

Appendix 1

Terms of Reference and Correspondence

CONTRACT

PO09772 (MK)

The Pan American Health Organization, (PAHO), with headquarters at 525 Twenty-third Street, N.W., Washington, D.C. 20037, United States of America, and Consulting Engineers Partnership Ltd. (CONTRACTOR), located at P.O. Box 715, Bridgetown, Barbados, hereby agree to the following:

CONTRACT

1. The CONTRACTOR agrees to provide the following services to PAHO in accordance with the requirements specified herein and General Provisions attached as ANNEX A which are an integral part of this contract:

SCOPE OF WORK

The CONTRACTOR shall provide a Vulnerability Survey of the Victoria Hospital in St. Lucia. The services shall include the following:

- review the report prepared in 1993, revise and/or reiterate the medium and long-term measures proposed for the hospital, taking into account the changes occurred.
- review the construction work undertaken at the hospital during the last 3 years
- provide sufficient information to permit implementation of the short-term recommendations made in 1993 which may not yet have been implemented.
- provide sufficient information to permit implementation of such additional mitigation measures with respect to hurricanes which can reasonably be implemented in short-term.
- provide a report of the survey for the Pan American Health Organization describing the recommended measures.
- transfer knowledge on the process of natural hazard damage mitigation to other professionals in the Caribbean region.
- brief the engineers that will conduct the vulnerability survey in St. Vincent (one day).

CEP

CONCEPT
DAYRELLS ROAD
CHRIST CHURCH
BARBADOS, W.I.
TEL: (246) 426-5930
FAX: (246) 426-5935
P O BOX 715, BRIDGETOWN
E-Mail: CONCEPT@caribsurf.com

CONSULTING ENGINEERS PARTNERSHIP LTD

DIRECTORS:

A E HUTCHINSON, BEng, MAsE, FICE, MStructE, MIMT, MCSCPE
P T SOBERS, MSc, DIC, MICE, MStructE, MASCE*
A C T FARRELL, MSc, FICE, FStructE

CONSULTANTS:

TONY GIBBS, BSc, DCT (Leeds), FICE, FStructE, FASCE, MConsE, FRSA*
K M JOHNSON, OBE, BSc, FICE, FIWEM*
H E BROWNE, BSc(Eng), MSc, MS, MICE, AStructE*

F A C S I M I L E

Date: 1996-07-30 number of pages (including this page) = 3
To: Dr José Grases fax no: 011 582 285 0608
From: Tony Gibbs fax no: (246) 426 5935
Subject: Vulnerability Survey, St Vincent CEP/20185

Further to our telephone call this morning, I attach herewith the PAIGH iso-acceleration maps for the Eastern Caribbean and (in more detail) for the area in the vicinity of St Vincent. These were prepared by Dr John Shepherd in 1993.



