ジョルダンコンピューター訓練研究センター

プロジェクト計画打合せ

調査団報告書

平成3年11月

国際協力事業団

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序　　文

日本政府は、ジョルダン政府の要請に基づき、ＪＩＣＡを通じて「コンピュータ訓練・研究センタープロジェクト」の協力について、1989年８月に事前調査を実施、更に、1990年６月27日には実施協議調査団がＲ／Ｄを締結し、プロジェクトを開始した。

その後、1990年８月からの湾岸紛争の影響により、ジョルダン側が実施する本プロジェクト・サイトの改修工事が遅れてしまったが、本調査団は、その状況を確認し、今後の機材据付けに当たり、双方が準備すべき技術的事項の確認を行った。その上で、ジョルダン側の実施体制の確認および平成２年度技術移転計画ならびに年度計画の確認を行った。さらにプロジェクトの実施状況全般について調査検討および、ジョルダン側との協議を行い、その結果に基づいて、平成３年度技術移転計画年度計画を取りまとめ、署名交換を行った。

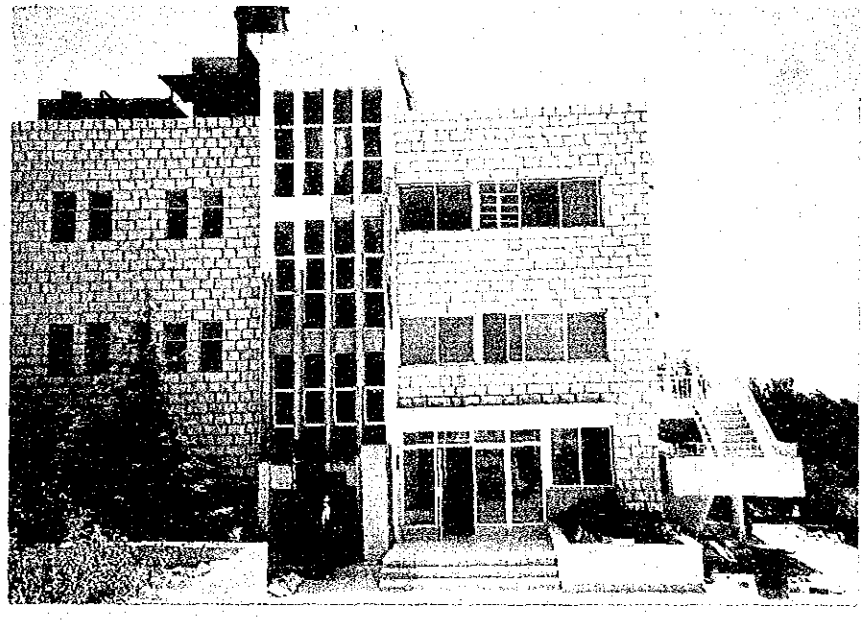
本報告書は、同調査団の現地における調査・討議内容を取りまとめたものである。

ここに、本調査団派遣に際し、ご尽力いただいた在ジョルダン日本国大使館をはじめとする日本・ジョルダン両国の関係各位に対し、甚大なる謝意を表するとともに、今後とも本件事業を成功させるためになお一層のご協力をお願いする次第である。

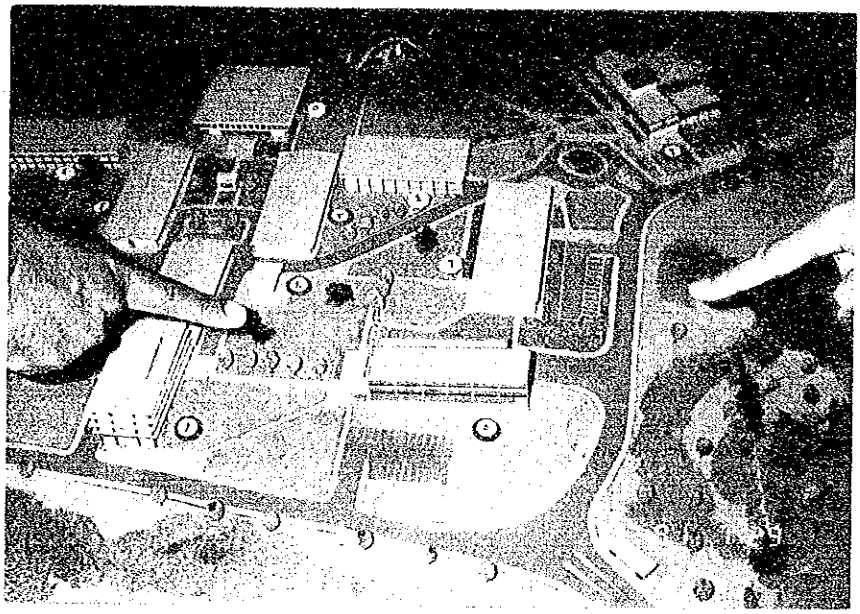
平成３年11月

国際協力事業団
鉱工業開発協力部
部　長　　内仲　康夫

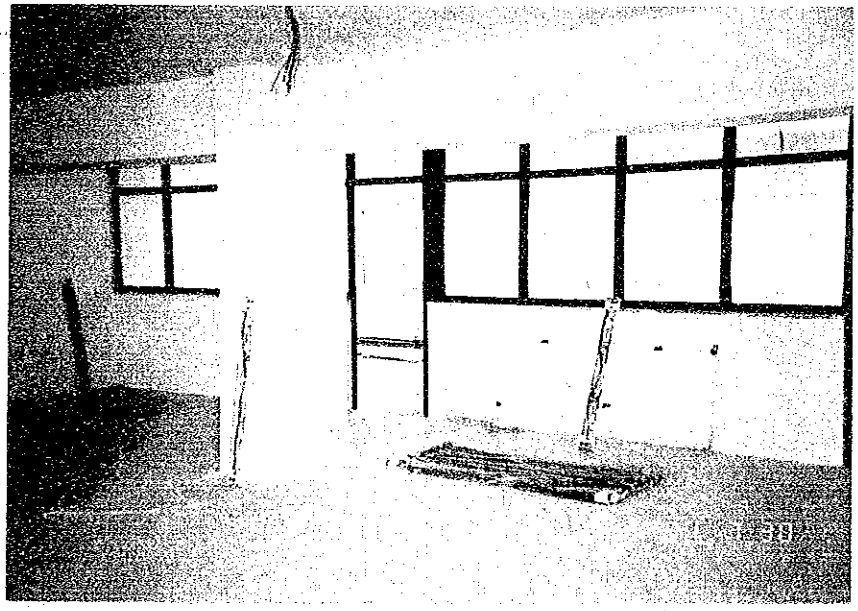
討議議事録覚書署名



改修中の旧印刷工場正面



センター敷地



改修中のフロアー

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1. 計画打合せ調査団の派遣

1－1 派遣の経緯

天然資源に恵まれていない「ジョ」国は、人的資源が唯一の資源であり、その開発の為、建国以来教育分野の育成に力を注ぎ、人材育成に努めてきた。しかし現在の沈滞している「ジョ」国の経済を活性化させる為には、各種産業の発展の基礎となる情報化の促進が不可欠であり、これに伴う情報技術者の育成を更に進める必要がある。

本プロジェクトは、ハッサン皇太子を議長とする科学技術審議会（ＨＣＳＴ）が設立され、情報処理技術者の育成を図る為、1989年７月、我が国に対し、プロジェクト方式技術協力として正式要請してきたものである。

1989年８月、上記要請に応え、当事業団は事前調査団を派遣し、本プロジェクトの枠組みについて「ジョ」側と協議し、その妥当性を確認した。その後、1990年６月に実施協議調査団を派遣し、具体的な施設計画（フロアレイアウト、機材配置など）を立案すること及び、プロジェクト実施に際して双方政府の責任分担、技術協力全体計画などについての協議を行った。

1－2 派遣の目的

実施協議調査団の結果を踏まえ、プロジェクトサイトの視察を行い、「ジョ」側との協議を通じて対処方針の項目について協議を行い、進捗状況の確認と、具体的な本年度の計画を双方が作成することを目的として派遣された。

1－3 調査団員の構成

①	笠間　孚彦	総　　括	国際協力事業団鉱工業開発協力部鉱工業開発技術課 課長代理
②	藤末　健三	技術協力計画	通商産業省　通商産業大臣官房　情報管理課 情報業務室　業務班長
③	山田　和晴	ﾃﾞｰﾀｺﾐｭﾆｹｰｼｮﾝ	郵政省　電気通信局　電気通信事業部　データ通信課 開発推進係長
④	加藤　憲治	教育・訓練計画	(財)国際情報化協力センター　業務部
⑤	泗水　憲三	施設計画	(財)国際情報化協力センター　業務部
⑥	村上　　剛	ﾌﾟﾛｼﾞｪｸﾄ運営管理	国際協力事業団鉱工業開発協力部鉱工業開発技術課 ジュニア専門員

1－4　調査日程

月　日		行　程	宿泊地	調　査　日　程
7月22日 （月）	午前 午後	東京→ﾊﾞﾝｺｸ	機中泊	（移動）JL-717(13:30～17:40) 前記1-4 ②③④⑤東京出発
7月23日 （火）	午前 午後	ﾊﾞﾝｺｸ→ﾊﾊﾚｰﾝ →ｱﾝﾏﾝ	アンマン	（移動）GF-151(01:20～04:15) （移動）RJ-607(08:30～11:00) 資　料　整　理
7月24日 （水）	午前 午後	ﾀﾞﾏｽｶｽ →ｱﾝﾏﾝ	アンマン	（移動）RJ-138(10:00～11:00) 前記1-4 ①⑥ダマスカス出発 資　料　整　理
7月25日 （木）	午前 午後		アンマン	JICAアンマン事務所、日本大使館への表敬訪問 資　料　整　理
7月26日 （金）	午前 午後		アンマン	科学技術高等審議会（HCST）との打ち合わせ 資　料　整　理
7月27日 （土）	午前 午後		アンマン	HCSTとの協議 HCSTとの協議
7月28日 （日）	午前 午後		アンマン	HCSTとの協議 HCSTとの協議
7月29日 （月）	午前 午後	ｱﾝﾏﾝ→ﾊﾊﾚｰﾝ	アンマン	HCSTとの協議 HCSTとの協議（移動）RJ-606(21:30～23:59) 前記1-4 ②アンマン出発
7月30日 （火）	午前 午後	ﾊﾊﾚｰﾝ →香港	アンマン	HCSTとの協議 HCSTとの協議（移動）CX-200(20:30～09:30) 前記1-4 ②ﾊﾊﾚｰﾝ 出発
7月31日 （水）	午前 午後	香港→東京 ｱﾝﾏﾝ→	機中泊	M／M署名 計画省表敬　（移動）JL-002(11:25～16:20) 前記1-4 ②東京着 （移動）RJ-184(21:45～11:30) 前記1-4 ①③④⑤⑥アンマン出発
8月1日 （木）	午前 午後	→ﾊﾞﾝｺｸ	バンコク	（移動）
8月2日 （金）	午前 午後	ﾊﾞﾝｺｸ→東京		（移動）TG-640(11:00～19:00) 前記1-4 ①③④⑤⑥東京着

1－5　主要面談者

＜ジョルダン側＞　　JORDANIAN SIDE

Khaled N. Elshuraydeh	ACTING SECRETARY GENERAL
FADEL SWEIDAN	ACTING DIRECTOR, COMPUTER CENTRE
BURHANDEEN DAGHESTANI	SYSTEMS AND PROGRAMMING SECTION MANAGER
KHAMIS OMAR	RESERCH AND STUDIES SECTION
MUNA IDRIS	FOLLOW-UP AND COORDINATION OFFICER, HCST
FARIS DAWOD	ELECTRICAL ENGINEER, ELECTRONICS AND TRAINING CENTRE
NAYEF KHOURI	BUILDING RENOVATION SITE MANAGER, BUILDING RESEARCH CENTRE
JIHAD SHIBLI	COMPUTER AIR CONDITIONING MAINTENANCE SUPERVISOR
MOHAMAD SHISHANI	MECHANICAL ENGINEER, MECHANICAL DESIGN AND TECHINICAL CENTRE
MAEN AL-NSOUR	DEPT. OF INTERNATIONAL COOPERATION, MINISTRY OF PLANNING

＜日本側＞

在ジョルダン日本大使館

野々山　忠　致	特命全権大使
天　野　哲　郎	二等書記官
北　崎　秀　一	二等書記官

在ジョルダン事務所

平　川　　潔	事務所長

2. 協議の概要

今回の協議は、主に国立科学院（ＲＳＳ）所長代理のFadel Sweidan 氏、システム計画課長のBurhandeen Daghestani 氏、研究課長のKhamis Omar 氏との間で行われた。

2－1 暫定実施計画

2－2－1 日本側の措置

1990年度の進捗状況及び1991年度の計画について、専門家派遣・研修員受入・機材供与及び据付け等を討議し、それぞれ合意に達した。(ANNEX 3－1、5－1参照)

(1) 専門家派遣

① 1990年度

な し

② 1991年度

a．長 期

業務調査員はＲ／Ｄには記載されていなかったが、役割、業務及び必要性を説明したところ、「ジョ」側は了解し、1992年5月（1992年度）より派遣することに合意した。

チーフ・アドバイザー	1名（1991.10.中～1993.9. 中）
オペレーティング・システム及びコンピュータ言語	1名（1991.10.中～1993.9. 中）
データベース及びデータコミュニケーション	1名（1991.10.中～1993.9. 中）
業務調査員	1名（1992. 5. ～1994.6.26）

b．短 期

機材据付け調整専門家の6名のうち3名（括弧書き）については予定外であったため、9月末に見直しをする。

施 設	1名（1991.12.初～1992.1. 末）
(施 設)	1名（1992. 1.初～ 1.中）
(Customer Engineer)	1名（1992. 1.初～ 1.中）
Customer Engineer	1名（1992. 1.初～ 3.初）
System Enginner	1名（1992. 1.中～ 1.末）
(System Enginner)	1名（1992. 1.中～ 1.末）

(2) 研修員受入れ

① 1990年度

システム・エンジニア	1名（1990.11.30～1991.2.16）
インストラクター	1名（1990.10.13～1991.3.20）

② 1991年度

維持管理	3名（1991.10.中～ 11.末）
ソフトウェア	3名（1992. 2.中～ 3.末）

(3) 機　材

① 供　与

供与機材の内容及びサイトへの到着時期については、専門家派遣の時期等を考慮し、それぞれ合意に達した。(ANNEX16、17参照)

a. 1990年度

1990年度機材は第一次分は1991年11月中旬から下旬の間に、第二次分は1992年1月中旬から下旬の間にアカバ港に到着予定である。

第一次分

ハードウェア（コンピュータ機器、保守用品）

ソフトウェア

その他（電源ケーブル、空調機器等）

第二次分

ハードウェア（ラインプリンター、パソコン）

消耗品

b. 1991年度

予算の範囲内で1990年度第二次分と一緒に供与する。

メインフレーム用ソフトウェア

パソコン（パソコン用プリンタ、プリンタ・ケーブル）

消耗品

② 据 付 け

機材据え付けの段取りの最終確認及びプロジェクト・サイトの現状を把握した。

a．計算機室の空調関係事項・進行状況の確認

施工図面の打合せ・工事区分の確認・工事材料の確認・スーパーバイスの仕方(ANNEX14、15参照)

エアーコンデショニングシステムを設置するための、場所、容量等を決定した。

b．電源設備の工事に関する指示・協議

施工図面の打合せ・工事区分の確認・工事材料の確認・スーパーバイスの仕方について合意に達した。(ANNEX 6、7、8参照)

c．機材の配置に関する指示・協議を行い合意に達した。(ANNEX11参照)

d．機材の設置・現地調整に関する確認・協議を行い合意に達した。

e．保守体制（部品・消耗品供給体制）に関する協議を行い合意した。(ANNEX18参照)

f．全体工程に関する日本側及びジョルダン側が受け持つ責任分担についての確認・協議を行い合意に達した。(ANNEX12参照)

上記ａ～ｆの協議にあたっては、実施協議調査団M／M（附属資料４－２）を参考にして、それぞれの項目と照らし合わせて「ジョ」側の準備状況を確認するとともにその境界を合わせて確認した。

③ 通　　関

日本からの機材のスムーズな通関手続きについて、「ジョ」側の取るべき処置について確認した。

a．「ジョ」国内における機材の輸送、据付け、運転及び維持管理に必要な費用の支払い

b．「ジョ」国内における機材に課せられる関税、内国税及びその他の課徴金の免税

2－1－2　「ジョ」側の措置

1990年度の進捗状況及び1991年度の計画について、サイトの改築工事状況・技術移転状況・トレーニングコースの開始計画等について討議を行い、合意に達した。

(ANNEX 3－2、5－2参照)

(1) 施　　設

① 1990年度

旧印刷工場の改修を1991年2月末より開始した。

② 1991年度

a．改修工事

イ．Ground Floor

11月末完工予定

ロ．1st Floor

8月中旬完工予定

ハ．2nd Floor

8月中旬完工予定

b．部　　屋

コンピュータルーム・ターミナルルーム等について、その配置、及び広さについて確認し、パソコンの供与が増えたため、増加ＰＣの部屋を作ること等協議し、合意に達した。(ANNEX 9、10参照)

(2) 組織、Ｃ／Ｐ及びインストラクター

① 1990年度

本センターは1990年10月にＨＣＳＴ、ＲＳＳの内部組織として正式に発足した。

② 1991年度

長・短期専門家のＣ／Ｐは1991年6月1日に13名任命された。1992年度に開催される訓練コースのインストラクター（一部専門家のＣ／Ｐが兼務）は、1991年6月1日に10名任命された。彼らは12月から1992年2月中旬までソフトウェアーの据付けに立合い、10名のうち3名は2月中旬から3月末まで日本でソフトウェアーの研修に参加予定である。(ANNEX20、21参照)

(3) 予　　算

① 1990年度及び1991年度

1991年1月1日より12月までの工事費は 306千J.D.、6月より12月までの人件費その他は 136,500J.D.であり、合計は 442,500J.D.である。(ANNEX22参照)

2－2　技術協力計画

(1)　1990年度

システム・エンジニア及びインストラクターの研修員を受入れ、データベース及びデータコミュニケーション及びプロジェクト・マネジメントの分野で技術移転がなされた。(ANNEX 4参照)

(2)　1991年度

訓練コース

調査団は「ジョ」側に対し、カリキュラムの案及びコースのための教材リストを提出した。「ジョ」側はこれらを検討し、変更の提案を9月初めまでにＪＩＣＡジョルダン事務所を通じ提出する。

訓練コースの日程は以下のとおりである。(ANNEX 3－2参照)

上級プログラマーコース	1992. 4 ～
システム・エンジニアコース	1992.10 ～
短期コース	1992. 4 ～

2－3　その他実施運営上の問題点

(1)　委員会の設立

本センターは、ＨＣＳＴの決定した政策を本センターの活動に反映させる為、1990年7月28日にＨＣＳＴ会長、ＲＳＳ総裁、センター所長その他から成る委員会を設立した。(ANNEX23参照)

(2)　開 所 式

「ジョ」側はセンターの開所式を1992年5月の「ジョ」国独立記念日に合わせ開催することを提案した。

3. プロジェクト実施上の留意点

・本プロジェクトは、特に情報処理分野の技術者の育成を通じ「ジョ」国の経済・社会の発展に資することが目的であり、「ジョ」国政府の本プロジェクトに対する期待は、極めて高いものがある。

・1990年度の沖縄センターにおける研修員受け入れ実績を見ても「ジョ」国の情報処理技術者の技術レベルは比較的高いと言える。従って、今後派遣されるチーフアドバイザー等の専門家及び研修員の指導者には高い指導力と技術力が期待される。

・本センターは、1990年10月にＨＣＳＴ、ＲＳＳの内部組織として発足したところであるが、本プロジェクトの円滑な運営及び、将来的な本センターにおける研修内容の高度化、研修規模の拡大等に対応するため、研修員の受け入れ、専門家派遣等により「ジョ」側のカウンターパート及びインストラクターの恒常的な技能向上を図ることが重要であると思われる。

・機材の供与については、プロジェクトサイトの改修工事の進捗状況を確認しつつ、「ジョ」側と日本側の分担の境界を明確にしながら行うことが重要である。このため、プロジェクトサイトの改修工事について、「ジョ」側の表明している1991年11月末までの完了（1stフロア、2ndフロアは、8月中旬）に向けて、その進捗状況をフォローアップする等適切な措置を講じることが必要である。

・供与機材については、機器の利用の拡大、情報通信処理技術の進展等に伴い、必要に応じてコンピュータ機器やソフトウエアの拡充が図れるよう指示対応を行うことが望まれる。

・技術移転計画については、「ジョ」側で適切なコースが開設できるよう、コースの概要の明確化を要求するとともに、わが国からも必要な技術移転等を行うため長期専門家等によるサポートが望まれる。

・「ジョ」側は一般的な技術知識に関する研修・指導もさることながら、今回供与するシステムの運用・支援が独自に可能となるような、研修・指導を第一に考えており、「ジョ」側のこの意向に答えるべく、適切な処置を講じることが望まれる。

・なお、「ジョ」側においては、ＵＮＩＸ、アラビア語化ソフトウエア等についての関心が高く、今後これらの技術についてのサポートの要望が出てくるものと思われる。

4. 合 意 文 書

4－1　討議議事録覚書（M／D）

4－2　付属資料

4. 付属文書

4－1 合意文書

4－1－1 討議議事録覚書（M／D）

MINUTES OF DISCUSSIONS BETWEEN THE JAPANESE CONSULTAION SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE HASHEMITE KINGDOM OF JORDAN ON THE JAPANESE TECHNICAL COOPERATION FOR THE COMPUTER TECHNOLOGY DEVELOPMENT AND TRAINING CENTRE PROJECT IN THE HASHEMITE KINGDOM OF JORDAN

The Japanese Consultation Survey Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr.Takahiko Kasama, Deputy Director,Technical Cooperation Div.,Mining & Industrial Development Cooperation Dept.,JICA, visited the Hashemite Kingdom of Jordan from July 23 to July 31, 1991 for the purpose of reviewing the activities in Japanese Fiscal year of 1990 of the Computer Technology Development and Training Centre Project in the Hashemite Kingdom of Jordan (hereinafter referred to as "the Project") and working out the Plan in Japanese Fiscal year of 1991 for further promotion of the Project.

During its stay in the Hashemite Kingdom of Jordan , the Team exchanged views and had a series of discussions with the Hashemite Kingdom of Jordan authorities concerned over the matters for the successful implementation of the Project.

As a result of the discussions, both parties agreed upon the matters referred to in the document attached hereto.

Amman,July 31, 1991

Takahiko Kasama

Mr.Takahiko Kasama
Leader,
Consultation Survey Team,
Japan International
Cooperation Agency,
Japan

K. Elshnraydeh

Dr.Abdullah Toukan
Acting Secretary General,
Higher Council for Science
and Technology,
The Hashemite Kingdom of
Jordan

EXECUTIVE SUMMARY

I. GENERAL REVIEW

The Project started on June 27, 1990 as a four-year project.

Regarding the Project activities in Japanese Fiscal year of 1990, JICA has accepted 2 Jordanian counterpart personnel for training in the fields of project management, database and data communication as given in ANNEX 4 and 5-1.

