

बिहार सरकार
पंचायती राज विभाग

प्रेषक,

सुरेश प्रसाद साह, भा0प्र0से0
अपर सचिव

सेवा में,

सभी जिला पदाधिकारी,
बिहार।

पटना, दिनांक...31/05/2017

विषय:- मुख्यमंत्री ग्रामीण गली-नाली पक्कीकरण निश्चय योजना के क्रियान्वयन हेतु ग्राम पंचायतों द्वारा क्रियान्वित की जाने वाली वार्ड स्तरीय गली-नालियों के निर्माण की योजनाओं के लिए मानक प्राक्कलन प्रेषण के संबंध में।

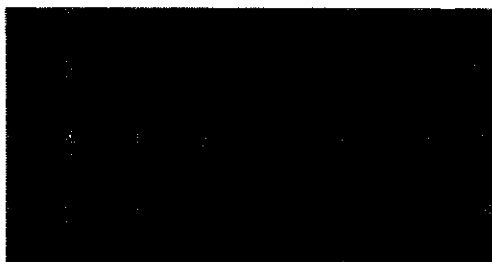
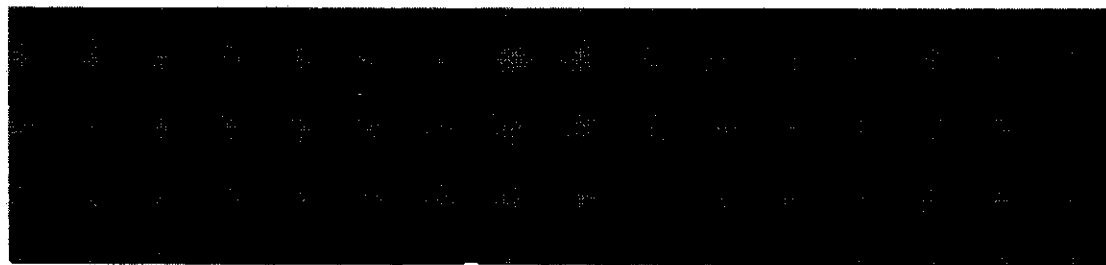
महाशय,

निदेशानुसार उपर्युक्त विषय के संबंध में कहना है कि मुख्यमंत्री ग्रामीण गली-नाली पक्कीकरण निश्चय योजना के क्रियान्वयन हेतु राज्य के ग्राम पंचायतों द्वारा क्रियान्वित की जा रही वार्ड के भीतर की सड़कों का Brick Edge Soling, Cement Concrete Pavement एवं Cement Concrete Paver Block से मजबूतीकरण एवं नालियों के निर्माण की योजनाओं के लिए ग्रामीण कार्य विभाग द्वारा तैयार विभिन्न प्रकार के चार अदद मानक प्राक्कलन आवश्यक कार्रवाई हेतु संलग्न कर भेजी जा रही है।

अनुलग्नक:-यथोपरि (कुल चार अदद मानक प्राक्कलन)।

विश्वासभाजन


31/5/2017
(सुरेश प्रसाद साह)
अपर सचिव



**MODEL ESTIMATES
OF
INTERNAL VILLAGE ROAD
IN BIHAR
BRICK EDGE SOLING
(FOR ALL TYPES OF CBR)**



बिहार सरकार

पुस्तिका-1
पुस्तिका-1

**Rural Works Department
5th Floor, Vishveshwaraiya Bhawan,
Bailey Road ,Patna-800015.**

BRICK EDGE SOLING

प्रस्तावना

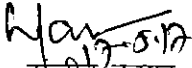
प्रस्तावना

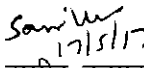
बिहार राज्य में ग्राम पंचायतों के द्वारा क्रियान्वित की जा रही पंचायत के भीतर की सड़कों एवं नालियों के निर्माण की योजनाओं के लिए विभिन्न प्रकार के मॉडल प्राक्कलन बनाने का निर्णय लिया गया। इसके लिए अभियंताओं द्वारा क्षेत्र का भ्रमण किया गया जिसका फोटोग्राफ मॉडल प्राक्कलन के साथ संलग्न है। मॉडल प्राक्कलन सिर्फ संदर्भ के लिए तैयार किया गया है। प्रत्येक कार्य स्थल की भौगोलिक स्थिति, भौतिक स्थिति एवं सामग्रियों की दुलाई के लिए क्वायरी साइट/वास्तविक स्रोत से इसकी दूरी के आधार पर प्रत्येक वार्ड के लिए अलग-अलग प्राक्कलन तैयार किया जाना अपेक्षित है। प्राक्कलन में विभिन्न मदों का दर मुख्यतः ग्रामीण कार्य विभाग में प्रचलित दर विश्लेषण के आधार पर तैयार किया गया है। गांव/वार्ड की गली की चौड़ाई के अनुकूल निर्माण में उपयोग हो सकने वाले यंत्र-संयंत्र के अनुसार विभिन्न मदों का दर में सुधार किया जाना अपेक्षित होगा। बिहार राज्य अनुसूचित दर निर्धारण समिति द्वारा समय-समय पर निर्गत पत्रों एवं राज्य सरकार द्वारा समय-समय पर प्रभावी वैट की दर, लेवर दर इत्यादि के आधार पर विभिन्न मदों के दर की गणना की जाएगी। मिट्टी कार्य का प्रावधान प्रत्येक कार्य स्थल के आवश्यकतानुसार किया जायेगा।

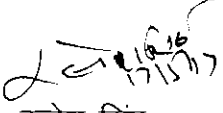
यह मॉडल प्राक्कलन मिट्टी का विभिन्न प्रकार के CBR के लिए तैयार किया गया है। इस मॉडल प्राक्कलन में सड़क/गली में ईट सोलिंग से सड़क/गली के मजबूतीकरण का प्रावधान निहित है। बसावटों के आन्तरिक सड़क/गली की तीन प्रकार की सतह यथा ईट सोलिंग सतह अच्छी स्थिति में, ईट सोलिंग सतह खराब स्थिति में तथा मिट्टी सतह, सड़क/गली की चार प्रकार की चौड़ाई यथा 1.50 मीटर, 2.50 मीटर, 3.00 मीटर तथा 3.75 मीटर की परिकल्पना करते हुए विभिन्न प्रकार का मॉडल प्राक्कलन तैयार किया गया है।

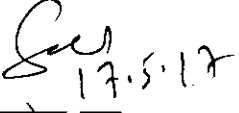
मॉडल प्राक्कलन में विभिन्न सामग्रियों के लिए क्वायरी साइट से भिन्न-भिन्न प्रकार का लीड यथा स्टोन मेटल ग्रेड-I, II एवं III /स्टोन चिप्स/मोटा बालू के लिए लीड 100 किलोमीटर, लोकल बालू के लिए 3.00 कि०मी०, ईट एवं पेभर ब्लॉक के लिए लीड 8.00 कि०मी०, सिमेंट एवं स्टील के लिए लीड 10.00 कि०मी० को मानते हुए इसका Carriage cost निकाला गया है।

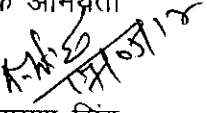
उक्त तथ्यों के परिपेक्ष्य में प्राक्कलन में सामान्य बदलाव स्थानीय अभियंता द्वारा किया जा सकता है। प्राक्कलन में कोई भी विशेष बदलाव को संज्ञान में लाने पर इसका निराकरण तकनीकी कोषांग द्वारा किया जाएगा।

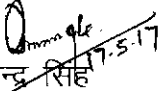

संजीव कुमार
सहायक अभियंता

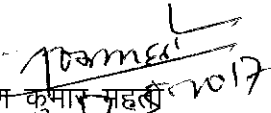

समीर कुमार
सहायक अभियंता

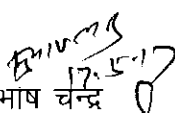

रत्नेश सिंह
सहायक अभियंता

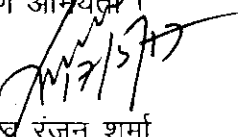

सत्येन्द्र राय
कार्यपालक अभियंता


दीपनारायण सिंह
कार्यपालक अभियंता


नरेन्द्र सिंह
कार्यपालक अभियंता


अरुण कुमार
अधीक्षक अभियंता


सुभाष चन्द्र
अधीक्षक अभियंता


राजीव रंजन शर्मा
मुख्य अभियंता

Summary of Unit Cost of Road in
Square Metre (SQM)
(For Different CBR's)

Type of Soil	Road Width (m)	UNIT COST IN RUPEES FOR ROAD SECTIONS IN SQUARE METRES (SQM) WITH 10% CONTRACTOR'S PROFIT & 10% OVERHEADS		
		Over Existing brick soling in good condition	Over Existing brick soling in poor condition	Over Existing Earthen Road
Black Cotton Soil CBR ≤ 3	1.50	171.29	501.16	813.20
	2.50	102.77	466.46	744.69
	3.00	85.64	474.58	889.25
	3.75	68.52	462.55	859.80
Clayey/Silty Clay Soil CBR 3-4	1.50	171.29	373.11	703.28
	2.50	102.77	338.42	634.77
	3.00	85.64	336.14	622.35
	3.75	68.52	326.19	603.58
Fine Sand/Sandy Clay Soil CBR 4-5	1.50	171.29	373.11	703.28
	2.50	102.77	338.42	634.77
	3.00	85.64	336.14	622.35
	3.75	68.52	326.19	603.58
Sandy Soil with high % of Sand CBR 5-6	1.50	171.29	364.25	681.14
	2.50	102.77	329.55	617.93
	3.00	85.64	326.39	572.73
	3.75	68.52	316.62	555.91
Moorum with CBR 6-7	1.50	171.29	364.25	681.14
	2.50	102.77	329.55	617.93
	3.00	85.64	326.39	572.73
	3.75	68.52	316.62	555.91
Gravel/Rocky with CBR > 7	1.50	171.29	364.25	681.14
	2.50	102.77	329.55	617.93
	3.00	85.64	326.39	572.73
	3.75	68.52	316.62	555.91

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G.E

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17.5.17

17.5.2017
S.E

Summary of Unit Cost of Road in
Running Metre (Rm)
(For Different CBR's)

Type of Soil	Road Width (m)	UNIT COST IN RUPEES FOR ROAD SECTIONS IN RUNNING METRES (RM) WITH 10% CONTRACTOR'S PROFIT & 10% OVERHEADS		
		Over Existing brick soling in good condition	Over Existing brick soling in poor condition	Over Existing Earthen Road
Black Cotton Soil CBR ≤ 3	1.50	256.93	751.74	1219.81
	2.50	256.93	1166.15	1861.72
	3.00	256.93	1423.73	2667.75
	3.75	256.93	1734.55	3224.26
Clayey/Silty Clay Soil CBR 3-4	1.50	256.93	559.67	1054.93
	2.50	256.93	846.04	1586.92
	3.00	256.93	1008.43	1867.05
	3.75	256.93	1223.21	2263.41
Fine Sand/Sandy Clay Soil CBR 4-5	1.50	256.93	559.67	1054.93
	2.50	256.93	846.04	1586.92
	3.00	256.93	1008.43	1867.05
	3.75	256.93	1223.21	2263.41
Sandy Soil with high % of Sand CBR 5-6	1.50	256.93	546.37	1021.70
	2.50	256.93	823.88	1544.84
	3.00	256.93	979.18	1718.20
	3.75	256.93	1187.31	2084.68
Moorum with CBR 6-7	1.50	256.93	546.37	1021.70
	2.50	256.93	823.88	1544.84
	3.00	256.93	979.18	1718.20
	3.75	256.93	1187.31	2084.68
Gravel/Rocky with CBR > 7	1.50	256.93	546.37	1021.70
	2.50	256.93	823.88	1544.84
	3.00	256.93	979.18	1718.20
	3.75	256.93	1187.31	2084.68

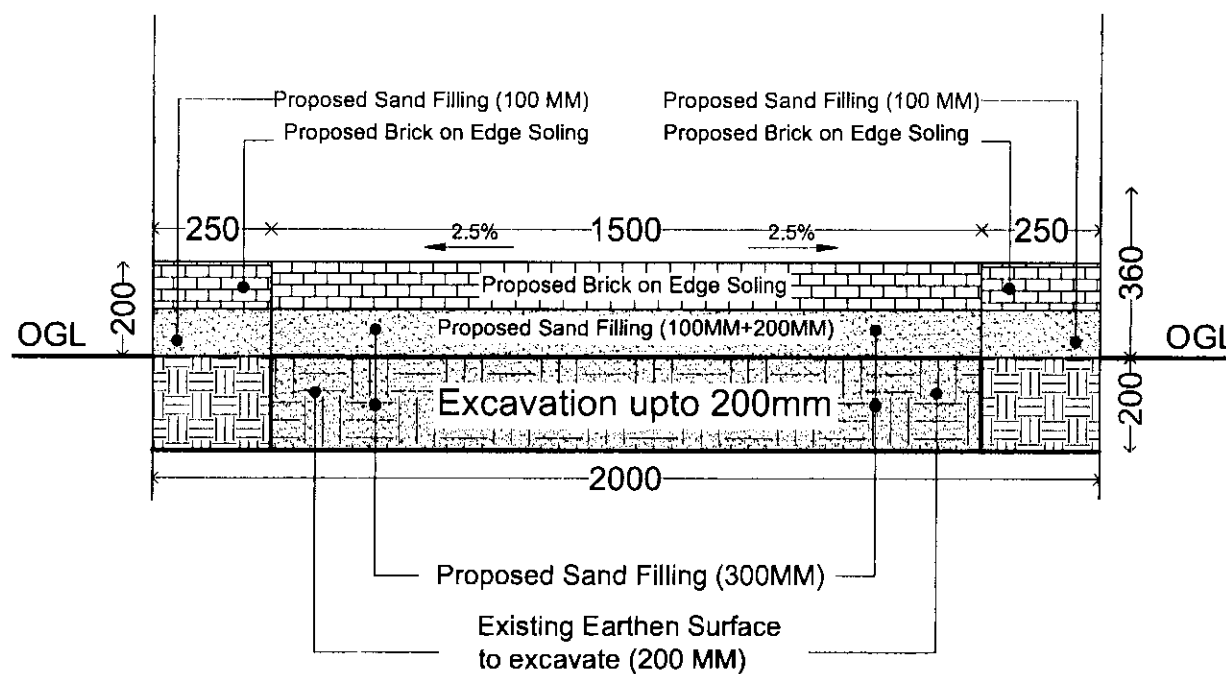
For CBR Less Than 3

CROSS SECTIONS

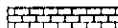
CBR < 3

OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road

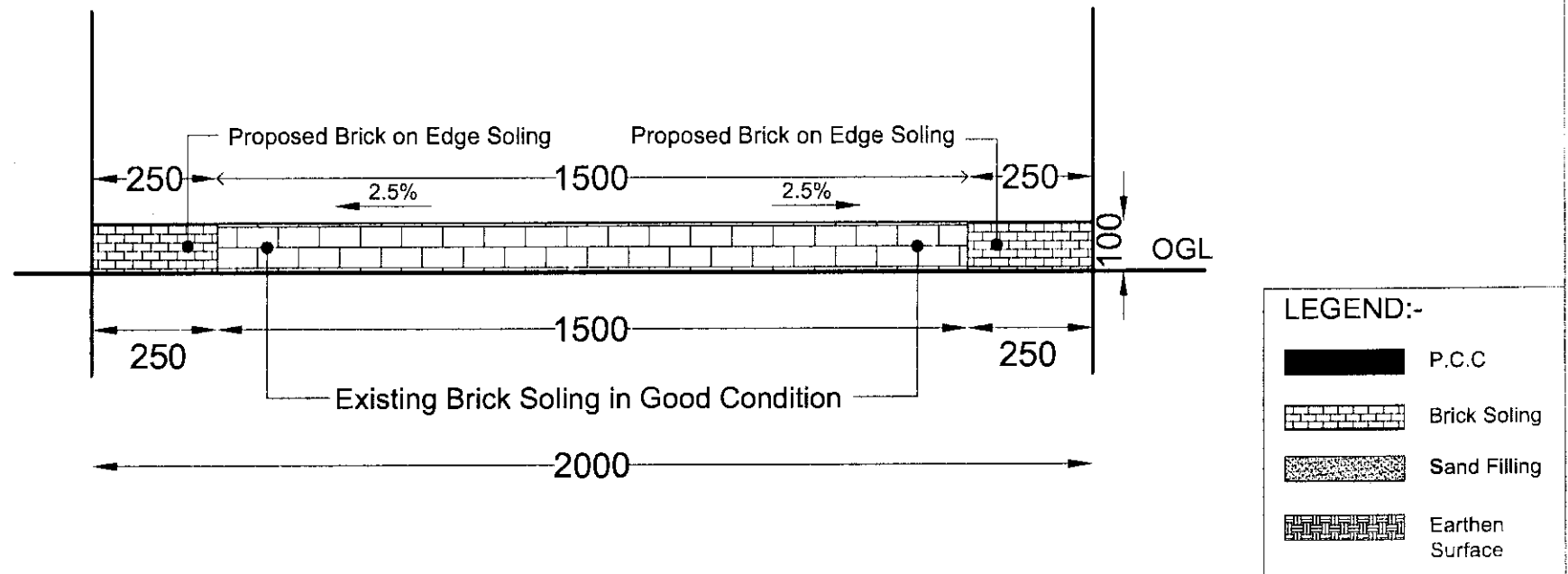


LEGEND:-

-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

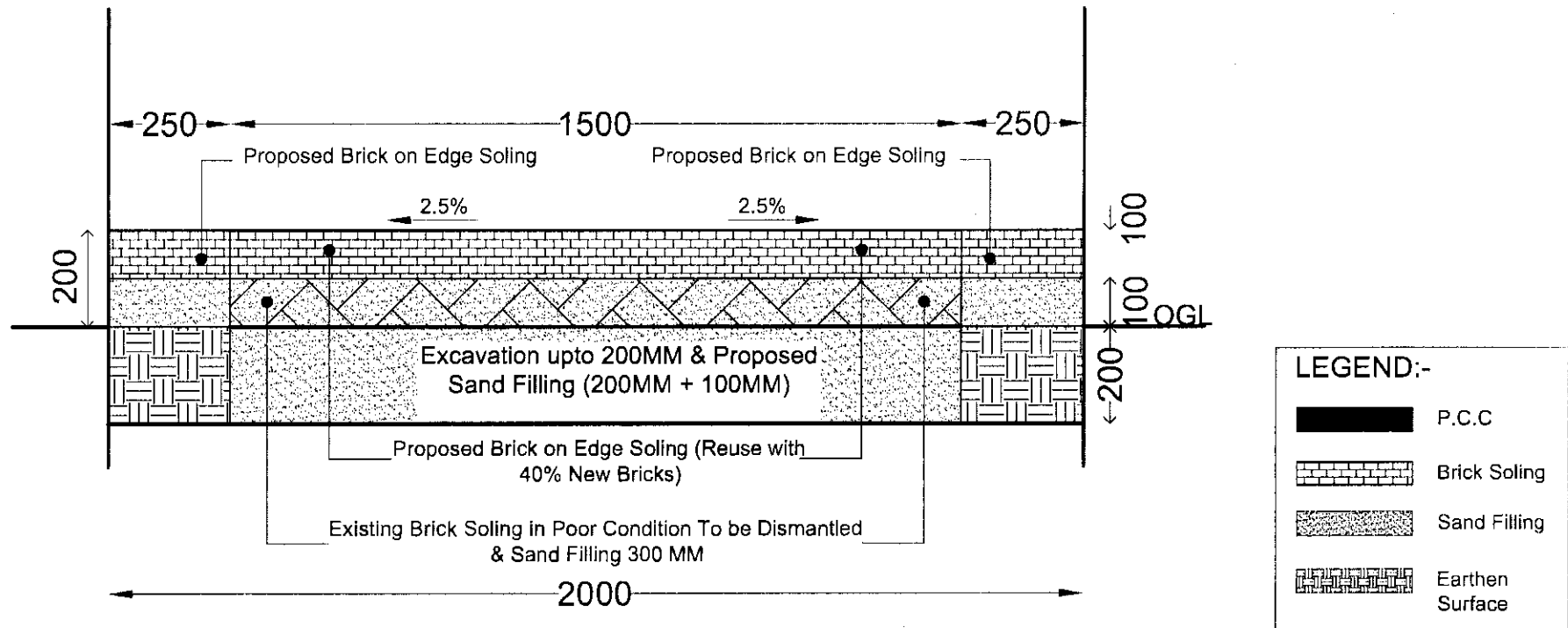
OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition

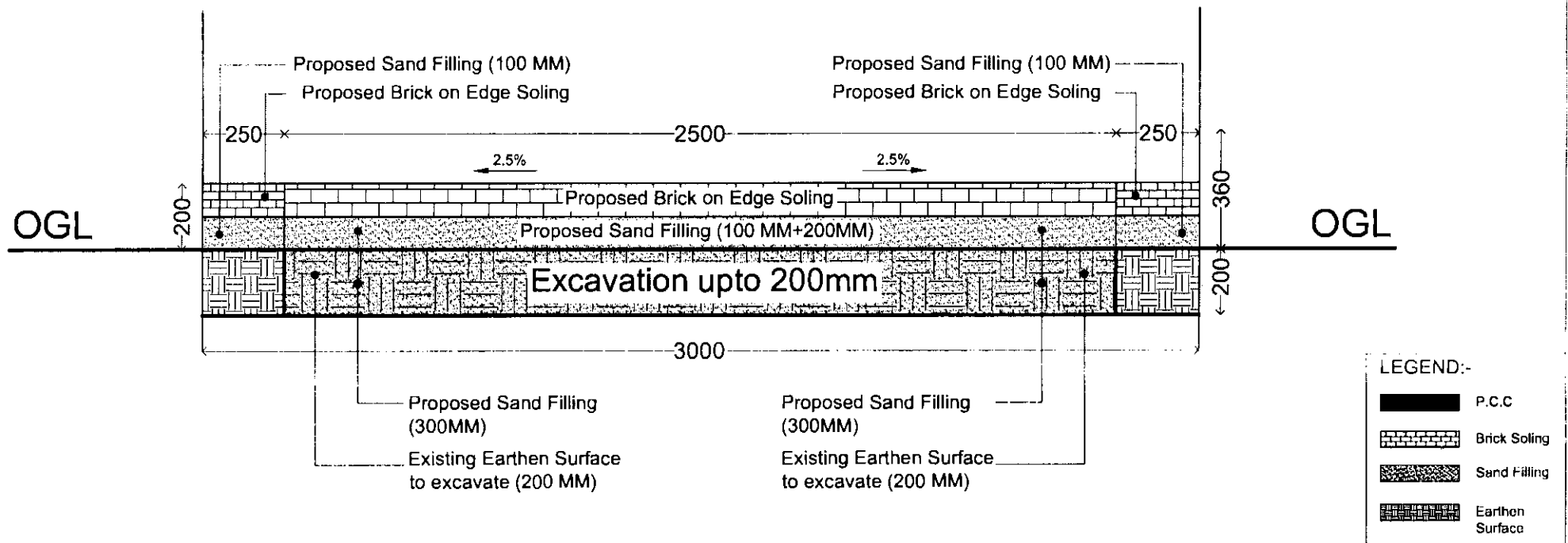


OPTION-I

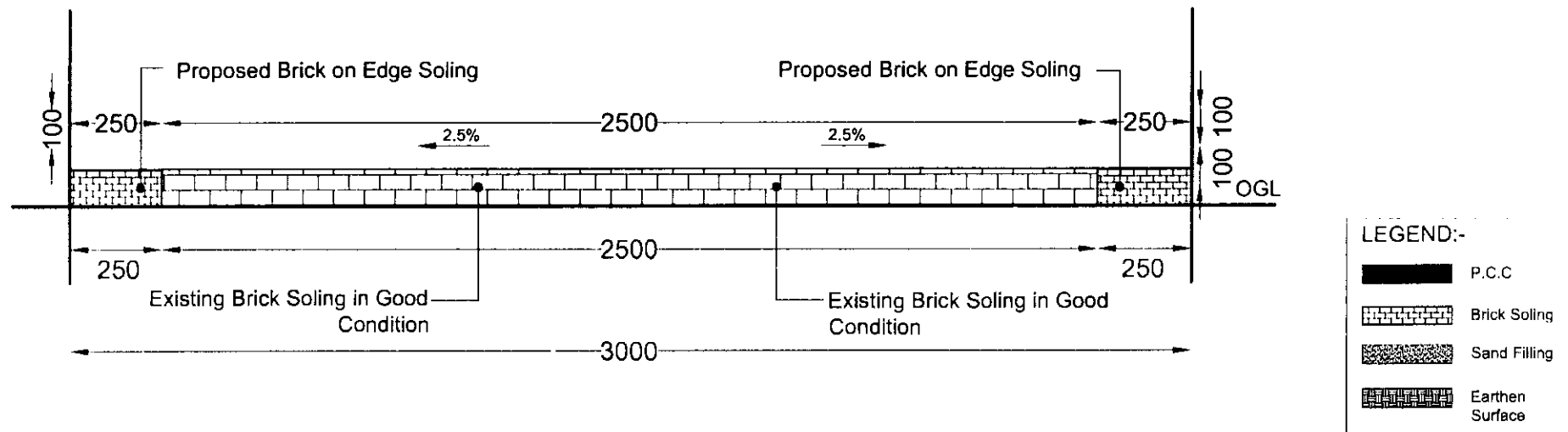
1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



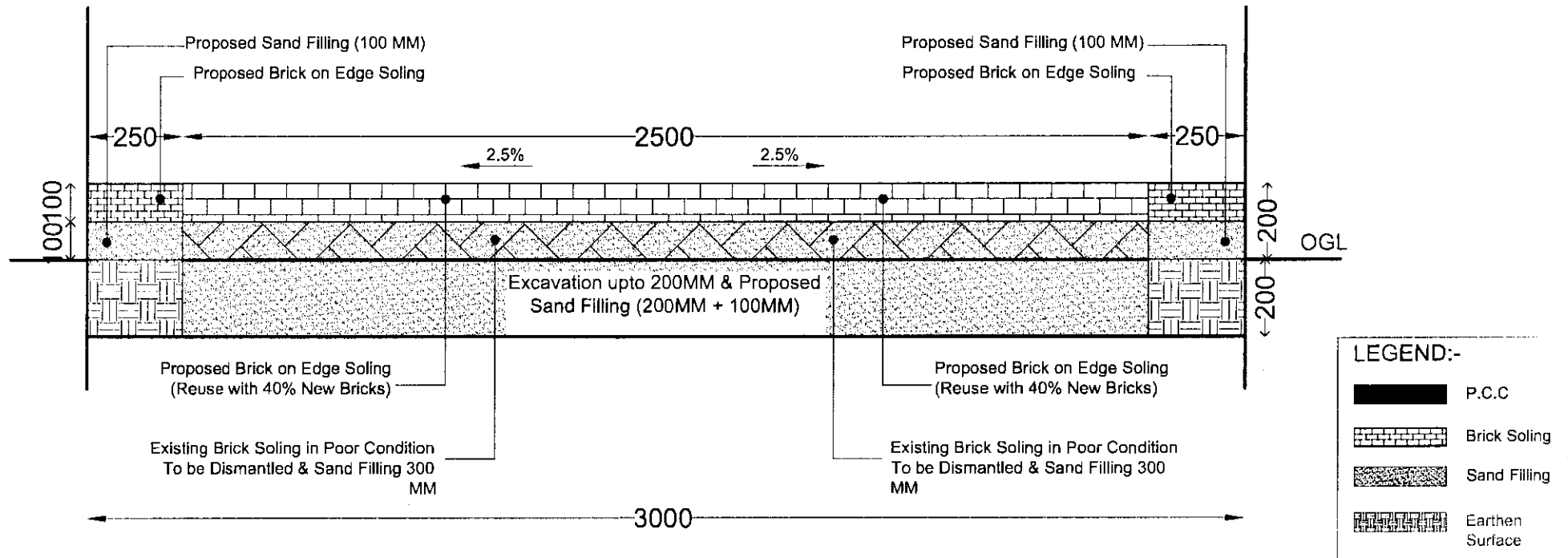
OPTION-II
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing Earthen Road



OPTION-II
**2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
 cart use**
Over Existing brick soling in good condition



OPTION-II
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing brick soling in poor condition



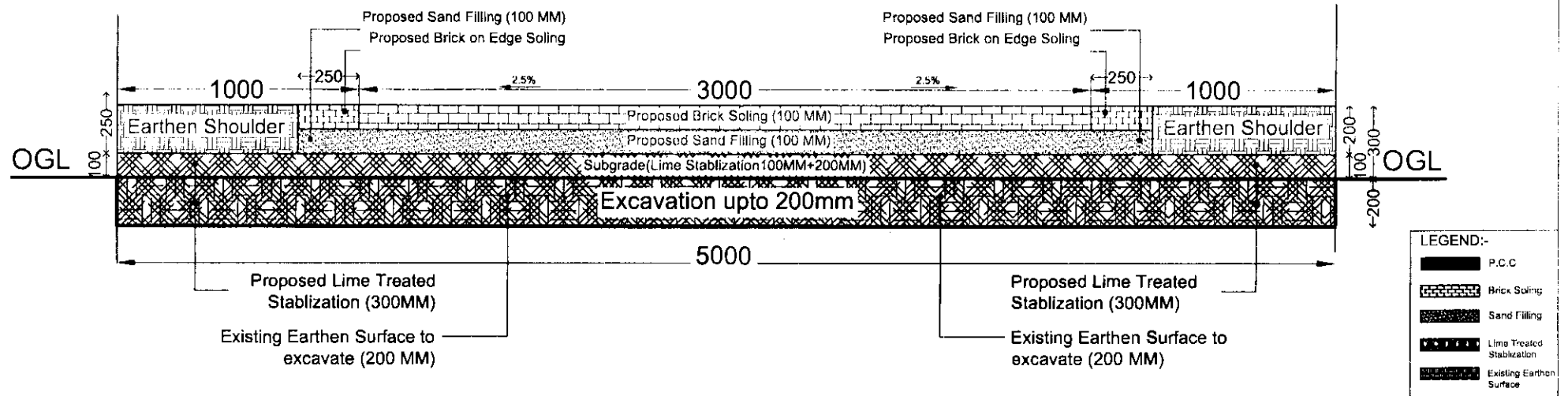
1.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.2	30.00	241.68	7250.47
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 A Sand filling Road Road Side Offset/Shoulder	Cum		100	1.5	0.3	45.00	398.55	17934.56
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
			Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		100	1.5		150	474.01	71102.38
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm						220.36	0.00
			Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
	ii)	(By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.5	0.16	24	6,782.02	162768.39
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

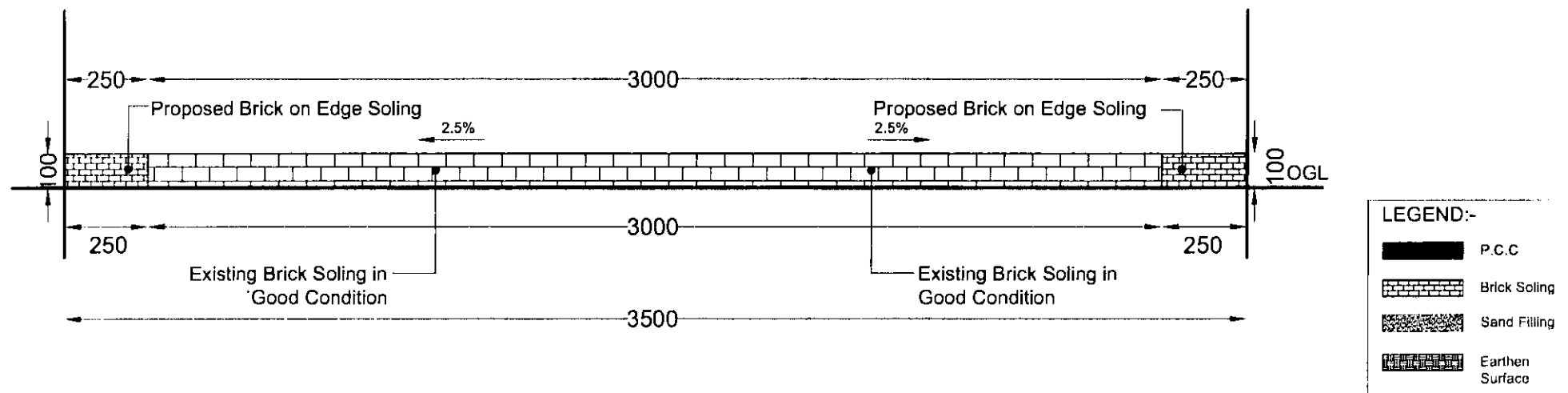
Cost of CC Pavement per 100m Length	284748.93
Cost of CC Pavement per RM Length	2847.49
Cost of CC Pavement per SQM	1898.33

OPTION-III

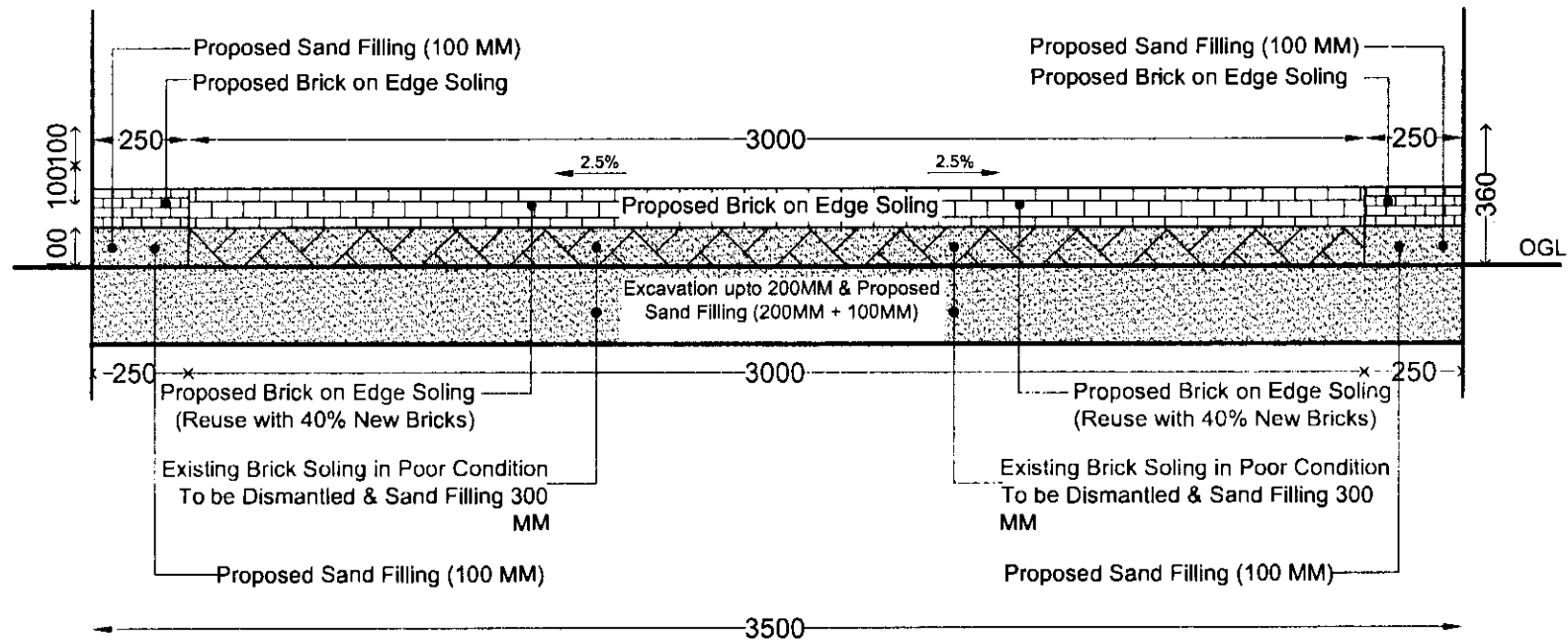
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart/Light Vehicles use
Over Existing Earthen Road



3.00 m wide Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock
Cart/Light Vehicles use
Over Existing brick soling in good condition



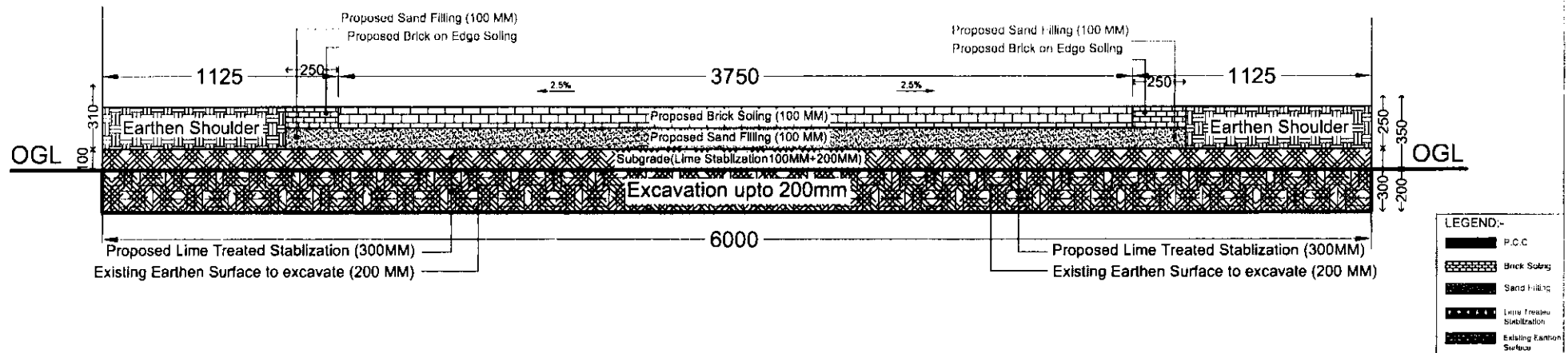
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart/Light Vehicles use
Over Existing brick soling in poor condition



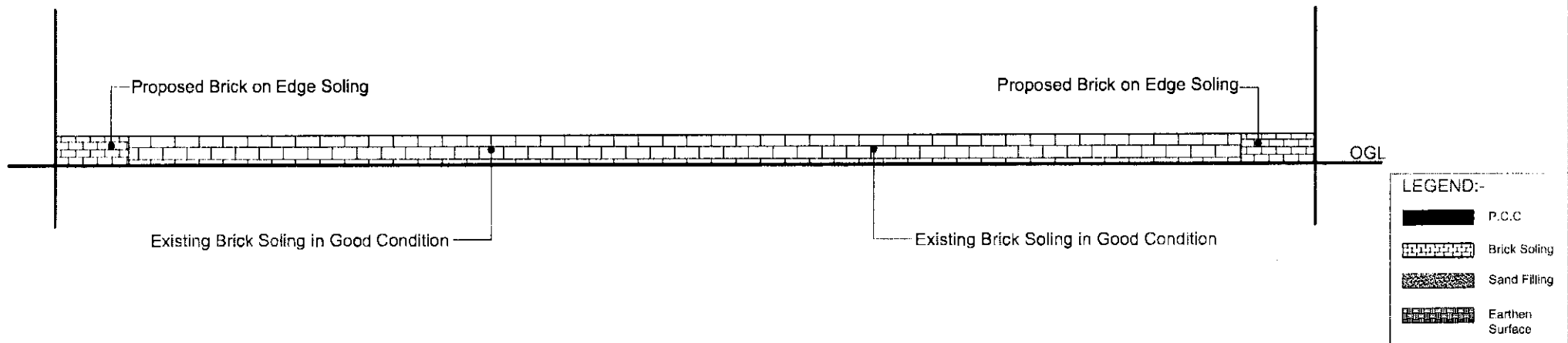
LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

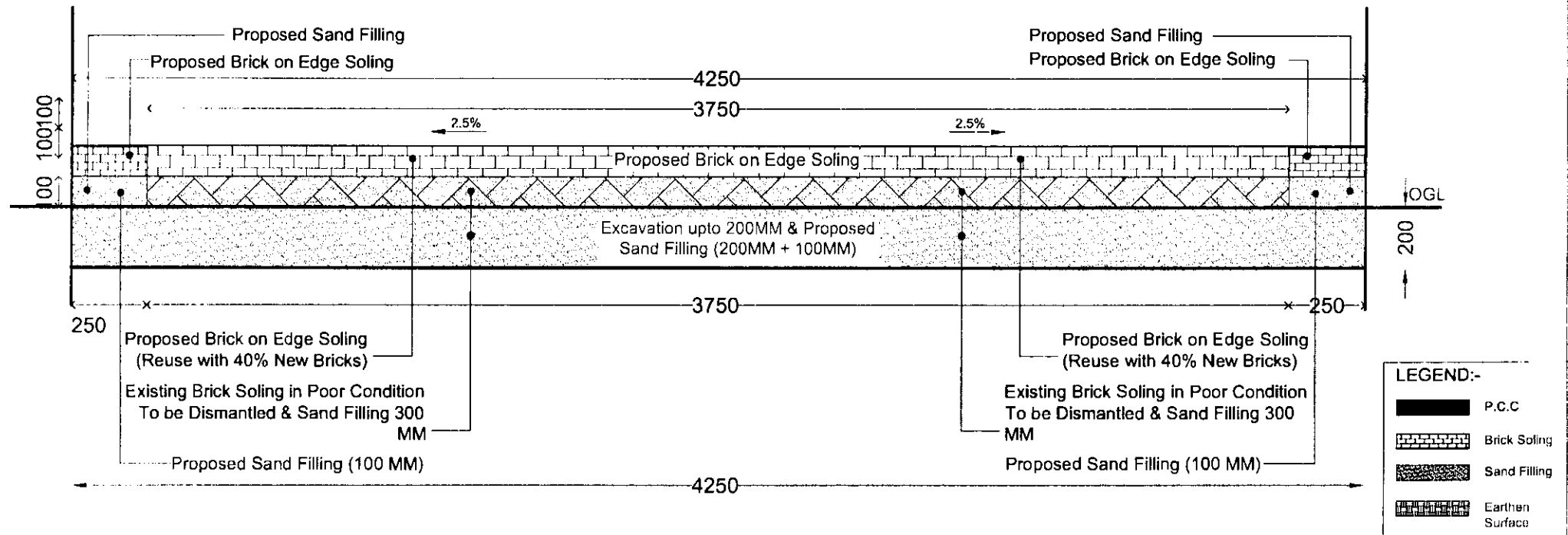
OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing Earthen Road



OPTION-IV
Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock Cart /Light
Vehicles use
Over Existing brick soling in good condition



OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	1.5	0.2	30.00	241.68	7250.47
5	11.2	Filling in foundation trenches as per drawing and technical specification: Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	1.5	0.3	45.00	398.55	17934.56
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging, according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	1.5		150	474.01	71102.08
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	(By mix in place method)	Cum					0	1,840.08	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	121980.54
Cost of Pavement per RM Length	1219.81
Cost of Pavement per SQM	813.20

1.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	(ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6.782 02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00
Cost of Pavement per 100m Length									25693.42	
Cost of Pavement per RM Length									256.93	
Cost of Pavement per SQM									171.29	

1.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical Specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.2	30.00	241.68	7250.47
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum		100	1.50	0.3	45.00	398.55	17934.56
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum		100	1.50	0.1	15.00	261.54	3923.09
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	1.50		150	220.36	33054.55
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	B	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	75173.58
Cost of Pavement per RM Length	751.74
Cost of Pavement per SQM	501.16

2.50 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.2	50.00	241.68	12084.12
	(i)	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
5	11.2	A Sand filling	Cum		100	2.5	0.3	75.00	398.55	29890.93
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		B Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	2.5		250	474.01	118503.47
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	186171.96
Cost of Pavement per RM Length	1861.72
Cost of Pavement per SQM	744.69

2.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1 (i)	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length									25693.42
Cost of Pavement per RM Length									256.93
Cost of Pavement per SQM									102.77

2.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watering, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.2	50.00	241.68	12084.12
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	2.50	0.3	75.00	398.55	29890.93
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	2.50		250	220.36	55090.92
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length									116615.36
Cost of Pavement per RM Length									1166.15
Cost of Pavement per SQM									466.46

3.00 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.135 (Avg. Area in shoulder)	13.50	173.66	2344.36
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum		100	5	0.3	150.00	150.87	22630.58
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum		100	5	0.3	150.00	243.88	36582.45
4	11.1 (i)	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	5	0.2	100.00	241.68	24168.25
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum		100	3.3	0.1	33.00	398.55	13152.01
		Road	Cum		100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum	2					196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Sqm		100	3		300	474.01	142204.17
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	266775.24
Cost of Pavement per RM Length	2667.75
Cost of Pavement per SQM	889.25

3.00 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.37	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road Road Side Offset/Shoulder	Cum Cum Cum					0.00 5.00	398.55 398.55	0.00 1992.73
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints, with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm Sqm						474.01 474.01	0.00 23700.69
		Road Road Side Offset/Shoulder	Sqm Sqm	2	100	0.25		50	220.36 220.36	0.00 0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm						220.36 220.36	0.00 0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length									25693.42
Cost of Pavement per RM Length									256.93
Cost of Pavement per SQM									85.64

3.00 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 303.1 and 303.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	3.3	0.2	66.00	241.68	15951.04
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road Road Side Offset/Shoulder	Cum Cum		100	3.30	0.3	99.00	398.55	39456.03
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Sqm Sqm					0 0	474.01 474.01	0.00 0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm Sqm		100	3.00		300 50	220.36 220.36	66109.10 11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with spades, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	142373.26
Cost of Pavement per RM Length	1423.73
Cost of Pavement per SQM	474.58

3.75 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watering, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.16 (Avg. Area in shoulder)	16.00	173.66	2778.50
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum		100	6	0.3	180.00	150.87	27156.69
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403	Cum		100	6	0.3	180.00	243.88	43898.94
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	6	0.2	120.00	241.68	29001.90
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum		100	4.05	0.1	40.50	398.55	16141.10
		Road	Cum		100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum	2					138.20	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		100	3.75		375	474.01	177755.21
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm						220.36	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
	ii)	(By mix in place method)								
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum							0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	322425.77
Cost of Pavement per RM Length	3224.26
Cost of Pavement per SQM	859.80

3.75 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.97	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100km as per technical Specification clause 412.								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.83
Cost of Pavement per SQM	68.52

3.75 m wide Brick Soling Road Over Existing brick soling in poor condition

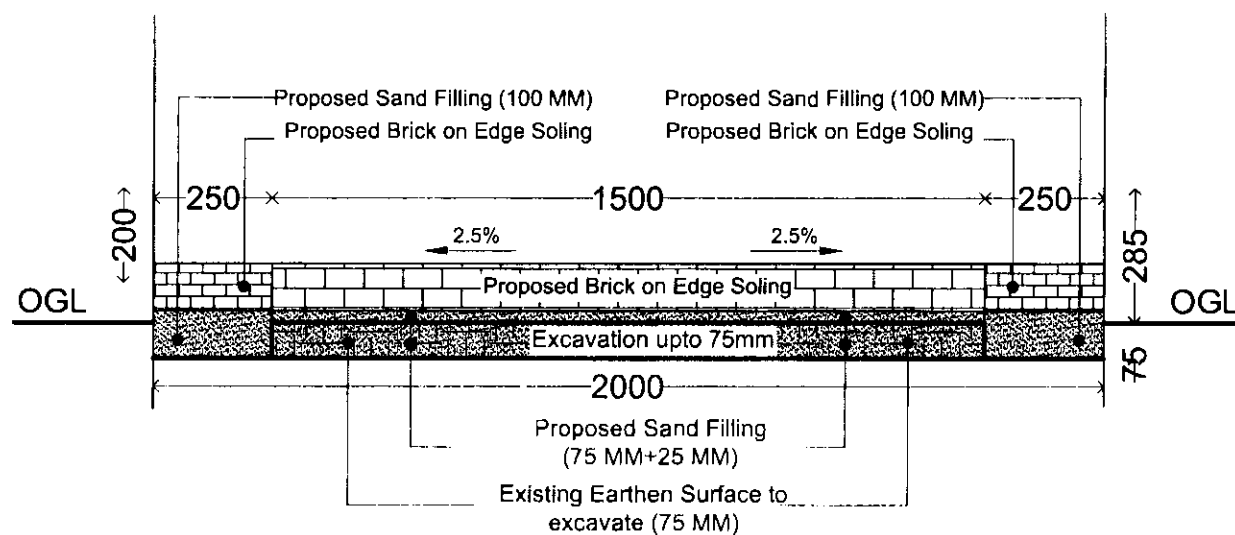
Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	(new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	4.05	0.2	81.00	241.68	19576.28
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road Road Side Offset/Shoulder	Cum Cum		100 100	4.05 0.25	0.3 0.1	121.50 5.00	398.55 398.55	48423.31 1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm Sqm					0 0	474.01 474.01	0.00 0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm Sqm		100 100	3.75 0.25		375 50	220.36 220.36	82636.37 11016.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	173454.60
Cost of Pavement per RM Length	1734.55
Cost of Pavement per SQM	462.55

For CBR between 3-4

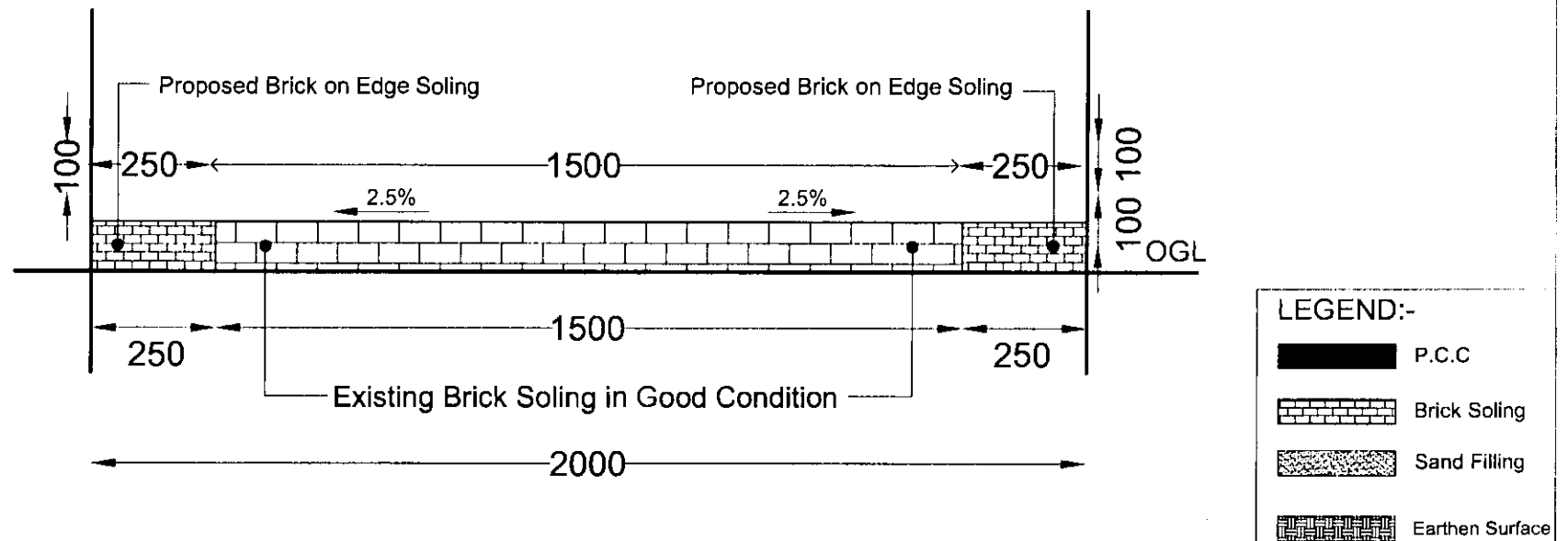
CROSS SECTIONS

OPTION-I
1.50 m wide Brick Soling Road mainly for Pedestrain and Bicycle use
Over Existing Earthern Road



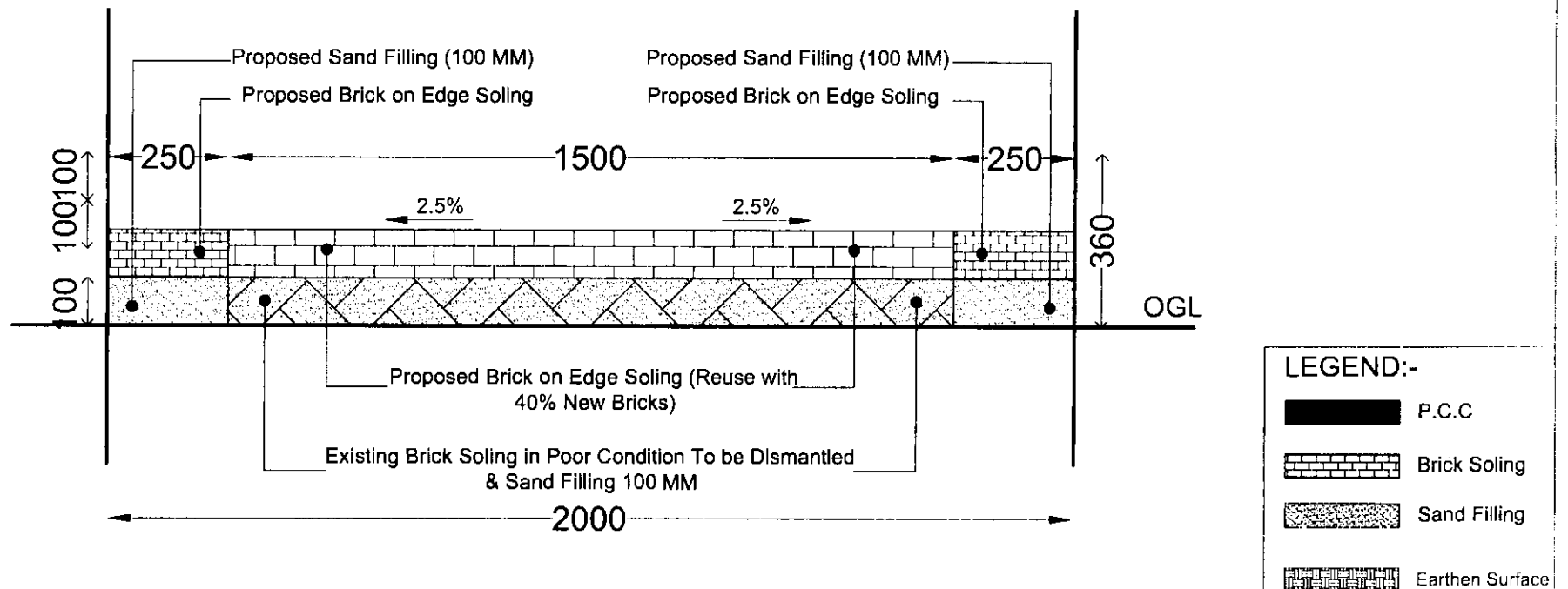
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

OPTION-I
1.50 m wide Brick Soling Road mainly for Pedestrain and Bicycle use
Over Existing brick soling in good condition

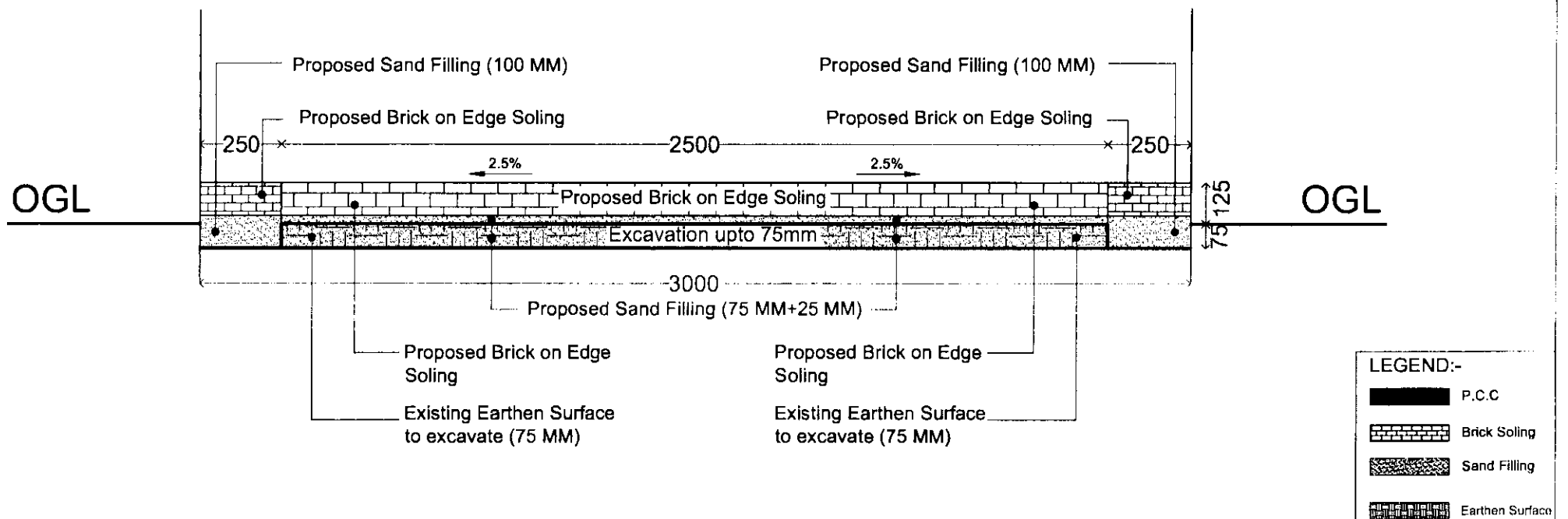


OPTION-I

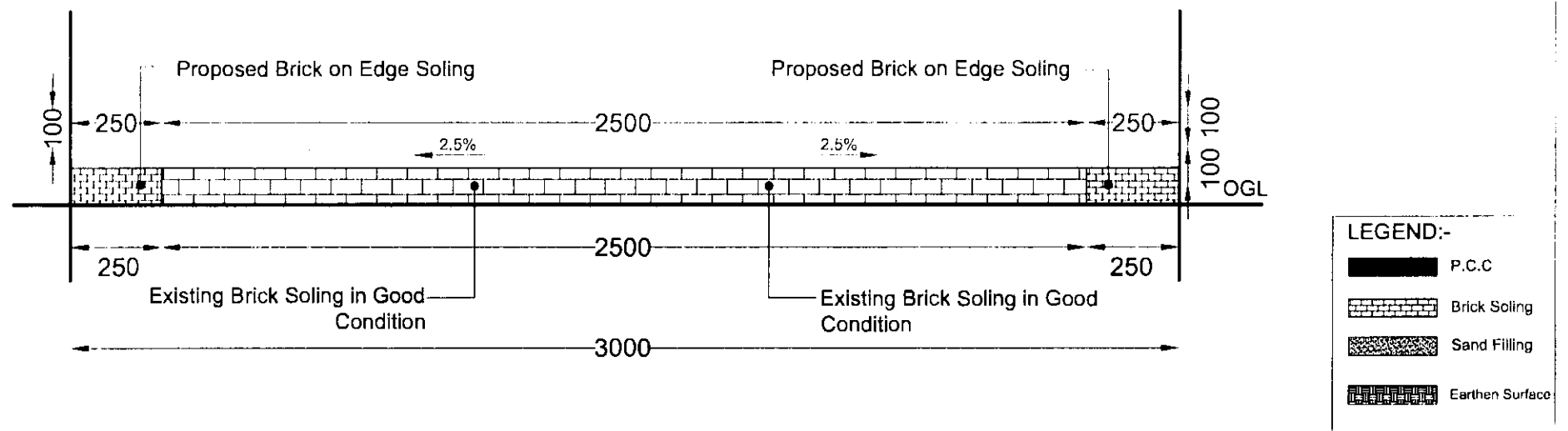
1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing Earthen Road



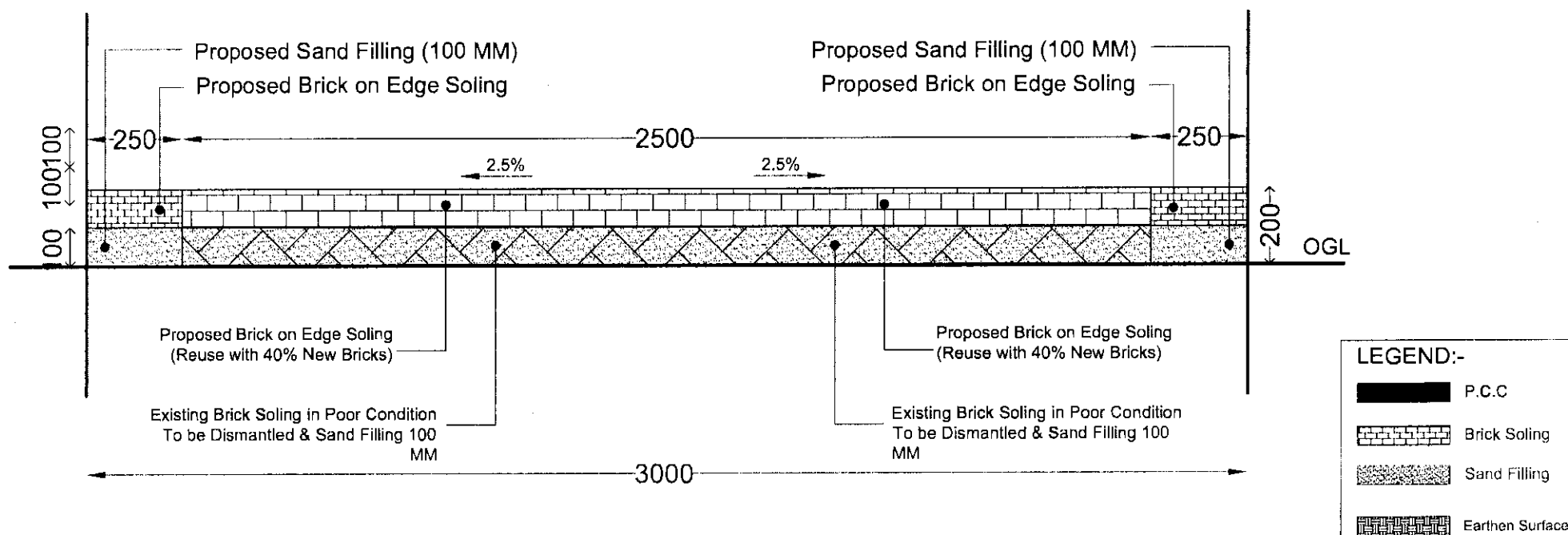
OPTION-II
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing brick soling in good condition



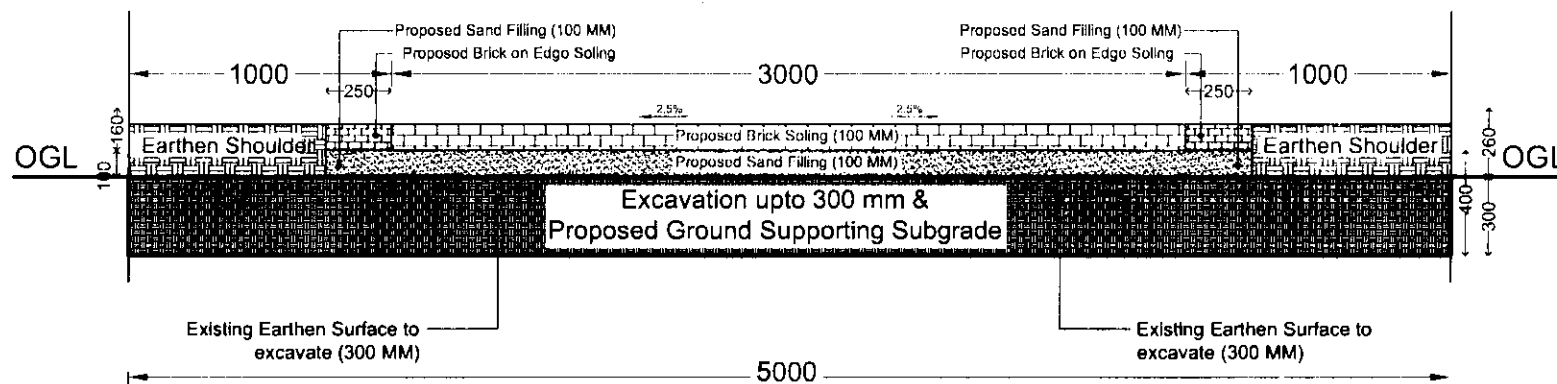
OPTION-II

2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock cart use

Over Existing brick soling in poor condition



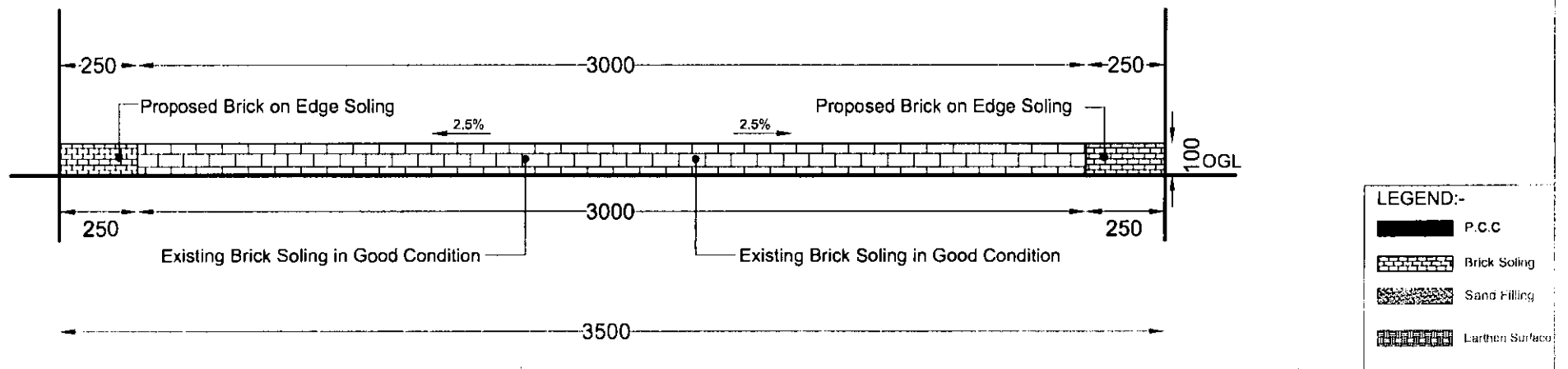
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing Earthen Road



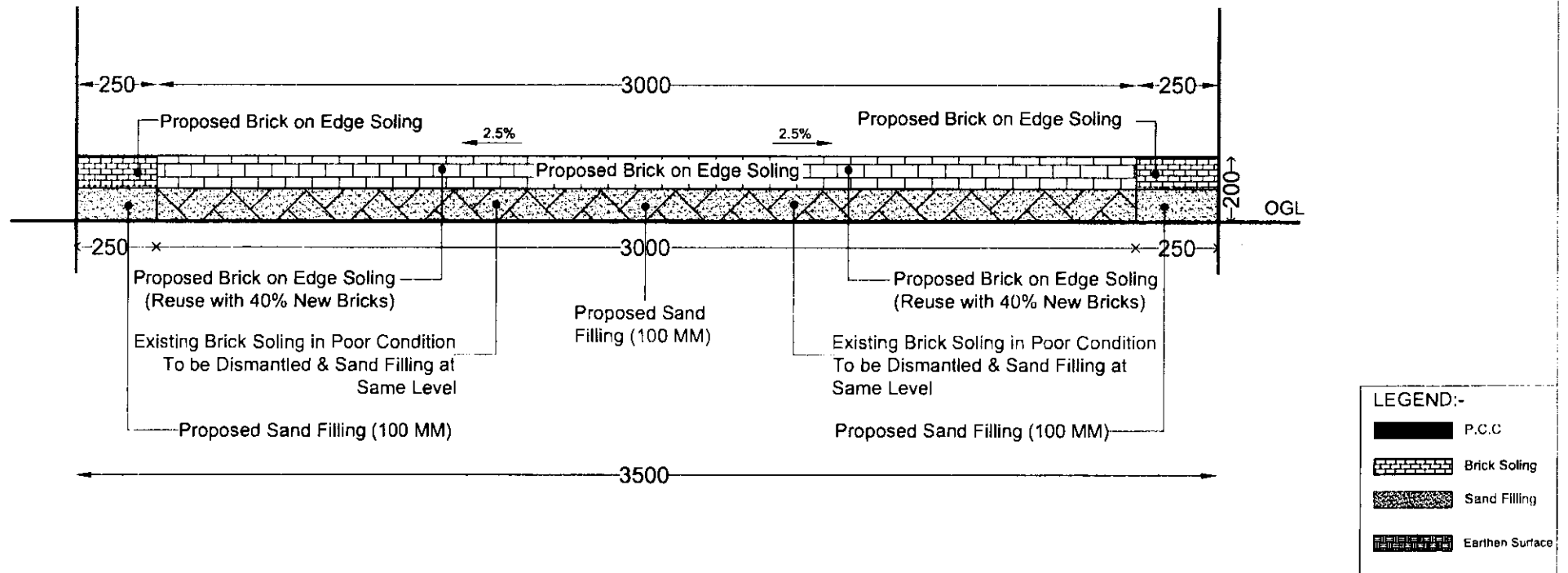
LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface
	GSB

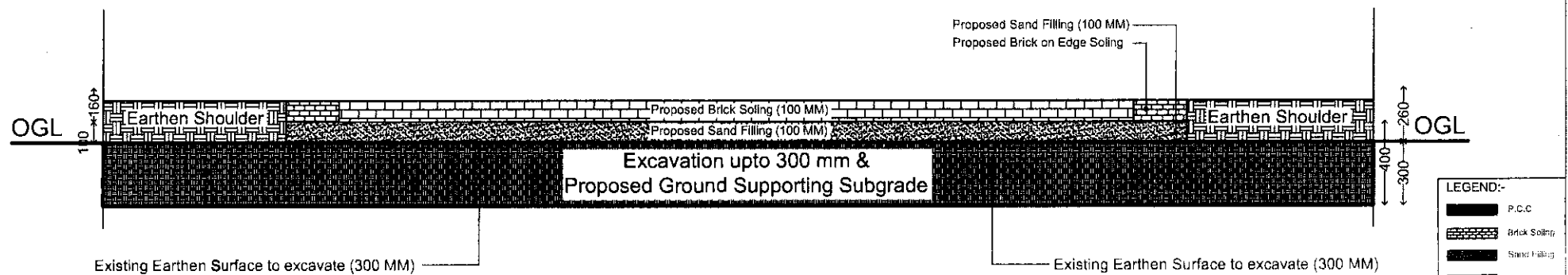
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in good condition



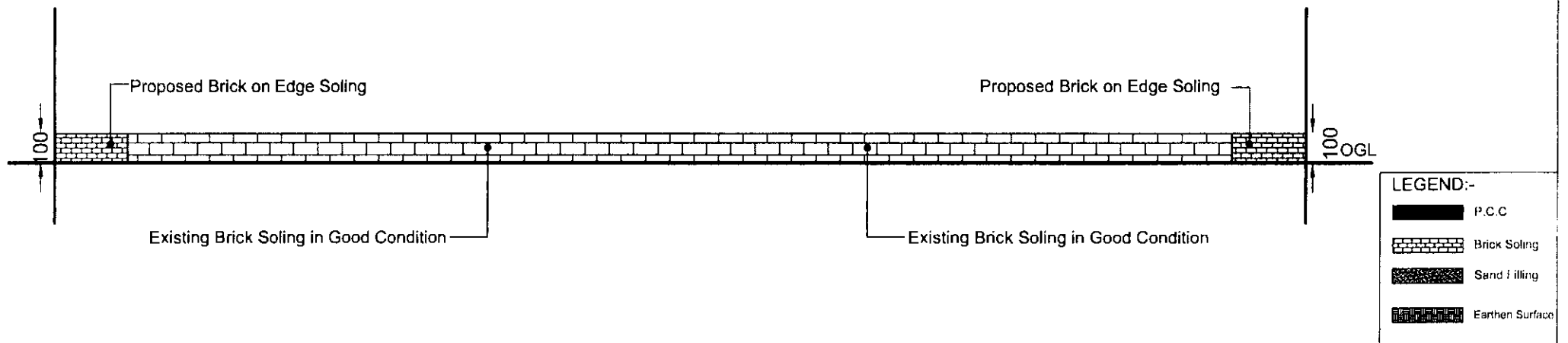
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition



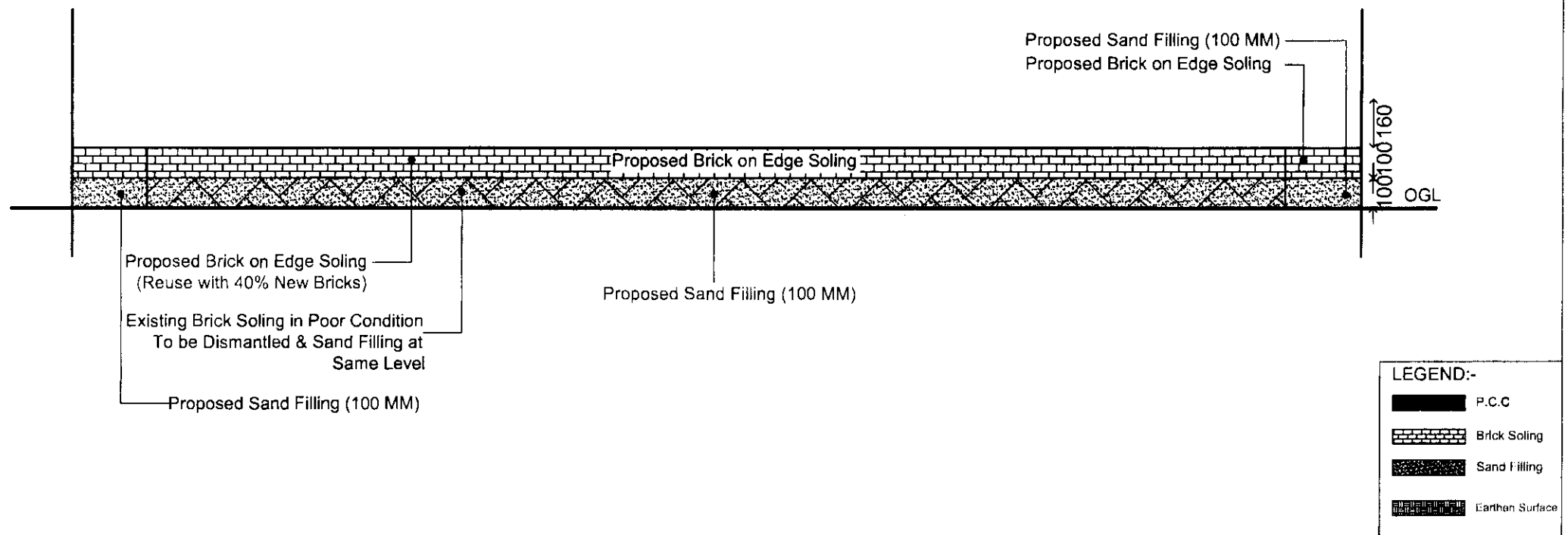
Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock Cart /Light Vehicles use
Over Existing Earthern Road



OPTION-IV
Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart / Light
Vehicles use
Over Existing brick soling in good condition



OPTION-IV
Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart /Light
Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.075	11.25	241.68	2718.93
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum		100	1.5	0.1	15.00	398.55	5978.19
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging aording to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	1.5		150	474.01	71102.08
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.38	0.00
		Road Side Offset/Shoulder	Sqm						220.38	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, apptying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	105492.62
Cost of Pavement per RM Length	1054.93
Cost of Pavement per SQM	703.28

1.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new) 3.14	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
		Borrowed Earth	Cum							
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	171.29

1.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	1.50	0.1	15.00	398.55	5978.19
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	1.50		150	220.36	33054.55
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	55966.74
Cost of Pavement per RM Length	559.67
Cost of Pavement per SQM	373.11

2.50 m wide Brick Soling Road Over Existing Earthen Road

[illegible]

2.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of slumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
5	11.2 A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum					5.00	398.55	1992.73
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1		196.62	0.00
	B	Borrowed Earth	Cum							
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00
10										

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	102.77

2.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	(new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
5	11.2	Sand filling								
	A	Road	Cum		100	2.50	0.1	25.00	398.55	9963.64
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling ,watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	2.50		250	220.36	55090.92
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh patcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	84603.95
Cost of Pavement per RM Length	846.04
Cost of Pavement per SQM	338.42

3.00 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum		100	5	0.3	150	22.97	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.135(Avg. Area in shoulder)	13.50	173.66	2344.36
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road Road Side Offset/Shoulder	Cum Cum		100 2	3.3 100	0.1 0.25	33.00 5.00	398.55 398.55	13152.01 1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like cuiverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	3		300	474.01	142204.17
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	{ By mix in place method } Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	{ By mix in place method }	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	186704.75
Cost of Pavement per RM Length	1867.05
Cost of Pavement per SQM	622.35

3.00 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0	5.00	398.55	1992.73
		Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on and edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum						6,782.02	0.00
10			Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	85.64

3.00 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	1.1.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	3.0	0.1	3.00	241.68	725.05
5	1.1.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	3.30	0.1	33.00	398.55	13152.01
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	3.00		300	220.36	66109.10
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	5.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	100843.24
Cost of Pavement per RM Length	1008.43
Cost of Pavement per SQM	336.14

3.75 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum		100	6	0.3	180	22.07	3972.94
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum Cum						173.66	0.00
	3.14	Shoulder	Cum		100		0.16 (Avg. Area in shoulder)	16.00	173.66	2778.50
3	(new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of Improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
	(i)		Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	Cum							
	A	Sand filling	Cum		100	4.05	0.1	40.50	398.55	16141.10
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Sqm Sqm		100	3.75		375	474.01	177755.21
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)	Cum						1,840.06	0.00
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum							
	ii)	(By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum						6,782.62	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	226341.18
Cost of Pavement per RM Length	2263.41
Cost of Pavement per SQM	603.58

3.75 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	68.52

3.75 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	(new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	0.3	0.1	3.00	241.68	725.05
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum		100	4.05	0.1	40.50	398.55	16141.10
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling ,watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	3.75		375	220.36	82636.37
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not excaeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days,	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

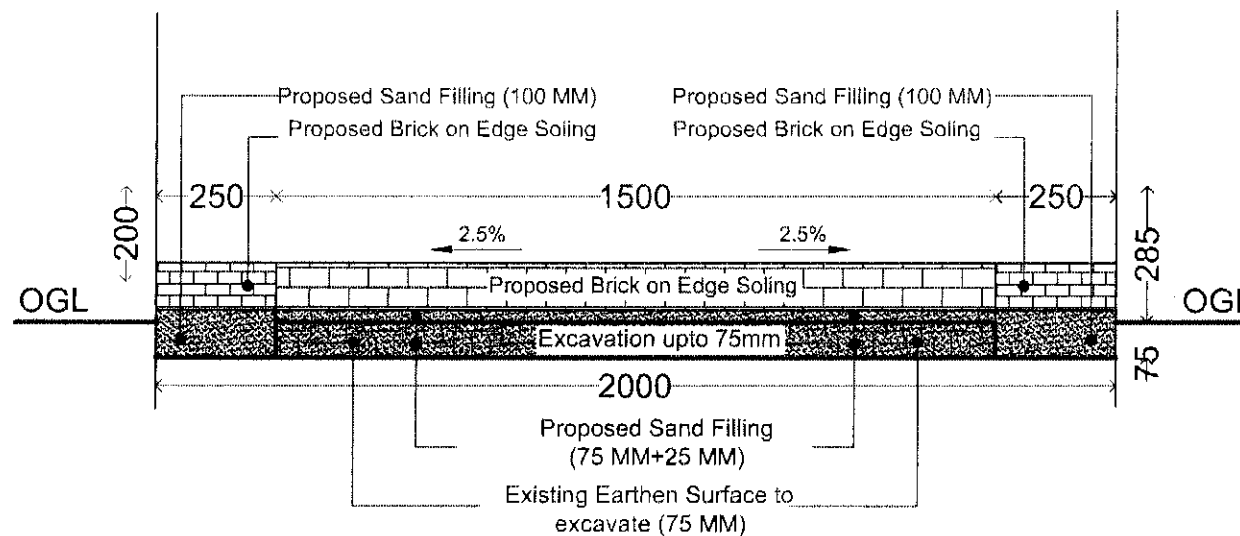
Cost of Pavement per 100m Length	122321.16
Cost of Pavement per RM Length	1223.21
Cost of Pavement per SQM	326.19

For CBR between 4-5

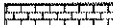
CROSS SECTIONS

OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road

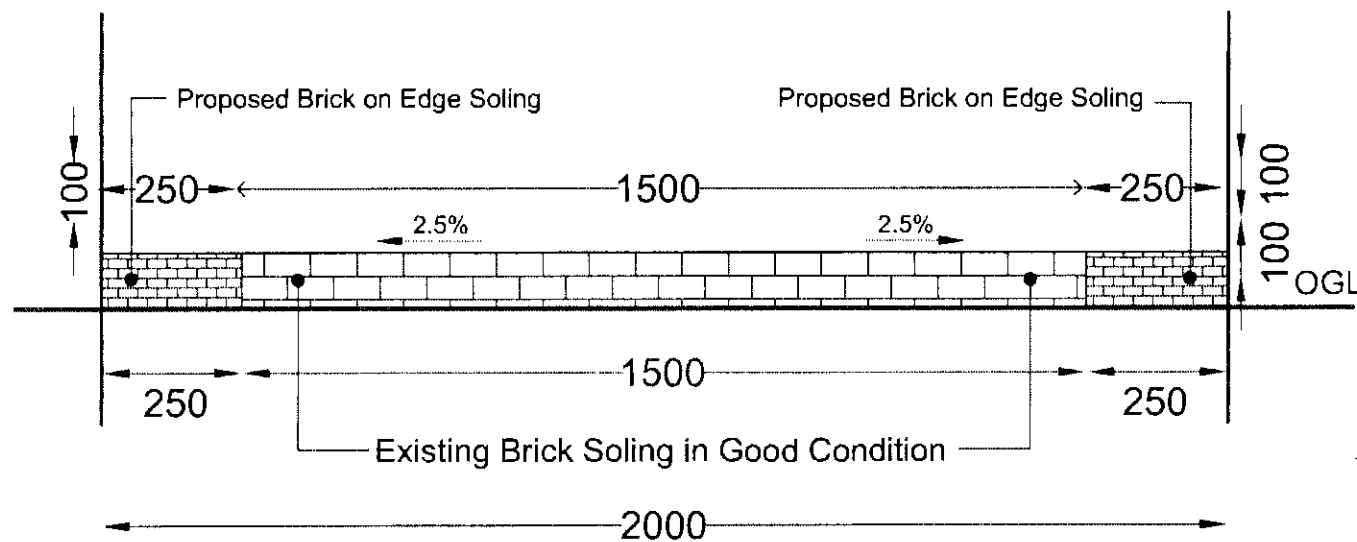


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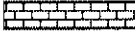
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition

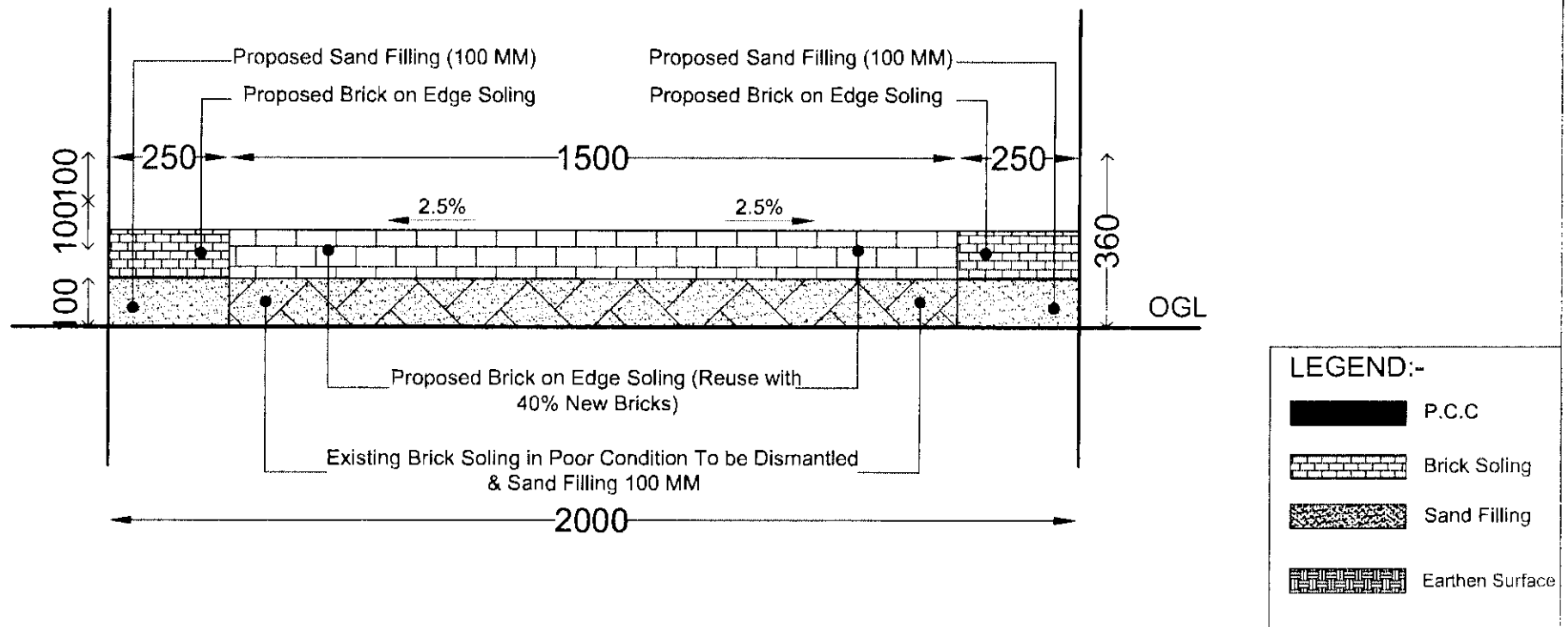


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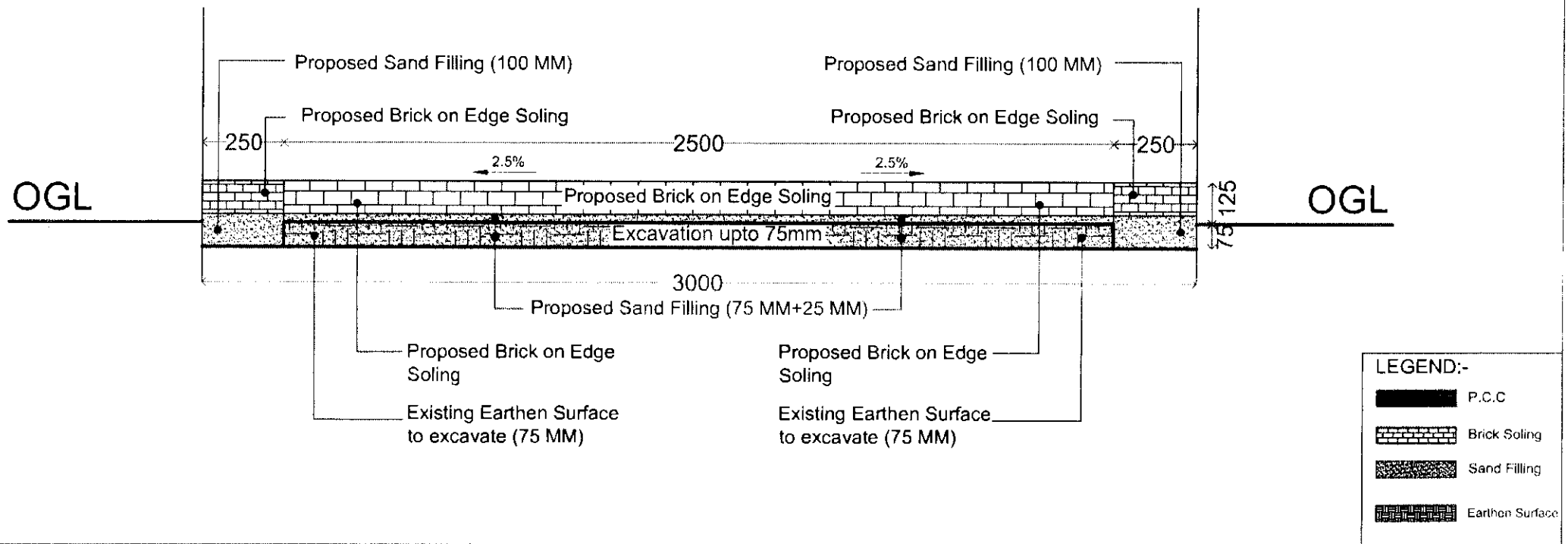
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-I

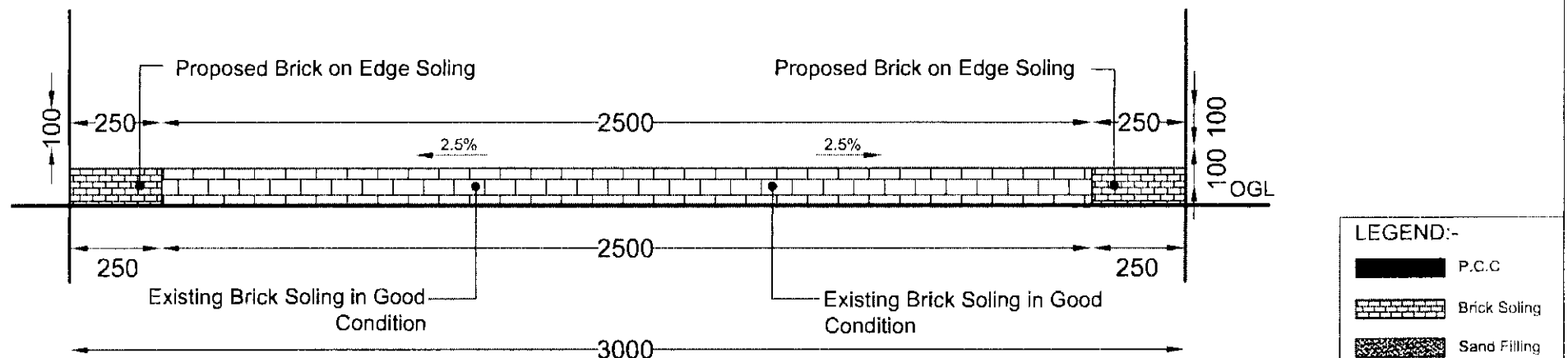
1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



OPTION-II
2.50 m wide Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock
cart use
Over Existing Earthen Road



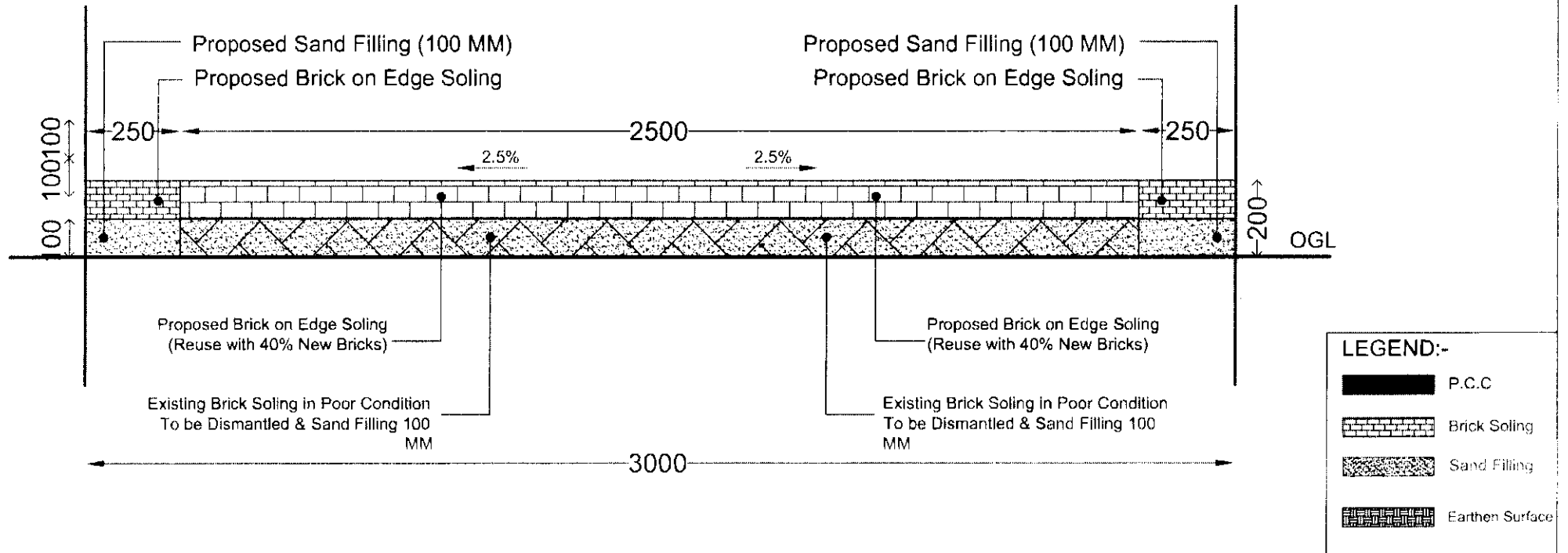
OPTION-II
**2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use**
Over Existing brick soling in good condition



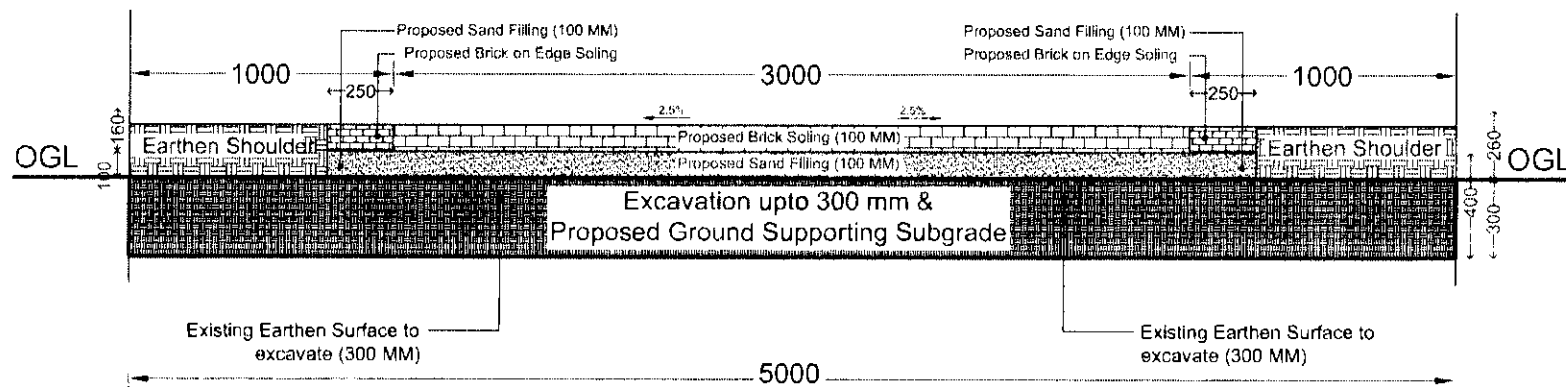
OPTION-II

2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use

Over Existing brick soling in poor condition



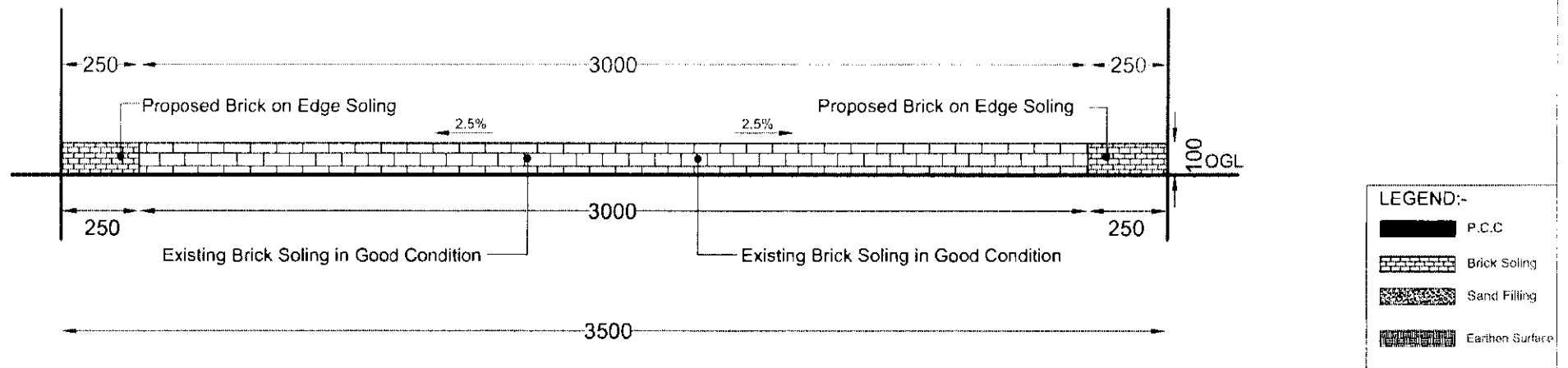
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing Earthen Road



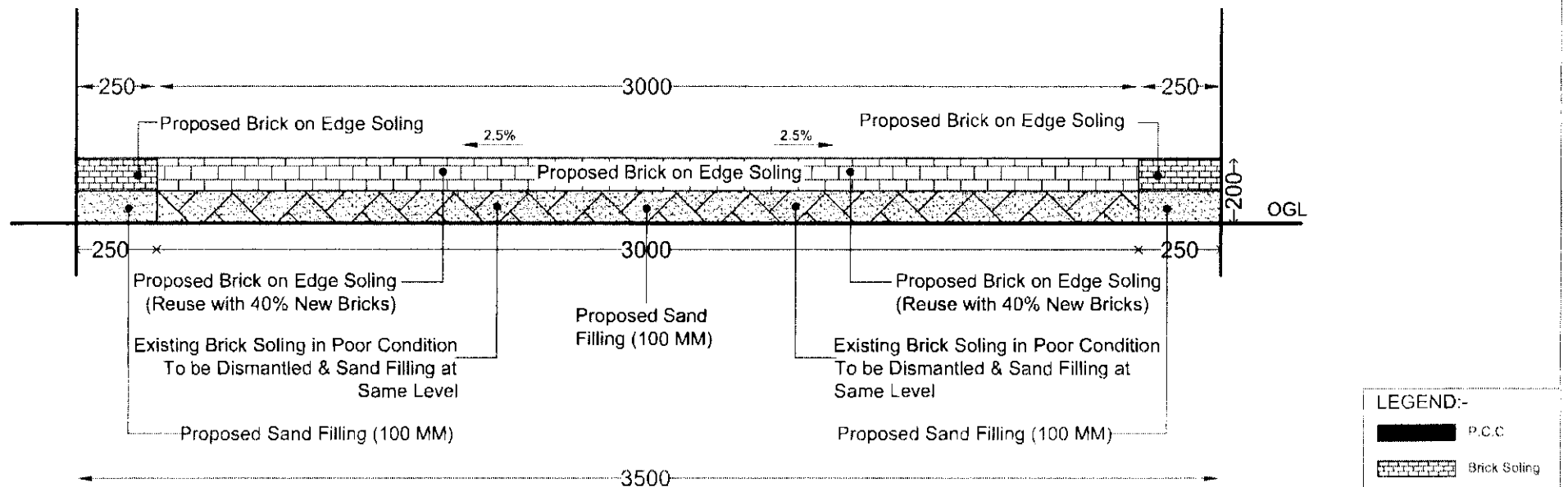
LEGEND:-

	P.C.C.
	Brick Soling
	Sand Filling
	Earthen Surface
	CSB

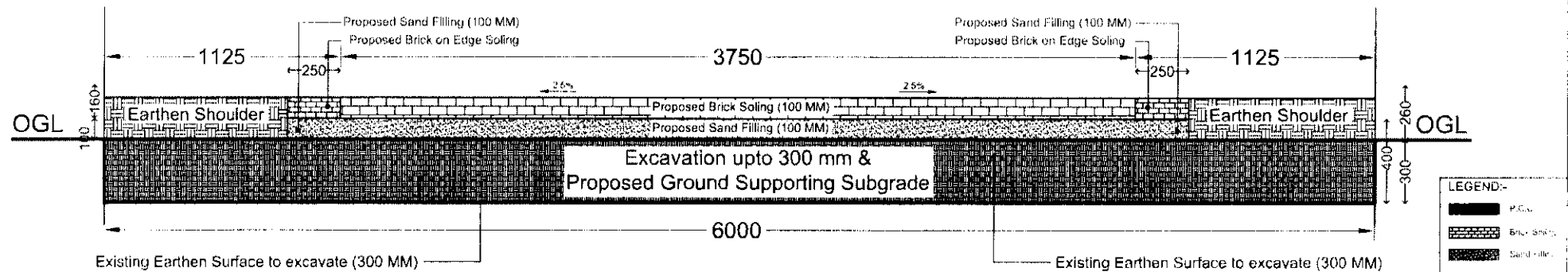
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in good condition



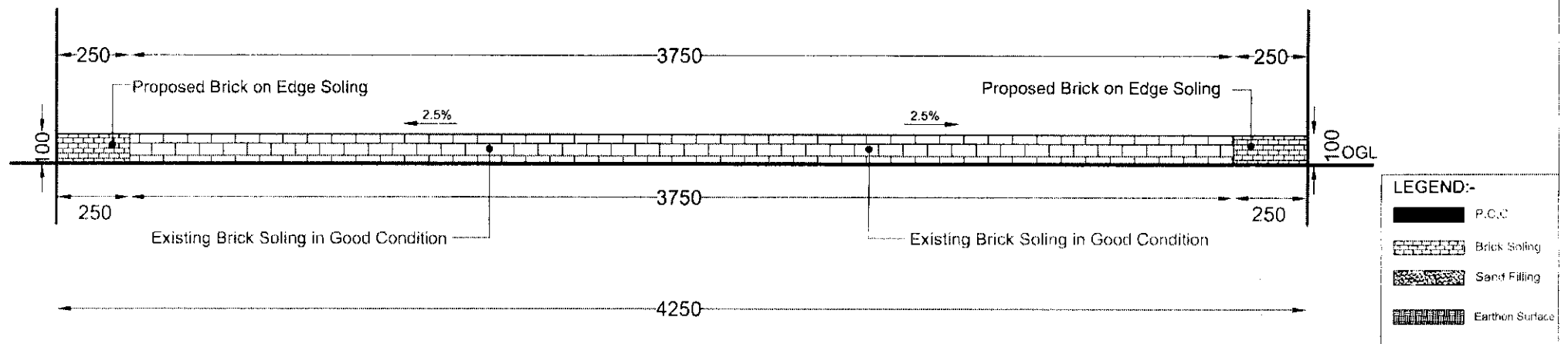
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition



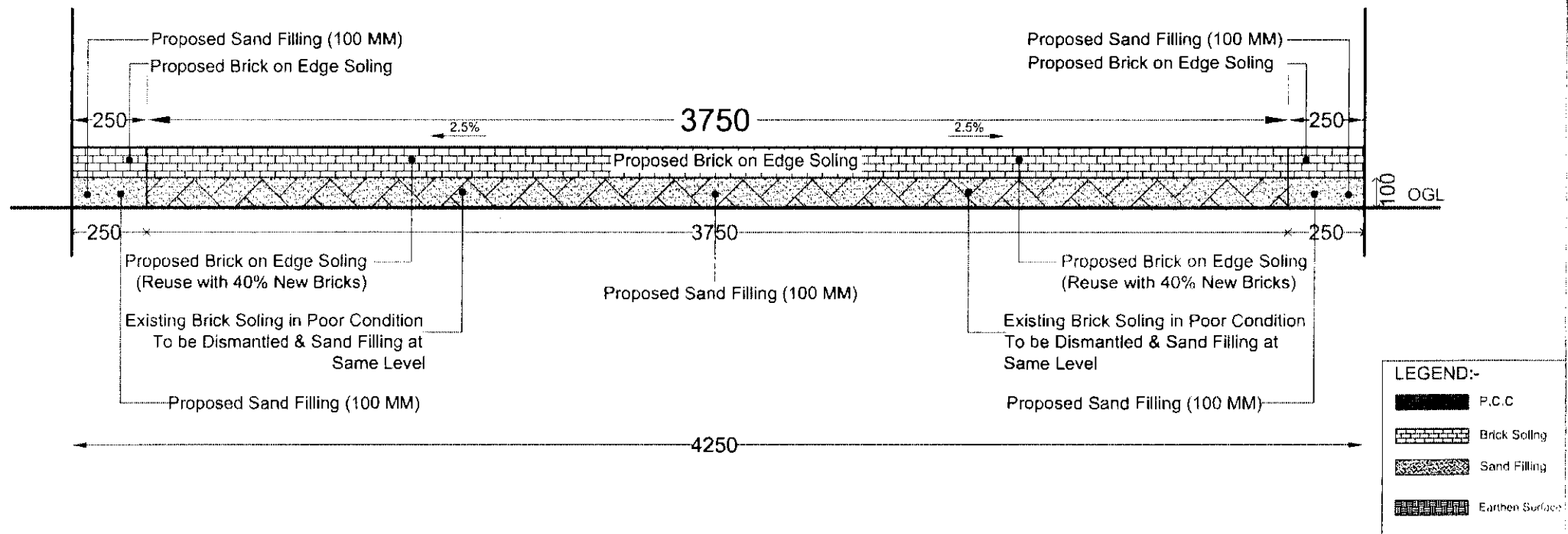
OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing Earthen Road



OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in good condition



OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.37	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.075	11.25	241.68	2718.93
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum		100	1.5	0.1	15.00	398.55	5978.19
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand, and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	1.5		150	474.01	71102.08
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh balcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum						6,782.02	0.00
10			Sqm						953.83	0.00

Cost of Pavement per 100m Length	105492.62
Cost of Pavement per RM Length	1054.93
Cost of Pavement per SQM	703.28

1.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification. Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling ,watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	171.29

1.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum		100	1.50	0.1	15.00	398.55	5978.19
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
			Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	1.50		150	220.36	33054.55
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rolavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	55966.74
Cost of Pavement per RM Length	559.67
Cost of Pavement per SQM	373.11

2.50 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new) 3.14	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Greder & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.075	18.75	241.68	4531.55
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	2.5	0.1	25.00	398.55	9963.64
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	2.5		250	474.01	118503.47
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
9	5.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	158692.09
Cost of Pavement per RM Length	1586.92
Cost of Pavement per SQM	634.77

2.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum		100	2.50	0.1	25.00	398.55	9963.64
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-120kn as per technical Specification clause 412.								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	2.50		250	220.36	55090.92
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of Pavement per 100m Length	84603.95
Cost of Pavement per RM Length	846.04
Cost of Pavement per SQM	338.42

3.00 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum		100	5	0.3	150	22.07	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.135 (Avg. Area on shoulder)	13.50	173.66	2344.36
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum		100	3.3	0.1	33.00	398.55	13152.01
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	3		300	474.01	142204.17
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	A	(By mix in place method)	Cum						1840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00
10										

3.00 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	85.64

3.00 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of Improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	0.3	0.1	3.00	241.68	725.05
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	3.30	0.1	33.00	398.55	13152.01
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	3.00		300	220.36	66109.10
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading ii Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	100843.24
Cost of Pavement per RM Length	1008.43
Cost of Pavement per SQM	336.14

3.75 m wide Brick Soling Road Over Existing Earthen Road

[illegible]

3.75 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	i)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	68.52

3.75 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	0.3	0.1	3.00	241.68	725.05
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	4.05	0.1	40.50	398.55	16141.10
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	3.75		375	220.36	82636.37
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum						6,782.02	0.00
10			Sqm						953.83	0.00

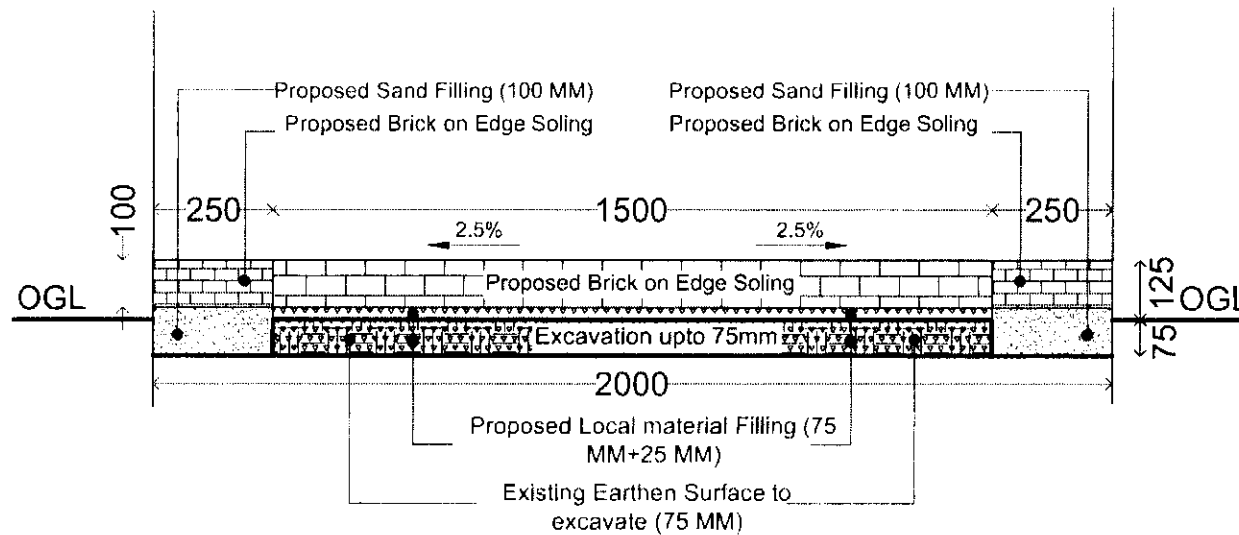
Cost of Pavement per 100m Length	122321.16
Cost of Pavement per RM Length	1223.21
Cost of Pavement per SQM	326.19

For CBR between 5-6

CROSS SECTIONS

OPTION-I

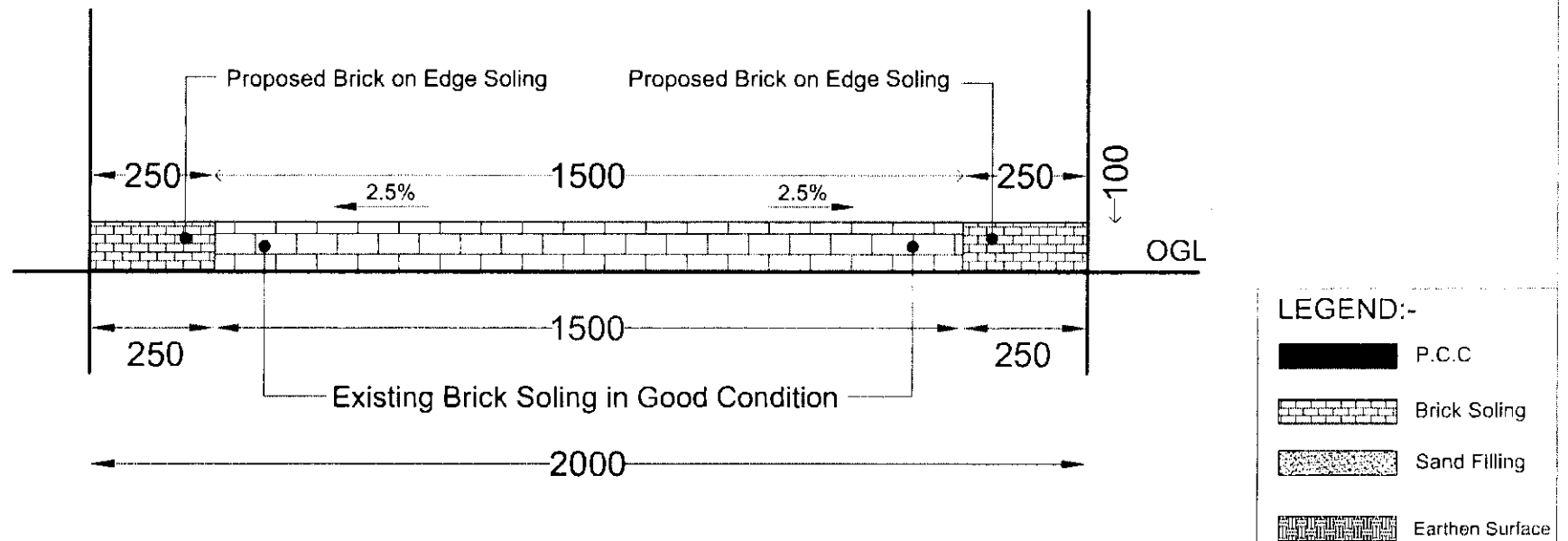
1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road



LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

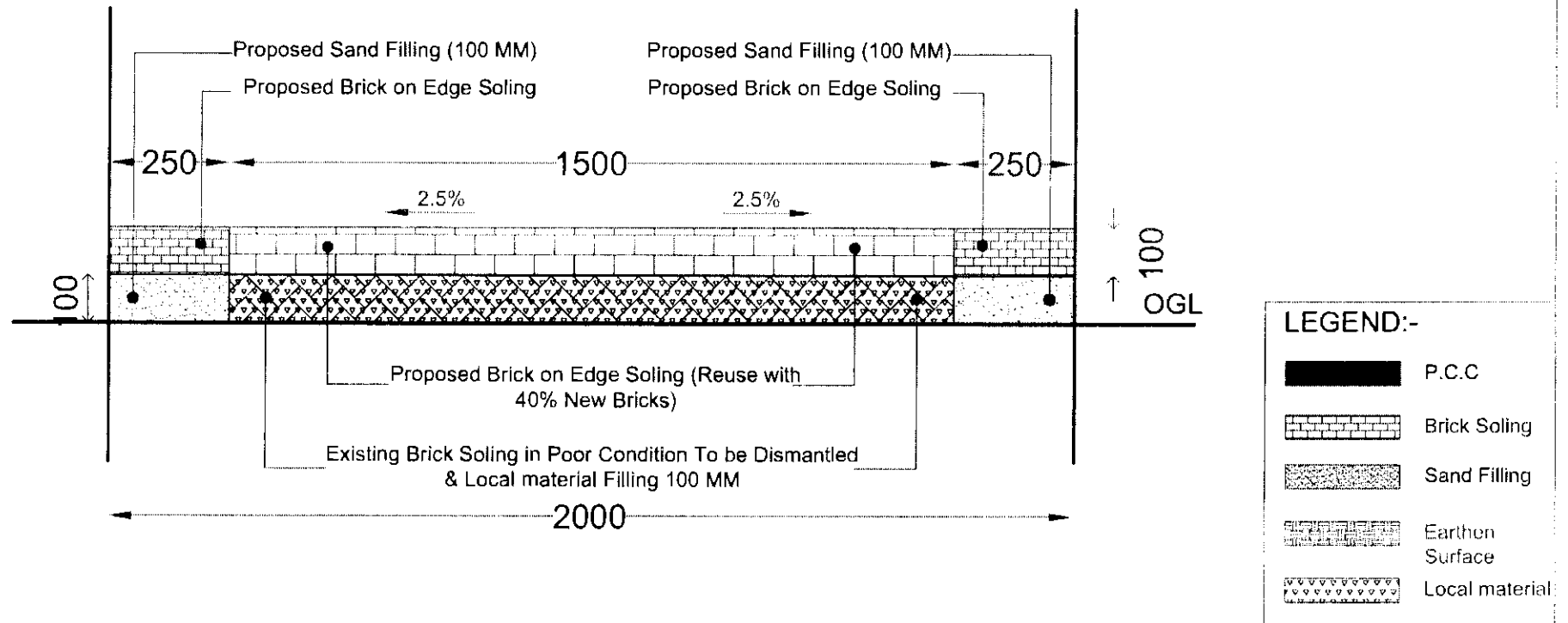
OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition

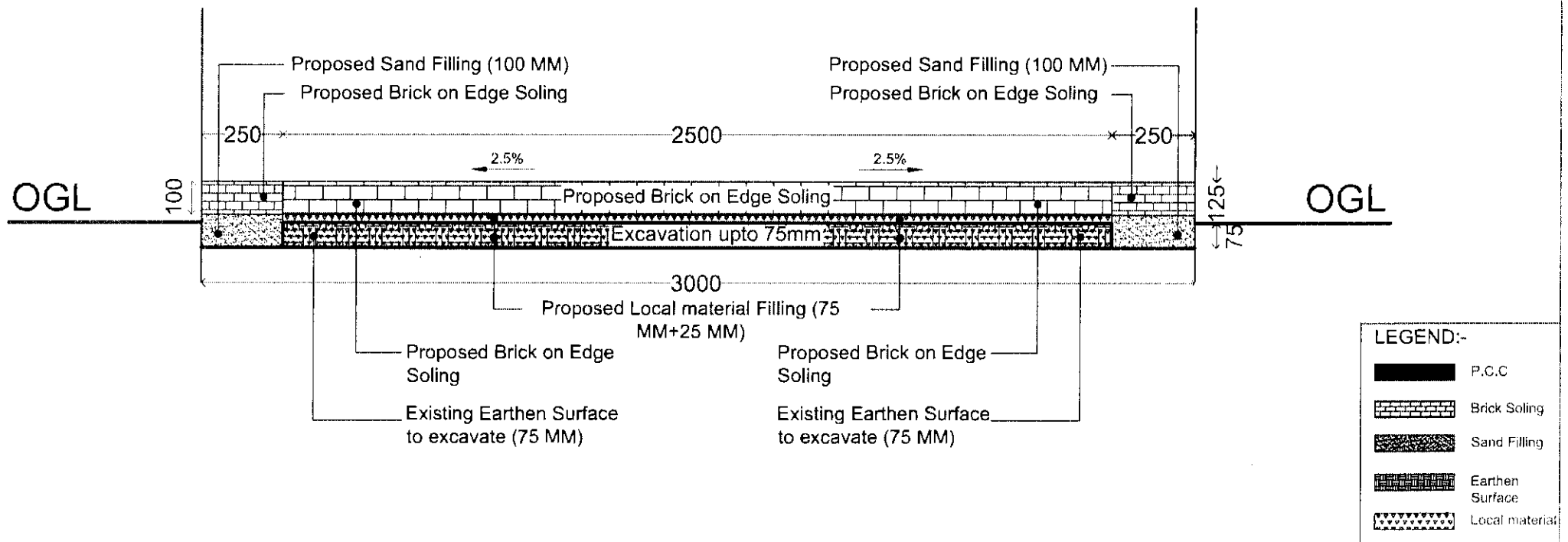


OPTION-I

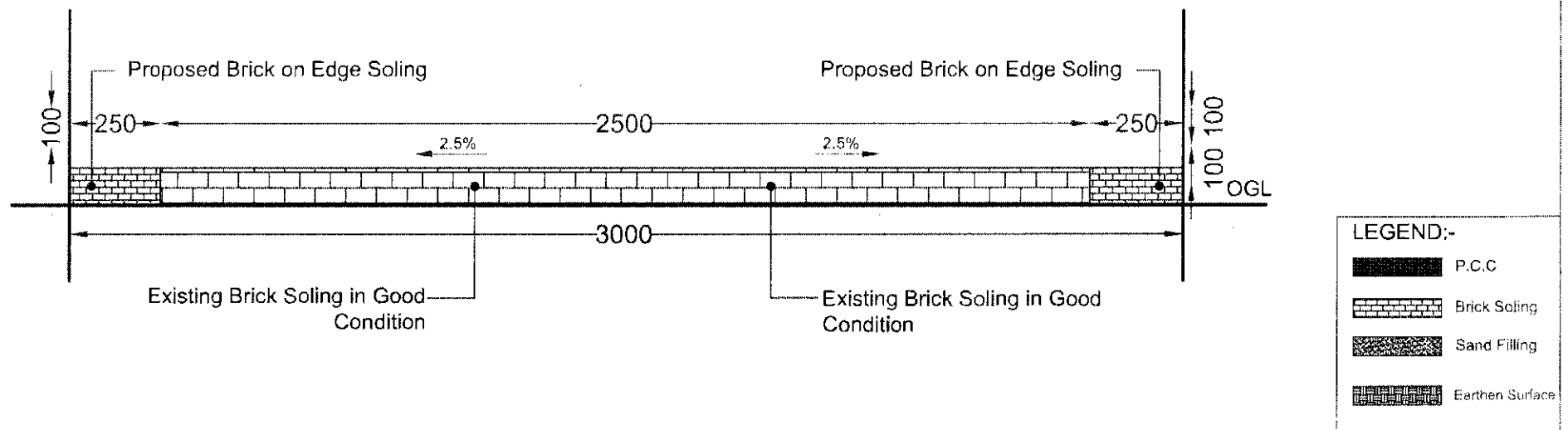
1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



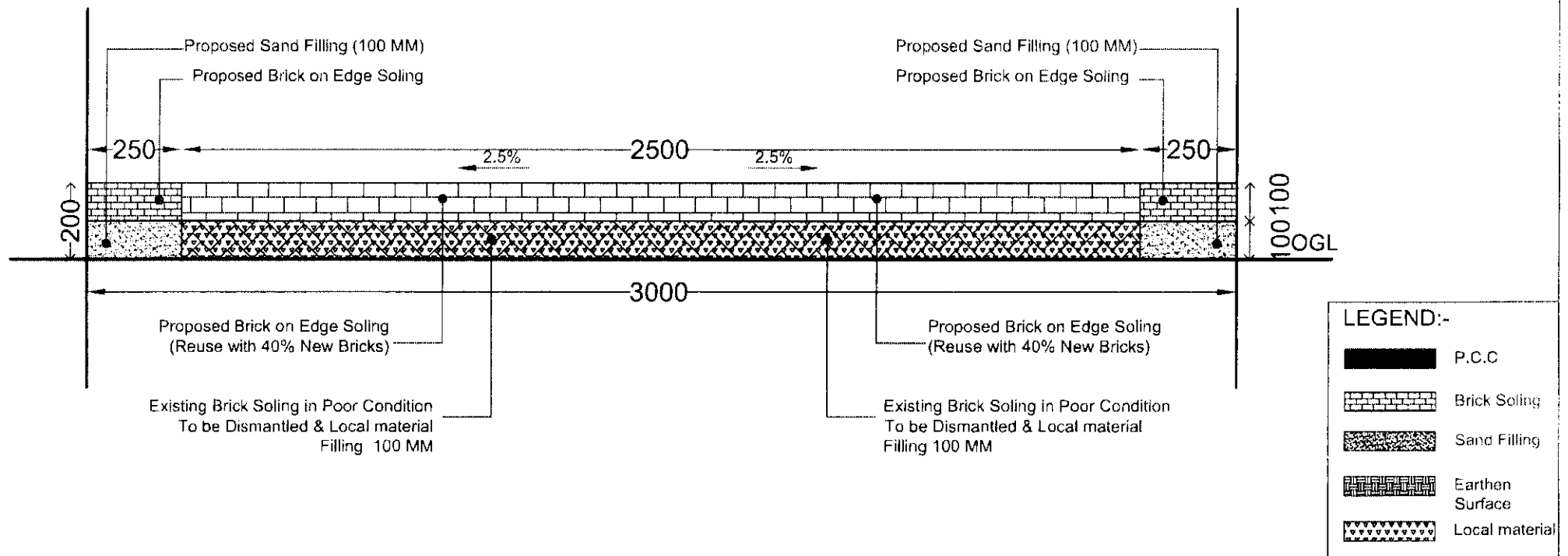
OPTION-II
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing Earthen Road



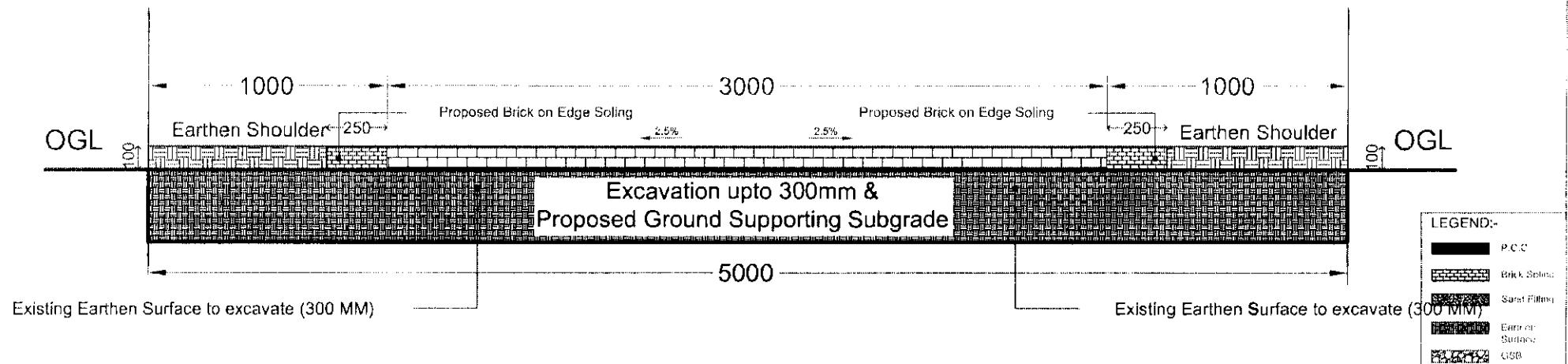
OPTION-II
**2.50 m wide Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock
cart use**
Over Existing brick soling in good condition



OPTION-II
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing brick soling in poor condition

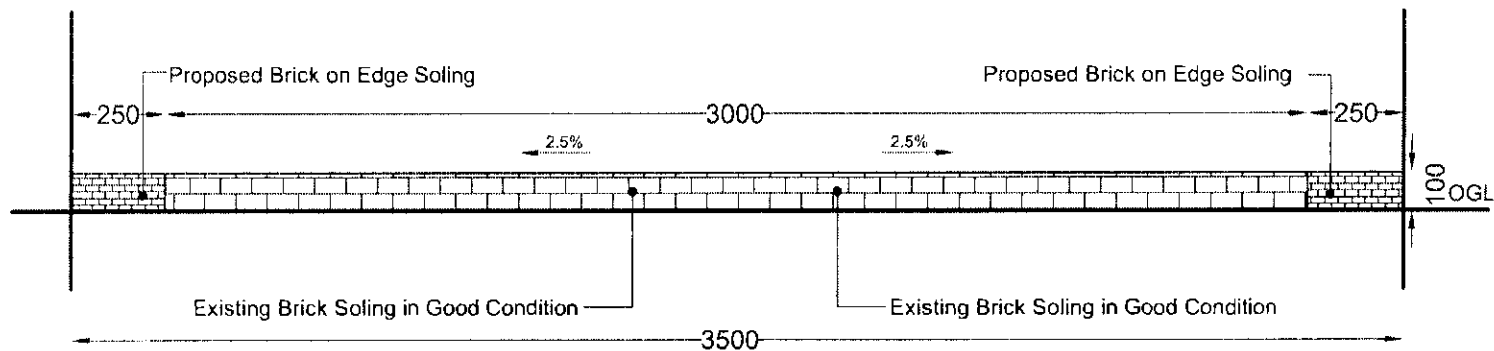


OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian /
Bicycle / Tricycle / Bullock Cart /Light Vehicles use
Over Existing Earthen Road



OPTION-III

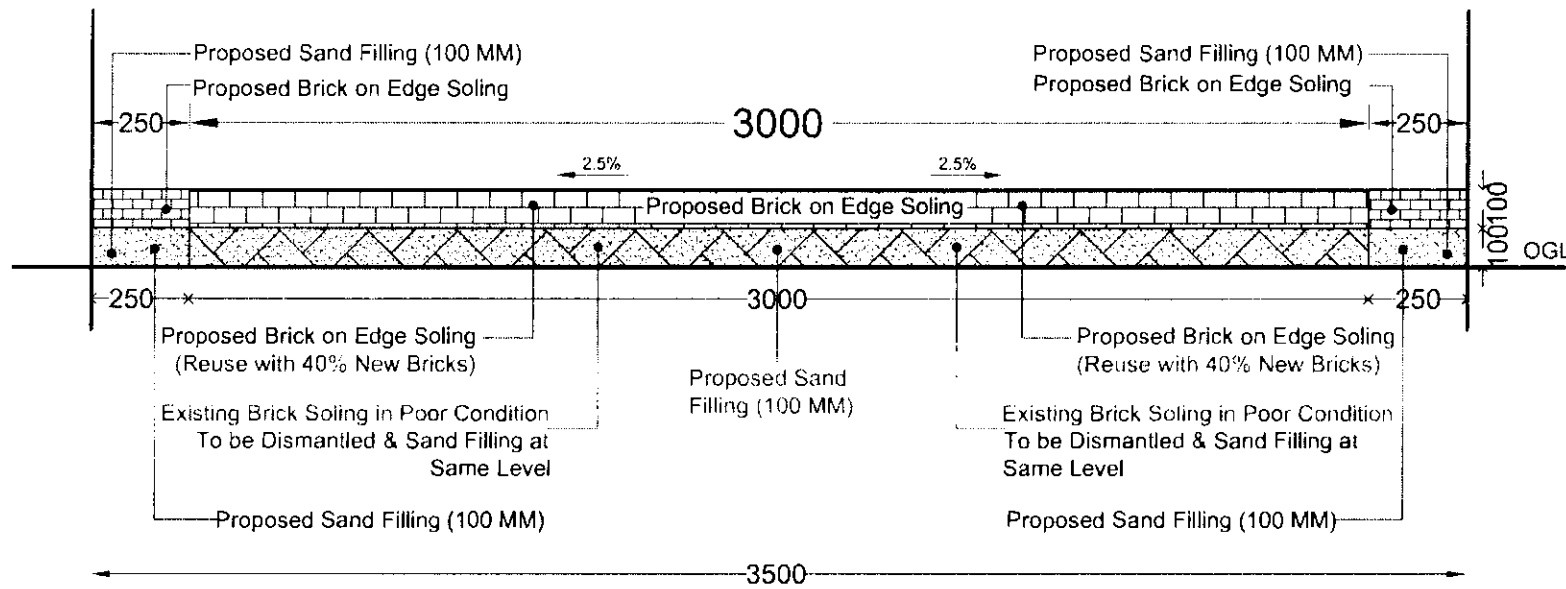
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in good condition



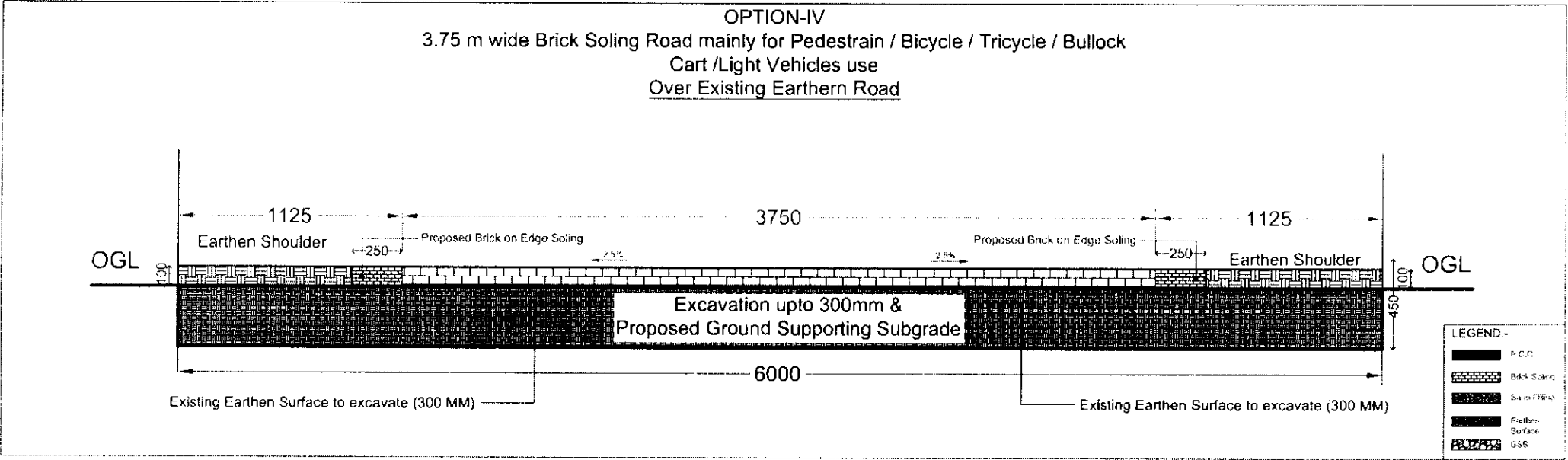
LEGEND:-

-  P.C.C
-  Brick Soling
-  Sand Filling
-  Subgrade

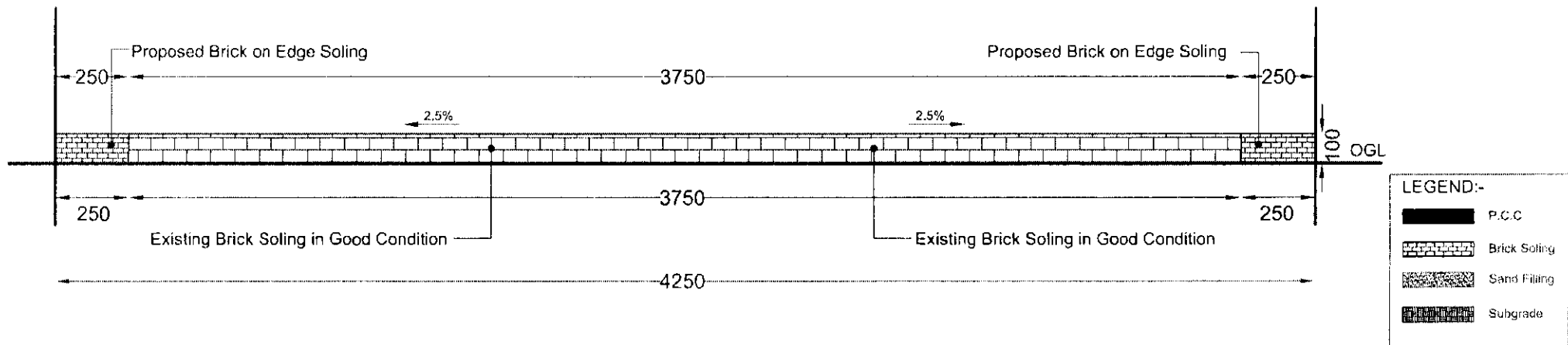
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition



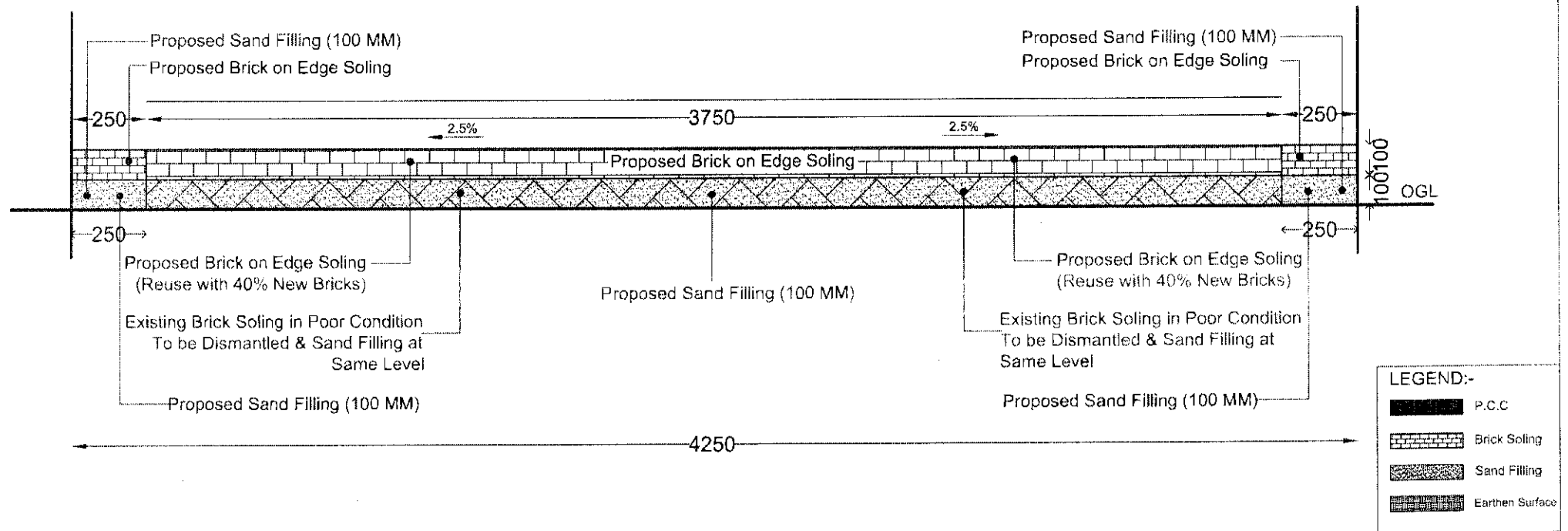
LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface



OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in good condition



3.75 m wide Brick Soling Road mainly for Pedestrain / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Brick Soling Road Over Existing Earthen Road

[illegible]

[illegible]

1.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	1.5	0.1	15.00	113.29	1699.33
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum		100	1.5	0.1	15.00	196.62	2949.35
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	1.50		150	220.36	33054.55
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	54637.23
Cost of Pavement per RM Length	546.37
Cost of Pavement per SQM	364.25

2.50 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps, and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.075	18.75	241.68	4531.55
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum						398.55	0.00
		Road Side Offset/Shoulder	Cum						398.55	0.00
	B	Borrowed Earth	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand, and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	2.5		250	474.01	118503.47
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, cove-jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	154483.51
Cost of Pavement per RM Length	1544.84
Cost of Pavement per SQM	617.93

2.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.67	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
	(i)		Cum							
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum						113.29	0.00
	(i)		Cum							
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
		For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	102.77

2.50 m wide Brick Soling Road Over Existing brick soling in Poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.56	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	196.62	4915.58
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Cum		100	2.50	0.1	25.00	261.54	6538.48
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	2.50		250	220.36	55090.92
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel), laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealer, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum						6,782.02	0.00
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	82388.10
Cost of Pavement per RM Length	823.88
Cost of Pavement per SQM	329.55

3.00 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum		100	5	0.3	150	22.07	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.15 (Avg Area in shoulder)	15.00	173.66	2604.84
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OVC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)	Filling in foundation trenches as per drawing and technical specification								
5	11.2	Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum						398.55	0.00
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	3		300	474.01	142204.17
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	(i)	(By mix in place method)	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	171820.50
Cost of Pavement per RM Length	1718.20
Cost of Pavement per SQM	572.73

3.00 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 433.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
		Borrowed Earth	Cum							
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
		For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh balancer using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	85.64

3.00 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.67	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
4	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
5	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	3.3	0.1	3.00	241.68	725.05
6	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	3.3	0.1	33.00	113.29	3738.53
7	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum		100	3.3	0.1	33.00	196.62	6488.56
8	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
9	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	3.00		300	220.36	66109.10
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
10	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
11	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	97918.32
Cost of Pavement per RM Length	979.18
Cost of Pavement per SQM	326.39

3.75 m wide Brick Soling Road Over Existing Earthen Road

[illegible]

3.75 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new)	3.14 Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of unreinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,792.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	68.52

3.75 m wide Brick Soling Road Over Existing brick soling in poor condition

[illegible]

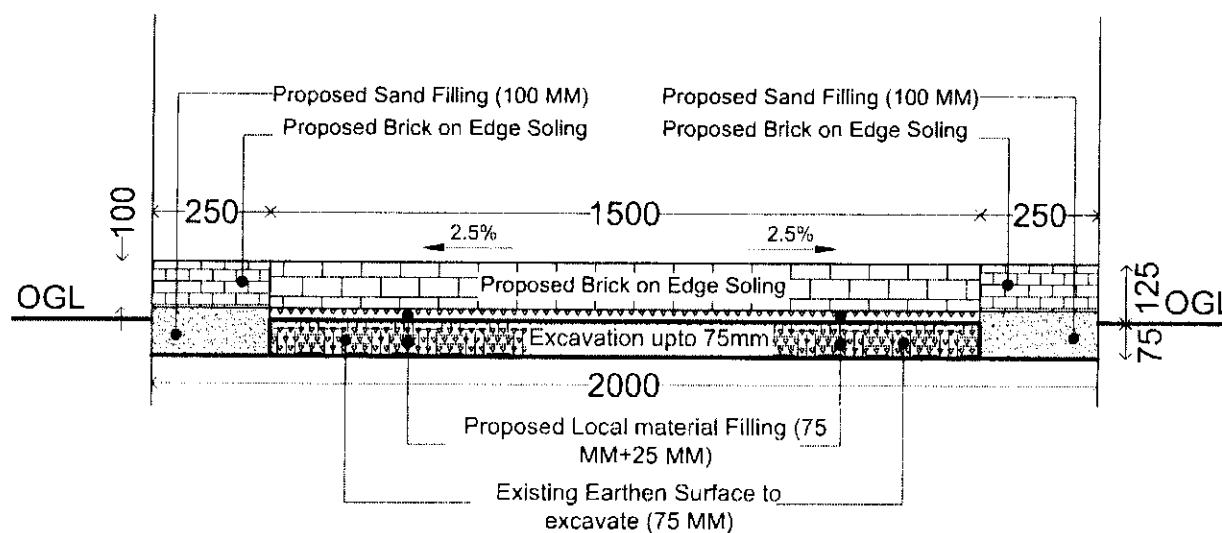
For CBR between 6-7

CROSS SECTIONS

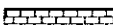
CBR 6-7

OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road

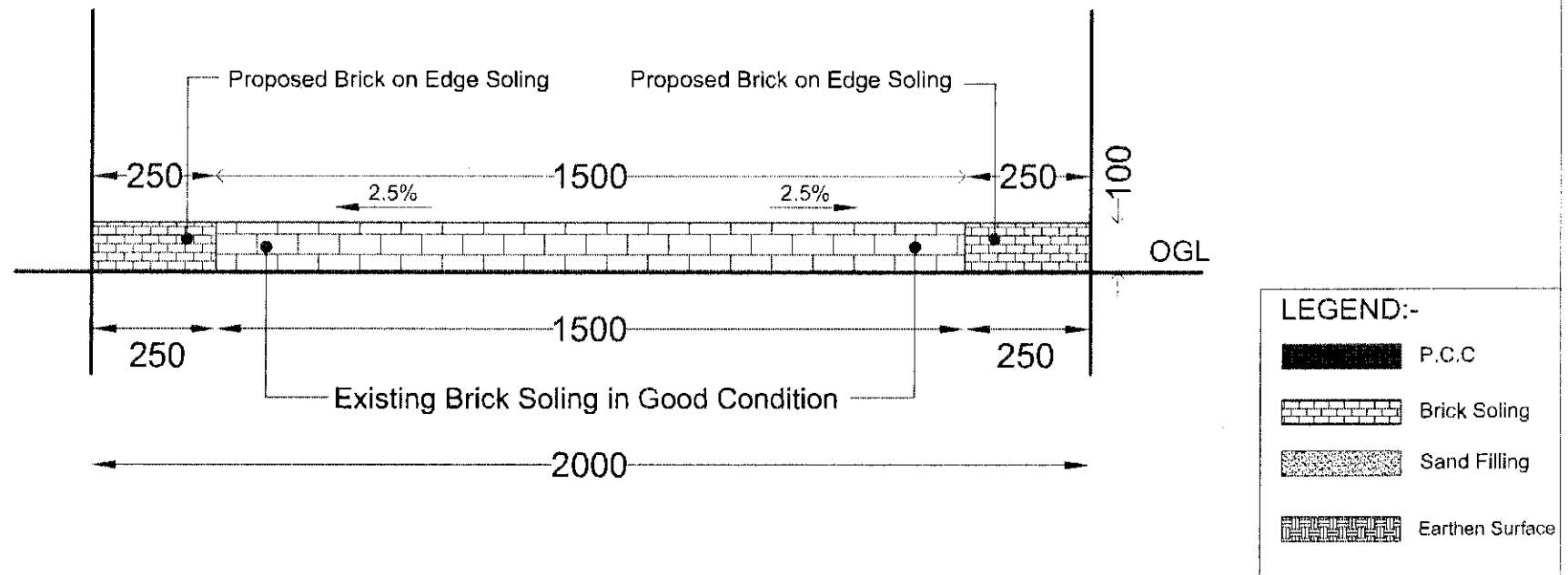


LEGEND:-

-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

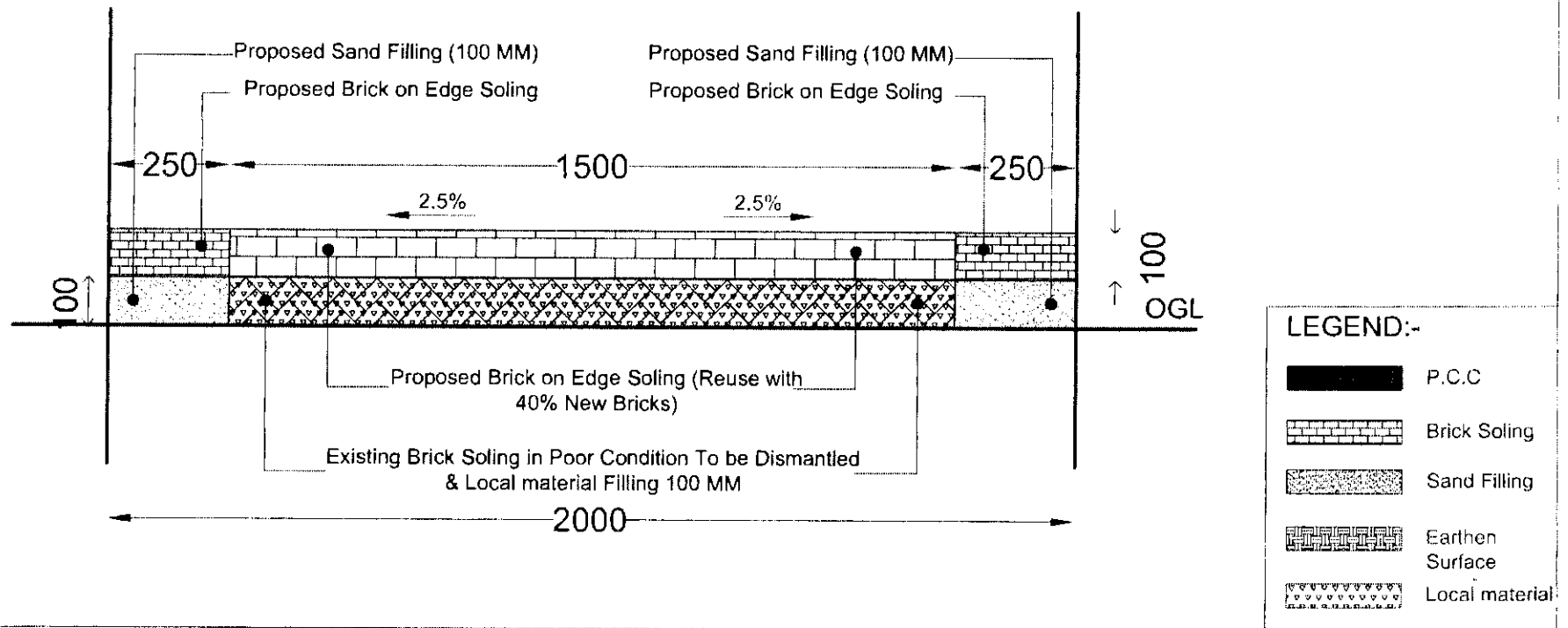
OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition



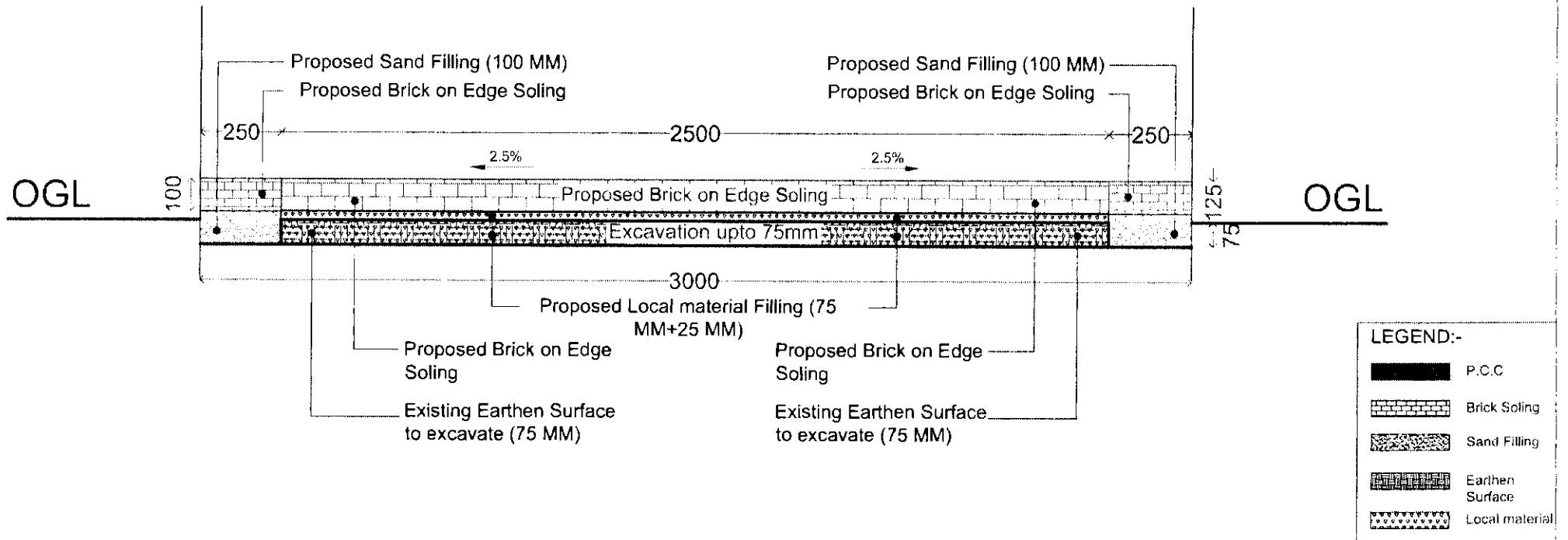
OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition

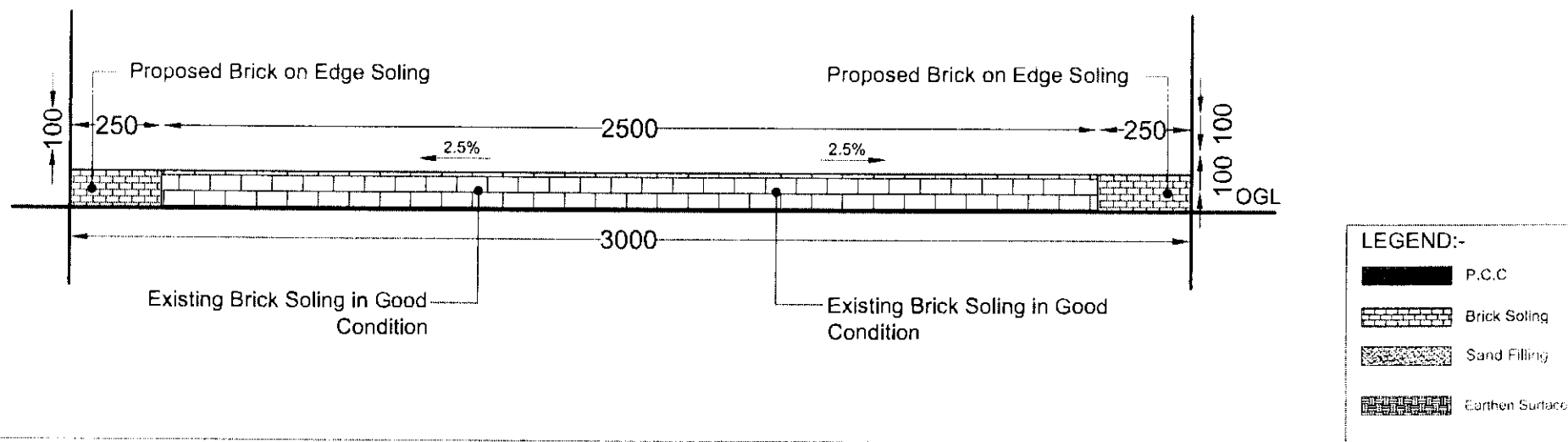


OPTION-II

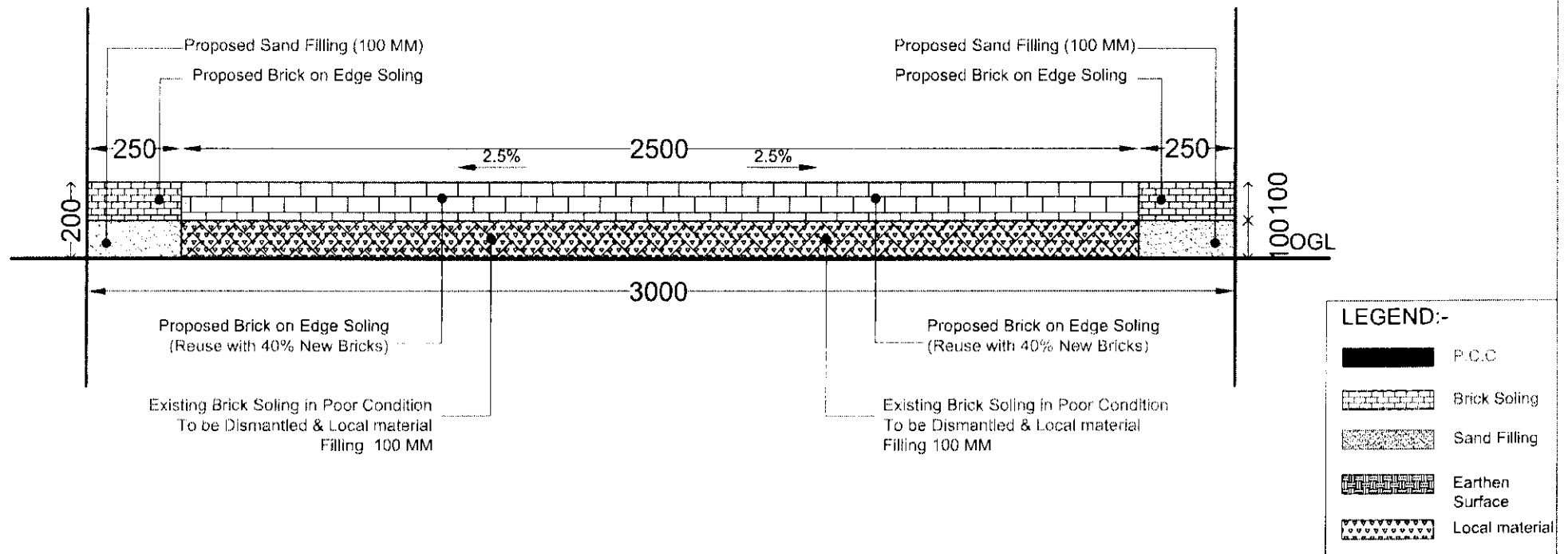
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing Earthen Road



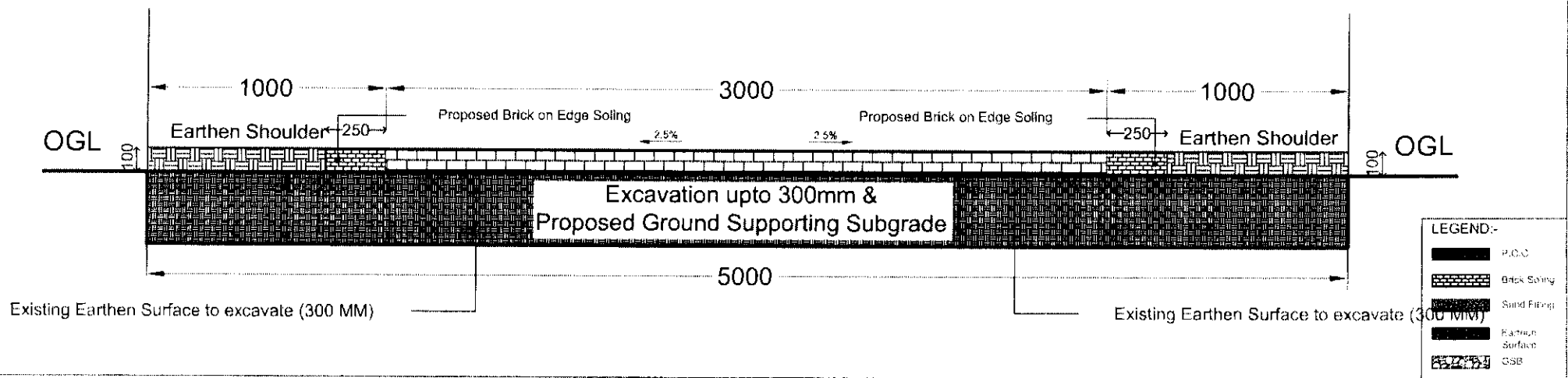
OPTION-II
**2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
 cart use**
Over Existing brick soling in good condition



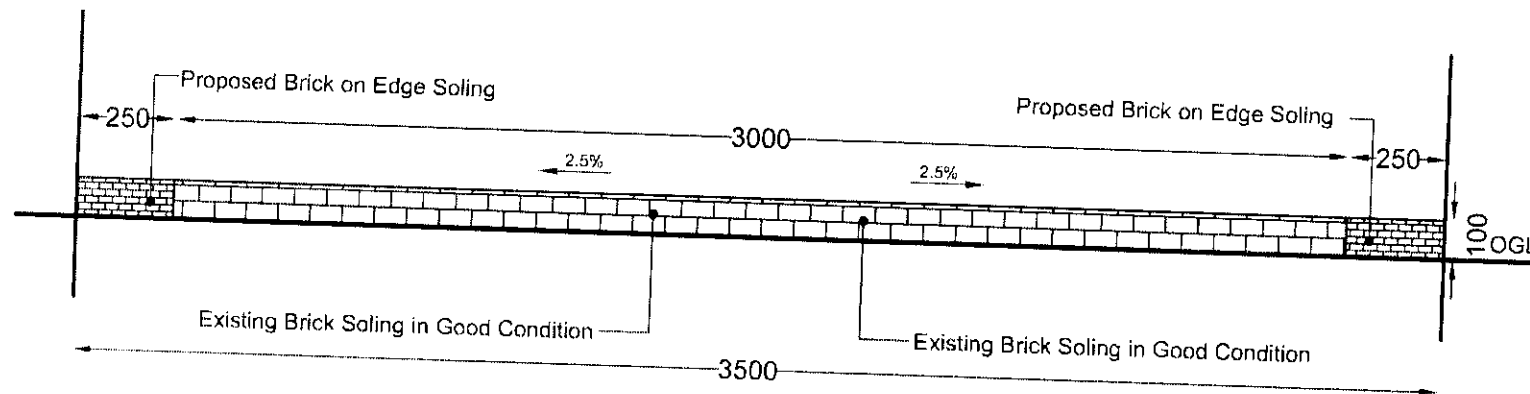
OPTION-II
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing brick soling in poor condition



OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian /
Bicycle / Tricycle / Bullock Cart /Light Vehicles use
Over Existing Earthen Road

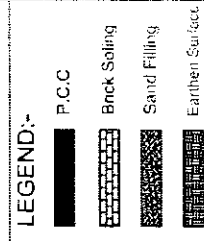


OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart / Light Vehicles use
Over Existing brick soling in good condition

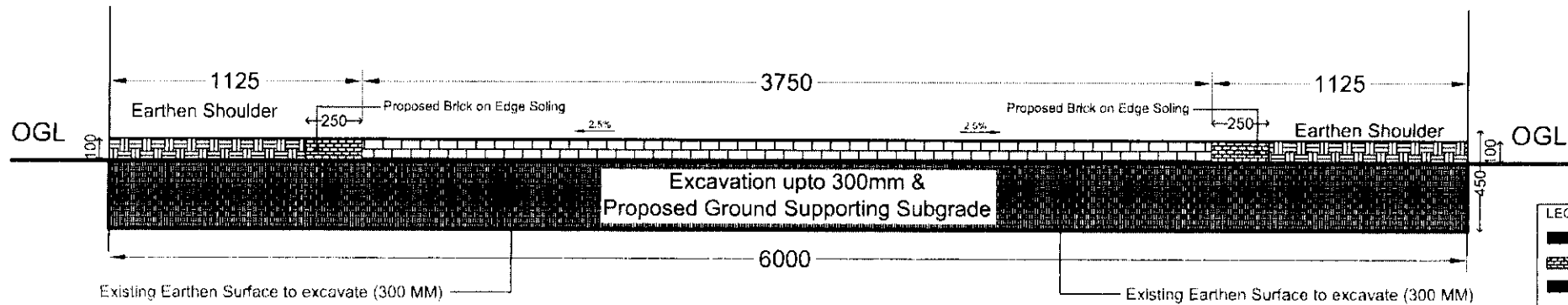


LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Subgrade

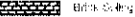
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart /Light Vehicles use
Over Existing brick soling in poor condition



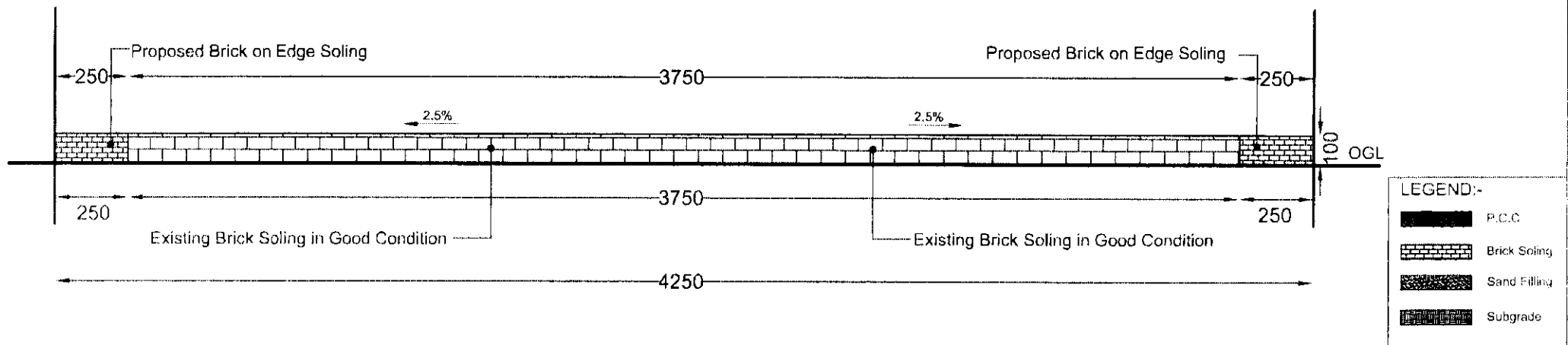
OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing Earthen Road



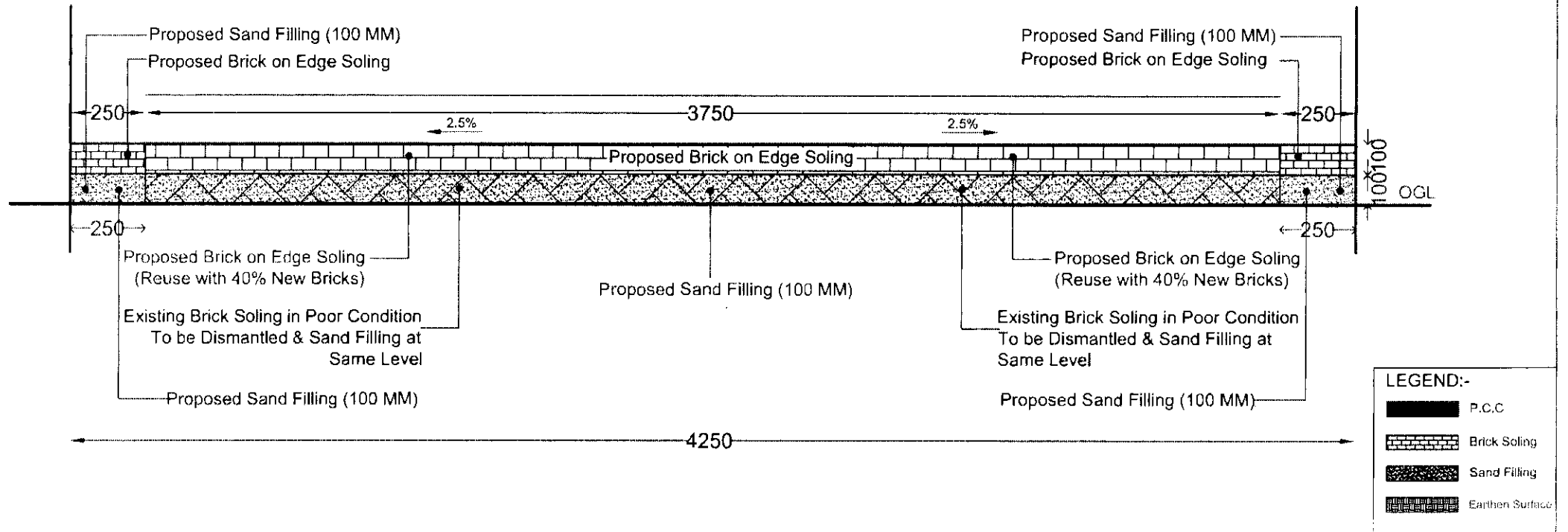
LEGEND:-

-  P.C.C.
-  Brick Soling
-  Sand Filling
-  Earthen Surface
-  GSB

OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in good condition



OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.075	11.25	241.68	2718.93
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	1.5	0.1	15.00	113.29	1699.33
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum						398.55	0.00
	B	Borrowed Earth	Cum		100	1.5	0.1	15.00	196.62	2949.35
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		100	1.5		150	474.01	71102.08
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	102170.38
Cost of Pavement per RM Length	1021.70
Cost of Pavement per SQM	681.14

1.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new) 3.14 4.4	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5. Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	150.87	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	243.88	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum					0.00	241.68	0.00
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9							113.29	0.00
	A	Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
7	2.6(D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum						196.62	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and contraction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	171.29

1.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)	
		Road									
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watering, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00	
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00	
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00	
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OVC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00	
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00	
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum			100	1.5	0.1	15.00	113.29	1699.33
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9									
	A	Sand filling Road	Cum					0.00	398.55	0.00	
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73	
	B	Borrowed Earth	Cum		100	1.5	0.1	15.00	196.62	2949.35	
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including dispose of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09	
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412									
		Road	Sqm					0	474.01	0.00	
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00	
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)									
		Road	Sqm		100	1.50		150	220.36	33054.55	
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18	
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OVC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.									
	ii)	For Grading II Material	Cum						1,840.06	0.00	
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grede), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00	
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00	

Cost of Pavement per 100m Length	54637.23
Cost of Pavement per RM Length	546.37
Cost of Pavement per SQM	364.25

2.50 m wide Brick Soling Road Over Existing Earthen Road

[illegible]

2.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum						113.29	0.00
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum						196.62	0.00
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	102.77

2.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watering, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	(new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing, by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	2.50		250	220.36	55090.92
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	82388.10
Cost of Pavement per RM Length	823.88
Cost of Pavement per SQM	329.55

3.00 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum		100	5	0.3	150	22.07	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.15 (Avg. Area in shoulder)	15.00	173.65	2604.84
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum						398.55	0.00
		Road Side Offset/Shoulder	Cum						196.62	0.00
	B	Borrowed Earth	Cum							
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling watering and rolling the same with three wheel road roller 80-100kn as per technical specification clause 412	Sqm		100	3		300	474.01	142204.17
		Road	Sqm		100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm	2						
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
	ii)	(By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel), laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	171820.50
Cost of Pavement per RM Length	1718.20
Cost of Pavement per SQM	572.73

3.00 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.97	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading ii) Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	85.64

3.00 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	0.3	3.1	3.00	241.68	725.05
5	3.5 (i)	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	3.3	0.1	33.00	113.29	3738.53
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum		100	3.3	0.1	33.00	196.62	6488.56
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	3.00		300	220.36	66109.10
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	97918.32
Cost of Pavement per RM Length	979.18
Cost of Pavement per SQM	326.39

3.75 m wide Brick Soling Road Over Existing Earthen Road

[illegible]

3.75 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.37	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing, by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	68.52

3.75 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	0.3	0.1	3.00	241.68	725.05
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum		100	4.05	0.1	40.50	113.29	4588.19
6	11.2	Fillling In foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum					5.00	398.55	1992.73
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	40.50	196.62	7963.24
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	3.75		375	220.36	82636.37
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

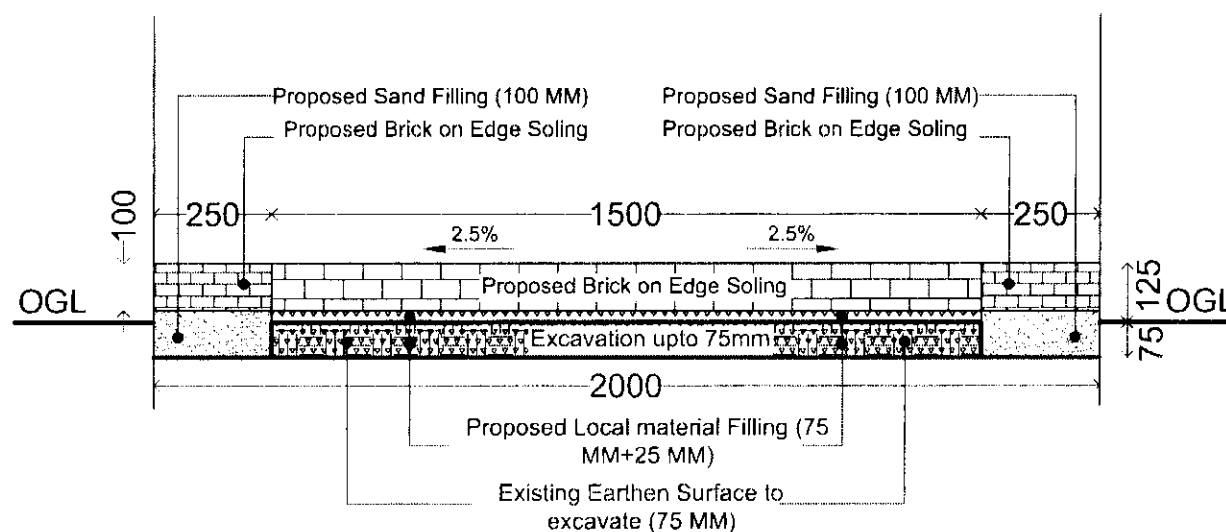
Cost of Pavement per 100m Length	118731.48
Cost of Pavement per RM Length	1187.31
Cost of Pavement per SQM	316.62

For CBR Greater than 7

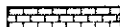
CROSS SECTIONS

OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road

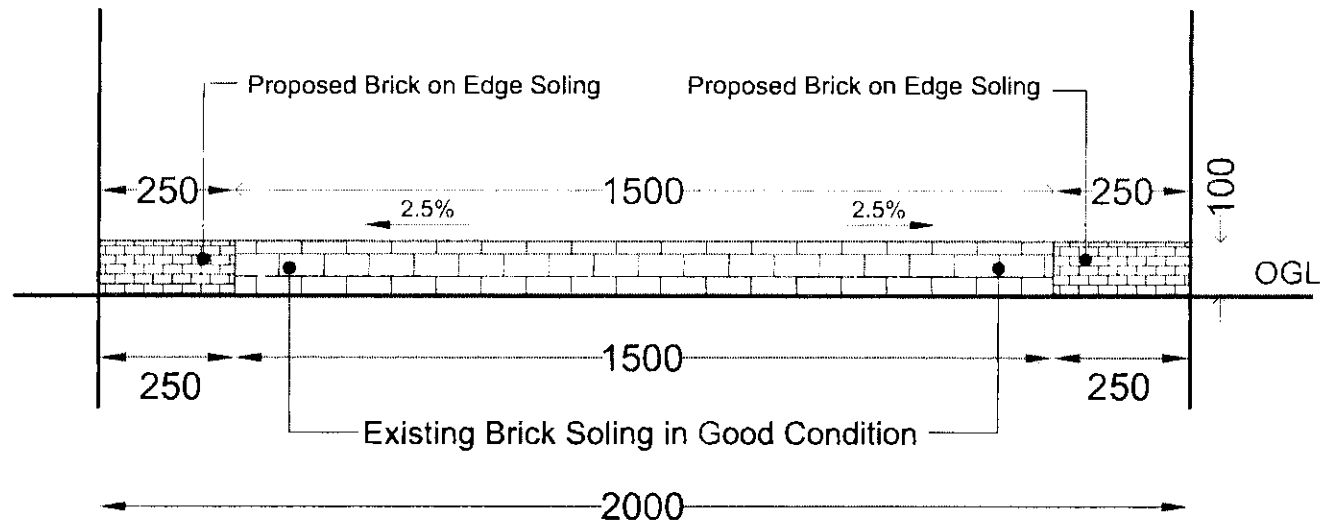


LEGEND:-

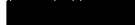
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition

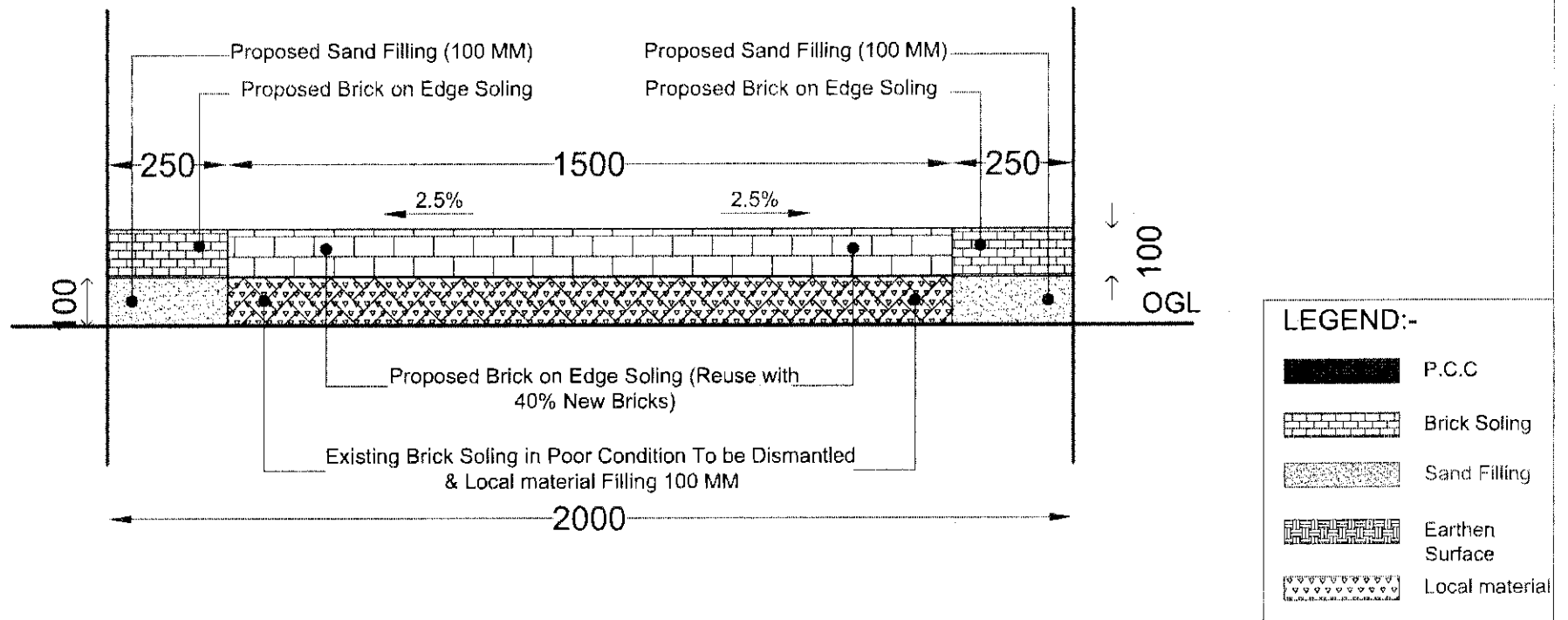


LEGEND:-

-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

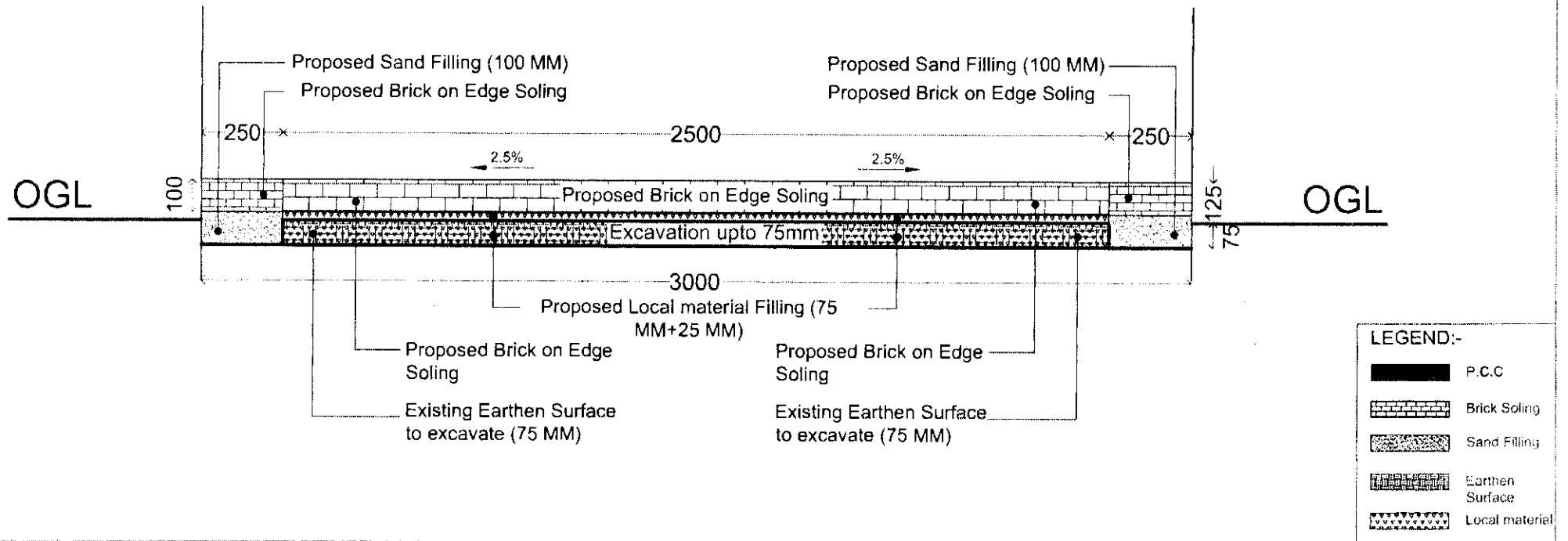
OPTION-I

1.50 m wide Brick Soling Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition

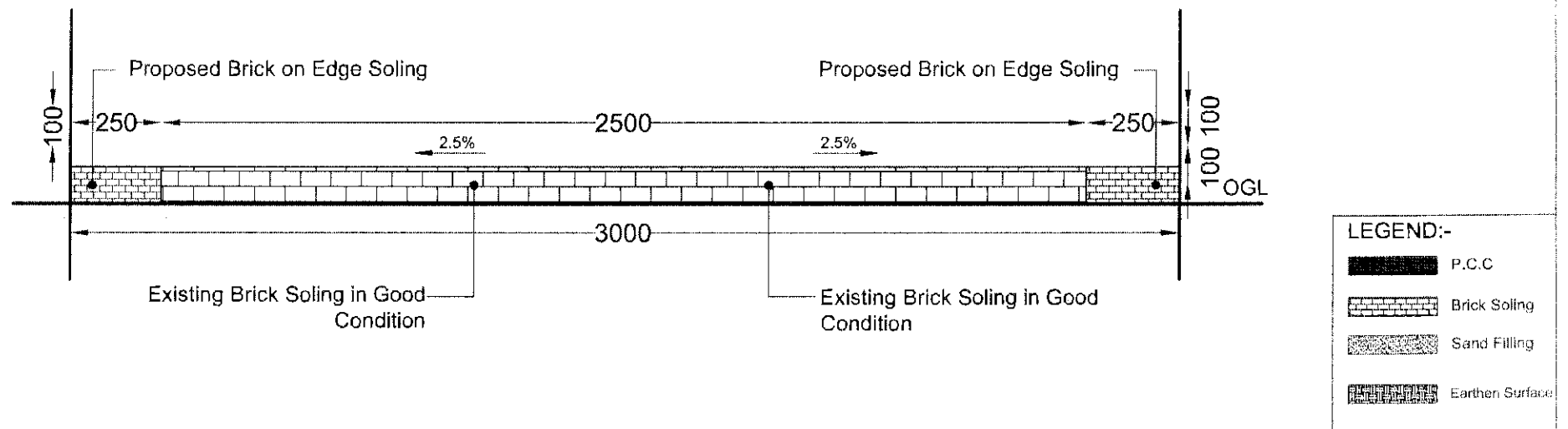


OPTION-II

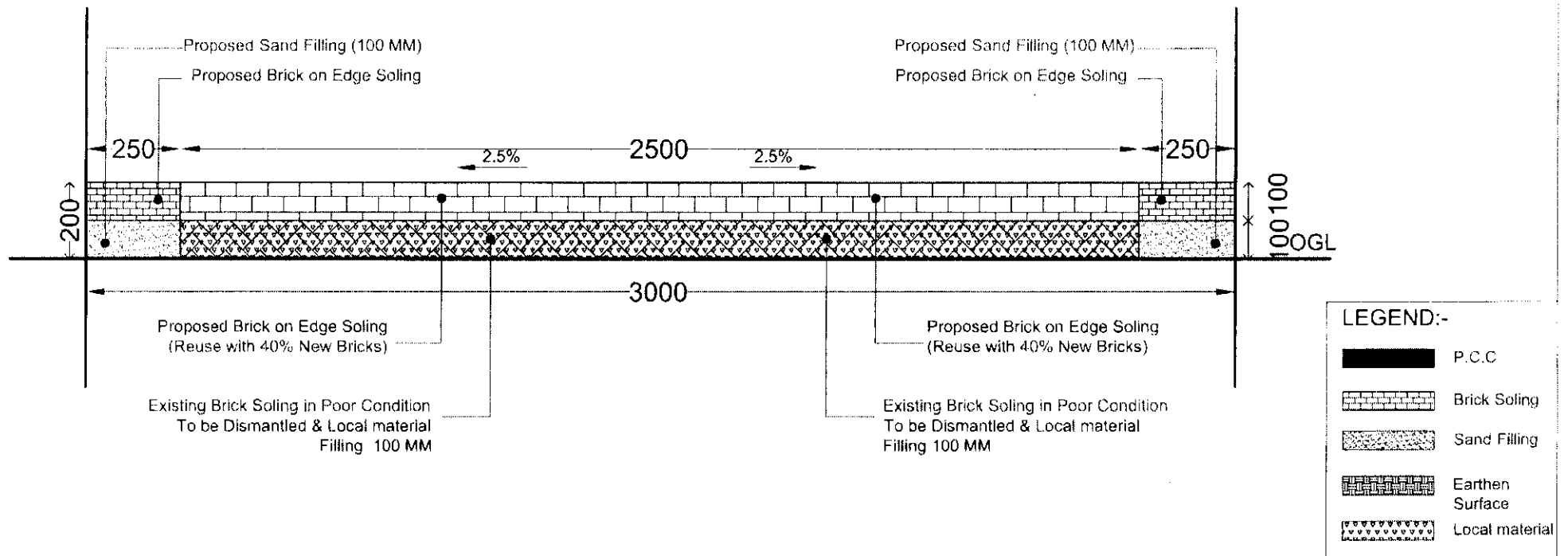
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock cart use
Over Existing Earthen Road



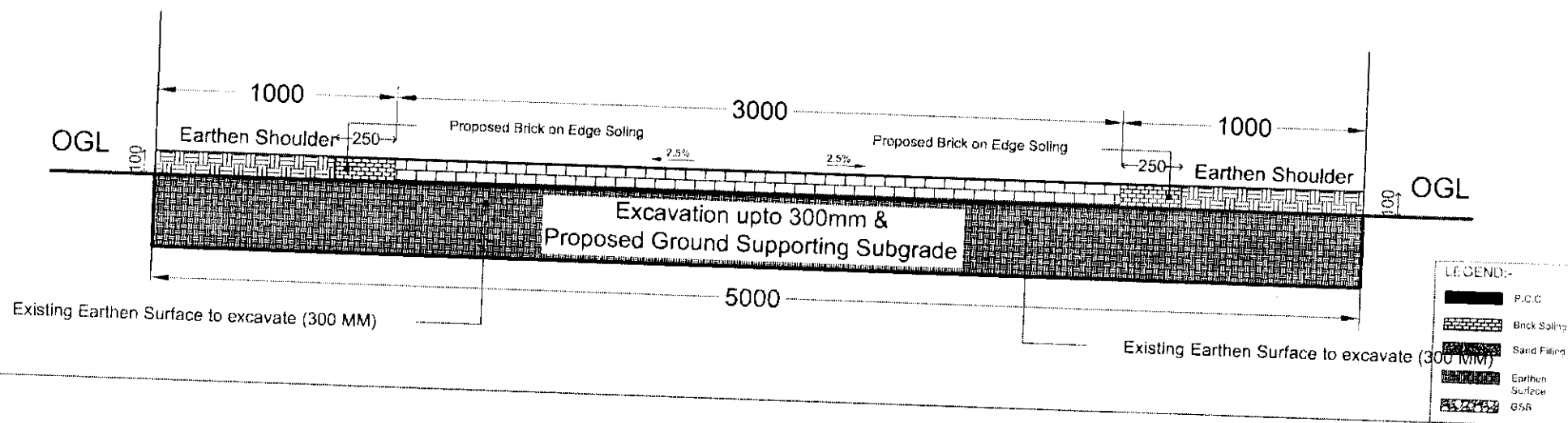
OPTION-II
**2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use**
Over Existing brick soling in good condition



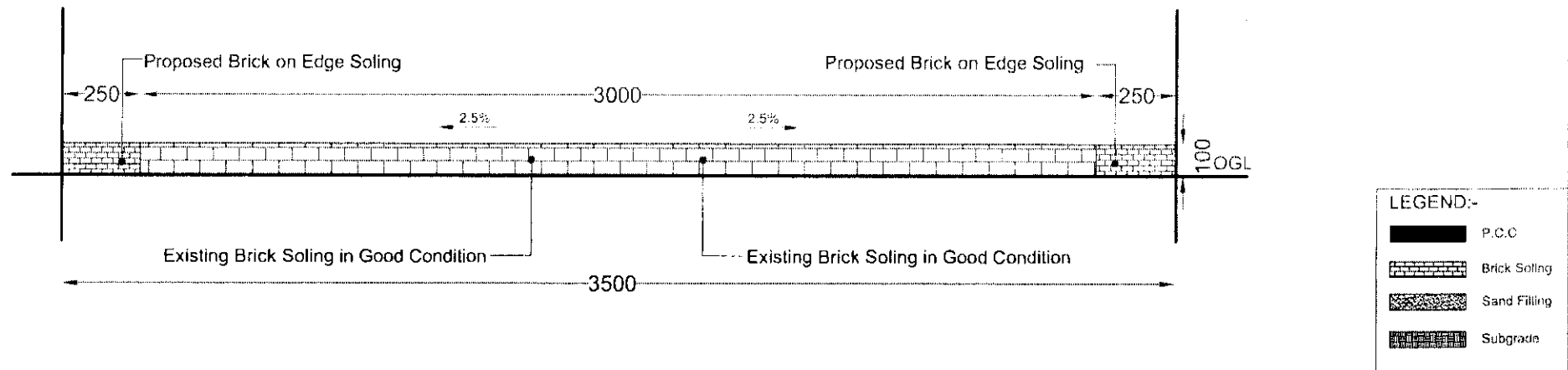
OPTION-II
2.50 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
cart use
Over Existing brick soling in poor condition



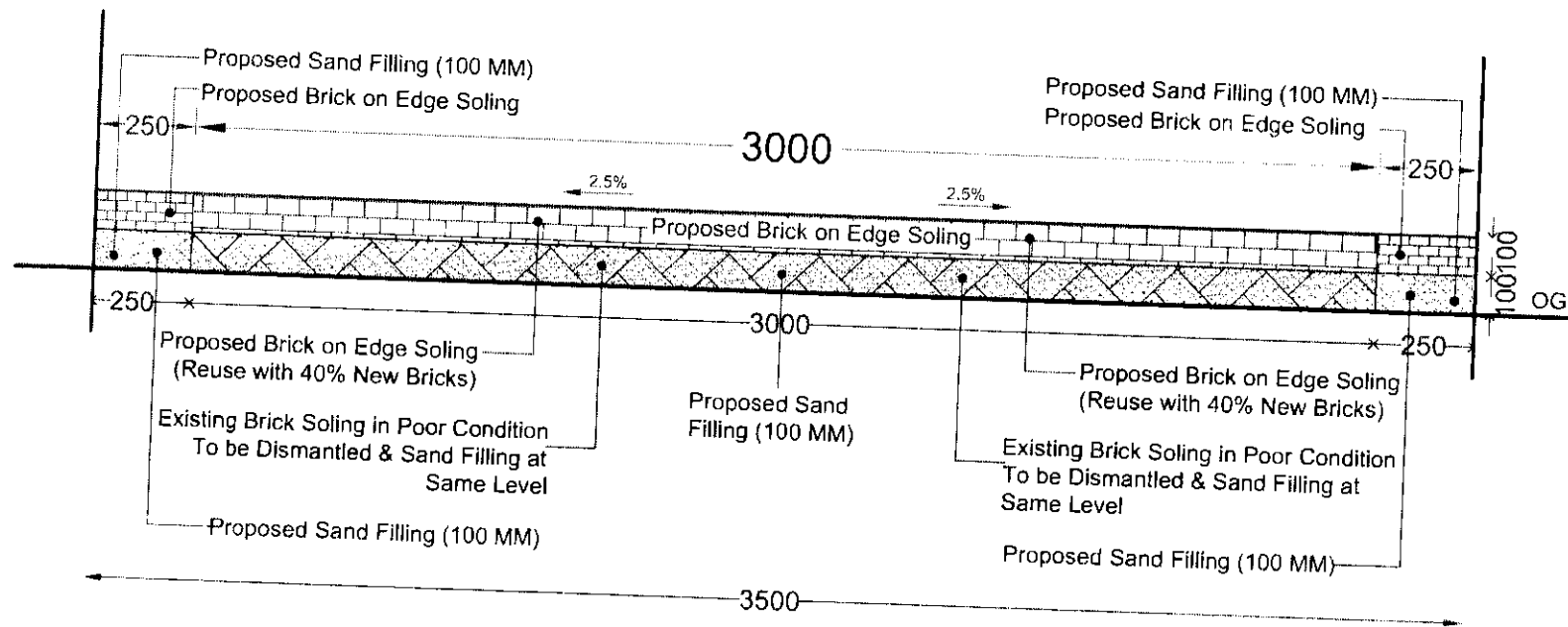
OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian /
Bicycle / Tricycle / Bullock Cart /Light Vehicles use
Over Existing Earthen Road



OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in good condition

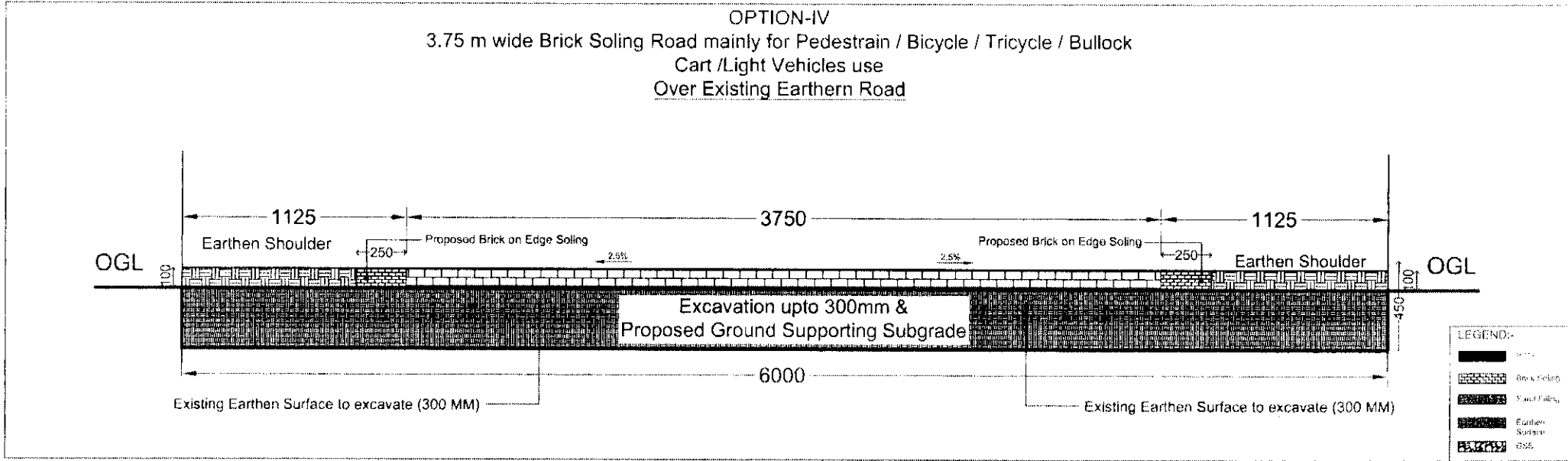


OPTION-III
3.00 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition

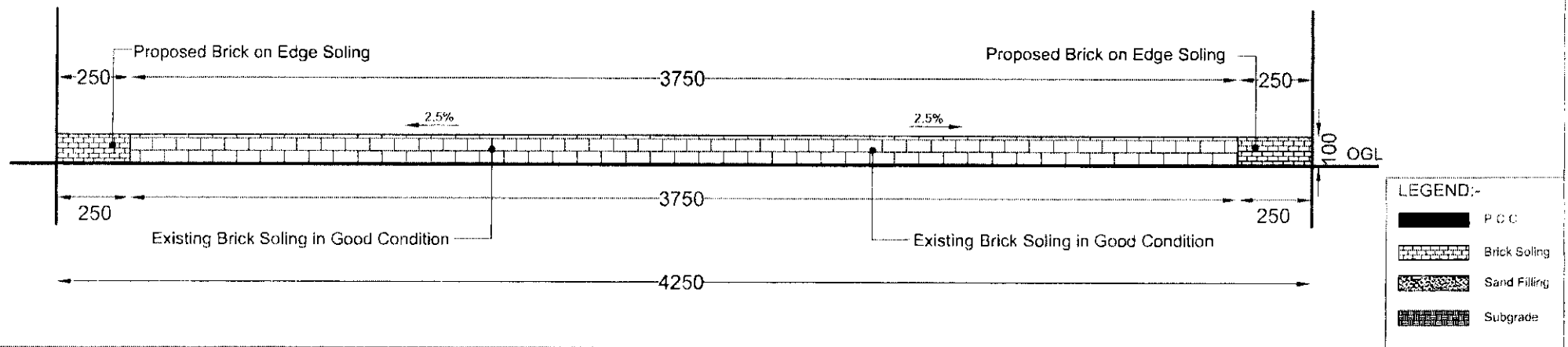


LEGEND:-

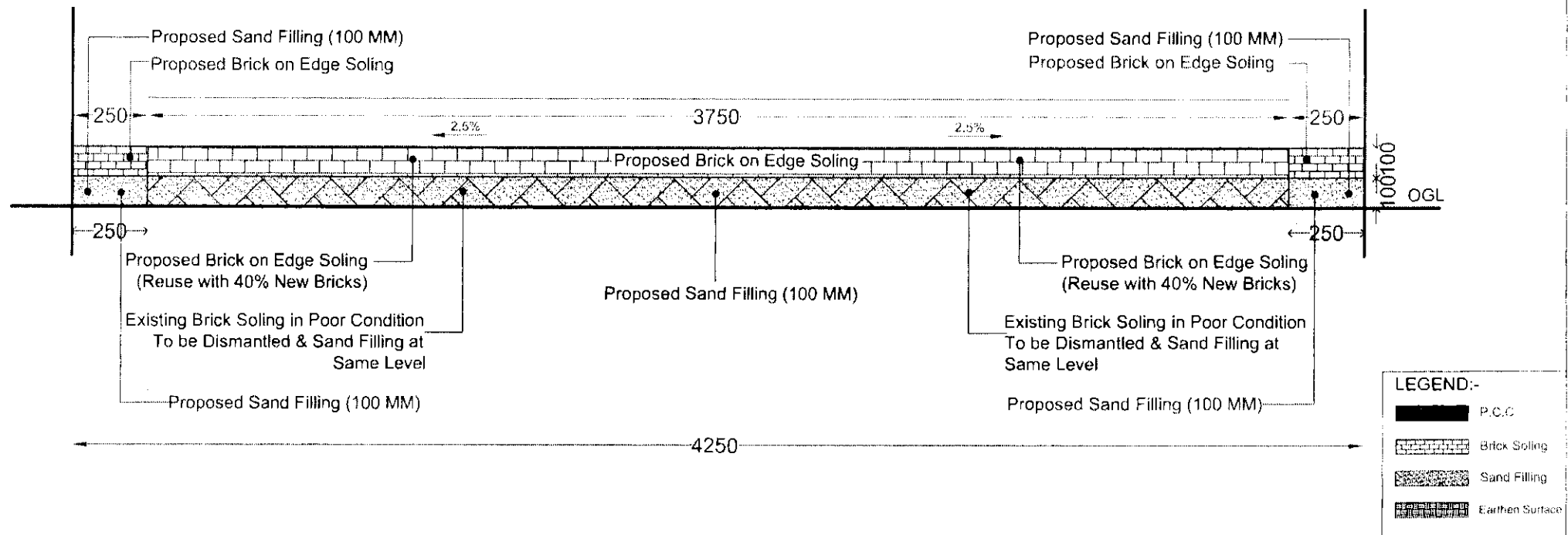
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface



OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in good condition



OPTION-IV
3.75 m wide Brick Soling Road mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart /Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Brick Soling Road Over Existing Earthen Road

[illegible]

1.50 m wide Brick Soling Road Over Existing brick soling in good condition

[illegible]

1.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.97	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1 (i)	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5 (i)	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	1.5	0.1	15.00	113.29	1699.33
6	11.2 A	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
			Cum		100	1.5	0.1	15.00	196.62	2949.35
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09
8	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road	Sqm		100	1.50		150	220.36	33054.55
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
	ii)	For Grading ii) Material	Cum							
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.92	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of Pavement per 100m Length	54637.23
Cost of Pavement per RM Length	546.37
Cost of Pavement per SQM	364.25

2.50 m wide Brick Soling Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new) 3.14	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.075	18.75	241.68	4531.55
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum						398.55	0.00
	B	Borrowed Earth	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	2.5		250	474.01	118503.47
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum						6,782.02	0.00
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	154483.51
Cost of Pavement per RM Length	1544.84
Cost of Pavement per SQM	617.93

2.50 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum						113.29	0.00
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, cover bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	102.77

2.50 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.37	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum							
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	2.50		250	220.36	55090.92
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	5.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	82388.10
Cost of Pavement per RM Length	823.88
Cost of Pavement per SQM	329.55

3.00 m wide Brick Soling Road Over Existing Earthen Road

Cost of Pavement per 100m Length	171820.50
Cost of Pavement per RM Length	1718.20
Cost of Pavement per SQM	572.73

3.00 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.67	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road Road Side Offset/Shoulder	Cum Cum Cum		2	100	0.25	0.00 5.00	398.55 398.55	0.00 1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismanting of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412. Road Road Side Offset/Shoulder	Sqm Sqm		2	100	0.25	50	474.01 474.01	0.00 23790.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm						220.36 220.36	0.00 0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	A	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum						6,782.02	0.00
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	85.64

3.00 m wide Brick Soling Road Over Existing brick soling in poor condition

[illegible]

3.75 m wide Brick Soling Road Over Existing Earthen Road

[illegible]

Cost of Pavement per 100m Length	208467.84
Cost of Pavement per RM Length	2084.68
Cost of Pavement per SQM	556.91

3.75 m wide Brick Soling Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new) 3.14	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum					5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1		196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading if Material	Cum						1,840.06	0.00
9	5.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS.383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length	25693.42
Cost of Pavement per RM Length	256.93
Cost of Pavement per SQM	68.52

3.75 m wide Brick Soling Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	0.3	0.1	3.00	241.68	725.05
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	4.05	0.1	40.50	113.29	4588.19
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum		100	4.05	0.1	40.50	196.62	7963.24
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	3.75		375	220.36	82636.37
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						6,782.02	0.00
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of Pavement per 100m Length									118731.48
Cost of Pavement per RM Length									1187.31
Cost of Pavement per SQM									316.62

RATE ANALYSIS

BASIC RATES			
(A) Labour			
Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	237.00
L-02	Bitumen Sprayer	day	252.00
L-03	Blacksmith	day	288.00
L-04	Blaster	day	399.00
L-05	Carpenter 1st Class	day	288.00
L-06	Chips spreader	day	247.00
L-07	Chiseller	day	302.00
L-08	Dresser (Skilled)	day	305.00
L-09	Driller	day	288.00
L-10	Electrician	day	305.00
L-11	Fitter	day	328.00
L-12	Mason (1st class)	day	322.00
L-13	Mason (2nd Class)	day	288.00
L-14	Mate	day	255.00
L-15	Mazdoor (Unskilled)	day	237.00
L-16	Mazdoor (Semi skilled)	day	247.00
L-17	Mazdoor (Skilled)	day	301.00
L-18	Painter (1st class)	day	305.00
L-19	Plumber	day	305.00
L-20	Surveyor	day	291.00
L-21	White Washer	day	301.00

BASIC RATES
(B) Material

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-001	AC pipe 100 mm	m	44.47	46.25
M-002	Aggregate - For 37.5 mm Maximum size - 22.4 mm to 5.6 mm	cum	544.27	566.04
M-003	Aggregate - For 37.5 mm Maximum size - 45 mm to 22.5 mm	cum	493.39	513.13
M-004	Aggregate - For 37.5 mm Maximum size - Below 5.6 mm	cum	204.23	212.40
M-005	Aggregate - For 53 mm Maximum size - 22.5 mm to 5.6 mm	cum	544.27	566.04
M-006	Aggregate - For 53 mm Maximum size - 63 mm to 45 mm	cum	440.03	457.63
M-007	Aggregate - For 53 mm Maximum size - Below 5.6 mm	cum	204.23	212.40
M-008	Aggregate - Grading I (40 mm nominal Size) 10 mm - 5 mm	cum	545.10	566.90
M-009	Aggregate - Grading I (40 mm nominal Size) 25 mm - 10 mm	cum	631.90	657.18
M-010	Aggregate - Grading I (40 mm nominal Size) 37.25 mm - 25 mm	cum	493.39	513.13
M-011	Aggregate - Grading I (40 mm nominal Size) 5 mm and below	cum	204.23	212.40
M-012	Aggregate - Grading II (19 mm nominal Size) 10 mm - 5 mm	cum	545.10	566.90
M-013	Aggregate - Grading II (19 mm nominal Size) 25 mm - 10 mm	cum	631.90	657.18
M-014	Aggregate - Grading II (19 mm nominal Size) 5 mm and below	cum	204.23	212.40
M-015	Aggregate 10 mm	cum	633.55	658.89
M-016	Aggregate 20 mm	cum	567.84	590.55
M-017	Aggregate 40 mm	cum	453.93	472.09
M-018	Aggregate- Crushable type such as moorum or Gravel for Grading I	cum	134.60	139.98
M-019	Aggregate- Crushable type such as moorum or Gravel for Grading II	cum	134.60	139.98
M-020	Aggregate- Crushable type such as moorum or Gravel for Grading III	cum	134.60	139.98
M-021	Aggregate-Grading I 90 mm to 45 mm	cum	407.40	423.70
M-022	Aggregate-Grading II 63 mm to 45 mm	cum	440.03	457.63
M-023	Aggregate-Grading III 53 mm to 22.4 mm	cum	471.71	490.58

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-024	Aggregates 22.4 mm to 2.36 mm for wet mix macadam	cum	544.27	566.04
M-025	Aggregates 45 mm to 22.4 mm for wet mix macadam	cum	493.39	513.13
M-031	Barbed wire	kg	54.61	56.79
M-032	Binding Material	cum	134.60	139.98
M-033	Binding wire	kg	55.55	57.77
M-037	Bitumen (S-65) (BARAUNI)	t	36,676.10	38,143.14
M-038	Bitumen (S-90) (BARAUNI)	t	35,764.10	37,194.66
M-039	Bitumen Emulsion (RS-1) Patna	t	40,202.00	41,810.08
M-040	Bitumen Emulsion (SS-1) Patna	t	42,609.00	44,313.36
M-041	Bituminous sealant	litre	25.08	26.08
M-042	Blasted rubble	cum	295.70	307.53
M-043	Blasting material (Moorum)	kg	-	-
M-044	Bond stone (400 mm x 150 mm x 150 mm)	No.	11.77	12.24
M-045	Brick 1st Class	No.	5.73	5.96
M-046	Cement	t	5,392.00	5,985.12
M-049	Compensation for earth taken from private land	cum	23.65	23.65
M-050	Compressible Fibre Board	sqm	989.71	1,029.30
M-058	Crushed Stone Aggregate 26.5 mm to 75 micron	cum	567.84	590.55
M-059	Crushed Stone chipping 13.2 mm nominal size	cum	663.11	689.63
M-060	Crushed Stone Chipping 6.7 mm size 100% passing 11.2 mm and retained on 2.36 mm	cum	420.37	437.18
M-061	Crushed Stone Chipping 6.7 mm size 100% passing 9.5 mm and retained on 2.36 mm	cum	420.37	437.18
M-062	Crushed Stone chipping 9.5 mm nominal size	cum	633.55	658.89
M-063	Crushed Stone Coarse Aggregate Passing 53 mm and retained on 2.8 mm	cum	471.71	490.58
M-064	Curing compound	litre	125.41	130.43
M-072	Farmyard manure	cum	705.46	733.68
M-073	Fevicol adhesive	kg	125.00	130.00
M-074	Filter media	cum	422.35	439.24
M-075	Jute rope	m	44.80	46.59
M-092	Lime	t	3,084.04	3,207.40

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-097	MS clamps	Nos.	32.08	33.36
M-098	MS Flat / Structural Steel	t	41,200.00	42,848.00
M-102	Nuts, Bolts and Rivets	t	57.04	59.32
M-103	Paint (Synthetic Enamel)	litre	240.39	250.01
M-104	Plasticizer	litre	158.02	164.34
M-105	Polythene sheet (125 micron)	sqm	15.67	16.30
M-106	Polythene Sheething	Nos.	15.67	16.30
M-107	Quarried Stone 150-200 mm size	cum	311.53	323.99
M-108	RCC Pipe NP3 (1200 mm dia)	m	4,177.63	4,344.74
M-109	RCC Pipe NP3 (1000 mm dia)	m	2,938.51	3,056.05
M-110	RCC Pipe NP3 (750 mm dia)	m	1,037.52	1,079.02
M-111	RCC Pipe NP3 (600 mm dia)	m	864.60	899.18
M-112	RCC Pipe NP3 (500 mm dia)	m		-
	RCC Pipe NP3 (300 mm dia)	m	538.14	559.67
M-113	RCC Pipe NP4 (1200 mm dia)	m	4,177.63	4,344.74
M-114	RCC Pipe NP4 (1000 mm dia)	m	2,938.51	3,056.05
M-115	RCC Pipe NP4 (750 mm dia)	m		-

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-116	RCC Pipe NP4 (600 mm dia)	m	864.60	899.18
M-117	RCC Pipe NP4 (500 mm dia)	m		-
M-118	Red-oxide Primer	litre	254.80	264.99
M-119	Road marking paint	litre	240.39	250.01
M-120	Sand (Coarse)	cum	140.69	146.32
M-121	Sand (Fine)	cum	119.37	124.14
M-124	Steel Reinforcement (HYSD Bars)	t	41,200.00	42,848.00
M-126	Steel Reinforcement (TMT Bars)	t	41,200.00	42,848.00
M-127	Stone Boulder of size 150 mm and below	cum	311.53	323.99
M-128	Stone Chips 12 mm size	cum	663.11	689.63
M-129	Stone Chips 13.2 mm to 5.6 mm	cum	633.55	658.89
M-130	Stone Crushed Aggregate 11.2 mm to 0.09 mm	cum	354.77	368.96
M-131	Stone for Coarse Rubble Masonry 1st Sort	cum		-
M-132	Stone for Coarse Rubble Masonry 2nd Sort	cum		-
M-133	Stone for Random Rubble Masonry	cum	311.53	323.99
M-134	Stone for Stone Set Pavement (300 mm x 200 mm x 150 mm)	No.		-
M-135	Stone Screening - Type A 13.2 mm for Grading-1	cum	636.49	661.95
M-136	Stone Screening - Type A 13.2 mm for Grading-2	cum	636.49	661.95
M-137	Stone Screening - Type B 11.2 mm for Grading-2	cum	342.72	356.43
M-138	Stone Screening - Type B 11.2 mm for Grading-3	cum	342.72	356.43
M-140	Traffic cones	No.		-
M-141	Water	kl	40.00	40.00
M-142	Well graded Granular Base Material - Grading A 2.36 mm below	cum	193.61	201.35
M-143	Well graded Granular Base Material - Grading A 26.5 mm to 4.75 mm	cum	514.82	535.41
M-144	Well graded Granular Base Material - Grading A 53 mm to 26.5 mm	cum	471.71	490.58

