

(Annexure - A)

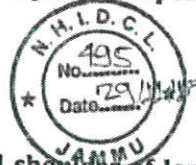
Estimates by Service Provider



Government of Jammu & Kashmir
Office of the Chief Engineer Elect. Maintt. & RE Wing,
Canal Power House, Canal Road, Jammu
Email: cemrejammu2@gmail.com
Telephone Nos: 0191 - 2554426, Fax: 0191 - 2505708

National Highways & Infrastructure Development Corporation Ltd.
Sector No.-2, Trikuta Nagar,
Jammu.

No: CEJ/TS-I/ 7107-13



Date: 28 - 11-2017

Sub: - Upgradation to 4 lane with Paved shoulder of Jammu-Akhnoor section of NH-144 A in the State of J&K - Shifting of electrical utility.

Ref.: -i. Your letter No.: -NHIDCL/BO-JK/Jammu-Akhnoor/2017-18/660 Dated: - 08-09-2017.

ii. This office letter No. CEJ/TS-I/7036-42 dated 24.11.2017.

Sir,

In continuation to this office above referred letter on the subject matter, please find below the revised proposal for realignment / shifting of electrical utilities due to the proposed road widening of Jammu-Akhnoor National Highway: -

S. No.	Works	Amount Required (In Rs. Lacs)	Executive Agency	Remarks
Package-I				
1.	Shifting of 33 kV Network	298.30	Sub-Transmission Division-I, Jammu	Abstract Estimate enclosed as per Annexure -A (7 lvs)
2.	Shifting of Distribution Network	1545.91	EM&RE Division-III, Jammu	Abstract Estimate enclosed as per Annexure -B (6 lvs)
		320.03	EM&RE Division-I, Jammu	Abstract Estimate enclosed as per Annexure -C (7 lvs)
3.	Construction of Sub-Division Office Building at alternate site due to dismantling of existing office building coming in the alignment of road widening	50.87	EM&RE Division-III, Jammu	Abstract Estimate enclosed as per Annexure -D (1 leaf)
		Package-II (Rotary)		
1197.35 Lacs	TOTAL	2215.11		

Encl.: - 21 lvs

Yours faithfully

Pkg-III : Total cost = 1197.35 lacs

Chief Engineer
EM & RE Wing
Jammu

Copy to the:

1. Commissioner/Secretary to Government, Power Development Department, J&K Jammu for information.
2. Development Commissioner (Power), PDD, J&K Jammu for information.
3. Superintending Engineer, EM&RE Circle-I, Jammu for Information.
4. Executive Engineer, EM&RE Division-I, Jammu for Information.
5. Executive Engineer, EM&RE Division-III, Jammu for Information.
6. Executive Engineer, Sub-Transmission Division-I, Jammu for Information

Pkg-IV

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

ANNX-A
1/7

**ABSTRACT COST INVOLVED FOR SHIFTING OF EXISTING 33 KV LINES
COMING IN THE ALIGNMENT FOR WIDENING OF JAMMU-AKHNOOR ROAD
IN RESPECT OF SUB TRANSMISSION DIVISION-I, JAMMU**

S.No.	Particulars	Amount (in Rs.)	Remarks
1.	Amount required for Erection of New 33 KV Lines for shifting of existing 33 KV Lines coming in the alignment for widening of Jammu-Akhnoor road	27308204.5	As per Annexure-"A"
	III	21015572.09	
2.	Amount required for Dismantling of Existing 33 KV Lines coming in the alignment for widening of Jammu-Akhnoor road	2522239.7	As per Annexure-"B"
	III	1984817.10	
	Total:	29830444.2	
	III	23800388.19	

Say 298.30 Lacs 238.00 Lacs

Sd/-
Executive Engineer
Sub Transmission Division-I
Jammu

phg III : Cost = 238.00 Lacs

phg. III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Annexure-A

2/7

**ERECTION OF NEW 33 KV LINES FOR SHIFTING OF EXISTING 33 KV LINES
COMING IN THE ALIGNMENT FOR WIDENING OF JAMMU-AKHNOOR ROAD
IN RESPECT OF SUB TRANSMISSION DIVISION-I, JAMMU**

S.No.	Particulars	Unit	Length (in Kms)	Rate (in Rs.)	Amount (in Rs.)
1.	33 KV line on 13 Mtr ST Pole on ACSR Dog Conductor III	Kms	8.70 8.35	1224268.12	10651132.6 10222638.80
2.	33 KV line on 13 Mtr ST Pole on ACSR Wolf Conductor III	Kms	10.65 7.90	1467459.91	15628448.08 11592933.29
3.	33 KV line on 16 Mtr ST Pole on ACSR Dog Conductor	Kms	0.70	1469462.59	1028623.815 *
	Total:		20.05		27308204.5 III 21815572.09

Say 273.08 Lacs

Signature
AE-II

Signature
AE-II

Signature
Executive Engineer
Sub Transmission Division-I
Jammu

pkg III: Cost
= 218.56 Lacs

pkg-III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Annexure-B A

**DISMANTLING OF EXISTING 33 KV LINES COMING IN THE ALIGNMENT FOR
WIDENING OF JAMMU-AKHNOOR ROAD IN RESPECT OF
SUB TRANSMISSION DIVISION-I, JAMMU**

3/7

S.No.	Particulars	Unit	Length (in Kms)	Rate (in Rs.)	Amount (in Rs.)
1.	33 KV line on 9 Mtr PCC Pole on ACSR Dog Conductor	Kms	4.50	148502.00	668259.00 ✓
2.	33 KV line on 11 Mtr PCC Pole on ACSR Dog Conductor	Kms	2.55	159468.00	406643.40
		III	2.20		350829.60
3.	33 KV line on 9 Mtr PCC Pole on ACSR Wolf Conductor	Kms	0.60	165196.00	99117.60
		III	0.45		74330.20
4.	33 KV line on 11 Mtr PCC Pole on ACSR Wolf Conductor	Kms	0.95	176163.00	167354.85
		III	0.20		35232.60
5.	33 KV line on 11 Mtr ST Pole on ACSR Wolf Conductor	Kms	4.50	164391.00	739759.50 ✓
6.	33 KV line on 13 Mtr ST Pole on ACSR Wolf Conductor	Kms	0.80	199512.00	159609.60
		III	0.35		69829.20
7.	33 KV line on 16 Mtr ST Pole on ACSR Wolf Conductor	Kms	0.35	232845.00	81495.75
		III	0.20		46569.00
8.	1 No 66 KV Tower	Nos	.	LS	200000.00 *
	Total:				2522239.70
				III	1984817.10

, Say 25.22 Lacs

Signature
ACC-3

Signature
AE-I

Signature
Executive Engineer
Sub Transmission Division-I
Jammu

Plg III = 1984817.10

Plg - III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

ANNX-A
9/7

LIST OF 33 KV LINES FOR SHIFTING DUE TO WIDENING OF JAMMU-AKHNOOR ROAD IN RESPECT OF SUB TRANSMISSION DIVISION-I, JAMMU

No.	Name of 33 KV Line	Location	33 KV Line to be shifted	Length (in Kms)	New 33 KV Line (Proposed)	Length (in Kms)
1.	Shamachak to Batara tap line III	Batera to Simbleyala	ACSR Dog Conductor on 9 Mtr PCC Pole	2.00	ACSR Dog Conductor on 13 Mtr ST Pole	2.50
2.	Akhnoor-Batera tap line III	Batera to By-pass Akhnoor	ACSR Dog Conductor on 9 Mtr PCC Pole	2.50	ACSR Dog Conductor on 13 Mtr ST Pole	3.00
3.	Akhnoor-Jourian line IV	Nai Basti Daskal to Hanumah Chowk Daskal	ACSR Wolf Conductor on i) 9 Mtr PCC Pole = 0.15 Kms ii) 11 Mtr PCC Pole = 0.75 Kms iii) 13 Mtr ST Pole = 0.45 Kms iv) 16 Mtr ST Pole = 0.15 Kms	1.50	Erection of ACSR Wolf Conductor on 13 Mtr ST Pole	2.75
4.	Akhnoor-Pargwal line III	Doomi Chowk to Thathi Chowk	ACSR Wolf Conductor on i) 9 Mtr PCC Pole = 0.45 Kms ii) 11 Mtr ST Pole = 4.5 Kms iii) 13 Mtr ST Pole = 0.35 Kms iv) 16 Mtr ST Pole = 0.2 Kms	5.50	Erection of ACSR Wolf Conductor on 13 Mtr	7.50
5.	Akhnoor-Tanda line IV	Nai Basti Daskal	ACSR Dog Conductor on 11 Mtr PCC Pole	0.20	ACSR Dog Conductor on 16 Mtr ST Pole	0.30
6.	Udheywalla-Muthi line II	Near PHE office Muthi	ACSR Dog Conductor on 11 Mtr PCC Pole	0.15	ACSR Dog Conductor on 13 Mtr ST Pole	0.35
7.	Purkhoo-Muthi line III	Near Muthi R/Stn.	ACSR Wolf Conductor on 11 Mtr PCC Pole	0.20	ACSR Wolf Conductor on 13 Mtr ST Pole	0.40
8.	Purkhoo-Marh line III	Opposite R/Stn. Purkhoo	ACSR Dog Conductor on 11 Mtr PCC Pole	0.20	ACSR Dog Conductor on 13 Mtr ST Pole	0.35
9.	Muthi MES line III	Muthi to MES and Gati	ACSR Dog Conductor on 11 Mtr PCC Pole	2.00	ACSR Dog Conductor on 13 Mtr ST Pole	2.50
10.	Canal-Toph line II	Near J&K Bank Akhnoor road	66 KV Tower line	1 No Tower	ACSR Dog Conductor on 16 Mtr ST Pole	0.40

Gupta
AESZ

AF-II

Executive Engineer
Sub Transmission Division-I
Jammu

pLg III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

ANNX-A
5/7

**ACT COST OF ESTIMATE FOR ERECTION OF 1 KM OF 33 KV LINE ON 13 METER ST/ PCC POLES
WITH STANDARD SPAN OF 58 METERS ON ACSR DOG CONDUCTOR**

Particulars	Unit	Qty	PCC Poles		ST Poles	
			Rate	Amount	Rate	Amount
Part-A						
13 mtrs Long Pole (PCC WL-360 Kg, ST-540 SP56)	Nos	19	7887.00	149853.00	19632.00	373008.00
GI V cross-arm with top Bracket including clamp	Kg	425	71.00	30175.00	71.00	30175.00
GI Channel X-arm including clamps and braces	Kg	160	71.00	11360.00	71.00	11360.00
100 mm ² ACSR Conductor	Km	3.09	66998.00	207023.82	66998.00	207023.82
PG Clamps for 100 mm ² ACSR Conductor	Nos	12	467.00	5604.00	467.00	5604.00
33 KV Pin insulators (polymer / porcelain) with Pins (10 KN)	Nos	57	592.00	33744.00	592.00	33744.00
33 KV Disc Insulators (polymer/ porcelain Complete with fitting (70 KN)	Nos	12	795.00	9540.00	795.00	9540.00
Galvanized Nuts and Bolts.	Kg	19	89.00	1691.00	89.00	1691.00
Danger Plates with Clamps	Nos	19	104.00	1976.00	104.00	1976.00
Anti- Climbing Device with Clamps	Nos	19	208.00	3952.00	208.00	3952.00
Earthing Complete by G.I Pipes 40 mm or GI Rod 20mm 2.5 mtr long through GI Strip.	Nos	19	798.00	15162.00	798.00	15162.00
Red Oxide	Ltr	19	0.00	0.00	208.00	3952.00
Aluminium Paint	Ltr	19	0.00	0.00	346.00	6574.00
Cement bottoming 1:2:4 mix as per REC standards 6cum / pole	Nos	19	0.00	0.00	2851.00	54169.00
Stone Pad (300 mmx300mmx75mm)	Nos	19	149.00	2831.00	0.00	0.00
Aluminium Jointing Sleeves	Nos	3	89.00	267.00	89.00	267.00
Galvanised Stay set with 50x8mm stay clamp, guy insulator (2 Nos, anchor plate (300x300x8mm) nut-bolts, 2 No turn buckles, 1.8 m long 20 mm diameter solid GS stay rod & 7/4.00 mm dia GI Stranded wire complete	Nos	5	4593.00	22965.00	4593.00	22965.00
Curad netting	Span	4	4264.00	17056.00	4264.00	17056.00
Total Material Cost				513199.82		798218.82
Part-B						
Labour charges for Normal Terrain @27% for PCC Pole & @ 15% for ST pole (GST included @18%)				163505.46		141284.73
Labour charges for Hilly Terrain / Congested areas with 10% appreciation on Labour charges (GST included @18%)				179856.01		155413.20
Overhead charges @5% (Store handling, T&P, Contingency, Safety equipments & Insurance)				25659.99		39910.94
Total				369021.46		336608.88
Amount for Normal Terrain				702365.27		979414.49
On Turnkey @25% for ST Pole & PCC Pole				175591.318		244853.623
Grand Total:				877956.59		1224268.12

plg-II
Sample
sheet

AE-II

Executive Engineer
Sub Transmission Division-I
Jammu

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

ANNEX-A
6/7

ACT COST OF ESTIMATE FOR ERECTION OF 1 KM OF 33 KV LINE ON 13 METER ST/ PCC POLES WITH STANDARD SPAN OF 58 METERS ON ACSR WOLF CONDUCTOR

