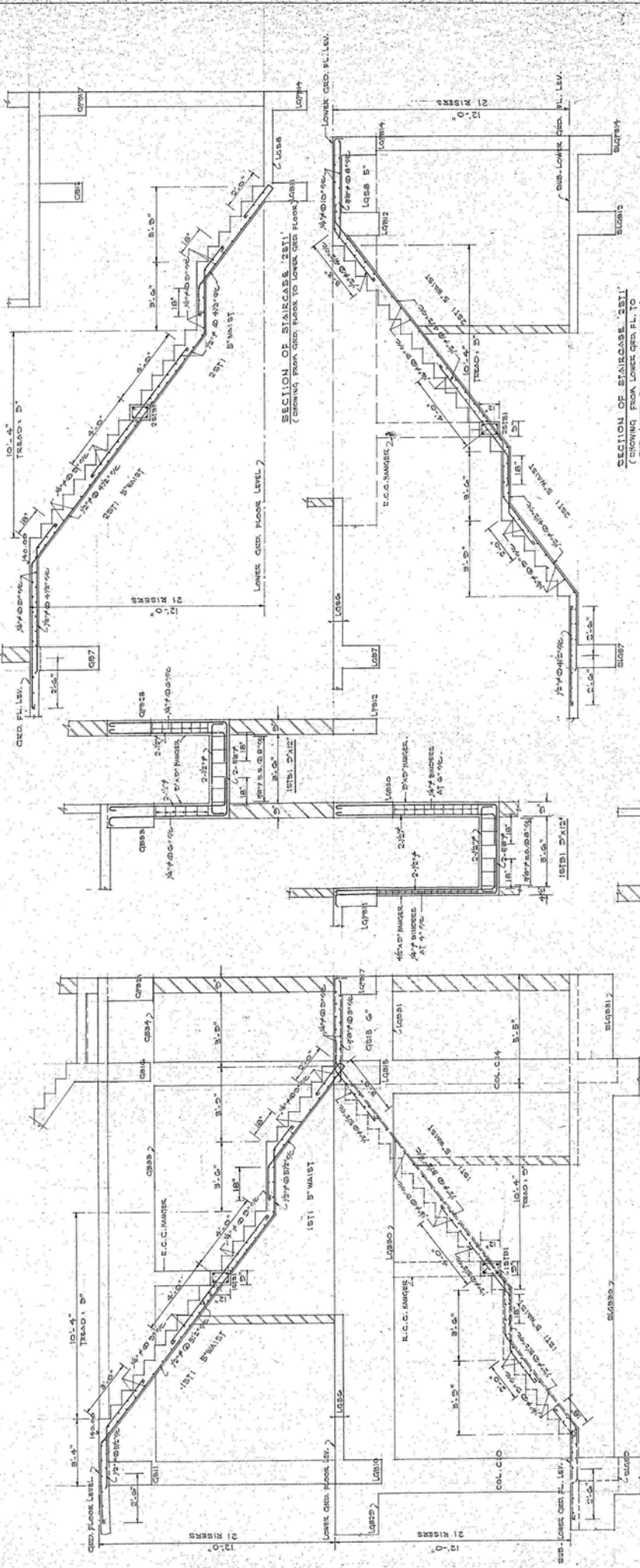
TYPICAL DETAIL OF FLANGE JOINT OF STEEL BEAM-FRAMED JOIST SPAN.

19 MAR 1970
22 JAN 1970
2 DEC 1969

FRAMING PLANS

Drawn by:	H.S. NIEH
Checked by:	H.S. NIEH
Approved by:	[Signature]





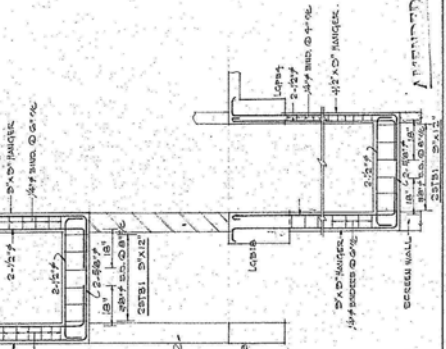
Approved
 THE BUILDING AUTHORITY
 27 APR 1970