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-145	Well graded Granular Base Material - Grading B 2.36 mm below	cum	193.61	201.35
M-146	Well graded Granular Base Material - Grading B 26.5 mm to 4.75 mm	cum	514.82	535.41
M-147	Well graded Granular Base Material - Grading C 2.36 mm below	cum	193.61	201.35
M-148	Well graded Granular Base Material - Grading C 9.5 mm to 4.75 mm	cum	545.10	566.90
M-149	Well Graded Material for Sub-Base - Grading I 2.36 mm below	cum	193.61	201.35
M-150	Well Graded Material for Sub-Base - Grading I 53 mm to 9.5 mm	cum	533.99	555.35
M-151	Well Graded Material for Sub-Base - Grading I 9.5 mm to 2.36 mm	cum	424.94	441.94
M-152	Well Graded Material for Sub-Base - Grading II 2.36 mm below	cum	193.61	201.35
M-153	Well Graded Material for Sub-Base - Grading II 26.5 mm to 9.5 mm	cum	567.84	590.55
M-154	Well Graded Material for Sub-Base - Grading II 9.5 mm to 2.36 mm	cum	424.94	441.94
M-155	Well Graded Material for Sub-Base - Grading III 2.36 mm below	cum	93.61	97.35
M-156	Well Graded Material for Sub-Base - Grading III 4.75 mm to 2.36 mm	cum	208.67	217.02
M-157	Well Graded Material for Sub-Base - Grading III 9.5 mm to 4.75 mm	cum	549.54	571.52
M-178	Strip seal expansion joint	LM	8341.1	8,674.74
Extra	Paver Block 60 mm	sqm	466.3	484.95
Extra	Brick Bats	cum	1162	1,208.48

BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-001	Air Compressor 210 cfm	Supplying compressed air	cfm	210.00	per hour	437.00
PM-002	Batch mix HMP 40-60 TPH	BM, DBM, SDBC, PM	t/h	50.00	per hour	21633.00
PM-003	Batch type HMP 30/40 TPH	BM, DBM, SDBC, PM	t/h	35.00	per hour	
PM-004	Bitumen boiler oil fired	Heating of bitumen				
	200 litre		litre / h	400.00	per hour	270.00
	1000 litre		litre / h	2000.00	per hour	270.00
PM-005	Bitumen emulsion pressure distributor	Applying bitumen tack coat	sqm/h	1750.00	per hour	1,091.00
PM-006	Concrete mixer 0.28/0.4 cum	Mixing of ingredients	cum/h	2.50	per hour	80.00
PM-007	Crane upto 3.5T	Lifting of materials			per hour	1,163.00
PM-008	Dozer D 50	Dozing cutting	cum/h	200.00	per hour	3,009.00
			cum/h	100.00		3,009.00
PM-009	Electric generator set, 125 KVA	Electricity generation	KVA	100.00	per hour	2,502.00
PM-010	Emulsion Sprayer with Tractor	Spraying of Emulsion			per hour	1,091.00
PM-011	Front end-loader 1 cum bucket capacity @ 45 cum/hour	Loading Aggregates	cum/h	45.00	per hour	1,291.00
		Loading Soil	cum/h	100.00		1,291.00
PM-012	Hydraulic broom with tractor	Surface cleaning	sqm/h	1250.00	per hour	522.00
PM-013	Hydraulic Excavator 0.9 cum	Excavation	cum/h	100.00	per hour	1,775.00
PM-014	Hydraulic self propelled chip spreader	Surface Dressing	sqm/h	1500.00	per hour	3,594.00
PM-015	Jack Hammer with tractor	Pavement breaking & rock drilling	cum/h	05. to 1	per hour	688.00
PM-016	Joint Cutting Machine with 2-3 blades	Cutting of Joints	h		per hour	317.00
PM-017	Mixall 6-10 t capacity	Mixing of bituminous materials	t/h	8.00	per hour	1,547.50
PM-018	Motor Grader	Scarifier & levelling	cum/h	200.00	per hour	2,674.00
				50.00		533.00
PM-019	Needle vibrator	Vibrating cement concrete mix	cum/h	3.50	per hour	76.35
PM-020	Paver finisher	Laying/spreading	t/h	75.00	per hour	1,318.00

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-021	Plate compactor	Compaction	cum/h		per hour	423.00
PM-022	Plate vibrator	Compaction	cum/h		per hour	423.00
PM-023	Screed vibrator	Compaction	cum/h		per hour	102.64
PM-024	Smooth wheeled 80-100 kN tandem roller	Compaction of Sub-base/ Asphalt	cum/h	30.00	per hour	1,561.00
PM-025	Stone crusher (Integrated) of 200 TPH	Crushing of Spalls	t/h	200.00	per hour	24,865.00
PM-026	Three wheel 80-100 kN Static Roller	Compaction/ Rolling			per hour	736.00
PM-027	Tipper 5.5 cum/10 t	Carriage	cum/trip	5.50	per hour	957.00
PM-028	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour	517.00
PM-029	Tractor with ripper @ 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour	533.00
PM-030	Tractor with trolley/with Grading equipment	Transportation of materials	t/trip	3 to 5	per hour	533.00
PM-031	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	517.00
PM-032	Truck 10 t capacity	Carriage	cum/trip	5.50	per hour	843.00
PM-033	Vibratory roller 80-100 kN	Compaction of soil WMM	cum/h	100.00	per hour	1,915.00
		Compaction of BM	cum/h	60.00		1,915.00
PM-034	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre / h	12000.00	per hour	166.00
PM-035	Wet mix plant (Pug Mill)	Wet Mix	cum/h	25.00	per hour	1,643.00
RCD						
	Generator 33 KVA					
P&M043	Road Marking Machine	Road Marking	sqm/h	100	hour	507.00
					per hour	128.00

Analysis for Carriage by Road

FORM F8

Sl No	Item	Unit	Source	Carriage Cost & Lead in Km										Loading & Unloading Cost	Carriage Cost by Rail Head	Total
				Pukka / Surface					Katcha							
1	Stone Metal Gr-I & Gr-II	Cum	Mirzachauki	8.00	x 8.00	x	100.00 Km =	Rs 1394.34	8.00	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1471.18	
2	Stone Metal Gr-III / GSB	Cum	Mirzachauki	4.59	x 8.00	x	100.00 Km =	Rs 1282.57	4.59	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1359.41	
3	Stone Aggregate / Chips	Cum	Pakur	8.00	x 8.00	x	100.00 Km =	Rs 1282.57	8.00	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1359.41	
4	Stone Boulder	Cum	Mirzachauki	4.99	x 8.00	x	100.00 Km =	Rs 1333.33	4.99	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1410.17	
5	Course Sand	Cum	koilwar	8.00	x 8.00	x	100.00 Km =	Rs 1282.57	8.00	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1330.34	
6	Binding Material (Moorum)	Cum	shakhund	4.99	x 8.00	x	100.00 Km =	Rs 1066.67	4.99	x 19.30	x 0.00 Km =	Rs 0.00	47.77		1114.44	
7	Local Sand	Cum	Local	8.00	x 8.00	x	2.00 Km =	Rs 25.65	8.00	x 19.30	x 1.00 Km =	Rs 30.94	47.77		104.36	
8	Brick/ Paver Block	1000 Nos	Local	8.00	x 6.95	x	7.00 Km =	Rs 194.60	8.00	x 19.30	x 1.00 Km =	Rs 77.20	392.70		664.50	
9	Cement	MT	Local	2.00	x 6.95	x	10.00 Km =	Rs 69.50	2.00	x 19.30	x 0.00 Km =	Rs 0.00	274.95		344.45	
10	Steel	MT	Local	8.00	x 6.95	x	10.00 Km =	Rs 69.50	8.00	x 19.30	x 0.00 Km =	Rs 0.00	289.54		359.04	
11	Bitumen Emulsion	MT	Rukunpura	8.00	x 6.95	x	215.00 Km =	Rs 1494.25	8.00	x 19.30	x 0.00 Km =	Rs 0.00	322.90		1817.15	
12	Bitumen	MT	Barauni	8.00	x 6.95	x	160.00 Km =	Rs 1112.00	8.00	x 19.30	x 0.00 Km =	Rs 0.00	322.90		1434.90	
13	Hume Pipe (1000 mm)	Pipe	Local	8.00	x 6.95	x	50.00 Km =	Rs 278.00	8.00	x 19.30	x 0.00 Km =	Rs 0.00	84.44		362.44	
14	Hume Pipe (600 mm)	Pipe	Local	10.00	x 6.95	x	50.00 Km =	Rs 132.38	10.00	x 19.30	x 0.00 Km =	Rs 0.00	87.03		219.41	
15	Hume Pipe (300 mm)	Pipe	Local	8.00	x 6.95	x	50.00 Km =	Rs 46.33	8.00	x 19.30	x 0.00 Km =	Rs 0.00	33.06		79.39	
16	Earth/Local Material	Cum	Local	60.00	x 6.95	x	1.00 Km =	Rs 11.58	60.00	x 16.90	x 0.00 Km =	Rs 0.00	47.77		59.35	
				8.00	x 6.95	x			8.00							
				4.80	x 6.95	x			4.80							
Cost of Haulage Excluding Loading & Unloading																

Cost of Haulage Excluding Loading & Unloading as per SOR

Type of Road	Per Ton. Km
For Surface Road	8.00
Unsurface Gravel Road	9.60
Kachha Road	19.30

* Subjected to Verification of Lead

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
1	3.3	301.5	EARTHWORK Construction of embankment with material obtained from road way cutting Construction of embankment with approved materials deposited at site and obtained from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical Specification Clause 301.5 Unit = cum Taking output = 100 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.02	255.00	5.10
		b)	Machinery	day	0.50	237.00	118.50
			Dozer D-50 for spreading @ 200 cum per hour	hour	0.50	3009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller	hour	1.25	736.00	920.00
		c)	Material				
			Water				
			Compensation for earth including Royalty	kl	12.00	40.00	480.00
		d)	Over Heads @ 10 % on (a+b+c)	cum	0.00	23.65	0.00
		e)	Contract Profit @ 10 % on (a+b+c+d)				389.31
			Rate for 100 cum = a+b+c+d				428.24
			Rate per cum = (a+b+c+d)/100=				4,710.65
			1 % LABOUR CESS	cum			47.11
			Rate per cum				0.47
2	3.14	303.1	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5 Unit = cum Taking output = 100 cum				47.58
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.04	255.00	10.20
		b)	Machinery	day	1.00	237.00	237.00
			Hydraulic excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1,775.00	2,958.33
			Tipper 5.5 cum capacity, 4 trips per hour	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage to cover loading & unloading				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	1.43	736.00	1,052.48
		c)	Material				
			Water				
			Compensation for earth taken from private land including Royalty	kl	12.00	40	480.00
		d)	Overheads @ 10% on (a+b+c)	cum	100.00	23.65	2,365.00
		e)	Contractor's profit @ 10% on (a+b+c+d)				1420.97
			Cost for 100 cum = a+b+c+d				1563.06
			Rate per cum = (a+b+c+d)/100				17,193.69
			Total Cost including 1 % LABOUR CESS	cum			171.94
							173.66

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
2A	3.14	303.1	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation)				
	New		Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.				
			Unit = cum				
			Taking output = 100 cum				
			a) Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	1.00	237.00	237.00
			b) Machinery				
			Hydraulic excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1,775.00	2,958.33
			Tipper 5.5 cum capacity, 4 trips per hour	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage to cover loading & unloading				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			c) Material				
			Compensation for earth taken from private land including royalty	cum	100.00	23.65	2,365.00
			d) Overheads @ 10% on (a+b+c)				1234.52
			e) Contractor's profit @ 10% on (a+b+c+d)				1357.97
			Cost for 100 cum = a+b+c+d				14,937.67
			Rate per cum = (a+b+c+d)/100				149.38
			Total Cost including 1 % LABOUR CESS	cum			150.87
2B	4.4	402	Lime Stabilisation For Improving Subgrade				
			Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.				
		B	By Manual Means				
			Unit-cum				
			Tacking output=150 (263t)				
			a) Labour				
			Mate	day	1.44	255.00	367.20
			Mazdoor (Skilled)	day	1.00	301.00	301.00
			Mazdoor (Unskilled)	day	35.00	237.00	8,295.00
			b) Machinery				
			Three Wheel 80-100 KN static Roller @70 cum per hour	hour	2.15	644.00	1,384.60
			Water tanker 6 kl capacity	hour	3.00	166.00	498.00
			c) Material				
			Lime	t	5.26	3207.4	16,870.92
			Water	Kl	18.00	40.00	720.00
			d) Overheads @ 10% on (a+b+c)				2,843.67
			e) Contractor's profit @ 10% on (a+b+c+d)				3,128.04
			f) Carriage cost for lime				
			Cost for 150 cum = (a+b+c+d+e+f)	t	5.26	344.45	1,811.81
			Rate per cum = (a+b+c+d+e+f)/150				36,220.24
			Total Cost including 1 % LABOUR CESS	cum			243.88

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
3	3.5	302	Excavation in Cutting in Soil by manual means with lead upto 50 m				
		(i)	Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3				
			Unit = cum				
			Taking output = 120 cum				
		a)	Labour				
			Mate	day	1.80	255.00	459.00
			Mazdoor (Unskilled)	day	45.00	237.00	10,665.00
		b)	Overheads @ 10% on (a)				1112.40
		c)	Contractor's profit @ 10% on (a+b)				1223.64
			Cost of 120 cum = a+b+c				13,460.04
			Rate per cum = (a+b+c)/120				112.17
			Total Cost including 1 % LABOUR CESS	cum			113.29
4		(ii)	Excavation in Soil with Dozer with lead upto 100 m				
			Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections.				
			Unit = cum				
			Taking output = 180 cum				
			Labour				
			Mate	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	2.00	237.00	474.00
			Machinery				
			Dozer D-50 @ 50 cum per hour (cutting with pushing)	hour	3.60	1079	3,884.40
			Overheads @ 10% on (a+b)				437.88
			Contractor's profit @ 10% on (a+b+c)				481.67
			Cost for 180 cum = a+b+c+d				5,298.35
			Rate per cum = (a+b+c+d)/180				29.44
			Total Cost including 1 % LABOUR CESS	cum			29.73
5	3.5	(iii)	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m				
			Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical Specification Clause 302.3				
			Unit = cum				
			Taking output = 360 cum				
		a)	Labour				
			Mate	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	2.00	237.00	474.00
		b)	Machinery				
			Hydraulic excavator 0.9 cum bucket capacity @ 100 cum per hour	hour	3.60	1,775.00	6,390.00
			Tipper 5.5 cum capacity, 4 trips per hour	hour	15.00	957.00	14,355.00
		c)	Over Heads @ 10% on (a+b)				2123.94
		d)	Contract Profit @ 10 % on (a+b+c+d)				2336.33
			Cost for 360 cum = a+b+c				25,699.67
			Rate per cum = (a+b+c)/360				71.39
			Total Cost including 1 % LABOUR CESS	cum			72.10
6	3.4	301.5	Construction of Embankment with Material Obtained from Borrow Pits				
		(A)	Construction of embankment with approved material obtained from borrow pits with a lift upto 1.5 m, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a lead upto 1000 m as per Technical Specification Clause 301.5				
			Unit = cum				
			Taking output = 100 cum				
		a)	Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	1.00	237.00	237.00
		b)	Machinery				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1775.00	2,964.25
			Tipper 5.5 cum with 10 t capacity	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage by tipper				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller @ 80 cum per hour	hour	1.25	736.00	920.00
		c)	Material				
			Water	kl	12.00	40.00	480.00
			Compensation for earth taken from private land including royalty	cum	100.00	23.65	2,365.00
		d)	Over Heads @ 10 % on (a+b+c)				1408.31
		e)	Contract Profit @ 10 % on (a+b+c+d)				1549.14
			Cost for 100 cum = a+b+c+d				17,040.55
			Rate per cum = (a+b+c+d)/100=				170.41
7	3.15		Total Cost including 1 % LABOUR CESS	cum			172.11
			Compacting original ground supporting embankment				
			Loosening ,levelling and compacting original ground supporting embankment to facilitate placement of first layer of embankment scarified to a depth of 150mm ,mixed with water at omc and compacted by rolling, so as to achieve minimum dry density as given in				
			Unit = cum				
			Taking output = 600 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.08	255.00	20.40
		b)	Machinery	day	2.00	237.00	474.00
			Tractor with ripper attachment	hour	6.00	533.00	3,198.00
			Three wheel 80-100 KN static roller	hour	7.50	736.00	5,520.00
			water tanker 6KL capaccity	hour	4.00	166.00	664.00
		c)	Material				
			Water	kl	24.00	40.00	960.00
		d)	Over Heads @ 10 % on (a+b+c)				1083.64
		e)	Contract Profit @ 10 % on (a+b+c+d)				1192.00
			Cost for 100 cum = a+b+c+d				13,112.04
			Rate per cum = (a+b+c+d)/600=				21.85
8	4.18		Total Cost including 1 % LABOUR CESS	cum			22.07
			Brick soling				
			Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling ,watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412				
			Unit = sqm				
			Taking output = 150 sqm				
		a)	Labour				
			Mate				
			Mazdoor(unskilled)	day	0.52	255.00	132.60
			Mason 1st class	day	10.00	237.00	2,370.00
		b)	Machinery	day	3.00	322.00	966.00
			Three wheel 80-100 KN static roller	hour	1.00	736.00	-
			water tanker 6KL capaccity	hour	1.00	166.00	166.00
		c)	Material				
			Brick 1st class	No.	8,160.00	5.96	48,633.60
			Fine sand	cum	5.66	124.14	702.63
			water	kl	6.00	40.00	240.00
		d)	Over Heads @ 10 % on (a+b+c)				5321.08
		e)	Contract Profit @ 10 % on (a+b+c+d)				5853.19
			Cost for 100 cum = a+b+c+d				64,385.11
			A) Cost of Brick Soling without carriage per cum	cum			429.23
		f)	CARRIAGE				
			Brick 1st class	No.	8,160.00	0.66	5422.32
			Fine sand	cum	5.66	104.36	590.68
			Carriage cost				6013.00
			B) Carriage cost per cum				40.09
			Rate per cum =				469.32
			Total Cost including 1 % LABOUR CESS	cum			474.01
9	4.1	401	PAVEMENT CRUST LAYERS				
	(A)		Granular Sub-base with Well Graded Material (Table 400.1)				
			(By mix in place method)				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.				
		(ii)	For Grading II Material				
			Unit = cum				
			Taking output = 300 cum				
		a)	Labour				
			Mate	day	0.48	255.00	122.40
			Mazdoor (Skilled)	day	2.00	301.00	602.00
			Mazdoor (Unskilled)	day	10.00	237.00	2370.00
		b)	Machinery				
			Tractor mounted grader arrangement	hour	12.00	533.00	6396.00
			Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00	736.00	22080.00
			Tractor with Rotavator 25 cum per hour	hour	12.00	517.00	6204.00
			Water tanker 6 kl capacity	hour	5.00	166.00	830.00
		c)	Material				
			Well graded granular sub-base material as per Table 400.1				
			26.5 mm to 9.5 mm @ 35%	cum	134.00	590.55	79133.70
			9.5 mm to 2.36 mm @ 25%	cum	96.00	441.94	42426.24
			2.36 mm below @ 40% (Local Sand)	cum	153.00	124.14	18993.42
			Water	kl	30.00	40.00	1200.00
		d)	Over Heads @ 10 % on (a+b+c)				18035.78
		e)	Contract. Profit @ 10 % on (a+b+c+d)				19839.35
			Cost of GSB without carriage				
			A) Cost of GSB without carriage per cum	cum			727.44
		e)	CARRIAGE				
			Carriage for GSB material	Cum	230.00	1359.41	312664.30
			Carriage for material below 2.36 mm	Cum	150.00	104.36	15654.00
			Carriage cost				328318.30
			B) Carriage cost per cum				1094.39
			Rate per cum =				1821.84
			Total Cost including 1 % LABOUR CESS	CUM			1,840.06
10	4.18	412	Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)				
			Laying brick soling layer after dismantling existing Brick Soling & adding 40% new Bricks with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412				
			Unit = sqm				
			Taking output = 150 sqm				
		(a)	Labour				
			Mate	day	0.52	255.00	132.60
			Mazdoor (Unskilled)	day	10.00	237.00	2370.00
			Mason 1st Class	day	3.00	322.00	966.00
		(b)	Machinery				
			Three wheel 80-100 kN static roller	hour	1.00	736.00	736.00
			Water tanker	hour	1.00	166.00	166.00
		(c)	Material				
			Brick 1st Class	No.	3264.00	5.96	19453.44
			Fine Sand	cum	5.66	124.14	702.63
			Water	kl	6.00	40.00	240.00
		(d)	Over Heads @ 10 % on (a+b+c)				2476.67
		(e)	Contract. Profit @ 10 % on (a+b+c+d)				2724.33
		(f)	Carriage Cost				
			Brick 1st Class	No.	3264.00	0.66	2168.93
			Fine Sand	cum	5.66	104.36	590.68
			Cost for 150 sqm = a+b+c+d+e+f				32727.28
			Rate per sqm = (a+b+c+d+e+f)/150				218.18
			Total Cost including 1 % LABOUR CESS	cum			220.36
11	6.4		Cement Concrete Pavement				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Construction of un-reinforced, ~~dowel jointed at expansion and construction joint only~~ , plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse an				
		a)	Labour				
			Mate	day	7.00	255.00	1785.00
			Mason (1st class)	day	5.00	322.00	1610.00
			Mason (2nd class)	day	5.00	288.00	1440.00
			Mazdoor (Unskilled)	day	129.00	237.00	30573.00
			Mazdoor (Skilled)	day	6.00	301.00	1806.00
			Surveyor	day	2.00	291.00	582.00
			Mazdoor (Semi-Skilled)	day	6.00	247.00	1482.00
			Bhisti	day	14.00	237.00	3318.00
		b)	Machinery				
			Concrete mixer 0.28 / 0.4 cum capacity (6 mixers) with weigh batcher and suitable capacity calibrated water tank	hour	36.00	80.00	2880.00
			Needle vibrator	hour	9.00	76.35	687.15
			Screed vibrator	hour	9.00	102.64	923.76
			Plate vibrator	hour	9.00	423.00	3807.00
			Concrete joint cutting machine for initial & final cuts	hour	4.00	317.00	1268.00
			Water tanker 6 kl capacity	hour	5.00	166.00	830.00
			Air Compressor (1 hour initial + 1 hour final)	hour	2.00	437.00	874.00
		c)	Material				
		(i)	Crushed stone coarse aggregates, grading will be as per Clause 1501.2.4.1 (Table 1500.1) of specifications @ 0.90 cum/cum of concrete	cum	67.50		38207.70
		(ii)	Sand as per IS:383 and conforming to Clause 1500.2.4.2 @ 0.45 cum/cum of concrete	cum	33.75	566.04	4938.30
		(iii)	Cement @ 310 kg/cum of concrete	t	23.25	146.32	139154.04
		(iv)	Polythene sheet 125 micron	sqm	412.50	5985.12	6723.75
			Bitumen primer @ 200 ml per joint for 23 joints	t	0.005	16.30	209.05
			Bituminous sealant 800 ml per joint for 23 joints	litre	19.00	41,810.1	495.52
			Jute rope 12 mm dia including 5 per cent wastage	m	90.00	26.08	4193.10
			Plasticizer 0.5 per cent by weight of cement	litre	122.00	46.59	20049.48
			Curing compound (if used) @ 0.33 litre per sqm	litre	131.25	164.34	17118.94
			Water for curing	kl	18.00	130.43	720.00
			Joint filler board 20 mm thick as per IS:1838	sqm	3.00	40.00	2062.50
			Formwork @ 3% of (a+b+c)			687.5	8,632.15
		(d)	Over Heads @ 10 % on (a+b+c)				29637.04
		(e)	Contract Profit @ 10 % on (a+b+c+d)				32600.75
			Cost for 75 cum = a+b+c+d+e				3,58,608.23
			Rate per cum = (a+b+c+d+e)/75				4,781.44
			Cost of CC Pavement without carriage per cum (a+b+c+d)/75	cum			
			Crushed stone coarse aggregates	cum	0.90	1359.41	1223.47
			Sand	cum	0.45	1330.34	598.65
			Cement	t	0.31	359.04	111.30
			Total Cost including 1 % LABOUR CESS	cum			6,714.87
12	11.5	600 & 1200	Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203				6,782.02
			Unit = cum				
		a)	Brick masonry in 1:3 cement mortar				
			Material				
			Brick	Nos	500.00	5.96	2980.00
			Cement mortar 1:3	cum	0.24	5,021.03	1205.05
			(Rate as per Sub-analysis)				
		b)	Labour				
			Mate	day	0.09	255.00	22.95
			Mason (1st Class)	day	0.80	322.00	257.60
			Mazdoor (Unskilled)	day	1.60	237.00	379.20
			Bhisti	day	0.20	237.00	47.40
		c)	Over Heads @ 10 % on (a+b+c)				489.22
		d)	Contract Profit @ 10 % on (a+b+c+d)				538.14
			Rate per cum = a+b+c+d				5,919.56

Analysis of Rates (FORMAT F8)

Sl. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Total Cost including 1 % LABOUR CESS				6,511.52
			Sub-analysis				
			Cement mortar 1:3 (1 cement : 3 sand)				
			Unit = cum				
	a)		Material				
			Cement	t	0.51	5,985.12	3052.41
			Sand	cum	1.05	146.32	153.64
	b)		Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	0.90	237.00	213.30
			Bhisti	day	0.08	237.00	18.96
	(f)		Carriage Cost				
			Cement	t	0.51	344.45	175.67
			Sand	cum	1.05	1,330.34	1396.86
			Total material and labour = (a+b)				5,021.03
	ii		Brick masonry in 1:4 cement mortar				
			Unit = cum				
	a)		Material				
			Brick	Nos	500.00	5.96	2980.00
			Cement mortar 1:4	cum	0.24	4,198.19	1007.57
			Rates as per sub-analysis				
	b)		Labour				
			Mate	day	0.09	255.00	22.95
			Mason (1st Class)	day	0.80	322.00	257.60
			Mazdoor (Unskilled)	day	1.60	237.00	379.20
			Bhisti	day	0.20	237.00	47.40
	c		Over Heads @ 10 % on (a+b+c)				469.47
	d		Contract Profit @ 10 % on (a+b+c+d)				516.42
			Rate per cum = a+b+c+d				5,680.61
			Total Cost including 1 % LABOUR CESS				6,248.67
			Sub-analysis				
			Cement mortar 1:4 (1 cement : 4 sand)				
			Unit = cum				
	a)		Material				
			Cement	t	0.38	5,985.12	2274.35
			Sand	cum	1.05	146.32	153.64
	b)		Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	0.90	237.00	213.30
			Bhisti	day	0.08	237.00	18.96
	(f)		Carriage Cost				
			Cement	t	0.38	344.45	130.89
			Sand	cum	1.05	1,330.34	1396.86
			Total material and labour = (a+b)				4,198.19
13	11.4		Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				
IV.			R.C.C grade M 20				
			Unit = cum				
	a)		Material				
			Cement	t	0.35	5,985.12	2094.79
			Coarse sand	cum	0.45	146.32	65.84
			20 mm aggregate	cum	0.54	590.55	318.90
			10 mm aggregate	cum	0.36	658.89	237.20
	b)		Labour				
			Mate	day	0.08	255.00	20.40
			Mason (1st Class)	day	0.12	322.00	38.64
			Mazdoor (Unskilled)	day	1.73	237.00	410.01
			Bhisti	day	0.27	237.00	63.99
	c)		Machinery				
			Concrete mixer 0.4/0.28 cum capacity	hour	0.40	80.00	32.00
	d)		Formwork @ 4% on (a+b+c)				131.27
	e)		Over Heads @ 10 % on (a+b+c)				341.30
	f)		Contract Profit @ 10 % on (a+b+c+d)				375.43
			Carriage Cost				4129.78
			Cement	t	0.35	344.45	120.56

Analysis of Rates (FORMAT F8)

Sl. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Coarse sand	cum	0.45	1,330.34	598.65
			20 mm aggregate	cum	0.54	1,359.41	734.08
			10 mm aggregate	cum	0.36	1,359.41	489.39
			Rate per cum = (a+b+c+d+e+f)				6072.46
14	11.4	800 & 1200	Total Cost including 1 % LABOUR CESS				6,679.71
			Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				
		I.	P.C.C grade M 10				
		(i)	Nominal mix 1:3:6				
			Unit = cum				
		a)	Material				
			Cement	t	0.25	5,985.12	1496.28
			Coarse sand	cum	0.48	146.32	70.23
			40 mm aggregate	cum	0.58	472.09	271.92
			20 mm aggregate	cum	0.29	590.55	170.08
			10 mm aggregate	cum	0.10	658.89	63.25
		b)	Labour				
			Mate	day	0.08	255.00	20.40
			Mason (1st Class)	day	0.10	322.00	32.20
			Mazdoor (Unskilled)	day	1.63	237.00	386.31
			Bhisti	day	0.27	237.00	63.99
		c)	Machinery				
			Mechanical concrete mixer 0.4/0.28 cum capacity fitted with water measuring device and preferably also with load cell.	hour	0.40	80.00	32.00
		d)	Formwork @ 4% on cost of material, labour and machinery (a+b+c)				104.27
		e)	Over Heads @ 10 % on (a+b+c)				271.09
		f)	Contract Profit @ 10 % on (a+b+c+d)				298.20
			Rate per cum = a+b+c+d+e+f				3280.23
		(g)	Carriage Cost				
			Cement	t	0.25	344.45	86.11
			Coarse sand	cum	0.48	1330.34	638.56
			40 mm aggregate	cum	0.58	1359.41	783.02
			20 mm aggregate	cum	0.29	1359.41	391.51
			10 mm aggregate	cum	0.10	1359.41	130.50
			Rate per cum = a+b+c+d+e+f+g				5309.94
15	11.2	300 & 1200	Total Cost including 1 % LABOUR CESS				5,840.94
			Filling in foundation trenches as per drawing and technical specification Clause 305.3.9				
		New	Borrowed Earth				
			Unit = cum				
		a)	Labour				
			Mate	day	0.01	255.00	2.55
			Mazdoor (Unskilled)	day	0.30	237.00	71.10
		b)	Material				
			Borrowed Earth (assuming 20 per cent voids)	cum	1.20	23.65	28.38
		c)	Over Heads @ 10 % on (a+b)				10.20
		d)	Contract Profit @ 10 % on (a+b+c)				11.22
			Carriage Cost				
			Borrowed Earth (assuming 20 per cent voids)	cum	1.20	59.35	71.22
			Rate per cum = a+b+c				194.68
			Rate per cum (WITH 1 % LABOUR CESS)				196.62
		1200	Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well.	cum			
		A	Assuming depth of water 1.0 m and height of island to be 1.25 m including Royalty for earth @ Rs. 3768.00 for each Island.				
			Unit = 1 No				
			Taking output = 1 No.				
		a)	Material				
			Earth (compacted)	cum	251.20	23.65	5940.88
			Sand bags	each	750.00	7.09	5317.50
		b)	Labour				
			Mate	day	0.40	255.00	102.00
			Mazdoor for filling sand bags, stitching and placing	day	15.00	237.00	3555.00
		c)	Machinery				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Crane with grab 1 cum capacity	hour	20.00	1149.39	22987.80
			Consumables @ 2.5 per cent. of (c) above				574.70
			d) Overhead charges @ 0.2 on (a+b+c)				7695.58
			e) Contractor's profit @ 0.1 on (a+b+c+d)				4617.35
			Rate per No. (a+b+c+d+e)				50790.80
			Rate per cum (WITH 1 % LABOUR CESS)	cum			51298.70
		Note	It is assumed that earth will be available within the working space of crane with grab bucket.			say	51299.00
	C		Providing and constructing one span service road to reach island location from one pier location to another pier location including Royalty for earth per m for service Road.				
			Assuming span length 30 m, width of service road 10m and depth of water 1m				
			Unit = 1 meter				
			Taking output = 30 metre				
		a) Material					
			Earth	cum	450.00	23.65	10642.50
			Sand bags	each	300.00	7.09	2127.00
		b) Labour					
			Mate	day	0.24	255.00	61.20
			Mazdoor for filling sand bags, stitching and placing	day	6.00	237.00	1422.00
		c) Machinery					
			Front end Loader 1 cum capacity	hour	27.00	1134.00	30618.00
			Tipper 5.5 cum capacity	hour	28.00	837.00	23436.00
		d) Overhead charges @ 0.2 on (a+b+c)					13661.34
		e) Contractor's profit @ 0.1 on (a+b+c+d)					8196.80
			Cost for 30 m (a+b+c+d+e)				90164.84
			Rate per m (a+b+c+d+e)/30				3005.49
			Rate (WITH 1 % LABOUR CESS)	cum			3035.55
						say	3036.00
14	11.4	PCC grade M15					
	(i)	Nominal mix (1:2.5:5)					
		Unit = cum					
	a)	Material					
		Cement	t	0.28	5,985.12		1645.91
		Coarse sand	cum	0.48	146.32		70.23
		40 mm aggregate	cum	0.48	472.09		226.60
		20 mm aggregate	cum	0.24	590.55		141.73
		10 mm aggregate	cum	0.08	658.89		52.71
	b)	Labour					
		Mate	day	0.08	255.00		20.40
		Mason (1st Class)	day	0.10	322.00		32.20
		Mazdoor (Unskilled)	day	1.63	237.00		386.31
		Bhisti	day	0.27	237.00		63.99
	c)	Machinery					
		Concrete mixer 0.4/0.28 cum capacity	hour	0.40	80.00		32.00
	d)	Formwork @ 4% on cost of material, labour and machinery (a+b+c)					106.88
	e)	Over Heads @ 10 % on (a+b+c)					277.90
	f)	Contract. Profit @ 10 % on (a+b+c+d)					305.69
		Rate per cum = a+b+c+d+e+f					3362.56
	(g)	Carriage Cost					
		Cement	t	0.275	344.450		94.72
		Coarse sand	cum	0.480	1,330.340		638.56
		40 mm aggregate	cum	0.480	1,359.410		652.52
		20 mm aggregate	cum	0.240	1,359.410		326.26
		10 mm aggregate	cum	0.080	1,359.410		108.75
		Rate per cum = a+b+c+d+e+f+g					5183.37
		Total Cost including 1 % LABOUR CESS					5,701.71
15	11.8	1000&1 200	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000and1202				
		unit=T					
	a)	Material					
		TMT bars including 5%for overlaps and wastage	t	1.05	42,848.0		44990.40
		binding wires	kg	6	57.77		346.62

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		b	Labour for cutting, bending, shifting to site, tying and placing in position				
			Mate				
			Blacksmith	day	0.4	255.00	102.00
			Mazdoor (Unskilled)	day	2	288.00	576.00
		c	Over Heads @ 10 % on (a+b+c)	day	6	237.00	1422.00
		d	Contract Profit @ 10 % on (a+b+c+d)				4743.70
		(g)	Carriage Cost				5218.07
			TMT bars including 5% for overlaps and wastage		1.05	359.04	376.99
			Rate per cum = a+b+c+d				5775.79
			Total Cost including 1 % LABOUR CESS				63553.36
16	9.2	1100 & (II) 800	Type B (First Class) Bedding				
			Laying (First Class) bedding on well compacted sand, moorum or approved granular material as per Clause 1105 (ii)				
			Filling in foundation trenches as per drawing and technical specifications Clause 305.3.9				
		I.	Sand filling				
			Unit = cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.01	255.00	2.55
		b)	Material	day	0.30	237.00	71.10
			Sand (assuming 20 per cent voids)				
		c	Over Heads @ 10 % on (a+b+c)	cum	1.20	146.32	175.58
		d	Contract Profit @ 10 % on (a+b+c+d)				24.92
			Cost of Type B (First Class) Bedding without carriage				27.42
			Cost of Type B (First Class) Bedding without carriage per m (a+b+c)/1	cum			301.57
			Cost of Carriageway				301.57
			Sand	cum	1.20	1330.34	1596.41
			Total Cost including 1 % LABOUR CESS				2,087.78
17	9.3	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row				
		(I)	Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1100.				
		A.	600 MM DIA				
			Unit = m				
			Taking output = 7.5 m				
			(3 pipes of 2.5 m length each)				
		a)	Material				
			Sand				
			Cement	cum	0.019	146.32	2.78
			RCC pipe NP 3 pipe including collar	t	0.014	5,985.12	83.79
		b)	Labour	m	7.50	899.18	6743.85
			Mate				
			Mason (1st Class)	day	0.04	255.00	10.2
			Mazdoor (Unskilled)	day	0.12	322.00	38.64
		c)	Over Heads @ 10 % on (a+b)	day	0.96	237.00	227.52
		d)	Contract Profit @ 10 % on (a+b+c)				710.68
			Cost of RCC Pipe NP3 without carriage				781.75
			Cost of RCC Pipe NP3 without carriage per m (a+b+c)/7.5				8599.21
			Cost of Carriageway	m			1146.56
			Sand	cum	0.0025	1330.34	3.37
			Cement	t	0.0019	344.45	0.64
			RCC pipe NP 3 pipe including collar	m	1.00	219.41	219.41
			Total Cost including 1 % LABOUR CESS				1,506.98
16	11.1	300	Excavation for Structures				
			Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side				
		I.	Ordinary soil				
		(i)	Upto 3 m depth				
			Unit = cum				
			Taking output = 10 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.32	255.00	81.6
		b	Over Heads @ 10 % on (a)	day	8.00	237.00	1896
							197.76

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		c	Contract Profit @ 10 % on (a+b)				
			Cost for 10 cum = a+b+c				217.54
			Rate per cum (a+b)/10=	cum			2392.90
			Total Cost including 1 % LABOUR CESS				239.29
11.2			Sand filling (Unit = cum)				241.68
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.01	255.00	2.55
		b)	Material	day	0.30	237.00	71.1
			Sand (assuming 20 per cent voids)	cum	1.20	124.14	148.968
		d)	Over Heads @ 10 % on (a+b+c)				22.26
		e)	Contract Profit @ 10 % on (a+b+c+d)				24.49
			Cost of Filling in foundation trenches without carriage				269.37
			A) Cost of Filling in foundation trenches without carriage per cum (a+b+c)/1	cum			269.37
			Cost of Carriageway				
			Sand	cum	1.2000	104.36	125.23
			Cost for cum = a+b+c+d+e				394.60
			Rate per cum = (a+b+c+d+e)				394.60
			Total Cost including 1 % LABOUR CESS				398.55
17	3.15	303	Compacting original ground supporting subgrade				
	(II)		Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.				
			Unit = cum				
			Taking output = 600 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.24	255.00	61.2
		b)	Machinery	day	6.00	237.00	1422
			Tractor with ripper attachment	hour	10.00	533.00	5330
			Tractor mounted grader arrangement for grading	hour	12.00	533.00	6396
			Water tanker 6 kl capacity	hour	4.00	166.00	664
			Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	8.60	736.00	6329.6
		c)	Material				
			Water	kl	24.00	40.00	960
		d)	Over Heads @ 10 % on (a+b+c)				2116.28
		e)	Contract Profit @ 10 % on (a+b+c+d)				2327.91
			Cost for 600 cum = a+b+c+d+e				25606.988
			Rate per cum = (a+b+c+d+e)/600				42.68
			Total Cost including 1 % LABOUR CESS				43.11
18			Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504				
			Unit = sqm				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.90	255.00	229.5
			Mason (2nd class)	day	15.00	237.00	3555
		b)	Machinery	day	7.00	288.00	2016
			Water tanker 6 kl capacity	hour	2.00	166.00	332
		c)	Material				
			(i) Providing inter- locking blocks	sqm	225.00	484.95	109113.75
			(ii) Edge blocks	m	120.00	484.95	58194
			(iii) Sand as per tabel 1500.5	cum	5.42	124.14	672.84
			(iv) Water	kl	3.00	40	120
		d)	Overheads @ 10% on (a+b+c)				17423.31
		e)	Contractor's profit@10% on (a+b+c+d)				19165.64
			Cost for 225 sqm = a+b+c+d+e				
			Cost of Carriageway				
			Sand	cum	5.42	104.36	565.63
			(i) Providing inter-locking blocks +(ii) Edge blocks	No.	7,200.00	0.65	4715.28
			Rate per sqm =(a+b+c+d+e)/225				960.46
			Total Cost including 1 % LABOUR CESS				970.06
19	12.9		Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications				

Analysis of Rates (FORMAT F8)

SI. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Unit = Nos. Taking output = 30 Nos.				
		a)	Material				
			AC pipe 100 mm dia. (including wastage @ 5 per cent)	m	31.50	46.25	1456.88
			MS clamp	No.	30.00	33.36	1000.80
			Cement mortar 1:3 (Rate as in Item 12.6)	cum	0.05	5021.03	251.05
		b)	Labour				
			Mate	day	0.03	255.00	7.65
			Mason	day	0.50	288.00	144.00
			Mazdoor	day	0.25	237.00	59.25
		c)	Overheads @ 10% on (a+b+c)				291.96
		d)	Contractor's profit@10% on (a+b+c+d)				321.16
			Cost for 30 m = a+b+c+d				3532.75
			Rate per m (a+b+c+d)/30				117.76
			Total Cost including 1 % LABOUR CESS				118.94
20	12.2		Plastering with Cement punning with cement mortar (1:4) on brickwork as per drawing and technical specification clauses 613.3 and 1204				
			Unit = 10 sqm Taking output = 10 sqm				
		a)	Material				
			Cement mortar 1:4	cum	0.240	4,198.19	1007.57
		b)	Labour				
			Mate	day	0.06	255.00	15.30
			Mason	day	0.60	288.00	172.80
			Mazdoor	day	0.60	237.00	142.20
			Bhisti	day	0.30	237.00	71.10
		c)	Overheads @ 10% on (a+b+c)				140.90
		d)	Contractor's profit@10% on (a+b+c+d)				154.99
			Rate per 10 sqm (a+b+c+d)				1704.85
			Total Cost including 1 % LABOUR CESS				172.19
21	2.6	d)	Dismantling Brick/Tile Work				
			Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.				
			Unit = cum Taking output = 1.25				
		(D)	Dry brick pitching or brick soling				
		a)	Labour				
			Mate	day	0.02	255.00	5.10
			Mazdoor (Unskilled)	day	0.50	237.00	118.50
		b)	Machinery				
			Tractor with trolley	hour	0.27	533.00	143.91
		d)	Overheads @ 10% on (a+b+c)				26.75
		e)	Contractor's profit@10% on (a+b+c+d)				29.43
			Cost for 1.25 cum = a+b+c+d				323.69
			Rate per cum = (a+b+c+d)/1.25				258.95
			Total Cost including 1 % LABOUR CESS				261.54
22	New Item		Providing and laying brick bats in Soak pit as per direction of Engineer in charge				
			Unit= cum Taking Output = 1				
		a)	Mate	day	0.01	255.00	2.55
			Mazdoor (Unskilled)	day	0.2	237.00	47.4
		b)	Brick bats	cum	1	1208.48	1208.48
		c)	Overheads @ 10% on (a+b)				125.843
		d)	Contractor's profit@10% on (a+b+c)				138.4273
			Cost for 1 cum = a+b+c+d				1522.7003
			Total Cost including 1 % LABOUR CESS				1537.93

CBR VALUE OF REGIONS IN BIHAR

ZONING OF THE AREAS BASED ON TYPE OF SOIL

Sl.No	DISTRICT	DIVISION	BLOCK	TYPE OF SOIL	Av APPROX CBR
1	ARARIA	ARARIA	ALL BLOCK	FINE SAND	4
2		FORBESGANJ	ALL BLOCK	FINE SAND	4
3	ARWAL	ARWAL	ALL BLOCK	BLACK COTTON SOIL	3
4	AURANGABAD	AURANGABAD	ALL BLOCK	BLACK COTTON SOIL	3
		DAUDNAGAR	ALL BLOCK	SANDY CLAY	4
5	BANKA	BANKA-1	AMARPUR, SHAMBHUGANJ	BLACK COTTON SOIL	3.5-4
			BANKA, BELHAR, PHULLIDUMER	FINE SAND	4
		BANKA-2	BARAHAT, BOUNSI, CHAANDAN, KATORIA, RAJAUN	FINE SAND	4
			DHORAIYA	BLACK COTTON SOIL	3-3.5
6	BEGUSARAI	BALIA	ALL BLOCK	SANDY CLAY	4
		BEGUSARAI	ALL BLOCK	SANDY	4
		MANJHAUL BAKHARI	ALL BLOCK	SANDY	4
		TEGHRA	BACHHWARA, BHAGWANPUR, TEGHRA	BLACK COTTON-40% & SANDY 60%	3 TO 4
7	BHAGALPUR	BHAGALPUR	ALL BLOCK	BLACK COTTON	3
		KAHALGAON	ALL BLOCK	BLACK COTTON	4
		NAVGACHHIYA	ALL BLOCK	BLACK COTTON	4
					4
8	BHOJPUR	ARA	AGIAON, ARA, UDWANT NAGAR	BLACK COTTON	3
			BARHARA	BLACK COTTON, 30 % SAND	3 TO 4
			KOILWAR	SANDY	4

		JAGDISHPUR	ALL BLOCK	SANDY CLAY	4
		PIRO	ALL BLOCK	SILTY CLAY	4
9	BUXAR	BUXAR	BUXAT,CHAUSA,SIMRI	SANDY	4--5
			ITARHI,RAJPUR	BLACK COTTON	3--4
		DUMRAON	BARHAM PUR,CHAUNGA I,DUMRA ON,KESATH,NA WANGAR	SANDY CLAY	4--5
			CHAKKI	SANDY	4--5
10	DARBHANGA	BENIPUR	ALL BLOCK	SANDY CLAY	4--5
		BIRAWL	ALL BLOCK	SANDY CLAY	4--5
11	GAYA	GAYA	FATEHPUR	MOORAM	6
			WAZIRGANJ	MOORAM	6
		IMAMGANJ	IMAMGANJ	MOORAM	6
		SHERGHATI	SHERGHATI	MOORAM	6
12	GOPALGANJ	GOPALGANJ-1	ALL BLOCK	SANDY CLAY	4--5
		GOPALGANJ-2	ALL BLOCK	SANDY CLAY	4--5
		HATHUA	ALL BLOCK	SANDY CLAY	4--5
13	JAMUI	JAMUI	JAMUI,KHAIRA,LAKSHM IPUR	MOORAM	6
		JHAJHA	CHAKAI	MOORAM	6
14	KAIMUR(BHABUA)	BHABUA	ADHAURA	ROCKY	100
			BHABUA ,BHAGWANPUR	50 % CLAY,50 % SANDY	3--4
			CHAINPUR,CHAND,RAM PUR	SANDY CLAY	4--5
15	KATIHAR	KATIHAR	FALKA	FINE SAND	4
16	KISHANGANJ	KISHANGANJ-1	ALL BLOCK	FINE SAND	4
		KISHANGANJ-2	ALL BLOCK	FINE SAND	4
17	MADHEPURA	MADHEPURA	ALL BLOCK	FINE SAND	4

		UDAKISUNGAN J	ALL BLOCK	FINE SAND	4
18	MADHUBANI	JHANJHARPUR	MADHEPUR	FINE SAND	4
19	MUZZAFARPU R	MUZZAFARPU R EAST-1	ALL BLOCK	SANDY	4
		MUZZAFARPU R EAST-2	ALL BLOCK	SANDY	4
		MUZZAFARPU R WEST	ALL BLOCK	SANDY	4
20	NALANDA	HARNAUT	THARTHARI	BLACK COTTON	3-3.5
		HILSA	EKANGARSARAI, KARAI PARSURI	BLACK COTTON	3-3.5
		RAJGIR	RAJGIR	MOORAM	6
21	NAWADA	RAJAULI	MESKOR, RAJAULI, SIRD ALA	MOORAM	6
		BAGHA-1	ALL BLOCK	FINE SAND	6
22	PASCHIM CHAMPARAN	BETIA	BAIRIA, BETTIAH, JOGAP ATTI, MAJHULIA	SANDY CLAY	3-4
			NAUTAN	50% CLAY 50% SAND	5
23	PATNA	BADH	ALL BLOCK	BLACK COTTON SOIL	3-3.5
		DANAPUR	ALL BLOCK	BLACK COTTON SOIL	3-3.5
		MASAUHRI	ALL BLOCK	BLACK COTTON SOIL	3-3.5
		PALIGANJ	ALL BLOCK	BLACK COTTON SOIL	3-3.5
		PATNA	ALL BLOCK	BLACK COTTON SOIL	3-3.5
24	ROHTAS	DIHARI	AKORHI GOLA	CLAY	4
			DEHRI	SANDY CLAY	4-5
			NAUHATTA	MOORAM	6
			ROHTAS	SANDY+GRAVEL	6
			TILAUTHU	50% CLAY 50% SAND	3-4
		SASARAM-1	CHENARI	60% BLACK COTTON 40% CLAY	3-4
			KARGHAR, KOCHAS, SHE OSAGAR	BLACK COTTON SOIL	3-3.5
			SASARAM	BLACK COTTON SOIL AND CLAY	3-3.5

		SASARAM-2	KARAKAT, NASRIGANJ	SAND + CLAY	
			NOKHA BLOCK	60 % BLACK COTTON 40 % CLAY	3-4
25	SAHARSA	SAHARSA	ALL BLOCK	FINE SAND	4
		SIMRI BAKHTIYARPU	ALL BLOCK	FINE SAND	4
26	SAMASTIPUR	DALSINGHSARAY	BIBHUTIPUR	25% BLACK COTTON AND 75% SANDY CLAY	3-4
			DAKSINGHSARAY, MORWA, SARAIANJAN, UJIA	SANDY CLAY	4-5
		PATORI	ALL BLOCK	SANDY CLAY	4-5
		ROSRA	ALL BLOCK	SANDY CLAY	4-5
		SAMASTIPUR	ALL BLOCK	SANDY CLAY	4-5
27	SARAN	CHAPRA-1	ALL BLOCK	SANDY CLAY	4-5
28	SHEIKHPURA	SHEKHPURA	SHEIKHPURA	SANDY CLAY	4-5
29	SITAMARHI	SITAMARHI	BATHN' AHA, DUMRA, MAJORGANJ, PARIHAR, SONBARSA	SANDY CLAY	4-5
30	SUPAUL	SUPAUL	ALL BLOCK	FINE SAND	4
		TRIVEINGANJ	ALL BLOCK	FINE SAND	4
		VIRPUR	ALL BLOCK	FINE SAND	4
31	VAISHALI	MAHUA	ALL BLOCK	SANDY CLAY	4

PHOTOGRAPHS

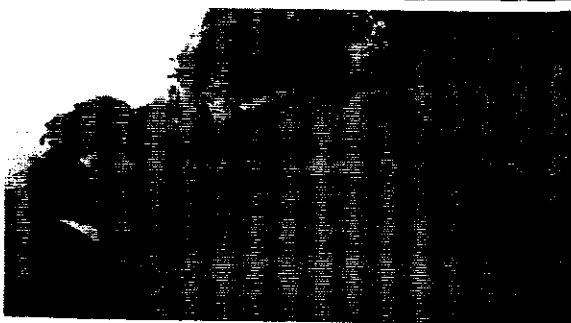
District- Rohtas
PANCHYAT -Akhodi



Picture 1



Picture 2



Picture 3



Picture 4

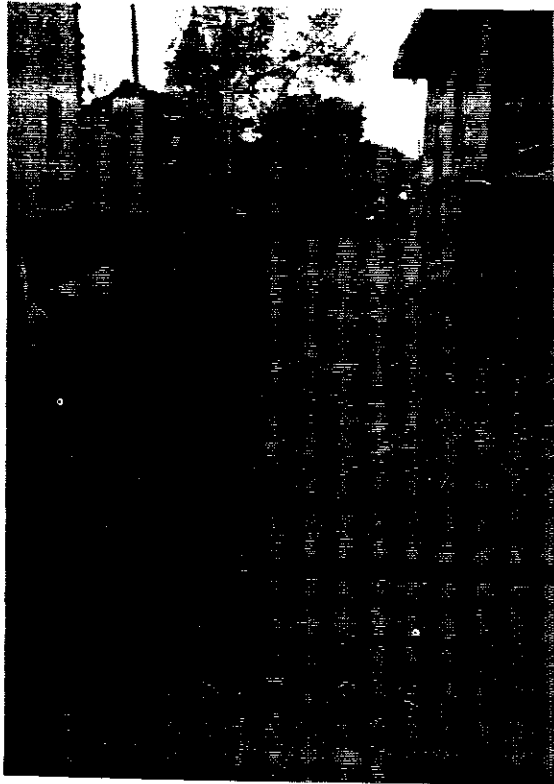


Picture 5



Picture 6

District- Rohtas
Baghak Hok Village



Picture 1



Picture 2



Picture 3



Picture 4

District- Bhojpur

Division- Piro

Name of Road- PMGSY Harinath tol to amayee Ahari tola (panchayat-Amayee)



District- Bhojpur

Division- Piro

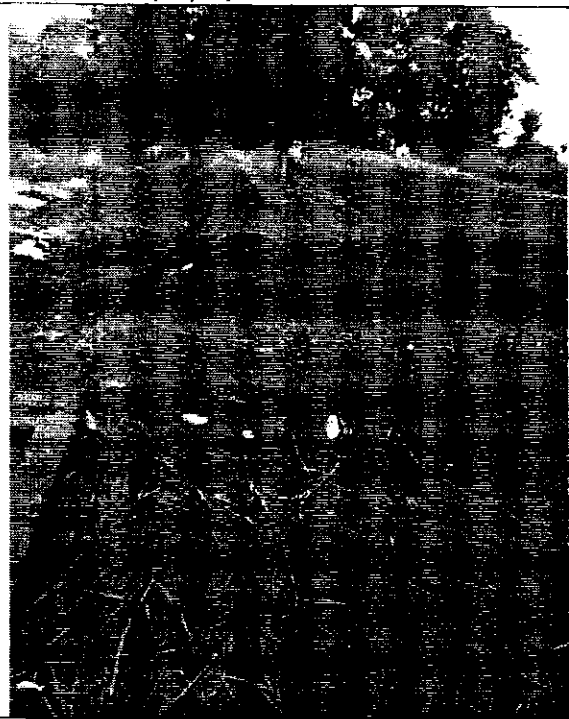
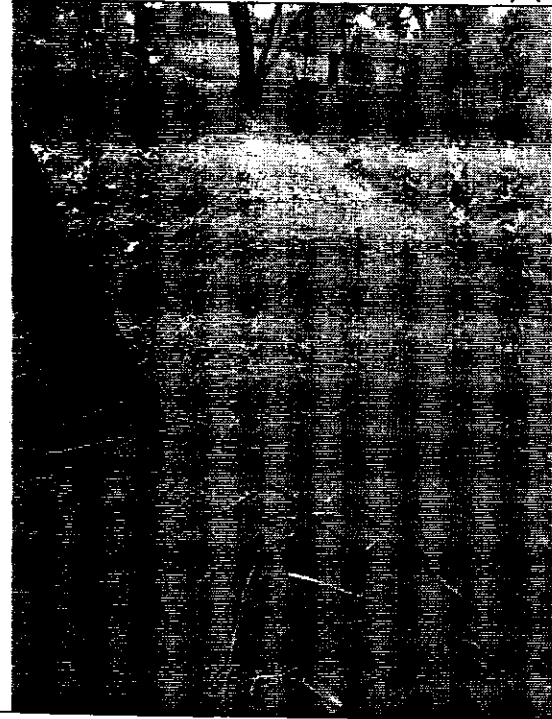
Name of Road- Amayee upgraded middle school to bandhan tola(panchayat-Amayee)



District- Bhojpur

Division- Piro

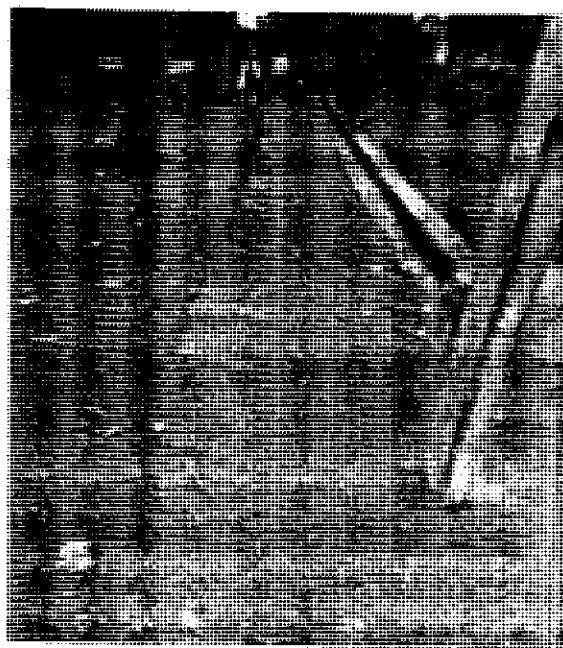
Name of Road- Narayanpur PCC road to mathiya(Panchayat- Narayanpur)



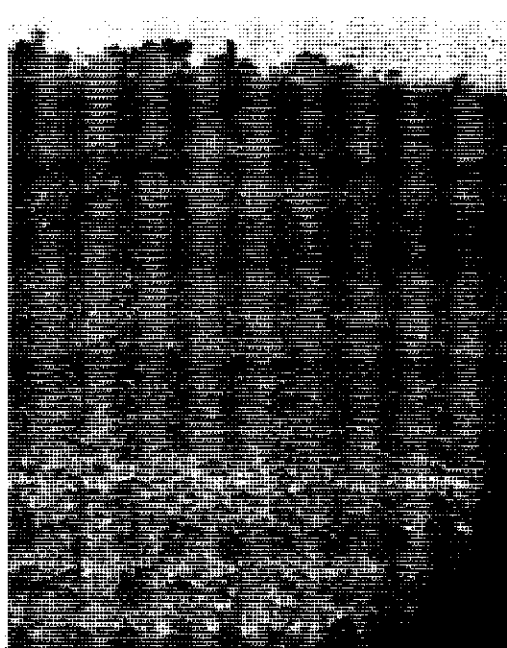
District- Bhojpur

Division- Piro

Narayanpur masjeed to Sridhar pandit
tola(Panchayat Narayanpur)



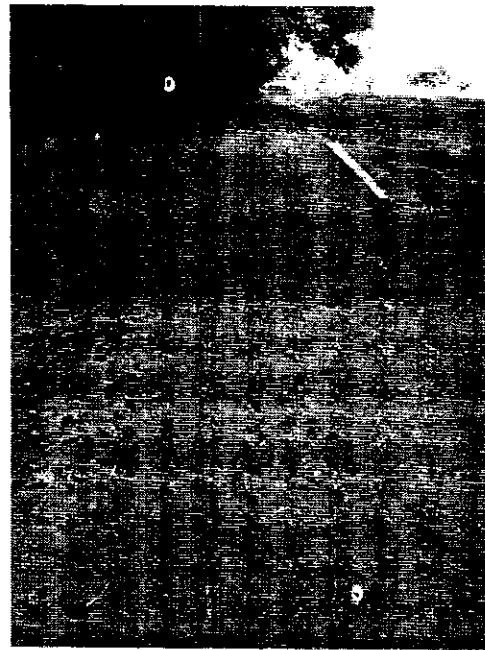
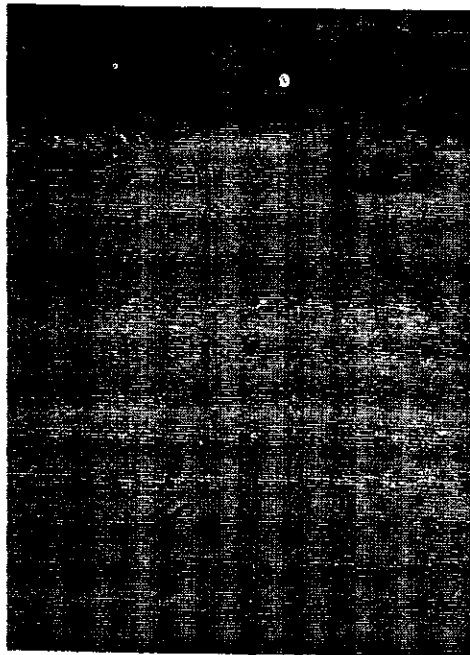
Narayanpur PCC road-Mathiya road to
khorabar(Panchayat Narayanpur)



District- Bhojpur

Division- Piro

Name of Road- Piro Qwath PWD road to Ganeshi tola(panchayat Amehta)



MMGSY Garhath Road(house of Shiv dayal singh)
To house of Ayodhaya singh (panchayat katya)



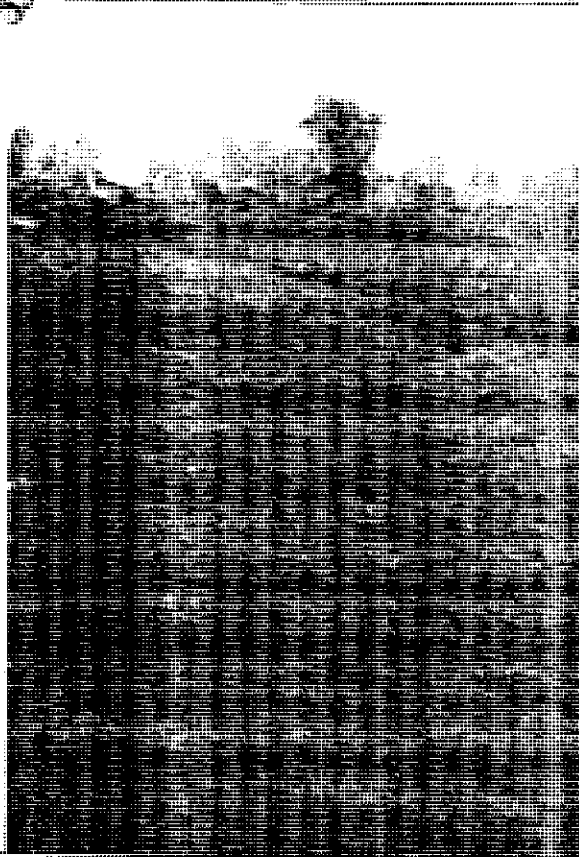
MMGSY Garhath Road(house of alok singh) To
house of vijay singh(panchayat katya)



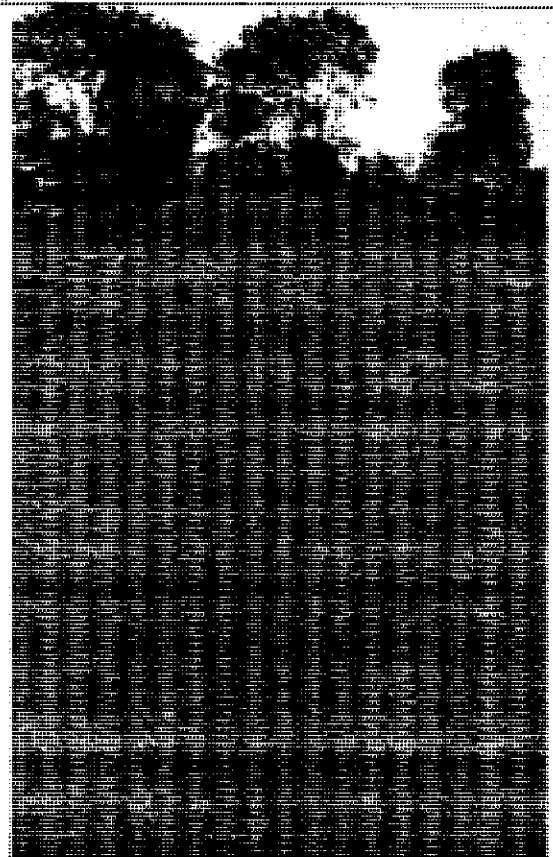
District- Kaimur (Bhadrachal)

Division- Kaimur

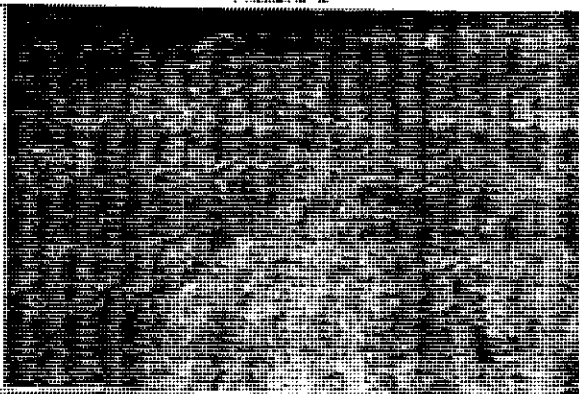
Block- Adraura



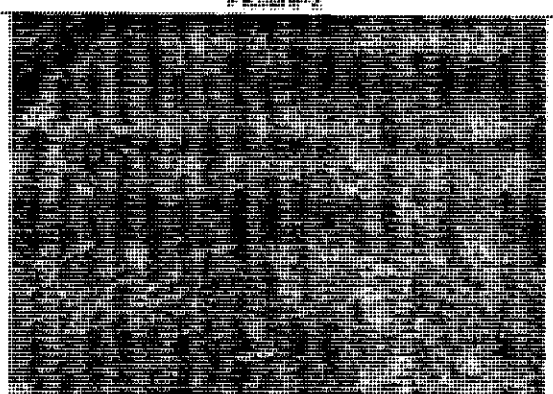
Picture-1



Picture-2



Picture-3



Picture-4

District- Kishanganj
Division- Kishanganj-1
Block- Kishanganj



Picture 1



Picture 2



Picture 3



Picture 4



Picture 5

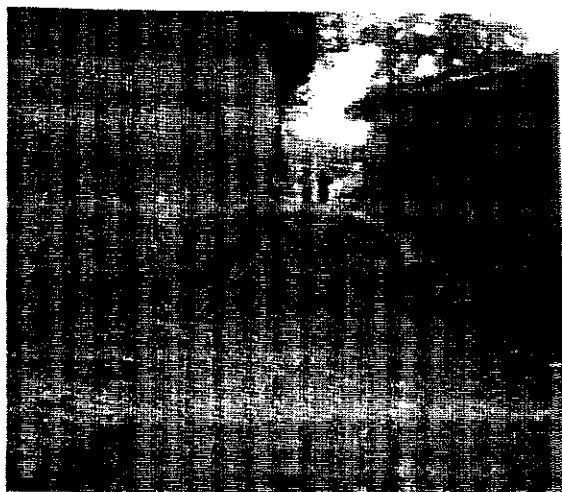
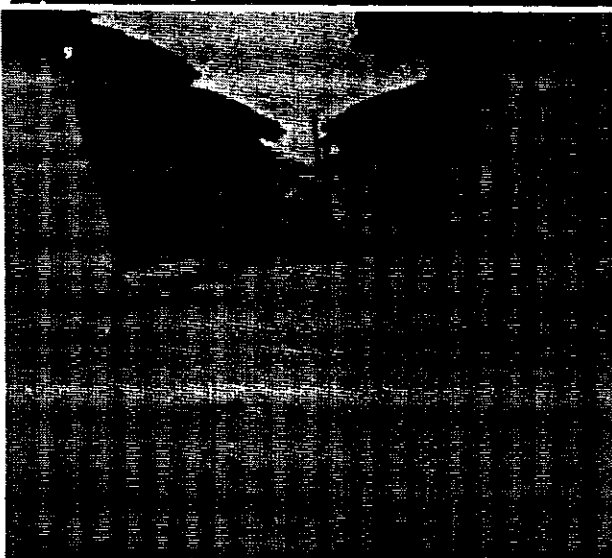
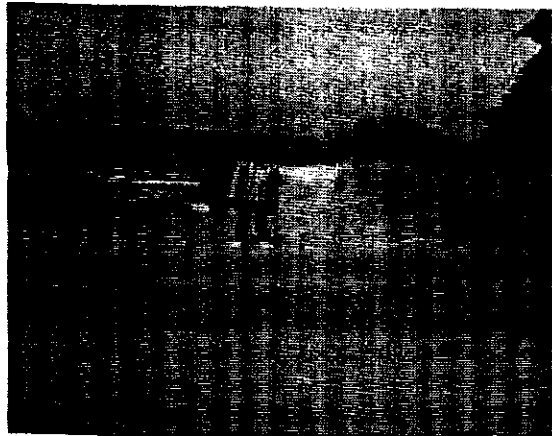


Picture 6

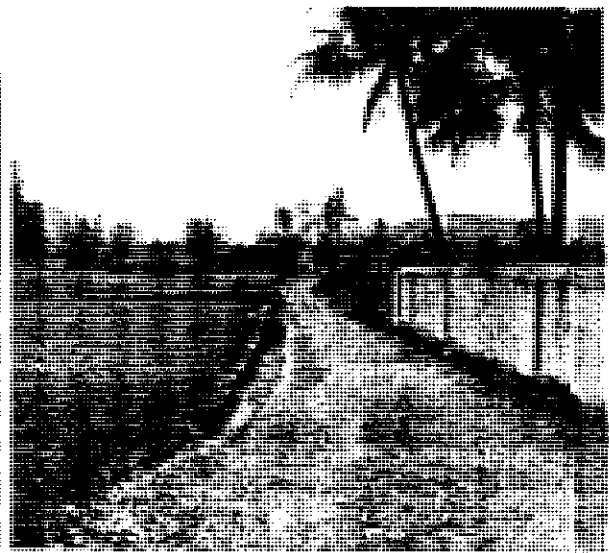
District- Kaimur
Division- Bhabhua
Block- Adhaura



District- Kaimur
Division- Bhabhua
Block- Adhaura



District- Jamui
Division- Jamui and jhajha



District- Jamui

Division- Jamui and jhajha



**MODEL ESTIMATES
OF
INTERNAL VILLAGE ROAD
IN BIHAR
CEMENT CONCRETE PAVEMENT
(FOR ALL TYPES OF CBR)**



बिहार सरकार

पुस्तिका-२

पुस्तिका-२



Rural Works Department
5th Floor, Vishweshwaraiya Bhawan,
Bailey Road, Patna-800015.

CEMENT CONCRETE PAVEMENT

प्रस्तावना

प्रस्तावना

बिहार राज्य में ग्राम पंचायतों के द्वारा क्रियान्वित की जा रही पंचायत के भीतर की सड़कों एवं नालियों के निर्माण की योजनाओं के लिए विभिन्न प्रकार के मॉडल प्राक्कलन बनाने का निर्णय लिया गया। इसके लिए अभियंताओं द्वारा क्षेत्र का भ्रमण किया गया जिसका फोटोग्राफ मॉडल प्राक्कलन के साथ संलग्न है। मॉडल प्राक्कलन सिर्फ संदर्भ के लिए तैयार किया गया है। प्रत्येक कार्य स्थल की भौगोलिक स्थिति, भौतिक स्थिति एवं सामग्रियों की ढुलाई के लिए क्वायरी साइट/वास्तविक स्रोत से इसकी दूरी के आधार पर प्रत्येक वार्ड के लिए अलग-अलग प्राक्कलन तैयार किया जाना अपेक्षित है। प्राक्कलन में विभिन्न मदों का दर मुख्यतः ग्रामीण कार्य विभाग में प्रचलित दर विश्लेषण के आधार पर तैयार किया गया है। गांव/वार्ड की गली की चौड़ाई के अनुकूल निर्माण में उपयोग हो सकने वाले यंत्र-संयंत्र के अनुसार विभिन्न मदों का दर में सुधार किया जाना अपेक्षित होगा। बिहार राज्य अनुसूचित दर निर्धारण समिति द्वारा समय-समय पर निर्गत पत्रों एवं राज्य सरकार द्वारा समय-समय पर प्रभावी वैट की दर, लेवर दर इत्यादि के आधार पर विभिन्न मदों के दर की गणना की जाएगी। मिट्टी कार्य का प्राक्कलन प्रत्येक कार्य स्थल के आवश्यकतानुसार किया जायेगा।

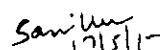
यह मॉडल प्राक्कलन मिट्टी का विभिन्न प्रकार के CBR के लिए तैयार किया गया है। इस मॉडल प्राक्कलन में सड़क/गली में सीमेंट कंक्रीट पेवमेंट से सड़क/गली के मजबूतीकरण का प्राक्कलन निहित है। बसावटों के आन्तरिक सड़क/गली की तीन प्रकार की सतह यथा ईट सोलिंग सतह अच्छी स्थिति में, ईट सोलिंग सतह खराब स्थिति में तथा मिट्टी सतह, सड़क/गली की चार प्रकार की चौड़ाई यथा 1.50 मीटर, 2.50 मीटर, 3.00 मीटर तथा 3.75 मीटर की परिकल्पना करते हुए विभिन्न प्रकार का मॉडल प्राक्कलन तैयार किया गया है।

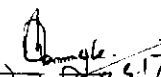
मॉडल प्राक्कलन में विभिन्न सामग्रियों के लिए क्वायरी साइट से भिन्न-भिन्न प्रकार का लीड यथा स्टोन मेटल ग्रेड-I, II एवं III /स्टोन चिप्स/मोटा बालू के लिए लीड 100 किलोमीटर, लोकल बालू के लिए 3.00 कि०मी०, ईट एवं पेभर ब्लॉक के लिए लीड 8.00 कि०मी०, सिमेंट एवं स्टील के लिए लीड 10.00 कि०मी० को मानते हुए इसका Carriage cost निकाला गया है।

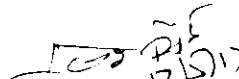
उक्त तथ्यों के परिपेक्ष्य में प्राक्कलन में सामान्य बदलाव स्थानीय अभियंता द्वारा किया जा सकता है। प्राक्कलन में कोई भी विशेष बदलाव को संज्ञान में लाने पर इसका निराकरण तकनीकी कोषांग द्वारा किया जाएगा।

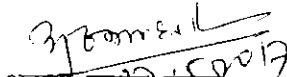

17.5.17
संजीव कुमार
सहायक अभियंता

दीपनारायण सिंह
कार्यपालक अभियंता

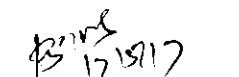
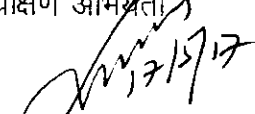

17.5.17
समीर कुमार
सहायक अभियंता


17.5.17
नरेन्द्र सिंह
कार्यपालक अभियंता


17.5.17
रत्नेश सिंह
सहायक अभियंता


17.5.17
अरुण कुमार
अधीक्षक अभियंता


17.5.17
सत्येन्द्र राय
कार्यपालक अभियंता


17.5.17
सुभाष चन्द्र
अधीक्षक अभियंता

17.5.17
राजीव रंजन शर्मा
मुख्य अभियंता

Summary of Unit Cost of Road in
Square Metre (SQM)
(For Different CBR's)

Type of Soil	Road Width (m)	UNIT COST IN RUPEES FOR ROAD SECTIONS IN SQUARE METRES (SQM) WITH 10% CONTRACTOR'S PROFIT & 10% OVERHEADS		
		Over Existing brick soling in good condition	Over Existing brick soling in poor condition	Over Existing Earthen Road
Black Cotton Soil CBR ≤ 3	1.50	1256.41	1586.28	1898.33
	2.50	1187.90	1551.58	1829.81
	3.00	1170.77	1559.70	1752.31
	3.75	1153.64	1547.67	1750.04
Clayey/Silty Clay Soil CBR 3-4	1.50	1256.41	1458.23	1788.41
	2.50	1187.90	1423.54	1719.89
	3.00	1170.77	1421.27	1515.51
	3.75	1153.64	1411.31	1493.81
Fine Sand/Sandy Clay Soil CBR 4-5	1.50	1256.41	1458.23	1788.41
	2.50	1187.90	1423.54	1719.89
	3.00	1170.77	1421.27	1515.51
	3.75	1153.64	1411.31	1493.81
Sandy Soil with high % of Sand CBR 5-6	1.50	1256.41	1449.37	1779.54
	2.50	1187.90	1414.67	1711.03
	3.00	1135.16	1411.52	1515.51
	3.75	1118.09	1401.74	1493.81
Moorum with CBR 6-7	1.50	1220.53	1193.23	1305.53
	2.50	1152.24	1158.72	1237.01
	3.00	1170.79	1191.17	1158.94
	3.75	1153.64	1181.39	1176.29
Gravel/Rocky with CBR > 7	1.50	1256.46	1229.04	1305.58
	2.50	1152.24	1158.72	1201.36
	3.00	1135.16	1155.60	1194.56
	3.75	1118.09	1145.87	1176.27

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D. S. S.
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E.E

Summary of Unit Cost of Road in
Running Metre (Rm)
(For Different CBR's)

Type of Soil	Road Width (m)	UNIT COST IN RUPEES FOR ROAD SECTIONS IN RUNNING METRES (RM) WITH 10% CONTRACTOR'S PROFIT & 10% OVERHEADS		
		Over Existing brick soling in good condition	Over Existing brick soling in poor condition	Over Existing Earthen Road
Black Cotton Soil CBR ≤ 3	1.50	1884.62	2379.42	2847.49
	2.50	2969.74	3878.96	4574.53
	3.00	3512.30	4679.10	5256.94
	3.75	4326.14	5803.76	6562.64
Clayey/Silty Clay Soil CBR 3-4	1.50	1884.62	2187.35	2682.61
	2.50	2969.74	3558.85	4299.73
	3.00	3512.30	4263.80	4546.54
	3.75	4326.14	5292.42	5601.79
Fine Sand/Sandy Clay Soil CBR 4-5	1.50	1884.62	2187.35	2682.61
	2.50	2969.74	3558.85	4299.73
	3.00	3512.30	4263.80	4546.54
	3.75	4326.14	5292.42	5601.79
Sandy Soil with high % of Sand CBR 5-6	1.50	1884.62	2174.06	2669.32
	2.50	2969.74	3536.69	4277.57
	3.00	3405.49	4234.55	4546.54
	3.75	4192.84	5256.52	5601.79
Moorum with CBR 6-7	1.50	1830.80	1789.85	1958.29
	2.50	2880.60	2896.79	3092.53
	3.00	3512.37	3573.51	3476.81
	3.75	4326.14	4430.21	4411.10
Gravel/Rocky with CBR > 7	1.50	1884.69	1843.56	1958.37
	2.50	2880.60	2896.79	3003.39
	3.00	3405.49	3466.81	3583.69
	3.75	4192.84	4297.02	4411.02

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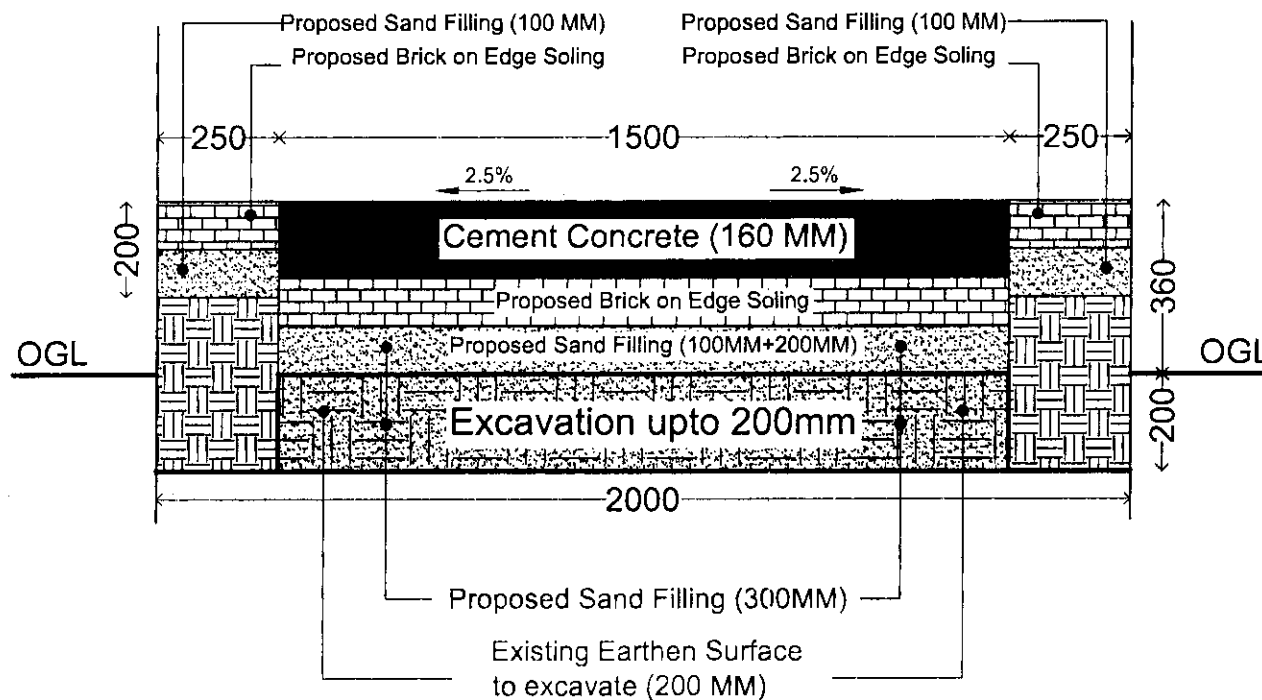
For CBR Less Than 3

CROSS SECTIONS

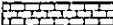
C.B.R < 3.

OPTION-I

1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road

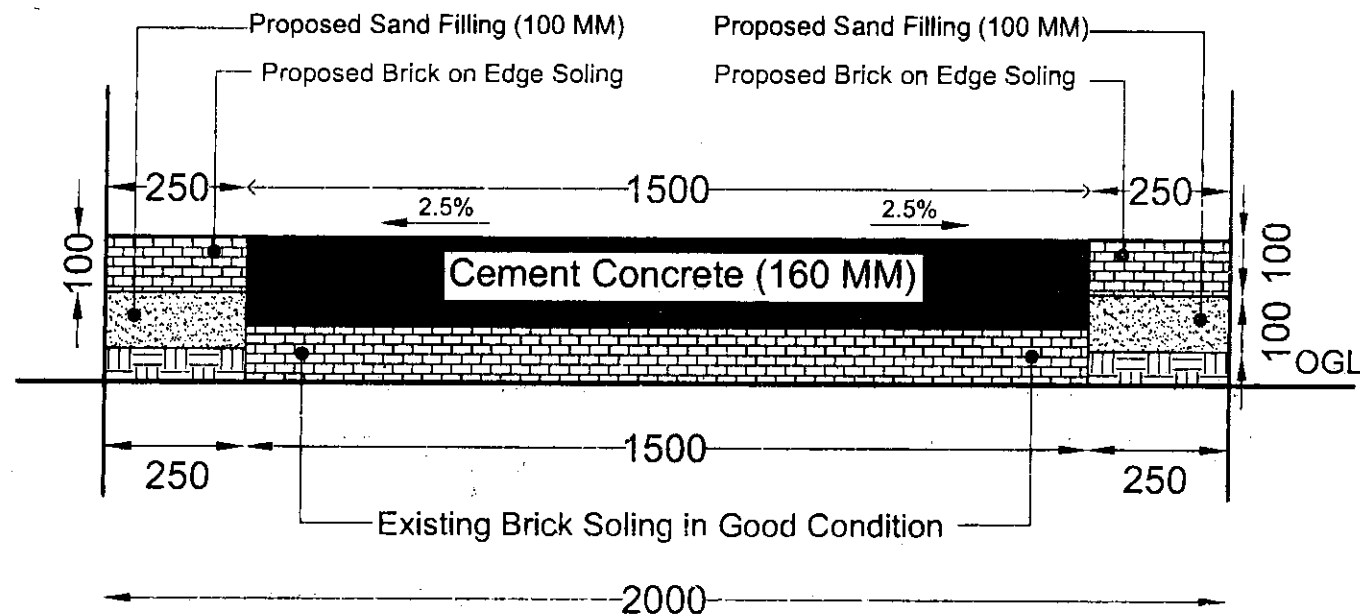


LEGEND:-

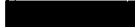
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-I

1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition

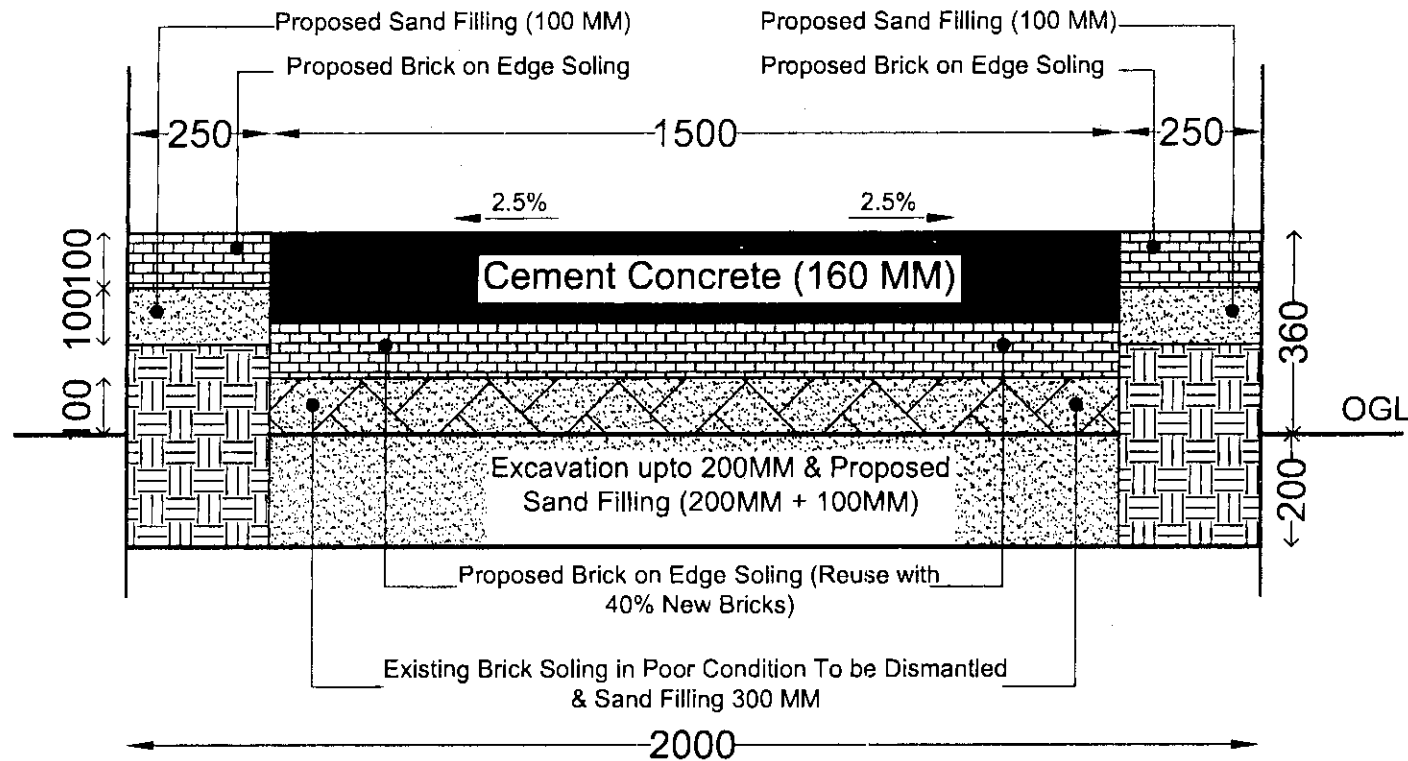


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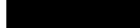
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-I

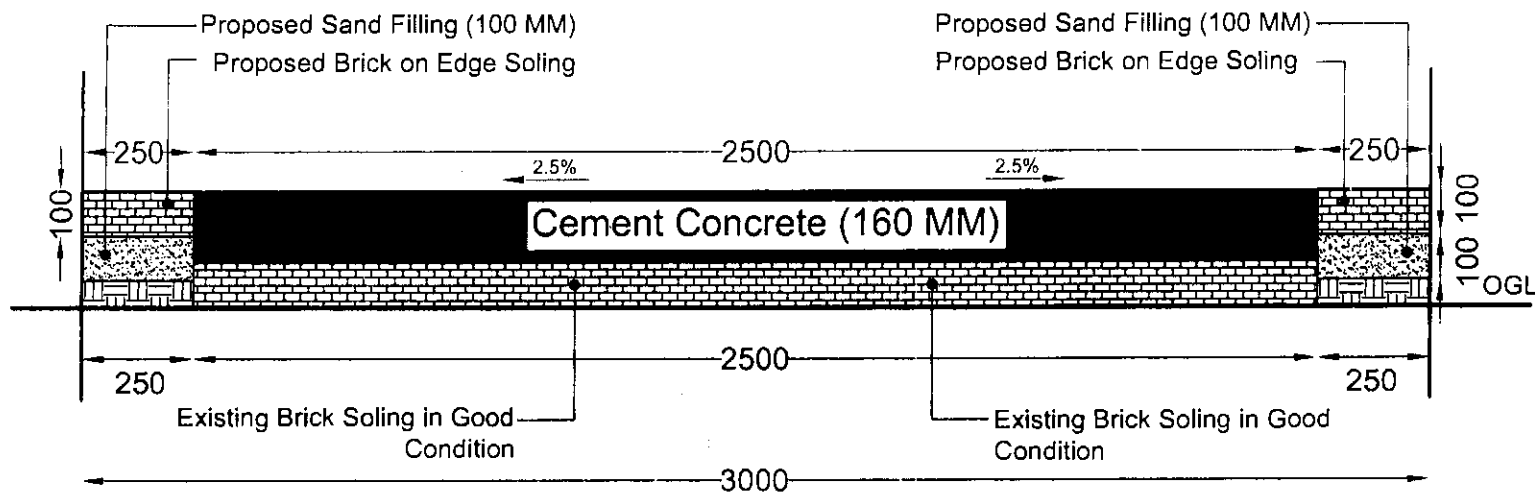
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



LEGEND:-

-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

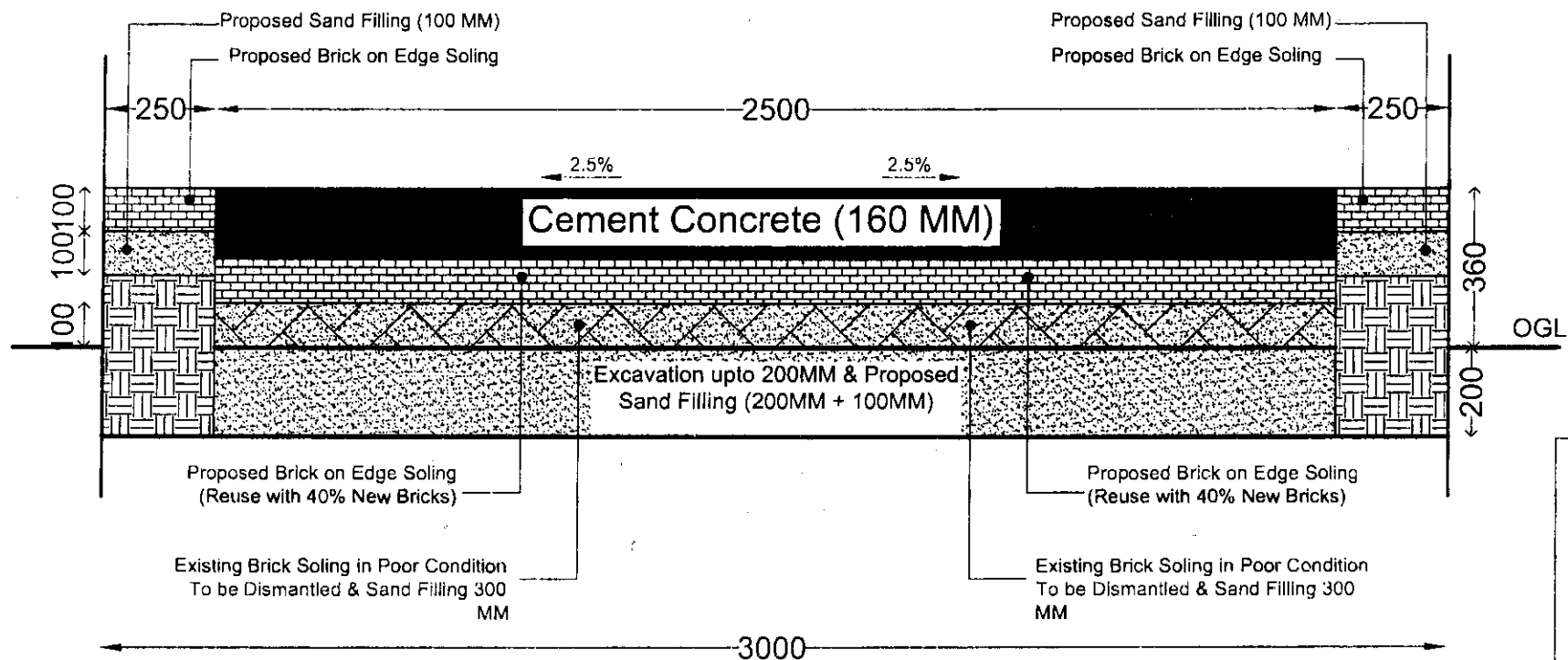
OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing brick soling in good condition



LEGEND:-

-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

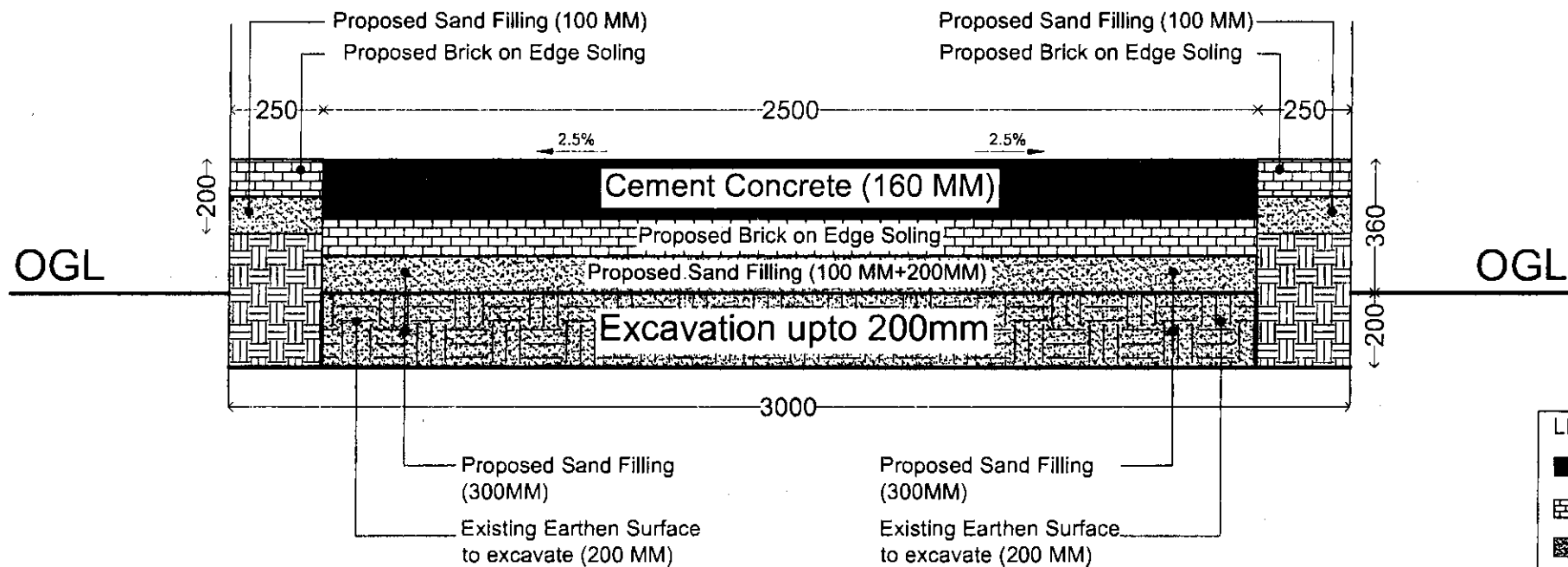
OPTION-II
2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use
Over Existing brick soling in poor condition



LEGEND:-

- P.C.C
- Brick Soling
- Sand Filling
- Earthen Surface

OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing Earthen Road

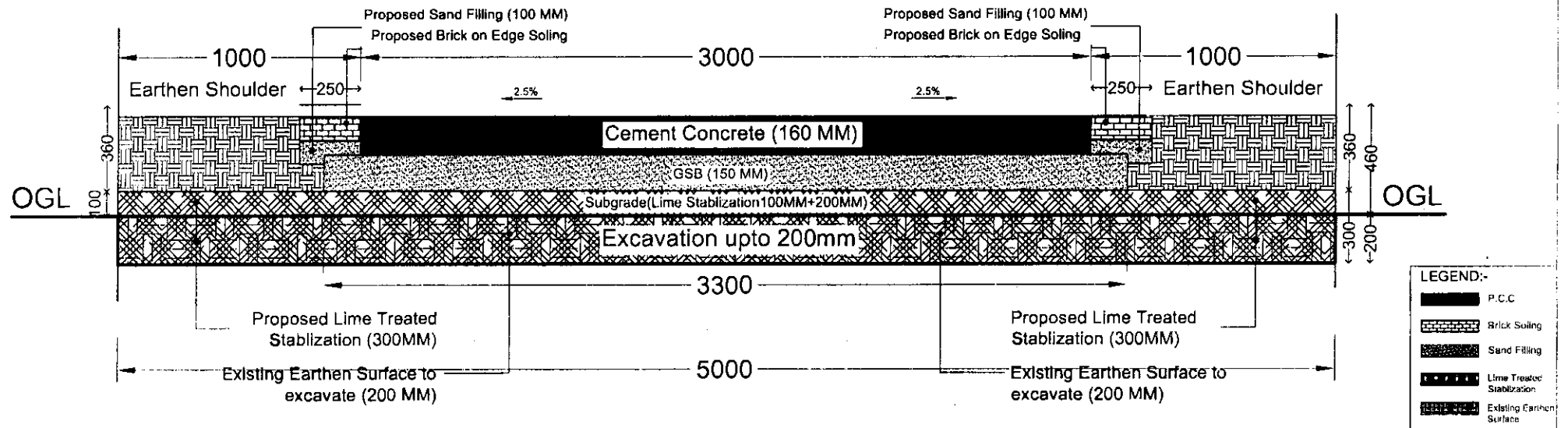


LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

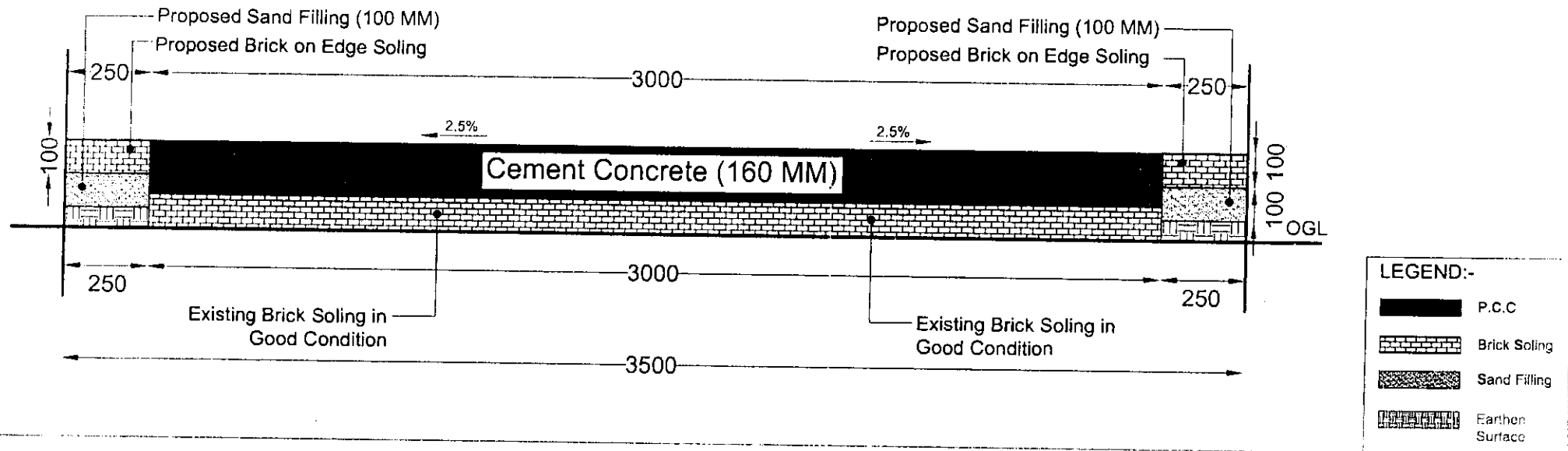
OPTION-III

3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart/Light Vehicles use
Over Existing Earthen Road

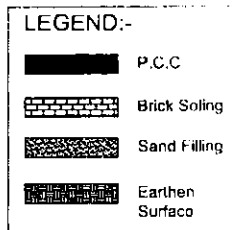


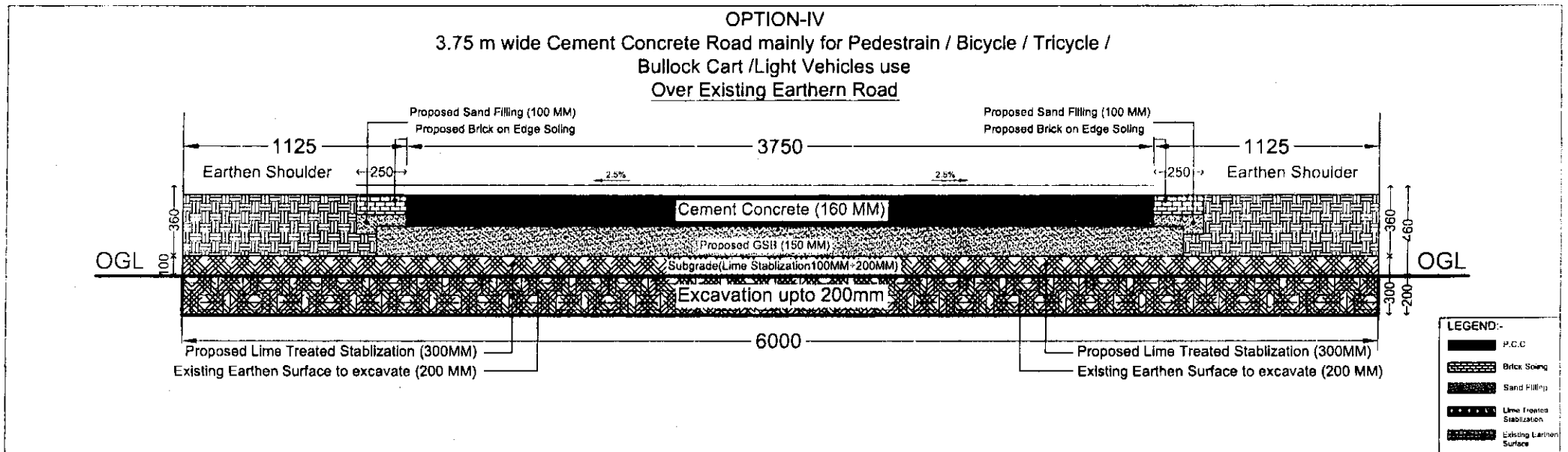
OPTION-III

3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart/Light Vehicles use
Over Existing brick soling in good condition

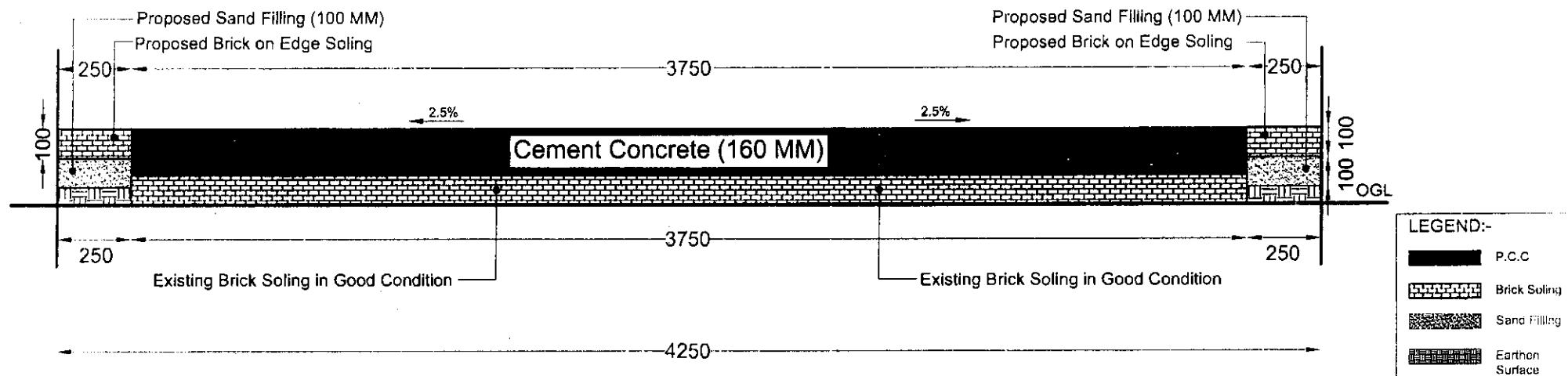


3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart/Light Vehicles use
Over Existing brick soling in poor condition

