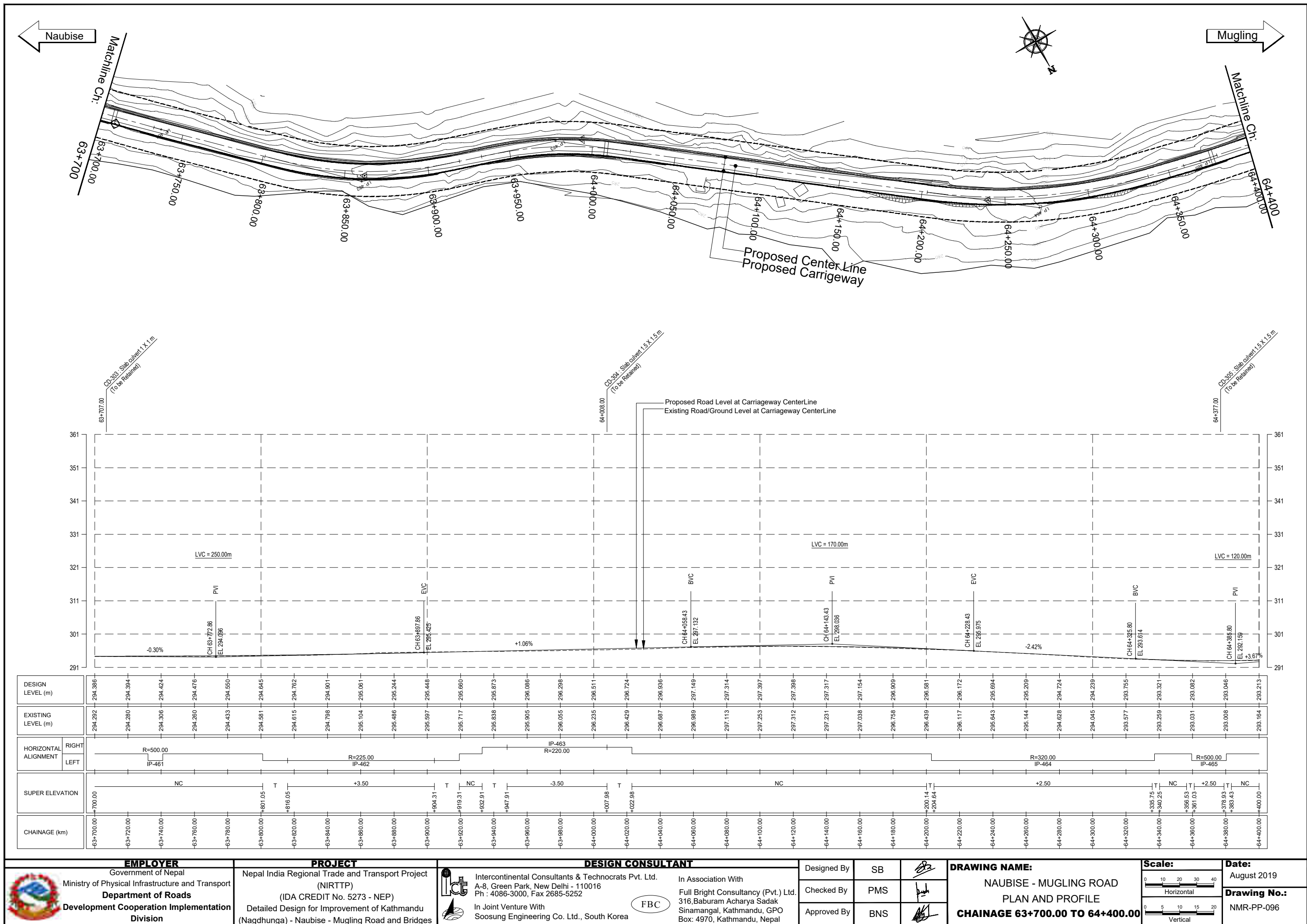
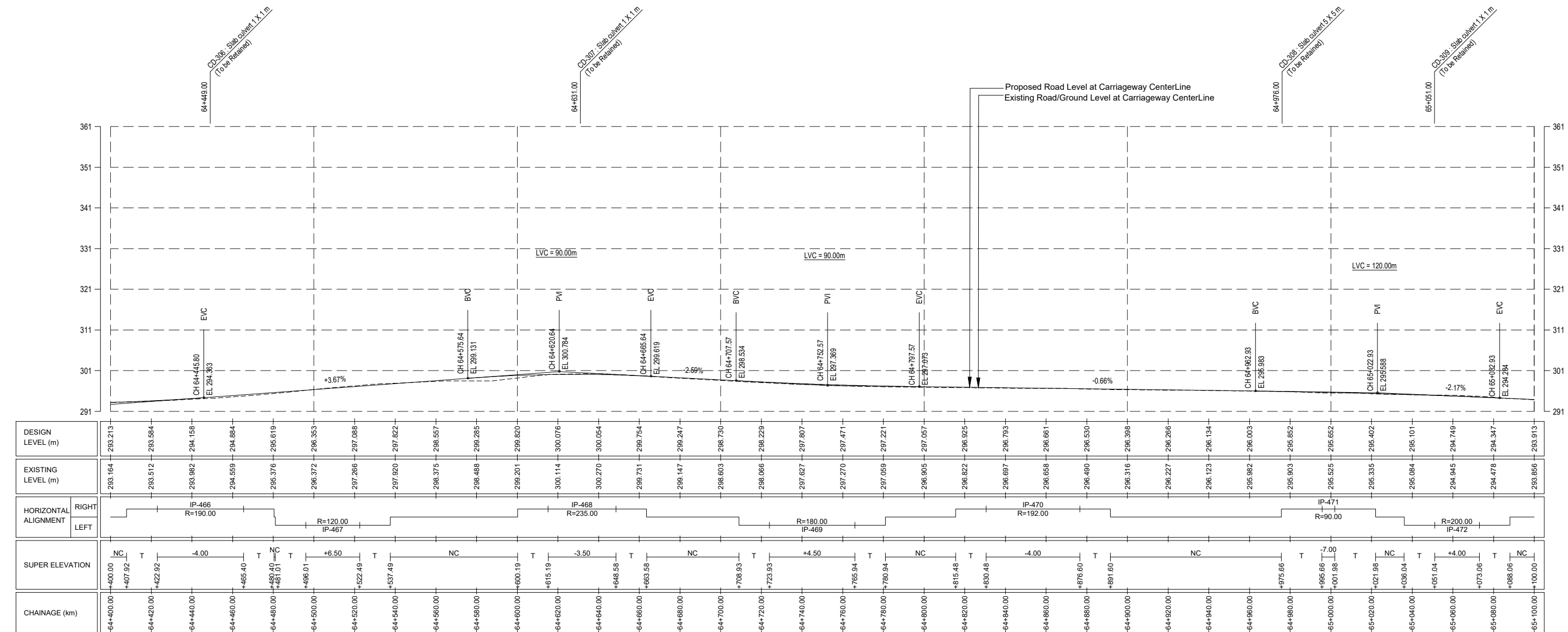
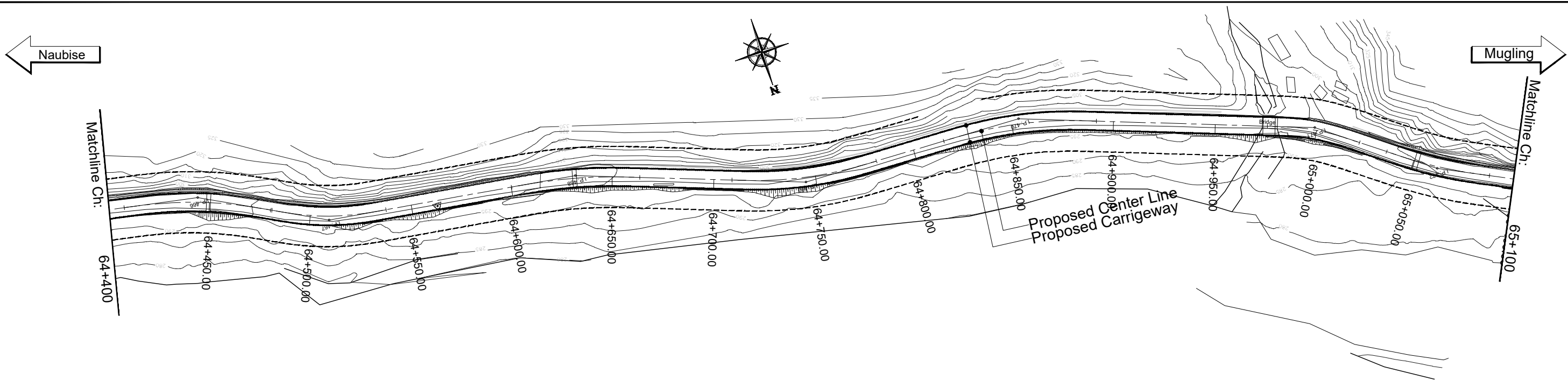
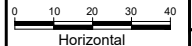
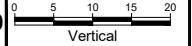
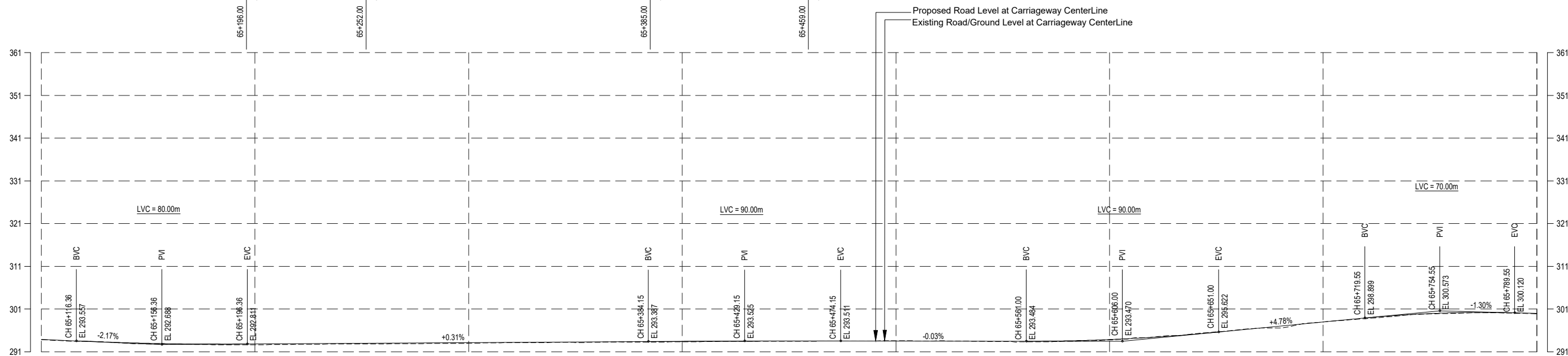
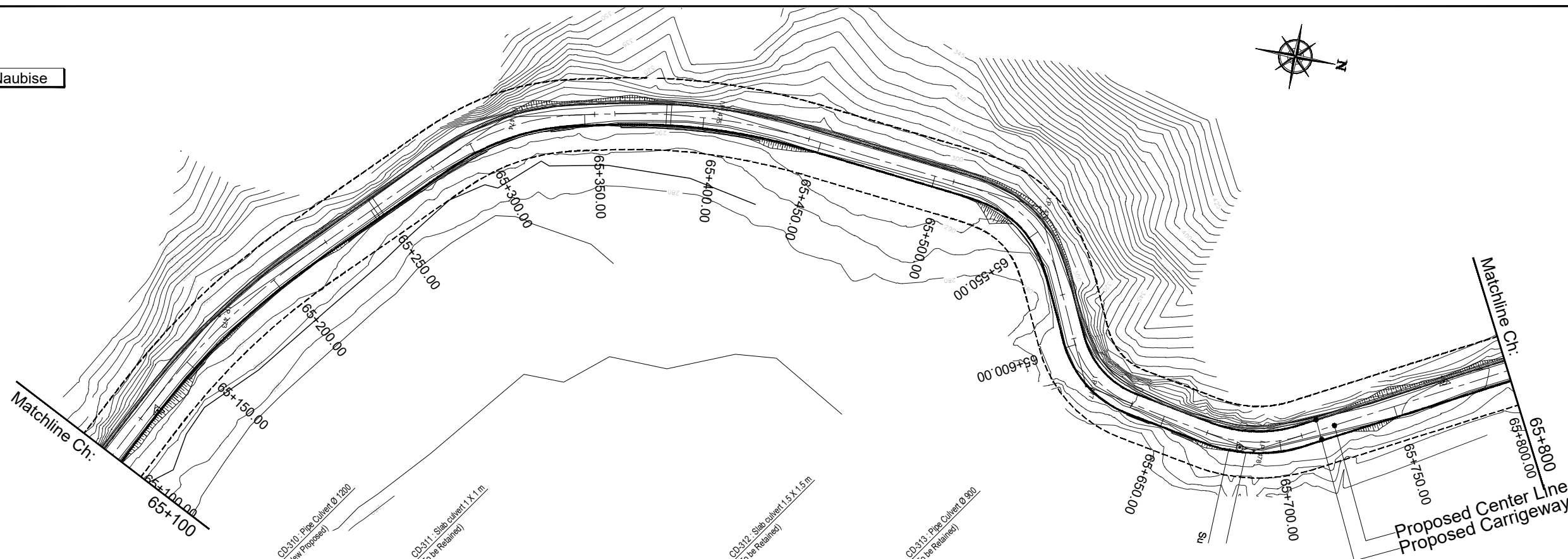
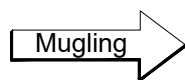
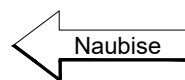




EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Designed By SB	Checked By PMS	Approved By BNS	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 63+700.00 TO 64+400.00		Scale: Horizontal Vertical	Date: August 2019 Drawing No.: NMR-PP-096
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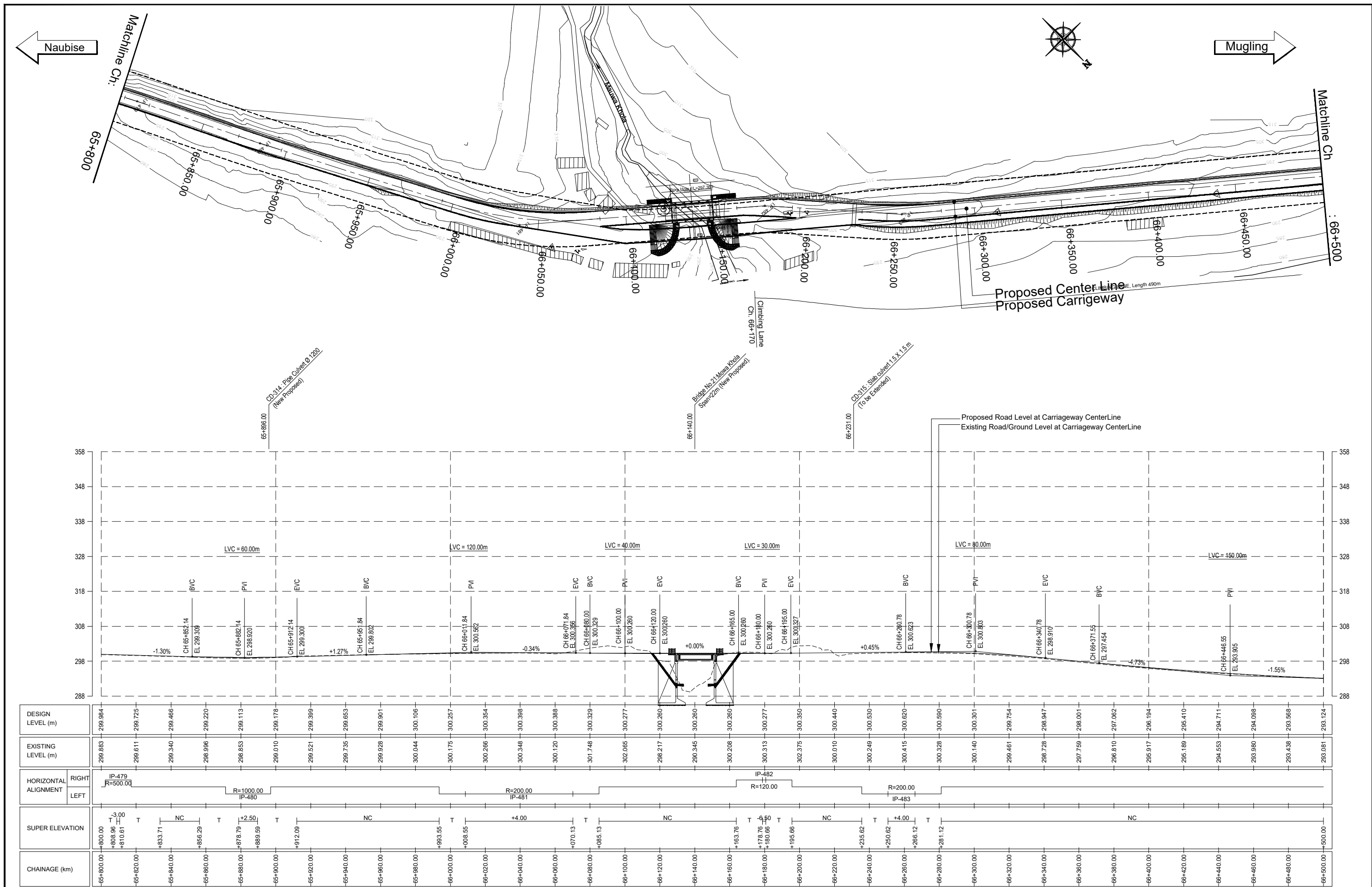


 EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea 	Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 64+400.00 TO 65+100.00	Scale:  Horizontal  Vertical	Date: August 2019
			Checked By	PMS				Drawing No.: NMR-PP-097
			Approved By	BNS				