12 JAN 1970
 -9 MAR 1970
 -2 DEC 1969

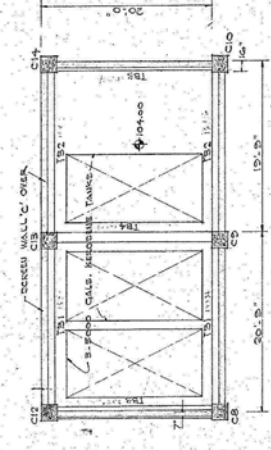
- NOTES:
- (1) ALL R.C.C. WORKS TO BE OF 1:2:4 MIX. GRADE B1. ALL R.C.C. COLS. AND PARTS TO BE OF 1:1.5 MIX. GRADE A. ALL SHOULD BE RAISED WITH AN APPROVED BATCH WEIGHTER.
 - (2) CONCRETE PROTECTIONS: 1/2" MIN. & NOT LESS THAN THE DIA. OF BARS. CLASS A. PAINT WALLS WITH 2 COATS OF BARS, 2 BID COVER FOR JOINT BARS. COLS. — 2 COATS PAINT BARS. 2" MIN. & NOT LESS THAN THE DIA. OF BARS. LIQUID CONTAINERS — 2" MIN. & NOT LESS THAN THE DIA. OF BARS. SCREEN WALLS — 2" MIN. & NOT LESS THAN THE DIA. OF BARS. FOUNDATIONS (INCLUDING FOUNDATION BEAMS) IS IN CONTACT WITH EARTH.
 - (3) CONSTRUCTION JOINT: THE JOINT IN A BEAM SHOULD BE VERTICAL & AT THE MIDDLE OF THE SPAN, THE JOINT IN A SLAB SHOULD BE VERTICAL & / TO THE PRINCIPAL REINF.
 - (4) ONE LAYER OF 2-11 #2 CON. CONC. BLINDING LAYER SHOULD BE PROVIDED UNDER ALL R.C.C. WORKS.
 - (5) ALL R.C.C. FOOTINGS SHOULD BE CARRIED DOWN TO SOLID GROUND.
 - (6) TYPICAL HOOK OF BARS:
 - (7) DIM. MD. & 1/2" TO 1/4" TO BE OMITTED.

JOB NO.	24181/68
DATE OF ISSUE	27 APR 1970
SCALE	AS SHOWN
DESIGNED BY	HSIN-YIEH
CHECKED BY	HSIN-YIEH
DATE	27/4/70

NOTE: ALL CONCRETE TO BE QUALITY "M" MIX. & BY TEST BATCHING
 1/2" MIN. & NOT LESS THAN THE DIA. OF BARS.
 1/4" MIN. & NOT LESS THAN THE DIA. OF BARS.

