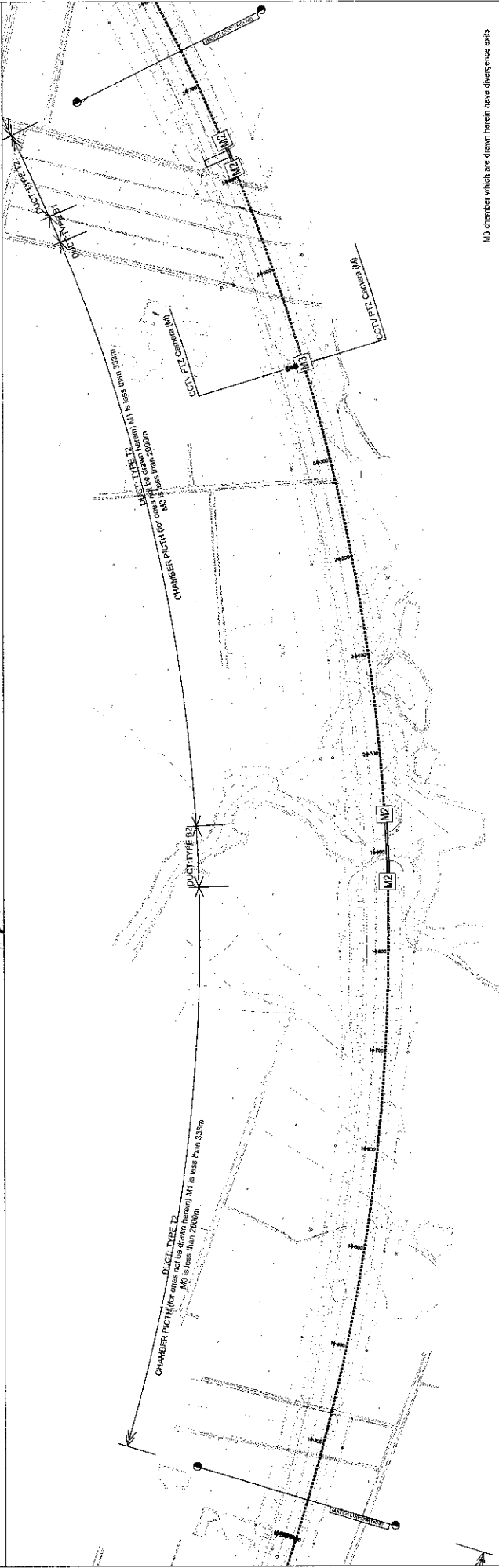
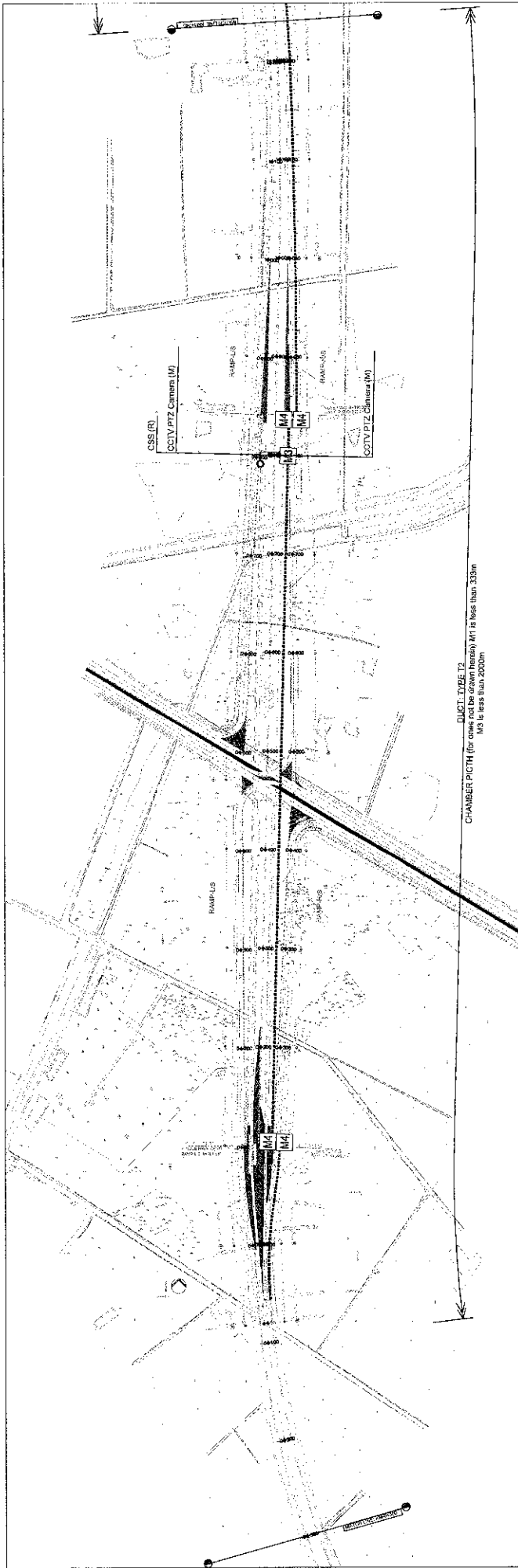


NOI BAI - VIET TRI EXPRESSWAY

(FOR REFERENCE)



M3 chamber which are drawn hereon have divergency exits

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM	
ORIENTAL CONSULTANT'S CO., LTD		ITS INTEGRATION PROJECT ON	
NEXCO EAST ENGINEERING CO., LTD		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT	
LANDTEC JAPAN INC.		(KM0+300 - KM0+740, NOI BAN-VIETRI EXP.) - FOR REFERENCE	
TITLE	NAME	SIGNATURE	DATE
PREPARED BY			
CHECKED BY			
APPROVED BY			
PACKAGE		SHEET NO. of	
DRAWING TITLE		NO.	
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		XI.1-01	
LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT			
(KM0+300 - KM0+740, NOI BAN-VIETRI EXP.) - FOR REFERENCE			
SCALE: 1:1000			



SOCIALIST REPUBLIC OF VIETNAM

MINISTRY OF TRANSPORT

ITS INTEGRATION PROJECT ON
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

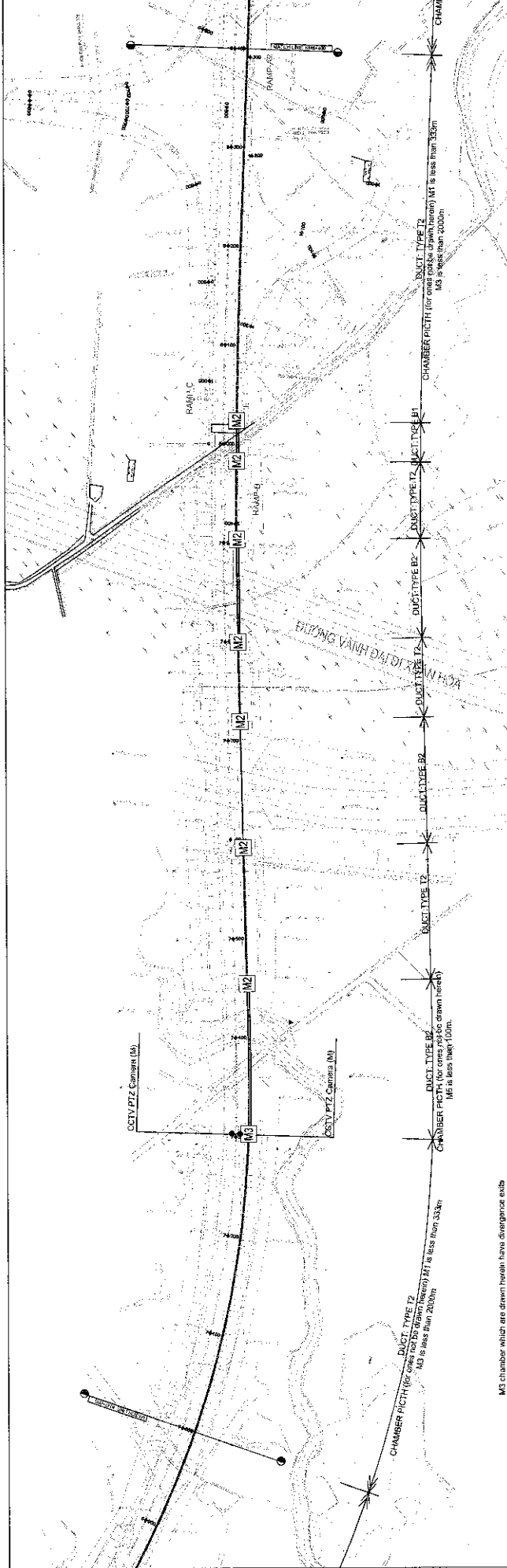
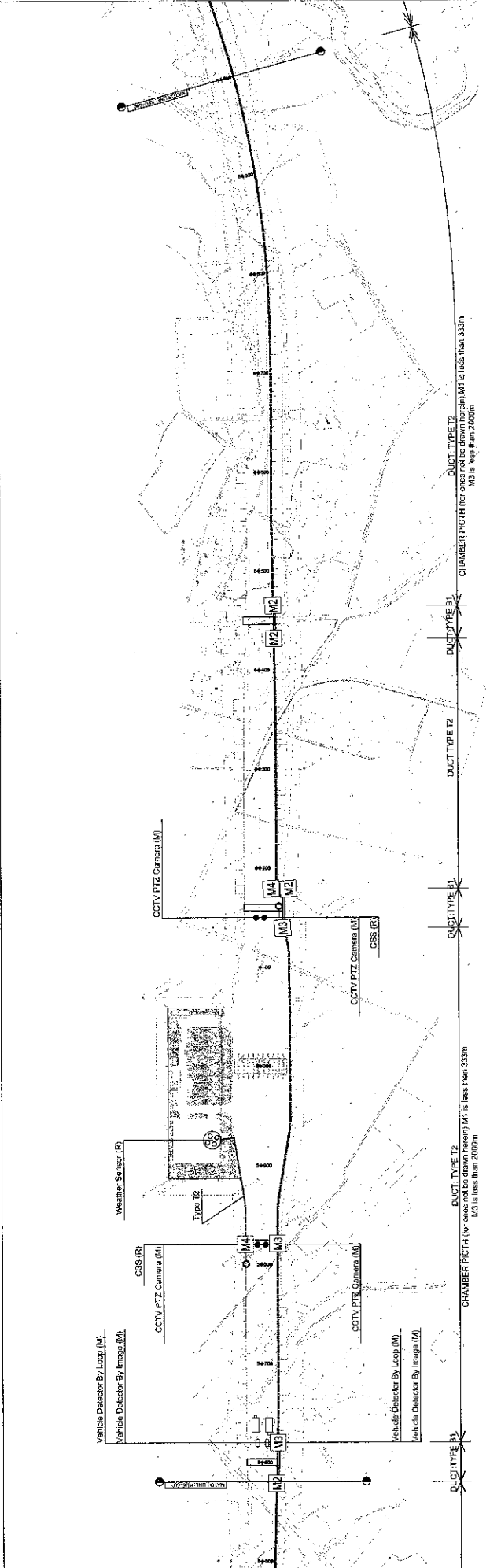
LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT
(KM+740 - KM+586, NOI BAMEI TRI EXP.) - FOR REFERENCE

SCALE: 1:400

NO. chamber which are drawn herein have divergence exists

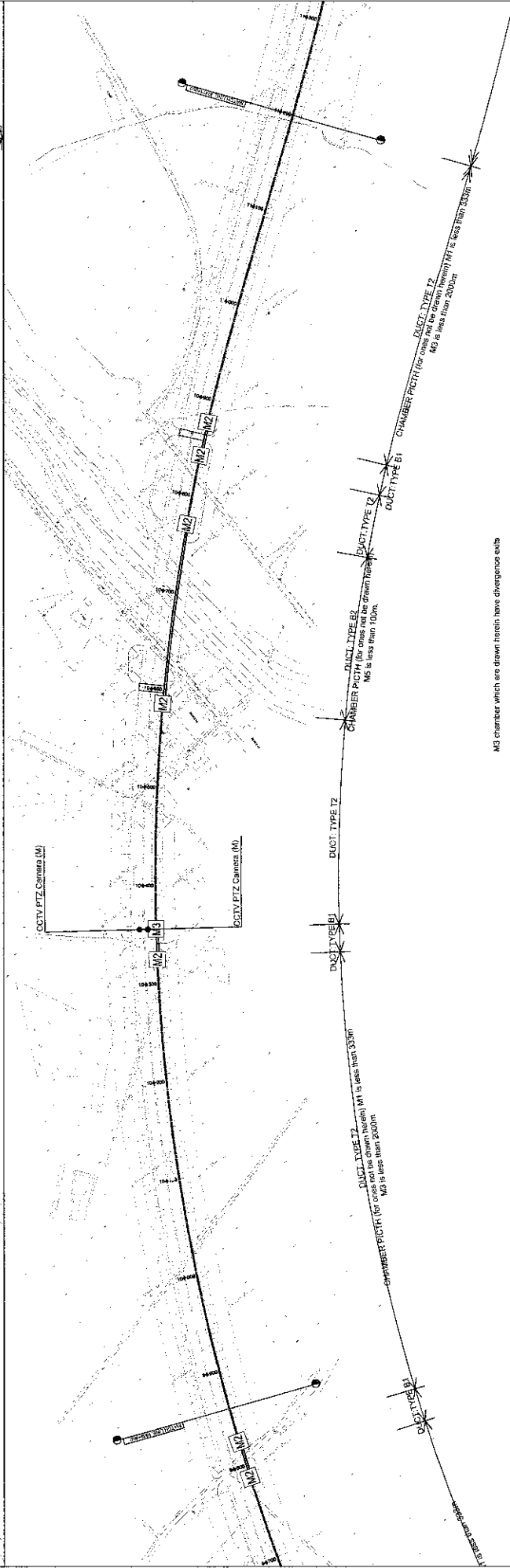
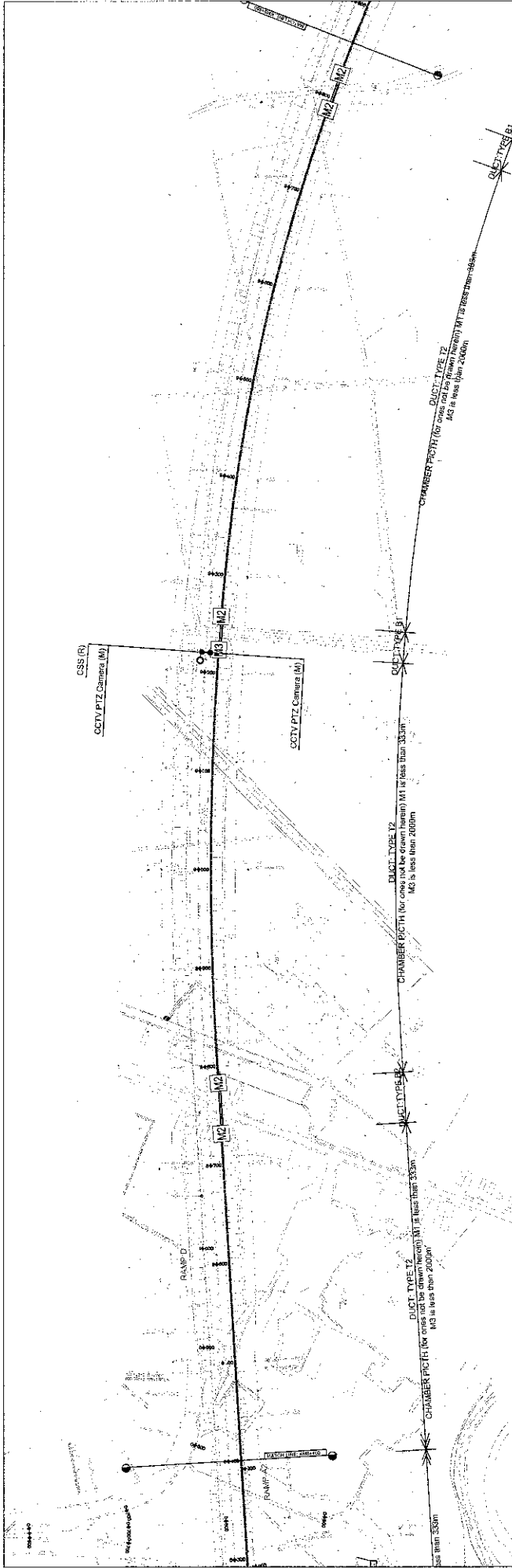
CONSULTANT		SIGNATURE		DATE	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	DATE
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				
NIPPON KOEI CO., LTD	CHECKED BY				
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				
LANDTEC JAPAN INC.					

DRAWING NO. XI-1-02	REV.:
SHEET NO. _____	Sheet _____ of _____



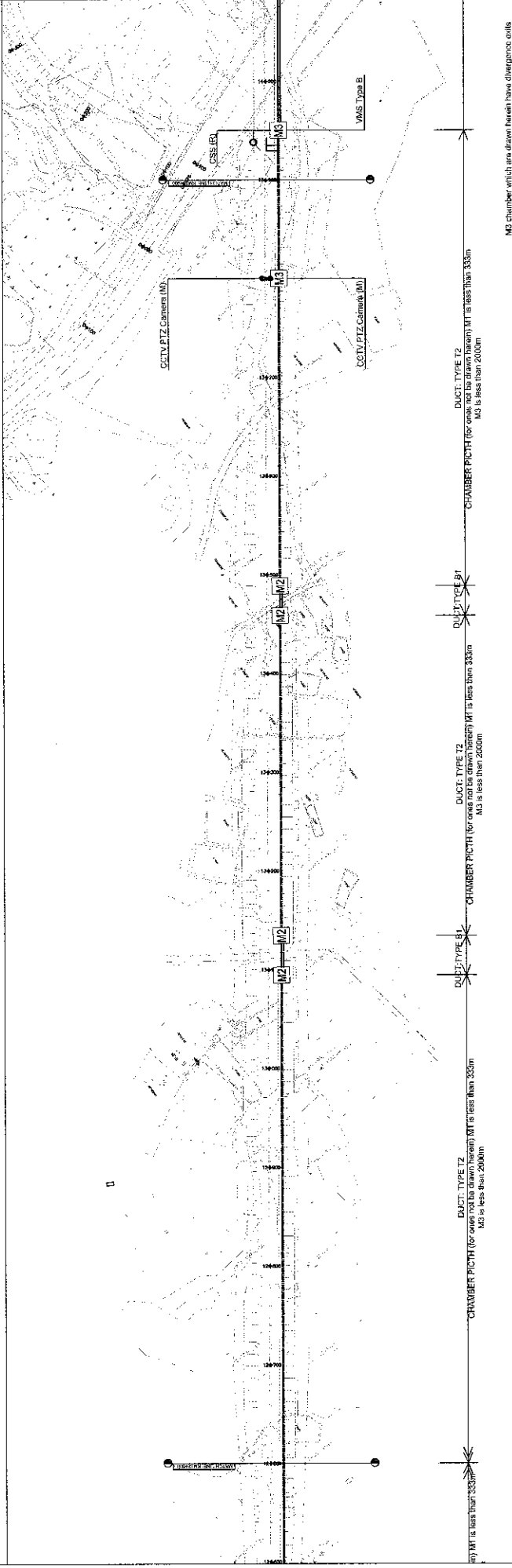
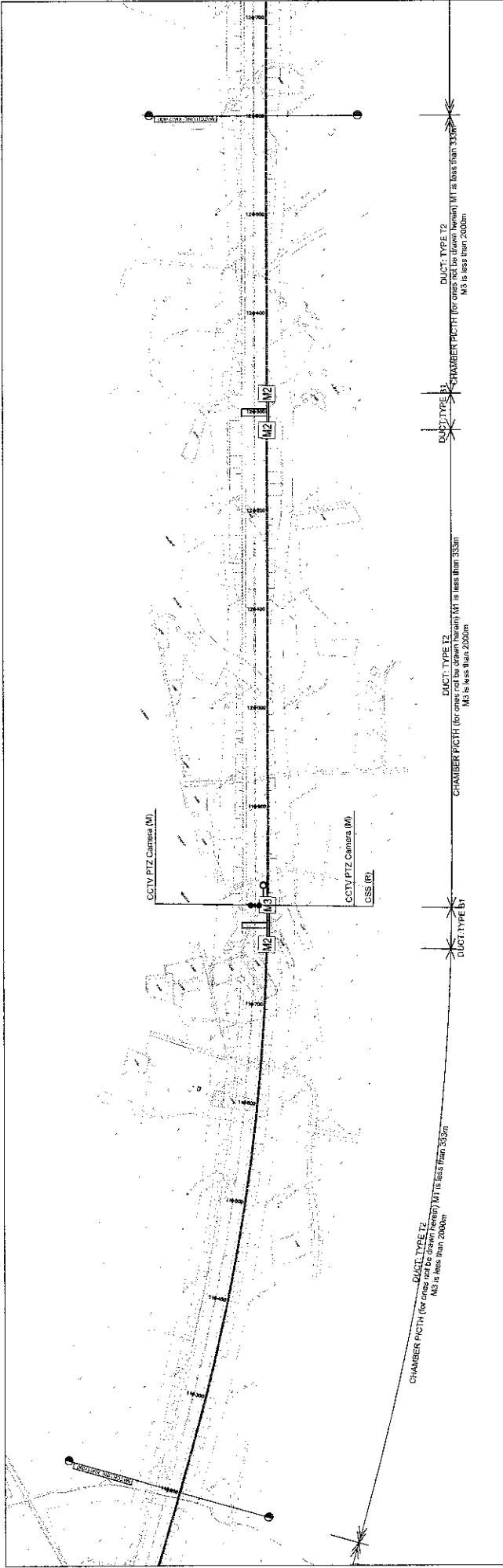
M3 chamber which are drawn herein have divergence exits

CONSULTANT		SIGNATURE		DATE	
ORIENTAL CONSULTANTS CO., LTD					
NEXCO EAST ENGINEERING CO., LTD					
NIPPON KOEI CO., LTD					
TRANSPORTATION RESEARCH INSTITUTE CO., LTD					
LANDTEC JAPAN INC.					
SOCIALIST REPUBLIC OF VIETNAM		SIGNATURE		DATE	
MINISTRY OF TRANSPORT					
ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		SIGNATURE		DATE	
DRAWING TITLE LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KMS+550 - KMS+400, NOI BA-VIET TRI EXP.) - FOR REFERENCE		SIGNATURE		DATE	
PROJECT No. XI-4-03		SIGNATURE		DATE	
SCALE: 1/400		SIGNATURE		DATE	



M3 chamber which are drawn herein have divergence cuts

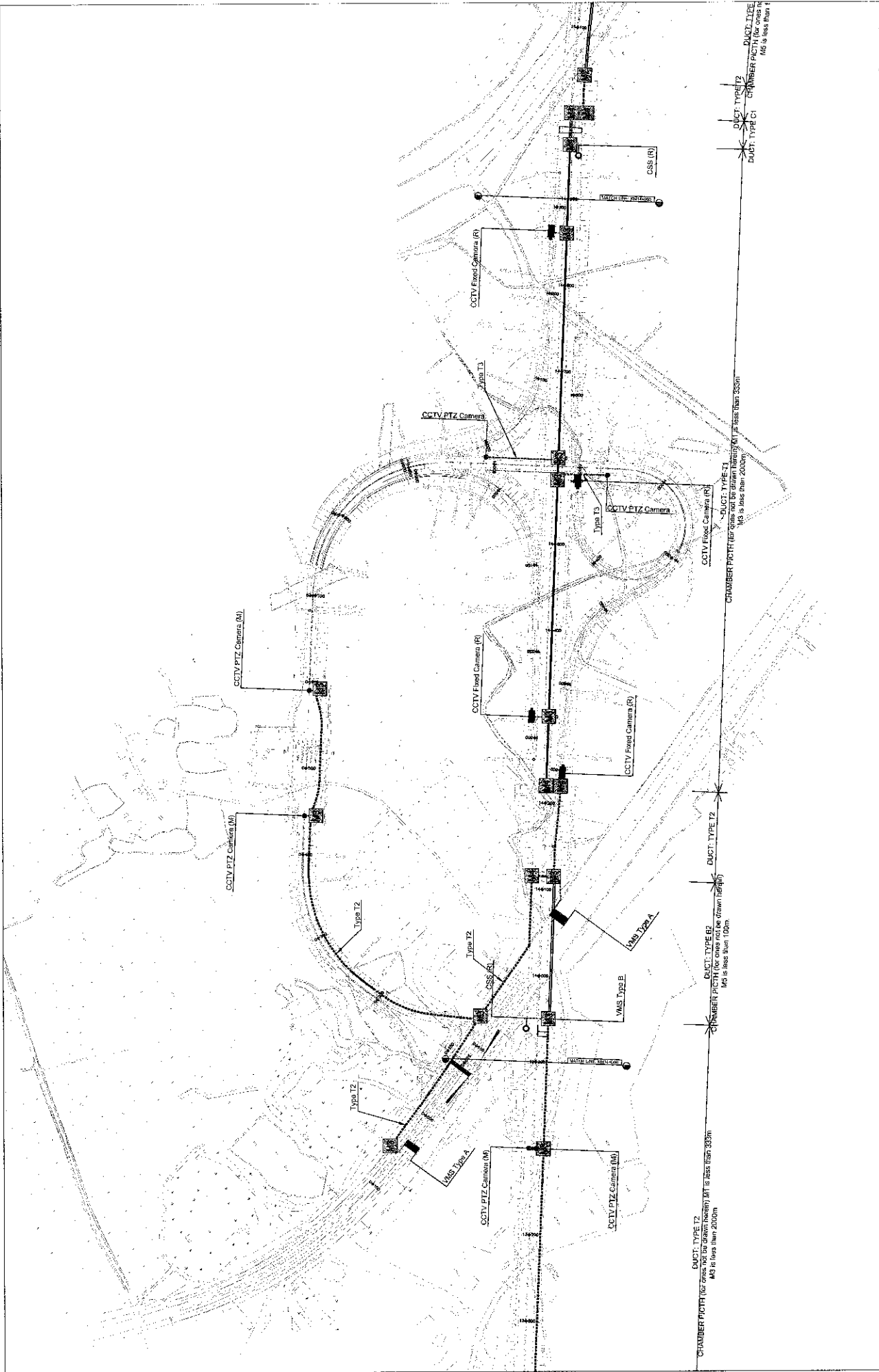
CONSULTANT		TITLE		NAME		SIGNATURE		DATE	
		ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		PREPARED BY		CHECKED BY		APPROVED BY	
SOCIALIST REPUBLIC OF VIETNAM		MINISTRY OF TRANSPORT							
		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM8+400 - KM11+200, NOI BAN VIET TRI EXP.) - FOR REFERENCE							
PACKAGE		DRAWING NO.		SHEET NO.		SCALE		REV.	
		XI-1-04				1:1000		of	



M3 chamber which are drawn herein have divergence coils

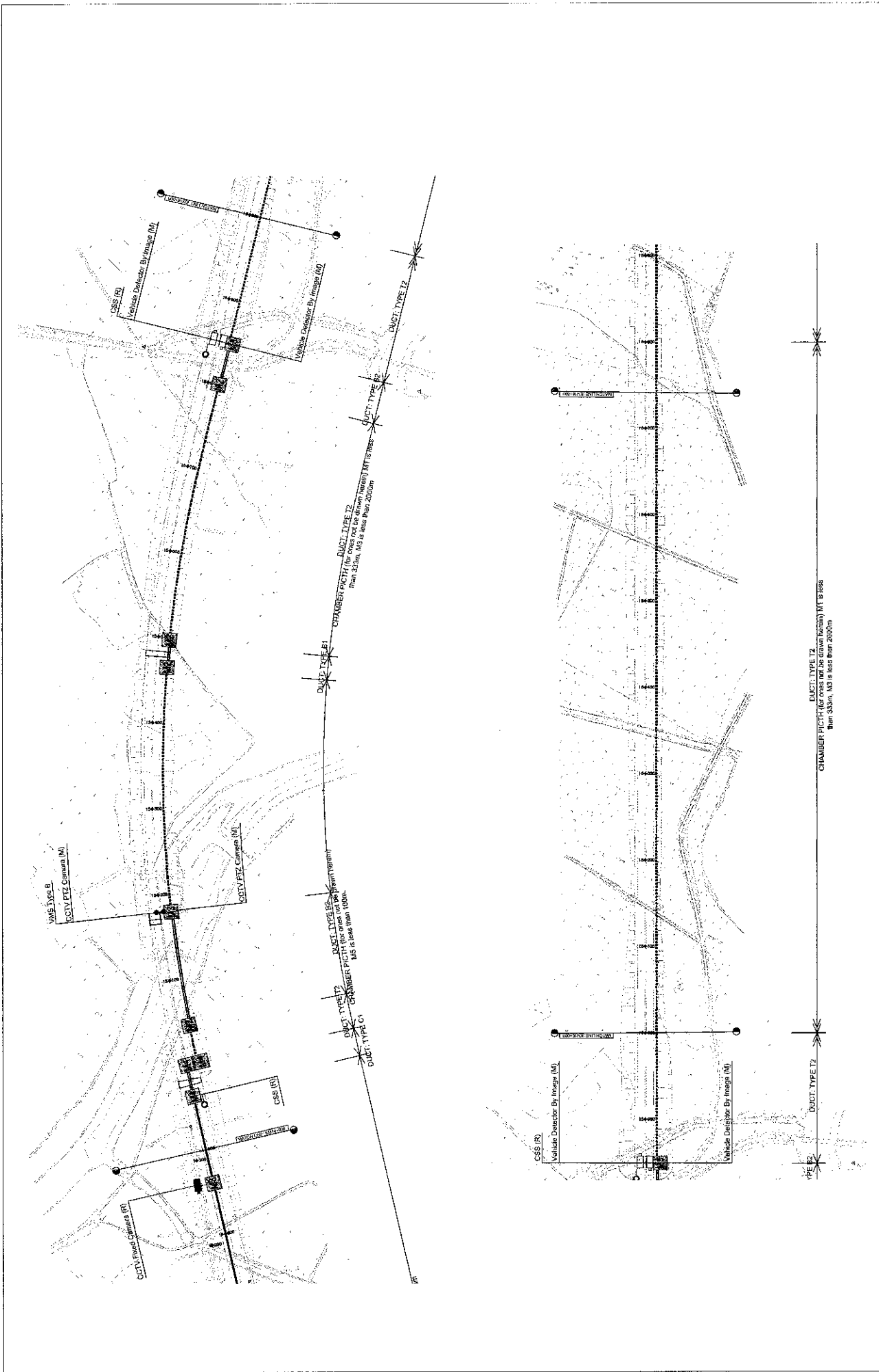
CONSULTANT		SIGNATURE		DATE	
ORIENTAL CONSULTANTS CO., LTD					
NEXCO EAST ENGINEERING CO., LTD		PREPARED BY			
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		CHECKED BY			
LANDTEC JAPAN INC.		APPROVED BY			

SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON	
MINISTRY OF TRANSPORT		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
		DRAWING TITLE	
		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT	
		(KM14+200 - KM19+000, NO BA-VIET TR EXP.) - FOR REFERENCE	
		DRAWING NO.	
		XI-1-05	
		SHEET NO.	
		Sheet of	
		SCALE: 1:6000	



M3 chamber which are drawn herein have dimensions as follows

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		MINISTRY OF TRANSPORT		DRAWING TITLE LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM13+900 - KM14+900, NOI DAI-VIET TRI EXP.) - BINH XUYEN IC - FOR REFERENCE	
TITLE	NAME	SIGNATURE	DATE	PACKAGE	REVISION
PREPARED BY				NO.:	
CHECKED BY				SHEET NO.:	Sheet of
APPROVED BY				SCALE:	1:800



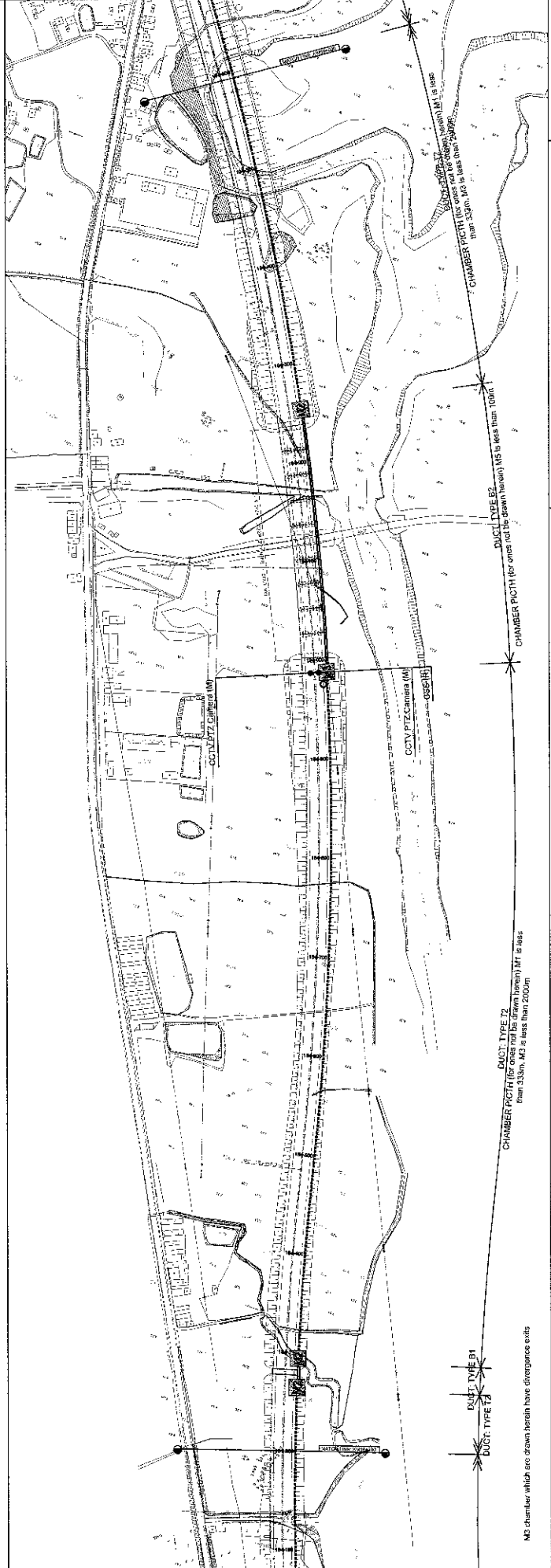
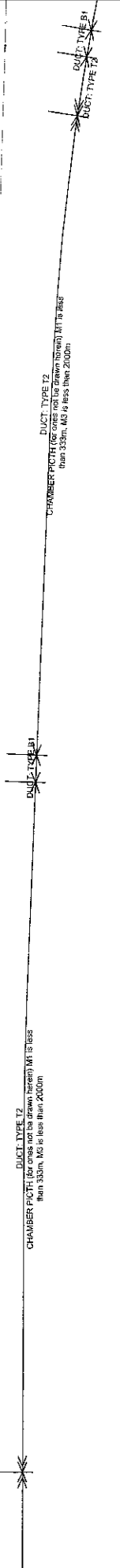
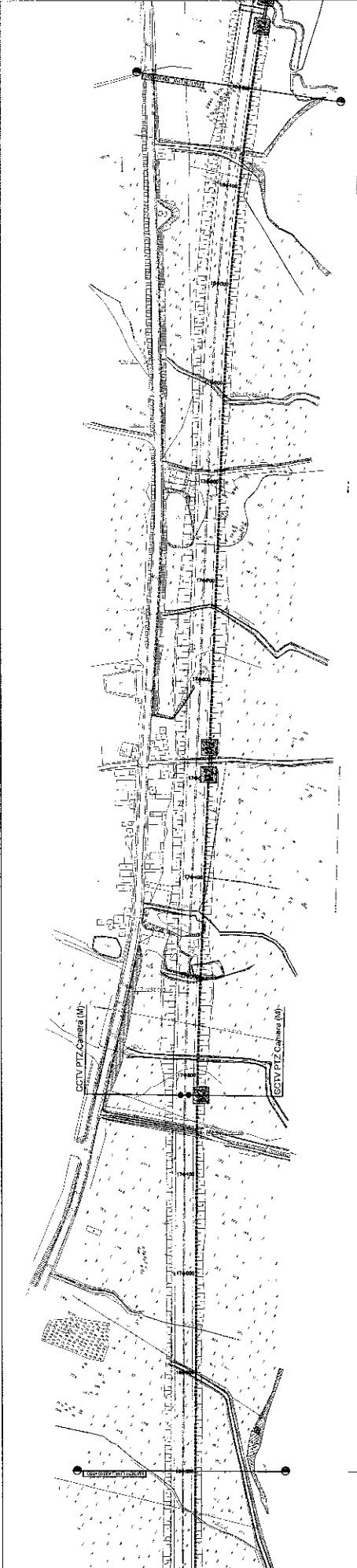
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.8 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANT'S CO., LTD				DRAWING TITLE	
NEXCO EAST ENGINEERING CO., LTD				LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				(KM14+800 - KM16+000) NO.10A-VIET THU EXP.1 - FOR REFERENCE	
LANDTEC JAPAN INC.				SCALE: 1:1000	
TITLE	NAME	SIGNATURE	DATE	PROJECT NO.	
PREPARED BY				DRAWING NO.	
CHECKED BY				SHEET NO.	
APPROVED BY				Sheet	
				of	

M3 chamber which are drawn herein have divergence exists

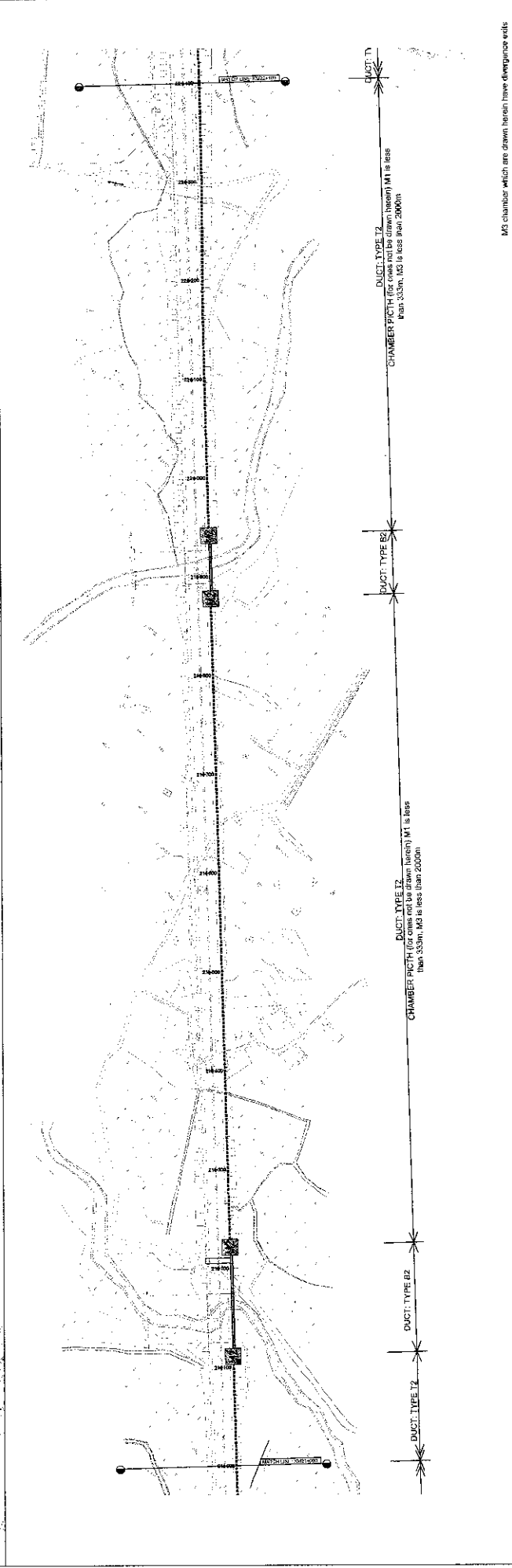
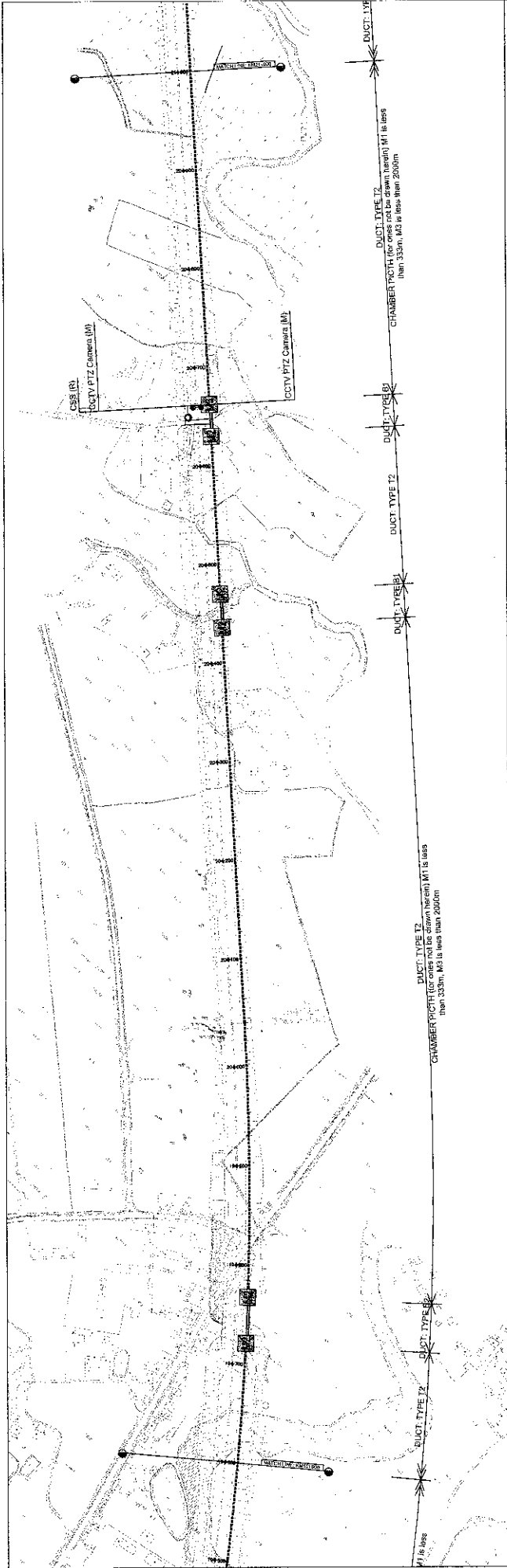
PROJECT

NO. XI-1-07

Rev

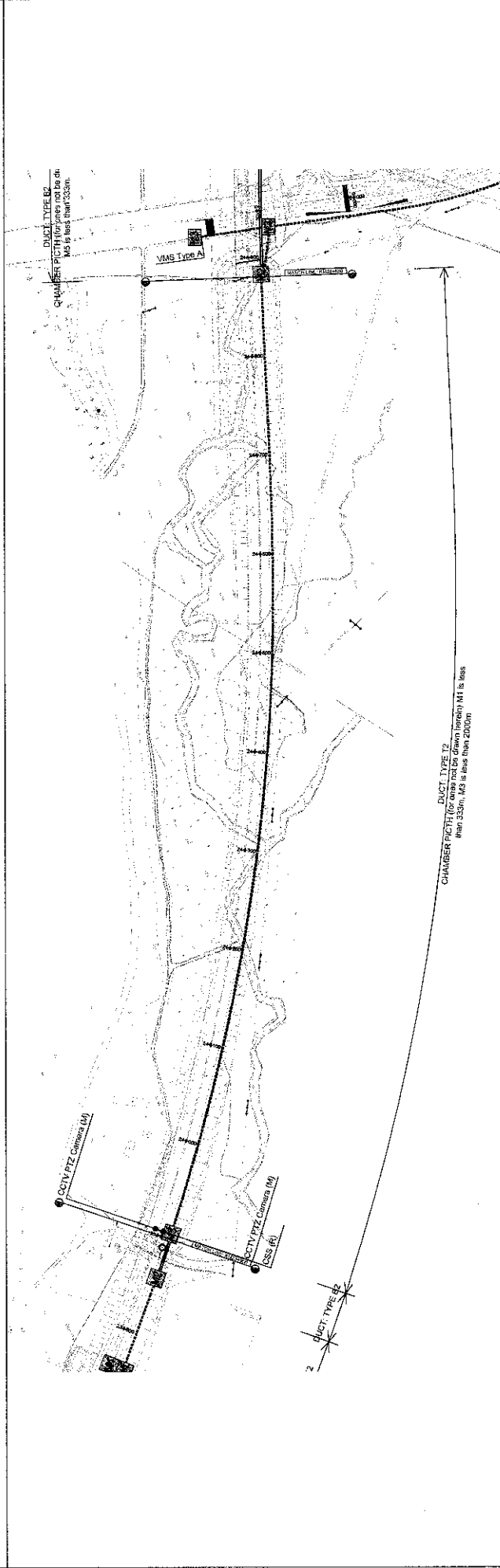
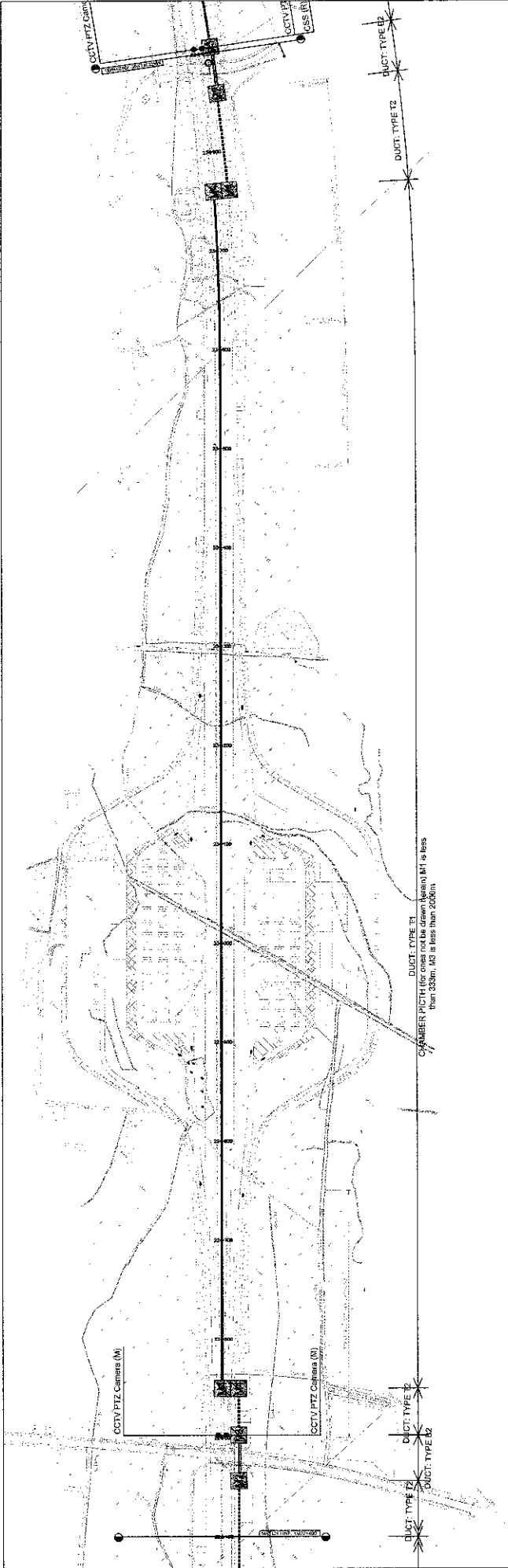


CONSULTANT		SIGNATURE		DATE	
ORIENTAL CONSULTANTS CO., LTD		NAME		DATE	
NEXCO EAST ENGINEERING CO., LTD		PREPARED BY			
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		CHECKED BY			
LANDTEC JAPAN INC.		APPROVED BY			
SOCIALIST REPUBLIC OF VIETNAM MINISTRY OF TRANSPORT					
ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM/16+800 ~ KM/19+600, NOI BAI-VIET TRI EXP.) - FOR REFERENCE					
SCALE: 1:400					
DRAWING NO. XI-1-08 SHEET NO. Street of Rev.					



M3 chamber which are drawn herein have divergence wells

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON	
ORIENTAL CONSULTANTS CO., LTD		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		KIVZ/04	
NEXCO EAST ENGINEERING CO., LTD		DRAWING TITLE		DRAWING NO	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT		XL1-09	
LANDTEC JAPAN INC.		(KM19+600 - KM22+400, NO1 BAU VIET TH EXP.) - FOR REFERENCE		SHEET No	
TITLE		NAME		Sheet	
PREPARED BY		SIGNATURE		of	
CHECKED BY		DATE		No.	
APPROVED BY					
				SCALE: 1:1000	



CONSULTANT

TITLE	NAME	SIGNATURE	DATE
PREPARED BY			
CHECKED BY			
APPROVED BY			

CONSULTANT

ORIENTAL CONSULTANTS CO., LTD
NEXCO EAST ENGINEERING CO., LTD
NIPPON KOEI CO., LTD
TRANSPORTATION RESEARCH INSTITUTE CO., LTD
LANDTEC JAPAN INC.

SOCIALIST REPUBLIC OF VIETNAM

MINISTRY OF TRANSPORT

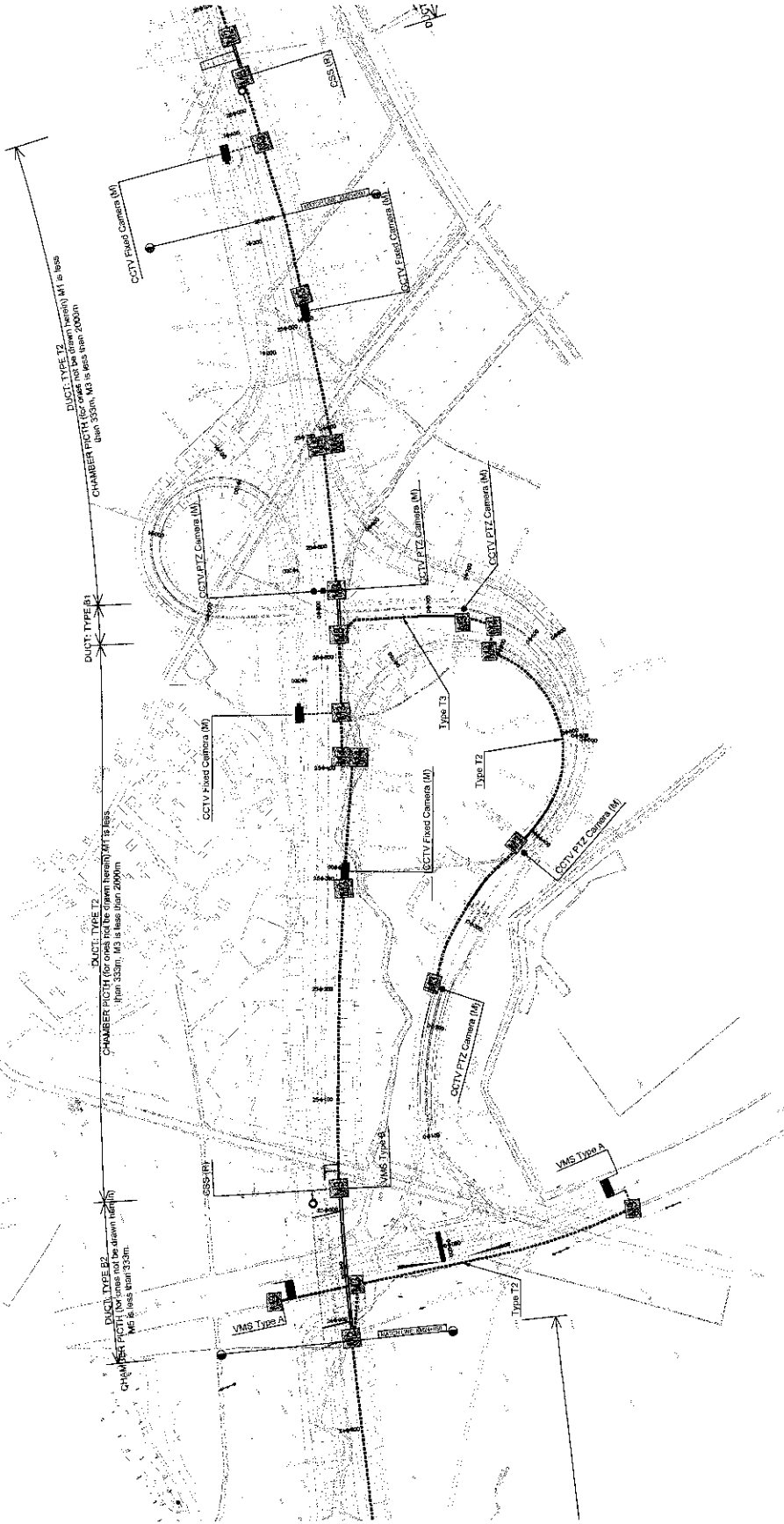
ITS INTEGRATION PROJECT ON
NEW NATIONAL HIGHWAY NO.3 IN NORTHERN AREA OF VIETNAM

LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT
(KM2+400 - KM2+680, NO BAU-VIET TR EXP.) - FOR REFERENCE

SCALE: 1/400

SHEET 4

DRAWING NO. XI-1-10

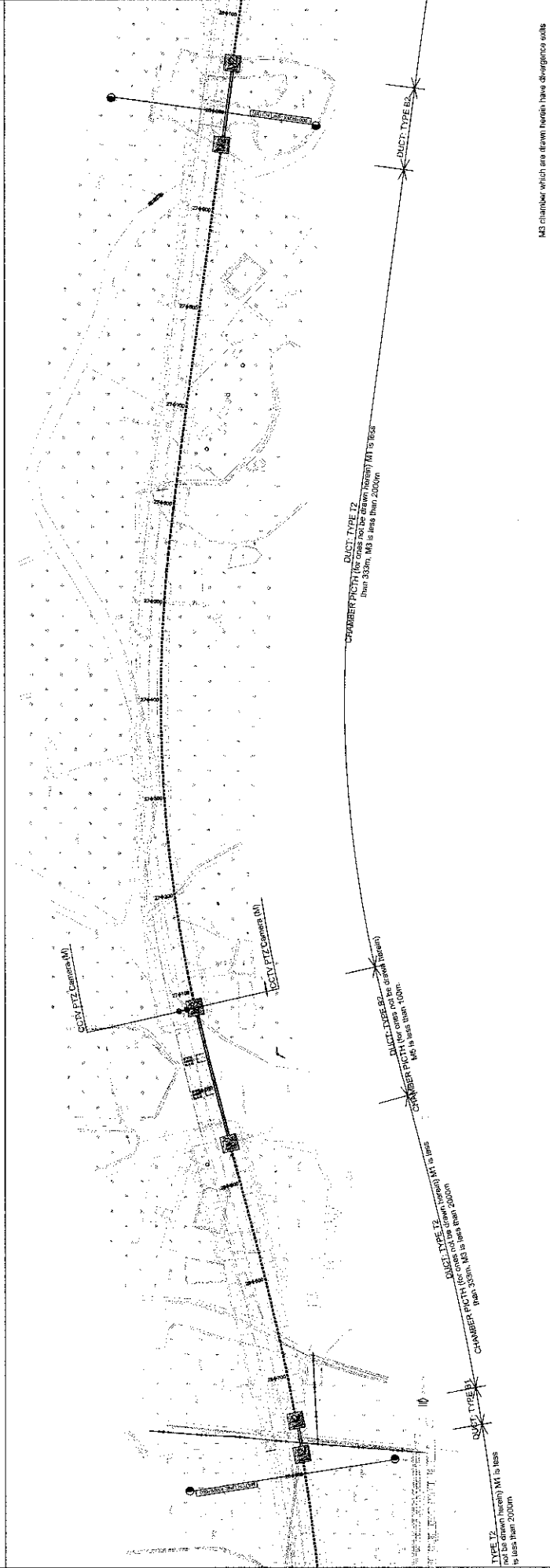
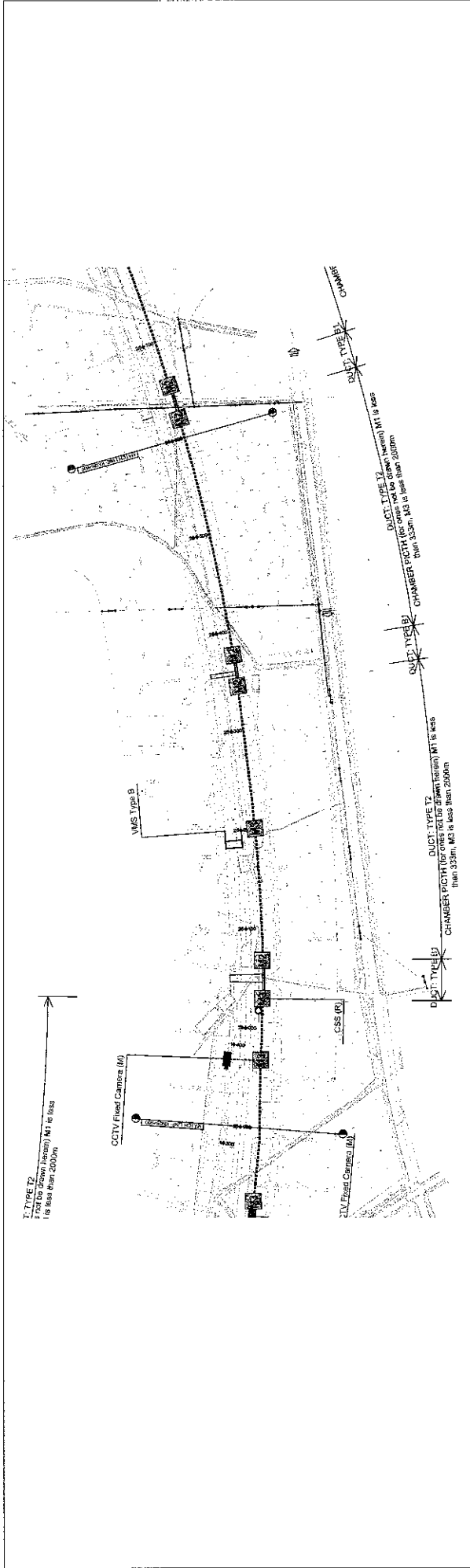


