要請機材プライオリティリスト（バギオ）

機材名	用途	現有機材 数量（タイプ）	メーカー	調達日	現状（×は機能していないもの）	要請数量	プライオリティ（数） A	B	C	追加要請数
a. サンプル収集										
冷蔵庫付車両（4WD）	サンプリング					1	1			
オートバイ	サンプリング					2	1	1		
b. サンプル保存										
冷蔵庫	農薬標準品保存					1	1			
冷蔵庫	サンプル保存	1	Kelvinator	1982	×	1		1		
冷凍庫	農薬標準品保存	1 (Upright)	W.Westinghouses	1984	×					1
c. サンプル抽出										
ブレンダー	サンプル調製	1 (Jurgen Mix	Hamilton	1982	×	3	1	1	1	
ホモジナイザー	サンプル調製	1 (Ultra Turrax)		1982	×	2	1	1		
振とう機（水平・垂直）	サンプル抽出					1	1			
振とう機（回転）	サンプル抽出	1		1984						
振とう機（水浴付）	サンプル抽出					1	1			
ソックスレー抽出装置	サンプル抽出					1	1			
超音波洗浄器（小型）	サンプル抽出	1	Bandolin Sonorex	1984		1	1			
d. サンプル処理										
分析天秤	秤量	1	Sartorius	1982	×	1	1			
上皿天秤	秤量	1 (Top pan)	Sartorius	1982	×	1	1			
蒸留装置	蒸留					1		1		
冷却水循環装置	冷却			1982	×	1		1		
水浴	加温					1	1			
マントルヒーター	加温					3	1	1	1	
ロータリーエバポレーター	濃縮	1	Buchi	1982		4	1	2	1	
冷却アスピレーター	冷却吸引					2	1	1		
マグネティックスターラー	撹拌					4	1	2	1	
真空ポンプ	吸引	1	Minni A	1984		1		1		
真空マニフォールド	固相抽出					1		1		
GPC カラムシステム	クリーンアップ					1	1			
ラボラトリーオーブン	カラム吸着剤活性化	1	Heraeus (Germany)	1982	×	1	1			
自動デシケーター	カラム保存					1	1			
マッフル炉	灰化	1	Heraeus (Germany)		×					1
純水製造装置	純水製造	Water distillat	KOTTERMANN			1	1			
ガラス器具洗浄器	ガラス器具洗浄	1	Miele (Gernany)	1982	×					
ガラス器具乾燥器	ガラス器具乾燥	1	Heraeus(Germany)	1982	×	1	1			
超音波ピペット洗浄器	ピペット洗浄					1	1			
遠心器（卓上）	分離	1	Heraeus	1982	×	1		1		
遠心器（大型250ml）	分離					1	1			
製氷器	製氷					1		1		
pH メーター	pH 測定					1	1			
ガラス器具一式						1	1			
e. サンプル分析										
ガスクロマトグラフ										
ECD検出器	測定	2	Packard	1982	×	2	2			
NPD検出器	測定	2	Packard	1982	×	2	2			
FPD検出器	測定					1		1		
水素発生器	水素発生器		Elhygen		×					
高速液体クロマトグラフ(UV, 蛍光)	測定					1	1			
データ処理装置	データ処理	2		1982	×（1）	6	5	1		
紫外-可視分光光度計	測定		Perkin-Elmer	1982	×	1	1			
f. 電気関係										
無停電電源装置	緊急時電源					1	1			
発電機	発電			1982	×	1	1			
電圧安定化装置	電圧調整					1	1			
g. 実験室家具・備品										
流し台	流し台					2	2			
試薬棚	試薬保存					1	1			
消火器（CO2 ガスタイプ）	消火					2	2			
消火器（粉タイプ）	消火					3			3	
ドラフトチャンバー	溶媒処理					1	1			
緊急用シャワー	シャワー					1		1		
h. その他の機材										
テレビ（34インチ）	研修					1	1			
ビデオ	研修					1	1			
スライド映写機	研修					1	1			
OHP（スクリーン付）	研修					1	1			
コンピュータセット	データ処理					1	1			
モデムシステム（ソフト付）	データ処理					1			1	
コピーマシン	データ処理					1	1			
タイプライター（機械式）	文書作成					1		1		
ファックスマシン	データ処理					1	1			
合計						80	52	20	8	2

要請機材プライオリティリスト（セブ）

機材名	用途	現有機材 数量(タイプ)	メーカー	調達日	現状（×は機能していないもの）	要請数量	プライオリティ（数） A	B	C	追加要請数
a. サンプル収集										
冷蔵庫付車両（4WD）	Sampling	1	Volkswagen	1984	×	1	1			
オートバイ	Sampling					2	1		1	
b. サンプル保存										
冷蔵庫	農薬標準品保存					1		1		
冷蔵庫	サンプル保存	1 (no frost)	Kelvinator	1984		1	1			
冷凍庫	サンプル保存					1	1			
冷凍庫	農薬標準品保存	1 (Upright Fre	Westinghouse	1984						
c. サンプル抽出										
ブレンダー	サンプル調製	1	Hamilton	1984		3	2	1		
ホモジナイザー	サンプル調製	1 (Ultra Turra	Janke&Kunke	1983	×	2	1	1		
グラインダー（穀類用）	サンプル調製	1(Micro Beating Mill)		1983						
振とう機（水平・垂直）	サンプル抽出					1		1		
振とう機（回転）	サンプル抽出	1 (Mechanical	Edmud Buhler	1983						
振とう機（水浴付）	サンプル抽出					1		1		
ソックスレー抽出装置	サンプル抽出	1				1		1		
超音波洗浄器（小型）	サンプル抽出	1 (RK100)				1		1		
d. サンプル処理										
化学天秤	秤量	1	Sartorius	1983	×	1	1			
デジタル天秤	秤量	1	Sartorius	1983						
上皿天秤	秤量	1 (Triple Beam)		1983		1	1			
蒸留装置	蒸留	1				1	1			
冷却水循環装置	冷却	1 (Water Cooler)		1983		1	1			
水浴	加温	1		1983		1		1		
ホットプレート	加温	2	Heidolph	1983						
電気ストーブ	加温	1		1984	×					
マントルヒーター	加温					3	2	1		
ロータリーエバポレーター	濃縮	1 (Rotavapor)	Buchi	1984		4	2	1	1	
冷却アスピレーター	冷却					2	1	1		
マグネテックスターラー	撹拌					4			4	
真空ポンプ	吸引	1 (Mini vacuum)		1983		1		1		
真空マニフォールド	固相抽出					1		1		
GPC カラムシステム	クリーンアップ					1	1			
ラボラトリーオーブン	カラム吸着剤活性化	1		1983		1		1		
自動デシケーター	カラム保存					1	1			
マッフル炉	灰化	1		1983						
純水製造装置	純水製造	1 (Water Distiller)		1983	×	1	1			
ガラス器具洗浄器	ガラス器具洗浄	1		1983						
ガラス器具乾燥器	ガラス器具乾燥	1	Heraeus	1983		1	1			
超音波ピペット洗浄器	ピペット洗浄					1	1			
遠心器（卓上）	分離	1	Heraeus	1983		1		1		
遠心器（大型 250ml）	分離					1		1		
製氷器	製氷					1		1		
pH メーター	pH 測定					1	1			
ラボカート	試薬・サンプル搬送	1 (Laboratory Wagon)		1983						
ガラス器具一式						1	1			
e. サンプル分析										
ガスクロマトグラフ										
ECD検出器	測定	2 (model427)	PACKARD	1983	×	2	2			
NPD検出器	測定	1 (model427)	PACKARD	1983	×	2	2			
FPD検出器	測定					1		1		
窒素ガスボンベ	ガスボンベ	8		1983						
水素発生器	水素発生	1	Elhygen	1984	×					
圧力調節器	ガス圧力調節	3		1983	×(1)					
記録計	記録	4								
エアーコンプレッサー	空気発生	1	KNF Neuberger	1983	×					
エアーコンプレッサー	空気発生	1	Vappa							
高速液体クロマトグラフ（UV, 蛍光）	測定					1	1			
データ処理装置	データ処理					6	5		1	
紫外-可視分光光度計	測定		Perkin-Elmer	1983	×	1	1			
f. 電気関係										
無停電電源装置	停電対策					1	1			
発電機	停電対策	1	Bosch	1983		1	1			
電圧安定化装置	電圧調整					1	1			
g. 実験室家具・備品										
流し台						2	1	1		
試薬棚	試薬棚					1	1			
エアーコンディショナー	温度・湿度調整	5	Carrier	1984	×	5	5			
消火器(CO2 ガスタイプ)	消火	3 (ABS Dragon)				2	2			
消火器 (粉タイプ)	消火					3			3	
換気扇	換気	1								
ドラフトチャンバー	溶媒処理					1	1			
緊急用シャワー	シャワー					1			1	
h. その他の機材										
テレビ（34インチ）	研修					1	1			
ビデオ	研修					1	1			

要請機材プライオリティリスト（セブ）

機材名	用途	現有機材 数量(ﾀｲﾌﾟ)	メーカー	調達日	現状（×は機能していないもの）	要請数量	ﾌﾟﾗｲｵﾘﾃｨ（数） A	B	C	追加要請数
スライド映写機	研修					1	1			
OHP（スクリーン付）	研修					1	1			
コンピュータセット	データ処理					1	1			
モデムシステム（ソフトウエア付）	データ処理					1			1	
コピーマシン	データ処理					1	1			
タイプライター（機械式）	文書作成	1	Olympia	1983		1		1		
ファックスマシン	データ処理					1	1			
合計						86	54	20	12	0

要請機材プライオリティリスト（カガヤンデオロ）

機材名	用途	現有機材 数量（タイプ）	現有機材 メーカー	現有機材 調達日	現有機材 現状（×は機能していないもの）	要請数量	Priority(number) A	B	C	追加要請数
a. サンプル収集										
冷蔵庫付車両（4WD）	サンプリング					1	1			
オートバイ	サンプリング					2		1	1	
b. サンプル保存										
冷蔵庫	農薬標準品保存					1	1			
冷蔵庫	サンプル保存					1		1		
冷凍庫	サンプル保存					1	1			
c. サンプル抽出										
ブレンダー	サンプル調製	1	Janke & Kunkel		×	3	2	1		
ホモジナイザー	サンプル調製	1	Jurgen			2	1	1		
グラインダー（穀類用）	サンプル調製	1 (Beating Mill)		1982		1		1		
振とう機（水平・垂直）	サンプル抽出					1	1			
振とう機（回転）	サンプル抽出	1		1982						
振とう機（水浴付）	サンプル抽出					1		1		
ソックスレー抽出装置	サンプル抽出					1		1		
超音波洗浄器（小型）	サンプル抽出					1			1	
d. サンプル処理										
分析天秤	秤量					1	1			
上皿天秤	秤量	1(Triple Beam	Ohaus	1982		1		1		
蒸留装置	蒸留	1	Kotterman	1982	×	1	1			
冷却水循環装置	冷却					1	1			
水浴	加温	1		1982		1			1	
マントルヒーター	加温					3	1	1	1	
ロータリーエバポレーター	濃縮	1	Buchi (Switzerland)	1982		4	2	1	1	
冷却アスピレーター	冷却吸引					2	2			
マグネテックスターラー	撹拌					4		1	3	
真空ポンプ	吸引	1	Hearaeus	1982		1		1		
真空マニフォールド	固相抽出					1		1		
GPCカラムシステム	クリーンアップ					1	1			
ラボラトリーオーブン	カラム吸着剤活性化	1	Hearaeus	1982		1		1		
自動デシケーター	カラム保存					1		1		
純水製造装置	純水製造					1	1			
ガラス器具洗浄器	ガラス器具洗浄	1		1982	×					
ガラス器具乾燥器	ガラス器具乾燥	1	Hearaeus	1982						
超音波ピペット洗浄器	ピペット洗浄					1	1			
遠心器（卓上）	分離	1	Hearaeus	1982		1			1	
遠心器（大型250ml）	分離					1		1		
製氷器	製氷					1			1	
pH メーター	pH 測定					1	1			
ガラス器具一式						1	1			
e. サンプル分析										
ガスクロマトグラフ	測定									
ECD検出器	測定	2 (Model 427)	Packard	1982	×(1)	2	2			
NPD検出器	測定	2 (Model 427)	Packard	1982	×(1)	2	2			
FPD検出器	測定					1		1		
水素発生器	水素発生	1	Dosapro-Milton Rox		×					
高速液体クロマトグラフ（UV,蛍光）	測定					1	1			
データ処理装置	データ処理					6	5	1		
紫外-可視分光光度計	測定	1	Perkin-Elmer	1982	×	1	1			
f. 電気関係										
無停電電源装置	緊急時電源					1	1			
発電機	発電	1	Boshi			1	1			
電圧安定化装置	電圧調製					1	1			
g. 実験室家具・備品										
流し台	流し台					2		1	1	
試薬棚	試薬保存					1		1		
エアーコンディショナー	温度・湿度調整				× (2)	5	5			
消火器（CO2 ガスタイプ）	消火					2	2			
消火器（粉タイプ）	消火					3		1	2	
ドラフトチャンバー	溶媒処理					1	1			
緊急用シャワー	シャワー					1		1		
h. その他の機材										
図書室テーブル	図書室					1	1			
図書室椅子	図書室					4	4			
テレビ（34インチ）	研修					1	1			
ビデオ	研修					1	1			
スライド映写機	研修					1	1			
OHP（スクリーン付）	研修					1	1			
コンピュータセット	データ処理					1	1			
モデムシステム（ソフト付）	データ処理					1			1	
コピーマシン	データ処理					1	1			
タイプライター（機械式）	書類作成					1		1		
ファックスマシン	データ処理					1	1			
合計						91	54	23	14	0