FAXED
BY: Ali
DATE: 96-07-30

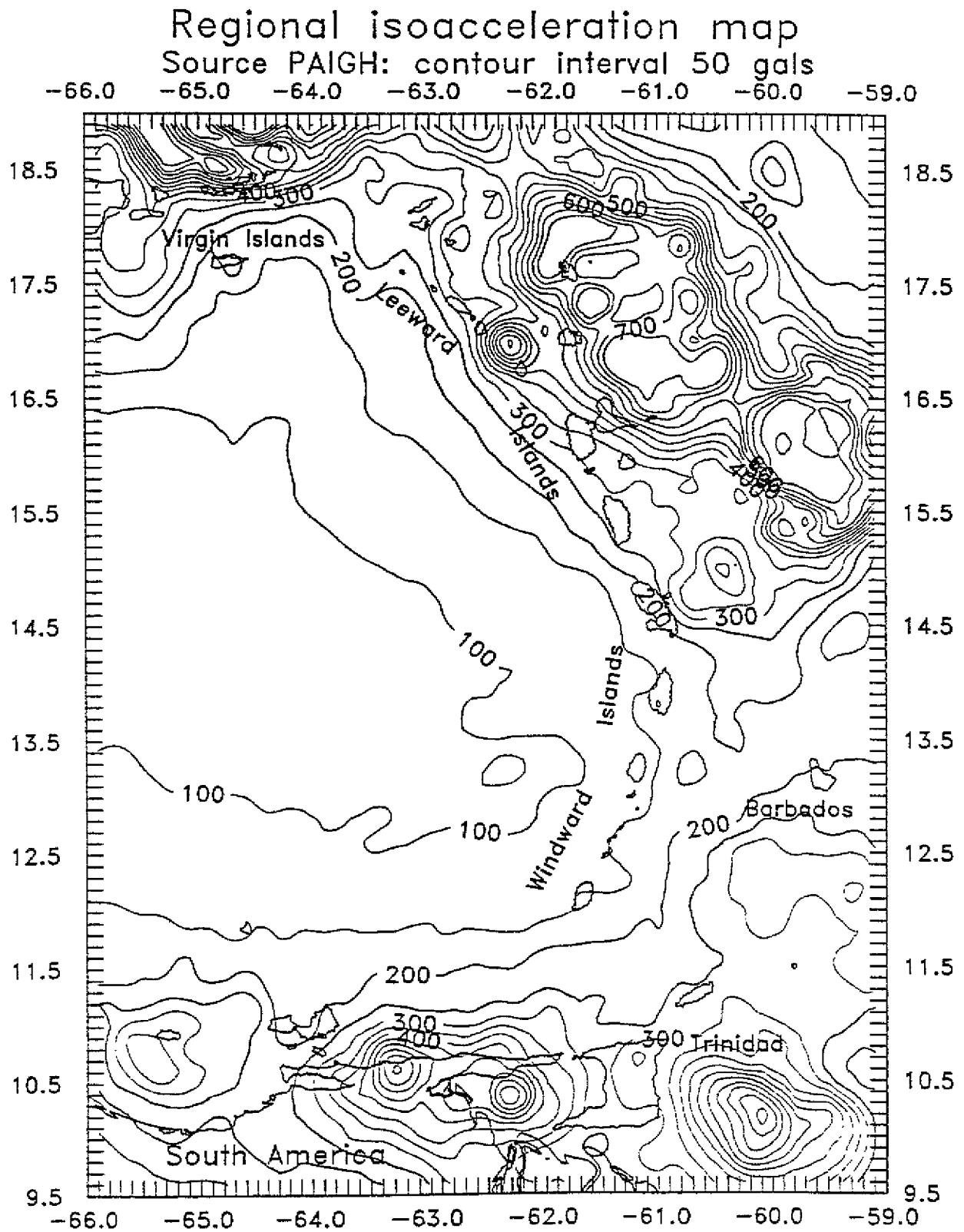
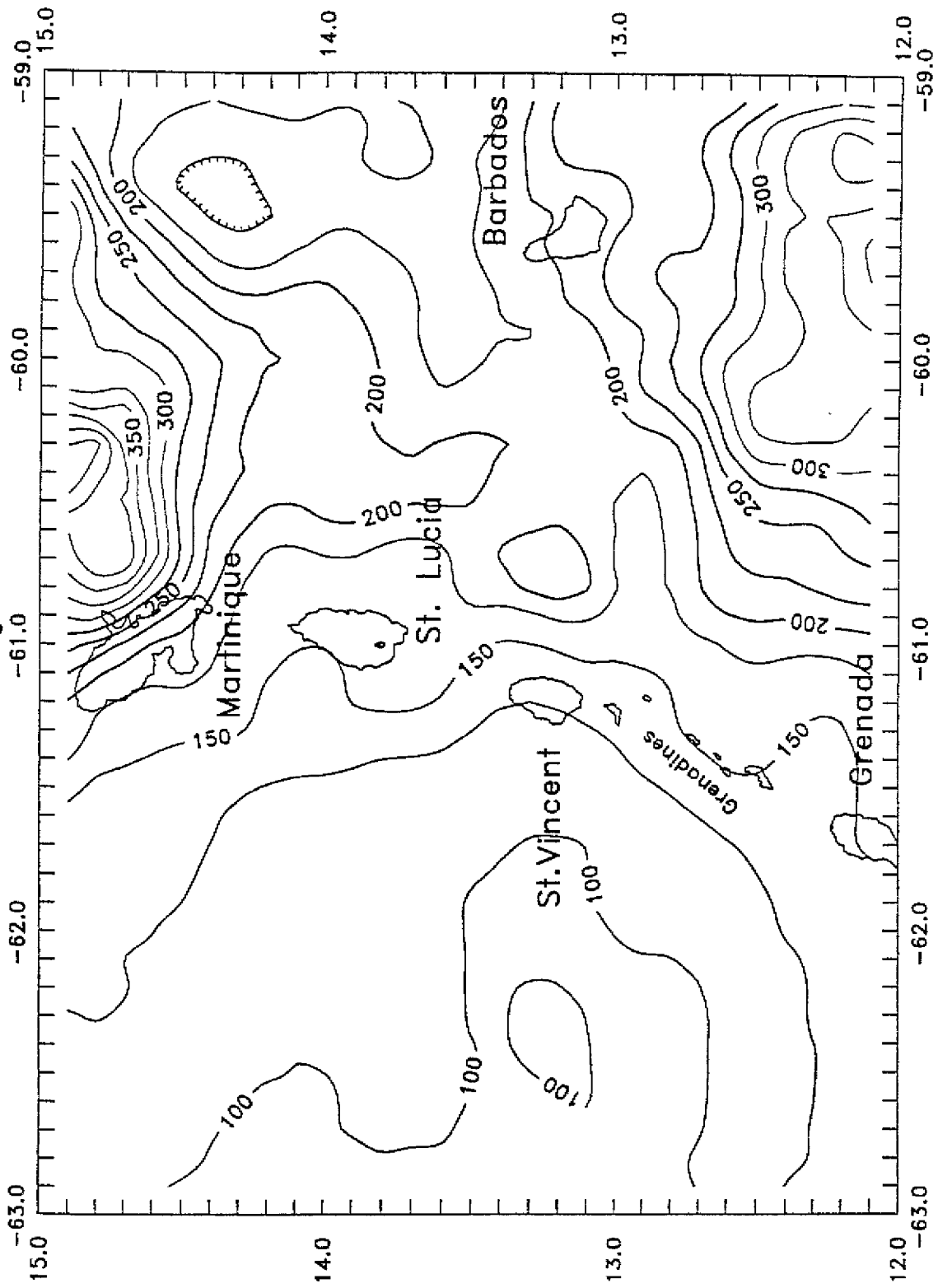


Figure 4

Grenada/Barbados/Martinique Iso-acceleration map

Contour Interval 25 gals. Source PAIGH



WORLD HEALTH ORGANIZATION
Emergency Preparedness & Disaster Relief Coordination Program
Caribbean Subregional Office
P.O.Box 508 Bridgetown Barbados
Fax:809-436.64.47 Tel:436.64.48
Internet: Vanalphd@paho.org

Facsimile Transmittal Form

Noelle Waters

From: Dr. Dana Van Alphen

To: Mr. Aloysius Barthelmy
Permanent Secretary
Ministry of Health
Saint Lucia

Ref: PEDB-(SAL)-142-96

Date: August 21, 1996

Subject: Vulnerability Survey

We are sending you the recommended details for short term mitigation action through Eng. Tony Gibbs who will travel to Saint Lucia August 22 - 23, 1996.

We would be grateful if Mr. Gibbs could discuss the details with the Ministry Consultant, Mr. Goodridge and the technical officer dealing with the project, Mr. Compton.

Thank you for you cooperation.

