Governor's Office of the Capital City

INTEGRATED PROJECT MANAGEMENT OFFICE

CSCEC AECOM Consultants Co., Ltd

FEASIBILITY STUDY & CONCEPT DESIGN

"FIRST RING ROAD" project

Budget & BoQ report Volume V-I

Ulaanbaatar
2025

№	Cost Item	Package 1 /ПК0+000-ПК8+600/	Package 2 /ПК8+600-ПК15+500/	Package 3 /ПК15+500-ПК24+793.006/	Total
0	Road length, km	8.6	6.9	9.3	**24.8**
	Number of bridges	9	4	7	**20**
1	Road	158,456,176,290.00	117,725,898,330.00	180,315,992,813.00	**456,498,067,433.00**
2	Bridges & bridge structures	710,632,621,322.63	395,651,752,390.48	528,371,971,109.44	**1,634,656,344,822.55**
3	Tunnel	-	463,712,084,131.62	-	**463,712,084,131.62**
4	Green landscaping	9,439,475,849.18	4,888,088,364.87	11,170,262,608.13	**25,497,826,822.19**
	Subtotal /MNT/	**878,528,273,461.82**	**981,977,823,216.97**	**719,858,226,530.57**	**2,580,364,323,209.36**
	Subtotal /USD/	**245,810,932.70**	**274,755,966.21**	**201,415,284.42**	**721,982,183.33**
5	External heating	1,648,910,000.00	-	1,696,440,000.00	**3,345,350,000.00**
6	External potable water	3,014,690,000.00	16,920,000.00	316,240,000.00	**3,347,850,000.00**
7	Stormwater sewer	7,830,760,000.00	5,252,530,000.00	9,688,040,000.00	**22,771,330,000.00**
8	Water-supply & sanitation connection	569,950,000.00	40,350,000.00	15,250,000.00	**625,550,000.00**
9	Utility relocation	511,630,000.00	76,210,000.00	152,420,000.00	**740,260,000.00**
10	New utility installation	3,601,840,000.00	2,889,910,000.00	3,891,930,000.00	**10,383,680,000.00**
11	RFID & CCTV on service roads	853,610,000.00	677,650,000.00	611,490,000.00	**2,142,750,000.00**
12	External lighting	11,151,271,893.00	6,899,944,935.00	14,963,232,839.00	**33,014,449,667.00**
13	External power supply	36,957,826,303.00	30,573,779,870.00	31,738,963,944.00	**99,270,570,117.00**
14	External lighting /KTPN/	285,891,804.00	122,525,195.00	326,733,217.00	**735,150,216.00**
	Subtotal /MNT/	**66,426,380,000.00**	**46,549,820,000.00**	**63,400,740,000.00**	**176,376,940,000.00**
	Subtotal /USD/	**18,586,004.48**	**13,024,571.91**	**17,739,434.81**	**49,350,011.19**
15	**TOTAL ESTIMATED COST (MNT)**	**944,954,653,461.82**	**1,028,527,643,216.97**	**783,258,966,530.57**	**2,756,741,263,209.36**
16	**TOTAL ESTIMATED COST (USD @ 3,574 MNT/USD)**	**264,396,937.17**	**287,780,538.11**	**219,154,719.23**	**771,332,194.52**
17	Resettlement / Land acquisition	204,805,567,000.00	145,815,250,303.00	175,606,526,200.00	526,227,343,503.00
18	**GRAND TOTAL (MNT)**	**1,149,760,220,461.82**	**1,174,342,893,519.97**	**958,865,492,730.57**	**3,282,968,606,712.36**
	GRAND TOTAL (USD @ 3,574 MNT/USD)				**918,569,839.59**

Note: USD conversions use the Bank of Mongolia exchange rate on 2025-06-03: 1 USD = 3,574 MNT.

Approved by (Cost Estimate):

CSCEC AECOM Consultants Co., Ltd -Director of the Mongolia Branch Ch.Qing *(signed&stamped)*

Director of "AUDE" LLC — N. Bilguun *(signed&stamped)*

Prepared by (Cost Estimate):

Roads: Lead Cost Estimator — L. Batkhuu *(signed&stamped)*

Roads: Cost Estimator — B. Tumurdulam *(signed&stamped)*

Bridges: Professional Cost Estimator — G. Davaajargal *(signed&stamped)*

Landscaping: Professional Cost Estimator — B. Möngönshagai *(signed&stamped)*

Utilities/Networks: Professional Cost Estimator — D. Ganzorig *(signed&stamped)*

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"NEW RING ROAD" PROJECT- Summary of the Consolidated Budget Cost for Road, Bridges, Tunnel, and Green Landscaping

No.	Item	Package 1	Package 2	Package 3	Total
0	Road length (km)	8.6	6.9	9.3	**24.80**
	Number of bridges (qty.)	9	4	7	**20**
1	Road works (MNT)	158,456,176,290.00	117,725,898,330.00	180,315,992,813.00	**456,498,067,433.00**
2	Bridges & bridge structures (MNT)	710,632,621,322.63	395,651,752,390.48	528,371,971,109.44	**1,634,656,344,822.55**
3	Tunnel (MNT)	–	463,712,084,131.62	–	**463,712,084,131.62**
4	Green infrastructure (MNT)	9,439,475,849.18	4,888,088,364.87	11,170,262,608.13	**25,497,826,822.19**
5	**TOTAL ESTIMATED COST (in MNT)**	878,528,273,461.82	981,977,823,216.97	719,858,226,530.57	**2,580,364,323,209.36**
6	**TOTAL ESTIMATED COST (in USD @ 3,574 MNT/USD)**	245,810,932.70	274,755,966.21	201,415,284.42	**721,982,183.33**

Reviewed by:

Consulting Engineer of Mongolia, Lead Cost Estimator — D. Enkhtuya *(signed and stamped).*

Approved by:

CSCEC AECOM Consultants Co., Ltd, Mongolia Branch Director — Ch.Qing *(signed and stamped).*

Prepared by:

Certified Cost Estimator — B. Mungunshagai *(signed and stamped).*
Certified Cost Estimator — G. Davaajargal *(signed and stamped).*
Lead Cost Estimator — L. Batkhuu *(signed and stamped).*
Cost Estimator — B. Tumurdulam *(signed and stamped).*

AUDE LLC TRANSLATION BUREAU

Handwritten note reiterates the grand totals: 2,580,364,323,209.36 MNT = 721,982,183.33 USD *(signed and stamped).*

"NEW RING ROAD" Project – Consolidated Cost Summary for Road, Bridge, Tunnel and Landscaping Works
/Package 1: PK0+000 – PK8+600/

No.	Item	Package 1
0	Road length, km	8.6
	Number of bridges	9
1	Road works	158,456,176,290.00 MNT
2	*Bridges and bridge structures*	*710,632,621,322.63 MNT*
3	Tunnel	-
4	Green Landscaping	9,439,475,849.18 MNT
5	**TOTAL ESTIMATED COST (in tugriks)**	**878,528,273,461.82** MNT
6	**TOTAL ESTIMATED COST (in U.S. dollars) @ 3,574 MNT/USD**	**245,810,932.70** USD

Reviewed by:
Consulting Engineer of Mongolia,
Senior Estimator *(Signed&Stamped)* D.Enkhtuya

Certified by:
CSCEC AECOM Consultants Co., Ltd
Mongolia Branch Director *(Signed&Stamped)* Ch.Qing

Prepared by:
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Professional Estimator *(Signed&Stamped)* B. Mungunshagai

Professional Estimator *(Signed&Stamped* G.Davaajargal

Estimator *(Signed&Stamped)*
B.Tumurdulam

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"NEW RING ROAD" Project – Consolidated Cost Summary for Road, Bridge, Tunnel and Landscaping Works
/Package 2: PK8+600 – PK15+500/

No.	Item	Package 2
0	Road length, km	6.9
	Number of bridges	4
1	Road works	117,725,898,330.00 MNT
2	*Bridges and bridge structures*	395,651,752,390.48 MNT
3	Tunnel	463,712,084,131.62 MNT
4	Green Landscaping	4,888,088,364.87 MNT
5	**TOTAL ESTIMATED COST (in tugriks)**	981,977,823,216.97 MNT
6	**TOTAL ESTIMATED COST (in U.S. dollars) @ 3,574 MNT/USD**	274,755,966.21 USD

Reviewed by:
Consulting Engineer of Mongolia,
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"NEW RING ROAD" Project – Consolidated Cost Summary for Road, Bridge, Tunnel and Landscaping Works

/Package 2: PK15+500 – PK24+793.006/

No.	Item	Package 3
0	Road length, km	9.3
	Number of bridges	7
1	Road works	180,315,992,813.00 MNT
2	*Bridges and bridge structures*	528,371,971,109.44 MNT
3	Tunnel	-
4	Green Landscaping	11,170,262,608.13 MNT
5	**TOTAL ESTIMATED COST (in tugriks)**	719,858,226,530.57 MNT
6	**TOTAL ESTIMATED COST (in U.S. dollars) @ 3,574 MNT/USD**	201,415,284.42 USD

Reviewed by:
Consulting Engineer of Mongolia,
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NEW RING ROAD Project — Consolidated Budget Summary for Road Construction Works

No.	Cost item	Package 1 — total (MNT)	Package 2 — total (MNT)	Package 3 — total (MNT)	Overall total (MNT)
	Quantity of Bridge	**9**	**4**	**7**	**20**
1	Workers' wages	6,714,402,357	4,471,378,627	7,087,091,582	**18,272,872,566**
2	Drivers' wages	1,198,931,099	948,774,041	1,070,057,739	**3,217,762,939**
3	Machine/equipment operators' wages	2,305,085,511	2,725,064,992	3,104,111,223	**8,134,261,726**
4	Relocation work wages	0	0	0	**0**
5	Workers' additional pay	1,542,981,264	1,229,927,876	1,700,450,342	**4,473,359,482**
6	Engineering/technical staff wages	1,737,131,224	1,384,687,013	1,914,414,292	**5,036,232,529**
7	Remote-area allowance pay	0	0	0	**0**
8	**TOTAL WAGES**	**13,498,531,456**	**10,759,832,609**	**14,876,125,178**	**39,134,489,243**
9	Social-insurance contributions	1,957,287,061	1,560,175,728	2,157,038,151	**5,674,500,940**
10	Materials cost	58,886,236,073	30,826,342,651	66,739,829,108	**156,452,407,832**
11	Transportation cost	12,581,886,135	9,956,675,339	11,229,456,499	**33,768,017,973**
12	Machinery & equipment cost	24,190,150,249	28,597,521,127	32,575,328,118	**85,362,999,493**
13	Tools & small equipment depreciation	456,579,360	304,053,747	481,922,228	**1,242,555,334**
14	Site services for road construction/maintenance/repair staff	2,683,974,816	1,960,358,888	2,568,079,970	**7,212,413,674**
15	Relocation (resettlement) expenses	0	0	0	**0**
16	Temporary works depreciation	9,282,952	7,077,168	9,046,020	**26,306,140**
17	**SUBTOTAL — DIRECT COSTS**	**114,263,298,101**	**83,972,037,257**	**130,637,725,271**	**328,873,060,629**
18	Administration/overhead	8,571,547,067	6,832,439,707	10,449,438,238	**25,853,426,012**

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19	Profit	9,691,945,585	7,725,559,813	10,681,057,878	**28,098,563,276**
20	OSH activities (HSE)	2,856,598,208	2,090,903,301	3,265,943,132	**8,221,842,266**
21	Workers' insurance	0	0	0	**0**
22	Construction/erection insurance	0	0	0	**0**
23	Machinery & equipment insurance	0	0	0	**0**
24	**SUBTOTAL — CONSTRUCTION WORKS BUDGET**	**135,384,039,363**	**100,629,391,709**	**154,031,065,768**	**390,044,496,840**
25	Technical/technology supervision & consulting services	5,713,196,045	4,198,601,683	6,351,886,264	**16,463,684,531**
26	Client's supervision costs	571,319,641	419,860,186	653,188,626	**1,644,368,453**
27	Contingency for unforeseen works	2,707,680,787	2,012,587,834	3,080,621,315	**7,800,889,937**
28	Value-added tax (VAT)	13,538,403,936	10,062,939,171	15,403,106,577	**39,004,449,684**
29	Contribution to standards/normative fund	541,536,157	402,517,567	616,124,263	**1,560,177,987**
30	**GRAND TOTAL**	**158,456,176,290**	**117,725,898,330**	**180,315,992,813**	**456,498,067,433**

Reviewed by:
Consulting Engineer of Mongolia,
Senior Estimator *(Signed&Stamped)* D.Enkhtuya
Senior Estimator *(Signed&Stamped)* L. Batkhuu

Prepared by:
Estimator *(Signed&Stamped)* B.Tumurdulam

NEW RING ROAD PROJECT-Consolidated Summary of Bridge Construction Budget

№	Cost item	Package 1 MNT	Package 2 MNT	Package 3 MNT	Overall total MNT
	Number of bridges	9	4	7	20
1	Workers' wages	63,533,903,484	36,522,813,884	46,638,277,283	146,694,994,651
2	Drivers' wages	298,213,559	205,436,816	285,578,333	789,228,708
3	Machine/equipment operators' wages	5,179,944,058	2,770,772,603	4,015,002,773	11,965,719,434
4	Resettlement work wages	806,803	806,803	806,803	2,420,408

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5	Workers' additional pay	10,420,943,053	5,964,474,346	7,691,889,444	24,077,306,843
6	Engineering / technical staff wages	11,732,050,387	6,714,833,962	8,659,605,926	27,106,490,275
7	Remote-area allowance pay	0	0	0	0
8	**TOTAL WAGES**	**91,165,861,344**	**52,179,138,413**	**67,291,160,562**	**210,636,160,320**
9	Social-insurance contributions	13,219,049,895	7,565,975,070	9,757,218,282	30,542,243,246
10	Materials cost	296,041,577,706	161,946,675,550	218,893,458,037	676,881,711,293
11	Transportation cost	3,129,528,500	2,155,905,901	2,996,931,239	8,282,365,640
12	Machinery & equipment cost	54,359,642,814	29,077,188,352	42,134,454,390	125,571,285,556
13	Tools & small equipment depreciation	4,320,305,437	2,483,551,344	3,171,402,855	9,975,259,636
14	Site services for staff at bridge construction/maintenance works	11,192,753,073	6,431,893,118	8,337,541,247	25,962,187,438
15	Resettlement expenses	8,466,792	8,466,792	8,466,792	25,400,376
16	Temporary works depreciation	417,616,886	183,497,488	352,335,926	953,450,301
17	**SUBTOTAL — DIRECT COSTS**	**473,854,802,448**	**262,032,292,028**	**352,942,969,330**	**1,088,830,063,806**
18	Administration/overhead	57,890,321,954	33,133,752,893	42,729,886,957	133,753,961,803
19	Profit	65,457,088,445	37,464,621,381	48,315,053,284	151,236,763,110
20	HSE / OHS activities	11,846,370,061	6,550,807,301	8,823,574,233	27,220,751,595
21	Workers' insurance	0	0	0	0
22	Construction/erection insurance	0	0	0	0
23	Machinery & equipment insurance	0	0	0	0
24	SUBTOTAL — CONSTRUCTION WORKS BUDGET	609,048,582,907	339,181,473,602	452,811,483,805	1,401,041,540,314

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25	Technical/technology supervision & consulting services	23,692,740,122	13,101,614,001	17,647,148,467	54,441,503,190
26	Client's supervision costs	2,369,274,012	1,310,161,460	1,764,714,847	5,444,150,319
27	Contingency for unforeseen works	12,180,971,658	6,783,629,472	9,056,229,676	28,020,830,806
28	Value-added tax (VAT)	60,904,858,291	33,918,147,360	45,281,148,380	140,104,154,031
29	Contribution to standards/normative fund	2,436,194,332	1,356,725,894	1,811,245,935	5,604,166,161
30	**GRAND TOTAL**	**710,632,621,323**	**395,651,752,390**	**528,371,971,109**	**1,634,656,344,823**

Reviewed by:
Consulting Engineer of Mongolia,
Senior Estimator *(Signed&Stamped)* D.Enkhtuya

Prepared by:

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AUDE LLC
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NEW RING ROAD Project — Consolidated Budget Summary for Green Landscaping (Tree Planting) Works

№	Cost item	Package 1 (MNT)	Package 2 (MNT)	Package 3 (MNT)	Overall total (MNT)
1	Workers' wages	612,975,867	311,437,116	717,142,539	1,641,555,523
2	Drivers' wages	132,629,900	70,498,131	160,302,664	363,430,695
3	Machine/equipment operators' wages	54,192,771	33,886,491	75,319,446	163,398,707
4	Resettlement work wages	0	0	0	0
5	Workers' additional pay	120,769,579	62,789,082	143,867,462	327,426,124
6	Engineering/technical staff wages	135,965,751	70,689,655	161,969,990	368,625,437
7	Remote-area allowance pay	0	0	0	0
8	**TOTAL WAGES**	**1,056,533,868**	**549,300,516**	**1,258,602,102**	**2,864,436,485**
9	Social-insurance contributions	153,197,411	79,648,575	182,497,305	415,343,290
10	Materials cost	2,892,317,459	1,409,005,019	3,247,445,876	7,549,668,353
11	Transportation cost	1,391,851,708	739,825,210	1,682,286,577	3,813,963,531
12	Machinery & equipment cost	568,712,838	355,613,403	791,420,311	1,714,747,541
13	Tools & small equipment depreciation	41,682,359	21,177,724	48,765,693	111,625,776
14	Site services for staff at road construction/maintenance works	382,300,196	199,752,070	455,868,652	1,037,920,828
15	Resettlement expenses	0	0	0	0
16	Temporary works depreciation	2,285,752	2,285,752	2,285,752	6,857,256
17	**SUBTOTAL — DIRECT COSTS**	**6,488,881,390**	**3,357,408,269**	**7,668,143,296**	**17,514,432,955**
18	Administration/overhead	670,899,006	348,805,827	799,212,335	1,818,917,168
19	Profit	758,591,317	394,397,770	903,676,309	2,056,665,396
20	HSE / OHS activities	162,222,035	83,935,207	191,703,582	437,860,824

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21	Workers' insurance	0	0	0	0
22	Construction/erection insurance	0	0	0	0
23	Machinery & equipment insurance	0	0	0	0
24	**SUBTOTAL — CONSTRUCTION WORKS BUDGET**	**8,080,593,748**	**4,184,547,073**	**9,562,735,522**	**21,827,876,343**
25	Technical/technology supervision & consulting	324,444,070	167,870,413	383,407,165	875,721,648
26	Client's supervision costs	32,444,407	16,787,041	38,340,716	87,572,165
27	Contingency for unforeseen works	161,611,875	83,690,941	191,254,710	436,557,527
28	Value-added tax (VAT)	808,059,375	418,454,707	956,273,552	2,182,787,634
29	Contribution to standards/normative fund	32,322,375	16,738,188	38,250,942	87,311,505
30	**GRAND TOTAL**	**9,439,475,849**	**4,888,088,365**	**11,170,262,608**	**25,497,826,822**

Reviewed by:
Consulting Engineer of Mongolia,
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Prepared by:
Professional Estimator *(Signed&Stamped)* B. Mungunshagai

"NEW ROUNDABOUT ROAD" PROJECT – CONSOLIDATED COST ESTIMATE SUMMARY FOR OUTDOOR LIGHTING, EXTERNAL POWER SUPPLY, AND KTP WORKS

No.	Expense Category	Total Estimate (MNT)	Pack-1	Pack-2	Pack-3
1	Labor Cost	29,996,213,359	11,176,051,943	8,780,228,661	10,039,932,755
2	Materials	48,678,385,541	17,532,193,760	12,650,383,215	18,495,808,566
3	Transportation	1,032,057,959	389,141,308	322,484,208	320,432,443
4	Machinery Utilization	6,535,693,778	2,391,956,208	2,055,245,336	2,088,492,234
5	Subtotal Direct Costs	86,242,350,638	31,489,343,219	23,808,341,421	30,944,665,998

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6	Site Administration & Construction Supervision Costs (86.5%)	13,256,115,213	4,938,991,146	3,880,213,856	4,436,910,211
7	Profit 15%	14,924,769,877	5,464,250,155	4,153,283,290	5,307,236,432
8	Construction Contract Value	114,423,235,733	41,892,584,520	31,841,838,572	40,688,812,641
9	Equipment Cost	1,065,712,000	124,250,000	799,462,000	142,000,000
10	Subtotal	115,488,947,733	42,016,834,520	32,641,300,572	40,830,812,641
11	VAT 10%	11,548,894,773	4,201,683,452	3,264,130,057	4,083,081,264
12	Normative Reserve 0.18%	207,880,107	75,630,303	58,754,342	73,495,462
13	Subtotal	127,245,722,612	46,294,148,274	35,964,184,971	44,987,389,367
14	Client's Technical Supervision Costs	2,309,778,954	840,336,690	652,826,011	816,616,253
15	Design Supervision Costs	1,154,889,478	420,168,346	326,413,006	408,308,126
16	Subtotal	130,710,391,046	47,554,653,310	36,943,423,989	46,212,313,747
17	Expert Review Costs 2%	2,309,778,954	840,336,690	652,826,011	816,616,253
18	**Grand Total**	**133,020,170,000**	**48,394,990,000**	**37,596,250,000**	**47,028,930,000**

Reviewed by:

Chief Estimator *(Signed and Stamped)* **B. Oktyabr**

Approved by:

CSCEC AECOM Consultants Co., Ltd

Director of Mongolia Branch *(Signed and Stamped)* **Ch. Qing**

Prepared by:

Certified Estimator *(Signed and Stamped)* **A. Enkhtsetseg**

NEW RING ROAD Project – Consolidated Cost Estimate Summary for Outdoor Lighting, External Power Supply, and KTP Works – Package 1: PK0+000–PK8+600

No.	Expense Category	Total Estimate (MNT)	Outdoor Lighting	External Power Supply	KTP

AUDE LLC TRANSLATION BUREAU ATA15086 ✆ 6788122

1	Labor Cost	11,176,051,943	1,913,088,477	9,217,485,677	45,477,789
2	Materials	17,532,193,760	5,247,173,526	12,261,743,848	23,276,386
3	Transportation	389,141,308	23,979,093	364,573,734	588,481
4	Machinery Utilization	2,391,956,208	389,101,208	1,984,501,519	18,353,481
5	Subtotal Direct Costs	31,489,343,219	7,573,342,305	23,828,304,778	87,696,136
6	Site Administration & Supervision (86.5%)	4,938,991,146	845,444,089	4,073,449,227	20,097,830
7	Profit 15%	5,464,250,155	1,262,817,959	4,185,263,101	16,169,095
8	Construction Contract Value	41,892,584,520	9,681,604,352	32,087,017,106	123,963,062
9	Equipment Cost	124,250,000	-	-	124,250,000
10	Subtotal	42,016,834,520	9,681,604,352	32,087,017,106	248,213,062
11	VAT 10%	4,201,683,452	968,160,435	3,208,701,711	24,821,306
12	Normative Reserve 0.18%	75,630,303	17,426,888	57,756,631	446,784
13	Subtotal	46,294,148,274	10,667,191,675	35,353,475,448	273,481,151
14	Client's Technical Supervision	840,336,690	193,632,087	641,740,342	4,964,261
15	Design Supervision	420,168,346	96,816,044	320,870,171	2,482,131
16	Subtotal	47,554,653,310	10,957,639,806	36,316,085,961	280,927,543
17	Expert Review Costs 2%	840,336,690	193,632,087	641,740,342	4,964,261
18	**Grand Total**	**48,394,990,000**	**11,151,271,893**	**36,957,826,303**	**285,891,804**

Approved by:

CSCEC AECOM Consultants Co.,Ltd

Project Director: Ch.Wing *(Signed&Stamped)*

AUDE LLC TRANSLATION BUREAU ATA15096 ☎ 6788122

Prepared by:

Certified Estimator A.Enkhtsetseg *(Signed&Stamped)*

AUDE LLC
TRANSLATION BUREAU
ATA15086 ☎ 6788122

NEW RING ROAD Project – Consolidated Cost Estimate Summary for Outdoor Lighting, External Power Supply, and KTP Works – Package 2: PK8+600–PK15+500

No.	Expense Category	Total Estimate (MNT)	Outdoor Lighting	External Power Supply	KTP
1	Labor cost	8,780,228,661	1,253,251,257	7,507,486,852	19,490,552
2	Materials	12,650,383,215	3,171,579,739	9,468,827,882	9,875,594
3	Transport	322,484,208	13,501,956	308,730,046	352,206
4	Machinery & equipment operation	2,055,245,336	217,018,515	1,830,361,044	7,865,777
5	**Subtotal – Direct costs**	**23,808,341,421**	**4,655,351,467**	**19,115,405,825**	**37,584,129**
6	Construction management & organization (8.65%)	3,880,213,856	553,844,675	3,317,755,794	8,613,387
7	Profit (15%)	4,153,283,290	781,379,421	3,364,974,242	6,929,627
8	**Subtotal – Construction works**	**31,841,838,572**	**5,990,575,564**	**25,798,135,864**	**53,127,144**
9	Price of equipment	799,462,000	–	746,212,000	53,250,000
10	**Subtotal**	**32,641,300,572**	**5,990,575,564**	**26,544,347,864**	**106,377,144**
11	VAT 10%	3,264,130,057	599,057,556	2,654,434,787	10,637,714
12	Standardization fund 0.18%	58,754,342	10,783,036	47,779,827	191,479
13	**Subtotal**	**35,964,184,971**	**6,600,416,157**	**29,246,562,477**	**117,206,337**
14	Client's technical supervision	652,826,011	119,811,511	530,886,957	2,127,543
15	Designer's supervision	326,413,006	59,905,756	265,443,479	1,063,771
16	**Subtotal**	**36,943,423,989**	**6,780,133,424**	**30,042,892,913**	**120,397,652**
17	Contingency 2%	652,826,011	119,811,511	530,886,957	2,127,543
18	**GRAND TOTAL**	**37,596,250,000**	**6,899,944,935**	**30,573,779,870**	**122,525,195**

Approved by:

CSCEC AECOM Consultants Co.,Ltd

AUDE LLC TRANSLATION BUREAU

Project Director: Ch.Wing *(Signed&Stamped)*

Prepared by:

Certified Estimator A.Enkhtsetseg *(Signed&Stamped)*

"NEW RING ROAD" PROJECT – OUTDOOR LIGHTING, EXTERNAL POWER SUPPLY, DISMANTLING OF OUTDOOR LIGHTING KTP
CONSOLIDATED BUDGET SUMMARY – PACKAGE 3: PK15+500 – PK24+793.006