Particulars	Unit	Qty	PCC Poles		ST Poles	
			Rate	Amount	Rate	Amount
Part-A						
1. 13 mtrs Long Pole (PCC WL-360 Kg, ST-540 SP56)	Nos	19	7887.00	149853.00	19632.00	373008.00
2. GI V cross-arm with top Bracket including clamp	Kg	425	71.00	30175.00	71.00	30175.00
3. GI Channel X-arm including clamps and braces	Kg	160	71.00	11360.00	71.00	11360.00
4. 150 mm ² ACSR Conductor	Km	3.09	118312.00	365584.08	118312.00	365584.08
5. PG Clamps for 100 mm ² ACSR Conductor	Nos	12	467.00	5604.00	467.00	5604.00
6. 33 KV Pin Insulators (polymer / porcelain) with Pins (10 KN)	Nos	57	592.00	33744.00	592.00	33744.00
7. 33 KV Disc Insulators (polymer/ porcelain Complete with fitting (70 KN)	Nos	12	795.00	9540.00	795.00	9540.00
8. Galvanized Nuts and Bolts.	Kg	19	89.00	1691.00	89.00	1691.00
9. Danger Plates with Clamps	Nos	19	104.00	1976.00	104.00	1976.00
10. Anti- Climbing Device with Clamps	Nos	19	208.00	3952.00	208.00	3952.00
11. Earthing Complete by G.I Pipes 40 mm or GI Rod 20mm 2.5 mtr long through GI Strip.	Nos	19	798.00	15162.00	798.00	15162.00
12. Red Oxide	Ltr	19	0.00	0.00	208.00	3952.00
13. Aluminium Paint	Ltr	19	0.00	0.00	346.00	6574.00
14. Cement bottoming 1:2:4mix as per REC standards 6cum / pole	Nos	19	0.00	0.00	2851.00	54169.00
15. Stone Pad (300 mmx300mmx75mm)	Nos	19	149.00	2831.00	0.00	0.00
16. Aluminium Jointing Sleeves	Nos	3	89.00	267.00	89.00	267.00
17. Galvanised Stay set with 50x8mm stay clamp, guy insulator (2 Nos, anchor plate (300x300x8mm) nut-bolts, 2 No turn buckles, 1.8 m long 20 mm diameter solid GS stay rod & 7/4.00 mm dia GI Stranded wire complete	Nos	5	4593.00	22965.00	4593.00	22965.00
18. Gurad netting	Span	4	4264.00	17056.00	4264.00	17056.00
Total Material Cost				671760.08		956779.08
Part-B						
Labour charges for Normal Terrain @27% for PCC Pole & @ 15% for ST pole (GST included @18%)				214022.76		169349.90
Labour charges for Hilly Terrain / Congested areas with 10% appreciation on Labour charges (GST included @18%)				235425.04		186284.89
Overhead charges @5% (Store handling, T&P, Contingency, Safety equipments & Insurance)				33588.00		47838.95
Total				483035.80		403473.74
Amount for Normal Terrain				919370.85		1173967.93
On Turnkey @25% for ST Pole & PCC Pole				229842.7114		293491.9828
Grand Total:				1149213.56		1467459.91

Gupta
ACE

AE-I

Executive Engineer
Sub Transmission Division-I
Jammu

phg-II

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

ANNA-A
7/7TRACT COST OF ESTIMATE FOR ERECTION OF 1 KM OF 33 KV LINE ON 16 METER ST POLES
WITH STANDARD SPAN OF 58 METERS ON ACSR DOG CONDUCTOR

Sl. No	Particulars	Unit	Qty	ST Poles	
				Rate	Amount
	Part-A				
1.	16 mtrs Long Pole (PCC WL-360 Kg, ST-540 SP56)	Nos	19	28046.00	532874.00
2.	GI V cross-arm with top Bracket including clamp	Kg	425	71.00	30175.00
3.	GI Channel X-arm including clamps and braces	Kg	160	71.00	11360.00
4.	100 mm ² ACSR Conductor	Km	3.09	66998.00	207023.82
5.	PG Clamps for 100 mm ² ACSR Conductor	Nos	12	467.00	5604.00
6.	33 KV Pin insulators (polymer / porcelain) with Pins (10 KN)	Nos	57	592.00	33744.00
7.	33 KV Disc Insulators (polymer/ porcelain Complete with fitting (70 KN)	Nos	12	795.00	9540.00
8.	Galvanized Nuts and Bolts.	Kg	19	89.00	1691.00
9.	Danger Plates with Clamps	Nos	19	104.00	1976.00
10.	Anti- Climbing Device with Clamps	Nos	19	208.00	3952.00
11.	Earthing Complete by G.I Pipes 40 mm or GI Rod 20mm 2.5 mtr long through GI Strip.	Nos	19	798.00	15162.00
12.	Red Oxide	Ltr	19	208.00	3952.00
13.	Aluminium Paint	Ltr	19	346.00	6574.00
14.	Cement bottoming 1:2:4 mix as per REC standards 6cum / pole	Nos	19	2851.00	54169.00
15.	Stone Pad (300 mmx300mmx75mm)	Nos	19	0.00	0.00
16.	Aluminium Jointing Sleeves	Nos	3	89.00	267.00
17.	Galvanised Stay set with 50x8mm stay clamp, guy insulator (2 Nos, anchor plate (300x300x8mm) nut-bolts, 2 No turn buckles, 1.8 m long 20 mm diameter solid GS stay rod & 7/4.00 mm dia GI Stranded wire complete	Nos	5	4593.00	22965.00
18.	Curad netting	Span	4	4264.00	17056.00
	Total Material Cost				958084.82
	Part-B				
	Labour charges for Normal Terrain @15% for ST pole (GST included @18%)				169581.01
	Labour charges for Hilly Terrain / Congested areas with 10% appreciation on Labour charges (GST included @18%)				186539.11
	Overhead charges @5% (Store handling, T&P, Contingency, Safety equipments & Insurance)				47904.24
	Total				404024.37
	Amount for Normal Terrain				1175570.07
	On Turnkey @25% on Rs. 1175570.07				293892.5185
	Grand Total:				1469462.59

Gupta
AECK. S.
AEC-IIExecutive Engineer
Sub Transmission Division-I
Jammu

phg. III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Annex-B
1/6

**ABSTRACT OF COST FOR RE-ALIGNMENT OF POWER INFRASTRUCTURE
DUE TO ROAD WIDENING OF JAMMU - AKHNOOR NATIONAL HIGHWAY IN
RESPECT OF ELECTRIC M&RE DIVISION-III, JAMMU**

S.No.	Particular	Amount (Rs. in Lakhs)	Reference	Package-II
1	Feeder wise details of New Infrastructure to be erected/laid	1193.65	Annexure "A"	717.64
2	Details of infrastructure to be dismantled	75.73	Annexure "B"	42.27
3	Typical estimate framed for Road crossings of 11 KV lines on 13 Mtr Long ST Poles	279.86	Annexure "C"	223.08
4	Typical estimate framed for Road crossings of LT lines on 11 Mtr Long ST Poles	66.64	Annexure "D"	9.52
5	TOTAL (1 to 4)	1615.88		
6	Write Back	69.97	Annexure "E" (-)	33.97
	GRAND TOTAL (5 - 6)	1545.91		

~~10272.88~~
III => 959.348
Lacs

EXECUTIVE ENGINEER,
Electric M&RE Division-III
Jammu

Prg-III = Rs 959.348 Lacs

pkg - III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Annexure 'B' 2/6

wise details of New Infrastructure to be erected/laid due to Road widening of Jammu - Akhnoor National Highway in respect of Electric M&RE Division-III, Jammu

Highway in respect of Electric M&RE Division III, Jamnagar

Sl. No.	Feeder	HT Lines (in Kms)			LT Lines (in Kms)				Creation of New Sub-Station (in Nos)						Isolation Point (in Nos)		
		11 mtr ST Poles using ACSR Dog	11 mtr ST Poles using ACSR Rabbit	11mtr ST Poles using ACSR Weasel	11mtr ST Poles using 185 mm ² AB Cable	Guard Netting (in Spans)	9 mtr ST Poles using ACSR Dog	9 mtr ST Poles using ACSR Rabbit	9 mtr ST Poles using ACSR Weasel	9 mtr ST Poles using 120 mm ² AB Cable	25	63	100	250		400	630
1	UD2	2.95			0.55	4	0.00						1				3
2	UD2					4	0.00						1				1
3	UD2	0.55				4	2.50						1				1
4	UD2	2.80				19	3.90						1	2	1		3
5	UD2	1.55				10							3	3	1		3
6	UD2	6.35				42	0.00						5				3
7	UD2				3.70	25	1.10						4	2	1	3	1
8	UD2	1.55				10	2.95						1				2
9	UD2	1.05				7	1.00						1	1	1	1	1
10	UD2					18	2.65	1.15	1.80	1.80	5	1	1	1	2		2
11	UD2	2.75				4											1
12	UD2	0.55				18											
13	UD2	2.70				4					3						
14	UD2	0.55				2											
15	UD2	0.25				8											
16	UD2	1.2				16	0.35	1.85	0.80	0.80	2	1	3				1
17	UD2	1.25				37	1.00	3.75	2.10	2.10	1	4					2
18	UD2	2.00				22	0.65	2.40	1.20	1.20	1	1					2
19	UD2	0.50				4											
20	UD2	0.55				34											2
21	UD2	1.25				49	0.55	2.15	1.95	1.95	1	2	5	1			1
22	UD2	1.75				6	0.9										1
23	UD2	0.95				4	0.85										1
24	UD2	0.55				367	18.40	11.30	7.85	9.65	10	13	4	1	10	1	1
25	UD2	20.40			4.25	367	8.52	7.20	6.63	10.45	17	13	21	14	8	31	31
26	UD2	8.91			19.82	0.067				9.51	1.25	2.11	2.38	4.45	6.26	7.43	0.87
27	UD2	9.90															
28	UD2	22.80															
29	UD2	225.72	181.76	61.06	84.24	24.67	156.77	81.36	52.05	99.38	21.25	27.43	49.58	62.30	31.30	7.43	26.97
30	UD2																

Cost for Creation of Sub-Station is excluding the cost of Transformers as the old/dismantelled transformers will be used

Note:-

10.7.91

143.86%

61.06

0

15.48

71.57

73.06

40.11

62.86

1193.65

13.92

6.28

10

2.11

30.49

40.05

AEE-IV Akhnoor

AEE-II Sanipur

AEE-I Canal

EXECUTIVE ENGINEER
Electric M&RE Division-III
Jammu

= 717.64

Phg-III

Up gradation to 4-lanes with Paved Shoulder of Jammu-Akhnoor road section of NH-144A from Km 6.000 Km-26.350 in the state of Jammu and Kashmir to be executed on EPC basis

phg. 

