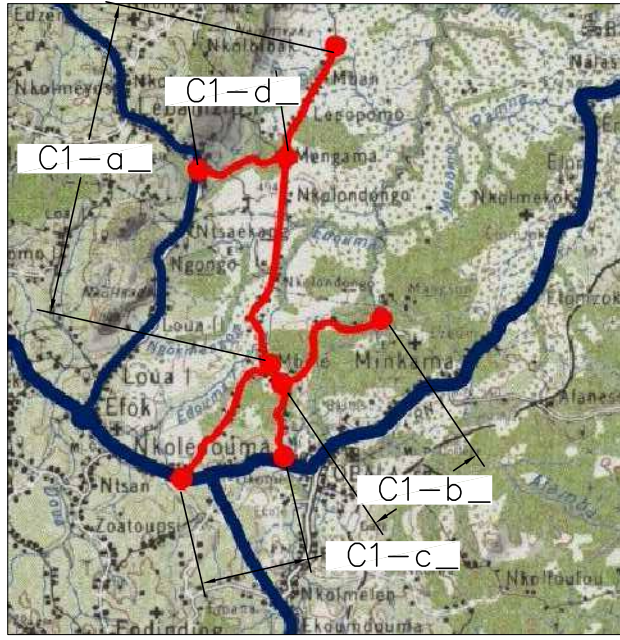
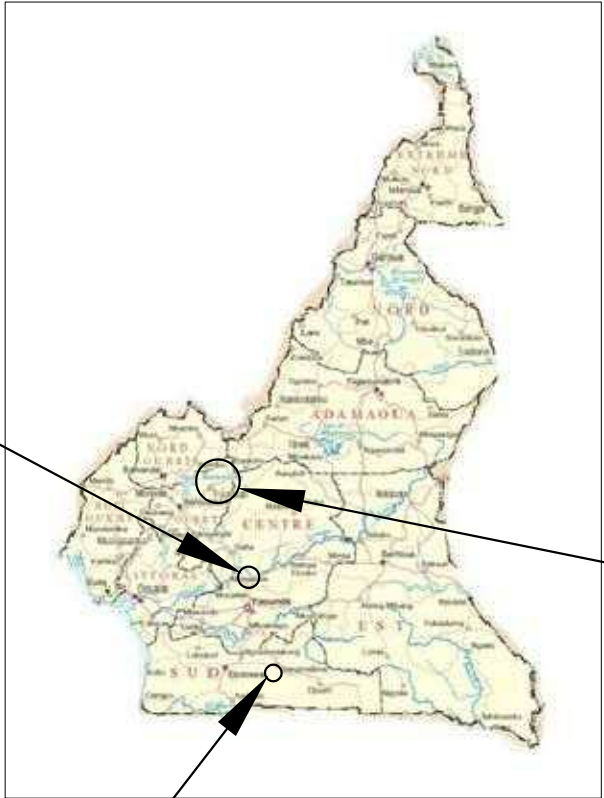


## 9. List of Drawings (Access Road Component)

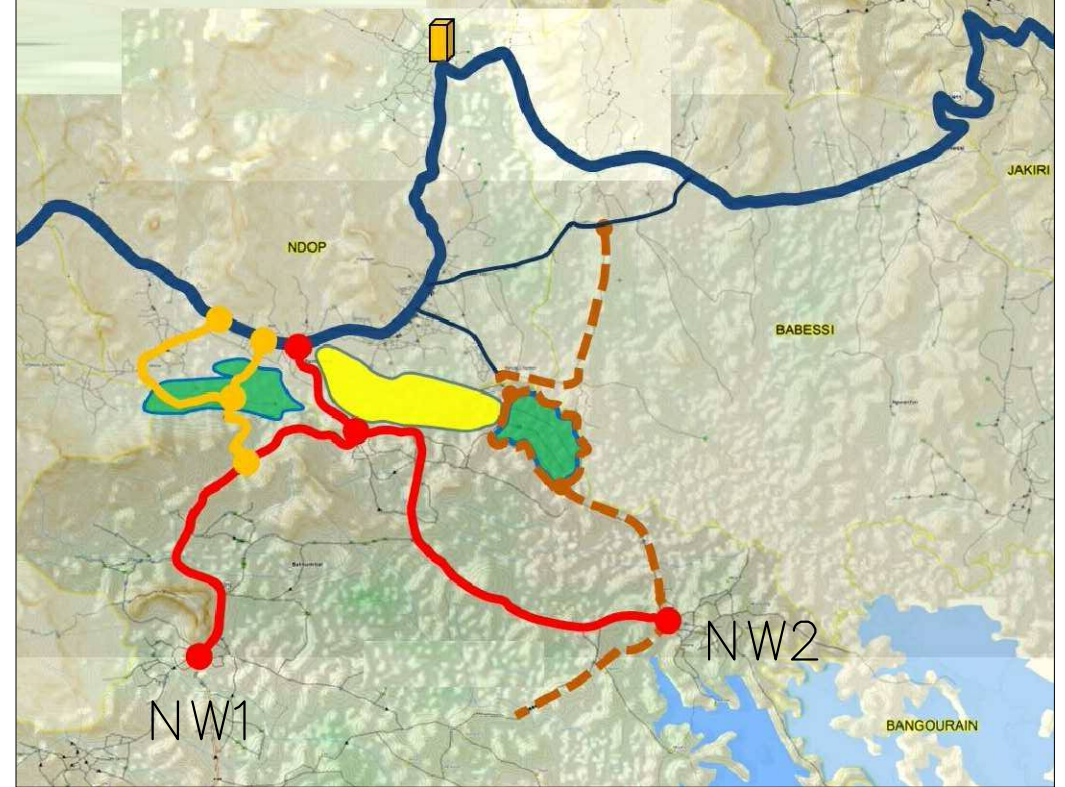
Title	Nos	Page
LOCATION MAP	1/1	A – 92
PLAN AND PROFILE NW1	1/20 - 20/20	A – 93-112
PLAN AND PROFILE NW2	1/16 - 16/16	A – 113-128
PLAN AND PROFILE C1	1/30 - 30/30	A – 129-158
PLAN AND PROFILE S2	1/13 - 13/13	A – 159-171
TYPICAL CROSS SECTION	1/2 - 2/2	A – 172-173
PIPE CULVERT	1/2 - 2/2	A – 174-175
BOX CULVERT	1/4 - 4/4	A – 176-179
BRIDGE 22m	1/4 - 4/4	A – 181-183
BRIDGE 12m	1/1	A – 184
RELATED STRUCTURES	1/1	A – 185



C1



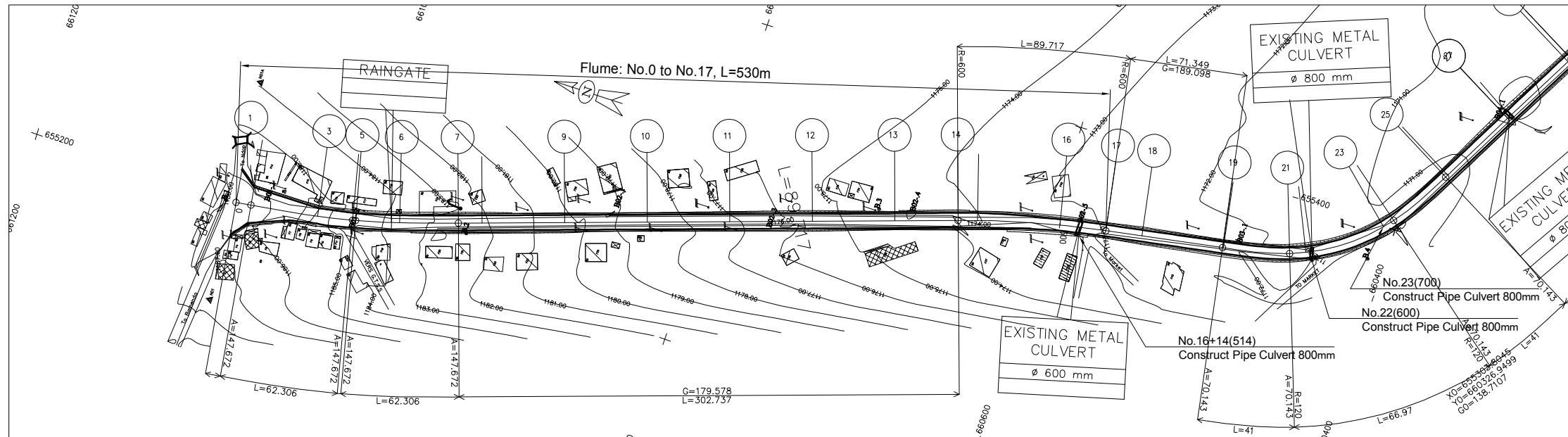
S2



NW1,2



	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			1-1/1
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			LOCATION MAP			



LEGEND

ECHELLE 1/2000

4 N

D72 ROAD

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		Well

SHEET 1/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	1186.64	1186.42	1185.03	1184.52	1184.37	1183.70	1182.69	1182.10	1180.34	1178.77	1178.04	1177.15	1175.57	1174.94	1173.99	1174.14	1173.58	1172.95	1172.38	1172.44	1172.65	1172.66	1172.21	1172.07	1171.49	1171.71	1171.36	1171.33	1171.22	
PARTIAL DISTANCES	0.00	9.11	40.89	21.41	26.84	35.46	14.5	50	50	50	50	50	38.2	11.8	50	27.92	22.08	49.26	40.26	9.74	50	7.23	41	50						
CUMULATIVE DISTANCES	0.00	9.11	50.00	71.41	73.16	100.00	135.46	150.00	200.00	250.00	272.68	300.00	350.00	400.00	438.20	450.00	500.00	527.92	550.00	560.45	599.26	600.00	640.26	650.00	700.00	707.23	748.23	750.00	800.00	
PROJECT LEVEL	1186.63	1186.35	1185.10	1184.45	1184.40	1183.58	1182.50	1182.05	1180.53	1179.00	1178.31	1177.51	1176.20	1175.10	1174.40	1174.21	1173.52	1173.23	1173.05	1172.98	1172.72	1172.72	1172.45	1172.39	1172.06	1172.02	1171.75	1171.74	1171.41	
VERTICAL.....	L=272.682		P=3.05%		A=147.672 L=62.306		A=147.672 L=62.306		r=179.578 L=302.737		R=12000 L=287.764		R=600 L=89.717		r=189.098 L=71.349		A=70.143 L=41		R=120 L=66.97		A=70.143 L=41		r=131.818 L=51.766		P=0.65%					
HORIZONTAL.....	A=147.672 L=62.306		A=147.672 L=62.306		r=179.578 L=302.737		R=12000 L=287.764		R=600 L=89.717		r=189.098 L=71.349		A=70.143 L=41		R=120 L=66.97		A=70.143 L=41		r=131.818 L=51.766											
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	
RIGHT SLOPE	-2.50	-2.50	1.09	2.97	2.97	0.61	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	7.00	7.00	7.00	7.00	-2.50	-2.50	-2.50	
LEFT DITCHES			1184.34	1183.68	1183.62	1183.83	1181.74	1181.30	1179.77						1173.65	1173.65	1172.90	1172.90	1172.09	1172.10										
RIGH DITCHES	1183.49	1183.44																												

LICENCE : 1109

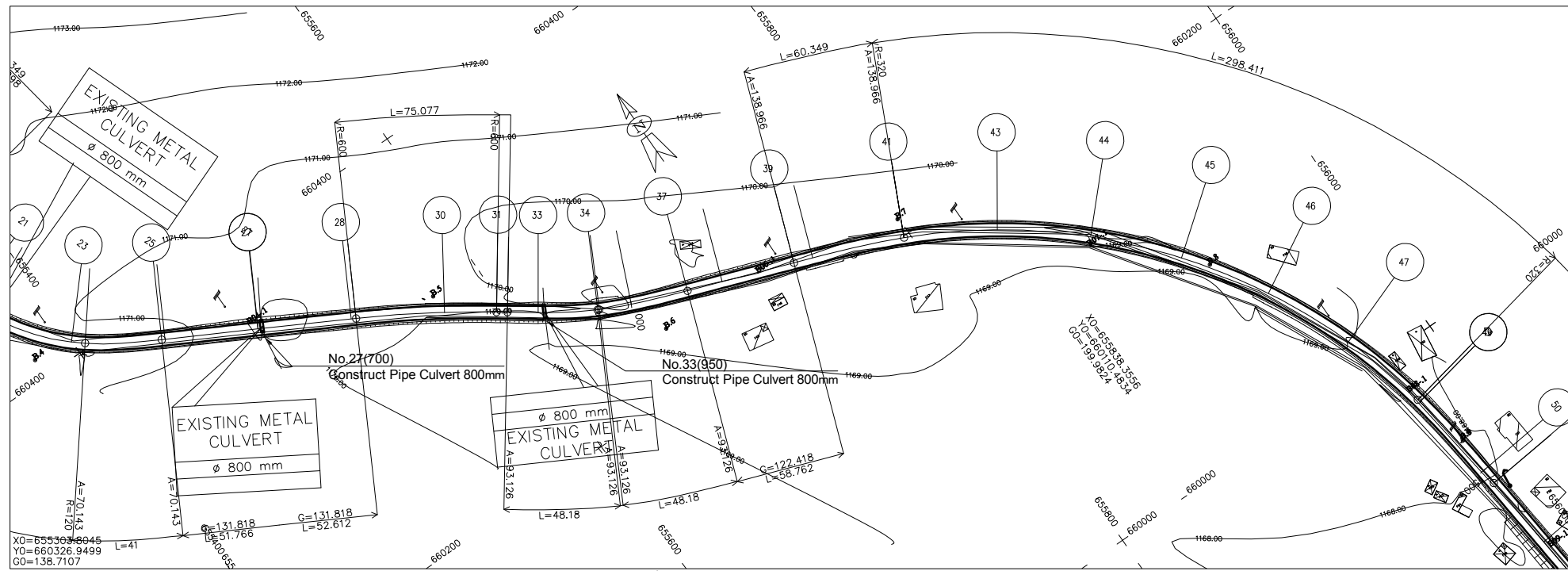
**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

REVISION

PROJECT TITLE  
**RURAL INFRASTRUCTURE IMPROVEMENT PROJECT**  
 DWG. TITLE  
**PLAN AND PROFILE NW1 1/20**

DATE	DESIGNED BY	DWG NO.
SCALE	APPROVED BY	SERIAL NO.

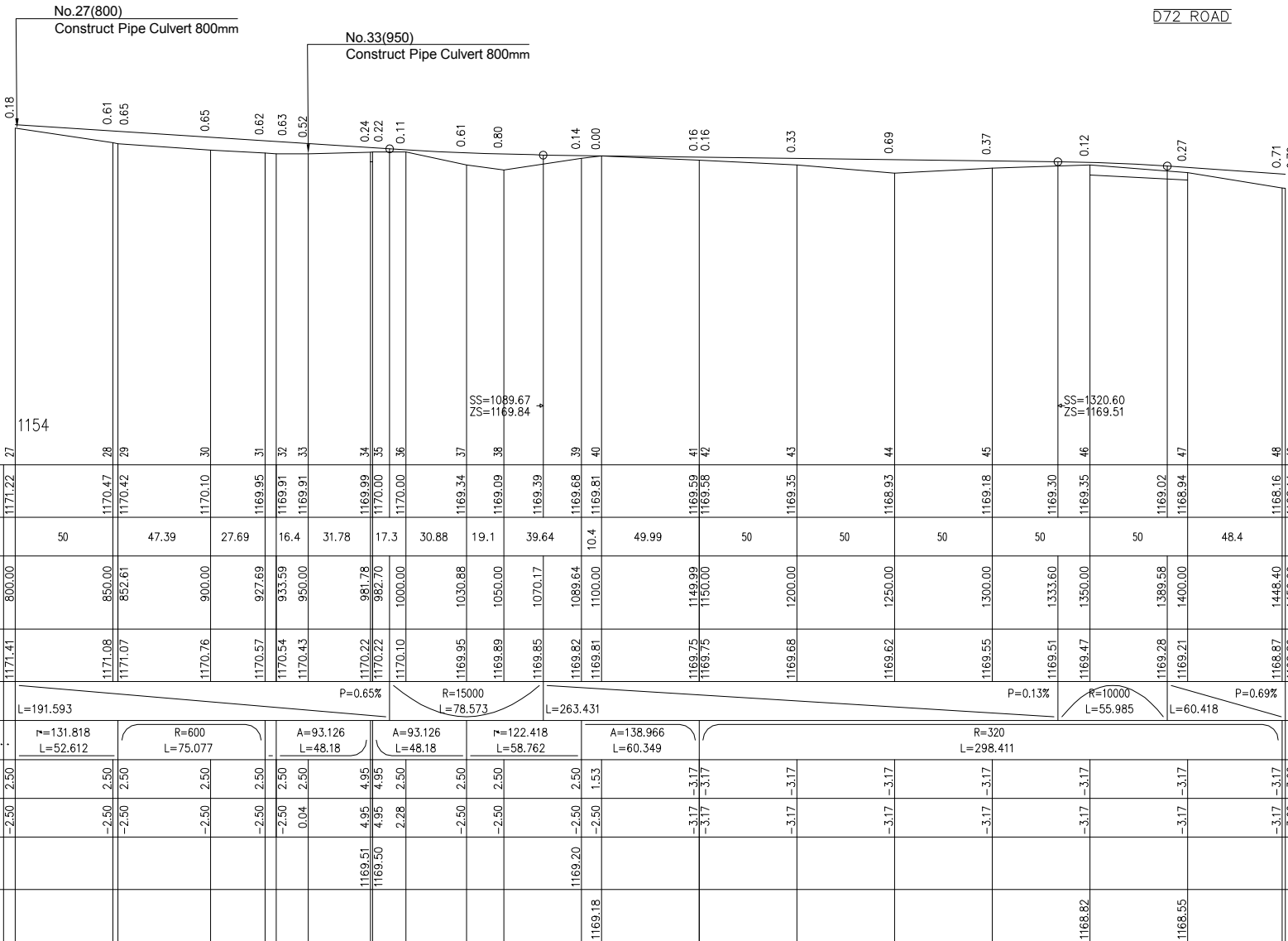
2- 1/20



LEGEND ECHELLE 1/2000

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 2/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



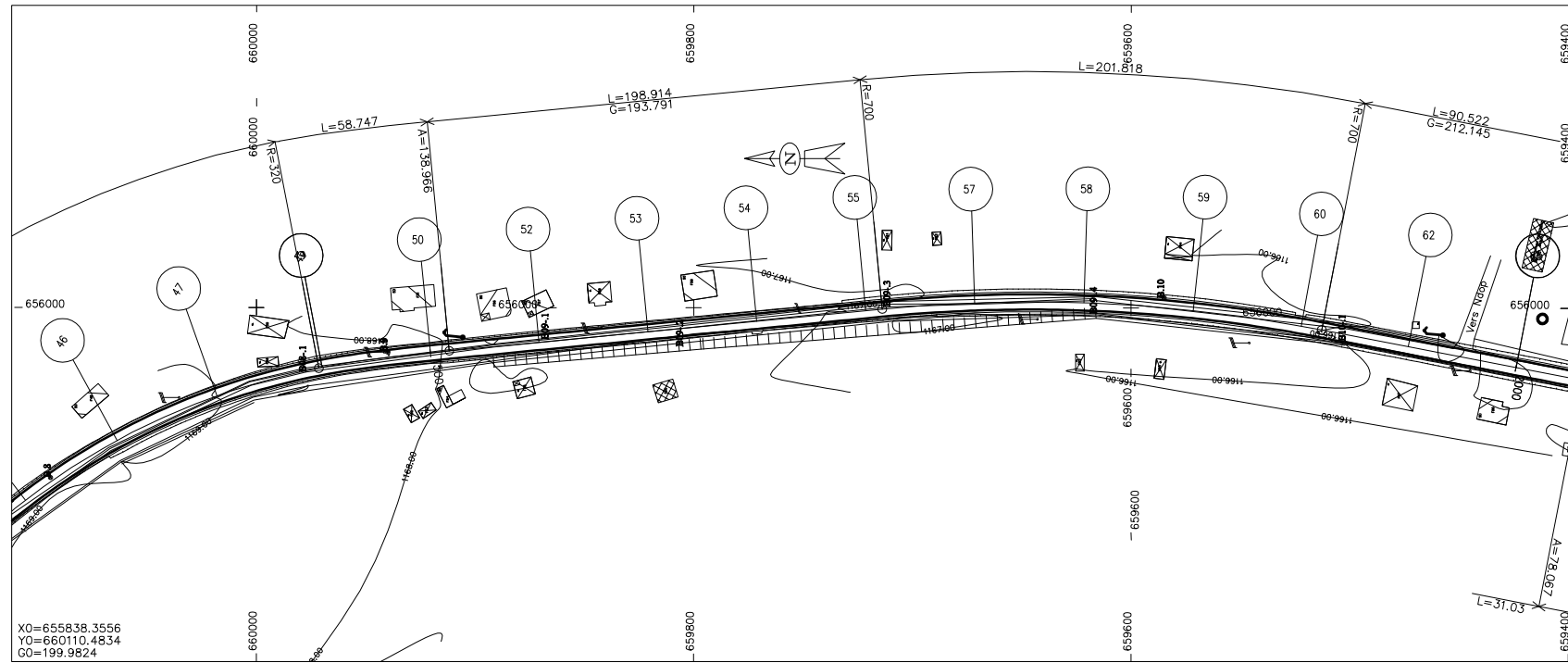
GROUND LEVEL	1171.22	1170.47	1170.42	1170.10	1169.95	1169.91	1169.91	1169.99	1170.00	1170.00	1169.54	1169.09	1169.39	1169.68	1169.81	1169.75	1169.58	1169.68	1168.93	1169.18	1169.30	1169.35	1169.02	1168.94	1168.16	1168.14	
PARTIAL DISTANCES	50	47.39	27.69	16.4	31.78	17.3	30.88	19.1	39.64	49.99	50	50	50	50	50	48.4											
CUMULATIVE DISTANCES	800.00	850.00	852.61	900.00	927.69	933.59	950.00	981.78	982.70	1000.00	1030.88	1050.00	1070.17	1089.64	1100.00	1149.99	1150.00	1200.00	1250.00	1300.00	1333.60	1350.00	1389.58	1400.00	1448.40	1450.00	
PROJECT LEVEL	1171.41	1171.08	1171.07	1170.76	1170.57	1170.54	1170.43	1170.22	1170.22	1170.10	1169.95	1169.89	1169.85	1169.82	1169.81	1169.75	1169.75	1169.68	1169.62	1169.55	1169.51	1169.47	1169.28	1169.21	1168.87	1168.86	
VERTICAL.....	L=191.593		P=0.65%		R=15000		L=78.573		L=263.431		P=0.13%		R=10000		L=55.985		L=60.418		P=0.69%								
HORIZONTAL.....	r=131.818	R=600		L=75.077		A=93.126		L=48.18		r=122.418		L=58.762		A=138.966		L=60.349		R=320		L=298.411							
LEFT SLOPE....	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	0.04	2.50	4.95	4.95	2.28	-2.50	-2.50	-2.50	-2.50	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.02	-3.02
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	0.04	2.50	4.95	4.95	2.28	-2.50	-2.50	-2.50	-2.50	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.17	-3.02	-3.02
LEFT DITCHES								1169.51	1169.50					1169.20													
RIGTH DITCHES								1169.51	1169.50					1169.20													

LICENCE : 1109

	<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	<b>JICA JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 2/20
	<b>NTC INTERNATIONAL CO., LTD.</b>		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE NW1 2/20			

A-94

TR1.PIS



D72 ROAD

LEGEND

	SECONDARY BENCH MARK		Solid construction
	Telephone		Semi permanent construction
	Electric pole high voltage		Local construction
	Electric pole low voltage		Hangar
	Forge		Tree
	Swamp		Tomb
			Fountain post
			Well

SHEET 3/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	1168.14	1168.21	1167.85	1167.67	1167.40	1167.16	1166.98	1166.93	1166.78	1166.79	1166.80	1166.30	1166.49	1166.20	1166.09	1165.81	1166.02
PARTIAL DISTANCES		50	8.75	41.25	50	50	50	7.66	42.34	50	50	50	50	9.48	40.52	50	
CUMULATIVE DISTANCES	1450.00	1500.00	1508.75	1550.00	1600.00	1650.00	1690.30	1700.00	1707.66	1728.66	1750.00	1800.00	1850.00	1900.00	1909.48	1950.00	2000.00
PROJECT LEVEL	1168.86	1166.52	1168.45	1168.17	1167.83	1167.48	1167.20	1167.14	1167.09	1166.97	1166.87	1166.62	1166.37	1166.12	1166.07	1165.87	1165.62
VERTICAL.....	L=240.304 P=0.69% R=20000 L=38.353 L=271.344 P=0.5%																
HORIZONTAL.....	A=138.966 L=58.747			r=193.791 L=198.914				R=700 L=201.818					r=212.145 L=90.522				
LEFT SLOPE....	-3.02	-2.50	1.68	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
RIGHT SLOPE	-3.02	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES							1166.51	1166.46		1166.24	1166.24	1166.99	1166.74	1166.45	1166.45	1166.24	1166.00
RIGTH DITCHES						1166.85				1166.24	1166.24	1166.99	1166.74	1166.45	1166.24	1166.00	1166.02

LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  

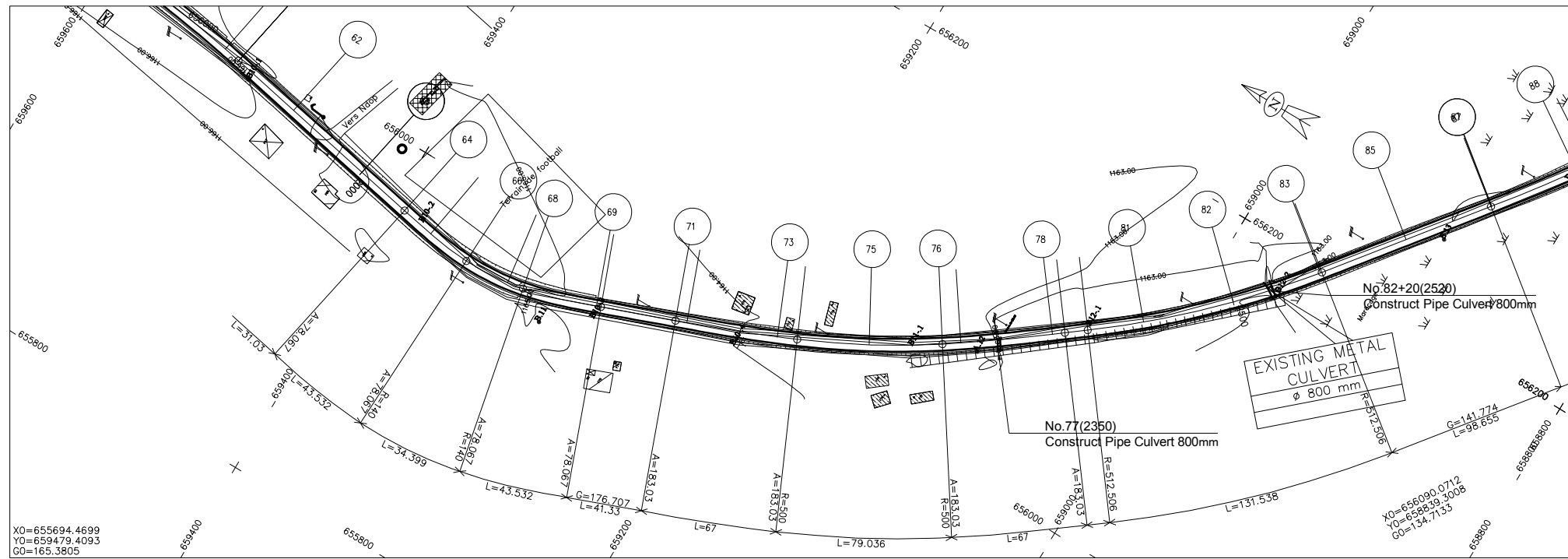
 JAPAN INTERNATIONAL COOPERATION AGENCY  

 NTC INTERNATIONAL CO., LTD.

REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 3/20
	DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
	PLAN AND PROFILE NW1 3/20			

A-95

TR1.PIS



ECHELLE 1/2000

D72 ROAD

**LEGEND**

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		

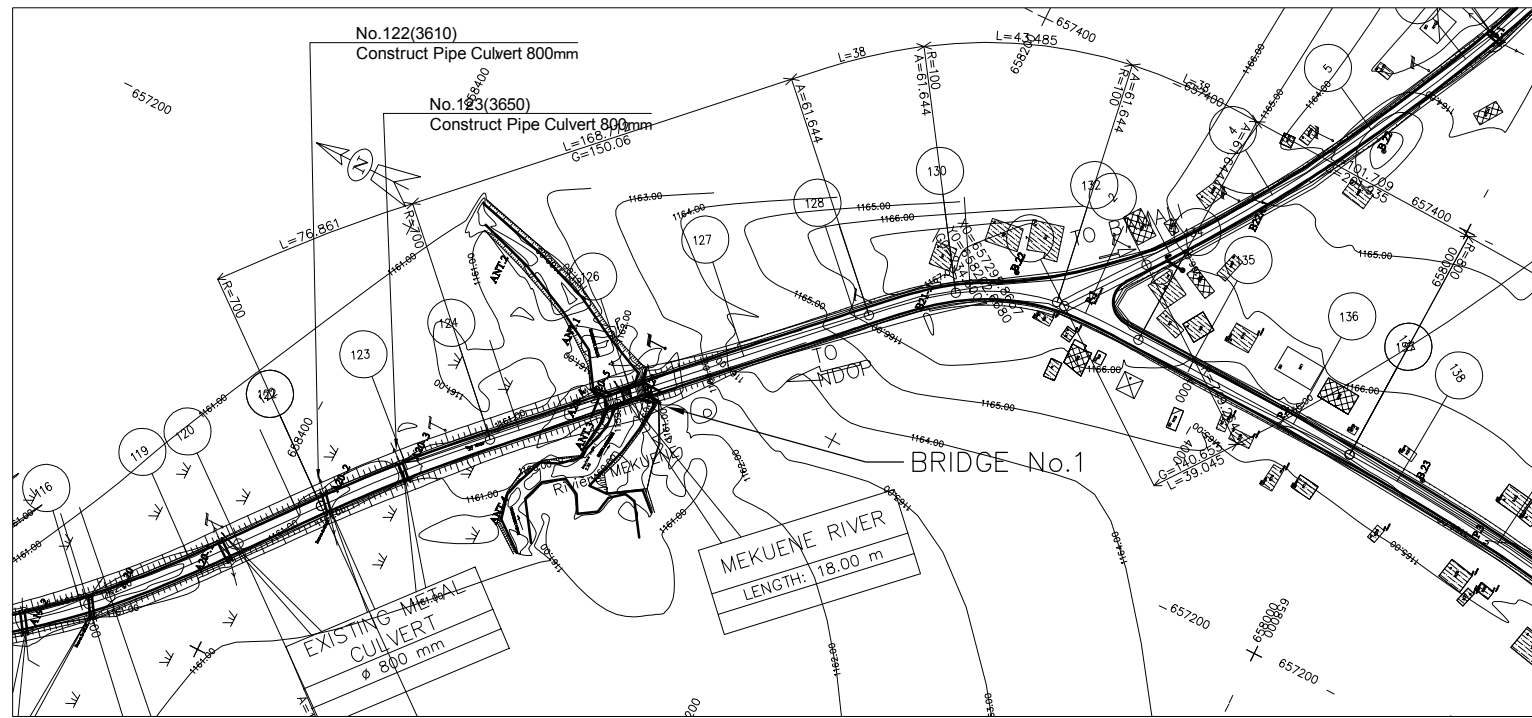
SHEET 4/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
GROUND LEVEL	1166.02	1165.64	1165.46	1165.54	1165.35	1165.32	1164.66	1164.64	1164.31	1164.25	1163.60	1163.58	1163.63	1163.66	1163.50	1163.50	1163.52	1163.47	1163.27	1162.98	1162.78	1162.83	1162.89	1162.75	1162.79
PARTIAL DISTANCES	31.03	19	24.56	25.44	8.96	41.04	41.33	50	10.8	39.18	39.86	10.1	50	6.86	12.4	30.69	50	50	49.15	49.5					
CUMULATIVE DISTANCES	2000.00	2031.03	2050.00	2074.56	2100.00	2108.96	2150.00	2152.49	2193.82	2200.00	2250.00	2260.82	2300.00	2339.86	2350.00	2386.77	2400.00	2406.86	2450.00	2500.00	2550.00	2550.85	2600.00	2649.50	2650.00
PROJECT LEVEL	1165.62	1165.47	1165.37	1165.25	1165.12	1165.08	1164.88	1164.86	1164.66	1164.63	1164.38	1164.32	1164.13	1163.93	1163.88	1163.77	1163.74	1163.72	1163.68	1163.60	1163.53	1163.53	1163.46	1163.38	1163.38
VERTICAL.....	L=344.63																								
HORIZONTAL.....	L=31.03		A=78.067 L=43.532		R=140 L=34.399		A=78.067 L=43.532		P=176.707 L=41.33		A=183.03 L=67		R=500 L=79.036		A=183.03 L=67		R=512.506 L=131.538		P=141.774 L=98.655						
LEFT SLOPE....	2.50	2.50	2.50	6.12	6.12	6.12	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
RIGHT SLOPE	-2.50	-2.50	1.26	6.12	6.12	6.12	-2.01	-2.50	-2.50	-2.04	1.69	2.50	2.50	0.43	-0.27	-1.21	-0.70	0.23	2.50	2.50	2.50	2.50	-1.17	-2.50	-2.45
LEFT DITCHES	1165.00	1164.84	1164.75	1164.50	1164.37	1164.33																			
RIGH DITCHES	1165.00	1164.84	1164.88	1164.93	1164.80	1164.80																			

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 4/20
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW1 4/20	SCALE	APPROVED BY	SERIAL NO.



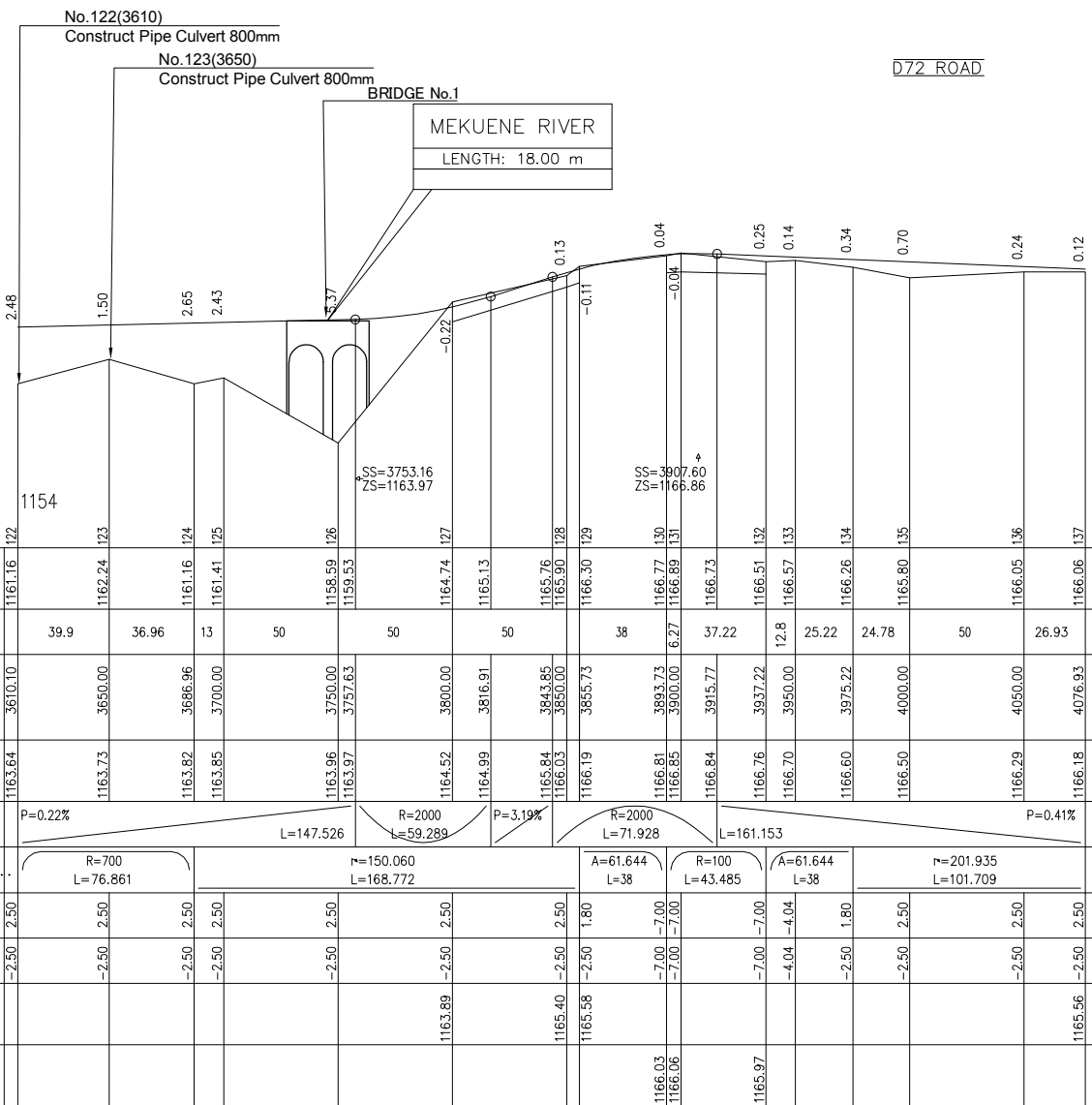


ECHELLE 1/2000

LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 6/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



GROUND LEVEL	1161.16	1162.24	1161.16	1161.41	1158.59	1164.74	1165.13	1165.76	1165.90	1166.30	1166.77	1166.89	1166.73	1166.51	1166.57	1166.26	1165.80	1166.05	1166.06					
PARTIAL DISTANCES	39.9	36.96	13	50	50	50	38	37.22	12.8	25.22	24.78	50	26.93											
CUMULATIVE DISTANCES	3610.10	3650.00	3666.96	3700.00	3750.00	3757.63	3800.00	3816.91	384.85	3850.00	3855.73	3893.73	3900.00	3915.77	3937.22	3950.00	3975.22	4000.00	4050.00	4076.93				
PROJECT LEVEL	1163.64	1163.73	1163.82	1163.85	1163.96	1163.97	1164.52	1164.99	1165.84	1166.03	1166.19	1166.81	1166.85	1166.84	1166.76	1166.70	1166.60	1166.50	1166.29	1166.18				
VERTICAL.....	P=0.22%		L=147.526				R=2000 L=59.289		P=3.19%		R=2000 L=71.928		R=100 L=43.485		A=61.644 L=38		R=2000 L=161.153		P=0.41%					
HORIZONTAL.....	R=700 L=76.861		r=150.060 L=168.772				A=61.644 L=38		R=100 L=43.485		A=61.644 L=38		r=201.935 L=101.709											
LEFT SLOPE....	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-7.00	-7.00	-7.00	-7.00	-4.04	-2.50	1.80	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES							1163.89																	
RIGTH DITCHES																								

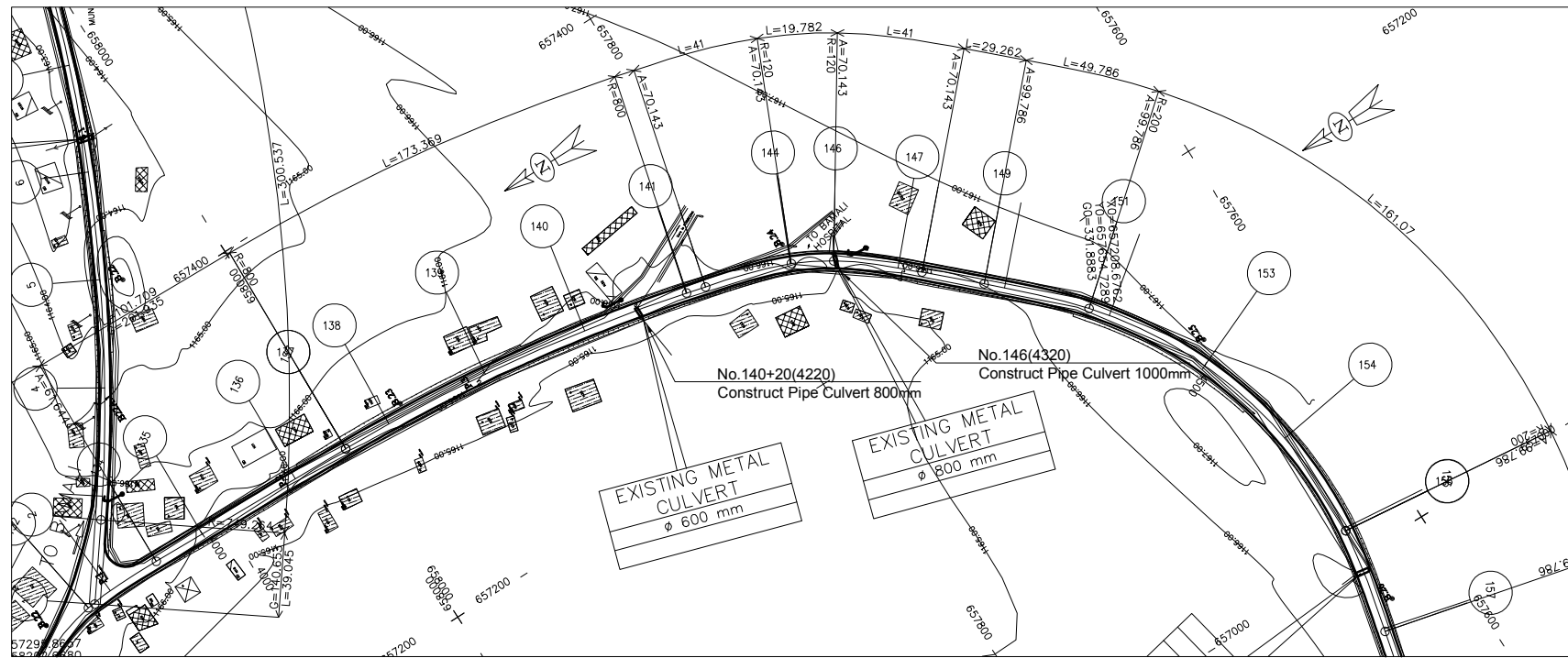
LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 6/20
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW1 6/20	SCALE	APPROVED BY	SERIAL NO.

86-A

TR1.PIS





ECHELLE 1/2000

LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 7/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

	0.12	0.04	0.20	0.70	0.44	0.36	0.20	0.19	0.22	0.31	0.53	0.55	0.43	0.00	0.42	0.41	0.42			
GROUND LEVEL	1166.06	1166.06	1166.06	1165.85	1165.68	1165.45	1165.14	1165.81	1165.91	1166.15	1165.95	1165.99	1166.14	1166.67	1166.77	1166.52	1166.56	1166.55		
PARTIAL DISTANCES	23.07	50	50	50	9.11	40.6	19.8	29.82	11.2	29.26	9.55	40.23	9.77	50	50	50				
CUMULATIVE DISTANCES	4076.93	4076.24	4100.00	4150.00	4170.88	4200.00	4250.00	4300.40	4320.18	4350.00	4361.18	4390.45	4400.00	4440.23	4450.00	4500.00	4580.31	4600.00	4601.30	
PROJECT LEVEL	1166.18	1166.11	1166.06	1166.09	1166.15	1166.25	1166.27	1166.36	1166.40	1166.46	1166.48	1166.55	1166.57	1166.65	1166.67	1166.77	1166.88	1166.94	1166.97	1166.97
VERTICAL.....	R=15000 L=92.646 P=0.21% L=409.429																			
HORIZONTAL.....	R=800 L=173.369			A=70.143 L=41			R=120 L=41			A=70.143 L=41			A=99.786 L=49.786			R=200 L=161.07				
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	
LEFT DITCHES	1165.56	1165.48	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	1165.43	
RIGH DITCHES														1165.95	1165.97		1166.08			

D72 ROAD

66-A

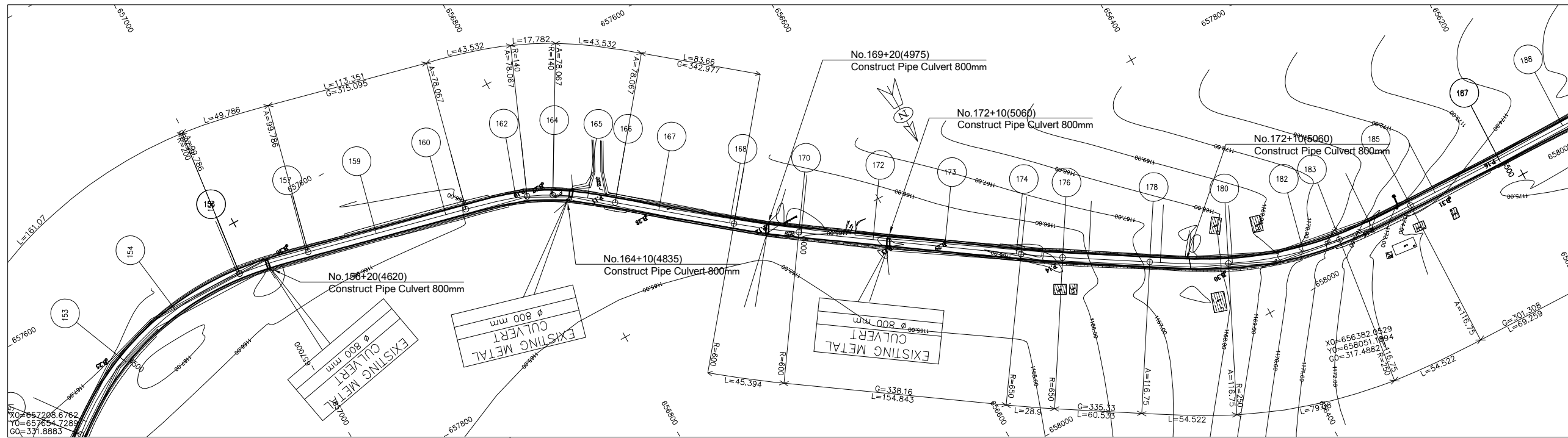
TR1.PIS

LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
 NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 7/20
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE NW1 7/20			

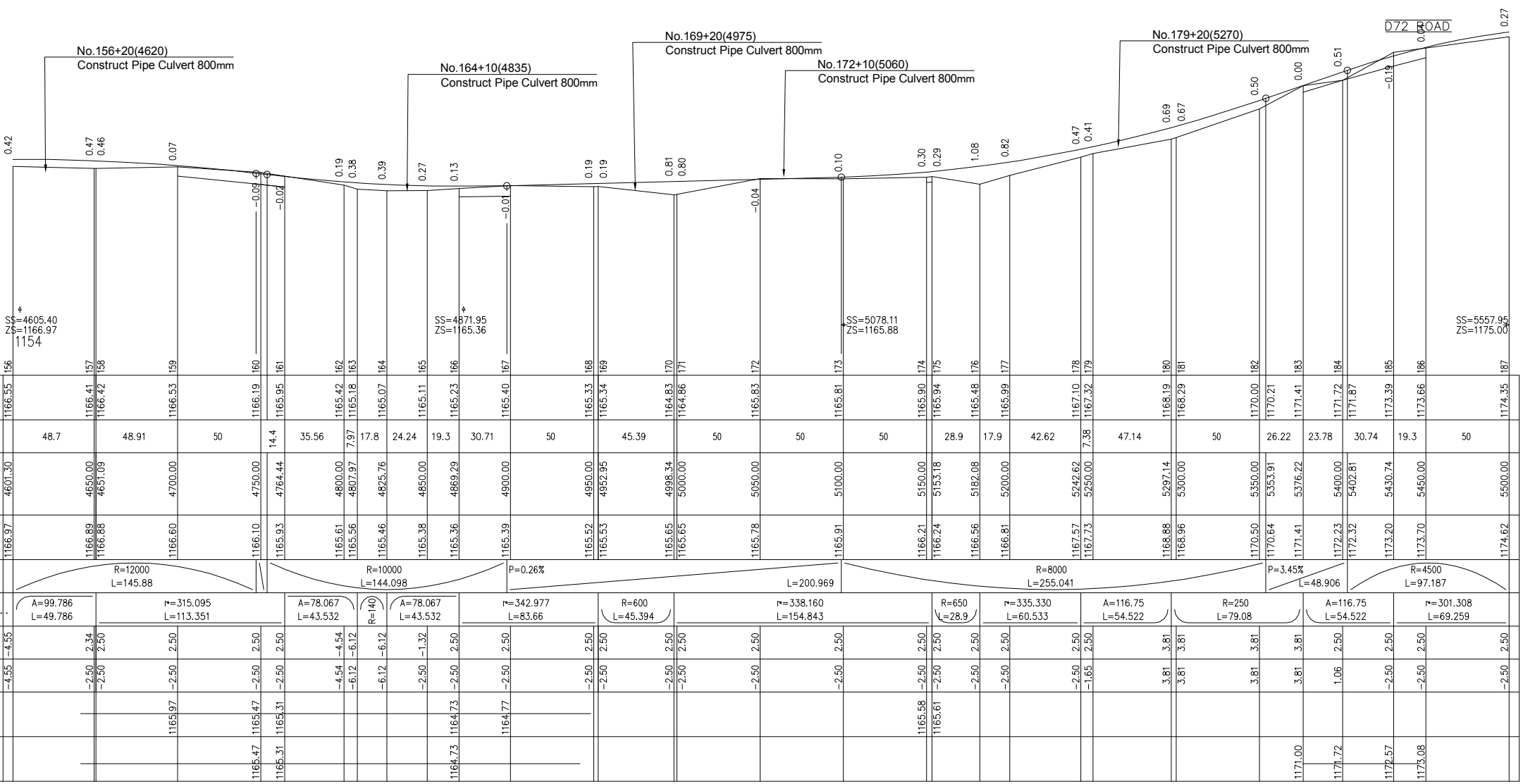


ECHELLE 1/2000

LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 8/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



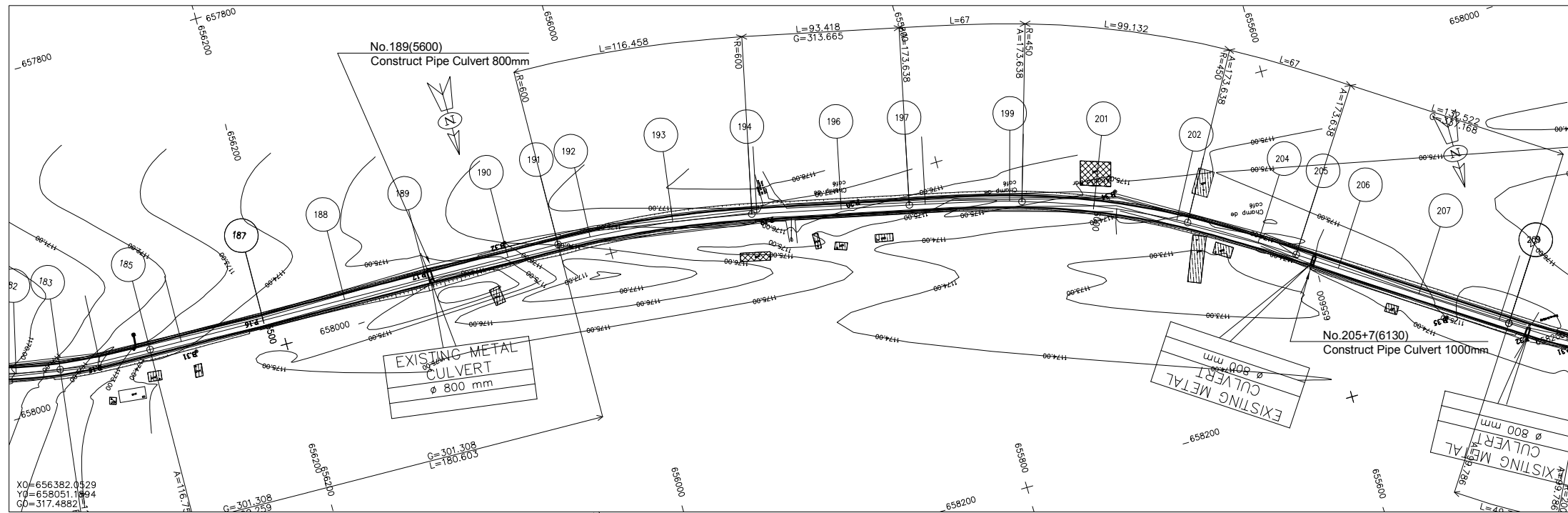
GROUND LEVEL	1166.35	1166.41	1166.42	1166.53	1166.19	1165.95	1165.18	1165.07	1165.11	1165.23	1165.40	1165.33	1164.83	1165.83	1165.81	1165.90	1165.94	1165.48	1165.99	1167.10	1167.32	1168.19	1168.29	1170.00	1170.21	1171.41	1171.72	1171.87	1173.39	1173.66	1174.35					
PARTIAL DISTANCES	48.7	48.91	50	14.4	35.56	17.8	24.24	19.3	30.71	50	45.39	50	50	50	28.9	17.9	42.62	7.38	47.14	50	26.22	23.78	30.74	19.3	50											
CUMULATIVE DISTANCES	4601.30	4650.00	4651.09	4700.00	4750.00	4764.44	4800.00	4807.97	4825.76	4850.00	4869.29	4900.00	4950.00	4952.95	4998.34	5000.00	5050.00	5050.00	5100.00	5150.00	5153.18	5182.08	5200.00	5242.62	5250.00	5297.14	5300.00	5350.00	5353.91	5376.22	5400.00	5402.81	5430.74	5450.00	5500.00	
PROJECT LEVEL	1166.97	1166.89	1166.88	1166.60	1166.10	1165.93	1165.61	1165.56	1165.46	1165.38	1165.36	1165.39	1165.52	1165.53	1165.65	1165.65	1165.78	1165.91	1166.21	1166.24	1166.56	1166.81	1167.57	1167.73	1168.88	1168.96	1170.50	1170.64	1171.41	1172.23	1172.32	1173.20	1173.70	1174.62		
VERTICAL.....	R=12000 L=145.88		R=10000 L=144.098		P=0.26%		R=600 L=45.394		R=338.160 L=154.843		R=650 L=28.9		R=335.330 L=60.533		R=250 L=79.08		R=4500 L=97.187																			
HORIZONTAL.....	A=99.786 L=49.786	r=315.095 L=113.351	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66	A=78.067 L=43.532	r=342.977 L=83.66		
LEFT SLOPE....	-4.55	-2.50	-2.50	-2.50	-2.50	-2.50	-4.54	-6.12	-6.12	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50		
RIGHT SLOPE	-4.55	2.34	2.50	2.50	2.50	2.50	4.54	6.12	6.12	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50		
LEFT DITCHES		1165.97	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	1165.31	1165.47	
RIGH DITCHES																																				

A-100

TR1.PIS

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 8/20
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE NW1 8/20			



ECHELLE 1/2000

- LEGEND**
- GPS REFERENCED BENCH MARK
  - SECONDARY BENCH MARK
  - Telephone
  - Electric pole high voltage
  - Electric pole low voltage
  - Forage
  - Swamp
  - solid construction
  - semi permanent construction
  - Local construction
  - Hangar
  - Tree
  - Tomb
  - Fountain post
  - well

SHEET 9/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

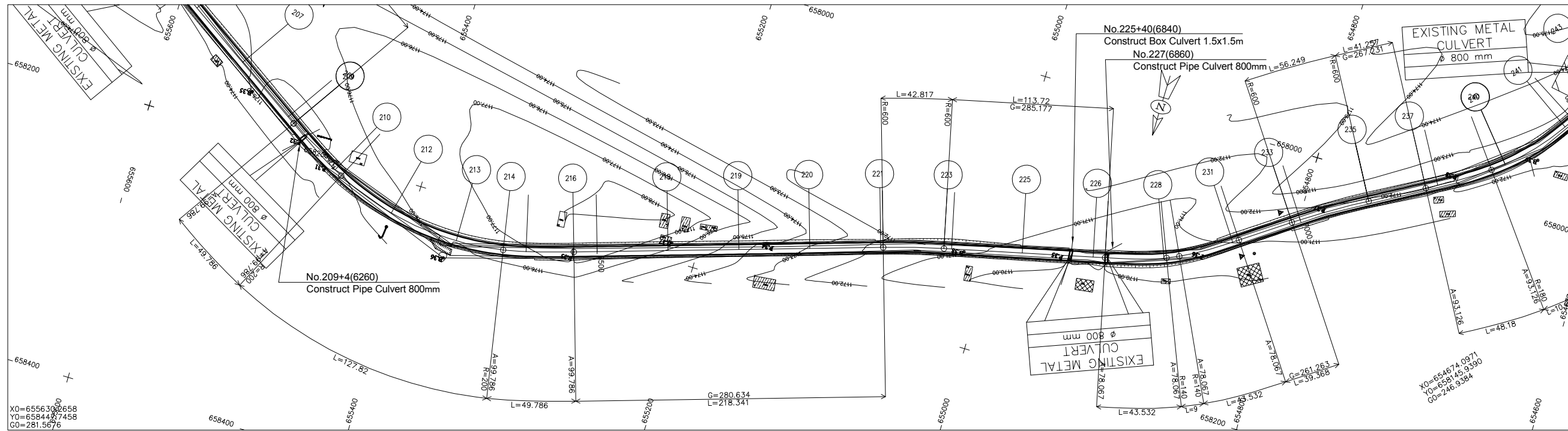
Station	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207		
GROUND LEVEL	1174.35	1174.30	1174.28	1174.25	1175.21	1175.96	1176.30	1176.45	1176.69	1176.46	1176.18	1175.55	1175.40	1175.09	1175.15	1174.81	1174.47	1173.89	1173.73	1174.02	1174.44	1174.80	
PARTIAL DISTANCES		50	50	50	30.6	19.4	50	47.06	50	40.48	9.52	50	42.52	50	6.61	43.39	23.61	26.39	50	50	6.13		
CUMULATIVE DISTANCES	5500.00	5534.89	5550.00	5600.00	5650.00	5680.60	5700.00	5750.00	5797.06	5800.00	5850.00	5890.48	5900.00	5950.00	5957.48	5978.77	6000.00	6050.00	6056.61	6100.00	6123.61	6150.00	6250.00
PROJECT LEVEL	1174.62	1174.94	1175.02	1175.27	1175.53	1175.69	1175.78	1176.04	1176.13	1176.20	1175.94	1175.59	1175.50	1175.06	1175.00	1174.81	1174.64	1174.34	1174.32	1174.21	1174.20	1174.22	1174.73
VERTICAL.....	P=4500 L=34.887		P=0.51%			R=600 L=116.458			R=5500 L=76.447			R=134.655			P=0.88%			R=16000 L=277.363					
HORIZONTAL.....	T=301.308 L=180.603		R=600 L=116.458			T=313.665 L=93.418			A=173.638 L=67			R=450 L=99.132			A=173.638 L=67			T=337.168 L=132.522					
LEFT SLOPE....	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES					1174.90	1175.06		1175.41		1175.58		1175.96		1174.44	1174.59	1174.37				1173.57	1173.60		1174.10
RIGTH DITCHES					1175.16				1175.57		1176.31		1174.90		1174.37								1174.15

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 9/20
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW1 9/20	SCALE	APPROVED BY	SERIAL NO.

A-101

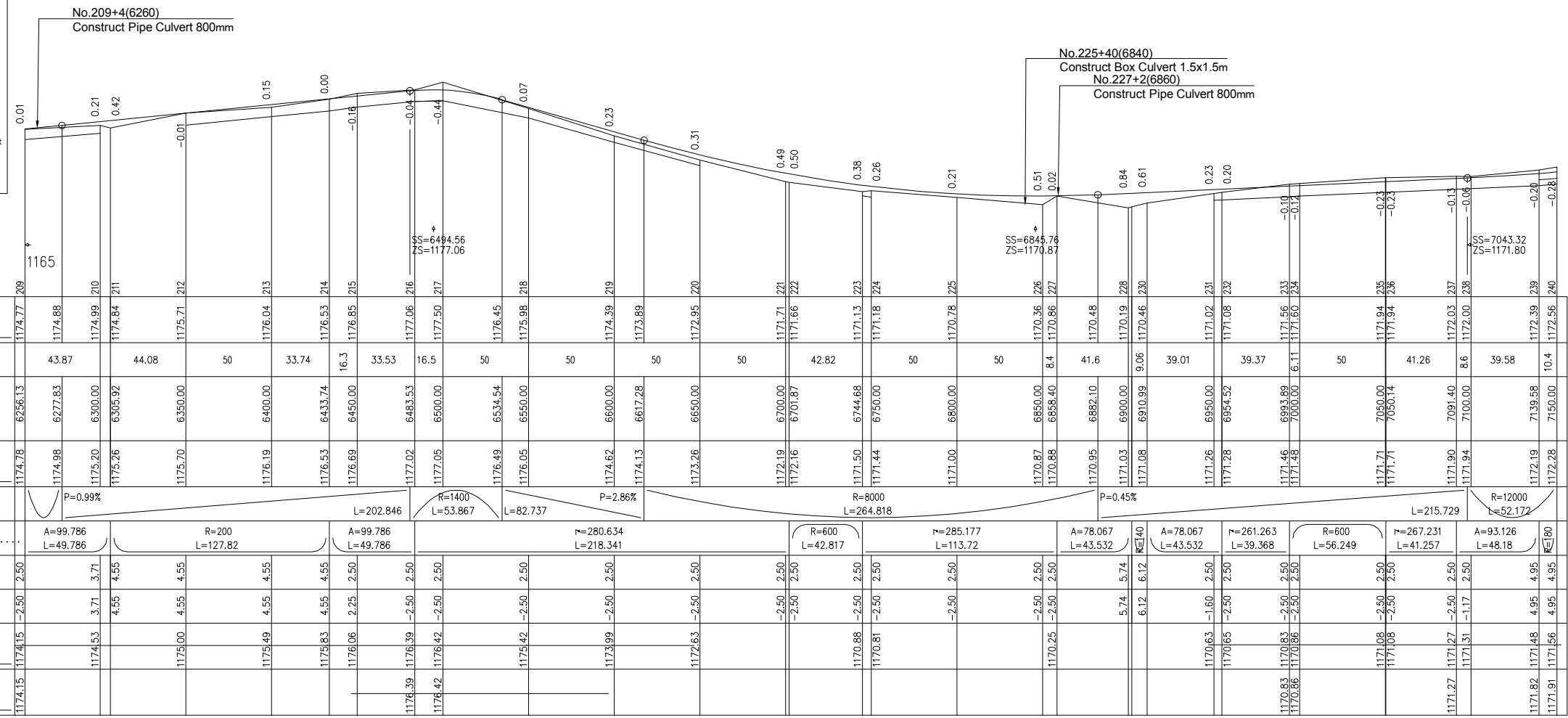
TR1.PIS



### LEGEND

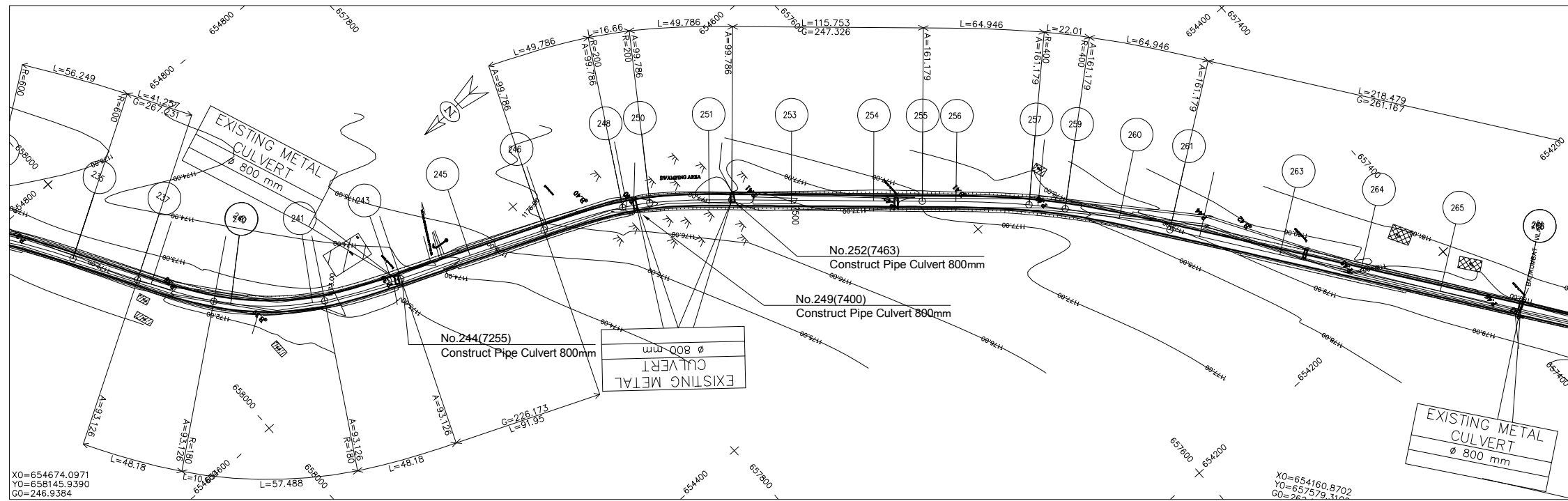
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	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
	Well		

SHEET 10/20  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN



LICENCE : 1109

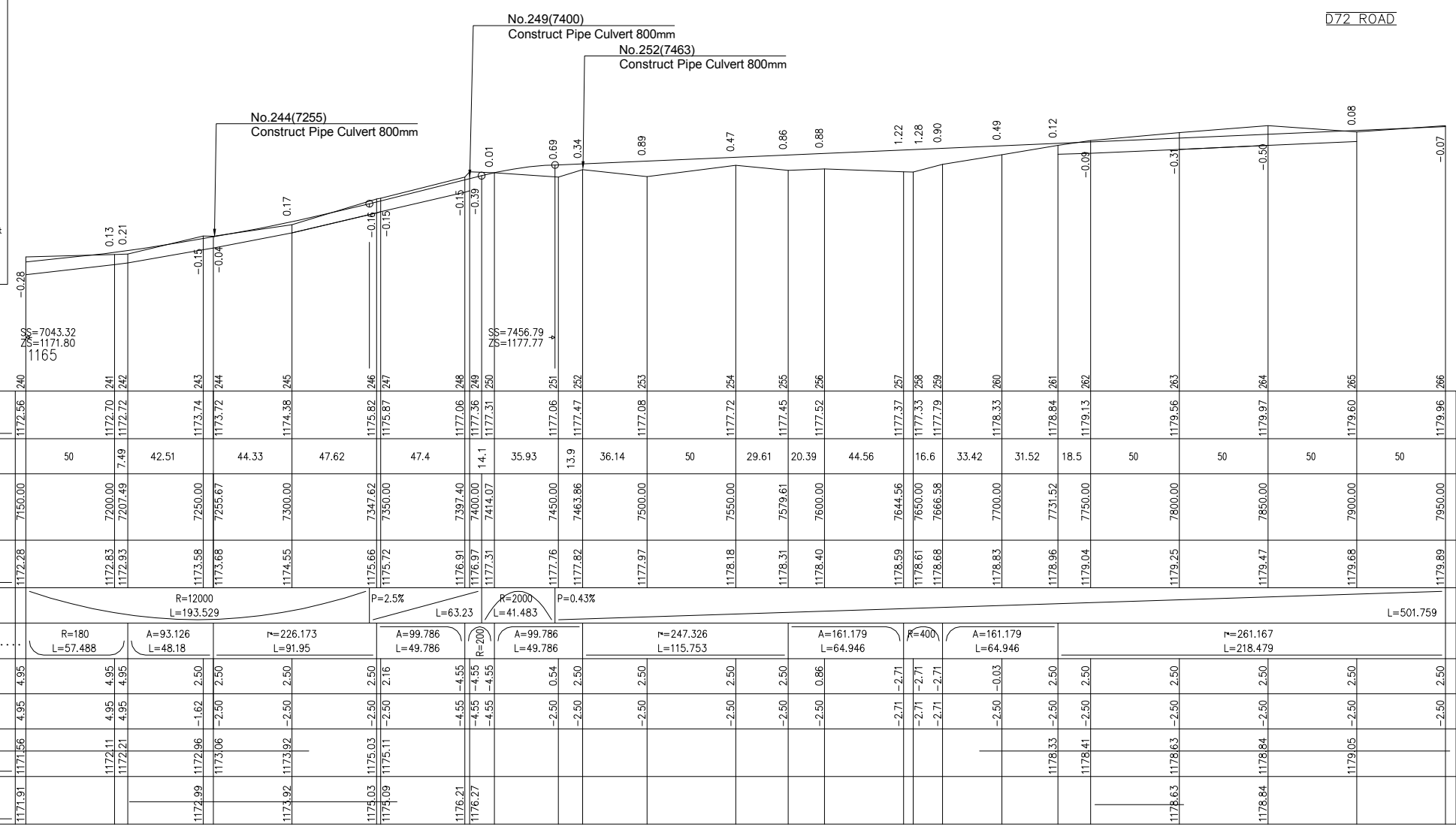
 <b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT		2- 10/20
	 <b>NTC INTERNATIONAL CO., LTD.</b>		DWG. TITLE	SCALE	APPROVED BY
		PLAN AND PROFILE NW1 10/20			



**LEGEND**

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 11/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

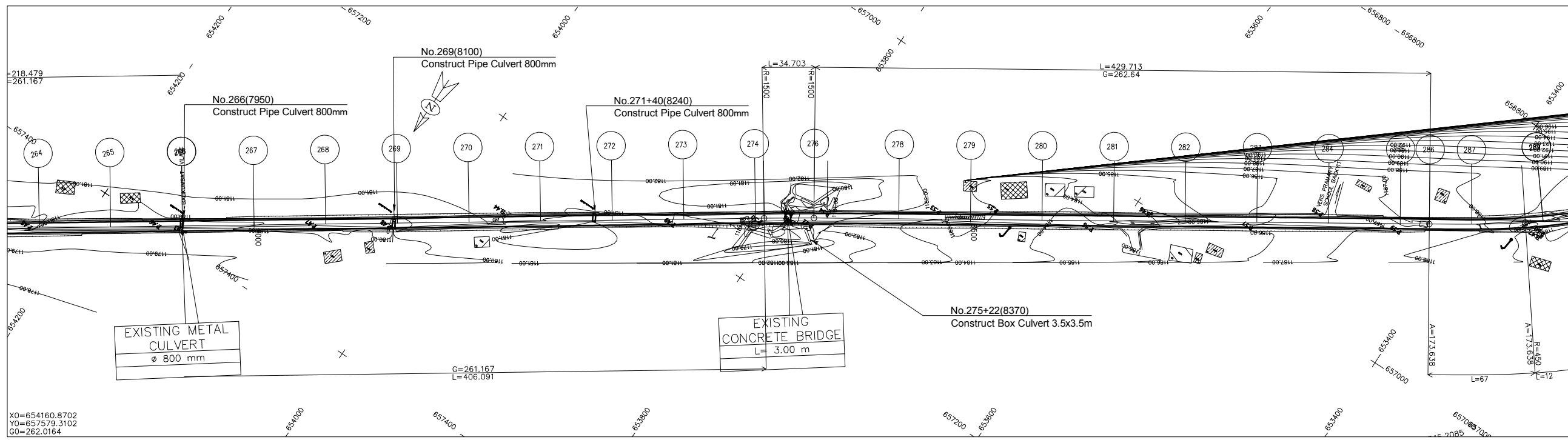


LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 11/20
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW1 11/20	SCALE	APPROVED BY	SERIAL NO.