No.	Expense Category	Total Estimate (MNT)	Outdoor Lighting	External Power Supply	KTP
1	Labor Costs	10,039,932,755	2,832,231,737	7,155,726,545	51,974,473
2	Materials	18,495,808,566	6,802,341,423	11,666,865,559	26,601,584
3	Transportation	320,432,443	32,200,698	287,559,196	672,549
4	Machinery Usage	2,088,492,234	378,260,490	1,689,256,338	20,975,406
5	**Subtotal (Direct Costs)**	**30,944,665,998**	**10,045,034,348**	**20,799,407,638**	**100,224,012**
6	Construction Supervision & Management Costs (86.5%)	4,436,910,211	1,251,637,657	3,162,303,668	22,968,886
7	Profit (15%)	5,307,236,432	1,694,500,801	3,594,256,696	18,478,935
8	**Subtotal (Construction Works)**	**40,688,812,641**	**12,991,172,807**	**27,555,968,001**	**141,671,833**
9	Equipment Cost	142,000,000	-	-	142,000,000
10	**Subtotal**	**40,830,812,641**	**12,991,172,807**	**27,555,968,001**	**283,671,833**
11	VAT (10%)	4,083,081,264	1,299,117,281	2,755,596,800	28,367,183
12	Standard Fund (0.18%)	73,495,462	23,384,111	49,600,742	510,609
13	**Subtotal**	**44,987,389,367**	**14,313,674,198**	**30,361,165,544**	**312,549,625**
14	Client's Technical Supervision Costs	816,616,253	259,823,456	551,119,360	5,673,437
15	Designer's Supervision Costs	407,808,126	129,911,728	275,559,680	2,336,718

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16	**Subtotal**	**46,212,313,747**	**14,703,409,383**	**31,187,844,584**	**321,059,780**
17	Contingency (2%)	816,616,253	259,823,456	551,119,360	5,673,437
18	**TOTAL**	**47,028,930,000**	**14,963,232,839**	**31,738,963,944**	**326,733,217**

Approved by:

CSCEC AECOM Consultants Co.,Ltd

Project Director: Ch.Wing *(Signed&Stamped)*

Prepared by:

Certified Estimator A.Enkhtsetseg *(Signed&Stamped)*

AUDE LLC
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"NEW RING ROAD" Project – Consolidated Cost Summary

External heating, potable water, storm-water pipes, water-supply & sewer connections, telecom/signal relocation & new works, and RFID/CCTV installation

No.	Cost item	Package 1	Package 2	Package 3	Total
1	External heating	1,648,910,000.00	–	1,696,440,000.00	3,345,350,000.00
2	External potable water	3,014,690,000.00	16,920,000.00	316,240,000.00	3,347,850,000.00
3	Storm-water pipeline	7,830,760,000.00	5,252,530,000.00	9,688,040,000.00	22,771,330,000.00
4	Water-supply & sewer connections	569,950,000.00	40,350,000.00	15,250,000.00	625,550,000.00
5	Relocation of telecom & signaling	511,630,000.00	76,210,000.00	152,420,000.00	740,260,000.00
6	New telecom & signaling	3,601,840,000.00	2,889,910,000.00	3,891,930,000.00	10,383,680,000.00
7	RFID & CCTV along the roadway	853,610,000.00	677,650,000.00	611,490,000.00	2,142,750,000.00
8	**TOTAL ESTIMATED COST (MNT)**	18,031,390,000.00	8,953,570,000.00	16,371,810,000.00	43,356,770,000.00
9	**TOTAL ESTIMATED COST (USD @ 3,574 MNT/USD)**	5,045,156.69	2,505,195.86	4,580,808.62	12,131,161.16

Reviewed by:

Lead Cost Estimator G. Gantuya *(Signed&Stamped)*

Certified by:

CSCEC AECOM Consultants Co., Ltd, Mongolia Branch Director Ch.Qing *(Signed&Stamped)*

Prepared by:

Professional Cost Estimator D. Ganzorig *(Signed&Stamped)*

AUDE LLC
TRANSLATION BUREAU
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"NEW RING ROAD" PROJECT

Summary of Consolidated Estimated Costs for External Heating, Potable Water, Stormwater Sewer, Water Supply & Sanitation Connections, Utility Relocation / New Installation, and RFID & CCTV on Service Roads

Package 1: PK0+000 – PK8+600

No.	Cost item	Package 1 (MNT)
1	External heating	1,648,910,000.00
2	External potable water	3,014,690,000.00
3	Stormwater sewer line	7,830,760,000.00
4	Water supply & sanitation connection	569,950,000.00
5	Utility relocation	511,630,000.00
6	New utility installation	3,601,840,000.00
7	RFID & CCTV on service roads	853,610,000.00
8	**TOTAL ESTIMATED COST (MNT)**	**18,031,390,000.00**
9	**TOTAL ESTIMATED COST (USD @ 3,574 MNT/USD)**	**5,045,156.69 USD**

Reviewed by:

Lead Cost Estimator G. Gantuya *(Signed&Stamped)*

Approved by:

CSCEC AECOM Consultants Co., Ltd,

Mongolia Branch Director Ch.Qing *(Signed&Stamped)*

Prepared by:

Professional Estimator D. Ganzorig *(Signed&Stamped)*

AUDE LLC
TRANSLATION BUREAU
ATA15096 ☎ 6788122

"NEW RING ROAD" PROJECT

Consolidated Estimated Costs for: External Heating, Potable Water, Stormwater Sewer, Water Supply & Sanitation Connections, Utility Relocation/New Installation, and RFID & CCTV on Service Roads

Package 1: PK0+000 – PK8+600

№	Cost item	Total (MNT)	External heating	External potable water	Stormwater sewer line	Water-supply & sanitation connection	Utility relocation	New utility installation	RFID & CCTV on service roads
1	Labor cost	3,048,315,634	182,465,466	227,323,356	1,700,089,254	100,212,420	113,967,685	619,645,078	104,612,375
2	Materials	6,603,495,867	866,161,888	918,370,838	2,716,037,872	222,329,930	142,342,553	1,278,602,252	459,650,534
3	Transport	784,620,612	7,480,926	6,972,558	40,047,544	8,184,334	5,913,931	12,945,466	17,472,552
4	Machinery usage	2,027,237,944	119,958,889	351,995,778	814,745,881	61,779,579	81,066,392	574,427,076	23,264,349
5	Direct cost subtotal	12,463,670,059	1,176,067,169	2,190,265,831	5,270,920,551	392,506,263	343,290,562	2,485,619,873	604,999,810
6	Site administration & organization (73.8%)	1,149,343,976	68,797,201	85,710,524	641,005,584	37,784,322	42,970,640	233,632,413	39,443,292
7	Profit (15%)	2,041,952,105	186,729,656	341,396,453	886,788,920	64,543,588	57,939,180	407,887,843	96,666,465
8	Construction works subtotal	15,656,496,614	1,431,594,026	2,617,372,808	6,798,715,055	494,834,173	444,200,382	3,127,140,129	741,109,567
9	VAT (10%)	1,565,649,614	143,159,403	261,737,281	679,871,506	49,483,417	44,420,038	312,714,013	74,110,957
10	Standardization fund (0.18%)	28,178,939	2,576,869	4,711,271	12,237,687	890,702	799,651	5,628,852	1,333,997
11	Subtotal	17,248,641,694	1,577,330,298	2,883,821,360	7,490,824,248	545,208,292	489,419,981	3,445,482,994	816,554,522
12	Client's technical supervision	313,093,323	28,631,881	52,347,456	135,974,301	9,896,683	8,884,008	62,542,803	14,822,191
13	Designer's/Author's supervision	156,549,662	14,315,940	26,173,728	67,987,151	4,948,342	4,442,004	31,271,401	7,411,096
14	Subtotal	17,718,290,677	1,620,278,119	2,962,342,544	7,694,785,699	560,053,317	502,745,992	3,539,297,198	838,787,809
15	Independent review / verification (2%)	313,099,323	28,631,881	52,347,456	135,974,301	9,896,683	8,884,008	62,542,803	14,822,191

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16	GRAND TOTAL (MNT)	18,031,390,000	1,648,910,000	3,014,690,000	7,830,760,000	569,950,000	511,630,000	3,601,840,000	853,610,000

Reviewed by: Lead Cost Estimator G. Gantuya *(Signed&Stamped)*
Approved by: CSCEC AECOM Consultants Co., Ltd, Mongolia Branch Director Ch.Qing *(Signed&Stamped)*
Prepared by: Professional Estimator D. Ganzorig *(Signed&Stamped)*

AUDE LLC
TRANSLATION BUREAU
ATA16086 ☎ 6788122

"NEW RING ROAD" PROJECT

Summary of Consolidated Estimated Costs for External Heating, Potable Water, Stormwater Sewer, Water Supply & Sanitation Connections, Utility Relocation / New Installation, and RFID & CCTV on Service Roads
Package 2: PK8+600 – PK15+500

No.	Cost item	Package 2 (MNT)
1	External heating	-
2	External potable water	16,920,000.00
3	Stormwater sewer line	5,252,530,000.00
4	Water supply & sanitation connection	40,350,000.00
5	Utility relocation	76,210,000.00
6	New utility installation	2,889,910,000.00
7	RFID & CCTV on service roads	677,650,000.00
8	**TOTAL ESTIMATED COST (MNT)**	**8,953,570,000.00**
9	**TOTAL ESTIMATED COST (USD @ 3,574 MNT/USD)**	**2,505,195.86 USD**

Reviewed by:

Lead Cost Estimator G. Gantuya *(Signed&Stamped)*

Approved by:

CSCEC AECOM Consultants Co., Ltd,

Mongolia Branch Director Ch.Qing *(Signed&Stamped)*

Prepared by:

Professional Estimator D. Ganzorig *(Signed&Stamped)*

AUDE LLC
TRANSLATION BUREAU
ATA16086 ✆ 6708122

"NEW RING ROAD" PROJECT

Consolidated Estimated Costs for: External Heating, Potable Water, Stormwater Sewer, Water Supply & Sanitation Connections, Utility Relocation/New Installation, and RFID & CCTV on Service Roads

Package 2: PK8+000 – PK15+500

№	Cost item	Total (MNT)	External heating	External potable water	Stormwater sewer	Water-supply & sanitation connection	Utility relocation	New utility installation	RFID & CCTV on service roads
1	Labor cost	1,520,454,202	–	1,864,595	916,991,323	8,034,197	17,935,992	497,004,334	78,623,761
2	Materials	3,636,119,856	–	8,341,088	2,195,818,358	16,838,879	20,415,676	1,026,523,269	368,182,586
3	Transport	75,500,243	–	1,248,598	46,681,099	643,616	1,070,838	10,515,601	15,340,491
4	Machinery usage	954,255,138	–	616,645	460,225,181	1,916,793	11,350,521	460,337,331	19,808,667
5	Direct cost subtotal	6,186,329,437	–	12,070,926	3,619,715,960	27,433,484	50,773,026	1,994,380,535	481,955,506
6	Site admin & organization (73.8%)	573,275,568	–	703,031	345,744,529	3,029,232	6,762,628	187,391,663	29,644,485
7	Profit (15%)	1,013,940,751	–	1,916,094	594,819,073	4,569,407	8,630,348	327,265,830	76,739,999
8	Construction works subtotal	7,773,545,754	–	14,690,050	4,560,279,562	35,032,124	66,166,001	2,509,038,028	588,339,989
9	VAT 10%	777,354,575	–	1,469,005	456,027,956	3,503,212	6,616,600	250,903,803	58,833,999
10	Standardization fund 0.18%	13,992,382	–	26,442	8,208,503	63,058	119,699	4,516,268	1,059,029
11	Subtotal	8,564,892,731	–	16,185,498	5,024,562,022	38,598,394	72,901,700	2,764,458,099	648,233,020
12	Client's technical supervision	155,470,915	–	293,801	91,205,591	700,642	1,323,320	50,180,761	11,766,800
13	Designer's/Author's supervision	77,735,458	–	146,901	45,602,796	350,321	661,660	25,090,380	5,883,400
14	Subtotal	8,798,099,086	–	16,626,199	5,161,324,409	39,649,358	74,886,680	2,839,729,240	665,883,200
15	Independent review (2%)	155,470,915	–	293,801	91,205,591	700,642	1,323,320	50,180,761	11,766,800
16	**GRAND TOTAL (MNT)**	**8,953,570,000**	**–**	**16,920,000**	**5,252,530,000**	**40,350,000**	**76,210,000**	**2,889,910,000**	**677,650,000**

Reviewed by: Lead Cost Estimator G. Gantuya *(Signed&Stamped)*
Approved by: CSCEC AECOM Consultants Co., Ltd, Mongolia Branch Director Ch.Qing *(Signed&Stamped)*
Prepared by: Professional Estimator D. Ganzorig *(Signed&Stamped)*

AUDE LLC TRANSLATION BUREAU ATA16086 ✆ 6788122

"NEW RING ROAD" PROJECT

Summary of Consolidated Estimated Costs for External Heating, Potable Water, Stormwater Sewer, Water Supply & Sanitation Connections, Utility Relocation / New Installation, and RFID & CCTV on Service Roads
Package 3: PK15+500 – PK24+793.006

No.	Cost item	Package 3 (MNT)
1	External heating	1,696,440,000.00
2	External potable water	316,240,000.00
3	Stormwater sewer line	9,688,040,000.00
4	Water supply & sanitation connection	15,250,000.00
5	Utility relocation	152,420,000.00
6	New utility installation	3,891,930,000.00
7	RFID & CCTV on service roads	611,490,000.00
8	**TOTAL ESTIMATED COST (MNT)**	**16,371,810,000.00**
9	**TOTAL ESTIMATED COST (USD @ 3,574 MNT/USD)**	**4,580,808.62 USD**

Reviewed by:

Lead Cost Estimator G. Gantuya *(Signed&Stamped)*

Approved by:

CSCEC AECOM Consultants Co., Ltd,

Mongolia Branch Director Ch.Qing *(Signed&Stamped)*

Prepared by:

Professional Estimator D. Ganzorig *(Signed&Stamped)*

AUDE LLC
TRANSLATION BUREAU
ATA15086 ☎ 6788122

"NEW RING ROAD" PROJECT

Consolidated Estimated Costs for: External Heating, Potable Water, Stormwater Sewer, Water Supply & Sanitation Connections, Utility Relocation/New Installation, and RFID & CCTV on Service Roads

Package 3: PK15+500 – PK24+793.006

№	Cost item	Total (MNT)	External heating	External potable water	Stormwater sewer line	Water-supply & sanitation connection	Utility relocation	New utility installation	RFID & CCTV on service roads
1	Labor cost	3,021,269,328	232,368,763	30,219,688	1,976,705,617	3,096,243	33,751,429	671,604,187	73,523,401
2	Materials	6,196,784,702	839,293,943	151,727,919	3,445,339,886	6,324,295	40,146,867	1,383,016,623	330,935,169
3	Transport	125,718,609	9,599,579	26,572,097	60,635,233	238,105	1,852,732	14,255,622	12,565,241
4	Machinery usage	1,877,175,210	111,872,575	18,835,375	1,086,119,542	687,113	26,594,562	616,159,581	16,906,465
5	Direct cost subtotal	11,220,947,847	1,193,134,859	227,355,078	6,568,800,278	10,345,756	102,345,590	2,685,036,013	433,930,273
6	Site administration & organization (73.8%)	1,139,146,375	87,612,856	11,394,101	745,301,657	1,167,415	12,725,717	253,223,196	27,721,433
7	Profit (15%)	1,854,014,133	192,112,157	35,812,377	1,097,115,290	1,726,976	17,260,696	440,738,881	69,247,756
8	Construction works subtotal	14,214,108,353	1,472,859,872	274,561,556	8,411,217,225	13,240,146	132,332,002	3,378,998,090	530,899,462
9	VAT 10%	1,421,410,835	147,285,987	27,456,156	841,121,723	1,324,015	13,233,200	337,899,809	53,089,946
10	Standardization fund 0.18%	25,585,396	2,651,148	494,211	15,140,191	23,832	238,198	6,082,197	955,619
11	Subtotal	15,661,104,583	1,622,797,007	302,511,923	9,267,479,139	14,587,993	145,803,400	3,722,980,095	584,945,027
12	Client's technical supervision	284,282,167	29,457,197	5,491,231	168,224,345	264,803	2,646,640	67,579,962	10,617,989
13	Designer's/Author's supervision	142,141,084	14,728,599	2,745,616	84,112,172	132,401	1,323,320	33,789,981	5,308,995
14	Subtotal	16,087,527,833	1,666,982,803	310,748,769	9,519,815,656	14,985,197	149,773,360	3,824,350,038	600,872,011

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15	Independent review (2%)	284,282,167	29,457,197	5,491,231	168,224,345	264,803	2,646,640	67,579,962	10,617,989
16	**GRAND TOTAL (MNT)**	**16,371,810,000**	**1,696,440,000**	**316,240,000**	**9,688,040,000**	**15,250,000**	**152,420,000**	**3,891,930,000**	**611,490,000**

Reviewed by: Lead Cost Estimator G. Gantuya *(Signed&Stamped)*
Approved by: CSCEC AECOM Consultants Co., Ltd, Mongolia Branch Director Ch.Qing *(Signed&Stamped)*
Prepared by: Professional Estimator D. Ganzorig *(Signed&Stamped)*

AUDE LLC
TRANSLATION BUREAU
ATA15086 ✆ 5788122

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-1
Drawing Code: .....

"NEW RING ROAD"- Consulting services for preparing the feasibility study, design, and estimates:
Budget estimate for a 2,951 m reinforced-concrete bridge located at PK0+171.5 – PK3+122.5 (Package-1).

Total Estimated Cost: 361,591,405,438 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504.

AUDE LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

SITE ORGANIZATION / SETUP

No.	Code	Work item	Unit	Qty	Unit price	Total
1	25-01-13	Install portable guard cabin	pc	2	346,352.15	692,704.3
2	25-01-03	Install portable workers' housing	pc	5	628,701.91	3,149,509.53
3	25-01-11	Install hot-water facility	pc	2	948,315.29	1,896,630.57
4	25-01-08	Set up machinery/equipment repair & service area	m²	1,000	36,123.15	36,123,156.63
5	25-01-09	Place portable bio-toilet	month	48.17	760,668.36	36,641,932.54
6	25-01-09	Install diesel generator station (power generator)	pc	4	1,522,405.48	6,089,621.93
7	28-01-06	Implement bridge site security/safety measures	month	48.17	1,408,045.62	67,825,557.61
		Subtotal				**152,412,565.11**

CONSTRUCTION SITE PREPARATION

No.	Code	Work item	Unit	Qty	Unit price	Total
8	28-01-01	Site clearing for bridge/culvert facility area	m²	88,530	2,687.78	237,948,091.37
9	28-01-02	Establish construction/staging yard	m²	2,000	1,608.17	3,216,348.47
10	25-15-07	Install project information board	pc	2	1,103,490.17	2,206,980.33
11	28-02-05	Prepare reinforcement cages (16–32 mm)	t	3,352.26	1,940,034.51	6,503,500,091.62
		Subtotal				**6,746,872,411.79**

BRIDGE WORKS

No.	Code	Work item	Unit	Qty	Unit price	Total
12	28-05-01	Bored pile foundation with drilling rig (φ1200)	m	20,480	1,923,033.44	39,383,724,826.44
13	28-05-01	Bored pile foundation with drilling rig (φ1500, dry ground)	m	5,760	2,428,918.14	13,990,568,509.04
14	28-03-25	Excavate inside sheet-pile cofferdam	m³	70,952.39	14,318.18	1,015,908,984.83
15	28-03-12	Construct blinding concrete layer	m³	1,672.85	558,878.97	934,920,690.21
16	28-03-08	Cast pile cap (rostverk) for pier foundation	m³	11,979.3	1,715,031.29	20,544,874,388.79
17	28-03-08	Cast abutment foundation (rostverk)	m³	921.14	1,229,950.45	1,132,956,558.49
18	28-05-05	Construct abutment body	m³	695.79	1,718,843.49	1,195,954,112.43
19	28-08-03	Backfilling works	m³	58,051.96	64,127.71	3,722,739,411.46
20	28-07-10	Construct cast-in-place pier body	m³	9,034.72	1,923,706.24	19,052,771,318.88
21	28-07-10	Construct cast-in-place pier cap (rigel)	m³	7,977.74	2,481,601.88	19,797,574,562.73
22	28-07-03	Prestressing for pier cap (25 m, set of 17 tendons)	set	—	3,648,427.15	2,640,945,693.51
23	28-07-02	Prestressing for pier cap (25 m, set of 19 tendons)	set	—	6,831,863.18	2,842,055,082.67
24	28-08-01	Cast in-situ (cast-in-place) box girder	m³	20,306.56	2,742,765.23	55,695,962,084.73
25	28-08-01	Cast stitch/diaphragm concrete linking girders on supports	m³	2,738.3	2,509,857.52	6,872,742,843.93
26	28-08-03	Install bearing GPZ30.0-JGZD-F	pc	6	31,623,835.49	189,743,012.96
27	28-08-03	Install bearing GPZ30.0-JZZX+100-F	pc	8	37,655,789.20	301,246,314.25
28	28-08-03	Install bearing GPZ20.0-JZXH+50-F	pc	6	40,308,007.87	223,824,365.23
29	28-08-03	Install bearing GPZ30.0-SX+100-F	pc	9	26,618,457.31	239,566,113.92

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No.	Code	Work item (English)	Unit	Qty	Unit price	Total cost
30	28-08-03	Install bearing GPZ10.0-JZZX+100-F	pc	12	9,560,451.01	114,725,412.11
31	28-08-03	Install bearing GPZ10.0-SX+100-F	pc	12	7,323,346.33	87,880,155.99
32	28-08-03	Install bearing LNR-370×40×147	pc	1,090	2,953,362.45	3,219,165,075.93
33	25-24-14	Install equipment to cast box girders on supports	set	1	54,905,181.38	54,905,181.38
34	28-08-05	Install girder (precast box girder)	pc	545	4,981,846.52	2,715,106,352.08
35	28-08-07	Cast-in-place girder on supports	m^3	21,135.25	4,204,315.56	88,859,260,424.5
36	28-27-03	Prestress reinforcement for precast box girder (set of 5 tendons per 30 m girder)	set	2,734	3,361,348.75	9,189,927,495.45
37	28-27-03	Prestress reinforcement for precast box girder (set of 6 tendons per 30 m girder)	set	2,716	3,627,026.06	9,851,002,769.51
38	28-27-01	Prestress reinforcement for cast-in-place box girder (set of 15 tendons per 42 m girder)	set	351	9,556,565.43	3,354,354,466.01
39	28-27-01	Prestress reinforcement for cast-in-place box girder (set of 17 tendons per 42 m girder)	set	819	10,399,288.73	8,517,017,466.21
40	28-08-11	Cast approach slab	m^3	7,348.33	2,069,606.47	15,208,151,307.94
41	28-10-17	Apply adhered waterproofing membrane	m^2	73,483.25	41,088.18	3,019,292,806.42
42	25-10-01	Apply liquid spray (Prime coat)	m^2	73,483.25	3,229.03	237,279,485.27
43	25-10-05	Construct wearing course with hot asphalt-concrete mix	m^3	7,348.33	848,534.14	6,235,308,845.81
44	25-24-172	Install PVC drainage pipe	m	7,530.6	193,547.59	1,457,529,497.81
45	28-11-02	Install deformation/expansion joint D80	m	63.9	1,052,269.67	67,240,032.1
46	28-11-02	Install deformation/expansion joint D120	m	356.5	1,849,965.68	659,512,764.54
47	28-11-02	Install deformation/expansion joint D160	m	200.55	1,849,957.14	371,008,903.66
48	28-11-02	Install deformation/expansion joint D320	m	39	3,404,552.82	132,777,560.13
49	28-08-14	Install drainage scupper/outlet	pc	590	628,153.58	370,610,612.97
50	28-10-16	Cast kerb and safety barrier	m^3	4,485.52	2,459,332.12	11,031,383,390.86
51	28-10-07	Install 2 m-high mesh fence on top of kerb	m	440	95,959.25	42,222,071.05
		Subtotal				**354,573,740,952.23**

Commissioning the Bridge Facility (handover to operation)

No.	Code	Work item (English)	Unit	Qty	Unit price	Total cost
52	25-19-02	Final cleaning (debris removal) prior to handing over the bridge	km	2.95	416,062.78	1,227,801.25
53	28-30-01	Commission the facility (per linear meter of bridge)	lm (bridge)	2,951	39,698.99	117,151,707.55
		Subtotal				118,379,508.8

TOTAL OF UNIT PRICES: 361,591,405,438

KUDE LLC TRANSLATION BUREAU

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-2
Drawing Code: .....

"NEW RING ROAD" – Consulting services to prepare the feasibility study, designs, and cost estimates:
Package-1 — No. 2 bridge (length 1,498.208 m) estimate.