M3 character which are drawn therein have divergent ords

PROJECT TITLE		DRAWING TITLE	
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM24+880 - KM25+000, NOI BA-VIET TRI EXP.) - MR2B IC - FOR REFERENCE	
PROJECT NO.:	SCALE: 1:1000	SHEET NO.:	SHEET OF

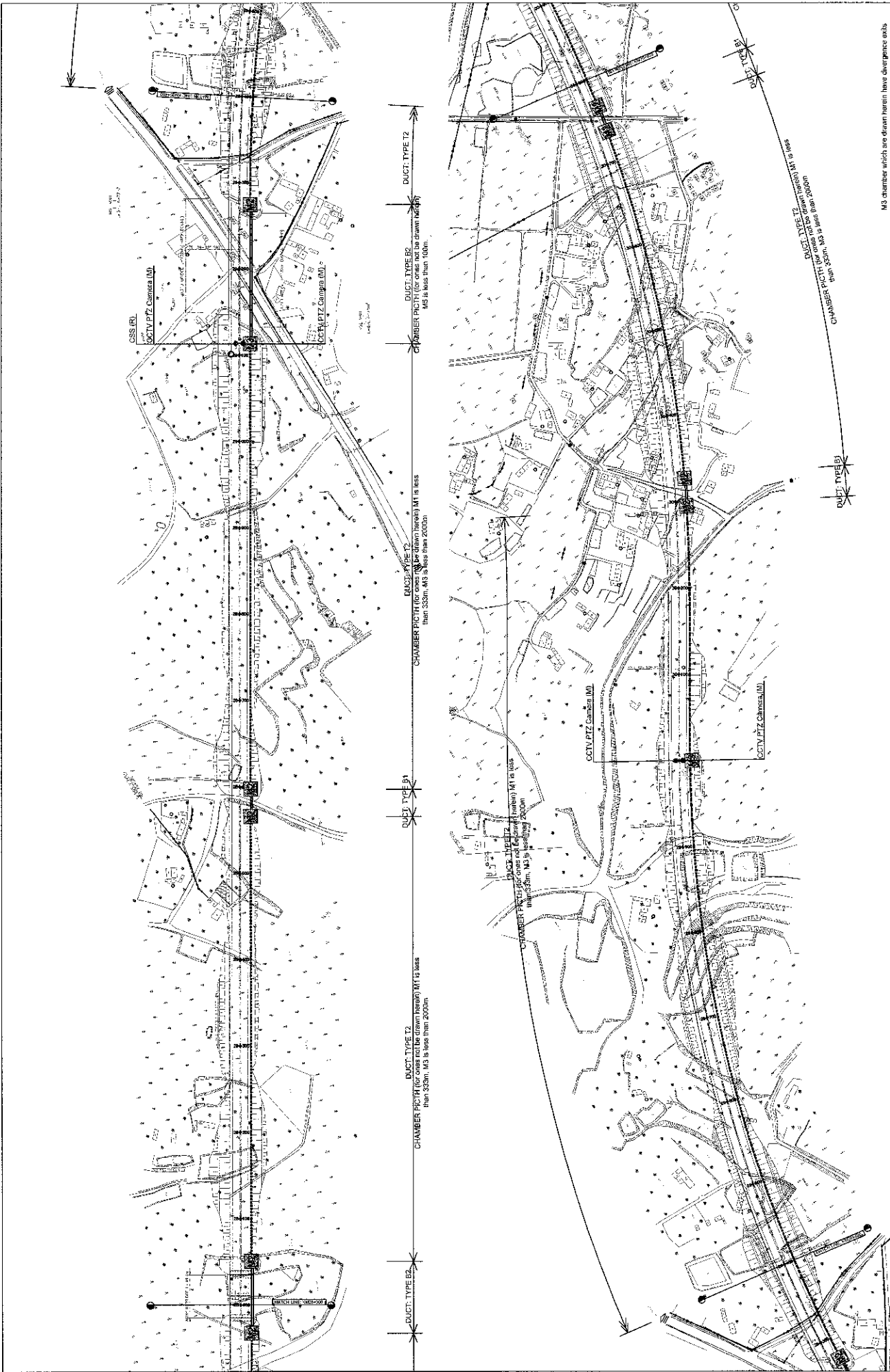
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		MINISTRY OF TRANSPORT	

TITLE	NAME	SIGNATURE	DATE
PREPARED BY			
CHECKED BY			
APPROVED BY			



MS chamber which are drawn herein have divergence exits

CONSULTANT		SIGNATURE		DATE	
ORIENTAL CONSULTANTS CO., LTD					
NEXCO EAST ENGINEERING CO., LTD					
NIPPON KOEI CO., LTD					
TRANSPORTATION RESEARCH INSTITUTE CO., LTD					
LANDTEC JAPAN INC.					
		TITLE		DATE	
		PREPARED BY			
		CHECKED BY			
		APPROVED BY			
SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON			
MINISTRY OF TRANSPORT		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM			
		DRAWING TITLE			
		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT			
		(KAZH-900 - KAZB-000, NOI BAI-VIET TRI EXP.) - FOR REFERENCE			
		DRAWING No.		XL-1-12	
		SHEET No.		Sheet	
		SCALE		1:400	



PACKAGE	
DRAWING NO.	XI-1-13
SHEET NO.	Sheet 1 of 1

ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM
 DRAWING TITLE
 LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT
 (KM2P-000 - KM3P-000, NO. BA-VAET TRI EXP. - FOR REFERENCE)

SOCIALIST REPUBLIC OF VIETNAM
 MINISTRY OF TRANSPORT

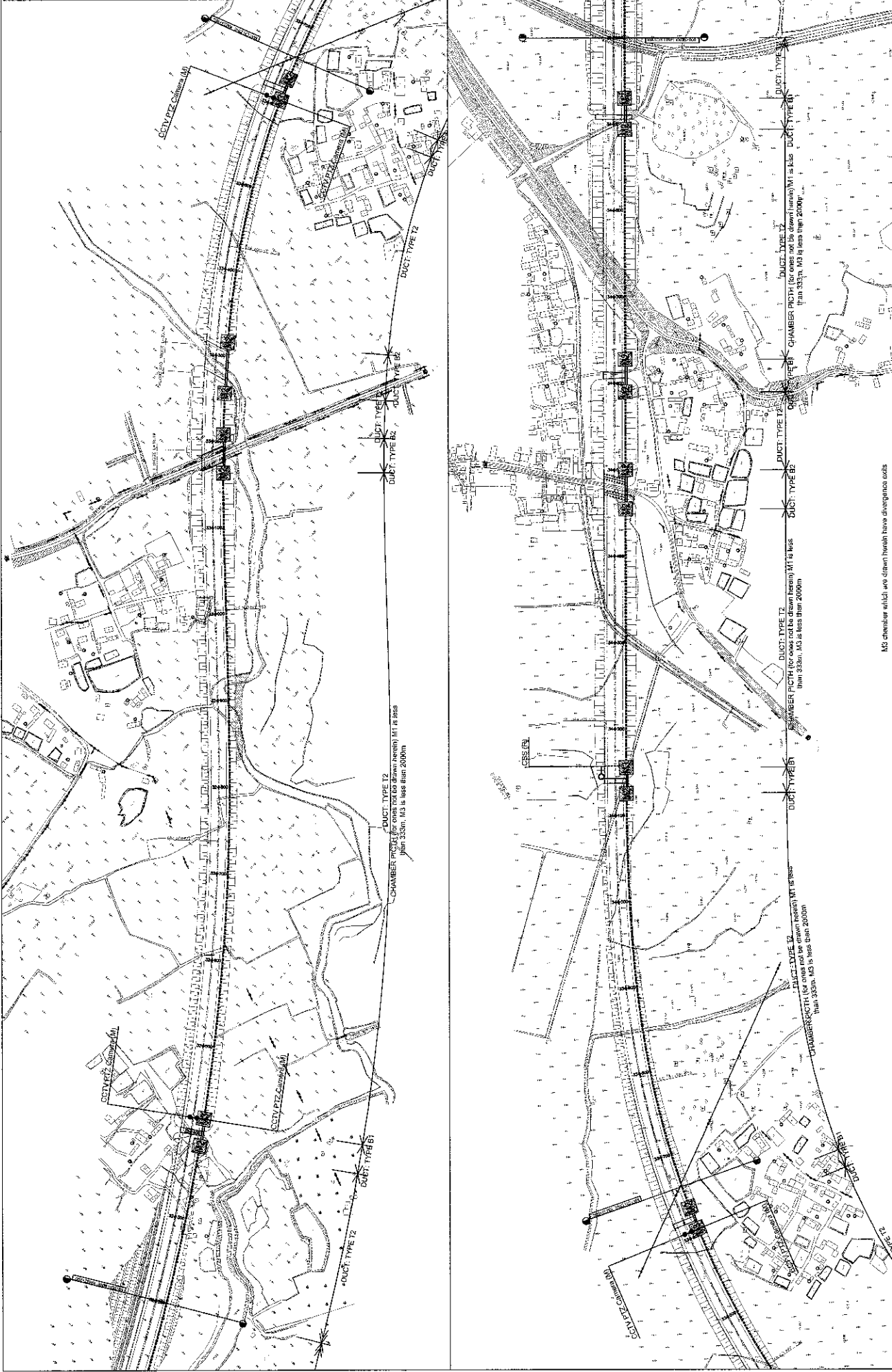
CONSULTANT		DATE	
TITLE	NAME	SIGNATURE	DATE
PREPARED BY			
CHECKED BY			
APPROVED BY			

ORIENTAL CONSULTANTS CO., LTD
 NEXCO EAST ENGINEERING CO., LTD
 NIPPON KOEI CO., LTD
 TRANSPORTATION RESEARCH INSTITUTE CO., LTD
 LANDTEC JAPAN INC.

M3 chamber which are drawn herein have divergence exits
 SCALE: 1/1000



SOCIALIST REPUBLIC OF VIETNAM MINISTRY OF TRANSPORT		CONSULTANT		PROJECT	
		ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.	TITLE PREPARED BY CHECKED BY APPROVED BY	NAME SIGNATURE DATE	ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO. 3 & NORTHERN AREA OF VIETNAM DRAWING TITLE LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM30-600 - KM32-200, NOI BA-VIET TRI EXP.) - FOR REFERENCE	DRAWING NO. XI-1-14
				M3 chamber which are drawn hereat have divergence exits	
				SCALE: 1:4000	
				SHEET NO. _____ OF _____	



CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	DATE	PROJECT NO.	Sheet
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY	SIGNATURE	DATE	NO. 1-15	of
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	CHECKED BY				
LANDTEC JAPAN INC.	APPROVED BY				
				SCALE: 1:1000	
				DRAWING TITLE LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM32+200 - KM35+000, NOI BAU-VIET TR EXP.) - FOR REFERENCE	

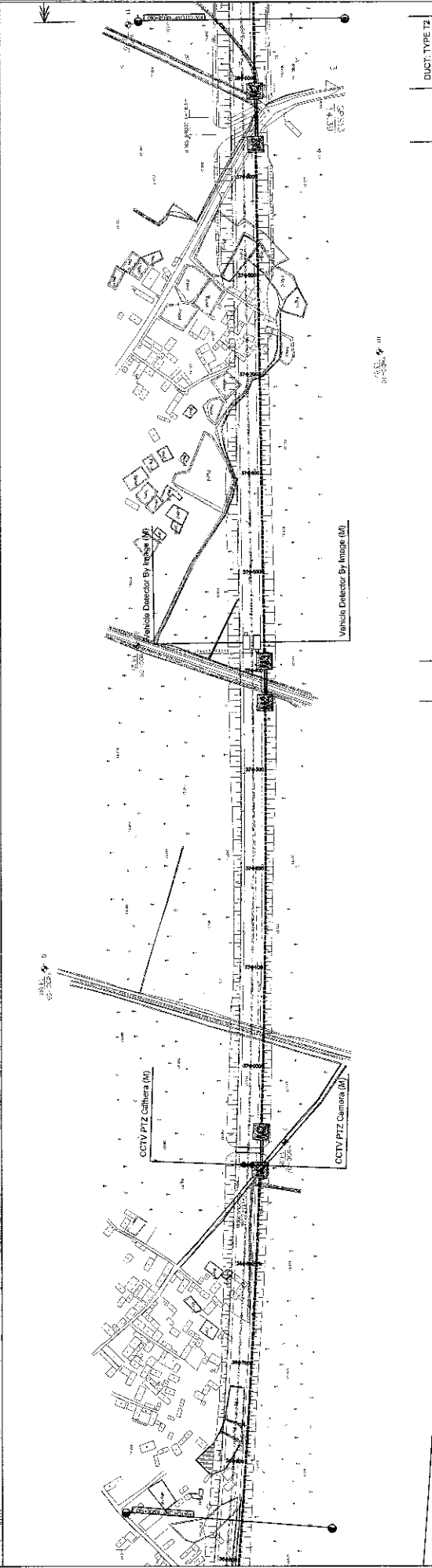
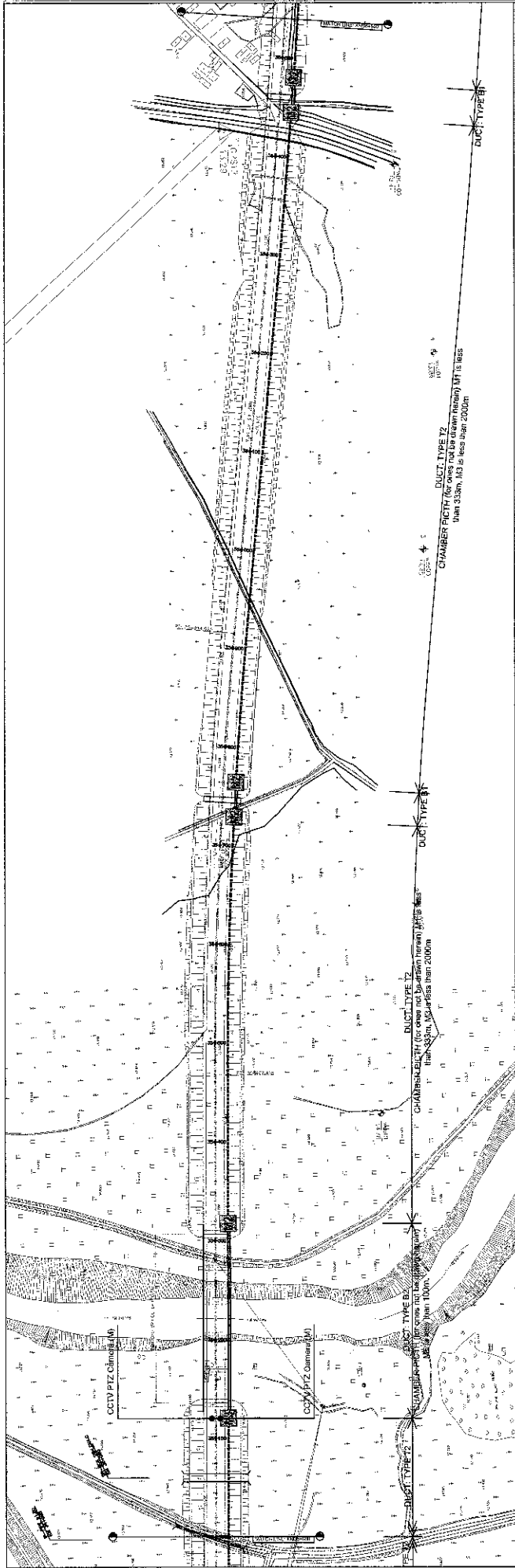
M3 chamber which are drawn herein have alignment axis

DUCT TYPE T2
CHAMBER PITCH (for cases not to be drawn herein) M is less than 333m, M3 is less than 200m

DUCT TYPE T2
CHAMBER PITCH (for cases not to be drawn herein) M is less than 333m, M3 is less than 200m

DUCT TYPE T2
CHAMBER PITCH (for cases not to be drawn herein) M is less than 333m, M3 is less than 200m

DUCT TYPE T2
CHAMBER PITCH (for cases not to be drawn herein) M is less than 333m, M3 is less than 200m

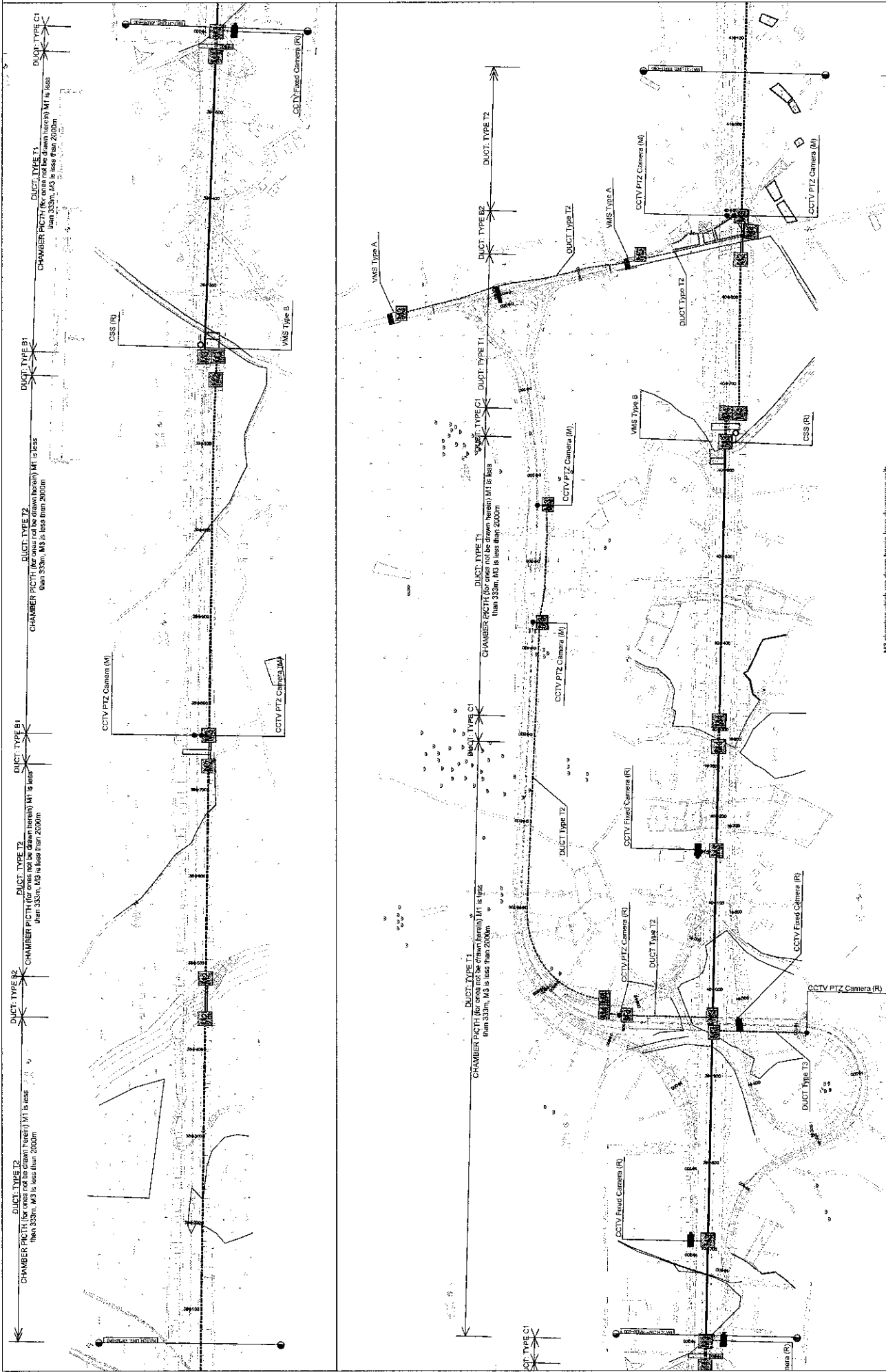


DUCT TYPE T2
CHAMBER PICTH (for areas not be drawn here) MT is less than 333m, M3 is less than 200m

DUCT TYPE T2
CHAMBER PICTH (for areas not be drawn here) MT is less than 333m, M3 is less than 200m

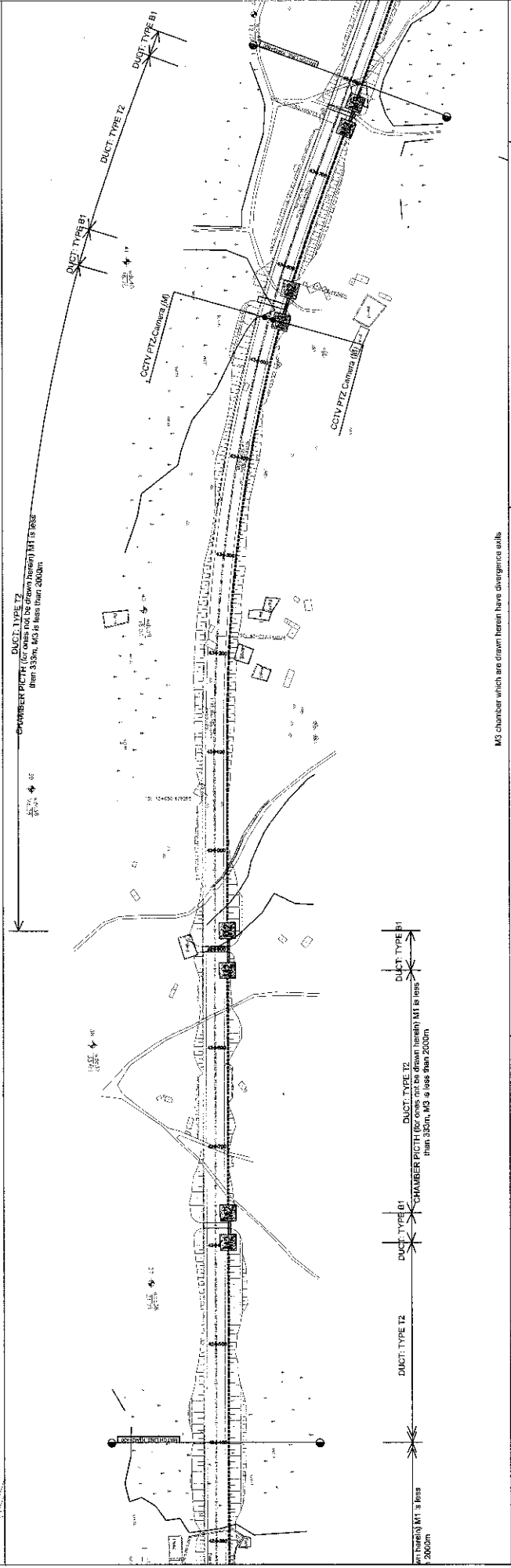
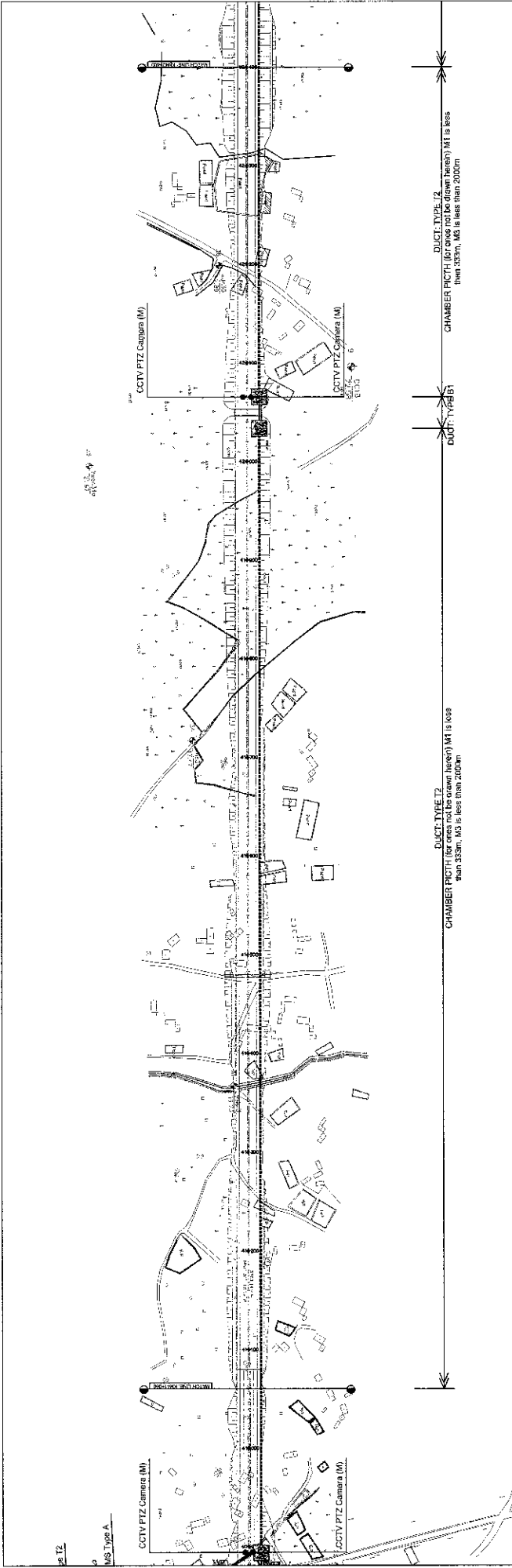
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING TITLE	
NEXCO EAST ENGINEERING CO., LTD				LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				(KM35+000 - KM39+400), NOI BAI-VIET TRM EXP. - FOR REFERENCE	
LANDTEC JAPAN INC.				DRAWING No. XI.1-16	
				SHEET No. _____ of _____	
				SCALE: 1:1000	

M3 chamber which are drawn here) have divergencia axis



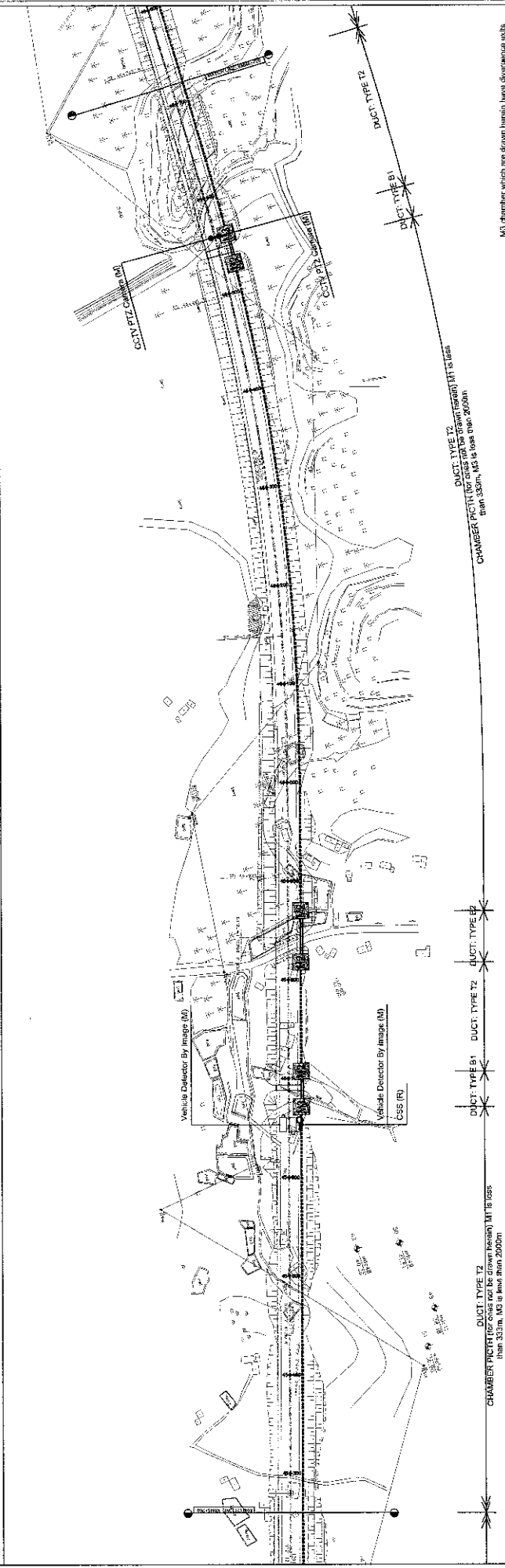
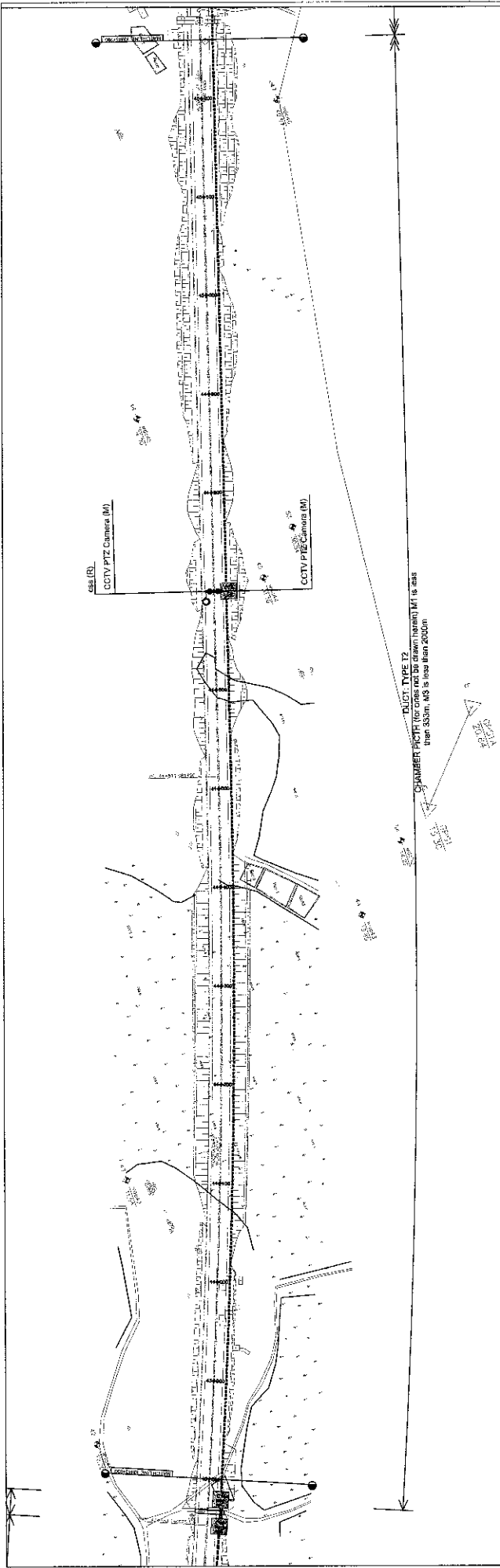
M3 chamber which are drawn herein have divergence walls

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ARCHIVES			
ORIENTAL CONSULTANTS CO., LTD		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO. XI-1-17			
NEXCO EAST ENGINEERING CO., LTD		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT		SHEET NO. _____ of _____			
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		(KVN3H080 - KM1+080, NOI BA-VIET TRI EXP.) - PR.305C IC - FOR REFERENCE		SCALE: 1:4000			
LANDTEC JAPAN INC		<p style="text-align: center;">MINISTRY OF TRANSPORT</p>					
TITLE	NAME					SIGNATURE	DATE
PREPARED BY							
CHECKED BY							
APPROVED BY							



CONSULTANT				SOCIALIST REPUBLIC OF VIETNAM		PACKAGE	
ORIENTAL CONSULTANTS CO., LTD		NAME		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO.	
NEXCO EAST ENGINEERING CO., LTD		SIGNATURE		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT		XI-1-13	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		DATE		(KIM1460 - K449+800; NOI BAU-VIET TRI EXP) - FOR REFERENCE		SHEET NO.	
LANDTEC JAPAN INC.		APPROVED BY				Sheet of	
		PREPARED BY				Scale 1:500	
		CHECKED BY					
		APPROVED BY					

M3 chamber which are drawn here have divergency units



CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING TITLE	
NEXCO EAST ENGINEERING CO., LTD				PACKAGE	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				DRAWING NO. XI.1-19	
LANDTEC JAPAN INC.				SHEET NO. Sheet of	
TITLE		NAME		SCALE: 1/4000	
PREPARED BY		SIGNATURE		DATE	
CHECKED BY					
APPROVED BY					

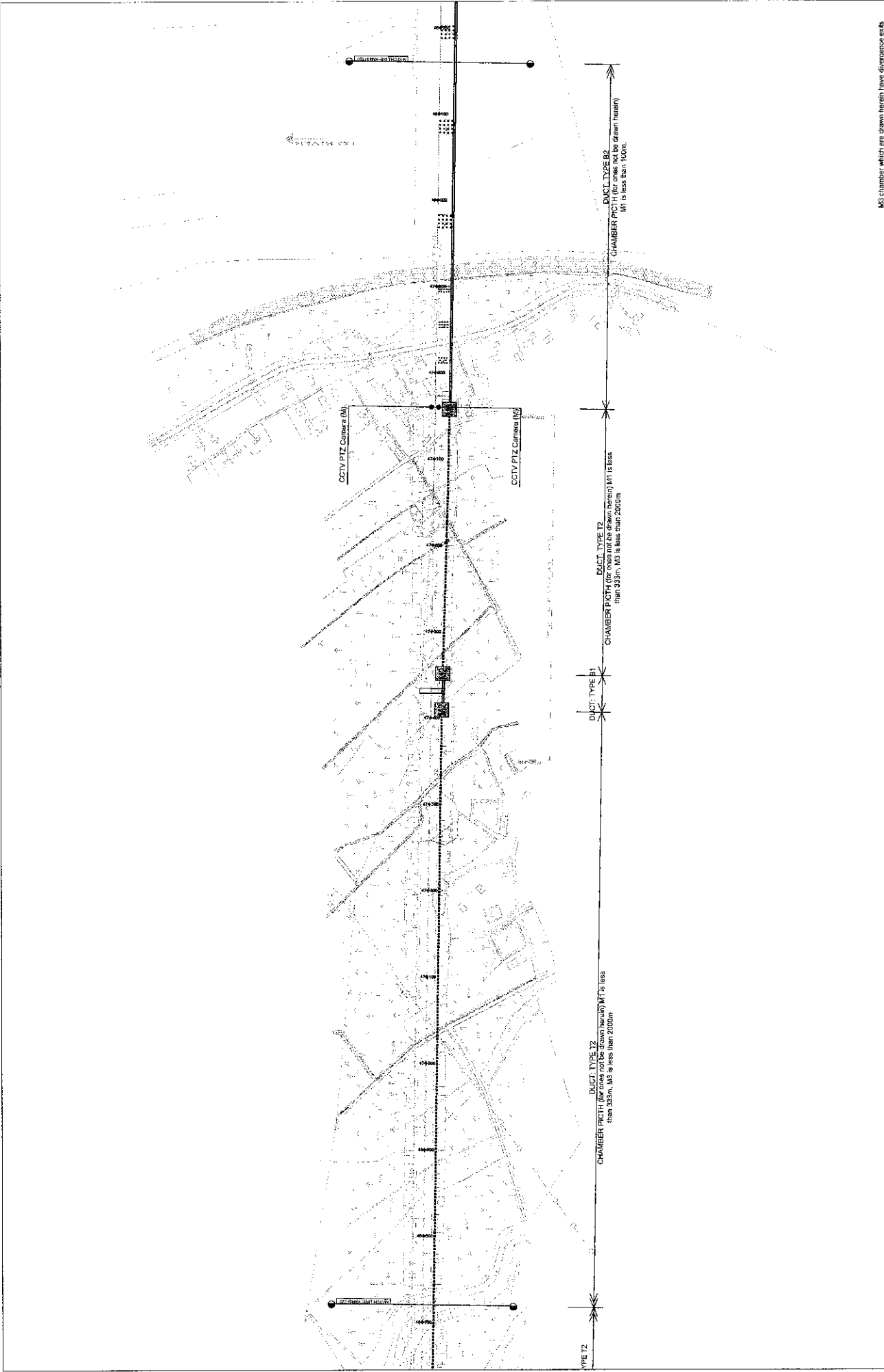
M3 chamber which are drawn herein have divergences units

DUCT TYPE T2
CHAMBER PHOTO (for cases not be drawn herein) M1 is less than 33.3m, M3 is less than 2000m

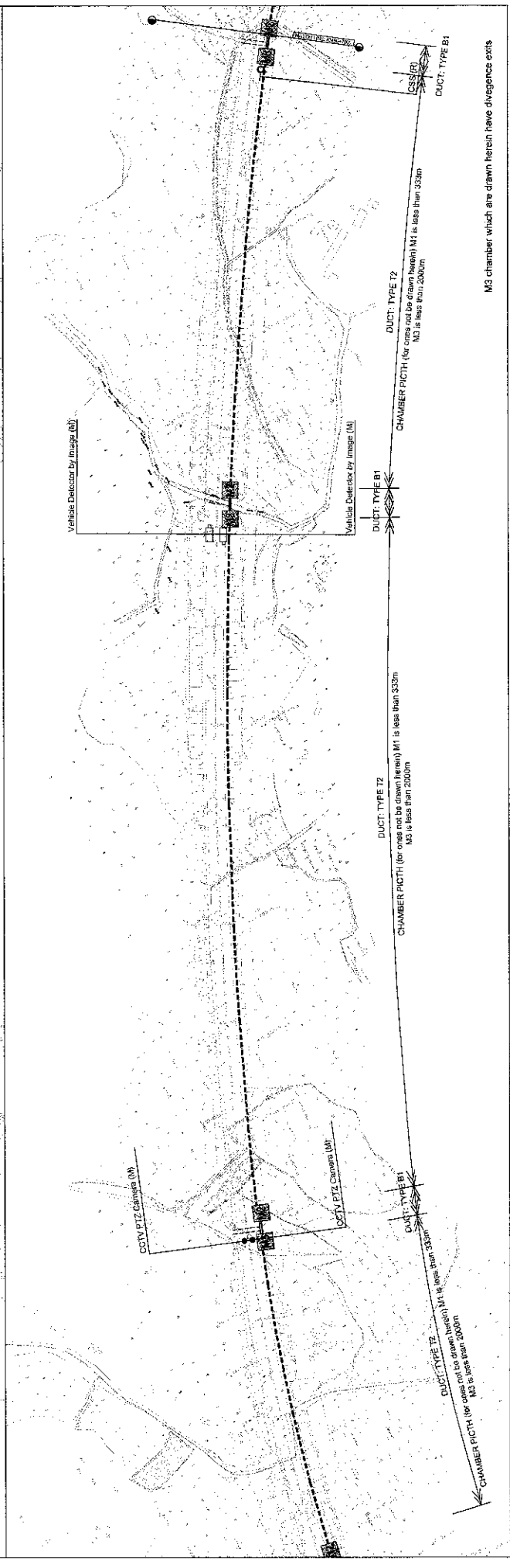
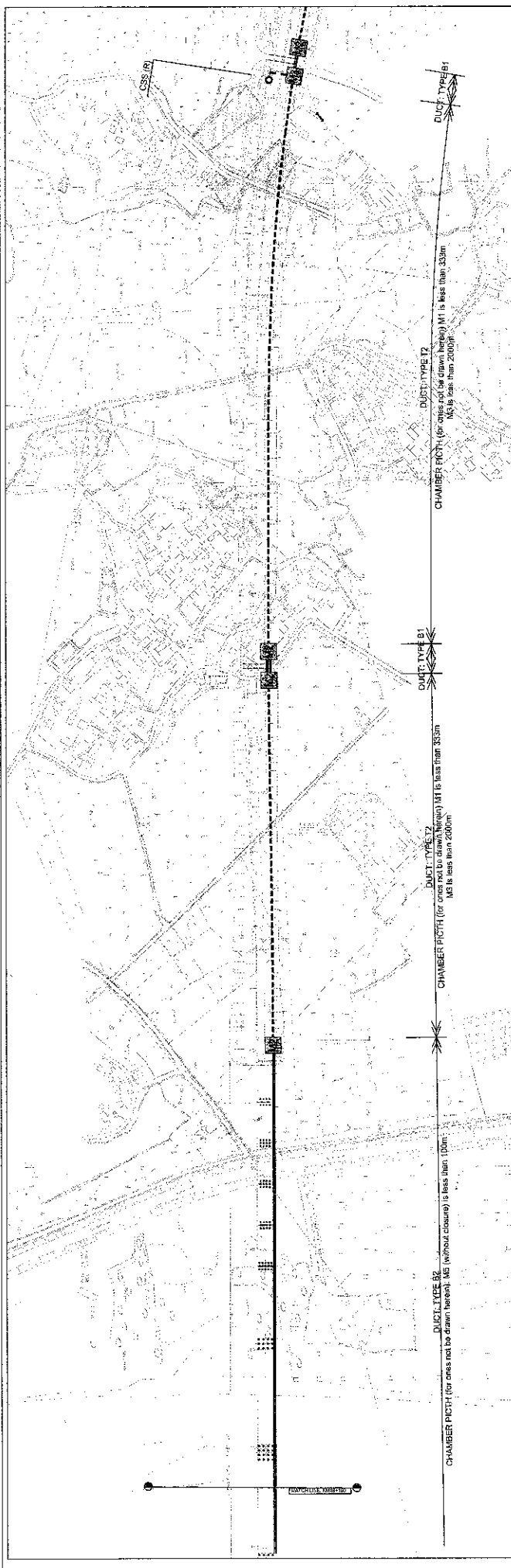
DUCT TYPE B1 DUCT TYPE T2 DUCT TYPE B2
CHAMBER PHOTO (for cases not be drawn herein) M1 is less than 33.3m, M3 is less than 2000m

DUCT TYPE T2
CHAMBER PHOTO (for cases not be drawn herein) M1 is less than 33.3m, M3 is less than 2000m

DUCT TYPE T2
CHAMBER PHOTO (for cases not be drawn herein) M1 is less than 33.3m, M3 is less than 2000m

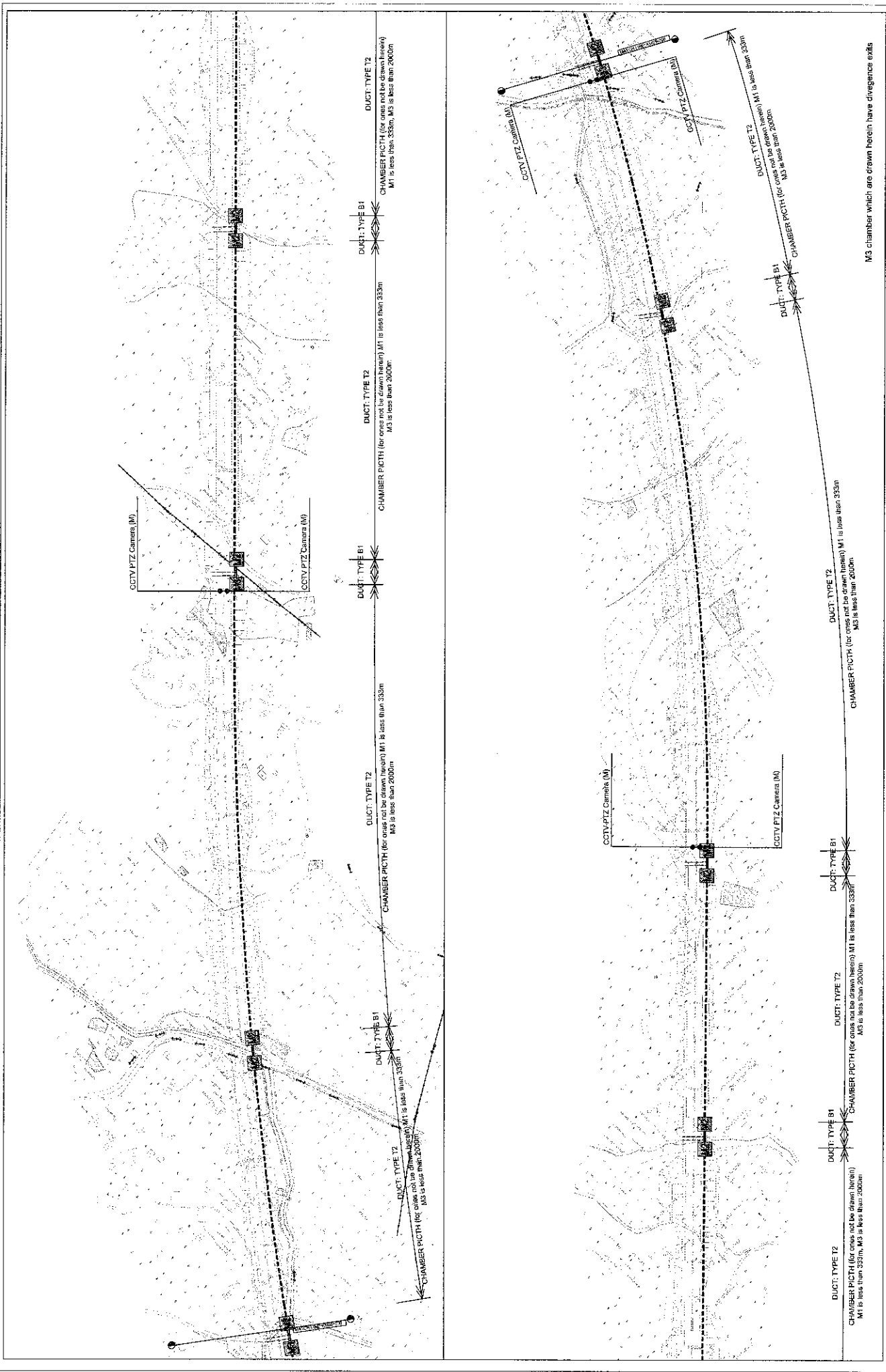


M3 chamber which are drawn herein have divergences exists



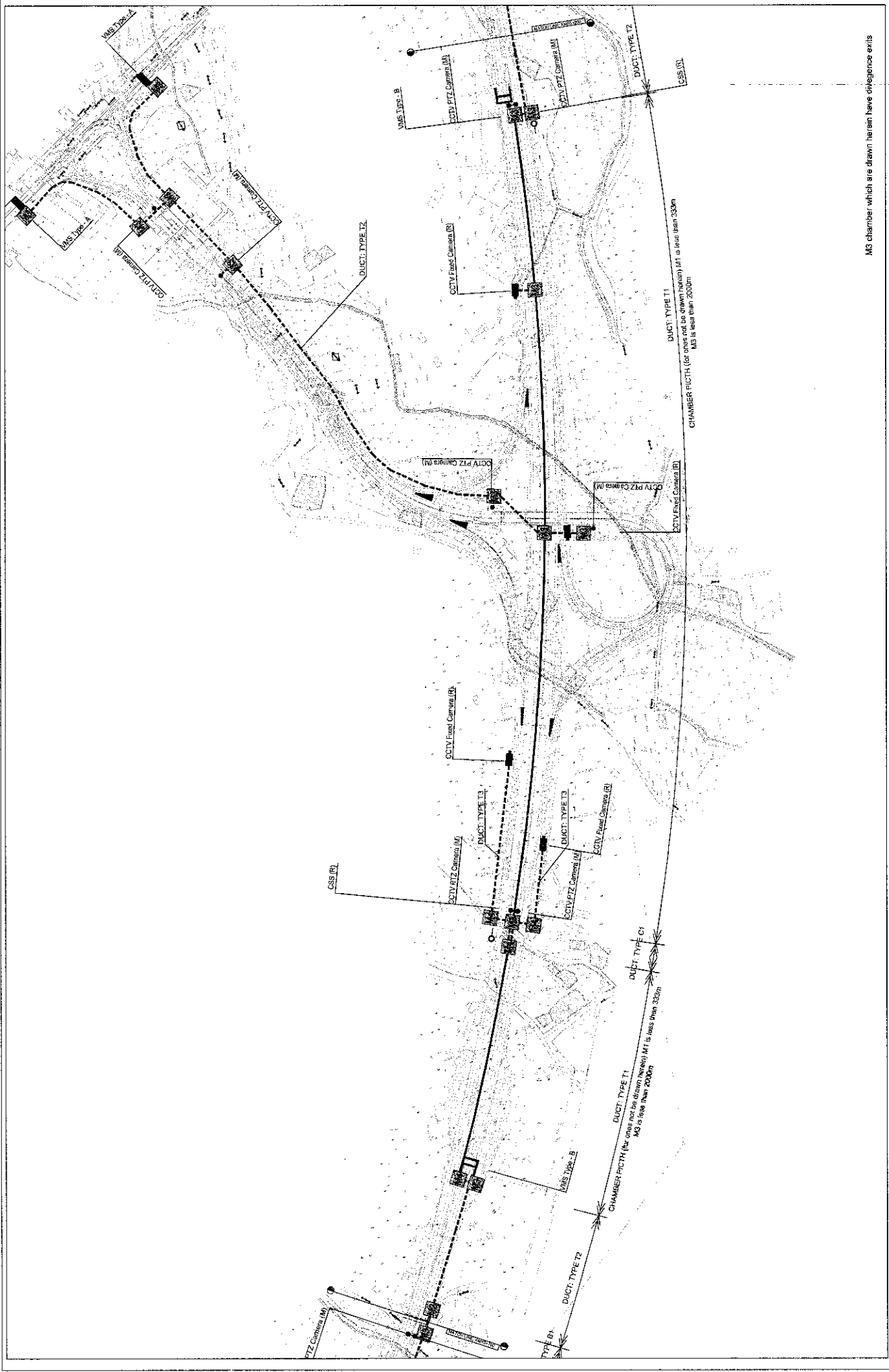
M3 chamber which are drawn herein have divergence exits

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		PACKAGE	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO.	XI.1 - 21
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY	LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT		DRAWING TITLE	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	CHECKED BY	(KM 48+160 - KM 50+700, NOI BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE		SHEET NO.	
LANDTEC JAPAN INC.	APPROVED BY			SHEET OF	
		SCALE			



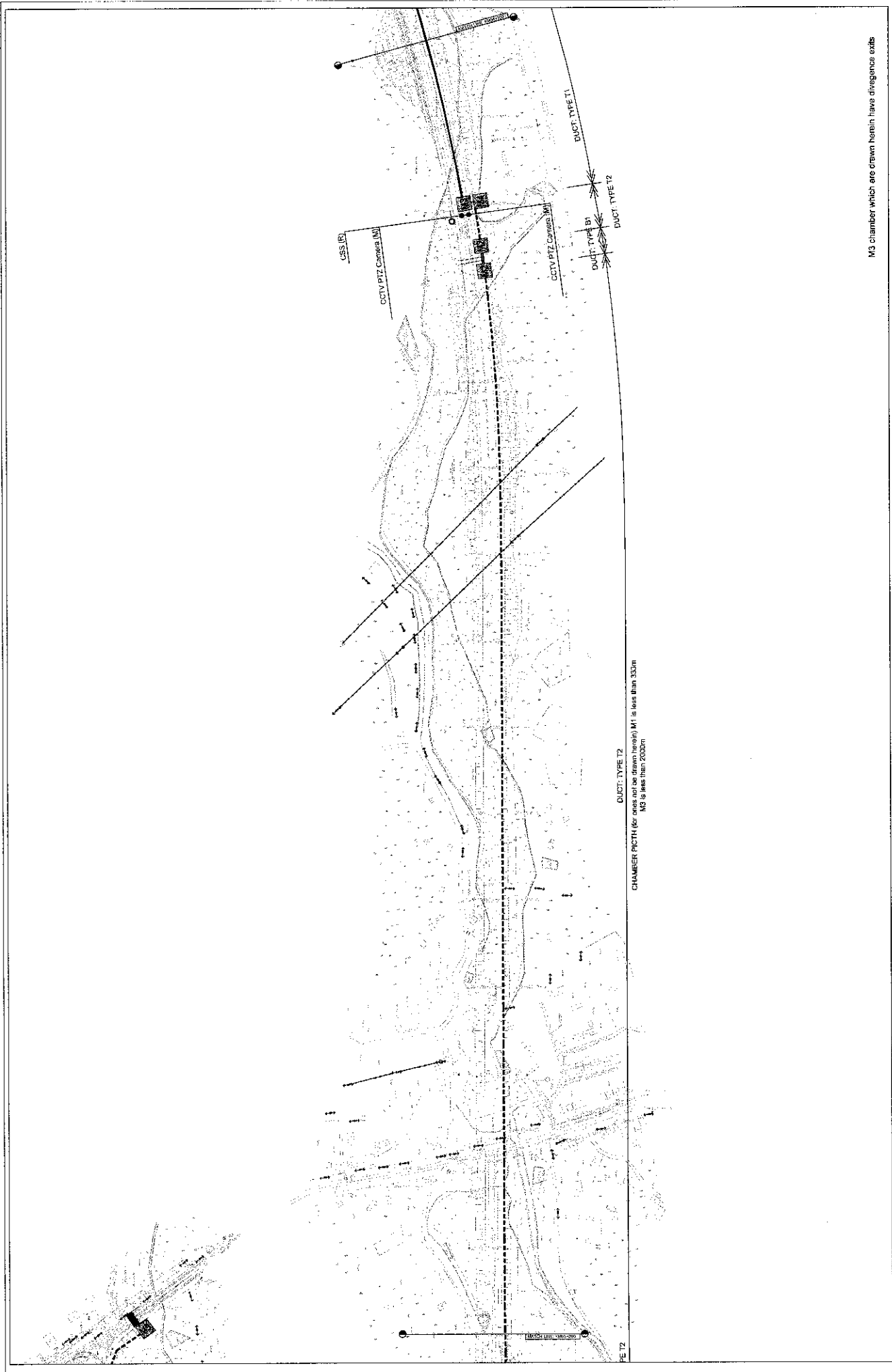
SOCIALIST REPUBLIC OF VIETNAM MINISTRY OF TRANSPORT		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
CONSULTANT ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		DRAWING TITLE LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM 50+700 - KM 63+700, NOI BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE	
TITLE	NAME	SIGNATURE	DATE
PREPARED BY			
CHECKED BY			
APPROVED BY			
PACKAGE: DRAWING NO. X1.1 - 22		SHEET NO. of	

M3 chamber which are drawn herein have divergence exits



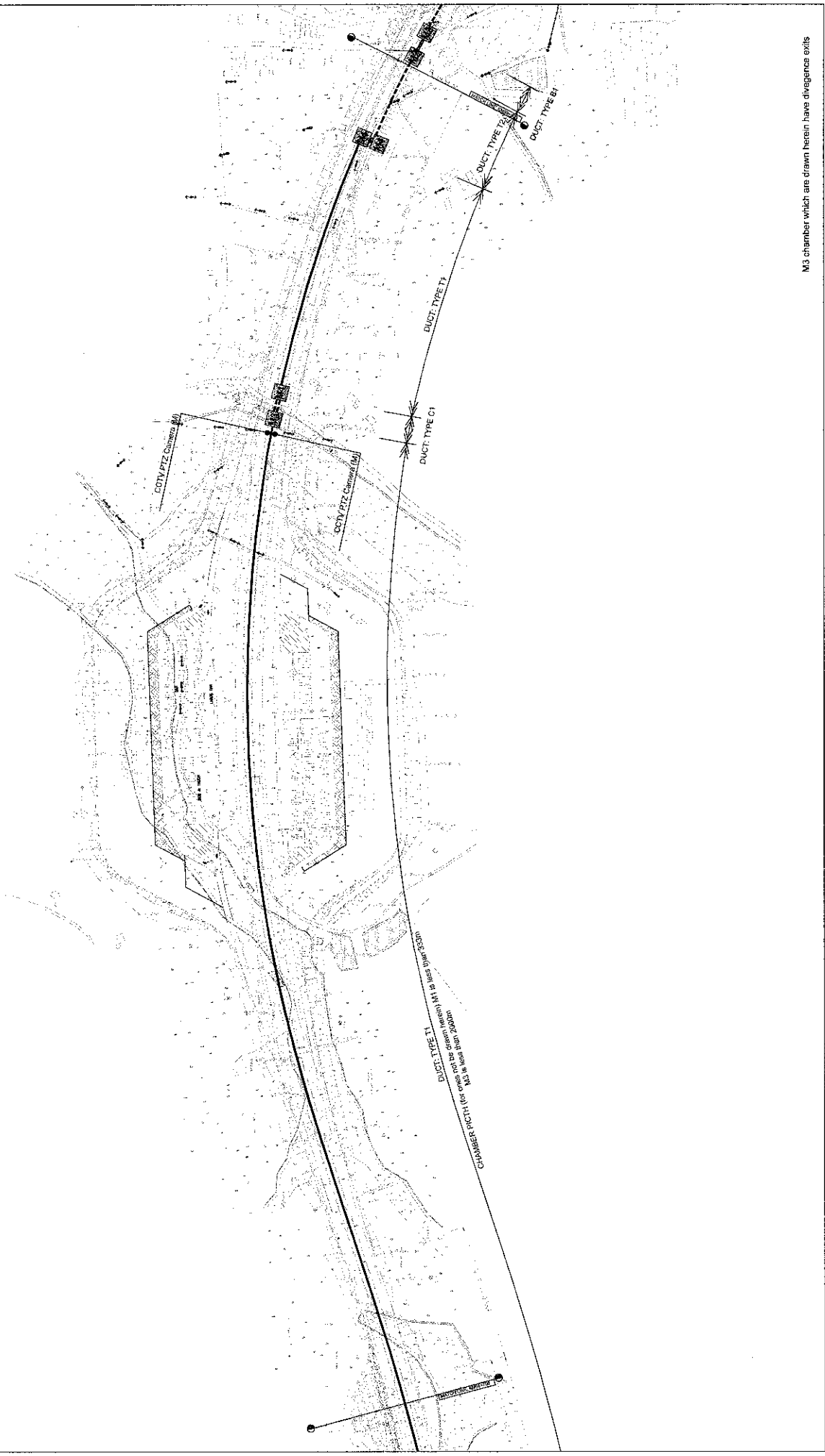
M3 chamber which are drawn herein have divergence exits