Royal Scientific Society (hereinafter referred to as "RSS") has ensured the budgetary allocation and the number of Jordanian counterpart personnel required for the smooth implementation of the Project.

Thus, based on the common recognition of the Project as stated above, both sides confirmed continuous cooperation between the Japanese and Jordanian Governments for further progress of the Project.

II. THE PLAN IN JAPANESE FISCAL YEAR OF 1991

1. TECHNICAL COOPERATION PLAN

The Japanese side and the Jordanian side have jointly formulated the TECHNICAL COOPERATION PLAN for the period as given in ANNEX 2 according to the present state of the progress and other conditions of the Project.

2. TENTATIVE SCHEDULE OF IMPLEMENTATION

According to the present state of the Project, both sides agreed to modify TENTATIVE SCHEDULE OF IMPLEMENTATION which had been formulated on June 27, 1990 as shown in ANNEX 3 and both sides will take the following activities:

(1) Japanese side;

① To dispatch 3 long-term experts
   a. Chief Advisor
   b. Operating System and Computer Language
   c. Database and Data Communication
   d. (Coordinator from May, 1992)

② To dispatch 6 short-term experts.
   a. 2 Facilities (1 under consideration)
   b. 2 Customer Engineers (1 under consideration)
   c. 2 System Engineers (1 under consideration)

③ To accept 6 counterpart personnel as training participants.

a. 3 Maintenance

b. 3 Software

④ To provide the equipment within the range of the Japanese budget.

(2) Jordanian side;

a. To submit A-1 application forms for a Coordinator and three short-term experts(1 Facility, 1 Customer Engineer, 1 System Engineer) to reach Japan by the end of August, 1991.

b. To submit A-2 and A-3 application forms for software training of 3 Jordanian counterpart personnel in Japan to reach Japan by the end of August, 1991.

c. To submit A-4 application form for additional equipment to reach Japan by the end of August, 1991.

d. To renovate the building and to arrange the facilities by the middle of August, 1991 except the computer room on the ground floor which will be ready by the middle of October, 1991.

e. To allocate budget necessary for operation and management of the Project such as personnel cost, operation cost and others.

Ⅲ. OTHERS

The record of meetings includes further details on discussions and agreements related to the following topics.

- Establishment of Board of Directors
- Opening Ceremony

Ⅳ. THE ATTENDANTS OF THE MEETINGS

The attendants of the meetings are shown in ANNEX 1.

DETAILED RECORD OF MEETINGS

DETAILED RECORD OF MEETINGS

During the period 23-31/7/1991, The Team headed by Mr. Takahiko Kasama visited RSS to review the progress of the Project in Japanese fiscal year of 1990 and to work out the plan in Japanese fiscal year of 1991 . The attendants of the meetings are indicated in ANNEX 1..

Dr. Khaled Elshuraydeh, Acting Secretary General of the Higher Council for Science and Technology (hereinafter referred to as "HCST") welcomed the visiting delegation in a preliminary meeting during which he expressed great satisfaction with the progress of cooperation between JICA and HCST . He also expressed his gratefulness to the Japanese side for establishing the Computer Technology Development and Training Centre (hereinafter referred to as "the Centre") which is vital to Jordan, stressing his confidence that the Centre will help in the socio-economic development in Jordan.

In the following paragraphs, a record of the meetings and related discussions and actions agreed upon is presented .

A: Review of the main achievements and activities of the Project in Japanese fiscal year of 1990.

The RSS and The Team have mutually reviewed the main achievements and activites of the Project in Japanese fiscal year of 1990 based on the R/D signed on 27/6/1990 as follows:

1-The acceptance of Jordanian counterpart personnel for training in Japan.
2-Establishment of the Centre.
3- Renovation of the building of the Centre.
4-Arrangement of the facilities of the Centre.
5-Provision of Jordanian counterpart personnel .
6-Others.

The Team expressed its satisfaction concerning the renovation of the building of the Centre.

B: Review of the plan of the Centre in Japanese fiscal year of 1991.

Reviews and discussions of the Technical Cooperation Plan took place in the fields of programming languages, operating system usage, database and data communication, system design and project management, and also of the Tentative Schedule of Implementation by the Japanese and Jordanian sides. Both sides have planned the tasks supposed to be carried out in the Tentative Schedule of Implementation (ANNEX 3 shows the schedule, indicating the realised tasks and target dates).

Concerning the tasks of the Jordanian side, the renovation of the building and arrangement of the facilities will be completed by the middle of August, 1991 except for the computer room which will be finished by the end of November,1991.

Regarding the renovation of the building and the arrangement of the facilities :

1- Both sides have confirmed the Installation Reference for the Equipment of the Project. The power consumption, heat output and physical specifications of the computer equipment are shown in ANNEX 6.

2- Both sides have agreed on the specifications of the power feeder diagrams and of the power distribution board for the equipment of the Project. They are shown in ANNEX 7.

3- Both sides have agreed on the materials provided by the Japanese side for electrical work and the scope of installation work by both sides. They are shown in ANNEX 8.

Note:The cable from the No-Break System to the main distribution board which was supposed to be provided by the Japanese side was provided and installed by the Jordanian side.

4- Both sides have agreed to complete the electrical work of the Project with the use of the materials provided by the Japanese side by the end of December, 1991.

5- Both sides have confirmed the size and location of the rooms of the Project and the layout of the equipment as described below:

* The size of the rooms is shown in ANNEX 9.
* The location of the rooms is shown in ANNEX 10.
* The layout of the equipment on the ground floor is shown in ANNEX 11.

6-Both sides have confirmed the method of moving the equipment into the building and of the location where it will be stored. The measures necessary for moving the equipment into the building are to be considered by the Jordanian side. The location where the equipment should be stored until its installation time will be either in the two terminal rooms or in the corridor.

7- Both sides have confirmed to complete reconstruction of the ground floor including the raised floor and the false ceiling by the end of Novermber, 1991.

8- Both sides have confirmed to complete reconstruction of the first and the second floor by the middle of August, 1991.

9- Both sides have confirmed Annex B of THE MINUTES OF MEETING (Allocation of expenditure for computer installation and site preparation) dated 27/6/1990 and have ammended it, as shown in ANNEX 12.

10-Both sides have confirmed Annex C of THE MINUTES OF MEETING (Building requirements for the computer room) dated 27/6/1990 and have ammended it, as shown in ANNEX 13.

11-Both sides have agreed on the scope of supply of the air conditioning system to be installed in the computer room as shown in ANNEX 14.

12-Both sides have confirmed that the Jordanian side would supply and install one air conditioning unit in each terminal room and an extra unit in the additional PC room as shown in ANNEX 15.

13- Both sides have agreed that the Jordanian side would complete the air conditioning installation work using the materials supplied by the Japanese side by the end of December, 1991.

Regarding the training courses:

1- The Japanese side provided the Jordanian side with a draft of the curriculae and a list of the teaching materials for the courses.

2- It was agreed that the Jordanian side would study the curriculae and the list, and provide the Japanese side with any suggested changes through the JICA office in Amman by the beginning of September, 1991.

3- It was agreed that the Centre would start the senior programmer course in April, 1992, the system engineer course in October, 1992 and the short term courses in April, 1992.

Concerning the tasks of the Japanese side, the long term Japanese experts (the chief advisor, the operating system and computer language expert, and the database and data communication expert) will be dispatched from the middle of October, 1991. One coordinator will be dispatched in May, 1992.

The short term Japanese experts (facilities, customer engineering and systems engineering experts) will be dispatched during the period from December, 1991 to February, 1992.

Regarding the acceptance of Jordanian counterparts in Japan, three counterparts for maintenance training will be accepted from the middle of October to the end of November, 1991.

It was proposed by the Jordanian side that three counterparts need to have software training in Japan in operating system, database and data communication from the middle of February until the end of March, 1992 in order to be able to support the Centre in Jordan. The Japanese side suggested that they would consider the proposal and would arrange the training schedule accordingly. They also proposed that the trainees should study the manuals which will be provided by the Japanese side to be able to enroll in the courses.

Regarding the Provision and Installation of Equipment and Machinery, its detailed schedule is attached in ANNEX 16.

Additional equipment which the Jordanian side has requested are found in ANNEX 17.

Hardware related subjects which explain the support procedures are found in ANNEX 18.

The Team presented and discussed with RSS the system configuration (Hardware and Software) as shown in ANNEX 19.

The Team will provide a list of hardware and software products applicable to the system.

Regarding the organization of the Centre, it is detailed in ANNEX 20.

Regarding the Jordanian counterpart personnel who were nominated on June 1, 1991, a list is found in ANNEX 21.

Regarding the project budget information requested by the Team for the fiscal year 1991, it is found in ANNEX 22.

C: Other Matters.

Regarding the Board of Directors, it was established on July 28, 1990 and it is composed of the Secretary General of HCST, the President of RSS and the Centre Director to reflect the policies decided by HCST concerning the activities of the Centre. Details are found in ANNEX 23.

Regarding the Opening Ceremony, the Jordanian side proposed to hold it in May, 1992. This proposal will be conveyed to JICA headquarters by the Team.

(3)

4－1－2　付属資料

L I S T　O F　A N N E X E S

1　THE ATTENDANTS OF THE MEETINGS

2　TECHNICAL COOPERATION PLAN OF FISCAL 1991

3　TENTATIVE SCHEDULE OF IMPLEMENTATION OF FISCAL 1991

4　TECHNICAL COOPERATION PLAN OF FISCAL 1990

5　TENTATIVE SCHEDULE OF IMPLEMENTATION OF FISCAL 1990

6　INSTALLATION REFERENCE FOR COMPUTER EQUIPMENT

7　THE SPECIFICATIONS OF THE POWER FEEDER DIAGRAMS AND OF THE POWER DISTRIBUTION BOARD FOR THE EQUIPMENT OF THE PROJECT

8　THE MATERIALS PROVIDED BY THE JAPANESE SIDE FOR ELECTRICAL WORK AND THE SCOPE OF INSTALLATION WORK BY BOTH SIDES

9　THE SIZE OF THE ROOMS

10　THE LOCATION OF THE ROOMS

11　THE LAYOUT OF THE EQUIPMENT ON THE GROUND FLOOR

12　AMENDED ANNEX B OF THE MINUTES OF MEETING OF R/D (ALLOCATION OF EXPENDITURE FOR COMPUTER INSTALLATION AND SITE PREPARATION)

13　AMENDED ANNEX C OF THE MINUTES OF MEETING OF R/D (BUILDING REQUIREMENTS FOR THE COMPUTER ROOM)

14　THE SCOPE OF SUPPLY OF THE AIR CONDITIONING SYSTEM TO BE INSTALLED IN THE COMPUTER ROOM

15　AIR CONDITIONING UNITS

16　DETAILED SCHEDULE OF THE PROVISION OF EQUIPMENT AND MACHINERY

17　ADDITIONAL EQUIPMENT

18　HARDWARE RELATED SUBJECTS

19　THE SYSTEM CONFIGURATION (HARDWARE AND SOFTWARE)

20　THE ORGANIZATION OF THE CENTRE

21　THE JORDANIAN COUNTERPART PERSONNEL

22　THE PROJECT BUDGET FOR FISCAL YEAR 1991

23　BOARD OF DIRECTORS OF THE COMPUTER TECHNOLOGY DEVELOPMENT AND TRAINING CENTRE

(3)

ANNEX 1. THE ATTENDANTS OF THE MEETINGS

JAPANESE SIDE

(CONSULTATION SURVEY TEAM)

TAKAHIKO KASAMA	LEADER
KENZO FUJISUE	TECHNICAL COOPERATION PLAN
KAZUHARU YAMADA	DATA COMMUNICATION
KENJI KATO	EDUCATION AND TRAINING PROGRAM
KENZO SHISUI	FACILITIES PROGRAM
TSUYOSHI MURAKAMI	PROJECT OPERATION AND MANAGEMENT

JORDANIAN SIDE

FADEL SWEIDAN	ACTING DIRECTOR, COMPUTER CENTRE
BURHANDEEN DAGHESTANI	SYSTEMS AND PROGRAMMING SECTION MANAGER
KHAMIS OMAR	RESEARCH AND STUDIES SECTION
MUNA IDRIS	FOLLOW-UP AND COORDINATION OFFICER / HCST
FARIS DAWOD	ELECTRICAL ENGINEER, ELECTRONICS AND TRAINING CENTRE
NAYEF KHOURI	BUILDING RENOVATION SITE MANAGER, BUILDING RESEARCH CENTRE
JIHAD SHIBLI	COMPUTER AIR CONDITIONING MAINTENANCE SUPERVISOR
MOHAMAD SHISHANI	MECHANICAL ENGINEER, MECHANICAL DESIGN AND TECHNICAL CENTRE

(3)

ANNEX 2 TECHNICAL COOPERATION PLAN OF FISCAL 1991

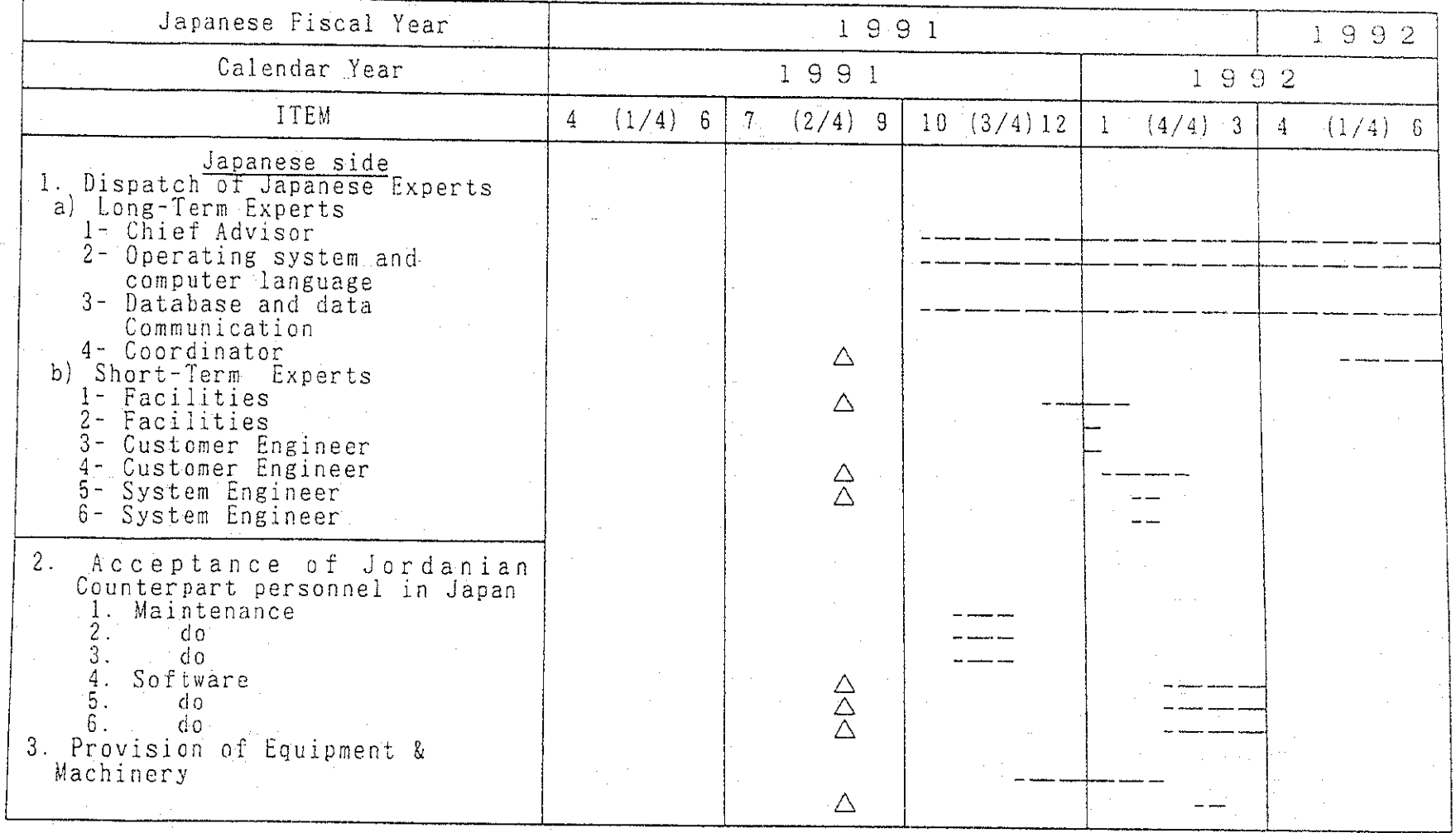
-- Plan
== Accomplishment

Japanese Fiscal Year	1991			1992	
Calendar Year	1991			1992	
ITEM	6	7 (2/4) 9	10 (3/4) 12	1 (4/4) 3	4 (1/4) 6
(Transfer of technology)					
1. Programming languages			----------	----------	----------
2. Operating system usage			----------	----------	----------
3. Database and data communication			----------	----------	----------
4. System design			----------	----------	----------
5. Project management			----------	----------	----------

NOTES: This schedule is subject to condition that necessary budget will be acquired for the implementation of the Project
This scope of technical cooperation is subject to change within the scope of the provision given in the Record of Discussions.

ANNEX 3-1 TENTATIVE SCHEDULE OF IMPLEMENTATION OF FISCAL 1991

-- Plan
== Accomplishment

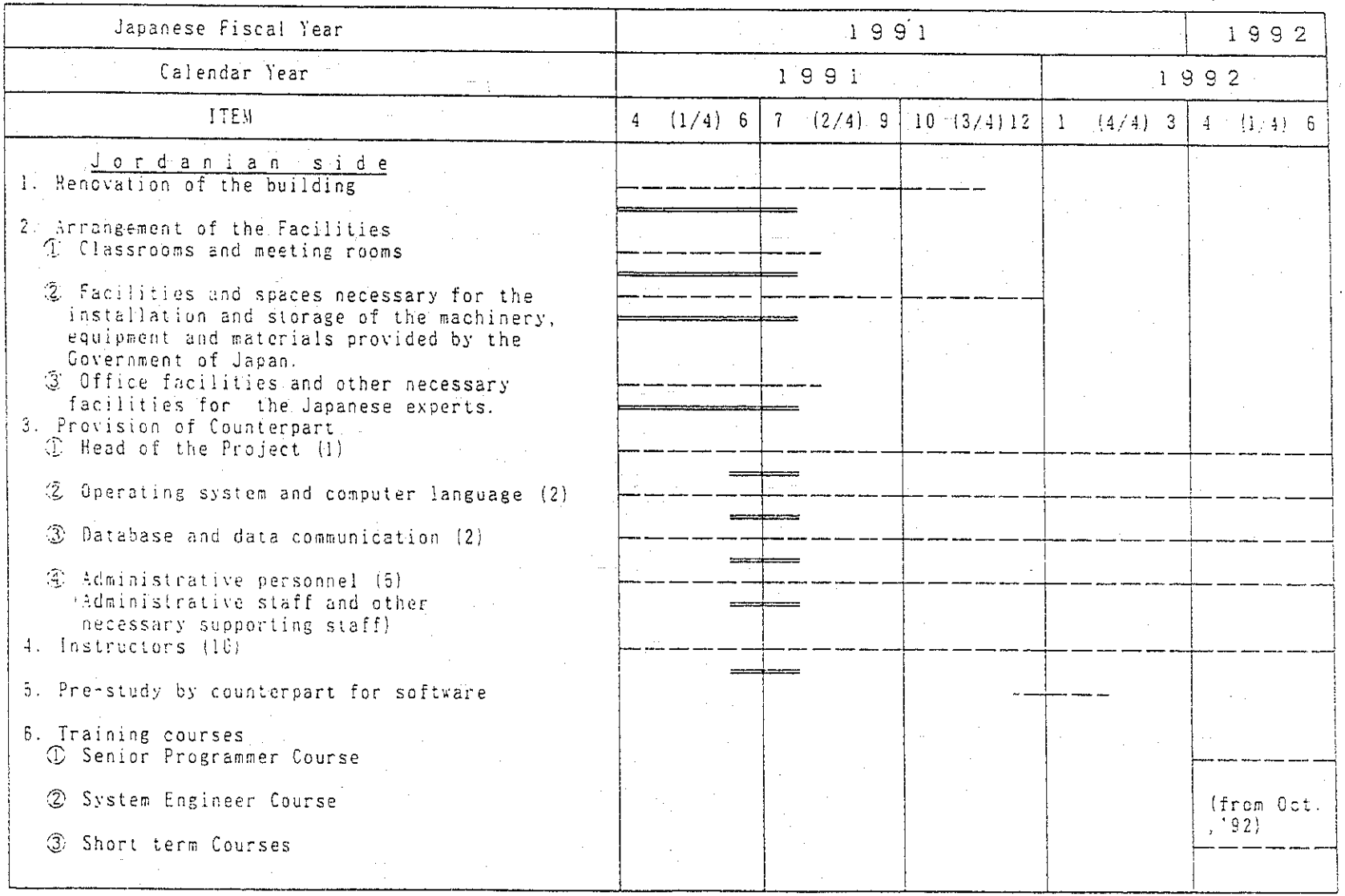


NOTES: This schedule is subject to condition that necessary budget will be acquired for the implementation of the Project

ANNEX 3-2

TENTATIVE SCHEDULE OF IMPLEMENTATION OF FISCAL 1991

-- Plan
== Accomplishment



NOTES: This schedule is subject to condition that necessary budget will be acquired for the implementation of the Project

ANNEX 4 TECHNICAL COOPERATION PLAN OF FISCAL 1990

-- Plan
== Accomplishment

Japanese Fiscal Year	1990			
Calendar Year	1990			1991
ITEM	6	7 (2/4) 9	10 (3/4) 12	1 (4/4) 3
(Transfer of technology)				
1. Programming languages	--	--	--	--
2. Operating system usage	--	--	--	--
3. Database and data communication	--	--	==	==
4. System design	--	--	--	--
5. Project management	--	--	--	==

ANNEX 5-1 TENTATIVE SCHEDULE OF IMPLEMENTATION OF FISCAL 1990

-- Plan

═ Accomplishment

Japanese Fiscal Year	1990											
Calendar Year	1990									1991		
ITEM	6	7	(2/4)	9	10	(3/4)	12	1	(4/4)	3		
Japanese side												
1. Acceptance of Jordanian Counterpart personnel in Japan												
① System Engineer												
② Instructor												

ANNEX 5-2 TENTATIVE SCHEDULE OF IMPLEMENTATION OF FISCAL 1990

-- Plan
== Accomplishment

Japanese Fiscal Year	1990																	
Calendar Year	1990												1991					
ITEM	6	7	(2/4)	9	10	(3/4)	12	1	(4/4)	3								
Jordanian side																		
1. Establishment of the Centre																		
2. Renovation of the building																		
3. Arrangement of the Facilities																		
① Classrooms and meeting rooms																		
② Facilities and spaces necessary for the installation and storage of the machinery, equipment and materials provided by the Government of Japan.																		
③ Office facilities and other necessary facilities for the Japanese experts.																		
4. Provision of Counterparts																		
① Head of the Project																		
② Operating system and computer language																		
③ Database and data communication																		
④ Administrative personnel (Administrative staff and other necessary supporting staff)																		