Total Estimated Cost: 147,869,319,852 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

AUDM LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

SITE ORGANIZATION / SETUP

No.	Code	Work item	Unit	Qty	Unit price	Total
1	25-01-13	Install portable guardhouse	each	2	346,424.98	692,849.96
2	25-01-03	Install portable workers' quarters	each	5	628,858.81	3,144,294.07
3	25-01-11	Install portable hot-water/shower unit	each	2	948,472.12	1,896,944.37
4	25-01-18	Build service/maintenance area for machinery & equipment	m³	800	36,413.56	29,130,850.77
5	25-01-24	Install portable bio-toilet(s)	month	48.17	758,505.13	36,537,191.92
6	25-01-09	Set up diesel power station (generator)	each	3	1,533,537.12	4,600,611.36
7	28-01-06	Safety measures for bridge works	month	48.17	1,408,630.83	67,853,747.15
		Subtotal				**143,856,489.6**

CONSTRUCTION SITE PREPARATION

No.	Code	Work item	Unit	Qty	Unit price	Total
8	28-01-01	Clearing the right-of-way for bridge/culvert construction	m²	44,946.24	2,687.90	120,810,815.15
9	28-01-02	Build construction yard/staging area	m²	1,500	1,607.78	2,411,671.67
10	25-23-02	Concrete batching plant – set (loading/unloading, operations)	set	1	69,070,533.65	69,070,533.65
11	25-23-03	Aggregate crushing & screening plant – set (with loading/unloading)	set	1	107,073,847.87	107,073,847.87
12	25-15-07	Install project information board	each	2	1,106,427.64	2,212,855.28
13	28-02-05	Prepare rebar shelter (Ø16–32 mm)	ton	784.49	1,940,762.31	1,522,508,620.89
		Subtotal				**1,824,088,344.51**

BRIDGE WORKS

No.	Code	Work item	Unit	Qty	Unit price	Total
14	28-05-01	Bored pile foundation with rotary rig (Ø1000 mm)	m	480	1,668,727.72	800,989,306.58
15	28-05-01	Bored pile foundation (Ø1200 mm)	m	10,150	1,930,897.71	19,598,611,712.52
16	28-05-01	Bored pile foundation (Ø1500 mm)	m	1,080	2,440,539.04	2,635,782,163.51
17	28-05-02	Excavation inside cofferdam/shoring	m³	29,830	14,323.61	427,273,408.47
18	28-05-03	Cast pile cap (rostverk) – intermediate pier foundation	m³	5,422.3	1,726,991.17	9,364,284,242.96
19	28-05-03	Cast pile cap (rostverk) – abutment foundation	m³	≈688.3	1,236,219.37	850,619,980.83
20	28-05-07	Construct abutment (end support)	m³	≈988.7	1,725,394.62	1,705,987,655.24
21	28-05-16	Painting works	m²	24,407.7	69,103.81	1,686,665,152.60
22	28-05-06	Cast intermediate pier body	m³	3,329.2	2,187,098.71	7,282,382,585.63
23	28-05-08	Construct cast-in-place cross-beam (rigel)	m³	4,182.2	2,488,495.25	10,407,384,828.58
24	28-07-06	Rebar assembly (bundle of 17 pcs)	set	154	6,969,131.75	1,073,246,289
25	28-07-06	Rebar assembly (bundle of 19 pcs)	set	1,621	1,019,192.99	1,626,685,642.38
26	28-08-08	(Drainage/box installation along main girder — assembly work)	m³	11,340.6	2,901,089.82	32,900,099,171.26
27	28-08-11	Erect and connect main girders on supports	m³	≈1,500	2,212,550.79	3,332,101,495.6
28	28-08-03	Install bearing GPZ30.0-JZGD-F	1 pc	2	31,636,042.99	63,272,085.98

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29	28-08-03	Install bearing GPZ30.0-JZZX±100-F	1 pc	2	37,671,279.32	75,342,558.64
30	28-08-03	Install bearing GPZ30.0-JZHX±50-F	1 pc	2	37,319,489.34	74,638,978.67
31	28-08-03	Install bearing GPZ30.0-SX±100-F	1 pc	2	26,631,406.39	53,262,812.78
32	28-08-03	Install bearing GPZ10.0-JZZX±100-F	1 pc	4	9,566,846.70	38,267,386.79
33	28-08-03	Install bearing GPZ10.0-SX±100-F	1 pc	4	7,328,131.54	29,312,526.14
34	28-08-03	Install bearing LNR-370×470×147	1 pc	610	2,956,171.09	1,803,264,363.15
35	25-24-14	Install equipment for casting box girders on supports	1 set	1	54,922,908.82	54,922,908.82
36	28-08-05	Install girder (precast box girder)	1 pc	305	4,983,871.69	1,520,080,865.24
37	28-08-07	Cast concrete at girder supports	1 m^3	4,877	4,212,072.01	20,542,275,182.6
38	28-27-03	Strengthen rebar for precast box girder (30 m girder, set of 5)	1 set	1,582	3,465,853.02	5,482,979,478.72
39	28-27-03	Strengthen rebar for precast box girder (30 m girder, set of 6)	1 set	1,468	3,521,459.58	5,169,502,657.57
40	28-27-01	Strengthen rebar for cast-in-place box girder (42 m girder, set of 15)	1 set	44	14,278,599.02	628,258,357.09
41	28-27-01	Strengthen rebar for cast-in-place box girder (42 m girder, set of 17)	1 set	91	15,696,593.64	1,428,390,021.23
42	28-08-11	Cast approach slab	1 m^3	2,991.9	2,076,220.45	6,211,843,963.08
43	28-10-17	Apply bonded waterproofing membrane	1 m^2	29,919	41,107.93	1,229,908,241.08
44	28-10-17	Apply liquid spray (Prime coat)	1 m^2	29,919	3,233.7	96,748,994.1
45	25-10-05	Pave wearing course with hot asphalt-concrete mix	1 m^3	1,196.8	856,382.26	1,024,918,287.79
46	25-10-04	Pave base course with hot asphalt-concrete mix	1 m^3	1,795.1	732,600.72	1,315,091,561.01
47	25-24-172	Install PVC drain pipe	1 m	3,660	193,626.78	708,674,012.27
48	28-11-02	Install D80 expansion joint	1 m	224	1,053,660.86	236,020,032.62
49	28-11-02	Install D120 expansion joint	1 m	166	1,851,720.7	307,385,636.92
50	28-08-14	Install scupper (drain outlet)	1 pc	300	628,463.08	188,538,923.29
51	28-10-16	Cast wheel curb and safety barrier	1 m^3	1,647.5	2,346,885.08	3,866,493,175.13

Subtotal: 145,841,295,736.2

Commissioning the bridge structure (state acceptance)

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
52	25-19-02	Final cleaning for handover	1 km	1.5	400,693.7	601,040.55
53	28-30-01	Put the facility into operation (per linear meter of bridge)	1 l.m (bridge)	1,498.21	39,699.54	59,478,240.88

Subtotal: 60,079,281.43

Grand total: 147,869,319,852

AURE LLC TRANSLATION BUREAU

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-6
Drawing Code: .....

"NEW RING ROAD" – Consulting services to prepare the feasibility study, designs, and cost estimates:
Budget estimate for the bridge of the entrance/exit connector road located at point K1+300.

Total Estimated Cost: 24,717,487,325 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

AUDE LLC TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

SITE ORGANIZATION / SETUP

No.	Code	Work item name	Unit	Qty	Unit rate	Total
1	25-01-13	Install portable guard house	1 pc	1	346,352.14	346,352.14
2	25-01-03	Install portable accommodation for staff	1 pc	2	631,535.4	1,263,070.79
3	25-01-11	Install portable hot-water facility	1 pc	1	948,315.27	948,315.27
4	25-01-18	Establish repair & service area for machinery/equipment	1 m²	500	36,190.43	18,095,212.87
5	25-01-24	Install portable bio-toilet(s)	1 month	48.17	762,182.62	36,714,336.59
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,525,238.97	3,050,477.93
7	28-01-06	Provide bridge security/guarding measures	1 month	48.17	1,410,956.59	67,965,778.74
		Subtotal				**128,383,544.33**

Construction Site Preparation

No.	Code	Work item name	Unit	Qty	Unit rate	Total
8	28-01-01	Clearing of right-of-way/site for bridge & culvert works	1 m²	10,400	2,693.36	28,010,904.84
9	28-01-02	Set up construction production yard/site	1 m²	1,500	1,611.95	2,417,928.32
10	25-15-07	Install project information board(s)	1 pc	2	1,106,323.65	2,212,647.3
11	28-02-05	Prepare reinforcement cages (16–32 mm)	1 t	165.64	1,944,000.25	322,004,202.01
		Subtotal				**354,645,682.47**

Bridge Works

No.	Code	Work item name	Unit	Qty	Unit rate	Total
12	28-05-01	Construct bored pile foundation with drilling rig (φ1000 mm)	1 m	2,100	1,666,936.56	3,500,566,769.55
13	28-03-05	Excavate soil inside sheet-pile cofferdam	1 m³	4,455	14,347.01	63,915,931.33
14	28-03-12	Construct concrete leveling layer	1 m³	94	560,014.19	52,641,334.02
15	28-05-03	Cast pile-cap foundation of intermediate pier (rostverka)	1 m³	648	1,267,947.22	821,629,797.17
16	28-05-03	Cast pile-cap foundation of abutment (rostverka)	1 m³	162	1,269,266.65	205,621,197.41
17	28-07-09	Construct cast-in-place abutment	1 m³	100	1,759,164.46	175,916,446.03
18	28-16-17	Backfilling	1 m³	3,645	64,256.52	234,215,000.88
19	28-07-10	Construct cast-in-place intermediate pier body	1 m³	446	2,227,280.66	993,367,173.13
20	28-07-08	Construct cast-in-place cap beam (rigel)	1 m³	382	2,486,614.32	949,886,670.98
21	28-08-08	Cast small box-girder (precast type)	1 m³	2,057	2,788,475.95	5,735,895,036.36
22	28-08-11	Stitch-cast connection of precast girders on the pier	1 m³	185	2,366,948.07	437,885,393.79
23	28-08-03	Install bearings LNR-370×470×147	1 pc	108	2,959,261.32	319,600,222.23
24	28-08-05	Install girders (precast box girders)	1 pc	54	4,991,911.06	269,563,197.3
		Subtotal				**13,760,704,170.18**

Reinforcement Strengthening Works

No.	Code	Work item name	Unit	Qty	Unit rate	Total
25	28-27-06	Rebar strengthening (25 m cap beam, 1 set with 17 pieces)	1 set	66	3,917,118.12	258,529,796.08
26	28-27-06	Rebar strengthening (25 m cap beam, 1 set with 19 pieces)	1 set	66	4,114,060.5	271,527,993.13
27	28-27-03	Strengthening reinforcement for **precast box girder** (30 m girder; **1 set of 5 pcs**)	1 set	180	3,406,208.92	613,117,604.99
28	28-27-03	Strengthening reinforcement for **precast box girder** (30 m girder; **1 set of 6 pcs**)	1 set	360	3,678,475.1	1,324,251,035.53
29	28-08-11	Cast **transition slab**	1 m³	468	2,073,791.54	970,534,440.8
30	28-10-17	Apply bonded waterproofing	1 m²	4,680	41,172.52	192,687,402.35
31	25-10-01	Apply **prime coat** (liquid spray)	1 m²	4,680	3,235.16	15,140,568.81

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32	25-10-05	Construct wearing course with **hot asphalt concrete**	1 m³	468	850,242.07	397,913,290.42
33	25-24-172	Install **PVC drainage pipe**	1 m	1,523	193,941.26	295,372,533.5
34	28-12-01	Install **D80 expansion/deformation joint**	1 m	54	1,054,256.6	56,929,856.28
35	28-08-13	Install **water outlet (scupper) spout**	1 pc	104	629,420.73	65,459,755.43
36	28-10-16	Cast **wheel-stopper and safety barrier**	1 m³	520	2,025,549.99	1,053,285,993.97

Construct Retaining Wall

No.	Basis (code)	Work item	Unit	Qty	Unit price	Total price
37	28-03-12	Construct concrete leveling layer	1 m³	109	578,165.91	63,020,084.18
38	28-03-10	Construct crushed-stone base under retaining wall	1 m³	809	98,045.76	79,319,021.64
39	25-08-08	Construct cement-stabilized base under retaining wall, 4%	1 m³	599	83,931.24	50,274,812.23
40	28-07-05	Cast retaining wall	1 m³	980	1,983,272.42	1,943,606,974.96
41	28-11-01	Install steel joint components for retaining wall	1 m	335.6	5,606,933.22	1,881,686,787.9
42	28-16-09	Cast coping (edge) concrete for retaining wall	1 m³	45	1,375,117.57	61,880,290.83
43	28-10-16	Cast round kerb on top of retaining wall	1 m³	136	2,296,404.83	312,311,056.83

Subtotal: 4,392,099,028.57

Commission the Bridge Structure for State Operation

No.	Basis (code)	Work item	Unit	Qty	Unit price	Total price
44	25-19-02	Cleaning/garbage removal prior to handover	1 km	0.52	416,887.46	216,781.48
45	28-30-01	Commission the facility (per bridge)	1 r.m. (bridge)	520	39,784.32	20,687,846.74

Subtotal: 20,904,628.22
Sum of unit prices: 24,171,487,325

AUDE LLC
TRANSLATION BUREAU

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-7
Drawing Code: .....

"New Ring Road" FS and Design Development Consulting Services Project – Package 1: Budget for Bridge Structures Intersecting the Road to be Constructed

Total Estimated Cost: 14,396,031,542 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

AUDE LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

SITE ORGANIZATION / SETUP

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
1	25-01-13	Install portable guard cabin	1 pc	1	346,424.99	346,424.99
2	25-01-03	Install workers' portable housing	1 pc	2	630,927.6	1,261,855.2
3	25-01-11	Install portable hot-water facility	1 pc	1	952,609.78	952,609.78
4	25-01-18	Set up maintenance/service area for machinery & equipment	1 m²	500	36,494.99	18,247,492.65
5	25-01-24	Install portable bio-toilet	1 month	20.17	761,470.23	15,358,854.6
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,537,674.71	3,075,349.41
7	28-01-06	Implement bridge security/safety measures	1 month	35.17	5,700,804.72	200,497,302.08

Subtotal: 239,739,888.71

Site preparation

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
8	28-01-01	Clear alignment for bridge/culvert construction	1 m²	3,180	2,693.66	8,565,826.51
9	28-01-02	Prepare site for construction operations	1 m²	1,500	1,613.3	2,419,946.83
10	25-15-07	Install project information board	1 pc	2	1,110,565.22	2,221,130.44
11	28-02-05	Prepare rebar cages (16–32 mm)	1 t	80.82	1,945,051.86	157,193,255.77

Subtotal: 170,400,159.55

Bridge works

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
12	28-05-01	Construct bored pile foundation by drilling machine (φ1000 mm)	1 m	1,020	1,674,153.66	1,707,636,731.95
13	28-03-05	Excavate soil inside sheet-pile cofferdam	1 m³	2,494.8	14,355.5	35,814,097.68
14	28-03-12	Construct blinding/leveling concrete layer	1 m³	54.89	565,975.37	31,066,387.91
15	28-05-03	Cast temporary support foundation (rostverka)	1 m³	283.5	1,274,443.22	361,304,651.92
16	28-05-03	Cast abutment foundation (rostverka)	1 m³	170.1	1,275,775.64	217,009,436.68
17	28-07-09	Construct cast-in-place abutment	1 m³	104.52	1,766,001.95	184,582,524.06
18	28-16-17	Do backfilling	1 m³	2,041	69,485.18	141,819,256.08
19	28-07-10	Construct cast-in-place pier main body	1 m³	251.75	2,234,621.65	562,566,001.26
20	28-07-08	Construct cast-in-place crossbeam (rigel)	1 m³	179.62	2,493,942.68	447,961,983.59
21	28-08-08	Cast precast small-aggregate girder	1 m³	951.48	2,907,339.13	2,766,275,039.8
22	28-08-11	Cast connections of precast girders at supports	1 m³	91.07	1,845,077.8	168,031,235.14
23	28-08-03	Install bearing LNR-370×470×147	1 pc	48	2,962,560.25	142,202,891.81
24	28-08-05	Erect girders (precast aggregate girders)	1 pc	24	4,994,667.97	119,872,031.26

Subtotal: 6,886,142,269.14

Rebar strengthening works

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
25	28-27-06	Strengthening (1 set for 25 m rigel with 17 pcs)	1 set	32	3,920,725.32	125,463,210.37
26	28-27-06	Strengthening (1 set for 25 m rigel with 19 pcs)	1 set	32	4,379,148.04	140,132,737.3

No.	Code	Work item name	Unit	Qty	Unit rate	Total
27	28-27-03	Rebar strengthening for box girders (30 m girder, 1 set with 5 pcs)	1 set	72	3,409,490.87	245,483,342.67
28	28-27-03	Rebar strengthening for box girders (30 m girder, 1 set with 6 pcs)	1 set	168	3,681,411.77	618,477,178.03
29	28-08-11	Cast transition slab	1 m³	222.3	2,080,772.58	462,555,744.58
30	28-10-17	Apply waterproofing membrane	1 m²	2,223	41,197.58	91,582,227.45

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31	25-10-01	Apply liquid spray (Prime coat)	1 m²	2,223	3,240.34	7,203,276.27
32	25-10-05	Construct wearing course with hot asphalt concrete mix	1 m³	222.3	858,312.21	190,802,804.29
33	25-24-172	Install PVC drainage pipe	1 m	786.4	194,047.78	152,599,171.39
34	28-11-02	Install D80 expansion joint	1 m	18	1,055,843.74	19,005,187.23
35	28-08-14	Install scupper/outlet	1 pc	54	629,849.90	34,011,894.43
36	28-10-16	Cast curb and safety barrier	1 m³	270	2,032,555.82	548,790,071.90
		Subtotal				**2,636,106,845.91**

Construct Retaining Wall

No.	Code	Work item name	Unit	Qty	Unit rate	Total
37	28-03-12	Construct concrete leveling layer	1 m³	128	584,107.96	74,765,818.83
38	28-03-10	Crushed-stone base under retaining wall	1 m³	775	103,512.95	80,222,538.96
39	25-08-08	Cement-stabilized base (4%) under retaining wall	1 m³	706	89,807.57	63,404,142.50
40	28-07-05	Cast retaining wall	1 m³	908	2,033,510.21	1,846,427,274.13
41	28-11-01	Install steel components for retaining-wall joints	1 m	346.25	5,610,041.27	1,942,504,841.32
42	28-16-09	Cast coping concrete for retaining wall	1 m³	52	1,378,606.37	71,687,531.20
43	28-10-16	Cast curb on top of retaining wall	1 m³	161	2,303,770.36	370,907,028.44
		Subtotal				**4,449,919,175.38**

Laboratory Tests

No.	Code	Work item name	Unit	Qty	Unit rate	Total
44	25-03-01	Soil test	1 time	1	762,422.26	762,422.26
45	25-03-03	Sand test	1 time	1	395,320.84	395,320.84
46	25-03-04	Aggregate (stone) test	1 time	1	310,121.79	310,121.79
47	25-03-05	Cement testing	1 time	1	575,844.74	575,844.74
48	25-03-09	Determine concrete mix proportions	1 time	1	564,898.69	564,898.69
49	28-28-01	Concrete slump (cone) test	1 time	1	50,238.82	50,238.82
50	28-28-03	Concrete chemistry & compressive-strength test	1 set	1	94,078.19	94,078.19
51	28-28-02	Take cube & cylinder samples of concrete	1 time	1	121,791.08	121,791.08
		Subtotal				**2,874,716.41**

Commissioning (Putting Bridge Works into Operation)

No.	Code	Work item name	Unit	Qty	Unit rate	Total
52	25-19-02	Clean debris for handover to operation	1 km	0.27	401,596.07	108,430.94
53	28-30-01	Commission the facility (bridge)	per bridge (lm basis)	270	39,777.99	10,740,056.35
		Subtotal				**10,848,487.29**

Sum of Unit Pricec: 14,396,031,542

BUDE LLC TRANSLATION BUREAU

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-8
Drawing Code: .....

"New Ring Road" Feasibility Study & Design Development Consulting Services Project – Package 1: Connection at the western interchange of the Second Ring Expressway

Total Estimated Cost: 87,060,891,830 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

AUCE LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

SITE ORGANIZATION / SETUP

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
1	25-01-13	Install portable guard cabin	1 pc	1	346,352.14	346,352.14
2	25-01-03	Install workers' portable housing	1 pc	2	628,701.91	1,257,403.82
3	25-01-11	Install portable hot-water facility	1 pc	1	948,315.27	948,315.27
4	25-01-18	Set up maintenance/service area for machinery & equipment	1 m²	500	36,133.76	18,066,878.03
5	25-01-24	Install portable bio-toilet	1 month	20.17	760,979.86	15,348,963.78
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,522,405.69	3,044,811.38
7	28-01-06	Implement bridge security/safety measures	1 month	20.17	5,687,508.62	114,717,048.87

Subtotal: 153,729,772.89

Site preparation

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
8	28-01-01	Clear alignment for bridge/culvert construction	1 m²	3,180	2,688.42	8,549,168.31
9	28-01-02	Prepare site for construction operations	1 m²	1,500	1,608.17	2,412,261.36
10	25-15-07	Install project information board	1 pc	2	1,103,490.17	2,206,980.33
11	28-02-05	Prepare rebar cages (16–32 mm)	1 t	700.16	1,940,657.90	1,358,772,972.95

Subtotal: 1,371,941,382.55

Bridge works

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
12	28-05-01	Construct bored pile foundation by drilling machine (φ1000 mm)	1 m	8,910	1,664,109.82	14,827,218,463.74
13	28-03-05	Excavate soil inside sheet-pile cofferdam	1 m³	17,107.8	14,322.79	245,031,358.05
14	28-05-03	Cast temporary support foundation (Rostverka)	1 m³	2,754	1,265,801.81	3,486,018,173.05
15	28-05-03	Cast abutment foundation (Rostverka)	1 m³	356.5	1,267,126.63	451,730,643.44
16	28-07-09	Construct cast-in-place abutment	1 m³	899.51	1,756,168.33	1,579,673,412.03
17	28-16-17	Do backfilling	1 m³	13,937.91	64,147.97	897,888,350.43
18	28-07-10	Construct cast-in-place abutment main body	1 m³	1,927.27	2,212,112.66	4,264,289,571.38
19	28-07-08	Construct cast-in-place crossbeam (rigel)	1 m³	1,454.1	2,672,301.1	3,878,677,816.33
20	28-08-08	Cast small-aggregate girders	1 m³	2,454.3	2,901,648.2	7,121,515,175.8
21	28-08-08	Cast connections of girders at supports	1 m³	355.8	2,211,896.61	786,992,815.58
22	28-08-03	Install bearing LNR-370×470×147	1 pc	138	2,954,286.92	407,691,594.88
23	28-08-03	Install bearing LNR-470×570×167	1 pc	98	3,967,448.61	388,768,784.18
24	25-24-14	Install equipment for casting girders on supports	1 set	1	54,915,062.25	54,915,062.25
25	28-08-05	Erect girders (cast-in-place small-aggregate girders)	1 pc	69	4,983,391.92	343,683,042.24
26	28-08-07	Cast concrete at girder supports	1 m³	7,257.1	4,546,552.01	32,994,782,589.12

Subtotal: 71,728,957,953.52

Rebar strengthening works

No.	Code	Work item name	Unit	Qty	Unit rate	Total
27	28-27-03	Rebar strengthening for precast box girders (30 m girder, 1 set with 5 pcs)	1 set	230	3,401,485.27	782,341,611.08
28	28-27-03	Rebar strengthening for precast box girders (30 m girder, 1 set with 6 pcs)	1 set	460	3,671,728.21	1,688,994,976.76
29	28-27-01	Rebar strengthening for cast-in-place box girders (42 m girder, 1 set with 12 pcs)	1 set	57	10,092,535.29	575,274,511.66
30	28-27-01	Rebar strengthening for cast-in-place box girders (42 m girder, 1 set with 17 pcs)	1 set	60	13,045,728.26	782,743,695.78

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31	28-08-11	Cast transition slab	1 m³	1,435.7	2,070,262.41	2,972,275,744.55
32	28-10-17	Apply waterproofing membrane	1 m²	14,357	41,101.25	590,090,706.15
33	25-10-01	Apply liquid spray (Prime coat)	1 m²	14,357	3,229.92	46,371,984.91
34	25-10-05	Construct wearing course with hot asphalt concrete mix	1 m³	574.3	848,807.58	487,470,192.42
35	25-10-04	Construct base layer with hot asphalt concrete mix	1 m³	861.4	725,031.02	624,541,717.89
36	25-24-172	Install PVC drainage pipe	1 m	2,675	193,610.69	517,908,601.77
37	28-11-02	Install D80 expansion joint	1 m	125	1,052,554.49	131,569,310.9
38	28-11-02	Install D120 expansion joint	1 m	95	1,850,540.96	175,801,391.54
39	28-08-14	Install scupper/outlet	1 pc	258	628,366.49	162,118,554.82
40	28-10-16	Cast curb and safety barrier	1 m³	1,828	2,306,976.62	4,217,153,255.42
		Subtotal				**13,754,656,257.17**

Putting bridge facilities into operation (commissioning)

No.	Code	Work item name	Unit	Qty	Unit rate	Total
41	25-19-02	Clean debris prior to handover to operation	1 km	1.29	416,004.05	534,981.21
42	28-30-01	Commission the facility (bridge)	per lm of bridge	1,286	39,713.44	51,071,482.32
		Subtotal				**51,606,463.53**

Sum of unit prices (this page): 87,060,891,830

AUDE LLC
TRANSLATION BUREAU

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-9
Drawing Code: .....

"New Ring Road" Feasibility Study & Design Development Consulting Services Project – Package 1: Service Road Pedestrian Bridge

Total Estimated Cost: 6,074,953,875 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

AUDE LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

SITE ORGANIZATION / SETUP

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
1	25-01-13	Install portable guard cabin	1 pc	1	348,489.76	348,489.76
2	25-01-03	Install workers' portable housing	1 pc	2	630,839.53	1,261,679.05
3	25-01-11	Install portable hot-water facility	1 pc	1	952,590.5	952,590.5
4	25-01-18	Set up maintenance/service area for machinery & equipment	1 m²	500	36,239.34	18,119,672.47
5	25-01-24	Install portable bio-toilet	1 month	18.17	763,123.78	13,865,959.02
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,527,749.52	3,055,499.03
7	28-01-06	Implement bridge security/safety measures	1 month	18.17	5,704,115.69	103,643,782.03

Subtotal: 141,247,671.86

Site preparation

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
8	28-01-01	Clear alignment for bridge/culvert construction	1 m²	3,000	2,696.08	8,088,241.24
9	28-01-02	Prepare site for construction operations	1 m²	1,500	1,613.87	2,420,811.81
10	25-15-07	Install project information board	1 pc	2	1,107,765.39	2,215,530.78
11	28-02-05	Prepare rebar cages (16–32 mm)	1 t	55.51	1,946,337.58	108,047,037.89

Subtotal: 120,771,621.72

Bridge works

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
12	28-05-01	Construct bored pile foundation with drilling machine (φ1200 mm)	1 m	360	1,929,171.79	694,501,842.98
13	28-05-01	Construct bored pile foundation with drilling machine (φ1600 mm)	1 m	80	2,507,759.92	200,620,793.79
14	28-03-05	Excavate soil inside sheet-pile cofferdam	1 m³	892.7	14,361.33	12,820,359.23
15	28-05-03	Cast temporary support foundation (Rostverka)	1 m³	162.3	1,269,434.74	206,029,257.97
16	28-05-03	Cast abutment foundation (Rostverka)	1 m³	134.2	1,233,857.9	165,583,730.59
17	28-16-17	Backfilling	1 m³	730.4	64,330.81	46,987,223.79
18	28-07-10	Construct cast-in-place intermediate pier main body	1 m³	118.8	2,154,910.76	256,003,398.25
19	28-07-08	Construct cast-in-place crossbeam (rigel)	1 m³	110.4	2,489,557.79	274,847,180.35
20	28-08-08	Cast precast small-aggregate girders	1 m³	699	2,903,031.52	2,029,219,033.34
21	28-08-11	Cast connections of precast girders at supports	1 m³	68	1,840,537.96	125,156,581.37
22	28-08-03	Install bearing LNR-370×470×147	1 pc	40	2,962,773.3	118,510,932.19
23	28-08-05	Erect girders (precast small-aggregate girders)	1 pc	20	4,997,731.93	99,954,637.91

Subtotal: 4,230,234,971.76

Rebar strengthening works

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
24	28-27-05	Strengthening (1 set for 25 m rigel with 12 pcs)	1 set	7	3,789,455.68	26,526,189.79
25	28-27-06	Strengthening (1 set for 25 m rigel with 15 pcs)	1 set	17	4,341,629.41	73,807,699.95
No.	Code	Work item name	Unit	Qty	Unit rate	Total
26	28-27-03	Rebar strengthening for box girder (30 m girder, 1 set with 5 pcs)	1 set	88	3,392,236.63	298,516,823.19
27	28-27-03	Rebar strengthening for box girder (30 m girder, 1 set with 6 pcs)	1 set	112	3,458,265.01	387,325,681.3
28	28-08-11	Cast transition slab	1 m³	135	2,076,248.27	280,293,516.78
29	28-10-17	Apply waterproofing membrane	1 m²	1,350	41,222	55,649,699.46

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30	25-10-01	Apply liquid spray (Prime coat)	1 m²	1,350	3,239.48	4,373,297.7
31	25-10-05	Construct a wearing course with a hot asphalt concrete mix	1 m³	54	851,229.82	45,966,410.31
32	25-10-04	Construct a base layer with hot asphalt concrete mix	1 m³	81	727,082.65	58,893,694.89
33	25-24-172	Install PVC drainage pipe	1 m	308	194,170.67	59,804,567.13
34	28-11-02	Install D120 expansion joint	1 m	30	1,855,867.5	55,676,025.09
35	28-08-14	Install scupper/outlet	1 pc	20	630,174.26	12,603,485.23
36	28-10-16	Cast curb and safety barrier	1 m³	100	2,192,376.19	219,237,618.74
		Subtotal				**1,578,674,709.56**

Commissioning (putting the bridge facility into operation)

No.	Code	Work item name	Unit	Qty	Unit rate	Total
37	25-19-02	Clean debris before handover to operation	1 km	0.1	412,399.9	41,239.99
38	28-30-01	Commission the facility (bridge)	per lm of bridge	100	39,836.61	3,983,660.5
		Subtotal				**4,024,900.49**

Sum of unit prices: 6,074,953,875

AUDEAS TRANSLATION BUREAU

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-10
Drawing Code: .....