CONSULTING ENGINEERS PARTNERSHIP LTD

DIRECTORS:

A E HUTCHINSON BEng, MSc, FICE, MIStructE, MIHT, MCSCG*
P T SOBERS, MSc, DIC, MICE, MIStructE, MASCE*
A C T FARRELL, MSc, FICE, FIStructE

CONSULTANTS

TONY GIBBS, BSc, DCT (Leeds), FICE, FIStructE, FASCE, MConsE, FRSA*
K M JOHNSON, CBE, BSc, FICE, FIWEM*
H E BROWNE, BSc(Eng), MSc, MS, MICE, AIStructE*

F A C S I M I L E

Date: 1996-08-22 number of pages (including this page) = 1
To: Mr Aloysius Barthelmy
Permanent Secretary
Ministry of Health fax no: (809) 452 5655
From: Tony Gibbs fax no: (246) 426 5935
Subject: Victoria Hospital, Vulnerability Survey CEP/20185

Following Dr Dana van Alphen's fax of 21 August I now confirm that I will be arriving in St Lucia at 08:50 on LI350 tomorrow (Friday, 23). I will go to your office immediately on arrival. Hopefully you will be able to accommodate me with a brief meeting. If this is not possible please telephone me (246-426-5930) or fax me giving an alternative time. (My return flight is at 15:35.)

After our meeting (hopefully in the earlier part of the morning) I plan to meet with Mr Cromwell Goodridge to review and discuss our proposals. By copy of this fax I am alerting him to my visit.



cfax Cromwell Goodridge (809) 452 0355
Dr Dana van Alphen (246) 436 6447

7132/6996

FAB CC D-14
96-08-23



MEMORANDUM

1996-08-23

to Cromwell Goodridge
Goodridge Associates Ltd

from Tony Gibbs
Consulting Engineers Partnership Ltd

Victoria Hospital Vulnerability Survey

I have left 6 sketches with your Mr Conrad Emmanuel for your consideration.

Perhaps it would be useful if I outlined my understanding of our role in this exercise.

1 CEP has been asked to advise PAHO on the vulnerability of the VH to natural hazards.

2 CEP has also been asked to recommend details for short-term actions for mitigation of hurricane damage in particular. The hope is that these short-term actions could be implemented this year.

3 With respect to item 2, we have issued the 6 above-mentioned sketches to PAHO for consideration.

4 PAHO has asked me to deliver these sketches to the Ministry of Health (on PAHO's behalf) which I did this morning.

5 I told the MoH that I was to meet with you today to review and discuss the sketches.

6 As I see it, it is for you (as the MoH consulting engineer on VH) to consider our proposals and decide whether they should be adopted, adapted or dispensed with. This was to be the main purpose of our meeting today.

With respect to the sketches, I am unhappy about the apparent lack of positive holding-down of the square timber beam in sketch no 3.

You will note that we have been silent on a holding-down device for the roof trusses in sketch no 5. This is because Stephen Sandiford was of the impression that you were in the process of dealing with this. Mr Emmanuel has confirmed this. Please fax us a copy of the detail when it is available

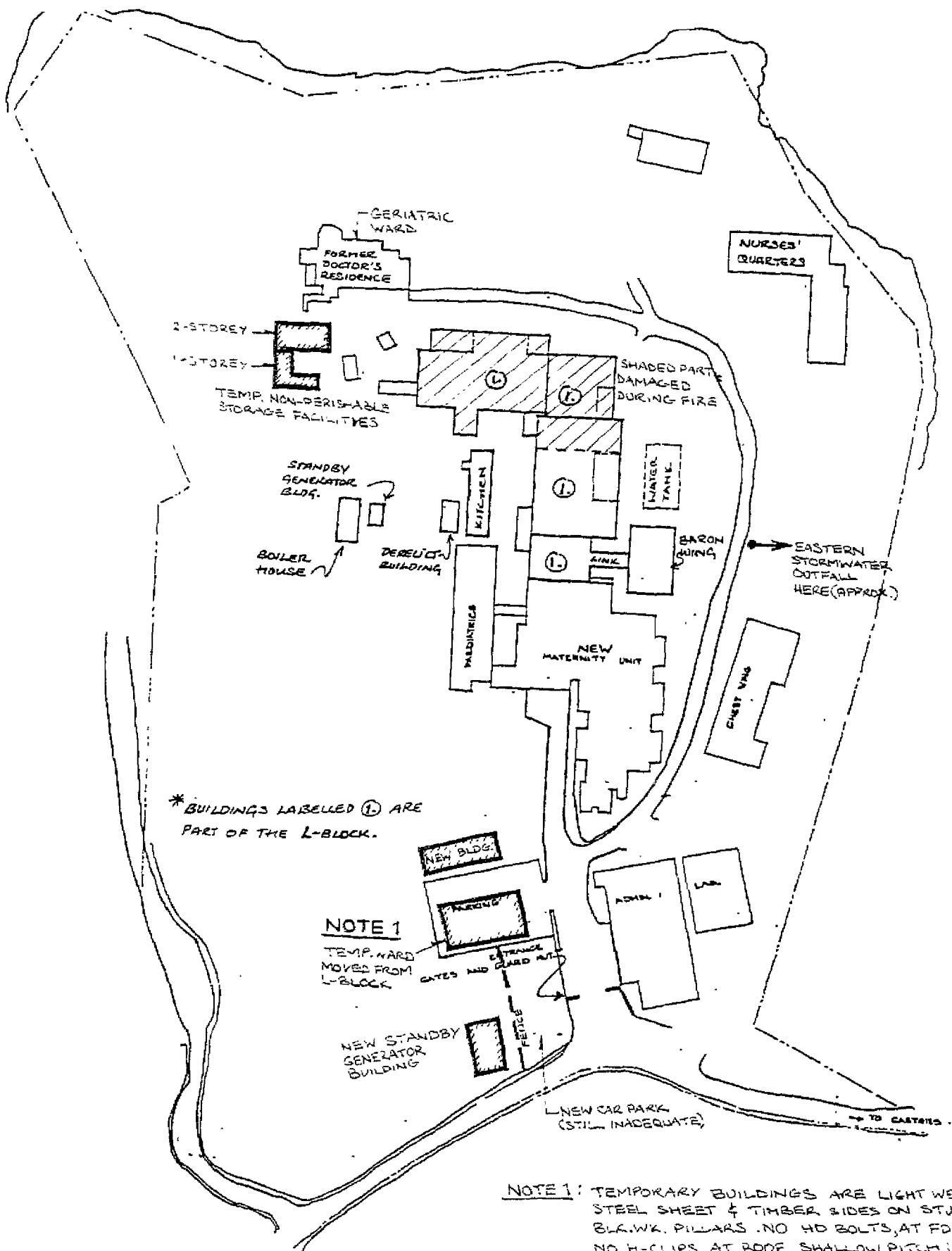
I am planning to issue our report to PAHO before the end of this month. PAHO will send it to the MoH. I expect that the MoH would let you have a copy. If so, I would appreciate your comments.