Appendix "B"

11/22/22

ALL-8

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Annexure "B" 4/6

Estimate framed for Road crossings of 11 KV lines on 13m ST Poles due to road widening work of Jammu - Akhnoor National Highway in respect of Division-III, Jammu

No.	Description of Material	Unit	Qty	Rate as per Cost Date 2017-18	Amount
1	13m long ST Poles	Nos	8	19632	157056.00
2	ACSR Dog Conductor incl sag & jumpering	Km	0.13	71845	9339.85
3	11KV GO set	Nos	2	5856	11712.00
4	Channel/Angle/Flat iron	Kg	300	71	21300.00
5	Disc Insulators with fittings	Nos	12	436	5232.00
6	Pin Insulators with Pins	Nos	12	182	2184.00
7	Danger Plates	Nos	2	104	208.00
8	Anti climbing devices (galvanized)	Nos	2	208	416.00
9	Guy Rods with wire complete	Nos	8	4593	36744.00
10	Red Oxide Paint	Lts	8	208	1664.00
11	Aluminium Paint	Lts	8	346	2768.00
12	Galvanised Nuts & bolts	Kg	20	89	1780.00
13	Earthing Complete	Nos	4	798	3192.00
Total A					253595.85
B	Labour Charges for normal terrain @ 15% of A				38039.38
	Add 10% for congested areas				3803.94
	GST @ 12% on Labour (as on date)				5021.20
	Provision for Guard Netting	Span	1	6721	6721.00
	Total B				53585.51
C	Over head charges @ 5% (T&P, contingencies, insurance etc) on Material cost				12679.79
	Total (A + B + C + D)				319861.16
E	Turnkey Factor @ 25% on Total				79965.29
	Grand Total (A+B+C+D+E)				399826.44
Say Rs. (in Lakhs)					3.998

70 Nos Road Crossing x Rs. 3.998 Lakhs
Rs. 279.86 Lakhs

56 Nos x 3.998 = 223.888 Lacs

AEE-I
Canal

AEE-II
Janipur

AEE-IV
Akhnoor

EXECUTIVE ENGINEER
Electric M&RE Division-III
Jammu

pkg-III : cost = 223.888 Lacs

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

pkg-III

Annexure "B" 5/6

Final estimate framed for Road crossings of LT lines on 11m ST Poles due to road widening work of Jammu - Akhnoor National Highway in respect of Division-III, Jammu

A Material					
S.No.	Description of Material	Unit	Qty	Rate as per Cost Date 2017-18	Amount
1	11m long ST Poles	Nos	6	14970	89820
2	ACSR Dog Conductor incl sag & jumpering	Km	0.18	71845	12932.1
3	Flat iron	Kg	100	71	7100
4	Shakle Insulators complete	Nos	24	100	2400
5	Danger Plates	Nos	2	104	208
6	Anti climbing devices (galvanized)	Nos	2	208	416
7	Guy Rods with wire complete	Nos	6	4593	27558
8	Red Oxide Paint	Lts	6	208	1248
9	Aluminium Paint	Lts	6	346	2076
10	Galvanised Nuts & bolts	Kg	10	89	890
11	Spacer (3-phase, 4-wire)	Nos	10	30	300
12	Earthing Complete	Nos	6	798	4788
Total A					149736.1
B	Labour Charges for normal terrain @20% of A				29947.22
	Add 10% for congested areas				2994.72
	GST @ 12% on Labour (as on date)				3953.03
Total B					32941.942
C	Over head charges @ 5% (T&P, contingencies, insurance etc) on Material cost				7486.805
Total (A + B + C + D)					190164.847
E	Turnkey Factor @ 25% on Total				47541.21175
Grand Total (A+B+C+D+E)					237706.0588
Say Rs. (in Lakhs)					2.38

28 Nos Road Crossing x Rs. 2.38 Lakhs
Rs. 66.64 Lakhs

$$III \Rightarrow 4 \text{ Nos} \times 2.38 = 9.52 \text{ Lacs}$$

AEE-I
Canal

AEE-II
Janipur

AEE-IV
Akhnoor

EXECUTIVE ENGINEER
Electric M&RE Division-III,
Jammu

phg. III - 9.52 lacs

phg - II

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis (Phg - III)

of write-back material dismantled due to Road widening of Jammu - Akhnor National Highway in respect of Electric M&RE Division-III, Jammu

Name of Feeders	HT Line					LT Line										Dismantling of existing Sub Stations								
	PCC Poles 9m/8m long	ST Poles 9/11m long	Total Poles	ACSR Dog (km)	ACSR Rabbit (km)	ACSR weasel (km)	ACSR Squirrel (km)	AB Cable 185 mm ² (km)	PCC Poles 8m long	ST Poles 8m long	Total Poles	ACSR Dog (km)	ACSR Rabbit (km)	ACSR weasel (km)	AB Cable 120 mm ² (km)	25	63	100	250	400	630	Isolation Point		
																no.	no.	no.	no.	no.	no.		no.	no.
102	29	13	42	0	1	1.5		0.4	0	0	0	0	0	0	0							3		
12	8	0	8	0.4	0	0		0.4	0	0	0	0	0	0	0							1		
3 MU5	7	1	8	0.1	0.3	0		0	32	4	36	0	1	1	0							1		
4 MU2	21	4	40	0	1	1		0	50	6	56	0	1.4	1.4	0	1	1	2	1			3		
5 MU4	18	4	22	0	0	2.1		0	41	11	52	0	0	0	2.6	3	3	1				3		
6 T4	73	18	91	0	4.55	0		0	0	0	0	0	0	0	0							3		
7 T3	54	8	62	0	2.1	0		2	14	2	16	0.75	0	0	0	4	2	1	3	1		3		
8 UD1	19	3	22	0	0	1.1		0	30	12	42	0.15	0	2	0							2		
9 C7,C8,C16	7	8	15	0.4	0	0		0	6	8	14	0.5	0.4	0	0	5	1	1	1	1				
10 SN-4	33	8	41		3.70	2.45			83	5.35	83	5.35	4.65	6.60										
11 MU-6		8	8			1.20					0													
12 MU-9		40	40			6.00					0													
13 PK-3	8		8			1.20					0					3								
14 PK-4	4		4			0.60					0													
15 PK-5	18		18			2.70					0													
16 PK-6	35		35			5.25			40		40	1.50	2.00	5.50				1						
17 BJ-3 (Mishrawala)	53		53			7.95			105		105			21.00				2	1	3				
18 BJ-2 (Bawe-Talab)	18		18			3.00			40		40			8.00				1	1	1				
19 BJ-1 GGET		8				1.20					0													
20 Batera	75		75			11.25			98		98			19.60				1		1				
21 AK-3	109		109			16.35			60		60			12.00				1	2	5	1			
22 Ganderwan	13		13			3.00			12					3.00				1						
23 Ambarwan	7		7			1.50			13					4.00										
TOTAL	607	140	747	0.90	12.65	68.35	1.50	2.40	694	43	642	8.25	10.45	64.10	2.60	17	13	21	16	5	1	18		
Write Back Cost	0.009	0.034		0.4	0.21	0.13	0.09	7.5		0.025		0.40	0.21	0.13	1.9	0.09	0.09	0.09	0.09	0.05	0.05	0.045		
Total Amount	5.46	-4.76	0.00	0.36	-2.66	-9.02	-0.16	18.00	0.00	1.08	-0.00	3.30	2.19	10.93	4.94	1.53	1.17	1.69	1.44	0.25	0.05	0.81		
																	Grand Total					69.97		
																	(RS. In Lakhs)					0.72		0
																	10					1.2		0.31
																	10.08					10.9		

EXECUTIVE ENGINEER,
Electric M&RE Division-II
Jammu

AEE-IV
Akhnodor

AEF-II
Janipur

AGE-1
Canal

1100

Up-gradation to 4-lanes with Paved Shoulder of Jammu-Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Annex-C
1/7

Shifted

ABSTRACT OF COST FOR RE-ALIGNMENT/OF POWER INFRASTRUCTURE DUE TO ROAD WIDENING OF JAMMU-AKHNOOR NATIONAL HIGHWAY IN RESPECT OF ELECTRIC M & RE DIVISION-II, CANAL, JAMMU.

S.No	Particular	Amount (Rs. In Lakhs)	Reference
1	Feeder Wise details of New infrastructure to be erected/laid	186.03	Annexure "A"
2	Details of infrastructure to be dismantled	14.29	Annexure "B"
3	Typical estimate framed for road crossings of 11 KV lines on 13 Mtr long ST Poles	53.71	Annexure "C"
4	Typical estimate framed for road crossings of LT lines on 11 Mtr long ST Poles	71.12	Annexure "D"
5	Total (1 to 4)	325.15	
6	Write back	5.122	Annexure "E"
7	Grand Total (5-6)	320.03	


AEE
Sud Div-II, Canal


Executive Engineer
EM & RE Division-I,
Jammu

phg-III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Annexure-I
2/3

Detail of New infrastructure to be effected/ laid due to Road Widening Jammu-Akhnoor national Highway in respect of EM & RE Division-1, Parade, Jammu																		Annexure "A"	
Name of Feeders	HT Lines (in Kms)					LT Lines (in Kms)					Creation of New Sub-Station (in							Isolation point (in Nos)	
	11 mtr ST poles using ACSR Dog	11 mtr ST poles using ACSR weasel	11 mtr ST poles using 120 mm ² AB 3 core Cable	11 mtr ST poles using 185 mm ² AB 3 core Cable	11 mtr ST poles using 300 mm ² AB 3 core Cable	Guard Netting (in Spans)	9 mtr ST poles using ACSR Dog	9 mtr ST poles using ACSR Rabbit	9 mtr ST poles using ACSR Weasel	9 mtr ST poles using 120 mm ² poles using mm2	25	63	100	250	400	630			
C-18					0.75									1		1	2		
C-19	1.5		0.2	0.2		1.5							1				4		
C-22	3			0.2	0.3	3					14	7	5	3			8		
Total	4.5	0	0.2	0.4	1.05	4.5	0	0	0	0	14	0	8	6	3	1	14		
Rate as per Cost data 2017-18	9.90	8.91	8.48	19.82	28.30	0.067	8.52	7.20	6.63	9.51	1.25	2.11	2.38	4.45	6.26	7.43	0.87		
Total Amount	44.55	0	1.902	7.928	29.715	0.3015	0	0	0	0	17.5	0	19	27	18.8	7.43	12.18		
Cost for creation of Sub-Station is excluding the cost of Transformers as the old/Dismantalled																		Grand Total (in Lakhs)	
																		186.03	

Shall be included.

Executive Engineer
EM & RE Division-I,
Jammu

Sud Div-II, Canal

Phy. III:-

Up-gradation to 4-lanes with Paved Shoulder of Jammu-Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

ANNA
3/7

Estimate by Service Provider

Annexure "B"															
Bill of Dismantling infrastructure due to Road Widening Jammu-Akhnoor national Highway in respect of EM & RE Division-1, Parade, Jammu															
Name of Feeders	HT Lines (in Kms)						LT Lines (in Kms)				Sub-Station (in Nos)				Isolation point (in Nos)
	11 mtr ST poles using ACSR Dog	11 mtr ST poles using ACSR Rabbit	11 mtr ST poles using 120 mm ² XLPE 3 core Cable	11 mtr ST poles using 185 mm ² XLPE 3 core Cable	11 mtr ST poles using 300 mm ² XLPE 3 core Cable	9 mtr ST poles using ACSR Dog	9 mtr ST poles using ACSR Rabbit	9 mtr ST poles using ACSR Weasel	9 mtr ST poles using 120 mm ² AB cable						
C-18	0.5	0.2							0.8		1			2	
C-19		1.8												1	
C-22	1.2	1.2							0.7	14		7	5	2	
Total	1.7	3.2	0		0	0	0	0	1.5	14	0	7	6	5	
Rate as per Cost data 2017	0.87	0.73	0.66	0.68	2.33	3.40	1.22	0.77	0.66	0.11	0.19	0.22	0.52	0.08	
18															
Total Amount	1.479	2.336	0	0	0	0	0	0	1.02	1.54	0	1.54	3.12	0.4	
Cost for creation of Sub-Station is excluding the cost of Transformers as the old/Dismantled											Grand Total (in lakhs)				14.29

Executive Engineer
EM & RE Division-I,
Jammu

AEE
Sud Div-II, Canal

phg: - III

Up-gradation to 4-lanes with Paved Shoulder of Jammu-Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

C (HT Crossing)