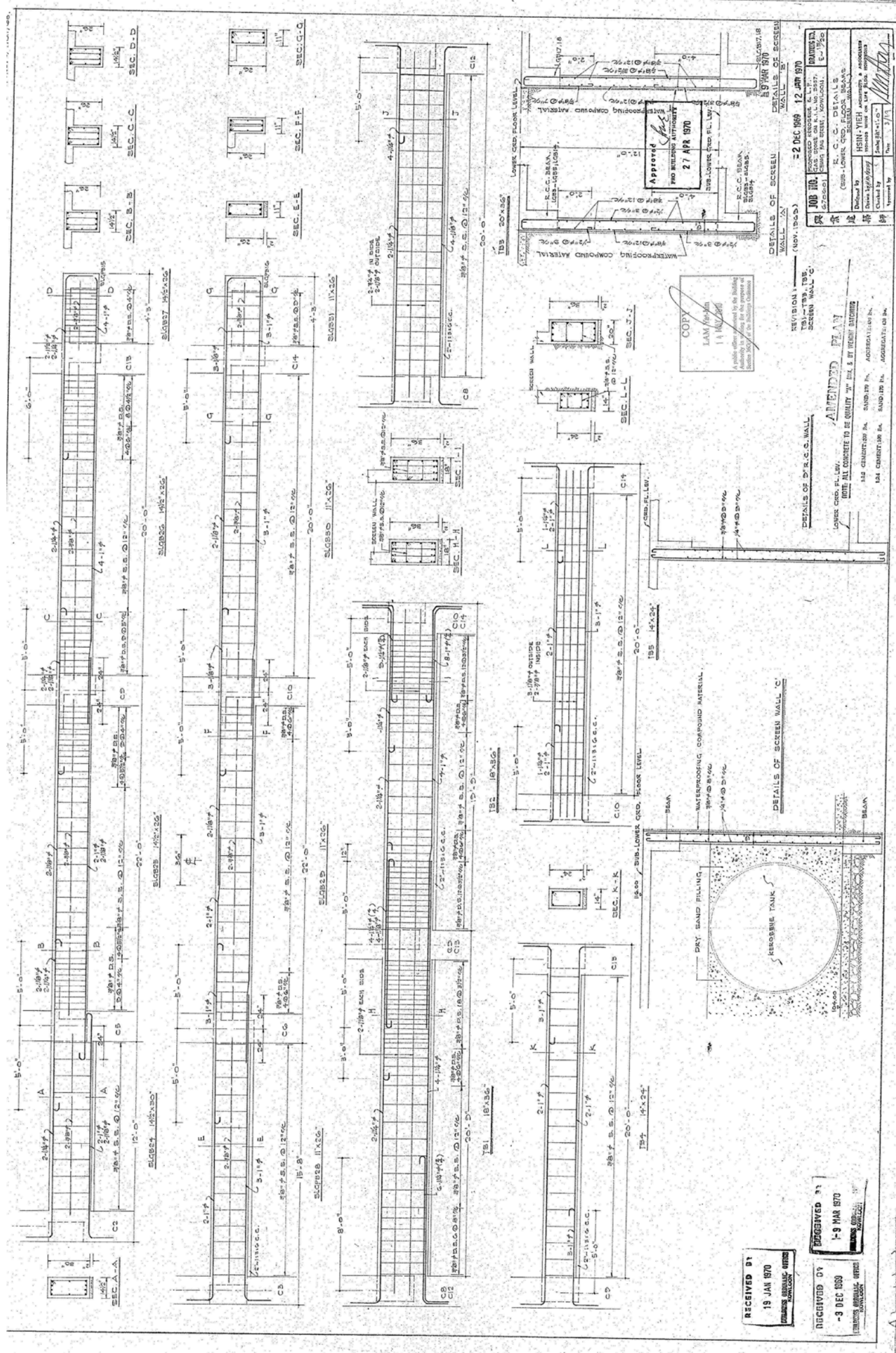


SECTION OF STAIRCASE 12B1



RECEIVED BY
 19 JAN 1970
 10 10 1970
 -9 MAR 1970
 -3 DEC 1969

RECEIVED BY
 19 JAN 1970
 10 10 1970
 -9 MAR 1970
 -3 DEC 1969



APPROVED
27 APR 1970
NO BRIDGING ATTACHMENT
WATERPROOFING COMPOUND MATERIAL
L.A.M. [Signature]
14 MAR 1970
Autoblock & [unclear] for the [unclear] Section 100% of the [unclear]

NOV 1965
2 DEC 1969 12 APR 1970
REVISION
29'-0" DIA. THE SCREEN WALL 'C'

AMENDED PLAN
HUNG HING CONSTRUCTION CO. (INC.)
HUNG HING CONSTRUCTION CO. (INC.)
HUNG HING CONSTRUCTION CO. (INC.)

RECEIVED BY
19 JAN 1970
HUNG HING CONSTRUCTION CO. (INC.)

RECEIVED BY
-3 DEC 1969
HUNG HING CONSTRUCTION CO. (INC.)

RECEIVED BY
1-9 MAR 1970
HUNG HING CONSTRUCTION CO. (INC.)

REVISION
29'-0" DIA. THE SCREEN WALL 'C'

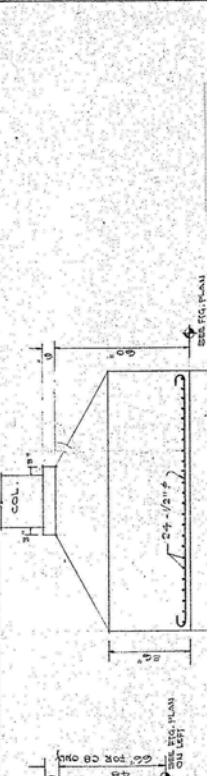
AMENDED PLAN
HUNG HING CONSTRUCTION CO. (INC.)
HUNG HING CONSTRUCTION CO. (INC.)
HUNG HING CONSTRUCTION CO. (INC.)