"New Ring Road" Feasibility Study & Design Development Consulting Services Project – Package 1: Pedestrian Bridge Budget

Total Estimated Cost: 8,331,281,794 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

AUDE LLC
MUDI LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

SITE ORGANIZATION / SETUP

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
1	25-01-13	Install portable guard cabin	1 pc	1	346,352.14	346,352.14
2	25-01-03	Install workers' portable housing	1 pc	2	631,168.93	1,262,337.86
3	25-01-11	Install portable hot-water facility	1 pc	1	950,782.29	950,782.29
4	25-01-18	Set up maintenance/service area for machinery & equipment	1 m²	500	36,219.64	18,109,818.51
5	25-01-24	Install portable bio-toilet	1 month	13.85	762,733.55	10,563,859.69
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,527,339.52	3,054,679.04
7	28-01-06	Implement bridge security/safety measures	1 month	20.97	5,701,064.59	119,551,324.47

Subtotal: 153,839,154

Site preparation

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
8	28-01-01	Clear alignment for bridge/culvert construction	1 m²	3,840	2,694.45	10,346,694.11
9	28-01-02	Prepare site for construction operations	1 m²	1,500	1,613.11	2,419,662.41
10	25-15-07	Install project information board	1 pc	2	1,107,190.7	2,214,381.39
11	28-02-05	Prepare rebar cages (16–32 mm)	1 t	119.31	1,945,204.06	232,086,186.53

Subtotal: 247,066,924.44

Bridge works

No.	Ref.	Work name	Unit	Qty	Unit price	Total price
12	28-05-01	Construct bored pile foundation by drilling machine (φ1000 mm)	1 m	1,200	2,120,160.35	2,544,192,423.52
13	28-05-01	Construct bored pile foundation by drilling machine (φ1200 mm)	1 m	180	2,031,295.05	365,633,109.73
14	28-03-05	Excavate soil inside sheet-pile cofferdam	1 m³	1,513.2	14,354.27	21,720,884.99
15	28-05-03	Cast pier foundation (Rostverka)	1 m³	156	1,268,738.9	197,923,268.41
16	28-07-09	Construct cast-in-place pier	1 m³	271	1,723,380.25	467,036,048.29
17	28-07-08	Construct cast-in-place crossbeam (rigel)	1 m³	26.6	2,488,164.79	66,185,183.38
18	28-16-17	Backfilling	1 m³	1,138.8	64,297.69	73,222,204.79
19	28-08-08	Cast precast small-aggregate girders	1 m³	224	2,901,413.1	649,916,534.67
20	28-08-03	Install bearing GYZ d400×69 (NR)	1 pc	16	1,578,790.02	25,260,640.36
21	28-08-05	Install girders (precast aggregate girders)	1 pc	4	4,995,506.63	19,982,026.5
22	28-27-03	Strengthen rebar for precast aggregate girders (30 m girder, set of 4)	1 set	8	3,376,447.56	27,011,580.45
23	28-27-03	Strengthen rebar for precast aggregate girders (30 m girder, set of 5)	1 set	32	3,409,303.28	109,097,705.05
24	28-08-15	Construct leveling layer	1 m²	45.9	32,268.64	1,481,130.73
25	28-08-11	Cast approach slab	1 m³	218.4	2,036,991.64	444,878,973.62
26	25-13-11	Paint pedestrian & bicycle lane with rubberized coating	1 m²	1,530	29,034.39	44,422,622.76
27	25-24-172	Install PVC drain pipe	1 m	388	194,062.19	75,296,128.84

AUDE LLC TRANSLATION BUREAU

No.	Code	Work item name	Unit	Qty	Unit rate	Total
28	28-08-14	Install scupper/outlet	1 pc	26	629,858.62	16,376,324.2
29	28-08-06	Cast concrete stairs	1 m³	737.2	2,586,879.11	1,907,047,278.99
30	28-10-07	Install bridge metal railing	1 m	2,256	384,992.47	868,543,020.27
		Subtotal				**7,925,227,098.55**

Commissioning (putting the bridge into operation)

No.	Code	Work item name	Unit	Qty	Unit rate	Total
31	25-19-02	Clean debris prior to handover to operation	1 km	0.13	418,475.31	53,564.84
32	28-30-01	Commission the facility (per linear meter of bridge)	per lm of bridge	128	39,805.16	5,095,061.06
		Subtotal				**5,148,625.9**

Sum of unit prices: 8,331,281,794

TRANSLATION BUREAU

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-11
Drawing Code: .....

"New Ring Road" Feasibility Study & Design Development Consulting Services Project – Package 1: Reinforced Concrete Frame Bridge (2×5×5 m) – Budget

Total Estimated Cost: 8,671,602,718 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

Temporary Facilities & Production Preparation

No.	Code	Work item name	Unit	Qty	Unit rate	Total
1	25-01-13	Install portable guard house	1 pc	1	346,352.14	346,352.14
2	25-01-03	Install portable staff accommodation	1 pc	2	630,465.93	1,260,931.86
3	25-01-11	Install portable hot-water facility	1 pc	1	951,843.31	951,843.31
4	25-01-18	Establish repair/service yard for machinery & equipment	1 m²	500	36,260.39	18,130,197.24
5	25-01-24	Install portable bio-toilet(s)	1 month	15.57	763,590.23	11,889,099.86
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,529,461.57	3,058,923.13
7	25-01-05	Install portable kitchen unit	1 pc	1	963,937.92	963,937.92
8	28-01-06	Provide bridge security / guarding measures	1 month	15.57	5,707,171.93	88,860,666.94
		Subtotal				**125,461,952.4**

Construction Site Preparation

No.	Code	Work item name	Unit	Qty	Unit rate	Total
9	28-01-01	Clear corridor for bridge/culvert works	1 m²	1,800	2,694.22	4,849,595.7
10	28-01-02	Set up construction production yard/site	1 m²	1,000	1,613.32	1,613,322.96
11	25-23-02	Concrete plant: loading/unloading & handling	1 set	1	67,517,450.7	67,517,450.7
12	25-23-04	Crushing & screening plant: loading/unloading & handling	1 set	1	100,435,560.4	100,435,560.4
13	25-15-07	Install project information board(s)	1 pc	2	1,108,782.23	2,217,564.45
14	28-10-10	Construct sand–gravel bedding layer (under structures)	1 m³	6,924	118,613.5	821,279,894.59
15	28-26-01	Construct reinforced-concrete foundation	1 m³	1,392	1,518,162.61	2,113,282,353.03
16	28-21-04	Cast main body of the structure	1 m³	2,448	2,051,888.92	5,023,024,080.85
17	28-07-05	Cast wing walls	1 m³	133.6	1,602,773.44	214,130,532.11
18	28-16-15	Cast anti-seepage cutoff screen	1 m³	28	441,504.11	12,362,115.13
19	28-10-08	Cast culvert headwall concrete	1 m³	71.6	734,840.4	52,614,572.32
20	28-16-14	Stone protection at culvert inlet/outlet	1 m³	180	724,422.26	130,396,006.22
		Subtotal				**8,543,723,048.46**

Commissioning (Putting the Bridge Facility into Operation)

No.	Code	Work item name	Unit	Qty	Unit rate	Total
21	25-19-02	Clean debris prior to handover to operation	1 km	0.06	435,090.83	26,105.45
22	28-30-01	Commission the facility (per linear meter of bridge)	per lm	60	39,860.2	2,391,611.71
		Subtotal				**2,417,717.16**

Sum of unit prices: 8,671,602,718

AUDE LLC TRANSLATION BUREAU

Client Organization
Capital City Governor's office

Design Organization
'CSCEC AECOM Consultants' LLC

Budget Code: CSCIC-12
Drawing Code: .....

"New Ring Road" Feasibility Study & Design Development Consulting Services Project – Overpass on the West Side of Peace Avenue

Total Estimated Cost: 52,465,646,949 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing */Signed&stamped/*
Date: .....

Estimate Prepared by:
Cost Estimator G.Davaajargal */Signed&stamped/*
Date: 2025-06-16

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

AUDE LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

SITE ORGANIZATION / SETUP

No.	Code	Work item name	Unit	Qty	Unit rate	Total
1	25-01-13	Install portable guard house	1 pc	1	346,352.14	346,352.14
2	25-01-03	Install portable staff accommodation	1 pc	2	628,701.91	1,257,403.82
3	25-01-11	Install portable hot-water facility	1 pc	1	948,315.27	948,315.27
4	25-01-18	Establish repair/service yard for machinery & equipment	1 m²	500	36,145.09	18,072,544.99
5	25-01-24	Install portable bio-toilet(s)	1 month	48.17	761,241.45	36,669,000.85
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,525,238.97	3,050,477.93
7	28-01-06	Provide bridge security/guarding measures	1 month	48.17	1,409,074.26	67,875,107.26
		Subtotal				**128,219,202.26**

Construction Site Preparation

No.	Code	Work item name	Unit	Qty	Unit rate	Total
8	28-01-01	Clearing of area for bridge/culvert works	1 m²	19,800	2,689.68	53,255,654.71
9	28-01-02	Set up construction production yard/site	1 m²	1,500	1,608.17	2,412,261.36
10	25-15-07	Install project information board(s)	1 pc	2	1,103,490.17	2,206,980.33
11	28-02-05	Prepare reinforcement cages (16–32 mm)	1 t	269.31	1,941,502.21	522,871,784.32
		Subtotal				**580,746,680.72**

Bridge Works

No.	Code	Work item name	Unit	Qty	Unit rate	Total
12	28-05-01	Construct bored pile foundation with drilling rig (φ1000 mm)	1 m	3,420	2,116,167.1	7,237,291,489.5
13	28-03-05	Excavate soil inside the sheet-pile cofferdam	1 m³	6,949.8	14,329.08	99,584,215.03
14	28-03-12	Construct concrete leveling layer	1 m³	143.25	559,281.76	80,117,112.43
15	28-05-03	Cast pile-cap foundation of intermediate pier (rostverka)	1 m³	1,093.5	1,266,344.73	1,384,747,957.61
16	28-05-03	Cast pile-cap foundation of abutment (rostverka)	1 m³	170.1	1,267,687.34	215,633,617.34
17	28-07-09	Construct cast-in-place abutment	1 m³	104.52	1,756,922.17	183,633,504.95
18	28-16-17	Backfilling	1 m³	5,686.2	64,175.47	364,914,564.32
19	28-07-10	Construct cast-in-place intermediate pier body	1 m³	1,520.1	2,058,533.4	3,129,176,624.31
20	28-07-08	Construct cast-in-place cap beam (rigel)	1 m³	540	2,483,460.29	1,341,068,557.79
21	28-08-03	Install bearing GPZ30.0-JZGD-F	1 pc	1	31,647,189.87	31,647,189.87
22	28-08-03	Install bearing GPZ30.0-JZZX±100-F	1 pc	1	37,682,862.12	37,682,862.12
23	28-08-03	Install bearing GPZ30.0-JZHX±50-F	1 pc	1	37,331,072.14	37,331,072.14
24	28-08-03	Install bearing GPZ30.0-SX±100-F	1 pc	1	26,636,886.3	26,636,886.3
25	28-08-03	Install bearing GPZ10.0-JZZX±100-F	1 pc	2	9,568,560.75	19,137,121.5
26	28-08-03	Install bearing GPZ10.0-SX±100-F	1 pc	2	7,329,627.63	14,659,255.26
27	28-08-03	Install bearing LNR-470×570×167	1 pc	62	3,968,751.57	246,062,597.03
28	25-24-14	Install equipment for placing box girders on supports (set)	1 set	1	54,943,397.09	54,943,397.09
29	28-08-07	Cast box-girder element on the support	1 m³	5,005.4	4,207,469.31	21,060,066,866.57
30	28-27-06	Rebar strengthening (25 m cap beam, 1 set with 17 pcs)	1 set	88	3,912,210.71	344,274,542.72

TRANSLATION BUREAU

No.	Code	Work item name	Unit	Qty	Unit rate	Total
31	28-27-06	Rebar strengthening (25 m cap beam, 1 set with 19 pcs)	1 set	88	4,108,831.11	361,577,137.30
32	28-27-01	Rebar strengthening for cast-in-place box girder (42 m girder, 1 set with 15 pcs)	1 set	75	19,089,933.96	1,431,745,047.00
33	28-27-01	Rebar strengthening for cast-in-place box girder (42 m girder, 1 set with 17 pcs)	1 set	175	21,146,841.30	3,700,697,227.50
34	28-08-11	Cast transition slab	1 m³	588.87	2,071,156.25	1,219,641,780.94
35	28-10-17	Apply waterproofing membrane	1 m²	5,888.7	41,119.22	242,138,750.81
36	25-10-01	Apply liquid spray (Prime coat)	1 m²	5,888.7	3,231.81	19,031,159.55
37	25-10-05	Construct wearing course with hot asphalt concrete mix	1 m³	588.87	849,312.92	500,134,899.20
38	25-24-172	Install PVC drainage pipe	1 m	2,486.43	193,693.42	481,605,130.29
39	28-11-02	Install D80 expansion joint	1 m	19	1,058,160.18	20,105,043.42
40	28-11-02	Install D120 expansion joint	1 m	9	1,849,194.69	16,642,752.21
41	28-08-14	Install scupper/outlet	1 pc	132	628,636.58	82,980,028.56
42	28-10-16	Cast curb and safety barrier	1 m³	660	2,187,005.14	1,443,423,392.40
		Subtotal				**45,451,619,299.82**

Construct Retaining Wall

No.	Code	Work item name	Unit	Qty	Unit rate	Total
43	28-03-12	Construct concrete leveling layer	1 m³	155	577,434.57	89,502,358.2
44	28-03-10	Crushed-stone base under retaining wall	1 m³	1,151	97,917.10	112,702,583.14
45	25-08-08	Cement-stabilized base (4%) under retaining wall	1 m³	856	83,835.74	71,428,050.74
46	28-07-05	Cast retaining wall	1 m³	1,983.3	1,991,437.72	2,774,072,748.49
47	28-11-01	Install steel components for retaining-wall joints	1 m	482.09	5,599,893.49	2,699,652,652.4
48	28-16-09	Cast coping concrete for retaining wall	1 m³	193	1,369,317.8	86,267,021.45
49	28-10-16	Cast curb on top of retaining wall	1 m³	164	2,293,501.29	444,939,250.74
		Subtotal				**6,278,564,665.16**

Commissioning (Putting Bridge Facilities into Operation)

No.	Code	Work item name	Unit	Qty	Unit rate	Total
50	25-19-02	Clean debris prior to handover to operation	1 km	0.36	417,507.42	275,554.9
51	28-30-01	Commission the facility (per linear meter of bridge)	per lm	60	39,729.61	26,221,545.69
		Subtotal				26,497,100.59

Sum of unit prices (page): 52,465,646,949

AUDE LLC TRANSLATION BUREAU ATAMURA

Client Organization
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Design Organization
CSCEC AECOM Consultants, Mongolia Branch

Budget Code: CSCIC-R-1
Drawing Code: .....

"NEW RING ROAD"-Feasibility Study and Design Consultancy
/Cost Estimate for Highway Construction Works/

Total Estimated Cost: 158,456,176,290 MNT

Approved by:
CSCEC AECOM Consultants – Mongolia Branch
Project Director : Ch.Qing /...../
Date: 2025-07-02

Estimate Prepared by:
Cost Estimator B. Tumurdulam */Signed&stamped/*
Date: 2025-07-02

Estimate Reviewed by:
Lead Cost Estimator L. Batkhuu */Signed&stamped/*
Date: 2025-07-02

Address of Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st Khoroo (14251), Chinggis Avenue 106, Room 504

KUDE LLC
TRANSLATION BUREAU

UNIT RATES AND TOTAL COST ESTIMATE

TEMPORARY WORKS & SITE / PRODUCTION PREPARATION

№	Norm code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
1	25-01-01	Erect a ger (yurt)	1 ger	10	490,751.38	4,907,513.78
2	25-01-03	Install portable monitoring cabin	pc	5	568,191.64	2,840,958.18
3	25-01-06	Install water-storage tank	pc	2	445,115.49	890,230.97
4	25-01-08	Install container	pc	2	396,340.27	792,680.54
5	25-01-11	Install portable hot-water/shower cabin	pc	2	853,150.56	1,706,301.12
6	25-01-12	Install portable office cabin	pc	2	876,544.98	1,753,089.96
7	25-01-13	Install guard cabin	pc	1	332,902.58	332,902.58
8	25-01-14	Install laboratory cabin	pc	1	927,807.93	927,807.93
9	25-01-24	Portable bio-toilet (rental)	month	20	767,903.83	15,358,076.58
10	25-15-07	Install project information board	pc	2	1,211,890.83	2,423,781.66
		Subtotal				**31,925,260.54**

ROAD ALIGNMENT SET-OUT

№	Norm code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
11	25-02-02	Set out road alignment (GPS)	km	8.6	2,701,046.34	23,228,998.50
		Subtotal				**23,228,998.50**

CLEARING ALONG ALIGNMENT & WORKSITE

№	Norm code	Work item	Unit	Qty	Unit rate	Total (MNT)
12	26-04-31	Break & excavate existing asphalt concrete	m³	2,334	403,810.62	942,493,980.95
13	25-15-01	Remove existing traffic signs	pc	172	290,107.06	49,888,413.67
14	26-05-22	Remove existing curb/edging by machine	m	1,191	17,325.60	20,634,792.19
		Subtotal				**1,013,027,186.81**

EARTHWORKS

№	Norm code	Work item	Unit	Qty	Unit rate	Total (MNT)
15	25-04-01	Strip vegetation/topsoil with bulldozer	m²	93,063	11,496.22	1,069,872,516.23
16	25-04-04	Level & compact embankment subgrade	m²	580,528	818.51	475,169,223.39
17	25-07-03	Excavate hard material	m³	340,114	37,178.86	12,645,004,151.85
18	25-07-12	Excavate, load & dispose unsuitable material	m³	366,742	10,895.42	3,995,808,541.57
19	25-07-06	Haul selected material & build embankment	m³	340,114	16,289.90	5,540,423,678.05
20	25-07-05	Borrow/haul material & build embankment	m³	728,762	30,761.19	22,365,521,095.01
21	25-12-01	Grade side slopes with motor-grader	m²	64,374	743.73	47,876,827.06
		Subtotal				**46,140,751,717.03**

AUDE LLC TRANSLATION BUREAU

SOIL REPLACEMENT

№	code	Work item	Unit	Qty	Unit rate	Total (MNT)
22	26-01-22	Replace soil (excavate & backfill with suitable)	m³	108,522	37,326.31	4,050,725,584.27
23	25-22-06	Install XPS thermal-insulation board, h=5 cm	m²	135,652	21,209.27	2,877,079,557.55
		Subtotal				**6,927,805,141.82**

ROAD SHOULDERS (GRAVEL / CONCRETE)

№	Code	Work item	Unit	Qty	Unit rate	Total
24	25-11-02	Construct gravel shoulder manually (post-paving)	m³	25.5	48,315.33	1,232,040.94
25	28-10-15	Construct a **concrete shoulder**, B25	m³	25.5	649,068.94	16,551,257.93
		Subtotal				**17,783,298.87**

TEMPORARY & AUXILIARY ROAD WORKS

№	code	Work item	Unit	Qty	Unit rate	Total
26	25-06-01	Construct temporary road	km	5	31,707,932.62	158,539,663.09
27	25-06-05	Improve temporary road & technical reinstatement	km	5	1,863,227.19	9,316,135.94
		Subtotal				**167,855,799.03**

ROAD BASE / FOUNDATIONS

№	code	Work item	Unit	Qty	Unit rate	Total
28	25-08-03	Crushed-stone base course, h = 40 cm	m³	98,396	75,195.00	7,398,887,098.35
29	25-08-07	Cement-stabilized crushed-stone base, h = 20 cm, 5%	m³	45,491	127,426.32	5,796,750,520.96
30	25-08-06	Cement-stabilized well-graded base mix, h = 20 cm, 4%	m³	47,765	89,689.79	4,284,032,691.01
		Subtotal				**17,479,670,310.32**

SURFACING (PAVEMENT)

№	code	Work item	Unit	Qty	Unit rate	Total
31	25-10-01	Bitumen spray / prime coat	m²	216,622	3,230.39	699,773,377.95
32	25-10-04	Hot asphalt-concrete binder/base course, h = 7 cm	m³	15,164	826,240.58	12,529,112,135.15
33	25-10-02	Bituminous tack coat	m²	216,622	1,810.61	392,217,732.05
34	25-10-05	Hot asphalt-concrete wearing course, h = 4 cm	m³	8,665	860,645.23	7,457,490,912.01
		Subtotal				**21,078,594,157.16**

CURBS / EDGING

№	code	Work item	Unit	Qty	Unit rate	Total
35	25-09-01	C30 concrete curb (0.50×0.35×0.15 m)	m	60,860	137,509.30	8,368,815,985.77
36	25-09-01	C30 concrete curb (0.50×0.25×0.10 m)	m	17,200	135,094.95	2,323,633,225.97
37	25-09-01	Return / turning curb (0.65×0.25×0.10 m)	m	7,719	147,263.90	1,136,730,053.02
		Subtotal				**11,829,179,264.76**

PEDESTRIAN SIDEWALK

№	code	Work item	Unit	Qty	Unit rate	Total (MNT)
38	25-13-09	Sidewalk surface with colored paving slabs	m²	54,359	69,998.44	3,805,045,440.99
39	25-13-02	Sidewalk crushed-stone base, 15 cm	m³	8,154	66,714.80	543,992,449.80

AUDE LLC TRANSLATION BUREAU

40	28-03-12	Cement mortar 1:3, 3 cm	m³	734	590,307.30	433,285,555.90
		Subtotal				**4,782,323,446.69**

BICYCLE LANE

№	code	Work item	Unit	Qty	Unit rate	Total (MNT)
41	25-13-07	Asphalt-concrete wearing course, 4 cm	m³	3,423	850,324.01	2,910,659,059.57
42	25-10-02	Bituminous tack coat	m²	85,586	1,807.66	154,710,810.82
43	25-13-07	Construct asphalt-concrete mixture pavement, **5 cm** (base course)	m³	4,279	850,324.93	3,638,540,356.84
44	25-10-01	Bitumen spraying	m²	85,586	3,230.40	276,476,899.15
45	25-13-04	Construct **5% cement-stabilized crushed-stone base, 20 cm**	m³	17,793	118,838.23	2,114,488,670.56
46	25-13-02	Construct crushed-stone base, **40 cm**	m³	37,024	66,715.09	2,470,059,379.85
		Subtotal				**11,564,935,186.79**

Road furniture / equipment

№	code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
47	25-15-01	Install traffic sign *(1 sign on 1 post)*	pc	634	605,427.28	383,840,895.28
48	25-14-03	Machine-applied thermoplastic road markings	m²	31,309	49,561.71	1,551,727,656.75
49	25-15-07	Install traffic signal, Ø300	pc	18	3,209,418.09	57,769,525.56
50	25-15-07	Install pedestrian signal, Ø200	pc	36	1,696,920.65	61,089,143.40
51	26-15-06	Place traffic-safety barrels	pc	68	1,006,818.00	68,463,624.00
52	25-15-04	Install steel guardrail *(posts driven by equipment)*	m	4,520	212,772.57	959,472,010.69
53	25-15-09	Install information board	pc	15	17,673,212.62	265,098,189.32
54	25-15-08	Install information board *(type "F")*	pc	67	2,783,376.37	186,486,216.79
		Subtotal				**3,533,947,262.24**

Safety barrier

№	code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
55	28-16-09	Cast-in-situ concrete safety barrier, B25 *(rebar 219.3 t)*	m³	1,182	1,956,550.95	2,312,643,220.75
		Subtotal				**2,312,643,220.75**

Covering embankment side slopes with landscaping

№	Norm	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
56	25-07-01	Excavation	m³	9,720	12,094.52	117,558,752.88
57	25-16-08	Install precast RC blocks, B25	m³	7,715	1,215,434.30	9,377,075,622.50
58	25-16-08	Install arched drainage concrete blocks, B30	m³	362	2,067,480.81	748,427,944.57
59	25-10-24	Cast drainage channel with inlet, B25	m³	1,643	713,453.37	1,172,203,881.74
60	26-01-19	Hydroseeding of embankment side slopes	m²	45,259	13,097.76	592,791,648.80
61	26-01-19	Spray grass seeding on cut slopes	m²	14,149	14,707.82	208,100,933.08
62	25-24-220	Spread landscaping topsoil by hand	m³	4,245	16,325.53	69,301,874.85
63	25-24-152	Install geogrid / geonet	m²	1,761	32,851.21	57,850,987.00
64	25-24-157	U-shaped steel pins Ø8, 10×30 cm	pc	440	11,801.23	5,192,293.56
65	25-41-07	Set square wooden stakes 5×5×30 cm	pc	1,239	11,801.60	14,622,179.00

TRANSLATION BUREAU

66	26-01-19	Turfing / planting (grass, shrubs)	m²	4,966	13,097.76	65,043,035.8
		Subtotal				**12,428,169,110.08**

Drainage facilities

№	code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
67	26-05-30	Perforated storm-water pipe	m	327	11,983.05	3,918,458.90
68	26-05-30	Relocate storm-water pipe DN800	m	103	12,007.25	1,236,747.04
69	28-16-01	Excavation	m³	95,734	44,983.05	4,306,407,706.90
70	25-13-01	Construct sand bedding layer	m³	9,495	35,349.72	335,645,545.28
71	25-22-19	Install drainage pipe d=200 HDPE	m	3,350	238,382.34	798,580,824.09
72	25-22-19	Install drainage pipe d=300 HDPE	m	134	302,362.20	40,516,534.99
73	25-22-19	Install drainage pipe d=400 HDPE	m	9,773	374,793.97	3,662,861,484.83
74	25-22-19	Install drainage pipe d=500 HDPE	m	2,791	437,567.68	1,221,251,383.14
75	25-22-19	Install drainage pipe d=600 HDPE	m	201	479,817.81	96,443,379.53
76	25-22-19	Install drainage pipe d=800 HDPE	m	167	479,821.18	80,130,137.44
77	28-04-03	Automatic water-level measuring device (supply & install)	set	1	20,329,351.61	20,329,351.61
78	28-23-02	Trapezoidal concrete side channel, B25 (0.5×2×0.15 m)	m³	848	2,326,551.67	1,972,915,816.65
79	28-16-17	Backfilling	m³	57,440	45,650.62	2,622,171,465.30
		Subtotal				**15,162,408,835.70**

REINFORCED-CONCRETE DRAINAGE PIPES

№	code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
80	25-13-01	Construct sand bedding layer, h=50 cm	m³	1,568	35,349.27	55,427,650.29
81	28-16-07	Construct concrete base, h=10 cm	m³	314	800,500.66	251,357,206.65
82	28-16-09	Cast reinforced-concrete support	m³	45.6	1,413,063.15	64,435,679.46
83	28-16-05	Place RC pipe on concrete base, d1000	m	68	819,079.71	55,697,420.30
84	28-16-08	Cast headwall/wing-wall for pipe, d1000	m³	14.5	2,052,589.19	29,762,543.19

AURE LLC TRANSLATION BUREAU

85	28-18-02	Place RC pipe on concrete base, d1500	m	152	1,284,317.06	195,216,192.98
86	28-18-04	Cast headwall/wing-wall for pipe, d1500	m^3	48.3	1,661,203.41	80,236,124.92
87	28-25-04	Precast box-culvert elements on base, 2.0×2.0 m	m	239	5,748,604.92	1,373,916,575.73
88	28-25-03	Cast headwall/wing-wall for box culvert, 2.0×2.0 m	m^3	763	1,720,349.76	1,312,626,863.99
89	25-09-01	New in-situ storm-water channel, 1200×1200	m	1,360	277,099.63	376,855,499.47
90	28-23-03	Cast headwall/wing-wall for channel, 1.2×1.2 m	m^3	17.7	1,401,009.13	24,797,861.53
91	28-16-12	Spray-applied waterproofing	m^2	4,225	11,217.07	47,392,105.39
92	28-16-13	Stone pitching on side slopes with sand–cement mortar	m^2	462	151,691.83	70,081,627.14
93	28-16-18	Trim channel cross-section with an excavator	m^3	280	15,782.67	4,419,148.60
		Subtotal				**3,942,222,499.64**

COMMISSIONING OF ROAD & STRUCTURES

№	Norm code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
94	25-20-02	Commission the road and road structures	km	8.6	650,309.16	5,592,658.76
95	25-19-02	Final cleaning of debris before commissioning	km	8.6	459,653.81	3,953,022.76
96	25-20-01	Prepare drawings for road and structures	km	8.6	1,181,385.08	10,159,911.71
		Subtotal				19,705,593.23

Grand Total (Sum of unit-priced items): 158,456,176,290 MNT

TRANSLATION BUREAU

TRANSLATION BUREAU

Client Organization:
Governor's Office of the Capital City

Design Organization:
"CSCEC AECOM Consultants" LLC
Estimate Code: CSCIC-3
Drawing Code: .....