ANNEX 6

INSTALLATION REFERENCE FOR COMPUTER EQUIPMENT

1. POWER CONSUMPTION AND HEAT OUTPUT TOTAL OF EQUIPMENT

			PWER CONSUMPTION	HEAT OUPUT
1	CPU ROOM	CPU & I/O	29.2 KVA	22,335 kcal/Hour
2	TERMINAL ROOM No.1	TERMINAL EQUIPMENT	5.0 KVA	4,126 Kcal/Hour
3	TERMINAL ROOM No.2	TERMINAL EQUIPMENT	5.0 KVA	4,126 Kcal/Hour
4	WORK SHOPS	TE RMINAL EQUIPMENT	2.6 KVA	2,128 Kcal/Hour
5	Additional P C s	P C s	2.4 KVA	1,960 Kcal/Hour
1 to 5 Total			44.2 KVA	34,675 Kcal/Hour

2. PHISICAL SPECIFICATIONS OF COMPUTER EQUIPMENT

(1) Computer room

No	EQUIPMENT NAME	ACRONYM	QTY	DIMENSIONS			WEIGHT (Kg)	POWER CONSUMPTION		HEAT OUTPUT (Kcal/Hour)
				WIDTH (mm)	DEPTH (mm)	HEIGHT (mm)		3 φ 208V (KVA)	1 φ 120V (KVA)	
1	FACOM M-770/6 CENTRAL PROCESSING UNIT	CPU	1	1275+1079 2,354	800	1,630	620+430 1,050	8.4		6,490
2	F6682A DISPLAY STATION	DSU.C	6	63	380	325	5x6= 30		0.18x6= 1.08	140x6= 840
3	F6684K4 DISPLAY UNIT	DSU	6	360	420	407	16x6= 96			—
4	F8465C PRINTER	PR	1	570	390	216	24		0.07	180
6	F1775A FILE CONTROL UNIT	FCU	2	470	700	1,080	120x2= 240		0.65x2= 1.3	600x2= 1,200
7	F6423B4 DISK DRIVE UNIT	DKU	3	450	700	1,080	200x3= 600	1.4x3= 4.2		1,350x3= 4,050
8	F618A1 MAGNETIC TAPE DRIVE CONTROLLER & DRIVE UNIT	MTC/MTU	1	970	755	1,400	450	MTC 0.5 MTU 2.5		2,100
9	F618B MAGNETIC TAPE DRIVE UNIT	MTU	1	492	755	1,400	160	2.5		1,700
10	F6718L LINE PRINTER	LP	1	1,420	790	1,200	600	3.5		2,400
11	F6718L LINE PRINTER (in the next stage)	LP	(1)	1,420	790	1,200	600	3.5		2,400
12	F9183A2 LAN ADAPTOR	LANA	1	250	650	700	50		0.3	155
13	F6681M2 MULTIPLE DISPLAY CONTROLLER	MC	4	200	600	730	45x4= 180		0.32x4= 1.28	190x4= 760
14	C18L-9400-0580 ISOLATION TRANSFORMER	TR	1	850	750	1,065	880			
15	F9190C TRANCEIVER	MAU	1	152	84	35	1		———	———
16	F9190D TRANCEIVER	MAU	4	152	84	35	1x4= 4		———	———
17	F9190R2 REPEATER	REP	2	300	350	80	6X2= 12		0.035x2= 0.07	
TOTAL							4,977	25.1 29.2	4.1	22,335

(2) Terminal Room No.1

No	EQUIPMENT NAME	ACRONYM	QTY	DIMENSIONS			WEIGHT (Kg)	POWER CONSUMPTION		HEAT OUTPUT (Kcal/Hour)
				WIDTH (mm)	DEPTH (mm)	HEIGHT (mm)		3 φ 208V (KVA)	1 φ 120V (KVA)	
1	MY216 PERSONAL COMPUTER	PC	21	360	410	127	7.5x21 =157.5		0.1x21= 2.1	86x21= 1,806
2	MYCDSP1 DISPLAY UNIT	DSU	21	458	460	440			0.1x21= 2.1	80x21= 1,680
3	AS-41 PRINTER SWITCHER	SW	5	284	112	70			0.01x5= 0.05	8x5= 40
4	DL3400 P/C PRINTER	PR	6	580	345	120	12x6= 72		0.12x6= 0.72	100x6= 600
TOTAL									5.0	4,126

(3) Terminal Room No.2

No	EQUIPMENT NAME	ACRONYM	QTY	DIMENSIONS			WEIGHT (Kg)	POWER CONSUMPTION		HEAT OUTPUT (Kcal/Hour)
				WIDTH (mm)	DEPTH (mm)	HEIGHT (mm)		3 φ 208V (KVA)	1 φ 120V (KVA)	
1	MY216 PERSONAL COMPUTER	PC	21	360	410	127	7.5x21 =157.5		0.1x21= 2.1	86x21= 1,806
2	MYCDSP1 DISPLAY UNIT	DSU	21	458	460	440			0.1x21= 2.1	80x21= 1,680
3	AS-41 PRINTER SWITCHER	SW	5	284	112	70			0.01x5= 0.05	8x5= 40
4	DL3400 P/C PRINTER	PR	6	580	345	120	12x6= 72		0.12x6= 0.72	100x6= 600
TOTAL									5.0	4,126

(4) PCs in Work Shops

No	EQUIPMENT NAME	ACRONYM	QTY	DIMENSIONS			WEIGHT (Kg)	POWER CONSUMPTION		HEAT OUTPUT (Kcal/Hour)
				WIDTH (mm)	DEPTH (mm)	HEIGHT (mm)		3 φ208V (KVA)	1 φ120V (KVA)	
1	MY216 PERSONAL COMPUTER	PC	8	360	410	127	7.5x8= 60		0.1x8= 0.8	86x8 = 688
2	MYCDSP1 DISPLAY UNIT	DSU	8	458	460	440			0.1x 8= 0.8	80x8 = 640
3	DL3400 P/C PRINTER	PR	8	580	345	120	12x8= 96		0.12x8= appr0.96	100x8 = 800
	TOTAL								2.6	2.128

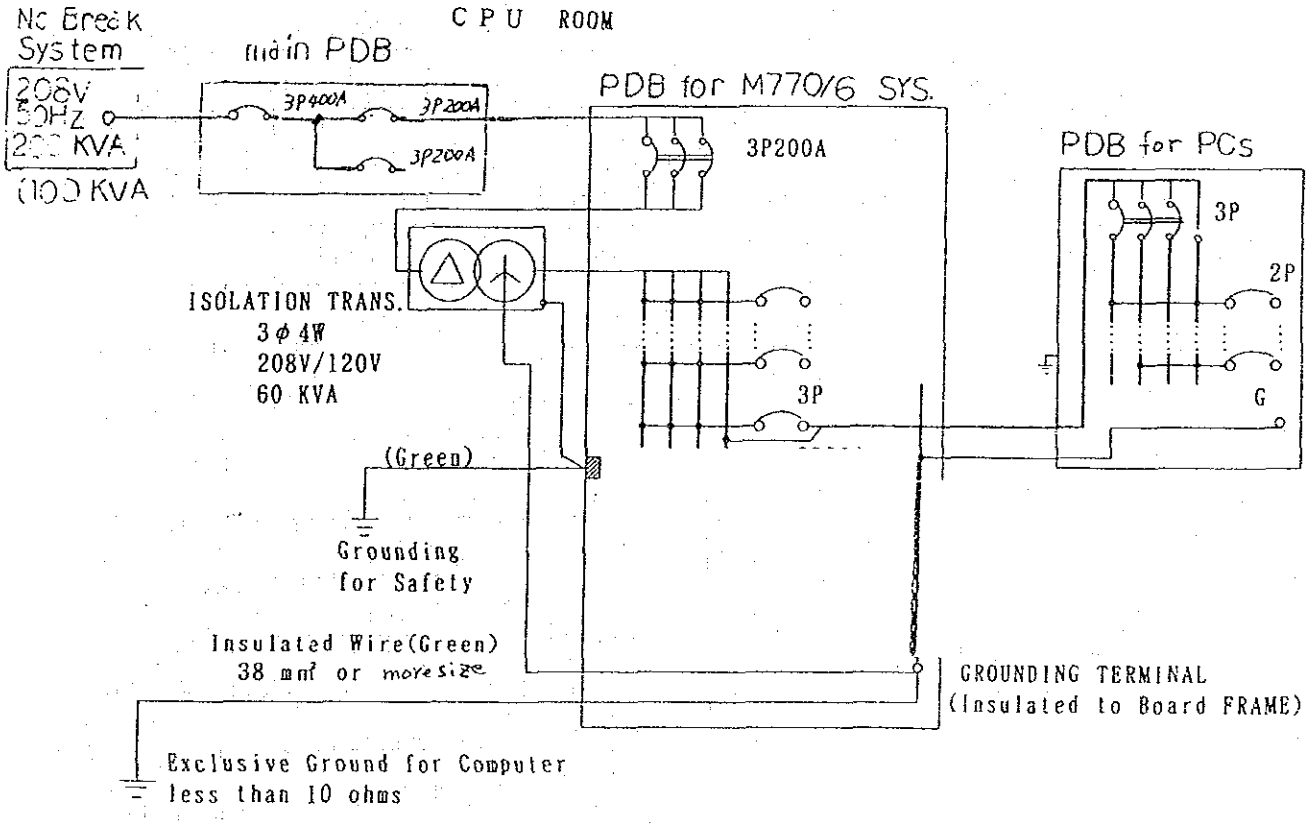
(5) Additional PCs

No	EQUIPMENT NAME	ACRONYM	QTY	DIMENSIONS			WEIGHT (Kg)	POWER CONSUMPTION		HEAT OUTPUT (Kcal/Hour)
				WIDTH (mm)	DEPTH (mm)	HEIGHT (mm)		3 φ208V (KVA)	1 φ120V (KVA)	
1	MY216 PERSONAL COMPUTER	PC	10	360	410	127	7.5x10 = 75		0.1x10= 1.0	86x10= 860
2	MYCDSP1 DISPLAY UNIT	DSU	10	458	460	440			0.1x10= 1.0	80x10= 800
3	DL3400 P/C PRINTER	PR	3	580	345	120	12x3= 36		0.12x3= 0.36	100x3= 300
	TOTAL								2.4	1,960

ANNEX 7

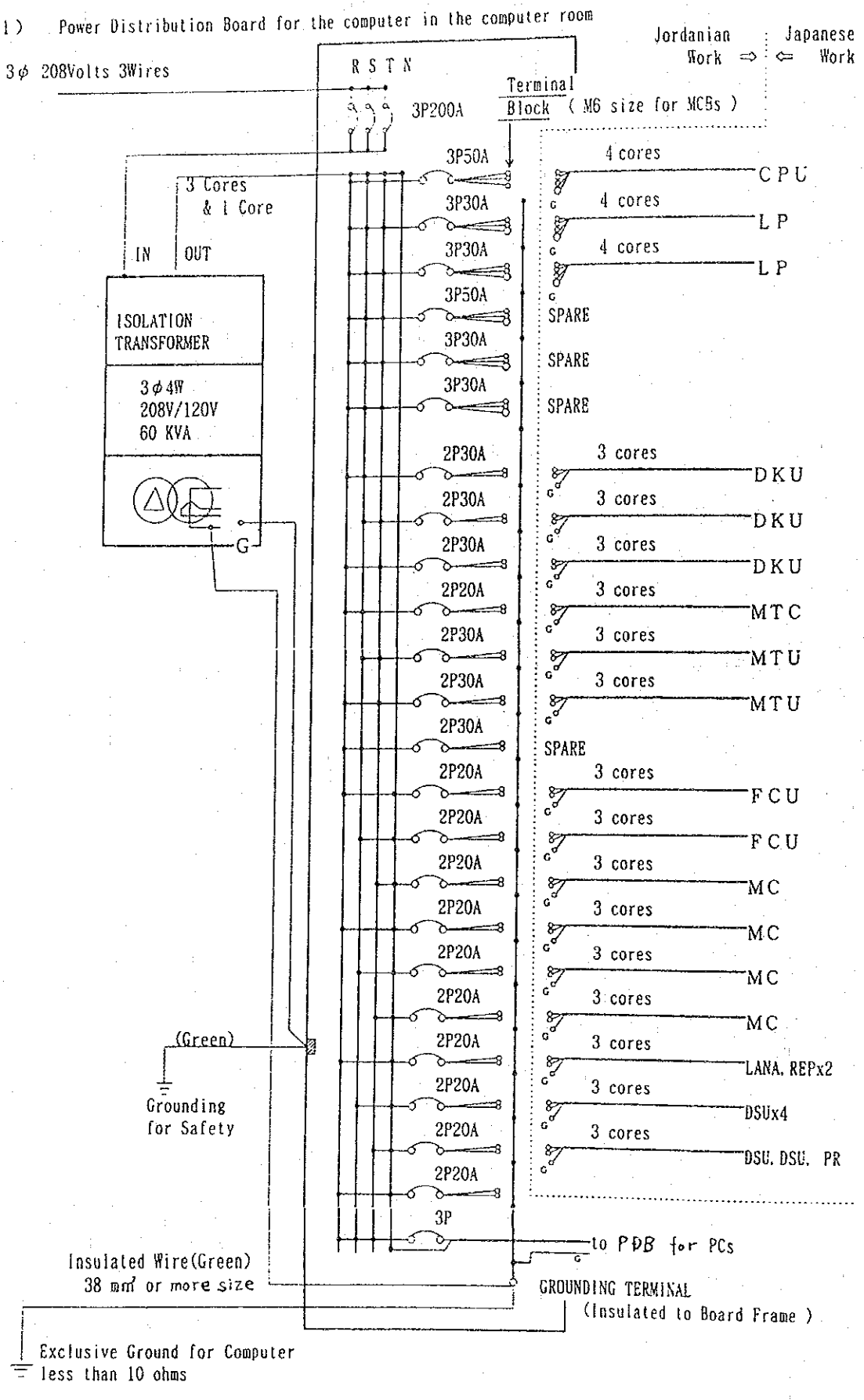
THE SPECIFICATIONS OF THE POWER FEEDER DIAGRAMS AND OF THE POWER DISTRIBUTION BOARD FOR THE EQUIPMENT OF THE PROJECT

1. POWER FEEDER DIAGRAM

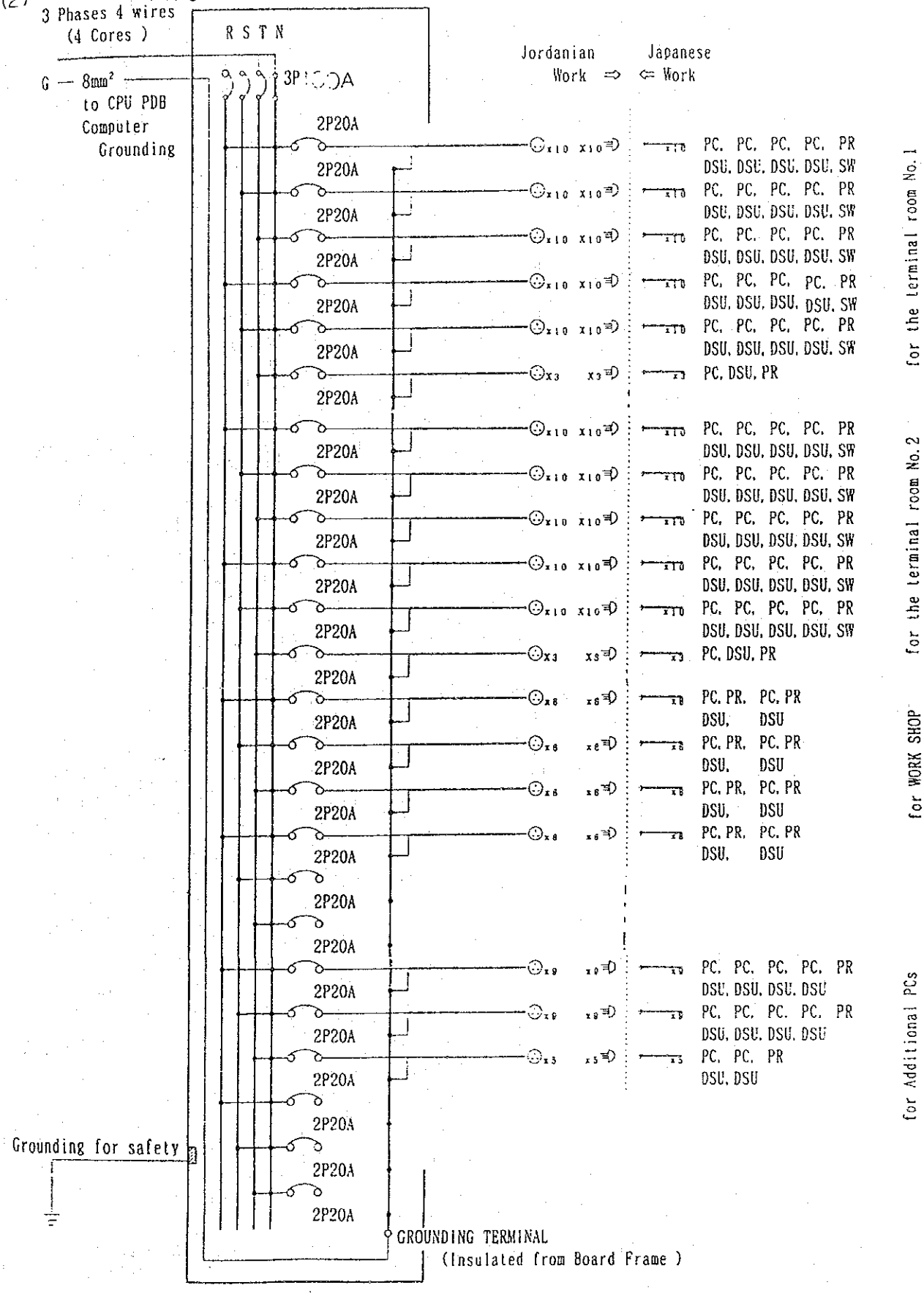


2. POWER DISTRIBUTION BOARD

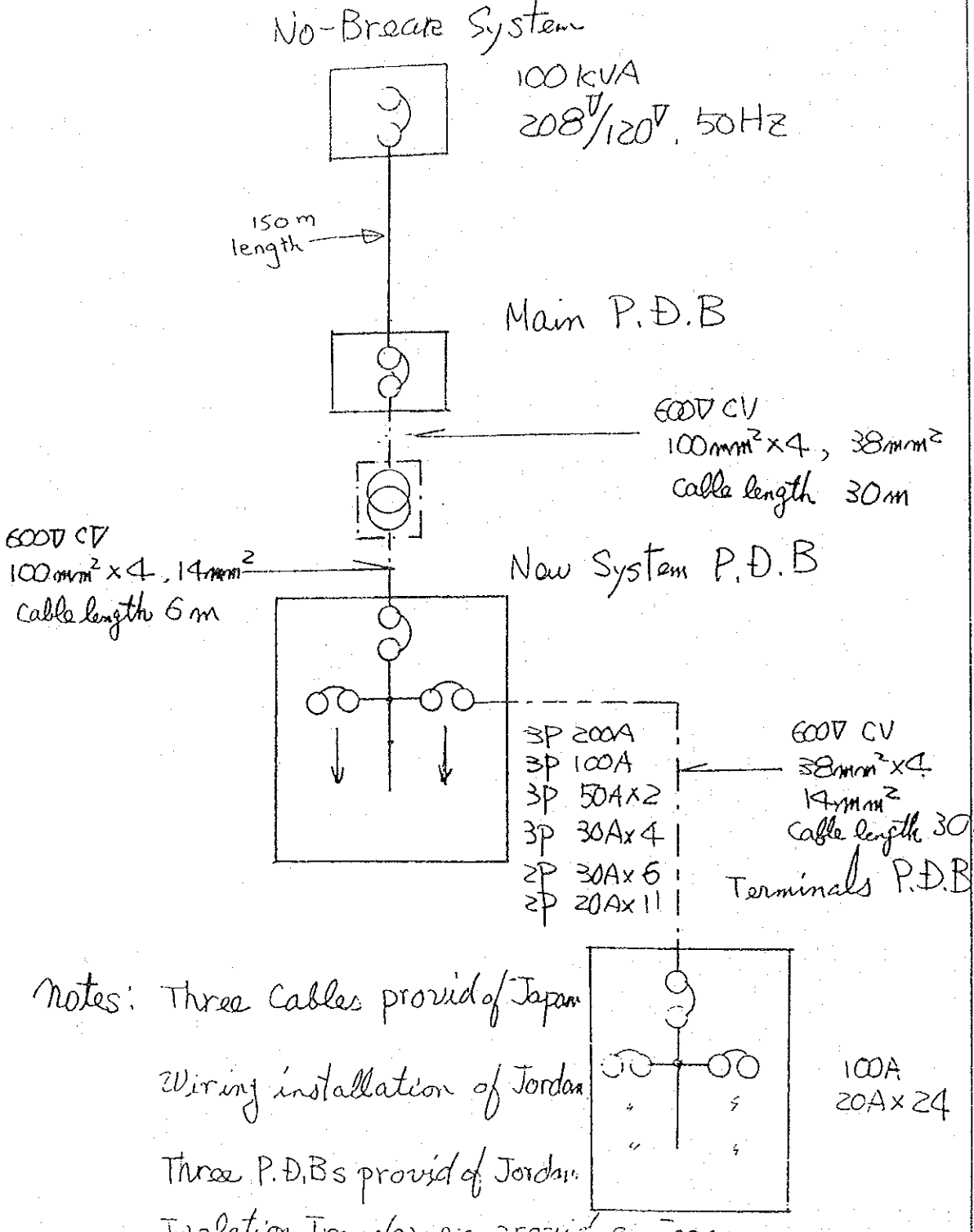
(1) Power Distribution Board for the computer in the computer room



(2) PDB for PCs


3 Phases 4 wires
(4 Cores)
R S T N
G — 8mm²
to CPU PDB
Computer
Grounding
3P100A
Jordanian Work ⇒
⇐ Japanese Work
2P20A
PC, PC, PC, PC, PR
DSU, DSU, DSU, DSU, SW
PC, DSU, PR
PC, PR, PC, PR
DSU, DSU
PC, PC, PR
DSU, DSU
for the terminal room No.1
for the terminal room No.2
for WORK SHOP
for Additional PCs
Grounding for safety
GROUNDING TERMINAL
(Insulated from Board Frame)