ANNX.
4/7

Annexure "C"					
Typical estimate framed for Road crossing of 11 KV lines on 13m ST Poles due to road Windeing work of Jammu - Akhnoor National High way In respect of Division-I,Parade, Jammu. using bare Conductor					
A	Material	Unit	Qty	Rate as per Cost Date 2017-18	Amount
S.No	Description of Material				
1	13 m long ST Poles	Nos	8	19632	157056
2	CSR Dog Conductor incl sag & jumpering	Km	0.6	71845	43107
3	11 KV GO set	Nos	2	5856	11712
4	Channel/Angle/Flat iron	Kg	300	71	21300
5	Disc insulators with fittings	Nos	12	436	5232
6	Pin insulators with pins	Nos	12	182	2184
7	Danger Plates	Nos	2	104	208
8	Anti climbing devices (galvanized)	Nos	2	208	416
9	Guy Rods with wire complete	Nos	8	4593	36744
10	Red oxide Paint	Lts	8	208	1664
11	Aluminium Paint	Lts	8	346	2768
12	Galvanised Nuts&bolts	Kg	20	89	1780
13	Earthing Complete	Nos	4	798	3192
Total A					287363
B	Labour charges for normal terrain @15% of A				43104.45
	Add 10% for Congested areas				4310.45
	GST @ 12% on Labour (as on date)				5689.79
	Provision for Guard Netting	Span	1	6721	6721
Total B					294084
C	Over head charges @ 5% (T&P, Contingencies Insurance etc) on Material Cost				14368.15
Total (A+B+C)					595815.15
D	Turnkey Factor @ 25% on Total				148953.79
Grand Total (A+B+C+D)					595815.15
Say Rs (in Lakhs)					5.958

3 Nos Road Crossing x Rs 5.958
Rs 17.87 LakhsAEE
Sud Div-II, CanalExecutive Engineer
EM & RE Division-I,
Jammu

phg - III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

C1 (HT crossing)

ANNX-C
5/7

Annexure "C"					
Typical estimate framed for Road crossing of 11 KV lines on 13m ST Poles due to road Windeing work of Jammu - Akhnoor National High way in respect of Division-I, Parade, Jammu. <i>using cable</i>					
A	Material	Unit	Qty	Rate as per Cost Date 2017-18	Amount
S.No	Description of Material				
1	13 m long ST Poles	Nos	8	19632	157056
2	XLPE HT Cable 3 Core 300 mm ²	Mtr	150	1500	225000
3	XLPE HT Cable kit 3 Core 300 mm ²	Nos	2	8500	17000
4	11 KV GO set	Nos	2	5856	11712
5	Channel/Angle/Flat iron	Kg	300	71	21300
6	Danger Plates	Nos	2	104	208
7	Anti climbing devices (galvanized)	Nos	2	208	416
8	Guy Rods with wire complete	Nos	8	4593	36744
9	Red oxide Paint	Lts	8	208	1664
10	Aluminium Paint	Lts	8	346	2768
11	Galvanised Nuts&bolts	Kg	20	89	1780
12	Earthing Complete	Nos	4	798	3192
	Total A				478840
B	Labour charges for normal terrain @15% of A				71826
	Add 10% for Congested areas				7182.60
	GST @ 12% on Labour (as on date)				9481.03
	Provision for Guard Netting	Span	0	6721	0
	Total B				88489.63
C	Over head charges @ 5% (T&P, Contingencies Insurance etc) on Material Cost				23942
	Total (A+B+C)				591271.63
D	Turnkey Factor @ 25% on Total				147817.91
	Grand Total (A+B+C+D)				591271.63
Say Rs (in Lakhs)					5.913

6 Nos Road Crossing x Rs 5.913
Rs 35.48 Lakhs


AEE
Sud Div-II, Canal


Executive Engineer
EM & RE Division-I,
Jammu

phg. III :

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

ANNX

6/7

Annexure "D"					
Typical estimate framed for Road crossing of LT lines on 11m ST Poles due to road Windeing work of Jammu - Akhnoor National High way In respect of Division-I,Parade, Jammu.					
A	Material	Unit	Qty	Rate as per Cost Date 2017-18	Amount
S.No	Description of Material				
1	11 m long ST Poles	Nos	8	14970	119760
3	Cable LT ABC 120 mm ²	Mtr	200	400	80000
4	Aluminium thimble off sizes	Nos	100	10	1000
5	Flat iron	Nos	300	71	21300
7	Danger Plates	Nos	2	104	208
8	Anti climbing devices (galvanized)	Nos	2	208	416
9	Guy Rods with wire complete	Nos	8	4593	36744
10	Red oxide Paint	Lts	8	208	1664
11	Aluminium Paint	Lts	8	346	2768
12	Tension Fittings complete	Nos	4	350	1400
13	Suspension Fittings Complete	Nos	4	200	800
14	Galvanised Nuts&bolts	Kg	20	89	1780
15	Earthing Complete	Nos	4	798	3192
	Total A				271032
B	Labour charges for normal terrain @15% of A				40654.8
	Add 10% for Congested areas				4065.48
	GST @ 12% on Labour (as on date)				5366.43
	Provision for Guard Netting	Span	0	6721	0
	Total B				50086.71
C	Over head charges @ 5% (T&P, Contingencies Insurance etc) on Material Cost				13551.6
	Total (A+B+C)				334670.31
D	Turnkey Factor @ 25% on Total				83667.58
	Grand Total (A+B+C+D)				418337.89
				Say Rs (in Lakhs)	4.183

17 Nos Road Crossing x Rs 4.183

Rs

71.12 Lakhs

AEE
Sud Div-II, CanalExecutive Engineer
EM & RE Division-I,
Jammu

phg-III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

ANNEX
E/E

Detail of Write-back material dismantelled due to Road Widening Jammu-Akhnoor national Highway in respect of EM & RE Division-I, Parade, Jammu										Annexure "E"
Name of Feeders	Rail pole 9m/11m	ST poles 13m/11m	ST poles 9m/8m	ACSR Dog / Rabbit (in Km)	Dismantelling of Exsting Sub-Station (in Nos)					
					25	63	100	250	400	
C-18	4		8	0.35				1		630
C-19	2	2	2	0.5			1			1
C-22	8	2	25	1.2	14		7	5	3	
Total	14	4	35	2.05	14	0	8	6	3	1
Rate as per Cost data 2017-18	0.044	0.044	0.034	0.4	0.05	0.05	0.09	0.09	0.09	0.09
Total Amount	0.616	0.176	1.19	0.82	0.7	0	0.72	0.54	0.27	0.09
Cost for creation of Sub-Station is excluding the cost of Transformers as the o'd/Dismantalled					Grand Total (in lakh)					5.122

Executive Engineer
EM & RE Division-I,
Jammu

AE
Sud Div-II, Canal

phg-III

Annexure "D"

Page 1 of 1

S No.	Particular	Parameters	Rate (in. Rs lacs / m ²)	Amount (in Rs. Lacs)
1	Construction of Sub-Division Office Building at alternate site due to dismantling of existing office building coming in the alignment of road widening work of Jammu-Akhnoor National Highway at Canal Road	300 m ²	0.16956	50.87

Package - II

sd/-

Executive Engineer,
EM & RE Division-III,
Jammu.

pkg - II :

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Estimate by Service Provider



GOVERNMENT OF JAMMU & KASHMIR
OFFICE OF THE CHIEF ENGINEER PHE DEPARTMENT JAMMU



General Manager (P)
National Highways and Infrastructure,
Development Corporation Limited.

NO: PHEJ/DB/12341-43

Dated: 7-12-17

Sub: Up-gradation to 4-lane with Paved Shoulder of Jammu-Kashmir section of NH-144A in the State of J&K -Shifting of PHE Utility-reg.

Ref: No:NHIDCL/BO-JK/Jammu-Akhnoor/2017-18/897 Dated:22nd Nov,2017.

Sir,

In reference to above cited subject, enclosed kindly find the Detailed project Report for shifting of existing utilities falling under jurisdiction of various PHE Divisions mentioned as under:-

(i)	PHE City Division-I Jammu = Rs.2275.22 lakhs	51.95 Lacs
(ii)	PHE Rural Division Jammu = Rs. 245.97 lakhs	245.97 Lacs
(iii)	PHE Division Akhnoor = Rs. 191.41 lakhs	130.58 Lacs
	Total	428.50 Lacs

You are as such requested to kindly arrange / release the requisite amount, so as to the work for execution at an earliest.

Yours faithfully

[Signature]

Chief Engineer
Public Health Engineering Department
Jammu

Copy to the:-

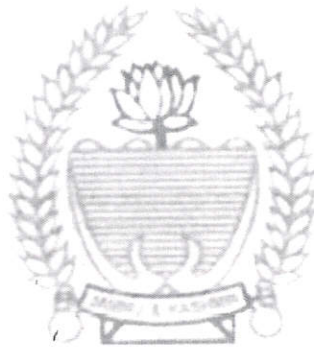
1. Superintending Engineer Hydraulic Circle Jammu / Superintending Engineer PHE Mech. Urban Circle Jammu for information.
2. Executive Engineer PHE City Division-I Jammu / Executive Engineer Rural Division Jammu / Executive Engineer PHE Division Akhnoor for information.

phg-III:- 428.50 Lacs

phg-IV:-

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

GOVT. OF JAMMU AND KASHMIR



DETAILED
PROJECT REPORT
FOR

SHIFTING OF PIPES AND CONSTRUCTION OF
STRUCTURES COMING IN THE ALIGNMENT OF
UP-GRADATION TO 4- LANE WITH PAVED
SHOULDER OF JAMMU AKHNOOR SECTION OF
NH-144 A IN THE STATE OF J&K (SHIFTING OF
PHE UTILITY) IN RESPECT OF PHE CITY DIVISION
NO .1 JAMMU

PUBLIC HEALTH ENGINEERING
DEPARTMENT JAMMU

Phg- III:

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

NAME OF WORK: -

Detailed Project report for shifting of pipes and construction of structures coming in the alignment of Up-gradation to 4-Lane with paved shoulder of Jammu Akhnoor section of NH-144A in the state of J&K (Shifting of PHE Utility) in respect of PHE City Division No. I Jammu.

NAME OF DEPARTMENT: -

PHE Department Jammu
Executive Engineer PHE City Division No. I
Jammu.

ESTIMATED COST: -

Rs. 2275.22 Lakhs.
Rs. 2254.83 Lacs

HISTORY AND NECESSITY: -

In order to cater the demand of drinking water of Jammu city and its peripheral there exists a well designed network of Tube wells, pipes which is augmented every year due to increase in demand. Most of the pipes laid are very old.

This office has received a letter from National Highway & Infrastructures Development Corporation LTD. vide their office letter no. NHIDCL/BO-JK/Jammu-Akhnoor/2017-18/703 dated 19-09-2017 to submit the estimate for shifting of PHE utilities coming in the alignment of widening of the national highway so that the requisite funds for shifting / re-alignment of pipes and construction of new structures is kept in the DPR and then accordingly placed at the disposal of the department.

PROPOSALS: -

All the pipes which are required to be shifted because of widening of road are providing the drinking water facility to the area from 4th Bridge Bhagwati Nagar to Doordarshan Tower Baramulla. In this project, it has been proposed for providing, laying, fitting of pipes, in such a way that the existing system

phg. III:

of supplying water to the inhabitants of the area is not interrupted. In the DPR provision for fabrication of joints at required places, bailing out water/ slush manually as well as by water pump's, removal of huge mulba accumulated before and after laying of pipes, dismantling of civil structures coming in proposed alignment and repair and maintenance of existing system during shifting has been kept. All the alignments are being proposed on the berm of the proposed road.

For realignment of the system provision for new pipes i.e. M.S. pipes, D.I. pipe and G.I. pipe have been kept as the newly laid system is to be made functional first, so that the consumers such as domestic users or commercial users Govt. Institutions, and departments using water such as offices, schools hospitals etc may not be affected with interruption of water supply.

Provision for structures to be constructed coming in the alignment of widening is also kept.

The NH authority will provide clear space at berm and ducts for crossing of the pipes and maintenance thereafter where necessary. It is impressed upon the executing agency that they will not damage any of existing pipes for carrying out road work.

