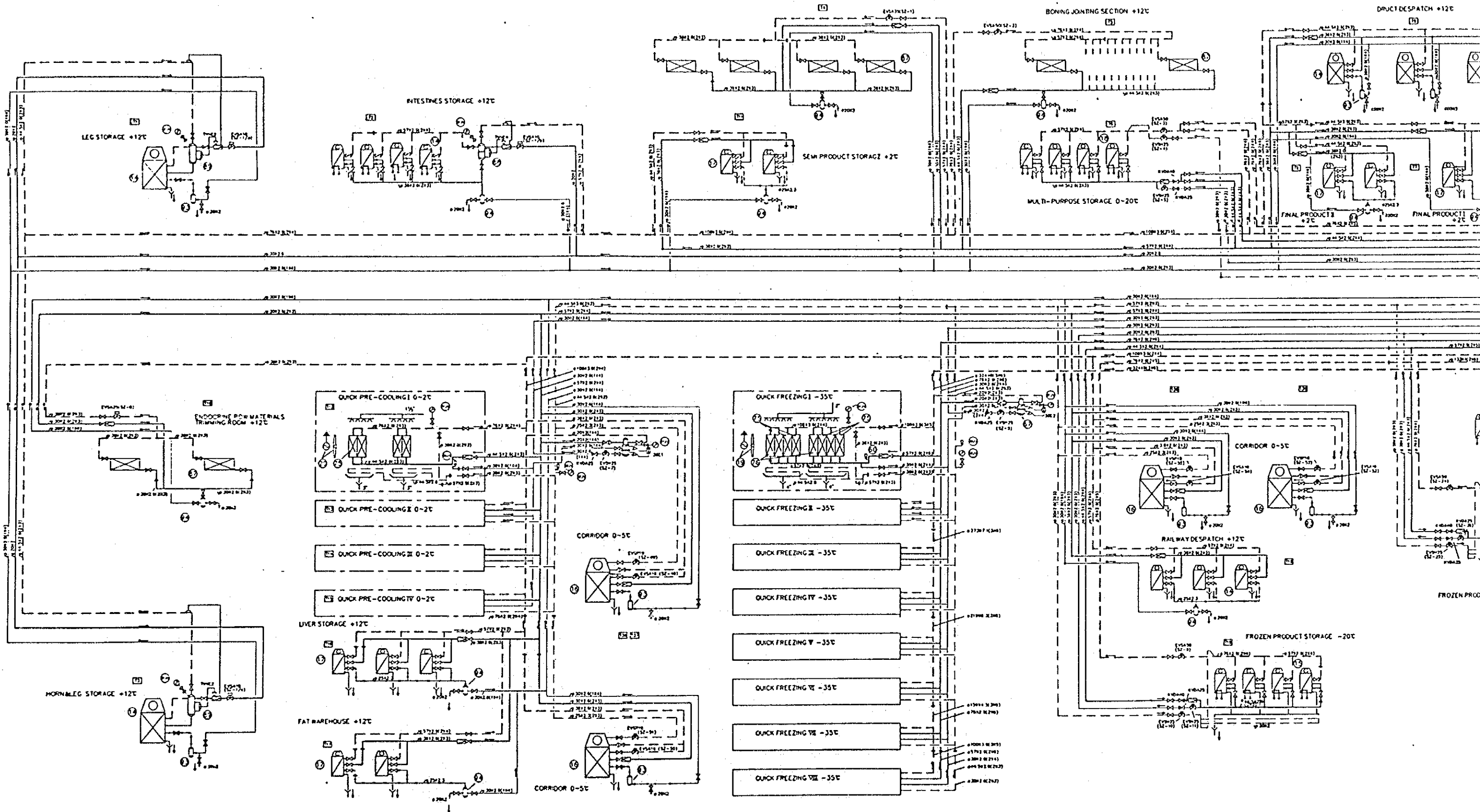
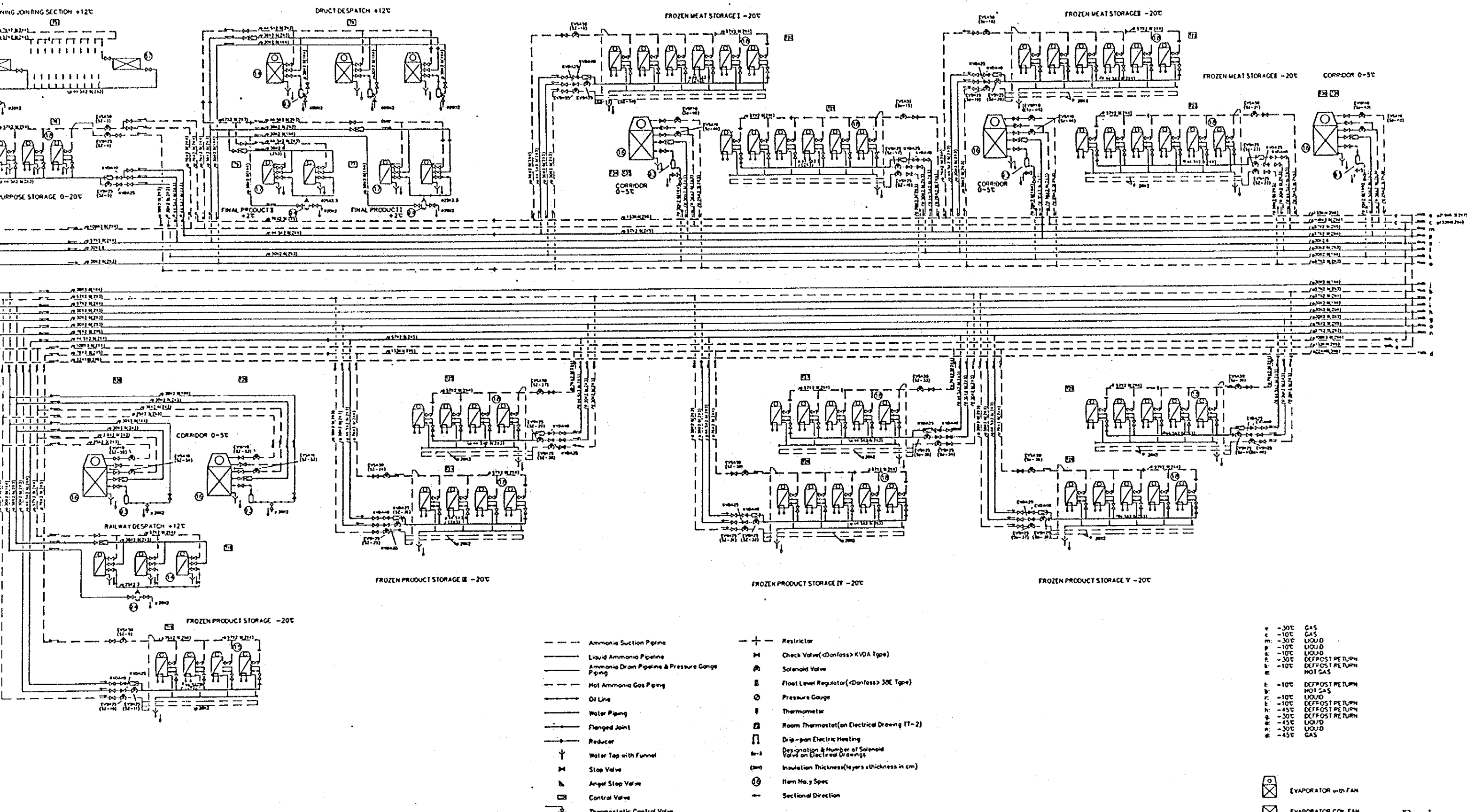


Removal Construction Floor Plan
 (S = 1 : 300)