THE MATERIALS PROVIDED BY THE JAPANESE SIDE FOR ELECTRICAL WORK AND THE SCOPE OF INSTALLATION WORK BY BOTH SIDES



Notes: Three Cables provid of Japan

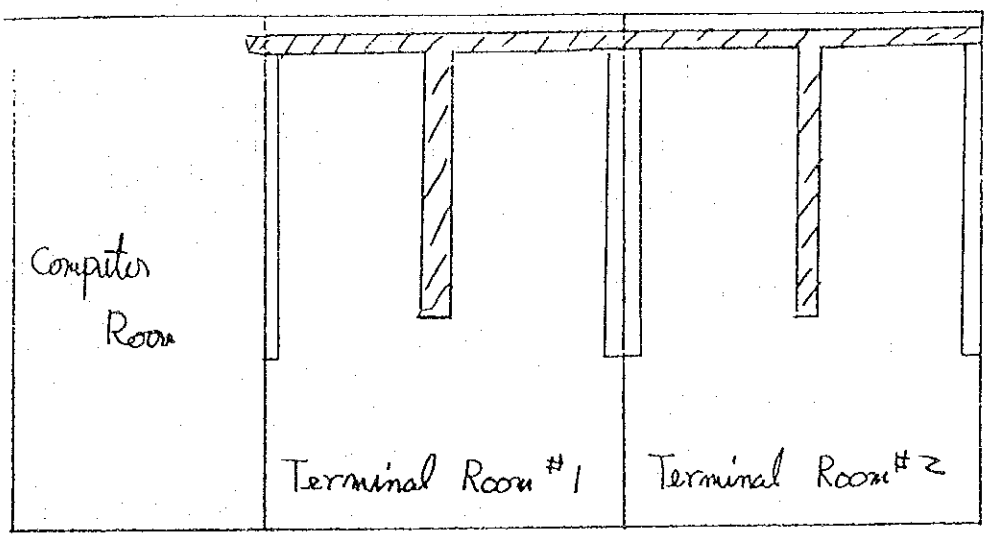
Wiring installation of Jordan

Three P.D.Bs provid of Jordan

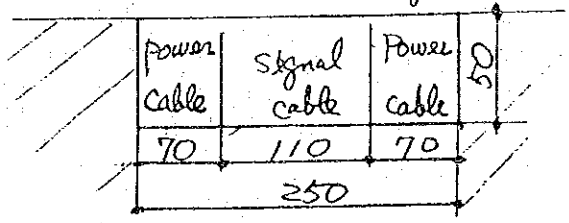
Isolation Transformer provid of Japan

N.B.S To Main P.D.B Wiring installation provid of Jordan

Signal cable protection procedure to Confirmation



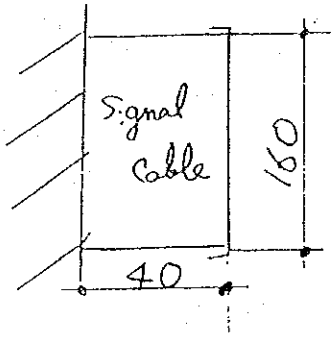
Note ▨ under gland.



width ; ≥50mm

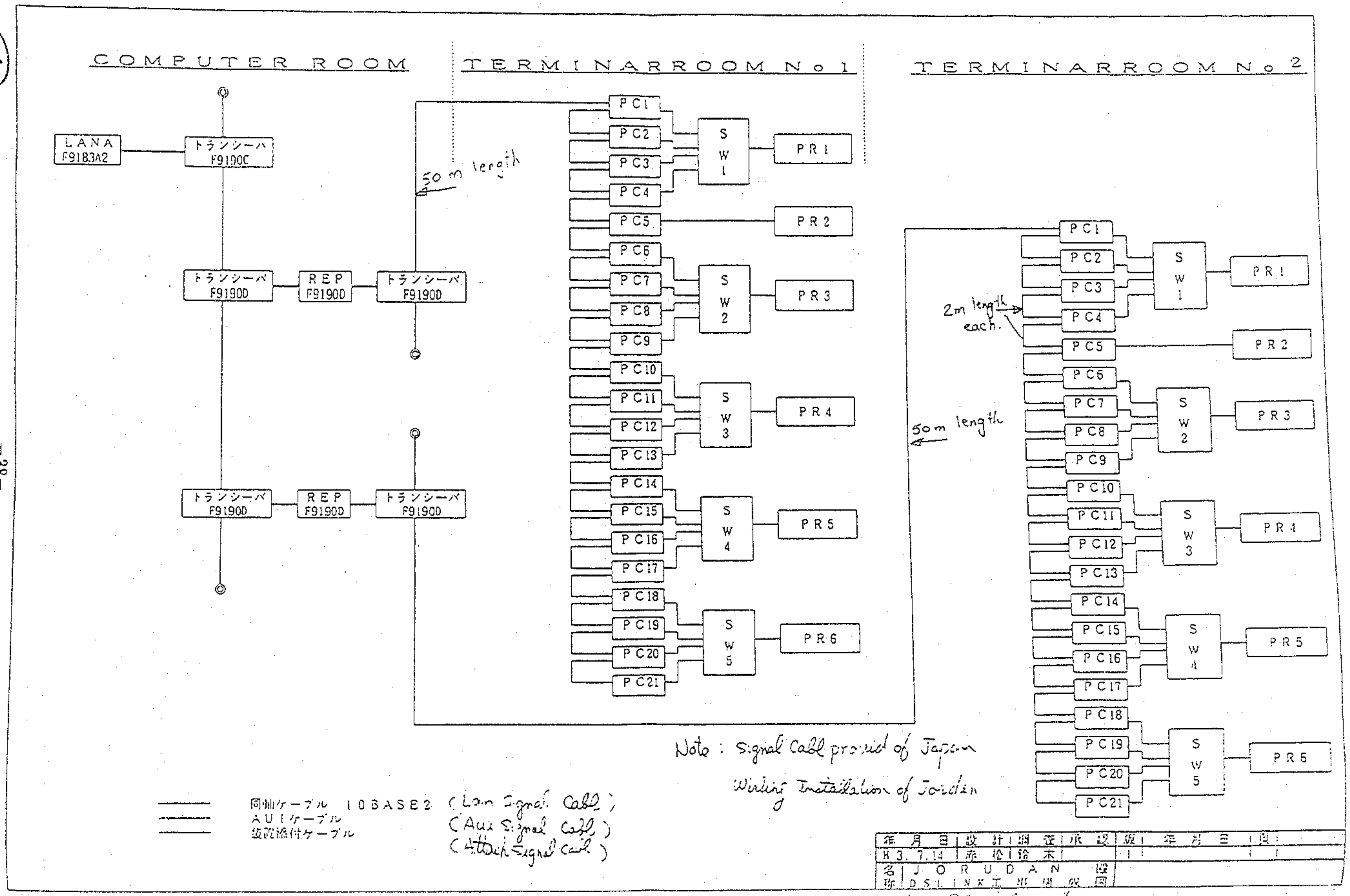
Hight : 50mm

▭ on wall

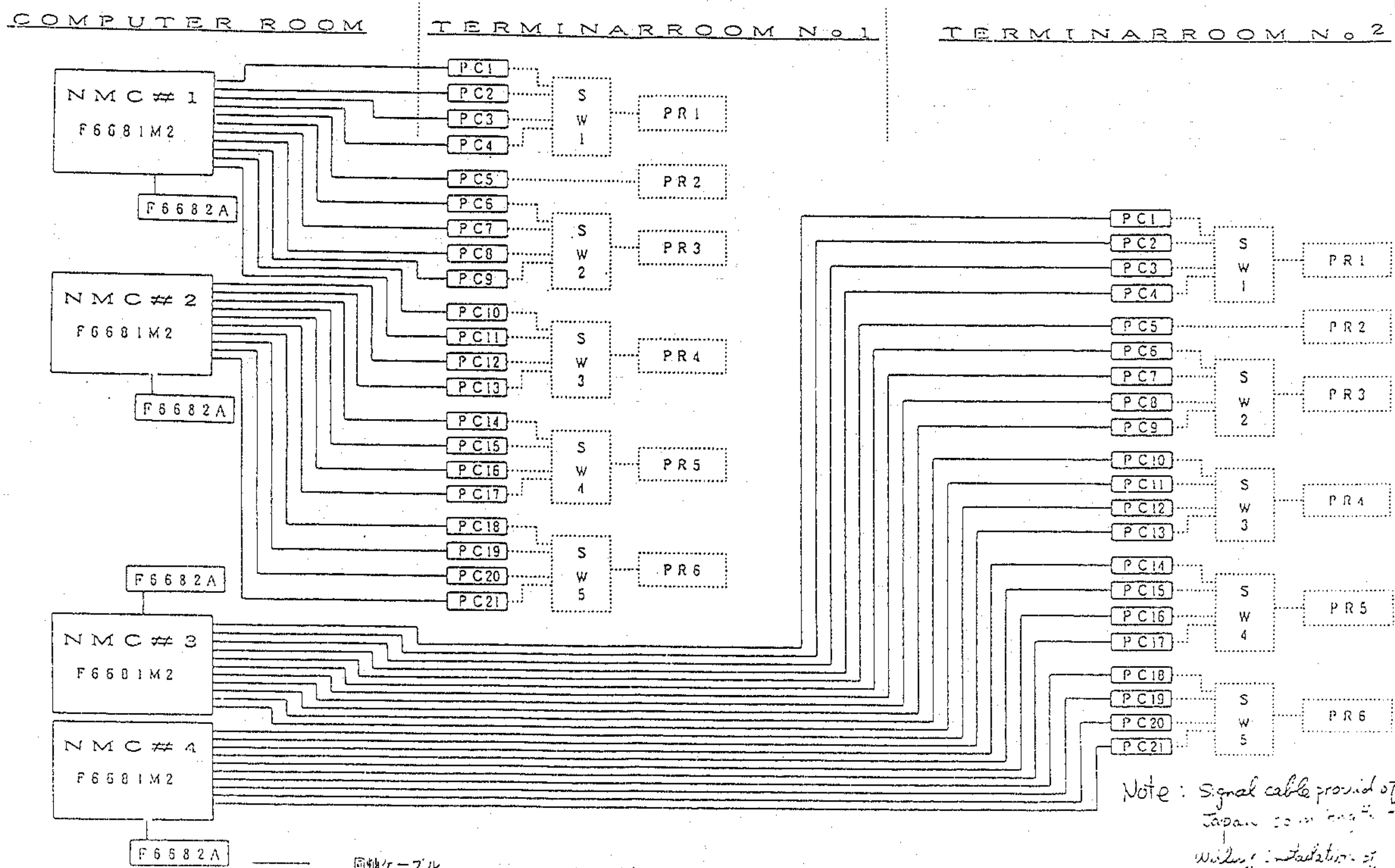


width ; 40 mm

Hight ; 160 mm



COMPUTER ROOM
TERMINARROOM No 1
TERMINARROOM No 2
LANA F9183A2
トランシーバ F9190C
トランシーバ F9190D
REP F91900
トランシーバ F91900
REP F9190D
50 m length
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PC8
PC9
PC10
PC11
PC12
PC13
PC14
PC15
PC16
PC17
PC18
PC19
PC20
PC21
SW1
SW2
SW3
SW4
SW5
PR1
PR2
PR3
PR4
PR5
PR6
2m length each.
Note : Signal Cable provid of Japan
Wiring Installation of Jordan
同軸ケーブル 10BASE2 (Lan Signal Cable)
AUIケーブル (Aux Signal Cable)
接続端付ケーブル (Attach Signal cable)
年月日 | 設計 | 調査 | 承認
H3. 7.14 | 赤松 | 鈴木
名称 | JORUDAN 設 | DSLINK工事構成図

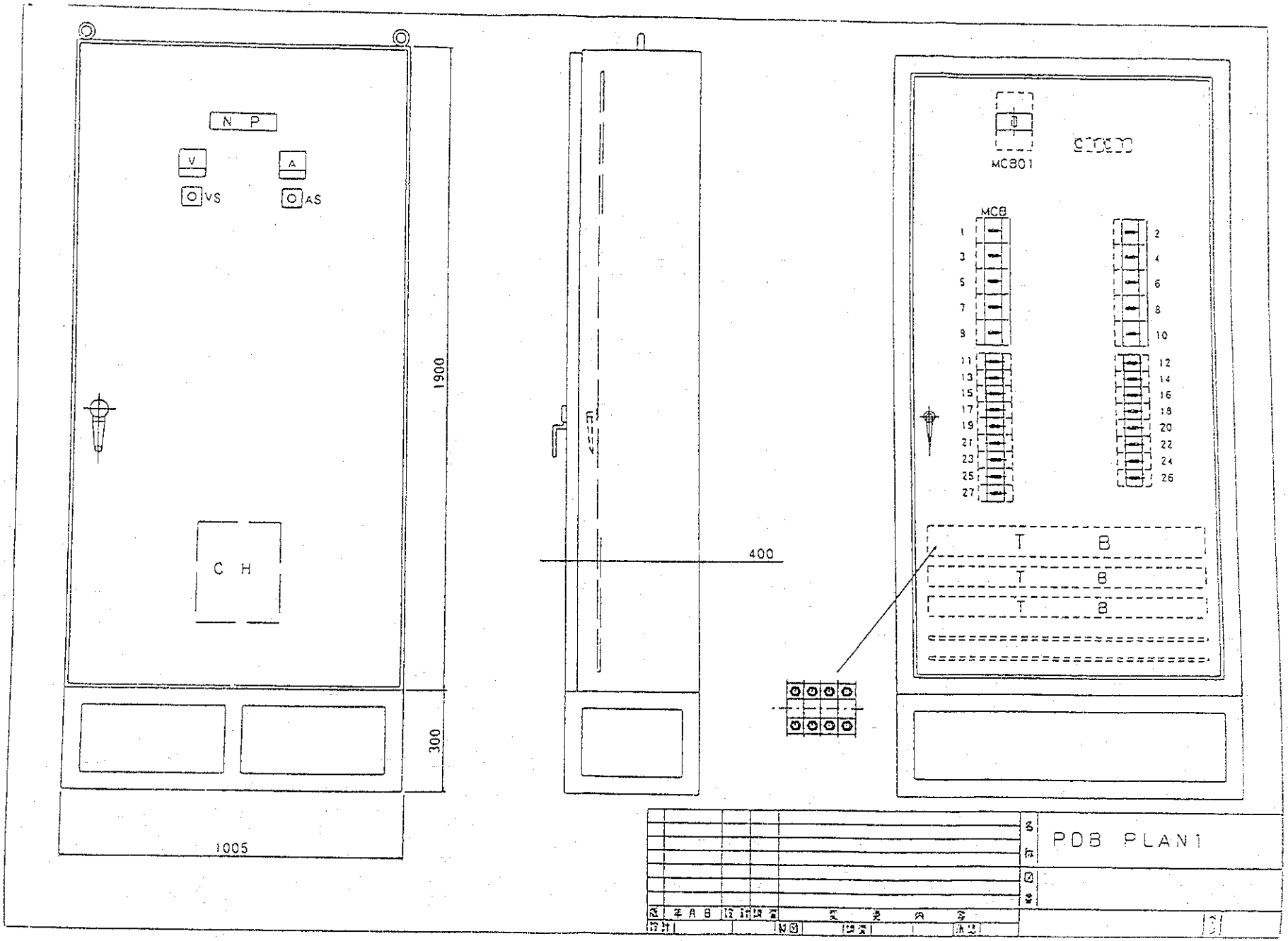


同軸ケーブル
Signal Cable

Note : Signal cable provid of Japan

年 月 日	設 計	照 査	承 認	改	年 月 日	内
H3. 7.14						
名称	JORUDAN 設					
	同軸ケーブル配線系統図					

Signal Cable Connection


N P
V
A
VS
AS
C H
1900
300
1005
400
MCB01
MCB
1
3
5
7
9
11
13
15
17
19
21
23
25
27
2
4
6
8
10
12
14
16
18
20
22
24
26
T B
T B
T B
PDB PLAN1

略記号	品名	型式	定格	数量
MCB01	ノーヒューズブレーカ	EA2038	3P200AF/200AT	1個
MCB1-2	ノーヒューズブレーカ	EA53A	3P 50AF/50AT	2個
MCB3-10	ノーヒューズブレーカ	EA53A	3P 50AF/30AT	8個
MCB11-16	ノーヒューズブレーカ	EA32	2P 30AF/30AT	6個
MCB17-27	ノーヒューズブレーカ	EA32	2P 30AF/20AT	11個
CT	計器用変流器	FRC-5-26	200/5A	2個
V	電圧計	SF-80	0-300V	1個
A	電流計	SF-80	0-200/5A	1個
VS	電圧計切り換え器	AK1-VS		1個
AS	電流計切り換え器	AK1-AS		1個
TB	ターミナルブロック			

※ MCB Molded Case Circuit Breaker

CT Current Transformer

V Voltmeter

A Ammeter

VS Voltmeter Change-over Switch

AS Ammeter Change-over Switch

TB Terminal block

PDB PLAN 1'

ANNEX 9

THE SIZE OF THE ROOMS

1. Computer Room (Approx 187 m^2 including approx. 94 m^2 for the project)

2. Terminal room (two rooms approx. 92m^2 each)

3. Storage and spare parts room (approx. 60 m^2)

4. Seminar room (two rooms, approx. 102m^2 each)

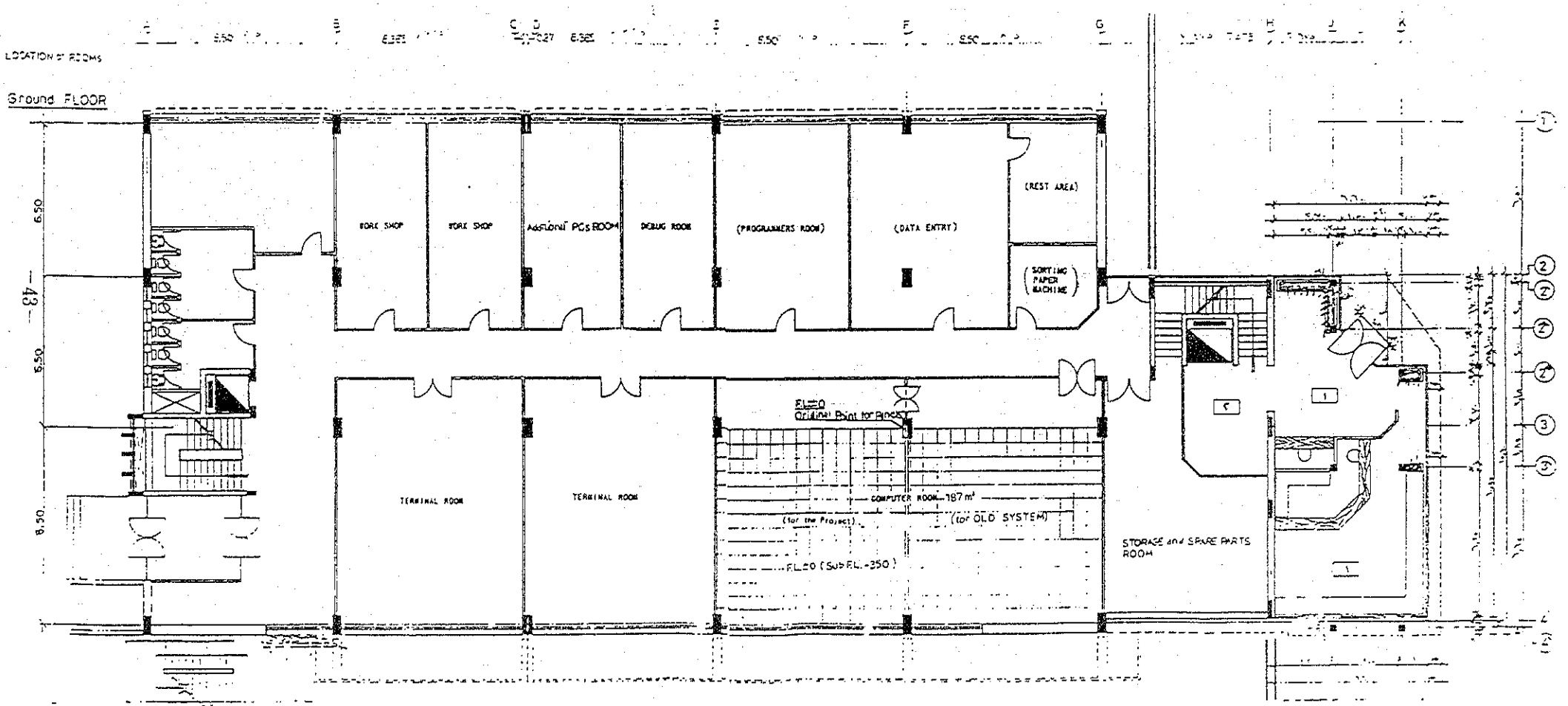
5. Study room for workshop (three rooms, approx. 35m^2 each)

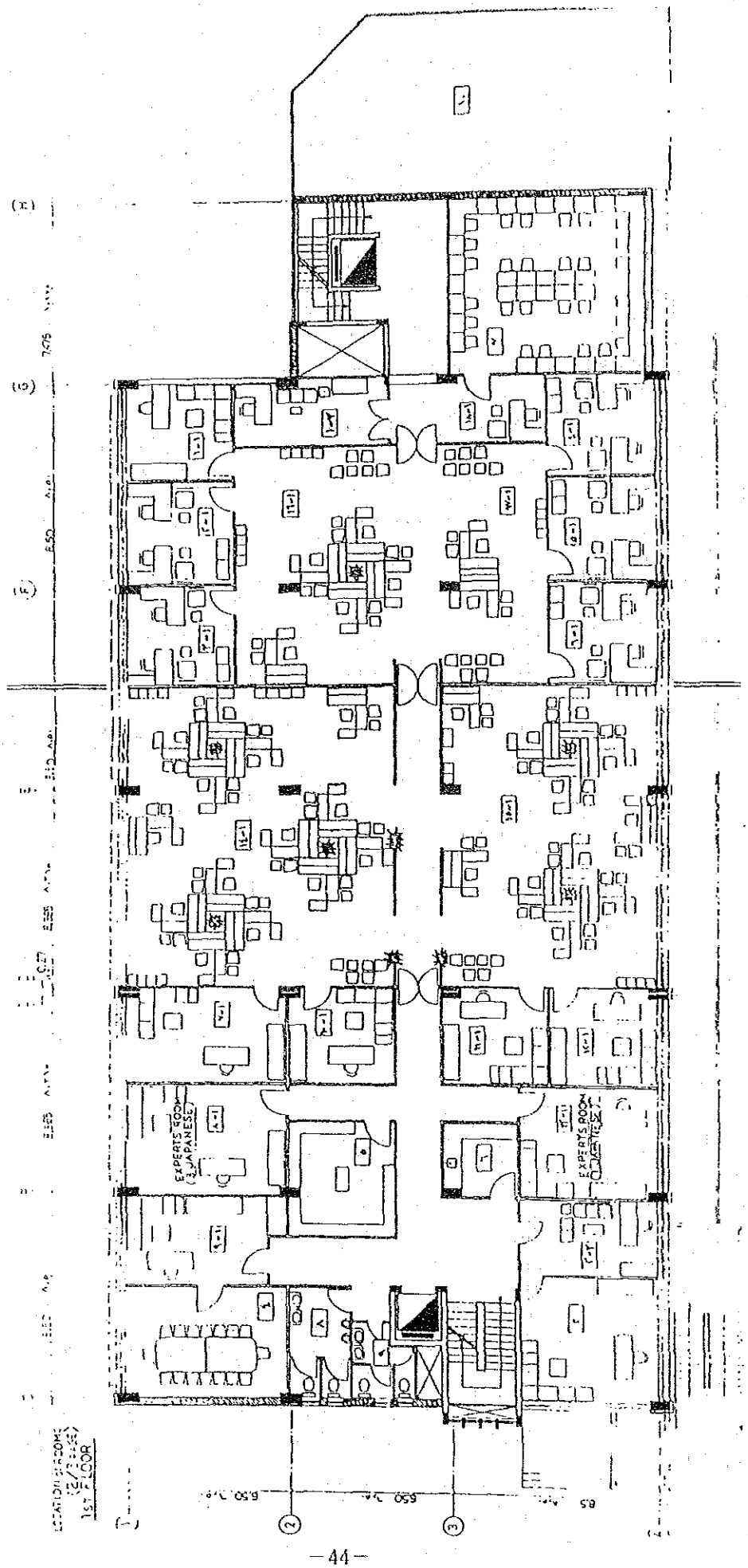
6. Japanese expert's room
   (two rooms on the 1st floor, approx. 30 m^2 each)

