

JAPAN INTERNATIONAL COOPERATION AGENCY

DEPARTMENT OF HIGHWAYS
MINISTRY OF TRANSPORT AND COMMUNICATIONS
KINGDOM OF THAILAND

FEASIBILITY STUDY
ON
THE INTER-CITY TOLL MOTORWAY PROJECTS
IN
THE KINGDOM OF THAILAND

FINAL REPORT

VOLUME IV

DRAWINGS

MARCH 1995

KATAHIRA & ENGINEERS INTERNATIONAL
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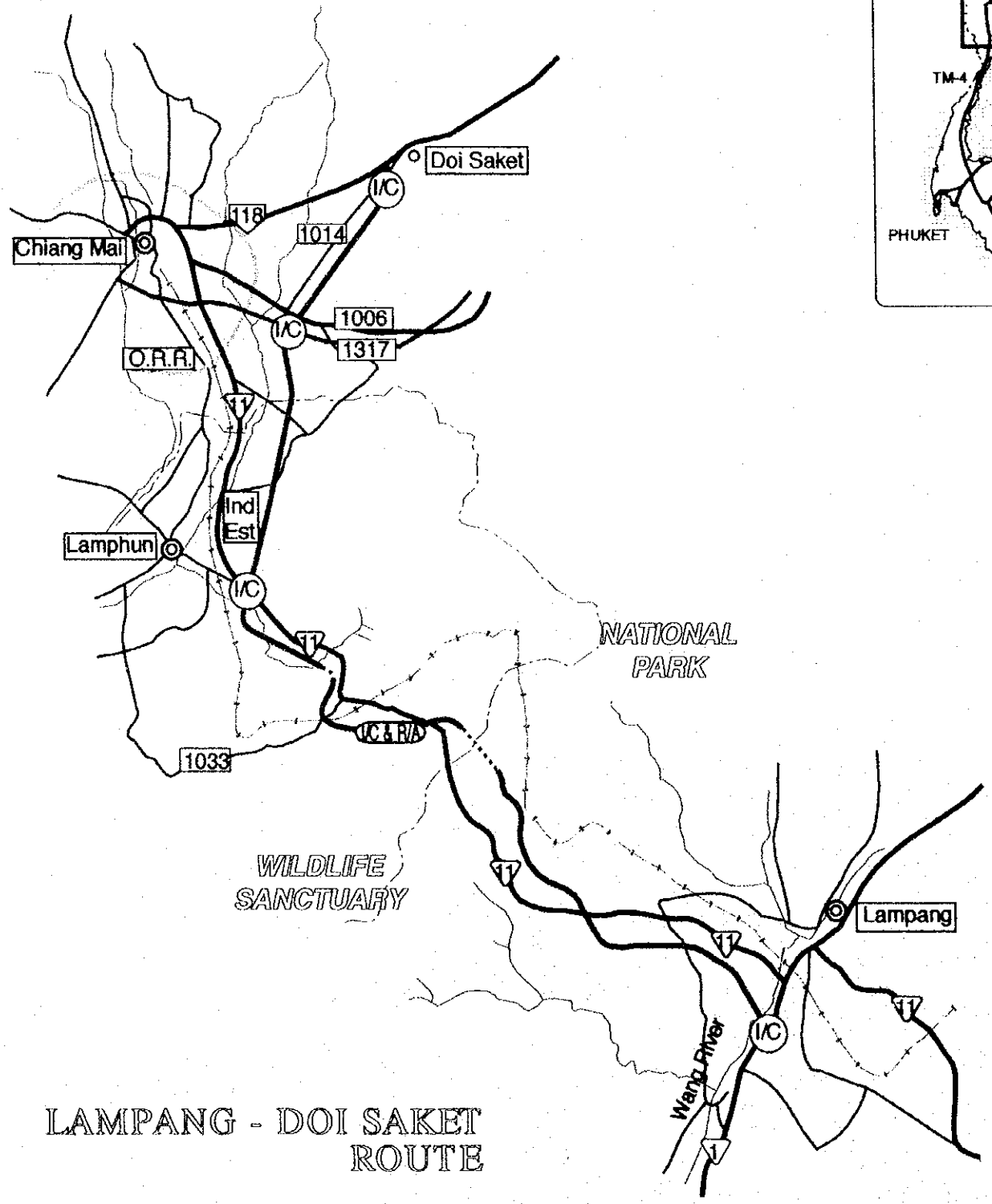
FINAL REPORT