A-103

TR1.PIS

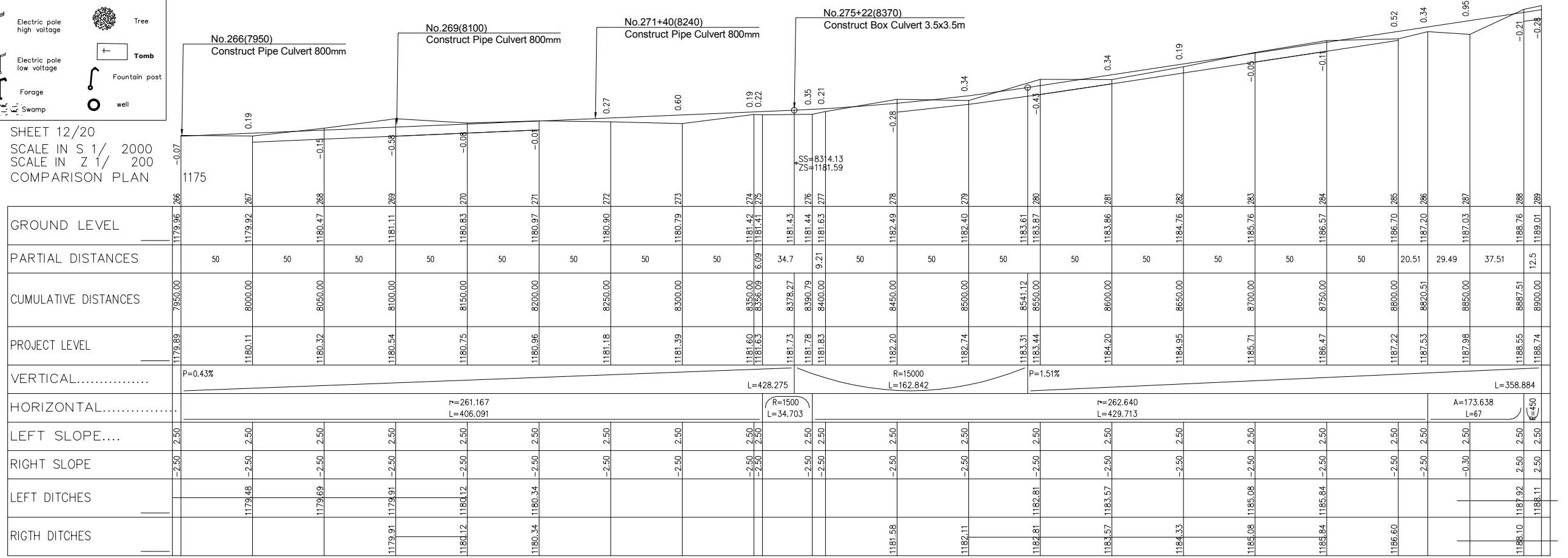


X0=654160.8702  
Y0=657579.3102  
G0=262.0164

**LEGEND**

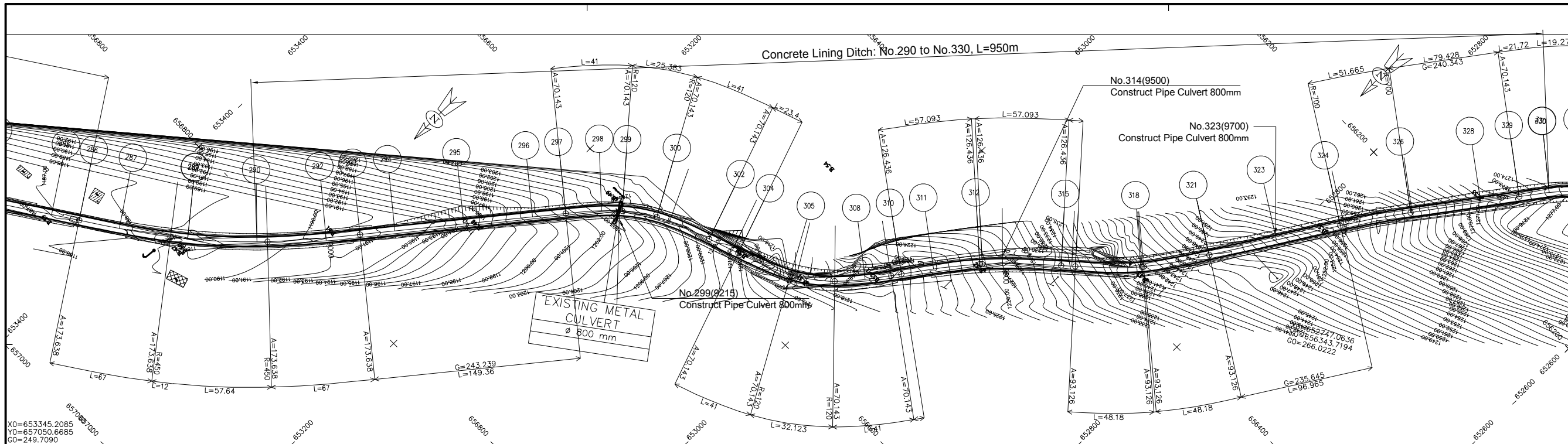
	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		

SHEET 12/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 12/20
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW1 12/20	SCALE	APPROVED BY	SERIAL NO.



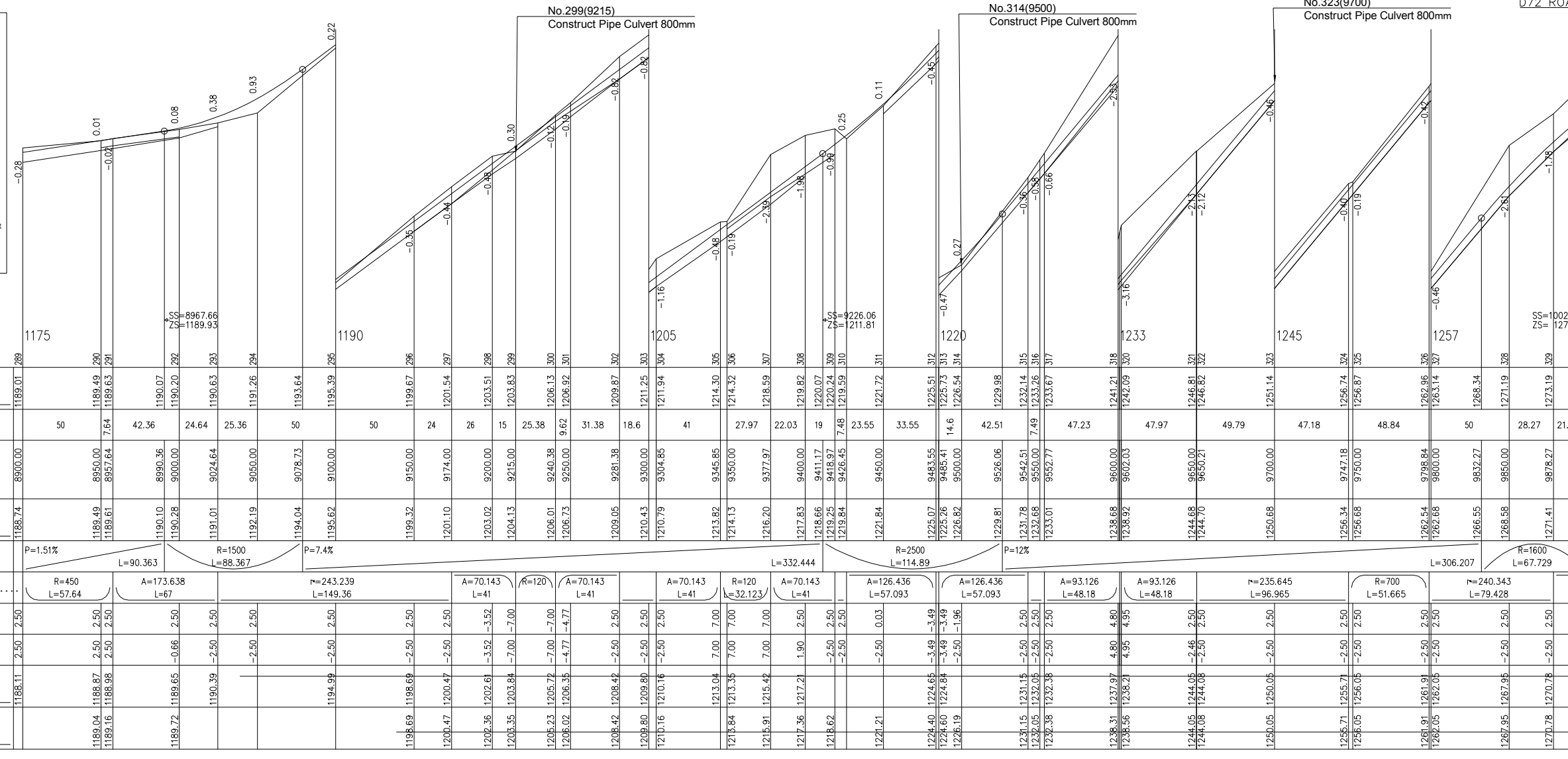
X0=653345.2085  
 Y0=657050.6685  
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ECHELLE 1/2000

**LEGEND**

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 13/20  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN



LICENCE : 1109

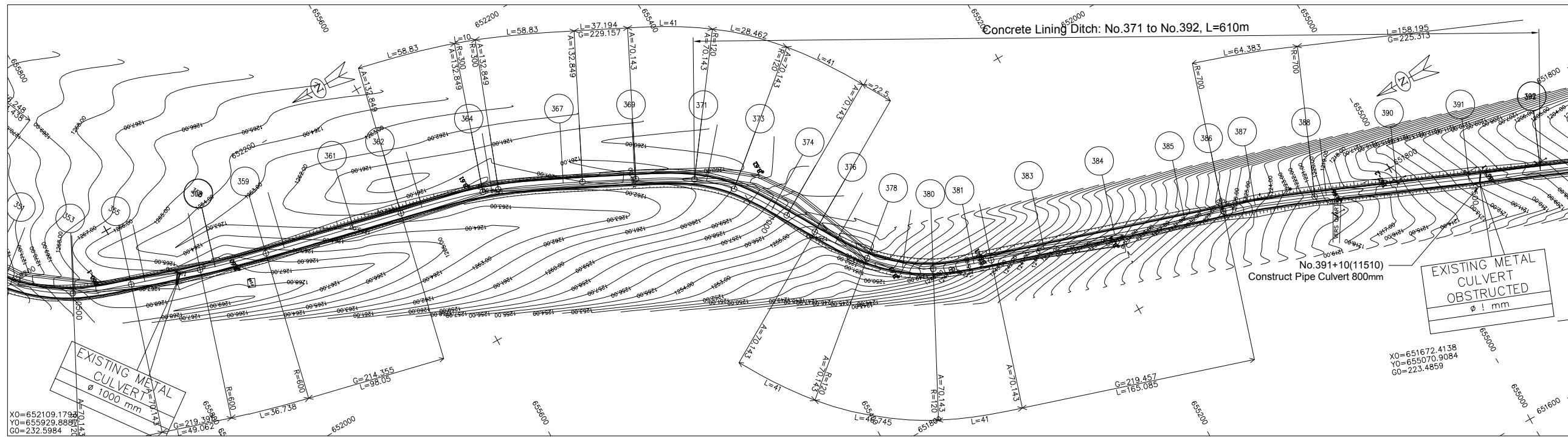
TR1.PIS

A-105

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 13/20
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE NW1 13/20			







ECHELLE 1/2000

- LEGEND**
- GPS REFERENCED BENCH MARK
  - SECONDARY BENCH MARK
  - Telephone
  - Electric pole high voltage
  - Electric pole low voltage
  - Forge
  - Swamp
  - solid construction
  - semi permanent construction
  - Local construction
  - Hangar
  - Tree
  - Tomb
  - Fountain post
  - well

SHEET 15/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



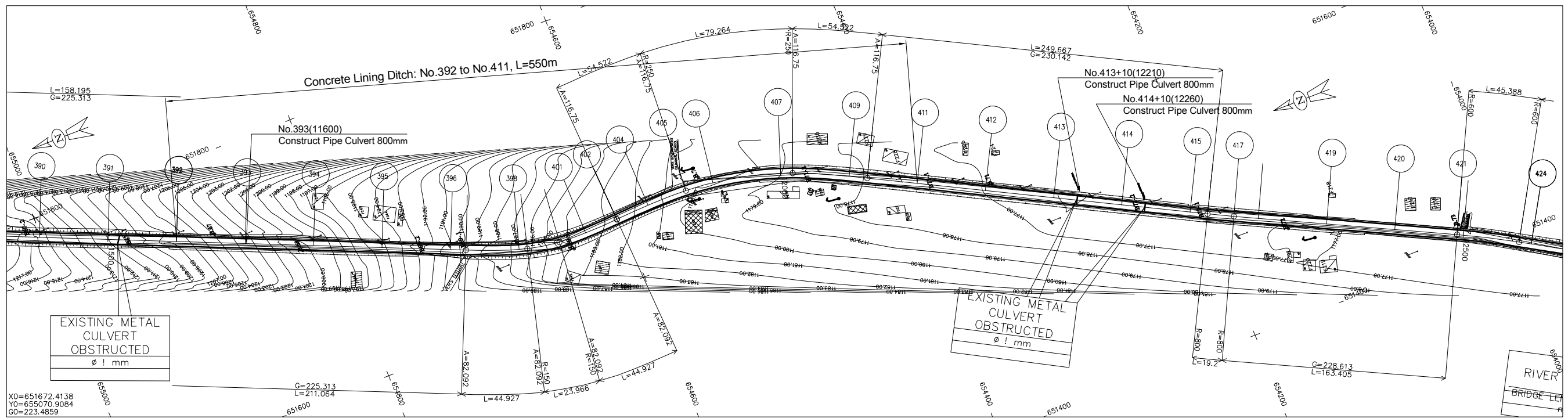
No.391+10(11510)  
Construct Pipe Culvert 800mm

D72 ROAD

TR1.P1S

LICENCE : 1109

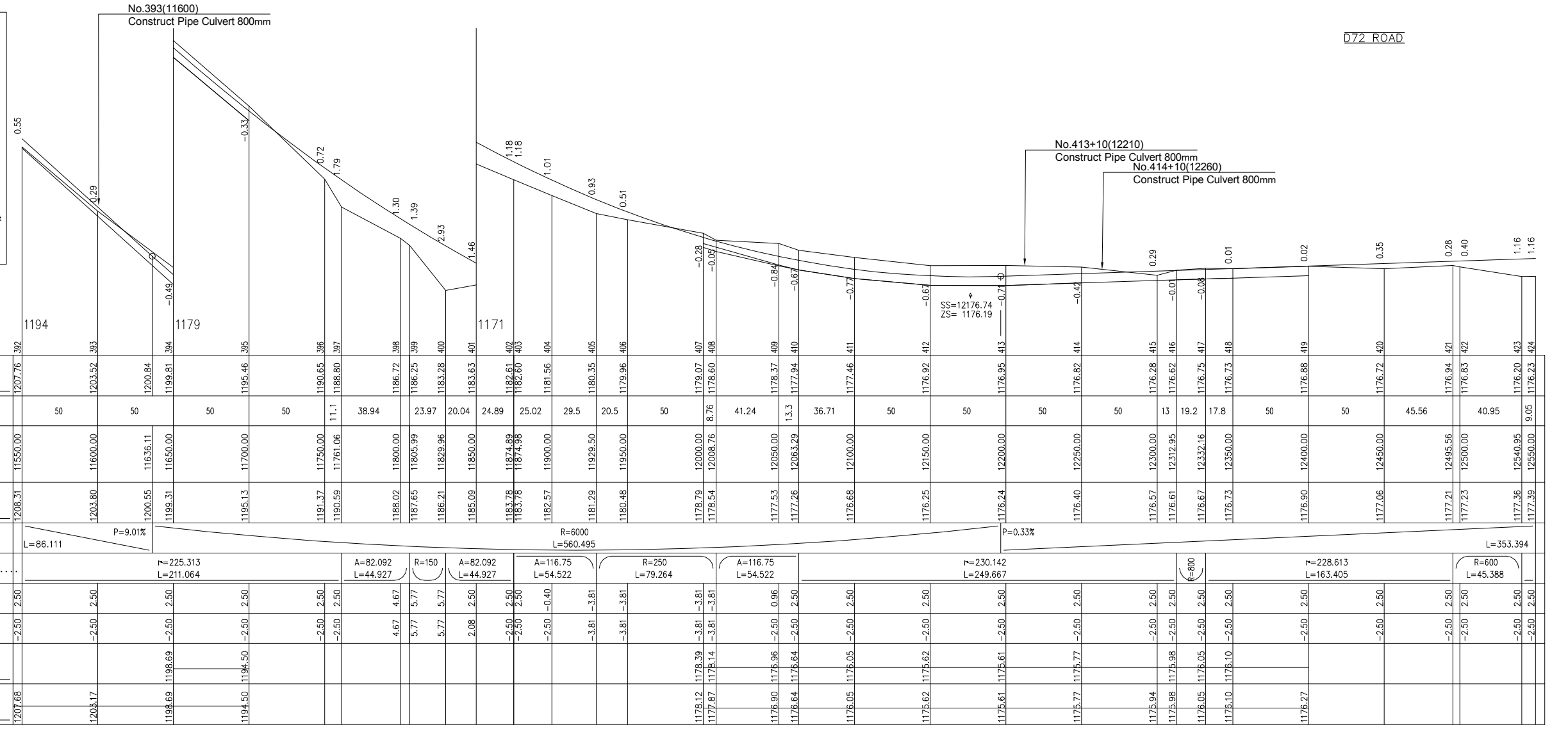
	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 15/20
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE NW1 15/20			



ECHELLE 1/2000

- LEGEND**
- GPS REFERENCED BENCH MARK
  - SECONDARY BENCH MARK
  - Telephone
  - Electric pole high voltage
  - Electric pole low voltage
  - Forge
  - Swamp
  - solid construction
  - semi permanent construction
  - Local construction
  - Hangar
  - Tree
  - Tomb
  - Fountain post
  - well

SHEET 16/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

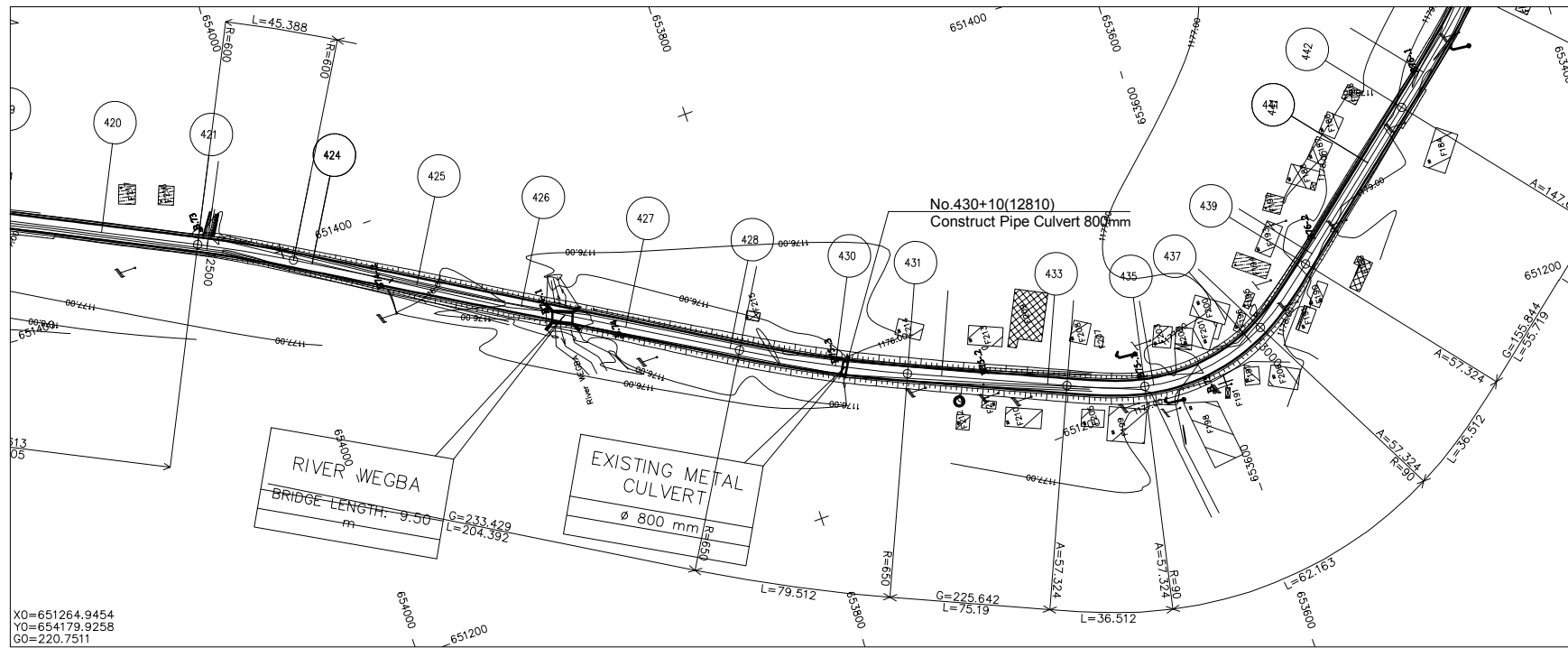


LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 16/20
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE NW1 16/20			

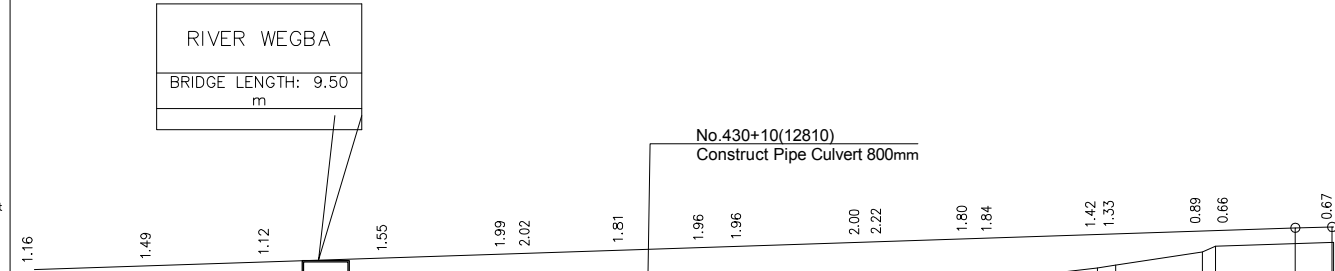
A-108

TR1.PIS



LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well



SHEET 17/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	1176.23	1176.42	1176.61	1176.80	1177.00	1177.20	1177.40	1177.60	1177.80	1178.00	1178.20	1178.40	1178.60	1178.80	1179.00	1179.20	1179.40	1179.60	1179.80	1180.00								
PARTIAL DISTANCES		50	50	50	50	45.61	33.9	16.1	50	9.09	36.51	50	36.51	50	36.51	50												
CUMULATIVE DISTANCES	12550.00	12600.00	12650.00	12700.00	12750.00	12795.61	12830.00	12846.11	12896.00	12905.09	12941.60	12991.60	13028.11	13078.11	13114.60	13164.60	13214.60	13264.60	13314.60	13364.60								
PROJECT LEVEL	1177.39	1177.56	1177.73	1177.89	1178.06	1178.22	1178.33	1178.39	1178.55	1178.58	1178.70	1178.72	1178.88	1178.91	1179.03	1179.05	1179.16	1179.21	1179.21	1179.21								
VERTICAL.....	P=0.33%																											
HORIZONTAL.....	T=233.429 L=204.392				R=650 L=79.512				T=225.642 L=75.19				A=57.324 L=36.512				R=90 L=62.163				A=57.324 L=36.512				T=155.844 L=55.719			
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50								
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50								
LEFT DITCHES																												
RIGTH DITCHES																												

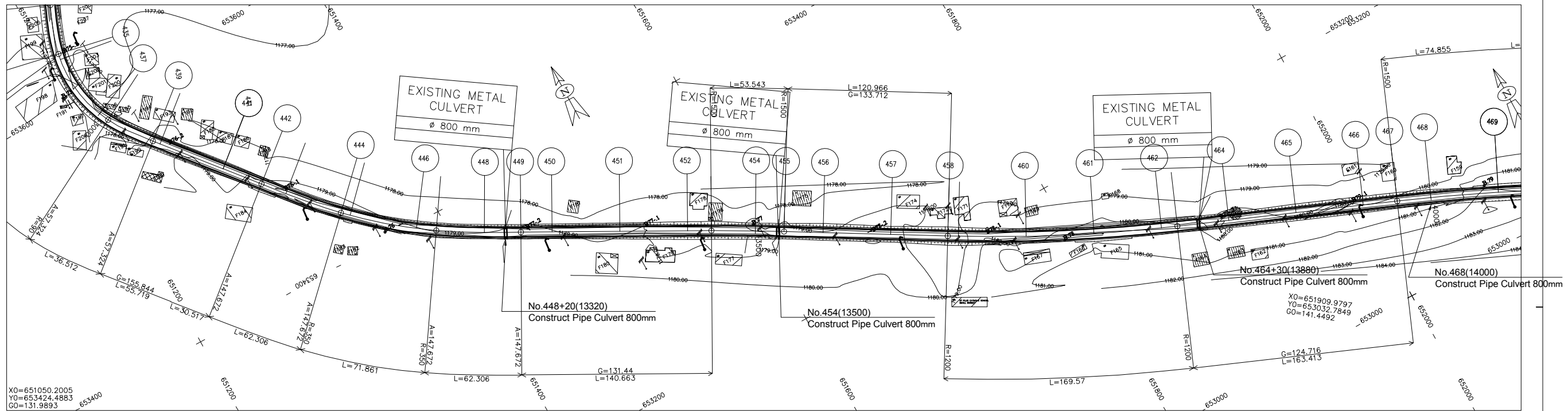
LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
 NTC INTERNATIONAL CO., LTD.

REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 17/20
	DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
	PLAN AND PROFILE NW1 17/20			

A-109

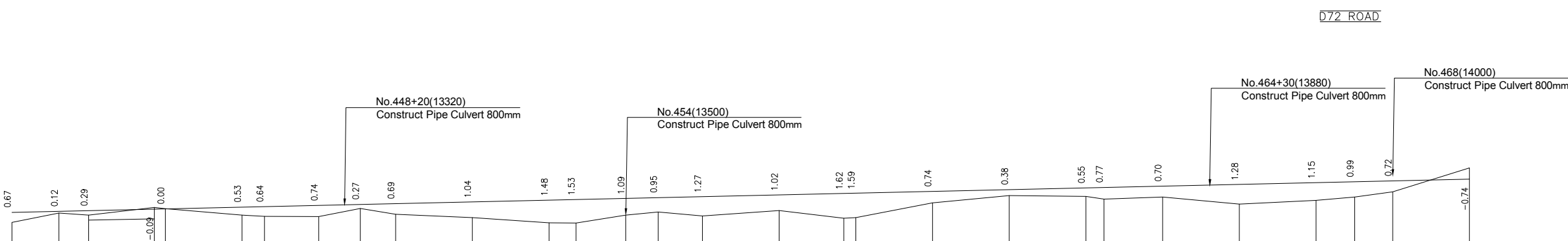
TR1.PIS



**LEGEND**

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		

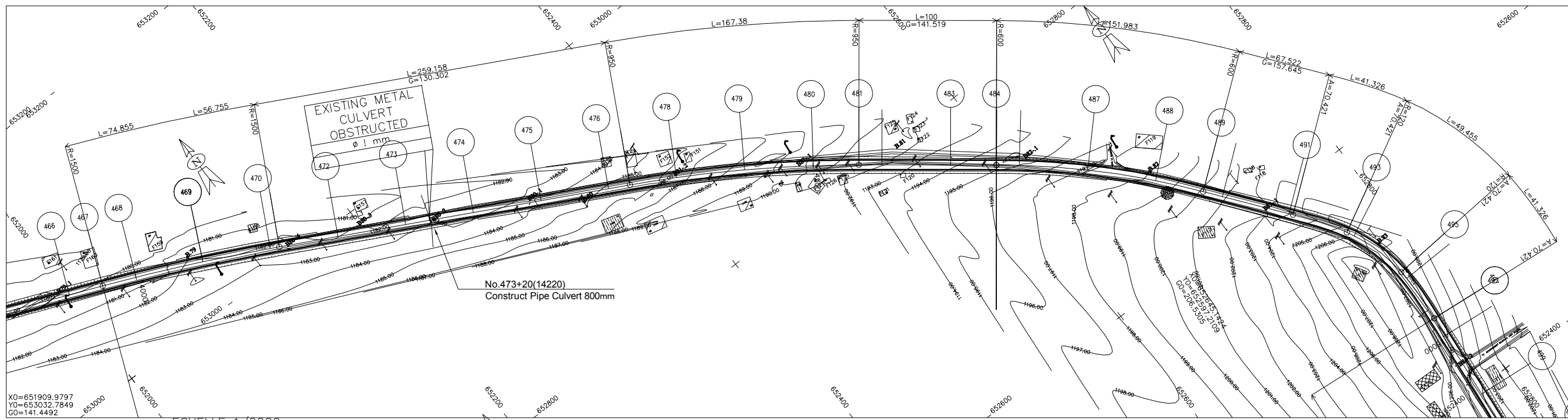
SHEET 18/20  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN



GROUND LEVEL	1178.53	1179.16	1179.03	1179.51	1179.43	1179.02	1178.94	1178.92	1179.45	1179.08	1178.85	1178.52	1178.51	1179.03	1179.22	1178.96	1179.83	1180.31	1180.25	1180.05	1180.21	1179.74	1179.99	1180.21	1180.54	1182.10		
PARTIAL DISTANCES	30.52	19.5	42.82	50	14.7	35.32	26.99	23.01	50	50	17.7	32.35	21.2	28.8	50	42.16	50	50	11.7	38.27	50	50	25.14	24.86	50			
CUMULATIVE DISTANCES	13100.00	13130.52	13150.00	13192.82	13200.00	13250.00	13264.68	13300.00	13326.99	13350.00	13400.00	13450.00	13467.65	13500.00	13521.20	13550.00	13700.00	13750.00	13800.00	13811.73	13850.00	13900.00	13950.00	13975.14	14000.00	14050.00		
PROJECT LEVEL	1179.21	1179.28	1179.32	1179.42	1179.43	1179.55	1179.58	1179.66	1179.72	1179.78	1179.89	1180.00	1180.04	1180.12	1180.16	1180.23	1180.57	1180.69	1180.80	1180.83	1180.91	1181.03	1181.14	1181.20	1181.25	1181.37		
VERTICAL.....	P=0.23%																											
HORIZONTAL.....	L=30.517			A=147.672 L=62.306		R=350 L=71.861		A=147.672 L=62.306		r=131.440 L=140.663		R=1500 L=53.543		r=133.712 L=120.966		R=1200 L=169.57			r=124.716 L=163.413		R=1500 L=74.855			L=950				
LEFT SLOPE....	2.50	2.50	2.50	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50		
RIGHT SLOPE	-2.50	-2.50	-0.79	2.97	2.97	2.97	2.97	-0.13	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50		
LEFT DITCHES			1178.69	1178.77																								
RIGTH DITCHES	1178.65			1179.00													1180.06									1180.74		

LICENCE : 1109

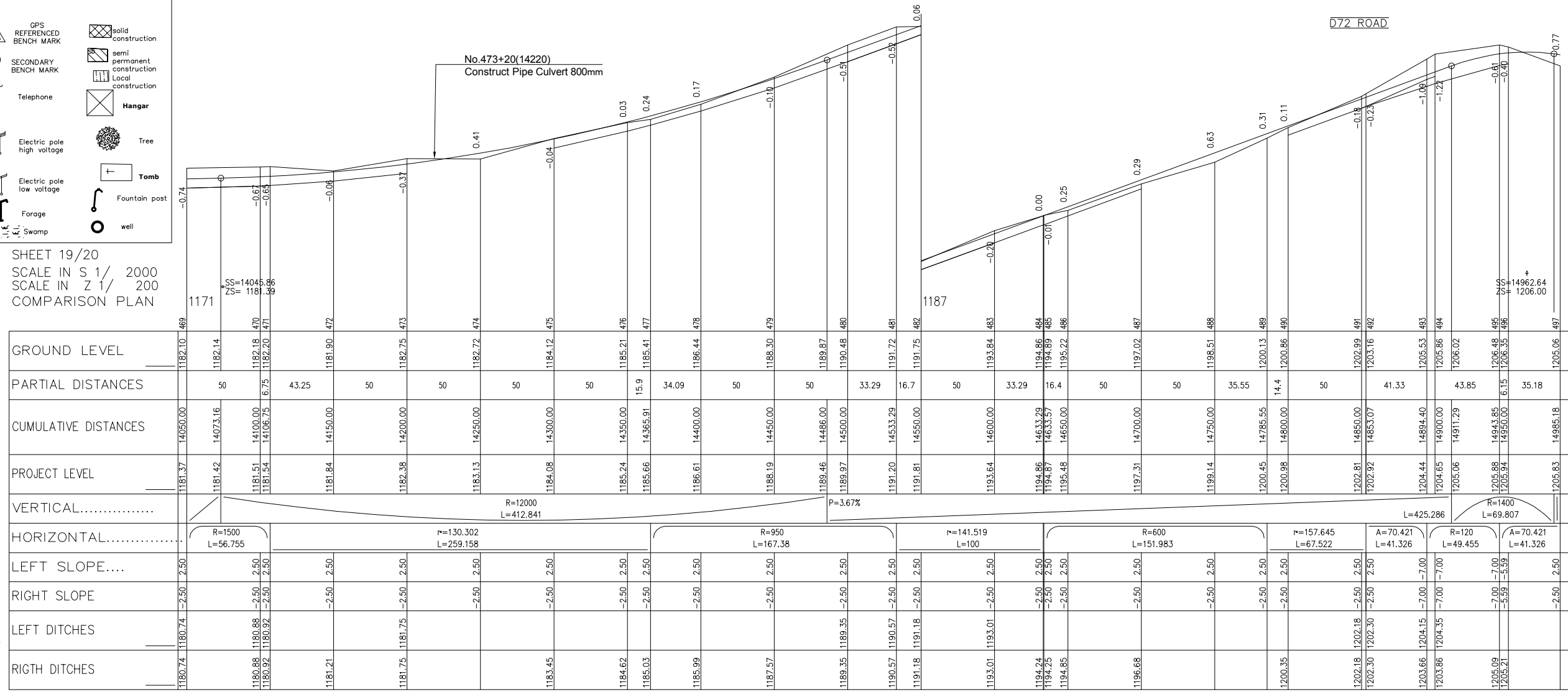
	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 18/20
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE NW1 18/20			



ECHELLE 1/2000

- LEGEND**
- GPS REFERENCED BENCH MARK
  - SECONDARY BENCH MARK
  - Telephone
  - Electric pole high voltage
  - Electric pole low voltage
  - Forage
  - Swamp
  - solid construction
  - semi permanent construction
  - Local construction
  - Hangar
  - Tree
  - Tomb
  - Fountain post
  - well

SHEET 19/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

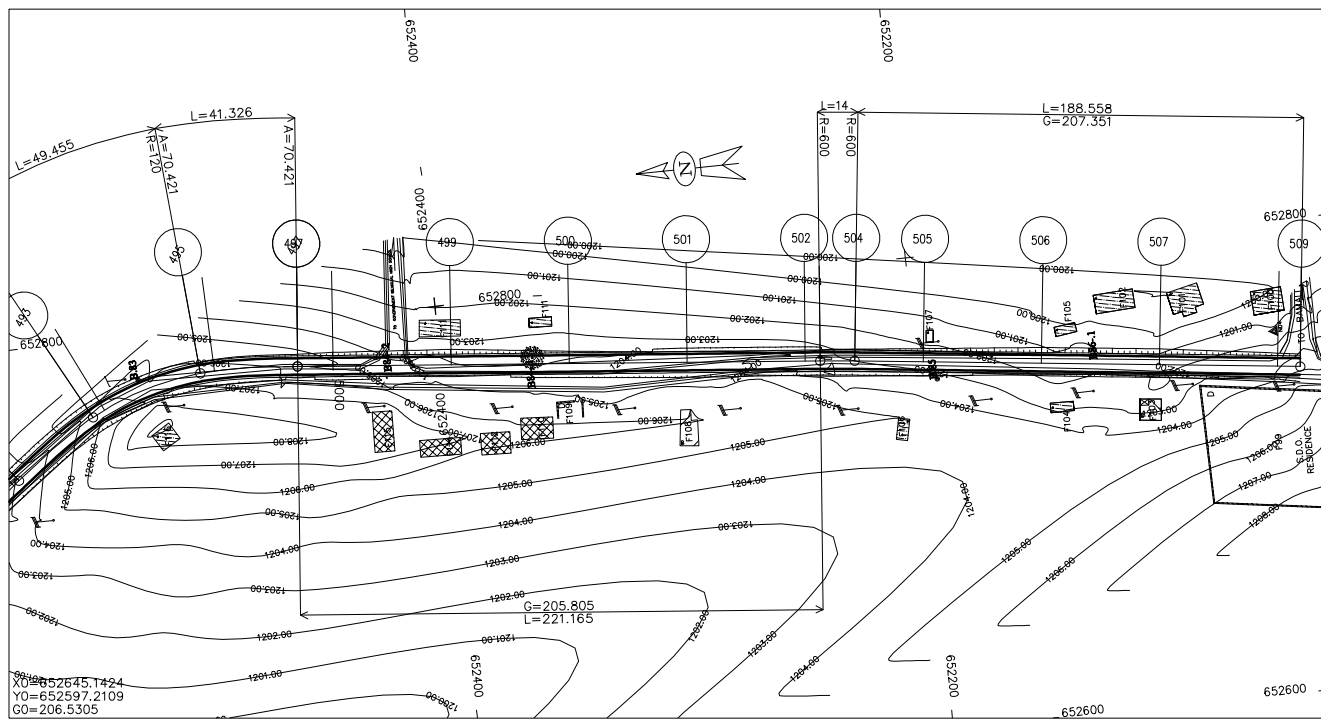


LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 19/20
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW1 19/20	SCALE	APPROVED BY	SERIAL NO.

A-111

TR1.PIS



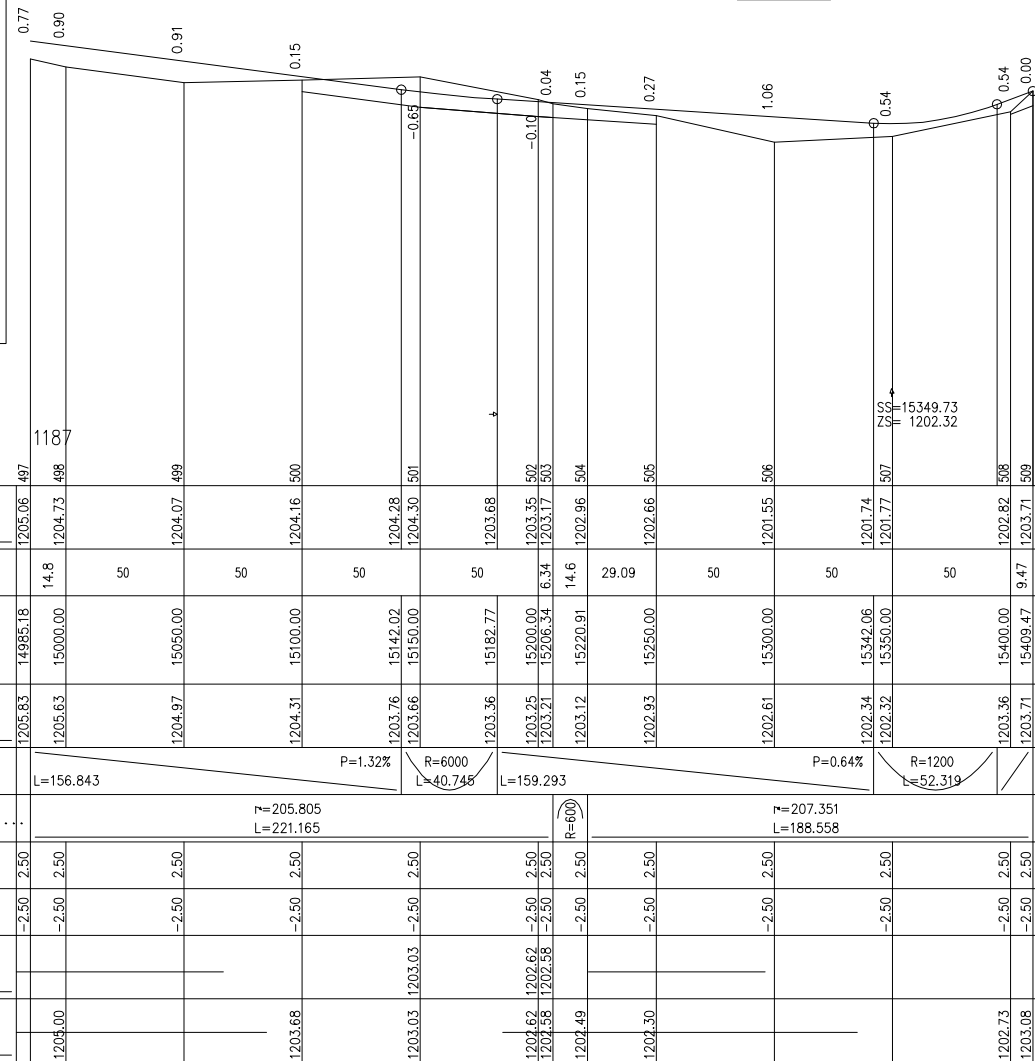
ECHELLE 1/2000

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			well

SHEET 20/20  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

D72 ROAD



GROUND LEVEL	1205.06	1204.73	1204.07	1204.16	1204.28	1204.30	1203.68	1203.35	1203.17	1202.96	1202.66	1201.55	1201.74	1201.77	1202.82	1203.71
PARTIAL DISTANCES	14.8	50	50	50	50	6.34	14.6	29.09	50	50	50	9.47				
CUMULATIVE DISTANCES	14985.18	15000.00	15050.00	15100.00	15142.02	15150.00	15182.77	15200.00	15206.34	15220.91	15250.00	15300.00	15342.06	15350.00	15400.00	15409.47
PROJECT LEVEL	1205.83	1205.63	1204.97	1204.31	1203.76	1203.66	1203.36	1203.25	1203.21	1203.12	1202.93	1202.61	1202.34	1202.32	1203.36	1203.71
VERTICAL.....	L=156.843		P=1.32% R=6000 L=40.748				L=159.293		P=0.64% R=1200 L=52.319							
HORIZONTAL.....	G=205.805 L=221.165															
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES																
RIGTH DITCHES	1205.00			1203.68	1203.03	1203.03		1202.62	1202.58	1202.49	1202.30		1202.73	1203.08		

LICENCE : 1109

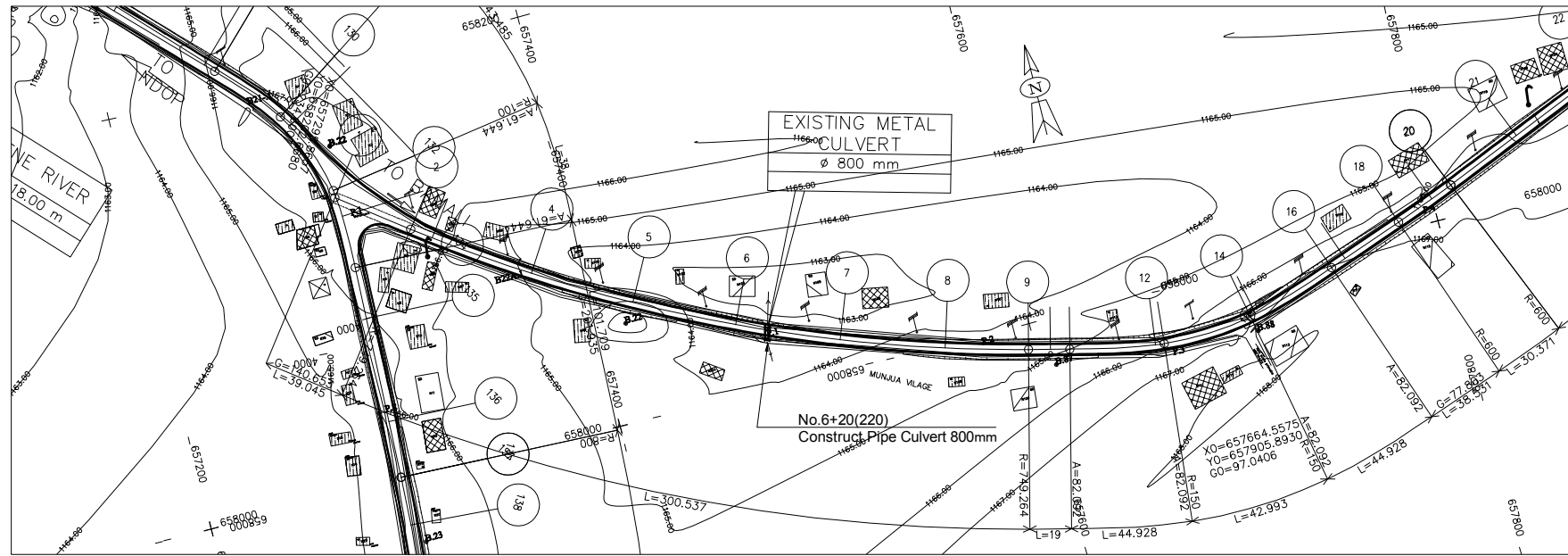
MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			2- 20/20
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE NW1 20/20			

A-112

TR1.PIS

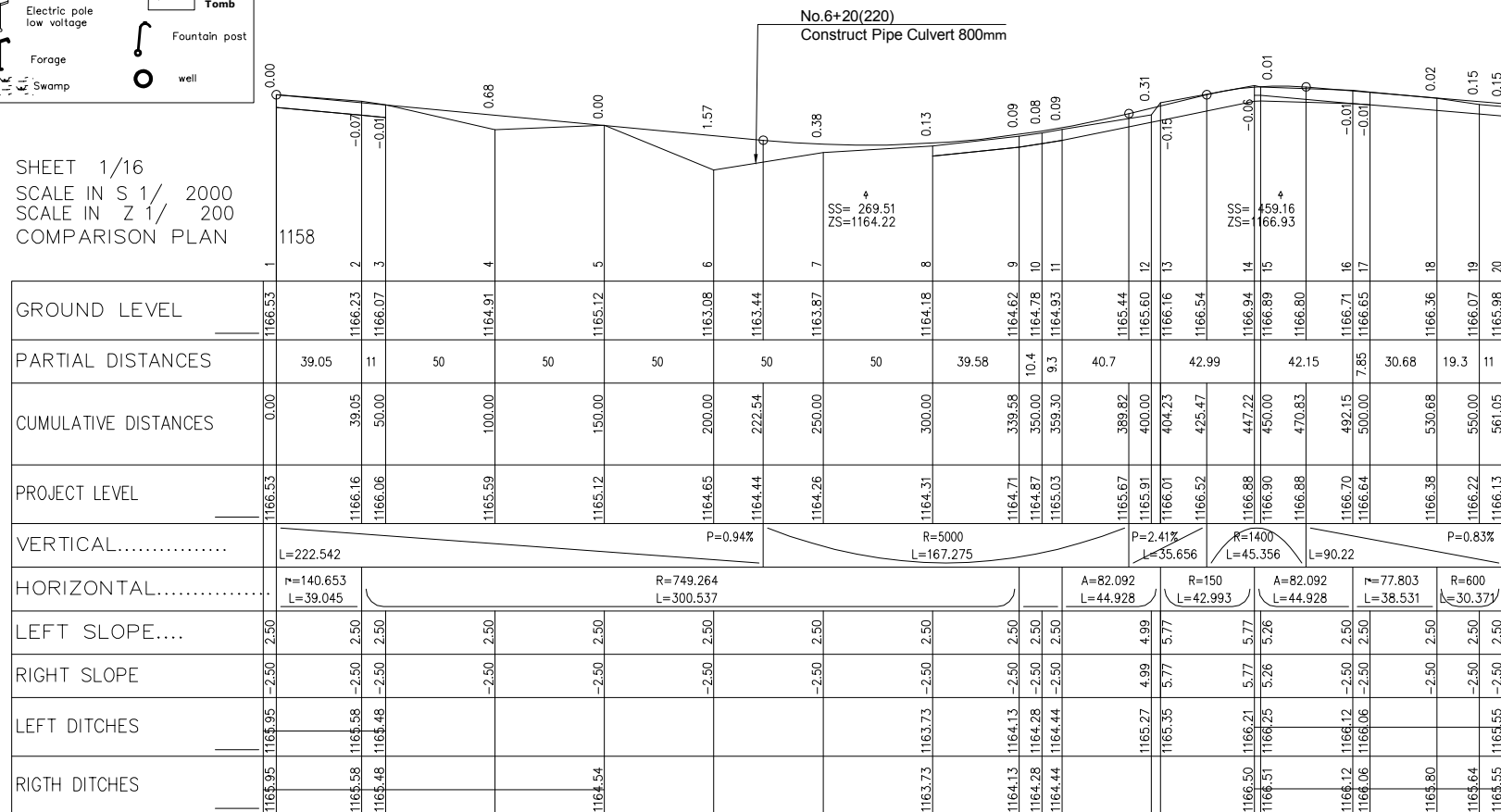


LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
	Well		

ROAD NW2

SHEET 1/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



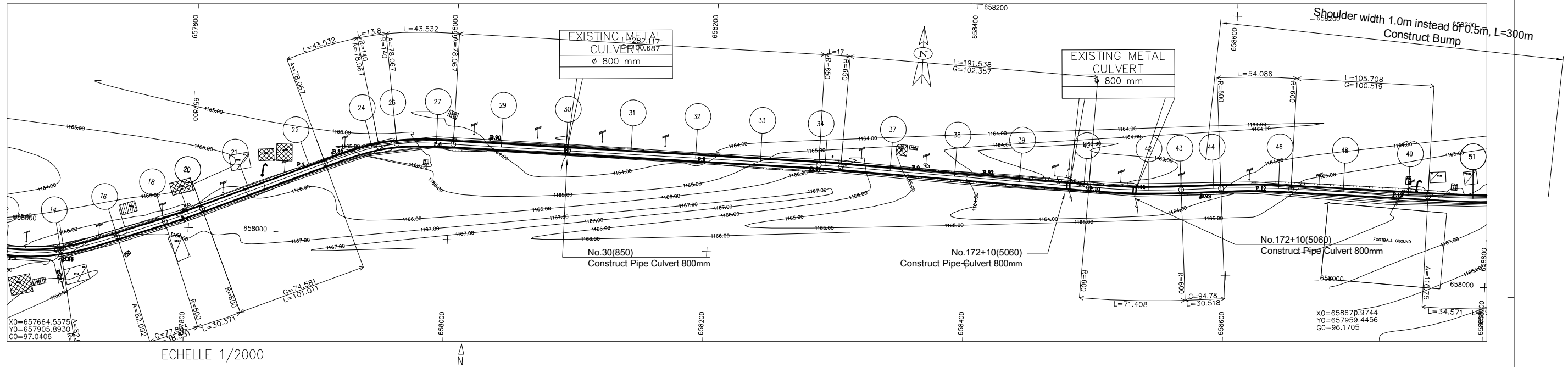
NW2.PIS

LICENCE : 1109

**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

REVISION

PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-1/16
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE NW2 1/16			



ECHELLE 1/2000

ROAD NW2

LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- Solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 2/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	1165.98	1165.66	1165.19	1165.09	1164.82	1164.83	1164.67	1164.15	1164.45	1163.86	1163.63	1163.59	1163.48	1165.04	1165.18	1165.82	1165.73	1165.69	1165.51	1164.90	1164.41	1163.99	1163.96	1163.66	1163.73	1163.83	1163.99	1164.06	1164.22	1164.61	1164.73	1165.25	1165.33	1166.07	1166.40	1166.58
PARTIAL DISTANCES	38.95	50	12.1	37.94	13.9	30.53	13	37	50	50	50	50	45.12	12.2	37.83	50	50	50	46.29	25.12	24.88	44.36	9.72	40.28	50	24.62	25.38									
CUMULATIVE DISTANCES	561.05	600.00	650.00	662.06	700.00	705.59	719.47	750.00	763.00	800.00	850.00	900.00	950.00	1000.00	1008.48	1045.12	1050.00	1062.17	1064.86	1100.00	1150.00	1250.00	1253.71	1300.00	1325.12	1350.00	1355.64	1369.64	1400.00	1409.72	1450.00	1500.00	1524.62	1550.00		
PROJECT LEVEL	1166.13	1165.80	1165.39	1165.29	1164.97	1164.92	1164.81	1164.55	1164.45	1164.14	1163.72	1163.65	1163.52	1163.92	1164.96	1165.18	1165.72	1165.73	1165.69	1165.67	1164.00	1163.96	1163.77	1163.83	1164.01	1164.06	1164.22	1164.61	1164.73	1165.25	1165.33	1166.07	1166.20	1166.53		
VERTICAL.....	L=297.828		P=0.83%		R=4000 L=138.217		R=1600 L=56.387		L=184.9		P=0.9%		R=5500 L=119.88		P=1.28%		L=180.358																			
HORIZONTAL.....	r=74.581 L=101.011		A=78.067 L=43.532		r=140 L=101.011		A=78.067 L=43.532		r=100.687 L=282.117		r=160 L=56.387		r=102.357 L=191.538		R=600 L=71.408		r=94.780 L=30.518		R=600 L=54.086		r=100.519 L=114.902															
LEFT SLOPE....	2.50	2.50	2.50	2.50	-5.01	-6.12	-6.12	-2.50	-2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-5.01	-6.12	-6.12	-2.50	-2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
LEFT DITCHES	1165.55	1165.22	1164.33	1164.25	1163.86		1163.14	1162.93							1165.14	1165.15	1165.11																			
RIGH DITCHES	1165.55	1165.22	1164.33	1164.25	1163.86		1163.14	1162.93							1165.14	1165.15	1165.11																			

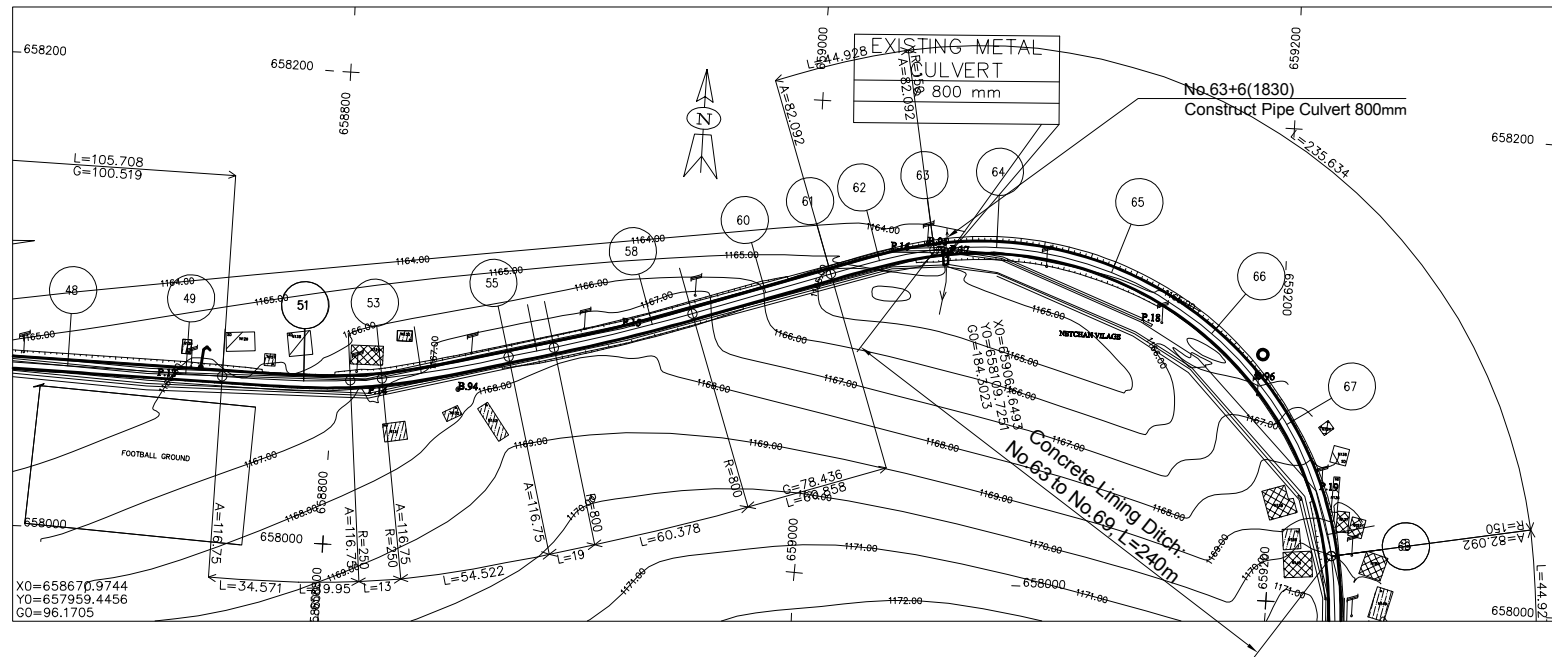
LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-2/16
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE NW2 2/16			

A-114

NW2.PIS



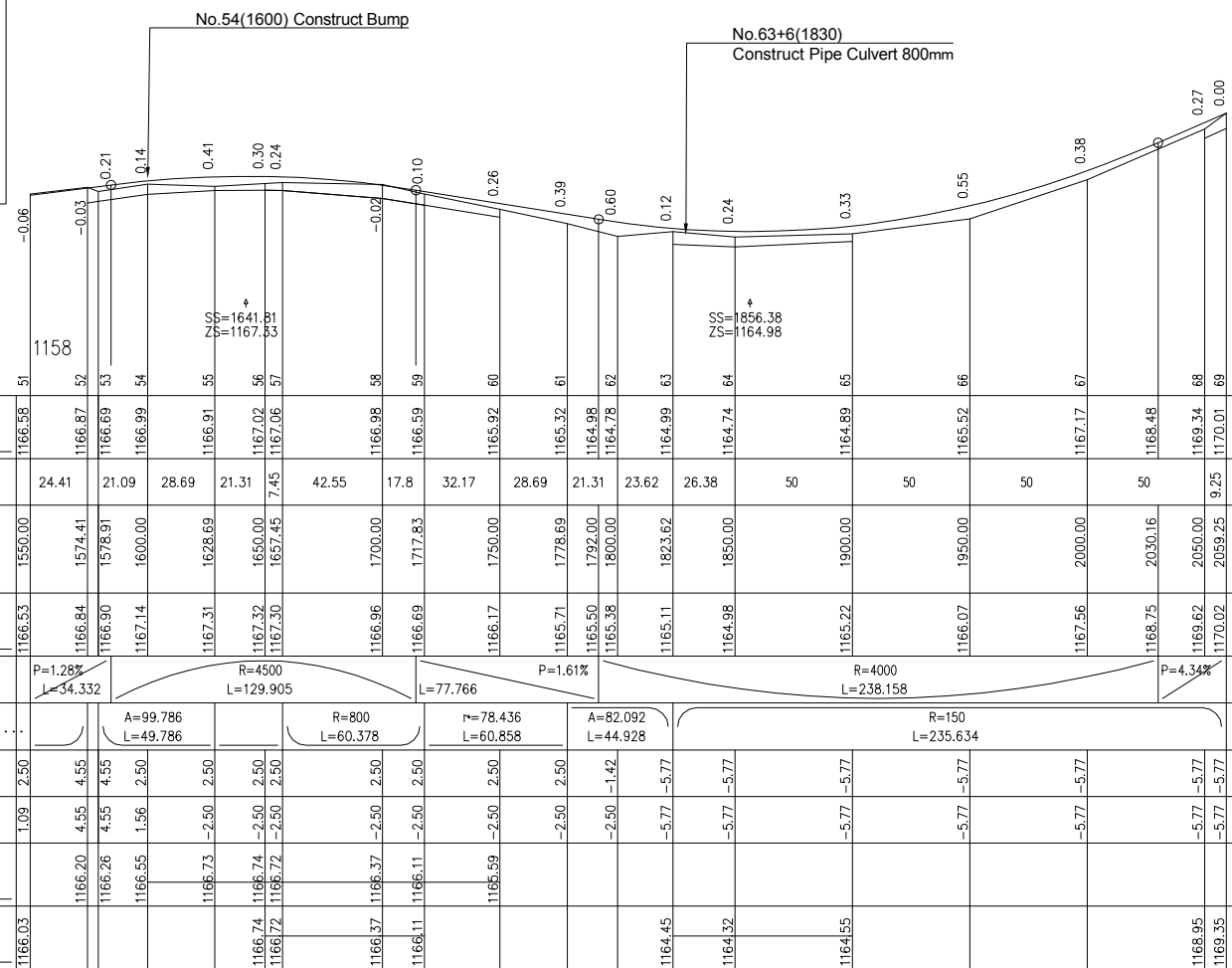


LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			well

ROAD NW2

SHEET 3/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

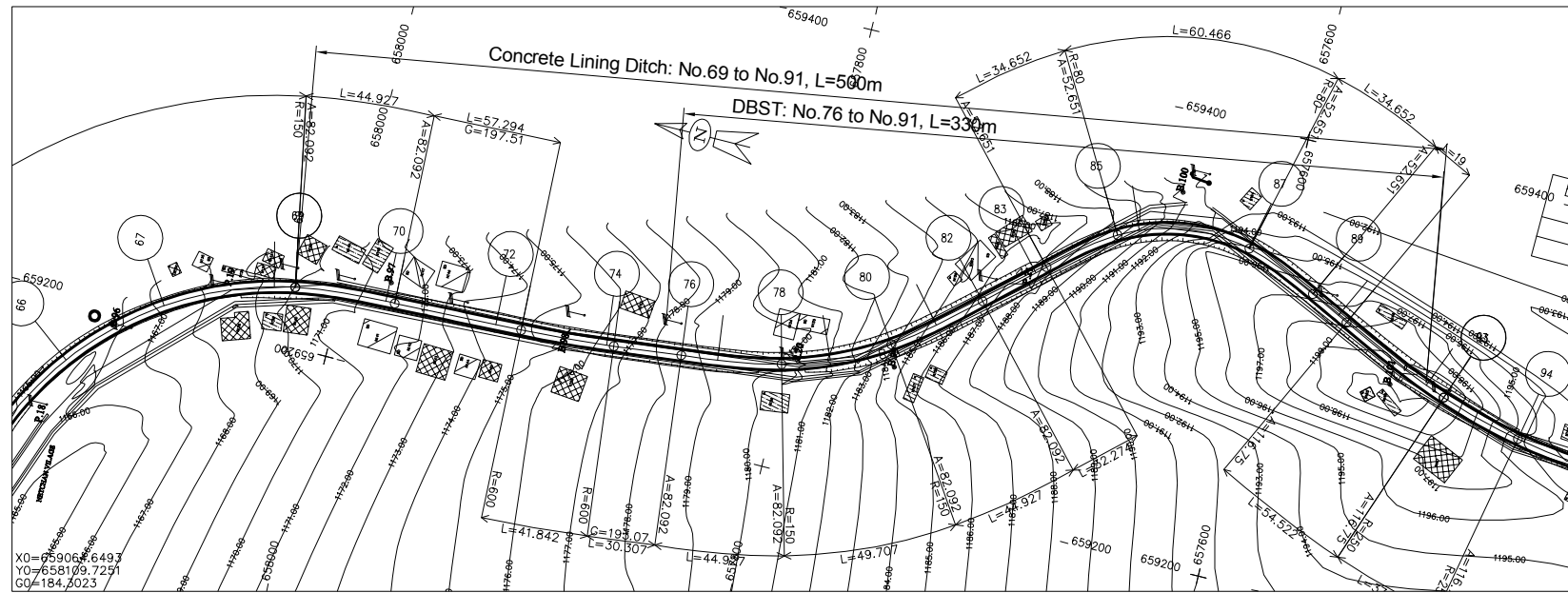


LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-3/16
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE NW2 3/16			

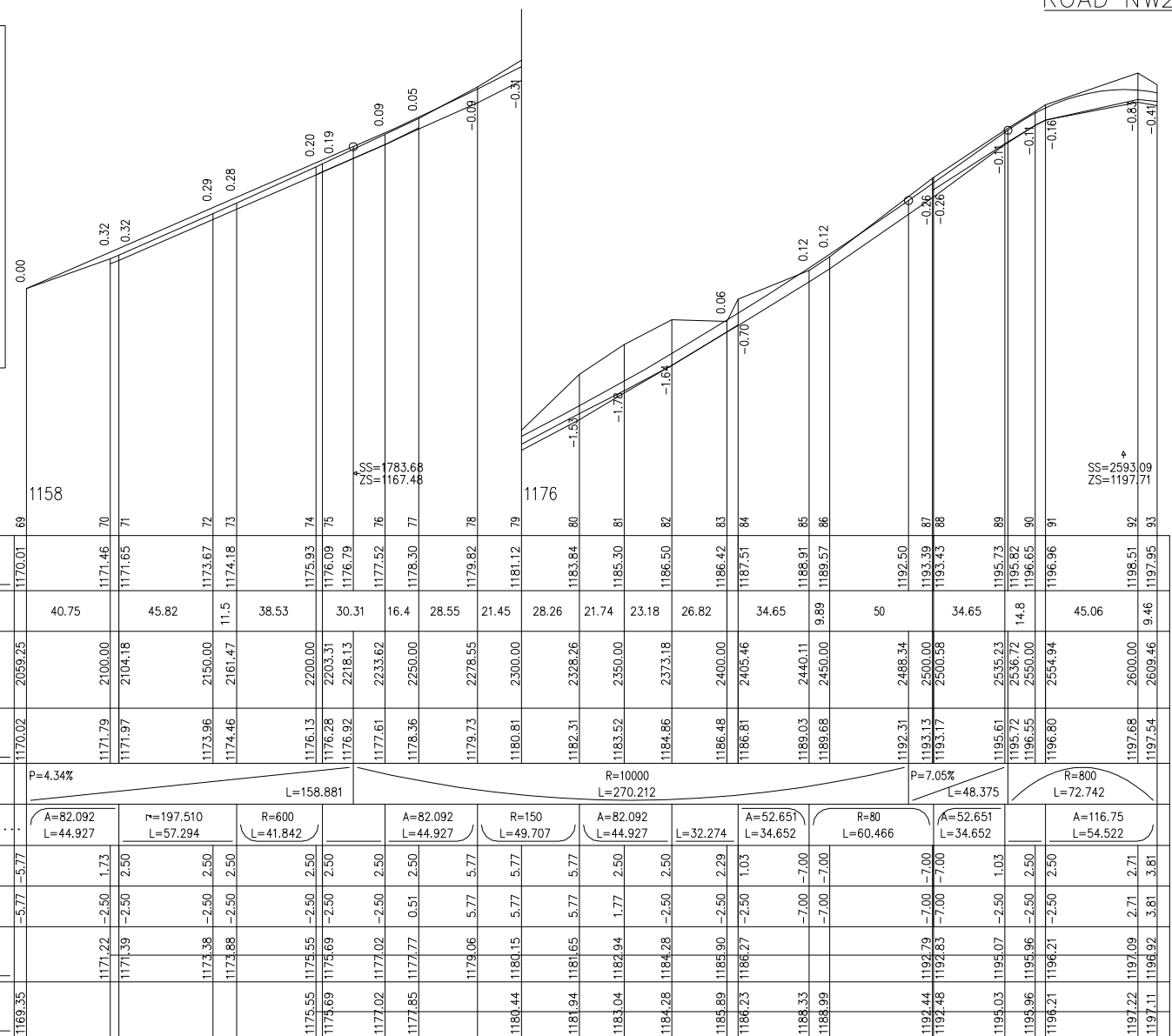


ECHELLE 1/2000

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			Well

SHEET 4/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



NW2.PIS

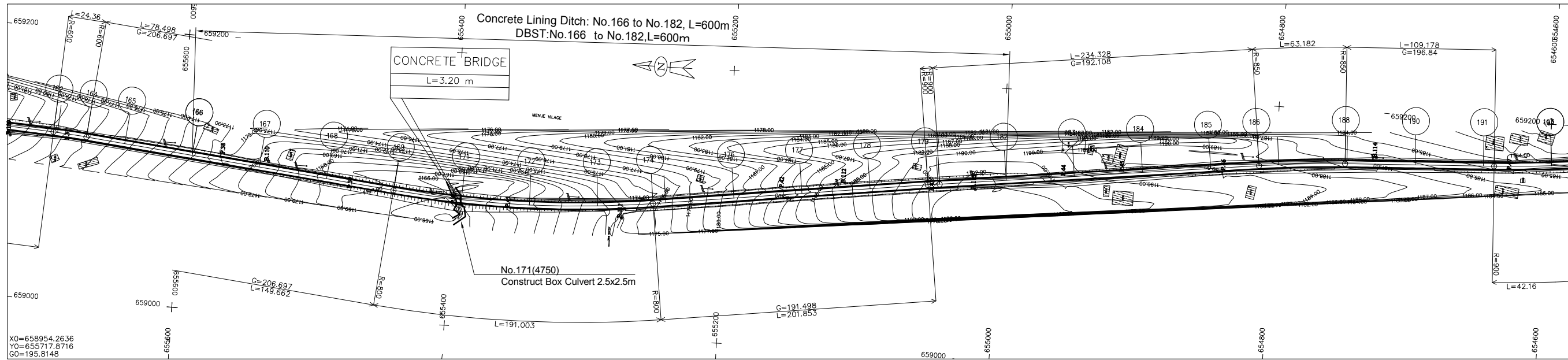
LICENCE : 1109

**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-4/16
	DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
	PLAN AND PROFILE NW2 4/16			