7. Additional personal computers room for the short course (approx 35m^2)

8. Other necessary room

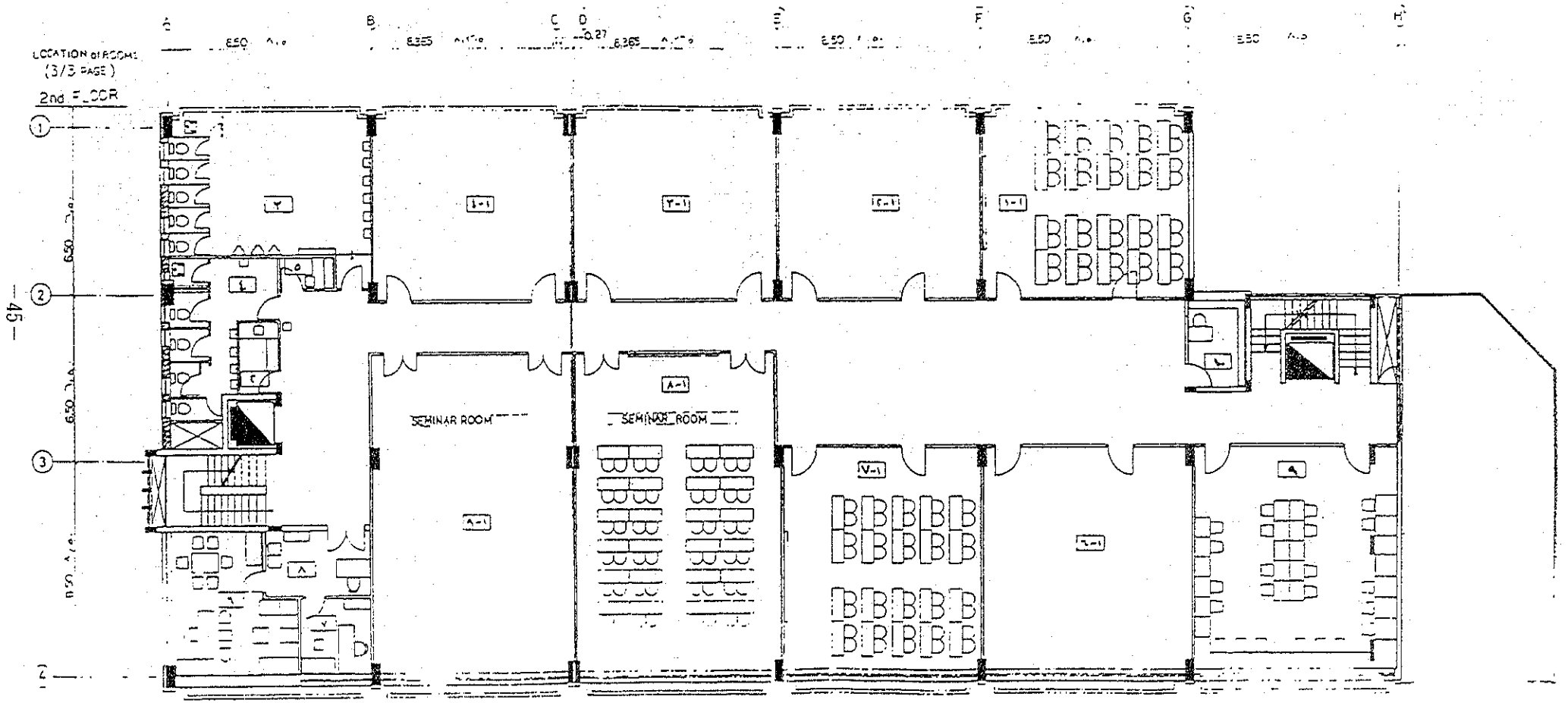
THE LOCATION OF THE ROOMS



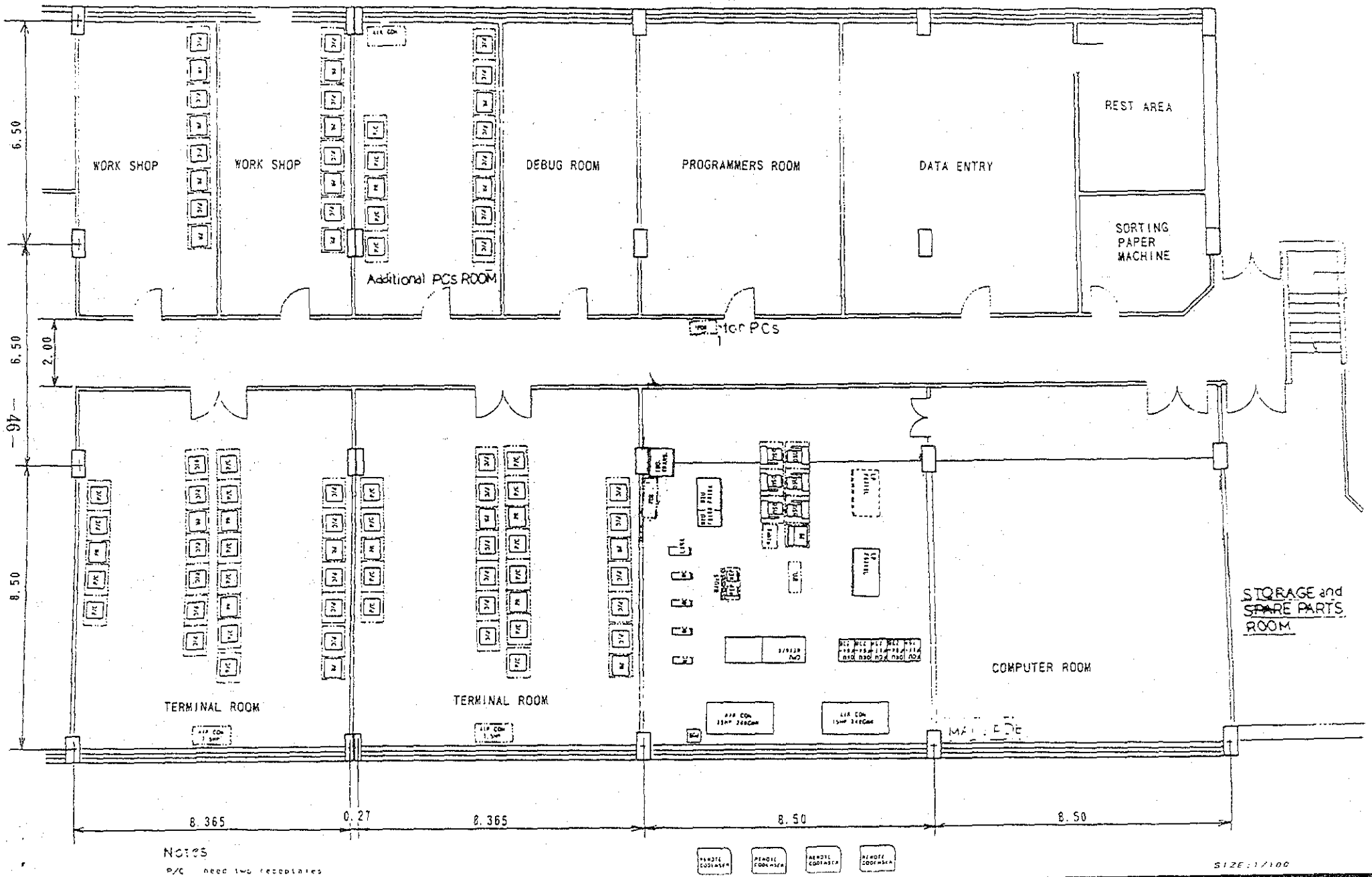

EXPERTS' ROOM (JAPANESE)
EXPERTS' ROOM (CHINESE)
1ST FLOOR

LOCATION of ROOM:
(3/3 PAGE)

2nd FLOOR



ANNEX 11 THE LAYOUT OF THE EQUIPMENT ON THE GROUND FLOOR



Notes

P/C need two receptacles

SIZE: 1/100

ANNEX 12

AMENDED ANNEX 8 OF THE MINUTES OF MEETING OF R/D (ALLOCATION OF EXPENDITURE FOR COMPUTER INSTALLATION AND SITE PREPARATION)

	Allocation of Expenditure	
	Jordan	Japan
1. Maintenance Engineer		
(a) Recruitment of engineers (3 persons)	x	
(b) Training for engineers in Japan		x
2. Transportation of equipment and materials		
(a) From Japan to port of Jordan (Aqaba)		x
(b) From port of Jordan to the Centre	x	
3. Installation and adjustment		x
(a) Dispatch of supervisor for unpacking installation and adjustment		x
(b) Unpacking and installation personnel	x	
(c) Recruitment of operators (2 persons)	x	
(d) Training for operators		x
4. Boundary of installation		
4.1 Power supply		
(a) Cabling materials from commercial power to No Break System	x (existing)	
(b) Cable from main PDB to isolation transformer		x
(c) No Break System	x (existing)	
(d) PDBs (power distribution boaards) until end of Nov.	x	
(e) Cabling materials from back up Generator to No Break System	x (existing)	
(f) Isolation transformer in computer room to eliminate the external electrical noise (3 phases 4 wire 208V 50Hz 60KVA)		x

Allocation of Expenditure

		Jordan	Japan
(g)	Cable from isolation transformer to PDB		X
(h)	Grounding electrode for computer and its wiring to PDB	X	
(i)	Cable from PDB of computer room to one PDB for PCs		X
(j)	Cabling materials for secondary wiring from PDB to computer equipment in computer room		X
(k)	Cabling materials from PDB to terminal equipment (Cable, cable protector, receptacles, plugs) Specification for plugs shall be sent by Japanese side in the middle of August	X	
(l)	Installation works of above (a)-(k) until end of Dec.	X	
(m)	Installation of power outlet for general electricity.	X	

		Allocation of Expenditure	
		Jordan	Japan
4-2	Signal cables		
(a)	Signal cable in computer room- Signal cables from CPU to i\o equipment.		x
(b)	Signal cables from terminal controller in computer room to terminal equipment (50m each).		X
(c)	Signal cable for Local Area Network (LAN) from computer to terminal rooms (2m each and 50mx2)		x
(d)	Wiring planning of above (b)-(c) including trunking	x ok discussed and planned	
(e)	Trunking and trench materials	X	
(f)	Installation works of above (b)-(e)	X	
(g)	Installation works of above (d)		X
4-3	Floor construction		
(a)	Materials for raised floor in computer room	X	
(b)	Floor surface materials for anti-static electricity in computer room.	X	
(c)	Raised floor plan	X	
(d)	Plan of cutting of floor panels and additional pedestals location for computer installation , cabling and cooling		X end of Aug
(e)	Construction of above (a) - (d)	X	
4.4	Air conditioner		
(a)	Underfloor blower type in computer room.		X
(b)	Regular type in two terminal rooms and additional PCs room	X	
(c)	Installation works of above (a)-(b)	X	
(d)	Maintenance of above (a) -(b)	X	

Allocation of Expenditure

		Jordan	Japan
4.5	Fire extinguisher- eight (8) sets of portable Halon-gas fire extinguisher	X	
4.6	Layout plan of computer equipment -Detailed specifications and layout plan of hardware/equipment		X
4.7	Furniture of computer room (recommendable)		
	(a) Fireproof safe for master magnetic tape/floppy disk	x	
	(b) Storage cabinet for magnetic tape, floppy disk, paper etc.	x	
	(c) Carrier for magnetic tape, paper, etc.	x	
	(d) Desks and chairs for debugging and operator	x	
	(e) White boards	x	
	(f) Schedule white boards	x	
	(g) Others	x	

ANNEX 13

AMENDED ANNEX C OF THE MINUTES OF MEETING OF R/D (BUILDING REQUIREMENTS FOR THE COMPUTER ROOM)

1. Requirements for computer room

1-1 Sub-floor

(a) Subfloor strength
300 to 500 kg\m2 or more
If existing building, should be able to bear the weight of the raised floor and the computer system.

(b) Dust proof oil-painting shall be applied to the walls of the sub-floor.

(c) Before computer installation, it should be cleaned up.

1-2 Raised floor

(a) Raised floor height, 300mm± 30mm
(b) Loading capacity, (2000 kg for 4 panels)
Panel Flexure for concentrated load of 500 kg to be 1.5 mm or less.
(c) Anti-static material for surface of raised floor panel (surface resistence, 10^9 to 10^6 Ωcm or less) (ok)
(d) Cutout panels and additional pedestals

1-3 Ceiling height, at least 2.4m
(from raised floor surface)

1-4 Lighting ; 600 to 400 lux (85 cm above the floor) is desirable.

1-5 Accoustical treatment is desirable.

1-6 Maintenance power point,
5 outlets or more for adjustment and maintenance

1-7 Fire protection, Halon gas extinguisher.

2. Air conditioning

2-1 Temperature and humidity range for computer equipment (agreed)

(a) In operation
Dry bulb temperature; 15 to 30°C
Relative humidity ; 45 to 70 %

(b) Out of operation
Dry bulb temperature; 5 to 40°C
Relative humidity; 30 to 75 %
Maximum wet bulb temperature; 26°C or less

2-2 Temperature and humidity design while in operation (agreed)

(a) In-room air conditioning system
In-room temperature \humidity
(Specified around the outlet of the equipment)

Summer; 24±2°C, 45 %
Winter; 21±2°C, 45 %

(b) Underfloor blower system (agreed)
Underfloor blower temperature and humidity
(Specified at the blower outlet under floor)
All season; 18 ± 1 °C, 65 ± 5 %
In -room temperature \ humidity

Summer; 24°C , 45% to 70 %
Winter; 21 C , 45% to 70 %

2-3 Dust
Floating dust; 0.07 mg\m3 or less (agreed)

2-4 Detector for temperature and humidity (provided by Japan)

2-5 Recorder for temperature and humidity (provided by Japan)

2-6 Water leak prevention and leak detector (provided by Japan)

2-7 Heat insulation of hot-water pipe. Hot water piping passing through the computer room shall be applied with insulation materials.

(S)

3. Power supply (ok) (For Computer System)

3-1 Output voltage at PDB
203\120V ± 10% 3 phases and Neutral

3-2 Frequency; 50Hz ± 1%

3-3 Voltage wave form distortion factor (agreed)
(Harmonic content)
within 5%
at 50% linear load and 50% rectification smoothing load

3-4 Ground for computer
A grounding electrode of ground resistance 10Ω or less

3-5 Main grounding wire size
38 mm2 or more

3-6 Uninterruptible power system
60 KVA

3-7 Power distribution board
(a) Branch circuits (circuit breakers)
(b) Monitoring instruments, and grounding terminal of power supply.

4. Security (recommendable)

4-1 Fire protection (already provided)
(a) Automatic fire alarm system
(b) Fire extinguisher

4-2 Water leakage detection (Provided by Japan)

4-3 Security guard system (agreed)

4-4 Rats banishment (agreed)

Note : All building specification in this Annex should be in line with the local Building Control Regulations.

(3)

30

ANNEX 14

THE SCOPE OF SUPPLY OF THE AIR CONDITIONING SYSTEM TO BE INSTALLED IN THE COMPUTER ROOM

Scope of supply of equipment and materials for air conditioning installation work :

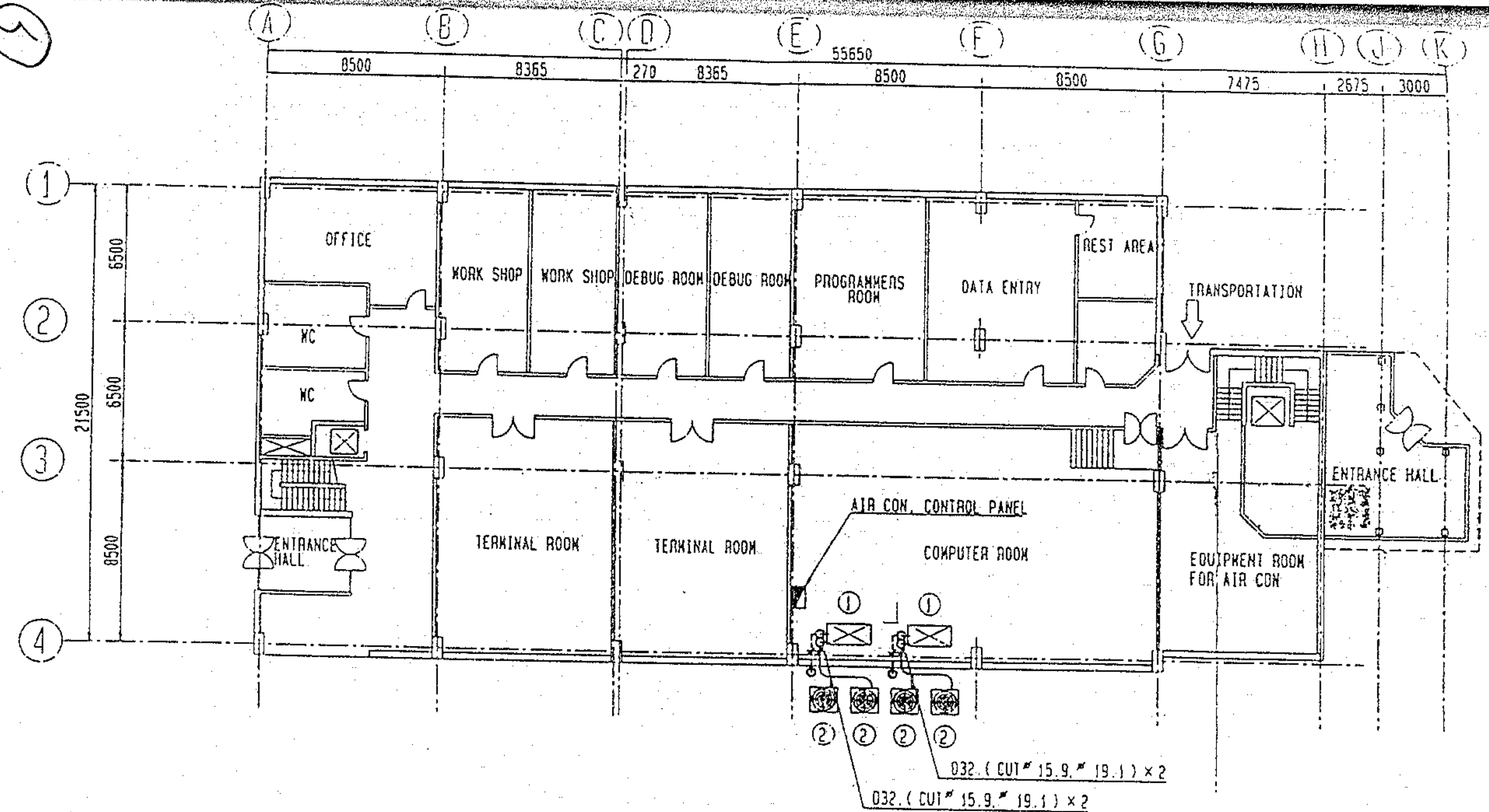
JAPAN

(1) Underfloor blower type air conditioners .
(2) Iron-frame with vibration-absorbing rubber pad.
(3) Refrigarant piping materials between indoor and outdoor units.
(4) Drain piping materials.
(5) Controllers (Detectors for temperature and humidity).
(6) Control panel.
(7) Water leak detecting tapes (around indoor units).
(8) Electrical wiring cables between indoor and outdoor units.
(9) Electrical wiring cables from control panel to A/C units.
(10) Electrical wiring cables from controllers to control panel.
(11) Electrical wiring cables from control panel to water leak detecting tapes.
(12) Spare parts as listed in the attached sheets.
(13) Temperature and humidity recorder.

JORDAN

(1) Concrete foundation for outdoor units.
(2) Feed water supply piping materials for humidifiers moutned in indoor units.
(3) Power supply cables to control panel.