VOLUME IV

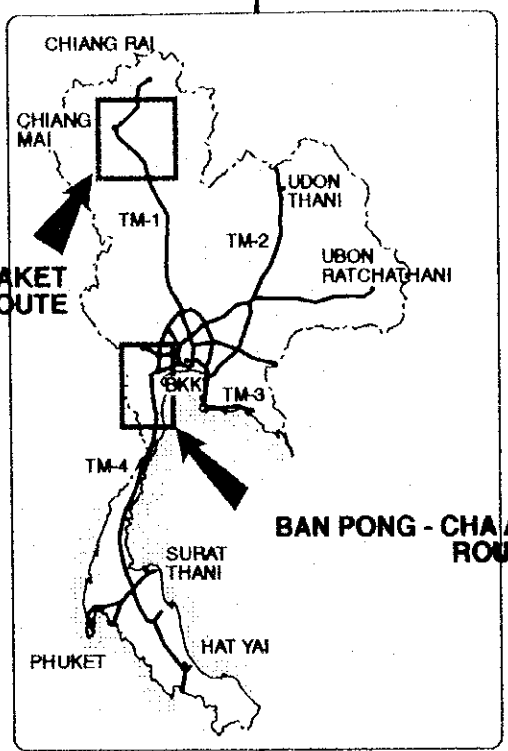
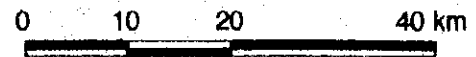
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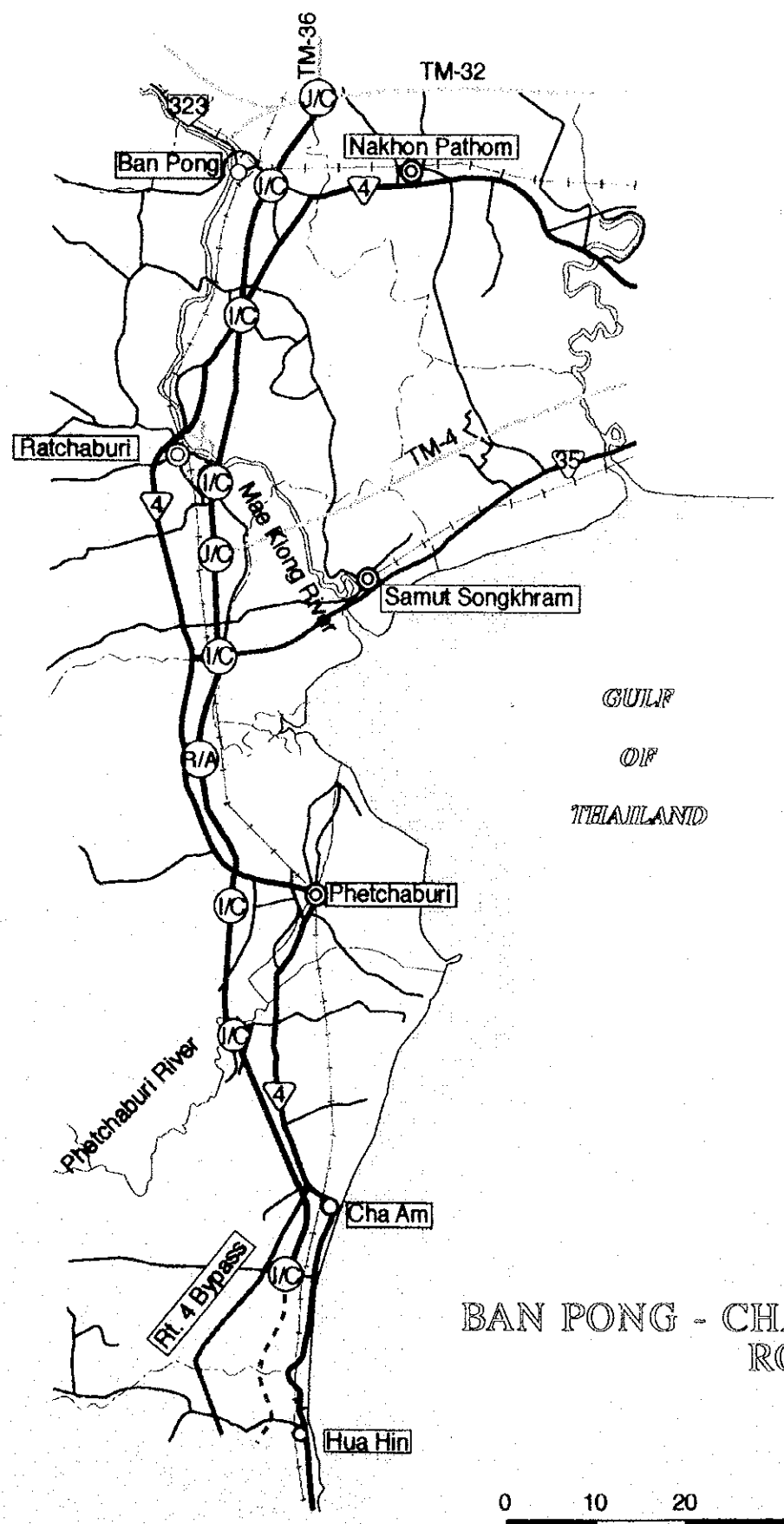