要請機材プライオリティリスト（ピコール）

機材名	用途	現有機材 数量（タイプ）	現有機材 メーカー	現有機材 調達日	現有機材 現状（×は機能していないもの）	要請数量	プライオリティ（数） A	B	C	追加要請数
a. サンプル収集										
冷蔵庫付車両（4WD）	サンプリング					1	1			
オートバイ	サンプリング					2	1		1	
b. サンプル保存										
冷蔵庫	農薬標準品保存					1	1			
冷蔵庫	サンプル保存					1	1			
冷凍庫	サンプル保存					2	2			
c. サンプル抽出										
ブレンダー	サンプル調製					3	2		1	
ホモジナイザー	サンプル調製					3	1	1	1	
グラインダー（穀類用）	サンプル調製					1	1			
振とう機（水平・垂直）	サンプル抽出					1	1			
振とう機（水浴付）	サンプル抽出					1		1		
ソックスレー抽出装置	サンプル抽出					1		1		
超音波洗浄器（小型）	サンプル抽出					1	1			
d. サンプル処理										
化学天秤	秤量					1	1			
上皿天秤	秤量					1	1			
蒸留装置	蒸留					1	1			
冷却水循環装置	冷却					1	1			
水浴	加温					1		1		
マントルヒーター	加温					3	1	1	1	
ロータリーエバポレーター	濃縮					4	3	1		
冷却アスピレーター	冷却吸引					2	2			
マグネテックスターラー	撹拌					4	1	1	2	
真空ポンプ	吸引					1		1		
真空マニフォールド	固相抽出					1		1		
GPCカラムシステム	クリーンアップ					1	1			
ラボラトリーオーブン	カラム吸着剤活性化					1	1			
自動デシケーター	カラム保存					1		1		
純水製造装置	純水製造					1	1			
ガラス器具用乾燥器	ガラス器具乾燥					1	1			
超音波ピペット洗浄器	ピペット洗浄					1	1			
遠心器（卓上）	分離					1		1		
遠心器（大型 250ml）	分離					1	1			
製氷器	製氷					1			1	
pHメーター	pH測定					1	1			
ラボカート	試薬・サンプル搬送					3	2		1	
ガラス器具一式						1	1			
e. サンプル分析										
ガスクロマトグラフ										
ECD検出器	測定					2	2			
NPD検出器	測定					2	2			
FPD検出器	測定					1		1		
高速液体クロマトグラフ（UV, 蛍光）	測定					1	1			
データ処理装置	データ処理					6	5	1		
紫外-可視分光光度計	測定					1	1			
f. 電気関係										
無停電電源装置	停電対策					1	1			
発電機	停電対策					1	1			
電圧安定化装置	電圧調整					1	1			
g. 実験室家具・備品										
中央実験台	実験台					3	2	1		
サイドテーブル	実験台					3	2	1		
作業台	実験台					1	1			
流し台	流し台					3	3			
試薬棚	試薬棚					1	1			
椅子	椅子					10	8		2	
エアーコンディショナー	温度・湿度調整									7
消火器（CO2ガスタイプ）	消火					2	2			
消火器（粉タイプ）	消火					3		2	1	
換気扇	換気					7	6		1	
ドラフトチャンバー	溶媒処理					1	1			
緊急用シャワー	シャワー					1	1			
h. その他の機材										
テレビ（34インチ）	研修					1	1			
ビデオ	研修					1	1			
スライド映写機	研修					1	1			
OHP（スクリーン付）	研修					1	1			
コンピュータセット	データ処理					1	1			
モデムシステム（ソフトウエア付）	データ処理					1			1	
コピーマシン	データ処理					1	1			
タイプライター（機械式）	文書作成					1		1		
ファックスマシン	データ処理					1	1			
合計						112	81	18	13	7

要請機材プライオリティリスト（ダバオ）

機材名	用途	現有機材 数量（タイプ）	現有機材 メーカー	現有機材 調達日	現有機材 現状（×は機能していないもの）	Requested 要請数量	プライオリティ（数） A	B	C	追加要請数
a. サンプル収集										
冷蔵庫付車両（4WD）	サンプリング					1	1			
オートバイ	サンプリング					2	1		1	
b. サンプル保存										
冷蔵庫	農薬標準品保存	1	LABLINE	Fm:MNL		1	1			
冷蔵庫	サンプル保存					1	1			
冷凍庫	サンプル保存					2	2			
冷凍庫	農薬標準品保存									1
c. サンプル抽出										
ブレンダー	サンプル調製	1	HBS	Fm: MNL		3	2		1	
ブレンダー	サンプル調製	1 (Osterizer)	National	Fm:FSD	×					
ホモジナイザー	サンプル調製					3	1	1	1	
グラインダー（穀類用）	サンプル調製					1	1			
振とう機（水平・垂直）	サンプル抽出					1			1	
振とう機（回転）	サンプル抽出									1
振とう機（水浴付）	サンプル抽出					1			1	
ソックスレー抽出装置	サンプル抽出					1		1		
超音波洗浄器（小型）	サンプル抽出					1		1		
d. サンプル処理										
化学天秤	秤量					1	1			
上皿天秤	秤量	1	Mettler	Fm:MNL		1	1			
実験室用天秤	秤量	1		Fm:Soil Pro.						
蒸留装置	蒸留					1	1			
冷水循環装置	冷却	1			×	1	1			
水浴	加温	1			×	1	1			
マントルヒーター	加温					3		2	1	
ロータリーエバポレーター	濃縮	1		1990(MNL)		4	4			
ホットプレート	加温	1		1989(MN	×					
冷却アスピレーター	冷却吸引					2	2			
マグネテックスターラー	撹拌					4		2	2	
真空ポンプ	吸引					1			1	
真空マニフォールド	固相抽出					1			1	
GPC カラムシステム	クリーンアップ					1	1			
ラボラトリーオーブン	カラム吸着剤の活性化					1	1			
自動デシケーター	カラム保存	2		Fm:MNL		1	1			
マッフル炉	灰化									1
純水製造装置	純水製造					1		1		
ガラス器具洗浄機	ガラス器具洗浄	1	Miele	Fm:MNL						
ガラス器具乾燥機	ガラス器具乾燥	1	Heraeus	Fm:MNL		1	1			
超音波ピペット洗浄器	ピペット洗浄					1	1			
遠心器（卓上）	分離					1			1	
遠心器（大型、250ml）	分離					1	1			
製氷器	製氷					1			1	
pH メーター	pH 測定	1 (Mini)	Hack	Fm:FSDC		1	1			
ラボカート	試薬・サンプル搬送					3	1	1	1	
ガラス器具一式						1	1			
e. サンプル分析										
ガスクロマトグラフ										
ECD検出器	測定	1(model427)	Packard	1989(MN	×	2	2			
NPD検出器	測定	1 (model3800	DANI	1990(MN	×	2	2			
FPD検出器	測定					1		1		
ガスクロマトグラフツール	ツール	1		1990(Local purchase)						
ガスタンク（窒素）	タンク	2		1990(MNL)						
ガスタンク（水素）	タンク	1		1990(NML)						
エアーコンプレッサー	空気発生	1		Fm:MNL						
LPG タンク	タンク	1		(Fm: FSDC)						
記録計	記録	1	Packard	Fm:Cebu						
高速液体クロマトグラフ(UV, 蛍光)	測定					1	1			
データ処理装置	データ処理					6	5	1		
紫外-可視分光光度計	測定					1	1			
炎光光度計	測定	PFP 1	Petracourt	Fm: FSDC						
f. 電気関係										
無停電電源装置	停電対策					1				
発電機	停電対策					1				
変圧器	変圧	1	Pioneer	1990(Local purchase)						
電圧安定化装置	電圧調整	1		1990(Local purchase)		1				
g. 実験室家具・備品										
中央実験台	実験台					3	3			
サイドテーブル	実験台					3	3			
作業台	実験台					1	1			
流し台	流し台					3	1	1	1	
試薬棚	試薬保存					1	1			
椅子	椅子					10	8		2	
エアーコンディショナー	温度・湿度調整	1	Fedders	(MNL)	×					
消火器（CO2ガスタイプ）	消火					2	2			

要請機材プライオリティリスト（ダバオ）

機材名	用途	現有機材 数量（タイプ）	現有機材 メーカー	現有機材 調達日	現有機材 現状（×は機能していないもの）	Requested 要請数量	プライオリティ（数） A	B	C	追加要請数
消火器（粉タイプ）	消火					3		2	1	
換気扇	換気	1 (Ex-12)	3D	1989(MNL)		7				
ドラフトチャンバー	溶媒処理					1	1			
緊急シャワー	シャワー					1				
h. その他の機材										
図書室テーブル	図書室					1	1			
図書室椅子	図書室					4	4			
折り畳みテーブル	研修					3	2		1	
折り畳み椅子	研修					6	4	2		
テレビ（34インチ）	研修					1	1			
ビデオ	研修					1	1			
スライド映写機	研修					1	1			
OHP（スクリーン付）	研修					1	1			
コンピュータセット	データ処理					1	1			
モデムシステム（ソフトウエア付）	データ処理					1			1	
コピーマシン	データ処理					1	1			
タイプライター（機械式）	文書作成					1		1		
ファックスマシン	データ処理					1	1			
合計						126	79	17	19	3

9．農業省地域局長（リジョン5）のメモランダム

Republic of the Philippines
DEPARTMENT OF AGRICULTURE
Office of the Secretary
Elliptical Road, Diliman, Quezon City

MEMORANDUM -

To : Director Nerius I. Roperos
Bureau of Plant Industry
Manila

FROM : Dr. Fe Laysa
Department of Agriculture
Region V

SUBJECT : Building of Bicol PAL

Relative to the Bureau of Plant Industry project proposal entitled "Improvement of the National Monitoring Program on Pesticide Residue in Agriculture and the Environment and Pesticide Formulation", please be informed that I agree to the use and renovation of the building visited by the JICA 2nd Basic Design Mission as a PAL satellite station as long as the equipment and vehicles requested are provided by the project. It will be recalled that this is the same building that was earmarked during the conceptualization of this project.

We look forward to the inclusion of Bicol PAL to the final scope of the project.

May 26, 1994

10. ＢＰＩ局長から第２次基本設計調査団団長へのレター

Republic of the Philippines
Department of Agriculture
BUREAU OF PLANT INDUSTRY
Manila

692 San Andres St.
Malate, Manila
Philippines

Tel. Nos. 57-17-26
58-62-01
57-17-76

Mr. Shigetaka Saburi
Team Leader
2nd Basic Design Mission

Dear Mr. Saburi:

This is to request your consideration for our proposal to include a two (2) room dormitory with 10 beds for ladies and 10 beds for men, a canteen with a capacity of 10 tables with 4 seats each.