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		PACKAGE	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NEW NATIONAL HIGHWAY PROJECT ON		DRAWING NO.	
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY	ITS INTEGRATION PROJECT ON			
NIPPON KOEI CO., LTD	CHECKED BY	NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM			XI.1 - 23
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY	LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT		REVISION	
LANDTEC JAPAN INC.		(KM 53+700 - KM 55+200, NOI BAI - VIET TR EXPRESSWAY), NH2 - PHU NHU IC - FOR REFERENCE		SCALE:	



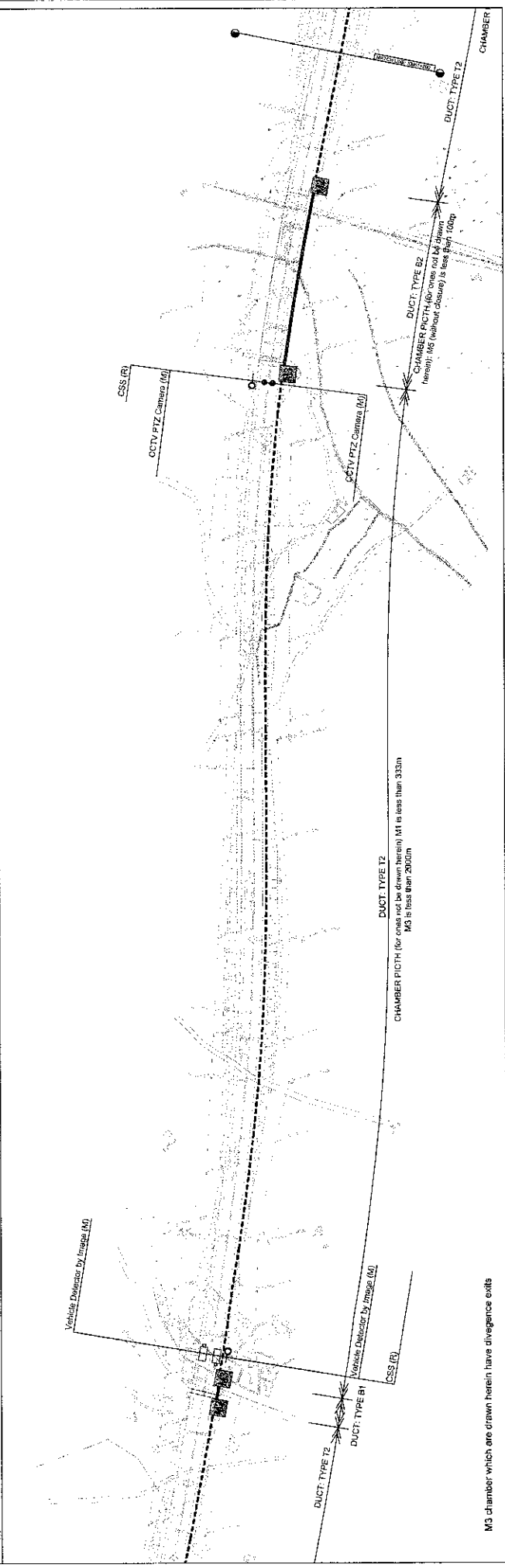
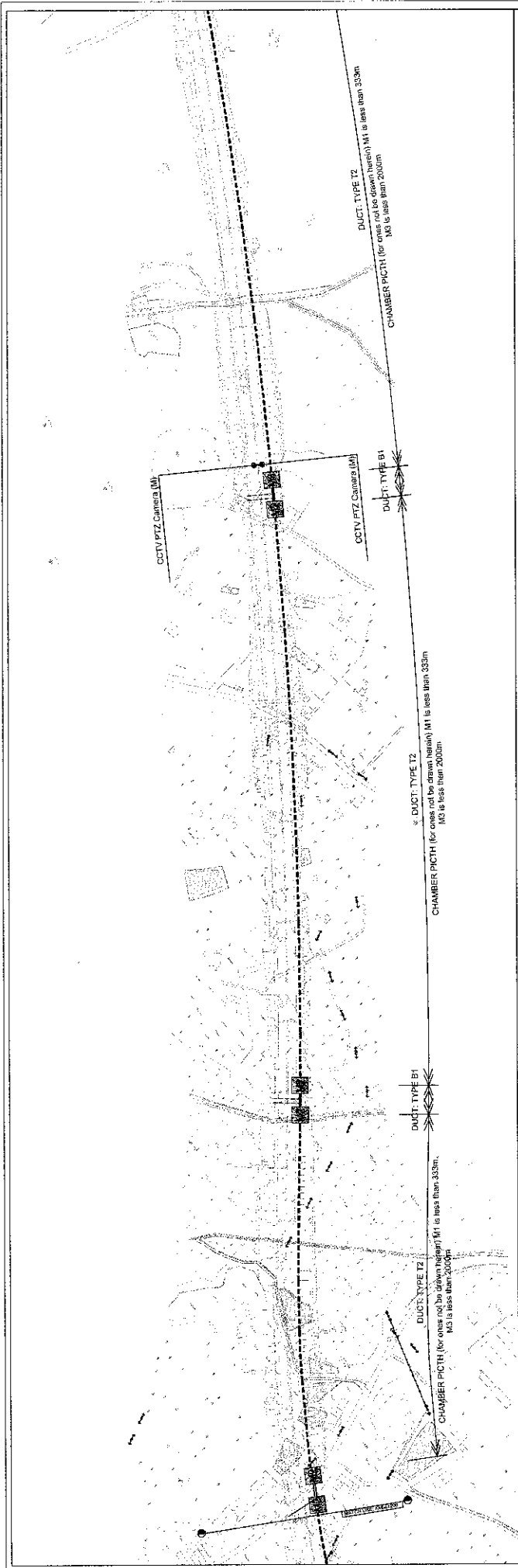
M3 chamber which are drawn herein have divergence exits

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		PACKAGE	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO.	
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY	LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT		XI.1 - 24	
NIPPON KOEI CO., LTD	CHECKED BY	(KM 55+200 - KM 56+700, NOI BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE		SHEET No.	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY			of	
LANDTEC JAPAN INC.				SCALE	



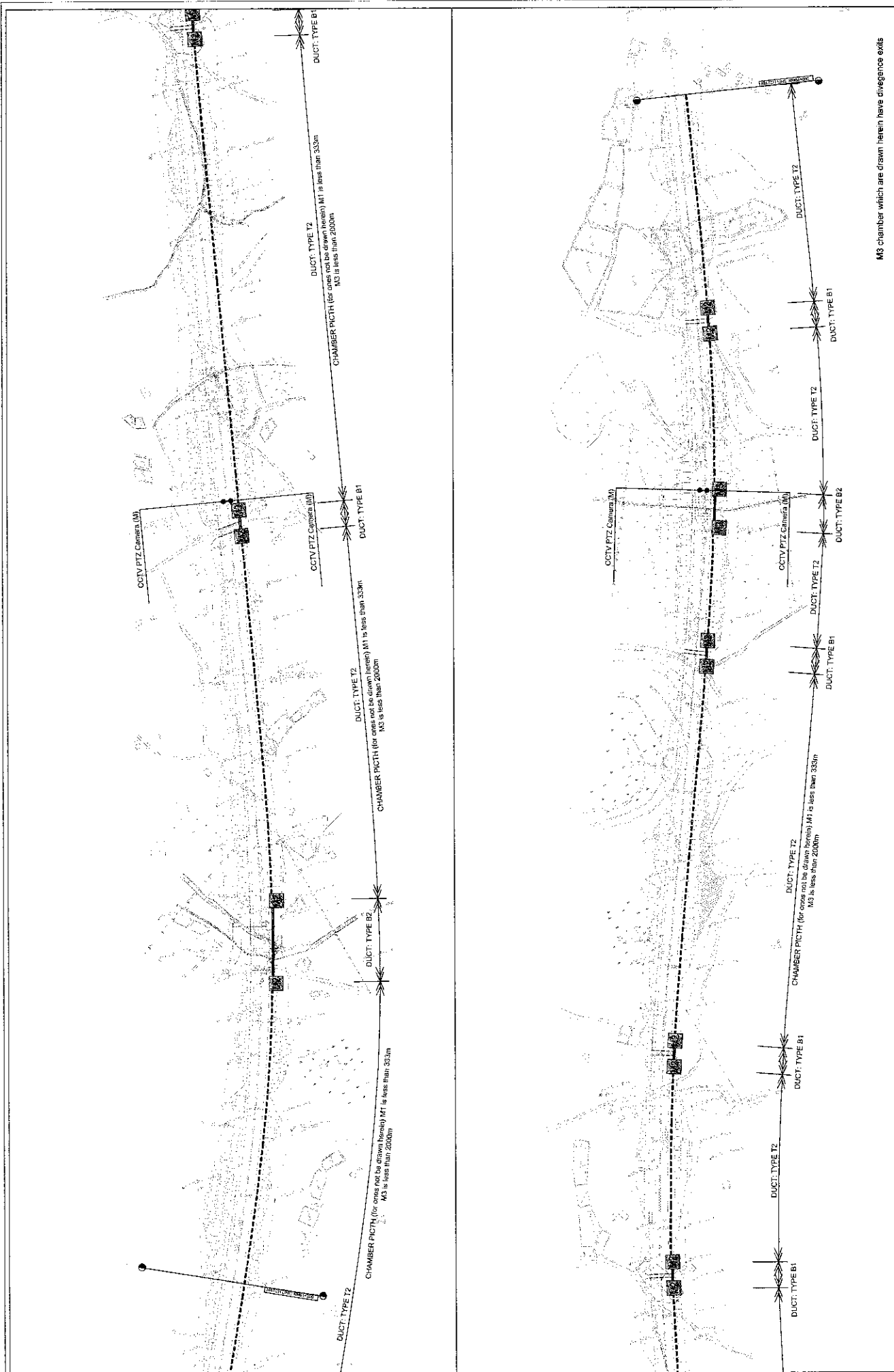
M3 chamber which are drawn herein have divergency exits

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		PROJECT NO.
ORIENTAL CONSULTANTS CO., LTD						
NEXCO EAST ENGINEERING CO., LTD						
NIPPON KOGI CO., LTD						
TRANSPORTATION RESEARCH INSTITUTE CO., LTD						
LANDTEC JAPAN INC.						
MINISTRY OF TRANSPORT		DRAWING TITLE		DRAWING NO.		
		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM 56+700 - KM 68+200, NOI BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE		X1.1		25
				SHEET NO.		16
				SCALE		
				Sheet		of



M3 chamber which are drawn herein have divergence exits

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		PACKAGE	
ORIENTAL CONSULTANTS CO., LTD		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO. X1.4 - 26	
NEXCO EAST ENGINEERING CO., LTD		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT		SHEET NO. of	
NIPPON KOEI CO., LTD		(KM 58+200 - KM 61+200, NOI BA1 - VIET TRI EXPRESSWAY) - FOR REFERENCE		Scale	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				Sheet of	
LANDTEC JAPAN INC.				No.	
TITLE	NAME	SIGNATURE	DATE		
PREPARED BY					
CHECKED BY					
APPROVED BY					

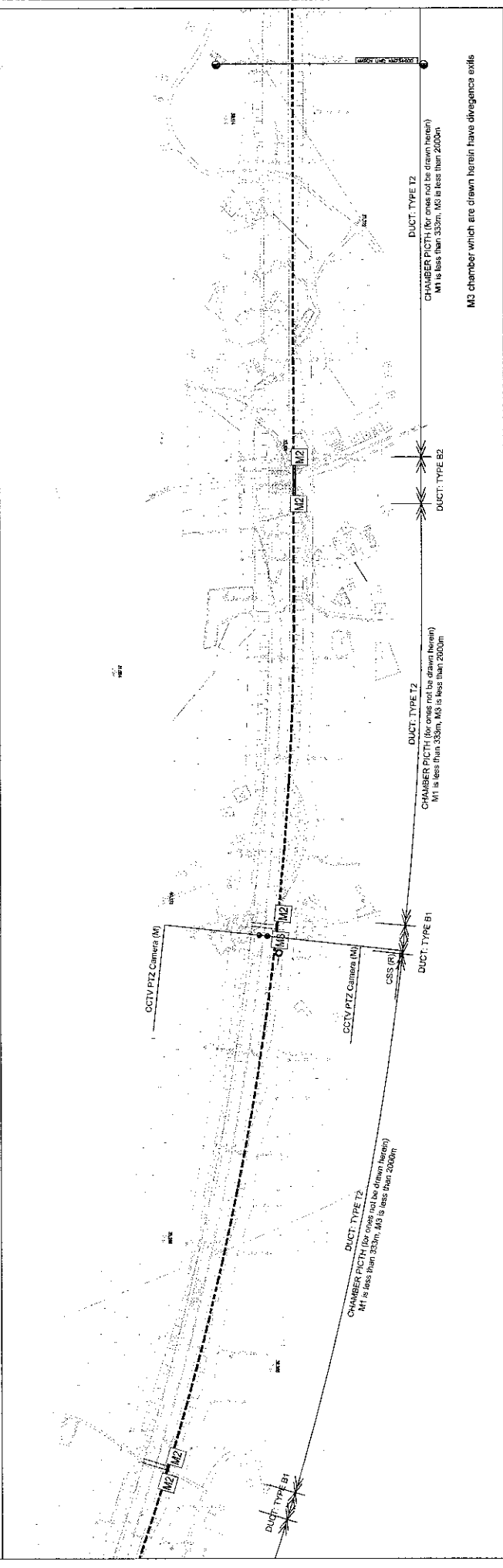
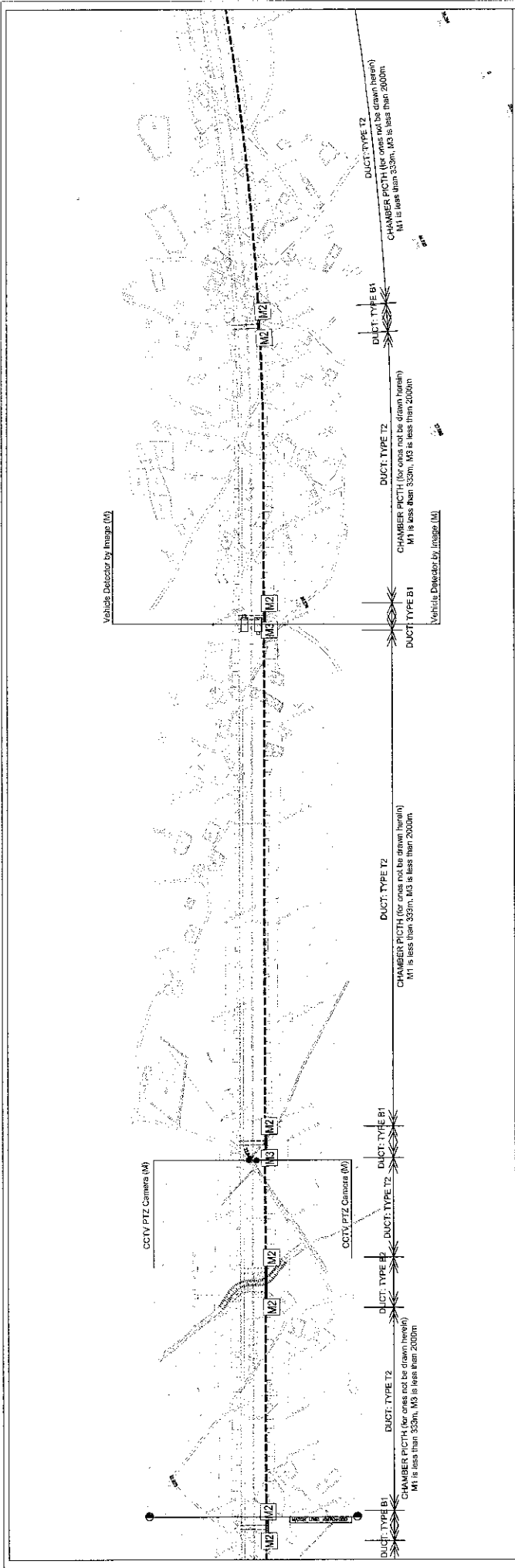


M3 chamber which are drawn herein have divergence exits

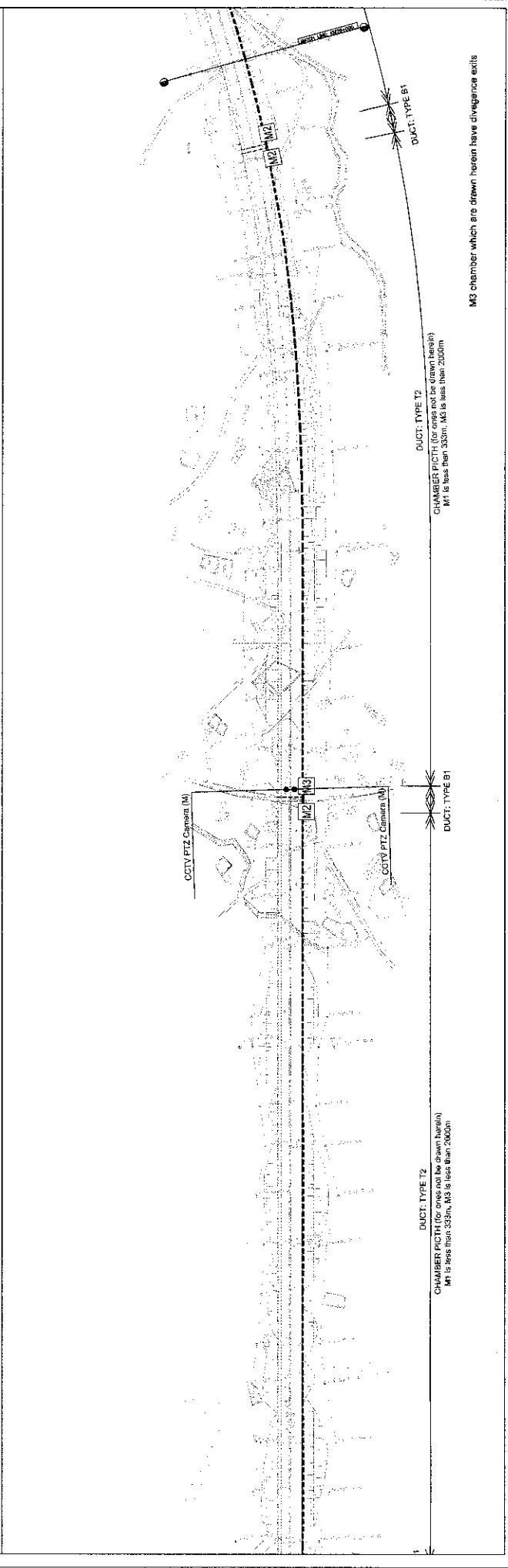
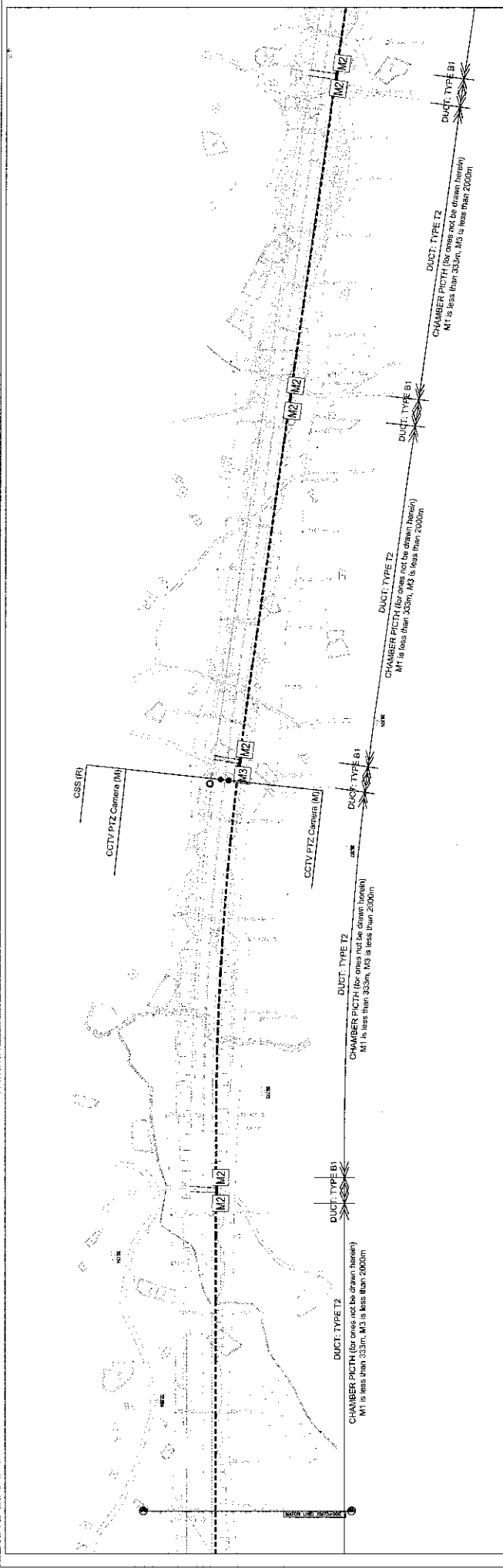
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ORIENTAL CONSULTANTS CO., LTD	TITLE	ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO.	X1.1 - 27
NEXO EAST ENGINEERING CO., LTD	PREPARED BY	LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM 81+200 - KM 84+000, NOI BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE		CLIENT No.	Rev
NIPPON KOEI CO., LTD	CHECKED BY			Sheet	of
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY			SCALE	
LANDTEC JAPAN INC.					



SOCIALIST REPUBLIC OF VIETNAM MINISTRY OF TRANSPORT		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM 64+000 - KM 65+500, NOI BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE		PACKAGE DRAWING NO. SHEET NO.	X1.1-28 of
CONSULTANT ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		TITLE PREPARED BY CHECKED BY APPROVED BY	NAME SIGNATURE DATE	SCALE	

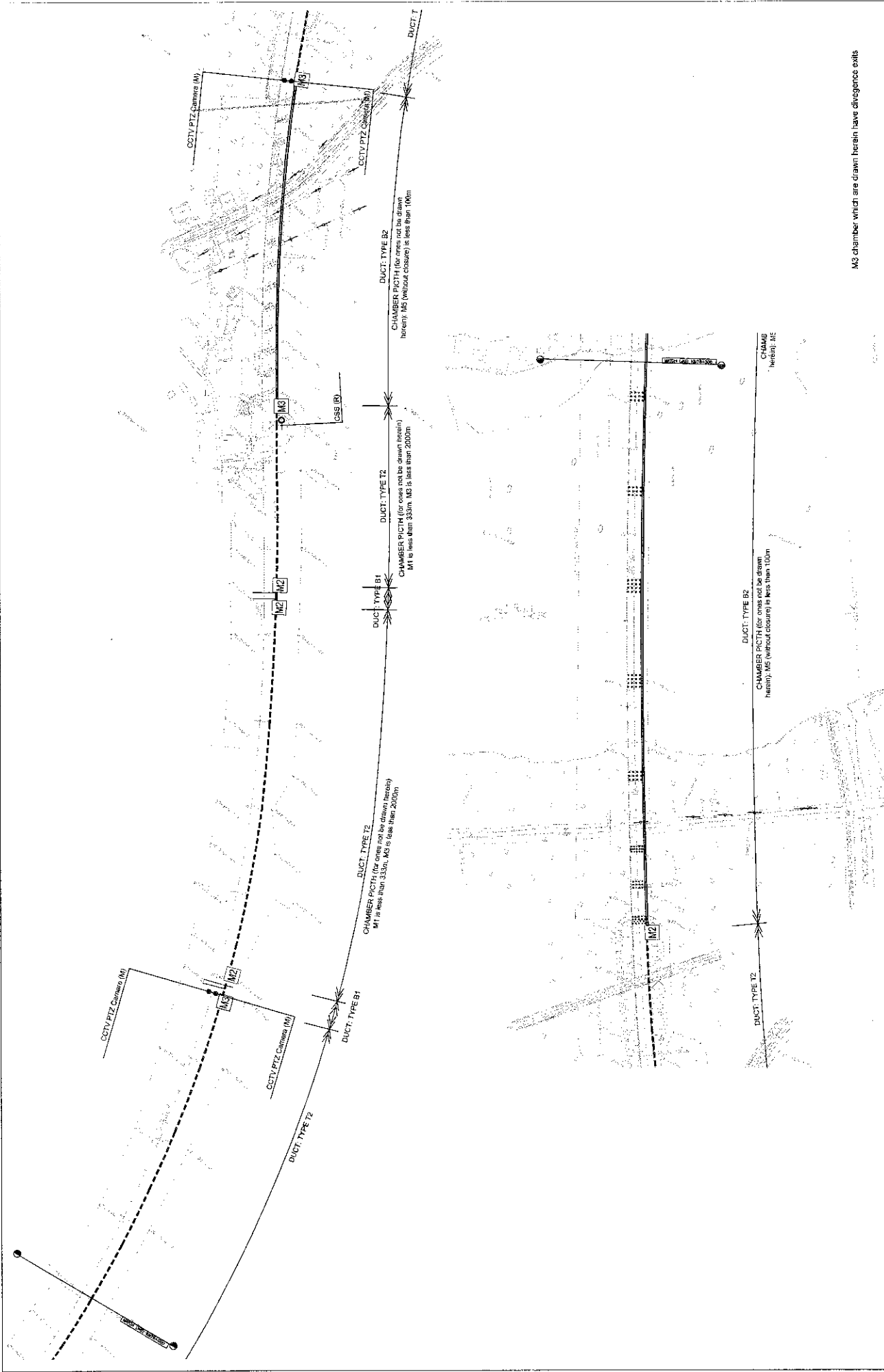


CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		PROJECT NO.
ORIENTAL CONSULTANTS CO., LTD				DRAWING TITLE		DRAWING NO.
NEXCO EAST ENGINEERING CO., LTD		MINISTRY OF TRANSPORT		LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM 79+000 - KM 73+000, NOI BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE		XI.1-31
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				SCALE		Sheet
LANDTEC JAPAN INC.						of
TITLE	NAME	SIGNATURE	DATE	Rev		
PREPARED BY				Sheet		
CHECKED BY				of		
APPROVED BY				Rev		



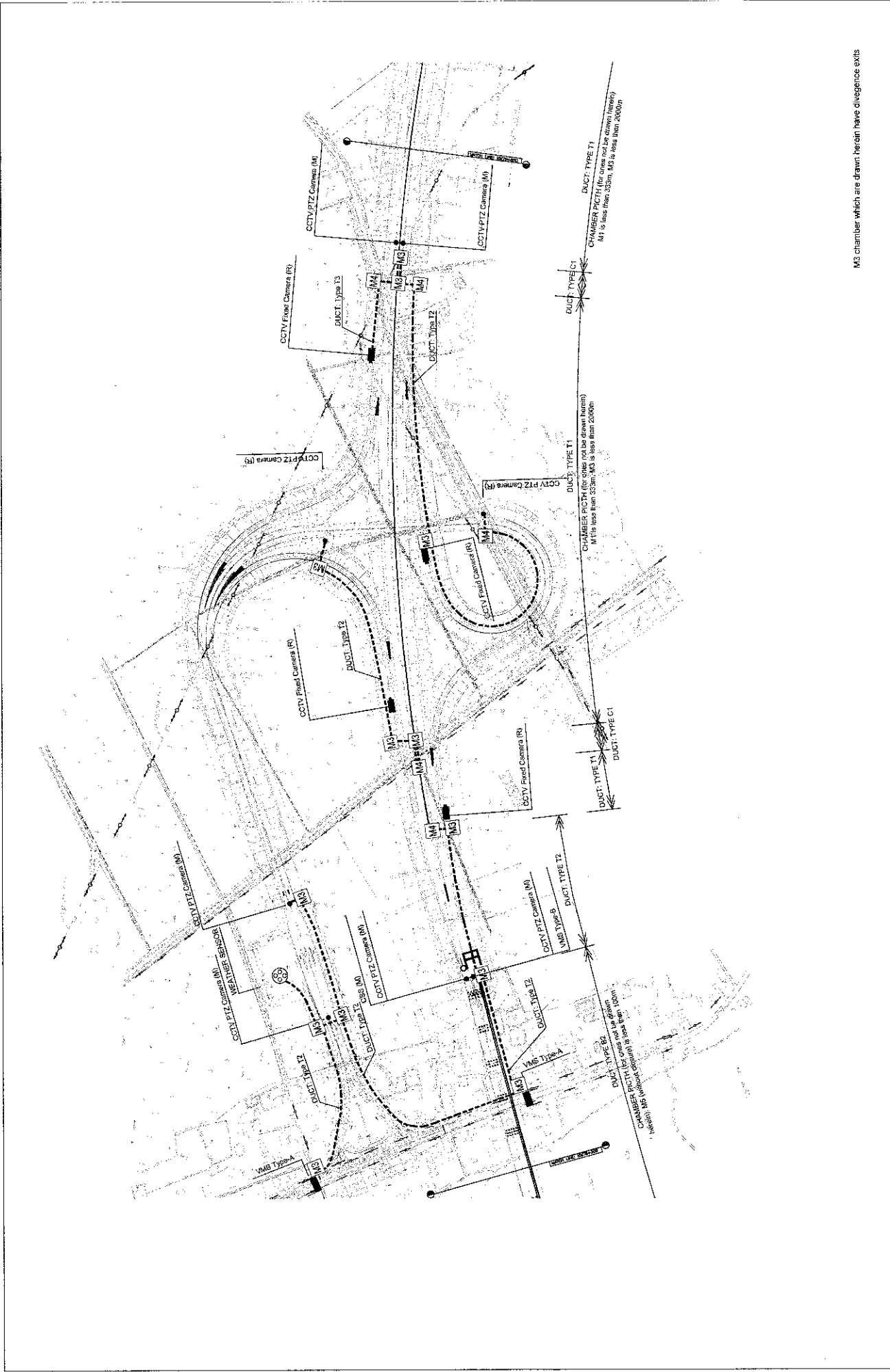
M3 chamber which are drawn herein have divergence exits

CONSULTANT		SIGNATURE		DATE	
ORIENTAL CONSULTANTS CO., LTD					
NEXCO EAST ENGINEERING CO., LTD					
NIPPON KOEI CO., LTD					
TRANSPORTATION RESEARCH INSTITUTE CO., LTD					
LANDTEC JAPAN INC.					
SOCIALIST REPUBLIC OF VIETNAM		SIGNATURE		DATE	
MINISTRY OF TRANSPORT					
ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		SIGNATURE		DATE	
DRAWING TITLE LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM 73+000 - KM 78+000, NO1 BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE		SIGNATURE		DATE	
DRAWING NO X1.1-32		SIGNATURE		DATE	
SHEET NO of		SIGNATURE		DATE	
SCALE		SIGNATURE		DATE	



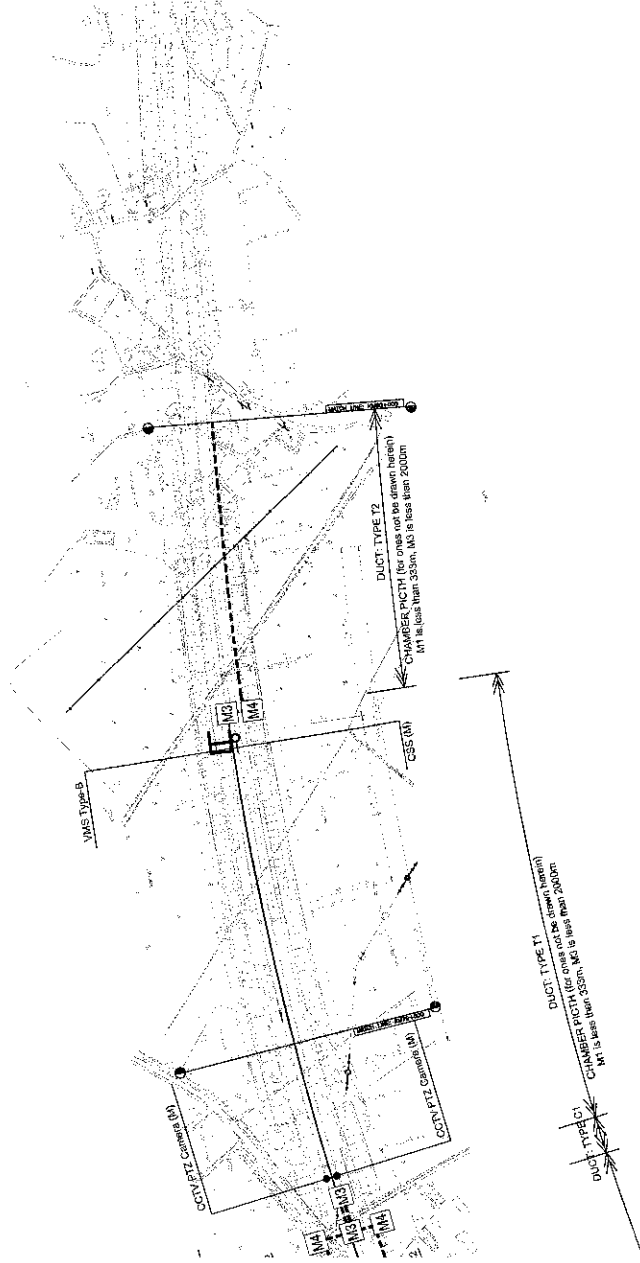
M3 chamber which are drawn herein have divergence exits

CONSULTANT				SOCIALIST REPUBLIC OF VIETNAM			
TITLE	NAME	SIGNATURE	DATE	ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM			
PREPARED BY				DRAWING NO. XI.1-33			
CHECKED BY				PROJECT TITLE LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT (KM 78+000 - KM 78+300, NOI BAU - VIET TRI EXPRESSWAY) - FOR REFERENCE			
APPROVED BY				SHEET NO. _____ of _____ Scale 1:4000			
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.			SCALE 1:4000				



CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD				PROJECT TITLE	
NEXCO EAST ENGINEERING CO., LTD				LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				PROJECT NO. (NHTP-306-NHTP480-N01/BAU-VIET TR. EXPRESSWAY), I-HSCC-SM (NVA-CC-FOR REFERENCE)	
LANDTEC JAPAN INC.				SCALE 1:4000	
TITLE	NAME	SIGNATURE	DATE	DRAWING NO. X1.1-34	
PREPARED BY				SHEET No. _____ of _____	
CHECKED BY				Rev. _____	
APPROVED BY					

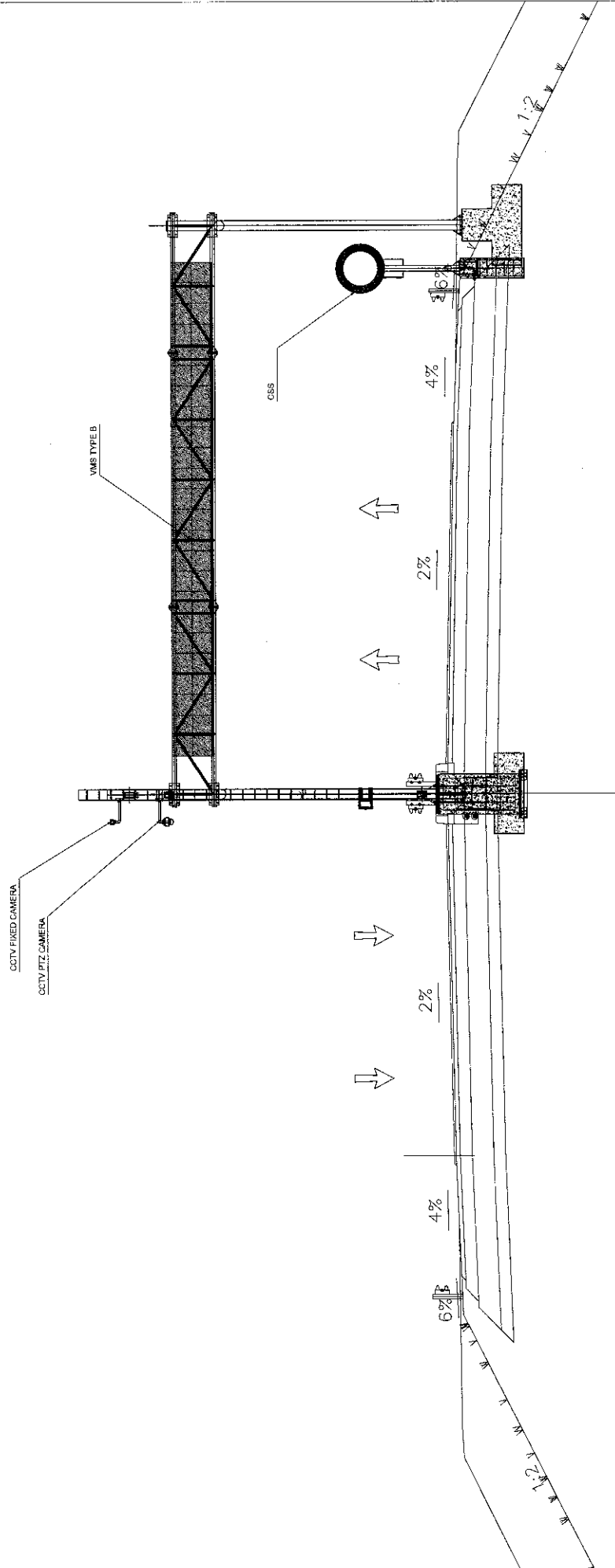
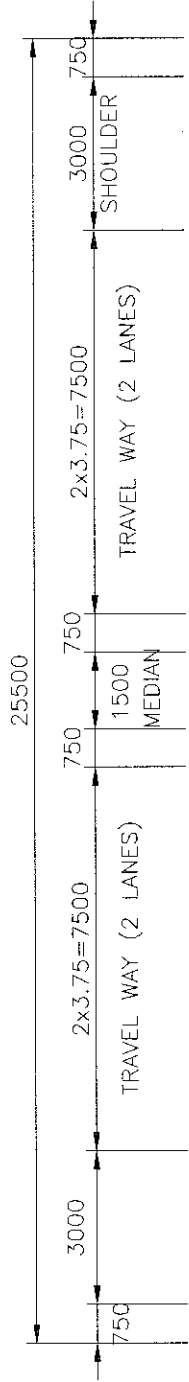
M3 chamber which are drawn herein have divergence exits



M3 chamber which are drawn herein have divergence exits

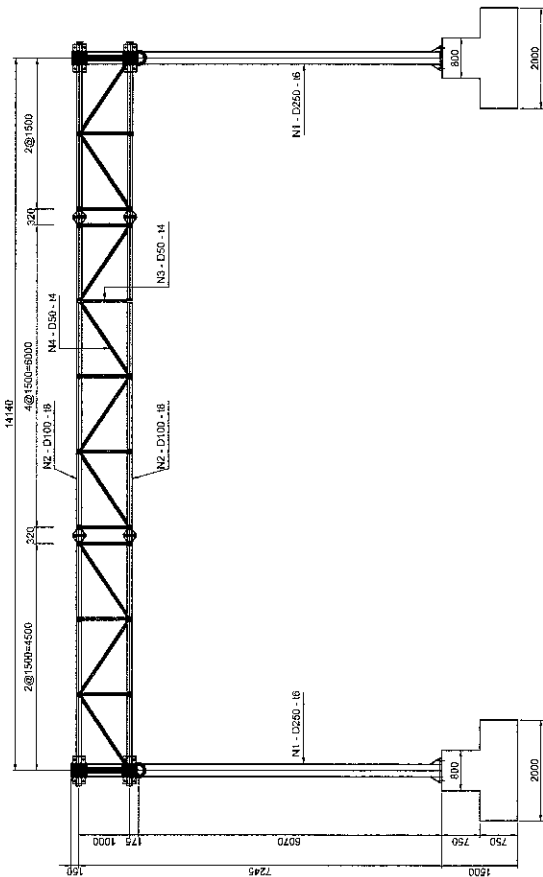
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		PROJECT TITLE	
ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
NEXCO EAST ENGINEERING CO., LTD				DRAWING TITLE	
NIPPON KOEI CO., LTD				LAYOUT PLAN OF ROADSIDE EQUIPMENT & COMMUNICATION DUCT	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				(KM 79+400 - KM 80+000, NOI BAI - VIET TRI EXPRESSWAY) - FOR REFERENCE	
LANDTEC JAPAN INC.				PACKAGE	
				DRAWING NO	
				X1.1-35	
				SHEET NO.	
				Sheet	
				of	
				SCALE	
				1/4000	

TYPICAL CROSS SECTION

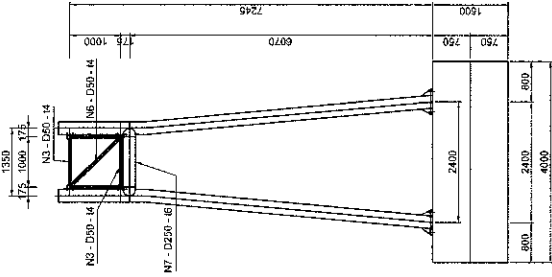


CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		PACKAGE
ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING TITLE		DRAWING NO.
NEXCO EAST ENGINEERING CO., LTD				TYPICAL CROSS SECTION OF EQUIPMENT ARRANGEMENT		XI.2-C
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				OF NOI BAI - VIET TRI EXP. - FOR REFERENCE		SHEET NO.
LANDTEC JAPAN INC.						Sheet of
TITLE	NAME	SIGNATURE	DATE	SCALE: 1:200		
PREPARED BY				Rev		
CHECKED BY				of		
APPROVED BY						

MAIN VIEW
SCALE: 1/100



SIDE VIEW
SCALE: 1/100



GENERAL VIEW
SCALE: 1/300

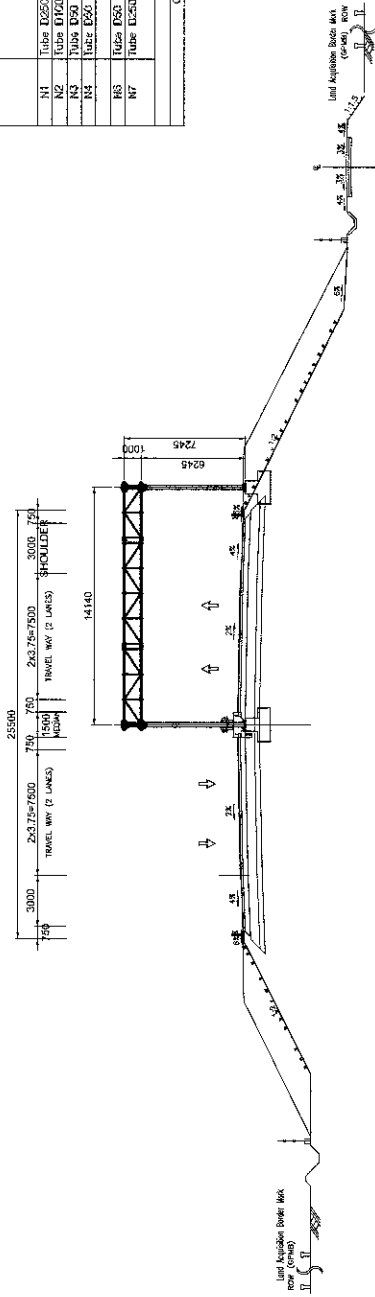


TABLE OF QUANTITY

Element	Type	Weight of 1 element (kg)	Number of element	Total weight (kg)	Notes
N1	Tube D250 E-8 L=7494	270.57	4	1082.27	Main column (upper part)
N2	Tube D170 E-8 L=14770	283.09	4	1072.35	Top chord, Bottom chord
N3	Tube D50 E-8 L=1000	4.54	48	217.81	Vertical web bar
N4	Tube D50 E-8 L=1893	19.00	30	570.18	Diagonal web bar
N5	Tube D50 E-8 L=1414	7.85	12	94.15	Diaphragm
N7	Tube D250 E-8 L=1530	481.74	2	963.48	Diaphragm
Total steel				2824.23	
Concrete (assumed)				193000	

NOTES:

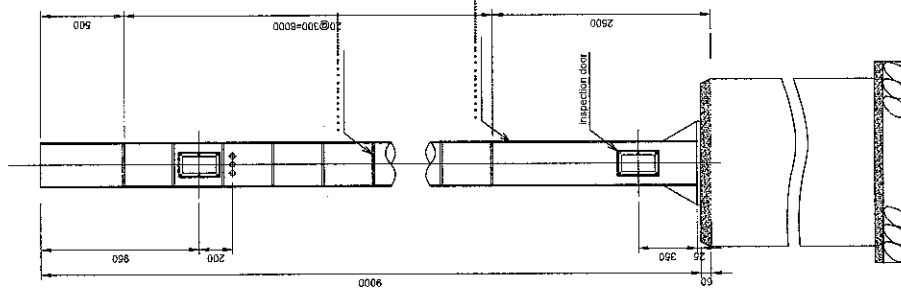
- Dimensions are in millimeter.
- Structural steel conforms ASTM A-700M, Grade 250 or equivalent with:
Yield strength: $F_y = 250$ MPa
Tensile strength: $F_u = 400$ MPa
- Concrete structure equivalence with:
Concrete strength: $F_c = 18$ MPa
Reinforcing Bar (CS300-II) : Yield strength: $F_y = 300$ MPa
Tensile strength: $F_u = 400$ MPa
- The depth of foundation is just an estimated value.
The final depth of foundation shall be based on the soil condition.
These structure should be redesigned to meet site condition.
- In case without any recommendation about zebra in details all metal member exposed to weather or soil must be zinc-coated with a minimum of 600g/m².

CONSULTANT				SOCIALIST REPUBLIC OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	NEXCO EAST ENGINEERING CO., LTD	TRANSPORTATION RESEARCH INSTITUTE CO., LTD	LANDTEC JAPAN INC.	MINISTRY OF TRANSPORT	
TITLE	NAME	SIGNATURE	DATE	ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
PREPARED BY				NOI BAI - VIET TRI EXPRESSWAY	
CHECKED BY				DETAIL OF GANTRY AT EARTH SECTION - FOR REFERENCE	
APPROVED BY				SCALE: Various	SHEET No. XI.2-02

SUPPORT POLE FOR CAMERA

FOUNDATION scale: 1/30

FOUNDATION scale: 1/30

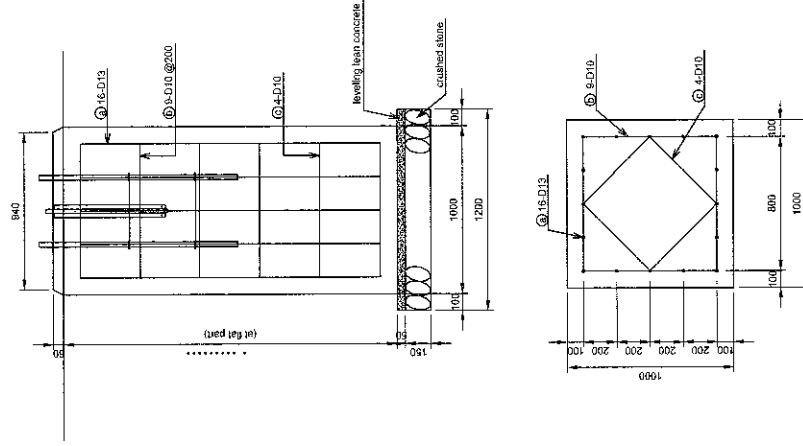


Volume table of support pole

Material	Dimension	Weight (kg)
Pole	Steel	344.3
Step	Steel	9.4
Base	Steel	45.2
Base	Steel	9.0
Total weight		416

Volume table of foundation

Items	class	unit	volume at tail part	volume at embankment	remarks
concrete	M200	m ³	1.700	2.210	
formwork		m ²	6.600	8.800	
rebar	D13	kg	28.66	36.62	
	D10	kg	22.87	29.71	
anchor bolt	M30x1000/4	set	1	1	
normal bend	VE28	m	4.5	4.5	1.5mx3
crushed stone		m ³	0.216	0.216	
leveling lean concrete		m ³	0.072	0.072	
excavation		m ³	7.600	8.491	
backfill		m ³	3.612	6.220	
disposal of waste soil		m ³	1.988	2.272	



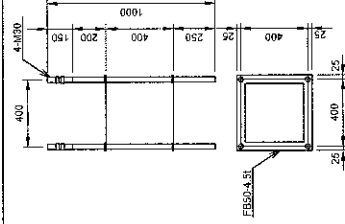
Volume table of rebar at tail part

type	shape	length (m)	volume	weight (kg)
a	D13	1.80	18	28.66
b	D10	3.43	9	17.29
c	D10	2.49	4	6.58

Volume table of rebar at embankment part

type	shape	length (m)	volume	weight (kg)
a	D13	2.30	18	36.62
b	D10	3.43	11	21.13
c	D10	2.49	4	6.58

ANCHOR BOLT scale: 1/30



1) Strength of steel conforms to ASTM A-709M Grade 250 or equivalent with yield strength $F_y = 250$ MPa, Tensile strength $F_u = 450$ MPa.
 2) Concrete structure equivalent with: Concrete strength $f_c = 20$ MPa, Compressive strength $F_c = 300$ MPa, Reinforcing bar (GB8163) Tensile strength $F_t = 450$ MPa.
 3) In case without any recommendation about pricing in details, all detail drawings shall be based on NEXCO(Japan) drawings.
 4) These structures should be redesigned to meet site condition.

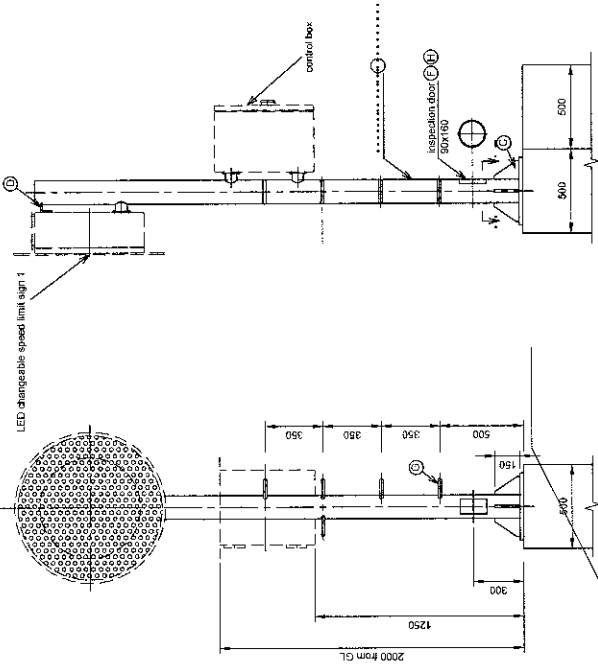
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON	
ORIENTAL CONSULTANTS CO., LTD		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO	
NEXCO EAST ENGINEERING CO., LTD		NOI BAI - VIET TRI EXPRESSWAY		X12-03	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		SUPPORT POLE FOR CAMERA - FOR REFERENCE		SHEET No.	
LANDTEC JAPAN INC.				Sheet of	
TITLE	NAME	SIGNATURE	DATE		
PREPARED BY					
CHECKED BY					
APPROVED BY					

SUPPORT POLE FOR CHANGEABLE SPEED LIMIT SIGN

SUPPORT POLE FOR CHANGEABLE SPEED LIMIT SIGN scale: 1/30
(AT ENDS)

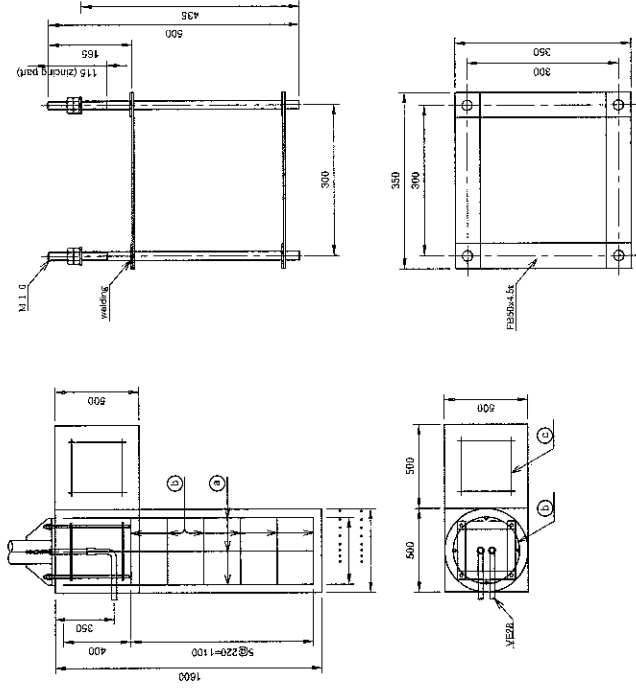
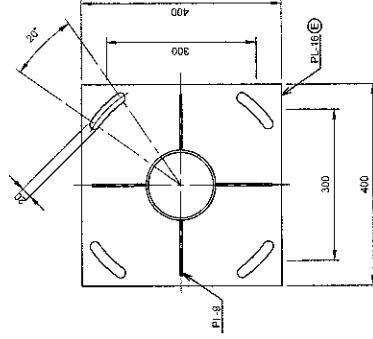
FOUNDATION scale: 1/30

ANCHOR BOLT scale: 1/10



(AT MIDDLE)

BASE PLATE SCALE: 1/10



Rebar processing table of foundation

Type	Shape	Volume at embankment
a	D13	4
b	D10	8
c	D13	12

% is used for maintenance.

Volume table of foundation

Items	Class	Unit	Volume
concrete	D13	m ³	0.465
rebar	D10	kg	9.719
formwork		m ²	5.860
disposal of waste soil		m ³	0.3
total			16.344

Volume table of support pole

Material	Dimension	Weight (kg) at ends	Weight (kg) at middle
Steel	.....	47.0	42.0
Steel	51	16.0	16.0
Steel	61	1.4	1.4
Steel	161	20.0	20.0
Steel	3.21	1.4	1.4
Steel	.....	4.0	4.0
Steel	P19B04	1.9	1.9
Total weight		95	87

- *1 Structural steel conforms to ASTM A-708M Grade 250 or equivalence with Tensile strength: $F_u = 450 \text{ MPa}$
- *2 Concrete structure equivalence with: Concrete strength: $F_c = 18 \text{ MPa}$ Reinforcing bar (D10-D13): Tensile strength: $F_u = 450 \text{ MPa}$
- *3 In case without any reinforcement, about placing in details, all metal
- *4 This drawing is based on NEXCO/Japan drawings.
- *5 These structures should be redesigned to meet site condition.

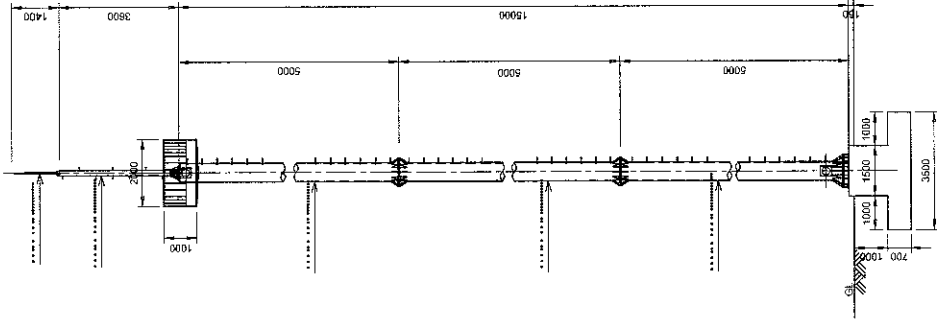
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
NEXCO EAST ENGINEERING CO., LTD		NOI BAI - VIET TRI EXPRESSWAY	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		SUPPORT POLE FOR CHANGEABLE SPEED LIMIT SIGN - FOR REFERENCE	
LANDTEC JAPAN INC.		SCALE: Various	
TITLE	NAME	SIGNATURE	DATE
PREPARED BY			
CHECKED BY			
APPROVED BY			
DRAWING TITLE		DRAWING NO.	
MINISTRY OF TRANSPORT		XI.2-04	
PROJECT NO.		SHEET NO.	
		Sheet	
		of	

RADIO COMMUNICATION ANTENNA TOWER

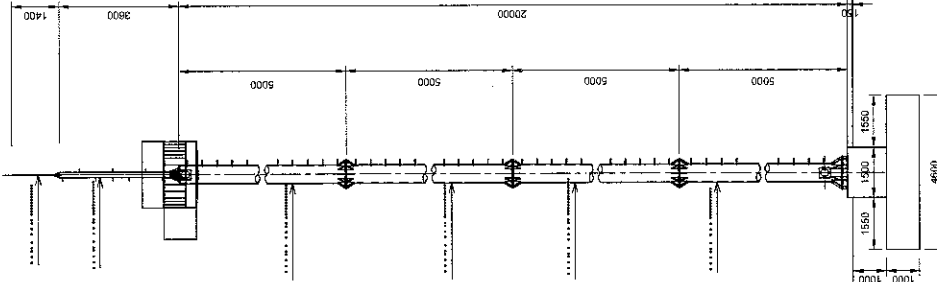
RADIO COMMUNICATION TOWER scale: 1/150

SUPPORT FOR ANTENNA scale: 1/150

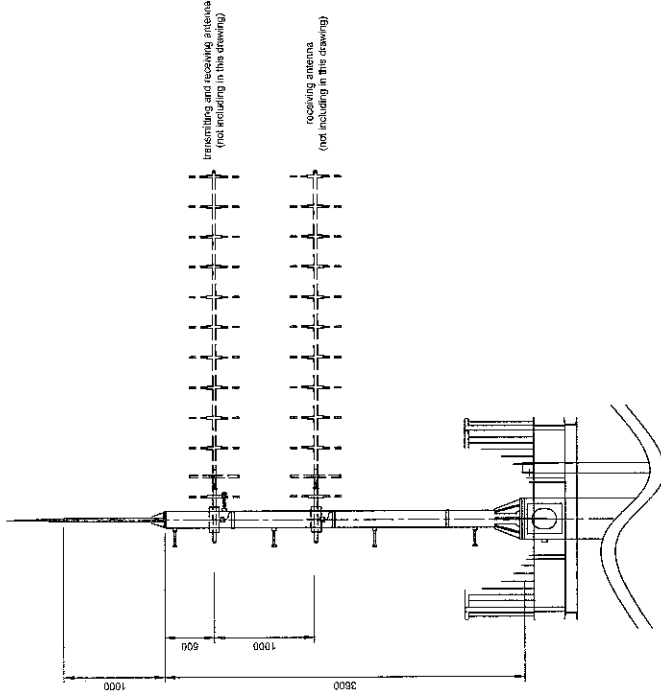
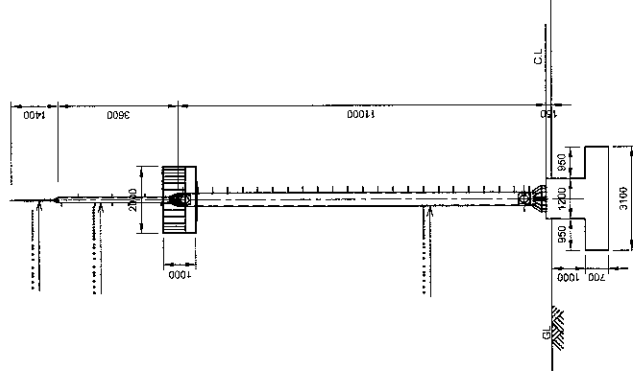
TYPE 2
(15m of pole)



TYPE 3
(20m of pole)



TYPE 1
(11m of pole)



Volume table for TYPE 1

Pole	Material	Dimension	Volume	Remarks
Pole	Steel	.....	855kg	
	Steel	.....	300	
	Steel	.....	300	
Foundation	RC	3100x3100	.....