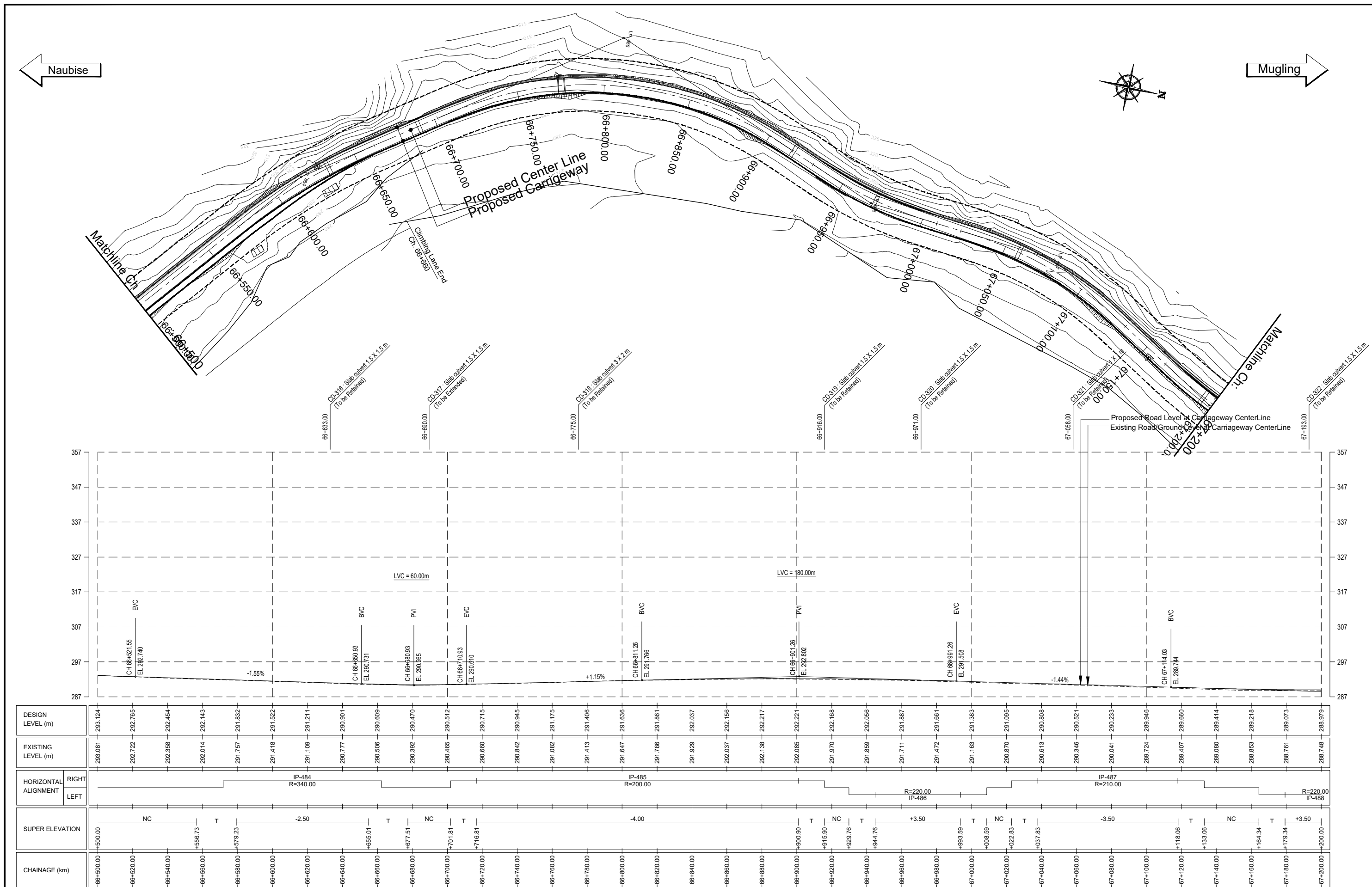


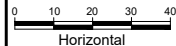
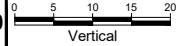
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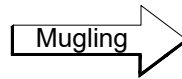
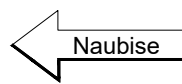
EMPLOYER		PROJECT		DESIGN CONSULTANT			Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 65+100.00 TO 65+800.00	Scale:	Date:
	Government of Nepal	Nepal India Regional Trade and Transport Project (NIRTPP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252	In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Checked By	PMS				0 10 20 30 40 Horizontal	August 2019
	Ministry of Physical Infrastructure and Transport											
Department of Roads											Drawing No.:	
Development Cooperation Implementation Division											NMR-PP-098	



EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Designed By SB Checked By PMS Approved By BNS	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 65+800.00 TO 66+500.00		Scale: 0 10 20 30 40 Horizontal 0 5 10 15 20 Vertical	Date: August 2019 Drawing No.: NMR-PP-099
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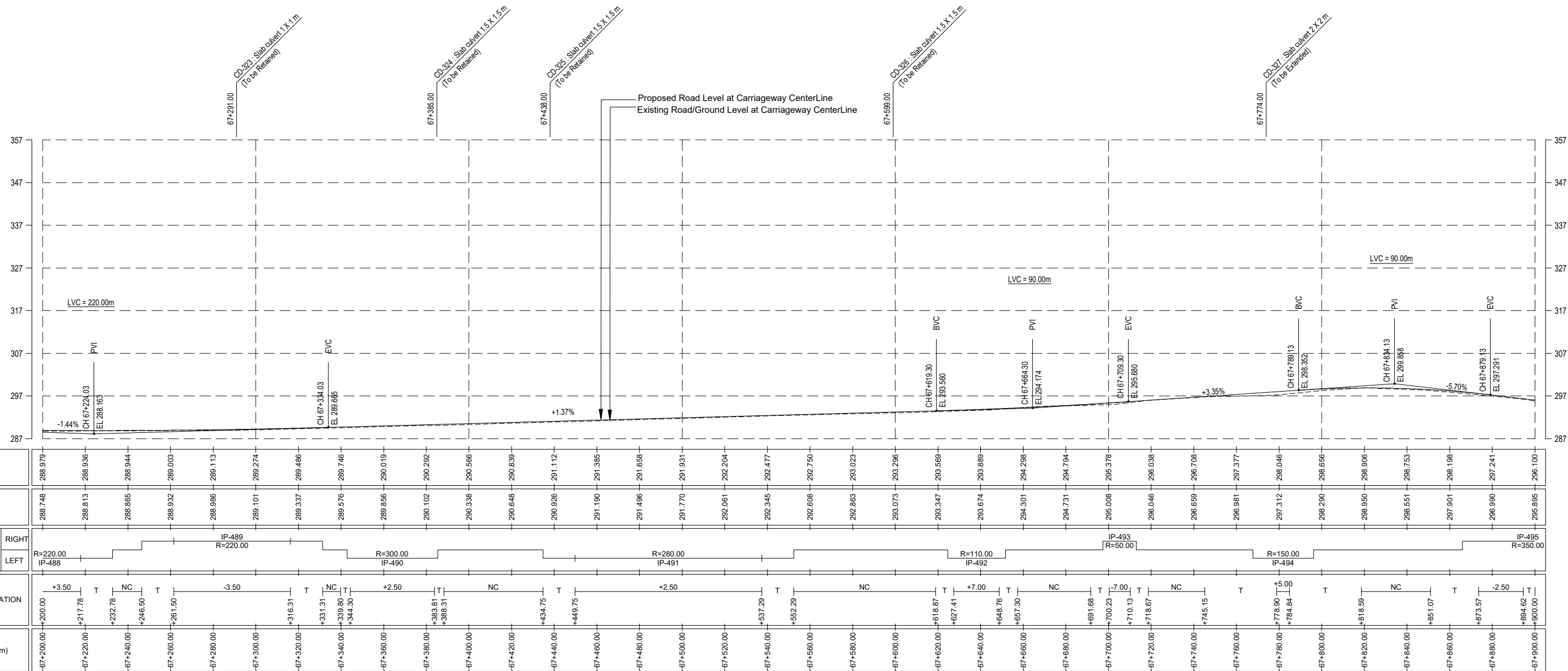
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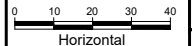
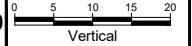


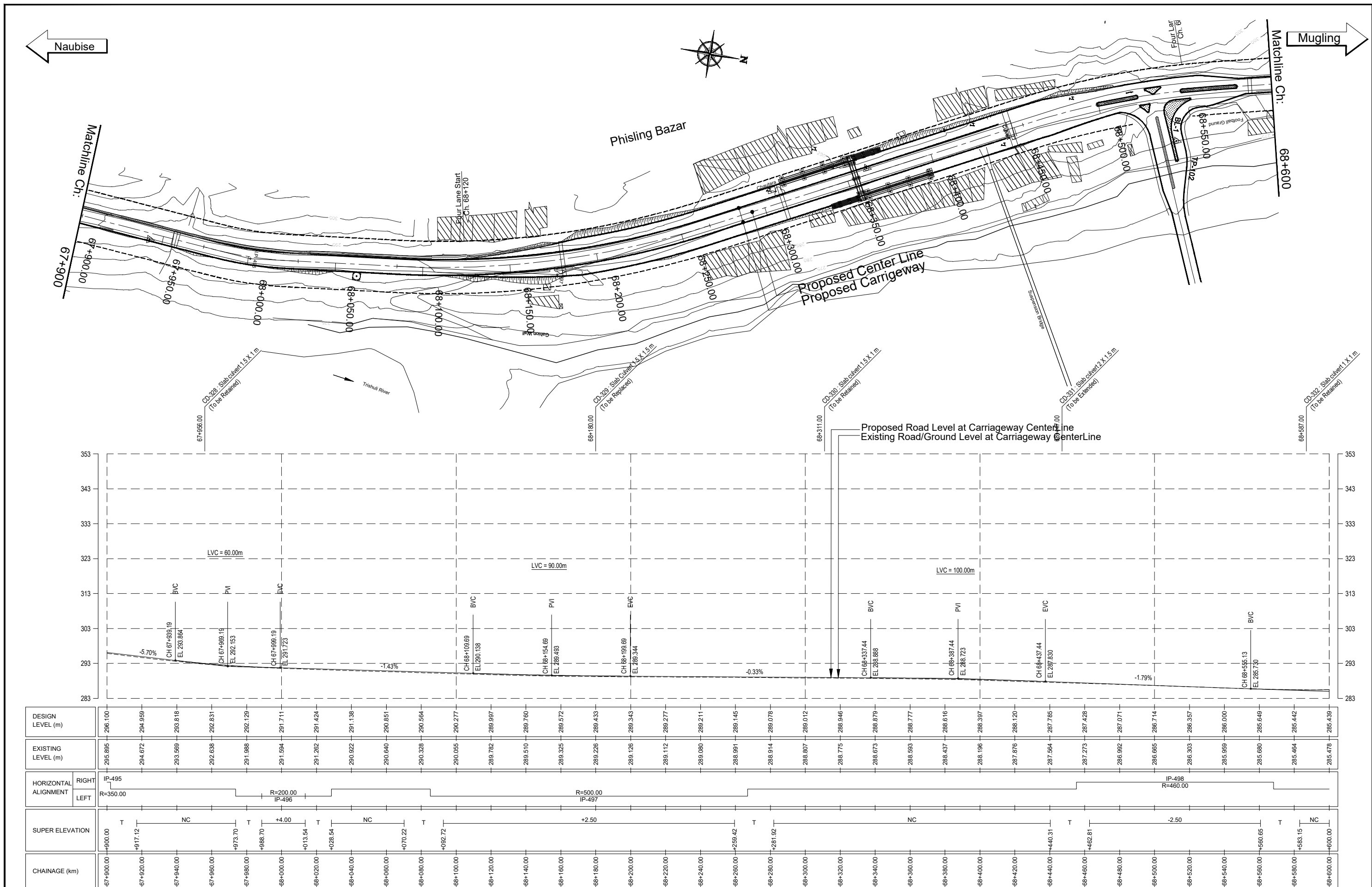
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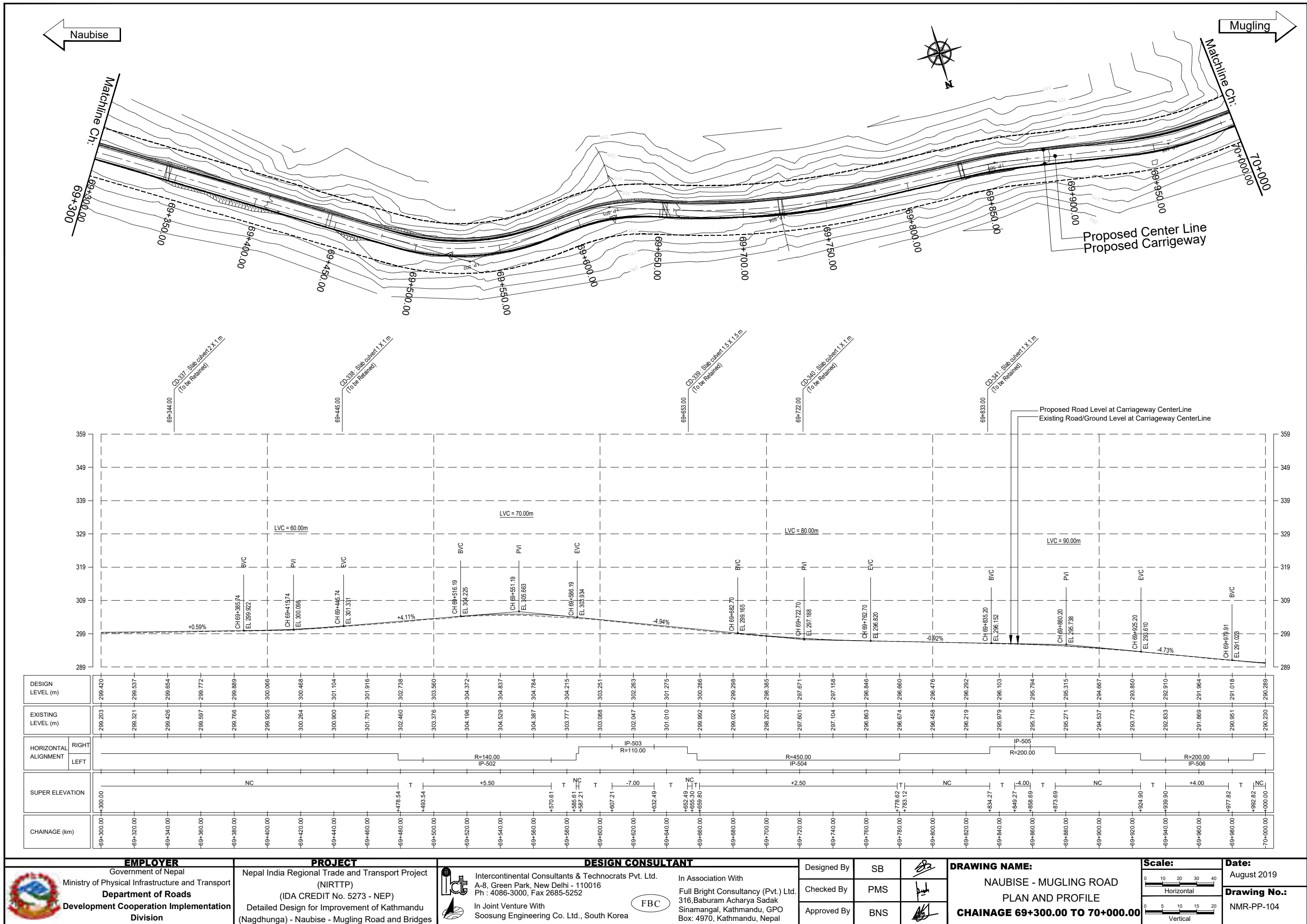
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Proposed Carriageway

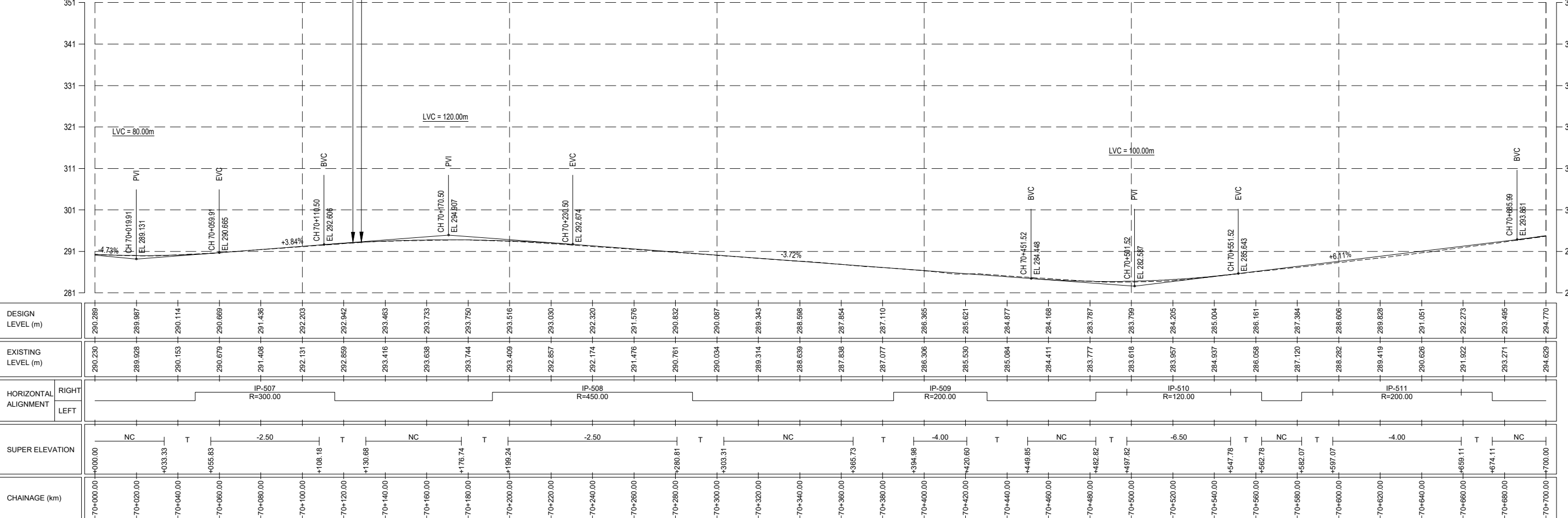
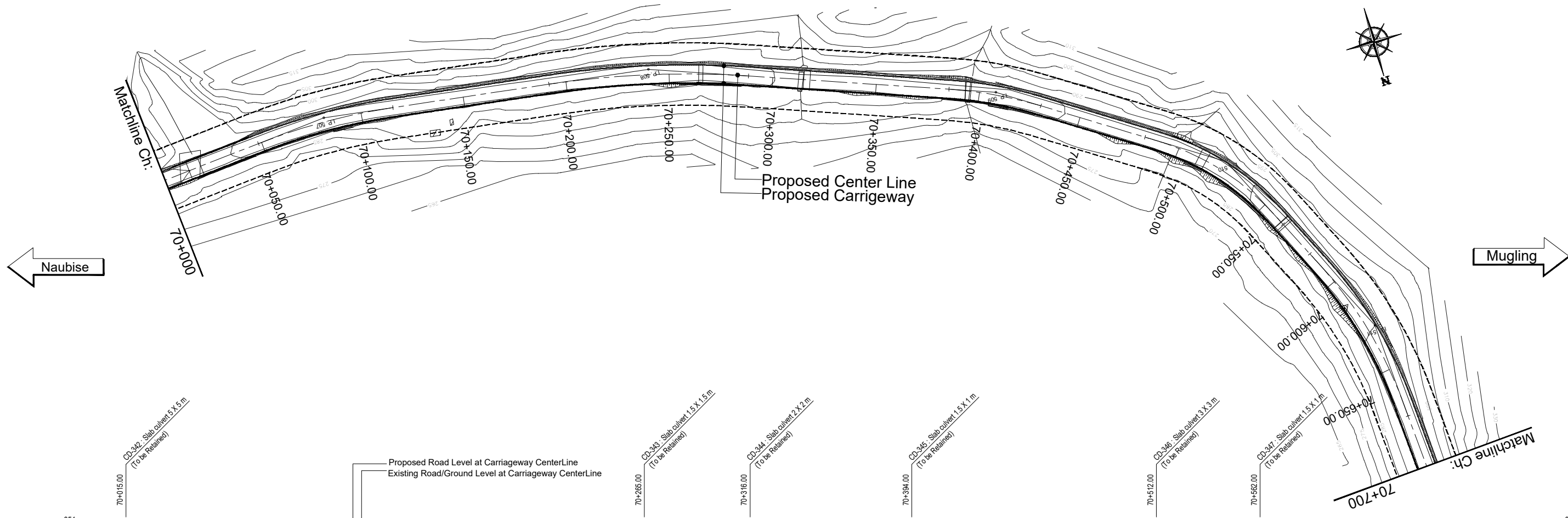


 EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea 	Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 67+200.00 TO 67+900.00	Scale:  Horizontal  Vertical	Date: August 2019 Drawing No.: NMR-PP-101
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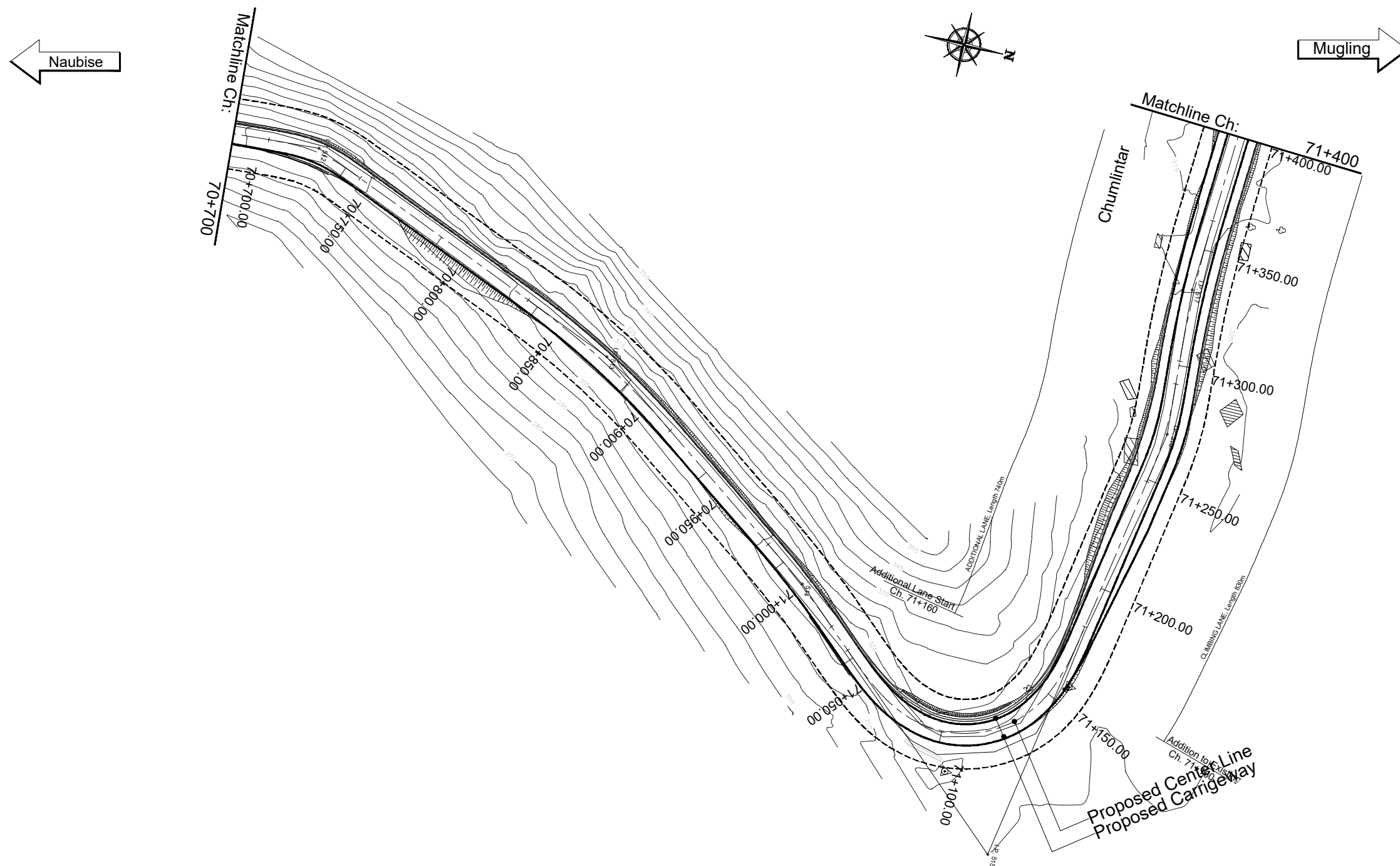


	EMPLOYER	PROJECT	DESIGN CONSULTANT		Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 67+900.00 TO 68+600.00	Scale:	Date:
	Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Nepal India Regional Trade and Transport Project (NIRTPP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252  In Joint Venture With Soosung Engineering Co. Ltd., South Korea	In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal	Checked By	PMS				August 2019
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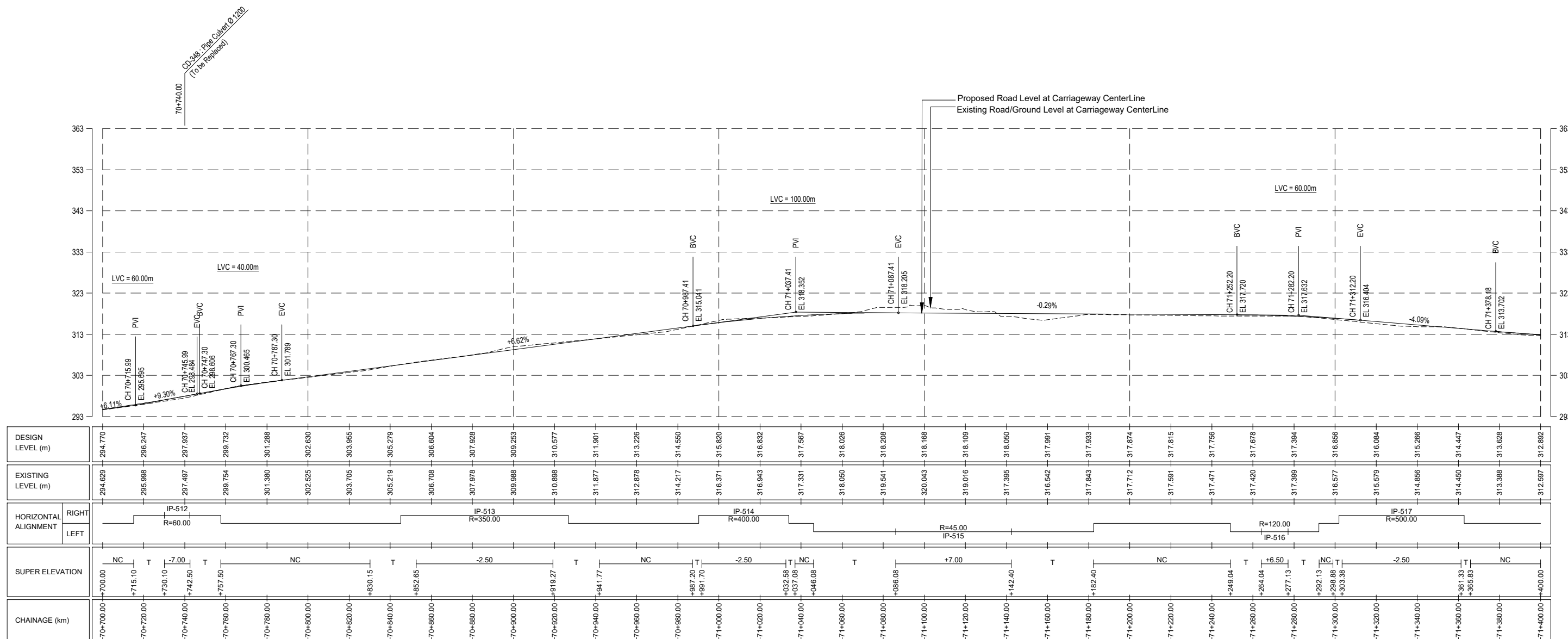
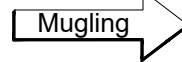
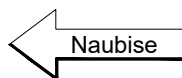


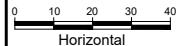


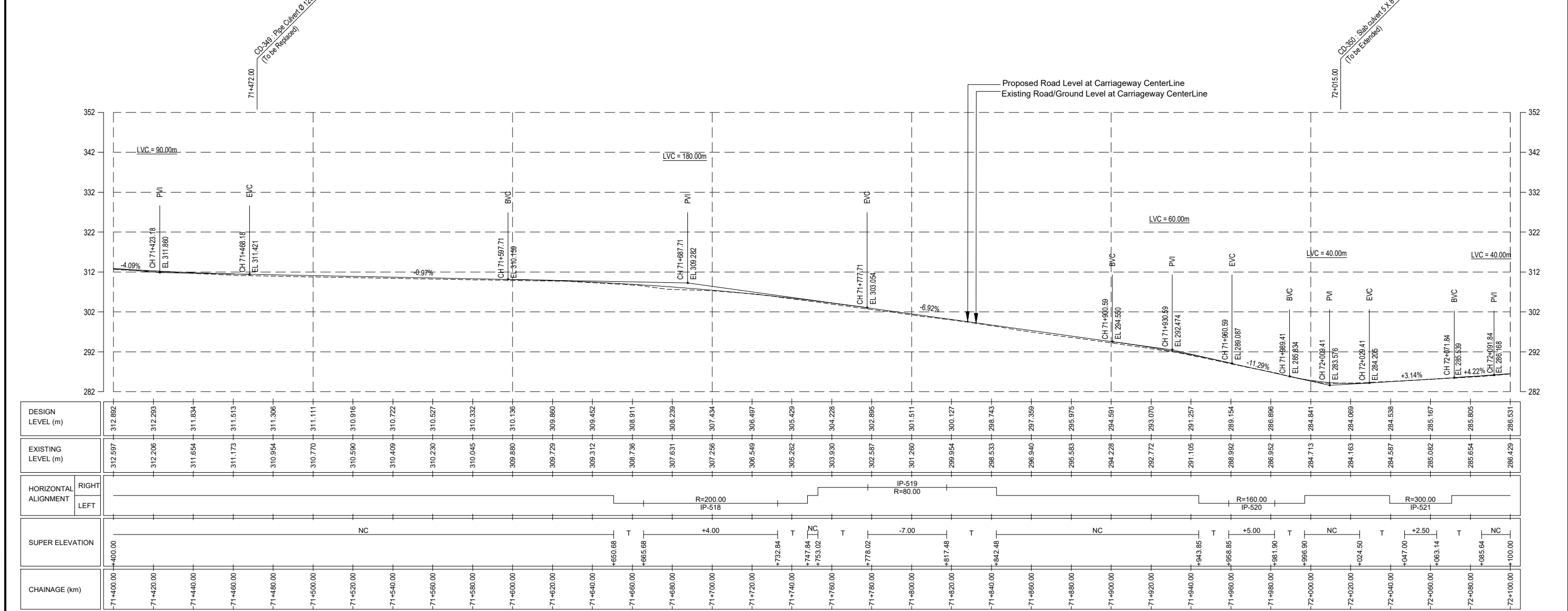
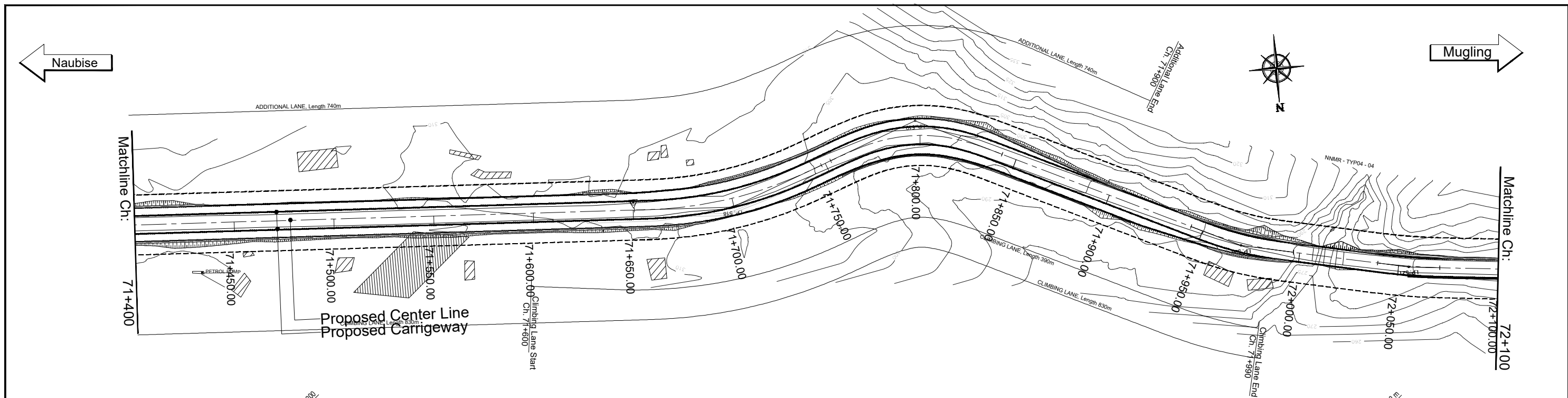
EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Designed By SB	Checked By PMS	Approved By BNS	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 70+000.00 TO 70+700.00		Scale: Horizontal: 1:1000 Vertical: 1:100	Date: August 2019 Drawing No.: NMR-PP-105
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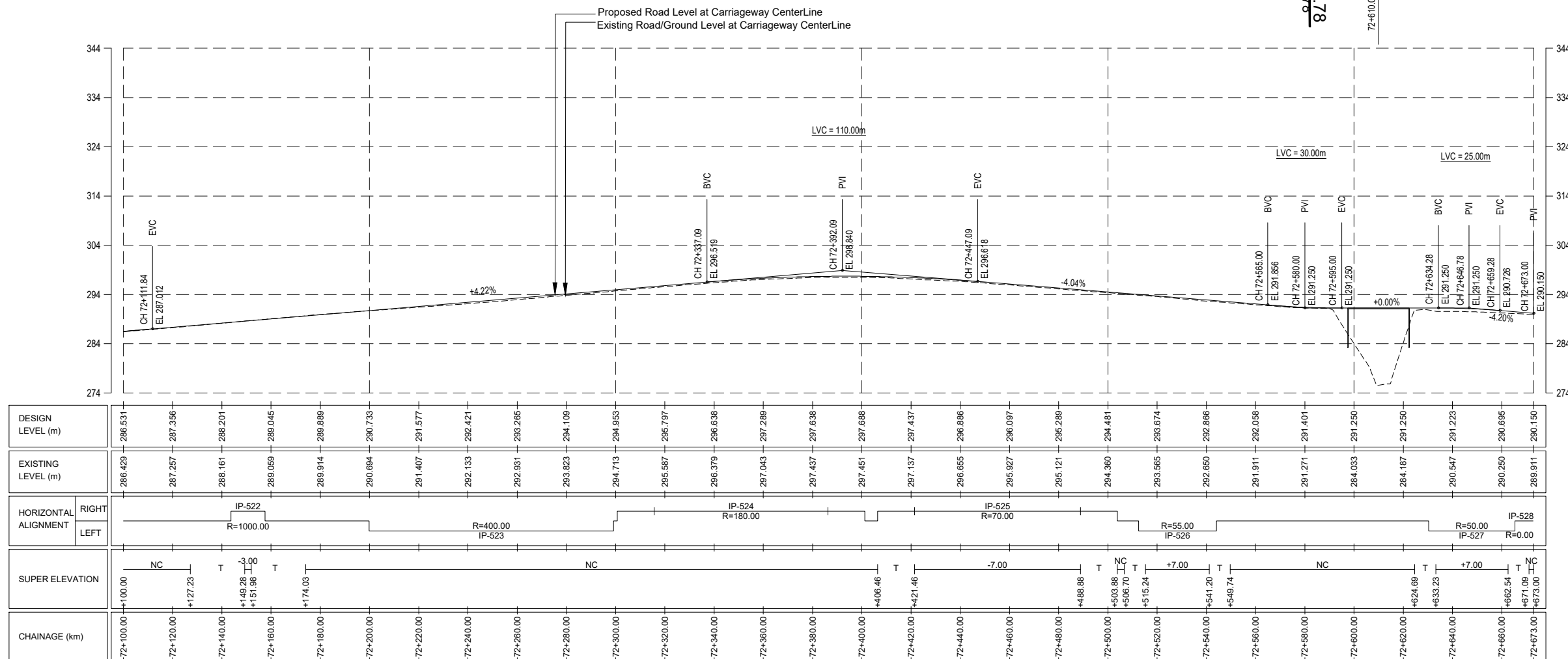
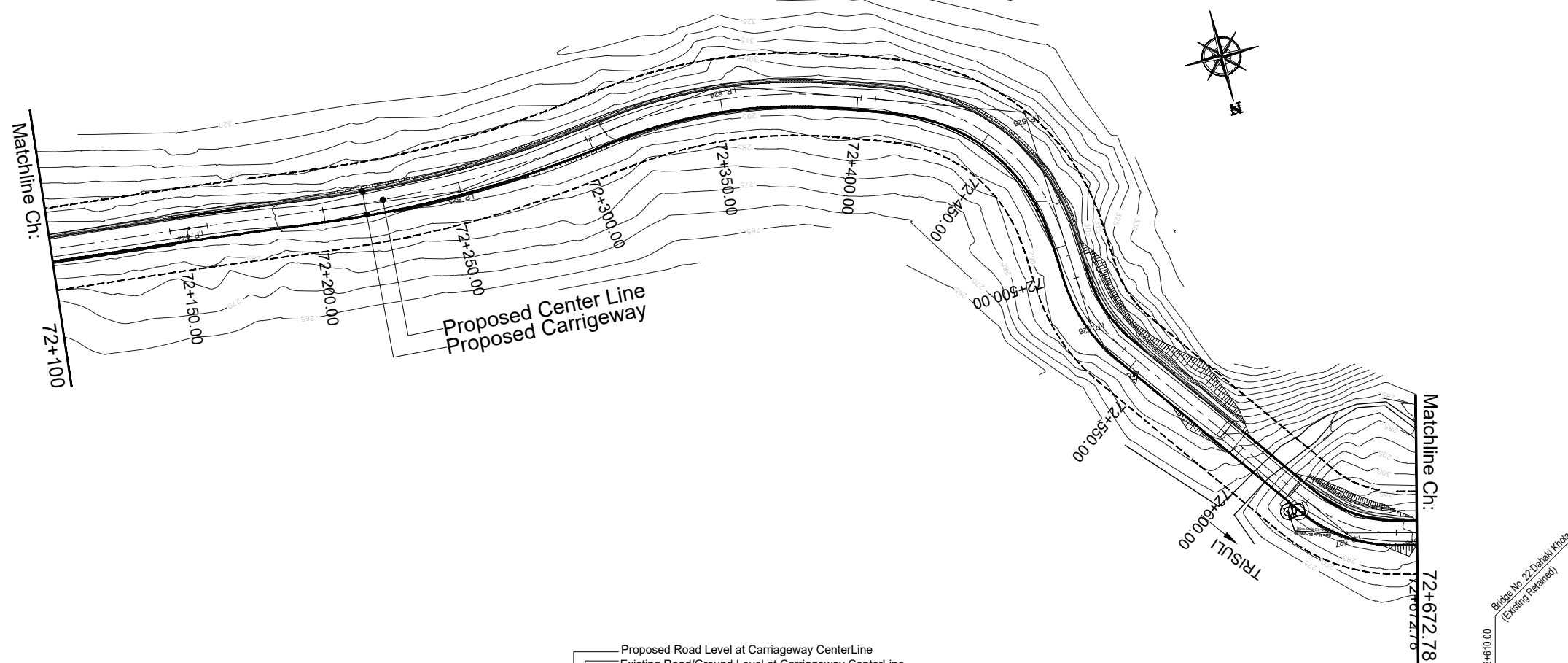
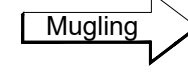
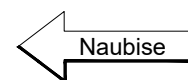
 EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea 	Designed By SB  Checked By PMS  Approved By BNS 	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 70+700.00 TO 71+400.00	Scale: 0 10 20 30 40 Horizontal 0 5 10 15 20 Vertical	Date: August 2019 Drawing No.: NMR-PP-106
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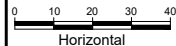
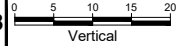


 EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea 	Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 70+700.00 TO 71+400.00	Scale:  Horizontal  Vertical	Date: August 2019 Drawing No.: NMR-PP-106(a)
			Checked By	PMS				
			Approved By	BNS				



EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Designed By SB	Checked By PMS	Approved By BNS	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 71+400.00 TO 72+100.00		Scale: Horizontal Vertical	Date: August 2019 Drawing No.: NMR-PP-107
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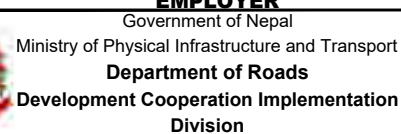
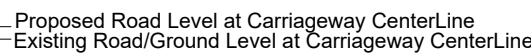
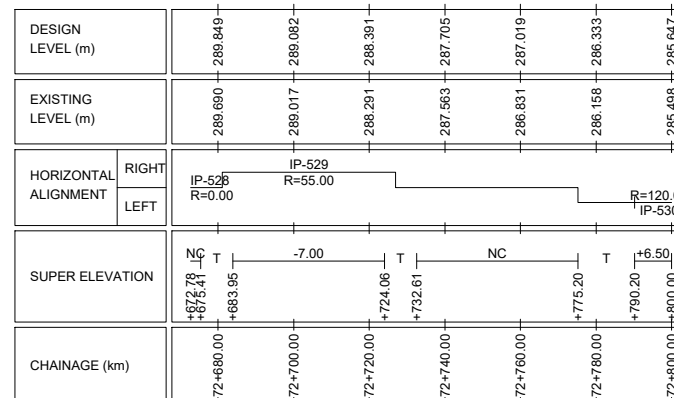


 EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea 	Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 72+100.00 TO 72+672.78	Scale:  Horizontal  Vertical	Date: August 2019 Drawing No.: NMR-PP-108
			Checked By	PMS				
			Approved By	BNS				



 EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea 	Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN CHAINAGE 72+672.78 TO 73+500.00	Scale:  Horizontal  Vertical	Date: August 2019 Drawing No.: NMR-PP-109
			Checked By	PMS				
			Approved By	BNS				

Naubise



Nepal India Regional Trade and Transport Project
(NIRTTP)
(IDA CREDIT No. 5273 - NEP)
Detailed Design for Improvement of Kathmandu
(Nagdhunga) - Naubise - Mugling Road and Bridges



FBC

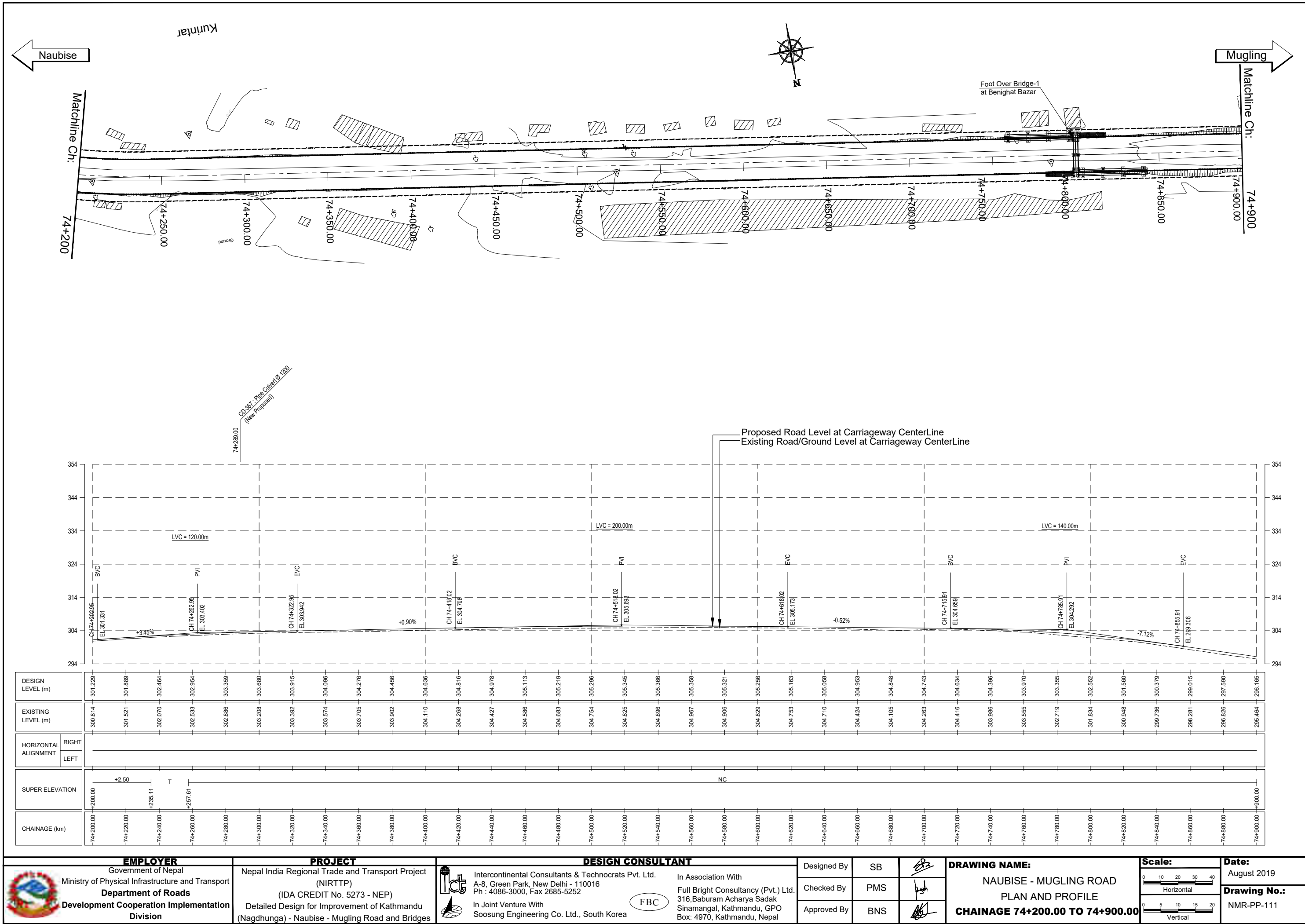
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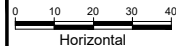
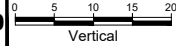
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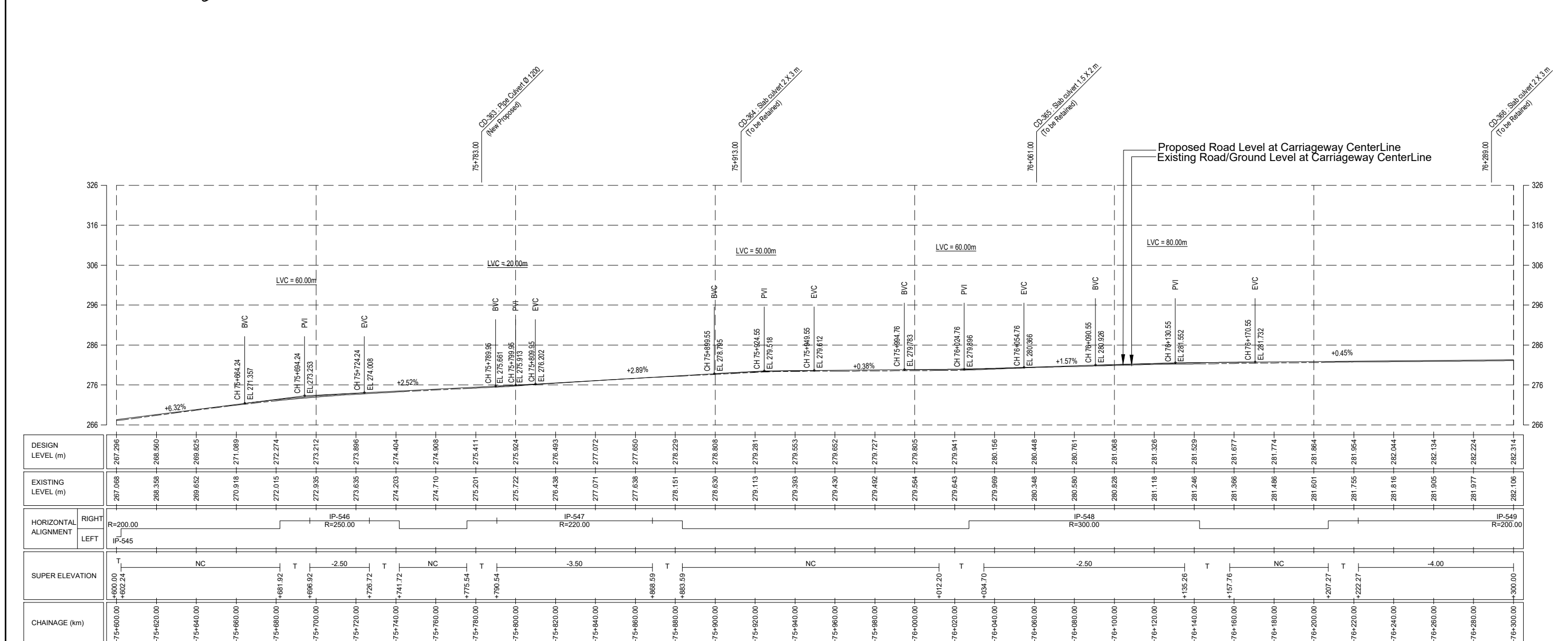
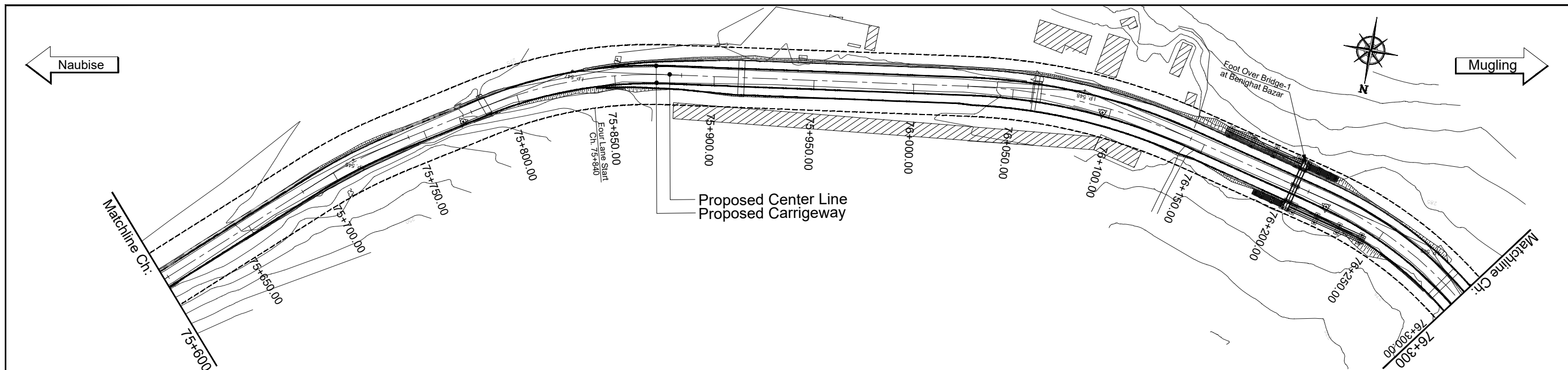
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PMS
BNS

NAUBISE - MUGLING ROAD
PLAN AND PROFILE
CHAINAGE 72+672.78 TO 73+500.00

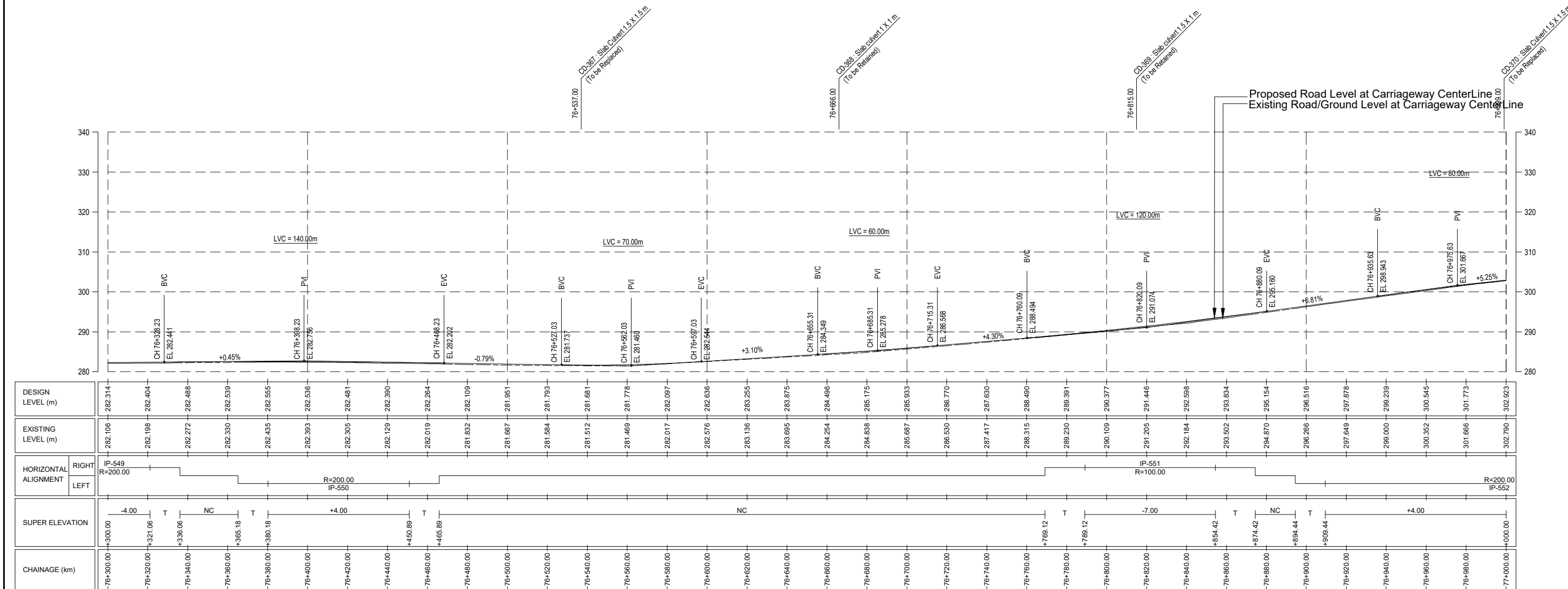
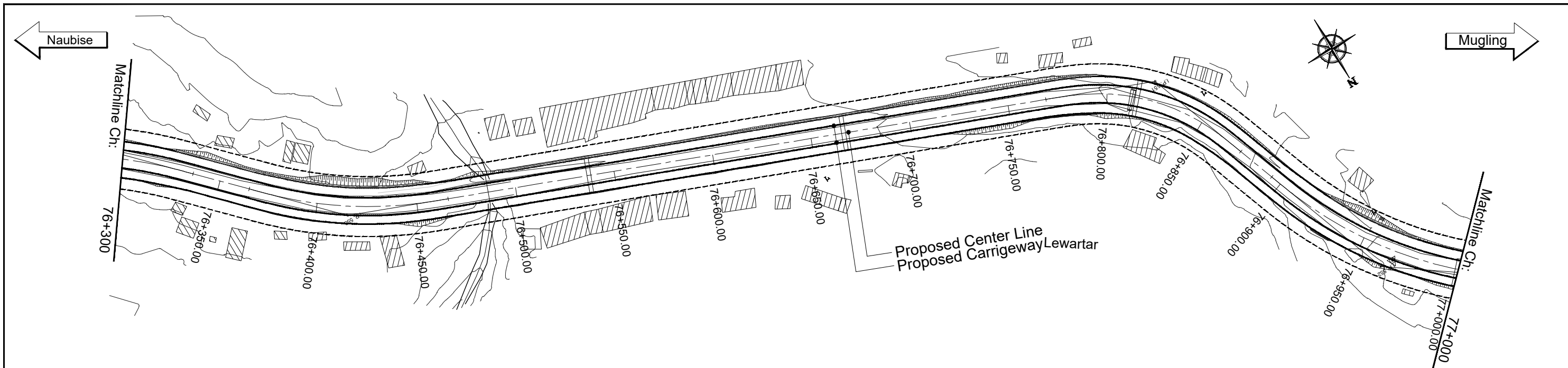
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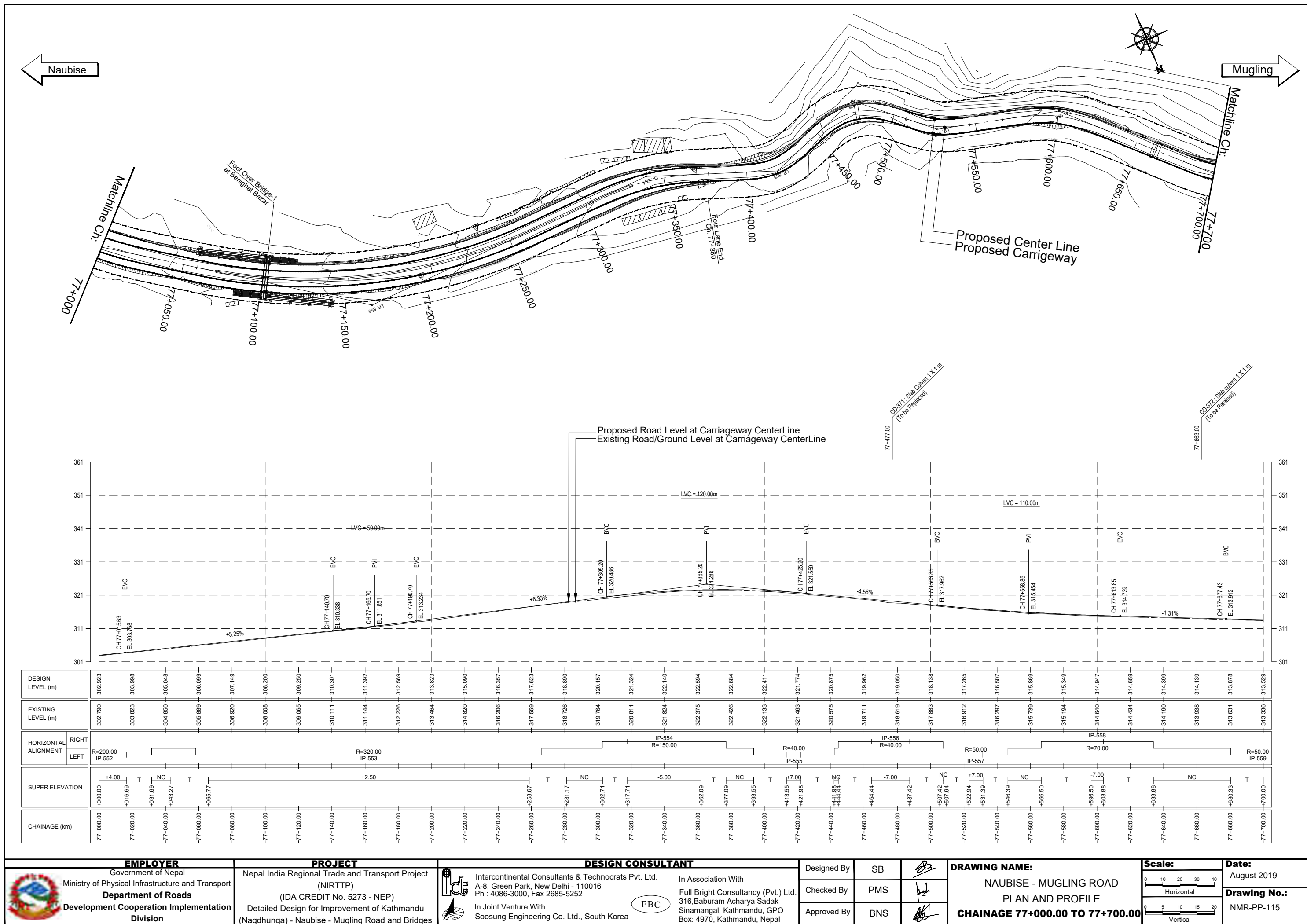
 EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea 	Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 74+200.00 TO 74+900.00	Scale:  Horizontal  Vertical	Date: August 2019 Drawing No.: NMR-PP-111
			Checked By	PMS				
			Approved By	BNS				