As far as the dismantling of old network is concerned, the network is very old, deep embedded, below several layers of the macadam, deep filling, and RCC/concrete

pkg. III

structures which have been constructed along the alignment during the course of time. At some places the labour and machinery to be engaged for retrieving of the old system, will be more costly than the depreciated cost of pipes so received. For such portions the dismantling of the pipes will not economical and feasible too.

TIME OF COMPLETION: -

One year, subject to the condition, that the funds are received from the National Highway & Infrastructures Development Corporation LTD and then arrangement of material.

AEE
PHE Sub-Div.
City

[Signature]
AEE
PHE Sub-Div
Muthi

[Signature]
AEE
PHE Sub-Div.
Bakshi Nagar

[Signature]
Executive Engineer
PHE City Division No. I
Jammu

[Signature]
Superintending Engineer
M.E. Mechanical Circle
Urban Jammu,

phg. IV:

GENERAL ABSTRACT OF COST FOR SHIFTING OF PIPES AND CONSTRUCTION OF STRUCTURES COMING IN THE ALIGNMENT OF UP-GRADATION TO 4-LANE WITH PAVED SHOULDER OF JAMMU AKHNOOR SECTION OF NH-144A IN THE STATE OF J&K (SHIFTING OF PHE UTILITY) IN RESPECT OF PHE CITY DIVISION NO. 1 JAMMU

S. No.	Description of item	Amount in Lakhs
1.	Drilling of Tube well at Mohinder Nagar	60.00
2.	Cost and construction of Tube well building at Mohinder Nagar	9.00
3.	Provision for land compensation in the vicinity of Mohinder Nagar	50.00
4.	Cost and construction of compound wall at Mohinder Nagar including providing and fixing of gate	8.00
5.	Shifting and installation of old and new electrical & mechanical component at Mohinder Nagar	20.00
6.	Cost and construction 50000 Gallons Capacity Sump Tank at Mohinder Nagar	40.00
7.	Cost and construction of staff quarters / Chowkidar quarters at Tube well complex Muthi-2 (Patta Paloura)	25.00
8.	Cost and construction of Junior Engineer's office, Chowkidar quarter, staff washrooms seven units, compound wall at Tube well complex Muthi-5	25.00
9.	Cost and construction of 2 Lacs gallons OHT coming under the proposed widening of the road at Tube well complex at Muthi-5	120.00
10.	Provision for dismantling of 2 Lacs gallons OHT and other civil structures coming under the proposed widening of the road at Tube well complex at Mohinder Nagar by mechanical means / manually and disposal of the mulba at safe dumping places by head load and mechanical transportation	65.00
11.	Provision for dismantling of 2 lacs gallons OHT and other civil structures coming under the proposed widening of the road at Tube well complex at Muthi-5 by mechanical means / manually and disposal of the mulba at safe dumping places by head load and mechanical transportation	70.00
12.	Cost and construction of Motor Room coming under the proposed widening of the road at Tube well complex at Muthi-5	12.00
13.	Cost and construction of pump room building coming under the proposed widening of the road at Tube well complex at Muthi-5	10.00
14.	Cost and construction of CGI shed coming under the proposed widening of the road at Tube well complex at Muthi-5	3.00
15.	Cost of acquisition of alternative land available in the vicinity of Muthi-5 station, for the construction of 2 lacs gallons OHT, JE's quarter, Pump room and other civil structures. Approximate land required is 2 kanals = 40 marla @ Rs. 5 lacs / per Marla	200.00
16.	Provision for interconnection of existing Rising mains by providing and laying new rising mains, inter connection of the existing Rising mains, distribution system including fabrication of manifolds and connections with the new system so created in place of Muthi-5	150.00
17.	Providing laying fitting and commissioning of pipes for shifting of M pipe / DI pipes and CI pipes R/main and distribution lines coming in the alignment of widening of Jammu Akhnoor National Highway (utility shifting).	1332.84 1164.46 2031.46 2199.84
Total: -		2199.84

Chief Engineer
PHE Department
Jammu.

2275.22 lakhs
Say 2254.83 Lakhs

Superintending Engineer
H.E. Mechanical Circle
Urban Jammu,

Add 2.5% contingency

Grand Total

Add 15% Supervisor's Charge

2254.832032

1923.

Rs 2275.221

AEE
PHE Sub-Div.
City

AEE
PHE Sub-Div.
Muthi

AEE
PHE Sub-Div.
Bakshi Nagar

Executive Engineer
PHE City Division No. 1
Jammu

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Detailed estimate for providing, laying, fitting & commissioning of pipes for shifting of M.S pipes/D.I pipes and G.I pipes, R/Main and Distribution lines coming in the alignment of widening of Jammu-Akhnoor National Highway. (Utility Shifting) in respect of PHE City Division No.I Jammu.

S.No.	Description of Item	Rate (In Rs.)	Amount (In Rs.)
A	Material		
1	M.S pipe 300mm dia = 350 mtrs	4089	1431150.00 ✓
2	M.S pipe 250mm dia = 175 mtrs	2800	490000.00 ✓
3	M.S pipe 200mm dia = 690 mtrs - 50	2648	1827120.00 ✓ 132400
4	M.S pipe 150mm dia = 435 mtrs	1527	664245.00 ✓
5	M.S pipe 100mm dia = 100 mtrs	910	91000.00 ✓
6	D.I pipe 300mm dia = 480 mtrs	3465	1663200.00 ✓
7	D.I pipe 250mm dia = 1520 mtrs	2761	4196720.00 ✓
8	D.I pipe 200mm dia = 13495 mtrs - 1000	2115	28541925.00 ✓ 2115000
9	D.I pipe 150mm dia = 4535 mtrs	1638	7428330.00 ✓
10	D.I pipe 100mm dia = 2600 mtrs	1155	3003000.00 ✓ 242400
11	D.I pipe 80mm dia = 700 mtrs	925	647500.00 ✓
12	G.I pipe 150mm dia = 1595 mtrs	1315	2097425.00 ✓
13	G.I pipe 100mm dia = 2030 mtrs	910	1847300.00 ✓
14	G.I pipe 80mm dia = 2635 mtrs	635	1673225.00 ✓
15	G.I pipe 50mm dia = 150 mtrs	315	47250.00 ✓
	Total:-		55649390.00 ✓
i)	Add 15% of cost of D.I pipes for pipes specials on Rs.45480675.00		6822101.00 ✓ 317250
ii)	Add 5% of cost of G.I pipes for pipes specials on Rs.5665200.00		283260.00 ✓ 0
	Total cost of material (A) :-		62754751.00 ✓
B	Civil Work		(A) 2564650
1.	Cutting of PTR in 2 layers 100m x 150m = 150.00 m ² 6000mx1.00m = 6000.00 m ² Total:- 6150.00 m ² x2 = 12300.00 m ² @ Rs.144.95/ m ²		1782885.00 ✓ 72001.79
2.	Earth work excavation in trenches and foundations for pipes in all kinds of soils. 350m x 1.50mx1.50m = 787.50 m ³ ✓ 175m x 1.50mx1.50m = 393.75 m ³ ✓ 690m x 1.50mx1.50m = 1552.5 m ³ ✓ - 50 x 1.5 x 1.5 = 112.50 m ³ 435m x 1.00mx1.50m = 652.50 m ³ ✓ 100m x 1.00mx1.00m = 100.00 m ³ ✓ 480m x 1.50mx1.50m = 1080.00 m ³ ✓ 1520m x 1.50mx1.50m = 3420.00 m ³ ✓ 13495m x 1.50mx1.50m = 30363.75 m ³ ✓ - 1000 x 1.5 x 1.5 = 2250 m ³ 4535m x 1.00mx1.00m = 4535.00 m ³ ✓ 2600m x 1.00mx1.00m = 2600.00 m ³ ✓ 700m x 1.00mx1.00m = 700.00 m ³ ✓		27050625 ✓ 54101260 ✓ 54101250

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

phg. III

	1595m x 1.00mx1.00m = 1595.00 m ³	
	2030m x 0.90mx0.80m = 1461.60 m ³	
	2635m x 0.75mx0.60m = 1185.75m ³	
	150 m x 0.75mx0.60m = 67.50 m ³	
	Total:- 50494.85 m ³ @ Rs.240.45/ m ³	12141487.00
3	Carriage of all kinds of pipes and specials from store to site of stacking place at site of work by mechanical transportation average distance of 10 Km Upto 80mm dia of all kinds of pipes 50mm dia 150 mtrs @ Rs.4.11 Kg/m = 616.50 Kg 80mm dia 2635 mtrs @ Rs.6.81 Kg/m = 17944.35 Kg Total:- 18560.85 Kg = 18.56 M.T @ Rs.152.71/M.T From 100mm dia to 300mm dia of all kinds of pipes 100mm dia 4730 mtrs @ Rs.375.53/100 m = 150mm dia 6565 mtrs @ Rs.625.86/100 m = 200mm dia 14185 mtrs @ Rs.1018.04/100 m = $1050 \times 1018.04/100m$ = 10689.42 250mm dia 1695mtrs @ Rs.1446.73/100 m = 300mm dia 830mtrs @ Rs.1788.15/100 m =	2834/- 2816.00 17763.00 41088.00 144409.00 24522.00 14842.00
4.	Carriage of all kinds of pipes and specials from stacking place to site of work by head load along the alignment of pipes 4% of cost of pipes. i.e. on Rs. 62754751.00	84652.96 2510190.00
5.	Labour engaged for cutting of the damaged ends of D.I pipes grinding the edges making worth for fitting & rethreading of the damaged ends of G.I pipes 2% of the cost of pipes. Cost of D.I pipe = Rs. 4580675.00 Cost of G.I pipe = Rs. 5665200.00 Total:- = Rs. 51145875.00 @ Rs.2%	42300.00 1022917.00 1022917.00
6.	Laying and welding of M.S pipes including fabrication of bends of required angles & other fittings incl. Hire charges of gas welding sets and generators incl. P.O.L 40% of cost of M.S pipes = (Rs. 4503515.00)	1801406.00 52960.00
7.	Laying and fitting of D.I pipes 25% of cost of D.I pipes	528750 11370169.00
8.	Laying and fitting of G.I pipe 100mm dia 2030mtrs @ Rs.75.35/m = 80mm dia 2635mtrs @ Rs.51.10/m = 50mm dia 150 mtrs @ Rs.27.75/m =	152960.00 134648.00 4162.00
9.	Laying and fitting of D.I pipe specials 25% of cost of D.I pipe specials	1705525.00
10.	Laying and fitting of G.I pipe specials 25% of cost of G.I pipe specials	70815.00

phg- III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

11.	Re-handling of the excavated soil ✓ $2126.25 \times 05.25 =$ Qty. 90% of item 2 nd = 45445.36 m ³ @ Rs.85.25/ m ³ ✓	101262.01 3874217.00
12.	Disposal of surplus mulba from working site to dumping site average distance of 5 Km Qty. vide item No.1 = 1230.00 m ³ Qty. vide item No.2 nd = 4544.53 m ³ $236.25 \times 150.05 =$ 37520.31 Total:- 5774.53 @ Rs.158.85/ m ³	917284.00
13.	Labour engaged for repair of damaged existing system during execution.	2000000.00
14.	Provision for interconnections including welding of joints incl. Hire charges of gas welding sets and generators	2500000.00
15.	Provision for removing of Building materials such as Bricks, stones, sand, Bajri and Mulba etc coming in the alignment of new pipes laying	2000000.00 500000.00
16.	Provision for labour engaged for regulation of traffic on road at different spots during execution of works. 6 no. Mazdoor for 120 days @ Rs.300/day	216000.00
17.	Watch & Ward of the material at places during the work in progress 2% of the cost of pipe	1112988.00 1255095.00
18.	Testing and Commissioning of the newly laid pipes 2% of the cost of pipe	1112988.00 1255095.00
19.	Provision for road restoration 6150.00 m ² @ Rs.1250.00/ m ²	7687500.00
	Total:-	54647795.00
	Add 15% above on all schedule item no.1,2,3,8,11 & 12 i.e. of Rs. 27508083.00 (069545.45%)	4126212.00 2887965.00
	Total:-	58774007.00
	Add 20% above as taxes as will be applicable at the time of labour payment.	11754801.00
	Grand Total (B) :-	70528808.00