Volume table for TYPE 2

Pole	Material	Dimension	Volume	Remarks
Pole	Steel	.....	855kg	
	Steel	.....	1296kg	
	Steel	.....	75kg	
Foundation	RC	3500x3500	.....

Volume table for TYPE 3

Pole	Material	Dimension	Volume	Remarks
Pole	Steel	.....	1079kg	
	Steel	.....	855kg	
	Steel	.....	1296kg	
Foundation	RC	3100x3100	.....

*1 Structural steel conforms ASTM A-708M Grade 250 or equivalence with:
Tensile strength, $F_u = 440 \text{ MPa}$
Yield strength, $F_y = 235 \text{ MPa}$
*2 Concrete structure equivalence with:
Concrete strength, $F_c = 18 \text{ MPa}$
Reinforcing Bar (CR304F) - Tensile strength, $F_u = 370 \text{ MPa}$
Tensile strength, $F_u = 460 \text{ MPa}$
*3 In case without any recommendation about zoning in details, all metal
structures shall be designed in accordance with the relevant codes.
*4 This drawing is based on NEACOLUPAN drawings.
*5 These structures should be redesigned to meet site condition.

CONSULTANT

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NIPPON KOEI CO., LTD
TRANSPORTATION RESEARCH INSTITUTE CO., LTD
LANDTEC JAPAN INC.

TITLE	NAME	SIGNATURE	DATE
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SOCIALIST REPUBLIC OF VIETNAM

ITS INTEGRATION PROJECT ON
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM
NOI BAI - VIET TRI EXPRESSWAY
RADIO COMMUNICATION ANTENNA TOWER - FOR REFERENCE

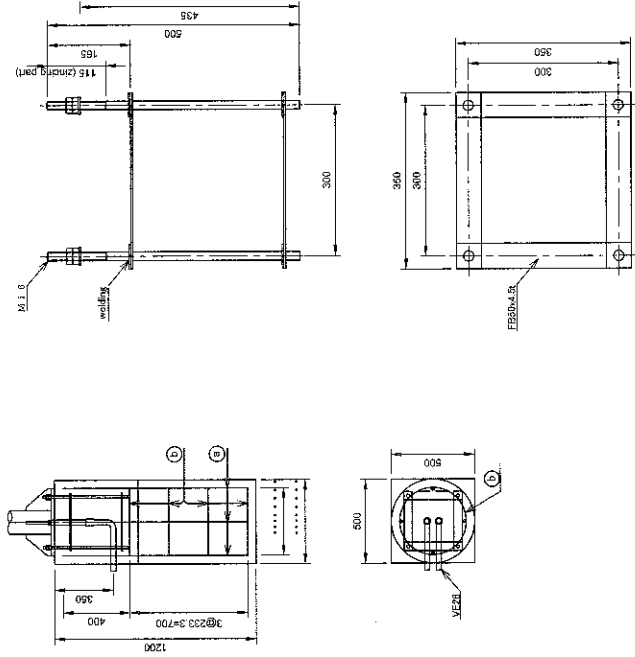
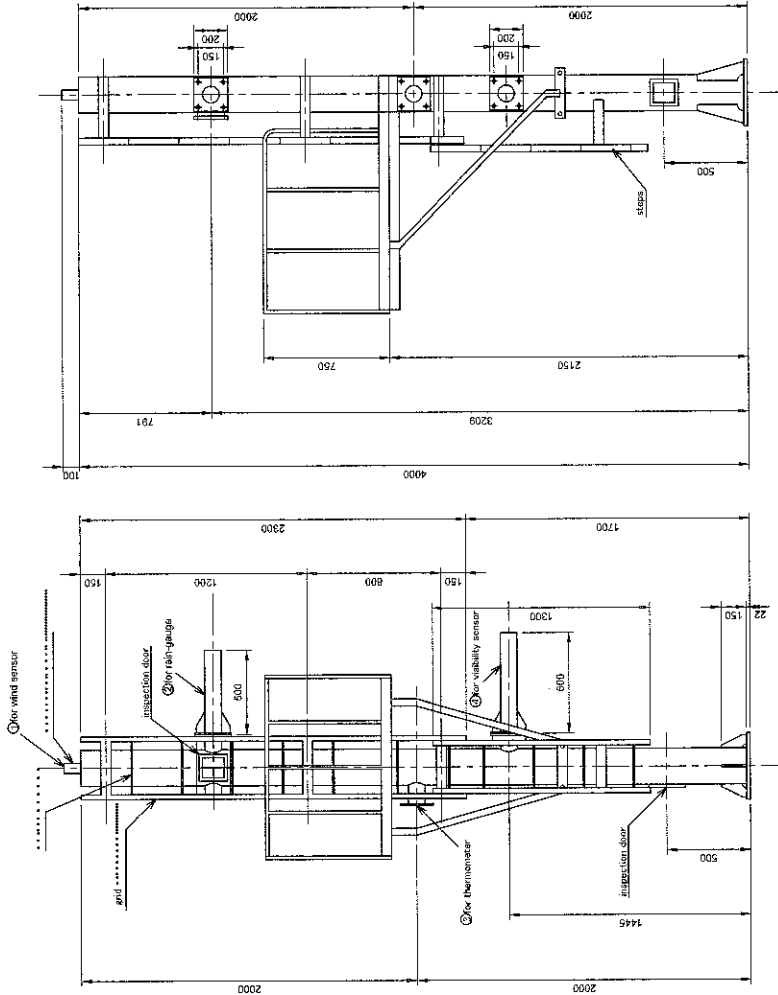
PACKAGE	
DRAWING No.	X1.2-05
Sheet	of

SCALE: Various

SUPPORT POLE FOR WEATHER SENSOR

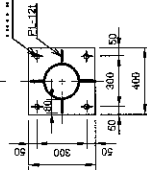
FOUNDATION scale: 1/30

ANCHOR BOLT scale: 1/10



Volume table of support pole

No.	Material	Dimension	Volume	Weight (kg)	Remarks
①	Steel	.....	4.0	185.4	
	Steel	.....	0.1	0.452	
	Steel	.....	0.384	4.708	
	Steel	.....	0.305	24.722	
	Steel	.....	0.028	2.713	
	Steel	.....	0.146	5.1554	
	Steel	.....	0.484	5.005	
	Steel	.....	0.640	5.020	
	Steel	.....	0.174	7.435	
	Steel	.....	0.384	7.435	
	Steel	.....	0.040	5.020	
	Steel	.....	0.035	0.339	
	EDS/DNR	.....	9.100	40.313	
	FS-50E1	.....	3.900	4.9542	
	FS-50E1	.....	1.000	1.000	
	SSZ-20A	.....	14.0	21.00	
	SSZ-20A	.....	7.2	21.240	
	steps	.....	3.64	3.960	
				100% weight	389.60



Rebar processing table of foundation

type	shape	volume in bar part
a	D13	4
b	D10	4

Volume table of foundation

items	class	unit	volume in bar part
concrete	D13	M ³	0.262
rebar	D10	M ³	2.978
rebar	D13	M ³	3.97
dimension	.....	.....	.....
volume of concrete	.....	.....	.....
volume of rebar	.....	.....	.....
total	.....	.....	.....
concrete	.....	.....	.....
rebar	.....	.....	.....
total	.....	.....	.....

*1 Structural class conforms to S355-A700M Grade 250 or equivalent with:
Yield strength: $F_y = 250 \text{ MPa}$
Tensile strength: $F_u = 400 \text{ MPa}$
*2 Concrete structure equivalent with:
Concrete strength: $f_{ck} = 25 \text{ MPa}$
Reinforcing Bar (GB300-81) Yield strength: $F_y = 300 \text{ MPa}$
Tensile strength: $F_u = 450 \text{ MPa}$

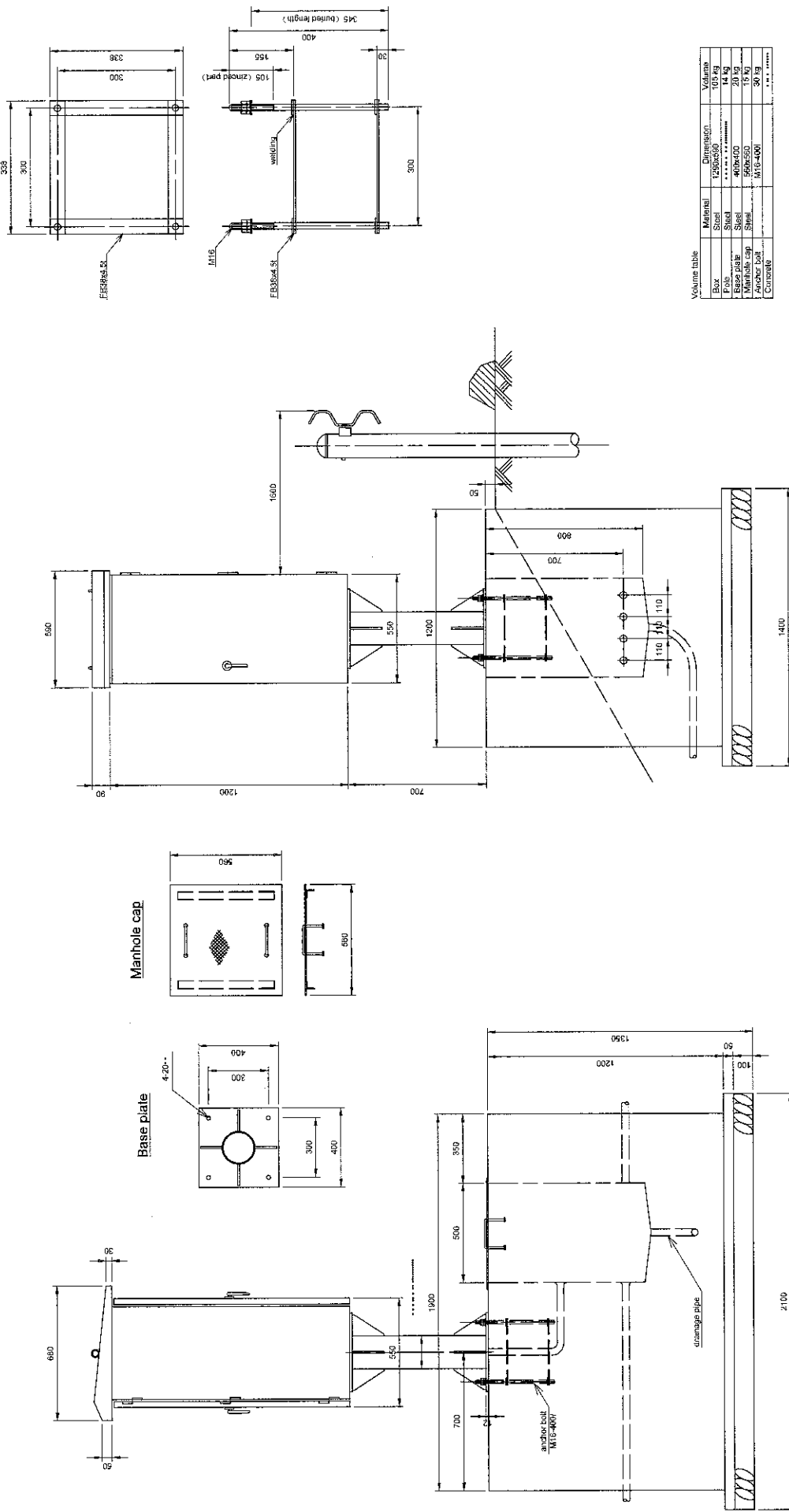
*3 In case without any recommendation about standing in details, all metal
.....
*4 This drawing is based on NECC(Japan) drawings.
*5 These structures should be redesigned to meet site condition.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON	
ORIENTAL CONSULTANTS CO., LTD		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		ROADWAY	
NEXCO EAST ENGINEERING CO., LTD		NOI BAI - VIET TRI EXPRESSWAY		DRAWING NO.: X1.2-06	
NIPPON KOEI CO., LTD		SUPPORT POLE FOR WEATHER SENSOR - FOR REFERENCE		SHEET NO.: Sheet of	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		SCALE: VARIOUS		REV:	
LANDTEC JAPAN INC.					

HOUSING BOX FOR WEATHER SENSOR

STANCE FIGURE scale: 1/20

ANCHOR BOLT scale: 1/10



Volume table

Material	Dimension	Volume
Box	1250x500	0.5 kg
Plate	400x400	14 kg
Base plate	400x400	20 kg
Manhole cap	500x500	30 kg
Anchor bolt	M15-400	30 kg
Concrete		1.2 m ³

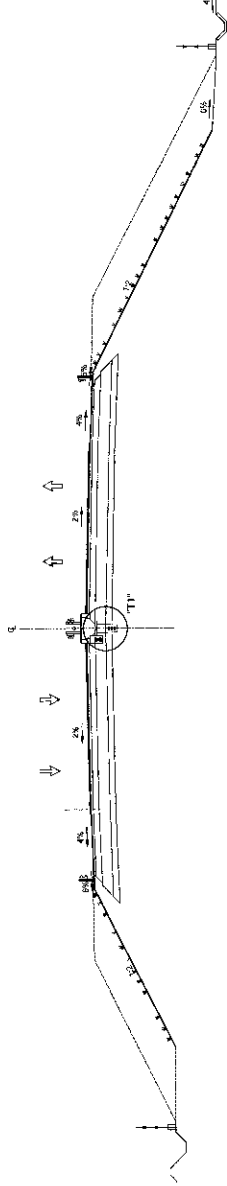
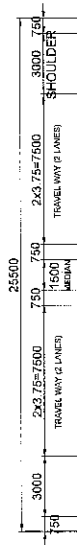
- *3 In case without any recommendation about staining in details, all metal
- *4 The drawing is based on NCC(Japan) drawings.
- *5 These structures should be redesigned to meet site condition.

- *1 Structural steel conforms ASTM A-709M Grade 508 or equivalence with
Yield strength: $F_y = 500 \text{ MPa}$
Tensile strength: $F_u = 600 \text{ MPa}$
- *2 Concrete structure equivalence with
Concrete strength: $f_c = 25 \text{ MPa}$
Reinforcing Bar (CS500-II): Yield strength: $F_y = 300 \text{ MPa}$
Tensile strength: $F_u = 450 \text{ MPa}$

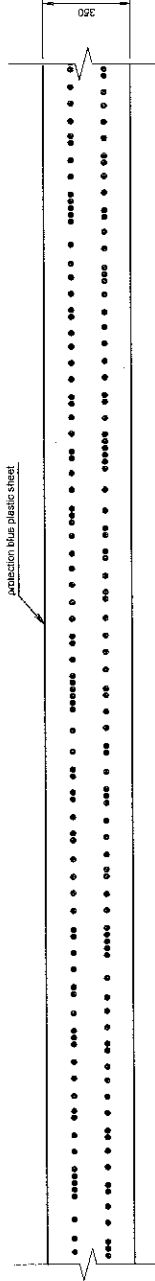
SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
MINISTRY OF TRANSPORT		NOIBAI - VIET TRI EXPRESSWAY HOUSING BOX FOR WEATHER SENSOR - FOR REFERENCE	
CONSULTANT		DRAWING No: X1.2-07	
ORIENTAL CONSULTANTS CO., LTD	TITLE	DRAWING No:	Sheet
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY		
NIPPON KOEI CO., LTD	CHECKED BY		
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY		
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TYPICAL CROSS SECTION OF COMMUNICATION DUCT(TYPE T1) IN EARTHWORK SECTION

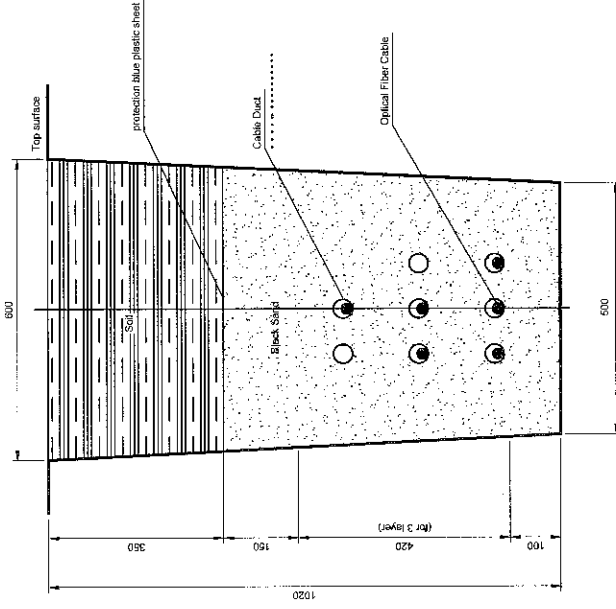
ARRANGEMENT OF COMMUNICATION DUCT IN MEDIAN (T1 TYPE)



PROTECTION BLUE PLASTIC SHEET scale:1/20



T1 DETAIL scale:1/10



Volume table of T1 Duct (per 1 kilometer in length)

Disposal soil	Volume
Black sand	*****
Backfill soil	*****
Protection blue plastic sheet	*****

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MINISTRY OF TRANSPORT

ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM
 NOI BAI - VIET TRI EXPRESSWAY
 TYPICAL CROSS SECTION OF COMMUNICATION DUCT(TYPE T1)
 IN EARTHWORK SECTION - FOR REFERENCE

PROJECT

NOI BAI - VIET TRI EXPRESSWAY

XI.3-01

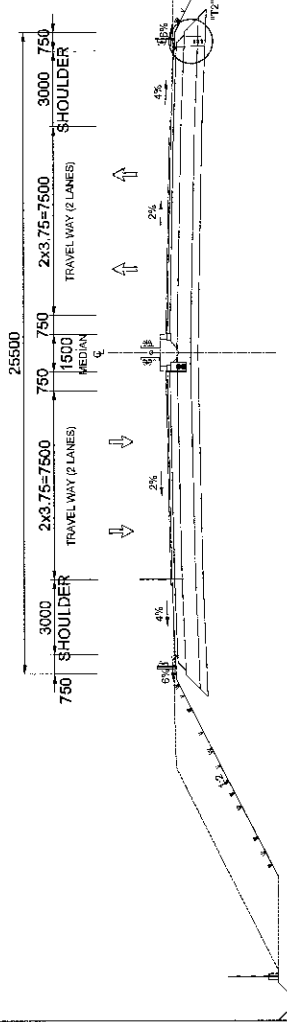
Sheet of

SCALE: varied

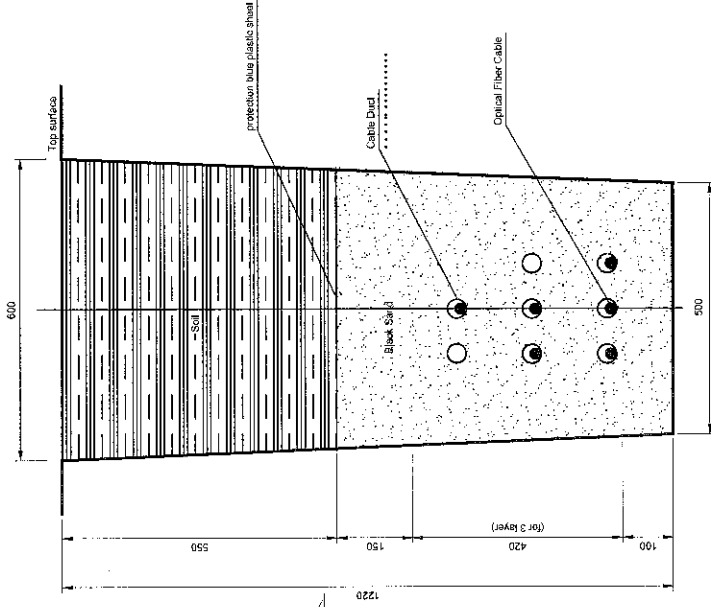
TITLE	NAME	SIGNATURE	DATE
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TYPICAL CROSS SECTION OF COMMUNICATION DUCT (TYPE T2, T3) IN EARTHWORK SECTION

ARRANGEMENT OF COMMUNICATION DUCT IN SHOULDER (T2 TYPE)
(WHEN MEDIAN WIDTH BE LESS THAN 2.0M)



T2 DETAIL scale: 1/10



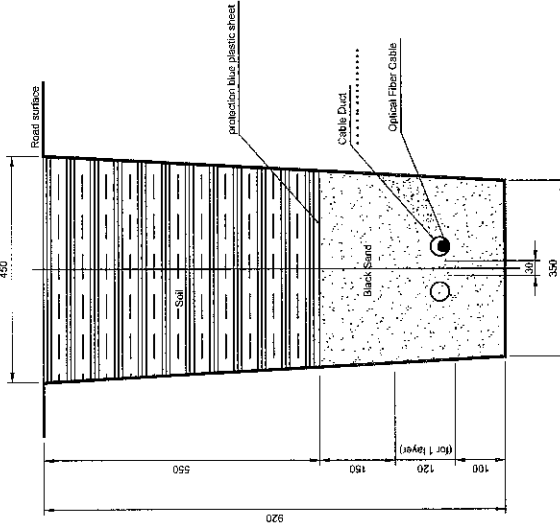
Volume table of T2 Duct (for 1 kilometer in length)

Material	Volume
Optical fiber
Black sand
Backfill soil
Protection blue plastic sheet

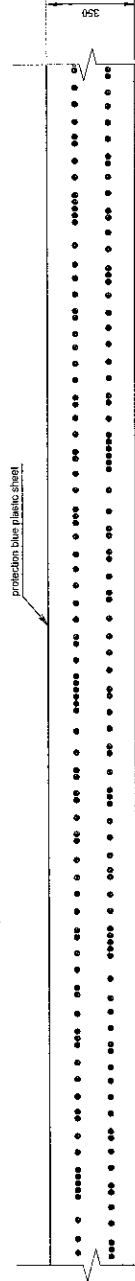
Volume table of T3 Duct (for 1 kilometer in length)

Material	Volume
Diagonal soil
Black sand
Backfill soil
Protection blue plastic sheet

COMMUNICATION DUCT TYPE T3 DETAIL scale: 1/10
(USE FOR COMMUNICATION DUCT SPREAD FOR ROADSIDE EQUIPMENT)



PROTECTION BLUE PLASTIC SHEET scale: 1/20



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NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM
NOI BAI - VIET TRI EXPRESSWAY
TYPICAL CROSS SECTION OF COMMUNICATION DUCT (TYPE T2, T3)
IN EARTHWORK SECTION - FOR REFERENCE

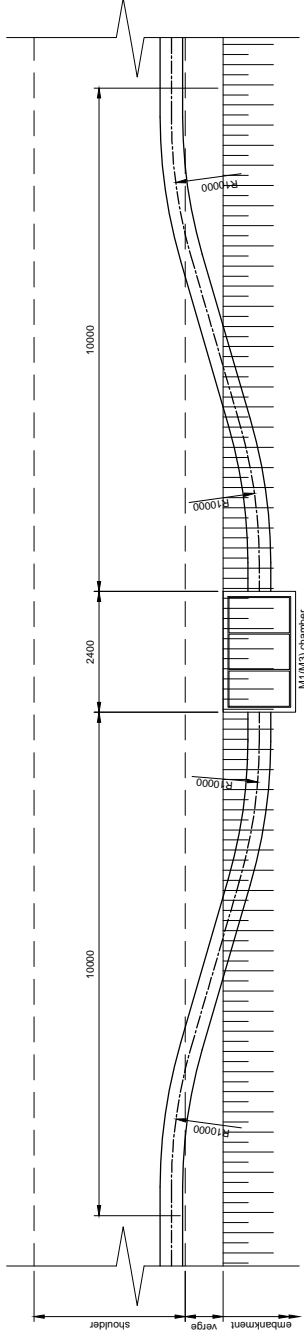
PACKAGE
DRAWING NO. X/3-02

SCALE: varied

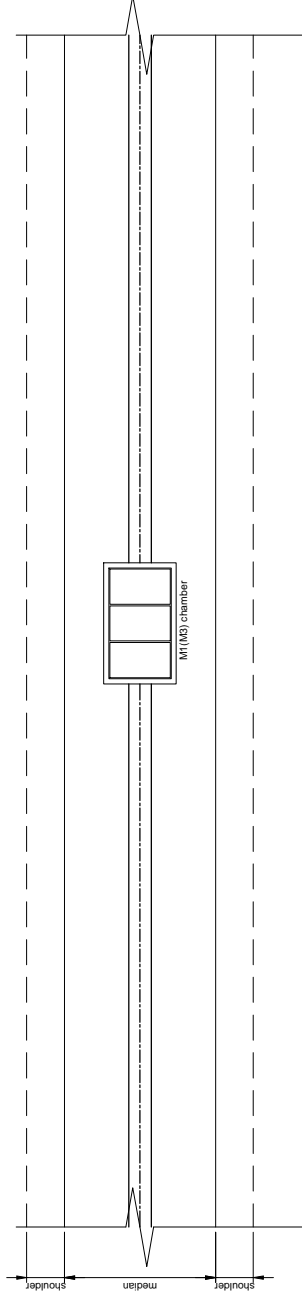
SHEET No. 8

ARRANGEMENT OF COMMUNICATION DUCT AT CHAMBER (1)

CHAMBER FOR COMMUNICATION DUCT ON ROAD scale: 1/100



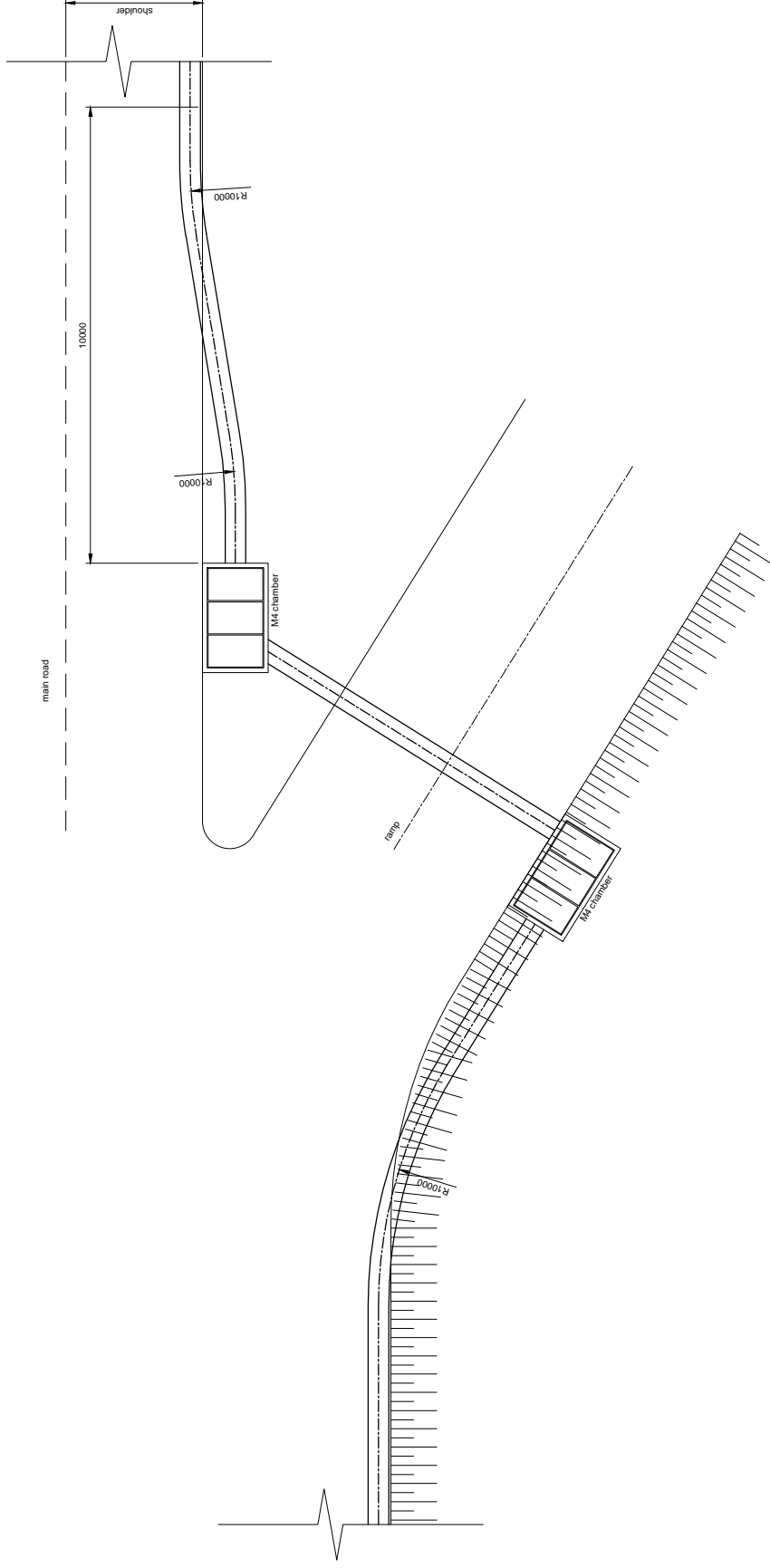
CHAMBER FOR COMMUNICATION DUCT ON MEDIAN scale: 1/100



CONSULTANT ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM NOI BAI - VIET TRI EXPRESSWAY ARRANGEMENT OF COMMUNICATION DUCT AT CHAMBER (1) - FOR REFERENCE SCALE: 1/100		PACKAGE:
		MINISTRY OF TRANSPORT		DRAWING NO.: XI.3-03	SHEET NO.: Sheet of	
TITLE PREPARED BY CHECKED BY APPROVED BY	NAME SIGNATURE DATE					

ARRANGEMENT OF COMMUNICATION DUCT AT CHAMBER (2)

CHAMBER FOR CHANGING DIRECTION OF COMMUNICATION DUCT ON ROAD scale: 1/100

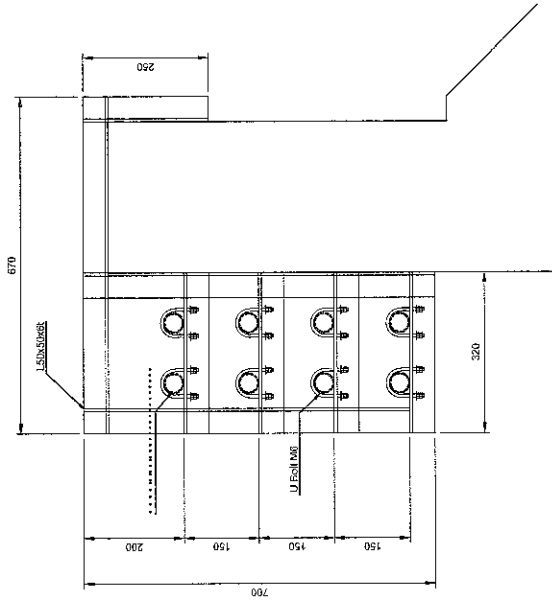


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ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING NO.: XI.3-04	
NEXCO EAST ENGINEERING CO., LTD				SHEET NO. _____ of _____	
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LANDTEC JAPAN INC.				SCALE: 1:100	
TITLE	NAME	SIGNATURE	DATE	ARRANGEMENT OF COMMUNICATION DUCT AT CHAMBER (2)	
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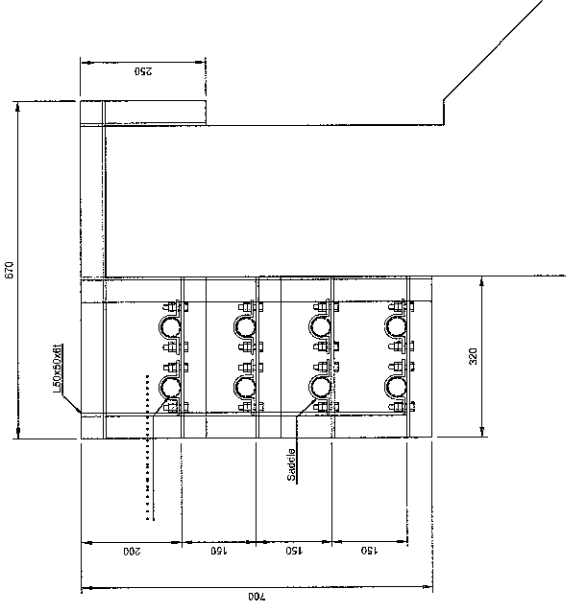
DETAIL OF COMMUNICATION DUCT (TYPE B1) ON BRIDGE

ARRANGEMENT OF COMMUNICATION DUCT ON BRIDGE (CROSS SECTION VIEW) scale:1/10

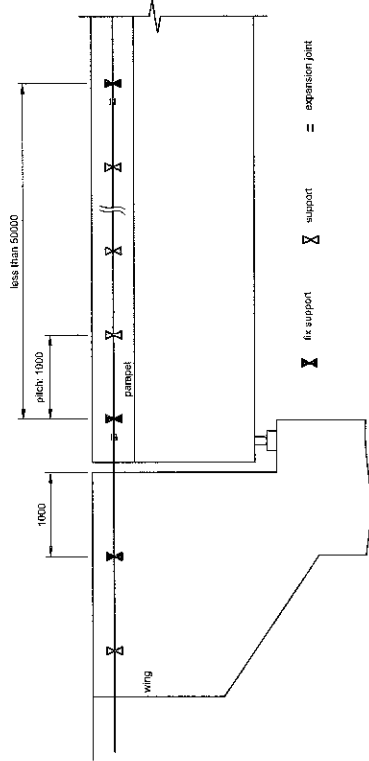
Support



Fix Support



ARRANGEMENT OF COMMUNICATION DUCT ON BRIDGE (SIDE VIEW)



Volume table of supporting rebar (for 1 place)	
Weight (kg)	RE
LSD/500x60	16

*1 Structural steel conforms ASTM A-709M Grade 50. ~~2~~ Reinforcing steel conforms to the same specification as for the main structure.
 Yield strength: $F_y = 250$ MPa; Tensile strength: $F_t = 420$ MPa.
 *2 Concrete strength: $F_c = 18$ MPa.
 *3 These structures should be assigned to meet site condition.
 Yield strength: $F_y = 300$ MPa; Tensile strength: $F_t = 450$ MPa.
 Reinforcing Bar (CB300-H).

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 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM
 DRAWING TITLE: NOI BA - VIET TRI EXPRESSWAY
 ARRANGEMENT OF COMMUNICATION DUCT ON BRIDGE (TYPE B1)
 - FOR REFERENCE

PACKAGE

DRAWING No.

X13-05

SHEET No.

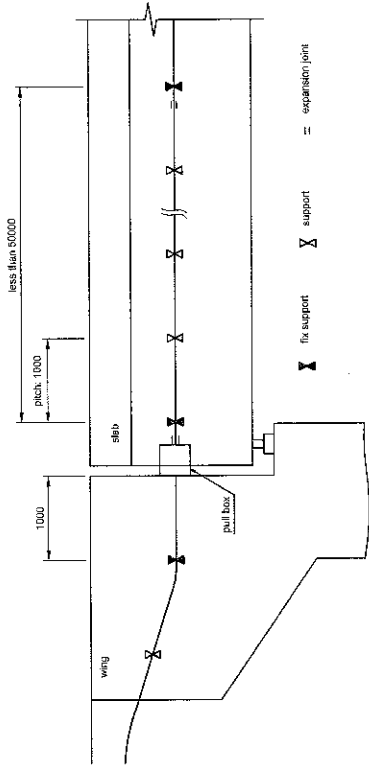
SHEET

SCALE: varied

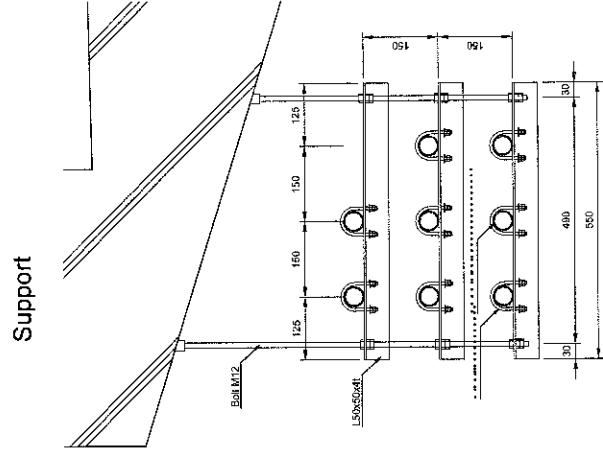
DETAIL OF COMMUNICATION DUCT (TYPE B2) ON BRIDGE (1)

ARRANGEMENT OF COMMUNICATION DUCT ON BRIDGE (SIDE VIEW)

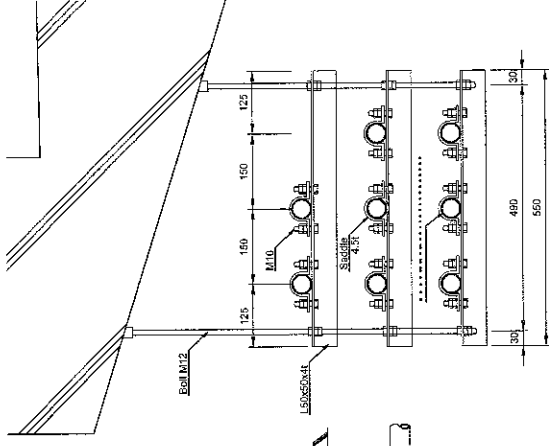
"A" DETAIL SCALE: 1/10



ARRANGEMENT OF COMMUNICATION DUCT AT JOINT AREA (PLAN VIEW)



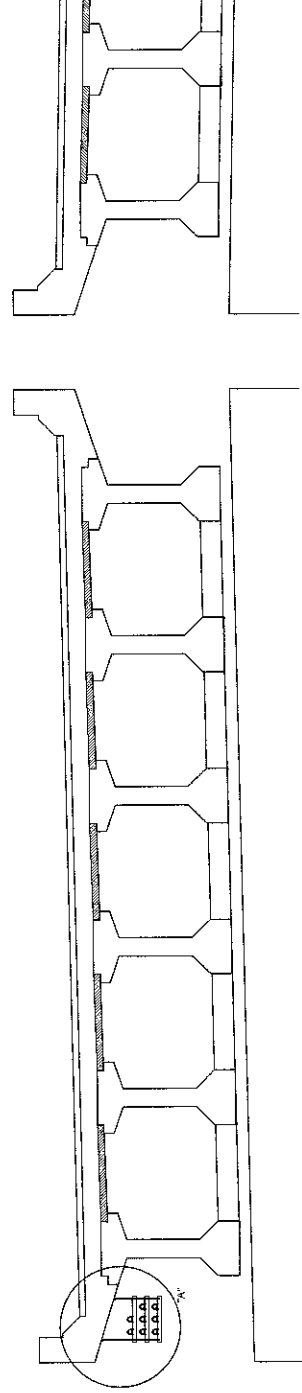
Fix Support



Volume table of supporting rack B2 (for 1 piece)	
	Weight(kg)
L50x50x4	6
Anchor bolt M12	1.3

- *1 Structural steel conforms ASTM A-709M Grade 250 or equivalence with:
Yield strength: $F_y = 250$ MPa
Tensile strength: $F_u = 400$ MPa
- *2 Concrete conforms to JIS A-5311 or equivalence with:
Concrete strength: $F_c = 18$ MPa
- *3 Reinforcing Bar (CB300-II): Yield strength: $F_y = 300$ MPa;
Tensile strength: $F_u = 460$ MPa
- *4 In case without any consideration about welding, welds = metal
- *5 This drawing is based on NEXCO(Japan) drawings.
- *6 These structures should be redesigned to meet site condition.

ARRANGEMENT OF COMMUNICATION DUCT ON BRIDGE (CROSS SECTION VIEW)



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DETAIL OF COMMUNICATION DUCT (TYPE B2) ON BRIDGE (1)
- FOR REFERENCE

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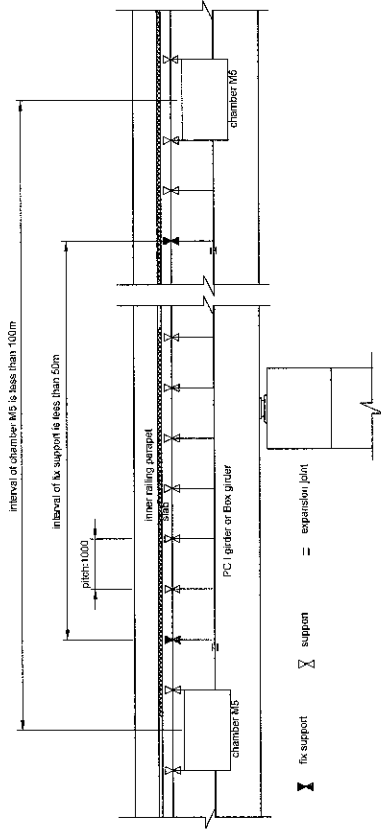
VIII.3-06

SHEET No.

of

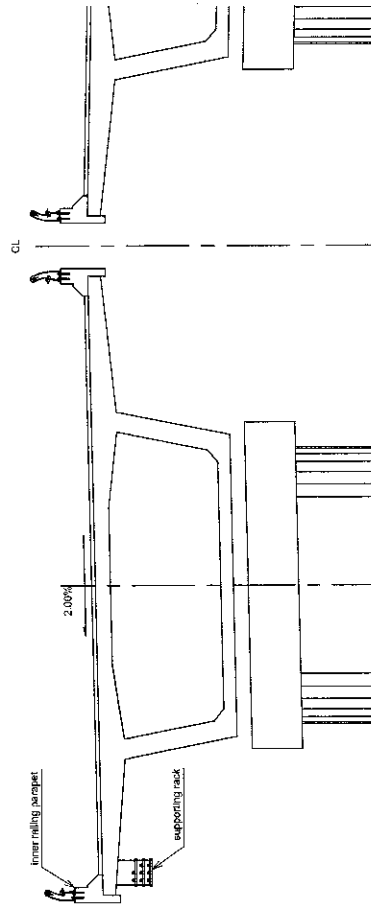
DETAIL OF COMMUNICATION DUCT (TYPE B2) ON BRIDGE(2)

SIDE VIEW



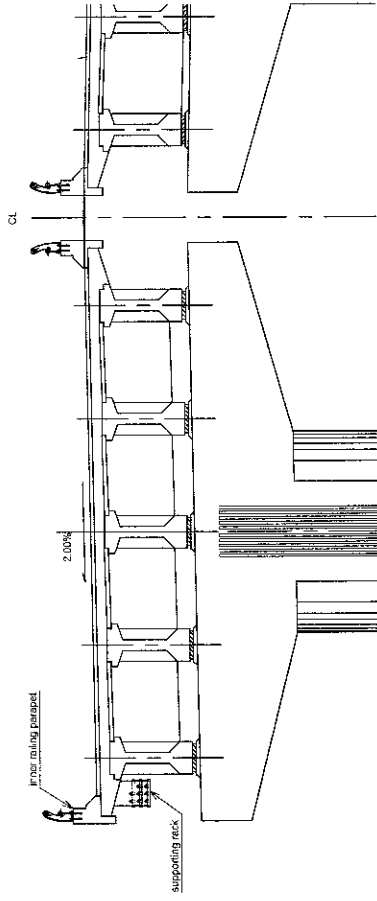
CROSS SECTION VIEW

(Box girder section)



CROSS SECTION VIEW

(PC I girder section)

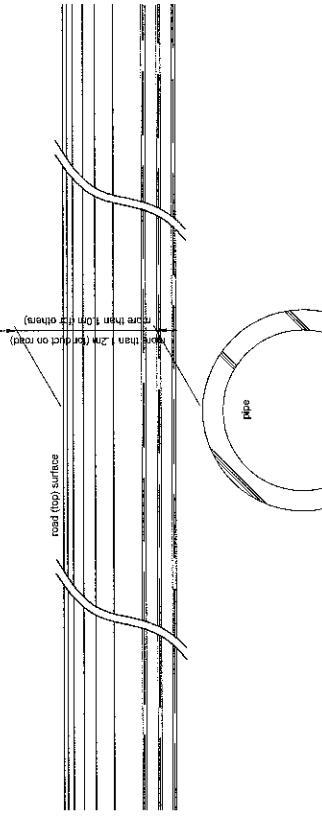


- *1. Structural steel conforms ASTM A-709M Grade 250 or equivalence with:
Yield strength: $F_y = 250 \text{ MPa}$
Tensile strength: $F_u = 400 \text{ MPa}$
- *2. Concrete strength: $F_c = 18 \text{ MPa}$
Reinforcing bar (CS300-10): Yield strength: $F_y = 300 \text{ MPa}$; Tensile strength: $F_u = 450 \text{ MPa}$
- *3. In case without any accommodation for construction and erection, refer to the drawings.
- *4. This drawing is based on NEXCO(Japan) drawings.
- *5. These structures should be redesigned to meet site condition.

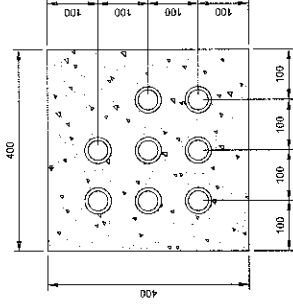
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		PACKAGE	
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY	NOI BAI - VIET TRI EXPRESSWAY		DRAWING NO.:	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	CHECKED BY	DETAIL OF COMMUNICATION DUCT (TYPE B2) ON BRIDGE(2)		XL3-07	
LANDTEC JAPAN INC.	APPROVED BY	- FOR REFERENCE		SHEET No.:	
				Sheet	
				of	
				SCALE: 1/100	
				Rev	

ARRANGEMENT OF COMMUNICATION DUCT IN BURIED OBJECT AREAS

ARRANGEMENT OF COMMUNICATION DUCT IN BURIED OBJECT AREA scale: 1/50
 (WHEN EARTH COVERING LESS THAN 1.2M)



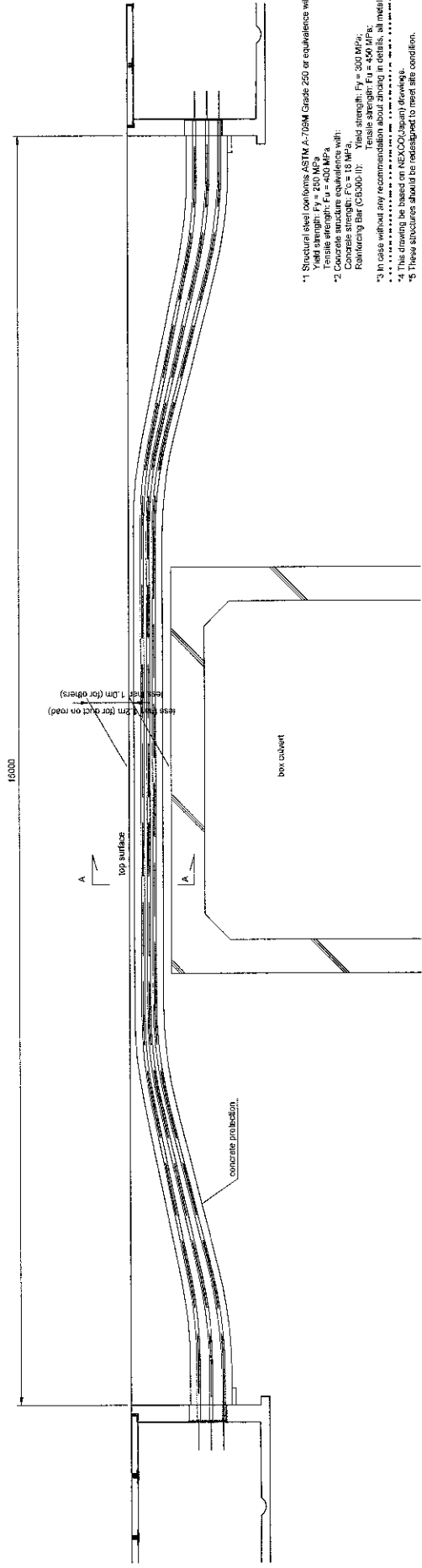
A-A SECTION scale: 1/10



Volume table of TYPE C1 (for 15 meters in length)

Concrete	Volume

ARRANGEMENT OF COMMUNICATION DUCT IN BURIED OBJECT AREA (TYPE C1) scale: 1/50
 (WHEN EARTH COVERING MORE THAN 1.2M)

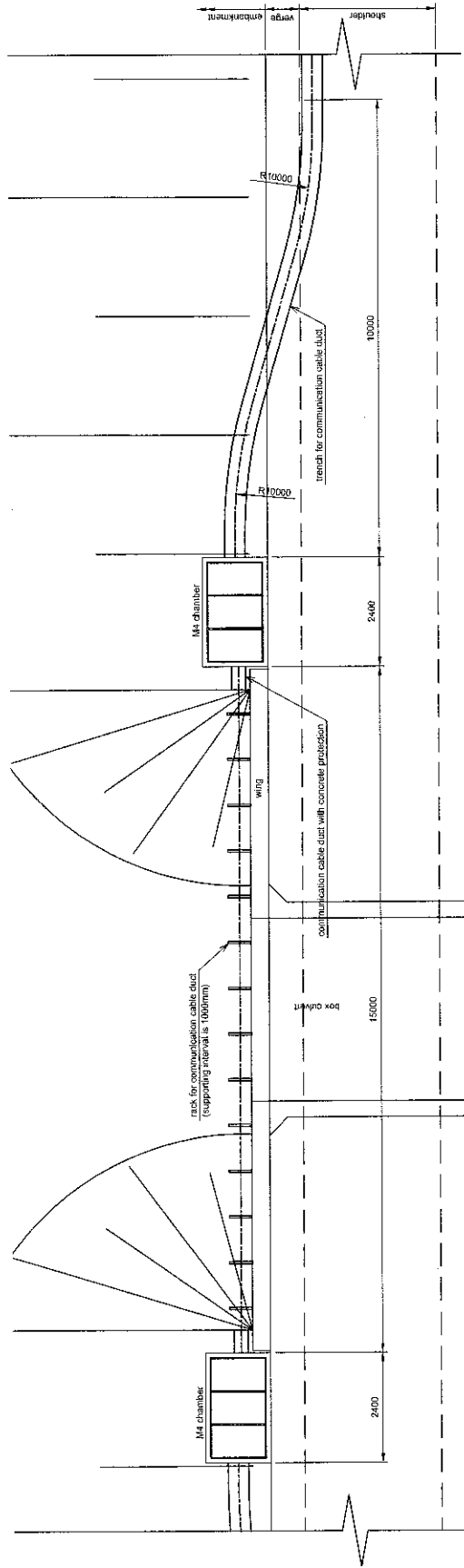


- *1 Structural steel conforms ASTM A-708M Grade 250 or equivalence with:
 Yield strength: $F_y = 250 \text{ MPa}$
 Tensile strength: $F_u = 400 \text{ MPa}$
- *2 Concrete structure equivalence with:
 Concrete strength: $f_c = 25 \text{ MPa}$
 Reinforcing Bar (CS3000): Yield strength: $F_y = 300 \text{ MPa}$, Tensile strength: $F_u = 450 \text{ MPa}$
- *3 In case without any recommendation about zoning in details, all steel
 reinforcement shall be based on AISC Allowable Stress Design and Plastic Design.
- *4 This drawing shall be based on AISC Allowable Stress Design and Plastic Design.
- *5 These structures should be redesigned to meet site condition.

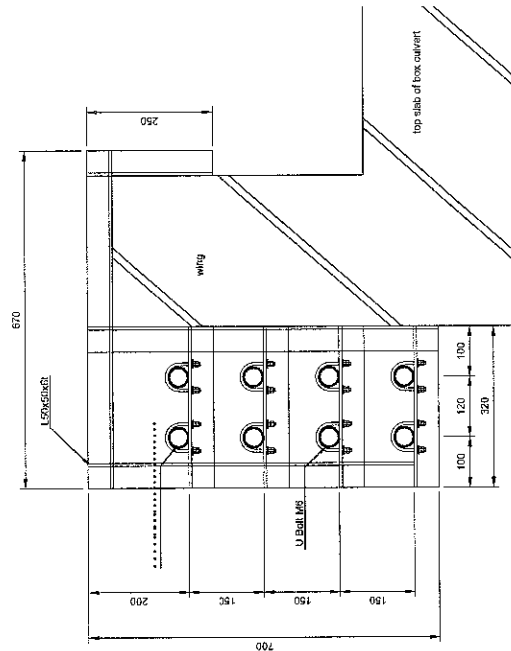
CONSULTANT				SOCIALIST REPUBLIC OF VIETNAM			
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	ITS INTEGRATION PROJECT ON		
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	CHECKED BY				NOI BAI - VIET TRI EXPRESSWAY		
LANDTEC JAPAN INC.	APPROVED BY				ARRANGEMENT OF COMMUNICATION DUCT IN BURIED OBJECT AREAS		
					- FOR REFERENCE		
					SCALE varies		
					DRAWING TITLE		
					PACKAGE		
					DRAWING No.		
					SHEET No.		
					Rev		
					Sheet of		
					X1.3-08		

ARRANGEMENT OF COMMUNICATION DUCT ON WING OF BOX CULVERT

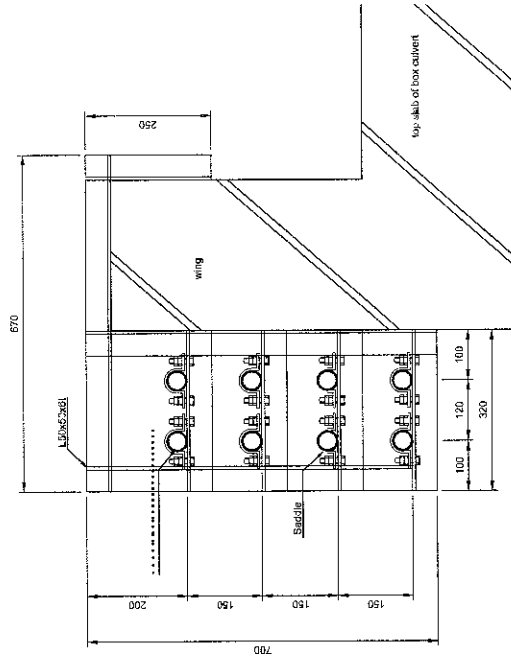
PLAN VIEW scale: 1/100



SUPPORT RACK scale: 1/10



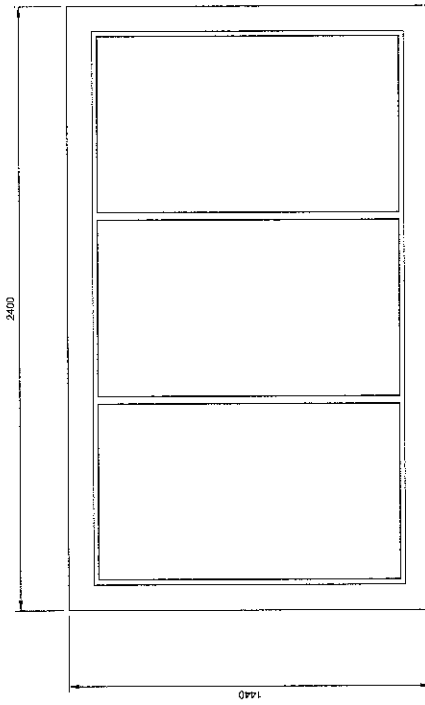
FIX SUPPORT RACK scale: 1/10
(2 points on wing)



- *1 Structural steel conforms ASTM A-709M Grade 250 or equivalence with:
Yield strength: $F_y = 250 \text{ MPa}$
Tensile strength: $F_u = 400 \text{ MPa}$
- *2 Concrete strength: $F_c = 18 \text{ MPa}$
Reinforcing Bar (CB300-1): Yield strength: $F_y = 300 \text{ MPa}$
Tensile strength: $F_u = 450 \text{ MPa}$
- *3 In case without any recommendation about strutting in detail, all metal
- *4 This drawing is based on NEXCO(Japan) drawings.
- *5 These structures should be redesigned to meet site condition.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		MINISTRY OF TRANSPORT		DRAWING TITLE: ARRANGEMENT OF COMMUNICATION DUCT ON WING OF BOX CULVERT - FOR REFERENCE	
TITLE	NAME	SIGNATURE	DATE	DRAWING NO.	SHEET No.
PREPARED BY				XI.3-09	
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				SCALE: 1/100	Sheet of

DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M1) (INSTALL AT MEDIAN or ON EMBANKMENT; WITH PITCH LESS THAN 333m)

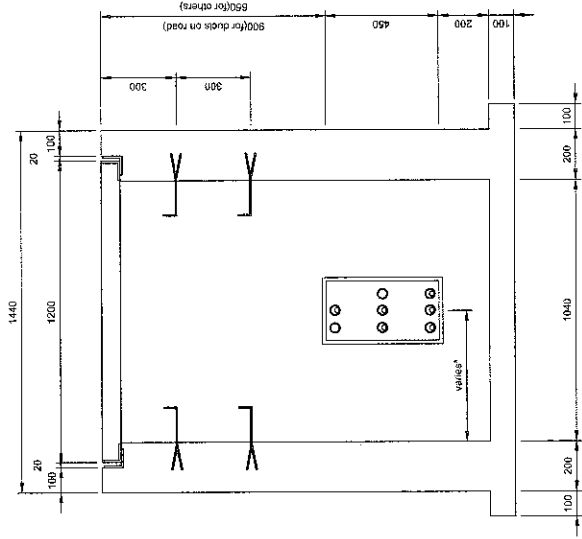
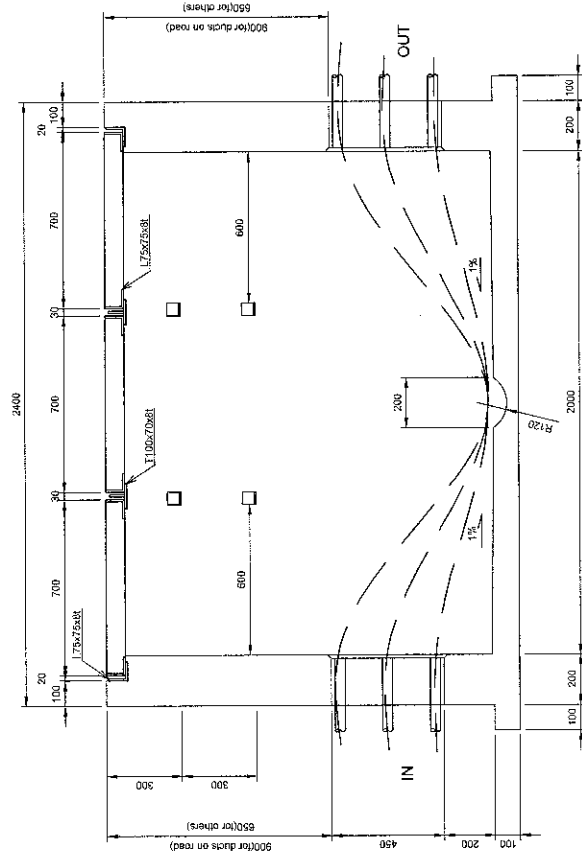


Volume table of chamber for ducts on road

Volume	Concrete
1.75x75x81	183 M ³
F1.80x81	10 M ³
F1.00x70x81	26 M ³
Concrete M300	

Volume table of chamber for others

Volume	Concrete
1.75x75x81	183 M ³
F1.80x81	10 M ³
F1.00x70x81	26 M ³
Concrete M300	

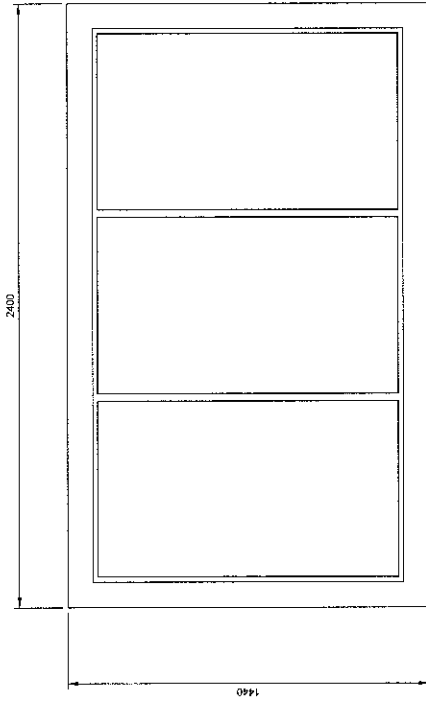


* Depending to duct arrangement.