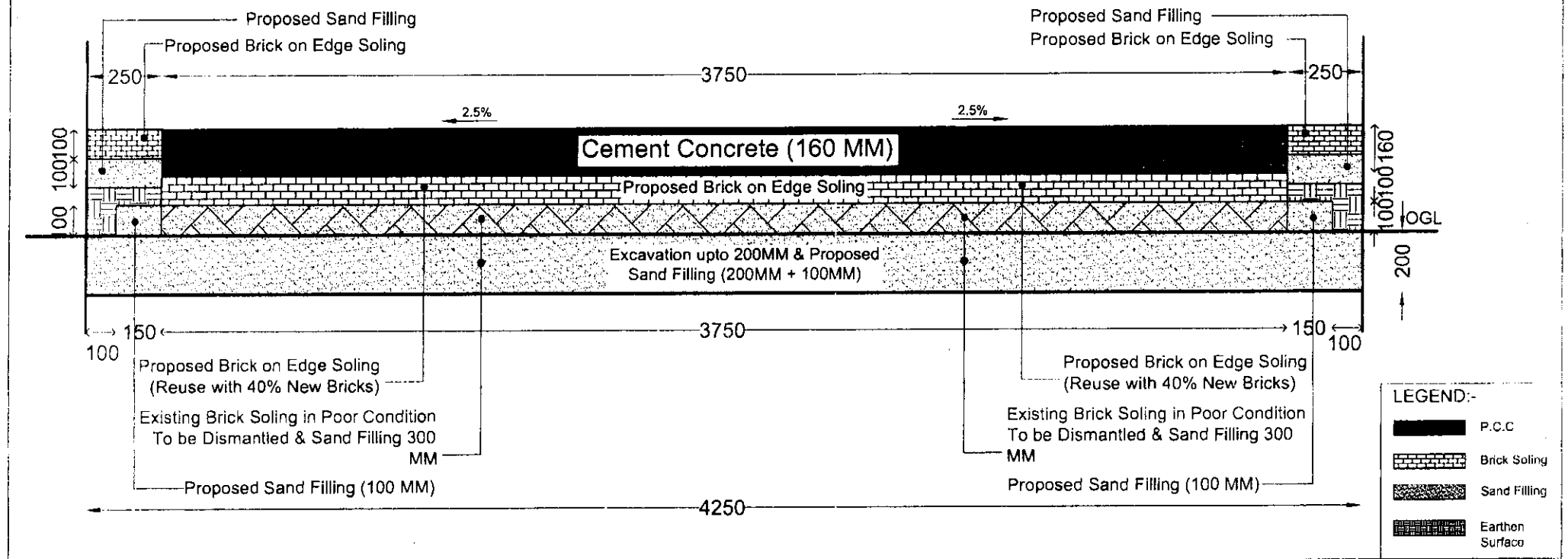




OPTION-IV
**3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock Cart /Light Vehicles use**
Over Existing brick soling in good condition



3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart /Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1 (i)	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.2	30.00	241.68	7250.47
5	11.2 A	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling Road	Cum		100	1.5	0.3	45.00	398.55	17934.56
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	C	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		100	1.5		150	474.01	71102.08
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm						220.36	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
9	6.4	Cement Concrete Pavement (By mix in place method) Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.5	0.16	24	6,782.02	162768.39
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	284748.93
Cost of CC Pavement per RM Length	2847.49
Cost of CC Pavement per SQM	1898.33

1.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.10	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 60-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road	Sqm	2	100	0.25		50	474.01	23700.89
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum		100	1.50	0.15	24	6,782.02	162768.39
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	188461.81
Cost of CC Pavement per RM Length	1884.62
Cost of CC Pavement per SQM	1256.41

1.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime, having minimum 70% of contents of CaO. Grading with Tractor mounted, Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.2	30.00	241.68	7250.47
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum		100	1.50	0.3	45.00	398.55	17934.56
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm					0	474.01	0.00
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm		100	1.50		150	220.36	33054.55
		Road	Sqm	2	100	0.25		50	220.36	11018.18
		Road Side Offset/Shoulder	Sqm							
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum							
9	6.4	For Grading II Material Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.50	0.15	24	6,782.02	162768.39
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

	237941.97
Cost of CC Pavement per RM Length	2379.42
Cost of CC Pavement per SQM	1586.28

2.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1 (i)	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.2	50.00	241.68	12084.12
5	11.2 A	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling Road	Cum		100	2.5	0.3	75.00	398.55	29890.93
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		100	2.5		250	474.01	118503.47
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm						220.36	0.00
			Sqm						220.36	0.00
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
	ii)	(By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealtant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.5	0.16	40	6,782.02	271280.65
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	457452.60
Cost of CC Pavement per RM Length	4574.53
Cost of CC Pavement per SQM	1829.81

2.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1 (i)	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2 A	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
			Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismanting of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling ,watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm						220.36	0.00
			Sqm						220.36	0.00
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.50	0.16	40	6,782.02	271280.65
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	296974.07
Cost of CC Pavement per RM Length	2969.74
Cost of CC Pavement per SQM	1187.90

2.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum							
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum						22.07	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum						173.66	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	150.87	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	243.98	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	Cum		100	2.5	0.2	50.00	241.68	12084.12
	A	Sand filling	Cum							
	B	Road Side Offset/Shoulder	Cum	2	100	2.50	0.3	75.00	398.55	29890.93
		Borrowed Earth	Cum		100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm					0	474.01	0.00
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)	Sqm	2	100	0.25		250	220.36	55090.92
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401	Sqm		100	0.25		50	220.36	11018.18
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause: 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum						1,840.06	0.00
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum		100	2.50	0.16	40	6,782.02	271280.65
			Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	387896.01
Cost of CC Pavement per RM Length	3878.96
Cost of CC Pavement per SQM	1551.58

3.00 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum		100	5	0.3	150.00	150.87	22630.58
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum		100	5	0.3	150.00	243.66	36582.45
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	5	0.2	100.00	241.68	24168.25
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
		Borrowed Earth	Cum							
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging, according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per Technical Specification clause 412	Sqm						474.01	0.00
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm							
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum		100	3.3	0.15	49.5	1,840.06	91082.76
	ii)	(By mix in place method)								
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	525694.23
Cost of CC Pavement per RM Length	5256.94
Cost of CC Pavement per SQM	1752.31

3.00 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum							
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						22.07	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	150.87	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	243.88	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling Road	Cum					0.00	241.68	0.00
	A	Road Side Offset/Shoulder	Cum					0.00	398.55	0.00
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						196.62	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Cum						261.54	0.00
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wadges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	351230.20
Cost of CC Pavement per RM Length	3512.30
Cost of CC Pavement per SQM	1170.77

3.00 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1 (i)	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	3.3	0.2	66.00	241.68	15951.04
5	11.2 A	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling Road	Cum		100	3.30	0.3	99.00	398.55	39456.03
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
			Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm					0	474.01	0.00
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm					300	220.36	66109.10
		Road	Sqm	2	100	3.00		50	220.36	11018.18
		Road Side Offset/Shoulder	Sqm		100	0.25				
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rolavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
	ii)	For Grading II Material								
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	467910.04
Cost of CC Pavement per RM Length	4679.10
Cost of CC Pavement per SQM	1559.70

3.75 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.68 (Avg Area in shoulder)	68.00	173.66	11808.63
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum		100	6	0.3	180.00	150.87	27156.09
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum		100	6	0.3	180.00	243.88	43898.94
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing, by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	6	0.2	120.00	241.68	29001.90
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						138.20	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)							220.36	0.00
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm							
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rolavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401	Cum		100	4.05	0.15	60.75	1,840.06	111783.38
	A	(By mix in place method)								
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum		100	3.75	0.16	60	6,782.02	406920.97
10			Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	656263.94
Cost of CC Pavement per RM Length	6562.64
Cost of CC Pavement per SQM	1750.04

3.75 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.15	60	6,782.02	406920.97
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	432614.39
Cost of CC Pavement per RM Length	4326.14
Cost of CC Pavement per SQM	1153.64

3.75 m wide Cement Concrete Road Over Existing brick soling in poor condition

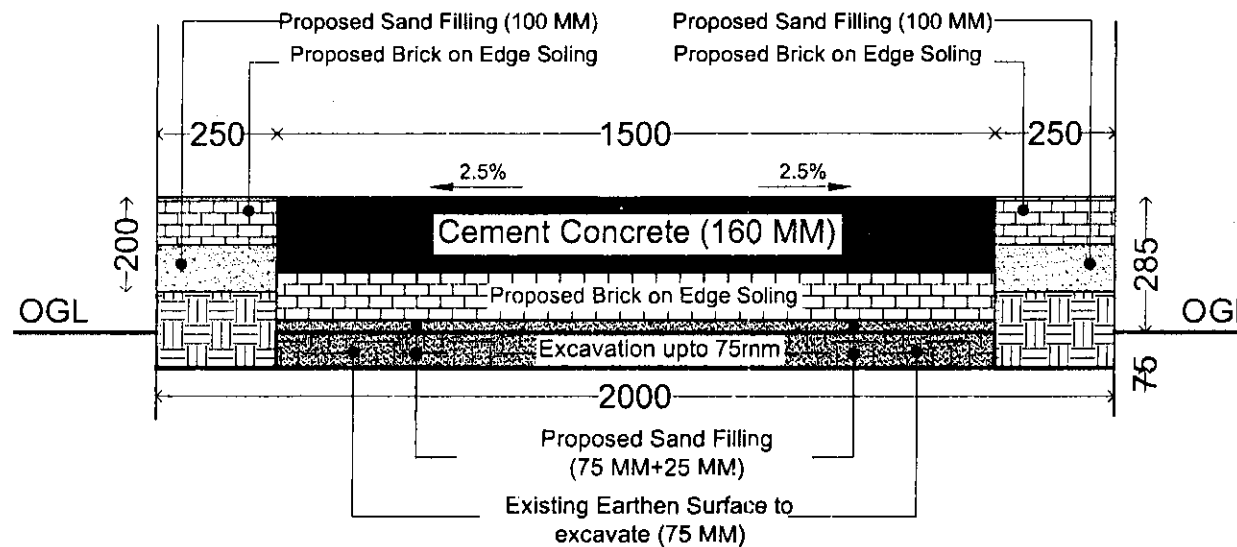
Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface Pulversing, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	4.05	0.2	81.00	241.68	19576.28
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	4.05	0.3	121.50	399.55	48423.31
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	3.75		375	220.36	82636.37
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	580375.57
Cost of CC Pavement per RM Length	5803.76
Cost of CC Pavement per SQM	1547.67

For CBR between 3-4

CROSS SECTIONS

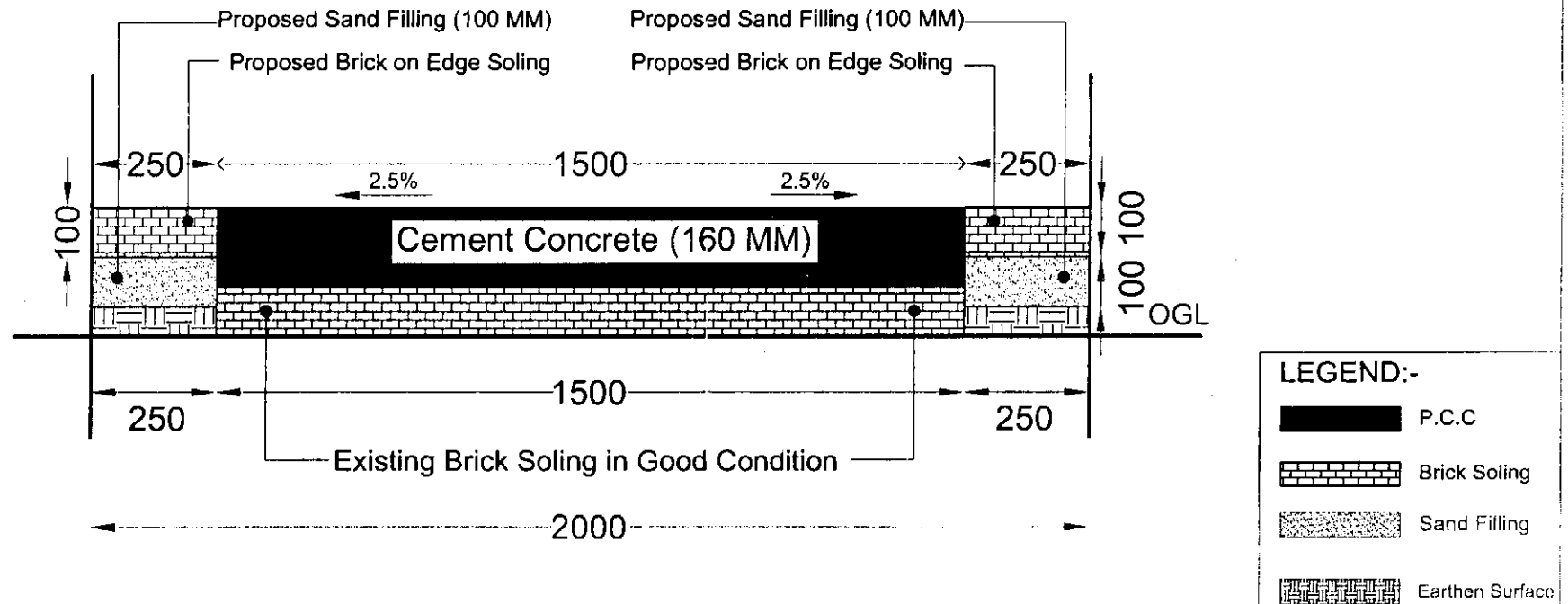
OPTION-I 1.50 m wide Cement Concrete Road mainly for Pedestrain and Bicycle use Over Existing Earthen Road



LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

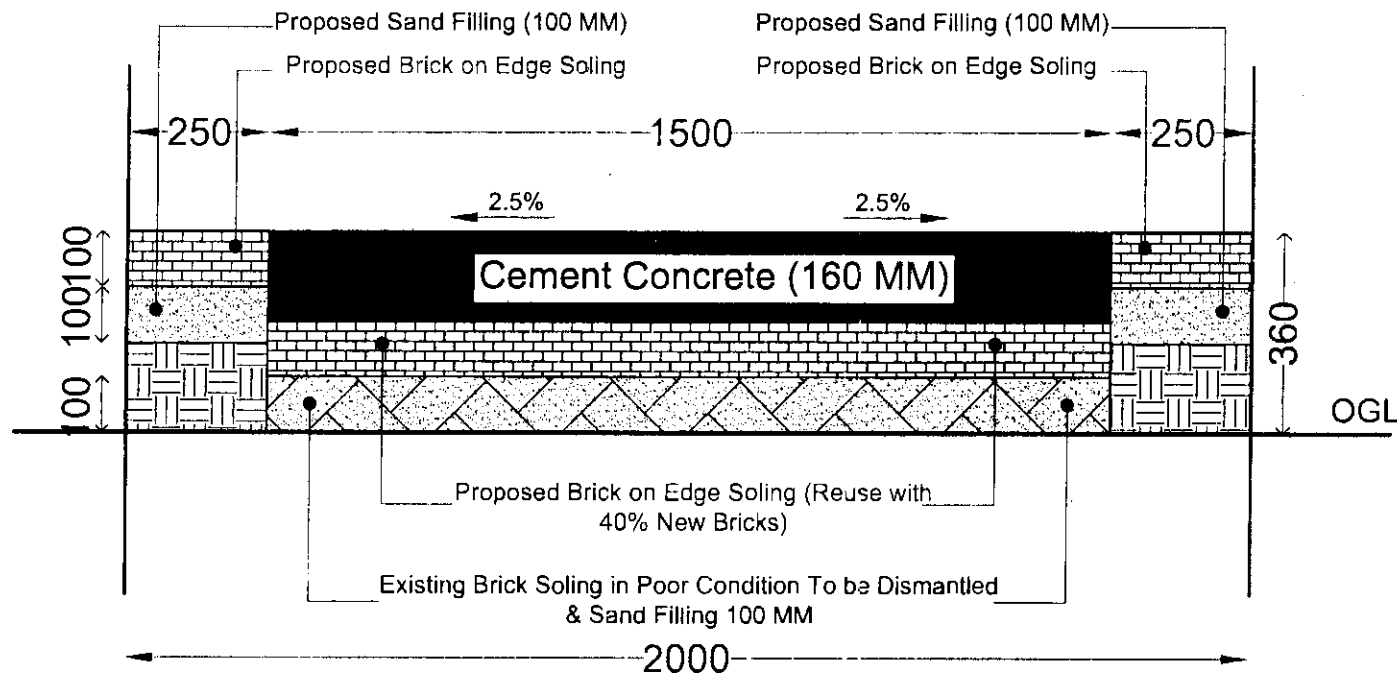
OPTION-I

1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition



OPTION-I

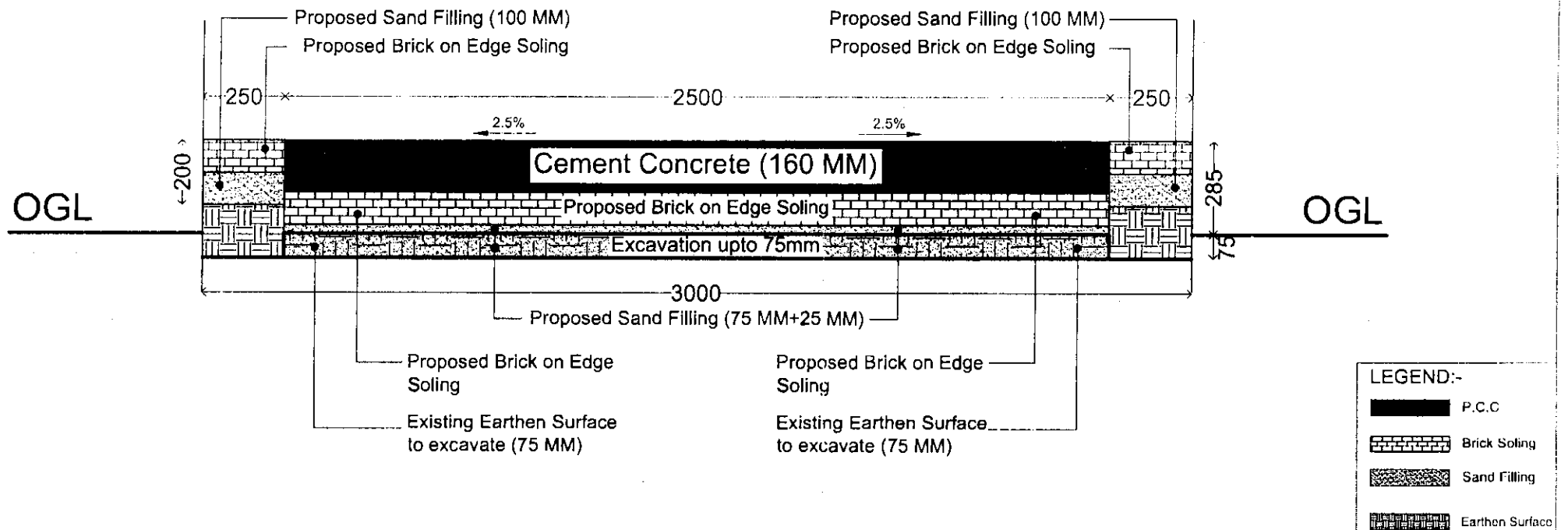
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



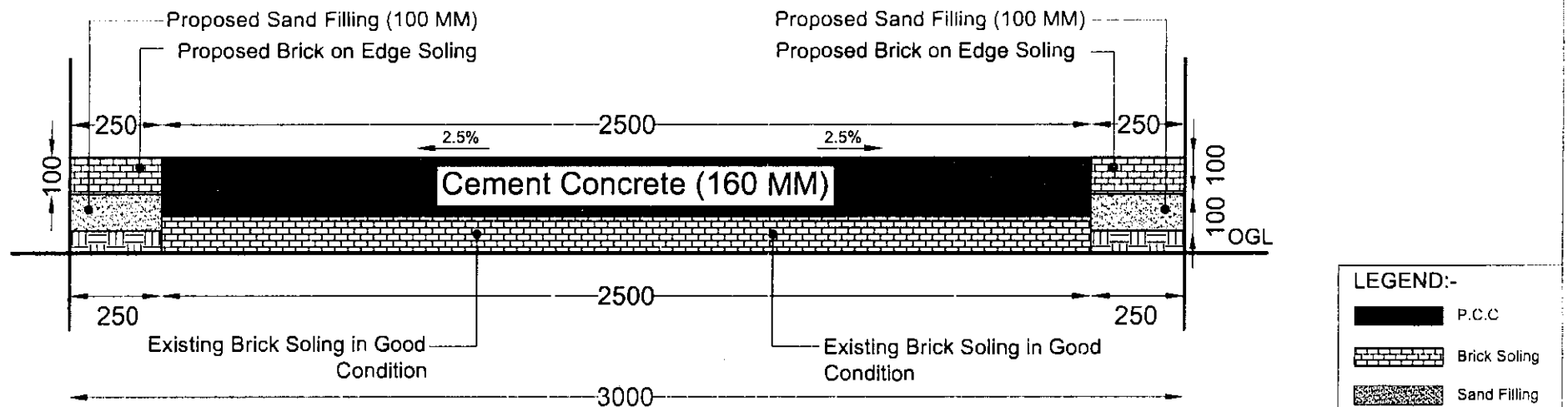
LEGEND:-

- P.C.C
- Brick Soling
- Sand Filling
- Earthen Surface

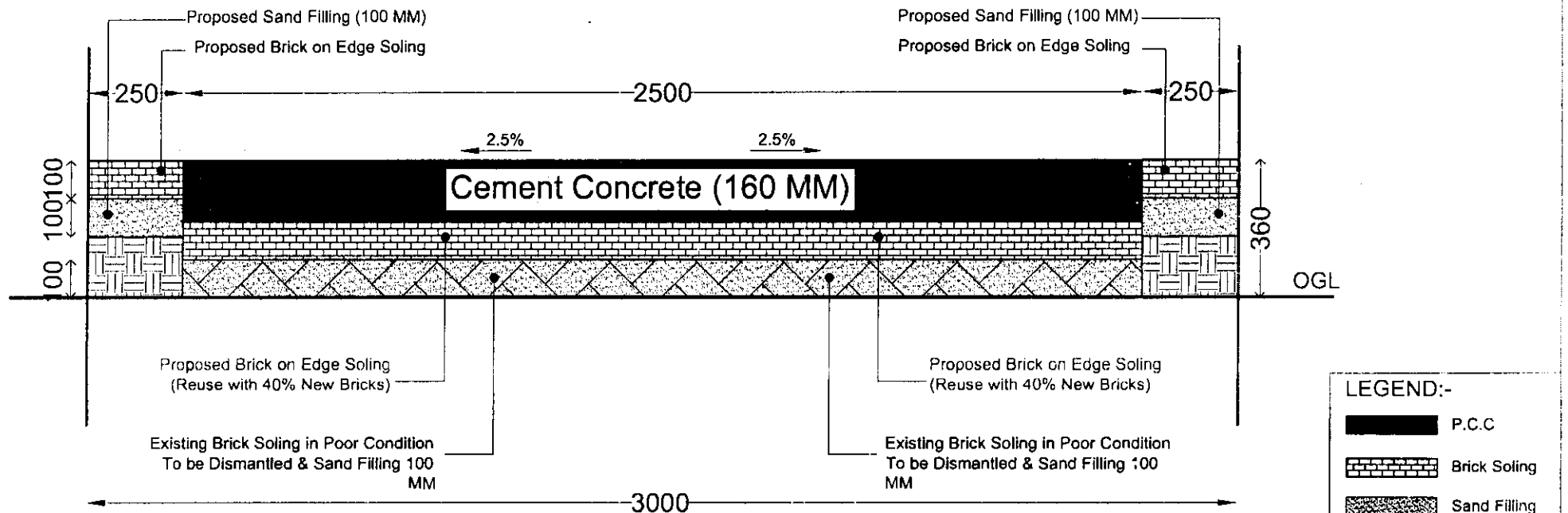
OPTION-II
2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use
Over Existing Earthen Road



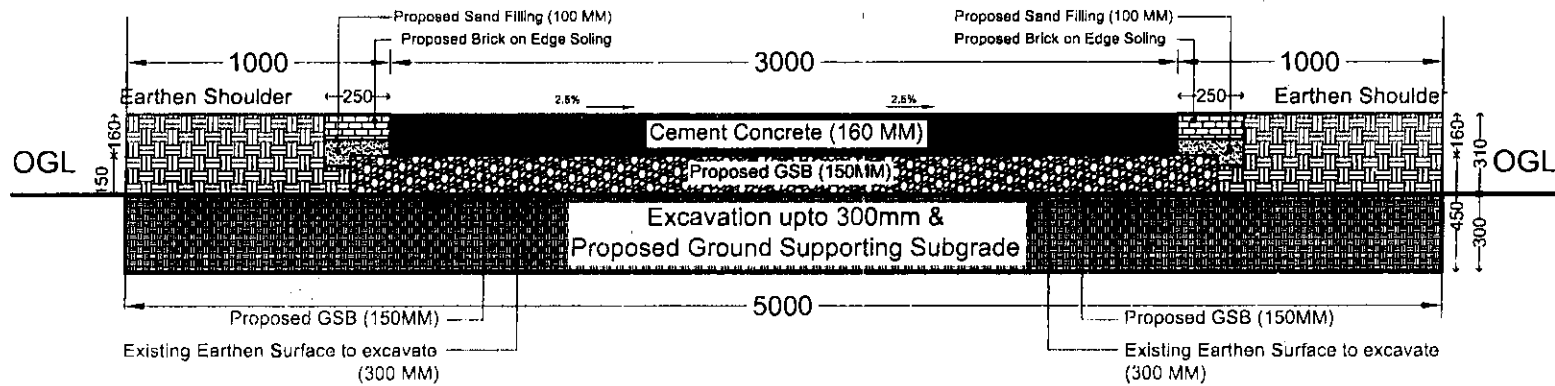
OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing brick soling in good condition



OPTION-II
2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use
Over Existing brick soling in poor condition



OPTION-III
 3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock Cart /Light Vehicles use
Over Existing Earthen Road

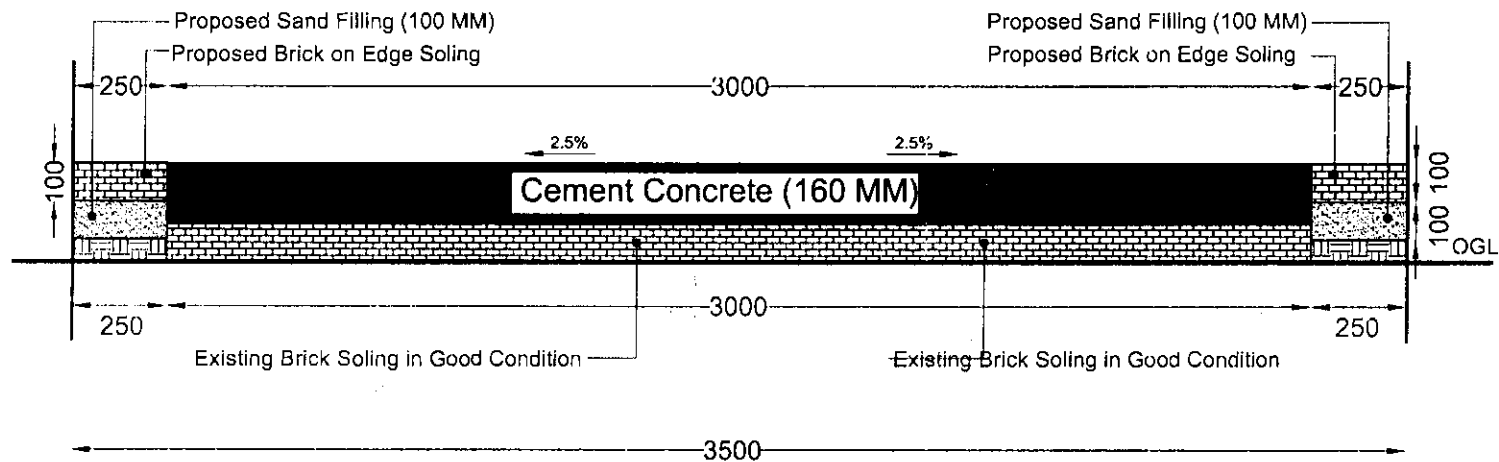


LEGEND:-

	P.C.C.
	Brick Soling
	Sand Filling
	Earthen Surface
	GSB

OPTION-III

3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition

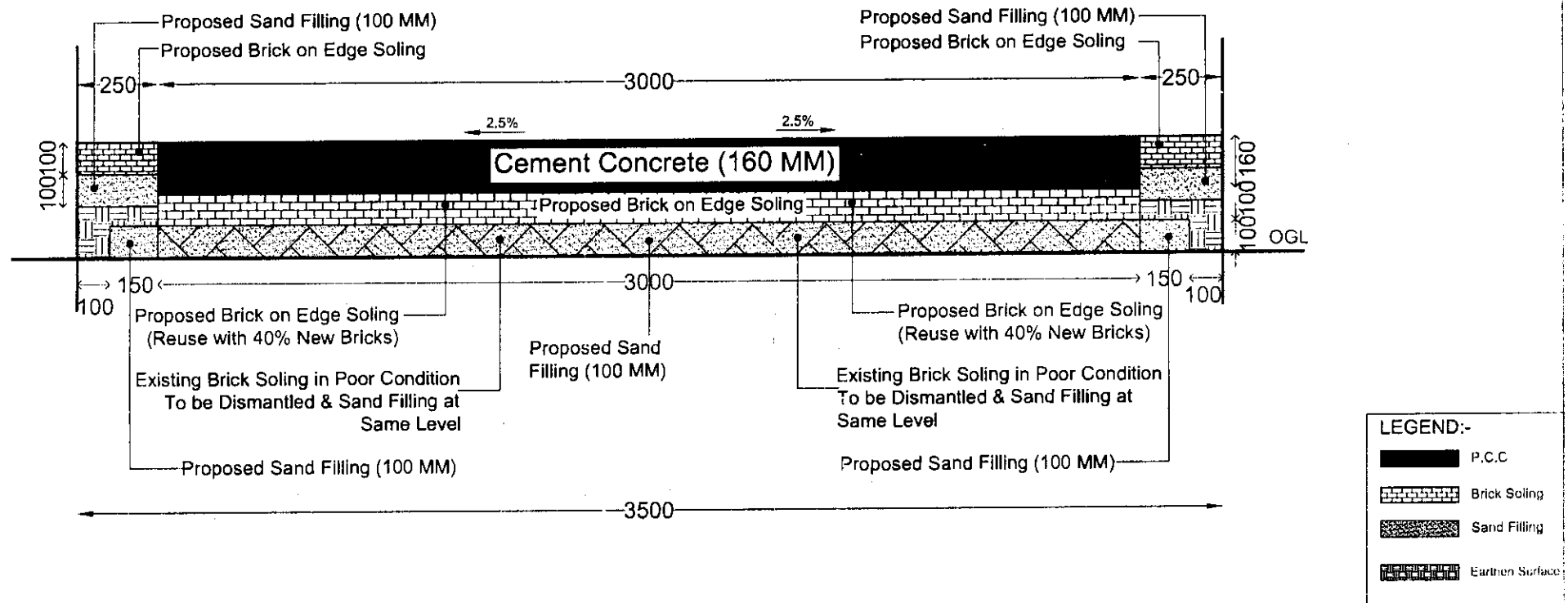


LEGEND:-

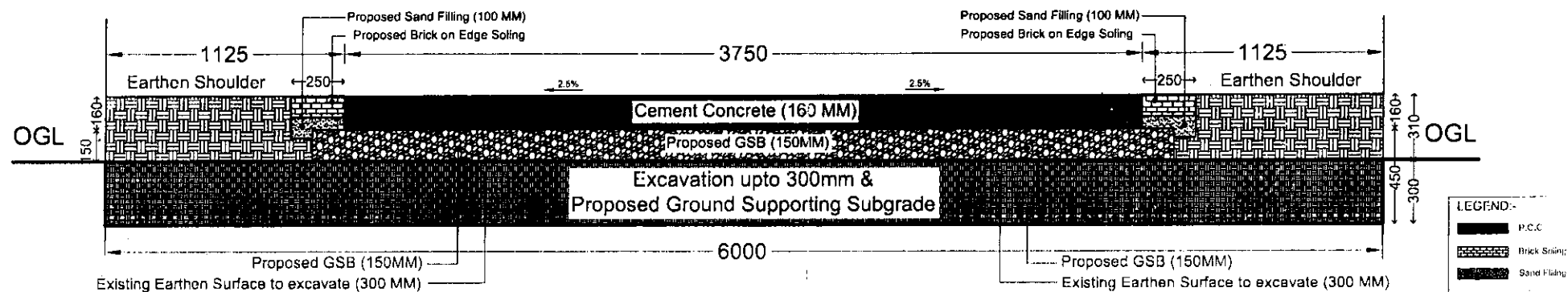
- P.C.C
- Brick Soling
- Sand Filling
- Earthen Surface

OPTION-III

3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart / Light Vehicles use
Over Existing brick soling in poor condition

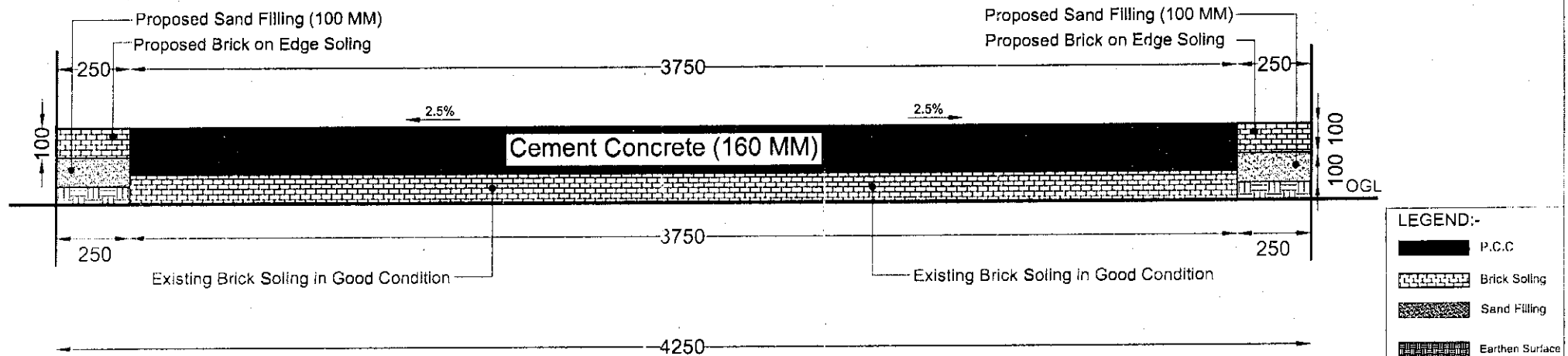


OPTION-IV
**3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock Cart /Light Vehicles use**
Over Existing Earthen Road



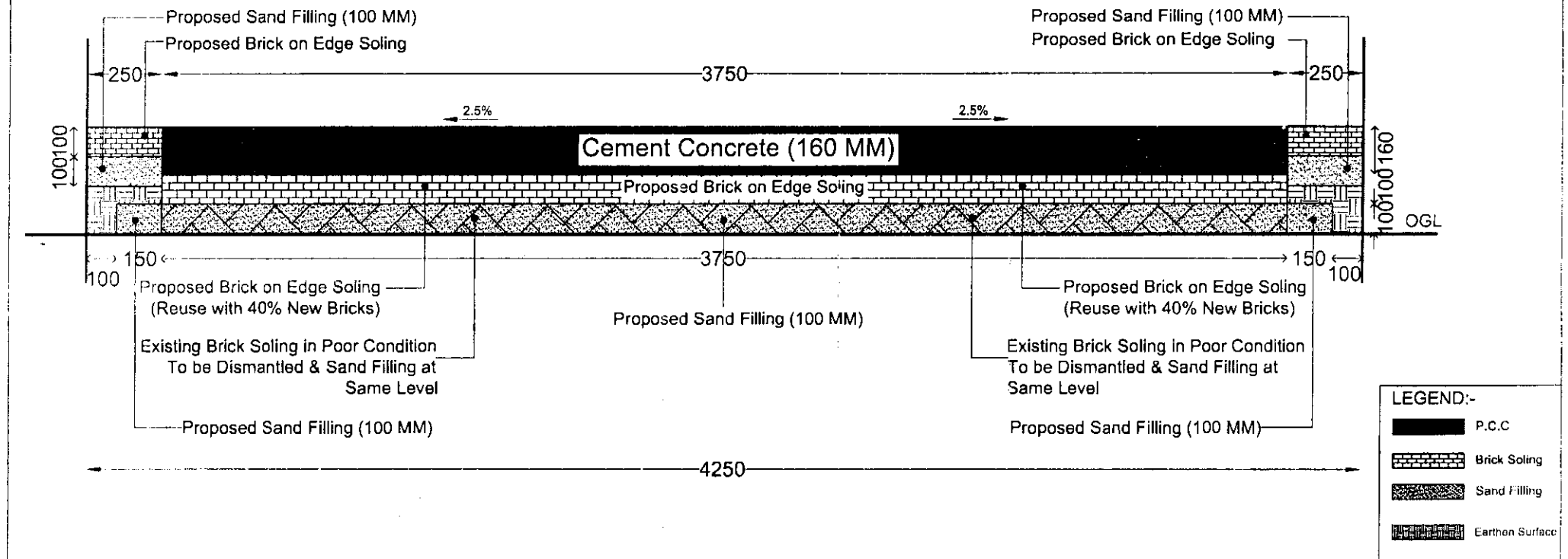
OPTION-IV

3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart / Light Vehicles use
Over Existing brick soling in good condition



OPTION-IV

3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart / Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.075	11.25	241.68	2718.93
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	1.5	0.1	15.00	398.55	5978.19
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	1.5		150	474.01	71102.08
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum		100	1.5	0.16	24	6,782.02	162758.39
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	268261.01
Cost of CC Pavement per RM Length	2682.61
Cost of CC Pavement per SQM	1788.41

1.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new) 3.14	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						196.62	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Cum						261.54	0.00
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.50	0.16	24	6,782.02	162768.39
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	188451.81
Cost of CC Pavement per RM Length	1884.62
Cost of CC Pavement per SQM	1256.41

1.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum		100	1.50	0.1	15.00	398.55	5978.19
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 60-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	1.50		150	220.36	33054.55
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.50	0.16	24	6,782.02	162768.39
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	218735.12
Cost of CC Pavement per RM Length	2187.35
Cost of CC Pavement per SQM	1458.23

2.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.075	18.75	241.68	4531.55
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum		100	2.5	0.1	25.00	398.55	9963.64
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		100	2.5		250	474.01	118503.47
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading, in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting, with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days. Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum		100	2.5	0.16	40	6,782.02	271280.65
10			Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	429972.74
Cost of CC Pavement per RM Length	4299.73
Cost of CC Pavement per SQM	1719.89

2.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.65	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime, having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
	(i)	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
5	11.2	Sand filling								
	A	Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.50	0.15	40	6,782.02	271280.65
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	296974.07
Cost of CC Pavement per RM Length	2969.74
Cost of CC Pavement per SQM	1187.90

2.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)		Cum							
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	2.50	0.1	25.00	398.55	9963.64
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	2.50		250	220.36	55090.92
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.50	0.16	40	6,782.02	271280.65
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	355884.60
Cost of CC Pavement per RM Length	3558.85
Cost of CC Pavement per SQM	1423.54

3.00 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum		100	5	0.3	150	22.07	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.52 (Avg. Area in shoulder)	52.00	173.65	9030.13
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and slacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
B	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum		100	3.3	0.15	49.5	1,840.06	91082.76
	ii)	(By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	454653.87
Cost of CC Pavement per RM Length	4546.54
Cost of CC Pavement per SQM	1515.51

3.00 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
5	11.2	Sand filling								
	A	Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	351230.20
Cost of CC Pavement per RM Length	3512.30
Cost of CC Pavement per SQM	1170.77

3.00 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	0.3	0.1	3.00	241.68	725.05
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	3.30	0.1	33.00	398.55	13152.01
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and eanh spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	3.00		300	220.36	66109.10
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with roavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	A	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	426380.02
Cost of CC Pavement per RM Length	4263.80
Cost of CC Pavement per SQM	1421.27

3.75 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum		100	6	0.3	180	22.07	3972.94
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum Cum						173.66	0.00
		Shoulder	Cum		100		0.60 (Avg. Area in shoulder)	68.00	173.66	11808.63
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	Cum							
	A	Sand filling	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						106.52	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						251.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.68
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.38	0.00
		Road Side Offset/Shoulder	Sqm						220.38	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)	Cum							
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum		100	4.05	0.15	60.75	1,840.06	111783.38
	ii)	(By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	560179.35
Cost of CC Pavement per RM Length	5601.79
Cost of CC Pavement per SQM	1493.81

3.75 m wide Cement Concrete Road Over Existing brick soling in good conditio

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new)	3.14 Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling; watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	432614.39
Cost of CC Pavement per RM Length	4326.14
Cost of CC Pavement per SQM	1153.64

3.75 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum							
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						22.07	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum						173.66	0.00
	4.4	Lime Stabilisation For improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	150.87	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	243.88	0.00
	(i)	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	Cum		100	0.3	0.1	3.00	241.68	725.05
5	11.2	A Sand filling Road	Cum		100	4.05	0.1	40.50	398.55	16141.10
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum		100	3.75	0.1	37.50	261.54	9807.72
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road Side Offset/Shoulder	Sqm		100	3.75		375	220.36	82636.37
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Sqm	2	100	0.25		50	220.36	11018.18
	A	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	6.782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	529242.12
Cost of CC Pavement per RM Length	5292.42
Cost of CC Pavement per SQM	1411.31

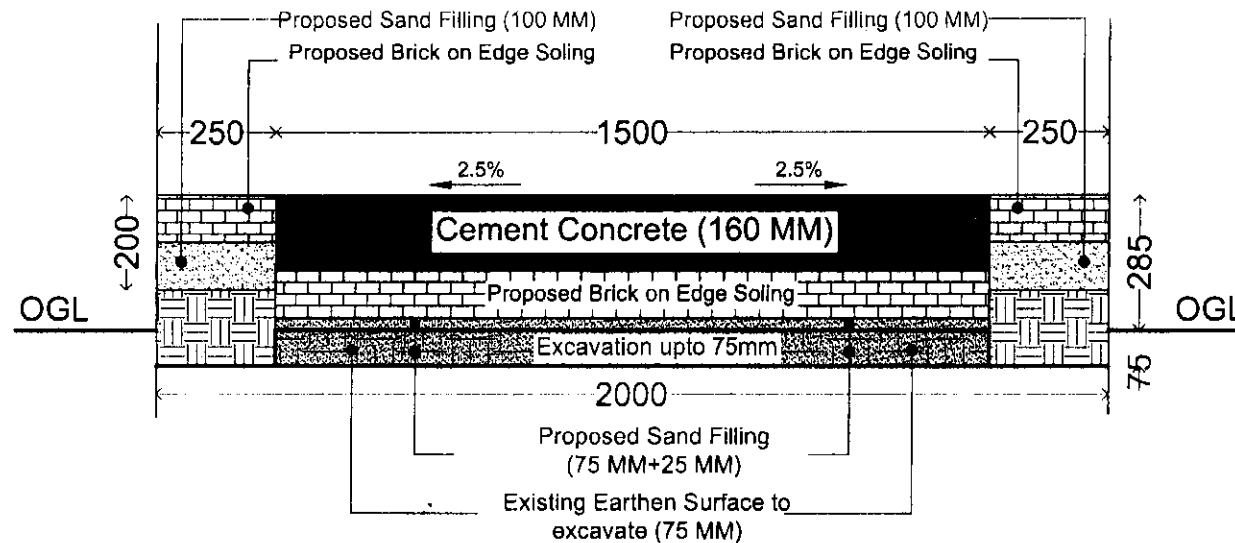
For CBR between 4-5

CROSS SECTIONS

CBR-4-3

OPTION-I

1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road

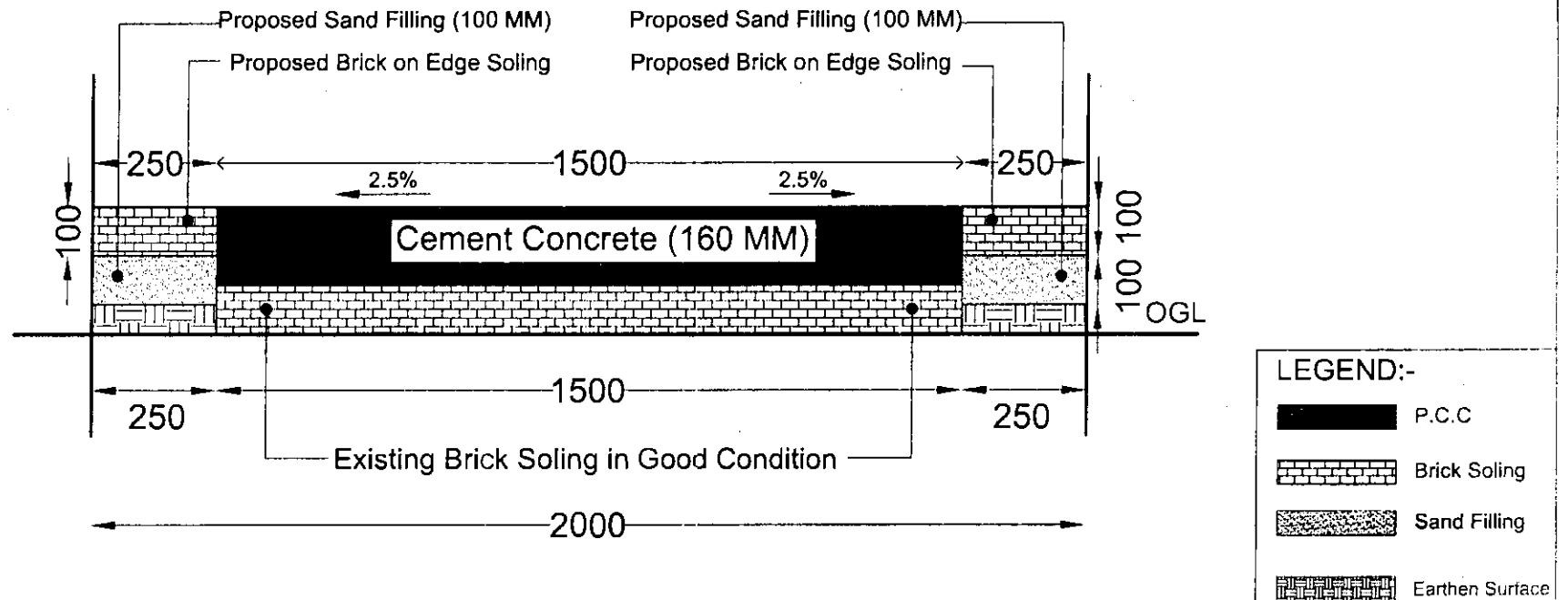


LEGEND:-

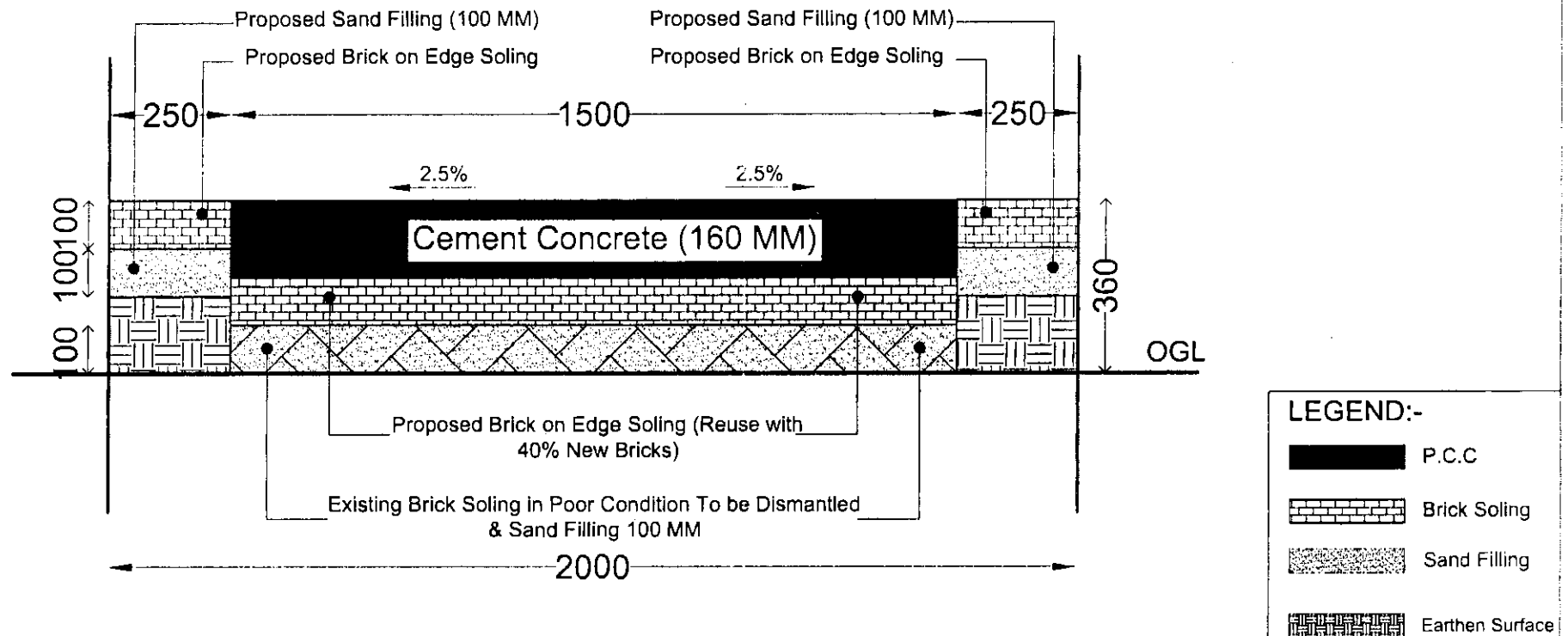
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-I

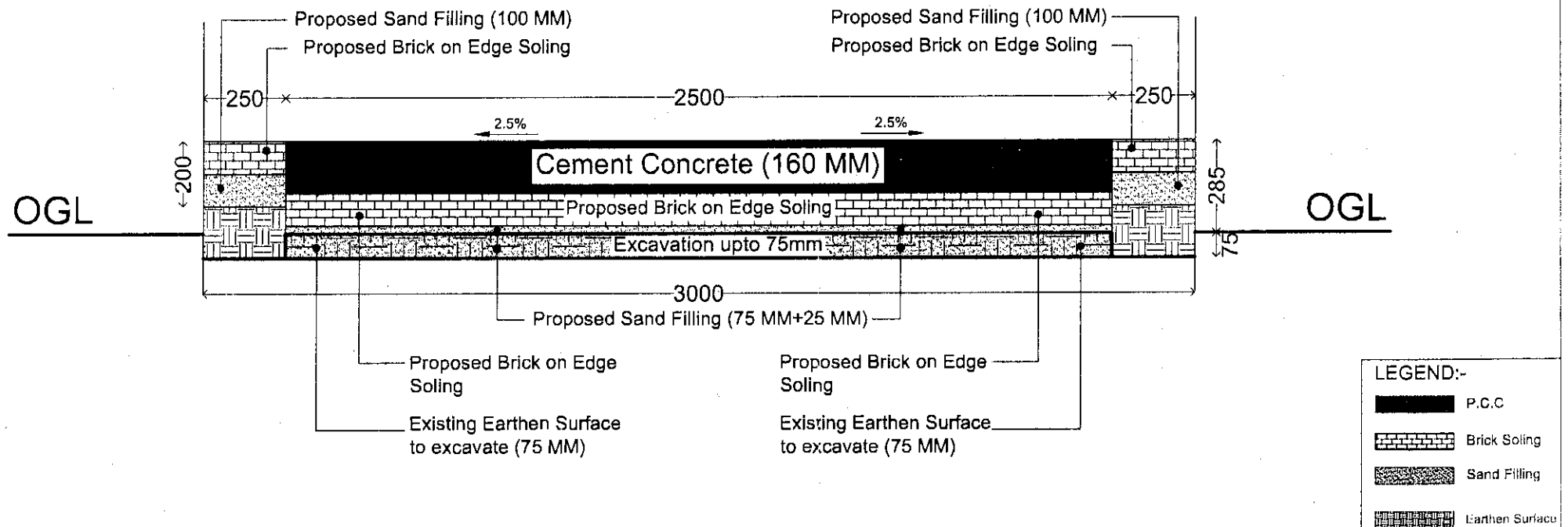
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition



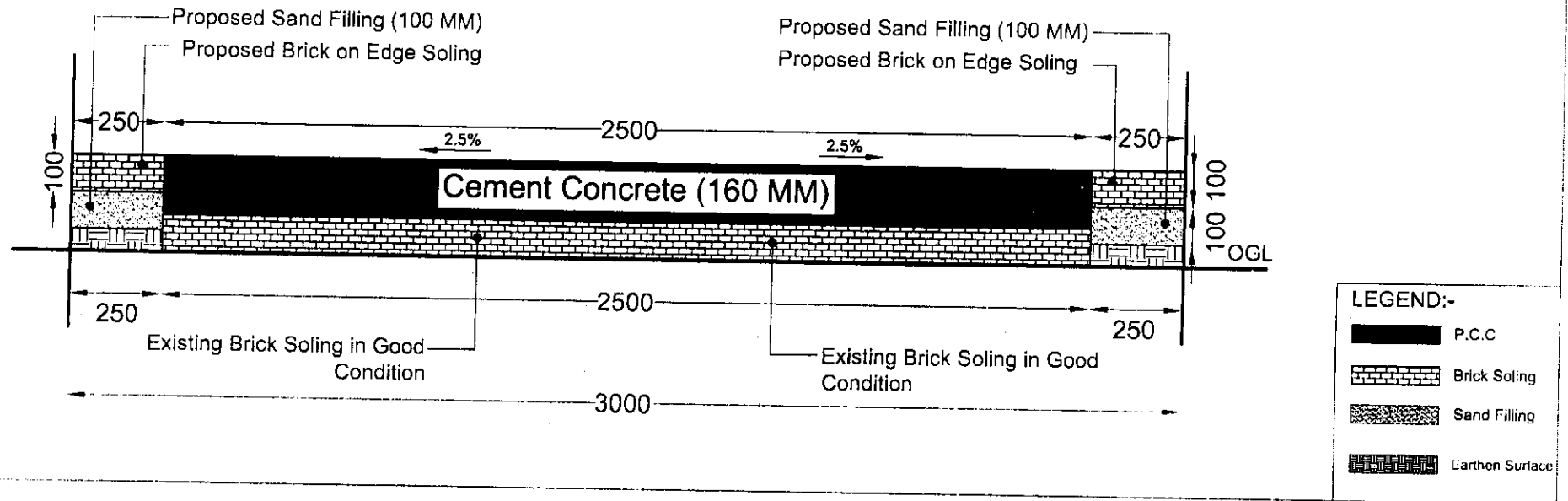
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



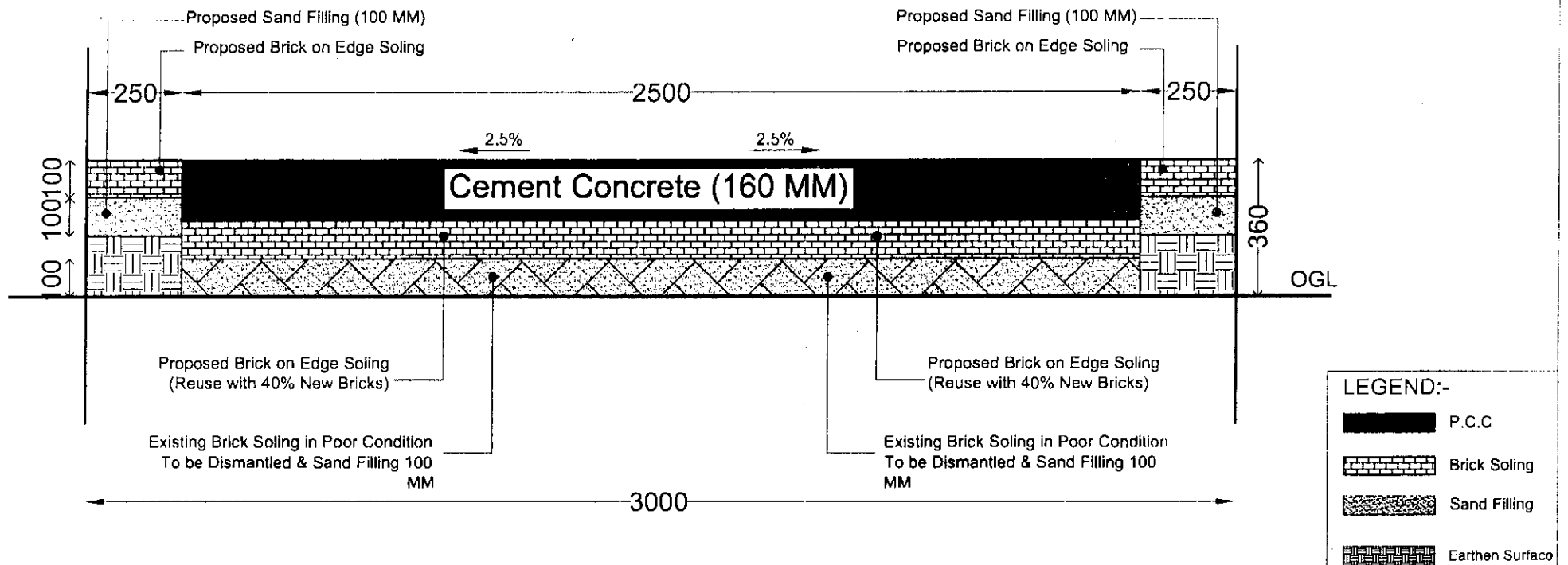
OPTION-II
2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use
Over Existing Earthen Road



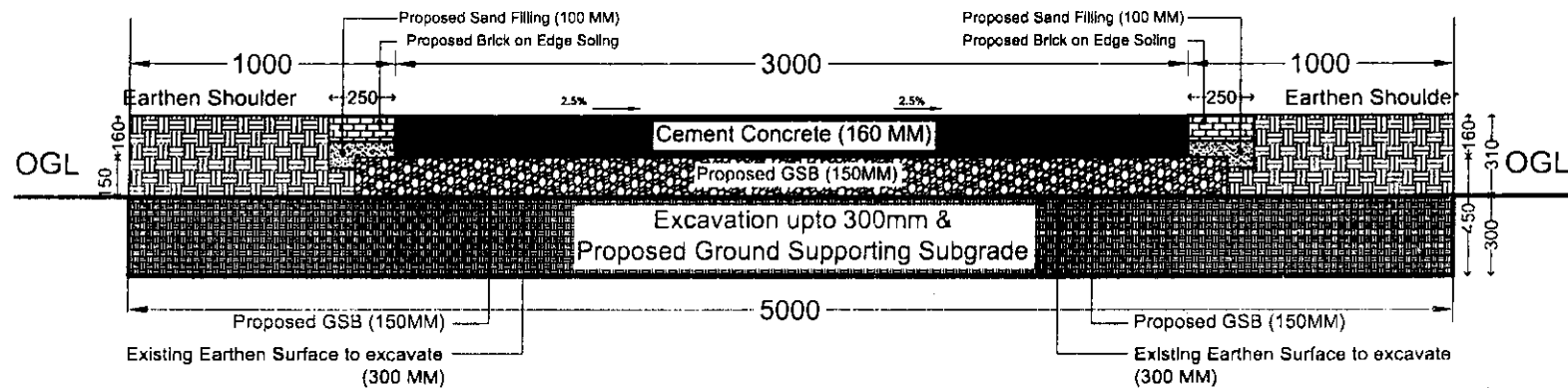
OPTION-II
2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use
Over Existing brick soling in good condition



OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing brick soling in poor condition



OPTION-III
**3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock Cart /Light Vehicles use**
Over Existing Earthen Road

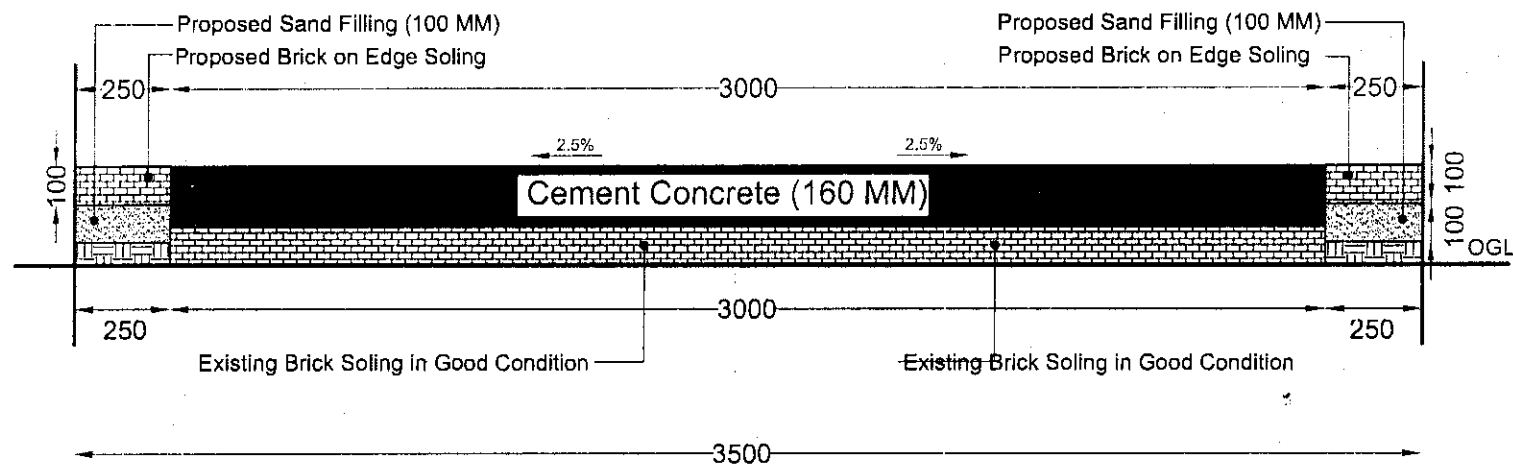


LEGEND:-

-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface
-  GSB

OPTION-III

3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition

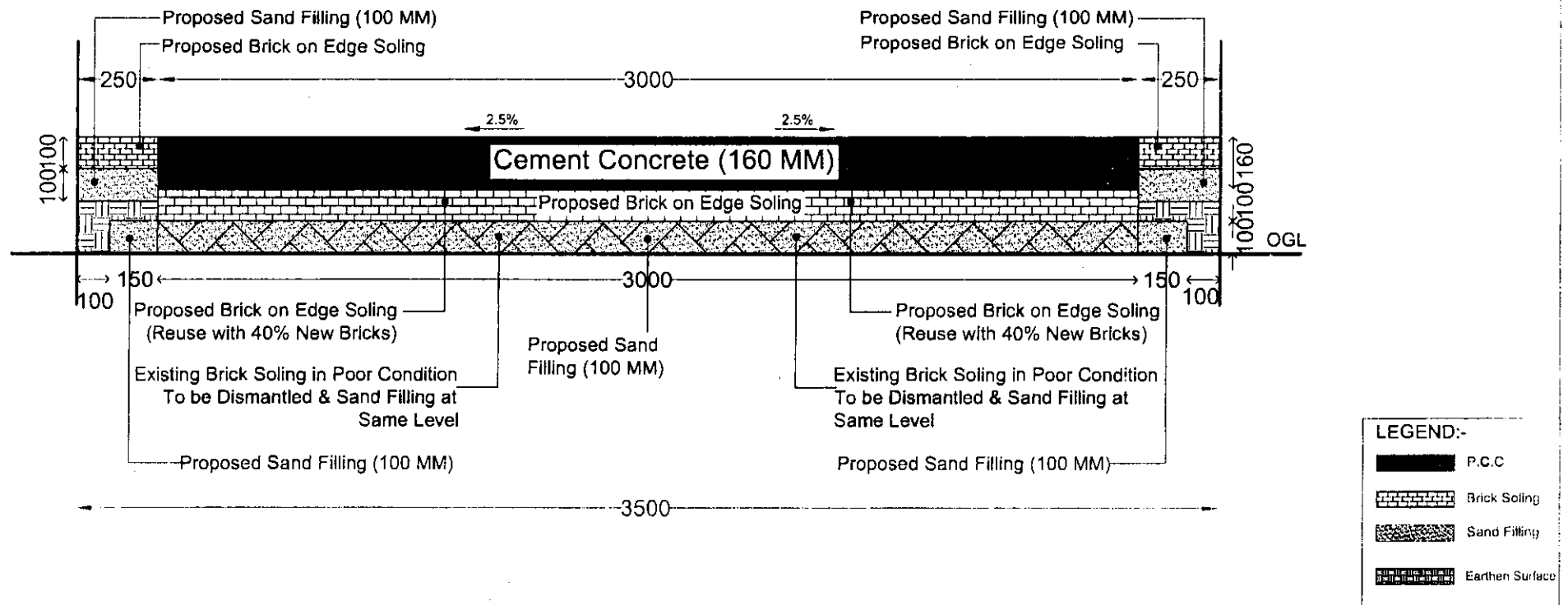


LEGEND:-

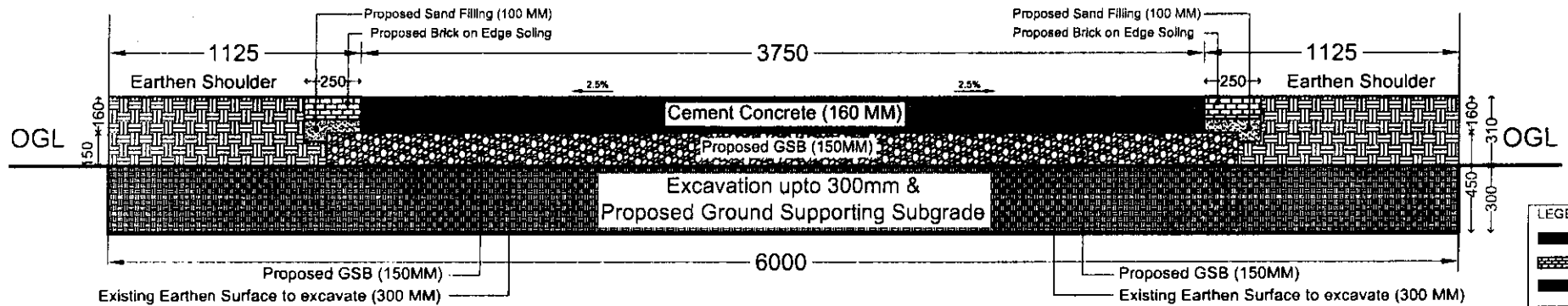
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-III

3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart / Light Vehicles use
Over Existing brick soling in poor condition



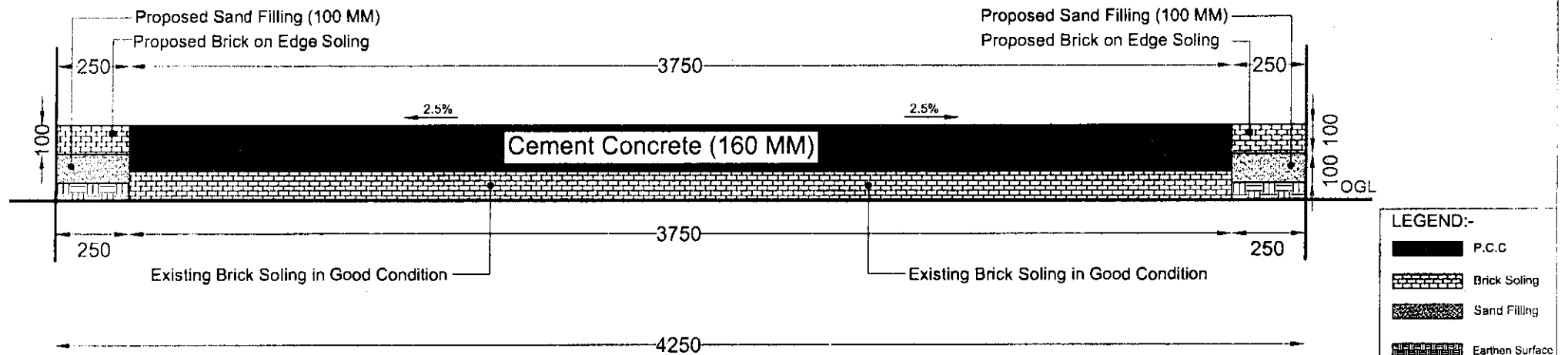
OPTION-IV
**3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock Cart / Light Vehicles use**
Over Existing Earthen Road



LEGEND:-

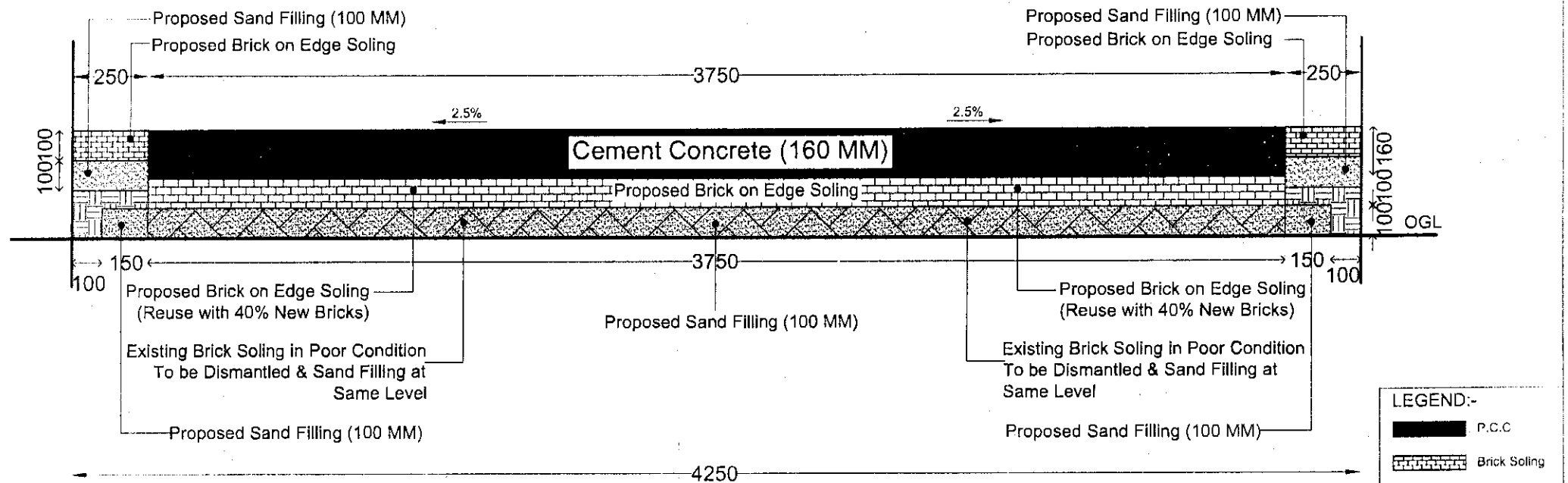
	P.C.C.
	Brick Soling
	Sand Filling
	Earthen Surface
	GSB

OPTION-IV
3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition



OPTION-IV

3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in poor condition



LEGEND:-

- P.C.C
- Brick Soling
- Sand Filling
- Earthen Surface

DETAILED ESTIMATE

1.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1 (i)	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.075	11.25	241.68	2718.93
5	11.2 A	Filling in foundation trenches as per drawing and technical specification: Clause 305.3.9 Sand filling Road	Cum		100	1.5	0.1	15.00	398.55	5978.19
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		100	1.5		150	474.01	71102.08
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm							
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
	(i)	(By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:393, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum		100	1.5	0.18	24	6,782.02	162768.39
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00
10										

Cost of CC Pavement per 100m Length	268261.01
Cost of CC Pavement per RM Length	2682.61
Cost of CC Pavement per SQM	1788.41

1.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
5	11.2	A Sand filling	Cum					0.00	398.55	0.00
	A	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging, according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per Technical Specification clause 412	Cum							
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,640.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying deoonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.50	0.16	24	6,782.02	162768.39
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	188461.81
Cost of CC Pavement per RM Length	1884.62
Cost of CC Pavement per SQM	1256.41

1.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.86	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum		100	1.50	0.1	15.00	398.55	5978.19
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm		100	1.50		150	220.36	33054.55
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1.840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum		100	1.50	0.16	24	6,782.02	162768.39
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	218735.12
Cost of CC Pavement per RM Length	2187.35
Cost of CC Pavement per SQM	1458.23

2.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.075	18.75	241.68	4531.55
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	2.5	0.1	25.00	398.55	9963.64
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.1B	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm		100	2.5		250	474.01	118503.47
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401								
	ii)	(By mix in place method)	Cum					0	1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.5	0.16	40	6,782.02	271280.65
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	429972.74
Cost of CC Pavement per RM Length	4299.73
Cost of CC Pavement per SQM	1719.89

2.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material, obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material, obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.88	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm						220.36	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.50	0.16	40	6,762.02	271280.65
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	296974.07
Cost of CC Pavement per RM Length	2969.74
Cost of CC Pavement per SQM	1187.90

2.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum						243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling Road Road Side Offset/Shoulder	Cum		100	2.50	0.1	25.00	398.55	9963.64
	A	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						196.62	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412. Road Road Side Offset/Shoulder	Sqm Sqm		100	2.50	0.1	25.00	474.01 474.01	6538.48 0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm		100	2.50		250	220.36 220.36	55090.92 11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Sqm	2	100	0.25		50	220.36	11018.18
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days. Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Cum Sqm		100	2.50	0.16	40	6,782.02	271280.65
10									953.83	0.00

Cost of CC Pavement per 100m Length	355884.60
Cost of CC Pavement per RM Length	3558.85
Cost of CC Pavement per SQM	1423.54

3.00 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum		100	5	0.3	150	22.07	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum		100		0.52 (Avg. Area in shoulder)	52.00	173.66	9030.13
3	(new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation): Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1500 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)		Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling Road Road Side Offset/Shoulder	Cum					0.00	398.55	0.00
	A		Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm						220.36	0.00
			Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum		100	3.3	0.15	49.5	1,840.06	91082.76
	A		Cum							
	(i)		Cum							
	(ii)		Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00
10:										

Cost of CC Pavement per 100m Length	454653.87
Cost of CC Pavement per RM Length	4546.54
Cost of CC Pavement per SQM	1515.51

3.00 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
			Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging, according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum							
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.63	0.00

Cost of CC Pavement per 100m Length	351230.20
Cost of CC Pavement per RM Length	3512.30
Cost of CC Pavement per SQM	1170.77

3.00 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.68	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum							
	(i)		Cum		100	0.3	0.1	3.00	241.68	725.05
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum		100	3.30	0.1	33.00	398.55	13152.01
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	3.00		300	220.36	66109.10
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	(i)	For Grading II Material	Cum						1.840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6.782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.63	0.00

Cost of CC Pavement per 100m Length	426380.02
Cost of CC Pavement per RM Length	4263.80
Cost of CC Pavement per SQM	1421.27

3.75 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum		100	6	0.3	180	22.07	3972.94
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
		Road	Cum							
		Shoulder	Cum		100		0.60 (Avg. Area in shoulder)	68.00	173.66	11808.63
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted, Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
	(i)	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	Cum					0.00	241.68	0.00
5	11.2	A Sand filling Road Road Side Offset/Shoulder	Cum					0.00	398.55	0.00
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
			Cum						198.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
		Road Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum		100	4.05	0.15	60.75	1,840.06	111783.38
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	560179.35
Cost of CC Pavement per RM Length	5601.79
Cost of CC Pavement per SQM	1493.81

3.75 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification, Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
		Borrowed Earth	Cum							
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.1B	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

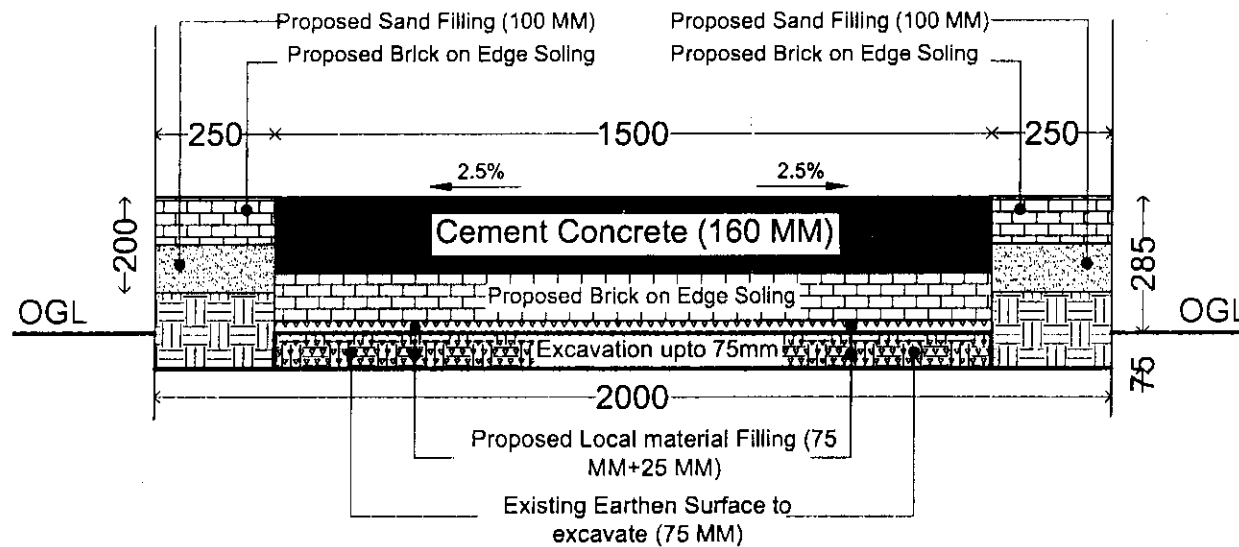
Cost of CC Pavement per 100m Length	432614.39
Cost of CC Pavement per RM Length	4326.14
Cost of CC Pavement per SQM	1153.64

For CBR between 5-6

CROSS SECTIONS

OPTION-I

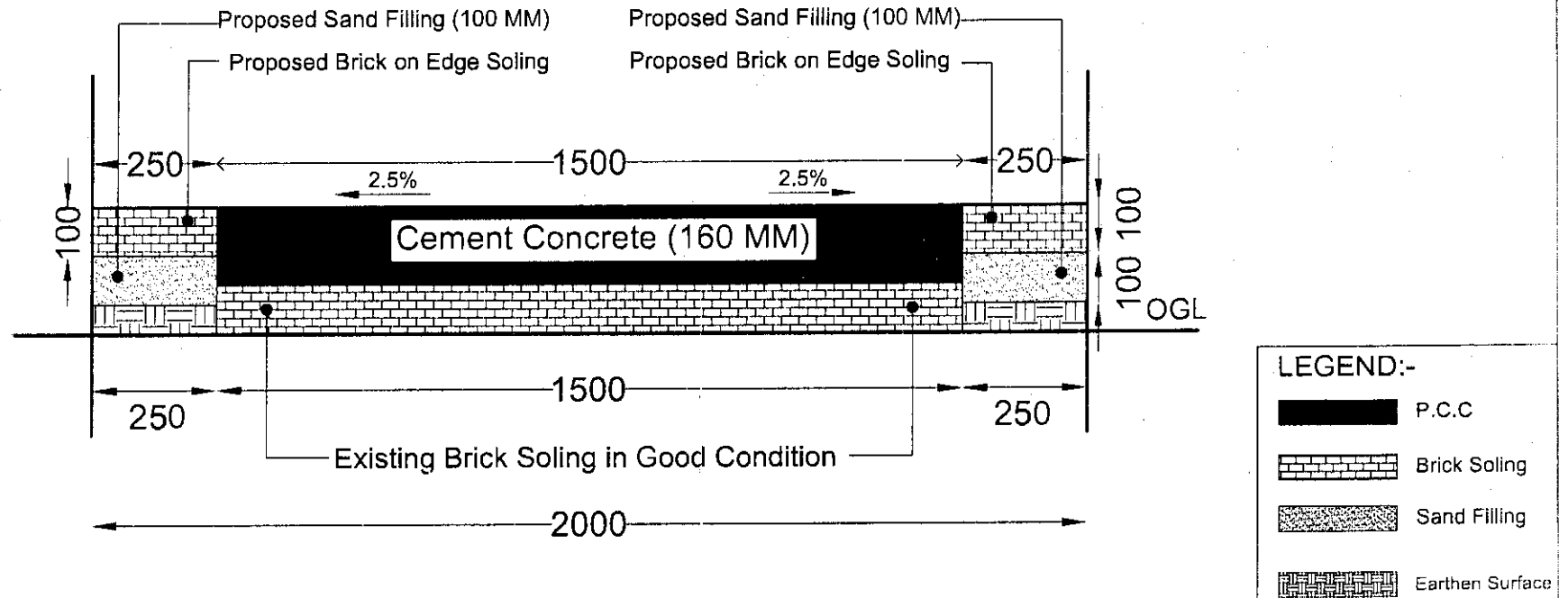
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road



LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

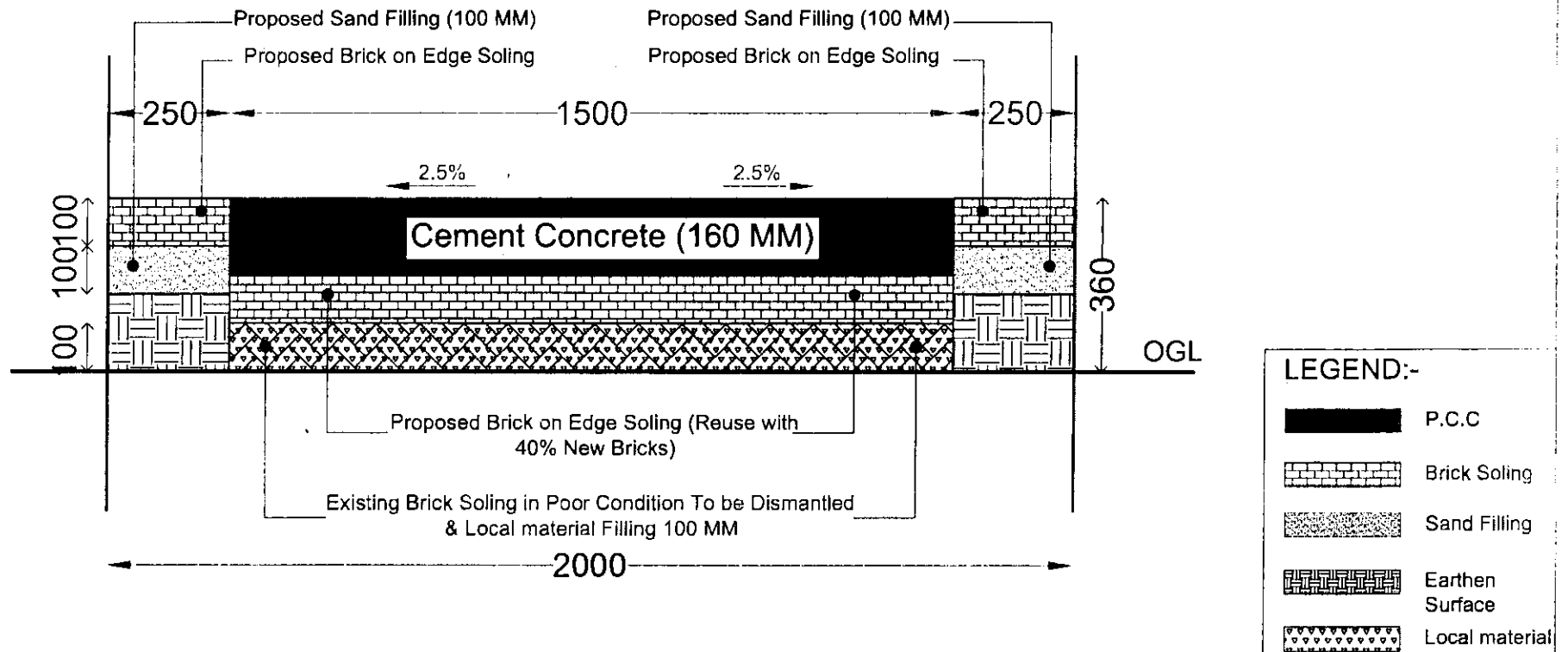
OPTION-I

1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition

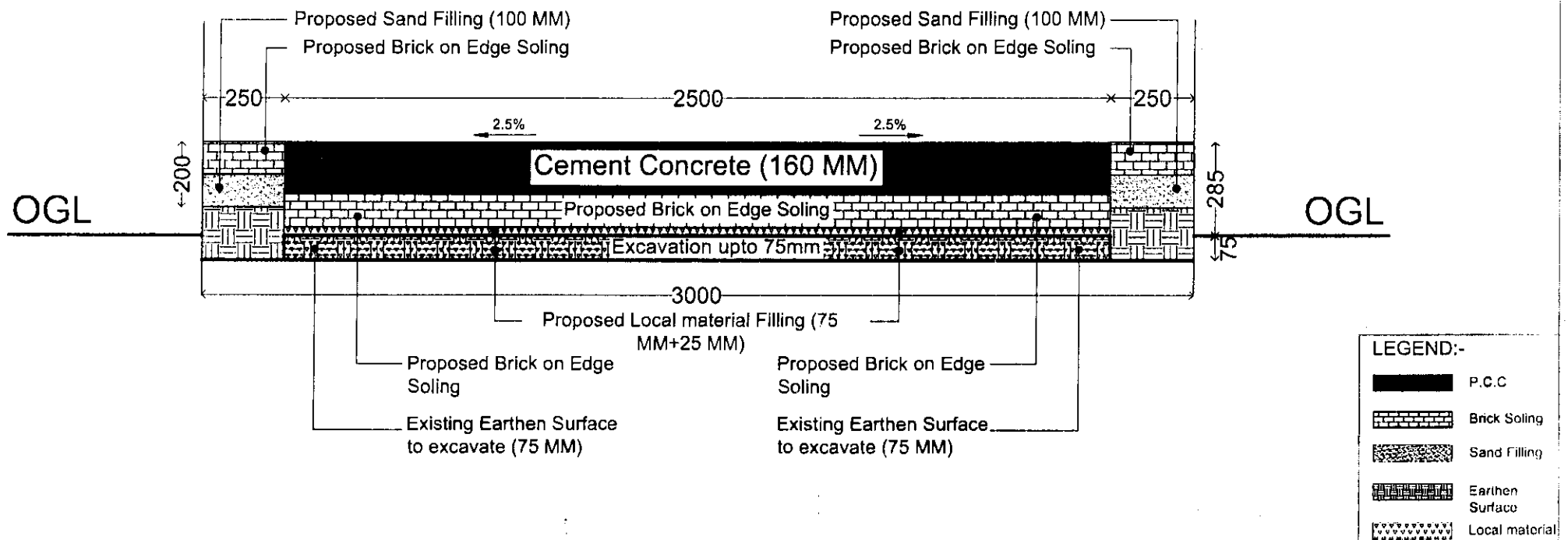


OPTION-I

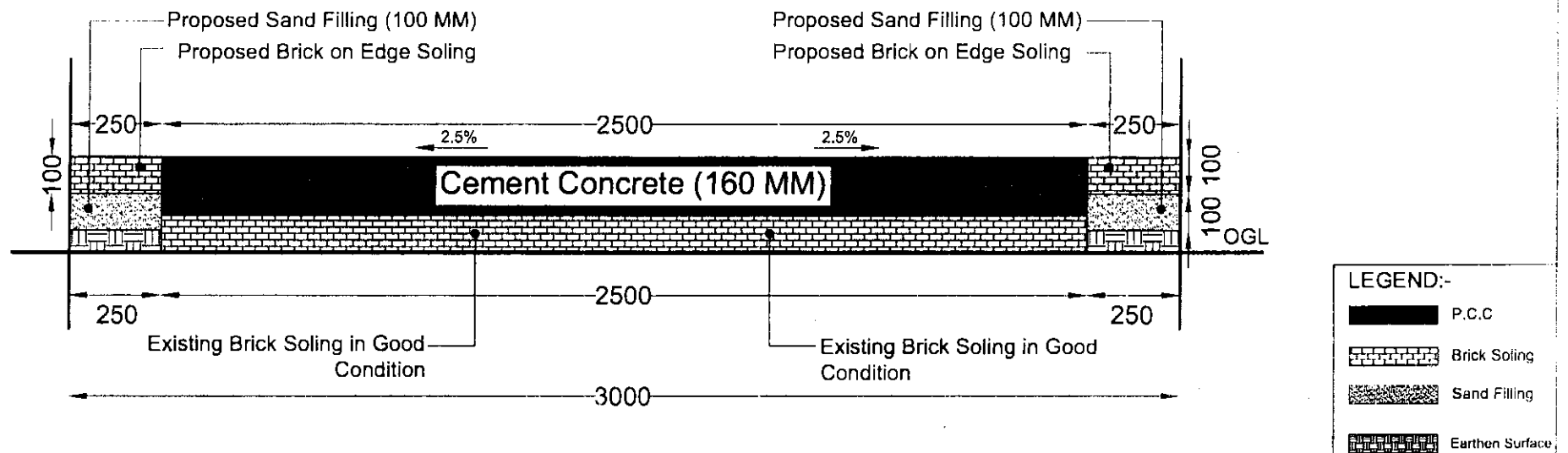
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



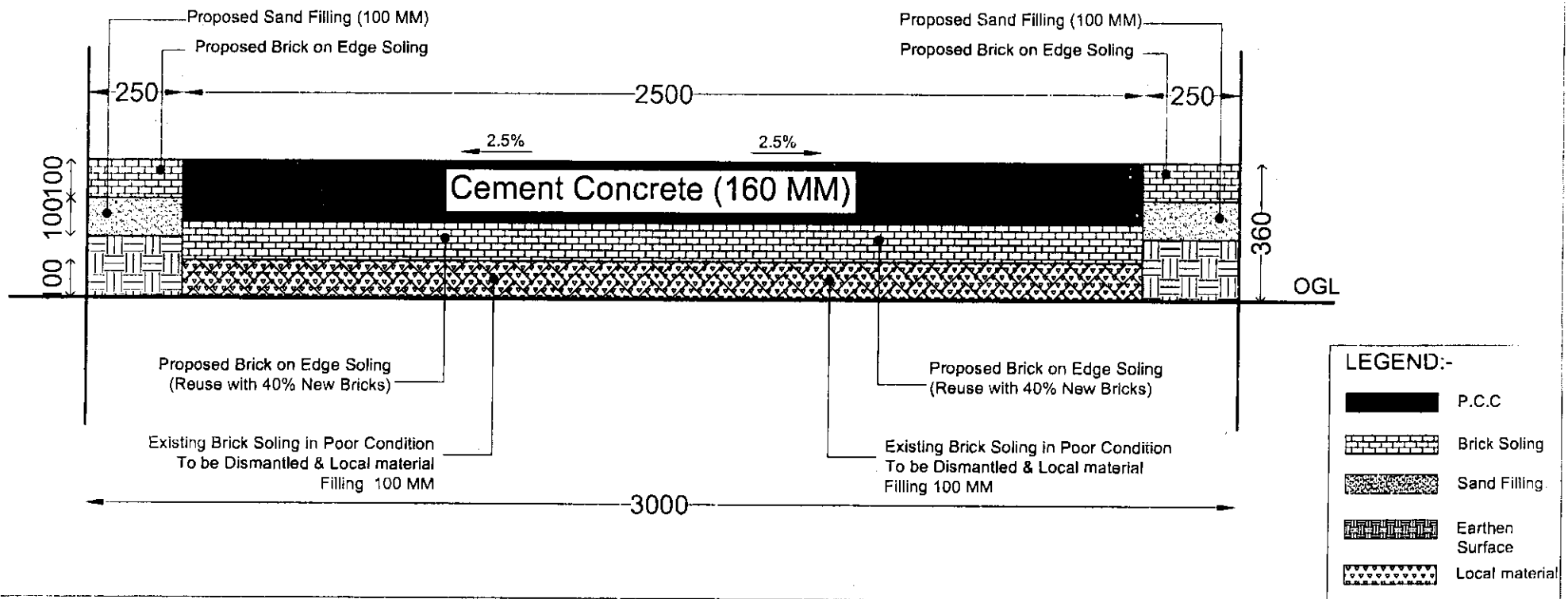
OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing Earthen Road



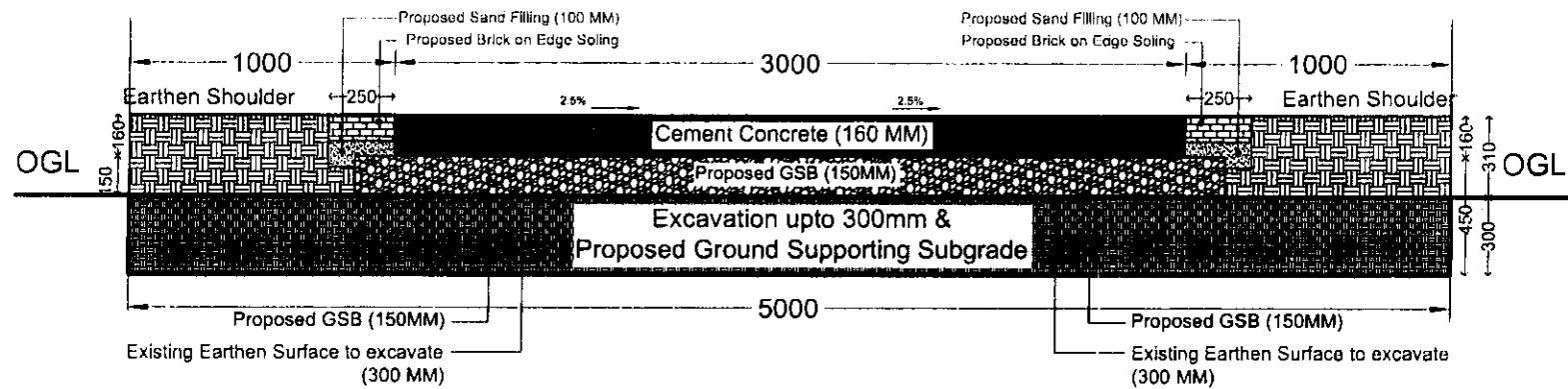
OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing brick soling in good condition



OPTION-II
2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use
Over Existing brick soling in poor condition



OPTION-III
**3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock Cart /Light Vehicles use**
Over Existing Earthen Road

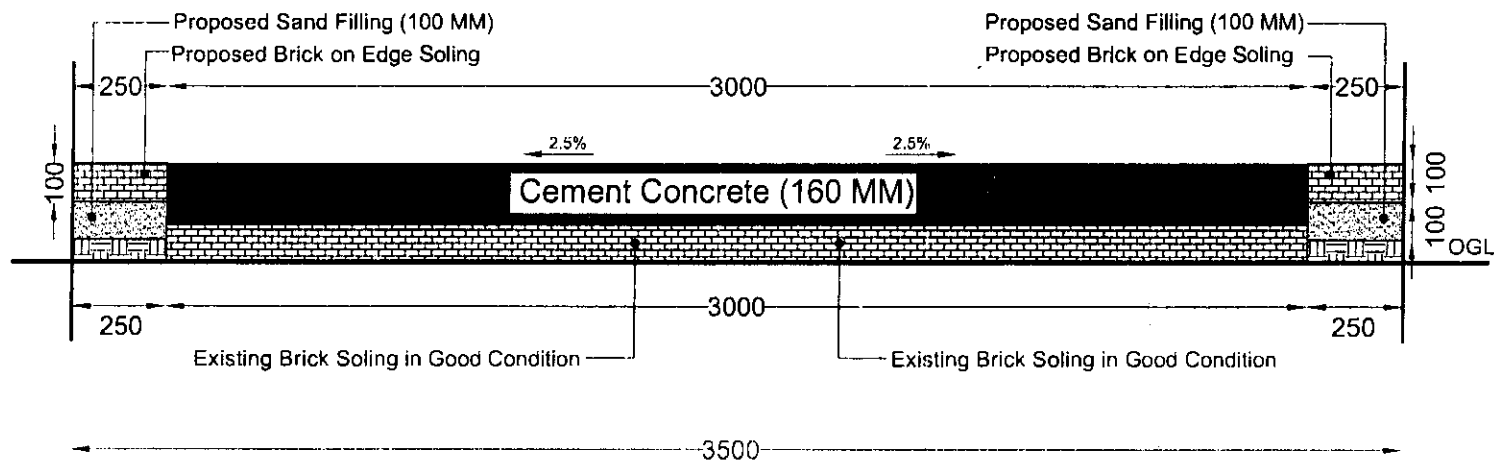


LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface
	GSB

OPTION-III

3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition

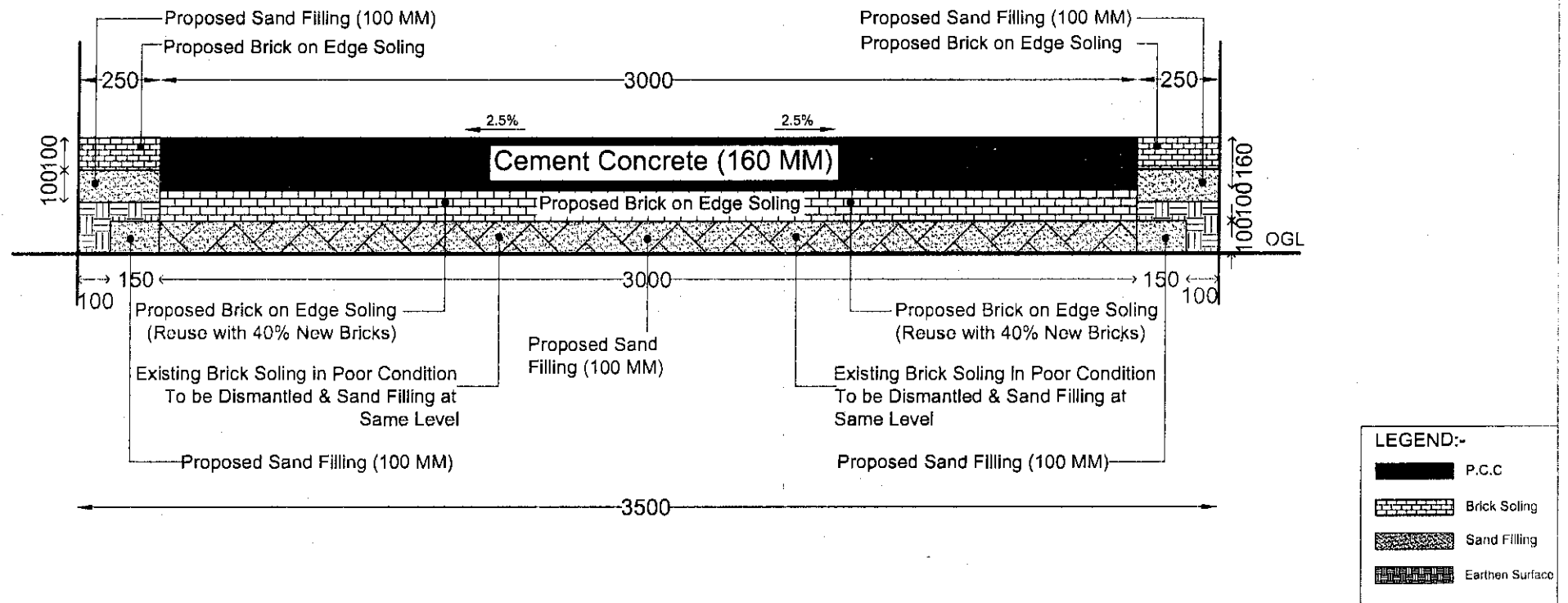


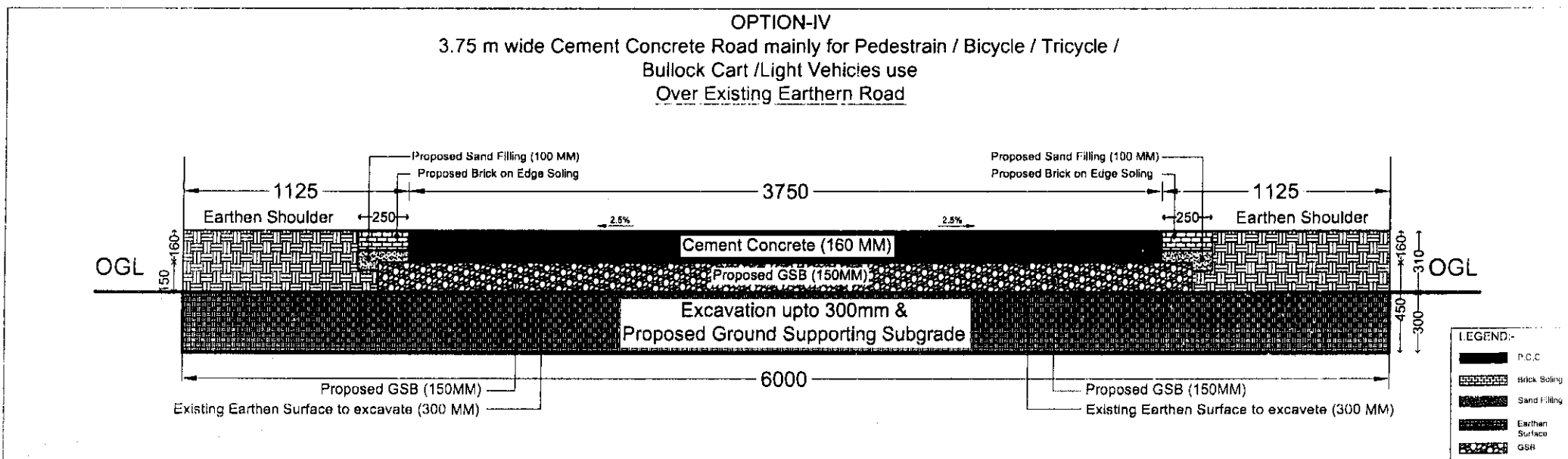
LEGEND:-

- P.C.C
- Brick Soling
- Sand Filling
- Subgrade

OPTION-III

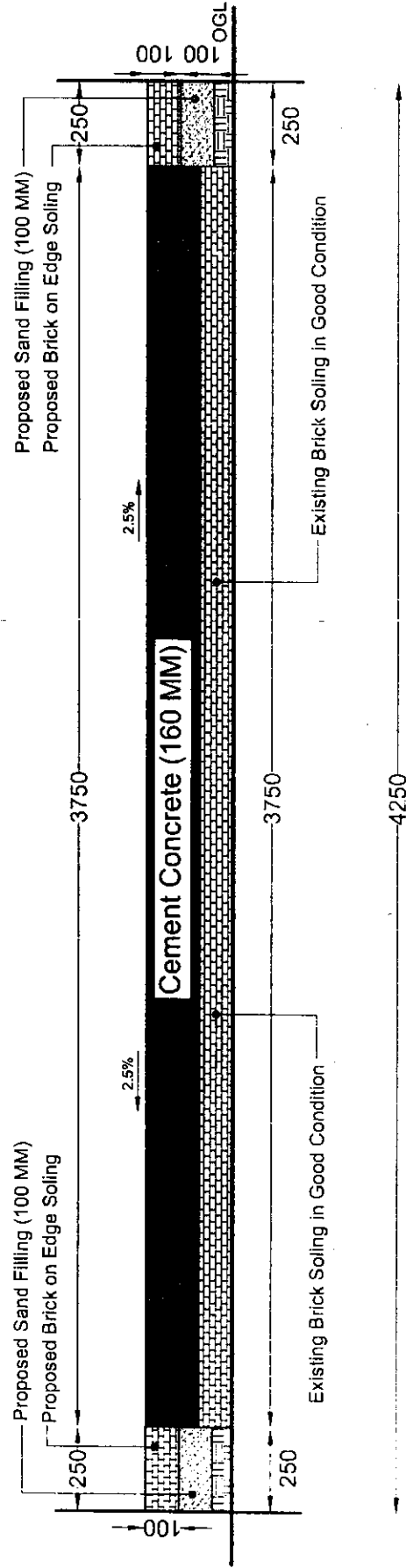
3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in poor condition