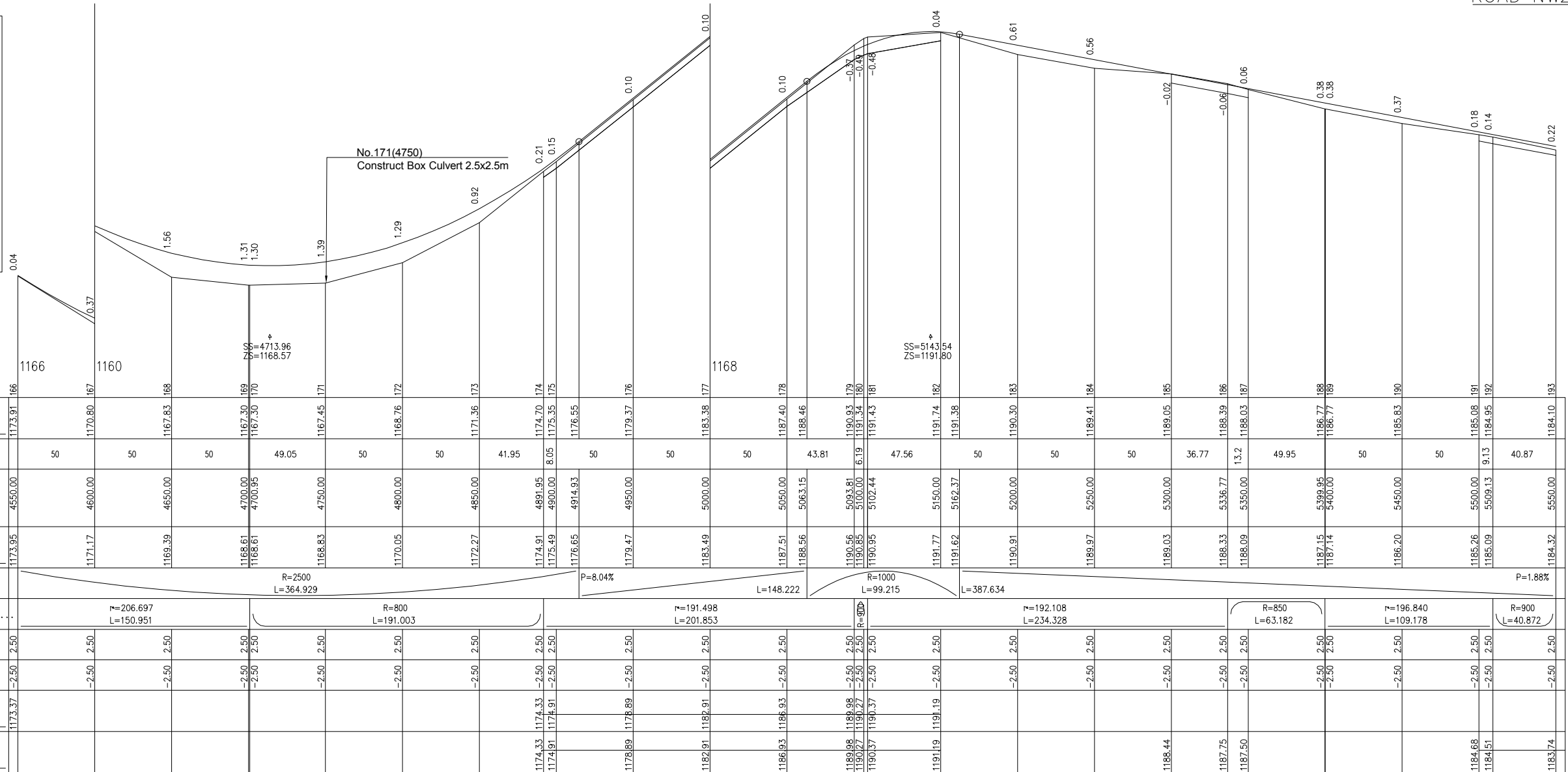


ECHELLE 1/2000

LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

ROAD NW2

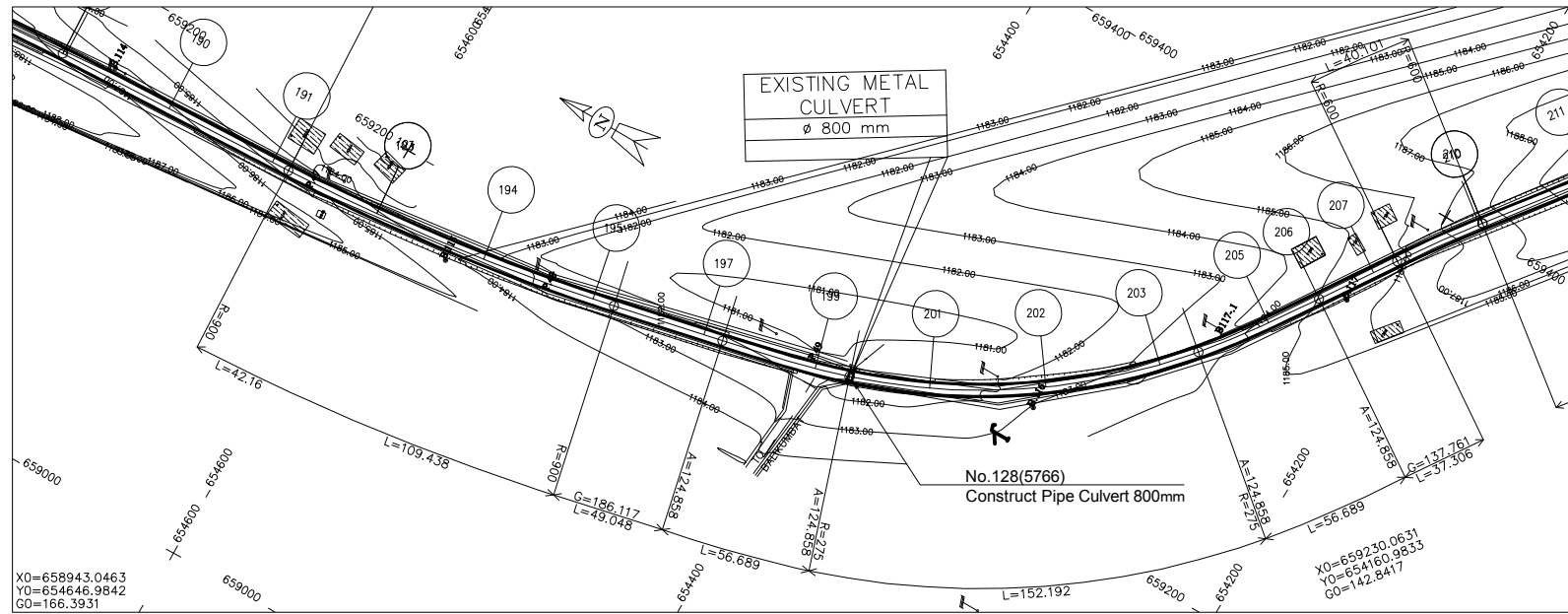


SHEET 7/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

NW2.PIS

LICENCE : 1109

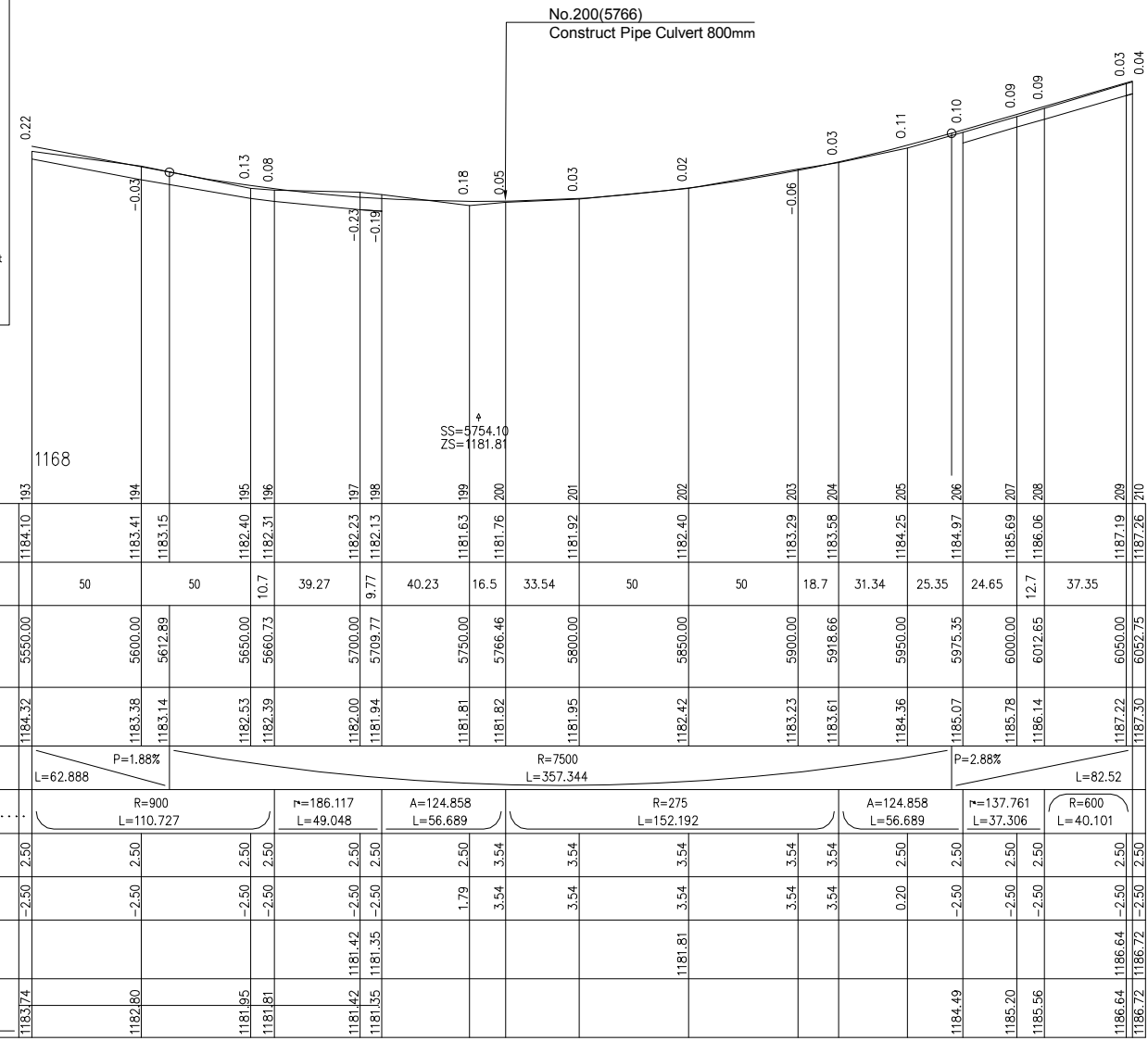
	<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	<b>JICA JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-7/16
	<b>NTC INTERNATIONAL CO., LTD.</b>		PLAN AND PROFILE NW2 7/16	SCALE	APPROVED BY	SERIAL NO.



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			Well

ROAD NW2



SHEET 8/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	1184.10	1183.41	1183.15	1182.40	1182.31	1182.00	1181.94	1181.81	1181.82	1181.95	1182.42	1183.23	1183.61	1184.36	1185.07	1185.78	1186.14	1187.22	1187.26
PARTIAL DISTANCES	50	50	10.7	39.27	9.77	40.23	16.5	33.54	50	50	18.7	31.34	25.35	24.65	12.7	37.35			
CUMULATIVE DISTANCES	5550.00	5600.00	5612.89	5650.00	5660.73	5700.00	5709.77	5750.00	5766.46	5800.00	5850.00	5900.00	5918.66	5950.00	5975.35	6000.00	6012.65	6050.00	6052.75
PROJECT LEVEL	1184.32	1183.38	1183.14	1182.53	1182.39	1182.00	1181.94	1181.81	1181.82	1181.95	1182.42	1183.23	1183.61	1184.36	1185.07	1185.78	1186.14	1187.22	1187.26
VERTICAL.....	P=1.88% L=62.888			R=7500 L=357.344						P=2.88% L=82.52									
HORIZONTAL.....	R=900 L=110.727			r=186.117 L=49.048		A=124.858 L=56.689		R=275 L=152.192			A=124.858 L=56.689		r=137.761 L=37.306		R=600 L=40.101				
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	3.54	3.54	3.54	3.54	3.54	3.54	2.50	2.50	2.50	2.50	2.50
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	1.79	3.54	3.54	3.54	3.54	3.54	0.20	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES						1181.42	1181.35	1181.35			1181.81							1186.64	1186.72
RIGTH DITCHES	1183.74	1182.80	1181.95	1181.81	1181.42	1181.35	1181.35											1186.64	1186.72

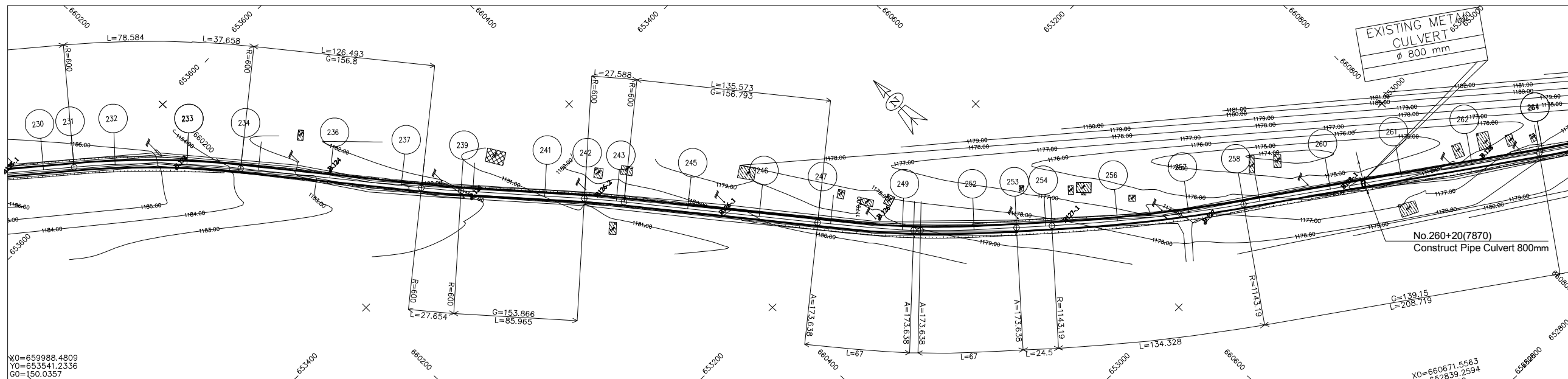
A-120

NW2.PIS

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-8/16
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW2 8/16	SCALE	APPROVED BY	SERIAL NO.





ECHELLE 1/2000

LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

ROAD NW2

SHEET 10/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	1184.42	1183.70	1183.50	1182.70	1182.09	1181.91	1182.03	1181.88	1181.00	1180.64	1180.61	1180.56	1180.26	1179.98	1179.54	1179.24	1179.12	1179.05	1178.61	1178.46	1178.24	1178.18	1177.65	1176.93	1176.52	1176.41	1176.29	1175.88	1175.83	1176.41	1176.63	1177.21	1177.65							
PARTIAL DISTANCES	38.95	11.1	50	50	15.4	27.65	6.91	50	29.06	20.94	6.65	43.35	50	42.22	7.78	50	35.94	31.06	18.9	44.35	50	39.98	10	50	50	50	48.7													
CUMULATIVE DISTANCES	7050.00	7066.95	7100.00	7150.00	7200.00	7215.44	7243.09	7250.00	7300.00	7329.06	7350.00	7356.65	7400.00	7450.00	7492.22	7500.00	7550.00	7586.06	7600.00	7631.06	7650.00	7655.65	7700.00	7750.00	7789.98	7800.00	7810.84	7850.00	7900.00	7950.00	7998.70	8000.00								
PROJECT LEVEL	1184.39	1183.98	1183.86	1183.33	1182.79	1182.63	1182.33	1182.26	1181.73	1181.42	1181.19	1181.12	1180.66	1180.13	1179.68	1179.59	1179.06	1178.96	1178.91	1178.53	1178.19	1177.99	1177.93	1177.46	1176.93	1176.50	1176.39	1176.28	1175.99	1175.99	1176.41	1177.21	1177.65							
VERTICAL.....	L=760.839																																							
HORIZONTAL.....	R=600 L=38.946				r=156.800 L=126.493				R=600				r=153.866 L=85.965				R=600				r=156.793 L=135.573				A=173.638 L=67				A=173.638 L=67				R=1143.19 L=134.328				r=139.150 L=208.719			
LEFT SLOPE....	-2.50																																							
RIGHT SLOPE	-2.50																																							
LEFT DITCHES	1183.81																																							
RIGH DITCHES	1176.66																																							

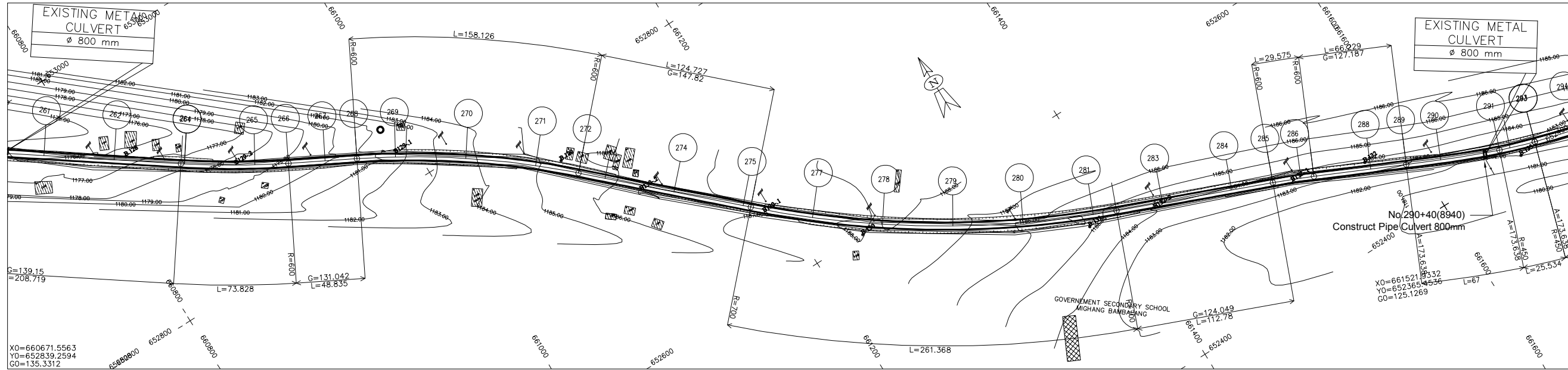
LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-10/16
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE NW2 10/16			

A-122

NW2.PIS

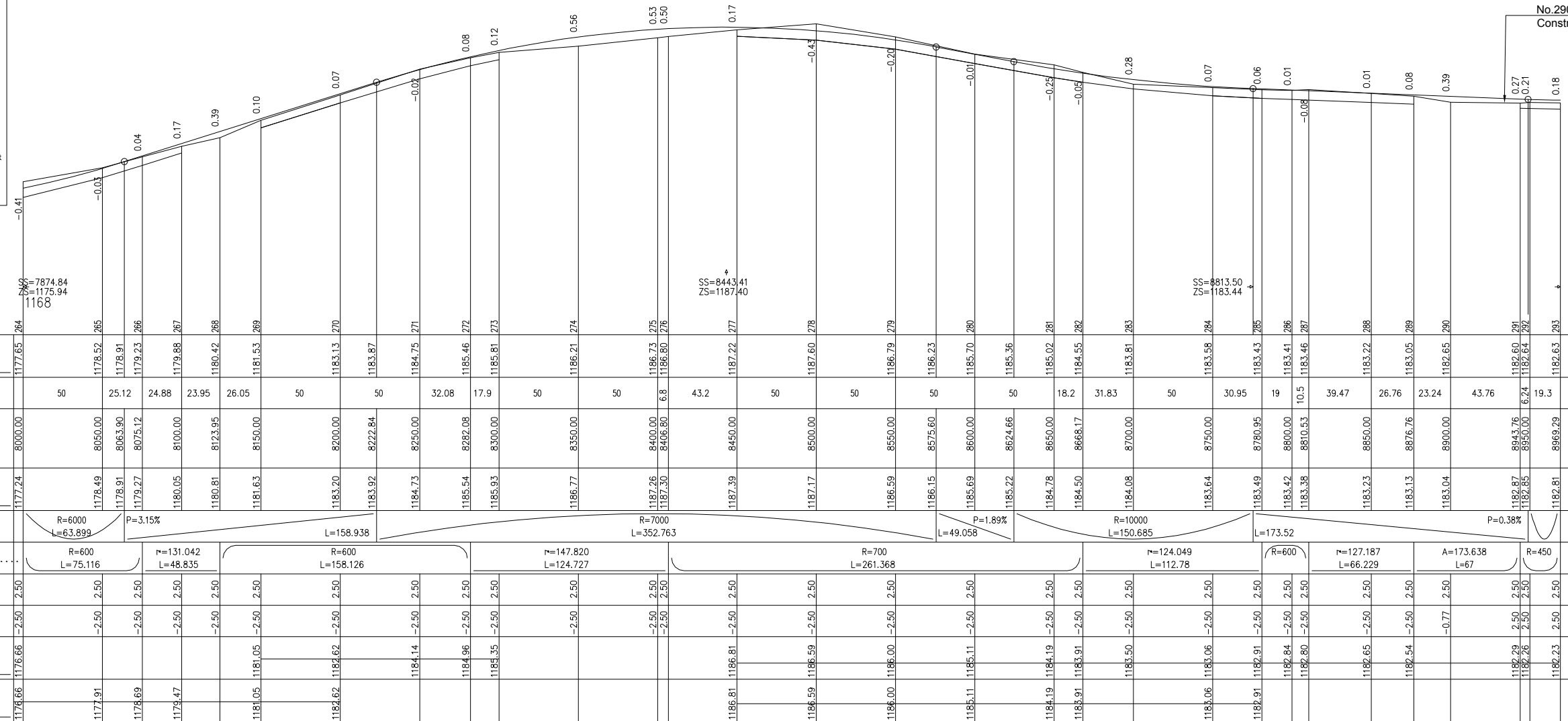




LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Swamp		Tomb
	well		Fountain post

SHEET 11/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

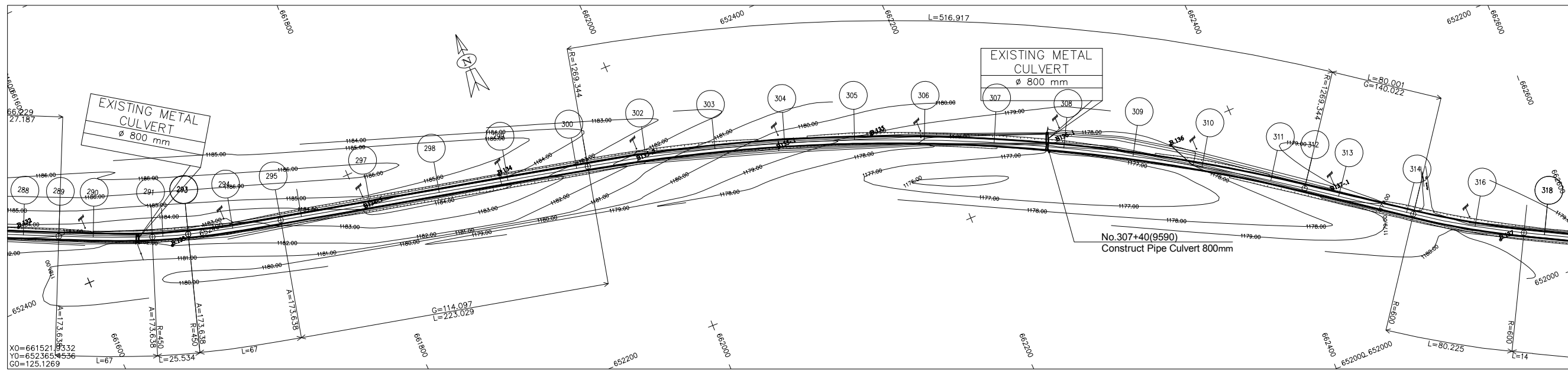


A-123

NW2.PIS

LICENCE : 1109

 <b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	<b>PROJECT TITLE</b> RURAL INFRASTRUCTURE IMPROVEMENT PROJECT	DATE	DESIGNED BY	DWG NO.
	 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>				
 <b>NTC INTERNATIONAL CO., LTD.</b>		<b>DWG. TITLE</b> PLAN AND PROFILE NW2 11/16	SCALE	APPROVED BY	SERIAL NO.



ECHELLE 1/2000

ROAD NW2

LEGEND

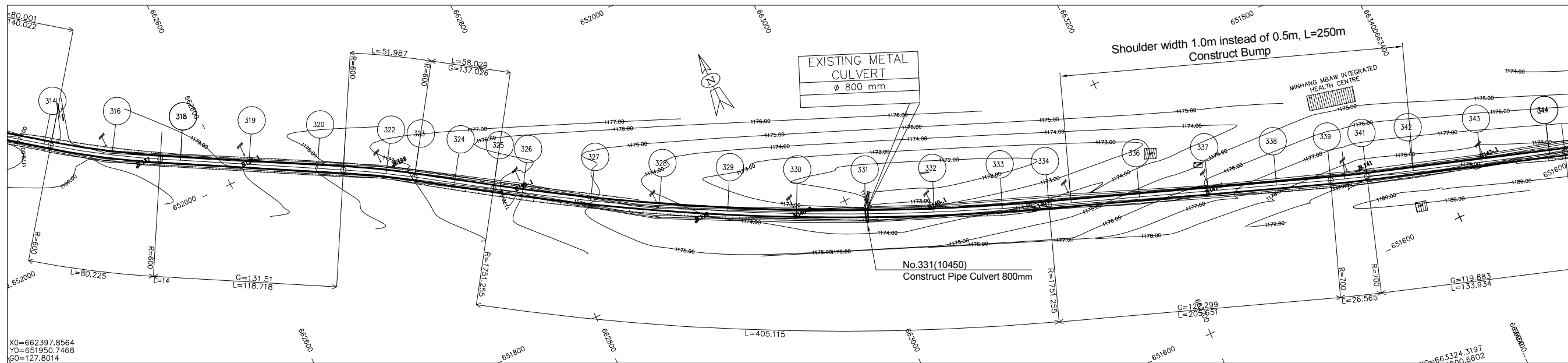
	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
	Well		

SHEET 12/16  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN

GROUND LEVEL	1182.63	1182.64	1183.18	1183.38	1183.40	1183.98	1183.83	1183.60	1183.48	1182.56	1182.37	1181.48	1180.16	1179.16	1178.72	1178.56	1178.01	1177.87	1177.44	1177.31	1177.46	1178.03	1178.35	1178.60	1178.65	1179.16	1179.33	1179.44	1179.54	1179.60	1179.41	
PARTIAL DISTANCES	30.71	36.29	13.7	50	50	50	50	9.32	40.68	50	50	50	50	50	50	50	50	50	50	50	50	50	26.24	23.76	50	43.76	36.46	13.5				
CUMULATIVE DISTANCES	8969.29	9000.00	9036.29	9050.00	9051.14	9100.00	9150.00	9200.00	9205.61	9250.00	9259.32	9300.00	9350.00	9400.00	9450.00	9461.16	9500.00	9550.00	9600.00	9650.00	9660.27	9700.00	9750.00	9776.24	9800.00	9850.00	9856.24	9879.70	9900.00	9936.46	9950.00	
PROJECT LEVEL	1182.81	1182.87	1183.15	1183.32	1183.33	1183.76	1183.71	1183.16	1183.06	1182.30	1182.14	1181.44	1180.58	1179.73	1178.87	1178.68	1178.10	1177.64	1177.50	1177.66	1177.73	1178.04	1178.43	1178.63	1178.81	1179.20	1179.25	1179.43	1179.54	1179.51	1179.42	
VERTICAL.....	R=6000 L=81.848		R=5000 L=152.022					L=255.549			P=1.72%		R=8000 L=199.113		P=0.77%		L=219.428			R=4500 L=70.301												
HORIZONTAL.....	A=173.638 L=67		r=114.097 L=223.029					R=1269.344 L=516.917			r=140.022 L=80.001		R=600 L=80.225																			
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50		
RIGHT SLOPE	2.50	0.21	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50		
LEFT DITCHES	1182.23	1182.57	1182.73	1183.18	1183.13	1182.58	1183.13	1182.58	1180.00	1181.72	1181.56	1180.86	1180.00	1178.28	1177.52	1177.06	1176.91	1177.46	1177.84	1178.05	1178.23	1178.62	1178.66	1178.96	1178.92	1178.84	1178.84	1178.84	1178.84	1178.84		
RIGH DITCHES																																

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-12/16
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW2 12/16	SCALE	APPROVED BY	SERIAL NO.



ECHELLE 1/2000

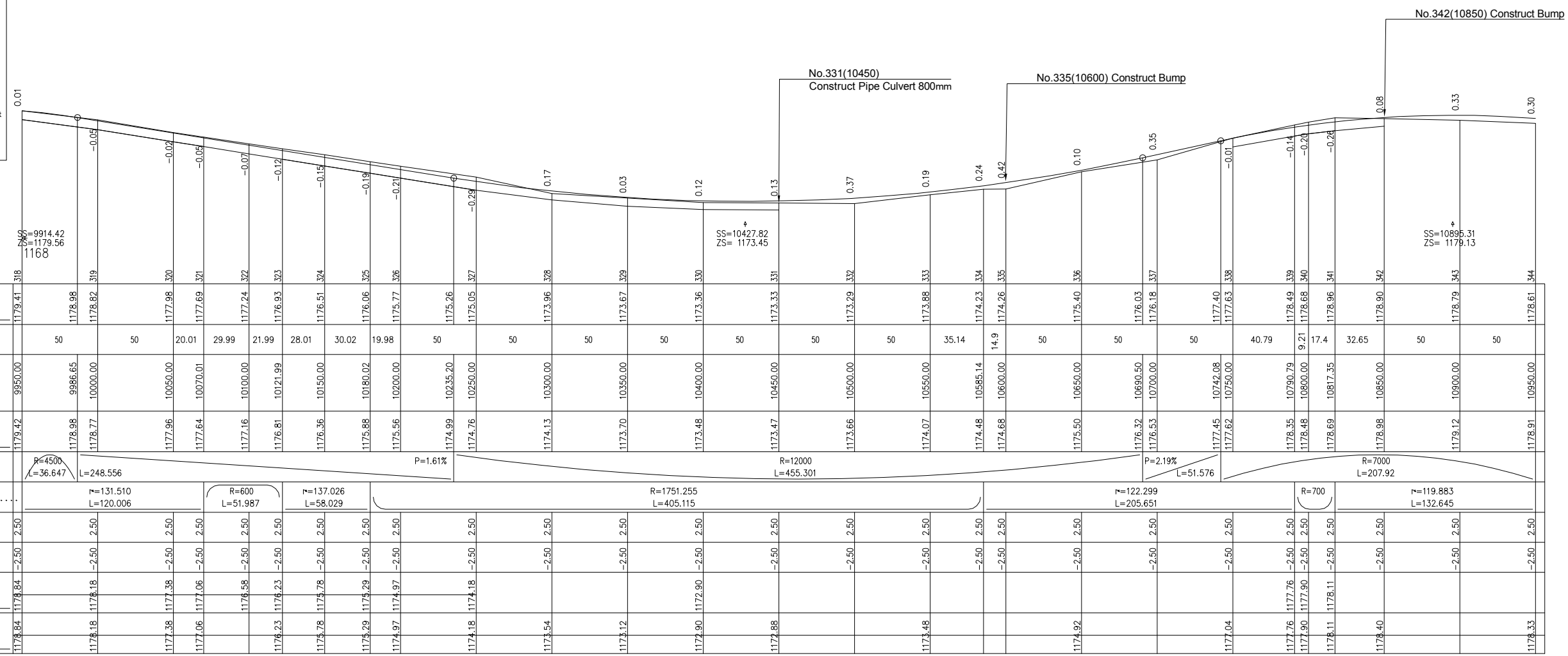
LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

ROAD NW2

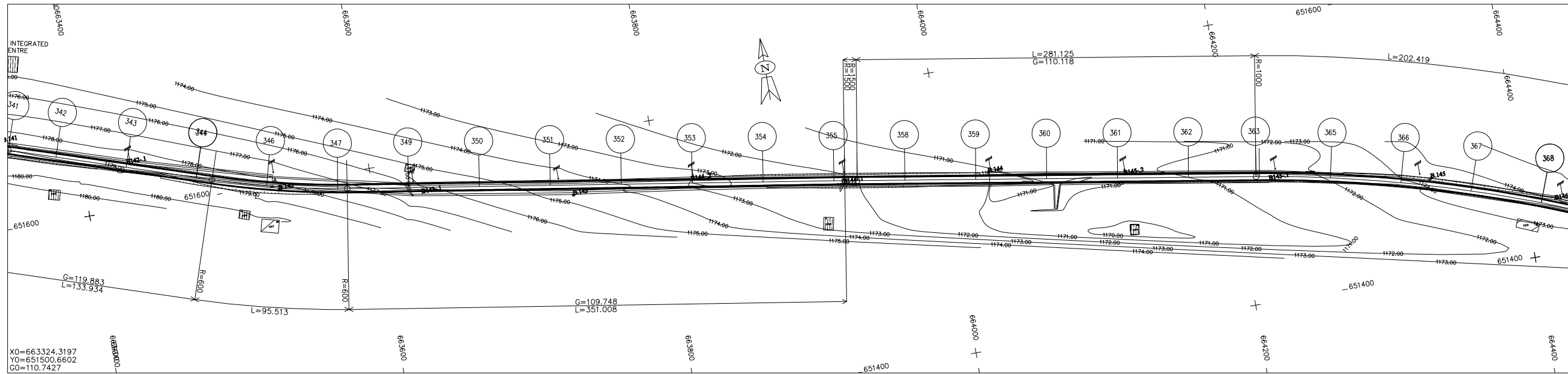
A-125

SHEET 13/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-13/16
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW2 13/16	SCALE	APPROVED BY	SERIAL NO.



ECHELLE 1/2000

LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

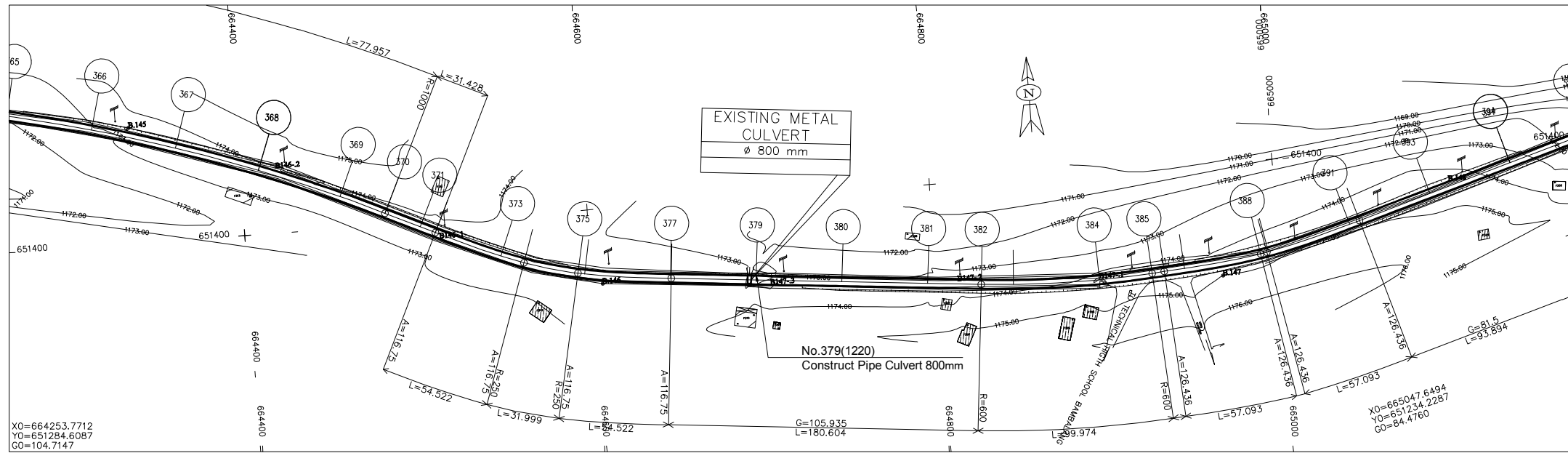
ROAD NW2

SHEET 14/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	1178.61	1178.56	1178.32	1178.11	1177.54	1177.38	1176.53	1174.68	1173.69	1172.95	1172.58	1172.05	1171.96	1171.80	1171.54	1171.29	1171.21	1171.29	1171.53	1171.80	1171.93	1171.94	1172.38	1172.83	1173.27	1173.38	1173.63
PARTIAL DISTANCES	12.5	37.49	50	8.02	41.98	50	50	50	50	50	50	32.26	50	50	50	50	50	50	48.87	50	50	50	50	50	50	50	50
CUMULATIVE DISTANCES	10950.00	10962.51	11000.00	11013.24	11050.00	11058.02	11100.00	11150.00	11200.00	11300.00	11350.00	11400.00	11409.03	11417.74	11450.00	11500.00	11550.00	11600.00	11650.00	11683.92	11698.87	11700.00	11750.00	11800.00	11850.00	11862.48	11900.00
PROJECT LEVEL	1178.91	1178.80	1178.34	1178.13	1177.51	1177.38	1176.67	1174.99	1174.14	1173.30	1172.55	1171.96	1171.88	1171.80	1171.54	1171.29	1171.21	1171.29	1171.53	1171.80	1171.93	1171.94	1172.38	1172.83	1173.27	1173.38	1173.63
VERTICAL.....	R=7000 L=63.245		L=284.852		P=1.68%										R=15000 L=385.82		P=0.89%		R=8000 L=37.523								
HORIZONTAL.....	R=600 L=95.513			R=109.748 L=351.008												R=110.118 L=281.125			R=1000 L=201.13								
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES												1171.97	1171.38	1171.29	1171.21	1170.96	1170.71							1172.24	1172.69	1173.04	
RIGTH DITCHES	1178.33	1178.22	1177.76																								

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-14/16
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE NW2 14/16	SCALE	APPROVED BY	SERIAL NO.



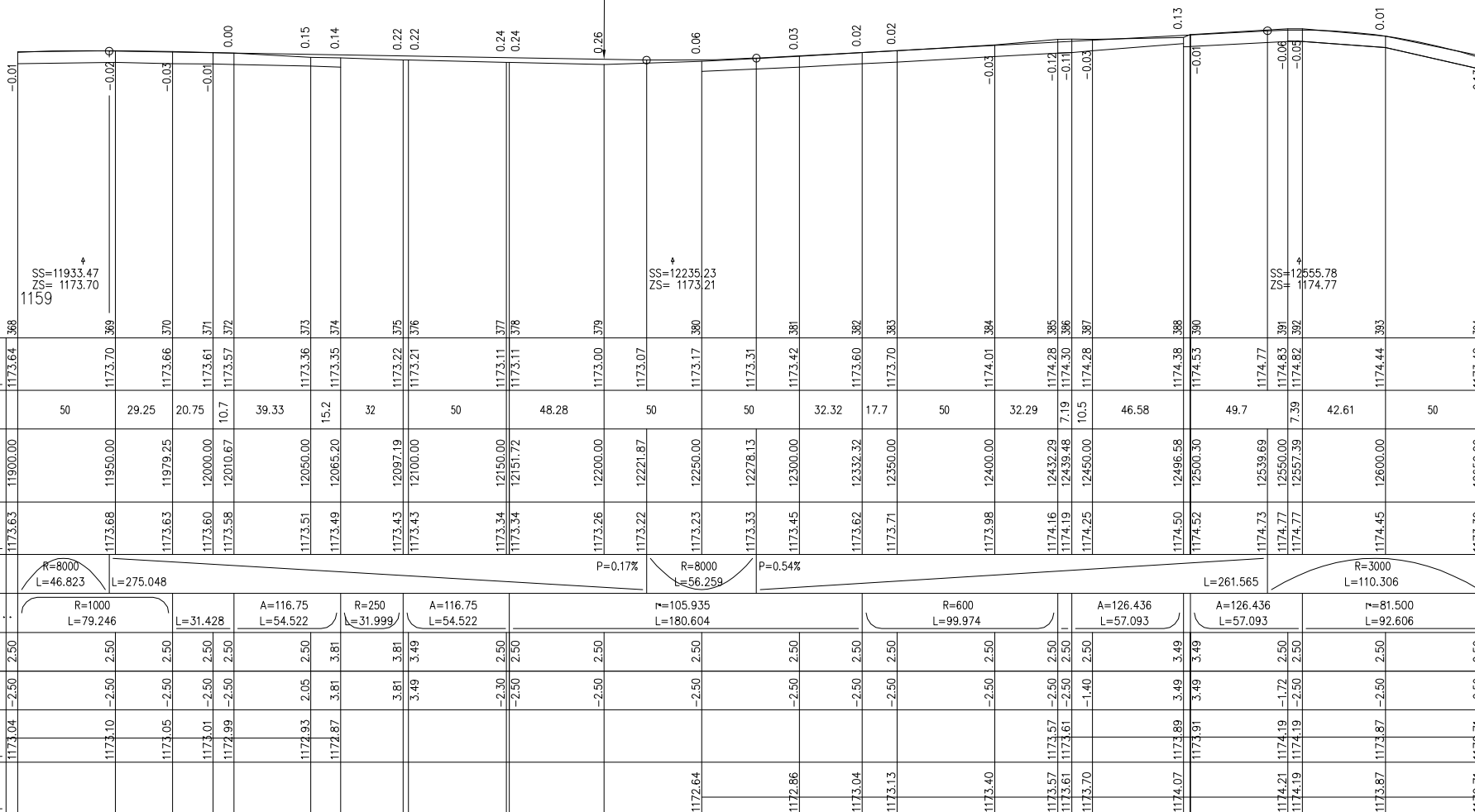
ECHELLE 1/2000

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			Well

ROAD NW2

No.379(1220)  
Construct Pipe Culvert 800mm



SHEET 15/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

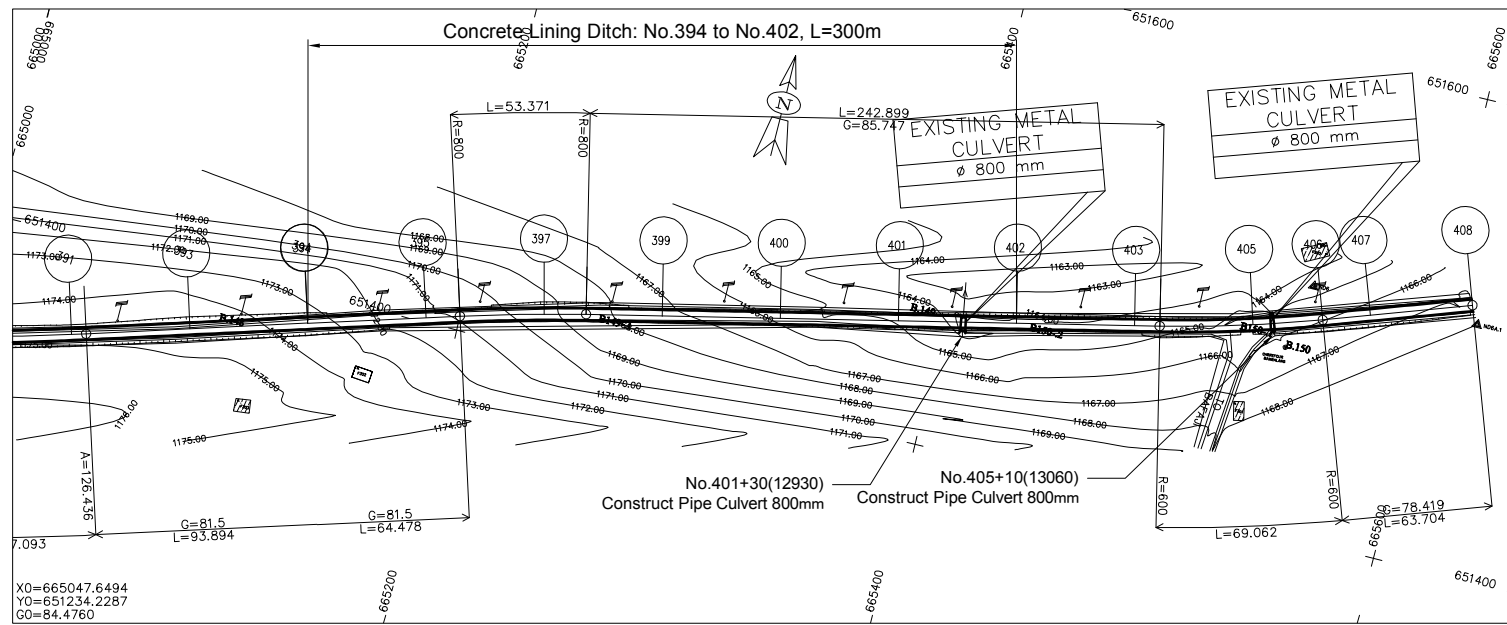
NW2.P15

LICENCE : 1109

**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

REVISION

PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			3-15/16
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE NW2 15/16			



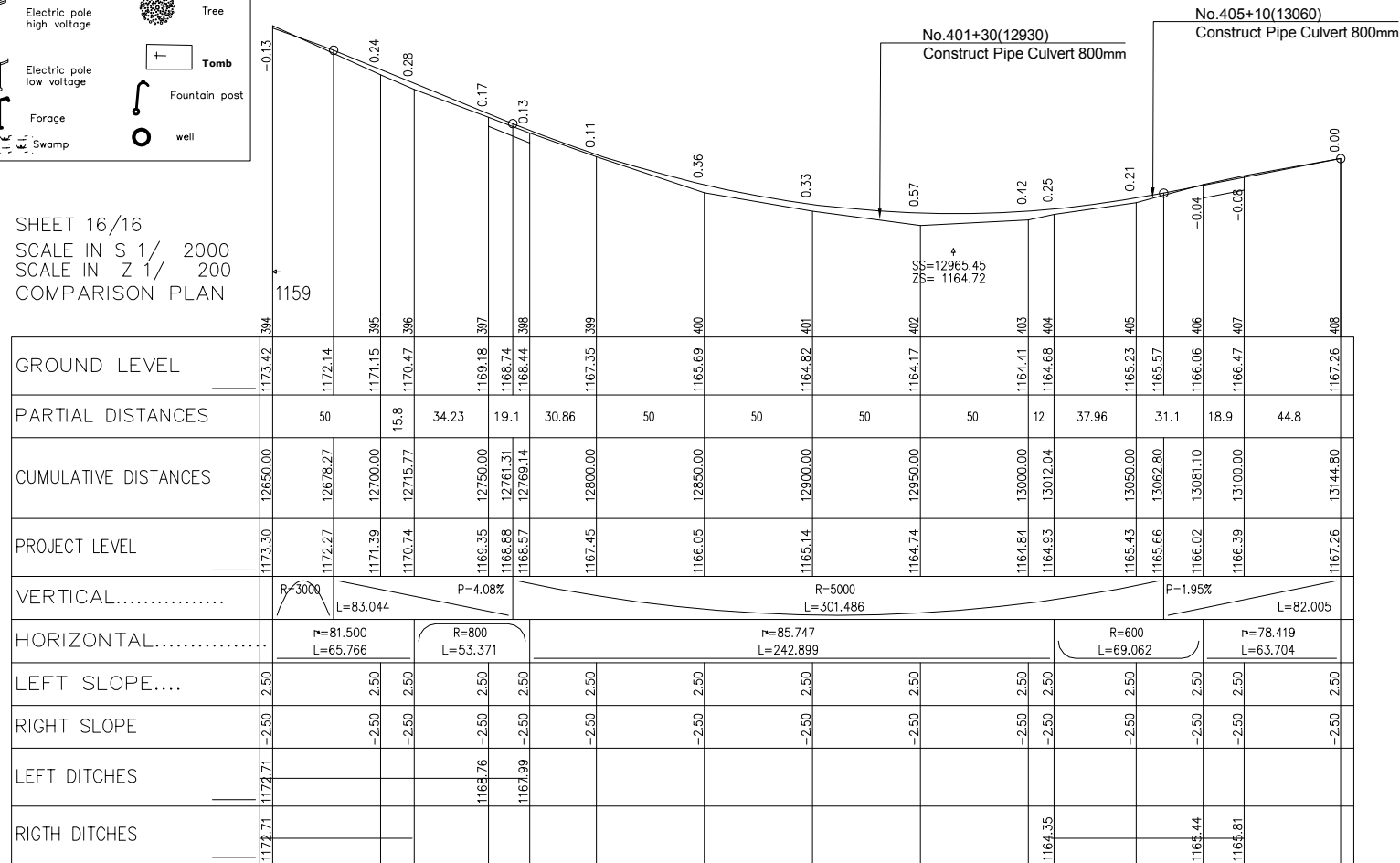
ECHELLE 1/2000

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			well

ROAD NW2

SHEET 16/16  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

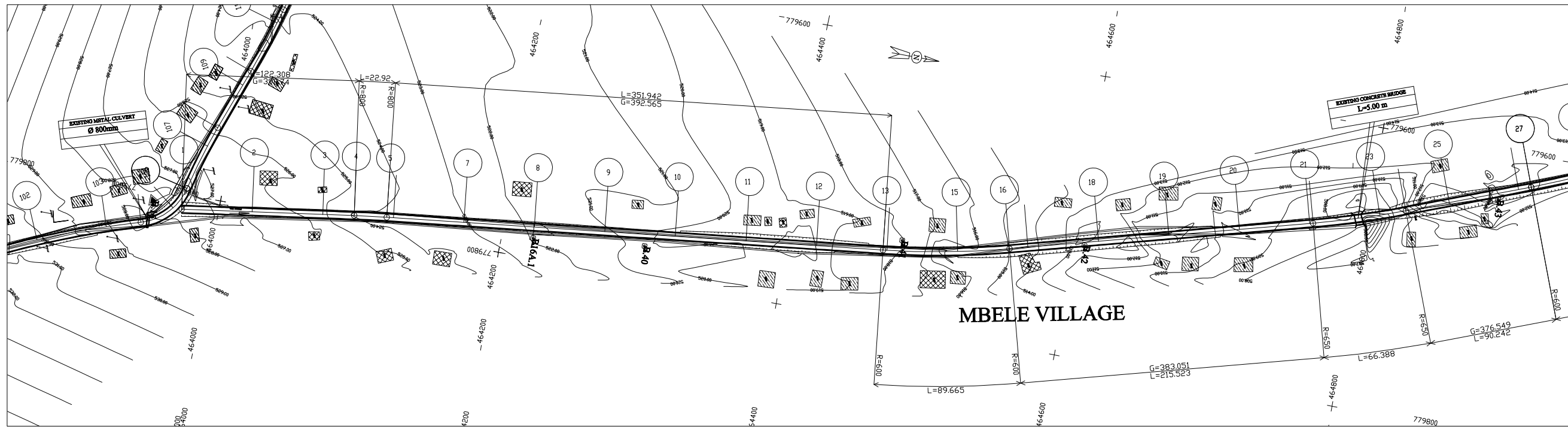
REVISION

PROJECT TITLE  
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
DWG. TITLE  
PLAN AND PROFILE NW2 16/16

DATE  
DESIGNED BY  
APPROVED BY  
DWG. NO.  
3-16/16  
SERIAL NO.

A-128

NW2.PIS

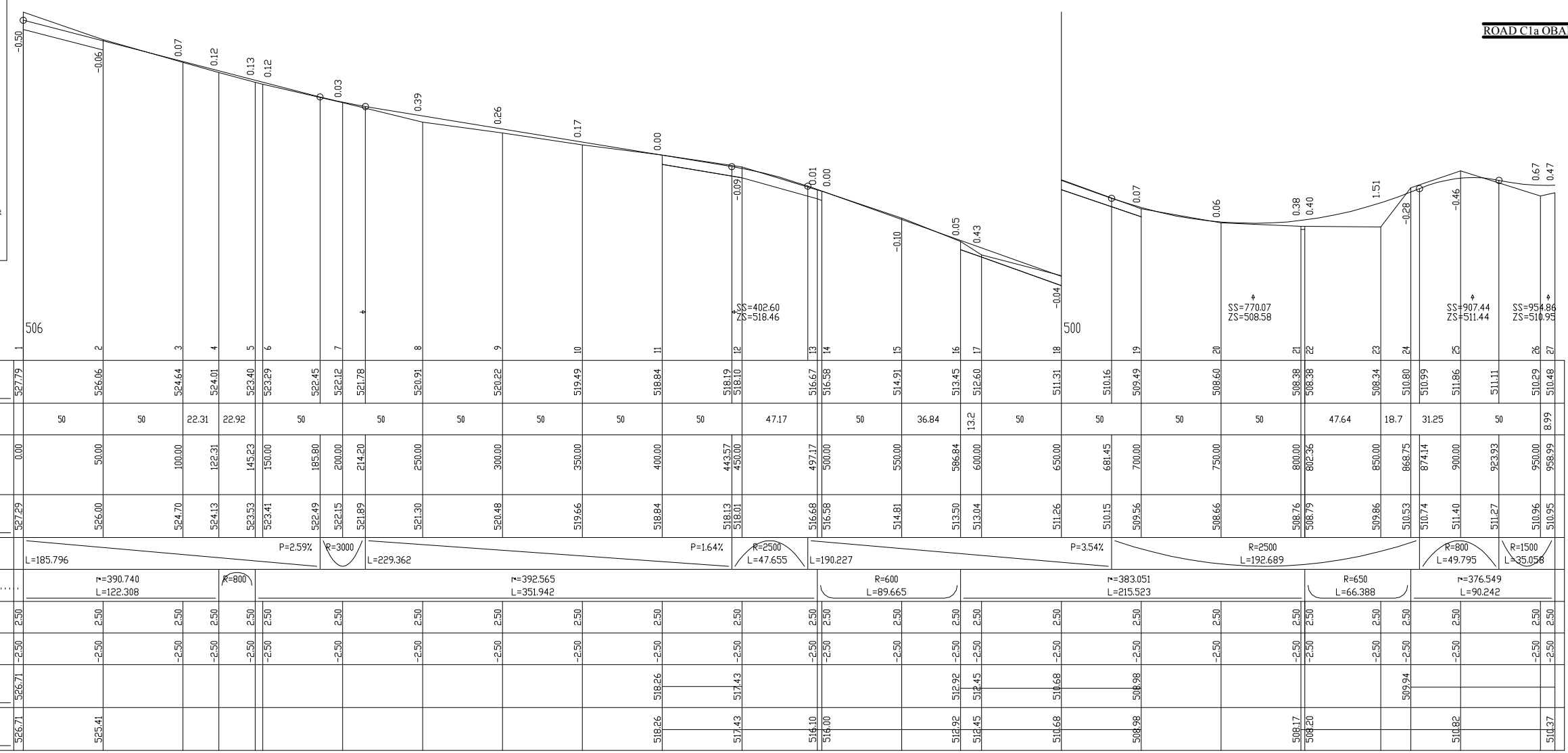


LEGEND ECHELLE 1/2000

A-129

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		Well

SHEET 1/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

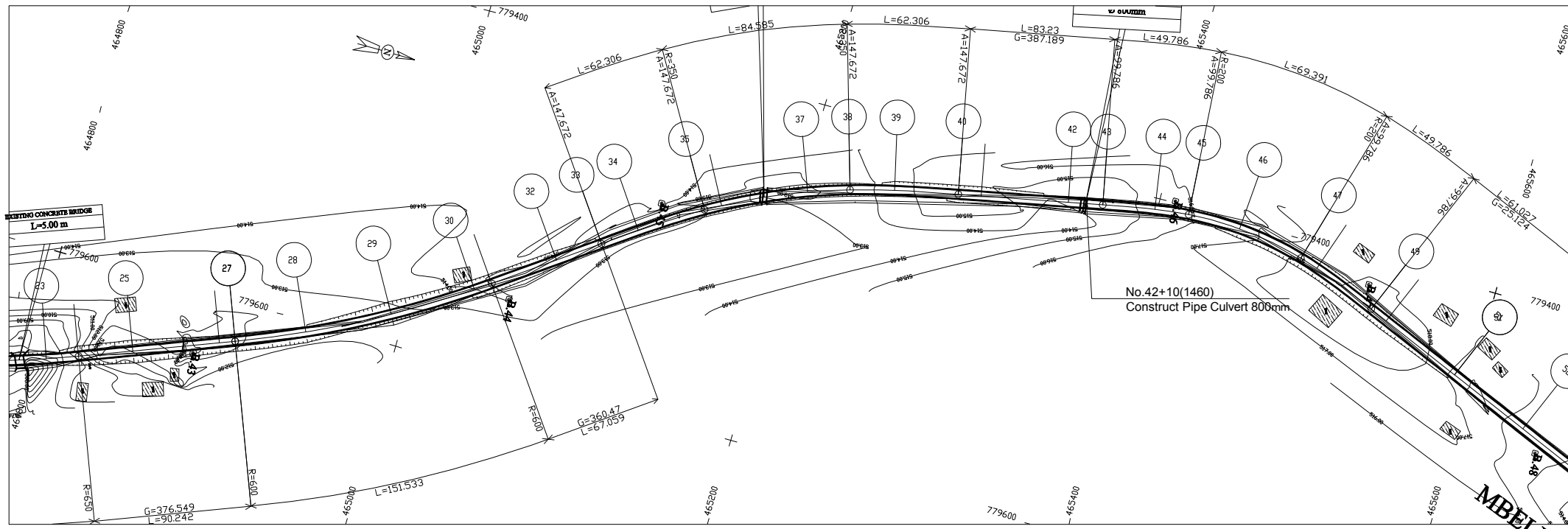


ROAD C1a OBALA

C1A/PIS

LICENCE 1109

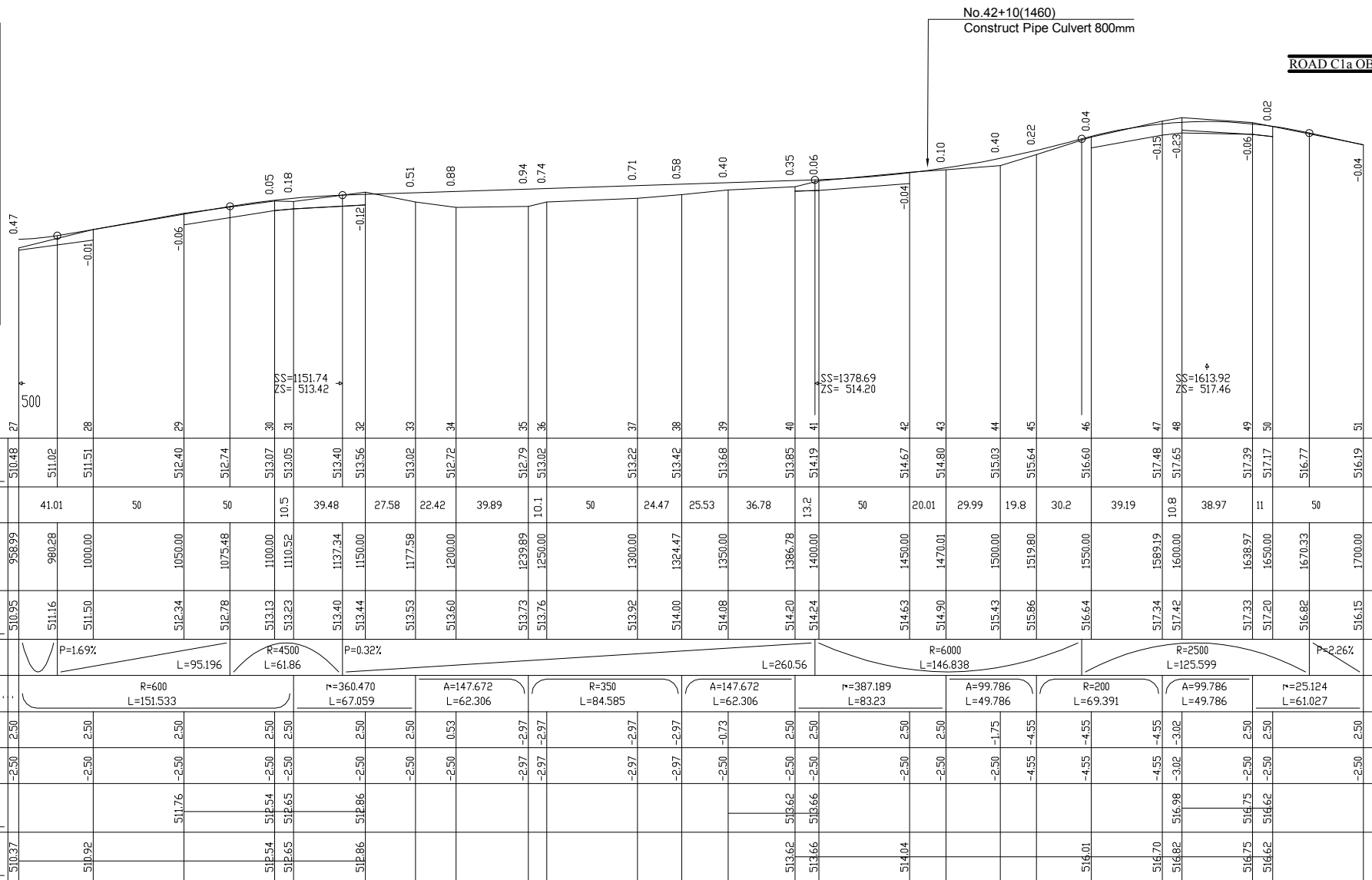
<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT		4-1/30
	<b>NTC INTERNATIONAL CO., LTD.</b>		DWG. TITLE	SCALE	APPROVED BY
		PLAN AND PROFILE C1-a (1/11)			SERIAL NO.



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		Well

SHEET 2/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



GROUND LEVEL	510.48	511.02	511.51	512.40	512.74	513.07	513.05	513.40	513.56	513.02	512.72	513.42	513.68	513.85	514.19	514.67	514.80	515.03	515.64	516.60	517.48	517.65	517.39	517.17	516.77	516.19			
PARTIAL DISTANCES		41.01	50	50	10.5	39.48	27.58	22.42	39.89	513.73	513.76	513.92	24.47	25.53	36.78	13.2	50	20.01	29.99	19.8	30.2	39.19	10.8	38.97	11	50			
CUMULATIVE DISTANCES	958.99	980.28	1000.00	1050.00	1075.48	1100.00	1110.52	1137.34	1150.00	1177.58	1200.00	1239.89	1324.47	1350.00	1386.78	1400.00	1450.00	1470.01	1500.00	1519.80	1550.00	1589.19	1600.00	1638.97	1650.00	1670.33	1700.00		
PROJECT LEVEL	510.95	511.16	511.50	512.34	512.78	513.13	513.23	513.40	513.44	513.53	513.60	513.73	513.76	513.92	514.00	514.08	514.20	514.24	514.63	514.90	515.43	515.86	516.64	517.34	517.42	517.33	517.20	516.82	516.15
VERTICAL.....	P=1.69%		L=95.196		R=4500 L=61.86		P=0.32%		L=260.56		R=6000 L=146.838		R=2500 L=125.599		P=2.26%														
HORIZONTAL.....	R=600 L=151.533		r=360.470 L=67.059		A=147.672 L=62.306		R=350 L=84.585		A=147.672 L=62.306		r=387.189 L=83.23		A=99.786 L=49.786		R=200 L=69.391		A=99.786 L=49.786		r=25.124 L=61.027										
LEFT SLOPE....	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES				511.76		512.54	512.65	512.86																					
RIGH DITCHES	510.37	510.92																											

LICENCE : 1109

**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

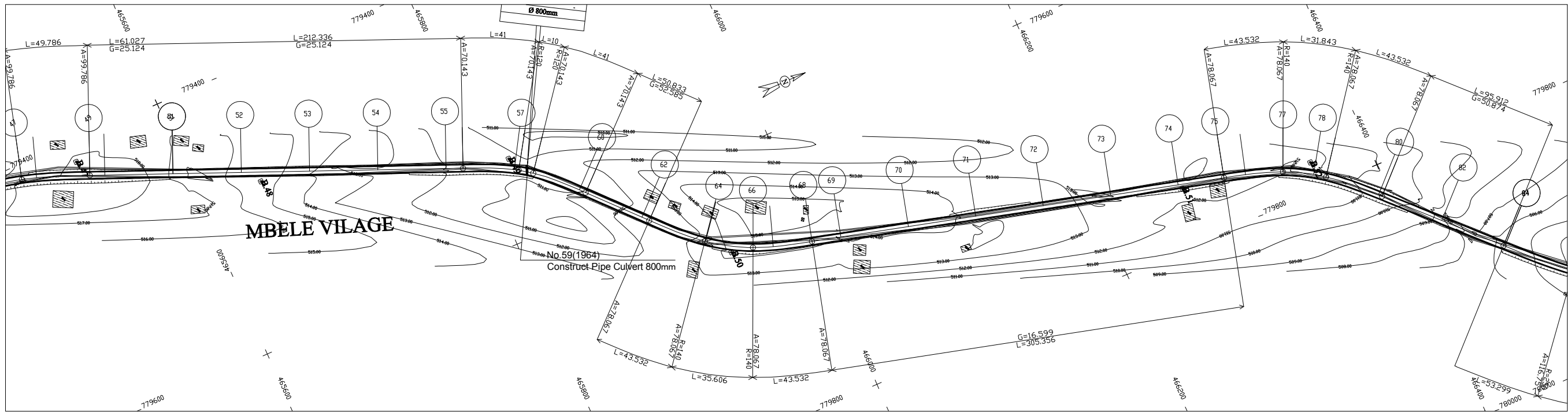
REVISION	

PROJECT TITLE	RURAL INFRASTRUCTURE IMPROVEMENT PROJECT	DATE	DESIGNED BY	DWG NO.
DWG. TITLE	PLAN AND PROFILE C1-a 2/11	SCALE	APPROVED BY	SERIAL NO.
				4-2/30

A-130

C1A.P15

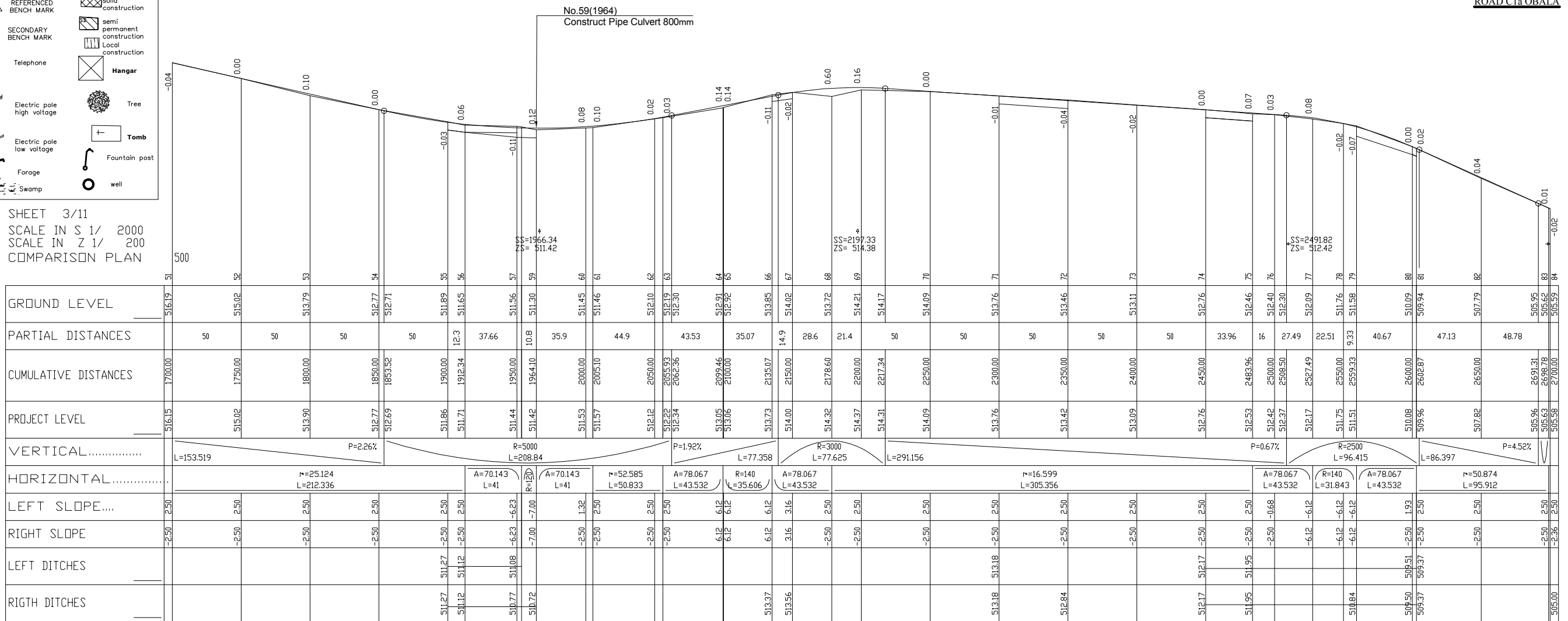




LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		Well

SHEET 3/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



LICENCE 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

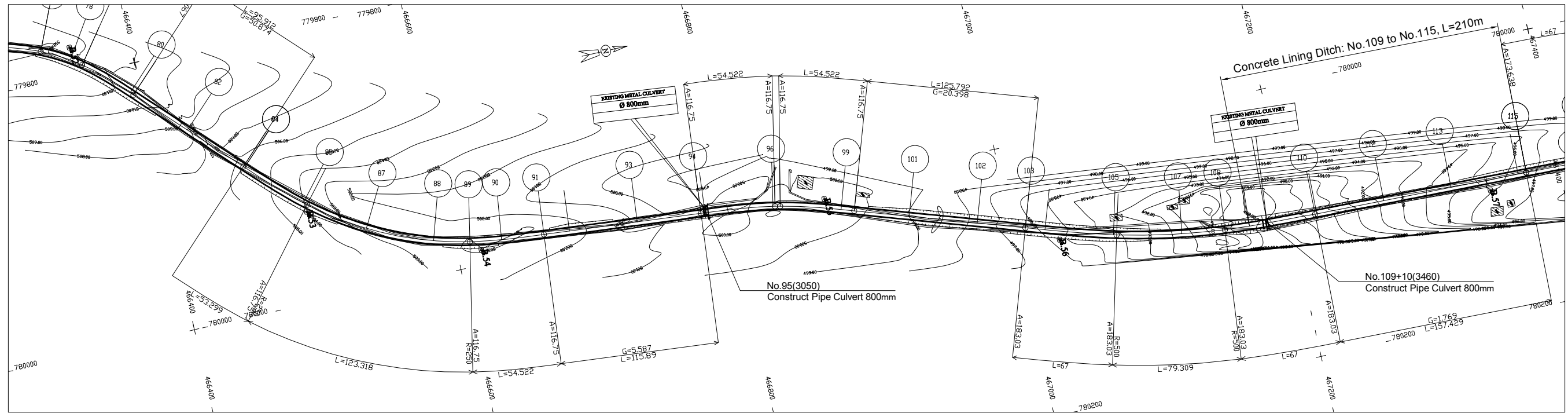
REVISION

PROJECT TITLE  
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
DWG. TITLE  
PLAN AND PROFILE C1-a 3/11

DATE  
DESIGNED BY  
DWG NO.  
4-3/30  
SCALE  
APPROVED BY  
SERIAL NO.