RECEIVED BY
19 JAN 1970
HUNG HING CONSTRUCTION CO. (INC.)

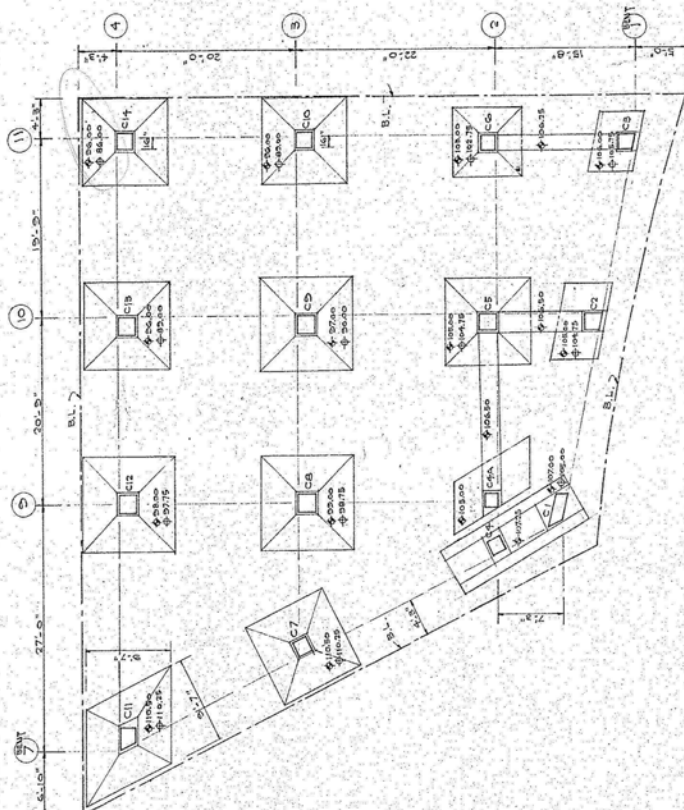
RECEIVED BY
-3 DEC 1969
HUNG HING CONSTRUCTION CO. (INC.)

RECEIVED BY
1-9 MAR 1970
HUNG HING CONSTRUCTION CO. (INC.)

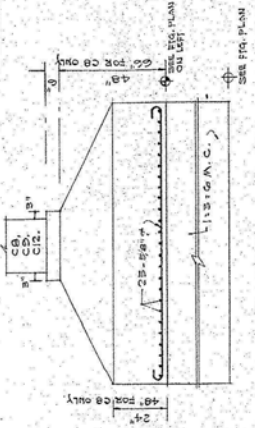
	CHD. FLOOR TO LOWERED FLOOR.	LOWER CONC. FLOOR TO SUB. LOWER CONC. FLOOR.	SUB. LOWER CONC. FLOOR TO FOOTING.
C/3			
COL. SIZE	14' x 14'	20' x 20'	20' x 20'
VERT. BARS	4-1" #4	4-1/2" #4-1" #4	4-1/2" #4-1" #4
BINDERS	3/4" @ 6" #4	3/4" @ 6" #4	3/4" @ 6" #4
C/4			
COL. SIZE	15' x 15'	20' x 20'	23' x 23'
VERT. BARS	4-1" #4	4-1" #4	4-1/2" #4-1" #4
BINDERS	3/4" @ 6" #4	3/4" @ 6" #4	3/4" @ 6" #4
C/11			
COL. SIZE	15' x 15'	20' x 20'	23' x 23'
VERT. BARS	4-1" #4	4-1" #4	4-1/2" #4-1" #4
BINDERS	3/4" @ 6" #4	3/4" @ 6" #4	3/4" @ 6" #4



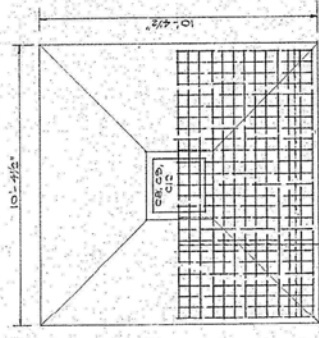
TYPICAL SECTION OF FOOTING.