OPTION-IV

3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition

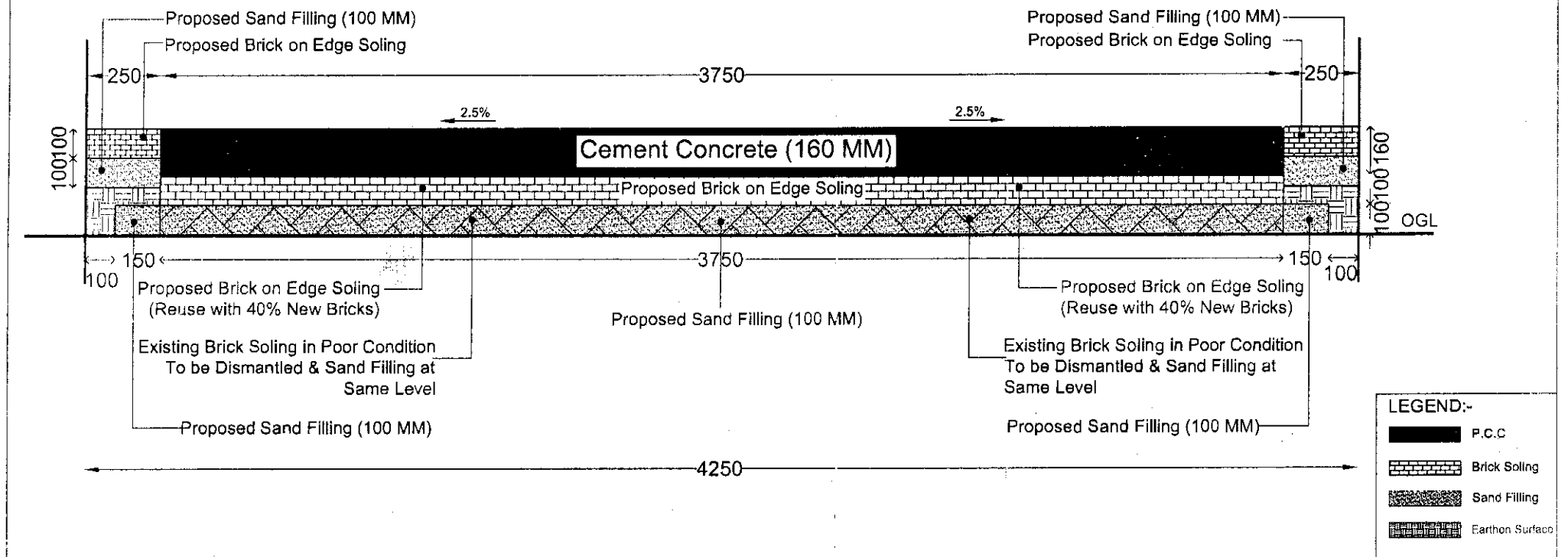


LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Subgrade

OPTION-IV

3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart / Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum							
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						22.07	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum						173.66	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	150.87	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	243.88	0.00
	(i)		Cum		100	1.5	0.075	11.25	241.68	2718.93
5	3.5	Excavation In Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	1.5	0.1	15.00	113.29	1699.33
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	Cum							
	A	Sand filling	Cum							
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum		100	1.5	0.1	15.00	196.62	2949.35
7	2.5 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		100	1.5		150	474.01	71102.08
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
	ii)	(By mix in place method)	Cum							
10	5.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.5	0.16	24	6,782.02	162768.39
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	266931.50
Cost of CC Pavement per RM Length	2669.32
Cost of CC Pavement per SQM	1779.54

1.50 m wide Cement Concrete Road Over Existing brick soling in good condition

[illegible]

1.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	1.5	0.1	15.00	113.29	1699.33
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 306.3.9	Cum							
	A.	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum					0.00	398.55	1992.73
	B.	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	50	398.55	1992.73
		Borrowed Earth	Cum		100	1.5	0.1	15.00	196.62	2949.35
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum		100	1.50	0.1	15.00	261.54	3923.09
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm					0	474.01	0.00
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm		100	1.50		150	220.36	33054.55
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)	Cum							
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401	Cum							
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,	Cum		100	1.50	0.16	24	6,762.02	162768.39
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	217405.61
Cost of CC Pavement per RM Length	2174.06
Cost of CC Pavement per SQM	1449.37

2.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps, and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	2.5	0.075	18.75	241.68	4531.55
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 A Sand filling Road Road Side Offset/Shoulder	Cum					0.00	398.55	0.00
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.5	0.1	25.00	196.62	4915.58
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412. Road Road Side Offset/Shoulder	Sqm		100	2.5		250	474.01	118503.47
			Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm						220.36	0.00
			Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) A (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.5	0.16	40	6,782.02	271280.65
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	427756.89
Cost of CC Pavement per RM Length	4277.57
Cost of CC Pavement per SQM	1711.03

2.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications, Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification, Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps, and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum						113.29	0.00
6	11.2	Filling in foundation trenches as per drawing and technical specification: Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	5.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.50	0.16	40	6,782.02	271280.65
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	296974.07
Cost of CC Pavement per RM Length	2969.74
Cost of CC Pavement per SQM	1187.90

2.50 m wide Cement Concrete Road Over Existing brick soling in Poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment side with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm	2	100	2.50		250	220.36	55090.92
		Road Side Offset/Shoulder	Sqm		100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
	ii)	For Grading II Material	Cum							
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.50	0.16	40	6,782.02	271280.65
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	353668.75
Cost of CC Pavement per RM Length	3536.69
Cost of CC Pavement per SQM	1414.67

3.00 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum		100	5	0.3	150	22.97	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.52 (Avg. Area in shoulder)	52.00	173.66	9030.13
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 A Sand filling Road Road Side Offset/Shoulder	Cum					0.00	398.55	0.00
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						196.62	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Cum						261.54	0.00
		Road Road Side Offset/Shoulder	Sqm Sqm	2	100	0.25		50	474.01 474.01	0.00 23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm						220.36 220.36	0.00 0.00
8	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum		100	3.3	0.15	49.5	1,840.06	91082.76
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10			Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	454653.87
Cost of CC Pavement per RM Length	4546.54
Cost of CC Pavement per SQM	1515.51

3.00 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical Specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.65	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 A Sand filling Road Road Side Offset/Shoulder	Cum Cum Cum	2	100	0.25	0.1	0.00 5.00	398.55 398.55	0.00 1992.73
6	2.6 (D)	Borrowed Earth Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412. Road Road Side Offset/Shoulder	Sqm Sqm	2	100	0.25		50	474.01 474.01	0.00 23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm						220.36 220.36	0.00 0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	5,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	351230.20
Cost of CC Pavement per RM Length	3512.30
Cost of CC Pavement per SQM	1170.77

3.00 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications, Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
4	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
5	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing, by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum							
	(i)		Cum		100	0.3	0.1	3.00	241.68	725.05
6	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	3.3	0.1	33.00	113.29	3738.53
7	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum		100	3.3	0.1	33.00	196.62	6488.56
8	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
9	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm	2	100	3.00		300	220.36	66109.10
		Road Side Offset/Shoulder	Sqm		100	0.25		50	220.36	11018.18
10	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
11	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.32	325536.77
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	423455.10
Cost of CC Pavement per RM Length	4234.55
Cost of CC Pavement per SQM	1411.52

3.75 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.88	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling	Cum					0.00	398.55	0.00
	A	Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Sqm						474.01	0.00
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm						220.36	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)	Cum						1,840.06	0.00
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum							
	B	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	432614.39
Cost of CC Pavement per RM Length	4326.14
Cost of CC Pavement per SQM	1153.64

3.75 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical Specifications Clause 303.5.2.	Cum		100	6	0.3	180	22.07	3972.94
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
		Shoulder	Cum		100		0.60 (Avg Area in shoulder)	68.00	173.66	11808.63
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	Cum					0.00	241.68	0.00
	A	Sand filling Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	398.55	1992.75
6	2.6(D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						196.62	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Cum						261.54	0.00
		Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum		100	4.05	0.15	60.75	1,840.06	111783.38
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	560179.35
Cost of CC Pavement per RM Length	5601.79
Cost of CC Pavement per SQM	1493.81

3.75 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing, by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	0.3	0.1	3.00	241.68	725.05
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum		100	4.05	0.1	40.50	113.29	4588.19
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum		100	4.05	0.1	40.50	196.62	7963.24
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm		100	3.75		375	220.36	82636.37
		Road	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
	A									
	ii)	For Grading II Material	Cum							
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

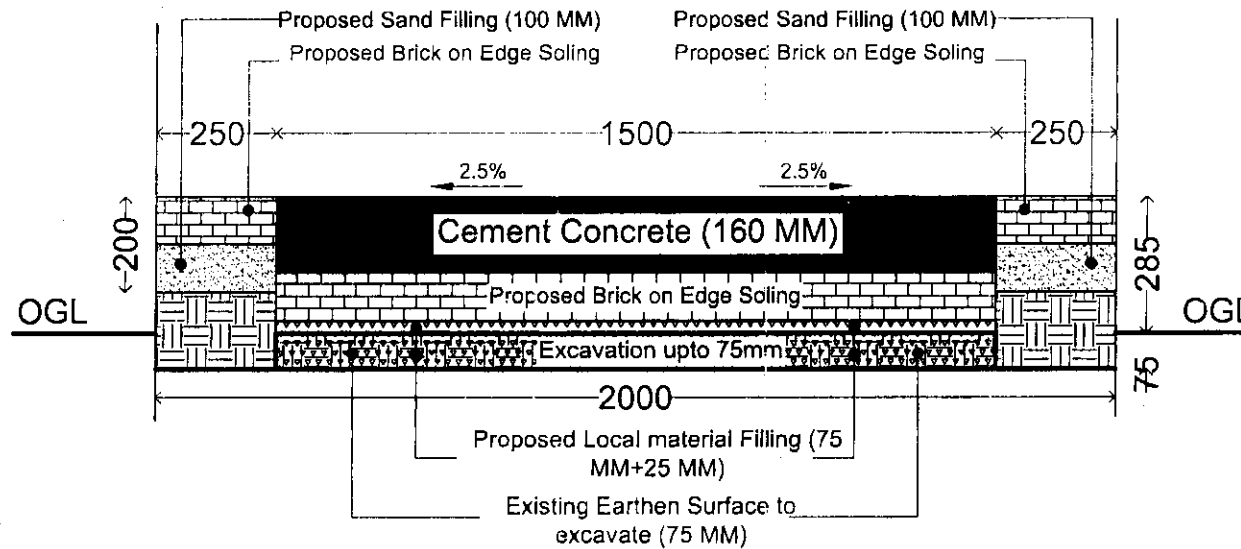
Cost of CC Pavement per 100m Length	525652.45
Cost of CC Pavement per RM Length	5256.52
Cost of CC Pavement per SQM	1401.74

For CBR between 6-7

CROSS SECTIONS

OPTION-I

1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road

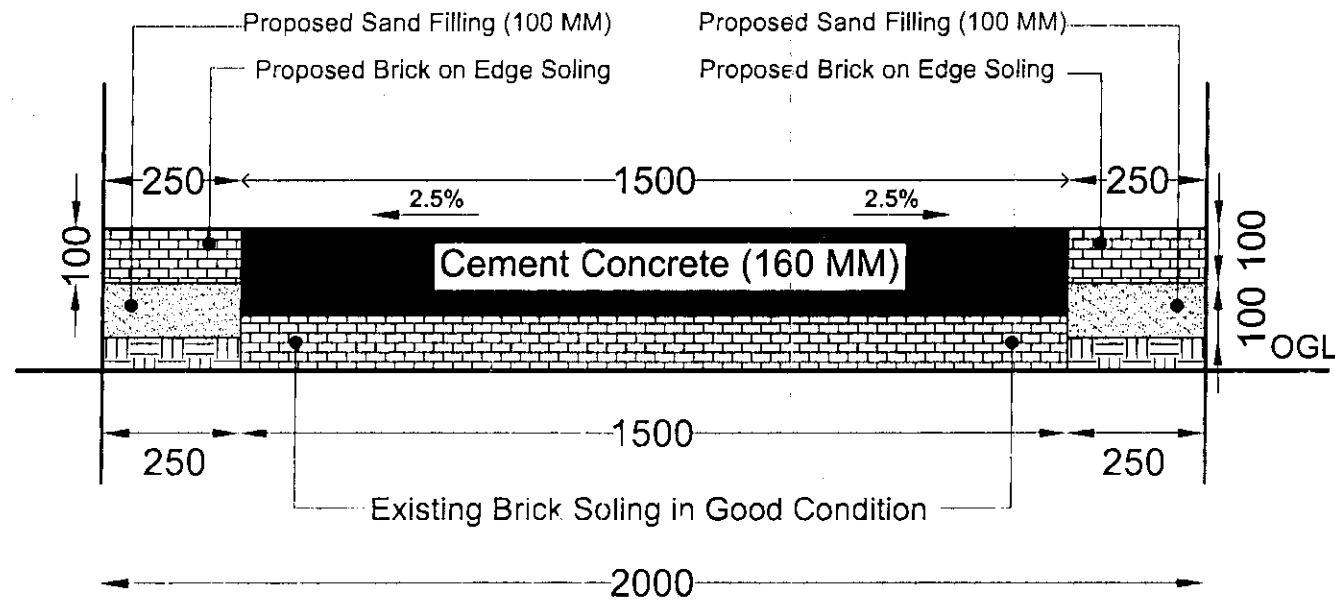


LEGEND:-

- P.C.C
- Brick Soling
- Sand Filling
- Earthen Surface

OPTION-I

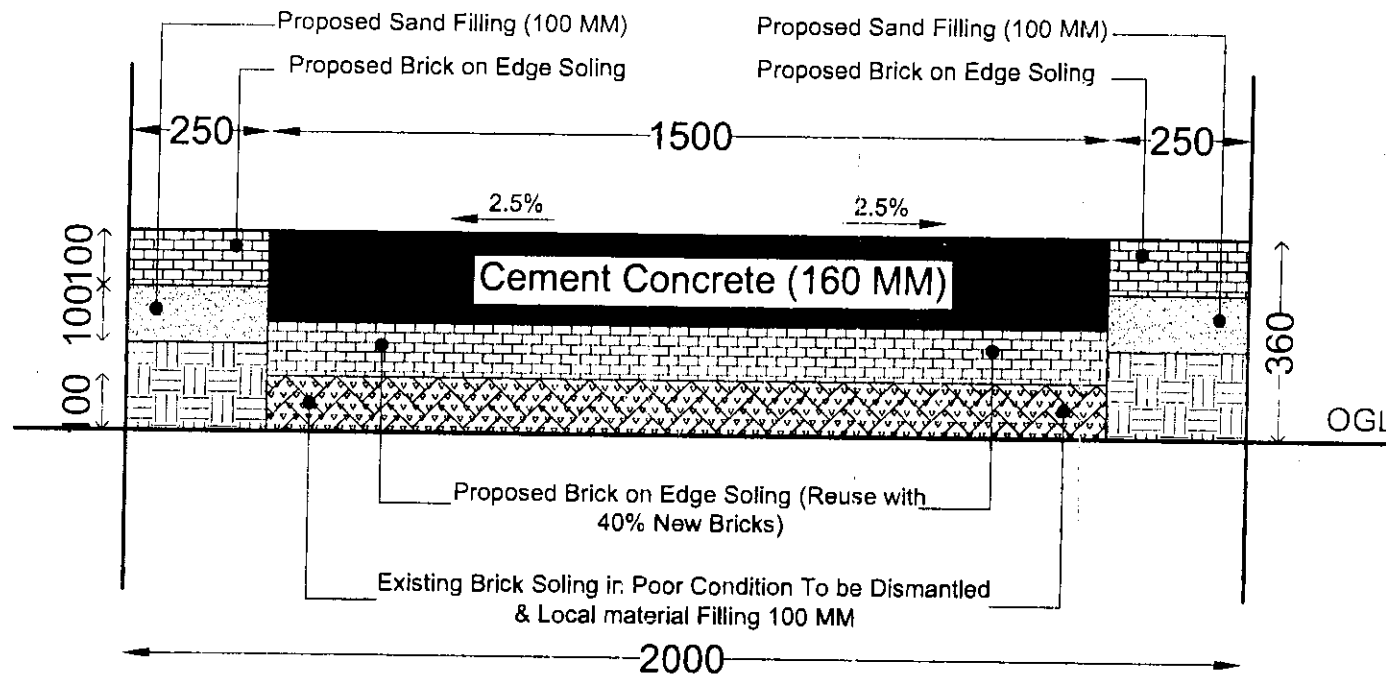
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use Over Existing brick soling in good condition



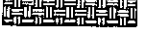
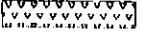
LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

OPTION-I

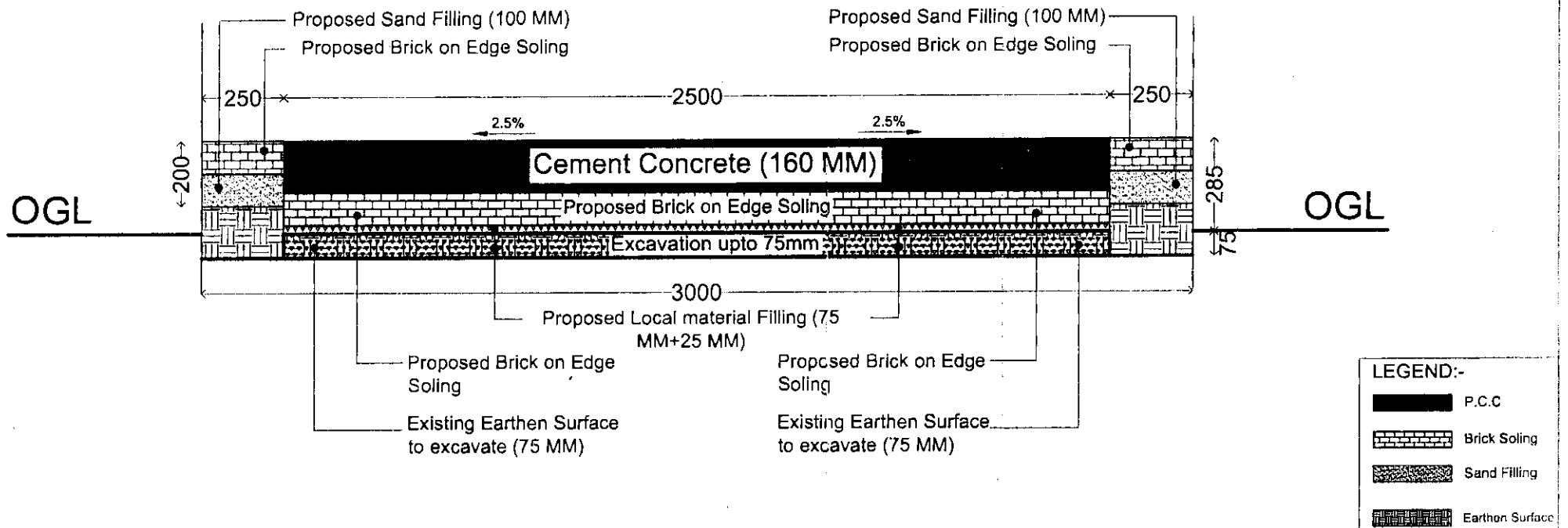
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



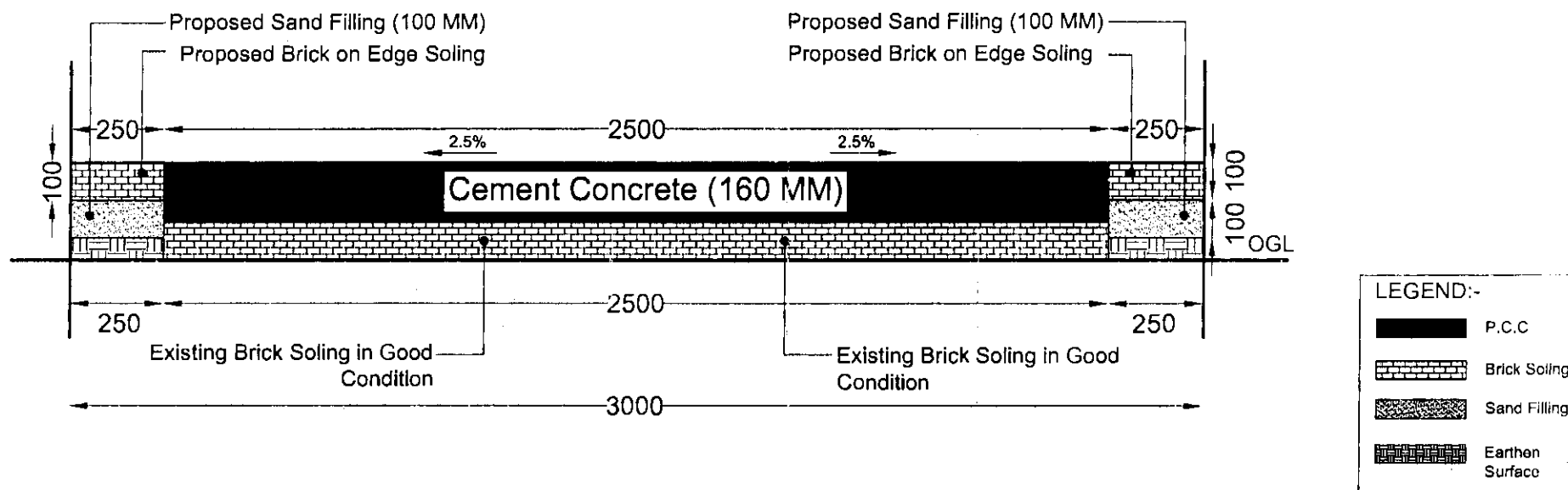
LEGEND:-

-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface
-  Local material

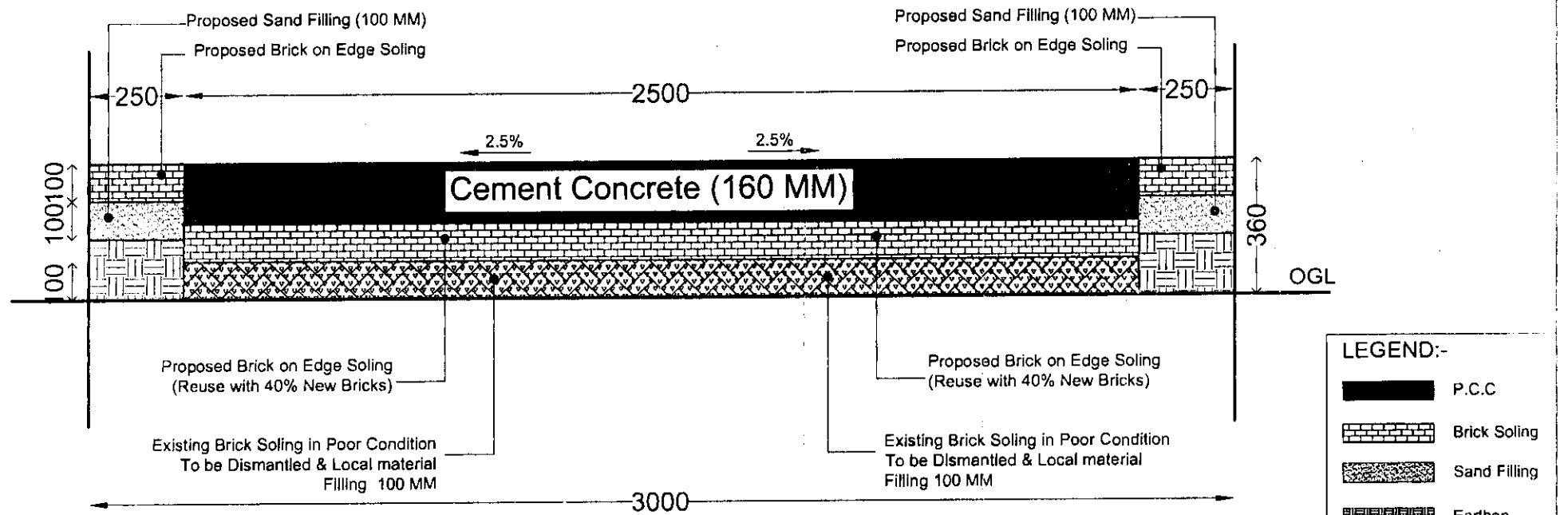
OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing Earthen Road



OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing brick soling in good condition



OPTION-II
2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use
Over Existing brick soling in poor condition

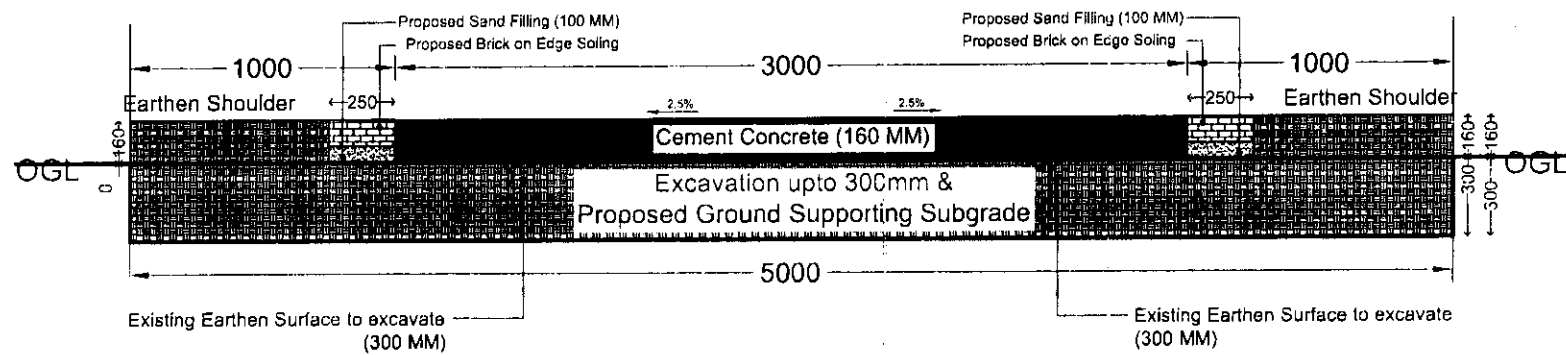


LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface
	Local material

OPTION-III

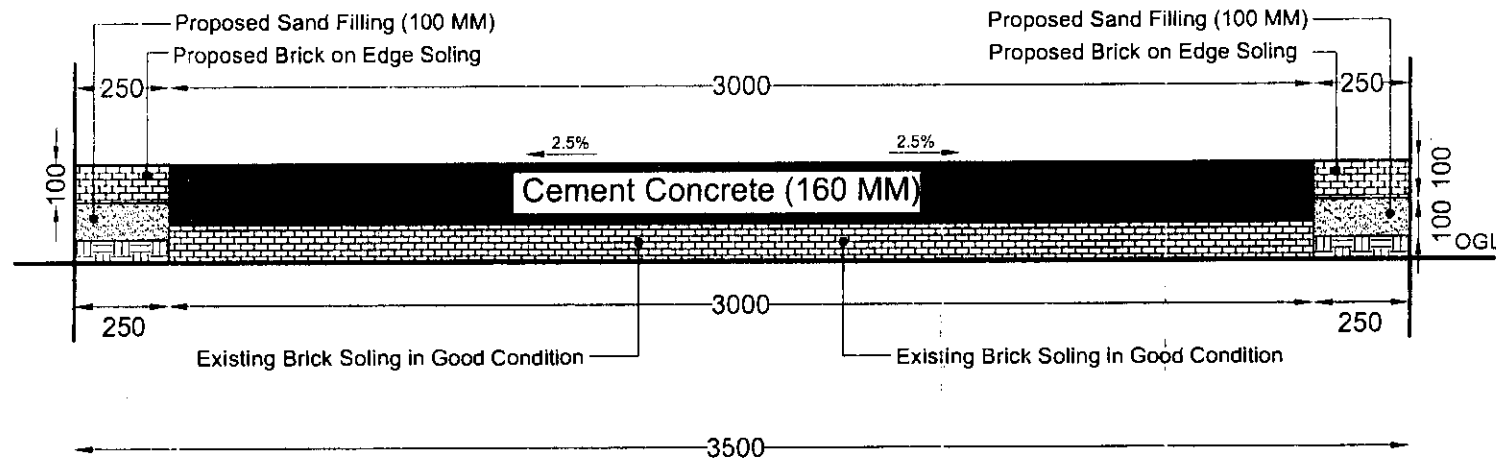
3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing Earthen Road



LEGEND:-

	P.C.C
	Brick Soiling
	Sand Filling
	Earthen Surface

OPTION-III
3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition

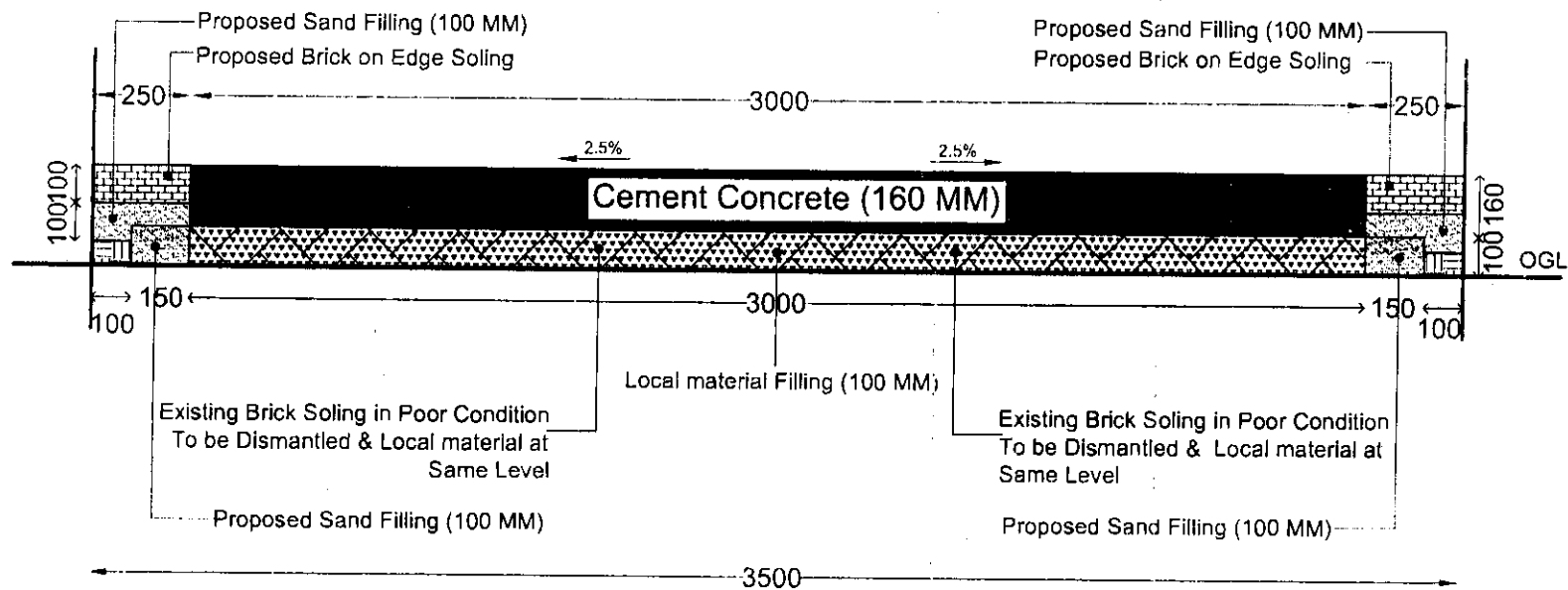


LEGEND:-

- P.C.C
- Brick Soling
- Sand Filling
- Earthen Surface

OPTION-III

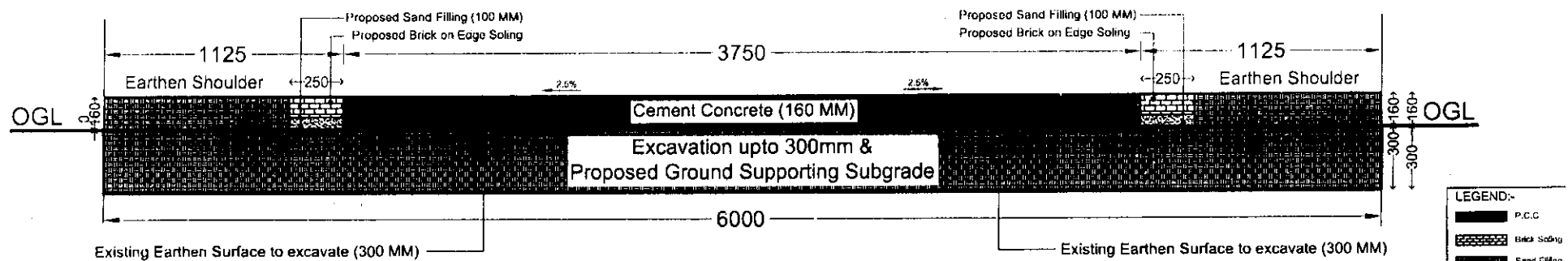
3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in poor condition



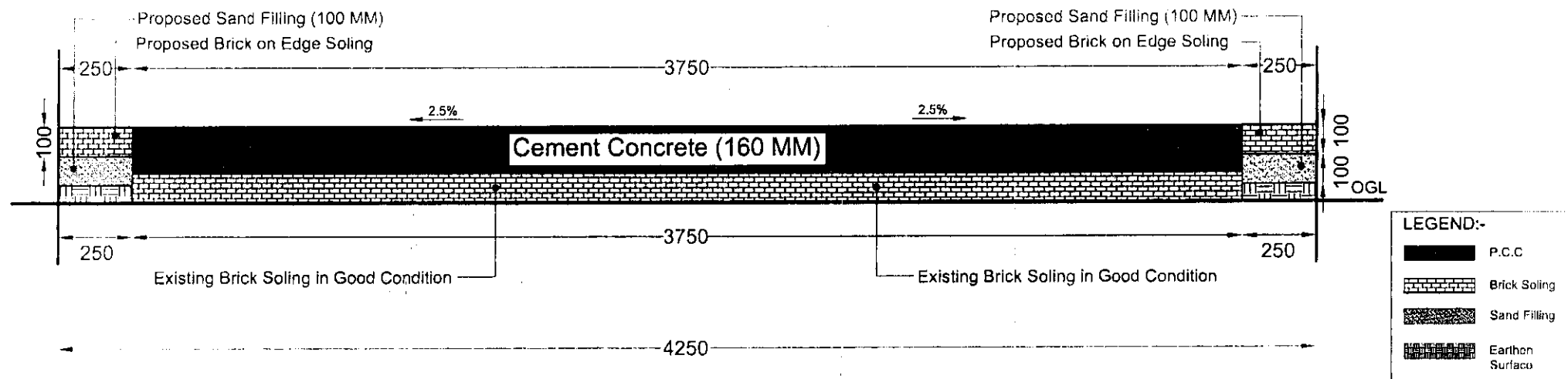
LEGEND:-

- P.C.C
- Brick Soling
- Sand Filling
- Earthen Surface
- Local material

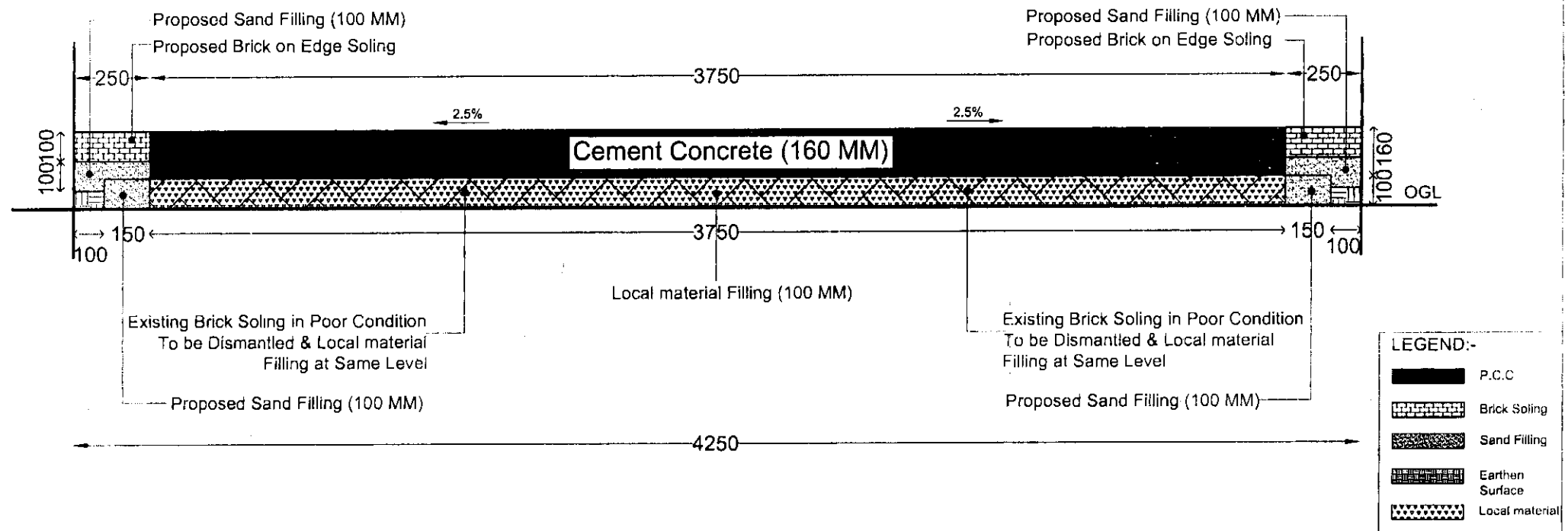
OPTION-IV
3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing Earthen Road



OPTION-IV
3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition



OPTION-IV
3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE

1.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications. Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps, and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	1.5	0.075	11.25	241.68	2718.93
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	1.5	0.1	15.00	113.29	1699.33
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road Road Side Offset/Shoulder	Cum Cum					0.00 5.00	398.55 398.55	0.00 1992.73
	B	Borrowed Earth	Cum	2	100	0.25	0.1	5.00	196.62	2949.35
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging, according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm Sqm						474.01 474.01	0.00 23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm						220.36 220.36	0.00 0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401	Cum					0	1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel), laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.5	0.16	24	6,782.02	162768.39
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	195829.42
Cost of CC Pavement per RM Length	1958.29
Cost of CC Pavement per SQM	1305.53

1.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.57	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	(new) 3.14	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)		Cum							
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum						113.29	0.00
	(i)		Cum							
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling								
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
	B	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (i) By mix in place method Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of Un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.50	0.16	24	6,782.02	162768.39
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	188461.81
Cost of CC Pavement per RM Length	1884.62
Cost of CC Pavement per SQM	1258.41

1.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
Road										
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	1.5	0.1	15.00	113.29	1699.33
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum		100	1.5	0.1	15.00	196.62	2949.35
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.50	0.1	15.00	261.54	3923.09
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm					220.36		0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and contraction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	1.50	0.16	24	6,782.02	162768.39
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.93	0.00

Cost of CC Pavement per 100m Length	184351.06
Cost of CC Pavement per RM Length	1843.51
Cost of CC Pavement per SQM	1229.01

2.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	2.5	0.075	18.75	241.68	4531.55
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand, and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road	Sqm						474.01	23700.69
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50		
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.36	0.00
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm							
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
	ii)	(By mix in place method)								
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel), laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.5	0.16	40	6,782.02	271280.69
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	309253.41
Cost of CC Pavement per RM Length	3092.53
Cost of CC Pavement per SQM	1237.01

2.50 m wide Cement Concrete Road Over Existing brick soling in good condition

[illegible]

2.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watering, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.72
		Borrowed Earth	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
8	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm					220.36		0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (i) By mix in place method)								
		Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
10	5.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum		100	2.50	0.16	40	6,782.02	271280.65
11			Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	298577.83
Cost of CC Pavement per RM Length	2985.78
Cost of CC Pavement per SQM	1194.31

3.00 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum		100	5	0.3	150	22.07	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum		100		0.22 (Avg. Area in shoulder)	22.00	173.66	3820.44
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime, having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps, and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification, Clause 305.3.9 Sand filling	Cum					0.00	398.55	0.00
	A	Road	Cum					0.00	398.55	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
		Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.1B	Brick soling Laying brick soling on prepared sub-grade with brick on end edging, according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.01	0.00
		Road	Sqm	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sqm						220.36	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.06	0.00
	ii)	(By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	358361.42
Cost of CC Pavement per RM Length	3583.61
Cost of CC Pavement per SQM	1194.54

3.00 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.37	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 Sand filling	Cum					0.00	399.13	0.00
	A	Road	Cum					0.00	399.13	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	399.13	1995.64
		Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.10	0.00
		Road	Sqm						474.10	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.10	23704.90
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.41	0.00
		Road	Sqm						220.41	0.00
		Road Side Offset/Shoulder	Sqm						220.41	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with roavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum							
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	351237.32
Cost of CC Pavement per RM Length	3512.37
Cost of CC Pavement per SQM	1170.79

3.00 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	0.3	0.1	3.00	241.68	725.05
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum		100	3.3	0.1	33.00	113.29	3738.53
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	399.13	0.00
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	399.13	1995.64
	B	Borrowed Earth	Cum		100	3.3	0.1	33.00	196.62	6488.56
7	2.5 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.								
		Road	Sqm					0	474.10	0.00
		Road Side Offset/Shoulder	Sqm					0	474.10	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm					0	220.41	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.41	11020.42
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
		For Grading II Material	Cum						1,840.30	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	357351.14
Cost of CC Pavement per RM Length	3573.51
Cost of CC Pavement per SQM	1191.17

3.75 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum		100	6	0.3	180	22.07	3972.94
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum Cum					0.00	173.66	0.00
		Shoulder Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum		100		0.26 (Avg. Area in shoulder)	26.00	173.66	4515.06
3	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 A Sand filling Road Road Side Offset/Shoulder	Cum Cum Cum					0.00 5.00	399.13 399.13	0.00 1995.64
		B Borrowed Earth	Cum	2	100	0.25			196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm Sqm					474.10 474.10	0.00 23704.90	
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm	2	100	0.25			220.41 220.41	0.00 0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) A (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.30	0.00
		ii) (By mix in place method)	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	441109.52
Cost of CC Pavement per RM Length	4411.10
Cost of CC Pavement per SQM	1176.29

3.75 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical Specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface, Pulverising, mixing the spread soil in place with roavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing, by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum					0.00	398.55	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Borrowed Earth	Cum						196.62	0.00
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on and edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.01	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.01	23700.69
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm						220.36	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.06	0.00
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.16	60	5,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	432614.39
Cost of CC Pavement per RM Length	4326.14
Cost of CC Pavement per SQM	1153.64

3.75 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	0.3	0.1	3.00	241.68	725.05
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	4.05	0.1	40.50	113.29	4588.19
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	399.13	0.00
		Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	399.13	1995.64
	B	Borrowed Earth	Cum		100	4.05	0.1	40.50	196.82	7963.24
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.10	0.00
		Road Side Offset/Shoulder	Sqm					0	474.10	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm					220.41		0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.41	11020.42
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.30	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum		100	3.75	0.16	60	6,782.02	406920.97
11			Sqm						953.85	0.00

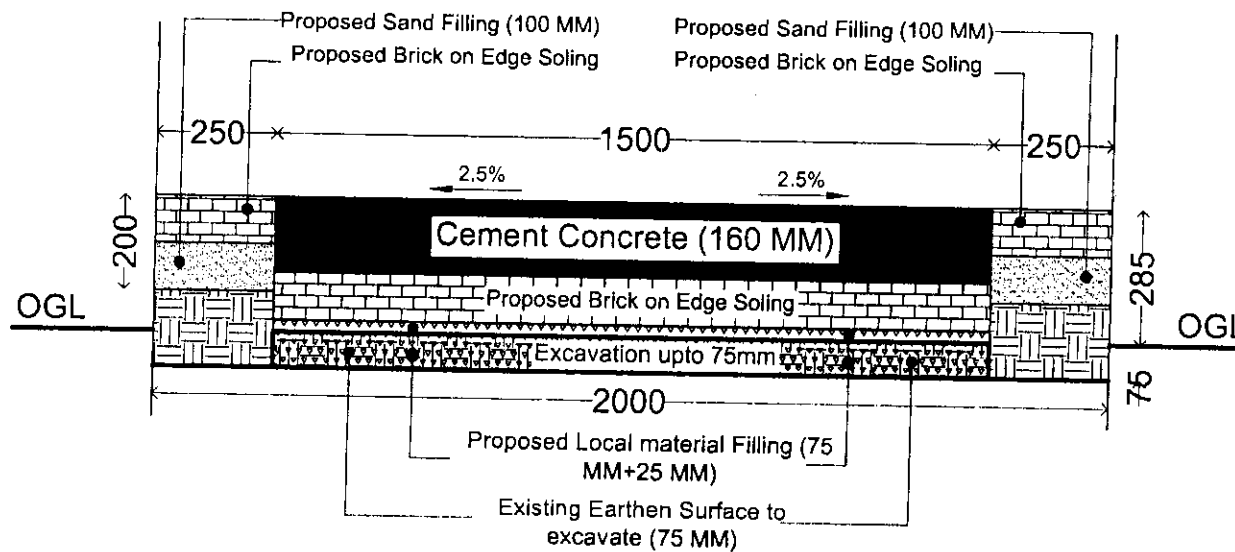
Cost of CC Pavement per 100m Length	443021.22
Cost of CC Pavement per RM Length	4430.21
Cost of CC Pavement per SQM	1181.39

For CBR Greater than 7

CROSS SECTIONS

C24-7

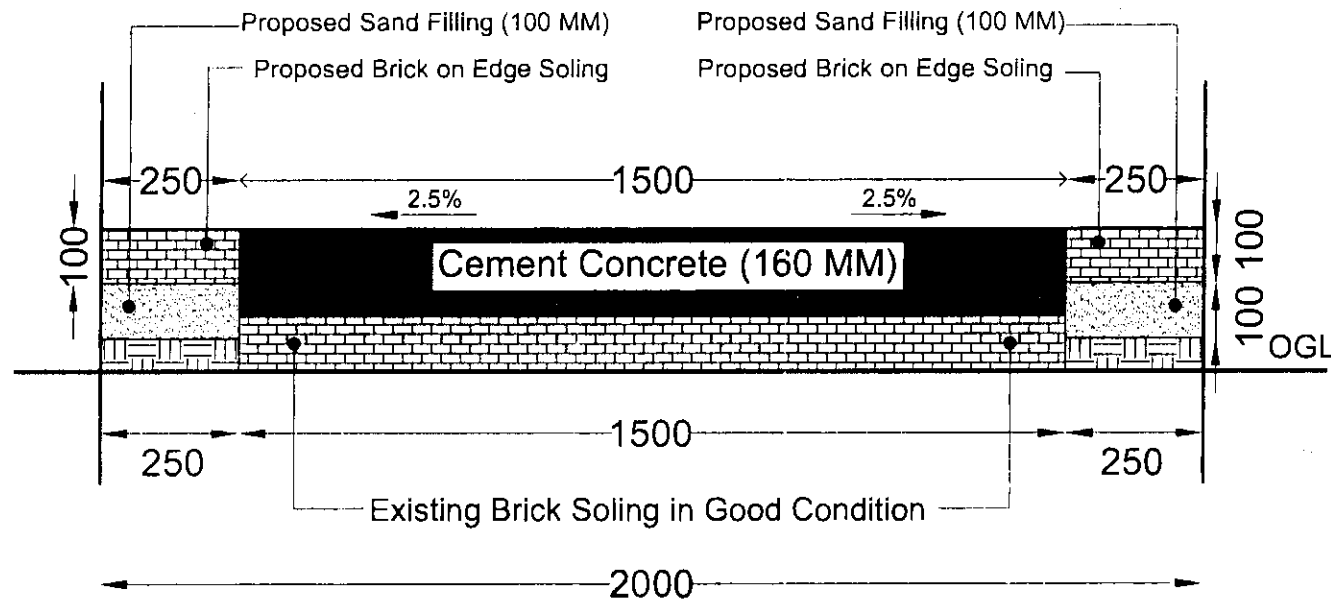
OPTION-I
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing Earthen Road



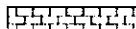
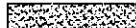
LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

OPTION-I

1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in good condition

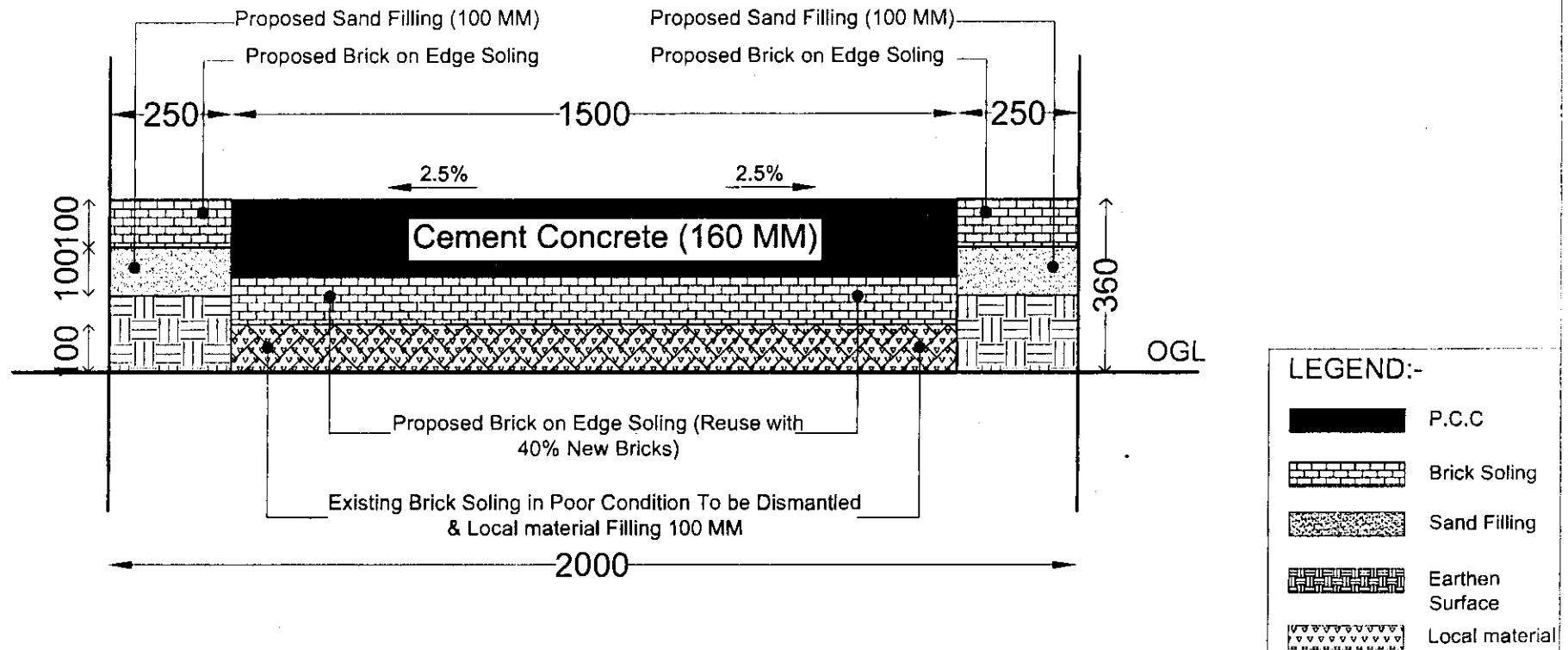


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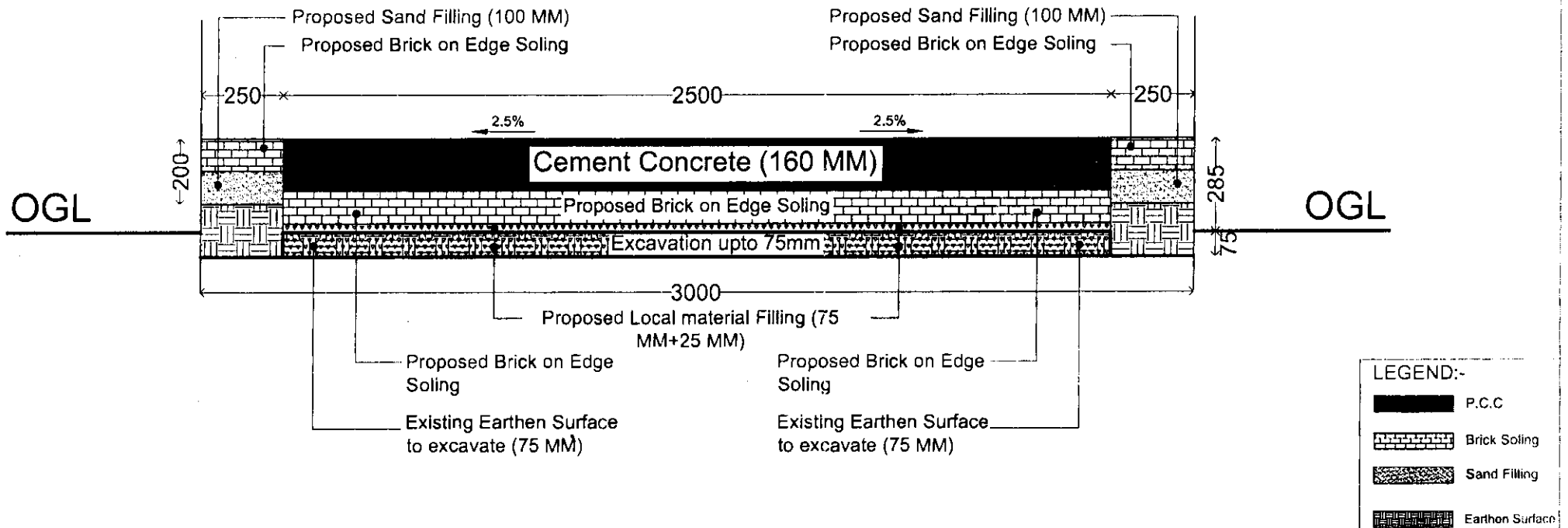
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-I

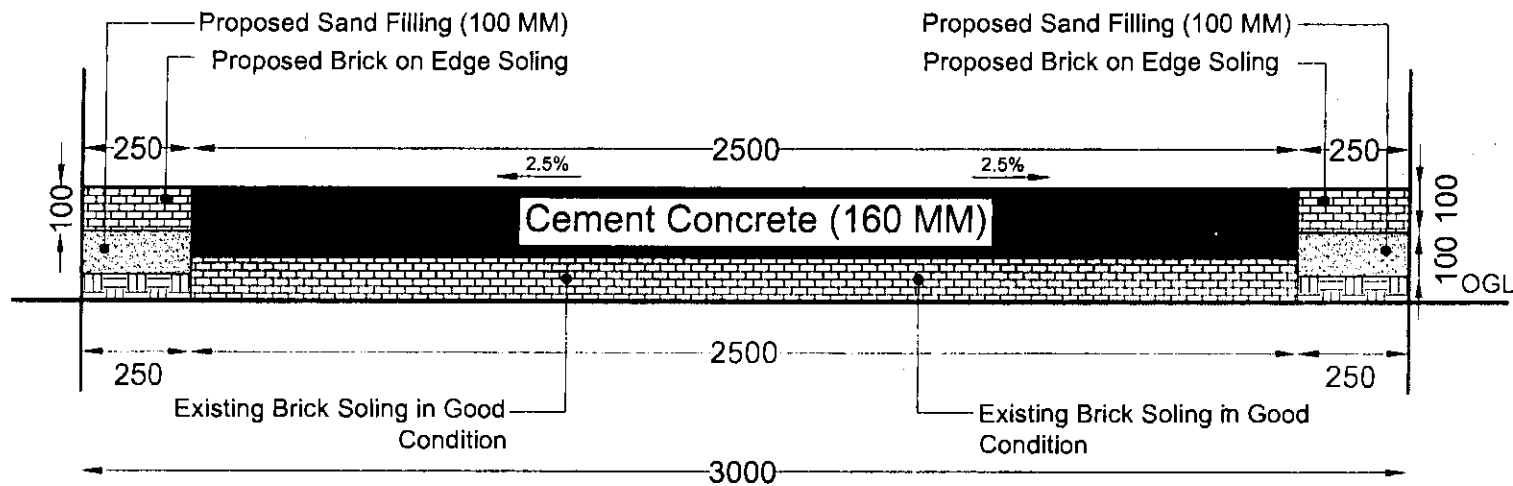
1.50 m wide Cement Concrete Road mainly for Pedestrian and Bicycle use
Over Existing brick soling in poor condition



OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock cart use**
Over Existing Earthen Road



OPTION-II
**2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use**
Over Existing brick soling in good condition

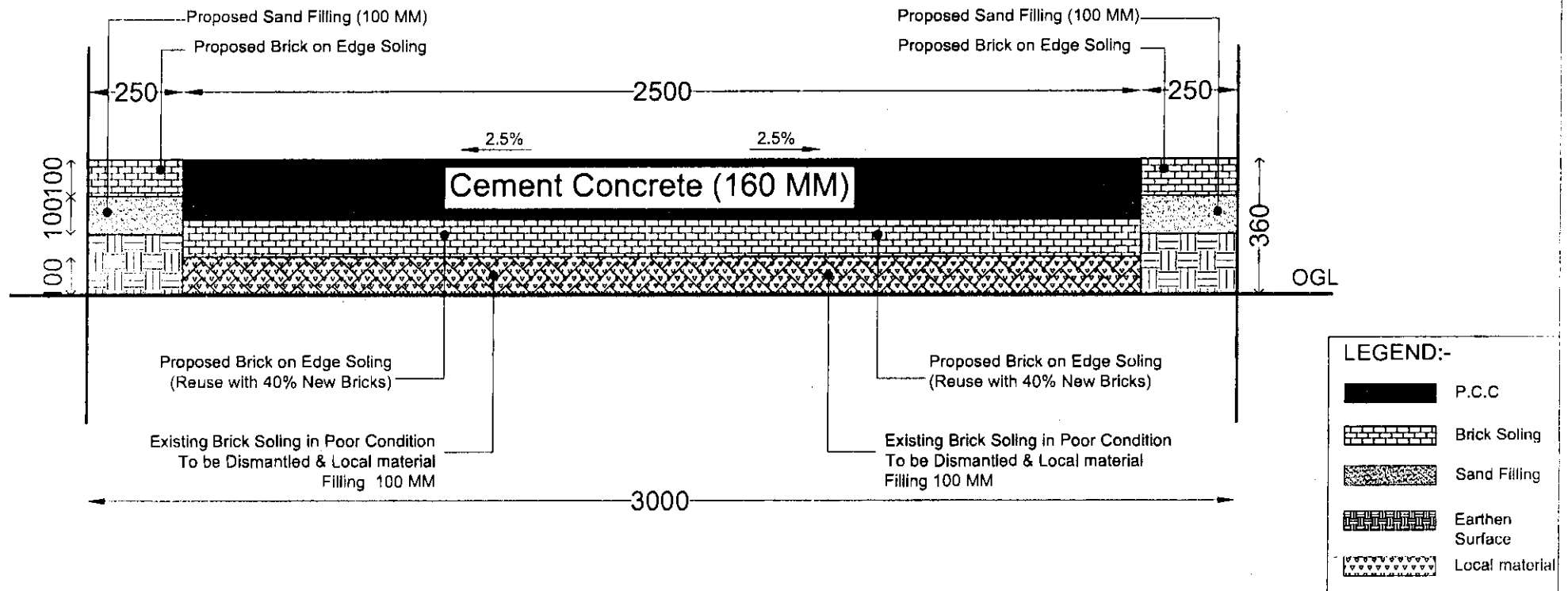


LEGEND:-

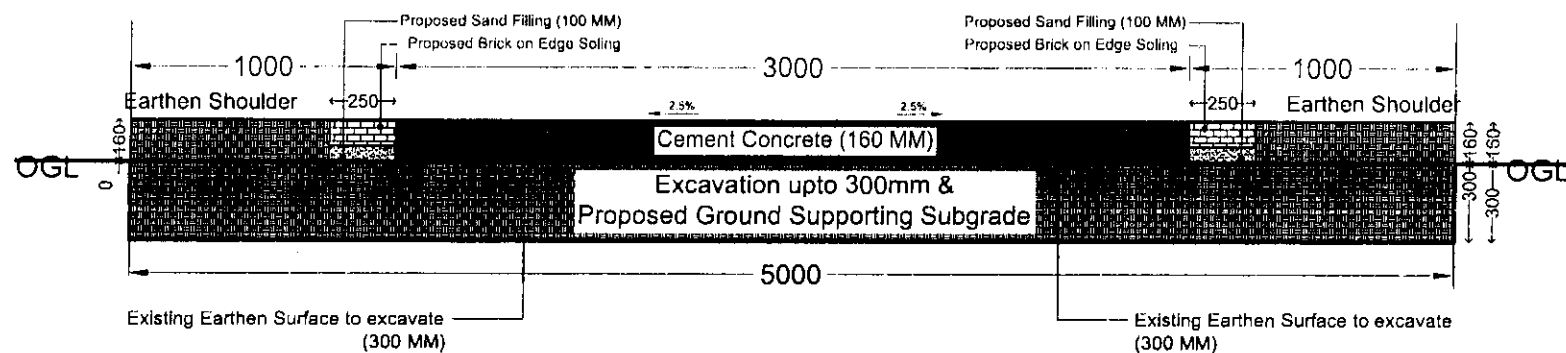
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

OPTION-II

2.50 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock cart use
Over Existing brick soling in poor condition



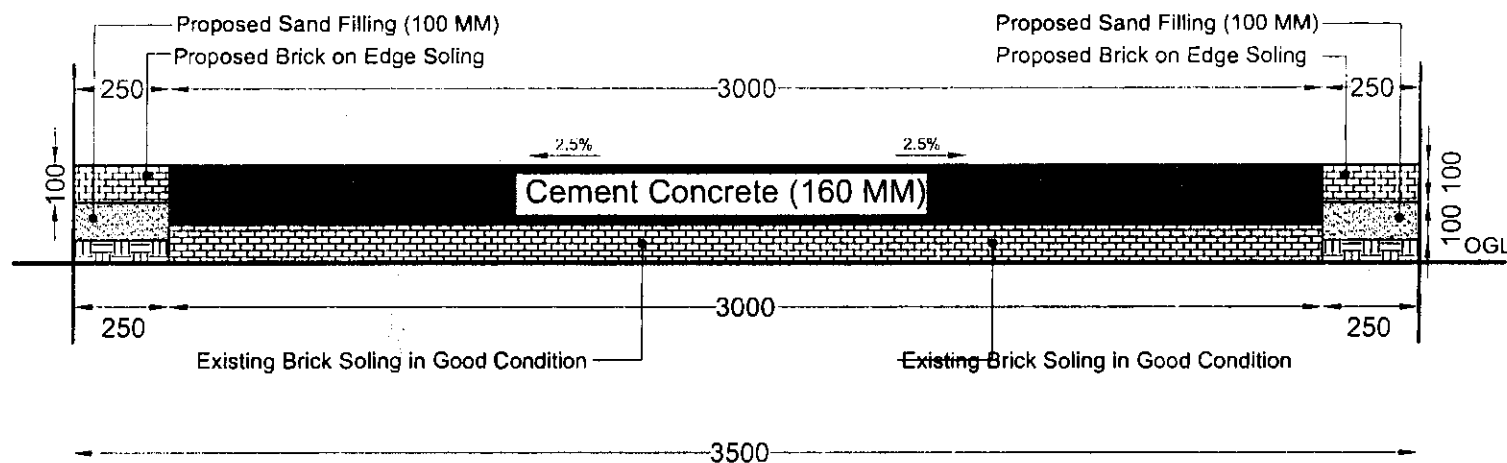
OPTION-III
3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing Earthen Road



LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

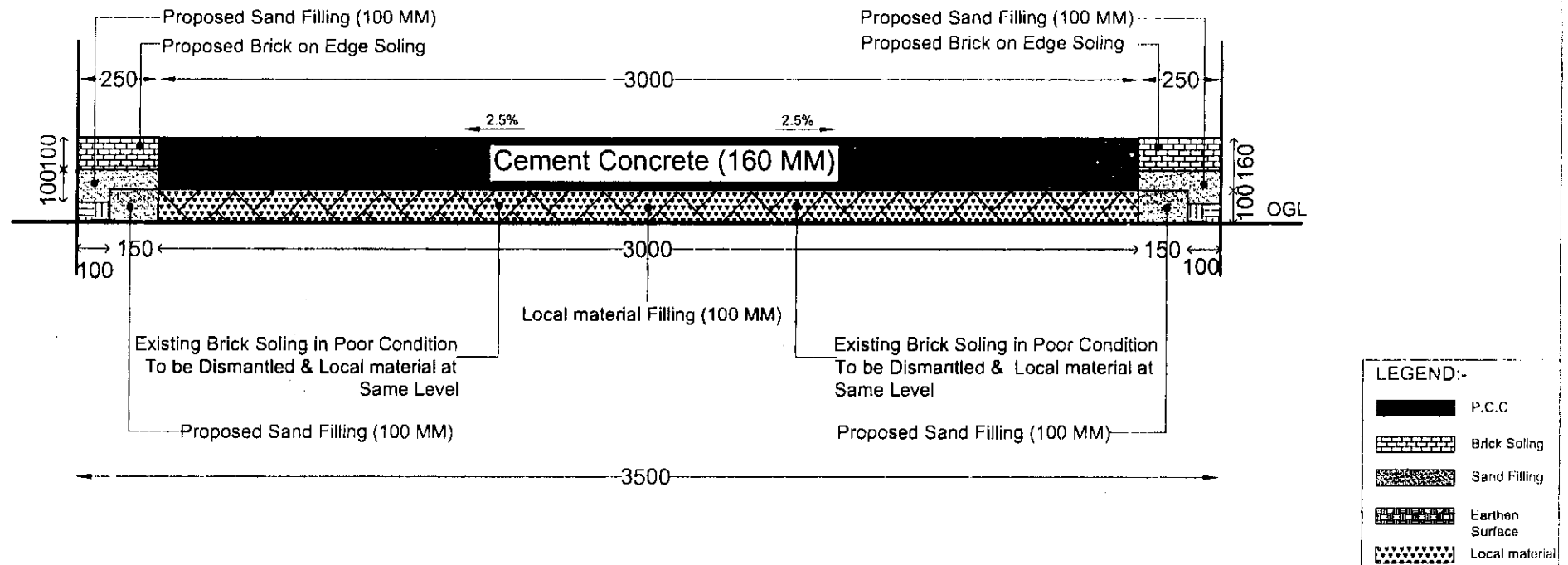
OPTION-III
3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition

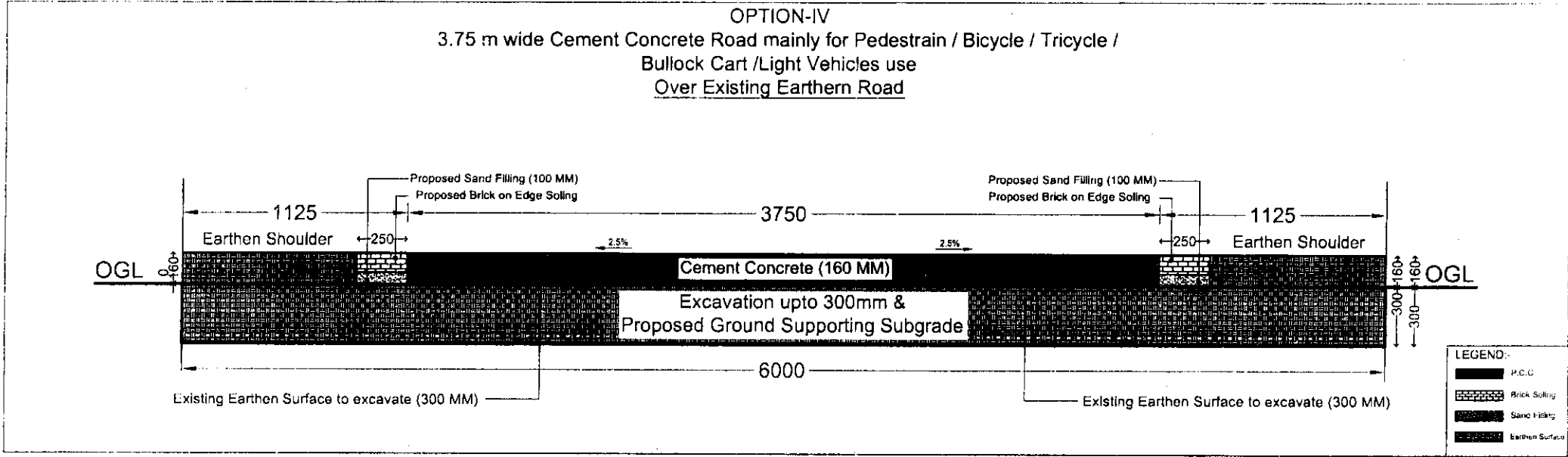


LEGEND:-

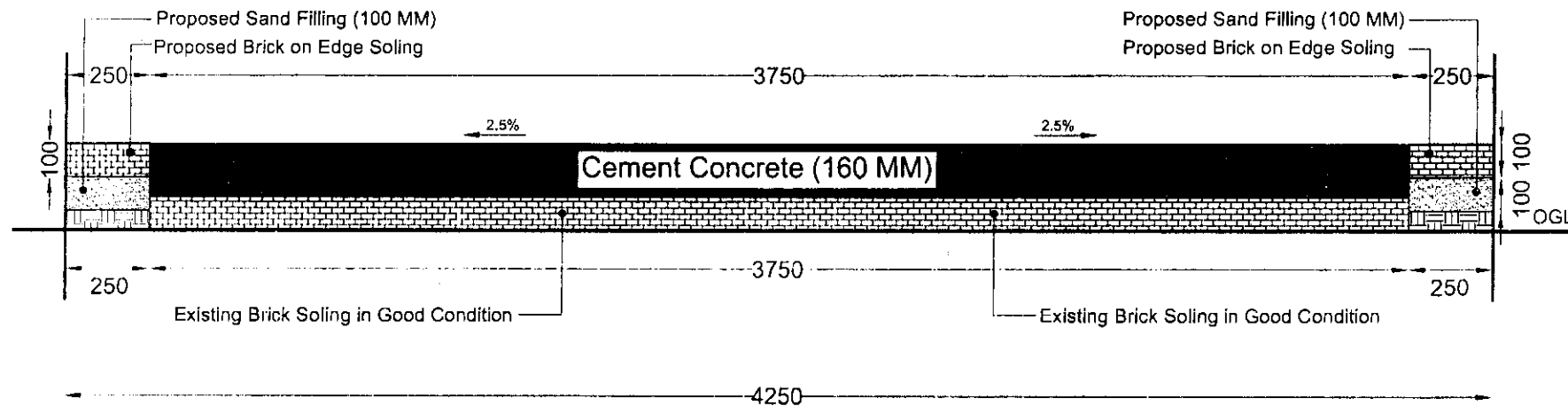
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-III
**3.00 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
 Bullock Cart /Light Vehicles use**
Over Existing brick soling in poor condition





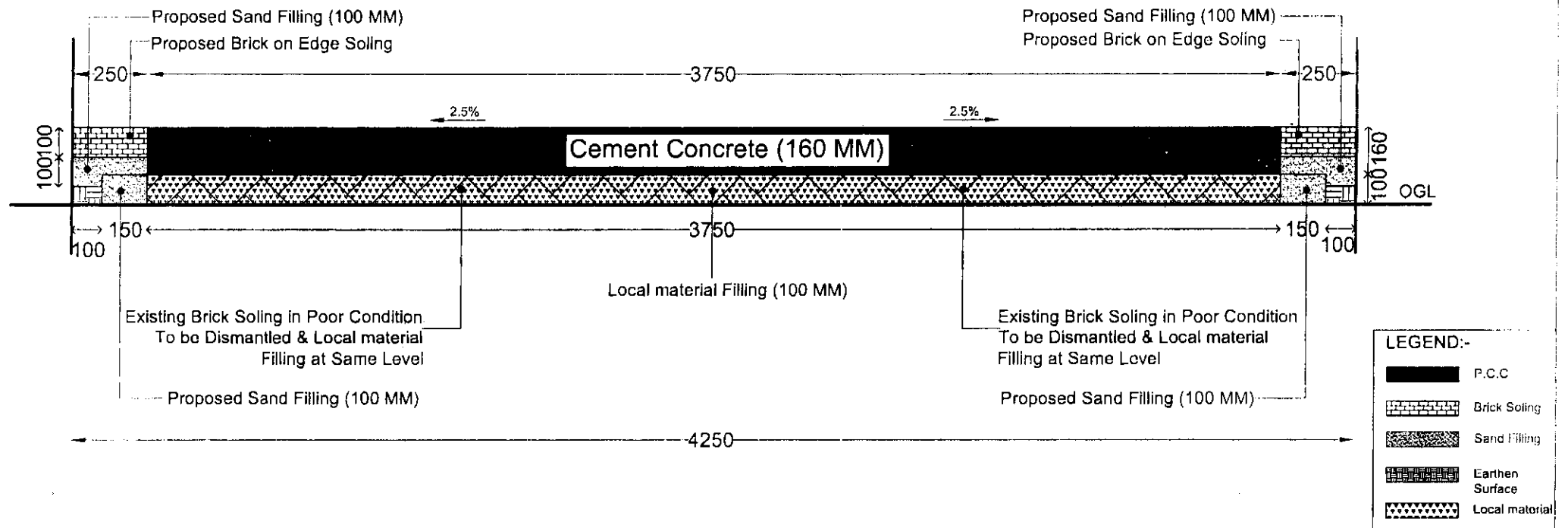
OPTION-IV
3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in good condition



LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

OPTION-IV
3.75 m wide Cement Concrete Road mainly for Pedestrian / Bicycle / Tricycle /
Bullock Cart /Light Vehicles use
Over Existing brick soling in poor condition



DETAILED ESTIMATE



1.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications; Clause 303.5.2.								
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						22.07	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum						173.66	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	150.87	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	243.88	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum		100	1.5	0.075	11.25	241.68	2718.93
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	Cum		100	1.5	0.1	15.00	113.29	1699.33
	A	Sand filling Road Road Side Offset/Shoulder	Cum					0.00	399.13	0.00
	B	Borrowed Earth Road Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	399.13	1995.64
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	1.5	0.1	15.00	196.62	2949.35
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging; according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Cum						261.54	0.00
		Road Road Side Offset/Shoulder	Sqm						474.10	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.10	23704.90
9	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Sqm						220.41	0.00
	ii)	(By mix in place method)	Cum					0	1,840.30	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum		100	1.5	0.16	24	6,782.02	162768.39
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	
Cost of CC Pavement per RM Length	195836.53
Cost of CC Pavement per SQM	1958.37
	1305.58

1.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
	(i)		Cum						113.29	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum							
	(i)		Cum							
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	399.13	0.00
		Road	Cum	2	100	0.25	0.1	0.00	399.13	1995.64
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
		Borrowed Earth	Cum							
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm						474.10	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.10	23704.90
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)								
		Road	Sqm						220.41	0.00
		Road Side Offset/Shoulder	Sqm						220.41	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.30	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum		100	1.50	0.16	24	6,782.02	162788.39
		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	188468.93
Cost of CC Pavement per RM Length	1884.69
Cost of CC Pavement per SQM	1256.46

1.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Cost of CC Pavement per 100m Length	184356.21
Cost of CC Pavement per RM Length	1843.56
Cost of CC Pavement per SQM	1229.04

Cost of CC Pavement per 100m Length	184356.21
Cost of CC Pavement per RM Length	1843.56
Cost of CC Pavement per SQM	1229.04

2.50 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum		100	2.5	0.075	18.75	241.68	4531.55
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3.	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road Road Side Offset/Shoulder	Cum Cum	2	100	0.25	0.1	0.00 5.00	399.13 399.13	0.00 1995.64
	B	Borrowed Earth	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Sqm Sqm						474.10 474.10	0.00 23704.90
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm						220.41 220.41	0.00 0.00
9	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.30	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504.	Cum Sqm		100	2.5	0.16	40	6,782.02	271280.65
11									953.85	0.00

Cost of CC Pavement per 100m Length	309260.53
Cost of CC Pavement per RM Length	3092.61
Cost of CC Pavement per SQM	1237.04

2.50 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% slaked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum						113.29	0.00
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling Road	Cum					0.00	399.13	0.00
	B	Road Side Offset/Shoulder Borrowed Earth	Cum	2	100	0.25	0.1	5.00	399.13	1995.64
7	2.6 (D)	Dismantling Brick/Tile Work Dismanting of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202	Cum						261.54	0.00
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm						474.10	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	474.10	23704.90
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road	Sqm						220.41	0.00
		Road Side Offset/Shoulder	Sqm						220.41	0.00
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
	ii)	For Grading II Material	Cum						1,840.30	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	2.50	0.16	40	6,782.02	271280.65
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	296981.19
Cost of CC Pavement per RM Length	2969.81
Cost of CC Pavement per SQM	1187.92

2.50 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum					0.00	241.68	0.00
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	2.5	0.1	25.00	113.29	2832.22
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	399.13	0.00
		Road	Cum	2	100	0.25	0.1	5.00	399.13	1995.64
	B	Road Side Offset/Shoulder	Cum		100	2.5	0.1	25.00	196.62	4915.58
7	2.6 (D)	Dismantling Brick/Tile Work Dismanting of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	2.50	0.1	25.00	261.54	6538.48
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm					0	474.10	0.00
		Road	Sqm					0	474.10	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm					0	220.41	0.00
		Road	Sqm	2	100	0.25		50	220.41	11020.42
		Road Side Offset/Shoulder	Sqm							
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.30	0.00
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days.	Cum		100	2.50	0.16	40	5,782.02	271280.65
11		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	298582.98
Cost of CC Pavement per RM Length	2985.83
Cost of CC Pavement per SQM	1194.33

3.00 m wide Cement Concrete Road Over Existing brick soling in good condition

[illegible]

3.00 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing, by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	0.3	0.1	3.00	241.68	725.05
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	3.3	0.1	33.00	113.29	3738.53
6	11.2 A	Filling in foundation trenches as per drawing and technical specification Clause 305.3.8 Sand filling Road Road Side Offset/Shoulder Borrowed Earth	Cum Cum Cum	2	100	0.25	0.1	0.00 5.00 33.00	399.13 399.13 196.62	0.00 1995.64 6488.56
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.00	0.1	30.00	261.54	7846.18
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412 Road Road Side Offset/Shoulder	Sqm Sqm					0 0	474.10 474.10	0.00 0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks) Road Road Side Offset/Shoulder	Sqm Sqm	2	100	0.25		0 50	220.41 220.41	0.00 11020.42
9	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.30	0.00
10	5.4	Cement Concrete Pavement Construction of unreinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS-383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates, including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum		100	3.00	0.16	48	6,782.02	325536.77
11			Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	357351.14
Cost of CC Pavement per RM Length	3573.51
Cost of CC Pavement per SQM	1191.17

3.75 m wide Cement Concrete Road Over Existing Earthen Road

[illegible]

3.00 m wide Cement Concrete Road Over Existing Earthen Road

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum		100	5	0.3	150	22.07	3310.79
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum		100		0.22 (Avg. Area in shoulder)	22.00	173.66	3820.44
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification, Clause 305.3.9								
	A	Sand filling	Cum					0.00	399.13	0.00
		Road	Cum					0.00	399.13	1995.64
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	5.00	196.62	0.00
		Borrowed Earth	Cum							
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412.	Sqm						474.10	0.00
		Road	Sqm	2	100	0.25		50	474.10	23704.90
		Road Side Offset/Shoulder	Sqm						220.41	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm						220.41	0.00
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1)								
	A	(By mix in place method) Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum					0	1,840.30	0.00
	ii)	(By mix in place method)								
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel), laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.00	0.16	48	6,782.02	325536.77
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sqm						953.85	0.00

Cost of CC Pavement per 100m Length	358368.54
Cost of CC Pavement per RM Length	3583.69
Cost of CC Pavement per SQM	1194.56

3.75 m wide Cement Concrete Road Over Existing brick soling in good condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	3.15	Road Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum					0.00	173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface Pulverising, mixing the spread soil in place with rotavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom.	Cum					0.00	241.68	0.00
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum	2	100	0.25	0.1	5.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum						196.62	0.00
		Borrowed Earth	Cum							
6	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum						261.54	0.00
7	4.18	Brick soling Laying brick soling on prepared sub grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sam						474.01	0.00
		Road	Sam	2	100	0.25		50	474.01	23700.69
		Road Side Offset/Shoulder	Sam							
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sam						220.36	0.00
		Road	Sam						220.36	0.00
		Road Side Offset/Shoulder	Sam							
8	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						1,840.06	0.00
	ii)	For Grading II Material	Cum							
9	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days.	Cum		100	3.75	0.15	60	6,782.02	406920.97
10		Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Sam						953.83	0.00

Cost of CC Pavement per 100m Length									432614.39
Cost of CC Pavement per RM Length									4326.14
Cost of CC Pavement per SQM									1153.64

3.75 m wide Cement Concrete Road Over Existing brick soling in poor condition

Sl. No.	SOR No.	Description of Items	Unit	Nos.	Length	Width	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
		Road								
1	3.15	Compacting original ground supporting Subgrade Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.	Cum						22.07	0.00
2	3.14	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.	Cum						173.66	0.00
3	3.14 (new)	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation) Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.	Cum					0.00	150.87	0.00
	4.4	Lime Stabilisation For Improving Subgrade Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.	Cum					0.00	243.88	0.00
4	11.1	Excavation for Roadway Earthwork in excavation for roadway as per drawing by manual means and technical specifications Clause 305.1 including setting out, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing the sides and bottom	Cum		100	0.3	0.1	3.00	241.68	725.05
5	3.5	Excavation in Cutting in Soil by manual means with lead upto 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment side with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3	Cum		100	4.05	0.1	40.50	113.29	4586.19
6	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand filling	Cum					0.00	398.55	0.00
		Road	Cum					0.00	398.55	1992.73
	B	Road Side Offset/Shoulder	Cum	2	100	0.25	0.1	50	196.62	7963.24
7	2.6 (D)	Dismantling Brick/Tile Work Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.	Cum		100	3.75	0.1	37.50	261.54	9807.72
8	4.18	Brick soling Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412								
		Road	Sqm					0	474.01	0.00
		Road Side Offset/Shoulder	Sqm					0	474.01	0.00
		Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	Sqm							
		Road	Sqm						220.36	0.00
		Road Side Offset/Shoulder	Sqm	2	100	0.25		50	220.36	11018.18
9	4.1	Granular Sub-base with Well Graded Material (Table 400.1) (3y mix in place method)								
	A	Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	Cum						840.06	0.00
	B	For Grading II Material	Cum							
10	6.4	Cement Concrete Pavement Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504	Cum		100	3.75	0.16	60	6,782.02	406920.97
11			Sqm						953.83	0.00

Cost of CC Pavement per 100m Length	443016.08
Cost of CC Pavement per RM Length	4430.16
Cost of CC Pavement per SQM	1181.38

RATE ANALYSIS

BASIC RATES (A) Labour			
Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	237.00
L-02	Bitumen Sprayer	day	252.00
L-03	Blacksmith	day	288.00
L-04	Blaster	day	399.00
L-05	Carpenter 1st Class	day	288.00
L-06	Chips spreader	day	247.00
L-07	Chiseller	day	302.00
L-08	Dresser (Skilled)	day	305.00
L-09	Driller	day	288.00
L-10	Electrician	day	305.00
L-11	Fitter	day	328.00
L-12	Mason (1st class)	day	322.00
L-13	Mason (2nd Class)	day	288.00
L-14	Mate	day	255.00
L-15	Mazdoor (Unskilled)	day	237.00
L-16	Mazdoor (Semi skilled)	day	247.00
L-17	Mazdoor (Skilled)	day	301.00
L-18	Painter (1st class)	day	305.00
L-19	Plumber	day	305.00
L-20	Surveyor	day	291.00
L-21	White Washer	day	301.00

BASIC RATES
(B) Material

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-001	AC pipe 100 mm	m	44.47	46.25
M-002	Aggregate - For 37.5 mm Maximum size - 22.4 mm to 5.6 mm	cum	544.27	566.04
M-003	Aggregate - For 37.5 mm Maximum size - 45 mm to 22.5 mm	cum	493.39	513.13
M-004	Aggregate - For 37.5 mm Maximum size - Below 5.6 mm	cum	204.23	212.40
M-005	Aggregate - For 53 mm Maximum size - 22.5 mm to 5.6 mm	cum	544.27	566.04
M-006	Aggregate - For 53 mm Maximum size - 63 mm to 45 mm	cum	440.03	457.63
M-007	Aggregate - For 53 mm Maximum size - Below 5.6 mm	cum	204.23	212.40
M-008	Aggregate - Grading I (40 mm nominal Size) 10 mm - 5 mm	cum	545.10	566.90
M-009	Aggregate - Grading I (40 mm nominal Size) 25 mm – 10 mm	cum	631.90	657.18
M-010	Aggregate - Grading I (40 mm nominal Size) 37.25 mm - 25 mm	cum	493.39	513.13
M-011	Aggregate - Grading I (40 mm nominal Size) 5 mm and below	cum	204.23	212.40
M-012	Aggregate - Grading II (19 mm nominal Size) 10 mm - 5 mm	cum	545.10	566.90
M-013	Aggregate - Grading II (19 mm nominal Size) 25 mm – 10 mm	cum	631.90	657.18
M-014	Aggregate - Grading II (19 mm nominal Size) 5 mm and below	cum	204.23	212.40
M-015	Aggregate 10 mm	cum	633.55	658.89
M-016	Aggregate 20 mm	cum	567.84	590.55
M-017	Aggregate 40 mm	cum	453.93	472.09
M-018	Aggregate- Crushable type such as moorum or Gravel for Grading I	cum	134.60	139.98
M-019	Aggregate- Crushable type such as moorum or Gravel for Grading II	cum	134.60	139.98
M-020	Aggregate- Crushable type such as moorum or Gravel for Grading III	cum	134.60	139.98
M-021	Aggregate-Grading I 90 mm to 45 mm	cum	407.40	423.70
M-022	Aggregate-Grading II 63 mm to 45 mm	cum	440.03	457.63
M-023	Aggregate-Grading III 53 mm to 22.4 mm	cum	471.71	490.58

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-024	Aggregates 22.4 mm to 2.36 mm for wet mix macadam	cum	544.27	566.04
M-025	Aggregates 45 mm to 22.4 mm for wet mix macadam	cum	493.39	513.13
M-031	Barbed wire	kg	54.61	56.79
M-032	Binding Material	cum	134.60	139.98
M-033	Binding wire	kg	55.55	57.77
M-037	Bitumen (S-65) (BARAUNI)	t	36,676.10	38,143.14
M-038	Bitumen (S-90) (BARAUNI)	t	35,764.10	37,194.66
M-039	Bitumen Emulsion (RS-1) Patna	t	40,202.00	41,810.08
M-040	Bitumen Emulsion (SS-1) Patna	t	42,609.00	44,313.36
M-041	Bituminous sealant	litre	25.08	26.08
M-042	Blasted rubble	cum	295.70	307.53
M-043	Blasting material (Moorum)	kg	-	-
M-044	Bond stone (400 mm x 150 mm x 150 mm)	No.	11.77	12.24
M-045	Brick 1st Class	No.	5.73	5.96
M-046	Cement	t	5,392.00	5,985.12
M-049	Compensation for earth taken from private land	cum	23.65	23.65
M-050	Compressible Fibre Board	sqm	989.71	1,029.30
M-058	Crushed Stone Aggregate 26.5 mm to 75 micron	cum	567.84	590.55
M-059	Crushed Stone chipping 13.2 mm nominal size	cum	663.11	689.63
M-060	Crushed Stone Chipping 6.7 mm size 100% passing 11.2 mm and retained on 2.36 mm	cum	420.37	437.18
M-061	Crushed Stone Chipping 6.7 mm size 100% passing 9.5 mm and retained on 2.36 mm	cum	420.37	437.18
M-062	Crushed Stone chipping 9.5 mm nominal size	cum	633.55	658.89
M-063	Crushed Stone Coarse Aggregate Passing 53 mm and retained on 2.8 mm	cum	471.71	490.58
M-064	Curing compound	litre	125.41	130.43
M-072	Farmyard manure	cum	705.46	733.68
M-073	Fevicol adhesive	kg	125.00	130.00
M-074	Filter media	cum	422.35	439.24
M-075	Jute rope	m	44.80	46.59
M-092	Lime	t	3,084.04	3,207.40

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-097	MS clamps	Nos.	32.08	33.36
M-098	MS Flat / Structural Steel	t	41,200.00	42,848.00
M-102	Nuts, Bolts and Rivets	t	57.04	59.32
M-103	Paint (Synthetic Enamel)	litre	240.39	250.01
M-104	Plasticizer	litre	158.02	164.34
M-105	Polythene sheet (125 micron)	sqm	15.67	16.30
M-106	Polythene Sheething	Nos.	15.67	16.30
M-107	Quarried Stone 150-200 mm size	cum	311.53	323.99
M-108	RCC Pipe NP3 (1200 mm dia)	m	4,177.63	4,344.74
M-109	RCC Pipe NP3 (1000 mm dia)	m	2,938.51	3,056.05
M-110	RCC Pipe NP3 (750 mm dia)	m	1,037.52	1,079.02
M-111	RCC Pipe NP3 (600 mm dia)	m	864.60	899.18
M-112	RCC Pipe NP3 (500 mm dia)	m		-
	RCC Pipe NP3 (300 mm dia)	m	538.14	559.67
M-113	RCC Pipe NP4 (1200 mm dia)	m	4,177.63	4,344.74
M-114	RCC Pipe NP4 (1000 mm dia)	m	2,938.51	3,056.05
M-115	RCC Pipe NP4 (750 mm dia)	m		-

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-116	RCC Pipe NP4 (600 mm dia)	m	864.60	899.18
M-117	RCC Pipe NP4 (500 mm dia)	m		-
M-118	Red-oxide Primer	litre	254.80	264.99
M-119	Road marking paint	litre	240.39	250.01
M-120	Sand (Coarse)	cum	140.69	146.32
M-121	Sand (Fine)	cum	119.37	124.14
M-124	Steel Reinforcement (HYSD Bars)	t	41,200.00	42,848.00
M-126	Steel Reinforcement (TMT Bars)	t	41,200.00	42,848.00
M-127	Stone Boulder of size 150 mm and below	cum	311.53	323.99
M-128	Stone Chips 12 mm size	cum	663.11	689.63
M-129	Stone Chips 13.2 mm to 5.6 mm	cum	633.55	658.89
M-130	Stone Crushed Aggregate 11.2 mm to 0.09 mm	cum	354.77	368.96
M-131	Stone for Coarse Rubble Masonry 1st Sort	cum		-
M-132	Stone for Coarse Rubble Masonry 2nd Sort	cum		-
M-133	Stone for Random Rubble Masonry	cum	311.53	323.99
M-134	Stone for Stone Set Pavement (300 mm x 200 mm x 150 mm)	No.		-
M-135	Stone Screening - Type A 13.2 mm for Grading-1	cum	636.49	661.95
M-136	Stone Screening - Type A 13.2 mm for Grading-2	cum	636.49	661.95
M-137	Stone Screening - Type B 11.2 mm for Grading-2	cum	342.72	356.43
M-138	Stone Screening - Type B 11.2 mm for Grading-3	cum	342.72	356.43
M-140	Traffic cones	No.		-
M-141	Water	kl	40.00	40.00
M-142	Well graded Granular Base Material - Grading A 2.36 mm below	cum	193.61	201.35
M-143	Well graded Granular Base Material - Grading A 26.5 mm to 4.75 mm	cum	514.82	535.41
M-144	Well graded Granular Base Material - Grading A 53 mm to 26.5 mm	cum	471.71	490.58

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-145	Well graded Granular Base Material - Grading B 2.36 mm below	cum	193.61	201.35
M-146	Well graded Granular Base Material - Grading B 26.5 mm to 4.75 mm	cum	514.82	535.41
M-147	Well graded Granular Base Material - Grading C 2.36 mm below	cum	193.61	201.35
M-148	Well graded Granular Base Material - Grading C 9.5 mm to 4.75 mm	cum	545.10	566.90
M-149	Well Graded Material for Sub-Base - Grading I 2.36 mm below	cum	193.61	201.35
M-150	Well Graded Material for Sub-Base - Grading I 53 mm to 9.5 mm	cum	533.99	555.35
M-151	Well Graded Material for Sub-Base - Grading I 9.5 mm to 2.36 mm	cum	424.94	441.94
M-152	Well Graded Material for Sub-Base - Grading II 2.36 mm below	cum	193.61	201.35
M-153	Well Graded Material for Sub-Base - Grading II 26.5 mm to 9.5 mm	cum	567.84	590.55
M-154	Well Graded Material for Sub-Base - Grading II 9.5 mm to 2.36 mm	cum	424.94	441.94
M-155	Well Graded Material for Sub-Base - Grading III 2.36 mm below	cum	93.61	97.35
M-156	Well Graded Material for Sub-Base - Grading III 4.75 mm to 2.36 mm	cum	208.67	217.02
M-157	Well Graded Material for Sub-Base - Grading III 9.5 mm to 4.75 mm	cum	549.54	571.52
M-178	Strip seal expansion joint	LM	8341.1	8,674.74
Extra	Paver Block 60 mm	sqm	466.3	484.95
Extra	Brick Bats	cum	1162	1,208.48

BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-001	Air Compressor 210 cfm	Supplying compressed air	cfm	210.00	per hour	437.00
PM-002	Batch mix HMP 40-60 TPH	BM, DBM, SDBC, PM	t/h	50.00	per hour	21633.00
PM-003	Batch type HMP 30/40 TPH	BM, DBM, SDBC, PM	t/h	35.00	per hour	
PM-004	Bitumen boiler oil fired	Heating of bitumen				
	200 litre		litre / h	400.00	per hour	270.00
	1000 litre		litre / h	2000.00	per hour	270.00
PM-005	Bitumen emulsion pressure distributor	Applying bitumen tack coat	sqm/h	1750.00	per hour	1,091.00
PM-006	Concrete mixer 0.28/0.4 cum	Mixing of ingredients	cum/h	2.50	per hour	80.00
PM-007	Crane upto 3.5T	Lifting of materials			per hour	1,163.00
PM-008	Dozer D 50	Dozing cutting	cum/h	200.00	per hour	3,009.00
			cum/h	100.00		3,009.00
PM-009	Electric generator set, 125 KVA	Electricity generation	KVA	100.00	per hour	2,502.00
PM-010	Emulsion Sprayer with Tractor	Spraying of Emulsion			per hour	1,091.00
PM-011	Front end-loader 1 cum bucket capacity @ 45 cum/hour	Loading Aggregates	cum/h	45.00	per hour	1,291.00
		Loading Soil	cum/h	100.00		1,291.00
PM-012	Hydraulic broom with tractor	Surface cleaning	sqm/h	1250.00	per hour	522.00
PM-013	Hydraulic Excavator 0.9 cum	Excavation	cum/h	100.00	per hour	1,775.00
PM-014	Hydraulic self propelled chip spreader	Surface Dressing	sqm/h	1500.00	per hour	3,594.00
PM-015	Jack Hammer with tractor	Pavement breaking & rock drilling	cum/h	05. to 1	per hour	688.00
PM-016	Joint Cutting Machine with 2-3 blades	Cutting of Joints	m		per hour	317.00
PM-017	Mixall 6-10 t capacity	Mixing of bituminous materials	t/h	8.00	per hour	1,547.50
PM-018	Motor Grader	Scarifier & levelling	cum/h	200.00	per hour	2,674.00
				50.00		533.00
PM-019	Needle vibrator	Vibrating cement concrete mix	cum/h	3.50	per hour	76.35
PM-020	Paver finisher	Laying/spreading	t/h	75.00	per hour	1,318.00

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-021	Plate compactor	Compaction	cum/h		per hour	423.00
PM-022	Plate vibrator	Compaction	cum/h		per hour	423.00
PM-023	Screed vibrator	Compaction	cum/h		per hour	102.64
PM-024	Smooth wheeled 80-100 kN tandem roller	Compaction of Sub-base/ Asphalt	cum/h	30.00	per hour	1,561.00
PM-025	Stone crusher (Integrated) of 200 TPH	Crushing of Spalls	t/h	200.00	per hour	24,865.00
PM-026	Three wheel 80-100 kN Static Roller	Compaction/ Rolling			per hour	736.00
PM-027	Tipper 5.5 cum/10 t	Carriage	cum/trip	5.50	per hour	957.00
PM-028	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour	517.00
PM-029	Tractor with ripper @ 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour	533.00
PM-030	Tractor with trolley/with Grading equipment	Transportation of materials	t/trip	3 to 5	per hour	533.00
PM-031	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	517.00
PM-032	Truck 10 t capacity	Carriage	cum/trip	5.50	per hour	843.00
PM-033	Vibratory roller 80-100 kN	Compaction of soil WMM	cum/h	100.00	per hour	1,915.00
		Compaction of BM	cum/h	60.00		1,915.00
PM-034	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre / h	12000.00	per hour	166.00
PM-035	Wet mix plant (Pug Mill)	Wet Mix	cum/h	25.00	per hour	1,643.00
RCD						
	Generator 33 KVA					
P&M043	Road Marking Machine	Road Marking	sqm/h	100	hour	507.00
					per hour	128.00

Analysis for Carriage by Road

FORM F8

Analysis for Carriage by Road																FORM F8		
Sl No	Item	Unit	Source	Carriage Cost & Lead in Km												Loading & Unloading Cost	Carriage Cost by Rail Head	Total
				Pucka/ Surface						Katcha								
1	Stone Metal Gr-I & Gr-II	Cum	Mirzachauki	8.00	x 8.00	x	100.00 Km =	Rs 1394.34	8.00	x 19.30	x 0.00 Km =	Rs 0.00	76.84			1471.18		
2	Stone Metal Gr-III / GSB	Cum	Mirzachauki	4.59	x 8.00	x	100.00 Km =	Rs 1282.57	4.59	x 19.30	x 0.00 Km =	Rs 0.00	76.84			1359.41		
3	Stone Aggregate / Chips	Cum	Pakur	8.00	x 8.00	x	100.00 Km =	Rs 1282.57	8.00	x 19.30	x 0.00 Km =	Rs 0.00	76.84			1359.41		
4	Stone Boulder	Cum	Mirzachauki	4.99	x 8.00	x	100.00 Km =	Rs 1333.33	4.99	x 19.30	x 0.00 Km =	Rs 0.00	76.84			1410.17		
5	Course Sand	Cum	koilwar	8.00	x 8.00	x	100.00 Km =	Rs 1282.57	8.00	x 19.30	x 0.00 Km =	Rs 0.00	47.77			1330.34		
6	Binding Material (Moorum)	Cum	shakhund	4.99	x 8.00	x	100.00 Km =	Rs 1066.67	4.99	x 19.30	x 0.00 Km =	Rs 0.00	47.77			1114.44		
7	Local Sand	Cum	Local	8.00	x 8.00	x	2.00 Km =	Rs 25.65	8.00	x 19.30	x 1.00 Km =	Rs 30.94	47.77			104.36		
8	Brick/ Paver Block	1000 Nos	Local	8.00	x 6.95	x	7.00 Km =	Rs 194.60	8.00	x 19.30	x 1.00 Km =	Rs 77.20	392.70			664.50		
9	Cement	MT	Local	2.00	x 6.95	x	10.00 Km =	Rs 69.50	2.00	x 19.30	x 0.00 Km =	Rs 0.00	274.95			344.45		
10	Steel	MT	Local	8.00	x 6.95	x	10.00 Km =	Rs 69.50	8.00	x 19.30	x 0.00 Km =	Rs 0.00	289.54			359.04		
11	Bitumen Emulsion	MT	Rukunpura	8.00	x 6.95	x	215.00 Km =	Rs 1494.25	8.00	x 19.30	x 0.00 Km =	Rs 0.00	322.90			1817.15		
12	Bitumen	MT	Barauni	8.00	x 6.95	x	160.00 Km =	Rs 1112.00	8.00	x 19.30	x 0.00 Km =	Rs 0.00	322.90			1434.90		
13	Hume Pipe (1000 mm)	Pipe	Local	8.00	x 6.95	x	50.00 Km =	Rs 278.00	8.00	x 19.30	x 0.00 Km =	Rs 0.00	84.44			362.44		
14	Hume Pipe (600 mm)	Pipe	Local	10.00	x 6.95	x	50.00 Km =	Rs 132.38	10.00	x 19.30	x 0.00 Km =	Rs 0.00	87.03			219.41		
15	Hume Pipe (300 mm)	Pipe	Local	21.00	x 6.95	x	50.00 Km =	Rs 46.33	21.00	x 19.30	x 0.00 Km =	Rs 0.00	33.06			79.39		
16	Earth/Local Material	Cum	Local	8.00	x 6.95	x	1.00 Km =	Rs 11.58	8.00	x 16.90	x 0.00 Km =	Rs 0.00	47.77			59.35		
				4.80					4.80									
Cost of Haulage Excluding Loading & Unloading as per SQR																		

Cost of Haulage Excluding Loading & Unloading as per SOR

Type of Road	Per Ton. Km
For Surface Road	8.00
Unsurface Gravel Road	9.60
Kachha Road	19.30

* Subjected to Verification of Lead

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
1	3.3	301.5	EARTHWORK Construction of embankment with material obtained from road way cutting Construction of embankment with approved materials deposited at site and obtained from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical Specification Clause 301.5 Unit = cum Taking output = 100 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.02	255.00	5.10
		b)	Machinery	day	0.50	237.00	118.50
			Dozer D-50 for spreading @ 200 cum per hour	hour	0.50	3009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller	hour	1.25	736.00	920.00
		c)	Material				
			Water				
			Compensation for earth including Royalty	kl	12.00	40.00	480.00
		d)	Over Heads @ 10 % on (a+b+c)	cum	0.00	23.65	0.00
		e)	Contract Profit @ 10 % on (a+b+c+d)				389.31
			Rate for 100 cum = a+b+c+d				428.24
			Rate per cum = (a+b+c+d)/100=				4,710.65
			1 % LABOUR CESS	cum			47.11
			Rate per cum				0.47
2	3.14	303.1	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5 Unit = cum Taking output = 100 cum				47.58
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.04	255.00	10.20
		b)	Machinery	day	1.00	237.00	237.00
			Hydraulic excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1,775.00	2,958.33
			Tipper 5.5 cum capacity, 4 trips per hour	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage to cover loading & unloading				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	1.43	736.00	1,052.48
		c)	Material				
			Water				
			Compensation for earth taken from private land including Royalty	kl	12.00	40	480.00
		d)	Overheads @ 10% on (a+b+c)	cum	100.00	23.65	2,365.00
		e)	Contractor's profit @ 10% on (a+b+c+d)				1420.97
			Cost for 100 cum = a+b+c+d				1563.06
			Rate per cum = (a+b+c+d)/100				17,193.69
			Total Cost including 1 % LABOUR CESS	cum			171.94
							173.66

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
2A	3.14	303.1	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation)				
	New		Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5. Unit = cum Taking output = 100 cum				
		a) Labour					
		Mate		day	0.04	255.00	10.20
		Mazdoor (Unskilled)		day	1.00	237.00	237.00
		b) Machinery					
		Hydraulic excavator 0.9 cum bucket capacity @ 60 cum per hour		hour	1.67	1,775.00	2,958.33
		Tipper 5.5 cum capacity, 4 trips per hour		hour	4.50	957.00	4,306.50
		Add 10 % of the cost of carriage to cover loading & unloading					430.65
		Dozer D-50 for spreading @ 100 cum per hour		hour	0.50	3,009.00	1,504.50
		Tractor mounted grader arrangement for grading @ 100 cum per hour		hour	1.00	533.00	533.00
		c) Material					
		Compensation for earth taken from private land including royalty		cum	100.00	23.65	2,365.00
		d) Overheads @ 10% on (a+b+c)					1234.52
		e) Contractor's profit @ 10% on (a+b+c+d)					1357.97
		Cost for 100 cum = a+b+c+d					14,937.67
		Rate per cum = (a+b+c+d)/100					149.38
		Total Cost including 1 % LABOUR CESS					150.87
2B	4.4	402	Lime Stabilisation For Improving Subgrade	cum			
			Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.				
		B	By Manual Means				
			Unit-cum				
			Tacking output=150 (263t)				
		a) Labour					
		Mate		day	1.44	255.00	367.20
		Mazdoor (Skilled)		day	1.00	301.00	301.00
		Mazdoor (Unskilled)		day	35.00	237.00	8,295.00
		b) Machinery					
		Three Wheel 80-100 KN static Roller @70 cum per hour		hour	2.15	644.00	1,384.60
		Water tanker 6 kl capacity		hour	3.00	166.00	498.00
		c) Material					
		Lime		t	5.26	3207.4	16,870.92
		Water		Kl	18.00	40.00	720.00
		d) Overheads @ 10% on (a+b+c)					2,843.67
		e) Contractor's profit @ 10% on (a+b+c+d)					3,128.04
		f) Carriage cost for lime					1,811.81
		Cost for 150 cum = (a+b+c+d+e+f)		t	5.26	344.45	36,220.24
		Rate per cum = (a+b+c+d+e+f)/150					241.47
		Total Cost including 1 % LABOUR CESS					243.88