*1 Concrete structure equivalent with
 Reinforcing Bar (CR300-II) Yield strength: F_y = 300 MPa,
 Tensile strength: F_u = 450 MPa;

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	MINISTRY OF TRANSPORT	DRAWING TITLE	DRAWING NO	SHEET NO	SHEET OF
NEXCO EAST ENGINEERING CO., LTD		DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M1)	XI.3-10		
TRANSPORTATION RESEARCH INSTITUTE CO., LTD		-FOR REFERENCE-			
LANDTEC JAPAN INC.					
TITLE	NAME	SIGNATURE	DATE		
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DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M2) (INSTALL AT BACK OF ABUTMENT)

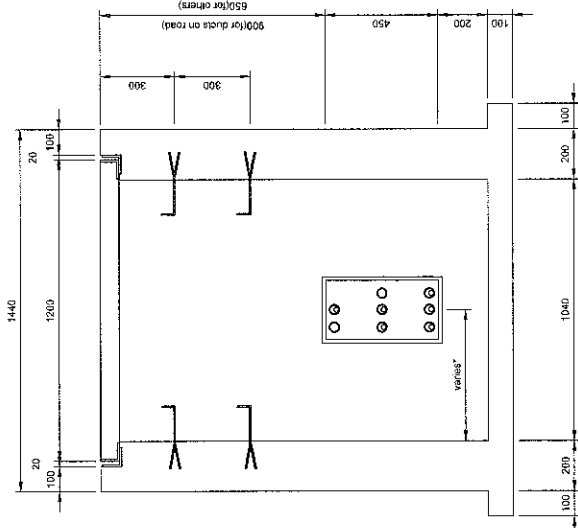
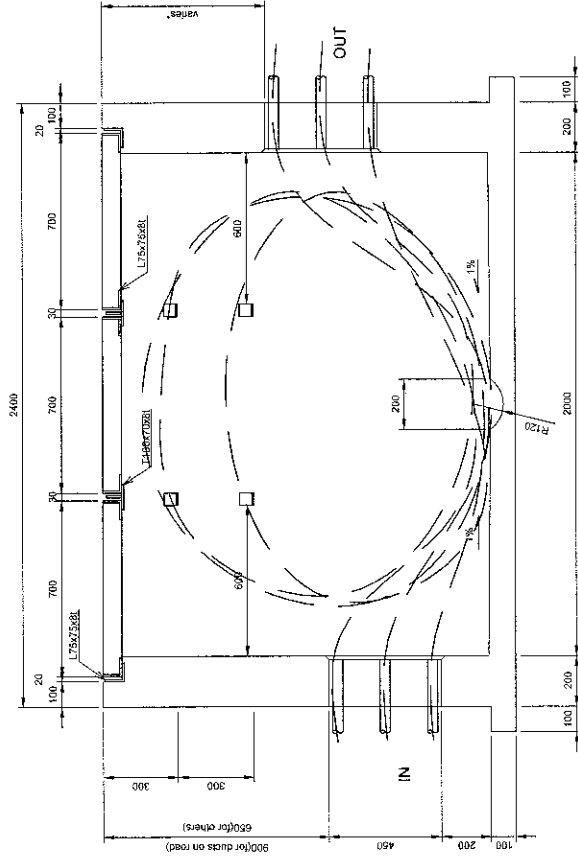


Volume table of chamber for ducts on road

Volume	Volume
L 75x75x60	10 kg
L 100x100x60	10 kg
L 150x150x60	28 kg
Concrete M300	28 kg

Volume table of chamber for others

Volume	Volume
L 75x75x60	10 kg
L 100x100x60	10 kg
L 150x150x60	28 kg
Concrete M300	28 kg

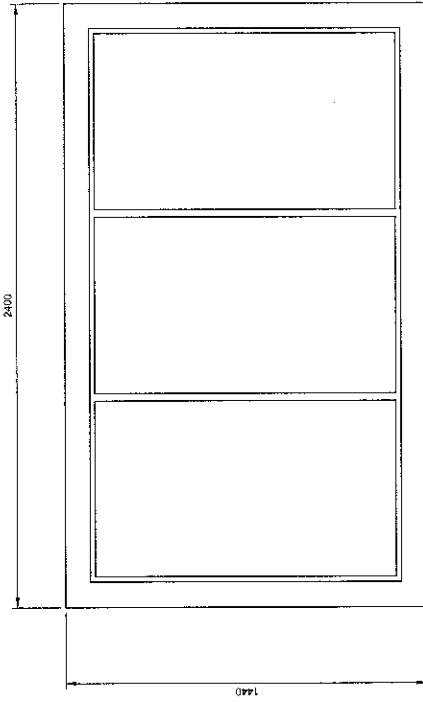


* Depending to duct arrangement.

¹ Concrete structure equivalence with
 Capacity strength: $F_y = 300 \text{ MPa}$,
 Yield strength: $F_y = 300 \text{ MPa}$,
 Tensile strength: $F_u = 450 \text{ MPa}$,
 Reinforcing Bar (CR600-1)

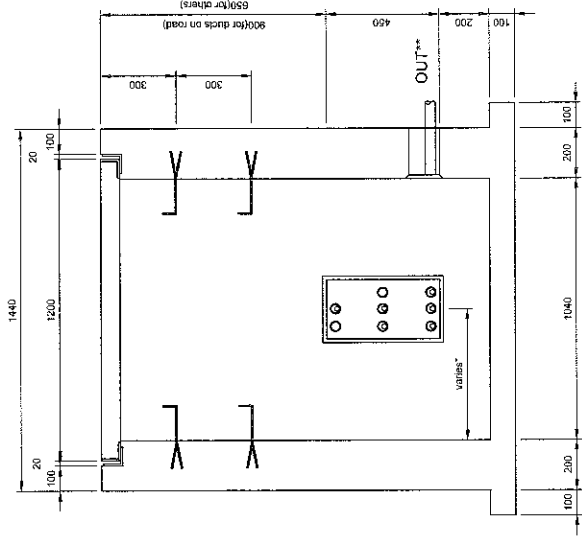
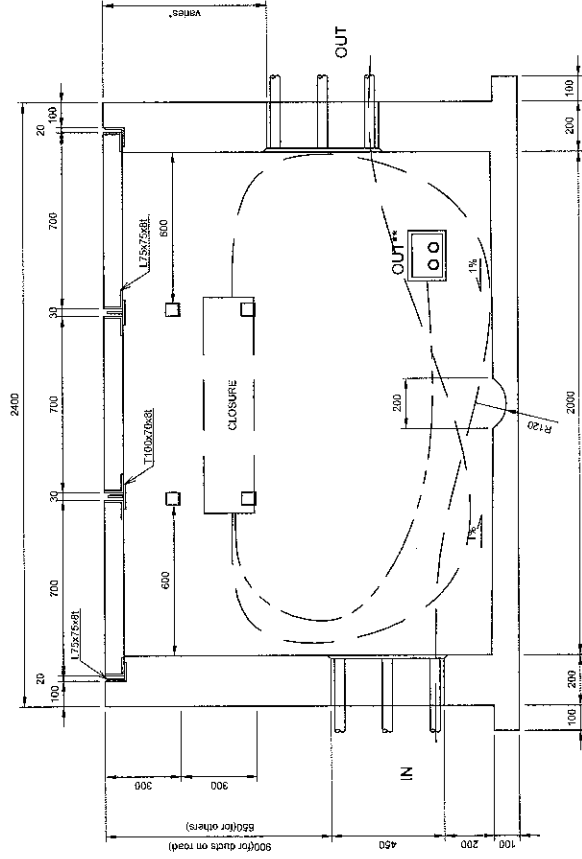
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY		
NIPPON KOEI CO., LTD	CHECKED BY		
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY		
LANDTEC JAPAN INC.			
MINISTRY OF TRANSPORT			
IT'S INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM			
BRAND TITLE: NOI BAI - VIET TRI EXPRESSWAY DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M2) - FOR REFERENCE			
DRAWING No.		Sheet	
XI.3-11		8	

DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M3) (INSTALL AT MEDIAN OF EMBANKMENT; WITH PITCH LESS THAN 2000M)



L 75x75x81	163 kg
FL 30x41	10 kg
L 100x70x81	28 kg
Concrete M300

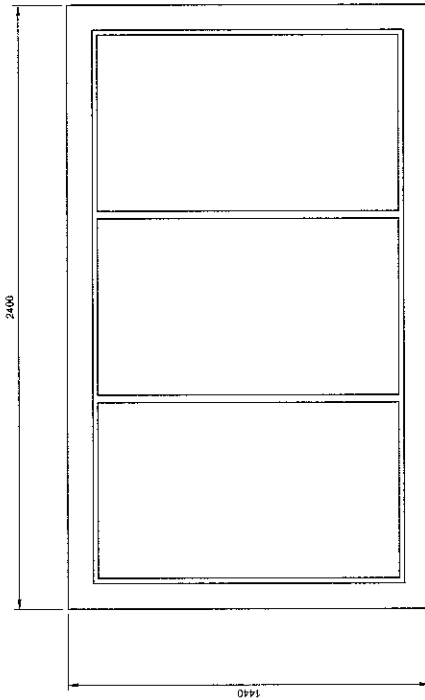
L 75x75x81	163 kg
FL 30x41	10 kg
L 100x70x81	28 kg
Concrete M300



*1 Concrete structure requirements will be according to design drawings.
 Reinforcing Bar (CR300-RR) Yield strength: Fy = 300 MPa, Tensile strength: Fu = 450 MPa.
 * Depending to duct arrangement.
 ** Dimensions shall be used for roadside equipments.
 SCALE: 1/20

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		MINISTRY OF TRANSPORT	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				
NIPPON KOEI CO., LTD	CHECKED BY				
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				
LANDTEC JAPAN INC.					
ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM NOIBAI - VIET TRI EXPRESSWAY DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M3) - FOR REFERENCE				DRAWING NO: XI.3-12 SHEET NO: _____ of _____ SCALE: 1/20	

DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M4) (INSTALL AT MEDIAN OF EMBANKMENT; FOR CHANGING DUCT DIRECTION)

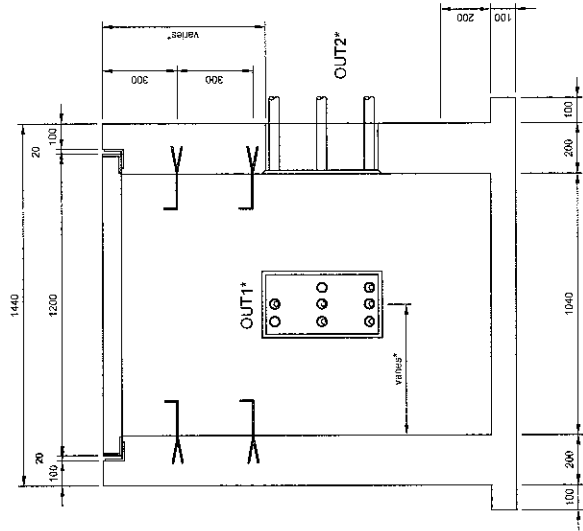
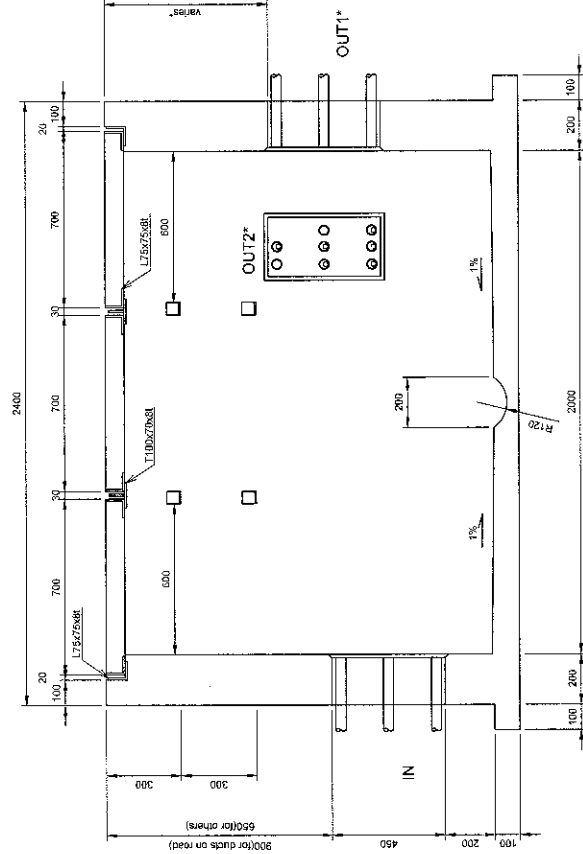


Volume table of chamber for ducts on road

Concrete M300	103 kg
PL 100A	10 kg
Concrete M300	26 kg

Volume table of chamber for others

Concrete M300	103 kg
PL 100A	10 kg
Concrete M300	26 kg

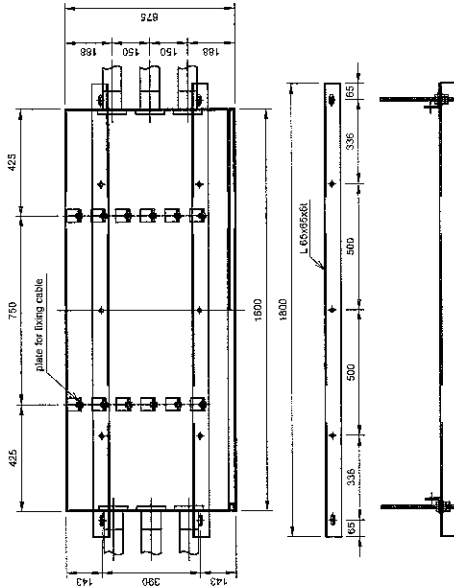
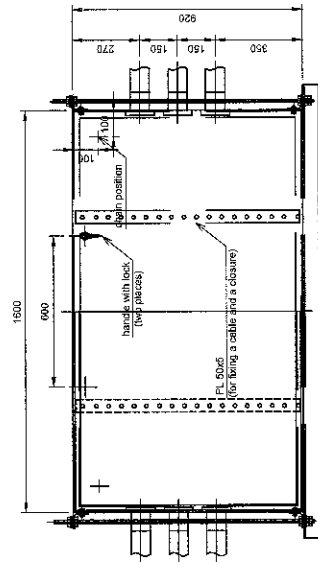
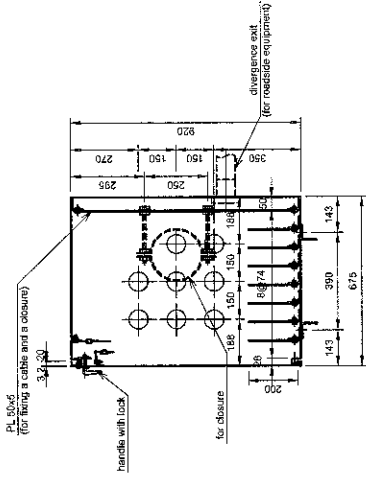


* Depending to duct arrangement

* Concrete structure equivalence with
 Concrete M300
 Yield strength: $F_y = 300 \text{ MPa}$,
 Tensile strength: $F_t = 400 \text{ MPa}$,
 Reinforcing Bar (CE3000-1)

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		PACKAGE	
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NEXCO EAST ENGINEERING CO., LTD	PREPARED BY			NOI BAI - VIET TRI EXPRESSWAY		XI-3-13	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	CHECKED BY			DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M4)		Sheet of	
LANDTEC JAPAN INC.	APPROVED BY			- FOR REFERENCE -		SCALE 1/20	
MINISTRY OF TRANSPORT							

DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M5) (INSTALL AT BRIDGE SECTION IN WHICH DUCT IS HUNG ON CANTILEVER SLAB)

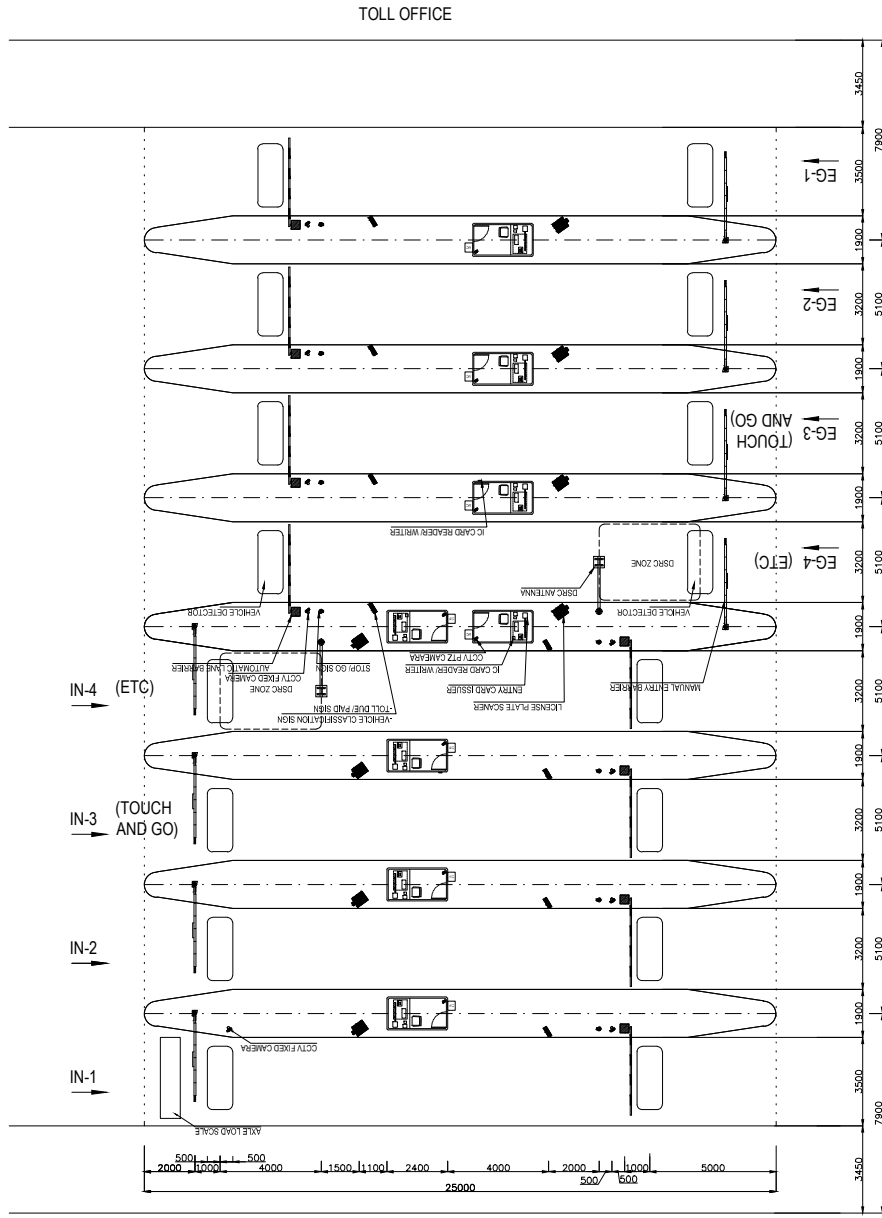


Volume table	Length(mm)	Volume	Weight (kg)
L 85x85x6H	1800	2	22.0
L 85x85x6H	60	4	2.0
L 50x50x6H	50	18	4.0
PL 50x5	750	2	3.0
PL 50x5	200	14	6.0
PL 60x5x2	1600	2	74.0
PL 675x3x2	1600	2	55.0
PL 675x3x2	920	2	32.0

- *1 Structural steel conforms ASTM A-709M Grade 250 or equivalence with:
Yield strength: $F_y = 250$ MPa
Tensile strength: $F_u = 400$ MPa
- *2 Concrete structure conforms with:
Concrete strength: $F_c = 18$ MPa
Reinforcing Bar (CS300-H): Yield strength: $F_y = 300$ MPa;
Tensile strength: $F_u = 450$ MPa;
- *3 In case without any recommendation about driving in details, all metal
- *4 This drawing has based on NEXCO(Japan) drawings.
- *5 These structures should be redesigned to meet EKC condition.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	MINISTRY OF TRANSPORT	DRAWING TITLE		DRAWING NO.	
NEXCO EAST ENGINEERING CO., LTD		DETAIL OF COMMUNICATION DUCT CHAMBER (TYPE M5)		XI-3-14	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				SHEET No.	
LANDTEC JAPAN INC.				Rev.	
				Sheet of	
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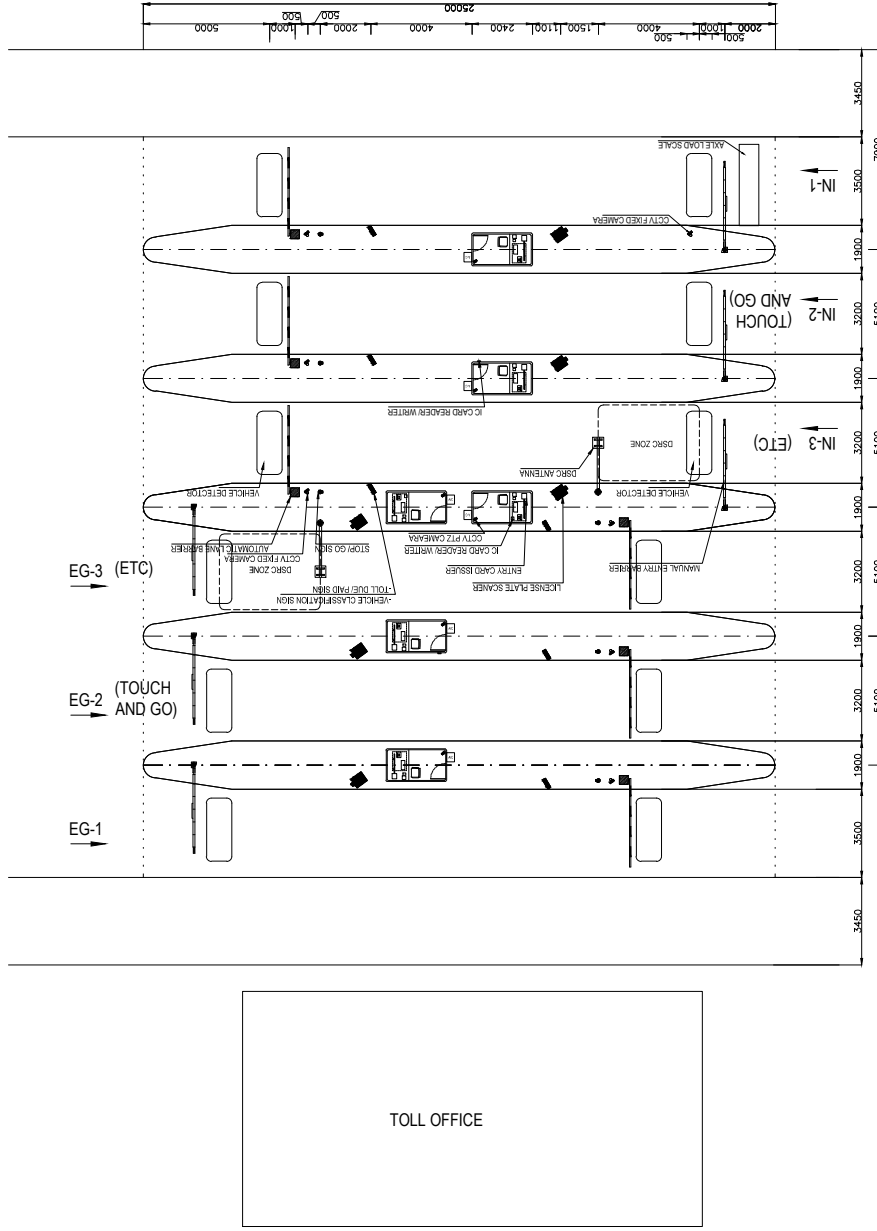
TYPICAL LAYOUT OF TOLL EQUIPMENT FOR 8 LANES



NOTES:
EG 3 EXPRESS LANE 3
EG 1 EXPRESS LANE 1

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING TITLE EQPT. ARRANGEMENT AT TAN DAN TOLLGATE (Km 6+000, NOI BAI - VIET TRI EXP.) - FOR REFERENCE	
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TYPICAL LAYOUT OF TOLL EQUIPMENT FOR 6 LANES

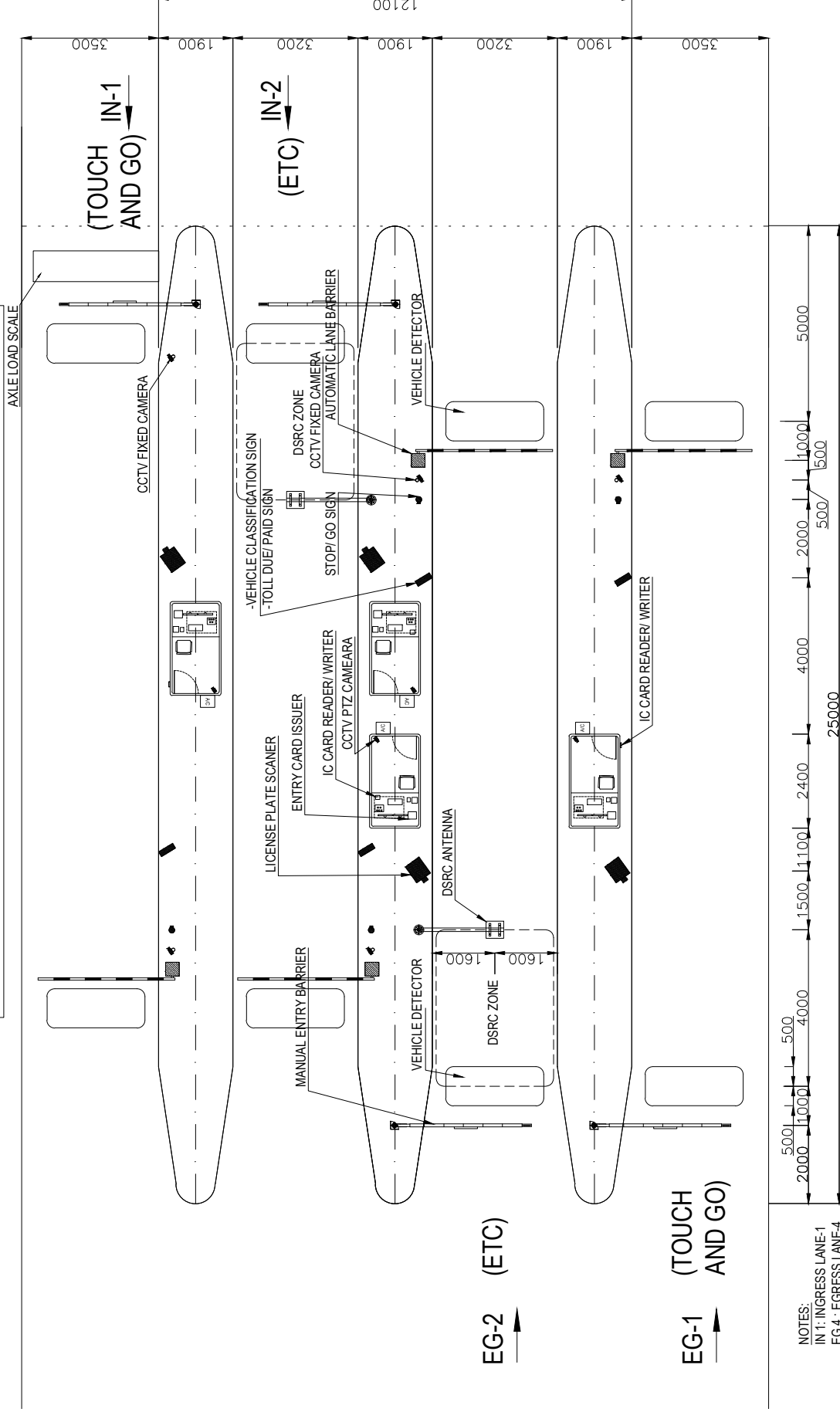


NOTES:
EG-3 EXPRESS LANE-3
EG-1 EXPRESS LANE-1

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING TITLE EQUIP. ARRANGEMENT AT BINH XUYEN TOLLGATE (Km 14+400, NOI BAI - VIET TRI EXP.) - FOR REFERENCE	
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TYPICAL LAYOUT OF TOLL EQUIPMENT FOR 4 LANES

TOLL OFFICE



SOCIALIST REPUBLIC OF VIETNAM

MINISTRY OF TRANSPORT

ITS INTEGRATION PROJECT ON
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

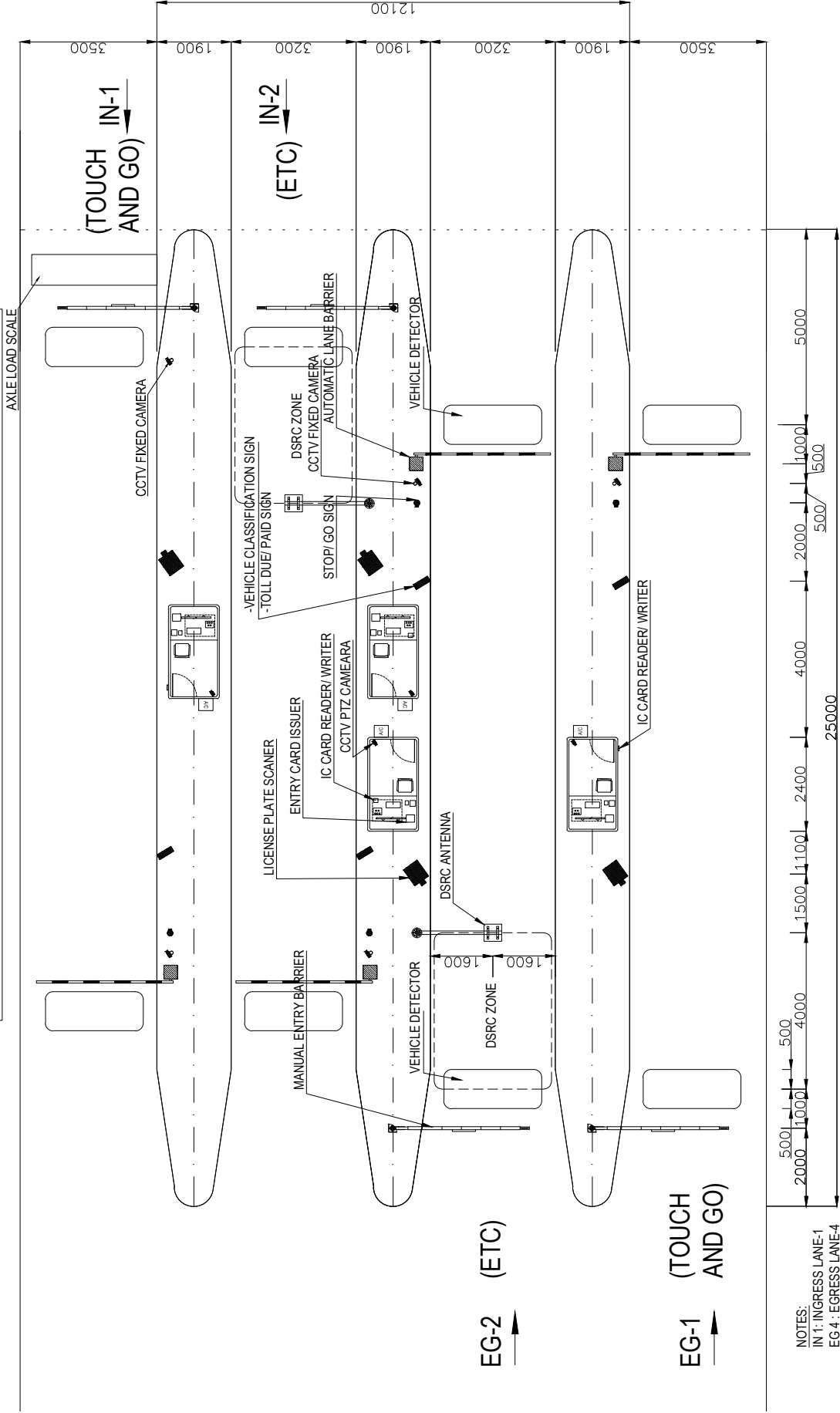
DRAWING TITLE
EQUIP. ARRANGEMENT AT TL305 - VAN QUAN TOLLGATE
(Km 39+960, NOI BAI - VIET TRI EXP) - FOR REFERENCE

PACKAGE:	
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TITLE	NAME	SIGNATURE	DATE
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TRANSPORTATION RESEARCH INSTITUTE CO., LTD			
LANDTEC JAPAN INC.			

TYPICAL LAYOUT OF TOLL EQUIPMENT FOR 4 LANES

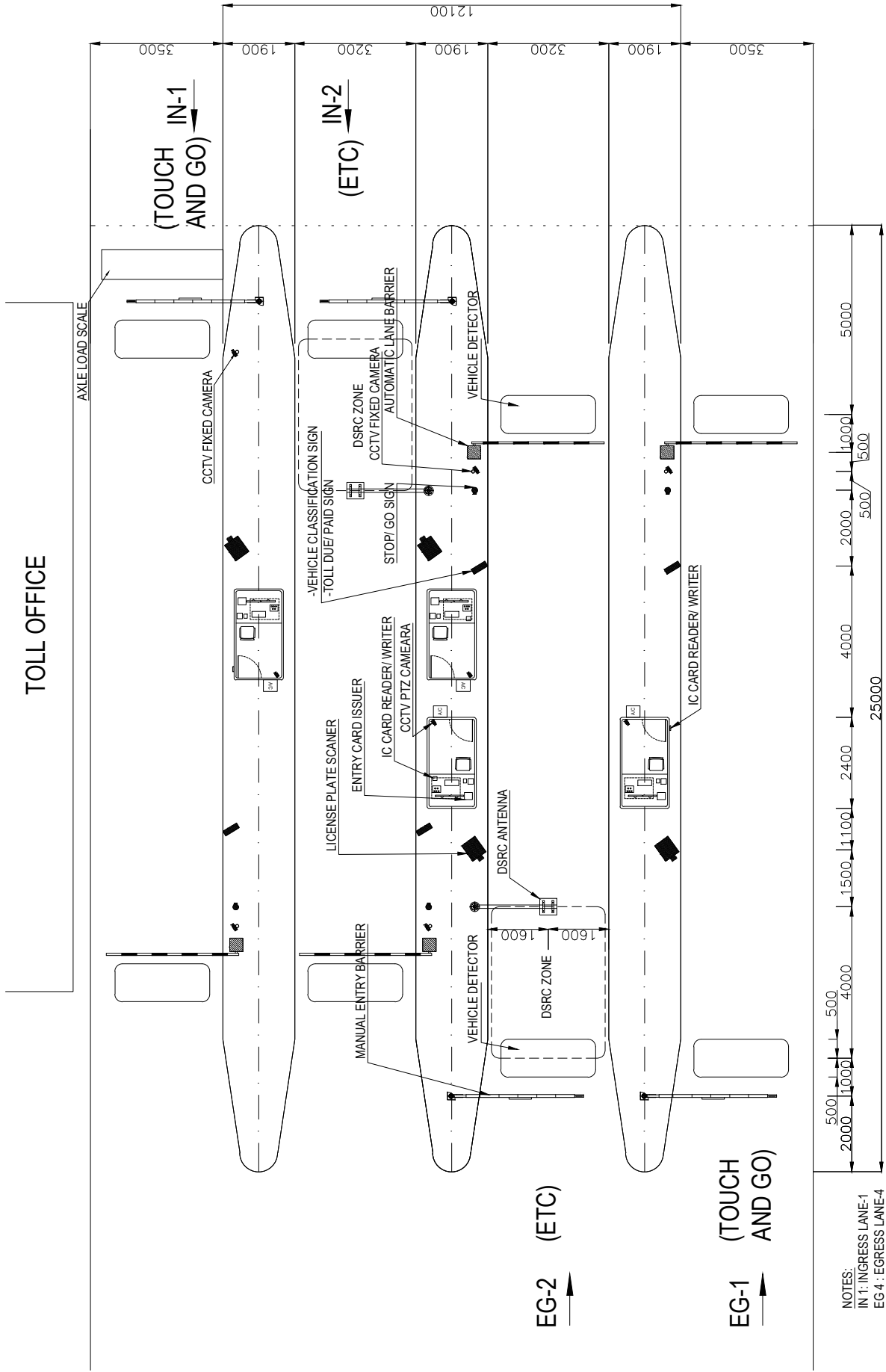
TOLL OFFICE



NOTES:
 IN 1: INGRESS LANE-1
 EG 4 : EGRESS LANE-4

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
TITLE	NAME	SIGNATURE	DATE	DRAWING NO.:	XI.4-05
PREPARED BY				SHEET NO.:	
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ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		MINISTRY OF TRANSPORT		EQUIPT. ARRANGEMENT AT QL2 - PHU NINH TOLLGATE (Km 54+640, NOI BAI - VIET TRI EXP.) - FOR REFERENCE	
				SCALE: 1/100	

TYPICAL LAYOUT OF TOLL EQUIPMENT FOR 4 LANES

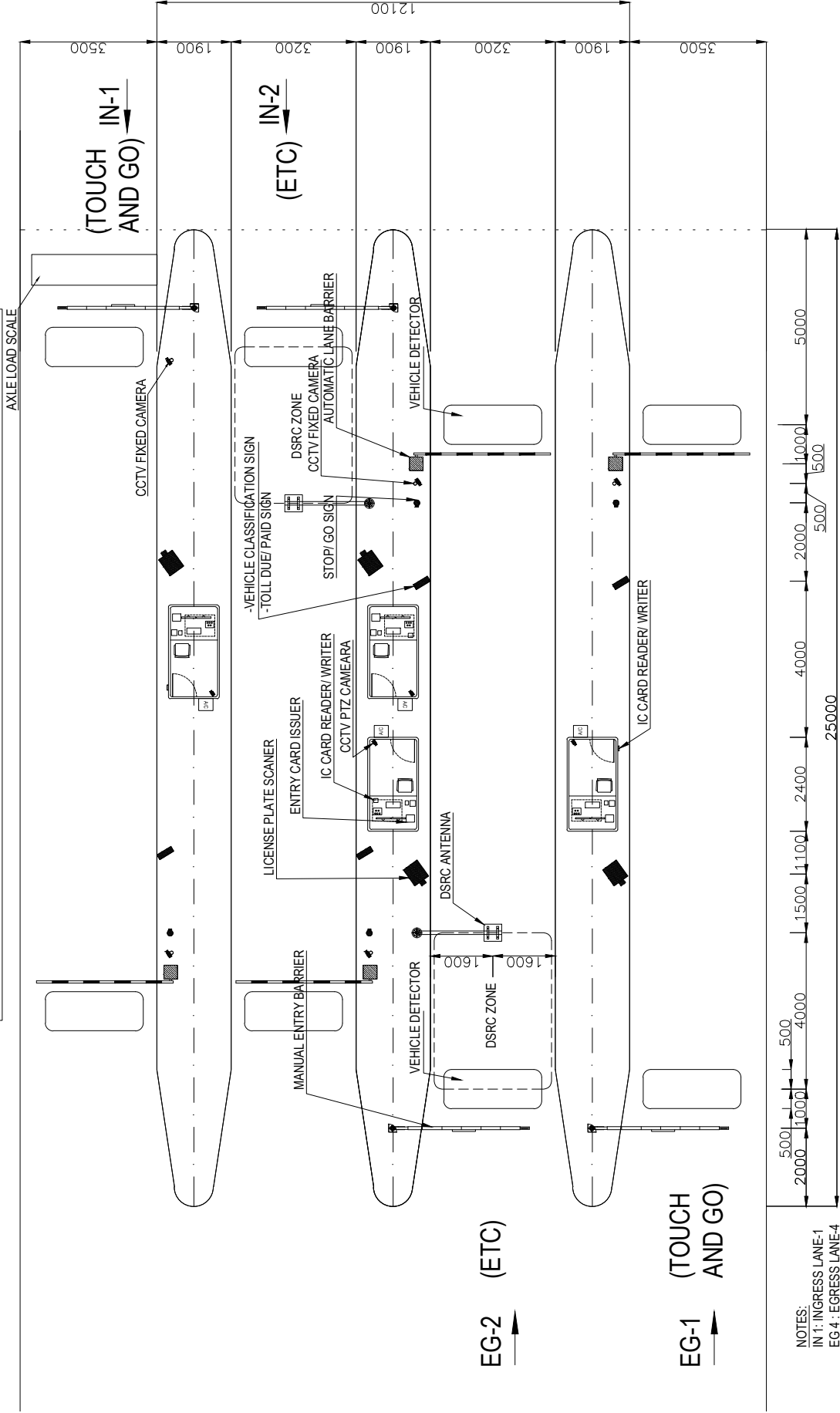


NOTES:
 IN 1: INGRESS LANE-1
 EG 4: EGRESS LANE-4

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
TITLE	NAME	SIGNATURE	DATE	DRAWING TITLE	DRAWING NO.
ORIENTAL CONSULTANTS CO., LTD				EQPT. ARRANGEMENT AT HA LOC TOLLGATE (Km 79+600, NOI BAI - VIET TRI EXP.) - FOR REFERENCE	XI.4-06
NEXCO EAST ENGINEERING CO., LTD					
TRANSPORTATION RESEARCH INSTITUTE CO., LTD					
LANDTEC JAPAN INC.					
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TYPICAL LAYOUT OF TOLL EQUIPMENT FOR 4 LANES

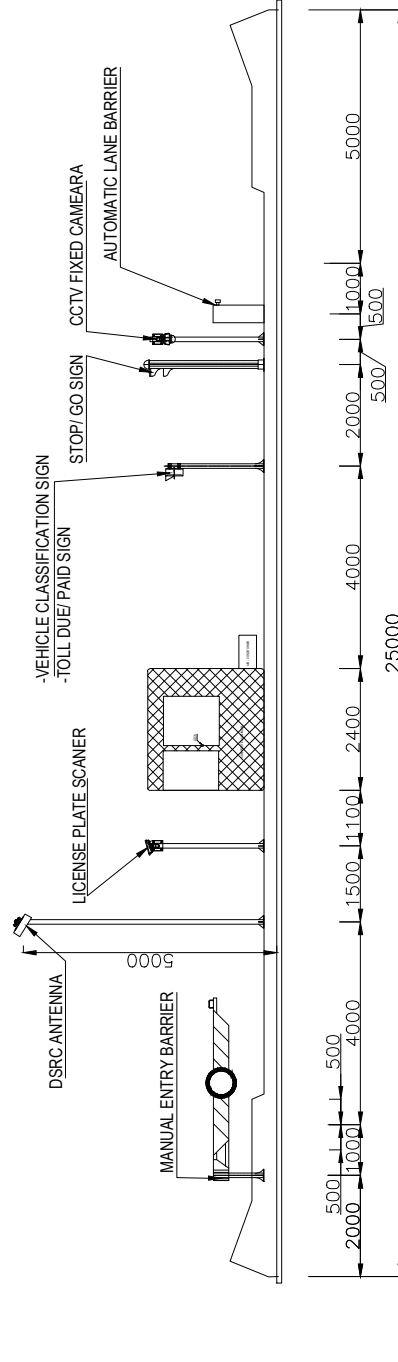
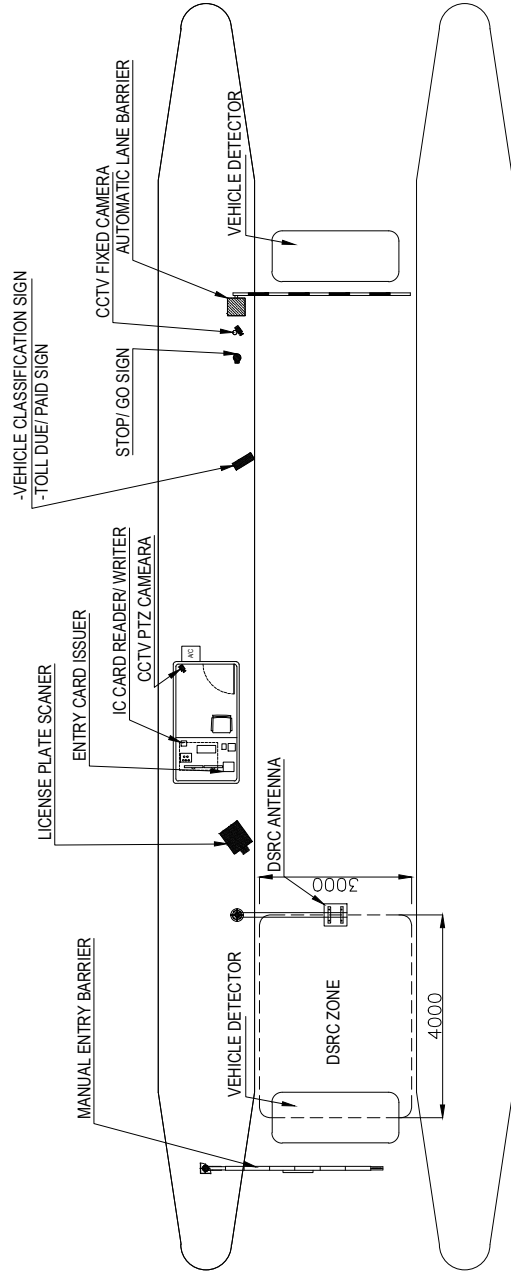
TOLL OFFICE



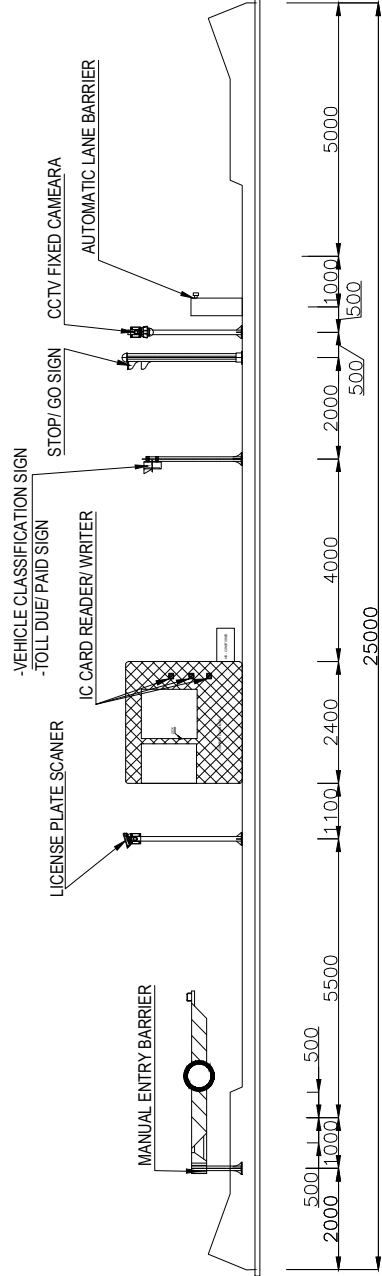
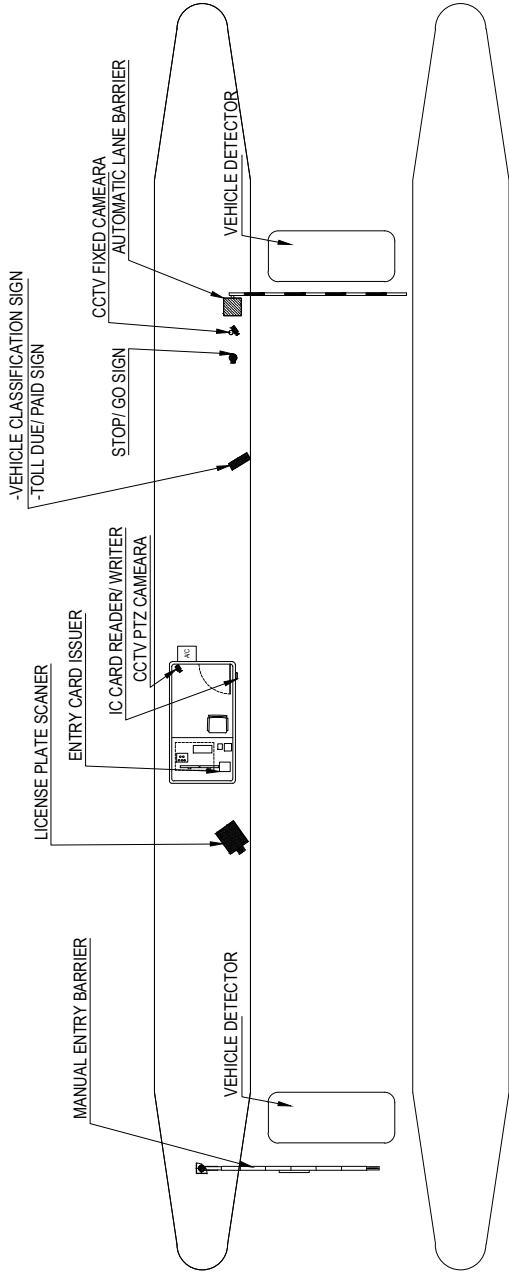
NOTES:
IN 1: INGRESS LANE-1
EG 4: EGRESS LANE-4

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
TITLE	NAME	SIGNATURE	DATE	DRAWING TITLE	DRAWING NO.
ORIENTAL CONSULTANTS CO., LTD				EQPT. ARRANGEMENT AT QL.32C - SAI NGA TOLL GATE (Km 79+600, NOI BAI - VIET TRI EXP.) - FOR REFERENCE	XI.4.07
NEXCO EAST ENGINEERING CO., LTD					
TRANSPORTATION RESEARCH INSTITUTE CO., LTD					
LANDTEC JAPAN INC.					
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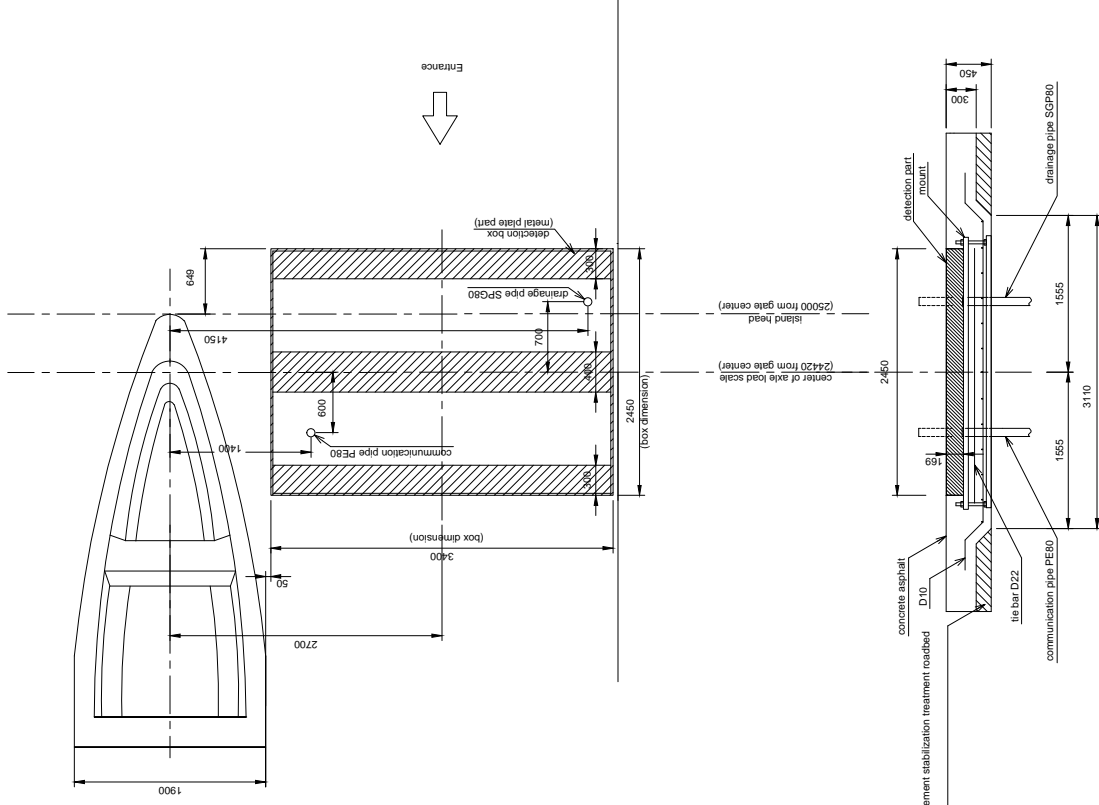


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ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING TITLE	
NEXCO EAST ENGINEERING CO., LTD				EQUIP. ARRANGEMENT PROFILE AT TOLLGATE	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				NOI BAI - VIET TRI FOR ETC LANE - FOR REFERENCE	
LANDTEC JAPAN INC.				PACKAGE	
TITLE	NAME	SIGNATURE	DATE	DRAWING NO.: XI.4-08	
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ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING TITLE NOI BAI - VIET TRI FOR TOUCH&GO/MANUAL LANE	
NEXCO EAST ENGINEERING CO., LTD				DRAWING NO.: XI.4-09	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				SHEET NO. _____	
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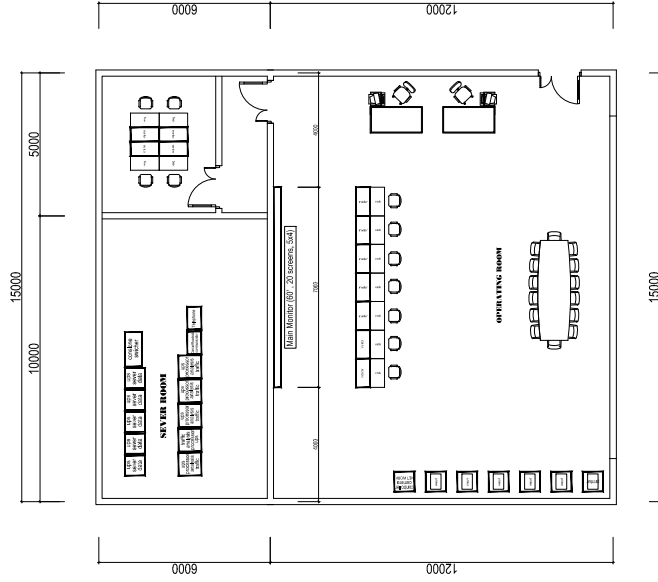
BASE STRUCTURE FOR AXLE LOAD SCALE (for reference)



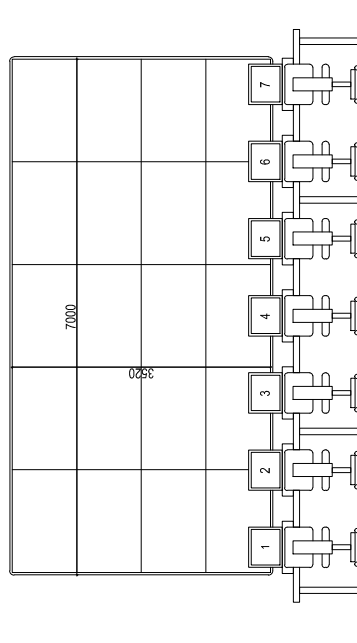
*1 All works belong to equipment makers.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		PACKAGE:
ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		NOI BAI - VIET TRI EXPRESSWAY		DRAWING NO.:
NEXCO EAST ENGINEERING CO., LTD				BASE STRUCTURE FOR AXLE LOAD SCALE		XI.4-10
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				- FOR REFERENCE		SHEET NO.:
LANDTEC JAPAN INC.						Sheet of
TITLE	NAME	SIGNATURE	DATE	SCALE: 1/50		
PREPARED BY				Rev.:		
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**EXTERNAL OUTLINE
OF CENTER & ROADSIDE EQPT.**



Regional Main Center

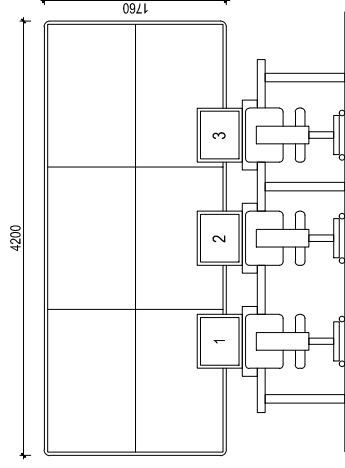
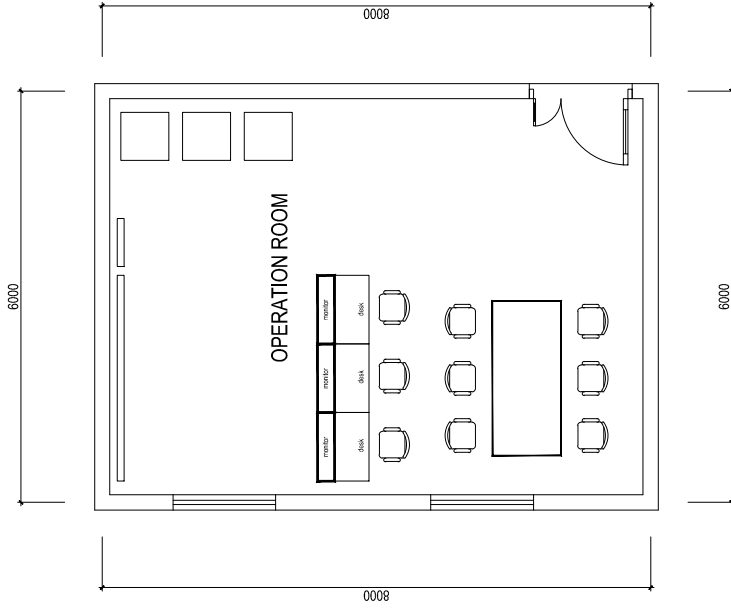


- 1 CCTV Center Controller Console
- 2 Traffic Event Data Input Device
- 3 Traffic Event Data Input Device
- 4 VMS Center Controller Console
- 5 VMS Center Controller Console
- 6 CCTV Center Controller Console
- 7 Traffic Supervising/ Control Console

LAYOUT PLAN OF NORTHERN REGIONAL MAIN CENTER

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				DRAWING TITLE:
NIPPON KOEI CO., LTD	CHECKED BY				PLAN OF NORTHERN REGIONAL MAIN CENTER (02)
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				FOR REFERENCE
LANDTEC JAPAN INC.					PACKAGE:
					DRAWING NO.:
					XIII - 01
					SHEET No.:
					Sheet of
					Rev.:
					SCALE: 1/50

Road Management Office



- 1 | Traffic Event Data Input Device
- 2 | CCTV Monitoring Console **
- 3 | CCTV Monitoring Console

ROAD MANAGEMENT OFFICE

CONSULTANT

ORIENTAL CONSULTANTS CO., LTD
 NEXCO EAST ENGINEERING CO., LTD
 NIPPON KOEI CO., LTD
 TRANSPORTATION RESEARCH INSTITUTE CO., LTD
 LANDTEC JAPAN INC.