A-131

C1A.P1S

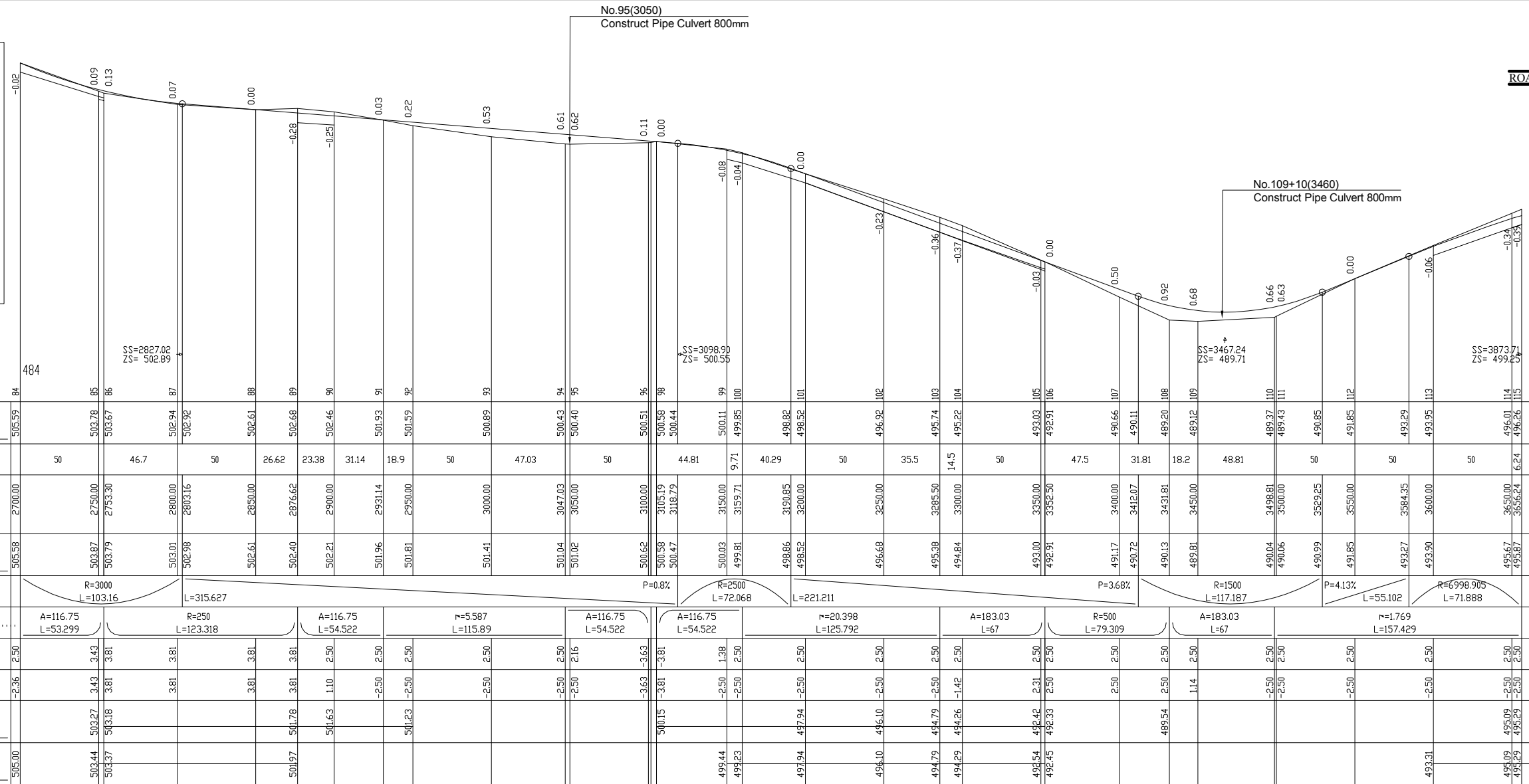


LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		Well

SHEET 4/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

ROAD C1a OBALA



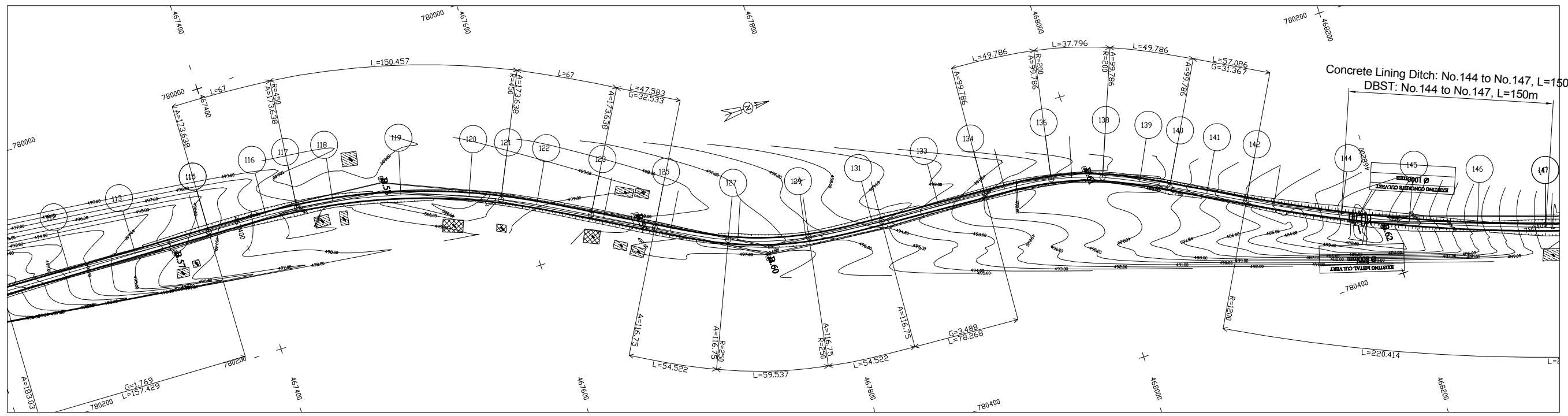
LICENCE 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE  
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
DWG. TITLE  
PLAN AND PROFILE C1-a 4/11

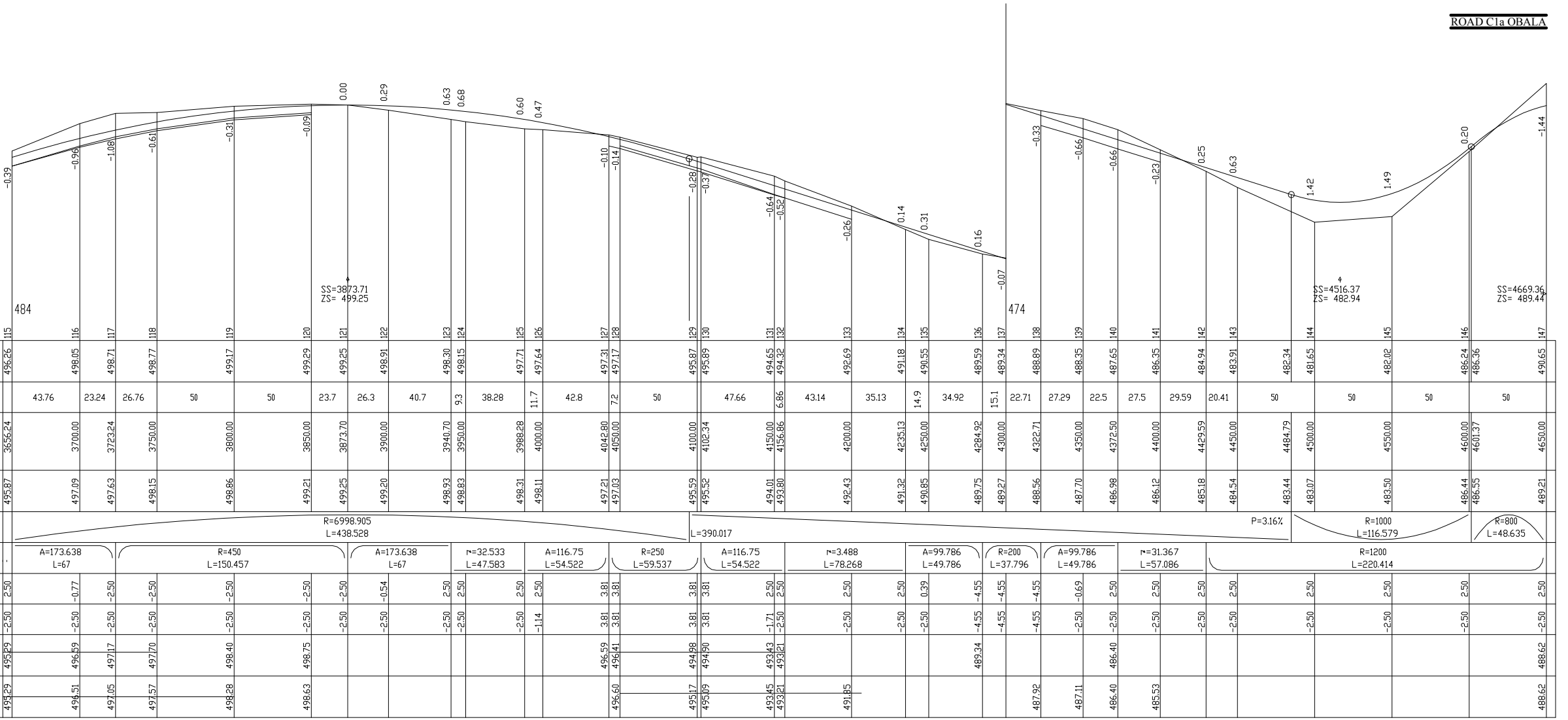
DATE  
DESIGNED BY  
DWG NO.  
4-4/30  
SCALE  
APPROVED BY  
SERIAL NO.



LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- Solid construction
- Semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- Well

SHEET 5/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



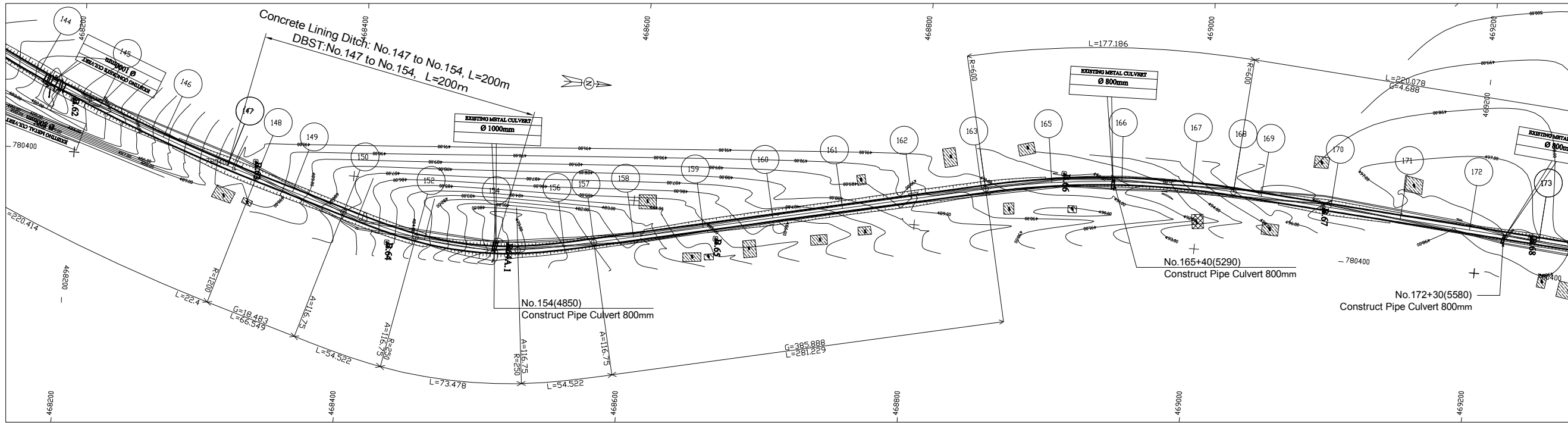
ROAD C1a OBALA

A-133

C1A/PIS

LICENCE : 1109

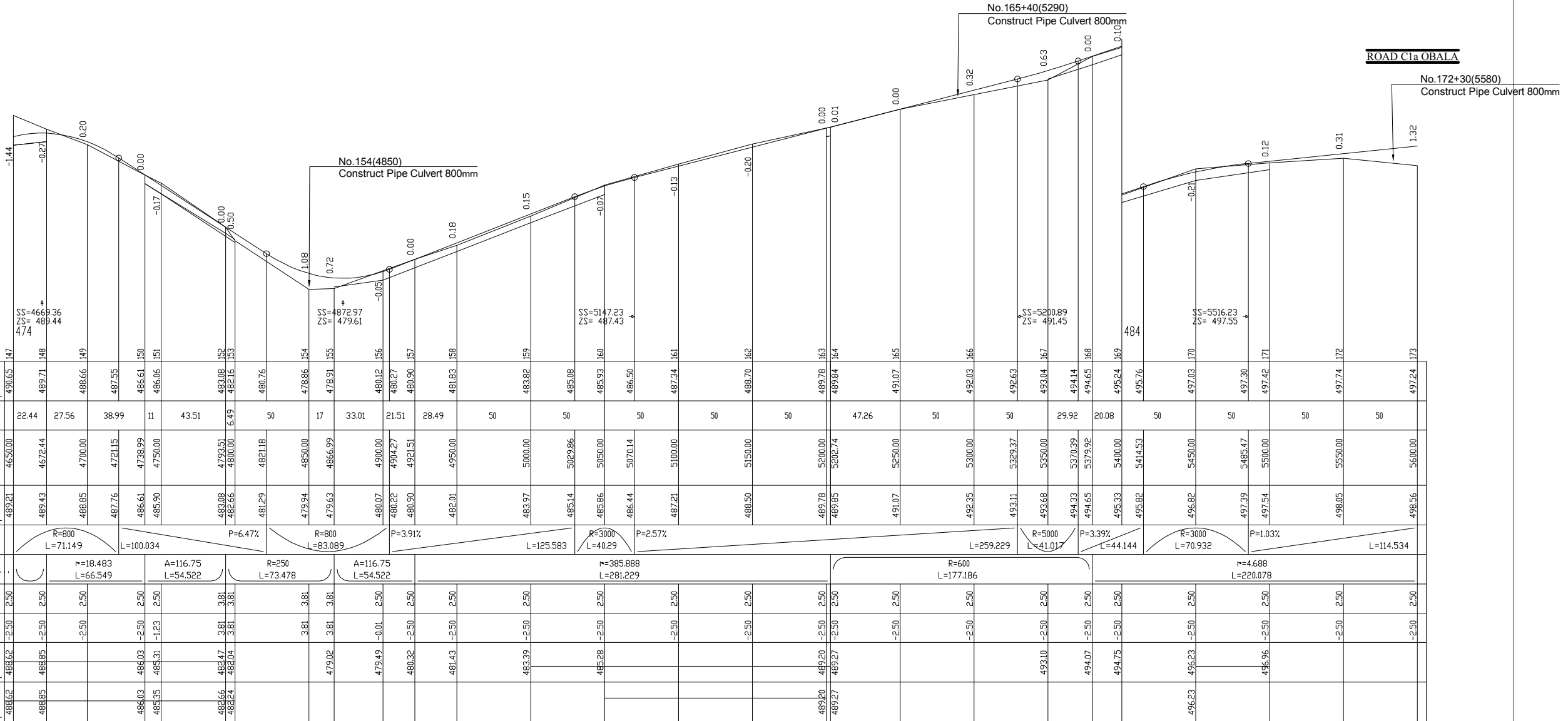
<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	<b>PROJECT TITLE</b> RURAL INFRASTRUCTURE IMPROVEMENT PROJECT	<b>DATE</b>	<b>DESIGNED BY</b>	<b>DWG NO.</b> 4-5/30				
	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>					<b>DWG. TITLE</b> PLAN AND PROFILE C1-a 5/11	<b>SCALE</b>	<b>APPROVED BY</b>	<b>SERIAL NO.</b>
	<b>NTC INTERNATIONAL CO., LTD.</b>								



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		Well

SHEET 6/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



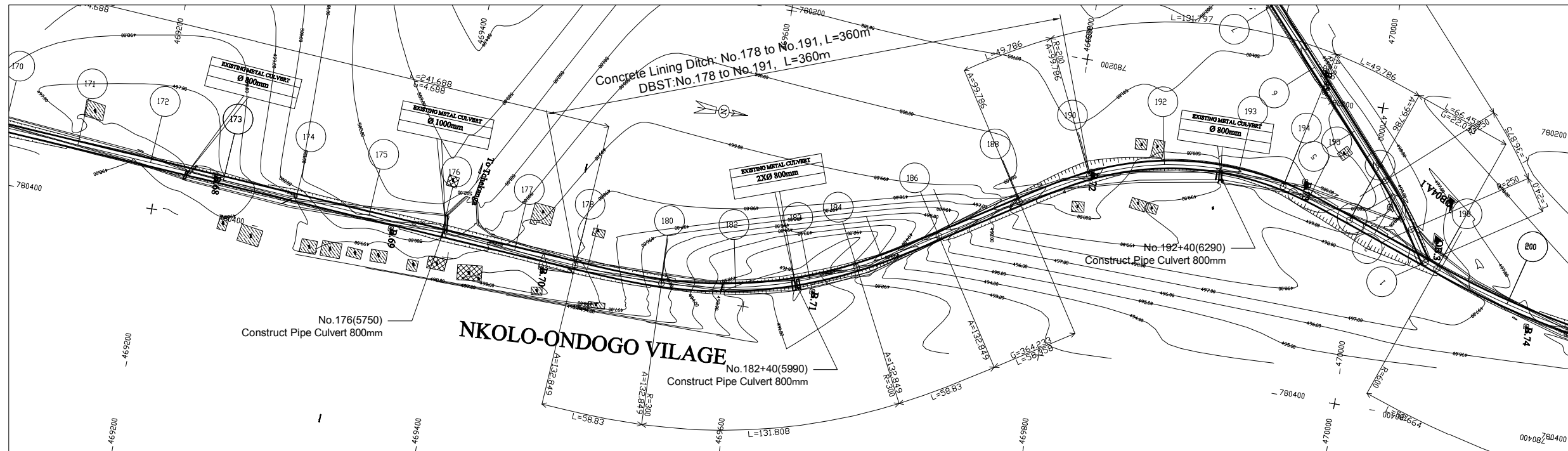
GROUND LEVEL	490.65	489.71	488.66	487.55	486.61	485.90	483.08	482.16	480.76	478.86	478.91	480.12	480.27	480.90	481.63	483.92	485.08	485.93	486.50	487.34	488.70	489.78	489.84	491.07	492.03	492.63	493.04	494.14	494.65	495.24	495.76	497.03	497.30	497.42	497.74	497.24	
	22.44	27.56	38.99	11	43.51	6.49	50	17	33.01	21.51	28.49	50	50	50	50	50	50	50	50	50	50	47.26	50	50	50	29.92	20.08	50	50	50	50	50	50	50	50	50	
PROJECT LEVEL	489.21	489.43	488.85	487.76	486.61	485.90	483.08	482.66	481.29	479.94	479.63	480.07	480.22	480.90	482.01	483.97	485.14	485.86	486.44	487.21	488.50	489.78	489.85	491.07	492.35	493.11	493.68	494.33	494.65	495.33	495.82	496.82	497.39	497.54	498.05	498.56	
VERTICAL.....	R=800 L=71.149		L=100.034		P=6.47%		R=800 L=83.089		P=3.91%		R=3000 L=40.29		P=2.57%		L=125.583		R=5000 L=41.017		P=3.39%		L=259.229		R=3000 L=70.932		P=1.03%		L=44.144		R=4.688 L=220.078		L=114.534						
HORIZONTAL.....	n=18.483 L=66.549		A=116.75 L=54.522		R=250 L=73.478		A=116.75 L=54.522		n=385.888 L=281.229		R=600 L=177.186		R=5000 L=41.017		P=3.39%		R=3000 L=70.932		P=1.03%		L=44.144		R=4.688 L=220.078		L=114.534												
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	3.81	3.81	3.81	3.81	3.81	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-1.23	-1.23	-1.23	-1.23	-1.23	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
LEFT DITCHES	488.62	488.85	488.03	485.31	484.47	483.04	479.02	479.49	480.32	481.43	483.39	485.28	489.20	489.27	493.10	494.07	494.75	496.23	496.96	497.54	498.05	498.56	499.06	499.56	500.06	500.56	501.06	501.56	502.06	502.56	503.06	503.56	504.06	504.56	505.06	505.56	
RIGH DITCHES	488.62	488.85	488.03	485.31	484.47	483.04	479.02	479.49	480.32	481.43	483.39	485.28	489.20	489.27	493.10	494.07	494.75	496.23	496.96	497.54	498.05	498.56	499.06	499.56	500.06	500.56	501.06	501.56	502.06	502.56	503.06	503.56	504.06	504.56	505.06	505.56	506.06

LICENCE : 1109

 <b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	<b>PROJECT TITLE</b> RURAL INFRASTRUCTURE IMPROVEMENT PROJECT	DATE	DESIGNED BY	DWG NO.
	 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>			APPROVED BY	SERIAL NO.
	 <b>NTC INTERNATIONAL CO., LTD.</b>		<b>DWG. TITLE</b> PLAN AND PROFILE C1-a 6/11	SCALE	

A-134

C1A/PIS



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		

SHEET 7/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

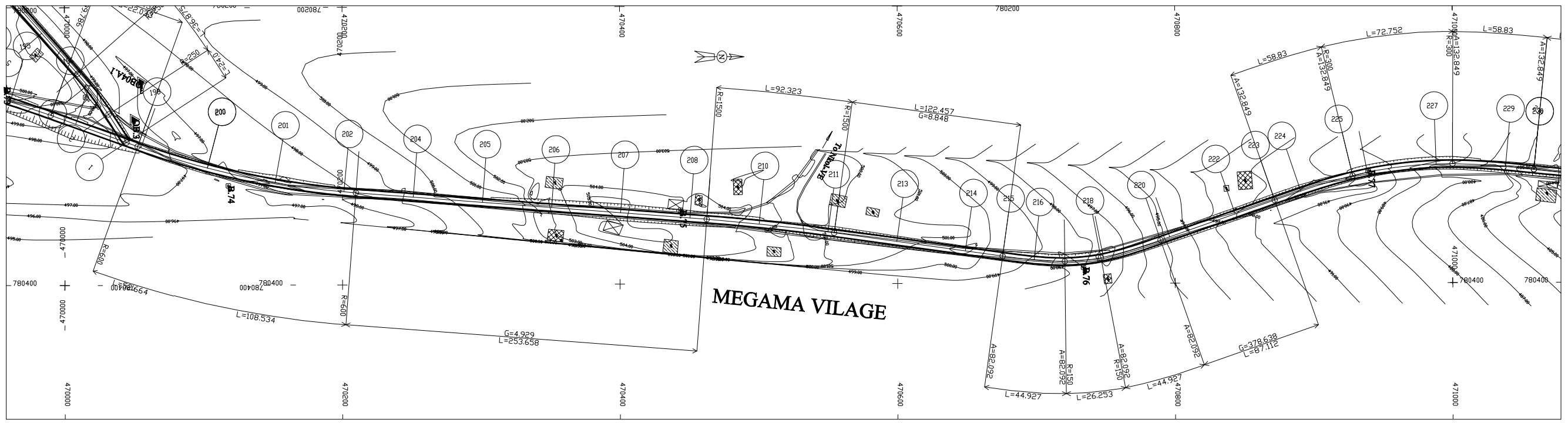
GROUND LEVEL	497.24	498.30	499.65	500.07	498.74	498.43	497.82	495.80	493.75	493.70	491.09	490.88	491.25	491.82	495.16	495.40	495.86	498.19	498.80	499.72	500.01	499.90	499.42	499.23	499.09	498.80	498.18	497.91	497.88	497.55	497.05	496.85	496.84	496.66	497.24	497.11			
PARTIAL DISTANCES		50	50	50	50	41.91	8.09	50	49.26	50	32.15	17.9	40.98	9.02	6.91	43.09	15.7	34.26	50	50	50	50	48.95	9.88	17.5	22.64													
CUMULATIVE DISTANCES	5600.00	5650.00	5700.00	5750.00	5800.00	5841.91	5850.00	5874.74	5900.00	5900.74	5950.00	6000.00	6032.15	6050.00	6090.98	6100.00	6106.91	6150.00	6165.74	6200.00	6250.00	6261.34	6300.00	6350.00	6400.00	6401.05	6450.00	6459.88	6460.43	6477.36	6500.00								
PROJECT LEVEL	498.56	499.08	499.59	500.09	499.59	497.89	497.42	495.72	494.01	493.97	491.86	491.38	491.95	492.56	494.77	495.40	495.86	498.19	498.80	499.72	500.01	499.90	499.42	499.23	499.09	498.80	498.18	497.91	497.88	497.55	497.05	496.85	496.84	496.66	497.24	497.11			
VERTICAL.....	P=1.03%		L=144.577		R=1500 L=130.161		R=1500 L=220.61		R=2000 L=165.99		L=199.089		P=1.24%		R=4500 L=39.573																								
HORIZONTAL.....	r=4.688 L=241.912		A=132.849 L=58.83		R=300 L=131.405		A=132.849 L=58.83		A=132.849 L=58.83		R=300 L=235.311		A=132.849 L=58.83		R=300																								
LEFT SLOPE....	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50			
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50		
LEFT DITCHES	498.49	499.01	499.51	499.51	497.30	496.84	493.41	493.37	491.35	491.98	494.19	494.82	495.28	497.71	498.37	498.29	498.12	498.19	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	498.36	
RIGH DITCHES																																							

LICENCE 1109

<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT		4-7/30
	<b>NTC INTERNATIONAL CO., LTD.</b>		DWG. TITLE	SCALE	SERIAL NO.
		PLAN AND PROFILE C1-a 7/11			

A-135

C1A/PIS

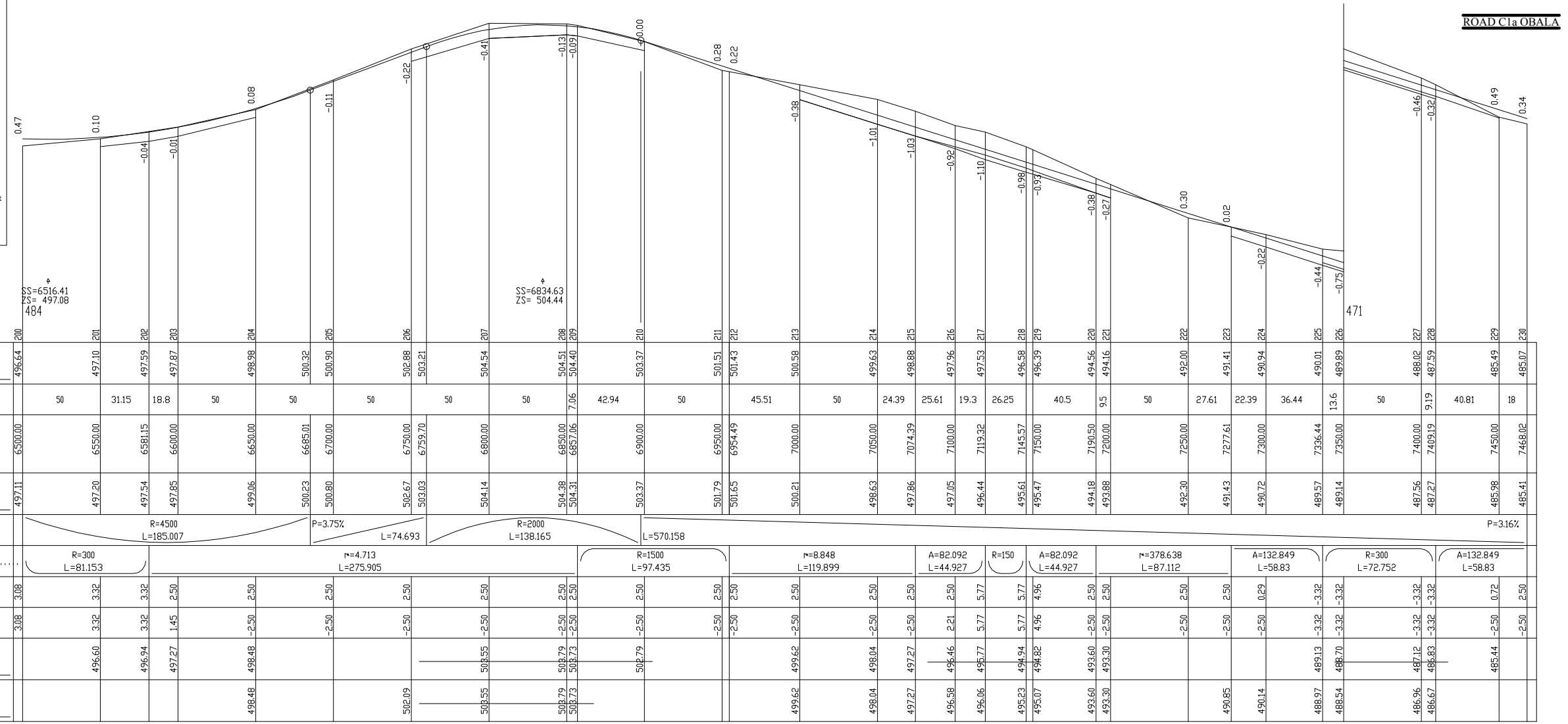


LEGEND ECHELLE 1/2000

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

A-136

SHEET 8/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

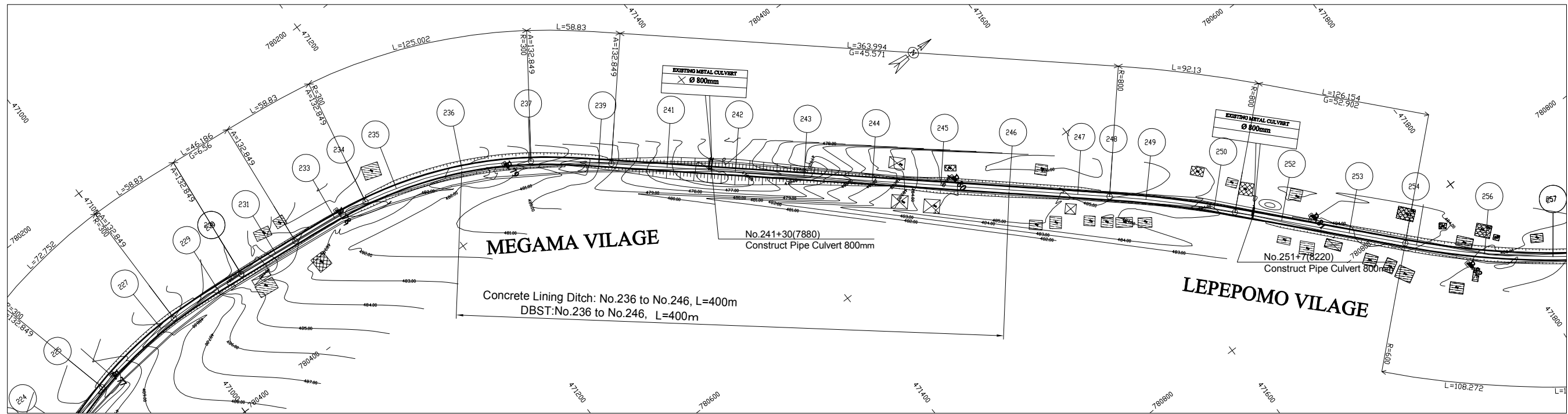


ROAD C1a OBALA

GROUND LEVEL	496.64	497.10	497.59	497.87	498.98	500.32	500.90	502.88	503.21	504.54	504.51	504.40	503.37	501.51	501.43	500.58	498.63	498.88	497.96	497.53	496.58	496.39	494.56	494.16	492.00	491.41	490.94	490.01	489.89	488.02	487.59	485.49	485.07		
PARTIAL DISTANCES	50	31.15	18.8	50	50	50	50	50	50	42.94	50	45.51	50	24.39	25.61	19.3	26.25	40.5	95	50	27.61	22.39	36.44	13.6	50	9.19	40.81	18							
CUMULATIVE DISTANCES	5000.00	6550.00	6581.15	6600.00	6650.00	6685.01	6700.00	6750.00	6759.70	6800.00	6850.00	6857.06	6900.00	6950.00	6954.49	7000.00	7050.00	7074.39	7100.00	7119.32	7145.57	7150.00	7190.50	7200.00	7250.00	7277.61	7300.00	7336.44	7350.00	7400.00	7409.19	7450.00	7468.02		
PROJECT LEVEL	497.11	497.20	497.54	497.85	499.06	500.23	500.80	502.67	503.03	504.14	504.38	504.31	503.37	501.79	501.65	500.21	498.63	497.86	497.05	496.44	495.61	495.47	494.18	493.88	492.30	491.43	490.72	489.57	489.14	487.56	487.27	485.98	485.41		
VERTICAL.....	R=4500 L=185.007															P=3.75% L=74.693					R=2000 L=138.165					L=570.158					P=3.16%				
HORIZONTAL.....	R=300 L=81.153			r=4.713 L=275.905							R=1500 L=97.435					r=8.848 L=119.899					A=82.092 L=44.927		R=150 L=44.927		r=378.638 L=87.112			A=132.849 L=58.83		R=300 L=72.752		A=132.849 L=58.83			
LEFT SLOPE....	3.08	3.32	3.32	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50		
RIGHT SLOPE	3.08	3.32	3.32	1.45	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.21	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50		
LEFT DITCHES	496.60	496.94	497.27	498.48	498.48	502.09	503.55	503.55	503.79	503.73	503.79	503.73	499.62	498.04	497.27	496.58	496.06	495.23	495.07	493.60	493.30	490.85	490.14	488.97	488.54	487.96	487.12	486.67	485.44	485.44					
RIGH DITCHES																																			

LICENCE : 1109

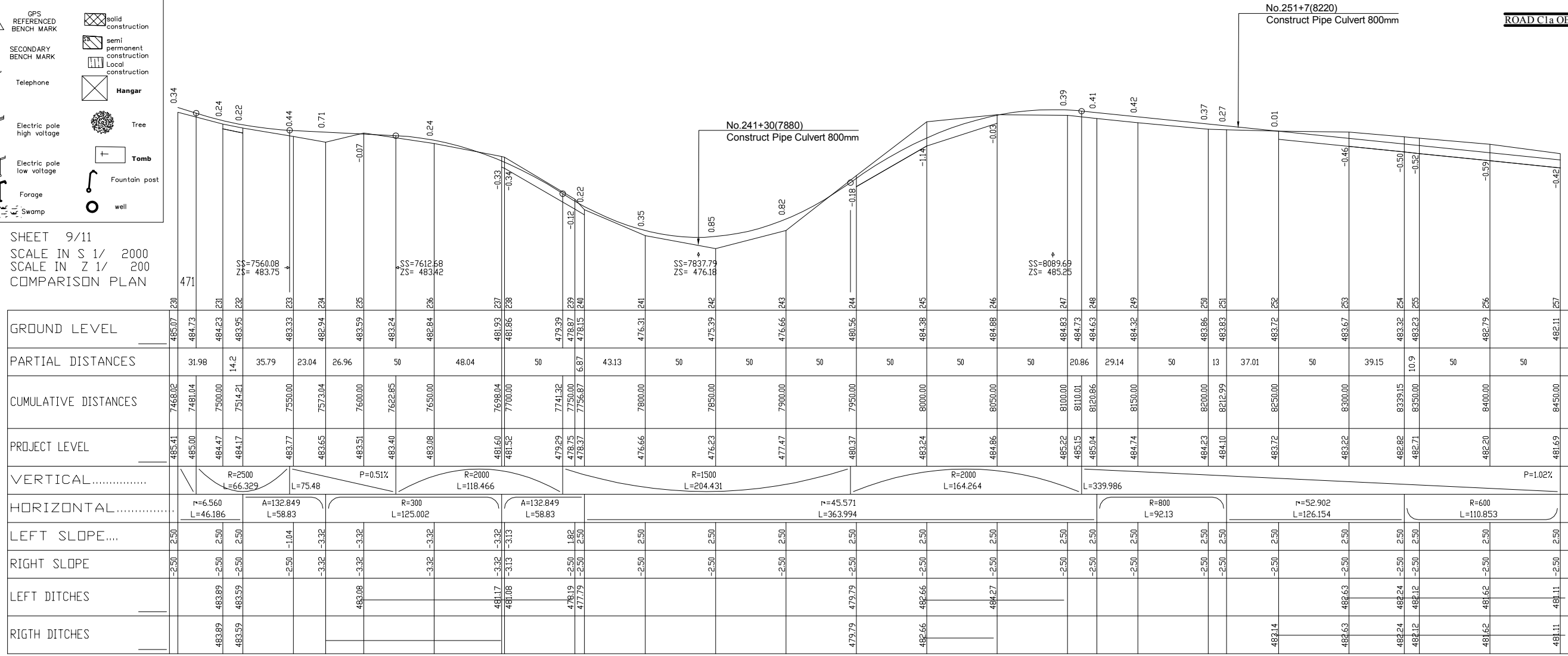
	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-8/30
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE C1-a 8/11			



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		

SHEET 9/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



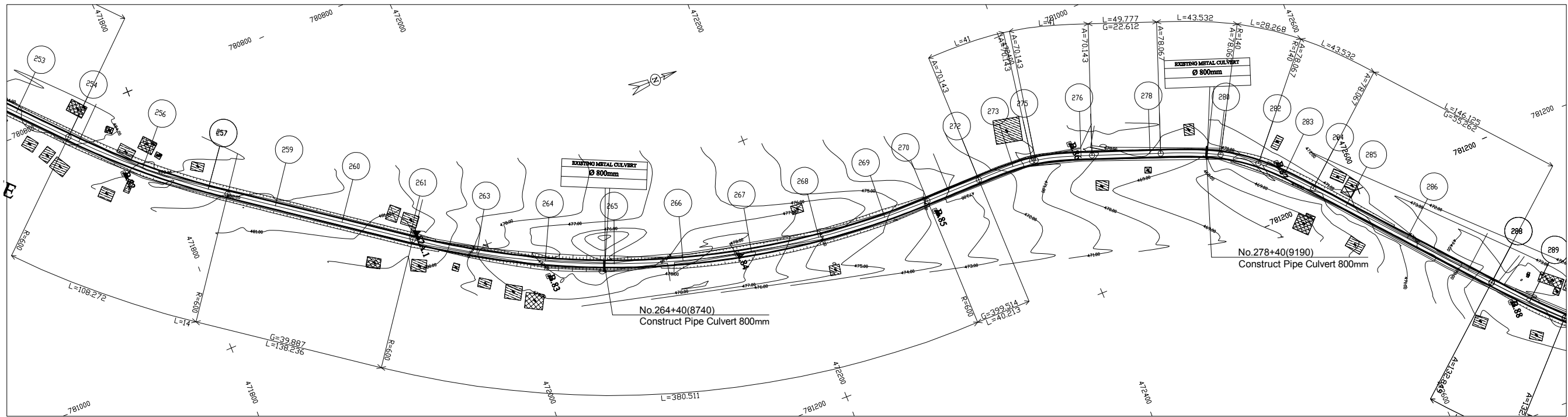
GROUND LEVEL	485.07	484.73	484.63	483.95	483.33	482.94	483.59	483.24	482.84	481.93	481.86	479.39	478.87	478.15	476.31	475.39	476.66	477.47	480.37	483.24	484.86	484.86	485.22	485.15	485.04	484.74	484.23	484.10	483.72	483.72	483.67	483.32	482.82	482.71	482.20	481.69		
PARTIAL DISTANCES	31.98	14.2	35.79	23.04	26.96	50	48.04	50	43.13	50	50	50	50	50	50	50	50	20.86	29.14	50	13	37.01	50	39.15	10.9	50	50											
CUMULATIVE DISTANCES	7468.02	7481.04	7500.00	7514.21	7550.00	7573.04	7600.00	7622.85	7650.00	7698.04	7700.00	7741.32	7750.00	7756.87	7800.00	7850.00	7900.00	7950.00	8000.00	8050.00	8100.00	8110.01	8120.86	8150.00	8200.00	8212.99	8250.00	8300.00	8339.15	8350.00	8400.00	8450.00						
PROJECT LEVEL	485.41	485.00	484.47	484.17	483.77	483.65	483.51	483.40	483.08	481.60	481.52	479.29	478.75	478.37	476.66	476.23	477.47	480.37	483.24	484.86	485.22	485.15	485.04	484.74	484.23	484.10	483.72	483.72	483.67	483.32	482.82	482.71	482.20	481.69				
VERTICAL.....	R=2500 L=66.329		P=0.51%		R=2000 L=118.466		R=1500 L=204.431		R=2000 L=164.264		L=339.986		P=1.02%																									
HORIZONTAL.....	r=6.560 L=46.186		A=132.849 L=58.83		R=300 L=125.002		A=132.849 L=58.83		r=45.571 L=363.994		R=800 L=92.13		r=52.902 L=126.154		R=600 L=110.853																							
LEFT SLOPE....	2.50	2.50	2.50	2.50	1.04	3.32	3.32	3.32	3.32	3.13	3.13	1.82	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50		
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-3.32	-3.32	-3.32	-3.32	-3.13	-3.13	-1.82	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	
LEFT DITCHES	483.89	483.89	483.59	483.59	483.08	483.08	481.17	481.08	478.19	477.79	477.79	479.79	479.79	479.79	482.66	484.27	484.27	485.22	485.15	485.04	484.74	484.23	484.10	483.72	483.72	483.67	483.32	482.82	482.71	482.20	481.69							
RIGH DITCHES																																						

LICENCE : 1109

<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT		4-9/30
	<b>NTC INTERNATIONAL CO., LTD.</b>		DWG. TITLE	SCALE	APPROVED BY
			PLAN AND PROFILE C1-a 9/11		SERIAL NO.

A-137

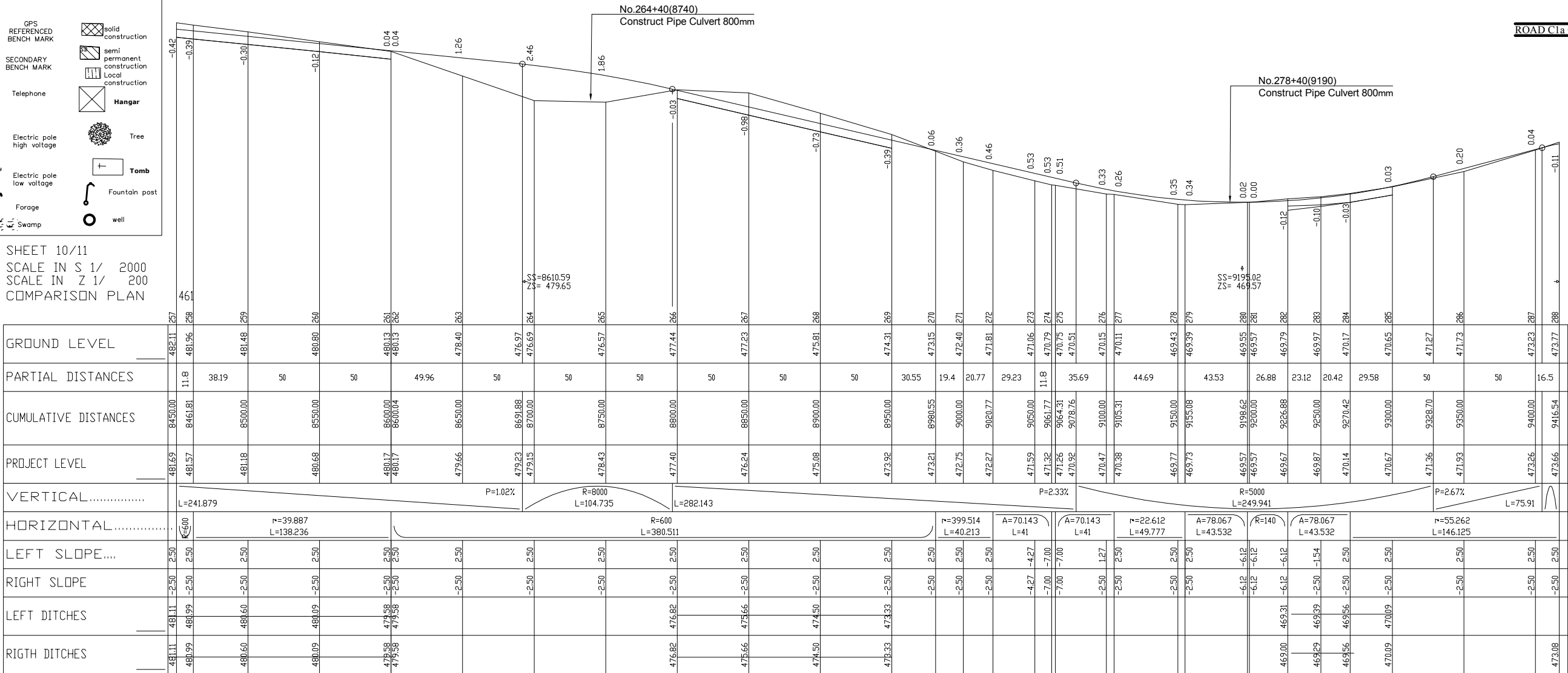
C1A1P1S



LEGEND ECHELLE 1/2000

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 10/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



ROAD C1a OBALA

C1A/PIS

LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
 NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE  
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
DWG. TITLE  
PLAN AND PROFILE C1-a 10/11

DATE

SCALE

DESIGNED BY

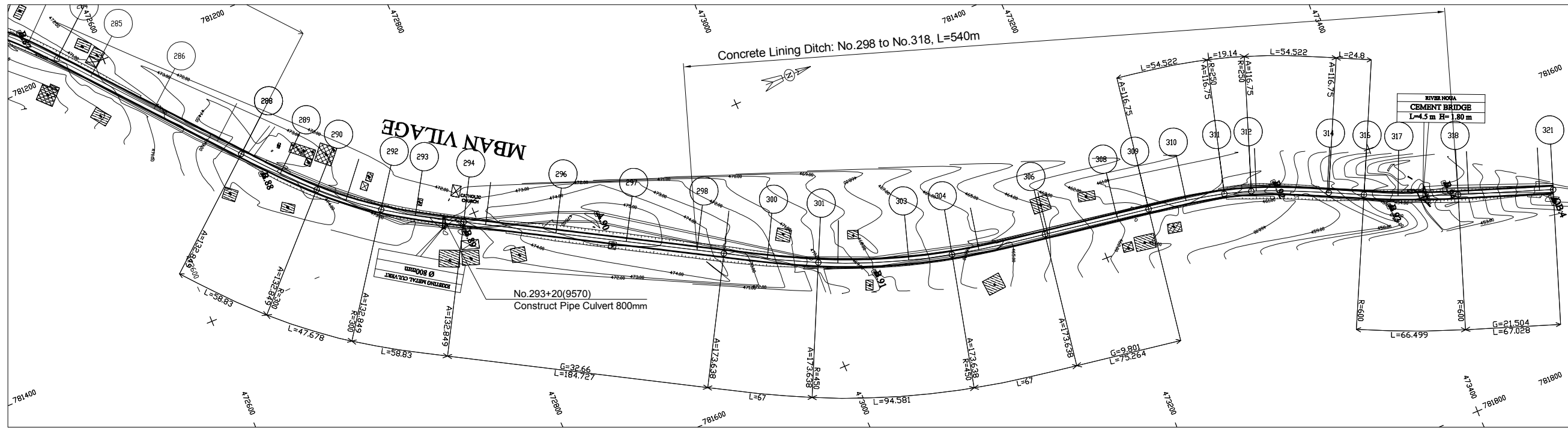
APPROVED BY

DWG NO.

SERIAL NO.

4-10/3C



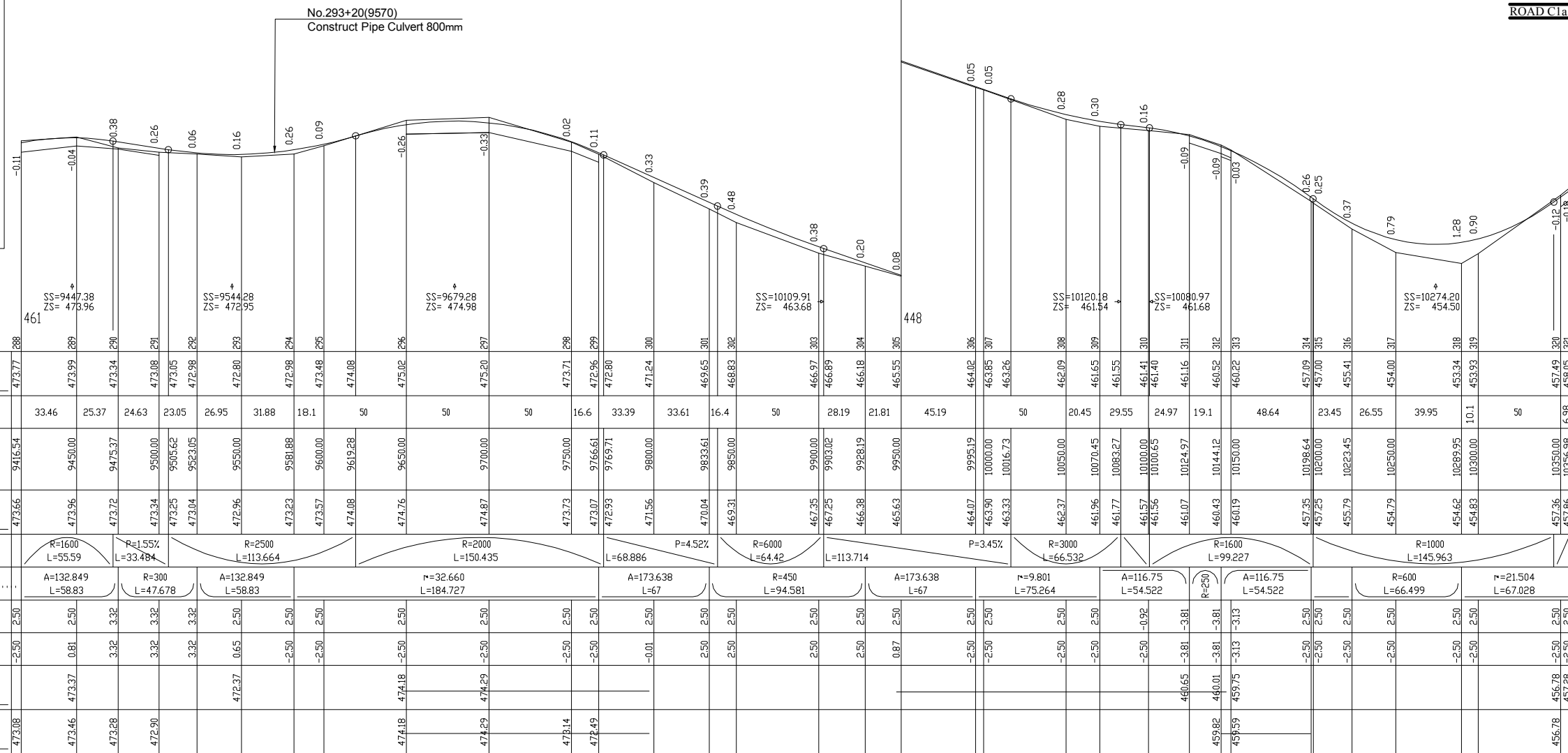


LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			well

SHEET 11/11  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

ROAD C1a OBALA

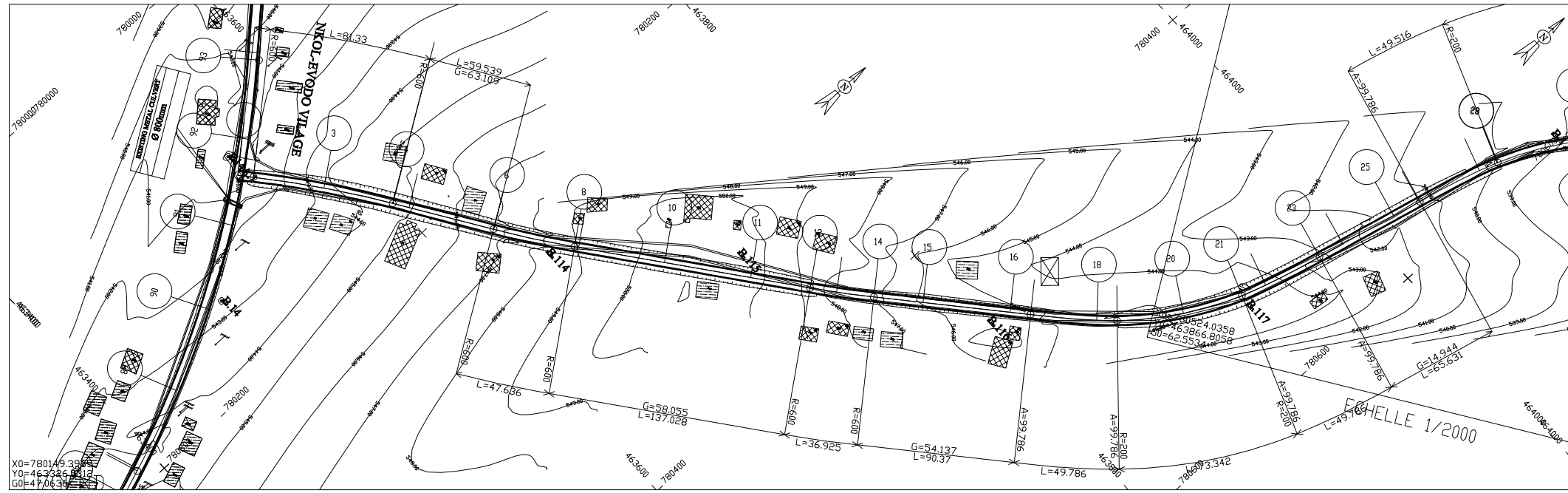


	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-11/3C
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE C1-a 11/11			

A-139

C1A.P1S

LICENCE : 1109

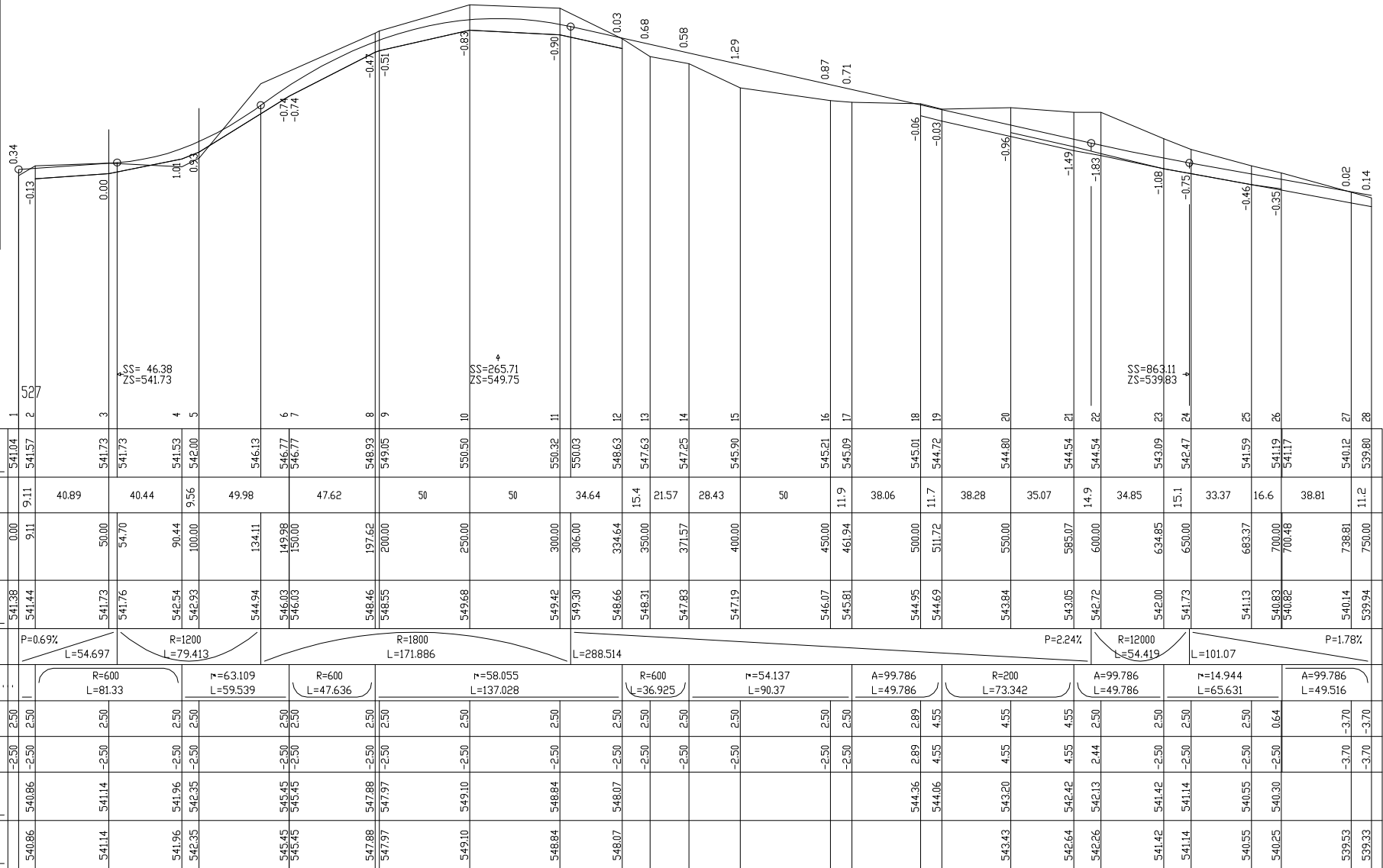


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G0=47704.31

**ROAD СІБ ОБАЛА**

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forge
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 1/ 6  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

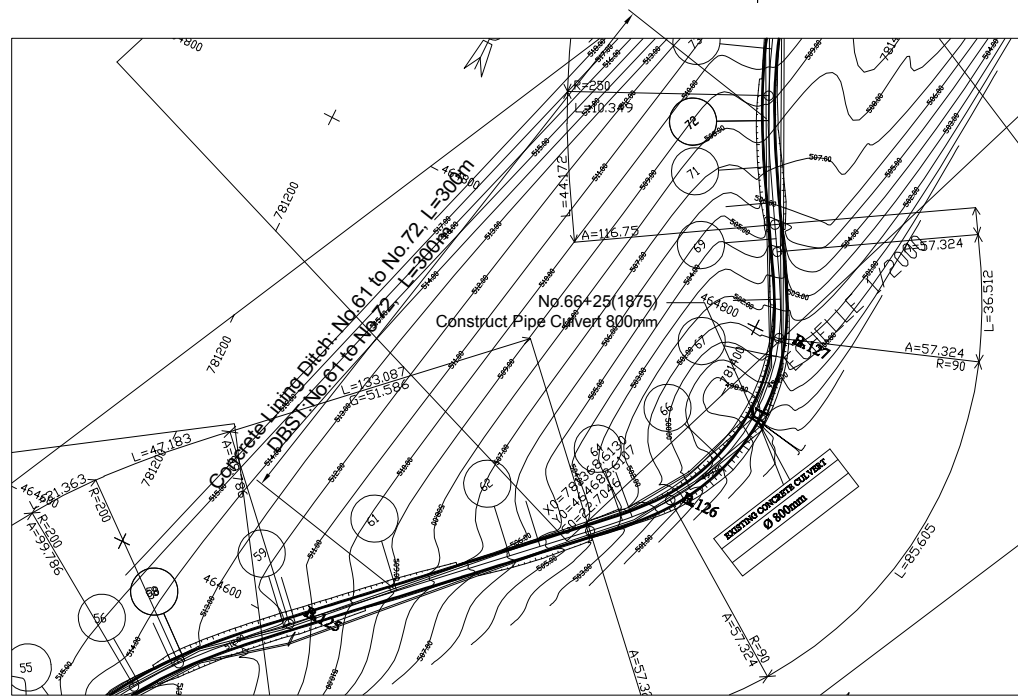


C1B1P1S

LICENCE : 1109

<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT		4-12/3C
	<b>NTC INTERNATIONAL CO., LTD.</b>		DWG. TITLE	SCALE	APPROVED BY
		PLAN AND PROFILE C1-b 1/6			SERIAL NO.