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
3	3.5	302	Excavation in Cutting in Soil by manual means with lead upto 50 m				
		(i)	Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3				
			Unit = cum				
			Taking output = 120 cum				
		a) Labour					
		Mate	day	1.80	255.00	459.00	
		Mazdoor (Unskilled)	day	45.00	237.00	10,665.00	
		b) Overheads @ 10% on (a)				1112.40	
		c) Contractor's profit @ 10% on (a+b)				1223.64	
		Cost of 120 cum = a+b+c				13,460.04	
		Rate per cum = (a+b+c)/120				112.17	
		Total Cost including 1 % LABOUR CESS	cum				113.29
4		(ii)	Excavation in Soil with Dozer with lead upto 100 m				
			Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections.				
			Unit = cum				
			Taking output = 180 cum				
		Labour					
		Mate	day	0.08	255.00	20.40	
		Mazdoor (Unskilled)	day	2.00	237.00	474.00	
		Machinery					
		Dozer D-50 @ 50 cum per hour (cutting with pushing)	hour	3.60	1079	3,884.40	
		Overheads @ 10% on (a+b)				437.88	
		Contractor's profit @ 10% on (a+b+c)				481.67	
		Cost for 180 cum = a+b+c+d				5,298.35	
		Rate per cum = (a+b+c+d)/180				29.44	
		Total Cost including 1 % LABOUR CESS	cum				29.73
5	3.5	(iii)	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m				
			Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical Specification Clause 302.3				
			Unit = cum				
			Taking output = 360 cum				
		a) Labour					
		Mate	day	0.08	255.00	20.40	
		Mazdoor (Unskilled)	day	2.00	237.00	474.00	
		b) Machinery					
		Hydraulic excavator 0.9 cum bucket capacity @ 100 cum per hour	hour	3.60	1,775.00	6,390.00	
		Tipper 5.5 cum capacity, 4 trips per hour	hour	15.00	957.00	14,355.00	
		Over Heads @ 10% on (a+b)				2123.94	
		Contract. Profit @ 10 % on (a+b+c+d)				2336.33	
		Cost for 360 cum = a+b+c				25,699.67	
		Rate per cum = (a+b+c)/360				71.39	
		Total Cost including 1 % LABOUR CESS	cum				72.10
6	3.4	301.5	Construction of Embankment with Material Obtained from Borrow Pits				
		(A)	Construction of embankment with approved material obtained from borrow pits with a lift upto 1.5 m, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a <u>lead upto 1000 m</u> as per Technical Specification Clause 301.5				
			Unit = cum				
			Taking output = 100 cum				
		a) Labour					
		Mate	day	0.04	255.00	10.20	
		Mazdoor (Unskilled)	day	1.00	237.00	237.00	
		b) Machinery					

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1775.00	2,964.25
			Tipper 5.5 cum with 10 t capacity	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage by tipper				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller @ 80 cum per hour	hour	1.25	736.00	920.00
		c)	Material				
			Water	kl	12.00	40.00	480.00
			Compensation for earth taken from private land including royalty	cum	100.00	23.65	2,365.00
		d)	Over Heads @ 10 % on (a+b+c)				1408.31
		e)	Contract Profit @ 10 % on (a+b+c+d)				1549.14
			Cost for 100 cum = a+b+c+d				17,040.55
			Rate per cum = (a+b+c+d)/100=				170.41
7	3.15		Total Cost including 1 % LABOUR CESS	cum			172.11
			Compacting original ground supporting embankment				
			Loosening ,levelling and compacting original ground supporting embankment to facilitate placement of first layer of embankment scarified to a depth of 150mm ,mixed with water at omc and compacted by rolling so as to achieve minimum dry density as given in				
			Unit = cum				
			Taking output = 600 cum				
		a)	Labour				
			Mate	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	2.00	237.00	474.00
		b)	Machinery				
			Tractor with ripper attachment	hour	6.00	533.00	3,198.00
			Three wheel 80-100 KN static roller	hour	7.50	736.00	5,520.00
			water tanker 6KL capaccity	hour	4.00	166.00	664.00
		c)	Material				
			Water	kl	24.00	40.00	960.00
		d)	Over Heads @ 10 % on (a+b+c)				1083.64
		e)	Contract Profit @ 10 % on (a+b+c+d)				1192.00
			Cost for 100 cum = a+b+c+d				13,112.04
			Rate per cum = (a+b+c+d)/600=				21.85
			Total Cost including 1 % LABOUR CESS	cum			22.07
8	4.18		Brick soling				
			Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling ,watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412				
			Unit = sqm				
			Taking output = 150 sqm				
		a)	Labour				
			Mate	day	0.52	255.00	132.60
			Mazdoor(unskilled)	day	10.00	237.00	2,370.00
			Mason 1st class	day	3.00	322.00	966.00
		b)	Machinery				
			Three wheel 80-100 KN static roller	hour	1.00	736.00	
			water tanker 6KL capaccity	hour	1.00	166.00	166.00
		c)	Material				
			Brick 1st class	No.	8,160.00	5.96	48,633.60
			Fine sand	cum	5.66	124.14	702.63
			water	kl	6.00	40.00	240.00
		d)	Over Heads @ 10 % on (a+b+c)				5321.08
		e)	Contract Profit @ 10 % on (a+b+c+d)				5853.19
			Cost for 100 cum = a+b+c+d				64,385.11
			A) Cost of Brick Soling without carriage per cum	cum			429.23
		f)	CARRIAGE				
			Brick 1st class	No.	8,160.00	0.66	5422.32
			Fine sand	cum	5.66	104.36	590.68
			Carriage cost				6013.00
			B) Carriage cost per cum				40.09
			Rate per cum =				469.32
			Total Cost including 1 % LABOUR CESS	cum			474.01
9	4.1	401	PAVEMENT CRUST LAYERS				
	(A)		Granular Sub-base with Well Graded Material (Table 400.1)				
			(By mix in place method)				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.				
		(ii)	For Grading II Material				
			Unit = cum				
			Taking output = 300 cum				
		a)	Labour				
			Mate				
			Mazdoor (Skilled)	day	0.48	255.00	122.40
			Mazdoor (Unskilled)	day	2.00	301.00	602.00
		b)	Machinery				
			Tractor mounted grader arrangement	hour	12.00	533.00	6396.00
			Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00	736.00	22080.00
			Tractor with Rotavator 25 cum per hour	hour	12.00	517.00	6204.00
			Water tanker 6 kl capacity	hour	5.00	166.00	830.00
		c)	Material				
			Well graded granular sub-base material as per Table 400.1				
			26.5 mm to 9.5 mm @ 35%	cum	134.00	590.55	79133.70
			9.5 mm to 2.36 mm @ 25%	cum	96.00	441.94	42426.24
			2.36 mm below @ 40% (Local Sand)	cum	153.00	124.14	18993.42
			Water	kl	30.00	40.00	1200.00
		d)	Over Heads @ 10 % on (a+b+c)				
		e)	Contract Profit @ 10 % on (a+b+c+d)				18035.78
			Cost of GSB without carriage				19839.35
			A) Cost of GSB without carriage per cum	cum			
		e)	CARRIAGE				727.44
			Carriage for GSB material	Cum	230.00	1359.41	312664.30
			Carriage for material below 2.36 mm	Cum	150.00	104.36	15654.00
			Carriage cost				328318.30
			B) Carriage cost per cum				1094.39
			Rate per cum =				1821.84
			Total Cost including 1 % LABOUR CESS	CUM			1,840.06
10	4.18	412	Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)				
			Laying brick soling layer after dismantling existing Brick Soling & adding 40% new Bricks with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412				
			Unit = sqm				
			Taking output = 150 sqm				
		(a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.52	255.00	132.60
			Mason 1st Class	day	10.00	237.00	2370.00
		(b)	Machinery				
			Three wheel 80-100 kN static roller	day	3.00	322.00	966.00
			Water tanker	hour	1.00	736.00	736.00
		(c)	Material				
			Brick 1st Class	hour	1.00	166.00	166.00
			Fine Sand	No.	3264.00	5.96	19453.44
			Water	cum	5.66	124.14	702.63
		(d)	Over Heads @ 10 % on (a+b+c)	kl	6.00	40.00	240.00
		(e)	Contract Profit @ 10 % on (a+b+c+d)				2476.67
		(f)	Carriage Cost				2724.33
			Brick 1st Class				
			Fine Sand	No.	3264.00	0.66	2168.93
			Cost for 150 sqm = a+b+c+d+e+f	cum	5.66	104.36	590.68
			Rate per sqm = (a+b+c+d+e+f)/150				32727.28
			Total Cost including 1 % LABOUR CESS	cum			218.18
11	6.4		Cement Concrete Pavement				220.36

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse an				
		a)	Labour				
			Mate				
			Mason (1st class)	day	7.00	255.00	1785.00
			Mason (2nd class)	day	5.00	322.00	1610.00
			Mazdoor (Unskilled)	day	5.00	288.00	1440.00
			Mazdoor (Skilled)	day	129.00	237.00	30573.00
			Surveyor	day	6.00	301.00	1806.00
			Mazdoor (Semi-Skilled)	day	2.00	291.00	582.00
			Bhisti	day	6.00	247.00	1482.00
		b)	Machinery	day	14.00	237.00	3318.00
			Concrete mixer 0.28 / 0.4 cum capacity (6 mixers) with weigh batcher and suitable capacity calibrated water tank	hour	36.00	80.00	2880.00
			Needle vibrator				
			Screed vibrator	hour	9.00	76.35	687.15
			Plate vibrator	hour	9.00	102.64	923.76
			Concrete joint cutting machine for initial & final cuts	hour	9.00	423.00	3807.00
			Water tanker 6 kl capacity	hour	4.00	317.00	1268.00
			Air Compressor (1 hour initial + 1 hour final)	hour	5.00	166.00	830.00
		c)	Material	hour	2.00	437.00	874.00
		(i)	Crushed stone coarse aggregates, grading will be as per Clause 1501.2.4.1 (Table 1500.1) of specifications @ 0.90 cum/cum of concrete	cum	67.50		38207.70
		(ii)	Sand as per IS:383 and conforming to Clause 1500.2.4.2 @ 0.45 cum/cum of concrete	cum	33.75	566.04	
		(iii)	Cement @ 310 kg/cum of concrete			146.32	4938.30
		(iv)	Polythene sheet 125 micron	t	23.25	5,985.12	139154.04
			Bitumen primer @ 200 ml per joint for 23 joints	sqm	412.50	16.30	6723.75
			Bituminous sealant 800 ml per joint for 23 joints	t	0.005	41,810.1	209.05
			Jute rope 12 mm dia including 5 per cent wastage	litre	19.00	26.08	495.52
			Plasticizer 0.5 per cent by weight of cement	m	90.00	46.59	4193.10
			Curing compound (if used) @ 0.33 litre per sqm	litre	122.00	164.34	20049.48
			Water for curing	litre	131.25	130.43	17118.94
			Joint filler board 20 mm thick as per IS:1838	kl	18.00	40.00	720.00
			Formwork @ 3% of (a+b+c)	sqm	3.00	687.5	2062.50
		(d)	Over Heads @ 10 % on (a+b+c)				8,632.15
		(e)	Contract Profit @ 10 % on (a+b+c+d)				29637.04
			Cost for 75 cum = a+b+c+d+e				32600.75
			Rate per cum = (a+b+c+d+e)/75				3,58,608.23
			Cost of CC Pavement without carriage per cum (a+b+c+d)/75	cum			4,781.44
			Cost of Carriageway				
			Crushed stone coarse aggregates				
			Sand	cum	0.90	1359.41	1223.47
			Cement	cum	0.45	1330.34	598.65
				t	0.31	359.04	111.30
			Total Cost including 1 % LABOUR CESS	cum			6,714.87
12	11.5	600 & 1200	Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203				6,782.02
			Unit = cum				
		a)	Brick masonry in 1:3 cement mortar				
			Material				
			Brick	Nos	500.00	5.96	2980.00
			Cement mortar 1:3 (Rate as per Sub-analysis)	cum	0.24	5,021.03	1205.05
		b)	Labour				
			Mate				
			Mason (1st Class)	day	0.09	255.00	22.95
			Mazdoor (Unskilled)	day	0.80	322.00	257.60
			Bhisti	day	1.60	237.00	379.20
		c)	Over Heads @ 10 % on (a+b+c)	day	0.20	237.00	47.40
		d)	Contract Profit @ 10 % on (a+b+c+d)				489.22
			Rate per cum = a+b+c+d				538.14
							5,919.56

Analysis of Rates (FORMAT F8)

Sl. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Total Cost including 1 % LABOUR CESS				
			Sub-analysis				6,511.52
			Cement mortar 1:3 (1 cement : 3 sand)				
			Unit = cum				
	a)		Material				
			Cement	t	0.51	5,985.12	3052.41
			Sand	t	1.05	146.32	153.64
	b)		Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.04	255.00	10.20
			Bhisti	day	0.90	237.00	213.30
	(f)		Carriage Cost	day	0.08	237.00	18.96
			Cement				
			Sand	t	0.51	344.45	175.67
			Total material and labour = (a+b)	cum	1.05	1,330.34	1396.86
	ii		Brick masonry in 1:4 cement mortar				5,021.03
			Unit = cum				
	a)		Material				
			Brick	Nos	500.00	5.96	2980.00
			Cement mortar 1:4	cum	0.24	4,198.19	1007.57
			Rates as per sub-analysis				
	b)		Labour				
			Mate				
			Mason (1st Class)	day	0.09	255.00	22.95
			Mazdoor (Unskilled)	day	0.80	322.00	257.60
			Bhisti	day	1.60	237.00	379.20
	c		Over Heads @ 10 % on (a+b+c)	day	0.20	237.00	47.40
	d		Contract Profit @ 10 % on (a+b+c+d)				469.47
			Rate per cum = a+b+c+d				516.42
			Total Cost including 1 % LABOUR CESS				5,680.61
			Sub-analysis				6,248.67
			Cement mortar 1:4 (1 cement : 4 sand)				
			Unit = cum				
	a)		Material				
			Cement	t	0.38	5,985.12	2274.35
			Sand	t	1.05	146.32	153.64
	b)		Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.04	255.00	10.20
			Bhisti	day	0.90	237.00	213.30
	(f)		Carriage Cost	day	0.08	237.00	18.96
			Cement				
			Sand	t	0.38	344.45	130.89
			Total material and labour = (a+b)	cum	1.05	1,330.34	1396.86
13	11.4		Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				4,198.19
IV.			R.C.C grade M 20				
			Unit = cum				
	a)		Material				
			Cement	t	0.35	5,985.12	2094.79
			Coarse sand	cum	0.45	146.32	65.84
			20 mm aggregate	cum	0.54	590.55	318.90
			10 mm aggregate	cum	0.36	658.89	237.20
	b)		Labour				
			Mate				
			Mason (1st Class)	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	0.12	322.00	38.64
			Bhisti	day	1.73	237.00	410.01
	c)		Machinery	day	0.27	237.00	63.99
			Concrete mixer 0.4/0.28 cum capacity	hour	0.40	80.00	32.00
	d)		Formwork @ 4% on (a+b+c)				131.27
	e)		Over Heads @ 10 % on (a+b+c)				341.30
	f)		Contract Profit @ 10 % on (a+b+c+d)				375.43
			Total Cost including 1 % LABOUR CESS				4129.78
	(f)		Carriage Cost				
			Cement	t	0.35	344.45	120.56

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Coarse sand				
			20 mm aggregate	cum	0.45	1,330.34	598.65
			10 mm aggregate	cum	0.54	1,359.41	734.08
			Rate per cum = (a+b+c+d+e+f)	cum	0.36	1,359.41	489.39
			Total Cost including 1% LABOUR CESS				6072.46
14	11.4	800 & 1200	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				6,679.71
		I	P.C.C grade M 10				
		(i)	Nominal mix 1:3:6				
			Unit = cum				
		a)	Material				
			Cement				
			Coarse sand	t	0.25	5,985.12	1496.28
			40 mm aggregate	cum	0.48	146.32	70.23
			20 mm aggregate	cum	0.58	472.09	271.92
			10 mm aggregate	cum	0.29	590.55	170.08
		b)	Labour	cum	0.10	658.89	63.25
			Mate				
			Mason (1st Class)	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	0.10	322.00	32.20
			Bhisti	day	1.63	237.00	386.31
		c)	Machinery	day	0.27	237.00	63.99
			Mechanical concrete mixer 0.4/0.28 cum capacity fitted with water measuring device and preferably also with load cell.	hour	0.40		
		d)	Formwork @ 4% on cost of material, labour and machinery (a+b+c)			80.00	32.00
		e)	Over Heads @ 10% on (a+b+c)				104.27
		f)	Contract Profit @ 10% on (a+b+c+d)				271.09
			Rate per cum = a+b+c+d+e+f				298.20
		(g)	Carriage Cost				3280.23
			Cement				
			Coarse sand	t	0.25	344.45	86.11
			40 mm aggregate	cum	0.48	1330.34	638.56
			20 mm aggregate	cum	0.58	1359.41	783.02
			10 mm aggregate	cum	0.29	1359.41	391.51
			Rate per cum = a+b+c+d+e+f+g	cum	0.10	1359.41	130.50
			Total Cost including 1% LABOUR CESS				5309.94
15	11.2	300 & 1200	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9				5,840.94
		New	Borrowed Earth				
			Unit = cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.01	255.00	2.55
		b)	Material	day	0.30	237.00	71.10
			Borrowed Earth (assuming 20 per cent voids)	cum	1.20	23.65	28.38
		c)	Over Heads @ 10% on (a+b)				
		d)	Contract Profit @ 10% on (a+b+c)				10.20
			Carriage Cost				11.22
			Borrowed Earth (assuming 20 per cent voids)	cum	1.20	59.35	71.22
			Rate per cum = a+b+c	cum			194.68
			Rate per cum (WITH 1% LABOUR CESS)	cum			196.62
		1200	Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well.				
			Assuming depth of water 1.0 m and height of island to be 1.25 m including Royalty for earth @ Rs. 3768.00 for each Island.				
			Unit = 1 No				
			Taking output = 1 No.				
		a)	Material				
			Earth (compacted)	cum	251.20	23.65	5940.88
			Sand bags	each	750.00	7.09	5317.50
		b)	Labour				
			Mate				
			Mazdoor for filling sand bags, stitching and placing	day	0.40	255.00	102.00
		c)	Machinery	day	15.00	237.00	3555.00

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Crane with grab 1 cum capacity	hour	20.00	1149.39	22987.80
			Consumables @ 2.5 per cent of (c) above				574.70
			d) Overhead charges @ 0.2 on (a+b+c)				7695.58
			e) Contractor's profit @ 0.1 on (a+b+c+d)				4617.35
			Rate per No. (a+b+c+d+e)				50790.80
			Rate per cum (WITH 1 % LABOUR CESS)	cum			51298.70
		Note	It is assumed that earth will be available within the working space of crane with grab bucket			say	51299.00
	C		Providing and constructing one span service road to reach island location from one pier location to another pier location including Royalty for earth per m for service Road.				
			Assuming span length 30 m, width of service road 10m and depth of water 1m				
			Unit = 1 meter				
			Taking output = 30 metre				
		a) Material					
		Earth					
		Sand bags	cum	450.00	23.65		10642.50
		b) Labour	each	300.00	7.09		2127.00
		Mate					
		Mazdoor for filling sand bags, stitching and placing	day	0.24	255.00		61.20
		c) Machinery	day	6.00	237.00		1422.00
		Front end Loader 1 cum capacity	hour	27.00	1134.00		30618.00
		Tipper 5.5 cum capacity	hour	28.00	837.00		23436.00
		d) Overhead charges @ 0.2 on (a+b+c)					13661.34
		e) Contractor's profit @ 0.1 on (a+b+c+d)					8196.80
		Cost for 30 m (a+b+c+d+e)					90164.84
		Rate per m (a+b+c+d+e)/30					3005.49
			Rate (WITH 1 % LABOUR CESS)	cum			3035.55
						say	3036.00
14	11.4	PCC grade M15					
	(i)	Nominal mix (1:2.5:5)					
		Unit = cum					
	a)	Material					
		Cement	t	0.28	5,985.12		1645.91
		Coarse sand	cum	0.48	146.32		70.23
		40 mm aggregate	cum	0.48	472.09		226.60
		20 mm aggregate	cum	0.24	590.55		141.73
		10 mm aggregate	cum	0.08	658.89		52.71
	b)	Labour					
		Mate					
		Mason (1st Class)	day	0.08	255.00		20.40
		Mazdoor (Unskilled)	day	0.10	322.00		32.20
		Bhisti	day	1.63	237.00		386.31
			day	0.27	237.00		63.99
	c)	Machinery					
		Concrete mixer 0.4/0.28 cum capacity	hour	0.40	80.00		32.00
	d)	Formwork @ 4% on cost of material, labour and machinery (a+b+c)					106.88
	e)	Over Heads @ 10 % on (a+b+c)					277.90
	f)	Contract Profit @ 10 % on (a+b+c+d)					305.69
		Rate per cum = a+b+c+d+e+f					3362.56
	(g)	Carriage Cost					
		Cement	t	0.275	344.450		94.72
		Coarse sand	cum	0.480	1,330.340		638.56
		40 mm aggregate	cum	0.480	1,359.410		652.52
		20 mm aggregate	cum	0.240	1,359.410		326.26
		10 mm aggregate	cum	0.080	1,359.410		108.75
		Rate per cum = a+b+c+d+e+f+g					5183.37
		Total Cost including 1 % LABOUR CESS					5,701.71
15	11.8	1000&1200					
		Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000and1202					
		unit=T					
	a)	Material					
		TMT bars including 5%for overlaps and wastage	t	1.05	4788.00		44990.40
		binding wires	kg	6	57.77		346.62

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		b	Labour for cutting, bending, shifting to site, tying and placing in position				
			Mate	day	0.4	255.00	102.00
			Blacksmith	day	2	288.00	576.00
			Mazdoor (Unskilled)	day	6	237.00	1422.00
		c	Over Heads @ 10 % on (a+b+c)				4743.70
		d	Contract Profit @ 10 % on (a+b+c+d)				5218.07
		(g)	Carriage Cost				
			TMT bars including 5% for overlaps and wastage	t	1.05	359.04	376.99
			Rate per cum = a+b+c+d				57775.79
			Total Cost including 1 % LABOUR CESS				63553.36
16	9.2	1100 & 800	Type B (First Class) Bedding				
	(II)		Laying (First Class) bedding on well compacted sand, moorum or approved granular material as per Clause 1105 (ii)				
			Filling in foundation trenches as per drawing and technical specifications Clause 305.3.9				
		I.	Sand filling				
			Unit = cum				
		a)	Labour				
			Mate	day	0.01	255.00	2.55
			Mazdoor (Unskilled)	day	0.30	237.00	71.10
		b)	Material				
			Sand (assuming 20 per cent voids)	cum	1.20	146.32	175.58
		c	Over Heads @ 10 % on (a+b+c)				24.92
		d	Contract Profit @ 10 % on (a+b+c+d)				27.42
			Cost of Type B (First Class) Bedding without carriage				301.57
			Cost of Type B (First Class) Bedding without carriage per m (a+b+c)/1	cum			301.57
			Cost of Carriageway				
			Sand	cum	1.20	1330.34	1596.41
			Total Cost including 1 % LABOUR CESS				2,087.78
17	9.3	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row				
		(I)	Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1100.				
		A.	600 MM DIA				
			Unit = m				
			Taking output = 7.5 m				
			(3 pipes of 2.5 m length each)				
		a)	Material				
			Sand	cum	0.019	146.32	2.78
			Cement	t	0.014	5,985.12	83.79
			RCC pipe NP 3 pipe including collar	m	7.50	899.18	6743.85
		b)	Labour				
			Mate	day	0.04	255.00	10.2
			Mason (1st Class)	day	0.12	322.00	38.64
			Mazdoor (Unskilled)	day	0.96	237.00	227.52
		c)	Over Heads @ 10 % on (a+b)				710.68
		d)	Contract Profit @ 10 % on (a+b+c)				781.75
			Cost of RCC Pipe NP3 without carriage				8599.21
			Cost of RCC Pipe NP3 without carriage per m (a+b+c)/7.5	m			1146.56
			Cost of Carriageway				
			Sand	cum	0.0025	1330.34	3.37
			Cement	t	0.0019	344.45	0.64
			RCC pipe NP 3 pipe including collar	m	1.00	219.41	219.41
			Total Cost including 1 % LABOUR CESS				1,506.98
16	11.1	300	Excavation for Structures				
			Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side				
		I.	Ordinary soil				
		(i)	Upto 3 m depth				
			Unit = cum				
			Taking output = 10 cum				
		a)	Labour				
			Mate	day	0.32	255.00	81.6
			Mazdoor (Unskilled)	day	8.00	237.00	1896
		b	Over Heads @ 10 % on (a)				197.76

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		c	Contract Profit @ 10 % on (a+b)				
			Cost for 10 cum = a+b+c				217.54
			Rate per cum (a+b)/10=	cum			2392.90
			Total Cost including 1 % LABOUR CESS				239.29
11.2			Sand filling (Unit = cum)				241.68
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.01	255.00	2.55
		b)	Material	day	0.30	237.00	71.1
			Sand (assuming 20 per cent voids)				
		d	Over Heads @ 10 % on (a+b+c)	cum	1.20	124.14	148.968
		e	Contract Profit @ 10 % on (a+b+c+d)				22.26
			Cost of Filling in foundation trenches without carriage				24.49
		A)	Cost of Filling in foundation trenches without carriage per cum (a+b+c)/1				269.37
			Cost of Carriageway	cum			269.37
			Sand				
			Cost for cum = a+b+c+d+e	cum	1.2000	104.36	125.23
			Rate per cum = (a+b+c+d+e)				394.60
			Total Cost including 1 % LABOUR CESS				394.60
17	3.15	303	Compacting original ground supporting subgrade				398.55
	(II)		Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.				
			Unit = cum				
			Taking output = 600 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.24	255.00	61.2
		b)	Machinery	day	6.00	237.00	1422
			Tractor with ripper attachment				
			Tractor mounted grader arrangement for grading	hour	10.00	533.00	5330
			Water tanker 6 kl capacity	hour	12.00	533.00	6396
			Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	4.00	166.00	664
		c)	Material	hour	8.60	736.00	6329.6
			Water				
		d	Over Heads @ 10 % on (a+b+c)	kl	24.00	40.00	960
		e	Contract Profit @ 10 % on (a+b+c+d)				2116.28
			Cost for 600 cum = a+b+c+d+e				2327.91
			Rate per cum = (a+b+c+d+e)/600				25606.988
			Total Cost including 1 % LABOUR CESS				42.68
18			Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504				43.11
			Unit = sqm				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.90	255.00	229.5
			Mason (2nd class)	day	15.00	237.00	3555
		b)	Machinery	day	7.00	288.00	2016
			Water tanker 6 kl capacity				
		c)	Material	hour	2.00	166.00	332
			(i) Providing inter- locking blocks				
			(ii) Edge blocks	sqm	225.00	484.95	109113.75
			(iii) Sand as per tabel 1500.5	m	120.00	484.95	58194
			(iv) Water	cum	5.42	124.14	672.84
		d)	Overheads @ 10% on (a+b+c)	kl	3.00	40	120
		e)	Contractor's profit@10% on (a+b+c+d)				17423.31
			Cost for 225 sqm = a+b+c+d+e				19165.64
			Cost of Carriageway				
			Sand				
			(i) Providing inter-locking blocks +(ii) Edge blocks	cum	5.42	104.36	565.63
			Rate per sqm =(a+b+c+d+e)/225	No.	7,200.00	0.65	4715.28
			Total Cost including 1 % LABOUR CESS				960.46
19	12.9		Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications				970.06

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Unit = Nos. Taking output = 30 Nos.				
		a)	Material				
			AC pipe 100 mm dia. (including wastage @ 5 per cent)	m	31.50	46.25	1456.88
			MS clamp	No.	30.00	33.36	1000.80
			Cement mortar 1:3 (Rate as in Item 12.6)	cum	0.05	5021.03	251.05
		b)	Labour				
			Mate	day	0.03	255.00	7.65
			Mason	day	0.50	288.00	144.00
			Mazdoor	day	0.25	237.00	59.25
		c)	Overheads @ 10% on (a+b+c)				
		d)	Contractor's profit@10% on (a+b+c+d)				291.96
			Cost for 30 m = a+b+c+d				321.16
			Rate per m (a+b+c+d)/30				3532.75
			Total Cost including 1 % LABOUR CESS				117.76
20	12.2		Plastering with Cement punning with cement mortar (1:4) on brickwork as per drawing and technical specification clauses 613.3 and 1204				118.94
			Unit = 10 sqm Taking output = 10 sqm				
		a)	Material				
			Cement mortar 1:4	cum	0.240	4,198.19	1007.57
		b)	Labour				
			Mate	day	0.06	255.00	15.30
			Mason	day	0.60	288.00	172.80
			Mazdoor	day	0.60	237.00	142.20
			Bhisti	day	0.30	237.00	71.10
		c)	Overheads @ 10% on (a+b+c)				
		d)	Contractor's profit@10% on (a+b+c+d)				140.90
			Rate per 10 sqm (a+b+c+d)				154.99
			Total Cost including 1 % LABOUR CESS				1704.85
21	2.6	d)	Dismantling Brick/Tile Work				172.19
			Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.				
			Unit = cum Taking output = 1.25				
		(D)	Dry brick pitching or brick soiling				
		a)	Labour				
			Mate	day	0.02	255.00	5.10
			Mazdoor (Unskilled)	day	0.50	237.00	118.50
		b)	Machinery				
			Tractor with trolley	hour	0.27	533.00	143.91
		d)	Overheads @ 10% on (a+b+c)				
		e)	Contractor's profit@10% on (a+b+c+d)				26.75
			Cost for 1.25 cum = a+b+c+d				29.43
			Rate per cum = (a+b+c+d)/1.25				323.69
			Total Cost including 1 % LABOUR CESS				258.95
22	New Item		Providing and laying brick bats in Soak pit as per direction of Engineer in charge				261.54
			Unit= cum Taking Output = 1				
		a)	Mate	day	0.01	255.00	2.55
			Mazdoor (Unskilled)	day	0.2	237.00	47.4
		b)	Brick bats	cum	1	1208.48	1208.48
		c)	Overheads @ 10% on (a+b)				125.843
		d)	Contractor's profit@10% on (a+b+c)				138.4273
			Cost for 1 cum = a+b+c+d				1522.7003
			Total Cost including 1 % LABOUR CESS				1537.93

CBR VALUE OF REGIONS IN BIHAR

ZONING OF THE AREAS BASED ON TYPE OF SOIL

Sl.No	DISTRICT	DIVISION	BLOCK	TYPE OF SOIL	Av APPROX CBR
1	ARARIA	ARARIA	ALL BLOCK	FINE SAND	4
2		FORBESGANJ	ALL BLOCK	FINE SAND	4
3	ARWAL	ARWAL	ALL BLOCK	BLACK COTTON SOIL	3
4	AURANGABAD	AURANGABAD	ALL BLOCK	BLACK COTTON SOIL	3
		DAUDNAGAR	ALL BLOCK	SANDY CLAY	4
5	BANKA	BANKA-1	AMARPUR, SHAMBHUGANJ	BLACK COTTON SOIL	3.5-4
			BANKA, BELHAR, PHULLIDUMER	FINE SAND	4
		BANKA-2	BARAHAT, BOUNSI, CHAANDAN, KATORIA, RAJAUN	FINE SAND	4
			DHORAIYA	BLACK COTTON SOIL	3-3.5
6	BEGUSARAI	BALIA	ALL BLOCK	SANDY CLAY	4
		BEGUSARAI	ALL BLOCK	SANDY	4
		MANJHAUL BAKHARI	ALL BLOCK	SANDY	4
		TEGHRA	BACHHWARA, BHAGWANPUR, TEGHRA	BLACK COTTON-40% & SANDY 60%	3 TO 4
7	BHAGALPUR	BHAGALPUR	ALL BLOCK	BLACK COTTON	3
		KAHALGAON	ALL BLOCK	BLACK COTTON	4
		NAVGAHHIYA	ALL BLOCK	BLACK COTTON	4
					4
8	BHOJPUR	ARA	AGIAON, ARA, UDWANT NAGAR	BLACK COTTON	3
			B ARHARA	BLACK COTTON, 30 % SAND	3 TO 4
			KOILWAR	SANDY	4

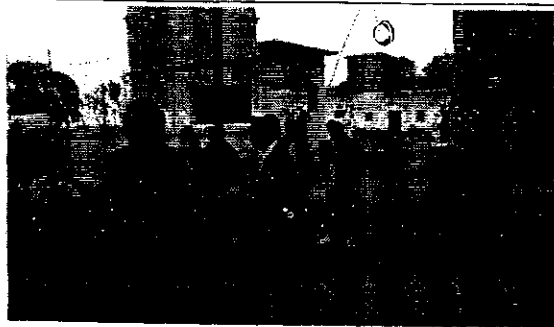
		JAGDISHPUR	ALL BLOCK	SANDY CLAY	4
		PIRO	ALL BLOCK	SILTY CLAY	4
9	BUXAR	BUXAR	BUXAT, CHAUSA, SIMRI	SANDY	4--5
			ITARHI, RAJPUR	BLACK COTTON	3-4
		DUMRAON	BARHAMPUR, CHAUNGA I, DUMRAON, KESATH, NAWANGAR	SANDY CLAY	4--5
			CHAKKI	SANDY	4--5
10	DARBHANGA	BENIPUR	ALL BLOCK	SANDY CLAY	4--5
		BIRAWL	ALL BLOCK	SANDY CLAY	4--5
11	GAYA	GAYA	FATEHPUR	MOORAM	6
			WAZIRGANJ	MOORAM	6
		IMAMGANJ	IMAMGANJ	MOORAM	6
		SHERGHATI	SHERGHATI	MOORAM	6
12	GOPALGANJ	GOPALGANJ-1	ALL BLOCK	SANDY CLAY	4--5
		GOPALGANJ-2	ALL BLOCK	SANDY CLAY	4--5
		HATHUA	ALL BLOCK	SANDY CLAY	4--5
13	JAMUI	JAMUI	JAMUI, KHAIRA, LAKSHMIPUR	MOORAM	6
		JHAJHA	CHAKAI	MOORAM	6
14	KAIMUR (BHABUA)	BHABUA	ADHAURA	ROCKY	100
			BHABUA, BHAGWANPUR	50 % CLAY, 50 % SANDY	3--4
			CHAINPUR, CHAND, RAMPUR	SANDY CLAY	4--5
15	KATIHAR	KATIHAR	FALKA	FINE SAND	4
16	KISHANGANJ	KISHANGANJ-1	ALL BLOCK	FINE SAND	4
		KISHANGANJ-2	ALL BLOCK	FINE SAND	4
17	MADHEPURA	MADHEPURA	ALL BLOCK	FINE SAND	4

		BAKISUNGAN J	ALL BLOCK	FINE SAND	4
18	MADHUBANI	JHANJHARPUR	MADHEPUR	FINE SAND	4
19	MUZZAFARPU R	MUZZAFARPU R EAST-1	ALL BLOCK	SANDY	4
		MUZZAFARPU R EAST-2	ALL BLOCK	SANDY	4
		MUZZAFARPU R WEST	ALL BLOCK	SANDY	4
20	NALANDA	HARNAUT	THARTHARI	BLACK COTTON	3-3.5
		HILSA	EKANGARSARAI,KARAI PARSURI	BLACK COTTON	3-3.5
		RAJGIR	RAJGIR	MOORAM	6
21	NAWADA	RAJAULI	MESKOR,RAJAULI,SIRD ALA	MOORAM	6
		BAGHA-1	ALL BLOCK	FINE SAND	6
22	PASCHIM CHAMPARAN	BETIA	BAIRIA,BETTIAH,JOGAP ATTI,MAJHULIA	SANDY CLAY	3-4
			NAUTAN	50% CLAY 50% SAND	5
23	PATNA	BADH	ALL BLOCK	BLACK COTTON SOIL	3-3.5
		DANAPUR	ALL BLOCK	BLACK COTTON SOIL	3-3.5
		MASAUHRI	ALL BLOCK	BLACK COTTON SOIL	3-3.5
		PALIGANJ	ALL BLOCK	BLACK COTTON SOIL	3-3.5
		PATNA	ALL BLOCK	BLACK COTTON SOIL	3-3.5
24	ROHTAS	DIHARI	AKORHI GOLA	CLAY	4
			DEHRI	SANDY CLAY	4-5
			NAUHATTA	MOORAM	6
			ROHTAS	SANDY+GRAVEL	6
			TILAUTHU	50% CLAY 50% SAND	3-4
		SASARAM-1	CHENARI	60% BLACK COTTON 40% CLAY	3-4
			KARGHAR,KOCHAS,SHE OSAGAR	BLACK COTTON SOIL	3-3.5
			SASARAM	BLACK COTTON SOIL AND CLAY	3-3.5

		SASARAM-2	KARAKAT, NASRIGANJ	SAND + CLAY	
			NOKHA BLOCK	60 % BLACK COTTON 40 % CLAY	3-4
25	SAHARSA	SAHARSA	ALL BLOCK	FINE SAND	4
		SIMRI BAKHTIYARPU	ALL BLOCK	FINE SAND	4
26	SAMASTIPUR	DALSINGHSARAY	BIBHUTIPUR	25% BLACK COTTON AND 75% SANDY CLAY	3-4
			DAKSINGHSARAY, MORWA, SARAI, ANJAN, UJIA	SANDY CLAY	4-5
		PATORI	ALL BLOCK	SANDY CLAY	4-5
		ROSRA	ALL BLOCK	SANDY CLAY	4-5
		SAMASTIPUR	ALL BLOCK	SANDY CLAY	4-5
27	SARAN	CHAPRA-1	ALL BLOCK	SANDY CLAY	4-5
28	SHEIKHPURA	SHEKHPURA	SHEIKHPURA	SANDY CLAY	4-5
29	SITAMARHI	SITAMARHI	BATHNAHA, DUMRA, MAJORGANJ, PARIHAR, SONBARSA	SANDY CLAY	4-5
30	SUPAUL	SUPAUL	ALL BLOCK	FINE SAND	4
		TRIVEINGANJ	ALL BLOCK	FINE SAND	4
		VIRPUR	ALL BLOCK	FINE SAND	4
31	VAISHALI	MAHUA	ALL BLOCK	SANDY CLAY	4

PHOTOGRAPHS

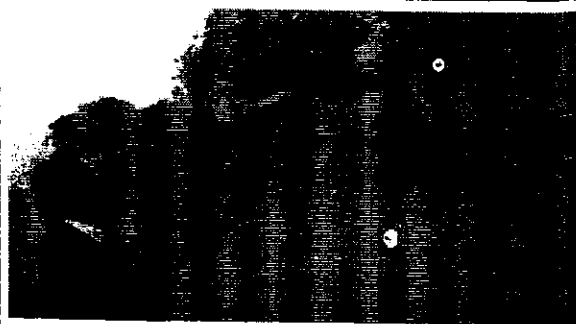
District- Rohtas
PANCHYAT -Akhodi



Picture 1



Picture 2



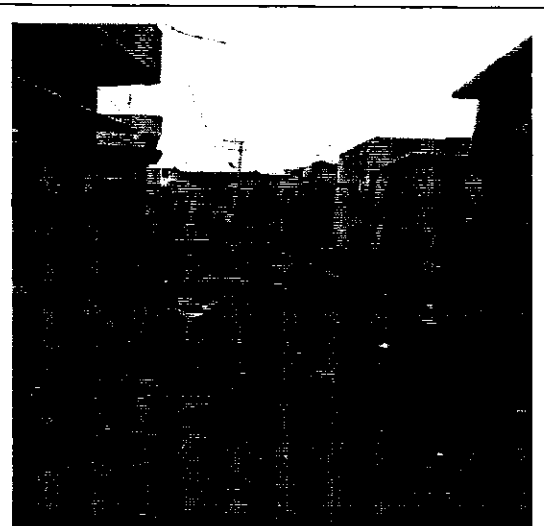
Picture 3



Picture 4

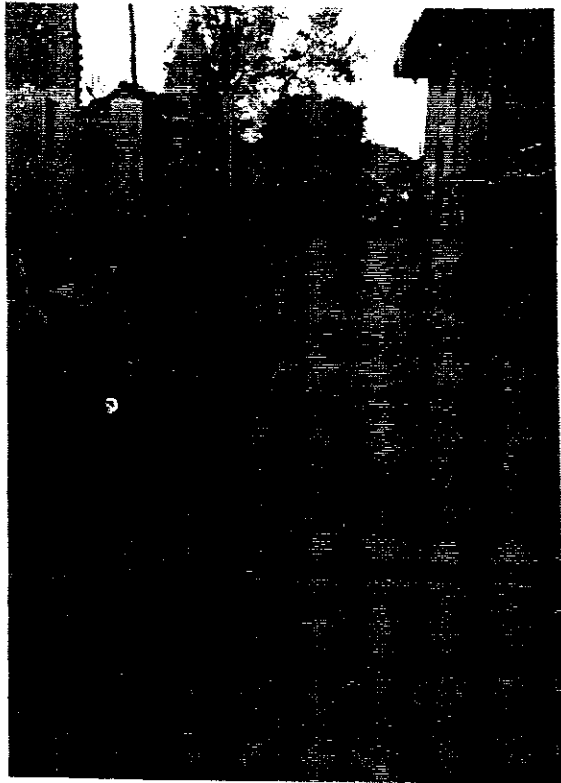


Picture 5



Picture 6

District- Rohtas
Baghak Nok Village



Picture 1



Picture 2



Picture 3

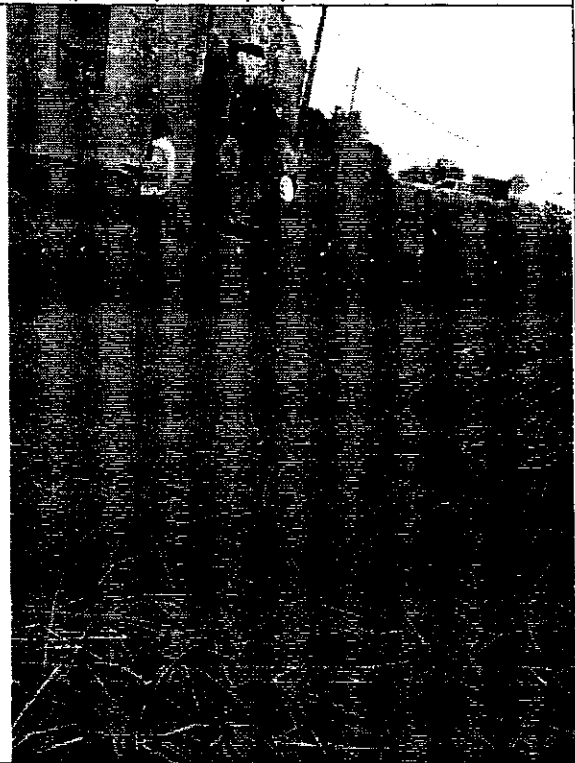
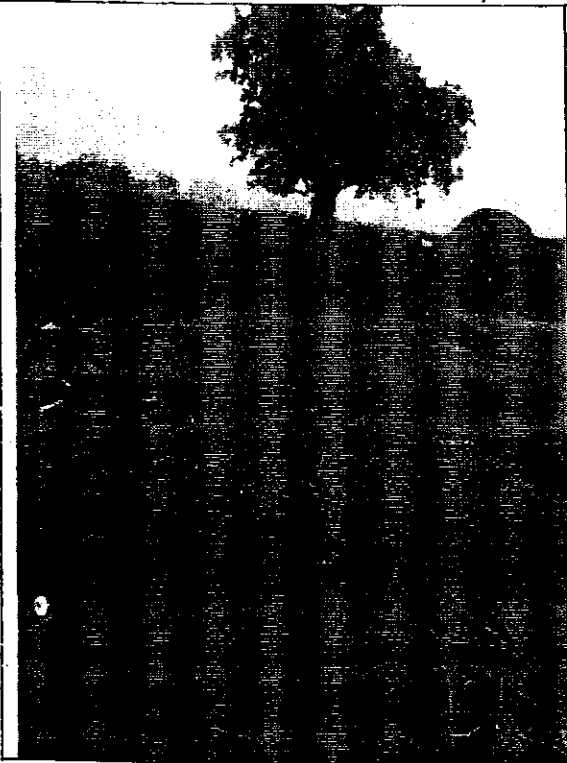


Picture 4

District- Bhojpur

Division- Piro

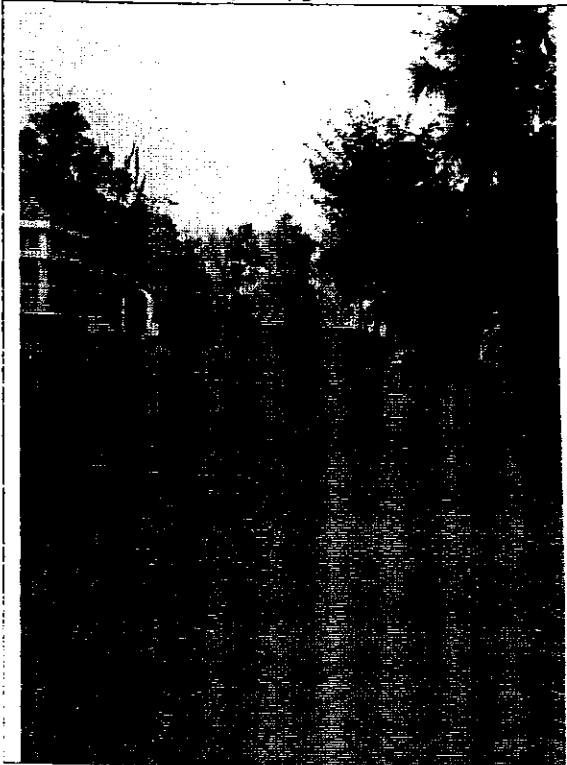
Name of Road- PMGSY Harinath tol to amayee Ahari tola (panchayat-Amayee)



District- Bhojpur

Division- Piro

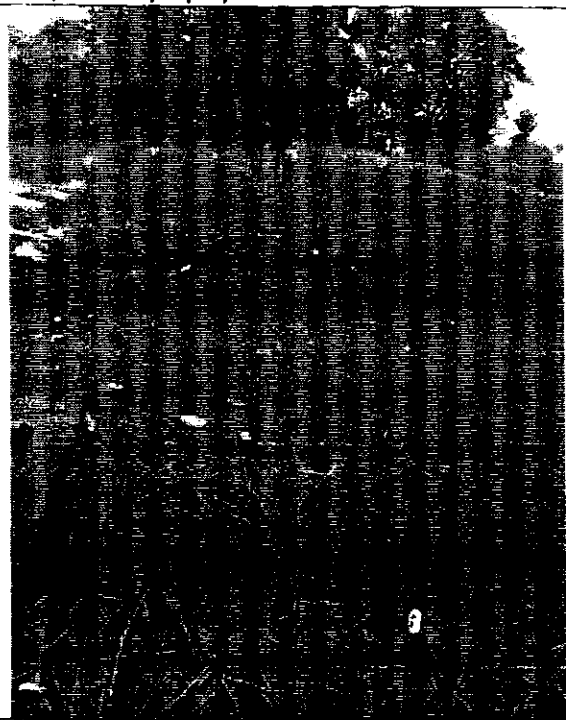
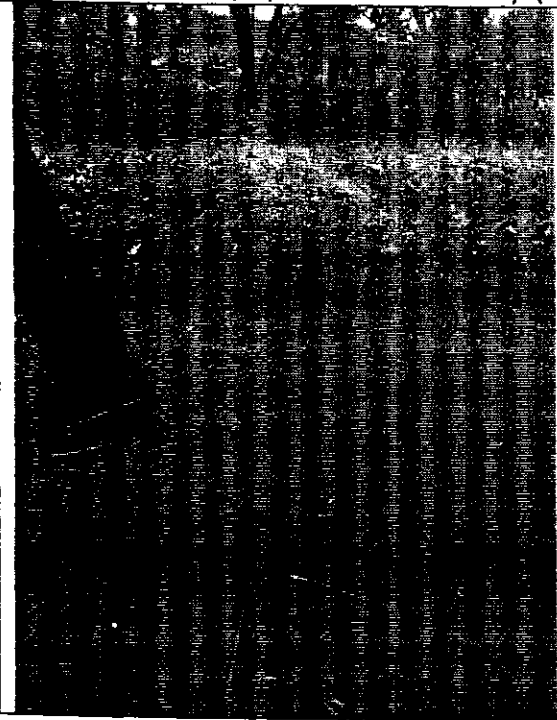
Name of Road- Amayee upgraded middle school to bandhan tola(panchayat-Amayee)



District- Bhojpur

Division- Piro

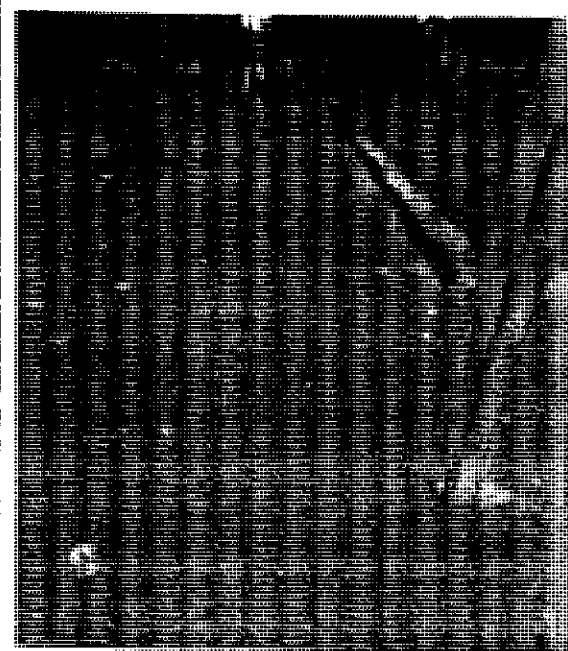
Name of Road- Narayanpur PCC road to mathiya(Panchayat- Narayanpur)



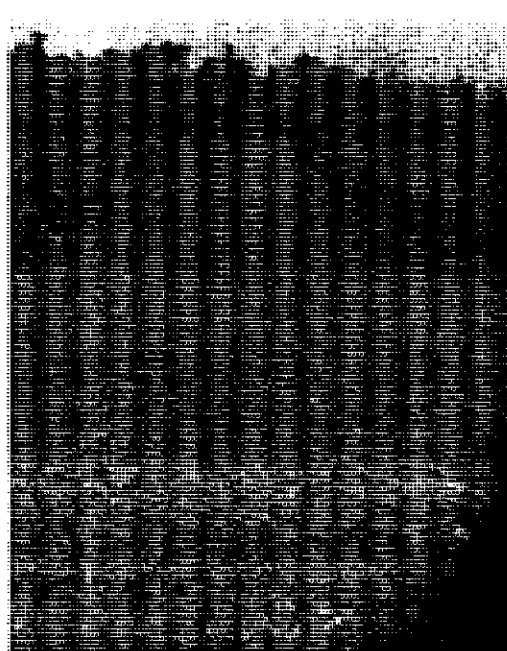
District- Bhojpur

Division- Piro

Narayanpur masjeed to Sridhar pandit
tola(Panchayat Narayanpur)



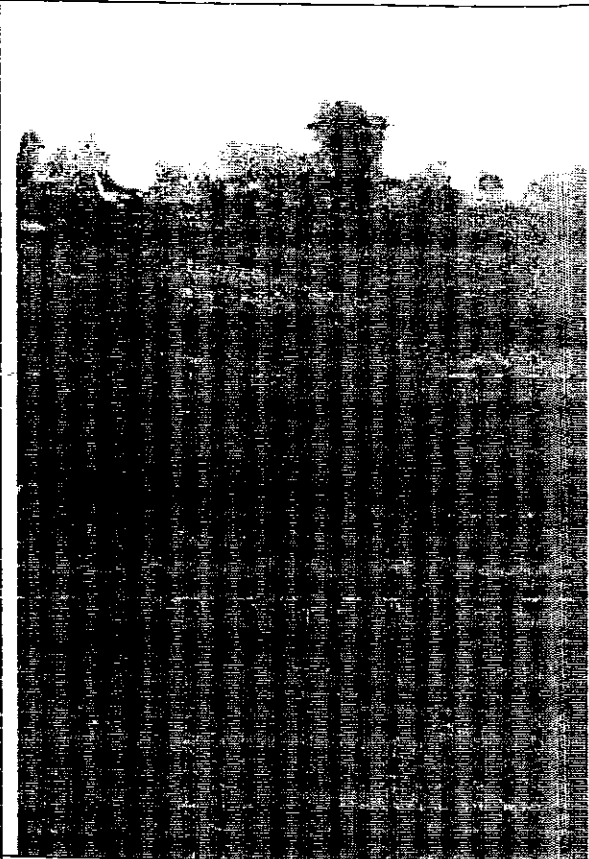
Narayanpur PCC road-Mathiya road to
khorabar(Panchayat Narayanpur)



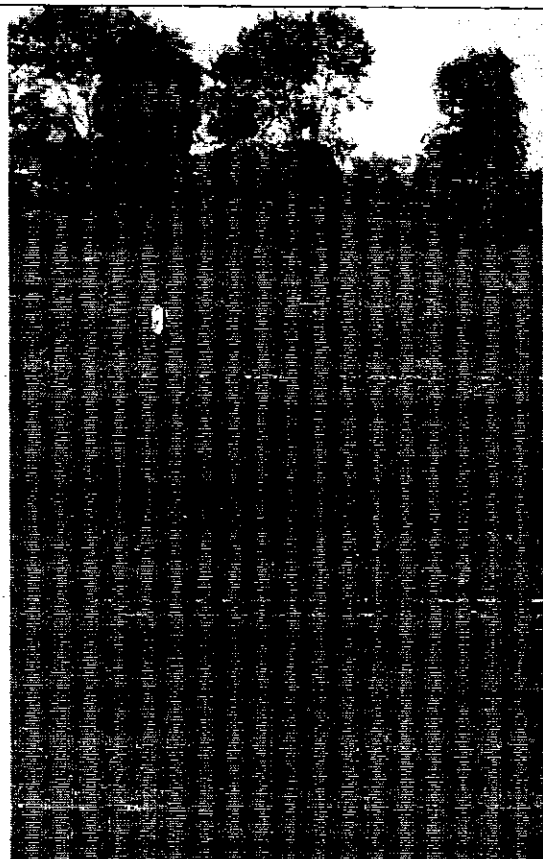


District- Bhojpur Division- Piro Name of Road- Piro Qwath PWD road to Ganeshi t ola(panchayat Amehta)	
MMGSY Garhath Road(house of Shiv dayal singh) To house of Ayodhaya singh (panchayat katya)	MMGSY Garhath Road(house of alok singh) To house of vijay singh(panchayat katya)

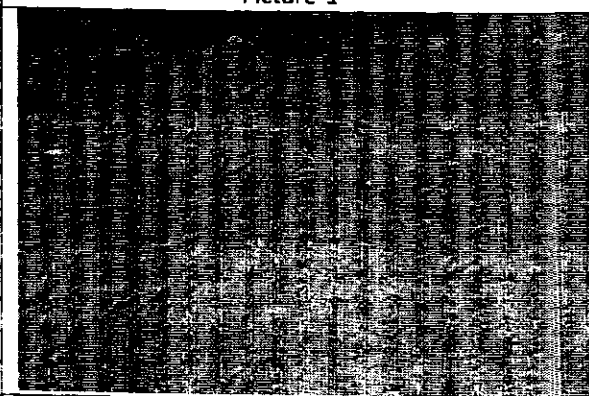
District- Kaimur(Bhabhua)
Division- Kaimur
Block- Adhaura



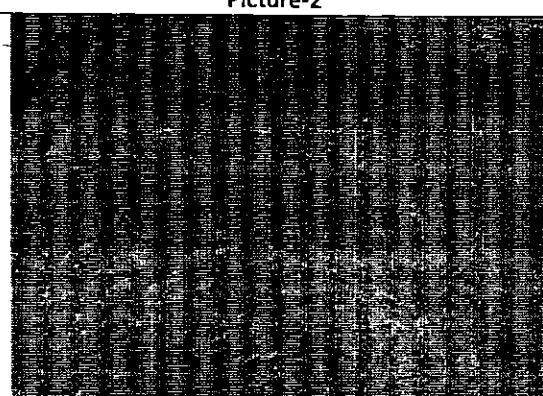
Picture-1



Picture-2



Picture-3



Picture-4

District- Kishanganj
Division- Kishanganj-1
Block- Kishanganj



Picture 1



Picture 2



Picture 3



Picture 4

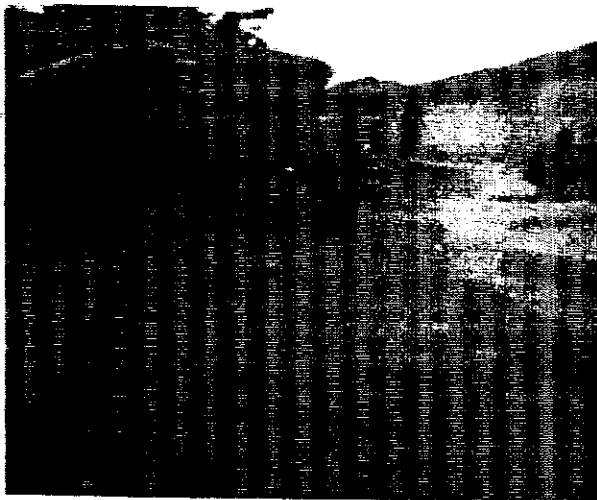


Picture 5

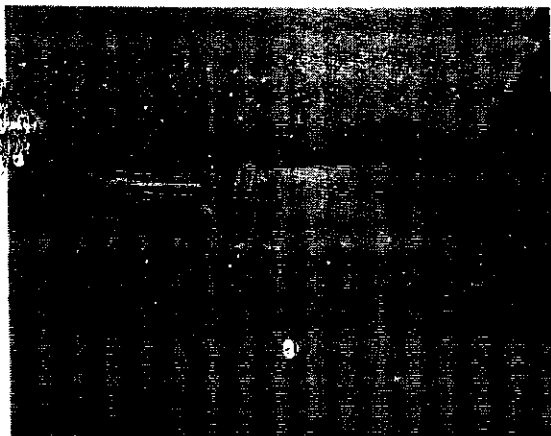


Picture 6

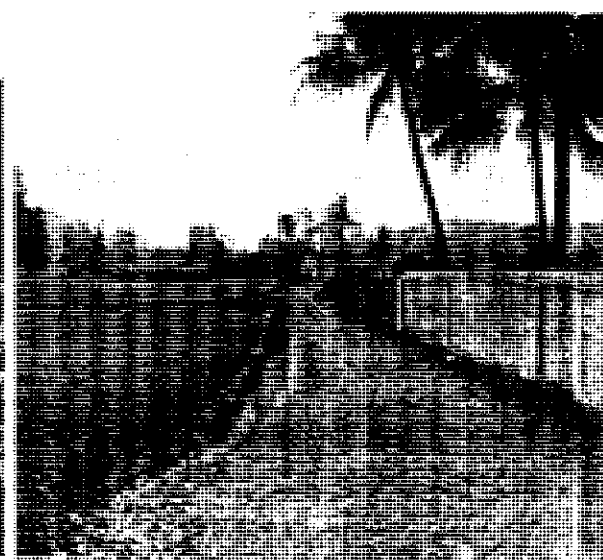
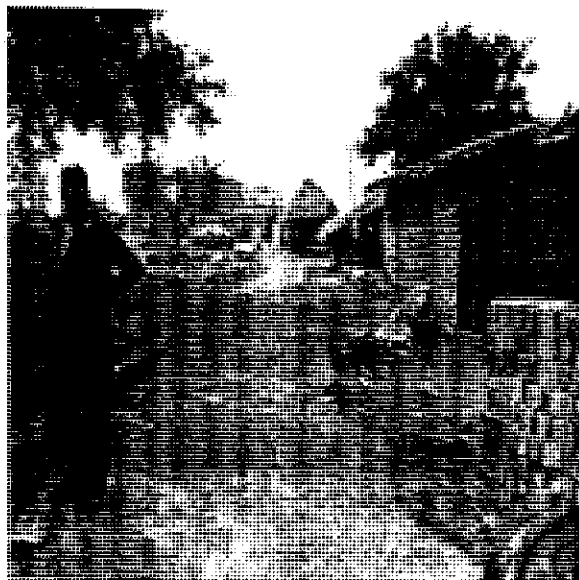
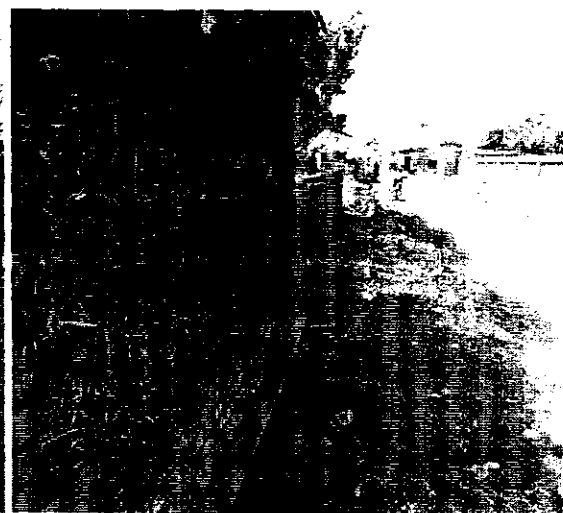
District- Kaimur
Division- Bhabhua
Block- Adhaura



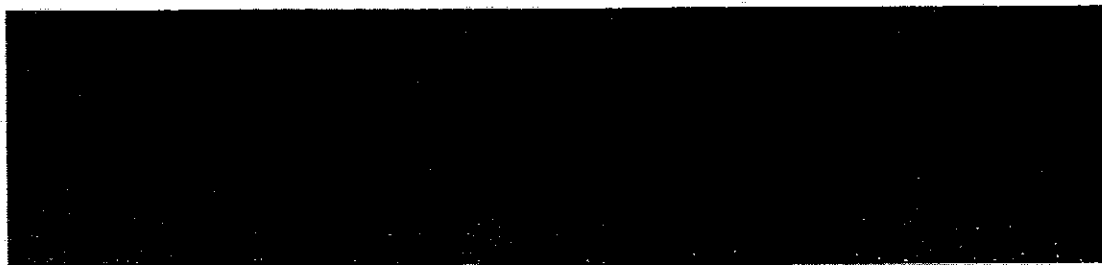
District- Kaimur
Division- Bhabhua
Block- Adhaura



District- Jamui
Division- Jamui and jhajha



District- Jamui
Division- Jamui and jhajha



**MODEL ESTIMATES
OF
INTERNAL VILLAGE ROAD
IN BIHAR
CEMENT CONCRETE PAVER BLOCKS
(FOR ALL TYPES OF CBR)**



बिहार सरकार

पुस्तिका-३
पुस्तिका-३



**Rural Works Department
5th Floor, Vishweshwaraiya Bhawan,
Bailey Road ,Patna-800015.**

CONCRETE PAVER BLOCK

प्रस्तावना

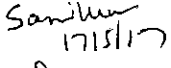
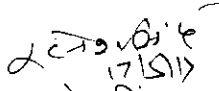
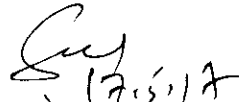
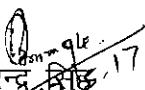
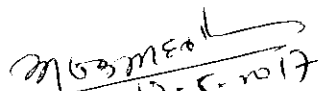
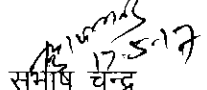
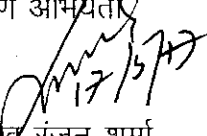
प्रस्तावना

बिहार राज्य में ग्राम पंचायतों के द्वारा क्रियान्वित की जा रही पंचायत के भीतर की सड़कों एवं नालियों के निर्माण की योजनाओं के लिए विभिन्न प्रकार के मॉडल प्राक्कलन बनाने का निर्णय लिया गया। इसके लिए अभियंताओं द्वारा क्षेत्र का भ्रमण किया गया जिसका फोटोग्राफ मॉडल प्राक्कलन के साथ संलग्न है। मॉडल प्राक्कलन सिर्फ संदर्भ के लिए तैयार किया गया है। प्रत्येक कार्य स्थल की भौगोलिक स्थिति, भौतिक स्थिति एवं सामग्रियों की ढुलाई के लिए क्वायरी साईट/वास्तविक स्रोत से इसकी दूरी के आधार पर प्रत्येक वार्ड के लिए अलग-अलग प्राक्कलन तैयार किया जाना अपेक्षित है। प्राक्कलन में विभिन्न मदों का दर मुख्यतः ग्रामीण कार्य विभाग में प्रचलित दर विश्लेषण के आधार पर तैयार किया गया है। गांव/वार्ड की गली की चौड़ाई के अनुकूल निर्माण में उपयोग हो सकने वाले यंत्र-संयंत्र के अनुसार विभिन्न मदों का दर में सुधार किया जाना अपेक्षित होगा। बिहार राज्य अनुसूचित दर निर्धारण समिति द्वारा समय-समय पर निर्गत पत्रों एवं राज्य सरकार द्वारा समय-समय पर प्रभावी बैट की दर, लेबर दर इत्यादि के आधार पर विभिन्न मदों के दर की गणना की जाएगी। मिट्टी कार्य का प्रावधान प्रत्येक कार्य स्थल के आवश्यकतानुसार किया जायेगा।

यह मॉडल प्राक्कलन मिट्टी का विभिन्न प्रकार के CBR के लिए तैयार किया गया है। इस मॉडल प्राक्कलन में सड़क/गली में **सीमेंट कंक्रीट पेभर ब्लॉक** से सड़क/गली के मजबूतीकरण का प्रावधान निहित है। बसावटों के आन्तरिक सड़क/गली की मिट्टी की सतह के लिए सड़क/गली की चार प्रकार की चौड़ाई यथा 1.50 मीटर, 2.50 मीटर, 3.00 मीटर तथा 3.75 मीटर की परिकल्पना करते हुए विभिन्न प्रकार का मॉडल प्राक्कलन तैयार किया गया है।

मॉडल प्राक्कलन में विभिन्न सामग्रियों के लिए क्वायरी साईट से भिन्न-भिन्न प्रकार का लीड यथा स्टोन मेटल ग्रेड-I, II एवं III /स्टोन चिप्स/मोटा बालू के लिए लीड 100 किलोमीटर, लोकल बालू के लिए 3.00 कि०मी०, ईंट एवं पेभर ब्लॉक के लिए लीड 8.00 कि०मी०, सिमेंट एवं स्टील के लिए लीड 10.00 कि०मी० को मानते हुए इसका Carriage cost निकाला गया है।

उक्त तथ्यों के परिपेक्ष्य में प्राक्कलन में सामान्य बदलाव स्थानीय अभियंता द्वारा किया जा सकता है। प्राक्कलन में कोई भी विशेष बदलाव को संज्ञान में लाने पर इसका निराकरण तकनीकी कोषांग द्वारा किया जाएगा।

 17.5.17 संजीव कुमार सहायक अभियंता	 17.5.17 समीर कुमार सहायक अभियंता	 17.5.17 रत्नेश सिंह सहायक अभियंता	 17.5.17 सत्येन्द्र राय कार्यपालक अभियंता
 17.5.17 दीपनारायण सिंह कार्यपालक अभियंता	 17.5.17 नरेन्द्र सिंह कार्यपालक अभियंता	 17.5.17 अरुण कुमार मेहता अधीक्षण अभियंता	 17.5.17 सुभाष चन्द्र अधीक्षण अभियंता
			 17.5.17 राजीव रंजन शर्मा मुख्य अभियंता

प्रस्तावना

Summary of Unit Cost of Road in
Square Metre (SQM)
(For Different CBR's)

Type of Soil	Road Width (m)	ROAD SECTIONS OF PAVER BLOCK IN SQUARE METRES (SQM) WITH 10% Over Existing Earthen Road
Black Cotton Soil CBR ≤ 3	1.50	~~809.28~~ 1474.60
	2.50	~~740.99~~ 1339.95
	3.00	~~887.23~~ 1466.82
	3.75	1420.83
Clayey/Silty Clay Soil CBR 3-4	1.50	1364.68
	2.50	1230.03
	3.00	1201.07
	3.75	1164.61
Fine Sand/Sandy Clay Soil CBR 4-5	1.50	1364.68
	2.50	1230.03
	3.00	1199.91
	3.75	1164.61
Sandy Soil with high % of Sand CBR 5-6	1.50	1342.53
	2.50	1213.19
	3.00	1147.98
	3.75	1114.86
Moorum with CBR 6-7	1.50	1342.53
	2.50	1213.19
	3.00	1147.98
	3.75	1114.86
Gravel/Rocky with CBR > 7	1.50	1342.53
	2.50	1213.19
	3.00	1147.98
	3.75	1114.86

Mam
17.5.17

Saniv
17/5/17

Agg
17.5.17
EE

R.N.B
17/05/17
E.E.

Sun
17.5.17
E.E

222 B14
17/5/17

Bhikar
17.5.17

On 03/05/17
17.5.2017

Summary of Unit Cost of Road in
Running Metre (Rm)
(For Different CBR's)

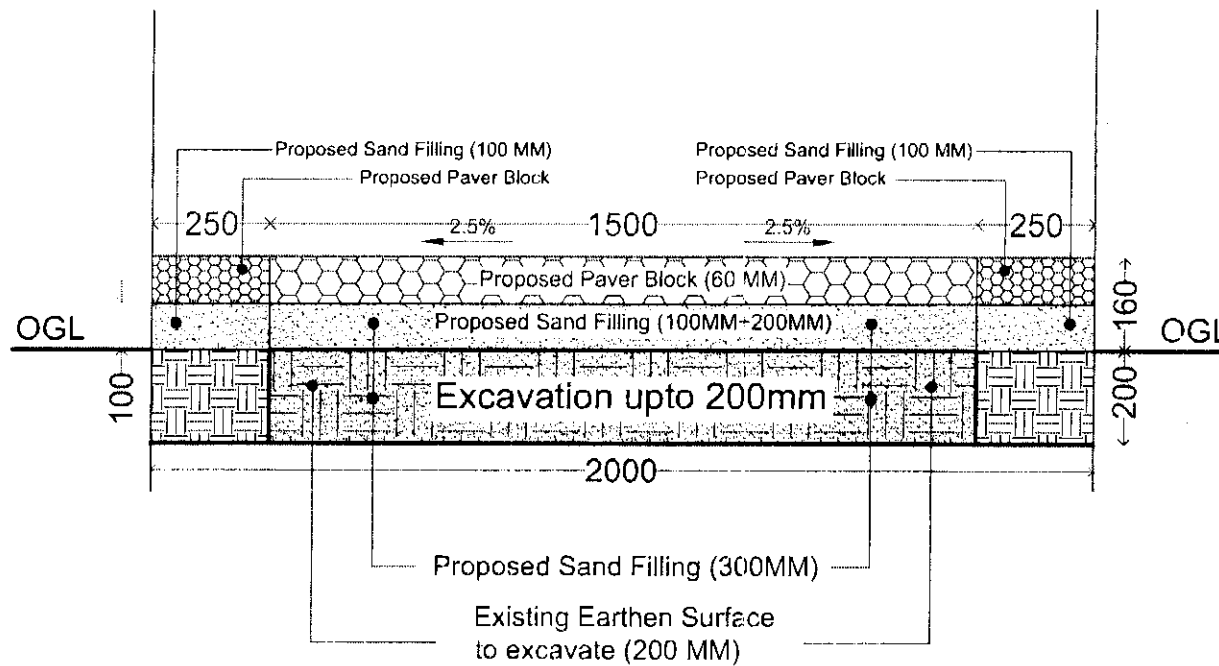
Type of Soil	Road Width (m)	UNIT COST IN ROPEES FOR ROAD SECTIONS OF PAVER BLOCK IN RUNNING METRES (RM)
		Over Existing Earthen Road
Black Cotton Soil CBR ≤ 3	1.50	~~1213.92~~ 2211.90
	2.50	~~1852.46~~ 3349.86
	3.00	~~2661.70~~ 4400.40
	3.75	5328.12
Clayey/Silty Clay Soil CBR 3-4	1.50	2047.02
	2.50	3075.07
	3.00	3603.22
	3.75	4367.28
Fine Sand/Sandy Clay Soil CBR 4-5	1.50	2047.02
	2.50	3075.07
	3.00	3599.74
	3.75	4367.28
Sandy Soil with high % of Sand CBR 5-6	1.50	2013.80
	2.50	3032.98
	3.00	3443.95
	3.75	4180.73
Moorum with CBR 6-7	1.50	2013.80
	2.50	3032.98
	3.00	3443.95
	3.75	4180.73
Gravel/Rocky with CBR > 7	1.50	2013.80
	2.50	3032.98
	3.00	3443.95
	3.75	4180.73

For CBR Less Than 3

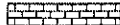
CROSS SECTIONS

OPTION-I

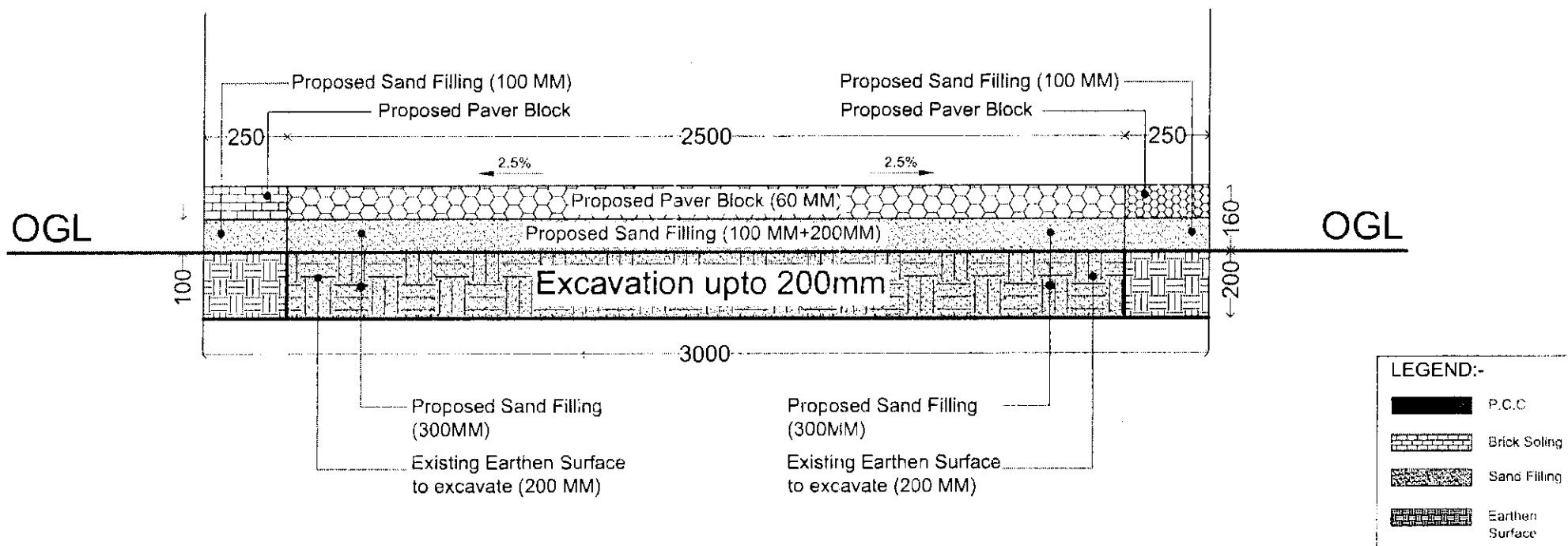
1.50 m wide Paver Block mainly for Pedestrain and Bicycle use Over Existing Earthen Road



LEGEND:-

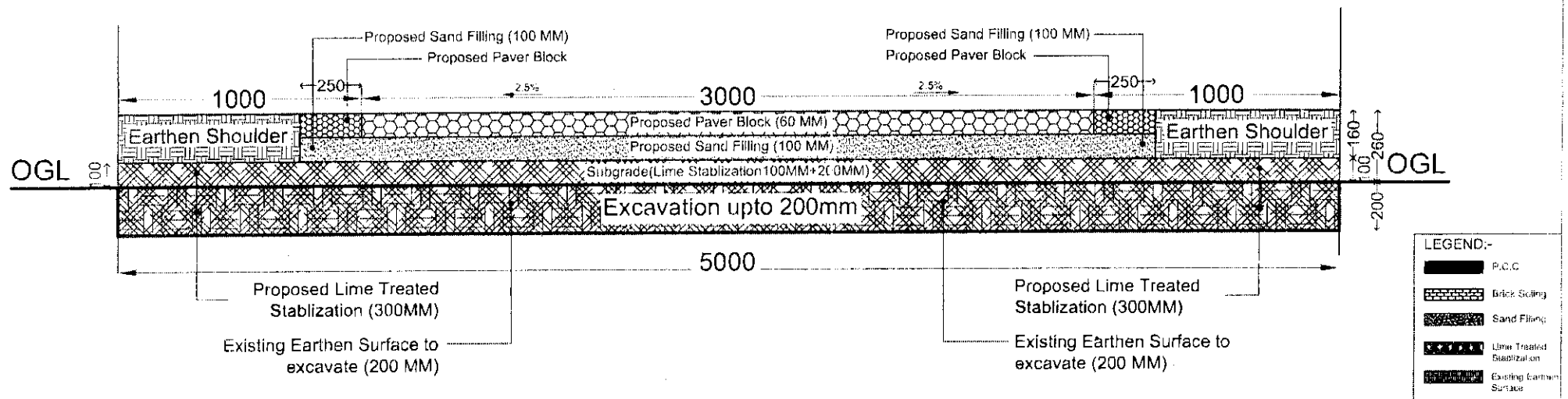
-  P.C.C
-  Brick Soling
-  Sand Filling
-  Earthen Surface

OPTION-II
2.50 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle
/ Bullock cart use
Over Existing Earthen Road

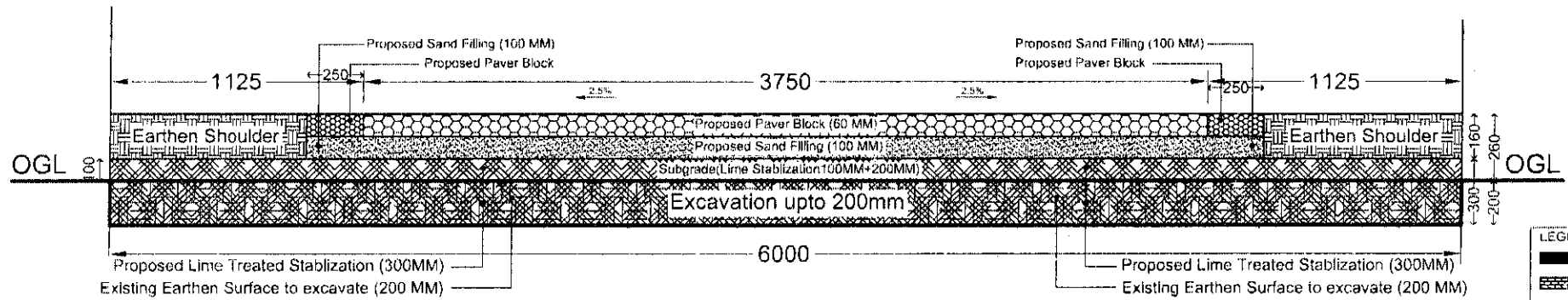


OPTION-III

3.00 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart/Light Vehicles use
Over Existing Earthen Road



OPTION-IV
3.75 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart
/Light Vehicles use
Over Existing Earthen Road



LEGEND:-

	P.C.C.
	Bitum. Overlay
	Sand Filling
	Lime Treated Stabilization
	Existing Earthen Surface
	Excavation

DETAILED ESTIMATE

1.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

2.50 m wide Paver Block Road Over Existing Earthen Road

Cost of Pavement per 100m Length	334986.42
Cost of Pavement per RM Length	3349.86
Cost of Pavement per SQM	1339.95

3.00 m wide Paver Block Road Over Existing Earthen Road

[illegible]

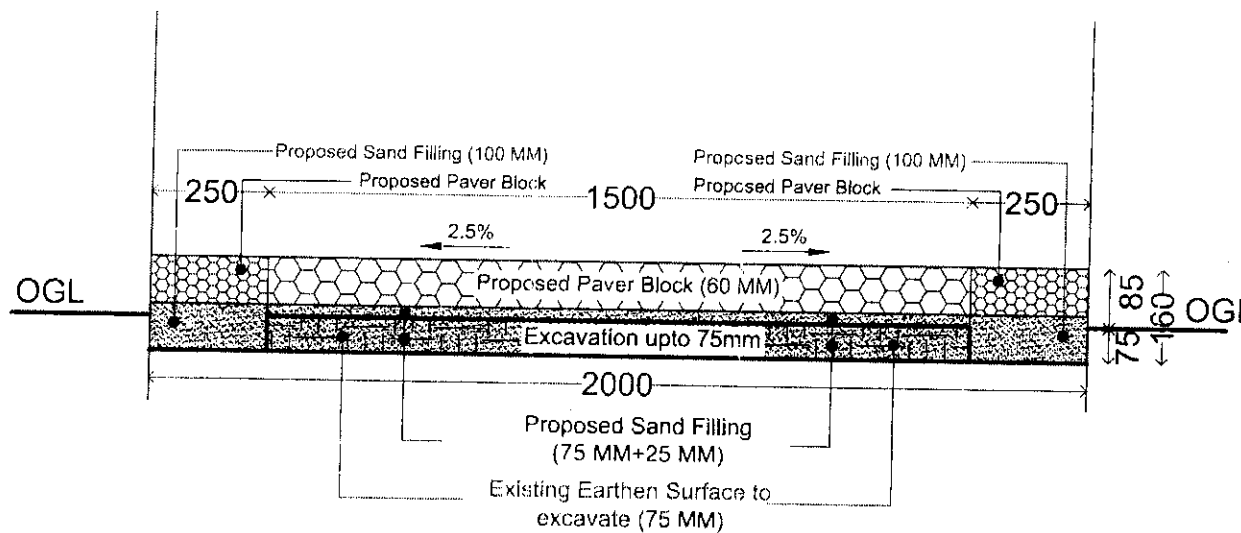
3.75 m wide Paver Block Road Over Existing Earthen Road

[illegible]

For CBR between 3-4

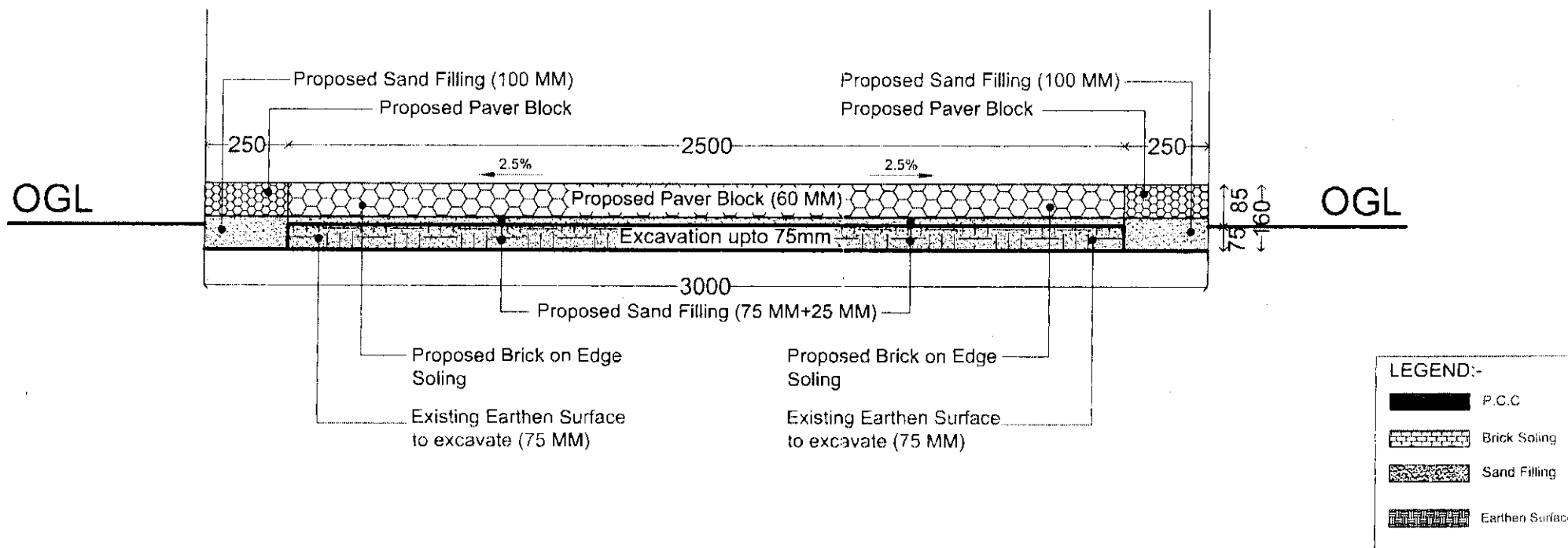
CROSS SECTIONS

OPTION-I 1.50 m wide Paver Block mainly for Pedestrain and Bicycle use Over Existing Earthen Road

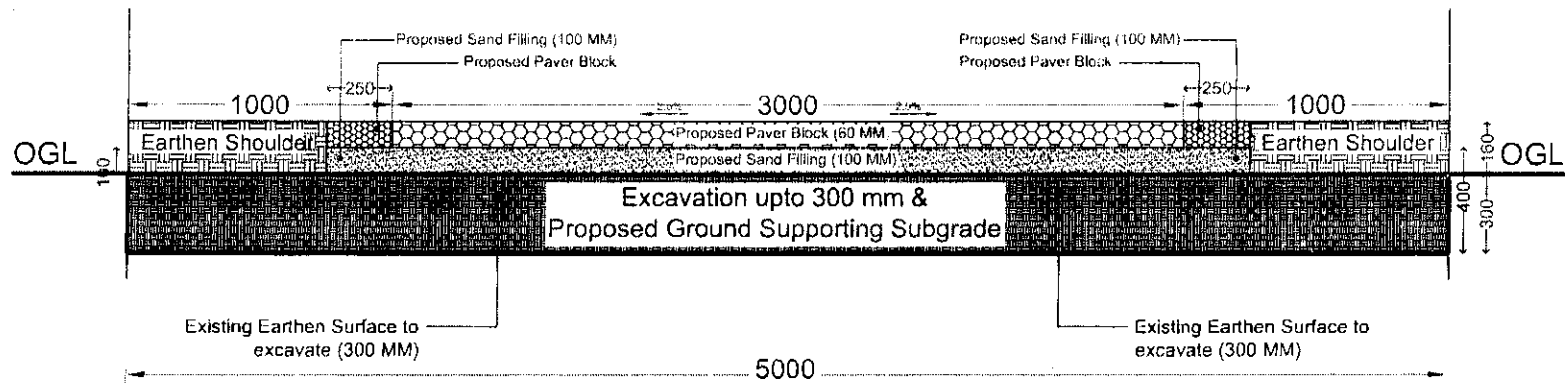


LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

OPTION-II
2.50 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle
/ Bullock cart use
Over Existing Earthen Road



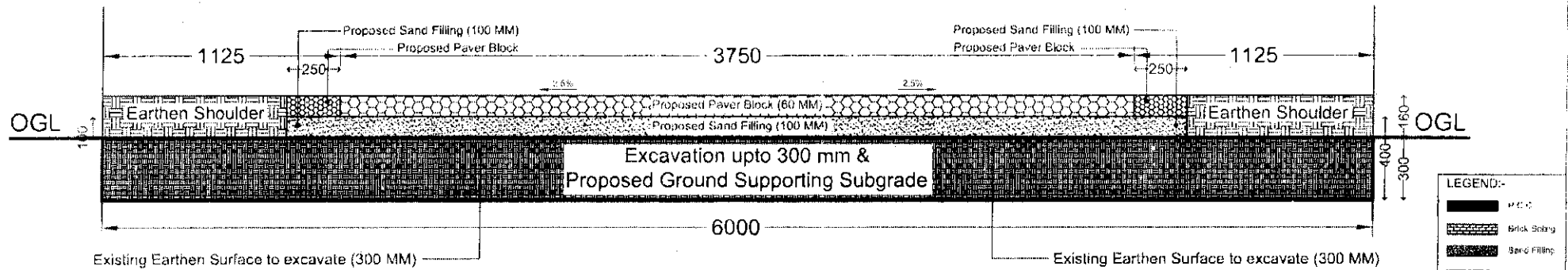
OPTION-III
3.00 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart/Light Vehicles use
Over Existing Earthen Road



LEGEND:-

	P.C.C.
	Brick Setting
	Sand Filling
	Earthen Surface
	O.G.L.

OPTION-IV
3.75 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart
/Light Vehicles use
Over Existing Earthen Road



LEGEND:-

	M.C.C
	Brick Soling
	Sand Filling
	Earthen Surface
	OSR

DETAILED ESTIMATE

1.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

2.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

3.00 m wide Paver Block Road Over Existing Earthen Road

[illegible]

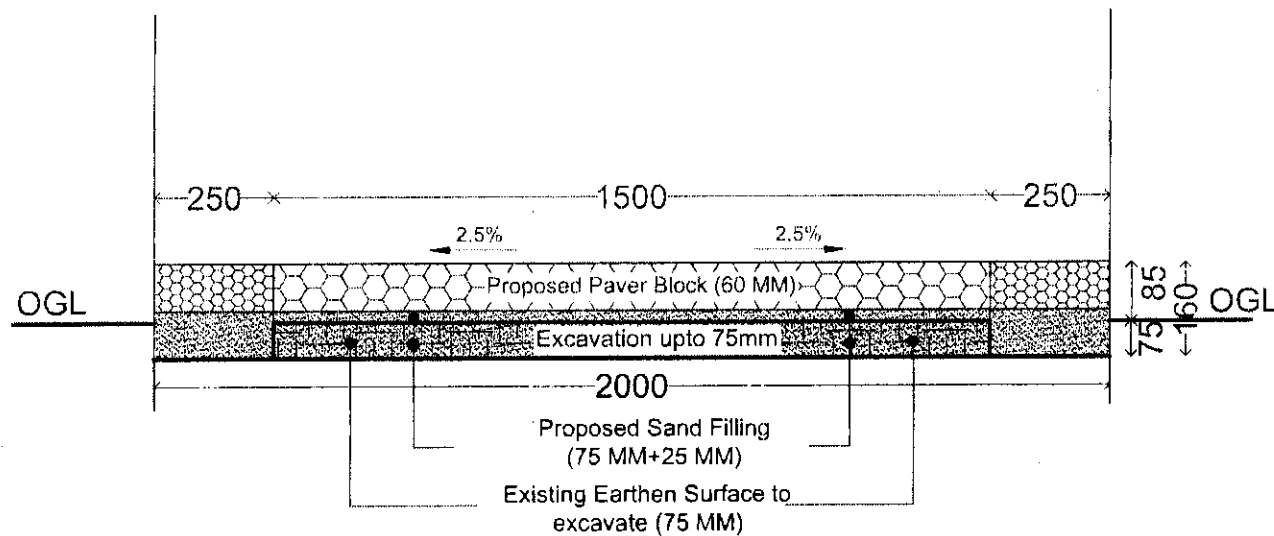
3.75 m wide Paver Block Road Over Existing Earthen Road

[illegible]

For CBR between 4-5

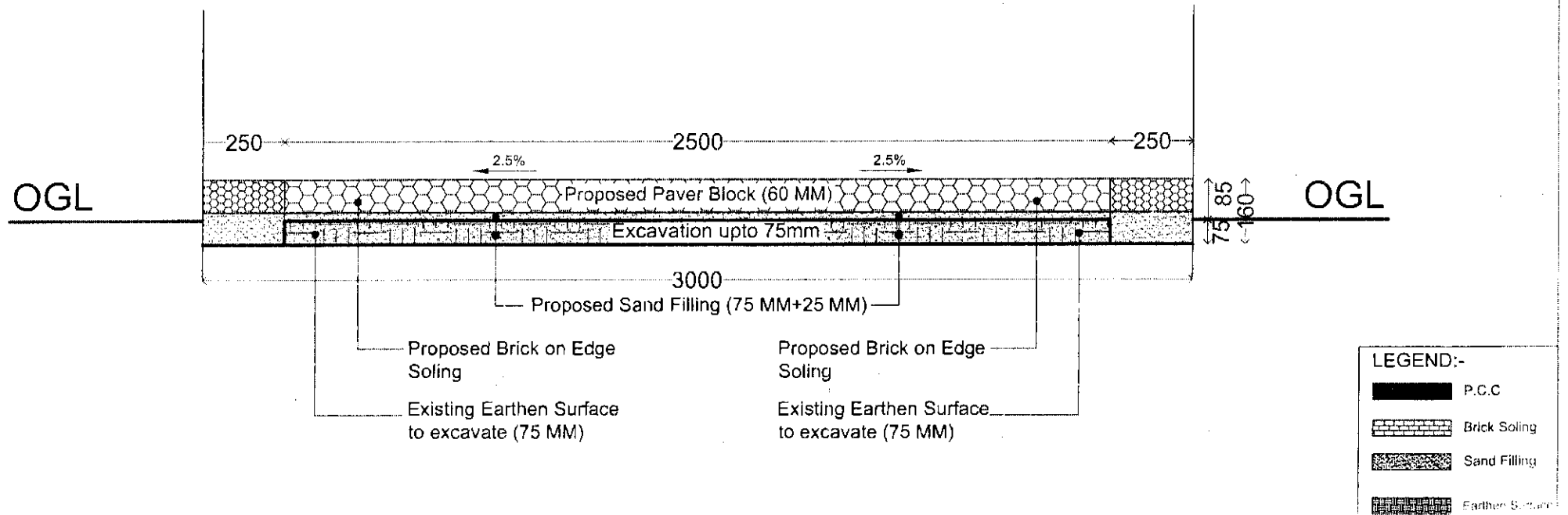
CROSS SECTIONS

OPTION-I 1.50 m wide Paver Block mainly for Pedestrain and Bicycle use Over Existing Earthen Road

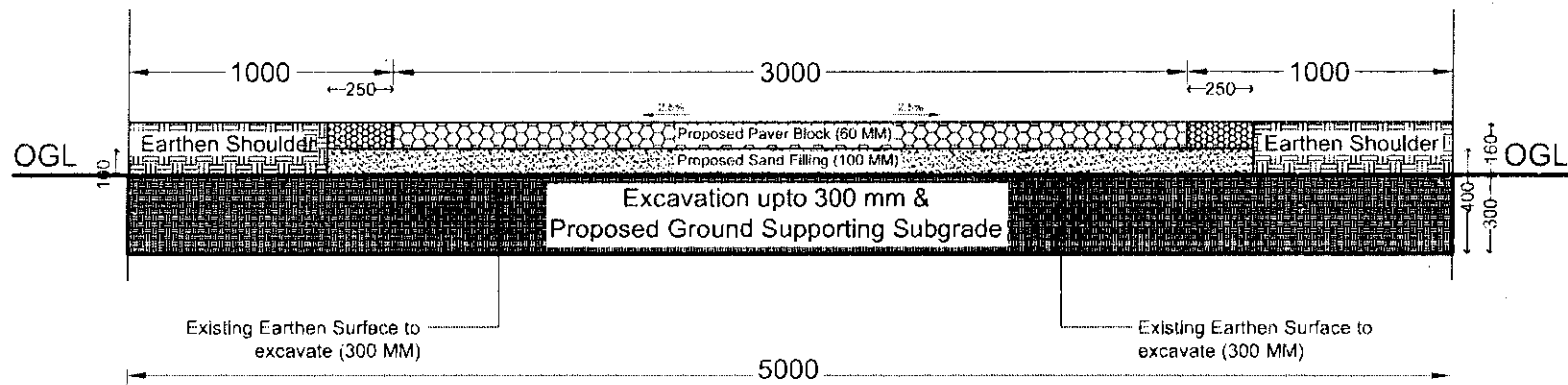


LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

OPTION-II
2.50 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle
/ Bullock cart use
Over Existing Earthen Road



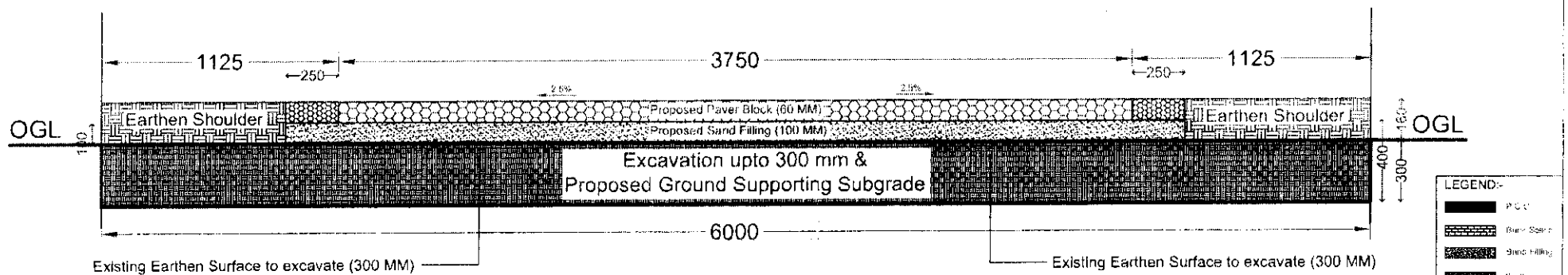
OPTION-III
 3.00 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock
 Cart/Light Vehicles use
Over Existing Earthen Road



LEGEND:-

	P.C.C.
	Brick Staining
	Sand Filling
	Earthen Surface
	G.S.B.