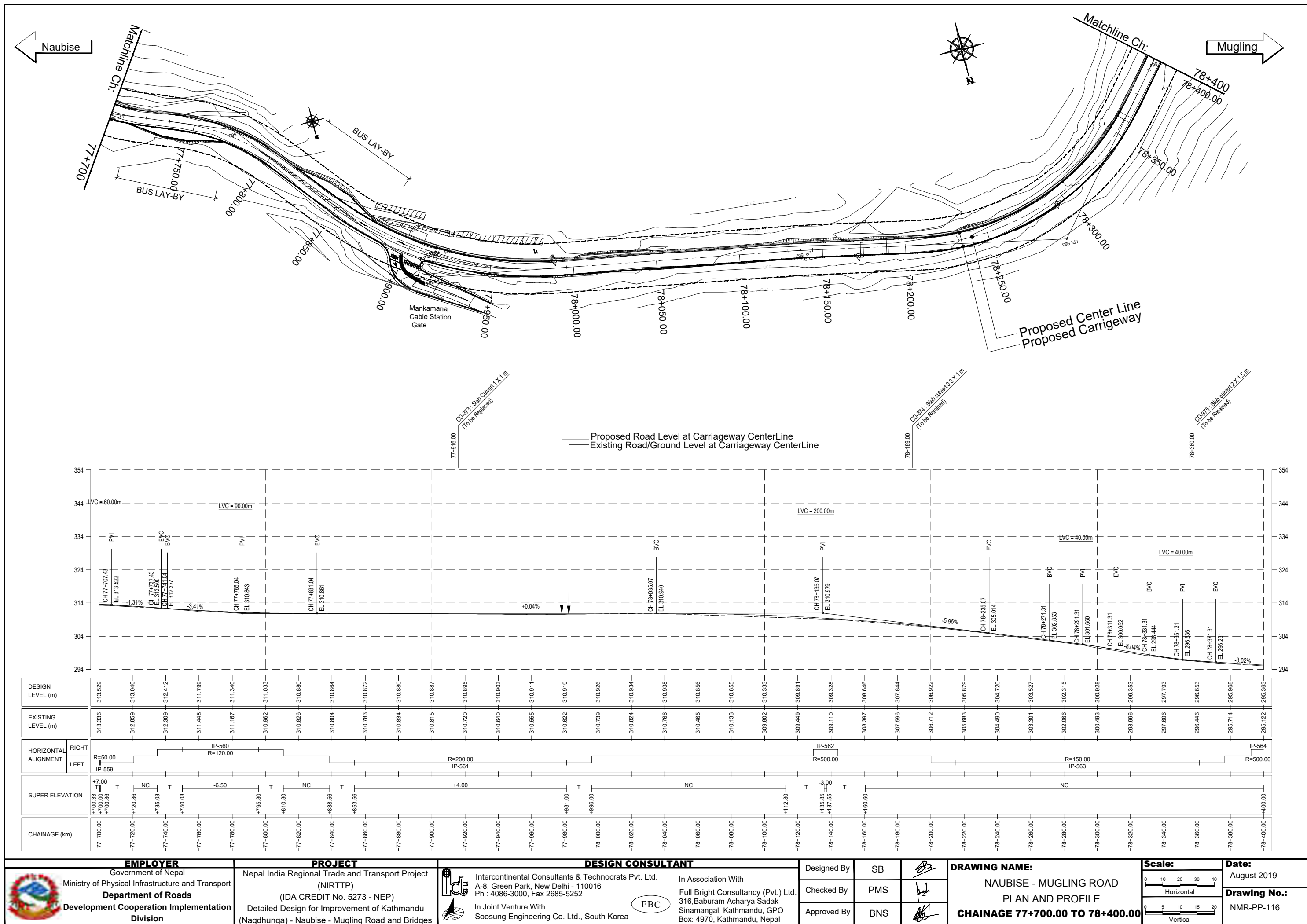
EMPLOYER		PROJECT		DESIGN CONSULTANT		Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 75+600.00 TO 76+300.00	Scale:	Date:
	Government of Nepal	Nepal India Regional Trade and Transport Project (NIRTPP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea	In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal	Checked By	PMS				0 10 20 30 40 Horizontal	August 2019
	Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division					Approved By				BNS	



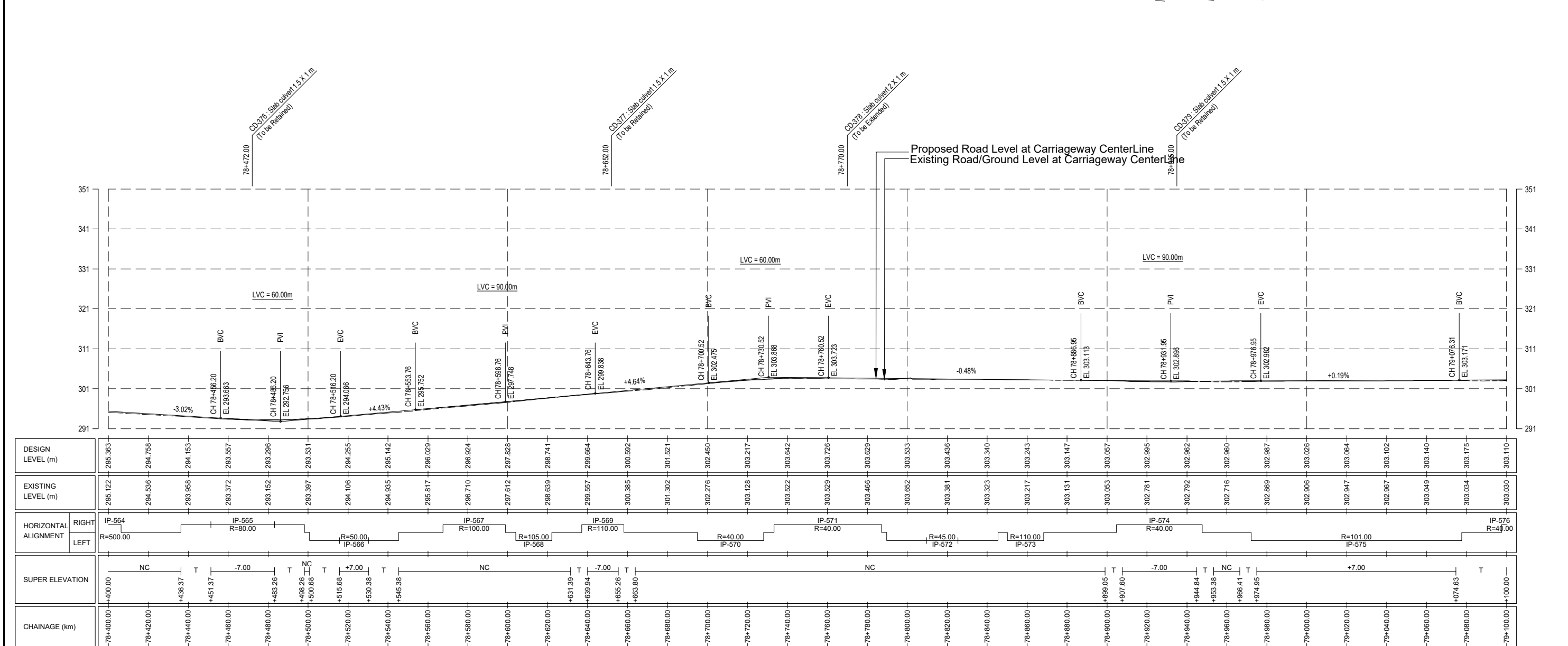
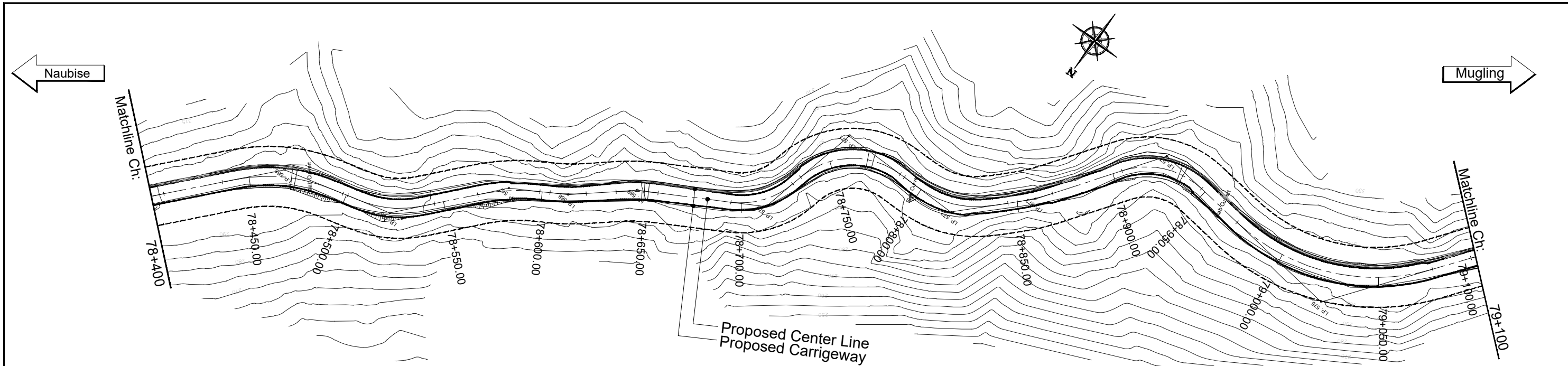
EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal FBC	Designed By	SB	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 76+300.00 TO 77+000.00	Scale: Horizontal: 0 10 20 30 40 Vertical: 0 5 10 15 20	Date: August 2019 Drawing No.: NMR-PP-114
			Checked By	PMS			
			Approved By	BNS			



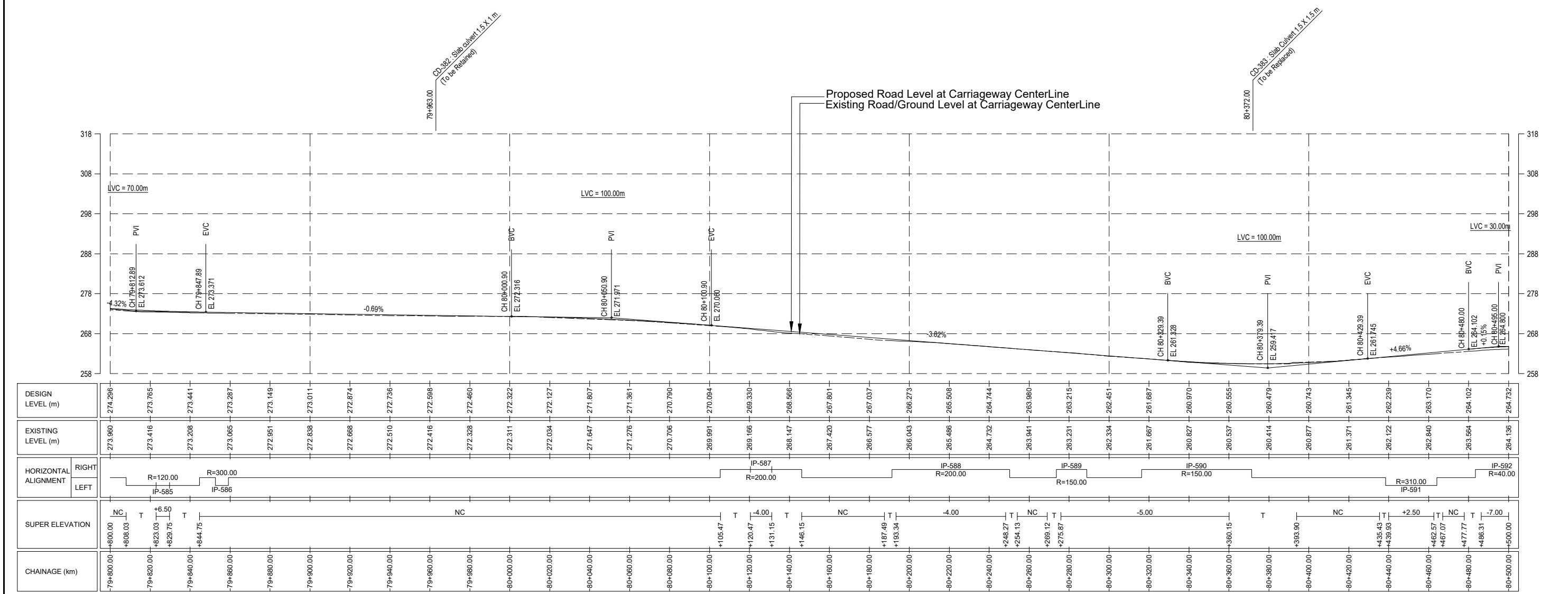
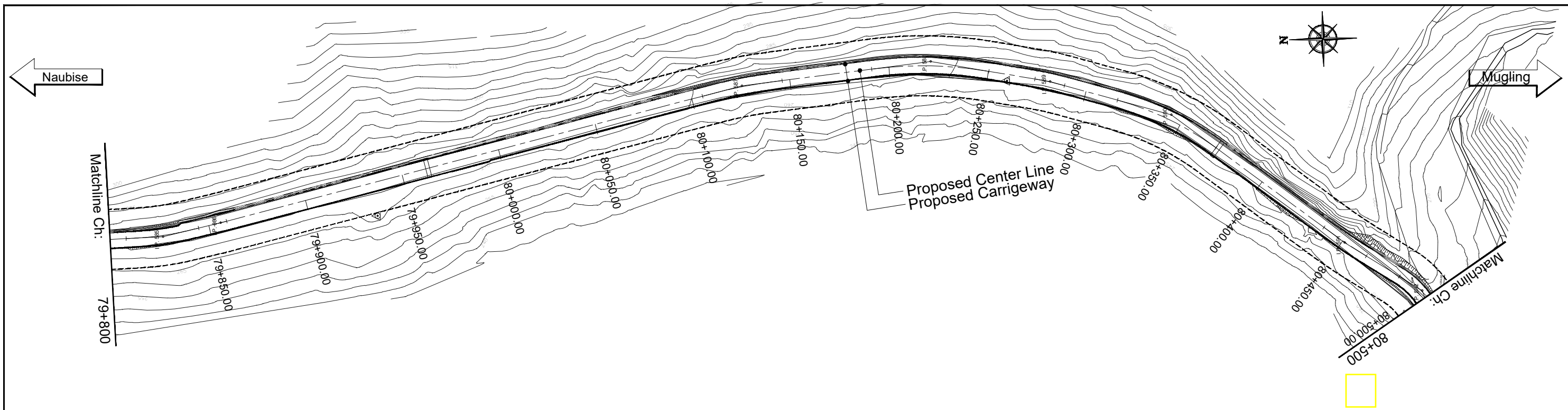
EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Designed By Checked By Approved By	SB PMS BNS	 	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 77+000.00 TO 77+700.00	Scale: Horizontal Vertical	Date: August 2019 Drawing No.: NMR-PP-115
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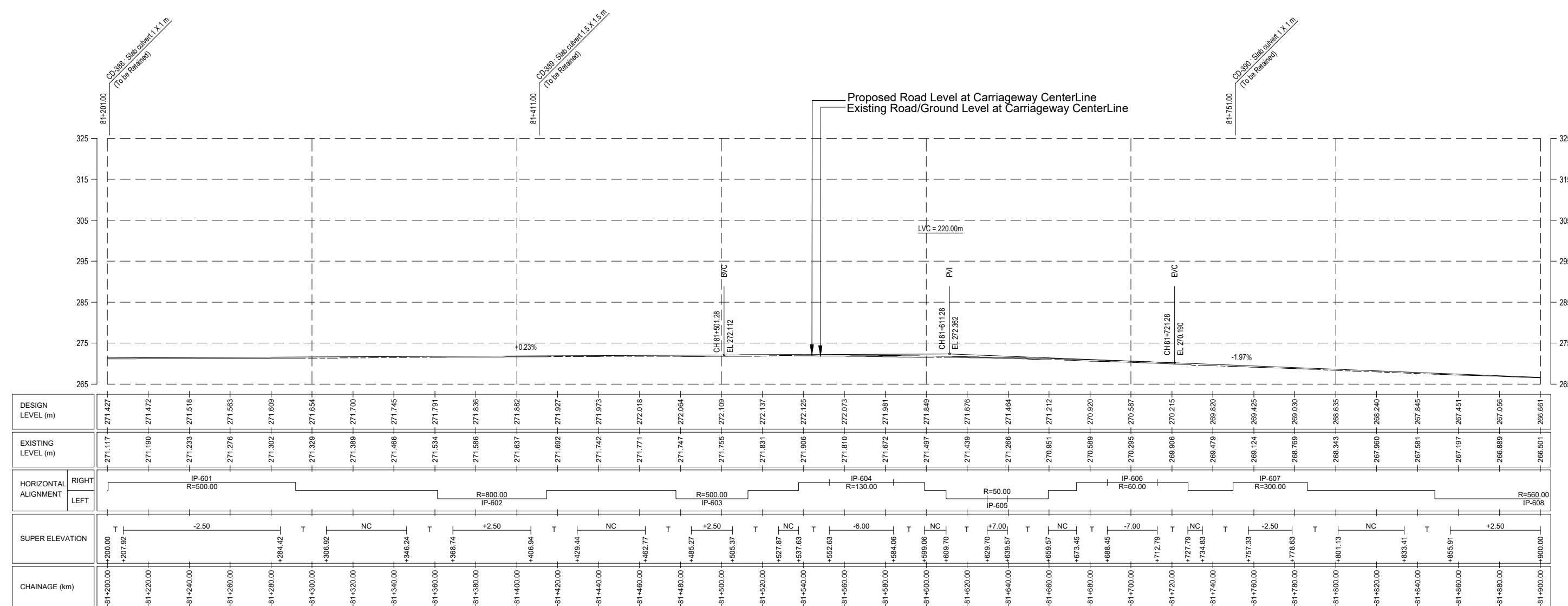
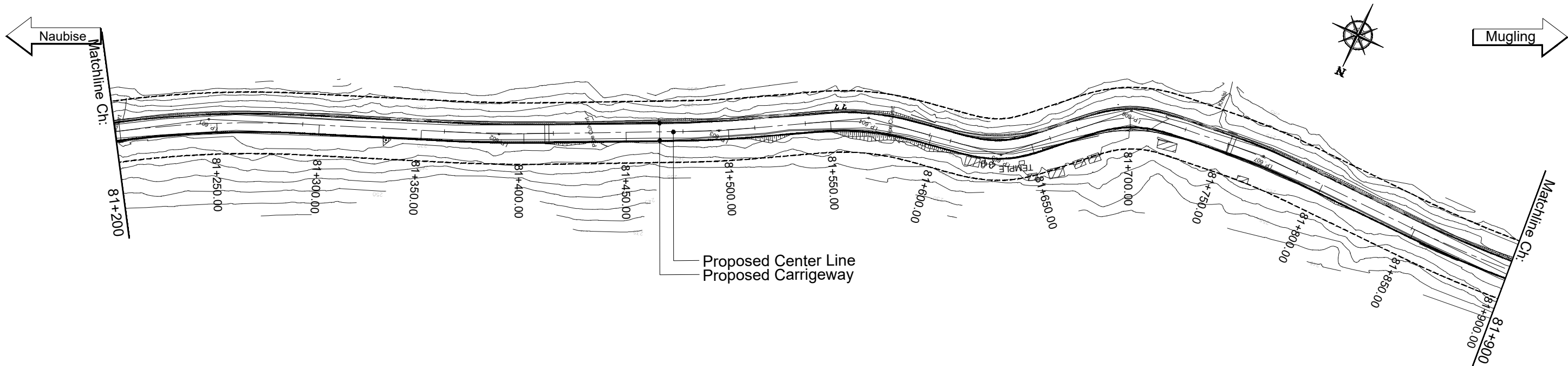
EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Designed By Checked By Approved By	SB PMS BNS	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 77+700.00 TO 78+400.00	Scale: Horizontal Vertical	Date: August 2019 Drawing No.: NMR-PP-116
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EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Designed By SB Checked By PMS Approved By BNS	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 78+400.00 TO 79+100.00		Scale: Horizontal Vertical	Date: August 2019 Drawing No.: NMR-PP-117
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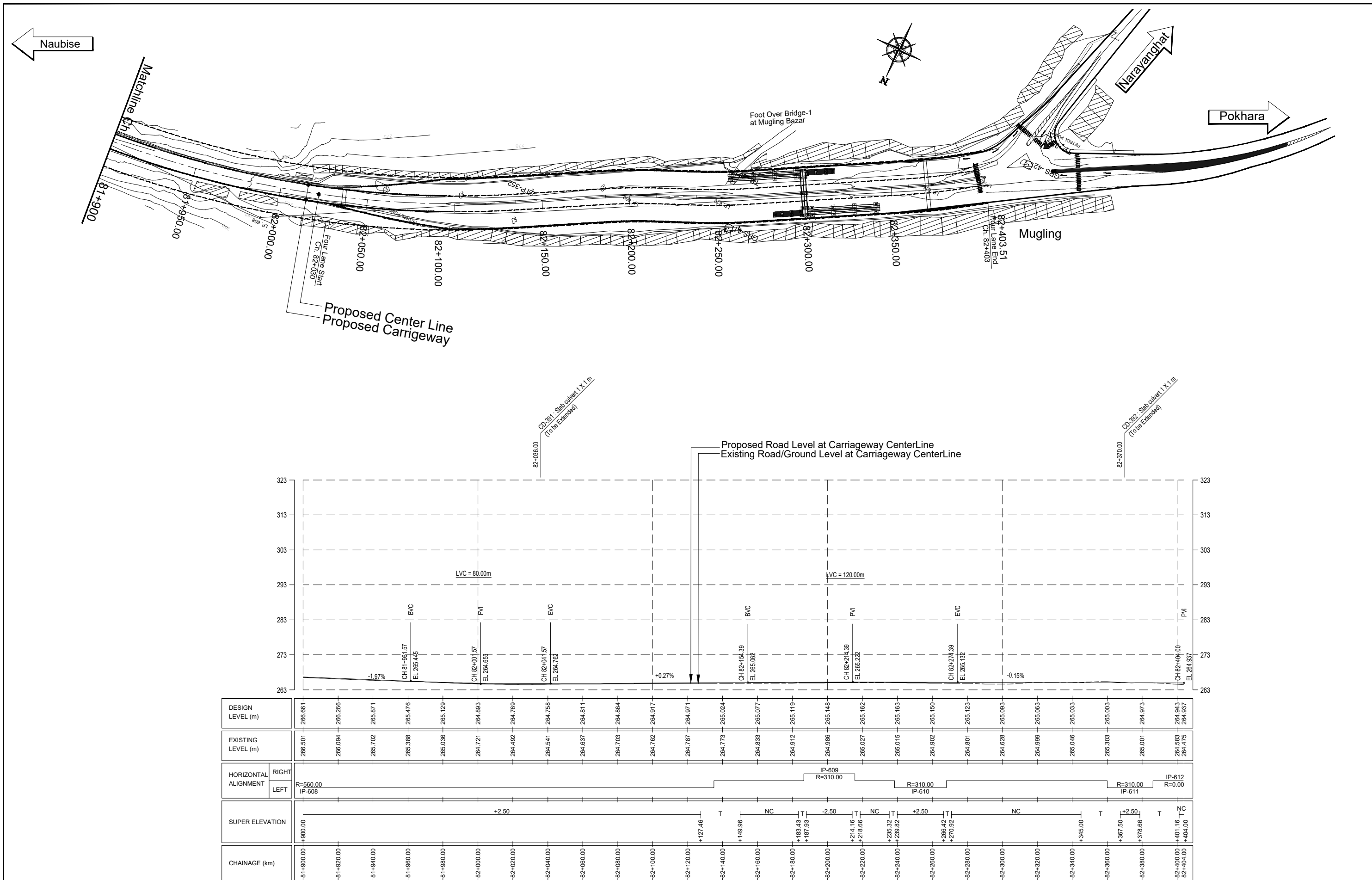