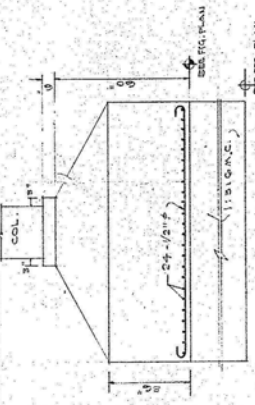
FOOTING PLAN (SCALE 1/8"=1'-0")
 --- BOT. LEVEL OF FOOTING.
 --- BOT. LEVEL OF 1:1.5 MASS CONC.



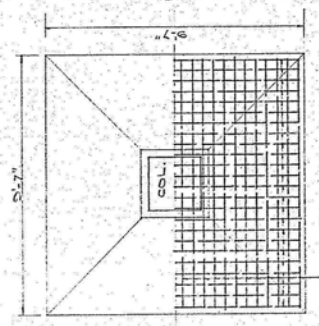
SECTION



SECTION



SECTION



SECTION

THIS DRAWING IS SUBJECT TO THE GENERAL CONDITIONS OF THE CONTRACT DOCUMENTS DATED JULY 20, 1968

Approved: [Signature]
 PRO BUILDING ARCHITECTS
 27 APR 1970

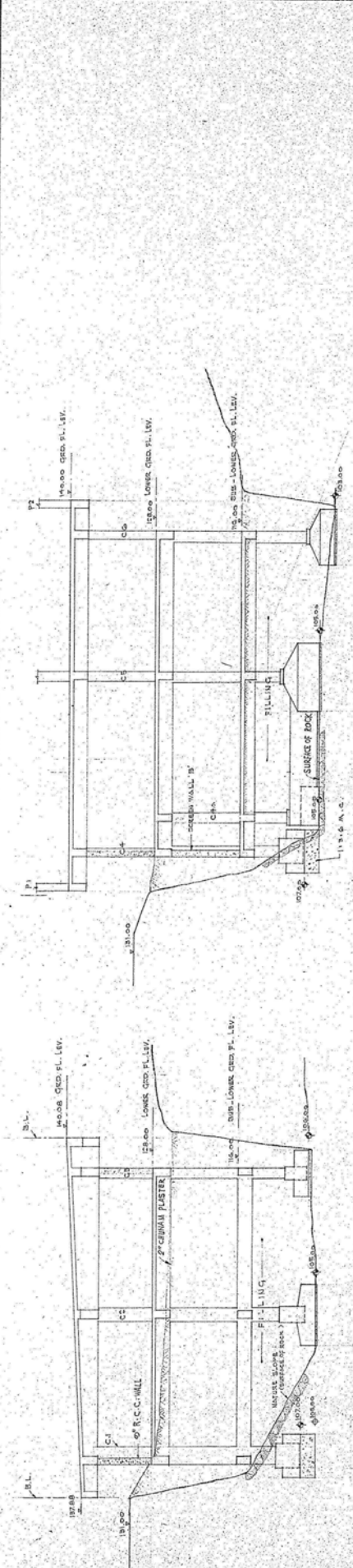
AMENDED PLAN

NOTE: ALL CONCRETE TO BE QUALITY "A" MIX. 3 BY WEIGHT. APPROVED BY THE CONSULTING ENGR. SAND, LTD. IN THE AGGREGATE AND BY THE CONSULTING ENGR. SAND, LTD. IN THE AGGREGATE AND IN THE REVISION.