(A) Rs.62754751.00 + (B) Rs.70528808.00 = Rs.133283559.00

1164.46
Say Rs. 1332.84 Lacs

A+B = 5194753.535
51.95 Lacs

(B) 2630103.535

Asstt. Ex/Engineer,
PHE Sub-Division,
Dhounthly

Asstt. Ex. Engineer,
PHE Sub-Division,
Bakshi Nagar

Asstt. Ex. Engineer
PHE Sub-Division,
Muthi

Executive Engineer,
PHE City Division No.1
Jammu

phg-III:- 51.95 Lacs

Superintending Engineer
P.H.E. Mechanical Circle
Urban Jammu,

phg. III

Estimated by Suresh Poonicker

Pipe Chart for requirement of pipes for shifting of M.S pipes/D.I pipes and G.I pipes, R/Main and Distribution lines coming in the alignment of wide National Highway. (Utility Shifting) in respect of PHE City Division No.1 Jammu

Sl No	Particulars	M.S Pipe dia in meters						D.I Pipe dia in meters					
		300mm	250mm	200mm	150mm	100mm	300mm	250mm	200mm	150mm	100mm	80mm	150mm
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Mohinder Nagar area as per site plan No.1	-	-	200	-	-	-	-	1750	1450	1900	-	-
2	1/2 well Mohinder to CPS Shakti Nagar as per site plan No.2	-	-	50	300	100	-	400	4000	-	-	-	-
3	1/2 well Bhagwati Nagar to CPS Shakti Nagar as per site plan No.3	-	50	-	-	-	-	-	1900	1700	700	700	-
4	Powell Corporation to R-22 Pumping Station as per site plan No.4	-	-	-	-	-	-	-	400	-	-	-	100
5	Shakti Vihar area as per site plan No.5	-	-	50	-	-	-	-	500	-	-	-	-
6	Mutha area as per site plan No.6	320	50	50	-	-	170	290	545	875	-	-	100
7	Mutha area as per site plan No.7	-	-	-	-	-	-	-	980	-	-	-	-
8	Mutha area as per site plan No.8	30	-	160	135	-	-	-	1200	390	-	-	-
9	Mutha area as per site plan No.9	-	75	130	-	-	310	830	920	170	-	-	-
10	Poteli Brahmanas as per site plan no.12	-	-	50	-	-	-	-	1000	-	-	-	-
	Total:-	350	175	690	435	100	480	1520	13495	4535	2600	700	100

Assistant Executive Engineer
PHE Sub Division
Dhoushtly

Assistant Executive Engineer
PHE Sub Division
Bakshi Nagar

Assistant Executive Engineer
PHE Sub Division
Mutha

Executive Engineer
PHE City Division No.1
Jammu

Superintendent
Public Works
Jammu

phg-III

Up-gradation to 4 lanes with Paved Shoulder of Jammu-Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

phy III

alignment of widening of Jammu-Akhnoor

mm	G.I Pipe dia in meters				
	80mm	150mm	100mm	80mm	50mm
13		14	15	16	17
2			300	500	
100					
700	700				150
		100	400	900	
		290	200	230	
			220	220	
			910	295	
			1205	690	
2600	700	1595	2030	2635	150

Assistant Executive Engineer
PHE Sub-Division
Muthi

Superintending Engineer
H.E. Mechanical Circle
Urban Jammu.

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

GOVT. OF JAMMU & KASHMIR

PUBLIC HEALTH ENGINEERING
DEPARTMENT

PROJECT REPORT

FOR

SHIFTING OF RISING MAIN &
DISTRIBUTION SYSTEM RD 7400 TO RD
12900 OF JAMMU-AKHNOOR ROAD
COMING UNDER ROAD WIDENING
PROJECT

PHE RURAL DIVISION JAMMU

phy. III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

TECHNICAL REPORT

Name of Work:-

Shifting of Rising mains and distribution lines from RD. 7400 to RD. 12900 of Jammu-Akhnoor Road coming under Road Widening Project.

History & Necessity :-

National Highways & Infrastructure Development Corporation Ltd. Ministry of Road Transport & Highways (Govt. of India) has taken up the upgradation to 4-lane with Paved shoulder of Jammu Akhnoor Section of N.H.- 144 A in the J & K State. They have requested the worthy Chief Engineer PHE Department Jammu for submitting the DPR for utility shifting under PHE Sector vide their communication No. NHI DCL/BO-JK/ Jammu-Akhnoor / 2017-18/ 703 dated:- 19.09.2017. The strip plan of Jammu Akhnoor Road (Km 6.000 to Km-21.000) stands enclosed along with their communication letter.

Proposal :-

All the Rising mains and distribution lines coming under the Road Widening Project of Jammu Akhnoor Road RD. 7400 to RD. 12900 have been proposed to be shifted along new alignments as per the plans enclosed. Also permission for Temporary shifting of pipes during construction work has been kept in the DPR so that the Public may not suffer for want of drinking water supply over prolonged periods during Road Widening work and subsequently the final shifting after formation levels are achieved by the agency. Moreover, some portion of the tube well station at Purkhoo is also coming under the Road Widening and hence provision for the infrastructure shifting at this station has also been kept in the DPR.

Estimated Cost:-

The estimated cost of the DPR works out to the tune of

Rs. 241.45 Lacs 245.97 lacs
~~237.06 lacs~~

Time of completion :-

It has been proposed to complete the work within a stipulated period of 1 year subject to the availability of funds well in advance and also the time taken by the agency to complete the work to facilitate the final shifting of utilities.

Monor!
J.E.

A.E.

A.E.E.

Executive Engineer
P.H.E. Rural Division
Jammu

Superintending Engineer
Hydraulic Circle
Jammu.

phg-III:

Estimated by
Service Provider

GENERAL ABSTRACT OF COST

S.No.	Name of Works	Cost (in lacs)
1	Detailed Estimate for sifting of rising mains and distribution lines from RD 10500 to 12900 mtrs of Jammu Akhnoor Road coming under Road Widening Project including temporary shifting during Construction work	138.07 132.79 lacs. 150.28
2	Detailed Estimate for Providing and laying of Gravity/ Boosting main and Distribution System at Domana including temporary, shifting of during Const. PHE utility for upgradation of 4-Lane Jammu to Akhnoor NH144A	75.56 72.27 80.17
3	Provision for shifting of boundary wall and Chowkidar Quarter and 2 No. Gates (L.S)	8.00
4	Provision for shifting of Electric Transformer	3.00
	G.Total Rs.	241.45

Add 9 1/2% Supervision charge

241.45
~~247.96~~ lacs
224.63
21.34
245.97 lacs.

J.E. M3002

A.E.

A.E.E.

Superintending Engineer
Hydraulic Circle
Jammu

Executive Engineer
P.H.E. Rural Division
JAMMU

Chief Engineer
PHE Department
Jammu.

phy-III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Detailed Estimate for Providing and laying of Gravity/ Boosting main and Distribution System at Jammu-Akhnoor road RD- 10500-12900mtr including under temporary, shifting and execution under PHE utility for upgradation of 4-Lane Jammu to Akhnoor NH144A

A) Materials:- a) D.I. Pipe 200mm Ø = 800mtrs. @ Rs. 2155/mtrs	Rs. 1724000.00
b) D.I. Pipe 150mm Ø = 1225mtrs. @ Rs. 1638/mtrs	Rs. 2006550.00
c) D.I. Pipe 100mm Ø = 1755mtrs. @ Rs. 1155/mtrs	Rs. 2027025.00
d) G.I. Pipe 80mm Ø = 525mtrs @ Rs. 657/mtrs	Rs. 344925.00
e) G.I. Pipe 65mm Ø = 1225mtrs. @ Rs. 455/mtrs	Rs. 557375.00
f) G.I. Pipe 50mm Ø = 925mtrs. @ Rs. 325/mtrs	Rs. 300625.00
g) G.I. Pipe 40mm Ø = 525mtrs. @ Rs. 257/mtrs	Rs. 134925.00
h) G.I. Pipe 25mm Ø = 55mtrs. @ Rs. 160/mtrs	Rs. 8800.00

Add 15% above from D.I. special (a,b&c)

Rs. 7104225.00

Add 5% from G.I. special

Rs. 863636.00

Rs. 67333.00

Total:-

Rs. 8035194.00

B) Labour component:-

1) Cutting of PTR in 2 layer			
3 x 4.00 = 12.00m ²	}	272m ² x 2 x 1.50 = 816 m ² @ Rs. 144.95/ m ²	Rs. 118279.00
2 x 5.00 = 10.00m ²			
1 x 250 = 250m ²			

2) Cutting of W.B.M.R

3 x 7.00 = 21.00m ²	1041 x 1.50 = 1561.50 m ² @Rs. 74.30/-	Rs. 116097.00
2 x 10.00 = 20.00m ²		
1 x 1000 = 1000.00m ²		

3) Earthwork excavation in trenches and foundation for

Pipes in all kinds of soil

800 x 1.20 x 1.20 = 1152 m ³	= 6187.95 m ³ @ Rs. 240.45/ m ²	Rs. 1487892.00
1225 x 1.20 x 1.20 = 1764 m ³		
1755 x 1.00 x 1.00 = 1755 m ³		
525 x 1.00 x 0.80 = 420 m ³		
1225 x 0.70 x 0.60 = 514.50 m ³		
925 x 0.70 x 0.60 = 388.50 m ³		
525 x 0.60 x 0.60 = 189 m ³		
55 x 0.30 x 0.30 = 4.95 m ³		

4) Laying/ fitting of D.I. pipes & pipe specials 25% of the 15/
Cost of pipe i.e. (A+B+C) = 5757575+863636 = 6621211.00

Rs. 1487892.00

Rs. 993182 -

Rs. 1655303.00

5) Laying/fitting of G.I. pipes

80mmØ = 525 mtr @Rs. 51.10/-	Rs. 26827.00	Rs. 125285.00
65mmØ = 1225 mtr @ Rs. 47.15/-	Rs. 57758.00	
50mmØ = 925 mtr @Rs. 27.75/-	Rs. 25668.00	
40mmØ = 525 mtr @Rs. 26.60/-	Rs. 13965.00	
25mmØ = 55 mtr @Rs. 19.40/-	Rs. 1067.00	

phg-II

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

6) Labour to be engaged for cutting of damaged ends of G.I. pipe, Binding the edges, making worth for fitting/rethreading as the damaged 2% of the cost of pipe = i.e. on 1346665.00	Rs. 26933.00
7) Filling available excavated earth back into trenches Qty. vide item No. 3 = 6187.95 m ³ @ Rs. 90% = 5569.15 m ³ @Rs. 85.25/ m ³	Rs. 474770.00
8) Disposal of surplus, mulba from working site to Dumping site av. distance. 5 km 10% of the pipe = 618.80 m ³ @ Rs. 158.85/ m ³ <i>Item No. 10</i>	Rs. 98296.00
9) Provision of interconnection incl. welding of joints incl. hire Charges of welding set & generator incl. P.O.L 10% of the cost of material <i>To be paid as per actual no. of joints fabricated at site</i>	Rs. 803519.00
10) Labour engaged of repair of damaged existing system during execution L.S.	Rs. 350000.00
<i>Detail on left side</i> 11) Carriage of pipe from store to site of work av. Distance 5 km D.I. pipe 3780 mts. at Rs. 169.45 M.T = 3.780 M.T @ 112.96 G.I. pipe 3255 mts at Rs. 112.95 M.T = 3.225 M.T @ 112.96 <i>162947.2 112.96/MT</i>	Rs. 427.00 Rs. 364.00 <i>c 1841-</i>
12) Carriage of all kinds of pipe and pipe specials by head load along the alignment 2% of the cost of pipe i.e.	Rs. 321408.00
13) Watch & ward of the material at places during the work in progress 2% of the cost of pipe	Rs. 160704.00
14) Testing/commissioning of the newly laid pipe 2% of the cost of pipe	Rs. 77934.00
<i>Analysis CTR Comput L. 1, 2, 3, 5, 7, 8, 11 incl. of all taxes</i> Add 30% above on S.S. of rates on item No. 1, 2, 3, 5, 7, 8, 11 incl. of all taxes i.e. on Rs. 2421332.00 Total: A+B = 8035194 + 6626303 = Add 2.5% for W.C. contingencies Grand Total:- Say Rs. 150.28 lacs	Rs. 49,20,239- Rs. 5899903.00 Rs. 776400.00 Rs. 6626303.00 Rs. 14661497.00 Rs. 366537.00 Rs. 15028034.00 Rs. 122,79,319-

Add 15% CTR on all items except item (16)

J.E.