I regret that we were unable to meet today. Let me know if you plan to visit Barbados in the near future.

A handwritten signature in black ink, appearing to read 'Tony Gibbs', with a long horizontal line extending to the left.

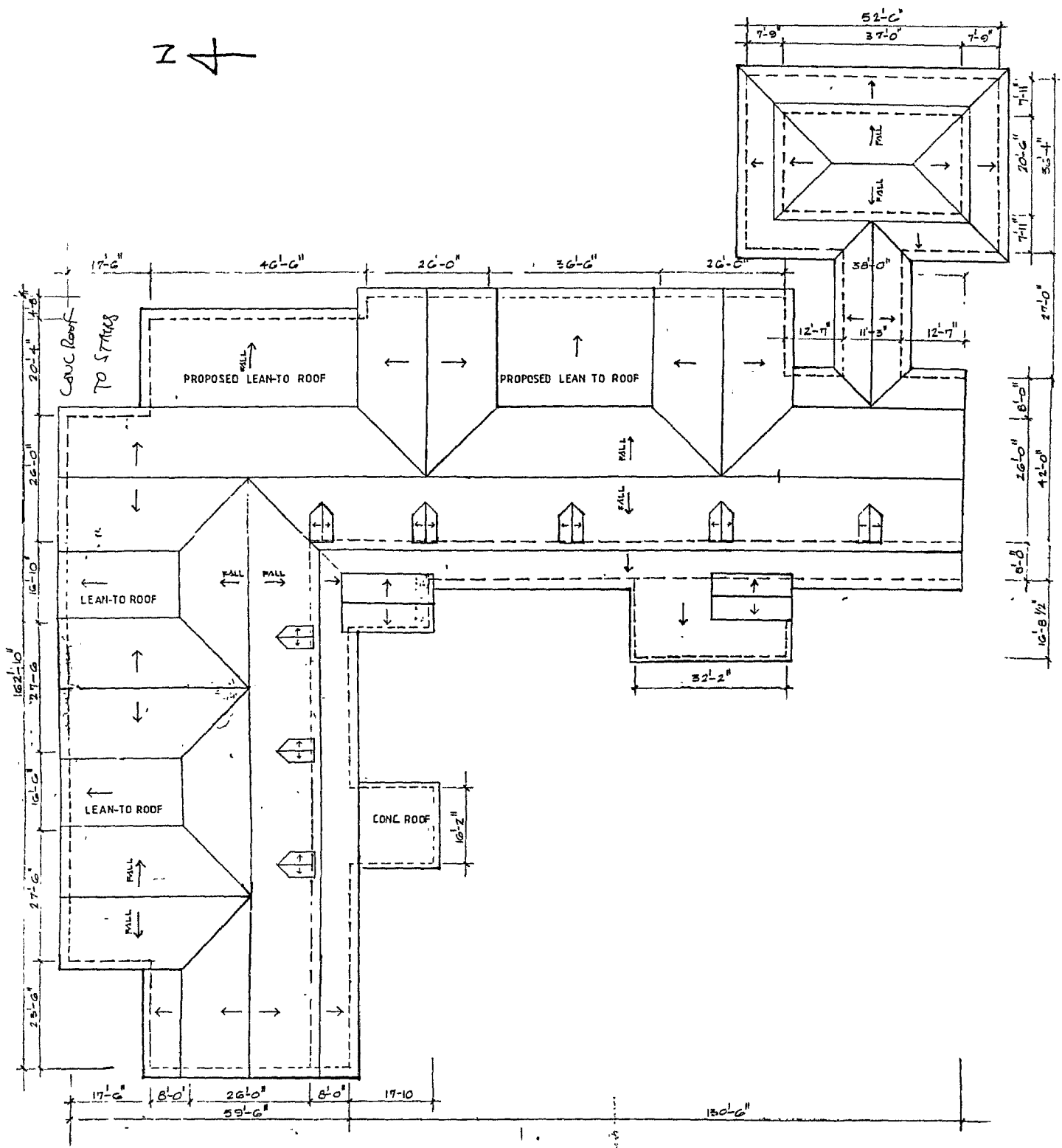
Appendix 2