(5)

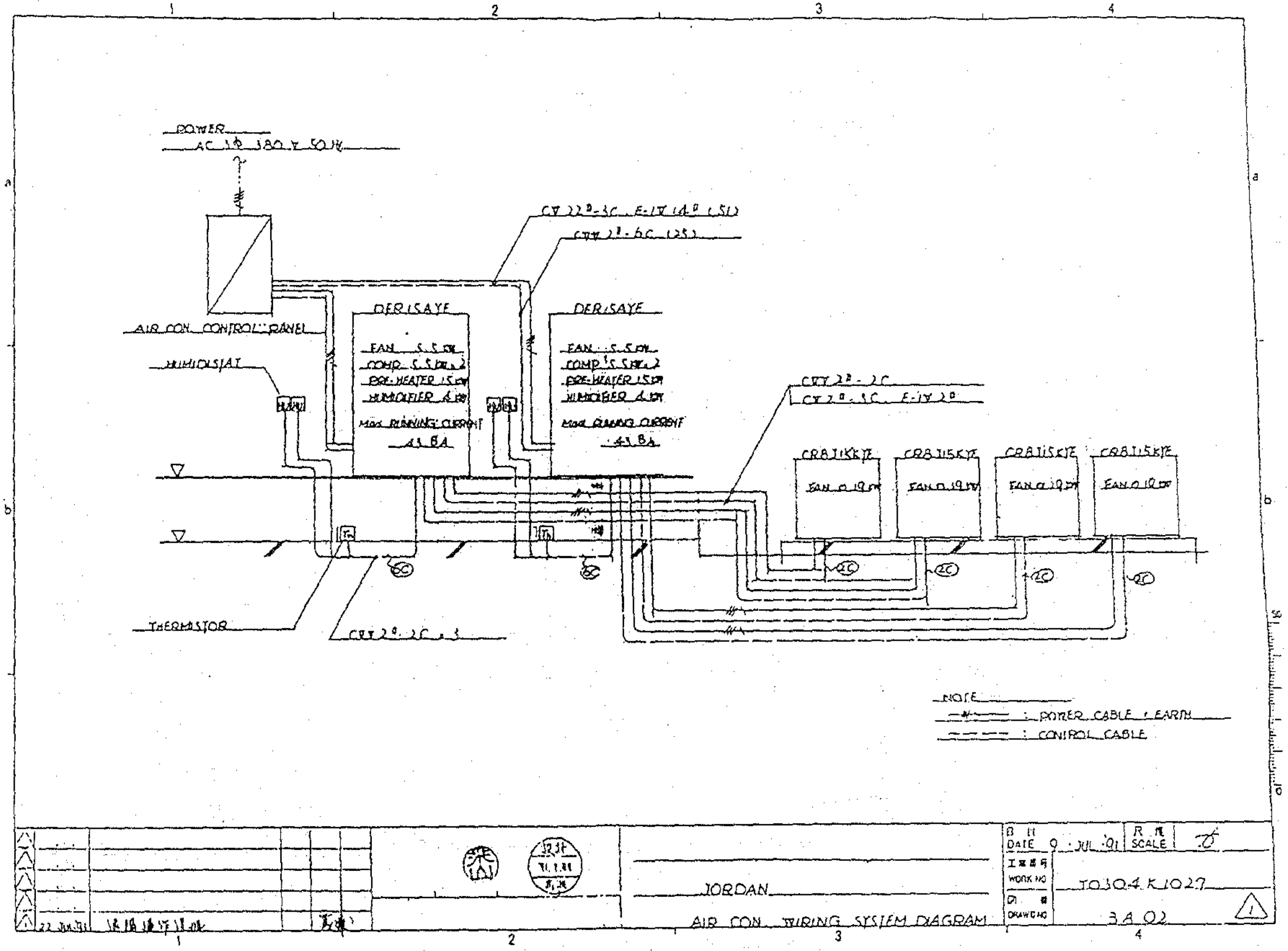


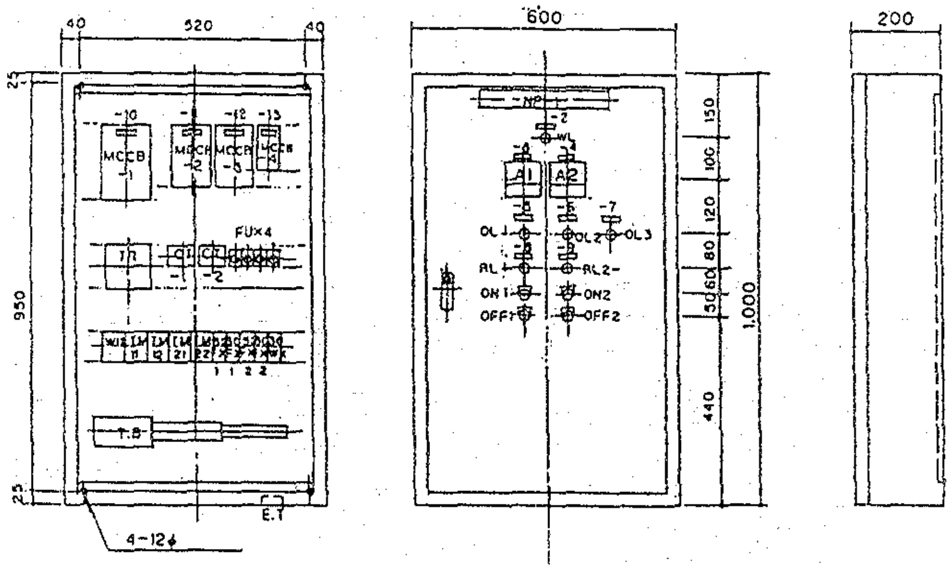
MARK	NAME	MODEL	Q'TY
①	AIR CON. (INDOOR UNIT)	DFR15AYE	2
②	AIR CON. (OUTDOOR UNIT)	CRBJ15KYE	4

JORDAN,

AIR CON. PLAN

日 付	9, JUL. 91	尺 度	1/200
工事番号	10304K1027		
図 番	3A01		


POWER
AC 3φ 380V 50Hz
AIR CON CONTROL PANEL
HUMIDISTAT
THERMISTOR
DERISAYE
FAN 5.5kW
COMP 5.5kW×2
PRE-HEATER 15kW
HUMIDIFIER 4.5kW
Max RUNNING CURRENT
43.8A
CV 22□-3C E-IV 14□ (5L)
CVV 2□-6C (2S)
CVV 2□-2C
CV 2□-3C E-IV 2□
CVV 2□-2C×3
CR8J15KYE
FAN 0.19kW
NOTE
: POWER CABLE, EARTH
: CONTROL CABLE
JORDAN
AIR CON WIRING SYSTEM DIAGRAM
DATE 9 JUL '01
SCALE
WORK NO
JO3O4 K1027
DRAWING NO
3A O2



AIR CON CONTROL PANEL

NP-1	AIR CON.CONTROL PANEL
-2	POWER SUPPLY
-3	NO.1 AIR CON.
-4	NO.2 AIR CON.
-5	NO.1 AIR CON. ABNORMAL
-6	NO.2 AIR CON. ABNORMAL
-7	WATER LEAKAGE.
-8	NO.1 AIR CON.
-9	NO.2 AIR CON.
-10	MAIN SWITCH
-11	NO.1 AIR CON.
-12	NO.2 AIR CON.
-13	CONTROL SOURCE

PANEL COLOR 5Y 7/1

JORDAN

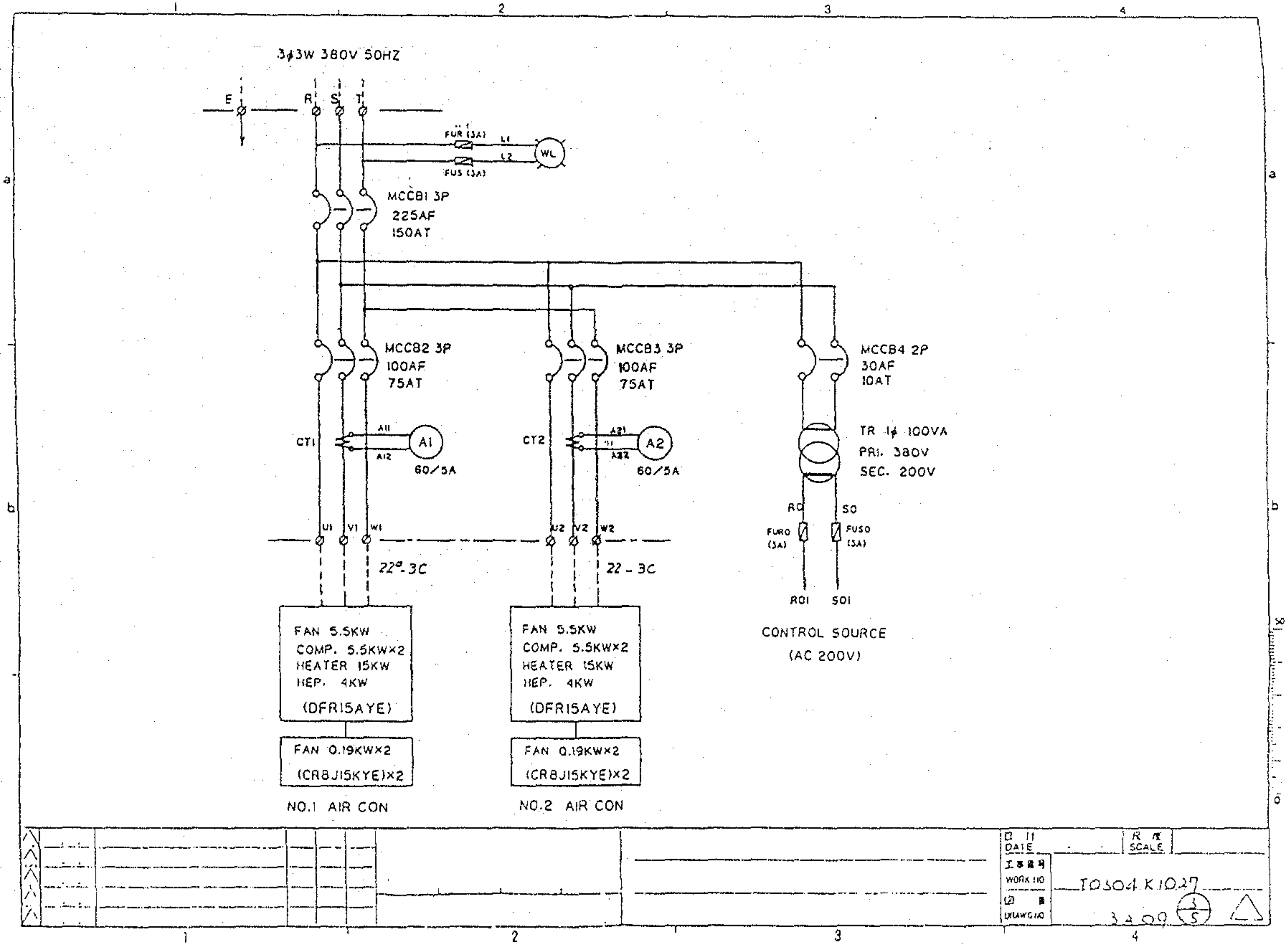
AIR CON. CONTROL PANEL

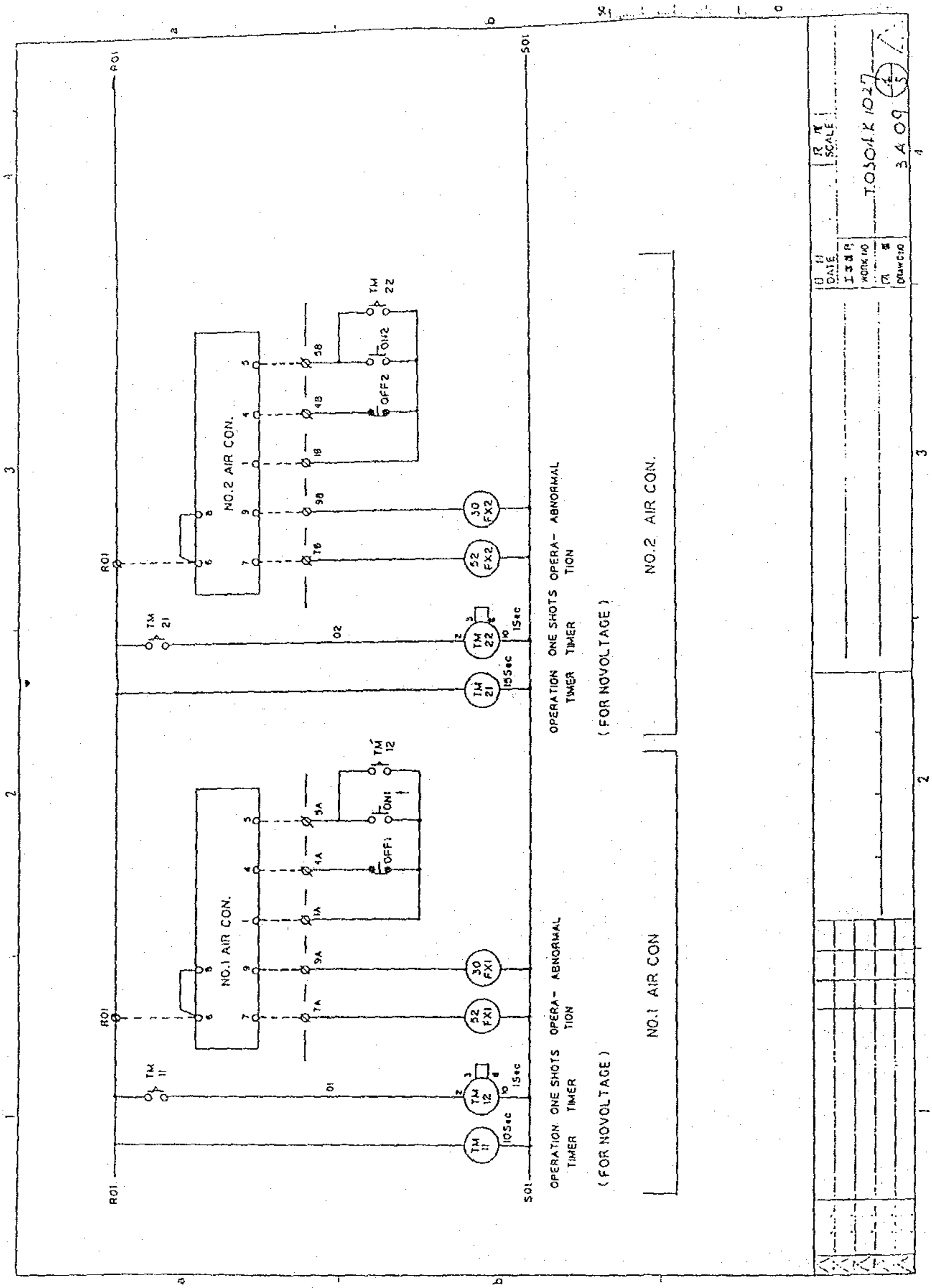
DATE 22.JUL.'01 SCALE

WORK NO. TO304 K.1027

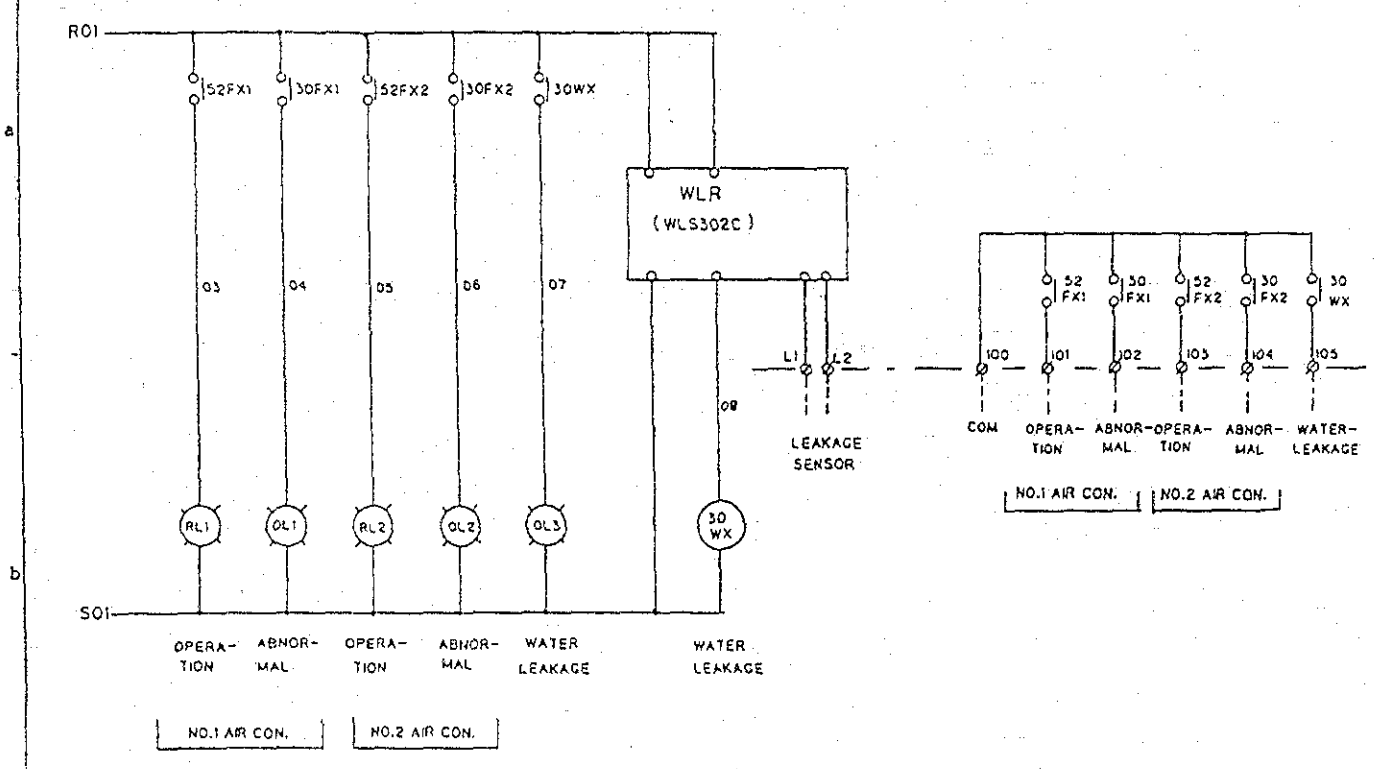
DRAWG NO. 3A09 1/5

SYMBOL	NAME	QTY	TYPE & RATING	MAKER
MCCB1	MOLD CIRCUIT BREAKER	1	NF225-CS 3P 150AT	MITSUBISHI ELECTRIC.
MCCB2. MCCB3.	MOLD CIRCUIT BREAKER	2	NF100-CS 3P 75AT	MITSUBISHI ELECTRIC.
MCCB4.	MOLD CIRCUIT BREAKER	1	NF30-SS 2P 10AT	MITSUBISHI ELECTRIC.
CT1. CT2.	CURRENT TRANS	2	CW-5L 5VA	MITSUBISHI ELECTRIC.
A1. A2.	AMMETER	2	PSK-80 60/5A LONG SCALE	DAIICHI KEIKI
TM11. TM21.	TIMER RELAY	2	H3BA (2C) MODE-(A) AC200V	TATEISHI ELECTRIC.
TM12. TM22.	TIMER RELAY	2	H3CA-A (1C) MODE-(F) AC200V	TATEISHI ELECTRIC.
52FX1. 52FX2. 30FX1. 30FX2. 30WX.	AUXILIARY RELAY	5	MY2N (2C) AC 200V	TATEISHI ELECTRIC.
FUR. FUS. FUR0. FUS0.	FUSE	4	AFaC-3 FUSE ELEMENT (3A)	FUJI ELECTRIC
WL	PILOT LAMP	1	APS146DN-W LAMP (LED)	IZUMI ELECTRIC
RL1. 2. OL1. 2. 3.	PILOT LAMP	5	APS126DN-R. O LAMP (LED)	IZUMI ELECTRIC.
ON1. ON2.	PUSH BUTTON SWITCH	2	ABS11ON (1a)	IZUMI ELECTRIC.
OFF1. OFF2.	PUSH BUTTON SWITCH	2	ABS10IN (1b)	IZUMI ELECTRIC.
TR	TRANS FORMER	1	1φ 100VA PRI,(380V). SEC,(200V)	KYONAN ELECTRIC.
WLR	WATER LEAKAGE RELAY	1	WLS302C	YAMATAKE


3φ3W 380V 50HZ
E
R
S
T
FUR (3A)
FUS (3A)
L1
L2
WL
MCCB1 3P
225AF
150AT
MCCB2 3P
100AF
75AT
MCCB3 3P
100AF
75AT
MCCB4 2P
30AF
10AT
CT1
A11
A12
A1
60/5A
CT2
A21
A22
A2
60/5A
TR 1φ 100VA
PRI. 380V
SEC. 200V
RO
SO
FURO (3A)
FUSO (3A)
RO1
SO1
CONTROL SOURCE
(AC 200V)
U1
V1
W1
22°-3C
U2
V2
W2
22 - 3C
FAN 5.5KW
COMP. 5.5KW×2
HEATER 15KW
HEP. 4KW
(DFR15AYE)
FAN 0.19KW×2
(CR8J15KYE)×2
NO.1 AIR CON
FAN 5.5KW
COMP. 5.5KW×2
HEATER 15KW
HEP. 4KW
(DFR15AYE)
FAN 0.19KW×2
(CR8J15KYE)×2
NO.2 AIR CON
DATE
SCALE
WORK NO
DRAWG NO
TO304 K1027
3/5



R01
S01
TM 11
TM 12
TM 21
TM 22
10Sec
15Sec
NO.1 AIR CON.
NO.2 AIR CON.
52 FX1
30 FX1
52 FX2
30 FX2
OFF1
ON1
OFF2
ON2
OPERATION TIMER
ONE SHOTS TIMER
OPERA- TION
ABNORMAL
(FOR NOVOLTAGE)
NO.1 AIR CON
NO.2 AIR CON.
DATE
SCALE


R01
S01
52FX1
30FX1
52FX2
30FX2
30WX
WLR
(WLS302C)
03
04
05
06
07
08
RL1
OL1
RL2
OL2
OL3
30 WX
OPERA-TION
ABNOR-MAL
OPERA-TION
ABNOR-MAL
WATER LEAKAGE
WATER LEAKAGE
NO.1 AIR CON.
NO.2 AIR CON.
L1
L2
LEAKAGE SENSOR
52 FX1
30 FX1
52 FX2
30 FX2
30 WX
100
101
102
103
104
105
COM
OPERA-TION
ABNOR-MAL
OPERA-TION
ABNOR-MAL
WATER-LEAKAGE
NO.1 AIR CON.
NO.2 AIR CON.

SPARE PARTS

No. 1/2

NO.	PARTS NAME	PARTS NO.	DESCRIPTION	Q'TY	REMARKS
1	FOR DEFRISAVE				
1-1	COMPRESSOR	1921641	2TS5UFL-YE 3Φ 400V 5.5 KW	1 PC	
-2	FAN BEARING	431003	BR7GA-N.L Φ35	2 PCS	
-3	V-BELT	941042	B-42	1 "	
-4	SOLENOID VALVE (REHEAT)	296270	SB18P-DN 200V	1 PC	
-5	REFRIGERANT FILTER	230090	FI 355	1 "	
-6	EXPANSION VALVE	221201B	ATX 34035 DHS	1 "	
-7	SOLENOID VALVE (MAIN LINE)	296752	BET 1205 BXF 200V	1 "	
-8	FAN MOTOR	—	ED 84-NR, 3Φ 400V 5.5 KW	1 "	
-9	FUSIBLE PLUG	292213	FPN-3	1 "	
-10	HIGH PRESSURE GAUGE	0039781	DU 60 × 35 kg/cm²	1 "	
-11	LOW PRESSURE GAUGE	0039844	DU 60 × 15 kg/cm² × 76 cmHg	1 "	
-12	PILOT LAMP	673730	BN-5701-170-(R), RED	2 PCS	
-13	"	673732	BN-5701-170-(G), GREEN	1 PC	
-14	"	673734	BN-5701-170-(C), WHITE	1 "	
-15	PRINTED CIRCUIT (RELAY UNIT)	698023		1 "	
-16	THERMOSTAT	641069	TCA 401P	1 "	
-17	HIGH PRESSURE SWITCH	284012A	HJB-K312B	1 "	
-18	MAGNETIC SWITCH COMP	0263818	HOE25-TCA1B 200V 9C 13A	1 "	

NO.	PARTS NAME	PARTS NO.	DESCRIPTION	Q'TY	REMARKS
1-19	FUSE	670210A	C-5 600 V 5A	4 PCS.	
-20	"	670102	250 V 5A	2 "	
21	AIR FILTER ASS'Y	446241		8 "	
2	FOR CR8J15KYE				
2-1	FAN MOTOR	653738	3Φ 400 V 8P 190 W	1 PC	
-2	FUSIBLE PLUG	292213	FPN-3	1 "	
-3	HIGH PRESSURE CONTROL VALVE	293206	HPR-1305D	1 "	

ANNEX 15 AIR CONDITIONING UNITS

The following rooms shall be air-conditioned because of maintaining TERMINAL equipment and additional ten (10) personal computers in good condition.