"NEW RING ROAD" PROJECT

Feasibility Study and Concept Design
3rd Section – 2315 m Reinforced Concrete Bridge Design /Package-2/

Total Estimated Cost: 296,228,787,540 MNT

Approved by:
CSCEC AECOM Consultants Co., Ltd
Project Director:
(Signed&Stamped)
Ch. Qing
Date: _____ 2025

Estimate Prepared by:
Professional Estimator
(Signed&Stamped)
G.Davaajargal
Date: June 16, 2025

Address of the Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st khoroo, 14251,
Chinggis Avenue, Building 106, Room 504

AUDE LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

ORGANIZATIONAL PREPARATION

No	Code	Work Name	Unit	Quantity	Unit Price	Total Cost
1	25-01-03	Construction of guardhouse	pc	2	346,963.81	692,727.62
2	25-01-03	Construction of workers' temporary dormitory	pc	5	628,727.03	3,143,635.15
3	25-01-17	Construction of workers' temporary canteen	pc	2	948,340.4	1,896,690.8
4	25-01-21	Installation of machinery, equipment repair, and maintenance facilities	pc	1000	36,167.4	36,167,403.34
5	25-01-24	Temporary office (container)	month	48.17	760,853.17	36,650,297.39
6	25-01-31	Diesel generator installation (100 kW)	month	4	1,524,187.79	6,096,751.17
7	25-01-06	Implementation of bridge protection measures	month	48.17	1,408,045.82	67,892,655.71
		Subtotal				**152,473,053.08**

BUILDING STRUCTURE PREPARATION

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
8	28-01-01	Cleaning of strip area for bridge and pipeline installation	1 m²	69,450	2,687.87	186,672,643.10
9	28-01-02	Establishment of construction production dispatching area	1 m²	2,000	1,608.17	3,216,348.47
10	25-23-02	Loading, unloading, and stacking work of concrete plant into truck	1 set	1	70,018,580.95	70,018,580.95
11	25-23-04	Loading, unloading, and stacking work of stone crushing and screening plant into truck	1 set	1	111,062,591.22	111,062,591.22
12	25-15-07	Installation of object information board	1 pc	2	1,103,964.24	2,207,928.48

AUDI LLC
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13	28-02-05	Preparation of reinforcement (16–32 mm)	1 ton	2,002.90	1,940,180.80	3,885,988,127.79
		Total:				**4,259,166,220.01**

BRIDGE WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
14	28-05-01	Install bored pile foundation by drilling machine (φ1200)	1 m	16,570	1,924,630.33	31,891,124,596.56
15	28-05-01	Install bored pile foundation by drilling machine (φ1500 in dry soil)	1 m	4,120	2,431,366.30	10,017,229,141.67
16	28-03-05	Excavation inside diaphragm wall	1 m^3	68,290	14,319.27	977,862,976.33
17	28-03-12	Install concrete leveling layer	1 m^3	1,434.96	559,817.14	803,315,205.29
18	28-05-03	Pour temporary footing foundation (Rostverka)	1 m^3	10,970.90	1,716,969.60	18,836,701,837.62
19	28-05-03	Pour edge footing foundation (Rostverka)	1 m^3	1,443.75	1,230,978.15	1,777,224,708.67
20	28-07-09	Install cast-in-place edge beam foundation	1 m^3	1,199.10	1,719,922.95	2,062,359,606.69
21	28-16-17	Backfilling	1 m^3	55,870	72,033.96	4,024,537,132.04
22	28-07-10	Install cast-in-place main footing foundation	1 m^3	6,823.46	2,221,024.36	15,155,070,896.60
23	28-07-08	Install cast-in-place beam	1 m^3	7,788.70	2,482,743.94	19,337,347,721.74
24	28-08-08	Pour cast-in-place small aggregate cross girder	1 m^3	22,077.22	2,894,335.17	63,898,874,292.16
25	28-08-11	Pour cast-in-place cross girder connected with foundation	1 m^3	3,167.92	1,870,521.74	5,925,663,244.23

AUDE LLC
TRANSLATION BUREAU

26	28-08-03	Install support part GPZ30.0-JZGD-F	1 pc	5	31,627,690	158,138,449.99
27	28-08-03	Install support part GPZ30.0-JZZX-±100-F	1 pc	4	37,660,280.25	150,641,120.98
28	28-08-03	Install support part GPZ30.0-JZHX±50-F	1 pc	5	37,308,317.39	186,541,586.96
29	28-08-03	Install support part GPZ30.0-SX±100-F	1 pc	4	26,622,623.25	106,490,492.98

TRANSLATION BUREAU

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
30	28-08-03	Install support part GPZ10.0-JZZX±100-F	1 pc	10	9,562,820.86	95,628,208.56
31	28-08-03	Install support part GPZ10.0-SX±100-F	1 pc	12	7,326,076.38	87,912,916.59
32	28-08-03	Install support part LNR-370×470×147	1 pc	1,162	2,955,305.55	3,434,065,051.59
33	25-24-14	Install equipment for pouring on aggregate girder support	1 set	1	54,905,181.38	54,905,181.38
34	28-08-05	Install girder (Cast-in-place aggregate girder)	1 pc	581	4,982,245.25	2,894,684,491.38
35	28-08-07	Pour concrete on girder support	1 m^3	12,983.92	4,205,630.13	54,605,565,163.80
		Total:				**236,481,884,023.81**

REBAR REINFORCEMENT WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
36	28-27-06	Reinforce with rebar (25 m girder, 17 pcs, 1 set)	1 set	410	6,324,477.08	2,593,035,603.05
37	28-27-06	Reinforce with rebar (25 m girder, 19 pcs, 1 set)	1 set	410	6,804,952.31	2,790,030,445.51
38	28-27-03	Reinforce with rebar (cast-in-place aggregate girder, 30 m girder, 5 pcs, 1 set)	1 set	920	4,670,514.60	4,296,873,434.36
39	28-27-03	Reinforce with rebar (cast-in-place aggregate girder, 30 m girder, 6 pcs, 1 set)	1 set	1,789	3,627,568.42	6,489,719,905.62
40	28-27-01	Reinforce with rebar (cast-in-place aggregate girder, 42 m	1 set	106	15,369,603.24	1,629,177,943.46

AUDE LLC
TRANSLATION BUREAU

		girder, 15 pcs, 1 set)				
41	28-27-01	Reinforce with rebar (cast-in-place aggregate girder, 42 m girder, 17 pcs, 1 set)	1 set	220	16,886,911.18	3,715,120,458.77
42	28-08-11	Pour expansion joint concrete slab	1 m^3	6,444.75	2,089,215.06	13,464,468,760.23
43	28-10-17	Apply waterproofing membrane	1 m^2	67,502.50	41,092.16	2,773,823,622.99
44	25-10-01	Spray prime coat	1 m^2	67,502.50	3,229.79	218,018,950.32
45	25-10-05	Apply hot asphalt concrete wearing course	1 m^3	6,750.25	849,967.33	5,737,491,942.76
46	25-24-172	Install PVC drainage pipe	1 m	7,654	193,563.42	1,481,534,422.65
47	28-11-02	Install D80 steel guardrail	1 m	300	1,052,532.10	315,759,631.00
48	28-11-02	Install D120 steel guardrail	1 m	430	5,646,091.42	2,427,612,044.93
49	28-04-14	Install water outlet	1 pc	463	628,246.34	290,878,053.35
50	28-10-16	Cut bicycle lane and safety barrier concrete	1 m^3	3,518.80	1,985,790.06	6,987,598,052.83
51	28-10-07	Install bicycle lane metal fence	1 m	160	195,294.04	31,247,046.85
		Total:				**55,242,390,318.68**

PUTTING THE BRIDGE FACILITIES INTO STATE OPERATION

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
52	25-19-02	Cleaning waste before handing over bridge for operation	1 km	2.31	415,500.97	961,884.74
53	28-30-01	Commissioning the facility	per span	2,315	39,702.82	91,912,039.45
		Subtotal:				92,873,924.19
		TOTAL COST:				**296,228,787,540**

TRANSLATION BUREAU

Client Organization:
Governor's Office of the Capital City

Design Organization:
"CSCEC AECOM Consultants" LLC
Estimate Code: CSCIC-R-2
Drawing Code: .....

"NEW RING ROAD" PROJECT

Feasibility Study and Concept Design
/ROAD CONSTRUCTION WORK ESTIMATE/ /Package-2/

Total Estimated Cost: 117,725,898,330 MNT

Approved by: CSCEC AECOM Consultants Co., Ltd Project Director:	*(Signed&Stamped)*	**Ch. Qing** Date: July 02, 2025
Estimate Prepared by: Professional Estimator	*(Signed&Stamped)*	**B. Tumurdulam** Date: July 02, 2025
Estimate Prepared by: Chief Estimator:	*(Signed&Stamped)*	**L. Batkhuyag** Date: July 02, 2025

Address of the Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st khoroo, 14251,
Chinggis Avenue, Building 106, Room 504

AUDI LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

TEMPORARY BUILDING AND PRODUCTION PREPARATION WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
1	25-01-01	Build traditional ger	1 ger	8	465,035.80	3,720,286.37
2	25-01-03	Install workers' temporary housing	1 pc	4	568,161.82	2,272,647.29
3	25-01-06	Install water storage tank	1 pc	2	445,115.49	890,230.97
4	25-01-08	Install container	1 pc	2	396,340.27	792,680.54
5	25-01-11	Install temporary hot water facility	1 pc	2	853,120.75	1,706,241.50
6	25-01-12	Install temporary office facility	1 pc	2	876,515.16	1,753,030.31
7	25-01-13	Install temporary guardhouse	1 pc	1	322,790.77	322,790.77
8	25-01-14	Install temporary laboratory facility	1 pc	1	929,777.42	929,777.42
9	25-01-24	Install temporary bio toilet (monthly)	1 month	18	759,883.06	13,677,895.16
10	25-15-07	Install project information board	1 pc	2	1,212,078.75	2,424,157.49
		Subtotal:				**28,489,737.82**

ROAD ALIGNMENT SURVEYING

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
11	25-02-02	Road alignment surveying (GPS)	1 km	6.9	2,701,202.42	18,638,296.72
		Subtotal:				**18,638,296.72**

FACTORY, PLANT LOADING, UNLOADING, DISMANTLING, AND STACKING WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
12	25-23-04	Loading, unloading, dismantling, and stacking stone crushing and sorting plant onto truck	1 set	1	68,712,186.83	68,712,186.83
		Subtotal:				**68,712,186.83**

ROAD ALIGNMENT AND SITE CLEARING WORKS

TRANSLATION BUREAU

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
13	26-04-31	Remove asphalt concrete pavement with pneumatic hammer	1 m^3	394	397,401.79	156,576,306.47
14	25-15-01	Remove existing road signs	1 pc	138	289,887.92	40,004,533.10
15	26-05-22	Mechanically remove old roadside barriers	1 m	201	16,637.71	3,344,179.06
		Subtotal:				199,925,018.63

EARTHWORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
16	25-04-01	Bulldozer stripping of vegetation layer	1 m^3	31,485	11,496.26	361,959,877.69
17	25-04-04	Excavation, compaction of subgrade soil	1 m^2	306,875	818.51	251,181,508.67
18	25-07-03	Excavation and loosening of hard material	1 m^3	802,121	37,174.66	29,818,577,655.02
19	25-07-12	Excavation, loading, and hauling of suitable material	1 m^3	1,564,035	10,895.44	17,040,857,224.29
20	25-07-06	Embankment construction from excavation with bulldozer	1 m^3	256,238	15,804.51	4,049,715,859.96
21	25-12-01	Slope grading with motor grader	1 m^2	46,927	743.72	34,900,351.56
		Subtotal:				**51,557,192,477.19**

SOIL REPLACEMENT WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
22	26-01-22	Perform soil replacement	1 m^3	89,168	22,241.42	1,983,223,167.03
23	25-22-06	Install XPS (extruded polystyrene) thermal insulation board, h=5 cm	1 m^2	111,460	21,234.20	2,366,763,653.78
		Subtotal:				**4,349,986,820.81**

TRANSLATION BUREAU

ROAD GRAVEL BASE CONSTRUCTION

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
24	25-11-02	Construct gravel base manually (gravel base below asphalt layer)	1 m^3	10.5	31,867.38	334,607.45
25	28-10-15	Construct concrete base, B25	1 m^3	10.5	649,093.90	6,815,485.90
		Subtotal:				**7,150,093.35**

TEMPORARY AND AUXILIARY ROAD WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
26	25-06-01	Construct temporary road	1 km	5	15,245,169.03	76,225,845.13
27	25-06-05	Rehabilitate and restore temporary road after use	1 km	5	1,863,173.94	9,315,869.68
		Subtotal:				**85,541,714.81**

ROAD FOUNDATION WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
28	25-08-03	Construct base with crushed stone mix (reinforced), h=40 cm	1 m^3	44,910	66,779.28	2,999,057,439.20
29	25-08-07	Construct base with cement-stabilized crushed stone mix, h=20 cm, 5%	1 m^3	20,763	125,218.70	2,599,915,836.07
30	25-08-06	Construct base with cement-stabilized graded mixture, h=20 cm, 4%	1 m^3	21,801	87,481.94	1,907,193,720.37
		Subtotal:				**7,506,166,995.64**

PAVEMENT WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
31	25-10-01	Apply bitumen spray	1 m^2	98,870	3,234.20	319,765,383.92
32	25-10-04	Construct hot asphalt concrete	1 m^3	6,921	830,327.91	5,746,699,465.96

AUDE LLC TRANSLATION BUREAU

		base layer (h=7 cm)				
33	25-10-02	Apply bituminous tack coat	1 m²	98,870	1,812.53	179,204,541.73
34	25-10-05	Construct hot asphalt concrete wearing course (h=4 cm)	1 m³	3,955	864,732.19	3,420,015,798.16
		Subtotal:				**9,665,685,189.77**

ROAD CURB INSTALLATION

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
35	25-09-01	Install C30 concrete curb (0.5 × 0.25 × 0.10 m)	1 m	32,680	160,354.50	5,240,385,157.37
36	25-09-01	Install radius curb (0.65 × 0.25 × 0.1 m)	1 m	9,340	172,566.69	1,611,772,845.93
		Subtotal:				**6,852,158,003.30**

PEDESTRIAN ROAD WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
37	25-13-09	Construct pedestrian road with colored paving tiles	1 m²	29,553	70,325.47	2,078,328,682.29
38	25-13-02	Construct pedestrian road base with crushed stone mix, 15 cm	1 m³	4,433	58,298.87	258,438,902.36
39	28-03-12	Cement mortar with 1:3 ratio, 3 cm	1 m³	399	590,309.18	235,533,363.04
		Subtotal:				**2,572,300,947.69**

BICYCLE ROAD WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
40	25-13-07	Construct asphalt concrete pavement, thickness 4 cm	1 m³	1,861	854,411.27	1,590,059,365.71
41	25-10-02	Apply bituminous tack coat	1 m²	46,536	1,809.56	84,209,877.95
42	25-13-07	Construct asphalt concrete pavement, thickness 5 cm (base layer)	1 m³	2,327	854,411.62	1,988,215,850.47

TRANSLATION BUREAU

43	25-10-01	Apply bitumen spray	1 m²	46,536	3,234.21	150,507,105.84
44	25-13-04	Construct 5% cement-stabilized crushed stone base, 20 cm	1 m³	9,773	116,795.78	1,141,445,202.21
45	25-13-02	Construct crushed stone base, 40 cm	1 m³	20,132	58,299.31	1,173,681,659.20
		Subtotal:				**6,128,119,061.38**

ROAD EQUIPMENT WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
46	25-15-01	Install road signs (1 sign per pole)	1 pc	255	605,347.76	154,363,677.82
47	25-14-03	Apply thermoplastic paint with road marking machine	1 m²	19,456	49,577.18	964,573,522.86
48	25-15-07	Install traffic lights, Ø300	1 pc	10	3,212,085.70	32,120,856.95
49	25-15-07	Install pedestrian traffic lights, Ø200	1 pc	20	1,698,007.76	33,960,155.21
50	25-16-05	Install anti-glare screens	1 pc	18	1,007,340.31	18,132,125.62
51	25-15-04	Install road steel guardrail (with drilling equipment)	1 m	2,880	212,344.16	611,551,175.82
52	25-15-09	Install road information board	1 pc	4	17,688,941.42	70,755,765.69
53	25-15-08	Install road information board (F-type board)	1 pc	29	2,784,413.29	80,747,985.39
		Subtotal:				**1,966,205,265.36**

PROTECTIVE BARRIER WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
54	28-16-09	Construct protective concrete barrier, B35 (Rebar 205.05 tn)	1 m³	1,105	1,956,544.27	2,161,981,416.44
		Subtotal:				**2,161,981,416.44**

SLOPE GREENING WORKS (EMBANKMENT SLOPE LANDSCAPING)

ALIDE LLC TRANSLATION BUREAU ATANBOL K 670033

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
55	25-07-01	Construct excavation	1 m^3	7,450	12,094.21	90,101,837.42
56	25-16-08	Install retaining reinforced concrete block /B25/	1 m^3	6,235	1,218,306.97	7,596,143,950.95
57	25-16-08	Install arch-shaped reinforced concrete block /B30/	1 m^3	292	2,073,464.09	605,451,513.81
58	28-10-15	Pour irrigation channel foundation together with formwork /B25/	1 m^3	923	713,428.48	658,494,489.36
59	26-01-19	Plant slope grass along embankment	1 m^2	36,573	13,097.78	479,025,147.94
60	26-01-19	Spray planting grass on slope with excavation	1 m^2	9,504	14,708.74	139,791,868.44
61	25-24-220	Spread topsoil for landscaping	1 m^3	2,851	16,325.67	46,544,497.36
62	25-22-06	Install geo-net	1 m^2	294	32,851.70	9,658,398.45
63	25-24-157	Install U-shaped steel stake (Ø8, 10×30 cm)	1 pc	75	11,804.07	885,305.11
64	25-24-157	Install square wooden stake (5×5×30 cm)	1 pc	201	11,800.81	2,371,963.39
65	26-01-19	Landscaping (grass, shrubs)	1 m^2	848	13,097.65	11,106,804.62
		Subtotal:				**9,639,575,776.85**

DRAINAGE FACILITY WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
66	28-16-01	Excavation	1 m^3	60,932	40,155.56	2,446,758,664.35
67	25-13-01	Install sand cushion layer	1 m^3	6,868	26,787.45	183,976,203.70
68	25-22-19	Install drainage pipe d=200 HDPE	1 m	2,211	238,404.02	527,111,295.85
69	25-22-19	Install drainage pipe d=400 HDPE	1 m	5,912	374,816.31	2,215,914,001.66
70	25-22-19	Install drainage pipe d=500 HDPE	1 m	2,378	437,589.96	1,040,588,913.24

AQUB LLC TRANSLATION BUREAU

71	28-04-03	Automatic water level measuring equipment	1 set	1	20,330,130.99	20,330,130.99
72	28-23-02	Trapezoidal concrete channel, B25 (0.5×2×0.15 m)	1 m³	1,986	2,326,542.14	4,620,512,687.26
73	28-16-17	Backfilling	1 m³	36,559	45,165.28	1,651,197,550.78
		Subtotal:				**12,706,389,447.83**

REINFORCED CONCRETE PIPE DRAINAGE WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
74	25-13-01	Install sand cushion layer, h=50 cm	1 m³	382	26,782.09	10,230,758.24
75	28-16-07	Construct concrete foundation, h=10 cm	1 m³	76	800,483.69	60,836,760.12
76	28-16-09	Pour reinforced concrete footing	1 m³	44.5	1,413,014.23	62,879,133.05
77	28-16-05	Install reinforced concrete pipe foundation, d=1000	1 m	123	822,275.49	101,139,885.10
78	28-16-08	Pour pipe head and wing wall, d=1000	1 m³	29.1	2,052,586.83	59,730,276.84
79	28-18-02	Install reinforced concrete pipe foundation, d=1500	1 m	200	1,290,461.91	258,092,382.48
80	28-18-04	Pour pipe head and wing wall, d=1500	1 m³	72.4	1,661,174.26	120,269,016.10
81	28-25-04	Install precast box culvert (2.0×2.0 m)	1 m	88	5,770,250.12	507,782,010.69
82	28-25-03	Pour pipe head and wing wall, 2.0×2.0 m	1 m³	254	1,720,346.14	436,967,920.21
83	25-09-01	Open channel for spring water catchment 1500×1500	1 m	1,280	363,267.56	464,982,475.27
84	28-23-03	Pour spring water intake head and wing wall, 1.5×1.5 m	1 m³	24.9	1,400,901.79	34,882,454.45
85	28-16-12	Apply waterproof coating	1 m²	352	11,215.55	3,947,872.02

TRANSLATION BUREAU

86	28-16-13	Construct sand-cement mortar slope protection on embankment slope	1 m²	462	151,686.23	70,079,040.26
87	28-16-18	Adjust irrigation ditch with excavator	1 m³	280	15,779.24	4,418,186.26
		Subtotal				**2,196,238,171.09**

PUTTING ROAD AND ROAD FACILITIES INTO STATE OPERATION

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
88	25-20-02	Commission road and road facilities for operation	1 km	6.9	650,341.37	4,487,355.48
89	25-19-02	Cleaning before road commissioning	1 km	6.9	406,133.13	2,802,318.61
90	25-20-01	Prepare as-built drawings of road and road facilities	1 km	6.9	1,181,454.20	8,152,033.96
		Subtotal:				15,441,708.05
		TOTAL COST:				**117,725,898,330**

TRANSLATION BUREAU

Client Organization:
Governor's Office of the Capital City

Design Organization:
"CSCEC AECOM Consultants" LLC
Estimate Code: CSCIC-16
Drawing Code: .....

"NEW RING ROAD" PROJECT

Feasibility Study and Concept Design
ESTIMATE FOR 5×5 DOUBLE ARTIFICIAL STRUCTURES /Package-2/

Total Estimated Cost: 11,515,189,737 MNT

Approved by:
CSCEC AECOM Consultants Co., Ltd
Project Director: *(Signed&Stamped)* **Ch. Qing**
Date: _____ 2025

Estimate Prepared by:
Professional Estimator *(Signed&Stamped)* G.Davaajargal
Date: June 16, 2025

Address of the Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st khoroo, 14251,
Chinggis Avenue, Building 106, Room 504

TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

TEMPORARY BUILDINGS AND PRODUCTION PREPARATION WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
1	25-01-13	Install temporary guardhouse	1 pc	1	346,363.80	346,363.80
2	25-01-03	Install temporary workers' housing	1 pc	2	630,944.26	1,261,888.52
3	25-01-11	Install temporary hot water facility	1 pc	1	952,774.88	952,774.88
4	25-01-18	Establish service yard for machinery and equipment maintenance	1 m²	500	36,298.37	18,149,187.27
5	25-01-24	Install temporary bio toilet	1 month	22.15	763,605.83	16,913,869.11
6	25-01-09	Install diesel station (generator)	1 pc	2	1,530,839.50	3,061,678.99
7	25-01-05	Install temporary kitchen facility	1 pc	1	964,869.48	964,869.48
8	28-01-06	Implement bridge guard and protection measures	1 month	22.15	5,706,154.13	126,391,313.97
		Subtotal:				**168,041,946.02**

BUILDING SITE PREPARATION

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
9	28-01-01	Cleaning the alignment area for bridge and culvert construction	1 m²	3,210	2,693.12	8,644,904.56
10	28-01-02	Establishing construction production site	1 m²	1,000	1,610.70	1,610,701.35
11	25-23-02	Loading, unloading, and stockpiling works for concrete batching plant	1 set	1	70,264,962.78	70,264,962.78
12	25-23-04	Loading, unloading, and stockpiling works for stone crushing and screening plant	1 set	1	111,444,493.09	111,444,493.09

TRANSLATION BUREAU

13	25-15-07	Install project information board	1 pc	2	1,108,398.72	2,216,797.43
14	28-10-10	Construct sand and gravel foundation under artificial structure	1 m^3	8,945.20	127,385.86	1,139,491,997.86
15	28-26-01	Construct reinforced concrete foundation	1 m^3	1,797.60	1,370,611.42	2,463,811,083.67
16	28-21-04	Cast the main body of artificial structure	1 m^3	3,381.20	2,144,494.05	7,250,963,265.09
17	28-05-15	Construct culvert headwall	1 m^3	93.6	1,603,368.90	150,075,329.40
18	28-16-15	Construct anti-seepage screen	1 m^3	20	446,177.42	8,923,548.31
19	28-10-08	Cast culvert floor concrete	1 m^3	45.6	735,631.47	33,544,794.83
20	28-16-14	Construct culvert inlet/outlet wing wall	1 m^3	140	727,481.05	101,847,346.86
		Subtotal:				**11,342,839,225.23**

COMMISSIONING OF BRIDGE FACILITIES

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
21	25-19-02	Cleaning waste before commissioning the bridge	1 km	0.11	418,911.96	44,823.58
22	28-30-01	Commissioning of the facility	1 per bridge	107	39,848.05	4,263,741.75
		Subtotal:				**4,308,565.33**
		Grand Total:				**11,515,189,737**

AUDI LLC
TRANSLATION BUREAU
ATAGUN & SIDDIQI

Client Organization:
Governor's Office of the Capital City

Design Organization:
"CSCEC AECOM Consultants" LLC

"NEW RING ROAD" PROJECT

Feasibility Study and Concept Design
Tunnel /Package2/

Approved by:
CSCEC AECOM Consultants Co., Ltd
Project Director:

(Signed&Stamped)

Ch. Qing
Date: _____ 2025

Address of the Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st khoroo, 14251,
Chinggis Avenue, Building 106, Room 504

Tunnel Work Estimate
(Based on the cost estimation methodology of tunnel works in

TRANSLATION BUREAU

A.