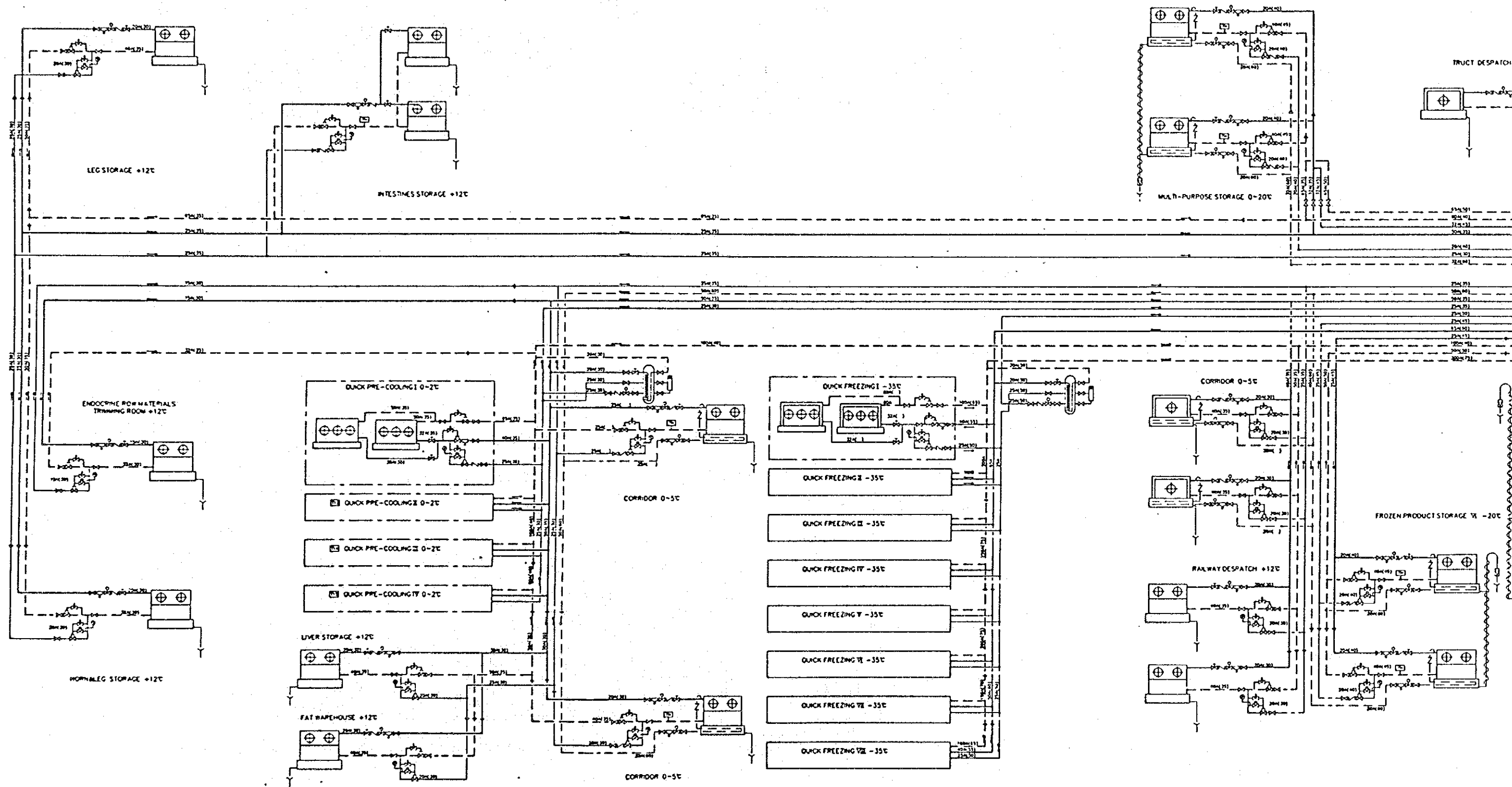
- Ammonia Suction Pipeline
- Liquid Ammonia Pipeline
- Ammonia Drain Pipeline & Pressure Gauge Piping
- Hot Ammonia Gas Piping
- Oil Line
- Water Piping
- Flanged Joint
- Reducer
- ↓ Water Tap with Funnel
- ⊥ Stop Valve
- ⊥ Angel Stop Valve
- ⊥ Control Valve
- ⊥ Thermostatic Control Valve
- + — Restrictor
- ⊥ Check Valve (<Conloss> KVDA Type)
- ⊥ Solenoid Valve
- ⊥ Float Level Regulator (<Conloss> 30E Type)
- ⊥ Pressure Gauge
- ⊥ Thermometer
- ⊥ Room Thermostat (an Electrical Drawing TT-2)
- ⊥ Drip-pan Electric Heating
- ⊥ Designation & Number of Solenoid Valve an Electrical Drawings
- ⊥ Insulation Thickness (layers & thickness in cm)
- ⊥ Item No. y Spec
- Sectional Direction

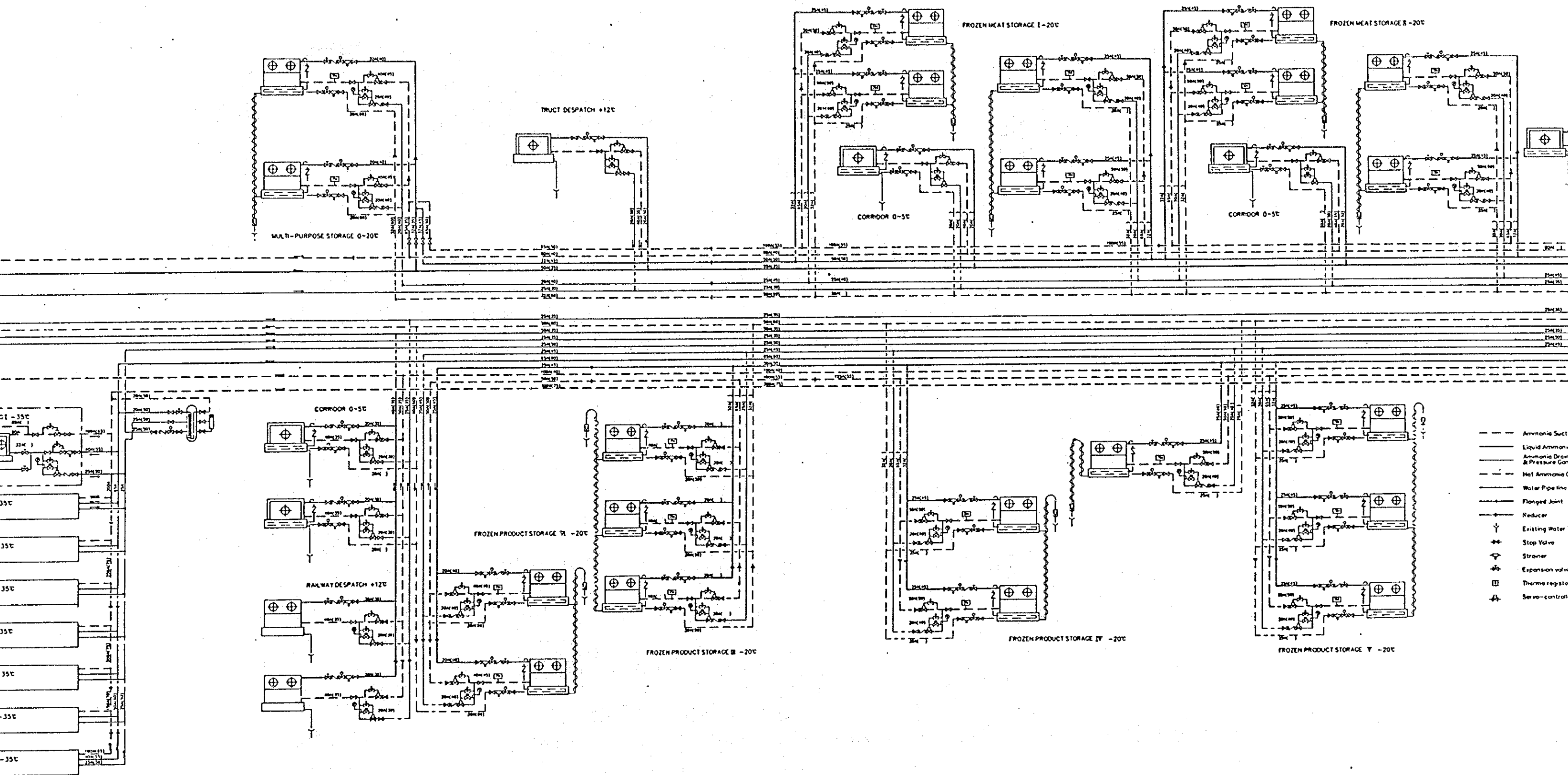
- ⊥ -30°C GAS
- ⊥ -10°C GAS
- ⊥ -30°C LIQUID
- ⊥ -10°C LIQUID
- ⊥ -10°C LIQUID
- ⊥ -30°C DEFOST RETURN
- ⊥ -10°C DEFOST RETURN
- ⊥ -10°C DEFOST RETURN
- ⊥ -10°C DEFOST RETURN
- ⊥ -30°C DEFOST RETURN
- ⊥ -45°C LIQUID
- ⊥ -30°C LIQUID
- ⊥ -45°C GAS