LAMPANG - DOI SAKET ROUTE

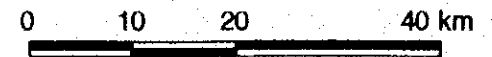


LAMPANG - DOI SAKET ROUTE

BAN PONG - CHA AM ROUTE



BAN PONG - CHA AM ROUTE



ABBREVIATIONS AND SYMBOLS

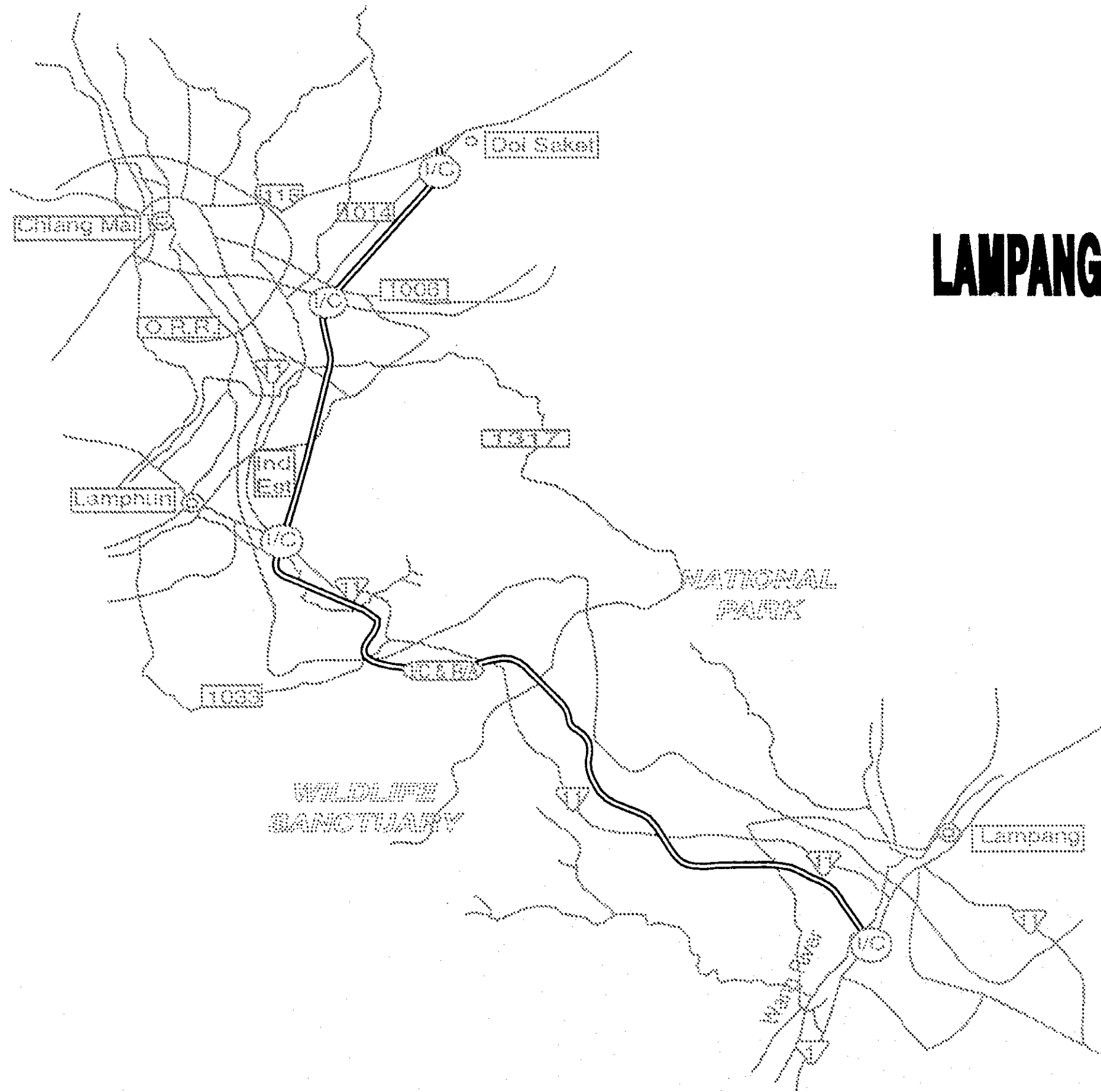
ABBREVIATIONS

A	AREA	M.H.	MANHOLE
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	MIN.	MINIMUM
A.C.	ASPHALTIC CONCRETE	MISC.	MISCELLANEOUS
AGG.	AGGREGATE	MM.	MILLIMETER
AH.	AHEAD	MM ²	SQUARE MILLIMETER
ALT.	ALTERNATIVE	M.O.	MIDDLE ORDINATE
APPROX.	APPROXIMATE	MONT.	MONUMENT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	M.S.L.	MEAN SEA LEVEL
AVG.	AVERAGE	N.	NORTH
BIT.	BITUMINOUS	N/B	NORTH BOUND
BK.	BACK	NO.	NUMBER
BKK.	BANGKOK	O.D.	OUTSIDE DIAMETER
BM.	BENCH MARK	P.B.M.	PERMANENT BENCH MARK
BOTT.	BOTTOM	P.C.	PRESTRESSED CONCRETE
B.P.	BEGINNING POINT	P.C.C.	POINT OF COMPOUND CURVE
BRDG.	BRIDGE	P.G.	PROFILE GRADE
BRG.	BEARING	P.I.	POINT OF HORIZONTAL INTERSECTION
B/S	BUS STOP	PL.	PLATE
C.B.R.	CALIFORNIA BEARING RATIO	P.O.C.	POINT ON CURVE
C/C (OR C TO C)	CENTER TO CENTER	P.O.S.T.	POINT ON SUBTANGENT
CL	CLEARANCE	P.O.T.	POINT ON TANGENT
cm	CENTIMETER	P.R.C.	POINT OF REVECE CURVE
cm ²	SQUARE CENTIMETER	PROJ.	PROJECT
C.M.P.	CORRUGATED METAL PIPE	P.T.	POINT OF TANGENT
COL.	COLUMN	P.V.C.	POINT OF VERTICAL CURVE
CONC.	CONCRETE	P.V.I.	POINT OF VERTICAL INTERSECTION
C.P.	CONCRETE PIPE	P.V.R.C.	POINT OF VERTICAL REVERSE CURVE
C.S.	CURVE - SPIRAL	P.V.C.	POINT OF VERTICAL TANGENT
C.U.M. (OR m ³)	CUBIC METER	R.	RADIUS
D.	DEGREE OF CURVE	R/A	REST AREA
D.B.S.T	DOUBLE BITUMINOUS SURFACE TREATMENT	R.C.	REINFORCED CONCRETE
DEG.	DEGREE	R.C.B.	REINFORCED CONCRETE BOX CULVERT