Description	Unit	Quantity	Unit Price (CNY)	Total (CNY)	Unit Price (MNT)	Total (MNT)
1. Earthworks						
Tunnel excavation	m^3	798,872.03	179.66	143,525,348.91	88,033.40	70,327,420,965.80
Concrete lining for open tunnel sections	m^3	2,474.01	1,634.82	4,044,561.03	801,061.80	1,981,834,903.82
Backfilling for open tunnel sections	m^3	992.25	2,022.48	2,006,805.78	991,015.20	983,334,832.20
Slope cutting at tunnel portal	m^3	871.51	1,527.40	1,331,144.37	748,426.00	652,260,743.26
Concrete aggregate / drainage installation	m^3	778.8	970.37	755,724.16	475,481.30	370,304,836.44
Base structure of tunnel pier	m^3	74.58	856.33	63,865.09	419,601.70	31,293,894.79
Slope protection	m^2	1,205.60	1,345.15	1,621,712.84	659,123.50	794,639,291.60
Double-arch structure support	m^3	191.77	1,642.23	314,930.45	804,692.70	154,315,919.08
Steel pipe shed support	m	6,190.00	335.86	2,078,973.40	164,571.40	1,018,696,966.00
Advance forepoling pipes for tunnel excavation	m	246,365.00	137.12	33,781,568.80	67,188.80	16,552,968,712.08
Shotcrete for main tunnel	m^2	52,904.78	3,415.48	180,695,217.99	1,673,585.20	88,540,656,817.26
Anchor	t	528.29	84,369.38	44,571,499.76	41,340,996.20	21,840,034,882.50
Main tunnel	m^3	106,967.39	1,755.10	187,738,466.19	859,999.00	91,991,848,432.61

ADDE LLC TRANSLATION BUREAU

concrete lining						
Cross passage shotcrete	m²	1,583.92	228.04	361,197.12	111,739.60	176,986,587.23
Cross passage concrete lining	m³	440.08	1,174.85	517,027.99	575,676.50	253,343,714.12
Main tunnel pavement	m²	17,400.00	316.29	14,992,146.00	154,982.10	7,346,151,540.00
Pavement at diversion section	m²	140	589.24	82,493.60	288,727.60	40,421,864.00
Tunnel interior decoration	m²	107,890.02	262.26	28,295,236.65	128,507.40	13,864,665,956.15
Temporary facilities	set	1	53,278,587.87	39,990,264.23	26,081,650,358.14	26,081,650,358.14
Tunnel waterproofing materials	m²	204,770.08	118.54	19,418,346.69	58,083.38	11,893,737,345.42
Drainage pipe (rainwater drainage)	m	8,320.00	1,767.10	14,702,272.00	865,879.00	7,204,113,280.00
Tunnel road marking	m	4,160.00	31.67	131,747.20	15,518.30	64,556,128.00
Power cable trench at diversion section	m	26	2,050.15	53,303.90	1,004,573.50	26,118,911.00
Main drainage channel	m	4,160.00	497.34	2,068,934.40	243,696.60	1,013,777,856.00
Large concrete drainage well	m³	117.94	860.47	101,483.83	421,630.30	49,727,077.58
Concrete drainage outlet	pcs	4	53,411.84	213,647.36	26,171,801.60	104,687,206.40
Emergency exit	pcs	1	378,963.20	315,802.67	185,691,969.96	185,691,969.96
Construction supervision and monitoring	m	4160	1,396.96	5,811,353.60	684,510.40	2,847,563,264.00

AUDI LLC
TRANSLATION BUREAU

Tunnel ventilation equipment	m	4160	843.02	3,506,963.20	413,079.80	1,718,411,968.00
Tunnel water supply facilities	m	4160	170.41	708,905.60	83,500.90	347,363,744.00
Tunnel electrical and lighting facilities	m	4160	272.99	1,135,638.40	133,765.10	556,462,816.00
Subtotal				**734,936,583.21**		**369,015,042,783.35**

2. Road Traffic	Unit	Quantity	Unit Price (CNY)	Total Price (CNY)	Unit Price (MNT)	Total Price (MNT)
Traffic signboard	pcs	369	238.29	87,929.01	116,762.10	43,085,214.90
Road markings	m²	6905	76.01	524,849.05	37,244.90	257,176,034.50
Tunnel side guidance lights (activated when cars pass)	pcs	1091	66.9	72,987.90	32,781.00	35,764,071.00
Traffic lights	set	2	20,693.50	41,387.00	10,139,815.00	20,279,630.00
Radar speed detector (speed enforcement radar)	set	72	897.61	64,627.92	439,828.90	31,667,680.80
Surveillance camera	pcs	38	11,767.58	447,168.04	5,765,114.20	219,112,339.60
Subtotal				**1,238,948.92**		**607,084,970.80**

3. Ventilation	Unit	Quantity	Unit Price (CNY)	Total Price (CNY)
Tunnel ventilation fan (ventilator)	pcs	32	62,859.56	2,011,505.92
Monitoring equipment	set	10	34,928.12	349,281.20
Subtotal				**2,360,787.12**

4. Fire Protection	Unit	Quantity	Unit Price (CNY)	Total Price (CNY)
Tunnel interior fire safety system	pcs	1	2,769,053.25	2,769,053.25
Tunnel exterior fire safety system	pcs	1	147,656.34	147,656.34
Subtotal				**2,916,709.59**

TRANSLATION BUREAU

5. Electricity	Unit	Quantity	Unit Price (CNY)	Total Price (CNY)	Unit Price (MNT)	Total Price (MNT)
Electrical distribution panel (indoor)	pcs	29	15,957.30	462,761.75	7,819,077.00	226,753,233.00
Electrical distribution panel (outdoor, upper level)	pcs	23	17,846.90	410,478.70	8,744,981.00	201,134,563.00
Low voltage distribution system	pcs	64	7,436.63	475,944.32	3,643,948.70	233,212,716.80
Power transmission cable	m	64,020.00	155.93	9,982,638.60	76,405.70	4,891,492,914.00
Others	set	1	140,883.24	140,883.24	69,032,787.60	69,032,787.60
Subtotal				**11,472,706.61**		**5,621,626,214.40**

6. Lighting	Unit	Quantity	Unit Price (CNY)	Total Price (CNY)	Unit Price (MNT)	Total Price (MNT)
Tunnel internal electrical supply and lighting equipment	m	4,160.00	672.02	2,795,603.20	329,289.80	1,369,845,568.00
Others	pcs	1	3,013,501.39	3,013,501.39	1,476,615,681.10	1,476,615,681.10
Subtotal				**5,809,104.59**		**2,846,461,249.10**

7. Monitoring and Inspection	Unit	Quantity	Unit Price (CNY)	Total Price (CNY)	Unit Price (MNT)	Total Price (MNT)
Monitoring system software	set	12	50,941.37	611,296.44	24,961,271.30	299,535,255.60
Tunnel management system	set	1	554,501.52	554,501.52	271,705,744.80	271,705,744.80

TRANSLATION BUREAU

Large display system	set	1	167,344.51	167,344.51	81,998,809.90	81,998,809.90
Video surveillance system	set	1	504,764.19	504,764.19	247,334,453.10	247,334,453.10
Variable message signs	set	1	511,124.02	511,124.02	250,450,769.80	250,450,769.80
Fire alarm system	set	1	751,881.42	751,881.42	368,421,895.80	368,421,895.80
Light intensity meter	set	4	5,913.79	23,655.16	2,897,757.10	11,591,028.40
Broadcasting system	set	89	9,574.13	852,097.57	4,691,323.70	417,527,809.30
Tunnel communication system	set	1	54,498.88	54,498.88	26,704,451.20	26,704,451.20
Tunnel field monitoring system	pcs	8	39,242.27	313,938.16	19,228,712.30	153,829,698.40
Power supply for monitoring system	set	1	2,021,049.67	2,021,049.67	990,314,338.30	990,314,338.30
Galvanized steel pipe	m	4,890.00	37.25	182,152.50	18,252.50	89,254,725.00
Subtotal				**6,518,304.04**		**3,208,668,979.80**

8. Project Measures	Unit	Quantity	Unit Price (CNY)	Total Price (CNY)	Unit Price (MNT)	Total Price (MNT)
Technical measures expense for construction work	pcs	1	1,760,575.47	1,760,575.47	862,681,980.30	862,681,980.30
Subtotal				1,760,575.47		862,681,980.30
Tunnel main works total			**767,043,719.55**			**384,747,539,565.45**

Tunnel Auxiliary Construction Work

B.

1. Fire Pump Room	Unit	Quantity	Unit Price (CNY)	Total (CNY)	Unit Price (MNT)	Total (MNT)

AUDE LLC TRANSLATION BUREAU ATAMURA

Foundation excavation	m³	1489.28	108.32	161,318.81	53,076.80	79,046,216.70
Backfilling work	m³	1030.38	45.1	46,470.14	22,099.00	22,770,367.62
Waste soil disposal	m³	1489.28	93.58	139,366.82	45,854.20	68,289,742.98
Foundation slab	m³	12.81	657.52	8,422.83	322,184.80	4,127,187.29
Reinforcement for above-ground floor concrete	t	30.68	5768.97	176,992.00	2,826,795.30	86,726,079.80
Beam and slab	m³	67.28	878.56	59,109.52	430,494.40	28,963,663.23
Column-shaped wall	m³	103.19	1105.87	114,114.73	541,876.30	55,916,215.40
Waterproofing black felt	m²	155.8	818.69	127,551.90	401,158.10	62,500,431.98
Waterproofing plant tar	m²	155.8	30.17	4,700.49	14,783.30	2,303,238.14
Interior & exterior waterproofing felt	m²	149.52	139.73	20,892.43	68,467.70	10,237,290.50
Interior & exterior plant tar	m²	64.11	30.17	1,934.20	14,783.30	947,757.36
Interior and exterior formwork connection	m	76	133.75	10,165.00	65,537.50	4,980,850.00
Rectangular column	m³	2.3	1509.65	3,472.20	739,728.50	1,701,375.55
Rectangular beam	m³	2.05	1607.23	3,294.82	787,542.70	1,614,462.54
Slab	m³	2.56	1347.36	3,449.24	660,206.40	1,690,128.38
Staircase	m³	5.4	1730.07	9,342.38	847,734.30	4,577,765.22
Reinforcement for staircase	t	1.85	5768.97	10,672.59	2,826,795.30	5,229,571.31
Cast-in-place concrete roof slab	m²	81.65	258.19	21,081.21	126,513.10	10,329,794.62
Ceiling and roof finishing work	m²	81.65	94	7,675.10	46,060.00	3,760,799.00
Block wall	m³	113.95	364.78	41,566.68	178,742.20	20,367,673.69
Wall plastering	m²	264.13	91.24	24,099.22	44,707.60	11,808,618.39
Wall surface spray painting	m²	179.29	8.67	1,554.44	4,248.30	761,677.71
Cement mortar floor	m²	81.65	52	4,245.80	25,480.00	2,080,442.00
Steel fire-resistant door	m²	7.2	622.63	4,482.94	305,088.70	2,196,638.64
Metal window (galvanized steel, insulated)	m²	2.7	347.26	937.6	170,157.40	459,424.98
Fine aggregate concrete floor	m²	7.2	27.78	200.02	13,612.20	98,007.84

TRANSLATION BUREAU

Rain protection, console slab, balcony slab	m²	1.62	570.38	924.02	279,486.20	452,767.64
Cement curb for wall drainage	m²	21.2	76.84	1,629.01	37,651.60	798,213.92
Cement mortar parapet	m	40.4	8.94	361.18	4,380.60	176,976.24
total:			**1,010,027.32**			**494,913,378.67**

Fire Pump Station – Electrical Supply & Ventilation	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**
Electrical distribution panel	pcs	4	15,327.18	61,308.72	7,510,318.20	30,041,272.80
Uninterruptible Power Supply (UPS)	set	1	6,883.99	6,883.99	3,373,155.10	3,373,155.10
Power cable	m	140	145.51	20,371.40	71,299.90	9,981,986.00
Ordinary light fixture	pcs	18	119.01	2,142.18	58,314.90	1,049,668.20
Lighting switch	pcs	2	24.29	48.58	11,902.10	23,804.20
Socket	pcs	2	51.75	103.5	25,357.50	50,715.00
Subtotal				**90,858.37**		**44,520,601.30**

Fire Pump Station – Ventilation	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**
Ventilation fan	pcs	2	5,139.59	10,279.18	2,518,399.10	5,036,798.20
Valve	pcs	2	313.22	626.44	153,477.80	306,955.60
Stainless steel ventilation duct, distribution equipment, ventilation valve	pcs	2	711.38	1,422.76	348,576.20	697,152.40
Total				**12,328.38**		**6,040,906.20**

Fire Pump Room Fire Extinguishing System	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**
Centrifugal pump with service function	pcs	6	6,971.07	41,826.42	3,415,824.30	20,494,945.80
Air pressure tank	pcs	1	5,739.83	5,739.83	2,812,516.70	2,812,516.70
Galvanized steel pipe	m	130	154.85	20,130.50	75,876.50	9,863,945.00
Covered pipe	pcs	14	869.44	12,172.16	426,025.60	5,964,358.40

TRANSLATION BUREAU

Low-pressure steel valve	pcs	16	1,224.80	19,596.80	600,152.00	9,602,432.00
Flexible connector (flexible pipe)	pcs	4	1,093.32	4,373.28	535,726.80	2,142,907.20
Sprinkler	pcs	4	685.93	2,743.72	336,105.70	1,344,422.80
Others	pcs	1	1,627.76	1,627.76	797,602.40	797,602.40
Fire extinguisher	pcs	2	139.9	279.8	68,551.00	137,102.00
Subtotal				**108,490.27**		**53,160,232.30**
Total for Fire Pump Station				**1,221,704.34**		**598,635,118.47**

2. Distribution Building						
Work Description	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**
Excavated rock volume	m^3	1355.88	108.32	146,868.92	53,076.80	71,965,771.58
Backfilling work	m^3	1336.68	45.1	60,284.27	22,099.00	29,539,291.32
Excess soil disposal	m^3	1355.88	93.58	126,883.25	45,854.20	62,172,792.70
Foundation layer	m^3	8.66	640.46	5,546.38	313,825.40	2,717,727.96
Foundation beam	m^3	27.46	1285.52	35,300.38	629,904.80	17,297,185.81
Foundation column	m^3	6.48	1431.56	9,276.51	701,464.40	4,545,489.31
Isolated foundation	m^3	19.2	900.43	17,288.26	441,210.70	8,471,245.44
Continuous beam	m^3	33.4	1920.46	64,143.36	941,025.40	31,430,248.36
Structural column	m^3	13.06	1508.24	19,697.61	739,037.60	9,651,831.06
Floor slab	m^3	39.88	1459.41	58,201.27	715,110.90	28,518,622.69
Reinforcement (rebar)	t	19.24	5768.97	110,994.98	2,826,795.30	54,387,541.57
Slab topping on reinforced beams	m^2	392.59	239.73	94,115.60	117,467.70	46,116,644.34
Block wall	m^3	839.1	364.78	306,086.90	178,742.20	149,982,580.02
Wall plastering	m^2	1678.2	92.33	154,948.21	45,241.70	75,924,620.94
Exterior wall paint	m^2	1051.2	8.67	9,113.90	4,248.30	4,465,812.96
Cement mortar screed	m^2	392.59	52	20,414.68	25,480.00	10,003,193.20
Steel fire-resistant door	m^2	40.14	622.63	24,992.37	305,088.70	12,246,260.42
Metal (aluminum alloy, insulated) window	m^2	48.6	347.26	16,876.84	170,157.40	8,269,649.64

TRANSLATION BUREAU

Fine aggregate concrete floor	m²	37.14	27.78	1,031.75	13,612.20	505,557.11
Rain canopy, cantilever slab, tension slab	m²	19.44	274.48	5,335.89	134,495.20	2,614,586.69
Roof	m²	79.75	119.72	9,547.67	58,662.80	4,678,358.30
Cement floor edge	m	194	8.94	1,734.36	4,380.60	849,836.40
Subtotal				**1,298,683.36**		**636,354,847.82**

2) Power Supply and Distribution of the Distribution Building						
Work Description	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**
Indoor and outdoor installed power distribution box	pcs	2	1021.54	2,043.08	500,554.60	1,001,109.20
Uninterruptible Power Supply (UPS)	set	1	6883.99	6,883.99	3,373,155.10	3,373,155.10
Power cable	m	100	63.64	6,364.00	31,183.60	3,118,360.00
Ordinary lighting fixture	set	76	107.53	8,172.28	52,689.70	4,004,417.20
Lighting switch	pcs	14	24.29	340.06	11,902.10	166,629.40
Socket (outlet)	pcs	30	34.6	1,038.00	16,954.00	508,620.00
Surveillance camera equipment	pcs	12	2214.91	26,578.92	1,085,305.90	13,023,670.80
Automatic alarm system configuration	system	1	32420.64	32,420.64	15,886,113.60	15,886,113.60
Others		1	119775.99	119,775.99	58,690,235.10	58,690,235.10
Subtotal			**203,616.96**			**99,772,310.40**

3) Ventilation of the Distribution Building						
Work Description	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**
Axial Fan	pcs	5	5840.22	29,201.10	2,861,707.80	14,308,539.00
Ventilator	pcs	2	32825.41	65,650.82	16,084,450.90	32,168,901.80
Subtotal			94,851.92			**46,477,440.80**

TRANSLATION BUREAU

4) Fire Extinguishing System of the Distribution Building						
Work Description	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**
Fire Extinguisher	pcs	14	104.47	1,462.58	51,190.30	716,664.20
Subtotal			**1,462.58**			**716,664.20**
Total for Distribution Building			**1,598,614.82**			**783,321,263.22**

3. Fire Water Tank						
Work Description	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**
Excavated Soil Volume	m^3	1442.1	8.92	12,863.53	4,370.80	6,303,130.68
Backfilling Work	m^3	1442.1	5.93	8,551.65	2,905.70	4,190,309.97
Surplus Excavation Disposal	m^3	789.93	20.24	15,988.18	9,917.60	7,834,209.77
Foundation Layer	m^3	18	705.78	12,704.04	345,832.20	6,224,979.60
Tank Wall	m^3	147.6	1105.68	163,198.37	541,783.20	79,967,200.32
Cast-in-place Reinforcement	t	21.16	5768.97	122,071.41	2,826,795.30	59,814,988.55
Pipe Support	kg	1	575.46	575.46	281,975.40	281,975.40
Cover Pipe	pcs	4	469	1,876.00	229,810.00	919,240.00
Steel Pipe	m	12	366	4,392.00	179,340.00	2,152,080.00
Others	-	1	24,966.87	24,966.87	12,233,766.30	12,233,766.30
Subtotal (Fire Water Tank Total):				**367,187.51**		**179,921,880.59**
Auxiliary Tunnel Facilities Total						
Grand Total:				**3,187,506.67**		**1,561,878,262.27**

C.

Tunnel Work Tariff Adjustment Expenses						
Description	**Unit**	**Quantity**	**Unit Price (CNY)**	**Total (CNY)**	**Unit Price (MNT)**	**Total (MNT)**

TRANSLATION BUREAU

Tariff Adjustment Expenses	pcs	1	51,654,576.18	51,654,576.18	25,310,742,328.20	25,310,742,328.20
Subtotal – Tunnel Work Tariff Adjustment Expenses Total:		51,654,576.18 (CNY) → 25,310,742,328.20 (MNT)				
Tunnel Work Total (A+B+C)		**821,885,802.40 (CNY) → 411,620,160,155.92 (MNT)**				
Additional Costs						
Item	**Amount (CNY)**			**Amount (MNT)**		
D Scale	29,670,024.51			14,538,312,009.90		
E Tax	76,640,024.42			37,553,611,965.80		
Tunnel Project Grand Total (A+B+C+D+E)	**928,195,851.33 (CNY) → 463,712,084,131.62 (MNT)**					

AUDE LLC
TRANSLATION BUREAU

Client Organization:
Governor's Office of the Capital City

Design Organization:
"CSCEC AECOM Consultants" LLC
Estimate Code: CSCIC-15
Drawing Code: .....

"NEW RING ROAD" PROJECT

Feasibility Study and Concept Design
AUXILIARY BRIDGE /Package-2/

Total Estimated Cost: 4,176,114,291 MNT

Approved by:
CSCEC AECOM Consultants Co., Ltd
Project Director:

(Signed&Stamped)

Ch. Qing
Date: _____ 2025

Estimate Prepared by:
Professional Estimator

(Signed&Stamped)

G.Davaajargal
Date: June 16, 2025

Address of the Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st khoroo, 14251,
Chinggis Avenue, Building 106, Room 504

MUIS LLC
TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

ORGANIZATIONAL PREPARATION

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
1	25-01-13	Install temporary guardhouse	1 pc	1	347,735.06	347,735.06
2	25-01-03	Install temporary workers' housing	1 pc	1	631,469.55	631,469.55
3	25-01-11	Install temporary hot water facility	1 pc	1	951,082.93	951,082.93
4	25-01-18	Establish service yard for machinery and equipment maintenance	1 m²	500	36,273.27	18,136,635.62
5	25-01-24	Install temporary bio toilet	1 month	13.37	762,983.85	10,201,094.13
6	25-01-09	Install diesel station (generator)	1 pc	2	1,528,987.20	3,057,974.39
7	28-01-06	Implement bridge guard and protection measures	1 month	13.37	5,702,400.16	76,241,090.17
		Subtotal:				**109,567,081.85**

BUILDING SITE PREPARATION

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
8	28-01-01	Cleaning the alignment area for bridge and culvert construction	1 m²	1,800	2,695.96	4,852,726.49
9	28-01-02	Establishing construction production site	1 m²	1,500	1,613.66	2,420,488.92
10	25-23-02	Loading, unloading, and stockpiling works for concrete batching plant	1 set	1	70,226,202.96	70,226,202.96
11	25-23-04	Loading, unloading, and stockpiling works for stone crushing and screening plant	1 set	1	111,380,475.78	111,380,475.78
12	25-15-07	Install project information board	1 pc	2	1,107,392.39	2,214,784.78

AUDE LLC
TRANSLATION BUREAU

13	28-02-05	Preparation of reinforcement cages (16–32 mm)	1 ton	44.4	1,945,863.96	86,394,413.86
		Subtotal:				**277,489,092.79**

BRIDGE WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
14	28-05-01	Construct bored pile foundation with drilling machine (φ1600 mm)	1 m	240	2,508,818.58	602,116,458.34
15	28-07-09	Cast reinforced concrete foundation and footing	1 m³	335.7	1,724,881.90	579,042,853.32
16	28-08-08	Cast small-span reinforced concrete beam	1 m³	464.1	2,903,324.41	1,347,432,858.05
17	28-08-11	Cast connection between column and beam	1 m³	58.6	1,841,013.35	107,883,382.20
18	28-08-03	Install bearing LNR-370×470×147	1 pc	24	2,963,791.37	71,130,992.99
19	28-08-05	Install girder (reinforced concrete beam)	1 pc	12	4,996,657.20	59,959,886.44
		Subtotal:				**2,767,566,431.34**

REINFORCEMENT WORKS

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
20	28-27-03	Reinforce RC beam (30 m span, 5 beams per set)	1 set	56	3,519,319.00	197,081,864.12
21	28-27-03	Reinforce RC beam (30 m span, 6 beams per set)	1 set	64	3,585,912.01	229,498,368.35
22	28-08-11	Cast diaphragm wall	1 m³	105	2,076,702.23	218,053,734.00
23	28-10-17	Construct waterproofing layer	1 m²	1,050	41,212.72	43,273,357.87
24	25-10-01	Apply prime coat	1 m²	1,050	3,239.66	3,401,645.38
25	25-10-05	Lay asphalt concrete wearing course	1 m³	42	852,408.79	35,801,169.26
26	25-10-04	Lay asphalt concrete base course	1 m³	63	728,283.00	45,881,829.18
27	25-24-172	Install PVC drainage pipe	1 m	35	194,111.50	6,793,902.39

ADDE LLC
TRANSLATION BUREAU

28	28-11-02	Install D80 expansion joint	1 m	88	1,055,535.21	92,887,098.25
29	28-08-14	Install water outlet hole	1 pc	12	629,977.08	7,559,724.95
30	28-10-16	Cast cyclist/pedestrian curb	1 m^3	60	2,314,060.36	138,843,621.85
		Subtotal:				**1,019,076,315.60**

Commissioning of Bridge Facility into Service

№	Reference Code	Work Name	Unit	Quantity	Unit Price	Total Price
31	25-19-02	Final cleaning before commissioning bridge	1 km	0.06	435,090.83	26,105.45
32	28-30-01	Commissioning of facility	1 unit/bridge	60	39,821.06	2,389,263.62
		Subtotal:				**2,415,369.07**
		Grand Total:				**4,176,114,291**

AUDE LLC
TRANSLATION BUREAU

Client Organization:
Governor's Office of the Capital City

Design Organization:
"CSCEC AECOM Consultants" LLC
Estimate Code: CSCIC-3
Drawing Code: .....