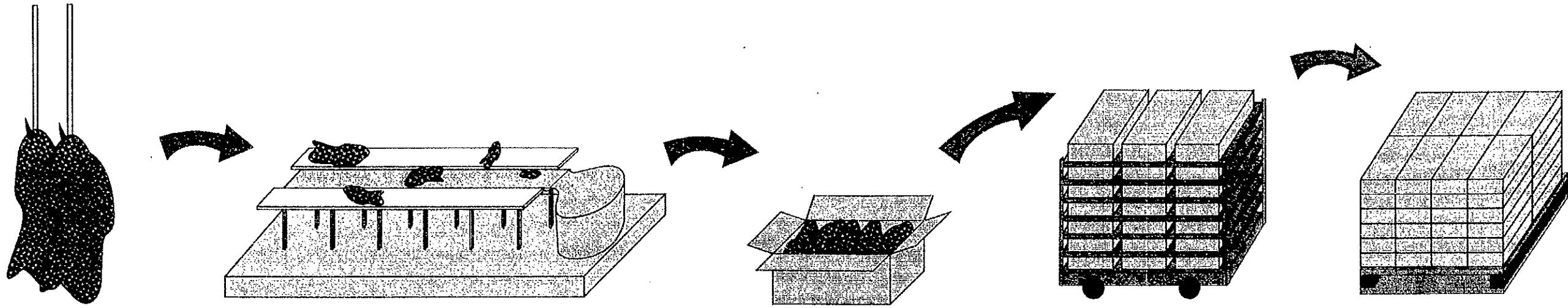
- ⊥ EVAPORATOR with FAN
- ⊥ EVAPORATOR COL FAN

Equipment Removal P

DISTRIBUTION DIAGRAM
(REMOVAL OF EXISTING







冷却室にて枝肉冷却

部分肉処理室にて部分肉にカット

カット肉・内蔵をダンボール箱に詰める

急速凍結室にて24時間凍結

荷捌き室にて専用パレットに積み替え

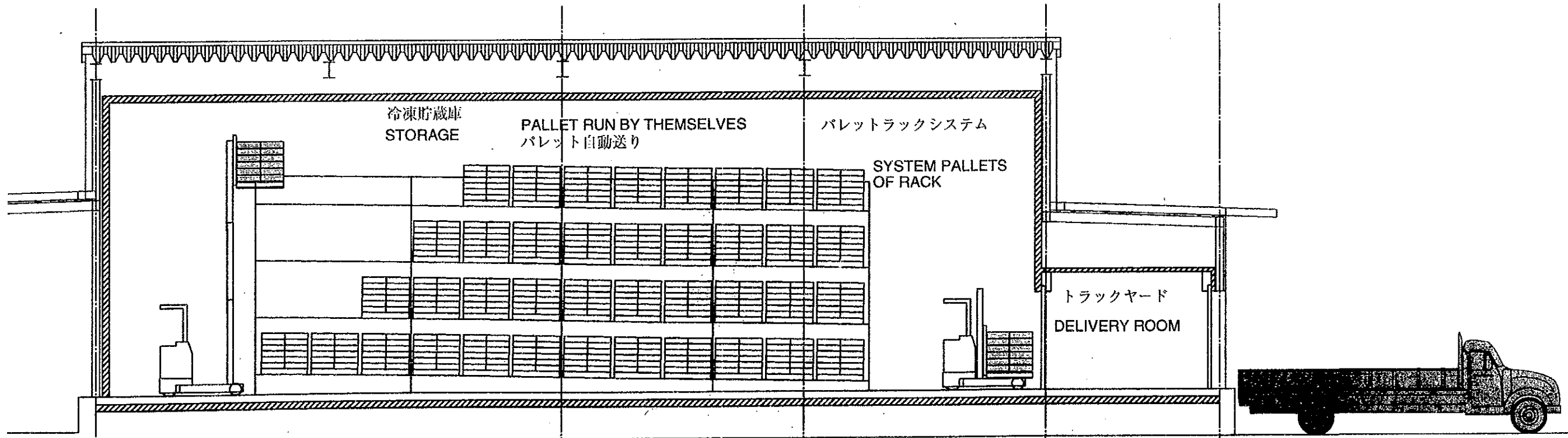
CHILL CARCASS
AT CHILLED CARCASS STORAGE