OPTION-IV
3.75 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart
/Light Vehicles use
Over Existing Earthen Road



DETAILED ESTIMATE

1.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

2.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

3.00 m wide Paver Block Road Over Existing Earthen Road

[illegible]

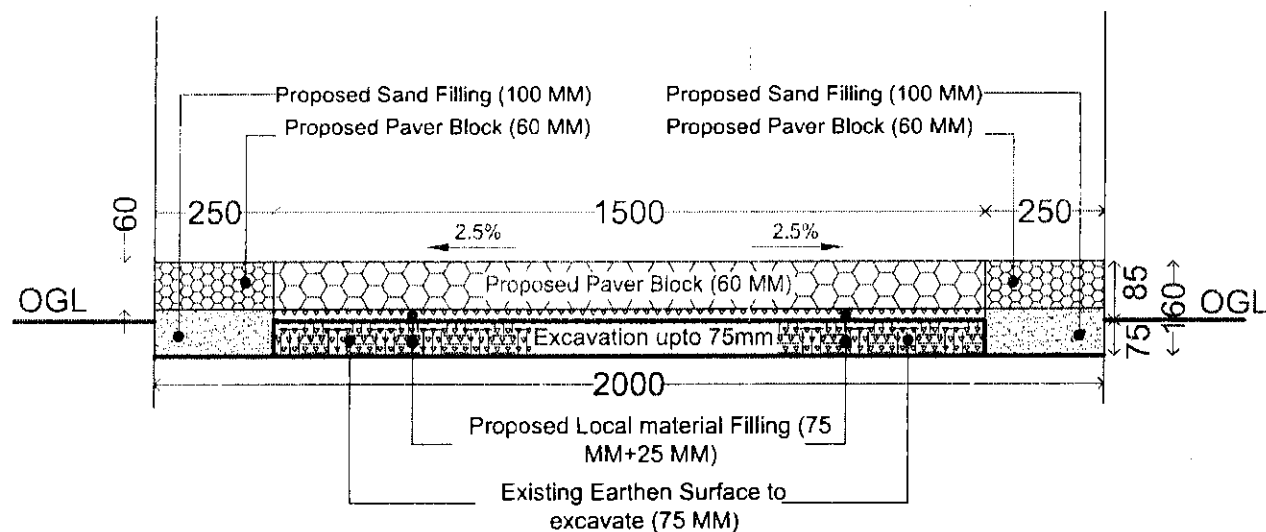
3.75 m wide Paver Block Road Over Existing Earthen Road

[illegible]

For CBR between 5-6

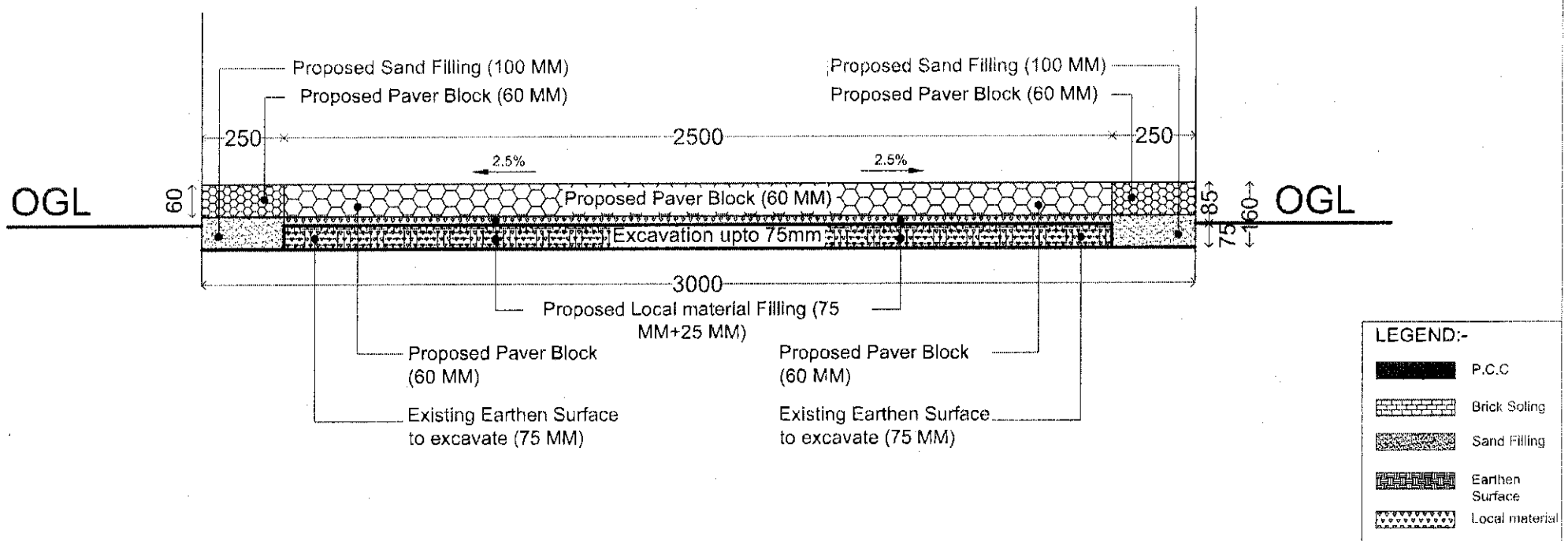
CROSS SECTIONS

OPTION-I **1.50 m wide Paver Block mainly for Pedestrain and Bicycle use** **Over Existing Earthen Road**

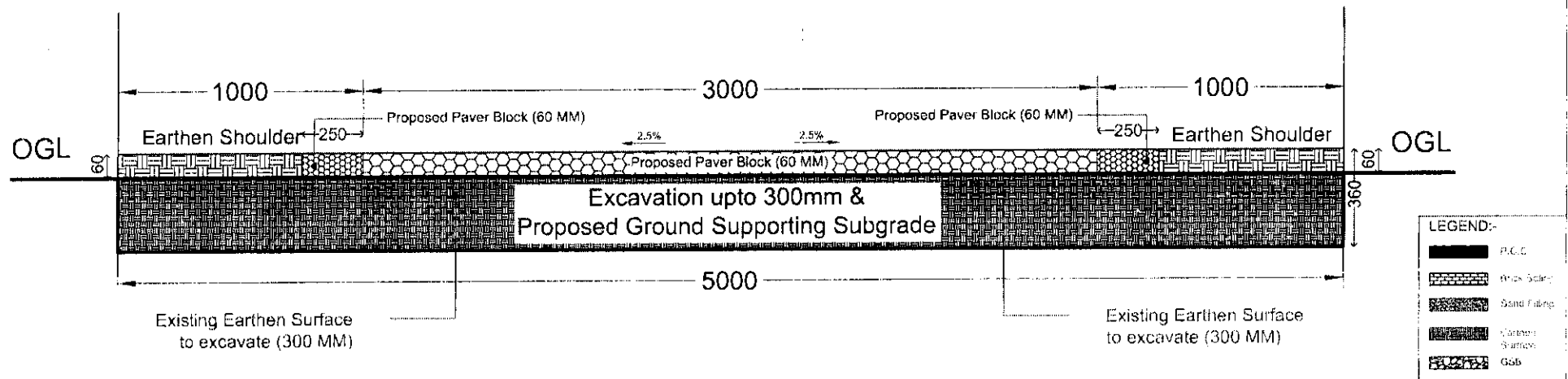


LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

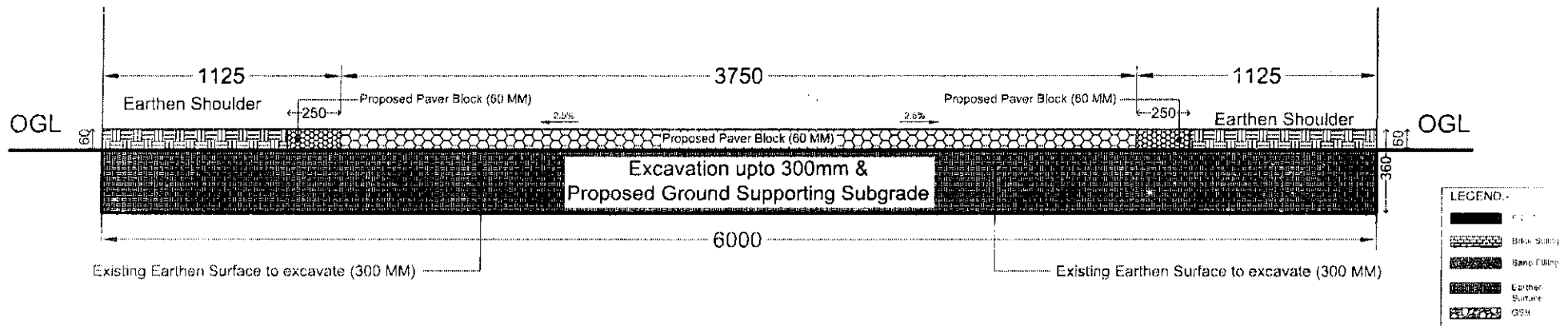
OPTION-II
2.50 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle
/ Bullock cart use
Over Existing Earthen Road



OPTION-III
 3.00 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock
 Cart/Light Vehicles use
 Over Existing Earthen Road



OPTION-IV
 3.75 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart
 /Light Vehicles use
 Over Existing Earthen Road



DETAILED ESTIMATE

1.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

2.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

3.00 m wide Paver Block Road Over Existing Earthen Road

[illegible]

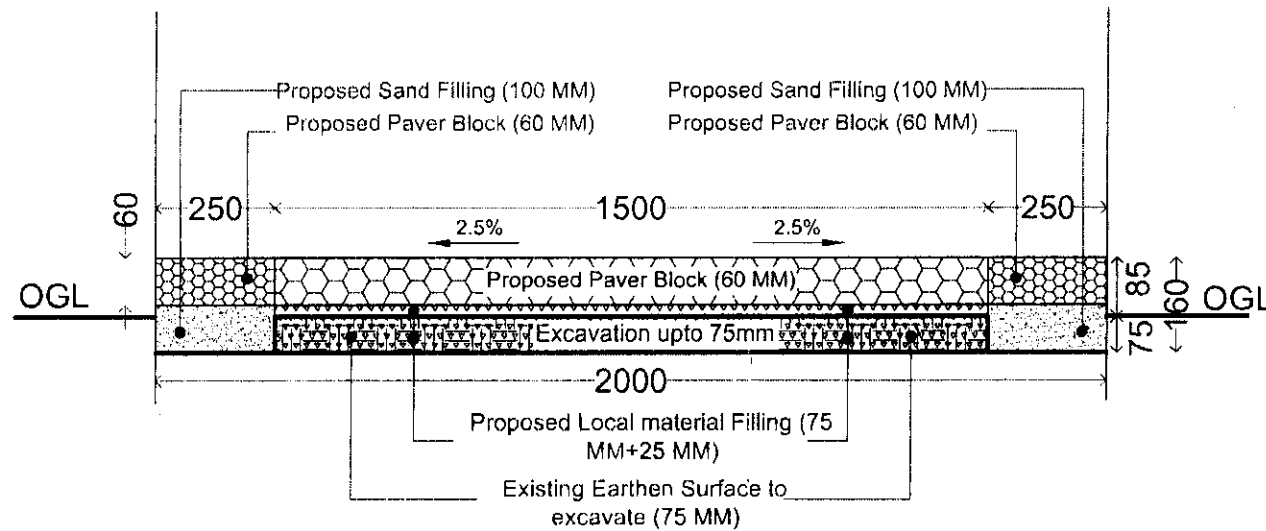
3.75 m wide Paver Block Road Over Existing Earthen Road

[illegible]

For CBR between 6-7

CROSS SECTIONS

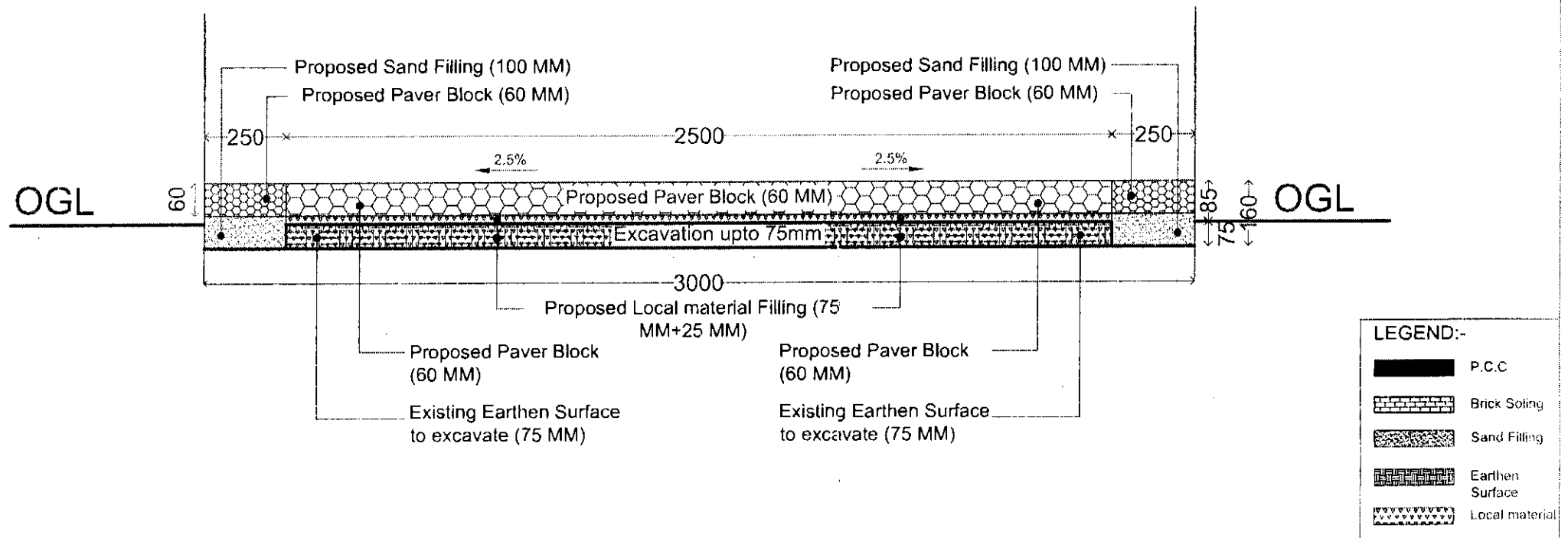
OPTION-I **1.50 m wide Paver Block mainly for Pedestrain and Bicycle use** **Over Existing Earthen Road**



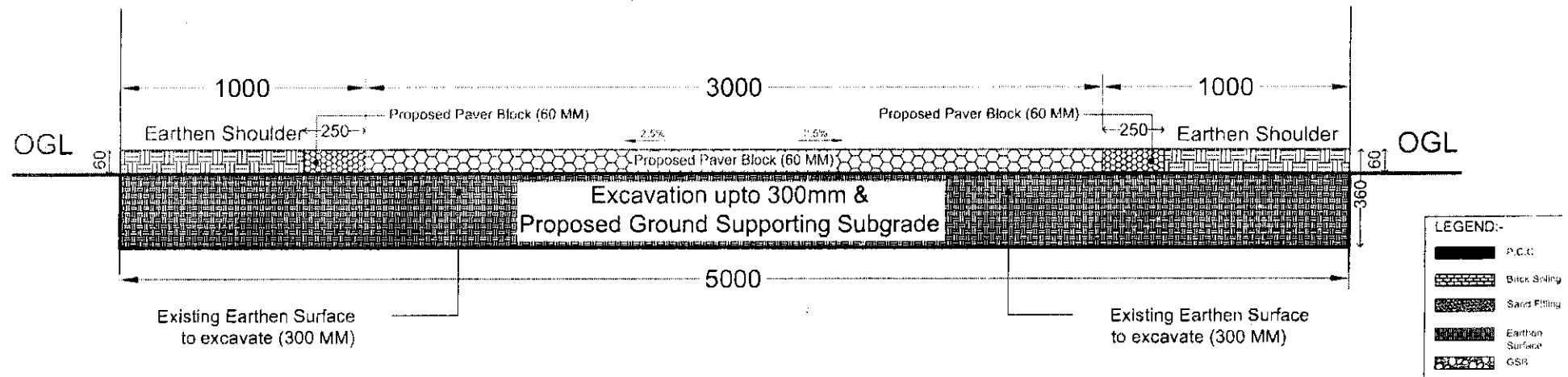
LEGEND:-

	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

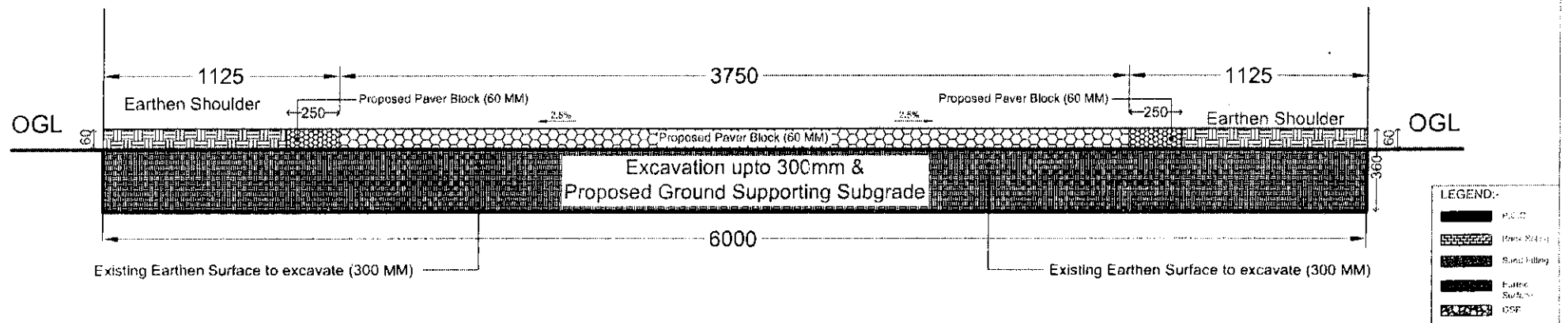
OPTION-II
2.50 m wide Paver Block mainly for Pedestrain / Bicycle / Tricycle
/ Bullock cart use
Over Existing Earthen Road



OPTION-III
3.00 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock
Cart/Light Vehicles use
Over Existing Earthen Road



OPTION-IV
 3.75 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle / Bullock Cart
 /Light Vehicles use
Over Existing Earthen Road



DETAILED ESTIMATE

1.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

2.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

3.00 m wide Paver Block Road Over Existing Earthen Road

[illegible]

3.75 m wide Paver Block Road Over Existing Earthen Road

[illegible]

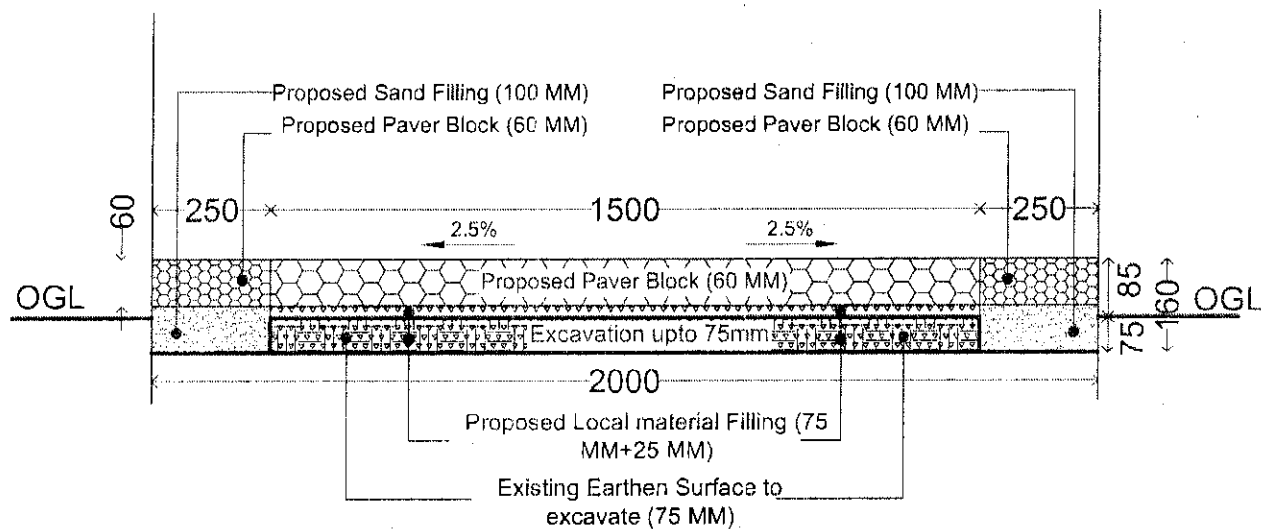
For CBR Greater than 7

CROSS SECTIONS

U



OPTION-I **1.50 m wide Paver Block mainly for Pedestrian and Bicycle use** **Over Existing Earthen Road**



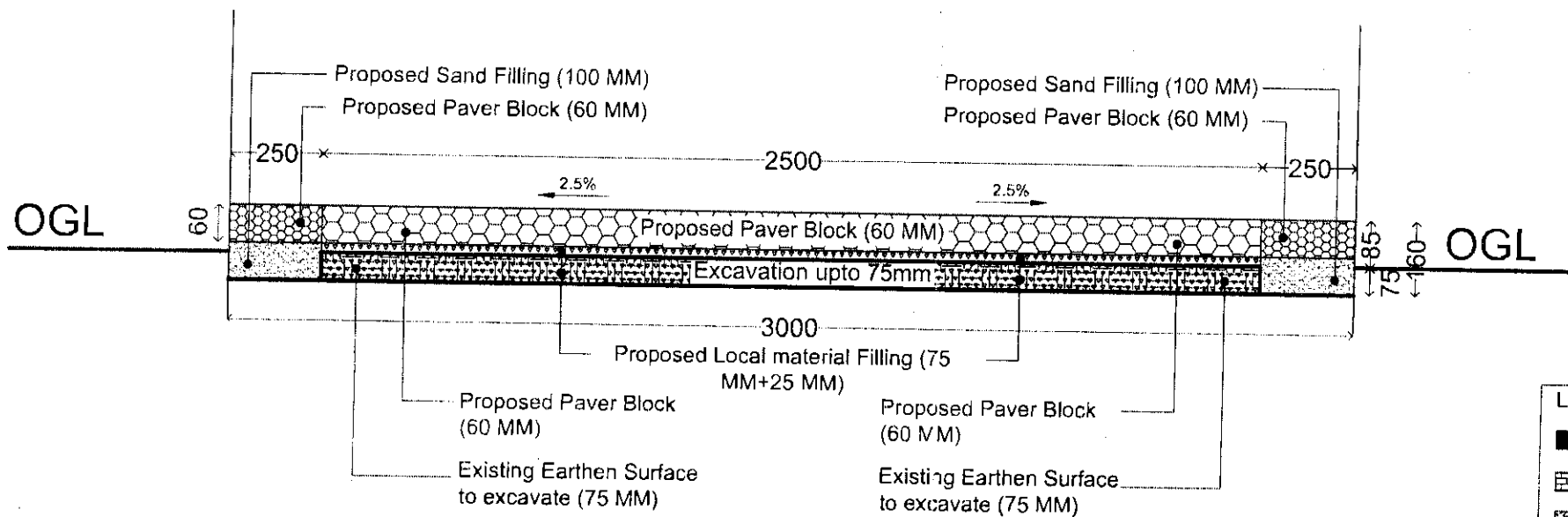
LEGEND:-	
	P.C.C
	Brick Soling
	Sand Filling
	Earthen Surface

OPTION-II

2.50 m wide Paver Block mainly for Pedestrian / Bicycle / Tricycle

/ Bullock cart use

Over Existing Earthen Road



LEGEND:-

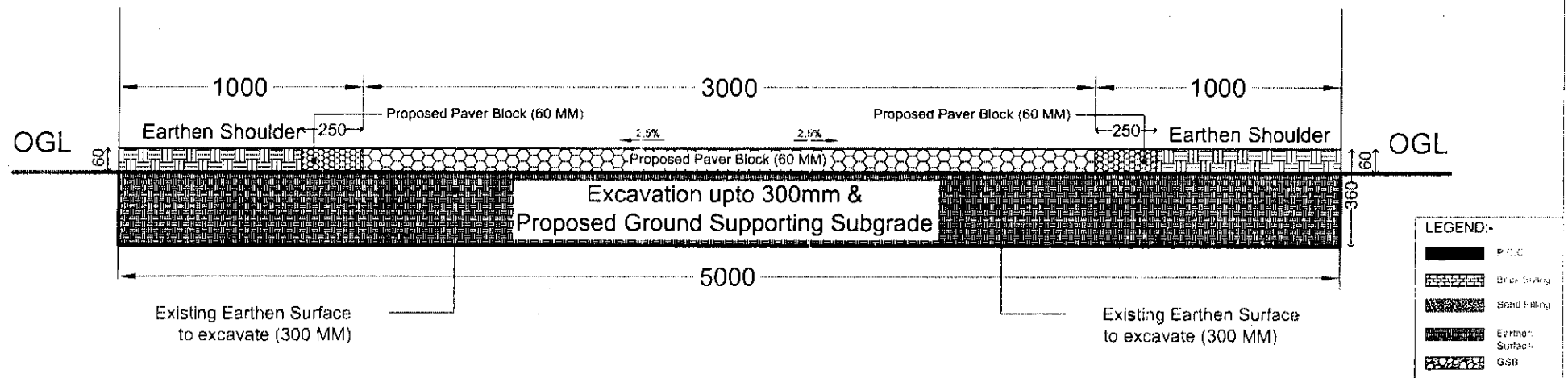
P.C.C

 Brick Siding Sand Filling

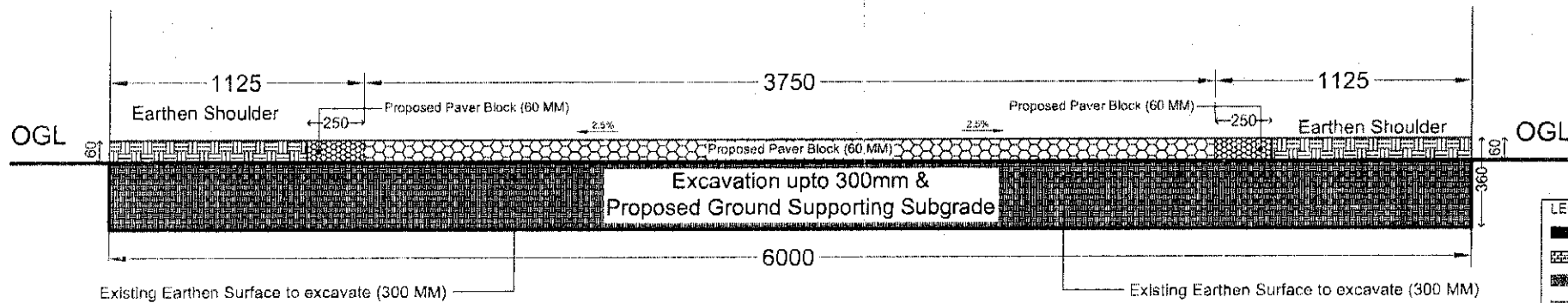
Earthen
Surface

 Local material

3.00 m wide Paver Block mainly for Pedestrain / Bicycle / Tricycle / Bullock
Cart/Light Vehicles use
Over Existing Earthen Road



OPTION-IV
 3.75 m wide Paver Block mainly for Pedestrain / Bicycle / Tricycle / Bullock Cart
 /Light Vehicles use
Over Existing Earthen Road



LEGEND:-

	P.C.C.
	Bank Slope
	Sand Filling
	Earthen Surface
	Paver Block

DETAILED ESTIMATE

1.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

2.50 m wide Paver Block Road Over Existing Earthen Road

[illegible]

3.00 m wide Paver Block Road Over Existing Earthen Road

[illegible]

3.75 m wide Paver Block Road Over Existing Earthen Road

[illegible]

RATE ANALYSIS

BASIC RATES (A) Labour			
Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	237.00
L-02	Bitumen Sprayer	day	252.00
L-03	Blacksmith	day	288.00
L-04	Blaster	day	399.00
L-05	Carpenter 1st Class	day	288.00
L-06	Chips spreader	day	247.00
L-07	Chiseller	day	302.00
L-08	Dresser (Skilled)	day	305.00
L-09	Driller	day	288.00
L-10	Electrician	day	305.00
L-11	Fitter	day	328.00
L-12	Mason (1st class)	day	322.00
L-13	Mason (2nd Class)	day	288.00
L-14	Mate	day	255.00
L-15	Mazdoor (Unskilled)	day	237.00
L-16	Mazdoor (Semi skilled)	day	247.00
L-17	Mazdoor (Skilled)	day	301.00
L-18	Painter (1st class)	day	305.00
L-19	Plumber	day	305.00
L-20	Surveyor	day	291.00
L-21	White Washer	day	301.00

**BASIC RATES
(B) Material**

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-001	AC pipe 100 mm	m	44.47	46.25
M-002	Aggregate - For 37.5 mm Maximum size - 22.4 mm to 5.6 mm	cum	544.27	566.04
M-003	Aggregate - For 37.5 mm Maximum size - 45 mm to 22.5 mm	cum	493.39	513.13
M-004	Aggregate - For 37.5 mm Maximum size - Below 5.6 mm	cum	204.23	212.40
M-005	Aggregate - For 53 mm Maximum size - 22.5 mm to 5.6 mm	cum	544.27	566.04
M-006	Aggregate - For 53 mm Maximum size - 63 mm to 45 mm	cum	440.03	457.63
M-007	Aggregate - For 53 mm Maximum size - Below 5.6 mm	cum	204.23	212.40
M-008	Aggregate - Grading I (40 mm nominal Size) 10 mm - 5 mm	cum	545.10	566.90
M-009	Aggregate - Grading I (40 mm nominal Size) 25 mm – 10 mm	cum	631.90	657.18
M-010	Aggregate - Grading I (40 mm nominal Size) 37.5 mm - 25 mm	cum	493.39	513.13
M-011	Aggregate - Grading I (40 mm nominal Size) 5 mm and below	cum	204.23	212.40
M-012	Aggregate - Grading II (19 mm nominal Size) 10 mm - 5 mm	cum	545.10	566.90
M-013	Aggregate - Grading II (19 mm nominal Size) 25 mm – 10 mm	cum	631.90	657.18
M-014	Aggregate - Grading II (19 mm nominal Size) 5 mm and below	cum	204.23	212.40
M-015	Aggregate 10 mm	cum	633.55	658.89
M-016	Aggregate 20 mm	cum	567.84	590.55
M-017	Aggregate 40 mm	cum	453.93	472.09
M-018	Aggregate- Crushable type such as moorum or Gravel for Grading I	cum	134.60	139.98
M-019	Aggregate- Crushable type such as moorum or Gravel for Grading II	cum	134.60	139.98
M-020	Aggregate- Crushable type such as moorum or Gravel for Grading III	cum	134.60	139.98
M-021	Aggregate-Grading I 90 mm to 45 mm	cum	407.40	423.70
M-022	Aggregate-Grading II 63 mm to 45 mm	cum	440.03	457.63
M-023	Aggregate-Grading III 53 mm to 22.4 mm	cum	471.71	490.58

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-024	Aggregates 22.4 mm to 2.36 mm for wet mix macadam	cum	544.27	566.04
M-025	Aggregates 45 mm to 22.4 mm for wet mix macadam	cum	493.39	513.13
M-031	Barbed wire	kg	54.61	56.79
M-032	Binding Material	cum	134.60	139.98
M-033	Binding wire	kg	55.55	57.77
M-037	Bitumen (S-65) (BARAUNI)	t	36,676.10	38,143.14
M-038	Bitumen (S-90) (BARAUNI)	t	35,764.10	37,194.66
M-039	Bitumen Emulsion (RS-1) Patna	t	40,202.00	41,810.08
M-040	Bitumen Emulsion (SS-1) Patna	t	42,609.00	44,313.36
M-041	Bituminous sealant	litre	25.08	26.08
M-042	Blasted rubble	cum	295.70	307.53
M-043	Blasting material (Moorum)	kg	-	-
M-044	Bond stone (400 mm x 150 mm x 150 mm)	No.	11.77	12.24
M-045	Brick 1st Class	No.	5.73	5.96
M-046	Cement	t	5,392.00	5,985.12
M-049	Compensation for earth taken from private land	cum	23.65	23.65
M-050	Compressible Fibre Board	sqm	989.71	1,029.30
M-058	Crushed Stone Aggregate 26.5 mm to 75 micron	cum	567.84	590.55
M-059	Crushed Stone chipping 13.2 mm nominal size	cum	663.11	689.63
M-060	Crushed Stone Chipping 6.7 mm size 100% passing 11.2 mm and retained on 2.36 mm	cum	420.37	437.18
M-061	Crushed Stone Chipping 6.7 mm size 100% passing 9.5 mm and retained on 2.36 mm	cum	420.37	437.18
M-062	Crushed Stone chipping 9.5 mm nominal size	cum	633.55	658.89
M-063	Crushed Stone Coarse Aggregate Passing 53 mm and retained on 2.8 mm	cum	471.71	490.58
M-064	Curing compound	litre	125.41	130.43
M-072	Farmyard manure	cum	705.46	733.68
M-073	Fevicol adhesive	kg	125.00	130.00
M-074	Filter media	cum	422.35	439.24
M-075	Jute rope	m	44.80	46.59
M-092	Lime	t	3,084.04	3,207.40

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-097	MS clamps	Nos.	32.08	33.36
M-098	MS Flat / Structural Steel	t	41,200.00	42,848.00
M-102	Nuts, Bolts and Rivets	t	57.04	59.32
M-103	Paint (Synthetic Enamel)	litre	240.39	250.01
M-104	Plasticizer	litre	158.02	164.34
M-105	Polythene sheet (125 micron)	sqm	15.67	16.30
M-106	Polythene Sheething	Nos.	15.67	16.30
M-107	Quarried Stone 150-200 mm size	cum	311.53	323.99
M-108	RCC Pipe NP3 (1200 mm dia)	m	4,177.63	4,344.74
M-109	RCC Pipe NP3 (1000 mm dia)	m	2,938.51	3,056.05
M-110	RCC Pipe NP3 (750 mm dia)	m	1,037.52	1,079.02
M-111	RCC Pipe NP3 (600 mm dia)	m	864.60	899.18
M-112	RCC Pipe NP3 (500 mm dia)	m		-
	RCC Pipe NP3 (300 mm dia)	m	538.14	559.67
M-113	RCC Pipe NP4 (1200 mm dia)	m	4,177.63	4,344.74
M-114	RCC Pipe NP4 (1000 mm dia)	m	2,938.51	3,056.05
M-115	RCC Pipe NP4 (750 mm dia)	m		-

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-116	RCC Pipe NP4 (600 mm dia)	m	864.60	899.18
M-117	RCC Pipe NP4 (500 mm dia)	m		-
M-118	Red-oxide Primer	litre	254.80	264.99
M-119	Road marking paint	litre	240.39	250.01
M-120	Sand (Coarse)	cum	140.69	146.32
M-121	Sand (Fine)	cum	119.37	124.14
M-124	Steel Reinforcement (HYSD Bars)	t	41,200.00	42,848.00
M-126	Steel Reinforcement (TMT Bars)	t	41,200.00	42,848.00
M-127	Stone Boulder of size 150 mm and below	cum	311.53	323.99
M-128	Stone Chips 12 mm size	cum	663.11	689.63
M-129	Stone Chips 13.2 mm to 5.6 mm	cum	633.55	658.89
M-130	Stone Crushed Aggregate 11.2 mm to 0.09 mm	cum	354.77	368.96
M-131	Stone for Coarse Rubble Masonry 1st Sort	cum		-
M-132	Stone for Coarse Rubble Masonry 2nd Sort	cum		-
M-133	Stone for Random Rubble Masonry	cum	311.53	323.99
M-134	Stone for Stone Set Pavement (300 mm x 200 mm x 150 mm)	No.		-
M-135	Stone Screening - Type A 13.2 mm for Grading-1	cum	636.49	661.95
M-136	Stone Screening - Type A 13.2 mm for Grading-2	cum	636.49	661.95
M-137	Stone Screening - Type B 11.2 mm for Grading-2	cum	342.72	356.43
M-138	Stone Screening - Type B 11.2 mm for Grading-3	cum	342.72	356.43
M-140	Traffic cones	No.		-
M-141	Water	kl	40.00	40.00
M-142	Well graded Granular Base Material - Grading A 2.36 mm below	cum	193.61	201.35
M-143	Well graded Granular Base Material - Grading A 26.5 mm to 4.75 mm	cum	514.82	535.41
M-144	Well graded Granular Base Material - Grading A 53 mm to 26.5 mm	cum	471.71	490.58

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-145	Well graded Granular Base Material - Grading B 2.36 mm below	cum	193.61	201.35
M-146	Well graded Granular Base Material - Grading B 26.5 mm to 4.75 mm	cum	514.82	535.41
M-147	Well graded Granular Base Material - Grading C 2.36 mm below	cum	193.61	201.35
M-148	Well graded Granular Base Material - Grading C 9.5 mm to 4.75 mm	cum	545.10	566.90
M-149	Well Graded Material for Sub-Base - Grading I 2.36 mm below	cum	193.61	201.35
M-150	Well Graded Material for Sub-Base - Grading I 53 mm to 9.5 mm	cum	533.99	555.35
M-151	Well Graded Material for Sub-Base - Grading I 9.5 mm to 2.36 mm	cum	424.94	441.94
M-152	Well Graded Material for Sub-Base - Grading II 2.36 mm below	cum	193.61	201.35
M-153	Well Graded Material for Sub-Base - Grading II 26.5 mm to 9.5 mm	cum	567.84	590.55
M-154	Well Graded Material for Sub-Base - Grading II 9.5 mm to 2.36 mm	cum	424.94	441.94
M-155	Well Graded Material for Sub-Base - Grading III 2.36 mm below	cum	93.61	97.35
M-156	Well Graded Material for Sub-Base - Grading III 4.75 mm to 2.36 mm	cum	208.67	217.02
M-157	Well Graded Material for Sub-Base - Grading III 9.5 mm to 4.75 mm	cum	549.54	571.52
M-178	Strip seal expansion joint	LM	8341.1	8,674.74
Extra	Paver Block 60 mm	sqm	466.3	484.95
Extra	Brick Bats	cum	1162	1,208.48

BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-001	Air Compressor 210 cfm	Supplying compressed air	cfm	210.00	per hour	437.00
PM-002	Batch mix HMP 40-60 TPH	BM, DBM, SDBC, PM	t/h	50.00	per hour	21633.00
PM-003	Batch type HMP 30/40 TPH	BM, DBM, SDBC, PM	t/h	35.00	per hour	
PM-004	Bitumen boiler oil fired	Heating of bitumen				
	200 litre		litre / h	400.00	per hour	270.00
	1000 litre		litre / h	2000.00	per hour	270.00
PM-005	Bitumen emulsion pressure distributor	Applying bitumen tack coat	sqm/h	1750.00	per hour	1,091.00
PM-006	Concrete mixer 0.28/0.4 cum	Mixing of ingredients	cum/h	2.50	per hour	80.00
PM-007	Crane upto 3.5T	Lifting of materials			per hour	1,163.00
PM-008	Dozer D 50	Dozing cutting	cum/h	200.00	per hour	3,009.00
			cum/h	100.00		3,009.00
PM-009	Electric generator set, 125 KVA	Electricity generation	KVA	100.00	per hour	2,502.00
PM-010	Emulsion Sprayer with Tractor	Spraying of Emulsion			per hour	1,091.00
PM-011	Front end-loader 1 cum bucket capacity @ 45 cum/hour	Loading Aggregates	cum/h	45.00	per hour	1,291.00
		Loading Soil	cum/h	100.00		1,291.00
PM-012	Hydraulic broom with tractor	Surface cleaning	sqm/h	1250.00	per hour	522.00
PM-013	Hydraulic Excavator 0.9 cum	Excavation	cum/h	100.00	per hour	1,775.00
PM-014	Hydraulic self propelled chip spreader	Surface Dressing	sqm/h	1500.00	per hour	3,594.00
PM-015	Jack Hammer with tractor	Pavement breaking & rock drilling	cum/h	05. to 1	per hour	688.00
PM-016	Joint Cutting Machine with 2-3 blades	Cutting of Joints	h		per hour	317.00
PM-017	Mixall 6-10 t capacity	Mixing of bituminous materials	t/h	8.00	per hour	1,547.50
PM-018	Motor Grader	Scarifier & levelling	cum/h	200.00	per hour	2,674.00
				50.00		533.00
PM-019	Needle vibrator	Vibrating cement concrete mix	cum/h	3.50	per hour	76.35
PM-020	Paver finisher	Laying/spreading	t/h	75.00	per hour	1,318.00

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-021	Plate compactor	Compaction	cum/h		per hour	423.00
PM-022	Plate vibrator	Compaction	cum/h		per hour	423.00
PM-023	Screed vibrator	Compaction	cum/h		per hour	102.64
PM-024	Smooth wheeled 80-100 kN tandem roller	Compaction of Sub-base/ Asphalt	cum/h	30.00	per hour	1,561.00
PM-025	Stone crusher (Integrated) of 200 TPH	Crushing of Spalls	t/h	200.00	per hour	24,865.00
PM-026	Three wheel 80-100 kN Static Roller	Compaction/ Rolling			per hour	736.00
PM-027	Tipper 5.5 cum/10 t	Carriage	cum/trip	5.50	per hour	957.00
PM-028	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour	517.00
PM-029	Tractor with ripper @ 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour	533.00
PM-030	Tractor with trolley/with Grading equipment	Transportation of materials	t/trip	3 to 5	per hour	533.00
PM-031	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	517.00
PM-032	Truck 10 t capacity	Carriage	cum/trip	5.50	per hour	843.00
PM-033	Vibratory roller 80-100 kN	Compaction of soil WMM	cum/h	100.00	per hour	1,915.00
		Compaction of BM	cum/h	60.00		1,915.00
PM-034	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre / h	12000.00	per hour	166.00
PM-035	Wet mix plant (Pug Mill)	Wet Mix	cum/h	25.00	per hour	1,643.00
RCD						
	Generator 33 KVA				hour	507.00
P&M043	Road Marking Machine	Road Marking	sqm/h	100	per hour	128.00

Analysis for Carriage by Road

FORM F8

SI No	Item	Unit	Source	Carriage Cost & Lead in Km										Loading & Unloading Cost	Carriage Cost by Rail Head	Total
				Pucka/ Surface					Katcha							
1	Stone Metal Gr-I & Gr-II	Cum	Mirzachauki	$\frac{8.00}{4.59}$	x 8.00	x	100.00 Km =	Rs 1394.34	$\frac{8.00}{4.59}$	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1471.18	
2	Stone Metal Gr-III / GSB	Cum	Mirzachauki	$\frac{8.00}{4.99}$	x 8.00	x	100.00 Km =	Rs 1282.57	$\frac{8.00}{4.99}$	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1359.41	
3	Stone Aggregate / Chips	Cum	Pakur	$\frac{8.00}{4.99}$	x 8.00	x	100.00 Km =	Rs 1282.57	$\frac{8.00}{4.99}$	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1359.41	
4	Stone Boulder	Cum	Mirzachauki	$\frac{8.00}{4.80}$	x 8.00	x	100.00 Km =	Rs 1333.33	$\frac{8.00}{4.80}$	x 19.30	x 0.00 Km =	Rs 0.00	76.84		1410.17	
5	Course Sand	Cum	koilwar	$\frac{8.00}{4.99}$	x 8.00	x	100.00 Km =	Rs 1282.57	$\frac{8.00}{4.99}$	x 19.30	x 0.00 Km =	Rs 0.00	47.77		1330.34	
6	Binding Material (Moorum)	Cum	shakhund	$\frac{8.00}{6.00}$	x 8.00	x	100.00 Km =	Rs 1066.67	$\frac{8.00}{6.00}$	x 19.30	x 0.00 Km =	Rs 0.00	47.77		1114.44	
7	Local Sand	Cum	Local	$\frac{8.00}{4.99}$	x 8.00	x	2.00 Km =	Rs 25.65	$\frac{8.00}{4.99}$	x 19.30	x 1.00 Km =	Rs 30.94	47.77		104.36	
8	Brick/ Paver Block	1000 Nos	Local	$\frac{8.00}{2.00}$	x 6.95	x	7.00 Km =	Rs 194.60	$\frac{8.00}{2.00}$	x 19.30	x 1.00 Km =	Rs 77.20	392.70		664.50	
9	Cement	MT	Local	$\frac{8.00}{8.00}$	x 6.95	x	10.00 Km =	Rs 69.50	$\frac{8.00}{8.00}$	x 19.30	x 0.00 Km =	Rs 0.00	274.95		344.45	
10	Steel	MT	Local	$\frac{8.00}{8.00}$	x 6.95	x	10.00 Km =	Rs 69.50	$\frac{8.00}{8.00}$	x 19.30	x 0.00 Km =	Rs 0.00	289.54		359.04	
11	Bitumen Emulsion	MT	Rukunpura	$\frac{8.00}{8.00}$	x 6.95	x	215.00 Km =	Rs 1494.25	$\frac{8.00}{8.00}$	x 19.30	x 0.00 Km =	Rs 0.00	322.90		1817.15	
12	Bitumen	MT	Barauni	$\frac{8.00}{8.00}$	x 6.95	x	160.00 Km =	Rs 1112.00	$\frac{8.00}{8.00}$	x 19.30	x 0.00 Km =	Rs 0.00	322.90		1434.90	
13	Hume Pipe (1000 mm)	Pipe	Local	$\frac{8.00}{10.00}$	x 6.95	x	50.00 Km =	Rs 278.00	$\frac{8.00}{10.00}$	x 19.30	x 0.00 Km =	Rs 0.00	84.44		362.44	
14	Hume Pipe (600 mm)	Pipe	Local	$\frac{8.00}{21.00}$	x 6.95	x	50.00 Km =	Rs 132.38	$\frac{8.00}{21.00}$	x 19.30	x 0.00 Km =	Rs 0.00	87.03		219.41	
15	Hume Pipe (300 mm)	Pipe	Local	$\frac{8.00}{60.00}$	x 6.95	x	50.00 Km =	Rs 46.33	$\frac{8.00}{60.00}$	x 19.30	x 0.00 Km =	Rs 0.00	33.06		79.39	
16	Earth/Local Material	Cum	Local	$\frac{8.00}{4.80}$	x 6.95	x	1.00 Km =	Rs 11.58	$\frac{8.00}{4.80}$	x 16.90	x 0.00 Km =	Rs 0.00	47.77		59.35	

Cost of Haulage Excluding Loading & Unloading as per SOR

* Subjected to Verification of Lead

Type of Road	Per Ton. Km
For Surface Road	8.00
Unsurface Gravel Road	9.60
Kachha Road	19.30

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
1	3.3	301.5	EARTHWORK				
			Construction of embankment with material obtained from road way cutting				
			Construction of embankment with approved materials deposited at site and obtained from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical Specification Clause 301.5				
			Unit = cum				
			Taking output = 100 cum				
	a)		Labour				
			Mate	day	0.02	255.00	5.10
			Mazdoor (Unskilled)	day	0.50	237.00	118.50
	b)		Machinery				
			Dozer D-50 for spreading @ 200 cum per hour	hour	0.50	3009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller	hour	1.25	736.00	920.00
	c)		Material				
			Water	kl	12.00	40.00	480.00
			Compensation for earth including Royalty	cum	0.00	23.65	0.00
	d)		Over Heads @ 10 % on (a+b+c)				389.31
	e)		Contract Profit @ 10 % on (a+b+c+d)				428.24
			Rate for 100 cum = a+b+c+d				4,710.65
			Rate per cum = (a+b+c+d)/100=				47.11
			1 % LABOUR CESS	cum			0.47
			Rate per cum				47.58
2	3.14	303.1	Construction of Subgrade and Earthen Shoulders				
			Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5.				
			Unit = cum				
			Taking output = 100 cum				
	a)		Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	1.00	237.00	237.00
	b)		Machinery				
			Hydraulic excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1,775.00	2,958.33
			Tipper 5.5 cum capacity, 4 trips per hour	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage to cover loading & unloading				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	1.43	736.00	1,052.48
	c)		Material				
			Water	kl	12.00	40	480.00
			Compensation for earth taken from private land including Royalty	cum	100.00	23.65	2,365.00
	d)		Overheads @ 10% on (a+b+c)				1420.97
	e)		Contractor's profit @ 10% on (a+b+c+d)				1563.06
			Cost for 100 cum = a+b+c+d				17,193.69
			Rate per cum = (a+b+c+d)/100				171.94
			Total Cost including 1 % LABOUR CESS	cum			173.66

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
2A	3.14	303.1	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation)				
	New		Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.				
			Unit = cum				
			Taking output = 100 cum				
		a) Labour					
		Mate	day	0.04	255.00	10.20	
		Mazdoor (Unskilled)	day	1.00	237.00	237.00	
		b) Machinery					
		Hydraulic excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1,775.00	2,958.33	
		Tipper 5.5 cum capacity, 4 trips per hour	hour	4.50	957.00	4,306.50	
		Add 10% of the cost of carriage to cover loading & unloading				430.65	
		Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50	
		Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00	
		c) Material					
		Compensation for earth taken from private land including royalty	cum	100.00	23.65	2,365.00	
		d) Overheads @ 10% on (a+b+c)				1234.52	
		e) Contractor's profit @ 10% on (a+b+c+d)				1357.97	
		Cost for 100 cum = a+b+c+d				14,937.67	
		Rate per cum = (a+b+c+d)/100				149.38	
		Total Cost including 1% LABOUR CESS	cum			150.87	
2B	4.4	402	Lime Stabilisation For Improving Subgrade				
			Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.				
		B By Manual Means					
		Unit-cum					
		Tacking output=150 (263t)					
		a) Labour					
		Mate	day	1.44	255.00	367.20	
		Mazdoor (Skilled)	day	1.00	301.00	301.00	
		Mazdoor (Unskilled)	day	35.00	237.00	8,295.00	
		b) Machinery					
		Three Wheel 80-100 KN static Roller @70 cum per hour	hour	2.15	644.00	1,384.60	
		Water tanker 6 kl capacity	hour	3.00	166.00	498.00	
		c) Material					
		Lime	t	5.26	3207.4	16,870.92	
		Water	Kl	18.00	40.00	720.00	
		d) Overheads @ 10% on (a+b+c)				2,843.67	
		e) Contractor's profit @ 10% on (a+b+c+d)				3,128.04	
		f) Carriage cost for lime				1,811.81	
		Cost for 150 cum = (a+b+c+d+e+f)	t	5.26	344.45	36,220.24	
		Rate per cum = (a+b+c+d+e+f)/150				241.47	
		Total Cost including 1% LABOUR CESS	cum			243.88	

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
3	3.5	302	Excavation in Cutting in Soil by manual means with lead upto 50 m				
		(i)	Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3				
			Unit = cum				
			Taking output = 120 cum				
		a)	Labour				
			Mate	day	1.80	255.00	459.00
			Mazdoor (Unskilled)	day	45.00	237.00	10,665.00
		b)	Overheads @ 10% on (a)				1112.40
		c)	Contractor's profit @ 10% on (a+b)				1223.64
			Cost of 120 cum = a+b+c				13,460.04
			Rate per cum = (a+b+c)/120				112.17
			Total Cost including 1 % LABOUR CESS	cum			113.29
4		(ii)	Excavation in Soil with Dozer with lead upto 100 m				
			Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections.				
			Unit = cum				
			Taking output = 180 cum				
			Labour				
			Mate	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	2.00	237.00	474.00
			Machinery				
			Dozer D-50 @ 50 cum per hour (cutting with pushing)	hour	3.60	1079	3,884.40
			Overheads @ 10% on (a+b)				437.88
			Contractor's profit @ 10% on (a+b+c)				481.67
			Cost for 180 cum = a+b+c+d				5,298.35
			Rate per cum = (a+b+c+d)/180				29.44
			Total Cost including 1 % LABOUR CESS	cum			29.73
5	3.5	(iii)	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m				
			Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical Specification Clause 302.3				
			Unit = cum				
			Taking output = 360 cum				
		a)	Labour				
			Mate	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	2.00	237.00	474.00
		b)	Machinery				
			Hydraulic excavator 0.9 cum bucket capacity @ 100 cum per hour	hour	3.60	1,775.00	6,390.00
			Tipper 5.5 cum capacity, 4 trips per hour	hour	15.00	957.00	14,355.00
		c)	Over Heads @ 10% on (a+b)				2123.94
		d)	Contract. Profit @ 10 % on (a+b+c+d)				2336.33
			Cost for 360 cum = a+b+c				25,699.67
			Rate per cum = (a+b+c)/360				71.39
			Total Cost including 1 % LABOUR CESS	cum			72.10
6	3.4	301.5	Construction of Embankment with Material Obtained from Borrow Pits				
		(A)	Construction of embankment with approved material obtained from borrow pits with a lift upto 1.5 m, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a <u>lead upto 1000 m</u> as per Technical Specification Clause 301.5				
			Unit = cum				
			Taking output = 100 cum				
		a)	Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	1.00	237.00	237.00
		b)	Machinery				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1775.00	2,964.25
			Tipper 5.5 cum with 10 t capacity	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage by tipper				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller @ 80 cum per hour	hour	1.25	736.00	920.00
		c)	Material				
			Water	kl	12.00	40.00	480.00
			Compensation for earth taken from private land including royalty	cum	100.00	23.65	2,365.00
		d)	Over Heads @ 10 % on (a+b+c)				1408.31
		e)	Contract Profit @ 10 % on (a+b+c+d)				1549.14
			Cost for 100 cum = a+b+c+d				17,040.55
			Rate per cum = (a+b+c+d)/100=				170.41
			Total Cost including 1 % LABOUR CESS	cum			172.11
7	3.15		Compacting original ground supporting embankment				
			Loosening ,levelling and compacting original ground supporting embankment to facilitate placement of first layer of embankment scarified to a depth of 150mm ,mixed with water at omc and compacted by rolling so as to achieve minimum dry density as given in				
			Unit = cum				
			Taking output = 600 cum				
		a)	Labour				
			Mate	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	2.00	237.00	474.00
		b)	Machinery				
			Tractor with ripper attachment	hour	6.00	533.00	3,198.00
			Three wheel 80-100 KN static roller	hour	7.50	736.00	5,520.00
			water tanker 6KL capaccity	hour	4.00	166.00	664.00
		c)	Material				
			Water	kl	24.00	40.00	960.00
		d)	Over Heads @ 10 % on (a+b+c)				1083.64
		e)	Contract Profit @ 10 % on (a+b+c+d)				1192.00
			Cost for 100 cum = a+b+c+d				13,112.04
			Rate per cum = (a+b+c+d)/600=				21.85
			Total Cost including 1 % LABOUR CESS	cum			22.07
8	4.18		Brick soling				
			Laying brick soling on prepared sub -grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling ,watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412				
			Unit = sqm				
			Taking output = 150 sqm				
		a)	Labour				
			Mate	day	0.52	255.00	132.60
			Mazdoor(unskilled)	day	10.00	237.00	2,370.00
			Mason 1st class	day	3.00	322.00	966.00
		b)	Machinery				
			Three wheel 80-100 KN static roller	hour	1.00	736.00	-
			water tanker 6KL capaccity	hour	1.00	166.00	166.00
		c)	Material				
			Brick 1st class	No.	8,160.00	5.96	48,633.60
			Fine sand	cum	5.66	124.14	702.63
			water	kl	6.00	40.00	240.00
		d)	Over Heads @ 10 % on (a+b+c)				5321.08
		e)	Contract Profit @ 10 % on (a+b+c+d)				5853.19
			Cost for 100 cum = a+b+c+d				64,385.11
			A) Cost of Brick Soling without carriage per cum	cum			429.23
		f)	CARRIAGE				
			Brick 1st class	No.	8,160.00	0.66	5422.32
			Fine sand	cum	5.66	104.36	590.68
			Carriage cost				6013.00
			B) Carriage cost per cum				40.09
			Rate per cum =				469.32
			Total Cost including 1 % LABOUR CESS	cum			474.01
			PAVEMENT CRUST LAYERS				
9	4.1	401	Granular Sub-base with Well Graded Material (Table 400.1)				
	(A)		(By mix in place method)				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.				
		(ii)	For Grading II Material				
			Unit = cum				
			Taking output = 300 cum				
		a)	Labour				
			Mate	day	0.48	255.00	122.40
			Mazdoor (Skilled)	day	2.00	301.00	602.00
			Mazdoor (Unskilled)	day	10.00	237.00	2370.00
		b)	Machinery				
			Tractor mounted grader arrangement	hour	12.00	533.00	6396.00
			Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00	736.00	22080.00
			Tractor with Rotavator 25 cum per hour	hour	12.00	517.00	6204.00
			Water tanker 6 kl capacity	hour	5.00	166.00	830.00
		c)	Material				
			Well graded granular sub-base material as per Table 400.1				
			26.5 mm to 9.5 mm @ 35%	cum	134.00	590.55	79133.70
			9.5 mm to 2.36 mm @ 25%	cum	96.00	441.94	42426.24
			2.36 mm below @ 40% (Local Sand)	cum	153.00	124.14	18993.42
			Water	kl	30.00	40.00	1200.00
		d)	Over Heads @ 10 % on (a+b+c)				18035.78
		e)	Contract. Profit @ 10 % on (a+b+c+d)				19839.35
			Cost of GSB without carriage				
			A) Cost of GSB without carriage per cum	cum			727.44
		e)	CARRIAGE				
			Carriage for GSB material	Cum	230.00	1359.41	312664.30
			Carriage for material below 2.36 mm	Cum	150.00	104.36	15654.00
			Carriage cost				328318.30
			B) Carriage cost per cum				1094.39
			Rate per cum =				1821.84
			Total Cost including 1 % LABOUR CESS	CUM			1,840.06
10	4.18	412	Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)				
			Laying brick soling layer after dismantling existing Brick Soling & adding 40% new Bricks with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412				
			Unit = sqm				
			Taking output = 150 sqm				
		(a)	Labour				
			Mate	day	0.52	255.00	132.60
			Mazdoor (Unskilled)	day	10.00	237.00	2370.00
			Mason 1st Class	day	3.00	322.00	966.00
		(b)	Machinery				
			Three wheel 80-100 kN static roller	hour	1.00	736.00	736.00
			Water tanker	hour	1.00	166.00	166.00
		(c)	Material				
			Brick 1st Class	No.	3264.00	5.96	19453.44
			Fine Sand	cum	5.66	124.14	702.63
			Water	kl	6.00	40.00	240.00
		(d)	Over Heads @ 10 % on (a+b+c)				2476.67
		(e)	Contract. Profit @ 10 % on (a+b+c+d)				2724.33
		(f)	Carriage Cost				
			Brick 1st Class	No.	3264.00	0.66	2168.93
			Fine Sand	cum	5.66	104.36	590.68
			Cost for 150 sqm = a+b+c+d+e+f				32727.28
			Rate per sqm = (a+b+c+d+e+f)/150				218.18
			Total Cost including 1 % LABOUR CESS	cum			220.36
11	6.4		Cement Concrete Pavement				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse an				
		a)	Labour				
			Mate	day	7.00	255.00	1785.00
			Mason (1st class)	day	5.00	322.00	1610.00
			Mason (2nd class)	day	5.00	288.00	1440.00
			Mazdoor (Unskilled)	day	129.00	237.00	30573.00
			Mazdoor (Skilled)	day	6.00	301.00	1806.00
			Surveyor	day	2.00	291.00	582.00
			Mazdoor (Semi-Skilled)	day	6.00	247.00	1482.00
			Bhisti	day	14.00	237.00	3318.00
		b)	Machinery				
			Concrete mixer 0.28 / 0.4 cum capacity (6 mixers) with weigh batcher and suitable capacity calibrated water tank	hour	36.00	80.00	2880.00
			Needle vibrator	hour	9.00	76.35	687.15
			Screed vibrator	hour	9.00	102.64	923.76
			Plate vibrator	hour	9.00	423.00	3807.00
			Concrete joint cutting machine for initial & final cuts	hour	4.00	317.00	1268.00
			Water tanker 6 kl capacity	hour	5.00	166.00	830.00
			Air Compressor (1 hour initial + 1 hour final)	hour	2.00	437.00	874.00
		c)	Material				
		(i)	Crushed stone coarse aggregates, grading will be as per Clause 1501.2.4.1 (Table 1500.1) of specifications @ 0.90 cum/cum of concrete	cum	67.50	566.04	38207.70
		(ii)	Sand as per IS:383 and conforming to Clause 1500.2.4.2 @ 0.45 cum/cum of concrete	cum	33.75	146.32	4938.30
		(iii)	Cement @ 310 kg/cum of concrete	t	23.25	5,985.12	139154.04
		(iv)	Polythene sheet 125 micron	sqm	412.50	16.30	6723.75
			Bitumen primer @ 200 ml per joint for 23 joints	t	0.005	41,810.1	209.05
			Bituminous sealant 800 ml per joint for 23 joints	litre	19.00	26.08	495.52
			Jute rope 12 mm dia including 5 per cent wastage	m	90.00	46.59	4193.10
			Plasticizer 0.5 per cent by weight of cement	litre	122.00	164.34	20049.48
			Curing compound (if used) @ 0.33 litre per sqm	litre	131.25	130.43	17118.94
			Water for curing	kl	18.00	40.00	720.00
			Joint filler board 20 mm thick as per IS:1838	sqm	3.00	687.5	2062.50
			Formwork @ 3% of (a+b+c)				8,632.15
		(d)	Over Heads @ 10 % on (a+b+c)				29637.04
		(e)	Contract Profit @ 10 % on (a+b+c+d)				32600.75
			Cost for 75 cum = a+b+c+d+e				3,58,608.23
			Rate per cum = (a+b+c+d+e)/75				4,781.44
			Cost of CC Pavement without carriage per cum (a+b+c+d)/75	cum			
			Cost of Carriageway				
			Crushed stone coarse aggregates	cum	0.90	1359.41	1223.47
			Sand	cum	0.45	1330.34	598.65
			Cement	t	0.31	359.04	111.30
							6,714.87
			Total Cost including 1 % LABOUR CESS	cum			6,782.02
12	11.5	600 & 1200	Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203				
			Unit = cum				
		a	Brick masonry in 1:3 cement mortar				
			Material				
			Brick	Nos.	500.00	5.96	2980.00
			Cement mortar 1:3	cum	0.24	5,021.03	1205.05
			(Rate as per Sub-analysis)				
		b	Labour				
			Mate	day	0.09	255.00	22.95
			Mason (1st Class)	day	0.80	322.00	257.60
			Mazdoor (Unskilled)	day	1.60	237.00	379.20
			Bhisti	day	0.20	237.00	47.40
		c	Over Heads @ 10 % on (a+b+c)				489.22
		d	Contract Profit @ 10 % on (a+b+c+d)				538.14
			Rate per cum = a+b+c+d				5,919.56

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Total Cost including 1 % LABOUR CESS				6,511.52
			Sub-analysis				
			Cement mortar 1:3 (1 cement : 3 sand)				
			Unit = cum				
	a)		Material				
			Cement	t	0.51	5,985.12	3052.41
			Sand	cum	1.05	146.32	153.64
	b)		Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	0.90	237.00	213.30
			Bhisti	day	0.08	237.00	18.96
	(f)		Carriage Cost				
			Cement	t	0.51	344.45	175.67
			Sand	cum	1.05	1,330.34	1396.86
			Total material and labour = (a+b)				5,021.03
	ii		Brick masonry in 1:4 cement mortar				
			Unit = cum				
			Material				
	a)		Brick	Nos.	500.00	5.96	2980.00
			Cement mortar 1:4	cum	0.24	4,198.19	1007.57
			Rates as per sub-analysis				
	b)		Labour				
			Mate	day	0.09	255.00	22.95
			Mason (1st Class)	day	0.80	322.00	257.60
			Mazdoor (Unskilled)	day	1.60	237.00	379.20
			Bhisti	day	0.20	237.00	47.40
	c		Over Heads @ 10 % on (a+b+c)				469.47
	d		Contract. Profit @ 10 % on (a+b+c+d)				516.42
			Rate per cum = a+b+c+d				5,680.61
			Total Cost including 1 % LABOUR CESS				6,248.67
			Sub-analysis				
			Cement mortar 1:4 (1 cement : 4 sand)				
			Unit = cum				
	a)		Material				
			Cement	t	0.38	5,985.12	2274.35
			Sand	cum	1.05	146.32	153.64
	b)		Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	0.90	237.00	213.30
			Bhisti	day	0.08	237.00	18.96
	(f)		Carriage Cost				
			Cement	t	0.38	344.45	130.89
			Sand	cum	1.05	1,330.34	1396.86
			Total material and labour = (a+b)				4,198.19
13	11.4		Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				
	IV.		R.C.C grade M 20				
			Unit = cum				
	a)		Material				
			Cement	t	0.35	5,985.12	2094.79
			Coarse sand	cum	0.45	146.32	65.84
			20 mm aggregate	cum	0.54	590.55	318.90
			10 mm aggregate	cum	0.36	658.89	237.20
	b)		Labour				
			Mate	day	0.08	255.00	20.40
			Mason (1st Class)	day	0.12	322.00	38.64
			Mazdoor (Unskilled)	day	1.73	237.00	410.01
			Bhisti	day	0.27	237.00	63.99
	c)		Machinery				
			Concrete mixer 0.4/0.28 cum capacity	hour	0.40	80.00	32.00
	d)		Formwork @ 4% on (a+b+c)				131.27
	e)		Over Heads @ 10 % on (a+b+c)				341.30
	f)		Contract. Profit @ 10 % on (a+b+c+d)				375.43
			Total material and labour = (a+b+c+d)				4,129.78
	(f)		Carriage Cost				
			Cement	t	0.35	344.45	120.56

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Coarse sand	cum	0.45	1,330.34	598.65
			20 mm aggregate	cum	0.54	1,359.41	734.08
			10 mm aggregate	cum	0.36	1,359.41	489.39
			Rate per cum = (a+b+c+d+e+f)				6072.46
			Total Cost including 1 % LABOUR CESS				6,679.71
14	11.4	800 & 1200	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				
		i.	P.C.C grade M 10				
		(i)	Nominal mix 1:3:6				
			Unit = cum				
		a)	Material				
			Cement	t	0.25	5,985.12	1496.28
			Coarse sand	cum	0.48	146.32	70.23
			40 mm aggregate	cum	0.58	472.09	271.92
			20 mm aggregate	cum	0.29	590.55	170.08
			10 mm aggregate	cum	0.10	658.89	63.25
		b)	Labour				
			Mate	day	0.08	255.00	20.40
			Mason (1st Class)	day	0.10	322.00	32.20
			Mazdoor (Unskilled)	day	1.63	237.00	386.31
			Bhisti	day	0.27	237.00	63.99
		c)	Machinery				
			Mechanical concrete mixer 0.4/0.28 cum capacity fitted with water measuring device and preferably also with load cell.	hour	0.40	80.00	32.00
		d)	Formwork @ 4% on cost of material, labour and machinery (a+b+c)				104.27
		e)	Over Heads @ 10 % on (a+b+c)				271.09
		f)	Contract. Profit @ 10 % on (a+b+c+d)				298.20
			Rate per cum = a+b+c+d+e+f				3280.23
		(g)	Carriage Cost				
			Cement	t	0.25	344.45	86.11
			Coarse sand	cum	0.48	1330.34	638.56
			40 mm aggregate	cum	0.58	1359.41	783.02
			20 mm aggregate	cum	0.29	1359.41	391.51
			10 mm aggregate	cum	0.10	1359.41	130.50
			Rate per cum = a+b+c+d+e+f+g				5309.94
			Total Cost including 1 % LABOUR CESS				5,840.94
15	11.2	300 & 1200	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9				
		New	Borrowed Earth				
			Unit = cum				
		a)	Labour				
			Mate	day	0.01	255.00	2.55
			Mazdoor (Unskilled)	day	0.30	237.00	71.10
		b)	Material				
			Borrowed Earth (assuming 20 per cent voids)	cum	1.20	23.65	28.38
		c)	Over Heads @ 10 % on (a+b)				10.20
		d)	Contract. Profit @ 10 % on (a+b+c)				11.22
			Carriage Cost				
			Borrowed Earth (assuming 20 per cent voids)	cum	1.20	59.35	71.22
			Rate per cum = a+b+c				194.68
			Rate per cum (WITH 1 % LABOUR CESS)	cum			196.62
		1200	Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well.				
		A	Assuming depth of water 1.0 m and height of island to be 1.25 m including Royalty for earth @ Rs. 3768.00 for each Island.				
			Unit = 1 No				
			Taking output = 1 No.				
		a)	Material				
			Earth (compacted)	cum	251.20	23.65	5940.88
			Sand bags	each	750.00	7.09	5317.50
		b)	Labour				
			Mate	day	0.40	255.00	102.00
			Mazdoor for filling sand bags, stitching and placing	day	15.00	237.00	3555.00
		c)	Machinery				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Crane with grab 1 cum capacity	hour	20.00	1149.39	22987.80
			Consumables @ 2.5 per cent of (c) above				574.70
			d) Overhead charges @ 0.2 on (a+b+c)				7695.58
			e) Contractor's profit @ 0.1 on (a+b+c+d)				4617.35
			Rate per No. (a+b+c+d+e)				50790.80
			Rate per cum (WITH 1 % LABOUR CESS)	cum			51298.70
		Note	It is assumed that earth will be available within the working space of crane with grab bucket.			say	51299.00
	C		Providing and constructing one span service road to reach island location from one pier location to another pier location including Royalty for earth per m for service Road.				
			Assuming span length 30 m, width of service road 10m and depth of water 1m				
			Unit = 1 meter				
			Taking output = 30 metre				
		a)	Material				
			Earth	cum	450.00	23.65	10642.50
			Sand bags	each	300.00	7.09	2127.00
		b)	Labour				
			Mate	day	0.24	255.00	61.20
			Mazdoor for filling sand bags, stitching and placing	day	6.00	237.00	1422.00
		c)	Machinery				
			Front end Loader 1 cum capacity	hour	27.00	1134.00	30618.00
			Tipper 5.5 cum capacity	hour	28.00	837.00	23436.00
		d)	Overhead charges @ 0.2 on (a+b+c)				13661.34
		e)	Contractor's profit @ 0.1 on (a+b+c+d)				8196.80
			Cost for 30 m (a+b+c+d+e)				90164.84
			Rate per m (a+b+c+d+e)/30				3005.49
			Rate (WITH 1 % LABOUR CESS)	cum			3035.55
						say	3036.00
14	11.4	PCC grade M15					
	(i)	Nominal mix (1:2.5:5)					
		Unit = cum					
	a)	Material					
		Cement	t	0.28	5,985.12		1645.91
		Coarse sand	cum	0.48	146.32		70.23
		40 mm aggregate	cum	0.48	472.09		226.60
		20 mm aggregate	cum	0.24	590.55		141.73
		10 mm aggregate	cum	0.08	658.89		52.71
	b)	Labour					
		Mate	day	0.08	255.00		20.40
		Mason (1st Class)	day	0.10	322.00		32.20
		Mazdoor (Unskilled)	day	1.63	237.00		386.31
		Bhisti	day	0.27	237.00		63.99
	c)	Machinery					
		Concrete mixer 0.4/0.28 cum capacity	hour	0.40	80.00		32.00
	d)	Formwork @ 4% on cost of material, labour and machinery (a+b+c)					106.88
	e)	Over Heads @ 10 % on (a+b+c)					277.90
	f)	Contract. Profit @ 10 % on (a+b+c+d)					305.69
		Rate per cum = a+b+c+d+e+f					3362.56
	(g)	Carriage Cost					
		Cement	t	0.275	344.450		94.72
		Coarse sand	cum	0.480	1,330.340		638.56
		40 mm aggregate	cum	0.480	1,359.410		652.52
		20 mm aggregate	cum	0.240	1,359.410		326.26
		10 mm aggregate	cum	0.080	1,359.410		108.75
		Rate per cum = a+b+c+d+e+f+g					5183.37
		Total Cost including 1 % LABOUR CESS					5,701.71
15	11.8	1000&1200	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000and1202 unit=T				
	a)	Material					
		TMT bars including 5%for overlaps and wastage	t	1.05	42,848.0		44990.40
		binding wires	kg	6	57.77		346.62

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		b	Labour for cutting, bending, shifting to site, tying and placing in position				
			Mate				
			Blacksmith	day	0.4	255.00	102.00
			Mazdoor (Unskilled)	day	2	288.00	576.00
		c	Over Heads @ 10 % on (a+b+c)	day	6	237.00	1422.00
		d	Contract Profit @ 10 % on (a+b+c+d)				4743.70
		(g)	Carriage Cost				5218.07
			TMT bars including 5% for overlaps and wastage	t	1.05	359.04	376.99
			Rate per cum = a+b+c+d				5775.79
			Total Cost including 1 % LABOUR CESS				63553.36
16	9.2	1100 & (II)	Type B (First Class) Bedding				
		800	Laying (First Class) bedding on well compacted sand, moorum or approved granular material as per Clause 1105 (ii)				
			Filling in foundation trenches as per drawing and technical specifications Clause 305.3.9				
		i.	Sand filling				
			Unit = cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.01	255.00	2.55
		b)	Material	day	0.30	237.00	71.10
			Sand (assuming 20 per cent voids)				
		c	Over Heads @ 10 % on (a+b+c)	cum	1.20	146.32	175.58
		d	Contract Profit @ 10 % on (a+b+c+d)				24.92
			Cost of Type B (First Class) Bedding without carriage				27.42
			Cost of Type B (First Class) Bedding without carriage per m (a+b+c)/1	cum			301.57
			Cost of Carriageway				301.57
			Sand	cum	1.20	1330.34	1596.41
			Total Cost including 1 % LABOUR CESS				2,087.78
17	9.3	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row				
		(I)	Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1.2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1100.				
		A.	600 MM DIA				
			Unit = m				
			Taking output = 7.5 m				
			(3 pipes of 2.5 m length each)				
		a)	Material				
			Sand	cum	0.019	146.32	2.78
			Cement	t	0.014	5,985.12	83.79
			RCC pipe NP 3 pipe including collar	m	7.50	899.18	6743.85
		b)	Labour				
			Mate				
			Mason (1st Class)	day	0.04	255.00	10.2
			Mazdoor (Unskilled)	day	0.12	322.00	38.64
		c)	Over Heads @ 10 % on (a+b)	day	0.96	237.00	227.52
		d)	Contract Profit @ 10 % on (a+b+c)				710.68
			Cost of RCC Pipe NP3 without carriage				781.75
			Cost of RCC Pipe NP3 without carriage per m (a+b+c)/7.5				8599.21
			Cost of Carriageway	m			1146.56
			Sand	cum	0.0025	1330.34	3.37
			Cement	t	0.0019	344.45	0.64
			RCC pipe NP 3 pipe including collar	m	1.00	219.41	219.41
			Total Cost including 1 % LABOUR CESS				1,506.98
16	11.1	300	Excavation for Structures				
			Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side				
		i.	Ordinary soil				
		(i)	Upto 3 m depth				
			Unit = cum				
			Taking output = 10 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.32	255.00	81.6
		b	Over Heads @ 10 % on (a)	day	8.00	237.00	1896
							197.76

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		c	Contract Profit @ 10 % on (a+b)				217.54
			Cost for 10 cum = a+b+c				2392.90
			Rate per cum (a+b)/10=	cum			239.29
			Total Cost including 1 % LABOUR CESS				241.68
11.2			Sand filling (Unit = cum)				
		a) Labour					
		Mate	day	0.01	255.00		2.55
		Mazdoor (Unskilled)	day	0.30	237.00		71.1
		b) Material					
		Sand (assuming 20 per cent voids)	cum	1.20	124.14		148.968
		d) Over Heads @ 10 % on (a+b+c)					22.26
		e) Contract Profit @ 10 % on (a+b+c+d)					24.49
		Cost of Filling in foundation trenches without carriage					269.37
		A) Cost of Filling in foundation trenches without carriage per cum (a+b+c)/1	cum				269.37
		Cost of Carriageway					
		Sand	cum	1.2000	104.36		125.23
		Cost for cum = a+b+c+d+e					394.60
		Rate per cum = (a+b+c+d+e)					394.60
		Total Cost including 1 % LABOUR CESS					398.55
17	3.15	303	Compacting original ground supporting subgrade				
	(II)		Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.				
			Unit = cum				
			Taking output = 600 cum				
		a) Labour					
		Mate	day	0.24	255.00		61.2
		Mazdoor (Unskilled)	day	6.00	237.00		1422
		b) Machinery					
		Tractor with ripper attachment	hour	10.00	533.00		5330
		Tractor mounted grader arrangement for grading	hour	12.00	533.00		6396
		Water tanker 6 kl capacity	hour	4.00	166.00		664
		Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	8.60	736.00		6329.6
		c) Material					
		Water	kl	24.00	40.00		960
		d) Over Heads @ 10 % on (a+b+c)					2116.28
		e) Contract Profit @ 10 % on (a+b+c+d)					2327.91
		Cost for 600 cum = a+b+c+d+e					25606.988
		Rate per cum = (a+b+c+d+e)/600					42.68
		Total Cost including 1 % LABOUR CESS					43.11
18			Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504				
			Unit = sqm				
		a) Labour					
		Mate	day	0.90	255.00		229.5
		Mazdoor (Unskilled)	day	15.00	237.00		3555
		Mason (2nd class)	day	7.00	288.00		2016
		b) Machinery					
		Water tanker 6 kl capacity	hour	2.00	166.00		332
		c) Material					
		(i) Providing inter- locking blocks	sqm	225.00	484.95		109113.75
		(ii) Edge blocks	m	120.00	484.95		58194
		(iii) Sand as per tabel 1500.5	cum	5.42	124.14		672.84
		(iv) Water	kl	3.00	40		120
		d) Overheads @ 10% on (a+b+c)					17423.31
		e) Contractor's profit@10% on (a+b+c+d)					19165.64
		Cost for 225 sqm = a+b+c+d+e					
		Cost of Carriageway					
		Sand	cum	5.42	104.36		565.63
		(i) Providing inter-locking blocks +(ii) Edge blocks	No.	7,200.00	0.65		4715.28
		Rate per sqm =(a+b+c+d+e)/225					960.46
		Total Cost including 1 % LABOUR CESS					970.06
19	12.9		Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications				

Analysis of Rates (FORMAT F8)

SI. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Unit = Nos.				
			Taking output = 30 Nos.				
		a)	Material				
			AC pipe 100 mm dia. (including wastage @ 5 per cent)	m	31.50	46.25	1456.88
			MS clamp	No.	30.00	33.36	1000.80
			Cement mortar 1:3 (Rate as in Item 12.6)	cum	0.05	5021.03	251.05
		b)	Labour				
			Mate	day	0.03	255.00	7.65
			Mason	day	0.50	288.00	144.00
			Mazdoor	day	0.25	237.00	59.25
		c)	Overheads @ 10% on (a+b+c)				291.96
		d)	Contractor's profit@10% on (a+b+c+d)				321.16
			Cost for 30 m = a+b+c+d				3532.75
			Rate per m (a+b+c+d)/30				117.76
			Total Cost including 1 % LABOUR CESS				118.94
20	12.2		Plastering with Cement punning with cement mortar (1:4) on brickwork as per drawing and technical specification clauses 613.3 and 1204				
			Unit = 10 sqm				
			Taking output = 10 sqm				
		a)	Material				
			Cement mortar 1:4	cum	0.240	4,198.19	1007.57
		b)	Labour				
			Mate	day	0.06	255.00	15.30
			Mason	day	0.60	288.00	172.80
			Mazdoor	day	0.60	237.00	142.20
			Bhisti	day	0.30	237.00	71.10
		c)	Overheads @ 10% on (a+b+c)				140.90
		d)	Contractor's profit@10% on (a+b+c+d)				154.99
			Rate per 10 sqm (a+b+c+d)				1704.85
			Total Cost including 1 % LABOUR CESS				172.19
21	2.6	d)	Dismantling Brick/Tile Work				
			Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.				
			Unit = cum				
			Taking output = 1.25				
		(D)	Dry brick pitching or brick soling				
		a)	Labour				
			Mate	day	0.02	255.00	5.10
			Mazdoor (Unskilled)	day	0.50	237.00	118.50
		b)	Machinery				
			Tractor with trolley	hour	0.27	533.00	143.91
		d)	Overheads @ 10% on (a+b+c)				26.75
		e)	Contractor's profit@10% on (a+b+c+d)				29.43
			Cost for 1.25 cum = a+b+c+d				323.69
			Rate per cum = (a+b+c+d)/1.25				258.95
			Total Cost including 1 % LABOUR CESS				261.54
22	New Item		Providing and laying brick bats in Soak pit as per direction of Engineer in charge				
			Unit= cum				
			Taking Output = 1				
		a)	Mate	day	0.01	255.00	2.55
			Mazdoor (Unskilled)	day	0.2	237.00	47.4
		b)	Brick bats	cum	1	1208.48	1208.48
		c)	Overheads @ 10% on (a+b)				125.843
		d)	Contractor's profit@10% on (a+b+c)				138.4273
			Cost for 1 cum = a+b+c+d				1522.7003
			Total Cost including 1 % LABOUR CESS				1537.93

CBR VALUE OF REGIONS IN BIHAR

ZONING OF THE AREAS BASED ON TYPE OF SOIL

Sl.No	DISTRICT	DIVISION	BLOCK	TYPE OF SOIL	Av APPROX CBR
1	ARARIA	ARARIA	ALL BLOCK	FINE SAND	4
2		FORBESGANJ	ALL BLOCK	FINE SAND	4
3	ARWAL	ARWAL	ALL BLOCK	BLACK COTTON SOIL	3
4	AURANGABAD	AURANGABAD	ALL BLOCK	BLACK COTTON SOIL	3
		DAUDNAGAR	ALL BLOCK	SANDY CLAY	4
5	BANKA	BANKA-1	AMARPUR, SHAMBHUGANJ	BLACK COTTON SOIL	3.5-4
			BANKA, BELHAR, PHULLIDUMER	FINE SAND	4
		BANKA-2	BARAHAT, BOUNSI, CHAANDAN, KATORIA, RAJAUN	FINE SAND	4
			DHORAIYA	BLACK COTTON SOIL	3-3.5
6	BEGUSARAI	BALIA	ALL BLOCK	SANDY CLAY	4
		BEGUSARAI	ALL BLOCK	SANDY	4
		MANJHAUL BAKHARI	ALL BLOCK	SANDY	4
		TEGHRA	BACHHWARA, BHAGWANPUR, TEGHRA	BLACK COTTON-40% & SANDY 60%	3 TO 4
7	BHAGALPUR	BHAGALPUR	ALL BLOCK	BLACK COTTON	3
		KAHALGAON	ALL BLOCK	BLACK COTTON	4
		NAVGACHHIYA	ALL BLOCK	BLACK COTTON	4
					4
8	BHOJPUR	ARA	AGIAON, ARA, UDWANT NAGAR	BLACK COTTON	3
			BARHARA	BLACK COTTON, 30 % SAND	3 TO 4
			KOILWAR	SANDY	4

		JAGDISHPUR	ALL BLOCK	SANDY CLAY	4
		PIRO	ALL BLOCK	SILTY CLAY	4
9	BUXAR	BUXAR	BUXAT,CHAUSA,SIMRI	SANDY	4--5
			ITARHI,RAJPUR	BLACK COTTON	3--4
		DUMRAON	BARHAMPUR,CHAUNGA I,DUMRAON,KESATH,NA WANGAR	SANDY CLAY	4--5
			CHAKKI	SANDY	4--5
10	DARBHANGA	BENIPUR	ALL BLOCK	SANDY CLAY	4--5
		BIRAWL	ALL BLOCK	SANDY CLAY	4--5
11	GAYA	GAYA	FATEHPUR	MOORAM	6
			WAZIRGANJ	MOORAM	6
		IMAMGANJ	IMAMGANJ	MOORAM	6
		SHERGHATI	SHERGHATI	MOORAM	6
12	GOPALGANJ	GOPALGANJ-1	ALL BLOCK	SANDY CLAY	4--5
		GOPALGANJ-2	ALL BLOCK	SANDY CLAY	4--5
		HATHUA	ALL BLOCK	SANDY CLAY	4--5
13	JAMUI	JAMUI	JAMUI,KHAIRA,LAKSHM IPUR	MOORAM	6
		JHAJHA	CHAKAI	MOORAM	6
14	KAIMUR(BHABUA)	BHABUA	ADHAURA	ROCKY	100
			BHABUA,BHAGWANPUR	50 % CLAY,50 % SANDY	3--4
			CHAINPUR,CHAND,RAM PUR	SANDY CLAY	4--5
15	KATIHAR	KATIHAR	FALKA	FINE SAND	4
16	KISHANGANJ	KISHANGANJ-1	ALL BLOCK	FINE SAND	4
		KISHANGANJ-2	ALL BLOCK	FINE SAND	4
17	MADHEPURA	MADHEPURA	ALL BLOCK	FINE SAND	4

		UDAKISUNGAN J	ALL BLOCK	FINE SAND	4
18	MADHUBANI	JHANJHARPUR	MADHEPUR	FINE SAND	4
19	MUZZAFARPU R	MUZZAFARPU R EAST-1	ALL BLOCK	SANDY	4
		MUZZAFARPU R EAST-2	ALL BLOCK	SANDY	4
		MUZZAFARPU R WEST	ALL BLOCK	SANDY	4
20	NALANDA	HARNAUT	THARTHARI	BLACK COTTON	3--3.5
		HILSA	EKANGARSARAI,KARAI PARSURI	BLACK COTTON	3--3.5
		RAJGIR	RAJGIR	MOORAM	6
21	NAWADA	RAJAULI	MESKOR,RAJAULI,SIRD ALA	MOORAM	6
		BAGHA-1	ALL BLOCK	FINE SAND	6
22	PASCHIM CHAMPARAN	BETIA	BAIRIA,BETTIAH,JOGAP ATTI,MAJHULIA	SANDY CLAY	3-4
			NAUTAN	50% CLAY 50% SAND	5
23	PATNA	BADH	ALL BLOCK	BLACK COTTON SOIL	3--3.5
		DANAPUR	ALL BLOCK	BLACK COTTON SOIL	3--3.5
		MASAUHRI	ALL BLOCK	BLACK COTTON SOIL	3--3.5
		PALIGANJ	ALL BLOCK	BLACK COTTON SOIL	3--3.5
		PATNA	ALL BLOCK	BLACK COTTON SOIL	3--3.5
24	ROHTAS	DIHARI	AKORHI GOLA	CLAY	4
			DEHRI	SANDY CLAY	4-5
			NAUHATTA	MOORAM	6
			ROHTAS	SANDY-GRAVEL	6
			TILAUTHU	50% CLAY 50% SAND	3-4
		SASARAM-1	CHENARI	60% BLACK COTTON 40% CLAY	3-4
			KARGHAR,KOCHAS,SHE OSAGAR	BLACK COTTON SOIL	3--3.5
			SASARAM	BLACK COTTON SOIL AND CLAY	3--3.5

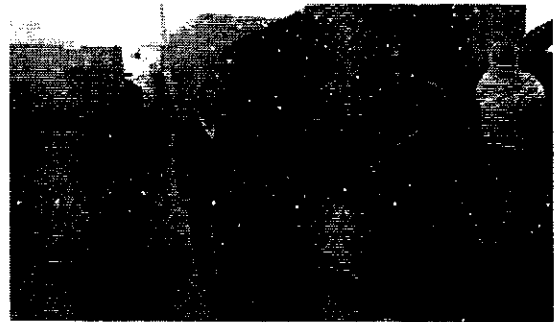
		SASARAM-2	KARAKAT, NASRIGANJ	SAND + CLAY	
			NOKHA BLOCK	60 % BLACK COTTON 40 % CLAY	3-4
25	SAHARSA	SAHARSA	ALL BLOCK	FINE SAND	4
		SIMRI BAKHTIYARPU	ALL BLOCK	FINE SAND	4
26	SAMASTIPUR	DALSINGHSARAY	BIBHUTIPUR	25% BLACK COTTON AND 75% SANDY	3-4
			DAKSINGHSARAY, MORWA, SARAIRANJAN, UJIA	SANDY CLAY	4-5
		PATORJ	ALL BLOCK	SANDY CLAY	4-5
		ROSRA	ALL BLOCK	SANDY CLAY	4-5
		SAMASTIPUR	ALL BLOCK	SANDY CLAY	4-5
27	SARAN	CHAPRA-1	ALL BLOCK	SANDY CLAY	4-5
28	SHEIKHPURA	SHEKHPURA	SHEIKHPURA	SANDY CLAY	4-5
29	SITAMARHI	SITAMARHI	BATHNAHA, DUMRA, MAJORGANJ, PARIHAR, SONBARSA	SANDY CLAY	4-5
30	SUPAUL	SUPAUL	ALL BLOCK	FINE SAND	4
		TRIVEINGANJ	ALL BLOCK	FINE SAND	4
		VIRPUR	ALL BLOCK	FINE SAND	4
31	VAISHALI	MAHUA	ALL BLOCK	SANDY CLAY	4

PHOTOGRAPHS

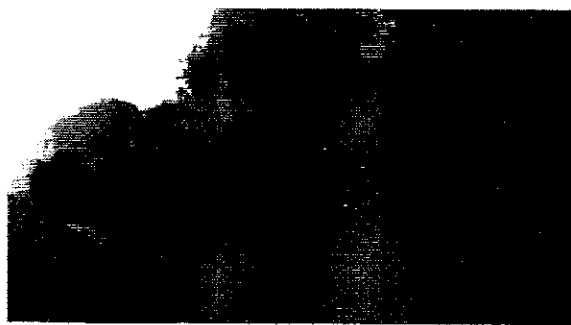
District- Rohtas
PANCHYAT -Akhodi



Picture 1



Picture 2



Picture 3



Picture 4

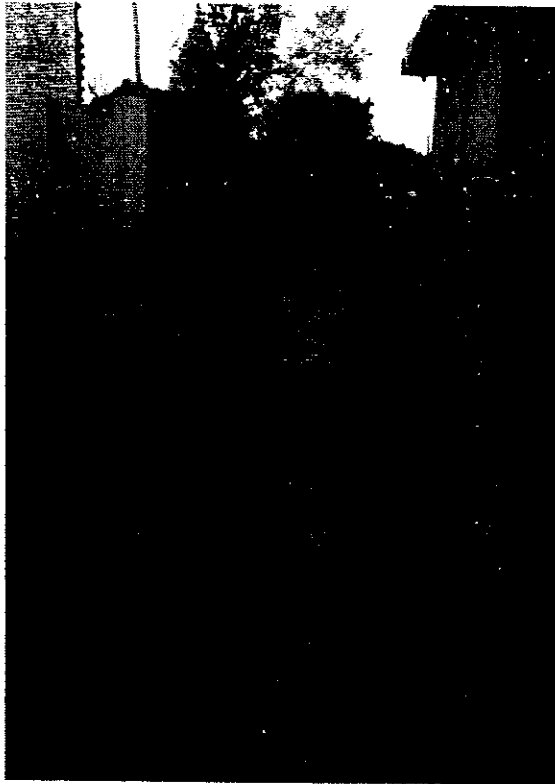


Picture 5



Picture 6

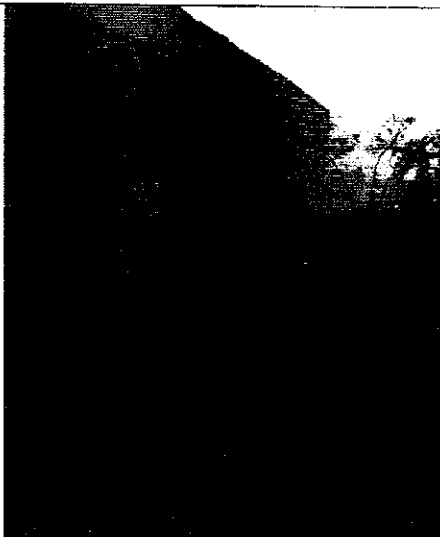
District- Rohtas
Baghakhok Village



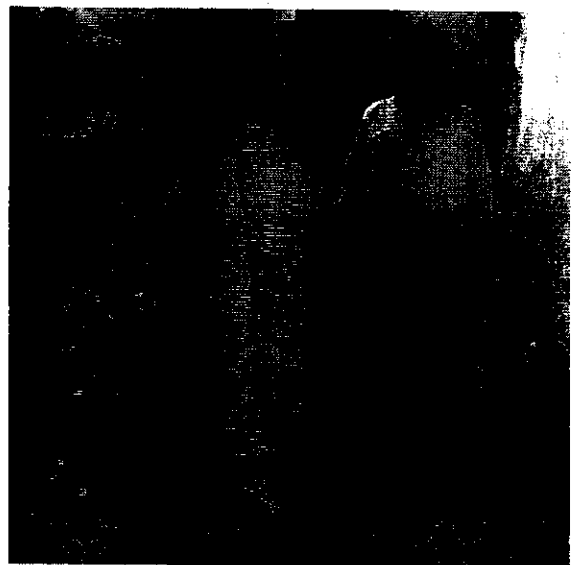
Picture 1



Picture 2



Picture 3

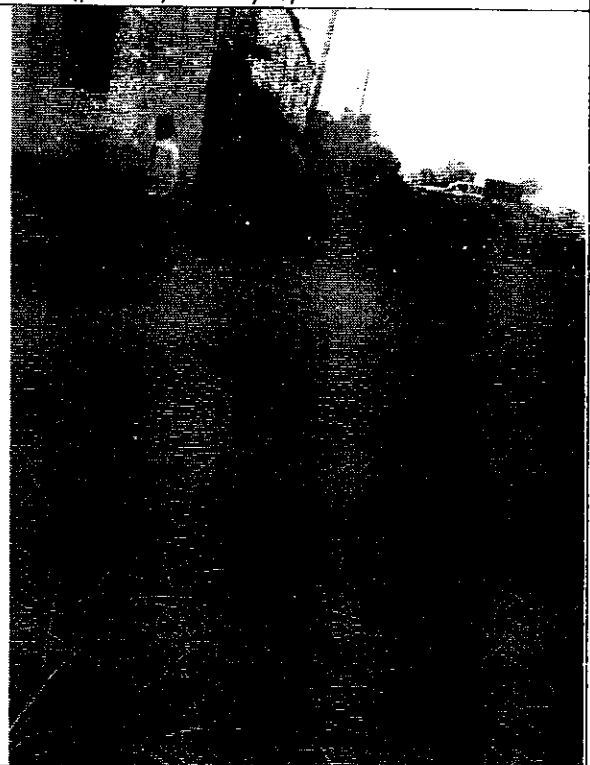


Picture 4

District- Bhojpur

Division- Piro

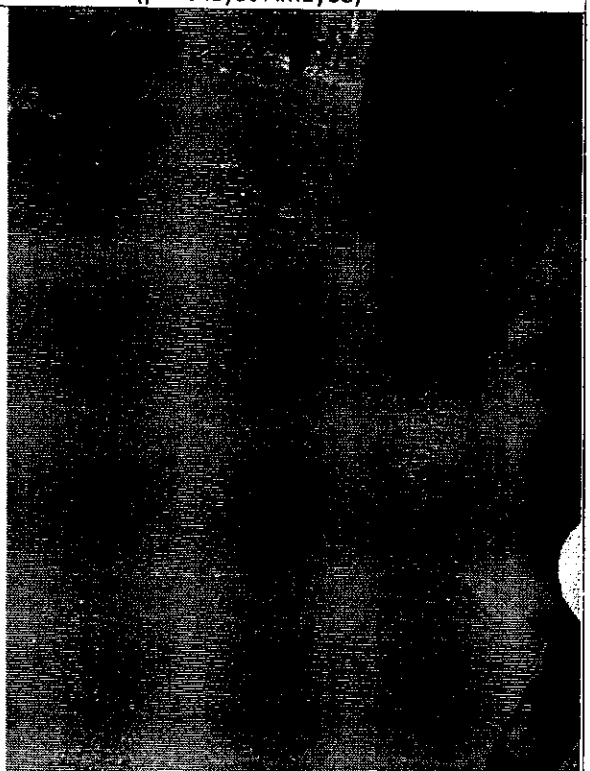
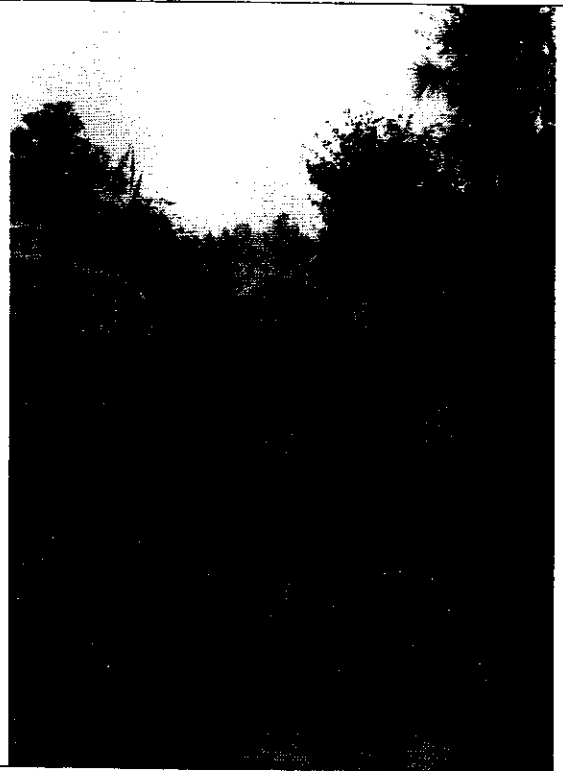
Name of Road- PMGSY Harinath tol to amayee Ahari tola (panchayat-Amayee)

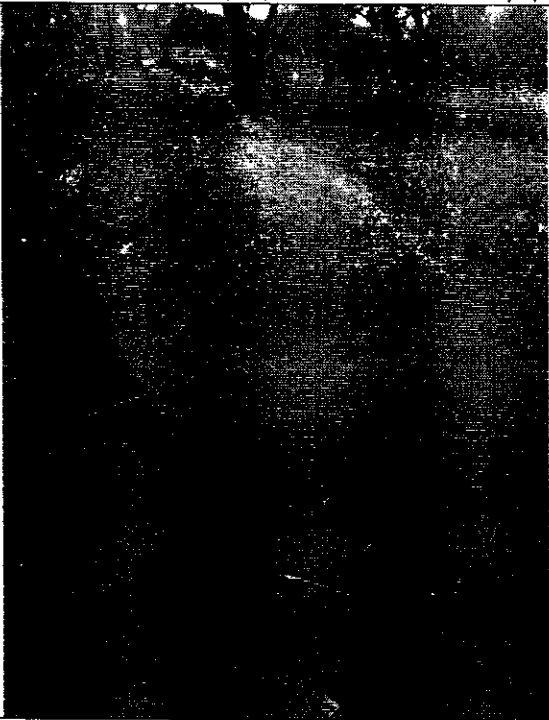
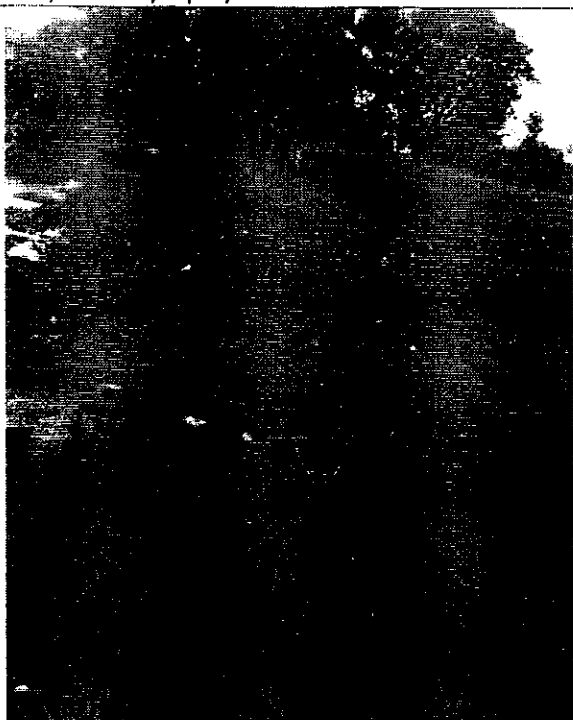


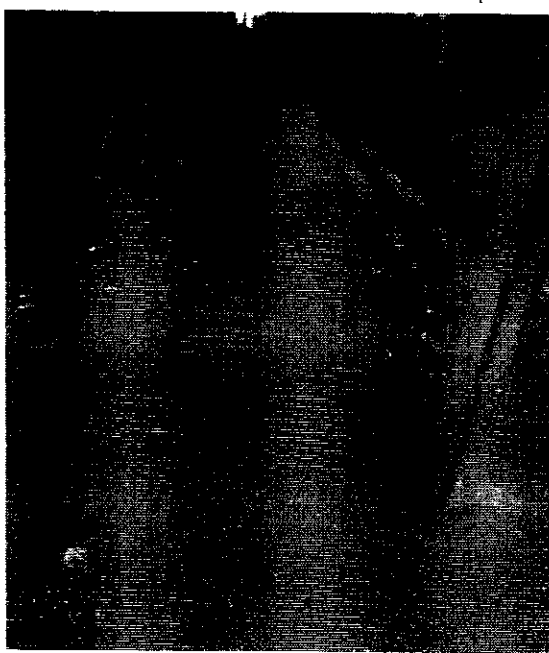
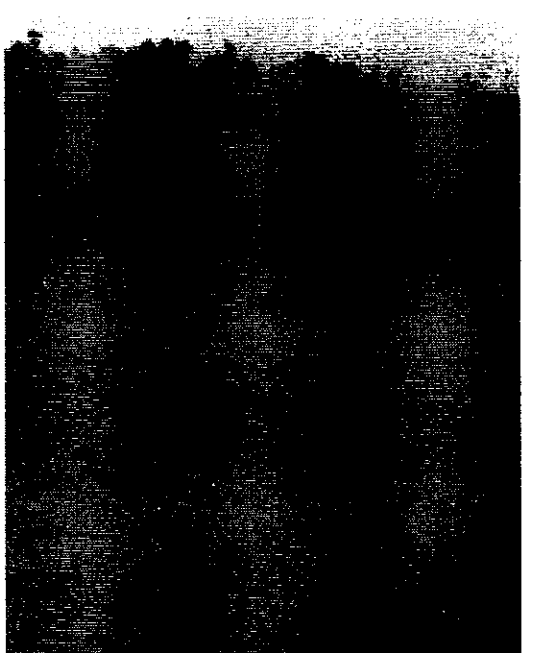
District- Bhojpur

Division- Piro

Name of Road- Amayee upgraded middle school to bandhan tola(panchayat-Amayee)



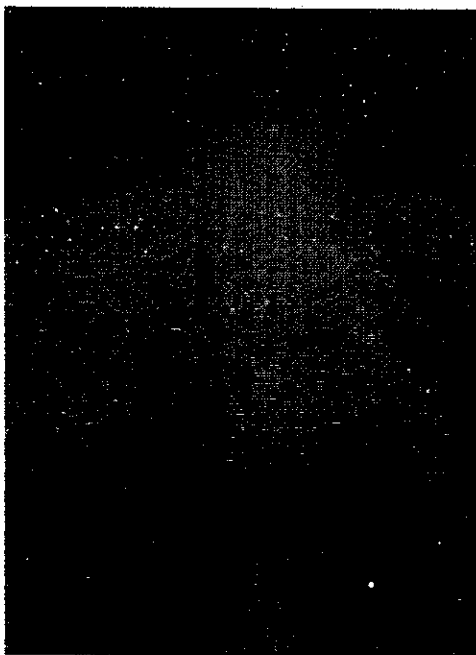
District- Bhojpur	
Division- Piro	
Name of Road- Narayanpur PCC road to mathiya(Panchayat- Narayanpur)	
	

District- Bhojpur	
Division- Piro	
Narayanpur masjeed to Sridhar pandit tola(Panchayat Narayanpur)	Narayanpur PCC road-Mathiya road to khorabar(Panchayat Narayanpur)
	

District- Bhojpur

Division- Piro

Name of Road- Piro Qwath PWD road to Ganeshi tola(panchayat Amehta)



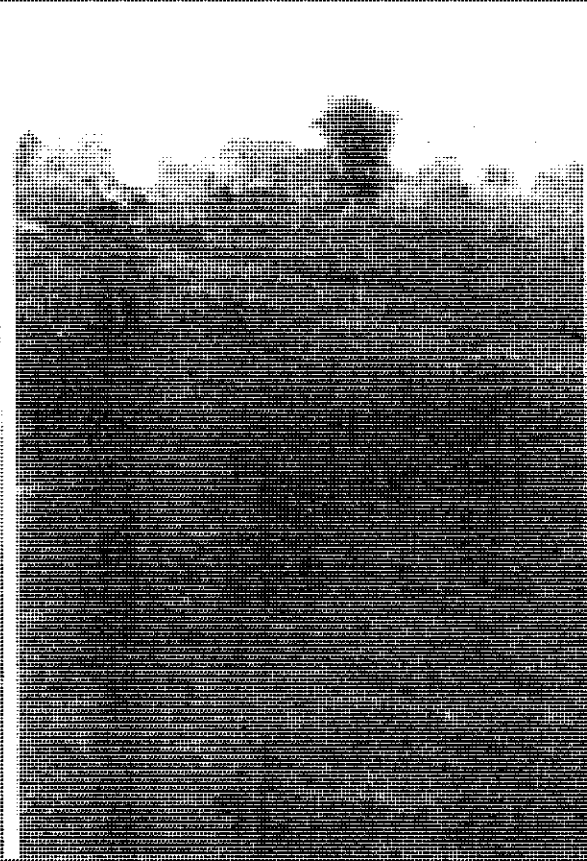
MMGSY Garhath Road(house of Shiv dayal singh)
To house of Ayodhaya singh (panchayat katya)



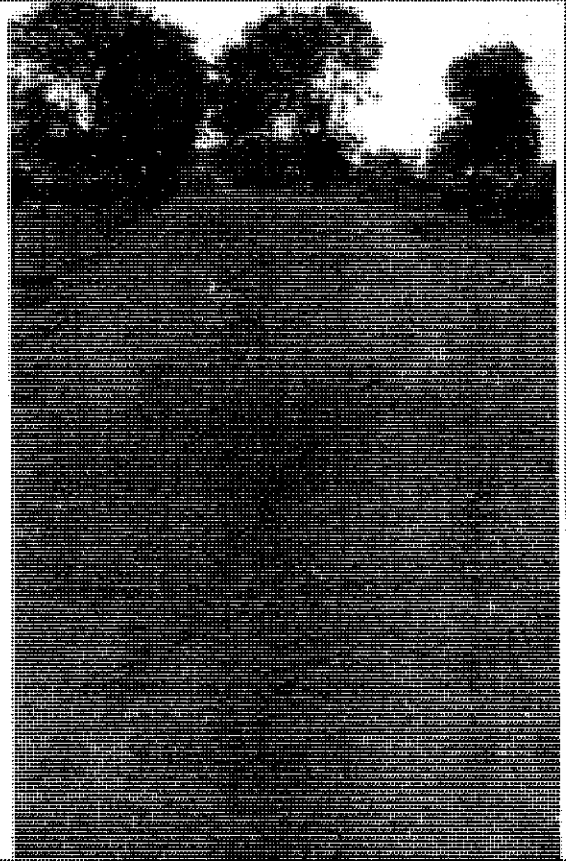
MMGSY Garhath Road(house of alok singh) To
house of vijay singh(panchayat katya)



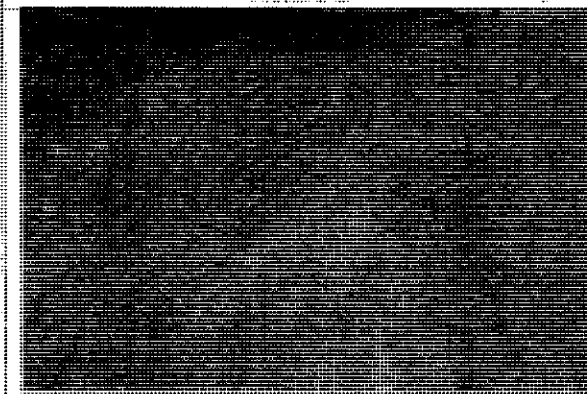
District- Kaimur(Bhabhua)
Division- Kaimur
Block- Adhaura



Picture-1



Picture-2



Picture-3



Picture-4

District- Kishanganj
Division- Kishanganj-1
Block- Kishanganj



Picture 1



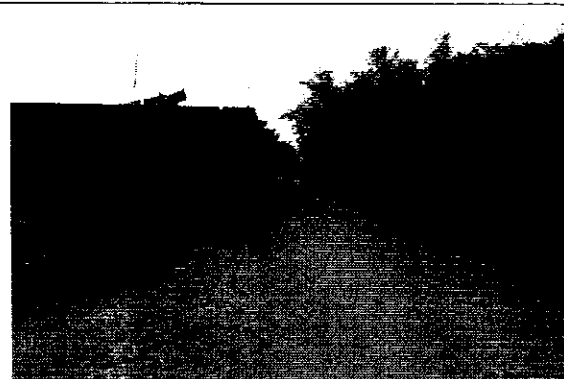
Picture 2



Picture 3



Picture 4

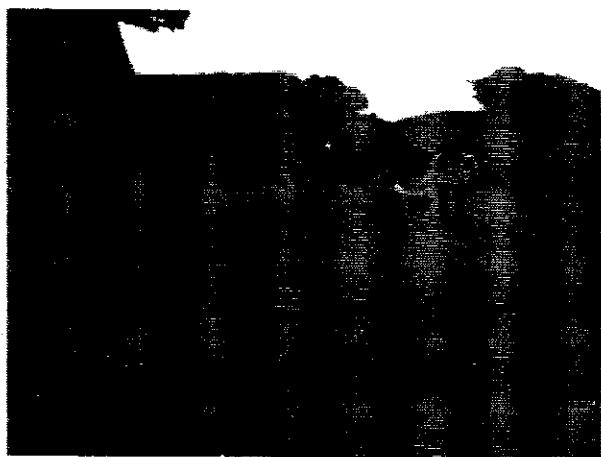
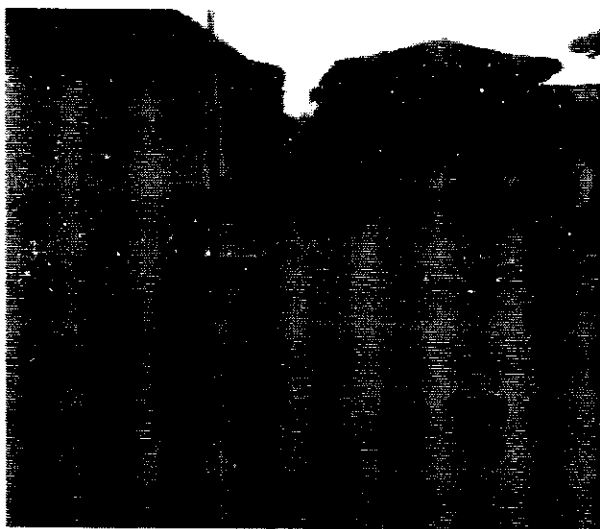


Picture 5

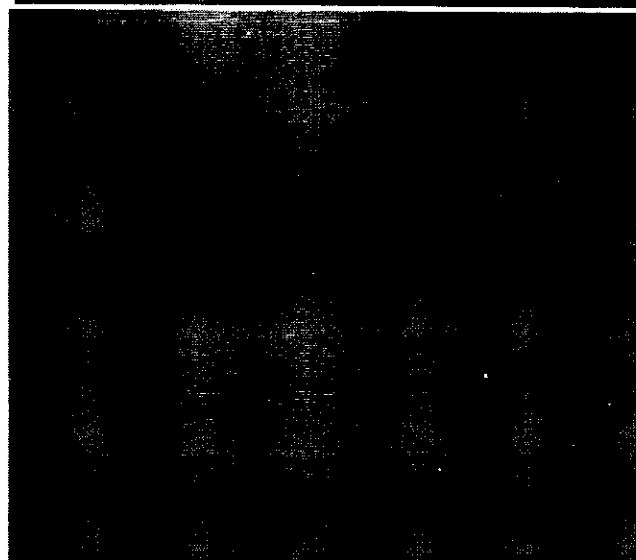
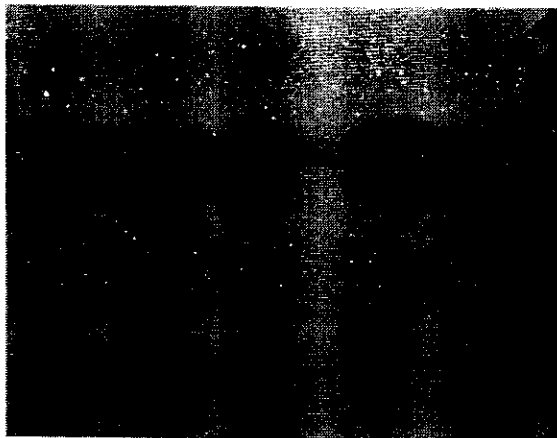


Picture 6

District- Kaimur
Division- Bhabhua
Block- Adhaura



District- Kaimur
Division- Bhabhua
Block- Adhaura

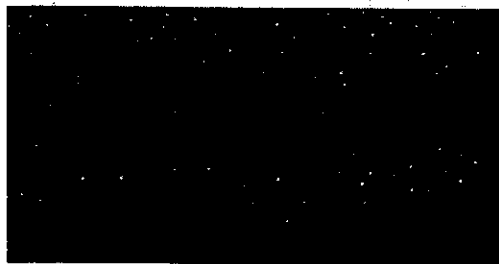
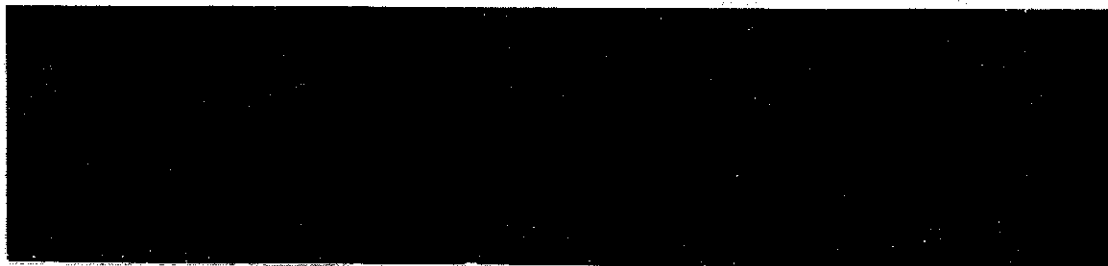


District- Jamui
Division- Jamui and jhajha



District- Jamui

Division- Jamui and jhajha



**MODEL ESTIMATES
OF
INTERNAL VILLAGE DRAIN SECTIONS
& SOAK PITS
IN BIHAR**



बिहार सरकार

पुस्तक - 4
पुस्तक - 4.