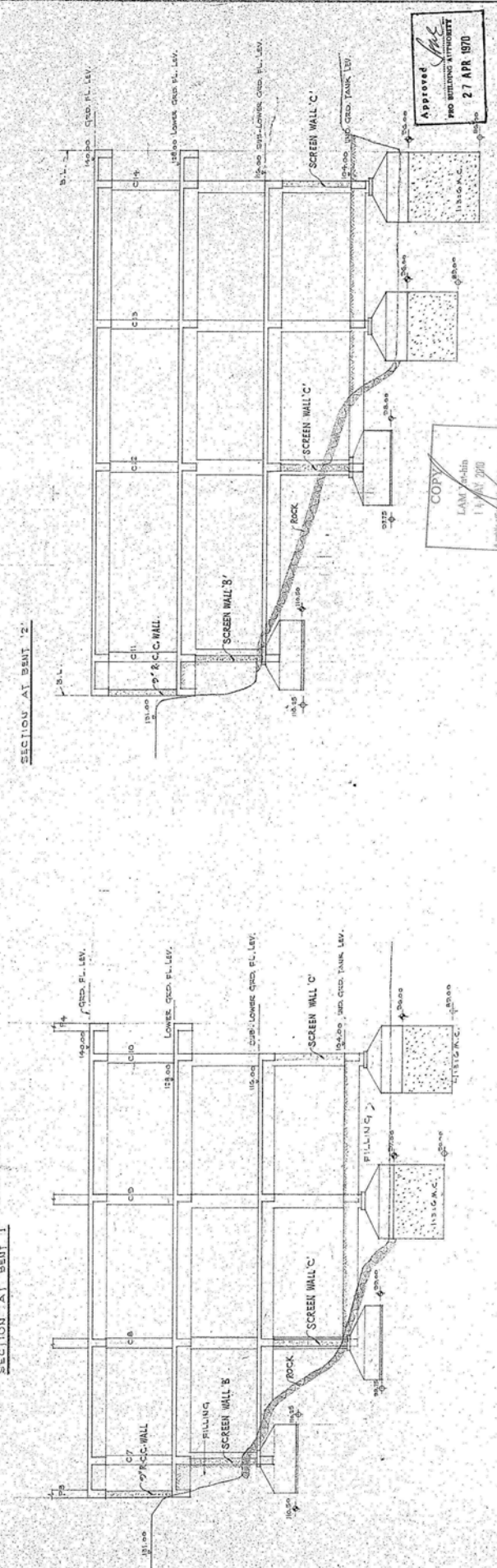
REVISION: 5-9 MAR 1970
 FIG. FOR COL. C/3, C/4, C/11
 COL. C/3, C/4, C/11

JOB NO. PROJECTED REVISIONS & APPROVALS
 67656 (Sheet No. 1 of 1)
 R. C. C. DETAILS
 (FOOTING PLAN, COL. & BEAMS)
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 DATE: 3/51

RECEIVED BY: 19 JAN 1970
 RECEIVED BY: 30 MAR 1970
 RECEIVED BY: 3 DEC 1969
 RECEIVED BY: 2 DEC 1969



SECTION AT BENT '1'



SECTION AT BENT '2'

SECTION AT BENT '3'

SECTION AT BENT '4'

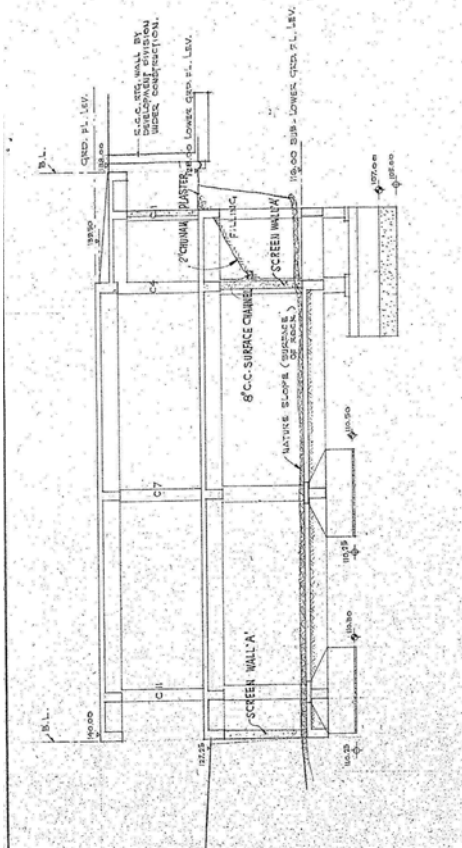
NOTE: ALL THE SECONDARY DETAILS NOT SHOWN ON SECTIONS AT BENT 1, 2, 3, 4, 7, 8, 10, 11.
 REVISION: (NOV. 1968)