CUT CARCASS INTO CUT-MEAT
AT CUTTING ROOM

PACK CUT-MEAT INTO
CARDBOARD BOXES

FREEZE PACKED CUT-MEAT
IN 24 HOURS AT FREEZE ROOM

PILE ON PALLET FOR SYSTEM RACK
AT ANTEROOM

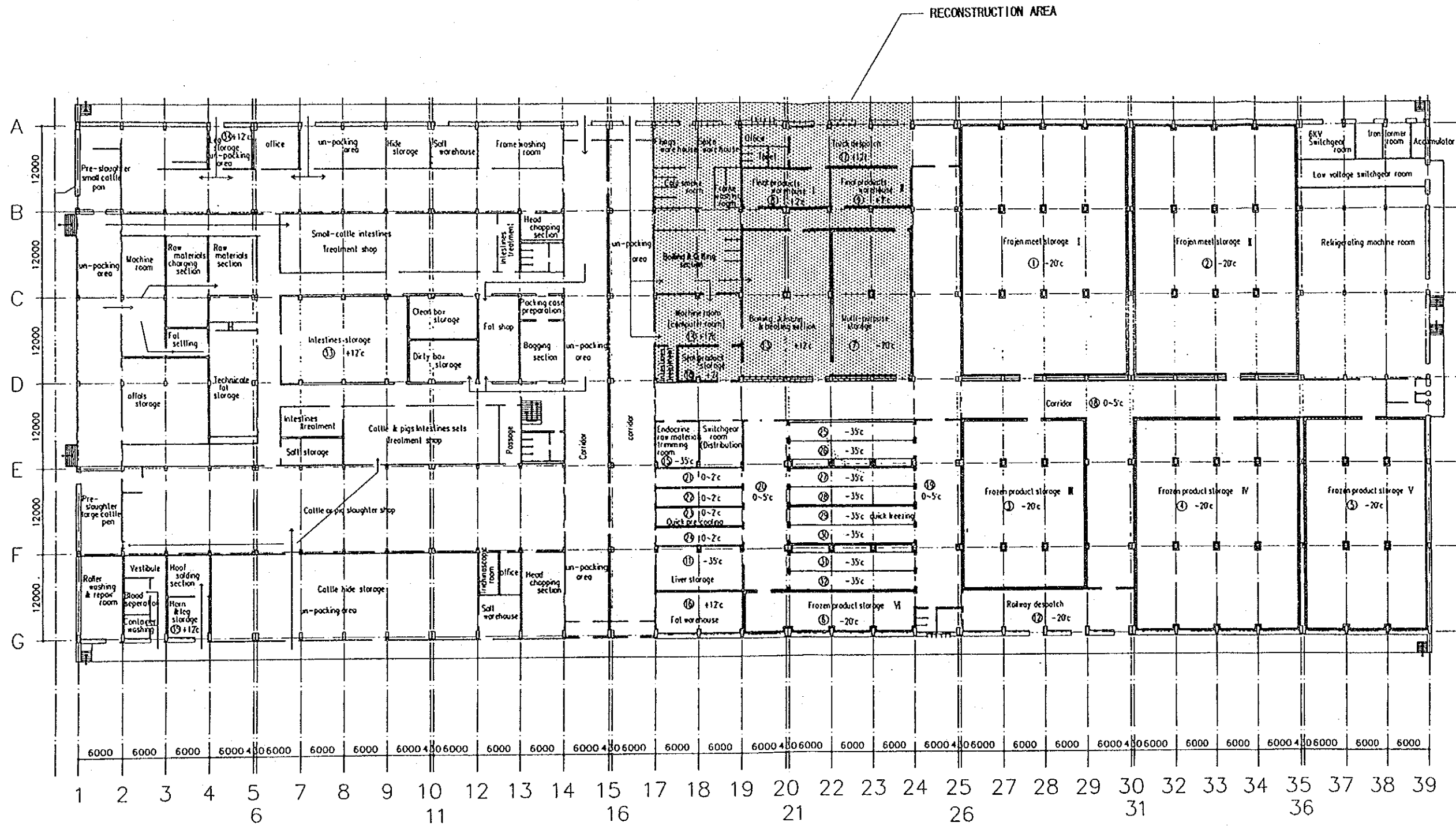


フォークリフトにて自走ラックに積み込み

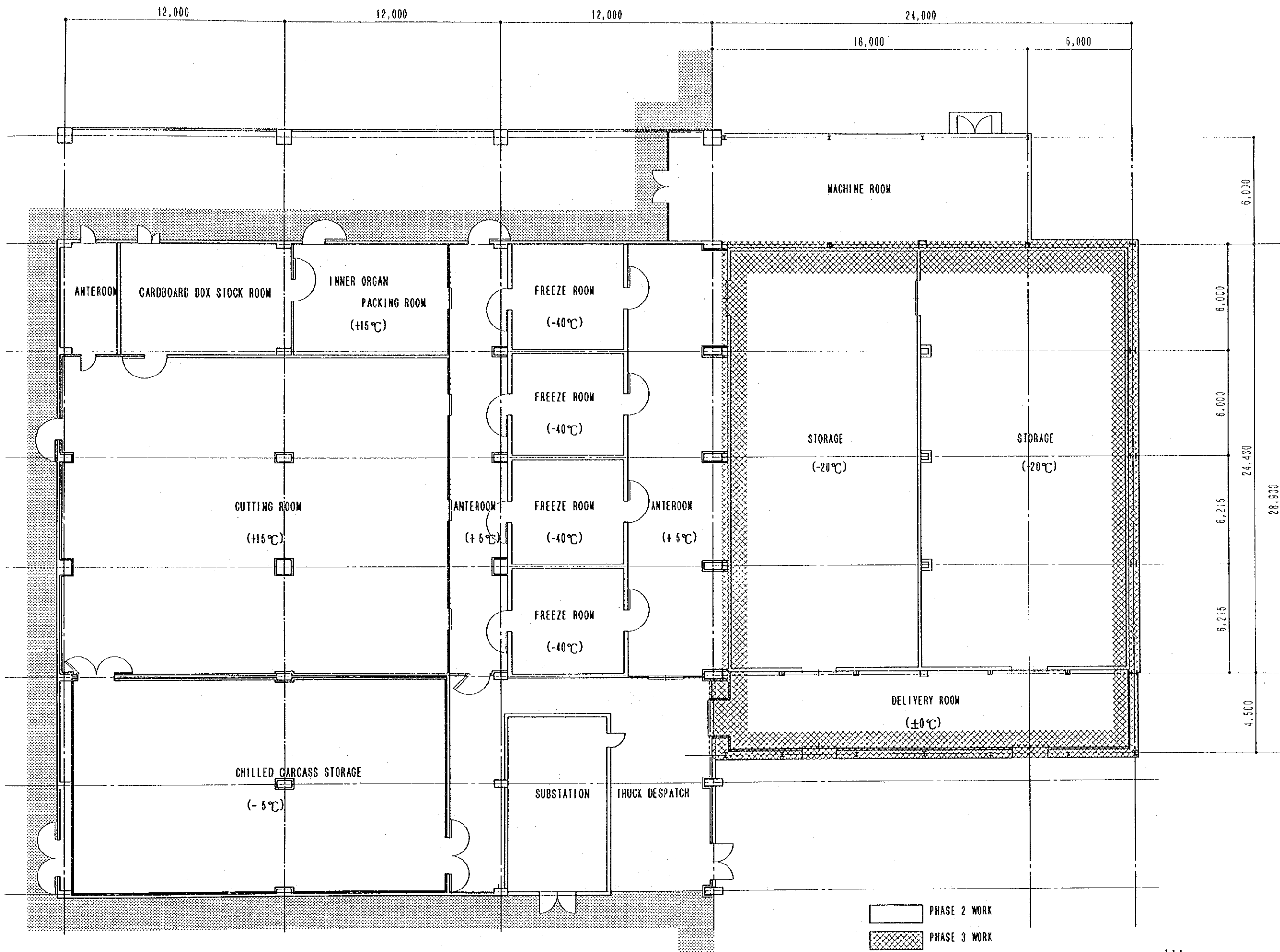
フォークリフトにて出荷用トラック（鉄道）にダンボールを積み替え

LOAD THE PALLET ONTO SYSTEM PALLETS OF RACK'S LINE
BY FORK LIFT

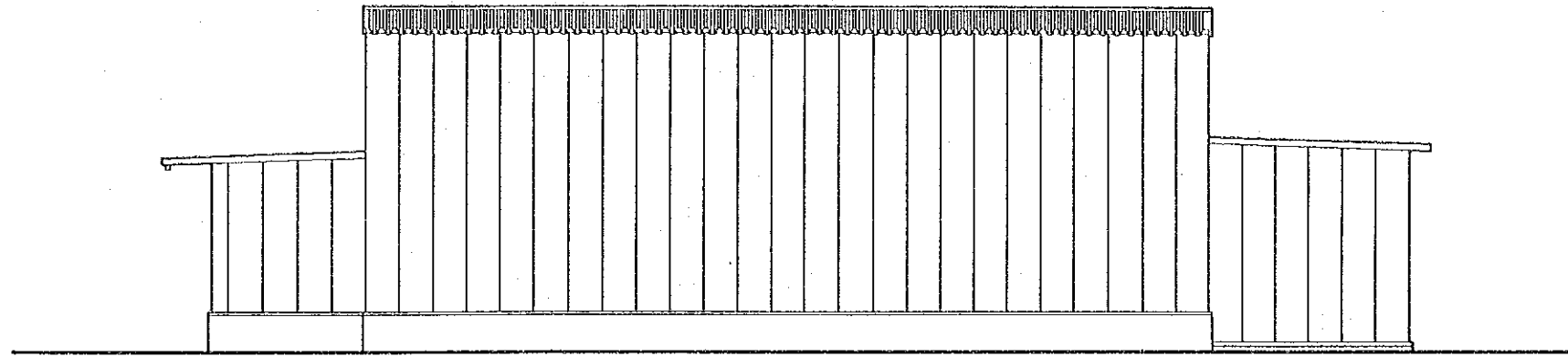
LOAD THE PACKED CUT-MEAT ONTO TRUCKS (OR THE RAILROAD)
BY FORK LIFT



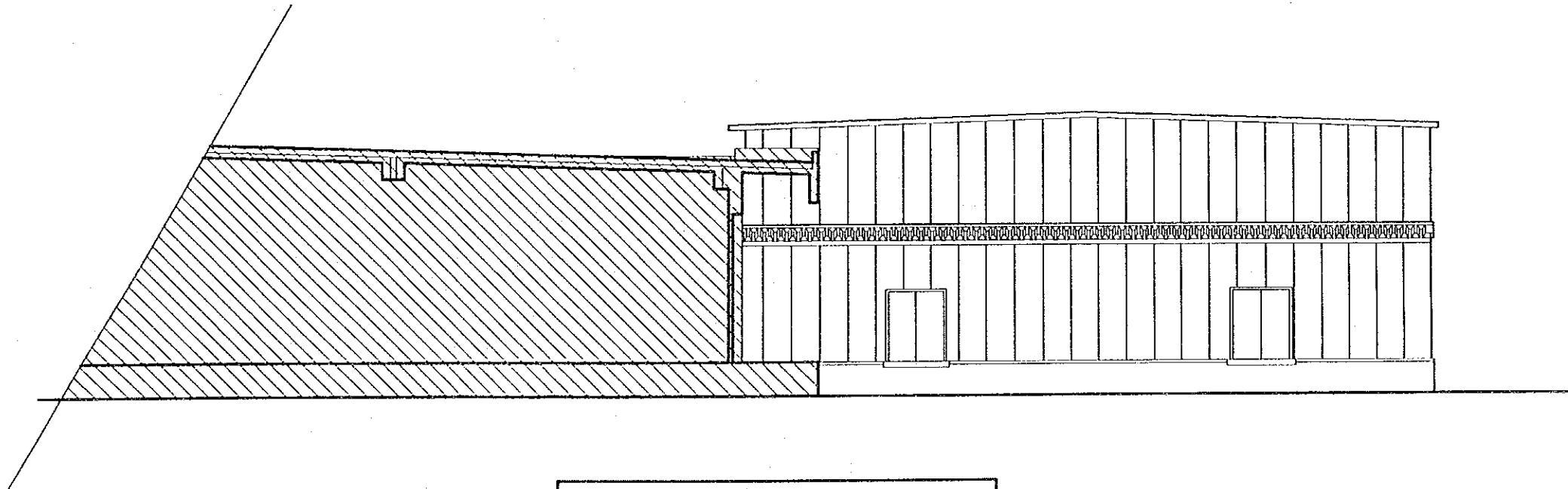
EXISTING BUILDING PLAN S = 1 : 600



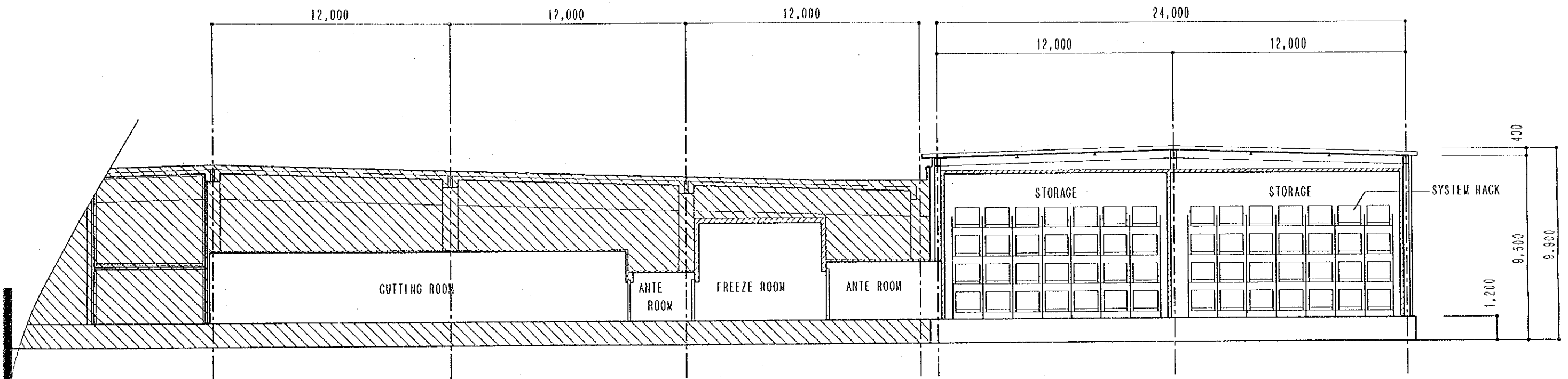
PLAN S-1:200