DIA.	DIAMETER	R.C.P.	REINFORCED CONCRETE PIPE CULVERT
DL.	DATUM LINE	RD.	ROAD
D.O.H.	DEPARTMENT OF HIGHWAYS	R.E.	RESIDENT ENGINEER
DWG.	DRAWING	REF.	REFERENCE
E.	EXTERNAL DISTANCE OF SIMPLE CURVE OR EAST	REINF.	REINFORCEMENT
EA.	EACH	REQ'D	REQUIRED
EL. (OR ELEV.)	ELEVATION	R.I.D.	ROYAL IRRIGATION DEPARTMENT
ENGR.	ENGINEER	R.O.W. (OR R/W)	RIGHT OF WAY
E.P.	END POINT	S.	SCALE
EQ. (OR =)	EQUATION OR EQUAL	S.B.S.T.	SINGLE BITUMINOUS SURFACE TREATMENT
EQUIV.	EQUIVALENT	S.C.	SPIRAL - CURVE
EXIST.	EXISTING	SE.	SUPERELEVATION
EXP.	EXPANSION	SEC. (OR Sec)	SECANT
FH.	FORMATION HEIGHT	SECT.	SECTION
FTG.	FOOTING	SL.	SPRING LINE
GH.	GROUND HEIGHT	SP.	SPAN
H	HORIZONTAL	SPG.	SPACING
H.& RN	HUB AND RED NAIL	S.R.	SIDE ROAD
HDWL.	HEADWALL	S.R.T	STATE RAILWAYS OF THAILAND
HPS.	HIGH PRESSURE SODIUM LAMP	S.T.	SPIRAL - TANGENT
H.W.L.	HIGH WATER LEVEL	STA.	STATION
HWY.	HIGHWAY	STD.	STANDARD
I/C	INTERCHANGE	STR.	STRAIGHT
I.D.	INSIDE DIAMETER	SYMM.	SYMMETRY OR SYMMETRICAL
IN. (OR ')	INCH	S/B	SOUTH BOUND
INV.	INVERT	THK. (OR t)	THICKNESS
J/C	JUNCTION	T.S.	TANGENT - SPIRAL
JT.	JOINT	TYP.	TYPICAL
KG.	KILOGRAM	VOL.	VOLUME
KM. (OR Km)	KILOMETER	V.C.L.	LENGTH OF VERTICAL CURVE
KPH. (OR Km/hr)	KILOMETER PER HOUR	V.	VERTICAL
L.	LENGTH OF HORIZONTAL CURVE, LENGTH	W.	WIDENING
LEV.	LEVEL	W	WITH
L.M.	LINEAR METER	W/B	WEST BOUND
LPS.	LOW PRESSURE SODIUM LAMP	W/O	WITHOUT
L.S.	LUMP SUM	∅	CENTERLINE
LT.	LEFT	∅	PROPERTY LINE
L.W.L.	LOW WATER LEVEL	∅	SPUR LINE OR SURVEY LINE
m	METER	%	PERCENT
m ²	SQUARE METER	&	AND
MAG.AZ.	MAGNETIC AZIMUTH	⊙	SPACING
MAX.	MAXIMUM	φ	DIAMETER
		△	TOTAL DEFLECTION ANGLE AT ANY P.I.