TITLE	NAME	SIGNATURE	DATE
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MINISTRY OF TRANSPORT

ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

LANG - HOA LAC
 PLAN OF ROAD MANAGEMENT OFFICE
 FOR REFERENCE

PACKAGE

DRAWING NO.:

XIII - 02

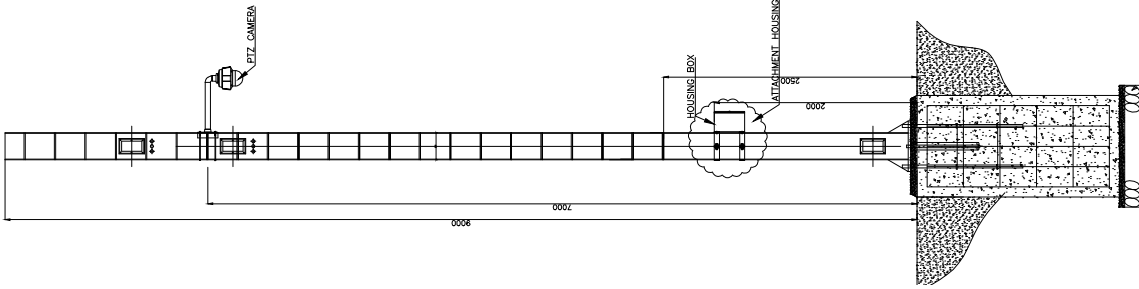
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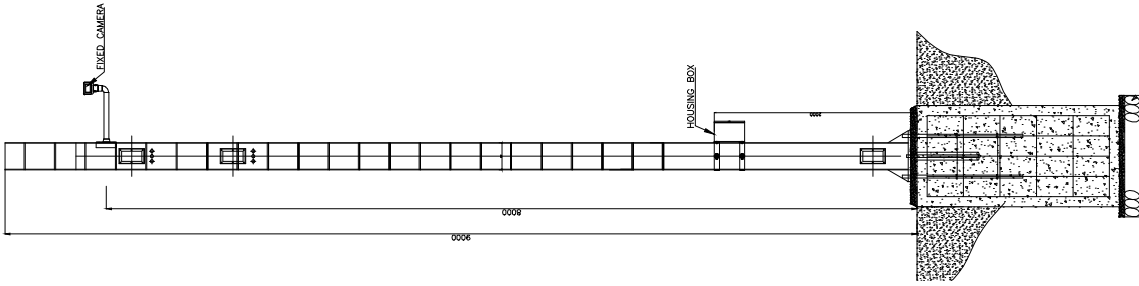
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SCALE: 1/200

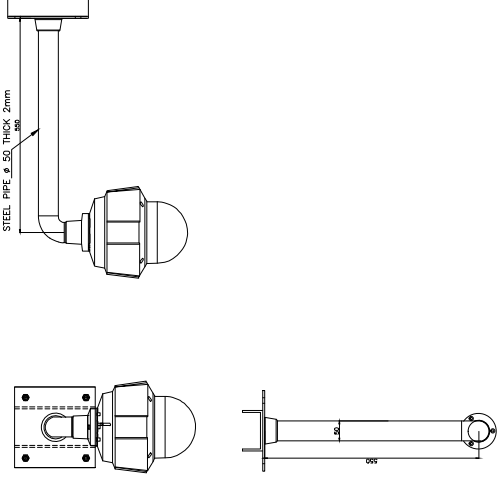
PTZ CAMERABOX (SCALE IN A3: 1/50)



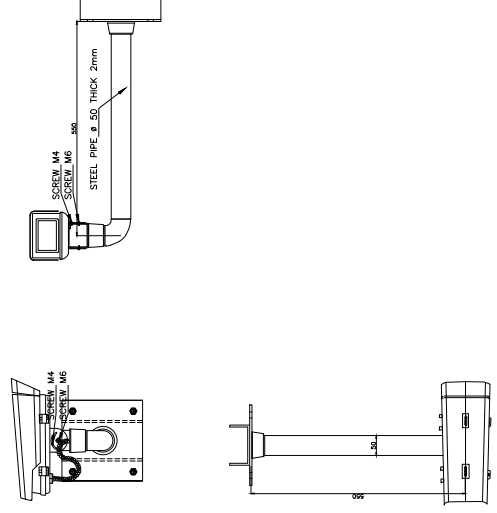
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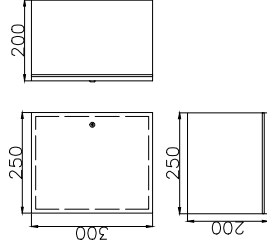
DETAIL PTZ CAMERABOX (SCALE IN A3: 1/20)



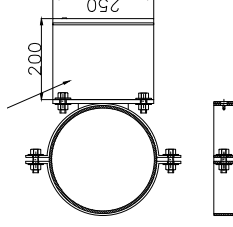
DETAIL FIXED CAMERA (SCALE IN A3: 1/20)



HOUSING BOX (SCALE IN A3: 1/20)



DETAIL 1 (SCALE IN A3: 1/20)



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EXTERNAL OUTLINES OF
 PTZ CAMERA/ FIXED CAMERA/ HOUSING BOX

PACKAGE:

DRAWING NO.:

XII-1-03

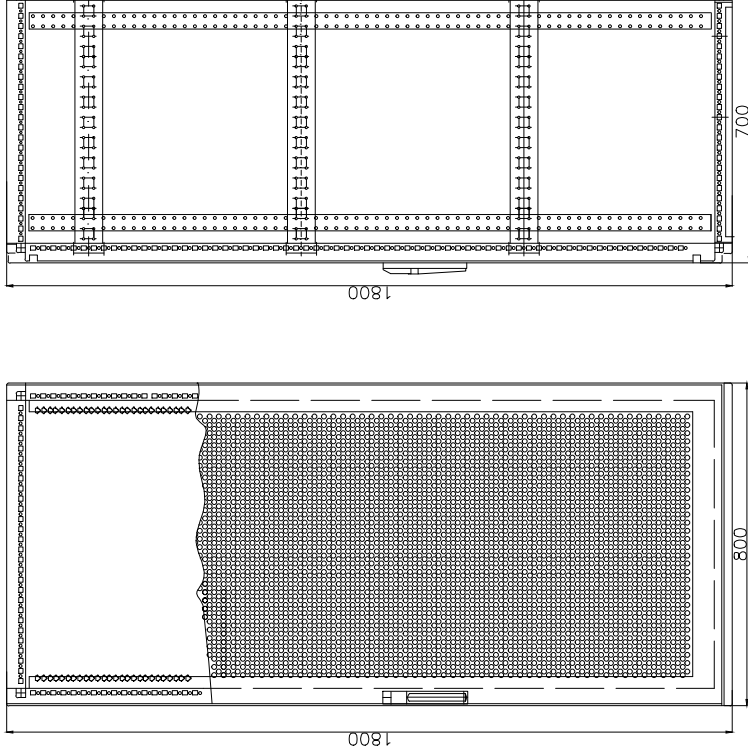
SHEET NO.:

Sheet

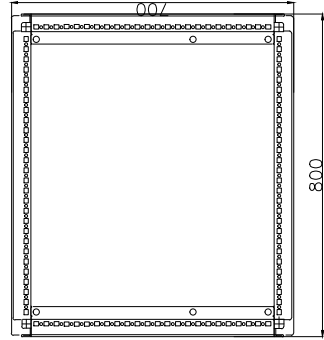
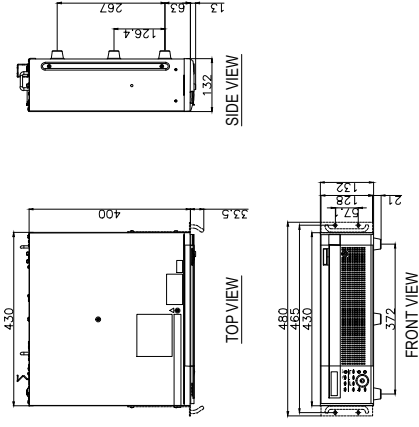
of

SCALE:

SERVER LACK

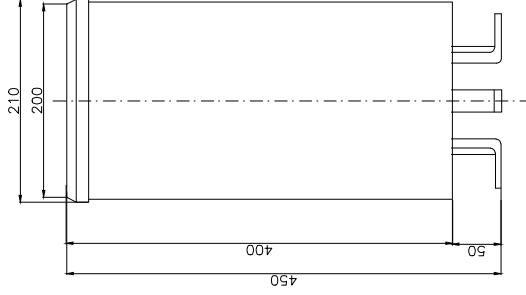


NETWORK VIDEO RECORDER



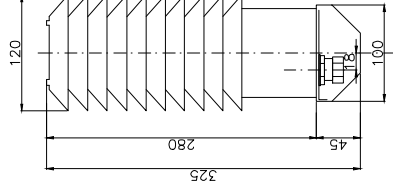
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		PACKAGE:
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		MINISTRY OF TRANSPORT		DRAWING TITLE EXTERNAL OUTLINES OF NETWORK VIDEO RECORDER/ SERVER LACK		DRAWING NO.: XII-1-04
TITLE	NAME	SIGNATURE	DATE	SHEET NO.:	Sheet	of
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				SCALE: 1/20		

**RAIN - GAUGE
(FOR REFERENCE)**
(SCALE IN A3: 1/5)



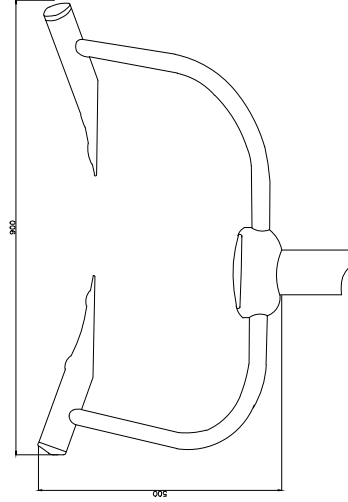
IN CASE THE EQUIPMENTS TO BE LOCATED AT OUTDOOR, THE SCREW FOR ATTACHMENT SHOULD BE ANTI THEFT TYPE

**THERMOMETER
(FOR REFERENCE)**
(SCALE IN A3: 1/5)



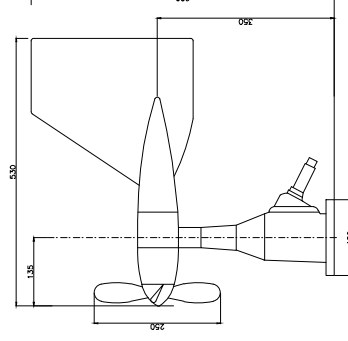
IN CASE THE EQUIPMENTS TO BE LOCATED AT OUTDOOR, THE SCREW FOR ATTACHMENT SHOULD BE ANTI THEFT TYPE

**VISIBILITY SENSOR
(FOR REFERENCE)**
(SCALE IN A3: 1/10)



IN CASE THE EQUIPMENTS TO BE LOCATED AT OUTDOOR, THE SCREW FOR ATTACHMENT SHOULD BE ANTI THEFT TYPE

**WIND SENSOR
(FOR REFERENCE)**
(SCALE IN A3: 1/10)



IN CASE THE EQUIPMENTS TO BE LOCATED AT OUTDOOR, THE SCREW FOR ATTACHMENT SHOULD BE ANTI THEFT TYPE

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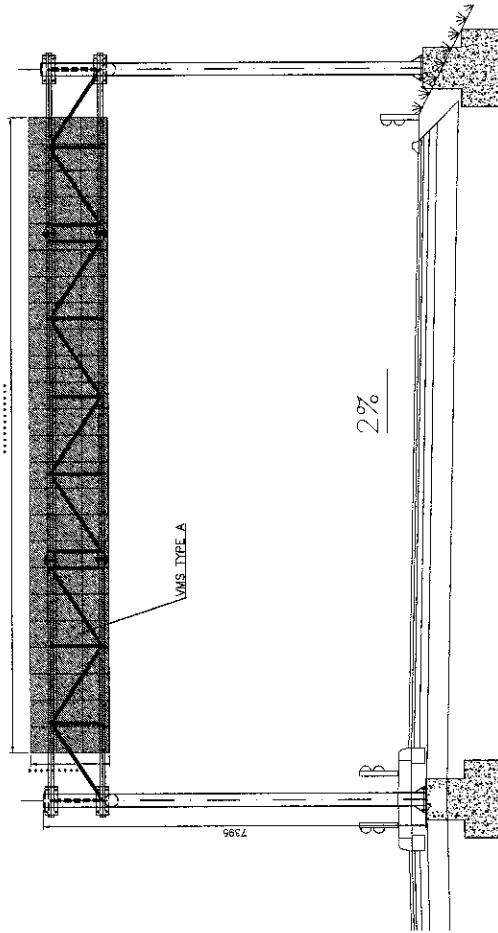
SOCIALIST REPUBLIC OF VIETNAM
MINISTRY OF TRANSPORT

**ITS INTEGRATION PROJECT ON
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM**
EXTERNAL OUTLINES OF WEATHER SENSORS

PACKAGE:	
DRAWING NO.:	XII.1-45
SHEET NO.:	Sheet
Rev.:	of

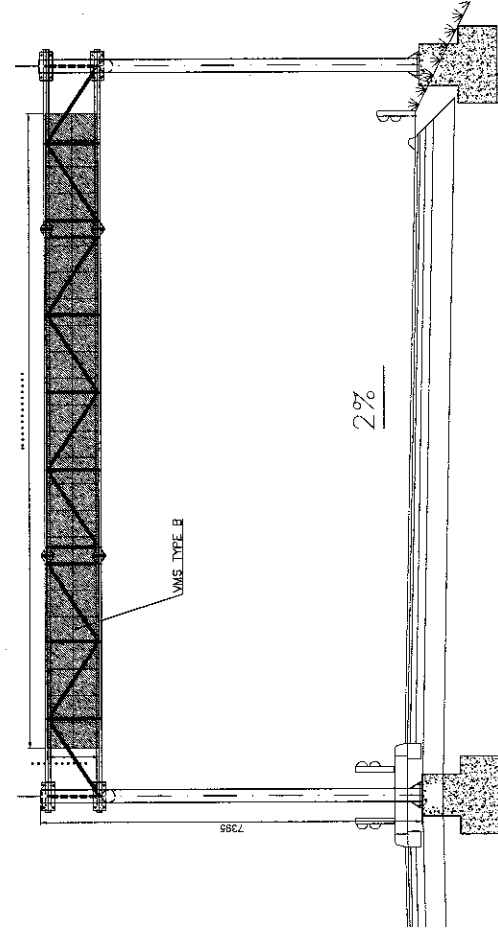
SCALE:

**VMS TYPE A
(FOR REFERENCE)**



Specification
VMS Type A - Display type: multi-color LED - Number of rows: 3 rows - Number of columns: > 24 columns/row - Letter height: 450 mm - LED Color: Red, Blue, Light Green - LED dot pitch: < 16 mm - Resolution: >899(h) x 623(w) dots / > 55,447 dots

**VMS TYPE B
(FOR REFERENCE)**



Specification
VMS Type B - Display type: multi-color LED - Number of rows: 2 rows - Number of columns: > 24 columns/row - Letter height: 450 mm - LED Color: Red, Blue, Light Green - LED dot pitch: < 16 mm - Resolution: > 594(h) x 623(w) dots / > 36,757 dots

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ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

EXTERNAL OUTLINES OF VMS
 (TYPE A) TYPE B)

DRAWING TITLE

PROJECT

DRAWING NO.

XII-146

SHEET NO.

Rev.

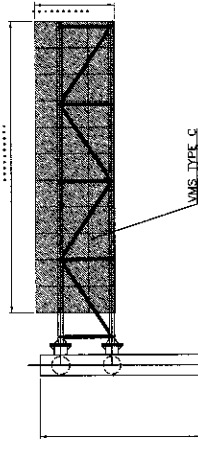
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of

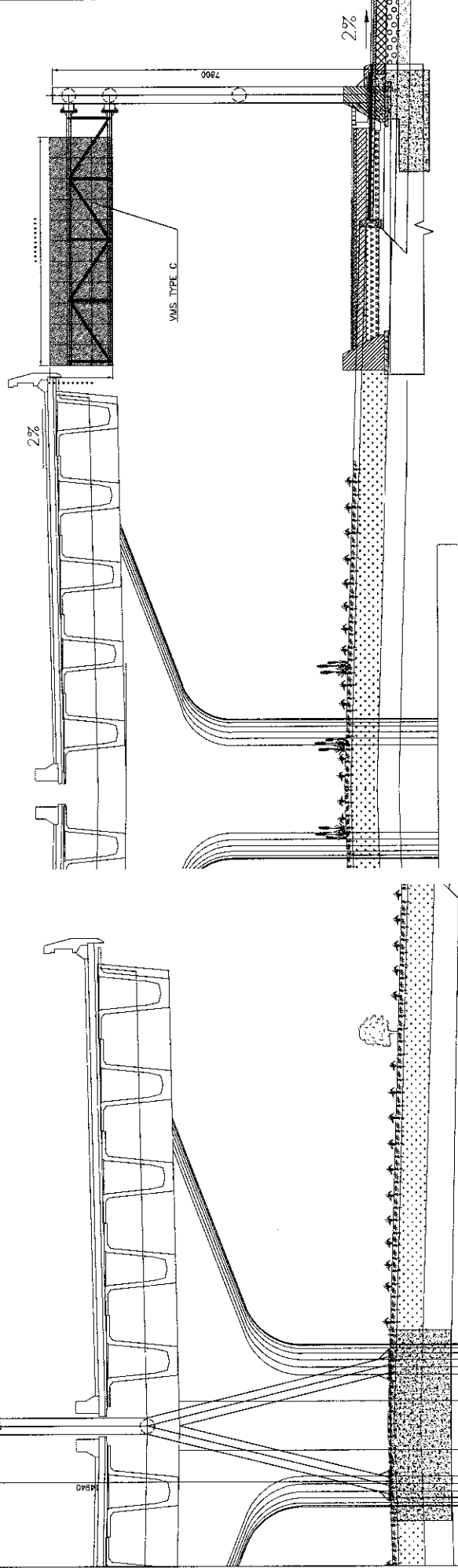
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VMS TYPE C (FOR REFERENCE)

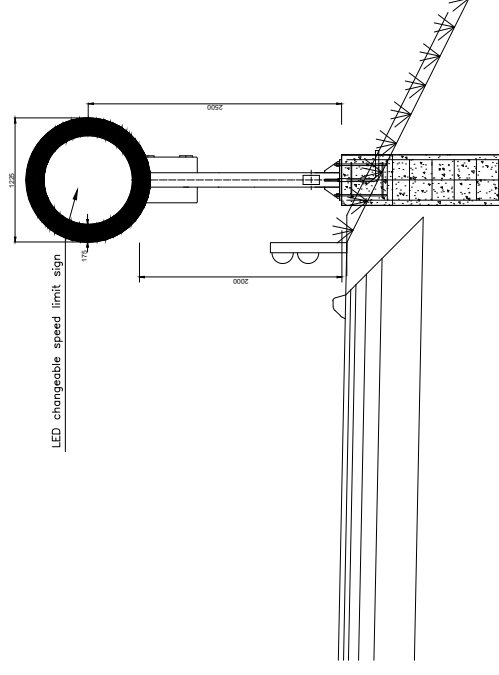
Specification	
VMS Type C	<ul style="list-style-type: none"> - Display type: multi-color LED - Number of rows: 3 rows - Number of columns: > 14 columns/row - Letter height: 450 mm - LED Color: Red, Blue, Light Green - LED dot pitch: < 16 mm - Resolution: > 89(h) x 363(v) dots / > 32,307 dots



VMS TYPE C (FOR REFERENCE)



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ORIENTAL CONSULTANTS CO., LTD.		MINISTRY OF TRANSPORT		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		XII-1-07	
NEXCO EAST ENGINEERING CO., LTD.				EXTERNAL OUTLINES OF VMS (TYPE C)		SHEET NO.	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD.						Sheet of	
LANDTEC JAPAN INC.						SCALE: 1:100	



LED changeable speed limit sign

Specification

- CSS
- Display type: multi-color LED
 - Number of rows: 3 rows
 - Number of columns: > 14 columns/row
 - Letter height: 450 mm
 - LED Color: Red, Blue, Light Green
 - LED dot pitch: < 16 mm
 - Resolution: > 89(h) x 363(w) dots/ > 32,307 dots

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 TRANSPORTATION RESEARCH INSTITUTE CO., LTD
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TITLE	NAME	SIGNATURE	DATE
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SOCIALIST REPUBLIC OF VIETNAM

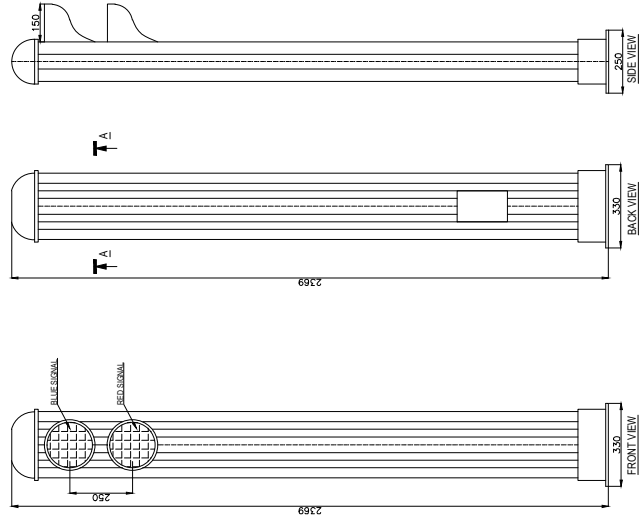
MINISTRY OF TRANSPORT

**ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM**
**EXTERNAL OUTLINES OF VMS
 (TYPE CSS)**

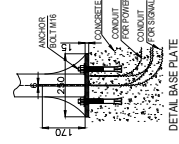
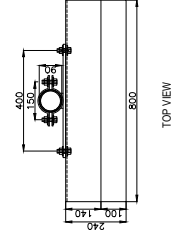
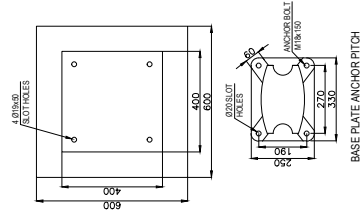
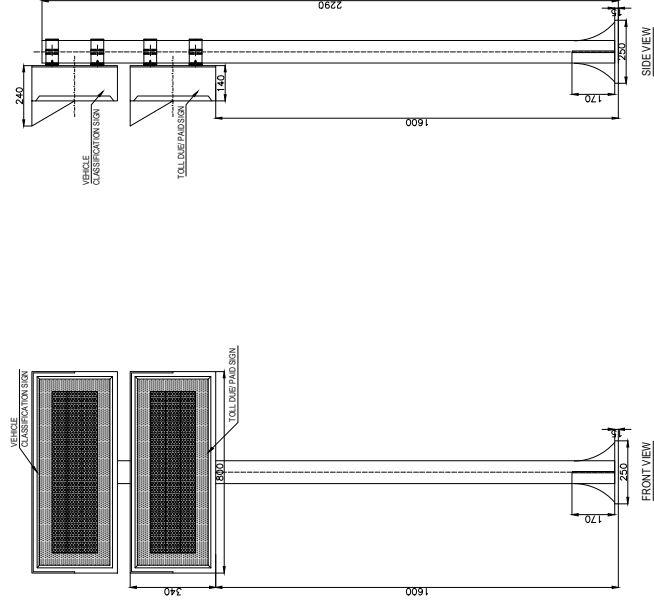
PACKAGE:	
DRAWING NO.:	XII-1-08
SHEET NO.:	Sheet
Rev.:	of

SCALE: 1/50

**STOP/GO SIGN
(FOR REFERENCE)**



**TOLL DUE/PAID SIGN
(FOR REFERENCE)**



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ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

EXTERNAL OUTLINES OF
 TOLL DUE PAID SIGN/ STOP GO SIGN

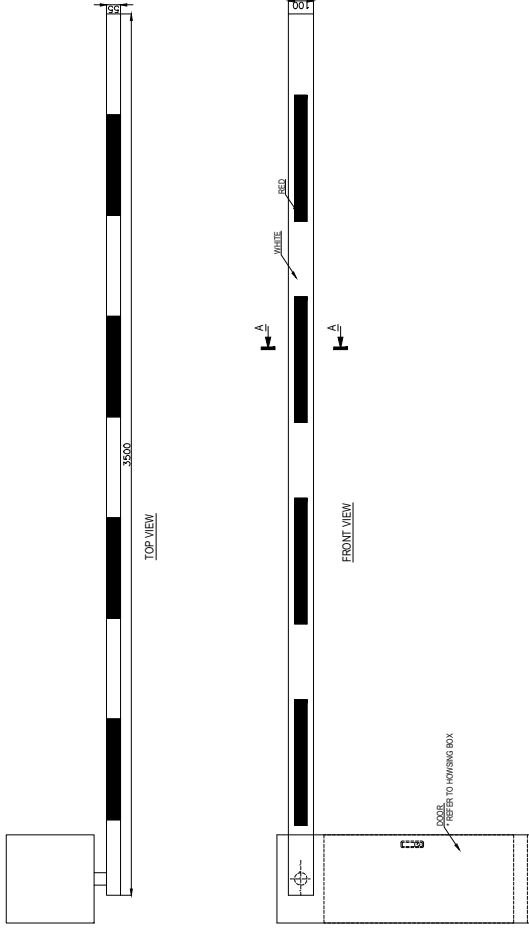
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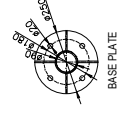
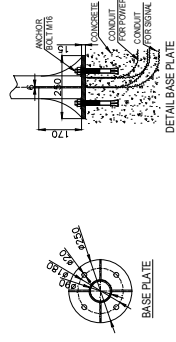
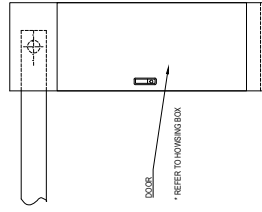
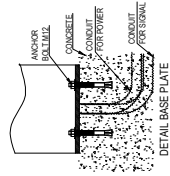
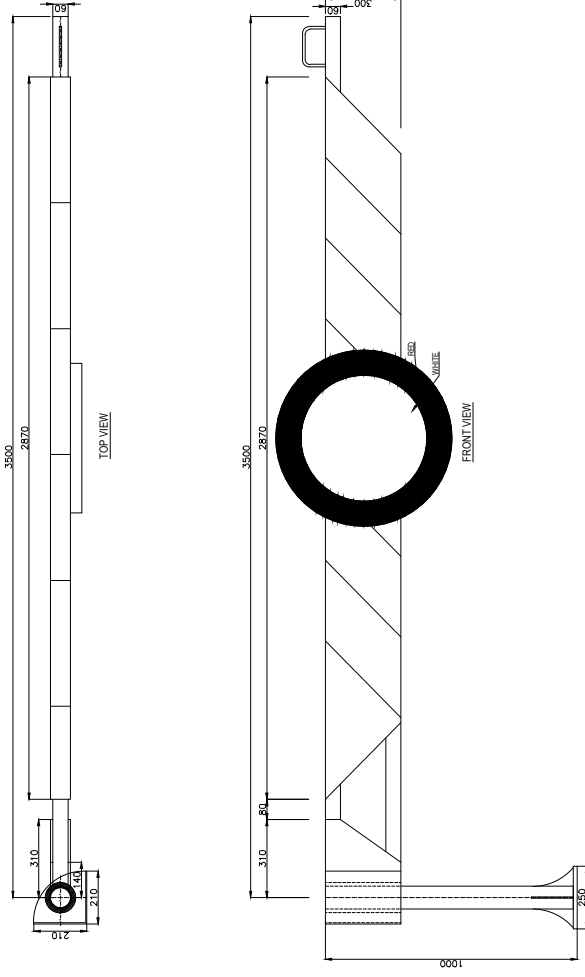
DRAWING NO.: XI.1-09

SHEET NO.: Sheet of

**AUTOMATIC BARRIER
(FOR REFERENCE)**



**BARRIER
(FOR REFERENCE)**



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 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

**EXTERNAL OUTLINES OF
 BARRIER/AUTOMATIC BARRIER**

PACKAGE:

DRAWING NO.:

X1.1-10

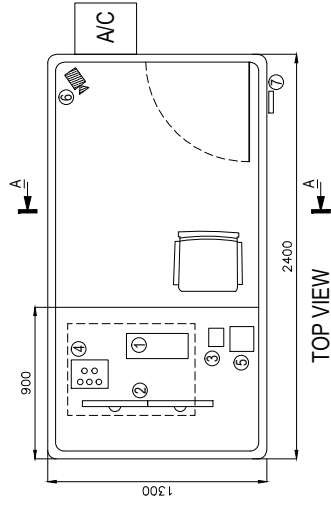
SHEET NO.:

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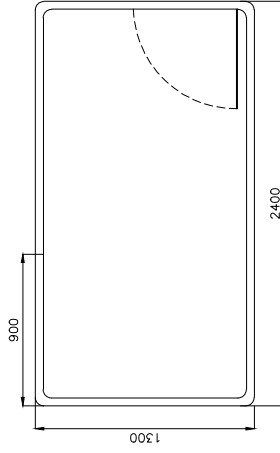
of

SCALE: 1/20

TOUCH AND GO LANE
(FOR REFERENCE)

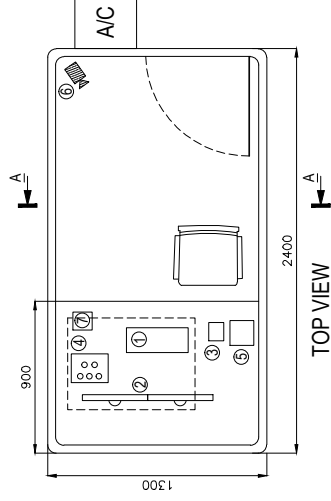


TOP VIEW

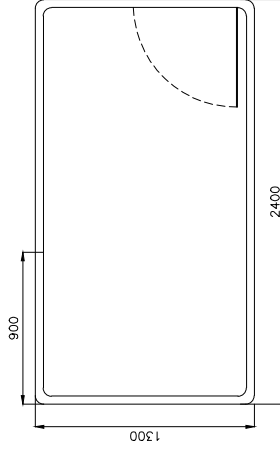


SECTION A-A

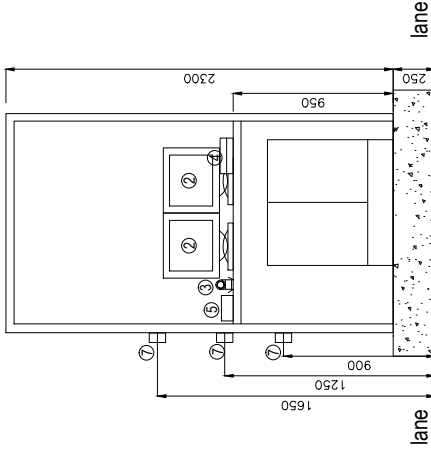
ETC LANE
(FOR REFERENCE)



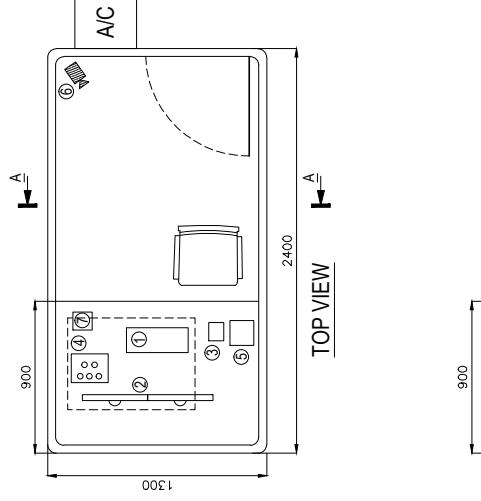
TOP VIEW



SECTION A-A



SECTION A-A



SECTION A-A

NO	EQUIPMENT	QUANTITY
1	TOLL COLLECTION KEYBOARD	1
2	LCD MONITOR	2
3	BARCODE SCANNER	1
4	MANUAL BOOTH CONTROLLER	1
5	INTERCOM UNIT	1
6	CCTV PTZ CAMERA	1
7	CONTACT LESS IC CARD READER/WRITER	3

NO	EQUIPMENT	QUANTITY
1	TOLL COLLECTION KEYBOARD	1
2	LCD MONITOR	2
3	BARCODE SCANNER	1
4	MANUAL BOOTH CONTROLLER	1
5	INTERCOM UNIT	1
6	CCTV PTZ CAMERA	1
7	CONTACT LESS IC CARD READER/WRITER	3

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ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

EXTERNAL OUTLINES OF TOLL BOOTH

PACKAGE:

DRAWING NO.:

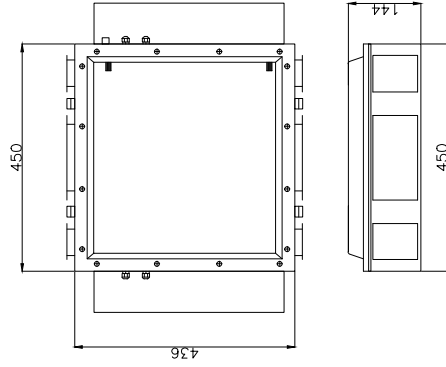
XII.1-11

SHEET NO.:

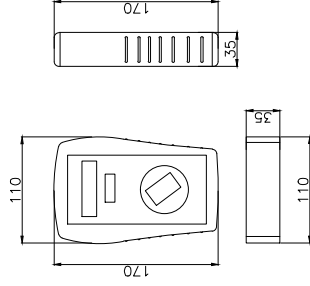
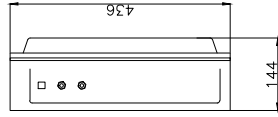
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SCALE: 1/30

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**DSRC ANTENNA
(FOR REFERENCE)**
(SCALE IN A3: 1/10)



**IC CARD READER/WRIER
(FOR REFERENCE)**
(SCALE IN A3: 1/8)

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TITLE	NAME	SIGNATURE	DATE
PREPARED BY			
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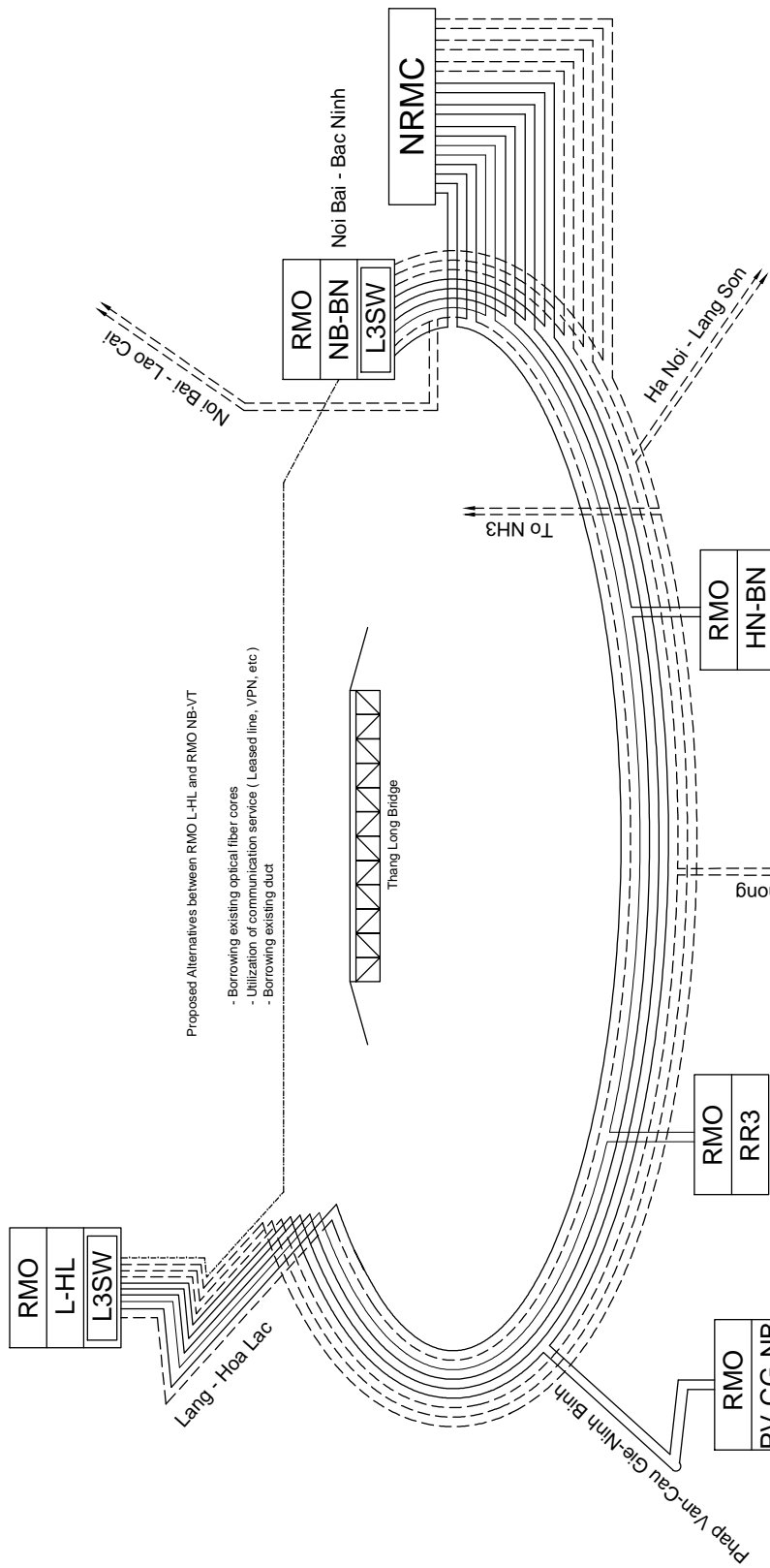
SOCIALIST REPUBLIC OF VIETNAM
 MINISTRY OF TRANSPORT

**ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM**
**EXTERNAL OUTLINES OF DSRC ANTENNA
 /CONTACTLESS- IC CARD READER- WRITER**

PACKAGE:	
DRAWING NO.:	XII.1-12
SHEET NO.:	Sheet of

SCALE:

COMMUNICATION SYSTEM



Proposed Alternatives between RMO L-HL and RMO NB-VT

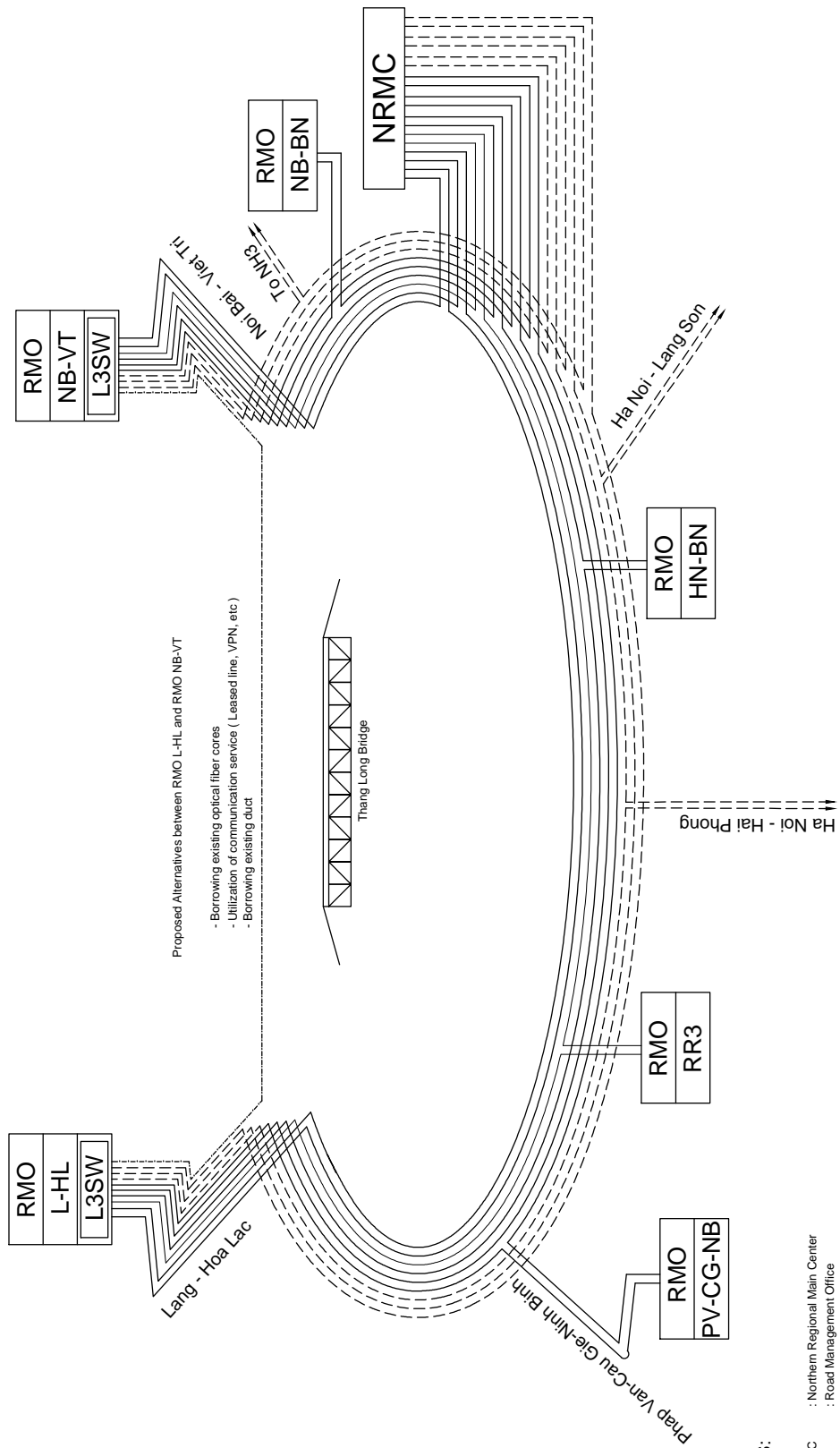
- Borrowing existing optical fiber cores
- Utilization of communication service (Leased line, VPN, etc)
- Borrowing existing duct

NOTES:

- NRMC : Northern Regional Main Center
- RMO : Road Management Office
- L3SW : Layer 3 Switch
- : Fiber Optic Transmission system for Target Road Section
- - - : Fiber Optic Transmission system for Related Road Section
- L-HL : Lang - Hoa Lac
- NB-VT : Noi Bai - Viet Tri
- NB-BN : Noi Bai - Bac Ninh
- HN-BN : Ha Noi - Bac Ninh
- RR3 : Ring Road No.3
- PV-CG-NB : Phap Van - Cau Gie - Ninh Binh

Remarks: This drawing shows optical fiber cable installation image for Integration Layer Network between Northern Regional Main Center (NRMC) and each Road Management Office (RMO) for target road sections and including proposed alternatives between RMO Lang - Hoa Lac and RMO Noi Bai - Bac Ninh.

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NEXCO EAST ENGINEERING CO., LTD				DRAWING TITLE	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				INTEGRATION LAYER NETWORK CONFIGURATION OVERVIEW	
LANDTEC JAPAN INC.				FOR THE TARGET ROAD SECTIONS AND RELATED ROAD SECTIONS (1)	
TITLE	NAME	SIGNATURE	DATE	DRAWING NO.	SHEET No.
PREPARED BY				XB. 1-01	1
CHECKED BY					
APPROVED BY					
				SCALE:	



Proposed Alternatives between RMO L-HL and RMO NB-VT

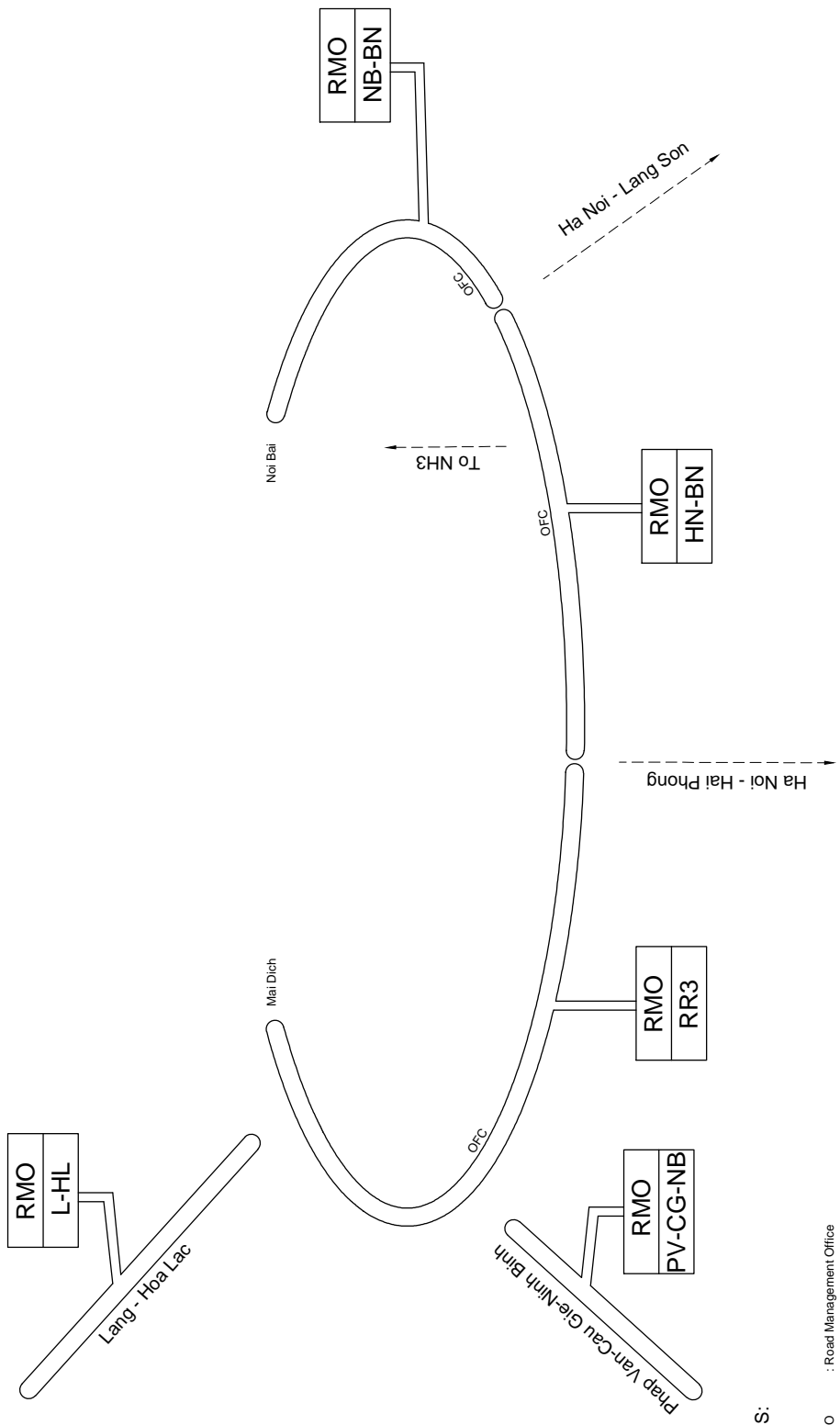
- Borrowing existing optical fiber cores
- Utilization of communication service (Leased line, VPN, etc)
- Borrowing existing duct

Remarks: This drawing shows optical fiber cable installation image for Integration Layer Network between Northern Regional Main Center (NRMC) and each Road Management Office (RMO) for target road sections and including proposed alternatives between RMO Lang - Hoa Lac and RMO Noi Bai - Viet Tri.

NOTES:

- NRMC : Northern Regional Main Center
- RMO : Road Management Office
- L3SW : Layer 3 Switch
- — — — : Fiber Optic Transmission system for Target Road Section
- - - - : Fiber Optic Transmission system for Related Road Section
- L-HL : Lang - Hoa Lac
- NB-VT : Noi Bai - Viet Tri
- NB-BN : Noi Bai - Bac Ninh
- HN-BN : Ha Noi - Bac Ninh
- RR3 : Ring Road No.3
- PV-CG-NB : Phap Van - Cau Gie - Ninh Binh

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TITLE	NAME	SIGNATURE	DATE	DRAWING TITLE	DRAWING NO.
PREPARED BY				INTEGRATION LAYER NETWORK CONFIGURATION OVERVIEW	XB.1-02
CHECKED BY				FOR THE TARGET ROAD SECTIONS AND RELATED ROAD SECTIONS (2) - FOR REFERENCE	SHEET No.
APPROVED BY					Sheet of
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOGI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.			MINISTRY OF TRANSPORT		

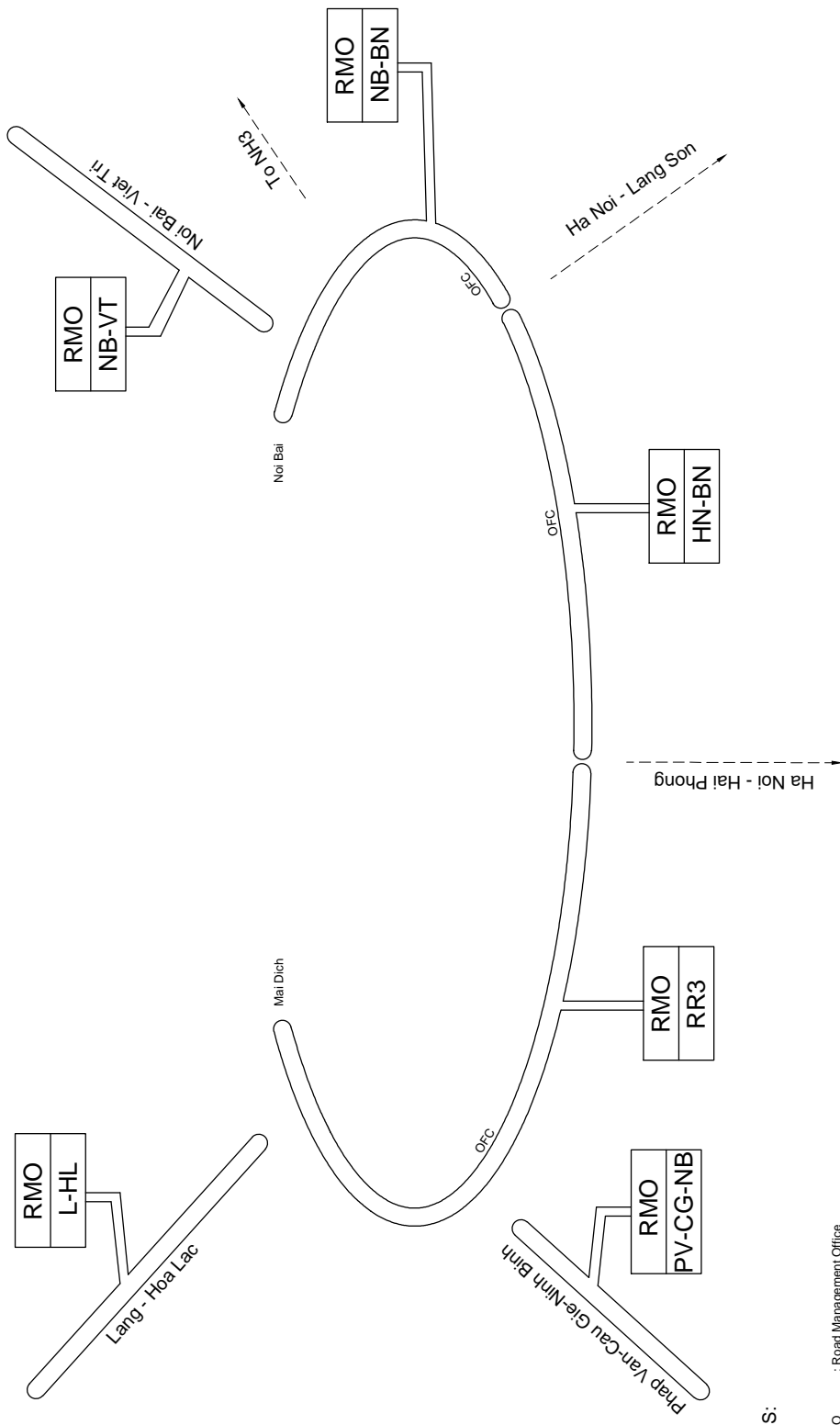


Remarks: This drawing shows optical fiber cable installation image for Road Section Layer Network for all target road sections. This network is required separately from Integration Layer Network but installation of optical fiber cable will be the same communication duct route of the Integration Layer Cable.