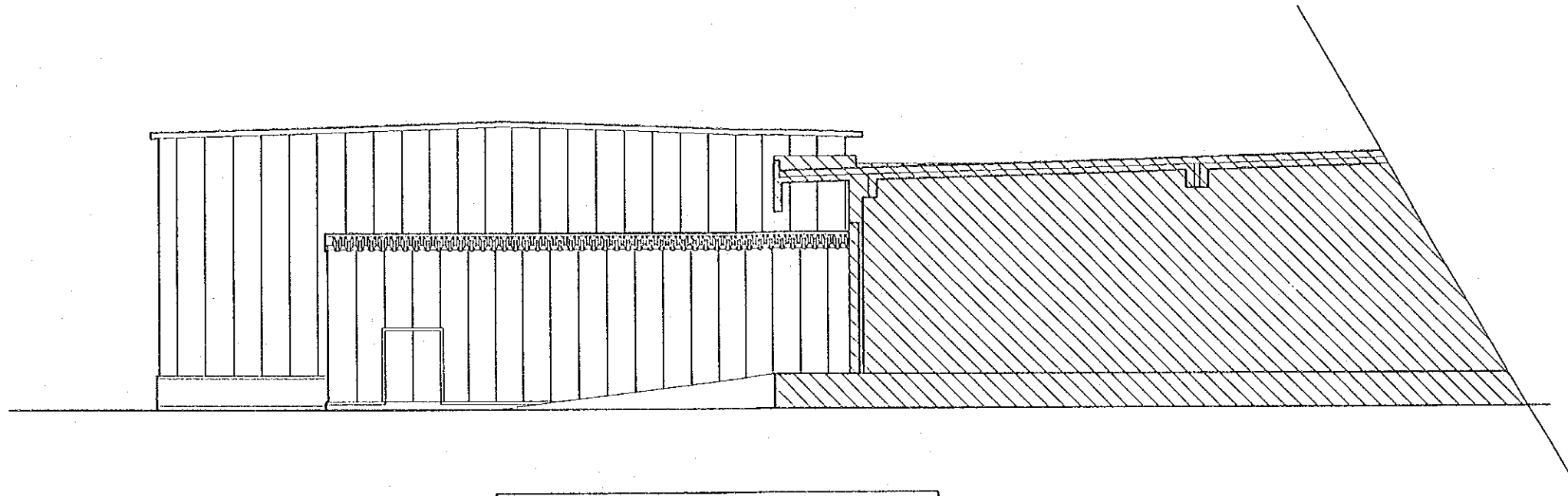
NORTH ELEVATION S=1:200



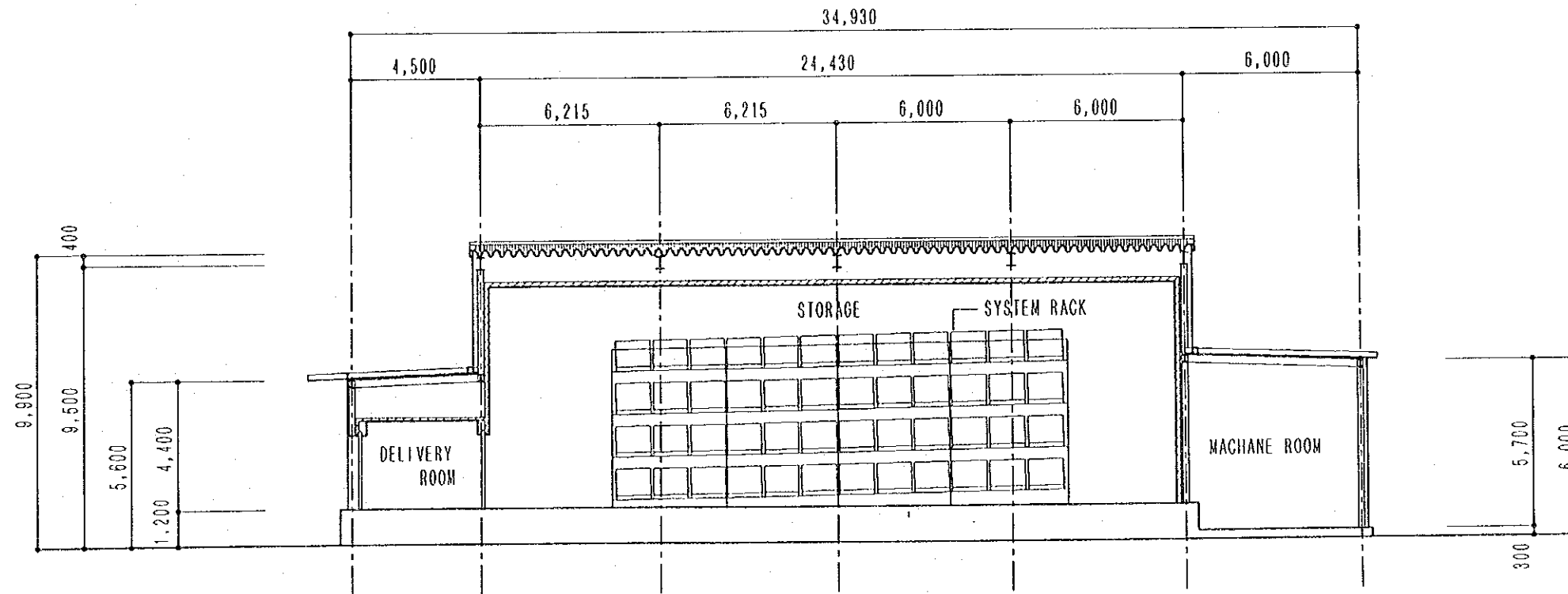
EAST ELEVATION S=1:200



A-A SECTION S=1:200



WEST ELEVATION S=1:200



B-B SECTION S=1:200

APPENDIX

1. MINUTES OF DISCUSSIONS

MINUTES OF DISCUSSION

BASIC DESIGN STUDY ON THE PROJECT
FOR IMPROVEMENT
OF DARKHAN MEAT PLANT
IN MONGOLIA

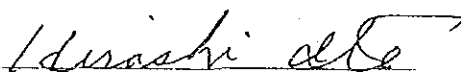
In response to request from the Government of Mongolia, the Government of Japan decided to conduct a Basic Design Study on the Project for Improvement of Darkhan meat plant (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA).