The need for these facilities stem from:

1. A projected increase of training activities and education/ awareness campaign for the National Capital Region and nearby Regions 3, 4 and 5 from 1 to 2 trainings per month with an average of 5 days period per session.

2. With the recent bilateral agreements between four (4) member countries of the Technical Cooperation of Developing Countries (TCDC), the Philippines through the Central Pesticide Analytical Laboratory will conduct trainings on pesticide residue to an average of 3-4 participants/country.

3. To provide temporary shelter to an average of four (4) staff of the Central PAL who often times render overtime services to complete the activities that need continuous operation.

4. The dormitory and canteen facilities will cater to approximately 40-60 trainees/month.

The annual training program and schedule is attached for your ready reference.

We trust that this merits your favorable evaluation and acceptance of our request.

Thank you and regards.

Very truly yours,

NERIUS I. ROPEROS
Director

Encl.: a/s
May 27, 1994

TRAININGS TO BE CONDUCTED BY
PESTICIDE ANALYTICAL LABORATORY (PAL)

A. Under the Technical Cooperation of Developing Countries (TCDC)
Philippines to:

1. China - OJT Training on Pesticide Residue and Formulation Analysis

2. Ivory Coast - Training on Pesticide Residue Monitoring and Pesticide Use

3. Pakistan - Training on Pesticide Residue Monitoring and Use

4. Thailand - Toxicity and Impact of Pesticide on Non-Target Agricultural Site

B. Other Agencies Requesting Training on Pesticide Analysis

1. Environmental Management Bureau (EMB)

2. Bureau of Fisheries and Aquatic Resources (BFAR)

3. Bureau of Animal Industry (BAI)

4. Central Luzon State University (CLSU)

5. National Pollution Control Commission (NCPC)

C. PAL In-House Review

11. 収集資料リスト

Bureau of Plant Industry

1. Pesticide Administration in the Philippines
   a. P.D. 1144, May 30, 1977
   b. FPA Rules and Regulations No.1, Series of 1977
   c. The Fertilizer and Pesticide Authority, Chapter 5 of Pesticide Management
   d. Number of pesticides and their ingredients according to types (Agricultural and Household use)
   e. List of Registered Pesticides according to their active ingredients
   f. List of Registered Pesticide Products according to companies (Agricultural and Household use)
   g. Guidelines on FPA Board Resolution No.01 (1993) on Organotin, Azinophos Ethyl, Methyl Parathion, Endosulfan and Monocrotophos

2. Statistics of Pesticide in the Philippines
   a. Sales Amount of Pesticides as in kgs of active ingredient (1988-1992)
   b.Philippine Annual Pesticide Importation, 1984-1991
   c. Pesticide Importation (in detail according to types) for calender year 1980-1991

3. National Pest and Disease Profile
   a. National Pest and Disease Profile cited from BPI Annual Report 1991
   b. Brief Profile about the Crop Protection Division and Crop Production Division

4. Budget for BPI
   a. Budget Ceiling of BPI for 1993
   b. Budget allocation in Department of Agriculture and BPI's budget specification for 1991 and 1992, including the allocation to the DA Regional Office (a part is shown for 1991)
   c. Financial Plan 1994 for Pesticide Analytical Section (for Manila and Baguio only)
   d. 1995 Budget of the Pesticide Analytical Laboratory
   e. 1995 Work Plan of the Pesticide Analytical Section, Laboratory Services Division
   f. PAL-Baguio's Work Plan for 1994 and 1995

5. KR-2 (Pesticide Management)
   a. Brief history
   b. List of Agricultural Chemicals (Insecticides, Herbicides and Fungicides) provided under Japanese Commodity Grant with KR-2, 1990-1993

6. Consumption of Crops
   a. Statistics of selected crops 1989-1992 (in calender year) on Abaca, Banana, Cabbage, Cacao, Calamansi, Camote, Cassava, Coconut, Coffee, Eggplant, Garlic, Mango, Mongo, Onion, Peanut, Pineapple, Rubber, Sugar cane, Tobacco and Tomato
   b. Export of Major commodities (for Agricultural Products) 1991-1993, with its statistic sheet
   c. Imported fruits and vegetables in 1993, with their statistic sheet
   d. Supply and Utilization Accounts (1978-1991) on Ampalaya, Bell pepper, Cabbage, Chayote, Cucumber, Eggplant, Garlic, Ginger, Habitchuelas, Onion, Patola, Pechay, Radish, Squash, Tomato, Upo, Soybeans, Mongo and Peanut

7. "The Bureau of Plant Industry", white coloured envelope, including Organizational chart, Staff, Functions & objectives, Thrusts & strategies, Plans & programs, Special project, and brief descriptions about its services
8. Work Plan and Budgetary Requirements for Studies
   a. BEF 100: Work Plan
   b. Budgetary Requirements for studies in 1994
   c. Total Cost of R & D Activities 1994
   d. Prioritized List of R & D Projects (with their budgetary requirements) in 1994

9. Newspaper Articles on Banning of Pesticides
   a. "Fertilizer body suspends license of big pesticide manufacturer", The Philippine Star, January 14, 1994
   b. "Government gets tough against Hoechst, judge", The Daily Inquirer, January 25, 1994

10. Fate of Some Commonly-used Insecticides in Pechay Ecosystem

PAL-Cebu

1. Study on Pesticide Residue Degradation (on egg plant)

PAL-Cagayan De Oro

1. Implication of Pesticide Usage on IPM in Vegetables

Regional Office in Region 7

1. The Medium-Term Agricultural Development Plan 1993-1998

Agricultural Training Institute

a. Structure of the Extension System
b. Organization Chart of DA
c. ATI Organizational Structure
d. Map of the National and Regional Training Center

Fertilizer and Pesticide Authority

1. FPA Organization
   a. FPA Organizational Chart
   b. Office of the Executive Director
   c. Office of the Deputy Executive Director (Administration)
   d. Administrative Division
   e. Finance Division
   f. Field Services Division
   g. Information Services Division
   h. Office of the Deputy Executive Director (Operations)
   i. Industry Development Division
   j. Technical Services Division
   k. Industry Evaluation Division
   l. Staffing Modification

2. FPA Annual Report 1993

3. FPA Trainings 1993
   a. Summary of Agro-chemical Dealers' Trainings as of December 31, 1993
   b. Summary of Agro-medical Trainings 1993
   c. Trainings, Mango Contractors, 1993

4. Laws on Pesticide Management
   a. Presidential Decree No.1144
   b. FPA Rules and Regulations, No. 1, Series 1977

5. Registered Pesticides
   a. Agricultural Use
   b. Household Use
   c. Restrictions on Availability and Use

6. FPA Pesticide Regulatory Policies and the Implementing Guidelines and Procedures

7. Article on a Magazine,"Monitoring Fertilizer and Pesticide Use", Greenfields, May 1993

Asian Development Bank

1. Pesticide Management and Integrated Pest Management in Southeast Asia, edited by P.S. Teng and K.L. Heong, 1988

2. PHI: Crop Protection in the Highland Agricultural Development Project (HADP) area of Northern Luzon - Consultant's Report, Dr. Graham Martin

3. Diamondback Moth ad Other Crucifier Pests, Proceedings of the Second International Workshop, Taiwan, 10-14 December 1990, N.S. Talekar (eds.), Asian Vegetable Research and Development Center

4. Pesticide Hazards in the Third World: New Evidence from the Philippines, Jennifer A. McCracken and Gordon R. Conway, International Institute for Environment and Development

5. Technical Assistance (JSF-Finances) to the Republic of the Philippines for Integrated Pest Management for Highland Vegetables, ADB, December 1993

6. Project Completion Report of the Highland Agriculture Development Project in the Philippines, July 1994

Food and Agriculture Organization (FAO)

1. A Terminal Report on Contaminations of Foods found in the Philippines in 1990, January 1 - December 31, 1990

2. Report on the Asian Regional Workshop on Analysis of Foods for Pesticide Residues, May 6-15, 1991

3. Report on the Study of the Analytical Quality Assurance Programmes of Some Asian Pesticide Residue Laboratories, May 1991-1992

Food Development Center

1. 1993 Year end Highlights of Accomplishments

2. Questions and Answers about the Food Development Center

3. Schedule of Training Courses/Seminars for 1994

OFFICE: 921-52-41 Loc. 225
921-04-81
921-13-49
LAB. 99-36-02

GEOTECHNICS PHILIPPINES, INC.

800 E. DE LOS SANTOS AVENUE, QUEZON CITY, PHILIPPINES • CABLE ADDRESS: GEOTECH
TELEX NO. 722-27877 FFC PH • FAX NO. 921-0481

FINAL REPORT
SUBSURFACE INVESTIGATION
FOR THE PROPOSED PESTICIDE LABORATORY BUILDING
DILIMAN, QUEZON CITY

INTRODUCTION

This report constitutes the results and final interpretation and evaluation of the subsurface investigation conducted by GEOTECHNICS PHILIPPINES, INC. at the site of the proposed two (2)-storey Pesticide Laboratory Building in Visayas Avenue, Diliman, Quezon City.

As required for the design of the building' foundation system, a subsoil investigation program was carried out to establish the geotechnical design parameters. Two (2) borings were drilled at the site as shown in the Borehole Location Plan. A resume of the borings is as follows:

Borehole	Depth (m)	Drilling Period
BH-1	10.00	May 24-26, 1994
BH-2	10.00	May 27, 1994

The boreholes were drilled by a combination of the wash boring technique through unlithified materials and core drilling through rock formations. In the wash boring method of advancing

the borehole, a chopping bit attached to the bottom end of a string of drilling rods was alternately raised and dropped and, at the same time, the cuttings resulting from the process were continuously pumped out of the hole by pressure controlled water. At regular intervals through soils, representative samples were obtained using a standard 2-inch diameter split-spoon sampler coupled to the bottom end of the string of rods. Standard penetration tests (SPT) were conducted contemporaneous to split-spoon sampling in order to measure the consistencies of the strata encountered. This test was carried out by dropping a standard 63.6 kg (140 lb) hammer through a free fall of 76.2 cm (30 inches) onto a drive head coupled to the top end of the string of rods. The number of blows (drops) for three (3) successive six (6)-inch increments of penetration were recorded and the total number of blows for the last two (2) increments of penetration was taken as the standard penetration value or SPT-N value of the stratum.

At regular intervals through rock formations, core samples were taken using coring bit which was attached to a standard core barrel. In the drilling operation, the bit and core barrel rotate while pressure is applied, thus, grinding a groove around the core. Water under pressure is forced down the barrel and into the bit to carry the rock dust out of the hole as the water is circulated. The core recoveries after each

drilling interval were taken to determine the degree of disturbance of the rock core samples.

Finally, the representative soil samples obtained were subjected to laboratory routine classification and index property tests (grain size analysis, Atterberg limits and natural moisture content tests) while the typical intact rock cores were subjected to unconfined compression test.

The results of all field and laboratory tests undertaken are appended to this report (boring logs, grain size distribution curves and stress-strain curves).

DISCUSSION OF RESULTS

The results of the borings reveal the presence of lithified or rock formations near the beginning of the boreholes. Generally, sedimentary rock formations predominate the foundation of the project site.

A thin soil surficial layer with a thickness of about 1.0-1.5 m and consisting of silty clay overlies the lithified formations. The clay layer has a hard consistency (SPT-N greater than 45) with moisture content of 57-71% and plasticity index of 30-35.

Generally, poor to good core recoveries were

experienced in the underlying lithified or rock formations consisting of layers of sandstone, siltstone, tuff and claystone. Rock quality based on the rock quality designation (RQD) ranges from very poor to fair. Very poor rock quality, as experienced mostly in both boreholes, signifies intense fracturing and high degree of weathering.

The laboratory unconfined compression tests on upper core samples show that the sedimentary rocks are of medium hard variety. The unconfined compressive strengths of the samples range from 9.10 kg/sq. cm (18,200 psf) to 61.30 kg/sq. cm (122,600 psf). The lowest value was exhibited by the sample taken from a depth of about 3 meters in BH-2 while the sample from a depth of about 2 meters also in BH-2 gave the highest value. The claystone sample taken from a depth of about 7 meters exhibited a very low unconfined compressive strength of 0.30 kg/sq. cm (600 psf).