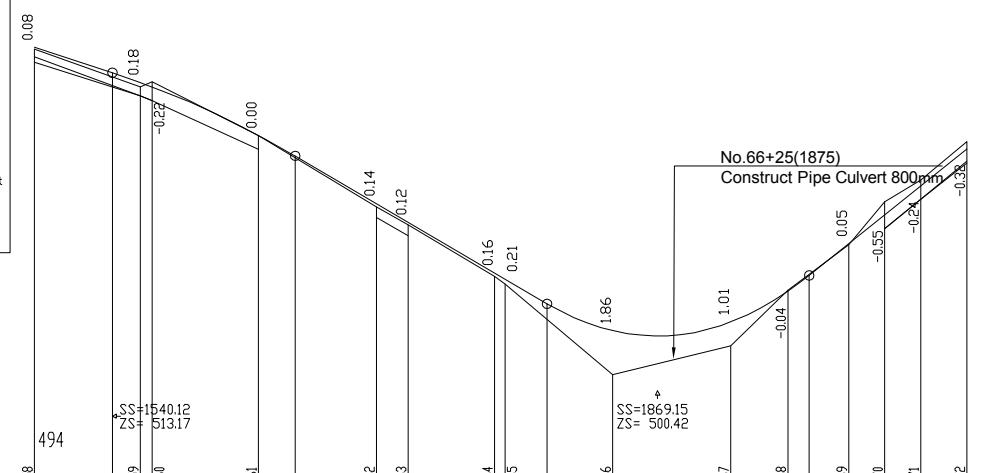




LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			Well

ROAD C1b OBALA



SHEET 3/ 9  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

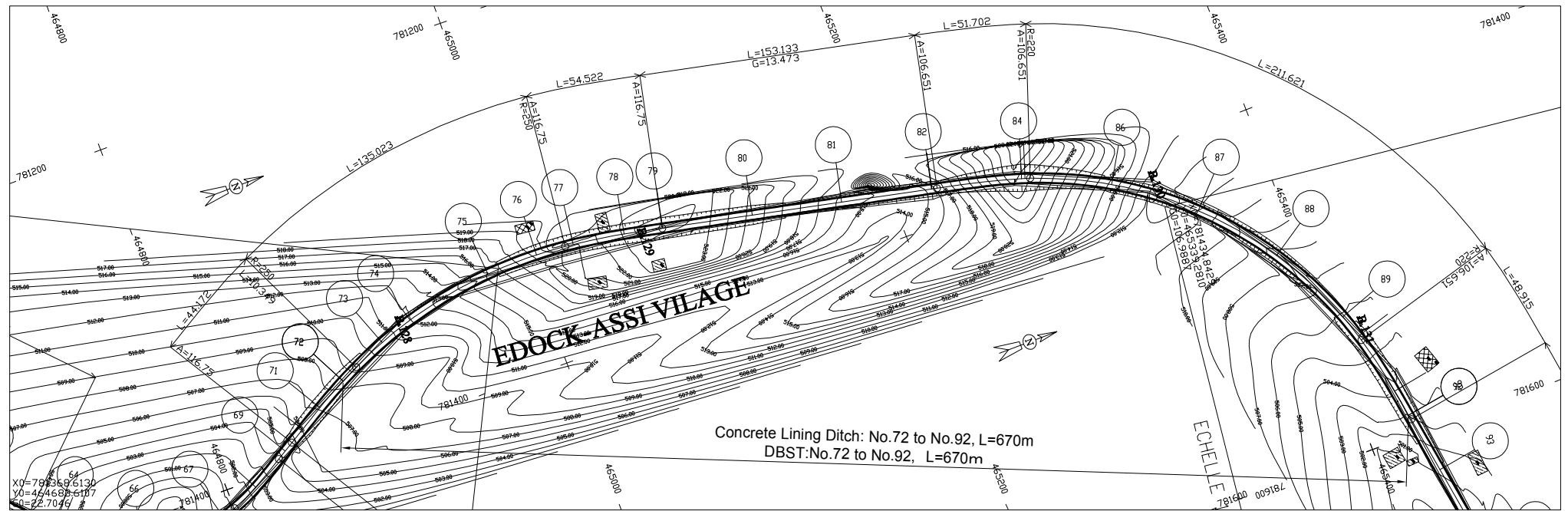
GROUND LEVEL	512.56	511.39	510.97	511.19	508.90	507.96	505.89	505.12	503.79	502.93	502.63	501.12	498.79	500.01	500.75	502.36	503.03	504.28	506.10	507.01	508.65	
PARTIAL DISTANCES		44.69		44.9		50		13.4	36.57		45.57		50	24.25	25.75	15.3	15.3	19.5				
CUMULATIVE DISTANCES	1605.31	1638.16	1650.00	1655.10	1700.00	1715.66	1750.00	1763.43	1785.58	1800.00	1804.43	1822.34	1850.00	1900.00	1907.70	1924.25	1933.22	1950.00	1965.25	1980.54	2000.00	
PROJECT LEVEL	512.64	511.57	511.16	510.96	508.91	508.03	506.02	505.24	503.94	503.10	502.84	501.79	500.65	501.02	501.35	502.32	505.99	504.33	505.55	506.78	508.33	
VERTICAL.....		P=3.27% L=32.878		R=3000 L=77.495		L=106.688		P=5.85%		R=800 L=110.87		P=8.01% L=66.785										
HORIZONTAL.....		A=99.786 L=47.183		P=51.586 L=133.087		A=57.324 L=36.512		R=90 L=85.605		A=57.324 L=36.512		A=116.75 L=44.172										
LEFT SLOPE....	-4.55		1.78	2.50	2.50		2.50	2.50		5.97	7.00		7.00	7.00		7.00		1.03	2.50	2.50	2.50	-0.26
RIGHT SLOPE	-4.55	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50		5.97	7.00		7.00	7.00		7.00		1.03	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES	512.23	510.59	510.38	510.38	506.33					502.43						501.62			504.97	506.19	507.82	
RIGH DITCHES	512.01	510.57	510.38	510.38	506.33		505.44	504.66											504.97	506.19	507.75	

LICENCE 1109

 <b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>  <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>  <b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-14/3C
		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
		PLAN AND PROFILE C1-b 3/6			

A-142

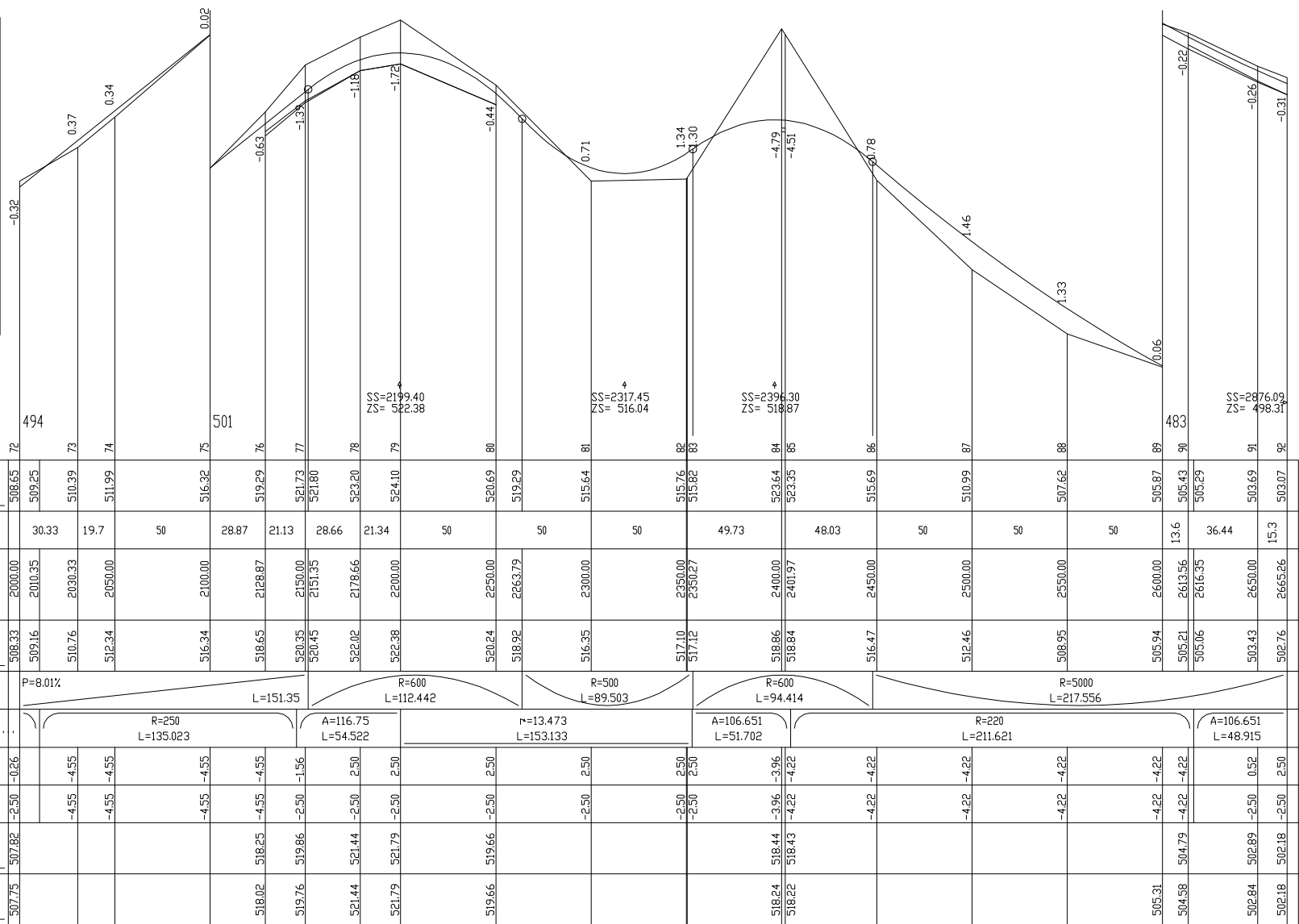
C1B.PIS



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			well

ROAD C1b OBALA

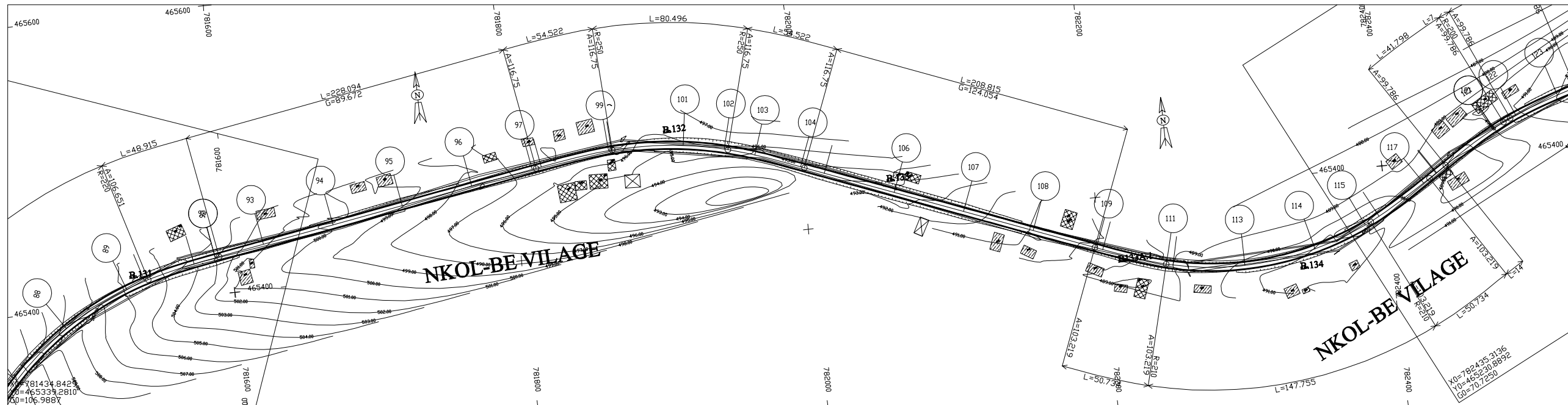


SHEET 4/ 6  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	508.65	509.25	510.39	511.99	516.32	519.29	521.73	521.80	523.20	524.10	520.69	519.29	515.64	515.76	515.82	523.64	523.35	515.69	510.99	507.62	505.87	505.43	505.29	503.69	503.07	
PARTIAL DISTANCES	30.33	19.7	50	28.87	21.13	28.66	21.34	50	50	49.73	48.03	50	50	50	13.6	36.44	15.3									
CUMULATIVE DISTANCES	2000.00	2010.35	2030.33	2050.00	2100.00	2128.87	2150.00	2151.35	2178.66	2200.00	2250.00	2263.79	2300.00	2350.00	2350.27	2400.00	2401.97	2450.00	2500.00	2550.00	2600.00	2613.56	2616.35	2650.00	2665.26	
PROJECT LEVEL	508.33	509.16	510.76	512.34	516.34	518.65	520.35	520.45	522.02	522.38	520.24	518.92	516.35	517.10	517.12	518.86	518.84	516.47	512.46	508.95	505.94	505.21	505.06	503.43	502.76	
VERTICAL.....	P=8.01%		L=151.35		R=600 L=112.442		R=500 L=89.503		R=600 L=94.414		R=5000 L=217.556															
HORIZONTAL.....	R=250 L=135.023		A=116.75 L=54.522		R=13.473 L=153.133		A=106.651 L=51.702		R=220 L=211.621		A=106.651 L=48.915															
LEFT SLOPE....	-0.26	-4.55	-4.55	-4.55	-4.55	-4.55	-1.56	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	-3.96	-4.22	-4.22	-4.22	-4.22	-4.22	-4.22	-4.22	0.52	2.50	
RIGHT SLOPE	-2.50	-4.55	-4.55	-4.55	-4.55	-4.55	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-4.22	-4.22	-4.22	-4.22	-4.22	-4.22	-4.22	-4.22	-2.50	-2.50	
LEFT DITCHES	507.82				518.25	519.86	521.44	521.79	519.66					518.24	518.22	518.43					505.31	504.58	502.84	502.18	502.18	
RIGH DITCHES	507.75																									

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-15/3C
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE C1-b 4/6	SCALE	APPROVED BY	SERIAL NO.



LEGEND


SHEET 5/ 6  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

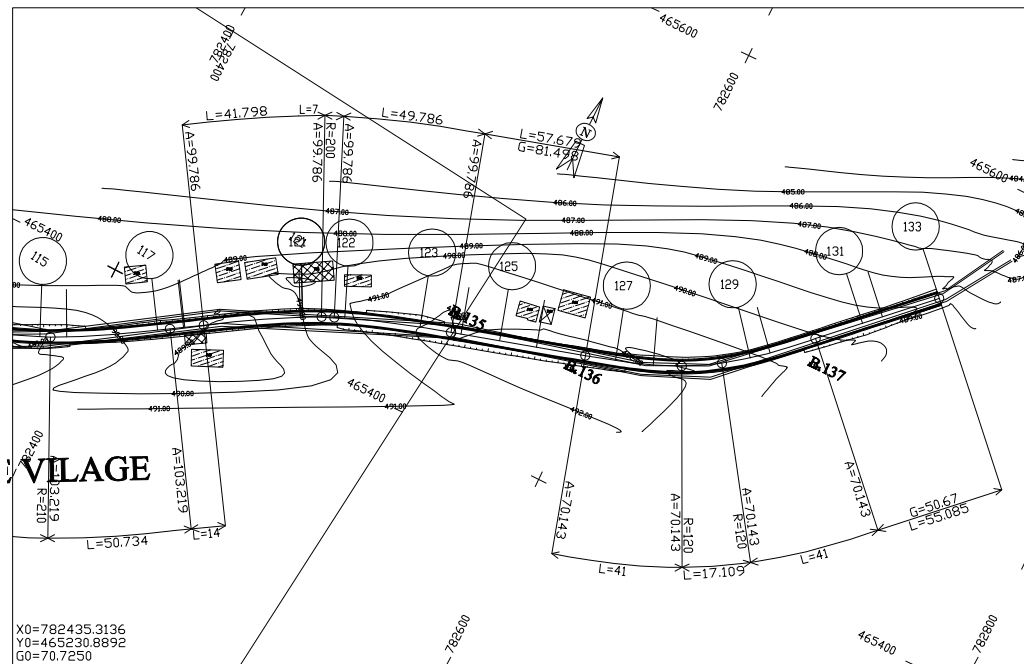
GROUND LEVEL	503.07	502.92	501.12	499.77	499.18	499.04	497.77	496.41	495.93	495.85	495.53	495.46	494.97	494.93	494.60	493.66	492.59	490.85	489.85	489.76	488.77	489.04	490.41	490.48	490.67	491.04	490.50	489.84	489.23	489.34	489.76	489.95	490.00				
PARTIAL DISTANCES		34.74	50	50	50	43.38	6.62	47.9	50	28.4	21.6	32.92	17.1	50	50	50	45.56	45.35	50	38.66	11.3	38.45	10.9	49.18													
CUMULATIVE DISTANCES	2665.26	2668.05	2700.00	2750.00	2790.48	2800.00	2850.00	2947.90	2950.00	3000.00	3028.40	3031.16	3050.00	3082.92	3085.69	3100.00	3150.00	3200.00	3250.00	3295.56	3300.00	3345.35	3350.00	3400.00	3405.92	3420.63	3450.00	3488.66	3500.00	3521.08	3538.45	3549.39	3550.00	3558.20	3585.90	3599.18	3600.00
PROJECT LEVEL	502.76	502.64	501.42	499.90	499.05	498.88	498.03	496.35	496.32	495.46	494.97	494.93	494.60	493.99	493.75	492.89	492.04	491.18	490.40	490.32	489.90	489.89	490.29	490.39	490.66	490.98	490.75	490.54	490.10	489.84	489.78	489.78	489.79	490.15	490.44	490.46	
VERTICAL.....	R=5000 L=125.219		L=509.151		R=250 L=80.496		A=116.75 L=54.522		A=116.75 L=54.522		R=250 L=80.496		A=116.75 L=54.522		R=250 L=80.496		P=1.71%		R=3000 L=106.29		R=2000 L=78.367		R=2000 L=78.367		R=1500 L=64.815		R=1500 L=64.815		R=1500 L=64.815		R=1500 L=64.815		R=1500 L=64.815				
HORIZONTAL.....	r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		r=89.672 L=228.094		
LEFT SLOPE....	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES	502.18	502.18	501.42	499.32	498.30	498.30	497.77	496.41	495.93	495.85	495.53	495.46	494.97	494.93	494.60	493.66	492.59	490.85	489.85	489.76	488.77	489.04	490.41	490.48	490.67	491.04	490.50	489.84	489.23	489.34	489.76	489.95	490.00				
RIGH DITCHES	502.18	502.18	501.42	499.32	498.30	498.30	497.77	496.41	495.93	495.85	495.53	495.46	494.97	494.93	494.60	493.66	492.59	490.85	489.85	489.76	488.77	489.04	490.41	490.48	490.67	491.04	490.50	489.84	489.23	489.34	489.76	489.95	490.00				

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-16/3C
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE C1-b 5/6	SCALE	APPROVED BY	SERIAL NO.

A-144

C1B/P15

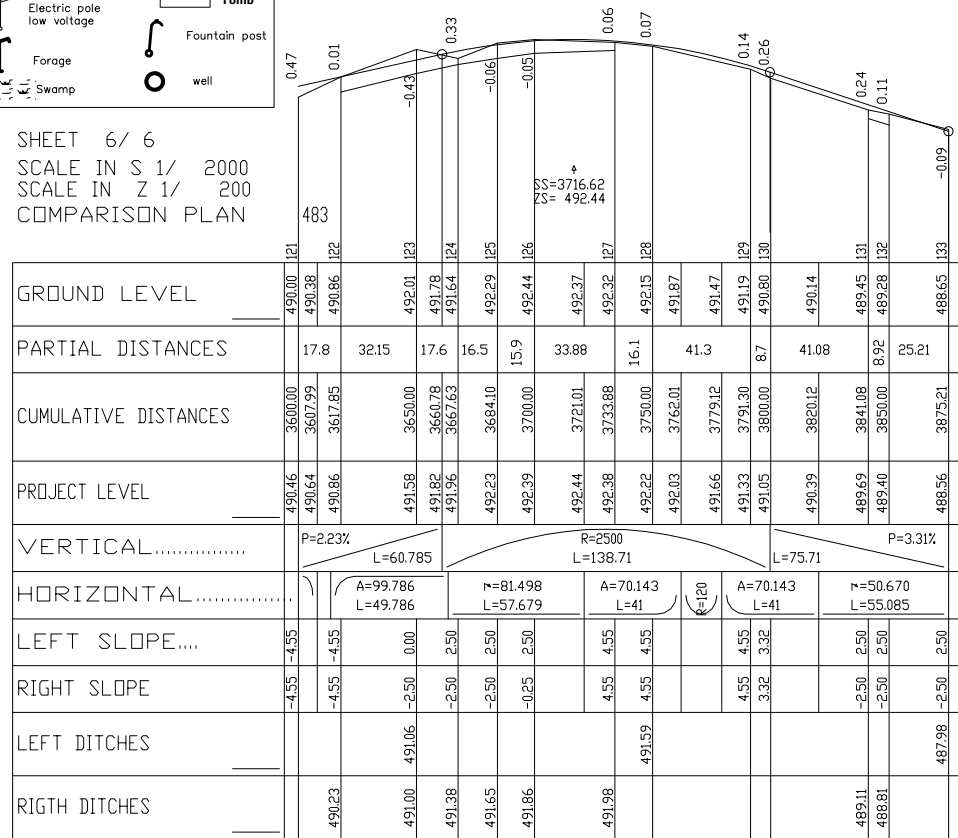


LEGEND

ROAD C1B OBALA

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			well

SHEET 6/ 6  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN

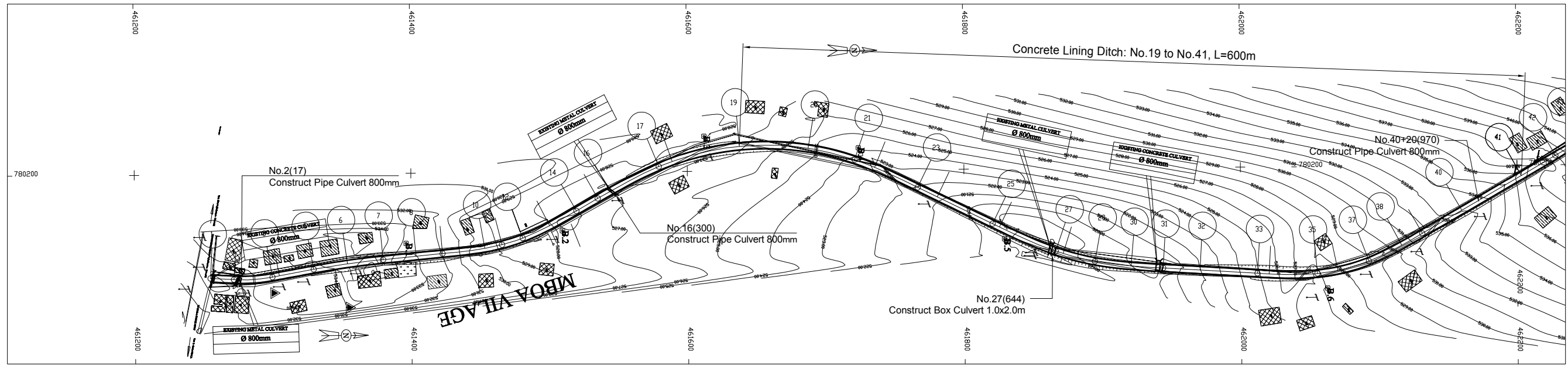


LICENCE : 1109

<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-17/3C
	<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
<b>NTC INTERNATIONAL CO., LTD.</b>		PLAN AND PROFILE C1-b 6/6			

A-145

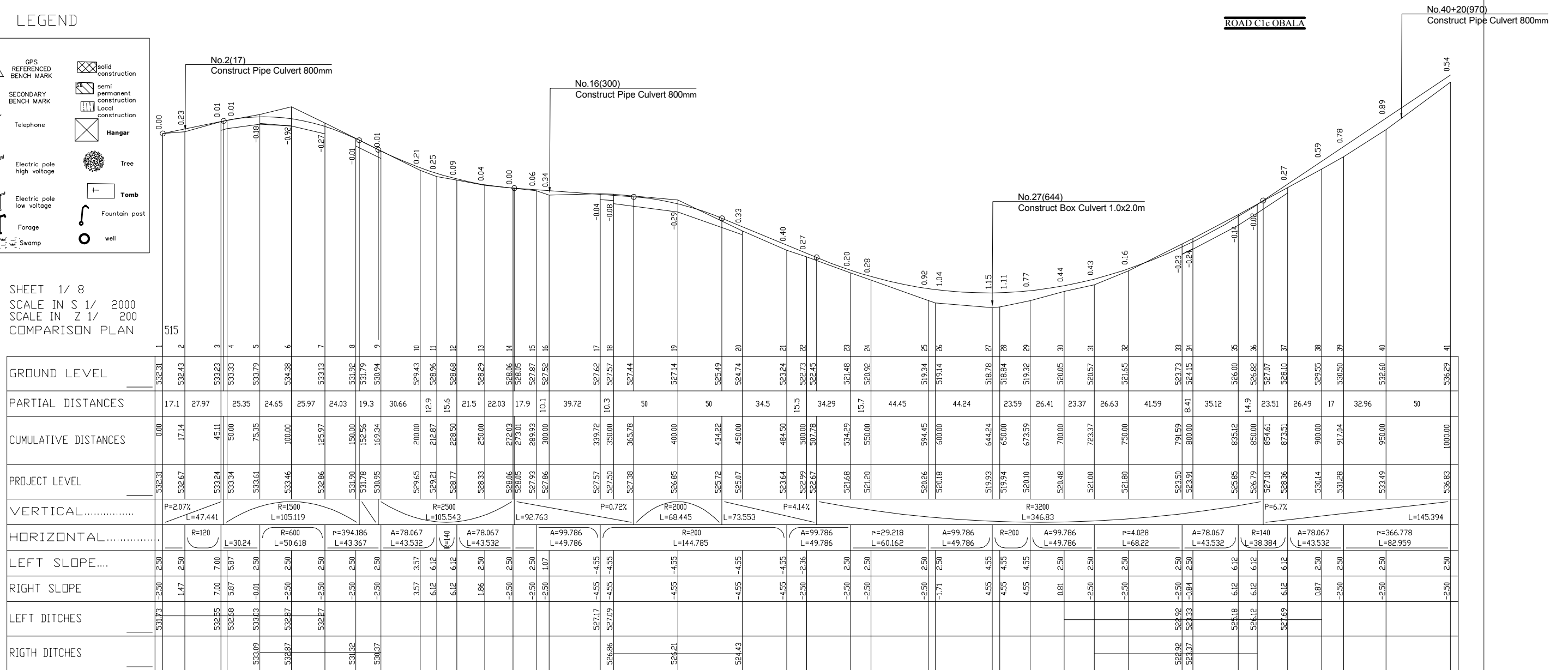
C1B/P15



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			well

SHEET 1/ 8  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

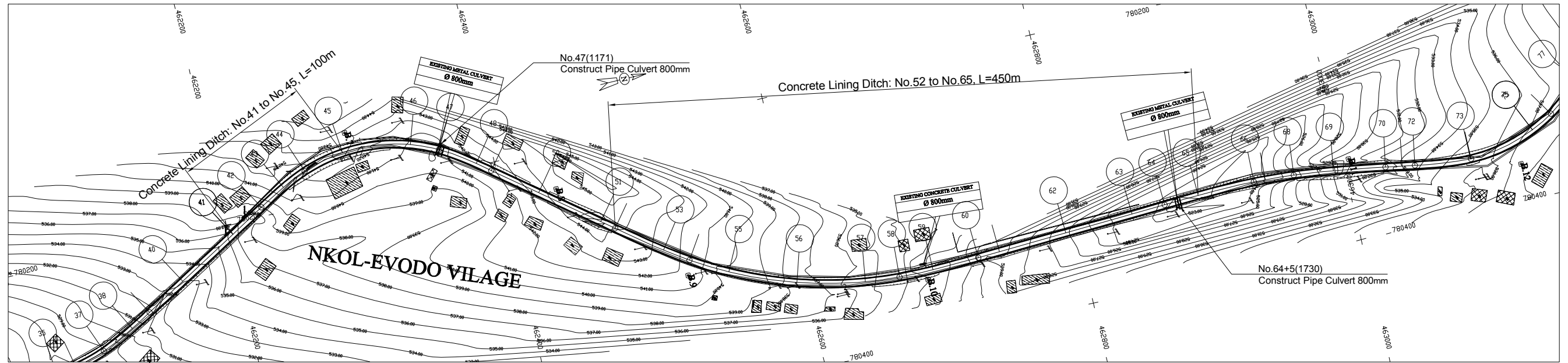


GROUND LEVEL	532.31	532.43	532.24	533.34	533.61	533.46	532.86	531.90	531.78	530.95	529.65	529.21	528.96	528.68	528.29	528.05	527.87	527.52	527.44	527.14	525.49	524.74	523.24	522.73	522.45	521.48	521.20	520.26	520.18	519.93	519.94	520.10	520.48	521.00	521.80	523.50	523.91	525.85	526.79	527.10	528.36	530.14	531.28	533.49	536.83										
PARTIAL DISTANCES	17.1	27.97	25.35	24.65	25.97	24.03	19.3	30.66	12.9	15.6	21.5	22.03	17.9	10.1	39.72	50	50	34.5	15.5	34.29	15.7	44.45	44.24	23.59	26.41	23.37	26.63	41.59	35.12	14.9	23.51	26.49	17	32.96	50																				
CUMULATIVE DISTANCES	0.00	17.14	45.11	50.00	75.35	100.00	125.97	150.00	152.56	162.34	200.00	212.87	228.50	250.00	272.03	273.01	289.93	300.00	339.72	350.00	365.78	400.00	434.22	450.00	484.50	500.00	507.78	534.29	550.00	594.45	600.00	644.24	650.00	673.59	700.00	723.37	750.00	791.59	800.00	835.12	850.00	854.61	873.51	900.00	917.04	950.00	1000.00								
PROJECT LEVEL	532.31	532.67	532.24	533.34	533.61	533.46	532.86	531.90	531.78	530.95	529.65	529.21	528.96	528.68	528.29	528.05	527.87	527.52	527.44	527.14	525.49	524.74	523.24	522.73	522.45	521.48	521.20	520.26	520.18	519.93	519.94	520.10	520.48	521.00	521.80	523.50	523.91	525.85	526.79	527.10	528.36	530.14	531.28	533.49	536.83										
VERTICAL.....	P=2.07% L=47.441		R=1500 L=105.119				R=2500 L=105.543				L=92.763		P=0.72% L=68.445		R=2000 L=73.553		P=4.14% L=346.83				R=3200 L=145.394				P=6.7%																														
HORIZONTAL.....	R=120 L=30.24		R=600 L=50.618		T=394.186 L=43.532		A=78.067 L=43.532		R=140 L=43.532		A=78.067 L=49.786		R=200 L=144.785		A=99.786 L=49.786		T=29.218 L=60.162		A=99.786 L=49.786		R=200 L=49.786		A=99.786 L=49.786		T=4.028 L=68.22		A=78.067 L=43.532		R=140 L=38.384		A=78.067 L=43.532		T=366.778 L=82.959																						
LEFT SLOPE....	2.50	2.50	7.00	5.87	2.50	2.50	2.50	2.50	2.50	2.50	3.57	6.12	6.12	1.86	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50									
RIGHT SLOPE	-2.50	1.47	7.00	5.87	-0.01	-2.50	-2.50	-2.50	-2.50	-2.50	3.57	6.12	6.12	1.86	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50						
LEFT DITCHES	531.73		532.55	532.68	533.03	532.87	532.87	531.32																																															
RIGH DITCHES																																																							

LICENCE 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-18/3C
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE C1-c 1/8			

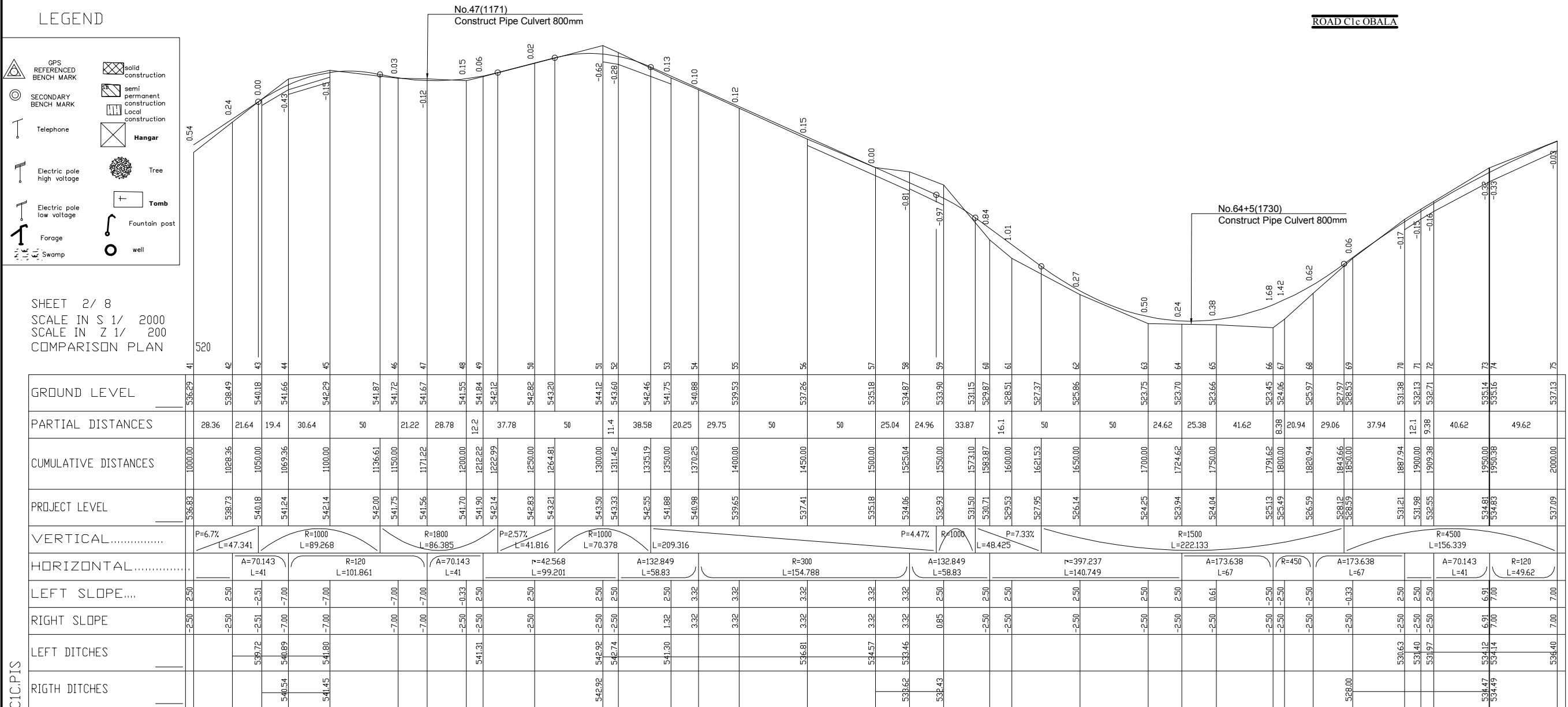




LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

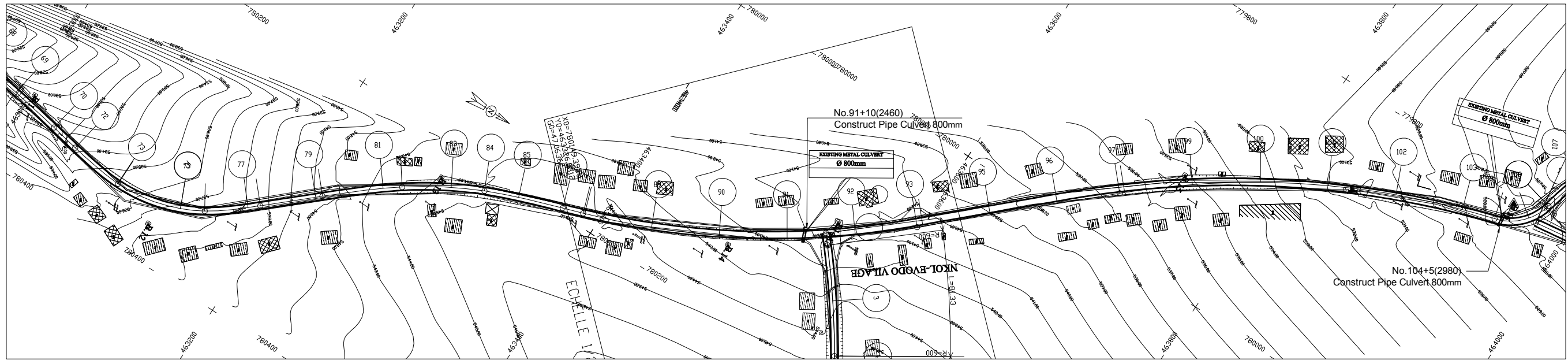
SHEET 2 / 8  
 SCALE IN S 1 / 2000  
 SCALE IN Z 1 / 200  
 COMPARISON PLAN



	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75											
GROUND LEVEL	536.29	538.49	540.18	541.66	542.29	541.87	541.72	541.67	541.55	541.84	542.12	542.82	543.20	544.12	543.60	542.46	541.75	540.88	539.53	537.26	535.18	534.87	533.90	531.15	529.87	528.51	527.37	525.86	523.75	523.70	523.66	523.45	524.06	525.97	527.97	528.53	531.38	532.13	532.71	535.14	535.16	537.13				
PARTIAL DISTANCES	28.36	21.64	19.4	30.64	50	21.22	28.78	12.2	37.78	50	11.4	38.58	20.25	29.75	50	50	25.04	24.96	33.87	16.1	50	50	24.62	25.38	41.62	8.38	20.94	29.06	37.94	12.1	9.38	40.62	49.62													
CUMULATIVE DISTANCES	1000.00	1028.36	1050.00	1069.36	1100.00	1136.61	1150.00	1171.22	1200.00	1212.22	1222.99	1250.00	1264.81	1300.00	1311.42	1335.19	1350.00	1370.25	1400.00	1450.00	1500.00	1525.04	1550.00	1573.10	1583.87	1600.00	1621.53	1650.00	1700.00	1724.62	1750.00	1791.62	1800.00	1820.94	1843.66	1850.00	1887.94	1900.00	1909.38	1950.00	1950.38	2000.00				
PROJECT LEVEL	536.83	538.73	540.18	541.24	542.14	542.00	541.75	541.56	541.70	541.90	542.14	542.83	543.21	543.50	543.33	542.55	541.88	540.98	539.65	537.41	535.18	534.06	532.93	531.50	530.71	529.53	527.95	526.14	524.25	523.94	524.04	525.13	525.49	526.59	528.12	528.59	531.21	531.98	532.55	534.81	534.83	537.09				
VERTICAL.....	P=6.7% L=47.341		R=1000 L=89.268		R=1800 L=86.385		P=2.57% L=41.816		R=1000 L=70.378		L=209.316		P=4.47% R=1000 L=48.425		P=7.33%		R=1500 L=222.133		R=4500 L=156.339																											
HORIZONTAL.....	A=70.143 L=41		R=120 L=101.861		A=70.143 L=41		R=42.568 L=99.201		A=132.849 L=58.83		R=300 L=154.788		A=132.849 L=58.83		R=397.237 L=140.749		A=173.638 L=67		R=450		A=173.638 L=67		A=70.143 L=41		R=120 L=49.62																					
LEFT SLOPE....	2.50	2.50	2.51	7.00	7.00	7.00	7.00	7.00	0.33	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50			
RIGHT SLOPE	2.50	2.50	2.51	7.00	7.00	7.00	7.00	7.00	0.33	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50			
LEFT DITCHES			538.72	540.89	541.80				541.31			542.92				541.30																														
RIGH DITCHES			540.54		541.45																																									

LICENCE : 1109

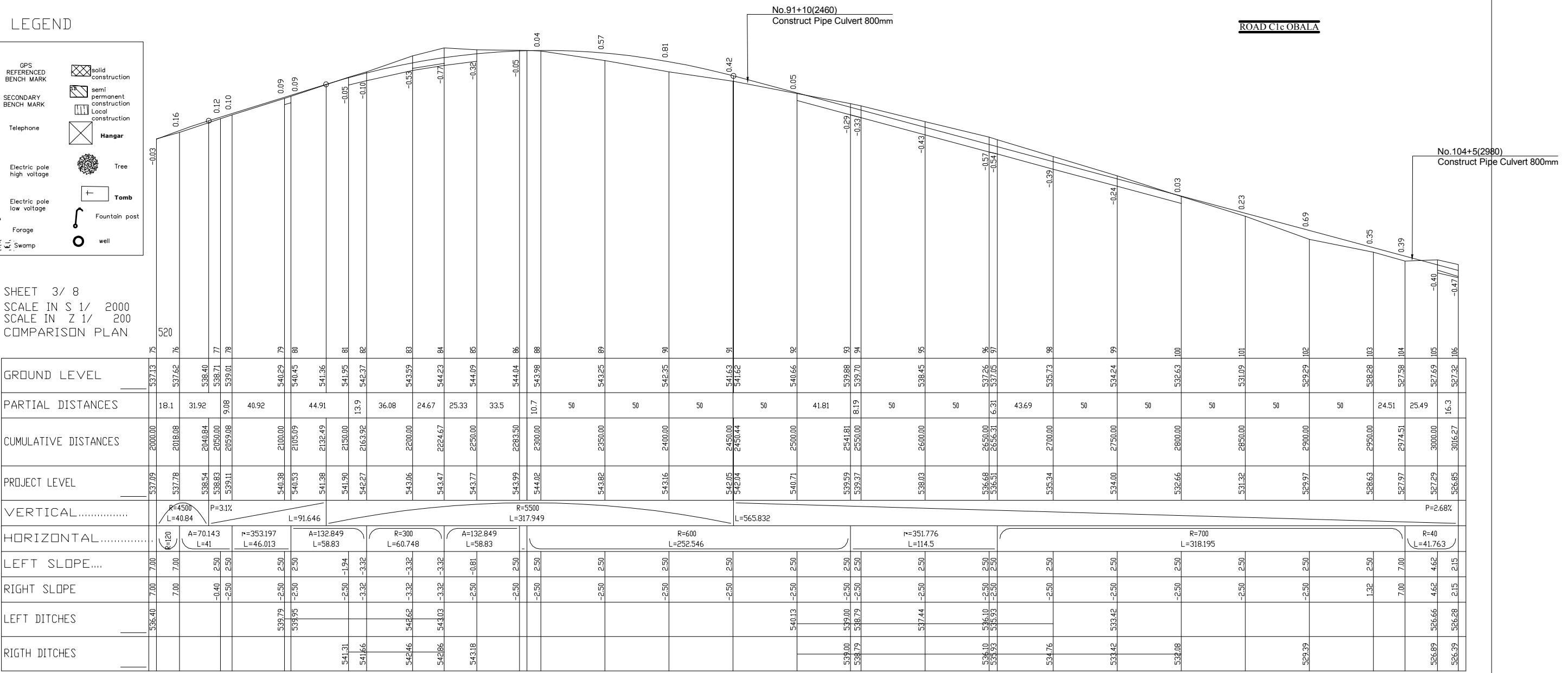
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	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-19/3C
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE C1-c 2/8	SCALE	APPROVED BY	SERIAL NO.



LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

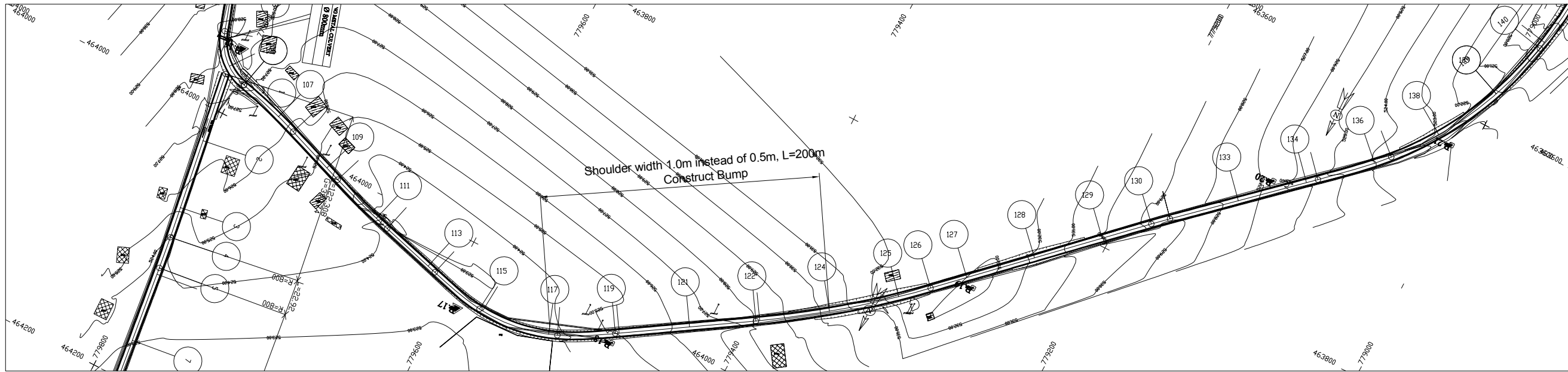
SHEET 3/ 8  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN



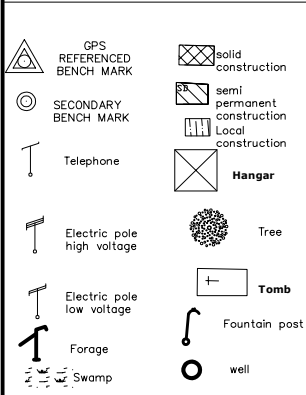
A-148

C1C.PIS

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-20/3C
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE C1-c 3/8	SCALE	APPROVED BY	SERIAL NO.



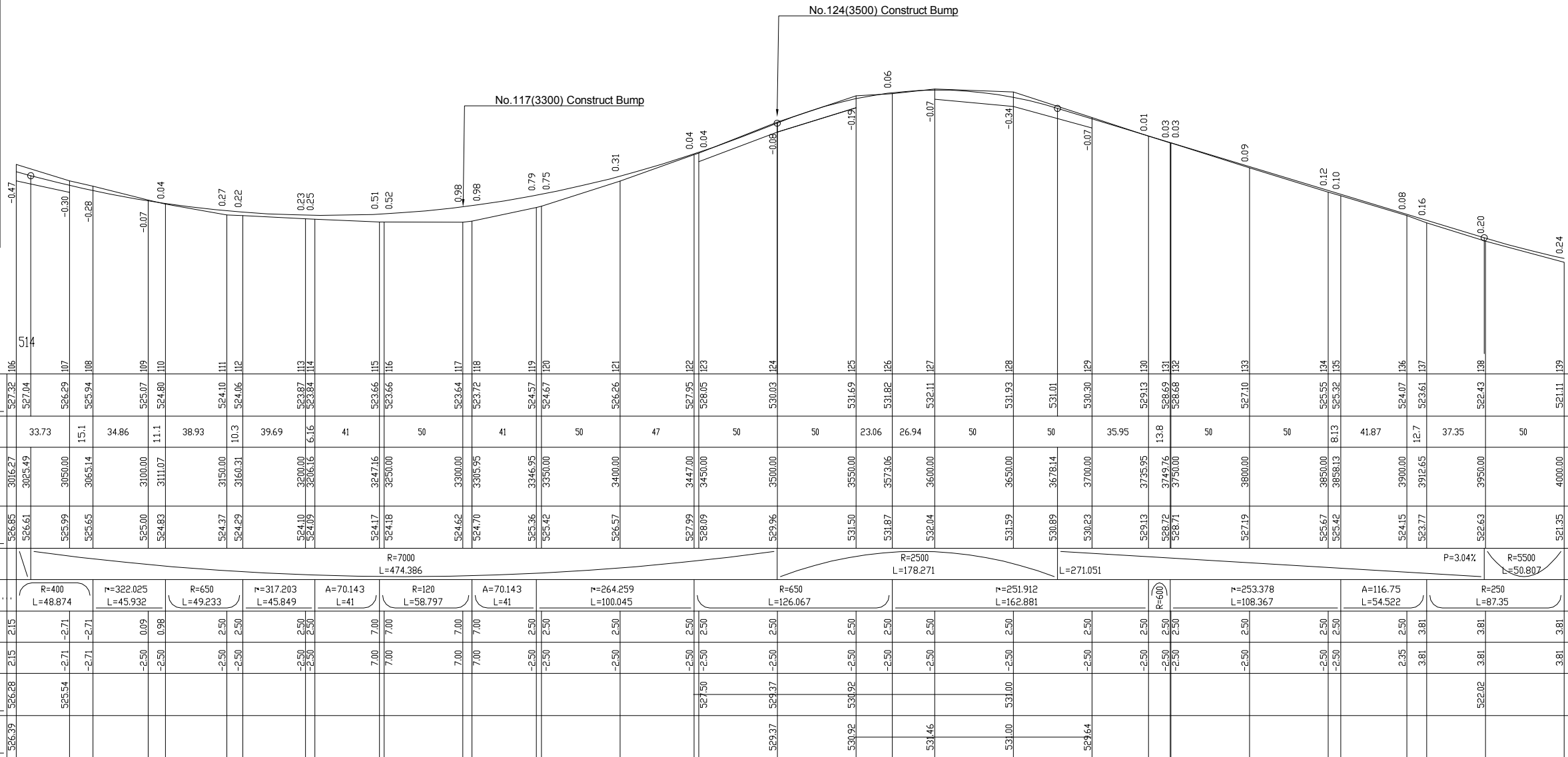
LEGEND



ROAD C1-c OBALA

A-149

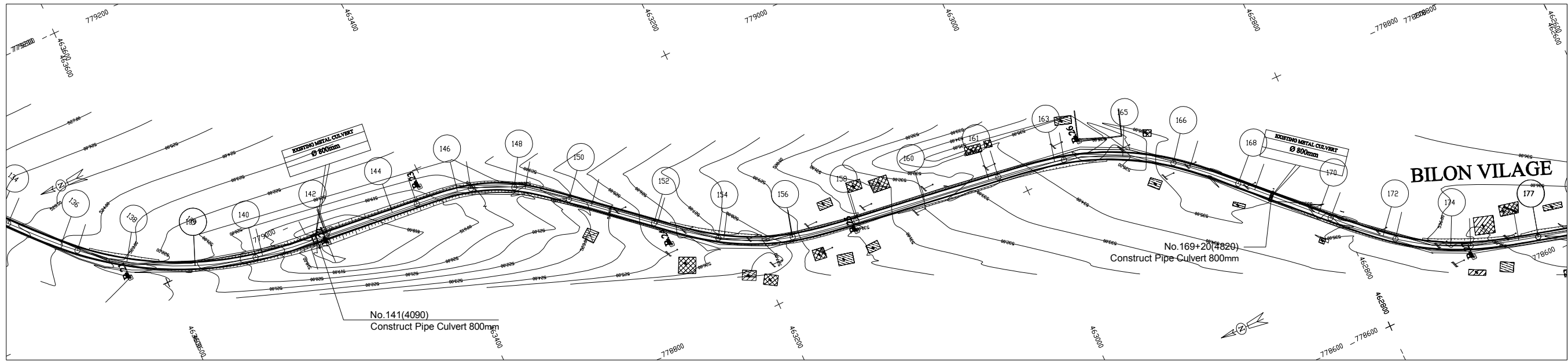
SHEET 4/ 8  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



C1C.P1S

LICENCE : 1109

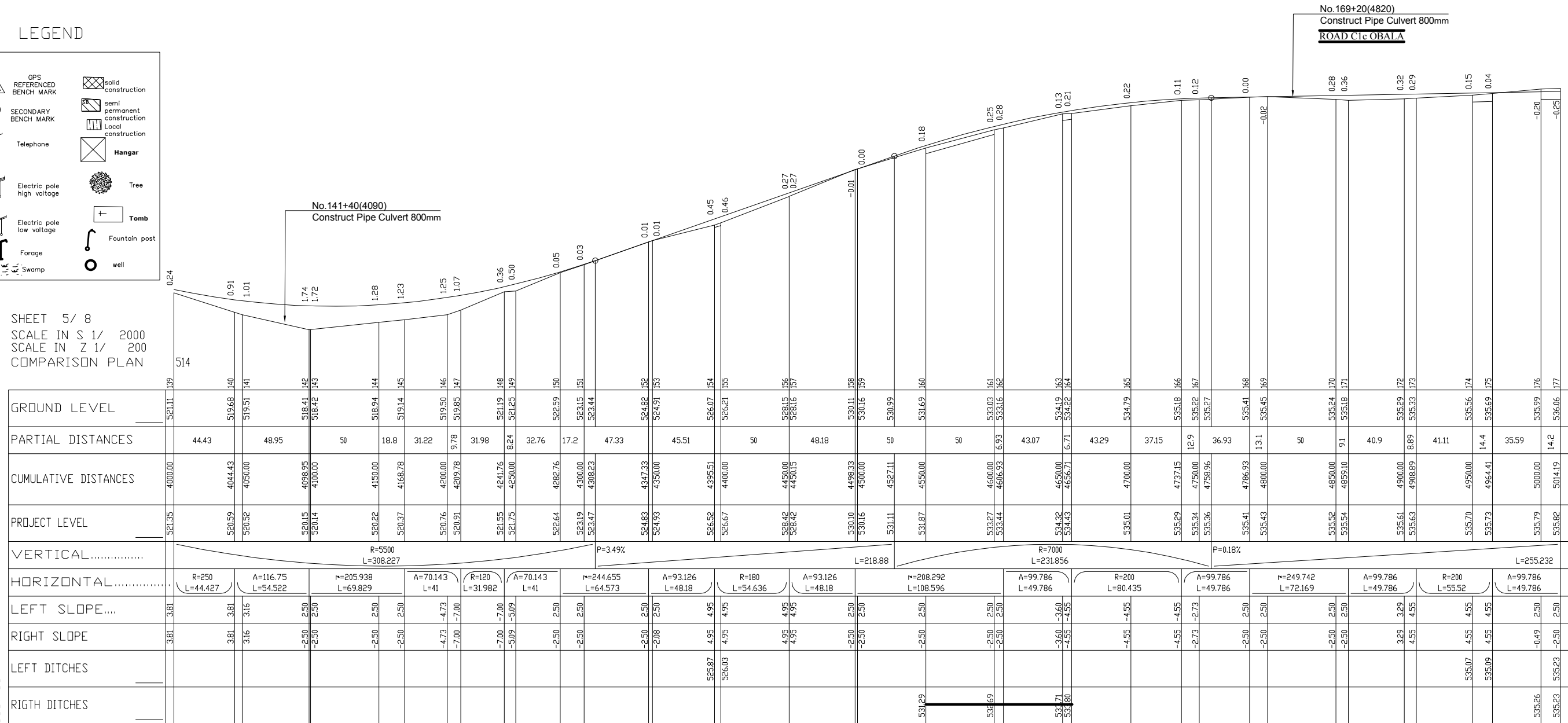
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	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-21/3C
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE C1-c 4/8			



LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 5/ 8  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



LICENCE 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
 NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE  
 RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
 DWG. TITLE  
 PLAN AND PROFILE C1-c 5/8

DATE  
 DESIGNED BY  
 DWG NO.  
 4-22/3C  
 APPROVED BY  
 SERIAL NO.

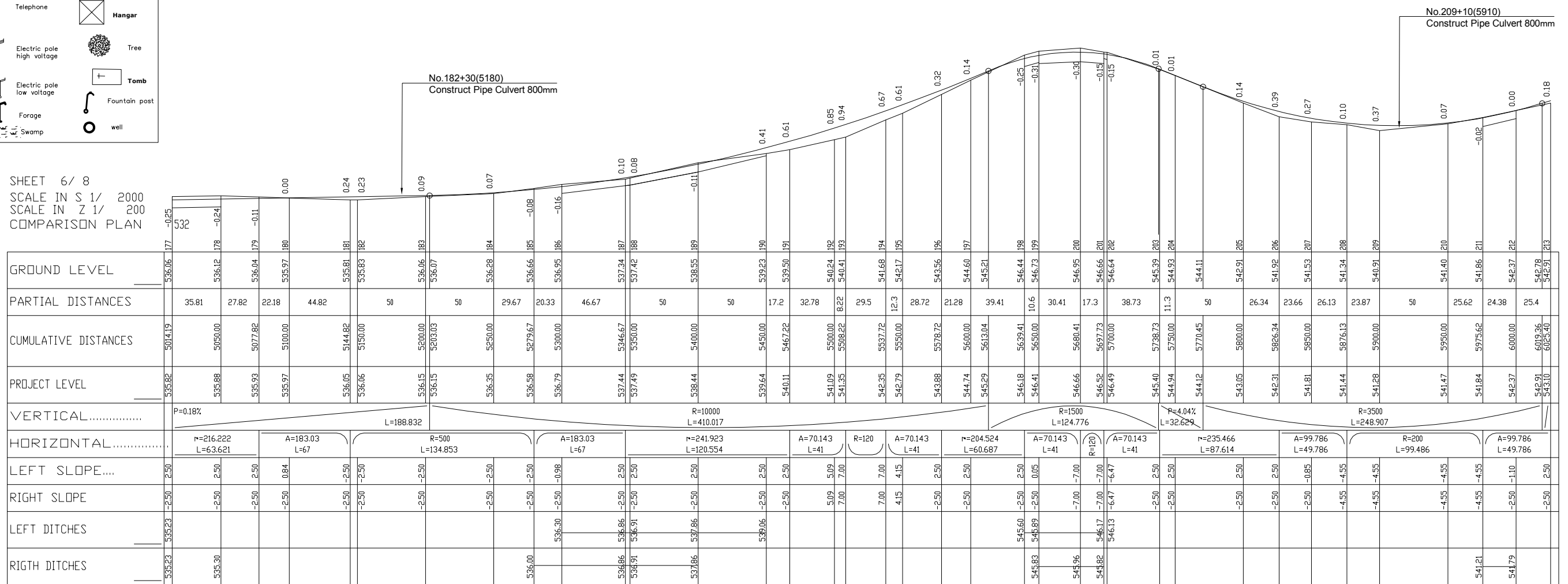
SCALE



LEGEND

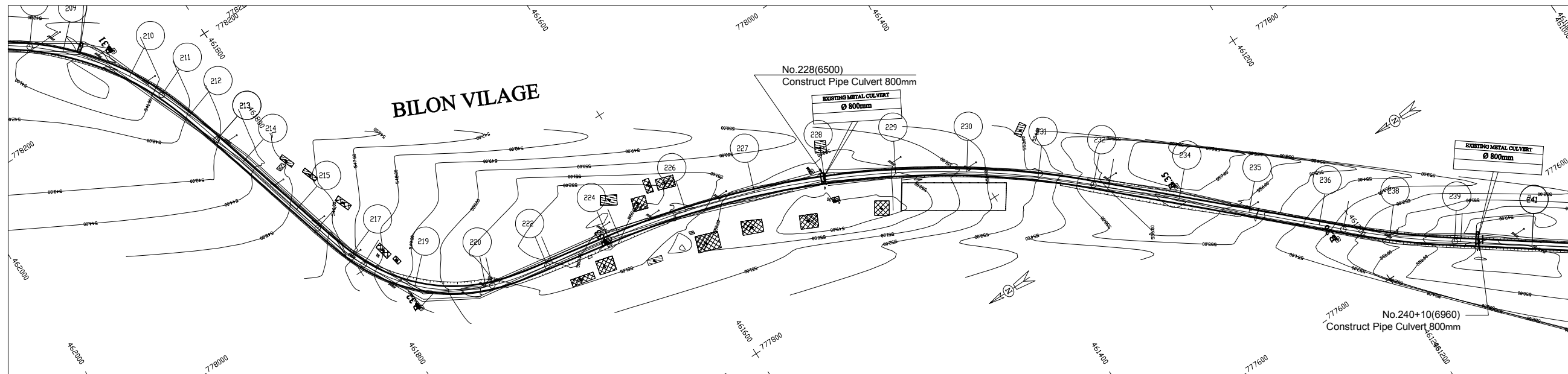

ROAD C1c OBALA

SHEET 6 / 8  
SCALE IN S 1 / 2000  
SCALE IN Z 1 / 200  
COMPARISON PLAN



LICENCE : 1109

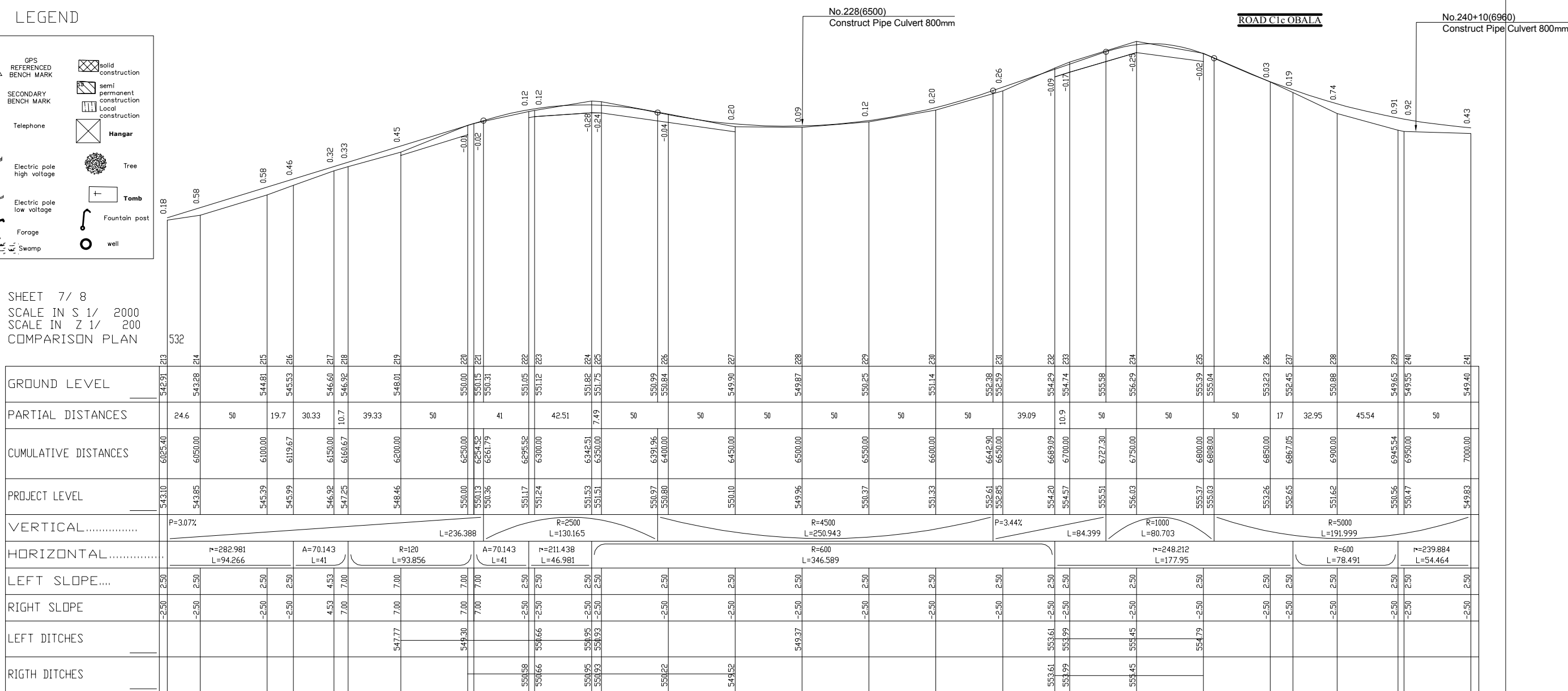
 <b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT		4-23/3C
	 <b>NTC INTERNATIONAL CO., LTD.</b>		DWG. TITLE	SCALE	APPROVED BY
		PLAN AND PROFILE C1-c 6/8			



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			well

SHEET 7 / 8  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN



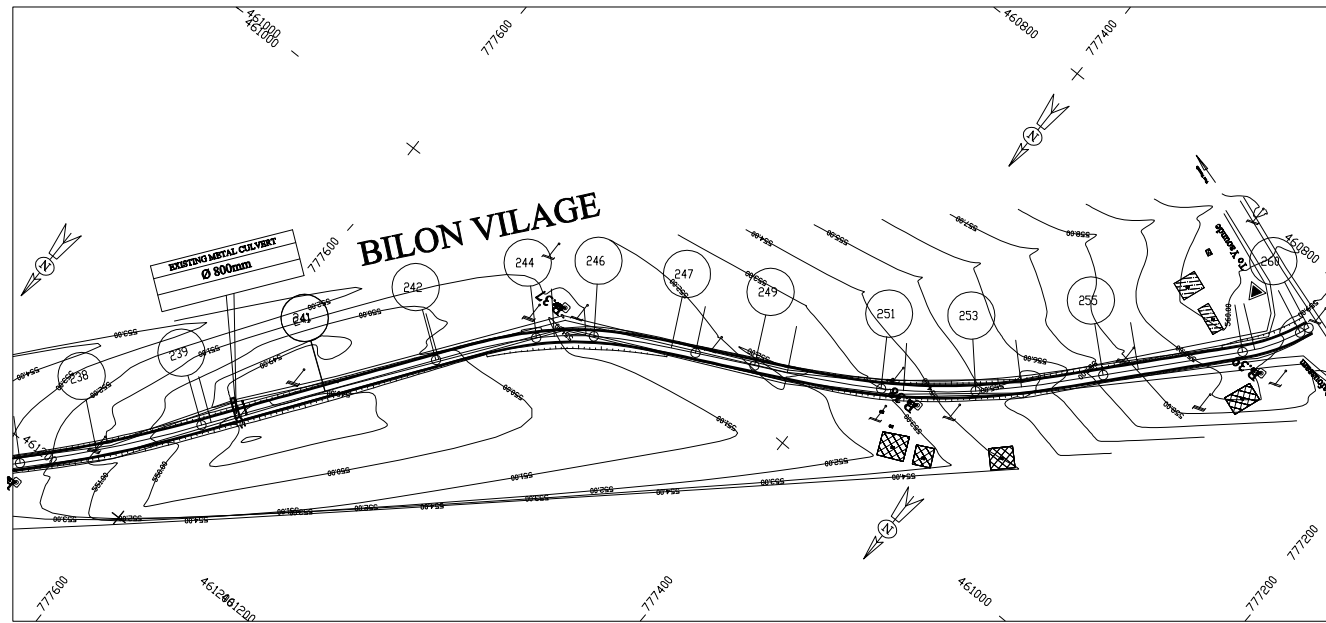
LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
 JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 NTC INTERNATIONAL CO., LTD.

REVISION	DATE

PROJECT TITLE  
 RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
 DWG. TITLE  
 PLAN AND PROFILE C1-c 7/8

DESIGNED BY	DWG NO.
APPROVED BY	SERIAL NO.
	4-24/3C

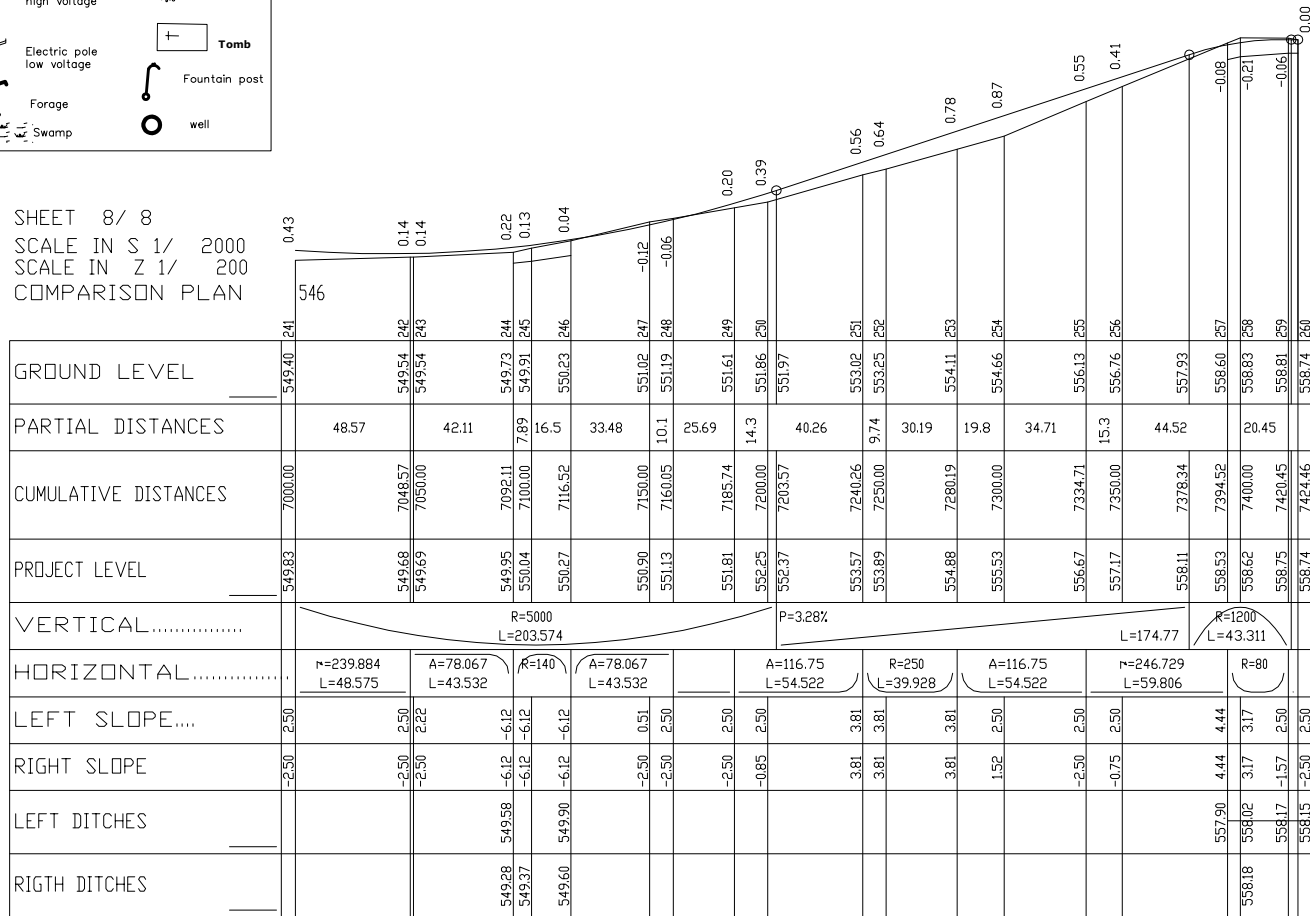


LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			well

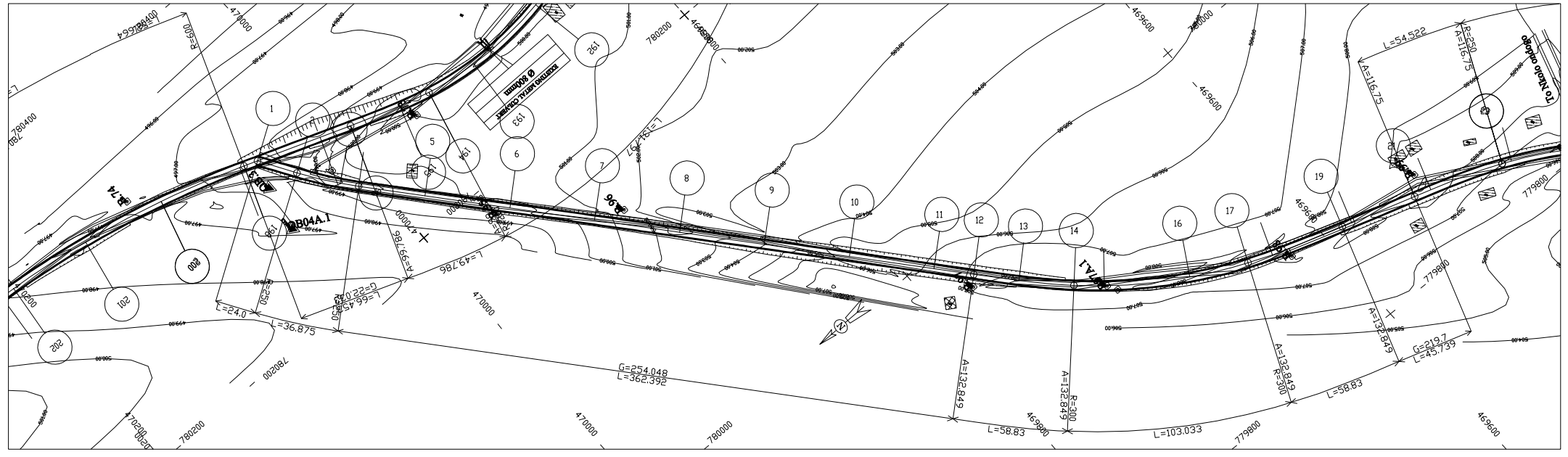
ROAD C1c OBALA

SHEET 8/ 8  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



LICENCE 1109

<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b> <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b> <b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-25/3C
		PLAN AND PROFILE C1-c 8/8	SCALE	APPROVED BY	SERIAL NO.



LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

ROAD C1-d OBALA

SHEET 1/ 5  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN

GROUND LEVEL	497.91	497.63	498.35	498.49	498.99	499.67	500.48	502.54	503.99	505.49	506.24	506.56	506.98	507.37	507.49	507.40	507.47	507.69	507.70	507.90	507.96	508.86	508.77	507.20	
PARTIAL DISTANCES	24.07	25.93	10.9	39.06	50	50	50	50	50	50	23.33	26.67	32.16	17.8	50	35.19	14.8	44.02	39.76	10.2	44.28				
CUMULATIVE DISTANCES	0.00	24.07	50.00	60.94	100.00	150.00	200.00	250.00	300.00	350.00	400.00	423.33	450.00	474.25	482.16	500.00	550.00	585.19	600.00	644.02	650.00	689.76	700.00	744.28	
PROJECT LEVEL	497.59	498.08	498.62	498.84	499.64	500.67	501.70	502.73	503.75	504.78	505.81	506.29	506.83	507.33	507.49	507.80	508.41	508.58	508.60	508.42	508.37	507.89	507.72	506.80	
VERTICAL.....	P=2.05%																								
HORIZONTAL.....	<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">R=250 L=36.875</div> <div style="width: 20%;">r=254.048 L=362.392</div> <div style="width: 20%;">A=132.849 L=58.83</div> <div style="width: 20%;">L=474.251</div> <div style="width: 20%;">R=300 L=103.033</div> <div style="width: 20%;">A=132.849 L=58.83</div> <div style="width: 20%;">R=6000 L=270.034</div> <div style="width: 20%;">r=219.700 L=45.739</div> <div style="width: 20%;">A=116.75 L=54.522</div> </div>																								
LEFT SLOPE....	2.50	2.50	3.29	3.81	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	3.32	3.32	3.32	3.32	3.32	3.32	2.50	2.50	2.50	1.32	-3.81	
RIGHT SLOPE	-2.50	0.29	3.29	3.81	-0.71	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	0.14	3.32	3.32	3.32	3.32	1.86	-2.50	-2.50	-2.50	-2.50	-2.50	-3.81	
LEFT DITCHES	497.01		498.01						503.17		504.20		504.25									507.31	507.14	506.19	
RIGH DITCHES								502.14																	

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C1D.PIS

LICENCE : 1109

<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b> <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b> <b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-26/3C
		PLAN AND PROFILE C1-d 1/5	SCALE	APPROVED BY	SERIAL NO.