JICA sent to Mongolia a study team, which is headed by Mr. Hiroshi Ito, Director of the Ibaraki Station, National Livestock Breeding Center, Ministry of Agriculture, Forestry and Fisheries, and is scheduled to stay in the country from March 12 to April 7, 1993.

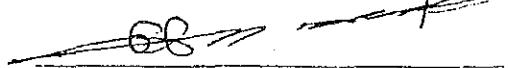
The team held discussions with the officials concerned of the Government of Mongolia conducted a field survey at the study area.

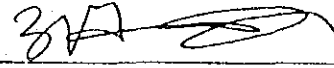
In the course of discussions and field survey, both parties have confirmed the main items described on the attached sheets. The team will proceed to further works and prepare the Basic Design Study report.

Ulan Bator, March 19, 1993


Hiroshi Ito
Leader
Basic Design Study Team
JICA


Khuyagin Ganbaatar
Deputy Minister
Ministry of Trade and Industry


Badrakhyn Alzakhgui
Director, Food Department
Ministry of Food and Agriculture


Zagdyn Lkhundev
General Director
Darkhan Meat Plant



ATTACHMENT

1. Objective

The objective of the Project is to stabilize the supply of meat to the urban people in Mongolia by improving and expanding the facilities of Darkhan meat plant.

2. Project sites

The Project site is located at Darkhan meat plant in Darkhan City which appears in Annex 1.

3. Responsible, administrative and executing organization

- (1) Responsible organization: Ministry of Trade and Industry
- (2) Administrative organization: Ministry of Food and Agriculture
- (3) Executing organization: Darkhan meat plant

The organization chart is shown in Annex 2.

4. Items requested by the Government of Mongolia

After discussions with the Basic Design Study Team, the following items whose priority was in numerical order were finally requested by the Mongolian side.

- (1) Supply of pipes, accessories and technical guidance for the renewal of existing refrigeration system
- (2) Converting the meat processing room into meat-cutting room including supply of necessary equipments
- (3) Construction of rapid freezing facility for cattle cut-meat and internal organs.
- (4) Construction of frozen products storehouse

However, the final components of the Project will be decided after further studies.

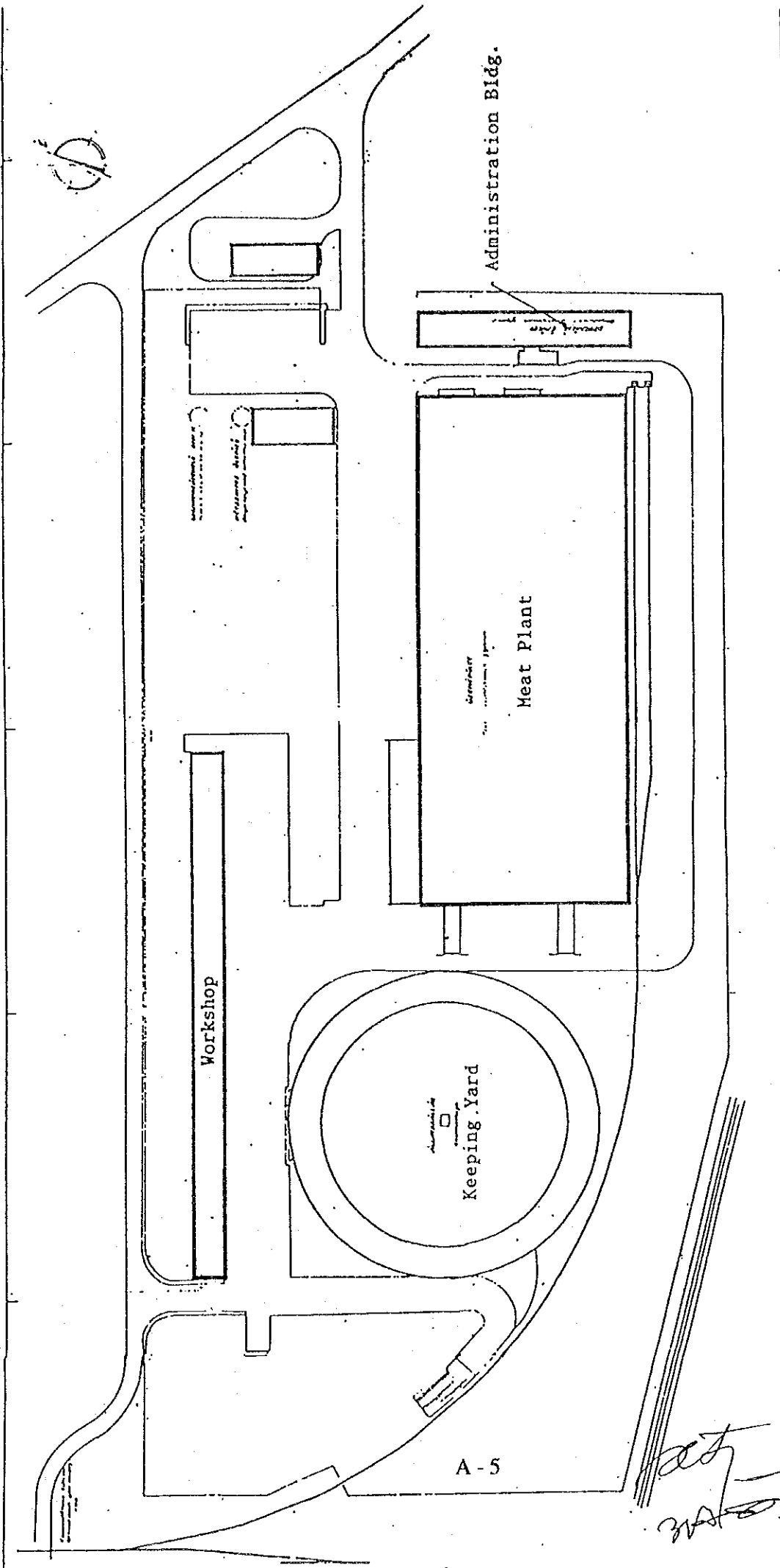
5. Japan's Grant Aid system

- (1) The Government of Mongolia has understood the system of Japanese Grant Aid explained by the team.
- (2) The Government of Mongolia will take necessary measures, described in Annex 3 for smooth implementation of the Project, on condition that the Grant Aid Assistance by the Government of Japan is extended to the Project.

6. Schedule of the Study

- (1) The consultants will proceed to further studies in Mongolia until April 7, 1993.
- (2) JICA will prepare the draft report in English and dispatch a mission in order to explain its contents in or around early in June, 1993.
- (3) In case that the contents of the report is accepted in principle by the Government of Mongolia, JICA will complete the final report and sent it to the Government of Mongolia by August, 1993.

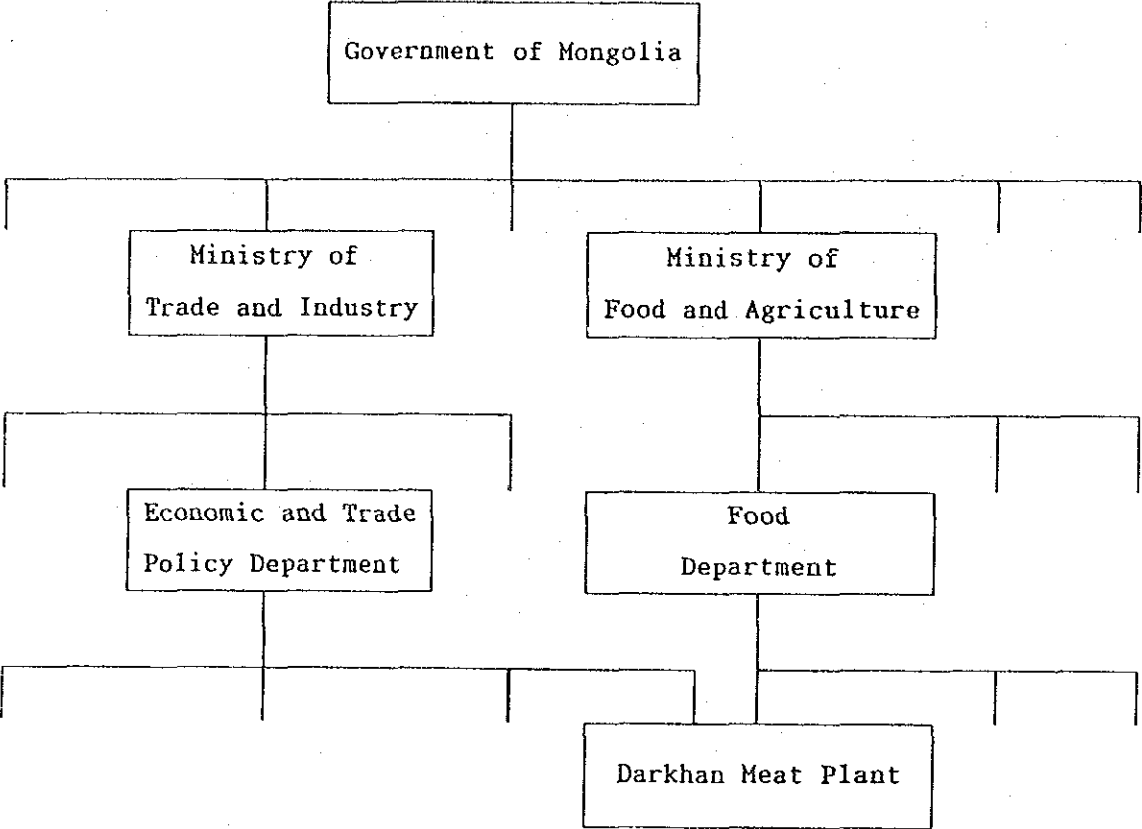
Handwritten signatures and initials:
A large signature is written across the bottom right corner. Below it, the initials "ZVE" and "ldi" are written.