Sketches



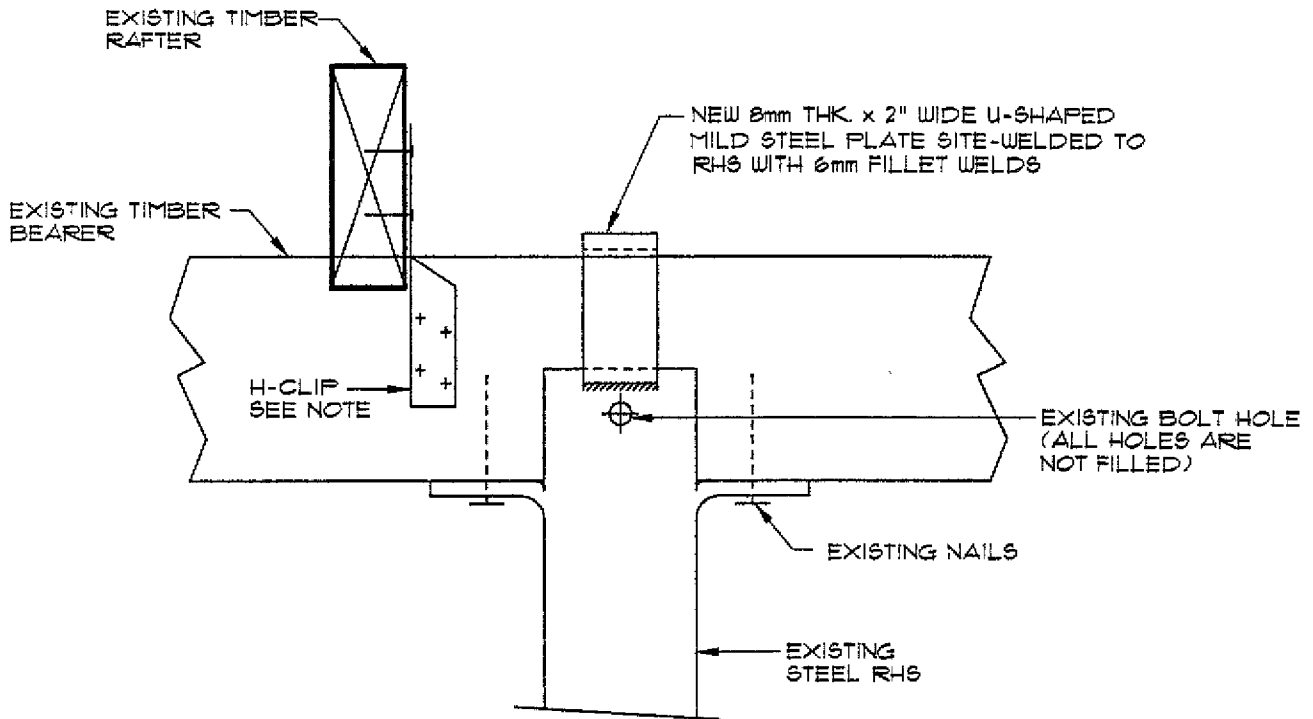
ITE LAYOUT PLAN

(NOT TO SCALE)



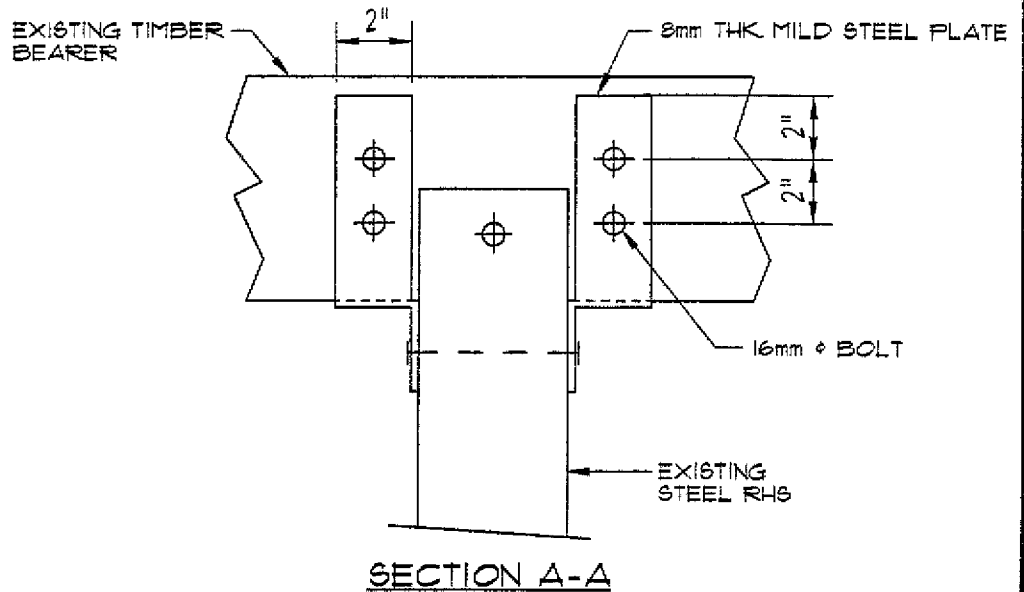
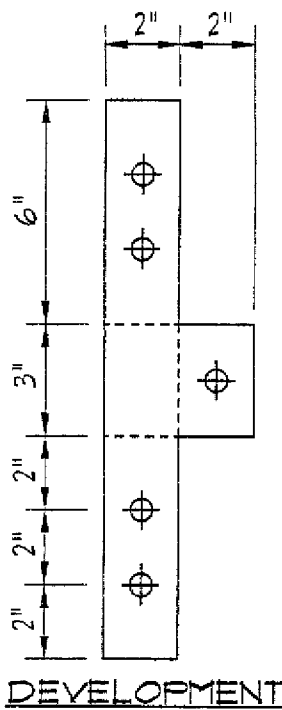
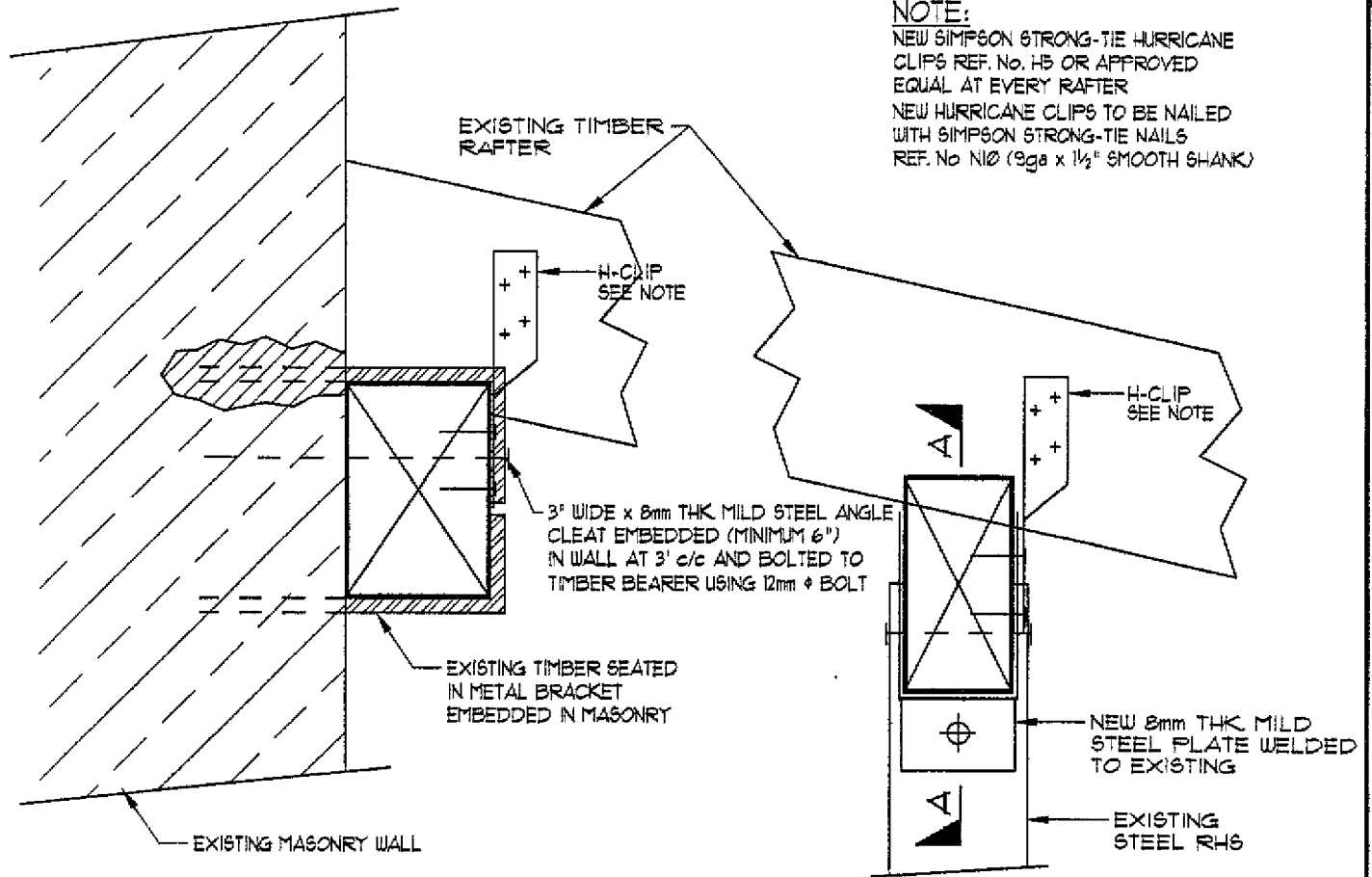
VICTORIA HOSPITAL : L-BLOCK & BARON WING
ROOF PLAN
(N T S)