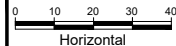
EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal		Designed By Checked By Approved By	SB PMS BNS	 	DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 79+800.00 TO 80+500.00	Scale: Horizontal Vertical	Date: August 2019 Drawing No.: NMR-PP-119
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DESIGN LEVEL (m)		271.427	271.472	271.518	271.563	271.609	271.654	271.700	271.745	271.791	271.836	271.882	271.927	271.973	272.018	272.064	272.109	272.137	272.125	272.073	271.981	271.849	271.676	271.464	271.212	270.920	270.587	270.215	269.820	269.425	269.030	268.635	268.240	267.845	267.451	267.056	266.661			
EXISTING LEVEL (m)		271.117	271.190	271.233	271.276	271.302	271.329	271.389	271.466	271.534	271.586	271.637	271.692	271.742	271.771	271.747	271.755	271.831	271.906	271.810	271.672	271.497	271.439	271.266	270.951	270.589	270.295	269.906	269.479	269.124	268.769	268.343	267.960	267.581	267.197	266.889	266.501			
HORIZONTAL ALIGNMENT	RIGHT	IP-601 R=500.00																																						
	LEFT	R=800.00 IP-602																																						
SUPER ELEVATION		T +200.00 +207.92 -2.50 +284.42 T +306.92 NC +346.24 T +368.74 +2.50 +406.94 T +429.44 NC +462.77 T +485.27 +2.50 +505.37 T +527.87 NC +537.63 +552.63 -6.00 +584.06 T +599.06 NC +609.70 T +629.70 +7.00 +639.57 T +659.57 NC +673.45 +688.45 -7.00 +712.79 T +727.79 NC +734.83 T +757.33 -2.50 +778.63 T +801.13 NC +833.41 T +855.91 +2.50 +900.00																																						
CHAINAGE (km)		81+200.00	81+220.00	81+240.00	81+260.00	81+280.00	81+300.00	81+320.00	81+340.00	81+360.00	81+380.00	81+400.00	81+420.00	81+440.00	81+460.00	81+480.00	81+500.00	81+520.00	81+540.00	81+560.00	81+580.00	81+600.00	81+620.00	81+640.00	81+660.00	81+680.00	81+700.00	81+720.00	81+740.00	81+760.00	81+780.00	81+800.00	81+820.00	81+840.00	81+860.00	81+880.00	81+900.00			

EMPLOYER		PROJECT		DESIGN CONSULTANT			Designed By	SB		DRAWING NAME:	Scale:	Date:	
	Government of Nepal	Nepal India Regional Trade and Transport Project (NIRTPP)	Intercontinental Consultants & Technocrats Pvt. Ltd.	In Association With	Full Bright Consultancy (Pvt.) Ltd.	Checked By	PMS				NAUBISE - MUGLING ROAD PLAN AND PROFILE	0 10 20 30 40	August 2019
	Ministry of Physical Infrastructure and Transport					(IDA CREDIT No. 5273 - NEP)	Ph : 4086-3000, Fax 2685-5252					316, Baburam Acharya Sadak	Sinamangal, Kathmandu, GPO
Department of Roads		Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	In Joint Venture With						CHAINAGE 81+200.00 TO 81+900.00	Horizontal	NMR-PP-121		
Development Cooperation Implementation Division			Soosung Engineering Co. Ltd., South Korea	FBC						Vertical			



 EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 DESIGN CONSULTANT Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea 	Designed By	SB		DRAWING NAME: NAUBISE - MUGLING ROAD PLAN AND PROFILE CHAINAGE 81+900.00 TO 82+410.38	Scale:  Horizontal  Vertical	Date: August 2019 Drawing No.: NMR-PP-122
			Checked By	PMS				
			Approved By	BNS				

LIST OF STRUCTURES

List of Drain

List of Drain							
Left				Right			
Chainage		Drain Length	Type	Chainage		Drain Length	Type
From	To			From	To		
45+050	45+100	50	Type 1	45+550	45+600	50	Type 1
45+210	45+260	50	Type 2	45+580	45+630	50	Type 2
45+380	45+430	50	Type 1	46+010	46+060	50	Type 1
45+520	45+570	50	Type 2	46+040	46+090	50	Type 2
46+010	46+060	50	Type 1	46+120	46+170	50	Type 1
47+370	48+010	640	Type 2	50+210	50+260	50	Type 2
48+010	48+060	50	Type 1	50+290	50+340	50	Type 1
49+910	49+960	50	Type 2	52+310	52+360	50	Type 2
50+020	50+070	50	Type 1	54+000	54+050	50	Type 1
50+170	50+220	50	Type 1	54+080	54+130	50	Type 1
50+260	50+310	50	Type 2	55+710	55+760	50	Type 2
51+070	51+120	50	Type 1	56+220	56+270	50	Type 1
51+170	51+220	50	Type 2	56+480	56+530	50	Type 2
52+510	52+560	50	Type 1	56+660	56+710	50	Type 1
52+710	52+760	50	Type 2	56+670	56+720	50	Type 1
53+020	53+070	50	Type 1	56+720	56+770	50	Type 1
53+510	53+560	50	Type 2	71+290	71+340	50	Type 2
53+680	53+730	50	Type 1	71+400	71+450	50	Type 1
55+580	55+630	50	Type 2	71+470	71+520	50	Type 2
55+740	55+790	50	Type 2	73+420	73+470	50	Type 2
55+810	56+200	390	Type 1	75+570	77+380	1810	Type 1
56+220	56+270	50	Type 2				
56+280	56+330	50	Type 2				
56+490	56+540	50	Type 2				
56+580	56+630	50	Type 2				
56+860	56+910	50	Type 2				
57+020	57+070	50	Type 1				
60+570	61+150	580	Type 1				
62+100	62+150	50	Type 2				
68+120	68+170	50	Type 1				
68+150	71+280	330	Type 2				
71+170	71+220	50	Type 1				
71+330	71+380	50	Type 2				
71+470	71+520	50	Type 2				
71+530	73+450	1920	Type 1				
73+060	73+110	50	Type 2				
73+530	75+830	2300	Type 1				
75+310	77+380	2070	Type 1				
77+330	82+080	4650	Type 1				
82+040	82+090	50	Type 1				

EMPLOYER		PROJECT		DESIGN CONSULTANT			Designed By	SB		DRAWING NAME:	Scale:	Date:		
	Government of Nepal	Nepal India Regional Trade and Transport Project (NIRTP)	(IDA CREDIT No. 5273 - NEP)		Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252	In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal	Checked By	PMS			LIST OF DRAIN	NOT TO SCALE	August 2019	
	Ministry of Physical Infrastructure and Transport							In Joint Venture With Soosung Engineering Co. Ltd., South Korea	Approved By				BNS	
	Department of Roads													
Development Cooperation Implementation Division		Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges												

LIST OF SLAB CULVERT

SN	Chainage				Remarks	SN	Chainage				Remarks
1	43+011	1	0.5	2	CD-188 : Slab Culvert 1.5 X 2 m (To be Extended)	51	54+833	1.5	0.5	2	CD-254 : Slab Culvert 1.5 X 1 m (To be Extended)
2	43+023	1	0.5	2	CD-189 : Slab Culvert 1.5 X 2 m (To be Extended)	52	54+833	2	0.5	2	CD-257 : Slab Culvert 2 X 1.5 m (To be Retained)
3	44+104	1.5	0.5	2	CD-200 : Slab Culvert 1.5 X 1.5 m (To be Retained)	53	55+107	1	0.5	2	CD-258 : Slab Culvert 1 X 1 m (To be Retained)
4	45+393	1.5	0.5	2	CD-204 : Slab Culvert 1.5 X 2 m (To be Retained)	54	55+888	1	0.5	2	CD-261 : Slab Culvert 1 X 1 m (To be Extended)
5	45+444	1.5	0.5	2	CD-205 : Slab Culvert 1.5 X 2 m (To be Extended)	55	56+270	4	0.5	2	CD-263 : Slab Culvert 4 X 1 m (To be Retained)
6	45+881	1	0.5	2	CD-208 : Slab Culvert 1 X 1 m (To be Retained)	56	58+389	1.5	0.5	2	CD-264 : Slab Culvert 1.5 X 1 m (To be Retained)
7	46+019	1	0.5	2	CD-207 : Slab Culvert 1 X 1.5 m (To be Retained)	57	57+266	1	0.5	2	CD-268 : Slab Culvert 1 X 1 m (To be Retained)
8	46+243	4	0.5	2	CD-209 : Slab Culvert 4 X 3 m (To be Retained)	58	57+341	1	0.5	2	CD-269 : Slab Culvert 1 X 1 m (To be Retained)
9	46+328	1.5	0.5	2	CD-210 : Slab Culvert 1.5 X 1.5 m (To be Replaced)	59	57+436	2	0.5	2	CD-270 : Slab Culvert 2 X 1.5 m (To be Retained)
10	46+471	1	0.5	2	CD-211 : Slab Culvert 1 X 1 m (To be Retained)	60	57+528	1.5	0.5	2	CD-271 : Slab Culvert 1.5 X 1.5 m (To be Retained)
11	46+572	3	0.5	2	CD-212 : Slab Culvert 3 X 2 m (To be Retained)	61	57+881	1	0.5	2	CD-272 : Slab Culvert 1 X 1 m (To be Retained)
12	46+634	2.5	0.5	2	CD-213 : Slab Culvert 2.5 X 2 m (To be Retained)	62	58+000	1	0.5	2	CD-273 : Slab Culvert 1 X 1 m (To be Retained)
13	47+153	1.5	0.5	2	CD-215 : Slab Culvert 1.5 X 2 m (To be Retained) To be extended by 12m	63	58+237	1	0.5	2	CD-274 : Slab Culvert 1 X 1 m (To be Replaced)
14	47+147	1	0.5	2	CD-216 : Slab Culvert 1 X 1 m (To be Retained)	64	58+346	1.5	0.5	2	CD-275 : Slab Culvert 1.5 X 2 m (To be Retained)
15	47+383	1.5	0.5	2	CD-217 : Slab Culvert 1.5 X 3 m (To be Retained)	65	58+340	1	0.5	2	CD-277 : Slab Culvert 1 X 1 m (To be Retained)
16	47+776	3	0.5	2	CD-218 : Slab Culvert 3 X 3 m (To be Retained)	66	58+480	1	0.5	2	CD-278 : Slab Culvert 1 X 1 m (To be Retained)
17	47+953	2	0.5	2	CD-219 : Slab Culvert 2 X 2 m (To be Retained)	67	58+819	2	0.5	2	CD-279 : Slab Culvert 2 X 1.5 m (To be Retained)
18	48+314	2	0.5	2	CD-220 : Slab Culvert 2 X 2 m (To be Replaced)	68	58+883	1	0.5	2	CD-280 : Slab Culvert 1 X 1 m (To be Retained)
19	48+438	1.5	0.5	2	CD-221 : Slab Culvert 1.5 X 1.5 m (To be Retained)	69	58+988	1	0.5	2	CD-281 : Slab Culvert 1 X 1 m (To be Retained)
20	48+643	2	0.5	2	CD-222 : Slab Culvert 2 X 2 m (To be Retained)	70	59+922	1.5	0.5	2	CD-282 : Slab Culvert 1.5 X 1.5 m (To be Retained)
21	48+714	2	0.5	2	CD-223 : Slab Culvert 2 X 2 m (To be Retained)	71	60+208	1.5	0.5	2	CD-283 : Slab Culvert 1.5 X 1.5 m (To be Retained)
22	48+878	1	0.5	2	CD-224 : Slab Culvert 1 X 1 m (To be Retained)	72	62+128	5	0.5	5	CD-284 : Slab Culvert 5 X 5 m (To be Retained)
23	48+885	1.5	0.5	2	CD-225 : Slab Culvert 1.5 X 1.5 m (To be Retained)	73	62+196	1.5	0.5	2	CD-285 : Slab Culvert 1.5 X 2 m (To be Retained)
24	49+077	2	0.5	2	CD-226 : Slab Culvert 2 X 2 m (To be Retained)	74	63+436	2	0.5	2	CD-286 : Slab Culvert 2 X 2 m (To be Retained)
25	49+177	1	0.5	2	CD-227 : Slab Culvert 1 X 1 m (To be Retained)	75	63+527	1.5	0.5	2	CD-287 : Slab Culvert 1.5 X 1.5 m (To be Replaced)
26	49+434	1	0.5	2	CD-228 : Slab Culvert 1 X 1 m (To be Retained)	76	63+826	2	0.5	2	CD-288 : Slab Culvert 2 X 2 m (To be Extended) To be extended by 12m
27	49+504	1.5	0.5	2	CD-229 : Slab Culvert 1.5 X 1.5 m (To be Retained)	77	63+897	1	0.5	2	CD-289 : Slab Culvert 1 X 1 m (To be Retained) To be extended by 12m
28	49+638	1.5	0.5	2	CD-230 : Slab Culvert 1.5 X 1.5 m (To be Retained)	78	64+036	1.5	0.5	2	CD-290 : Slab Culvert 1.5 X 2 m (To be Retained) To be extended by 12m
29	49+783	1	0.5	2	CD-231 : Slab Culvert 1 X 1 m (To be Retained)	79	64+513	1	0.5	2	CD-293 : Slab Culvert 1 X 2 m (To be Retained)
30	50+113	1.5	0.5	2	CD-232 : Slab Culvert 1.5 X 1.5 m (To be Extended)	80	65+118	1.5	0.5	2	CD-294 : Slab Culvert 1.5 X 1.5 m (To be Retained)
31	50+276	1	0.5	2	CD-233 : Slab Culvert 1 X 1 m (To be Retained)	81	65+380	1.5	0.5	2	CD-295 : Slab Culvert 1.5 X 1.5 m (To be Retained)
32	50+508	1.5	0.5	2	CD-234 : Slab Culvert 1.5 X 1.5 m (To be Retained)	82	65+510	1	0.5	2	CD-296 : Slab Culvert 1 X 1 m (To be Retained)
33	50+706	1.5	0.5	2	CD-235 : Slab Culvert 1.5 X 1.5 m (To be Extended)	83	67+808	1.5	0.5	2	CD-297 : Slab Culvert 1.5 X 1.5 m (To be Retained)
34	51+238	1.5	0.5	2	CD-236 : Slab Culvert 1.5 X 1.5 m (To be Retained)	84	67+882	1.5	0.5	2	CD-298 : Slab Culvert 1.5 X 1.5 m (To be Retained)
35	51+443	1	0.5	2	CD-237 : Slab Culvert 1 X 1 m (To be Retained)	85	67+980	1.5	0.5	2	CD-299 : Slab Culvert 1.5 X 1.5 m (To be Retained)
36	51+521	1.5	0.5	2	CD-238 : Slab Culvert 1.5 X 1.5 m (To be Retained)	86	67+985	1.5	0.5	2	CD-300 : Slab Culvert 1.5 X 1.5 m (To be Retained)
37	51+688	0	0.5	2	CD-240 : Slab Culvert 1 X 1 m (To be Retained)	87	67+988	1.5	0.5	2	CD-301 : Slab Culvert 1.5 X 1.5 m (To be Retained)
38	51+894	2	0.5	2	CD-241 : Slab Culvert 2 X 2 m (To be Retained)	88	67+990	1	0.5	2	CD-302 : Slab Culvert 1 X 1 m (To be Retained)
39	51+980	1.5	0.5	2	CD-242 : Slab Culvert 1.5 X 2 m (To be Retained)	89	67+710	1	0.5	2	CD-303 : Slab Culvert 1 X 1 m (To be Retained)
40	52+072	3	0.5	2	CD-243 : Slab Culvert 3 X 4 m (To be Retained)	90	64+271	1.5	0.5	2	CD-304 : Slab Culvert 1.5 X 1.5 m (To be Retained)
41	52+289	1.5	0.5	2	CD-244 : Slab Culvert 1.5 X 1.5 m (To be Retained)	91	64+380	1.5	0.5	2	CD-305 : Slab Culvert 1.5 X 1.5 m (To be Retained)
42	52+608	1.5	0.5	2	CD-245 : Slab Culvert 1.5 X 1.5 m (To be Replaced) To be extended by 3.0m	92	64+402	1	0.5	2	CD-306 : Slab Culvert 1 X 1 m (To be Retained)
43	53+474	2	0.5	2	CD-246 : Slab Culvert 2 X 2 m (To be Retained)	93	64+534	1	0.5	2	CD-307 : Slab Culvert 1 X 1 m (To be Retained)
44	53+680	1.5	0.5	2	CD-247 : Slab Culvert 1.5 X 1.5 m (To be Retained)	94	64+873	3	0.5	5	CD-308 : Slab Culvert 3 X 3 m (To be Retained)
45	53+777	2	0.5	2	CD-250 : Slab Culvert 2 X 2 m (To be Retained)	95	65+054	1	0.5	2	CD-309 : Slab Culvert 1 X 1 m (To be Retained)
46	53+902	1.5	0.5	2	CD-251 : Slab Culvert 1.5 X 2 m (To be Retained)	96	65+258	1	0.5	2	CD-311 : Slab Culvert 1 X 1 m (To be Retained)
47	54+078	1.5	0.5	2	CD-252 : Slab Culvert 1.5 X 2 m (To be Retained)	97	65+308	1.5	0.5	2	CD-312 : Slab Culvert 1.5 X 1.5 m (To be Retained)
48	54+285	1.5	0.5	2	CD-253 : Slab Culvert 1.5 X 2 m (To be Retained)	98	65+331	1.5	0.5	2	CD-313 : Slab Culvert 1.5 X 1.5 m (To be Extended)
49	54+420	2	0.5	2	CD-254 : Slab Culvert 2 X 3 m (To be Retained)	99	65+638	1.5	0.5	2	CD-316 : Slab Culvert 1.5 X 1.5 m (To be Retained) To be extended by 3.0m
50	54+489	1	0.5	2	CD-255 : Slab Culvert 1 X 1 m (To be Extended)	100	65+888	1.5	0.5	2	CD-317 : Slab Culvert 1.5 X 1.5 m (To be Extended)