The depth of the ground water surface measured in both boreholes was about 3.0 meters below the ground surface.

CONCLUSIONS AND RECOMMENDATIONS

The design of the foundation structures of the proposed 2-storey building can be made as shallow foundations resting on the surficial clay layer or on the rock formation. The choice of

the type and design of shallow foundation structure depends on economic considerations and loading conditions.

For the proportioning of footings based on the surficial materials (i.e., based not more than 1.5 meters below present grade), the allowable bearing pressure under full vertical loading should be assumed at 3.0 kg/sq. cm (6,000 psf) net. Under load combinations with wind or earthquake, the allowable overpressure is one third (1/3).

Total settlement should be minimal (less than one inch) using the above allowable soil bearing pressure. It can be expected that foundation settlement will mostly take place during or immediately after the construction of the proposed structure. In the analysis of immediate settlement, the elastic properties modulus of elasticity and Poisson's ratio, may be assumed 2,000 psf and 0.25, respectively. The elastic properties may also be assumed based on the recommended values in most foundation engineering textbooks.

In view of the existing condition of the rock strata wherein the formations are generally of very poor to fair quality based on the values of RQD, the use of not more than fifteen (15) percent of the laboratory unconfined compressive strengths of the core samples tested is recommended to represent the field strength of the rocks. For the proportioning of footings based on

the upper rock formation, the allowable bearing pressure under full vertical loading should be assumed at 4.0 kg/sq. cm (8,000 lb/sq. ft), taking into account the decreasing strengths of the formations at lower depths and the fractured condition of the rocks. Settlement is expected to be minimal using this recommended allowable bearing pressure. Under load combinations with wind or earthquake, the allowed overpressure is also one third (1/3).

GILBERTO S. REYES
Civil Engineer
Reg. No. 20269

Company	Geotechnics Phil., Inc.		Borehole BH-1
Project	Prop.Pesticide Laboratory Bldg.	Start May 24, 1994	Sheet 1 of 1.
Location	Diliman, Quezon City	Finish May 26, 1994	0.00 to 10.00 metres
Equipment	LY-24		Groundlevel 42.67 m
Method	Waashboring & Coring		Hammer Wt. 63.6 Kg
Watertable	3.00 m		Hammer Fall 76.2 cm
E 20,004.50		N 20,052.00	

Depth Metres	Samp no	Type test	Recovery cm.	Blow Count (NV)	Core Recovery (%) 0 100	RQD %	Legend	Description	Level m
									42.67
1.00	S-1	SPT	45	49				(CH) Silty CLAY with few sand; yellowish brown; wet NMC=71%; LL=66 PL=31 PI=35; No. of Blows = (5)(19)(30) HARD	
	S-2	SPT	10		60/10			(SM) Silty SAND with gravel; dark brown; very moist NMC=51%; AL=NP; No. of Blows = (60/10) HARD	41.12
2.00	C-1	CRG	31	31		0		SILTSTONE with thin layer of sandstone; light brown; highly fractured; moist HARD	41.02
3.00	C-2	CRG	42	31		0		SANDSTONE; light brown to dark gray; highly fractured VERY DENSE	39.80
4.00	C-3	CRG	70	47		0		TUFF; gray; gray; weathered; highly fractured; weakly fractured HARD	38.51
6.00	C-4	CRG	43	29		53		CLAYSTONE; yellowish brown; moderately fractured HARD	36.99
7.00	C-5	CRG	76	76		76			
8.00	C-6	CRG	41	41		0		... highly fractured	
9.00	C-7	CRG	54	54		52		SILTSTONE; dark brown; moderately fractured HARD	33.67
10.00								End of hole at 10.00 metres.	32.67
11.00									

Remarks: CRG = CORING	Drilled by	V. Oliva
	Logged by	O.P.Mercado
	Prepared by	E.G.Mercado
	APPROVED	A.P.Arcilla
Descr. of strata according to USC Classifications	Scale: 1:75	

GEOTECHNICS PHILIPPINES, INC. SOILS & MATERIALS LABORATORY
31 MAY 1994

Company	Geotechnics Phil., Inc.		Borehole BH-2
Project	Prop. Pesticide Laboratory Bldg.	Start May 27, 1994	Sheet 1 of 1.
Location	Diliman, Quezon City	Finish May 27, 1994	0.00 to 10.00 metres
Equipment	LY-24		Groundlevel 42.69 m
Method	Washboring & Coring		Hammer Wt. 63.6 Kg
Watertable	3.00 m		Hammer Fall 76.2 cm
E 19,938.00		N 20,086.50	

Depth Metres	Samp no	Type test	Recovery cm.	O Blow Count (NV) ● Core Recovery(%) 0 100		RQD %	Legend	Description	Level m
								(CH) Silty CLAY with sand; brown; very moist; NMC=57%; LL=60 PL=30 PI=30; No.of Blows = (11)(60/1 HARD	42.69
	S-1	SPT	25	. . .	11;60/15	.			
1.00	C-1	CRG	54	47	●	0		Tuffaceous SILTSTONE with thin layer of sandstone; brown to gray; HARD	41.84
2.00	C-2	CRG	107	71	●	41		Tuffaceous SANDSTONE, fine to coarse grained; dark gray; weakly cemented VERY DENSE	40.69
3.00									
4.00	C-3	CRG	80	53	●	20		SANDSTONE, fine to coarse grained; dark gray; weakly cemented; highly fractured VERY DENSE	39.19
5.00									
6.00	C-4	CRG	60	40	●	23			
7.00	C-5	CRG	145	97	●	22		TUFF; dark gray; weathered HARD	35.50
								CLAYSTONE; dark gray to yellowish brown; highly fractured HARD	35.24
8.00	C-6	CRG	92	92	●	50		SILTSTONE; dark brown; moderately fractured HARD	34.61
9.00	C-7	CRG	99	99	●	29		Tuffaceous SANDSTONE, dark brown to dark gray; weak jointed; moderately fractured VERY DENSE	33.29
10.00								End of hole at 10.00 metres.	32.69
11.00									

Remarks: Washboring & Coring

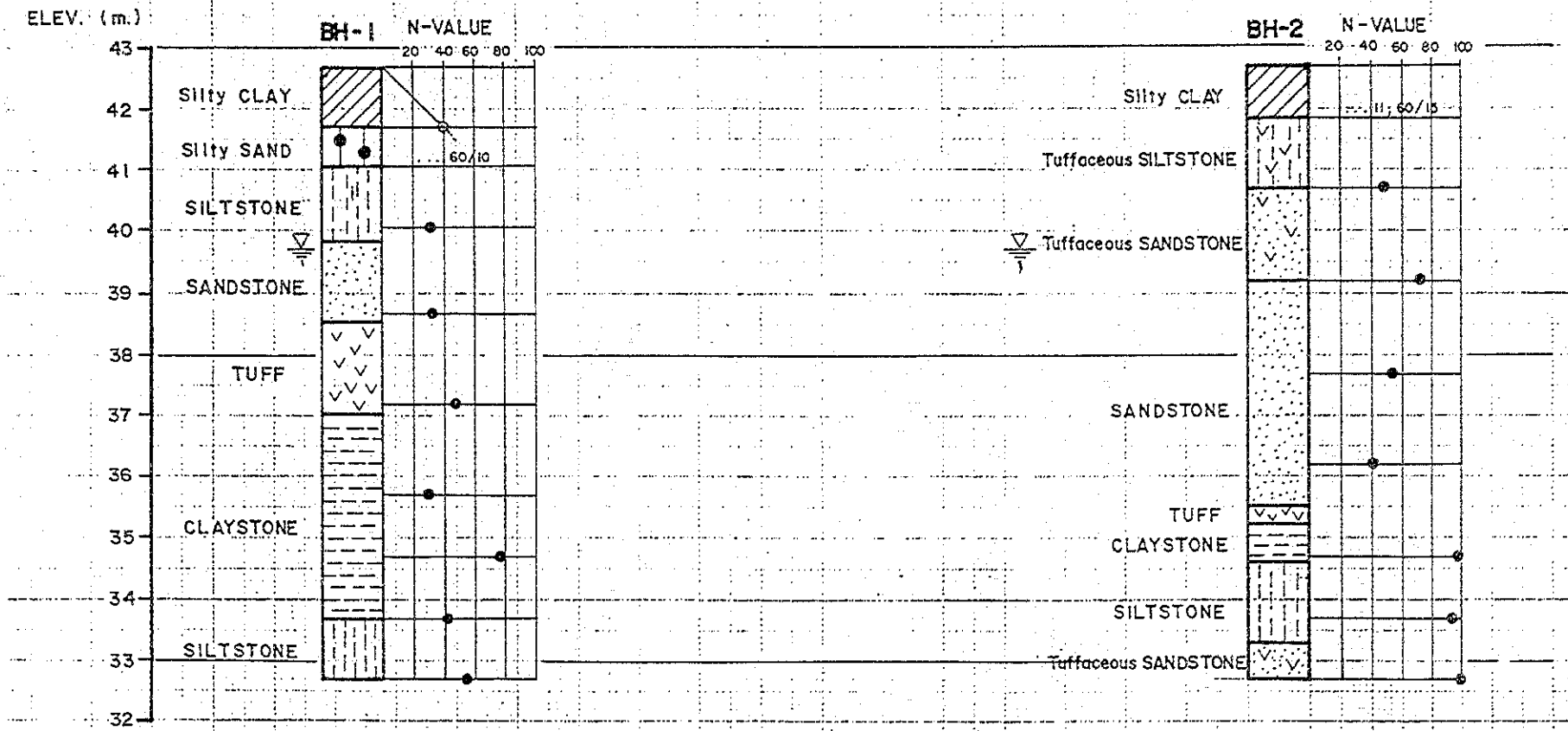
Drilled by	V. Oliva
Logged by	O.P.Mercado
Prepared by	E.G.Mercado
APPROVED	A.P.Arcilla

Descr. of strata according to USC Classifications

Scale: 1:75

GEOTECHNICS PHILIPPINES INC. SOIL & MATERIALS LABORATORY 31 MAY 1994

SECTION A-A :



SOIL PROFILE

VERTICAL SCALE 1 : 100 MTS.
HORIZONTAL SCALE 1 : 250 MTS.

GEOTECHNICA PHILIPPINES, INC.
31 MAY 1994

PROPOSED PESTICIDE LABORATORY BLDG.
DILIMAN , QUEZON CITY

OFFICE 921-1349
921-0481
921-5241 loc. 2
LABORATORY : 99-36-02

GEOTECHNICS PHILIPPINES, INC.

800 E. DE LOS SANTOS AVENUE, QUEZON CITY, PHILIPPINES * CABLE ADDRESS: GEOTECH
TELEX NO. 722-27877 FFC PH FAX NO. 921-12-23

FINAL REPORT ON THE SUB-SURFACE INVESTIGATION CONDUCTED AT THE SITE OF THE PROPOSED PESTICIDE LABORATORY BUILDING LOCATED IN BAGO OSHIRO, DAVAO CITY

I. INTRODUCTION

This report presents the geotechnical study conducted on the site of the Proposed One-Storey Pesticide Laboratory Building located in Bago Oshiro, Davao City

GEOTECHNICS PHILIPPINES, INC. was commissioned by **YOKOGAWA ENGINEERS & ARCHITECTS** of Japan to conduct the soil investigation and topographic survey of the proposed project.

The site is located in Davao National Crop Research and Development Center, about 17 Km. from the city proper and the area are planted by fruit bearing trees of different variety.

We acknowledged the presence of Yokogawa architect and staff of Bureau of Plant and Industry in facilitating our undertakings.

II. SUB-SURFACE INVESTIGATION

2.1 General

The program of investigation work was designated by the Client consisting of two (2) holes with a total meterage of 20.00 meters and an area of 40m. x 50m. for topographic survey. A slight variations were made to suit actual field conditions.