NOTE:
 NEW SIMPSON STRONG-TIE HURRICANE
 CLIPS REF No HS OR APPROVED
 EQUAL AT EVERY RAFTER
 NEW HURRICANE CLIPS TO BE NAILED
 WITH SIMPSON STRONG-TIE NAILS
 REF. No. N10 (3ga x 1½" SMOOTH SHANK)



ELEVATION

NOTES	VICTORIA HOSPITAL - ST.LUCIA	SCALE: NOT TO SCALE
	Arrangement at New Shelter-Roof between L-Block and Baron Wing	DATE: AUG 96
	CONSULTING ENGINEERS PARTNERSHIP LTD	JOB No: 20185
		SKETCH No: 1



NOTES

VICTORIA HOSPITAL - ST.LUCIA

Balcony on Baron Wing

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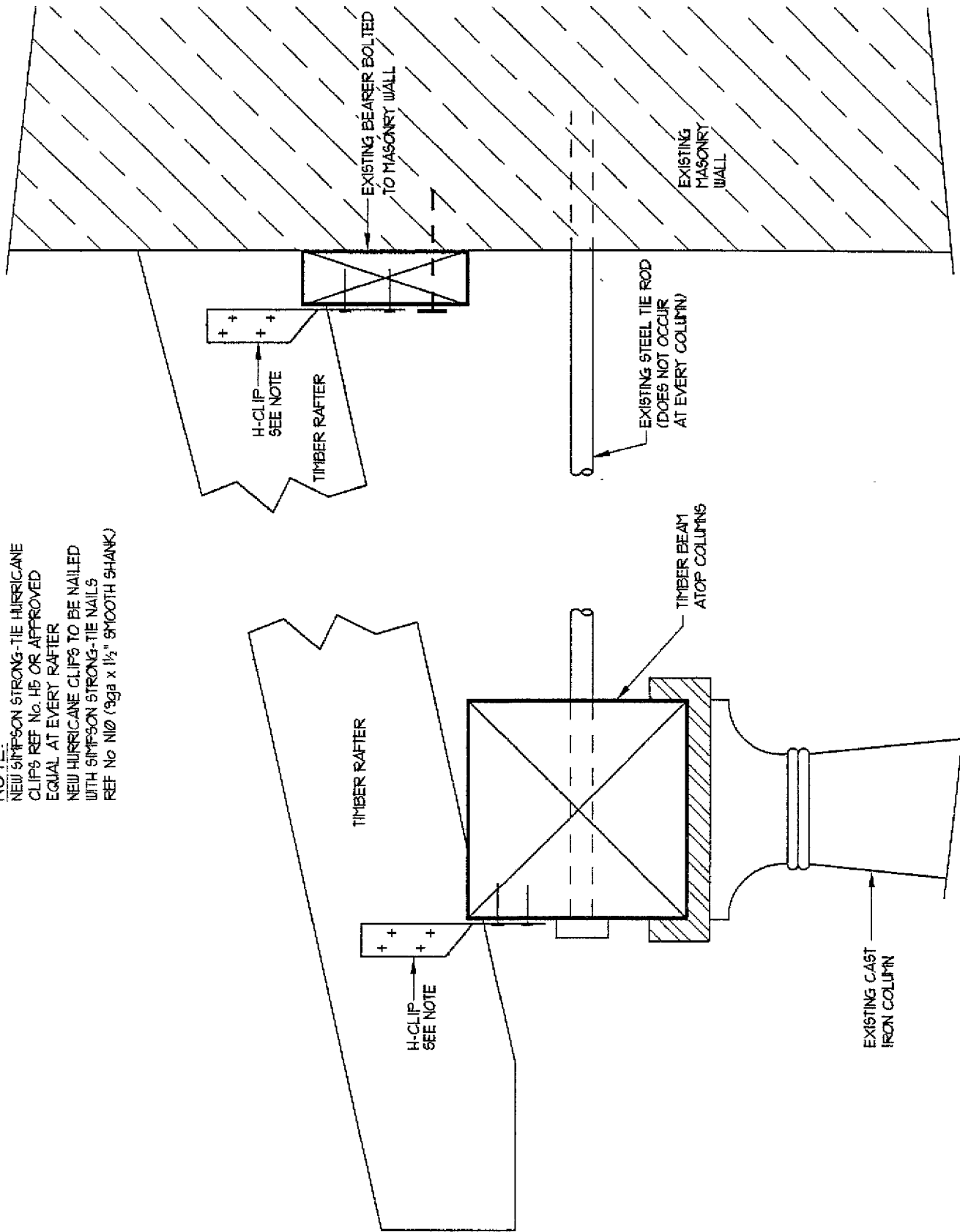
SCALE: NOT TO SCALE

DATE: AUG 96

JOB No: 20185

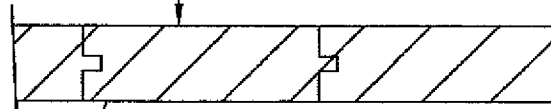
SKETCH No: 2

NOTE:
 NEW SIMPSON STRONG-TIE HURRICANE
 CLIPS REF No. H5 OR APPROVED
 EQUAL AT EVERY RAFTER
 NEW HURRICANE CLIPS TO BE NAILED
 WITH SIMPSON STRONG-TIE NAILS
 REF No N10 (3ga x 1 1/2" SMOOTH SHANK)



NOTES	VICTORIA HOSPITAL - ST.LUCIA	SCALE: NOT TO SCALE
	Balcony at L-Block	DATE: AUG 96
	CONSULTING ENGINEERS PARTNERSHIP LTD	JOB No: 20185
		SKETCH No: 3

EXISTING TIMBER FLOOR



NOTE:

NEW SIMPSON STRONG-TIE HURRICANE CLIPS REF. No. H5 OR APPROVED EQUAL AT EVERY JOIST
NEW HURRICANE CLIPS TO BE NAILED WITH SIMPSON STRONG-TIE NAILS REF. No. N10 (9ga x 1½" SMOOTH SHANK)

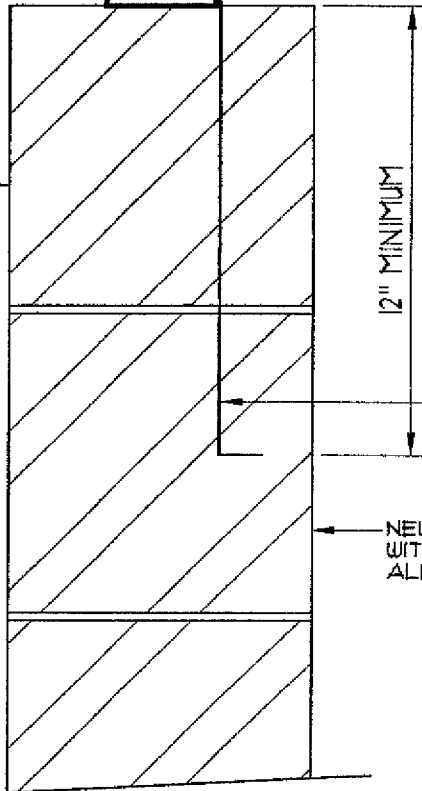
H-CLIP
SEE NOTE

EXISTING TIMBER JOIST

EXISTING TIMBER JOIST



DEMOLISH EXISTING BLK.WK. PIER AND REBUILD WITH SIMPSON STRONG-TIE FOUNDATION STRAPS REF. No. FAS1 TO BE CAST INTO BLK.WK. AND BOLTED TO TIMBER JOIST



12" MINIMUM

FOUNDATION STRAP CAST INTO BLK.WK.