Rural Works Department
5th Floor, Vishweshwaraiya Bhawan,
Bailey Road, Patna-800015.

प्रस्तावना

बिहार राज्य में ग्राम पंचायतों के द्वारा क्रियान्वित की जा रही पंचायत के भीतर की सड़कों एवं नालियों के निर्माण की योजनाओं के लिए विभिन्न प्रकार के मॉडल प्राक्कलन बनाने का निर्णय लिया गया। Drain एवं Soak Pit का मॉडल प्राक्कलन सिर्फ संदर्भ के लिए तैयार किया गया है। प्रत्येक कार्य स्थल की भौगोलिक स्थिति, भौतिक स्थिति एवं सामग्रियों की ढुलाई के लिए क्वायरी साइट/वास्तविक स्रोत से इसकी दूरी के आधार पर प्रत्येक वार्ड के लिए अलग-अलग प्राक्कलन तैयार किया जाना अपेक्षित है। प्राक्कलन में विभिन्न मदों का दर मुख्यतः ग्रामीण कार्य विभाग में प्रचलित दर विश्लेषण के आधार पर तैयार किया गया है। गांव/वार्ड की गली की चौड़ाई के अनुकूल निर्माण में उपयोग हो सकने वाले यंत्र-संयंत्र के अनुसार विभिन्न मदों का दर में सुधार किया जाना अपेक्षित होगा। बिहार राज्य अनुसूचित दर निर्धारण समिति द्वारा समय-समय पर निर्गत पत्रों एवं राज्य सरकार द्वारा समय-समय पर प्रभावी वैट की दर, लेवर दर इत्यादि के आधार पर विभिन्न मदों के दर की गणना की जाएगी। मिट्टी कार्य का प्राक्कलन प्रत्येक कार्य स्थल के आवश्यकतानुसार किया जायेगा।

गली में तीन प्रकार के side drains यथा 600mmx500mm, 300mmx450mm एवं 300mmx300mm, दो प्रकार के चौड़ाई का saucer यथा 450mm एवं 300mm एवं मुख्य रूप से तीन प्रकार के soak pit यथा 600mm dia x 1000mm गहराई, 1000mm dia x 1000mm गहराई एवं 1500mm dia x 1500mm गहराई का प्राक्कलन प्राक्कलन में किया गया है। उक्त का चयन गली की चौड़ाई एवं भौतिक स्थिति के आधार पर किया जाएगा।

उक्त तथ्यों के परिपेक्ष्य में प्राक्कलन में सामान्य बदलाव स्थानीय अभियंता द्वारा किया जा सकता है। प्राक्कलन में कोई भी विशेष बदलाव को संज्ञान में लाने पर इसका निराकरण तकनीकी कोषांग द्वारा किया जाएगा।

17.5.17
संजीव कुमार
सहायक अभियंता

17.5.17
समीर कुमार
सहायक अभियंता

17.5.17
रत्नेश सिंह
सहायक अभियंता

17.5.17
सत्येन्द्र राय
कार्यपालक अभियंता

17.5.17
दीपनारायण सिंह
कार्यपालक अभियंता

17.5.17
नरेन्द्र सिंह
कार्यपालक अभियंता

17.5.17
अरुण कुमार महतो
अधीक्षण अभियंता

17.5.17
सुभाष चन्द्र
अधीक्षण अभियंता

17.5.17
राजीव रंजन शर्मा
मुख्य अभियंता

**Summary of Unit Cost of Drain & Soak
Pit in Running Metre (Rm)**

UNIT COST IN RUPEES FOR DRAIN SECTIONS IN RUNNING METRE (RM) WITH 10% CONTRACTOR'S PROFIT & 10% OVERHEADS

One Side Covered Drain (600 x 500)mm	Both Side Covered Drain (600 x 500)mm	One Side Covered Drain (300 x 450)mm	Both Side Covered Drain (300 x 450)mm
3153.84	6307.69	2397.81	4795.63

One Side Covered Drain (300 x 300)mm	Both Side Covered Drain (300 x 300)mm	One side Saucer Drain 450mm	Both side Saucer Drain 450mm
2066.06	4132.13	834.34	1668.68

One side Saucer Drain 300 mm	Both side Saucer Drain 300mm
637.16	1274.32

UNIT COST IN RUPEES FOR EACH SOAK PIT WITH 10% CONTRACTOR'S PROFIT & 10% OVERHEADS

Soak Pit 1500mm x 1500mm (With Brick Masonry)	Soak Pit 600mm x 1000mm (With Brick Masonry)	Soak Pit 1000mm x 1000mm (With Brick Masonry)
18126.24	5170.85	8453.23
Soak Pit (600 x 800)mm	Soak Pit (600 x 1000)mm	Soak Pit (1000 x 1000)mm
1208.38	1308.97	3045.80

UNIT COST IN RUPEES FOR PIPE DRAIN WITH CENTRAL INSPECTION CHAMBER IN RUNNING METRE (RM) WITH 10% CONTRACTOR'S PROFIT & 10% OVERHEADS

Cost of Pipe Drain 600 mm dia with central inspection chamber 900mm x 900mm	
	3266.67

Apr 17.5.17

Sanu 17/5/17

*ANB 17/05/17
E.E.*

*Gay 17.5.17
E.E.*

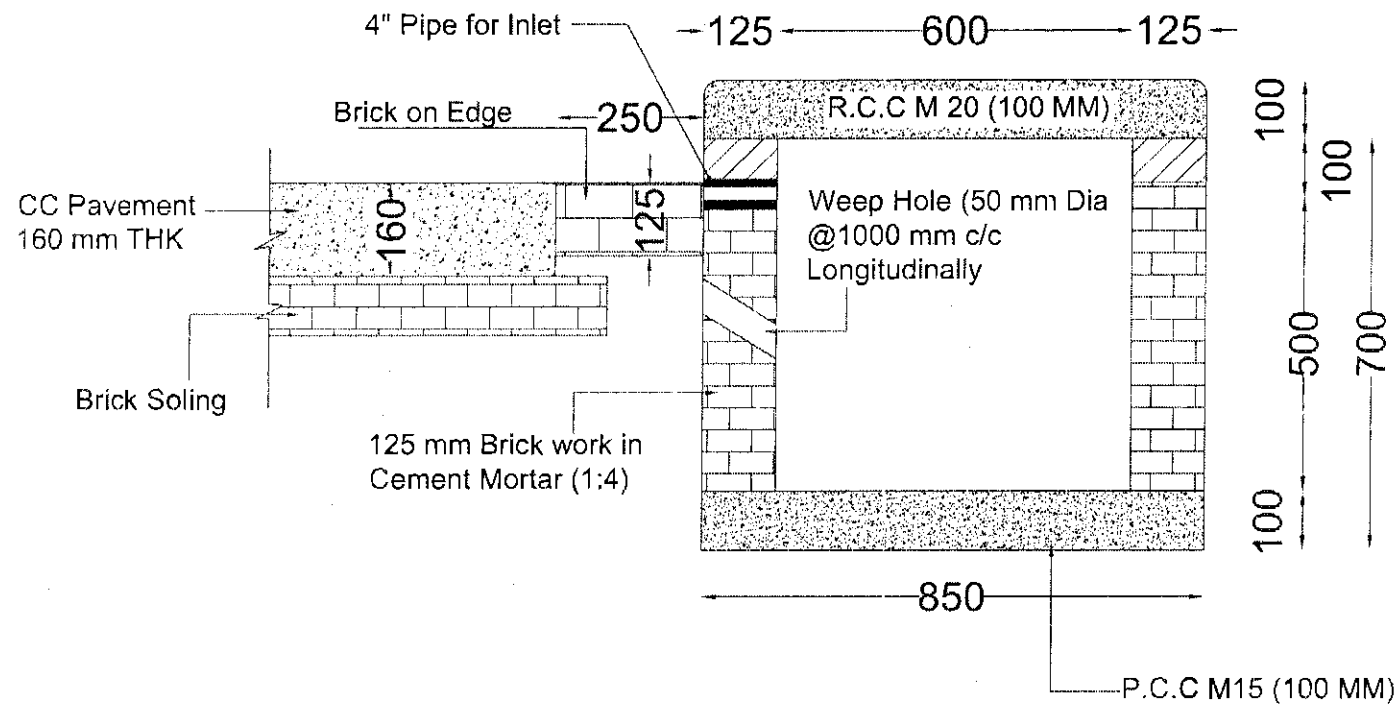
2000 PIF 17/5/17

Babu 17/5/17

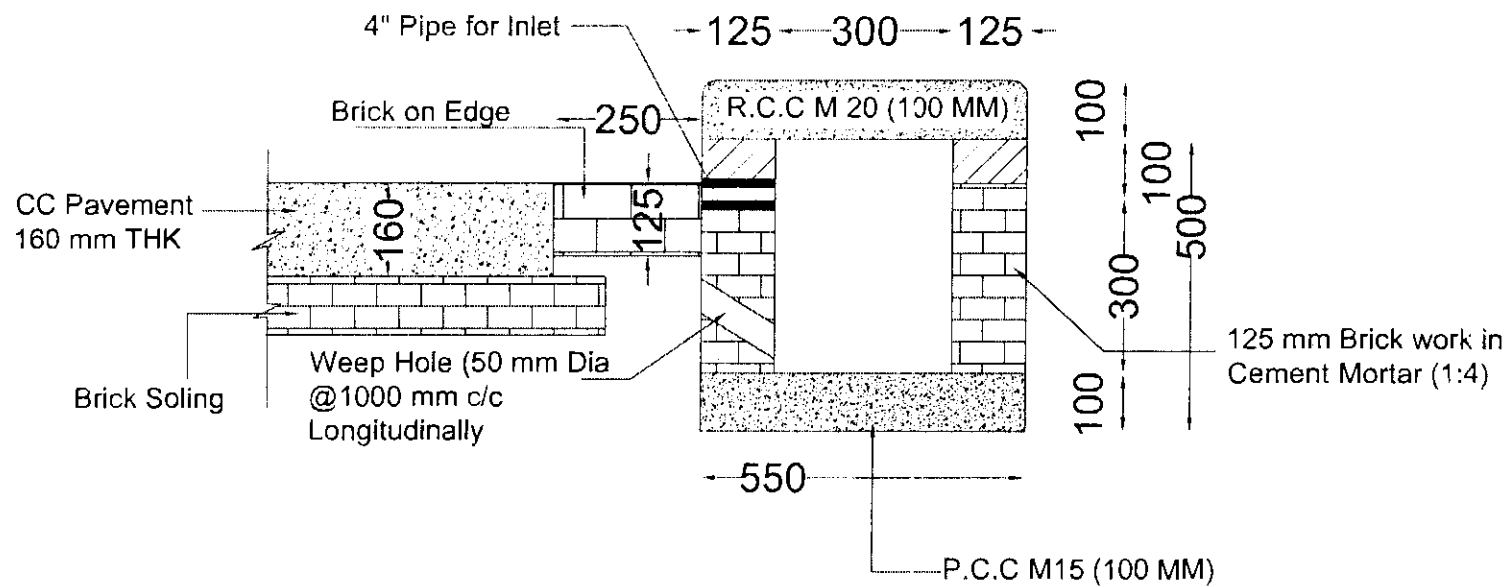
3700mm L 17-5-17

*Dringh 17.5.17
EE*

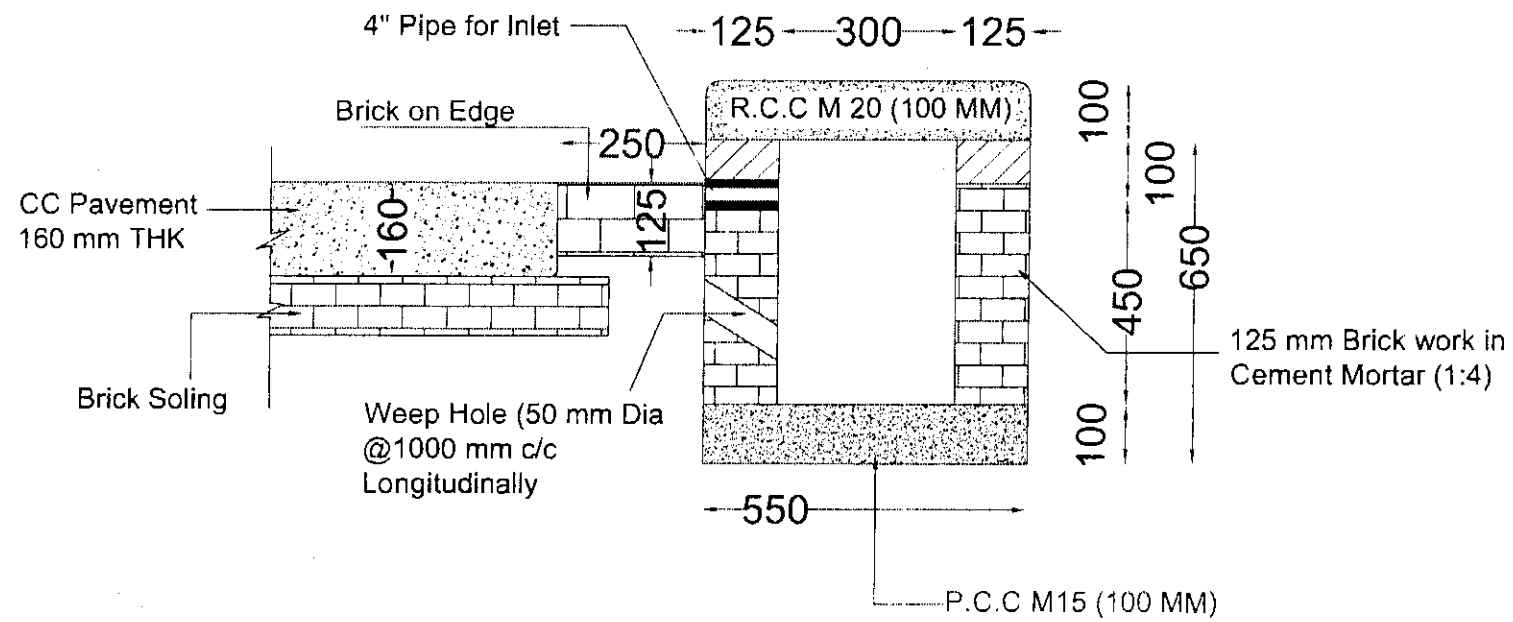
CROSS SECTIONS



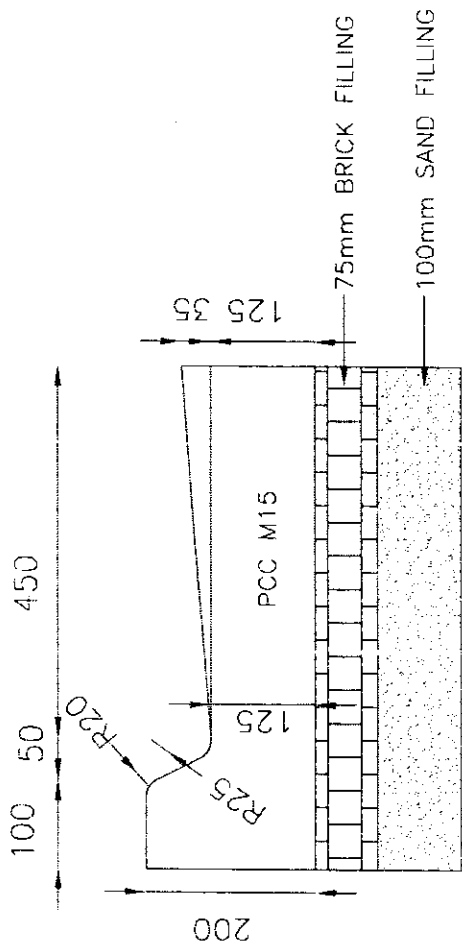
DETAIL OF COVRED DRAIN 600 X 500



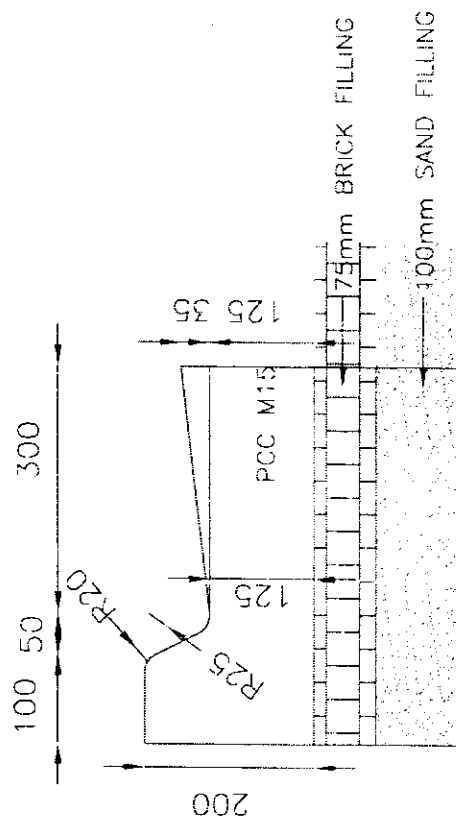
DETAIL OF COVERED DRAIN 300 X 300



DETAIL OF COVERED DRAIN 300 X 450

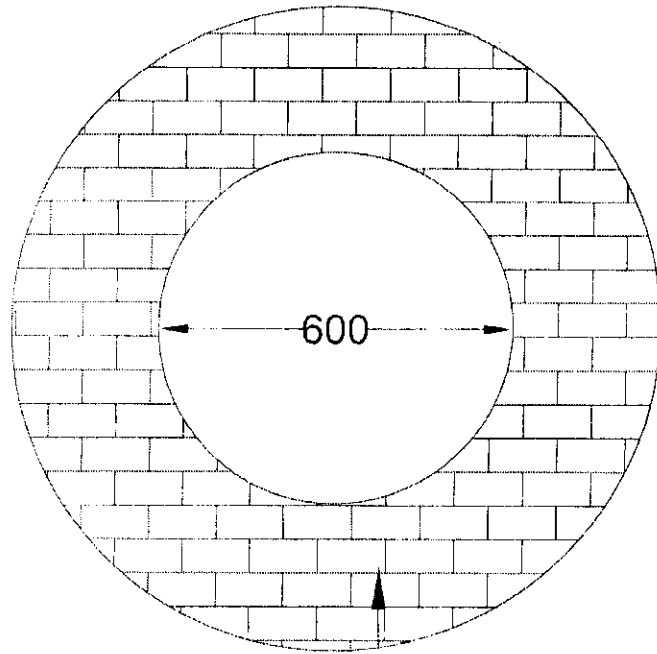


TYPICAL CROSS -SECTION FOR DRAIN

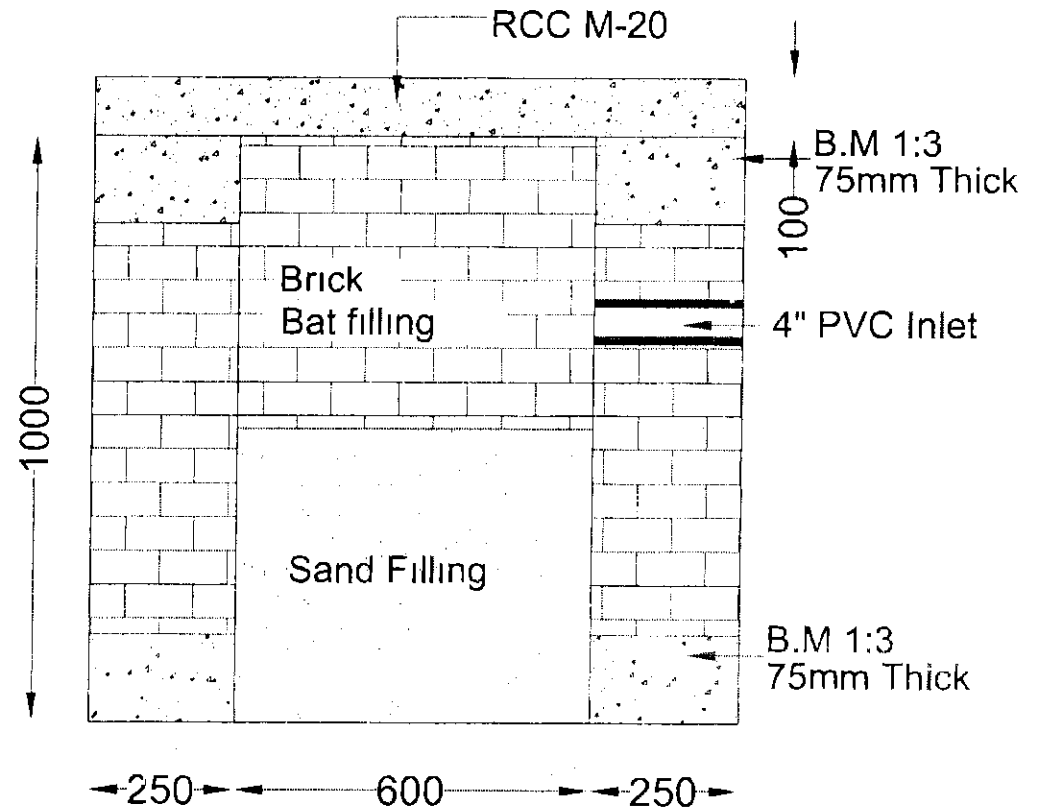


TYPICAL CROSS -SECTION FOR DRAIN

Soakpit 600 x 1000

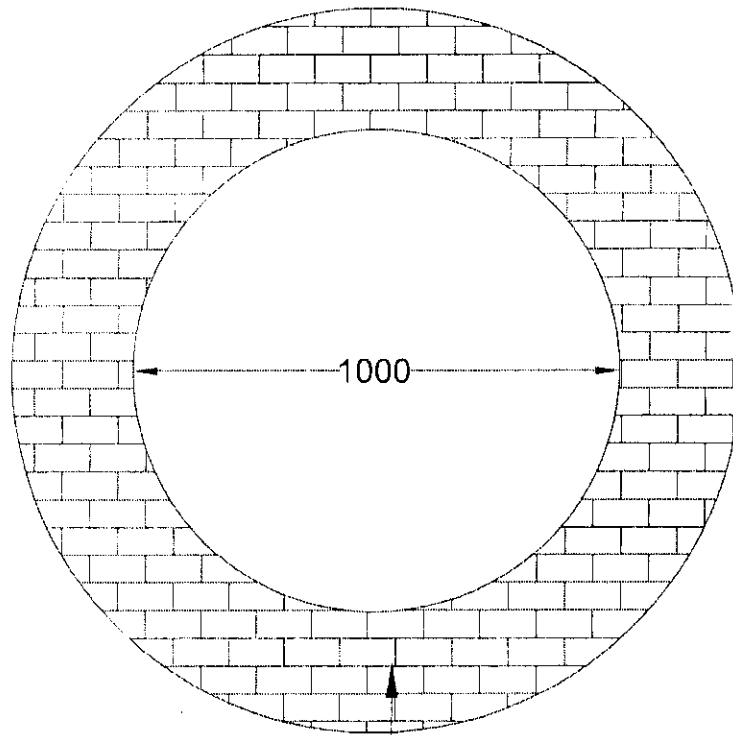


250 mm Loose Brick Work
Brick Work With 1:3
Cement Mortar 75mm Thick
@ 1m Interval

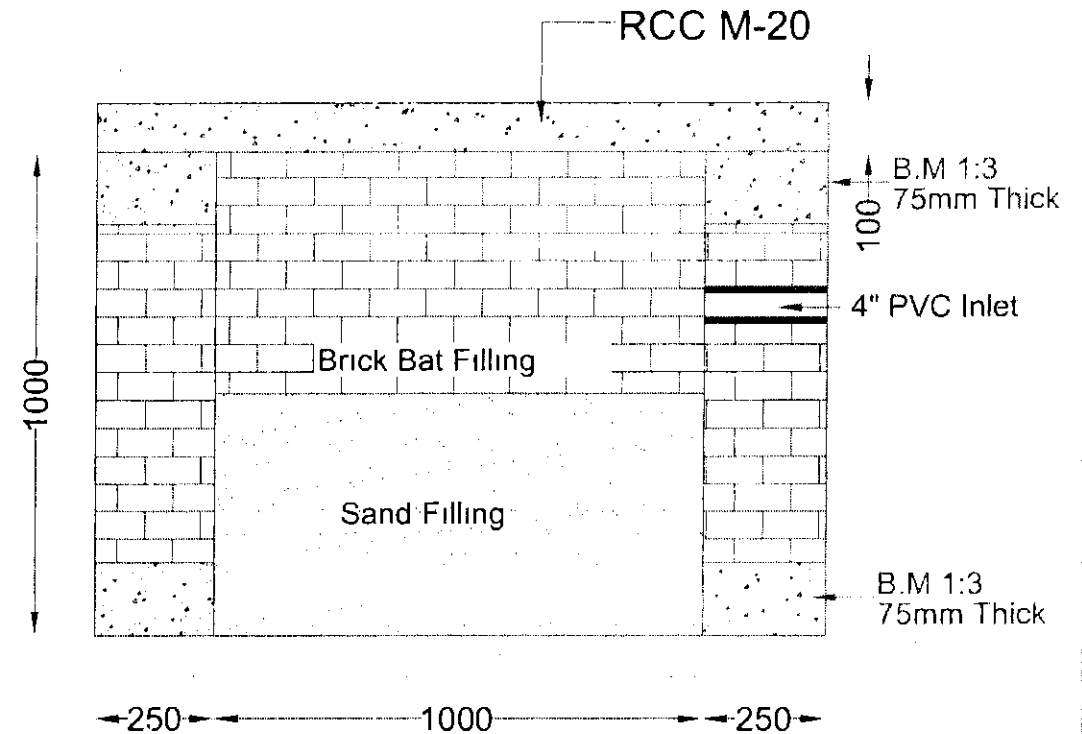


DETAIL OF SOAK PIT

Soakpit 1000 x 1000

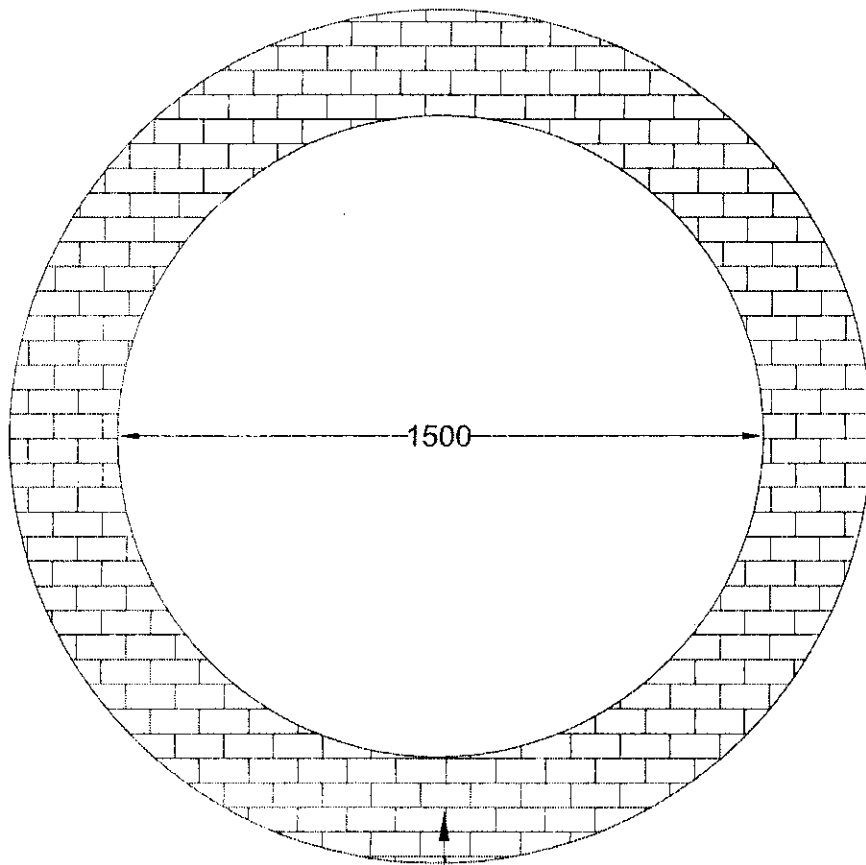


250 mm Loose Brick Work
Brick Work With 1:3
Cement Mortar 75mm Thick
@ 1m Interval

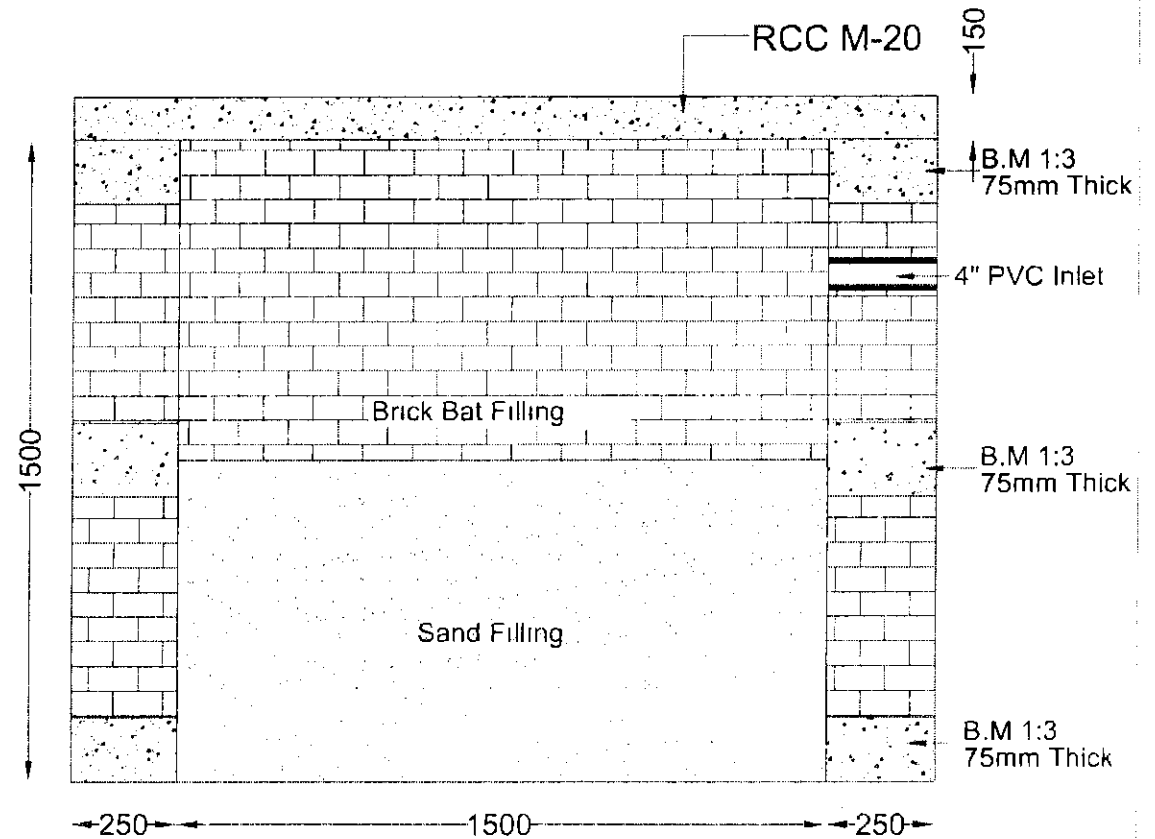


DETAIL OF SOAK PIT

Soakpit 1500 x 1500

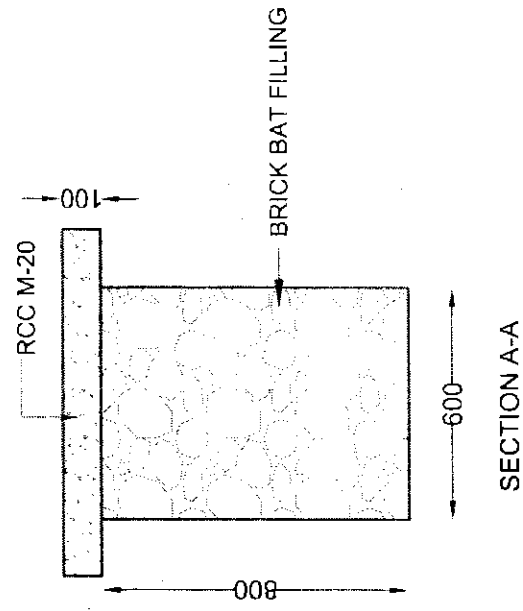
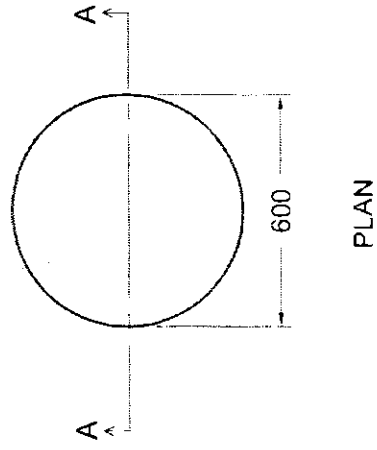


250 mm Loose Brick Work
Brick Work With 1:3
Cement Mortar 75mm Thick
@ 0.75 Interval

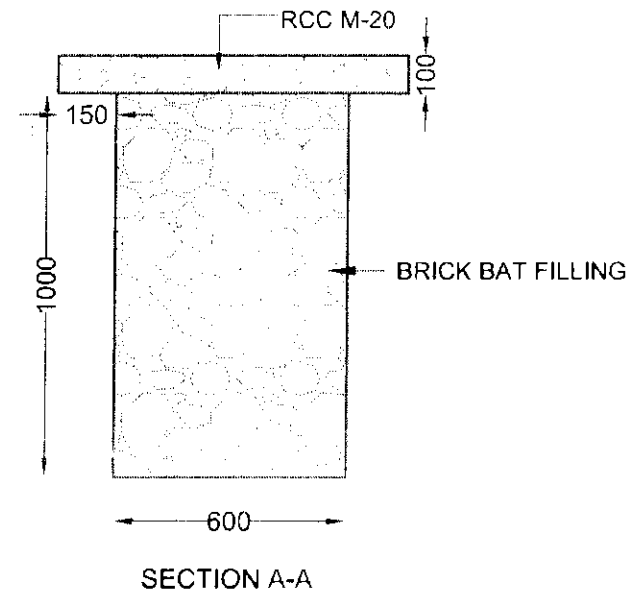
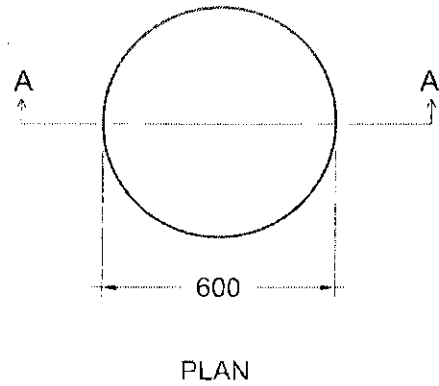


DETAIL OF SOAK PIT

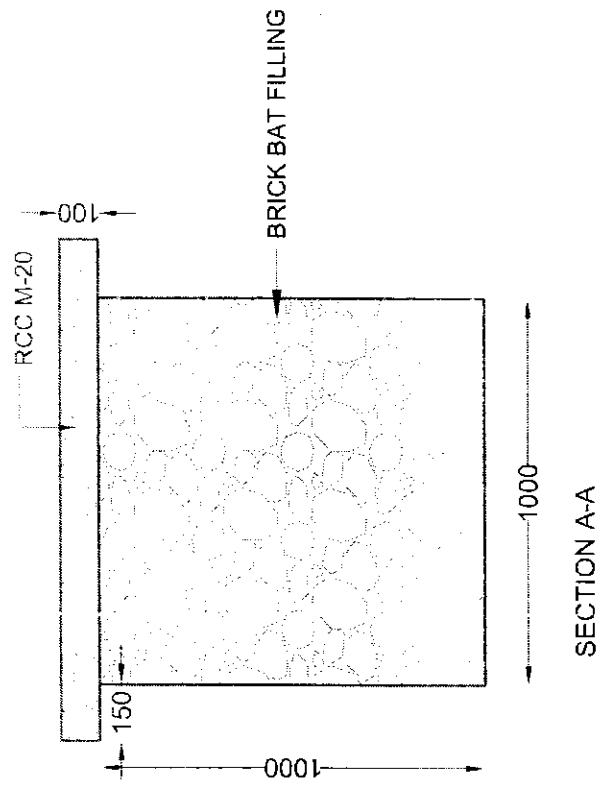
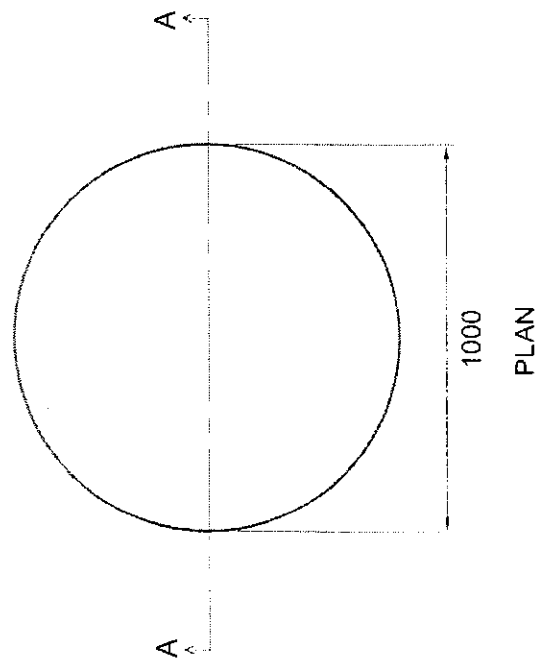
Soakpit 600x600x800



Soakpit 600x600x1000



Soakpit 1000x1000x1000



DETAILED ESTIMATE

Detailed Estimate of One Side covered Drain (600 x500)MM in Running Metre (RM)										
		Excavation for Structures	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	11.1	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		1	0.85	0.7	0.595	241.68	143.80
2	11.4	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203								
		PCC grade M15								
		Nominal mix (1:2.5:5)								
		P.C.C grade M 15 in Bottom Slab	Cum		1	0.85	0.1	0.085	5,701.71	484.65
		PCC grade M15 in capping of drains	Cum		2	0.125	0.1	0.025	5,701.71	142.54
3		Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203								
	11.5	Brick masonry in 1:4 cement mortar	Cum		2	0.125	0.5	0.125	6,248.67	781.08
		Brick masonry in 1:3 cement mortar	Cum						6,511.52	0.00
4	12.9	Providing weep holes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 100mm dia AC pipe extending through the full width of the structures with slope of 1:20 towards drawing face complete as per drawing and technical specification Clauses 614, 709, 1204.3.7	nos	2				2	118.94	237.87
5	12.2	Plastering with Cement punning with cement mortar (1:4) on brickwork as per drawing and technical specification clauses 613.3 and 1204	sqm		1		1.8	1.8	172.19	309.94
6	11.4	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203								
		IV R.C.C grade M 20 (in Cover)	Cum		1	0.85	0.1	0.09	6,679.71	567.78
7	11.8	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000 and 1202	t		1	0.008		0.0077	63553.36	486.18
Total cost of One side Covered drain (600 x 500)mm in Running Metre (RM)										3153.84
Total cost of Both Side Covered drain (600 x500)mm in Running Metre (RM)										6307.69

Detailed Estimate of One Side covered Drain (300 x450)MM in Running Metre (RM)										
		Excavation for Structures	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount
1	11.1	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		1	0.55	0.65	0.3575	241.68	86.40
2	11.4	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203								
		PCC grade M15								
		Nominal mix (1:2.5:5)								
		P.C.C grade M 15 in Bottom Slab	Cum		1	0.55	0.1	0.055	5,701.71	313.59
		PCC grade M15 in capping of drains	Cum		2	0.125	0.1	0.025	5,701.71	142.54
3		Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203								
	11.5	Brick masonry in 1:4 cement mortar	Cum		2	0.125	0.45	0.1125	6,248.67	702.97
		Brick masonry in 1:3 cement mortar	Cum						6,511.52	0.00
4	12.9	Providing weep holes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 100mm dia AC pipe extending through the full width of the structures with slope of 1:20 towards drawing face complete as per drawing and technical specification Clauses 614, 709, 1204 3.7.	nos	2				2	118.94	237.87
5	12.2	Plastering with Cement punning with cement mortar (1:4) on brickwork as per drawing and technical specification clauses 613.3 and 1204	sqm		1		1.35	1.35	172.19	232.46
6	11.4	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203								
		IV R.C.C grade M 20 (in Cover)	Cum		1	0.55	0.1	0.06	6,679.71	367.38
7	11.8	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000 and 1202	t		1	0.005		0.005	63553.36	314.59
Total cost of One Side covered Drain (300 x450)mm in Running Metre (RM)										2397.81
Total cost of Both Side Covered drain(300 x450)mm in Running Metre (RM)										4795.63

Detailed Estimate of One side Covered Drain(300 x300)mm in Running Metre (RM)										
		Excavation for Structures	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	11.1	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		1	0.55	0.5	0.275	241.68	66.46
2	11.4	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203								
		PCC grade M15								
		Nominal mix (1:2.5:5)								
		P.C.C grade M 15 in Bottom Slab	Cum		1	0.55	0.1	0.055	5,701.71	313.59
		PCC grade M15 in capping of drains	Cum		2	0.125	0.1	0.025	5,701.71	142.54
3		Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203								
	11.5	Brick masonry in 1:4 cement mortar	Cum		2	0.125	0.3	0.075	6,248.67	468.65
		Brick masonry in 1:3 cement mortar	Cum						6,511.52	0.00
		Providing weep holes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 100mm dia AC pipe extending through the full width of the structures with slope of 1:20 towards drawing face complete as per drawing and technical specification Clauses 614, 709,								
4	12.9	1204 3.7.	nos	2				2	118.94	237.87
5	12.2	Plastering with Cement punning with cement mortar (1:4) on brickwork as per drawing and technical specification clauses 613.3 and 1204	sqm		1		0.9	0.9	172.19	154.97
6	11.4	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203								
	IV	R.C.C grade M 20 (in Cover)	Cum		1	0.55	0.1	0.06	6,679.71	367.38
7	11.8	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000 and 1202	t		1	0.005		0.00495	63553.36	314.59
Total cost of One side Covered Drain(300 x300)mm in Running Metre (RM)										2066.06
Total cost of Both side Covered drain (300 x300)mm in Running Metre (RM)										4132.13

Detailed Estimate of One Side Saucer Drain(450 mm) in Running Metre (RM)											
		Excavation for Structures	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)	
1	11.1	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		1	0.6	0.175	0.105	241.68	25.38	
2	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9									
	A	Sand Filling	cum		1	0.6	0.1	0.06	398.55		
3	4.18	Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		1	0.6		0.6	474.01	284.41	
4	11.4	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203									
		PCC grade M15									
		Nominal mix (1:2.5:5)	cum		1	0.092 (sgm)		0.092	5,701.71	524.56	
Total cost of One Side Saucer Drain (450 mm) in Running Metre (RM)										834.34	
Total cost of both side Saucer drain (450 mm) in Running Metre (RM)										1668.68	

Detailed Estimate of One side Saucer Drain (300 mm) in Running Metre (RM)										
		Excavation for Structures	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	11.1	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		1	0.45	0.175	0.0788	241.68	19.03
2	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
	A	Sand Filling	cum		1	0.45	0.1	0.045	398.55	
3	4.18	Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412	Sqm		1	0.45		0.45	474.01	213.31
4	11.4	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 902, 803, 1202 & 1203								
		PCC grade M15								
		Nominal mix (1:2.5:5)	cum		1	0.071 (sqm)		0.071	5,701.71	404.82
Total cost of One side Saucer Drain (300 mm) in Running Metre (RM)										637.16
Total cost of both sided drain in Running Metre (RM)										1274.32

Detailed Estimate of Soak Pit (0.6 x 1.0 m)										
		Excavation for Structures	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	11.1	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		0.94985		1	0.94985	241.68	229.56
2	New Item	Providing and laying Loose Brick Work for the Soak pit walls as directed by Engineer in charge	Cum		0.66725		0.85	0.56716	4794.46	2719.24
3		Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203								
	11.5	Brick masonry in 1:3 cement mortar	Cum		0.66725		0.15	0.10009	6,511.52	651.72
4	12.9	Providing Inlets in brick masonry/stone masonry with 100mm dia AC pipe extending through the full width of the structures with slope of 1:20 towards drawing face complete as per drawing and technical specification Clauses 614, 709, 1204.3.7.	nos	1				1	118.94	118.94
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
6	A	Sand filling	cum		0.2826		0.5	0.1413	398.55	56.31
	New Item	Providing and laying Brick bats in the Soak pits as directed by Engineer in charge	cum		0.2826		0.5	0.1413	1537.93	217.31
7	IV	R.C.C grade M 20 (in Cover)	Cum		0.94985		0.1	0.09	6,679.71	634.47
8	11.8	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000 and 1202	t		1	0.0085		0.00855	63553.36	543.30
Total cost of Soak Pit										5170.85

Detailed Estimate of Soak Pit (1.0 x 1.0 m)										
		Excavation for Structures	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	11.1	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		1.76625		1	1.76625	241.68	426.87
2	New Item	Providing and laying Loose Brick Work for the Soak pit walls as directed by Engineer in charge	Cum		0.98125		0.85	0.83406	4794.46	3998.88
3		Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203								
	11.5	Brick masonry in 1:3 cement mortar	Cum		0.98125		0.15	0.14719	6,511.52	958.41
4	12.9	Providing Inlets in brick masonry/stone masonry with 100mm dia AC pipe extending through the full width of the structures with slope of 1:20 towards drawing face complete as per drawing and technical specification Clauses 614, 709, 1204, 3.7.	nos	1				1	118.94	118.94
5	11.2	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9								
6	A	Sand filling	cum		0.785		0.5	0.3925	398.55	156.43
	New Item	Providing and laying Brick bats in the Soak pits as directed by Engineer in charge	cum		0.785		0.5	0.3925	1537.93	603.64
7	IV	R.C.C grade M 20 (in Cover)	Cum		1.76625		0.1	0.18	6,679.71	1179.80
8	11.8	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000 and 1202	t		1	0.0159		0.0159	63553.36	1010.26
Total cost of Soak Pit										8463.23

Detailed Estimate of Soak Pit (1.5 x 1.5m)										
		Excavation for Structures	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	11.1	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		3.14		1.5	4.71	241.68	1138.32
2	New Item	Providing and laying Loose Brick Work for the Soak pit walls as directed by Engineer in charge	Cum		1.37375		1.275	1.75153	4794.46	8397.65
3		Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203	Cum		1.37375		0.225	0.30909	6,511.52	2012.67
4	12.9	Brick masonry in 1:3 cement mortar	Cum		1.37375		0.225	0.30909	6,511.52	2012.67
5	11.2	Providing Inlets in brick masonry/stone masonry with 100mm dia AC pipe extending through the full width of the structures with slope of 1:20 towards drawing face complete as per drawing and technical specification Clauses 614, 709, 1204 3.7	nos	1				1	118.94	118.94
6	A	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9	cum		1.76625		0.75	1.32469	398.55	527.95
7	IV	Providing and laying Brick bats in the Soak pits as directed by Engineer in charge	Cum		1.76625		0.75	1.32469	1537.93	2037.27
8	11.8	R.C.C grade M 20 (in Cover)	Cum		3.14		0.1	0.31	6,679.71	2097.43
		Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000 and 1202	t		1	0.0283		0.02826	63553.36	1796.02
					Total cost of Soak Pit					18126.24

Detailed Estimate of Soak Pit (0.6 x 0.8 m)										
		Description	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	11.1	Excavation for Structures								
		Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		0.2826		0.8	0.22608	241.68	54.64
2		Providing and laying Brick bats in the Soak pits as directed by Engineer in charge	Cum		0.2826		0.8	0.22608	1537.93	347.69
3	IV	R.C.C grade M 20 (in Cover)	Cum		0.63585		0.1	0.06	6,679.71	424.73
4		Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000 and 1202	MT	1				0.006	63553.36	381.32
										1208.38

Detailed Estimate of Soak Pit (0.6 x 1.0 m)										
		Description	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.)	Amount (Rs.)
1	11.1	Excavation for Structures								
		Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		0.2826			1	0.2826	241.68
										68.30
2	New Item	Providing and laying Brick bats in the Soak pits as directed by Engineer in charge	Cum		0.2826			1	0.2826	1537.93
										434.62
3	IV	R.C.C grade M 20 (in Cover)	Cum		0.63585		0.1	0.06	6.679.71	424.73
4	11.8	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1200and1202	MT	1	0.006			0.006	63553.36	381.32
										1308.97

Detailed Estimate of Soak Pit (1.0 x 1.0 m)										
		Description	Unit	No.	Length	Breadth	Depth	Qty.	Rate (Rs.	Amount (Rs.)
1	11.1	Excavation for Structures								
		Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side	Cum		0.785		1	0.785	241.68	189.72
2	New Item	Providing and laying Brick bats in the Soak pits as directed by Engineer in charge	Cum		0.785		1	0.785	1537.93	1207.27
3	IV	R.C.C grade M 20 (in Cover)	Cum		1.32665		0.1	0.13	6,679.71	886.16
4	11.8	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000 and 1202	MT	1	0.012			0.012	63553.36	762.64
										3045.80

Detailed Estimate of Pipe Drain with Inspection Chamber

[illegible]

RATE ANALYSIS

BASIC RATES (A) Labour			
Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	237.00
L-02	Bitumen Sprayer	day	252.00
L-03	Blacksmith	day	288.00
L-04	Blaster	day	399.00
L-05	Carpenter 1st Class	day	288.00
L-06	Chips spreader	day	247.00
L-07	Chiseller	day	302.00
L-08	Dresser (Skilled)	day	305.00
L-09	Driller	day	288.00
L-10	Electrician	day	305.00
L-11	Fitter	day	328.00
L-12	Mason (1st class)	day	322.00
L-13	Mason (2nd Class)	day	288.00
L-14	Mate	day	255.00
L-15	Mazdoor (Unskilled)	day	237.00
L-16	Mazdoor (Semi skilled)	day	247.00
L-17	Mazdoor (Skilled)	day	301.00
L-18	Painter (1st class)	day	305.00
L-19	Plumber	day	305.00
L-20	Surveyor	day	291.00
L-21	White Washer	day	301.00

**BASIC RATES
(B) Material**

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-001	AC pipe 100 mm	m	44.47	46.25
M-002	Aggregate - For 37.5 mm Maximum size - 22.4 mm to 5.6 mm	cum	544.27	566.04
M-003	Aggregate - For 37.5 mm Maximum size - 45 mm to 22.5 mm	cum	493.39	513.13
M-004	Aggregate - For 37.5 mm Maximum size - Below 5.6 mm	cum	204.23	212.40
M-005	Aggregate - For 53 mm Maximum size - 22.5 mm to 5.6 mm	cum	544.27	566.04
M-006	Aggregate - For 53 mm Maximum size - 63 mm to 45 mm	cum	440.03	457.63
M-007	Aggregate - For 53 mm Maximum size - Below 5.6 mm	cum	204.23	212.40
M-008	Aggregate - Grading I (40 mm nominal Size) 10 mm - 5 mm	cum	545.10	566.90
M-009	Aggregate - Grading I (40 mm nominal Size) 25 mm - 10 mm	cum	631.90	657.18
M-010	Aggregate - Grading I (40 mm nominal Size) 37.25 mm - 25 mm	cum	493.39	513.13
M-011	Aggregate - Grading I (40 mm nominal Size) 5 mm and below	cum	204.23	212.40
M-012	Aggregate - Grading II (19 mm nominal Size) 10 mm - 5 mm	cum	545.10	566.90
M-013	Aggregate - Grading II (19 mm nominal Size) 25 mm - 10 mm	cum	631.90	657.18
M-014	Aggregate - Grading II (19 mm nominal Size) 5 mm and below	cum	204.23	212.40
M-015	Aggregate 10 mm	cum	633.55	658.89
M-016	Aggregate 20 mm	cum	567.84	590.55
M-017	Aggregate 40 mm	cum	453.93	472.09
M-018	Aggregate- Crushable type such as moorum or Gravel for Grading I	cum	134.60	139.98
M-019	Aggregate- Crushable type such as moorum or Gravel for Grading II	cum	134.60	139.98
M-020	Aggregate- Crushable type such as moorum or Gravel for Grading III	cum	134.60	139.98
M-021	Aggregate-Grading I 90 mm to 45 mm	cum	407.40	423.70
M-022	Aggregate-Grading II 63 mm to 45 mm	cum	440.03	457.63
M-023	Aggregate-Grading III 53 mm to 22.4 mm	cum	471.71	490.58

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-024	Aggregates 22.4 mm to 2.36 mm for wet mix macadam	cum	544.27	566.04
M-025	Aggregates 45 mm to 22.4 mm for wet mix macadam	cum	493.39	513.13
M-031	Barbed wire	kg	54.61	56.79
M-032	Binding Material	cum	134.60	139.98
M-033	Binding wire	kg	55.55	57.77
M-037	Bitumen (S-65) (BARAUNI)	t	36,676.10	38,143.14
M-038	Bitumen (S-90) (BARAUNI)	t	35,764.10	37,194.66
M-039	Bitumen Emulsion (RS-1) Patna	t	40,202.00	41,810.08
M-040	Bitumen Emulsion (SS-1) Patna	t	42,609.00	44,313.36
M-041	Bituminous sealant	litre	25.08	26.08
M-042	Blasted rubble	cum	295.70	307.53
M-043	Blasting material (Moorum)	kg	-	-
M-044	Bond stone (400 mm x 150 mm x 150 mm)	No.	11.77	12.24
M-045	Brick 1st Class	No.	5.73	5.96
M-046	Cement	t	5,392.00	5,985.12
M-049	Compensation for earth taken from private land	cum	23.65	23.65
M-050	Compressible Fibre Board	sqm	989.71	1,029.30
M-058	Crushed Stone Aggregate 26.5 mm to 75 micron	cum	567.84	590.55
M-059	Crushed Stone chipping 13.2 mm nominal size	cum	663.11	689.63
M-060	Crushed Stone Chipping 6.7 mm size 100% passing 11.2 mm and retained on 2.36 mm	cum	420.37	437.18
M-061	Crushed Stone Chipping 6.7 mm size 100% passing 9.5 mm and retained on 2.36 mm	cum	420.37	437.18
M-062	Crushed Stone chipping 9.5 mm nominal size	cum	633.55	658.89
M-063	Crushed Stone Coarse Aggregate Passing 53 mm and retained on 2.8 mm	cum	471.71	490.58
M-064	Curing compound	litre	125.41	130.43
M-072	Farmyard manure	cum	705.46	733.68
M-073	Fevicol adhesive	kg	125.00	130.00
M-074	Filter media	cum	422.35	439.24
M-075	Jute rope	m	44.80	46.59
M-092	Lime	t	3,084.04	3,207.40

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-097	MS clamps	Nos.	32.08	33.36
M-098	MS Flat / Structural Steel	t	41,200.00	42,848.00
M-102	Nuts, Bolts and Rivets	t	57.04	59.32
M-103	Paint (Synthetic Enamel)	litre	240.39	250.01
M-104	Plasticizer	litre	158.02	164.34
M-105	Polythene sheet (125 micron)	sqm	15.57	16.30
M-106	Polythene Sheathing	Nos.	15.67	16.30
M-107	Quarried Stone 150-200 mm size	cum	311.53	323.99
M-108	RCC Pipe NP3 (1200 mm dia)	m	4,177.63	4,344.74
M-109	RCC Pipe NP3 (1000 mm dia)	m	2,938.51	3,056.05
M-110	RCC Pipe NP3 (750 mm dia)	m	1,037.52	1,079.02
M-111	RCC Pipe NP3 (600 mm dia)	m	864.60	899.18
M-112	RCC Pipe NP3 (500 mm dia)	m		-
	RCC Pipe NP3 (300 mm dia)	m	538.14	559.67
M-113	RCC Pipe NP4 (1200 mm dia)	m	4,177.63	4,344.74
M-114	RCC Pipe NP4 (1000 mm dia)	m	2,938.51	3,056.05
M-115	RCC Pipe NP4 (750 mm dia)	m		-

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-116	RCC Pipe NP4 (600 mm dia)	m	864.60	899.18
M-117	RCC Pipe NP4 (500 mm dia)	m		-
M-118	Red-oxide Primer	litre	254.80	264.99
M-119	Road marking paint	litre	240.39	250.01
M-120	Sand (Coarse)	cum	140.69	146.32
M-121	Sand (Fine)	cum	119.37	124.14
M-124	Steel Reinforcement (HYSD Bars)	t	41,200.00	42,848.00
M-126	Steel Reinforcement (TMT Bars)	t	41,200.00	42,848.00
M-127	Stone Boulder of size 150 mm and below	cum	311.53	323.99
M-128	Stone Chips 12 mm size	cum	663.11	689.63
M-129	Stone Chips 13.2 mm to 5.6 mm	cum	633.55	658.89
M-130	Stone Crushed Aggregate 11.2 mm to 0.09 mm	cum	354.77	368.96
M-131	Stone for Coarse Rubble Masonry 1st Sort	cum		-
M-132	Stone for Coarse Rubble Masonry 2nd Sort	cum		-
M-133	Stone for Random Rubble Masonry	cum	311.53	323.99
M-134	Stone for Stone Set Pavement (300 mm x 200 mm x 150 mm)	No.		-
M-135	Stone Screening - Type A 13.2 mm for Grading-1	cum	636.49	661.95
M-136	Stone Screening - Type A 13.2 mm for Grading-2	cum	636.49	661.95
M-137	Stone Screening - Type B 11.2 mm for Grading-2	cum	342.72	356.43
M-138	Stone Screening - Type B 11.2 mm for Grading-3	cum	342.72	356.43
M-140	Traffic cones	No.		-
M-141	Water	kl	40.00	40.00
M-142	Well graded Granular Base Material - Grading A 2.36 mm below	cum	193.61	201.35
M-143	Well graded Granular Base Material - Grading A 26.5 mm to 4.75 mm	cum	514.82	535.41
M-144	Well graded Granular Base Material - Grading A 53 mm to 26.5 mm	cum	471.71	490.58

Sl. No.	Description	Unit	Basic Rate as per SOR	Final Rate with 4% S.Tax
M-145	Well graded Granular Base Material - Grading B 2.36 mm below	cum	193.61	201.35
M-146	Well graded Granular Base Material - Grading B 26.5 mm to 4.75 mm	cum	514.82	535.41
M-147	Well graded Granular Base Material - Grading C 2.36 mm below	cum	193.61	201.35
M-148	Well graded Granular Base Material - Grading C 9.5 mm to 4.75 mm	cum	545.10	566.90
M-149	Well Graded Material for Sub-Base - Grading I 2.36 mm below	cum	193.61	201.35
M-150	Well Graded Material for Sub-Base - Grading I 53 mm to 9.5 mm	cum	533.99	555.35
M-151	Well Graded Material for Sub-Base - Grading I 9.5 mm to 2.36 mm	cum	424.94	441.94
M-152	Well Graded Material for Sub-Base - Grading II 2.36 mm below	cum	193.61	201.35
M-153	Well Graded Material for Sub-Base - Grading II 26.5 mm to 9.5 mm	cum	567.84	590.55
M-154	Well Graded Material for Sub-Base - Grading II 9.5 mm to 2.36 mm	cum	424.94	441.94
M-155	Well Graded Material for Sub-Base - Grading III 2.36 mm below	cum	93.61	97.35
M-156	Well Graded Material for Sub-Base - Grading III 4.75 mm to 2.36 mm	cum	208.67	217.02
M-157	Well Graded Material for Sub-Base - Grading III 9.5 mm to 4.75 mm	cum	549.54	571.52
M-178	Strip seal expansion joint	LM	8341.1	8,674.74
Extra	Paver Block 60 mm	sqm	466.3	484.95
Extra	Brick Bats	cum	1162	1,208.48

BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-001	Air Compressor 210 cfm	Supplying compressed air	cfm	210.00	per hour	437.00
PM-002	Batch mix HMP 40-60 TPH	BM, DBM, SDBC, PM	t/h	50.00	per hour	21633.00
PM-003	Batch type HMP 30/40 TPH	BM, DBM, SDBC, PM	t/h	35.00	per hour	
PM-004	Bitumen boiler oil fired	Heating of bitumen				
	200 litre		litre / h	400.00	per hour	270.00
	1000 litre		litre / h	2000.00	per hour	270.00
PM-005	Bitumen emulsion pressure distributor	Applying bitumen tack coat	sqm/h	1750.00	per hour	1,091.00
PM-006	Concrete mixer 0.28/0.4 cum	Mixing of ingredients	cum/h	2.50	per hour	80.00
PM-007	Crane upto 3.5T	Lifting of materials			per hour	1,163.00
PM-008	Dozer D 50	Dozing cutting	cum/h	200.00	per hour	3,009.00
			cum/h	100.00		3,009.00
PM-009	Electric generator set, 125 KVA	Electricity generation	KVA	100.00	per hour	2,502.00
PM-010	Emulsion Sprayer with Tractor	Spraying of Emulsion			per hour	1,091.00
PM-011	Front end-loader 1 cum bucket capacity @ 45 cum/hour	Loading Aggregates	cum/h	45.00	per hour	1,291.00
		Loading Soil	cum/h	100.00		1,291.00
PM-012	Hydraulic broom with tractor	Surface cleaning	sqm/h	1250.00	per hour	522.00
PM-013	Hydraulic Excavator 0.9 cum	Excavation	cum/h	100.00	per hour	1,775.00
PM-014	Hydraulic self propelled chip spreader	Surface Dressing	sqm/h	1500.00	per hour	3,594.00
PM-015	Jack Hammer with tractor	Pavement breaking & rock drilling	cum/h	05. to 1	per hour	688.00
PM-016	Joint Cutting Machine with 2-3 blades	Cutting of Joints	m		per hour	317.00
PM-017	Mixall 6-10 t capacity	Mixing of bituminous materials	t/h	8.00	per hour	1,547.50
PM-018	Motor Grader	Scarifier & levelling	cum/h	200.00	per hour	2,674.00
				50.00		533.00
PM-019	Needle vibrator	Vibrating cement concrete mix	cum/h	3.50	per hour	76.35
PM-020	Paver finisher	Laying/spreading	t/h	75.00	per hour	1,318.00

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-021	Plate compactor	Compaction	cum/h		per hour	423.00
PM-022	Plate vibrator	Compaction	cum/h		per hour	423.00
PM-023	Screed vibrator	Compaction	cum/h		per hour	102.64
PM-024	Smooth wheeled 80-100 kN tandem roller	Compaction of Sub-base/ Asphalt	cum/h	30.00	per hour	1,561.00
PM-025	Stone crusher (Integrated) of 200 TPH	Crushing of Spalls	t/h	200.00	per hour	24,865.00
PM-026	Three wheel 80-100 kN Static Roller	Compaction/ Rolling			per hour	736.00
PM-027	Tipper 5.5 cum/10 t	Carriage	cum/trip	5.50	per hour	957.00
PM-028	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour	517.00
PM-029	Tractor with ripper @ 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour	533.00
PM-030	Tractor with trolley/with Grading equipment	Transportation of materials	t/trip	3 to 5	per hour	533.00
PM-031	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	517.00
PM-032	Truck 10 t capacity	Carriage	cum/trip	5.50	per hour	843.00
PM-033	Vibratory roller 80-100 kN	Compaction of soil WMM	cum/h	100.00	per hour	1,915.00
		Compaction of BM	cum/h	60.00		1,915.00
PM-034	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre / h	12000.00	per hour	166.00
PM-035	Wet mix plant (Pug Mill)	Wet Mix	cum/h	25.00	per hour	1,643.00
RCD	Generator 33 KVA					
P&M043	Road Marking Machine	Road Marking	sqm/h	100	per hour	507.00
						128.00

Analysis for Carriage by Road

FORM F8

Sl No	Item	Unit	Source	Carriage Cost & Lead in Km										Loading & Unloading Cost	Carriage Cost by Rail Head	Total	
				Pucka/ Surface					Katcha								
1	Stone Metal Gr-I & Gr-II	Cum	Mirzachauki	8.00	x	8.00	x	100.00 Km =	Rs 1394.34	8.00	x	19.30	x	0.00 Km =	Rs 0.00	76.84	1471.18
2	Stone Metal Gr-III / GSB	Cum	Mirzachauki	4.59	x	8.00	x	100.00 Km =	Rs 1282.57	4.59	x	19.30	x	0.00 Km =	Rs 0.00	76.84	1359.41
3	Stone Aggregate / Chips	Cum	Pakur	8.00	x	8.00	x	100.00 Km =	Rs 1282.57	8.00	x	19.30	x	0.00 Km =	Rs 0.00	76.84	1359.41
4	Stone Boulder	Cum	Mirzachauki	4.99	x	8.00	x	100.00 Km =	Rs 1333.33	4.99	x	19.30	x	0.00 Km =	Rs 0.00	76.84	1410.17
5	Course Sand	Cum	koilwar	8.00	x	8.00	x	100.00 Km =	Rs 1282.57	8.00	x	19.30	x	0.00 Km =	Rs 0.00	47.77	1330.34
6	Binding Material (Moorum)	Cum	shakhund	4.99	x	8.00	x	100.00 Km =	Rs 1066.67	4.99	x	19.30	x	0.00 Km =	Rs 0.00	47.77	1114.44
7	Local Sand	Cum	Local	8.00	x	8.00	x	2.00 Km =	Rs 25.65	8.00	x	19.30	x	1.00 Km =	Rs 30.94	47.77	104.36
8	Brick/ Paver Block	1000 Nos	Local	8.00	x	6.95	x	7.00 Km =	Rs 194.60	8.00	x	19.30	x	1.00 Km =	Rs 77.20	392.70	664.50
9	Cement	MT	Local	8.00	x	6.95	x	10.00 Km =	Rs 69.50	8.00	x	19.30	x	0.00 Km =	Rs 0.00	274.95	344.45
10	Steel	MT	Local	8.00	x	6.95	x	10.00 Km =	Rs 69.50	8.00	x	19.30	x	0.00 Km =	Rs 0.00	289.54	359.04
11	Bitumen Emulsion	MT	Rukunpura	8.00	x	6.95	x	215.00 Km =	Rs 1494.25	8.00	x	19.30	x	0.00 Km =	Rs 0.00	322.90	1817.15
12	Bitumen	MT	Barauni	8.00	x	6.95	x	160.00 Km =	Rs 1112.00	8.00	x	19.30	x	0.00 Km =	Rs 0.00	322.90	1434.90
13	Hume Pipe (1000 mm)	Pipe	Local	10.00	x	6.95	x	50.00 Km =	Rs 278.00	10.00	x	19.30	x	0.00 Km =	Rs 0.00	84.44	362.44
14	Hume Pipe (600 mm)	Pipe	Local	8.00	x	6.95	x	50.00 Km =	Rs 132.38	8.00	x	19.30	x	0.00 Km =	Rs 0.00	87.03	219.41
15	Hume Pipe (300 mm)	Pipe	Local	21.00	x	6.95	x	50.00 Km =	Rs 46.33	21.00	x	19.30	x	0.00 Km =	Rs 0.00	33.06	79.39
16	Earth/Local Material	Cum	Local	8.00	x	6.95	x	1.00 Km =	Rs 11.58	8.00	x	16.90	x	0.00 Km =	Rs 0.00	47.77	59.35
Cost of Haulage Excluding Loading & Unloading as per SOP				4.80	x	6.95	x	1.00 Km =	Rs 11.58	4.80	x	16.90	x	0.00 Km =	Rs 0.00	47.77	59.35

* Subjected to Verification of Lead

Cost of Haulage Excluding Loading & Unloading as per SOR		
Type of Road		Per Ton. Km
For Surface Road		8.00
Unsurface Gravel Road		9.60
Kachha Road		19.30

Analysis of Rates (FORMAT F8)

SI. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
1	3.3	301.5	EARTHWORK Construction of embankment with material obtained from road way cutting Construction of embankment with approved materials deposited at site and obtained from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical Specification Clause 301.5 Unit = cum Taking output = 100 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.02	255.00	5.10
		b)	Machinery	day	0.50	237.00	118.50
			Dozer D-50 for spreading @ 200 cum per hour	hour	0.50	3009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller	hour	1.25	736.00	920.00
		c)	Material				
			Water				
			Compensation for earth including Royalty	kl	12.00	40.00	480.00
		d)	Over Heads @ 10 % on (a+b+c)	cum	0.00	23.65	0.00
		e)	Contract Profit @ 10 % on (a+b+c+d)				389.31
			Rate for 100 cum = a+b+c+d				428.24
			Rate per cum = (a+b+c+d)/100 =				4,710.65
			1 % LABOUR CESS	cum			47.11
			Rate per cum				0.47
							47.58
2	3.14	303.1	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as 301.5. Unit = cum Taking output = 100 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.04	255.00	10.20
		b)	Machinery	day	1.00	237.00	237.00
			Hydraulic excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1,775.00	2,958.33
			Tipper 5.5 cum capacity, 4 trips per hour	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage to cover loading & unloading				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	1.43	736.00	1,052.48
		c)	Material				
			Water				
			Compensation for earth taken from private land including Royalty	kl	12.00	40	480.00
		d)	Overheads @ 10% on (a+b+c)	cum	100.00	23.65	2,365.00
		e)	Contractor's profit @ 10% on (a+b+c+d)				1420.97
			Cost for 100 cum = a+b+c+d				1563.06
			Rate per cum = (a+b+c+d)/100				17,193.69
			Total Cost including 1 % LABOUR CESS	cum			171.94
							173.66

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
2A	3.14	303.1	Laying & Spreading of Subgrade (Applicable in case of Lime stabilisation)				
	New		Providing & laying subgrade & earthen shoulder with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope with lead upto 1000 m as 301.5.				
			Unit = cum				
			Taking output = 100 cum				
		a) Labour					
		Mate					
		Mazdoor (Unskilled)	day	0.04	255.00		10.20
		b) Machinery	day	1.00	237.00		237.00
		Hydraulic excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1,775.00		2,958.33
		Tipper 5.5 cum capacity, 4 trips per hour	hour	4.50	957.00		4,306.50
		Add 10 % of the cost of carriage to cover loading & unloading					430.65
		Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00		1,504.50
		Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	533.00		533.00
		c) Material					
		Compensation for earth taken from private land including royalty	cum	100.00	23.65		2,365.00
		d) Overheads @ 10% on (a+b+c)					1234.52
		e) Contractor's profit @ 10% on (a+b+c+d)					1357.97
		Cost for 100 cum = a+b+c+d					14,937.67
		Rate per cum = (a+b+c+d)/100					149.38
		Total Cost including 1 % LABOUR CESS					150.87
2B	4.4	402	Lime Stabilisation For Improving Subgrade	cum			
			Laying & spreading available soil in the subgrade on a prepared surface. Pulverising, mixing the spread soil in place with roavator with 2% staked lime having minimum 70% of contents of CaO. Grading with Tractor mounted Grader & Compacting with the smooth wheel road roller at OMC to the desired density to form a layer of improved Sub grade as per Technical Specification Clause 403.				
		B	By Manual Means				
			Unit-cum				
			Tacking output=150 (263t)				
		a) Labour					
		Mate					
		Mazdoor (Skilled)	day	1.44	255.00		367.20
		Mazdoor (Unskilled)	day	1.00	301.00		301.00
		b) Machinery	day	35.00	237.00		8,295.00
		Three Wheel 80-100 KN static Roller @70 cum per hour	hour	2.15	644.00		1,384.60
		Water tanker 6 kl capacity	hour	3.00	166.00		498.00
		c) Material					
		Lime	t	5.26	3207.4		16,870.92
		Water	Kl	18.00	40.00		720.00
		d) Overheads @ 10% on (a+b+c)					2,843.67
		e) Contractor's profit @ 10% on (a+b+c+d)					3,128.04
		f) Carriage cost for lime					1,811.81
		Cost for 150 cum = (a+b+c+d+e+f)	t	5.26	344.45		36,220.24
		Rate per cum = (a+b+c+d+e+f)/150					241.47
		Total Cost including 1 % LABOUR CESS	cum				243.88

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
3	3.5	302	Excavation in Cutting in Soil by manual means with lead upto 50 m				
		(i)	Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3				
			Unit = cum				
			Taking output = 120 cum				
		a)	Labour				
			Mate	day	1.80	255.00	459.00
			Mazdoor (Unskilled)	day	45.00	237.00	10,665.00
		b)	Overheads @ 10% on (a)				1112.40
		c)	Contractor's profit @ 10% on (a+b)				1223.64
			Cost of 120 cum = a+b+c				13,460.04
			Rate per cum = (a+b+c)/120				112.17
			Total Cost including 1 % LABOUR CESS	cum			113.29
4		(ii)	Excavation in Soil with Dozer with lead upto 100 m				
			Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections.				
			Unit = cum				
			Taking output = 180 cum				
			Labour				
			Mate	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	2.00	237.00	474.00
			Machinery				
			Dozer D-50 @ 50 cum per hour (cutting with pushing)	hour	3.60	1079	3,884.40
			Overheads @ 10% on (a+b)				437.88
			Contractor's profit @ 10% on (a+b+c)				481.67
			Cost for 180 cum = a+b+c+d				5,298.35
			Rate per cum = (a+b+c+d)/180				29.44
			Total Cost including 1 % LABOUR CESS	cum			29.73
5	3.5	(iii)	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m				
			Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical Specification Clause 302.3				
			Unit = cum				
			Taking output = 360 cum				
		a)	Labour				
			Mate	day	0.08	255.00	20.40
			Mazdoor (Unskilled)	day	2.00	237.00	474.00
		b)	Machinery				
			Hydraulic excavator 0.9 cum bucket capacity @ 100 cum per hour	hour	3.60	1,775.00	6,390.00
			Tipper 5.5 cum capacity, 4 trips per hour	hour	15.00	957.00	14,355.00
		c)	Over Heads @ 10% on (a+b)				2123.94
		d)	Contract. Profit @ 10% on (a+b+c+d)				2336.33
			Cost for 360 cum = a+b+c				25,699.67
			Rate per cum = (a+b+c)/360				71.39
			Total Cost including 1 % LABOUR CESS	cum			72.10
6	3.4	301.5	Construction of Embankment with Material Obtained from Borrow Pits				
		(A)	Construction of embankment with approved material obtained from borrow pits with a lift upto 1.5 m, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a <u>lead upto 1000 m</u> as per Technical Specification Clause 301.5				
			Unit = cum				
			Taking output = 100 cum				
		a)	Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	1.00	237.00	237.00
		b)	Machinery				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.67	1775.00	2,964.25
			Tipper 5.5 cum with 10 t capacity	hour	4.50	957.00	4,306.50
			Add 10 % of the cost of carriage by tipper				430.65
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,009.00	1,504.50
			Tractor mounted grader arrangement	hour	1.00	533.00	533.00
			Water tanker 6 kl capacity	hour	2.00	166.00	332.00
			Three wheel 80-100 kN Static Roller @ 80 cum per hour	hour	1.25	736.00	920.00
		c)	Material				
			Water				
			Compensation for earth taken from private land including royalty	kl	12.00	40.00	480.00
		d)	Over Heads @ 10 % on (a+b+c)	cum	100.00	23.65	2,365.00
		e)	Contract Profit @ 10 % on (a+b+c+d)				1408.31
			Cost for 100 cum = a+b+c+d				1549.14
			Rate per cum = (a+b+c+d)/100=				17,040.55
7	3.15		Total Cost including 1 % LABOUR CESS	cum			170.41
			Compacting original ground supporting embankment				172.11
			Loosening, levelling and compacting original ground supporting embankment to facilitate placement of first layer of embankment scarified to a depth of 150mm, mixed with water at omc and compacted by rolling so as to achieve minimum dry density as given in				
			Unit = cum				
			Taking output = 600 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.08	255.00	20.40
		b)	Machinery	day	2.00	237.00	474.00
			Tractor with ripper attachment	hour	6.00	533.00	3,198.00
			Three wheel 80-100 KN static roller	hour	7.50	736.00	5,520.00
			water tanker 6KL capacity	hour	4.00	166.00	664.00
		c)	Material				
			Water				
		d)	Over Heads @ 10 % on (a+b+c)	kl	24.00	40.00	960.00
		e)	Contract Profit @ 10 % on (a+b+c+d)				1083.64
			Cost for 100 cum = a+b+c+d				1192.00
			Rate per cum = (a+b+c+d)/600=				13,112.04
8	4.18		Total Cost including 1 % LABOUR CESS	cum			21.85
			Brick soling				22.07
			Laying brick soling on prepared sub-grade with brick on end edging according to lines graded and cross section shown on the drawing filling joints with sand and earth spreading 25mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100kn as per technical Specification clause 412				
			Unit = sqm				
			Taking output = 150 sqm				
		a)	Labour				
			Mate				
			Mazdoor(unskilled)	day	0.52	255.00	132.60
			Mason 1st class	day	10.00	237.00	2,370.00
		b)	Machinery	day	3.00	322.00	966.00
			Three wheel 80-100 KN static roller	hour	1.00	736.00	-
			water tanker 6KL capacity	hour	1.00	166.00	166.00
		c)	Material				
			Brick 1st class	No.	8,160.00	5.96	48,633.60
			Fine sand	cum	5.66	124.14	702.63
			water	kl	6.00	40.00	240.00
		d)	Over Heads @ 10 % on (a+b+c)				5321.08
		e)	Contract Profit @ 10 % on (a+b+c+d)				5853.19
			Cost for 100 cum = a+b+c+d				64,385.11
		f)	A) Cost of Brick Soling without carriage per cum	cum			429.23
			Brick 1st class	No.	8,160.00	0.66	5422.32
			Fine sand	cum	5.66	104.36	590.68
			Carriage cost				6013.00
			B) Carriage cost per cum				40.09
			Rate per cum =				469.32
			Total Cost including 1 % LABOUR CESS	cum			474.01
9	4.1	401	PAVEMENT C/P ST LAYERS				
	(A)		Granular sub-base with Well Graded Material (Table 400.1)				
			(By mix in place method)				

Analysis of Rates (FORMAT F8)

SI. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.				
		(ii)	For Grading II Material				
			Unit = cum				
			Taking output = 300 cum				
		a)	Labour				
			Mate				
			Mazdoor (Skilled)	day	0.48	255.00	122.40
			Mazdoor (Unskilled)	day	2.00	301.00	602.00
		b)	Machinery	day	10.00	237.00	2370.00
			Tractor mounted grader arrangement				
			Three wheel 80-100 kN static roller @ 10 cum per hour	hour	12.00	533.00	6396.00
			Tractor with Rotavator 25 cum per hour	hour	30.00	736.00	22080.00
			Water tanker 6 kl capacity	hour	12.00	517.00	6204.00
		c)	Material	hour	5.00	166.00	830.00
			Well graded granular sub-base material as per Table 400.1				
			26.5 mm to 9.5 mm @ 35%	cum	134.00	590.55	79133.70
			9.5 mm to 2.36 mm @ 25%	cum	96.00	441.94	42426.24
			2.36 mm below @ 40% (Local Sand)	cum	153.00	124.14	18993.42
			Water	kl	30.00	40.00	1200.00
		d)	Over Heads @ 10 % on (a+b+c)				
		e)	Contract Profit @ 10 % on (a+b+c+d)				
			Cost of GSB without carriage				18035.78
			A) Cost of GSB without carriage per cum	cum			19839.35
		e)	CARRIAGE				
			Carriage for GSB material				727.44
			Carriage for material below 2.36 mm	Cum	230.00	1359.41	312664.30
			Carriage cost	Cum	150.00	104.36	15654.00
			B) Carriage cost per cum				328318.30
			Rate per cum =				1094.39
10	4.18	412	Brick Soling (Reuse of existing Bricks Soling & adding 40% New Bricks)	CUM			1821.84
			Laying brick soling layer after dismantling existing Brick Soling & adding 40% new Bricks with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412				1,840.06
			Unit = sqm				
			Taking output = 150 sqm				
		(a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.52	255.00	132.60
			Mason 1st Class	day	10.00	237.00	2370.00
		(b)	Machinery	day	3.00	322.00	966.00
			Three wheel 80-100 kN static roller				
			Water tanker	hour	1.00	736.00	736.00
		(c)	Material	hour	1.00	166.00	166.00
			Brick 1st Class				
			Fine Sand	No.	3264.00	5.96	19453.44
			Water	cum	5.66	124.14	702.63
		(d)	Over Heads @ 10 % on (a+b+c)	kl	6.00	40.00	240.00
		(e)	Contract Profit @ 10 % on (a+b+c+d)				2476.67
		(f)	Carriage Cost				2724.33
			Brick 1st Class				
			Fine Sand	No.	3264.00	0.66	2168.93
			Cost for 150 sqm = a+b+c+d+e+f	cum	5.66	104.36	590.68
			Rate per sqm = (a+b+c+d+e+f)/150				32727.28
1	6.4		Cement Concrete Pavement	cum			218.18
			Total Cost including 1 % LABOUR CESS				220.36

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse an				
		a)	Labour				
			Mate	day	7.00	255.00	1785.00
			Mason (1st class)	day	5.00	322.00	1610.00
			Mason (2nd class)	day	5.00	288.00	1440.00
			Mazdoor (Unskilled)	day	129.00	237.00	30573.00
			Mazdoor (Skilled)	day	6.00	301.00	1806.00
			Surveyor	day	2.00	291.00	582.00
			Mazdoor (Semi-Skilled)	day	6.00	247.00	1482.00
		b)	Machinery	day	14.00	237.00	3318.00
			Concrete mixer 0.28 / 0.4 cum capacity (6 mixers) with weigh batcher and suitable capacity calibrated water tank	hour	36.00	80.00	2880.00
			Needle vibrator	hour	9.00	76.35	687.15
			Screed vibrator	hour	9.00	102.64	923.76
			Plate vibrator	hour	9.00	423.00	3807.00
			Concrete joint cutting machine for initial & final cuts	hour	4.00	317.00	1268.00
			Water tanker 6 kl capacity	hour	5.00	166.00	830.00
			Air Compressor (1 hour initial + 1 hour final)	hour	2.00	437.00	874.00
		c)	Material				
		(i)	Crushed stone coarse aggregates, grading will be as per Clause 1501.2.4.1 (Table 1500.1) of specifications @ 0.90 cum/cum of concrete	cum	67.50		38207.70
		(ii)	Sand as per IS:383 and conforming to Clause 1500.2.4.2 @ 0.45 cum/cum of concrete	cum	33.75	566.04	
		(iii)	Cement @ 310 kg/cum of concrete			146.32	4938.30
		(iv)	Polythene sheet 125 micron	t	23.25	5,985.12	139154.04
			Bitumen primer @ 200 ml per joint for 23 joints	sqm	412.50	16.30	6723.75
			Bituminous sealant 800 ml per joint for 23 joints	t	0.005	41,810.1	209.05
			Jute rope 12 mm dia including 5 per cent wastage	litre	19.00	26.08	495.52
			Plasticizer 0.5 per cent by weight of cement	m	90.00	46.59	4193.10
			Curing compound (if used) @ 0.33 litre per sqm	litre	122.00	164.34	20049.48
			Water for curing	litre	131.25	130.43	17118.94
			Joint filler board 20 mm thick as per IS:1838	kl	18.00	40.00	720.00
			Formwork @ 3% of (a+b+c)	sqm	3.00	687.5	2062.50
		(d)	Over Heads @ 10 % on (a+b+c)				8,632.15
		(e)	Contract Profit @ 10 % on (a+b+c+d)				29637.04
			Cost for 75 cum = a+b+c+d+e				32600.75
			Rate per cum = (a+b+c+d+e)/75				3,58,608.23
			Cost of CC Pavement without carriage per cum (a+b+c+d)/75	cum			4,781.44
			Cost of Carriageway				
			Crushed stone coarse aggregates	cum	0.90	1359.41	1223.47
			Sand	cum	0.45	1330.34	598.65
			Cement	t	0.31	359.04	111.30
			Total Cost including 1 % LABOUR CESS	cum			6,714.87
12	11.5	600 & 1200	Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 & 1203				6,782.02
			Unit = cum				
		a	Brick masonry in 1:3 cement mortar				
			Material				
			Brick	Nos.	500.00	5.96	2980.00
			Cement mortar 1:3 (Rate as per Sub-analysis)	cum	0.24	5,021.03	1205.05
		b	Labour				
			Mate	day	0.09	255.00	22.95
			Mason (1st Class)	day	0.80	322.00	257.60
			Mazdoor (Unskilled)	day	1.60	237.00	379.20
			Bhisti	day	0.20	237.00	47.40
		c	Over Heads @ 10 % on (a+b+c)				489.22
		d	Contract Profit @ 10 % on (a+b+c+d)				538.14
			Rate per cum = a+b+c+d				5,919.56

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Total Cost including 1 % LABOUR CESS				6,511.52
			Sub-analysis				
			Cement mortar 1:3 (1 cement : 3 sand)				
			Unit = cum				
	a)		Material				
			Cement	t	0.51	5,985.12	3052.41
			Sand	cum	1.05	146.32	153.64
	b)		Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	0.90	237.00	213.30
			Bhisti	day	0.08	237.00	18.96
	(f)		Carriage Cost				
			Cement	t	0.51	344.45	175.67
			Sand	cum	1.05	1,330.34	1396.86
			Total material and labour = (a+b)				5,021.03
	ii		Brick masonry in 1:4 cement mortar				
			Unit = cum				
	a)		Material				
			Brick	Nos.	500.00	5.96	2980.00
			Cement mortar 1:4	cum	0.24	4,198.19	1007.57
			Rates as per sub-analysis				
	b)		Labour				
			Mate	day	0.09	255.00	22.95
			Mason (1st Class)	day	0.80	322.00	257.60
			Mazdoor (Unskilled)	day	1.60	237.00	379.20
			Bhisti	day	0.20	237.00	47.40
	c		Over Heads @ 10 % on (a+b+c)				469.47
	d		Contract. Profit @ 10 % on (a+b+c+d)				516.42
			Rate per cum = a+b+c+d				5,680.61
			Total Cost including 1 % LABOUR CESS				6,248.67
			Sub-analysis				
			Cement mortar 1:4 (1 cement : 4 sand)				
			Unit = cum				
	a)		Material				
			Cement	t	0.38	5,985.12	2274.35
			Sand	cum	1.05	146.32	153.64
	b)		Labour				
			Mate	day	0.04	255.00	10.20
			Mazdoor (Unskilled)	day	0.90	237.00	213.30
			Bhisti	day	0.08	237.00	18.96
	(f)		Carriage Cost				
			Cement	t	0.38	344.45	130.89
			Sand	cum	1.05	1,330.34	1396.86
			Total material and labour = (a+b)				4,198.19
13	11.4		Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				
IV.			R.C.C grade M 20				
			Unit = cum				
	a)		Material				
			Cement	t	0.35	5,985.12	2094.79
			Coarse sand	cum	0.45	146.32	65.84
			20 mm aggregate	cum	0.54	590.55	318.90
			10 mm aggregate	cum	0.36	658.89	237.20
	b)		Labour				
			Mate	day	0.08	255.00	20.40
			Mason (1st Class)	day	0.12	322.00	38.64
			Mazdoor (Unskilled)	day	1.73	237.00	410.01
			Bhisti	day	0.27	237.00	63.99
	c)		Machinery				
			Concrete mixer 0.4/0.28 cum capacity	hour	0.40	80.00	32.00
	d)		Formwork @ 4% on (a+b+c)				131.27
	e)		Over Heads @ 10 % on (a+b+c)				341.30
	f)		Contract. Profit @ 10 % on (a+b+c+d)				375.43
			Carriage Cost				4129.78
			Cement	t	0.35	344.45	120.56

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Coarse sand	cum	0.45	1,330.34	598.65
			20 mm aggregate	cum	0.54	1,359.41	734.08
			10 mm aggregate	cum	0.36	1,359.41	489.39
			Rate per cum = (a+b+c+d+e+f)				6072.46
			Total Cost including 1 % LABOUR CESS				6,679.71
14	11.4	800 & 1200	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				
		i.	P.C.C grade M 10				
		(i)	Nominal mix 1:3:6				
			Unit = cum				
		a)	Material				
			Cement	t	0.25	5,985.12	1496.28
			Coarse sand	cum	0.48	146.32	70.23
			40 mm aggregate	cum	0.58	472.09	271.92
			20 mm aggregate	cum	0.29	590.55	170.08
			10 mm aggregate	cum	0.10	658.89	63.25
		b)	Labour				
			Mate	day	0.08	255.00	20.40
			Mason (1st Class)	day	0.10	322.00	32.20
			Mazdoor (Unskilled)	day	1.63	237.00	386.31
			Bhisti	day	0.27	237.00	63.99
		c)	Machinery				
			Mechanical concrete mixer 0.4/0.28 cum capacity fitted with water measuring device and preferably also with load cell.	hour	0.40	80.00	32.00
		d)	Formwork @ 4% on cost of material, labour and machinery (a+b+c)				104.27
		e)	Over Heads @ 10 % on (a+b+c)				271.09
		f)	Contract Profit @ 10 % on (a+b+c+d)				298.20
			Rate per cum = a+b+c+d+e+f				3280.23
		(g)	Carriage Cost				
			Cement	t	0.25	344.45	86.11
			Coarse sand	cum	0.48	1330.34	638.56
			40 mm aggregate	cum	0.58	1359.41	783.02
			20 mm aggregate	cum	0.29	1359.41	391.51
			10 mm aggregate	cum	0.10	1359.41	130.50
			Rate per cum = a+b+c+d+e+f+g				5309.94
			Total Cost including 1 % LABOUR CESS				5,840.94
15	11.2	300 & 1200	Filling in foundation trenches as per drawing and technical specification Clause 305.3.9				
		New	Borrowed Earth				
			Unit = cum				
		a)	Labour				
			Mate	day	0.01	255.00	2.55
			Mazdoor (Unskilled)	day	0.30	237.00	71.10
		b)	Material				
			Borrowed Earth (assuming 20 per cent voids)	cum	1.20	23.65	28.38
		c)	Over Heads @ 10 % on (a+b)				10.20
		d)	Contract Profit @ 10 % on (a+b+c)				11.22
			Carriage Cost				
			Borrowed Earth (assuming 20 per cent voids)	cum	1.20	59.35	71.22
			Rate per cum = a+b+c				194.68
			Rate per cum (WITH 1 % LABOUR CESS)				196.62
		1200	Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well.				
		A	Assuming depth of water 1.0 m and height of island to be 1.25 m including Royalty for earth @ Rs. 3768.00 for each Island.				
			Unit = 1 No				
			Taking output = 1 No.				
		a)	Material				
			Earth (compacted)	cum	251.20	23.65	5940.88
			Sand bags	each	750.00	7.09	5317.50
		b)	Labour				
			Mate	day	0.40	255.00	102.00
			Mazdoor for filling sand bags, latching and placing	day	15.00	237.00	3555.00
		c)	Machinery				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Crane with grab 1 cum capacity	hour	20.00	1149.39	22987.80
			Consumables @ 2.5 per cent of (c) above				574.70
			d) Overhead charges @ 0.2 on (a+b+c)				7695.58
			e) Contractor's profit @ 0.1 on (a+b+c+d)				4617.35
			Rate per No. (a+b+c+d+e)				50790.80
			Rate per cum (WITH 1 % LABOUR CESS)	cum			51298.70
		Note	It is assumed that earth will be available within the working space of crane with grab bucket.			say	51299.00
	C		Providing and constructing one span service road to reach island location from one pier location to another pier location including Royalty for earth per m for service Road.				
			Assuming span length 30 m, width of service road 10m and depth of water 1m				
			Unit = 1 meter				
			Taking output = 30 metre				
		a)	Material				
			Earth	cum	450.00	23.65	10642.50
			Sand bags	each	300.00	7.09	2127.00
		b)	Labour				
			Mate	day	0.24	255.00	61.20
			Mazdoor for filling sand bags, stitching and placing	day	6.00	237.00	1422.00
		c)	Machinery				
			Front end Loader 1 cum capacity	hour	27.00	1134.00	30618.00
			Tipper 5.5 cum capacity	hour	28.00	837.00	23436.00
		d)	Overhead charges @ 0.2 on (a+b+c)				13661.34
		e)	Contractor's profit @ 0.1 on (a+b+c+d)				8196.80
			Cost for 30 m (a+b+c+d+e)				90164.84
			Rate per m (a+b+c+d+e)/30				3005.49
			Rate (WITH 1 % LABOUR CESS)	cum			3035.55
						say	3036.00
14	11.4	PCC grade M15					
	(i)	Nominal mix (1:2.5:5)					
		Unit = cum					
	a)	Material					
		Cement	t	0.28	5,985.12		1645.91
		Coarse sand	cum	0.48	146.32		70.23
		40 mm aggregate	cum	0.48	472.09		226.60
		20 mm aggregate	cum	0.24	590.55		141.73
		10 mm aggregate	cum	0.08	658.89		52.71
	b)	Labour					
		Mate	day	0.08	255.00		20.40
		Mason (1st Class)	day	0.10	322.00		32.20
		Mazdoor (Unskilled)	day	1.63	237.00		386.31
		Bhisti	day	0.27	237.00		63.99
	c)	Machinery					
		Concrete mixer 0.4/0.28 cum capacity	hour	0.40	80.00		32.00
	d)	Formwork @ 4% on cost of material, labour and machinery (a+b+c)					106.88
	e)	Over Heads @ 10 % on (a+b+c)					277.90
	f)	Contract. Profit @ 10 % on (a+b+c+d)					305.69
		Rate per cum = a+b+c+d+e+f					3362.56
	(g)	Carriage Cost					
		Cement	t	0.275	344.450		94.72
		Coarse sand	cum	0.480	1,330.340		638.56
		40 mm aggregate	cum	0.480	1,359.410		652.52
		20 mm aggregate	cum	0.240	1,359.410		326.26
		10 mm aggregate	cum	0.080	1,359.410		108.75
		Rate per cum = a+b+c+d+e+f+g					5183.37
		Total Cost including 1 % LABOUR CESS					5,701.71
15	11.8	1000&1200	Supplying fitting and placing TMT bars reinforcement in foundation complete as per drawing and technical specification clauses 1000and1202				
		unit=T					
	a)	Material					
		TMT bars including 5%for overlaps and wastage	t	1.05	42,848.0		44990.40
		binding wires	kg	6	57.77		346.62

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		b	Labour for cutting, bending, shifting to site, tying and placing in position				
			Mate	day	0.4	255.00	102.00
			Blacksmith	day	2	288.00	576.00
			Mazdoor (Unskilled)	day	6	237.00	1422.00
		c	Over Heads @ 10 % on (a+b+c)				4743.70
		d	Contract Profit @ 10 % on (a+b+c+d)				5218.07
		(g)	Carriage Cost				
			TMT bars including 5% for overlaps and wastage	t	1.05	359.04	376.99
			Rate per cum = a+b+c+d				5775.79
			Total Cost including 1 % LABOUR CESS				63553.36
16	9.2 (II)	1100 & 800	Type B (First Class) Bedding				
			Laying (First Class) bedding on well compacted sand, moorum or approved granular material as per Clause 1105 (ii)				
			Filling in foundation trenches as per drawing and technical specifications Clause 305.3.9				
		I.	Sand filling				
			Unit = cum				
		a)	Labour				
			Mate	day	0.01	255.00	2.55
			Mazdoor (Unskilled)	day	0.30	237.00	71.10
		b)	Material				
			Sand (assuming 20 per cent voids)	cum	1.20	146.32	175.58
		c	Over Heads @ 10 % on (a+b+c)				24.92
		d	Contract Profit @ 10 % on (a+b+c+d)				27.42
			Cost of Type B (First Class) Bedding without carriage				301.57
			Cost of Type B (First Class) Bedding without carriage per m (a+b+c)/1	cum			301.57
			Cost of Carriageway				
			Sand	cum	1.20	1330.34	1596.41
			Total Cost including 1 % LABOUR CESS				2,087.78
17	9.3	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row				
		(I)	Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1100.				
		A.	600 MM DIA				
			Unit = m				
			Taking output = 7.5 m				
			(3 pipes of 2.5 m length each)				
		a)	Material				
			Sand	cum	0.019	146.32	2.78
			Cement	t	0.014	5,985.12	83.79
			RCC pipe NP 3 pipe including collar	m	7.50	899.18	6743.85
		b)	Labour				
			Mate	day	0.04	255.00	10.2
			Mason (1st Class)	day	0.12	322.00	38.64
			Mazdoor (Unskilled)	day	0.96	237.00	227.52
		c)	Over Heads @ 10 % on (a+b)				710.68
		d)	Contract Profit @ 10 % on (a+b+c)				781.75
			Cost of RCC Pipe NP3 without carriage				8599.21
			Cost of RCC Pipe NP3 without carriage per m (a+b+c)/7.5	m			1146.56
			Cost of Carriageway				
			Sand	cum	0.0025	1330.34	3.37
			Cement	t	0.0019	344.45	0.64
			RCC pipe NP 3 pipe including collar	m	1.00	219.41	219.41
			Total Cost including 1 % LABOUR CESS				1,506.98
16	11.1	300	Excavation for Structures				
			Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of side				
		I.	Ordinary soil				
		(i)	Upto 3 m depth				
			Unit = cum				
			Taking output = 10 cum				
		a)	Labour				
			Mate	day	0.32	255.00	81.6
			Mazdoor (Unskilled)	day	8.00	237.00	1896
		b	Over Heads @ 10 % on (a)				197.76

Analysis of Rates (FORMAT F8)

SI. No.	SDB SI. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		c	Contract. Profit @ 10 % on (a+b)				
			Cost for 10 cum = a+b+c				217.54
			Rate per cum (a+b)/10=	cum			2392.90
			Total Cost including 1 % LABOUR CESS				239.29
11.2			Sand filling (Unit = cum)				241.68
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.01	255.00	2.55
		b)	Material	day	0.30	237.00	71.1
			Sand (assuming 20 per cent voids)				
		d)	Over Heads @ 10 % on (a+b+c)	cum	1.20	124.14	148.968
		e)	Contract. Profit @ 10 % on (a+b+c+d)				22.26
			Cost of Filling in foundation trenches without carriage				24.49
			A) Cost of Filling in foundation trenches without carriage per cum (a+b+c)/1				269.37
			Cost of Carriageway	cum			269.37
			Sand	cum	1.2000	104.36	125.23
			Cost for cum = a+b+c+d+e				394.60
			Rate per cum = (a+b+c+d+e)				394.60
			Total Cost including 1 % LABOUR CESS				398.55
17	3.15	303	Compacting original ground supporting subgrade				
	(II)		Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical specifications Clause 303.5.2.				
			Unit = cum				
			Taking output = 600 cum				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.24	255.00	61.2
		b)	Machinery	day	6.00	237.00	1422
			Tractor with ripper attachment	hour	10.00	533.00	5330
			Tractor mounted grader arrangement for grading	hour	12.00	533.00	6396
			Water tanker 6 kl capacity	hour	4.00	166.00	664
			Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	8.60	736.00	6329.6
		c)	Material				
			Water				
		d)	Over Heads @ 10 % on (a+b+c)	kl	24.00	40.00	960
		e)	Contract. Profit @ 10 % on (a+b+c+d)				2116.28
			Cost for 600 cum = a+b+c+d+e				2327.91
			Rate per cum = (a+b+c+d+e)/600				25606.988
			Total Cost including 1 % LABOUR CESS				42.68
18			Providing and laying of interlocking concrete block pavements having thickness 60 mm as per drawing and technical specification clause 1504				43.11
			Unit = sqm				
		a)	Labour				
			Mate				
			Mazdoor (Unskilled)	day	0.90	255.00	229.5
			Mason (2nd class)	day	15.00	237.00	3555
		b)	Machinery	day	7.00	288.00	2016
			Water tanker 6 kl capacity				
		c)	Material	hour	2.00	166.00	332
			(i) Providing inter- locking blocks				
			(ii) Edge blocks	sqm	225.00	484.95	109113.75
			(iii) Sand as per tabel 1500.5	m	120.00	484.95	58194
			(iv) Water	cum	5.42	124.14	672.84
		d)	Overheads @ 10% on (a+b+c)	kl	3.00	40	120
		e)	Contractor's profit@10% on (a+b+c+d)				17423.31
			Cost for 225 sqm = a+b+c+d+e				19165.64
			Cost of Carriageway				
			Sand				
			(i) Providing inter-locking blocks + (ii) Edge blocks	cum	5.42	104.36	565.63
			Rate per sqm = (a+b+c+d+e)/225	No.	7,200.00	0.65	4715.28
			Total Cost including 1 % LABOUR CESS				960.46
19	12.9		Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications				970.06

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Unit = Nos.				
			Taking output = 30 Nos.				
		a)	Material				
			AC pipe 100 mm dia. (including wastage @ 5 per cent)	m	31.50	46.25	1456.88
			MS clamp	No.	30.00	33.36	1000.80
			Cement mortar 1:3 (Rate as in Item 12.6)	cum	0.05	5021.03	251.05
		b)	Labour				
			Mate	day	0.03	255.00	7.65
			Mason	day	0.50	288.00	144.00
			Mazdoor	day	0.25	237.00	59.25
		c)	Overheads @ 10% on (a+b+c)				
		d)	Contractor's profit@10% on (a+b+c+d)				291.96
			Cost for 30 m = a+b+c+d				321.16
			Rate per m (a+b+c+d)/30				3532.75
			Total Cost including 1 % LABOUR CESS				117.76
20	12.2		Plastering with Cement punning with cement mortar (1:4) on brickwork as per drawing and technical specification clauses 613.3 and 1204				118.94
			Unit = 10 sqm				
			Taking output = 10 sqm				
		a)	Material				
			Cement mortar 1:4				
		b)	Labour	cum	0.240	4,198.19	1007.57
			Mate	day	0.06	255.00	15.30
			Mason	day	0.60	288.00	172.80
			Mazdoor	day	0.60	237.00	142.20
			Bhisti	day	0.30	237.00	71.10
		c)	Overheads @ 10% on (a+b+c)				
		d)	Contractor's profit@10% on (a+b+c+d)				140.90
			Rate per 10 sqm (a+b+c+d)				154.99
			Total Cost including 1 % LABOUR CESS				1704.85
21	2.6	d)	Dismantling Brick/Tile Work				172.19
			Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202				
			Unit = cum				
			Taking output = 1.25				
		(D)	Dry brick pitching or brick soling				
		a)	Labour				
			Mate	day	0.02	255.00	5.10
			Mazdoor (Unskilled)	day	0.50	237.00	118.50
		b)	Machinery				
			Tractor with trolley	hour	0.27	533.00	143.91
		d)	Overheads @ 10% on (a+b+c)				
		e)	Contractor's profit@10% on (a+b+c+d)				26.75
			Cost for 1.25 cum = a+b+c+d				29.43
			Rate per cum = (a+b+c+d)/1.25				323.69
			Total Cost including 1 % LABOUR CESS				258.95
22	New Item		Providing and laying brick bats in Soak pit as per direction of Engineer in charge				261.54
			Unit= cum				
			Taking Output = 1				
		a)	Mate	day	0.01	255.00	2.55
		b)	Mazdoor (Unskilled)	day	0.2	237.00	47.4
			Brick bats	cum	1	1208.48	1208.48
		c)	Overheads @ 10% on (a+b)				
							125.843
		d)	Contractor's profit@10% on (a+b+c)				
							138.4273
			Cost for 1 cum = a+b+c+d				1522.7003
			Total Cost including 1 % LABOUR CESS				1537.93