NOTES:

- RMO : Road Management Office
- OFC : Optical Fiber Cable
- OFC for Target Road Section
- L-HL : Lang - Hoa Lac
- NB-VT : Noi Bai - Viet Tri
- NB-BN : Noi Bai - Bac Ninh
- HN-BN : Ha Noi - Bac Ninh
- RR3 : Ring Road No.3
- PV-CG-NB : Phap Van - Cau Gie - Ninh Binh

CONSULTANT				SOCIALIST REPUBLIC OF VIETNAM				ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM			
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	ROAD SECTION LAYER NETWORK CONFIGURATION OVERVIEW FOR THE TARGET ROAD SECTIONS AND RELATED ROAD SECTIONS (1)				DRAWING NO.:	XIB. 1 - 03	
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY								SHEET No.:	1	
NIPPON KOEI CO., LTD	CHECKED BY								Sheet	of	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY								Rev		
LANDTEC JAPAN INC.									SCALE:		

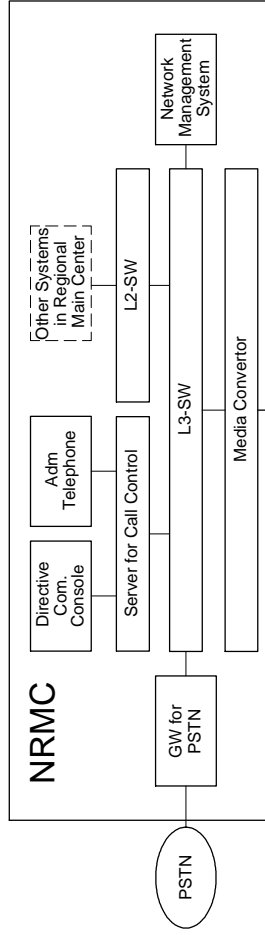


Remarks: This drawing shows optical fiber cable installation image for Road Section Layer Network for all target road sections. This network is required separately from Integration Layer Network but installation of optical fiber cable will be the same communication duct route of the Integration Layer Cable.

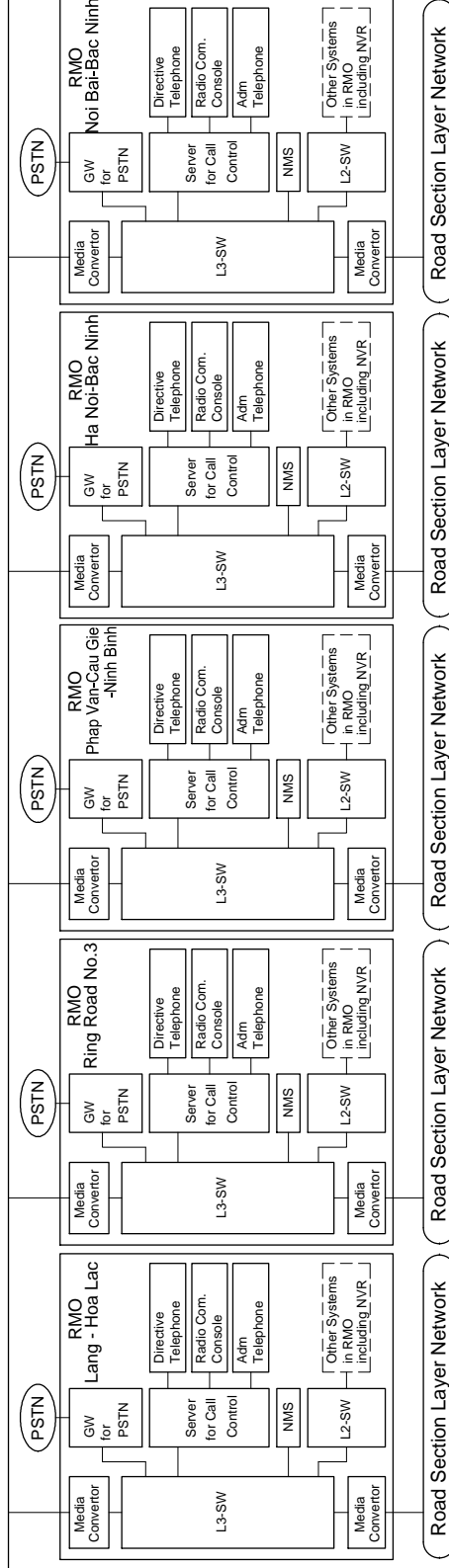
NOTES:

- RMO : Road Management Office
- OFC : Optical Fiber Cable
- OFC for Target Road Section
- L-HL : Lang - Hoa Lac
- NB-VT : Noi Bai - Viet Tri
- NB-BN : Noi Bai - Bac Ninh
- HN-BN : Ha Noi - Bac Ninh
- RR3 : Ring Road No.3
- PV-CG-NB : Phap Van - Cau Gie - Ninh Binh

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
TITLE	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
ORIENTAL CONSULTANTS CO., LTD				ROAD SECTION LAYER NETWORK CONFIGURATION OVERVIEW	
NEXCO EAST ENGINEERING CO., LTD				FOR THE TARGET ROAD SECTIONS AND RELATED ROAD SECTIONS (2) - FOR REFERENCE	
NIPPON KOEI CO., LTD					DRAWING NO.: XIB.1-04
TRANSPORTATION RESEARCH INSTITUTE CO., LTD					SHEET No.:
LANDTEC JAPAN INC.					Sheet of
					Rev.



Intergration Layer Network

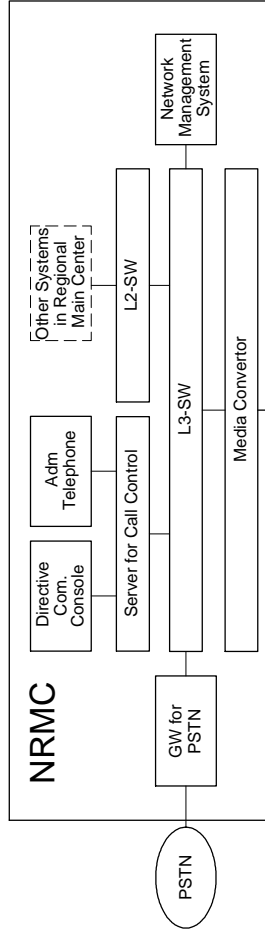


NOTES:

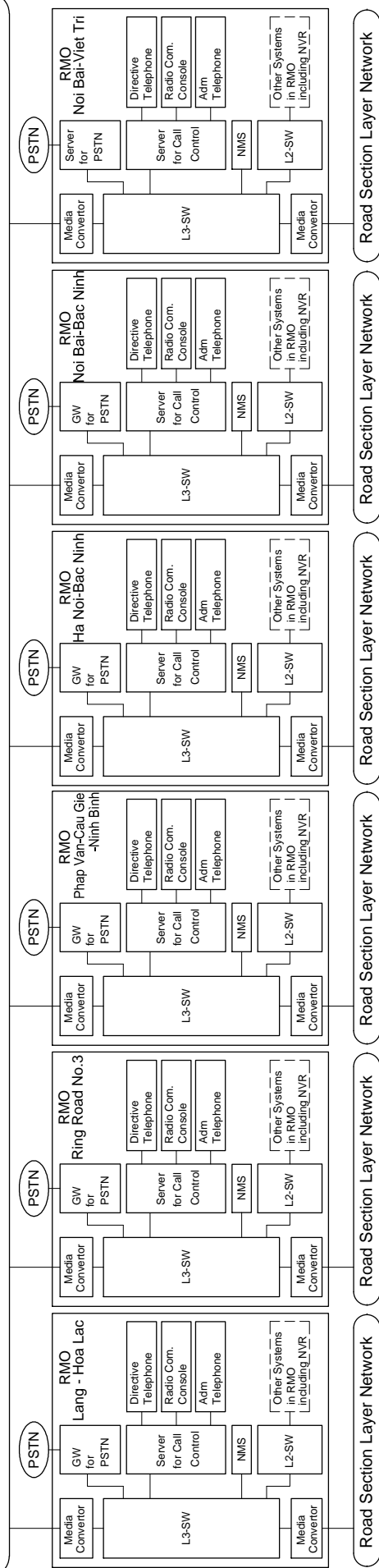
- NRMCC : Northern Regional Main Center
- RMO : Road Management Office
- L3SW : Layer 3 Switch
- L2SW : Layer 2 Switch
- NMS : Network Management System
- PSTN : Public Switched Telephone Network
- GW : Gateway

Remarks: This drawing shows equipment components to be installed in Northern Regional Main Center and each Road Management Offices and connection in between described equipment components.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	DRAWING TITLE
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY	NAME	SIGNATURE	DATE	EQUIPMENT COMPONENT
NIPPON KOEI CO., LTD	CHECKED BY	NAME	SIGNATURE	DATE	FOR INTEGRATION AND ROAD SECTION LAYER NETWORK (1)
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY	NAME	SIGNATURE	DATE	SCALE:
LANDTEC JAPAN INC.					SHEET No. 1 of 05



Intergration Layer Network



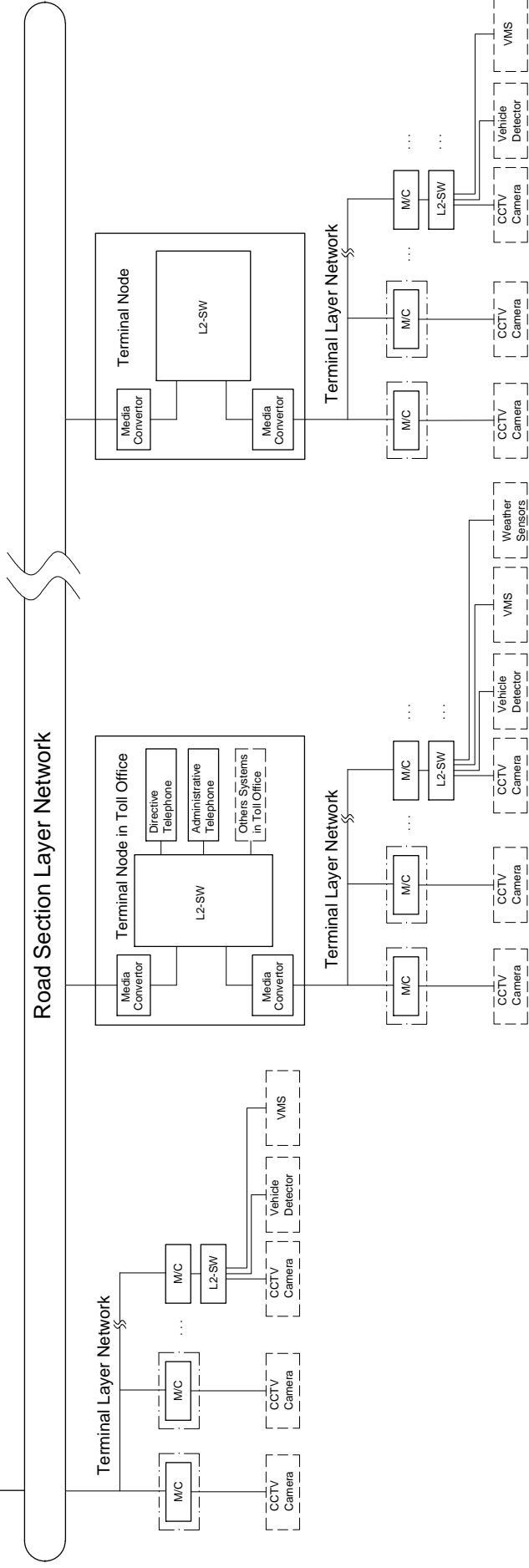
NOTES:

- NRMCC : Northern Regional Main Center
- RMO : Road Management Office
- L3SW : Layer 3 Switch
- L2SW : Layer 2 Switch
- NMS : Network Management System
- PSTN : Public Switched Telephone Network
- GW : Gateway

Remarks: This drawing shows equipment components to be installed in Northern Regional Main Center and each Road Management Offices and connection in between described equipment components.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	CHECKED BY				
LANDTEC JAPAN INC.	APPROVED BY				
MINISTRY OF TRANSPORT			EQUIPMENT COMPONENT FOR INTEGRATION AND ROAD SECTION LAYER NETWORK (2) -FOR REFERENCE		
			SCALE:		
			DRAWING TITLE		
			DRAWING NO. XIB. 1-06		
			SHEET No.		
			Sheet		
			of		

To Media Converter in Road Management Office



NOTES:

M/C : Media Converter
L2SW : Layer 2 Switch

Remarks: This is typical drawing which shows equipment components to be installed road side basically under Road Section Layer Network including Terminal Layer Network and connection in between described equipment components.

CONSULTANT

ORIENTAL CONSULTANTS CO., LTD
NEXCO EAST ENGINEERING CO., LTD
NIPPON KOEI CO., LTD
TRANSPORTATION RESEARCH INSTITUTE CO., LTD
LANDTEC JAPAN INC.

SOCIALIST REPUBLIC OF VIETNAM

MINISTRY OF TRANSPORT

ITS INTEGRATION PROJECT ON
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

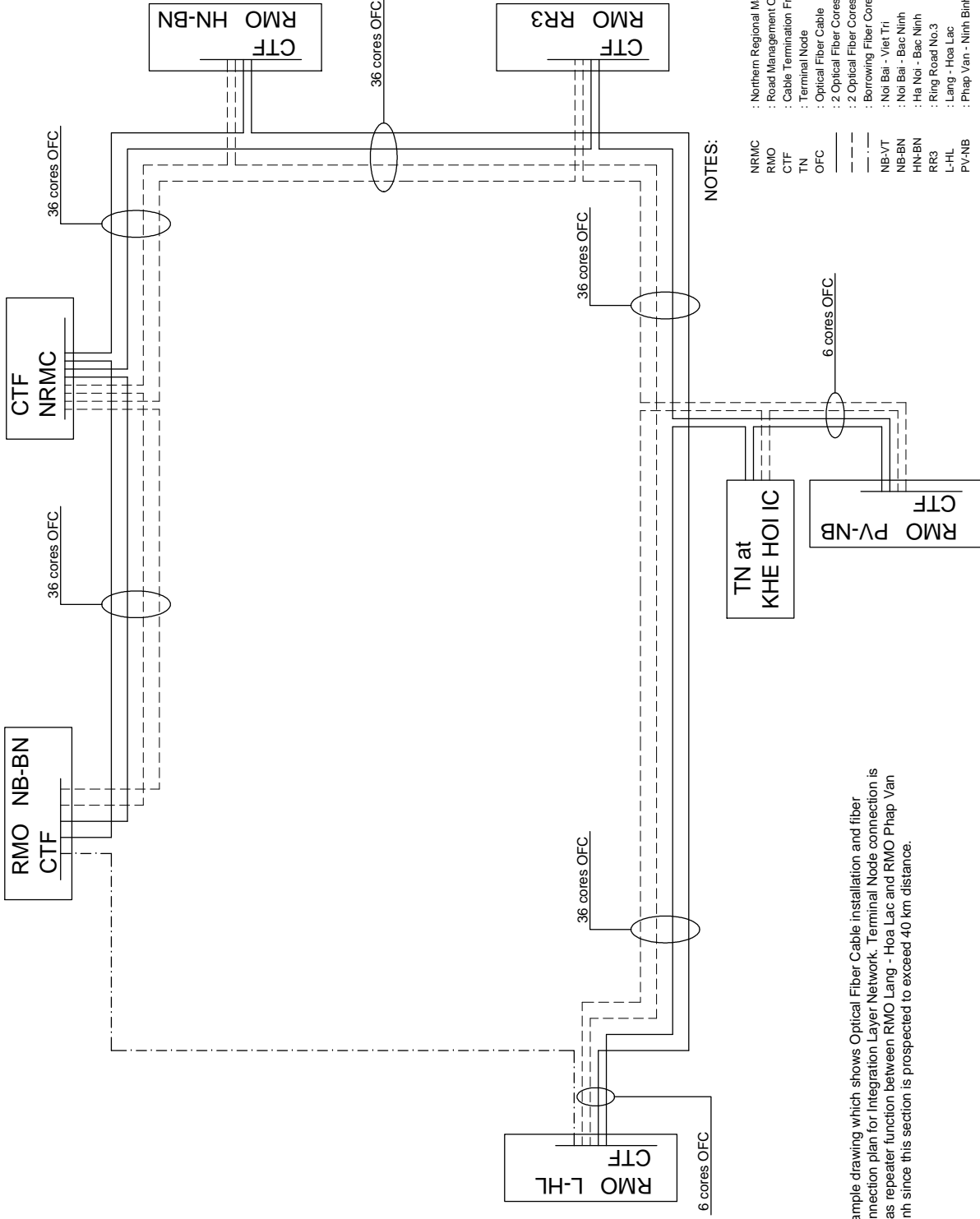
DRAWING TITLE
EQUIPMENT COMPONENT FOR ROAD SECTION AND
TERMINAL LAYER NETWORK (TYPICAL DRAWING)

PACKAGE

DRAWING NO. XIB. 1 - 07

SHEET No. Sheet of Rev.

SCALE:

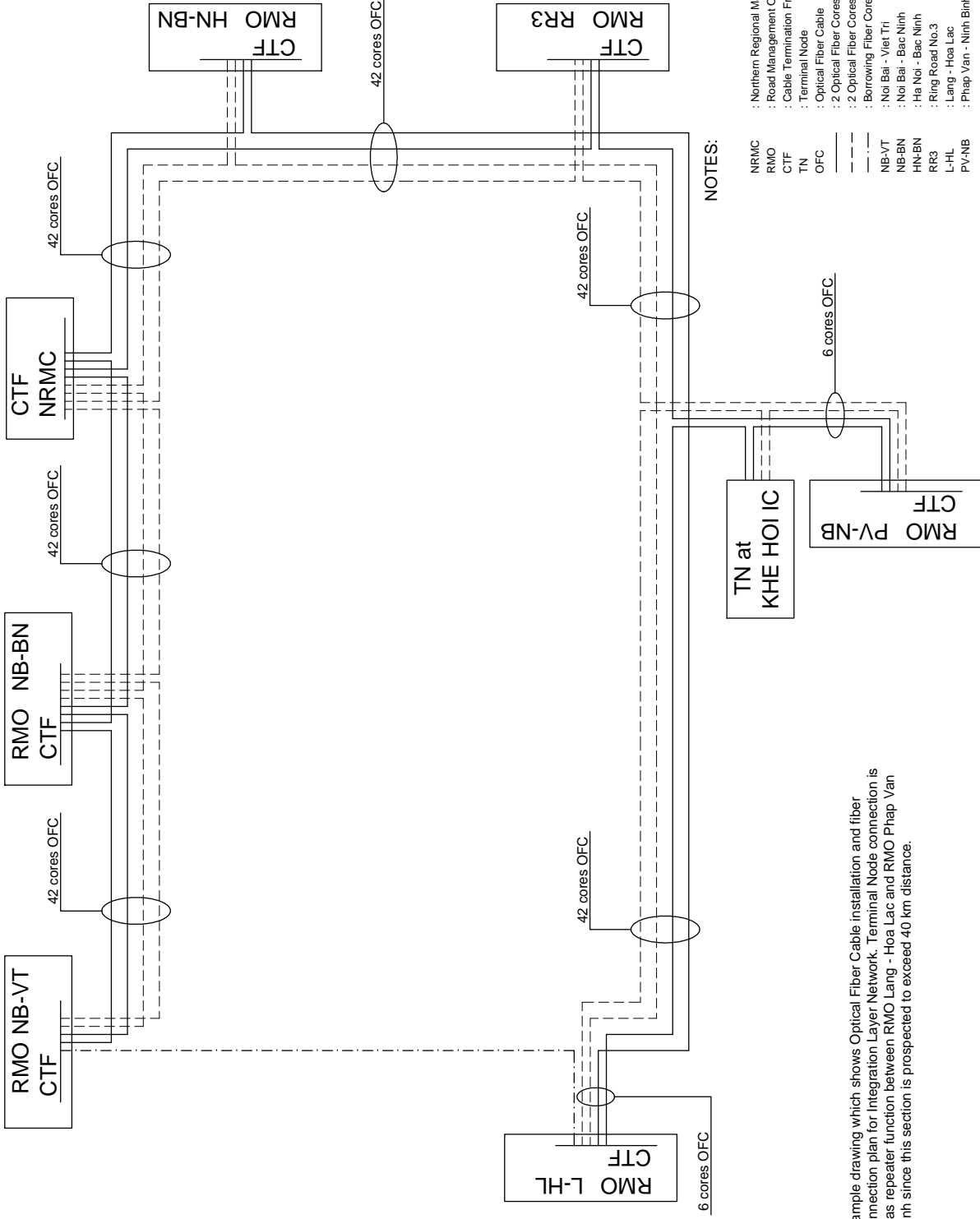


NOTES:

- NRMC : Northern Regional Main Center
- RMO : Road Management Office
- CTF : Cable Termination Frame
- TN : Terminal Node
- OFC : Optical Fiber Cable
- : 2 Optical Fiber Cores to be in operation
- - - : Borrowing Fiber Cores, Existing Ducts or Telecom Service
- NB-VT : Noi Bai - Viet Tri
- NB-BN : Noi Bai - Bac Ninh
- HN-BN : Ha Noi - Bac Ninh
- RR3 : Ring Road No.3
- L-HL : Lang - Hoa Lac
- PV-NB : Phap Van - Ninh Binh

Remarks: This is sample drawing which shows Optical Fiber Cable installation and fiber cores connection plan for Integration Layer Network. Terminal Node connection is planned as repeater function between RMO Lang - Hoa Lac and RMO Phap Van - Ninh Binh since this section is prospected to exceed 40 km distance.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		DRAWING TITLE	
NEXCO EAST ENGINEERING CO., LTD				CABLE DIAGRAM FOR INTEGRATION LAYER NETWORK (1)	
TRANSPORTATION RESEARCH INSTITUTE CO., LTD				PACKAGE	
LANDTEC JAPAN INC.				DRAWING NO. XH. 1-08	
TITLE	NAME	SIGNATURE	DATE	SHEET No.	of
PREPARED BY					
CHECKED BY					
APPROVED BY					

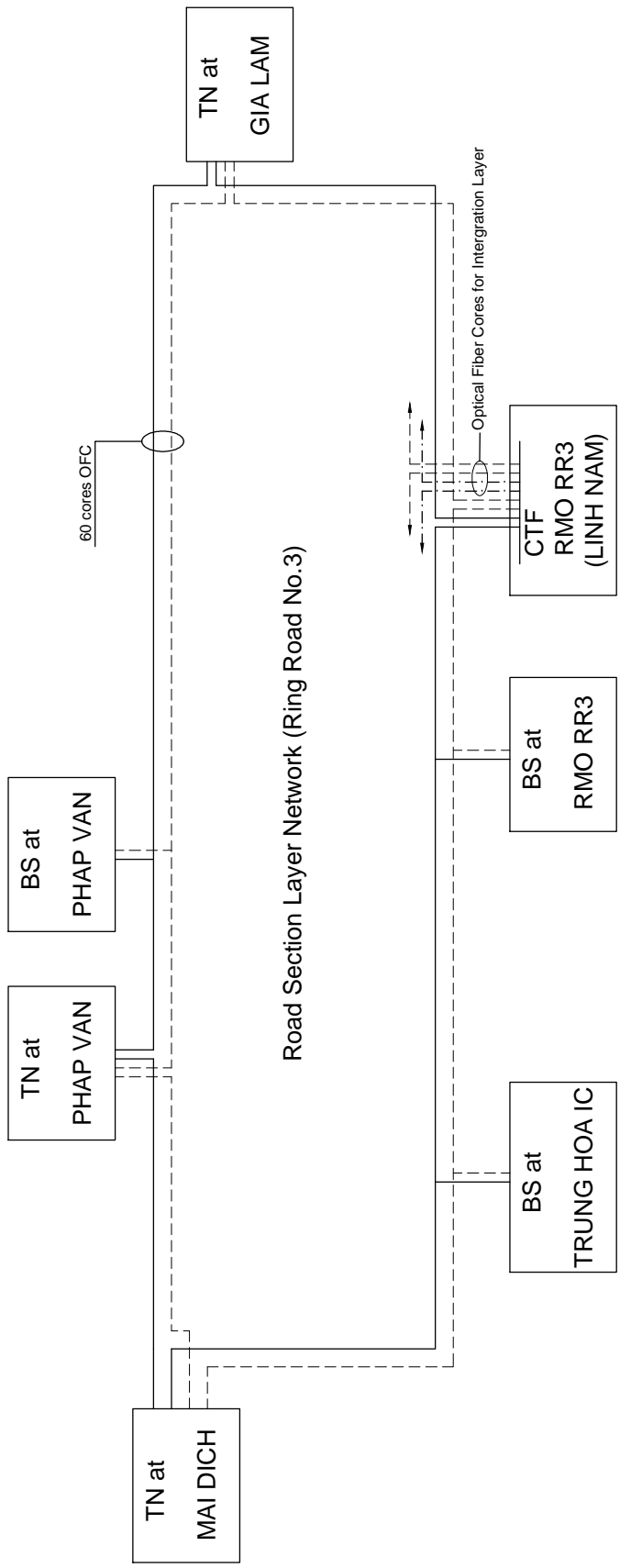


NOTES:

- NRMC : Northern Regional Main Center
- RMO : Road Management Office
- CTF : Cable Termination Frame
- TN : Terminal Node
- OFC : Optical Fiber Cable
- : 2 Optical Fiber Cores to be in operation
- - - : 2 Optical Fiber Cores to be redundant
- . - : Borrowing Fiber Cores, Existing Ducts or Telecom Service
- NB-VT : Noi Bai - Viet Tri
- NB-BN : Noi Bai - Bac Ninh
- HN-BN : Ha Noi - Bac Ninh
- RR3 : Ring Road No.3
- L-HL : Lang - Hoa Lac
- PV-NB : Phap Van - Ninh Binh

Remarks: This is sample drawing which shows Optical Fiber Cable installation and fiber cores connection plan for Integration Layer Network. Terminal Node connection is planned as repeater function between RMO Lang - Hoa Lac and RMO Phap Van - Ninh Binh since this section is prospected to exceed 40 km distance.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	NEXCO EAST ENGINEERING CO., LTD	NIPPON KOEI CO., LTD	TRANSPORTATION RESEARCH INSTITUTE CO., LTD	LANDTEC JAPAN INC.	
TITLE	NAME	SIGNATURE	DATE	MINISTRY OF TRANSPORT	
PREPARED BY	CHECKED BY	APPROVED BY		CABLE DIAGRAM FOR INTEGRATION LAYER NETWORK (2) - FOR REFERENCE	
				DRAWING NO. : XII.1-09	SHEET No. : Sheet of
				SCALE:	Rev

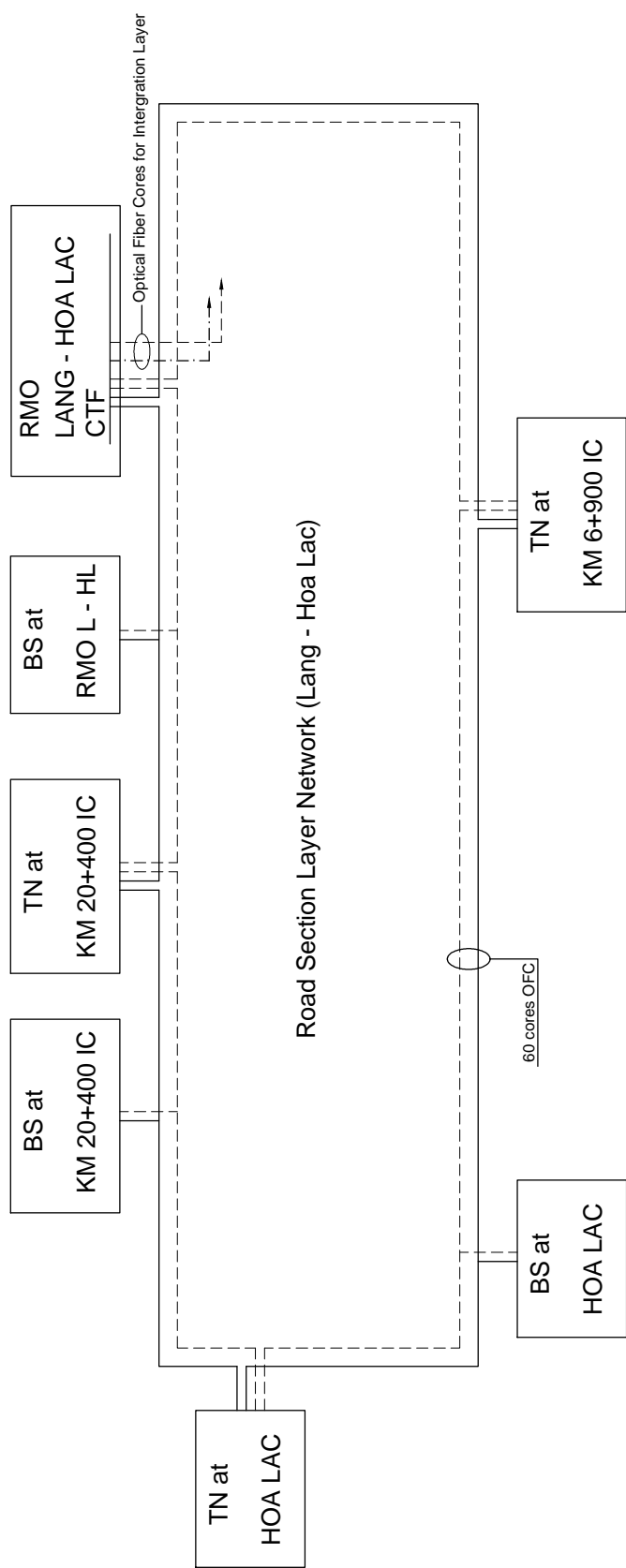


NOTES:

- RMO : Road Management Office
- CTF : Cable Termination Frame
- TN : Terminal Node
- BS : Base Station for Radio Communication
- OFC : Optical Fiber Cable
- : 2 Optical Fiber Cores to be in operation
- - - : 2 Optical Fiber Cores to be redundant

Remarks: This is sample drawing which shows Optical Fiber Cable installation and fiber cores connection plan for Road Section Layer Network of this Road Section. As for the Base Station for radio communication, it is also required to connect in this layer network.

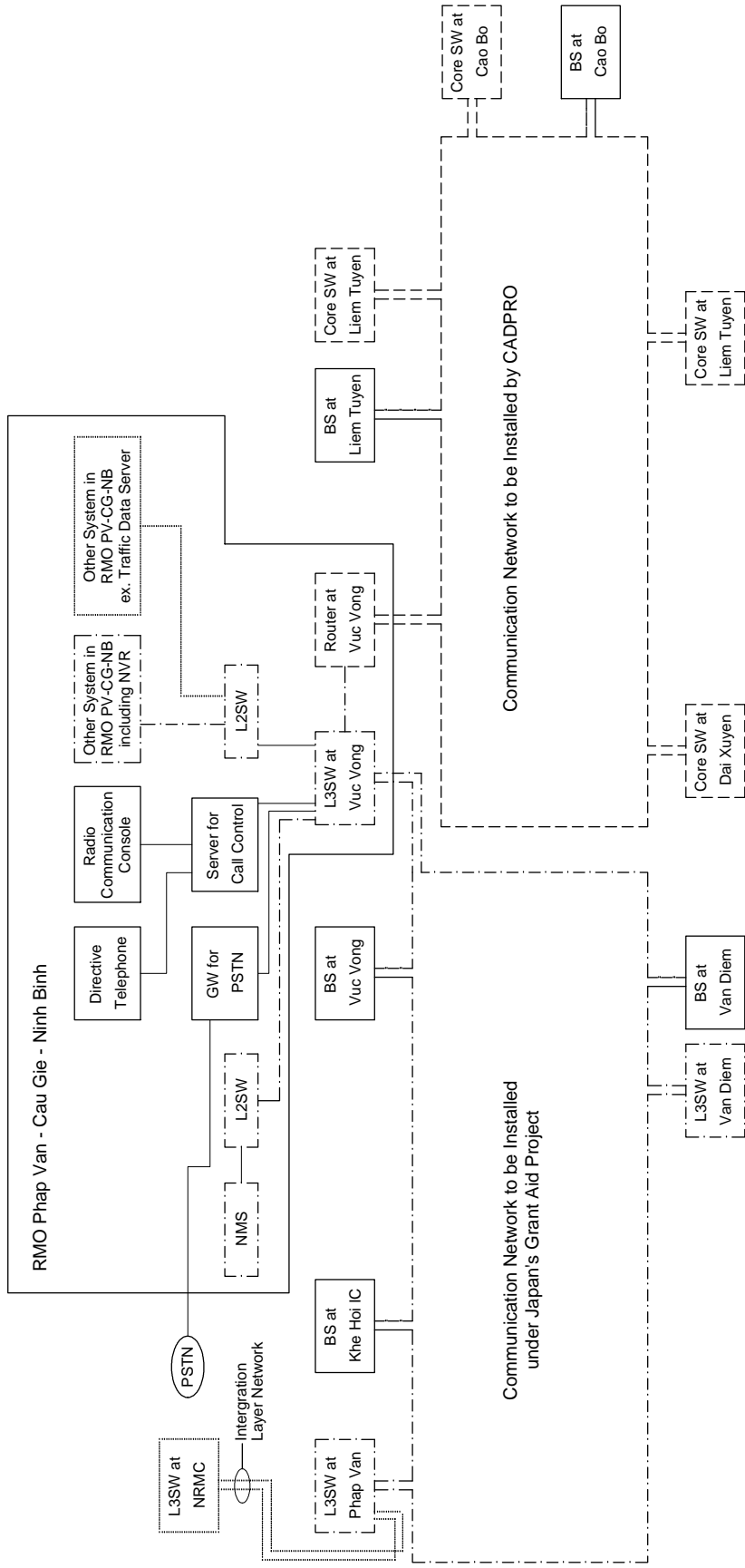
CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	DRAWING NO. : XII.1-10
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				
NIPPON KOEI CO., LTD	CHECKED BY				
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				
LANDTEC JAPAN INC.					
MINISTRY OF TRANSPORT			CABLE DIAGRAM FOR ROAD SECTION LAYER NETWORK (1)		
			SCALE: Sheet of Rev		



Remarks: This is sample drawing which shows Optical Fiber Cable installation and fiber cores connection plan for Road Section Layer Network of this Road Section. As for the Base Station for radio communication, it is also required to connect in this layer network.

- NOTES:**
- RMO : Road Management Office
 - CTF : Cable Termination Frame
 - TN : Terminal Node
 - BS : Base Station for Radio Communication
 - OFC : Optical Fiber Cable
 - L - HL : Lang - Hoa Lac
 - : 2 Optical Fiber Cores to be in operation
 - - - : 2 Optical Fiber Cores to be redundant

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				
NIPPON KOEI CO., LTD	CHECKED BY				
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				
LANDTEC JAPAN INC.					
MINISTRY OF TRANSPORT				CABLE DIAGRAM FOR ROAD SECTION LAYER NETWORK (2)	
				DRAWING NO.: XIB.1-11	
				SHEET No. _____ of _____	
				SCALE:	

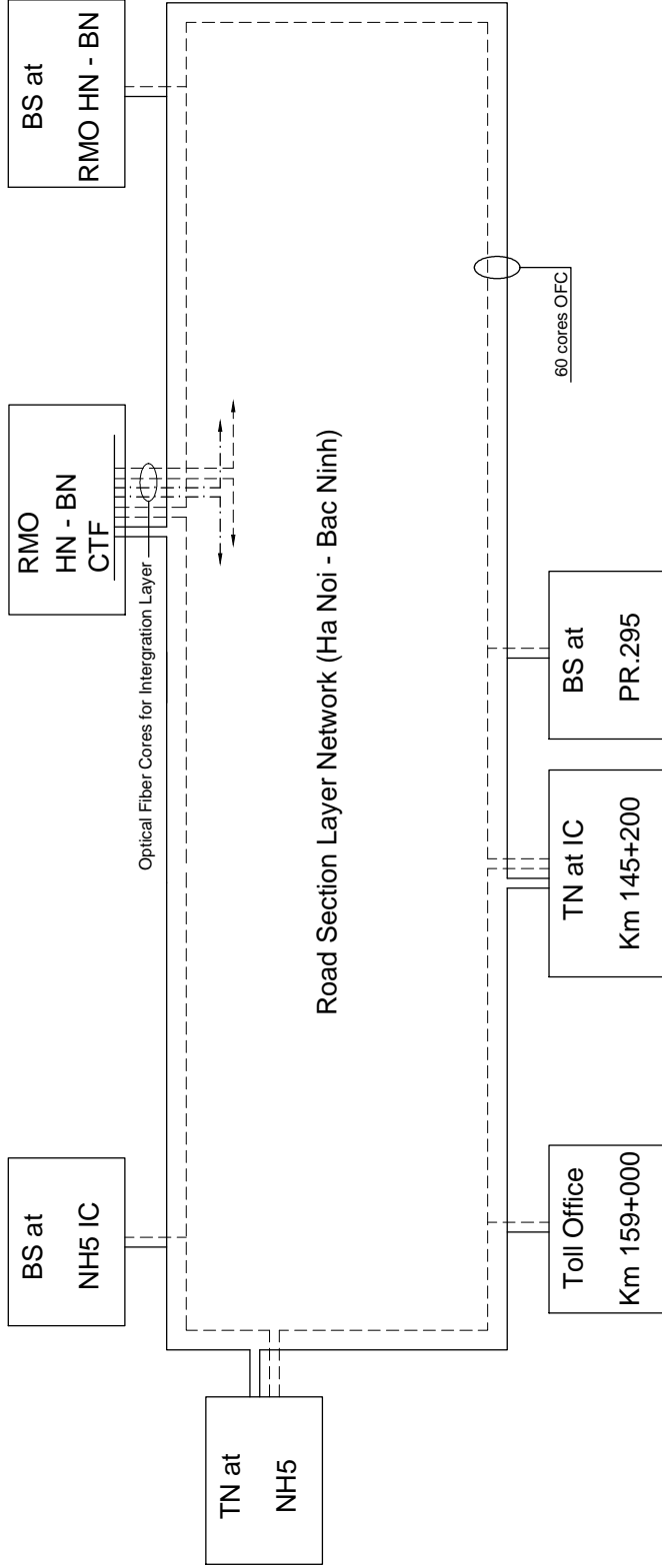


NOTES:

- RMO : Road Management Office
- BS : Base Station for Radio Communication
- L3SW : Layer 3 Switch
- L2SW : Layer 2 Switch
- GW : Gateway
- PSTN : Public Switched Telephone Network
- NMS : Network Management System
- : Cables and Communication Equipment Components to be installed under this Project
- - - : Cables and Communication Equipment Components to be installed by CADPRO
- : Cables and Communication Equipment Components to be installed under Japan's Grant Aid Project
- : Cables and Communication Equipment Components to be installed under this Project but not belongs to Road Section Layer
- : 2 Optical Fiber Cores to be redundant

Remarks: This is sample drawing which shows Optical Fiber Cable installation and fiber cores connection plan for Road Section Layer Network of this Road Section. As for the Base Station for radio communication, it is also required to connect in this layer network.

<p>CONSULTANT</p> <p>ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.</p>		<p>SOCIALIST REPUBLIC OF VIETNAM</p>		<p>ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM</p>	
		<p>MINISTRY OF TRANSPORT</p>		<p>CABLE DIAGRAM FOR ROAD SECTION LAYER NETWORK (3)</p>	
TITLE	NAME	SIGNATURE	DATE	DRAWING NO.	SHEET No.
PREPARED BY				XB. 1-12	Rev
CHECKED BY					
APPROVED BY					
			SCALE:	Sheet	of

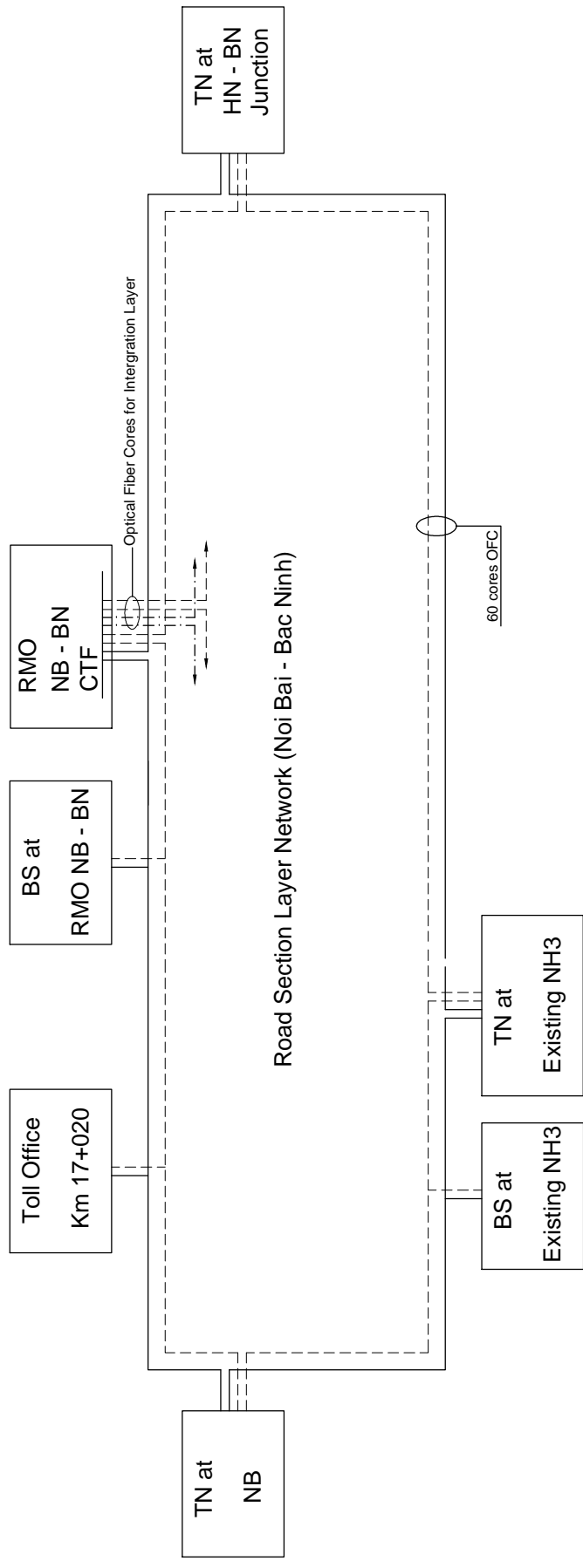


Remarks: This is sample drawing which shows Optical Fiber Cable installation and fiber cores connection plan for Road Section Layer Network of this Road Section. As for the Base Station for radio communication, it is also required to connect in this layer network.

NOTES:

- RMO : Road Management Office
- CTF : Cable Termination Frame
- TN : Terminal Node
- BS : Base Station for Radio Communication
- OFC : Optical Fiber Cable
- HN - BN : Ha Noi - Bac Ninh
- NH5 : National Highway No.5
- : 2 Optical Fiber Cores to be in operation
- - - : 2 Optical Fiber Cores to be redundant

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	DRAWING NO. XIB. 1-13
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				CABLE DIAGRAM FOR ROAD SECTION LAYER NETWORK (4)
NIPPON KOEI CO., LTD	CHECKED BY				
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				SHEET No. _____
LANDTEC JAPAN INC.					Sheet _____ of _____
MINISTRY OF TRANSPORT			SCALE:		

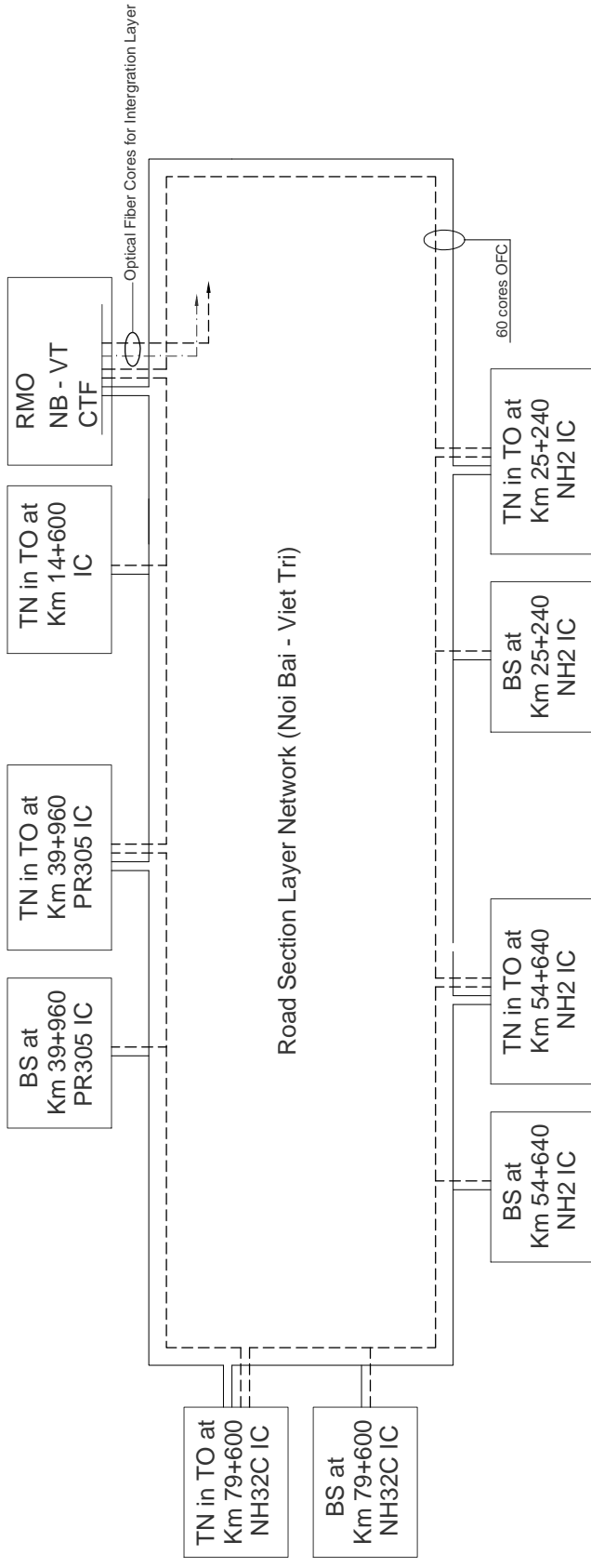


Remarks: This is sample drawing which shows Optical Fiber Cable installation and fiber cores connection plan for Road Section Layer Network of this Road Section. As for the Base Station for radio communication, it is also required to connect in this layer network.

NOTES:

- RMO : Road Management Office
- CTF : Cable Termination Frame
- TN : Terminal Node
- BS : Base Station for Radio Communication
- OFC : Optical Fiber Cable
- HN : Ha Noi
- NB : Noi Bai
- BN : Bac Ninh
- NH3 : National Highway No.3
- : 2 Optical Fiber Cores to be in operation
- - - : 2 Optical Fiber Cores to be redundant

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	DRAWING NO. XII.1-14
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				CABLE DIAGRAM FOR ROAD SECTION LAYER NETWORK (5)
NIPPON KOEI CO., LTD	CHECKED BY				
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				SHEET No. Sheet of
LANDTEC JAPAN INC.					SCALE:

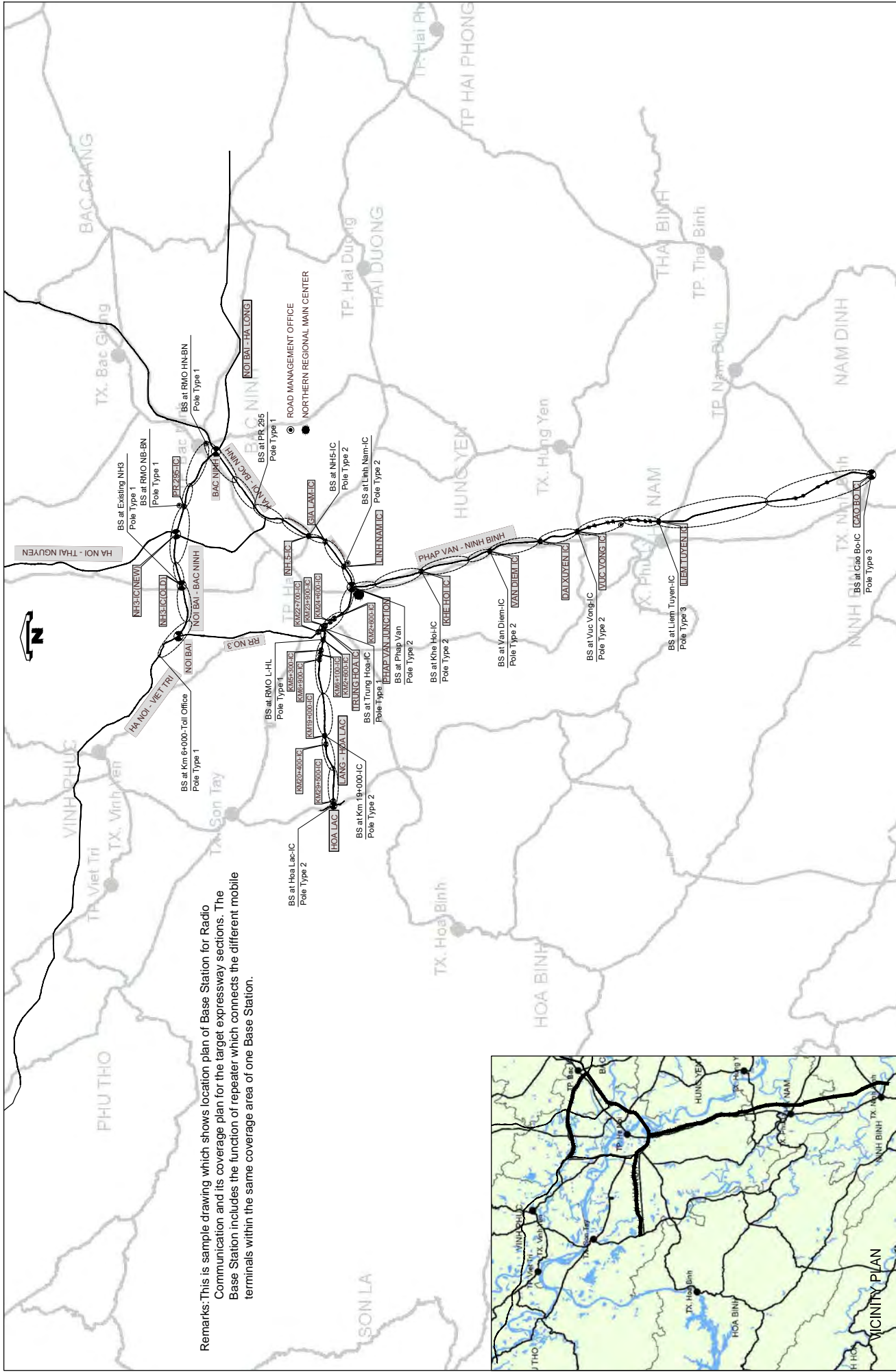


Remarks: This is sample drawing which shows Optical Fiber Cable installation and fiber cores connection plan for Road Section Layer Network of this Road Section. As for the Base Station for radio communication, it is also required to connect in this layer network.

NOTES:

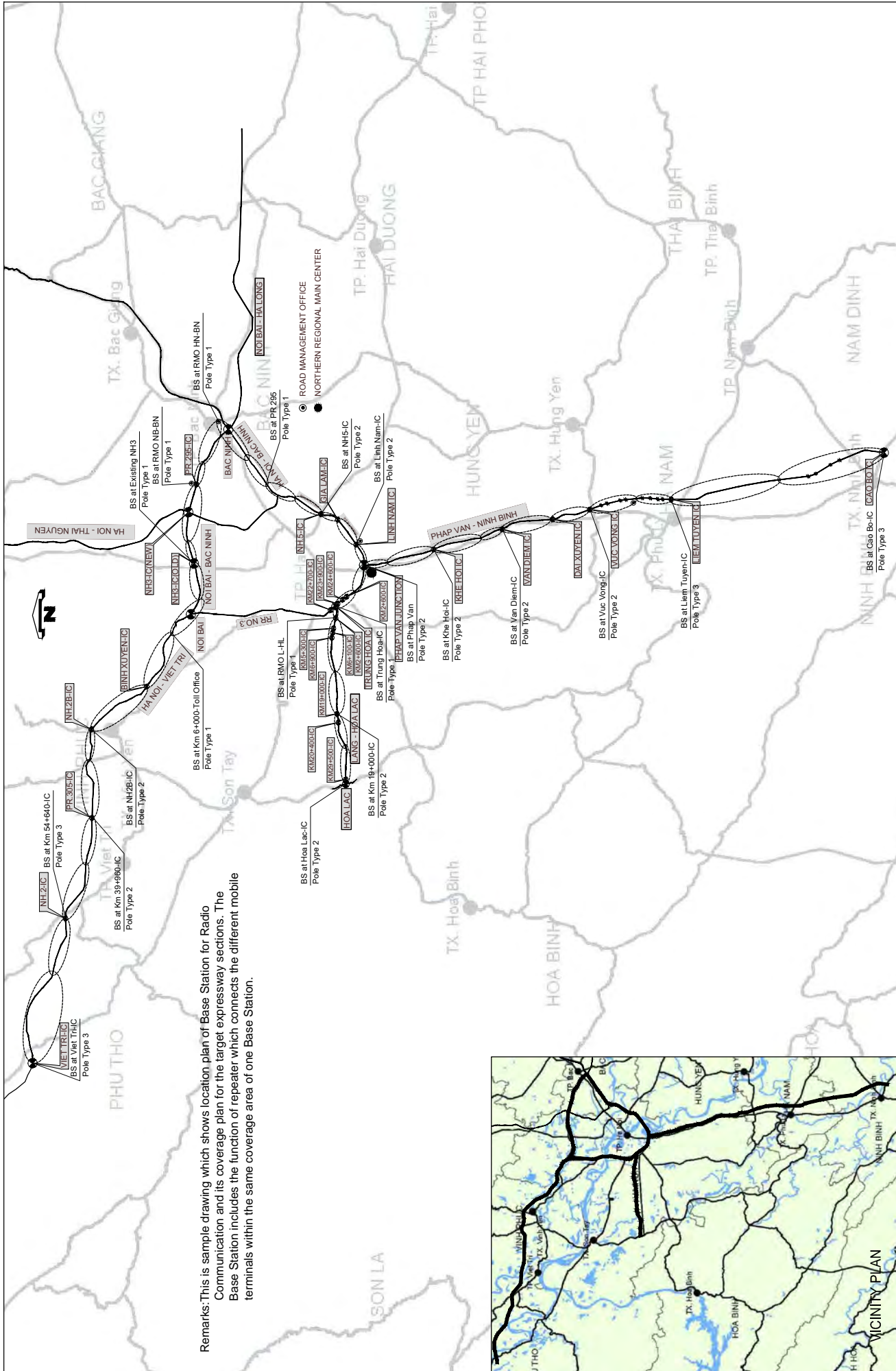
- RMO : Road Management Office
- CTF : Cable Termination Frame
- TN : Terminal Node
- BS : Base Station for Radio Communication
- OFC : Optical Fiber Cable
- NB-VT : Noi Bai-Viet Tri
- PR : Provincial Road
- NH : National Highway
- : 2 Optical Fiber Cores to be in operation
- - - : 2 Optical Fiber Cores to be redundant

CONSULTANT		NAME	SIGNATURE	DATE
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.				
CLIENT		SOCIALIST REPUBLIC OF VIETNAM		
PROJECT TITLE		MINISTRY OF TRANSPORT		
PACKAGE		ITS INTEGRATION PROJECT ON		
DRAWING TITLE		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		
PACKAGE		CABLE DIAGRAM FOR ROAD SECTION		
DRAWING NO.		LAYER NETWORK (6) - FOR REFERENCE		
SHEET NO.		XXI.1 - 15		
SCALE		Sheet d		



Remarks: This is sample drawing which shows location plan of Base Station for Radio Communication and its coverage plan for the target expressway sections. The Base Station includes the function of repeater which connects the different mobile terminals within the same coverage area of one Base Station.

CONSULTANT		TITLE		NAME		SIGNATURE		DATE	
		ORIENTAL CONSULTANTS CO., LTD		PREPARED BY					
SOCIALIST REPUBLIC OF VIETNAM		MINISTRY OF TRANSPORT		NAME		SIGNATURE		DATE	
		RADIO COMMUNICATION BASE STATION LOCATION PLAN (1)		PREPARED BY					
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING TITLE		NAME		SIGNATURE		DATE	
ITS INTEGRATION PROJECT ON		DRAWING NO.:		NAME		SIGNATURE		DATE	
RADIO COMMUNICATION		SHEET NO.:		NAME		SIGNATURE		DATE	
BASE STATION LOCATION PLAN (1)		Rev.:		NAME		SIGNATURE		DATE	
SCALE: N.T.S		Sheet		of					



Remarks: This is sample drawing which shows location plan of Base Station for Radio Communication and its coverage plan for the target expressway sections. The Base Station includes the function of repeater which connects the different mobile terminals within the same coverage area of one Base Station.