NEW BLK.WK. PIER REINF'D WITH 12mm ϕ BARS
ALL CORES FILLED SOLID

NOTES

VICTORIA HOSPITAL - ST.LUCIA

Section Through Blk.Wk. Pier and Floor in Temporary Buildings

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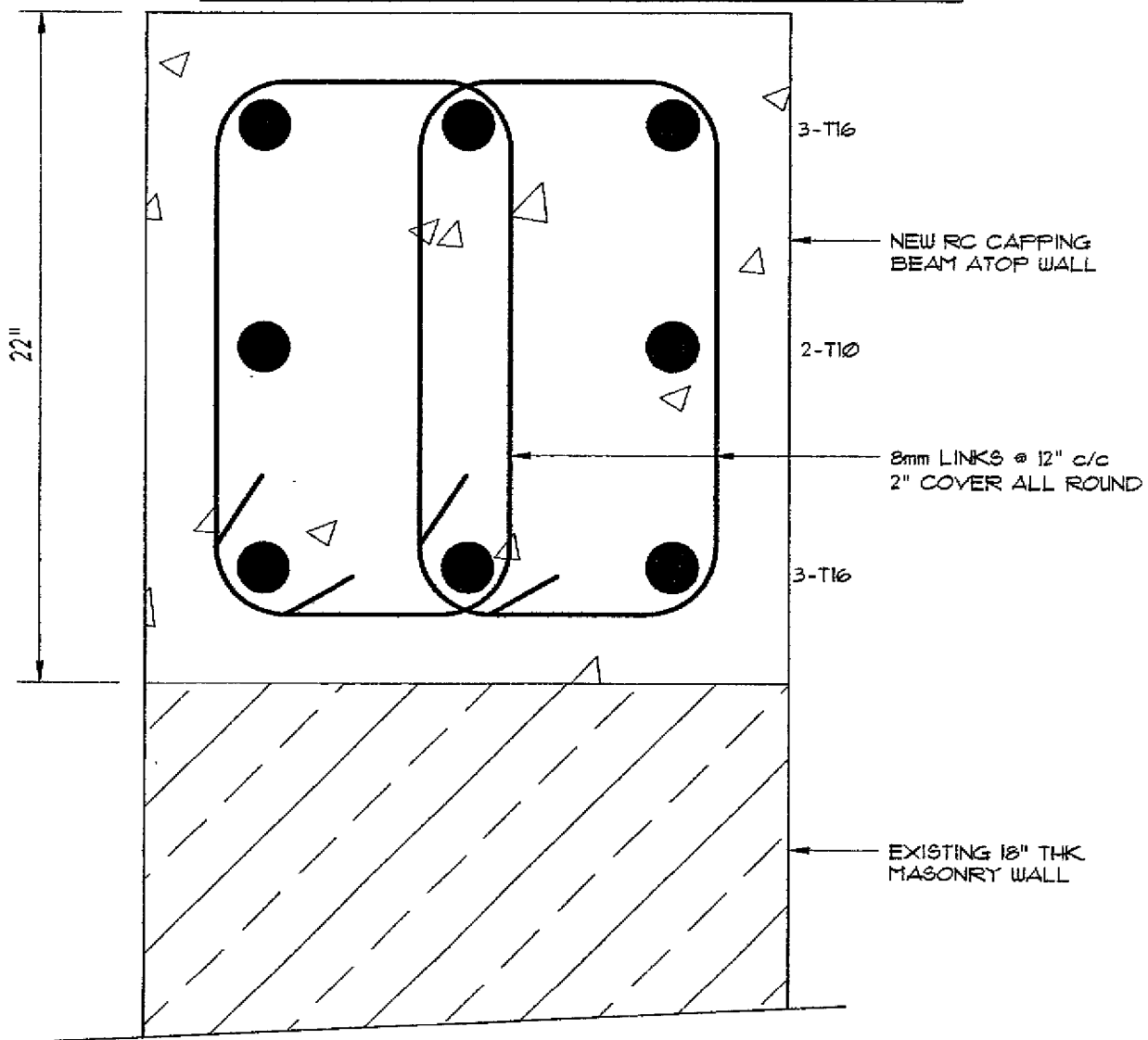
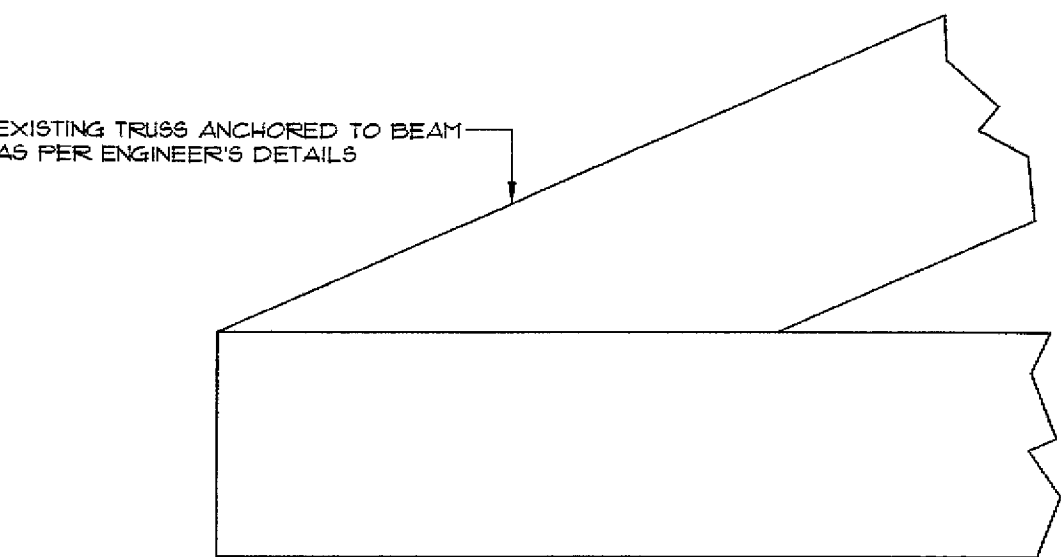
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DATE: AUG 96

JOB No: 20185

SKETCH No: 4

EXISTING TRUSS ANCHORED TO BEAM
AS PER ENGINEER'S DETAILS



22"

3-T16

NEW RC CAPPING
BEAM ATOP WALL

2-T10

8mm LINKS @ 12" c/c
2" COVER ALL ROUND

3-T16

EXISTING 18" THK
MASONRY WALL

NOTES

VICTORIA HOSPITAL - ST.LUCIA

SCALE: NOT TO SCALE

Typical Capping Beam Detail on L-Block

DATE: AUG 96

CONSULTING ENGINEERS PARTNERSHIP LTD

JOB No: 20185

SKETCH No: 5