Plot Plan of Darkhan Meat Plant S = 1 : 2,000

act
2/2/68
60

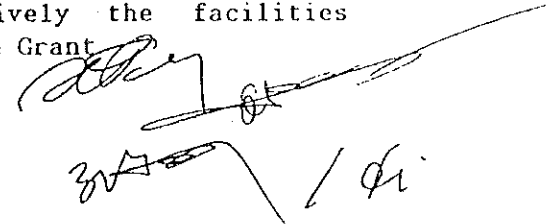
ANNEX 2. Organization Chart



Handwritten signatures and initials:
A signature that appears to be "BA" followed by a long horizontal line.
Below it, the letters "BA" are written again.
To the right, the number "14" is written.

ANNEX 3. Major Understandings to be taken by Mongolian Government

- | No. | Items |
|-----|--|
| 1. | To carry out all the work for the renewal of existing refrigeration system |
| 2. | To remove the existing meat-processing facility and related facility for converting into meat-cutting room |
| 3. | To secure site in Darkhan meat plant |
| 4. | To provide facilities for the distribution of electricity, water supply, drainage and incidental facilities when needed |
| | 1) Electricity (the distributing line to the site) |
| | 2) Water supply (-ditto-) |
| | 3) Hot-water supply (-ditto-) |
| | 4) Steam supply (-ditto-) |
| | 5) Drainage (discharging sewerage-pipe from the site) |
| | 6) Consumable material |
| 5. | To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A |
| | 1) Advising commission of A/P |
| | 2) Payment commission |
| 6. | To ensure unloading and customs clearance at port disembarkation in recipient country (Tax exemption and custom clearance of the products for the project at the country) |
| 7. | To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts |
| 8. | To extend such facilities as may be necessary for entry into Mongolia and stay therein for the performance work to the Japanese nationals whose services may be required in connection with the supply of products and the services under the verified contracts |
| 9. | To ensure prompt processing of required internal formalities to secure the implementation time schedule of the project |
| 10. | To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment |
| 11. | To maintain and use properly and effectively the facilities constructed and the equipment provided under the Grant |



2. Minutes of Discussion (Explanation of Draft Report)

MINUTES OF DISCUSSION

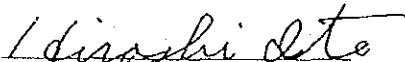
BASIC DESIGN STUDY ON THE PROJECT
FOR
IMPROVEMENT OF DARKHAN MEAT PLANT
IN MONGOLIA


In March to April 1993, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study team on the project for Improvement of Darkhan Meat Plant (hereinafter referred to as "the Project") to Mongolia, and through discussions, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

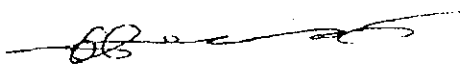
In order to explain and to consult Mongolia on the components of the draft report, JICA sent to Mongolia a study team, which headed by Mr. Hiroshi Ito, Technical Director, National Livestock Breeding Center, Ministry of Agriculture, Forestry and Fisheries, and is scheduled to stay in the country from July 3 to 9, 1993.

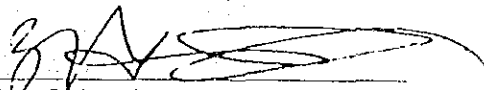
As the result of discussions, both parties confirmed the main items described on the attached sheets.

Ulanbator, July 8, 1993


Hiroshi Ito
Leader
Basic Design Study Team
JICA


Khuyagin Ganbaatar
Deputy Minister
Ministry of Trade and Industry


Badrakhyn Alzakhgui
Director, Food Department
Ministry of Food and Agriculture


Zagdyn Lkhundev
General Manager
Darkhan Meat Plant

ATTACHMENT

1. Components of Draft Report


The Government of Mongolia has agreed and accepted the components of the Draft Report proposed by the team.

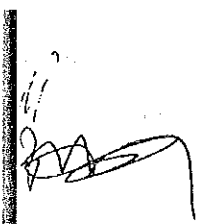
2. Japan's Grant Aid system

- (1) The Government of Mongolia has understood the system of Japanese Grant Aid system explained by the team.
- (2) The Government of Mongolia will take the necessary measures, described in Annex I, for smooth implementation of the project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

3. Further schedule

The team will make the Final Report in accordance with the confirmed items, and send it to the Government of Mongolia by the end of August 1993.


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ANNEX: Necessary measures to be taken by the Government of Mongolia
in case Japan's Grant Aid is executed.

- | No. | Items |
|-----|--|
| 1. | To remove the existing meat-processing facility and related facility for converting into meat-cutting room |
| 2. | To secure site in Darkhan meat plant |
| 3. | To introduce intake wire (6kv) to the new sub-station which will be installed by the Project |
| 4. | To provide facilities for the distribution of electricity, water supply, drainage and incidental facilities when needed |
| | 1) Electricity (the distributing line to the Project area) |
| | 2) Water supply (-ditto-) |
| | 3) Hot-water supply (-ditto-) |
| | 4) Steam supply (-ditto-) |
| | 5) Drainage (discharging sewerage-pipe from the Project area) |
| | 6) Consumable material |
| 5. | To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A |
| | 1) Advising commission of A/P |
| | 2) Payment commission |
| 6. | To ensure unloading and customs clearance at port disembarkation in recipient country (Tax exemption and custom clearance of the products for the project at the country) |
| 7. | To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts |
| 8. | To extend such facilities as may be necessary for entry into Mongolia and stay therein for the performance work to the Japanese nationals whose services may be required in connection with the supply of products and the services under the verified contracts |
| 9. | To ensure prompt processing of required internal formalities to secure the implementation time schedule of the project |
| 10. | To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment |
| 11. | To maintain and use properly and effectively the facilities constructed and the equipment provided under the Grant |

2. ROSTER OF ON-SITE STUDY GROUP MEMBERS

Basic Design Study

Hiroshi Ito	Overall group leader;	Director of the Ibaraki Station, National Livestock Breeding Center, Ministry of Agriculture, Forestry and Fisheries
Yuzuru Asakura	Administration of the Grant Aid Program;	First Basic Design Study Division, Grant Aid Study and Design Department, JICA
Hidejiro Uchigasaki	Manager of construction design and operations;	Zen-Noh Architects and Engines Inc.
Kentaro Kimura	Freezing and refrigeration equipment design;	Zen-Noh Architects and Engines Inc.
Shoichi Sakari	Electrical equipment design;	Zen-Noh Architects and Engines Inc.
Tsuneki Narahara	Distribution planning;	Zen-Noh Architects and Engines Inc.
Shigeki Ono	Translator;	Zen-Noh Architects and Engines Inc.

Explanation of Draft Report

Hiroshi Ito	Overall group leader;	Director of the Ibaraki Station, National Livestock Breeding Center, Ministry of Agriculture, Forestry and Fisheries
Naohiro Watari	Administration of the Grant Aid Program;	Grant Aid Division, Bureau of Economic Cooperation, Ministry of Foreign Affairs
Hidejiro Uchigasaki	Manager of construction design and operations;	Zen-Noh Architects and Engines Inc.
Kentaro Kimura	Freezing and refrigeration equipment design;	Zen-Noh Architects and Engines Inc.
Tsuneki Narahara	Distribution planning;	Zen-Noh Architects and Engines Inc.
Daisuke Onoda	Translator;	Zen-Noh Architects and Engines Inc.