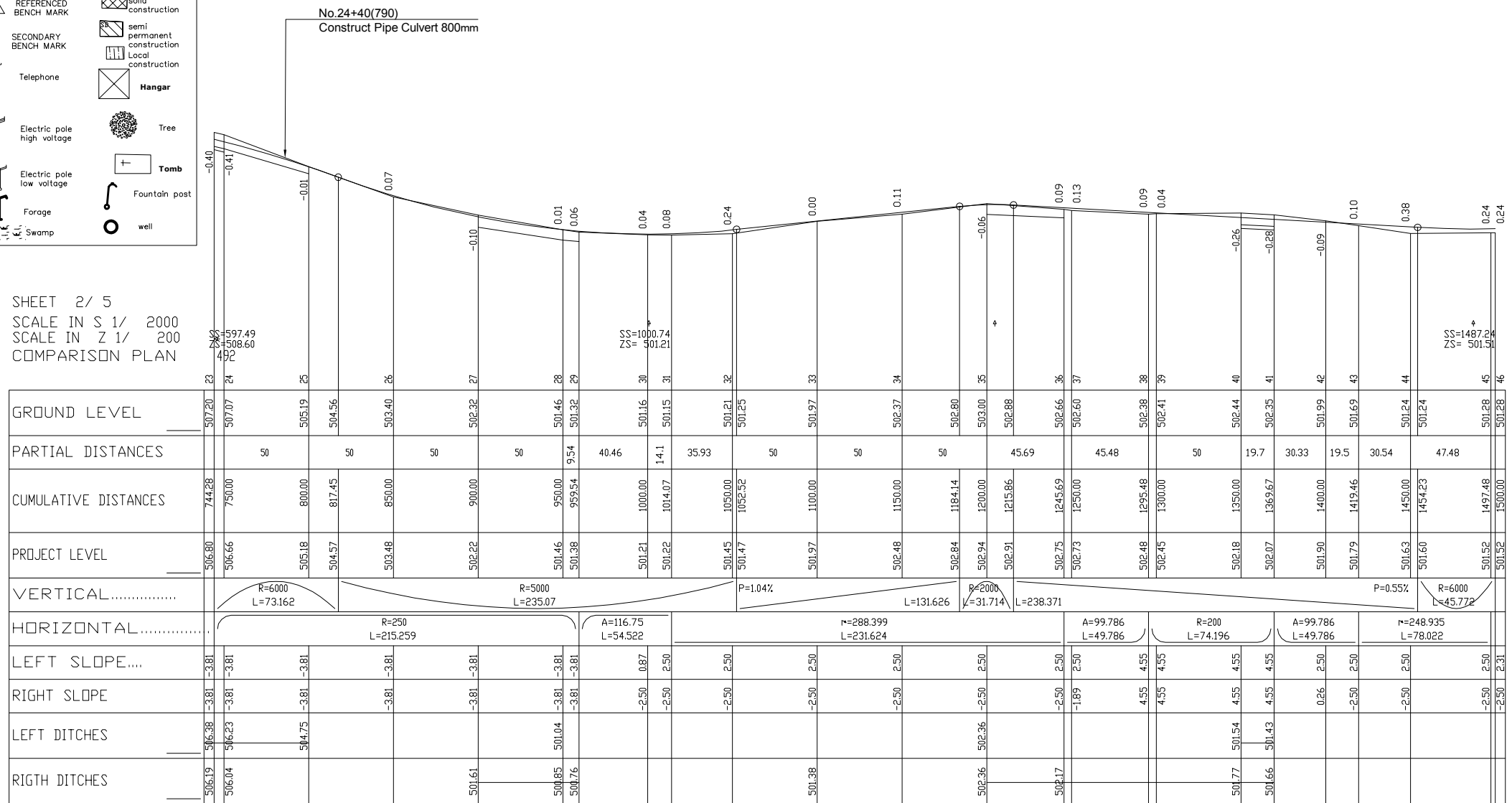


LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			well

ROAD C1d OBALA

SHEET 2 / 5  
SCALE IN S 1 / 2000  
SCALE IN Z 1 / 200  
COMPARISON PLAN



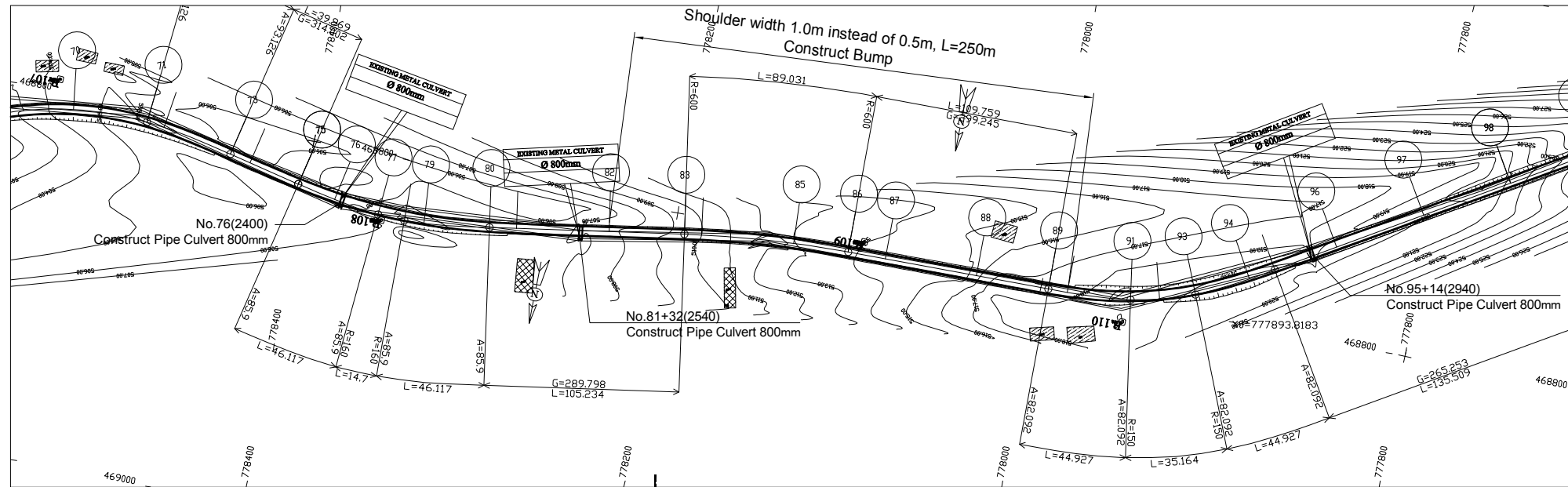
LICENCE : 1109

**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

REVISION

PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-27/3C
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE C1-d 2/5			

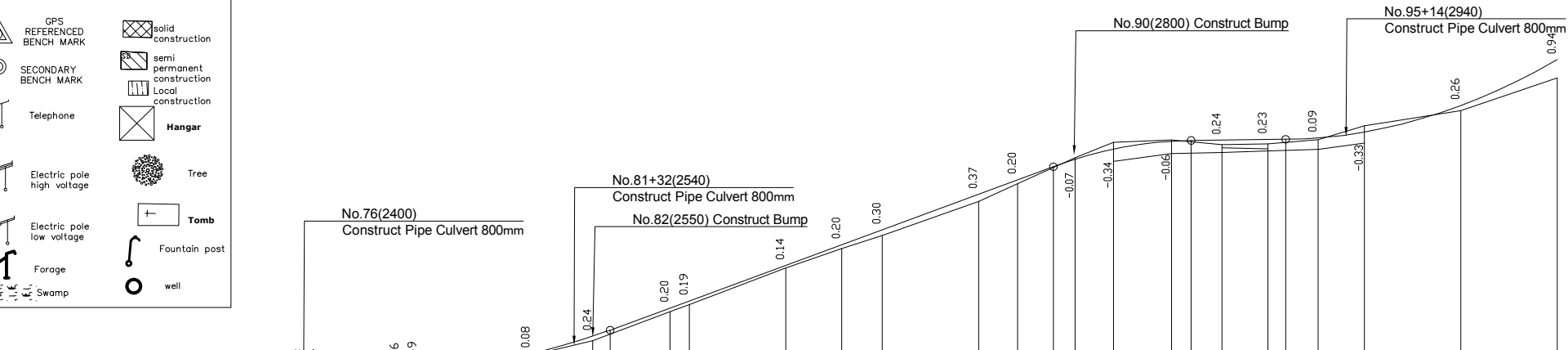




LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		Well

ROAD C1d OBALA



SHEET 4/ 5  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN 501

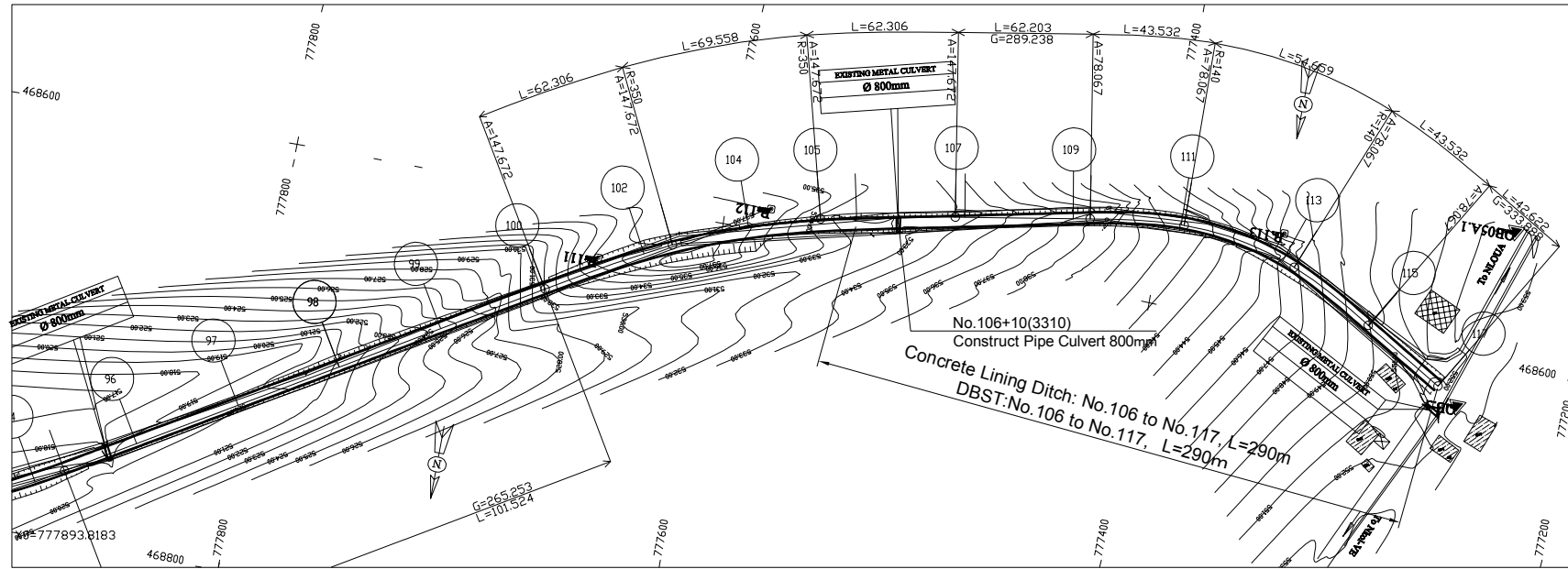
GROUND LEVEL	505.53	505.83	505.91	505.72	505.86	506.07	506.83	507.06	507.81	508.15	509.32	509.69	511.72	512.59	513.26	515.03	515.94	516.77	517.27	518.08	518.20	518.11	517.96	518.00	518.08	518.22	518.94	519.73	521.42
PARTIAL DISTANCES	50	45.96	9.27	40.73	18.1	31.9	40.06	9.94	50	29.07	20.93	50	20.22	29.78	20.01	29.99	26.29	23.71	26.07	23.93	50	50							
CUMULATIVE DISTANCES	2400.00	2400.00	2404.04	2450.00	2459.27	2468.15	2500.00	2518.10	2550.00	2558.95	2590.06	2600.00	2650.00	2675.07	2700.00	2750.00	2770.22	2788.78	2800.00	2820.01	2850.00	2860.10	2876.29	2900.00	2909.26	2926.07	2950.00	3000.00	3050.00
PROJECT LEVEL	505.96	505.99	506.29	506.35	506.40	506.78	507.15	508.05	508.37	509.52	509.88	511.72	512.79	513.56	515.40	516.14	516.83	517.21	517.73	518.14	518.18	518.20	518.23	518.24	518.31	518.61	519.99	522.36	
VERTICAL	P=0.65%		R=3000 L=90.807				P=3.68%		R=2000 L=71.323				P=0.11%		R=2500 L=140.741														
HORIZONTAL	A=132.849 L=54.042		R=300 L=55.227		A=132.849 L=58.83		r=289.798 L=71.959		R=600 L=89.007		r=299.242 L=91.156		A=99.786 L=49.786		R=200 L=56.277		A=99.786 L=49.786		r=265.481 L=123.928										
LEFT SLOPE	2.50	2.92	3.32	3.32	3.32	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	
RIGHT SLOPE	-2.03	2.92	3.32	3.32	3.32	-0.71	-0.71	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	1.72	4.55	4.55	4.55	4.55	1.19	-2.50	-2.50	-2.50	-2.50	-2.50	
LEFT DITCHES						506.20	506.20												517.33	517.51	517.57	517.64	517.73	518.03	518.03				
RIGH DITCHES			505.85	505.91																									

LICENCE 1109

 <b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT		4-29/3C
	 <b>NTC INTERNATIONAL CO., LTD.</b>		DWG. TITLE	SCALE	APPROVED BY
		PLAN AND PROFILE C1-d 4/5			

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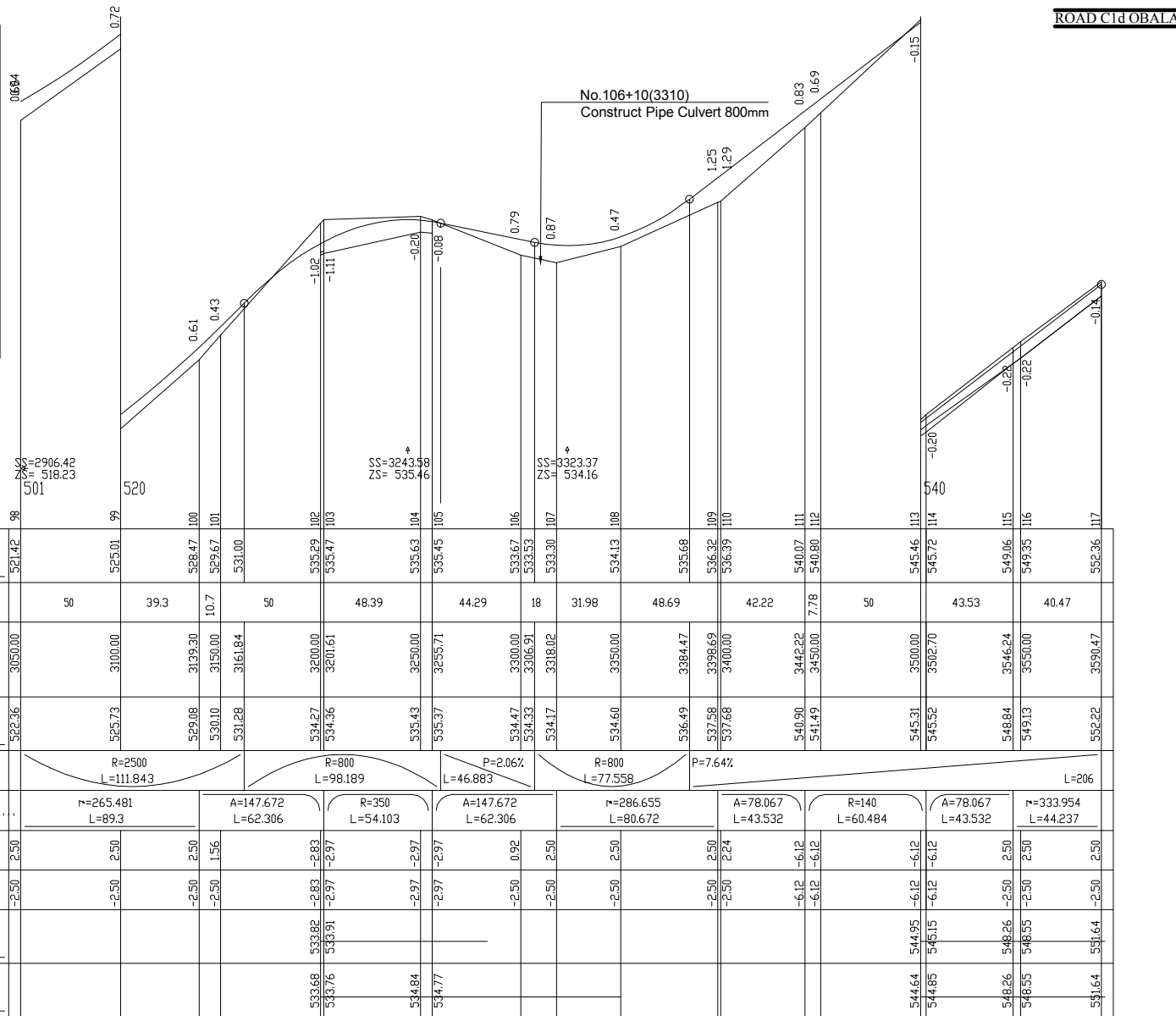
C1D.PIS



LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			well

SHEET 5 / 5  
 SCALE IN S 1 / 2000  
 SCALE IN Z 1 / 200  
 COMPARISON PLAN

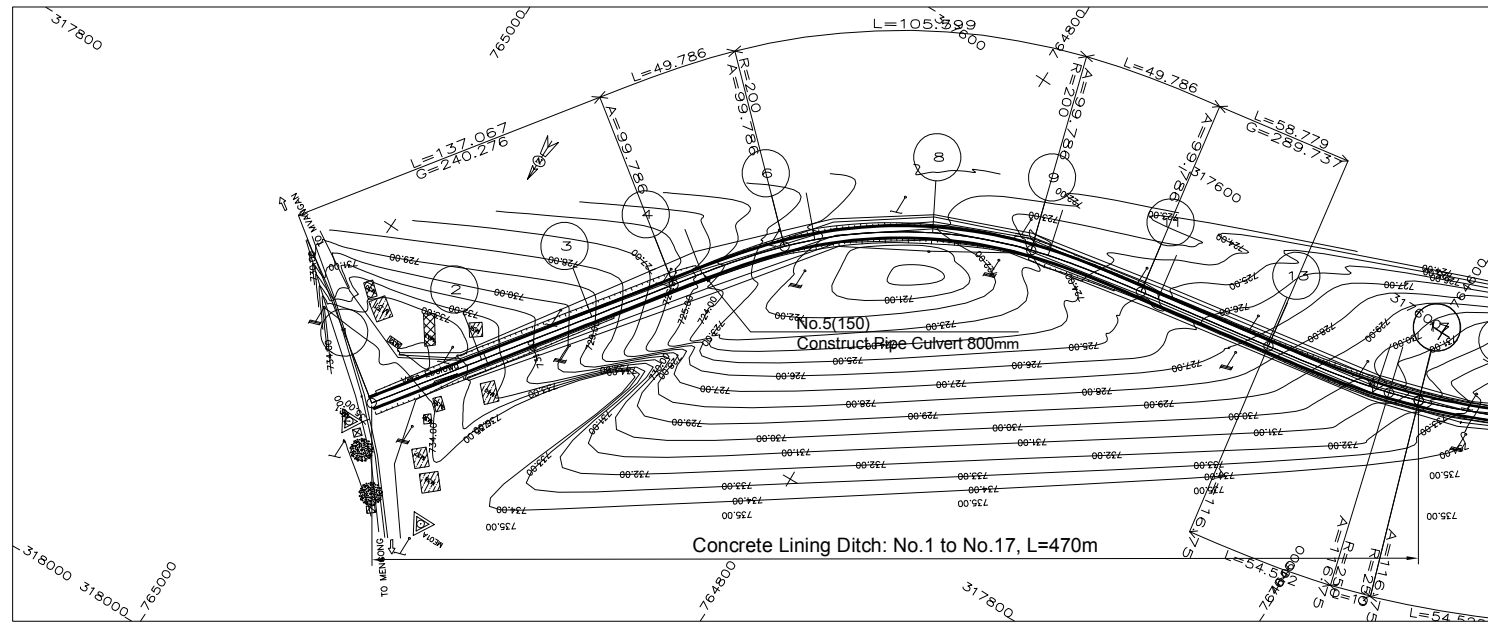


GROUND LEVEL	521.42	525.01	528.47	529.67	531.00	535.29	535.47	535.63	535.45	533.67	533.53	533.30	534.13	535.68	536.32	536.39	540.07	540.80	545.46	545.72	549.06	549.35	552.36	
PARTIAL DISTANCES	50	39.3	10.7	50	48.39	44.29	18	31.98	48.69	42.22	7.78	50	43.53	40.47										
CUMULATIVE DISTANCES	3050.00	3100.00	3139.30	3150.00	3161.84	3200.00	3201.61	3250.00	3255.71	3300.00	3306.91	3318.02	3350.00	3394.47	3398.69	3400.00	3442.22	3450.00	3500.00	3502.70	3546.24	3550.00	3590.47	
PROJECT LEVEL	522.36	525.73	529.08	530.10	531.28	534.27	534.36	535.43	535.37	534.47	534.33	534.17	534.60	536.49	537.58	537.68	540.90	541.49	545.31	545.52	548.84	549.13	552.22	
VERTICAL.....	R=2500 L=111.843		R=800 L=98.189			P=2.06% L=46.883			R=800 L=77.558		P=7.64% L=206													
HORIZONTAL.....	r=265.481 L=89.3		A=147.672 L=62.306			R=250 L=54.103			A=147.672 L=62.306		r=286.655 L=80.672		A=78.067 L=43.532		R=140 L=60.484		A=78.067 L=43.532		r=333.954 L=44.237					
LEFT SLOPE....	2.50	2.50	2.50	2.50	1.56	-2.83	-2.97	-2.97	-2.97	0.92	2.50	2.50	2.50	2.50	2.50	2.50	-6.12	-6.12	-6.12	-6.12	2.50	2.50	2.50	
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-2.83	-2.97	-2.97	-2.97	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-6.12	-6.12	-6.12	-6.12	-2.50	-2.50	-2.50	
LEFT DITCHES						533.82	533.91													544.95	546.15	548.26	548.55	
RIGH DITCHES						533.76	534.84	534.77												544.85	546.35	548.55	551.64	

LICENCE : 1109

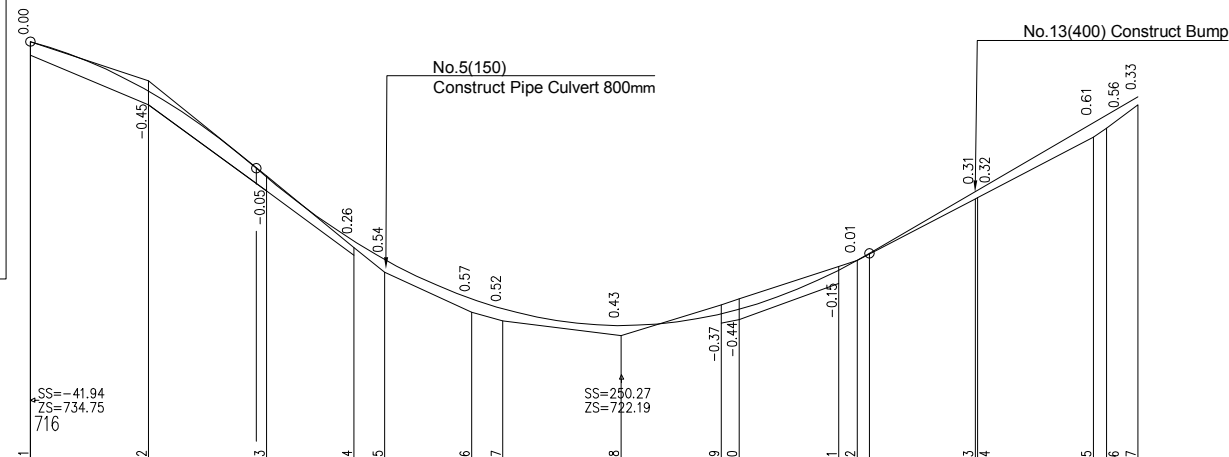
**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			4-30/3C
	DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
	PLAN AND PROFILE C1-d 5/5			



LEGEND


BIWONG BULU



SHEET 1/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	734.20	732.55	728.51	725.49	724.44	722.74	722.37	721.76	723.06	723.32	724.69	724.94	725.21	727.55	727.60	730.16	730.54	731.53
PARTIAL DISTANCES	50	50	37.07	12.9	36.85	13.1	50	42.45	7.55	42.24	50	48.98	13.2	731.53	17			
CUMULATIVE DISTANCES	0.00	50.00	100.00	137.07	150.00	186.85	200.00	250.00	292.45	300.00	342.24	350.00	355.15	400.00	401.02	450.00	455.54	468.71
PROJECT LEVEL	734.20	732.10	728.46	725.75	724.98	723.31	722.89	722.19	722.68	722.86	724.54	724.95	725.24	727.86	727.92	730.77	731.09	731.86
VERTICAL.....	R=1600 L=95.57			R=1800 L=259.584					P=5.83%									
HORIZONTAL.....	T=240.276 L=137.067			A=99.786 L=49.786		R=200 L=105.599		A=99.786 L=49.786		T=289.737 L=58.779		A=116.75 L=54.522			R=200			
LEFT SLOPE....	2.50	2.50	2.50	2.50	0.67	-4.55	-4.55	-4.55	-4.55	-4.55	2.50	2.50	2.50	2.50	2.50	3.17	3.81	3.81
RIGHT SLOPE	-2.50	-2.50	-2.50	-2.50	-2.50	-4.55	-4.55	-4.55	-4.55	-4.55	-2.50	-2.50	-2.50	-2.50	-2.50	3.17	3.81	3.81
LEFT DITCHES		731.52	727.88	725.17	724.98				722.28	722.44	723.96							
RIGTH DITCHES	733.61	731.52	727.88						722.27	722.44								

LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE  
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
DWG. TITLE  
PLAN AND PROFILE S2 1/13

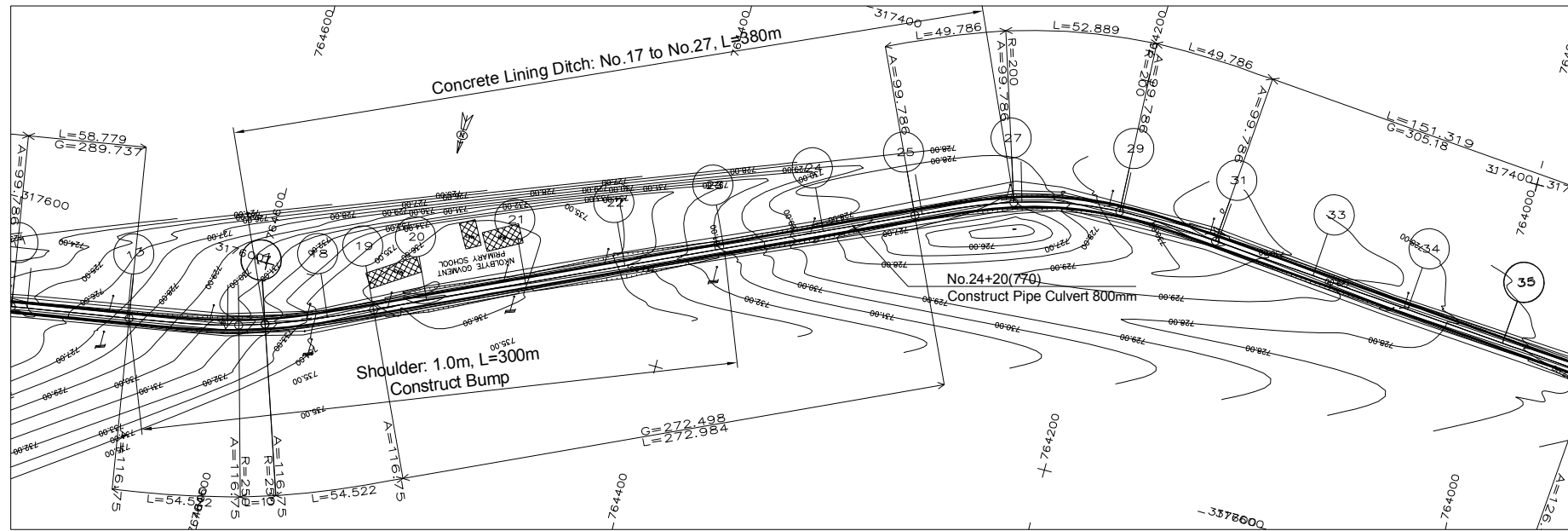
DATE  
DESIGNED BY  
APPROVED BY  
SCALE  
SERIAL NO.

DWG NO.  
5 1/13

SERIAL NO.

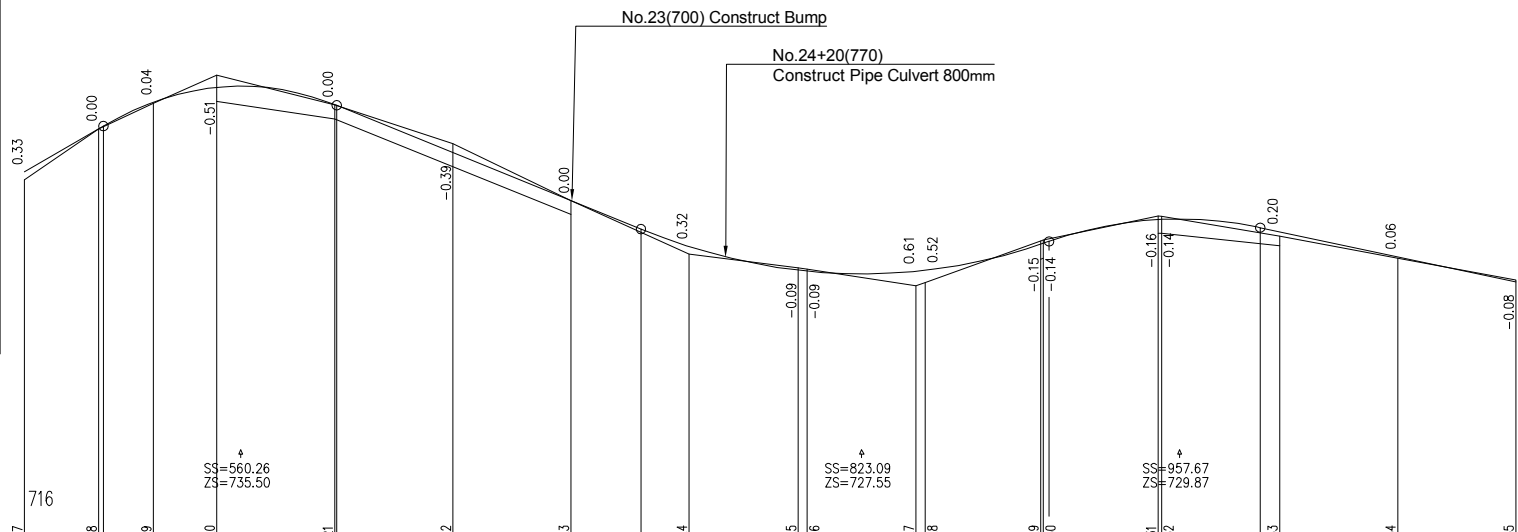
A-159

BIWONG 1.PIS



LEGEND


BIWONG BULU



SHEET 2/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	731.83	733.68	733.78	734.77	735.96	734.71	734.68	733.06	730.65	729.30	728.39	727.80	727.75	727.05	727.18	728.94	728.97	730.01	729.99	729.27	729.13	728.21	727.28
PARTIAL DISTANCES	31.29	23.24	26.76	50	50	50	50	46.22	46.01	48.89	48.68	50	50	50									
CUMULATIVE DISTANCES	468.71	500.00	501.99	523.24	550.00	600.00	600.86	650.00	700.00	729.71	750.00	796.22	800.00	846.01	850.00	898.89	900.00	946.68	950.00	991.80	1000.00	1050.00	1100.00
PROJECT LEVEL	731.86	733.68	733.80	734.81	735.45	734.71	734.67	732.68	730.65	729.44	728.71	727.70	727.66	727.05	727.18	728.80	728.83	729.84	729.85	729.50	729.33	728.26	727.20
VERTICAL.....	P=5.83% L=33.275		R=1000 L=98.871			L=128.85			P=4.06%		R=2300 L=172.749		R=200 L=52.889		R=1600 L=89.342		L=108.2		P=2.13%				
HORIZONTAL.....	A=116.75 L=54.522		L=272.498 L=272.984			A=99.786 L=49.786		R=200 L=52.889		A=99.786 L=49.786		R=305.180 L=151.319											
LEFT SLOPE....	3.81	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	1.96	4.55	4.55	4.55	4.55	4.39	2.50	2.50	2.50	2.50	2.50	2.50
RIGHT SLOPE	3.81	0.19	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-4.55	-4.55	-4.55	-4.39	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50
LEFT DITCHES				734.84	734.84	734.11	734.08	733.07								728.16	728.20	729.26	729.27	728.75		728.61	
ROOSTE DITCHES																							

LICENCE : 1109

BIWONG 1.PIS

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			5-2/13
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE S2 2/13			

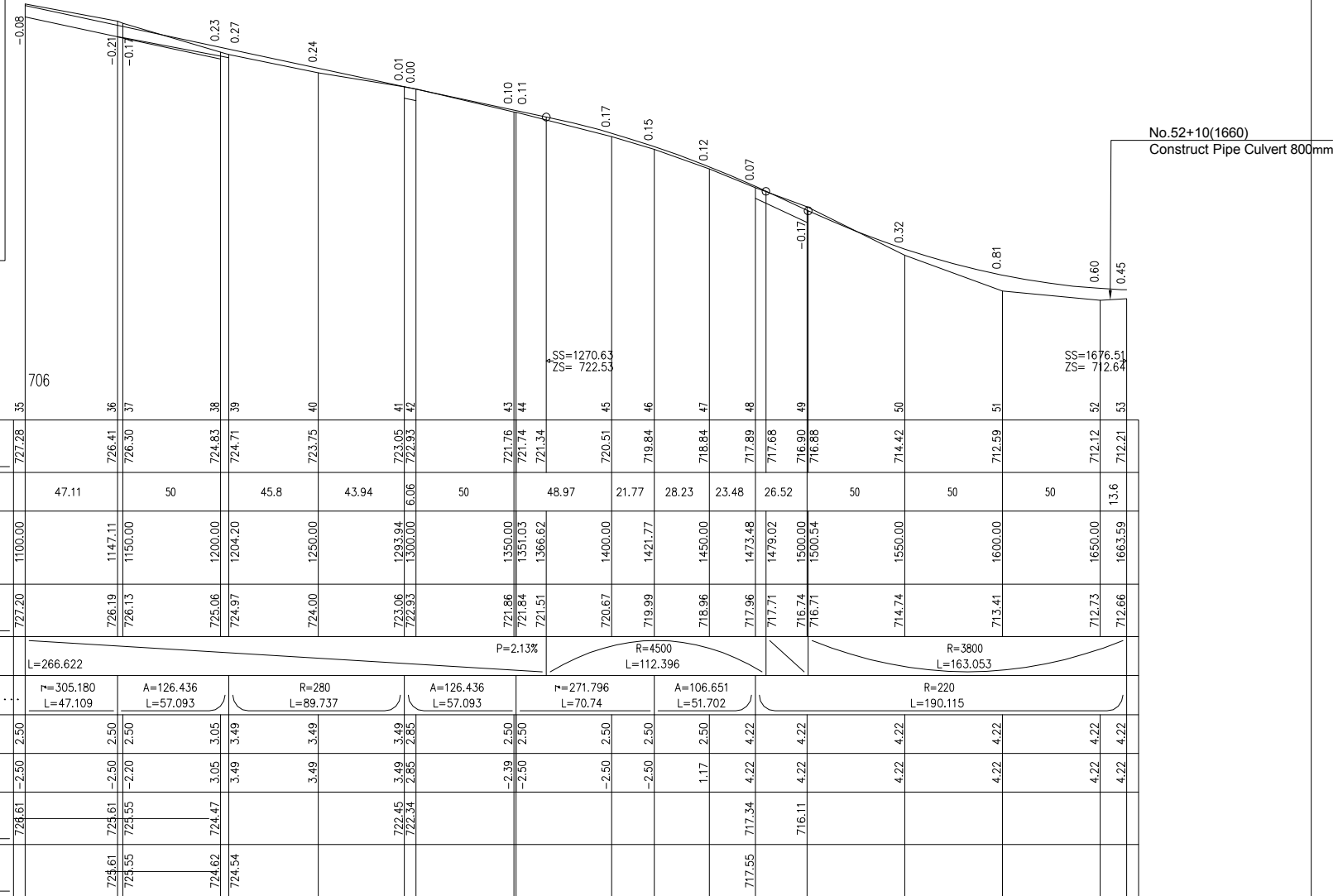


BIWONG BULU

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			Well

SHEET 3/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



GROUND LEVEL	727.28	726.41	726.30	724.83	724.71	723.75	723.05	722.93	721.76	721.74	721.34	720.51	719.84	718.84	717.89	717.68	716.90	716.88	714.42	712.59	712.12	712.21
PARTIAL DISTANCES		47.11	50	45.8	43.94	6.06	50	48.97	21.77	28.23	23.48	26.52	50	50	50	13.6						
CUMULATIVE DISTANCES	1100.00	1147.11	1150.00	1200.00	1204.20	1250.00	1293.94	1300.00	1350.00	1351.03	1366.62	1400.00	1421.77	1450.00	1473.48	1479.02	1500.00	1500.54	1550.00	1600.00	1650.00	1663.59
PROJECT LEVEL	727.20	726.19	726.13	725.06	724.97	724.00	723.06	722.93	721.86	721.84	721.51	720.67	719.99	718.96	717.96	717.71	716.74	716.71	714.74	713.41	712.73	712.66
VERTICAL.....	L=266.622																					
HORIZONTAL.....	r=305.180 L=47.109		A=126.436 L=57.093		R=280 L=89.737		A=126.436 L=57.093		r=271.796 L=70.74		A=106.651 L=51.702		R=3800 L=163.053									
LEFT SLOPE....	2.50	2.50	2.50	3.05	3.49	3.49	3.49	2.85	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	4.22	4.22	4.22	4.22	4.22
RIGHT SLOPE	-2.50	-2.50	-2.20	3.05	3.49	3.49	3.49	2.85	-2.39	-2.50	-2.50	-2.50	-2.50	1.17	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22
LEFT DITCHES	728.61	724.61	724.55	724.47	724.54		722.45	722.34							717.55	717.34	716.11					
RIGH DITCHES		724.61	724.55		724.54																	

LICENCE : 1109

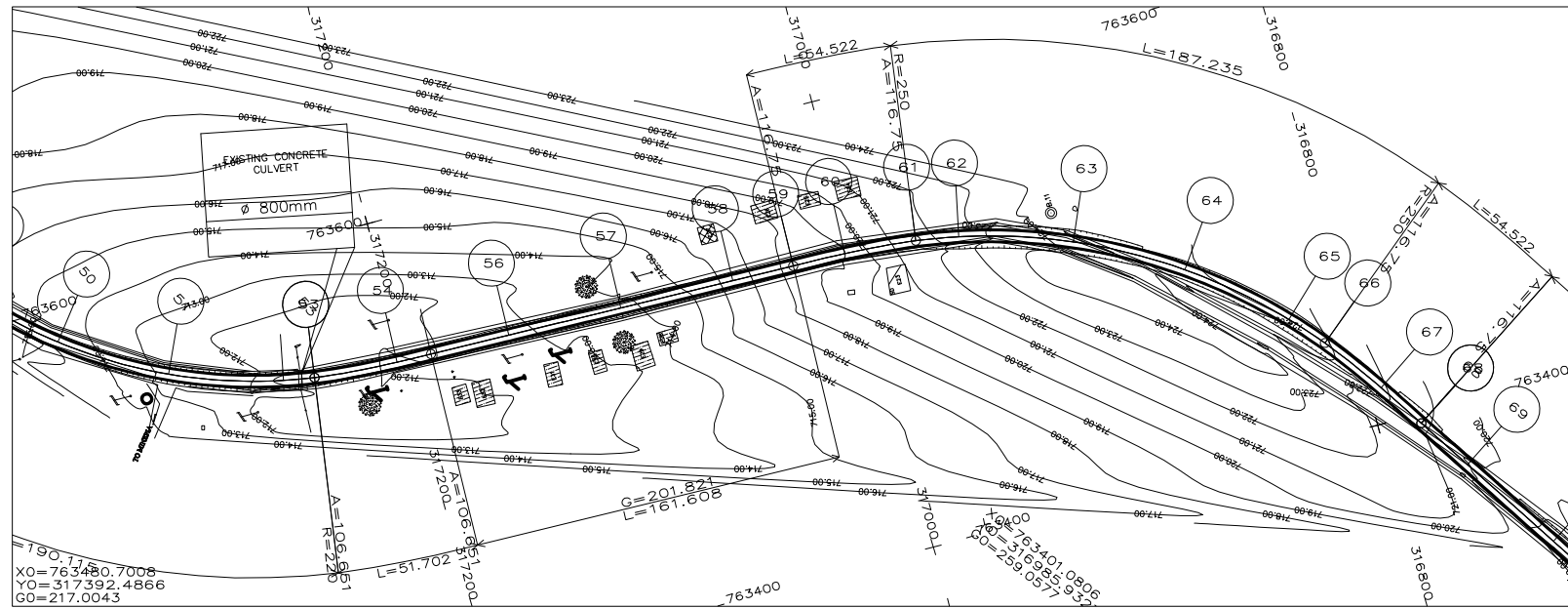
**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

REVISION

PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			5-3/13
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE S2 3/13			

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BIWONG 1.PIS



BIWONG BULU

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
	Well		

SHEET 4/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

GROUND LEVEL	712.21	712.32	712.49	712.95	713.68	716.23	717.71	718.98	720.15	720.99	722.19	724.20	724.06	724.08	723.57	723.21	722.16	721.29
PARTIAL DISTANCES		36.41	15.3	34.71	50	50	26.9	23.1	31.42	18.6	50	50	50	18.7	31.34	23.18		
CUMULATIVE DISTANCES	1663.59	1700.00	1715.29	1750.00	1800.00	1850.00	1876.90	1900.00	1918.29	1931.42	1950.00	2000.00	2050.00	2100.00	2118.66	2150.00	2173.18	
PROJECT LEVEL	712.66	712.71	712.83	713.35	714.64	716.60	717.92	719.21	720.33	721.12	722.09	723.86	724.37	723.63	723.30	723.05	722.03	721.27
VERTICAL.....	R=3800 L=254.698										R=2000 L=192.708					P=3.27%		
HORIZONTAL.....	A=106.651 L=51.702		T=201.821 L=161.608				A=116.75 L=54.522			R=250 L=187.235				A=116.75 L=54.522				
LEFT SLOPE....	4.22	4.22	-0.51	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-3.81	-3.81	-3.81	-3.81	-3.81	-3.81	-2.50	-2.50
RIGHT SLOPE	4.22	-0.51	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-2.50	-3.81	-3.81	-3.81	-3.81	-3.81	-3.81	-3.81	-2.50	-2.50
LEFT DITCHES																		
RIGH DITCHES									720.51	721.48	721.67	723.24	723.76	723.02	722.44	721.45		720.69

LICENCE : 1109

BIWONG 1.PIS

**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**NTC INTERNATIONAL CO., LTD.**

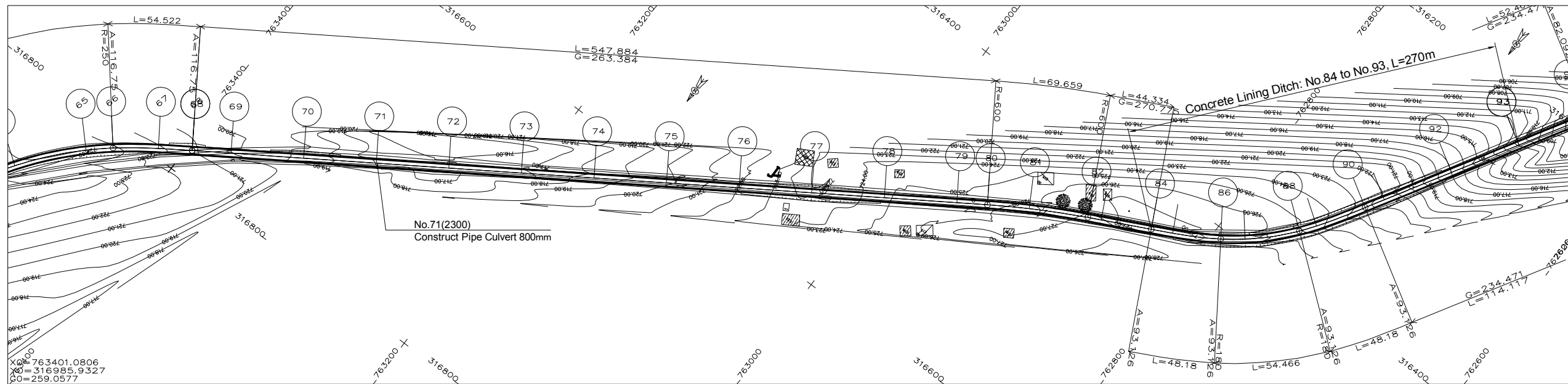
REVISION

PROJECT TITLE  
**RURAL INFRASTRUCTURE IMPROVEMENT PROJECT**  
 DWG. TITLE  
**PLAN AND PROFILE S2 4/13**

DATE  
 DESIGNED BY  
 APPROVED BY  
 SERIAL NO.

DWG NO.  
5 4/13



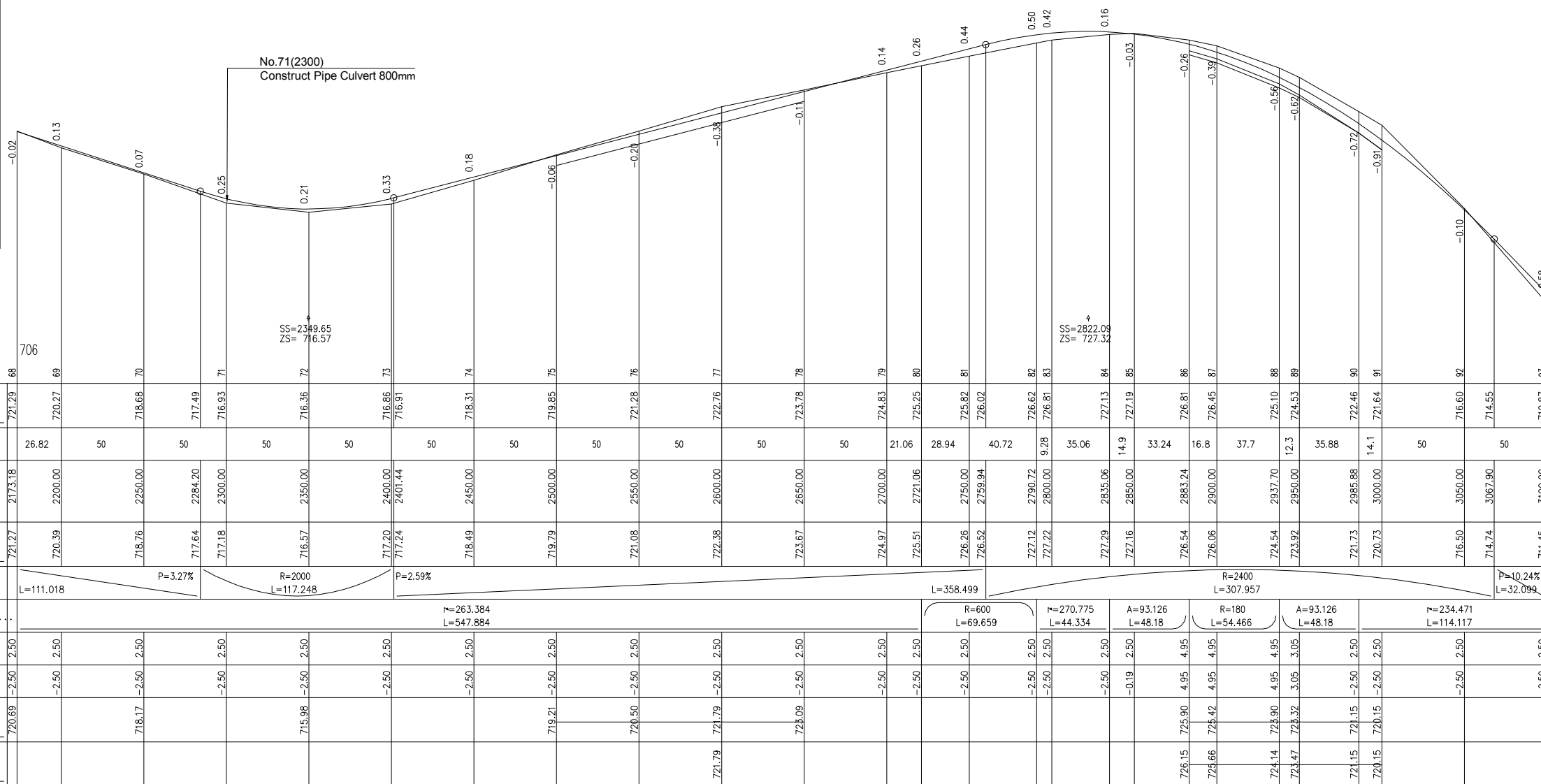


LEGEND

BIWONG BULU

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
			well

SHEET 5/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



BIWONG 1.PIS

LICENCE : 1109

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
 NTC INTERNATIONAL CO., LTD.

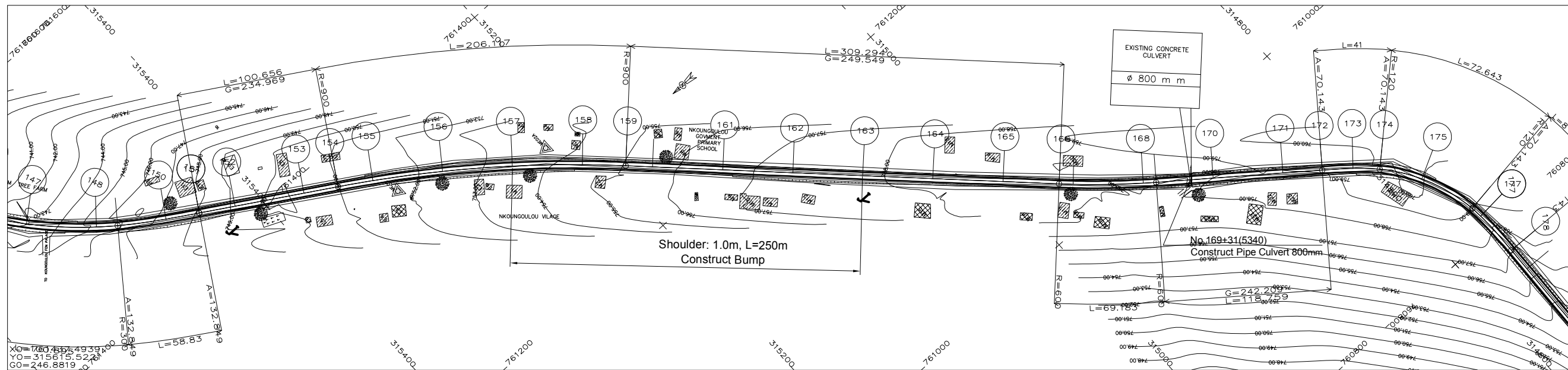
REVISION

PROJECT TITLE  
 RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
 DWG. TITLE  
 PLAN AND PROFILE S2 5/13

DATE	DESIGNED BY	DWG NO.
		5 5/13
SCALE	APPROVED BY	SERIAL NO.



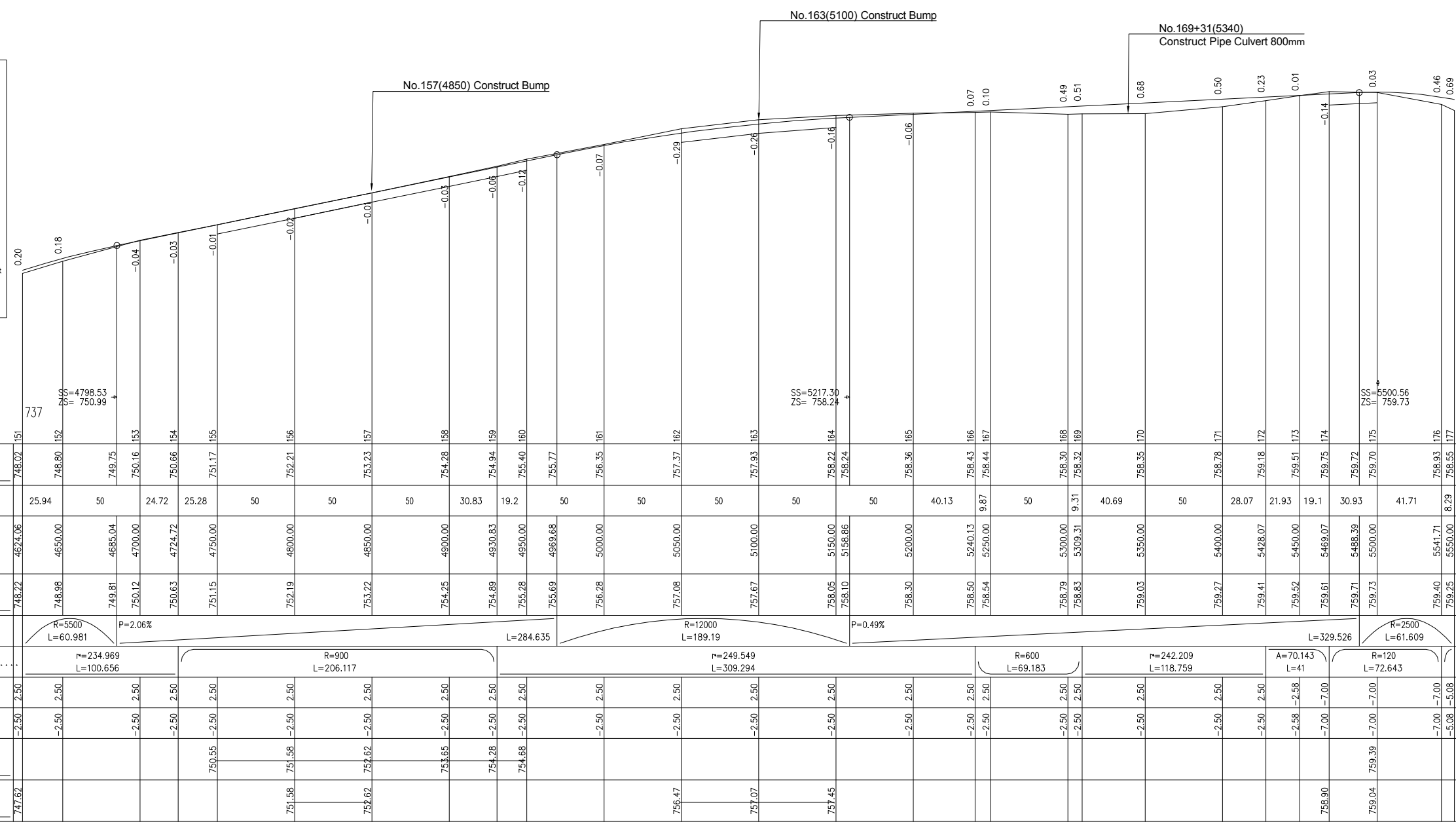




**LEGEND**

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- solid construction
- semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- well

SHEET 8/13  
 SCALE IN S 1/ 2000  
 SCALE IN Z 1/ 200  
 COMPARISON PLAN

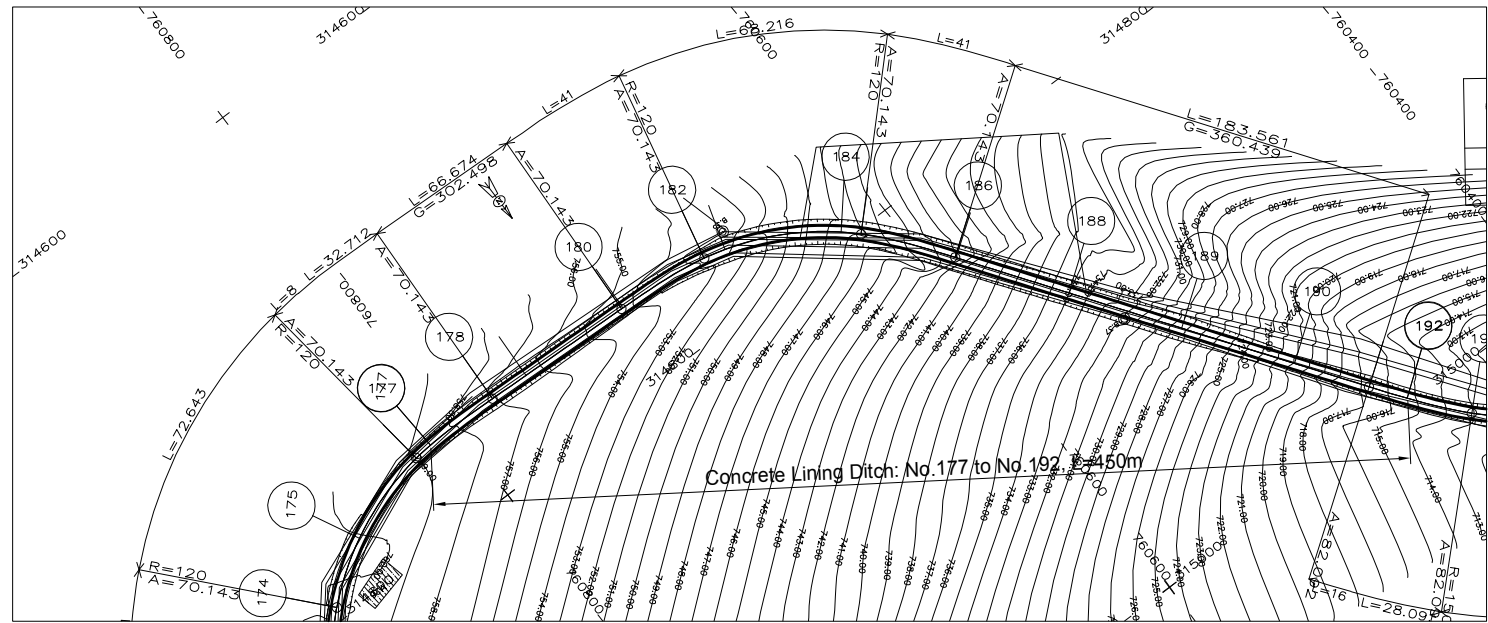


A-166

BIWONG 1.PIS

LICENCE : 1109

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			5- 8/13
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			PLAN AND PROFILE S2 8/13			



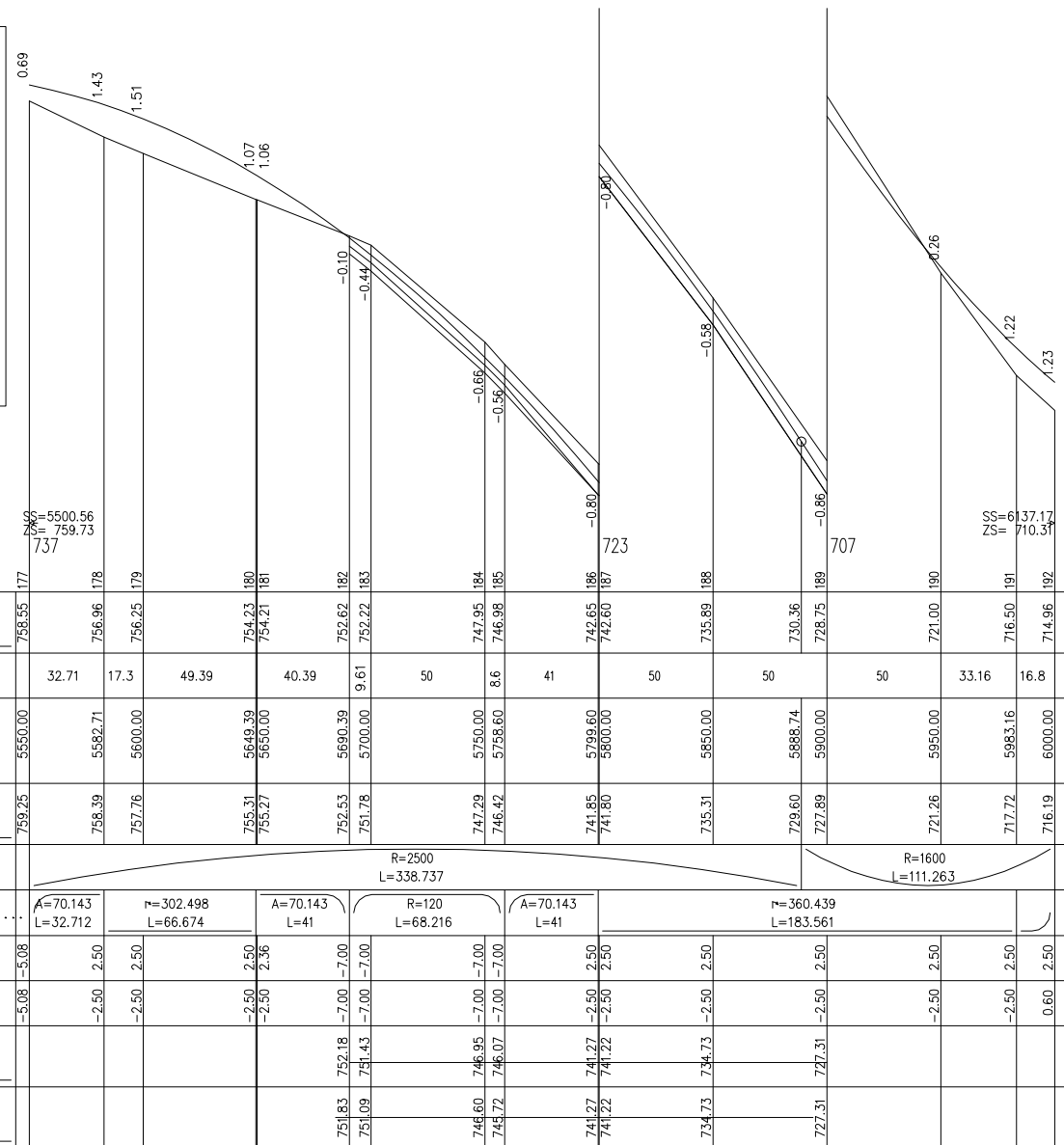
Concrete Lining Ditch: No.177 to No.192 450m

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		

BIWONG BULU

SHEET 9/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



LICENCE : 1109

BIWONG 1.P1

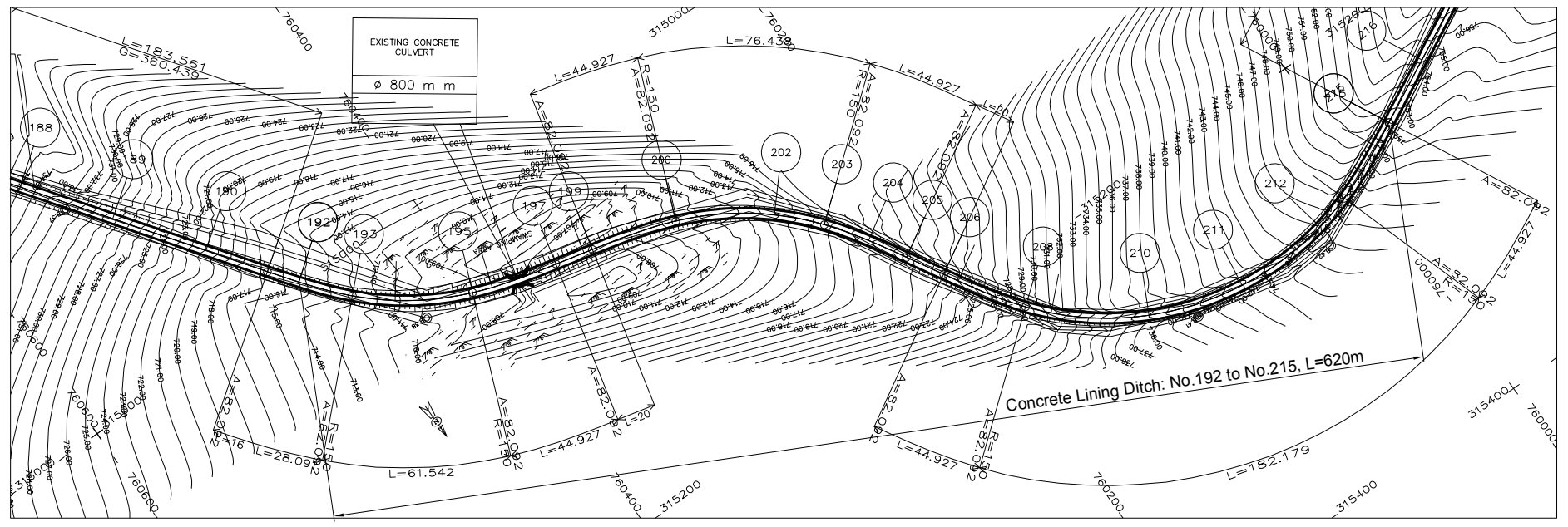
MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

REVISION

PROJECT TITLE  
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
DWG. TITLE  
PLAN AND PROFILE S2 9/13

DATE  
DESIGNED BY  
APPROVED BY  
SCALE  
SERIAL NO.

DWG NO.  
5-9/13

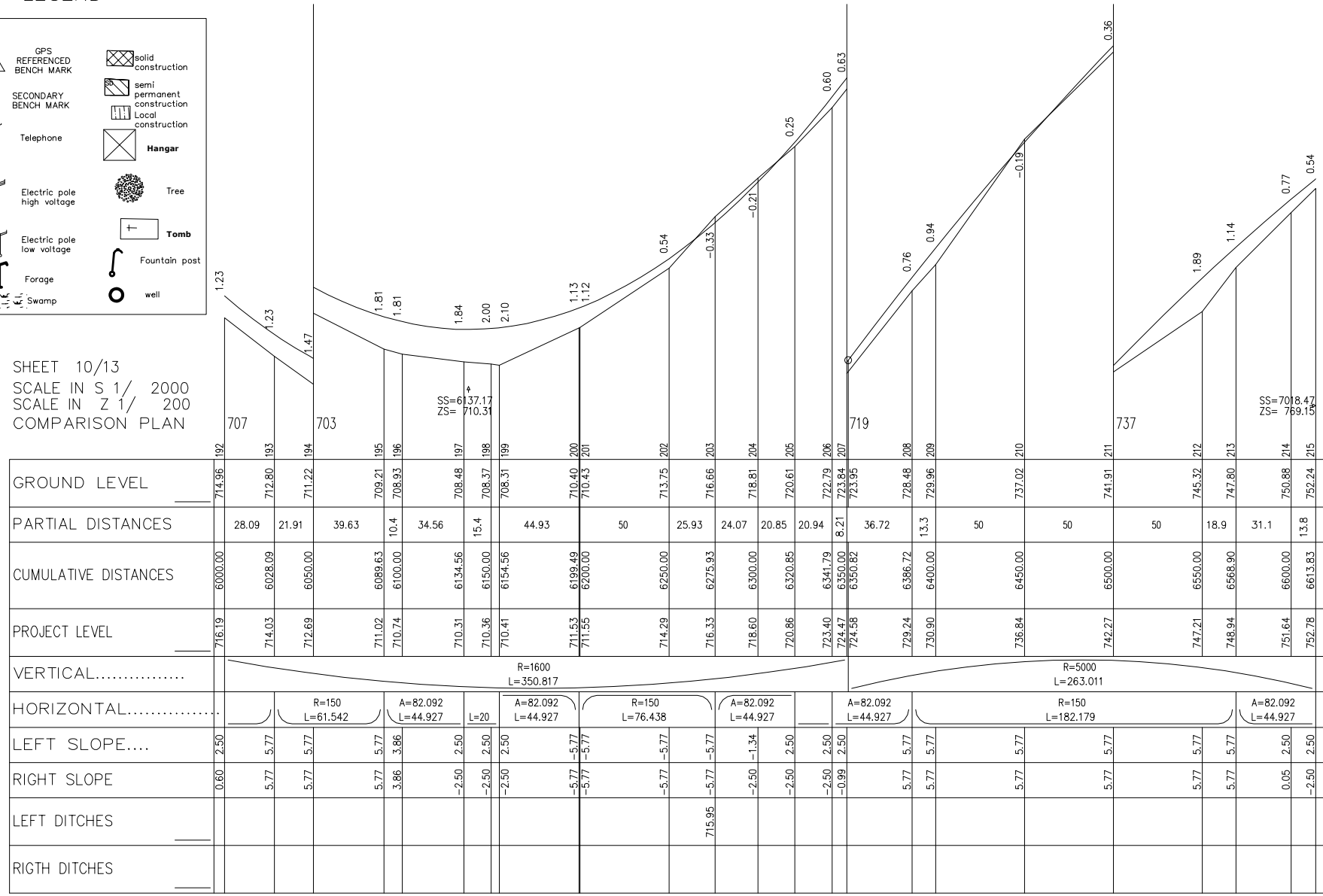


LEGEND

- GPS REFERENCED BENCH MARK
- SECONDARY BENCH MARK
- Telephone
- Electric pole high voltage
- Electric pole low voltage
- Forage
- Swamp
- Solid construction
- Semi permanent construction
- Local construction
- Hangar
- Tree
- Tomb
- Fountain post
- Well

BIWONG BULU

SHEET 10/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN

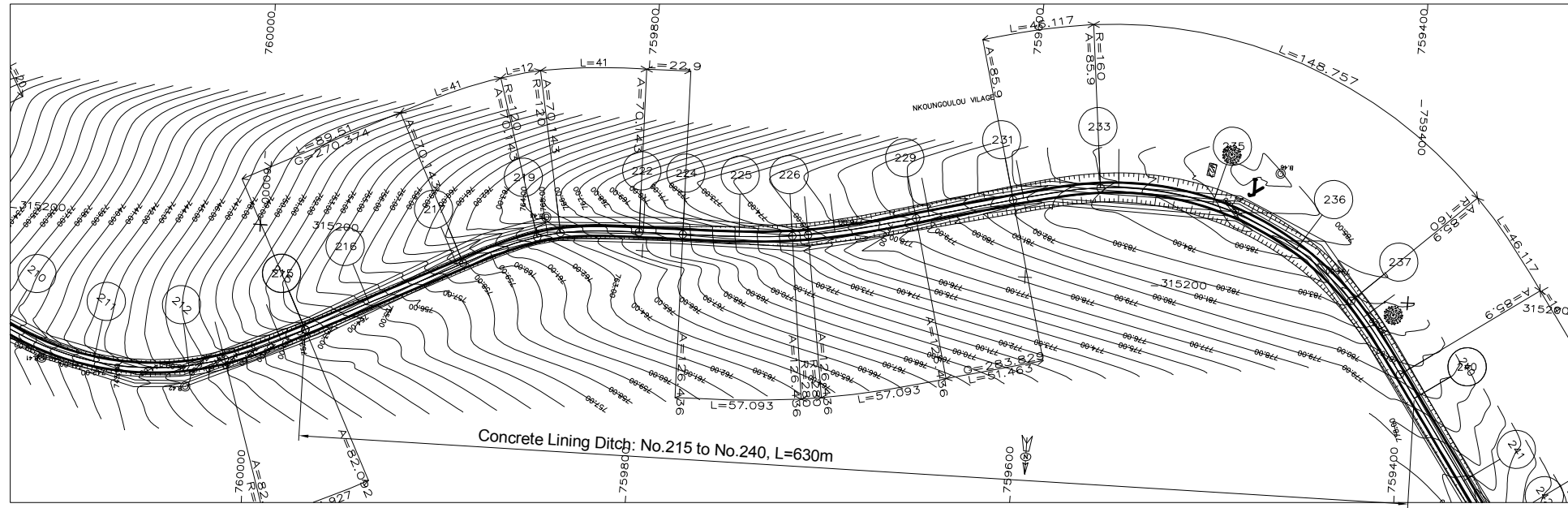


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BIWONG 1.PIS

LICENCE : 1109

<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b> <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b> <b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			5-10/13
		PLAN AND PROFILE S2 10/13	SCALE	APPROVED BY	SERIAL NO.