SYMBOLS

	CONST. Q	CENTER LINE		INDEX CONTOUR
	SURVEY. Q	TRANSIT LINE		INTERMEDIATE CONTOUR
	EXIST. R/W	EXISTING RW		WOODEN OR BARBED WIRE FENCE
	PROPOSED RW	PROPOSED RW		BRIDGE, ROAD OVER STREAM
	PROPERTY LINE	PROPERTY LINE		RAIL ROAD SINGLE TRACK
	W	WATER & WATER VALVE		KHLONG OR RIVER
	T	TELEPHONE & MANHOLE		DITCH, WATERWAY
	E	ELECTRIC		FLOW DIRECTION
	PT	PT		SWAMP AREA
	4, 118, 1006	NATIONAL HIGHWAY		INDIVIDUAL TREES
	I/C	INTERCHANGE		HEDGES
	J/C	JUNCTION		HIGH WATER LEVEL
	R/A	REST AREA		KILOMETER MARKER (EXISTING, PROPOSED)
	B/S	BUS STOP		R/W MARKER (EXISTING, PROPOSED)
	SCHOOL	SCHOOL		RAILWAY
	WAT	WAT		SLOPE
	POWER POST OR TELEPHONE POLE	POWER POST OR TELEPHONE POLE		BENCH MARK