EMPLOYER
Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads
Development Cooperation Implementation
Division

PROJECT
Nepal India Regional Trade and Transport Project
(NIRTP)
(IDA CREDIT No. 5273 - NEP)
Detailed Design for Improvement of Kathmandu
(Nagdhunga) - Naubise - Mugling Road and Bridges



DESIGN CONSULTANT
Intercontinental Consultants & Technocrats Pvt. Ltd.
A-8, Green Park, New Delhi - 110016
Ph : 4086-3000, Fax 2685-5252
In Joint Venture With
Soosung Engineering Co. Ltd., South Korea



In Association With
Full Bright Consultancy (Pvt.) Ltd.
316, Baburam Acharya Sadak
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Box: 4970, Kathmandu, Nepal

Designed By
Checked By
Approved By

SB
PMS
BNS

[Signature]
[Signature]
[Signature]

DRAWING NAME:
LIST OF MASONRY RETAINING WALL

Scale:
NOT TO SCALE

Date:
August 2019
Drawing No.:
NNMR-LOS 02

LIST OF SLAB CULVERT

SN	Chainage				Remarks
101	66+77.6	2	3.5	2	CD-319 : Slab culvert 3 X 2 m (To be Retained)
102	66+81.9	1.5	3.5	2	CD-319 : Slab culvert 1.5 X 1.5 m (To be Retained)
103	66+87.4	1.5	3.5	2	CD-320 : Slab culvert 1.5 X 1.5 m (To be Retained)
104	67+00.1	1	3.5	0	CD-321 : Slab culvert 1 X 1 m (To be Retained)
105	67+136	1.5	3.5	2	CD-322 : Slab culvert 1.5 X 1.5 m (To be Retained)
106	67+29.4	1	3.5	0	CD-323 : Slab culvert 1 X 1 m (To be Retained)
107	67+38.8	1.5	3.5	2	CD-324 : Slab culvert 1.5 X 1.5 m (To be Retained)
108	67+44.1	1.5	3.5	2	CD-325 : Slab culvert 1.5 X 1.5 m (To be Retained)
109	67+60.2	1.5	3.5	2	CD-326 : Slab culvert 1.5 X 1.5 m (To be Retained)
110	67+77.7	2	3.5	2	CD-327 : Slab culvert 2 X 2 m (To be Extended)
111	67+89.9	1.5	3.5	0	CD-328 : Slab culvert 1.5 X 1 m (To be Retained)
112	68+18.3	1.5	3.5	2	CD-329 : Slab Culvert 1.5 X 1.0 m (To be Replaced) To be extended by 12m
113	68+31.4	1.5	3.5	0	CD-330 : Slab culvert 1.5 X 1 m (To be Retained) To be extended by 2m
114	68+46.0	2	3.5	2	CD-331 : Slab culvert 2 X 1.5 m (To be Extended) To be extended by 12m
115	68+59.0	1	3.5	2	CD-332 : Slab culvert 1 X 1 m (To be Retained)
116	68+71.0	1	3.5	2	CD-333 : Slab culvert 1 X 1 m (To be Retained)
117	68+83.0	1	3.5	2	CD-334 : Slab culvert 1 X 1 m (To be Retained)
118	68+91.2	1	3.5	2	CD-335 : Slab culvert 1 X 1 m (To be Retained)
119	68+20.2	1	3.5	2	CD-336 : Slab culvert 1 X 1 m (To be Retained)
120	69+04.7	2	3.5	0	CD-337 : Slab culvert 2 X 1 m (To be Retained)
121	69+44.8	1	3.5	2	CD-338 : Slab culvert 1 X 1 m (To be Retained)
122	69+65.6	1.5	3.5	0	CD-339 : Slab culvert 1.5 X 1.5 m (To be Retained)
123	69+72.5	1	3.5	2	CD-340 : Slab culvert 1 X 1 m (To be Retained)
124	69+83.6	1	3.5	2	CD-341 : Slab culvert 1 X 1 m (To be Retained)
125	70+01.6	5	3.5	5	CD-342 : Slab culvert 5 X 5 m (To be Retained)
126	70+26.6	1.5	3.5	2	CD-343 : Slab culvert 1.5 X 1.5 m (To be Retained)
127	70+31.9	2	3.5	0	CD-344 : Slab culvert 2 X 2 m (To be Retained)
128	70+38.7	1.5	3.5	2	CD-345 : Slab culvert 1.5 X 1 m (To be Retained)
129	70+51.5	3	3.5	0	CD-346 : Slab culvert 3 X 3 m (To be Retained)
130	70+58.5	1.5	3.5	2	CD-347 : Slab culvert 1.5 X 1 m (To be Retained)
131	72+02.0	5	3.5	5	CD-350 : Slab culvert 5 X 5 m (To be Extended)
132	72+67.6	1	3.5	2	CD-351 : Slab culvert 1 X 1 m (To be Retained)
133	72+84.4	1.5	3.5	2	CD-352 : Slab culvert 1.5 X 1 m (To be Retained)
134	73+00.2	1.5	3.5	2	CD-353 : Slab Culvert 1.5 X 1.5 m (New)
135	73+61.9	4	3.5	2	CD-355 : Slab culvert 4 X 3 m (To be Extended)
136	74+15.7	1.5	3.5	0	CD-356 : Slab culvert 1.5 X 1.5 m (To be Retained)
137	75+20.7	4	3.5	2	CD-358 : Slab culvert 4 X 4 m (To be Extended)
138	75+31.1	1.5	3.5	2	CD-360 : Slab culvert 1.5 X 1.5 m (To be Retained)
139	75+50.6	1.5	3.5	2	CD-361 : Slab culvert 1.5 X 1.5 m (To be Retained)
140	75+57.2	1.5	3.5	2	CD-362 : Slab culvert 1.5 X 1.5 m (To be Retained)
141	75+92.1	2	3.5	2	CD-364 : Slab culvert 2 X 3 m (To be Replaced) To be extended by 12m
142	76+06.0	1.5	3.5	2	CD-365 : Slab culvert 1.5 X 2 m (To be Retained) To be extended by 2m
143	76+25.7	2	3.5	0	CD-366 : Slab culvert 2 X 2 m (To be Retained) To be extended by 12m
144	76+34.0	1.5	3.5	2	CD-367 : Slab Culvert 1.5 X 1.5 m (To be Replaced) To be extended by 2m
145	76+61.4	1	3.5	0	CD-368 : Slab culvert 1 X 1 m (To be Replaced) To be extended by 12m
146	76+82.3	1.5	3.5	2	CD-369 : Slab culvert 1.5 X 1 m (To be Retained) To be extended by 12m
147	77+00.7	1.5	3.5	0	CD-370 : Slab Culvert 1.5 X 1.0 m (To be Replaced) To be extended by 5m
148	77+48.5	1	3.5	2	CD-371 : Slab Culvert 1 X 1 m (To be Replaced)
149	77+67.1	1	3.5	2	CD-372 : Slab culvert 1 X 1 m (To be Retained)
150	77+92.4	1	3.5	2	CD-373 : Slab Culvert 1 X 1 m (To be Replaced)

SN	Chainage				Remarks
151	78+13.7	0.8	0.5	2	CD-374 : Slab culvert 0.8 X 1 m (To be Retained)
152	78+33.5	2	0.5	2	CD-375 : Slab culvert 2 X 1.5 m (To be Retained)
153	78+48.3	1.5	0.5	2	CD-376 : Slab culvert 1.5 X 1 m (To be Retained)
154	79+08.3	1.5	0.5	2	CD-377 : Slab culvert 1.5 X 1 m (To be Retained)
155	79+77.9	2	0.5	2	CD-378 : Slab culvert 2 X 1 m (To be Extended)
156	79+94.3	1.5	0.5	2	CD-379 : Slab culvert 1.5 X 1 m (To be Retained)
157	79+133	1.5	0.5	2	CD-380 : Slab culvert 1.5 X 1 m (To be Retained)
158	79+53.9	1	0.5	2	CD-381 : Slab culvert 1 X 1 m (To be Extended)
159	79+97.1	1.5	0.5	2	CD-382 : Slab culvert 1.5 X 1 m (To be Retained)
160	80+39.3	1.5	0.5	2	CD-383 : Slab Culvert 1.5 X 1.5 m (To be Replaced)
161	80+73.1	2	0.5	2	CD-384 : Slab culvert 2 X 2 m (To be Retained)
162	80+95.5	1.5	0.5	2	CD-385 : Slab culvert 1.5 X 1.0 m (To be Retained)
163	81+07.1	1	0.5	2	CD-386 : Slab culvert 1 X 1 m (To be Retained)
164	81+12.5	2	0.5	2	CD-387 : Slab culvert 2 X 2 m (To be Retained)
165	81+22.9	1	0.5	2	CD-388 : Slab culvert 1 X 1 m (To be Retained)
166	81+41.3	1.5	0.5	2	CD-389 : Slab culvert 1.5 X 1.5 m (To be Retained)
167	81+75.0	1	0.5	2	CD-390 : Slab culvert 1 X 1 m (To be Retained)
168	82+01.1	1	0.5	2	CD-391 : Slab culvert 1 X 1 m (To be Extended)
169	82+37.5	1	0.5	2	CD-392 : Slab culvert 1 X 1 m (To be Extended)

EMPLOYER		PROJECT		DESIGN CONSULTANT		DRAWING NAME:		Scale:		Date:	
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges		 Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252 In Joint Venture With Soosung Engineering Co. Ltd., South Korea		Designed By	SB			August 2019 Drawing No.: NNMR-LOS 03	
						Checked By	PMS				
						Approved By	BNS				

Masonry Breast Wall

S.No.	Chainage	Length	Left		Right	
			Type	Height	Type	Height
1	47+610	10	Masonry	4		
2	51+750	10	Masonry	7		
3	51+760	10	Masonry	7		
4	51+770	10	Masonry	7		
5	54+000	20	Masonry	4		
6	54+180	20	Masonry	4		
7	54+300	20	Masonry	4		
8	55+640	20	Masonry	5		
9	55+660	20	Masonry	5		
10	60+660	20	Masonry	7		
11	71+130	10	Masonry	4		
12	72+510	10	Masonry	8		
13	78+010	10	Masonry	4		
14	78+020	10	Masonry	4		
15	78+030	10	Masonry	4		
16	78+040	10	Masonry	4		
17	78+240	10	Masonry	2		

	EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	DESIGN CONSULTANT  Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252  In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal  In Joint Venture With Soosung Engineering Co. Ltd., South Korea	Designed By	SB		DRAWING NAME: LIST OF MASONRY BREAST WALL	Scale: NOT TO SCALE	Date: August 2019 Drawing No.: NNMR-LOS 04
				Checked By	PMS				
				Approved By	BNS				

Slope Protection using Semi-Flexible 3D Galvanised Steel Mat

S, No.	Chainage	Length (m)	Ht. of #D Galvanised Steel Mat
1	45+260.00	20	3.8
2	45+280.00	20	4.9
3	45+300.00	20	7.4
4	45+320.00	20	6.9
5	45+340.00	20	8.4
6	45+360.00	20	10.5
7	45+420.00	20	8.5
8	45+440.00	20	16.8
9	45+460.00	20	15.7
10	45+480.00	20	9.8
11	47+620.00	20	13.9
12	53+880.00	20	12.7
13	54+020.00	20	10.4
14	54+040.00	20	14.0
15	54+570.00	20	19.4
16	71+080.00	20	6.6
17	71+100.00	20	7.0
18	71+120.00	20	6.0
19	72+520.00	20	12.5
20	72+540.00	20	7.4
21	72+560.00	20	26.9
22	72+580.00	20	29.5
23	72+640.00	20	14.5
24	72+660.00	20	9.8

EMPLOYER		PROJECT		DESIGN CONSULTANT		Designed By	SB	DRAWING NAME:	Scale:	Date:
	Government of Nepal	Nepal India Regional Trade and Transport Project (NIRTPP)	Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252	In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal	Checked By	PMS	LIST OF SLOPE PROTECTION USING SEMI-FLEXIBLE 3D GALVANIZED STEEL MAT		NOT TO SCALE	August 2019
	Ministry of Physical Infrastructure and Transport				(IDA CREDIT No. 5273 - NEP)	In Joint Venture With Soosung Engineering Co. Ltd., South Korea				
Department of Roads		Detailed Design for Improvement of Kathmandu (Naadhunga) - Naubise - Mugling Road and Bridges	 							
Development Cooperation Implementation Division										

Rcc Wall (QUANTITY)

S.No.	Chainage	Length	Left		Right	
			RCC	Height	RCC	Height
1	40+710					5
2	41+720					6
3	42+800					4
4	44+110					7
5	45+820					5
6	44+550					6
7	43+540					5
8	44+540					4
9	44+170					4
10	44+180					4
11	50+160			7		8
12	50+180			5		4
13	50+560	10				9
14	54+520	10				6
15	54+530	30				6
16	54+640	10				5
17	54+680	10				5
18	55+490	10		6		5
19	58+120	10		4		7
20	59+010	20				5
21	60+140	10				6
22	61+110	10				5
23	61+580	10				6
24	66+120	10		5		
25	71+000	10				6
26	72+000	10				3
27	73+500	10		4		4
28	76+480	20				5
29	76+540	20				6
30	76+560	20				5
31	76+680	20				7
32	76+800	20				8
33	76+820	20				6

	EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT Nepal India Regional Trade and Transport Project (NIRTP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	DESIGN CONSULTANT  Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252  In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal  In Joint Venture With Soosung Engineering Co. Ltd., South Korea	Designed By	SB		DRAWING NAME: LIST OF RCC RETAINING WALL	Scale: NOT TO SCALE	Date: August 2019
				Checked By	PMS				Drawing No.: NNMR-LOS 06
				Approved By	BNS				