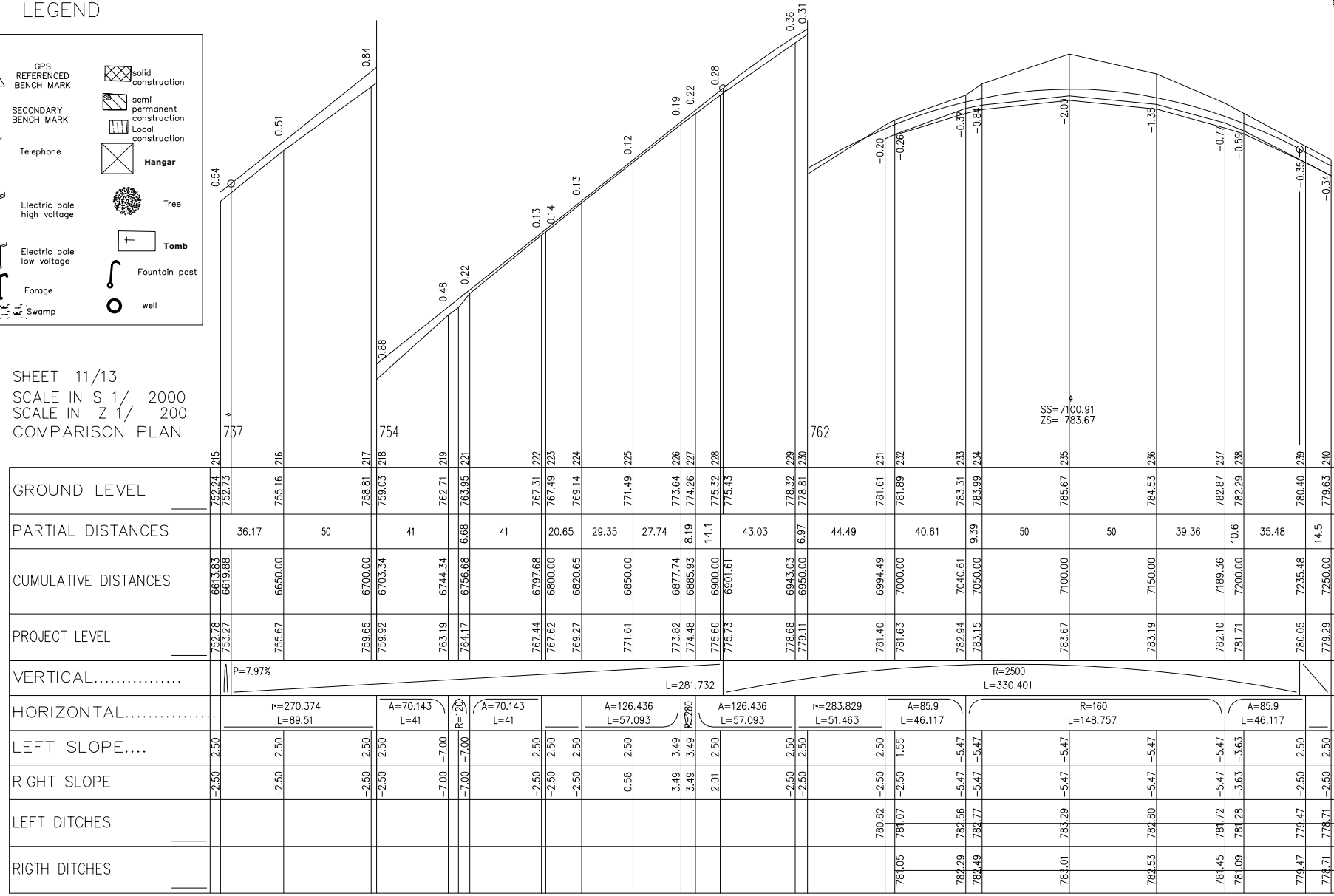
Concrete Lining Ditch: No.215 to No.240, L=630m

BIWONG BULU

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi-permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			well

SHEET 11/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



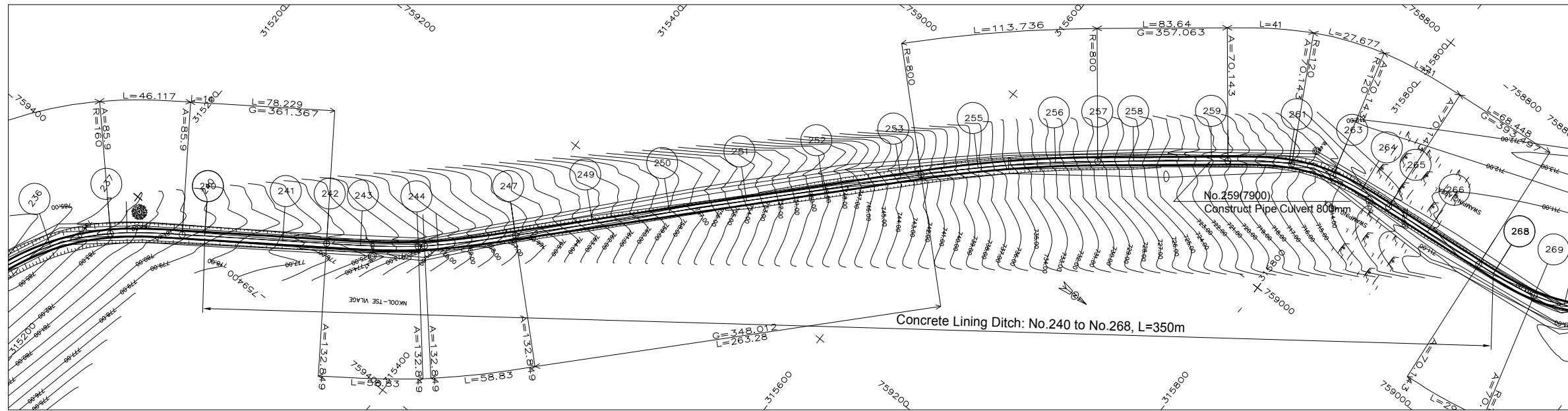
GROUND LEVEL	752.74	752.73	755.16	758.81	759.03	762.71	763.95	771.49	773.64	774.26	775.32	775.43	778.32	778.81	781.61	781.89	783.31	783.99	785.67	784.53	782.87	782.29	780.40	779.63		
PARTIAL DISTANCES	36.17	50	41	6.66	41	20.65	29.35	27.74	8.19	14.1	43.03	44.49	40.61	9.39	50	50	39.36	10.6	35.48	14.5						
CUMULATIVE DISTANCES	6613.83	6613.88	6650.00	6700.00	6703.34	6744.34	6756.68	6797.68	6800.00	6820.65	6900.00	6901.61	6943.03	6950.00	6994.49	7000.00	7040.61	7050.00	7100.00	7150.00	7189.36	7200.00	7235.48	7250.00		
PROJECT LEVEL	752.78	753.27	755.67	759.65	759.92	763.19	764.17	767.44	767.62	769.27	775.60	775.73	778.68	779.11	781.40	781.63	782.94	783.15	783.67	783.19	782.10	781.71	780.05	779.29		
VERTICAL.....	<p>P=7.97%</p> <p>L=281.732</p> <p>R=2500</p> <p>L=330.401</p>																									
HORIZONTAL.....	P=270.374 L=89.51		A=70.143 L=41		A=70.143 L=41		A=126.436 L=57.093		A=126.436 L=57.093		P=283.829 L=51.463		A=85.9 L=46.117		R=160 L=148.757		A=85.9 L=46.117									
LEFT SLOPE....	-2.50	2.50	-2.50	2.50	-2.50	2.50	-7.00	-7.00	-2.50	2.50	-2.50	2.50	-2.50	2.50	0.58	2.50	3.49	3.49	2.01	2.50	-2.50	2.50	-2.50	2.50	-2.50	2.50
RIGHT SLOPE	-2.50	2.50	-2.50	2.50	-2.50	2.50	-7.00	-7.00	-2.50	2.50	-2.50	2.50	-2.50	2.50	0.58	2.50	3.49	3.49	2.01	2.50	-2.50	2.50	-2.50	2.50	-2.50	2.50
LEFT DITCHES																										
RIGTH DITCHES																										

LICENCE : 1109

 <b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b>  <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>  <b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			5-11/13
		PLAN AND PROFILE S2 11/13	SCALE	APPROVED BY	SERIAL NO.

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BIWONG 1.PIS

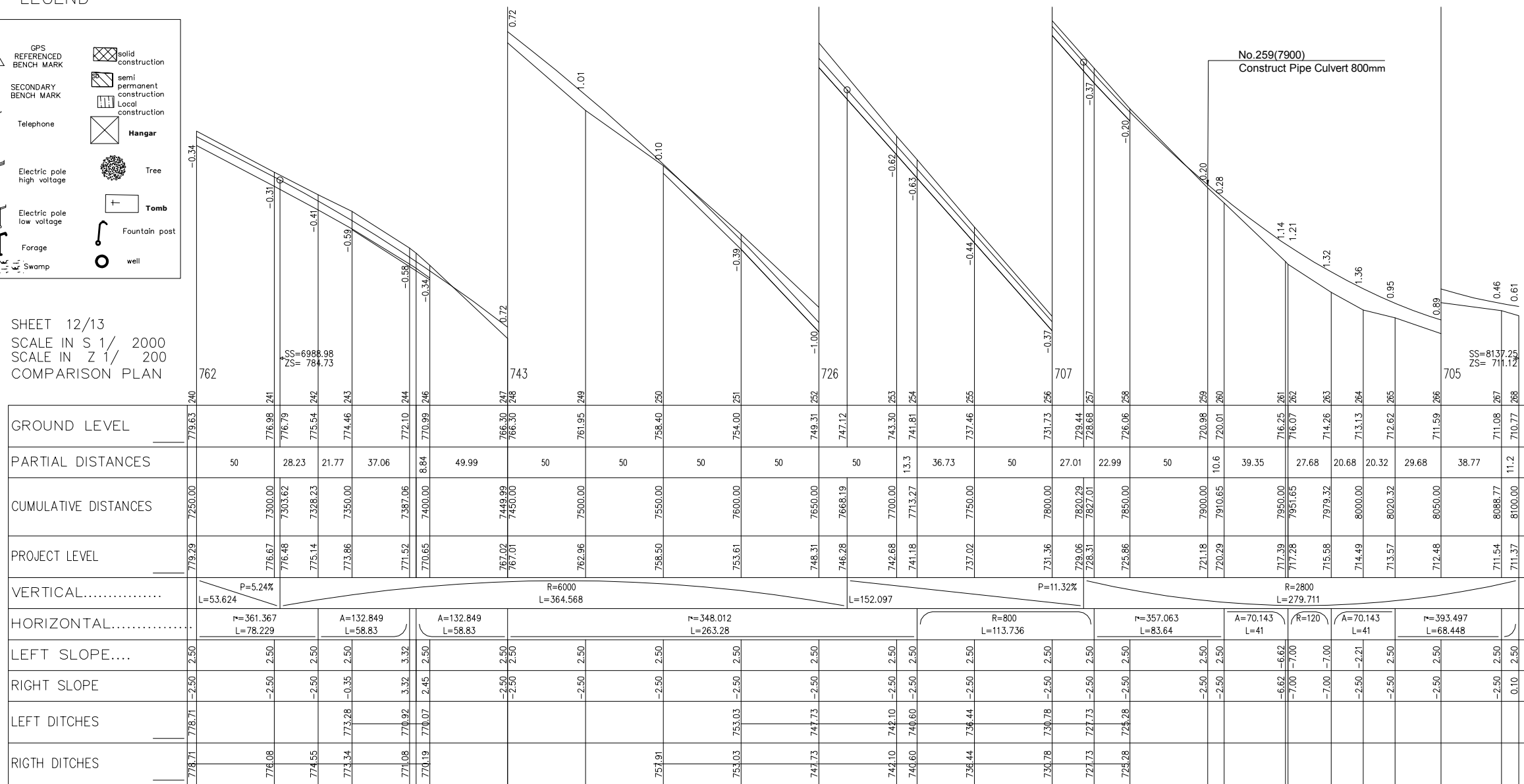


BIWONG BULU

LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forage		Tomb
	Swamp		Fountain post
			Well

SHEET 12/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



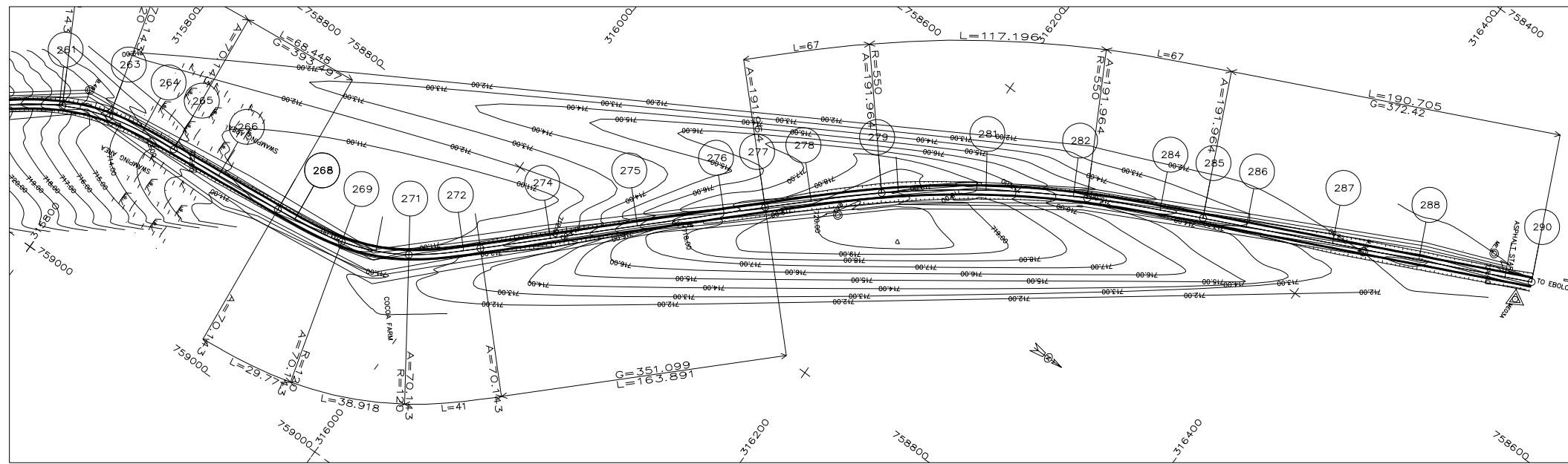
LICENCE : 1109

  	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			5 12/13
	NTC INTERNATIONAL CO., LTD.		PLAN AND PROFILE S2 12/13	SCALE	APPROVED BY	SERIAL NO.

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BIWONG 1.PIS



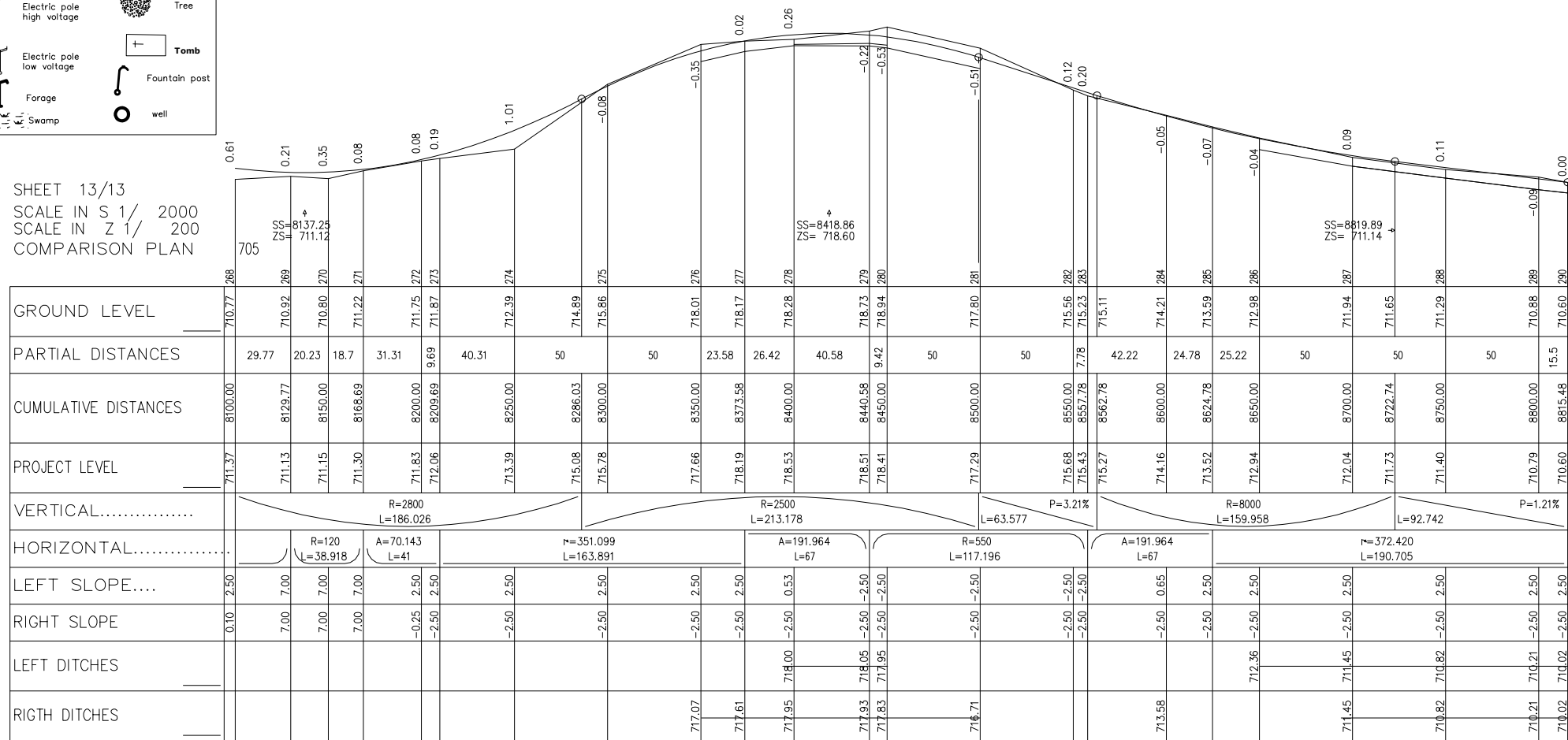


LEGEND

	GPS REFERENCED BENCH MARK		Solid construction
	SECONDARY BENCH MARK		Semi permanent construction
	Telephone		Local construction
	Electric pole high voltage		Hangar
	Electric pole low voltage		Tree
	Forge		Tomb
	Swamp		Fountain post
	Well		

BIWONG BULU

SHEET 13/13  
SCALE IN S 1/ 2000  
SCALE IN Z 1/ 200  
COMPARISON PLAN



LICENCE : 1109

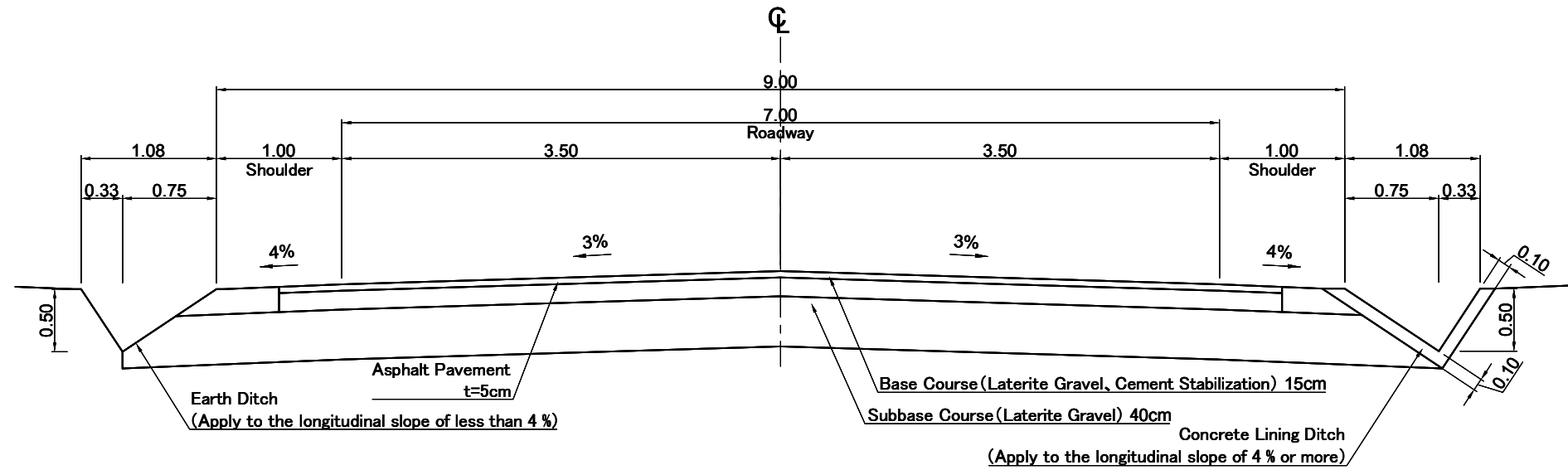
MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
NTC INTERNATIONAL CO., LTD.

REVISION

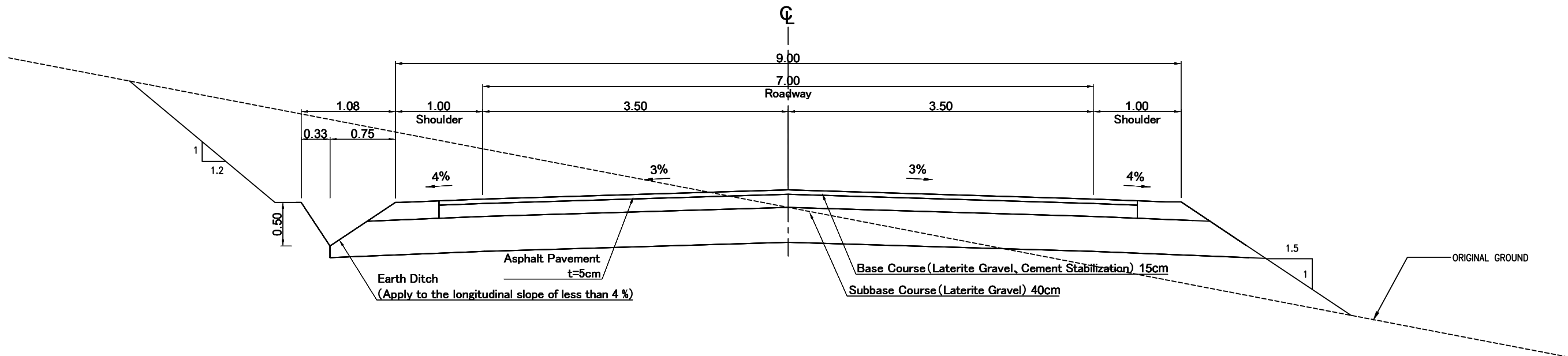
PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			5-13/13
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
PLAN AND PROFILE S2 13/13			

A-171

Departmental Road

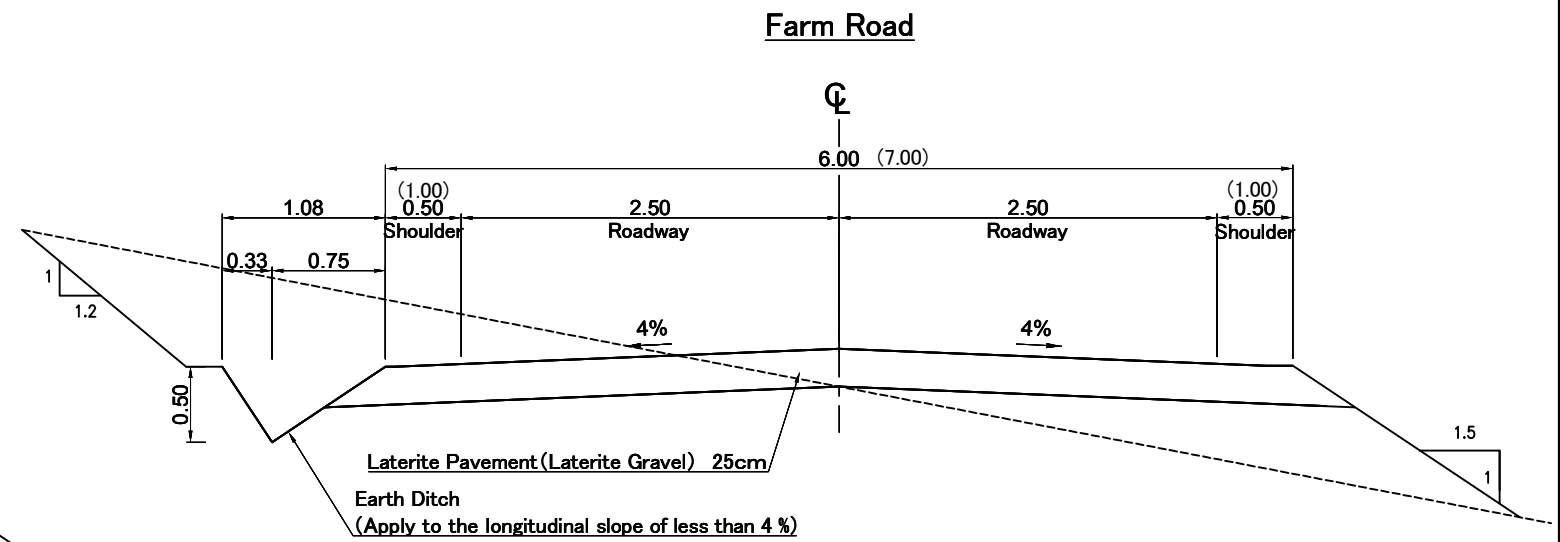
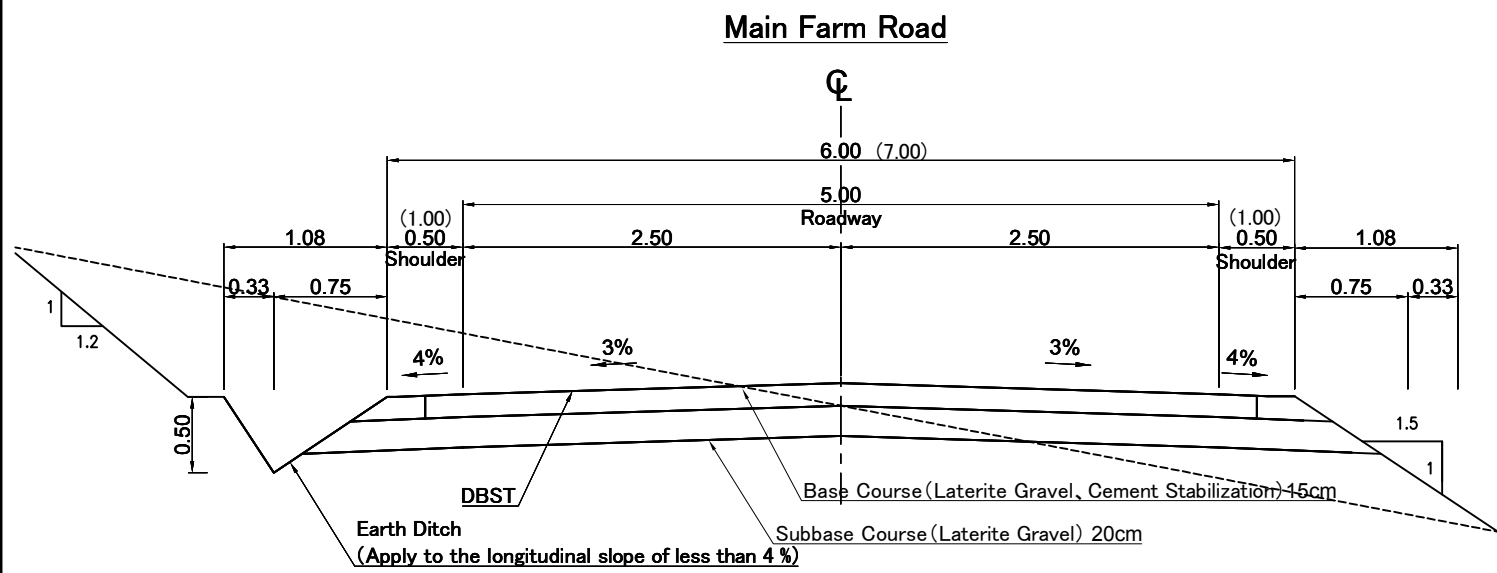
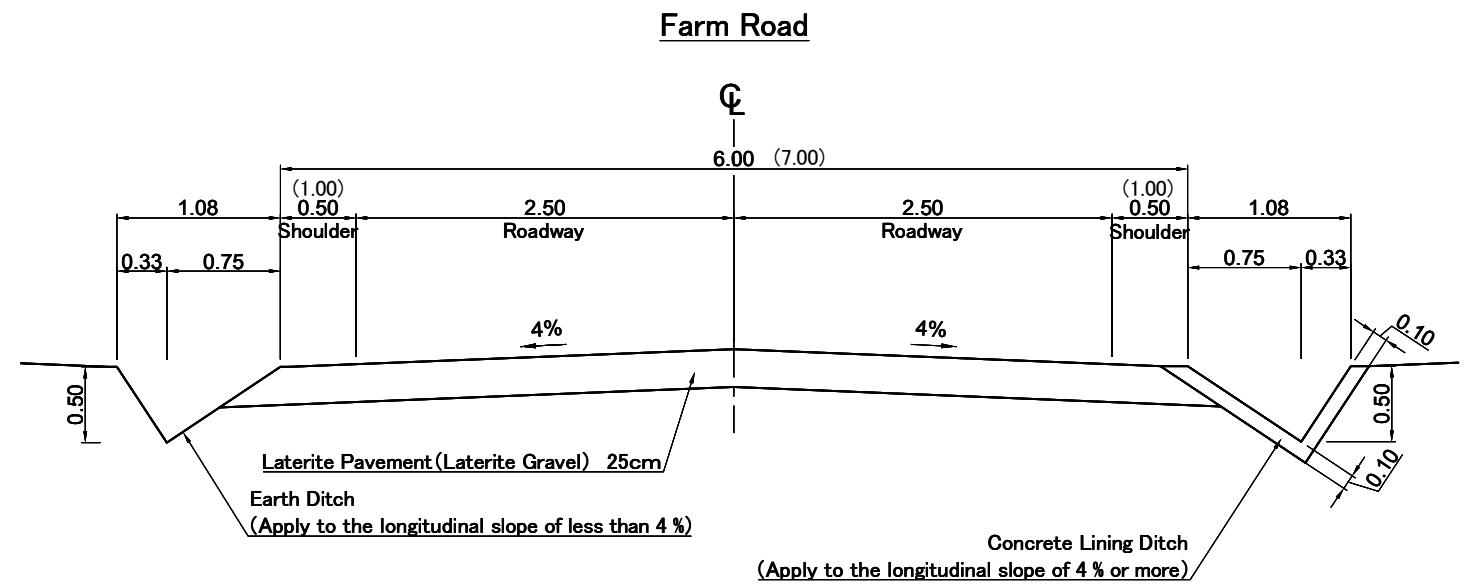
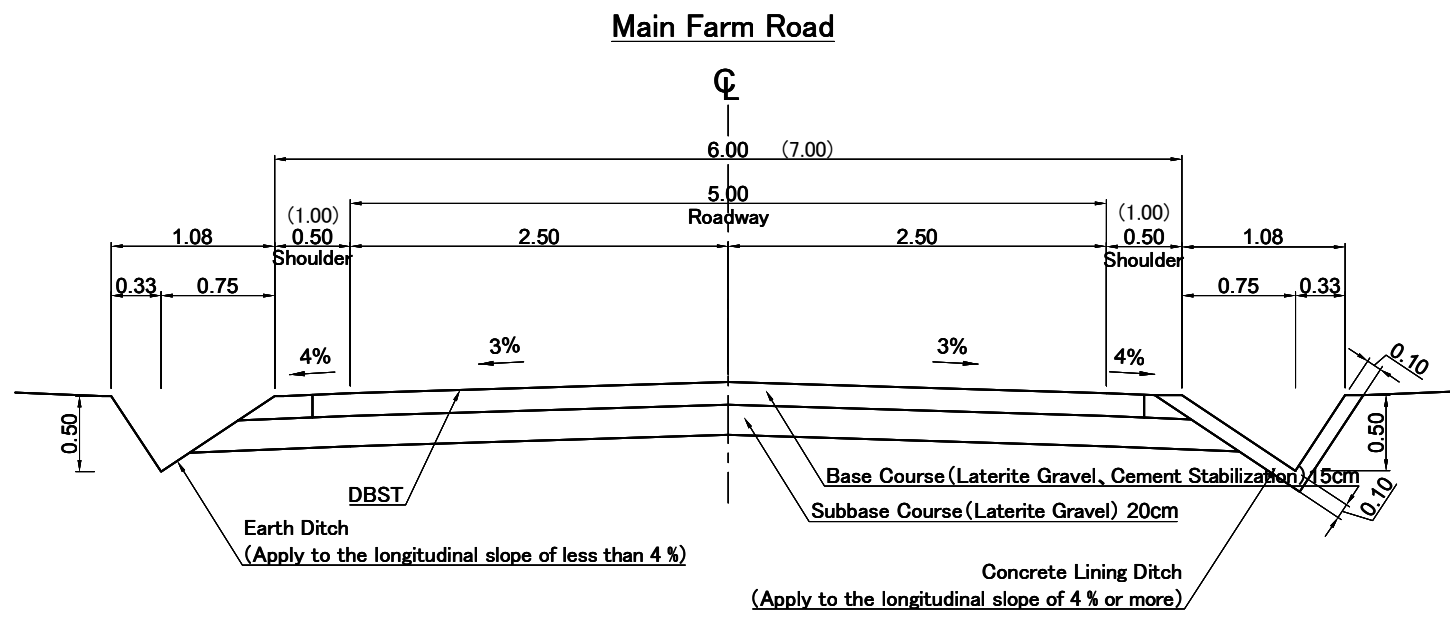


Departmental Road



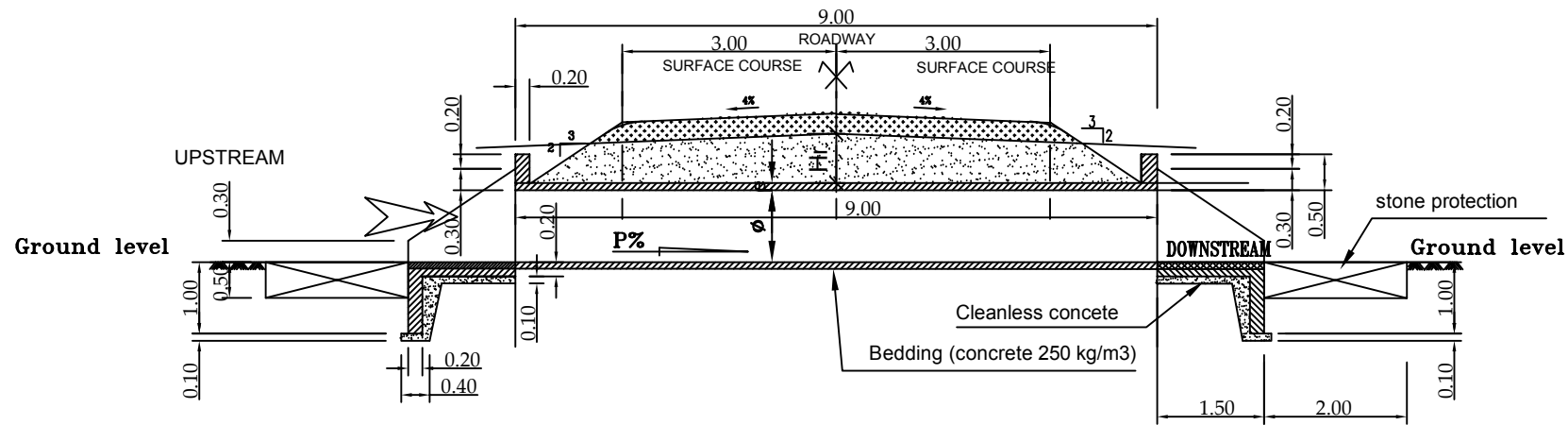
<p>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</p> <p>JAPAN INTERNATIONAL COOPERATION AGENCY</p> <p>NTC INTERNATIONAL CO., LTD.</p>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			6-1/2
		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
		TYPICAL CROSS SECTION	1:50		

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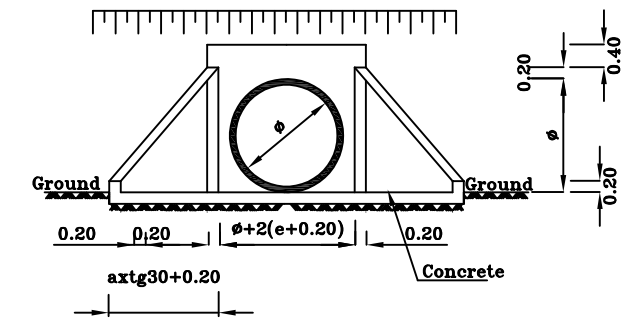


	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JICA JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			6-2/2
	NTC INTERNATIONAL CO., LTD.		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			TYPICAL CROSS SECTION	1:50		

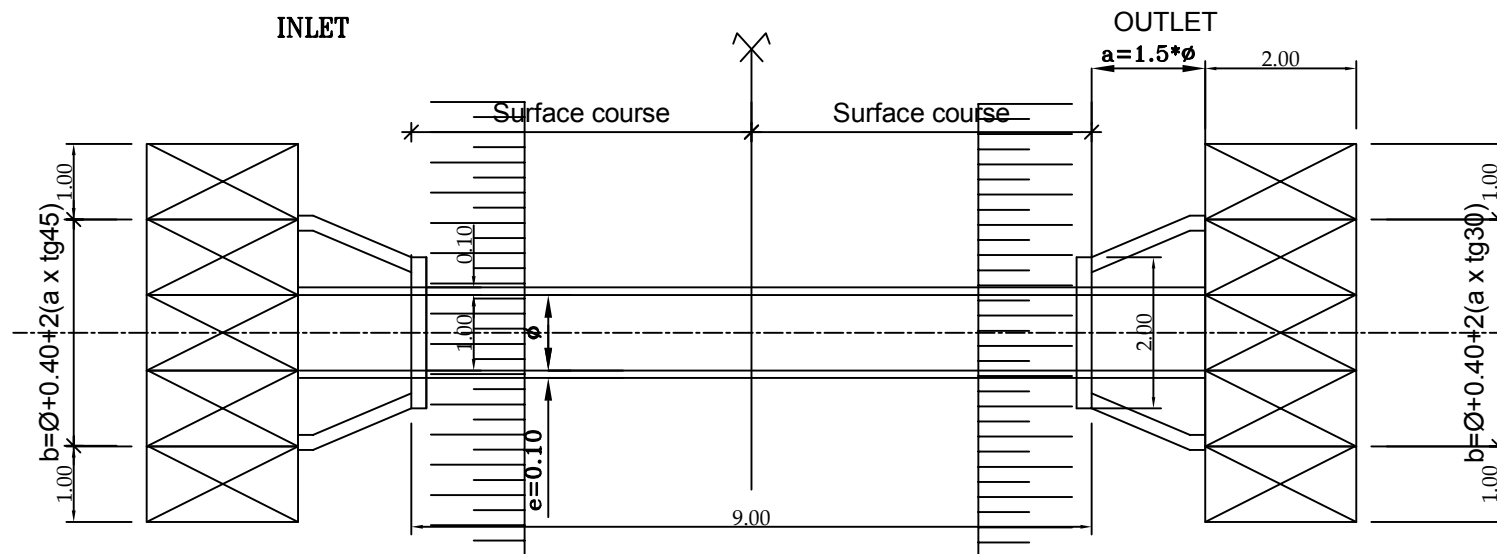
# LONGITUDINAL PROFILE



# VIEW ELEVATION

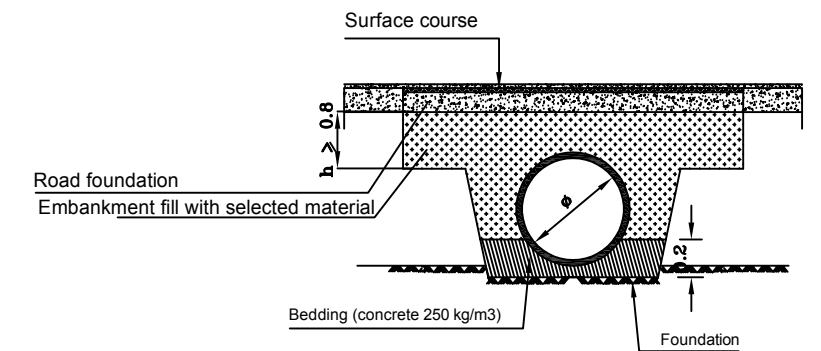


# PLAN VIEW



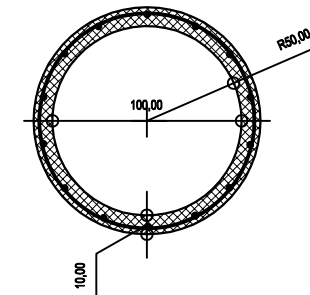
DOWNSTREAM

# CROSS SECTION

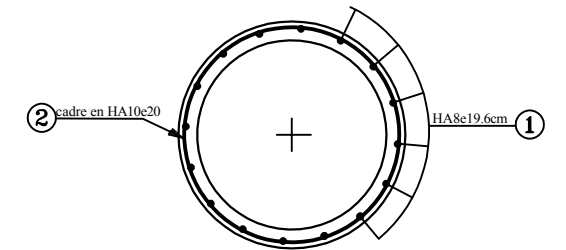


Culvert	a (m)	b (m)
Ø800	1,8	2,9
2Ø800	3,1	4,2
3Ø800	4,4	5,5
Ø1000	2,0	3,1
2Ø1000	3,5	4,6
3Ø1000	5,0	6,1

# REBAR-ARRANGEMENT(cross section)

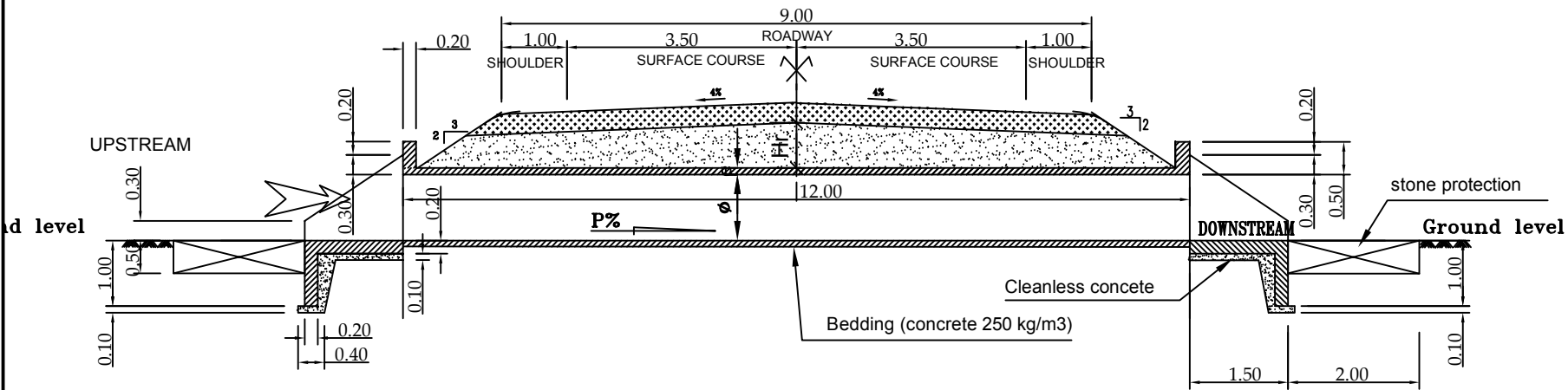


# REBAR-ARRANGEMENT(cross section)

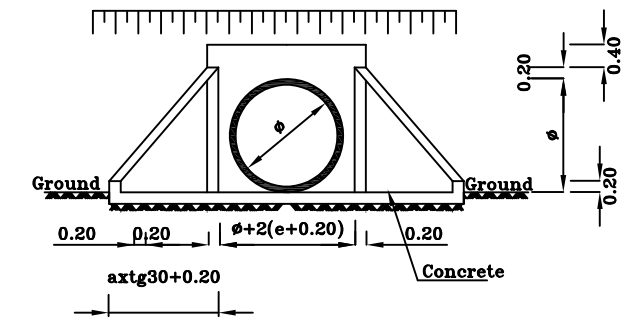


	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			7-1(1/2)
	NTC INTERNATIONAL CO., LTD.		CULVERT : DIAMETER 800, 1000, W=6.0m FORMWORK AND REINFORCEMENT PRINCIPLE	SCALE	APPROVED BY	SERIAL NO.

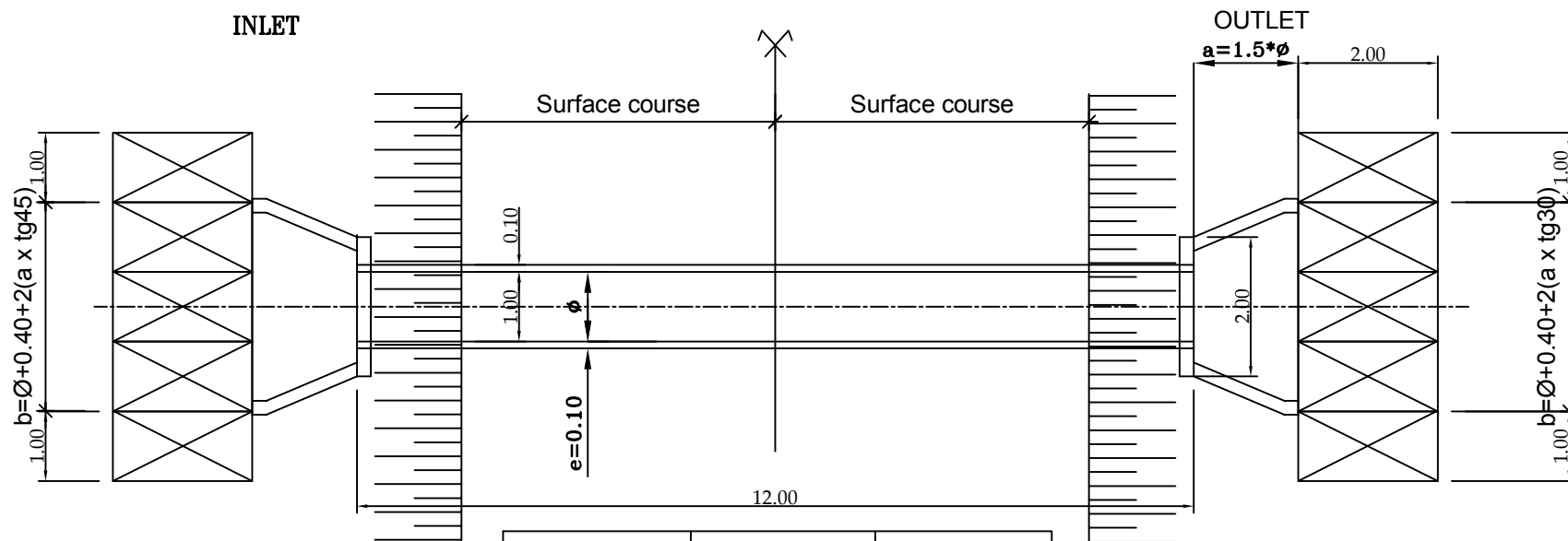
# LONGITUDINAL PROFILE



# VIEW ELEVATION

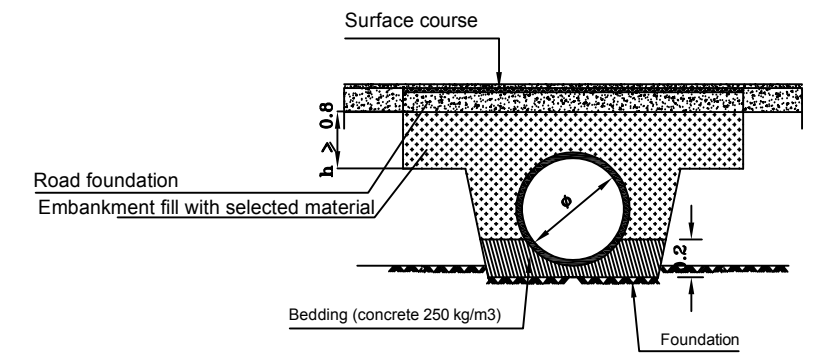


# PLAN VIEW



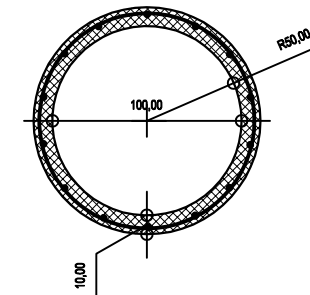
DOWNSTRE

# CROSS SECTION

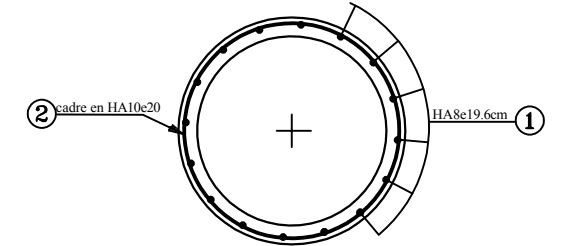


Culvert	a (m)	b (m)
Ø800	1,8	2,9
2Ø800	3,1	4,2
3Ø800	4,4	5,5
Ø1000	2,0	3,1
2Ø1000	3,5	4,6
3Ø1000	5,0	6,1

# REBAR-ARRANGEMENT(cross section)

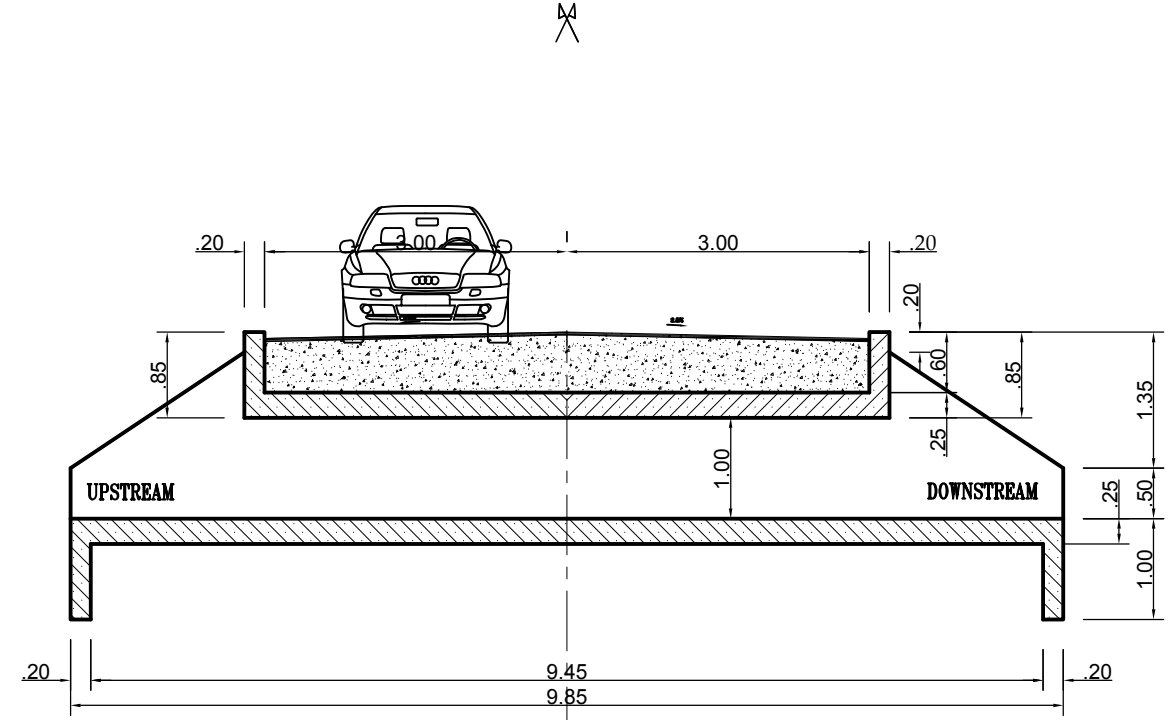


# REBAR-ARRANGEMENT(cross section )

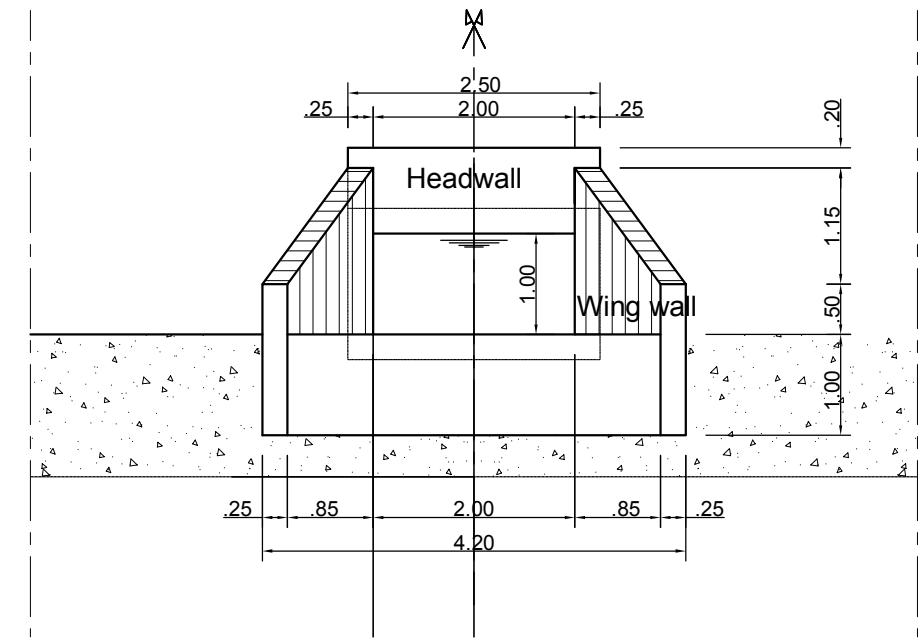


	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			7-2(2/2)
	NTC INTERNATIONAL CO., LTD.		CULVERT : DIAMETER 800, 1000, W=9.0m FORMWORK AND REINFORCEMENT PRINCIPLE	SCALE	APPROVED BY	SERIAL NO.

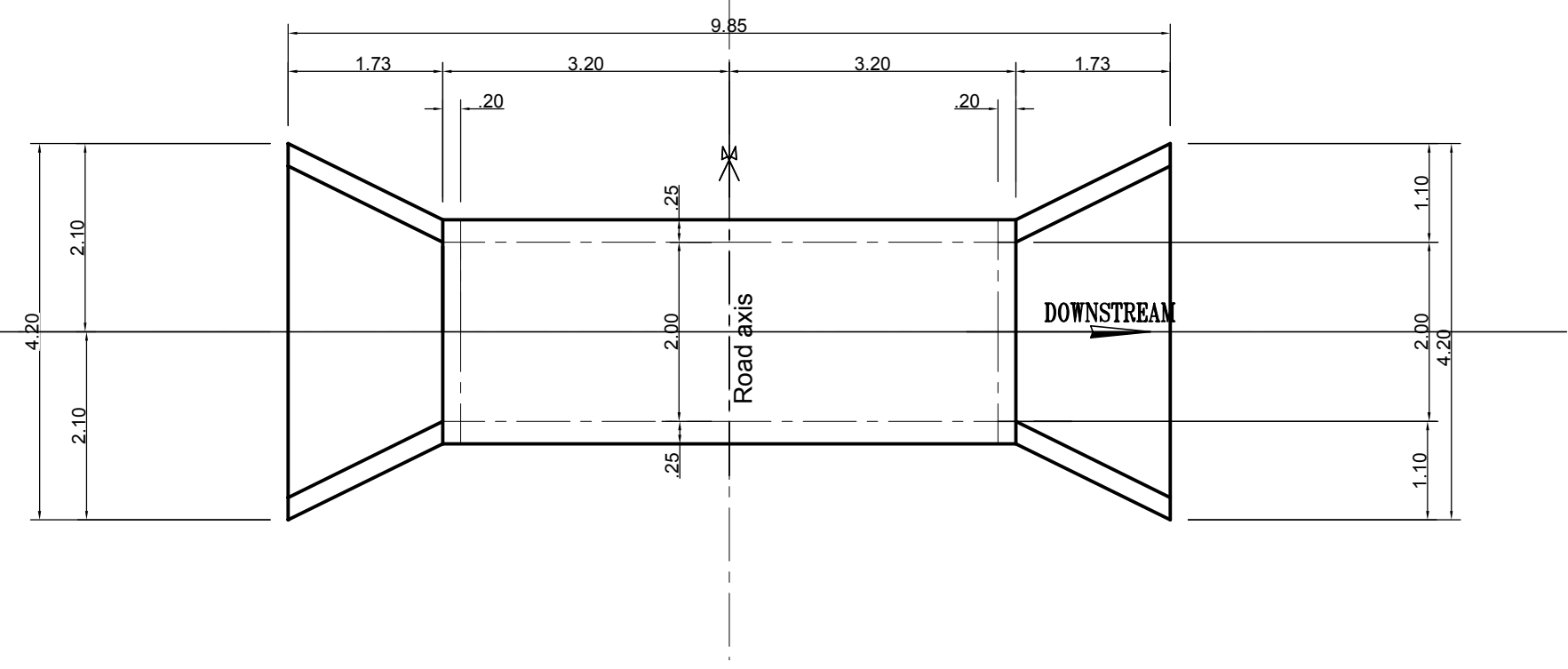
### LONGITUDINAL PROFILE



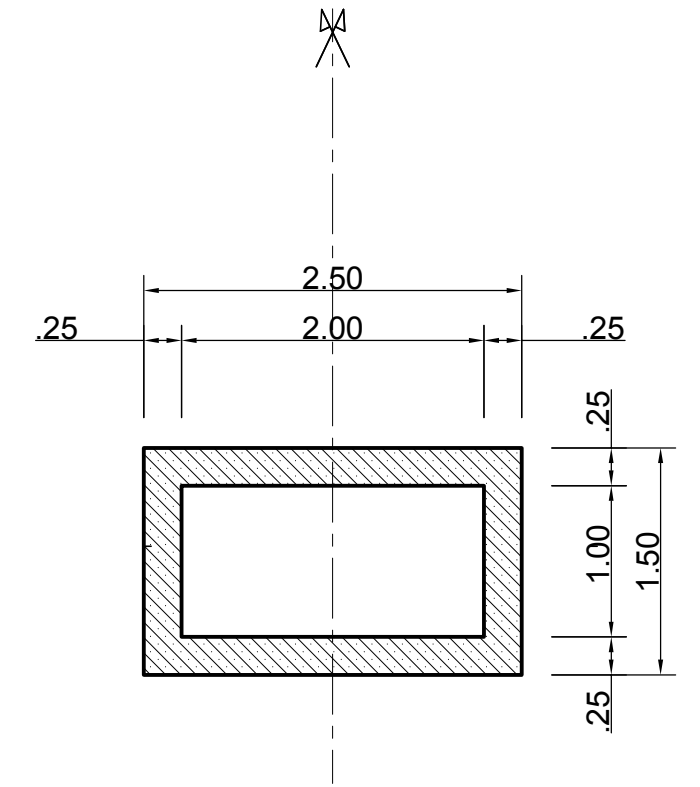
### VIEW ELEVATION



### PLAN VIEW



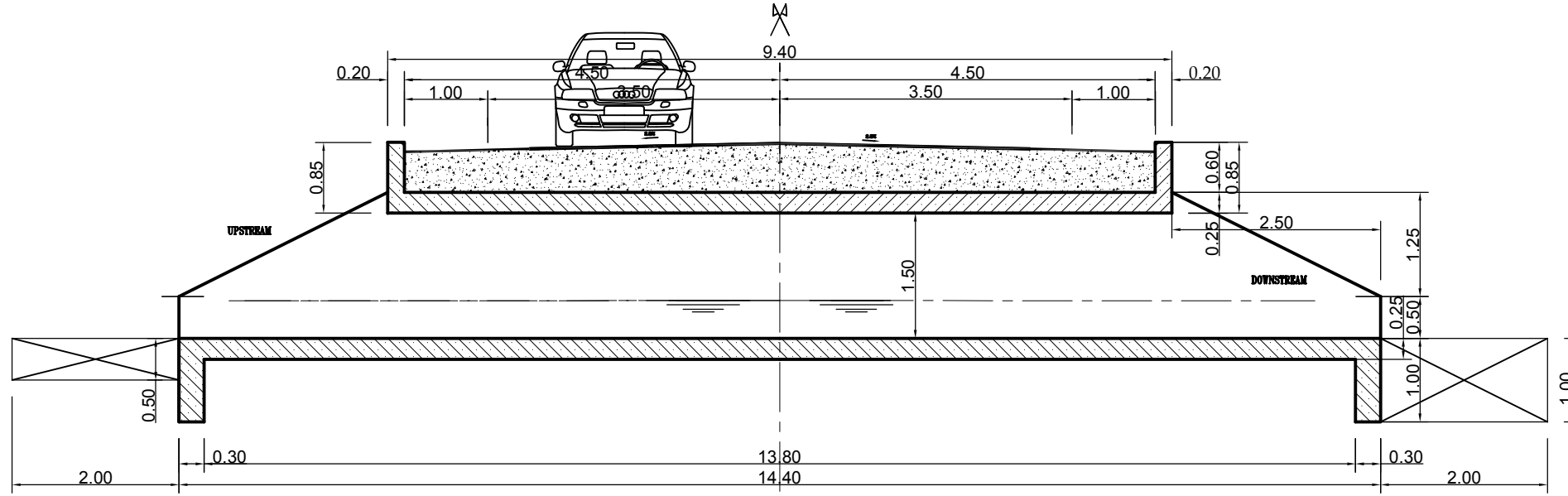
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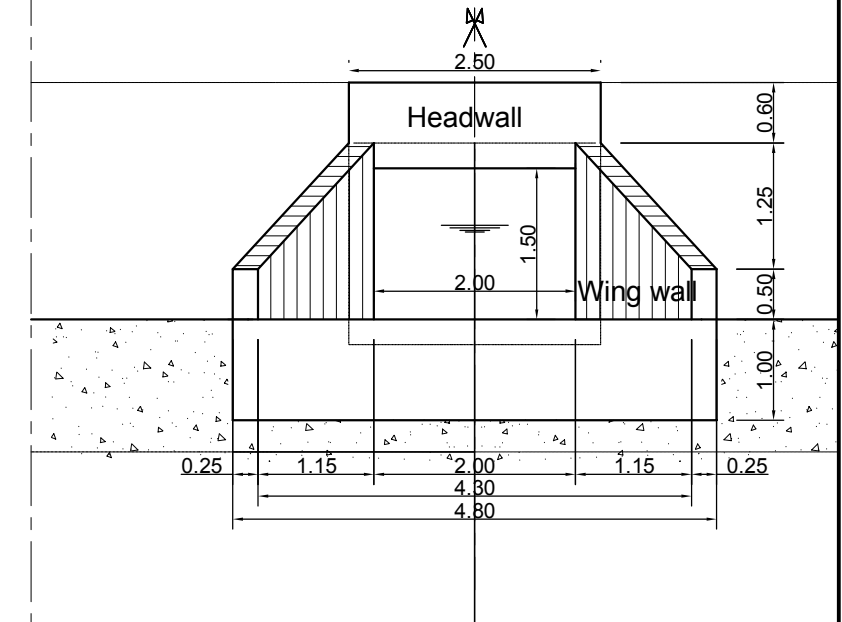
A-176

	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			8-1
	NTC INTERNATIONAL CO., LTD.		BOX CULVERT : 1X2.00X1.00 FORMWORK	SCALE	APPROVED BY	SERIAL NO.