A.E.

A.E.E.

Phy. III

Executive Engineer
P.H.E. Rural Division

16. No (11)

Change of P/S on 5.0 km by M7

$$\begin{aligned} \text{D1 P/S} \quad 100 \text{ mm} &= 1755 \text{ m} @ 277.78\% \text{ M7} = ₹ 4875- \\ 150 \text{ mm} &= 1225 \text{ m} @ 462.96\% \text{ M7} = ₹ 5671- \\ 200 \text{ mm} &= 82 \text{ m} @ 753.09\% \text{ M7} = ₹ 6025- \end{aligned} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} 16571-$$

G.I. Ht

$$\begin{aligned} 80 \text{ mm} &= 525 \text{ m} @ 6.81 \text{ kg/m} = 3575.25 \text{ kg} \\ 65 \text{ mm} &= 1225 \text{ m} @ 5.30 \text{ " } = 7105 \text{ " } \\ 50 \text{ mm} &= 925 \text{ m} @ 4.11 \text{ " } = 3801.75 \text{ " } \\ 40 \text{ mm} &= 525 \text{ m} @ 3.25 \text{ " } = 1706.25 \text{ " } \\ 25 \text{ mm} &= 55 \text{ m} @ 2.01 \text{ " } = 110.55 \end{aligned}$$

$$\underline{16598.80 \text{ kg}}$$

$$\text{or } 16.29 \text{ MT} @ 112.96/\text{MT}$$

$$= ₹ 1843-$$

pkg-III

PIPE CHART

S.No.	Line	Length in Mtr.							
		200mm dia (DI Pipe)	150mm dia (DI Pipe)	100mm dia (DI Pipe)	80mm dia (GI Pipe)	65mm dia (GI Pipe)	50mm dia (GI Pipe)	40mm dia (GI Pipe)	25mm dia (GI Pipe)
1	AB	525mtr.	-	-	-	-	-	-	-
2	CD	-	1225mtr.	-	-	-	-	-	-
3	DE+FG	-	-	1550mtr.	-	-	-	-	-
4	GH	-	-	-	-	250	-	-	-
5	HI	-	-	-	-	-	-	200	-
6	JK	-	-	-	-	-	275	-	-
7	GI	-	-	-	-	-	-	325	-
8	MN	-	-	-	-	-	475	-	-
9	OP	-	-	80	-	-	-	-	-
10	QR	-	-	125	-	-	-	-	-
11	ST	-	-	-	525	-	-	-	-
12	UV	-	-	-	-	700	-	-	-
13	VW	-	-	-	-	-	175	-	-
14	WX	-	-	-	-	-	-	-	55
15	YZ	275	-	-	-	-	-	-	-
16	A' B'	-	-	-	-	275	-	-	-
Total in Mtr.		800	1225	1755	525	1225	925	525	55


J.E.


A.E.


A.E.E.


Executive Engineer
PHE Rural Division
Jammu

phy. III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Detailed Estimate for Providing and laying of Gravity/ Boosting main and Distribution System at Domana including under temporary, shifting of during Const. PHE utility for upgradation of 4-Lane Jammu to Akhnoor NH144A

A) Materials:-	a) D.I. Pipe 100mm ϕ = 2890mtrs. (L) @ Rs. 1155/mtrs	Rs. 3337950.00
	b) G.I. Pipe 80mm ϕ (B-Class) = 400mtrs. @ Rs. 637/mtrs	Rs. 254800.00
	c) G.I. Pipe 50mm ϕ = 350mtrs. @ Rs. 325/mtrs	Rs. 113750.00
	d) G.I. Pipe 40mm ϕ = 250mtrs. @ Rs. 257/mtrs	Rs. 64250.00
		Rs. 3770750.00
	Add 15% to D.I. special	Rs. 500692.00
	Add 5% to D.I. special	Rs. 21640.00
	Total:-	Rs. 4293082.00

B) Labour component:-

1) Cutting of PTR in 2 layer		
3 x 4.00 = 12.00m ²	320 x 2 x 1.50 = 960 m ² @ Rs. 141.95/ m ²	Rs. 139152.00
1 x 8.00 = 8.00m ²		
1 x 100 = 100m ²		

2) Cutting of W.B.M.R		
3 x 7.00 = 21.00m ²	531 x 1.50 = 796.50 @ Rs. 74.35/m ²	Rs. 59220.00
1 x 10.00 = 10.00m ²		
1 x 500 = 500.00m ²		

3) Earthwork excavation in trenches and foundation for Pipes in all kinds of soil

2890 x 1.00 x 0.90 = 2601 m ²	
400 x 1.00 x 0.80 = 320 m ²	
350 x 0.70 x 0.60 = 147 m ²	
250 x 0.60 x 0.50 = 75 m ²	
= 3143 m² @ Rs. 240.45/ m²	

755734-
2 575796-
Rs. 755734.00

4) Laying/ fitting of D.I. pipes & pipe specials 15% of the Cost of pipe i.e. 3337950+500692 = 3838642.00

2 575796-
Rs. 959660.00

5) Laying/fitting of G.I. pipes

80mm ϕ = 400 mtr @ Rs. 51.10/-	
50mm ϕ = 350 mtr @ Rs. 27.75/-	
40mm ϕ = 250 mtr @ Rs. 26.60/-	

Rs. 20440.00
Rs. 9712.00
Rs. 6650.00

6) Labour to be engaged for cutting of damaged ends of G.I. pipe, Binding the edges, making worth for fitting/rethreading as the damaged 2% of the cost of pipe = i.e. on 432800.00

2 4328-
Rs. 8656.00

2 1774958-

pkg. III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

7) Filling available excavated earth back into trenches Qty. vide item No. 3 = 3143m ³ @ Rs. 90% = 2828.70 m ³ @Rs. 85.25/ m ³	Rs. 241147.00
8) Disposal of surplus, mulba from working site to Dumping site av. distance. 5 km 10% of the pipe = 314.30 m ³ @ Rs. 158.85/ m ³	Rs. 49927.00
9) Provision of interconnection incl. welding of joints incl. hire Charges of welding set & generator incl. P.O.L 10% of the cost of material (To be paid as per actual rate of materials at site)	Rs. 429308.00
10) Labour engaged of repair of damaged existing system during execution L.S.	Rs. 200000.00
11) Carriage of pipe from store to site of work av. distance 5 km a) G.I. pipe = 80mmØ @ 400x9.89x1x1 mtr = 3916 50mmØ @ 310 x 4.11 = 1438.50 40mmØ @ 250 x 3.25 = 81.25 567.50 = 5475.75 or 5.47 M.T @ Rs. 112.96/MT	Rs. 618.00
12) Carriage of all kinds of pipe and pipe specials by head load along the alignment 4% of the cost of pipe i.e.	Rs. 150830.00
13) Watch & ward of the material at places during the work in progress 2% of the cost of pipe	Rs. 75415.00
14) Testing/commissioning of the newly laid pipe 2% of the cost of pipe	Rs. 75415.00
Total:-	Rs. 3181884.00
Add 30% above on S.S. of rates on item No. 1,2,3,5,7,8,11 incl. of all taxes	Rs. 384780.00
Total:- A+B = 4293082 + 3566664 =	Rs. 7859746.00
Add 2.5% for W.C. contingencies	Rs. 157194.00
Total:-	Rs. 8016940.00
Say Rs. 80.17 lacs	Rs. 8016940.00

J.E.

A.E.

A.E.E.

Executive Engineer
P.H.E. Rural Division
JAMMU

phg. II

PIPE CHART

S.No.	Line	Length in Mtr.			
		100mm dia (G.S. mtr)	80mm dia (G.S.)	50mm dia (G.S.)	40mm dia (G.S.)
1	AB	1030	-	-	-
2	BC	-	400	-	-
3	BD	-	-	200	-
4	DE	-	-	-	100
5	FLH	280	-	-	-
6	GI	300	-	-	-
7	JK	1280	-	-	-
8	LM	-	-	150	-
9	MN	-	-	-	150
Total in Mtr.		2890mt.	400	350	250

A.E.

✓ A.E.E.

Executive Engineer
PHE Rural Division
Jammu

pg. III

ABSTRACT OF COST FOR SHIFTING/RELAYING OF G.I PIPE DUE TO UP-GRADATION/WIDENING OF JAMMU/AKHNOOR ROAD.

S.No	Item of Work	Amount (in lacs)
1	Detailed estimate for Laying and G.I pipe 80mm dia along new alignment of (Rd. 14000 Approx) KCT	40.62 11.01
2	Detailed estimate for shifting of existing utilities i.e G.I pipes with paved shoulder between RD (15100-20201) at places.	89.89 95.59 94.33
3	Detailed estimate for shifting of public utilities along Jammu Akhnoor of Garota Section RD (21200-24700M)	10.70 11.25
4	Detailed estimate for shifting PHE utility from new channels Bridge to hanuman Mandir Chowk between RD26000-28600 at places.	52.88 54.32 54.32
	Add 2 5% W.C & Contingencies	4.10 4.25
	Total	174.26 168.79 Rs. 175.18
	Add Supervisor Charges on 1 to 4 @ 9 1/2 %	15.59 16.23
		183.78 191.41
		190.39 190.39

Package III

116.59

+12.5%

=130.50

A.E.

A.E.

A.E.E

Executive Engineer
PHE Div. Akhnoor

Superintending Engineer
Jammu.

Chief Engineer
PHE Department
Jammu.

Phg. III

(4)

Detailed Estimate for Laying & G.I pipe 80mm along new & Alignment of Kot (RD 14000m Approx.)

S. No	Particulars	Amount (In Rs.)
A	Material Component	
1	G.I Pipe 80mm dia = 1400 mtr @ Rs. 528.00/mtr	739200.00
	Add 5% for pipe specials	36960.00
	Total (A)	776160.00
B	Civil Works	
1	Earthwork in excavation by manual means in trenches for foundation, drains, pipes, cables etc. depth upto 1 m including disposal of excavated earth upto 1 m from cutting edge in all kinds of soil:	
	1300x0.60x0.60 = 468.0 m ³ @ Rs. 240.45/m ³	112530.00
2	Laying and fitting of G.I pipes = 1400mtr @ Rs. 48.65/mtr	68110.00
3	labours engaged for watch & ward including rethreading of G.I pipe including watch and ward of deptt. material	31246.00
	5% cost of material	38808.00
4	Refilling of excavated earth back into trenches	
	90% of QTY 1421.20m ³ @ 85.25/m ³	35907.00
5	Provision of welding of pipes incl. fittings & General Engineering	45555.00
	Add 15% Elbow on SSR for Conch. application	6833.25
	Total (B)	210123.50
	Total (A) + Total (B)	986283.50

Say Rs. 10,00,000/-

Sy. N. O. 1/201

A = 776160
B = 210123.5
Total = 986283.5

Junior Engineer

Asstt. Engineer

Asstt. Ex. Engineer
PHE Sub Division
Bhalwal

Executive Engineer
PHE Division
Akhnoor

Phg. III

6

Detailed Estimate for Shifting of existing utilities i.e G.I Pipe of PHE Deptt. Due to upgradation/wedering to 4-Lane with paved Shoulder of Jammu-Akhnoor Road (NH-144A) Between RD 15100-20201) at places.