A/C unit cooling capacity required is as follows:-

1- TERMINAL ROOM No.1

Heat gain from Equipment	4.126kcal/hr
Heat gain from Room	7.000kcal/hr
Heat gain from Occupant	2.100 kcal/hr (21persons)
Total cooling load+allowance	(10%) 13.226x1.1=15.000 kcal/hr

2- TERMINAL ROOM No.2

The same as above

3-Additional Pc's Room

Heat gain from Equipment	1.960 Kcal/hr
Heat gain from Room	4.200 Kcal/hr (30 m2)
Heat from Occupant	1.000 kcal/hr (10 persons)

Total cooling load + allowance (10%) 7. 160x1.1=8.000

(NOTE)

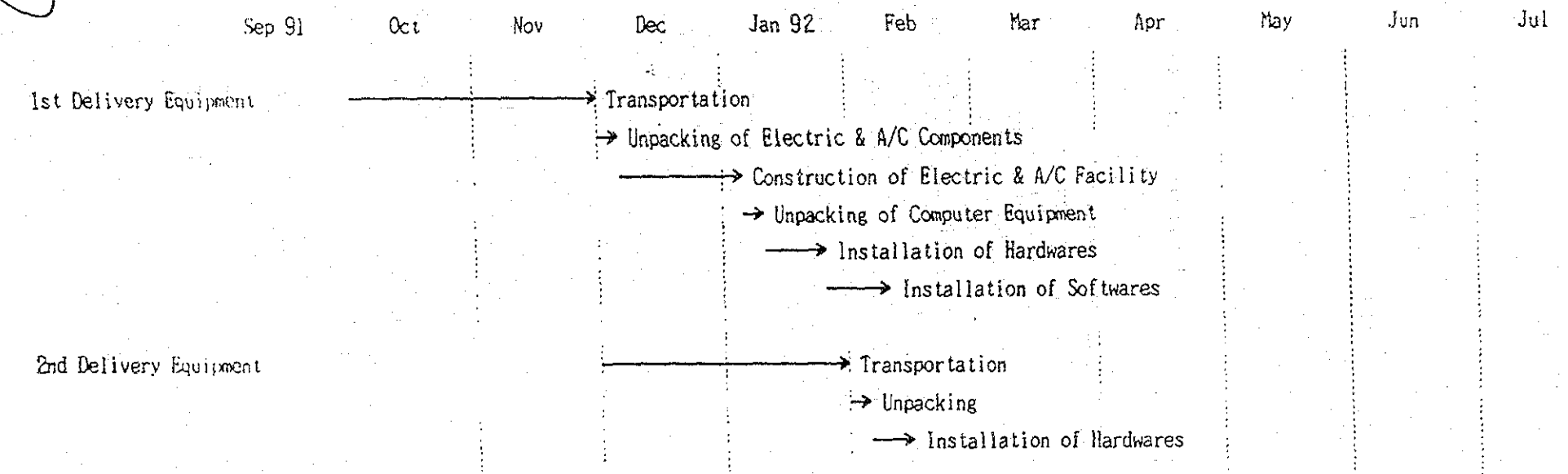
(a)The above air conditioner installation work shall be accomplished at the end of December before computer equipment installation is commenced .

(b)The above air conditioner shall be equipped with pan type humidfier.

(3)

ANNEX 16 DETAILED SCHEDULE OF THE PROVISION OF EQUIPMENT AND MACHINERY

Installation Schedule



	Product Name	Product No.	Q'ty	Description
Software – MSP Operating System				
1	IPF	B93060A0	1	System Performance Measurement Tool
2	PDL/PDA	B93016A0	1	
3	PDL/PDA AE	B930N4A0	1	
4	JCM	B930C2A0	1	
5	APS	B930Q1A0	1	
6	ADJUST	B93196B0	1	Character Development Basic Tool
7	A/NLIB-E	B900Z310	1	
Hardware – PC Printer & Consumable				
1	PC Printer	DL3400	7	
2	Printer Cable	——	10	
3	Ribbon Cassette	——	50	

1. In case of the hardware damage

In case of the hardware damage, the repair is done by jordan with parts possessing in Jordan. If the repair can not be done by Jordan, Fujitsu will consider to send the engineer with charge.

2. Repair of the damaged parts

(1) Within the term of a guarantee(within one year after JICA recieved)

The hardware damage happened within the term of a guarantee, besides that damage is caused by production error clearly, Fujitsu will repair the part with no charge. But Fujitsu will not pay the shipping cost between Japan and Jordan. The place which Fujitsu recieve the damage parts and hand to the repaired parts is within Japan.

(2) After The therm of guarantee

Fujitsu will repair the parts with charge, but Fujitsu will not pay the shipping cost between Japan and Jordan. The place which Fujitsu recieve the damage parts and hand to the repaired parts is within Japan.

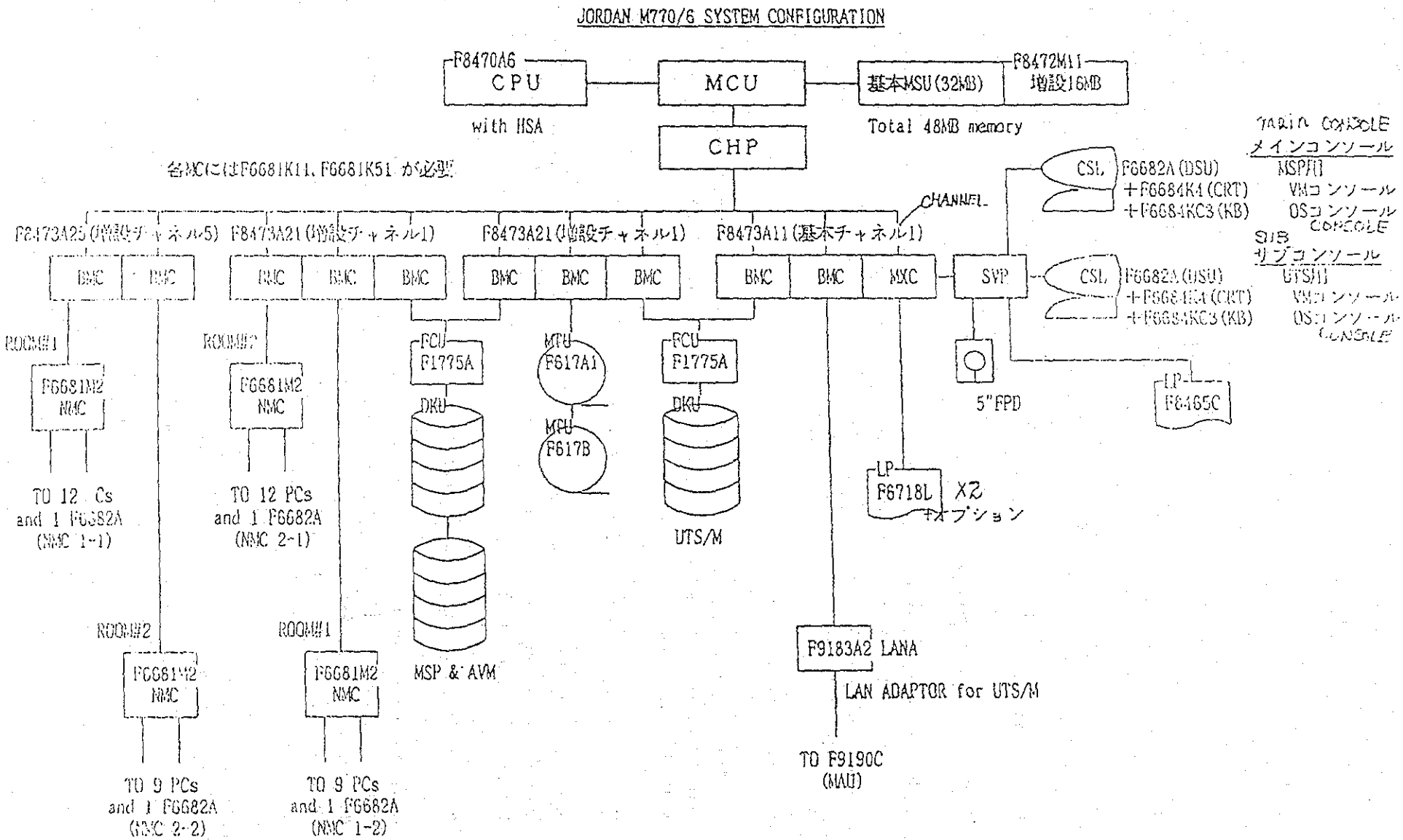
(3) After the end of the term of technical cooporation(until 6.26 '94)

Fujitsu will repair the parts with charge, but Fujitsu will not pay the shipping cost between Japan and Jordan. Fujitsu will arrange the oppotunity of collecting the damaged parts and returning the repaired parts.

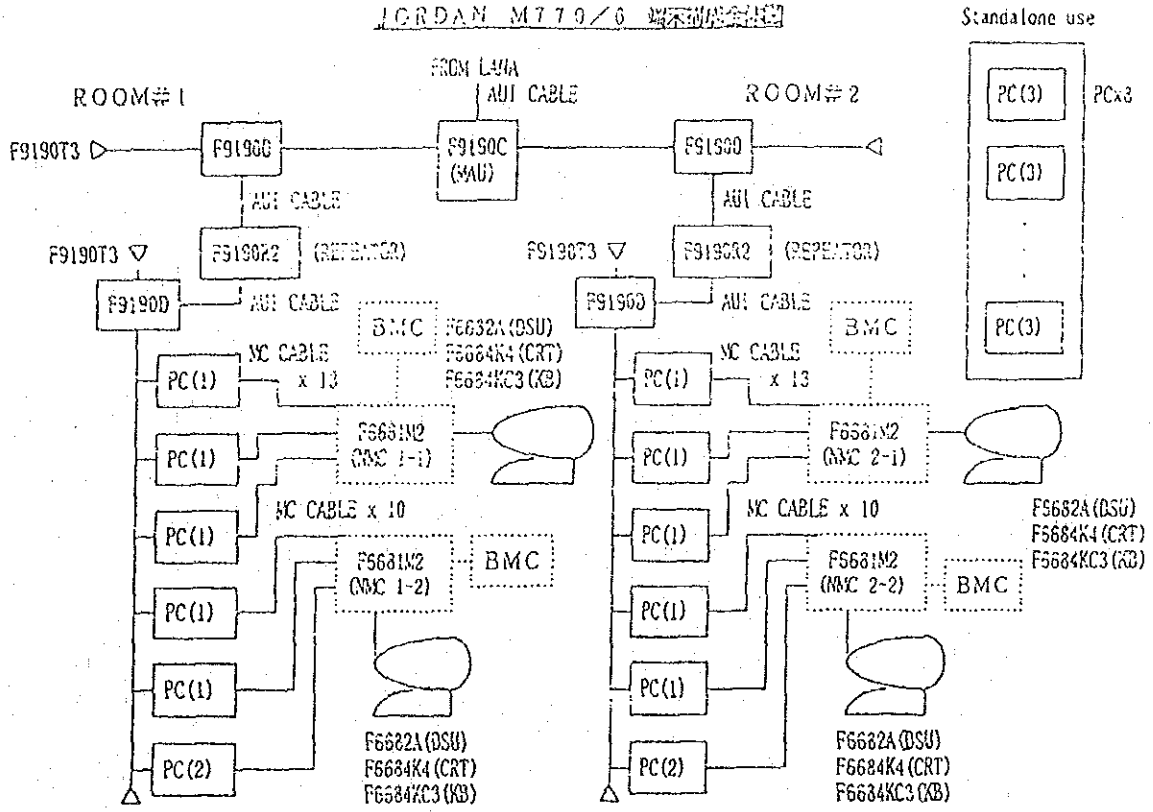
(4) Repair of the another manufacturere products

In the products proposed, there are several products which are manufactured by other vendors. Fujitsu will have responsibility with the same manner as above (1) and (2) until the end of the term of technical cooperation. After the term of technical cooperation Jordan shall contact the actual vender of these products directly if repairing work is required.

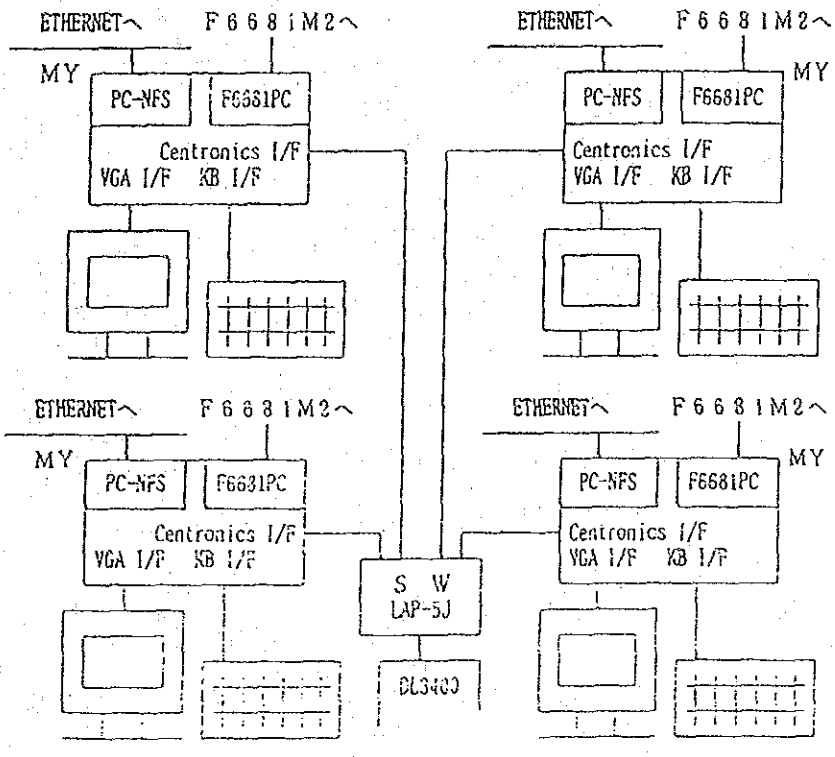
ANNEX 19 THE SYSTEM CONFIGURATION (HARDWARE AND SOFTWARE)



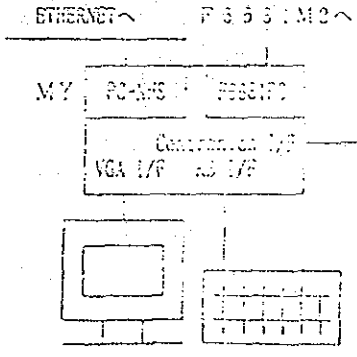
JORDAN M770/6 端末制御装置



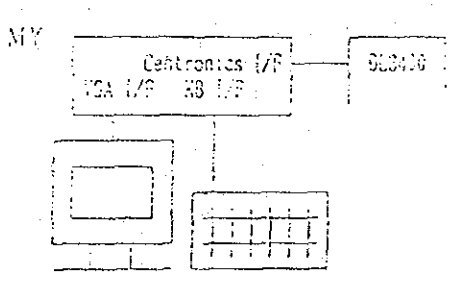
JORDAN PC 形態(1)



JORDAN PC 形態(2)



JORDAN PC 形態(3)



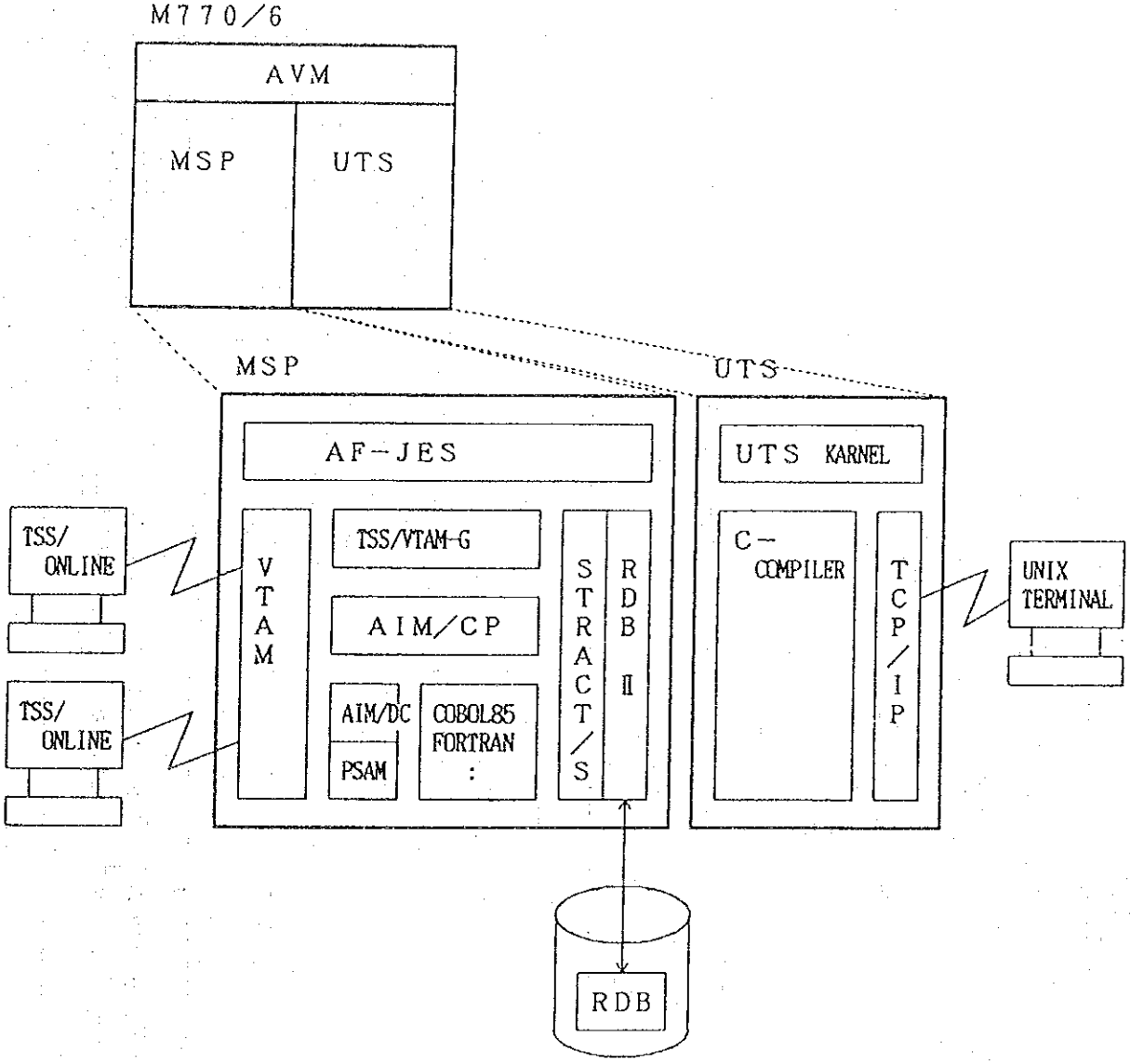
システム構成品リスト（S／W）

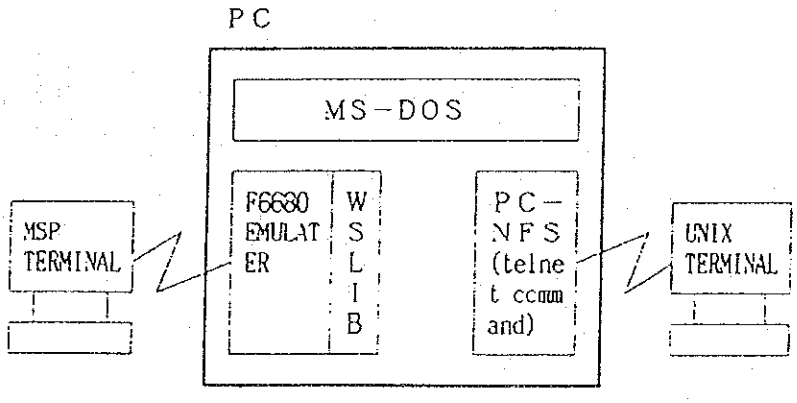
			MODEL NO.	DESCRIPTION	QTY
Software			M770/6 Computer System for JICA/JORDAN (SOTC:S		
	Operating Sys.	1	F4MSRB930J1A0	AF-JES	V10 1
		2	F4MSRB930N0A0	AF-JES AE	V10 1
		3	UTS/MB77010M0	UTS/M	V22L10 1
		4	AVM B9000320	AVM	V02 1
		5	AVM B9000410	AVM/EF	V01 1
		6	F4MSRB930M4A0	ECS	V10 1
		7	F4MSRB93042A0	SORT	V10 1
		8	F4MSRB930I3A0	DSEF	V10 1
		9	F4MSRB930MLA0	ARCS	V10 1
		10	F4MSRB930M7A0	DM/EDF	V10 1
		11	F4MSRB930JCA0	JQPSMP (FOC)	V10 1
		12	F4MSRB9304HA0	PSAM	V10 1
		13	F4MSRB930E0A0	PFD	V10 1
		14	F4MSRB930E7A0	TSS/VTAM-G	V10 1
		15	F4MSRB930RFA0	AP/EF	V10 1
		16	F4MSRB930EBA0	AP/DF	V10 1
		17	F4MSRB93602A0	AIM AE Option	V10 1
		18	F4MSRB930H1A0	TOLTE-G (FOC)	V10 1
		19	F4MSRB93096B0	OLTES (FOC)	V11 1
	Language	20	F4MSRB930QFB0	COBOL85	V11 1
		21	F4MSRB930KAA0	FORTRAN77	V10 1
		22	UTS/M	C Language (incl.)	1
		23	F4MSRB930K3A0	PASCAL	V10 1
		24	F4MSRB930K2A0	DOCK/FORT77	V10 1
	RDB	25	F4MSRB931S1A0	RDB II	V10 1
		26	F4MSRB931ELB0	STRACT/S	V11 1
	Communication	27	F4MSRB93014A0	VTAM-G	V10 1
		28	F4MSRB930N2A0	VTAM-G AE Option	V10 1
		29	F4MSRB93607C0	AIM/DC	V12 1
		30	F4MSRB93601C0	AIM/CP	V12 1
		31	UTS/MB77014A0	TCP/IP	V10L22 1
PC		32	PC	MS-DOS 4.01 (incl.)	2
		33	PC PC-NFS-56M	PC-NFS Software	2
		34	PC PC-NFS-09	PC-NFS Full Documentation Set	2
		35	PC B6985600	KSLIB/PC	2
		36	PC B6986100	F6682 Emulator Software	2
		37	PC PASCAL	Turbo PASCAL	1
TOTAL					