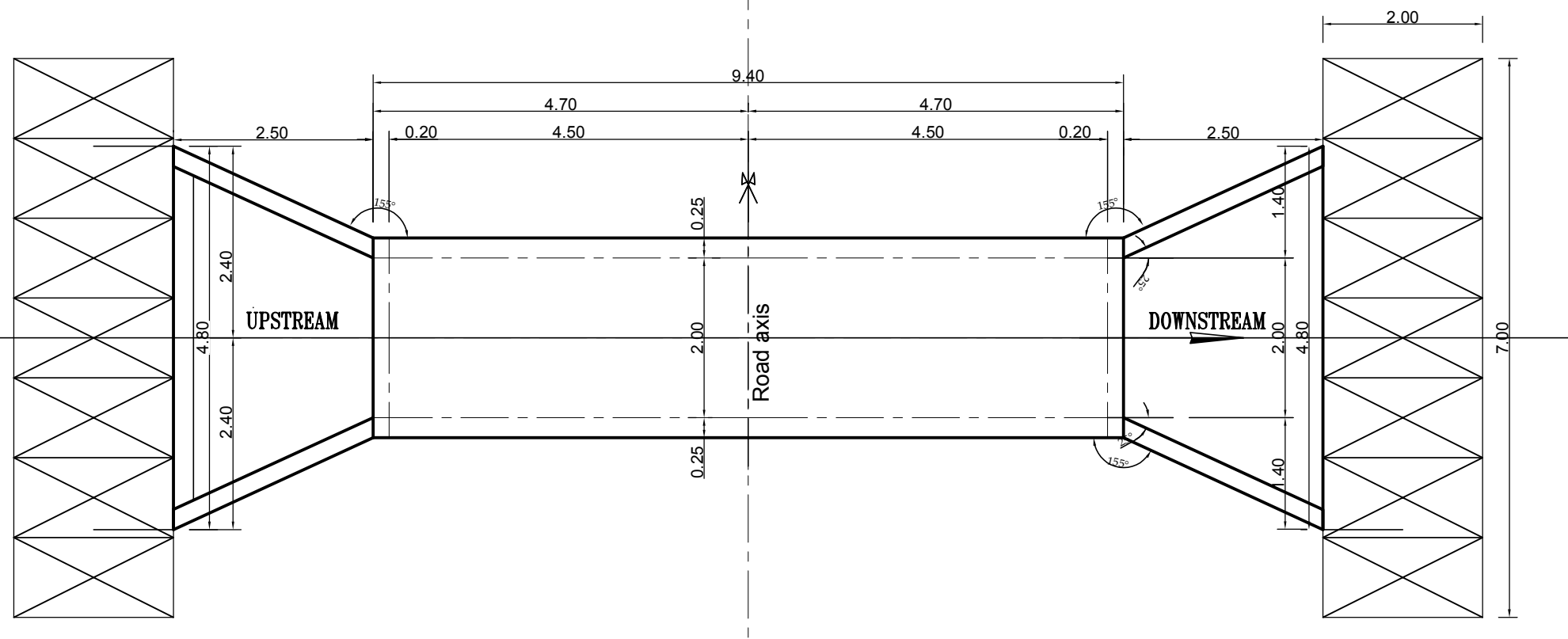
### LONGITUDINAL PROFILE



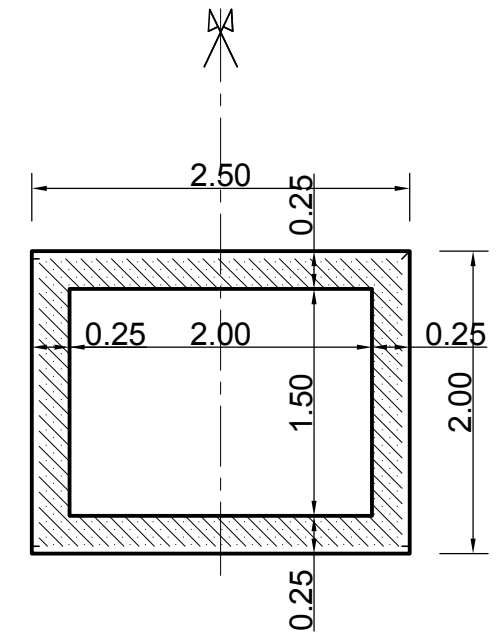
### VIEW ELEVATION



### PLAN VIEW

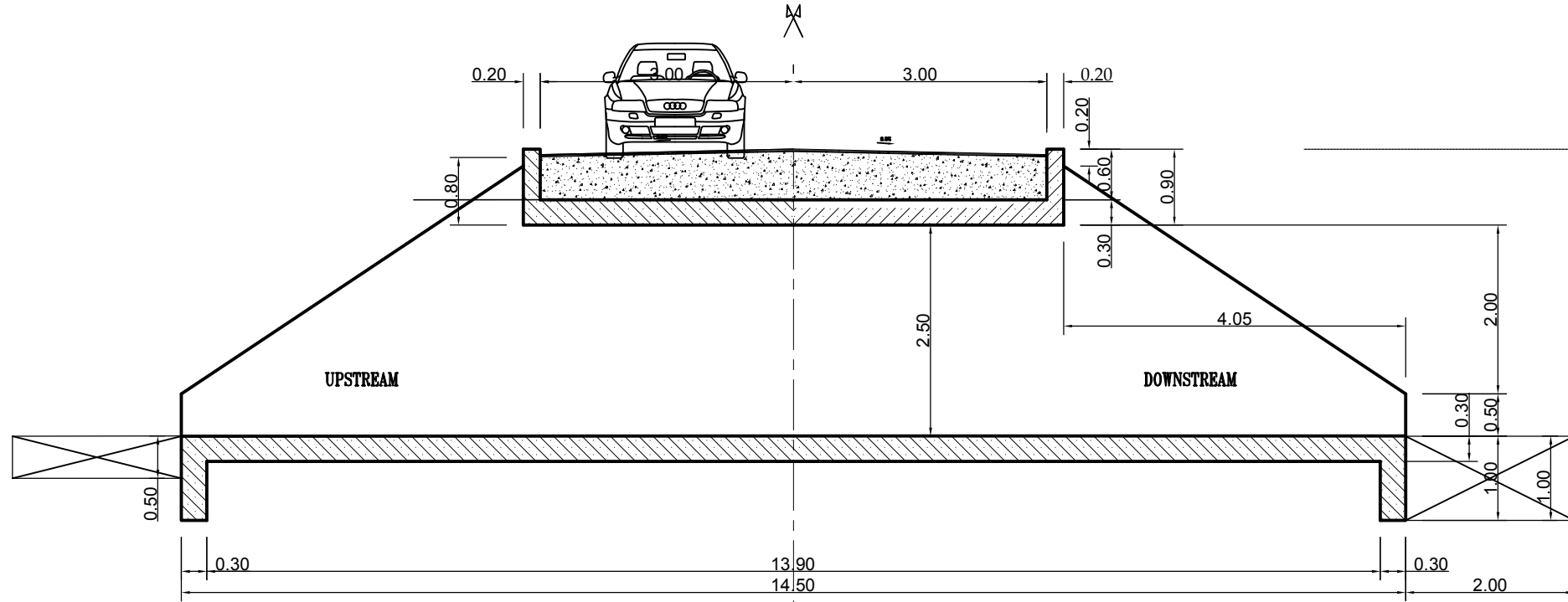


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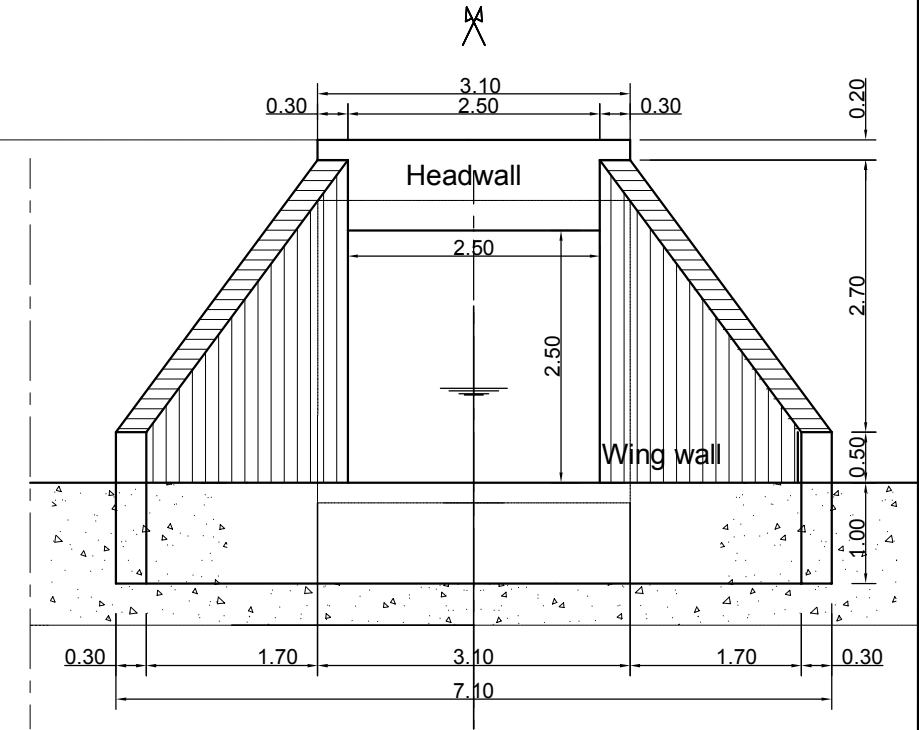


<b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b> <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b> <b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			8-2
		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
		BOX CULVERT : 1X2.00X1.50			

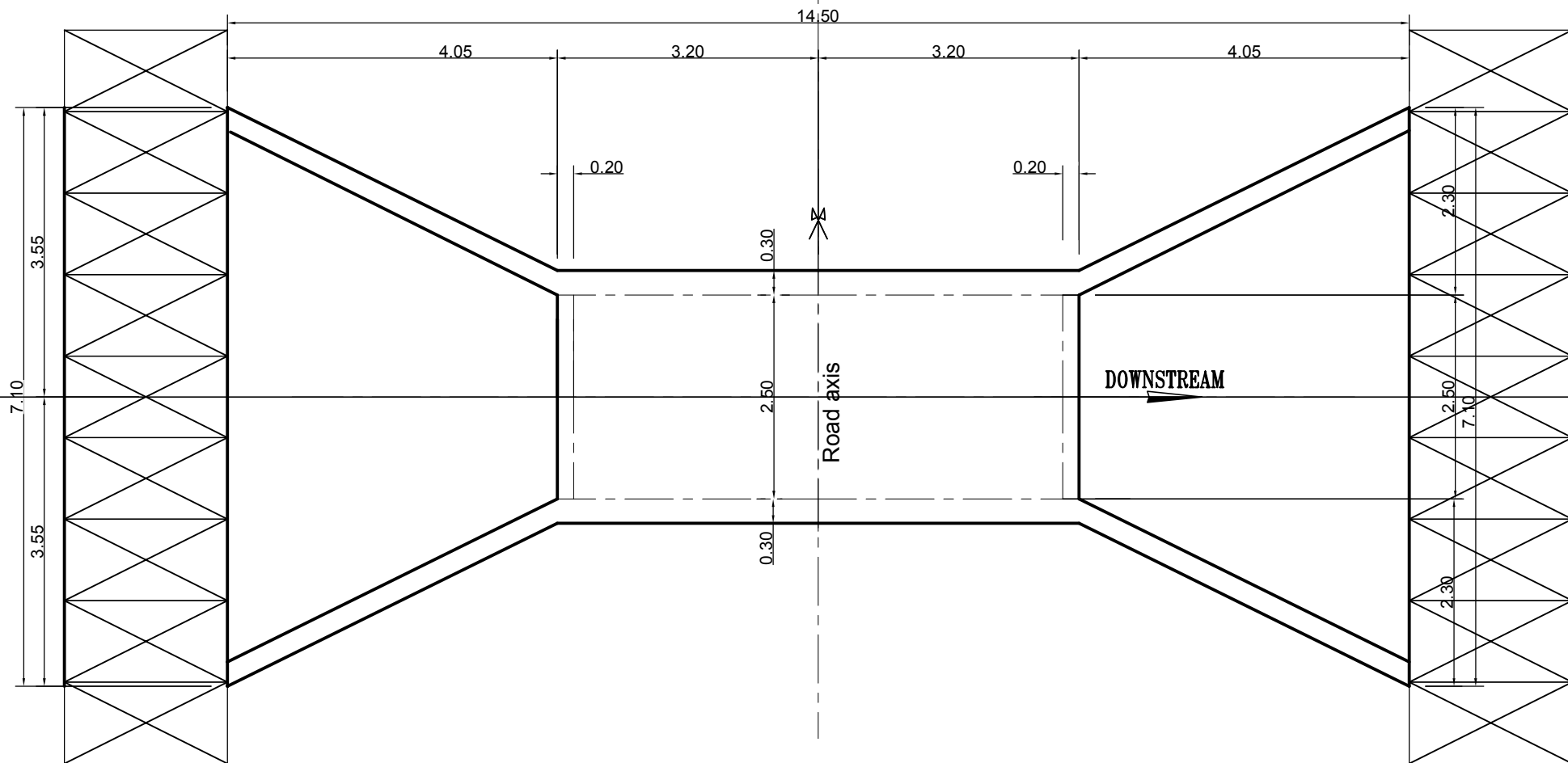
### LONGITUDINAL PROFILE



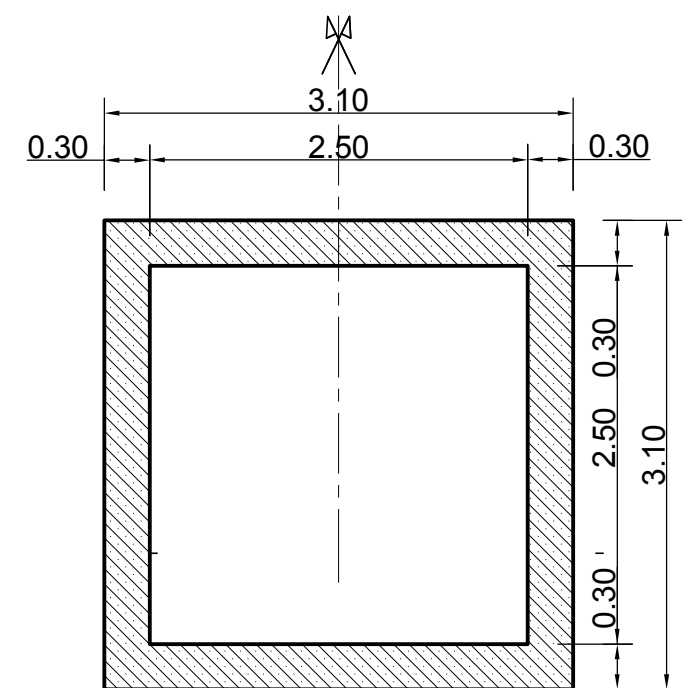
### VIEW ELEVATION



### PLAN VIEW



### CROSS SECTION

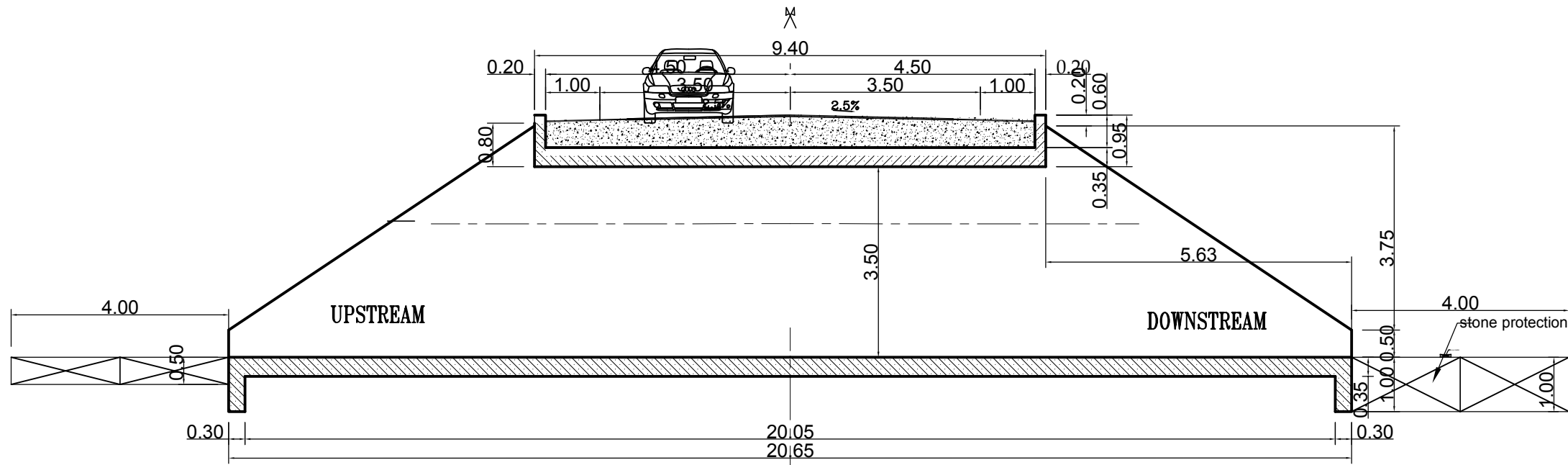


	MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			8-3
	NTC INTERNATIONAL CO., LTD.		BOX CULVERT : 1X2.00X1.50 FORMWORK	SCALE	APPROVED BY	SERIAL NO.

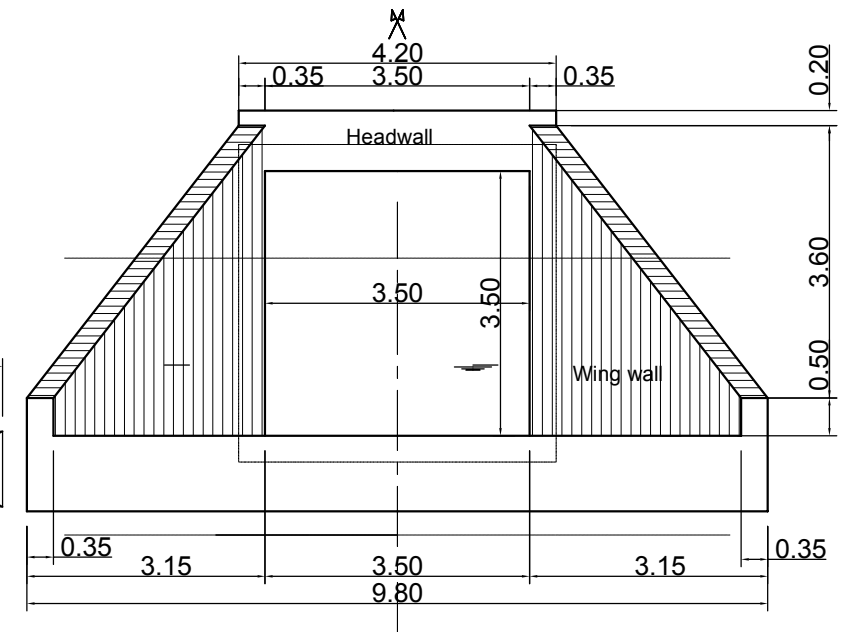
A-178



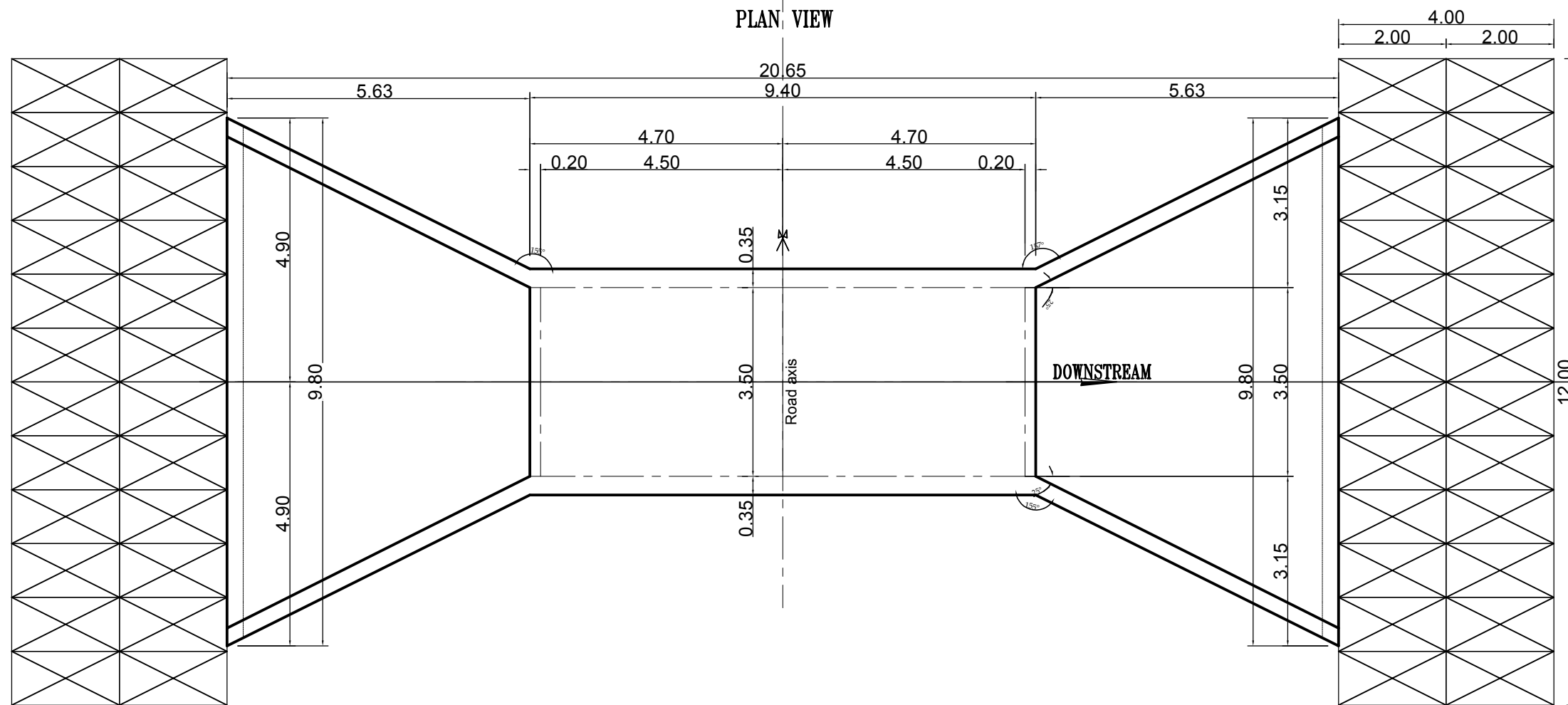
### LONGITUDINAL PROFILE



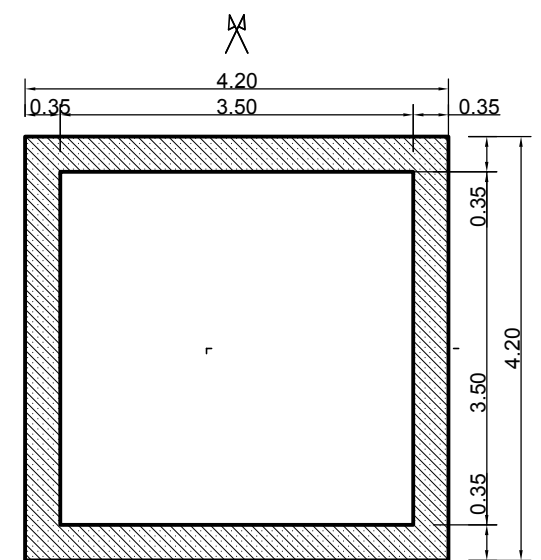
### VIEW ELEVATION



### PLAN VIEW



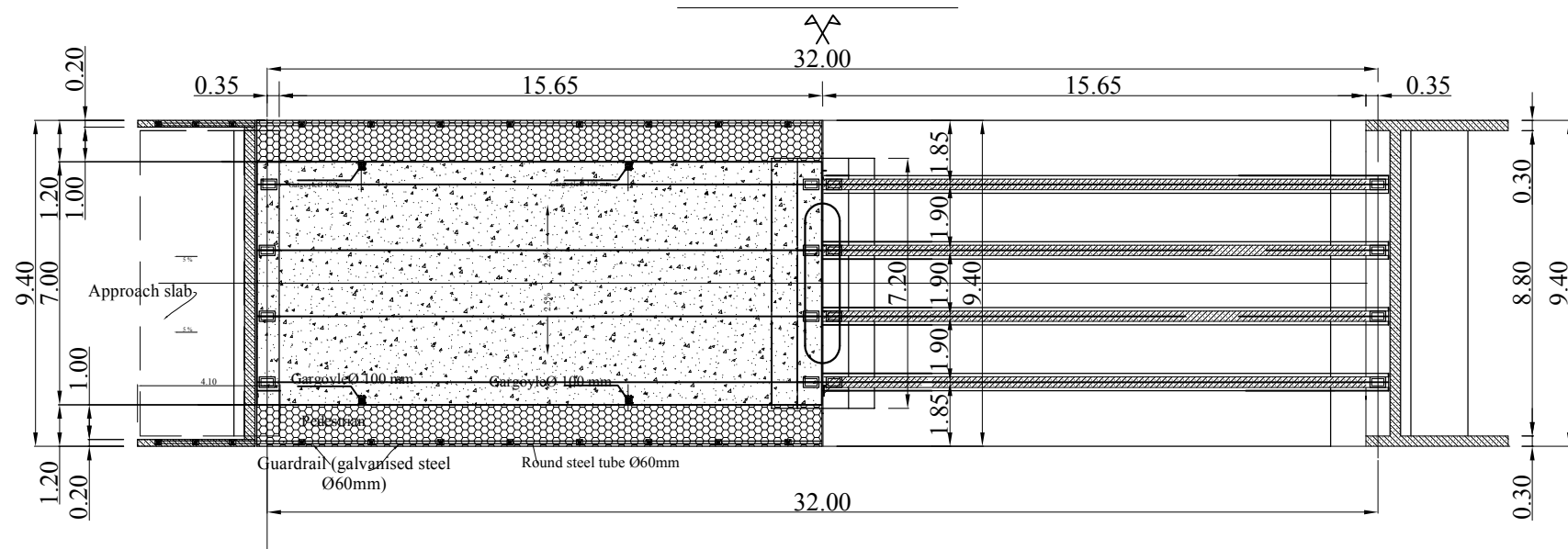
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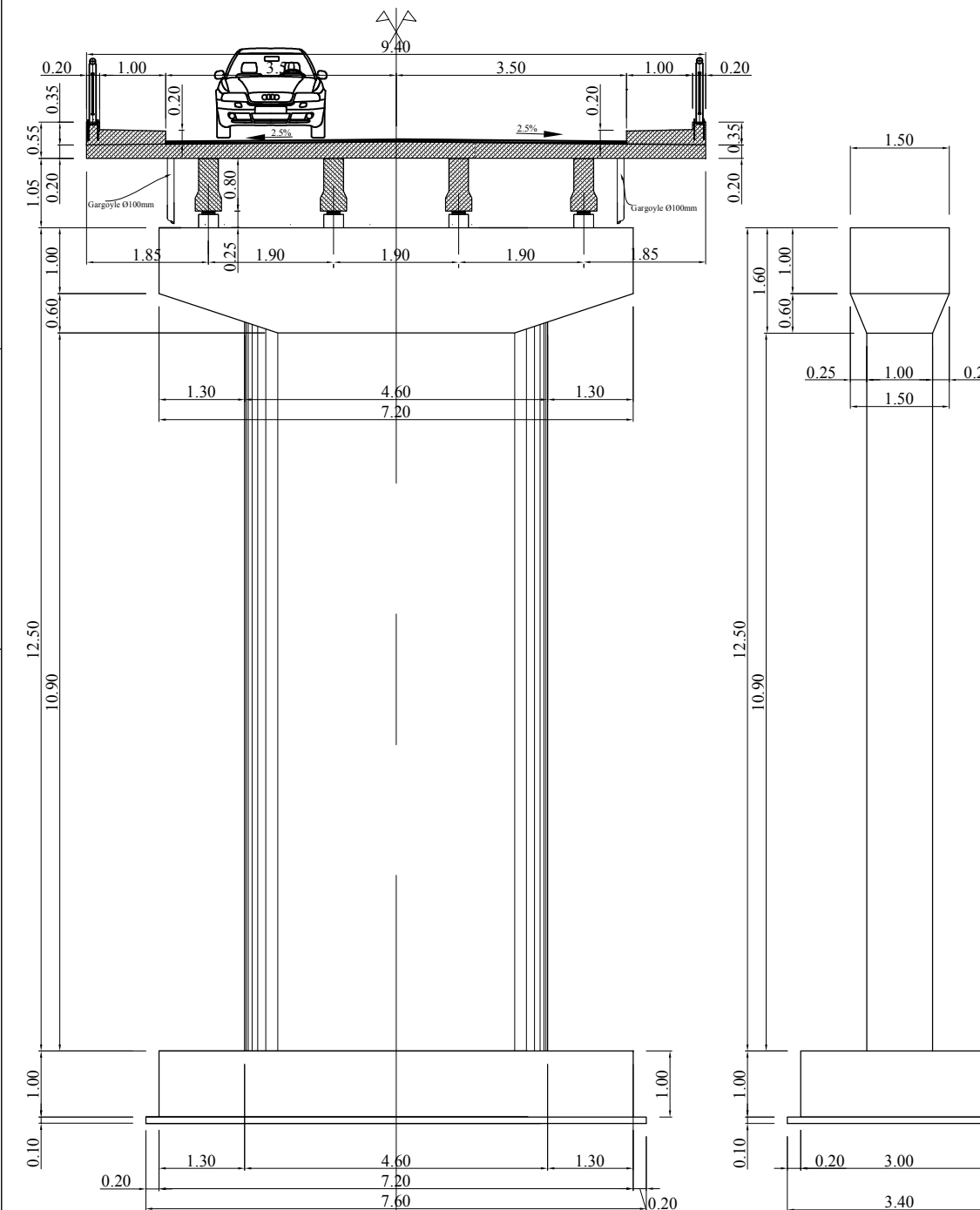
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	JAPAN INTERNATIONAL COOPERATION AGENCY		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			8-4
	NTC INTERNATIONAL CO., LTD.		BOX CULVERT : 1X3.50X3.50 FORMWORK	SCALE	APPROVED BY	SERIAL NO.

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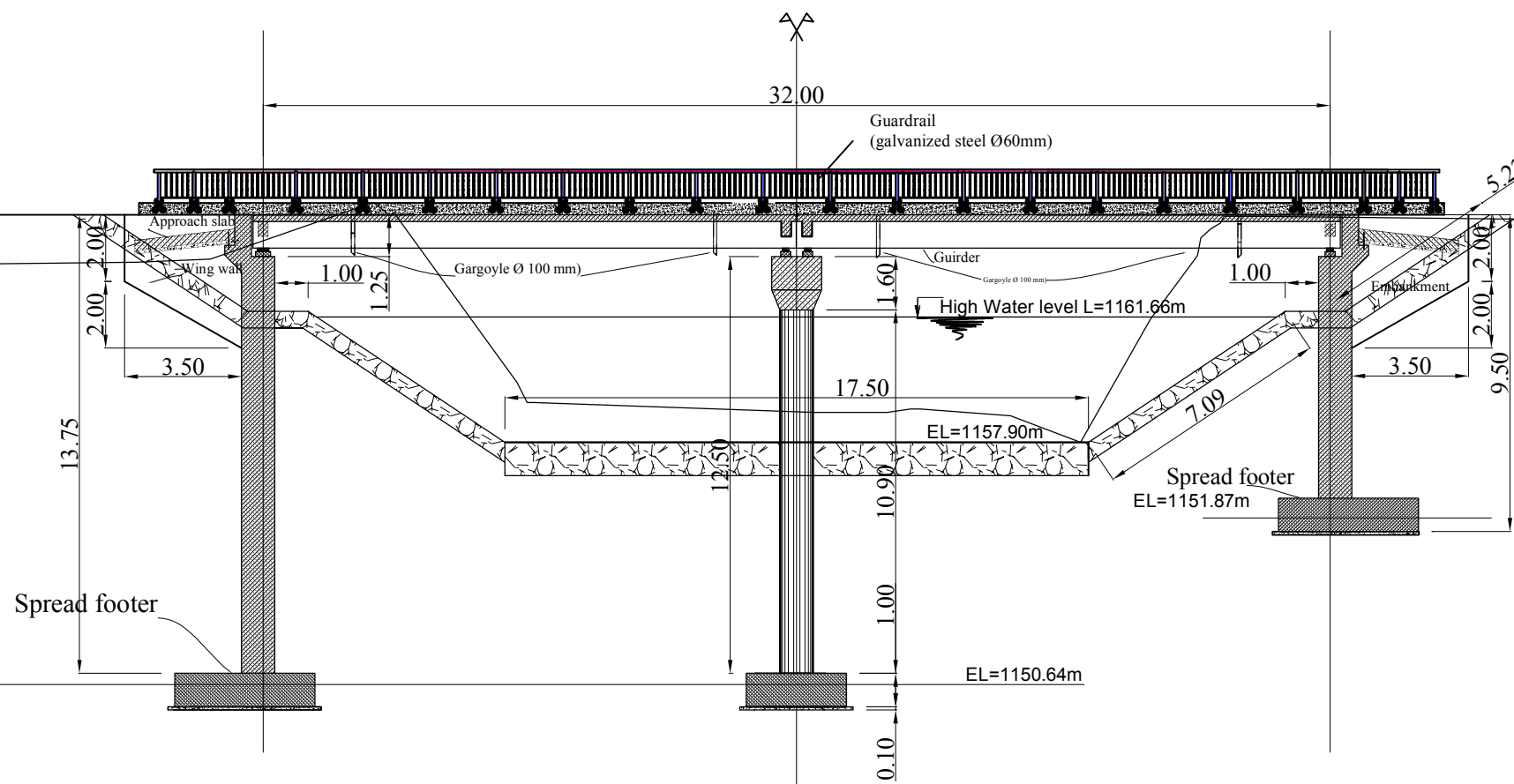
# PLAN VIEW



# CROSS SECTION



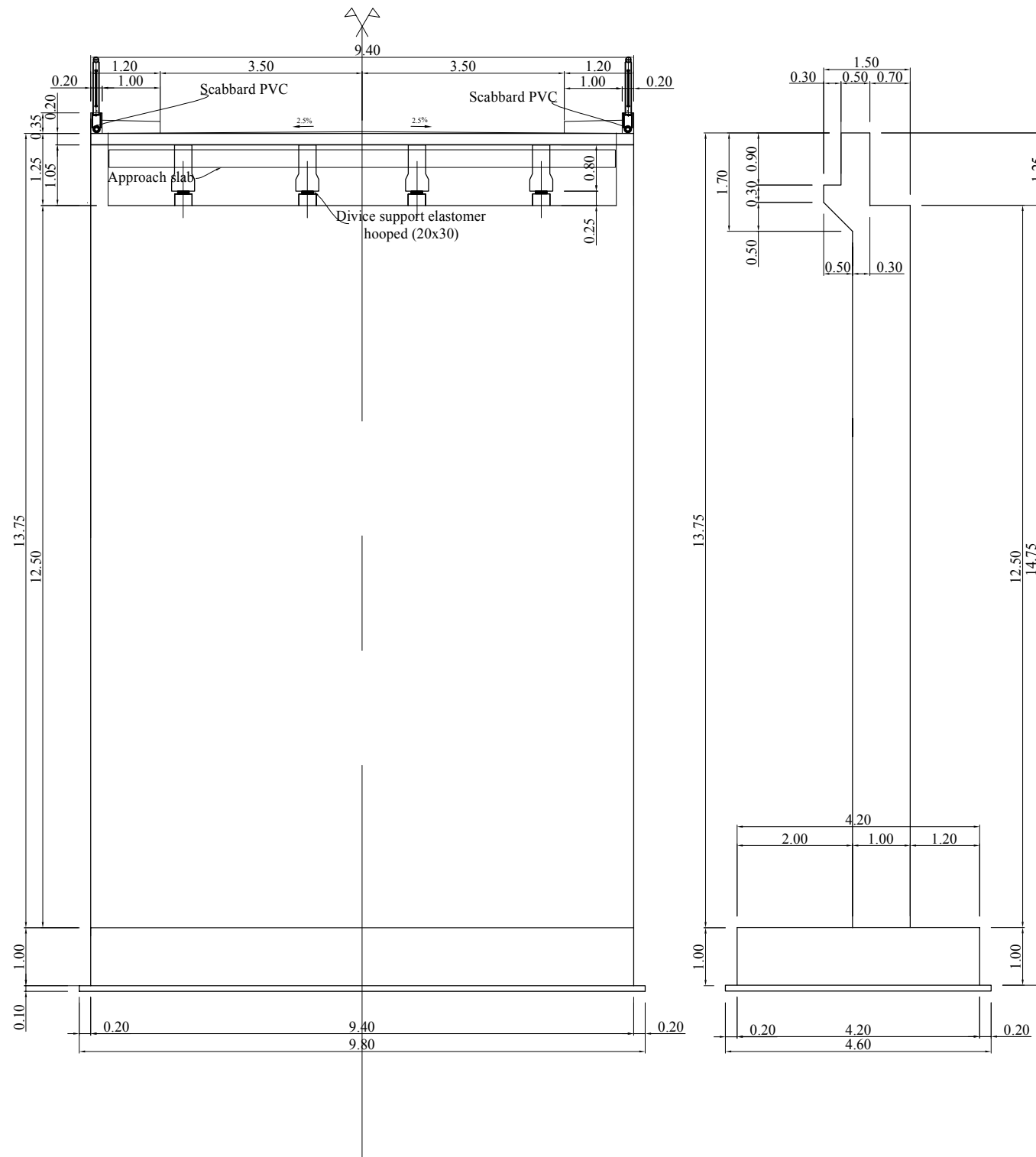
# LONGITUDINAL PROFILE



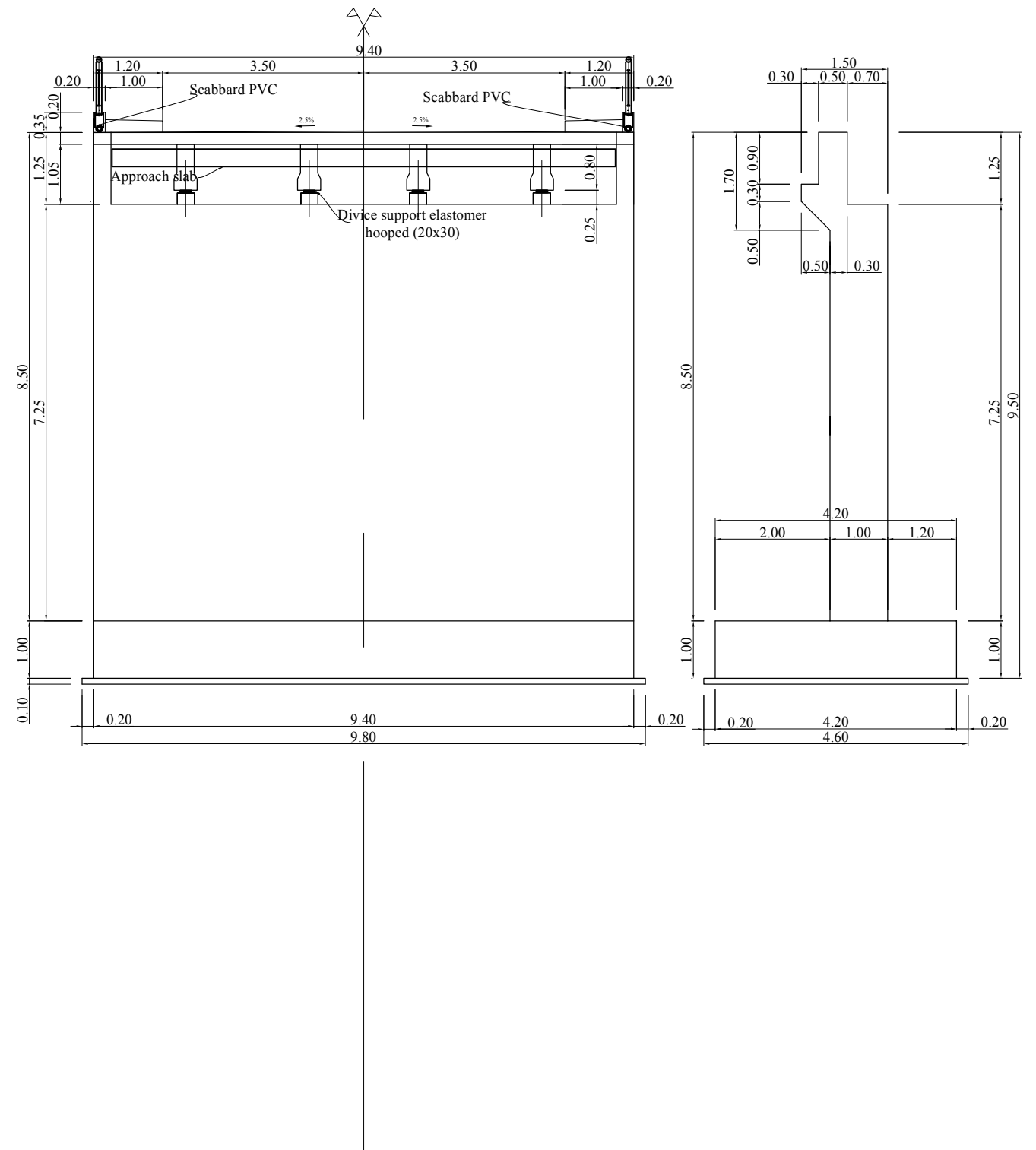
A-180

<p>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT JAPAN INTERNATIONAL COOPERATION AGENCY NTC INTERNATIONAL CO., LTD.</p>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG. NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			9-1(1/4)
		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
		BRIDGE No.1			

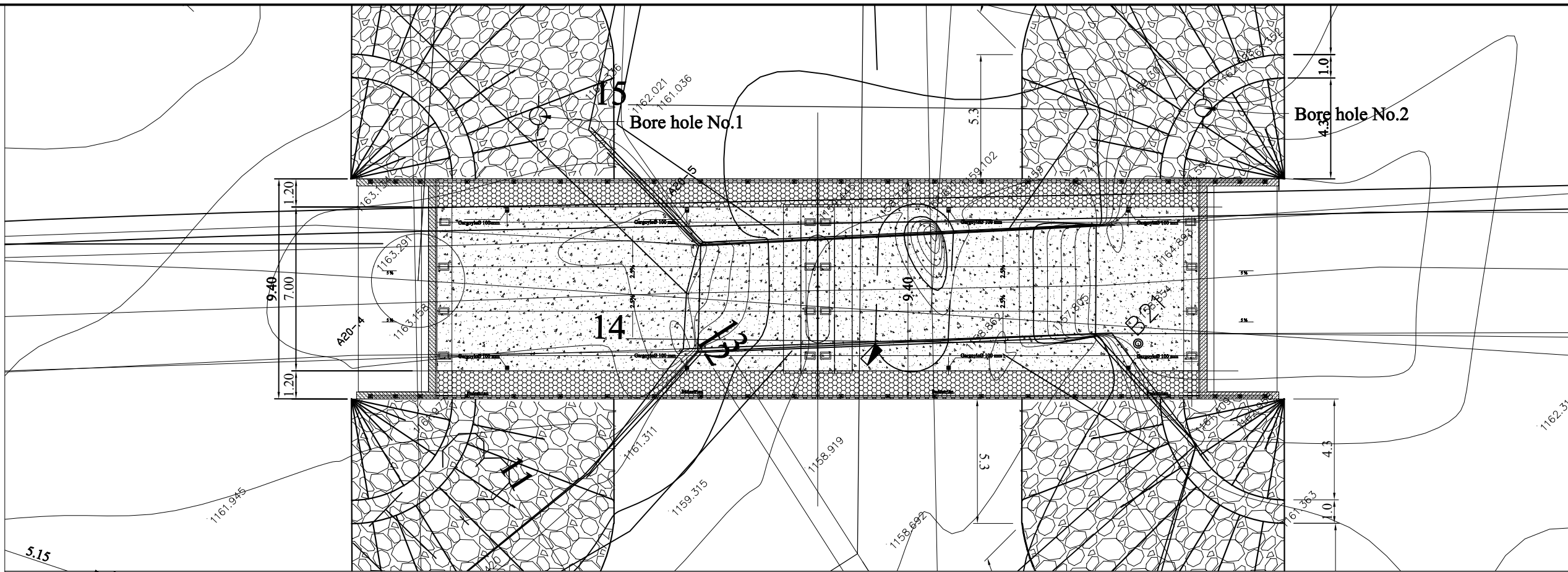
## FORM PLAN ABUTMENT



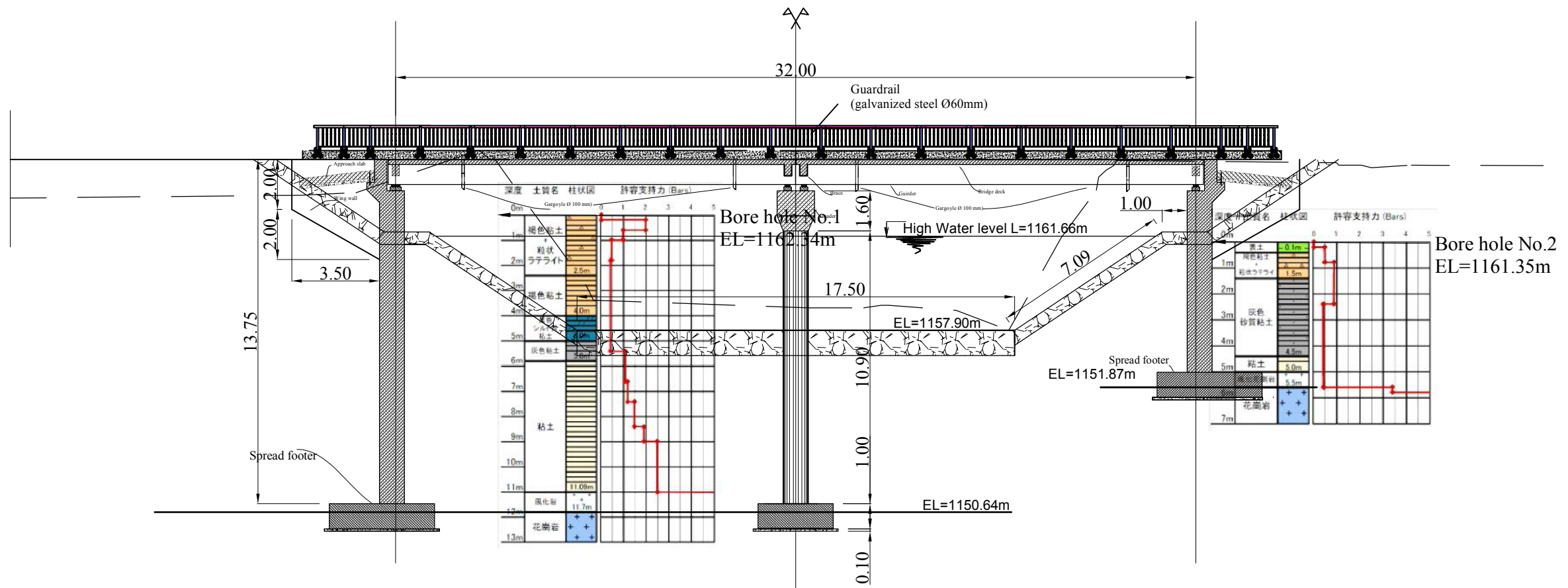
## FORM PLAN ABUTMENT



A-181



### LONGITUDINAL PROFILE



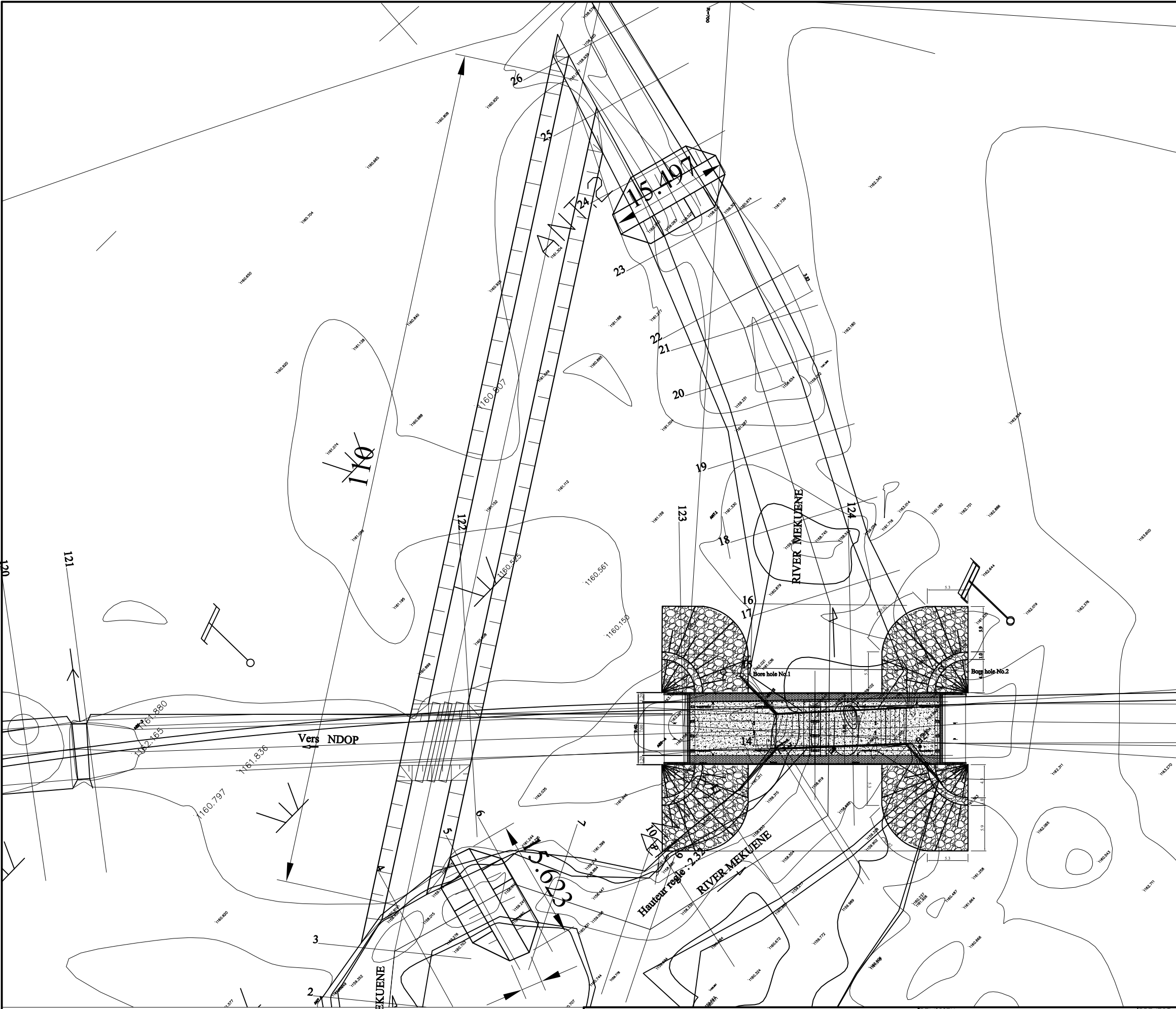
MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
 JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 NTC NTC INTERNATIONAL CO., LTD.

REVISION	DATE

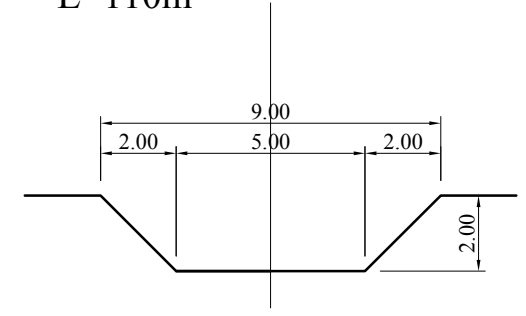
PROJECT TITLE  
 RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
 DWG. TITLE  
 BRIDGE No.1

DATE	DESIGNED BY	DWG. NO.
		9-1(3/4)
SCALE	APPROVED BY	SERIAL NO.

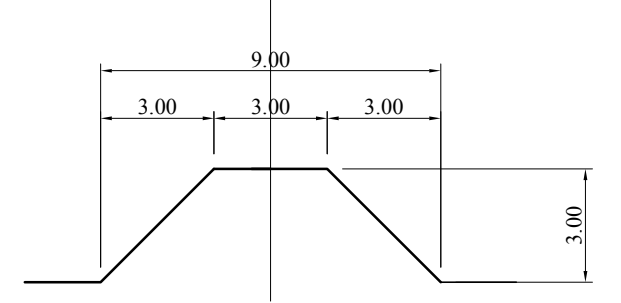
A-183



TEMPORALLY DRAINAGE CANAL  
L=110m

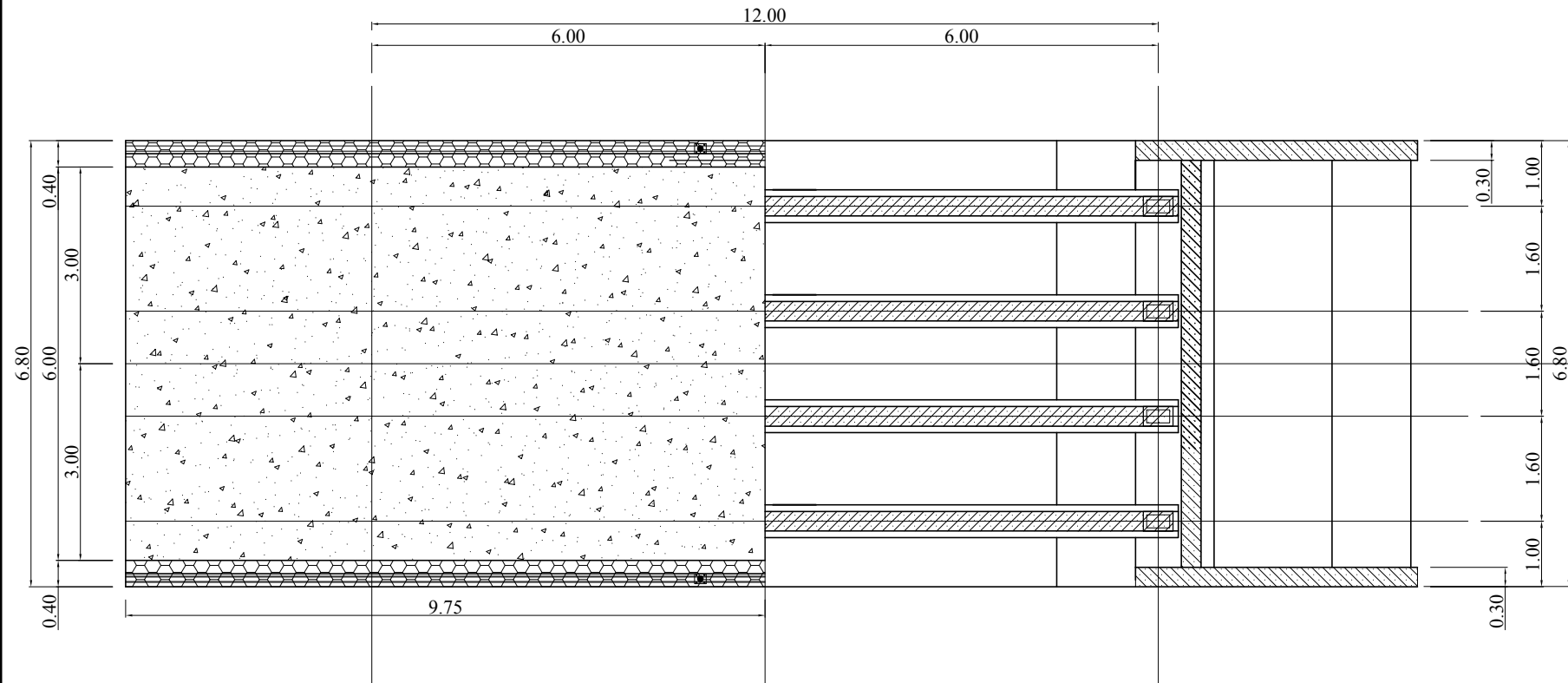


COFFER DAM

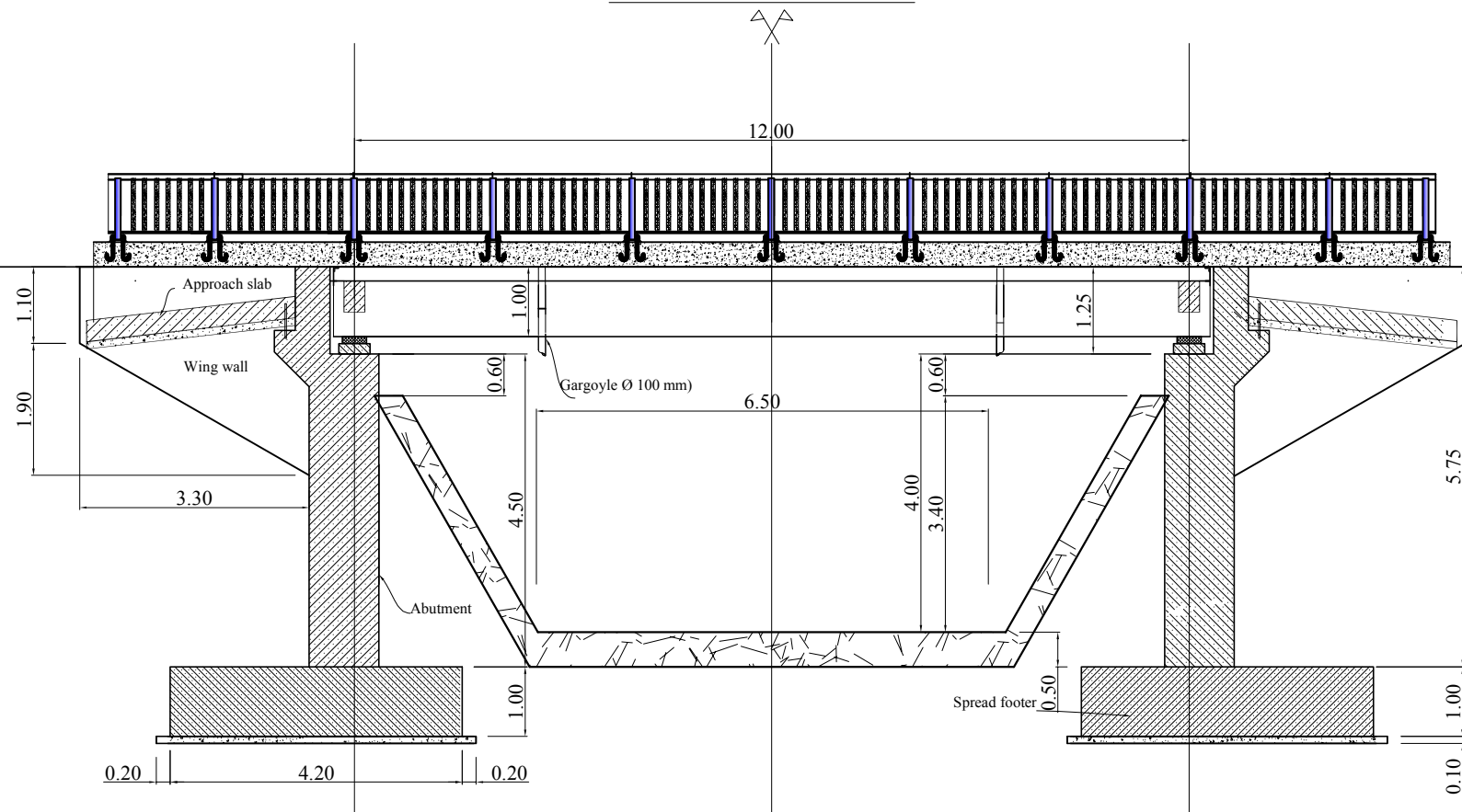


	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		RURAL INFRASTRUCTURE IMPROVEMENT PROJECT			9-1(4/4)
		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
		BRIDGE No.1			

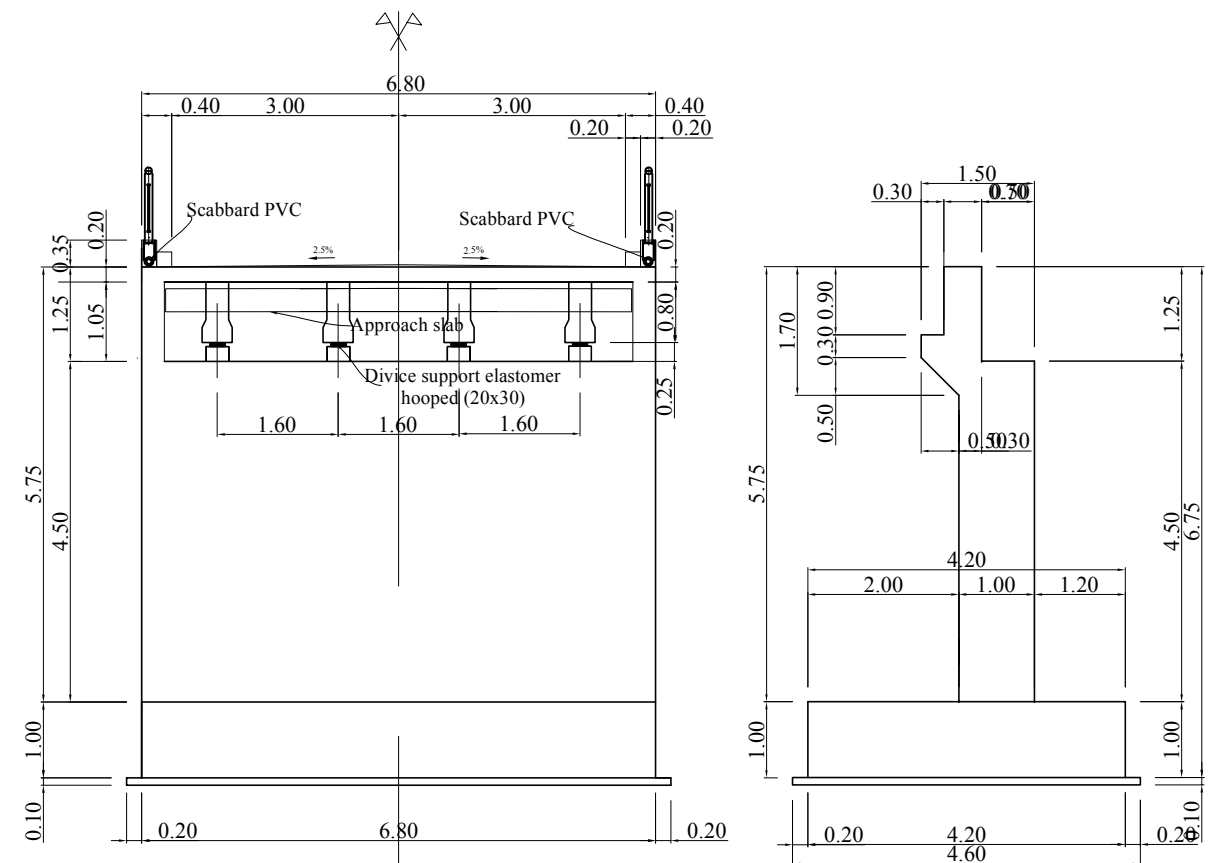
# PLAN



# SECTION PLAN



# FORM PLAN ABUTMENT



MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT  
 JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 NTC NTC INTERNATIONAL CO., LTD.

REVISION	DATE

PROJECT TITLE  
 RURAL INFRASTRUCTURE IMPROVEMENT PROJECT  
 DWG. TITLE  
 BRIDGE No.2

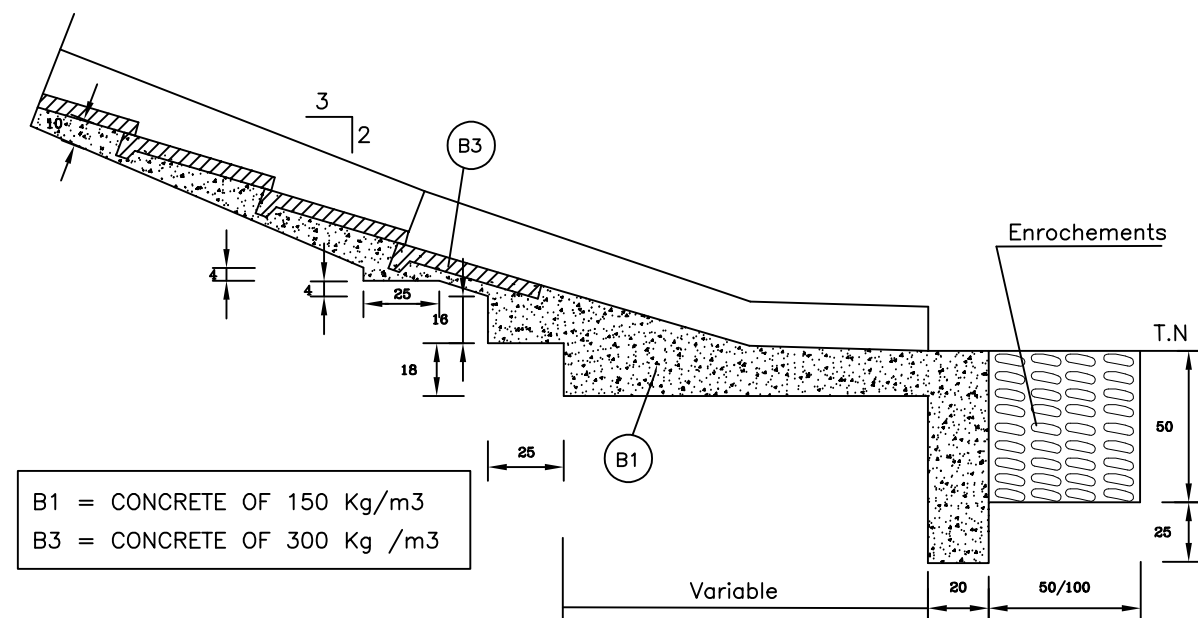
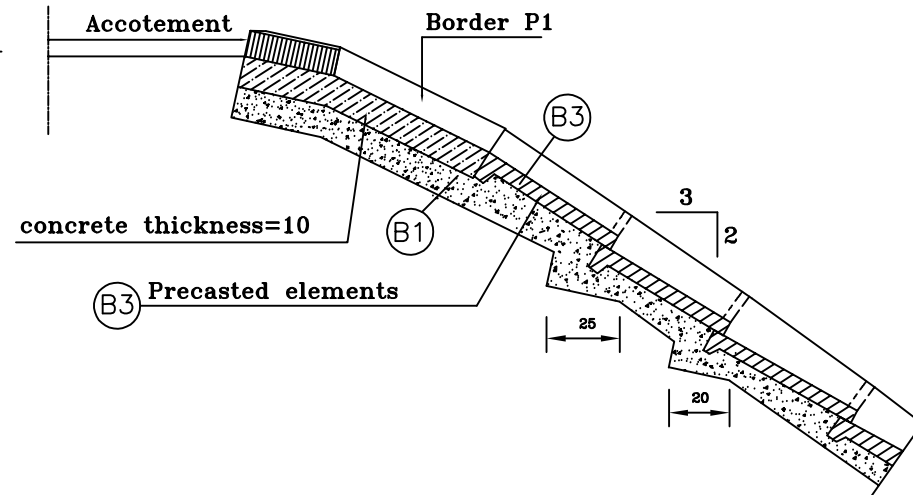
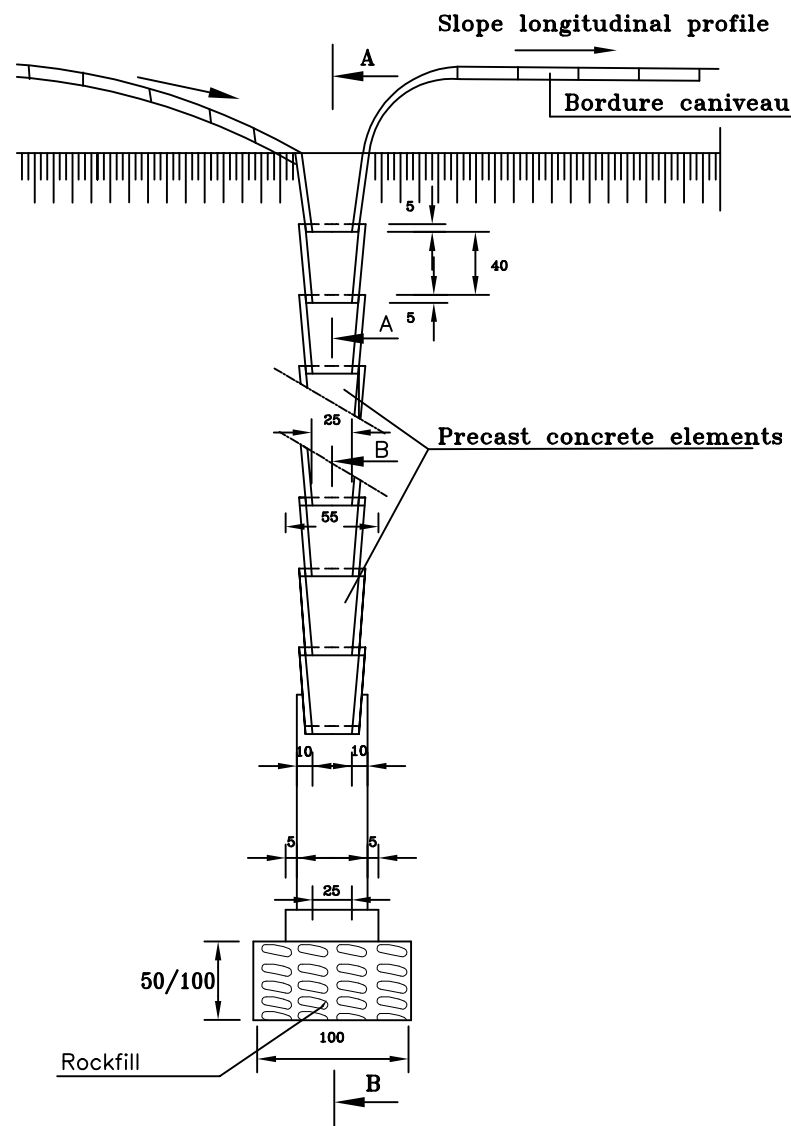
DATE	DESIGNED BY	DWG. NO.
		9-2
SCALE	APPROVED BY	SERIAL NO.

A-184

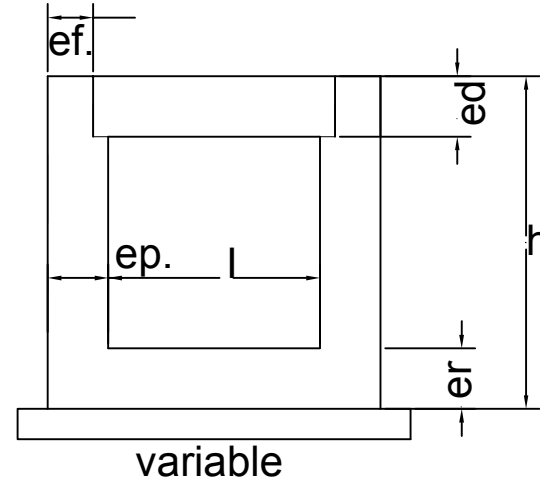
PLAN VIEW

SECTION A-A

SECTION B-B

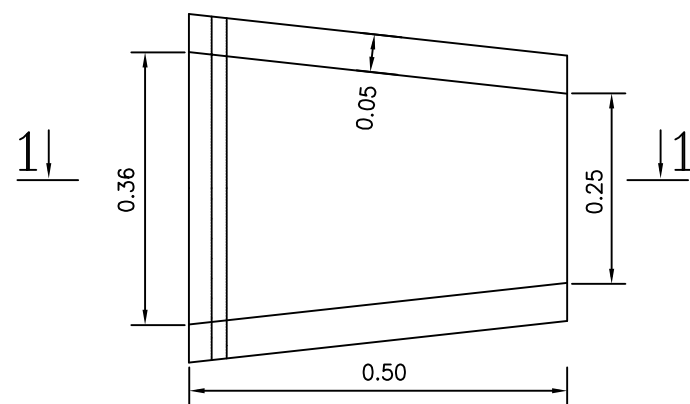


Flume with Cover

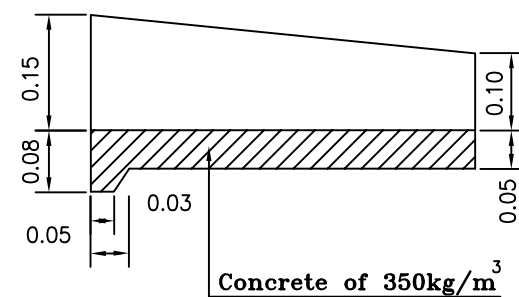


l	h	ep.	er.	ef.	ed.
0.40	0.55	0.15	0.10	0.10	0.10
0.60	0.75	0.15	0.15	0.10	0.15
0.80	0.95	0.18	0.18	0.12	0.18
1.00	1.15	0.20	0.20	0.12	0.20

PLAN VIEW OF PRECASTED ELEMENT



SECTION 1-1



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