"NEW RING ROAD" PROJECT

Feasibility Study and Concept Design
Link road bridge connecting to the 7 buudal road intersection /Package2/

Total Estimated Cost: 83,731,660,823 MNT

Approved by:
CSCEC AECOM Consultants Co., Ltd
Project Director: *(Signed&Stamped)* **Ch. Qing**
Date: _____ 2025

Estimate Prepared by:
Professional Estimator *(Signed&Stamped)* G.Davaajargal
Date: June 16, 2025

Address of the Design Organization:
Ulaanbaatar, Sukhbaatar District, 1st khoroo, 14251,
Chinggis Avenue, Building 106, Room 504

TRANSLATION BUREAU

UNIT PRICE AND TOTAL COST ESTIMATE

ORGANIZATIONAL PREPARATION

No	Reference	Work Description	Unit	Quantity	Unit Cost	Total Cost
1	25-01-13	Install guard's temporary accommodation	1 pc	1	346,363.80	346,363.80
2	25-01-03	Install workers' temporary housing	1 pc	2	628,727.03	1,257,454.05
3	25-01-11	Install temporary hot water facility	1 pc	1	948,340.41	948,340.41
4	25-01-18	Establish service yard for machinery, equipment maintenance and servicing	1 m²	500	36,178.23	18,089,114.01
5	25-01-24	Install temporary bio-toilet (sewage)	1 month	48.17	767,408.71	36,966,077.75
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,524,187.79	3,048,375.57
7	28-01-06	Implement bridge security protection measures	1 month	48.17	1,408,486.04	67,846,772.42
		Total:				**128,502,498.01**

CONSTRUCTION SITE PREPARATION

No	Reference	Work Description	Unit	Quantity	Unit Cost	Total Cost
8	28-01-01	Clear alignment area for bridge/pipe construction	1 m²	29,577	2,690.94	79,590,034.68
9	28-01-02	Establish construction production yard	1 m²	1,500	1,609.26	2,413,890.94
10	25-23-02	Install, operate, and dismantle concrete batching plant	1 set	1	70,039,795.76	70,039,795.76
11	25-23-04	Install, operate, and dismantle stone crushing & screening plant	1 set	1	111,088,019.92	111,088,019.92
12	25-15-07	Install project information board	1 pc	2	1,103,964.24	2,207,928.48
13	28-02-05	Prepare reinforcement steel (16–32 mm)	1 ton	565.96	1,940,732.64	1,098,369,284.19

TRANSLATION BUREAU

		Total:				**1,363,708,953.97**

BRIDGE WORKS

No	Reference	Work Description	Unit	Quantity	Unit Cost	Total Cost
14	28-05-01	Install bored pile foundation using drilling machine (φ1000 mm)	1 m	6,540	1,664,876.51	10,888,292,360.95
15	28-03-05	Excavate soil inside retaining wall	1 m^3	10,602.90	14,323.13	151,866,713.34
16	28-03-12	Construct concrete leveling layer	1 m^3	139.17	559,956.08	77,929,087.94
17	28-05-03	Cast pile cap foundation (Rostverka)	1 m^3	1,579.50	1,266,764.87	2,000,855,113.84
18	28-05-03	Cast edge pile cap foundation (Rostverka)	1 m^3	348.3	1,268,077.59	441,671,423.08
19	28-07-09	Construct cast-in-place edge column	1 m^3	905.59	1,757,184.11	1,591,288,355.17
20	28-16-17	Perform backfilling	1 m^3	8,675.10	72,016.31	624,748,708.31
21	28-07-10	Construct large pile cap foundation	1 m^3	516.8	2,643,041.16	1,365,923,669.24
22	28-07-08	Construct cast-in-place beam	1 m^3	2,560.26	3,062,568.42	7,840,971,412.26
23	28-08-03	Install bearing part LNR-470×570×167	1 pc	90	3,968,854.62	357,196,915.43
24	25-24-14	Install equipment on pier cap	1 set	1	54,920,729.22	54,920,729.22
25	28-08-07	Construct pier column	1 m^3	10,453.80	4,794,946.81	50,125,415,013.04
26	28-08-11	Cast diaphragm	1 m^3	1,045.38	2,071,297.05	2,165,292,506.47
27	28-10-17	Install waterproofing	1 m^2	10,453.80	41,104.40	429,697,195.93
28	25-10-01	Apply prime coat	1 m^2	10,453.80	3,230.82	33,774,337.59
29	25-10-05	Place hot asphalt concrete surface course	1 m^3	418.15	850,178.78	355,502,257.64
30	25-10-04	Place hot asphalt concrete base course	1 m^3	627.23	726,410.19	455,626,260.50

AMDE LLC
TRANSLATION BUREAU

31	25-24-172	Install PVC drainage pipe	1 m	3,674.92	193,615.47	711,521,366.58
32	28-11-02	Install D80 transverse expansion joint	1 m	226.1	1,052,786.40	238,035,005.95
33	28-08-14	Install drainage manhole	1 pc	198	628,391.58	124,421,532.14
34	28-10-16	Cast concrete wheel guard and safety barrier	1 m^3	985.89	2,187,093.40	2,156,233,514.50
		Total:				**82,191,183,479.16**

LABORATORY TESTING AND ANALYSIS

No	Reference	Work Description	Unit	Quantity	Unit Cost	Total Cost
35	25-03-01	Soil testing	1 time	3	758,284.68	2,274,854.04
36	25-03-03	Sand testing	1 time	3	395,320.84	1,185,962.53
37	25-03-04	Stone testing	1 time	3	310,121.79	930,365.36
38	25-03-05	Cement testing	1 time	3	575,844.74	1,727,534.21
39	25-03-09	Cement concrete mix ratio check	1 time	3	564,680.93	1,694,042.78
40	28-28-01	Determine slump of concrete mix	1 time	3	50,238.82	150,716.47
41	28-28-03	Strength test of concrete structure/component	1 set	3	94,078.19	282,234.58
42	28-28-02	Collect cube and cylinder samples from concrete mix	1 time	3	121,791.08	365,373.25
		Subtotal:				**8,611,083.22**

COMMISSIONING OF BRIDGE FACILITIES

No	Reference	Work Description	Unit	Quantity	Unit Cost	Total Cost
43	25-19-02	Cleaning waste prior to bridge commissioning	1 km	0.99	458,518.22	452,098.96
44	28-30-01	Commissioning of the facility (per bridge)	1 per bridge	986	39,759.34	39,202,710.14
		Subtotal:				**39,654,809.10**
		TOTAL COST:				**83,731,660,823**

TRANSLATION BUREAU

'CSCEC AECOM CONSULTANTS' LLC
Expressway Interchange

Bridge at the Tuul

UNIT RATES AND TOTAL COST ESTIMATE

Site Organization / Mobilization

No.	Code	Work item name	Unit	Qty	Unit rate	Total (MNT)
1	25-01-13	Install portable guard house	1 pc	1	346,389.13	346,389.13
2	25-01-03	Install portable staff accommodation	1 pc	2	628,781.6	1,257,563.19
3	25-01-11	Install portable hot-water facility	1 pc	1	948,394.97	948,394.97
4	25-01-18	Establish repair & service yard for machinery/equipment	1 m³	500	36,274.12	18,137,061.4
5	25-01-24	Install portable bio-toilet(s)	1 month	48.17	761,012.05	36,657,950.39
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,528,058.59	3,056,117.18
7	28-01-06	Provide bridge security/guarding measures	1 month	48.17	1,408,603.68	67,852,439.38
		Subtotal				**128,255,915.64**

Construction Site Preparation

No.	Code	Work item name	Unit	Qty	Unit rate	Total (MNT)
8	28-01-01	Clearing of corridor for bridge/culvert works	1 m²	15,600	2,688.63	41,942,686.68
9	28-01-02	Set up construction production yard/site	1 m²	1,500	1,608.17	2,412,261.36
10	25-23-02	Concrete plant: loading/unloading, assembly & stacking	1 set	1	65,104,496.92	65,104,496.92
11	25-23-04	Crushing & screening plant: loading/unloading, assembly & stacking	1 set	1	91,296,118.11	91,296,118.11
12	25-15-07	Install project information board(s)	1 pc	2	1,104,983.77	2,209,967.54
13	28-02-05	Prepare reinforcement cages (16–32 mm)	1 t	500.33	1,940,831.65	971,062,122.7
		Subtotal				**1,174,027,653.31**

Bridge Works

No.	Code	Work item name	Unit	Qty	Unit rate	Total (MNT)
14	28-05-01	Construct bored pile foundation with drilling rig (φ1000 mm)	1 m	6,180	1,666,550.73	10,299,283,533.61
15	28-05-01	Construct bored pile foundation with drilling rig (φ1200 mm)	1 m	120	1,927,734.48	231,328,137.88
16	28-03-05	Excavate soil inside sheet-pile cofferdam	1 m³	13,240.26	14,324.36	189,658,260.49
17	28-03-12	Construct concrete leveling layer	1 m³	269.73	561,961.6	151,577,903.31
18	28-05-03	Cast pile-cap foundation of intermediate pier (rostverka)	1 m³	2,025	1,268,862.61	2,569,446,786.25
19	28-05-03	Cast pile-cap foundation of abutment (rostverka)	1 m³	382.32	1,270,186.22	485,617,596.83
20	28-07-09	Construct cast-in-place abutment	1 m³	212.67	1,759,329.03	374,156,504.57
21	28-16-17	Backfilling	1 m³	10,832.94	72,992.98	790,728,556.25
22	28-07-10	Construct cast-in-place intermediate pier body	1 m³	1,591.34	2,299,152.28	3,658,732,992.48
23	28-07-08	Construct cast-in-place cap beam (rigel)	1 m³	483	2,485,632.04	1,200,560,276.96
24	28-08-03	Install bearing GPZ50.0-JZGD-F	1 pc	2	31,636,473.88	63,272,947.76
25	28-08-03	Install bearing GPZ5.0-JZZX±100-F	1 pc	2	9,563,289.87	19,126,579.74
26	28-08-03	Install bearing GPZ5.0-JZHX±50-F	1 pc	2	37,320,356.15	74,640,712.29
27	28-08-03	Install bearing GPZ5.0-SX±100-F	1 pc	2	7,327,190.24	14,654,380.47
28	28-08-03	Install bearing GPZ3.0-JZZX±100-F	1 pc	4	9,564,771.04	38,259,084.17
29	28-08-03	Install bearing GPZ3.0-SX±100-F	1 pc	4	7,327,254.66	29,309,018.65
30	28-08-03	Install bearing LNR-470×570×167	1 pc	122	2,954,928.54	360,501,282.04

TRANSLATION BUREAU

No.	Code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
31	25-24-14	Install casting equipment on the box-girder support	1 set	1	54,920,729.22	54,920,729.22
32	28-08-07	Cast concrete on the box-girder support	1 m^3	8,310.45	4,281,500.07	35,581,192,291.24
33	28-27-01	Strengthen reinforcement for cast-in-place box girder (42 m girder; 1 set of 18 pcs)	1 set	448	9,843,077.47	4,409,698,704.96
		Subtotal				**60,596,666,279.17**

Reinforcement strengthening works

No.	Code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
34	28-27-06	Strengthen reinforcement (25 m crossbeam; 1 set of 17 pcs)	1 set	84	3,911,480.3	328,564,345.6
35	28-27-06	Strengthen reinforcement (25 m crossbeam; 1 set of 19 pcs)	1 set	84	4,108,132.51	345,083,130.86
36	28-27-01	Strengthen reinforcement for cast-in-place box girder (42 m girder; 1 set of 15 pcs)	1 set	124	19,086,736.12	2,366,755,279.12
37	28-27-01	Strengthen reinforcement for cast-in-place box girder (42 m girder; 1 set of 17 pcs)	1 set	290	21,143,343.79	6,131,569,699.08
38	28-08-11	Cast transition slab	1 m^3	977.7	2,073,414.23	2,027,177,089.3
39	28-10-17	Apply bonded waterproofing	1 m^2	9,777	41,107.51	401,908,081.38
40	25-10-01	Apply prime coat (liquid spray)	1 m^2	9,777	3,232.26	31,601,794.87
41	25-10-05	Wearing course with hot asphalt concrete	1 m^3	977.7	852,767.85	833,751,127.34
42	25-24-172	Install PVC drainage pipe	1 m	2,830	193,628.84	547,969,630.97
43	28-11-02	Install D80 expansion/deformation joint	1 m	190	1,053,164.73	200,101,297.86
44	28-08-14	Install water-outlet (scupper) spout	1 pc	104	628,416.73	65,355,339.8
45	28-10-16	Cast circular curb and safety barrier	1 m^3	793	2,189,274.22	1,736,094,457.89
		Subtotal				**15,015,931,277.04**

Commission the bridge for state operation

No.	Code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
46	25-19-02	Cleaning/garbage removal prior to handover	1 km	0.52	416,887.46	216,781.48
47	28-30-01	Commission the facility (per bridge)	1 r.m. (bridge)	520	39,719.38	20,654,077.8
		Subtotal				**20,870,859.28**

Total of unit prices: 76,935,751,984

AUDE LLC
TRANSLATION BUREAU

UNIT RATES AND TOTAL COST ESTIMATE

Site Organization / Mobilization

No.	Code	Work item name	Unit	Qty	Unit rate (MNT)	Total (MNT)
1	25-01-13	Install portable guard house	1 pc	1	348,018.52	348,018.52
2	25-01-03	Install portable staff accommodation	1 pc	2	631,225.68	1,262,451.36
3	25-01-11	Install portable hot-water facility	1 pc	1	951,653.74	951,653.74
4	25-01-18	Establish repair & service yard for machinery/equipment	1 m²	500	36,295.76	18,147,880.63
5	25-01-24	Install portable bio-toilet(s)	1 month	13.85	761,737.84	10,550,069.04
6	25-01-09	Install diesel power station (generator)	1 pc	2	1,529,930.78	3,059,861.55
7	28-01-06	Provide bridge security/guarding measures	1 month	13.85	5,705,940.54	79,027,276.51
		Subtotal				**113,347,211.34**

Construction Site Preparation

No.	Code	Work item name	Unit	Qty	Unit rate	Total
8	28-01-01	Clearing of corridor for bridge/culvert works	1 m²	1,920	2,696.76	5,177,778.81
9	28-01-02	Set up construction production yard/site	1 m²	1,500	1,614.42	2,421,630.00
10	25-23-02	Concrete plant: loading/unloading, assembly & stacking	1 set	1	70,609,351.72	70,609,351.72
11	25-23-04	Crushing & screening plant: loading/unloading, assembly & stacking	1 set	1	112,809,194.76	112,809,194.76
12	25-15-07	Install project information board(s)	1 pc	2	1,108,099.57	2,216,199.14
13	28-02-05	Prepare reinforcement cages (16–32 mm)	1 t	59.66	1,947,031.45	116,152,108.71
		Subtotal				**309,386,263.43**

Bridge Works

No.	Code	Work item name	Unit	Qty	Unit rate	Total
14	28-05-01	Construct bored pile foundation with drilling rig (φ1000 mm)	1 m	600	1,670,299.77	1,002,179,860.90
15	28-05-01	Construct bored pile foundation with drilling rig (φ1200 mm)	1 m	90	1,931,618.32	173,845,648.98
16	28-03-05	Excavate soil inside sheet-pile cofferdam	1 m³	757	14,368.90	10,877,259.95
17	28-03-12	Construct concrete leveling layer	1 m³	78	1,270,928.06	99,132,388.96
18	28-07-09	Construct cast-in-place abutment	1 m³	136	2,011,951.07	273,625,345.32
19	28-16-17	Backfilling	1 m³	13	2,618,447.39	34,039,816.12
20	28-07-10	Construct cast-in-place intermediate pier body	1 m³	569	73,218.2	41,661,153.09
21	28-07-08	Construct cast-in-place cap beam (rigel)	1 m³	112	2,921,773.53	327,238,635.34
22	28-08-03	Install bearing GYZ... (NR)	1 pc	8	1,580,651.85	12,645,214.76
23	28-08-03	Install box girders (precast box girder)	1 pc	2	4,999,986.6	9,999,973.2
24	28-27-03	Rebar strengthening for box girder (30 m girder, 1 set)	1 set	4	3,559,707.89	14,238,831.57
25	28-27-03	Rebar strengthening for box girder (30 m girder, 1 set with 5 pcs)	1 set	16	3,592,727.84	57,483,645.49
26	28-08-11	Cast transition slab	1 m³	109	2,039,926.21	222,351,945.34
27	28-08-15	[item title partly unreadable]	1 m²	24	32,330.29	775,927.92

No.	Code	Work item	Unit	Qty	Unit rate (MNT)	Total (MNT)
28	25-13-09	Construct pedestrian walkway surfacing with 10 mm anti-slip slabs	1 m^2	800	74,409.98	59,527,986.18
29	25-24-172	Install PVC drainage pipe	1 m	194	194,242.57	37,683,058.71
30	28-08-14	Install water-outlet spout	1 pc	12	630,385.17	7,564,622.01
31	28-08-06	Cast concrete stairs	1 m^3	369	2,590,594.78	955,929,473.75
32	28-10-07	Install bridge metal guardrail	1 m	1,128	385,403.21	434,734,823.74

Subtotal: 3,775,535,610.41

Commission the Bridge Structure for State Operation

No.	Code	Work item	Unit	Qty	Unit price	Total price
33	25-19-02	Cleaning/garbage removal prior to handover	1 km	0.06	407,627.81	26,088.18
34	28-30-01	Commission the facility (per bridge)	1 r.m. (bridge)	64	39,828.79	2,549,042.57

Subtotal: 2,575,130.75

Sum of unit prices: 4,200,844,216

AUDE LLC
TRANSLATION BUREAU

UNIT RATES AND TOTAL COST ESTIMATE

ORGANIZATIONAL PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
1	25-01-13	Install security guard's temporary house	1 pc	2	346,389.14	692,778.28
2	25-01-03	Install workers' temporary accommodation	1 pc	5	628,781.59	3,143,907.95
3	25-01-11	Install hot water temporary house	1 pc	2	948,394.97	1,896,789.94
4	25-01-18	Repair and service yard for machinery and equipment	1 m²	800	36,264.48	29,011,582.65
5	25-01-24	Install temporary bio toilet (septic type)	1 mo	48.17	759,594.36	36,589,660.36
6	25-01-05	Install diesel station (generator)	1 pc	3	1,528,058.59	4,584,175.78
7	28-01-06	Implement guard protection measures	1 mo	48.17	1,407,979.26	67,822,360.86
		Total				**143,741,255.82**

CONSTRUCTION SITE PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
8	28-01-01	Clean up bridge and pipeline construction site	1 m²	77,100	2,687.22	207,185,041.33
9	28-01-02	Prepare yard for building materials	1 m²	1,500	1,607.90	2,411,854.58
10	25-15-07	Install information board of the object	1 pc	2	1,104,983.77	2,209,967.54
11	28-02-05	Prepare reinforcement bars (16–32mm)	1 t	3,820.40	1,940,018.99	7,411,648,545.66
		Total				**7,623,455,409.11**

BRIDGE WORKS

TRANSLATION BUREAU

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
12	28-05-01	Install bored pile foundation with drilling machine (φ1000mm)	1 m	300	1,666,800.79	500,040,238.14
13	28-05-01	Install bored pile foundation with drilling machine (φ1200mm)	1 m	29,280	1,928,276.34	56,459,931,302.25
14	28-05-01	Install bored pile foundation with drilling machine (φ1500mm)	1 m	2,880	2,436,678.76	7,017,634,826.55
15	28-03-04	Excavation using steel tracked excavator	1 m²	0	0	0
16	28-03-05	Excavation of soil inside sheet pile	1 m³	59,907	14,318.16	857,758,310.48
17	28-03-12	Install concrete seal layer	1 m³	1,302	561,730.02	731,372,481.82
18	28-05-03	Cast temporary pile foundation (Rostverka)	1 m³	10,447	1,268,344.30	13,250,392,908.76
19	28-05-03	Cast permanent pile foundation (Rostverka)	1 m³	446	1,232,894.17	549,870,800.36
20	28-07-09	Install concrete abutment footing	1 m³	312	1,721,841.40	537,214,515.88
21	—	Install two waterproof membranes	1 m²	0	0	0
22	28-16-17	Backfilling	1 m³	49,014	73,078.97	3,581,892,759.04
23	28-07-10	Construct concrete abutment body	1 m³	6,078	2,151,144.04	13,074,653,493.79
24	—	Construct concrete riegel	1 m³	8,986	2,484,622.56	22,326,818,330.08
25	28-08-08	Install small aggregate dam under abutment	1 m³	23,659	2,896,878.96	68,537,259,298.97
26	28-08-11	Cast connection between dam and abutment on pile	1 m³	3,235	1,837,547.30	5,944,465,522.66
27	28-08-03	Install bearing part GPZ30.0-JZGD-F	1 pc	4	31,624,333.70	126,497,334.78
28	28-08-03	Install bearing part GPZ30.0-JZZX±100-F	1 pc	4	37,656,954.50	150,627,818
29	28-08-03	Install bearing part GPZ30.0-JZHX±50-F	1 pc	4	37,305,164.52	149,220,658.07

AUDE LLC
TRANSLATION BUREAU

30	28-08-03	Install bearing part GPZ30.0-SX±100-F	1 pc	4	26,617,081.57	106,468,326.29
31	28-08-03	Install bearing part GPZ10.0-JZZX±100-F	1 pc	8	9,560,553.19	76,484,425.51
32	28-08-03	Install bearing part GPZ10.0-SX±100-F	1 pc	8	7,324,453.55	58,595,628.41
33	28-08-03	Install bearing part LNR-370×470×147	1 pc	1,234	2,953,743.25	3,644,919,176.24
34	25-24-14	Install equipment for aggregate dam foundation	1 complete	1	54,901,984.63	54,901,984.63
35	28-08-05	Install dam foundation (aggregate dam foundation with water protection)	1 pc	617	4,981,889.94	3,073,826,091.86
36	28-08-07	Cast aggregate dam foundation	1 m³	9,854	4,207,466.44	41,460,374,258.72

Total: 242,271,220,491.29

REINFORCEMENT WORKS

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
37	28-27-06	Reinforcement (25 m riegel with 17 pcs, 1 set)	1 set	470	6,346,859.91	2,983,024,156.94
38	28-27-06	Reinforcement (25 m riegel with 19 pcs, 1 set)	1 set	470	6,830,069.49	3,210,132,660.60
39	28-27-03	Reinforcement for cast-in-place concrete dam (30 m dam with 5 pcs, 1 set)	1 set	2,031	3,401,136.66	6,907,708,558.73
40	28-27-03	Reinforcement for cast-in-place concrete dam (30 m dam with 6 pcs, 1 set)	1 set	3,954	3,671,322.12	14,516,407,674.66
41	28-27-01	Reinforcement for cast-in-place concrete dam (42 m dam with 15 pcs, 1 set)	1 set	61	19,079,140.82	1,163,827,589.86
42	28-27-01	Reinforcement for cast-in-place concrete dam (42 m dam with 17 pcs, 1 set)	1 set	126	21,134,965.29	2,663,005,626.95
43	28-08-11	Cast anchor slab	1 m³	6,678	2,072,569.14	13,840,616,720.56
44	28-10-17	Install waterproofing membrane	1 m²	4,007	41,089.58	164,645,953.19
45	25-10-01	Apply primer coat (Prime coat)	1 m²	4,007	3,229.54	12,940,780.39
46	25-10-05	Install hot asphalt concrete surface layer	1 m³	6,678	852,465.94	5,692,767,547.09

AUCE LLC
TRANSLATION BUREAU

47	25-10-04	Install hot asphalt concrete base layer	1 m³	2,671	728,724.04	1,946,421,899.73
48	29-01-12	Excavate 2.0 m high temporary retaining wall	1 m²	4,112	318,353.12	1,309,068,035.41
49	25-24-12	Install PVC water drainage pipe	1 m	13,364	193,550.08	2,586,603,288.32
50	28-11-02	Install D80 flexible joint	1 m	138	1,052,778.29	145,283,403.89
51	28-11-02	Install D120 flexible joint	1 m	511	5,645,546.55	2,884,874,239.18
52	28-13-01	Install lighting pole	1 pc	514	628,218.44	322,904,279.45
53	28-10-07	Install guardrail at bridge deck	1 m³	3,096	2,188,424.79	8,547,987,233.32
54	28-10-07	Install metal railing on bridge deck	1 m	400	195,282.51	78,113,700.25

Total: 68,976,332,700.86

COMMISSIONING THE BRIDGE FACILITY INTO STATE USE

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
55	25-19-02	Cleaning waste before commissioning the bridge	1 km	2.57	405,197.14	1,041,356.65
56	28-30-01	Commissioning the facility	1 lm	2,570	39,688.64	101,999,796.17

Total: 103,041,152.82

AUGE LLC
TRANSLATION BUREAU

UNIT RATES AND TOTAL COST ESTIMATE

ORGANIZATIONAL PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
1	25-01-13	Install security guard's temporary house	1 pc	1	346,389.13	346,389.13
2	25-01-03	Install workers' temporary accommodation	1 pc	2	629,968.05	1,259,936.09
3	25-01-11	Install hot water temporary house	1 pc	1	948,394.97	948,394.97
4	25-01-18	Repair and service yard for machinery and equipment	1 m²	500	36,198.40	18,099,200.30
5	25-01-24	Install temporary bio toilet (septic type)	1 mo	20.17	761,364.98	15,356,731.73
6	25-01-09	Install diesel station (generator)	1 pc	2	1,526,600.83	3,053,201.65
7	28-01-06	Implement guard protection measures	1 mo	20.17	5,690,914.85	114,785,752.52

Total: 153,849,606.39

CONSTRUCTION SITE PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
8	28-01-01	Clean up bridge and pipeline construction site	1 m²	3,180	2,689.62	8,552,992.95
9	28-01-02	Prepare yard for building materials	1 m²	1,500	1,609.76	2,414,634.26
10	25-15-07	Install information board of the object	1 pc	2	1,105,212.56	2,210,425.12
11	28-02-05	Prepare reinforcement bars (16–32mm)	1 t	94.11	1,941,749.11	182,729,853.86

Total: 195,907,906.19

BRIDGE WORKS

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
12	28-05-01	Install bored pile foundation with drilling machine (φ1200mm)	1 m	300	1,944,238.14	583,271,441.37

AUDE LLC TRANSLATION BUREAU

13	28-05-01	Install bored pile foundation with drilling machine (φ1500mm)	1 m	720	2,433,409.18	1,752,054,611.22
14	28-03-05	Excavation of soil inside sheet pile	1 m³	4,492	14,331.07	64,375,179.96
15	28-03-12	Install concrete seal layer	1 m³	47	560,251.91	26,331,839.99
16	28-05-03	Cast temporary pile foundation (Rostverka)	1 m³	371	1,267,561.48	470,265,309.71
17	28-05-03	Cast permanent pile foundation (Rostverka)	1 m³	446	1,268,878.83	565,919,956.50
18	28-07-09	Install concrete abutment footing	1 m³	312	1,758,259.47	548,576,955.06
19	28-07-05	Cast permanent abutment wing	1 m³	107	2,426,751.15	259,662,372.63
20	28-16-17	Backfilling	1 m³	3,975	73,028.29	290,287,460.13
21	28-07-10	Construct concrete abutment body	1 m³	108	2,225,972.74	240,405,055.91
22	28-08-03	Install bearing part GPZ30.0-JZGD-F	1 pc	1	31,651,550.59	31,651,550.59
23	28-08-03	Install bearing part GPZ30.0-JZZX±100-F	1 pc	1	37,688,674.58	37,688,674.58
24	28-08-03	Install bearing part GPZ30.0-JZHX±50-F	1 pc	1	37,336,884.60	37,336,884.60
25	28-08-03	Install bearing part GPZ30.0-SX±100-F	1 pc	1	26,642,168.18	26,642,168.18
26	28-08-03	Install bearing part GPZ10.0-JZZX±100-F	1 pc	2	9,569,487.42	19,138,974.84
27	28-08-03	Install bearing part GPZ10.0-SX±100-F	1 pc	2	7,329,828.43	14,659,656.85
28	25-24-14	Install equipment for aggregate dam foundation	1 complete	1	54,949,874.63	54,949,874.63
29	28-08-07	Cast aggregate dam foundation	1 m³	2,703	4,209,293.75	11,377,721,014.85
30	28-27-01	Reinforcement for cast-in-place concrete dam (42 m dam with 15 pcs, 1 set)	1 set	17	18,854,881.96	320,532,993.32
№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
31	28-27-01	Reinforcement for cast-in-place concrete dam (42 m dam with 17 pcs, 1 set)	1 set	35	20,936,912.22	732,791,927.75
32	28-08-11	Cast anchor slab	1 m³	318	2,072,504.51	659,056,434.66