3. ITINERARY FOR ON-SITE STUDY

Basic Design Study

1	3/11	Thu	Travel from Tokyo → Beijing (NH905)
2	3/12	Fri	Travel from Beijing → Ulan-Bator (CA901) Mr. Nasanpoya, section chief of foreign affairs of the Ministry of Trade and Industry of Mongolia welcomed the team. Called on Japanese Embassy and Ministry of Trade and Industry of Mongolia (explained the schedule for the itinerary).
3	3/13	Sat	Visits and conferences with Ministry of Food and Agriculture. Call on Food Industry Corp. (Listened to an explanation of the privatization of Food Industry Corp.)
4	3/14	Sun	Travel from Ulan-Bator to Darkhan by vehicle (230km, leaving the hotel at 10.00 and arriving at Darkhan at 13.50), Mr. Lkhundev, General Director of Darkhan Meat Plant, welcomed the team. Observing of Darkhan City and an internal meeting.
5	3/15	Mon	Survey of Darkhan Meat Plant and meeting. In-group meeting.
6	3/16	Tue	Meeting with the director and others of Darkhan Meat Plant. Travel from Darkhan → Ulan-Bator at 15.00. In-group meeting.
7	3/17	Wed	In-group meeting. Survey of Ulan-Bator Meat Plant. In-group meeting.
8	3/18	Thu	In-group meeting. Meeting with Ministry of Trade and Industry and the director of Darkhan Meat Plant. (For the convenience of the director, only the plant side signed the minutes of meetings.)
9	3/19	Fri	Meeting with Ministry of Trade and Industry and the director of Darkhan Meat Plant. Report progress to the Embassy. Signing of minutes of meetings of Ministry of Trade and Industry, Ministry of Food and Agriculture, the director of Darkhan Meat Plant and the Japanese side.
10	3/20	Sat	Mr. Ito, chief of the team and Mr. Asakura (OM223 Ulan-Bator → Beijing) returning to Japan. In-group meeting.
11	3/21	Sun	Invited to Mongolian Sumo sponsored by Ministry of Trade and Industry.
12	3/22	Mon	Travel from Ulan-Bator → Darkhan. Meeting at Darkhan Meat Plant.
13	3/23	Tue	Meeting at Darkhan Meat Plant.
14	3/24	Wed	Meeting at Darkhan Meat Plant. Organizing of data.
15	3/25	Thu	Meeting at Darkhan Meat Plant. Survey of the plant for confirmation.
16	3/26	Fri	In-group meeting. Observing of Darkhan ironworks construction site. Dinner party sponsored by Dark Meat Plant.
17	3/27	Sat	Travel from Darkhan → Ulan-Bator. In-group meeting. Organizing of data.
18	3/28	Sun	In-group meeting. Organizing of data. Market research.

19	3/29	Mon	Organizing of data. Meetings with Ministry of Trade and Industry, Ministry of Agriculture and Livestock Farming and Ministry of Construction.
20	3/30	Tue	Meeting with Ministry of Trade and Industry. Organizing of data. Market research (call on a local design office.)
21	3/31	Wed	In-group meeting.
22	4/1	Thu	Meetings with Ministry of Agriculture and Livestock Farming and Ministry of Construction.
23	4/2	Fri	Meeting with Ministry of Trade and Industry. Organizing of survey items.
24	4/3	Sat	Meeting with Ministry of Agriculture and Livestock Farming. Meeting with Mr. Batbould of Darkhan Meat Plant about answers to questioned items.
25	4/4	Sun	Analyzing of answers to questioned items.
26	4/5	Mon	Meetings with Ministry of Trade and Industry and Ministry of Construction. Return dinner party (Ministry of Trade and Industry, Ministry of Food and Agriculture)
27	4/6	Tue	Preparation for return to Japan. Checking of data. Survey report (invited by the Embassy, luncheon party)
28	4/7	Wed	Travel from Ulan-Bator → Beijing (OM223)
29	4/8	Thu	Survey of transportation conditions to Mongolia in China. Returning from Beijing → Narita (NH906).

Explanation of Draft Report

1	7/2	Fri	Travel from Tokyo (NH905) at 10:20 → Beijing at 13:50 (Mr. Watari ; departure on 7/1, arrival at Ulan Bator on 7/2)
2	7/3	Sat	Travel from Beijing (OM224) at 13:30 → Ulan Bator at 16:30
3	7/4	Sun	In-group meeting
4	7/5	Mon	Meeting with Ministry of Trade and Industry, Ministry of Foreign Affairs, Ministry of Agriculture and National Privatization Committee (discussion about privatization and explanation of draft report)
5	7/6	Tue	Moving to Darkhan Meat Plant. Meeting at Darkhan Meat Plant (Explanation of draft report contents)
6	7/7	Wed	Meeting at Darkhan Meat Plant. Moving to Ulan Bator
7	7/8	Thu	Discussion on Minutes of Discussions (M/D). Signing of M/D
8	7/9	Fri	Report to Japanese embassy to Mongolia. Travel from Ulan Bator (A902) at 18:20 → Beijing at 21:30
9	7/10	Sat	Travel from Beijing (NH906) at 15:15 → Tokyo at 20:15

4. LIST OF INTERVIEWEES

Name	Position held
------	---------------

MONGOLIAN MINISTRY OF TRADE AND INDUSTRY

Mr. Tsedengiin Yondon	First Deputy Minister
Mr. Khuyagin Gangbbtar	Vice Minister
Mrs. Lodoidambyn Nasanbuyan	Assistant to Director
Mr. Dambin Ganbold	Deputy Director, Department of Industrial Policy
Mr. Alexein Dorjpalam	Division of Small and Medium Enterprise Policy, Head

MINISTRY OF FOOD AND AGRICULTURE

Mr. Badrehin Aizahgui	Director, Food Department
Mrs. B. Jargalsaikhan	Officer, Food Department
Mr. R. Doljinsuren	Officer, Food Department
Mrs. Rentsensonomyn Durima	Officer, Foreign Relations Department
Mr. Norovin Baysgalan	Director, Livestock Department

MINISTRY OF CONSTRUCTION AND URBAN DEVELOPMENT

Mr. Lamjav Shagdarragchaa	First Deputy Minister
Mr. Nyamjav Zaankhuu	Senior Engineer
Mr. J. Bayasgalan	Officer, Department of Economy and Building Policy

NATIONAL DEVELOPMENT BOARD UNDER THE PRIME MINISTER OF MONGOLIA

Mr. Khorloogin Baatar	General Director, Department of Macro Economic Policy
-----------------------	---

MONGOLIAN "FOOD INDUSTRY" CORPORATION (PRODUCTION AND TRADING)

Dr. G. Lkhagvaa	General Director
-----------------	------------------

KHISHIG COMPANY

Mr. Zagdyn Lkhundev	General Director
Mr. Gochoogyn Amar	Chief Engineer

MAKHIMPEX COMPANY

Dr. Sanjmyatavyn Deleg	Managing Director
------------------------	-------------------

MONAR CO, LTD

Mr. Maidar Orgil	General Director
------------------	------------------

SOVINVEST

Mr. Mikhail Grigorievich Stadnik Chief Engineer
Mr. Syubitysuki Director
Mr. Mihinibitti Engineer

ULAN BATOR CONSTRUCTION COMPANY

Mr. Dartocing Deputy General Director

DARUHAN CONSTRUCTION COMPANY

Mr. Zorikuto Bator Deputy General Director
Mr. R. Amap Chief Engineer
Mr. B. Bonabaatop Chief of Quality Control
Mr. D. Ypgyhyconhro Chief of Accounting Section
Mr. S. Sapahrypyn Engineer

MATERIALIMPEX

Mr. Batin Buriad Deputy Director

GURUHAN

Mr. Zondoin Muhubatto General Director

URGOO

Mr. O. Kishigsikh General Director

INTERNATIONAL FREIGHT FORWARDER, MONGOLTRANS CO. LTD

Mr. N. Tsermnorov General Director
Mr. D. Jigjidnyam Manager

MONGOL DAATGAL, NATIONAL INSURANCE AND REINSURANCE COMPANY

Mr. Tsultermyn Tsend General Director

JICA