Approved
 27 APR 1970

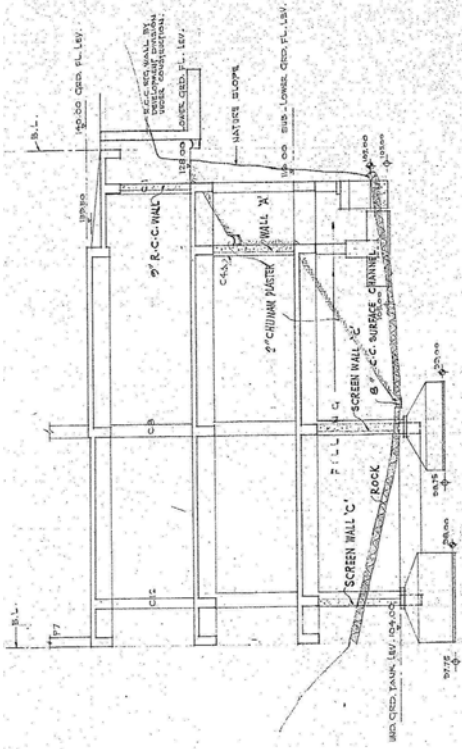
COPY
 LAM within
 14 JAN 2000

RECEIVED, 81
 - 9 MAR 1970

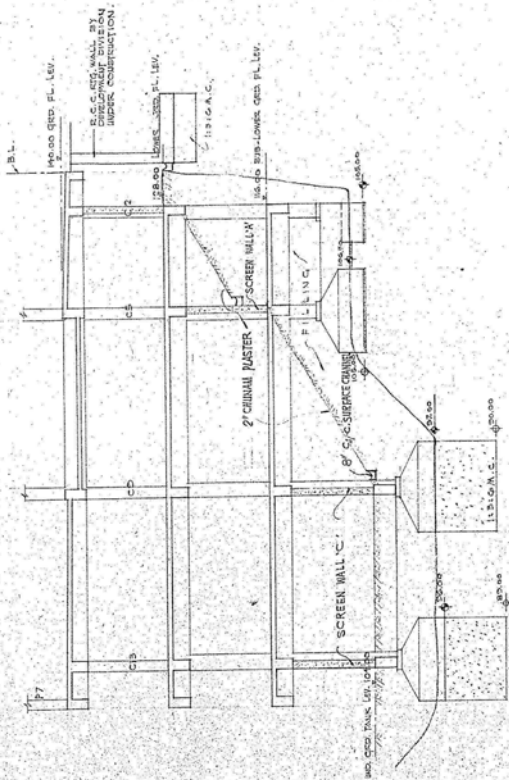
JOB NO. 1000 PROJECTED RECORDS C.L.P. 070201 CHANG HAU STREET, HONGKONG, E. P.C.	
DIVISION: (NOV. 1968)	
R. C. C. DETAILS	
Designed by: M.T.M. YIP H.	Checked by: Sze/Sze/Sze
Drawn by: Sze/Sze/Sze	Approved by: M.T.M. YIP H.



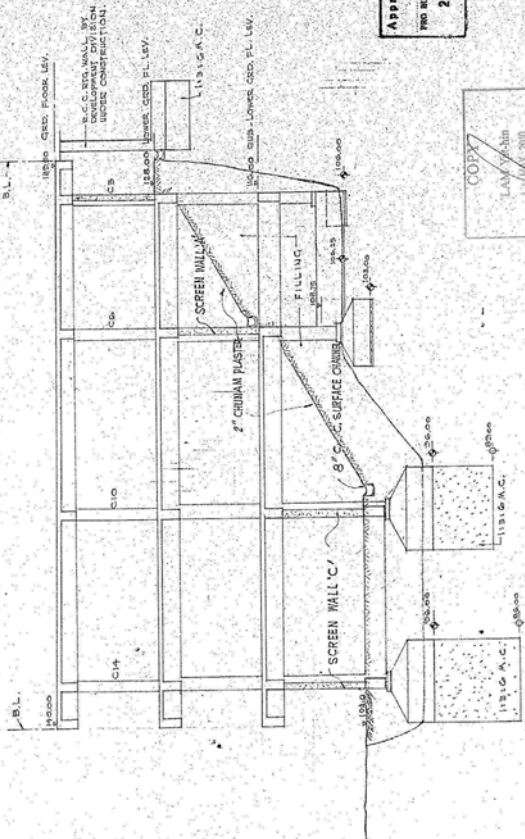
SECTION AT BENT 'Z'