LAMPANG - DOI SAKET ROUTE



DWG. NO.	TITLE	CONTENTS
LD.1 - 1	ROUTE MAP	
LD.2 - 1	PLAN AND PROFILE	STA. 0+000 TO STA. 9+000
LD.2 - 2	PLAN AND PROFILE	STA. 9+000 TO STA. 18+000
LD.2 - 3	PLAN AND PROFILE	STA. 18+000 TO STA. 27+000
LD.2 - 4	PLAN AND PROFILE (A-LINE)	STA. 27+000 TO STA. 36+000
LD.2 - 5	PLAN AND PROFILE (A-LINE)	STA. 36+000 TO STA. 45+000
LD.2 - 6	PLAN AND PROFILE (A-LINE)	STA. 45+000 TO STA. 54+000
LD.2 - 7	PLAN AND PROFILE (B-LINE)	STA. 27+000 TO STA. 36+000
LD.2 - 8	PLAN AND PROFILE (B-LINE)	STA. 36+000 TO STA. 45+000
LD.2 - 9	PLAN AND PROFILE (B-LINE)	STA. 45+000 TO STA. 54+000
LD.2 - 10	PLAN AND PROFILE	STA. 54+000 TO STA. 63+000
LD.2 - 11	PLAN AND PROFILE	STA. 63+000 TO STA. 72+000
LD.2 - 12	PLAN AND PROFILE	STA. 72+000 TO STA. 81+000
LD.2 - 13	PLAN AND PROFILE	STA. 81+000 TO STA. 90+000
LD.2 - 14	PLAN AND PROFILE	STA. 90+000 TO STA. 98+714.53
LD.3 - 1	TYPICAL CROSS SECTION (1)	EMBANKMENT SECTION IN FLAT AREA CUT SECTION IN FLAT AREA
LD.3 - 2	TYPICAL CROSS SECTION (2)	CUT AND EMBANKMENT SECTION IN ROLLING AREA
LD.3 - 3	TYPICAL CROSS SECTION (3)	CUT AND EMBANKMENT SECTION IN MOUNTAINOUS AREA
LD.3 - 4	TYPICAL CROSS SECTION (4)	TUNNEL SECTION BRIDGE AND VIADUCT SECTION IN FLAT AREA
LD.3 - 5	TYPICAL CROSS SECTION (5)	VIADUCT SECTION IN MOUNTAINOUS AREA
LD.4 - 1	STRUCTURAL CLASSIFICATION	
LD.4 - 2	LIST OF BRIDGES AND VIADUCTS	
LD.4 - 3	LIST OF OVERBRIDGES AND BOX CULVERTS	
LD.4 - 4	GENERAL VIEW	VIADUCT STA. 50+770 TO STA. 51+700
LD.4 - 5	GENERAL VIEW	OVERBRIDGE STA. 10+830 ROUTE NO. 1034

DWG. NO.	TITLE	CONTENTS
LD.5 - 1	PLAN AND PROFILE	NO.1 TUNNEL
LD.5 - 2	PLAN AND PROFILE	NO.3 TUNNEL
LD.5 - 3	TYPICAL TUNNEL SECTION AND DUST COLLECTION CHAMBER	
LD.5 - 4	GENERAL VIEW OF PORTAL	NO.1 TUNNEL
LD.5 - 5	GENERAL VIEW OF PORTAL	NO.3 TUNNEL
LD.5 - 6	LAYOUT OF TUNNEL FACILITIES	
LD.6 - 1	LAMPANG INTERCHANGE	PLAN
LD.6 - 7	LAMPANG INTERCHANGE	PROFILE AND SECTIONS
LD.6 - 3	MAE THA INTERCHANGE	PLAN
LD.6 - 4	MAE THA INTERCHANGE	PROFILE AND SECTIONS
LD.6 - 5	LAMPHUN INTERCHANGE	PLAN
LD.6 - 6	LAMPHUN INTERCHANGE	PROFILE AND SECTIONS
LD.6 - 7	CHIANG MAI INTERCHANGE	PLAN
LD.6 - 8	CHIANG MAI INTERCHANGE	PROFILE AND SECTIONS
LD.6 - 9	DOI SAKET INTERCHANGE	PLAN
LD.6 - 10	REST AREA TYPE "A"	DETAILS
LD.6 - 11	REST AREA TYPE "B" & "C"	DETAILS
LD.6 - 12	BUS STOP	DETAILS
LD.6 - 13	RAMP TERMINAL	DETAILS
LD.6 - 14	TRAFFIC SIGN	DETAILS
LD.6 - 15	ROAD MARKING	DETAILS
LD.6 - 16	DRAINAGE SYSTEM	DETAILS