2.2 Method of Sampling and Drilling

A motorized cathead was employed initially, then a hydraulic feed rotary drilling machine was reinforced to advance the drill holes on boulder formations. Washboring technique was used to penetrate ordinary soil while rotary drilling was used to advanced through rock formation.

Standard penetration testing (SPT) was carried-out in soil at depth intervals of not more than 1.0m. This test was performed using procedures and equipment conforming to ASTM D1586.

Core drilling was achieved by means of NQ size double tube core barrels fitted with diamond bits. After each drilling run of 1.5m. the core barrel is withdrawn from the drill hole and the core sample recovered is examined.

2.3 Drilling Investigation

As schedule our team mobilize ahead on site to comply the May 30, 1994, date of actual boring test. No prior inspection were made on the site and only light equipment was mobilized to carry-out the investigation. The following resume of boring test are as follows:

BH-1	- May 30 - 31, 1994	- 2.0 meters deep Hit boulders at 2.30 m. confirm by offset holes BH-1A and BH-1B
BH-2	- June 1, 1994	- 0.65 meters deep Confirm by test pit and two offset hole BH-2A and BH-2B
BH-3	- June 2, 1994	- 3.0 meters deep Hit boulder at 3.30 meters offset holes BH-3A and BH-3B shallower boulder
BH-4	- June 3, 1994	- 1.0 meter deep Hit boulder at 1.30 meters
BH-1	- June 24-26, 1994	- 10.00 meters deep

The area is said to be underlain by an alluvial deposit of big boulders from the slope of Mount Apo and the topmost soil are residual soil of high plasticity. Refusal or boulder formation was hit at various depth ranging from 0.65 meters to 3.30 meters from the ground level. Water table was observed at level -5.15 from ground on BH-1.

III. FINDINGS AND RECOMMENDATION

Based on the results of investigation on the proposed building, the area has two interface, the clay formation on the top layer (0.65 to 3.30) and the boulders and cobbles formation down to 10.00 meters deep. These boulders formation are believed to have CLAY-SILT matrix. For the purpose of construction design the footings may be founded at surficial layer (0.70-1.00m.) using the allowable bearing pressure of 1500 psf. A footing tie beam is recommended to counteract the effect of differential settlement as some footings may rest on boulders while some may embed on soil. The settlements are expected to be minimal (less than 25mm.) using the above bearing capacity. Under load combinations with wind or earthquake, the allowed over pressure is 33%.

During construction, the foundation bed should be compacted and or a well compacted gravel bedding should be placed to develop a better contact between the concrete and the soil.

The above recommendation were based on the borings done on site and should any major changes in soil strata be discovered during construction the undersigned should be informed so that necessary recommendations be made.

DIOSDADO A. URENA
Civil Engineer
PTR No. 1404257
Issued on July 29, 1993
Quezon City, Metro Manila

GEOTECHNICS PHIL., INC.			Borehole BH-1
Project	PROP.PESTICIDE LABORATORY BLDG.	Start May 30, 1994	Sheet 1 of 1.
Location	Bago Oshiro, Davao City	Finish June 26, 1994	0.00 to 10.00 metres
Equipment	CATHEAD / ACKER ACE		Groundlevel 110.54 m
Method	Washboring / Coring		Hammer Wt. 63.6 Kg
Watertable	5.15 m		Hammer Fall 76.2 cm

Depth Metres	Samp no	Type test	NMC	LL %	PI %	NV	NV - 0 100	Rec 1	Legend	Description	Level m
										(CH) Silty CLAY with little sand and some fibrous matter; dark brown; very moist	110.5
1.00	S-1	SPT	38	70	38	9		30		STIFF NV: (2)(3)(6)	109.5
2.00	S-2	SPT	48	88	56	15		30		... with few gravel VERY STIFF NV: (5)(6)(9)	108.5
3.00										Basaltic BOULDER, gray NV:	
4.00	C-1	CRG						38		MH Clayey SILT with few coarse gravel, light brown; very moist VERY STIFF	106.5
	S-3	SPT	46	55	22	29		40		NV: (11) (14) (15)	
5.00	C-2	CRG						30		Sub-rounded to angular COBBLES, gray RQD = 0 NV:	106.0
6.00	C-3	CRG						17		Basaltic BOULDER, gray RQD = 0 NV:	105.0
7.00	C-4	CRG						28		RQD = 17 NV:	104.0
8.00	C-5	CRG						25		...with some semi-rounded gravel RQD = 16 NV:	103.0
9.00	C-6	CRG						15		Basaltic COBBLES with few semi-rounded gravel NV:	102.0
10.00	C-7	CRG						33		Basaltic BOULDER, gray RQD = 45 NV:	101.0
										End of hole at 10.00 metres.	100.5
11.00											
12.00											
13.00											
14.00											
15.00											

GEOTECHNICS PHILIPPINES, INC. SOILS & MATERIALS LABORATORY
04 JUL 1994

Remarks: Hit BOULDER at 2.30 mts. Confirm by offset holes, BH-1A	Drilled by	W. Mosqueda
and BH-1B	Logged by	C.L.Arcilla
Additional depth between June 24-26, 1994	Checked	E.G.Mercado
NV = No. of Blows	APPROVED	A.P.Arcilla
Descr. of strata according to ASTM Classifications	Scale: 1:100	

GEOTECHNICS PHIL., INC.			Borehole BH-1
Project	PROP.PESTICIDE LABORATORY BLDG.	Start May 30, 1994	Sheet 1 of 1.
Location	Bago Oshiro, Davao City	Finish May 31, 1994	0.00 to 2.00 metres
Equipment	CATHEAD		Groundlevel 110.54 m
Method	Washboring		Hammer Wt. 63.6 Kg
Watertable	Nil m		Hammer Fall 76.2 cm

Depth Metres	Samp no	Type test	NMC	LL %	PI %	NV	NV - 0 100	Rec 1	Legend	Description	Level m
										(CH) Silty CLAY with little sand and some fibrous matter; dark brown; very moist STIFF NV: (2)(3)(6)	110.5
	S-1	SPT	38	70	38	9		30			
1.00										... with few gravel VERY STIFF NV: (5)(6)(9)	
	S-2	SPT	46	88	56	15		30			
2.00										End of hole at 2.00 metres.	108.5
3.00											

GEOTECHNICS PHILIPPINES, INC. SOILS & MATERIALS LABORATORY 04 JUL 1994

Remarks: Hit BOULDER at 2.30 mts. Confirm by offset holes, BH-1A and BH-1B	Drilled by W. Mosqueda
	Logged by A.P.Arcilla
	Checked E.G.Mercado
NV = No. of Blows	APPROVED A.P.Arcilla
Descr. of strata according to ASTM Classifications	Scale: 1:25

	GEOTECHNICS PHIL., INC.			Borehole	BH-2
Project	PROP.PESTICIDE LABORATORY BLDG.	Start	June 1, 1994	Sheet 1 of 1.	
Location	Bago Oshiro, Davao City	Finish	June 1, 1994	0.00 to 0.65 metres	
Equipment	CATHEAD			Groundlevel	111.21 m
Method	Washboring			Hammer Wt. 63.6 Kg	
Watertable	Nil m			Hammer Fall 76.2 cm	

Depth Metres	Samp no	Type test	NMC	LL %	PI %	NV	NV - 0 100	Rec 1	Legend	Description	Level m
										(CH) Silty CLAY with little sand, few gravel and some fibrous matter; dark brown; very moist STIFF NV: (2)(4)(7)	111.2
	S-1	SPT	52	78	46	11		10		End of hole at 0.65 metres.	110.5
1.00											
2.00											
3.00											

GEOTECHNICS PHILIPPINES, INC. SOILS & MATERIALS LABORATORY 04 JUL 1994

Remarks: Hit BOULDER at 0.65mts. Confirm by test pit hole and two offset hole BH-2A & BH-2B.	Drilled by	W. Mosqueda
	Logged by	A.P.Arcilla
	Checked	E.G.Mercado
NV = No. of Blows	APPROVED	A.P.Arcilla
Descr. of strata according to ASTM Classifications	Scale: 1:25	

	GEOTECHNICS PHIL., INC.			Borehole	BH-3
Project	PROP.PESTICIDE LABORATORY BLDG.	Start	June 2, 1994	Sheet 1 of 1.	
Location	Bago Oshiro, Davao City	Finish	June 2, 1994	0.00 to 3.00 metres	
Equipment	CATHEAD			Groundlevel	111.80 m
Method	Washboring			Hammer Wt. 63.6 Kg	
Watertable	Nil m			Hammer Fall 76.2 cm	

Depth Metres	Samp no	Type test	NMC	LL %	PI %	NV	NV 0 100	Rec 1	Legend	Description	Level m
										(CH) Silty CLAY with little sand and some fibrous matter; dark brown; very moist FIRM NV: (3)(4)(5)	111.8
	S-1	SPT	47	81	49	9		40			
1.00										... with few sand STIFF NV: (5)(4)(6)	
	S-2	SPT	53	95	62	10		40			
2.00										... with little sand NV: (6)(5)(7)	
	S-3	SPT	56	80	48	12		40			
3.00										End of hole at 3.00 metres.	108.8

GEOTECHNICS PHILIPPINES INC. SOILS & MATERIALS LABORATORY 04 JUL 1994

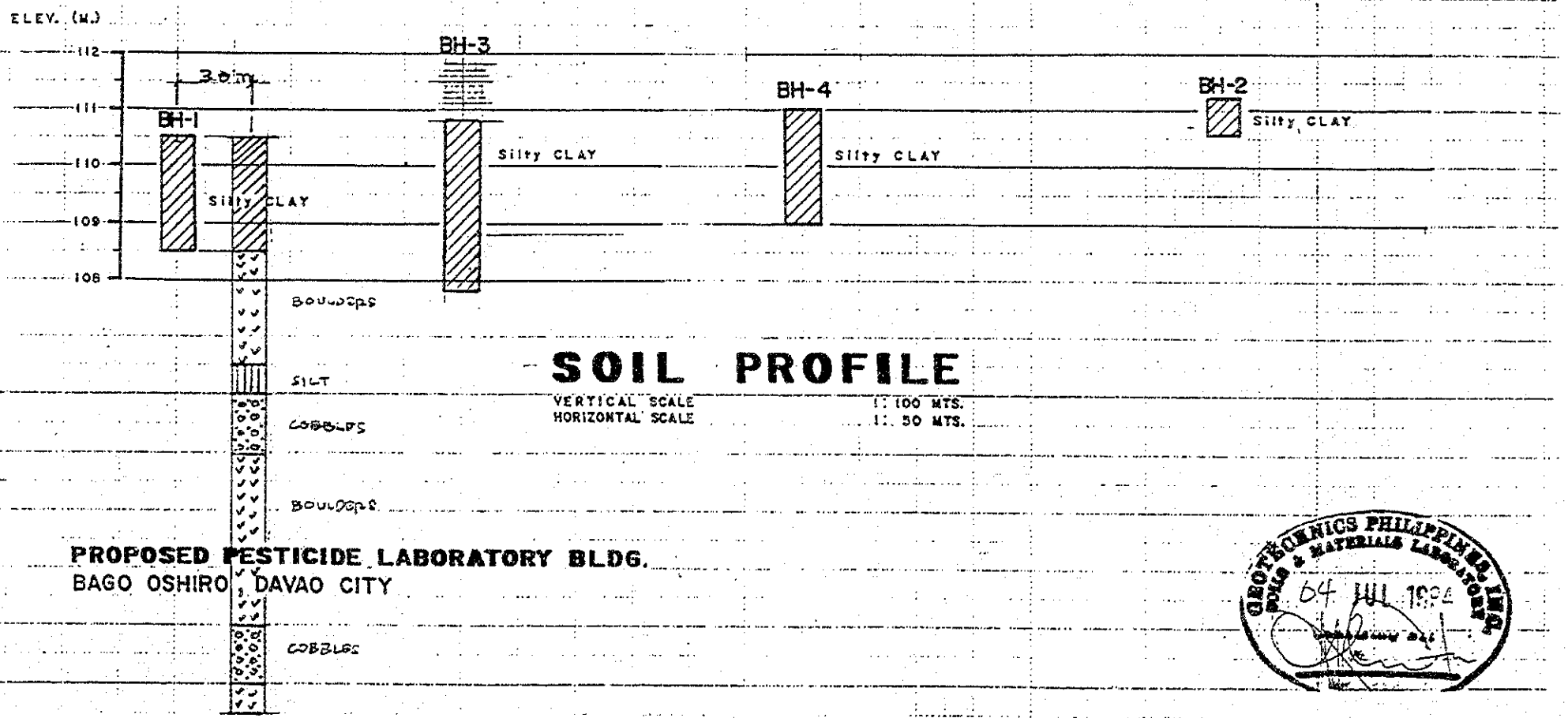
Remarks: Hit BOULDER at 3.30mts. Offset holes BH-3A & BH-3B show a shallower hard stratum.	Drilled by	W. Mosqueda
	Logged by	A.P.Arcilla
	Checked	E.G.Mercado
NV = No. of Blows	APPROVED	A.P.Arcilla
Descr. of strata according to ASTM Classifications	Scale: 1:25	