SECTION AT BENT 'D'



SECTION AT BENT 'C'



SECTION AT BENT 'I'

Approved *[Signature]*
 THE BUILDING AUTHORITY
 27 APR 1970

- 9 MAR 1970

COPY
 LAM/wh
 1/10/70

REVISIONS: (NCL 1968)

NO.	DESCRIPTION
105 NO.	PROPOSED VICTORIAN S.L.P. BUILDING ON GAS EXPOSED ON KILLING ROAD, 670001 CHANG HUA STREET, HONGKONG, E-250
1	R. C. C. DETAILS (SECTIONS)

Designed by: P.S.M. YEH ARCHITECTS & ASSOCIATES
 Drawn by: S. L. CHAN
 Checked by: S. L. CHAN
 Approved by: *[Signature]*

RECEIVED BY
 - 9 MAR 1970
 THE BUILDING AUTHORITY

APPENDED PLAN

Appendix III

The Photos of the Inspected Box Containment
During Further Inspection



Photo 1: A view of Kerosene Tanks inside the Concrete Box Containment

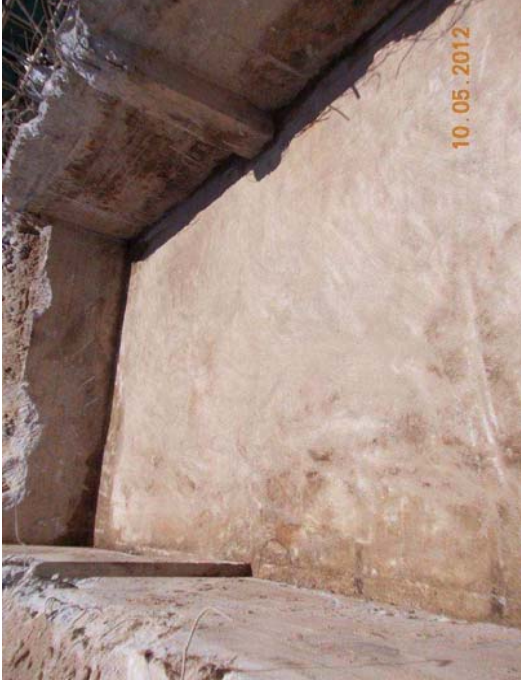


Photo 2: The Base and Walls of the Concrete Box Containment After Removal of the Three Kerosene Tanks.



Photo 3: Another view of the Concrete Box Containment

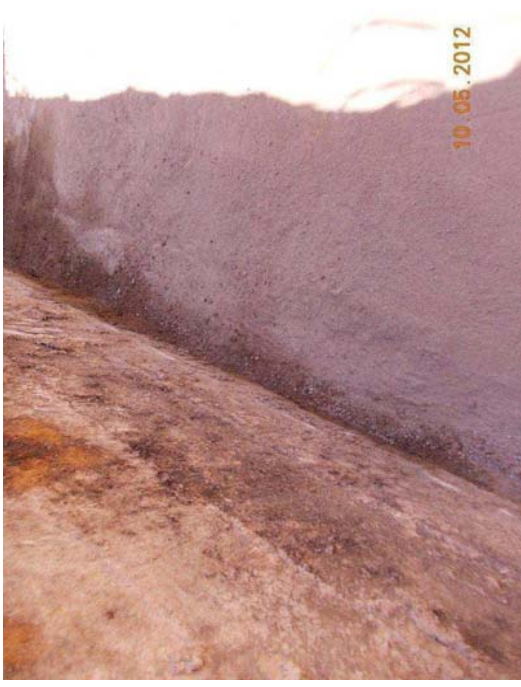


Photo 4: No stain or crack was identified on the walls or base of the concrete box containment.