S.No.	Particulars	Amount
A	Material Component	
a.	G.I Pipe 100mm dia L = 3240mtr @ 763/mtr	2472120.00
b.	G.I Pipe 80mm dia L = 2560mtr @ 525/mtr	1344000.00
c.	G.I Pipe 65mm dia L = 3530mtr @ 460/mtr	1623800.00
d.	G.I Pipe 50mm dia L = 780mtr @ 328/mtr	255840.00
e.	G.I Pipe 40mm dia L = 1460mtr @ 262/mtr	382520.00
f.	G.I Pipe 15mm dia L = 560mtr @ 82/mtr	45920.00
	Total	6124000.00
	Add 5% for pipe specials	306200.00
	Total (A)	6430200.00
B	Labour Components	
1	Earth work in trenches in hard soil	
	100mm dia = 3240 x 0.80 x 0.70 = 1814.40m ³	
	80mm dia = 2560 x 0.75 x 0.65 = 1245.00m ³	
	65mm dia = 3530 x 0.60 x 0.60 = 1270.80m ³	
	50mm dia = 780 x 0.50 x 0.45 = 175.50m ³	
	40mm dia = 1460 x 0.45 x 0.45 = 295.65m ³	
	15mm dia = 560 x 0.30 x 0.30 = 50.40m ³	
	Total	4854.25m³
	Carriage of material from Divisional Store to the site of work in stacking places and stacking place to site of work and along the alignment cutting bending and re-reading of pipes as per requirement installation of PSP's with new G.I fitting wash and ward for the material during the excavation of work testing water supply in the system 5% cost of material	244968.20
2	Laying and fitting of G.I Pipes	
	100mm dia = 3240m @ Rs. 71.65/mtr	232136.00
	80mm dia = 2560m @ Rs. 48.65/mtr	124544.00
	65mm dia = 3530m @ Rs. 47.15/mtr	166450.00
	50mm dia = 780m @ Rs. 27.75/mtr	21645.00
	40mm dia = 1460m @ Rs. 26.60/mtr	38836.00
	15mm dia = 560m @ Rs. 12.25/mtr	6860.00
3	Fabrication work/welding of joints	
	100mm dia = 86nos @ 1500/- each	129000.00
	80mm dia = 94nos @ 1225/- each	115150.00
	65mm dia = 60nos @ 290/- each	17400.00
	50mm dia = 42nos @ 225/- each	9450.00
	40mm dia = 30nos @ 180/- each	5400.00
4	Refilling of excavated soil back into trenches 90% rate from No. 1	4368.82m ³ @ 55.25/m ³ = 241400.00
	Total (B)	244968.20
	Add (A + B) Rs. 6430200.00 + Rs. 244968.20	6675168.20
	Say Rs. 66,75,168.20	
	Add 15% above on Rs. 66,75,168.20	10,01,275.23
	Total	76,76,443.43

30029740
9433384
94.33
AEE
PHE SUB DIVISION
BHALVAL
2668473
2195412
3002974

phy-III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Pipe Chart w.r.t shifting of utilities for widening/improvement of Jammu-Akhnoor Road (PHE Sub Division Bhalwal)

S.No.	RD	Line	100mm dia	80mm dia	65mm dia	50mm dia	40mm dia	32mm dia	25mm dia	20mm dia	15mm dia
Kot Section	14000M	AB		600M							
		CD		800M							
	RD 15100-	A1B1	325M								
	20200M at places	C1D1	325M								
		E1F1	75M								
		TT1	755M								
		PP1	350M								
		QQ1	1060M								
		P2P3	350M								
		SS1		1000M							
		S1S2		1100M							
		S3S4		300M							
		S5S6		160M							
		UU1			400M						
		U2U3			600M						
		U4U5			900M						
		U6U7			950M						
		U8 U9			680M						
		G2G3				780M					
		G4G5					800M				
		G6G7					300M				
		G8G9					360M				
For PSP at places											560M
Total			3240M	2560M	3530M	780M	1460M				560M

Engineer
PHE
Bhalwal

1/1/20

pkg. III

Estimated by Service Provider

10

Detailed estimate for shifting public utilities along NH-21200-24700M

Particulars	Amount
Material Component	
G.I Pipe 100mm dia = 21.25mtr x 7nos = 218.75mtr @ Rs. 8125/-	1781250
G.I Pipe 65mm dia = 250mtr x 300mm = 6nos x 150mtr = 1450mtr @ 40/-	266800
G.I Pipe 50mm dia = 225mtr x 31.25mtr = 256.25mtr @ 40/-	39770
G.I Pipe 40mm dia = 250mtr x 120mm = 370mtr @ 40/-	38776
G.I Pipe 32mm dia = 150 @ 40% = 60mtr @ 210/m	12600
G.I Pipe 20mm dia = 150 @ 40% = 120mtr @ Rs. 120/m	14400
Add 5% for the pipe fitting	27673
Total	581244
Labour Components	
Dismantling of C.I Pipes at sports	
G.I pipe 65mm dia 1450mtrs @ 60/- = 870mtr	61500
G.I pipe 50mm dia 225mtrs x 0.6 = 31.25mtr = 256.25mtr @ 40/-	66787
Total = 1126.25mtr @ Rs. 59.30mtr	
G.I pipe 40mm dia 370mtrs x 0.6 = 222mtr	
G.I pipe 32mm dia 150mtrs x 0.6 = 90mtr	
G.I pipe 20mm dia 300mtrs x 0.6 = 180mtr	
Total = 492mtr @ Rs. 52.65mtr	25904
Labour engaged for re threading of damaged ends of pipe incl cutting bending as per alignment of pipe incl local damages 4 fitter for 4 days @ Rs. 400/-days = 6400/-	25600
16Mag for 4 days @ 300/day = 19200/-	
Earth work in excavation in incl for	
G.I pipe 65mm dia 1450mtrs (open - 150mtr) = 1300mtr x 0.5x0.6 = 390cum	
G.I pipe 50mm dia 225mtrs (open - 25mtr) = 200mtr x 0.5x0.5 = 50cum	
G.I pipe 40mm dia 370mtrs (open - 40mtr) = 330mtr x 0.5x0.45 = 74.25cum	
G.I pipe 32mm dia 150mtrs (open - 15mtr) = 135mtr x 0.45x0.4 = 24.30cum	
G.I pipe 20mm dia 300mtrs (open - 30mtr) = 270mtr x 0.4x0.35 = 37.80cum	
Total = 492576.35cum @ 240.45cum	133583
Laying of G.I Pipe into trenches	
G.I pipe 100mm = X-ing = 7nos x 31.25mtr = 218.75mtr @ Rs. 71.65m	68367
G.I pipe 65mm = 1450mtr = Rs. 47.15m	7110
G.I pipe 50mm = 256.25mtr = Rs. 27.75m	9842
G.I pipe 40mm = 370mtr = Rs. 26.60m	3037
G.I pipe 32mm = 150mtr = Rs. 20.25m	1937
G.I pipe 20mm = 300mtr = Rs. 13.05m	3915
Provision for fabrication of joints incl interconnection etc complete	80000
Refilling of earth back into trenches Qty 90% of item 3 = 0.9 x 576.35 = 514.71cum @ Rs. 85.28/m	44200
Water all wards of the work 2mtr for 30days @ Rs. 300/- day	18000
Total = 581244 + 1125232 = Rs. 1706476	507038
Total = 581244 + 1125232 = Rs. 1706476	54832
Total = 581244 + 1125232 = Rs. 1706476	5439

Phy-II

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

John
John D. Smith
John D. Smith

phg-III

Paul / nee

Extend by Service Provider

Detailed Estimate for Shifting of PHE Utility Before Upgradation to 4-Lane with Paved Shoulder from New Chenab Bridge to Hanuman Mandir Chowk of Jammu Akhnoor Section (NH-144A) between RD 26000 to 28600 at places.

S.No.	Particulars	Amount (Rs.)
A. Material cost		
	G.I. Pipe 100mm dia (M) = 425 @ 660/m	2,80,500.00
	G.I. Pipe 80mm dia (M) = 1500 @ 488/m	7,32,000.00
	G.I. Pipe 65mm dia (M) = 2885 @ 416/m	12,00,160.00
	G.I. Pipe 50mm dia (L) = 600 @ 296/m	17,760.00
	G.I. Pipe 50mm dia (L) = 150 @ 235/m	35,250.00
	G.I. Pipe 25mm dia (L) = 530 @ 146/m	27,380.00
	G.I. Pipe 15mm dia (L) = 100 @ 82/m	25,500.00
	Total	1,26,419.00
	Add 5% pipe special	26,54,809.00
	Total (A)	
B. Civil Work		
1.	Earth work in excavation by manual means in trenches for foundation, drains, pipes, cables etc. depth upto 1 m including disposal of excavated earth upto 1 m from cutting edge in all kinds of soil.	
	100mm dia = 425x0.75x0.75 = 239.06	
	80mm dia = 1500x0.75x0.60 = 675.00	
	65mm dia = 2885x0.75x0.60 = 1298.44	
	50mm dia = 600x0.75x0.60 = 270.00	
	40mm dia = 150x0.75x0.60 = 67.50	
	25mm dia = 530x0.75x0.60 = 238.50	
	15mm dia = 100x0.30x0.30 = 27.00	
	Total = 2814.00 cum @ Rs. 240.45/cum	6,76,626.00
	Total	1,26,419.00
2.	Carriage of material from Divisional Store to the site of work instacking places and stacking place to site of work and along the alignment cutting, bending and rethreading of pipes as per required. Installation of PSPs with new G.I. fitting including watch and ward for the material during the excavation of work testing water supply in the system	128632
3.	Laying and fitting of G.I. Pipes	
	100mm dia = 425m @ Rs. 75.35/m	32,023.00
	80mm dia = 1500m @ Rs. 51.10/m	76,650.00
	65mm dia = 2885m @ Rs. 48.15/m	1,38,912.00
	50mm dia = 600m @ Rs. 27.75/m	16,650.00
	40mm dia = 150m @ Rs. 26.60/m	3,990.00
	25mm dia = 530m @ Rs. 19.40/m	10,282.00
	15mm dia = 100m @ Rs. 12.25/m	3,675.00
	Providing welding of joints in making of bend X-joints, interconnections, odd alignment, slipped sockets during commissioning etc. (L.S.)	2,50,000.00
4.	Provision of engagement of tractor trolley for shifting of Gen. Set from one place to another including cost of fuel and hire charges of Gen. Set. etc.	1,50,000.00
5.	Refilling of earth work back in trenches 2814x0.90 = 2532 @ Rs. 85.25/cum	2,15,853.00
6.	Actual labour to be engaged for repair and regulation of water supply through existing system during road work damage to pipe network (L.S.)	1,00,000.00
7.	Provision for construction of cement concrete blocks as per site construction during execution	25,000.00
	Total (B)	18,08,255.00
	Add cost of material vide-A	26,54,809.00
	Grand total A+B	44,63,064.00

Say Rs. 45.31 Laes

54.64 Lacs

Executive Engineer
PHE Division
Akhnoor

Asstt. Ex. Engineer
PHE Sub Division
Akhnoor

J.E.

phg-III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

Entered by Service Provider

Pipe chart w.r.t. shifting of PHE utility before upgradation to 4-Lane with paved shoulder from New chenab Bridge to Hanuman Mandir Chowk of Jammu Akhnoor Section of NH-144A(PHE Sub Division Akhnoor).

S.No	R.D	Line	GI Pipes					
			100mmØ	80mmØ	65mmØ	50mmØ	40mmØ	15mmØ
H.Q Sec. Akhnoor	26000	AA'	-	150	-	-	-	-
	To	BB'	-	-	150	-	-	-
		CC'	-	150	-	-	-	-
	At places	DD'	-	400	-	-	-	-
		EE'	-	650	-	-	-	-
		EE''	-	150	-	-	-	-
		FF'	212.50	-	-	-	-	-
		GG'	212.50	-	-	-	-	-
		HH'	-	-	840	-	-	-
		II'	-	-	150	-	-	-
		II''	-	-	875	-	-	-
		JJ'	-	-	-	200	-	-
		JK'	-	-	-	-	180	-
		II''	-	-	-	-	150	-
		MM'	-	-	-	-	200	-
		NN'	-	-	230	-	-	-
		N''N'''	-	-	150	-	-	-
		OO'	-	-	150	-	-	-
		PP'	-	-	340	-	-	-
		QQ'	-	-	-	400	-	-
		QR	-	-	-	-	150	-
		For PSPs At places	-	-	-	-	-	300
		Total	425m	1500m	2885m	600m	150m	530m
								300m

J.E.

Asstt.Ex.Engineer
PHE Sub Division
Akhnoor

Executive Engineer
PHE Division
Akhnoor

phg-III

Up-gradation to 4-lanes with Paved Shoulder of Jammu- Akhnoor road section of NH-144A from Km 6.000 Km 26.350 in the state of Jammu and Kashmir to be executed on EPC basis