	GEOTECHNICS PHIL., INC.			Borehole	BH-4
Project	PROP.PESTICIDE LABORATORY BLDG.	Start	June 3, 1994	Sheet 1 of 1.	
Location	Bago Oshiro, Davao City	Finish	June 3, 1994	0.00 to 1.00 metres	
Equipment	CATHEAD			Groundlevel	110.96 m
Method	Washboring			Hammer Wt. 63.6 Kg	
Watertable	Nil m			Hammer Fall 76.2 cm	

Depth Metres	Samp no	Type test	NMC	LL %	PI %	NV	NV - 0 100	Rec 1	Legend	Description	Level m
										(CH) Silty CLAY with little sand and some fibrous matter; dark brown; very moist FIRM NV: (2)(2)(4)	110.9
	S-1	SPT	52	93	60	6		40			
1.00										End of hole at 1.00 metres.	109.9
2.00											
3.00											

GEOTECHNICS PHILIPPINES, INC. SOILS & MATERIALS LABORATORY 04 JUL 1994

Remarks: Hit BOULDER at 1.30mts.	Drilled by	W. Mosqueda
	Logged by	A.P.Arcilla
	Checked	E.G.Mercado
NV = No. of Blows	APPROVED	A.P.Arcilla
Descr. of strata according to ASTM Classifications	Scale: 1:25	



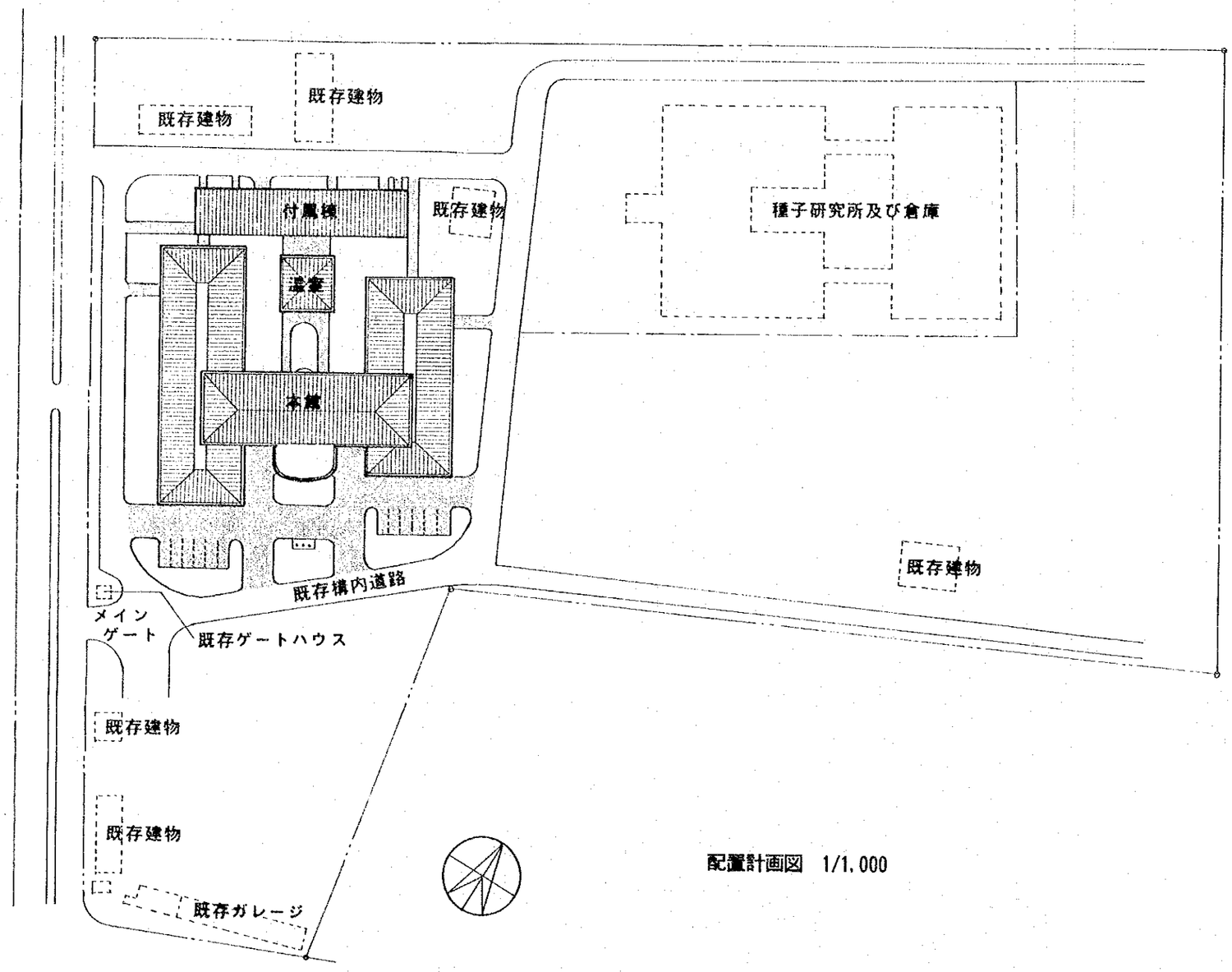
SOIL PROFILE

VERTICAL SCALE 1:100 MTS.
HORIZONTAL SCALE 1:50 MTS.

PROPOSED PESTICIDE LABORATORY BLDG.
BAGO OSHIRO, DAVAO CITY

GEOTECHNICS PHILIPPINES INC.
SOILS & MATERIALS LABORATORY
04 JUL 1994

基 本 設 計 図 面



配置計画図　1/1,000

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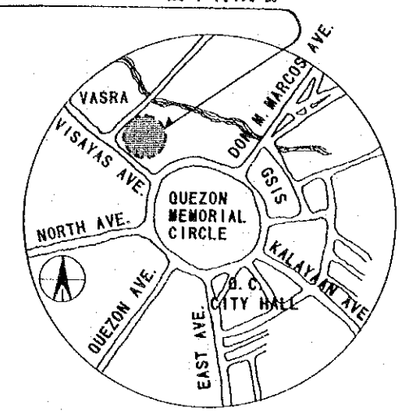
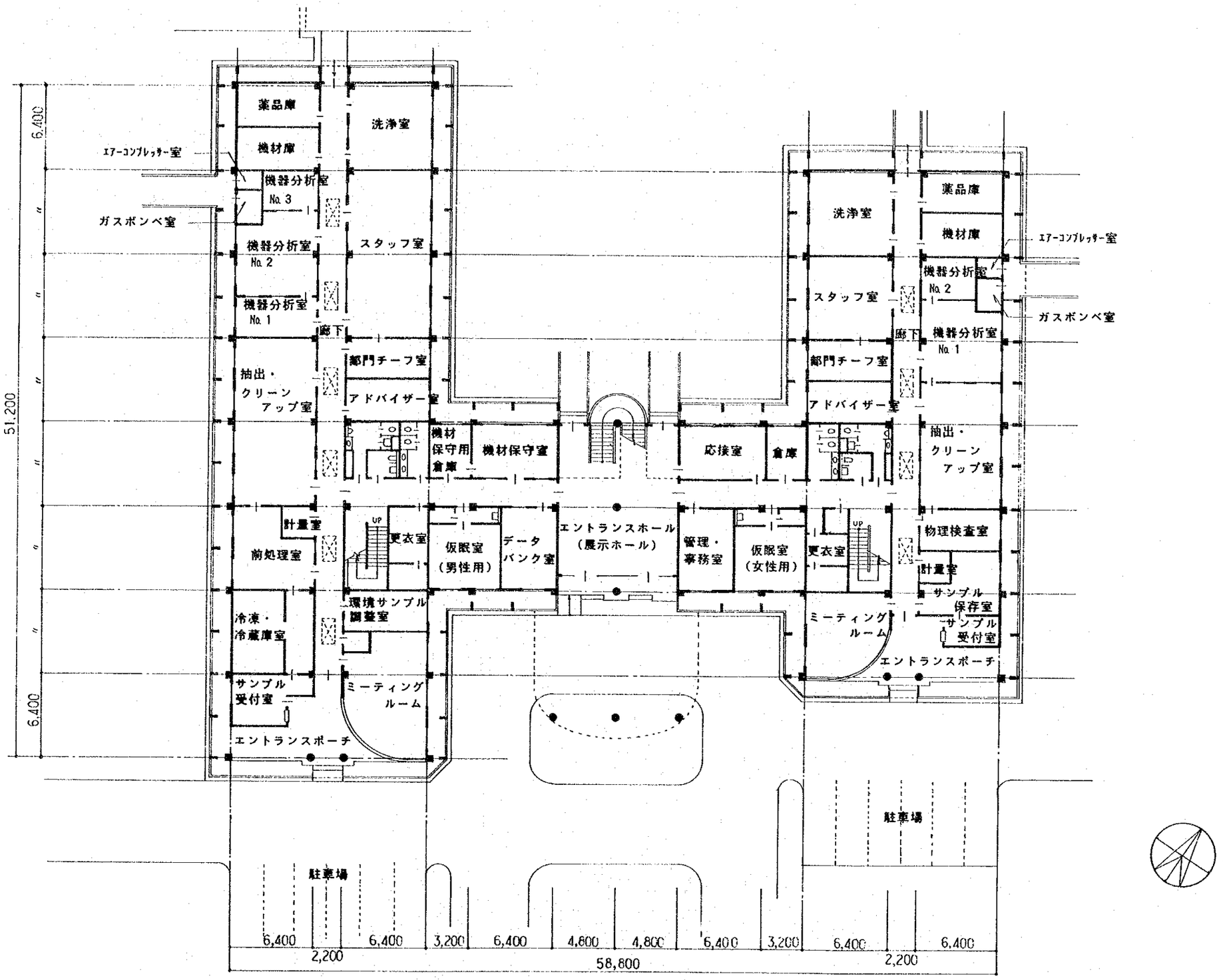