NAubles - Maclintu Section
List of Culvert and Bridges

Location (km+in)	Catchment Area, km ²	Design discharge, m ³ /s	Details of Existing Culverts		Details of Proposed Culverts				Remarks, etc.
			Type of Culvert	No. x Span Diameter x Height (m)	Type of Culvert	No. x Span Diameter x Height (m)	Improvement Proposed		
11+575			Molehu Bridge						
12+811	0.002	0.700	Slab culvert	1x1.5	Slab culvert	1x1.5	To be Retained	Transfer	20
12+930	0.060	0.054	Slab culvert	1x1.5x2	Slab culvert	1x1.5x2	To be Retained	Complete	30
34+124	0.006	0.081	Slab culvert	1x1.5	Slab Culvert	1x1.5x1.5	To be Replaced		
44+412	0.106	182	-	-	New Pipe Culvert	1x1.2	New Pipe Culvert		
44+399	0.047	0.122	Pipe Culvert	1x0.9	Pipe Culvert	1x1.2	To be Replaced		
45+206	0.009	0.121	-	-	Pipe Culvert	1x1.2	To be Replaced		
45+393	0.126	405	Slab culvert	1x1.5x2	-	-	To be Replaced		
45+544	0.069	0.71	Slab culvert	1x1.5x2	Slab culvert	1x1.5x2	To be Extended	Encroach	4
45+851	0.064	0.72	Slab culvert	1x1.5	-	-	To be Retained		
46+018	0.066	0.744	Slab culvert	1x1.5x2	-	-	To be Retained		
46+212	0.166	186	Pipe Culvert	1x1.0	-	-	To be Retained		
46+212	0.31	0.113	Slab culvert	1x1.5x2	-	-	To be Retained		
46+323	0.062	7.49	Slab culvert	1x0.9x1.5	Slab Culvert	1x1.5x1.5	To be Replaced		
46+471	0.002	0.076	Slab culvert	1x1.5	-	-	To be Retained		
46+572	0.036	0.406	Slab culvert	1x1.5	-	-	To be Retained		
46+524	0.274	7.089	Slab culvert	1x0.5x2	-	-	To be Retained		
46+830	0.067	0.796	-	-	Pipe Culvert	1x1.2	To be Replaced		
47+133	0.049	0.494	Slab culvert	1x1.5x2	-	-	To be Retained	Encroach	12
47+447	0.078	0.934	Slab culvert	1x1.5	-	-	To be Retained		
47+650	0.024	0.27	Slab culvert	1x1.5x2	-	-	To be Retained		
47+775	0.04	0.40	Slab culvert	1x1.5	-	-	To be Retained		
47+933	0.064	4.066	Slab culvert	1x2x2	-	-	To be Retained		
48+314	0.3	10.366	Slab culvert	1x1.5	Slab Culvert	1x2x2	To be Replaced		
48+438	0.018	0.201	Slab culvert	1x1.5x1.5	-	-	To be Retained		
48+843	0.43	4.347	Slab culvert	1x2x2	-	-	To be Retained		
48+814	0.574	3.186	Slab culvert	1x2x2	-	-	To be Retained		
48+873	0.162	1.15	Slab culvert	1x1.5	-	-	To be Retained		
48+855	0.044	0.492	Slab culvert	1x1.5x1.5	-	-	To be Retained		
48+873	0.04	0.45	Slab culvert	1x2x2	-	-	To be Retained		
48+1172	0.085	0.258	Slab culvert	1x1.5	-	-	To be Retained		
48+934	0.008	0.080	Slab culvert	1x1.5	-	-	To be Retained		
48+534	0.14	1.420	Pipe culvert	1x1.5x1.5	-	-	To be Retained		
48+579	0.060	0.065	Slab culvert	1x1.5x1.5	-	-	To be Retained		
48+751	0.008	0.067	Slab culvert	1x1.5	-	-	To be Retained		
50+115	0.000	0.070	Slab Culvert	1x1.5x1.5	Slab Culvert	1x1.5x1.5	To be Extended	Complete	2
50+108			Gomati Bridge						
55+270	0.001	0.004	Slab Culvert	1x1.5	-	-	To be Retained		
55+500	0.06	0.080	Slab Culvert	1x1.5x1.5	-	-	To be Retained		
55+930	0.068	0.774	Slab Culvert	1x1.5x1.5	Slab Culvert	1x1.5x1.5	To be Extended	Complete	20
51+239	0.068	0.666	Slab Culvert	1x1.5x1.5	-	-	To be Retained		
51+482	0.04	0.462	Slab culvert	1x1.5	-	-	To be Retained		
51+821	0.016	0.203	Slab Culvert	1x1.5x1.5	-	-	To be Retained		

Location (Planning)	Catchment Area, km²	Design discharge, m³/s	Data Set of Existing Culverts		Details on Proposed Culverts				
			Type of Culvert	Flow Span Diameter = Height (m)	Type of Culvert	Flow Span Diameter = Height (m)	Improvements Proposed	Remarks, etc.	
E1-010	0.009	0.021			Pipe Culvert	1x1.2	To be Replaced		
E1-008	0.00	10.50	Box Culvert	15.0x5			To be Replaced		
E1-004	0.007	0.020	Box Culvert	15.0x5			To be Replaced		
E1-000	0.009	0.001	Box Culvert	1x1.2x2			To be Replaced		
E2-012	0.014	0.410	Box Culvert	1x3.0			To be Replaced		
E2-009	0.140	0.000	Box Culvert	1x1.0x1.5			To be Replaced		
E2-002	0.100	0.000	Pipe Culvert	1000	Box Culvert	1x1.0x1.5	To be Replaced	replaced	0.0
E2-007	0.100	1.100	Pipe Culvert	1000	Pipe Culvert	1x1.0	To be Replaced	replaced	0.0
E2-006	0.100	1.100	Pipe Culvert	1000	Pipe Culvert	1x1.0	To be Replaced	replaced	0.0
E2-005	0.100	0.000	Pipe Culvert	1000x5	-	-	To be Replaced		
E2-003	0.100	0.000	Box Culvert	1x1.0x1.5	-	-	To be Replaced		
E2-001	0.000	0.000	Pipe Culvert	1000	-	-	To be Replaced		
E3-002	0.040	0.407	Box Culvert	1x1.2x2			To be Replaced		
E4-009	0.000	0.000	Box Culvert	1x1.5x2			To be Replaced		
E4-000	0.00	0.000	Box Culvert	1x1.0x2			To be Replaced		
E4-008	0.100	0.00	Box Culvert	1x1.0x2	-	-	To be Replaced		
E4-006	0.100	0.00	Pipe Culvert	1x1.0	Box Culvert	1x1.0	To be Replaced	replaced	0.0
E4-003	0.000	0.000	Pipe Culvert	1x1.0x1	Box Culvert	1x1.0x1	To be Replaced	replaced	0.0
E4-001	0.100	1.000	Box Culvert	1x0.7x1	-	-	To be Replaced		
E5-002	0.100	1.00	Pipe Culvert	1000	Pipe Culvert	1x1.0	To be Replaced		
E5-000	0.001	0.000	Box Culvert	1x1.0	Box Culvert	1x1.0	To be Replaced	replaced	0.0
E5-000	Channel Bridge								
E5-000	0.100	0.000	Pipe Culvert	1x1.0	Pipe Culvert	1x1.0	To be Replaced	replaced	0.0
E5-000	0.100	1.000	Pipe Culvert	1x1.0	Pipe Culvert	1x1.0	To be Replaced	replaced	0.0
E5-000	0.100	1.00	Pipe Culvert	1x1.0	-	-	To be Replaced	replaced	0.0
E6-000	1.000	0.00	Box Culvert	1x1.0x1			To be Replaced		
E6-000	0.00	0.000	Pipe Culvert	1x1.0			To be Replaced		
E7-000	0.00	0.000	Channel Pipe	2x1.0			To be Replaced		
E7-000	0.000	0.00	Channel Pipe	2x1.0			To be Replaced		
E7-000	0.000	0.001	Box Culvert	1x1.0			To be Replaced		
E7-040	0.000	0.007	Box Culvert	1x1.0x1			To be Replaced		
E7-020	0.00	0.001	Box Culvert	1x0.5			To be Replaced		
E7-020	0.00	1.000	Box Culvert	1x1.0x1.5			To be Replaced		
E7-000	0.000	0.000	Box Culvert	1x1.0			To be Replaced		
E8-000	0.040	0.400	Box Culvert	1x0.0	Box Culvert	1x1.0	To be Replaced	Box Culvert	0.0
E8-000	0.040	0.041	Box Culvert	1x0.0x1	Box Culvert	1x1.0	To be Replaced		
E8-000	Grass Bridge								
E8-000	0.040	0.400	Box Culvert	1x1.0x2			To be Replaced		
E8-000	0.100	1.000			Pipe Culvert	1x1.0	To be Replaced		
E8-000	0.040	0.400	Box Culvert	1x1.0	-	-	To be Replaced		
E8-000	0.040	0.001	Box Culvert	1x1.0	-	-	To be Replaced		
E8-000	0.100	1.000	Box Culvert	1x1.0	-	-	To be Replaced		

List of Culvert and Bridges

[illegible]

Location (RD+km)	Catchment area, km ²	Design discharge, m ³ /s	Details of Existing Culverts		Details on Proposed Culverts				
			Type of Culvert	No. x Span Diameter x Height (m)	Type of Culvert	No. x Span Diameter x Height (m)	Improvement Proposal	Extension m	
51-281	0.035	0.345	Sub-culvert	1x1.5	-	-	To be Retained		
52-106	0.039	0.348	Sub-culvert	1x1.5x1.5	-	-	To be Retained		
52-234	0.033	0.327	Sub-culvert	1x1.5	-	-	To be Retained		
52-285	0.061	0.559	Sub-culvert	1x1.5x1.5	-	-	To be Retained		
52-513	0.295	2.467	Sub-culvert	1x1.5x1.5	-	-	To be Retained		
53-433	0.039	0.344	Sub-culvert	1x1.5x1.5	-	-	To be Retained		
57-777	0.020	0.22	Sub-culvert	1x2.0	Sub-culvert	1x2.0	To be Extended	Extended	4
57-938	0.010	0.897	Sub-culvert	1x1.5x1	-	-	To be Retained		
58-102	0.004	0.507	Sub-culvert	1x0.6x1	Box Culvert	1x1.3x1.3	To be Replaced	Extended	12
58-314	0.023	0.208	Sub-culvert	1x1.2x1	-	-	To be Retained	Extended	12
58-436	0.105	1.00	Sub-culvert	1x2x1.5	Sub-culvert	1x2x1.5	To be Extended	Extended	12
58-590	0.117	1.044	Sub-culvert	4x1	-	-	To be Retained		
58-770	0.062	0.655	Sub-culvert	1x1.5	-	-	To be Retained		
58-945	0.034	0.305	Sub-culvert	1x1.5	-	-	To be Retained		
58-917	0.012	0.085	Sub-culvert	1x1.5	-	-	To be Retained		
58-250	0.030	0.332	Sub-culvert	1x1.5	-	-	To be Retained		
58-517	0.008	0.610	Sub-culvert	1x2.0	-	-	To be Retained		
58-518	0.023	0.208	Sub-culvert	1x1.5	-	-	To be Retained		
58-536	0.002	0.202	Sub-culvert	1x1.3x1.3	-	-	To be Retained		
58-720	0.005	0.739	Sub-culvert	1x1.5	-	-	To be Retained		
58-936	0.039	0.339	Sub-culvert	1x1.5	-	-	To be Retained		
70-318	1.861	17.007	Sub-culvert	1x3.0			To be Retained		
70-256	0.045	0.399	Sub-culvert	1x1.3x1.3			To be Retained		
70-315	0.018	0.116	Sub-culvert	1x2.0			To be Retained		
70-397	0.664	0.70	Sub-culvert	1x1.0x1			To be Retained		
70-510	0.245	0.114	Sub-culvert	1x3.0			To be Retained		
70-590	0.108	0.964	Sub-culvert	1x1.0x1			To be Retained		
70-743	0.065	0.709	Pipe Culvert	1x0.6	Pipe Culvert	1x1.2	To be Replaced		
71-486	0.007	0.009	-	-	Pipe Culvert	1x1.2	To be Replaced	Extended	4
72-300	2.575	25.555	Sub-culvert	1x3.0	Sub-culvert	1x3.0	To be Extended	Extended	4
72-317	Delhi Bridge								
72-376	0.002	0.195	Sub-culvert	1x1.5	-	-	To be Retained		
72-844	0.035	0.221	Sub-culvert	1x1.5x1	-	-	To be Retained		
73-302	0.032	1.941	-	-	New Sub-Culvert	1x1.5x1.5	New Sub-Culvert		
73-606	0.045	0.403	-	-	New Pipe Culvert	1x1.2	New Pipe Culvert		
73-595	Barberg Bridge								
73-838	0.007	0.768	Sub-culvert	1x0.6x1	Sub-culvert	1x0.6x1	To be Extended	Extended	8
74-115	0.365	3.782	Sub-culvert	1x1.2x1.2	-	-	To be Retained		
74-292	0.060	0.95	-	-	New Pipe Culvert	1x1.2	New Pipe Culvert		
74-511	0.170	1.809	-	-	New Pipe Culvert	1x1.2	New Pipe Culvert		
75-257	1.007	11.408	Sub-culvert	1x1.0x1	Sub-culvert	1x1.0x1	To be Extended	Extended	4
75-511	0.005	0.62	Sub-culvert	1x1.3x1.3	-	-	To be Retained		
75-530	0.005	0.312	Sub-culvert	1x1.3x1.3	-	-	To be Retained		
76-372	0.007	0.662	Sub-culvert	1x1.3x1.3	-	-	To be Retained		

EMPLOYER		PROJECT		DESIGN CONSULTANT			Designed By	SB		DRAWING NAME:	Scale:	Date:
	Government of Nepal	Nepal India Regional Trade and Transport Project (NIRTPP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252  In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal	Checked By	PMS		NOT TO SCALE	August 2019				
	Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division			In Joint Venture With Soosung Engineering Co. Ltd., South Korea	Approved By	BNS						Drawing No.:
										LIST OF CROSS DRAINAGE	NNMR-LOS 08	

Naubise - Malekhu Section
List of Culvert and Bridges

Location (km+no)	Crossment area, km ²	Design discharge, m ³ /s	Details of Existing Culverts		Details on Proposed Culverts			
			Type of Culvert	No. of Span Diameter + Height (m)	Type of Culvert	No. of Span Diameter + Height (m)	Improvement Proposed	Extension, m
75+73	0.645	0.364	-	-	New Box Culvert	1x1.2	New Box Culvert	Extended
75+90	0.240	0.13	Slab culvert	1x2.5	-	-	To be Replaced	Extended
76+08	0.218	1.840	Slab culvert	1x1.5x3			To be Replaced	Extended
76+29	0.08	0.554	Slab culvert	1x2.5			To be Replaced	Extended
76+34	0.435	1.81			Slab Culvert	1x1.5x3	To be Replaced	Extended
76+574	0.665	0.607	Slab culvert	1x1.5			To be Replaced	Extended
76+522	0.177	1.55	Slab culvert	1x1.5x			To be Replaced	Extended
77+20	0.452	4.800	Slab culvert	1x1.5	Slab Culvert	1x1.5x1.5	To be Replaced	Extended
77+43	0.142	1.271	Slab culvert	1x1.5	Slab Culvert	1x1.5	To be Replaced	
77+57	0.694	0.628	Slab culvert	1x1.5			To be Replaced	
77+924	0.665	0.607	Slab culvert	1x0.8x	Slab Culvert	1x1.5	To be Replaced	
78+137	0.035	0.388	Slab culvert	1x0.8x			To be Replaced	
78+178	0.029	0.107	Reinforced	1x1.5	-	-	To be Replaced	
78+190	0.034	1.02	Reinforced	1x1.5x	-	-	To be Replaced	
78+300	0.612	0.134	Slab culvert	1x1.5x	-	-	To be Replaced	
78+370	0.102	0.911	Slab culvert	1x2.5	Slab culvert	1x2.5	To be Extended	Extended
78+343	0.185	0.972	Slab culvert	1x1.5x	-	-	To be Replaced	
78+1701	0.04	0.267	Reinforced	1x1.5x3	-	-	To be Replaced	
78+478	0.030	0.203	Reinforced	1x1.5	Reinforced	1x1.5	To be Replaced	Extended
78+477	0.03	0.1807	Reinforced	1x1.5x	-	-	To be Replaced	
78+578	0.46	4.175	Reinforced	1x1.5x1.5	Slab Culvert	1x1.5x1.5	To be Replaced	
Nagdi Bridge								
80+73	0.645	0.407	Reinforced	1x3.5	-	-	To be Replaced	
80+754	0.240	2.254	Reinforced	1x1.5x1.5	-	-	To be Replaced	
81+071	0.085	0.451	Reinforced	1x1.5	-	-	To be Replaced	
81+118	0.028	0.073	Reinforced	1x2.5	-	-	To be Replaced	
81+231	0.137	1.007	Reinforced	1x1.5	-	-	To be Replaced	
81+418	0.692	0.503	Slab culvert	1x1.5x1.5	-	-	To be Replaced	
81+736	0.654	0.573	Slab culvert	1x1.5	-	-	To be Replaced	
82+344	0.685	0.318	Slab culvert	1x1.5	Slab culvert	1x1.5	To be Extended	Extended
82+378	0.645	0.408	Slab culvert	1x1.5	Reinforced	1x1.5	To be Extended	Extended

EMPLOYER		PROJECT		DESIGN CONSULTANT		Designed By	SB		DRAWING NAME:	Scale:	Date:
	Government of Nepal	Nepal India Regional Trade and Transport Project (NIRTPP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Nagdhunga) - Naubise - Mugling Road and Bridges	 Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252	In Association With Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal	Checked By	PMS		LIST OF CROSS DRAINAGE		NOT TO SCALE	Drawing No.:
	Approved By				BNS		NNMR-LOS 09				
	Ministry of Physical Infrastructure and Transport				Department of Roads	Development Cooperation Implementation Division		 In Joint Venture With Soosung Engineering Co. Ltd., South Korea			

Geogrid Wall (QUANTITY)

Chainage	Length	Left		Right	
		Geogrid	Height	Geogrid	Height
53+040	10				8
53+950	10				8
53+960	10				8
54+065	20				7
72+540	10				5

	EMPLOYER	PROJECT	DESIGN CONSULTANT			Designed By	SB		DRAWING NAME:	LIST OF GEOGRID WALL	Scale:	Date:
	Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Nepal India Regional Trade and Transport Project (NIRTPP) (IDA CREDIT No. 5273 - NEP) Detailed Design for Improvement of Kathmandu (Naqdhunqa) - Naubise - Mudling Road and Bridges	 Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 Ph : 4086-3000, Fax 2685-5252  Full Bright Consultancy (Pvt.) Ltd. 316, Baburam Acharya Sadak Sinamangal, Kathmandu, GPO Box: 4970, Kathmandu, Nepal  In Joint Venture With Soosung Engineering Co. Ltd., South Korea	In Association With	Checked By	PMS	NOT TO SCALE	Drawing No.:				
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