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	MINISTRY OF TRANSPORT		DRAWING TITLE	RADIO COMMUNICATION
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				BASE STATION LOCATION PLAN (2) - FOR REFERENCE
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	CHECKED BY				
LANDTEC JAPAN INC.	APPROVED BY				
	NAME	SIGNATURE	DATE	PACKAGE	
				DRAWING NO.	XII.1-17
				SHEET NO.	Sheet of

POWER SUPPLY

Name of Expressway	Distance
Ring Road No.3 (Mai Dich - Thanh Tri)	27 km
Ha Noi - Bac Ninh	20 km
Noi Bai - Bac Ninh	33 km
Lang - Hoa Lac	28 km
Phap Van - Ninh Binh	80 km
Total	188 km



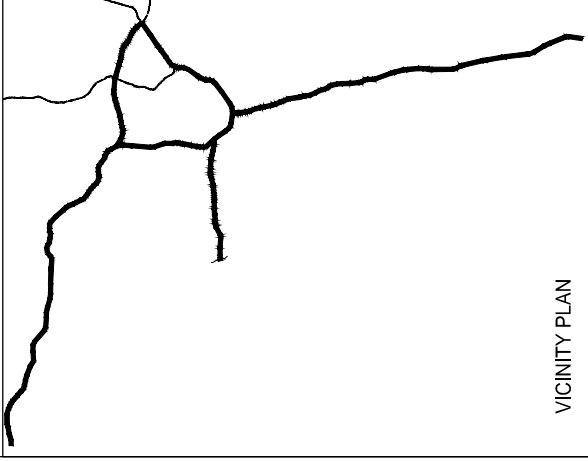
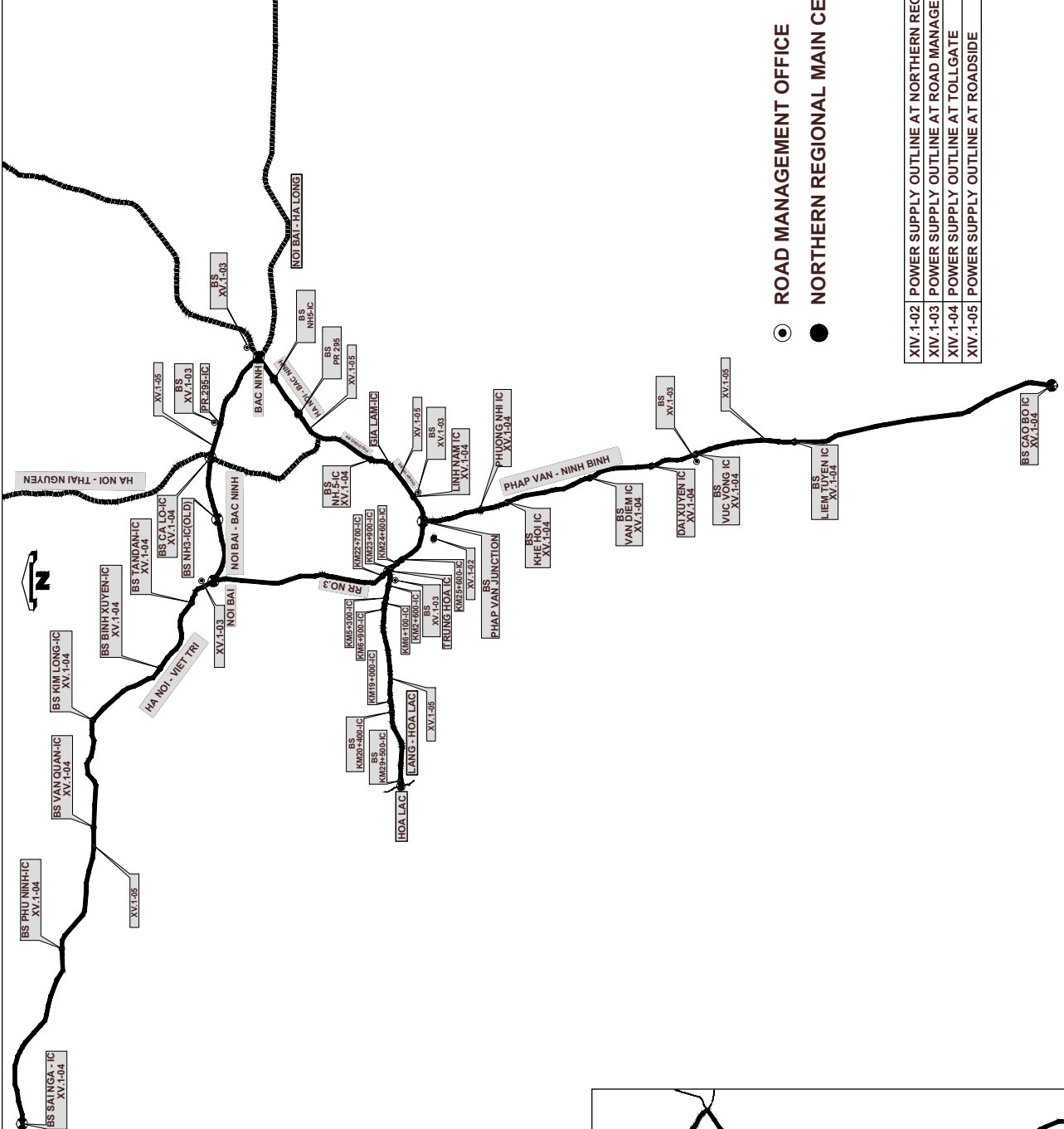
VICINITY PLAN

- XIV.1-02 POWER SUPPLY OUTLINE AT NORTHERN REGIONAL MAIN CENTER
- XIV.1-03 POWER SUPPLY OUTLINE AT ROAD MANAGEMENT OFFICE
- XIV.1-04 POWER SUPPLY OUTLINE AT TOLLGATE
- XIV.1-05 POWER SUPPLY OUTLINE AT ROADSIDE

- ROAD MANAGEMENT OFFICE
- NORTHERN REGIONAL MAIN CENTER

CONSULTANT		TITLE		NAME		SIGNATURE		DATE	
		ORIENTAL CONSULTANTS CO., LTD		NEXCO EAST ENGINEERING CO., LTD		TRANSPORTATION RESEARCH INSTITUTE CO., LTD		LANDTEC JAPAN INC.	
MINISTRY OF TRANSPORT		PREPARED BY		CHECKED BY		APPROVED BY		DATE	
SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		PACKAGE		DRAWING NO. XIV.1-01	
ARRANGEMENT OF POWER SUPPLY ZONE (1)		DRAWING TITLE		SHEET NO.		Sheet		Rev.	
						SCALE: NTS		of	

Name of Expressway	Distance
Ring Road No.3 (Mai Dich-Thanh Tri)	27 km
Ha Noi - Bac Ninh	20 km
Noi Bai - Bac Ninh	33 km
Lang - Hoa Lac	28 km
Phap Van - Ninh Binh	90 km
Noi Bai - Viet Tri	90 km
Total	268 km



VICINITY PLAN

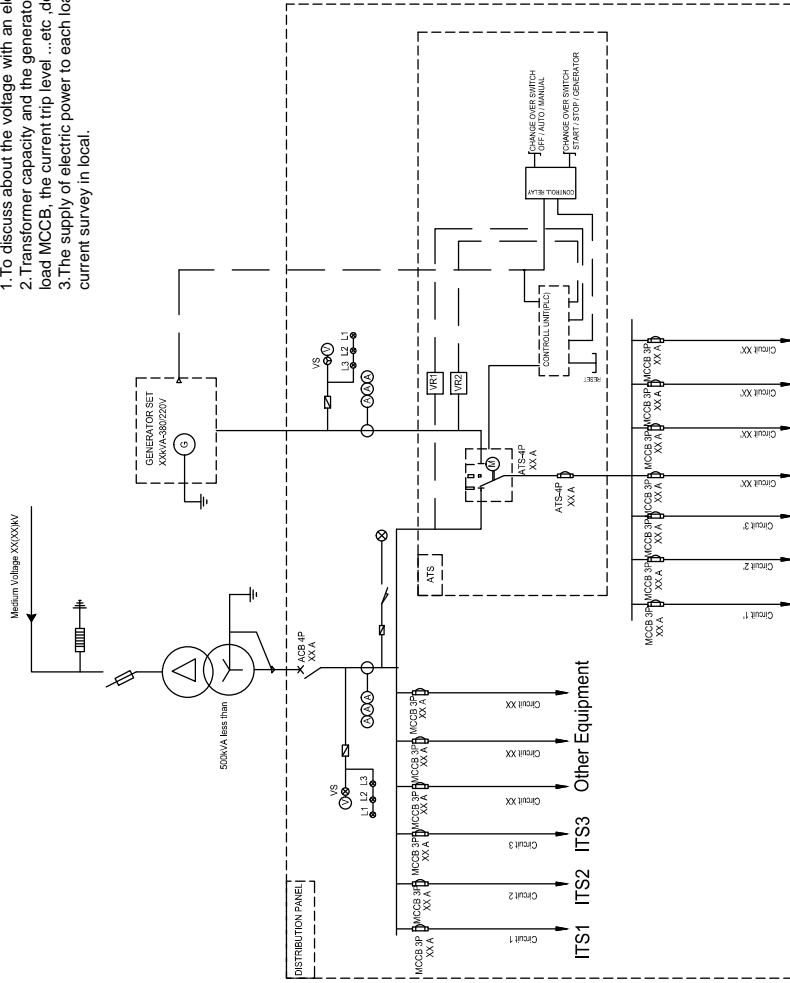
● ROAD MANAGEMENT OFFICE
● NORTHERN REGIONAL MAIN CENTER

- XIV.1-02 POWER SUPPLY OUTLINE AT NORTHERN REGIONAL MAIN CENTER
- XIV.1-03 POWER SUPPLY OUTLINE AT ROAD MANAGEMENT OFFICE
- XIV.1-04 POWER SUPPLY OUTLINE AT TOLLGATE
- XIV.1-05 POWER SUPPLY OUTLINE AT ROADSIDE

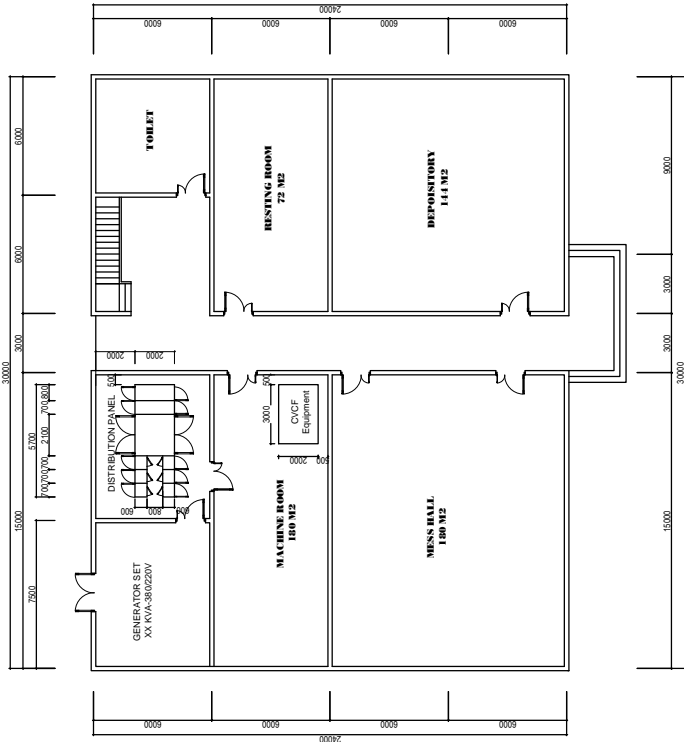
CONSULTANT		TITLE		DATE					
		PREPARED BY	NAME	SIGNATURE	DATE				
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.		SOCIALIST REPUBLIC OF VIETNAM				PACKAGE			
						NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO.:	XIV.1-02
						ARRANGEMENT OF POWER SUPPLY ZONE (2) - FOR REFERENCE		SHEET NO.:	Sheet of
		MINISTRY OF TRANSPORT		SCALE: NTS		Rev.:			

POWER SUPPLY OUTLINE AT NORTHERN REGIONAL MAIN CENTER

1. To discuss about the voltage with an electric power company.
2. Transformer capacity and the generator for private use, amount of load MCCB, the current trip level ...etc depend on local inspection.
3. The supply of electric power to each load are decided by after current survey in local.



No.	Load name	Capacity	Breaker capacity	Calculated
①	ITS1*	XX	MCCB-P-XA.X	XX
②	ITS2*	XX	MCCB-P-XA.X	XX
③	ITS3*	XX	MCCB-P-XA.X	XX
④	XX	XX	MCCB-P-XA.X	XX
⑤	XX	XX	MCCB-P-XA.X	XX
⑥	XX	XX	MCCB-P-XA.X	XX

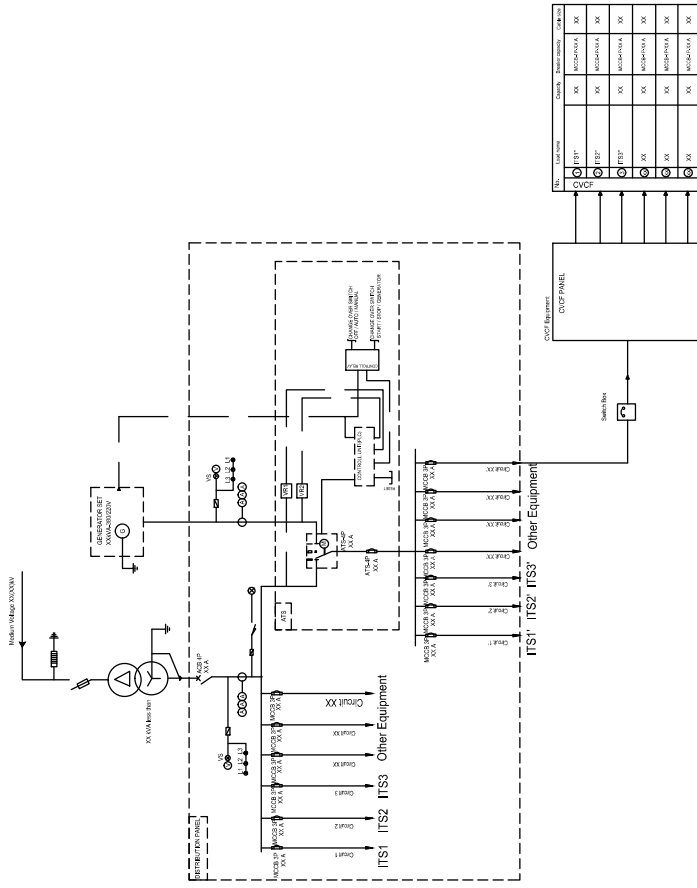


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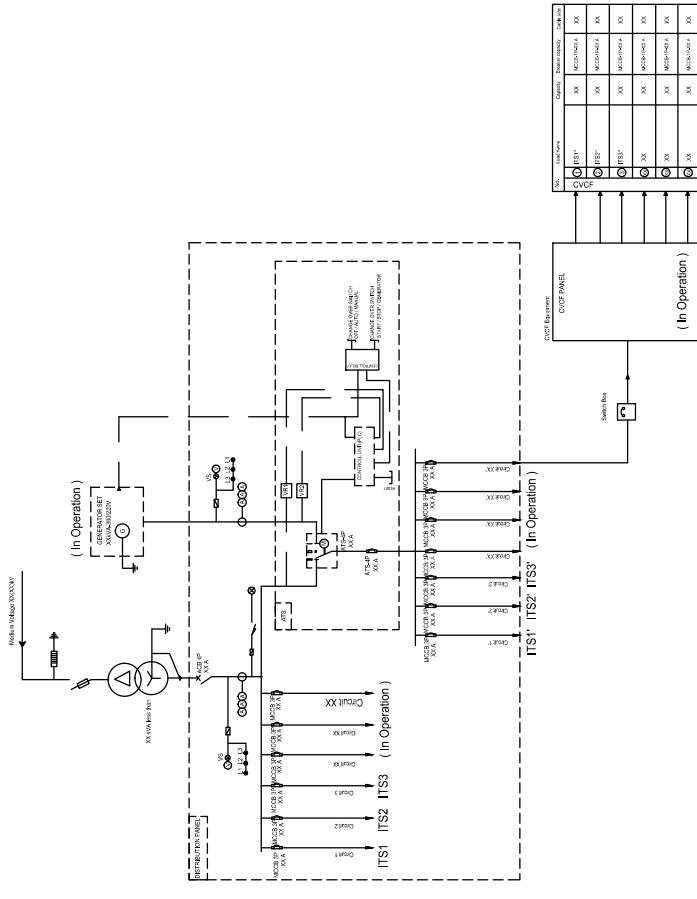
CONSULTANT				SOCIALIST REPUBLIC OF VIETNAM				ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM				PACKAGE:					
TITLE		NAME		SIGNATURE		DATE		MINISTRY OF TRANSPORT POWER SUPPLY OUTLINE AT NORTHERN REGIONAL MAIN CENTER				DRAWING NO.:					
PREPARED BY		CHECKED BY		APPROVED BY								SHEET NO.:					
												DRAWING NO.:					
ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.								SCALE:								Sheet of	

POWER SUPPLY OUTLINE AT ROAD MANAGEMENT OFFICE

1. To discuss about the voltage with an electric power company.
2. Transformer capacity and the generator for private use, amount of load MCCB, the current trip level ...etc ,depend on local inspection.
3. The supply of electric power to each load are decided by after current survey in local.



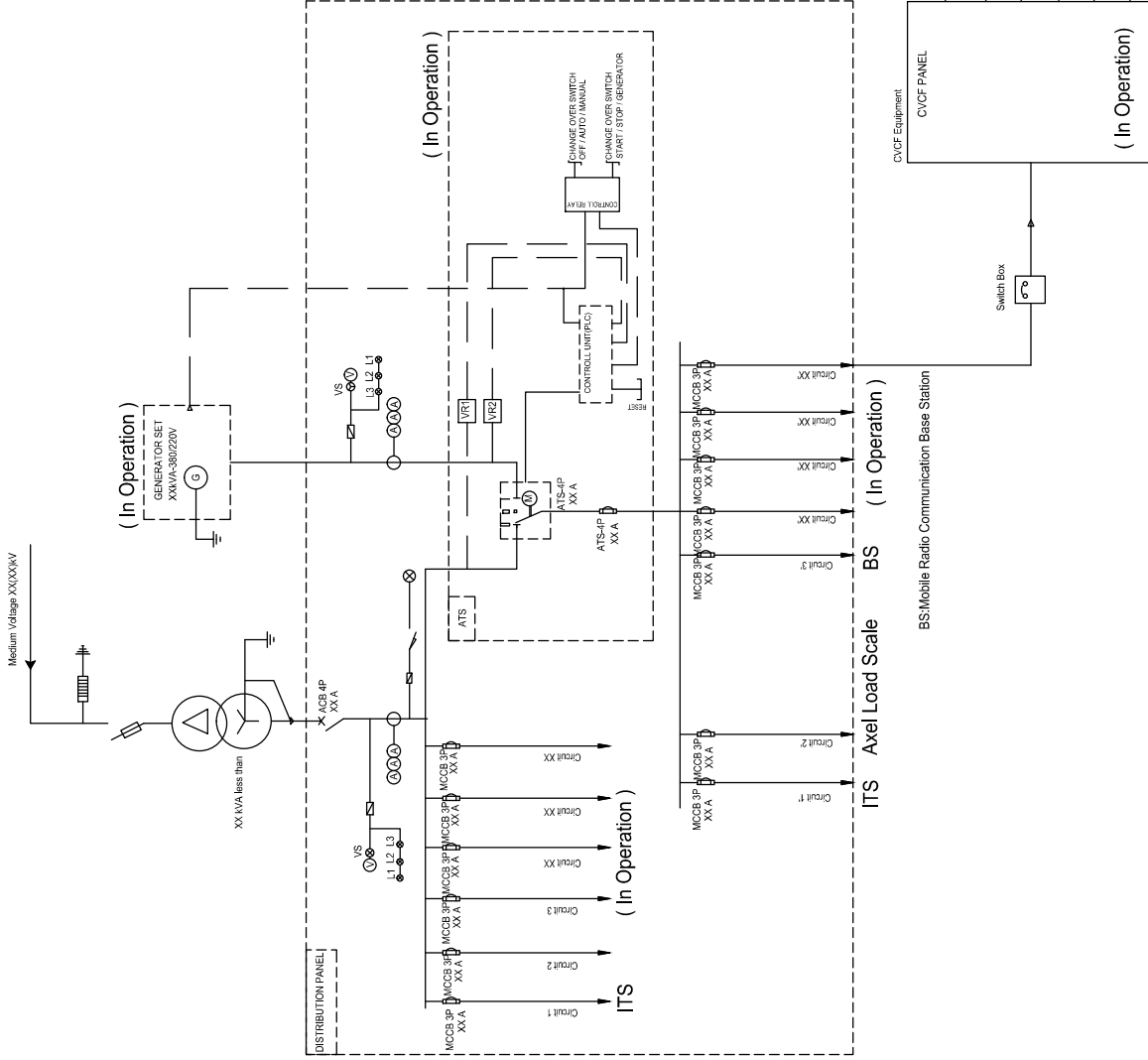
NEW . XXXXX (Lang-Hoalac)



REMODEL : LINH NAM (RR3)
 : LIEM TUYEN (PhapVan - NinhBinh)
 : NoiBai (NoiBai - VietTri)
 : XXXXX (NoiBai - BacNinh)
 : BacNinh (Hanoi - BacNinh)

CONSULTANT		SOCIALIST REPUBLIC OF VIETNAM		ITS INTEGRATION PROJECT ON NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
ORIENTAL CONSULTANTS CO., LTD	TITLE	NAME	SIGNATURE	DATE	
NEXCO EAST ENGINEERING CO., LTD	PREPARED BY				
NIPPON KOEI CO., LTD	CHECKED BY				
TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				
LANDTEC JAPAN INC.					
MINISTRY OF TRANSPORT		DRAWING TITLE: POWER SUPPLY OUTLINE AT ROAD MANAGEMENT OFFICE			
PACKAGE:		DRAWING NO.:			
SHEET NO.:		SHEET OF			
SCALE:		REV.:			

POWER SUPPLY OUTLINE AT TOLL GATE



1. To discuss about the voltage with an electric power company.
2. Transformer capacity and the generator for private use, amount of load MCCB, the current trip level ... etc. depend on local inspection.
3. The supply of electric power to each load are decided by after current survey in local.

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MINISTRY OF TRANSPORT

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DRAWING TITLE
 POWER SUPPLY OUTLINE AT TOLL GATE

PACKAGE:

DRAWING NO.:

XIV-1-05

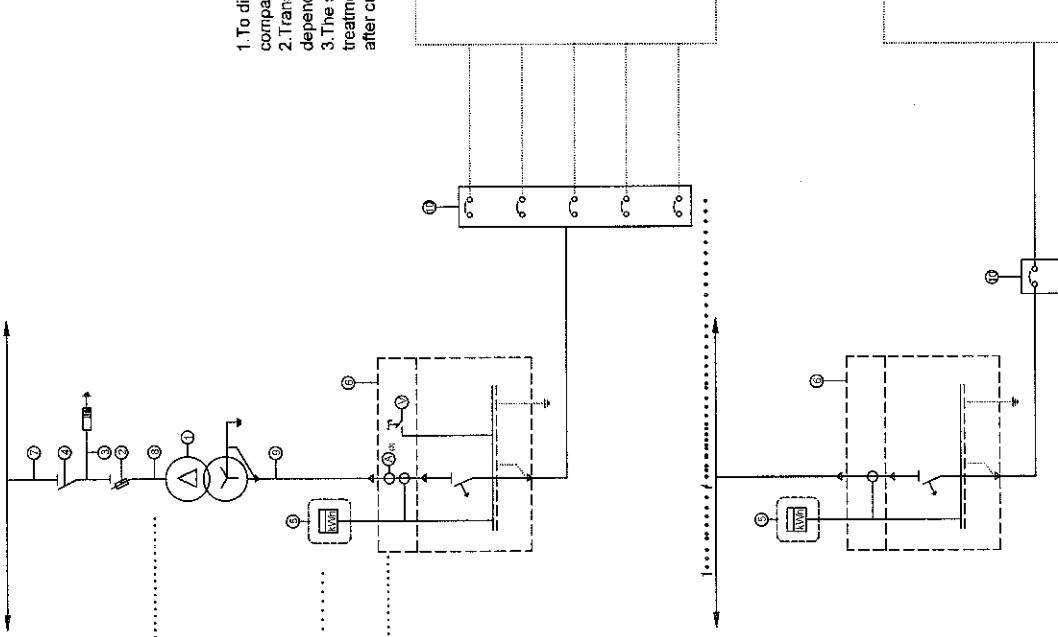
SHEET NO.:

Rev.:

Sheet of

SCALE:

POWER SUPPLY OUTLINE AT ROAD SIDE



1. To discuss about the electric voltage with an electric power company.
2. Transformer capacity the number of the circuits in switch box depend on local inspection.
3. The supply of electric power to each load assumes it individual treatment and series connection, but the details are decided by after current survey in local.

BS: Mobile Radio Communication Base Station
 CSS: Changeable Speed Limit Sign
 VMS: Variable Message Sign board

BS: Mobile Radio Communication Base Station
 CSS: Changeable Speed Limit Sign
 VMS: Variable Message Sign board

K/H	Facilities name
①	A copper core cable for medium-pressure electricity AC 22kV
②	Balance switch 2 kv
③	Lightning arrester equipment X kv
④	Fuse FCO-X kv
⑤	A copper core bus bar (MXXID X)
⑥	A transformer BTXX:XXXkVA/10.4kV Y/Yo, XX UN-XX % OR Y/Yo-XX UN-XX %
⑦	A copper core cables for low pressure electricity PVC (a single line cable or 4 cores)
⑧	A copper core cables for low pressure electricity PVC (a single line cable or 4 cores)
⑨	A copper core cables for low pressure electricity PVC (a single line cable or 4 cores)
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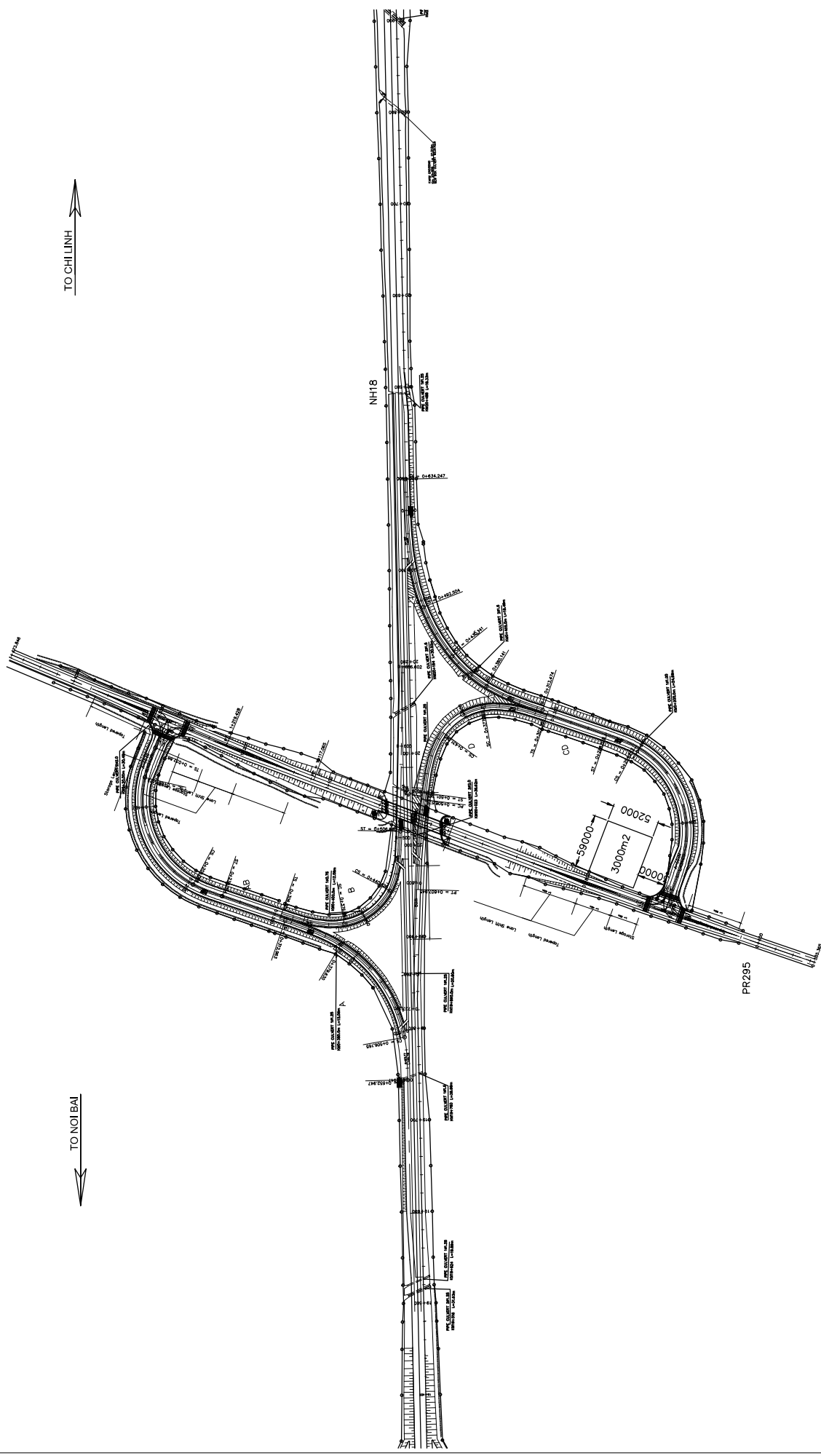
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TRANSPORTATION RESEARCH INSTITUTE CO., LTD			
LANDTEC JAPAN INC.			
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PROJECT TITLE		PACKAGE	
NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM		DRAWING NO.	
POWER SUPPLY OUTLINE AT ROAD SIDE		XIV.1-05	
SCALE:	Sheet	of	Rev

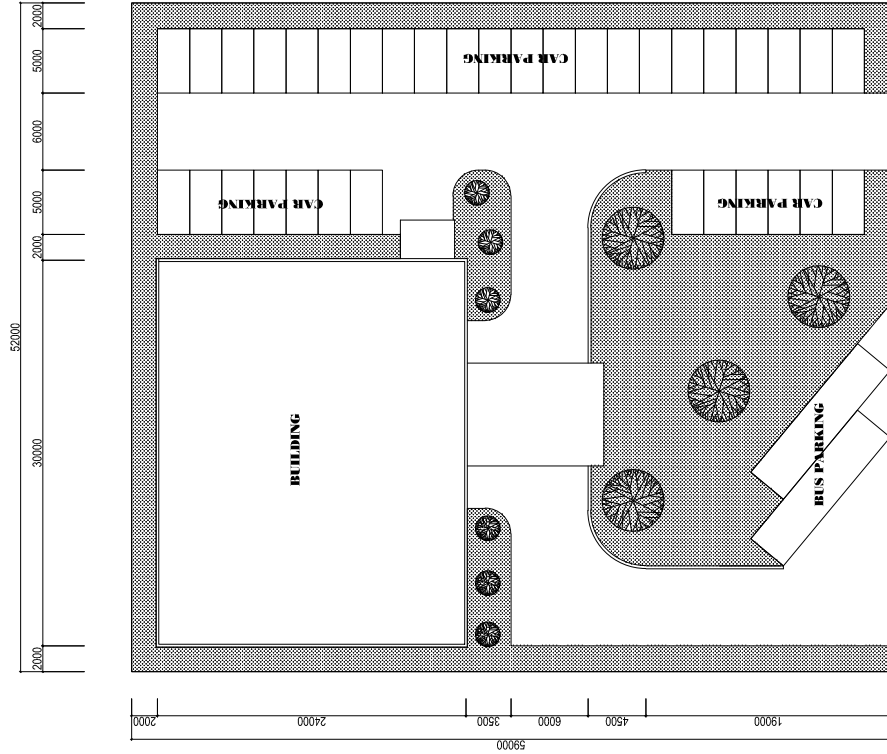
ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM
 POWER SUPPLY OUTLINE AT ROAD SIDE

ARCHITECTURE

(FOR REFERENCE)



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ORIENTAL CONSULTANTS CO., LTD		MINISTRY OF TRANSPORT		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
NEXCO EAST ENGINEERING CO., LTD		LOCATION OF NORTHERN REGIONAL MAIN CENTER		DRAWING NO.:	
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LANDTEC JAPAN INC.		SCALE: 1/4000		SHEET NO.:	
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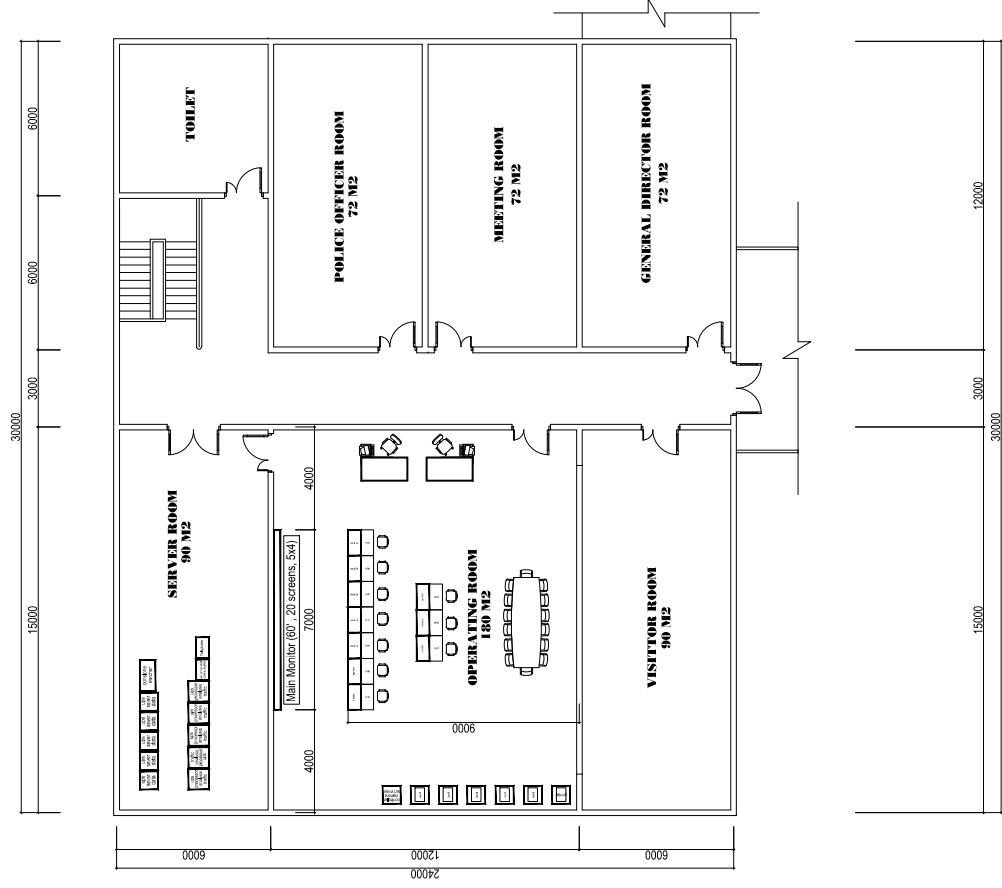
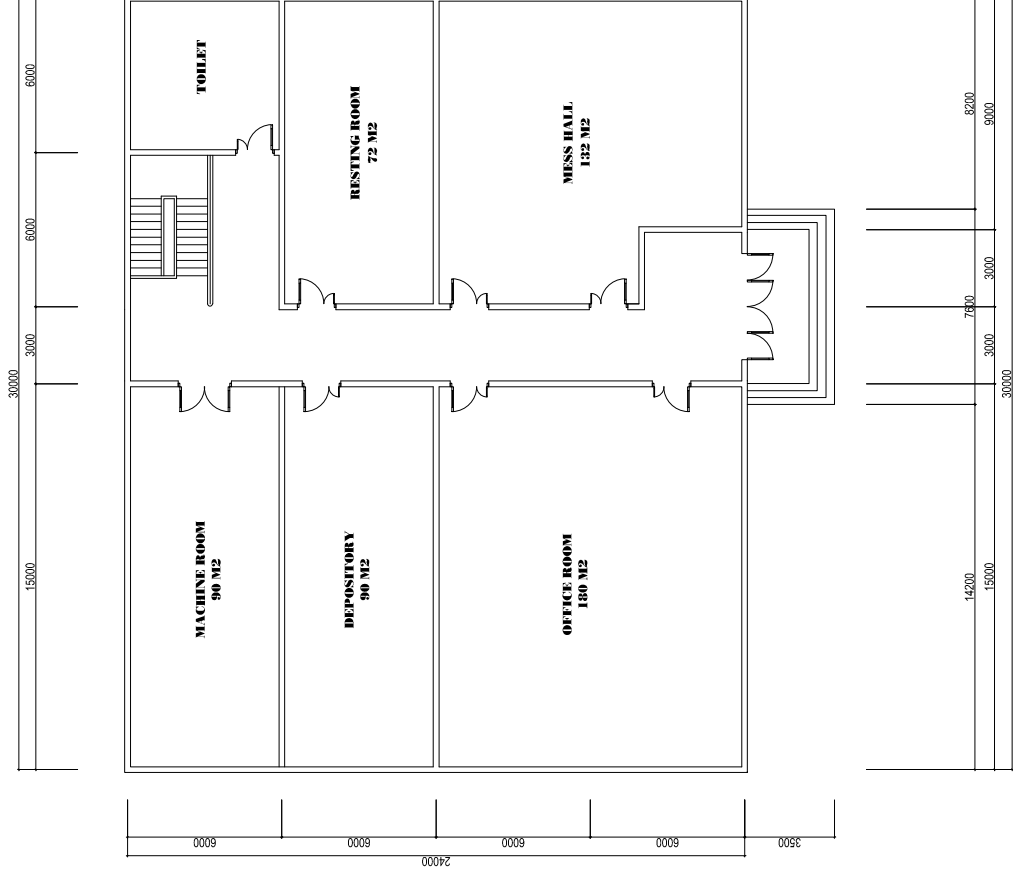


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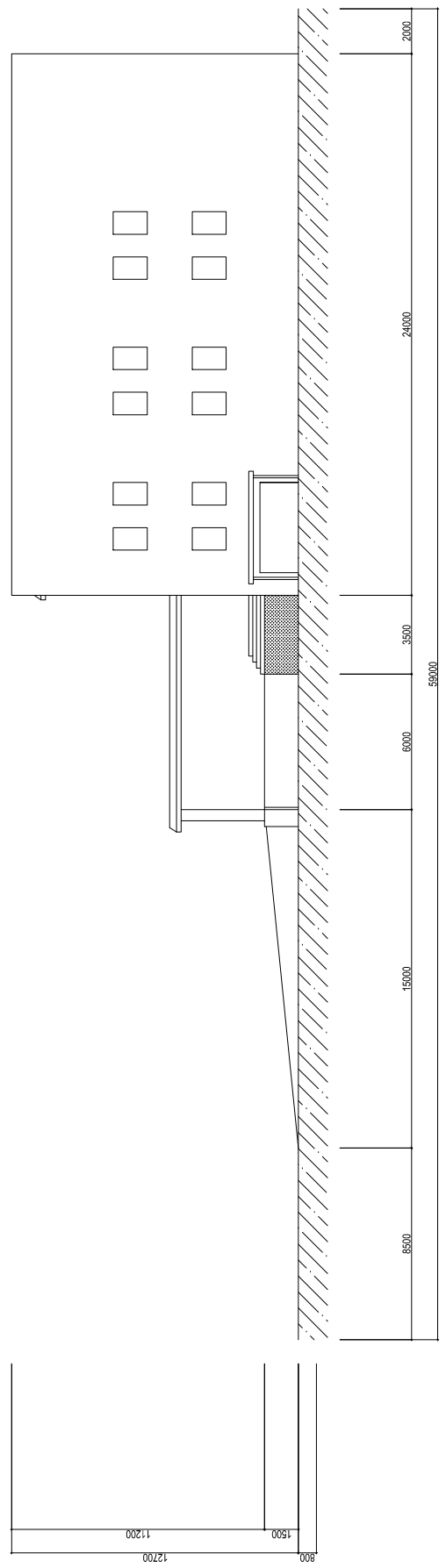
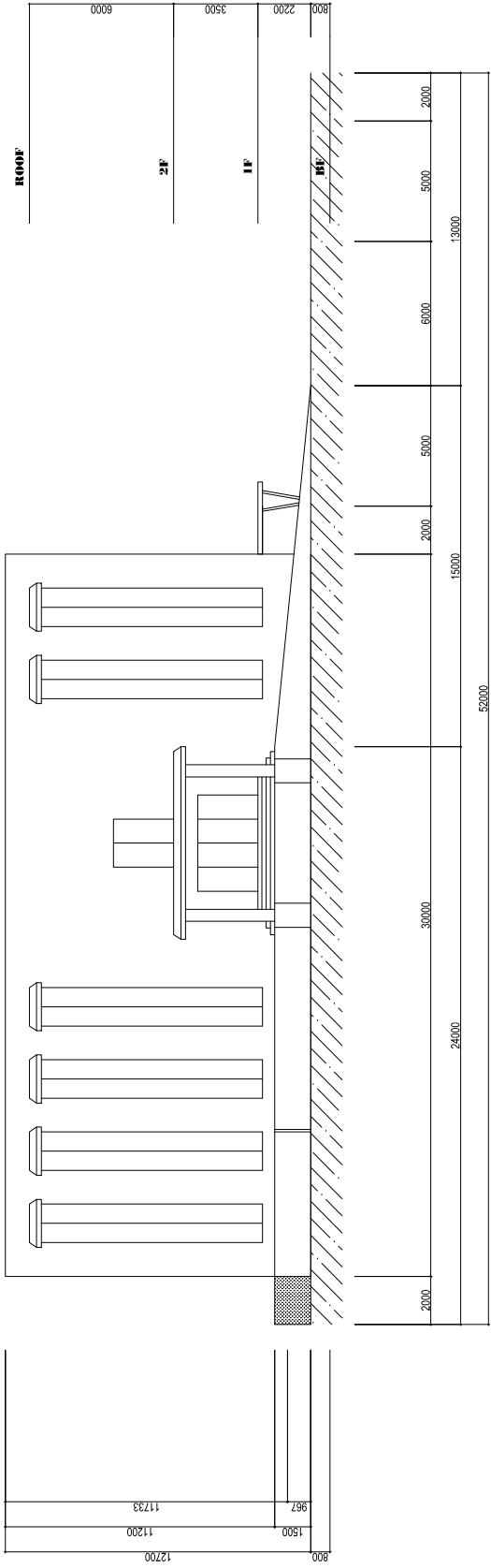
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NORTHERN REGIONAL MAIN CENTER

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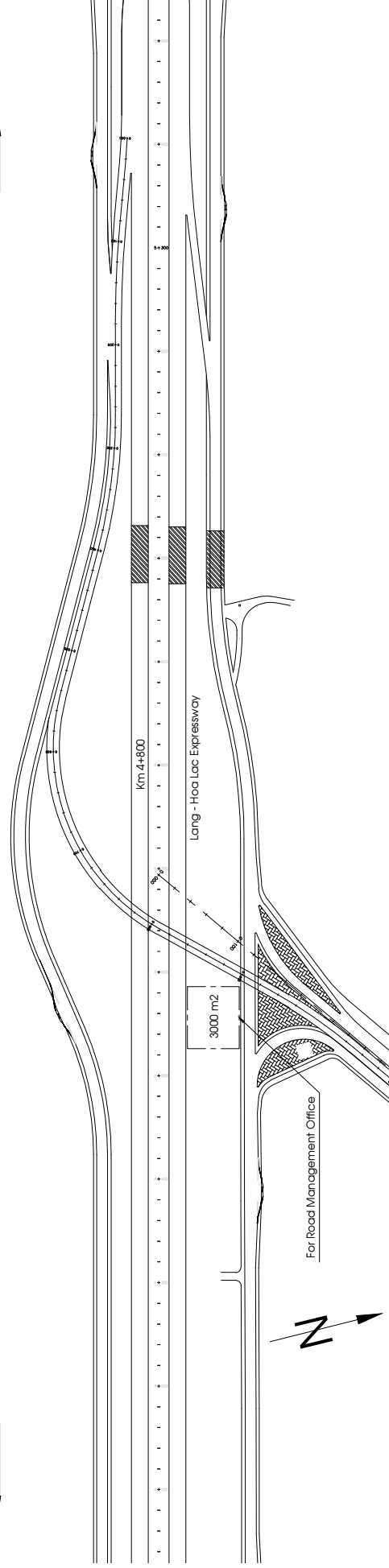
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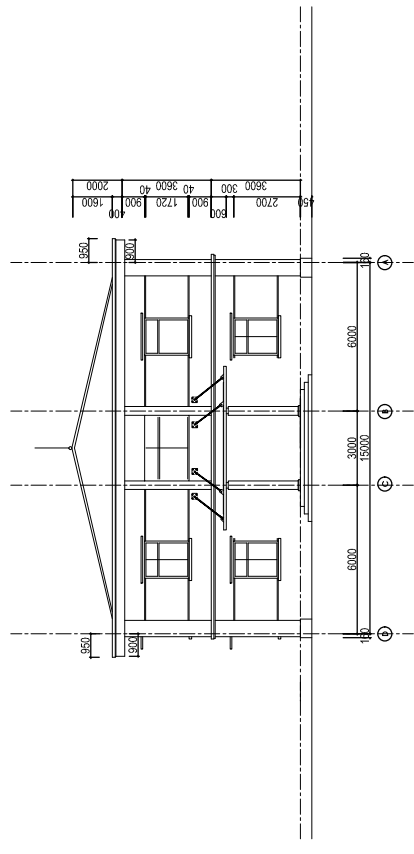
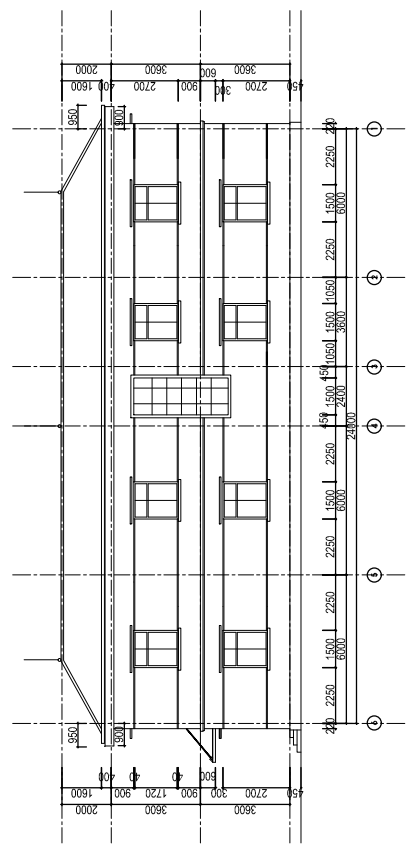
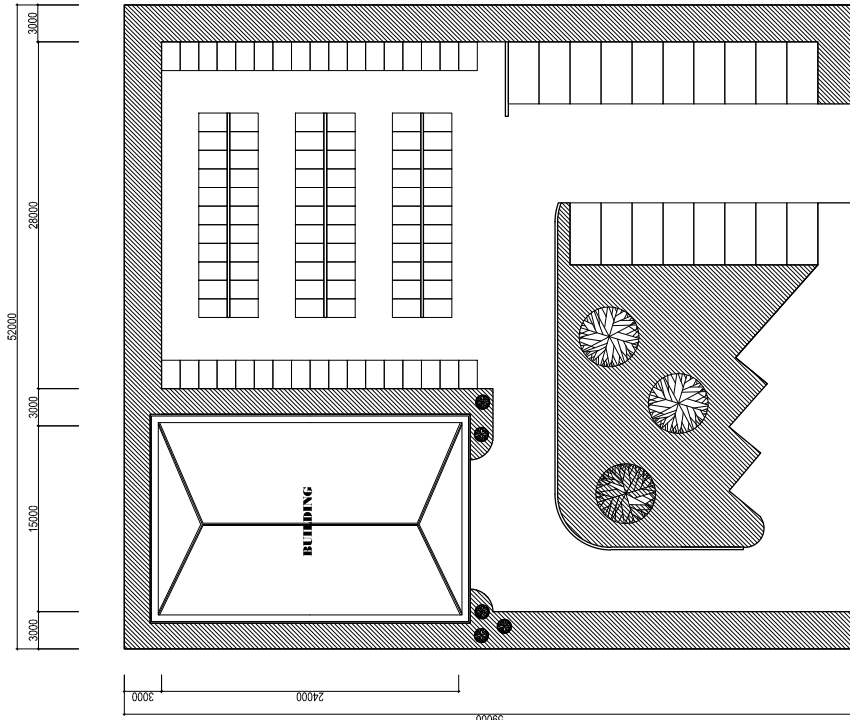
LOCATION OF ROAD MANAGEMENT OFFICE (LANG - HOA LAC)

TRUNG HOA →

HOA LAC →



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TRANSPORTATION RESEARCH INSTITUTE CO., LTD	APPROVED BY				DRAWING NO.: XVI-05 SHEET No.: Sheet of		
LANDTEC JAPAN INC.					DRAWING TITLE: LOCATION OF ROAD MANAGEMENT OFFICE FOR LANG - HOA LAC EXPRESSWAY SCALE: 1/4000		



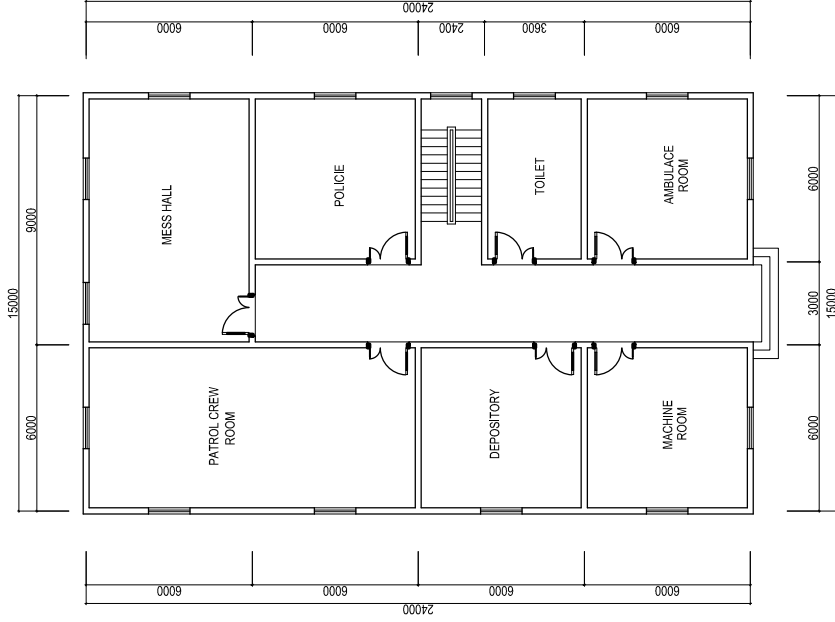
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PLAN

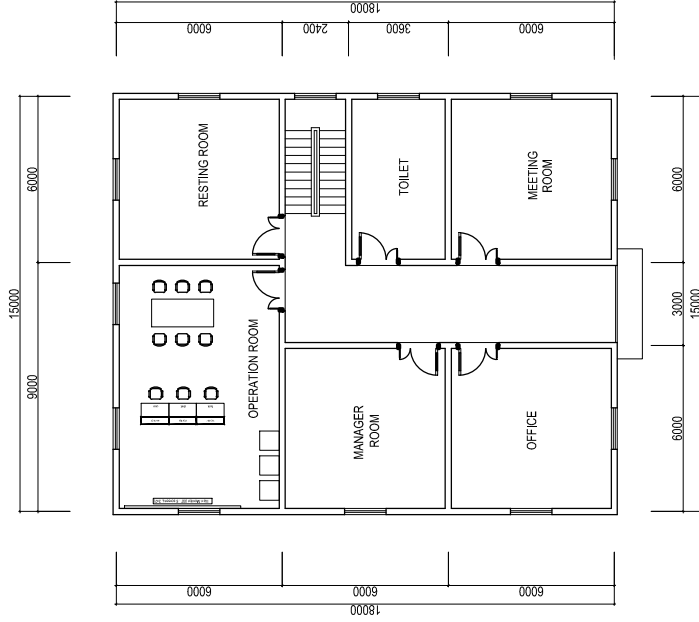
ROAD MANAGEMENT OFFICE (LANG - HOA LAC)

CONSULTANT		SIGNATURE		DATE	
ORIENTAL CONSULTANTS CO., LTD					
NEXCO EAST ENGINEERING CO., LTD					
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LANDTEC JAPAN INC.					
TITLE	NAME	SIGNATURE	DATE		
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MINISTRY OF TRANSPORT		NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM	
PLAN OF ROAD MANAGEMENT OFFICE (LANG - HOA LAC) (1)		DRAWING TITLE	
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SCALE: 1/200, 1/400		DRAWING NO.: XV-H-06	
		SHEET NO.: _____	
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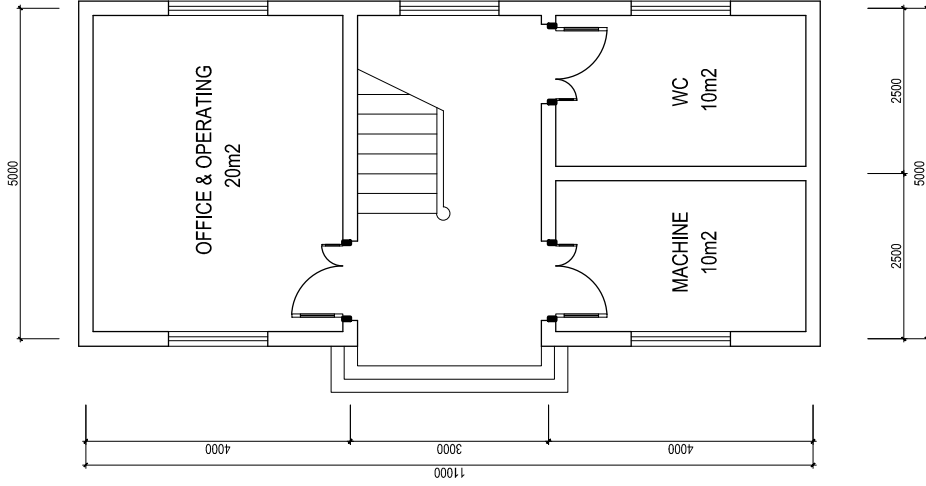
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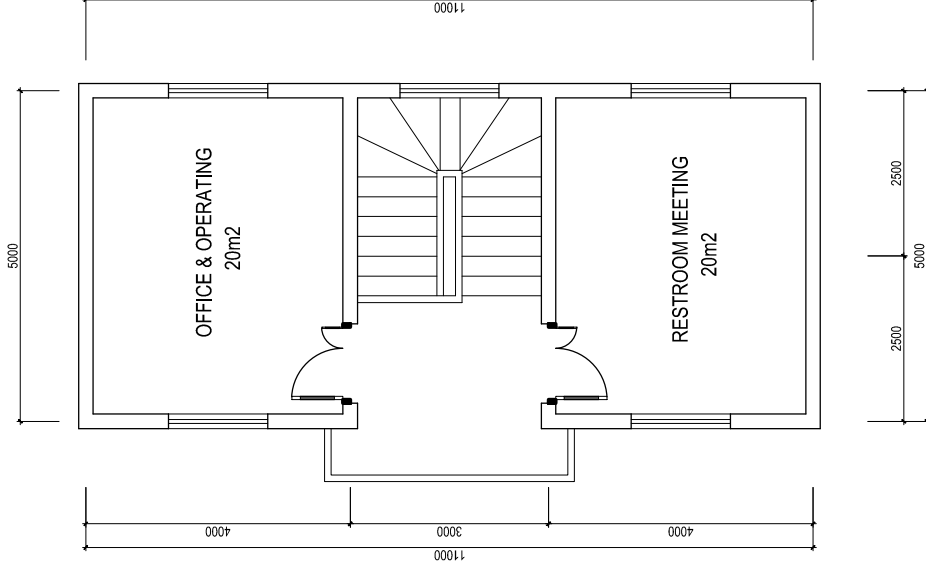
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ROAD MANAGEMENT OFFICE (LANG - HOA LAC)

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		ORIENTAL CONSULTANTS CO., LTD NEXCO EAST ENGINEERING CO., LTD NIPPON KOEI CO., LTD TRANSPORTATION RESEARCH INSTITUTE CO., LTD LANDTEC JAPAN INC.					
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DRAWING TITLE		PLAN OF ROAD MANAGEMENT OFFICE FOR REFERENCE					
PACKAGE:		DRAWING NO. XV.I-07					
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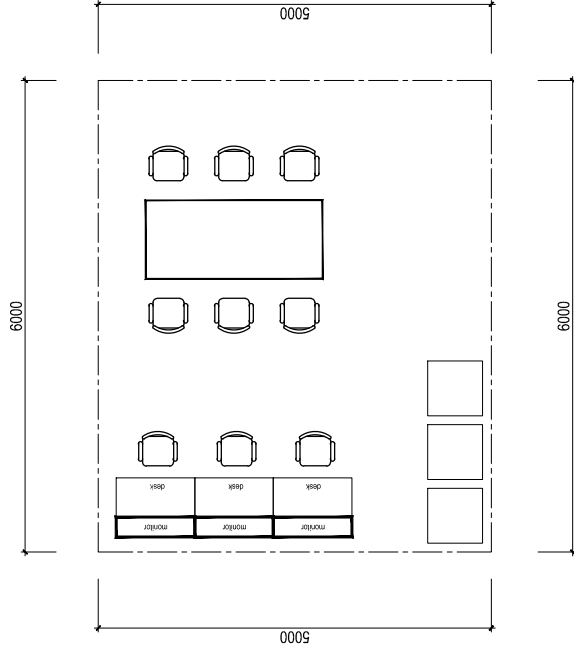


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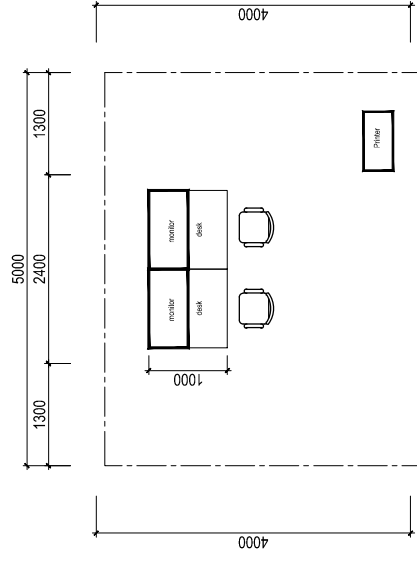


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PLAN FOR ROAD MANAGEMENT OFFICE



PLAN OF TOLL OFFICE
FOR REFERENCE

CONSULTANT

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MINISTRY OF TRANSPORT

ITS INTEGRATION PROJECT ON
 NEW NATIONAL HIGHWAY NO.3 & NORTHERN AREA OF VIETNAM

REQUIRED SPACE OF OPERATION ROOM FOR
 ROAD MANAGEMENT OFFICE AND TOLL OFFICE - FOR REFERENCE

PACKAGE:

DRAWING NO.:

XIV.1 - 09

SHEET NO.:

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of

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