敷地案内図

棟別面積表

棟　別	面　積（m²）
本　館	2,270.38
付属棟	286.72
温　室	81.00
合　計	2,638.10

中央ＰＡＬ：配置計画図



本館１階平面図　1/300

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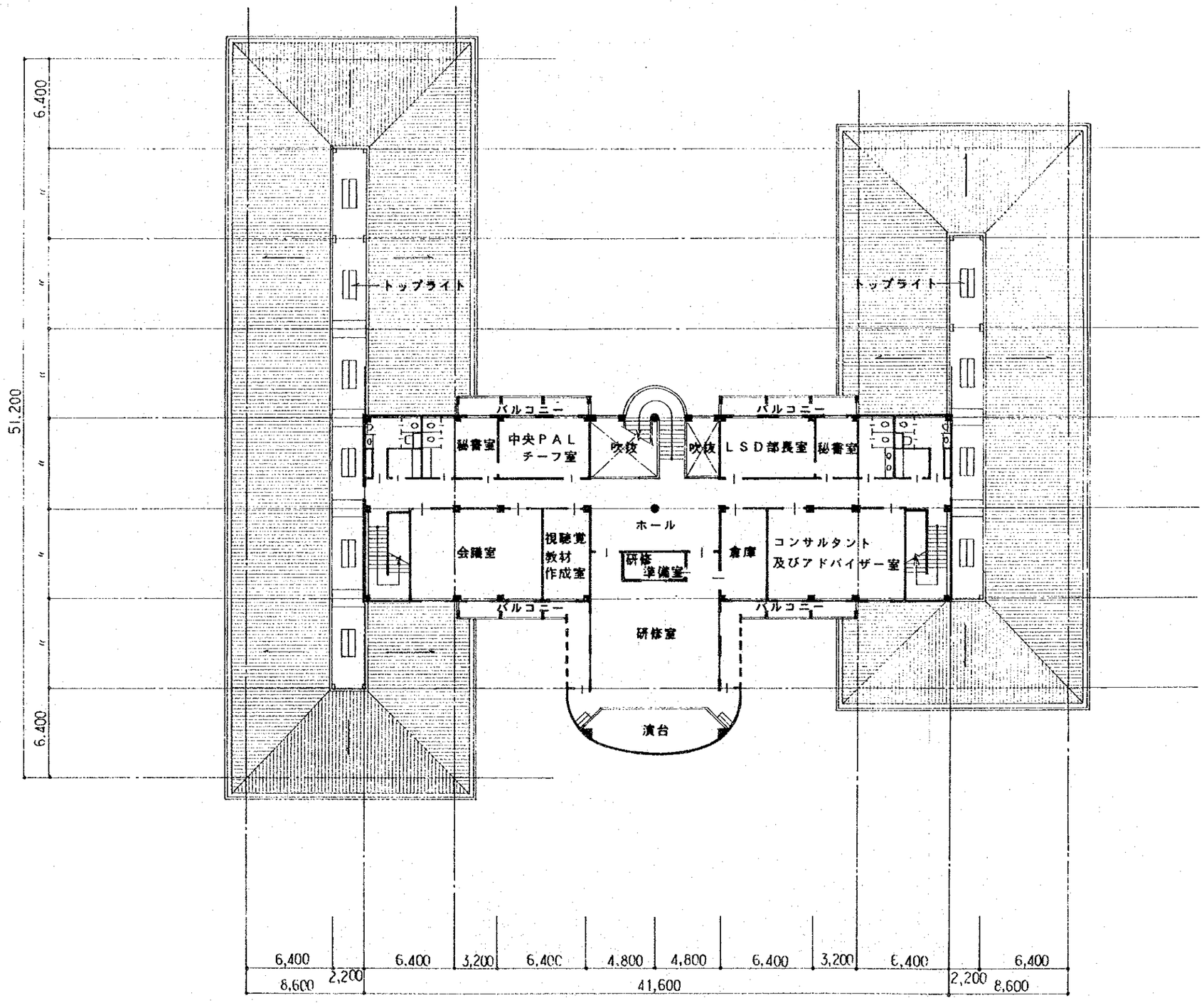
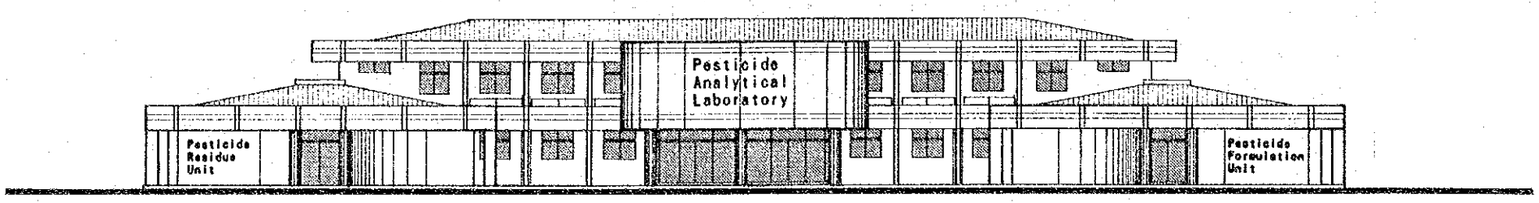


本館２階平面図　1/300

中央ＰＡＬ：本館２階平面図



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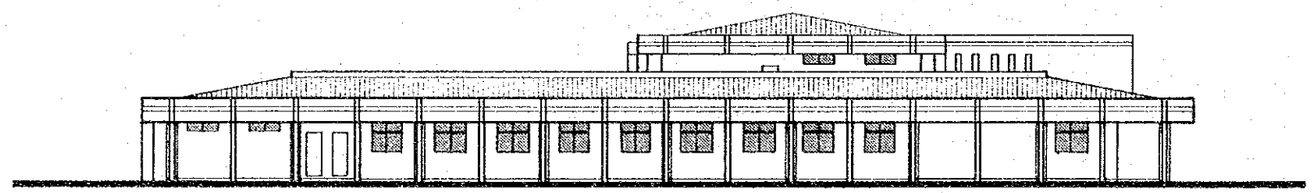

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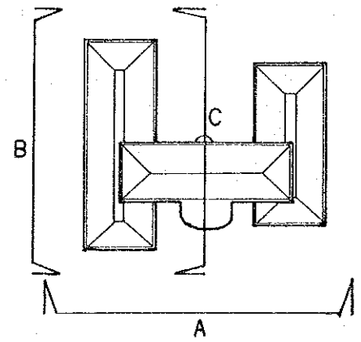
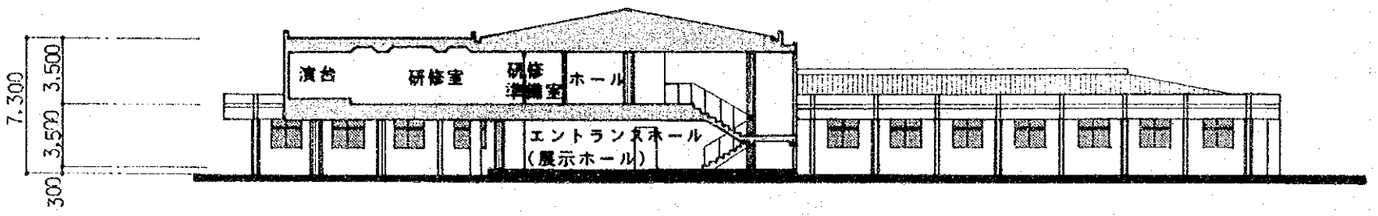
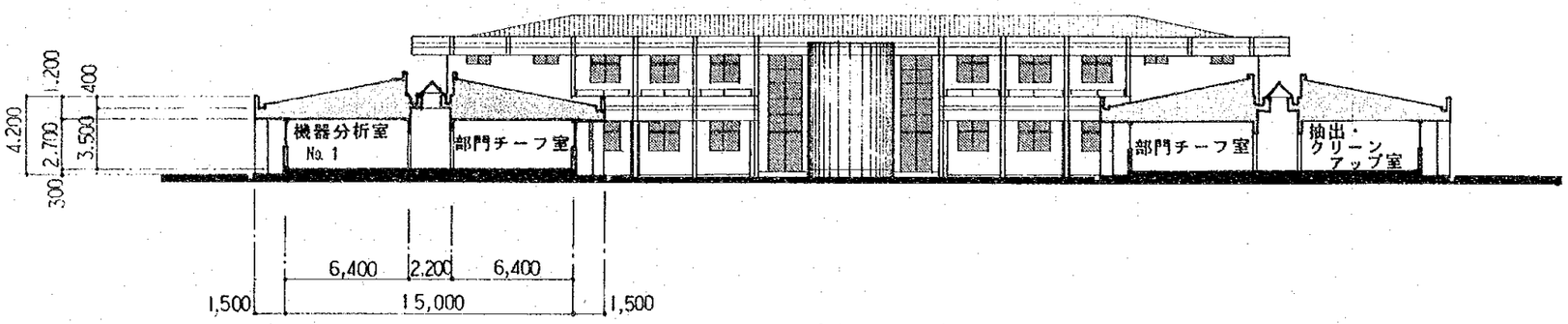
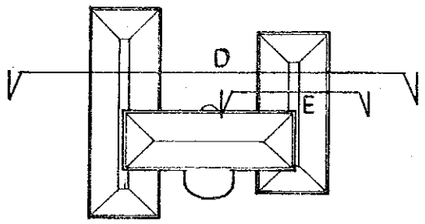


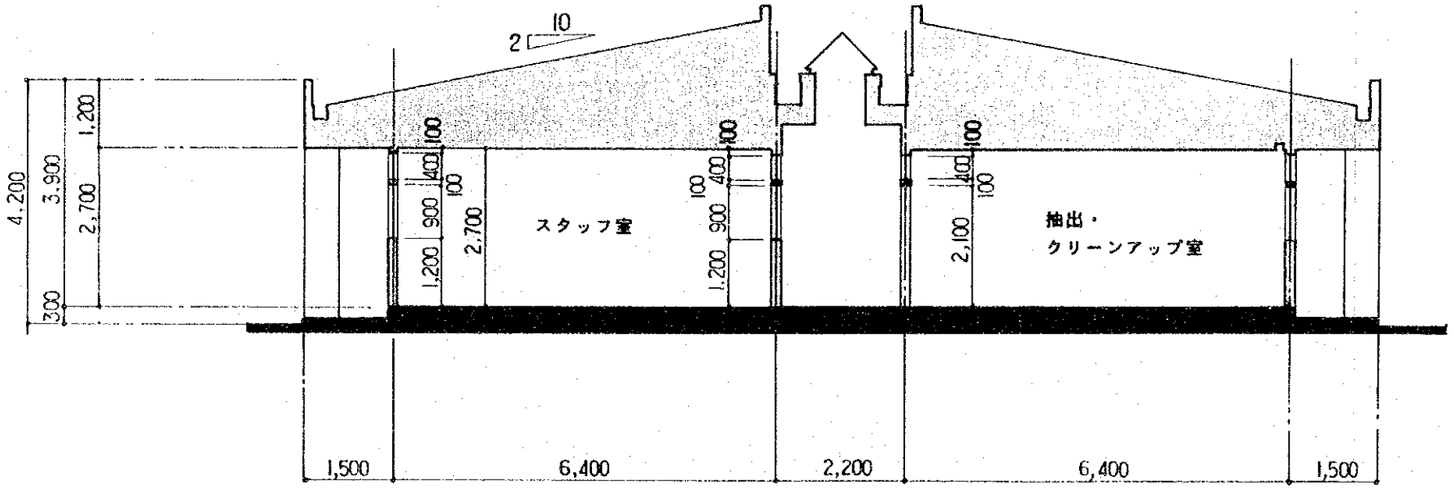


C面立断面図　1/300

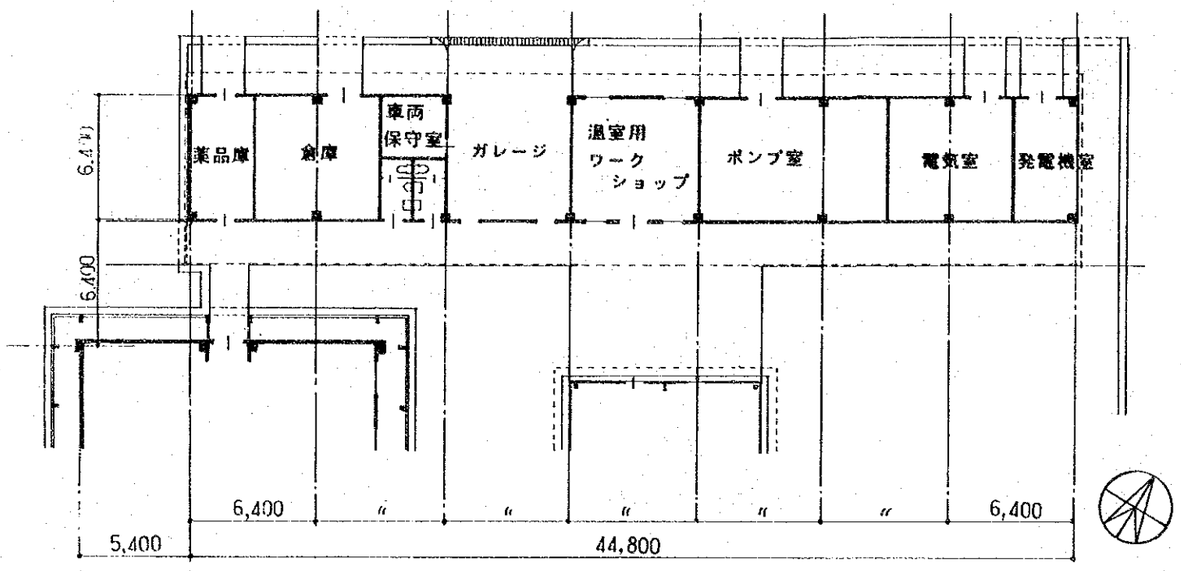


D面立断面図　1/300

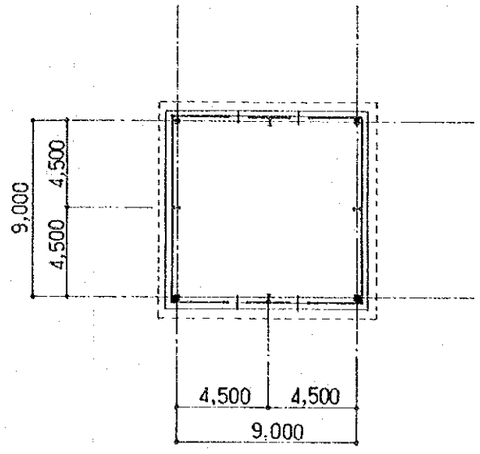




E面断面図　1/300



付属棟平面図　1/300



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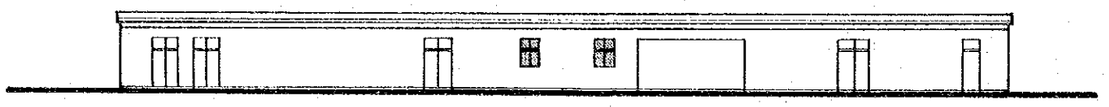