AUDE LLC
TRANSLATION BUREAU

33	28-10-17	Install waterproofing membrane	1 m²	3,180	41,127.53	130,785,541.60
34	25-10-01	Apply primer coat (Prime coat)	1 m²	3,180	3,233.57	10,282,738.20
35	25-10-05	Install hot asphalt concrete surface layer	1 m³	127	853,164.86	108,351,937.53
36	25-10-04	Install hot asphalt concrete base layer	1 m³	191	729,335.32	139,303,045.60
37	25-24-172	Install PVC water drainage pipe	1 m	352	193,722.61	68,190,359.47
38	28-11-02	Install D120 flexible joint	1 m	53	1,851,758.55	98,143,203.35
39	28-13-01	Install lighting pole	1 pc	24	628,758.05	15,090,193.15
40	28-10-16	Construct pedestrian sidewalk and safety barrier	1 m³	182	2,024,301.25	368,422,828.30

Total: 19,051,890,184.53

COMMISSIONING THE BRIDGE FACILITY INTO STATE USE

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
41	25-19-02	Cleaning waste before commissioning the bridge	1 km	0.12	415,100.08	49,812.01
42	28-30-01	Commissioning the facility	1 lm	120	39,723.79	4,766,854.74

Total: 4,816,666.75

GRAND TOTAL: 19,406,464,364

TRANSLATION BUREAU

UNIT RATES AND TOTAL COST ESTIMATE

TEMPORARY BUILDING AND PRODUCTION PREPARATION WORKS

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
1	25-01-13	Install security guard's temporary house	1 pc	1	346,389.13	346,389.13
2	25-01-03	Install workers' temporary accommodation	1 pc	2	633,255.27	1,266,510.53
3	25-01-11	Install hot water temporary house	1 pc	1	948,394.97	948,394.97
4	25-01-18	Repair and service yard for machinery and equipment	1 m²	500	36,299.92	18,149,960.07
5	25-01-24	Install temporary bio toilet (septic type)	1 mo	54.91	762,055.62	41,844,474.00
6	25-01-09	Install diesel station (generator)	1 pc	2	1,528,701.60	3,057,403.19
7	25-01-05	Install temporary kitchen house	1 pc	1	960,489.58	960,489.58
8	28-01-06	Implement guard protection measures	1 mo	54.91	5,708,507.02	313,454,120.32

Total: 380,027,741.79

CONSTRUCTION SITE PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
9	28-01-01	Clean up bridge and pipeline construction site	1 m²	10,230	2,693.27	27,552,199.59
10	28-01-02	Prepare yard for building materials	1 m²	1,000	1,614.94	1,614,943.03
11	25-23-02	Work for unloading, draining, drying of concrete plant with auto loader	1 set	1	70,629,247.79	70,629,247.79
12	25-23-04	Work for unloading, draining, drying of crushed stone plant with truck	1 set	1	112,845,099.06	112,845,099.06
13	25-15-07	Install information board of the object	1 pc	2	1,108,499.78	2,216,999.56
14	28-10-10	Construct sand and gravel cushion under artificial structure	1 m³	17,577.80	128,471.78	2,258,251,267.27
15	28-26-01	Construct reinforced concrete foundation	1 m³	3,534.40	1,371,159.79	4,846,227,145.60

AUGE LLC TRANSLATION BUREAU

16	28-21-04	Cast body of artificial structure	1 m³	6,049.20	2,115,772.51	12,798,731,079.37
17	28-07-05	Cast pipeline wing	1 m³	307.2	1,603,932.63	492,728,104.66
18	28-16-12	Install waterproofing membrane	1 m²	1,492	10,401.58	15,519,157
19	28-16-15	Cast drainage system	1 m³	64	449,420.88	28,762,936.03
20	28-16-12	Cast concrete resting place of pipeline	1 m³	169.2	735,869.85	124,509,179.08
21	28-16-14	Construct stone foundation for pipeline entrance/exit	1 m³	400	729,899.10	291,959,638.56

Total: 21,071,546,996.6

COMMISSIONING THE BRIDGE FACILITY INTO STATE USE

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
22	25-19-02	Cleaning waste before commissioning the bridge	1 km	0.34	403,881.73	137,723.67
23	28-30-01	Commissioning the facility	1 lm	341	39,832.43	13,582,858.26

Total: 13,720,581.93

Grand Total: 21,465,295,320

AUUE LLC
TRANSLATION BUREAU

UNIT RATES AND TOTAL COST ESTIMATE

ORGANIZATIONAL PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
1	25-01-13	Install security guard's temporary house	1 pc	1	346,389.13	346,389.13
2	25-01-03	Install workers' temporary accommodation	1 pc	2	628,781.61	1,257,563.19
3	25-01-11	Install hot water temporary house	1 pc	1	948,394.97	948,394.97
4	25-01-18	Repair and service yard for machinery and equipment	1 m²	500	36,196.39	18,098,196.95
5	25-01-24	Install temporary bio toilet (septic type)	1 mo	37.17	759,737.87	28,239,456.57
6	25-01-09	Install diesel station (generator)	1 pc	2	1,526,414.36	3,052,828.72
7	28-01-06	Implement guard protection measures	1 mo	37.17	5,691,183.91	211,354,305.91

Total: 274,345,428.75

CONSTRUCTION SITE PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
8	28-01-01	Clean up bridge and pipeline construction site	1 m²	7,200	2,689.31	19,363,044.75
9	28-01-02	Prepare yard for building materials	1 m²	1,500	1,610.82	2,416,225.27
10	25-23-02	Work for unloading, draining, drying of concrete plant with auto loader	1 set	1	70,417,070	70,417,070
11	25-23-04	Work for unloading, draining, drying of crushed stone plant with truck	1 set	1	112,506,449.02	112,506,449.02
12	25-15-07	Install information board of the object	1 pc	2	1,106,212.55	2,212,425.09
13	28-02-05	Prepare reinforcement bars (16–32mm)	1 t	143.49	1,941,715.31	278,622,554.03

Total: 485,537,771.64

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost

AUDE LLC TRANSLATION BUREAU

14	28-05-01	Install bored pile foundation with drilling machine (φ1000mm)	1 m	1,740	1,665,812.05	2,898,512,971.73
15	28-03-05	Excavation of soil inside sheet pile	1 m³	8,339.20	14,330.78	119,531,266.94
16	28-05-03	Cast temporary pile foundation (Rostverka)	1 m³	486.3	1,267,524.84	616,017,074.22
17	28-05-03	Cast permanent pile foundation (Rostverka)	1 m³	348.4	1,232,046.47	429,244,991.10
18	28-07-09	Install concrete abutment footing	1 m³	408.8	1,721,417.32	703,715,399.05
19	28-16-17	Backfilling	1 m³	3,975	73,028.29	290,287,460.13
20	28-07-10	Construct concrete abutment body	1 m³	330.5	2,151,092.45	710,936,035.20
21	28-07-05	Construct concrete riegel	1 m³	220.1	2,484,857.12	546,917,052.53
22	28-08-03	Install bearing part LNR-470×570×167	1 pc	24	39,563,690.65	949,528,575.04
23	28-08-03	Install bearing part LNR-720×720×226	1 pc	12	52,342,994.70	628,115,936.44
24	25-24-14	Install equipment for aggregate dam foundation	1 complete	1	54,949,874.63	54,949,874.63
25	28-08-07	Cast aggregate dam foundation	1 m³	3,804.40	4,347,664.24	16,551,144,803.50
26	28-27-01	Reinforcement for cast-in-place concrete dam (15 pcs, 1 set)	1 set	34	19,687,914.42	669,388,069.85
27	28-27-01	Reinforcement for cast-in-place concrete dam (17 pcs, 1 set)	1 set	32	31,756,685.31	1,016,213,927.27
28	28-08-11	Cast anchor slab	1 m³	432	2,072,451.87	895,298,839.32
29	28-10-17	Install waterproofing membrane	1 m²	4,320	41,125.99	177,664,256.80
30	25-10-01	Apply primer coat (Prime coat)	1 m²	4,320	3,233.84	13,970,197.85
31	25-10-05	Install hot asphalt concrete surface layer	1 m³	172.8	853,154.64	147,425,121.48
32	25-10-04	Install hot asphalt concrete base layer	1 m³	259.2	729,321.52	189,040,137.44
33	25-24-172	Install PVC water drainage pipe	1 m	692	193,720.48	134,054,571.93
34	28-11-02	Install D80 flexible joint	1 m	42	1,053,283.90	44,237,923.76
35	28-11-02	Install D120 flexible joint	1 m	42	1,851,706.04	77,771,653.81
36	28-08-14	Install water outlet hole	1 pc	48	628,714.09	30,178,276.13

AUDE LLC
TRANSLATION BUREAU

37	28-10-16	Construct pedestrian sidewalk and safety barrier	1 m³	480	2,188,366.36	1,050,415,853.98
38	28-07-05	Construct underpass	1 m³	3,557.50	2,233,980.82	7,947,422,335.29

Total: 35,691,431,272.31

COMMISSIONING THE BRIDGE FACILITY INTO STATE USE

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
39	25-19-02	Cleaning waste before commissioning the bridge	1 km	0.29	407,251.76	118,103.01
40	28-30-01	Commissioning the facility	1 lm	290	39,722.47	11,519,515.38

Total: 11,637,618.39

GRAND TOTAL: 36,462,952,090

AUDITIC
TRANSLATION BUREAU

UNIT RATES AND TOTAL COST ESTIMATE

ORGANIZATIONAL PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
1	25-01-13	Install security guard's temporary house	1 pc	2	346,389.14	692,778.28
2	25-01-03	Install workers' temporary accommodation	1 pc	5	630,874.01	3,154,370.04
3	25-01-11	Install hot water temporary house	1 pc	2	948,394.97	1,896,789.94
4	25-01-18	Repair and service yard for machinery and equipment	1 m²	1,000	36,228.87	36,228,868.79
5	25-01-24	Install temporary bio toilet (septic type)	1 mo	48.17	760,317.04	36,624,472.05
6	25-01-09	Install diesel station (generator)	1 pc	3	1,527,715.29	4,583,145.87
7	28-01-06	Implement guard protection measures	1 mo	48.17	1,410,585.55	67,947,906

Total: 151,128,330.97

CONSTRUCTION SITE PREPARATION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
8	28-01-01	Clean up bridge and pipeline construction site	1 m²	34,200	2,691.78	92,058,924.56
9	28-01-02	Prepare yard for building materials	1 m²	1,500	1,607.90	2,411,854.58
10	25-15-07	Install information board of the object	1 pc	2	1,104,026.11	2,208,052.22
11	28-02-05	Prepare reinforcement bars (16–32mm)	1 t	381.6	1,943,429.62	741,612,744.25

Total: 838,291,575.61

BRIDGE WORKS

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
12	28-05-01	Install bored pile foundation with drilling machine (φ1000mm)	1 m	4,440	1,667,254.66	7,402,610,695.69
13	28-03-05	Excavation of soil inside sheet pile	1 m³	7,462.10	14,343.12	107,029,764.18
14	28-03-12	Install concrete seal layer	1 m³	173.1	560,735.18	97,063,259.28

AUDE LLC TRANSLATION BUREAU

15	28-05-03	Cast temporary pile foundation (Rostverka)	1 m³	1,033	1,268,618.08	1,310,482,476
16	28-05-03	Cast permanent pile foundation (Rostverka)	1 m³	324	1,233,094.91	399,522,750.18
17	28-07-09	Install concrete abutment footing	1 m³	421	1,859,879.92	783,009,445.16
18	28-16-17	Backfilling	1 m³	6,105.40	73,089.91	446,243,139.12
19	28-07-10	Construct concrete abutment body	1 m³	936	2,152,955.94	2,015,166,756.85
20	28-07-08	Construct concrete riegel	1 m³	816	2,487,010.94	2,029,400,925.65
21	28-08-08	Install small aggregate dam foundation	1 m³	4,504	2,899,966.08	13,061,447,225.29
22	28-08-11	Cast connection between dam and abutment on pile	1 m³	543	1,838,827.33	998,483,239
23	28-08-03	Install bearing part LNR-370×470×147	1 pc	228	2,958,837.12	674,614,862.48
24	28-08-05	Install dam foundation (aggregate dam foundation with water protection)	1 pc	114	4,990,535.57	568,921,054.42
25	28-27-03	Reinforcement for cast-in-place concrete dam (30 m dam with 5 pcs, 1 set)	1 set	836	3,580,451.71	2,993,257,627.91
26	28-27-03	Reinforcement for cast-in-place concrete dam (30 m dam with 6 pcs, 1 set)	1 set	304	3,557,015.42	1,081,332,688.07
27	28-08-11	Cast anchor slab	1 m³	1,026	2,074,239.98	2,128,170,221.18
28	28-10-17	Install waterproofing membrane	1 m²	10,260	41,162.14	422,323,579.70
29	25-10-01	Apply primer coat (Prime coat)	1 m²	10,260	3,235.95	33,200,882.14
30	25-10-05	Install hot asphalt concrete surface layer	1 m³	410	853,879.67	350,090,663.03
31	25-10-04	Install hot asphalt concrete base layer	1 m³	616	729,953.12	449,651,119.30
32	25-24-172	Install PVC water drainage pipe	1 m	3,069.70	193,888.58	595,179,780.65
33	28-11-02	Install D80 flexible joint	1 m	270	1,054,208.75	284,636,362.35
34	28-08-14	Install water outlet hole	1 pc	228	629,267.30	143,472,944.17
35	28-10-16	Construct pedestrian sidewalk and safety barrier	1 m³	1,140	2,190,263.19	2,496,900,035.20

Total: 40,872,211,497

AUDI LLC TRANSLATION BUREAU

RETAINING WALL CONSTRUCTION

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
36	28-03-12	Install concrete seal layer	1 m³	229	590,773.67	135,287,171.46
37	28-03-10	Install crushed stone foundation under retaining wall	1 m³	1,699	91,097.88	154,775,299.40
38	25-08-08	Install cement-stabilized foundation under retaining wall, 4%	1 m³	1,259	93,811.40	118,108,555.80
39	28-07-05	Construct retaining wall	1 m³	2,058	1,737,271.11	3,575,303,943.24
40	28-11-01	Install steel structure for retaining wall support	1 m	732.46	5,605,426.14	4,105,750,429.63
41	28-16-09	Cast reinforced concrete for retaining wall	1 m³	94	1,375,647.20	129,310,836.68
42	28-10-16	Construct pedestrian sidewalk above retaining wall	1 m³	286	2,296,910.51	656,916,406.38

Total: 8,875,452,642.59

COMMISSIONING THE BRIDGE FACILITY INTO STATE USE

№	Basis	Work Name	Unit	Quantity	Unit Cost	Total Cost
43	25-19-02	Cleaning waste before commissioning the bridge	1 km	1.14	405,646.38	462,436.87
44	28-30-01	Commissioning the facility	1 lm	1,140	39,759.34	45,325,642.25

Total: 45,788,079.12

GRAND TOTAL: 50,782,872,125

AUDE LLC
TRANSLATION BUREAU

UNIT RATES AND TOTAL COST ESTIMATE

TEMPORARY BUILDINGS AND PRODUCTION PREPARATORY WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
1	25-01-01	Build Ger (traditional tent)	1 ger	10	497,578.52	4,975,785.24
2	25-01-03	Install temporary housing for employees	1 pc	5	568,161.82	2,840,809.12
3	25-01-06	Install water storage tank	1 pc	2	445,115.49	890,230.97
4	25-01-08	Install container	1 pc	2	396,340.27	792,680.54
5	25-01-11	Install temporary hot water facility	1 pc	2	853,120.75	1,706,241.50
6	25-01-12	Install temporary office	1 pc	2	876,515.16	1,753,030.31
7	25-01-13	Install guard's temporary shelter	1 pc	1	322,790.77	322,790.77
8	25-01-14	Install temporary laboratory	1 pc	1	929,777.42	929,777.42
9	25-01-24	Install temporary bio toilet (rental)	1 month	24	757,526.85	18,180,644.31
10	25-15-07	Install project information board	1 pc	2	1,211,827.92	2,423,655.84

Grand Total: 34,815,646.02

ROAD ALIGNMENT RESTORATION

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
11	25-02-02	Restore road alignment (GPS)	1 km	9.3	2,701,144.20	25,120,641.07

Subtotal: 25,120,641.07

FACTORY, PLANT UNLOADING, DISMANTLING, AND REMOVAL WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
12	25-23-04	Unload, dismantle, and remove stone crushing and screening plant with vehicles	1 set	1	68,708,736.81	68,708,736.81

Subtotal: 68,708,736.81

AUCE LLC TRANSLATION BUREAU

ROAD ALIGNMENT AND SITE CLEARANCE WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
13	26-04-31	Remove asphalt concrete pavement by pneumatic hammer	1 m³	3,197	395,511.50	1,264,450,253.10
14	25-15-01	Remove existing road signs	1 pc	186	289,812.84	53,905,188.78
15	26-05-22	Mechanically remove old road fencing	1 m	1,631	16,434.82	26,805,196.48

Subtotal: 1,345,160,638.36

EARTHWORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
16	25-04-01	Strip vegetation layer with bulldozer	1 m²	73,045	10,273.14	750,401,218.71
17	25-04-04	Embankment foundation leveling and compaction	1 m²	756,771	818.51	619,422,355.34
18	25-07-03	Excavation and loosening of hard material	1 m³	763,673	37,175.04	28,389,570,129.20
19	25-07-12	Excavation, loading, and disposal of unsuitable material	1 m³	1,359,370	9,511.47	12,929,605,518.27
20	25-07-06	Construct embankment with excavated material	1 m³	107,484	15,804.41	1,698,721,209.08
21	25-12-01	Slope grading with motor grader	1 m²	80,920	743.7	60,180,255.92

Subtotal: 44,447,900,686.52

SOIL REPLACEMENT WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
22	26-01-22	Soil replacement	1 m³	189,840	20,857.39	3,959,566,426.56
23	25-22-06	Install XPS (extruded polystyrene) insulation board, h=5 cm	1 m²	237,300	21,200.88	5,030,969,212.63

Subtotal: 8,990,535,639.19

TRANSLATION BUREAU

ROAD GRAVEL AND CONCRETE BASE CONSTRUCTION

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
24	25-11-02	Construct gravel base manually (layered compacted gravel base)	1 m³	700	31,794.20	22,255,937.27
25	28-10-15	Construct concrete base, B25	1 m³	700	649,041.89	454,329,323.24

Subtotal: 476,585,260.51

TEMPORARY AND AUXILIARY ROAD WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
26	25-06-01	Construct temporary road	1 km	5	15,245,104.35	76,225,521.76
27	25-06-05	Carry out technical restoration of temporary road	1 km	5	1,863,243.20	9,316,215.98

Subtotal: 85,541,737.74

ROAD FOUNDATION WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
28	25-08-03	Construct foundation with crushed stone mixture (upper layer), h=40 cm	1 m³	118,108	77,441.33	9,146,440,470.36
29	25-08-07	Construct foundation with cement-stabilized crushed stone mixture, h=20 cm, 5%	1 m³	54,604	127,057.80	6,937,864,262.30
30	25-08-06	Construct foundation with cement-stabilized graded mixture, h=20 cm, 4%	1 m³	57,334	89,321.39	5,121,152,339.89

Subtotal: 21,205,457,072.55

PAVEMENT WORKS

TRANSLATION BUREAU

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
31	25-10-01	Bitumen spraying	1 m²	260,018	3,234.18	840,945,763.33
32	25-10-04	Construct hot asphalt concrete base layer (h=7 cm)	1 m³	18,201	830,322.76	15,112,704,578.94
33	25-10-02	Bituminous coating	1 m²	260,018	1,812.51	471,284,113.06
34	25-10-05	Construct hot asphalt concrete wearing course (h=4 cm)	1 m³	10,401	864,727.46	8,994,030,271.54

Subtotal: 25,418,964,726.87

ROAD CURB INSTALLATION

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
35	25-09-01	Install C30 concrete curb (0.5 x 0.25 x 0.10 m)	1 m	68,124	176,340.68	12,013,032,720.10
36	25-09-01	Install roundabout curb (0.65 x 0.25 x 0.1 m)	1 m	18,306	188,495.17	3,450,592,560.50

Subtotal: 15,463,625,280.60

PEDESTRIAN PATH WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
37	25-13-09	Construct pedestrian pavement with colored tiles	1 m²	41,882	69,962.61	2,930,174,229.74
38	25-13-02	Construct pedestrian base with crushed stone mixture, 15 cm	1 m³	6,282	68,961.26	433,214,627.09
39	28-03-12	1:3 ratio cement mortar, 3 cm	1 m³	565	590,303.45	333,521,448.93

Subtotal: 3,696,910,305.76

BICYCLE PATH WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
40	25-13-07	Construct asphalt concrete pavement, 4 cm	1 m³	4,418	854,406.88	3,774,769,590.61
41	25-10-02	Apply bituminous coating	1 m²	110,452	1,809.56	199,870,035.69
42	25-13-07	Construct asphalt concrete pavement, 5 cm (base layer)	1 m³	5,523	854,406.30	4,718,885,970.10
43	25-10-01	Bitumen spraying	1 m²	110,452	3,234.19	357,222,817.23

AUDE LLC
TRANSLATION BUREAU

44	25-05-04	Construct 5% cement-stabilized crushed stone base, 20 cm	1 m³	23,195	118,662.53	2,752,377,443.92
45	25-13-02	Construct crushed stone base, 40 cm	1 m³	47,782	68,961.47	3,295,116,904.42

Subtotal: 15,098,242,761.97

ROAD EQUIPMENT WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
46	25-15-01	Install road sign (1 sign per post)	1 pc	779	605,082.76	471,359,470.75
47	25-14-03	Apply thermoplastic road marking by machine	1 m²	36,118	49,550.53	1,789,666,156.18
48	25-15-07	Install traffic light, Ø300	1 pc	8	3,208,430.47	25,667,443.76
49	25-15-07	Install pedestrian traffic light, Ø200	1 pc	16	1,696,595.24	27,145,523.86
50	25-16-05	Install protective barrier fence	1 m	48	1,006,662.01	48,319,776.31
51	25-15-04	Remove old steel guardrail (including dismantling posts)	1 m	3,464	212,227.06	735,154,527.41
52	25-15-09	Install road information board	1 pc	11	17,666,600.84	194,332,609.21
53	25-15-08	Install road information board (type F)	1 pc	46	2,783,022.74	128,019,046.25

Subtotal: 3,419,664,553.73

SAFETY BARRIER WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
54	28-16-09	Install reinforced concrete barrier, B35 (Reinforcement 111.6 t)	1 m³	602	1,953,418.48	1,175,957,924.19

Subtotal: 1,175,957,924.19

SLOPE GREENING WORKS ALONG EMBANKMENT

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
55	25-07-01	Excavation works	1 m³	12,587	10,723.03	134,970,761.47
56	25-16-08	Install reinforced concrete block (B25)	1 m³	10,219	1,214,471.44	12,410,683,245.02
57	25-16-08	Install arch-type reinforced concrete block (B30)	1 m³	479	2,065,477.21	989,363,581.89

AUDE LLC
TRANSLATION BUREAU

58	28-16-05	Construct irrigation canal lining (B25)	1 m³	1,889	713,415.86	1,347,642,550.37
59	26-01-19	Compact slope surface of embankment	1 m²	59,945	13,187.61	790,531,512.79
60	26-01-19	Spray compacted slope surface with bitumen emulsion	1 m²	12,180	14,707.36	179,135,677.93
61	25-24-220	Spread topsoil for greening	1 m³	3,654	16,325.46	59,653,235.96
62	25-22-06	Install geotextile	1 m²	3,870	32,850.28	127,130,570.04
63	25-24-157	Install U-shaped steel frame (φ8 10x30 cm)	1 pc	270	11,800.67	3,186,181.40
64	25-24-157	Install wooden frame (5x5x30 cm)	1 pc	2,360	11,801.68	27,851,975.71
65	25-24-157	Landscaping /grass, bushes, flowers/	1 m²	8,793	13,187.59	115,958,446.83

Subtotal: 16,186,107,738.15

DRAINAGE AND BACKFILL WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
66	28-16-01	Excavation works	1 m³	116,740	40,941.62	4,779,525,095.93
67	25-13-01	Construct sand cushion layer	1 m³	12,055	37,635.40	453,694,712.21
68	25-22-19	Install drainage pipe d=200 HDPE	1 m	4,235	238,373.54	1,009,511,925.35
69	25-22-19	Install drainage pipe d=400 HDPE	1 m	12,835	374,784.99	4,810,365,311.63
70	25-22-19	Install drainage pipe d=500 HDPE	1 m	3,048	437,558.26	1,333,677,575.64
71	28-23-02	Construct trapezoidal border channel, B25 (0.5x2x0.15 m)	1 m³	1,800	2,326,369.95	4,187,465,918.02
72	28-16-17	Backfilling works	1 m³	70,044	45,165.03	3,163,539,573.53

Subtotal: 19,737,780,112.31

REINFORCED CONCRETE DRAINAGE PIPE WORKS

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
73	25-13-01	Construct sand cushion layer, h=50 cm	1 m³	891	37,636.38	33,534,016.32
74	28-16-07	Construct concrete foundation, h=10 cm	1 m³	178	800,480.12	142,485,460.64
75	28-16-09	Cast reinforced concrete pipe foundation	1 m³	69	1,410,219.21	97,305,125.69

AUDE LLC TRANSLATION BUREAU

76	28-16-05	Install reinforced concrete pipe on foundation, d=1000	1 m	283	817,899.75	231,465,629.32
77	28-16-08	Cut pipe head and wing wall, d=1000	1 m³	58.1	2,052,268.96	119,236,826.86
78	28-18-02	Install reinforced concrete pipe on foundation, d=1500	1 m	282	1,282,042.15	361,535,885.10
79	28-18-04	Cut pipe head and wing wall, d=1500	1 m³	96.6	1,660,968.11	160,449,519.43
80	28-25-04	Install wooden box culvert on foundation, 2.0x2.0 m	1 m	206	5,499,915.30	1,132,982,551.57
81	28-25-03	Cut box culvert head and wing wall, 2.0x2.0 m	1 m³	508	1,720,104.52	873,813,094.65
82	25-09-01	Install precast reinforced concrete open channel, 1200x1200	1 m	222	278,332.98	61,789,920.78
83	28-23-03	Cut box culvert head and wing wall, 1.2x1.2 m	1 m³	17.7	1,400,850.40	24,795,052.08
84	28-16-12	Apply waterproofing	1 m²	2,646	11,218.26	29,683,513.32
85	28-16-13	Construct embankment slope protection with cement mortar and stone masonry	1 m²	924	151,873.19	140,330,831.48
86	28-16-18	Adjust irrigation channel slope with excavator	1 m³	560	15,784.89	8,839,538.09

Subtotal: 3,418,246,965.33

PUTTING ROAD AND ROAD FACILITIES INTO STATE COMMISSIONING

№	Reference	Work Name	Unit	Quantity	Unit Price	Total Price
87	25-20-02	Commission road and road facilities	1 km	9.3	650,350.60	6,048,260.57
88	25-19-02	Clean up before commissioning	1 km	9.3	390,400.74	3,630,726.89
89	25-20-01	Prepare as-built drawings for road and road facilities	1 km	9.3	1,181,440.65	10,987,398.05

Subtotal: 20,666,385.51

TOTAL COST: 180,315,992,813

AUDE LLC
TRANSLATION BUREAU