上記に以下のPPを追加予定

1) PDL／PDA
2) PDL／PDA－AE
3) JCM
4) APS

RSS SOFTWARE CONFIGURATION

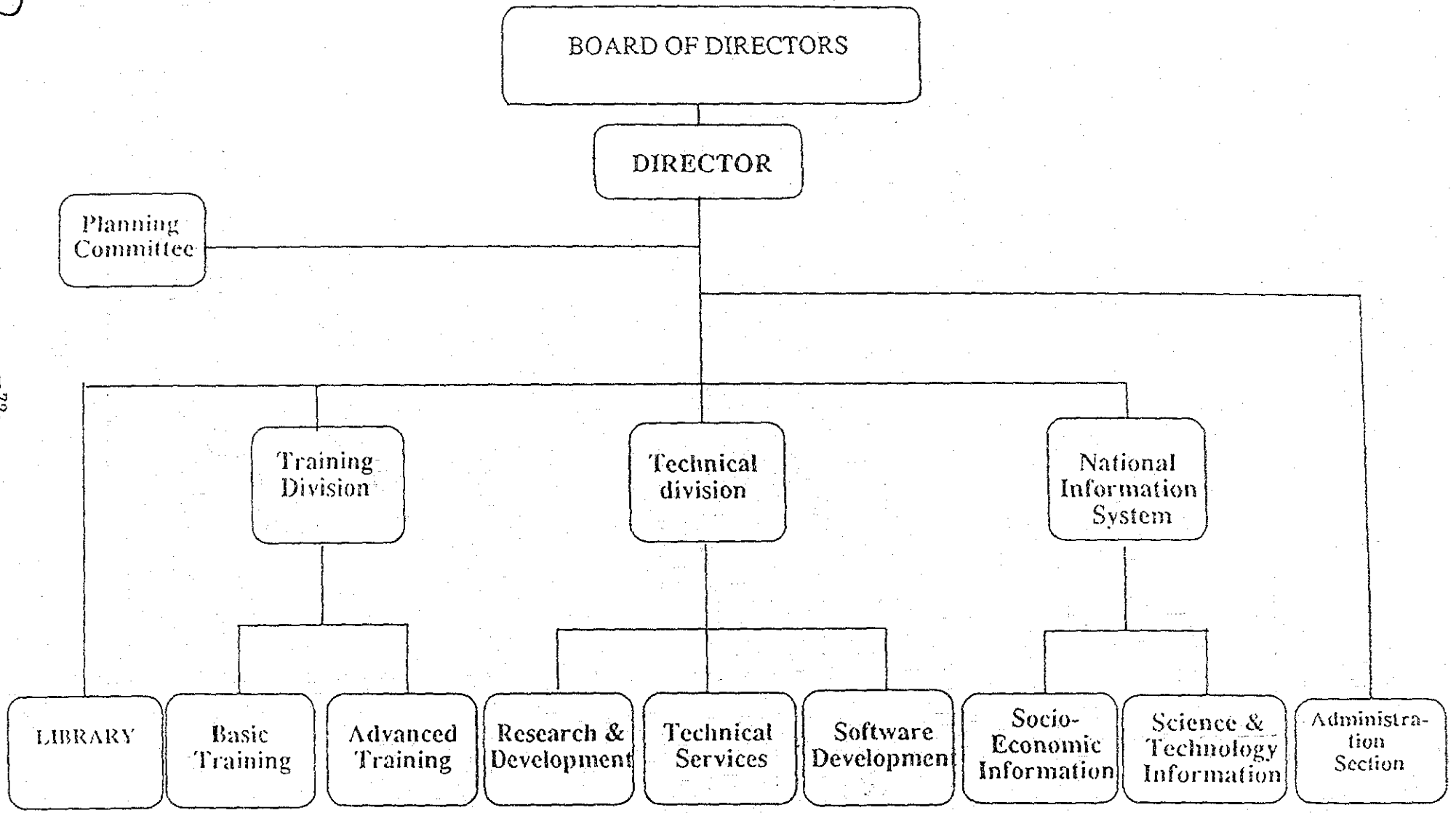




(3)

ANNEX 20

THE ORGANIZATION OF THE CENTRE



ANNEX 21

THE JORDANIAN COUNTERPART PERSONNEL OF THE CENTRE

JAPANESE EXPERT	JORDANIAN COUNTERPART
1. Chief Advisor	1. Director, Yousef Nusseir
2. Operating System and Computer Language	1. Hussein Hassouneh 2. Sirin Said
3. Data Base and Data Comunication	1. Zuheir Sliebi 2. Muneer Assad
4. Facility #1 and #2	1. Faris Dawood 2. Mahmood Shishani 3. Jehad Shibli
5. Customer Engineer	1. Mohamad Alwathiq Shaqrah 2. Ismat Al-Dmour 3. Jehad Rawabdeh
6. System Engineer	1. Sameer Qutub 2. Firas Rsheidat
	INSTRUCTORS
	1. Burhandeen Daghestani 2. Saqer Abdulraheem 3. Hussein Kawasmi 4. Farid Hadadeen 5. Khamis Omar 6. Firas Rsheidat 7. Sameer Qutub 8. Muneer Assad 9. Sirin Said 10. Hussein Hassouneh

ADMINISTRATORS

1. Sersa Kurdi
2. Rima Al Jowhari
3. Mohammad Harb
4. Zakia Bishawi
5. Jameel Shubeilat

JICA will be informed if any future changes of recruited personnel occurs.

ANNEX 22

The Project Budget for Fiscal Year 1991

*	Construction	306,000
*	Personnel	60,000
	Utilities	10,000
	Office Consumables	7,500
	Furniture and Office Equipment	31,000
	Travel Allowances	5,000
	Others	23,000
		442,500 J.D

* Note : Construction from 1/1/1991 to 31/12/1991.
All other items from 1/6/1991 to 31/12/1991.

ANNEX 23

BOARD OF DIRECTORS OF THE COMPUTER TECHNOLOGY DEVELOPMENT AND TRAINING CENTRE

The aim of the Higher Council for Science and Technology (HCST)is to elevate the impact of research and development Technology transfer, and to develop National Scientific Centres to occupy a national and regional status stemming from activities in Science and Technology.

In view of this aim, his Royal Highness, Crown Prince Al-Hassan, the President of the HCST, approved on July 28, 1990 the establishment of the Centre .
This centre will be involved in the following activities :

1- National Information System.
2- Computer Services.
3- Technology Development and Training Programs (The Japanese Project).

These activities are carried out by one centre to concentrate effort and eliminate duality.

Administrative and financial set-up :

The following set-up will enable the Centre to implement the policies adopted by HCST concerning activities of the Centre and to make use of RSS administrative and financial independance.

1- The Centre will be run by a board of directors consisting of :

- Secretary General of the HCST.
- President of RSS.
- Director of the Centre.
- Other members could be added if they invest adequate money in the Centre.

2- The board of director of the Centre will be chaired alternatively between the HCST Secretary General and the RSS President for one year each.

3- All administrative and financial regulations followed at RSS will also be applied to the Centre.

4- The Centre will have its own budget within the budget of RSS. Its expenses will be covered through a special provision within RSS budget. The Centre's income will be included in such a provision.

THE CENTRE'S BOARD OF DIRECTORS HAS THE FOLLOWING RESPONSIBLITIES:

1- Proposing executive policies and strategies to be forwarded to HCST for approval.

2- Endorsement of resolutions relating to establishing, merging, or cancelling section (s).

3- Appointing section heads and identifying their authorities and responsibilities upon recommendations by the Centre director.

4- Endorsement of the objectives and tasks of sections upon the recommendations of the Centre director.

5-Setting and periodically reviewing and assessing the implementation of development plans for the Centre.

6- Looking for funding sources to the Centre.

7- The board of directors decisions shall be approved by both HCST Secretary General and RSS President; in case of disapproval, the proposed decision shall be submitted to his Royal Highness the President of HCST whereby his decision will be final.

MAIN RESPONSIBILITIES OF THE CENTRE DIRECTOR:

A- Running the affairs of the Centre according to the rules and regulations of the RSS and any other regulations to be endorsed in this regard, and representing the Centre in its contacts with other parties.

B- Attaining the objectives of the Centre, implementing its responsibilities and taking the required measures to fulfill that.

C- Consolidating and developing the Centre's relations with other institutions in the private and public sectors.

D- Strictly adhering to the implementation of the annual budget and preparing relevant amendments and annexes, submitting them to the board of directors.

E- Setting systems and taking measures required for implementing and following up the projects according to the provisions of the Centre's budget; as well as assessing and taking measures as required.

F- Preparing the annual report of the Centre and submitting it to board of directors for consideration and approval.

4－2　実施調査団討議議事録覚書（M／M）

THE MINUTES OF MEETING ON THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE IMPLEMENTATION SURVEY TEAM AND THE HIGHER COUNCIL FOR SCIENCE AND TECHNOLOGY OF THE HASHEMITE KINGDOM OF JORDAN ON THE JAPANESE TECHNICAL COOPERATION FOR THE COMPUTER TECHNOLOGY DEVELOPMENT AND TRAINING CENTRE PROJECT

The Japanese Implementation Survey Team and the Higher Council for Science and Technology of the Hashemite Kingdom of Jordan signed the Record of Discussions (hereinafter referred to as "the R/D") on the technical cooperation for the Computer Technology Development and Training Centre Project (hereinafter referred to as "the Project"). This Minutes of Meeting is intended to record the understandings reached between both sides concerning the provisions in the R/D.

Amman, June 27, 1990

富田堅二

Dr. Kenji Tomita
Leader
Implementation Survey Team
Japan International
Cooperation Agency
Japan

Dr. Abdullah Toukan
Secretary General
Higher Council For Science
and Technology
The Hashemite Kingdom
of Jordan

1. As for the Establishment of the Computer Technology Development and Training Centre (hereinafter referred to as "the Centre") referred to in V-1 of the Attached Document of the R/D, the Jordanian side confirmed that the Centre would be established in Amman by the end of September, 1990. At the same time, the Jordanian side will inform the Japanese side of the organization chart of the Centre and names of the Director General and other related personnel.

2. Both sides agreed that the Japanese experts, dispatched under II-1 of the Attached Document of the R/D, would use English on their technology transfer, and the technical training in Japan to the Jordanian personnel under the Attached Document IV-1 of the R/D, would be also given in English.

3. As for the land, building and facilities, the Jordanian side agreed to prepare the following with adequate air conditioning in the terminal rooms, and power supply by the end of May, 1991.

   1) Seminar room (two rooms, approx. 100m^2 each).
   2) Study room for workshop (four rooms, approx. 40m^2 each).
   3) Terminal room (two rooms, approx 100m^2 each).
   4) Japanese expert's room (two rooms on the 1st floor approx. 30m^2 each).
   5) Computer room (approx. 200m^2 including approx. 100m^2 for the Project).
   6) Spare parts room (approx. 25m^2).
   7) Storage room (approx. 40m^2).
   8) Other necessary rooms.

   The room layout of the ground floor is shown in Annex - D and the Jordanian side confirmed to submit the plans of 1st and 2nd floor to the Japanese side by the end of July 1990.

4. As for the machinery and equipment necessary for the technology transfer referred to in Annex-IV of the Attached Document of the R/D, the Japanese side expressed that the equipment listed in Annex - A of the Minutes of Meeting would be considered on the condition that the necessary budget would be allocated by the Government of Japan.

5. Both Sides agreed that the measures specified in Annex - B of the Minutes of Meeting should be taken by both Governments for the smooth installation and operation of the computer system.

6. Both sides confirmed the building requirement of Computer room as shown in Annex - C.

7. Both sides confirmed computer equipments and PCs layout as shown in Annex - E.

8. The Jordanian side agreed that through the normal procedures under the Technical Cooperation Scheme of Japan referred to in II-1, III-1 and IV-1 of the Attached Document of the R/D, the following documents would be submitted to the Embassy of Japan in the Hashemite Kingdom of Jordan for the Japanese fiscal 1990 year.

90. 8. 3.済 1) A-1 Form for the Japanese long-term experts (Chief advisor, Expert on operating system and computer language, Expert on database and data communication) will be submitted by the end of November, 1990.

2) As for the equipment to be requested, A-4 Form will be submitted by the end of July, 1990.

3) As for the technical training in Japan to counterparts for the Japanese fiscal 1990 year, A-2 and A-3 Form for five (5) persons will be submitted as follows:

90.11.30～91.2.16 終了

(a) One (1) for Group Training in Information Processing Personnel System Engineer (B) for Senior System Analyst/Designer;
A-2,3 Form should be submitted no later than 27 July, 1990.

90.10.13～91.3.20 終了

(b) One (1) for Group Training Course in Information Processing Personnel System (Instructor);
A-2,3 Form should be submitted no later than 27 July, 1990.

91.5.9 済

(c) Three (3) for Maintenance Technique for machinery and equipment;
A-2,3 Form should be submitted the end of January 1991.

9. Jordanian side agreed that the training materials provided by the Government of Japan and the copy of those materials would be utilized only for the implementation of the training courses in the Centre.

10. The Jordanian side confirmed that the renovation work of the Centre would be completed by the end of December 1990.

11. It is noted that the Jordanian side will carry out in the Centre software development and research in the field of Information Technology at own responsibility and without requesting technical assistance from the Japanese side.

ANNEX A（日本側供与機材リスト — 予算内）

LIST OF EQUIPMENT

Name of equipment		Quantity	Remarks
I. Hardware:			
1. Central processing unit		1	
2. Main memory		1	48MB
3. Magnetic disk unit		3	over 6GB
4. Magnetic tape unit		2	6250/1600BPI
5. Line printer		1	at least 1000 LPM
	*	1	at least 600 LPM
6. Personal computer (terminal)		42	
(stand alone)		8	
(stand alone)	*	10	For short term courses
7. Serial printer (PC)		20	
(PC)	*	3	For short term courses
8. Local area network		-	For CPU and PCs in Terminal rooms
9. Maintenance parts, tools		1 set	
II. Software:			
1. Software (Main Frame)		1 set	- Operating system (Unix and other operating system under virtual machine environment) - Languages processor - Relational database - Data communication
2. Software manual		2 sets	
III. Training materials:			
1. Education material		2 sets	
2. Project management training tool		*8 sets	
IV. Others:			
1. Air conditioner		2	
2. Isolation transformer		1	
3. Power cables		1 set	

Note: Above equipment will be considered as the first priority except for *.

Annex B. Allocation of Expenditure for Computer Installation and Site Preparation.

	Allocation of Expenditure	
	Jordan	Japan
1. Maintenance Engineer		
(a) Recruitment of engineers (3 persons)	X	
(b) Training for engineers in Japan		X
2. Transportation of equipment and materials		
(a) From Japan to port of Jordan (Aqaba)		X
(b) From port of Jordan to the Centre	X	
3. Installation and adjustment		
(a) Dispatch of supervisor for unpacking, installation and adjustment		X
(b) Unpacking and installation personnel	X	
(c) Recruitment of operators (2 persons)	X	
(d) Training for operators		X
4. Boundary of installation		
4.1 Power supply		
(a) Cabling materials from commercial power to UPS (uninterruptible power system)	X (existing)	
(b) Cabling materials from UPS to isolation transformer		X
(c) UPS	X (existing)	
(d) PDBs (power distribution boards)	X	
(e) Cabling materials from back up Generator to UPS	X (existing)	
(f) Isolation transformer in computer room to eliminate the external electrical noise (3 phases 4 wire 380V 60KVA)		X
(g) Cabling materials from isolation transformer to PDB		X
(h) Grounding electrode for computer and its wiring to PDB	X	
(i) Cabling materials from PDB of computer room to two PDBs of terminal rooms		X
(j) Cabling materials for secondary wiring from PDB to computer equipment in computer room		X
(k) Cabling materials from PDBs to terminal equipment in terminal rooms (Cable, cable protector, receptacles, plugs)	X	

		Allocation of Expenditure Jordan	Japan
	(l) Installation works of above (a) - (k)	X	
	(m) Installation of power outlet for general electricity コンセント	X	
4-2	Signal cables		
	(a) Signal cable materials in computer room -Signal cables from CPU to i/o equipment		X
	(b) Signal cables from terminal controller in computer room to terminal equipment		X
	(c) Signal cable materials for Local Area Network (LAN) from computer to training terminals		X
	(d) Wiring planning of above (b) - (c) including trunking 導管	X	
	(e) Trunking or conduit materials	X	
	(f) Installation works of above (a) - (e)	X	
4-3	Floor construction		
	(a) Materials for raised floor in computer room	X	
	(b) Floor surface materials for anti-static 静電の electricity in computer room and terminal rooms	X	
	(c) Raised floor plan	X	
	(d) Plan of cutting of floor panels and additional pedestals' location for computer installation, cabling and cooling 基礎		X
	(e) Construction of above (a) - (d)	X	
4-4	Air conditioner		
	(a) Underfloor blower type in computer room		X
	(b) Regular type in two terminal rooms	X	
	(c) Installation works of above (a) - (b)	X	
	(d) Maintenance of above (b) - (b)	X	
4-5	Fire extinguisher -Portable Halon-gas fire extinguisher eight (8) sets of two (2) kg contents	X	
4-6	Layout plan of computer equipment - Detailed specifications and layout plan of hardware/equipment		X

		Allocation of Expenditure	
		Jordan	Japan
4-7	Fixture of computer room (recommendable)		
	(a) Fireproof safe for master magnetic tape/floppy disk		X
	(b) Storage cabinet for magnetic tape, floppy disk, paper etc.		X
	(c) Carrier for magnetic tape, paper, etc.		X
	(d) Desks and chairs for debugging and operator		X
	(e) White boards		X
	(f) Schedule white boards		X
	(g) Others		X

Annex C. Building Requirement for Computer Room

1. Requirements for computer room

1-1 Sub-floor
(a) Sub-floor strength
300 to 500 kg/m ^{2} or more
If existing building, should be able to bear the weight of the raised floor and the computer system.
(b) Sub-floor dustproof painting if concrete surface.

1-2 Raised floor
(a) Raised floor height; 300mm ± 30mm
(b) Loading capacity; (2000 kg for 4 panels)
Panel Flexure for concentrated load of 500 kg to be 1.5 mm or less.
(c) Anti-static material for surface of raised floor panel (surface resistence; 10^9 to 10^6 Ω cm or less)
(d) Slope ratio; less than or equal 1/5
(e) Cutout panels and additional pedestals

1-3 Ceiling height; at least 2.3 m
(from raised floor surface)

1-4 Lighting; 600 to 400 lux (85 cm above the floor) is desirable.

1-5 Accoustical treatment is desirable.

1-6 Maintenance power point;
5 outlets or more for adjustment and maintenance.

1-7 Fire protection; Halon gas extinguisher.

2. Air conditioning

2-1 Temperature and humidity range for computer equipment

(a) In operation

Dry bulb temperature; 15 to 30°C
Relative humidity; 45 to 70%

(b) Out of operation

Dry bulb temperature; 5 to 40°C
Relative humidity; 30 to 75%
Maximum wet bulb temperature; 26°C or less

2-2 Temperature and humidity design while in operation

(a) In-room air conditioning system

In-room temperature / humidity
(Specified around the outlet of the equipment)

Summer; 24±2 °C, 45%
Winter; 21 ±2 °C, 45%

(b) Underfloor blower system

Underfloor blower temperature and humidity
(Specified at the blower outlet under floor)
All season; 18 ± 1 °C, 65 ± 5%
In-room temperature / humidity

Summer; 24 °C, 45% to 70%
Winter; 21 °C, 45% to 70%

2-3 Dust

Floating dust; 0.07 mg/m^3 or less

2-4 Detector for temperature and humidity

2-5 Recorder for temperature and humidity

2-6 Water leak prevention and leak detector

3. Power supply

3-1 Output voltage at PDB;
380/220V ± 10% 3 phases and Neutral

3-2 Frequency; 50Hz ± 1%

3-3 Voltage wave form distortion factor
(Harmonic content)
within 5%
at 50% linear load and 50% rectification smoothing load

3-4 Ground for computer
A grounding electrode of ground resistance 10 Ω or less

3-5 Main grounding wire size;
38 mm^2 or more

3-6 Uninterruptible power system
60 KVA

3-7 Power distribution board
(a) Branch circuits (circuit breakers)
(b) Monitoring instruments, and grounding terminal of power supply

4. Security (recommendable)

4-1 Fire protection
(a) Automatic fire alarm system
(b) Fire extinguisher

4-2 Water leakage protection

4-3 Security guard system

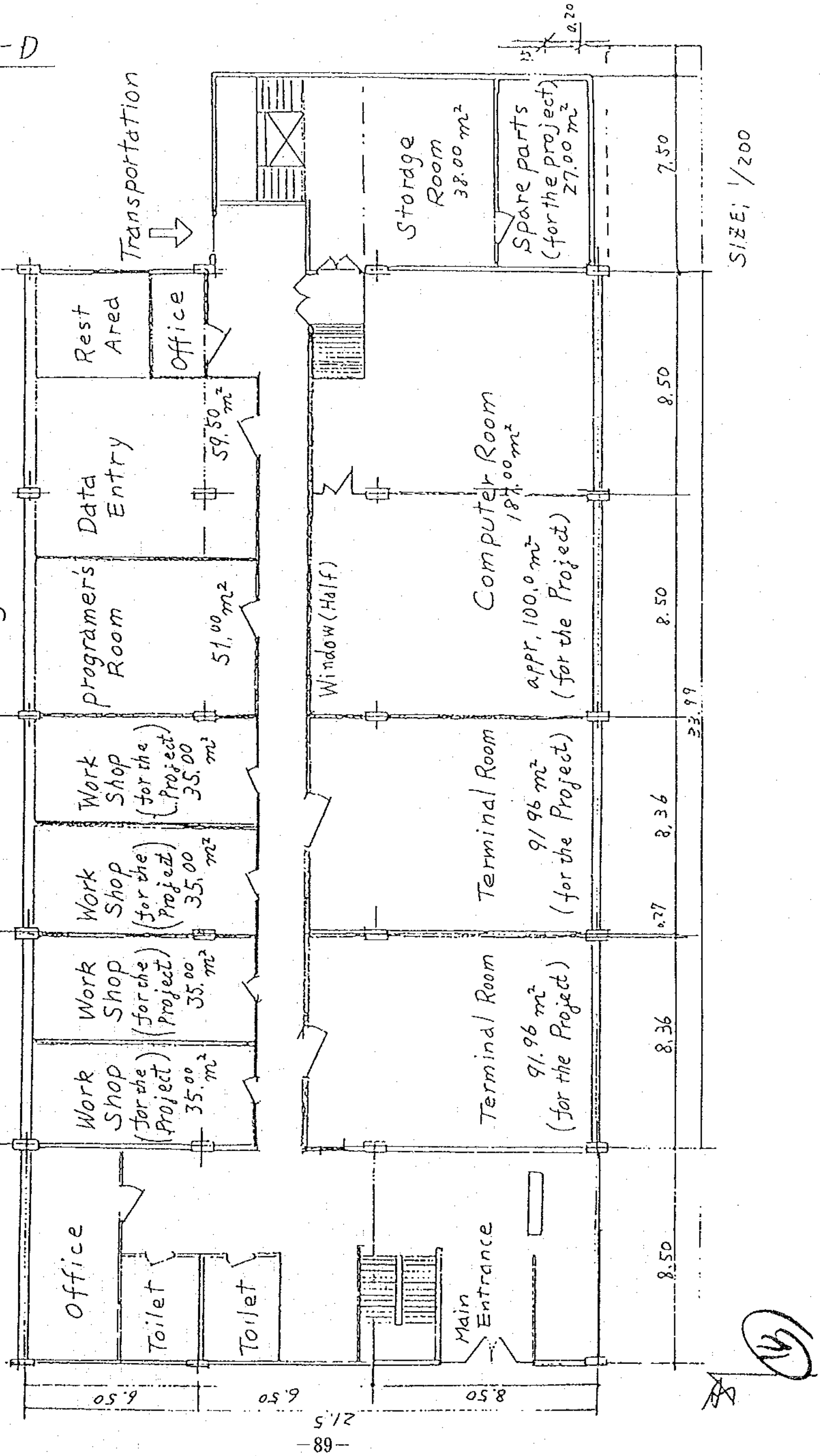
4-4 Rats banishment
驅除

Note: All building specification in this Annex should be in line with the Local Building Control Regulations.

ANNEX-D

The Computer Technology Development and Training Centre Ground Floor Layout Plan

unit; meter



ANNEX-E Equipments Layout on Ground Floor