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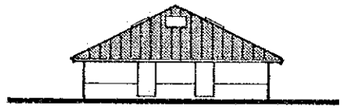

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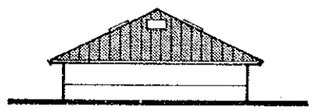
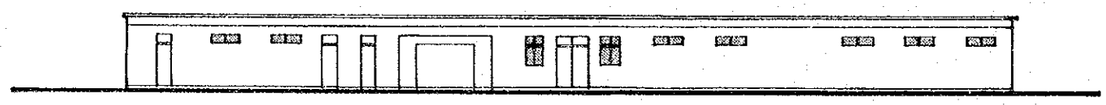


東・西側立面図　1/300



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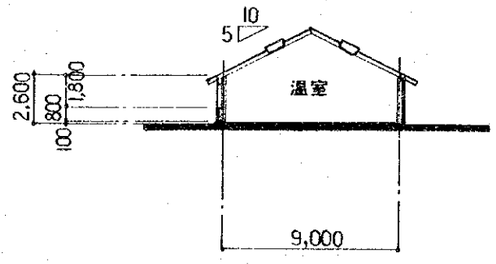
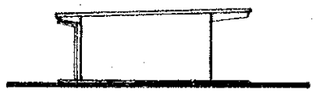


断面図　1/300



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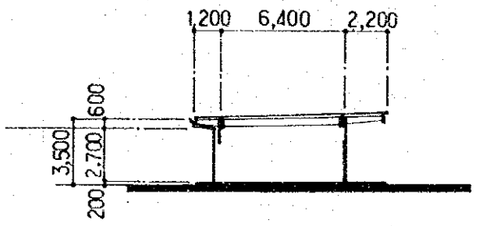
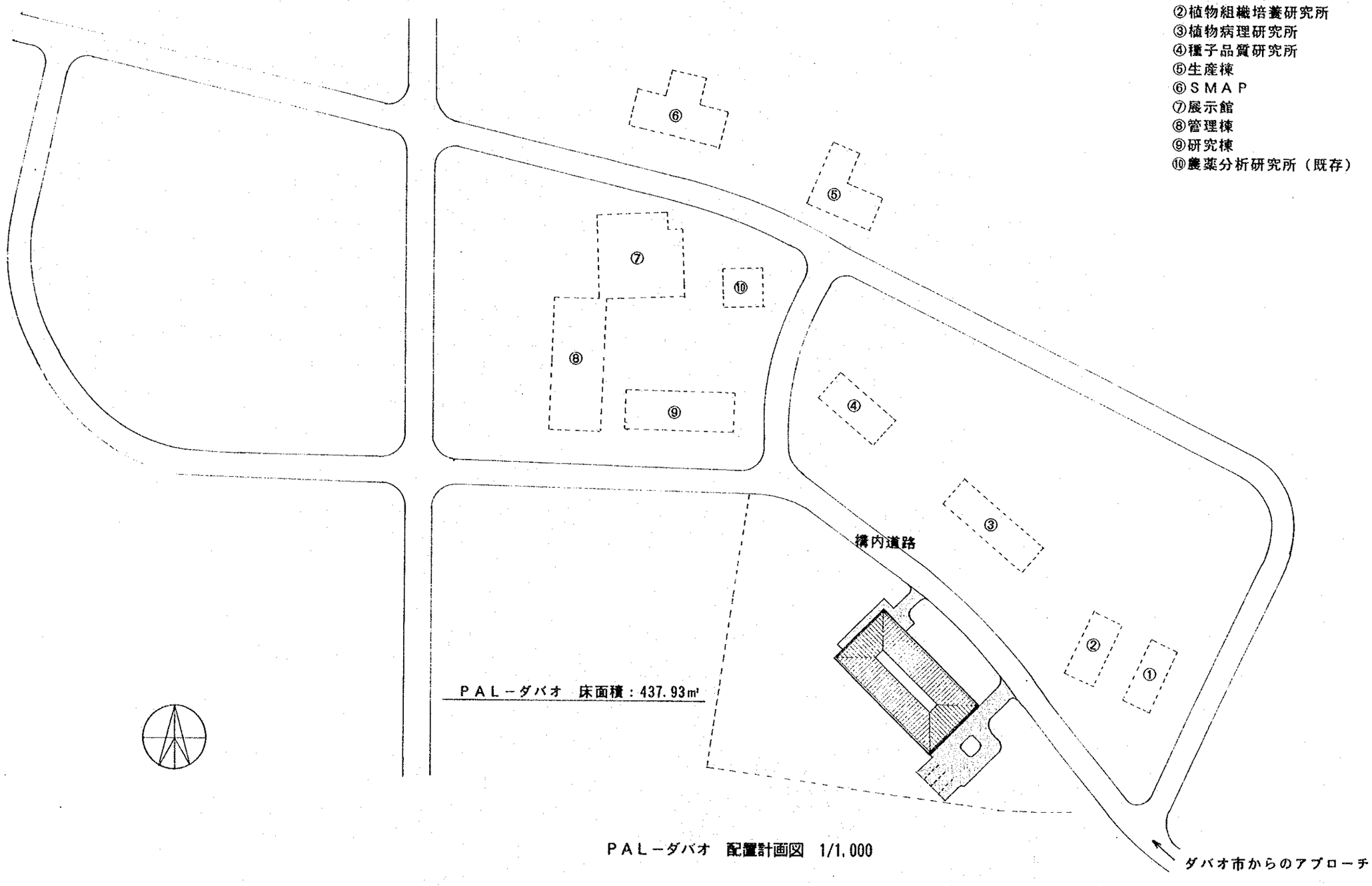
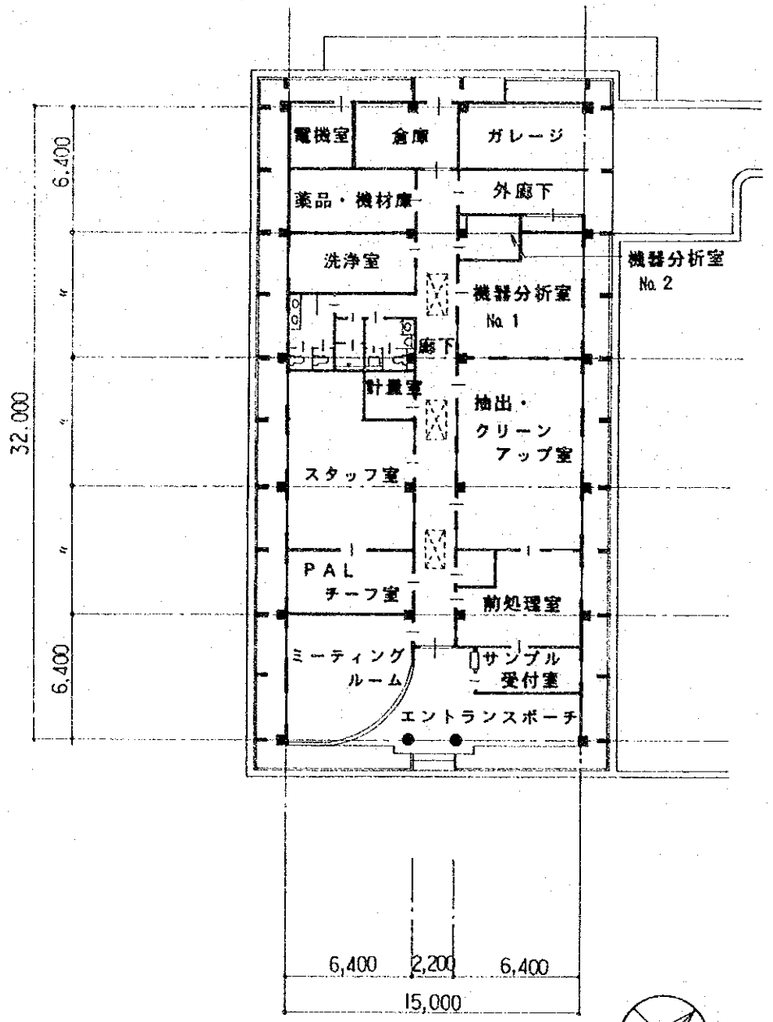


断面図　1/300

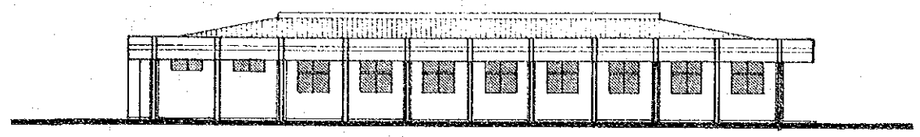


ＰＡＬ－ダバオ　配置計画図　1/1,000

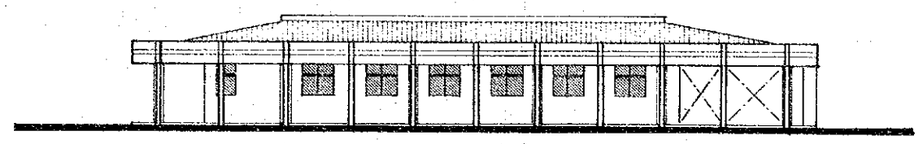
ＰＡＬ－ダバオ：配置計画図



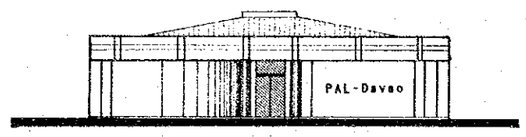
平面図　1/300



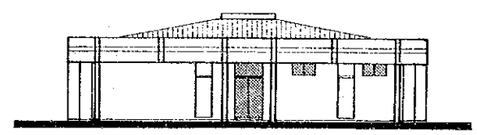
西側立面図　1/300



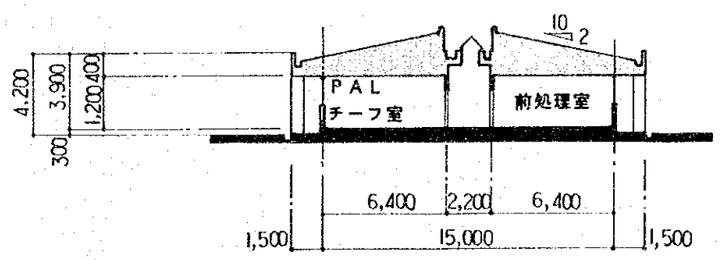
東側立面図　1/300



南側立面図　1/300



北側立面図　1/300



断面図　1/300

PAL－ダバオ：平面図・立面図・断面図

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